

New Hanover County, Hurricane Florence Repairs  
Fire Station 12, RFB # 20-0420

## Addendum 2

June 10, 2020

To: All Plan Holders

From: Scott Spike, Assoc. AIA



### General Items

1. Where any article, division or subparagraph of the original contract documents or other addenda is supplemented herein, the provisions of the original documents shall remain in effect. All the supplemental provisions shall be considered as added thereto. Where any such article, division or subparagraphs are amended, voided or superseded thereby, the provisions of such article, division or subparagraph not so specifically amended, voided or superseded shall remain in effect.
2. Bidders shall include the attached Major Subcontractors List with their bid forms. **Bids not including this form will be deemed nonresponsive and rejected.**
3. Current wage determinations per the Davis-Bacon Act can be found at [beta.sam.gov](http://beta.sam.gov), by clicking on the "Search Wage Determinations" link, selecting Wage Determination Type "Davis-Bacon Act (DBA)" and entering the state/county.
4. The Owner is hiring a consultant to observe new work and repairs related to the building envelope, including:
  - a. Review of storefront and metal panel shop drawings in coordination with Architect.
  - b. Attend a pre-installation meeting related to the building envelope installation with installer and manufacturer's rep.
  - c. Perform two (2) site visits during construction to review installation of rough opening flashings and metal panel flashings.
  - d. Perform field water testing of two (2) representative storefront windows, using the AAMA 503-08 testing procedure.
    - i. GC shall assist the County's consultant to perform field water testing, including:
      1. Providing OSHA-required safety equipment for work on construction sites.
      2. Providing electrical access (Extension cords, etc.).
      3. Providing water access (water faucet, etc.).

### Specification Items

1. Specification Section 01 5000 Temporary Facilities and Controls:
  - Paragraph 1.03, A shall be revised to read as follows:
    - A. The Owner will continue to pay for electrical service throughout the construction period. Water is provided by an on-site well, which may remain in use throughout the construction period.

- Paragraph 1.04, A, 1 shall be revised to read as follows:
    1. Computer or mobile device with internet connection, necessary software.
  - Add paragraph 1.09, E: Tipping fees shall be waived for waste generated by work performed under this contract.
2. Specification Section 08 7100 Door Hardware: This section is replaced by the attached specification.
  3. Specification Section 09 2116 Gypsum Board Assemblies: Paragraph 2.02, A, 3 shall be revised to read as follows:
    3. Ceiling Channels: Light gauge framing manufacturer's system of channels and furring for installation of suspended gypsum ceilings.

### **Drawing Items**

1. None.

### **Clarifications**

1. Spec Section 09 9123 Interior Painting, paragraph 2.03, A says, "Exposed structural steel in vehicle bays shall not be painted." Two different primer colors have been used on the existing exposed steel and girts/purlins in the vehicle bays. New structural steel members and girts/purlins provided as part of this contract may be provided in the approved manufacturer's standard primer; it is not necessary to match the primer color of existing adjacent steel. Note that bare steel surfaces exposed by grinding, welding, etc. shall be primed per Part 3 of the painting spec.
2. Spec Section 13 3419 Metal Building Systems:
  - a. Paragraph 2.08, A calls for wall and roof panels to match existing. Due to the varying age of the existing components, exact profile matches may not be available and, in some areas, existing panels with several different but similar profiles already be installed. Please provide panels with closest available profile.
  - b. Paragraph 2.10, B calls for wall panel colors to be selected from manufacturer's standard range. Much of the existing building has been field painted, so an exact match will be impractical; the goal will be to select siding and trim colors that will coordinate with the existing colors.
3. Drawing 8/A1.2 calls for roof panels in some areas to be replaced. The existing ridge cap is die formed to fit roof panels on both sides of the ridge. If roof panels are not available with a profile that matches the existing die-formed ridge, provide new ridge cap using metal building system manufacturer's recommended non-vented, gasketed, and sealed ridge cap detail.

### **Approved Substitutions**

The following have been reviewed and accepted:

1. Specification Section 13 3419 Metal Building Systems: Varco-Pruden is added to the list of approved manufacturers.

### **End of Addendum 2**

**NEW HANOVER COUNTY  
Hurricane Florence Repairs  
Fire Station 12  
RFB # 20-0420**

**Major Subcontractors List**

To be completed and submitted with bid

Plumbing Subcontractor: \_\_\_\_\_

HVAC Subcontractor: \_\_\_\_\_

Electrical Subcontractor: \_\_\_\_\_

## **SECTION 08 7100 DOOR HARDWARE**

### **PART 1 – GENERAL**

#### **1.01 SUMMARY**

- A. Section includes furnishing, installation and commissioning of mechanical and electro-mechanical door hardware for doors specified in “Hardware Sets” and required by actual conditions: including screws, bolts, expansion shields, electrified door hardware, and other devices for proper application of hardware.
- B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- C. Related Divisions:
  - 1. Division 03 Concrete
  - 2. Division 06 Rough & Finish Carpentry
  - 3. Division 07 Joint Sealants
  - 4. Division 08 Openings
  - 5. Division 09 Finishes
  - 6. Division 26 Electrical
  - 7. Division 27 Communications
  - 8. Division 28 Electronic Safety And Security

#### **1.02 REFERENCES**

- A. American National Standards Institute/Builders Hardware Manufacturers Association (ANSI):
  - 1. ANSI/BHMA A156.1 Butts & Hinges (2016)
  - 2. ANSI/BHMA A156.2 Bored & Preamsembled Locks & Latches (2011)
  - 3. ANSI/BHMA A156.3 Exit Devices (2014)
  - 4. ANSI/BHMA A156.4 Door Controls – Closers (2013)
  - 5. ANSI/BHMA A156.5 Cylinders and Input Devices for Locks (2014)
  - 6. ANSI/BHMA A156.6 Architectural Door Trim (2015)
  - 7. ANSI/BHMA A156.7 Template Hinge Dimensions (2016)
  - 8. ANSI/BHMA A156.8 Door Controls – Overhead Stops and Holders (2015)
  - 9. ANSI/BHMA A156.13 Mortise Locks & Latches (2012)
  - 10. ANSI/BHMA A156.14 Sliding & Folding Door Hardware (2013)
  - 11. ANSI/BHMA A156.18 Materials & Finishes (2016)
  - 12. ANSI/BHMA A156.21 Thresholds (2014)
  - 13. ANSI/BHMA A156.22 Door Gasketing Systems (2012)
  - 14. ANSI/BHMA A156.25 Electrified Locks (2013)
  - 15. ANSI/BHMA A156.26 Continuous Hinges (2012)
  - 16. ANSI/BHMA A156.28 Keying Systems (2013)
  - 17. ANSI/BHMA A156.31 Electric Strikes (2013)
  - 18. ANSI/BHMA A156.115 Hardware Preparation in Steel Doors and Steel Frames (2014)
  - 19. ANSI/BHMA A156.115W Hardware Preparation in Wood Doors with Wood or Steel Frames (2016)
- B. International Code Council/American National Standards Institute (ICC/ANSI)/ADA:
  - 1. ICC/ANSI A117.1 Standards for Accessible and Usable Buildings and Facilities
- C. Underwriters Laboratories, Inc. (UL):
  - 1. UL 10C Positive Pressure Fire Test of Door Assemblies.

2. UL 1784 Air Leakage Test of Door Assemblies.
3. UL 294 Access Control System Units

D. Door and Hardware Institute (DHI):

1. DHI Publications – Keying Systems and Nomenclature (1989).
2. DHI Publication – Abbreviations and Symbols.
3. DHI Publication – Installation Guide for Doors and Hardware.
4. DHI Publication – Sequence and Format of Hardware Schedule (1996).

E. National Fire Protection Agency (NFPA):

1. NFPA 70 National Electrical Code
2. NFPA 80 Standard for Fire Doors and Other Opening Protectives
3. NFPA 101 Life Safety Code
4. NFPA 105 Standard for the Installation of Smoke Door Assemblies

### 1.03 SUBMITTALS

A. Submit in accordance with Conditions of the Contract and Division 1 Administrative Requirements and Submittal Procedures Section.

B. Shop Drawings:

1. Organize hardware schedule in vertical format as illustrated in DHI Publications Sequence and Formatting for the Hardware Schedule. Include abbreviations and symbols page according to DHI Publications Abbreviations and Symbols. Complete nomenclature of items required for each door opening as indicated.
2. Coordinate final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of hardware.
3. Architectural Hardware Consultant (AHC), as certified by DHI, who will affix seal attesting to completeness and correctness, including the review of the hardware schedule prior to submittal.

C. Submit manufacturer's catalog sheet on design, grade, and function of items listed in hardware schedule. Identify specific hardware item per sheet, provide an index, and cover sheet.

D. Templates:

1. Upon final approval of the architectural hardware schedules, submit one set of complete templates for each hardware item to the door manufacturers, frame manufacturers, and the installers. Date and index these 8-1/2 inch x 11 inch papers in a three ring binder, including detailed lists of the hardware location requirements for mortised and surface applied hardware within fourteen days of receiving approved door hardware submittals.

E. Electrified Hardware: Provide electrical information to include voltage and amperage requirements for electrified door hardware and description of operation.

1. Description of operation for each electrified opening to include description of component functions including location, sequence of operation and interface with other building control systems.
2. Wiring Diagrams: Detail wiring for power, signal, and control system and differentiate between manufacturers installed and field-installed wiring. Include the following:
  - a. System schematic.
  - b. Point to point wiring diagram.
  - c. Riser diagram.
  - d. Elevation of each door.
3. Detail interface between electrified door hardware and fire alarm, access control, security, and building control systems.
4. Provide junction boxes, relays and terminal blocks as needed for proper door operations and connections.

- F. Upon door hardware submittal approval, furnish for each electrified opening, three copies of point to point diagrams.
- G. Closeout Submittals: Submit to Owner in a three-ring binder or CD if requested.
  - 1. Warranties.
  - 2. Maintenance and operating manual.
  - 3. Maintenance service agreement.
  - 4. Record documents.
  - 5. Copy of approved hardware schedule.
  - 6. Copy of approved keying schedule with bitting list.
  - 7. Door hardware supplier name, phone number, and fax number.

#### **1.04 QUALITY ASSURANCE**

- A. Listed and Labeled electrified door hardware as defined in NFPA 70, Article 100, by a testing agency acceptable to authority having jurisdiction.
- B. Hardware supplier will employ an Architectural Hardware Consultant (AHC) as certified by DHI and a member of the seal program who will be available at reasonable times during course of work for Project hardware consultation.
  - 1. Electrified Door Hardware Supplier Qualifications: Experienced door hardware supplier who has completed projects with electrified door hardware similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- C. Door hardware conforming to ICC/ANSI A117.1: Handles pulls, latches locks and operating devices: Shape that is easy to grasp with one hand and does not require tight grasping, tight pinching, or twisting of the wrist.
- D. Fire Rated Door Assemblies: Where fire-rated door assemblies are indicated, provide door hardware rated for use in assemblies complying with NFPA 80 that are listed and/or labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to UL 10C, unless otherwise indicated.
- E. Fire Door Inspection: Prior to receiving certificate of occupancy have fire rated doors inspected by an independent Certified Fire and Egress Door Assembly Inspector (FDAI), as certified by Intertek (ITS), a written report be submitted to Owner and Contractor. Doors failing inspection must be adjusted, replaced or modified to be within appropriate code requirements. (Use for a building under IBC 2009 or newer.)
- F. Smoke and Draft Control Door Assemblies: Where smoke and draft control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
- G. Door hardware certified to ANSI/BHMA standards as noted, participate and be listed in BHMA Certified Products Directory.
- H. Substitution request: create a comparison chart that includes the testing information as well as the warranty for both the specified product and the proposed substitution. Include the reason for requesting the substitution, clear catalog copy highlighting the proposed product and options, compliance statement, technical data, product warranty and lead time, to show how the proposed can meet or exceed established level of design, function, and

quality. Approval of request is at the discretion of the owner, architect, and their designated consultants and will be addressed via addendum prior to bid date.

1. Items listed with no substitute manufacturers have been requested by the Owner to meet existing standard and will not be reviewed for substitution, unless the product is no longer available.

I. Meetings: Comply with requirements in Division 1 Section “Project Meetings.”

1. Low-voltage Coordination Meeting

- a. Prior to furnishing door hardware submittals, convene a low-voltage coordination meeting. Participants required to attend: Contractor, installer, material supplier, manufacturer representatives, electrical contractor, security consultant, and fire alarm consultant.
- b. Review sequence of operation for each opening with electrified hardware to ensure that every opening functions in the proper manner for the Owner’s use.
- c. Discuss the types of electrified door hardware, inspection, and electrical roughing-in and other preparatory work performed by other trades.
- d. Verify wire quantities, wire types, wire sizes, conduit sizes, and locations including if the power supplies will be centrally located or if they will be located near each opening.
- e. Coordinate the door hardware, power supplies, back-up power requirements, access control components, fire alarm interfaces, elevator controls, and related building systems have all proper and necessary components to interface and operate correctly.

2. Keying Meeting

- a. Within fourteen days of receipt of approved door hardware submittals, contact Owner with representative from hardware supplier to establish a keying conference. Verify keyway, visual key identification, number of master keys and keys per lock. Provide keying system per Owner’s instructions.

3. Pre-installation Meeting

- a. Convene meeting within fourteen days of receipt of approved door hardware submittals. Participants required to attend: Contractor, installer, material supplier, manufacturer representatives, electrical contractor, security consultant, and fire alarm consultant.
- b. Include in-conference decisions regarding proper installation methods and procedures for receiving and handling hardware.
- c. Review all system, elevation, and point-to-point drawings to ensure that all necessary components are provided and detailed.
- d. Review and finalize construction schedule and verify availability of materials, installer’s personnel, equipment and facilities needed to make progress and avoid delays.

J. Installer Qualifications: Specialized in performing installation of this Section and have five years minimum documented experience.

1. Electrified Door Hardware Supplier Qualifications: Experienced door hardware installer who has installed projects with electrified door hardware similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.

K. Hardware listed in 3.07 – Hardware Schedule is intended to establish minimum level of design, type, function and grade of hardware to be used.

## 1.05 DELIVERY, STORAGE, AND HANDLING

- A. Provide clean, dry and secure room for hardware delivered to Project but not yet installed. Shelve hardware off of the floor and with larger items of hardware being stored on wooden pallets. Arrange locksets and keyed

cylinders by opening number. Organize the balance of hardware by brand, model of hardware, and hardware set number. Leave the door markings of the hardware visible for installers.

- B. Furnish hardware that is not bulk packed with each unit marked and numbered in accordance with approved finish hardware schedule. Include architect's opening number, hardware set number, and item number for each type of hardware. Include keyset symbols and corresponding hardware component for keyed products.
- C. Pack each item complete with necessary parts and fasteners in manufacturer's original packaging.
- D. Deliver architectural hardware to the job site according to the phasing agreed upon in the pre-installation meeting. Inventory the delivery with the supplier's assistance. Immediately note shortages and damages on the shipping receipts and bill of lading. Coordinate replacement or repair with the supplier.
- E. Deliver permanent keys, cores, and related accessories directly to Owner via registered mail or overnight package service. Establish the instructions for delivery to Owner at "Keying Conference."
- F. Waste Management and Disposal: Separate waste materials for use or recycling in accordance with Division 1.

## **1.06 WARRANTY**

- A. General Warranty: Owner may have under provisions of the Contract Documents and be an addition and run concurrently with other warranties made by Contractor under requirements of the Contract documents.
- B. Special Warranty: Warranties specified in this article will not deprive Owner of other rights.
  - 1. Ten years for manual door closers.
  - 2. Five years for mortise, auxiliary and bored locks.
  - 3. Five years for exit devices.
  - 4. One year for electromechanical door hardware.
- C. Replace or repair defective products during warranty period in accordance with manufacturer's warranty at no cost to Owner. There is no warranty against defects due to improper installation, abuse, and failure to exercise normal maintenance.
- D. Maintenance Tool and Instructions: Furnish a complete set of specialized tools and maintenance instructions for Owner's continued adjustment, maintenance, removal and replacement of door hardware.

## **PART 2 – PRODUCTS**

### **2.01 HINGES**

- A. Hinges, electric hinges, and self-closing hinges of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Products to be certified and listed by the following:
  - 1. Butts and Hinges: ANSI/BHMA A156.1.
  - 2. Template Hinge Dimensions: ANSI/BHMA A156.7.
  - 3. Self-Closing Hinges: ANSI/BHMA A156.17.



C. Butt Hinges:

1. Hinge weight and size unless otherwise indicated in hardware sets:
  - a. Doors up to 36” wide and up to 1-3/4” thick provide hinges with a minimum thickness of .134” and a minimum of 4-1/2” in height.
  - b. Doors from 36” wide up to 42” wide and up to 1-3/4” thick provide hinges with a minimum thickness of .145” and a minimum of 4-1/2” in height.
  - c. For doors from 42” wide up to 48” wide and up to 1-3/4” thick provide hinges with a minimum thickness of .180” and a minimum of 5” in height.
  - d. Doors greater than 1-3/4” thick provide hinges with a minimum thickness of .180” and a minimum of 5” in height.
  - e. Width of hinge is to be minimum required to clear surrounding trim.
2. Base material unless otherwise indicated in hardware sets:
  - a. Exterior Doors: 304 Stainless Steel, Brass or Bronze material.
  - b. Interior Doors: Steel material.
  - c. Fire Rated Doors: Steel or 304 Stainless Steel materials.
  - d. Stainless Steel ball bearing hinges to have stainless steel ball bearings. Steel ball bearings are unacceptable.
3. Quantity of hinges per door unless otherwise stated in hardware sets:
  - a. Doors up to 60” in height provide 2 hinges.
  - b. Doors 60” up to 90” in height provide 3 hinges.
  - c. Doors 90” up to 120” in height provide 4 hinges.
  - d. Doors over 120” in height add 1 additional hinge per each additional 30” in height.
  - e. Dutch doors provide 4 hinges.
4. Hinge design and options unless otherwise indicated in hardware sets:
  - a. Hinges are to be of a square corner five-knuckle design, flat button tips and have ball bearings unless otherwise indicated in hardware sets.
  - b. Out-swinging exterior and out-swinging access controlled doors are required to have Non-Removable Pins (NRP) to prevent removal of pin while door is in closed position.
  - c. When full width of opening is required, use hinges that are designed to swing door completely from opening when door is opened to 95 degrees.
  - d. Electric Through-Wire (ETW) to have appropriate number of wires to transfer power through door frame to door for proper connection of finish hardware and certified to handle an amperage rating of 3.5AMPS/continuous duty with 16.0AMPS/intermittent duty.
  - e. Provide mortar boxes for frames that require any electrically modified hinges if not an integral part of frame.
  - f. When shims are necessary to correct frame or door irregularities, provide metal shims only.
5. Acceptable Manufacturers:

	Standard Weight	Heavy Weight
Hager	BB1279/BB1191	BB1168/BB1199
Bommer	BB5000/BB5002	BB5004/BB5006
McKinney	TA2714/TA2314	T4A3786/T4A3386

**2.02 CONTINUOUS HINGES**

- A. Continuous hinges of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Products to be certified and listed by ANSI/BHMA A156.26 Grade 1.

C. Continuous Geared Hinges:

1. Determine model number by door and frame application, door thickness, frequency of use, and fire rating requirements according to manufacturer’s recommendations.
  - a. Size length of hinge to equal the actual door height unless otherwise stated in hardware sets.

D. Material and Design:

1. Base material: Anodized aluminum manufactured from 6063-T6 material, unexposed working metal surfaces be coated with TFE dry lubricant.
2. Bearings:
  - a. Vertical loads be carried on Lubriloy RL bearings for non-fire rated doors.
  - b. Continuous hinges are to have a minimum spacing between bearings of 2-9/16”. Typical door from 80” to 84” in height to have a minimum of 32 bearings.
3. Options:
  - a. When full width of opening is required, use hinges that are designed to swing door completely from opening when door is opened to 95 degrees.
  - b. At fire rated openings provide hinges that carry a UL certification, up to and including 90-minute applications for wood doors and up to 3-hour applications for metal doors.

E. Acceptable Manufacturers:

	Heavy Duty
Hager	780-224HD
Bommer	
Zero	

**2.03 FLUSH BOLTS AND COORDINATORS**

- A. Flush bolts of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Manufacturer to be listed by the following: Auxiliary Hardware: ANSI/BHMI A156.16.
- C. Labeled openings: Provide automatic or constant latching flush bolts per hardware schedule for inactive leaf of pairs of doors. Provide dust proof strikes for bottom bolt.
- D. Non-Labeled openings: Provide two flush bolts for inactive leaf of pairs of doors per hardware schedule. Provide extension rods so that the center line of the top flush bolt is not more than 78” above the finish floor. Provide dust proof strike from bottom bolt.

E. Acceptable Manufacturers:

	Manual Flush Bolt	Auto Flush Bolt	Dust Proof Strike
Hager	282D	292D/295W/296W	280X
Rockwood	555	1942	570
Trimco	3917	3815	3911

**2.04 ELECTRIC STRIKES**

- A. Provide for use with type of locks shown on hardware schedule.
- B. Products to be certified and listed by the following:
  1. ANSI/BHMA A156.31 Electric Strikes and Frame Mounted Actuators Grade 1.

2. UL Tested 1500 lb. static strength.
3. UL listed for Fire Doors and Frames where applicable.
4. UL 1034 Burglary Resistance.
5. UL 10C.3H fire-rated, 4' x 8' door.

C. Material and Design:

1. To accept up to 3/4" latch bolt and 1" deadbolt.
2. Field reversible, Fail Safe or Fail Secure.
3. Dual voltage 12/24 VDC.
4. Tamper resistant, stainless steel corrosion resistance parts, and cast body and keeper.

D. Options:

1. Latch Bolt Monitoring (LBM) Signals the door is closed and latched or unlatched and open.
2. Door Secure Monitor (DSM) Door secure and unlocked monitoring.
3. Deadbolt Monitoring (DBM) Signals deadbolt projected or retracted.
4. Plug in buzzer (BUZZ) Indicates Fail Secure strike is energized and unlocked.
5. Rectified (RECT) Converts AC to DC.

E. Acceptable Manufacturers:

Von Duprin	6223
SDC	
RCI	

## 2.05 LOCKS AND LATCHES

A. Locks and latches of one manufacturer as listed for continuity of design and consideration of warranty.

B. Standards: Product to be certified and listed by following:

1. ANSI/BHMA A156.2 Series 4000 Certified to Grade 1.
2. ANSI/BHMA A250.13 Certified for a minimum design load of 1150 lbf (100 psf) for single out-swinging doors measuring 36" in width and 84" in height and a minimum design load of 1150lbf (70psf) for out-swinging single doors measuring 48" in width and 84" in height.
3. UL/cUL Labeled and listed for functions up to 3 hours for single doors up to 48" in width and up to 96" in height.
4. UL10C/UBC 7-2 Positive Pressure Rated.
5. ICC/ANSI A1117.1

C. Lock and latch function numbers and descriptions of manufacturer's series as listed in hardware sets.

D. Material and Design:

1. Lock and latch chassis to be zinc dichromate for corrosion resistance.
2. Keyed functions to be of a freewheeling design to help resist against vandalism.
3. Non-handed, field reversible.
4. Thru-bolt mounting with no exposed screws.
5. Levers, zinc cast and plated to match finished designation in hardware sets.
6. Roses, wrought brass or stainless steel material.

E. Latch and Strike:

1. Stainless Steel latch bolt with minimum of 1/2" throw and deadlocking for keyed and exterior functions. Provide 3/4" latch bolt for pairs of fire-rated doors where required by door manufacturer. Standard backset to be 2-3/4" and adjustable faceplate to accommodate a square edge door or a standard 1/8" beveled edge door.

2. Strike is to fit a standard ANSI A115 prep measuring 1-1/4" x 4-7/8" with proper lip length to protect surrounding trim.

F. Options:

1. Doors requiring lead line protection – provide locks with 1/16" lead applied to lock and 1/16" lead wrapped around latch bolt.
2. Provide knurled levers on entry side of doors that are potentially dangerous to visually impaired persons.

G. Electric Locks:

1. Fail-Safe (power locks lever) outside trim is locked when power is applied and unlocked when power is removed. Lockset will unlock in the event of a power failure (EL).
2. Fail-Secure (power unlocks lever) outside trim is locked when there is no power and unlocked when power is applied. Lockset will be locked in the event of a power failure (EU).

H. Acceptable manufacturers:

Hager	3400 Series
Schlage	ND Series
Best	9K Series

**2.06 LOCKS AND LATCHES (CLOSET DOOR)**

- A. Locks and latches of one manufacturer as listed for continuity of design and consideration of warranty.

B. Standards: Product to be certified and listed by following:

1. ANSI/BHMA A156.2 Series 4000 Certified to Grade 2.
2. ANSI/BHMA A250.13 Certified for a minimum design load of 860 lbf (80 psf) for a single out swinging doors measuring 36" in width and 84" height and a minimum design of 860 lbf (50 psf) for out swinging single doors measuring 48" in width and 84" height.
3. UL/cUL Labeled and listed for functions up to 3 hours for single doors up to 48" in width and up to 96" in height.
4. UL10C/UBC 7-2 Positive Pressure Rated.

- C. Lock and latch function numbers and descriptions of manufacturer's series as listed in hardware sets.

D. Material and Design:

1. Lock and latch chassis to be zinc dichromate for corrosion resistance.
2. Keyed functions to be of a freewheeling design to help resist against vandalism.
3. Non-handed, field reversible.
4. Thru-bolt mounting with no exposed screws.
5. Levers, zinc cast and plated to match finish designation in hardware sets.
6. Roses, wrought brass or stainless steel material.

E. Latch and Strike:

1. Stainless steel latch bolt with minimum of 1/2" throw and deadlocking for keyed and exterior functions. Provide 3/4" latch bolt for pairs of fire-rated doors where required by door manufacturer. Standard backset to be 2-3/4" and adjustable faceplate to accommodate a square edge door or a standard 1/8" beveled edge door.
2. Strike is to fit a standard ANSI A115 prep measuring 1-1/4" x 4-7/8" with proper lip length to protect surrounding trim.

F. Options:

1. Doors requiring lead line protection – provide locks with 1/16” lead applied to lock and 1/16” lead wrapped around latch bolt.
2. Provide knurled levers on entry side of doors that are potentially dangerous to visually impaired persons.

G. Acceptable Manufacturers:

Hager	3500 Series
Schlage	AL Series
Best	7K Series

**2.07 LOCKS AND LATCHES (UNI-SEX TOILETS)**

A. Locks and latches of one manufacturer as listed for continuity of design and consideration of warranty.

B. Standards: Product to be certified and listed by following:

1. ANSI/BHMA A156.13 Series 1000 Certified to Grade 1 for Operational and Security.
2. UL/cUL Labeled and listed up to 3 hours for single doors up to 48” in width and up to 96” in height.
3. UL10C/UBC 7-2 Positive Pressure Rated.
4. ICC/ANSI A117.1.

C. Lock and latch function numbers and descriptions of manufacturer’s series as listed in hardware sets.

D. Material and Design:

1. Lock cases from fully wrapped, 12 gauge steel, zinc dichromate for corrosion resistance.
2. Non-handed, field reversible without opening lock case.
3. Break-away spindles to prevent unlocking during forced entry or vandalism.
4. Levers, zinc cast, forged brass or stainless steel and plated to match finish designation in hardware sets.
5. Sectional Roses, solid brass or stainless steel material and have a minimum diameter of 2-7/16”.
6. Escutcheons, of solid brass or stainless steel material.
7. Armor fronts, self-adjusting to accommodate a square edge door or a standard 1/8” beveled edge door.

E. Latch and Strike:

1. Stainless steel latch bolt with minimum of 3/4” throw and deadlocking for keyed and exterior functions.
2. Strike is to fit a standard ANSI A115 prep measuring 1-1/4” x 4-7/8” with proper lip length to protect surrounding trim.
3. Deadbolts to be 1-3/4” total length with a minimum of a 1” throw and 3/4” internal engagement when fully extended and made of stainless steel material.

F. Acceptable Manufacturers:

Hager	3800 Series
Best	45H Series
Sargent	8200 Series

**2.08 EXIT DEVICES**

A. Exit Devices of one manufacturer as listed for continuity of design and consideration of warranty. Touchpad type, finish to match balance of door hardware.

B. Standards: Manufacturer to be certified and/or listed by the following:

1. BHMA Certified ANSI A156.3 Grade 1.
2. UL/cUL Listed for up to 3 hours for “A” labeled doors.

3. UL10C/UBC 7-2 Positive Pressure Rated.
4. UL10B Neutral Pressure Rated.
5. UL 305 Listed for Panic Hardware.

C. Material and Design:

1. Provide exit devices with actuators that extend a minimum of one-half of door width.
2. Where trim is indicated in hardware sets provide the lever design to match design of lock levers.
3. Exit device to mount flush with door.
4. Latchbolts:
  - a. Rim device – 3/4” throw, Pullman type with automatic dead-latching, stainless steel
  - b. Surface vertical rod device – Top 1/2” throw, Pullman type with automatic dead-latching, stainless steel.  
Bottom 1/2” throw, Pullman type, held retracted during door swing, stainless steel.
5. Fasteners: Wood screws, machine screws, and thru-bolts.

D. Lock and Latch Functions: Function numbers and descriptions of manufacturer’s series and lever styles indicated in door hardware sets.

E. Acceptable Manufactures:

Hager	4500 Series	
Von Duprin	99 Series	
Sargent	80 Series	

## 2.09 CYLINDERS AND KEYING

- A. Cylinders of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Products to be certified and listed by the following:
1. Auxiliary Locks: ANSI/BHMA A156.5
- C. Cylinders:
1. Provide cylinders matched to the types required for hardware that has a locking function and for keyed electronic functions. Furnish with appropriate collars, cams, and tailpieces to fit and operate associated hardware. Stacking collars is not acceptable, a single collar of proper size is required.
  2. Manufacturer’s standard tumbler type six-pin conventional cylinder.
  3. Provide concealed key control (CKC) at cylinder by stamping or permanently marking the keyset symbol in a location on the cylinder that is concealed when installed.
- D. Keying:
1. Provide a new factory registered key system.
  2. Provide a bitting list to Owner of combinations as established, and expand to twenty-five percent for future use or as directed by Owner.
    - a. Include all of the keysets and bittings of the original key system creating one clean version of the entire key system.
  3. Keys to be shipped directly to the Owner’s Representative as established during the keying conference.
    - a. Package the keys in individual envelopes, grouped by keyset symbol, and label envelopes with project name, factory registry number, and keyset symbol.
  4. Stamp large bow key blanks with visual key control (keyset symbol) and “Do Not Duplicate”.
  5. Provide construction keyed cylinders as required per the keying meeting.
- E. Acceptable Manufacturers:

Hager
Schlage
Sargent

**2.10 PUSH/PULL PLATES AND BARS**

- A. Push/Pull plates and bars of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Manufacturer to be certified by the following:
  - 1. Architectural Door Trim: ANSI/BHMA A156.6.
  - 2. Americans with Disabilities Act Accessibility Guidelines (ADAAG).
- C. Pull Bar Sets: 1” round bar stock with 2 –1/2” clearances from face of door.
- D. Acceptable Manufacturers:

Hager	H13J
Rockwood	
Trimco	

**2.11 CLOSERS**

- A. Closers of one manufacturer as listed for continuity of design and consideration of warranty. Unless otherwise indicated on hardware schedule, comply with manufacturer’s recommendations for size of closer, depending on width of door, frequency of use, atmospheric pressure, ADAAG requirements, and fire rating.
- B. Standards: Manufacturer to be certified by the following:
  - 1. BHMA Certified ANSI A156.4 Grade 1.
  - 2. ADA Complaint ANSI A117.1.
  - 3. UL/cUL Listed up to 3 hours.
  - 4. UL10C Positive Pressure Rated.
  - 5. UL10B Neutral Pressure Rated.
- C. Material and Design:
  - 1. Provide aluminum non-handed bodies with full plastic covers.
  - 2. Closers will have separate staked adjustable valve screws for latch speed, sweep speed, and backcheck.
  - 3. Provide Tri-Pack arms and brackets for regular arm, top jamb, and parallel arm mounting.
  - 4. Double heat-treated steel, tempered springs.
  - 5. Precision machined heat-treated steel piston.
  - 6. Triple heat-treated steel spindle.
  - 7. Full rack and pinion operation.
- D. Mounting:
  - 1. Out-swing doors surface parallel arm mount closers except where noted on hardware schedule.
  - 2. In-swing doors surface regular arm mount closers except where noted on hardware schedule.
  - 3. Provide brackets and shoe supports for aluminum doors and frames to mount fifth screw.
  - 4. Furnish drop plates where top rail conditions on door do not allow for mounting of closer and where backside of closer is exposed through glass.
- E. Size closers in compliance with requirements for accessibility (ADAAG). Comply with following maximum opening force requirements.

1. Interior hinged openings: 5.0 lbs.
2. Fire-rated and exterior openings are to be adjusted to have minimum opening force allowable by authority having jurisdiction.

F. Fasteners: Provide self-reaming, self-tapping wood and machine screws, and sex nuts and bolts for each closer.

G. Acceptable manufacturers:

Hager	5200 Series	
Norton	8000 Series	
Sargent	1330 Series	

## 2.12 PROTECTIVE TRIM

A. Protective trim of one manufacturer as listed for continuity of design and consideration of warranty.

B. Size of protection plate: single doors, size two inches less door width (LDW) on push side of door, and one inch less door width on pull side of door. For pairs of doors, size one inch less door width (LDW) on push side of door, and 1/2 inch on pull side of door. Adjust sizes to accommodate accompanying hardware, such as, edge guards, astragals and others.

1. Kick Plates 8” high or sized to door bottom rail height.
2. Mop Plates 4” high.

C. Products to be certified and listed by the following:

1. Architectural Door Trim: ANSI/BHMA A156.6.
2. UL.

D. Material and Design:

1. 0.050” gage stainless steel.
2. Corners square, polishing lines or dominant direction of surface pattern so they run across door width of plate.
3. Bevel top, bottom, and sides uniformly leaving no sharp edges.
4. Countersink holes for screws. Space screw holes so they are no more than eight inches CTC, along a centerline not over 1/2” in from edge around plate. End screws maximum of 0.53” from corners.

E. UL label stamp required on protection plates when top of plate is more than 16 inches above bottom of door on fire rated openings. Verify door manufacturer’s UL listing for maximum height and width of protection plate to be used.

F. Acceptable Manufacturers:

Hager	190S
Trimco	
Burns	

## 2.13 STOPS AND HOLDERS

A. Stops and holders of one manufacturer as listed for continuity of design and consideration of warranty.

B. Wall Stops: Provide door stops wherever necessary to prevent door or hardware from striking an adjacent partition or obstruction. Provide wall stops when possible. Door stops and holders mounted in concrete floor or masonry walls have stainless steel machine screws and lead expansion shields.



C. Products to be certified and listed by the following:

1. Auxiliary Hardware: ANSI/BHMA A156.16.

D. Acceptable Manufacturers:

	Convex	Concave
Hager	232W	236W
Rockwood		
Burns		

- E. Overhead Stops and Holders: Provide overhead stops and holders for doors that open against equipment, casework sidelights and other objects that would make wall stops/holders and floor stops/holders inappropriate. Provide sex bolt attachments for mineral core wood door applications.

F. Products to be certified and listed by the following:

1. Overhead Stops and Holders: ANSI/BHMA A156.8 Grade 1.

G. Acceptable Manufacturers:

	Heavy Duty Surface	Heavy Duty Concealed
Hager	7000 SRF Series	7000 CON Series
Glynn Johnson	90 SRF Series	100 Series
Sargent	590 Series	690 Series

**2.14 THRESHOLDS**

- A. Thresholds of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Set thresholds for exterior and acoustical openings in full bed of sealant with lead expansion shields and stainless steel machine screws complying with requirements specified in Division 7 Section “Joint Sealants: Notched in field to fit frame by hardware installer. Refer to Drawings for special details.
- C. Standards: Manufacturer to be certified by the following:
1. Thresholds: ANSI/BHMA A156.21.
  2. American with Disabilities Act Accessibility Guidelines (ADAAG).

D. Acceptable Manufacturers:

Hager	403S, 432S, 520S
K.N. Crowder	
Reese	

**2.15 DOOR GASKETING AND WEATHERSTRIP**

- A. Door gasketing and weatherstrip of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing where indicated on hardware schedule. Provide noncorrosive fasteners for exterior applications.
1. Perimeter gasketing: Apply to head and jambs, forming seal between door and frame.
  2. Meeting stile gasketing: Fasten to meeting stiles, forming seal when doors are in closed position.
  3. Door bottoms: Apply to bottom of door, forming seal with threshold or floor when door is in closed position.
  4. Sound Gasketing: Cutting or notching for stop mounted hardware not permitted.

5. Drip Guard: Apply to exterior face of frame header. Lip length to extend 4” beyond width of door.

C. Products to be certified and listed by the following:

1. Door Gasketing and Edge Seal Systems: ANSI/BHMA A156.22.
2. BHMA certified for door sweeps, automatic door bottoms, and adhesive applied gasketing.

D. Smoke-Labeled Gasketing: Comply with NFPA 105 listed, labeled, and acceptable to Authorities Having Jurisdiction, for smoke control indicated.

1. Provide smoke-labeled gasketing on 20 minute rated doors and on smoke rated doors.

E. Fire-Rated Gasketing: Comply with NFPA 80 listed, labeled, and acceptable to Authorities Having Jurisdiction, for fire ratings indicated.

F. Refer to Section 08 1416 Wood Doors for Category A or Category B. Comply with UBC 7-2 and UL10C positive pressure where frame applied intumescent seals are required.

G. Acceptable Manufacturers:

1. Perimeter Gasketing:

	Kerf Applied – By Frame Mfr.	Adhesive Applied
Hager		726/738
K.N. Crowder		
Reese		

**2.16 LATCH PROTECTORS**

A. Latch protectors of one manufacturer as listed for continuity of design and consideration of warranty.

B. Standards: Manufacturer to be listed by the following: Auxiliary Hardware: ANSI/BHMA A156.16.

C. Design:

1. 12 ga. steel, stainless steel material.
2. Size: 3” x 11”.
3. Non-handed.
4. Frame pin prevents prying of door.
5. Use with 1-3/4” thick door.
6. Use with cylindrical locksets with a 2-3/4” backset at exterior outswinging doors.
7. Fasteners: Two 5/16-18 x 1-1/2” carriage bolts with sex nuts.

D. Acceptable Manufacturers:

	Cylindrical	
Hager	341D	
Rockwood		
Trimco		

**2.17 SLIDING DOOR HARDWARE**

A. Sliding door hardware of one manufacturer as listed for continuity of design and consideration of warranty.

B. Sliding Door Hardware: Provide complete sets of rails, hangers, supports, bumpers, floor guides, and accessories indicated.

- C. Standards: Manufacturer conforms to:
  1. Sliding Door Hardware: ANSI/BHMA A156.14.
- D. Bypassing Siding Door Hardware: Rated for doors weighing up to 150 lbs.
- E. Pocket Sliding Door Hardware: Rated for doors weighing up to 250 lbs.
  1. Provide Pocket door kit for pocket doors. Kits are to include header assembly, split studs, hangers, door hanger plates, bumper, guides, floor plate, and end bracket.
- F. Wall Mounted Fascia: Rated for doors weighing up to 250 lbs.

G. Acceptable Manufacturers:

		Pocket Door Kits	
Hager		9901	
Lawrence			
K.N. Crowder			

**2.18 FOLDING DOOR HARDWARE**

- A. Folding door hardware of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Folding Door Hardware: Provide complete sets of rails, hangers, supports, bumpers, floor guides, and accessories indicated.
- C. Standards: Manufacturer conforms to:
  1. Folding Door Hardware: ANSI/BHMA A156.14.
- D. Folding Door Hardware: Rated for doors weighing up to 100 lbs.
  1. Provide door hardware for interior bi folding doors when not furnished as part of door package.

E. Acceptable Manufacturers:

Hager	9890 Series
Grant	
K.N. Crowder	

**2.19 KEY CABINET**

- A. Provide key cabinet; surface mounted to wall.
- B. Key control system:
  1. Include two sets of key tags, hooks, labels, and envelopes.
  2. Contain system in metal cabinet with baked enamel finish.
  3. Capacity will be able to hold actual quantities of keys, plus 50 percent.
  4. Provide tools, instruction sheets, and accessories required to complete installation.

C. Acceptable Manufacturers:

Lund Equipment
Telkee Incorporated
Key Control

**2.20 FINISHES**

- A. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if within range of approved samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within range of approved samples.
- B. Comply with base material and finish requirements indicated by ANSI/BHMA A156.18 designations in hardware schedule.

**PART 3 – EXECUTION**

**3.01 EXAMINATION**

- A. Examine doors and frames, with Installers present, for compliance with requirements for installation tolerances, labeled fire-rated 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. Notify Architect via a prepared written report and endorsed by Installer of any discrepancies between the door schedule, door types, drawings and scheduled hardware. Report will have a list of conditions detrimental to application, to the proper and timely completion of the work and performance of the hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

**3.02 INSTALLATION**

- A. Install hardware using manufactures recommended fasteners and installation instructions, at height locations and clearance tolerances that comply with:
  - 1. NFPA 80
  - 2. NFPA 105
  - 3. ICC/ANSI A117.1
  - 4. ANSI/BHMA A156.115 Hardware Preparation in Steel Doors and Steel Frames
  - 5. ANSI/BHMA A156.115W hardware Preparation in Wood Doors with Wood or Steel Frames
  - 6. DHI Publication – Installation Guide for Doors and Hardware
  - 7. Approved shop drawings
  - 8. Approved finish hardware schedule
- B. Install soffit mounted gaskets prior other soffit mounted hardware to provide a continuous seal around the perimeter of the opening without cutting or notching.
- C. Install door closers so they are on the interior of the room side of the door. Stairwell doors will have closers mounted on the stair side and exterior doors will be mounted on the interior side of the building.
- D. In drywall applications provide blocking material of sufficient type and size for hardware items that mount directly to the wall.

- E. Locate wall mounted bumper to contact the trim of the operating trim.
- F. Mount mop and kick plates flush with the bottom of the door and centered horizontally on the door.
- G. Set thresholds for exterior, and acoustical doors at sound control openings in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants" forming a tight seal between threshold and surface to which set.
- H. Anchor all components firmly into position and use anchoring devices furnished with the hardware item, unless otherwise specified.
- I. Do not install surface mounted items until finishes have been completed on substrates involved. Set unit level, plumb and true to line location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.
- J. Power Supplies: locate power supplies as indicated and verified in the low-voltage coordination meeting.

### **3.03 FIELD QUALITY CONTROL**

- A. Material supplier to schedule final walk through to inspect hardware installation ten (10) business days before final acceptance of Owner. Material supplier will provide a written report detailing discrepancies of each opening to General Contractor within seven (7) calendar days of walk through.

### **3.04 ADJUSTMENT, CLEANING, AND DEMONSTRATING**

- A. Adjustment: Adjust and check each opening to ensure proper operation of each item of finish hardware. Replace items that cannot be adjusted to operate freely and smoothly or as intended for application at no cost to Owner.
- B. Cleaning: Clean adjacent surfaces soiled by hardware installation. Clean finish hardware per manufacturer's instructions after final adjustments have been made. Replace items that cannot be cleaned to manufacturer's level of finish quality at no cost to Owner.
- C. Conduct a training class for building maintenance personnel demonstrating the adjustment, operation of mechanical and electrical hardware. Special tools for finish hardware to be turned over and explained usage at the meeting. Record all training and provide to the Owner for future reference.

### **3.05 PROTECTION**

- A. Leave manufacturer's protective film intact and provide proper protection for all other finish hardware items that do not have protective material from the manufacture until Owner accepts project as complete.

### **3.06 HARDWARE SET SCHEDULE**

- A. Intent of Hardware Groups
  1. Should items of hardware not specified be required for completion of the Work, furnish such items of type and quality comparable to adjacent hardware and appropriate for service required.
  2. Where items of hardware aren't correctly specified and are required for completion of the Work, a written statement of such omission, error, or other discrepancy is required to be submitted to Architect, prior to date specified for receipt of bids for clarification by addendum; or, furnish such items in the type and quality established by this specification, and appropriate to the service intended.

- B. Guide: Door hardware items have been placed in sets which are intended to be a guide of design, grade, quality, function, operation, performance, exposure, and like characteristics of door hardware, and may not be complete. Provide door hardware required to make each set complete and operational.
- C. Hardware schedule does not reflect handing, backset, method of fastening, and like characteristics of door hardware and door operation.
- D. Review door hardware sets with door types, frames, sizes and details on drawings. Verify suitability and adaptability of items specified in relation to details and surrounding conditions.

### 3.07 HARDWARE SCHEDULE

## Hardware Sets

#### SET #1

Doors: 100A, 106A

1	Continuous Hinge	780-224HD x LAR	CLR	HA
1	Storeroom Lock	3480 AUG	US26D	HA
1	Electric Strike	6223	US32D	VO
1	Latch Guard	341D	US32D	HA
1	Closer	5200 HDCS	ALM	HA
1	Kick Plate	190S 8" x 2" LDW	US32D	HA
1	Threshold	520S N x LAR	MIL	HA
1	Set Weatherstrip	For kerfed hollow metal frame, by frame Mfr.	-	-
1	Drip Cap	810S x LAR	MIL	HA
1	Access Control	ACCESS CONTROL READER (BY OTHERS)		BYOT

Description of Operation:

Door is normally closed and locked

Presenting authorized credential, releases electric strike granting access or by key over-ride

Free egress at all times

Electric strike to remain engaged in the event of power loss

#### SET #2

Doors: 109C, 110A, 113A

1	Storeroom Lock	3480 AUG	US26D	HA
1	Electric Strike	6223	US32D	VO
1	Access Control	ACCESS CONTROL READER (BY OTHERS)		BYOT
1	Wrap-Around	12-2-CW	S	DJ

NOTE: Remainder of hardware existing. 12-2-CW for Mk # 109C only.

Description of Operation:

Door is normally closed and locked

Presenting authorized credential, releases electric strike granting access or by key over-ride

Free egress at all times

Electric strike to remain engaged in the event of power loss

#### SET #3

Doors: 100B, 108A, 109B

3	Hinge	BB1168 4 1/2 X 4 1/2	US26D	HA
1	Exit Device	4501 RIM	US32D	HA
1	Exit Device Trim	45BE AUG	US26D	HA
1	Closer	5200 HDCS	ALM	HA
1	Kick Plate	190S 8" x 2" LDW	US32D	HA
1	Set Smoke Seal	738 x LAR	S	HA
1	Door Sweep	750S N x LAR	CLR	HA
1	Threshold	403S N x LAR	MIL	HA

**SET #4**

Doors: 113B

3 Hinge	BB1168 4 1/2 X 4 1/2	US26D	HA
1 Exit Device	4501 RIM	US32D	HA
1 Exit Device Trim	45BE AUG	US26D	HA
1 Closer	5200 HDCS	ALM	HA
1 Kick Plate	190S 8" x 2" LDW	US32D	HA
1 Set Smoke Seal	738 x LAR	S	HA
1 Door Sweep	750S N x LAR	CLR	HA
1 Threshold	432S N x LAR	MIL	HA

**SET #5**

Doors: 101A

3 Hinge(s)	BB1279 4 1/2 X 4 1/2	US26D	HA
1 Passage Set	3410 AUG	US26D	HA
1 Wall Stop	232W/236W (as required)	US32D	HA
3 Door Silencer	307D	GREY	HA

**SET #6**

Doors: 102A

3 Hinge(s)	BB1191 4 1/2 X 4 1/2	US32D	HA
1 Privacy Set w/Indicator	3896 SECT AUG	US26D	HA
1 Mop Plate	190S 4" x 1" LDW	US32D	HA
1 Wall Stop	232W/236W (as required)	US32D	HA
3 Door Silencer	307D	GREY	HA

**SET #7**

Doors: 103A, 104A, 105A

3 Hinge(s)	BB1279 4 1/2 X 4 1/2	US26D	HA
1 Privacy Set	3440 AUG	US26D	HA
1 Wall Stop	232W/236W (as required)	US32D	HA
3 Door Silencer	307D	GREY	HA

**SET #8**

Doors: 107A

3 Hinge(s)	BB1191 4 1/2 X 4 1/2	US32D	HA
1 Privacy Set w/Indicator	3896 SECT AUG	US26D	HA
1 Overhead Stop	7016 CON	US32D	HA
1 Mop Plate	190S 4" x 1" LDW	US32D	HA
3 Door Silencer	307D	GREY	HA

**SET #9**



Doors: 107B

1 Bi-Fold Set	9891 x LAR		HA
2 Dummy Trim	3517 AUG	US26D	HA

**SET #10**

Doors: 109A

1 Pocket Door Kit	9901 x LAR		HA
1 Set Door Pull	H 13J	US32D	HA

**SET #11**

Doors: 112B

1 Thru Wire Hinge	BB1279 4 1/2 X 4 1/2 ETW	US26D	HA
5 Hinge(s)	BB1279 4 1/2 x 4 1/2 NRP	US26D	HA
1 Set Self Latching Flush Bolts	293D	US32D	HA
1 Dust Proof Strike	280X	US26D	HA
1 Electrified Lockset	3480ELEU AUG	US26D	HA
1 Closer	5200 HDCS	ALM	HA
1 Overhead Stop	7016 SRF	US32D	HA
2 Kick Plate	190S 8" x 2" LDW	US32D	HA
2 Door Silencer	307D	GREY	HA
1 Astragal	ASTRAGAL BY DOOR MANUFACTURER		BYOT
1 Power Supply	2908/2909/2910/2911 As Required		HA
1 Access Control	ACCESS CONTROL READER (BY OTHERS)		BYOT

Description of Operation:

Door is normally closed and locked

Presenting authorized credential, unlocks lever granting access or by key over-ride

Free egress at all times

Lever to remain locked in the event of power loss

**SET #12**

Doors: 112A

3 Hinge	BB1168 4 1/2 X 4 1/2	US26D	HA
1 Passage Set	3410 AUG	US26D	HA
1 Closer	5200	ALM	HA
1 Kick Plate	190S 8" x 2" LDW	US32D	HA
1 Wall Stop	232W/236W (as required)	US32D	HA
1 Perimeter Seal	726 x LAR	S	HA

**SET #13**

Doors: 114A, 115A

3 Hinge(s)	BB1279 4 1/2 X 4 1/2	US26D	HA
1 Office Lock	3450 AUG	US26D	HA
1 Wall Stop	232W/236W (as required)	US32D	HA

3 Door Silencer 307D GREY HA

**SET #14**

Doors: 111A

1 Storeroom Lock 3480 AUG US26D HA  
NOTE: Balance of hardware existing.

**SET #15**

Doors: 111B

1 Passage Set 3410 AUG US26D HA  
NOTE: Balance of hardware existing.

END of SECTION 08 7100