### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Division 00 and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Interior sliding wood doors and hardware.
  - 2. Electric sliding door operator.

# 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Include details of construction and glazing.
  - 2. Include factory-finishing specifications.
- B. Sustainable Design Submittals:
  - 1. Product Data: For adhesives, indicating that product contains no urea formaldehyde.
  - 2. Laboratory Test Reports: For adhesives, indicating compliance with requirements for low-emitting materials.
  - 3. Product Data: For composite wood products, indicating that product contains no urea formaldehyde.
  - 4. Laboratory Test Reports: For composite wood products, indicating compliance with requirements for low-emitting materials.
- C. Shop Drawings: For stile and rail wood doors. Indicate location, size, and hand of each door; elevation of each kind 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. Dimensions of doors for field assembly.
  - 2. Locations and dimensions of mortises and holes for hardware.
  - 3. Doors to be factory finished and finish requirements.
- D. Samples for Verification: Corner sections of doors, approximately 8 by 10 inches (200 by 250 mm), with door faces and edgings representing typical range of color and grain for each species of veneer and solid lumber required. Finish Sample with same materials proposed for factory-finished doors.

### 1.4 INFORMATIONAL SUBMITTALS

- A. Product Certificates: For each type of door, from manufacturer.
- B. Sample Warranty: For special warranty.

#### 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 top and bottom rail with opening number used on Shop Drawings.

#### 1.6 FIELD CONDITIONS

A. Environmental Limitations: 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 ambient temperature and humidity conditions at occupancy levels during remainder of construction period.

### 1.7 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace doors that fail in materials or workmanship, or have warped (bow, cup, or twist) more than 1/4 inch (6.4 mm) in a 42-by-84-inch (1067-by-2134-mm) section, within specified warranty period.
  - 1. Warranty shall also include installation and finishing that may be required due to repair or replacement of defective doors.
  - 2. Warranty shall be in effect during the following period of time from date of Substantial Completion:
    - a. Interior Doors: Life of installation.

#### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

A. Source Limitations: Obtain stile and rail wood doors from single manufacturer.

#### 2.2 MATERIALS

- A. General: Use only materials that comply with referenced standards and other requirements specified.
- B. Wood Products: Provide materials that comply with requirements of referenced quality standard for each type of ornamental woodwork and quality grade specified unless otherwise indicated.
  - 1. Wood Moisture Content for Interior Materials: 5 to 10 percent.

### 2.3 INTERIOR SLIDING WOOD BARN DOORS

- A. Interior Sliding Wood Doors:
  - 1. Basis-of-Design Product: TBD.
    - a. Door Slab: Stile and Rail, factory finished Walnut Veneer AA Grade, 0.6 mm veneer, 5 mm MDF+Engineered Solid Wood Core, and solid walnut.

#### 2.4 WOOD DOOR FABRICATION

- A. Fabricate sliding wood doors in sizes indicated for field fitting.
- B. Factory machine doors for hardware that is not surface applied. Locate hardware to comply with DHI-WDHS-3. Comply with final hardware schedules, door frame Shop Drawings, BHMA-156.115-W, and hardware templates.

#### 2.5 FINISHING

- A. Finish wood doors at factory.
- B. Transparent Finish:
  - 1. Grade: Premium.
  - 2. Finish: AWI's, AWMAC's, and WI's "Architectural Woodwork Standards" System 11, catalyzed polyurethane.
  - 3. Staining: Premium finish, walnut medium stain. Match Architects sample
  - 4. Sheen: As selected by the Architect.

# 2.6 ELECTRIC SLIDING DOOR OPERATOR

- A. Type: Biparting.
- B. Track Length: 24feet.
- C. Horsepower: 1(one) hp, heavy duty.
- D. Product: Edison Sliding Opener; Real Sliding Hardware, Gig Harbor, WA.

### 2.7 SLIDING DOOR TRACK

- A. Manufacturer: Crown Industrial, San Francisco, CA:
  - 1. Hanger: Model No. 25P4BLE.
    - a. Construction: 3" diameter machined wheels. Fame malleable iron, ball bearings, lateral and vertical adjustment. Painted.
  - 2. Track: No. 25.

# 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, and location, 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 064116 "Plastic-Laminate-Faced Architectural Cabinets".
- B. Installation Instructions: Install doors to comply with manufacturer's written instructions and referenced quality standard, and as indicated.
- C. 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 operate freely.
- B. Finished Doors: Replace doors that are damaged or do not comply with requirements. Doors may be refinished if Work complies with requirements and shows no evidence of repair or refinishing.

END OF SECTION 081473

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# SECTION 087100 DOOR HARDWARE

#### PART 1 - GENERAL

#### 1.01 WORK INCLUDED

The work in this section shall include the furnishing of all items of door hardware as hereinafter specified, or obviously necessary to complete the building, except those items which are specifically excluded from this section of the specification.

#### 1.02 DESCRIPTION OF WORK

Door Hardware - Hardware used in building construction but particularly that used on or in connection with doors and frames, cabinets and other movable members. It also has a finished appearance as well as functional purpose and may be considered as a part of the decorative treatment of a room or building.

#### 1.03 RELATED WORK

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these specifications.
- B. Related Sections:

Section 081000 - Steel Doors and Frames

Section 081000 – Standard Steel Frames

Section 082100 - Flush Wood Doors

Section 083300 - Coiling Doors and Grilles

### 1.04 COORDINATION

A. Schedule coordination meeting to clarify sub-contractor and supplier requirements to provide a complete and functioning access control system.

#### 1.05 QUALITY ASSURANCE

- A. Hardware has been specified herein by manufacturer's name, brand and catalog numbers for the purpose of establishing a basis for quality, finish, design and operational function. To insure a uniform basis of acceptable material, it is the intention that only manufacturer's items specified as "Acceptable and Approved" be furnished for use on this project. Obtain each type of hardware (latch and lock sets, hinges, exit devices closers) from single manufacturer, although several may be indicated as offering products complying with requirements.
- B. Substitutions: Request for substitutions of items of hardware not listed as "Acceptable and Approved" shall be made to the Architect no later than ten (10)

DOOR HARDWARE 087100-1 Project No: H17018 6/27/2018 days prior to bid opening. Approval of substitutions will only be in writing or by addenda. Request for substitutions shall be accompanied by samples and/or detailed information as to the manufacturer of the product.

- C. Underwriters' Laboratories Requirements: Hardware for openings classed as requiring a UL label in the door schedule, or by code, shall be furnished and installed to meet the applicable requirements of NFPA 80. Hardware shall be UL listed for usage with types and sizes of fire doors specified and scheduled. Products tested shall meet requirements of UBC 7-2-1997 / UL10C
- D. Accessibility Standards: Hardware shall be in conformance with Article 9102, Texas Civil Statutes, Elimination of Architectural Barriers Act of Texas.
  - 1. Door Closers: The sweep period of closers shall be adjusted so that from an open position of 90 degrees, the door will take at least five seconds to move to an open position of approximately 12 degrees.
  - 2. The maximum force for pushing or pulling open door shall be as follows:
    - a. Exterior hinged doors: Not to exceed 8.5 lbf.
    - b. Sliding, folding, and interior hinged doors: Not to exceed 5 lbf.
    - c. Fire doors: Adjusted to meet minimum closing force permitted by governing fire safety standards.
- E. Federal Accessibility Standards: Hardware shall be in accordance will all requirements of the Americans With Disabilities Act 1990.
- F. Supplier: A recognized builders hardware supplier who has been furnishing hardware in the project's vicinity for a period of not less than two (2) years, and who is, or has in employment, a Hardware Consultant (AHC) in good standing as certified by the Door and Hardware Institute. This consultant shall have experience in the preparation of architectural hardware specifications, estimating, detailing, ordering, servicing of architectural hardware in all its branches and will be available at reasonable times during the course of the work for project hardware consultation to the Owner, Architect and Contractor. It is the hardware distributor's responsibility to coordinate the hardware specified to work with the Aluminum doors.
- G. Pre-Installation Instructional Meeting: Contractor shall schedule and hold a preinstallation meeting that includes the Contractor, the Architect and/or his chosen representative, the Hardware Supplier, and all installers of hardware. Instructional meeting shall be conducted by the Hardware Supplier, covering proper installation of all items of hardware to be incorporated into the Project.
- H. *Installer:* Firm with a minimum of five years of documented experience in installing the types and grade of hardware being incorporated into the Project. Three written

DOOR HARDWARE 087100-2 Project No: H17018 6/27/2018 references from Construction Administrators of previous projects required for the Architect's review before installation Contract or Subcontract is executed.

- I. Prototype Installations: One of each type of the following hardware installations shall be performed to the Architect's (and/or his designated representative's) approval before any installations of like-type applications are performed:
  - 1. One exterior door pair with exit devices
  - 2. One exterior single door with an exit device
  - 3. One single classroom door
  - 4. One interior pair of doors with vertical rod exit devices

#### 1.06 REFERENCES

A. Door Hardware in this section shall meet the following as established by the American National Standards Institute, Inc. (ANSI) which is sponsored by the Builders Hardware Manufacturers Association, Inc., (BHMA). Product tests are to be administered by the ETL Testing Laboratories, Inc., or other official testing laboratories which have been designed by BHMA for the testing of ANSI standards latest revision will be in effect.

B.	Materials and Finishes	BHMA 1301
	Butts and Hinges	ANSI A156.1
	Locks and Lock Trim	ANSI A156.2
	Exit Devices	ANSI A156.3
	Door Controls-Closers	ANSI A156.4
	Auxiliary Lock & Assoc. Products	ANSI A156.5
	Architectural Door Trim	ANSI A156.6
	Template Hinge Dimensions	ANSI A156.7
	Door Controls-Overhead Holders	ANSI A156.8
	Mortise Locks and Latches	ANSI A156.13

C. Listed Hardware: Hardware which is to be installed in or on fire labeled doors and frames, Class A or lesser, single or pairs shall be tested and listed by Underwriters Laboratories and/or Warnock Hersey Fire Laboratories Division. Exit devices which are to be used as panic hardware shall be tested and listed in Underwriters Laboratories "Accident Equipment List-Panic Hardware". All listed hardware shall be in compliance with National Fire Protection Association (NFPA) Standard Number 80 IBC current year adopted and be properly stamped or labeled for easy identification.

### 1.07 SUBMITTALS

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- A. The door hardware supplier shall, after award of a formal contract, submit to the Architect, six (6) complete typewritten copies of the proposed Door Hardware Schedule for approval. This schedule shall be prepared using the "Sequence and Format for the Hardware Schedule" as approved and recommended by the Door and Hardware Institute (DHI).
- B. When submitting schedules for approval, include six (6) copies of cut sheets on each hardware item proposed. Index it with the use of number or letters or a combination of both, with the hardware schedule. The index numbers/letters are to be in the right hand column on the same line as the respective manufacturer's numbers shall be indexed even when appearing more than once.
- C. Samples: As part of this contract, if requested, the hardware supplier shall provide the Architect with one sample of each item of door hardware that is to be furnished for this project.
- D. *Templates:* The hardware supplier shall provide necessary templates and/or physical hardware to all trades requiring them in order that they may cut, reinforce or otherwise prepare their material or product to receive the hardware item. If physical hardware is required by any manufacturer, the hardware supplier shall ship to them such hardware via prepaid freight in sufficient time to prevent any delay in the execution of their work.

# 1.08 DELIVERY, STORAGE AND HANDLING

- A. All items of hardware to be delivered to the jobsite shall be completely packaged with all necessary screws, bolts, miscellaneous parts, instructions and where necessary installation templates for manufacturer's suggested installation. They are to be clearly labeled as to conveniently identify them and their intended location in the building.
- B. A representative of the General Contractor shall receive the hardware when delivered at the jobsite. A dry locked storage space complete with shelving, shall be set aside for the purpose of unpacking, sorting out, checking and storage.
- C. Door Hardware shall be delivered to the General Contractor by the hardware supplier. Direct factory shipments to the jobsite are not acceptable.
- D. The hardware shall be jointly inventoried by representatives of the General Contractor and the Hardware Supplier.
- E. Items damaged in shipment shall be replaced promptly and with proper material without additional cost to the General Contractor.
- F. All hardware shall be handled in a manner to minimize marring, scratching or damage.

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G. Store and handle all materials strictly according to the manufacturer's instructions.

### 1.09 WARRANTY

Door Closers shall carry a limited warranty against defects in workmanship and operation for a period of five (5) years from the date of acceptance. The balance of door hardware shall carry a limited warranty against defects in workmanship and operation for a period of one (1) year from date of acceptance. No liability is to be assumed where damage or faulty operation is due to abuse, improper usage, improper installation or failure to exercise normal maintenance.

#### PART 2 - PRODUCTS

#### 2.01 FINISH OF HARDWARE

- A. Finish of items shall be as specified under the door hardware sets of this section.
- B. The finish of items not specially mentioned above nor set forth in the schedule shall be US26D, unless shown otherwise.

### 2.02 HINGES

- A. Template Hinges: Provide only template hinges which conform to ANSI A156.7.
- B. Use five-knuckle ball bearing hinges, as indicated in the hardware sets, on heavy doors, doors where high frequency service is expected, doors equipped with door closers, and all labeled doors. (Oil impregnated bearing hinges are not acceptable.)
- C. All hinges to be used on exterior doors or doors subject to special atmospheric conditions, (pool areas, chemical laboratories, sewage disposal plants, etc.) shall be of non-ferrous material, brass, bronze or stainless steel.
- D. Hinge pins, except as otherwise indicated, shall be as follows:
  - 1. Steel hinges: Steel pins
  - 2. Non-ferrous hinges: Stainless steel pins
- E. Sizes of hinges shall be as follows:

Door Thickness	Hinge	Hinge
and Width	<u>Height</u>	Width
1 3/4" to 36"	4½	41/2

F. Number of hinges per door, provided quantities as follows:

For doors less than 5 feet high: 1 pair

For doors 5 feet to 7 feet 6 inches high: 1 1/2 pair and additional hinge for each additional 2 1/2 feet or fraction thereof.

- G. Where projection of door trim is such as to prevent degree of opening, the proper hinge width shall be provided to allow the door to clear the trim.
- H. Provided above criteria are met, Acceptable and Approved as follows:

**lves** 

Hager

**Bommer** 

I. Continuous Hinges shall be type scheduled and as manufactured by one of the following. Coordinate hinge type with Aluminum door supplier.

ABH

lves

<u>Hager</u>

#### 2.03 KEYING

A. All locks and cylinders shall be restricted keyway as instructed by Owner to match existing key system. Stamp all keys with "Do Not Duplicate" on one side and key symbol on the other side. A keying meeting is required prior to ordering cylinders for this project. Submit a separate keying submittal for review and approval.

Furnish "3" Change keys Each Lockset

Furnish "6" Building Master Keys

Furnish "10" Construction Master Keys

Furnish "2" Temp core removal keys

Furnish "2" Permanent core installation keys

All permanent keys to be delivered to Owner.

### 2.04 MORTISE LOCKS

A. Locks shall have all functions available in one size case, manufactured from heavy gauge steel, minimum thickness of 3/32", complete chrome plated for corrosion resistance and lubricity of parts. Cases are to be closed on all sides to protect internal parts. Locks are to have adjustable, beveled and armored fronts, standard 2 3/4" backset, a full 3/4" throw two-piece mechanical anti-friction latchbolt, a one-piece stainless steel 1" throw deadbolt, and shall be available for a minimum door

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- thickness of 1 3/8". Internal parts shall be heavy gauge steel, zinc dichromate plated for corrosion resistance.
- B. All locksets with latchbolts, regardless of trim, shall be listed by Underwriters Laboratories for A label and less class doors, 4' x 8' single or 8' x 8' pair.
- C. Lock trim (knob, lever, sectional or escutcheon) shall be throughbolted through the lock case to assure correct alignment and proper operation.
- D. Locksets shall conform to Federal Specification FF-H-106C, and be certified as meeting ANSI A156.13 Series 1000, Grade 1 requirements, ANSI A117.1, Accessibility Code (lever handle trim), and California State Reference Code, 1989 (formerly Title 19, California State Fire Marshall Standard) (lever handle trim).
- E. Acceptable and Approved:

**No Substitutions** 

**Schlage** 

#### 2.05 EXIT DEVICES

#### LOW PROFILE PUSH BAR EXIT DEVICES

- A. The maximum exit device projection shall be a maximum of 3-1/16" when activated. The exit device bar shall have an average minimum thickness of .201". The pushpad surface shall be constructed of stainless steel; pushpads with plastic or Lexan coatings shall not be acceptable. Nylon bearings and stainless steel springs shall be used for long life and durability. Only torsion or compression springs are acceptable. Extension type springs are not acceptable. All device covers shall be of cast brass, deep drawn steel or stainless steel. Latchbolts shall be of stainless steel and shall have a deadlocking latch for extra security, except at full-glass or two-light glass doors requiring narrow stile device. Mounting screws shall be concealed to deter tampering. All ferrous parts shall be zinc coated to prevent rusting.
- B. Single point, one quarter turn hex dogging shall be standard on panic listed devices. Optional key cylinder dogging shall be available, and furnished if so indicated in the hardware sets, on panic listed devices. Devices with hex key dogging shall be easily field converted to cylinder dogging.
- C. All devices shall be listed by Underwriters Laboratories for safety as panic hardware. Fire rated devices shall be UL listed for A label and lesser class doors, 4' x 8' single and 8' x 8' pair. The model number shall be located on the end cap; devices having the model number located other than on the end cap shall not be acceptable.

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- D. All exit devices shall have a unitized installation feature and may be cut in the field to size. Devices shall be closed on all sides with no pinch points. The pushpad shall be designed to prevent pinching of the fingers when depressed.
- E. Exit Device trim to be throughbolted. Lever trim to be heavy duty forged escutcheon with free wheeling levers.
- F. All exit devices shall conform to Federal Specification FF-H-1820, and be certified as meeting ANSI A156.3, Grade 1 requirements.
- G. Acceptable and Approved: No Substitutions

Von Duprin

#### 2.06 DOOR CLOSERS

- A. Closers shall be rack and pinion construction. They shall be non-sized with adjustable spring power. Closing the door shall be controlled by two valves, one to control closing and one to control latching speed. Closers shall be regularly furnished with fully adjustable backcheck and a backcheck selector valve allowing approximate 70 degree backcheck on both regular and parallel arm closers. Delayed action shall be available. Valves shall be concealed against unauthorized adjustment and be non-critical needle valve type. Closers shall be mounted out of line of sight wherever possible (i.e., room side of corridor doors, etc.) with parallel arm mounting on out swing doors. Mount closers top jamb or on brackets and/or drop plates where special conditions exist. Include cost for any required special templates.
- B. Closers shall be certified as meeting the ANSI A156.4, Grade 1 requirements and be listed by Underwriters Laboratories for all classes of labeled doors.
- C. Door Closers shall be furnished on all labeled doors.
- D. Acceptable and Approved: **No Substitutions**

LCN

#### 2.07 OVERHEAD STOPS AND HOLDERS

- A. Furnish overhead stops or holders of the weight, functions and materials indicated in the hardware sets.
- B. Overhead stops or holders shall be manufactured entirely of metallic components. Units containing plastic, nylon, or similar materials are not acceptable.

DOOR HARDWARE 087100-8 Project No: H17018 6/27/2018 C. Acceptable and Approved as follows:

ABH Manufacturing
Glynn Johnson

### 2.08 TRIM/KICK PLATES/DOOR STOPS

- A. All door protection plates to be manufactured of .050" stainless steel. Protection plates to be furnished 2" less than door width on single doors and 1" less than door width on pairs of doors.
- B. Wall mounted door stops shall be provided where door leaves will strike a wall at the end of their opening cycle. If other conditions exist, furnish floor stops or overhead stops as required.
- C. Acceptable and Approved as follows:

Trimco/Quality Baldwin Ives

### 2.09 WEATHERSTRIP/THRESHOLDS/SMOKE SEALS

- A. Provide weatherstrip, thresholds, and/or sound seals for each opening as scheduled. Review Sill detail on Architectural drawings and furnish threshold type required.
- B. Provide smoke seal (including meeting stile seal for door pairs) for all fire rated doors. All smoke seal and astragals shall be listed by either Underwriters Laboratory or Warnock-Hersey as Category "H" Smoke and Draft Control Gasket under the testing protocols of UBC Standard 7-2 1997, Part 2 and/or UL1784. All smoke seal and astragals shall, additionally, comply with the door manufacturer's listing under the same protocols.
- C. Acceptable and Approved as follows:

National Guard Pemko Zero

#### **PART 3 - EXECUTION**

3.01 INSTALLATION

DOOR HARDWARE
Project No: H17018

- A. Mount hardware units at heights indicated in "Recommended Locations for Builders Hardware" for (Standard Steel Doors and Frames) by the Door and Hardware Institute (DHI), except if otherwise specifically indicated or to comply with requirements of governing regulations, requirements for the handicapped, or if otherwise directed by the Architect.
- B. All hardware shall be installed by a tradesman skilled in the application of commercial grade hardware.
- C. Install each hardware item in compliance with the manufacturer's instructions and recommendations. Securely fasten all parts to be attached. Fit faces of mortise parts snug and flush. Make sure all operating parts move freely and smoothly without binding, sticking or excessive clearance. Wherever cutting and fitting is required to install hardware onto or into surfaces which are later to be painted or finished in another way, the hardware shall be removed and stored prior to the painting or finishing. Items shall then be reinstalled only when the finished have been completed on the surface to which the hardware is to be applied.
- D. At exterior doors and elsewhere as indicated, set thresholds in a bed of sealant as specified in Section 07900 to completely fill concealed voids and excluded moisture from every source. Do not plug drain hole or block weeps. Remove excess sealant.
- E. After installation, representative templates, instruction sheets and installation details shall be placed in a file folder to be turned over to the Owner when building is accepted. Included shall be at least five (5) each of any special adjusting and/or installation tools furnished with the hardware by the manufacturers.

#### PART 4 - SCHEDULES

### 4.01 HARDWARE SETS

Hardware Group No. 001

For use on mark/door #(s):

100 100A 204

Provide each PR door(s) with the following:

DOOR HARDWARE 087100-10 Project No: H17018 6/27/2018

1 NOTE HARDWARE BY DOOR MANUFACTURER

Hardware Group No. 002

For use on mark/door #(s):

103K

Provide each SL door(s) with the following:

1 NOTE HARDWARE BY DOOR

MANUFACTURER

Hardware Group No. 003

For use on mark/door #(s):

**102B Deleted 104A 144B** 

126B Added

Provide each RU door(s) with the following:

1	EA	MORTISE CYLINDER	20-059 TYPE AS REQ	626	SCH
1	EΑ	FSIC CORE	23-030 ICX CONSTRUCTION CORE	622	SCH
1	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1		NOTE	HARDWARE BY DOOR		
			MANUFACTURER		

Hardware Group No. 103

For use on mark/door #(s):

214

Provide each SGL door(s) with the following:

3	EΑ	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	OFFICE/ENTRY LOCK	L9050T 06A	626	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EΑ	GASKETING	188S H & J (USE SILENCERS @ NON-	BK	ZER
			RATED DOORS)		

Hardware Group No. 201

DOOR HARDWARE 087100-11 Project No: H17018 6/27/2018

For use on mark/door #(s
--------------------------

114 122 124 138 215

Provide each SGL door(s) with the following:

3	EΑ	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EΑ	STOREROOM LOCK	L9080T 06A	626	SCH
1	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT, SPCR & PLATE AS REQ X ST3596	689	LCN
1	EΑ	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EΑ	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON- RATED DOORS)	BK	ZER

Hardware Group No. 207

For use on mark/door #(s):

115 133A

Provide each SGL door(s) with the following:

3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	STOREROOM LOCK	L9080T 06A	626	SCH
1	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	OH STOP	900S SERIES X SIZE & MOUNTING AS REQ	630	GLY
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT, SPCR & PLATE AS REQ X ST3596	689	LCN
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON- RATED DOORS)	BK	ZER

Hardware Group No. 212SW

For use on mark/door #(s):

149 149A

Provide each PR door(s) with the following:

6	EA	HINGE	5BB1 5 X 4.5	652	IVE
2	EA	MANUAL FLUSH BOLT	FB458	626	IVE
1	EΑ	DUST PROOF STRIKE	DP2	626	IVE
1	EA	STOREROOM LOCK	L9080T 06A	626	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EA	OH STOP	900S SERIES X SIZE & MOUNTING AS REQ	630	GLY

DOOR HARDWARE 087100-12 Project No: H17018 6/27/2018

1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT, SPCR & PLATE AS REQ X ST3596	689	LCN
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON-	BK	ZER
			RATED DOORS)		

# Hardware Group No. 301

For use on mark/door #(s):

148

Provide each SGL door(s) with the following:

3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	PRIVACY LOCK	L9040 06A	626	SCH
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON-	BK	ZER
			RATED DOORS)		

# Hardware Group No. 501

For use on mark/door #(s):

126A

Provide each SGL door(s) with the following:

		` '	S .		
3	EΑ	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EΑ	CLASSROOM LOCK	L9070T 06A	626	SCH
1	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EΑ	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON-	BK	ZER
			RATED DOORS)		

Hardware Group No. 700

For use on mark/door #(s):

143 144

DOOR HARDWARE 087100-13 Project No: H17018 6/27/2018

2	EA	CONT. HINGE	112HD	628	IVE
2	EA	PANIC HARDWARE	9949/50-L-06 (WDC @ WD) LENGTH & HEIGHT AS REQ	626	VON
2	EA	RIM HOUSING	20-079	626	SCH
2	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
2	EΑ	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EA	WALL STOP	WS406/407CCV	630	IVE
2	EΑ	SILENCER	SR64	GRY	IVE

# Hardware Group No. 700A

For use on mark/door #(s):

103G 103H 103J

# Provide each PR door(s) with the following:

2	EA	CONT. HINGE	112HD	628	IVE
2	EA	PANIC HARDWARE	9949/50-L-06 (WDC @ WD) LENGTH & HEIGHT AS REQ	626	VON
2	EA	RIM HOUSING	20-079	626	SCH
2	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT, SPCR & PLATE AS REQ X ST3596	689	LCN
2	EA	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EΑ	WALL STOP	WS406/407CCV	630	IVE
1	SET	SEAL	PERIMETER SEAL BY FRAME MANUFACTURER		
1	SET	ASTRAGAL	MEETING STILE SEAL BY DOOR MANUFACTURER		

# Hardware Group No. 700C

For use on mark/door #(s):

154

# Provide each PR door(s) with the following:

2	EΑ	CONT. HINGE	112HD	628	IVE
2	EΑ	PANIC HARDWARE	9949/50-L-06 (WDC @ WD) LENGTH &	626	VON
			HEIGHT AS RÈQ		
2	EΑ	RIM HOUSING	20-079	626	SCH
2	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH

DOOR HARDWARE 087100-14
Project No: H17018 6/27/2018

2	EA	SURFACE CLOSER	4040XP SCUSH X MTG BRKT, SPCR & PLATE AS REQ X ST3596	689	LCN
2	EA	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EΑ	SILENCER	SR64	GRY	IVE

# Hardware Group No. 700H

For use on mark/door #(s): 204A

Provide each PR door(s) with the following:

		` ,	•		
2	EA	CONT. HINGE	112HD	628	IVE
2	EA	PANIC HARDWARE	9949/50-L-06 (WDC @ WD) LENGTH & HEIGHT AS REQ	626	VON
2	EΑ	RIM HOUSING	20-079	626	SCH
2	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT, SPCR & PLATE AS REQ X ST3596	689	LCN
2	EΑ	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EΑ	WALL STOP/HOLDER	WS40	626	IVE
2	EΑ	SILENCER	SR64	GRY	IVE

# Hardware Group No. 701

For use on mark/door #(s):

134 deleted 218

217 Added to this hardware

Provide each SGL door(s) with the following:

1	EA	CONT. HINGE	112HD	628	IVE
1	EA	PANIC HARDWARE	99-L-06 LENGTH AS REQ	626	VON
1	EA	RIM HOUSING	20-079	626	SCH
1	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
1	EΑ	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EΑ	WALL STOP	WS406/407CCV	630	IVE
3	EΑ	SILENCER	SR64	GRY	IVE

Hardware Group No. 714

For use on mark/door #(s):

DOOR HARDWARE 087100-15 Project No: H17018 6/27/2018

135A 135B 155

Provide each PR door(s) with the following:

2	EΑ	CONT. HINGE	112HD	628	IVE
1	EΑ	PANIC HARDWARE	9949/50-EO LENGTH & HEIGHT AS REQ	626	VON
1	EA	PANIC HARDWARE	9949/50-NL LENGTH & HEIGHT AS REQ	626	VON
1	EA	RIM HOUSING	20-079	626	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EA	SURFACE CLOSER	4040XP SCUSH X MTG BRKT, SPCR &	689	LCN
			PLATE AS REQ X ST3596		
2	EΑ	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
1	EΑ	RAIN DRIP	142A DW + 4"	AA	ZER
1	EΑ	GASKETING	328AA H & J	AA	ZER
1	EΑ	ASTRAGAL	328AA (2 PCS - 1 SET) HEIGHT AS	AL	ZER
			REQUIRED		
2	EΑ	DOOR SWEEP	8198AA LENGTH AS REQ	AA	ZER
1	EΑ	THRESHOLD	65A LENGTH AS REQ	Α	ZER

Hardware Group No. 714A

For use on mark/door #(s):

118 118A

Provide each PR door(s) with the following:

		` '	•		
2	EΑ	CONT. HINGE	112HD	628	IVE
1	EA	PANIC HARDWARE	9949/50-EO LENGTH & HEIGHT AS REQ	626	VON
1	EΑ	PANIC HARDWARE	9949/50-NL LENGTH & HEIGHT AS REQ	626	VON
1	EΑ	RIM HOUSING	20-079	626	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EA	SURFACE CLOSER	4040XP SCUSH X MTG BRKT, SPCR &	689	LCN
			PLATE AS REQ X ST3596		
2	EA	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
1	SET	SEAL	PERIMETER SEAL BY FRAME		
			MANUFACTURER		
1	EA	RAIN DRIP	142A DW + 4"	AA	ZER
1	SET	ASTRAGAL	MEETING STILE SEAL BY DOOR		
			MANUFACTURER		
2	EA	DOOR SWEEP	8198AA LENGTH AS REQ	AA	ZER
1	EA	THRESHOLD	65A LENGTH AS REQ	Α	ZER

Hardware Group No. 725

For use on mark/door #(s):

157

DOOR HARDWARE 087100-16 Project No: H17018 6/27/2018

# Provide each SGL door(s) with the following:

1	EΑ	CONT. HINGE	112HD	628	IVE
1	EA	PANIC HARDWARE	99-EO LENGTH AS REQ	626	VON
1	EΑ	SURFACE CLOSER	4040XP SCUSH X MTG BRKT, SPCR &	689	LCN
			PLATE AS REQ X ST3596		
1	EΑ	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EΑ	RAIN DRIP	142A DW + 4"	AA	ZER
1	EΑ	GASKETING	328AA H & J	AA	ZER
1	EΑ	DOOR SWEEP	8198AA LENGTH AS REQ	AA	ZER
1	EΑ	THRESHOLD	65A LENGTH AS REQ	Α	ZER

# Hardware Group No. 800AV

# For use on mark/door #(s):

118B 118C

Provide each PR door(s) with the following:

2	EA	CONT. HINGE	112HD	628	IVE
2	EA	DUMMY PUSH BAR	330 LENGTH AS REQ	626	VON
2	EA	90 DEG OFFSET PULL	8190-O 10"	630	IVE
2	EA	SURFACE CLOSER	4040XP SCUSH X MTG BRKT, SPCR &	689	LCN
			PLATE AS REQ X ST3596		
1	SET	SEAL	PERIMETER SEAL BY FRAME		
			MANUFACTURER		
1	SET	ASTRAGAL	MEETING STILE SEAL BY DOOR		
			MANUFACTURER		

# Hardware Group No. 800V

For use on mark/door #(s):

135C 135D

# Provide each PR door(s) with the following:

2	EA	CONT. HINGE	112HD	628	IVE
2	EΑ	DUMMY PUSH BAR	330 LENGTH AS REQ	626	VON
2	EΑ	90 DEG OFFSET PULL	8190-O 10"	630	IVE
2	EA	SURFACE CLOSER	4040XP SCUSH X MTG BRKT, SPCR &	689	LCN
			PLATE AS REQ X ST3596		
1	EA	GASKETING	328AA H & J	AA	ZER
1	EA	ASTRAGAL	328AA (2 PCS - 1 SET) HEIGHT AS	AL	ZER
			REQUIRED		

DOOR HARDWARE 087100-17 Project No: H17018 6/27/2018

# Hardware Group No. 801

# For use on mark/door #(s):

140 141

# Provide each SGL door(s) with the following:

1	EΑ	CONT. HINGE	112HD	628	IVE
1	EΑ	PUSH PLATE	8200 4" X 16"	630	IVE
1	EΑ	PULL PLATE	8303 10" 4" X 16"	630	IVE
1	EΑ	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
1	EΑ	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EΑ	WALL STOP	WS406/407CCV	630	IVE
3	EΑ	SILENCER	SR64	GRY	IVE

# Hardware Group No. B700CH

# For use on mark/door #(s):

103 103A 103B

# Provide each PR door(s) with the following:

2	EA	CONT. HINGE	112HD	628	IVE
2	EΑ	PANIC HARDWARE	3349A-L-06 LENGTH AS REQ	626	VON
2	EΑ	MORTISE CYLINDER	20-059 TYPE AS REQ	626	SCH
2	EΑ	FSIC CORE	23-030 ICX CONSTRUCTION CORE	622	SCH
2	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EΑ	SURFACE CLOSER	4040XP SHCUSH X MTG BRKT,	689	LCN
			SPACER & PLATE AS REQ X ST3596		
2	EΑ	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EΑ	SILENCER	SR64	GRY	IVE

# Hardware Group No. C201

# For use on mark/door #(s):

108	108A	112	127	130	130A
133	136	137	147	150	151
200	205	206	207	212	212A
216	219				

# Provide each SGL door(s) with the following:

2	EΑ	HINGE	5BB1 4.5 X 4.5	652	IVE
_				00=	
1	FΑ	HINGE	5BB1 4.5 X 4.5 CON TW8	652	IVE
	$\vdash \land$	THINGL	3DD1 4.3 X 4.3 CON 1 WO	032	1 V L
4	FΑ	EU MORTISE LOCK	LOCOSTELLOGA DV (EAIL SECLIDE)	626	SCH
ı		EU WORTISE LOCK	L9092TEU 06A RX (FAIL SECURE)	626	SUT
4	<b>-</b> ^	FOIC CODE	OO OOO DEDMANIENT CODE	000	0011
1	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH

DOOR HARDWARE 087100-18
Project No: H17018 6/27/2018

1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT, SPCR & PLATE AS REQ X ST3596	689	LCN
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EΑ	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON-	BK	ZER
			RATED DOORS)		
1	EA	HARNESS (TO POWER	CON-192P		SCH
		SUPPLY)			
1	EA	CREDENTIAL READER	CARD READER BY ANOTHER SECTION		
1	EA	DOOR CONTACT	679-05 TYPE AS REQ	WHT	SCE
1	EA	POWER SUPPLY	POWER SUPPLY FOR CARD READER		
			BY ANOTHER SECTION		
1	EA	POWER SUPPLY	PS902	LGR	SCE
1	EA	HARNESS (IN DOOR)	ALLEGION CONNECT TYPE & LENGTH		VON
			AS REQ		

# Hardware Group No. C201C

For use on mark/door #(s): 102A 113A

# Provide each SGL door(s) with the following:

2	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	HINGE	5BB1 4.5 X 4.5 CON TW8	652	IVE
1	EA	EU MORTISE LOCK	L9092TEU 06A RX (FAIL SECURE)	626	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	SURFACE CLOSER	4040XP SCUSH X MTG BRKT, SPCR & PLATE AS REQ X ST3596	689	LCN
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON- RATED DOORS)	BK	ZER
1	EA	HARNESS (TO POWER SUPPLY)	CON-192P		SCH
1	EΑ	CREDENTIAL READER	CARD READER BY ANOTHER SECTION		
1	EA	DOOR CONTACT	679-05 TYPE AS REQ	WHT	SCE
1	EA	POWER SUPPLY	POWER SUPPLY FOR CARD READER BY ANOTHER SECTION		
1	EA	POWER SUPPLY	PS902	LGR	SCE
1	EA	HARNESS (IN DOOR)	ALLEGION CONNECT TYPE & LENGTH AS REQ		VON

Hardware Group No. C201W

For use on mark/door #(s):

113

DOOR HARDWARE 087100-19
Project No: H17018 6/27/2018

Provi	de each	SGL door(s) with the followi	ng:		
2	EA	HINGE	5BB1HW 5 X 4.5	652	IVE
1	ΕA	HINGE	5BB1HW 5 X 4.5 CON TW8	652	IVE
1	EΑ	EU MORTISE LOCK	L9092TEU 06A RX (FAIL SECURE)	626	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EΑ	GASKETING	188S H & J (USE SILENCERS @ NON-	BK	ZER
			RATED DOORS)		
1	EA	HARNESS (TO POWER SUPPLY)	CON-192P		SCH
1	EA	CREDENTIAL READER	CARD READER BY ANOTHER SECTION		
1	EΑ	DOOR CONTACT	679-05 TYPE AS REQ	WHT	SCE
1	EA	POWER SUPPLY	POWER SUPPLY FOR CARD READER		
			BY ANOTHER SECTION		
1	EΑ	POWER SUPPLY	PS902	LGR	SCE
1	EΑ	HARNESS (IN DOOR)	ALLEGION CONNECT TYPE & LENGTH		VON
			AS REQ		
Hard	ware Gr	oup No. C207			
	se on m	ark/door #(s):			
102		104 117	145 202		
	Door a				
Provi	de each	SGL door(s) with the following	ng:		
2	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	HINGE	5BB1 4.5 X 4.5 CON TW8	652	IVE
1	EA	EU MORTISE LOCK	L9092TEU 06A RX (FAIL SECURE)	626	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	OH STOP	900S SERIES X SIZE & MOUNTING AS	630	GLY
			REQ		
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		

			of CR & LATE AS REQ A S13330			
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE	
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON- RATED DOORS)	BK	ZER	
1	EA	HARNESS (TO POWER SUPPLY)	CON-192P		SCH	
1	EA	CREDENTIAL READER	CARD READER BY ANOTHER SECTION			
1	EA	DOOR CONTACT	679-05 TYPE AS REQ	WHT	SCE	
1	EA	POWER SUPPLY	POWER SUPPLY FOR CARD READER BY ANOTHER SECTION			
1	EA	POWER SUPPLY	PS902	LGR	SCE	
1	EA	HARNESS (IN DOOR)	ALLEGION CONNECT TYPE & LENGTH AS REQ		VON	
DOOR HARDWARE 087100-20						
Pro	Project No: H17018 6/27/2018					
	-					

# Hardware Group No. C710

For u	se on m	ark/door #(s):					
103C		103D	103E	103F	103L	120	
120A		135	153				
Provid	de each	PR door(s) with the	following	<b>j</b> :			
6	EA	HINGE	·	5BB1HW 4.5 X 4.5		652	IVE
2	EΑ	POWER TRANSFE	ER .	EPT10 CON		689	VON
1	EΑ	ELEC PANIC		RX-QEL-9949/50-DT-C0	ON LENGTH &	626	VON
		HARDWARE		HEIGHT AS REQ			_
1	EΑ	ELEC PANIC		RX-QEL-9949/50-NL-C0	ON LENGTH &	626	VON
		HARDWARE		HEIGHT AS REQ			
1	EA	RIM HOUSING		20-079		626	SCH
1	EA	FSIC CORE		23-030 ICX CONSTRUC	CTION CORE	622	SCH
1	EΑ	FSIC CORE		23-030 PERMANENT C	ORE	626	SCH
2	EΑ	SURFACE CLOSE	R	4040XP OR P4040XP X	MTG BRKT,	689	LCN
				SPCR & PLATE AS REC	Q X ST3596		
2	EΑ	PROTECTION PLA	<b>ΛΤΕ</b>	8400 10" X 1" LDW B-C	S	630	IVE
2	EΑ	WALL STOP		WS406/407CCV		630	IVE
2	EΑ	SILENCER		SR64		GRY	IVE
2	EΑ	HARNESS (TO PC	WER	CON-192P			SCH
		SUPPLY)					
1	EA	CREDENTIAL REA	DER	CARD READER BY AN	OTHER SECTION		
2	EA	DOOR CONTACT		679-05 TYPE AS REQ		WHT	SCE
1	EA	POWER SUPPLY		POWER SUPPLY FOR	CARD READER		
				BY ANOTHER SECTION	N		
1	EA	POWER SUPPLY		PS902 2RS			VON
2	EA	HARNESS (IN DO	OR)	ALLEGION CONNECT AS REQ	TYPE & LENGTH		VON

# Hardware Group No. C710C

For use on mark/door #(s):

152

# Provide each PR door(s) with the following:

6	EA	HINGE	5BB1HW 4.5 X 4.5	652	IVE	
2	EΑ	POWER TRANSFER	EPT10 CON	689	VON	
1	EΑ	ELEC PANIC	RX-QEL-9949/50-DT-CON LENGTH &	626	VON	
		HARDWARE	HEIGHT AS REQ			
1	EΑ	ELEC PANIC	RX-QEL-9949/50-NL-CON LENGTH &	626	VON	
		HARDWARE	HEIGHT AS REQ			
1	EA	RIM HOUSING	20-079	626	SCH	
DOOR HARDWARE 087100-21						

DOOR HARDWARE 087100-21
Project No: H17018 6/27/2018

1	EA	FSIC CORE	23-030 ICX CONSTRUCTION CORE	622	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EA	SURFACE CLOSER	4040XP SCUSH X MTG BRKT, SPCR &	689	LCN
			PLATE AS REQ X ST3596		
2	EA	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EA	SILENCER	SR64	GRY	IVE
2	EA	HARNESS (TO POWER	CON-192P		SCH
		SUPPLY)			
1	EA	CREDENTIAL READER	CARD READER BY ANOTHER SECTION		
2	EΑ	DOOR CONTACT	679-05 TYPE AS REQ	WHT	SCE
1	EΑ	POWER SUPPLY	POWER SUPPLY FOR CARD READER		
			BY ANOTHER SECTION		
1	EA	POWER SUPPLY	PS902 2RS		VON
2	EA	HARNESS (IN DOOR)	ALLEGION CONNECT TYPE & LENGTH		VON
		,	AS REQ		

Hardware Group No. C710R

For use on mark/door #(s): 156

Provide each PR door(s) with the following:

6	EΑ	HINGE	5BB1HW 4.5 X 4.5	652	IVE
2	EΑ	POWER TRANSFER	EPT10 CON	689	VON
1	EΑ	ELEC FIRE EXIT	RX-QEL-9949/50-DT-F-LBR-CON (WDC	626	VON
		HARDWARE	@ WD) LENGTH & HEIGHT AS REQ		
1	EΑ	ELEC FIRE EXIT	RX-QEL-9949/50-NL-F-LBR-CON (WDC	626	VON
		HARDWARE	@ WD) LENGTH & HEIGHT AS REQ		
1	EΑ	RIM HOUSING	20-079 <sup>°</sup>	626	SCH
1	EΑ	FSIC CORE	23-030 ICX CONSTRUCTION CORE	622	SCH
1	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EΑ	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
2	EA	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EΑ	WALL STOP	WS406/407CCV	630	IVE
1	EA	MEETING STILE	328AA (2 PCS - 1 SET) HEIGHT AS	AA	ZER
			REQUIRED		
1	EΑ	GASKETING	188S H & J	BK	ZER
2	EΑ	HARNESS (TO POWER	CON-192P		SCH
		SUPPLY)			
1	EΑ	CREDENTIAL READER	CARD READER BY ANOTHER SECTION		
2	EΑ	DOOR CONTACT	679-05 TYPE AS REQ	WHT	SCE
1	EΑ	POWER SUPPLY	POWER SUPPLY FOR CARD READER		
			BY ANOTHER SECTION		
1	EΑ	POWER SUPPLY	PS902 FA 2RS		VON
2	EΑ	HARNESS (IN DOOR)	ALLEGION CONNECT TYPE & LENGTH		VON
		,	AS REQ		

DOOR HARDWARE 087100-22 Project No: H17018 6/27/2018

# Hardware Group No. C710S3

For use on mark/door #(s): 153A

Provide each PR door(s) with the following:

		` '	5		
6	EA	HINGE	5BB1HW 4.5 X 4.5	652	IVE
2	EA	POWER TRANSFER	EPT10 CON	689	VON
1	EA	ELEC PANIC	RX-QEL-9949/50-DT-CON LENGTH &	626	VON
		HARDWARE	HEIGHT AS REQ		
1	EA	ELEC PANIC	RX-QEL-9949/50-NL-CON LENGTH &	626	VON
		HARDWARE	HEIGHT AS REQ		
1	EA	RIM HOUSING	20-079	626	SCH
1	EA	FSIC CORE	23-030 ICX CONSTRUCTION CORE	622	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	OH STOP	900S SERIES X SIZE & MOUNTING AS	630	GLY
			REQ		
2	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
2	EA	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
2	EA	SILENCER	SR64	GRY	IVE
2	EA	HARNESS (TO POWER	CON-192P		SCH
		SUPPLY)			
1	EA	CREDENTIAL READER	CARD READER BY ANOTHER SECTION		
2	EA	DOOR CONTACT	679-05 TYPE AS REQ	WHT	SCE
1	EA	POWER SUPPLY	POWER SUPPLY FOR CARD READER		
			BY ANOTHER SECTION		
1	EA	POWER SUPPLY	PS902 2RS		VON
2	EA	HARNESS (IN DOOR)	ALLEGION CONNECT TYPE & LENGTH		VON
		,	AS REQ		

# Hardware Group No. C711

For use on mark/door #(s):

146

# 134 Added to this hardware

Provide each SGL door(s) with the following:

3	EΑ	HINGE	5BB1HW 4.5 X 4.5	652	IVE
1	EΑ	POWER TRANSFER	EPT10 CON	689	VON
1	EΑ	ELEC PANIC	RX-QEL-99-NL-CON LENGTH AS REC	Q 626	VON
		HARDWARE			
1	EΑ	RIM HOUSING	20-079	626	SCH
1	EΑ	FSIC CORE	23-030 ICX CONSTRUCTION CORE	622	SCH
1	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH
DOOI	R HAR	DWARE		087100-23	

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1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT, SPCR & PLATE AS REQ X ST3596	689	LCN
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EΑ	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE
1	EA	HARNESS (TO POWER	CON-192P		SCH
		SUPPLY)			
1	EA	CREDENTIAL READER	CARD READER BY ANOTHER SECTION		
1	EA	DOOR CONTACT	679-05 TYPE AS REQ	WHT	SCE
1	EA	POWER SUPPLY	POWER SUPPLY FOR CARD READER		
			BY ANOTHER SECTION		
1	EA	POWER SUPPLY	PS902 2RS		VON
1	EA	HARNESS (IN DOOR)	ALLEGION CONNECT TYPE & LENGTH		VON
			AS REQ		

# Hardware Group No. C714

For use on mark/door #(s):

134A 143A 144A

# Provide each PR door(s) with the following:

100	ac caon	in it door(s) with the following	9.		
6	EΑ	HINGE	5BB1HW 4.5 X 4.5 NRP	630	IVE
2	EA	POWER TRANSFER	EPT10 CON	689	VON
1	EA	ELEC PANIC	RX-QEL-9949/50-DT-CON LENGTH &	626	VON
		HARDWARE	HEIGHT AS REQ		
1	EA	ELEC PANIC	RX-QEL-9949/50-NL-CON LENGTH &	626	VON
		HARDWARE	HEIGHT AS REQ		
1	EA	RIM HOUSING	20-079	626	SCH
1	EA	FSIC CORE	23-030 ICX CONSTRUCTION CORE	622	SCH
1	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EA	SURFACE CLOSER	4040XP SCUSH X MTG BRKT, SPCR &	689	LCN
			PLATE AS REQ X ST3596		
2	EA	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
1	EA	RAIN DRIP	142A DW + 4"	AA	ZER
1	EA	MEETING STILE	328AA (2 PCS - 1 SET) HEIGHT AS	AA	ZER
			REQUIRED		
1	EA	GASKETING	328AA H & J	AA	ZER
2	EA	DOOR SWEEP	8198AA LENGTH AS REQ	AA	ZER
1	EA	THRESHOLD	65A LENGTH AS REQ	Α	ZER
2	EA	HARNESS (TO POWER	CON-192P		SCH
		SUPPLY)			
1	EA	CREDENTIAL READER	CARD READER BY ANOTHER SECTION		
2	EA	DOOR CONTACT	679-05 TYPE AS REQ	WHT	SCE
1	EA	POWER SUPPLY	POWER SUPPLY FOR CARD READER		
			BY ANOTHER SECTION		
1	EA	POWER SUPPLY	PS902 2RS		VON
2	EA	HARNESS (IN DOOR)	ALLEGION CONNECT TYPE & LENGTH		VON
			AS REQ		

DOOR HARDWARE 087100-24
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# Hardware Group No. W401HW

For use on mark/door #(s):

106 109 128 131

Provide each SGL door(s) with the following:

		` '	•		
3	EΑ	HINGE	5BB1HW 5 X 4.5	652	IVE
1	EA	MULT PT PASSAGE	LM9310 06A	626	SCH
		SET			
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
1	EΑ	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EΑ	WALL STOP/HOLDER	WS40	626	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON-	BK	ZER
			RATED DOORS)		

# Hardware Group No. W501W

For use on mark/door #(s):

126

Provide each SGL door(s) with the following:

3	EA	HINGE	5BB1HW 5 X 4.5	652	IVE
1	EΑ	MULT PT CLASSROOM	LM9370T 06A	626	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EΑ	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON-	BK	ZER
			RATED DOORS)		

Hardware Group No. W507

For use on mark/door #(s):

142

Provide each SGL door(s) with the following:

3	EΑ	HINGE	5BB1HW 4.5 X 4.5	652	IVE
1	EA	MULT PT CLASSROOM	LM9370T 06A	626	SCH

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1	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	OH STOP	900S SERIES X SIZE & MOUNTING AS REQ	630	GLY
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT, SPCR & PLATE AS REQ X ST3596	689	LCN
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON- RATED DOORS)	BK	ZER

Hardware Group No. W700H

For use on mark/door #(s):

139

Provide each PR door(s) with the following:

2	EΑ	CONT. HINGE	112HD	628	IVE
2	EΑ	PANIC HARDWARE	WS-9927-L-06 LENGTH AS REQ	626	VON
1	EΑ	ROD AND LATCH	RG-27-	630	VON
		GUARD			
2	EΑ	RIM HOUSING	20-079	626	SCH
2	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EΑ	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
2	EΑ	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EΑ	WALL STOP/HOLDER	WS40	626	IVE
2	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. W701H

For use on mark/door #(s):

139A

Provide each SGL door(s) with the following:

1	EΑ	CONT. HINGE	112HD	628	IVE
1	EΑ	PANIC HARDWARE	WS-9927-L-06 LENGTH AS REQ	626	VON
1	EA	ROD AND LATCH	RG-27-	630	VON
		GUARD			
1	EA	RIM HOUSING	20-079	626	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP/HOLDER	WS40	626	IVE
3	EΑ	SILENCER	SR64	GRY	IVE

DOOR HARDWARE 087100-26 Project No: H17018 6/27/2018

# **END OF SECTION**

DOOR HARDWARE Project No: H17018

# SECTION 087100 DOOR HARDWARE

### **PART 1 - GENERAL**

### 1.01 WORK INCLUDED

The work in this section shall include the furnishing of all items of door hardware as hereinafter specified, or obviously necessary to complete the building, except those items which are specifically excluded from this section of the specification.

#### 1.02 DESCRIPTION OF WORK

Door Hardware - Hardware used in building construction but particularly that used on or in connection with doors and frames, cabinets and other movable members. It also has a finished appearance as well as functional purpose and may be considered as a part of the decorative treatment of a room or building.

#### 1.03 RELATED WORK

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these specifications.
- B. Related Sections:

Section 081000 - Steel Doors and Frames

Section 081000 - Standard Steel Frames

Section 082100 - Flush Wood Doors

Section 083300 - Coiling Doors and Grilles

### 1.04 COORDINATION

A. Schedule coordination meeting to clarify sub-contractor and supplier requirements to provide a complete and functioning access control system.

#### 1.05 QUALITY ASSURANCE

A. Hardware has been specified herein by manufacturer's name, brand and catalog numbers for the purpose of establishing a basis for quality, finish, design and operational function. To insure a uniform basis of acceptable material, it is the intention that only manufacturer's items specified as "Acceptable and Approved" be furnished for use on this project. Obtain each type of hardware (latch and lock sets, hinges, exit devices closers) from single manufacturer, although several may be indicated as offering products complying with requirements.

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- B. Substitutions: Request for substitutions of items of hardware not listed as "Acceptable and Approved" shall be made to the Architect no later than ten (10) days prior to bid opening. Approval of substitutions will only be in writing or by addenda. Request for substitutions shall be accompanied by samples and/or detailed information as to the manufacturer of the product.
- C. Underwriters' Laboratories Requirements: Hardware for openings classed as requiring a UL label in the door schedule, or by code, shall be furnished and installed to meet the applicable requirements of NFPA 80. Hardware shall be UL listed for usage with types and sizes of fire doors specified and scheduled. Products tested shall meet requirements of UBC 7-2-1997 / UL10C
- D. Accessibility Standards: Hardware shall be in conformance with Article 9102, Texas Civil Statutes, Elimination of Architectural Barriers Act of Texas.
  - 1. Door Closers: The sweep period of closers shall be adjusted so that from an open position of 90 degrees, the door will take at least five seconds to move to an open position of approximately 12 degrees.
  - 2. The maximum force for pushing or pulling open door shall be as follows:
    - a. Exterior hinged doors: Not to exceed 8.5 lbf.
    - b. Sliding, folding, and interior hinged doors: Not to exceed 5 lbf.
    - c. Fire doors: Adjusted to meet minimum closing force permitted by governing fire safety standards.
- E. Federal Accessibility Standards: Hardware shall be in accordance will all requirements of the Americans With Disabilities Act 1990.
- F. Supplier: A recognized builders hardware supplier who has been furnishing hardware in the project's vicinity for a period of not less than two (2) years, and who is, or has in employment, a Hardware Consultant (AHC) in good standing as certified by the Door and Hardware Institute. This consultant shall have experience in the preparation of architectural hardware specifications, estimating, detailing, ordering, servicing of architectural hardware in all its branches and will be available at reasonable times during the course of the work for project hardware consultation to the Owner, Architect and Contractor. It is the hardware distributor's responsibility to coordinate the hardware specified to work with the Aluminum doors.
- G. Pre-Installation Instructional Meeting: Contractor shall schedule and hold a preinstallation meeting that includes the Contractor, the Architect and/or his chosen representative, the Hardware Supplier, and all installers of hardware. Instructional meeting shall be conducted by the Hardware Supplier, covering proper installation of all items of hardware to be incorporated into the Project.

DOOR HARDWARE 087100-2 Project No: H17018 5/22/2018

- H. *Installer:* Firm with a minimum of five years of documented experience in installing the types and grade of hardware being incorporated into the Project. Three written references from Construction Administrators of previous projects required for the Architect's review before installation Contract or Subcontract is executed.
- I. Prototype Installations: One of each type of the following hardware installations shall be performed to the Architect's (and/or his designated representative's) approval before any installations of like-type applications are performed:
  - 1. One exterior door pair with exit devices
  - 2. One exterior single door with an exit device
  - 3. One single classroom door
  - 4. One interior pair of doors with vertical rod exit devices

### 1.06 REFERENCES

A. Door Hardware in this section shall meet the following as established by the American National Standards Institute, Inc. (ANSI) which is sponsored by the Builders Hardware Manufacturers Association, Inc., (BHMA). Product tests are to be administered by the ETL Testing Laboratories, Inc., or other official testing laboratories which have been designed by BHMA for the testing of ANSI standards latest revision will be in effect.

B.	Materials and Finishes	BHMA 1301
	Butts and Hinges	ANSI A156.1
	Locks and Lock Trim	ANSI A156.2
	Exit Devices	ANSI A156.3
	Door Controls-Closers	ANSI A156.4
	Auxiliary Lock & Assoc. Products	ANSI A156.5
	Architectural Door Trim	ANSI A156.6
	Template Hinge Dimensions	ANSI A156.7
	Door Controls-Overhead Holders	ANSI A156.8
	Mortise Locks and Latches	ANSI A156.13

C. Listed Hardware: Hardware which is to be installed in or on fire labeled doors and frames, Class A or lesser, single or pairs shall be tested and listed by Underwriters Laboratories and/or Warnock Hersey Fire Laboratories Division. Exit devices which are to be used as panic hardware shall be tested and listed in Underwriters Laboratories "Accident Equipment List-Panic Hardware". All listed hardware shall be in compliance with National Fire Protection Association (NFPA) Standard Number 80 IBC current year adopted and be properly stamped or labeled for easy identification.

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#### 1.07 SUBMITTALS

- A. The door hardware supplier shall, after award of a formal contract, submit to the Architect, six (6) complete typewritten copies of the proposed Door Hardware Schedule for approval. This schedule shall be prepared using the "Sequence and Format for the Hardware Schedule" as approved and recommended by the Door and Hardware Institute (DHI).
- B. When submitting schedules for approval, include six (6) copies of cut sheets on each hardware item proposed. Index it with the use of number or letters or a combination of both, with the hardware schedule. The index numbers/letters are to be in the right hand column on the same line as the respective manufacturer's numbers shall be indexed even when appearing more than once.
- C. Samples: As part of this contract, if requested, the hardware supplier shall provide the Architect with one sample of each item of door hardware that is to be furnished for this project.
- D. Templates: The hardware supplier shall provide necessary templates and/or physical hardware to all trades requiring them in order that they may cut, reinforce or otherwise prepare their material or product to receive the hardware item. If physical hardware is required by any manufacturer, the hardware supplier shall ship to them such hardware via prepaid freight in sufficient time to prevent any delay in the execution of their work.

# 1.08 DELIVERY, STORAGE AND HANDLING

- A. All items of hardware to be delivered to the jobsite shall be completely packaged with all necessary screws, bolts, miscellaneous parts, instructions and where necessary installation templates for manufacturer's suggested installation. They are to be clearly labeled as to conveniently identify them and their intended location in the building.
- B. A representative of the General Contractor shall receive the hardware when delivered at the jobsite. A dry locked storage space complete with shelving, shall be set aside for the purpose of unpacking, sorting out, checking and storage.
- C. Door Hardware shall be delivered to the General Contractor by the hardware supplier. Direct factory shipments to the jobsite are not acceptable.
- D. The hardware shall be jointly inventoried by representatives of the General Contractor and the Hardware Supplier.
- E. Items damaged in shipment shall be replaced promptly and with proper material without additional cost to the General Contractor.

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- F. All hardware shall be handled in a manner to minimize marring, scratching or damage.
- G. Store and handle all materials strictly according to the manufacturer's instructions.

#### 1.09 WARRANTY

Door Closers shall carry a limited warranty against defects in workmanship and operation for a period of five (5) years from the date of acceptance. The balance of door hardware shall carry a limited warranty against defects in workmanship and operation for a period of one (1) year from date of acceptance. No liability is to be assumed where damage or faulty operation is due to abuse, improper usage, improper installation or failure to exercise normal maintenance.

### PART 2 - PRODUCTS

#### 2.01 FINISH OF HARDWARE

- A. Finish of items shall be as specified under the door hardware sets of this section.
- B. The finish of items not specially mentioned above nor set forth in the schedule shall be US26D, unless shown otherwise.

# 2.02 HINGES

- A. Template Hinges: Provide only template hinges which conform to ANSI A156.7.
- B. Use five-knuckle ball bearing hinges, as indicated in the hardware sets, on heavy doors, doors where high frequency service is expected, doors equipped with door closers, and all labeled doors. (Oil impregnated bearing hinges are not acceptable.)
- C. All hinges to be used on exterior doors or doors subject to special atmospheric conditions, (pool areas, chemical laboratories, sewage disposal plants, etc.) shall be of non-ferrous material, brass, bronze or stainless steel.
- D. Hinge pins, except as otherwise indicated, shall be as follows:

1. Steel hinges: Steel pins

2. Non-ferrous hinges: Stainless steel pins

DOOR HARDWARE 087100-5 Project No: H17018 5/22/2018 E. Sizes of hinges shall be as follows:

Door Thickness Hinge Hinge and Width Height Width 1 3/4" to 36" Hinge Hinge 4½ 4½

F. Number of hinges per door, provided quantities as follows:

For doors less than 5 feet high: 1 pair

For doors 5 feet to 7 feet 6 inches high: 1 1/2 pair and additional hinge for each additional 2 1/2 feet or fraction thereof.

- G. Where projection of door trim is such as to prevent degree of opening, the proper hinge width shall be provided to allow the door to clear the trim.
- H. Provided above criteria are met, Acceptable and Approved as follows:

**Ives** 

Hager

**Bommer** 

 Continuous Hinges shall be type scheduled and as manufactured by one of the following. Coordinate hinge type with Aluminum door supplier.

<u>ABH</u>

Ives

<u>Hager</u>

#### 2.03 KEYING

A. All locks and cylinders shall be restricted keyway as instructed by Owner to match existing key system. Stamp all keys with "Do Not Duplicate" on one side and key symbol on the other side. A keying meeting is required prior to ordering cylinders for this project. Submit a separate keying submittal for review and approval.

Furnish "3" Change keys Each Lockset

Furnish "6" Building Master Keys

Furnish "10" Construction Master Keys

Furnish "2" Temp core removal keys

Furnish "2" Permanent core installation keys

All permanent keys to be delivered to Owner.

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#### 2.04 MORTISE LOCKS

- A. Locks shall have all functions available in one size case, manufactured from heavy gauge steel, minimum thickness of 3/32", complete chrome plated for corrosion resistance and lubricity of parts. Cases are to be closed on all sides to protect internal parts. Locks are to have adjustable, beveled and armored fronts, standard 2 3/4" backset, a full 3/4" throw two-piece mechanical anti-friction latchbolt, a one-piece stainless steel 1" throw deadbolt, and shall be available for a minimum door thickness of 1 3/8". Internal parts shall be heavy gauge steel, zinc dichromate plated for corrosion resistance.
- B. All locksets with latchbolts, regardless of trim, shall be listed by Underwriters Laboratories for A label and less class doors, 4' x 8' single or 8' x 8' pair.
- C. Lock trim (knob, lever, sectional or escutcheon) shall be throughbolted through the lock case to assure correct alignment and proper operation.
- D. Locksets shall conform to Federal Specification FF-H-106C, and be certified as meeting ANSI A156.13 Series 1000, Grade 1 requirements, ANSI A117.1, Accessibility Code (lever handle trim), and California State Reference Code, 1989 (formerly Title 19, California State Fire Marshall Standard) (lever handle trim).
- E. Acceptable and Approved:

No Substitutions

Schlage

#### 2.05 EXIT DEVICES

#### LOW PROFILE PUSH BAR EXIT DEVICES

- A. The maximum exit device projection shall be a maximum of 3-1/16" when activated. The exit device bar shall have an average minimum thickness of .201". The pushpad surface shall be constructed of stainless steel; pushpads with plastic or Lexan coatings shall not be acceptable. Nylon bearings and stainless steel springs shall be used for long life and durability. Only torsion or compression springs are acceptable. Extension type springs are not acceptable. All device covers shall be of cast brass, deep drawn steel or stainless steel. Latchbolts shall be of stainless steel and shall have a deadlocking latch for extra security, except at full-glass or two-light glass doors requiring narrow stile device. Mounting screws shall be concealed to deter tampering. All ferrous parts shall be zinc coated to prevent rusting.
- B. Single point, one quarter turn hex dogging shall be standard on panic listed devices. Optional key cylinder dogging shall be available, and furnished if so indicated in the hardware sets, on panic listed devices. Devices with hex key dogging shall be easily field converted to cylinder dogging.

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- C. All devices shall be listed by Underwriters Laboratories for safety as panic hardware. Fire rated devices shall be UL listed for A label and lesser class doors, 4' x 8' single and 8' x 8' pair. The model number shall be located on the end cap; devices having the model number located other than on the end cap shall not be acceptable.
- D. All exit devices shall have a unitized installation feature and may be cut in the field to size. Devices shall be closed on all sides with no pinch points. The pushpad shall be designed to prevent pinching of the fingers when depressed.
- E. Exit Device trim to be throughbolted. Lever trim to be heavy duty forged escutcheon with free wheeling levers.
- F. All exit devices shall conform to Federal Specification FF-H-1820, and be certified as meeting ANSI A156.3, Grade 1 requirements.
- G. Acceptable and Approved: No Substitutions

Von Duprin

#### 2.06 DOOR CLOSERS

- A. Closers shall be rack and pinion construction. They shall be non-sized with adjustable spring power. Closing the door shall be controlled by two valves, one to control closing and one to control latching speed. Closers shall be regularly furnished with fully adjustable backcheck and a backcheck selector valve allowing approximate 70 degree backcheck on both regular and parallel arm closers. Delayed action shall be available. Valves shall be concealed against unauthorized adjustment and be non-critical needle valve type. Closers shall be mounted out of line of sight wherever possible (i.e., room side of corridor doors, etc.) with parallel arm mounting on out swing doors. Mount closers top jamb or on brackets and/or drop plates where special conditions exist. Include cost for any required special templates.
- B. Closers shall be certified as meeting the ANSI A156.4, Grade 1 requirements and be listed by Underwriters Laboratories for all classes of labeled doors.
- C. Door Closers shall be furnished on all labeled doors.

D. Acceptable and Approved: **No Substitutions** 

<u>LCN</u>

DOOR HARDWARE 087100-8 Project No: H17018 5/22/2018

#### 2.07 OVERHEAD STOPS AND HOLDERS

- A. Furnish overhead stops or holders of the weight, functions and materials indicated in the hardware sets.
- B. Overhead stops or holders shall be manufactured entirely of metallic components. Units containing plastic, nylon, or similar materials are not acceptable.
- C. Acceptable and Approved as follows:

ABH Manufacturing Glynn Johnson

#### 2.08 TRIM/KICK PLATES/DOOR STOPS

- A. All door protection plates to be manufactured of .050" stainless steel. Protection plates to be furnished 2" less than door width on single doors and 1" less than door width on pairs of doors.
- B. Wall mounted door stops shall be provided where door leaves will strike a wall at the end of their opening cycle. If other conditions exist, furnish floor stops or overhead stops as required.
- C. Acceptable and Approved as follows:

Trimco/Quality Baldwin Ives

#### 2.09 WEATHERSTRIP/THRESHOLDS/SMOKE SEALS

- A. Provide weatherstrip, thresholds, and/or sound seals for each opening as scheduled. Review Sill detail on Architectural drawings and furnish threshold type required.
- B. Provide smoke seal (including meeting stile seal for door pairs) for all fire rated doors. All smoke seal and astragals shall be listed by either Underwriters Laboratory or Warnock-Hersey as Category "H" Smoke and Draft Control Gasket under the testing protocols of UBC Standard 7-2 1997, Part 2 and/or UL1784. All smoke seal and astragals shall, additionally, comply with the door manufacturer's listing under the same protocols.

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C. Acceptable and Approved as follows:

National Guard Pemko Zero

#### **PART 3 - EXECUTION**

#### 3.01 INSTALLATION

- A. Mount hardware units at heights indicated in "Recommended Locations for Builders Hardware" for (Standard Steel Doors and Frames) by the Door and Hardware Institute (DHI), except if otherwise specifically indicated or to comply with requirements of governing regulations, requirements for the handicapped, or if otherwise directed by the Architect.
- B. All hardware shall be installed by a tradesman skilled in the application of commercial grade hardware.
- C. Install each hardware item in compliance with the manufacturer's instructions and recommendations. Securely fasten all parts to be attached. Fit faces of mortise parts snug and flush. Make sure all operating parts move freely and smoothly without binding, sticking or excessive clearance. Wherever cutting and fitting is required to install hardware onto or into surfaces which are later to be painted or finished in another way, the hardware shall be removed and stored prior to the painting or finishing. Items shall then be reinstalled only when the finished have been completed on the surface to which the hardware is to be applied.
- D. At exterior doors and elsewhere as indicated, set thresholds in a bed of sealant as specified in Section 07900 to completely fill concealed voids and excluded moisture from every source. Do not plug drain hole or block weeps. Remove excess sealant.
- E. After installation, representative templates, instruction sheets and installation details shall be placed in a file folder to be turned over to the Owner when building is accepted. Included shall be at least five (5) each of any special adjusting and/or installation tools furnished with the hardware by the manufacturers.

DOOR HARDWARE 087100-10 Project No: H17018 5/22/2018

#### **PART 4 - SCHEDULES**

### 4.01 HARDWARE SETS

Hardware Group No. 001

For use on mark/door #(s):

100 100A 204

Provide each PR door(s) with the following:

NOTE HARDWARE BY DOOR

MANUFACTURER

Hardware Group No. 002

For use on mark/door #(s):

103K

Provide each SL door(s) with the following:

NOTE HARDWARE BY DOOR

MANUFACTURER

Hardware Group No. 003

For use on mark/door #(s):

104A 144B

Provide each RU door(s) with the following:

MORTISE CYLINDER 1 EA 20-059 TYPE AS REQ 626 SCH 1 EA FSIC CORE 23-030 ICX CONSTRUCTION CORE 622 SCH 1 EA FSIC CORE 23-030 PERMANENT CORE 626 SCH NOTE HARDWARE BY DOOR

**MANUFACTURER** 

DOOR HARDWARE 087100-11 Project No: H17018 5/22/2018

## Hardware Group No. 103

For use on mark/door #(s):

214

## Provide each SGL door(s) with the following:

3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	OFFICE/ENTRY LOCK	L9050T 06A	626	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON-	BK	ZER
			RATED DOORS)		

Hardware Group No. 201

For use on mark/door #(s):

114 122 124 138 215

Provide each SGL door(s) with the following:

3	EΑ	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	STOREROOM LOCK	L9080T 06A	626	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON-	BK	ZER
			RATED DOORS)		

Hardware Group No. 207

For use on mark/door #(s):

115 133A

Provide each SGL door(s) with the following:

3	EΑ	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	STOREROOM LOCK	L9080T 06A	626	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	OH STOP	900S SERIES X SIZE & MOUNTING AS REQ	630	GLY
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT, SPCR & PLATE AS REQ X ST3596	689	LCN
1	EΑ	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON- RATED DOORS)	BK	ZER

DOOR HARDWARE 087100-12 Project No: H17018 5/22/2018

## Hardware Group No. 212SW

For use on mark/door #(s):

149 149A

## Provide each PR door(s) with the following:

6	EΑ	HINGE	5BB1 5 X 4.5	652	IVE
2	EA	MANUAL FLUSH BOLT	FB458	626	IVE
1	EA	DUST PROOF STRIKE	DP2	626	IVE
1	EA	STOREROOM LOCK	L9080T 06A	626	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EA	OH STOP	900S SERIES X SIZE & MOUNTING AS	630	GLY
			REQ		
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON-	BK	ZER
			RATED DOORS)		

Hardware Group No. 301

For use on mark/door #(s):

148

### Provide each SGL door(s) with the following:

3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	PRIVACY LOCK	L9040 06A	626	SCH
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
1	EΑ	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EΑ	GASKETING	188S H & J (USE SILENCERS @ NON-	BK	ZER
			RATED DOORS)		

Hardware Group No. 501

For use on mark/door #(s):

126A

### Provide each SGL door(s) with the following:

3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	CLASSROOM LOCK	L9070T 06A	626	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT, SPCR & PLATE AS REQ X ST3596	689	LCN
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON- RATED DOORS)	BK	ZER

DOOR HARDWARE 087100-13 Project No: H17018 5/22/2018

## Hardware Group No. 700

For use on mark/door #(s):

143 144

Provide each PR door(s) with the following:

2	EΑ	CONT. HINGE	112HD	628	IVE
2	EΑ	PANIC HARDWARE	9949/50-L-06 (WDC @ WD) LENGTH &	626	VON
			HEIGHT AS REQ		
2	EΑ	RIM HOUSING	20-079	626	SCH
2	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EΑ	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
2	EΑ	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EΑ	WALL STOP	WS406/407CCV	630	IVE
2	EΑ	SILENCER	SR64	GRY	IVE

## Hardware Group No. 700A

For use on mark/door #(s):

103G 103H 103J

# Provide each PR door(s) with the following:

2	EA	CONT. HINGE	112HD	628	IVE
2	EA	PANIC HARDWARE	9949/50-L-06 (WDC @ WD) LENGTH &	626	VON
			HEIGHT AS REQ		
2	EA	RIM HOUSING	20-079	626	SCH
2	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
2	EA	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EA	WALL STOP	WS406/407CCV	630	IVE
1	SET	SEAL	PERIMETER SEAL BY FRAME		
			MANUFACTURER		
1	SET	ASTRAGAL	MEETING STILE SEAL BY DOOR		
			MANUFACTURER		

DOOR HARDWARE 087100-14
Project No: H17018 5/22/2018

## Hardware Group No. 700C

For use on mark/door #(s):

154

Provide each PR dod	or(s) with	the fo	llowina:
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2	EA	CONT. HINGE	112HD	628	IVE
2	EA	PANIC HARDWARE	9949/50-L-06 (WDC @ WD) LENGTH & HEIGHT AS REQ	626	VON
2	EA	RIM HOUSING	20-079	626	SCH
2	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EA	SURFACE CLOSER	4040XP SCUSH X MTG BRKT, SPCR & PLATE AS REQ X ST3596	689	LCN
2	EΑ	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 700H

For use on mark/door #(s):

204A

Provide each PR door(s) with the following:

2	EΑ	CONT. HINGE	112HD	628	IVE
2	EA	PANIC HARDWARE	9949/50-L-06 (WDC @ WD) LENGTH &	626	VON
			HEIGHT AS REQ		
2	EA	RIM HOUSING	20-079	626	SCH
2	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
2	EΑ	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EA	WALL STOP/HOLDER	WS40	626	IVE
2	EΑ	SILENCER	SR64	GRY	IVE

Hardware Group No. 701

For use on mark/door #(s):

134 218

## Provide each SGL door(s) with the following:

1	EΑ	CONT. HINGE	112HD	628	IVE
1	EΑ	PANIC HARDWARE	99-L-06 LENGTH AS REQ	626	VON
1	EΑ	RIM HOUSING	20-079	626	SCH
1	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT, SPCR & PLATE AS REQ X ST3596	689	LCN
1	EΑ	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EΑ	WALL STOP	WS406/407CCV	630	IVE
3	EΑ	SILENCER	SR64	GRY	IVE

DOOR HARDWARE 087100-15 Project No: H17018 5/22/2018

## Hardware Group No. 714

For	use	οn	mark	/door	#(s)·
LOI	use	OH	IIIair/	uooi	#151.

ر، #(s). 135B 135A 155

# Provide each PR door(s) with the following:

EA	CONT. HINGE	112HD	628	IVE
EΑ	PANIC HARDWARE	9949/50-EO LENGTH & HEIGHT AS REQ	626	VON
EΑ	PANIC HARDWARE	9949/50-NL LENGTH & HEIGHT AS REQ	626	VON
EΑ	RIM HOUSING	20-079	626	SCH
EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
EA	SURFACE CLOSER	4040XP SCUSH X MTG BRKT, SPCR &	689	LCN
		PLATE AS REQ X ST3596		
EA	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
EA	RAIN DRIP	142A DW + 4"	AA	ZER
EA	GASKETING	328AA H & J	AA	ZER
EA	ASTRAGAL	328AA (2 PCS - 1 SET) HEIGHT AS	AL	ZER
		REQUIRED		
EA	DOOR SWEEP	8198AA LENGTH AS REQ	AA	ZER
EA	THRESHOLD	65A LENGTH AS REQ	Α	ZER
	EA EA EA EA EA EA EA	EA PANIC HARDWARE EA PANIC HARDWARE EA RIM HOUSING EA FSIC CORE EA SURFACE CLOSER  EA PROTECTION PLATE EA RAIN DRIP EA GASKETING EA ASTRAGAL  EA DOOR SWEEP	EA PANIC HARDWARE EA PANIC HARDWARE EA PANIC HARDWARE EA RIM HOUSING EA FSIC CORE EA SURFACE CLOSER  EA PROTECTION PLATE EA RAIN DRIP EA GASKETING EA ASTRAGAL  EA DOOR SWEEP  9949/50-BC LENGTH & HEIGHT AS REQ 9949/50-NL LENGTH & HEIGHT AS REQ 20-079 23-030 PERMANENT CORE 4040XP SCUSH X MTG BRKT, SPCR & PLATE AS REQ X ST3596 8400 10" X 1" LDW B-CS 142A DW + 4" 328AA H & J 328AA (2 PCS - 1 SET) HEIGHT AS REQUIRED 8198AA LENGTH AS REQ	EA         PANIC HARDWARE         9949/50-EO LENGTH & HEIGHT AS REQ         626           EA         PANIC HARDWARE         9949/50-NL LENGTH & HEIGHT AS REQ         626           EA         RIM HOUSING         20-079         626           EA         FSIC CORE         23-030 PERMANENT CORE         626           EA         SURFACE CLOSER         4040XP SCUSH X MTG BRKT, SPCR & 689           PLATE AS REQ X ST3596         PLATE AS REQ X ST3596           EA         PROTECTION PLATE         8400 10" X 1" LDW B-CS         630           EA         RAIN DRIP         142A DW + 4"         AA           EA         GASKETING         328AA H & J         AA           EA         ASTRAGAL         328AA (2 PCS - 1 SET) HEIGHT AS         AL           REQUIRED           EA         DOOR SWEEP         8198AA LENGTH AS REQ         AA

# Hardware Group No. 714A

## For use on mark/door #(s):

118 118A

## Provide each PR door(s) with the following:

1011	ac caon	Tit door(s) with the following	J·		
2	EA	CONT. HINGE	112HD	628	IVE
1	EΑ	PANIC HARDWARE	9949/50-EO LENGTH & HEIGHT AS REQ	626	VON
1	EΑ	PANIC HARDWARE	9949/50-NL LENGTH & HEIGHT AS REQ	626	VON
1	EA	RIM HOUSING	20-079	626	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EA	SURFACE CLOSER	4040XP SCUSH X MTG BRKT, SPCR &	689	LCN
			PLATE AS REQ X ST3596		
2	EA	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
1	SET	SEAL	PERIMETER SEAL BY FRAME		
			MANUFACTURER		
1	EA	RAIN DRIP	142A DW + 4"	AA	ZER
1	SET	ASTRAGAL	MEETING STILE SEAL BY DOOR		
			MANUFACTURER		
2	EA	DOOR SWEEP	8198AA LENGTH AS REQ	AA	ZER
1	EA	THRESHOLD	65A LENGTH AS REQ	Α	ZER

DOOR HARDWARE 087100-16 5/22/2018 Project No: H17018

### Hardware Group No. 725

For use on mark/door #(s):

157

## Provide each SGL door(s) with the following:

1	EA	CONT. HINGE	112HD	628	IVE
1	EA	PANIC HARDWARE	99-EO LENGTH AS REQ	626	VON
1	EA	SURFACE CLOSER	4040XP SCUSH X MTG BRKT, SPCR &	689	LCN
			PLATE AS REQ X ST3596		
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	RAIN DRIP	142A DW + 4"	AA	ZER
1	EA	GASKETING	328AA H & J	AA	ZER
1	EA	DOOR SWEEP	8198AA LENGTH AS REQ	AA	ZER
1	EA	THRESHOLD	65A LENGTH AS REQ	Α	ZER

### Hardware Group No. 800AV

For use on mark/door #(s):

118B 118C

## Provide each PR door(s) with the following:

2	EA	CONT. HINGE	112HD	628	IVE
2	EA	DUMMY PUSH BAR	330 LENGTH AS REQ	626	VON
2	EA	90 DEG OFFSET PULL	8190-O 10"	630	IVE
2	EA	SURFACE CLOSER	4040XP SCUSH X MTG BRKT, SPCR &	689	LCN
			PLATE AS REQ X ST3596		
1	SET	SEAL	PERIMETER SEAL BY FRAME		
			MANUFACTURER		
1	SET	ASTRAGAL	MEETING STILE SEAL BY DOOR		
			MANUFACTURER		

## Hardware Group No. 800V

For use on mark/door #(s):

135C 135D

## Provide each PR door(s) with the following:

2	EΑ	CONT. HINGE	112HD	628	IVE
2	EA	DUMMY PUSH BAR	330 LENGTH AS REQ	626	VON
2	EA	90 DEG OFFSET PULL	8190-O 10"	630	IVE
2	EA	SURFACE CLOSER	4040XP SCUSH X MTG BRKT, SPCR & PLATE AS REQ X ST3596	689	LCN
	_ ^	OAGKETING			755
1	EΑ	GASKETING	328AA H & J	AA	ZER
1	EA	ASTRAGAL	328AA (2 PCS - 1 SET) HEIGHT AS REQUIRED	AL	ZER

DOOR HARDWARE 087100-17 Project No: H17018 5/22/2018

## Hardware Group No. 801

For use on mark/door #(s):

140 141

Provide each SGL door(s) with the following:

1	EA	CONT. HINGE	112HD	628	IVE
1	EA	PUSH PLATE	8200 4" X 16"	630	IVE
1	EA	PULL PLATE	8303 10" 4" X 16"	630	IVE
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. B700CH

For use on mark/door #(s):

103 103A 103B

Provide each PR door(s) with the following:

2	EΑ	CONT. HINGE	112HD	628	IVE
2	EA	PANIC HARDWARE	3349A-L-06 LENGTH AS REQ	626	VON
2	EA	MORTISE CYLINDER	20-059 TYPE AS REQ	626	SCH
2	EA	FSIC CORE	23-030 ICX CONSTRUCTION CORE	622	SCH
2	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EA	SURFACE CLOSER	4040XP SHCUSH X MTG BRKT,	689	LCN
			SPACER & PLATE AS REQ X ST3596		
2	EA	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EΑ	SILENCER	SR64	GRY	IVE

DOOR HARDWARE 087100-18
Project No: H17018 5/22/2018

# Hardware Group No. C201

For us	se on ma	ark/door #(s):					
108		108A	112	127	130	130A	
133		136	137	147	150	151	
200		205	206	207	212	212A	
216		219					
Provid	de each	SGL door(s) with the	followin	g:			
2	EA	HINGE		5BB1 4.5 X 4.5		652	IVE
1	EA	HINGE		5BB1 4.5 X 4.5 CON TW8		652	IVE
1	EA	<b>EU MORTISE LOC</b>	K	L9092TEU 06A RX (FAIL S	SECURE)	626	SCH
1	EA	FSIC CORE		23-030 PERMANENT CO	RE	626	SCH
1	EA	SURFACE CLOSEI	₹	4040XP OR P4040XP X M	ITG BRKT,	689	LCN
				SPCR & PLATE AS REQ 2	X ST3596		
1	EA	PROTECTION PLA	TE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP		WS406/407CCV		630	IVE
1	EA	GASKETING		188S H & J (USE SILENC	ERS @ NON-	BK	ZER
				RATED DOORS)			
1	EA	HARNESS (TO PO	WER	CON-192P			SCH
		SUPPLY)					
1	EA	CREDENTIAL REA	DER	CARD READER BY ANOT	THER SECTION		
1	EA	DOOR CONTACT		679-05 TYPE AS REQ		WHT	SCE
1	EA	POWER SUPPLY		POWER SUPPLY FOR CA	ARD READER		
				BY ANOTHER SECTION			
1	EA	POWER SUPPLY		PS902		LGR	SCE
1	EA	HARNESS (IN DOC	DR)	ALLEGION CONNECT TY	PE & LENGTH		VON
				AS REQ			

DOOR HARDWARE 087100-19
Project No: H17018 5/22/2018

## Hardware Group No. C201C

For use on mark/door #(s): 102A 113A

Provide each SGL door(s) with the following:

2	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	HINGE	5BB1 4.5 X 4.5 CON TW8	652	IVE
1	EA	EU MORTISE LOCK	L9092TEU 06A RX (FAIL SECURE)	626	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	SURFACE CLOSER	4040XP SCUSH X MTG BRKT, SPCR &	689	LCN
			PLATE AS REQ X ST3596		
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON-	BK	ZER
			RATED DOORS)		
1	EA	HARNESS (TO POWER	CON-192P		SCH
		SUPPLY)			
1	EA	CREDENTIAL READER	CARD READER BY ANOTHER SECTION		
1	EA	DOOR CONTACT	679-05 TYPE AS REQ	WHT	SCE
1	EA	POWER SUPPLY	POWER SUPPLY FOR CARD READER		
			BY ANOTHER SECTION		
1	EA	POWER SUPPLY	PS902	LGR	SCE
1	EA	HARNESS (IN DOOR)	ALLEGION CONNECT TYPE & LENGTH		VON
			AS REQ		

Hardware Group No. C201W

For use on mark/door #(s):

113

Provide each SGL door(s) with the following:

		( )	3		
2	EA	HINGE	5BB1HW 5 X 4.5	652	IVE
1	EA	HINGE	5BB1HW 5 X 4.5 CON TW8	652	IVE
1	EA	EU MORTISE LOCK	L9092TEU 06A RX (FAIL SECURE)	626	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT, SPCR & PLATE AS REQ X ST3596	689	LCN
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON- RATED DOORS)	BK	ZER
1	EA	HARNESS (TO POWER SUPPLY)	CON-192P		SCH
1	EA	CREDENTIAL READER	CARD READER BY ANOTHER SECTION		
1	EA	DOOR CONTACT	679-05 TYPE AS REQ	WHT	SCE
1	EA	POWER SUPPLY	POWER SUPPLY FOR CARD READER BY ANOTHER SECTION		
1	EA	POWER SUPPLY	PS902	LGR	SCE
1	EA	HARNESS (IN DOOR)	ALLEGION CONNECT TYPE & LENGTH AS REQ		VON

DOOR HARDWARE 087100-20 Project No: H17018 5/22/2018

## Hardware Group No. C207

Hardwar	e Group No. C207					
For use o	on mark/door #(s):					
102	104	117	145	202		
Provide each SGL door(s) with the following:						
2 E/			5BB1 4.5 X 4.5		652	IVE
1 E			5BB1 4.5 X 4.5 CON T		652	IVE
1 E/		CK	L9092TEU 06A RX (FA		626	SCH
1 E/			23-030 PERMANENT (		626	SCH
1 E/	A OH STOP		900S SERIES X SIZE & REQ	& MOUNTING A	S 630	GLY
1 E/	SURFACE CLOS	SER	4040XP OR P4040XP X		689	LCN
1 E/	A PROTECTION P	I ATE	SPCR & PLATE AS RE 8400 10" X 2" LDW B-0		630	IVE
1 E/ 1 E/		LAIE	188S H & J (USE SILE)			ZER
1 L/	N OAGRETING		RATED DOORS)	NOLINO @ NON	I- DIX	ZLIX
1 E/	A HARNESS (TO F	OWFR	CON-192P			SCH
,	SUPPLY)	O	0011 1021			00
1 E/		EADER	CARD READER BY AN	IOTHER SECTI	ON	
1 E/			679-05 TYPE AS REQ		WHT	SCE
1 E/	A POWER SUPPL'	Y	POWER SUPPLY FOR		R	
		_	BY ANOTHER SECTION	N		
1 E/			PS902	T) (DE 0   E) (O	LGR	SCE
1 E/	HARNESS (IN D	OOR)	ALLEGION CONNECT	TYPE & LENG	IH	VON
			AS REQ			
Hardwar	e Group No. C710					
Foruso	on mark/door #(a):					
103C	on mark/door #(s): 103D	103E	103F	103L	120	
120A	135	153 153	103F	103L	120	
12071	100	100				
Provide 6	each PR door(s) with th	e following	g:			
6 E/	A HINGE		5BB1HW 4.5 X 4.5		652	IVE
2 E/	A POWER TRANS	FER	EPT10 CON		689	VON
1 E/	A ELEC PANIC		RX-QEL-9949/50-DT-C	ON LENGTH &	626	VON
	HARDWARE		HEIGHT AS REQ			
1 E/			RX-QEL-9949/50-NL-C	ON LENGTH &	626	VON
4 -	HARDWARE		HEIGHT AS REQ		000	0011
1 E/			20-079	CTION CODE	626	SCH
1 E/			23-030 ICX CONSTRU 23-030 PERMANENT (		622	SCH SCH
1 E/ 2 E/		ED	4040XP OR P4040XP		626 689	LCN
Z [/	TOTAL OLOG	,LI\	SPCR & PLATE AS RE		009	LON
2 E/	A PROTECTION P	LATE	8400 10" X 1" LDW B-0		630	IVE
DOOR F	HARDWARE				087100-21	
	ct No: H17018				5/22/2018	
, _ (					2,22,2010	

2	EΑ	WALL STOP	WS406/407CCV	630	IVE
2	EA	SILENCER	SR64	GRY	IVE
2	EA	HARNESS (TO POWER SUPPLY)	CON-192P		SCH
1	EΑ	CREDENTIAL READER	CARD READER BY ANOTHER SECTION		
2	EΑ	DOOR CONTACT	679-05 TYPE AS REQ	WHT	SCE
1	EA	POWER SUPPLY	POWER SUPPLY FOR CARD READER		
			BY ANOTHER SECTION		
1	EA	POWER SUPPLY	PS902 2RS		VON
2	EA	HARNESS (IN DOOR)	ALLEGION CONNECT TYPE & LENGTH		VON
			AS REQ		

Hardware Group No. C710C

For use on mark/door #(s):

152

Provide each PR door(s) with the following:

6	EA	HINGE	5BB1HW 4.5 X 4.5	652	IVE
2	EA	POWER TRANSFER	EPT10 CON	689	VON
1	EA	ELEC PANIC HARDWARE	RX-QEL-9949/50-DT-CON LENGTH & HEIGHT AS REQ	626	VON
1	EA	ELEC PANIC HARDWARE	RX-QEL-9949/50-NL-CON LENGTH & HEIGHT AS REQ	626	VON
1	EA	RIM HOUSING	20-079	626	SCH
1	EΑ	FSIC CORE	23-030 ICX CONSTRUCTION CORE	622	SCH
1	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EA	SURFACE CLOSER	4040XP SCUSH X MTG BRKT, SPCR & PLATE AS REQ X ST3596	689	LCN
2	EΑ	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EΑ	SILENCER	SR64	GRY	IVE
2	EA	HARNESS (TO POWER SUPPLY)	CON-192P		SCH
1	EA	CREDENTIAL READER	CARD READER BY ANOTHER SECTION		
2	EA	DOOR CONTACT	679-05 TYPE AS REQ	WHT	SCE
1	EA	POWER SUPPLY	POWER SUPPLY FOR CARD READER BY ANOTHER SECTION		
1	EΑ	POWER SUPPLY	PS902 2RS		VON
2	EA	HARNESS (IN DOOR)	ALLEGION CONNECT TYPE & LENGTH AS REQ		VON

DOOR HARDWARE 087100-22 Project No: H17018 5/22/2018

## Hardware Group No. C710R

For use on mark/door #(s): 156

## Provide each PR door(s) with the following:

		` ,	•		
6	EA	HINGE	5BB1HW 4.5 X 4.5	652	IVE
2	EA	POWER TRANSFER	EPT10 CON	689	VON
1	EA	ELEC FIRE EXIT	RX-QEL-9949/50-DT-F-LBR-CON (WDC	626	VON
		HARDWARE	@ WD) LENGTH & HEIGHT AS RÈQ		
1	EA	ELEC FIRE EXIT	RX-QÉL-9949/50-NL-F-LBR-CON (WDC	626	VON
		HARDWARE	@ WD) LENGTH & HEIGHT AS RÈQ		
1	EA	RIM HOUSING	20-079	626	SCH
1	EA	FSIC CORE	23-030 ICX CONSTRUCTION CORE	622	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
2	EA	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	MEETING STILE	328AA (2 PCS - 1 SET) HEIGHT AS	AA	ZER
			REQUIRED		
1	EA	GASKETING	188S H & J	BK	ZER
2	EA	HARNESS (TO POWER	CON-192P		SCH
		SUPPLY)			
1	EA	CREDENTIAL READER	CARD READER BY ANOTHER SECTION		
2	EA	DOOR CONTACT	679-05 TYPE AS REQ	WHT	SCE
1	EA	POWER SUPPLY	POWER SUPPLY FOR CARD READER		
			BY ANOTHER SECTION		
1	EA	POWER SUPPLY	PS902 FA 2RS		VON
2	EA	HARNESS (IN DOOR)	ALLEGION CONNECT TYPE & LENGTH		VON
		,	AS REQ		

## Hardware Group No. C710S3

For use on mark/door #(s): 153A

## Provide each PR door(s) with the following:

6	EA	HINGE	5BB1HW 4.5 X 4.5	652	IVE
2	EA	POWER TRANSFER	EPT10 CON	689	VON
1	EA	ELEC PANIC	RX-QEL-9949/50-DT-CON LENGTH &	626	VON
		HARDWARE	HEIGHT AS REQ		
1	EA	ELEC PANIC	RX-QEL-9949/50-NL-CON LENGTH &	626	VON
		HARDWARE	HEIGHT AS REQ		
1	EA	RIM HOUSING	20-079	626	SCH
1	EA	FSIC CORE	23-030 ICX CONSTRUCTION CORE	622	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	OH STOP	900S SERIES X SIZE & MOUNTING AS	630	GLY
			REO		

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2	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT, SPCR & PLATE AS REQ X ST3596	689	LCN
2	EA	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
2	EA	SILENCER	SR64	GRY	IVE
2	EA	HARNESS (TO POWER	CON-192P		SCH
		SUPPLY)			
1	EA	CREDENTIAL READER	CARD READER BY ANOTHER SECTION		
2	EA	DOOR CONTACT	679-05 TYPE AS REQ	WHT	SCE
1	EA	POWER SUPPLY	POWER SUPPLY FOR CARD READER		
			BY ANOTHER SECTION		
1	EA	POWER SUPPLY	PS902 2RS		VON
2	EA	HARNESS (IN DOOR)	ALLEGION CONNECT TYPE & LENGTH		VON
			AS REQ		

Hardware Group No. C711

For use on mark/door #(s):

Provide each SGL door(s) with the following:

3	EA	HINGE	5BB1HW 4.5 X 4.5	652	IVE
1	EΑ	POWER TRANSFER	EPT10 CON	689	VON
1	EΑ	ELEC PANIC	RX-QEL-99-NL-CON LENGTH AS REQ	626	VON
		HARDWARE			
1	EA	RIM HOUSING	20-079	626	SCH
1	EA	FSIC CORE	23-030 ICX CONSTRUCTION CORE	622	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE
1	EA	HARNESS (TO POWER	CON-192P		SCH
		SUPPLY)			
1	EA	CREDENTIAL READER	CARD READER BY ANOTHER SECTION		
1	EΑ	DOOR CONTACT	679-05 TYPE AS REQ	WHT	SCE
1	EA	POWER SUPPLY	POWER SUPPLY FOR CARD READER		
			BY ANOTHER SECTION		
1	EA	POWER SUPPLY	PS902 2RS		VON
1	EA	HARNESS (IN DOOR)	ALLEGION CONNECT TYPE & LENGTH		VON
			AS REQ		

DOOR HARDWARE 087100-24 Project No: H17018 5/22/2018

## Hardware Group No. C714

134A 143A 144A

	Provide each	PR	door(s)	) with	the	following:
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	ao oaon	i it door(o) with the following	9.		
6	EA	HINGE	5BB1HW 4.5 X 4.5 NRP	630	IVE
2	EA	POWER TRANSFER	EPT10 CON	689	VON
1	EA	ELEC PANIC	RX-QEL-9949/50-DT-CON LENGTH &	626	VON
		HARDWARE	HEIGHT AS REQ		
1	EA	ELEC PANIC	RX-QEL-9949/50-NL-CON LENGTH &	626	VON
		HARDWARE	HEIGHT AS REQ		
1	EA	RIM HOUSING	20-079	626	SCH
1	EA	FSIC CORE	23-030 ICX CONSTRUCTION CORE	622	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EA	SURFACE CLOSER	4040XP SCUSH X MTG BRKT, SPCR &	689	LCN
			PLATE AS REQ X ST3596		
2	EA	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
1	EA	RAIN DRIP	142A DW + 4"	AA	ZER
1	EA	MEETING STILE	328AA (2 PCS - 1 SET) HEIGHT AS	AA	ZER
			REQUIRED		
1	EA	GASKETING	328AA H & J	AA	ZER
2	EA	DOOR SWEEP	8198AA LENGTH AS REQ	AA	ZER
1	EA	THRESHOLD	65A LENGTH AS REQ	Α	ZER
2	EA	HARNESS (TO POWER	CON-192P		SCH
		SUPPLY)			
1	EA	CREDENTIAL READER	CARD READER BY ANOTHER SECTION		
2	EA	DOOR CONTACT	679-05 TYPE AS REQ	WHT	SCE
1	EA	POWER SUPPLY	POWER SUPPLY FOR CARD READER		
			BY ANOTHER SECTION		
1	EA	POWER SUPPLY	PS902 2RS		VON
2	EA	HARNESS (IN DOOR)	ALLEGION CONNECT TYPE & LENGTH		VON
			AS REQ		

# Hardware Group No. W401HW

For use on mark/door #(s):

106 109 128 131

# Provide each SGL door(s) with the following:

3	EΑ	HINGE	5BB1HW 5 X 4.5	652	IVE
1	EΑ	MULT PT PASSAGE SET	LM9310 06A	626	SCH
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP/HOLDER	WS40	626	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON-	BK	ZER
			RATED DOORS)		

DOOR HARDWARE 087100-25 Project No: H17018 5/22/2018

## Hardware Group No. W501W

For use on mark/door #(s):

126

# Provide each SGL door(s) with the following:

3	EΑ	HINGE	5BB1HW 5 X 4.5	652	IVE
1	EA	MULT PT CLASSROOM	LM9370T 06A	626	SCH
1	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON-	BK	ZER
			RATED DOORS)		

Hardware Group No. W507

For use on mark/door #(s):

142

## Provide each SGL door(s) with the following:

3	EΑ	HINGE	5BB1HW 4.5 X 4.5	652	IVE
1	EA	MULT PT CLASSROOM	LM9370T 06A	626	SCH
1	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EA	OH STOP	900S SERIES X SIZE & MOUNTING AS	630	GLY
			REQ		
1	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
1	EA	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	GASKETING	188S H & J (USE SILENCERS @ NON-	BK	ZER
			RATED DOORS)		

DOOR HARDWARE 087100-26 Project No: H17018 5/22/2018

## Hardware Group No. W700H

For use on mark/door #(s):

139

## Provide each PR door(s) with the following:

2	EA	CONT. HINGE	112HD	628	IVE
2	EA	PANIC HARDWARE	WS-9927-L-06 LENGTH AS REQ	626	VON
1	EA	ROD AND LATCH	RG-27-	630	VON
		GUARD			
2	EA	RIM HOUSING	20-079	626	SCH
2	EA	FSIC CORE	23-030 PERMANENT CORE	626	SCH
2	EA	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
2	EA	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
2	EA	WALL STOP/HOLDER	WS40	626	IVE
2	EA	SILENCER	SR64	GRY	IVE

## Hardware Group No. W701H

For use on mark/door #(s):

139A

# Provide each SGL door(s) with the following:

1	EΑ	CONT. HINGE	112HD	628	IVE
1	EΑ	PANIC HARDWARE	WS-9927-L-06 LENGTH AS REQ	626	VON
1	EA	ROD AND LATCH	RG-27-	630	VON
		GUARD			
1	EΑ	RIM HOUSING	20-079	626	SCH
1	EΑ	FSIC CORE	23-030 PERMANENT CORE	626	SCH
1	EΑ	SURFACE CLOSER	4040XP OR P4040XP X MTG BRKT,	689	LCN
			SPCR & PLATE AS REQ X ST3596		
1	EΑ	PROTECTION PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP/HOLDER	WS40	626	IVE
3	EA	SILENCER	SR64	GRY	IVE

### **END OF SECTION**

DOOR HARDWARE 087100-27 Project No: H17018 5/22/2018