

SECTION 087100 - DOOR HARDWARE**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General, Supplementary and Special Conditions and Division 01 Specification Sections, apply to this section.

1.2 SUMMARY

- A. This Section includes finish hardware.

1.3 PRODUCTS SUPPLIED BY OWNER AND INSTALLED BY CONTRACTOR (S.O.I.C.)

- A. The Owner has a National Account with Span Construction & Engineering Inc. to supply all products specified in this section. Door Hardware described in this section will be supplied directly by:

SPAN CONSTRUCTION & ENGINEERING, INC.

1841 Howard Road
Madera, CA 93637
Phone: (559) 661-1111
<http://spanconstruction.com>
Contact: Ernie Brandi
Email: spancostcosales@spanconstruction.com

1. Products will be delivered F.O.B. Jobsite.
2. Hardware installation, permit requirements, providing and installing conduit and wires to the entire Exit Door Alarm System and Receiving Access Door System is the responsibility of General Contractor as part of the Work.

1.4 FINAL INSPECTION OF HARDWARE INSTALLATION

- A. General Contractor is responsible for the final inspection of the finish hardware and installation of hardware, including testing hardware, to ensure that doors are functioning as intended. However, final inspection shall be performed by:

KINSHIP GROUP

1410 37th Street NW, Suite "A"
Auburn, Washington 98001
Phone: (253) 288-8455
Contact: DJ Hill
Email: CostcoTeam@kinshipgroup.com

- B. Kinship shall create a punch list of missing hardware components and other deficiencies that require corrections. Kinship shall submit punch list to the Architect, Warehouse Manager, General Contractor and other parties involved.
- C. Products will be delivered F.O.B. Jobsite. Erecting and installing these products is the General Contractor's responsibility.
- D. Hardware installation, permit requirements, providing and installing conduit and wires to the entire Exit Door Alarm System and Receiving Access Door System is the responsibility of General Contractor as part of the Work.

1.5 QUALITY ASSURANCE

A. Product Qualifications:

1. Manufacturers: Manufacturers and model numbers listed are intended for purposes of exact requirements. Except as shown, no substitutions will be allowed.
2. Fire-Rated Openings: Provide hardware for fire-rated openings in compliance with NFPA Standard No. 80. This requirement takes precedence over other requirements for such hardware.
3. Provide only hardware which has been tested and listed by UL or Warnock Hersey for the types and sizes or doors required, and complies with the requirements of the door and door frame labels.

B. Supplier Qualifications:

1. Finish hardware shall be supplied by recognized Builders' Hardware Distributor who has been furnishing hardware in the same area as the project for a period of not less than 5 years. The supplier's organization shall include a certified "Architectural Hardware Consultant" who is available at all reasonable times during the course of the work to meet personally with the Owner, Architect, or Contractor for hardware consultation.
2. The supplier shall maintain a parts inventory of items supplied for future service to the Owner. The supplier must be an authorized "Factory Direct" distributor of the specified products.

1.6 ACTION SUBMITTALS

A. Product Data: Manufacturer's product data for each item along with the hardware schedules.

B. Schedules:

1. Within 14 days of receipt of purchase order, submit 6 copies of completely detailed hardware schedules. List hardware for each door separately in the vertical format. List each item with manufacturer's product number. Schedules submitted with grouped openings will be rejected.
2. Note: The issuance of the Purchase Order, and submittal and review of the hardware schedule in a timely manner are critical to the project schedule.
3. All electromechanical and electromagnetic items shall be underlined or otherwise noted for coordination with other sections.
4. Review and acceptance by the Architect or Owner does not relieve the Contractor of exclusive responsibility to fulfill the requirements as shown and specified.
5. Promptly incorporate corrections and changes in the first submittal and return two copies of the revised schedule to the Contractor.
6. Acceptance of the hardware schedule does not relieve the Supplier of responsibility for errors or omissions.

C. Templates: Provide one copy of complete template information for each item along with one copy of the approved hardware schedule to hollow metal, wood and aluminum door and frame suppliers.

D. Wiring Diagrams: Provide complete wiring diagram and information for each electro-mechanical or electromagnetic device, provided at end of section.

1.7 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For each type of door hardware to include in maintenance manuals. Include final hardware and keying schedule.

1.8 DELIVERY, STORAGE AND HANDLING

- A. Marking and Packaging: All items of hardware shall be delivered to the jobsite in the manufacturers' original packages and must be marked with door number and item number corresponding to the approved hardware schedule.
- B. Storage: The General Contractor shall provide a secure and dry area for storage of hardware items and must protect the material and finishes.
- C. The Contractor shall inventory the hardware at the time of delivery to the jobsite, until satisfied with the quantity and quality of hardware. **Supplier must be notified of shortages or damages within 24 hours.**

1.9 PROJECT SCHEDULE

- A. All hardware for exterior doors shall be installed and operational at Partial Substantial Completion, ready for Owner's installation of security system.

1.10 WARRANTY

- A. Warrant Door Hardware items in this section to be free from defects in material for a period of one (1) year, except the following items and respective time periods:
 1. Door Closers: 11 years
 2. Exit Devices: 4 years
 3. Door Locksets and Latchsets, Lock Cylinders: 4 years
 4. Weatherstrip Sets, Thresholds, Door Sweeps: 3 years
 5. Astragals, Rain Drip Caps: 3 years
 6. Hinges & Electric Strikes: 2 years
 7. Electromagnet Door Locks: 2 years
 8. Logic Controllers & Power Supply Units: 2 years
 9. Mail Slot: 1 year

PART 2 - PRODUCTS

2.1 HARDWARE FINISHES

- A. Provide hardware items in the following finishes unless specified otherwise in the hardware groups.
 1. Butts (exterior): 630 (or US 32D), Satin Stainless Steel
 2. Butts (interior): 626, 652 (or US 26D), Satin Chromium Plated
 3. Locks: 626 (or US 26D), Satin Chromium Plated
 4. Exit Devices: 630 (or US 32D), Satin Stainless Steel
 5. Surface Closers: Painted to match 626 (or US 26D), Satin Chromium Plated
 6. Stops: 626 (or US 26D), Satin Chromium Plated
 7. Kick Plates: 630 (or US 32D), Satin Stainless Steel

2.2 RECEIVING AREA ELECTRONIC ACCESS SYSTEM (Single Exit Door, Receiving to Exterior)

- A. Operation Outside: Authorized entry granted through push button at receiving counter.
- B. Operation Inside:
 1. Authorized egress by a key in the key-switch.
 2. Unauthorized exit will cause alarm to sound and send a signal to a remote monitoring system.

2.3 ANTE ROOM ELECTRONIC ACCESS SYSTEM (Single Exit Door, Exterior from Ante room)

- A. Operation Outside: Authorized entry granted through key pad at Exterior. Keypad shunts local alarm, monitoring station, and unlocks outside lever for entry to Ante room.
- B. Operation Inside:
 - 1. Authorized egress by lever handle. System rearms after exiting. Security Company to coordinate rearming of system.
 - 2. Unauthorized exit will cause alarm to sound and send a signal to a remote monitoring system.
- C. Components:
 - 1. 1 Mortise Lock: L9092REU x 06A x FSE (Fail Secure) x 626.
 - 2. 1 Power Supply: Schlage or Von Duprin PS902 (24VDC Regulated/Filtered 1.0 amps).
 - 3. 1 Wiring Diagram.
 - 4. 1 Keypad (Provided and installed by Security Contractor).

2.4 KEYS AND KEYING

- A. All locks shall be keyed to the "Schlage" master-key as noted herein. All locks shall be construction master keyed.
- B. At the time of completion of the construction phase, the Contractor shall convert the construction cylinders to permanent keying as directed by the store manager.
- C. Key Quantities: To be determined by store manager.
 - 1. Construction Keys: Five.
- D. All permanent keys and cores shall be sent directly to the store manager as directed.

2.5 QUANTITIES

- A. Quantities listed are for the Contractors convenience only and are not guaranteed.
- B. Items not specifically mentioned but necessary to complete the work shall be furnished, matching in quality and finish of the items specified.
- C. Provide the required quantity of items listed for a complete installation.

2.6 HANGING MEANS

- A. Conventional Hinges: Hinge open widths minimum, but, of sufficient throw to permit maximum door swing. Steel or stainless steel pins as indicated and concealed bearings.
 - 1. Equivalent Hinges:
 - a. Exterior: Hager BB1191, Ives 5BB1, McKinney TA2314; 630 satin stainless steel.
 - b. Interior: Hager BB1279, Ives 5BB1, McKinney TA2714; 652 satin chrome.
 - 2. Sizes:
 - a. 4-1/2" x 4-1/2" for doors up to 3'-5" wide
 - b. 5" x 4-1/2" for doors over 3'-5" wide and up to 4'-0" wide
 - 3. Quantity:
 - a. Three hinges per door leaf up to 7' high.
 - b. Four hinges per door leaf up to 8' high.
 - c. Four hinges per door leaf up to 9' high.

2.7 DOOR LITES AND LOUVERS

- A. Louvers: One-piece, inverted V-blade, non-vision door louver, by National Guard Products, Model L-700-RX. Size and locations as indicated on Drawings.
- B. Lite Kits: Standard vision lite with 18-gauge cold-formed steel frame, by National Guard Products, Model L-FRA100. Size, locations, and glazing as indicated on Drawings.

2.8 HARDWARE, GENERAL

- A. Provide lever-type handles with locksets and latchsets as scheduled, conforming to applicable accessibility requirements.
- B. Ensure that unlatching of any door or leaf for egress shall require not more than one motion in a single linear or rotational direction to release all latching and all locking devices, except where permitted by applicable building codes.
- C. Comply with U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and International Building Code (IBC), as applicable, for the following:
 - 1. Maximum opening-force:
 - a. Interior, Non-Fire-Rated Hinged Doors: Not more than 5 lbf (22 N).
 - b. For Fire-Rated and Exterior Doors: Not more than 15 lbf (67 N) to release the latch, 30 lbf (133 N) to set the door in motion, and 15 lbf (67 N) to swing the door to the full-open position.

2.9 HARDWARE GROUPS

- A. Provide hardware in groups according to the following schedule. Coordinate with Drawings for operation requirements of each opening.

HW-1 (Overhead Doors, Fire Riser C/L Gate, Jewel Cart, Roof Hatch, RTV)

<u>Each shall have:</u>	<u>Selected Manufacturer</u>
1 Padlock.....	Schlage KS23F2200
1 Cylinder	Schlage 47-743
1 Retaining Chain.....	Abus 83910 12"
1 Collar w/ Rivets	Abus 83912 5/16"

Note: Quantity indicated is for per unit/location.

HW-2 (Single; Emergency Exit Doors with outside access by key)

<u>Each shall have:</u>	<u>Selected Manufacturer</u>
2 Hinges	Ives 5BB1HW NRP 630
1 Power Transfer Hinge	Ives 5BB1HW TW4 630
1 Alarmed Exit Device	Von Duprin RX98NL 630
1 Power Supply	Schlage or Von Duprin PS902
1 Key Lock Cover	Schlage or Von Duprin 900-KL
1 Logic Controller	Von Duprin DE5300
1 Rim Cylinder	Schlage 20-057 ICC 626 (Outside Trim)
1 Mortise Cylinder	Schlage 20-061 ICC 626 (Alarm Cylinder)
2 Permanent Cores	Schlage 23-030 626
1 Astragal	Pemko 3572PP7 x TB&GN 600
1 Surface Closer.....	LCN 4040XP SCUSH TBWMS 689
1 Threshold	Pemko 2005AV x FHSL25 AL
1 Door Sweep.....	Pemko 315CN AL
1 Weatherstrip Set.....	Pemko 290APK AL
1 Kickplate.....	Rockwood K1050 10" x 2" LTDW 630
1 Rain Drip Cap.....	Pemko 346C AL
1 Door Viewer.....	Door Scope DS/2000 Silver

1 Door Contact By Security Contractor

(INCLUDE THE FOLLOWING HW GROUP FOR DOORS 1A, 6A, 7A, 8A, 26A, 27A, 28A, 29A, 34, 45, 46, AND 55 IF FIRE DEPARTMENT ACCESS IS NOT REQUIRED.)

HW-6 (Single; Exit Doors Main Sales to Exterior, Active Door - See schematic diagram at end of this section)

<u>Each shall have:</u>	<u>Selected Manufacturer</u>
2 Hinges	Ives 5BB1 NRP 630 (Use Ives 5BB1HW on Door 55)
1 Power Transfer Hinge	Ives 5BB1 TW4 630
1 Alarmed Exit Device	Von Duprin RX9857EO 630
1 Power Supply	Schlage or Von Duprin PS902
1 Key Lock Cover	Schlage or Von Duprin 900-KL
1 Logic Controller	Von Duprin DE5300
1 Mortise Cylinder	Schlage 20-061 ICC 626 (Alarm Cylinder)
1 Permanent Core	Schlage 23-030 626
1 Astragal	Pemko 3572PP-7 x TB&GN 600
1 Surface Closer.....	LCN 4040XP SCUSH TBWMS 689 (Doors 1A & 46)
1 Threshold	Pemko 2005AV x FHSL25 AL
1 Door Sweep.....	Pemko 315CN AL
1 Weatherstrip Set.....	Pemko 290APK AL
1 Extended Latch Guard	Von Duprin LGO 12" x width of door
1 Rain Drip Cap.....	Pemko 346C AL
1 Armor Plate (Door 46 only).....	Rockwood K1038 34" H x 29" W 630
1 Door Contacts	By Security Contractor

(INCLUDE THE FOLLOWING HW GROUP FOR DOORS 6B, 7B, 8B, 26B, 27B, 28B, AND 29B, WHETHER OR NOT FIRE DEPARTMENT ACCESS IS REQUIRED.)

HW-7 (Single; Exit Doors Main Sales to Exterior, Inactive Door - See schematic diagram at end of this section)

<u>Each shall have:</u>	<u>Selected Manufacturer</u>
2 Hinges	Ives 5BB1 NRP 630
1 Power Transfer Hinge	Ives 5BB1 TW4 630
1 Alarmed Exit Device	Von Duprin RX9857EO 630
1 Astragal	Pemko 3572PP-7 x TB&GN 600
1 Threshold	Pemko 2005AV x FHSL25 AL
1 Door Sweep.....	Pemko 315CN AL
1 Weatherstrip Set.....	Pemko 290APK AL
1 Extended Latch Guard	Von Duprin LGO 12" x width of door
1 Rain Drip Cap.....	Pemko 346C AL
1 Door Contacts	By Security Contractor

HW-13A (Single; Optical Reception to Consult Rooms)

<u>Each shall have:</u>	<u>Selected Manufacturer</u>
3 Hinges	Ives 5BB1 652
1 Passage Set.....	Schlage ND10S RHO 626
1 Concealed Overhead Stop	Glynn Johnson 414S 630
3 Silencers.....	Ives SR64 GRY
1 Kickplate.....	Rockwood K1050 10" x 2" LTDW 630

HW-14 (Single; EDP, MDF)

<u>Each shall have:</u>	<u>Selected Manufacturer</u>
2 Hinges	Ives 5BB1 652

- 1 Power Transfer Hinge Ives 5BB1 TW4 652
 - 1 Electrified Storeroom Lock Schlage ND80TDEU RX RHO ICC 626
 - 1 Permanent Core Schlage 23-030 626
 - 1 Surface Closer..... LCN 1461 RW/PA TBWMS 689
 - 1 Wall Stop Rockwood 409 630
 - 3 Silencers..... Ives SR64 GRY
 - 1 Kickplate..... Rockwood K1050 10" x 2" LTDW 630
 - 1 Power Supply Schlage or Von Duprin PS902
 - 1 Key Lock Cover Schlage or Von Duprin 900-KL
 - 1 Vision Lite..... NGP L-FRA100 18" x 35"
 - 1 Keypad Bosch D8229 by Costco Security Contractor
 - 1 Door Contact Sentrol 1078W by Costco Security Contractor
- EDP: Security Contractor should refer to specific Costco Security requirements.

HW-15 (Single; Pharmacy)

- | <u>Each shall have:</u> | <u>Selected Manufacturer</u> |
|-------------------------|--|
| 3 Hinges | Ives 5BB1 652 |
| 1 Storeroom Lock | Schlage ND80TD RHO ICC 626 |
| 1 Permanent Core | Schlage 23-030 626 |
| 1 Wall Stop | Rockwood 409 630 |
| 3 Silencers..... | Ives SR64 GRY |
| 1 Kickplate..... | Rockwood K1050 10" x 2" LTDW 630 |
| 1 Door Viewer..... | Door Scope DS/2000 Silver
(at Door 32 for viewing from Lab into Consultation) |
| 1 Vision Lite..... | NGP L-FRA100 18" x 35"
(at Door 30) |
| 1 Door Contact | By Security Contractor
(at Doors 31 and 32) |

HW-17 (Single; Quiet Room)

- | <u>Each shall have:</u> | <u>Selected Manufacturer</u> |
|------------------------------------|---------------------------------------|
| 3 Hinges | Ives 5BB1 652 |
| 1 Privacy Lock with Indicator..... | Schlage L9040 06A OS-OCC L583-363 626 |
| 1 Wall Stop | Rockwood 409 630 |
| 3 Silencers..... | Ives SR64 GRY |
| 1 Kickplate..... | Rockwood K1050 10" x 2" LTDW 630 |

HW-18 (Single; Electrical Room, MSB (Main Switch Board) Room)

- | <u>Each shall have:</u> | <u>Selected Manufacturer</u> |
|-------------------------|---------------------------------------|
| 3 Hinges | Ives 5BB1HW NRP 652 |
| 1 Exit Device | Von Duprin 98L 630 |
| 1 Rim Cylinder..... | Schlage 20-057 ICC 626 (Outside Trim) |
| 1 Permanent Core | Schlage 23-030 626 |
| 1 Wall Stop | Rockwood 409 630 |
| 3 Silencers..... | Ives SR64 GRY |
| 1 Kickplate..... | Rockwood K1050 10" x 2" LTDW 630 |

HW-19 (Single; Main Sales to Office, Janitor Closet, Manager's Office)

- | <u>Each shall have:</u> | <u>Selected Manufacturer</u> |
|-------------------------|---|
| 3 Hinges | Ives 5BB1 652
(Use Ives 5BB1HW on Door 41) |
| 1 Entrance Lock | Schlage ND53TD RHO ICC 626 |
| 1 Permanent Core | Schlage 23-030 626 |
| 1 Wall Stop | Rockwood 409 630 |
| 3 Silencers..... | Ives SR64 GRY |
| 1 Kickplate..... | Rockwood K1050 10" x 2" LTDW 630 |

HW-22 (Pair; Automatic Sliding Doors)

<u>Each shall have:</u>	<u>Selected Manufacturer</u>
2 Permanent Cores	Schlage 23-030 626
(Remainder of hardware by door manufacturer. See Section 084200)	

HW-24 (Single; Tire Sales to Tire Installation, Non-Fire-Rated)

<u>Each shall have:</u>	<u>Selected Manufacturer</u>
3 Hinges	Ives 5BB1HW 652
1 Passage Latch.....	Schlage L9010 06A 626
1 Surface Closer.....	LCN 4040XP EDA TBWMS 689
2 Armor Plates.....	Rockwood K1038 34" x 2" LTDW 630
3 Silencers.....	Ives SR64 GRY
1 Wall Stop	Rockwood 409 630
1 Electromagnetic Lock	Schlage M490 628
1 Power Supply	Schlage or Von Duprin PS902
1 Key Lock Cover	Schlage or Von Duprin 900-KL
1 Keypads.....	ACSI 1355-1 630 (Tire Sales side)
1 Push Button.....	Schlage 631AL-RD-EX 626 (Tire Install side)

HW-27 (Single; Family Restroom at Office Core; Unisex Restroom in Receiving and Tire Center; Barrier-Free Restrooms)

<u>Each shall have:</u>	<u>Selected Manufacturer</u>
3 Hinges	Ives 5BB1 652
1 Privacy Lock with Indicator	Schlage L9040 06A OS-OCC L283-722 RHO 626
1 Surface Closer.....	LCN 1461 RW/PA TBWMS 689
1 Wall Stop	Rockwood 409 630
1 Kickplate.....	Rockwood K1050 10" x 2" LTDW 630
3 Silencers.....	Ives SR64 GRY
1 Louver.....	NGP L-700-RX 6" x 12"

HW-30 (Single; Baler, Compactor)

<u>Each shall have:</u>	<u>Selected Manufacturer</u>
2 Hinges	Ives 5BB1HW NRP 652
1 Institutional Lock.....	Schlage ND82TD RHO ICC 626
2 Permanent Cores	Schlage 23-030 626
1 Door Stop/Holder.....	Rockwood 490 626
1 Weatherstrip Set (4 sides).....	Pemko 290APK AL
1 Door Contact	By Costco Security Contractor

HW-32 (Single; Main Sales to MPU, Wood Dutch Door)

<u>Each shall have:</u>	<u>Selected Manufacturer</u>
4 Hinges	Ives 5BB1 652
1 Storeroom Lock	Schlage ND80TD RHO ICC 626
1 Deadlock.....	Schlage B560T ICC 626 12-291
2 Permanent Cores	Schlage 23-030 626
1 Dutch Door Bolt.....	Rockwood 630-4" 626
4 Silencers.....	Ives SR64 GRY
1 Kickplate.....	Rockwood K1050 10" x 2" LTDW 630
2 Wall Stops	Rockwood 409 630
1 Door Contact	By Costco Security Contractor

HW-35 (Single; Receiving to Exterior)

<u>Each shall have:</u>	<u>Selected Manufacturer</u>
2 Hinges	Ives 5BB1HW NRP 630
1 Power Transfer Hinge	Ives 5BB1 TW8 630
1 Alarmed Exit Device	Von Duprin RX-E98L FSE 630

- 1 Power Supply Schlage or Von Duprin PS902
- 1 Key Lock Cover Schlage or Von Duprin 900-KL
- 1 Logic Controller Von Duprin DE5300 630
- 1 Push Button Schlage 621RD DP 630
- 1 Rim Cylinder Schlage 20-057 ICC 626 (Outside Trim)
- 1 Mortise Cylinder Schlage 20-061 ICC 626 (Alarm Cylinder)
- 2 Permanent Cores Schlage 23-030 626
- 1 Surface Closer LCN 4040XP SCUSH TBWMS 689
- 1 Astragal Pemko 3572PP7 x TB&GN 600
- 1 Threshold Pemko 2005AV x FHSL25 AL
- 1 Door Sweep Pemko 315CN AL
- 1 Weatherstrip Set Pemko 290APK AL
- 1 Rain Drip Cap Pemko 346C AL
- 1 Door Viewer Door Scope DS/2000 Silver
- 1 Kickplate Rockwood K1050 10" x 2" LTDW 630
- 1 Door Sounder Federal Signal SLM700 Gray
- 1 Door Sounder Base Federal Signal SLMBD-012-024GY Gray
- 1 Door Contacts By Security Contractor

(Note 1: Security company will provide door contacts and the necessary wiring and 24 volt A.C. transformer for monitoring)

(Note 2: See Electrical Drawing Sheet E-2 for door bell and push button at door to Receiving.)

HW-37 (Single; Ante Room to Exterior)

Each shall have: Selected Manufacturer

- 2 Hinges Ives 5BB1 NRP 630
- 1 Power Transfer Hinge Ives 5BB1 TW4 630
- 1 Permanent Core Schlage 23-030 626
- 1 Mortise Storeroom Lock Schlage L9092TEU 06A ICC 626
(Electrified)
- 1 Power Supply Schlage or Von Duprin PS902
- 1 Key Lock Cover Schlage or Von Duprin 900-KL
- 1 Surface Closer LCN 4040XP SCUSH TBWMS 689
- 1 Astragal Pemko 3572PP7 x TB&GN 600
- 1 Threshold Pemko 2005AV x FHSL25 AL
- 1 Door Sweep Pemko 315CN AL
- 1 Weatherstrip Set Pemko 290APK AL
- 1 Rain Drip Cap Pemko 346C AL
- 1 Kickplate Rockwood K1050 10" x 2" LTDW 630
- 1 Door Viewer Door Scope DS/2000 Silver
- 1 Keypad By Costco Security Contractor
- 1 Door Contact By Costco Security Contractor

(Note 1: Locate Power Supply in the adjacent Vault, or as directed by the Store Manager.)

HW-39 (Optical Entrance Door, Security Grille, Pharmacy Shutter)

Each shall have: Selected Manufacturer

- 1 Permanent Core Schlage 23-030 626
(Remainder of hardware by door manufacturer. See Section 083300, 084200)

HW-40 (Single; Office to Vault - 1-Hr. Rated)

Each shall have: Selected Manufacturer

- 3 Hinges Ives 5BB1 652
- 1 Storeroom Lock Schlage ND80TD RHO ICC 626
- 1 Permanent Core Schlage 23-030 626
- 1 Surface Closer LCN 1461 RW/PA TBWMS 689
- 1 Wall Stop Rockwood 409 630
- 1 Kickplate Rockwood K1050 10" x 2" LTDW 630

- 1 Door Sweep..... Pemko 315CN AL
- 1 Seal Set Pemko S88D DKB
- 1 Door Viewer..... Door Scope DS/2000 Silver
- 1 Mail Slot..... Tice Industries #2331 630
(mount hinge at bottom)
- 1 Keypad Bosch D8229 by Security Contractor
- 1 Door Contact Sentrol 1078W by Security Contractor
Vault: Security Contractor should refer to specific Costco Security requirements.

HW-42 (Single; Emergency Exit Doors with outside access by key at Enclosed Canopy)

- | <u>Each shall have:</u> | <u>Selected Manufacturer</u> |
|-------------------------|---------------------------------------|
| 3 Hinges | Ives 5BB1 NRP 630 |
| 1 Exit Device | Von Duprin 98NL 630 |
| 1 Rim Cylinder | Schlage 20-057 ICC 626 (Outside Trim) |
| 1 Permanent Core | Schlage 23-030 626 |
| 1 Astragal | Pemko 3572PP7 TB&GN 600 |
| 1 Surface Closer..... | LCN 4040XP SCUSH TBWMS 689 |
| 1 Threshold | Pemko 2005AV x FHSL25 AL |
| 1 Door Sweep..... | Pemko 315CN AL |
| 1 Weatherstrip Set..... | Pemko 290APK AL |
| 1 Kickplate..... | Rockwood K1050 10" x 2" LTDW 630 |
| 1 Rain Drip Cap..... | Pemko 346C AL |
| 1 Door Viewer..... | Door Scope DS/2000 Silver |

HW-44 (Single; Demonstration Room)

- | <u>Each shall have:</u> | <u>Selected Manufacturer</u> |
|-------------------------|---|
| 3 Hinges | Ives 5BB1HW 652 |
| 1 Entrance Lock | Schlage ND53TD RHO ICC 626 |
| 1 Permanent Core | Schlage 23-030 626 |
| 1 Wall Stop | Rockwood 409 630 |
| 1 Armor Plate | Rockwood K1038 34" X 2" LTDW 630 |
| 3 Silencers..... | Ives SR64 GRY |
| 1 Door Protector..... | Wallguard 2181 DP 46" TB 630
(mount top of protector to align with top of armor plate) |
| 1 Louver | NGP L-700-RX 20" x 24" |

HW-45 (Single; Exterior; Fleet Restroom; Barrier-Free Restrooms)

- | <u>Each shall have:</u> | <u>Selected Manufacturer</u> |
|--------------------------------|---|
| 2 Hinges | Ives 5BB1 652 |
| 1 Power Transfer Hinges..... | Ives 5BB1 TW4 630 |
| 1 Electronic Storeroom Lockset | Schlage L9492TEU DM 06A x XL-346 x L283-722 626 |
| 1 Permanent Core | Schlage 23-030 626 |
| 1 Power Supply | Schlage or Von Duprin PS902 |
| 1 Key Lock Cover | Schlage or Von Duprin 900-KL |
| 1 Keypads..... | ACSI 1355-2 630 |
| 1 Surface Closer..... | LCN 4040XP SCUSH AL TBWMS 689 |
| 1 Weatherstrip Set..... | Pemko 290APK AL |
| 1 Kickplate..... | Rockwood K1050 10" x 2" LTDW 630 |
| 1 Door Sweep..... | Pemko 315CN AL |
| 1 Rain Drip Cap..... | Pemko 346C AL |
| 1 Threshold | Pemko 171A x FHSL25 AL |
| 1 Door Viewer..... | Door Scope DS/2000 Silver |

HW-46 (Pair; Exterior; MSB Room)

- | <u>Each shall have:</u> | <u>Selected Manufacturer</u> |
|-------------------------|------------------------------|
| 6 Hinges | Ives 5BB1 NRP 630 |

- 1 Exit Device Von Duprin 9827NL 630
- 1 Exit Device Von Duprin 9827EO 630
- 1 Rim Cylinder..... Schlage 20-057 ICC 626
- 1 Permanent Core Schlage 23-030 626
- 2 Surface Closers LCN 4040XP SCUSH TBWMS 689
- 1 Astragal Set (Pair) Pemko 305CN 2/84" AL
- 1 Weatherstrip Set..... Pemko 290APK AL
- 2 Door Sweeps..... Pemko 315CN AL
- 1 Rain Drip Cap..... Pemko 346C AL
- 1 Threshold Pemko 171A x FHSL25 AL
- 2 Panic Guards w/ Kickplates.... Trimco PG8002-1 630 10" x width of door

HW-47 (Pair; Fire Dept Room, Non-Fire-Rated)

- | <u>Each shall have:</u> | <u>Selected Manufacturer</u> |
|-----------------------------|------------------------------|
| 6 Hinges | Ives 5BB1 NRP 630 |
| 1 Storeroom Lock..... | Schlage ND80TD RHO ICC 626 |
| 1 Permanent Core | Schlage 23-030 626 |
| 2 Overhead Stops | Glynn Johnson 904H 630 |
| 2 Flushbolts | Rockwood 555-12" 626 |
| 1 Dustproof Strike..... | Rockwood 570 626 |
| 1 Astragal Set (Pair) | Pemko 305CN 2/84" AL |
| 1 Weatherstrip Set..... | Pemko 290APK AL |
| 2 Door Sweeps..... | Pemko 315CN AL |
| 1 Rain Drip Cap..... | Pemko 346C AL |
| 1 Threshold | Pemko 171A X FHSL25 AL |

(Note 1: Astragal by Door Supplier.)

HW-FUEL (Fuel Facility, Reference Only)

- | <u>Gas station set shall include:</u> | <u>Selected Manufacturer</u> |
|---------------------------------------|---|
| 1 Cylinder | Schlage 20-013 X 626 Gas Hut Door |
| 6 Padlocks..... | Abus 83/45 2-inch Shackle Gas Tank Covers |
| 12 Padlocks..... | Abus 83/45 4-inch Shackle Gas Pumps |
| 6 Cut Keys..... | Schlage Primus Key Gas Station |

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Hardware shall be installed by skilled mechanics to Architect's satisfaction. Conform strictly to Manufacturer's templates and instructions.
- B. Hardware Placement:
 - 1. All electrical wiring, conduits, junction boxes, and logic controller boxes for door systems shall be installed inside masonry walls. Power supply shall be mounted to surface of masonry walls.
 - 2. Power supply, junction boxes, controller panel shall be installed flush with the face of steel girt. Coordinate locations with placement of conduits. No exposed conduits allowed. Conceal conduits feeding door hardware.
 - a. In remodel work, install power supply, junction boxes, controller panel flushed with the face of steel girt and conceal all conduits where possible. Expose conduits only where unavoidable in existing construction.
 - 3. Install electromagnet and associated wiring per wiring diagram.
 - 4. Reference the Door and Hardware Institute Handbook "Recommended Locations for Builders' Hardware for Standard Steel Doors and Frames".
 - 5. Comply with the current edition of State rules and regulations for barrier-free design and Title III of the Americans with Disabilities Act.

3.2 INSPECTION

- A. After installation has been completed, the Hardware Installer and General Contractor, in the presence of the Owner's representative, shall check the job for proper installation and operation.

3.3 CLOSER ADJUSTMENT

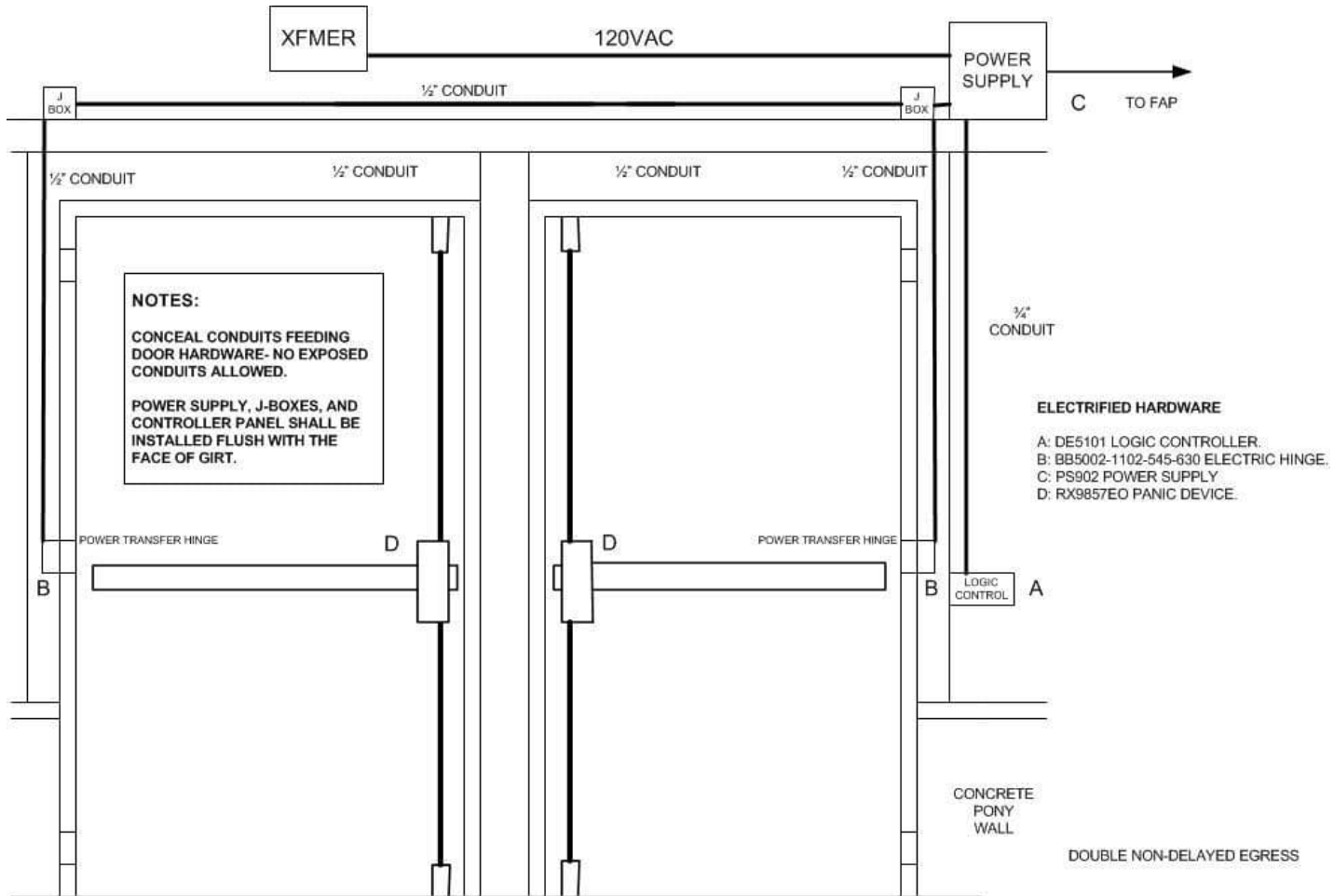
- A. After all closers are installed per installation instructions, and prior to final acceptance by the Owner, General Contractor shall schedule a site visit for the Hardware Installer to test and adjust all closers for proper installation.
- B. Hardware Installer shall adjust door closers to comply with applicable building code and accessibility requirements and as follows:
 - 1. Adjust door closer sweep periods so that, from an open position of 90 degrees, the door will take at least 5 seconds to move to a position of 12 degrees from the latch.

3.4 PROTECTION

- A. The General Contractor is responsible for the proper protection of all items until the Owner accepts the project as complete.

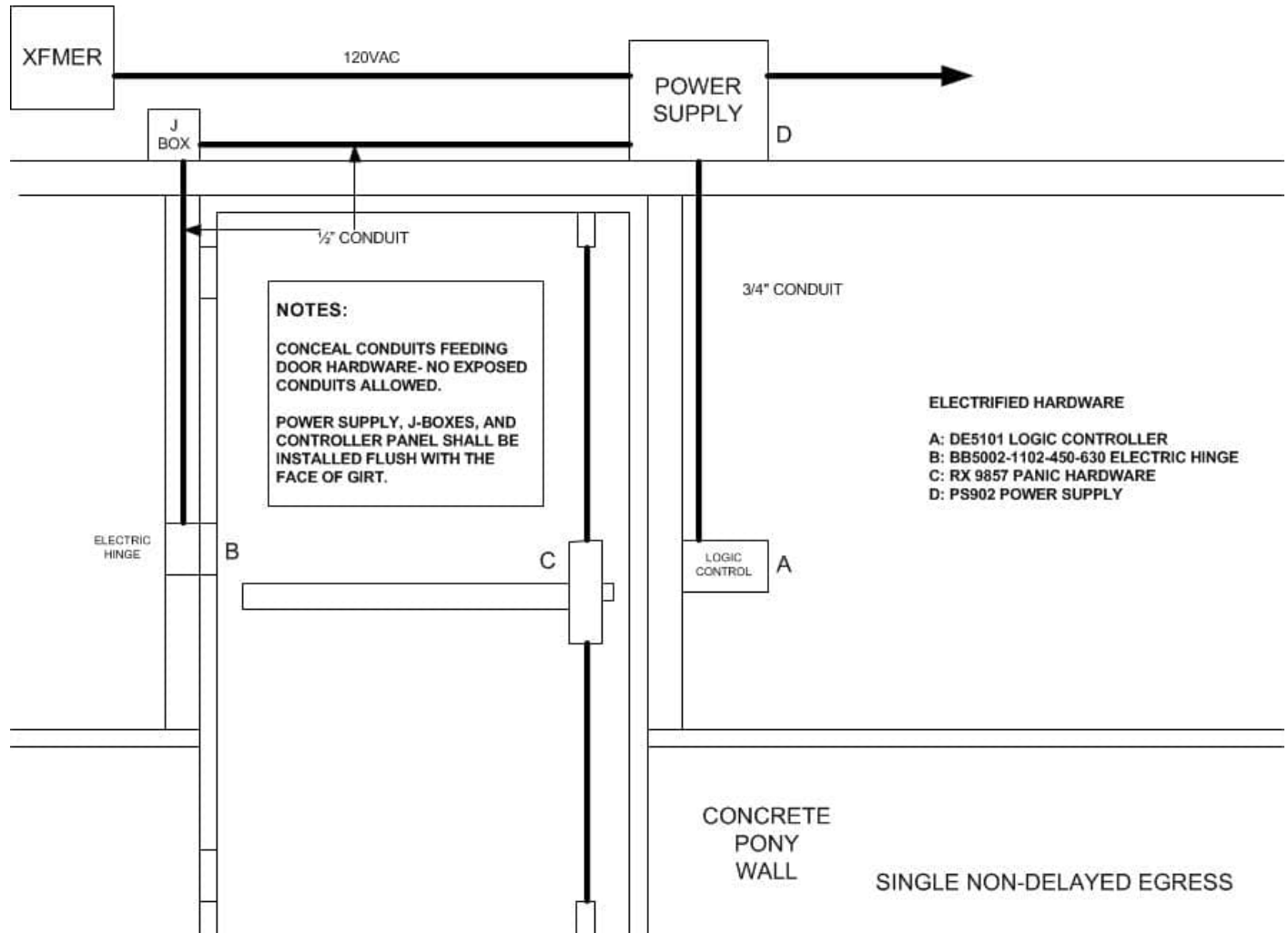
END OF SECTION 087100

DOUBLE DOOR EGRESS SYSTEM



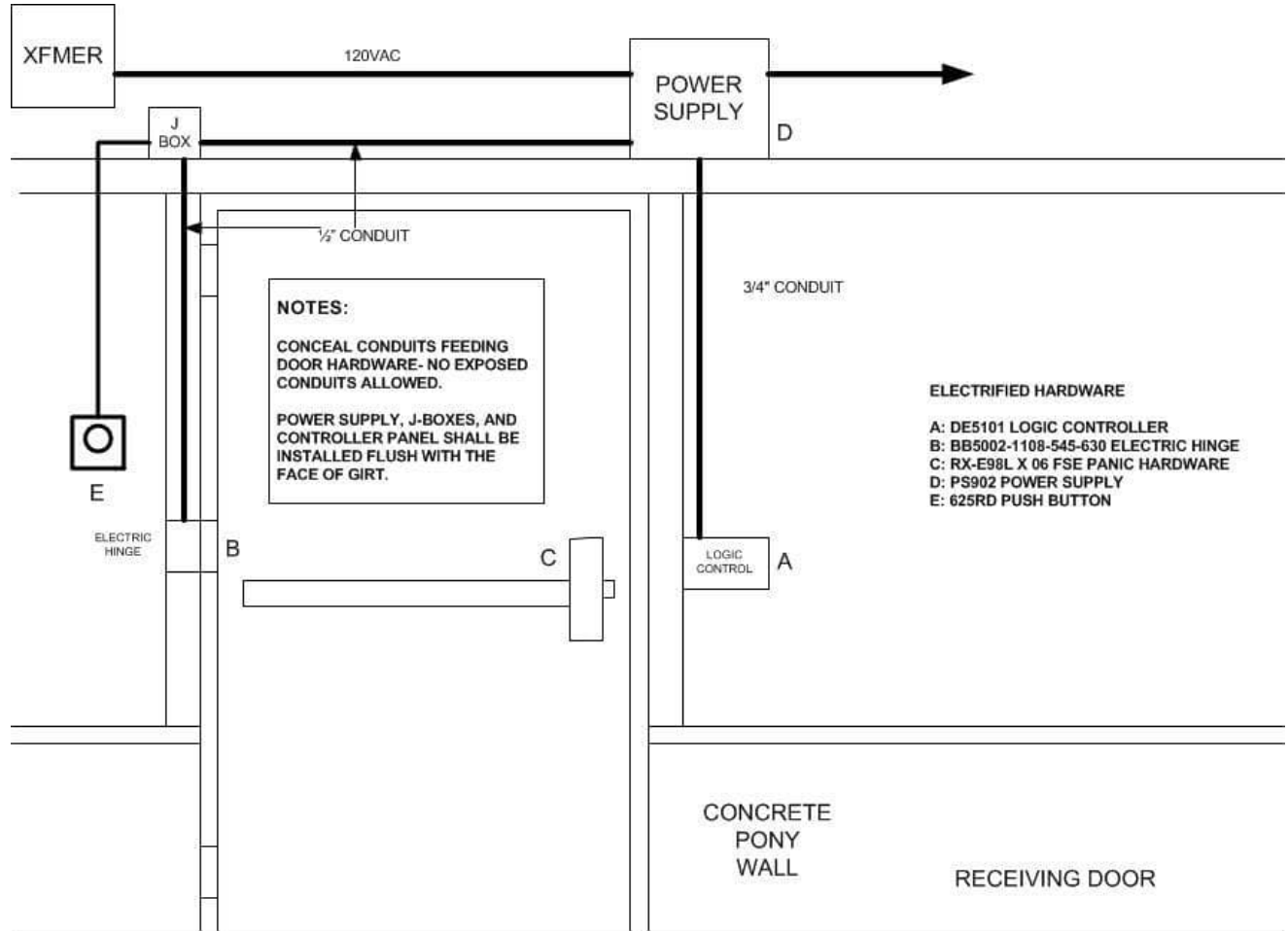
NOTE: Wiring diagram is for reference only. See Hardware Consultant's wiring diagram for final layout.

SINGLE DOOR EGRESS SYSTEM



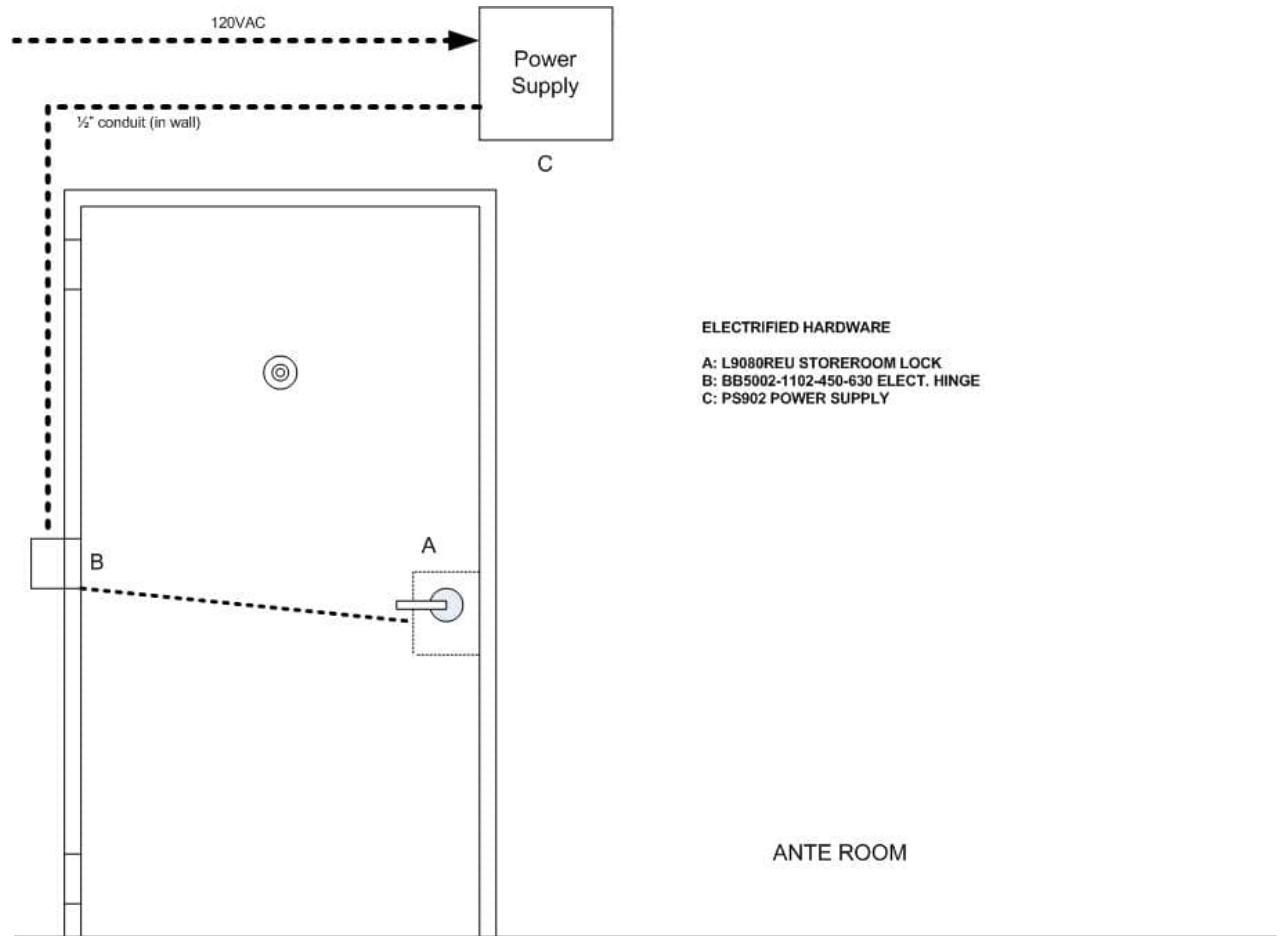
NOTE: Wiring diagram is for reference only. See Hardware Consultant's wiring diagram for final layout.

RECEIVING ELECTRONIC ACCESS DOOR SYSTEM



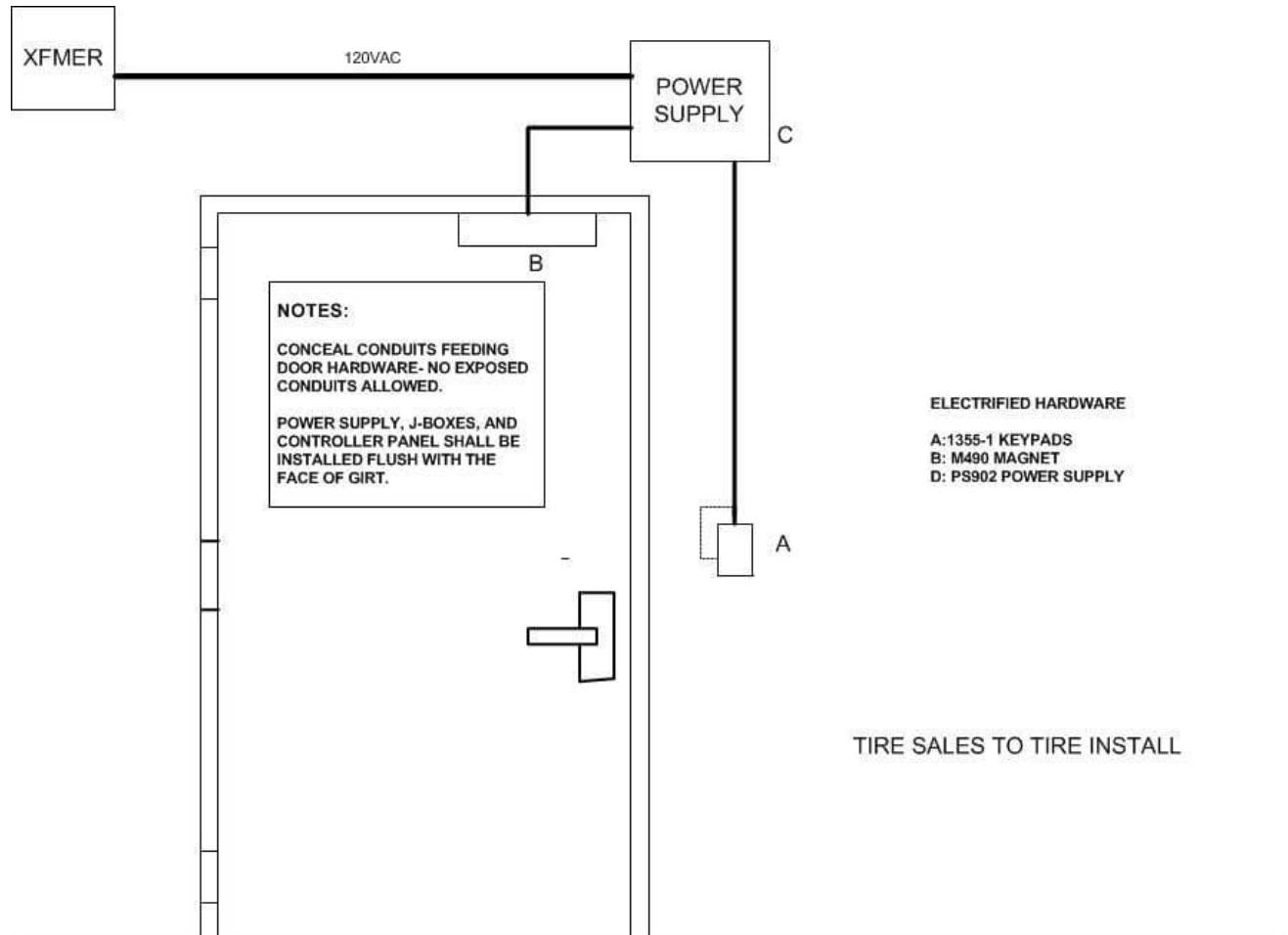
NOTE: Wiring diagram is for reference only. See Hardware Consultant's wiring diagram for final layout.

ANTE ROOM DOOR



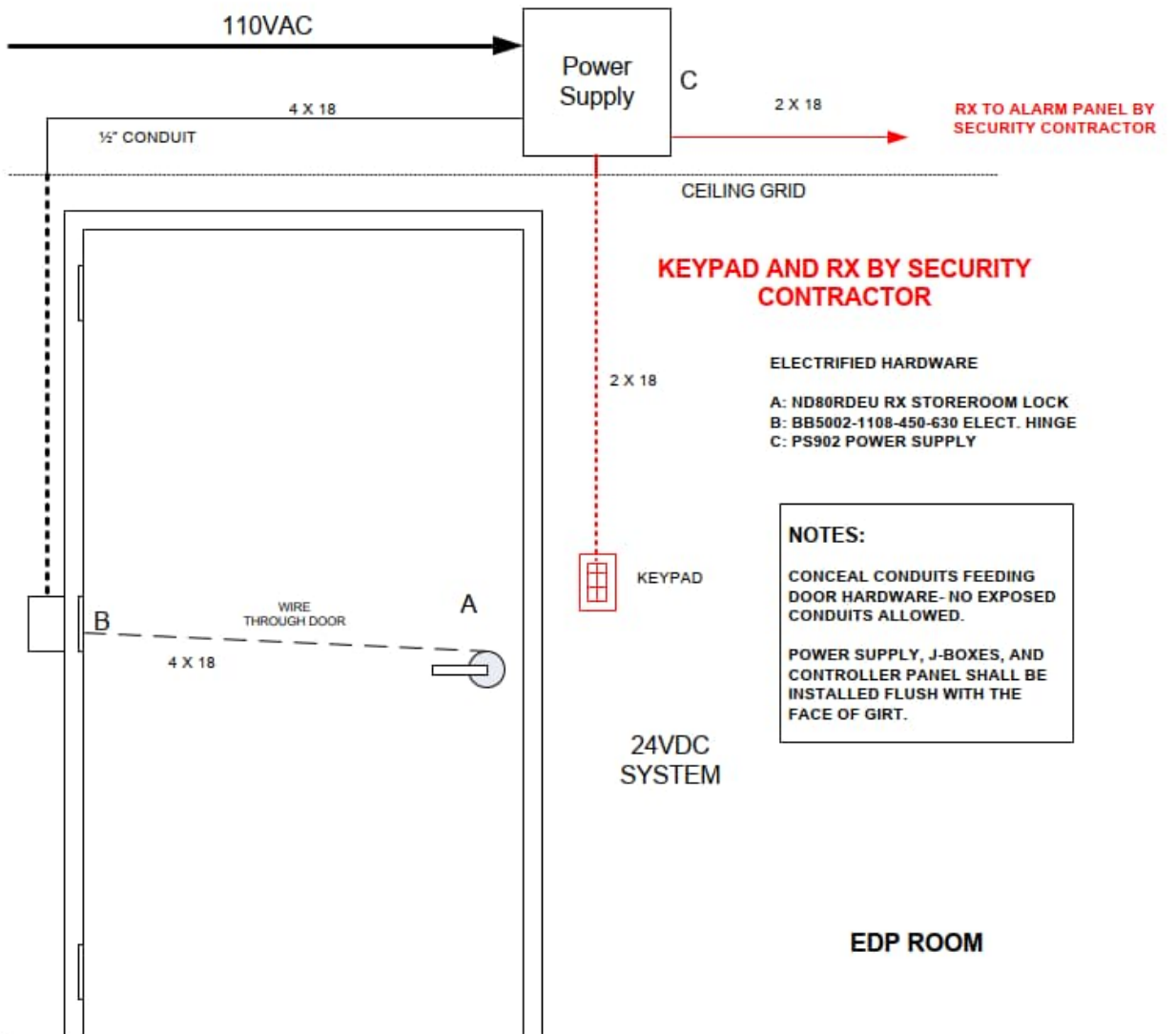
NOTE: Wiring diagram is for reference only. See Hardware Consultant's wiring diagram for final layout.

TIRE SALES TO TIRE INSTALL DOOR



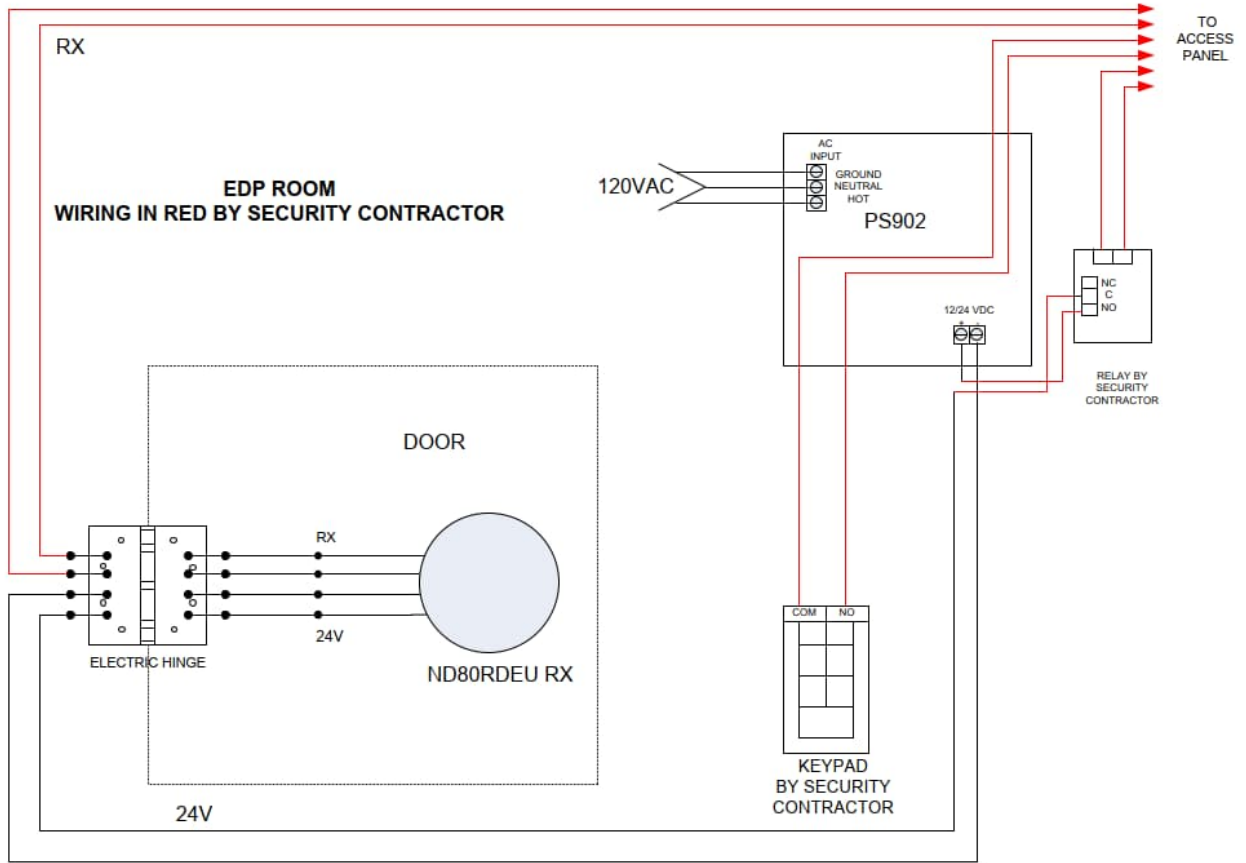
NOTE: Wiring diagram is for reference only. See Hardware Consultant's wiring diagram for final layout.

INTERIOR EDP ROOM



NOTE: Wiring diagram is for reference only. See Hardware Consultant's wiring diagram for final layout.

INTERIOR EDP ROOM



NOTE: Wiring diagram is for reference only. See Hardware Consultant's wiring diagram for final layout.