

## USD 320 Wamego-Phase 3-Bid Package 3- WHS Remodel: Finishes, Misc. Remaining Items

### Addendum 2

Issue Date: 4-9-18

Architect: BBN Architects Inc.

MEP: Orazem & Scalora Engineering, P.A.

Civil Engineer: SMH Consultants

Construction Manager: Coonrod & Associates Construction Co., Inc.

Owner: USD 320 Wamego

The attached documents and / or items below shall hereby become part of the Construction Documents for the referenced project above.

**2-1:** The current header on the bid form shall be deleted and replaced with “USD 320-Phase 3 - Bid Package 3- WHS Remodel: Finishes, Misc. Remaining Items”

**2-2:** Please add the following to the bid documents. These are NOT part of this bid package but will become part of the bid documents and are for reference.

- ATTACHED Specification Section: **087140-DOOR HARDWARE – FACS AND LOCKER IMPROVEMENTS**
- ATTACHED Plan Sheet: **A701 : DOOR SCHEDULE**

**END OF ADDENDUM**

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## **SECTION 08 71 40 – DOOR HARDWARE - FACS AND LOCKER IMPROVEMENTS**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### **1.2 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. Cylinders specified for doors in other sections.
- C. Related Sections:
1. Section 08 11 13 "Hollow Metal Doors and Frames."
  2. Section 08 14 16 "Flush Wood Doors."
  3. Section 08 41 13 "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. State Building Codes, Local Amendments.
- E. Standards: All hardware specified herein shall comply with the following industry standards:
1. ANSI/BHMA Certified Product Standards - A156 Series
  2. UL10C – Positive Pressure Fire Tests of Door Assemblies

### 1.3 SUBMITTALS

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

- c. Wiring instructions for each electronic component scheduled herein.
- 2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.
- D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.
- E. Informational Submittals:
  - 1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.
- F. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Section 01 77 00 "Closeout Procedures."

#### 1.4 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. 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.
- C. 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.
- D. 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.

- E. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.
- F. Keying Conference: Conduct conference to comply with requirements in Section 01 31 00 "Project Management and Coordination." 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.
- G. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Section 01 31 00 "Project Management and Coordination" 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
- H. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

## **1.5 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".

## 1.6 COORDINATION

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

## 1.7 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. Special Warranty Periods:
  - 1. Ten years for mortise locks and latches.
  - 2. Twenty five years for manual surface door closer bodies.
  - 3. Two years for electromechanical door hardware.

## 1.8 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.

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

### **2.2 HANGING DEVICES**

- A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles as specified in the Door Hardware Sets.
  - 1. Quantity: Provide the following hinge quantity, unless otherwise indicated:
    - 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. Acceptable Manufacturers:
    - a. Bommer Industries (BO).
    - b. Hager Companies (HA).
    - c. McKinney Products (MK).

### **2.3 POWER TRANSFER DEVICES**

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

required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.

1. Provide one each of the following tools as part of the base bid contract:
  - a. McKinney Products; (MK) - Electrical Connecting Kit: QC-R001.
  - b. McKinney Products; (MK) - Connector Hand Tool: QC-R003.
2. Acceptable Manufacturers:
  - a. McKinney Products; (MK) – QC-C Series

## 2.4 DOOR OPERATING TRIM

- A. Flush Bolts: ANSI/BHMA A156.3 and A156.16, Grade 1, certified.
  1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.
  2. Furnish dust proof strikes for bottom bolts.
  3. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.
  4. Acceptable Manufacturers:
    - a. Burns Manufacturing (BU).
    - b. Rockwood Manufacturing (RO).
    - c. Trimco (TC).
- B. Coordinators: ANSI/BHMA A156.3 certified door coordinators consisting of active-leaf, hold-open lever and inactive-leaf release trigger. Model as indicated in hardware sets.
  1. Acceptable Manufacturers:
    - a. Burns Manufacturing (BU).
    - b. Rockwood Manufacturing (RO).
    - c. Trimco (TC).

## 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.
  1. Acceptable Manufacturers:
    - a. Stanley Best (BE).
    - b. No Substitution.
- B. Cylinders: Original manufacturer cylinders complying with the following:
  1. Mortise Type: Threaded cylinders with rings and cams to suit hardware application.



2. Rim Type: Cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
  3. Bored-Lock Type: Cylinders with tailpieces to suit locks.
  4. 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.
  5. Keyway: Match Facility Standard.
- C. Keying System: Each type of lock and cylinders to be factory keyed.
1. Conduct specified "Keying Conference" to define and document keying system instructions and requirements.
  2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
  3. New System: Key locks to a *new or existing key system* as directed by the Owner.
- D. 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).
- E. Construction Keying: Provide construction master keyed cylinders.
- F. 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.
- G. 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. Acceptable Manufacturers:
    - a. Lund Equipment (LU).
    - b. MMF Industries (MM).
    - c. Telkee (TK).

## 2.6 MECHANICAL LOCKS AND LATCHING DEVICES

- A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 certified. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.
1. Acceptable Manufacturers:
    - a. Corbin Russwin Hardware (RU) – ML2000 Series.
    - b. Sargent Manufacturing (SA) – 8200 Series.

- c. Stanley Best (BE) – 40H Series.

## 2.7 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.
- 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.

## 2.8 ELECTRIC STRIKES

- A. Standard Electric Strikes: Heavy duty, cylindrical and mortise lock electric strikes conforming to ANSI/BHMA A156.31, Grade 1, UL listed for both Burglary Resistance and for use on fire rated door assemblies. Stainless steel construction with dual interlocking plunger design tested to exceed 3000 lbs. of static strength and 350 ft-lbs. of dynamic strength. Strikes tested for a minimum 1 million operating cycles. Provide strikes with 12 or 24 VDC capability and supplied standard as fail-secure unless otherwise specified. Option available for latchbolt and latchbolt strike monitoring indicating both the position of the latchbolt and locked condition of the strike.
1. Acceptable Manufacturers:
    - a. Folger Adam EDC (FO).
    - b. HES (HS).

## 2.9 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 including installation and adjusting information on inside of cover.
  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. Cycle Testing: Provide closers which have surpassed 15 million cycles in a test witnessed and verified by UL.
  4. 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 physically handicapped, provide units complying with ANSI ICC/A117.1.
  5. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
  6. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
  7. 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 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. Acceptable Manufacturers:
    - a. Corbin Russwin Hardware (RU) – DC6000 Series.
    - b. Sargent Manufacturing (SA) - 351 Series.
    - c. Norton Door Controls (NO) - 7500 Series.
    - d. Yale Locks and Hardware (YA) - 4400 Series.
- C. Door Closers, Surface Mounted (Unitrol): Unitrol arms to have 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.
1. Acceptable Manufacturers:
    - a. Corbin Russwin Hardware (RU) - Unitrol Series.
    - b. Norton Door Controls (NO) - Unitrol Series.
    - c. Yale Locks and Hardware (YA) - Unitrol Series.

## 2.10 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). 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. Acceptable Manufacturers:
  - a. Burns Manufacturing (BU).
  - b. Rockwood Manufacturing (RO).
  - c. Trimco (TC).

## 2.11 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. Acceptable Manufacturers:
    - a. Burns Manufacturing (BU).
    - b. Rockwood Manufacturing (RO).
    - c. Trimco (TC).
- C. Overhead Door Stops and Holders: ANSI/BHMA A156.6, Grade 1 certified 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. Acceptable Manufacturers:
    - a. Rixson Door Controls (RF).
    - b. Rockwood Manufacturing (RO).
    - c. Sargent Manufacturing (SA).

## 2.12 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. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
- E. Acceptable Manufacturers:
  - 1. National Guard Products (NG).
  - 2. Pemko Manufacturing (PE).
  - 3. Reese Enterprises, Inc. (RE).

## 2.13 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. Acceptable Manufacturers:
    - a. Securitron (SU) - DPS Series.
- B. Power Supplies: Provide Nationally Recognized Testing Laboratory Listed 12VDC or 24VDC (field selectable) filtered and regulated power supplies. Include battery backup option with integral battery charging capability in addition to operating the DC load in event of line voltage failure. 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.
  - 1. Acceptable Manufacturers:
    - a. Securitron (SU) - BPS Series.

## **2.14 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.

## **2.15 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. 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. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
  - 3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
  - 4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.
- C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 09 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
- D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Section 07 92 00 "Joint Sealants."
- E. 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: Supplier will perform a final inspection of installed door hardware and state in report whether work complies with or deviates from requirements, including whether door hardware is properly installed, operating and adjusted.

### **3.5 ADJUSTING**

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

### **3.6 CLEANING AND PROTECTION**

- A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.
- B. Clean adjacent surfaces soiled by door hardware installation.

- C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

### 3.7 DOOR HARDWARE SETS

**Set: 1.0**

Doors: 110, 111, 138B, 143A, 144, 144B, 150, 155, 161, 161A, 161B, 164, 197, 205, 206

1 Existing Existing all to remain

**Set: 2.0**

Doors: 115A, 115B, 118A

1 Rim Exit Device, entrance	LC 8813 ETL	US32D	SA
1 Cylinder Rim/Mortise	as Required	626/630	BE
1 Door Closer	PR7500	689	NO
1 Gasketing	S88D		PE

Notes: ALL REMAINING HARDWARE IS TO BE RE-USED PROVIDED IT IS IN GOOD WORKING CONDITION. GC TO VERIFY ALL RE-USE HARDWARE AND TO COORDINATE FIELD MODIFICATION OF DOORS TO RECEIVE NEW HARDWARE AS LISTED ABOVE. @ OPENING 118A PROVIDE A CPS7500 CLOSER.

**Set: 3.0**

Doors: 143B

1 Classroom Lock	45H7R 15H	626	BE
1 Door Closer	7500H	689	NO

Notes: ALL REMAINING HARDWARE IS TO BE RE-USED PROVIDED IT IS IN GOOD WORKING CONDITION. GC TO VERIFY ALL RE-USE HARDWARE AND TO COORDINATE FIELD MODIFICATION OF DOORS TO RECEIVE NEW HARDWARE AS LISTED ABOVE.

**Set: 4.0**

Doors: 116

3 Hinge	TA2714 4-1/2" x 4-1/2"	US26D	MK
1 Privacy Set	45H0L 15H	626	BE
1 Surface Overhead Stop	10-X36	630	RF
1 Gasketing	S88D		PE

**Set: 5.0**

Doors: 118B

3 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK
1 Rim Exit Device, entrance	LC 8813 ETL	US32D	SA
1 Cylinder Rim/Mortise	as Required	626/630	BE
1 Door Closer	CPS7500	689	NO
1 Gasketing	S88D		PE



**Set: 6.0**

Doors: 123B, 139C, 140C, 140D

3 Hinge (heavy weight)	T4A3786 NRP 4-1/2" x 4-1/2"	US26D	MK
1 Storeroom Lock	45H7D 15H	626	BE
1 Door Closer	CPS7500	689	NO
1 Gasketing	S88D		PE

**Set: 7.0**

Doors: 139A, 140A

3 Hinge (heavy weight)	T4A3786 NRP 4-1/2" x 4-1/2"	US26D	MK
1 Rim Exit Device, entrance	LC 8813 ETL	US32D	SA
1 Cylinder Rim/Mortise	as Required	626/630	BE
1 Door Closer	PR7500	689	NO
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO
1 Wall Stop	409	US32D	RO
1 Gasketing	S88D		PE

**Set: 8.0**

Doors: 139B, 149, 160

3 Hinge	TA2714 4-1/2" x 4-1/2"	US26D	MK
1 Office Lock	45H7A 15H	626	BE
1 Wall Stop	409	US32D	RO
1 Gasketing	S88D		PE

**Set: 9.0**

Doors: 142, 154

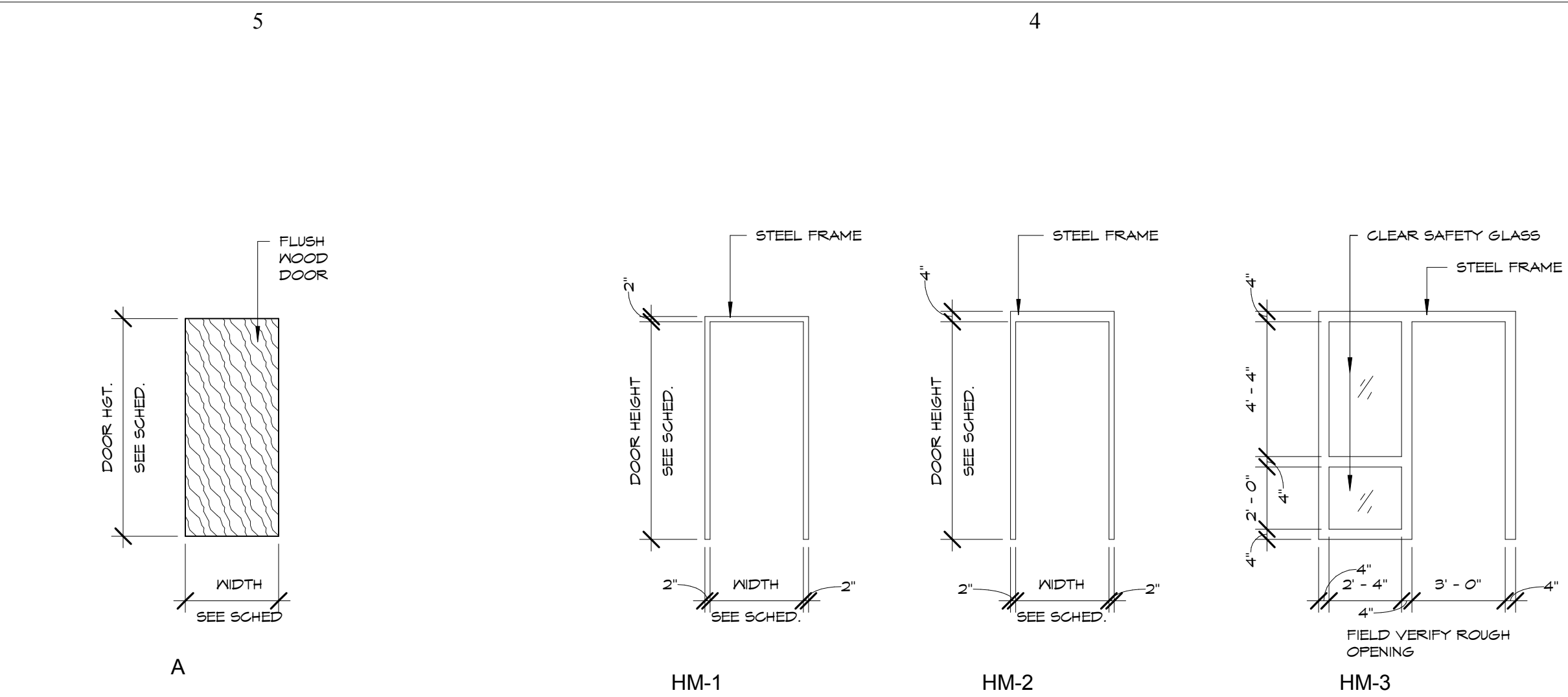
3 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK
1 Storeroom Lock	45H7D 15H	626	BE
1 Door Closer	7500	689	NO
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO
1 Door Stop	441	US26D	RO
3 Silencer	608		RO

**Set: 10.0**

Doors: 140B

3 Hinge (heavy weight)	T4A3786 4-1/2" x 4-1/2"	US26D	MK
1 Classroom Lock	45H7R 15H	626	BE
1 Door Closer	7500	689	NO
1 Kick Plate	K1050 10" x 2" LDW 4BE CSK	US32D	RO
1 Wall Stop	409	US32D	RO
1 Gasketing	S88D		PE

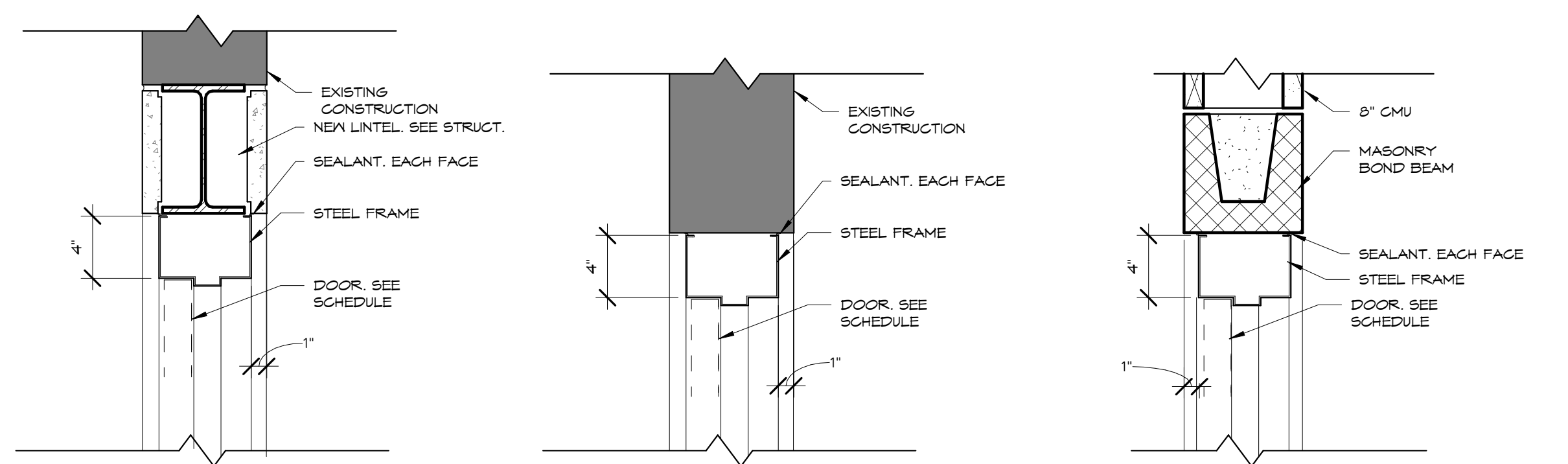
END OF SECTION 08 71 40



1 DOOR TYPES  
A701 1/4" = 1'-0"

2 DOOR FRAME TYPES  
A701 1/4" = 1'-0"

3 WINDOW TYPES  
A701 1/4" = 1'-0"

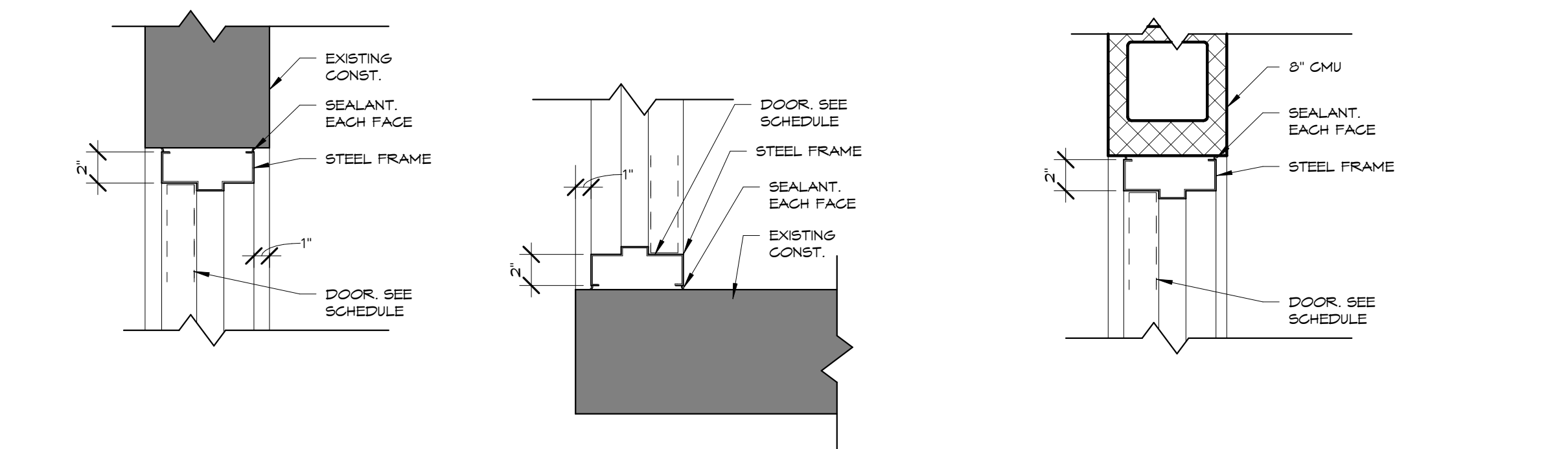


4 DOOR HEAD - EXISTING WALL  
A701 1 1/2" = 1'-0"

5 DOOR HEAD - EXISTING WALL HM3  
A701 1 1/2" = 1'-0"

6 DOOR HEAD - NEW CMU WALL  
A701 1 1/2" = 1'-0"

7 DOOR HEAD - FRAMED WALL  
A701 1 1/2" = 1'-0"

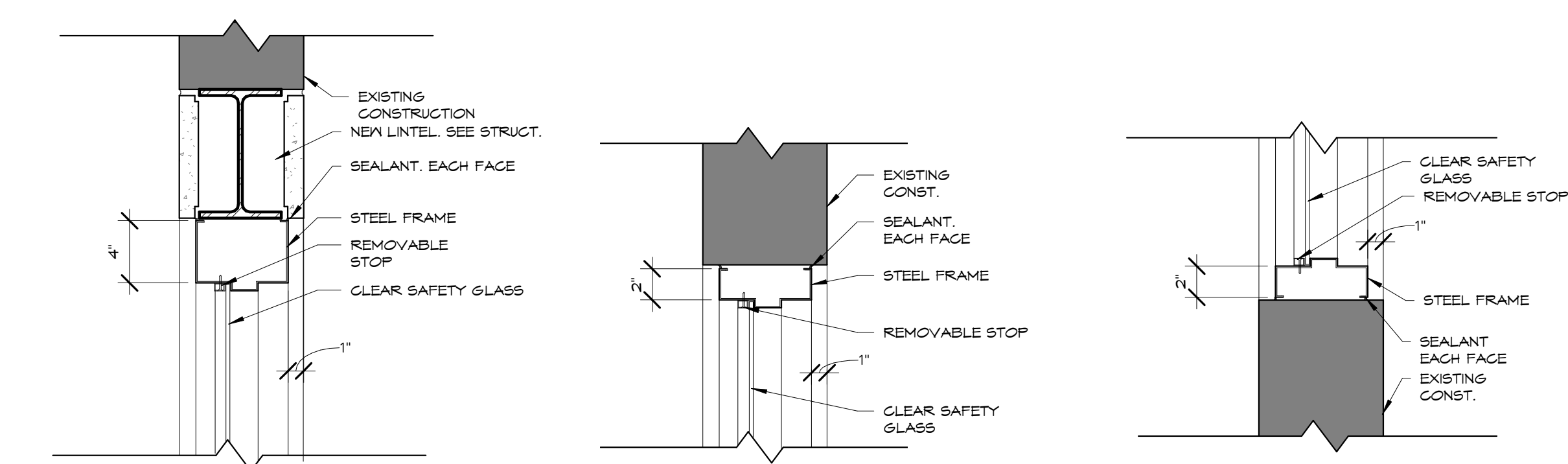


8 DOOR JAMB - EXISTING WALL  
A701 1 1/2" = 1'-0"

9 DOOR JAMB - EXISTING WALL HM3  
A701 1 1/2" = 1'-0"

10 DOOR JAMB - NEW CMU WALL  
A701 1 1/2" = 1'-0"

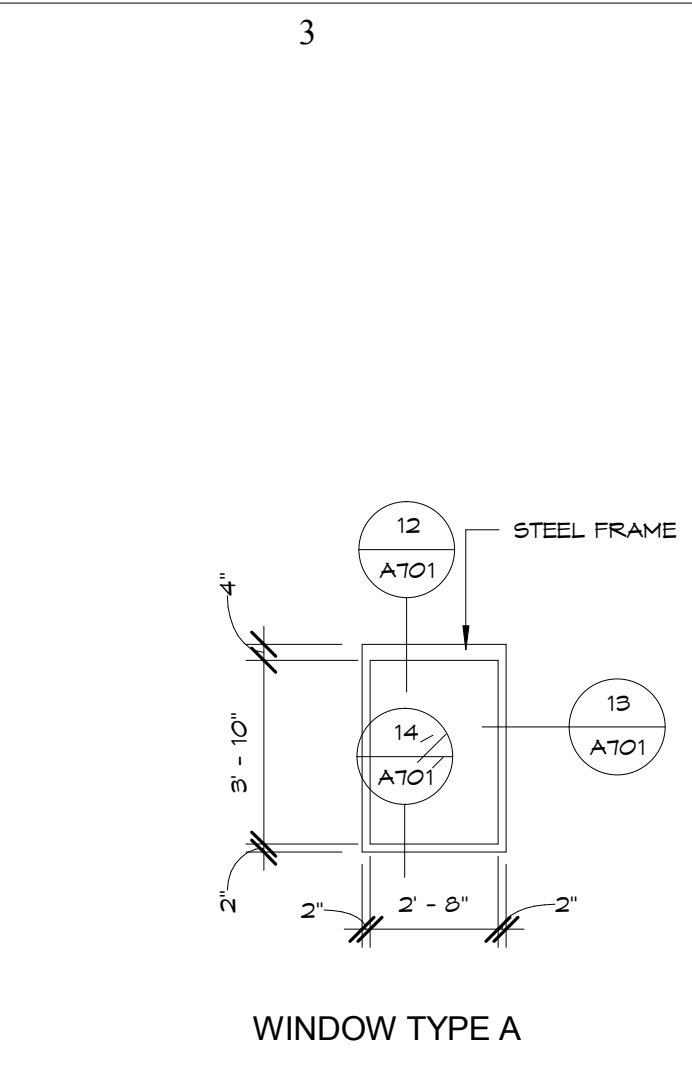
11 DOOR JAMB - FRAMED WALL  
A701 1 1/2" = 1'-0"



12 WINDOW HEAD  
A701 1 1/2" = 1'-0"

13 WINDOW JAMB  
A701 1 1/2" = 1'-0"

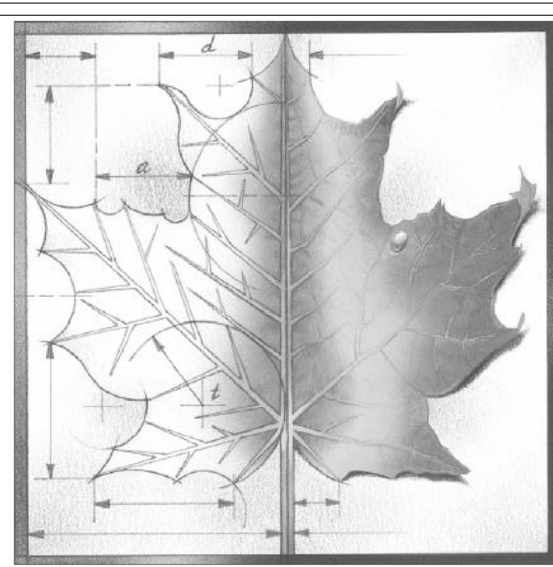
14 WINDOW SILL  
A701 1 1/2" = 1'-0"



15 WINDOW TYPE A  
A701 1/4" = 1'-0"

DOOR & FRAME SCHEDULE										
DOOR	DOOR SIZE		TYPE		FIRE RATING	DETAILS			HARDWARE SET	COMMENTS
	WIDTH	HEIGHT	DOOR	FRAME		HEAD	JAMB	SILL		
110	6'-0"	7'-0"	EXISTING						1.0	1
111	6'-0"	7'-0"	EXISTING						1.0	1
115A	3'-0"	7'-0"	EXISTING						2.0	1
115B	3'-0"	7'-0"	EXISTING						2.0	1
116	3'-0"	7'-0"	A	HM-1		10/A701	11/A701		4.0	
118A	3'-0"	7'-0"	EXISTING						2.0	1
118B	3'-0"	7'-0"	A	HM-1		10/A701	11/A701		5.0	
123B	3'-0"	7'-0"	A	HM-1		10/A701	11/A701		6.0	
138B	8'-0"	7'-0"	EXISTING						1.0	1
139A	3'-0"	7'-0"	A	HM-2		8/A701	9/A701		7.0	
139B	3'-0"	7'-0"	A	HM-2		8/A701	9/A701		8.0	
139C	3'-0"	7'-0"	A	HM-2		8/A701	9/A701		6.0	
140A	3'-0"	7'-0"	A	HM-2		8/A701	9/A701		7.0	
140B	4'-0"	7'-0"	A	HM-2	1-HR	8/A701	9/A701		10.0	
140C	3'-0"	7'-0"	A	HM-2		8/A701	9/A701		6.0	
140D	3'-0"	7'-0"	A	HM-2	1-HR	8/A701	9/A701		6.0	
142	3'-0"	7'-0"	A	HM-2		8/A701	9/A701		9.0	
143A	3'-0"	7'-0"	EXISTING						1.0	1
143B	3'-0"	7'-0"	EXISTING						3.0	1
144	3'-0"	7'-0"	EXISTING						1.0	1
144B	3'-0"	7'-0"	EXISTING						1.0	1
149	3'-0"	7'-0"	A	HM-3		6/A701	7/A701		8.0	
150	3'-0"	7'-0"	EXISTING						1.0	1
154	3'-0"	7'-0"	A	HM-2		4/A701	5/A701		9.0	
155	3'-0"	7'-0"	EXISTING						1.0	
160	3'-0"	7'-0"	A	HM-3		6/A701	7/A701		8.0	
161A	3'-0"	7'-0"	EXISTING						1.0	1
161B	3'-0"	7'-0"	EXISTING						1.0	1
164	3'-0"	7'-0"	EXISTING						1.0	1
205	3'-0"	7'-0"	EXISTING						1.0	1
206	3'-0"	7'-0"	EXISTING						1.0	1

COMMENTS:  
1. REFINISH EXISTING DOOR



**BBN**

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Information provided on the drawings regarding existing conditions has been obtained from the best source available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

2	ADDENDUM 2	4-6-2018
REV	DESC	DATE

Project Number: **16036**  
Date: **3/23/18**

Project Name:  
**USD 320 WAMEGO HIGH SCHOOL IMPROVEMENTS**

Project Address:  
**801 LICNOLN AVENUE  
WAMEGO, KS 66547**

Sheet Title:  
**DOOR SCHEDULE**

Sheet:  
**A701**