

# ELLIS ARCHITECTS, INC.

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## ADDENDUM NO. 3

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September 21, 2011

**To Plans and Specifications for:  
Alterations & Additions to the Mobile Division Laboratory  
Mobile, Alabama  
Project Number: 11002**

### **1. GENERAL**

- A. The following changes and/or additions to plans and specifications are hereby made a part of same, and are incorporated in full force as part of the Contract Documents.
- B. Bidders shall acknowledge receipt of this addendum in writing as provided in the Proposal Form.
- C. When a change is called for on a drawing, this change shall carry through all applicable drawings including all related architectural, structural, mechanical, plumbing, and electrical drawings.
- D. Clarification: Chemical resistance of all new plastic laminate materials shall be per specifications. Color of all new plastic laminate materials shall be as described in Addendum 1 SD-1 (as selected by Architect).
- E. Bidders shall remove the cost associated with the removal and reinstallation of casework from their bid price. This work is intended to be performed under the contract, but the cost shall be covered by the increased allowance as described under "Specifications" below.

### **2. DRAWINGS**

- A. Refer to A-102. See Attic Note 1 and draft stopping note on drawing E1. Draft stopping of existing attic shall not be part of base bid. Instead, it shall be included in Alternate 1. Existing attic is approximately 6,100 square feet total, so Contractor shall divide existing attic into at least three different areas with draft stopping so that no area exceeds 3000 square feet. Exact location of draft stopping within the existing attic shall be at Contractor's discretion. The Contractor shall provide draft stopping between the new attic and the existing attic as part of the base bid by configuring the existing roof decking on the south side of the roof to serve as draft stopping. Patch existing roof decking as required to maintain draft stop continuity.
- B. Refer to M101. The new 16" x 16" ceiling return grille (CRG) and associated duct to roof in the Electrical and Mechanical Room shall be positioned in this room to avoid conflicts with existing structure, wiring, and mechanical systems, and roof penetrations. Exact position of CRG within this room shall be at Contractor's discretion.

### **3. SPECIFICATIONS**

- A. Refer to specification section 01210, Part 3 Execution, 3.3 A. Revise this section to read as follows: "Allowance No. 1 – General Allowance: The General Contractor shall include a contingency allowance of **\$50,000** for use as instructed by the Owner and Architect. This allowance shall be included for use in equipment, materials, labor or other work as

deemed additional scopes of work above the construction documents. **Labor & materials associated with removal and reuse of casework shall be included within this allowance. Costs associated with Casework removal and reuse shall be submitted to the Architect on a weekly basis. Labor rates associated with casework removal and reuse (not including taxes, insurance, social security, etc) shall be as follows:**

**\$30.00/ hr for on-site supervision**

**\$16.00/ hr for a carpenter(s)**

**\$13.00/ hr for a carpenter's assistant(s)**

**\$11.00/ hr for laborer(s)**

If not used, a deductive change order will be executed at the end of the project."

- B.** Replace specification section 08711 Door Hardware with attached 08711 REVISED Door Hardware Specification.

*See Attachments*

- REVISED 08711 Door Hardware Specification (Includes revised door hardware schedule)

**END OF ADDENDUM**

## REVISED - SECTION 08711 - 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 the following:
  - 1. Commercial door hardware for the following.
  - 2. Swinging doors.
  - 3. Other doors to the extent indicated.
  - 4. Cylinders for doors specified in other Sections.
  - 5. Electrified door hardware.
- B. Related Sections include the following:
  - 1. List below only products and construction that the reader might expect to find in this Section but are specified elsewhere.
  - 2. Division 8 Section "Steel Doors and Frames" for astragals provided as part of a fire-rated labeled assembly and for door silencers provided as part of the frame.
  - 3. Division 8 Section "Electrical" for wiring of hold-open devices.

#### 1.3 SUBMITTALS

- A. Product Data: Include installation details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Samples for Initial Selection: Manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available for each type of door hardware indicated.
- C. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
- D. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
- E. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening.
- F. Organize door hardware sets in same order as in the Door Hardware Schedule at the end of Part 3.
- G. Content: Include the following information:
  - 1. Type, style, function, size, label, hand, and finish of each door hardware item.
  - 2. Manufacturer of each item.
  - 3. Fastenings and other pertinent information.
  - 4. Location of each door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
  - 5. Explanation of abbreviations, symbols, and codes contained in schedule.
  - 6. Mounting locations for door hardware.
  - 7. Door and frame sizes and materials.
- H. Description of each electrified door hardware function, including location, sequence of operation, and interface with other building control systems.
- I. Sequence of Operation: Include description of component functions that occur in the following situations: authorized person wants to enter; authorized person wants to exit; unauthorized person wants to enter; unauthorized person wants to exit.
- J. 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.
- K. Keying Schedule: Prepared by or under the supervision of supplier, detailing Owner's final keying instructions for locks.
- L. Product Certificates: Signed by manufacturers of electrified door hardware certifying that products furnished comply with requirements.
- M. Certify that door hardware approved for use on types and sizes of labeled fire doors complies with listed fire door assemblies.
- N. Qualification Data: For firms and persons specified in "Quality Assurance" Article.

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- O. Include lists of completed projects with project names and addresses of architects and owners, and other information specified.
- P. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, indicating current products comply with requirements.
- Q. Maintenance Data: For each type of door hardware to include in maintenance manuals specified in Division 1.
- R. Warranties: Special warranties specified in this Section.

#### 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has completed door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- B. Supplier Qualifications: Door hardware supplier with warehousing facilities in Project's vicinity and who is or employs a qualified Architectural Hardware Consultant, available during the course of the Work to consult with Contractor, Architect, and Owner about door hardware and keying.
- C. Scheduling Responsibility: Preparation of door hardware and keying schedules.
- D. Authorized Dealer: Supplier shall be a factory-authorized dealer and/or distributor of specified products.
- E. Architectural Hardware Consultant Qualifications: A person who is currently certified by the Door and Hardware Institute as an Architectural Hardware Consultant and who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project.
- F. Source Limitations: Obtain each type and variety of door hardware from a single manufacturer, unless otherwise indicated.
- G. Supplier must be a factory-authorized distributor of items scheduled.
- H. Regulatory Requirements: Comply with provisions of the following:
  - 1. Where indicated to comply with accessibility requirements, comply with Americans with Disabilities Act (ADA), "Accessibility Guidelines for Buildings and Facilities (ADAAG)," as follows:
    - a. Handles, Pulls, Latches, Locks, and other Operating Devices: Shape that is easy to grasp with one hand and does not require tight grasping, tight pinching, or twisting of the wrist.
    - b. Door Closers: Comply with the following maximum opening-force requirements indicated:
      - 1) Interior Hinged Doors: 5 lbf (22.2 N) applied perpendicular to door.
      - 2) Sliding or Folding Doors: 5 lbf (22.2 N) applied parallel to door at latch.
      - 3) Fire Doors: Minimum opening force allowable by authorities having jurisdiction.
      - 4) Thresholds: Not more than 1/2 inch (13 mm) high. Bevel raised thresholds with a slope of not more than 1:2.
      - 5) NFPA 101: Comply with the following for means of egress doors:
      - 6) Latches, Locks, and Exit Devices: Not more than 15 lbf (67 N) to release the latch. Locks shall not require the use of a key, tool, or special knowledge for operation.
      - 7) Door Closers: Not more than 30 lbf (133 N) to set door in motion and not more than 15 lbf (67 N) to open door to minimum required width.
      - 8) Thresholds: Not more than 1/2 inch (13 mm) high.
      - 9) Electrified Door Hardware: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.
- I. Fire-Rated Door Assemblies: Provide door hardware for 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 NFPA 252.
- J. Keying Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Meetings." Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including, but not limited to, the following:
  - 1. Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
  - 2. Preliminary key system schematic diagram.
  - 3. Address for delivery of keys.
  - 4. All lock cylinders are to be masterkeyed and grand master keyed as directed by architect.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

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

#### 1.6 COORDINATION

- A. Coordinate layout and installation of recessed pivots and closers with floor construction. Cast anchoring inserts into concrete. Concrete, reinforcement, and formwork requirements are specified in Division 3 Section "Cast-in-Place Concrete."

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- B. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing door hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- C. Electrical System Roughing-in: Coordinate layout and installation of electrified door hardware with connections to fire alarm system and detection devices.

### 1.7 WARRANTY

- A. General Warranty: 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. Special Warranty: Written warranty, executed by manufacturer agreeing to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period. Failures include, but are not limited to, the following:
  - 1. Structural failures including excessive deflection, cracking, or breakage.
  - 2. Faulty operation of operators and door hardware.
  - 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
- C. Warranty Period: All hardware shall have a one-year warranty from date of Substantial Completion, unless otherwise indicated. All door closers shall have a five or ten year warranty as applicable for the specified closers.

### 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.
- B. Maintenance Service: Beginning at Substantial Completion, provide six months' full maintenance by skilled employees of door hardware Installer. Include quarterly preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper door hardware operation. Provide parts and supplies as used in the manufacture and installation of original products.

## PART 2 - PRODUCTS

### 2.1 SCHEDULED DOOR HARDWARE

- A. General: Provide door hardware for each door to comply with requirements in this Section and the Door Hardware Schedule at the end of Part 3.
- B. Door Hardware Sets: Provide quantity, item, size, finish or color indicated, and products equivalent in function and comparable in quality to named products.
- C. Sequence of Operation: Provide electrified door hardware function, sequence of operation, and interface with other building control systems indicated.
- D. Designations: Requirements for design, grade, function, finish, size, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Schedule 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 minimum requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.
- E. References to BHMA Standards: Provide products complying with these standards and requirements for description, quality, and function.

### 2.2 HINGES AND PIVOTS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - 1. Hinges: At all wood frame locations, furnish and install hinge screws as required to extend into solid wood stud framing to ensure adequate support for all door sizes and weights provided.
    - a. Hager Companies (HAG).
    - b. McKinney Products Company; . (MK).
    - c. Stanley Commercial Hardware; Div. of The Stanley Works (SCH).
- B. Template hinges: Except for hinges and pivots to be installed entirely (both leaves) into wood doors and frames, provide only template hinges which conform to ANSI whenever applicable.
- C. Hinge pins, except as otherwise indicated, shall be as follows:
  - 1. Steel Hinges: Steel pins
  - 2. Non-Ferrous Hinges: Stainless steel pins
  - 3. Exterior doors: Non-removable pins (NRP), whether specified in the hardware sets or not.
  - 4. Out-swing corridor doors: Non-removable pins (NRP), whether specified in the hardware sets or not.
  - 5. Tips: flat button and matching plug, finished to match leaves, except where hospital tip indicated.

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6. Where projection of door trim is such as to prevent desired degree of opening, the proper hinge width shall be provided to allow the door to clear the trim.

### 2.3 LOCKS AND LATCHES

- A. Products: All locksets shall be equal to 8200 LNL Series Heavy Duty Mortise Lever locksets: manufactured by Sargent Mfg. Company.
- B. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  1. Sargent Manufacturing Company; 10 Line, L Lever.
- C. A single lock chassis shall accommodate 1 3/4" to 2 1/4" door thickness. Locksets shall be easily reversed in the field. Locksets shall have separate anti-rotation throughbolts, and shall have no exposed screws. Chassis mounting screws are accessible only when both the lever and rose are removed.
- D. Locksets shall have solid cast levers without plastic inserts, and wrought roses on both sides. Locksets shall operate independently, and shall have return spring to prevent lever sag. Lever handles shall be a minimum of 4 5/8" in length and shall provide a minimum of 2" clearance from the surface of the door to the inside of the lever at the midpoint. Lever handles may return to within 1/2" of the door surface.
- E. All locksets shall accommodate 6-pin cylinders and all levels of masterkeying.
- F. All locks, passage, privacy sets, trim, and cylinders shall be from one manufacturer, unless otherwise specified.
- G. All locksets shall carry a one-year limited warranty.

### 2.4 CYLINDERS AND KEYING

- A. Manufacturers: Subject to compliance with requirements, provide products by one the following:
  1. Cylinders: Same manufacturer as for locks and latches.
- B. Standards: Comply with the following:
  1. Cylinders: BHMA A156.5.
  2. Key Control System: BHMA A156.5.
  3. Number of Pins: Six.
- C. Keying System: keying system complying with the following requirements:
  1. Cylinders shall be master keyed into existing Sargent System.
- D. Keys: Provide nickel-silver keys complying with the following:
  1. Stamping: Permanently inscribe each key with a visual key control number and include the following notation:
    - a. Notation: "DO NOT DUPLICATE."
- E. Quantity: In addition to one extra blank key for each lock, provide the following:
  1. Cylinder Change Keys: Two.
  2. Master Keys: Three.

### 2.5 ACCESSORIES FOR PAIRS OF DOORS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  1. Coordinators:
    - a. McKinney Products Company; . (MK).
    - b. Rockwood Manufacturing Company (RM).
    - c. Triangle Brass Manufacturing Company, Inc. (TBM).
  2. Astragals:
    - a. McKinney Products Company; . (MK).
    - b. National Guard Products, Inc. (NGP).
    - c. Pemko Manufacturing Co., Inc. (PEM).
  3. Standards: Comply with the following:
    - a. Coordinators: BHMA A156.3.
    - b. Removable Mullions: BHMA A156.3.
- B. Carry-Open Bars: Provide carry-open bars for inactive leaves of pairs of doors, unless automatic or self-latching bolts are used.
- C. Fire-Exit Removable Mullions: Provide removable mullions for use with fire exit devices complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire and panic protection, based on testing according to UL 305 and NFPA 252. Mullions shall be used only with exit devices for which they have been tested.

### 2.6 CLOSERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  1. Surface-Mounted Closers:
  2. Sargent 281 Series

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- B. All closers shall be mounted on interior side of rooms. All closers to be mounted with sex nut bolts on all label doors including 20 min.
- C. All closers to have full covers.
- D. All interior closers shall have adjustable spring power from sizes 1-5 and be capable of compliance with 5 lb. interior barrier-free opening force restrictions. All exterior closers shall have adjustable spring power from sizes 2-6 and be capable of installation to meet 8.5 lb. exterior and 15 lb. fire door opening force restrictions.
- E. All closers shall be from one manufacturer.
- F. Rixon floor closers.

## 2.7 STOPS AND HOLDERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Hager Companies (HAG).
  - 2. McKinney Products Company; . (MK).
  - 3. Triangle Brass Manufacturing Company, Inc. (TBM).
  - 4. Rockwood Manufacturing Company.
- C. Standards: Comply with the following:
  - 1. Stops and Bumpers: BHMA A156.16.
  - 2. Mechanical Door Holders: BHMA A156.16.
  - 3. Electromagnetic Door Holders: BHMA A156.15.
  - 4. Combination Overhead Holders and Stops: BHMA A156.8.
  - 5. Door Silencers: BHMA A156.16.
- D. Stops and Bumpers: BHMA Grade 1, unless Grade 2 is indicated.
- E. Mechanical Door Holders: BHMA Grade 1 unless Grade 2 is indicated.
- F. Combination Floor and Wall Stops and Holders: BHMA Grade 1, unless Grade 2 is indicated.
- G. Combination Overhead Stops and Holders: BHMA Grade 1, unless Grade 2 is indicated.
- H. Electromagnetic Door Holders for Labeled Fire Door Assemblies: Coordinate with fire detectors and interface with fire alarm system.
- I. Floor Stops: For doors, unless wall or other type stops are scheduled or indicated. Do not mount floor stops where they will impede traffic.
- J. Where floor or wall stops are not appropriate, provide overhead holders.
- K. Silencers for Wood Door Frames: BHMA Grade 1; neoprene or rubber, minimum 5/8 by 3/4 inch (16 by 19 mm); fabricated for drilled-in application to frame.
- L. Silencers for Metal Door Frames: BHMA Grade 1; neoprene or rubber, minimum diameter 1/2 inch (13 mm); fabricated for drilled-in application to frame.

## 2.8 DOOR GASKETING

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Door Gasketing:
    - a. Hager Companies (HAG).
    - b. National Guard Products, Inc. (NGP).
    - c. Pemko Manufacturing Co., Inc. (PEM).
  - 2. Door Bottoms:
    - a. Hager Companies (HAG).
    - b. National Guard Products, Inc. (NGP).
    - c. Pemko Manufacturing Co., Inc. (PEM).
- C. Standard: Comply with BHMA A156.22.
- D. General: Provide continuous weather-strip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated or scheduled. Provide noncorrosive fasteners for exterior applications and elsewhere as indicated.
- E. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.
- F. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.
- G. Door Bottoms: Apply to bottom of door, forming seal with threshold when door is closed.
- H. Air Leakage: Not to exceed 0.50 cfm per foot (0.000774 cu. m/s per m) of crack length for gasketing other than for smoke control, as tested according to ASTM E 283.
- I. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
- J. Gasketing Materials: Comply with ASTM D 2000 and AAMA 701/702.

## 2.9 THRESHOLDS

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- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - 1. Hager Companies (HAG).
  - 2. Pemko Manufacturing Co., Inc. (PEM).
  - 3. National Guard.
- B. Standard: Comply with BHMA A156.21.

## 2.10 FLAT GOODS

- A. Accepted and approved only as follows:
  - 1. Quality
  - 2. Rockwood
  - 3. McKinney Products Company; . (MK).
- B. It is the responsibility of the hardware supplier to provide proper screw attachments per wall or floor conditions for door stops.
- C. Provide stops for each and every interior and exterior opening.
- D. Kickplates and armor plates shall be equal to Quality Series #48 and shall be mounted by wood screws where indicated in hardware sets, unless specified otherwise in hardware sets. Unless specified otherwise, kickplates and mop plates shall be stainless steel.
- E. Where stainless steel plates are specified, metal shall be .050" thickness.

## 2.11 FABRICATION

- A. Manufacturer's Nameplate: Do not provide manufacturers' products that have manufacturer's name or trade name displayed in a visible location (omit removable nameplates) except in conjunction with required fire-rated labels and as otherwise approved by Architect.
- B. Manufacturer's identification will be permitted on rim of lock cylinders only.
- C. Base Metals: Produce door hardware units of base metal, fabricated by forming method indicated, using manufacturer's standard metal alloy, composition, temper, and hardness. Furnish metals of a quality equal to or greater than that of specified door hardware units and BHMA A156.18 for finishes. Do not furnish manufacturer's standard materials or forming methods if different from specified standard.
- D. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to commercially recognized industry standards for application intended. Provide Phillips flat-head screws with finished heads to match surface of door hardware, unless otherwise indicated.
- E. Concealed Fasteners: For door hardware units that are exposed when door is closed, except for units already specified with concealed fasteners. Do not use through bolts for installation where bolt head or nut on opposite face is exposed unless it is the only means of securely attaching the door hardware. Where through bolts are used on hollow door and frame construction, provide sleeves for each through bolt.
- F. Steel Machine or Wood Screws: For the following fire-rated applications:
  - 1. Mortise hinges to doors.
  - 2. Strike plates to frames.
  - 3. Closers to doors and frames.
- G. Steel Through Bolts: For the following fire-rated applications, unless door blocking is provided:
  - 1. Surface hinges to doors.
  - 2. Closers to doors and frames.
  - 3. Surface-mounted exit devices.
  - 4. Spacers or Sex Bolts: For through bolting of hollow metal doors.
  - 5. Fasteners for Wood Doors: Comply with requirements of DHI WDHS.2, "Recommended Fasteners for Wood Doors."

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Steel Doors and Frames: Comply with DHI A115 series.
- B. Surface-Applied Door Hardware: Drill and tap doors and frames according to SDI 107.
- C. Wood Doors: Comply with DHI A115-W series.

### 3.3 INSTALLATION

- A. 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."
- B. Install each door hardware item to comply with manufacturer's 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.
- C. Set units level, plumb, and true to line and location. Adjust and reinforce attachment substrates as necessary for proper installation and operation.
- D. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
- E. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

### 3.4 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
- B. Door Closers: Adjust sweep period so that, from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches (75 mm) from the latch, measured to the leading edge of the door.
- C. Six-Month Adjustment: Approximately six months after date of Substantial Completion, Installer shall perform the following:
  - 1. Examine and readjust each item of door hardware as necessary to ensure function of doors, door hardware, and electrified door hardware.
  - 2. Consult with and instruct Owner's personnel on recommended maintenance procedures.
  - 3. Replace door hardware items that have deteriorated or failed due to faulty design, materials, or installation of door hardware units.

### 3.5 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items as necessary to restore proper function and finish.
- C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

### 3.6 DOOR HARDWARE SCHEDULE

- A. The following is a general listing of hardware requirements and is not intended for use as a final hardware schedule. Any items of hardware required by established standards of practices, or to meet state and local codes shall be furnished whether or not specifically called out in the following listed groups.

#### Hardware Schedule

- NOTE: 1. ALL FINISHES ARE TO MATCH EXISTING.  
2. VERIFY ALL EXISTING DOOR PREPS INCLUDING BACKSET**

#### **SET #1 -**

Doors: 103A

1 Continuous Hinge	MCK-12HD SER12	MC
1 Lockset	RX(request exit)8271 LNL 24VDC	SA
1 Closer/Stop	1431 CPS	SA
1 Set Weatherstrip	S773D x LAR	MW
1 Raindrip	MCK346 C x DW + 4"	MW

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1 Threshold	2005 AP X LAR SS/MS&ES25	MW
1 Door Bottom	MCK345 AV x LAR	MW
1 Door Position Switch	By Access Control Provider	

**SET #2 -**

Doors: 103B

1 Continuous Hinge	MCK-12HD SER12	MC
1 Lockset	RX(request exit)8271 LNL 24VDC	SA
1 Closer/Stop	1431 CPS	SA
1 Door Position Switch	By Access Control Provider	

**SET #3 Existing door to remain -**

Doors: 001, 002, 003, 004, 005,

1 Hinge	TA2714 QC6 x MM (door position switch)	MC
1 Lockset	RX(request exit)10G71 LL 24VDC	SA

**SET #4 Existing door to remain -**

Doors: 006

1 Lockset	10G04 LL	SA
1 Door Position Switch	By Access Control Provider	

**SET #5 -**

1 Power Supply	BPS-24-4	SN
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NOTE: Mount next to access control panels.

**SET #6**

Doors: 105A, 106A,

1 Hinge	TA2714	MC
1 Lockset	10G04 LL	SA
1 Overhead Stop	10 Series	RX

**SET #7**

Doors: 102A, 104A

1 Hinge	TA2714	MC
1 Lockset	10G05 LL	SA
1 Wall Stop	WS01	MC

**END OF SECTION**