SECTION 08 71 00 - DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes door hardware.

B. Related Requirements:

1. Section 08 11 13 "Hollow Metal Doors and Frames".
2. Section 08 14 16 "Flush Wood Doors".
3. Section 08 31 13 "Access Doors and Frame".
4. Section 08 33 13 "Coiling Counter Doors".
5. Section 08 41 13 "Aluminum-Framed Entrances and Storefronts".
6. Section 08 42 29 "Automatic Entrances".

1.2 PREINSTALLATION MEETINGS

A. Keying Conference: Conduct conference at Project site to comply with requirements in Section 01 31 00 "Project Management and Coordination." Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including, but not limited to, the following:

1. Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
2. Preliminary key system schematic diagram.
3. Requirements for key control system.
4. Address for delivery of keys.

B. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Section 01 31 00 "Project Management and Coordination." **[Review methods and procedures related to electrified door hardware including, but not limited to, the following:**

1. Inspect and discuss electrical roughing-in and other preparatory work performed by other trades.
2. Review sequence of operation for each type of electrified door hardware.
3. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.

4. **Review required testing, inspecting, and certifying procedures.**]

1.3 ACTION SUBMITTALS

A. Product Data: Submit product data including installation details, material descriptions, dimensions of individual components and profiles, and finishes.

B. LEED Submittals: Submit the following in compliance with Section 01 81 13 "Sustainable Design Requirements":

1. LEED Criteria Worksheet for each component material of the product or assembly used in the installation of Work of this Section.

2. Product Data for Credit MR 4: For products having recycled content.

3. Product Certificates for Credit MR 5: For products and materials required to comply with requirements for regional materials.

C. Shop Drawings: Submit shop drawings with details of electrified door hardware, indicating the following:

1. Wiring Diagrams: Detail wiring for power, signal, and control systems and differentiate between manufacturer-installed and field-installed wiring. Include the following:

a. System schematic.
b. Point-to-point wiring diagram.
c. Riser diagram.
d. Elevation of each door controlled by electrified hardware.

2. Detail interface between electrified door hardware and fire alarm, access control, security, and building control system.

D. Samples: Submit samples of exposed door hardware for each type indicated below, in specified finish. Tag with full description for coordination with the Door Hardware Schedule.

1. Door Hardware: As follows:

a. Locks and latches.
b. Operating trim.
c. Wall stops.
d. Floor stops.
e. Magnetic latches.
f. Coat hooks.

2. Samples will be returned to Contractor. Units that are acceptable and remain undamaged through submittal, review, and field comparison process may, after final check of operation, be incorporated into the Work, within limitations of keying requirements.

E. Door Hardware Schedule: Submit door hardware schedule prepared by or under the supervision of door hardware supplier. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware. The Architect's review of schedule shall neither be construed as a complete check nor shall it

relieve the Contractor of responsibility for errors, deviations, or omissions from the specified requirements to provide complete door hardware for the project.

1. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening.

    a. Organize door hardware sets in same order as in the Door Hardware Schedule.

2. Content: Include the following information:

    a. Hardware designation code, 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 each 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. Supply templates to door and frame manufacturer(s) to enable proper and accurate sizing and locations of cutouts for hardware. Detail conditions requiring custom extended lip strikes, or other special or custom conditions.
    g. Door and frame sizes and materials.

    h. Description of each electrified door hardware function, including location, sequence of operation, and interface with other building control systems.

        1) Sequence of Operation: Include description of component functions that occur in the following situations: authorized person wants to enter; authorized person wants to exit; unauthorized person wants to enter; unauthorized person wants to exit.

F. Keying Schedule: Submit keying schedule prepared by or under the supervision of supplier, detailing Owner's final keying instructions for locks. Include schematic keying diagram and index each key set to unique door designations.

1.4 INFORMATIONAL SUBMITTALS

A. Manufacturer Certificate: Submit certification from the card access control system manufacturer that the installer has been factory trained and certified to install its card reader/locksets.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: Submit maintenance data for each type of door hardware. Include final hardware and keying schedule.

B. Warranties: Submit special warranties specified in this Section.

C. Fire-Rated Door Assembly Testing: Submit a written record of each fire door assembly to the Owner to be made available to the Authority Having Jurisdiction (AHJ) for future building inspections.

1.6 MAINTENANCE MATERIAL SUBMITTALS

A. Maintenance Tools: Furnish a complete set of specialized tools for Owner's continued adjustment, maintenance, removal, and replacement of door hardware.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: An experienced installer who has completed 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.

1. All entry card reader/locksets shall be installed by a factory authorized installer who has installed card access control system reader/locksets for at least three projects of similar size over the last five years which were 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. The installer's forces shall have been certified by the card access control system manufacturer to install the card/reader locksets.
2. All entry card reader/lockset door batteries shall be replaced at the time of Substantial Completion.

B. Supplier Qualifications: Door hardware supplier, who has completed a minimum of three (3) projects over the last 5 years which were similar in material, design and extent to that indicated for the Project - as determined by the Architect - and which have resulted in construction with a record of successful in service performance, and who is or employs a qualified Architectural Hardware Consultant, available during the course of the Work to consult with Contractor, Architect, and Owner about door hardware and keying.

1. Electrified Door Hardware Supplier Qualifications: An experienced door hardware supplier who has completed projects with electrified door hardware similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance, and who is acceptable to manufacturer of primary materials.

    a. Engineering Responsibility: Prepare data for electrified door hardware, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.

2. Scheduling Responsibility: Preparation of door hardware and keying schedules.

C. Architectural Hardware Consultant Qualifications: A person who is currently certified by the Door and Hardware Institute as an Architectural Hardware Consultant and who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project.

1. Electrified Door Hardware Qualifications: Experienced in providing consulting services for electrified door hardware installations.

D. Source Limitations: Obtain each type of door hardware from a single manufacturer, unless otherwise indicated.

E. Regulatory Requirements: Comply with the following:

1. Provide hardware items complying with the applicable provisions for accessibility and usability by the disabled and handicapped in compliance with Americans with Disabilities Act (ADA), "Accessibility Guidelines for Buildings and Facilities (ADAAG)," ANSI A117.1, FED-STD-795, "Uniform Federal Accessibility Standards,"
2. NFPA 101: Comply with applicable provisions for means of egress doors.
3. Electrified Door Hardware: Listed and classified by Underwriters Laboratories, Inc. or by a testing agency acceptable to authorities having jurisdiction, as suitable for the purpose indicated.

F. Fire-Rated Door Assemblies: Provide door hardware for assemblies complying with NFPA 80 that are listed and labeled by Underwriters Laboratories, Inc. for fire ratings indicated, based on testing according to NFPA 252. Provide only door hardware items that are identical to items tested by UL for the types and sizes of doors required. In case of conflict between type of hardware specified and type required for accessibility or fire protection, furnish type required by NFPA and UL. Doors indicated in fire rated partitions and walls shall be positive latching and self-closing, with smoke gaskets where required by applicable codes.

1. Wherever exit device hardware is required on doors, comply with UL 305. Furnish hardware to door manufacturer for installation at factory. Provide supplementary label, "Fire Exit Hardware," on each exit device to certify that panic hardware has been panic load tested with door.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up for door hardware delivered to Project site. 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.

1.9 COORDINATION

A. Coordinate layout and installation of recessed pivots and closers with floor construction. Cast anchoring inserts into concrete. Concrete, reinforcement, and formwork requirements are specified in Section 03 30 00 "Cast-in-Place Concrete."

B. Templates: Furnish templates and door hardware schedules, coordinated for the application of door hardware items with door and frame details, to door opening fabricators and trades performing door opening work to permit the preparation of doors and frames to receive the specified door hardware. Where the door hardware item scheduled is not adaptable to the finished size of door opening members requiring door hardware, submit an item having a

similar operation and quality to the Architect for review. Each door hardware item shall be fabricated to templates.

C. Electrical System Roughing-in: Coordinate layout and installation of electrified door hardware with connections to, power supplies, fire alarm system and detection devices, access control system, security system, building control system.

D. Fire Rated Door Hardware: Where hardware is to be installed on fire-rated entrances, provide Hardware manufacture's written instructions for coordination with door manufacture and verification that the selected hardware will comply with fire rating requirements.

1.10 WARRANTY

A. Special Warranty: Written warranty, executed by manufacturer agreeing to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period. Failures include, but are not limited to, the following:

1. Faulty operation of door hardware.
2. Deterioration of metals, metal finishes, and other materials beyond normal weathering.

B. Warranty Period for Electromagnetic Locks: Five years from date of Substantial Completion.

C. Warranty Period for Manual Closers: Ten years from date of Substantial Completion.

D. Warranty Period for Exit Devices: Five years from date of Substantial Completion.

E. Warranty Period for Other Hardware: Two years from date of Substantial Completion.

F. Warranty for Mortised Mechanical Lock and Latchsets: Ten years from date of Substantial Completion.

G. Warranty for Heavy Duty Cylindrical Mechanical Lock and Latchsets: Seven years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 **(H): HANGING**

A. (HB): BUTT HINGE

1. General:

a. Hinge Quantity: Provide hinge quantity as recommended by hinge manufacturer based on door width, weight, thickness, door material, and hinge cup selection.

1) Installer shall coordinate with door hardware manufacture for hinge capacity and verify with door weight and dimensions.

b. General Hinge and Pivot Characteristics: Where door jamb or trim projects to such an extent that the width of leaf specified will not allow the door to clear such frame or trim, furnish hinges and pivots with leaves of sufficient width to clear. Hinges and pivots shall be template hinges conforming to BHMA A156.1 and in accordance with door and frame material requirements.

c. Butt Hinge Quantity: Provide the following, unless otherwise indicated:

1) Two Hinges: For doors with heights up to and including 60 inches (1524 mm).
2) Three Hinges: For doors with heights of greater than 60 inches (1524 mm) to and including 90 inches (2286 mm).
3) Four Hinges: For doors with heights greater than 90 inches (2286 mm) to and including 120 inches (3048 mm).
4) Provide 4 hinges, plus 1 hinge for every 30 inches (750 mm) of door height greater than 120 inches (3048 mm).

d. Butt Hinge Sizes: 4-1/2 inches (114 mm) high by 4 inches (102 mm) or 4-1/2 inches (114 mm) wide for doors up to and including 36 inches (914 mm) in width; 5 inches (127 mm) high by 4 inches (102 mm) or 4-1/2 inches (114 mm) wide for doors greater than 36 inches (914 mm) in width.

1) Hinge Characteristics: Full mortise type with square corners. All butt hinges are to have non-rising pins for interior hinges and all exterior butt hinges are to be made of non-ferrous base metal and have non-removable pins (NRP). Provide only steel bodied butt and pivot hinges at labeled doors. All butt hinges shall be furnished with button tips. Provide heavy weight, ball bearing, hinges at doors 40 inches (1016 mm) and greater in width.

e. Electrified Functions for Hinges and Pivots: Furnish fully concealed circuit, tamper resistant, wired hinges and pivots at doors requiring power transfer or door monitoring from jamb to door. All electrified hinges and pivots shall be rated for the in-rush amperage of the door mounted device being electrified.

f. Fasteners: Package all hinges and pivots with machine and wood screws as required by door and frame construction.

2. (HBH): Butt Hinge Heavy Weight

a. HBH01 - Heavy Weight, Ball Bearing, 5 Knuckle, Steel: Complying with BHMA A156.1 A8111, one of the following:

1) BB5004; Bommer Industries, Inc., Landrum, SC (BI).
2) BB1168; Hager Companies (HAG).
3) T4A3786; McKinney Products Company (MCK).
4) FBB168; Stanley Commercial Hardware (STH).
5) 55BB1HW; Ives (IVS).

b. HBH02 - Heavy Weight, Ball Bearing, 5 Knuckle, Stainless Steel: Complying with BHMA A156.1 A5111, one of the following:

1) BB5006; Bommer Industries, Inc., Landrum, SC (BI).
2) BB1199; Hager Companies (HAG).
3) T4A3386-32D; McKinney Products Company (MCK).
4) FBB199 (US32D); Stanley Commercial Hardware (STH).

5) 5BB1HW Stainless Steel; Ives (IVS).

3. (EHBS): Electric Prepped Butt Hinge **Set,** Standard Weight. **Provide one (1) electric prepped hinge for the set from one of the following:**

   a. EHBS01 - Standard Weight, Ball Bearing, 5 Knuckle, Steel, Concealed Electric 24V, 8 Wire: Complying with BHMA A156.1 A8112, one of the following:

      1) BB5060 (ETW08); Bommer Industries, Inc., Landrum, SC (BI).
      2) BB1279 x ETW-8; Hager Companies (HAG).
      3) TA2714 x CC-8; McKinney Products Company (MCK).
      4) CEFBB168-58; Stanley Commercial Hardware (STH).
      5) 5BB1 x TW8; Ives (IVS).

   b. EHBS02 - Standard Weight, Ball Bearing, 5 Knuckle, Stainless Steel, Concealed Electric 24V, 8 Wire: Complying with BHMA A156.1 A5112; provide one of the following:

      1) BB5062 (ETW08); Bommer Industries, Inc., Landrum, SC (BI).
      2) BB1191 x ETW-8; Hager Companies (HAG).
      3) TA2314 x CC-8; McKinney Products Company (MCK).
      4) CEFBB179-58; Stanley Commercial Hardware (STH).
      5) 5BB1 x TW8 Stainless Steel; Ives (IVS).

4. (EHBH): Electric Prepped Butt Hinge Heavy Weight

   a. EHBH01 Heavy Weight, Ball Bearing, 5 Knuckle, Steel, Concealed Electric 24V, 8 Wire: Complying with BHMA A156.1 A8111, one of the following:

      1) BB5064 (ETW08); Bommer Industries, Inc., Landrum, SC (BI).
      2) BB1168 x ETW-8; Hager Companies (HAG).
      3) T4A3786 x CC-8; McKinney Products Company (MCK).
      4) CEFBB168-58; Stanley Commercial Hardware (STH).
      5) 5BB1HW x TW8; Ives (IVS).

   b. EHBH02 - Heavy Weight, Ball Bearing, 5 Knuckle, Stainless Steel, Concealed Electric 24V, 8 Wire: Complying with BHMA A156.1 A5111, one of the following:

      1) BB5066 (ETW08); Bommer Industries, Inc., Landrum, SC (BI).
      2) BB1199 x ETW-8; Hager Companies (HAG).
      3) T4A3386-32D x CC-8; McKinney Products Company (MCK).
      4) CEFBB199 (US32D)-58; Stanley Commercial Hardware (STH).
      5) 5BB1HW Stainless Steel x TW8; Ives (IVS).

B. (HP): PIVOT HINGES

1. General:

   a. Hinge Quantity: Provide hinge quantity as recommended by hinge manufacturer based on door width, weight, thickness, door material, and hinge cup selection.

      1) Installer shall coordinate with door hardware manufacture for hinge capacity and verify with door weight and dimensions.

b. General Pivot Hinge Characteristics: Where door jamb or trim projects to such an extent that the width of leaf specified will not allow the door to clear such frame or trim, furnish hinges and pivots with leaves of sufficient width to clear. Hinges and pivots shall be template hinges conforming to BHMA A156.1 and in accordance with door and frame material requirements.

c. Offset Pivot Hinge Quantity: Provide the following, unless otherwise indicated:

1) Two Hinges: For doors with heights up to and including 60 inches (1524 mm).
2) Three Hinges: For doors with heights of greater than 60 inches (1524 mm) to and including 90 inches (2286 mm).
3) Four Hinges: For doors with heights greater than 90 inches (2286 mm) to and including 120 inches (3048 mm).
4) Provide 4 hinges, plus 1 hinge for every 30 inches (750 mm) of door height greater than 120 inches (3048 mm).

d. Electrified Functions for Hinges and Pivots: Furnish fully concealed circuit, tamper resistant, wired hinges and pivots at doors requiring power transfer or door monitoring from jamb to door. All electrified hinges and pivots shall be rated for the in-rush amperage of the door mounted device being electrified.

e. Fasteners: Package all hinges and pivots with machine and wood screws as required by door and frame construction.

2. (HPO): Offset Pivots

a. HPO01 - Offset Pivot with Jamb Mounted Bottom Pivot: Mortised mounted, handed, 3/4 inch (19 mm) offset pivot set with sealed bearings for protection against weather and debris and composed of a head mounted top pivot and jamb mounted bottom pivot. Furnish with extended spindles. Complying with BHMA A156.4 C07131 minimum vertical adjustment of 3/16 inch (4.8 mm).

1) Model 195 Offset Hung Pivot Set; Rixson-Firemark, Inc. (RIX).
2) 7215 Pivot Set; Ives (IVS).
3) 0195 Offset Pivot Set; Architectural Builders Hardware Mfg., Inc. (ABH).

b. HPO02- Offset Pivot with Floor Mounted Bottom Pivot: Mortised mounted, handed, 3/4 inch (19 mm) offset pivot set with sealed bearings for protection against weather and debris and composed of a head mounted top pivot and floor mounted bottom pivot. Furnish with extended spindles. Complying with BHMA A156.4 C07162.

1) Model 117 Offset Hung Pivot Set; Rixson-Firemark, Inc. (RIX).
2) 7226 Pivot Set; Ives (IVS).
3) 0117 Offset Pivot Set; Architectural Builders Hardware Mfg., Inc. (ABH).
4) OP440 Pivot Set by Dorma

5) Model 147 Offset Hung Pivot Set; Rixson-Firemark, Inc. (RIX).
6) 7226 Pivot Set; Ives (IVS).
7) 0147 Offset Pivot Set; Architectural Builders Hardware Mfg., Inc. (ABH).
8) OPH750 Pivot Set by Dorma

c. HPO03 - 1/4 inch (6 mm) Offset Pivot with Jamb Mounted Top and Bottom Pivots: Mortised mounted, handed, 1/4 inch (6 mm) offset pivot set composed of a

frame mounted top pivot and frame mounted bottom pivot. Complying with BHMA A156.1 A8782.

1) 327; Stanley Commercial Hardware (STH).
2) 615; Hager Companies (HAG).

3. (HPC): Center Pivots

a. HPC01- Center Pivots: Mortised mounted, non-handed, center pivot set with sealed bearings for protection against weather and debris and composed of a head mounted top pivot and floor mounted bottom pivot. Furnish with extended spindles. Complying with BHMA A156.4 C07032.

1) Model 370 Center Hung Pivot Set; Rixson-Firemark, Inc. (RIX).
2) 7255 Pivot Set; Ives (IVS).
3) 0370 Center Hung Pivot Set; Architectural Builders Hardware Mfg., Inc. (ABH).
4) Model 370 Center Hung Pivot less standard top pivot x 345 Top Pivot; Rixson-Firemark, Inc. (RIX).

b. EHPC01 - Electrified Center Pivots: Concealed electric, 3 amp rated for Class II wiring applications, 22 gauge insulated four wire, mortised mounted, non-handed, center pivot set with sealed bearings for protection against weather and debris and composed of a head mounted electric top pivot and floor mounted bottom pivot. Furnish with extended spindles. Complying with BHMA A156.4 C07032 Modified.

1) Model 370 Center Hung Pivot less standard top pivot x E-H340 Top Pivot; Rixson-Firemark, Inc. (RIX).

4. (HPI): Intermediate Pivots

a. HPI01 Intermediate Pivots: Mortised jamb mounted, non-load bearing, handed, 3/4 inch (19 mm) offset intermediate pivots with sealed bearings for protection against weather and debris. Complying with BHMA A156.4 C07321 minimum vertical adjustment of 1/8 inch (3.2 mm).

1) Model M19 x 3/4 Intermediate Offset Pivots; Rixson-Firemark, Inc. (RIX).
2) 7200 INT Series Pivots; Ives (IVS).
3) 019 Intermediate Pivot; Architectural Builders Hardware Mfg., Inc. (ABH).

b. EHPI01 Electrified Intermediate Pivots: Concealed electric, low voltage, minimum 28 gauge insulated four wire, mortised jamb mounted, non-load bearing, handed, 3/4 inch (19 mm) offset intermediate pivots with sealed bearings for protection against weather and debris. Complying with BHMA A156.4 C07321 minimum vertical adjustment of 1/8 inch (3.2 mm).

1) Model E-M19 x 3/4 Intermediate Offset Pivots; Rixson-Firemark, Inc. (RIX).
2) 7200PT Series Power Transfer Pivots; Ives (IVS).
3) E019 Intermediate Pivot; Architectural Builders Hardware Mfg., Inc. (ABH).

5. (HPS): Specialty Pivot Hinges

a. HPS01: Pivot Hinge Special Layout: At deep reveals where door frame profiles will not permit the use of a standard top pivot (e.g., deep reveals, narrow frames, full height doors) furnish top pivots less top leaf with specially designed and fabricated pivot block (Rixson Special Layout 102)(180 or 340-SPLO-102).

b. HPS02: Pivot Hinge Special Layout: Where door frame and door face profiles are flush and will not permit the use of a standard 3/4 inches offset top pivot furnish top pivots with 1-1/2 inches offset top pivot jamb portion (Rixson Special Layout SP 1124 1-1/2").

C. (HS): SLIDING

1. Type HSS01, Sliding Door Hardware for surface mounted enclosed track system: Provide complete sets consisting of continuous ball bearing hanger tracks, door hangers with provision for horizontal and vertical adjustments, floor guide, supports, track mounted stops.

   a. Hager: 9710 Series wall mounted: (250lbs)

   b. Johnson Hardware: Select from manufactures options: (200lbs)

   c. Dorma: Muto System (not available until 2016)
   d. Top Line Grant 5300; Hettich International (1000lbs).

2. Type HSS02: Sliding door Hardware for surface mounted exposed track system

   a. Pemko Stainless Steel Sliding Track Hardware system

   b. Hafele: Barn door Hardware for wood or glass doors:

   c. Dorma Manet:

   d. Dorma Agile:

3. Type HSP01: Pocket Door Hardware: Provide complete sets consisting of header assembly, pair of split studs, door hanger plates, bumper, ball bearing door hanger assembly with provision for horizontal and vertical adjustments, door guides, floor plates, end brackets, and complying with BHMA 156.14. Cut studs to lengths as required.

   a. Johnson Hardware: Pocket Door system.

   b. For Single Doors: 9629 Heavy Duty Pocket Door Kit x 9634 Adapter Kit for 1-3/4 inch doors; Hager Companies (HAG).
   c. For Bi-Parting (Paired) Doors: Two 9629 Heavy Duty Pocket Door Kit x 9639 Double Pocket Door Kit x 9634 Adapter Kit for 1-3/4 inch doors; Hager Companies (HAG).

4. Type HSB01: Bypassing Sliding Door Hardware: Provide complete sets consisting of header assembly, door hanger assembly with provision for horizontal and vertical adjustments, door guides, end brackets, Cut rails to lengths as required.

   a. Johnson Hardware 200SD Sliding Bypass Door Hardware.
   b. Top Line Grant 72 Series; Hettich International

D. (HM): MISCELLANEOUS HINGES

1. (HMC): Clear Swing Butt Hinges
   a. HMC01 - Clear Swing, Standard Weight, Ball Bearing, 5 Knuckle, Steel:
      1) TA2895; McKinney Products Company
      2) IVES 5BB1SC A8122:
   b. HMC02 - Clear Swing, Standard Weight, Ball Bearing, 5 Knuckle, Stainless Steel:
      1) TA2395; McKinney Products Company
      2) IVES 5BB1SC A5122:
   c. HMC03 - Clear Swing, Heavy Weight, Ball Bearing, 5 Knuckle, Steel:
      1) T4A3786; McKinney Products Company
      2) IVES 5BB1SCHW A8121
   d. HMC04 - Clear Swing, Heavy Weight, Ball Bearing, 5 Knuckle, Stainless Steel:
      1) T4A3386; McKinney Products Company
2. (HMS): Spring Hinges
   a. HMS01: Spring Hinge Set, Standard Weight, Ball Bearing, Steel: Complying with BHMA A156.17 K81071, and comprised of two standard weight single acting spring hinges and one spring-less hinge to match. The spring hinges shall be furnished with infinite adjustment and tension which can be added or reduced by means of a hex key. One of the following:
      1) Two 4310 hinges & One BB5000 hinge; Bommer Industries, Inc., Landrum, SC (BI).
      2) Two 1250 hinges & One BB1279 hinge; Hager Companies (HAG).
      3) 1522 Standard Weight Spring Hinge Set; McKinney Products Company (MCK).
      4) Two 2060R hinges & One FBB179 hinge; Stanley Commercial Hardware (STH).
      5) Two 3SP1 hinges and One 5BB1; Ives (IVS).
3. (HMI): Invisible Hinges
   a. HMI01 - Invisible/Hidden Hinges, Full mortised, specifically manufactured for door thickness indicated and fabricated from high strength plated steel, heavy duty zinc alloy castings, and non-removable riveted hinge pins. Each hinge shall be engineered for smooth performance with laminated link construction supplemented by anti-friction materials that reduce friction for smooth, free hinge operation. Provide number of hinges per manufacturer's recommendations, based on door weight and door height. Complying with BHMA A156.9, B01501.
      1) Tectus by Simonswerk/Hafele.
      2) Sugatsune Concealed hinges HES3D-E190.
      3) SOSS as manufactured by Universal Industrial Products Company.
      4) RocYork Concealed Hinges
4. (HMG): Geared Continuous Hinge

a. HMG01 - Geared Continuous Hinges, Standard Duty, Concealed Leaf, aluminum. Comply with Grade 1 BHMA/ANSI 156.25. Provide full length of door and finish as per architect's specification.

1) Hager Roton 780 Series.
2) CRL 300 Standard Duty Series Concealed Continuous Hinges.
3) Select SL11 SD

b. HMG02 - Geared Continuous Hinges, Heavy Duty, Concealed Leaf, aluminum. Comply with Grade 1 BHMA/ANSI 156.25. Provide full length of door and finish as per architect's specification.

1) Allegion Ives 112HD Concealed Continuous Hinge.
2) Hager Roton 780 Series HD.
3) CRL 350 Heavy Duty Series Concealed Continuous Hinges.
4) Select SL11 HD.

c. EHMG01 - Electrified Geared continuous hinge, Standard Duty, Concealed Leaf, Aluminum. Comply with Grade 1 BHMA/ANSI 156.25. Provide full length of door and finish as per architect's specification.

1) Hager Roton 780-112.
2) CRL 300 Standard Duty Series Concealed Continuous Hinges, with prep for electrified hardware.

d. EHMG02 - Electrified, Geared continuous hinge, Heavy Duty. Concealed Leaf, Aluminum, Comply with Grade 1 BHMA/ANSI 156.25. Provide full length of door and finish as per architect's specification.

1) Allegion Ives 112HD Concealed Continuous Hinge.
2) Hager Roton 780-112HD.
3) CRL 350 Heavy Duty Series Concealed Continuous Hinges, with prep for electrified hardware.

5. (HMP) Pin and Barrel/ Piano Continuous Hinge

The pin and barrel for high traffic interior doors (i.e. - a school lobby/vestibule.). Pin and Barrel hinges share many of the same characteristics of a traditional hinge. Both have a center pin and rolled knuckles. However, a continuous Pin and Barrel hinge stretches along the entire length of the frame. The following are rated for up to 150 pound doors.

a. HMP01 - Pin and Barrel Continuous Hinge Concealed Leaf. stainless steel. Comply with Grade 1 BHMA/ANSI 156.26. Provide full door length and finishes as per architect's specification

1) Allegion Ives 700 Pin and Barrel Continuous Hinge.
2) Hager Roton 790-900 .
3) Select SL300 Pin and Barrel Continuous Hinge.

The pin and barrel for high traffic interior doors (i.e. - a school lobby/vestibule.). Pin and Barrel hinges share many of the same characteristics of a traditional hinge. Both have a center pin and rolled knuckles. However, a continuous Pin and Barrel hinge stretches along the entire length of the frame. The following are rated for up to 150 pound doors.

b. EHMP01 - Electrified Pin and Barrel Continuous Hinge Concealed Leaf. stainless steel. Comply with Grade 1 BHMA/ANSI 156.26. Provide full door length and finishes as per architect's specification

1) Allegion Ives 700 Pin and Barrel Continuous Hinge.

2) Hager Roton 790-900 .

6. (HME) - Mortised Power Transfer Devices: ANSI/SDI-BHMA A250.13; UL10C

a. HME01 - Mortised Concealed Power Transfer for powered hardware.

1) Von Duprin EPT

a) EPT-2 for 2 wire
b) EPT-10 for 10 wire

2) ASSA ABLOY Securitron concealed electrical power transfer

a) CEPT-10

2.2 (S): SECURING

A. (SC): CYLINDERS AND KEYING

1. (SCK): CYLINDER CORES AND KEYING

a. General: Provide Standard cylinder core systems, unless Interchangeable core system is requested by the Owner.

1) Construction Core: Provide construction core in locks during construction and as may be necessary for security or as may be requested by the Owner. Upon completion of the construction phase, construction keyed cylinders shall be voided mechanically without the removal of the cylinders from the locks. All construction keyed cylinders shall be individually keyed as required and subject to a single master key.

2) Keying System: Final keying to determine lock cylinders, keyed alike sets, level of keying, master key groups, grandmaster keying system shall be as directed by the Owner. Supplier and Contractor shall meet with the Owner and obtain final instructions in writing. Provide two nickel silver keys for each lock, and six keys for each grandmaster and masterkey system. Provide two blank keys for each lock for the Owner's convenience in making additional keys.

3) Key Control System: Furnish a key control system of the type specified. Furnish complete accessories including key gathering envelopes, labels, reserve pattern key tags with self-locking key clips, key receipt forms, key receipt holders, 3-way visible card index, temporary key markers and permanent key markers.

a) Model 1205-D; Lund Equipment Co., Inc.
b) Aristocrat AWC 450-S; Telkee, Inc.

a. SCK01: Standard Core Cylinder Bodies: Full faced cylinders with square shouldered (not tapered) compression rings, 6 pin, standard threaded, keyed into

building system, with cams to suit lock functions. Provide cylinders for installation into all locks. Provide cylinders from same manufacturer as operating hardware.

b. SCK02: Interchangeable Core Cylinder Bodies: Full faced cylinders with square shouldered (not tapered) compression rings, standard threaded. Provide [**empty core**] [**construction core**] for installation into all locks.

1) 1100 Series Flexible Head Mortise Cylinder; Corbin Russwin Architectural Hardware (CR).
2) 6300/7300 Series Adjustable Front Cylinder; Sargent Manufacturing Company (SGT).
3) FSIC system by Schlage Lock Company (SCH).

B. (SL): LOCKS AND LATCHES

1. (SLM): Mortise Lock and Latch Sets: Heavy duty, commercial, mortise bodies complying with BHMA A156.13 Series 1000, Grade 1, with throughbolted lever trim. Furnish mortise type, field reversible without disassembly, field multifunctional without opening lock cases, lock and latch sets with 1 or 2 piece anti-friction deadlocking stainless steel latchbolts having a minimum 3/4 inch (19 mm) throw, 2-3/4 inches (70 mm) backset, and UL listed for 3 hour doors. All lock and latch sets, to be furnished complete with heavy 0.109 inch (2.77 mm) (12 gage)wrought steel zinc dichromate or chrome plated case, trim, adjustable beveled square cornered armored fronts, and cold forged steel or stainless steel hubs. Conceal fastenings, washers and bushings. Provide wrought, or black plastic, box strikes for each lock and latch set. Provide brass, bronze or stainless steel strikes with curved lips of sufficient length to protect frames. Provide solid forged or cast levers with wrought roses. Where lock functions are scheduled provide non-handed guard bolt and stainless steel deadbolt with a minimum 1 inch (25 mm) throw. Refer to other section for electro mechanical mortise lock and latch set, Type ESLM.

a. Strikes for Locks and Latches: All strikes for locks and latches shall be provided by the lock and latch manufacturer unless otherwise specified or scheduled, refer to Article 'Locks and Latches.'
b. Strikes on Rabbeted Doors: Provide special rabbeted front and strike on locksets for rabbeted meeting stiles.
c. Manufacturers:

1) Sargent 8200 Series; Sargent Manufacturing Company (SGT). Provide handed ANSI 4-7/8 inch curved lip strikes die punched to match bolts provided with latchset functions only, provide non-handed standard curve lip strikes 82-0110 for all other functions.

a) Turnlever: unless otherwise indicated or selected by the Architect from manufacture's full range of options, provide J, L, or P Design with 130KB Thumbturn.

2) Corbin-Russwin ML2000 Series; Corbin Russwin Architectural Hardware (CR). Provide handed ANSI 4-7/8" curved lip strikes die punched to match bolts provided with latchset functions only 340L62 (RH) and 340L63 (LH), provide handed standard curve lip strikes for all other functions 340L60 (RH) and 340L61 (LH).

a) Turn lever: unless otherwise indicated or selected by the Architect from manufacture's full range of options, provide Lustra LSA Design x 519F10

3) Schlage L9000 Series; Schlage Lock Company (SCH). Provide handed ANSI 4-7/8 inch curved lip strikes die punched to match bolts provided with latchset functions only (Part No. XL11-820/XL11-821), provide non-handed standard curve lip strikes for all other functions 10-072.

a) Turn lever: unless otherwise indicated or selected by the Architect from manufacture's full range of options, provide03 Design x A Rose x 09-905.

d. Functions:

1) SLM01 Passage or Closet Latch. ANSI F01. Latch bolt operated by lever from either side at all times.

2) SLM02 Privacy, Bedroom or Bath Lock. ANSI F02. Latch bolt operated by lever from either side. Dead bolt operated by turn from inside and by emergency release from outside.

3) SLM03 Communicating Lock. ANSI F03. Latch bolt operated by lever from either side. Two dead bolts or split dead bolt operated independently by turns from both sides. Not to be used on doors in rooms that have no other entrance.

4) SLM04 Entry Lock. ANSI F04. Latch bolt operated by lever from either side except when outside lever is made inoperative by a stop or mechanical means other than key. When outside lever is locked, latch bolt is retracted by key from outside or by operating inside lever. Auxiliary dead latch.

5) SLM05 Classroom Lock. ANSI F05. Latch bolt operated by lever from either side except when outside lever or knob is locked from outside by key. When outside lever is locked, latch bolt is retracted by key, or by operating key and outside lever from outside or by operating inside lever. Auxiliary dead latch.

6) SLM06 Holdback Lock. ANSI F06. Latch bolt operated by lever from either side except when outside lever is locked from outside by key. Latch bolt can be locked in a retracted position by key. When outside lever is locked, latch bolt is retracted by key from outside or by operating inside lever unless latch bolt has been locked in a retracted position. Auxiliary dead latch.

7) SLM07 Storeroom or Closet Lock. ANSI F07. Latch bolt operated by key from outside or by operating inside lever. Outside lever is always inoperative. Auxiliary dead latch.

8) SLM07A Storeroom or Utility Lock, less inside trim. No ANSI number available. Latchbolt retracted by key outside; outside lever always inoperative. No inside trim. Auxiliary deadlatch.

9) SLM08 or SLM10 Front Door Lock or Apartment Corridor Door Lock. ANSI F08 or F10. Latch bolt is operated by lever from either side, except when outside lever is made inoperative by a stop or mechanical means other

than key. Dead bolt is operated by turn inside. Key outside operates both bolts.

10) SLM09 Apartment, Exit or Public Toilet Lock. ANSI F09. Latch bolt operated by lever from either side, except when outside lever is locked by key from inside. When outside lever is locked, latch bolt is retracted by key from outside or by operating inside lever. Auxiliary dead latch.
11) SLM10 See SLM08.
12) SLM11 Dormitory or Exit Lock. ANSI F11. Latch bolt operated by lever from either side except when outside lever is made inoperative by a stop or mechanical means other than key. Dead bolt projected by key from either side. Dead bolt retracted by key from outside. Both bolts retracted by inside lever and outside remains locked.
13) SLM12 Dormitory or Exit Lock. ANSI F12. Latch bolt operated by lever from either side, except when outside lever is made inoperative by a stop or mechanical means other than key. Dead bolt projected by key from outside and by turn from inside. Dead bolt retracted by key from outside and by turn from inside. Operating inside lever retracts both bolts and outside remains locked
14) SLM13 Dormitory or Exit Lock. ANSI F13. Latch bolt operated by lever from either side. Dead bolt projected by key from outside and turn from inside. Operating inside lever retracts both bolts and unlocks outside. (Keyed locksets with both Latchbolt and Deadbolt)
15) SLM14 Store Door Lock. ANSI F14. Latch bolt operated by lever from either side. Dead bolt operated by key from either side. (Keyed locksets with both Latchbolt and Deadbolt)
16) SLM15 Hotel Guest Lock . ANSI F15. Latch bolt operated by key from outside or by operating inside lever. Outside lever is always inoperative. Dead bolt projected by turn from inside and all keys except emergency and display key are shut out. Operating inside lever retracts both bolts. Auxiliary dead latch. Indicator button when so specified. (Keyed locksets with both Latchbolt and Deadbolt)
17) SLM16 Dead Lock. ANSI F16. Dead bolt operated by key from either side. (Deadlock)
18) SLM17 Dead Lock. ANSI F17. Dead bolt operated by key from outside and by turn from inside. (Deadlock)
19) SLM18 Dead Lock. ANSI F18. Dead bolt operated by key from outside only. (Deadlock)
20) SLM19 Privacy, Bedroom or Bath Lock. ANSI F19. Latch bolt operated by lever from either side. Dead bolt operated by turn from inside and emergency release from outside. Operating inside lever retracts both bolts. (Non-keyed locksets; Similar with SLM02 except when inside handle is operated, both latchbolt and deadbolt retract simultaneously and outside handle is unlocked;; Similar with SLM22 except it has additional dead bolt)
21) SLM20 Apartment Corridor Door Lock. ANSI F20. Latch bolt operated by lever from either side, except when outside lever is made inoperative by a stop or mechanical means other than key. Dead bolt operated by key outside or turn inside. Key outside operates both bolts. Operating inside lever retracts both bolts and outside remains locked. Latch bolt is deadlocked when outside lever is made inoperative or when the dead bolt is projected.

When dead bolt is retracted, lever is unlocked by stop or mechanical means other than key. (Keyed locksets with both Latchbolt and Deadbolt)

22) SLM21 Room Door Lock. ANSI F21. Latch bolt operated by lever from either side. Dead bolt operated by key from outside and turn from inside. (Keyed locksets with both Latchbolt and Deadbolt)
23) SLM22 Privacy, Bedroom or Bath Lock. ANSI F22. Latch bolt operated by lever from either side except when outside lever is locked by inside turn or button. Operating inside lever, closing door or operating outside emergency release unlocks outside lever. (Non-keyed locksets; Similar with SLM19 without any dead bolt; only latchbolt)
24) SLM23. ANSI F23. Function obsoleted.
25) SLM24 Apartment or Store Door Handle Lock. ANSI F24. Latch bolt operated by thumb piece on both sides, except when outside thumb piece is locked by key from inside. When outside thumb piece is locked, latch bolt is retracted by key outside or by thumb piece inside. Auxiliary dead latch.
26) SLM25 Store Door Handle Lock. ANSI F25. Latch bolt operated by thumb piece from either side. Dead bolt operated by key from either side. (Keyed locksets with both Latchbolt and Deadbolt)
27) SLM26 Institutional Privacy. ANSI F26. Latch bolt operated by lever from either side except when outside lever is locked by turn inside. Latch bolt by key outside with override of turn inside when manually held in locked position. Operating inside lever or closing door unlocks outside lever. Auxiliary dead latch. (Keyed Lastchbolt Locksets, Single Cylinder)
28) SLM27 Automatic Dead Bolt Lock. ANSI F27. Dead bolt projected by depressing auxiliary latch or other device to sense door closure. Dead locking latch bolt. Dead and latch bolts remain dead locked if auxiliary latch is extended before dead bolt is retracted. Rotating inside lever retracts bolts. When outside lever is locked, all bolts are retracted by key, or by operating key and outside lever.
29) SLM28 Automatic Dead Bolt Lock . ANSI F28. Dead bolt projected by depressing auxiliary latch or other device to sense door closure. Rotating inside lever retracts bolt. When outside lever is locked, bolt is retracted by key, or by operating key and outside lever.
30) SLM29 Classroom Dead Lock. ANSI F29. Key from outside operates dead bolt. Turn from inside retracts but does not project dead bolt. (Deadlock)
31) SLM30 Asylum or Institutional Lock. ANSI F30. Latch bolt operated by key from either side. Both levers always inoperative. Auxiliary dead latch. (Keyed Latchbolt Locksets, Double Cylinder)
32) SLM31 Exit or Communicating Lock. ANSI F31. Latch bolt operated by lever from inside. Non removeable blank trim or no trim outside. Auxiliary dead latch. (Exit-only door. Non-keyed locksets)
33) SLM32 Intruder Latch Bolt Lock. ANSI F32. Latch bolt operated by lever from either side except when outside lever is locked from inside or outside by key. When outside lever is locked, latch bolt is retracted by key from inside or outside or by operating inside lever. Auxiliary dead latch. (Keyed Latchbolt Locksets, Double Cylinder)
34) SLM32A Closet Latch Bolt, less inside trim. No ANSI number available. Latch bolt operated by lever on outside except when outside lever is locked from outside by key. When outside locked, latch bolt is retracted by key or

by operating key from outside lever. Auxiliary dead latch. . (Keyed Latchbolt Locksets, Double Cylinder)

35) SLM33 Intruder Dead Bolt Lock. ANSI F33. Latch bolt operated by lever from either side except when outside lever is locked from inside or outside by key. Dead bolt retracted by key from inside or outside. Operating inside lever retracts both bolts and unlocks outside. (Keyed locksets with both Latchbolt and Deadbolt)

36) SLM34 Intruder Dead Bolt Lock. ANSI F34. Latch bolt operated by lever from either side except when outside lever is locked from inside or outside by key. Dead bolt retracted by key from inside or outside. Operating inside lever retracts both bolts and unlocks outside. Auxiliary dead latch or latch bolt dead locked when dead bolt is thrown. (Keyed locksets with both Latchbolt and Deadbolt)

37) SLM35 Store Door Lock. ANSI F35. Latch bolt operated by lever from either side, except when outside lever is made inoperative by a stop or mechanical means other than key. Dead bolt operated by key from either side.

e. (SLMK): Mortised Keypad Operated Functions

1) SLMK1: Keypad Operated Functions and Mechanical Mortised Locks: Mortise Lock Set Push Button Combination Locks.

a) KP8200; Sargent Manufacturing Company (SGT). .
b) CO-100-MS Series Locks; Schlage Lock Company (SCH).
c) 8100 Series; Kaba Ilco Corp..

f. (SLMC): Custom Mortise Lock and Latch Sets: Heavy duty, commercial, mortise bodies custom fabricated to receive specified lever trims. Furnish mortise type, lock and latch sets with 2 piece anti-friction deadlocking brass latchbolts having a minimum 3/4 inch (19 mm) throw, 2-3/4 inches (70 mm) backset, and UL listed for 3 hour doors. All lock and latch sets, to be furnished complete with heavy gage wrought steel zinc dichromate plated case, trim, adjustable beveled square cornered armored fronts, custom machined steel hubs and spring cages to receive lever trim and prevent lever droop. Where custom mortise locks are scheduled to receive thumb turn, or key, cylinders furnish types as specified under Article 'Cylinders and Keying' fitted with proper cams. Conceal fastenings, washers and bushings. Provide box strikes for each lock and latch set with curved lips of sufficient length to protect frames. Provide levers with roses, as scheduled, secured to lock bodies. Where lock functions are scheduled provide guard bolt and brass deadbolt with a minimum 1 inch (25 mm) throw.

1) SLMC1: Custom Mortise Lock and Latch Sets: 9100 Series; Accurate Lock and Hardware Co. (ALH).

g. (SLMM01): Multi-Point Locking System: ANSI 156.37; 3 point

1) Schlage LM9300 multi-point lock
2) Sargent FM7300 Series.

h. (SLMM02): Multi-Point Locking System: ANSI 156.37; 2 point

1) Schlage LM9200 multi-point lock
2) Sargent FM7000 Series

i. (ESLM): Electro Mechanical Mortised Lock and Latch Set

1) ESLM01: Electric Heavy Duty, Commercial, Mortise Bodies; Same as Type SLM (provide with trim and lever matching mechanical locksets). In addition, where electro-mechanical mortise lockset are scheduled provide transformers properly sized for conversion of power supply to the power characteristics of the electromechanical locksets. Provide request to exit (REX) monitoring feature. Provide fail safe or fail secure function as specified on door schedule remarks. **Coordinate with security hardware for access systems, including card readers, keypads, or other activation devices**.

a) Sargent 8200 Series: Where electro-mechanical locksets are scheduled provide 8270 Series with trim matching mechanical locksets.
b) Corbin-Russwin ML2000 Series: Where electro-mechanical locksets are scheduled provide ML20900ECL Series with trim matching mechanical locksets.
c) Schlage L9000 Series. Where electro-mechanical locksets are scheduled provide L9909x Series with trim matching mechanical locksets.

2. (SLB): Bored Lock and Latch Sets; Series 4000 Bored Lock and Latches: Extra heavy duty, commercial, cylindrical bodies complying with BHMA A156.2 Series 4000, Grade 1. Furnish cylindrical type, field reversible, lock and latch sets with deadlocking brass or stainless steel latch bolts having a minimum 1/2 inch (13 mm) throw together with guard (auxiliary) latch added to bolt, 2-3/4 inches (70 mm) backset, and UL listed for 3 hour single doors. Furnish latch bolts having a minimum 3/4 inch (19 mm) throw together with guard (auxiliary) latch added to bolt, and UL listed for labeled pairs of fire doors. All lock and latch sets, to be furnished complete with heavy gage steel zinc dichromate coated cylindrical bodies, trim, 2-1/4 inches (57 mm) by 1-1/8 inches (28.6 mm) beveled square cornered fronts, and in lever core. Provide wrought steel, aluminum, or black plastic, box strikes for each lock and latch set with curved lips of sufficient length to protect frames. Provide plated cast zinc levers with plated wrought brass or bronze roses. Refer to other section for any electro mechanical bored lock and latch set, Type ESLC.

a. Strikes for Locks and Latches: All strikes for locks and latches shall be provided by the lock and latch manufacturer unless otherwise specified or scheduled, refer to Article 'Locks and Latches.'
b. Strikes on Rabbeted Doors: Provide special rabbeted front and strike on locksets for rabbeted meeting stiles.
c. Manufacturers:

1) Sargent 10 Line, LL Design; Sargent Manufacturing Company (SGT).
2) Corbin-Russwin CL3300 Series, Newport NZD Design; Corbin Russwin Architectural Hardware (CR).
3) Schlage ND-Series, Rhodes RHO; Schlage Lock Company (SCH).

d. Function:

1) **SLBD Dummy**. Handle on one side only, not operative. No latch

2) **SLB75 Grades 1, 2 and 3. Passage or Closet Latch.** ANSI F75. Latch bolt operated by lever, from either side at all times. *(any door that must be latched, does not require locking)*

3) **SLB76A Grade 1 and 2. Privacy, Bedroom or Bath Lock**. ANSI F76A. Latch bolt operated by lever from either side. Outside lever is locked by push button or other locking device inside and unlocked by emergency release outside, operating inside lever or closing door.

4) **SLB76B Grades 2 and 3. Privacy, Bedroom or Bath Lock.** ANSI F76B. Latch bolt operated by lever from either side except when outside lever is locked by locking device inside. Locking device shall automatically release when inside lever is operated or be in unlocked position before inside lever is operated. Emergency release on outside shall permit outside lever to operate latch bolt.

5) **SLB77A Grade 1 and 2**. **Patio or Privacy Lock**. ANSI F77A. Dead locking latch bolt operated by lever from either side. Outside lever is locked by push button or other locking device inside and unlocked by operating inside lever or closing door. Do not use on doors in rooms that have no other entrance.

6) **SLB77B Grades 2 and 3**. **Patio and Privacy Lock**. ANSI F77B. Dead locking latch bolt operated by lever from either side except when outside lever is locked by locking device inside. Locking device shall automatically release when inside lever is operated or be in the unlocked position before the lever is operated. Do not use on doors in rooms that have no other entrance.

7) **SLB78 Grades 1 and 2. Communicating Lock.** ANSI F78. Dead locking latch bolt operated by lever from either side. Turn button or locking device on either side locks or unlocks opposite lever. Do not use on doors in rooms that have no other entrance.

8) **SLB79 Grades 1 and 2**. **Communicating Lock**. ANSI F79. Dead locking latch bolt operated from inside by lever and from outside by thumb turn. Turning button or operating locking device in inside lever locks both lever and thumb turn. Turn button or other locking device does not release unless manually restored to unlocked position.

9) **SLB80 Grades 1 and 2. Communicating Lock.** ANSI F80. Dead locking latch bolt operated by lever from either side. Turning key in either lever locks or unlocks its own lever independently. Do not use on doors in rooms that have no other entrance. *(Keyed Latchbolt Locksets, Double Cylinder)*

10) **SLB81 Grades 1, 2 and 3. Entry Lock**. ANSI F81. Dead locking latch bolt operated by lever from either side except when outside lever is locked by turn button or other locking device inside. When outside lever is locked, latch bolt is operated by key in outside lever or by operating inside lever. Turn button or other locking device shall be manually operated to unlock outside lever. At the option of the individual manufacturer, operating the key in the outside lever shall permit the latch bolt to be retracted by operating the outside lever, providing the key cannot be removed in the unlocked position. *(Different from SLB82 as the turn button or other locking device shall be manually operated to unlock outside lever; Keyed Latchbolt Locksets, Single Cylinder)*

11) **SLB82A Grade 1 and 2. Entry Lock.** ANSI F82A. Dead locking latch bolt operated by lever from either side except when outside lever is locked

by push button or other locking device on inside. When outside lever is locked, operating key in outside lever or operating inside lever unlocks push button or other locking device and retracts latch bolt. Closing door does not release push button or other locking device. *(Keyed Latchbolt Locksets, Single Cylinder)*

12) **SLB82B Grades 2 and 3. Entry Lock.** ANSI F82B. Dead locking latch bolt operated by lever from either side except when outside lever is locked by locking device on inside. When outside lever is locked, operating key in outside lever unlocks locking device. Locking device shall automatically release when inside lever is operated or be in the unlocked position before inside lever is operated. *(Keyed Latchbolt Locksets, Single Cylinder)*
13) **SLB83 Grades 1, 2 and 3. Exit Lock**. ANSI F83. Dead locking latch bolt operated by lever from either side except when outside lever is locked by turn button or other locking device in inside. Turn button or other locking device shall be manually operated to unlock outside lever. Inside lever always operates latch bolt.
14) **SLB84 Grades 1 and 2. Classroom Lock.** ANSI F84. Dead locking latch bolt operated by lever from either side except when outside lever is locked from outside by key. At the option of the individual manufacturer, operating the key in the lever shall permit the latch bolt to be retracted. When outside lever is locked, latch bolt is operated by inside lever. *(Keyed Latchbolt Locksets, Single Cylinder)*
15) **SLB85 Grade 1**. **Holdback Lock.** ANSI F85. Dead locking latch bolt operated by lever from either side except when outside lever is locked from outside by key. Latch bolt is locked in a retracted position by key. When outside lever is locked, latch bolt is retracted by key from outside or by operating inside ever unless latch bolt has been locked in a retracted position.
16) **SLB86 Grades 1, 2 and 3. Store Room or Closet Lock.** ANSI F86. Dead locking latch bolt operated by key in outside lever, or by operating inside lever. Outside lever is always inoperable. At the option of the individual manufacturer, operating the key in the outside lever shall permit the latch bolt to be retracted by operating the outside lever, providing the key cannot be removed in the unlocked position. *(Keyed Latchbolt Locksets, Single Cylinder)*
17) **SLB87 Grade 1. Utility, Asylum or Institutional Lock.** ANSI F87. Dead locking latch bolt operated by key in lever, from either side. Both levers always inoperable. At the option of the individual manufacturer, operating the key in the outside lever shall permit the latch bolt to be retracted by operating either the inside or outside lever, providing the key cannot be removed in the unlocked position. *(Keyed Latchbolt Locksets, Double Cylinder)*
18) **SLB88 Grade 1. Apartment, Exit or Public Toilet Lock.** ANSI F88. Dead locking latch bolt operated by lever from either side except when outside lever is locked by key from inside. When outside lever is locked, latch bolt is retracted by key in outside lever or by operating inside lever. *((Keyed Latchbolt Locksets, Double Cylinder)*
19) **SLB**89 **Grades 1, 2 and 3. Exit Latch**. ANSI F89. Dead locking latch bolt retracted by lever from inside at all times. Outside lever is always inoperable. *(Exit-only door.Non-keyed Lockset)*

20) **SLB90 Grades 1 and 2. Corridor Lock.** ANSI F90. Dead locking latch bolt operated by lever from either side except when outside lever is locked by key in outside lever or by push button or other locking device on inside. Key in outside lever locks or unlocks outside lever. Operating inside lever releases push button or other locking device placed in a locked position. Closing door releases push button or other inside locking device. Inside lever always operates latch bolt. *(Keyed Latchbolt Locksets, Single Cylinder)*
21) **SLB91 Grade 1. Store Door Lock.** ANSI F91. Dead locking latch bolt operated by lever from either side except when both levers are locked by key from either side.
22) **SLB92 Grades 1 and 2. Service Station Lock.** ANSI F92. Dead locking latch bolt operated by lever from either side except when outside lever is locked by push button or other locking device on inside. Key outside, operating inside lever or closing door releases push button or other locking device unlocking outside lever except when slotted push button or other locking device is in a locked position. Inside lever salways operates latch bolt. *(Keyed Latchbolt Locksets, Single Cylinder)*
23) **SLB93 Grades 1 and 2. Hotel Guest Room, Club House, Dormitory or Apartment Entrance Lock.** ANSI F93. Dead locking latch bolt operated by lever from inside at all times. Outside lever always inoperable. Latch bolt operated by key from outside except when push button or other locking device inside is operated thus shutting out all keys except emergency key. Operating push button or other locking device operates outside visual indicator showing room is occupied. Operating inside lever or closing door releases indicator and shut out feature except when shut out is activated by a special procedure which shuts out all keys except emergency or display key. At the option of the individual manufacturer, operating the key in the outside lever shall permit the latch bolt to be retracted by operating the outside lever, providing the key cannot be removed in the unlocked position. *(Keyed Latchbolt Locksets, Single Cylinder)*
24) **SLB94 -SLB 106** (SLB95, 97, 98: Keyed Locksets with both Latchbolt and Deadbolt)
25) **SLB107 Grade 1. Entry Handleset.** ANSI F107. Dead locking latch bolt operated by thumb piece from outside and lever from inside except when outside thumb piece is locked by push button or other locking device on inside. When outside thumb piece is locked, operating key in outside cylinder or operating inside lever unlocks push button or other locking device and retracts latch bolt. Closing door does not release push button or other locking device.
26) **SLB108 Grades 2 and 3. Entry Handleset.** ANSI F108. Dead locking latch bolt operated by thumb piece from outside and lever from inside except when outside thumb piece is locked by locking device on inside. When outside thumb piece is locked, operating key in outside cylinder unlocks locking device. Locking device shall automatically release when inside lever is operated or be in the unlocked position before inside lever is operated.
27) **SLB109 Grades 1, 2, and 3.** ANSI F109. Combined F81 and F82 Entry Lock. Dead locking latch bolt operated by lever from either side except

when outside lever is locked by the push or turn button on inside. Key outside or operating inside lever releases push or turn button unlocking outside lever except when push or turn button has been rotated to keep outside lever locked. Inside push or turn button must be manually operated to unlock outside lever. Inside lever always operates latch bolt. *(Keyed Latchbolt Locksets, Single Cylinder)*

28) **SLB110 Grade 1. Intruder Classroom Lock.** ANSI F110. Dead locking latch bolt operated by lever from either side. Key either inside or outside locks or unlocks outside lever. Inside lever always operates latchbolt. *(Keyed Latchbolt Locksets, Double Cylinder)*

29) **SLB111 Grade 1 and 2. Communicating Passage Lock.** ANSI F111. Dead locking latch bolt operated by lever one side only at all times. Non removable blank trim or no trim outside. *(Exit-only door.Non-keyed locksets)*

30) **SLB112 Grade 1 and 2. Communicating Storeroom Lock**. ANSI F112. Dead locking latch bolt operated by key in lever one side only. Lever always inoperable. At the option of the individual manufacturer, operating the key in the lever shall permit the latch bolt to be retracted by operating the lever, providing the key cannot be removed in the unlocked position. Non removable blank trim or no trim outside. *(Keyed Latchbolt Locksets, Single Cylinder)*

31) **SLB113 Grade 1 and 2. Communicating Classroom Lock.** ANSI F113. Dead locking latch bolt operated by lever one side only except when lever is locked by key. At the option of the individual manufacturer, operating the key in the lever shall permit the latch bolt to be retracted. Non removable blank trim or no trim outside. *(Keyed Latchbolt Locksets, Single Cylinder)*

e. (SLBK): Bored Lock, Keypad Operated Functions and Mechanical Cylindrical Locks

1) SLBK1 Bored Lock Set Push Button Combination Locks

a) KP10G77; Sargent Manufacturing Company (SGT) ((Also available with magnetic stripe card, code, Prox fob or card, etc)
b) CM 5100 Series Locks; Schlage Lock Company (SCH).
c) L1000 Series; Kaba Ilco Corp.

f. (ESLB): Electromechanical Bored Lockset.

1) ESLB1: Electrical Extra Heavy Duty, Commercial, Cylindrical Bodies; Same as Type SLB (provide with trim and lever matching mechanical locksets). In addition, where electro-mechanical bored locksets are scheduled provide request to exit (REX) monitoring feature. Provide fail safe or fail secure function as specified on door schedule remarks.

a) Sargent 10 Line, LL Design; Sargent Manufacturing Company (SGT). Where electro-mechanical locksets are scheduled provide 10G70 Series with trim matching mechanical locksets.
b) Corbin-Russwin CL3300 Series, Newport NZD Design; Corbin Russwin Architectural Hardware (CR). Where electro-mechanical locksets are scheduled provide CL33900 Series with trim matching mechanical locksets.

c) Schlage ND-Series, Rhodes RHO; Schlage Lock Company (SCH). Where electro-mechanical locksets are scheduled provide ND Series Electrified Locks with trim matching mechanical locksets.

3. (SLP): Pre-Assembled Lock and Latch Sets: ANSI/BHMA 156.2 Series 2000, Grade 1, Factory assembled lock fitting into a notched cutout in a door.

a. Strikes for Locks and Latches: All strikes for locks and latches shall be provided by the lock and latch manufacturer unless otherwise specified or scheduled, refer to Article 'Locks and Latches.'
b. Strikes on Rabbeted Doors: Provide special rabbeted front and strike on locksets for rabbeted meeting stiles.
c. Functions:

1) **SLP36 Passage or Closet Latch Set**. ANSI F36. Latch bolt operated by lever from either side at all times.
2) **SLP37 Privacy, Bedroom or Bath Lock.** ANSI F37. Latch bolt operated by lever from either side. Outside lever is locked by push button inside, and unlocked by emergency release outside, operating inside lever or closing door.
3) SLP38 Patio or Privacy Lock. ANSI F38.
4) **SLP39 Communicating Lock.** ANSI F39. Dead locking latch bolt operated by lever from either side. Turn button, in either lever, locks or unlocks opposite lever. Do not use on doors in rooms that have no other entrance.
5) **SLP40 Entrance or Store Room Lock.** ANSI F40. Dead locking latch bolt is operated by lever from either side except when outside lever is locked by turn button in inside lever. When outside lever is locked, latch bolt is retracted by key from outside or by operating inside lever. Turn button shall be manually rotated to unlock outside lever. At the option of the individual manufacturer, operating the key in the outside lever shall permit the latch bolt to be retracted by operating the outside lever, providing the key cannot be removed in the unlocked position.
6) **SLP41 Entry Lock.** ANSI F41. Dead locking latch bolt operated by lever from either side except when outside lever is locked by push button in inside lever. When outside lever is locked, operating key from outside or operating inside lever retracts latch bolt and releases push button. Closing door does not release push button.
7) **SLP42 Classroom Lock**. ANSI F42. Dead locking latch bolt operated by lever from either side except when outside lever is locked from outside by key. When outside lever is locked, latch bolt is retracted by key from outside or operating inside lever.
8) **SLP43 Holdback Lock.** ANSI F43. Dead locking latch bolt operated by lever from either side except when outside lever is locked from outside by key. Latch bolt is locked in a retracted position by key. When outside lever is locked, latch bolt is retracted by key from outside or by operating inside lever, unless latch bolt has been locked in a retracted position.
9) **SLP44 Store Room or Closet Lock.** ANSI F44. Dead locking latch bolt operated by key from outside or by operating inside lever. Outside lever is always fixed. At the option of the individual manufacturer, operating the key in the outside lever shall permit the latch bolt to be retracted by operating

the outside lever, providing the key cannot be removed in the unlocked position.

10) **SLP45 Apartment, Exit or Public Toilet Lock.** ANSI F45. Dead locking latch bolt operated by lever from either side except when outside lever is locked by key from inside. When outside lever is locked, latch bolt is retracted by key from outside or by operating inside lever.
11) **SLP46 Store Door Lock.** ANSI F46. Dead locking latch bolt operated by lever from either side except when both levers are locked by key from either side.
12) **SLP47 Store Door Lock.** ANSI F47. Latch bolt operated by lever from either side. Dead bolt operated by key from either side.
13) **SLP48 Hotel Guest Room, Club House, Dormitory or Apartment Entrance Lock**. ANSI F48. Dead locking latch bolt operated by lever from inside at all times. Outside lever always fixed. Latch bolt operated by key from outside except when push button inside is depressed, thus shutting out all keys except the emergency key. Depressing push button operates visual indicator in face of cylinder showing the room is occupied. Operating inside lever, or closing door releases indicator and shut out feature except when shut out is activated by a special procedure which shuts out all keys except emergency keys. At the option of the individual manufacturer, operating the key in the outside lever shall permit the latch bolt to be retracted by operating the outside lever, providing the key cannot be removed in the unlocked position.

C. (SD): DEAD BOLTS/DEAD LOCKS

1. (SDM): Manual

a. SDM01; ANSI/BHMA A156.16, Type L04161: Manual Surface Bolts: Provide 12 inch (304.8 mm) surface mounted slide bolts UL Listed for A labeled metal fire doors. Furnish manufacturer's standard guide brackets and strikes for conditions indicated.

1) 1012F; Door Controls International (DCI).
2) SB453-12; Ives (IVS).
3) 580-12; Rockwood Manufacturing Company (RM).

b. SDM02; ANSI/BHMA A156.16, Type L04081, L04251, L04261 or L04081: Manual Flushbolts for Fire Rated Wood Doors: Provide flush bolts, with 1 inch wide fronts, in paired sets (top and bottom), with 1/2 inch diameter flattened bolt tip for both wood and metal doors and standard 12 inch rod at flushbolts for metal doors. Flush bolts shall fit ANSI A115.4 door and frame preparation. Flush bolts in wood fire doors shall be A Label UL Listed. Furnish rods of proper length to afford easy reach from the floor. Furnish manufacturer's standard top strikes for top bolts.

1) No. 790F; Door Controls International (DCI).
2) FB358; Ives (IVS).
3) 3913; Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM).

4) 557; Rockwood Manufacturing Company (RM).

c. SDM03; ANSI/BHMA A156.16, Type L04081, L04251, L04261 or L04081: Manual Flushbolts for Fire Rated Metal Doors: Provide flush bolts, with 1 inch wide fronts, in paired sets (top and bottom), with 1/2 inch diameter flattened bolt tip for both wood and metal doors and standard 12 inch rod at flushbolts for metal doors. Flush bolts shall fit ANSI A115.4 door and frame preparation. Flush bolts in wood and metal fire doors shall be A Label UL Listed. Furnish rods of proper length to afford easy reach from the floor. Furnish manufacturer's standard top strikes for top bolts.

1) No. 780F; Door Controls International (DCI).
2) FB458; Ives (IVS).
3) 3917; Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM).
4) 555; Rockwood Manufacturing Company (RM).

d. SDM04: Deadbolts for Guest Room Communicating Doors: Complying with BHMA A156.5, Grade 1, Type E2191 deadbolt by turnlever from inside room function; one of the following:

1) 489; Sargent Manufacturing Company (SGT).
2) DL3160; Corbin Russwin Architectural Hardware (CR).
3) B680; Schlage Lock Company (SCH).

e. SDM05 Bottom Rail Mortised Deadlocks: Heavy duty, commercial, deadlock complying with BHMA A156.5 Type E8211, Grade 1. Furnish bottom rail deadlocks less thumb turn and key cylinders. Where thumb turn, or key, cylinders are scheduled, furnish types as specified for mortise locks fitted with proper cams.

1) MS1861; Adams-Rite Manufacturing Co. (ARM).

f. SDM06: Narrow Stile Mortised Deadlocks: Heavy duty, commercial, deadlock complying with BHMA A156 Type E8211, Grade 1. Furnish deadlocks less thumb turn and key cylinders. Where thumb turn, or key, cylinders are scheduled, furnish types as specified for mortise locks fitted with proper cams.

1) MS1850S Series x 4001 Box Strike; Adams-Rite Manufacturing Co. (ARM).

2. (SDA): Auxiliary

a. Bored Auxiliary Dead Locks; Heavy duty, commercial, complying with BHMA A156.5, Grade 1.

1) SDA07, Function E0141: Dead bolt operated by key from either side.
2) SDA08, Function E0151: Dead bolt operated by key from outside and by turn from inside.
3) SDA09, Function E0161: Dead bolt operated by key from one side. Mounting plate on other side.
4) SDA10, Function E0171: Dead bolt operated by key from outside. Turn retracts dead bolt but does not project it.
5) SDA11, Function E0191: Dead bolt operated by turn from inside. No Trim on other side.
6) SDA12, Function E01111: Dead bolt operated by turn from inside. Blank plate on other side.

7) SDA13, Function E0101: Dead bolt operated by key from one side. No trim on other side.
8) SDA14, Function E01201: Dead bolt operated by key from either side. Key inside is non-removable when dead bolt is projected by key inside.

b. Bored Auxiliary Dead Latches; Heavy duty, commercial, complying with BHMA A156.5, Grade 1.

1) SDA01, Function E0111: Deadlocking latch bolt operated by key from either side. No latch bolt hold back.
2) SDA02, Function E0121: Deadlocking latch bolt operated by key from outside and by turn from inside. Latch bolt is held retracted by key or other mechanism.
3) SDA03, Function E01101: Deadlocking latch bolt operated by key from outside and by turning from inside. No latch bolt hold back.
4) SDA04, Function E0131: Deadlocking latch bolt operated by key from one side. Mounting plate on other side.
5) SDA05, Function E0181: Deadlocking latch bolt operated by turn from inside. No Cylinder. Has mechanism to hold latch bolt retracted.
6) SDA06, Function E01121: Deadlocking latch bolt operated by turn from inside. No Cylinder. No latch bolt hold back.

c. Mortised Dead Locks; Heavy duty, commercial, complying with BHMA A156.5, Grade 1.

1) SDA15, Function E06061: Dead bolt operated by key from either side.
2) SDA16, Function E06071: Dead bolt operated by key from outside and by turn from inside.
3) SDA17, Function E06081: Dead bolt operated by key from one side only.
4) SDA18, Function E06091: Dead bolt operated by key from outside. Turn from inside retracts but does not project dead bolt.
5) SDA19, Function E06181: Dead bolt operated by turn from one side only. No trim on other side.

d. Mortised Dead Latches; Heavy duty, commercial, complying with BHMA A156.5, Grade 1.

1) SDA20, Function E06101: Latch bolt operated by key from outside and by turn from inside. Auxiliary dead latch. Both latches are held retracted by stop or mechanical means.
2) SDA21, Function E06111: Latch bolt operated by key from either side. Auxiliary dead latch. Both latches are held retracted by inside cylinder.
3) SDA22, Function E06171: Latch bolt operated by key from outside and by turn from inside. Auxiliary dead latch. Neither latch bolt is held back.

e. SDA23: Mortise Dead Locks for Sliding Doors:

f. SDA24: Mortise Dead Latches for Sliding Doors:

3. (SDS): Self Latching

a. SDS01 Self-Latching Flush Bolt Assemblies for Metal Fire Doors: BHMA A156.3, Type 27; one of the following:

1) No. 845 (805 top bolt x 840 automatic bottom bolt); Door Controls International (DCI).
2) FB51P (FB51T constant latching top bolt x FB31B automatic bottom bolt; Ives (IVS).
3) 3820 (3820 x 3810); Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM).
4) 2845 automatic flush bolt x constant self-latching top bolt; Rockwood Manufacturing Company (RM).
5) 2845 automatic flush bolt x constant self-latching top bolt; Rockwood Manufacturing Company (RM).

b. SDS02: Self-Latching Flush Bolt Assemblies for Wood Fire Doors: BHMA A156.3, Type 27; one of the following:

1) No. 945 (905 top bolt x 940 automatic bottom bolt); Door Controls International (DCI).
2) FB41P (FB41T constant latching top bolt x FB41B automatic bottom bolt; Ives (IVS).
3) 3825L (3825L x 3815L); Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM).
4) 2945 automatic flush bolt x constant self-latching top bolt; Rockwood Manufacturing Company (RM).

c. SDS03: Self-Latching Flush Bolt Assemblies for Balcony Fixed Wood Doors: BHMA A156.3, Type 27:

1) No. 945 (905 self latching top bolt x 940 automatic bottom bolt except with 8-1/2 by 1 inch dummy 'blank' cover plates prepped for standard mounting screw hole pattern and less lock edge plunger hole for the self latching top bolt function and less the lock edge cam hole for the automatic bottom bolt function); Door Controls International (DCI).

D. (SS): DUST PROOF STRIKE

1. (SSF) Floor Type

a. SSF01 Dustproof Floor Strikes: Complying with BHMA A156.16, Type L04251, L04021 or L14021, one of the following:

a) No. 80; Door Controls International.
b) DP2; Ives.
c) 3910; Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM).

2. (SST): Threshold Type

a. SST01 Dustproof Threshold Strikes: Complying with BHMA A156.16, Type L2402X or L14011, one of the following:

1) No. 81; Door Controls International.
2) DP1; Ives.
3) 3910N; Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM).

E. (ES): Electromagnetic Lock/ Electric Strike

1. (ESM): Electromagnetic Locks

   a. ESM01: Exposed, Surface Applied Type: Surface mount application with a minimum 1500 pound holding force at 24 V, provide complete with all cabling, rectifier kits, holding force sensors, adjustable time delay, and mounting hardware, complying with BHMA A156.23, Grade 1, high security, fail-safe operation.

      1) M490P; Schlage Electronics (SCH).
      2) 1511 EmLock; Security Door Controls (SDC).
      3) Magnalock M82 Series; Securitron (SEC).

   b. ESM02: Concealed, Shear Type: Top mount application with a minimum 1000 pound holding force at 24 V, vertical armature adjustment thru edge of door, provide complete with all cabling, rectifier kits, holding force sensor, and mounting hardware, complying with BHMA A156.23, Grade 2, medium security, fail-safe operation.

      1) GF3000TRD; Schlage Electronics (SCH).
      2) 1562-HTR Micro/Shear EmLock; Security Door Controls (SDC).
      3) Shear Aligning Magnalock (SAM); Securitron (SEC).

   c. ESM03: Exposed, Delayed Egress Type: Surface mount application with a minimum 1500 pound holding force at 24 V dc, 15 or 30 second delay and audible signal, provide with magnetic bond sensor, door status monitoring, anti-tamper switch, security alarm, BOCA code feature, provide complete with all cabling, rectifier kits, and mounting hardware, complying with BHMA A156.23, Grade 1, high security, fail-safe operation. Provide custom length housing at paired openings.

      1) M490DE Delayed Egress Series; Schlage Electronics (SCH).
      2) 1511S/T Series Delayed Egress Locks; Security Door Controls (SDC).
      3) iMXDa; Securitron (SEC).

2. (ESS): Electric Strikes

   1) ESS01: Electric Strikes: Complying with BHMA A156.5, Grade 1. Mortised type for devices mounted in hollow metal frames. Unless otherwise required to interface with the security access system furnish in 24 volt DC continuous voltage for silent operation. Provide each strike with extended lips as required to suit jamb conditions and fail secure function. Remote electrical control from card reader or control panel will unlock strike jaw, releasing latchbolt of the deadlatch, so door can be opened without operating latch by key cylinders from outside of secured room. Electric strikes shall be UL listed for up to 3 hour fire door assemblies.

      a) 6200 Series Electric Strikes; Von Duprin.
      b) 1006 Series Electric Strikes; HES.

Retain the paragraph below for use with Blumcraft/CRL or Assa Abloy decorative panic devices.

      c) Folger Adam 310-1 (FA3101-24VDC) with 3/4 inch straight latch bolt keeper; HES.

2.3 (O): OPERATING

A. (OP): PUSHES AND PULLS

1. (OPS): Pushes and Pulls; Surface Mounted Type

a. (For the Pull side only)OPS01 Ladder Pull, Round Bar Pull with Rectangular Stanchions fabricated from 1-1/2 inch (38 mm) diameter stainless steel bar stock in finish as scheduled. Custom fabricate push pulls to length indicated with minimum 2-11/16 inch (68 mm) projection, minimum 1-1/2 inch (38 mm) clearance with bases centered and anchored to top and bottom rails. Furnish spacers threaded to accept concealed through-bolt attachment including provision for spanner tightening of bolts of assembly. Do not provide baseplates at stile to pull interface.

1) Elmes; T51-01-023.

b. OPS02 - Ladder Pull, Round Bar Pull with Round Stanchions in finish as scheduled. Provide push pulls to length as selected from Manufacture's full line of options with minimum 2-11/16 inch (68 mm) projection, minimum 1-1/2 inch (38 mm) clearance with bases centered and anchored to top and bottom rails. Furnish spacers threaded to accept concealed through-bolt attachment including provision for spanner tightening of bolts of assembly. Do not provide baseplates at stile to pull interface. Full height pulls are allowed only on pull side.

1) IVES Long Door Pulls 9266
2) Dorma TG 9387 Handles
3) Strongar Hardware Ladder Pull Handle
4) Rockwood Manufacturing Company (RM); RM3300 with straight intermediate post.

c. OPS03 - Ladder Pull, Square Bar with rectangular or round Stanchions in finish as scheduled. Provide push pulls to length as selected from Manufacture's full line of options with minimum 2-11/16 inch (68 mm) projection, minimum 1-1/2 inch (38 mm) clearance with bases centered and anchored to top and bottom rails. Furnish spacers threaded to accept concealed through-bolt attachment including provision for spanner tightening of bolts of assembly. Do not provide baseplates at stile to pull interface.

1) Strongar Hardware Square Ladder Pull Handle

a) With round mounting posts:
b) With square mounting posts:

2) PBA 200Q series

a) With Square mounting posts

d. OPS04 - Offset Rounded Return Handle Pull Set: Fabricate offset pulls from 1 inch (25 mm) diameter stainless steel bar stock in finish as scheduled. Custom fabricate pulls with minimum 3-1/4 inch (83 mm) projection, 2-1/4 inch (57 mm) clearance, minimum 4 inch (102 mm) offset, 10 inch (245 mm) center to center of bases with center line of pull centered on door stiles. Furnish spanner turning washer and stud assemblies threaded to accept concealed through-bolt attachment

including provision for spanner tightening of bolts of push/pull assembly. Do not provide baseplates at stile to pull interface. Provide one of the following:

1) IVES 8190HD 90 Degree Offset Door Pull
2) Dorma Architectural Pulls and handles "Economy Series" Offset Handles
3) Trimco 1191-3; (Triangle Brass Manufacturing Company, Inc.) (TBM).
4) Rockwood Manufacturing Company (RM); BF157.

e. OPS05 - Rounded Return Handle Push/Pull Set: Fabricate straight pulls from 1 inch (25 mm) diameter stainless steel bar stock in finish as scheduled. Custom fabricate pulls with minimum 2-1/2 inch (63.5 mm) projection, minimum 1-1/2 inch (38 mm) clearance, 10 inch (245 mm) center to center of bases with center line of pull centered on door stiles. Furnish spanner turning washer and stud assemblies threaded to accept concealed throughbolt attachment including provision for spanner tightening of bolts of push/pull assembly. Do not provide baseplates at stile to pull interface. Provide one of the following:

1) Ives; 8103HD Door Pull.
2) Dorma Architectural Pulls and handles; "Economy Series" Handles
3) Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM); 1195-2.
4) Rockwood Manufacturing Company (RM); 111.

f. OPS06: Push Plates. Provide push plates in dimensions as indicated or as selected by the Architect from manufacture's full range of options.

g. OPS07 - Offset Rounded Return Handle Pull Set:

1) Nanz No. 2065 ***- ADA Compliant.***

2. (OPM): Pushes and Pulls; Mortised Type

a. OPM01: Full mortised, cast bronze or brass flush door pull, with black painted interior, complying with BHMA A156.6, Type J403 except with concealed fastening, and having minimum overall dimensions of 2-1/2 inch (63.5 mm) by 4 inches (102 mm).

1) 1060; Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM).
2) 61064 Flush Pull; Tydix (TY).
3) 17N; Hager Companies (HAG).
4) Flush Pull 95B; Rockwood Manufacturing Company (RM).

b. OPM03: Full mortised, cast brass edge pull, complying with BHMA A156.14, Type D2801, minimum overall dimensions of 3/4 inch by 3-7/8 inch (19 mm by 98 mm).

1) 230; Ives (IVS).
2) 9882; Hager Companies (HAG).
3) 1063; Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM).
4) 880 Cast Lever Edge Pull; Rockwood Manufacturing Company (RM).

c. OPM04: Full mortised privacy latch for sliding guestroom pocket doors, complying with BHMA A156.14, Type D0831, with turn piece locking to jamb strike for privacy and an emergency release on opposite side, minimum overall size of 2-1/2 inches wide by 2-3/4 inches high.

1) 991; Ives (IVS).

2) 330M; Hager Companies (HAG).
3) 1065; Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM).

B. (OC): CLOSERS

1. (OCS): Surface Mounted Type

a. OCS01: Surface-Mounted Cast-Iron Closers: Closers shall be certified by ETL laboratories and the manufacturer to a minimum of 8,000,000 cycles and meet BHMA A156.4, Grade 1. Closers used in conjunction with overhead stops and holders shall be templated and coordinated to function properly. Properly detail closers to meet application requirements by providing drop plates, brackets, etc. to meet application and installation requirements as indicated. Comply with manufacturer's recommendations for size of door closer depending on size of door, stack pressure conditions, exposure to weather, and anticipated frequency of use. Closers shall have adjustable spring power, full rack and pinion, independent closing speed and latch regulating V-slotted valves, fully hydraulic with a high strength cast iron cylinder and solid forged steel arms, bore diameter of 1-1/2 inches (38.1 mm), pinion shaft diameter of 5/8 inches (15.87 mm), adjustable back check, cushion and built-in stop feature where scheduled, hold open arms where scheduled, delayed action where scheduled, arm finish to match closer cover finish scheduled. Provide metal covers of clean line design with plated or primed for paint finish as scheduled and that require removal in order to make adjustments to closer.

1) 4110/4010; LCN Closers (LCN); Parallel arms
2) 351; Sargent Manufacturing Company (SGT); Parallel arms
3) PR-9500-M/R-9500-M; Norton (NO).

b. OCS02: Surface-Mounted Closers with Track Arms: Closers shall be certified by ETL laboratories and the manufacturer to a minimum of 8,000,000 cycles and meet BHMA A156.4, Grade 1. Closers used in conjunction with overhead stops and holders shall be templated and coordinated to function properly. Properly detail closers to meet application requirements by providing drop plates, brackets, etc. to meet application and installation requirements as indicated. Comply with manufacturer's recommendations for size of door closer depending on size of door, stack pressure conditions, exposure to weather, and anticipated frequency of use. Closers shall have adjustable spring power, full rack and pinion, independent closing speed and latch regulating V-slotted valves, fully hydraulic with a high strength cast iron cylinder and solid forged steel arms, bore diameter of 1-1/2 inches, pinion shaft diameter of 5/8 inches, adjustable back check, cushion and built-in stop feature where scheduled, hold open arms where scheduled, delayed action where scheduled, arm finish to match closer cover finish scheduled. Provide metal covers of clean line design with plated or primed for paint finish as scheduled and that require removal in order to make adjustments to closer.

1) 4011T; LCN Closers (LCN).
2) 281 with Track Arm; Sargent Manufacturing Company (SGT).
3) 9500-M-ST; Norton (NO).

2. (EOCS): Electromagnetic Overhead Surface Closers, Surface Mounted.

a. EOCS01: Electromagnetic Overhead Surface Closers: Closers shall meet BHMA A156.15 and NFPA 101. Properly detail closers to meet application requirements by providing drop plates, brackets, etc. to meet application and installation requirements as indicated. Comply with manufacturer's recommendations for size of door closer depending on size of door, stack pressure conditions, and anticipated frequency of use. Arm and track finish to match closer cover finish scheduled. Provide metal covers of clean line design with plated or primed for paint finish as scheduled and that require removal in order to make adjustments to closer. Furnish closers for 24 V AC/DC voltage.

1) Sentronic 4040SE; LCN Closers (LCN).

3. (OCC): Overhead Concealed Type

a. OCC01: Overhead Concealed Closers, Butt and Offset Hung: Closers shall meet BHMA A156.4, Grade 1. Properly detail closers to meet application and installation requirements as indicated. Comply with manufacturer's recommendations for size of door closer depending on size of door, stack pressure conditions, and anticipated frequency of use. Provide manufacturer's standard cover plate finished to match exposed portions of butts or pivots provided. Provide adjustable back check, cushion and built-in stop feature where scheduled, hold open arms where scheduled, delayed action where scheduled, arm finish to match closer cover finish scheduled.

1) 2010/2030; LCN Closers (LCN).
2) 91 Series; Rixson-Firemark, Inc. (RIX)
3) RTS 88 Series, Offset Slide Arm; Dorma.
4) [**268**][**269**]; Sargent Manufacturing Company (SGT).

b. OCC02: Overhead Concealed Closers, Center Hung: Closers shall meet BHMA A156.4, Grade 1. Properly detail closers to meet application and installation requirements as indicated. Comply with manufacturer's recommendations for size of door closer depending on size of door, stack pressure conditions, and anticipated frequency of use. Provide manufacturer's standard cover plate finished to match exposed portions of pivots provided. Provide with manufacturer's standard top arm and pivot to suit conditions indicated. Provide adjustable back check, cushion and built-in stop feature where scheduled, hold open arms where scheduled, delayed action where scheduled, arm finish to match closer cover finish scheduled.

1) 6030; LCN Closers (LCN).
2) RTS 88 Series, End Loaded Arm; Dorma.

4. (OCF): Floor Closers

a. Closer sizes shall be as recommended by the manufacturer for size of door, stack pressure conditions, exposure to weather, and anticipated frequency of use with special details as noted in special details as follows

1) Closer Cover Pan: Where stone or ceramic tile flooring is indicated at door thresholds and a special dress plate is not indicated or scheduled, furnish metal pan specially constructed and designed to be installed below and to support removable sections of finished flooring.
2) Extended Spindles: Furnish extended spindles.

3) Thresholds: Furnish closer manufacturer's thresholds, modified to suit details where shown or scheduled in conjunction with floor closers. Provide thresholds factory drilled immediately above valve port locations to receive adjustment valve caps specially machined to eliminate open factory drill holes at final installation.
4) Top Pivot: Top pivot should be a matching set included with the floor closer provided as a match set. If other types are required, provide a top pivot as recommended by the manufacture of the floor closer with same offsets and finishes.
5) Intermediate Pivot: Provide an intermediate pivot as recommended by the manufacture of the floor closer with same offsets and finishes
6) All floor closers shall be manufactured with separate independent valves for closing adjustment, latching adjustment, and backchecking adjustment.
7) All floor closers shall be provided with a built-in positive deadstop to prevent doors from swinging beyond the desired opening degree.

b. OCF01: Center Hung, Single Acting, Heavy Duty: 28 Series; with special machined fully concealed arm, non-hold open (NHO), Checkmate No. 1 holders, physically handicapped (PH), delayed action (DA), sealed units (SC), cold weather protection (CWF), as scheduled; Rixson-Firemark, Inc. (RIX).

c. OCF02: Offset Hung Heavy Duty: 27 Series; non-hold open (NHO), Checkmate No. 1 holders, physically handicapped (PH), delayed action (DA), sealed units (SC), cold weather protection (CWF), as scheduled; Rixson-Firemark, Inc. (RIX).

d. OCF03: Center Hung, Double Acting, Heavy Duty: 40 Series; with special machined fully concealed arm, non-hold open (NHO), physically handicapped (PH), delayed action (DA), sealed units (SC), cold weather protection (CWF), as scheduled; Rixson-Firemark, Inc. (RIX).

C. (OS): STOPS AND HOLDERS

1. General:

a. Floor Stops: Cast half dome design with rubber bumper, finish as scheduled. Provide manufacturer's standard riser heights as required for carpeted areas in conjunction with the floor bumpers scheduled. Unless otherwise scheduled, provide floor stops at each door leaf where partition construction does not allow the door to swing greater than 90 degrees.
b. Wall Stops: Cast disc type with concave rubber bumper, having a minimum 2-1/8 inch (54 mm) diameter base with nominal 1 inch (25 mm) projection and concealed attachment to substrate. Unless otherwise scheduled, provide wall stops at each door leaf where partition construction does not allow the door to swing greater than 90 degrees.
c. Electromagnetic Door Hold Opens for Labeled Fire and Smoke Door Assemblies: Provide each electromagnetic door hold open with fail-safe operation, concealed wiring, door mounted contact plates with concealed mounting fasteners, shims, extensions, and installed approximately 6 inches in from lock edge of door. Comply with BHMA A156.15 for wall mounted single unit, water resistant floor mounted single unit, water resistant floor mounted double unit for back to back mounting to the extent indicated. Coordinate voltage and current characteristics

with power supplied to holders, in addition coordinate with fire detectors and interface with fire alarm system.

2. (OSS): Stops

   a. OSS01: Angle Stops: Special angle stop, fabricated from brass or bronze, for single or pairs of doors without stops and having either a single continuous formed sponge silencer or a minimum of two rubber silencers per stop, minimum 1-1/2 inches (38 mm) wide by 3 inches (76 mm) long base for mortising into the head of door frame, minimum 3/4 inch (19 mm) maximum stop face projection; finish as scheduled.

      1) AS18 Angle Stop; Ives (IVS).
      2) 489; Rockwood Manufacturing Company, Inc. (RM).
      3) 1801 Angle Stop; Architectural Builders Hardware Mfg., Inc. (ABH).

   b. OSS02: Roller Latch Angle Stops: Special angle stop BHMA A156.16 Type E19111, fabricated from brass or bronze, for single doors without stops and having a minimum of two rubber silencers per stop, minimum 1-1/2 inches (38 mm) wide by 4-1/2 inches (114 mm) long base for mortising into the head of door frame, 9/16 inch (14 mm) maximum stop face projection, adjustable roller latch and ramp roller strike; finish as scheduled.

      1) 4040 Adjustable Roller Latch; Door Controls International (DCI).
      2) RL1152; Ives (IVS).
      3) 593; Rockwood Manufacturing Company (RM)
      4) 1559BL; Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM).

   c. OSS03: Roller Latches: Special roller latch complying with BHMA A156.16 Type E19101, fabricated from brass or bronze, for single doors, minimum 1 inch (25 mm) wide by 3-3/8 inches (86 mm) long base for mortising into the head door frame, adjustable nylon covered roller latch and ramp roller strike; finish as scheduled.

      1) 4030 Adjustable Roller Latch; Door Controls International (DCI).
      2) RL30; Ives (IVS).
      3) 590; Rockwood Manufacturing Company (RM).
      4) 1559WA; Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM).

   d. OSS04: Ball Type Latches: 4 way adjustable ball catch complying with BHMA A156.9 Type B13292, fabricated from brass or bronze, for single doors, with two adjustable stainless steel balls held under adjustable spring tension and hook strike.

      1) CL21A; Ives (IVS).

   e. OSS05: Floor Stop for Thresholds, Carpet and/or Undercut Doors: Comply with BHMA 156.16 Type L12161, L02161 or L12141.

      1) 3320X; Door Controls International (DCI).
      2) FS438; Ives (IVS).
      3) 1211; Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM).
      4) 443; Rockwood Manufacturing Company (RM)

   f. OSS06: Floor Stop for Doors with Standard 3/8 inch (9.5 mm) Clearance: Comply with BHMA 156.16 Type L12161, L02141 or L12141.

1) 3310X; Door Controls International (DCI).
2) FS436; Ives (IVS).
3) 1210; Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM).
4) 441; Rockwood Manufacturing Company (RM)

g. OSS07: Floor Stop for Acoustical Doors: A security type door stop, molded from black flame resistant resilient material wrapped around a heavy duty threaded steel stud for grouting into the floor substrates, approximately 1-1/2 inch (38 mm) tall x 2 inch (50.8 mm) diameter x 2-1/2 inch (63.5 mm) stud length.

1) FS18S; Ives.
2) 1209; Triangle Brass Manufacturing Company, Inc. (TBM).
3) 269F; Hager Companies (HAG).
4) 466; Rockwood Manufacturing Company (RM)

h. OSS08: Wall Stop for Attachment to Masonry: Complying with BHMA A156.16, Type L12251 or L12101.

1) WS401CCV; H.B. Ives (IVS).
2) 1270CV; Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM).

i. OSS09: Wall stop for Attachment to Gypsum Wallboard: Complying with BHMA A156.16, Type L12251 or L12101.

1) WS406CCV; H.B. Ives (IVS).
2) 1270WV; Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM).

j. OSS10: Magnetic Catches: Aluminum bodied extra heavy duty magnetic catch with outside dimensions of approximately 13/16 by 3-1/8 by 1 inch complying with BHMA A156.9, Type B03161 fabricated with self aligning magnets and furnished complete with door strikes.

1) 327; H.B. Ives (IVS).
2) CD45 Double Magnetic Cabinet Catch; Stanley Commercial Hardware (STH).

k. OSS11: Cylindrical Floor Stop for Doors with Standard 3/8 inch (9.5 mm) Clearance: Comply with BHMA 156.16

1) Rockwood 446; Assa Abloy
2) DS6A; Doug Mockett
3) FS410; Ives

3. (OSH): Holders

a. OSH01: Concealed Overhead Door Holders: Heavy duty, concealed mounting, full mortised, bronze bodied, slide track design, with heavy shock absorber spring providing 5 to 7 degree compression before deadstop, non-metal slide and shock blocks, 110 degree maximum opening, complying with BHMA A156.8 Type C11511 for hold open and Type C11541 for stop function. Provide stop, or hold open, functions as scheduled.

1) 1000 Series; Architectural Builders Hardware Mfg., Inc. (ABH).
2) 100 Series; Glynn-Johnson (GJ).
3) Checkmate Heavy Duty 1 Series; Rixson-Firemark, Inc. (RIX).

b. OSH02: Exposed Overhead Door Holders: Heavy duty, surface mounted, bronze bodied, slide track design, with heavy shock absorber spring providing 5 to 7 degree compression before deadstop, non-metal slide and shock blocks, 110 degree maximum opening, complying with BHMA A156.8 Type C12511 for hold open and Type C12541 for stop function. Provide stop, or hold open, functions as scheduled.

1) 9000 Series; Architectural Builders Hardware Mfg., Inc. (ABH).
2) 90 Series; Glynn-Johnson (GJ).
3) Checkmate Heavy Duty 9 Series; Rixson-Firemark, Inc. (RIX).

4. (EOSH): Electromagnetic Holders

a. EOSH01: Wall Mounted Single Unit - Low Profile:

1) Model 989; Rixson-Firemark, Inc. (RIX).
2) Model 2400L; Architectural Builders Hardware Mfg., Inc. (ABH).

b. EOSH02: Wall Mounted Single Unit - High Profile: Provide door holder assemblies with a total projection to clear hardware and trim projections.

1) Model 990 Series; Rixson-Firemark, Inc. (RIX).
2) Model 2400; Architectural Builders Hardware Mfg., Inc. (ABH).

c. EOSH03: Water Resistant Floor Mounted Unit:

1) Model 980; Rixson-Firemark, Inc. (RIX).
2) Model 2600; Architectural Builders Hardware Mfg., Inc. (ABH).

d. EOSH04: Water Resistant Floor Mounted Double Unit for Back to Back Mounting:

1) Model 981; Rixson-Firemark, Inc. (RIX).
2) Model 2700; Architectural Builders Hardware Mfg., Inc. (ABH).

D. (OE): EXIT DEVICES

1. General:

a. Exit Devices: Exit devices and exit device accessories shall conform to BHMA A156.3, Grade 1. Trim shall be wrought construction and commercial plain design with straight, beveled or smoothly rounded sides, corners and edges. Keyed devices shall be furnished less cylinders. Cylinders shall be as herein specified keyed to building system.

b. Panic Exit Devices: Listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for panic protection, based on testing according to UL 305.

c. Fire Exit Devices: Complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire and panic protection, based on testing according to UL 305 and NFPA 252.

d. Outside Trim: Match design for locksets and latchsets, unless otherwise indicated.

2. (OEP): Panic Exit Device

a. OEP11 - Standard, Rim
   1) Von Duprin 98/99 Series; Allegion
   2) Sargent 8800 Rim Exit Device

b. OEP12 - Standard, Mortised
   1) Von Duprin 9875/9975 Mortise Lock Touch Bar Exit Device; Allegion
   2) Sargent 8900 Mortise Lock Exit Device

c. OEP13 - Standard, Surface Mounted Rod (not ADA compliant)
   1) Von Duprin 9827/9927 Surface Mounted Vertical Rod touch Bar Exit Device; Allegion
   2) Sargent 8700 Surface Vertical Rod Exit Device

d. OEP14 - Standard, Concealed Rod ,(non-wood door)
   1) Von Duprin 9847/9947 Concealed Vertical Rod Touch Bar Exit Device; Allegion
   2) Sargent MD8600 & NB-MD8600 Concealed Vertical Rod Exit Device for Metal Doors *(provide a different number for aluminum doors)*

e. OEP15 - Standard, Concealed Rod,(wood door)
   1) Von Duprin 9847WDC/9947WDC Concealed Vertical Rod Touch Bar Exit Device; Allegion
   2) Sargent WD8600 & NB-WD8600 Concealed Vertical Rod Exit Device for Wood Doors

f. OEP22 - Recessed, Mortised
   1) Von Duprin 9475/9575 INPACT Mortised Lock Exit Device; Allegion

g. OEP24 - Recessed, Concealed Rod
   1) Von Duprin 9447/9547 INPACT Concealed vertical rod devices; Allegion

h. OEP25 - Recessed, Mortised, Concealed Top Rod (no bottom rod)
   1) Sargent: LS8600 Low Profile Center & Top Latch Concealed Vertical Rods; Sargent Manufacturing Company (SGT)

i. OEP31 - Crossbar, Rim
   1) Von Duprin 55 Rim exit device; Allegion
   2) 9800 Series Rim Exit Device; Sargent Manufacturing Company (SGT)

j. OEP32 - Crossbar, Mortised
   1) Von Duprin 5575 Mortise Lock Crossbar exit device; Allegion
   2) 9900 Series Mortise Lock Exit Device; Sargent Manufacturing Company (SGT)

k. OEP33 - Crossbar, Surface Mounted Rod (NOT ADA)

1) 9700 Series Surface Vertical Rod Exit Device; Sargent Manufacturing Company (SGT)

l. OEP34 - Crossbar, Concealed Rod (non-wood door)

1) Von Duprin 5547-Concealed Vertical Rod Crossbar Exit Device; Allegion

2) 9400 Series Narrow Stile Concealed Vertical Rod Exit Device; Sargent Manufacturing Company (SGT)

m. OEP35 - Crossbar, Concealed Rod (wood door)

1) Von Duprin 5547 WDC Wood door concealed vertical rod exit device; Allegion

Not available from Sargent Manufacturing Company (SGT)

n. OEP41 - Ornamental Exit Devices and Exterior Pulls

Style A Style B Style C (NOT ADA)

Style D Style F (NOT ADA)

3. (OEF): Fire Exit Device: Complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire and panic protection, based on testing according to UL 305 and NFPA 252.

a. OEF11 - Fire-Rated Standard, Rim

1) Von Duprin 98-F/99-F Series Rim Fire Exit Device; Allegion

b. OEF12 - Fire-Rated Standard, Mortised

1) Von Duprin 9875-F/9975-F Mortise Lock Touch Bar Fire Exit Device; Allegion

c. OEF13 - Fire-Rated Standard, Surface Mounted Rod (Not ADA)

1) Von Duprin 9827-F/9927-F surface Mounted Vertical Rod Touch Bar Fire Exit Device; Allegion

d. OEF14 - Fire-Rated Standard, Concealed Rod (non-wood door)

1) Von Duprin 9847-F/9947-F Concealed Vertical Rod Touch Bar Fire Exit Device; Allegion

e. OEF15 - Fire-Rated Standard, Concealed Rod (wood door)

1) Von Duprin 9847WDC-F/9947WDC-F Concealed Vertical Rod Touch Bar Fire Exit Device; Allegion

f. OEF16 – Fire-Rated Standard, Concealed Cable

1) Von Dupring 9849-F/9849-F Concealed Vertical Device Touch Bar Fire Exit Device; Allegion

g. OEF22 - Fire-Rated Recessed, Mortised

1) Von Duprin 9475-F/9575-F INPACT Mortised Lock Fire Exit Device; Allegion

h. OEF24 - Fire-Rated Recessed, Concealed Rod

1) Von Duprin 9447/9547 INPACT Concealed vertical rod Fire Exit Devices; Allegion

i. OEF32 - Fire-Rated Crossbar, Mortised

1) Von Duprin 5575-F Mortise Lock Crossbar Fire Exit Device; Allegion

j. OEF34 - Fire-Rated Crossbar, Concealed Rod (non-wood door)

1) Von Duprin 5547-F Concealed Vertical Rod Crossbar Fire Exit Device; Allegion

k. OEF35 - Fire-Rated Crossbar, Concealed Rod (wood door)

1) Von Duprin 5547 WDC-F Wood Door Concealed Vertical Rod Fire Exit Device; Allegion

2.4 (M): MISCELLANEOUS

A. (MK): KICK /ARMOR PLATES

1. (MKP): Kick and Armor Plates

a. Furnish kick and armor plates sized 2 inches (51 mm) less than door width when located on push side of door and 1 inch (24.5 mm) less than door width when indicated on the pull side of door. Furnish kickplates 12 inches (305 mm) high, furnish armor plates 48 inches (1219 mm) high unless otherwise indicated. Provide protective plates with cutouts for locks, louvers and windows to the extent indicated. Mount protective plates flush with bottom of door.

b. MKP01: Kick and Armor Plates: Fabricate protection plates from minimum 0.050 inch (1.3 mm) thick stainless steel, beveled top and 2 sides (B3E), square corners, complying with BHMA A156.6, and fastened with oval head Phillips fasteners countersunk into plate surface.

1) Series 8400; Ives (IVS).
2) K1050 Doorplate Series; Rockwood Manufacturing Company (RM)
3) KA050-2 Armor Plate and KOO50 for Kickplates; Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM).

B. (MC): COORDINATORS

1. (MCO): Coordinators

a. MCO01,Tubular Coordinators and Filler Bars: UL listed for use on labeled doors and complying with BHMA A156.3, Type 21A. Provide with filler piece of length as required to close the header area and mounting brackets at stop mounted hardware. Furnish extenders at active leaf levers where required to clear overlapping astragals on doors installed with pocket pivot hinges or jambs with deep jamb stops.

1) No. 600 Series x Filler Bar; Door Controls International (DCI).
2) COR Series Coordinators x FL filler; Ives (IVS).

b. MCO02, Coordinator Brackets: UL listed for use on labeled doors and complying with BHMA A156.3, Type 21B. Minimum 7 inch (178 mm) projection.

1) No. 500 Coordinator; Door Controls International (DCI).
2) CORG7; Ives (IVS).

c. MCO03: Carry Open Bars: UL listed for use on labeled doors and complying with BHMA A156.3, Type 21. Provide carry-open bars for inactive leaves of pairs of doors, unless automatic or self-latching bolts are used.

1) No. CB Carry Bar; Door Controls International (DCI).
2) CB1 Carry Bar; Ives (IVS).

C. (MA): ASTRAGALS

1. (MAS): Astragals

a. MAS01: Astragals: UL listed for use on labeled doors, surface applied continuous extruded aluminum minimum 7/8 inch wide retaining EPDM gaskets for installation on both sides of all meeting stiles of doors:

1) 125NA; National Guard Products, Inc. (NGP).
2) 305CN; Pemko Manufacturing Co., Inc. (PEM).

b. MAS02 Lock Protectors: Fabricated from heavy gauge metal and in finish as scheduled. Furnish protectors sized to cover the latch bolt area of the door and lock and narrow enough to clear rose and escutcheon lock trims, offset formed to clear strike projection. Machine lock protectors where required to accommodate rose and escutcheon trims, and cylinders.

1) LG Series Lock Guards; Ives (IVS).

D. (MS): SILENCERS

1. (MSW): Silencers for Wood Doors

a. MSW01 Silencers for Wood Door Frames: BHMA A156.16, Type L03021; grey rubber, minimum 5/8 by 3/4 inch (16 by 19 mm); fabricated for drilled-in application to frame, specifically designed to absorb shock and reduce noise of door closing. Provide two silencers for each pair of doors, three silencers for each single door.

1) 9S; Door Controls International (DCI).
2) SR65; H. B. Ives (IVS).
3) 1229B; Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM).
4) 609; Rockwood Manufacturing Company (RM).

2. (MSM): Silencers for Metal Doors

a. MSM01, Silencers for Metal Door Frames: BHMA A156.16, Type L03011; grey rubber, minimum diameter 1/2 inch (13 mm); fabricated for drilled-in application to frame, specifically designed to form an air pocket to absorb shock and reduce noise of door closing. Provide two silencers for each pair of doors, three silencers for each single door.

1) 8S; Door Controls International (DCI).

2) SR64; H. B. Ives (IVS).
3) 1229A; Trimco (Triangle Brass Manufacturing Company, Inc.)(TBM).
4) 608; Rockwood Manufacturing Company (RM)

3. (MSA): Silencers for Aluminum Doors

a. MSA01: Silencers for Aluminum Door Frames: Refer to Section 08 12 16 "Interior Aluminum Frames."

E. (MG): DOOR GASKETING

1. (MGA): Acoustical Type

a. MGA01: Surface mounted adjustable neoprene seal for installation at all heads and Jambs of frames:

1) Zero #770 Door Gasket; Zero International, Inc. (ZRO)

b. MGA02: Astragal Gasket: Paired set of gaskets which are continuous surface lock edge applied, extruded aluminum type, retaining replaceable gasketing; overlapped with magnetic catch; finish as scheduled.

1) Zero #40/41 Astragal; Zero International, Inc. (ZRO) (requires coordinator)

2. (MGS): Surface Mounted Type

a. MGS01: Self adhesive flexible silicone type, continuous gaskets for installation at all heads and jambs of doors:

1) 5050C; National Guard Products, Inc. (NGP).
2) S88BL; Pemko Manufacturing Co., Inc. (PEM).
3) 188BK; Zero International, Inc. (ZRO).

b. MGS02: Self adhesive flexible silicone type, continuous gaskets for installation at all heads and jambs of doors, extruded aluminum automatic door bottoms with two lines of flexible, silicone type, continuous gaskets for mortised installation at door bottoms.

1) 5050C x 320S automatic door bottom; National Guard Products, Inc. (NGP).
2) S88BL x 420ASL automatic door bottom; Pemko Manufacturing Co., Inc. (PEM).

c. MGS03: Self adhesive flexible silicone type, continuous gaskets for installation at all heads and jambs of doors, extruded aluminum automatic door bottoms with one line of flexible, santoprene or silicone type, continuous gaskets for surface applied installation at door bottoms.

1) 5050C x 220SA automatic door bottom; National Guard Products, Inc. (NGP).
2) S88BL x 412CSL automatic door bottom; Pemko Manufacturing Co., Inc. (PEM).

3. (MGM): Mortised Type

a. MGM01: Continuous extruded aluminum housing 1-3/8 by 3/4 inch (35 by 19.05 mm) retaining closed cell sponge neoprene gasket and snap on cover to conceal fasteners; finish as scheduled. Zero 470A modified.
b. MGM02: Continuous door bottom aluminum extrusion with continuous nylon brush pile sweep; sweep shall be field cut to length required to have positive contact with threshold without binding door.

1) 90137CP; Pemko.
2) C390MIL; Sealeze.

4. (MGP): Paired Doors Type

a. MGP01: Provide the following on the scheduled paired exterior door openings:

1) Head and Jamb Gaskets: Self adhesive flexible silicone type, continuous gaskets for installation at all heads and jambs of each door leaf in the door opening.

a) 5050W; National Guard Products, Inc. (NGP).
b) S88W; Pemko Manufacturing Co., Inc. (PEM).
c) 188SWH; Zero International, Inc. (ZRO).

2) Meeting Stile Gasket: Paired set of gaskets which are continuous surface lock edge applied, extruded aluminum type, retaining replaceable nylon brush gasketing; brush shall be field butted, not overlapped; finish as scheduled.

a) 8192A; Zero International, Inc. (ZRO).
b) 18061CP; Pemko Manufacturing Co., Inc. (PEM).
c) 802S Astragals/Meeting Stiles; Hager Companies (HAG).

F. (MT): THRESHOLDS

1. Manufactures:

a. Pemko
b. Hager Companies
c. National Guard Products

2. (MTI): Interior Type

a. MTI01: 1/2 inch (13 mm) high by 5 inches (127 mm) wide extruded aluminum double beveled saddle threshold.

1) 412SA; Hager Companies (HAG).
2) 171A; Pemko Manufacturing Co., Inc. (PEM).
3) S205A; Reese Enterprises, Inc. (RE).
4) 655A; Zero International, Inc. (ZRO).

b. MTI02: 1/2 inch (13 mm) high by minimum 4 inches (102 mm) wide extruded aluminum half saddle threshold with offset to receive carpet finish.

1) 431S; Hager Companies (HAG).
2) 324; National Guard Products, Inc. (NGP).
3) 227A; Pemko Manufacturing Co., Inc. (PEM).

c. MTI03: 1/2 inch (13 mm) high by 5 inch (127 mm) wide extruded aluminum panic threshold with resilient bumper gasket.

1) 477S; Hager Companies (HAG).
2) 950; National Guard Products, Inc. (NGP).
3) S257AV; Reese Enterprises, Inc. (RE).
4) 566A; Zero International, Inc. (ZRO).

3. (MTE): Exterior Type

a. MTE01: Minimum 4-1/2 inches (114 mm) wide, interlocking, water return type, extruded aluminum threshold with drain pan.

1) 608S; Hager Companies (HAG).
2) 145A; Pemko Manufacturing Co., Inc. (PEM).
3) 175A; Zero International, Inc. (ZRO).

G. (MO): OTHER TYPES

1. (MOH): Other Hardware Types

a. MOH01; Boxed Power Supplies: Provide modular units complying with NEMA ICS 6, electrified for Type 4 enclosure; filtered and regulated; voltage rating and type matching requirements of door hardware served; and listed and labeled for use with fire alarm systems.

b. MOH02; Palm Button Release Device: Provide a "request to exit" palm button release device for use with alarm and signaling systems. Button shall be a minimum of 1-1/4 inches (32 mm) in diameter and be mounted to a maximum 1-3/4 inch (44 mm) wide by 4-1/2 inches (114 mm) high brushed stainless steel mounting plate designed to mount into metal door frames as narrow as 1-3/4 inches (44 mm). Provide each red button with 24 volt indicator lamp. Provide each button with an engraved white plastic laminate sign to be applied adjacent to the button instructing the user as to the operation and function of the button.

1) 602RD; Locknetics (LSE).
2) 430N-R-U-LED; Security Door Controls (SDC).
3) PB3N; Securitron (SEC).

c. MOH03; Passive Infrared Detector: A detector specifically designed for request to exit applications. Each detector shall be provided with a high impact black ABS plastic enclosure, be set for fail safe mode, and be fabricated for an operating temperature of 20 to 120 deg F (-29 to 49 deg C). Latch relay time shall be adjustable for up to 30 seconds.

1) Scan II - B; Locknetics (LSE).
2) MD31DB; Security Door Controls (SDC).
3) XMS Motion Detector; Securitron (SEC).

d. MOH04; Gate Closers: Closer size shall be as recommended by the manufacturer for gate size, construction, and application. Surface mounted, pivoted hung, adjustable spring tensioning, double acting, 90 degree opening.

1) Type 7112; Bommer Industries, Inc., Landrum, SC (BI).
2) No. 4007; McKinney Products Company (MCK).

e. MOH05; Fire Rated Wide Angle Door Viewers: Adjustable type viewer complying with BHMA A156.16 s L03221, or L03222 with an optical lens providing a minimum 190 degree wide angle view and listed or labeled for fire doors.

1) U698; H.B. Ives (IVS).
2) 976U; Trimco (Triangle Brass Manufacturing Company, Inc.) (TBM).
3) 1756; Hager Companies (HAG).

f. MOH06; Door Guards: A swing arm style, brass or bronze cast bodied, door guard complying with BHMA A156.16 s L03041, or L03042 and having a hinged bar that allows guard to be positioned 180 degrees away from door when not in use. Provide metal edge protector mounted to door to protect door lock edge from damage when hinge bar is projected and door is allowed to close on the bar.

1) 4016 x 4016ED edge protector; Trimco (Triangle Brass Manufacturing Company, Inc.)(TBM).
2) 482 x edge protector; H.B. Ives (IVS).
3) 274D x 274B edge protector; Hager Companies (HAG).

g. MOH07; Coat Hooks: Double coat hook, cast brass bodied, minimum 1-1/8 by 1-1/8 by 1-1/8 inch (28.6 by 28.6 by 28.6 mm) projection.

1) 582 Double Coat Hook; H.B. Ives (IVS).

2.5 FABRICATION

A. Manufacturer's Nameplate: Provide each door hardware item without exposed manufacturers' labels, names, or designs.

B. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to commercially recognized industry standards for application intended. Provide Phillips oval-head screws with finished heads to match surface of door hardware item being attached. Machine screws and expansion shields shall be used for attaching hardware to concrete and masonry. Use throughbolts for renovation work only where existing door blocking and reinforcements are unknown.

C. Concealed Fasteners: All new doors and door frames have been specified with adequate blocking and reinforcement provisions to eliminate exposed throughbolting of hardware items. Doors installed with exposed throughbolts will be rejected and replaced by the Contractor at no cost to the Owner. Where through bolts are used on existing doors provide sleeves for each through bolt.

2.6 FINISHES

A. Standard: Comply with BHMA A156.18.

B. Appearance of Finished Work: Finishes of the same designation, that come from two or more sources, shall match when the items are viewed at arm's length and approximately 24 inches (610 mm) apart. Unless otherwise scheduled, match each hardware item in a single hardware

set with the scheduled latch or lock set finish. Painting of BHMA 600 (USP) surfaces is required and is specified under Section 09 91 23 "Interior Painting."

C. Designations: The abbreviations used to schedule hardware finishes are generally BHMA (Federal Standards where indicated in parenthesis) designations. Comply with base material and finish requirements indicated by the following:

1. BHMA 600 (USP): Primed for painting.
2. BHMA 605 (US3): Bright brass, clear coated.
3. BHMA 606 (US4): Satin brass, clear coated.
4. BHMA 611 (US9): Bright bronze, clear coated.
5. BHMA 612 (US10): Satin bronze, clear coated.
6. BHMA 613 (US10B): Dark-oxidized satin bronze, oil rubbed.
7. BHMA 618 (US14): Bright nickel plated, clear coated.
8. BHMA 619 (US15): Satin nickel plated, clear coated.
9. BHMA 625 (US26): Bright chromium plated.
10. BHMA 626 (US26D): Satin chromium plated.
11. BHMA 628 (US28): Satin aluminum, clear anodized.
12. BHMA 629 (US32): Bright stainless steel.
13. BHMA 630 (US32D): Satin stainless steel.
14. Alum.: Aluminum.

D. All door hardware exposed to view shall be BHMA [**600**] [**605**] [**606**] [**611**] [**612**] [**613**] [**618**] [**619**] [**625**] [**626**] [**628**] [**629**] [**630**] [**Alum**], unless otherwise noted.

PART 3 - EXECUTION

3.1 PREPARATION

A. Hardware for fire door assemblies shall be installed in accordance with NFPA 80. Hardware for smoke and draft control door assemblies shall be installed in accordance with NFPA 105. Install hardware for non-labeled and non-smoke and draft door assemblies in accordance with BHMA A156.115for steel doors and frames, and BHMA A156.115-W series for wood doors, and hardware manufacturer's installation instructions for doors and frames fabricated from other than steel or wood.

B. All modifications to fire doors and frame for electric and mortised hardware shall be made by the respective door and frame manufacturers.

C. Smoke Seals at S Labeled Door Assemblies: Provide and install smoke seals at S labeled doors in accordance with door manufacturer's instructions.

3.2 INSTALLATION

1. Mounting Heights: Mount door hardware units at the following heights, unless specifically indicated on the Drawings or required to comply with governing regulations:

2. Locks and Latches: 38 inches (956 mm) to center of lever from finish floor.
3. Door Pulls: 44 inches (1118 mm) from finish floor to center of grip. Pull bases centered on door stiles, unless otherwise indicated.

4. Door Pulls: Pull bases centered on top and bottom door rails, and spaced from lock edge of door stile as indicated, or recommended, by the pull manufacturer.
5. Push Plates: 44 inches (1118 mm) from finish floor to center of plate. Coordinate with pull location.
6. Horizontal Push/Pull Bar: 42 inches (1067 mm) from finish floor to center of pull/pull. Push/Pull bases centered on door stiles, unless otherwise indicated.
7. Butt Hinges: 10 inches (254 mm) to bottom of lowest hinge from finish floor; 5 inches (127 mm) to top of upper hinge from top of door; space intermediate hinges equally between lower and upper hinges.
8. Deadbolts: Not more than 44 inches (1118 mm) from finish floor to operating trim.
9. Flush Bolt Operating Mechanisms: Top bolt 66 to 72 inches (1676 to 1829 mm) from finish floor, bottom bolt 12 inches (305 mm) from finish floor.

10. Exit Devices: 40 inches (1016 mm) from finish floor to center of touch bar. 38 inches (965 mm) from finish floor to center of cross bar.
11. Coat Hooks: 48 inches (1200 mm) from finish floor to center of coat hook.
12. Door Guards: Not more than 54 inches (1372 mm) from finished floor to center of door guard.
13. Door Viewers: Not more than 60 inches (1524 mm) from finished floor to center of viewer at each non-ADA accessible hotel room suite entry door. Not more than 60 inches (1524 mm) and not more than 43 inches (1092 mm) from finished floor to center of viewers at each ADA accessible hotel room suite entry door.
14. Install each door hardware item to comply with manufacturer's written instructions. Install overhead surface closers for maximum degree of opening obtainable. Place on room side of corridor doors, stair side of stair doors, secondary corridor side of doors between corridors. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be finished, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 09 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
15. All wall stops shall be installed with reinforced blocking in wallboard construction. Drywall anchors are not an acceptable means of reinforcement/blocking. Provide intermediate steel plates or channel reinforcement backing at wall stops mounted in wallboard construction.
16. Do not install permanent key cylinders in locks until the time of preliminary acceptance by the Owner. At the time of preliminary acceptance, and in the presence of the Owner's representative, permanent key all lock cylinders. Record and file all keys in the key control system specified, and turn system over to Owner for sole possession and control.
17. Key control storage system shall be installed where directed by the Owner.
18. Thresholds: Thresholds shall be secured with a minimum of 3 fasteners per single door width and 6 fasteners per double door width with a maximum spacing of 12 inches (305 mm). Minimum screw size shall be No. 10 length, dependent on job conditions, with a minimum of 3/4 inch (19 mm) thread engagement into the floor or anchoring device used. Screw heads to be countersunk and flush with face of threshold. Set thresholds for exterior and acoustical doors in full bed of sealant complying with

requirements specified in Section 07 92 00 "Joint Sealants." Once installed thresholds shall not rock or cause noise when walked on.

3.3 FIELD QUALITY CONTROL

1. Independent Architectural Hardware Consultant: Owner will engage a qualified independent Architectural Hardware Consultant to perform inspections and to prepare inspection reports.
2. Independent Architectural Hardware Consultant will inspect door hardware and state in each report whether installed work complies with or deviates from requirements, including whether door hardware is properly installed and adjusted.

3.4 ADJUSTING

1. Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every hardware component. Replace hardware components that cannot be adjusted to operate as intended. Adjust door control devices to compensate for building stack pressures, final operation of forced air mechanical equipment and to comply with referenced accessibility requirements.

2. Test each electrical hardware item to determine if devices are properly functioning. Wiring shall be tested for correct voltage, current carrying capacity, and proper grounding. Stray voltages in wiring shall be eliminated.
3. Coordinate with electrical installation for interface and connection with life safety and security systems.

4. All guestroom entry card reader/lockset door batteries shall be replaced at the time of Substantial Completion.

5. Fire-Rated Door Assembly Testing: Upon completion of the installation, test each fire door assembly in the project to confirm proper operation of its closing device and that it meets all criteria of a fire door assembly as per NFPA 80 2007 Edition. The inspection of the fire doors is to be performed by individuals with knowledge and understanding of the operation components of the type of door being subjected to testing and who are either credentialed as an Architectural Hardware Consultant (AHC) or as a Fire Door Annual Inspector (FDAI). A written record shall be maintained and transmitted to the Owner to be made available to the Authority Having Jurisdiction (AHJ). The record shall list each fire door assembly throughout the project, and include each door number, an itemized list of hardware set components at each door opening, and each door location in the facility.

3.5 CLEANING AND PROTECTION

A. Clean adjacent surfaces soiled by door hardware installation. Clean hardware components as necessary to restore proper finish. Provide protection during the progress of the work and maintain conditions that ensure door hardware is in perfect working order and without damage or deterioration at time of Substantial Completion.

3.6 OPENINGS SCHEDULE

A. Refer to Openings Schedule on Drawings and hardware sets as follows:

AAe
Exterior Single @ classrooms and corridor ends and ext toilet

EHBH02 - 1 EA. ELECTRIC HINGE T4B3386-CC8 US32D 5 X 4-1/2
HBH02 - 3 EA. HINGES T4B3386 US32D 5 X 4-1/2
OEF11 - 1 EA. RIM EXIT DEVICE RX-98L-F X E996L-01 24VDC SNB US26D (FAIL SAFE)WITH ELECTRIFIED OUTSIDE TRIM, REQUEST TO EXIT
SCK02 - 1 EA. RIM CYLINDER BEST 12E72 626
OCS01 - 1 EA. CLOSER (PUSH SIDE STOP ARM) 351-PS EN
MKP01 - 1 EA. KICK PLATE K1050 – 8” X 2” LDW B4E CSK US32D
1 EA. CARD READER BY DIVISION 28
MGS01 - 1 GASKETING S88BL

BBe
Exterior Double @ Entry Vestibule

EHBH02 - 2 EA. ELECTRIC HINGE T4B3386-QC8 US32D 4-1/2 X 4-1/2 X ELECTROLYNX CABLES
HBH02 - 6 EA. HINGES T4B3386 US32D 4-1/2 X 4-1/2
OEF16 - 1 EA. CONCEALED VERTICAL CABLE EXIT DEVICE RX-9849L X E996L-01 24VDC SNB US26D (FAIL SAFE) WITH ELECTRIFIED OUTSIDE TRIM, REQUEST TO EXIT
SCK02 - 1 EA. RIM CYLINDER 12E72 626
OEF16 - 1 EA. CONCEALED VERTICAL CABLE EXIT DEVICE RX-9849EO SNB US26D; NO OUTSIDE TRIM, WITH REQUEST TO EXIT
OCS01 - 2 EA. CLOSER (PUSH SIDE) 351-P10 EN
OSS09 - 2 EA. WALL STOP 406 US32D
OPS02 – 2 EA. LADDER PULL
1 EA. CARD READER BY DIVISION 28
2 EA. RECESSED DOOR CONTACT BY DIVISION 28 - PREP DOOR & FRAME @ FABRICATION

CCe
Exterior Double @ Storage / Plumbing / Electrical / Kitchen

EHBH02 - 2 EA. ELECTRIC HINGE T4B3386-CC8 US32D 4-1/2 X 4-1/2
HBH02 - 6 EA. HINGES T4B3386 US32D 4-1/2 X 4-1/2
OEF16 - 1 EA. SURFACE VERTICAL ROD EXIT DEVICE RX-9827L-F X E996L-01 24VDC SNB US26D (FAIL SECURE) WITH ELECTRIFIED OUTSIDE TRIM, REQUEST TO EXIT
SCK02 - 1 EA. RIM CYLINDER 12E72 626
OEF16 - 1 EA. SURFACE VERTICAL ROD EXIT DEVICE RX-9827EO-F SNB US26DNO OUTSIDE TRIM, WITH REQUEST TO EXIT
OCS01 - 1 EA. CLOSER (PUSH SIDE STOP ARM) 351-PS EN

OCS01 - 1 EA. CLOSER (PUSH SIDE) 351-P10 EN
MKP01 - 2 EA. KICK PLATE K1050 – 8” X 1” LDW B4E CSK US32D
OSS09 - 1 EA. WALL STOP 406 US32D
1 EA. CARD READER BY DIVISION 28
2 EA. RECESSED DOOR CONTACT BY DIVISION 28 - PREP DOOR & FRAME @ FABRICATION

DDe
Exterior Single @ Tele/Data

EHBH02 - 1 EA. ELECTRIC HINGE T4B3386-CC8 US32D 4-1/2 X 4-1/2
HBH02 - 3 EA. HINGES T4B3386 US32D 4-1/2 X 4-1/2
OEF16 - 1 EA. SURFACE VERTICAL ROD EXIT DEVICE RX-9827L-F X E996L-01 24VDC SNB US26D(FAIL SECURE) WITH ELECTRIFIED OUTSIDE TRIM, REQUEST TO EXIT
SCK02 - 1 EA. RIM CYLINDER 12E72 626

OCS01 - 1 EA. CLOSER (PUSH SIDE) 351-P10 EN
MKP01 - 1 EA. KICK PLATE K1050 – 8” X 1” LDW B4E CSK US32D
OSS09 - 1 EA. WALL STOP 406 US32D
1 EA. CARD READER BY DIVISION 28
1 EA. RECESSED DOOR CONTACT BY DIVISION 28 - PREP DOOR & FRAME @ FABRICATION

A
Single @ Classroom-Corridor

HBH01 - 3 HINGE (HEAVY WEIGHT) T4A3786 US26D MK
SLM05 - 1 MORTISE LOCKSET (CLASSROOM) 70-8237 LE2-E US32D

SCK02 - 1 CORE AS REQUIRED 626
OSH01 - 1 SURF OVERHEAD STOP 9-X36 630 RF
MKP01 - 1 KICK PLATE K1050 8" HIGH US32D RO
MGS01 - 1 GASKETING

B
Single Closet in Classrooms

HBH01 - 3 HINGE (HEAVY WEIGHT) T4A3786 US26D MK
SLM07 - 1 MORTISE LOCKSET (STOREROOM) 72-8204 LE2-E US32DSCK02 - 1 CORE AS REQUIRED 626
MKP01 - 1 KICK PLATE K1050 8" HIGH US32D RO
OSS09 - 1 WALL STOP 406 OR 409 AS REQUIRED US32D RO
MSM01 - 3 SILENCER 608-RKW RO

C
Single gate at child toilets/infant changing
HMP01 - 1 CONTINUOUS HINGE 780-
SLM01 – 1 MORTISE LOCKSET (PASSAGE) SET
OSS09 - 1 EA. WALL STOP 406 US32D
MSM01 - 2 SILENCER

D
Single @ Adult Toilets/Wellness

HBH02 - 4 EA. HINGES T4B3386 US32D 4-1/2 X 4-1/2
1 EA. DEADBOLT WITH OCCUPANCY INDICATOR SCHLAGE B-571-626 X EMERGENCY KEY 61-509
OPS06 - 1 EA. PUSH PLATE 70C 4" X 16" US32D
OPS05 - 1 EA. PULL PLATE BF107 X 70C 4" X 16" (3/4" DIAMETER X 8" CTC PULL) US32D
OCS01 - 1 EA. CLOSER (PULL SIDE) 351-O EN
OSS09 - 1 EA. WALL STOP 406 US32D
MKP01 - 1 EA. KICK PLATE K1050 – 8" X 2" LDW B4E CSK US32D

E
Single @ offices/conference/lounge

HBH01 - 3 HINGE (HEAVY WEIGHT) T4A3786 US26D MK
SLM04 - 1 MORTISE LOCKET (OFFICE)
SCK02 - 1 CORE AS REQUIRED 626
OSS09 - 1 WALL STOP 406 OR 409 AS REQUIRED US32D RO
MGS01 - 1 GASKETING
MSM01 - 3 SILENCER 608-RKW RO

Fe
Single @ Lobby-Corridor

EHBH02 - 1 EA. ELECTRIC HINGE T4B3386-CC8 US32D 5 X 4-1/2
HBH02 - 3 EA. HINGES T4B3386 US32D 5 X 4-1/2
OEF11 - 1 EA. RIM EXIT DEVICE RX-98L-F X E996L-01 24VDC SNB US26D (FAIL SAFE) WITH ELECTRIFIED OUTSIDE TRIM, REQUEST TO EXIT
SCK02 - 1 EA. RIM CYLINDER 12E72 626
OCS01 - 1 EA. CLOSER (PUSH SIDE STOP ARM) 351-PS EN
MKP01 - 1 EA. KICK PLATE K1050 – 8" X 2" LDW B4E CSK US32D
MSM01 - 3 SILENCER 608-RKW RO
1 EA. CARD READER BY DIVISION 28

G
Single @ Storage and Janitor and Kitchen

HBH01 - 3 HINGE (HEAVY WEIGHT) T4A3786 US26D MK
SLM07 - 1 MORTISE LOCKSET (STOREROOM) 72-8204 LE2-E US32D
SCK02 - 1 CORE AS REQUIRED 626
MKP01 - 1 KICK PLATE K1050 10" HIGH US32D RO
OSS09 - 1 WALL STOP 406 OR 409 AS REQUIRED US32D RO
MSM01 - 3 SILENCER 608-RKW RO

He
Single @ Electrical at corridor

EHBH02 - 1 EA. ELECTRIC HINGE T4B3386-CC8 US32D 4-1/2 X 4-1/2
HBH02 - 3 EA. HINGES T4B3386 US32D 4-1/2 X 4-1/2
OEF11 - 1 EA. RIM EXIT DEVICE RX-98L-F X E996L-01 24VDC SNB US26D (FAIL SECURE) WITH ELECTRIFIED OUTSIDE TRIM, REQUEST TO EXIT
SCK02 - 1 EA. RIM CYLINDER 12E72 626
OCS01 - 1 EA. CLOSER (PUSH SIDE) 351-P10 EN
MKP01 - 1 EA. KICK PLATE K1050 – 8" X 2" LDW B4E CSK US32D
OSS09 - 1 EA. WALL STOP 406 US32D
MSM01 - 3 SILENCER 608-RKW RO
1 EA. CARD READER BY DIVISION 28
1 EA. RECESSED DOOR CONTACT BY DIVISION 28 - PREP DOOR & FRAME @ FABRICATION

Je
Single @ Laundry

EHBH02 - 1 EA. ELECTRIC HINGE T4B3386-QC8 US32D 4-1/2 X 4-1/2 X ELECTROLYNX CABLES
HBH02 - 3 EA. HINGES T4B3386 US32D 4-1/2 X 4-1/2
ESLM01 - 1 EA. ELECTRIFIED MORTISE LOCKSET 72-RX8270 LE2-E US32D 24VDC FAIL SAFE
SCK02 - 1 EA. BEST SFIC 7 PIN PERMANENT CORE 626
OCS01 - 1 EA. CLOSER (PUSH SIDE STOP ARM) 351-PS EN
1 EA. CARD READER BY DIVISION 28
1 EA. RECESSED DOOR CONTACT BY DIVISION 28 - PREP DOOR & FRAME @ FABRICATION

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