Project Owner:	Hudsonville Public Schools
Project Name:	Technology Additions and Renovations
Issue Date:	August 16, 2023

ADDENDUM NO. 2

This Addendum No. 2 of the Technology Request for Bid for the above referenced project hereby amends, supplements and/or augments all prior issued document(s) as described herein, and becomes an inseparable part of the Contract Documents, superseding all previous, contrary and/or conflicting information.

AD2 - 1	Section 08 71 00 - Door Hardware for Bauer and Park Elementary is hereby revised, reissued and attached hereto. Note: Hardware inside the RED rectangles indicate that door hardware is to be supplied and installed by the Section 28 13 00 Building Access System Integrator to complete a working system.

END OF ADDENDUM NO. 2

SECTION 08 71 00 - DOOR HARDWARE

(BULLETIN 007)
ADDENDUM 2
DATE: 8/29/2023

1 GENERAL

1 .1 SUMMARY

A. Scope of Work: This Section describes all finish hardware required to complete the work as indicated on the Drawings and specified herein. Provide all trim attachments and fastening specified or required for proper and complete installation.

B. Related Sections:

1. Section 08 11 13: Hollow Metal Doors and Frames
2. Section 08 14 16: Flush Wood Doors
3. Section 08 43 13: Aluminum Entrances and Storefronts

1 .2 SUBMITTALS

A. Product Data, Shop Drawings, Samples:

1. General: Comply with the provisions of Section 01 33 00.
2. Product Data: Within 15 calendar days after award of the Contract, submit:
   a. Complete materials list of all items proposed to be furnished and delivered under this Section.
      (1) Identify each hardware item by manufacturer, the manufacturer's catalog number, and the location of the item in the work.
      (2) Make the list in form suitable for ready checking by the Architect.
   b. Manufacturer's specifications, catalog cuts, and other data required to demonstrate compliance with specified requirements.

   Approval of the hardware list by the Architect/Engineer shall not relieve the Contractor from the responsibility for furnishing all required finish hardware.
3. Samples: Within 15 calendar days after being so requested by the Architect/Engineer, deliver to the Architect/Engineer samples of each finish hardware item.
4. Templates: In a timely manner to ensure orderly progress of the work, deliver templates or physical samples of the approved finish hardware items to pertinent manufacturers of interfacing items such as door and frame.

1 .3 QUALITY ASSURANCE

A. Qualifications:

1. Qualifications of Manufacturers: Products used in the work of this Section shall be produced by manufacturers regularly engaged in manufacture of similar items and with a history of successful production acceptable to the Architect/Engineer.
2. Qualification of Suppliers: The supplier shall have a qualified representative readily available to the Architect/Engineer, and/or Owner on short notice for consultation and service during the execution of this work and the warranty period.
3. Qualification of Installers: Use adequate numbers of skilled workmen who are trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and methods needed for proper performance of this Section.

B. Regulatory Requirements & References: Fire Rated Openings: Comply with the requirements of Underwriter's Laboratories, Inc.

C. Pre-Installation Conference: Prior to the installation of hardware, manufacturer's representatives for locksets, closers, and exit devices shall arrange and hold a jobsite meeting to instruct the installing contractor's personnel on the proper installation of their respective

products. A letter of compliance, indicating when this meeting is held and who is in attendance, shall be sent to the Architect and Owner.

1 .4 DELIVERY, STORAGE, AND HANDLING

A. Packing and Shipping: Individually package each units of finish hardware, complete with proper fastening and appurtenances, clearly marked on the outside to indicate the contents and specific locations in the work.

B. Protection: Use all means necessary to protect materials of this Section before, during, and after delivery to the job site and to protect the work and materials of all other trades.

C. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect/Engineer and at no additional cost to the owner.

D. Deliveries:

1. Stockpile all items sufficiently in advance to ensure their availability and make all necessary deliveries in a timely manner to ensure orderly progress of the total work.
2. All hardware shall be delivered to a destination as directed by the Construction Manager with sufficient time in advance for proper inspection in order not to delay the scheduled completion date.
3. The Construction Manager shall provide a lockable room with ample shelving for the storage of hardware. Upon receipt of the hardware, the Finish Hardware supplier shall unpack and place on the shelves all hardware in order of item and/or door numbers.

1 .5 SEQUENCING AND SCHEDULING

Coordinate all work with job site superintendent and all applicable trades.

1 .6 WARRANTY

A. Provide a written warranty in approved form in compliance with the related requirements of the General Conditions, covering all Finish Hardware furnished under this Section against defects in manufacturing and workmanship for a minimum of two (2) years from the final acceptance of the building.

B. Any material failing to comply with the above guarantee shall be removed and replaced with satisfactory material at the Finish Hardware supplier's expense, including the necessary labor for removing and replacing.

C. During the Warranty Period, the Finish Hardware supplier shall, upon request, make prompt adjustments, repairs or replacements as required to any hardware installed under this contract, other than normal maintenance service.

2 PRODUCTS

2 .1 ACCEPTABLE MANUFACTURERS

Product	Specified	Acceptable Alternates
Continuous Hinges	Ives	Select, Pemko
Hinge	Ives	McKinney, Stanley
Flush Bolts	Ives	Trimco, Rockwood
Power Transfer	Von Duprin EPT10	Securitron
Electrified Hinge (PoE)	McKinney (Provided by Integrator)	No Substitution
Wire Harness (PoE)	McKinney (Provided by Integrator)	No Substitution
Cylindrical Locks	Yale 5400LN Series	No Substitution
Mortise Locks	Yale 8800 Series	No Substitution
Electronic Locks	Corbin-Russwin IN220 (Provided by Integrator)	No Substitution

Keys and Cylinders	Yale G Keyway	No Substitution (Owners Key System)
Exit Devices	Yale 7000 Series	No Substitution
Electric Strikes (PoE)	Trine 4000 Series	No Substitution
Door Closers	LCN 4040XP Series	No Substitution
Push/Pull & Kick Plates	Ives	Trimco, Rockwood
Stops	Ives	Trimco, Rockwood
Overhead Stops	Glynn-Johnson	No Substitution
Seals and Thresholds	Zero	NGP, Reese, Pemko
Magnetic Hold-Opens	LCN SEM Series	Rixson, ABH
Auto Operators	LCN 4600 Series	No Substitution
Power Supplies	Von Duprin PS900 Series	Securitron

2 .2 MATERIALS

A. General:

1. Proprietary Products: References to specific proprietary products are used to establish minimum standards of utility and quality. Unless otherwise approved by the Architect/Engineer, provide only the specific products. Design is based on the materials specified. Other materials may be considered by the Architect/Engineer in accordance with the provisions of Section 01 33 00.
2. Fasteners:
   a. Furnish all finish hardware with all necessary screws, bolts, and other fasteners of suitable size and type to anchor the hardware in position for long life under hard use.
   b. Furnish fastenings where necessary with expansion shields, toggle bolts, sex bolts, and other anchors approved by the Architect/Engineer, according to the materials to which the hardware is to be applied and the recommendations of the hardware manufacturer.
   c. All fastenings shall harmonize with the hardware as to materials and finish.
3. Finishes of all hardware shall match the finish of the locksets. Take special care to coordinate all of the various manufactured items furnished under this Section, to ensure acceptably uniform finish.
4. **Through-bolt door closers on all wood doors.**

B. Keying: All lock shall be master keyed as directed by the Architect and Owner to the Owners Existing Yale key system. Supply 3 keys per lock, 6 master keys for each master key group and 3 grand master keys.

C. Tools and Manuals: With the delivery of permanent keys, deliver to the Owner one complete set of adjustment tools and one set of maintenance manuals for locksets, latchsets, closers, and panic devices.

D. **Provide Special Product Configurable Code (SPAR05493) for all Yale 7100 Series Exit Devices specified with Corbin-Russwin IN220 Electronic Exit Device Trim. Must be included in purchase orders as well.**

E. **Corbin Russwin IN220 electronic lock, McKinney electrified hinge and McKinney wire harness for PoE applications to be provided by Access Control Integrator as listed in hardware sets.**

3 EXECUTION

3 .1 INSTALLATION

A. Install the materials in strict accordance with the manufacturer's recommendations and schedules.

B. All doors should swing as far as conditions allow. When mounting door closers, use the mounting that allows doors to swing to the wall or floor bumper. Do not stop the door with the

closer arm unless the arm is designed specifically to stop the door. when mounting closers designed with arms to stop the door or overhead door stops, always mount them to allow the door to swing as far as conditions will permit.

C. Anchor all screws with Loc-Tite to assure permanence of attachment.

D. All doors and hardware to be left in proper working order and cleaned.

E. Special Hardware Instructions:

1. Wall stops WS33 are to be mounted on the wall up at the top of the door and as far out on the latch edge as conditions allow. The sloped side is to face up, preventing anyone or anything to hang on them.
2. Wall stop & holds WH45 are to be mounted the same as the WS33.

3 .2 ADJUSTING AND CLEANING

A. Final inspections shall be made by the Architect and Finish Hardware Supplier. They shall report any installation adjustments that are to be made to have all hardware in perfect working order. The Finish Hardware Supplier shall verify the keying to the Architect to insure proper location of locksets and cylinders. All closers shall be checked and adjusted for closing.

B. Prior to final acceptance of the installation, the Finish Hardware Supplier shall make a final inspection to verify that all corrections have been made and that all hardware items are in good working condition.

4 HARDWARE SCHEDULE

Hardware Group No. 01

For use on Door #(s):
E116A

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD		628	IVE
2	EA	PUSH/PULL BAR	9103EZHD-10"-NO		630-316	IVE
2	EA	OH STOP	100S		630	GLY
2	EA	SURFACE CLOSER	4040XP EDA		689	LCN
2	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		689	LCN
			WEATHERSTRIP BY DOOR/FRAME MANUFACTURER			

Hardware Group No. 02

For use on Door #(s):
E101B

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD		628	IVE
2	EA	PUSH/PULL BAR	9103EZHD-10"-NO		630-316	IVE
2	EA	OH STOP	100S		630	GLY
1	EA	SURFACE CLOSER	4040XP EDA		689	LCN
1	EA	SURF. AUTO OPERATOR	4642 WMS	✓	689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		689	LCN
1	EA	ACTUATOR, WALL MOUNT	8310-853T	✓	630	LCN
1	EA	FLUSH MOUNT BOX	8310-867F			LCN
			WEATHERSTRIP BY DOOR/FRAME MANUFACTURER			

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

BOTH ACTUATOR BUTTONS ARE ENABLED WHEN THE OPERATOR IS TURNED ON. PUSHING EITHER ENABLED ACTUATOR BUTTON WILL CAUSE THE AUTOMATIC OPERATOR TO MOMENTARILY OPEN THE DOOR. FREE EGRESS AT ALL TIMES.

Hardware Group No. 03

For use on Door #(s):
E107A E108A

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		626	IVE
1	EA	PRIVACY LOCK W/INDICATOR	PBR 8802FL IND		626	YAL
1	EA	SURFACE CLOSER	4040XP RW/PA - PULL-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		630	IVE
1	EA	GASKETING	488S		BK	ZER

Hardware Group No. 04

For use on Door #(s):
E202A

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	ELECTRIFIED HINGE (HW)	73696 POE - PROVIDED BY INTEGRATOR		652	MCK
1	EA	ELECTRONIC LOCK (PoE)	CL33134-PZD-IN220-IP-B-LC - PROVIDED BY INTEGRATOR		626	C-R
1	EA	CYLINDER	KEYED TO OWNERS YALE KEY SYSTEM - COORDINATE WITH OWNER		626	YAL
1	EA	SURFACE CLOSER	4040XP SCUSH		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
3	EA	SILENCER	SR64		GRY	IVE
1	EA	POE WIRE HARNESS (HINGE TO LOCK X HINGE TO CEILING)	94212/3 X 94217 - PROVIDED BY INTEGRATOR			MCK

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

LOCKSET IS NORMALLY SECURE. INSIDE LEVER ALWAYS ALLOWS FREE EGRESS. PRESENTING VALID CREDENTIAL TO CARD READER WILL MOMENTARILY UNLOCK LOCK AND ALLOW ENTRY. VALID TOGGLE CREDENTIAL CAN PROVIDE PASSAGE STATUS. DURING LOCKDOWN THE STATUS WILL CHANGE TO LOCK.

Hardware Group No. 05

For use on Door #(s):
E103A E109A

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	ELECTRIFIED HINGE (HW)	73696 POE - PROVIDED BY INTEGRATOR		652	MCK
1	EA	ELECTRONIC LOCK (PoE)	CL33134-PZD-IN220-IP-B-LC - PROVIDED BY INTEGRATOR		626	C-R
1	EA	CYLINDER	KEYED TO OWNERS YALE KEY SYSTEM - COORDINATE WITH OWNER		626	YAL
1	EA	SURFACE CLOSER	4040XP RW/PA - PULL-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		630	IVE
1	EA	GASKETING	488S		BK	ZER
1	EA	POE WIRE HARNESS (HINGE TO LOCK X HINGE TO CEILING)	94212/3 X 94217 - PROVIDED BY INTEGRATOR			MCK

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

LOCKSET IS NORMALLY SECURE. INSIDE LEVER ALWAYS ALLOWS FREE EGRESS. PRESENTING VALID CREDENTIAL TO CARD READER WILL MOMENTARILY UNLOCK LOCK AND ALLOW ENTRY. VALID TOGGLE CREDENTIAL CAN PROVIDE PASSAGE STATUS. DURING LOCKDOWN THE STATUS WILL CHANGE TO LOCK.

Hardware Group No. 06

For use on Door #(s):
E110A E121A

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	ELECTRIFIED HINGE (HW)	73696 POE - PROVIDED BY INTEGRATOR		652	MCK
1	EA	ELECTRONIC LOCK (PoE)	CL33134-PZD-IN220-IP-B-LC - PROVIDED BY INTEGRATOR		626	C-R
1	EA	CYLINDER	KEYED TO OWNERS YALE KEY SYSTEM - COORDINATE WITH OWNER		626	YAL
1	EA	OH STOP	100S		630	GLY
1	EA	SURFACE CLOSER	4040XP ST-1630		689	LCN
1	EA	TOP JAMB MTG PLATE	4040XP-18TJ		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	488S		BK	ZER
1	EA	POE WIRE HARNESS (HINGE TO LOCK X HINGE TO CEILING)	94212/3 X 94217 - PROVIDED BY INTEGRATOR			MCK

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

LOCKSET IS NORMALLY SECURE. INSIDE LEVER ALWAYS ALLOWS FREE EGRESS. PRESENTING VALID CREDENTIAL TO CARD READER WILL MOMENTARILY UNLOCK LOCK AND ALLOW ENTRY. VALID TOGGLE CREDENTIAL CAN PROVIDE PASSAGE STATUS. DURING LOCKDOWN THE STATUS WILL CHANGE TO LOCK.

Hardware Group No. 07

For use on Door #(s):
E120A

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
5	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	ELECTRIFIED HINGE (HW)	73696 POE - PROVIDED BY INTEGRATOR		652	MCK
1	SET	CONST LATCHING BOLT	FB51P/FB61P (AS REQ'D)		630	IVE
1	EA	DUST PROOF STRIKE	DP2		626	IVE
1	EA	ELECTRONIC LOCK (PoE)	CL33134-PZD-IN220-IP-B-LC - PROVIDED BY INTEGRATOR		626	C-R
1	EA	CYLINDER	KEYED TO OWNERS YALE KEY SYSTEM - COORDINATE WITH OWNER		626	YAL
1	EA	COORDINATOR	COR X FL		628	IVE
2	EA	OH STOP	100S		630	GLY
2	EA	SURFACE CLOSER	4040XP ST-1630		689	LCN
2	EA	TOP JAMB MTG PLATE	4040XP-18TJ		689	LCN
1	EA	MEETING STILE	8217S		BK	ZER
1	EA	GASKETING	488S		BK	ZER
1	EA	POE WIRE HARNESS (HINGE TO LOCK X HINGE TO CEILING)	94212/3 X 94217 - PROVIDED BY INTEGRATOR			MCK

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

LOCKSET IS NORMALLY SECURE. INSIDE LEVER ALWAYS ALLOWS FREE EGRESS. PRESENTING VALID CREDENTIAL TO CARD READER WILL MOMENTARILY UNLOCK LOCK AND ALLOW ENTRY. VALID TOGGLE CREDENTIAL CAN PROVIDE PASSAGE STATUS. DURING LOCKDOWN THE STATUS WILL CHANGE TO LOCK.

Hardware Group No. 08

For use on Door #(s):
C112A E102A E105A E106A E118A

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	ELECTRIFIED HINGE (HW)	73696 POE - PROVIDED BY INTEGRATOR		652	MCK
1	EA	ELECTRONIC LOCK (PoE)	CL33134-PZD-IN220-IP-B-LC - PROVIDED BY INTEGRATOR		626	C-R
1	EA	CYLINDER	KEYED TO OWNERS YALE KEY SYSTEM - COORDINATE WITH OWNER		626	YAL
1	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		630	IVE
1	EA	GASKETING	488S		BK	ZER
1	EA	POE WIRE HARNESS (HINGE TO LOCK X HINGE TO CEILING)	94212/3 X 94217 - PROVIDED BY INTEGRATOR			MCK

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

LOCKSET IS NORMALLY SECURE. INSIDE LEVER ALWAYS ALLOWS FREE EGRESS. PRESENTING VALID CREDENTIAL TO CARD READER WILL MOMENTARILY UNLOCK LOCK AND ALLOW ENTRY. VALID TOGGLE CREDENTIAL CAN PROVIDE PASSAGE STATUS. DURING LOCKDOWN THE STATUS WILL CHANGE TO LOCK.

Hardware Group No. 09

For use on Door #(s):
E201A

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		630	IVE
1	EA	INSTITUTIONAL LOCK	PB 5430LN - KEYED TO OWNERS YALE KEY SYSTEM, COORDINATE WITH OWNER		626	YAL
1	EA	ELECTRIC STRIKE (PoE)	4200RS (FAIL-SAFE)		630	TRN
1	EA	OH STOP	100S		630	GLY
1	EA	SURFACE CLOSER	4040XP EDA		689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		689	LCN
1	EA	DOOR SWEEP	8192AA		AA	ZER
1	EA	THRESHOLD	566A		A	ZER
2	EA	CARD READER	PROVIDED BY SECURITY CONTRACTOR			
1	EA	DOOR CONTACT	679-05HM		BLK	SCE
1	EA	POWER SUPPLY	PS902 900-FA - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY PROVIDER WEATHERSTRIP BY DOOR/FRAME MANUFACTURER			VON

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM. PRESENTING A VALID CREDENTIAL TO EITHER READER WILL MOMENTARILY UNLOCK THE ELECTRIC STRIKE ALLOWING ACCESS. DOOR CONTACT MONITORS WHETHER THE DOOR IS OPENED, CLOSED OR HELD OPEN TOO LONG. DOOR TO REMAIN UNLOCKED UPON LOSS OF POWER OR ACTIVATION OF THE FIRE ALARM.

Hardware Group No. 10

For use on Door #(s):
E119A

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD		628	IVE
2	EA	MANUAL FLUSH BOLT	FB458		626	IVE
1	EA	STOREROOM LOCK	PB 5405LN - KEYED TO EXISTING		626	YAL
2	EA	OH STOP & HOLDER	100H		630	GLY
1	EA	SURFACE CLOSER	4040XP EDA		689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		689	LCN
2	EA	DOOR SWEEP	8192AA		AA	ZER
1	EA	THRESHOLD	566A		A	ZER
2	EA	DOOR CONTACT	679-05HM WEATHERSTRIP BY DOOR/FRAME MANUFACTURER		BLK	SCE

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR CONTACT MONITORS WHETHER THE DOOR IS OPENED, CLOSED OR HELD OPEN TOO LONG.

Hardware Group No. 11

For use on Door #(s):
E114A E115A

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
2	EA	HINGE	5BB1HW 4.5 X 4.5 NRP			652	IVE
1	EA	ELECTRIFIED HINGE (HW)	73696 POE - PROVIDED BY INTEGRATOR			652	MCK
1	EA	ELECTRONIC EXIT DEVICE TRIM (PoE)	CORBIN-RUSSWIN IN220 - PSA LEVER - PROVIDED BY INTEGRATOR			626	C-R
~~1~~	~~EA~~	~~PANIC HARDWARE~~	~~7150-ECK1-LESS DOGGING-SPAR05493~~			~~630~~	~~YAL~~
1	**EA**	**FIRE EXIT HARDWARE**	**7150F-ECK1-SPAR05493**			**630**	**YAL**
1	EA	CYLINDER	KEYED TO OWNERS YALE KEY SYSTEM - COORDINATE WITH OWNER			626	YAL
1	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE			689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS			630	IVE
1	EA	WALL STOP	WS406/407CCV			630	IVE
1	**EA**	**GASKETING**	**488S**			**BK**	**ZER**
~~3~~	~~EA~~	~~SILENCER~~	~~SR64~~			~~GRY~~	~~IVE~~
1	EA	POE WIRE HARNESS (HINGE TO LOCK X HINGE TO CEILING)	94212/3 X 94217 - PROVIDED BY INTEGRATOR				MCK

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

LOCKSET IS NORMALLY SECURE. INSIDE LEVER ALWAYS ALLOWS FREE EGRESS. PRESENTING VALID CREDENTIAL TO CARD READER WILL MOMENTARILY UNLOCK LOCK AND ALLOW ENTRY. VALID TOGGLE CREDENTIAL CAN PROVIDE PASSAGE STATUS. DURING LOCKDOWN THE STATUS WILL CHANGE TO LOCK.

Hardware Group No. 12

For use on Door #(s):
E117A E117B

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
5	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	ELECTRIFIED HINGE (HW)	73696 POE - PROVIDED BY INTEGRATOR		652	MCK
1	EA	FIRE RATED REMOVABLE MULLION	M200F-102S		689	YAL
1	EA	ELECTRONIC EXIT DEVICE TRIM (PoE)	CORBIN-RUSSWIN IN220 - PSA LEVER - PROVIDED BY INTEGRATOR		626	C-R
1	EA	FIRE EXIT HARDWARE	7150F-ECK1		630	YAL
1	EA	FIRE EXIT HARDWARE	7150F-ECK1-SPAR05493		630	YAL
1	EA	CYLINDER	KEYED TO OWNERS YALE KEY SYSTEM - COORDINATE WITH OWNER		626	YAL
2	EA	SURFACE CLOSER	4040XP EDA		689	LCN
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
2	EA	FIRE/LIFE WALL MAG	SEM7850 (COORDINATE VOLTAGE AS REQ'D)		689	LCN
1	EA	MEETING STILE	8217S		BK	ZER
1	EA	GASKETING	488S		BK	ZER
1	EA	POE WIRE HARNESS (HINGE TO LOCK X HINGE TO CEILING)	94212/3 X 94217 - PROVIDED BY INTEGRATOR			MCK

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

THE WALL MAGNETS SHALL BE WIRED TO THE FIRE ALARM PANEL THROUGH A SET OF NORMALLY-CLOSED, DRY CONTACTS (SUPPLIED BY THE FIRE ALARM CONTRACTOR) AND LOCKDOWN SYSTEM.

DOORS NORMALLY HELD OPEN BY MAGNETIC HOLD OPENS. MAGNETIC HOLD OPENS ARE WIRED TO THE FIRE ALARM AND SECURITY SYSTEM. WHEN SYSTEM IS ACTIVATED, THE MAGNETS RELEASE, AND THE DOORS CLOSE AND LOCK. DOORS CAN ALSO BE MANUALLY RELEASED FROM THE MAGNETS.

LOCKSET IS NORMALLY SECURE. INSIDE LEVER ALWAYS ALLOWS FREE EGRESS. PRESENTING VALID CREDENTIAL TO CARD READER WILL MOMENTARILY UNLOCK LOCK AND ALLOW ENTRY. VALID TOGGLE CREDENTIAL CAN PROVIDE PASSAGE STATUS. DURING LOCKDOWN THE STATUS WILL CHANGE TO LOCK.

Hardware Group No. 13

For use on Door #(s):
E116B

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD EPT		628	IVE
2	EA	POWER TRANSFER	EPT10		689	VON
1	EA	REMOVABLE MULLION	KRM200-102S		689	YAL
1	EA	ELEC PANIC HARDWARE	7150-B-634F-ECK1-LESS DOGGING		630	YAL
1	EA	ELEC PANIC HARDWARE	7150-MELR-B-632F-ECK1-LESS DOGGING		630	YAL
1	EA	MORTISE CYLINDER	KEYED TO OWNERS YALE KEY SYSTEM - COORDINATE WITH OWNER		626	YAL
1	EA	RIM CYLINDER	KEYED TO OWNERS YALE KEY SYSTEM - COORDINATE WITH OWNER		626	YAL
2	EA	OH STOP	100S		630	GLY
2	EA	SURFACE CLOSER	4040XP EDA		689	LCN
2	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		689	LCN
2	EA	DOOR SWEEP	8192AA		AA	ZER
1	EA	THRESHOLD	655A		A	ZER
1	EA	MULLION SEAL	8780N		BK	ZER
1	EA	CARD READER	PROVIDED BY SECURITY CONTRACTOR			
2	EA	DOOR CONTACT	679-05HM		BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY PROVIDER WEATHERSTRIP BY DOOR/FRAME MANUFACTURER			VON

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOORS NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY RETRACT THE PANIC DEVICE LATCH ALLOWING ACCESS. THE REQUEST TO EXIT FEATURE OF THE DEVICES TO SHUNT THE ALARM OUTPUT OF THE DOOR CONTACTS DURING VALID EGRESS. DOOR CONTACTS MONITOR WHETHER THE DOORS ARE OPENED, CLOSED OR HELD OPEN TOO LONG. DOORS TO REMAIN LOCKED WITH LOSS OF POWER OR ACTIVATION OF LOCKDOWN SYSTEM. FREE EGRESS AT ALL TIMES.

Hardware Group No. 14

For use on Door #(s):
E117C

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
2	EA	CONT. HINGE	112HD EPT			628	IVE
2	EA	POWER TRANSFER	EPT10			689	VON
1	EA	REMOVABLE MULLION	KRM200-102S			689	YAL
1	EA	ELEC PANIC HARDWARE	7150-B-634F-ECK1-LESS DOGGING			630	YAL
1	EA	ELEC PANIC HARDWARE	7150-MELR-B-632F-ECK1-LESS DOGGING			630	YAL
1	EA	MORTISE CYLINDER	KEYED TO OWNERS YALE KEY SYSTEM - COORDINATE WITH OWNER			626	YAL
1	EA	RIM CYLINDER	KEYED TO OWNERS YALE KEY SYSTEM - COORDINATE WITH OWNER			626	YAL
2	EA	OH STOP & HOLDER	100H			630	GLY
2	EA	SURFACE CLOSER	4040XP EDA			689	LCN
2	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)			689	LCN
2	EA	DOOR SWEEP	8192AA			AA	ZER
1	EA	THRESHOLD	655A			A	ZER
1	EA	MULLION SEAL	8780N			BK	ZER
1	EA	CARD READER	PROVIDED BY SECURITY CONTRACTOR				
2	EA	DOOR CONTACT	679-05HM			BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY PROVIDER WEATHERSTRIP BY DOOR/FRAME MANUFACTURER				VON

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOORS NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY RETRACT THE PANIC DEVICE LATCH ALLOWING ACCESS. THE REQUEST TO EXIT FEATURE OF THE DEVICES TO SHUNT THE ALARM OUTPUT OF THE DOOR CONTACTS DURING VALID EGRESS. DOOR CONTACTS MONITOR WHETHER THE DOORS ARE OPENED, CLOSED OR HELD OPEN TOO LONG. DOORS TO REMAIN LOCKED WITH LOSS OF POWER OR ACTIVATION OF LOCKDOWN SYSTEM. FREE EGRESS AT ALL TIMES.

Hardware Group No. 15

For use on Door #(s):
E101A

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112HD EPT		628	IVE
2	EA	POWER TRANSFER	EPT10		689	VON
1	EA	REMOVABLE MULLION	KRM200-102S		689	YAL
1	EA	ELEC PANIC HARDWARE	7150-MELR-B-634F-ECK1-LESS DOGGING		630	YAL
1	EA	ELEC PANIC HARDWARE	7150-MELR-B-S-632F-ECK1-LESS DOGGING		630	YAL
1	EA	MORTISE CYLINDER	KEYED TO OWNERS YALE KEY SYSTEM - COORDINATE WITH OWNER		626	YAL
1	EA	RIM CYLINDER	KEYED TO OWNERS YALE KEY SYSTEM - COORDINATE WITH OWNER		626	YAL
2	EA	OH STOP	100S		630	GLY
1	EA	SURFACE CLOSER	4040XP EDA		689	LCN
1	EA	SURF. AUTO OPERATOR	4642 WMS		689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		689	LCN
1	EA	WEATHER RING	8310-801			LCN
1	EA	RELAY/DOOR SEQUENCER	8310-845			LCN
1	EA	ACTUATOR, WALL MOUNT	8310-853T		630	LCN
1	EA	ACTUATOR, WALL MOUNT	8310-855 - SHARED W/DOOR E101B		630	LCN
2	EA	FLUSH MOUNT BOX	8310-867F			LCN
2	EA	DOOR SWEEP	8192AA		AA	ZER
1	EA	THRESHOLD	655A		A	ZER
1	EA	MULLION SEAL	8780N		BK	ZER
1	EA	CARD READER	PROVIDED BY SECURITY CONTRACTOR			
2	EA	DOOR CONTACT	679-05HM		BLK	SCE
1	EA	POWER SUPPLY	PS902 900-4RL - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY PROVIDER WEATHERSTRIP BY DOOR/FRAME MANUFACTURER			VON

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOORS NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY RETRACT THE PANIC DEVICE LATCH (ALLOWING ACCESS) AND ACTIVATE EXTERIOR AUTO OPERATOR ACTUATOR. PUSHING EXTERIOR AUTO OPERATOR ACTUATOR AT THIS TIME WILL SIGNAL AUTO OPERATOR TO MOMENTARILY OPEN THE DOOR. PUSH INTERIOR ACTUATOR AT ANY TIME WILL MOMENTARILY RETRACT THE PANIC DEVICE LATCH AND SIGNAL AUTO OPERATOR TO MOMENTARILY OPEN THE DOOR.

DEVICES ARE ALSO CAPABLE OF BEING ELECTRONICALLY DOGGED DOWN FOR CERTAIN TIMES OF THE DAY VIA THE ACCESS CONTROL SYSTEM, THUS IN PUSH/PULL MODE. PUSHING EITHER AUTO OPERATOR ACTUATOR WILL SIGNAL AUTO OPERATOR TO MOMENTARILY OPEN THE DOOR.

THE REQUEST TO EXIT FEATURE OF THE DEVICES TO SHUNT THE ALARM OUTPUT OF THE DOOR CONTACTS DURING VALID EGRESS. DOOR CONTACTS MONITOR WHETHER THE DOORS ARE OPENED, CLOSED OR HELD OPEN TOO LONG. DOORS TO REMAIN LOCKED WITH LOSS OF POWER OR ACTIVATION OF LOCKDOWN SYSTEM. FREE EGRESS AT ALL TIMES.

Hardware Group No. 16

For use on Door #(s):
E104A

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112HD		628	IVE
1	EA	PANIC HARDWARE	7100-632F-ECK1-LESS DOGGING		630	YAL
1	EA	RIM CYLINDER	KEYED TO OWNERS YALE KEY SYSTEM - COORDINATE WITH OWNER		626	YAL
1	EA	ELECTRIC STRIKE	4850-PoE		630	TRN
1	EA	SURFACE CLOSER	4040XP EDA		689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		689	LCN
1	EA	WALL STOP	WS406/407CVX		630	IVE
1	EA	DOOR SWEEP	8192AA		AA	ZER
1	EA	THRESHOLD	655A		A	ZER
1	EA	CARD READER	PROVIDED BY SECURITY CONTRACTOR			
1	EA	DOOR CONTACT	679-05HM		BLK	SCE
1	EA	MOTION SENSOR	SCANII WEATHERSTRIP BY DOOR/FRAME MANUFACTURER		BLK	SCE

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY UNLOCK THE ELECTRIC STRIKE ALLOWING ACCESS. THE MOTION SENSOR TO SHUNT THE ALARM OUTPUT OF THE DOOR CONTACT DURING VALID EGRESS. DOOR CONTACT MONITORS WHETHER THE DOOR IS OPENED, CLOSED OR HELD OPEN TOO LONG. DOOR TO REMAIN LOCKED WITH LOSS OF POWER OR ACTIVATION OF LOCKDOWN SYSTEM. FREE EGRESS AT ALL TIMES.

Hardware Group No. 17

For use on Door #(s):
E114B E115B E118B

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
1	EA	CONT. HINGE	112HD			628	IVE
1	EA	PANIC HARDWARE	7150-ECK1-LESS DOGGING			630	YAL
1	EA	OH STOP	100S			630	GLY
1	EA	SURFACE CLOSER	4040XP EDA			689	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)			689	LCN
1	EA	DOOR SWEEP	8192AA			AA	ZER
1	EA	THRESHOLD	566A			A	ZER
1	EA	DOOR CONTACT	679-05HM WEATHERSTRIP BY DOOR/FRAME MANUFACTURER		✓	BLK	SCE

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR CONTACT MONITORS WHETHER THE DOOR IS OPENED, CLOSED OR HELD OPEN TOO LONG.

Hardware Group No.18

For use on Door #(s):
E113A

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
8	EA	HINGE	5BB1HW 5 X 4.5 NRP			652	IVE
2	EA	FIRE EXIT HARDWARE	7160F-PB628F-LBR-ECK1 - AUXILIARY FIRE LATCH (AS REQ'D)			630	YAL
2	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE			689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS			630	IVE
2	EA	FIRE/LIFE WALL MAG	SEM7850 (COORDINATE VOLTAGE AS REQ'D) - EXTENSION RODS (AS REQ'D)		✓	689	LCN
1	EA	MEETING STILE	8217S			BK	ZER
1	EA	GASKETING	488S			BK	ZER

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

THE WALL MAGNETS SHALL BE WIRED TO THE FIRE ALARM PANEL THROUGH A SET OF NORMALLY-CLOSED, DRY CONTACTS (SUPPLIED BY THE FIRE ALARM CONTRACTOR).

MAGNETIC HOLD OPENS ARE CONTINUOUSLY ENERGIZED ALLOWING THE DOORS TO BE HELD OPEN UNDER NORMAL BUILDING CONDITIONS. WHEN THE FIRE ALARM IS ACTIVATED, POWER TO THE MAGNETIC HOLD OPEN IS DISCONNECTED CAUSING THE DOOR CLOSER TO CLOSE THE DOORS.

END OF SECTION

SECTION 08 71 00 - DOOR HARDWARE

~~(ADDENDUM 001)~~ ADDENDUM 2
DATE: 8/29/2023

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes commercial door hardware for the following:
   1. Swinging doors.
   2. Sliding doors.
   3. Other doors to the extent indicated.

B. Door hardware includes, but is not necessarily limited to, the following:
   1. Mechanical door hardware.
   2. Electromechanical door hardware.
   3. Automatic operators.
   4. Cylinders specified for doors in other sections.

C. Related Sections:
   1. Division 08 Section “Hollow Metal Doors and Frames”.
   2. Division 08 Section “Flush Wood Doors”.
   3. Division 08 Section “Aluminum-Framed Entrances and Storefronts”.
   4. Division 28 Section “Access Control Hardware Devices”.

D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
   1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
   2. ICC/IBC - International Building Code.
   3. NFPA 70 - National Electrical Code.
   4. NFPA 80 - Fire Doors and Windows.
   5. NFPA 101 - Life Safety Code.
   6. NFPA 105 - Installation of Smoke Door Assemblies.
   7. UL/ULC and CSA C22.2 - Standards for Automatic Door Operators Used on Fire and Smoke Barrier Doors and Systems of Doors.
   8. State Building Codes, Local Amendments.

E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:
   1. ANSI/BHMA Certified Product Standards - A156 Series.
   2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
   3. ANSI/UL 294 - Access Control System Units.
   4. UL 305 - Panic Hardware.
   5. ANSI/UL 437- Key Locks.

1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
3. Content: Include the following information:
    a. Type, style, function, size, label, hand, and finish of each door hardware item.
    b. Manufacturer of each item.
    c. Fastenings and other pertinent information.
    d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
    e. Explanation of abbreviations, symbols, and codes contained in schedule.
    f. Mounting locations for door hardware.
    g. Door and frame sizes and materials.
    h. Warranty information for each product.
4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

C. Shop Drawings: Details of electrified access control hardware indicating the following:

1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
    a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
    b. Complete (risers, point-to-point) access control system block wiring diagrams.
    c. Wiring instructions for each electronic component scheduled herein.
2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.

D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

E. Informational Submittals:

1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

F. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.

1.4 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).

C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.

E. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.

F. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.

G. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:

1. Function of building, purpose of each area and degree of security required.
2. Plans for existing and future key system expansion.
3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.

H. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.

1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.
4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures

I. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

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

1.6 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.

C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.7 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
2. Faulty operation of the hardware.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
4. Electrical component defects and failures within the systems operation.

C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.

D. Special Warranty Periods:

1. Ten years for mortise locks and latches.
2. Five years for exit hardware.
3. Twenty five years for manual overhead door closer bodies.
4. Five years for motorized electric latch retraction exit devices.
5. Two years for electromechanical door hardware, unless noted otherwise.

1.8 MAINTENANCE SERVICE

A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.

B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:

1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.

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

2.2 HANGING DEVICES

A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity:

a. Two Hinges: For doors with heights up to 60 inches
b. Three Hinges: For doors with heights 61 to 90 inches
c. Four Hinges: For doors with heights 91 to 120 inches
d. For doors with heights more than 120 inchesprovide 4 hinges, plus 1 hinge for every 30 inchesof door height greater than 120 inches

2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:

a. Widths up to 3’0”: 4-1/2” standard or heavy weight as specified.
b. Sizes from 3’1” to 4’0”: 5” standard or heavy weight as specified.

3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:

a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.

4. Hinge Options: Comply with the following:

a. Non-removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.

5. Manufacturers:

a. Ives (IV).
b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK).
c. Stanley (ST).

B. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 certified continuous geared hinge. with minimum 0.120-inch thick extruded 6060 T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.

1. Manufacturers:

a. Ives (IV).
b. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).

2.3 POWER TRANSFER DEVICES

A. Electrified Quick Connect Transfer Hinges: Provide electrified transfer hinges with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets with a 1-year warranty. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

1. Manufacturers:

a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - QC (# wires) Option.

B. Electrified Quick Connect Data Transfer Hinges: Provide combined electrified power and Ethernet data transfer hinges with Molex™ standardized plug connectors to accommodate electrified functions with a 1-year warranty as specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

1. Data transfer hinges feature two 6-position and two 4-position Molex connectors, 9 multi-strand wires; 2 twisted pairs (26 AWG), 4 straight conductors (28 gauge) and 1 straight conductor (22 AWG) with concealed plug connectors eliminating the need for separate or exposed wiring. Rated 350 mA continuous @ 48 volts DC nominal, the hinge is capable of two PoE wiring configurations:

a. Power over Data (5 wire): Power and Data supplied together over the 2 twisted 26 AWG) pairs. The 22 AWG conductor is used for the earth ground connection.
b. Data with Power over Spares (9 wire): Data over 2 twisted (26 AWG) pairs with Power over spare pairs 94 straight 28 AWG conductors). The 22 Awg conductor is used for earth ground connection.

2. Manufacturers:

a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - PoE Series.

C. Concealed Quick Connect Electric Data Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified access control door hardware. Furnish with Molex™ or RJ-45 standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

1. Manufacturers:

a. Securitron (SU) - CEPT-C5E Series.

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

1. Manufacturers:

a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - QC-C Series.
b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - PoE Series.
c. No Substitution.

2.4 DOOR OPERATING TRIM

A. Flush Bolts and Surface Bolts: ANSI/BHMA A156.3 and A156.16, Grade 1, certified.

1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.
2. Furnish dust proof strikes for bottom bolts.
3. Surface bolts to be minimum 8” in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.
5. Manufacturers:
    a. Ives (IV).
    b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

B. Coordinators: ANSI/BHMA A156.3 certified door coordinators consisting of active-leaf, hold-open lever and inactive-leaf release trigger. Model as indicated in hardware sets.
1. Manufacturers:
    a. Ives (IV).
    b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

C. Door Push Plates and Pulls: ANSI/BHMA A156.6 certified door pushes and pulls of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.
1. Push/Pull Plates: Minimum .050 inchthick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
4. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.
5. Manufacturers:
    a. Ives (IV).
    b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
    c. Trimco (TR).

2.5 CYLINDERS AND KEYING

A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.

B. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.

C. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:
1. Threaded mortise cylinders with rings and cams to suit hardware application.
2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
4. Tubular deadlocks and other auxiliary locks.
5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
6. Keyway: Manufacturer’s Standard.

D. Keying System: Match existing Yale Key System.

E. Keying System: Each type of lock and cylinders to be factory keyed.
   1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
   2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
   3. Existing System: Key locks to existing Yale system as directed by the Owner.

F. Key Quantity: Provide the following minimum number of keys:
   1. Change Keys per Cylinder: Two (2)
   2. Master Keys (per Master Key Level/Group): Five (5).
   3. Construction Keys (where required): Ten (10).
   4. Construction Control Keys (where required): Two (2).
   5. Permanent Control Keys (where required): Two (2).

G. Key Registration List (Bitting List):
   1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
   2. Provide transcript list in writing or electronic file as directed by the Owner.

2.6 MECHANICAL LOCKS AND LATCHING DEVICES

A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.
   1. Where specified, provide status indicators with highly reflective color and wording for “locked/unlocked” or “vacant/occupied” with custom wording options if required. Indicator to be located above the cylinder with the inside thumb-turn not blocking the visibility of the indicator status. Indicator window size to be a minimum of 2.1” x 0.6” with a curved design allowing a 180 degree viewing angle with protective covering to prevent tampering.
   2. Manufacturers:
      a. Yale (YA) – 8800FL Series.
      b. No Substitution.

B. Cylindrical Locks. ANSI/BHMA A156.2, Series 4000, Operational Grade 1 Certified Products Directory (CPD) listed.
   1. Locks shall meet or exceed the requirements of ANSI/BHMA A156.2 Series 4000, Grade 1 with all standard trims, as follows:
      a. Cycle Test: ANSI/BHMA A156.2 Grade 1 requirements with no lever sag.
      b. Abusive Locked Lever Torque: Exceed 3,100 in-lb with no entry; lock to maintain egress functionality in compliance with BHMA certification requirements.
      c. Offset Lever Pull: Exceed 1,600 lbs with no entry (8 times ANSI/BHMA A156.2 requirements).
      d. Latch Retraction with Preload: Exceed 100 lb preload while maintaining ANSI/BHMA requirements for operation in warped doors (2 times ANSI/BHMA A156.2 requirements).
   2. Vertical Impact: Exceed 100 vertical impacts (20 times ANSI/BHMA A156.2 requirements).
   3. Furnish with solid cast levers, standard 2 3/4” backset, and 1/2" (3/4" at rated paired openings) throw brass or stainless steel latchbolt.
   4. Locks are to be non-handed and fully field reversible.
   5. Manufacturers:
      a. Yale (YA) – 5400LN Series

b. No Substitution.

2.7 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

2.8 ELECTRIC STRIKES

A. Surface Mounted Rim Electric Strikes: Surface mounted rim exit device electric strikes tested to ANSI/BHMA A156.31, Grade 1, and UL Listed for both Burglary Resistance and for use on fire rated door assemblies. Construction includes internally mounted solenoid with two heavy-duty, stainless steel locking mechanisms operating independently to provide tamper resistance. Strikes tested for a minimum of 500,000 operating cycles. Provide strikes with 12 or 24 VDC capability supplied standard as fail-secure unless otherwise specified. Option available for latchbolt and latchbolt strike monitoring indicating both the position of the latchbolt and locked condition of the strike. Strike requires no cutting to the jamb prior to installation.

1. Manufacturers:
   a. HES (HS) - 9400/9500/9600/9700/9800 Series.

B. Provide electric strikes with in-line power controller and surge suppressor by the same manufacturer as the strike with the combined products having a five year warranty.

2.9 CONVENTIONAL EXIT DEVICES

A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:

1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.
2. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer’s catalog and template book for specific requirements.
3. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.
4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.

5. Flush End Caps: Provide flush end caps made of architectural metal in the same finish as the devices as in the Hardware Sets. Plastic end caps will not be acceptable.
6. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.
    a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
    b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.
7. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
8. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2” wide stiles.
9. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
10. Rail Sizing: Provide exit device rails factory sized for proper door width application.
11. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.

B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets. Exit device latch to be stainless steel, pullman type, with deadlock feature.
    1. Manufacturers:
        a. Corbin Russwin Hardware (RU) - ED4000 / ED5000 Series.
        b. Yale (YA) – 7000 Series.
        c. As indicated in hardware sets.

2.10 DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:
    1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
    2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
    3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
    4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
    5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
    6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.
    1. Manufacturers:

a. LCN Closers (LC) - 4040 Series.
b. No Substitution.

2.11 SURFACE MOUNTED CLOSER HOLDERS

A. Electromagnetic Door Holders: Certified ANSI A156.15 electromagnetic door holder/releases with a minimum 20 to 40 pounds holding power and single coil construction able to accommodate.12VDC, 24VAC, 24VDC and 120VAC. Coils to be independently wound, employing an integral fuse and armatures to include a positive release button.

1. Manufacturers:

a. LCN Door Closers (LC) - SEM7800 Series.
b. Rixson (RF) - 980/990 Series.

2.12 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1” LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
3. Where plates are applied to fire rated doors with the top of the plate more than 16” above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer’s catalog and template book for specific requirements for size and applications.
4. Protection Plates: ANSI/BHMA A156.6 certified protection plates (kick, armor, or mop), fabricated from the following:

a. Stainless Steel: 300 grade, 050-inch thick.

5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
6. Manufacturers:

a. Ives (IV).
b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

2.13 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 certified door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Manufacturers:

a. Ives (IV).
b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

C. Overhead Door Stops and Holders: ANSI/BHMA A156.8, Grade 1 Certified Products Directory (CPD) listed overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.

1. Manufacturers:

a. Rixson Door Controls (RF).
b. Glynn Johnson (GL).

2.14 ARCHITECTURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Manufacturers:

1. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).
2. Zero (ZE).
3. National Guard Products (NG).

2.15 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.16 FINISHES

A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware

C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.

C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

A. Field Inspection (Punch Report): Reference Division 01 Sections “Closeout Procedures”. Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.

1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.

3.5 ADJUSTING

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

3.6 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.

B. Clean adjacent surfaces soiled by door hardware installation.

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

3.7 DEMONSTRATION

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

3.8 DOOR HARDWARE SETS

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

1. Quantities listed are for each pair of doors, or for each single door.
2. The supplier is responsible for handing and sizing all products.
3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.
4. At existing openings with new hardware the supplier shall field inspect existing conditions prior to the submittal stage to verify the specified hardware will work as required. Provide alternate solutions and proposals as needed.

B. Refer to Section 08 06 71, Door Hardware Sets, for hardware sets.

C. Manufacturer's Abbreviations:

1. MK – McKinney
2. PE – Pemko
3. SU – Securitron
4. RO – Rockwood
5. RU - Corbin Russwin
6. OT – Other
7. YA - Yale
8. HS – HES
9. RF – Rixson
10. SG – Securitech Group

PART 4 - DOOR HARDWARE SETS

Set: 1.0

Doors: A122B, B104B

2	Continuous Hinge	CFM-SLF-HD1		PE	087100
1	Removable Mullion	KRM200		YA	087100
2	Rim Exit Device, Exit Only	7150 ECK1 Less Dogging	630	YA	087100
1	Mortise Cylinder	Keyed to Owner's Yale Key System	626	YA	087100
2	Conc Overhead Stop	1-x36	630	RF	087100
2	Surface Closer	4040XP EDA	689	LC	087100
1	Threshold	2001AT MSES25SS		PE	087100
1	Weatherstrip	Integral to door/frame assembly		OT	08 4113
2	Sweep	345ANB TKSP		PE	087100
2	Door Position Switch	DPS-M	BK	SU	087100

Notes:

Exit Only. Free egress at all times.
Door position switches monitors door open/closed/propped.

Set: 2.0

Doors: B103A

2	Continuous Hinge	CFM-HD1		PE	087100	
1	Removable Mullion	KRM200		YA	087100	
1	Rim Exit Device, Exit Only	7150 ECK1 Less Dogging	630	YA	087100	
1	Rim Exit Device, Nightlatch	7150 632F ECK1 Less Dogging	630	YA	087100	
1	Rim Cylinder	Match Owner's Yale Key System	626	YA	087100	
1	Mortise Cylinder	Keyed to Owner's Yale Key System	626	YA	087100	
2	Conc Overhead Stop	1-x36	630	RF	087100	
2	Surface Closer	4040XP EDA	689	LC	087100	
2	Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100	
1	Threshold	2001AT MSES25SS		PE	087100	
1	Gasketing	S88BL		PE	087100	
1	Astragal	S772C		PE	087100	
2	Sweep	345ANB TKSP		PE	087100	

Notes:

Exit Only. Free egress at all times.
Door position switches monitors door open/closed/propped.

Set: 3.0

Doors: A117A, A138A

1	Continuous Hinge	CFM-SLF-HD1		PE	087100	
1	Fixed Aluminum Mullion	Provided with section 084113		OT	084113	
1	Rim Exit Device, Nightlatch	7150 632F ECK1 Less Dogging	630	YA	087100	
1	Rim Cylinder	Match Owner's Yale Key System	626	YA	087100	
1	Electric Strike	9700	630	HS	087100	⚡
1	SMART Pac Bridge Rectifier	2005M3		HS	087100	⚡
1	Conc Overhead Stop	1-x36	630	RF	087100	
1	Surface Closer	4040XP EDA	689	LC	087100	
1	Threshold	2001AT MSES25SS		PE	087100	
1	Weatherstrip	Integral to door/frame assembly		OT	08 4113	
1	Sweep	345ANB TKSP		PE	087100	
1	ElectroLynx Harness	QC-C1500P (electric strike to J-Box)		MK	087100	⚡
1	Door Position Switch	DPS-M	BK	SU	087100	⚡
1	Motion Sensor	Provided by Security Contractor		OT	281300	⚡

1	Card Reader	Provided by Security Contractor	OT	281300	

Notes:

Door normally closed and locked. Presenting valid credential to the reader momentarily releases strike allowing access. Motion sensor to shunt door monitoring upon egress.
Free egress at all times.
Fail-secure.

Set: 4.0

Doors: A117B, A120A, A133B, A134B, A138B

1	Continuous Hinge	CFM-SLF-HD1		PE	087100	
1	Rim Exit Device, Exit Only	7150 ECK1 Less Dogging	630	YA	087100	
1	Conc Overhead Stop	1-x36	630	RF	087100	
1	Surface Closer	4040XP EDA	689	LC	087100	
1	Threshold	2001AT MSES25SS		PE	087100	
1	Weatherstrip	Integral to door/frame assembly		OT	08 4113	
1	Sweep	345ANB TKSP		PE	087100	
1	Door Position Switch	DPS-M	BK	SU	087100	

Notes:

Exit only. No outside operation.
Free egress at all times.

Set: 4.1

Doors: A201A

1	Continuous Hinge	CFM-SLF-HD1		PE	087100
1	Storeroom Lock	PB5405LN	626	YA	087100
1	Surface Closer	4040XP EDA	689	LC	087100
1	Wall Stop	406	US32D	RO	087100
1	Threshold	2001AT MSES25SS		PE	087100
1	Weatherstrip	Integral to door/frame assembly		OT	08 4113
1	Sweep	345ANB TKSP		PE	087100
1	Door Position Switch	DPS-M	BK	SU	087100

Notes:

Key side on mechanical mezzanine. Free ingress at all times.

Set: 5.0

Doors: A139A

6	Hinge (heavy weight)	T4A3786	US26D	MK	087100	
2	Electric Power Transfer	CEPT-C5E	630	SU	087100	
1	Removable Mullion	908BKM		RU	087100	
1	IN220 Rim Exit	ED5200AN B PR9133ET-IN220 B BIPS	630	RU	281500	
1	IN220 Rim Exit	ED5200AN B PR9134ET-IN220	630	RU	281500	

		B BIPS				
1	Mortise Cylinder	Match Owner's Yale Key System	626	YA	087100	
1	Rim Cylinder	Match Owner's Yale Key System	626	YA	087100	
1	Surface Closer	4040XP EDA	689	LC	087100	
1	Surface Closer	4040XP SCUSH	689	LC	087100	
2	Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100	
1	Wall Stop	406	US32D	RO	087100	
1	Gasketing	S88BL		PE	087100	
1	Astragal	S772C		PE	087100	
1	ElectroLynx Harness	PoE-C1500P (power transfer to J-Box)		MK	087100	⚡
1	ElectroLynx Harness	PoE-C (power transfer to lock)		MK	087100	⚡

Notes:

Doors can be locked / unlocked on schedule
Presentation of valid credential at card reader unlocks electric lever allowing ingress.
Free egress at all times.
Fail-secure.

Set: 6.0

Doors: A122A

6	Hinge (heavy weight)	T4A3786	US26D	MK	087100	
1	Electric Power Transfer	CEPT-C5E	630	SU	087100	⚡
1	Removable Mullion	908BKM		RU	087100	
1	IN220 Rim Exit	ED5200AN B PR9133ET-IN220 B BIPS	630	RU	281500	⚡
1	Rim Exit, Exit Only	ED5200A	630	RU	281500	⚡
1	Mortise Cylinder	Match Owner's Yale Key System	626	YA	087100	
1	Rim Cylinder	Match Owner's Yale Key System	626	YA	087100	
1	Surface Closer	4040XP EDA	689	LC	087100	
1	Surface Closer	4040XP SCUSH	689	LC	087100	
2	Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100	
1	Wall Stop	406	US32D	RO	087100	
1	Gasketing	S88BL		PE	087100	
1	Astragal	S772C		PE	087100	
1	ElectroLynx Harness	PoE-C1500P (power transfer to J-Box)		MK	087100	⚡
1	ElectroLynx Harness	PoE-C (power transfer to lock)		MK	087100	⚡

Notes:

Doors can be locked / unlocked on schedule
Presentation of valid credential at card reader unlocks electric lever allowing ingress.
Free egress at all times.
Fail-secure.

Set: 7.0

Doors: A139B

3	Hinge (heavy weight)	T4A3786	US26D	MK	087100	
1	Electric Power Transfer	CEPT-C5E	630	SU	087100	⚡
1	IN220 Rim Exit	ED5200AN B PR9134ET-IN220 B BIPS	630	RU	281500	⚡
1	Rim Cylinder	Match Owner's Yale Key System	626	YA	087100	
1	Surface Closer	4040XP SCUSH	689	LC	087100	
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100	
1	Gasketing	S88BL		PE	087100	
1	Astragal	S772C		PE	087100	
1	ElectroLynx Harness	PoE-C1500P (power transfer to J-Box)		MK	087100	⚡
1	ElectroLynx Harness	PoE-C (power transfer to lock)		MK	087100	⚡

Notes:

Doors can be locked / unlocked on schedule
Presentation of valid credential at card reader unlocks electric lever allowing ingress.
Free egress at all times.
Fail-secure.

Set: 8.0

Doors: A133A, A134A

3	Hinge (heavy weight)	T4A3786	US26D	MK	087100	
1	Electric Power Transfer	CEPT-C5E	630	SU	087100	⚡
1	IN220 Rim Exit	ED5200AN B PR9134ET-IN220 B BIPS	630	RU	281500	⚡
1	Cylinder	Match Owner's Yale Key System	626	YA	087100	
1	Surface Closer	4040XP RW/PA	689	LC	087100	
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100	
1	Electromagnetic Holder	994M	689	RF	087100	⚡
1	Gasketing	S88BL		PE	087100	
1	ElectroLynx Harness	PoE-C1500P (power transfer to J-Box)		MK	087100	⚡
1	ElectroLynx Harness	PoE-C (power transfer to lock)		MK	087100	⚡

Notes:

Doors can be held open on door / wall mounted magnetic hold open devices.
Magnetic hold open devices to release at activation of fire alarm and lock down systems.
Door normally closed and locked.
Presentation of valid credential at card reader unlocks electric lock allowing ingress.
Free egress at all times.
Fail-secure.

~~**Set: 9.0**~~

~~Doors: C109A~~

~~3~~	~~Hinge (heavy weight)~~	~~T4A3786~~	~~US26D~~	~~MK~~	~~087100~~	
~~1~~	~~Electric Power Transfer~~	~~TSB-C~~		~~SU~~	~~087100~~	~~⚡~~

1	IN220 Rim Exit	ED5200AN B PR9134ET-IN220 B BIPS	630	RU	281500	⚡
1	Cylinder	Match Owner's Yale Key System	626	YA	087100	
1	Surface Closer	4040XP RW/PA	689	LC	087100	
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100	
1	Electromagnetic Holder	994M	689	RF	087100	⚡
1	Gasketing	S88BL		PE	087100	
1	ElectroLynx Harness	PoE-C1500P (power transfer to J-Box)		MK	087100	⚡
1	ElectroLynx Harness	PoE-C (power transfer to lock)		MK	087100	⚡

Notes:

Existing frame to remain. Field verify hinge preps.
Doors can be held open on door / wall mounted magnetic hold open devices.
Magnetic hold open devices to release at activation of fire alarm and lock down systems.
Door normally closed and locked.
Presentation of valid credential at card reader unlocks electric lock allowing ingress.
Free egress at all times.
Fail-secure.

Set: 10.0

Doors: A126A, A127A, A128A

3	Hinge (heavy weight)	T4A3786	US26D	MK	087100	
1	Electric Power Transfer	CEPT-C5E	630	SU	087100	⚡
1	Access Control Lock	CL33134 PZD IN220 B BIPS LC	626	RU	281500	⚡
1	Cylinder	Match Owner's Yale Key System	626	YA	087100	
1	Surface Closer	4040XP RW/PA	689	LC	087100	
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100	
1	Electromagnetic Holder	994M	689	RF	087100	⚡
1	Gasketing	S88BL		PE	087100	
1	ElectroLynx Harness	PoE-C1500P (power transfer to J-Box)		MK	087100	⚡
1	ElectroLynx Harness	PoE-C (power transfer to lock)		MK	087100	⚡

Notes:

Doors can be held open on door / wall mounted magnetic hold open devices.
Magnetic hold open devices to release at activation of fire alarm and lock down systems.
Door normally closed and locked.
Presentation of valid credential at card reader unlocks electric lock allowing ingress.
Free egress at all times.
Fail-secure.

Set: 10.1

Doors: C112A

3	Hinge (heavy weight)	T4A3786	US26D	MK	087100

1	Electric Power Transfer	TSB-C	630	SU	087100
1	Access Control Lock	CL33134 PZD IN220 B BIPS LC	626	RU	281500
1	Cylinder	Match Owner's Yale Key System	626	YA	087100
1	Surface Closer	4040XP RW/PA	689	LC	087100
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100
1	Electromagnetic Holder	994M	689	RF	087100
1	Gasketing	S773BL		PE	087100
1	Gasketing	S44BL		PE	087100
1	Automatic Door Bottom	DPB411AE		PE	087100
1	ElectroLynx Harness	PoE-C1500P (power transfer to J-Box)		MK	087100
1	ElectroLynx Harness	PoE-C (power transfer to lock)		MK	087100

Notes:

Existing frame to remain. Field verify hinge preps.
Doors can be held open on door / wall mounted magnetic hold open devices.
Magnetic hold open devices to release at activation of fire alarm and lock down systems.
Door normally closed and locked.
Presentation of valid credential at card reader unlocks electric lock allowing ingress.
Free egress at all times.
Fail-secure.

Set: 11.0

Doors: A113A, A114A, A115A, A123A, A124A, A125A, A135A, A137A, A141A, A143A, A143B, D105A, D106A

3	Hinge (heavy weight)	T4A3786	US26D	MK	087100
1	Electric Power Transfer	CEPT-C5E	630	SU	087100
1	Access Control Lock	CL33134 PZD IN220 B BIPS LC	626	RU	281500
1	Cylinder	Match Owner's Yale Key System	626	YA	087100
1	Surface Closer	4040XP RW/PA	689	LC	087100
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100
1	Gasketing	S88BL		PE	087100
1	ElectroLynx Harness	PoE-C1500P (power transfer to J-Box)	MK	087100	
1	ElectroLynx Harness	PoE-C (power transfer to lock)		MK	087100

Notes:

Door normally closed and locked.
Presentation of valid credential at card reader unlocks electric lock allowing ingress.
Free egress at all times.
Fail-secure.
Gasketing not required at 141A.

Set: 12.0

Doors: A116A, D101A

6	Hinge (heavy weight)	T4A3786	US26D	MK	087100	
2	Concealed Vertical Rod, Classroom	7160F 626F LBR ECK	630	YA	087100	
2	Rim Cylinder	Match Owner's Yale Key System	626	YA	087100	
2	Surface Closer	4040XP RW/PA	689	LC	087100	
2	Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100	
2	Electromagnetic Holder	994M	689	RF	087100	⚡
1	Gasketing	S88BL		PE	087100	
1	Astragal	S772C		PE	087100	

Notes:

Doors to be normally held open on door / wall mounted magnetic hold open devices.
Magnetic hold open devices to release at activation of fire alarm.
Classroom function lever trim when doors are closed. Lock/unlock with key
Free egress at all times.

Set: 13.0

Doors: A129A

6	Hinge (heavy weight)	T4A3786	US26D	MK	087100	
2	Concealed Vertical Rod, Passage	7160F 628F LBR ECK	630	YA	087100	
2	Surface Closer	4040XP RW/PA	689	LC	087100	
2	Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100	
2	Electromagnetic Holder	994M	689	RF	087100	⚡
1	Gasketing	S88BL		PE	087100	
1	Astragal	S772C		PE	087100	

Notes:

Doors to be normally held open on door / wall mounted magnetic hold open devices.
Magnetic hold open devices to release at activation of fire alarm.
Passage lever function when doors are closed.
Free egress at all times.

Set: 14.0

Doors: A129B

6	Hinge (heavy weight)	T4A3786	US26D	MK	087100	
2	Concealed Vertical Rod, EO	7160F LBR ECK	630	YA	087100	
2	Surface Closer	4040XP RW/PA	689	LC	087100	
2	Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100	
2	Electromagnetic Holder	994M	689	RF	087100	⚡
1	Gasketing	S88BL		PE	087100	
1	Astragal	S772C		PE	087100	

Notes:

Doors to be normally held open on door / wall mounted magnetic hold open devices.
Magnetic hold open devices to release at activation of fire alarm.
Free egress at all times.

Set: 15.0

Doors: A119B, A131A

3	Hinge (heavy weight)	T4A3786	US26D	MK	087100
1	Storeroom Lock	PB5405LN	626	YA	087100
1	Surface Closer	4040XP RW/PA	689	LC	087100
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100
1	Wall Stop	406	US32D	RO	087100
1	Gasketing	S88BL		PE	087100

Set: 16.0

Doors: A119A

3	Hinge (heavy weight)	T4A3786	US26D	MK	087100
1	Office Lock	PB5404LN	626	YA	087100
1	Wall Stop	406	US32D	RO	087100

Set: 17.0

Doors: C105A

3	Hinge (heavy weight)	T4A3786	US26D	MK	087100
1	Classroom Lock	PB5408LN	626	YA	087100
1	Wall Stop	406	US32D	RO	087100

Set: 18.0

Doors: A132A

3	Hinge (heavy weight)	T4A3786	US26D	MK	087100
1	Classroom Lock	PB5408LN	626	YA	087100
1	Concealed OH Stop	1-x36	689	RF	087100

Set: 19.0

Doors: A121A

6	Hinge (heavy weight)	T4A3786	US26D	MK	087100
1	Flush Bolt	2845 / 2945	US26D	RO	087100
1	Dust Proof Strike	570	US26D	RO	087100
1	Classroom Lock	PB5408LN	626	YA	087100
1	Coordinator	2672	US28	RO	087100
1	Filler Bar	FB-1 / FB-2	US28	RO	087100
1	Surface Closer	4040XP EDA	689	LC	087100
1	Surface Closer	4040XP SCUSH	689	LC	087100

2	Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100
1	Wall Stop	406	US32D	RO	087100
1	Gasketing	S88BL		PE	087100
1	Astragal	S772C		PE	087100

Set: 20.0

Doors: A140A

3	Hinge (heavy weight)	T4A3786	US26D	MK	087100
1	Keyed Privacy Lock	PBR8840FL V21	626	YA	087100
1	Surface Closer	4040XP RW/PA	689	LC	087100
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100
1	Wall Stop	406	US32D	RO	087100
1	Gasketing	S88BL		PE	087100

Notes: Outside lever always locked. Key retracts latchbolt.
Deadbolt operated by key outside or thumbturn inside and controls Vacant/ Occupied indicator.
Anti-panic operation. Operating inside lever retracts latchbolt and deadbolt simultaneously.

Set: 21.0

Doors: A118A, A130A, A136A

3	Hinge (heavy weight)	T4A3786	US26D	MK	087100
1	Privacy Lock	PBR8802FL V21	626	YA	087100
1	Surface Closer	4040XP RW/PA	689	LC	087100
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO	087100
1	Wall Stop	406	US32D	RO	087100
1	Gasketing	S88BL		PE	087100

Set: 22.0

Doors: A112A

3	Hinge (heavy weight)	T4A3786	US26D	MK	087100
1	Multi-Point Lock	47PL33	626	SG	087100
1	Roller Latch	590	626	RO	087100
1	Concealed OH Stop	1-x36	689	RF	087100
1	Gasketing	379CPK		PE	087100
1	Door Bottom	434APKL		PE	087100
1	Threshold	175A		PE	087100

Notes: Three-point latching. Depress lever to project bolts. Releasing lever retracts all bolts. Roller latch at top is to hold door in closed position and prevent drifting when not in use.

END OF SECTION