

Addendum #2

**Alterations 2022
Piqua High School
Piqua City Schools**

February 9, 2022

Piqua City School District
215 Looney Road
Piqua, Ohio 45356

This Addendum modifies and shall become a part of the original Contract Documents and is hereby made part of the Bidding Documents for the referenced project.

All bidders shall indicate in their bid/proposal that this Addendum has been received and considered in their bid proposal.

The Addendum items are intended to supplement, clarify or correct parts of the bid proposal package. Items in the addendum shall take precedence over items corrected and shall be of equal value with items supplemented or clarified. Any questions in reference to this addendum must be directed, in writing, to:

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Addendum Items:

1. Specification Section 08 14 16:
 - 1.1. General intent / requirements: The intent of the final installed solid core wood doors is to provide new doors which match the original doors and previously installed doors in the building. The previously installed wood doors have been Chappell Doors with a Heritage Brown, stained finish. In light of the current lead time concerns as well as the scope of work to be accomplished at the existing doors in the building, the Contractor may obtain unfinished door slabs and site finish [or off-site at a Contractor's shop] to match the design intent with a White Birch Door in a stained finish to match the standard.
 - 1.2. 2.1, Manufacturers: ADD VT Industries to the list of manufacturers.
2. Specification Section 08 71 00: Door Hardware: REPLACE existing specification section with the updated version attached.
 - 2.1. The revisions have been highlighted in yellow and include revisions to hardware sets 10.0, 22.0, 37.0, 37.3, 40.0, 40.1, 40.2, and 42.0.
 - 2.2. Additional Requirements for reuse of existing doors, installation of new hardware: The Contractor and door / hardware supplier shall participate in pre-construction review of the scope of doors, frames, and associated hardware to investigate and confirm existing conditions and the applicability of installation of new hardware as proposed. This shall be accomplished as soon as practical after award of the Contract in late February. Additionally, the Contractor shall provide

typical mockups of the finished product with re-finishing of existing wood doors, repairs to existing doors, and installation of new hardware so that these conditions can be reviewed and accepted by the Owner.

3. Specification Section 09 65 00: 2,1, Tile Flooring: REMOVE references to Tile Flooring section complete [rubber floor tile], replaced with Luxury Vinyl Tile Specification Section 09 65 10.
4. [NEW] Specification Section 09 65 10: ADD this specification to the project for floor Type F-3. Refer to the section attached to this addendum.
5. Specification Section 09 67 00: CLARIFICATION: Floor Type F-2 is not listed in the specification. Floor Type F-2 is integral to Floor Type F-1, and should follow the specification and requirements of Floor Type F-1. The border color is Basalt Gray. Match previous floor installations.
6. Drawing Sheet A1.14: REPLACE previous sheet with the revised version attached to this addendum.
 - 6.1. Revised the flooring in Room 121.
7. Drawing Sheet A4.11: REPLACE previous sheet with the revised version attached to this addendum.
 - 7.1. Updated flooring specification and details.
8. Drawing Sheet P2.01: REPLACE previous sheet with the revised version attached to this addendum
 - 8.1. Add scope for new sink in Conference Room 122A.
9. Drawing Sheet P2.05: REPLACE previous sheet with the revised version attached to this addendum
 - 9.1. Add scope for new sink in Conference Room 122A.
10. Drawing Sheet P3.02: REPLACE previous sheet with the revised version attached to this addendum
 - 10.1. Add scope for new sink in Conference Room 122A.
11. Drawing Sheet P4.01: REPLACE previous sheet with the revised version attached to this addendum.
 - 11.1. Revise / update plumbing fixture schedule.
12. Drawing Sheet E2.07: Key Note 4: MODIFY note to ADD the following Clarification: The DMX Control Board will be provided by the Owner. Contractor shall coordinate interface with their work.

End of Addendum #2.

SECTION 08 71 00 - DOOR HARDWARE

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes commercial door hardware for the following:
 - 1. Swinging doors.
 - 2. Other doors to the extent indicated.
- B. Door hardware includes, but is not necessarily limited to, the following:
 - 1. Mechanical door hardware.
 - 2. Electromechanical door hardware.
 - 3. Automatic operators.
 - 4. Cylinders specified for doors in other sections.
- C. Related Sections:
 - 1. Division 08 Section "Hollow Metal Doors and Frames".
 - 2. Division 08 Section "Flush Wood Doors".
 - 3. Division 08 Section "Aluminum-Framed Entrances and Storefronts".
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
 - 1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
 - 2. ICC/IBC - International Building Code.
 - 3. NFPA 70 - National Electrical Code.
 - 4. NFPA 80 - Fire Doors and Windows.
 - 5. NFPA 101 - Life Safety Code.
 - 6. NFPA 105 - Installation of Smoke Door Assemblies.
 - 7. UL/ULC and CSA C22.2 - Standards for Automatic Door Operators Used on Fire and Smoke Barrier Doors and Systems of Doors.
 - 8. State Building Codes, Local Amendments.
- E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:
 - 1. ANSI/BHMA Certified Product Standards - A156 Series.
 - 2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
 - 3. ANSI/UL 294 - Access Control System Units.
 - 4. UL 305 - Panic Hardware.
 - 5. ANSI/UL 437- Key Locks.

1.2 SUBMITTALS

- A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.
- B. System Operational Descriptions: Complete system operational narratives for the integrated access controlled openings defining the owner's prescribed requirements for the opening functionality. Narratives include, but are not limited to, the following situations: normal secured/unsecured state of door; authorized access; authorized egress; unauthorized access; unauthorized egress; fire alarm and loss of power conditions, and interfaces with other building control systems.
- C. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door

Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
 2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
 3. Content: Include the following information:
 - a. Type, style, function, size, label, hand, and finish of each door hardware item.
 - b. Manufacturer of each item.
 - c. Fastenings and other pertinent information.
 - d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
 - e. Explanation of abbreviations, symbols, and codes contained in schedule.
 - f. Mounting locations for door hardware.
 - g. Door and frame sizes and materials.
 - h. Warranty information for each product.
 4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.
- D. Shop Drawings: Details of electrified access control hardware indicating the following:
1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
 - a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
 - b. Complete (risers, point-to-point) access control system block wiring diagrams.
 - c. Wiring instructions for each electronic component scheduled herein.
 2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.
- E. Proof of Certification: Upon request provide a copy of manufacturer(s) official certification or accreditation document indicating proof of status as a qualified and authorized provider of the primary access control components.
- F. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.
- G. Informational Submittals:
1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.
- H. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete access control and site management installation in quantity as required in Division 01, Closeout Submittals. The manual to include

the name, address, and telephone number of the supplier/integrator providing the installation and the nearest service representatives for each item of equipment included in the system. The final copies delivered after completion of the installation test to include "as built" modifications made during installation, checkout, and acceptance.

1. As-Built Drawings: During system installation, the Contractor to maintain a separate hard copy set of drawings, elevation diagrams, and wiring diagrams of the access control system to be used for record drawings. This set to be kept up to date by the Contractor with all changes and additions to the access control system accurately recorded.
- I. Warranties and Maintenance: Special warranties and maintenance agreements specified in this Section.

1.3 QUALITY ASSURANCE

- A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.
- B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).
- C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.
- E. Supplier Qualifications: Supplier/Dealers, verifiably authorized and in good standing with the primary product manufacturers, with a minimum of three (3) years of experience supplying integrated access control systems similar in material, design, and scope to that indicated for this Project and whose work has resulted in construction with a proven record of successful in-service performance.
1. ASSA ABLOY access control products are required to be supplied only through designated "Authorized Channel Partners."
 - a. List Qualified ACP Companies
- F. System Integrator Qualifications: Systems Integrators, verifiably factory trained and certified by the primary product manufacturers, with a minimum of three (3) years documented experience installing complete integrated access control systems similar in material, design, and scope to that indicated for this Project and whose work has resulted in construction with a proven record of successful in-service performance. Qualifications include, but are not necessarily limited, to the following:
1. References: Provide a list of references for similar projects including contact name, phone number, name and type of project.
 2. Professional Staffing: Firms to have a dedicated access control systems integration department with full time, experienced professionals on staff experienced in providing on site consulting services for both electrified door hardware and integrated access control systems installations.
 3. Factory Training: Installation and service technicians are to be competent factory trained and certified personnel capable of maintaining the system.

4. Service Center: Firms to have a service center capable of providing training, in-stock parts, and emergency maintenance and repairs at the Project site with 24-hour/7-days a week maximum response time.
- G. Installer Qualifications: Certified technicians, verifiably authorized with the primary product manufacturers for installation of IP-Enabled, Wireless, and Power-over-Ethernet Access Control products in accordance with documented instructions and NFPA 80.
 1. ASSA ABLOY access control products are required to be installed only through designated "Preferred Installers" with Intertek Qualified Hardware Installer certification.
 2. Installation technicians are authorized by Intertek to apply supplemental serialized labels to Warnock-Hersey fire-rated openings modified after access control hardware has been installed.
- H. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.
 1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
 2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.
- I. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.
- J. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:
 1. Function of building, purpose of each area and degree of security required.
 2. Plans for existing and future key system expansion.
 3. Requirements for key control storage and software.
 4. Installation of permanent keys, cylinder cores and software.
 5. Address and requirements for delivery of keys.
- K. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.
 1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
 2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
 3. Review sequence of operation narratives for each unique access controlled opening.
 4. Review and finalize construction schedule and verify availability of materials.
 5. Review the required inspecting, testing, commissioning, and demonstration procedures
- L. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

- B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
- C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.5 COORDINATION

- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
- B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.
- C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.
- D. Coordinate quantity and arrangement of assemblies with ceiling space configuration and with components occupying ceiling space, including structural members, pipes, air-distribution components, raceways, cable trays, recessed lighting fixtures, and other items.
- E. Access Control System Electrical Coordination: Coordinate the layout and installation of scheduled electrified door hardware, and related access control equipment, with required connections to source power junction boxes, power supplies, detection and monitoring hardware and fire alarm system.
 - 1. Door Hardware Interface: The card key access control system to interface and be connected to electronic door control hardware (electromechanical locks, electric strikes, magnetic locks, door position switches, other monitoring contacts, and related auxiliary control devices) as described under Division 8 "Door Hardware". Coordinate the installation and configuration of specified door hardware being monitored or controlled with the controls, software and access control hardware specified in this Section.
- F. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing electrified door hardware and access control system components. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing access control system hardware to comply with indicated requirements.
- G. Door and Frame Preparation: Related Division 08 Sections (Steel, Aluminum and Wood) doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.6 WARRANTY

- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship

within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
 2. Faulty operation of the hardware.
 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 4. Electrical component defects and failures within the systems operation.
- C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.
- D. Special Warranty Periods:
1. Ten years for mortise locks and latches.
 2. Five years for exit hardware.
 3. Twenty five years for manual overhead door closer bodies.
 4. Five years for motorized electric latch retraction exit devices.
 5. Two years for electromechanical door hardware, unless noted otherwise.
 6. Two years for Electrified, Wiegand Output, and IP-Enabled Access Control Door Hardware.
- E. Maintenance Support and Extended Service Agreement: Submit for Owner's consideration an optional extended Service Agreement for the installed access control system, including support for software related issues. The extended Service Agreement is considered elective and is without manufacturer's requirement stipulating mandatory coverage for owner and/or vendor system support.
1. A published copy of this agreement to be included with the submittal package
 2. Support for the installed access control system components is provided through the vendor under a 24 hour technical assistance program.
 3. Access control and management system components are to be available on a one-day turn around time frame from the manufacturer.
 4. Primary systems manufacturer to offer and provide remote modem or internet access for direct factory support to the vendor. The factory level support to include diagnostics and troubleshooting support on systems related issues at no additional cost to the owner.
- F. Access Control Software Upgrades: Version upgrades and "fix" releases to the access control system software are available at no extra charge as long as the version of software provided under this specification remains the current manufacturer's version or for up to (2) years after a new version release.
1. Major access control software revisions that provide new functionality to the product provided free of charge for up to one (1) year from the date of substantial completion.
 2. Access control system software is to be upgradable as may be required or as necessary, to expand and manage the owner's site or sites. Upgrades are to be offered at a published flat fee for the primary system software, with single license modules included in the primary fee structure. System upgrades offered at a costing structure based upon the original number of licensed modules issued, or on those to be purchased at a future date, are not allowed.
 3. As part of the submittal package, provide a list of available software upgrades and/or expansions modules. List to identify related costs for upgrades, or expansions to the original system, up to the next qualifying operational level.

1.7 MAINTENANCE SERVICE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.
- B. Maintenance Service: Beginning at Substantial Completion, and running concurrent with the specified warranty period, provide continuous (6) months full maintenance by skilled employees

of the Systems Integrator. Include repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper door opening operation. Provide parts and supplies as used in the manufacture and installation of original products.

1.8 SCOPE OF WORK

- A. On-Line Electronic Access Control System: Furnish and install at the indicated locations the specified electrified and integrated door hardware and access control firmware and software for a completely operational access control and security site management system. System includes, but is not necessarily limited, to the following:
1. Electrified integrated card reader locks and exit hardware, permanent and temporary override cylinders, network control processors, reader controller panels, I/O monitor/control interfaces, door position switches, remote card readers, keypads, and display terminals, access cards and credentials, system application software, special tools, operating manuals, and required cabling and accessories as detailed below and listed in the Access Control Hardware Sets at the end of Part 3.
 - a. Provide the appropriate number of reader controller panels and I/O monitoring/control expansion interfaces as needed to handle the number of card readers, locking devices, door status devices, and identified alarm inputs specified in this section, and as shown on the security drawings.
 - b. Provide manufacturer approved integrated card reader locks, exit hardware, and remote mounted card readers, keypads, and display terminals that are functionally compatible with the specified access control equipment interfaces.
 2. Access control system equipment to be installed in an enclosure box compatible with the specified components. This enclosure to include, but is not necessarily limited to, the network control processor, I/O monitor/control interface panels, power supplies, terminal strips, wire ducts, keyed lock cylinder, integrated outlet for A/C power, and standoffs.
 - a. Enclosure box to be located in the designated IT/Telecom room(s) with connection to local area network for communication back to the central server host.
 3. Owner to provide the following:
 - a. Central server host computer, client workstations, and hardware peripherals to be from an approved, major line computer manufacturer. Specific information detailing compliance with system requirements to be included in the project submittal package as specified.
 - b. Owner will be responsible for ensuring that each computer hardware component includes the required interfaces, expansion boards, and peripherals that will be necessary to allow the system to operate as described within this specification and as indicated on the drawings.
 - c. Power Sourcing and Network Switches: Quantity as required to accommodate installed access control (and video surveillance) devices.
 - d. Network Control Processor Connections:
 - 1) LAN/Ethernet communication ports (jacks) and network interface cards as needed, CAT5e cabling from network router/switch to network control processor, outlet and cover plates and/or patch cables required for network connection within each designated IT/Telecom room.
 - 2) Required static IP addresses.
 4. Power Supplies, including battery back up and separately fused surge protection, required for the electrified door hardware and access control equipment.
 5. Installation, final configuration and commissioning of electrified door and access control system hardware, communication firmware, power supplies and related accessories.
 6. System application software including installation, programming, and end user training of the access control system demonstrating operating, repair, and maintenance procedures. Include no fewer than 8 hours of on-site central server training for designated personnel (facilities maintenance, security, IT, administration) by a factory certified representative.

7. Provide manufacturer required power controllers, interface boards, and programming that may be required for approved electric latch retraction exit devices supplied under Division 08 Section "Door Hardware."
8. Electrical contractor, Division 26, to provide the following:
 - a. Source power wiring (120VAC) as required for the electrified locking and access control hardware, equipment, accessories and power supplies. This includes quad outlets as required on a dedicated circuit in the designated IT/Telecom room(s) and the related conduit, stub-in, junction boxes and connectors required for the source power delivery and connections.
 - b. Provide required conduit, stub-in, junction and back boxes for both the electrified locking hardware and access control equipment at each of the access controlled or monitored openings per plan drawings and specs. Supply and install conduit between each of the aforementioned devices and between the electrical junction boxes, power supplies and access control equipment located on or above the door opening.
 - 1) At wall mounted remote readers, provide conduit on the secured side of the door, 36" from the finish floor and 6" from the edge of the frame, to the related power supplies and access control equipment.
 - 2) At electrical hardware power transfers provide conduit on the secured side of the opening from the power transfer, thru-wire hinge, or serviceable panel location on the frame jamb to the related power supplies and access control equipment.
 - c. Electrical Contractor to provide all 120VAC cabling connections and terminations from the electrical junction boxes to these electrical devices.
9. Access Control System Integrator to provide the following:
 - a. Low voltage wiring (12/24VDC) and communication cabling (RS-232/RS-485) from network control processors to reader controllers, I/O monitor/control interface panels, electrified and integrated locking hardware, remote card readers, keypads, or display terminals, monitoring and signaling switches, and power supplies. Work includes related connectors, final terminations, and hook-ups required for a complete and functional access controlled opening in accordance with applicable codes and specified system operational narratives.
10. Elevator Contractor to provide the following:
 - a. Interface or landing of interface cable onto the elevator call button will be performed by a certified elevator contractor.
 - b. Coordinate with access control systems integrator provisions for a card reader with output allowing the elevator call button to be activated. A validated card read will be required for activation.
11. Full and seamless integration of the site intrusion alarm service if applicable, with the installed site access control system software.
12. Final connections to fire alarm system, if required, by electrical and fire alarm system contractors.
13. Provide permits, submittals and approvals required by the authority having jurisdiction, prior to commencing with work.
14. Provide manufacturer required power controllers, interface boards, and programming that may be required for approved electric latch retraction exit devices supplied under Division 08 Section "Door Hardware."
15. Electrical contractor (Division 26) to provide the following:
 - a. Provide required conduit, stub-in, junction and back boxes for both the electrified locking hardware and access control equipment at each of the access controlled or monitored openings per plan drawings and specs. Supply and install conduit between each of the aforementioned devices and between the electrical junction

boxes, power supplies and access control equipment located on or above the door opening.

- 1) At off-line remote readers, provide conduit on the secured side of the door, 36" from the finish floor and 6" from the edge of the frame, to the related power supplies and access control equipment.
 - 2) At electrified hardware power transfers provide conduit on the secured side of the opening from the power transfer, thru-wire hinge, or serviceable panel location on the frame jamb to the related power supplies and access control equipment.
- b. Electrical Contractor to provide all 120VAC cabling connections and terminations from the electrical junction boxes to these electrical devices.
16. Access Control System Supplier to provide the following:
- a. Low voltage wiring (12/24VDC) for the electrified locking hardware, remote card readers, monitoring and signaling switches, and power supplies. Work includes related connectors, final terminations and hook-ups required for a complete and functional access controlled opening in accordance with applicable codes and specified system operational narratives.
17. Typical System Requirements (Owner Provided): Central server host computer, client workstations, and hardware peripherals to be from an approved, major line computer manufacturer. Specific information detailing compliance with system requirements to be included in the project submittal package as specified.

1.9 PRE-INSTALLATION MEETING

- A. Establish final provisions related to security and key control. Examine hardware items of unusual provisions including special operational features, security devices, UL labels, and similar considerations related to installation.
- B. Inspect and discuss preparatory work performed by other trades.
- C. Review manufacturer's installation procedures related to the schedule of hardware, doors, and frames. Review the wiring diagrams for related electronic hardware and connection to the security access system and intended function.
- D. Inspect and discuss electrical rough-in for electrified door hardware.
- E. Review sequence of operation for each type of electrified door hardware.
- F. Keying Conference: Conduct conference at Project site.
 1. Flow of traffic and degree of security required.
 2. Preliminary key system schematic diagram.
 3. Requirements for key control system.
 4. Requirements for access control.

PART 2 PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

- A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.
- B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:
 1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.

- C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

2.2 HANGING DEVICES

- A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.
 - 1. Quantity: Provide the following hinge quantity:
 - a. Two Hinges: For doors with heights up to 60 inches.
 - b. Three Hinges: For doors with heights 61 to 90 inches.
 - c. Four Hinges: For doors with heights 91 to 120 inches.
 - d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.
 - 2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
 - a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified.
 - b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified.
 - 3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
 - a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
 - b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.
 - 4. Hinge Options: Comply with the following:
 - a. Non-removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.
 - 5. Manufacturers:
 - a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK).
- B. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 certified continuous geared hinge. with minimum 0.120-inch thick extruded 6060 T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs. Where continuous hinges are used with aluminum thermal break doors and frames, provide hinges that are tested and approved to meet aluminum door manufacturer requirements and submit for approval.
 - 1. Manufacturers:
 - a. Pemko (PE).

2.3 POWER TRANSFER DEVICES

- A. Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable. Use same manufacturer electric power transfer as the wire harness cable.
- B.
 - 1. Manufacturers:
 - a. Securitron (SU) - EL-CEPT Series.

- C. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening. Use same manufacturer wire harness as the door mounted electromechanical hardware and frame-to-door power transfer hardware.
 - 1. Provide one each of the following tools as part of the base bid contract:
 - a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - Electrical Connecting Kit: QC-R001.
 - b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - Connector Hand Tool: QC-R003.
 - 2. Manufacturers:
 - a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - QC-C Series.

2.4 DOOR OPERATING TRIM

- A. Door Push Plates and Pulls: ANSI/BHMA A156.6 certified door pushes and pulls of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.
 - 1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
 - 2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
 - 3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
 - 4. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.
 - 5. Manufacturers:
 - a. Rockwood (RO).

2.5 CYLINDERS AND KEYING

- A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.
- B. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:
 - 1. Threaded mortise cylinders with rings and cams to suit hardware application.
 - 2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
 - 3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
 - 4. Tubular deadlocks and other auxiliary locks.
 - 5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
 - 6. Keyway: Match Facility Standard.
- C. Permanent Cores/Cylinders: Match standard. Reference Division 01 "Cash Allowances" for material required under project. Installation to be included under Division 08 "Door Hardware" base bid package.
- D. Keying System: Each type of lock and cylinders to be factory keyed.
 - 1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.

2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
 3. Existing System: Field verify and key cylinders to match Owner's existing system.
- E. Key Quantity: Provide the following minimum number of keys:
1. Change Keys per Cylinder: Two (2)
 2. Master Keys (per Master Key Level/Group): Five (5).
 3. Construction Keys (where required): Ten (10).
- F. Construction Keying: Provide construction master keyed cylinders.
- G. Key Registration List (Bitting List):
1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
 2. Provide transcript list in writing or electronic file as directed by the Owner.

2.6 KEY CONTROL

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

2.7 MECHANICAL LOCKS AND LATCHING DEVICES

- A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.
1. Where specified, provide status indicators with highly reflective color and wording for "locked/unlocked" or "vacant/occupied" with custom wording options if required. Indicator to be located above the cylinder with the inside thumb-turn not blocking the visibility of the indicator status. Indicator window size to be a minimum of 2.1" x 0.6" with a curved design allowing a 180 degree viewing angle with protective covering to prevent tampering.
 2. Manufacturers:
 - a. Sargent Manufacturing (SA) - 8200 Series.
- B. Multi-Point Locksets: ANSI/BHMA A156.37, Certified Products Directory (CPD) listed vertical rod locking devices designed for openings requiring multiple latching points within one locking mechanism. Rods are retracted by dual mounted outside lever trim controls available in a variety of ANSI/BHMA operational functions. Option for single top latching only eliminates the need for bottom strikes.
1. Manufacturers:
 - a. Sargent Manufacturing (SA) - 7000 Series.
- C. Cylindrical Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.2, Series 4000, Operational Grade 1 Certified Products Directory (CPD) listed.
1. Vertical Impact: Exceed 100 vertical impacts (20 times ANSI/BHMA A156.2 requirements).
 2. Furnish with solid cast levers, standard 2 3/4" backset, and 1/2" (3/4" at rated paired openings) throw brass or stainless steel latchbolt.
 3. Locks are to be non-handed and fully field reversible.
 4. Manufacturers:

- a. Sargent Manufacturing (SA) - 10X Line.

2.8 ELECTROMECHANICAL LOCKING DEVICES

- A. Electromechanical Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed, subject to same compliance standards and requirements as mechanical mortise locksets, electrified locksets to be of type and design as specified below and in the hardware sets.
 1. Electrified Lock Options: Where indicated in the Hardware Sets, provide electrified options including: outside door lock/unlock trim control, latchbolt and lock/unlock status monitoring, deadbolt monitoring, and request-to-exit signaling. Support end-of-line resistors contained within the lock case. Unless otherwise indicated, provide electrified locksets standard as fail secure.
 2. Energy Efficient Design: Provide lock bodies which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
 3. Manufacturers:
 - a. Sargent Manufacturing (SA) - 8200 Series.
- B. Electromechanical Mortise Locksets, Grade 1 (Heavy Duty, High Security Monitoring): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed, subject to same compliance standards and requirements as mechanical mortise locksets, electrified locksets to be of type and design as specified below.
 1. Electrified Lock Options: Where indicated in the Hardware Sets, provide electrified options including: outside door lock/unlock trim control, latchbolt and lock/unlock status monitoring, deadbolt monitoring, and request-to-exit signaling. Support end-of-line resistors contained within the lock case. Unless otherwise indicated, provide electrified locksets standard as fail secure.
 2. Energy Efficient Design: Provide lock bodies which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
 3. High Security Monitoring: Provide lock bodies which have built-in request to exit monitoring and are provided with accompanying door position switches. Provide a resistor configuration which is compatible with the access control system.
 4. Manufacturers:
 - a. Sargent Manufacturing (SA) - NAC 8200 Series.
- C. Electromechanical Mortise Locksets, Grade 1 (Commercial Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed, subject to same compliance standards and requirements as mechanical mortise locksets, electrified locksets to be of type and design as specified below.
 1. Electrified Lock Options: Where indicated in the Hardware Sets, provide electrified options including: outside door lock/unlock trim control, latchbolt and lock/unlock status monitoring, deadbolt monitoring, and request-to-exit signaling. Support end-of-line resistors contained within the lock case. Unless otherwise indicated, provide electrified locksets standard as fail secure.
 2. Manufacturers:
- D. Electromechanical Multi-Point Locks: Vertical rod locking devices designed for openings requiring multiple latching points within one locking mechanism. Rods are retracted by dual mounted outside lever trim controls available in a variety of ANSI/BHMA operational functions. Option for single top latching only eliminates the need for bottom strikes. Electromechanical options include solenoid activated trim, electric latch retraction, and inside and outside lever monitoring.

1. Energy Efficient Design: Provide lock bodies which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
2. Manufacturers:
 - a. Sargent Manufacturing (SA) - 7000 Series.

2.9 STAND ALONE ACCESS CONTROL LOCKING DEVICES

- A. Stand Alone Electronic Keypad Locksets: Internal, battery-powered, self-contained ANSI Grade 1 mortise or cylindrical lock consisting of electronically motor driven locking mechanism and integrated keypad without requirements for separate electronic programming devices. Locks to accept standard, interchangeable (removable) core, security and high security override cylinders. Provide keypad locks with a minimum 100 user codes furnished standard with 6 "AA" batteries and non-volatile memory.
 1. Energy Efficient Design: Provide lock bodies which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
 2. Manufacturers:
 - a. Sargent Manufacturing (SA) - KP Series.

2.10 LOCK AND LATCH STRIKES

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

2.11 CONVENTIONAL EXIT DEVICES

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

5. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.
 - a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
 - b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.
 6. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
 7. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2" wide stiles.
 8. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
 9. Rail Sizing: Provide exit device rails factory sized for proper door width application.
 10. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.
- B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets. Exit device latch to be stainless steel, pullman type, with deadlock feature.
1. Manufacturers:
 - a. Sargent Manufacturing (SA) - 80 Series.

2.12 ELECTROMECHANICAL EXIT DEVICES

- A. Electromechanical Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices subject to same compliance standards and requirements as mechanical exit devices. Electrified exit devices to be of type and design as specified below and in the hardware sets.
1. Energy Efficient Design: Provide devices which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
 2. Where conventional power supplies are not sufficient, include any specific controllers required to provide the proper inrush current.
 3. Motorized Electric Latch Retraction: Devices with an electric latch retraction feature must use motors which have a maximum current draw of 600mA. Solenoid driven latch retraction is not acceptable.
 4. Manufacturers:
 - a. Sargent Manufacturing (SA) - 80 Series.

2.13 DOOR CLOSERS

- A. All door closers specified herein shall meet or exceed the following criteria:
1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
 2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
 3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
 4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
 5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.

6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.
- B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.
 1. Manufacturers:
 - a. Norton Rixson (NO) - 7500 Series.
 - b. Sargent (SA) – 351 Series
- C. Door Closers, Surface Mounted (Unitrol): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted closers with door stop mechanism to absorb dead stop shock on arm and top hinge. Hold-open arms to have a spring loaded mechanism in addition to shock absorber assembly. Arms to be provided with rigid steel main arm and secondary arm lengths proportional to the door width. Where manufacturer does not offer the "Unitrol" arm, provide special template extra heavy duty parallel arm with heavy duty surface overhead stop.
 1. Manufacturers:
 - a. Norton Rixson (NO) - Unitrol Series.

2.14 ELECTROHYDRAULIC DOOR OPERATORS

- A. General: Provide low energy operators of size recommended by manufacturer for door size, weight, and movement; for condition of exposure; and for compliance with UL 325. Coordinate operator mechanisms with door operation, hinges, and activation devices.
 1. Fire-Rated Doors: Provide door operators for fire-rated door assemblies that comply with NFPA 80 for fire-rated door components and are listed and labeled by a qualified testing agency.
- B. Standard: Certified ANSI/BHMA A156.19.
- C. Performance Requirements:
 1. Opening Force if Power Fails: Not more than 15 lbf required to release a latch if provided, not more than 30 lbf required to manually set door in motion, and not more than 15 lbf required to fully open door.
 2. Entrapment Protection: Not more than 15 lbf required to prevent stopped door from closing or opening.
- D. Configuration: Surface mounted or in-ground as required. Door operators to control single swinging and pair of swinging doors.
- E. Operation: Power opening and spring closing operation capable of meeting ANSI A117.1 accessibility guideline. Provide time delay for door to remain open before initiating closing cycle as required by ANSI/BHMA A156.19. When not in automatic mode, door operator to function as manual door closer with fully adjustable opening and closing forces, with or without electrical power.
- F. Features: Operator units to have full feature adjustments for door opening and closing force and speed, backcheck, motor assist acceleration from 0 to 30 seconds, time delay, vestibule interface delay, obstruction recycle, and hold open time from 0 up to 30 seconds.
- G. Provide outputs and relays on board the operator to allow for coordination of exit device latch retraction, electric strikes, magnetic locks, card readers, safety and motion sensors and specified auxiliary contacts.

- H. Brackets and Reinforcements: Manufacturer's standard, fabricated from aluminum with nonferrous shims for aligning system components.
- I. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Norton Rixson (NO) - 6000 Series.

2.15 ARCHITECTURAL TRIM

- A. Door Protective Trim
 - 1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
 - 2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
 - 3. Where plates are applied to fire rated doors with the top of the plate more than 16" above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.
 - 4. Protection Plates: ANSI/BHMA A156.6 certified protection plates (kick, armor, or mop), fabricated from the following:
 - a. Stainless Steel: 300 grade, 050-inch thick.
 - 5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
 - 6. Manufacturers:
 - a. Rockwood (RO).

2.16 DOOR STOPS AND HOLDERS

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

2.17 ARCHITECTURAL SEALS

- A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

- B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.
 - 1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.
- C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
 - 1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.
- D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.
- E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
- F. Manufacturers:
 - 1. Pemko (PE).

2.18 ELECTRONIC ACCESSORIES

- A. Door Position Switches: Door position magnetic reed contact switches specifically designed for use in commercial door applications. On recessed models the contact and magnetic housing snap-lock into a 1" diameter hole. Surface mounted models include wide gap distance design complete with armored flex cabling. Provide SPDT, N/O switches with optional Rare Earth Magnet installation on steel doors with flush top channels.
 - 1. Manufacturers:
 - a. Securitron (SU) - DPS Series.
- B. Intelligent Switching Power Supplies: Provide power supplies with single, dual or multi-voltage configurations at 12 and/or 24VDC. Power Supply shall have battery backup function with an integrated battery charging circuit. The power supply shall have a standard, integrated Fire Alarm Interface (FAI). The power supply shall provide capability for secondary voltage, power distribution, direct lock control and network monitoring through add on modules. The power supply shall be expandable up to 16 individually protected outputs. Output modules shall provide individually protected, continuous outputs and/or individually protected, relay controlled outputs. Network modules shall provide remote monitoring functions such as status reporting, fault reporting and information logging.
 - 1. Provide the least number of units, at the appropriate amperage level, sufficient to exceed the required total draw for the specified electrified hardware and access control equipment.
 - 2. Manufacturers:
 - a. Securitron (SU) - AQL Series.

2.19 FABRICATION

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

2.20 FINISHES

- A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

- B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware
- C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Examine roughing-in for electrical source power to verify actual locations of wiring connections before electrified and integrated access control door hardware installation.
- C. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

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

3.3 INSTALLATION

- A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.
 - 1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.
- B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
 - 1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
 - 2. DHI TDH-007-20: Installation Guide for Doors and Hardware.
 - 3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
 - 4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.
- C. Boxed Power Supplies: Verify locations.
 - 1. Configuration: Provide the least number of power supplies required to adequately serve doors with access control hardware and equipment.
- D. Final connect the system control switches (integrated card key locking hardware, remote readers, keypads, display terminals, biometrics), and monitoring, and signaling equipment to the related Controller devices at each opening to properly operate the electrified door and access control hardware according to system operational narratives.
- E. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9

Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

- F. System Application Software: Install, and test application(s) software and databases for the complete and proper operation of systems involved. Assign software license(s) to Owner.
- G. Door Closers:
 - 1. Install closers on room side of corridor doors, and stair side of stairways.
 - 2. Lobby doors: Mount on vestibule side.
 - 3. Exterior doors: Parallel rigid arm installation.
 - 4. Where through-bolts are required, install closers using only manufacturer-furnished through-bolts.
 - 5. Install closers using only manufacturer-furnished template machine screws for metal doors and manufacturer -furnished wood screws for wood doors.
 - 6. Coordinate with door supplier to provide proper blocking for surface mounting.
 - 7. Use of self-drilling or self-tapping fasteners is not allowed.
 - 8. Where full glazed door units are specified, use closer arm and mounting configuration as required to avoid use of drop brackets whenever possible.
- H. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."
- I. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

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

3.5 ADJUSTING

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

3.6 CLEANING AND PROTECTION

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

3.7 DEMONSTRATION

- A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.
- B. Engage an authorized systems manufacturer representative to train Owner's maintenance personnel to adjust, operate, and maintain electronic integrated door hardware and the access control system.

3.8 DOOR HARDWARE SETS

- A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.
 - 1. Quantities listed are for each pair of doors, or for each single door.
 - 2. The supplier is responsible for handing and sizing all products.
 - 3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.
 - 4. At existing openings with new hardware the supplier shall field inspect existing conditions prior to the submittal stage to verify the specified hardware will work as required. Provide alternate solutions and proposals as needed.
- B. Manufacturer's Abbreviations:
 - 1. MK - McKinney
 - 2. PE - Pemko
 - 3. MR - Markar
 - 4. SU - Securitron
 - 5. RO - Rockwood
 - 6. SA - SARGENT
 - 7. OT - Other
 - 8. RU - Corbin Russwin
 - 9. HS - HES
 - 10. RF - Rixson
 - 11. NO - Norton
 - 12. CR - Curries (Hardware Only)
 - 13. AK - Alarm Controls

Set: 1.0

(ALD/ALF) Exterior - 2-Card Reader (DPS) - Pair: Rim Exit Device (storeroom, CD) x Fixed Mullion x EL Strike x Overhead Stop x Door Closer

2 Continuous Hinge	_FM x HD1 x Door Height		PE
2 Rim Exit Device, nightlatch	16 43 AD8506 ETL	US10BE	SA ⚡
4 Cylinder	Type as Req'd (as specified)		OT
2 Electric Strike	9400-LBM	613E	HS ⚡
2 Conc Overhead Stop	1-X36	613	RF
2 Surface Closer	PR7500	690	NO
2 Drop Plate	as req'd	690	NO
1 Threshold	252x__FG		PE
1 Rain Guard	346_		PE
2 Sweep	345_PK		PE
1 Set Weatherstrip	(door manufacturer's heavy duty standard)		00
2 ElectroLynx Harness	QC-C3000_		MK ⚡
2 Position Switch	DPS		SU ⚡
1 Power Supply	AQL4-R8E1		SU ⚡
2 Access Control Reader	By Security Contractor		OT
1 Set Wiring Diagrams	Wiring Diagrams		00

Door normally closed and locked.

Entrance by presenting a valid card to card-reader.

Egress allowed at all times.

Loss of power, activation of fire alarm, or sprinkler system maintains security from lock side, entrance by mechanical key only.

Door monitored for door ajar and forced open.

Room side card-reader for audit trail purposes, and for shunting door-ajar/forced-open alarm within access control system.

Set: 2.0

(ALD/ALF) Exterior - 2-Card Reader (DPS) - Pair: Rim Exit Device (storeroom, CD) x Mullion x EL Strike x Overhead Stop x Door Closer x Audible Alarm

2 Continuous Hinge	_FM x HD1 x Door Height		PE
1 Mullion	L980A		SA
1 Mounting Kit	98-2578		SA
2 Rim Exit Device, nightlatch	16 43 AD8506 ETL	US10BE	SA ⚡
4 Cylinder	Type as Req'd (as specified)		OT
2 Electric Strike	9400-LBM	613E	HS ⚡
2 Conc Overhead Stop	1-X36	613	RF
2 Surface Closer	PR7500	690	NO
2 Drop Plate	as req'd	690	NO

1 Threshold	252x__FG		PE
1 Rain Guard	346_		PE
2 Sweep	345_PK		PE
1 Set Weatherstrip	(door manufacturer's heavy duty standard)		00
2 ElectroLynx Harness	QC-C3000_		MK ⚡
2 ElectroLynx Harness	QC-C00_		MK ⚡
1 Alarm	W Box 0E-1GANGSIRN (flush mount)		OT
2 Position Switch	DPS		SU ⚡
1 Power Supply	AQL4-R8E1		SU ⚡
2 Access Control Reader	By Security Contractor		OT
1 Set Wiring Diagrams	Wiring Diagrams		00

Door normally closed and locked.

Entrance by presenting a valid card to card-reader.

Egress allowed at all times.

Loss of power, activation of fire alarm, or sprinkler system maintains security from lock side, entrance by mechanical key only.

Door monitored for door ajar and forced open.

Room side card-reader for audit trail purposes, and for shunting door-ajar/forced-open alarm within access control system.

Set: 2.1

(ALD/ALF) Exterior - Schedule (DPS) - Pair: Rim Exit Device (storeroom, CD) x Fixed Mullion x Overhead Stop x (1) Door Closer x (1) Automatic Operator x Audible Alarm

2 Continuous Hinge	_FM x HD1 x Door Height		PE
2 Rim Exit Device, nightlatch	16 43 AD8506 ETL	US10BE	SA ⚡
4 Cylinder	Type as Req'd (as specified)		OT
2 Electric Strike	9400-LBM	613E	HS ⚡
2 Conc Overhead Stop	1-X36	613	RF
1 Automatic Opener	60xx	690	NO ⚡
2 Door Switch	505		NO ⚡
1 Surface Closer	PR7500	690	NO
2 Drop Plate	as req'd	690	NO
1 Threshold	252x__FG		PE
1 Rain Guard	346_		PE
2 Sweep	345_PK		PE
1 Set Weatherstrip	(door manufacturer's heavy duty standard)		00
2 ElectroLynx Harness	QC-C3000_		MK ⚡
1 Alarm	W Box 0E-1GANGSIRN (flush mount)		OT
2 Position Switch	DPS		SU ⚡
1 Power Supply	AQL4-R8E1		SU ⚡

1 Access Control Reader	By Security Contractor	OT
1 Set Wiring Diagrams	Wiring Diagrams	00

SECURED TIME PERIOD:

Door normally closed, latched, and locked - free egress at all times.
Door monitored for door ajar or forced open.
Entrance by mechanical key or access control scheduled open.
During secured period of time, only inside actuator switch activates automatic operator for accessibility needs, unless a valid card to card-reader allows the outside actuator switch to function.
Loss of power maintains security from locked side of opening, automatic door operator loses the electrically open operation, yet operator will function as a normal mechanical door closer - Entrance by mechanical key only - free egress at all times.
Room side card-reader for audit trail purposes, and for shunting door-ajar/forced-open alarm within access control system.

UNSECURED TIME PERIOD:

Unsecured period of time setup in access control system allows free entrance - free egress at all times.
During unsecure period of time, depressing either actuator switch activates automatic operator for accessibility needs.
Loss of power maintains security from locked side of opening, automatic door operator loses the electrically open operation - Entrance by mechanical key only - free egress at all times.

Set: 2.2

(ALD/ALF) Exterior - 2-Card Reader (DPS) - Pair: Rim Exit Device (storeroom, CD) x Fixed Mullion x EL Strike x Overhead Stop x Door Closer x Audible Alarm

2 Continuous Hinge	_FM x HD1 x Door Height		PE
2 Rim Exit Device, nightlatch	16 43 AD8506 ETL	US10BE	SA ⚡
4 Cylinder	Type as Req'd (as specified)		OT
2 Electric Strike	9400-LBM	613E	HS ⚡
2 Conc Overhead Stop	1-X36	613	RF
2 Surface Closer	PR7500	690	NO
2 Drop Plate	as req'd	690	NO
1 Threshold	252x__FG		PE
1 Rain Guard	346_		PE
2 Sweep	345_PK		PE
1 Set Weatherstrip	(door manufacturer's heavy duty standard)		00
2 ElectroLynx Harness	QC-C3000_		MK ⚡
1 Alarm	W Box 0E-1GANGSIRN (flush mount)		OT
2 Position Switch	DPS		SU ⚡
1 Power Supply	AQL4-R8E1		SU ⚡
1 Access Control Reader	By Security Contractor		OT
1 Set Wiring Diagrams	Wiring Diagrams		00

Door normally closed and locked.
Entrance by presenting a valid card to card-reader.

Egress allowed at all times.

Loss of power, activation of fire alarm, or sprinkler system maintains security from lock side, entrance by mechanical key only.

Door monitored for door ajar and forced open.

Room side card-reader for audit trail purposes, and for shunting door-ajar/forced-open alarm within access control system.

Set: 3.0

(ALD/ALF) Scheduled (DPS) - Pair: Rim Exit Device (storeroom, CD) x Fixed Mullion x EL Strike x Overhead Stop x Door Closer

2 Continuous Hinge	_FM x HD1 x Door Height		PE
2 Rim Exit Device, nightlatch	16 43 AD8506 ETL	US10BE	SA ⚡
4 Cylinder	Type as Req'd (as specified)		OT
2 Electric Strike	9400-LBM	613E	HS ⚡
2 Conc Overhead Stop	1-X36	613	RF
2 Surface Closer	PR7500	690	NO
2 Drop Plate	as req'd	690	NO
1 Set Weatherstrip	(door manufacturer's heavy duty standard)		00
2 ElectroLynx Harness	QC-C3000_		MK ⚡
2 Position Switch	DPS		SU ⚡
1 Power Supply	AQL4-R8E1		SU ⚡
1 Set Wiring Diagrams	Wiring Diagrams		00

SECURED TIME PERIOD:

Door normally closed and locked.

Entrance by Access Control System schedule.

Free egress at all times.

Loss of power maintains security from locked side of opening - Entrance by mechanical key only.

Door monitored for door ajar or forced open.

UNSECURED TIME PERIOD:

Unsecured period of time setup in access control system allows entrance.

Free egress at all times.

Loss of power maintains security from locked side of opening - Entrance by mechanical key only.

Set: 4.0

(ALD/ALF) Exterior - 2-Card Reader (DPS) - RLS - Pair: Rim Exit Device (storeroom, CD) x Fixed Mullion x EL Strike x Overhead Stop x Door Closer x audible alarm

2 Continuous Hinge	_FM x HD1 x Door Height		PE
2 Rim Exit Device, nightlatch	16 43 AD8506 ETL	US10BE	SA ⚡
4 Cylinder	Type as Req'd (as specified)		OT
2 Conc Overhead Stop	1-X36	613	RF
2 Surface Closer	PR7500	690	NO

2 Drop Plate	as req'd	690	NO
1 Threshold	252x__FG		PE
1 Rain Guard	346_		PE
2 Sweep	345_PK		PE
1 Set Weatherstrip	(door manufacturer's heavy duty standard)		00
1 ElectroLynx Harness	QC-C3000_		MK ⚡
1 Alarm	W Box 0E-1GANGSIRN (flush mount)		OT
2 Position Switch	DPS		SU ⚡
1 Door Release	TS-18		AK ⚡
1 Power Supply	AQL4-R8E1		SU ⚡
2 Access Control Reader	By Security Contractor		OT
1 Set Wiring Diagrams	Wiring Diagrams		00

SECURED TIME PERIOD:

Door normally closed, latched, and locked - free egress at all times.
Door monitored for door ajar or forced open.
Entrance by mechanical key or valid card to card-reader.
During secured period of time, only inside actuator switch activates automatic operator for accessibility needs, unless a valid card to card-reader allows the outside actuator switch to function.
Loss of power maintains security from locked side of opening, automatic door operator loses the electrically open operation, yet operator will function as a normal mechanical door closer - Entrance by mechanical key only - free egress at all times.
Room side card-reader for audit trail purposes, and for shunting door-ajar/forced-open alarm within access control system.

UNSECURED TIME PERIOD:

Unsecured period of time setup in access control system allows free entrance - free egress at all times.
During unsecure period of time, depressing either actuator switch activates automatic operator for accessibility needs.
Loss of power maintains security from locked side of opening, automatic door operator loses the electrically open operation - Entrance by mechanical key only - free egress at all times.

Set: 5.0

(ALD/ALF) Card Reader (DPS) - Pair: Rim Exit Device (storeroom, CD) x Fixed Mullion x EL Strike x Overhead Stop x (1) Door Closer (1) Automatic Operator

2 Continuous Hinge	_FM x HD1 x Door Height		PE
2 Rim Exit Device, nightlatch	16 43 AD8506 ETL	US10BE	SA ⚡
4 Cylinder	Type as Req'd (as specified)		OT
2 Electric Strike	9400-LBM	613E	HS ⚡
2 Conc Overhead Stop	1-X36	613	RF
1 Automatic Opener	60xx	690	NO ⚡
2 Door Switch	505		NO ⚡
1 Surface Closer	PR7500	690	NO
1 Drop Plate	as req'd	690	NO

1 Set Weatherstrip	(door manufacturer's heavy duty standard)	00
2 ElectroLynx Harness	QC-C3000_	MK ⚡
2 Position Switch	DPS	SU ⚡
1 Power Supply	AQL4-R8E1	SU ⚡
1 Access Control Reader	By Security Contractor	OT
1 Set Wiring Diagrams	Wiring Diagrams	00

SECURED TIME PERIOD:

Door normally closed, latched, and locked - free egress at all times.
 Door monitored for door ajar or forced open - internal switch within unsecure side of latching hardware allows an individual to freely leave without sending an alarm to the access control system.
 Entrance by mechanical key or valid card to card-reader.
 During secured period of time, only inside actuator switch activates automatic operator for accessibility needs, unless a valid card to card-reader allows the outside actuator switch to function.
 Loss of power maintains security from locked side of opening, automatic door operator loses the electrically open operation, yet operator will function as a normal mechanical door closer - Entrance by mechanical key only - free egress at all times.

UNSECURED TIME PERIOD:

Unsecured period of time setup in access control system allows free entrance - free egress at all times.
 During unsecure period of time, depressing either actuator switch activates automatic operator for accessibility needs.
 Loss of power maintains security from locked side of opening, automatic door operator loses the electrically open operation - Entrance by mechanical key only - free egress at all times.

Set: 6.0

REUSE ALL EXISTING HARDWARE

1 Hardware	Reuse All Existing Hardware	OT
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Set: 7.0

EXISTING OPENING: Push/Pull x Door Closer (thru-bolts)

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Pull Plate	111x70C	US32D	RO
1 Push Plate	73E	US32D	RO
1 Surface Closer	R7500 / PR7500 x TBGN	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE

Application:

- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- existing mortise deadbolt

Set: 8.0

EXISTING OPENING (NEW DOORS/HMF) - Pair x Fixed Mullion: Rim Exit Device (classroom) x Door Closer

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
2 Rim Exit Device, Classroom	(12) 43 *16 8813 ETL	US32D	SA
2 Cylinder	Type as Req'd (as specified)		OT
2 Surface Closer	R7500 / PR7500	689	NO
4 Kick Plate	K1050 8" high CSK BEV	US32D	RO
2 Stop	As Required		RO
2 Gasketing	S88		PE

Hollow Metal Frames & Doors - Application:

- Existing frame to remain: field verify existing frame conditions to accept new hardware specified.
- Hollow Metal Frames: Bondo, finish smooth, primer, and paint remaining prep holes on frame from previous door hardware.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 9.0

EXISTING OPENING (NEW DOORS/HMF) - Pair x Fixed Mullion: Rim Exit Device (classroom) x Door Closer x Wall Hold

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
2 Rim Exit Device, Classroom	(12) 43 *16 8813 ETL	US32D	SA
2 Cylinder	Type as Req'd (as specified)		OT
1 Surface Closer	PR7500	690	NO
4 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Door Stop & Holder	490	US26D	RO
1 Gasketing	S88		PE

Application:

- Field verify existing conditions and field modify existing frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 10.0

EXISTING OPENING (NEW DOORS/HMF) - Pair: **SVR Exit Device** (classroom) x Door Closer x Wall Hold

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
2 Surf Vert Rod Exit, Classroom	(12) 43 *16 NB 8713 ETL	US32D	SA
4 Cylinder	Type as Req'd (as specified)		OT
2 Surface Closer	PR7500	690	NO

4 Kick Plate	K1050 8" high CSK BEV	US32D	RO
2 Door Stop & Holder	490	US26D	RO
1 Gasketing	S88		PE
1 Gasket Astragal	S772		PE

Application:

-Field verify existing conditions and field modify existing frame, as required, to accept new hardware specified.

-Field verify hinge weight/size and kick plate quantity.

*=use cylinder dogging at all non-rated door openings.

Set: 11.0

EXISTING OPENING (WD/HMF): Rim Exit Device (classroom) x Door Closer

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Rim Exit Device, Classroom	(12) 43 *16 8813 ETL	US32D	SA
2 Cylinder	Type as Req'd (as specified)		OT
1 Push Plate	70C-RKW (as req'd)	US26D	RO
1 Surface Closer	R7500 / PR7500 x TBGN	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE

Application:

-Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.

-Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.

-Use above new hardware, all other hardware to remain.

-Push plate used behind lever trim to help cover any remaining screw holes.

*=use cylinder dogging at all non-rated door openings.

Set: 11.1

EXISTING OPENING (NEW DOOR/HMF): Rim Exit Device (classroom) x Door Closer x Wall Hold

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Rim Exit Device, Classroom	(12) 43 *16 8813 ETL	US32D	SA
2 Cylinder	Type as Req'd (as specified)		OT
1 Surface Closer	R7500 / PR7500	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Door Stop & Holder	490	US26D	RO
1 Gasketing	S88		PE

Application:

- Field verify existing conditions and field modify existing frame, as required, to accept new hardware specified.
- Field verify hinge weight/size and kick plate quantity.

*=use cylinder dogging at all non-rated door openings.

Set: 11.2

EXISTING OPENING (WD/HMF): Rim Exit Device (classroom) x Door Closer x Wall Hold

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Rim Exit Device, Classroom	(12) 43 *16 8813 ETL	US32D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Push Plate	70C-RKW (as req'd)	US26D	RO
1 Surface Closer	R7500 / PR7500 x TBGN	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Door Stop & Holder	490	US26D	RO
1 Gasketing	S88		PE

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.
- Push plate used behind lever trim to help cover any remaining screw holes.

*=use cylinder dogging at all non-rated door openings.

Set: 12.0 – Not Used

Set: 12.1

EXISTING OPENING (WD/HMF): Mortise Exit Device (classroom) x Overhead Stop x EL Door Closer Hold (thru-bolts) x Door Release

Hinge (qty per spec)	TA2714 (size per spec, NRP as applicable)	US26D	MK
1 Cylinder	Type as Req'd (as specified)		OT
1 Push Plate	70C-RKW (as req'd)	US26D	RO
1 Surf Overhead Stop	9-X36	630	RF
1 Closer	71__SZ x 24VDC x TBGN	689	NO ⚡
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Gasketing	S88		PE
1 Door Release	TS-18		AK ⚡
1 Power Supply	AQL4-R8E1		SU ⚡

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.
- Push plate used behind lever trim to help cover any remaining screw holes.
- 7100 Safe Zone closer to be set for continuous hold open using the "SELECTIVE HOLD OPEN ADJUSTMENT"
- Door release to be used to close door or manually pulling door will release hold open closer.
- 7100 Safe Zone closer to be tied to fire alarm system.

Set: 13.0

EXISTING OPENING (HMD/HMF): Rim Exit Device (classroom) x Door Closer (thru-bolts)

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Rim Exit Device, Classroom	(12) 43 *16 8813 ETL	US32D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surface Closer	R7500 / PR7500 x TBGN	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE

Hollow Metal Frames & Doors - Application:

- Existing frame to remain: field verify existing frame conditions to accept new hardware specified.
- Hollow Metal Frames & Door: Bondo, finish smooth, primer, and paint remaining prep holes on frame from previous door hardware.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 13.1

EXISTING OPENING (HMD/HMF): Rim Exit Device (classroom) x Door Closer (thru-bolts) x Mag Hold

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Rim Exit Device, Classroom	(12) 43 *16 8813 ETL	US32D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surface Closer	R7500 / PR7500 x TBGN	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Electromagnetic Holder	998M	689	RF ⚡
1 Gasketing	S88		PE

Hollow Metal Frames & Doors - Application:

- Existing frame to remain: field verify existing frame conditions to accept new hardware specified.
- Hollow Metal Frames & Door: Bondo, finish smooth, primer, and paint remaining prep holes on frame from previous door hardware.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 13.2

EXISTING OPENING (HMD/HMF): Rim Exit Device (classroom) x Door Closer (thru-bolts) x Mag Hold x Armor

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Rim Exit Device, Classroom	(12) 43 *16 8813 ETL	US32D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surface Closer	R7500 / PR7500 x TBGN	689	NO
1 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Armor Plate	K1050 36" high CSK BEV	US32D	RO
1 Electromagnetic Holder	998M	689	RF ⚡
1 Gasketing	S88		PE

Hollow Metal Frames & Doors - Application:

- Existing frame to remain: field verify existing frame conditions to accept new hardware specified.
- Hollow Metal Frames & Door: Bondo, finish smooth, primer, and paint remaining prep holes on frame from previous door hardware.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 13.3

EXISTING OPENING (HMD/HMF): Rim Exit Device (storeroom) x Door Closer

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Filler Plates	As Required		OT
1 Rim Exit Device	(12) 43 8806 ETL	US32D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surface Closer	R7500 / PR7500 x TBGN	689	NO
1 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE

Hollow Metal Frames & Doors - Application:

- Existing frame to remain: field verify existing frame conditions to accept new hardware specified.
- Hollow Metal Frames & Door: Bondo, finish smooth, primer, and paint remaining prep holes on frame from previous door hardware.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 14.0

EXISTING OPENING (WD/HMF) - Card Reader (DPS): Mortise Lock (storeroom) x EL Strike x Motion (RTE)
Door Closer (thru-bolts)

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Storeroom Lock	8204 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Electric Strike	1600	630	HS ⚡
1 SMART Pac Bridge Rectifier	2005M3		HS ⚡
1 Surface Closer	R7500 / PR7500 x TBGN	689	NO
1 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE
1 Position Switch	DPS		SU ⚡
1 Detector	SREX-100		AK ⚡
1 Power Supply	AQL4-R8E1		SU ⚡
1 Access Control Reader	By Security Contractor		OT
1 Set Wiring Diagrams	Wiring Diagrams		00

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Door normally closed and locked.

Entrance by presenting a valid card to card-reader.

Egress allowed at all times.

Loss of power maintains security from lock side, entrance by mechanical key only.

Door monitored for door ajar and forced open.

Set: 14.1 - NOT USED

Set: 14.2

EXISTING OPENING (WD/HMF) - Card Reader (DPS) - RLS: Mortise Lock (storeroom) x EL Strike x Motion (RTE) x Overhead Stop x Door Closer (thru-bolts)

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Storeroom Lock	8204 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Electric Strike	1600	630	HS ⚡
1 SMART Pac Bridge Rectifier	2005M3		HS ⚡
1 Surf Overhead Stop	9-X36	630	RF
1 Drop Plate	as req'd	690	NO

1 Surface Closer	R7500 / PR7500 x TBGN	689	NO
1 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Gasketing	S88		PE
1 Position Switch	DPS		SU ⚡
1 Door Release	TS-18		AK ⚡
1 Detector	SREX-100		AK ⚡
1 Power Supply	AQL4-R8E1		SU ⚡
1 Access Control Reader	By Security Contractor		OT
1 Set Wiring Diagrams	Wiring Diagrams		00

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Door normally closed and locked.

Entrance by presenting a valid card to card-reader or remote release.

Egress allowed at all times.

Loss of power maintains security from lock side, entrance by mechanical key only.

Door monitored for door ajar and forced open.

Set: 14.3

EXISTING OPENING (WD/HMF) - Card Reader (DPS): Mortise Lock (storeroom) x Reuse EL Strike x Motion (RTE) Door Closer

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Storeroom Lock	8204 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Electric Strike	Reuse Existing Electric Strike		OT
1 Surface Closer	R7500 / PR7500	689	NO
1 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE
1 Position Switch	DPS		SU ⚡
1 Detector	SREX-100		AK ⚡
1 Power Supply	Reuse Existing Power Supply		OT
1 Access Control Reader	By Security Contractor		OT
1 Set Wiring Diagrams	Wiring Diagrams		00

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.

-Use above new hardware, all other hardware to remain.

Door normally closed and locked.

Entrance by presenting a valid card to card-reader.

Egress allowed at all times.

Loss of power maintains security from lock side, entrance by mechanical key only.

Door monitored for door ajar and forced open.

Set: 15.0

EXISTING OPENING: Mortise Lock (storeroom) x Door Closer (thru-bolts)

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Storeroom Lock	8204 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surface Closer	R7500 / PR7500 x TBGN	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE

Application:

-Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.

-Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.

-Use above new hardware, all other hardware to remain.

Set: 15.1

EXISTING OPENING: Mortise Lock (office) x Door Closer (thru-bolts)

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Office Lock	8205 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surface Closer	R7500 / PR7500 x TBGN	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE

Application:


-Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.

-Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.

-Use above new hardware, all other hardware to remain.

Set: 16.0

EXISTING OPENING (HMD/HMF) - Monitored (DPS): Mortise Lock (storeroom) x Motion (RTE) x Door Closer (thru-bolts)

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Storeroom Lock	8204 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surface Closer	PR7500 x TBGN	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE
1 Detector	SREX-100		AK 

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 17.0

EXISTING OPENING: Mortise Lock (office) x NO DOOR CLOSER

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Office Lock	8205 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 17.1

EXISTING OPENING: Mortise Lock (storeroom) x NO DOOR CLOSER

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Office Lock	8205 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 17.2

EXISTING OPENING: Mortise Latch (passage) x Door Closer

Hinge (qty per spec)	TA2714 (size per spec, NRP as applicable)	US26D	MK
1 Passage Latch	8215 LW1L	US26D	SA
1 Surface Closer	R7500 / PR7500	689	NO
1 Stop	As Required		RO
1 Gasketing	S88		PE

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify hinge weight/size.
- Use above new hardware, all other hardware to remain.

Set: 17.3

EXISTING OPENING - Pair: Mortise Lock (office) x Door Closer

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Office Lock	8205 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surface Closer	PR7500	690	NO
4 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE
1 Gasket Astragal	S772		PE

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 17.4

EXISTING OPENING: Hvy Hinge x Mortise Latch (passage) x Door Closer

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Passage Latch	8215 LW1L	US26D	SA
1 Surface Closer	R7500 / PR7500	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE

Application:

-Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.

-Field verify hinge weight/size.

-Use above new hardware, all other hardware to remain.

Set: 17.5

EXISTING OPENING - Pair: Hvy Hinge x Mortise Latch (Office) x Door Closer x Mag Hold

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Office Lock	8205 LW1L	US26D	SA
2 Surface Closer	R7500 / PR7500	689	NO
4 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Gasketing	S88		PE
1 Gasket Astragal	S772		PE

Application:


-Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.

-Field verify hinge weight/size.

-Use above new hardware, all other hardware to remain.

Set: 17.6

EXISTING OPENING - Pair: Hvy Hinge x Mortise Latch (Office) x Door Closer x Mag Hold x Armor

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Office Lock	8205 LW1L	US26D	SA
2 Surface Closer	R7500 / PR7500	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
2 Armor Plate	K1050 36" high CSK BEV	US32D	RO
2 Electromagnetic Holder	998M	689	RF 
1 Gasketing	S88		PE
1 Gasket Astragal	S772		PE

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify hinge weight/size.
- Use above new hardware, all other hardware to remain.

Set: 17.7

EXISTING OPENING - Pair: Mortise Lock (office) x [NO DOOR CLOSER] x Armor

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Office Lock	8205 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
2 Armor Plate	K1050 36" high CSK BEV	US32D	RO
2 Stop	As Required		RO
1 Gasketing	S88		PE
1 Gasket Astragal	S772		PE

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 18.0

EXISTING OPENING: Mortise Lock (Classroom Sec, T-Turn Cyl.) x Door Closer (thru-bolts)

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Classroom Sec Lock	V21 8238 VN1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Thumbturn Cylinder	CR1300-118	626	RU
1 Surface Closer	R7500 / PR7500 x TBGN	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Wall Stop	RM860 / RM861	US26D	RO
1 Gasketing	S88		PE

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 18.1

EXISTING OPENING: Mortise Lock (classroom) x NO DOOR CLOSER

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Classroom Lock	8237 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 19.0

EXISTING OPENING: Mortise Lock (utility) x Door Closer (as req'd, thru-bolt)

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Utility Lock	8231 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surface Closer	as req'd x TBGN	689	NO
1 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 20.0

EXISTING OPENING: Mortise Lock (classroom) x Door Closer (as req'd, thru-bolts)

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Classroom Lock	8237 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surface Closer	as req'd x TBGN	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new

hardware specified.

- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 20.1

EXISTING OPENING - Pair: Mortise Lock (classroom) x Door Closer

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Classroom Lock	8237 LW1L	US26D	SA
2 Cylinder	Type as Req'd (as specified)		OT
2 Surface Closer	PR7500	690	NO
4 Kick Plate	K1050 8" high CSK BEV	US32D	RO
2 Stop	As Required		RO
1 Gasketing	S88		PE
1 Gasket Astragal	S772		PE

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 21.0

EXISTING OPENING: Mortise Lock (Institutional Privacy) x Door Closer (as req'd, thru-bolts)

Hinge	TA2714 (size per spec, NRP as applicable)	US26D	MK
1 Institutional Privacy Lock	V21 8267 VN1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surface Closer	as req'd x TBGN	689	NO
1 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 21.1

EXISTING OPENING - Card Reader: Mortise Lock (storeroom) x EL Strike x Door Closer (as req'd, thru-bolts)

Hinge (qty per spec)	TA2714 (size per spec, NRP as applicable)	US26D	MK
1 Storeroom Deadbolt Lock	V21 8251 VN1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 SMART Pac Bridge Rectifier	2005M3		HS ⚡
1 Electric Strike	1600-CS-DLMS	630	HS ⚡
1 Surface Closer	as req'd x TBGN	689	NO
1 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE
1 Power Supply	AQL4-R8E1		SU ⚡
1 Access Control Reader	By Security Contractor		OT
1 Set Wiring Diagrams	Wiring Diagrams		00

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Door normally closed, latched, and secure - free egress at all times.

Manual entrance is allowed by presenting a valid card to card-reader then pulling lever for entry.

Deadbolt is projected by inside lever-turn, which changes indicator status from vacant to occupied.

Projected deadbolt denies entrance of using a valid card to card-reader.

Emergency entrance is allowed with mechanical key.

Turning inside lever handle will simultaneously retract deadbolt and latch unlocking outside handle changing indicator status from occupied to vacant.

Free egress at all times.

Set: 22.0

Exterior - 2-Card Reader (DPS) - Pair: EL SVR Exit Device (storeroom) x Door Closer w/ Spring Stop

Hinge (qty per spec)	T4A3386 (size per spec, NRP as applicable)	US32D	MK
2 Electric Power Transfer	EL-CEPT		SU ⚡
2 Surface Vert Rod Exit	(12) 43 56 NB8706 ETL	US32D	SA ⚡
2 Cylinder	Type as Req'd (as specified)		OT
2 Surface Closer	UNI7500	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Threshold	252x__FG		PE
1 Rain Guard	346_		PE
2 Sweep	345_PK		PE
1 Astragal	18041_NB		PE
1 Kerf Weather Seal	by frame manufacturer		CR
2 ElectroLynx Harness	QC-C3000_		MK ⚡
2 ElectroLynx Harness	QC-C00_		MK ⚡

2 Position Switch	DPS	SU	⚡
1 Power Supply	AQL4-R8E1	SU	⚡
2 Access Control Reader	By Security Contractor	OT	
1 Set Wiring Diagrams	Wiring Diagrams	00	

Application:

-lever on one door leaf only.

Door normally closed and locked.

Entrance by presenting a valid card to card-reader.

Egress allowed at all times.

Loss of power, activation of fire alarm, or sprinkler system maintains security from lock side, entrance by mechanical key only.

Door monitored for door ajar and forced open.

Room side card-reader for audit trail purposes, and for shunting door-ajar/forced-open alarm within access control system.

Set: 22.1

Exterior - Card Reader (DPS) - Pair: EL Rim Exit Device (storeroom, RTE) x Rem Mullion x Door Closer w/ Spring Stop

Hinge (qty per spec)	T4A3386 (size per spec, NRP as applicable)	US32D	MK
2 Electric Power Transfer	EL-CEPT		SU ⚡
1 Mullion	L980S	PC	SA
1 Mounting Kit	98-2579 (for steel mullion)		SA
1 Rim Exit Device	(12) 43 55 56 8806 ETL	US32D	SA ⚡
1 Rim Exit Device, Exit Only	(12) LD 43 55 8810 EO	US32D	SA ⚡
2 Cylinder	Type as Req'd (as specified)		OT
2 Surface Closer	UNI7500	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Threshold	252x__FG		PE
1 Gasketing	5110		PE
1 Rain Guard	346_		PE
2 Sweep	345_PK		PE
1 Astragal	18041_NB		PE
1 Kerf Weather Seal	by frame manufacturer		CR
2 ElectroLynx Harness	QC-C3000_		MK ⚡
2 ElectroLynx Harness	QC-C00_		MK ⚡
2 Position Switch	DPS		SU ⚡
1 Power Supply	AQL4-R8E1		SU ⚡
1 Access Control Reader	By Security Contractor		OT
1 Set Wiring Diagrams	Wiring Diagrams		00

Application:
 -lever on one door leaf only.

Door normally closed and locked.
 Entrance by presenting a valid card to card-reader.
 Egress allowed at all times.
 Loss of power, activation of fire alarm, or sprinkler system maintains security from lock side, entrance by mechanical key only.
 Door monitored for door ajar and forced open.

Set: 23.0

Exterior: Rim Exit Device (nightlatch, CD) x Door Closer

Hinge (qty per spec)	T4A3386 (size per spec, NRP as applicable)	US32D	MK
1 Rim Exit Device, nightlatch	16 43 8804	US32D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Vandal Resistant Trim	VRT26 C	US32D	RO
1 Surface Closer	PR7500	689	NO
1 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Wall Stop	RM860 / RM861	US26D	RO
1 Threshold	252x__FG		PE
1 Rain Guard	346_		PE
1 Sweep	345_PK		PE
1 Kerf Weather Seal	by frame manufacturer		CR

Set: 24.0

Exterior: Rim Exit Device (nightlatch, CD) x Door Closer w/ Spring Stop

Hinge (qty per spec)	T4A3386 (size per spec, NRP as applicable)	US32D	MK
1 Rim Exit Device, nightlatch	16 43 8804	US32D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Vandal Resistant Trim	VRT26 C	US32D	RO
1 Surface Closer	UNI7500	689	NO
1 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Threshold	252x__FG		PE
1 Rain Guard	346_		PE
1 Sweep	345_PK		PE
1 Kerf Weather Seal	by frame manufacturer		CR

Set: 25.0

Exterior - Rim Exit Device (exit only) x Door Closer w/ Spring Stop

Hinge (qty per spec)	T4A3386 (size per spec, NRP as applicable)	US32D	MK
1 Rim Exit Device, Exit Only	(12) 43 8810 EO	US32D	SA

1 Surface Closer	UNI7500	689	NO
1 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Threshold	252x__FG		PE
1 Rain Guard	346_		PE
1 Sweep	345_PK		PE
1 Kerf Weather Seal	by frame manufacturer		CR

Set: 26.0

Exterior - Pair: Rim Exit Device (exit only) x Rem Mullion x Door Closer w/ Spring Stop

Hinge (qty per spec)	T4A3386 (size per spec, NRP as applicable)	US32D	MK
1 Mullion	L980S	PC	SA
1 Mounting Kit	98-2579 (for steel mullion)		SA
2 Rim Exit Device, Exit Only	43 8810 LD EO	US32D	SA
2 Cylinder	Type as Req'd (as specified)		OT
2 Surface Closer	UNI7500	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Threshold	252x__FG		PE
1 Gasketing	5110		PE
1 Rain Guard	346_		PE
2 Sweep	345_PK		PE
1 Astragal	18041_NB		PE
1 Kerf Weather Seal	by frame manufacturer		CR

Set: 27.0

EXISTING OPENING: Mortise Lock (Institutional Privacy) x Existing Automatic Operator

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Institutional Privacy Lock	V21 8267 VN1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Electric Strike	EXISTING		
1 Door Operator	EXISTING		
1 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for hinge weight/size and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 28.0 - NOT USED

Set: 29.0

EXISTING OPENING: Cylindrical Lock (storeroom) x Door Closer (as req'd, thru-bolts)

Hinge (qty per spec)	TA2714 (size per spec, NRP as applicable)	US26D	MK
1 Storeroom Lock	10XG04 LL	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surface Closer	as req'd x TBGN	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 29.1

EXISTING OPENING - Pair: Cylindrical Lock (storeroom) x NO DOOR CLOSER

Hinge (qty per spec)	TA2714 (size per spec, NRP as applicable)	US26D	MK
1 Storeroom Lock	10XG04 LL	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
2 Stop	As Required		RO
1 Gasketing	S88		PE
1 Gasket Astragal	S772		PE

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Set: 30.0

EXISTING OPENING: Cylindrical Lock (office) x NO DOOR CLOSER

Hinge (qty per spec)	TA2714 (size per spec, NRP as applicable)	US26D	MK
1 Entry/Office Lock	10XG05 LL	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Stop	As Required		RO
1 Gasketing	S88		PE

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify hinge weight/size.
- Use above new hardware, all other hardware to remain.

Set: 31.0 - NOT USED

Set: 32.0 - NOT USED

Set: 33.0

EXISTING OPENING: Cylindrical Lock (privacy) x NO DOOR CLOSER

Hinge (qty per spec)	TA2714 (size per spec, NRP as applicable)	US26D	MK
1 Privacy Lock	10XU65 LL	US26D	SA
1 Stop	As Required		RO
1 Gasketing	S88		PE

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify hinge weight/size.
- Use above new hardware, all other hardware to remain.

Set: 34.0 - NOT USED

Set: 34.1

EXISTING OPENING (WD/HMF) - Card Reader (DPS): Cylindrical Lock (storeroom) x EL Strike x Motion (RTE) Door Closer (thru-bolts)

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Storeroom Lock	10XG04 LL	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Electric Strike	1600	630	HS ⚡
1 SMART Pac Bridge Rectifier	2005M3		HS ⚡
1 Surface Closer	R7500 / PR7500 x TBGN	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Stop	As Required		RO
1 Gasketing	S88		PE
1 Position Switch	DPS		SU ⚡
1 Detector	SREX-100		AK ⚡
1 Power Supply	AQL4-R8E1		SU ⚡
1 Access Control Reader	By Security Contractor		OT
1 Set Wiring Diagrams	Wiring Diagrams		00

Application:

- Field verify existing conditions and field modify existing door and frame, as required, to accept new hardware specified.
- Field verify for door closer mounting type, hinge weight/size, and kick plate quantity.
- Use above new hardware, all other hardware to remain.

Door normally closed and locked.

Entrance by presenting a valid card to card-reader.

Egress allowed at all times.

Loss of power maintains security from lock side, entrance by mechanical key only.

Door monitored for door ajar and forced open.

Set: 35.0

Exterior: Storeroom Lock x Door Closer (thru-bolts)

Hinge (qty per spec)	T4A3386 (size per spec, NRP as applicable)	US32D	MK
1 Storeroom Lock	8204 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surface Closer	R7500 / PR7500 x TBGN	689	NO
1 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Wall Stop	RM860 / RM861	US26D	RO
1 Threshold	252x__FG		PE
1 Rain Guard	346_		PE
1 Sweep	345_PK		PE
1 Kerf Weather Seal	by frame manufacturer		CR
1 Latch Protector	320-RKW	US32D	RO

Set: 36.0

Exterior: Storeroom Lock x Door Closer w/ Spring Stop

Hinge (qty per spec)	T4A3386 (size per spec, NRP as applicable)	US32D	MK
1 Storeroom Lock	8204 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surface Closer	UNI7500	689	NO
1 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Threshold	252x__FG		PE
1 Rain Guard	346_		PE
1 Sweep	345_PK		PE
1 Kerf Weather Seal	by frame manufacturer		CR
1 Latch Protector	320-RKW	US32D	RO

Set: 37.0

Cont. Hinge x **SVR Exit Device** (passage) x Overhead Stop x Door Closer x Mag Hold Open

2 Continuous Hinge	FM300	630	MR
2 Surf Vert Rod Exit, Passage	(12) 43 NB 8715 ETL	US32D	SA
2 Surface Closer	PR7500	690	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
2 Electromagnetic Holder	998M	689	RF ⚡
1 Gasketing	S88		PE
1 Gasket Astragal	S772		PE
1 Astragal	(door manufacturer's heavy duty standard)		00

Set: 37.1

Cont. Hinge x Rim Exit Device (passage) x Fixed Mullion x Overhead Stop x Door Closer

2 Continuous Hinge	FM300	630	MR
2 Rim Exit Device, Passage	(12) 43 AD8515 ETL	US32D	SA
2 Surface Closer	PR7500	690	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
2 Stop	As Required		RO
1 Gasketing	S88		PE
1 Gasket Astragal	S772		PE
1 Astragal	(door manufacturer's heavy duty standard)		00

Set: 37.2

Cont. Hinge x Rim Exit Device (passage) x Fixed Mullion x EL Strike x Overhead Stop x (1) Door Closer x (1) Automatic Operator

2 Continuous Hinge	FM300	630	MR
2 Rim Exit Device, Passage	(12) 43 AD8515 ETL	US32D	SA
1 Electric Strike	9400-LBM	613E	HS ⚡
1 Automatic Opener	60xx	690	NO ⚡
2 Door Switch	505		NO ⚡
2 Surface Closer	PR7500	690	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
2 Stop	As Required		RO
1 Gasketing	S88		PE
1 Gasket Astragal	S772		PE
1 Astragal	(door manufacturer's heavy duty standard)		00
1 Power Supply	AQL4-R8E1		SU ⚡
1 Set Wiring Diagrams	Wiring Diagrams		00

Set: 37.3

Cont. Hinge x **SVR Exit Device** (passage) x Overhead Stop x Door Closer

2 Continuous Hinge	FM300	630	MR
2 Surf Vert Rod Exit, Passage	(12) 43 NB 8715 ETL	US32D	SA
2 Surface Closer	PR7500	690	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
2 Stop	As Required		RO
1 Gasketing	S88		PE
1 Gasket Astragal	S772		PE
1 Astragal	(door manufacturer's heavy duty standard)		00

Set: 38.0

Mortise Lock (Classroom Sec, T-Turn Cyl.) x NO DOOR CLOSER

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
1 Classroom Sec Lock	V21 8238 VN1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Thumbturn Cylinder	CR1300-118	626	RU
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Wall Stop	RM860 / RM861	US26D	RO
1 Gasketing	S88		PE

Set: 39.0 - NOT USED

Set: 40.0

Pair: **SVR** Exit Device (classroom) x Door Closer x Mag Hold

Hinge (qty per spec)	TA2714 (size per spec, NRP as applicable)	US26D	MK
2 Surf Vert Rod Exit, Classroom	(12) 43 *16 NB 8713 ETL	US32D	SA
4 Cylinder	Type as Req'd (as specified)		OT
2 Surface Closer	R7500 / PR7500	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Electromagnetic Holder	998M	689	RF ⚡
1 Gasketing	S88		PE
1 Gasket Astragal	S772		PE

*=use cylinder dogging at all non-rated door openings.

Set: 40.1

Exterior - Card Reader (DPS) - Pair: EL **SVR Exit Device** (RTE) x Door Closer

Hinge (qty per spec)	TA2714 (size per spec, NRP as applicable)	US26D	MK
2 Electric Power Transfer	EL-CEPT		SU ⚡
2 Surf Vert Rod Exit	(12) NB 43 55 56 8706 ETL	US32D	SA ⚡
2 Cylinder	Type as Req'd (as specified)		OT
2 Surface Closer	R7500 / PR7500	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
2 Wall Stop	RM860 / RM861	US26D	RO
1 Threshold	252x__FG		PE
1 Gasketing	S88		PE
1 Rain Guard	346_		PE
2 Sweep	345_PK		PE
1 Astragal	18041_NB		PE
1 Gasket Astragal	S772		PE
1 Kerf Weather Seal	by frame manufacturer		CR
2 ElectroLynx Harness	QC-C3000_		MK ⚡
2 ElectroLynx Harness	QC-C00_		MK ⚡
2 Position Switch	DPS		SU ⚡
1 Power Supply	AQL4-R8E1		SU ⚡
1 Access Control Reader	By Security Contractor		OT
1 Set Wiring Diagrams	Wiring Diagrams		00

Door normally closed and locked.

Entrance by presenting a valid card to card-reader.

Egress allowed at all times.

Loss of power maintains security from lock side, entrance by mechanical key only.

Door monitored for door ajar and forced open.

Set: 40.2

Pair: **SVR Exit Device** (classroom) x Door Closer x Seals x Wall Mount Hold

Hinge (qty per spec)	T4A3786 (size per spec, NRP as applicable)	US26D	MK
2 Surf Vert Rod Exit, Classroom	(12) 43 *16 NB 8713 ETL	US32D	SA
2 Cylinder	Type as Req'd (as specified)		OT
2 Surface Closer	R7500 / PR7500	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
2 Door Stop & Holder	490	US26D	RO
1 Astragal	18041_NB		PE
1 Gasket Astragal	S772		PE
1 Gasketing	S773		PE

2 Door Bottom 2343AV PE

*=use cylinder dogging at all non-rated door openings.

Set: 41.0

Rim Exit Device (passage) x Door Closer

Hinge (qty per spec)	TA2714 (size per spec, NRP as applicable)	US26D	MK
1 Rim Exit Device, Passage	(12) 43 8815 ETL	US32D	SA
1 Surface Closer	R7500 / PR7500	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Wall Stop	RM860 / RM861	US26D	RO
1 Gasketing	S88		PE

Set: 42.0

Exterior - Pair: SVR Exit Device (storeroom) x Door Closer w/ Spring Stop

Hinge (qty per spec)	T4A3386 (size per spec, NRP as applicable)	US32D	MK
2 Surf Vert Rod Exit	(12) 43 NB8706 ETL	US32D	SA
2 Cylinder	Type as Req'd (as specified)		OT
2 Surface Closer	UNI7500	689	NO
2 Latch Cover Kick Plate	BFLG1050	US32D	RO
2 Latch Guard Cover	BFRC	US32D	RO
1 Threshold	252x__FG		PE
1 Rain Guard	346_		PE
2 Sweep	345_PK		PE
1 Astragal	18041_NB		PE
1 Gasket Astragal	S772		PE
1 Kerf Weather Seal	by frame manufacturer		CR

Set: 43.0

Storeroom Lock x Overhead Stop

Hinge (qty per spec)	TA2714 (size per spec, NRP as applicable)	US26D	MK
1 Storeroom Lock	8204 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surf Overhead Stop	9-X36	630	RF
3 Silencer	608		RO

Set: 44.0 - NOT USED

Set: 44.1

Storeroom Lock x Overhead Stop

Hinge (qty per spec)	TA2714 (size per spec, NRP as applicable)	US26D	MK
1 Storeroom Lock	8204 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surf Overhead Stop	9-X36	630	RF
3 Silencer	608		RO

Set: 45.0

Classroom Lock x Overhead Stop

Hinge (qty per spec)	TA2714 (size per spec, NRP as applicable)	US26D	MK
1 Classroom Lock	8237 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surf Overhead Stop	9-X36	630	RF
1 Surface Closer	as req'd x TBGN	689	NO
1 Gasketing	S88		PE

Set: 45.1

Classroom Lock x Door Closer

Hinge (qty per spec)	TA2714 (size per spec, NRP as applicable)	US26D	MK
1 Classroom Lock	8237 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surface Closer	R7500 / PR7500	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Wall Stop	RM860 / RM861	US26D	RO
1 Gasketing	S88		PE

Set: 45.2

Pair: Storeroom Lock x Door Closer

Hinge (qty per spec)	TA2714 (size per spec, NRP as applicable)	US26D	MK
1 Flush Bolt	2805 / 2905	US26D	RO
1 Storeroom Lock	8204 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
2 Mounting Bracket	2601	Black	RO
1 Coordinator	26xx	US28	RO
2 Surface Closer	R7500 / PR7500	689	NO
2 Kick Plate	K1050 8" high CSK BEV	US32D	RO
2 Wall Stop	RM860 / RM861	US26D	RO

1 Gasketing	S88		PE
1 Gasket Astragal	S772		PE
1 Overlapping Astragal	"Z" Type by door manufacturer		00

Set: 45.3

(ALD/ALF) Classroom Lock x Door Closer w/ Spring Stop

Hinge (qty per spec)	TA2714 (size per spec, NRP as applicable)	US26D	MK
1 Classroom Lock	8237 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Surface Closer	CPS7500	689	NO
1 Kick Plate	K1050 8" high CSK BEV	US32D	RO
1 Door Silencer/Seal	by Door & Frame Manufacturer		OT

Set: 45.4

Classroom Lock x NO DOOR CLOSER

Hinge (qty per spec)	TA2714 (size per spec, NRP as applicable)	US26D	MK
1 Classroom Lock	8237 LW1L	US26D	SA
1 Cylinder	Type as Req'd (as specified)		OT
1 Wall Stop	RM860 / RM861	US26D	RO
1 Gasketing	S88		PE

Set: 47.0

Office Lock

Hinge (qty per spec)	TA2714 (size per spec, NRP as applicable)	US26D	MK
1 Entry/Office Lock	10XG05 LL	US26D	SA
1 Wall Stop	RM860 / RM861	US26D	RO
1 Gasketing	S88		PE

Set: 48.0 - NOT USED

Set: 100.0

Inventory

100 Silencer	608		RO
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END OF SECTION

SECTION 09 65 10 – SOLID VINYL FLOORING

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes solid vinyl floor tile

1.2 REFERENCES

- A. ASTM International:
 - 1. ASTM F1700 Standard Specification for Solid Vinyl Floor Tile
 - 2. ASTM E 648 – Standard Test Method for Critical Radiant Flux of Flooring Systems using a Radiant Energy Source.
- B. National Fire Protection Association:
 - 1. NFPA 253 - Standard Method of Test for Critical Radiant Flux for Floor Covering Systems Using a Radiant Heat Energy Source.

1.3 SUBMITTALS

- A. Shop Drawings: Indicate seaming plan, custom patterns and inlay designs.
- B. Product Data: Submit data describing physical and performance characteristics; including sizes, patterns and colors available; and installation instructions.
- C. Samples:
 - 1. Submit manufacturer's complete set of color samples for initial selection.
 - 2. Submit **two** samples, illustrating color and pattern for each resilient flooring product specified.

1.4 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: Submit maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning

1.5 QUALITY ASSURANCE

- A. Surface Burning Characteristics:
 - 1. Floor Finishes and Stair Coverings: Class I, minimum 0.45 watts/sq cm when tested in accordance with NFPA 253.
 - 2. Base Material: Class I, minimum 0.45 watts/sq cm when tested in accordance with NFPA 253.
- B. Accessibility: Flooring shall comply with accessibility requirements ICC/ANSI A117.1.
 - 1. Exceed Federal Standards and ADA requirements for slip-resistance.

1.6 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum ten years documented experience.
 - 1. Manufacturers Qualifications: Flooring product manufacturer will have a technical installation representative available at the job site at the start of the installation to insure there are no conditions which will compromise the installation of the material and that the material is being installed according to industry standards, practices and manufacturers guidelines. The manufacturer's technical representative will document and confirm that the substrate, material, and installation are in compliance with manufacturer's guidelines and accepted industry standards and practices.
 - a. Any noticed defect with the product or installation system will require the response of the manufacturer's technical field service personnel on site to determine cause, correction or replacement.

- B. Installer: Company specializing in performing Work of this section with minimum ten years documented experience.

1.7 MOCKUP

- A. Provide a mockup of the floor installation in an approximate 200 SF area showing the color and pattern of the floor, layout, seams, etc.
- B. Provide a mockup of each type of floor / floor pattern as indicated.
- C. Coordinate locations with Owner and RDA.
- D. Approved mockups may be left in place.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Store resilient products and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by the manufacturer, but not less than 55 deg F (13 deg C) or more than 85 deg F (29 deg C).

1.9 PROJECT CONDITIONS / ENVIRONMENTAL REQUIREMENTS

- A. Install resilient products after other finishing operations, including painting, have been completed. If that is not possible due to the compressed schedule, provide all required protection of the floor system after installation until turnover of the space.
- B. Maintain ambient temperatures within range recommended by the manufacturer, but not less than 65 deg F or more than 85 deg F in spaces to receive resilient products during the following time periods:
 - 1. 48 hours before installation.
 - 2. During installation.
 - 3. 48 hours after installation.
- C. Maintain the ambient relative humidity between 40% and 60% during installation.
- D. Until Substantial Completion, maintain ambient temperatures within range recommended by the manufacturer, but not less than 55 deg F or more than 85 deg F.

1.10 EXTRA MATERIALS

- A. Furnish an additional 5% of each type of floor, base, and accessories.
- B. Document attic stock, properly label, and turn over to Owner.

1.11 WARRANTY

- A. Provide ten [10] year manufacturer warranty for all resilient flooring, base, and accessories.

PART 2 PRODUCTS

2.1 TILE FLOORING

- A. Manufacturers:
 - 1. Interface, Brushed Lines, Style A016 [Basis of Design]
- B. High Performance Luxury Vinyl Tile [Floor Type F-3]
 - 1. Class: Class III Printed Vinyl Tile
 - 2. Wear Layer Thickness: 22 mil
 - 3. Total Thickness 4.5 mm
 - 4. Backing Class: Commercial Grade
 - 5. Finish: Ceramor Coating
 - 6. Size: 9.8 inches x 39.38 inches
 - 7. Installation Method: Ashlar

8. Colors: as selected from the manufacturer's full list of available colors

2.2 ACCESSORIES

- A. Transition Moldings and Edge Strips, same material as flooring or metal as applicable. Refer to drawings.

2.3 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation provided or approved by manufacturer for applications indicated and coordinate with substrate.
- B. Primer: A primer may be required and must be verified by the manufacturer.
- C. Adhesives: Water-resistant type recommended by manufacturer to suit floor tile and substrate conditions indicated.
 1. Adhesives shall be approved by manufacturer for use over concrete substrates

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the work.
- B. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of resilient products.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.
- D. Verify concrete floors are dry to maximum moisture content as recommended by manufacturer, and exhibit negative alkalinity, carbonization, and dusting.
- E. Verify floor and wall surfaces are free of substances capable of impairing adhesion of new adhesive and finish materials.

3.2 PREPARATION

- A. Contractor shall provide all required field verification of conditions, quantity take-offs, layout confirmations, etc. as applicable to the work.
- B. Remove sub-floor ridges and bumps. Fill minor low spots, cracks, joints, holes, and other defects with sub-floor filler to achieve smooth, flat, hard surface.
 1. Prepare concrete substrates in accordance with ASTM F 710.
- C. Prohibit traffic until filler is cured.
- D. Clean substrate.
- E. Apply primer as required to prevent "bleed-thru" or interference with adhesion by substances cannot be removed.
- F. Do not install flooring products until they are same temperature as the space where they are to be installed.
 1. Move resilient products and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
- G. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.

3.3 INSTALLATION – LUXURY VINYL PLANK FLOORING

- A. Mix tile from container to ensure shade variations are consistent when tile is placed.
- B. Lay flooring with joints and seams parallel to building lines to produce symmetrical tile pattern.
- C. Install tile to a pattern as indicated or as recommended by the manufacturer for the conditions. Allow minimum 1/2 full size tile width at room or area perimeter.
- D. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.
- E. Where floor finishes are different on opposite sides of door, terminate flooring under centerline of door.
- F. Install edge strips at unprotected or exposed edges, where flooring terminates, and where indicated.
- G. Install flooring in recessed floor access covers. Maintain floor pattern.
- H. Install feature strips and floor markings where indicated. Fit joints tightly.

3.4 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protection of resilient products.
- B. Perform the following operations immediately after completing resilient product installation:
 - 1. Remove adhesive and other blemishes from exposed surfaces.
 - 2. Sweep and vacuum surfaces thoroughly.
 - 3. Damp-mop surfaces to remove marks and soil.
- C. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
 - 1. Prohibit traffic on resilient flooring for 48 hours after installation.
 - 2. No heavy traffic, rolling loads, or furniture placement for 72 hours after installation.
- D. Wait 72 hours after installation before performing initial cleaning.
- E. A regular maintenance program must be started after the initial cleaning.

3.5 SCHEDULE

- A. Refer to Drawings.

END OF SECTION