

Bid# 2023008-BID3000
Columbia County Justice Center Renovation & Addition
February 14, 2024

Addendum #2

This addendum forms a part of the Contract Documents and modifies the original drawings and specifications. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject Bidder to disqualification.

Clarifications

1. **Common Door Hardware:** I did not find the hardware schedule for the common doors. Is there one coming out?
The door hardware schedule has been added to the project specifications. BVA is coordinating the hardware schedule with the door schedule. An updated door schedule, sheets A7.0 and A7.1 will be provided in the next addendum.
2. **Stile and Rail Door Substitution:** Masonite Marshfield Doors is approved for the flush doors, but I would like to get Harring Door approved for the stile and rail doors. Marshfield owns Harring Door.
Harring Door is approved for stile and rail doors and has been added to project specifications.
3. **Existing Door Hardware:** The prints show existing doors and frames that do not have any hardware listed. Do I assume that the hardware stays on these openings?
All existing doors and frames listed in the door schedules without hardware indicate the existing hardware is to remain. All existing door cylinders and cores to be replaced and rekeyed.

Revisions to the PROJECT MANUAL

1. **REPLACE** Table of Contents Volume I with attached Section.
2. **REPLACE** Table of Contents Volume II with attached Section.
3. **REPLACE** EXHIBIT C – SPECIFICATIONS TABLE OF CONTENTS
4. SECTION 081433 STILE AND RAIL WOOD DOORS
 - a. Paragraph 2.4, A.1.d, **ADD** Harring Doors – Masonite Architectural.
 - b. Paragraph 2.5, A.1.d, **ADD** Harring Doors – Masonite Architectural.
5. **ADD** Section 087100 DOOR HARDWARE.

ATTACHMENTS:

SPECIFICATIONS listed above.

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SECTION 081433

STILE AND RAIL WOOD DOORS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Interior stile and rail wood doors.
 - 2. Interior fire-rated stile and rail wood doors.
- B. Related Requirements:
 - 1. Section 099300 "Staining and Transparent Finishing" for field finishing stile and rail doors.

1.2 ACTION SUBMITTALS

- A. Product Data:
 - 1. Interior stile and rail wood doors.
 - 2. Interior fire-rated stile and rail wood doors.
- B. Shop Drawings: Indicate location, size, and hand of each door; elevation of each type of door; construction details not covered in Product Data, including those for stiles, rails, panels, and moldings (sticking); and other pertinent data, including the following:
 - 1. Door schedule indicating door and frame location, type, size, fire protection rating, and swing.
 - 2. Door elevations, dimensions and location of hardware, lite locations, and glazing thickness.
 - 3. Details of frame for each frame type, including dimensions and profile.
 - 4. Details of electrical raceway and preparation for electrified hardware, access control systems, and security systems.
 - 5. Dimensions and locations of mortises and holes for hardware.
 - 6. Clearances and undercuts.
 - 7. Requirements for veneer matching.
 - 8. Doors to be factory finished and application requirements.
- C. Samples for Initial Selection: For factory-finished doors.
- D. Samples for Verification:
 - 1. Factory finishes applied to actual door face materials, approximately 8 by 10 inches, for each material and finish. For each wood species and transparent finish, provide set of three Samples showing typical range of color and grain to be expected in finished Work.

1.3 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For door inspector.
 - 1. Fire-Rated Door Inspector: Submit documentation of compliance with NFPA 80, Section 5.2.3.1.
- B. Field quality control reports.

- C. Sample Warranty: For special warranty.

1.4 CLOSEOUT SUBMITTALS.

- A. Special warranties.
- B. Record Documents: For fire-rated doors, list of door numbers and applicable room name and number to which door accesses.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Comply with requirements of referenced standard and manufacturer's written instructions.
- B. Package doors individually in opaque plastic bags or cardboard cartons.
- C. Mark each door on bottom rail with opening number used on Shop Drawings.

1.6 FIELD CONDITIONS

- A. Environmental Limitations:
 - 1. Do not deliver or install doors until spaces are enclosed and weathertight, wet work in spaces is complete and dry, and HVAC system is operating and maintaining temperature and relative humidity levels designed for building occupants for the remainder of construction period.

1.7 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace doors that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Delamination of veneer.
 - b. Warping (bow, cup, or twist) more than 1/4 inch in a 42-by-84-inch section.
 - c. Telegraphing of core construction in face veneers exceeding 0.01 inch in a 3-inch span.
 - 2. Warranty must also include installation and finishing that may be required due to repair or replacement of defective doors
 - 3. Warranty must be in effect during specified period of time from date of Substantial Completion.
 - 4. Warranty Period for Interior Doors: Life of installation.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

- A. Obtain each type of stile and rail wood door from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. Fire-Rated Wood Door and Frame Assemblies: Complying with NFPA 80 that are listed and labeled by a qualified testing agency acceptable to authorities having jurisdiction for fire-protection ratings and temperature-rise limits indicated on Drawings, based on testing at positive pressure in accordance with UL 10CorNFPA 252.

2.3 MATERIALS

- A. Use only materials that comply with referenced standards and other requirements specified.
 - 1. Assemble exterior doors, including components, with wet-use adhesives complying with ASTM D5572 for finger joints and with ASTM D5751 for joints other than finger joints.
 - 2. Assemble interior doors, including components, with either dry-use or wet-use adhesives complying with ASTM D5572 for finger joints and with ASTM D5751 for joints other than finger joints.
- B. Panel Products: Any of the following unless otherwise indicated:
 - 1. Particleboard: ANSI A208.1, Grade M-2.
 - 2. Medium-density fiberboard (MDF), complying with ANSI A208.2, Grade 130.
 - 3. Hardboard complying with ANSI A135.4.
 - 4. Veneer-core plywood.
- C. Safety Glass: Provide products complying with testing requirements in 16 CFR 1201, for Category II materials, unless those of Category I are expressly indicated and permitted.

2.4 INTERIOR STILE AND RAIL WOOD DOORS

- A. Interior Stile and Rail Wood Doors: Interior custom doors complying with AWI, AWMAC, and WI's Architectural Woodwork Standards and with other requirements specified. To match existing raised panel solid core wood doors in existing building.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. ETO Doors Corp.
 - b. Karona by JELD-WEN.
 - c. VT Industries, Inc.
 - d. Harring Doors – Masonite Architectural
 - 2. Performance Grade: ANSI/WDMA I.S. 1A Heavy Duty.
 - 3. ANSI/WDMA I.S. 1A Quality Grade: Custom.
 - 4. Architectural Woodwork Standards Quality Grade: Custom.
 - 5. Panel Designs: Indicated on Drawings. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.
 - 6. Finish: Transparent. To match existing finish of solid core wood doors in existing building and doors adjacent to areas being installed.
 - 7. Wood Species and Cut for Transparent Finish: To match existing species and cut of solid core wood doors in existing building and doors adjacent to areas being installed.
 - 8. Door Construction for Transparent Finish:
 - a. Stile and Rail Construction:
 - 1) Clear lumber; may be edge glued for width. Select lumber for similarity of grain and color, and arrange for optimum match between adjacent pieces.

- 2) Veneered, structural composite lumber or veneered, edge- and end-glued clear lumber. Select veneers for similarity of grain and color, and arrange for optimum match between adjacent pieces
 - b. Raised-Panel Construction:
 - 1) Clear lumber; edge glued for width. Select lumber for similarity of grain and color, and arrange for optimum match between adjacent pieces.
 - 2) Edge-glued, clear lumber; glued to both sides of a wood-based panel product. Select lumber for similarity of grain and color, and arrange for optimum match between adjacent pieces.
 - c. Flat-Panel Construction: Veneered, wood-based panel product.
9. Stile and Rail Widths: Manufacturer's standard, but not less than the following:
- a. Stiles, Top and Intermediate Rails: 4-1/2 inches standard minimum. To match existing solid core wood doors width in existing building and doors adjacent to areas being installed.
 - b. Bottom Rails: 9 inches standard minimum. To match existing solid core wood doors width in existing building and doors adjacent to areas being installed.
10. Raised-Panel Thickness: Manufacturer's standard, but not less than 1-1/8 inches. To match existing solid core wood doors panel thickness in existing building and doors adjacent to areas being installed.
11. Flat-Panel Thickness: As indicated. To match existing solid core wood doors panel thickness in existing building.
12. Molding Profile (Sticking): Manufacturer's standard. To match existing solid core wood doors panel thickness in existing building.

2.5 INTERIOR FIRE-RATED STILE AND RAIL WOOD DOORS

- A. 60-Minute, Interior Fire-Rated Stile and Rail Wood Doors: Fire-rated (60-minute rating) doors complying with AWI, AWMAC, and WI's Architectural Woodwork Standards and with other requirements specified.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. ETO Doors Corp.
 - b. Karona by JELD-WEN.
 - c. VT Industries, Inc.
 - d. Harring Doors – Masonite Architectural
 2. Performance Grade: ANSI/WDMA I.S. 1A Heavy Duty.
 3. ANSI/WDMA I.S. 1A Quality Grade: Custom.
 4. Architectural Woodwork Standards Quality Grade: Custom.
 5. Panel Designs: Indicated on Drawings. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.

6. Finish: Transparent.
7. Wood Species and Cut for Transparent Finish: To match existing species and cut of solid core wood doors in existing building and doors adjacent to areas being installed.
 - a. Edge Construction for Fire-Rated Pairs of Doors:
 - 1) Provide fire-retardant stiles that are listed and labeled for applications indicated without formed-steel edges and astragals. Provide stiles with concealed intumescent seals. Comply with specified requirements for exposed edges.
8. Stile and Rail Widths: Manufacturer's standard, but not less than the following:
 - a. Stiles, Top and Intermediate Rails: 4-1/2 inches standard minimum. To match existing solid core wood doors width in existing building and doors adjacent to areas being installed.
 - b. Bottom Rails: 9 inches standard minimum. To match existing solid core wood doors width in existing building and doors adjacent to areas being installed.
9. Molding Profile (Sticking): Manufacturer's standard To match existing solid core wood doors profile in existing building and doors adjacent to areas being installed
10. Mark, label, or otherwise identify stile and rail wood doors as complying with WDMA I.S. 6A and grade specified.
 - 1) Screw-Holding Capability: 475 lbf in accordance with WDMA T.M. 10.
11. Edge Construction for Fire-Rated Pairs of Doors:
 - a. Fire-Retardant Stiles: Provide fire-retardant stiles that are listed and labeled for applications indicated without formed-steel edges and astragals. Provide stiles with concealed intumescent seals. Comply with specified requirements for exposed edges.
 - 1) At hinge stiles, provide laminated-edge construction with improved screw-holding capability and split resistance. Comply with specified requirements for exposed edges.
 - a) Screw-Holding Capability: 475 lbf in accordance with WDMA T.M. 10.
12. Stile and Rail Widths Manufacturer's standard, but not less than the following:
 - a. Stiles, Top and Intermediate Rails: 4-1/2 inches standard minimum. To match existing solid core wood doors width in existing building and doors adjacent to areas being installed.
 - b. Bottom Rails: 9 inches standard minimum. To match existing solid core wood doors width in existing building and doors adjacent to areas being installed.
13. Molding Profile (Sticking): Manufacturer's standard. To match existing solid core wood doors profile in existing building and doors adjacent to areas being installed.
14. Mark, label, or otherwise identify stile and rail wood doors as complying with WDMA I.S. 6A and grade specified.

2.6 STILE AND RAIL WOOD DOOR FABRICATION

- A. Factory fit doors to suit frame-opening sizes indicated, with the following uniform clearances and bevels unless otherwise indicated:

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1. Clearances:
 - a. Provide 1/8 inch at heads, jambs, and between pairs of doors.
 - b. Provide 1/2 inch from bottom of door to top of decorative floor finish or covering.
 - c. Where threshold is shown on Drawings or scheduled, provide not more than 3/8 inch from bottom of door to top of threshold.
 - d. Comply with NFPA 80 requirements for fire-rated doors.
 2. Bevel non-fire-rated doors 1/8 inch in 2 inches at lock and hinge edges.
 3. Bevel fire-rated doors 1/8 inch in 2 inches on lock edge; trim stiles and rails only to extent permitted by labeling agency.
- B. Fabricate stile and rail wood doors in sizes indicated for field fitting.
- C. Factory machine doors for hardware that is not surface applied.
1. Locate hardware to comply with DHI-WDHS-3.
 2. Comply with final hardware schedules, door frame Shop Drawings, BHMA-156.115-W, and hardware templates.
 3. For doors scheduled to receive electrified locksets, provide factory-installed raceway and wiring to accommodate specified hardware.
 4. Coordinate measurements of hardware mortises in metal frames to verify dimensions and alignment before factory machining.

2.7 FACTORY FINISHING

- A. Comply with referenced quality standard for factory finishing.
1. Complete fabrication, including fitting doors for openings and machining for hardware that is not surface applied, before finishing.
 2. Finish faces, all four edges, edges of cutouts, and mortises.
 3. Stains and fillers may be omitted on top and bottom edges, edges of cutouts, and mortises.
- B. Factory finish doors that are indicated to receive transparent finish.
- C. Transparent Finish:
1. Architectural Woodwork Standards Grade: Custom.
 - a. System 5, varnish, conversion.
 2. Staining: As selected by Architect from manufacturer's full range, to match existing doors.
 3. Effect: Semifilled finish, produced by applying an additional finish coat to partially fill the wood pores.
 4. Sheen: Satin.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine doors and installed door frames, with Installer present, before hanging doors.
1. Verify that installed frames comply with indicated requirements for type, size, location, and swing characteristics and have been installed with level heads and plumb jambs.
 2. Reject doors with defects.

- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Hardware: For installation, see Section 087100 "Door Hardware."
- B. Install doors to comply with manufacturer's written instructions and referenced quality standard, and as indicated.
 - 1. Install fire-rated door frames in accordance with NFPA 80.
 - a. Install frames level, plumb, true, and straight.
 - 1) Shim as required with concealed shims. Install level and plumb to a tolerance of 1/8 inch in 96 inches.
 - b. Anchor frames to anchors or blocking built in or directly attached to substrates.
 - 1) Secure with countersunk, concealed fasteners and blind nailing.
 - 2) Use fine finishing nails for exposed fastening, countersunk and filled flush with woodwork.
 - c. For shop-finished items, use filler matching finish of items being installed.
 - 2. Install fire-rated doors in accordance with NFPA 80.
- C. Job-Fitted Doors:
 - 1. Align and fit doors in frames with uniform clearances and bevels as indicated below.
 - a. Do not trim stiles and rails in excess of limits set by manufacturer or permitted for fire-rated doors.
 - 2. Machine doors for hardware.
 - 3. Seal edges of doors, edges of cutouts, and mortises after fitting and machining.
 - 4. Clearances:
 - a. Provide 1/8 inch at heads, jambs, and between pairs of doors.
 - b. Provide 1/2 inch from bottom of door to top of decorative floor finish or covering unless otherwise indicated on Drawings.
 - c. Where threshold is shown on Drawings or scheduled, provide 3/8 inch from bottom of door to top of threshold unless otherwise indicated.
 - d. Comply with NFPA 80 for fire-rated doors.
 - 5. Bevel non-fire-rated doors 1/8 inch in 2 inches at lock and hinge edges.
 - 6. Bevel fire-rated doors 1/8 inch in 2 inches on lock edge; trim stiles and rails only to extent permitted by labeling agency.
- D. Factory-Fitted Doors: Align in frames for uniform clearance at each edge.
- E. Factory- Finished Doors: Restore finish before installation if fitting or machining is required at Project site.

3.3 ADJUSTING

- A. Operation: Rehang or replace doors that do not swing or operate freely.

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- B. Finished Doors: Replace doors that are damaged or do not comply with requirements. Doors may be repaired or refinished if Work complies with requirements and shows no evidence of repair or refinishing.

END OF SECTION 081433

SECTION 087100
DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes commercial door hardware for the following:
1. Swinging doors.
- 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. Section 081113 "Hollow Metal Doors and Frames".
 2. Section 081416 "Flush Wood Doors".
 3. Section 081433 "Stile and Rail Wood Doors".
 4. Section 084313 "Aluminum-Framed Storefronts".
 5. Section 084413 "Glazed Aluminum Curtain Walls".
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
 2. ICC/IBC - International Building Code.
 3. NFPA 70 - National Electrical Code.
 4. NFPA 80 - Fire Doors and Windows.
 5. NFPA 101 - Life Safety Code.
 6. NFPA 105 - Installation of Smoke Door Assemblies.
 7. UL/ULC and CSA C22.2 - Standards for Automatic Door Operators Used on Fire and Smoke Barrier Doors and Systems of Doors.
 8. State Building Codes, Local Amendments.
- E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:

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

1.3 SUBMITTALS

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

- a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
 - b. Complete (risers, point-to-point) access control system block wiring diagrams.
 - c. Wiring instructions for each electronic component scheduled herein.
2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.
- D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.
- E. Informational Submittals:
1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.
- 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 Division 01, 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. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).
- C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.
- E. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
 2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.
- F. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.
- G. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:
1. Function of building, purpose of each area and degree of security required.
 2. Plans for existing and future key system expansion.
 3. Requirements for key control storage and software.
 4. Installation of permanent keys, cylinder cores and software.
 5. Address and requirements for delivery of keys.

1.5 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct coordination conference at the Project site. 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
- B. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
- B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

- C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.7 COORDINATION

- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
- B. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.8 WARRANTY

- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:
 - 1. Structural failures including excessive deflection, cracking, or breakage.
 - 2. Faulty operation of the hardware.
 - 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 4. Electrical component defects and failures within the systems operation.
- C. 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. Two years for electromechanical door hardware,

1.9 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.

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: 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 (McK).

- 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.

1. Manufacturers:

- a. Pemko Products; ASSA ABLOY Architectural Door Accessories (PK).

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; ASSA ABLOY Architectural Door Accessories (McK) - Electrical Connecting Kit: QC-R001.
- b. McKinney Products; ASSA ABLOY Architectural Door Accessories (McK) - Connector Hand Tool: QC-R003.

2. Manufacturers:

- a. McKinney Products; ASSA ABLOY Architectural Door Accessories (McK) - QC-C Series.

2.4 DOOR OPERATING TRIM

- A. Flush Bolts and Surface 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. Surface bolts to be minimum 8" in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.

4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.
 5. Manufacturers:
 - a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RW).
- B. 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 Products; ASSA ABLOY Architectural Door Accessories (RW).

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. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.
- C. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:
 1. Threaded mortise cylinders with rings and cams to suit hardware application.
 2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
 3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
 4. Tubular deadlocks and other auxiliary locks.
 5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
 6. Keyway: Manufacturer's Standard.
- D. Security Cylinders: ANSI/BHMA A156.5, Grade 1 Certified Products Directory (CPD) listed security cylinders and keys able to be used together under the same facility master or grandmaster key system. Cylinders to be factory keyed.
 1. New security key systems shall not be established with products that have an expired patent. Expired systems shall only be specified and supplied to support existing systems.
 2. Manufacturers:

- a. Sargent 10-Signature removable cores, construction cores to be supplied with all locks.
 - b. No Substitutions.
- E. Keying System: Each type of lock and cylinders to be factory keyed.
- 1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
 - 2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
 - 3. New System: Key locks to a new key system as directed by the Owner.
- F. 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).
- G. Construction Keying: Provide construction master keyed cylinders.
- H. 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).
- P. Electronic Key Management System: Provide an electronic key control system with Stand-alone Plug and Play features including advanced RFID technology. Touchscreen interface with PIN access for keys individually locked in place. Minimum 1,000 system users and 21 iFobs for locking receptors. System shall have a minimum 250,000 audit events screen displayed or ability to be exported via USB port.
- 1. Manufacturers:
 - a. Medeco (MC).
 - b. Traka (TA).

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. Manufacturers:
 - a. Sargent Manufacturing (SG) - 8200 Series.

2.8 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.

2.9 ELECTRIC STRIKES

- A. Standard Electric Strikes: Electric strikes tested to ANSI/BHMA A156.31, Grade 1, for use on non-rated or fire rated openings. Strikes shall be of stainless steel construction tested to a minimum of 1500 pounds of static strength and 70 foot-pounds of dynamic strength with a minimum endurance of 1 million operating cycles. Provide strikes with 12 or 24 VDC capability, fail-secure unless otherwise specified. Where specified provide latchbolt and latchbolt strike monitoring indicating both the position of the latchbolt and locked condition of the strike.
1. Manufacturers:
 - a. Hanchett (HES) - 1000 Series.
- B. Provide electric strikes with in-line power controller and surge suppressor by the same manufacturer as the strike with the combined products having a five year warranty.

2.10 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. Flush End Caps: Provide flush end caps made of architectural metal in the same finish as the devices as in the Hardware Sets. Plastic end caps will not be acceptable.
 6. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.
 - a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
 - b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.
 7. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
 8. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2" wide stiles.
 9. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
 10. Rail Sizing: Provide exit device rails factory sized for proper door width application.
 11. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.
- B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed 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 (SG) - 80 Series.
- C. Extruded Aluminum Removable Mullions: ANSI/BHMA A156.3 anodized, removable mullions with malleable-iron top and bottom retainers. Mullions to be provided standard with stabilizers and imbedded weatherstrip.
- 1. Manufacturers:
 - a. Same as exit device manufacturer.
- D. Tube Steel Removable Mullions: ANSI/BHMA A156.3 removable steel mullions with malleable-iron top and bottom retainers and a primed paint finish.
- 1. Provide keyed removable feature where specified in the Hardware Sets.
 - 2. Provide stabilizers and mounting brackets as required.
 - 3. Provide electrical quick connection wiring options as specified in the hardware sets.
 - 4. Manufacturers:
 - a. Same as exit device manufacturer.

2.11 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. Sargent Manufacturing (SG) - 351 Series.

2.12 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 Products; ASSA ABLOY Architectural Door Accessories (RW).

2.13 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 Products; ASSA ABLOY Architectural Door Accessories (RW).

- 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. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RW).
- b. Sargent Manufacturing (SG).

2.14 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 Products; ASSA ABLOY Architectural Door Accessories (PK).

2.15 ELECTRONIC ACCESSORIES

- A. Push-Button Switches: Industrial grade momentary or alternate contact, back-lighted push buttons with stainless-steel switch enclosures. 12/24 VDC bi-color illumination suitable for either flush or surface mounting.

- 1. Manufacturers:

- a. Securitron (SEC) - PB Series.

- B. Door Position Switches: Door position magnetic reed contact switches specifically designed for use in commercial door applications. On recessed models the contact and magnetic housing snap-lock into a 1" diameter hole. Surface mounted models include wide gap distance design complete with armored flex cabling. Provide SPDT, N/O switches with optional Rare Earth Magnet installation on steel doors with flush top channels.
 - 1. Manufacturers:
 - a. Securitron (SEC) - DPS Series.
- C. Linear 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 plus 50% for the specified electrified hardware and access control equipment.
 - 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 (SEC) - DPS Series.

2.16 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.

2.17 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 9 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 Division 7 Section "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 (Punch Report): Reference Division 01 Sections “Closeout Procedures” and “Cash Allowances”. 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.
 - 2. Submit documentation of incomplete items in the following formats:
 - a. PDF electronic file.
 - b. Electronic formatted file integrated with the Openings Studio™ door opening management software platform.

3.5 ADJUSTING

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

3.6 CLEANING AND PROTECTION

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

3.7 DEMONSTRATION

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

3.8 DOOR HARDWARE SETS

A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

1. Quantities listed are for each pair of doors, or for each single door.
2. The supplier is responsible for 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.

B. Manufacturer's Abbreviations:

1. AL - Alarm Lock Systems
2. BO – Bommer
3. HES – Hanchett
4. KX - Keedex
5. McK - McKinney
6. PE – Pemko
7. RW - Rockwood
8. SG - Sargent
9. SU – Securitron

Booker + Vick Architects

COLUMBIA COUNTY JUSTICE CENTER RENOVATION & ADDITION

HDW SET 1

1016, 1034B, 1037, 1038, 1044, 1045, 1117, 1163, 1171, 1174, 1180, 1186
2067A, 2137B

Each door to have:

3 Ball Bearing Hinges	(McK)	TA2714-US26D 4½ x 4½
1 Mortise iClass Reader Lock	(AL)	PDL8600 US26D x DPS
1 Mortise Cylinder w/Core	(SG)	10-63/64-46 US26D
1 Door Closer	(SG)	EN351-UO x TB
1 Wall or Floor Stop	(RW)	400 or 441-US26D
3 Silencers	(RW)	608

HDW SET 1A

2102, 2121

Each door to have:

4 Ball Bearing Hinges	(McK)	TA2714-US3 4½ x 4½
1 Mortise iClass Reader Lock	(AL)	PDL8600 US10B x DPS
1 Mortise Cylinder w/Core	(SG)	10-63/64-46 US10B
1 Door Closer	(SG)	EAB351-UO x TB
1 Wall or Floor Stop	(RW)	400 or 441-US3
3 Silencers	(RW)	608

HDW SET 2

1028B, 1047B, 1132A, 1185B, 2130

Each door to have:

3 Ball Bearing Hinges	(McK)	TA2714-US26D 4½ x 4½
1 Fire Rated Rim Exit Device	(SG)	10-63/64-12-8813 ETL-US32D
1 Door Closer	(SG)	EN351-UO x TB
1 Floor Stop	(RW)	481-US26D
1 Roll Adhesive Gasketing	(PK)	HSS2000 x S88D
1 Kick Plate	(RW)	K1050-US32D 10" x 2"LDW

HDW SET 2A

1131B

Each door to have:

4 Ball Bearing Hinges	(McK)	TA2714-US3 4½ x 4½
1 Fire Rated Rim Exit Device	(SG)	10-63/64-12-8813 ETL-US3
1 Door Closer	(SG)	EAB351-UO x TB
1 Floor Stop	(RW)	481-US3
1 Roll Adhesive Gasketing	(PK)	HSS2000 x S88D
1 Kick Plate	(RW)	K1050-US3 10" x 2"LDW

HDW SET 3

1028C, 1185A, 1131A, B006, B008

Each door to have:

2 Stainless Steel Ball Bearing Hinges	(McK)	TA2314-US32D 4½ x 4½
1 Stainless Steel Electric Hinge	(McK)	TA2314-QC12 US32D 4½ x 4½
1 Latch Retraction Rim Exit Device	(SG)	10-63/64-55-56-8804 PSB-US32D
1 Door Closer w/Stop	(SG)	EN351-CPS x TB
1 Kick Plate	(RW)	K1050-US32D 10" x 2"LDW
1 Threshold	(PK)	171A-MSES25SS x WOD
1 Sweep	(PK)	315CN x DW
1 Set Weatherstrip	(PK)	303AS x DW x DH

Note: Reader and integration by Access Control Contractor

HDW SET 4

1032, 1134, 2143

Each pair to have:

8 Heavy Weight Ball Bearing Hinges	(McK)	T4B3786-US3 4½ x 4½
2 Surface Vertical Rod Exit Devices	(SG)	12-NB8710-US3 (Exit Only)
2 Electro Mechanical Hold Open Closer	(SG)	EAB351-EHTD x TB
2 Floor Stops	(RW)	481-US3
1 Roll Adhesive Gasketing	(PK)	HSS2000 x S88D
1 Astragal Strip	(PK)	S773D

HDW SET 5

1033, 1034A, 1162A, 1162B, 1085B, 2136A, 2136B, 2005A 2005B

3 Ball Bearing Hinges	(McK)	TA2714-US26D 4½ x 4½
1 Mortise Classroom Lever Lock	(SG)	10-63/64-8237 LNL-US26D
1 Door Closer	(SG)	EN351-UO x TB
1 Wall or Floor Stop	(RW)	400 or 441-US26D
3 Silencers	(RW)	608

HDW SET 5A

2087, 2140, 2142, 2122, 2123

4 Ball Bearing Hinges	(McK)	TA2714-US3 4½ x 4½
1 Mortise Classroom Lever Lock	(SG)	10-63/64-8237 LNL-US3
1 Door Closer	(SG)	EAB351-UO x TB
1 Wall or Floor Stop	(RW)	400 or 441-US3
3 Silencers	(RW)	608

HDW SET 6

1040, 1041, 1042, 1039, 1081, 1166, 1167, 1175, 1176, 1181, 1182, 1187, 1188, 1189, 1082B, 1082A, 2003, 2004, 2006, 2007

Each door to have:

3 Ball Bearing Hinges	(McK)	TA2714-US26D 4½ x 4½
1 Mortise Office Lever Lock	(SG)	10-63/64-8205 LNL-US26D
1 Door Closer	(SG)	EN351 UO x TB (1081 and 1082A only)
1 Wall or Floor Stop	(RW)	400 or 441-US26D
1 Coat Hook	(RW)	796-US26D
3 Silencers	(RW)	608

HDW SET 7

1117A, 1165, 1168, 1170, 1173, 1177, 1179, 1183, 1192

Each door to have:

3 Ball Bearing Hinges	(McK)	TA2714-US26D 4½ x 4½
1 Mortise Storeroom Lever Lock	(SG)	10-63/64-8204 LNL-US26D
1 Convex Wall Stop	(RW)	400-US26D
3 Silencers	(RW)	608

HDW SET 8

1164, 1169, 1172, 1178

Each door to have:

3 Ball Bearing Hinges	(McK)	TA2714-US26D 4½ x 4½
1 Mortise Privacy w/Indicator	(SG)	V20-8266 LNL-US26D
1 Convex Wall Stop	(RW)	400-US26D
1 Coat Hook	(RW)	796-US26D
3 Silencers	(RW)	608

HDW SET 8A

2133, 2134, 2090

Each door to have:

3 Ball Bearing Hinges	(McK)	TA2714-US26D 4½ x 4½
1 Mortise Privacy w/Indicator	(SG)	V20-8266 LNL-US26D
1 Door Closer	(SG)	EN351-UO-TB
1 Convex Wall Stop	(RW)	400-US26D
1 Coat Hook	(RW)	796-US26D
3 Silencers	(RW)	608

HDW SET 9

1036, 1064

Each door to have:

2 Ball Bearing Hinges	(McK)	TA2714-US26D 4½ x 4½
1 Electric Ball Bearing Hinge	(McK)	TA2714-QC8 US26D 4½ x 4½
1 Mortise Electric Unlocking Lever Lock	(SG)	10-63/64-RX-8271 LNL-US26D x 24V
1 Door Closer	(SG)	EN351-UO x TB
1 Floor Stop	(RW)	481-US26D
1 Kick Plate	(RW)	K1050-US32D 10" x 2"LDW
1 Door Position Switch	(SEC)	DPS-W x BK
1 ElectroLynx Harness	(McK)	QC-C1500P
1 ElectroLynx Harness	(McK)	QC-C306P
3 Silencers	(RW)	608

NOTE: Reader & Integration by Access Control Contractor.

HDW SET 9A

2095

Each door to have:

3 Ball Bearing Hinges	(McK)	TA2714-US3 4½ x 4½
1 Electric Ball Bearing Hinge	(McK)	TA2714-QC12 US3 4½ x 4½
1 Delayed Egress Exit Device	(SG)	10-63/64-12-59-8876 ETL US3
1 Door Closer	(SG)	EAB351-UO x TB
1 Kick Plate	(RW)	K1050-US3 10" x 2"LDW
1 Door Position Switch	(SEC)	DPS-W x BK
1 ElectroLynx Harness	(McK)	QC-C1500P
1 ElectroLynx Harness	(McK)	QC-C306P
3 Silencers	(RW)	608

NOTE: Reader & Integration by Access Control Contractor.

HDW SET 10

1135, 1136, 1184, 2132, 2127

Each door to have:

3 Ball Bearing Hinges	(McK)	TA2714-US26D 4½ x 4½
1 Mortise Storeroom Lever Lock	(SG)	10-63/64-8204 LNL-US26D
1 Door Closer	(SG)	EN351-UO x TB
1 Wall or Floor Stop	(RW)	400 or 441-US26D
3 Silencers	(RW)	608

HDW SET 10A

2101

Each door to have:

4 Ball Bearing Hinges	(McK)	TA2714-US3 4½ x 4½
1 Mortise Storeroom Lever Lock	(SG)	10-63/64-8204 LNL-US3
1 Door Closer	(SG)	EAB351-UO x TB
1 Wall or Floor Stop	(RW)	400 or 441-US3
3 Silencers	(RW)	608

HDW SET 11

E1003, E1031B, E1070, E1152B

Each door to have:

1 Mortise iClass Reader Lock	(AL)	PDL8600R-US26D x DPS
1 Mortise Cylinder w/Core	(SG)	10-63/64-46 US26D

NOTE: Reuse existing hardware.

HDW SET 11A

E1089, E2012, E2041, E2079, E2086, E2089

Each door to have:

1 Mortise iClass Reader Lock	(AL)	PDL8600R-US10B x DPS
1 Mortise Cylinder w/Core	(SG)	10-63/64-46 US10B

NOTE: Reuse existing hardware.

HDW SET 12

E1001A, E1090, E1152A

Each door to have:

4 Ball Bearing Hinges	(McK)	TA2714-US3 4½ x 4½
1 Mortise Storeroom Lever Lock	(SG)	10-63/64-8204 WTL-US3
1 Door Closer	(SG)	EAB351-UO x TB
1 Floor Stop	(RW)	481-US3
1 Electric Strike	(HES)	1006CLB-605 x 2005M3
1 Door Position Switch	(SEC)	DPS-W x BK
3 Silencers	(RW)	608

NOTE: Reader & Integration by Access Control Contractor.

HDW SET 13

2026A, 2080E, 2138C

Each door to have:

4 Ball Bearing Hinges	(McK)	TA2714-US3 4½ x 4½
1 Electric Ball Bearing Hinge	(McK)	TA2714-QC12 US3 4½ x 4½
1 Delayed Egress Rim Exit Device w/Electric Unlocking Trim	(SG)	10-63/64-12-59-8876 ETL-US3 24V
1 Door Closer	(SG)	EAB351-UO x TB
1 Floor Stop	(RW)	481-US3
1 Kick Plate	(RW)	K1050-US3 10" x 2"LDW
1 ElectroLynx Harness	(McK)	QC-C1500P
1 ElectroLynx Harness	(McK)	QC-C003P

NOTE: Reader & Integration by Access Control Contractor.

HDW SET 14

2104, 2105

Each door to have:

4 Heavy Weight Ball Bearing Hinges	(McK)	T4A3786-US3 4½ x 4½
1 Push Plate	(RW)	70C-US3
1 Pull Plate	(RW)	110 x 70C-US3
1 Door Closer	(SG)	EAB351-UO x TB
1 Floor Stop	(RW)	481-US3
1 Kick Plate	(RW)	K1050-US3 8" x 2"LDW
3 Silencers	(RW)	608

HDW SET 15

2103A, 2103B, 2141A

Each pair to have

8 Heavy Weight Ball Bearing Hinges	(McK)	T4A3786-US3 4½ x 4½
2 Surface Vertical Rod Exit Devices	(SG)	10-63/64-NB8713 ETL-US3
2 Door Closers w/Stop	(SG)	EAB351-POTB x TB
1 Roll Adhesive Gasketing	(PK)	HSS2000 x S88D
2 Rolls Adhesive Astragal Gasketing	(PK)	S773D

HDW SET 16

2014

Each pair to have:

8 Heavy Weight Ball Bearing Hinges	(McK)	T4A3786-US# 4½ x 4½
1 Surface Vertical Rod Exit Device	(SG)	10-63/64-12-NB8713 ETL-US3
1 Surface Vertical Rod Exit Device	(SG)	12-NB8710-US3
2 Door Closers w/Stop	(SG)	EAB351-POTB x TB
1 Roll Adhesive Gasketing	(PK)	HSS2000 X S88D
2 Rolls Adhesive Astragal Gasketing	(PK)	S773D

HDW SET 17

2138A

Each pair to have:

8 Heavy Weight Ball Bearing Hinges	(McK)	T4A3786-US3 4½ x 4½
2 Push Plates	(RW)	70C-US3
2 Pull Plates	(RW)	110 x 70C-US3
2 Door Closers w/Stop	(SG)	EAB351-POTB x TB
2 Silencers	(RW)	608

HDW SET 18

2131

Each door to have:

3 Ball Bearing Hinges	(McK)	TA2714-US26D 4½ x 4½
1 Mortise Asylum Lever Lock	(SG)	10-63/64-8217 LNL-US26D
1 Door Closer	(SG)	EN351-POTB x TB
1 Electric Strike	(HES)	1006CLB-630 x 2005M3
1 Door Position Switch	(SEC)	DPS-W x BK
3 Silencers	(RW)	608

NOTE: Readers both sides of doors. Wiring & Integration by Access Control Contractor.

HDW SET 18A

2138B

Each door to have:

4 Ball Bearing Hinges	(McK)	TA2714-US3 4½ x 4½
1 Mortise Asylum Lever Lock	(SG)	10-63/64-8217 LNL-US3
1 Door Closer	(SG)	EAB351-POTB x TB
1 Electric Strike	(HES)	1006CLB-605 x 2005M3
1 Door Position Switch	(SEC)	DPS-W x BK
3 Silencers	(RW)	608

NOTE: Readers both sides of doors. Wiring & Integration by Access Control Contractor.

HDW SET 19

E2004A

Each pair to have:

8 Heavy Weight Ball Bearing Hinges	(McK)	T4A3786-US3 4½ x 4½
1 Surface Vertical Rod Exit Device w/ delayed Egress	(SG)	10-63/64-59-12-NB8776 ETL-US3
1 Surface Vertical Rod Exit Device w/ delayed egress	(SG)	59-12-NB8710-US3
2 Door Closers w/Stop	(SG)	EAB351-POTB x TB
2 door loops	(KD)	K-DL38-A
2 Electro Lynx Harnesses	(McK)	QC-C2500P
2 Silencers	(RW)	608

HDW SET 20

B007

Each door to have:

3 Ball Bearing Hinges	(McK)	TA2314-US32D 4½ x 4½ NRP
1 Delayed Egress Electric Unlocking Rim Exit Device	(SG)	10-63/64-59-8876 ETL-US32D 24V
1 Door Closer w/Stop	(SG)	EN351-CPS x TB
1 Kick Plate	(RW)	K1050-US32D 10" x 2"LDW
1 Door Loop	(KX)	K-DL38A
1 ElectroLynx Harness	(McK)	QC-C2500P
1 Threshold	(PK)	171AMSES25SS x WOD
1 Sweep	(PK)	315CN x DW
1 Set Weatherstrip	(PK)	303AS-DW x DH

NOTE: Reader & Integration by Access Control Contractor.

HDW SET 21

1085A

4 Ball Bearing Hinges	(McK)	TA2714-US26D 4½ x 4½
1 Mortise Classroom Lever Lock	(SG)	10-63/64-8237 LNL-US26D
1 Dutch door bolt	(RW)	630-4 US26D
1 Surface Overhead door holder	(ABH)	4413 630
1 Wall or Floor Stop	(RW)	400 or 441-US26D
3 Silencers	(RW)	608

HDW SET 22

R001, R003, R004

3 Stainless Hinges	(MCK)	TA2314 US32D NRP 4 ½ x 4 ½
1 Mortise Double Cylinder lock	(SG)	10-63/64-8226 LNL US26D
1 Door Closer	(SG)	EN351 CPS x TB
1 Threshold	(PK)	171A WOO
1 Sweep with Rain drip	(PK)	345AV x DW
1 Set Weatherstrip	(PK)	303AV DW x DH

HDW SET 23

2037D, 2050D, 2050E, 2057D, 2080D, 2138D

Each pair to have:

2 spring pivots	(BO)	7112-US3
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Misc:

8 Ethernet gateways	(AL)	ALIME3-USB
36GMK/MK's	(SG)	10-S6272MK

LIST OF MANUFACTURERS

Alarm Lock	(AL)
Bommer	(BO)
Hanchett	(HES)
Keedex	(KX)
McKinney	(McK)
Pemko	(PK)
Rockwood	(RW)
Sargent	(SG)
Securitron	(SEC)