

SECTION 087100

DOOR HARDWARE

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes:

1. Mechanical and electrified door hardware
2. Electronic access control system components

B. Section excludes:

1. Windows
2. Cabinets (casework), including locks in cabinets
3. Signage
4. Toilet accessories
5. Overhead doors

C. Related Sections:

1. Division 01 Section "Alternates" for alternates affecting this section.
2. Division 06 Section "Rough Carpentry"
3. Division 06 Section "Finish Carpentry"
4. Division 07 Section "Joint Sealants" for sealant requirements applicable to threshold installation specified in this section.
5. Division 08 Sections:
 - a. "Metal Doors and Frames"
 - b. "Flush Wood Doors"
 - c. "Stile and Rail Wood Doors"
 - d. "Interior Aluminum Doors and Frames"
 - e. "Aluminum-Framed Entrances and Storefronts"
 - f. "Stainless Steel Doors and Frames"
 - g. "Special Function Doors"
 - h. "Entrances"
6. Division 26 "Electrical" sections for connections to electrical power system and for low-voltage wiring.
7. Division 28 "Electronic Safety and Security" sections for coordination with other components of electronic access control system and fire alarm system.

1.02 REFERENCES

A. UL LLC

1. UL 10B - Fire Test of Door Assemblies
 2. UL 10C - Positive Pressure Test of Fire Door Assemblies
 3. UL 1784 - Air Leakage Tests of Door Assemblies
 4. UL 305 - Panic Hardware
- B. DHI - Door and Hardware Institute
1. Sequence and Format for the Hardware Schedule
 2. Recommended Locations for Builders Hardware
 3. Keying Systems and Nomenclature
 4. Installation Guide for Doors and Hardware
- C. NFPA – National Fire Protection Association
1. NFPA 70 – National Electric Code
 2. NFPA 80 – 2016 Edition – Standard for Fire Doors and Other Opening Protectives
 3. NFPA 101 – Life Safety Code
 4. NFPA 105 – Smoke and Draft Control Door Assemblies
 5. NFPA 252 – Fire Tests of Door Assemblies
- D. ANSI - American National Standards Institute
1. ANSI A117.1 – 2017 Edition – Accessible and Usable Buildings and Facilities
 2. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties
 3. ANSI/BHMA A156.28 - Recommended Practices for Keying Systems
 4. ANSI/WDMA I.S. 1A - Interior Architectural Wood Flush Doors
 5. ANSI/SDI A250.8 - Standard Steel Doors and Frames

1.03 SUBMITTALS

A. General:

1. Submit in accordance with Conditions of Contract and Division 01 Submittal Procedures.
2. Prior to forwarding submittal:
 - a. Review drawings and Sections from related trades to verify compatibility with specified hardware.
 - b. Highlight, encircle, or otherwise specifically identify on submittals: deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.

B. Action Submittals:

1. Product Data: Submit technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
2. Riser and Wiring Diagrams: After final approval of hardware schedule, submit details of electrified door hardware, indicating:
 - a. Wiring Diagrams: For power, signal, and control wiring and including:

- 1) Details of interface of electrified door hardware and building safety and security systems.
 - 2) Schematic diagram of systems that interface with electrified door hardware.
 - 3) Point-to-point wiring.
 - 4) Risers.
3. Samples for Verification: If requested by Architect, submit production sample of requested door hardware unit in finish indicated and tagged with full description for coordination with schedule.
- a. Samples will be returned to supplier. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.
4. Door Hardware Schedule:
- a. Submit concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work critical in Project construction schedule.
 - b. Submit under direct supervision of a Door Hardware Institute (DHI) certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule published by DHI.
 - c. Indicate complete designations of each item required for each opening, include:
 - 1) Door Index: door number, heading number, and Architect's hardware set number.
 - 2) Quantity, type, style, function, size, and finish of each hardware item.
 - 3) Name and manufacturer of each item.
 - 4) Fastenings and other pertinent information.
 - 5) Location of each hardware set cross-referenced to indications on Drawings.
 - 6) Explanation of all abbreviations, symbols, and codes contained in schedule.
 - 7) Mounting locations for hardware.
 - 8) Door and frame sizes and materials.
 - 9) Degree of door swing and handing.
 - 10) Operational Description of openings with electrified hardware covering egress, ingress (access), and fire/smoke alarm connections.
5. Key Schedule:
- a. After Keying Conference, provide keying schedule that includes levels of keying, explanations of key system's function, key symbols used, and door numbers controlled.
 - b. Use ANSI/BHMA A156.28 "Recommended Practices for Keying Systems" as guideline for nomenclature, definitions, and approach for selecting optimal keying system.
 - c. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.
 - d. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
 - e. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion. Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.

- f. Prepare key schedule by or under supervision of supplier, detailing Owner's final keying instructions for locks.

C. Informational Submittals:

1. Provide Qualification Data for Supplier, Installer and Architectural Hardware Consultant.
2. Provide Product Data:
 - a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
 - b. Include warranties for specified door hardware.

D. Closeout Submittals:

1. Operations and Maintenance Data: Provide in accordance with Division 01 and include:
 - a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
 - b. Catalog pages for each product.
 - c. Final approved hardware schedule edited to reflect conditions as installed.
 - d. Final keying schedule
 - e. Copy of warranties including appropriate reference numbers for manufacturers to identify project.
 - f. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.

E. Inspection and Testing:

1. Submit written reports to the Owner and Authority Having Jurisdiction (AHJ) of the results of functional testing and inspection for:
 - a. Fire door assemblies, in compliance with NFPA 80.
 - b. Required egress door assemblies, in compliance with NFPA 101.

1.04 QUALITY ASSURANCE

A. Qualifications and Responsibilities:

1. Supplier: Recognized architectural hardware supplier with a minimum of 5 years documented experience supplying both mechanical and electromechanical door hardware similar in quantity, type, and quality to that indicated for this Project. Supplier to be recognized as a factory direct distributor by the manufacturer of the primary materials with a warehousing facility in the Project's vicinity. Supplier to have on staff, a certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.
2. Installer: Qualified tradesperson skilled in the application of commercial grade hardware with experience installing door hardware similar in quantity, type, and quality as indicated for this Project.

3. Architectural Hardware Consultant: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:
 - a. For door hardware: DHI certified AHC or DHC.
 - b. Can provide installation and technical data to Architect and other related subcontractors.
 - c. Can inspect and verify components are in working order upon completion of installation.
 - d. Capable of producing wiring diagram and coordinating installation of electrified hardware with Architect and electrical engineers.
 4. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.
- B. Certifications:
1. Fire-Rated Door Openings:
 - a. Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction.
 - b. Provide only items of door hardware that are listed products tested by UL LLC, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.
 2. Smoke and Draft Control Door Assemblies:
 - a. Provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105
 - b. Comply with the maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.
 3. Electrified Door Hardware
 - a. Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.
 4. Accessibility Requirements:
 - a. Comply with governing accessibility regulations cited in "REFERENCES" article 087100, 1.02.D3 herein for door hardware on doors in an accessible route. This project must comply with all Federal Americans with Disability Act regulations and all Local Accessibility Regulations.
- C. Pre-Installation Meetings
1. Keying Conference
 - a. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:

- 1) Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
 - 2) Preliminary key system schematic diagram.
 - 3) Requirements for key control system.
 - 4) Requirements for access control.
 - 5) Address for delivery of keys.
2. Pre-installation Conference
- a. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - b. Inspect and discuss preparatory work performed by other trades.
 - c. Inspect and discuss electrical roughing-in for electrified door hardware.
 - d. Review sequence of operation for each type of electrified door hardware.
 - e. Review required testing, inspecting, and certifying procedures.
 - f. Review questions or concerns related to proper installation and adjustment of door hardware.
3. Electrified Hardware Coordination Conference:
- a. Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site. Promptly replace products damaged during shipping.
- B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package. Deliver each article of hardware in manufacturer's original packaging.
- C. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.
- D. Provide secure lock-up for door hardware delivered to Project. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.
- E. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.
- F. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

1.06 COORDINATION

- A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.
- B. Installation Templates: Distribute for doors, frames, and other work specified to be factory or shop prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- C. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.

- D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.

1.07 WARRANTY

- A. Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within published warranty period.
 - 1. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.
 - 2. Warranty Period: Beginning from date of Substantial Completion, for durations indicated in manufacturer's published listings.
 - a. Mechanical Warranty
 - 1) Locks
 - a) Schlage L Series: 3 years
 - 2) Exit Devices
 - a) Von Duprin: 3 years
 - 3) Closers
 - a) LCN 4000 Series: 30 years
 - b. Electrical Warranty
 - 1) Locks
 - a) Schlage: 1 year
 - 2) Exit Devices
 - a) Von Duprin: 1 year

1.08 MAINTENANCE

- A. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.
- B. Turn over unused materials to Owner for maintenance purposes.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Approval of manufacturers and/or products other than those listed as "Scheduled Manufacturer" or "Acceptable Manufacturers" in the individual article for the product category shall be in accordance with QUALITY ASSURANCE article, herein.
- B. Approval of products from manufacturers indicated in "Acceptable Manufacturers" is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer's product.
- C. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

2.02 MATERIALS

A. Fabrication

1. Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. provide screws according to manufacturer's recognized installation standards for application intended.
2. Finish exposed screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
3. Provide concealed fasteners wherever possible for hardware units exposed when door is closed. Coordinate with "Metal Doors and Frames", "Flush Wood Doors", "Stile and Rail Wood Doors" to ensure proper reinforcements. Advise the Architect where visible fasteners, such as thru bolts, are required.

B. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.

1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.

C. Cable and Connectors:

1. Where scheduled in the hardware sets, provide each item of electrified hardware and wire harnesses with number and gage of wires enough to accommodate electric function of specified hardware.
2. Provide Molex connectors that plug directly into connectors from harnesses, electric locking and power transfer devices.
3. Provide through-door wire harness for each electrified locking device installed in a door and wire harness for each electrified hinge, electrified continuous hinge, electrified pivot, and electric power transfer for connection to power supplies.

2.03 HINGES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Ives 5BB series
2. Acceptable Manufacturers and Products:
 - a. Hager BB1191/1279 series
 - b. Stanley FBB series

B. Requirements:

1. Provide hinges conforming to ANSI/BHMA A156.1.
2. Provide five knuckle, ball bearing hinges.
3. 1-3/4 inch (44 mm) thick doors, up to and including 36 inches (914 mm) wide:
 - a. Exterior: Standard weight, bronze or stainless steel, 4-1/2 inches (114 mm) high

- b. Interior: Standard weight, steel, 4-1/2 inches (114 mm) high
- 4. 1-3/4 inch (44 mm) thick doors over 36 inches (914 mm) wide:
 - a. Exterior: Heavy weight, bronze/stainless steel, 5 inches (127 mm) high
 - b. Interior: Heavy weight, steel, 5 inches (127 mm) high
- 5. 2 inches or thicker doors:
 - a. Exterior: Heavy weight, bronze or stainless steel, 5 inches (127 mm) high
 - b. Interior: Heavy weight, steel, 5 inches (127 mm) high
- 6. Adjust hinge width for door, frame, and wall conditions to allow proper degree of opening.
- 7. Provide three hinges per door leaf for doors 90 inches (2286 mm) or less in height, and one additional hinge for each 30 inches (762 mm) of additional door height.
- 8. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:
 - a. Steel Hinges: Steel pins
 - b. Non-Ferrous Hinges: Stainless steel pins
 - c. Out-Swinging Exterior Doors: Non-removable pins
 - d. Out-Swinging Interior Lockable Doors: Non-removable pins
 - e. Interior Non-lockable Doors: Non-rising pins
- 9. Provide hinges with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware. Locate electric hinge at second hinge from bottom or nearest to electrified locking component. Provide mortar guard for each electrified hinge specified.

2.04 INVISIBLE HINGE

A. Manufacturers:

- 1. Scheduled Manufacturer:
 - a. Soss
- 2. Acceptable Manufacturers:
 - a. Tectus
 - b. Sugatsune

B. Requirements

- 1. Provide hinges conforming to ANSI/BHMA A156.1.
- 2. Provide steel-based hinges at fire rated openings.
- 3. Provide hinges completely mortised in door and jamb such that hinge is concealed when door is closed and allows 180 degrees opening.
- 4. Adjust hinge size and type for door dimensions, weight, and conditions.

2.05 PIVOT SETS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Rixson
 - b. ABH

B. Requirements:

1. Provide pivot sets complete with oil-impregnated top pivot, unless indicated otherwise.
2. Where offset pivots are specified, Provide one intermediate pivot for doors less than 91 inches (2311 mm) high and one additional intermediate pivot per leaf for each additional 30 inches (762 mm) in height or fraction thereof. Intermediate pivots spaced equally not less than 25 inches (635 mm) or not more than 35 inches (889 mm) on center, for doors over 121 inches (3073 mm) high.
3. Provide appropriate model where pivot sets are scheduled at fire rated openings.
4. Provide lead-lined model where pivot sets are specified at lead-lined doors.
5. Provide pivots with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware. Locate electrified pivot nearest to electrified locking component. If manufacturer of electrified locking component requires another device for power transfer, then provide recommended power transfer device and appropriate quantity of pivots.
6. Provide mortar guard for each electric pivot specified, unless specified in hollow metal frame specification.

2.06 ELECTRIC POWER TRANSFER

A. Manufacturers:

1. Scheduled Manufacturer and Product:
 - a. Von Duprin EPT-10
2. Acceptable Manufacturers and Products:
 - a. Security Door Controls PTM
 - b. Precision EPT-12C

B. Requirements:

1. Provide power transfer with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware.
2. Locate electric power transfer per manufacturer's template and UL requirements, unless interference with operation of door or other hardware items.

2.07 FLUSH BOLTS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Burns
 - b. Trimco

B. Requirements:

1. Provide automatic, constant latching, and manual flush bolts with forged bronze or stainless-steel face plates, extruded brass levers, and with wrought brass guides and strikes. Provide 12 inch (305 mm) steel or brass rods at doors up to 90 inches (2286 mm) in height. For doors over 90 inches (2286 mm) in height increase top rods by 6 inches (152 mm) for each additional 6 inches (152 mm) of door height. Provide dust-proof strikes at each bottom flush bolt.

2.08 MORTISE LOCKS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Schlage L9000 series
2. Acceptable Manufacturers and Products:
 - a. Accurate 9000/9100 series
 - b. Best 45H series

B. Requirements:

1. Provide mortise locks conforming to ANSI/BHMA A156.13 Series 1000, Grade 1, and UL Listed for 3-hour fire doors.
2. Indicators: Where specified, provide indicator window measuring a minimum 2-inch x 1/2 inch with 180-degree visibility. Provide messages color-coded with full text and/or symbols, as scheduled, for easy visibility.
3. Provide locks manufactured from heavy gauge steel, containing components of steel with a zinc dichromate plating for corrosion resistance.
4. Provide lock case that is multi-function and field reversible for handing without opening case. Cylinders: Refer to "KEYING" article, herein.
5. Provide locks with standard 2-3/4 inches (70 mm) backset with full 3/4 inch (19 mm) throw stainless steel mechanical anti-friction latchbolt. Provide deadbolt with full 1-inch (25 mm) throw, constructed of stainless steel.

6. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim. Provide electrified options as scheduled in the hardware sets. Where scheduled, provide switches and sensors integrated into the locks and latches.
7. Provide motor based electrified locksets that comply with the following requirements:
 - a. Universal input voltage – single chassis accepts 12 or 24VDC to allow for changes in the field without changing lock chassis.
 - b. Fail Safe/Fail Secure – changing mode between electrically locked (fail safe) and electrically unlocked (fail secure) is field selectable without opening the lock case.
 - c. Low maximum current draw – maximum 0.4 amps to allow for multiple locks on a single power supply.
 - d. Low holding current – maximum 0.01 amps to produce minimal heat, eliminate “hot levers” in electrically locked applications, and to provide reliable operation in wood doors that provide minimal ventilation and air flow.
 - e. Connections – provide quick-connect Molex system standard.
8. Lever Trim: Solid brass, bronze, or stainless steel, cast or forged in design specified, with wrought roses and external lever spring cages. Provide thru-bolted levers with 2-piece spindles.
 - a. Lever Design: 06A.

2.09 CYLINDRICAL LOCKS – GRADE 1

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Schlage ND series
2. Acceptable Manufacturers and Products:
 - a. Sargent 11-Line
 - b. Corbin-Russwin CL3100 series

B. Requirements:

1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 1, and UL Listed for 3-hour fire doors.
2. Cylinders: Refer to “KEYING” article, herein.
3. Provide locks with standard 2-3/4 inches (70 mm) backset, unless noted otherwise, with 1/2-inch latch throw. Provide proper latch throw for UL listing at pairs.
4. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.
5. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
6. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
7. Provide electrified options as scheduled in the hardware sets.
8. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.
 - a. Lever Design: Rhodes (RHO).

2.10 EXIT DEVICES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Von Duprin 99/33A series
2. Acceptable Manufacturers and Products:
 - a. Detex Advantex series
 - b. Precision APEX 2000 series

B. Requirements:

1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware.
2. Cylinders: Refer to "KEYING" article, herein.
3. Provide grooved touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
4. Touchpad must extend a minimum of one half of door width. No plastic inserts are allowed in touchpads.
5. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
6. Provide exit devices with weather resistant components that can withstand harsh conditions of various climates and corrosive cleaners used in outdoor pool environments.
7. Provide flush end caps for exit devices.
8. Provide exit devices with manufacturer's approved strikes.
9. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
10. Mount mechanism case flush on face of doors or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
11. Provide cylinder or hex-key dogging as specified at non fire-rated openings.
12. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
13. Provide electrified options as scheduled.
14. Top latch mounting: double- or single-tab mount for steel doors, face mount for aluminum doors eliminating requirement of tabs, and double tab mount for wood doors.
15. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.

2.11 POWER SUPPLIES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Schlage/Von Duprin PS900 Series
2. Acceptable Manufacturers and Products:

- a. Precision ELR series
- b. Security Door Controls 600 series

B. Requirements:

1. Provide power supplies approved by manufacturer of supplied electrified hardware.
2. Provide appropriate quantity of power supplies necessary for proper operation of electrified locking components as recommended by manufacturer of electrified locking components with consideration for each electrified component using power supply, location of power supply, and approved wiring diagrams. Locate power supplies as directed by Architect.
3. Provide regulated and filtered 24 VDC power supply, and UL class 2 listed.
4. Provide power supplies with the following features:
 - a. 12/24 VDC Output, field selectable.
 - b. Class 2 Rated power limited output.
 - c. Universal 120-240 VAC input.
 - d. Low voltage DC, regulated and filtered.
 - e. Polarized connector for distribution boards.
 - f. Fused primary input.
 - g. AC input and DC output monitoring circuit w/LED indicators.
 - h. Cover mounted AC Input indication.
 - i. Tested and certified to meet UL294.
 - j. NEMA 1 enclosure.
 - k. Hinged cover w/lock down screws.
 - l. High voltage protective cover.

2.12 CYLINDERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Schlage Everest 29 T
2. Acceptable Manufacturers and Products:
 - a. Best CORMAX
 - b. Medeco Keymark

B. Requirements:

1. Provide cylinders/cores compliant with ANSI/BHMA A156.5; latest revision; cylinder face finished to match lockset; manufacturer's series as indicated. Refer to "KEYING" article, herein.
2. Provide cylinders in the below-listed configuration(s), distributed throughout the Project as indicated.
 - a. Conventional Patented Restricted: cylinder with interchangeable core with patented, restricted keyway.

3. Patent Protection: Cylinders/cores requiring use of restricted, patented keys, patent protected.
4. Nickel silver bottom pins.

2.13 KEYING

A. Scheduled System:

1. New factory registered system:

- a. Provide a factory registered keying system, complying with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference.

B. Requirements:

1. Construction Keying:

a. Replaceable Construction Cores.

- 1) Provide temporary construction cores replaceable by permanent cores, furnished in accordance with the following requirements.
 - a) 3 construction control keys
 - b) 12 construction change (day) keys.
- 2) Owner or Owner's Representative will replace temporary construction cores with permanent cores.

2. Permanent Keying:

- a. Provide permanent cylinders/cores keyed by the manufacturer according to the following key system.
 - 1) Master Keying system as directed by the Owner.
- b. Forward biting list and keys separately from cylinders, by means as directed by Owner. Failure to comply with forwarding requirements will be cause for replacement of cylinders/cores involved at no additional cost to Owner.
- c. Provide keys with the following features:
 - 1) Material: Nickel silver; minimum thickness of .107-inch (2.3mm)
 - 2) Patent Protection: Keys and blanks protected by one or more utility patent(s).
- d. Identification:
 - 1) Mark permanent cylinders/cores and keys with applicable blind code for identification. Do not provide blind code marks with actual key cuts.
 - 2) Identification stamping provisions must be approved by the Architect and Owner.
 - 3) Stamp cylinders/cores and keys with Owner's unique key system facility code as established by the manufacturer; key symbol and embossed or stamped with "DO NOT DUPLICATE" along with the "PATENTED" or patent number to enforce the patent protection.
 - 4) Failure to comply with stamping requirements will be cause for replacement of keys involved at no additional cost to Owner.
 - 5) Forward permanent cylinders/cores to Owner, separately from keys, by means as directed by Owner.

- e. Quantity: Furnish in the following quantities.
 - 1) Change (Day) Keys: 3 per cylinder/core.
 - 2) Permanent Control Keys: 3.
 - 3) Master Keys: 6.

2.14 KEY CONTROL SYSTEM

A. Manufacturers:

- 1. Scheduled Manufacturer:
 - a. Telkee
- 2. Acceptable Manufacturers:
 - a. HPC
 - b. Lund

B. Requirements:

- 1. Provide key control system, including envelopes, labels, tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet, all as recommended by system manufacturer, with capacity for 150% of number of locks required for Project.
 - a. Provide complete cross index system set up by hardware supplier, and place keys on markers and hooks in cabinet as determined by final key schedule.
 - b. Provide hinged-panel type cabinet for wall mounting.

2.15 DOOR CLOSERS

A. Manufacturers and Products:

- 1. Scheduled Manufacturer and Product:
 - a. LCN 4010/4110/4020 series
- 2. Acceptable Manufacturers and Products:
 - a. Corbin-Russwin DC8000 series
 - b. Sargent 281 series

B. Requirements:

- 1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. Certify surface mounted mechanical closers to meet fifteen million (15,000,000) full load cycles. ISO 9000 certify closers. Stamp units with date of manufacture code.
- 2. Provide door closers with fully hydraulic, full rack and pinion action with high strength cast iron cylinder, and full complement bearings at shaft.

3. Cylinder Body: 1-1/2-inch (38 mm) diameter with 11/16-inch (17 mm) diameter double heat-treated pinion journal.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck.
7. Provide closers with solid forged steel main arms and factory assembled heavy-duty forged forearms for parallel arm closers. When closers are parallel arm mounted, provide closers which mount within 6-inch (152 mm) top rail without use of mounting plate so that closer is not visible through vision panel from pull side.
8. Pressure Relief Valve (PRV) Technology: Not permitted.
9. Finish for Closer Cylinders, Arms, Adapter Plates, and Metal Covers: Powder coating finish which has been certified to exceed 100 hours salt spray testing as described in ANSI/BHMA Standard A156.4 and ASTM B117, or has special rust inhibitor (SRI).
10. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

2.16 DOOR TRIM

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Trimco
 - b. Burns

B. Requirements:

1. Provide push plates, push bars, pull plates, pulls, and hands-free reversible door pulls with diameter and length as scheduled.

2.17 PROTECTION PLATES

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Burns
 - b. Trimco

B. Requirements:

1. Provide protection plates with a minimum of 0.050 inch (1 mm) thick, beveled four edges as scheduled. Furnish with sheet metal or wood screws, finished to match plates.
2. Size plates 2 inches (51 mm) less width of door on single doors, pairs of doors with a mullion, and doors with edge guards. Size plates 1 inch (25 mm) less width of door on pairs without a mullion or edge guards.
3. At fire rated doors, provide protection plates over 16 inches high with UL label.

2.18 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

A. Manufacturers:

1. Scheduled Manufacturers:
 - a. Glynn-Johnson
2. Acceptable Manufacturers:
 - a. Rixson
 - b. ABH

B. Requirements:

1. Provide overhead stop at any door where conditions do not allow for a wall stop or floor stop presents tripping hazard.
2. Provide friction type at doors without closer and positive type at doors with closer.

2.19 DOOR STOPS AND HOLDERS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Trimco
 - b. Burns

B. Provide door stops at each door leaf:

1. Provide wall stops wherever possible. Provide concave type where lockset has a push button of thumbturn.
2. Where a wall stop cannot be used, provide universal floor stops.
3. Where wall or floor stop cannot be used, provide overhead stop.
4. Provide roller bumper where doors open into each other and overhead stop cannot be used.

2.20 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Zero International
2. Acceptable Manufacturers:
 - a. National Guard
 - b. Reese

B. Requirements:

1. Provide thresholds, weather-stripping, and gasketing systems as specified and per architectural details. Match finish of other items.
2. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
3. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.
4. Size thresholds 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width unless otherwise specified in the hardware sets or detailed in the drawings.

2.21 SILENCERS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Burns
 - b. Trimco

B. Requirements:

1. Provide "push-in" type silencers for hollow metal or wood frames.
2. Provide one silencer per 30 inches (762 mm) of height on each single frame, and two for each pair frame.
3. Omit where gasketing is specified.

2.22 DOOR POSITION SWITCHES

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Schlage
 2. Acceptable Manufacturers:
 - a. GE-Interlogix
 - b. Sargent
- B. Requirements:
1. Provide recessed or surface mounted type door position switches as specified.
 2. Coordinate door and frame preparations with door and frame suppliers. If switches are being used with magnetic locking device, provide minimum of 4 inches (102 mm) between switch and magnetic locking device.

2.23 FINISHES

- A. FINISH: BHMA 626/652 (US26D); EXCEPT:
1. Hinges at Exterior Doors: BHMA 630 (US32D)
 2. Push Plates, Pulls, and Push Bars: BHMA 630 (US32D)
 3. Protection Plates: BHMA 630 (US32D)
 4. Overhead Stops and Holders: BHMA 630 (US32D)
 5. Door Closers: Powder Coat to Match
 6. Wall Stops: BHMA 630 (US32D)
 7. Weatherstripping: Clear Anodized Aluminum
 8. Thresholds: Mill Finish Aluminum

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance. Verify doors, frames, and walls have been properly reinforced for hardware installation.
- B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.
- C. Submit a list of deficiencies in writing and proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.
 1. Standard Steel Doors and Frames: ANSI/SDI A250.8.

2. Custom Steel Doors and Frames: HMMA 831.
 3. Interior Architectural Wood Flush Doors: ANSI/WDMA I.S. 1A
 4. Installation Guide for Doors and Hardware: DHI TDH-007-20
- B. Install door hardware in accordance with NFPA 80, NFPA 101 and provide post-install inspection, testing as specified in section 1.03.E unless otherwise required to comply with governing regulations.
- C. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.
- D. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.
- E. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.
- F. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
- G. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.
- H. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated.
- I. Lock Cylinders:
1. Install construction cores to secure building and areas during construction period.
 2. Replace construction cores with permanent cores as indicated in keying section.
 3. Furnish permanent cores to Owner for installation.
- J. Wiring: Coordinate with Division 26, ELECTRICAL and Division 28 ELECTRONIC SAFETY AND SECURITY sections for:
1. Conduit, junction boxes and wire pulls.
 2. Connections to and from power supplies to electrified hardware.
 3. Connections to fire/smoke alarm system and smoke evacuation system.
 4. Connection of wire to door position switches and wire runs to central room or area, as directed by Architect.
 5. Connections to panel interface modules, controllers, and gateways.
 6. Testing and labeling wires with Architect's opening number.
- K. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.
- L. Door Closers: Mount closers on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Mount closers so they are not visible in corridors, lobbies and other public spaces unless approved by Architect.
- M. Closer/holders: Mount closer/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.
- N. Power Supplies: Locate power supplies as indicated or, if not indicated, above accessible ceilings or in equipment room, or alternate location as directed by Architect.
- O. Thresholds: Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."
- P. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.
- Q. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.
- R. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.

- S. Door Bottoms and Sweeps: Apply to bottom of door, forming seal with threshold when door is closed.

3.03 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.
 - 1. Spring Hinges: Adjust to achieve positive latching when door can close freely from an open position of 30 degrees.
 - 2. Electric Strikes: Adjust horizontal and vertical alignment of keeper to properly engage lock bolt.
 - 3. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.
- B. Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

3.04 CLEANING AND PROTECTION

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

3.05 DOOR HARDWARE SCHEDULE

- A. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier's responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.
- B. Discrepancies, conflicting hardware, and missing items are to 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.
- C. Hardware items are referenced in the following hardware schedule. Refer to the above specifications for special features, options, cylinders/keying, and other requirements.
- D. Hardware Sets:

KCWA – OFFICE AND MAINTENANCE BUILDING
 35 Technology Way
 West Greenwich, RI
 Issued for Bidding

VISION 3 ARCHITECTS
 Vision 3 Project #22007a
 September 9, 2022
 Revised September 30, 2022

HARDWARE GROUP NO. 01 - (EXTERIOR SINGLE WITH STOREROOM LOCKSET X ELECTRIC STRIKE X CLOSER X CARD READER)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|-----|---|---|-----|
| 3 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | POWER TRANSFER | EPT10 CON | VON |
| 1 | EA | STOREROOM LOCK | RX-ND80 | SCH |
| 1 | EA | ELECTRIC STRIKE | 6400 FSE | VON |
| 1 | EA | LOCK GUARD | LG14 | IVE |
| 1 | EA | SURFACE CLOSER | 4111 SCUSH | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | IVE |
| 1 | EA | DRIP CAP | 142 | ZER |
| 1 | SET | GASKETING | 429 | ZER |
| 1 | EA | DOOR SWEEP | 39 | ZER |
| 1 | EA | THRESHOLD | 8655A (VERIFY JAMB DEPTH) | ZER |
| 1 | EA | WIRE HARNESS | CON-LENGTH/TYPE AS REQUIRED FROM CON- IN ELEC DEVICE TO POWER TRANSFER DEVICE | SCH |
| 1 | EA | WIRE HARNESS | CON-6W FROM CON- IN FRAME TO FIELD WIRING | SCH |
| 1 | EA | DOOR CONTACT | BY SECURITY | SCE |
| 1 | EA | POWER SUPPLY | PS902 120/240 VAC | SCE |
| 1 | EA | CREDENTIAL READER | SPECIFIED ELSEWHERE | |
| 1 | EA | WIRING ELEVATION AND POINT-TO-POINT WIRING DRAWINGS | AS REQUIRED | |

ALL WIRING AND CONNECTIONS BY DIVISION 26.

OPERATIONAL DESCRIPTION:

IMMEDIATE EGRESS ALWAYS ALLOWED. ACCESS BY KEY OR BY CARD READER. CARD READER WILL RELEASE ELECTRIC STRIKE AND ALLOW ACCESS. REQUEST TO EXIT AND DOOR CONTACT CONNECTED TO BUILDING'S SECURITY SYSTEM.

KCWA – OFFICE AND MAINTENANCE BUILDING
 35 Technology Way
 West Greenwich, RI
 Issued for Bidding

VISION 3 ARCHITECTS
 Vision 3 Project #22007a
 September 9, 2022
 Revised September 30, 2022

HARDWARE GROUP NO. 03 - (EXTERIOR ALUMINUM SINGLE WITH RIM PANIC HARDWARE X ELECTRIC STRIKE X CARD READER)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|-----|---|---|-----|
| 1 | EA | PIVOT SET | 7226F SET | IVE |
| 1 | EA | INTERMEDIATE PIVOT | 7226F INT | IVE |
| 1 | EA | POWER TRANSFER | EPT10 CON | VON |
| 1 | EA | ELEC PANIC HARDWARE | CD-RX-99-NL-OP-110MD | VON |
| 1 | EA | RIM CYLINDER | AS REQUIRED | SCH |
| 1 | EA | ELECTRIC STRIKE | 6111 FSE CON | VON |
| 1 | EA | LOCK GUARD | LG11 | IVE |
| 1 | EA | OFFSET DOOR PULL | 8190-0 | IVE |
| 1 | EA | SURFACE CLOSER | 4111 SCUSH | LCN |
| 1 | EA | DRIP CAP | 142 | ZER |
| 1 | SET | SEALS | BY ALUMINUM DOOR SUPPLIER | |
| 1 | EA | DOOR SWEEP | BY ALUMINUM DOOR SUPPLIER | |
| 1 | EA | THRESHOLD | BY ALUMINUM DOOR SUPPLIER | |
| 1 | EA | WIRE HARNESS | CON-LENGTH/TYPE AS REQUIRED FROM CON- IN ELEC DEVICE TO POWER TRANSFER DEVICE | VON |
| 1 | EA | WIRE HARNESS | CON-6W FROM CON- IN FRAME TO FIELD WIRING | VON |
| 1 | EA | DOOR CONTACT | BY SECURITY | SCE |
| 1 | EA | POWER SUPPLY | PS902 900-2RS 120/240 VAC | VON |
| 1 | EA | CREDENTIAL READER | SPECIFIED ELSEWHERE | |
| 1 | EA | WIRING ELEVATION AND POINT-TO-POINT WIRING DRAWINGS | AS REQUIRED | |

ALL WIRING AND CONNECTIONS BY DIVISION 26.

OPERATIONAL DESCRIPTION:

IMMEDIATE EGRESS ALWAYS ALLOWED. ACCESS BY KEY OR BY CARD READER. CARD READER WILL RELEASE ELECTRIC STRIKE AND ALLOW ACCESS. REQUEST TO EXIT AND DOOR CONTACT CONNECTED TO BUILDING'S SECURITY SYSTEM.

KCWA – OFFICE AND MAINTENANCE BUILDING
 35 Technology Way
 West Greenwich, RI
 Issued for Bidding

VISION 3 ARCHITECTS
 Vision 3 Project #22007a
 September 9, 2022
 Revised September 30, 2022

HARDWARE GROUP NO. 03.1 - (EXTERIOR ALUMINUM SINGLE WITH RIM PANIC HARDWARE)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|-----|---|-------------------------------------|-----|
| 1 | EA | PIVOT SET | 7226F SET | IVE |
| 1 | EA | INTERMEDIATE PIVOT | 7226F INT | IVE |
| 1 | EA | PANIC HARDWARE | CD-33A-NL-OP | VON |
| 1 | EA | MORTISE CYLINDER | AS REQUIRED | SCH |
| 1 | EA | RIM CYLINDER | AS REQUIRED | SCH |
| 1 | EA | OFFSET DOOR PULL | 8190-0 | IVE |
| 1 | EA | OVERHEAD STOP | CONCEALED HEAVY DUTY 100S SERIES | GLY |
| 1 | EA | SURFACE CLOSER | 4111 EDA | LCN |
| 1 | SET | SEALS | BY ALUMINUM DOOR SUPPLIER | |
| 1 | EA | DOOR SWEEP | BY ALUMINUM DOOR SUPPLIER | |
| 1 | EA | DRIP CAP | BY ALUMINUM DOOR SUPPLIER | |
| 1 | EA | THRESHOLD | BY ALUMINUM DOOR SUPPLIER | |
| 1 | EA | DOOR CONTACT | BY SECURITY | SCE |
| 1 | EA | WIRING ELEVATION AND POINT-TO-POINT WIRING DRAWINGS | AS REQUIRED | |

ALL WIRING AND CONNECTIONS BY DIVISION 26.

OPERATIONAL DESCRIPTION:

DOOR CONTACT CONNECTED TO BUILDING'S SECURITY SYSTEM.

HARDWARE GROUP NO. 03.2 - (SINGLE VESTIBULE WITH PUSH/PULL BAR)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|----------------|-------------------------------------|-----|
| 3 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | PUSH/PULL BAR | 9190-0 | IVE |
| 1 | EA | OVERHEAD STOP | CONCEALED HEAVY DUTY 100S SERIES | GLY |
| 1 | EA | SURFACE CLOSER | 4111 EDA | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | IVE |
| 3 | EA | SILENCER | SR64 | IVE |

KCWA – OFFICE AND MAINTENANCE BUILDING
 35 Technology Way
 West Greenwich, RI
 Issued for Bidding

VISION 3 ARCHITECTS
 Vision 3 Project #22007a
 September 9, 2022
 Revised September 30, 2022

HARDWARE GROUP NO. 04.1 - (EXTERIOR SINGLE WITH RIM PANIC HARDWARE X ELECTRIC STRIKE X CARD READER)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|-----|---|---|-----|
| 4 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | PANIC HARDWARE | CD-99-NL-OP | VON |
| 1 | EA | RIM CYLINDER | AS REQUIRED | SCH |
| 1 | EA | ELECTRIC STRIKE | 6111 FSE CON | VON |
| 1 | EA | LOCK GUARD | LG11 | IVE |
| 1 | EA | OFFSET DOOR PULL | 8190-0 | IVE |
| 1 | EA | SURFACE CLOSER | 4111 SCUSH | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | IVE |
| 1 | EA | DRIP CAP | 142 | ZER |
| 1 | SET | GASKETING | 429 | ZER |
| 1 | EA | DOOR SWEEP | 39 | ZER |
| 1 | EA | THRESHOLD | 8655A (VERIFY JAMB DEPTH) | ZER |
| 1 | EA | WIRE HARNESS | CON-LENGTH/TYPE AS REQUIRED FROM CON- IN ELEC DEVICE TO POWER TRANSFER DEVICE | VON |
| 1 | EA | WIRE HARNESS | CON-6W FROM CON- IN FRAME TO FIELD WIRING | VON |
| 1 | EA | DOOR CONTACT | BY SECURITY | SCE |
| 1 | EA | POWER SUPPLY | PS902 900-2RS 120/240 VAC | VON |
| 1 | EA | CREDENTIAL READER | SPECIFIED ELSEWHERE | |
| 1 | EA | WIRING ELEVATION AND POINT-TO-POINT WIRING DRAWINGS | AS REQUIRED | |

ALL WIRING AND CONNECTIONS BY DIVISION 26.

OPERATIONAL DESCRIPTION:

IMMEDIATE EGRESS ALWAYS ALLOWED. ACCESS BY KEY OR BY CARD READER. CARD READER WILL RELEASE ELECTRIC STRIKE AND ALLOW ACCESS. REQUEST TO EXIT AND DOOR CONTACT CONNECTED TO BUILDING'S SECURITY SYSTEM.

KCWA – OFFICE AND MAINTENANCE BUILDING
 35 Technology Way
 West Greenwich, RI
 Issued for Bidding

VISION 3 ARCHITECTS
 Vision 3 Project #22007a
 September 9, 2022
 Revised September 30, 2022

HARDWARE GROUP NO. 05 - (EXTERIOR SINGLE WITH RIM PANIC HARDWARE W/ LEVER X ELECTRIC STRIKE X CARD READER)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|-----|---|---|-----|
| 3 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | POWER TRANSFER | EPT10 CON | VON |
| 1 | EA | ELEC PANIC HARDWARE | CD-RX-99-L-06 | VON |
| 1 | EA | RIM CYLINDER | AS REQUIRED | SCH |
| 1 | EA | ELECTRIC STRIKE | 6111 FSE CON | VON |
| 1 | EA | LOCK GUARD | LG11 | IVE |
| 1 | EA | SURFACE CLOSER | 4111 SCUSH | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | IVE |
| 1 | EA | DRIP CAP | 142 | ZER |
| 1 | SET | GASKETING | 429 | ZER |
| 1 | EA | DOOR SWEEP | 39 | ZER |
| 1 | EA | THRESHOLD | 8655A (VERIFY JAMB DEPTH) | ZER |
| 1 | EA | WIRE HARNESS | CON-LENGTH/TYPE AS REQUIRED FROM CON- IN ELEC DEVICE TO POWER TRANSFER DEVICE | VON |
| 1 | EA | WIRE HARNESS | CON-6W FROM CON- IN FRAME TO FIELD WIRING | VON |
| 1 | EA | DOOR CONTACT | BY SECURITY | SCE |
| 1 | EA | POWER SUPPLY | PS902 900-2RS 120/240 VAC | VON |
| 1 | EA | CREDENTIAL READER | SPECIFIED ELSEWHERE | |
| 1 | EA | WIRING ELEVATION AND POINT-TO-POINT WIRING DRAWINGS | AS REQUIRED | |

ALL WIRING AND CONNECTIONS BY DIVISION 26.

OPERATIONAL DESCRIPTION:

IMMEDIATE EGRESS ALWAYS ALLOWED. ACCESS BY KEY OR BY CARD READER. CARD READER WILL RETRACT EXIT DEVICE LATCHBOLT AND ALLOW ACCESS. REQUEST TO EXIT AND DOOR CONTACT CONNECTED TO BUILDING'S SECURITY SYSTEM.

KCWA – OFFICE AND MAINTENANCE BUILDING
 35 Technology Way
 West Greenwich, RI
 Issued for Bidding

VISION 3 ARCHITECTS
 Vision 3 Project #22007a
 September 9, 2022
 Revised September 30, 2022

HARDWARE GROUP NO. 07 - (EXTERIOR ALUMINUM SINGLE WITH EXIT ONLY RIM PANIC HARDWARE)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|-----|---|----------------------------------|-----|
| 3 | EA | PIVOT SET | 7226F SET | IVE |
| 1 | EA | INTERMEDIATE PIVOT | 7226F INT | IVE |
| 1 | EA | PANIC HARDWARE | CD-99-EO | VON |
| 1 | EA | MORTISE CYLINDER | AS REQUIRED | SCH |
| 1 | EA | OFFSET DOOR PULL | 8190-0 | IVE |
| 1 | EA | OVERHEAD STOP | CONCEALED HEAVY DUTY 100S SERIES | GLY |
| 1 | EA | SURFACE CLOSER | 4111 EDA | LCN |
| 1 | EA | DRIP CAP | 142 | ZER |
| 1 | SET | SEALS | BY ALUMINUM DOOR SUPPLIER | |
| 1 | EA | DOOR SWEEP | BY ALUMINUM DOOR SUPPLIER | |
| 1 | EA | THRESHOLD | BY ALUMINUM DOOR SUPPLIER | |
| 1 | EA | DOOR CONTACT | BY SECURITY | SCE |
| 1 | EA | WIRING ELEVATION AND POINT-TO-POINT WIRING DRAWINGS | AS REQUIRED | |

ALL WIRING AND CONNECTIONS BY DIVISION 26.

OPERATIONAL DESCRIPTION:

DOOR CONTACT CONNECTED TO BUILDING'S SECURITY SYSTEM.

HARDWARE GROUP NO. 08 - (ALUMINUM EXTERIOR PAIR WITH ELECTRIFIED CONCEALED VERTICAL PANIC HARDWARE X AUTO OPERATOR X CARD READER)

Provide each PR door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|-----|---|---|-----|
| 2 | EA | PIVOT SET | 7226F SET | IVE |
| 2 | EA | INTERMEDIATE PIVOT | 7226F INT | IVE |
| 2 | EA | POWER TRANSFER | EPT10 CON | VON |
| 1 | EA | ELEC PANIC HARDWARE | RX-QEL-3347A-EO-CON | VON |
| 1 | EA | ELEC PANIC HARDWARE | RX-QEL-3347A-NL-OP-CON | VON |
| 1 | EA | RIM CYLINDER | AS REQUIRED | SCH |
| 2 | EA | OFFSET DOOR PULL | 8190-0 | IVE |
| 2 | EA | OVERHEAD STOP | CONCEALED HEAVY DUTY 100S SERIES | GLY |
| 1 | EA | SURFACE CLOSER | 4111 EDA | LCN |
| 1 | EA | SURF. AUTO OPERATOR | 4640 SERIES (PUSH SIDE MOUNTED) | LCN |
| 2 | EA | ACTUATOR, WALL MOUNT | 8310-852/8310-818 AS REQUIRED | LCN |
| 1 | EA | DRIP CAP | 142 | ZER |
| 1 | SET | SEALS | BY ALUMINUM DOOR SUPPLIER | |
| 2 | EA | DOOR SWEEP | BY ALUMINUM DOOR SUPPLIER | |
| 1 | EA | THRESHOLD | BY ALUMINUM DOOR SUPPLIER | |
| 2 | EA | WIRE HARNESS | CON-LENGTH/TYPE AS REQUIRED | VON |
| | | | FROM CON- IN ELEC DEVICE TO POWER TRANSFER DEVICE | |
| 2 | EA | WIRE HARNESS | CON-6W | VON |
| | | | FROM CON- IN FRAME TO FIELD WIRING | |
| 2 | EA | DOOR CONTACT | BY SECURITY | SCE |
| 1 | EA | POWER SUPPLY | PS902 900-2RS 120/240 VAC | VON |
| 1 | EA | CREDENTIAL READER | SPECIFIED ELSEWHERE | |
| 1 | EA | WIRING ELEVATION AND POINT-TO-POINT WIRING DRAWINGS | AS REQUIRED | |

ALL WIRING AND CONNECTIONS BY DIVISION 26.

OPERATIONAL DESCRIPTION:

IMMEDIATE EGRESS ALWAYS ALLOWED. DOOR CAN BE MANUALLY OR AUTOMATICALLY OPERATED. ACCESS CONTROL SYSTEM TO RETRACT AND HOLD EXIT DEVICE LATCHBOLT AND ENABLE EXTERIOR AUTOMATIC OPERATOR ACTUATOR. DOOR CAN BE MANUALLY PULLED OPEN OR AUTOMATICALLY OPERATED BY PUSHING ACTUATOR WHICH SIGNALS AUTOMATIC OPERATOR TO OPEN DOOR. INTERIOR ACTUATOR TO SIGNAL AUTOMATIC OPERATOR TO OPEN DOOR. LOCATE ACTUATORS AS DIRECTED BY ARCHITECT.

SECURE OPERATION:

ACCESS CONTROL SYSTEM TO RELEASE EXIT DEVICE LATCHBOLT AND TAKE CONTROL OF EXTERIOR ACTUATOR TO CONTROL ENTRY. IMMEDIATE EGRESS ALWAYS ALLOWED. AUTOMATIC OPERATION BY PUSHING INTERIOR ACTUATOR WHICH WILL RETRACT EXIT DEVICE LATCHBOLT THEN SIGNAL AUTOMATIC OPERATOR TO OPEN DOOR. ACCESS BY KEY ONLY. REQUEST TO EXIT AND DOOR CONTACT CONNECTED TO BUILDING'S SECURITY SYSTEM.

KCWA – OFFICE AND MAINTENANCE BUILDING
 35 Technology Way
 West Greenwich, RI
 Issued for Bidding

VISION 3 ARCHITECTS
 Vision 3 Project #22007a
 September 9, 2022
 Revised September 30, 2022

HARDWARE GROUP NO. 09 - (ALUMINUM PAIR VESTIBULE WITH PUSH/PULL HARDWARE X AUTO OPERATOR)

Provide each PR door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|-----|---|----------------------------------|-----|
| 2 | EA | PIVOT SET | 7226F SET | IVE |
| 2 | EA | INTERMEDIATE PIVOT | 7226F INT | IVE |
| 2 | EA | PUSH/PULL BAR | 9190-0 | IVE |
| 2 | EA | OVERHEAD STOP | CONCEALED HEAVY DUTY 100S SERIES | GLY |
| 1 | EA | SURFACE CLOSER | 4111 EDA | LCN |
| 1 | EA | SURF. AUTO OPERATOR | 4640 SERIES (PUSH SIDE MOUNTED) | LCN |
| 2 | EA | ACTUATOR, WALL MOUNT | 8310-852/8310-818 AS REQUIRED | LCN |
| 1 | SET | SEALS | BY ALUMINUM DOOR SUPPLIER | |
| 1 | EA | WIRING ELEVATION AND POINT-TO-POINT WIRING DRAWINGS | AS REQUIRED | |

ALL WIRING AND CONNECTIONS BY DIVISION 26.

OPERATIONAL DESCRIPTION:

IMMEDIATE EGRESS ALWAYS ALLOWED. DOOR CAN BE MANUALLY OR AUTOMATICALLY OPERATED. DOOR CAN BE MANUALLY PULLED OPEN OR AUTOMATICALLY OPERATED BY PUSHING ACTUATOR WHICH SIGNALS AUTOMATIC OPERATOR TO OPEN DOOR. INTERIOR ACTUATOR TO SIGNAL AUTOMATIC OPERATOR TO OPEN DOOR. LOCATE ACTUATORS AS DIRECTED BY ARCHITECT.

HARDWARE GROUP NO. 10 - (SINGLE WITH CLASSROOM LOCKSET)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|----------------|--------------------------|-----|
| 3 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | CLASSROOM LOCK | ND70 | SCH |
| 1 | EA | STOP | WS407/FS436 AS SPECIFIED | IVE |
| 3 | EA | SILENCER | SR64 | IVE |

HARDWARE GROUP NO. 11 - (SINGLE WITH PUSH/PULL)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|----------------|---------------------------|-----|
| 3 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | DOOR PULL | 8103EZ -0 | IVE |
| 1 | EA | PUSH PLATE | 8200 | IVE |
| 1 | EA | SURFACE CLOSER | 4011/4111EDA AS SPECIFIED | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | IVE |
| 1 | EA | WALL STOP | WS407 | IVE |
| 3 | EA | SILENCER | SR64 | IVE |

KCWA – OFFICE AND MAINTENANCE BUILDING
 35 Technology Way
 West Greenwich, RI
 Issued for Bidding

VISION 3 ARCHITECTS
 Vision 3 Project #22007a
 September 9, 2022
 Revised September 30, 2022

HARDWARE GROUP NO. 12 - (SINGLE WITH PASSAGE SET)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|-------------|--------------------------|-----|
| 3 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | PASSAGE SET | ND10 | SCH |
| 1 | EA | STOP | WS407/FS436 AS SPECIFIED | IVE |
| 3 | EA | SILENCER | SR64 | IVE |

HARDWARE GROUP NO. 13.1 - (SINGLE WITH STANDALONE OFFICE LOCKSET)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|------------------|--|-----|
| 3 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | ELEC OFFICE LOCK | AD-400-MS-50-MTK-RHO-P6 4AA BATTERY | SCE |
| 1 | EA | STOP | WS407/FS436 AS SPECIFIED | IVE |
| 3 | EA | SILENCER | SR64 | IVE |

HARDWARE GROUP NO. 14 - (SINGLE WITH PASSAGE SET X CLOSER)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|----------------|---------------------------|-----|
| 3 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | PASSAGE SET | ND10 | SCH |
| 1 | EA | SURFACE CLOSER | 4011/4111EDA AS SPECIFIED | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | IVE |
| 1 | EA | STOP | WS407/FS436 AS SPECIFIED | IVE |
| 3 | EA | SILENCER | SR64 | IVE |

HARDWARE GROUP NO. 15 - (SINGLE WITH PRIVACY SET X CLOSER)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|--|---------------------------|-----|
| 3 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | PRIVACY LOCK WITH OUTSIDE INDICATOR | L9040 L583-363 L283-722 | SCH |
| 1 | EA | SURFACE CLOSER | 4011/4111EDA AS SPECIFIED | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | IVE |
| 1 | EA | STOP | WS407/FS436 AS SPECIFIED | IVE |
| 3 | EA | SILENCER | SR64 | IVE |

KCWA – OFFICE AND MAINTENANCE BUILDING
 35 Technology Way
 West Greenwich, RI
 Issued for Bidding

VISION 3 ARCHITECTS
 Vision 3 Project #22007a
 September 9, 2022
 Revised September 30, 2022

HARDWARE GROUP NO. 17 - (SINGLE WITH STOREROOM LOCKSET X CLOSER)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|-----------------|----------------|-----|
| 3 | EA | INVISIBLE HINGE | 218 | SOS |
| 1 | EA | STOREROOM LOCK | ND80 | SCH |
| 1 | EA | SURFACE CLOSER | 4111 CUSH | LCN |
| 3 | EA | SILENCER | SR64 | IVE |

HARDWARE GROUP NO. 17.1 - (SINGLE WITH CLASSROOM DEADBOLT X INVISIBLE HINGES X CLOSER)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|-----------------|----------------|-----|
| 3 | EA | INVISIBLE HINGE | 218 | SOS |
| 1 | EA | STOREROOM LOCK | ND80 | SCH |
| 1 | EA | SURFACE CLOSER | 4111 HCUSH | LCN |
| 3 | EA | SILENCER | SR64 | IVE |

HARDWARE GROUP NO. 18 - (SINGLE WITH STOREROOM LOCKSET W/TACTILE WARNING X CLOSER)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|----------------|---------------------------|-----|
| 3 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | STOREROOM LOCK | ND80 X TACTILE WARNING | SCH |
| 1 | EA | SURFACE CLOSER | 4011/4111EDA AS SPECIFIED | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | IVE |
| 1 | EA | STOP | WS407/FS436 AS SPECIFIED | IVE |
| 1 | EA | GASKETING | 488S | ZER |

HARDWARE GROUP NO. 18.1 - (SINGLE WITH STOREROOM LOCKSET X CLOSER)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|----------------|---------------------------|-----|
| 3 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | STOREROOM LOCK | ND80 | SCH |
| 1 | EA | SURFACE CLOSER | 4011/4111EDA AS SPECIFIED | LCN |
| 1 | EA | ARMOR PLATE | 8400 34" X 2" LDW B-CS | IVE |
| 1 | EA | STOP | WS407/FS436 AS SPECIFIED | IVE |
| 1 | EA | SILENCER | SR64 | IVE |

KCWA – OFFICE AND MAINTENANCE BUILDING
 35 Technology Way
 West Greenwich, RI
 Issued for Bidding

VISION 3 ARCHITECTS
 Vision 3 Project #22007a
 September 9, 2022
 Revised September 30, 2022

HARDWARE GROUP NO. 19 - (SINGLE WITH STOREROOM LOCKSET X ELECTRIC STRIKE X LOCKSET X CLOSER X CARD READER)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|---|---|-----|
| 3 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | STOREROOM LOCK | ND80 | SCH |
| 1 | EA | ELECTRIC STRIKE | 6400 FSE | VON |
| 1 | EA | SURFACE CLOSER | 4011/4111EDA AS SPECIFIED | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | IVE |
| 1 | EA | STOP | WS407/FS436 AS SPECIFIED | IVE |
| 3 | EA | SILENCER | SR64 | IVE |
| 1 | EA | WIRE HARNESS | CON-LENGTH/TYPE AS REQUIRED FROM CON- IN ELEC DEVICE TO POWER TRANSFER DEVICE | SCH |
| 1 | EA | WIRE HARNESS | CON-6W FROM CON- IN FRAME TO FIELD WIRING | SCH |
| 1 | EA | DOOR CONTACT | BY SECURITY | SCE |
| 1 | EA | POWER SUPPLY | PS902 120/240 VAC | SCE |
| 1 | EA | CREDENTIAL READER | SPECIFIED ELSEWHERE | |
| 1 | EA | WIRING ELEVATION AND POINT-TO-POINT WIRING DRAWINGS | AS REQUIRED | |

ALL WIRING AND CONNECTIONS BY DIVISION 26.

OPERATIONAL DESCRIPTION:

IMMEDIATE EGRESS ALWAYS ALLOWED. ACCESS BY KEY OR BY CARD READER. CARD READER WILL RELEASE ELECTRIC STRIKE AND ALLOW ACCESS. REQUEST TO EXIT AND DOOR CONTACT CONNECTED TO BUILDING'S SECURITY SYSTEM.

KCWA – OFFICE AND MAINTENANCE BUILDING
 35 Technology Way
 West Greenwich, RI
 Issued for Bidding

VISION 3 ARCHITECTS
 Vision 3 Project #22007a
 September 9, 2022
 Revised September 30, 2022

HARDWARE GROUP NO. 19.1 - (SINGLE WITH STOREROOM LOCKSET X ELECTRIC STRIKE X LOCKSET X CLOSER X CARD READER)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|---|---|-----|
| 3 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | STOREROOM LOCK | ND80 | SCH |
| 1 | EA | ELECTRIC STRIKE | 6400 FSE | VON |
| 1 | EA | SURFACE CLOSER | 4011/4111EDA AS SPECIFIED | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | IVE |
| 1 | EA | STOP | WS407/FS436 AS SPECIFIED | IVE |
| 3 | EA | SILENCER | SR64 | IVE |
| 1 | EA | WIRE HARNESS | CON-LENGTH/TYPE AS REQUIRED FROM CON- IN ELEC DEVICE TO POWER TRANSFER DEVICE | SCH |
| 1 | EA | WIRE HARNESS | CON-6W FROM CON- IN FRAME TO FIELD WIRING | SCH |
| 1 | EA | DOOR CONTACT | BY SECURITY | SCE |
| 1 | EA | POWER SUPPLY | PS902 120/240 VAC | SCE |
| 1 | EA | CREDENTIAL READER | SPECIFIED ELSEWHERE | |
| 1 | EA | WIRING ELEVATION AND POINT-TO-POINT WIRING DRAWINGS | AS REQUIRED | |

ALL WIRING AND CONNECTIONS BY DIVISION 26.

OPERATIONAL DESCRIPTION:

IMMEDIATE EGRESS ALWAYS ALLOWED. ACCESS BY KEY OR BY CARD READER. CARD READER WILL RELEASE ELECTRIC STRIKE AND ALLOW ACCESS. REQUEST TO EXIT AND DOOR CONTACT CONNECTED TO BUILDING'S SECURITY SYSTEM.

KCWA – OFFICE AND MAINTENANCE BUILDING
 35 Technology Way
 West Greenwich, RI
 Issued for Bidding

VISION 3 ARCHITECTS
 Vision 3 Project #22007a
 September 9, 2022
 Revised September 30, 2022

HARDWARE GROUP NO. 20 - (SINGLE WITH STOREROOM LOCKSET X ELECTRIC STRIKE X CLOSER X CARD READER)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|---|---|-----|
| 3 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | STOREROOM LOCK | ND80 | SCH |
| 1 | EA | ELECTRIC STRIKE | 6400 FSE | VON |
| 1 | EA | SURFACE CLOSER | 4011/4111EDA AS SPECIFIED | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | IVE |
| 1 | EA | STOP | WS407/FS436 AS SPECIFIED | IVE |
| 1 | EA | GASKETING | 488S | ZER |
| 1 | EA | WIRE HARNESS | CON-LENGTH/TYPE AS REQUIRED FROM CON- IN ELEC DEVICE TO POWER TRANSFER DEVICE | SCH |
| 1 | EA | WIRE HARNESS | CON-6W FROM CON- IN FRAME TO FIELD WIRING | SCH |
| 1 | EA | DOOR CONTACT | BY SECURITY | SCE |
| 1 | EA | POWER SUPPLY | PS902 120/240 VAC | SCE |
| 1 | EA | CREDENTIAL READER | SPECIFIED ELSEWHERE | |
| 1 | EA | WIRING ELEVATION AND POINT-TO-POINT WIRING DRAWINGS | AS REQUIRED | |

ALL WIRING AND CONNECTIONS BY DIVISION 26.

OPERATIONAL DESCRIPTION:

IMMEDIATE EGRESS ALWAYS ALLOWED. ACCESS BY KEY OR BY CARD READER. CARD READER WILL RELEASE ELECTRIC STRIKE AND ALLOW ACCESS. REQUEST TO EXIT AND DOOR CONTACT CONNECTED TO BUILDING'S SECURITY SYSTEM.

KCWA – OFFICE AND MAINTENANCE BUILDING
 35 Technology Way
 West Greenwich, RI
 Issued for Bidding

VISION 3 ARCHITECTS
 Vision 3 Project #22007a
 September 9, 2022
 Revised September 30, 2022

HARDWARE GROUP NO. 21 - (SINGLE WITH STOREROOM LOCKSET X TACTILE WARNING X ELECTRIC STRIKE X CLOSER X CARD READER)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|---|---|-----|
| 4 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | STOREROOM LOCK | ND80 X TACTILE WARNING | SCH |
| 1 | EA | ELECTRIC STRIKE | 6400 FSE | VON |
| 1 | EA | SURFACE CLOSER | 4111 SCUSH | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | IVE |
| 1 | EA | STOP | WS407/FS436 AS SPECIFIED | IVE |
| 3 | EA | SILENCER | SR64 | IVE |
| 1 | EA | WIRE HARNESS | CON-LENGTH/TYPE AS REQUIRED FROM CON- IN ELEC DEVICE TO POWER TRANSFER DEVICE | SCH |
| 1 | EA | WIRE HARNESS | CON-6W FROM CON- IN FRAME TO FIELD WIRING | SCH |
| 1 | EA | DOOR CONTACT | BY SECURITY | SCE |
| 1 | EA | POWER SUPPLY | PS902 120/240 VAC | SCE |
| 1 | EA | CREDENTIAL READER | SPECIFIED ELSEWHERE | |
| 1 | EA | WIRING ELEVATION AND POINT-TO-POINT WIRING DRAWINGS | AS REQUIRED | |

ALL WIRING AND CONNECTIONS BY DIVISION 26.

OPERATIONAL DESCRIPTION:

IMMEDIATE EGRESS ALWAYS ALLOWED. ACCESS BY KEY OR BY CARD READER. CARD READER WILL RELEASE ELECTRIC STRIKE AND ALLOW ACCESS. REQUEST TO EXIT AND DOOR CONTACT CONNECTED TO BUILDING'S SECURITY SYSTEM.

KCWA – OFFICE AND MAINTENANCE BUILDING
 35 Technology Way
 West Greenwich, RI
 Issued for Bidding

VISION 3 ARCHITECTS
 Vision 3 Project #22007a
 September 9, 2022
 Revised September 30, 2022

HARDWARE GROUP NO. 22 - (SINGLE WITH STORE ROOM LOCKSET X TACTILE WARNING X ELECTRIC STRIKE X CLOSER X CARD READER)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|---|---|-----|
| 3 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | STOREROOM LOCK | L9080 | SCH |
| 1 | EA | ELECTRIC STRIKE | 6400 FSE | VON |
| 1 | EA | OVERHEAD STOP | CONCEALED HEAVY DUTY 100S SERIES | GLY |
| 1 | EA | SURFACE CLOSER | 4011/4111EDA AS SPECIFIED | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | IVE |
| 3 | EA | SILENCER | SR64 | IVE |
| 1 | EA | WIRE HARNESS | CON-LENGTH/TYPE AS REQUIRED FROM CON- IN ELEC DEVICE TO POWER TRANSFER DEVICE | SCH |
| 1 | EA | WIRE HARNESS | CON-6W FROM CON- IN FRAME TO FIELD WIRING | SCH |
| 1 | EA | DOOR CONTACT | BY SECURITY | SCE |
| 1 | EA | POWER SUPPLY | PS902 120/240 VAC | SCE |
| 1 | EA | CREDENTIAL READER | SPECIFIED ELSEWHERE | |
| 1 | EA | WIRING ELEVATION AND POINT-TO-POINT WIRING DRAWINGS | AS REQUIRED | |

ALL WIRING AND CONNECTIONS BY DIVISION 26.

OPERATIONAL DESCRIPTION:

IMMEDIATE EGRESS ALWAYS ALLOWED. ACCESS BY KEY OR BY CARD READER. CARD READER WILL RELEASE ELECTRIC STRIKE AND ALLOW ACCESS. REQUEST TO EXIT AND DOOR CONTACT CONNECTED TO BUILDING'S SECURITY SYSTEM.

KCWA – OFFICE AND MAINTENANCE BUILDING
 35 Technology Way
 West Greenwich, RI
 Issued for Bidding

VISION 3 ARCHITECTS
 Vision 3 Project #22007a
 September 9, 2022
 Revised September 30, 2022

HARDWARE GROUP NO. 23 - (SINGLE WITH RIM PANIC HARDWARE X ELECTRIC STRIKE X CARD READER)

Provide each SGL door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|---|---|-----|
| 3 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | POWER TRANSFER | EPT10 CON | VON |
| 1 | EA | PANIC HARDWARE | LD-99-L | VON |
| 1 | EA | RIM CYLINDER | AS REQUIRED | SCH |
| 1 | EA | ELECTRIC STRIKE | 6111 FSE CON | VON |
| 1 | EA | SURFACE CLOSER | 4111 EDA | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 2" LDW B-CS | IVE |
| 1 | EA | STOP | WS407/FS436 AS SPECIFIED | IVE |
| 3 | EA | SILENCER | SR64 | IVE |
| 1 | EA | WIRE HARNESS | CON-LENGTH/TYPE AS REQUIRED FROM CON- IN ELEC DEVICE TO POWER TRANSFER DEVICE | VON |
| 1 | EA | WIRE HARNESS | CON-6W FROM CON- IN FRAME TO FIELD WIRING | VON |
| 1 | EA | DOOR CONTACT | BY SECURITY | SCE |
| 1 | EA | POWER SUPPLY | PS902 120/240 VAC | VON |
| 1 | EA | CREDENTIAL READER | SPECIFIED ELSEWHERE | |
| 1 | EA | WIRING ELEVATION AND POINT-TO-POINT WIRING DRAWINGS | AS REQUIRED | |

ALL WIRING AND CONNECTIONS BY DIVISION 26.

OPERATIONAL DESCRIPTION:

IMMEDIATE EGRESS ALWAYS ALLOWED. ACCESS BY KEY OR BY CARD READER. CARD READER WILL RELEASE ELECTRIC STRIKE AND ALLOW ACCESS. REQUEST TO EXIT AND DOOR POSITION SWITCH CONNECTED TO BUILDING'S SECURITY SYSTEM.

HARDWARE GROUP NO. 24 - (PAIR WITH STOREROOM LOCKSET X ELECTRIC STRIKE X FLUSH BOLTS X CLOSER AT ACTIVE LEAF X CARD READER)

Provide each PR door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|---|---|-----|
| 6 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 1 | EA | POWER TRANSFER | EPT10 CON | VON |
| 2 | EA | MANUAL FLUSH BOLT | FB458 | IVE |
| 1 | EA | DUST PROOF STRIKE | DP1/DP2 AS REQUIRED | IVE |
| 1 | EA | STOREROOM LOCK | ND80 | SCH |
| 1 | EA | ELECTRIC STRIKE | 6221 FSE CON | VON |
| 2 | EA | OVERHEAD STOP | CONCEALED HEAVY DUTY 100S SERIES | GLY |
| 1 | EA | SURFACE CLOSER | 4011/4111EDA AS SPECIFIED | LCN |
| 2 | EA | ARMOR PLATE | 8400 34" X 2" LDW B-CS | IVE |
| 2 | EA | SILENCER | SR64 | IVE |
| 1 | EA | WIRE HARNESS | CON-LENGTH/TYPE AS REQUIRED FROM CON- IN ELEC DEVICE TO POWER TRANSFER DEVICE | SCH |
| 1 | EA | WIRE HARNESS | CON-6W FROM CON- IN FRAME TO FIELD WIRING | SCH |
| 2 | EA | DOOR CONTACT | BY SECURITY | SCE |
| 1 | EA | POWER SUPPLY | PS902 120/240 VAC | SCE |
| 1 | EA | CREDENTIAL READER | SPECIFIED ELSEWHERE | |
| 1 | EA | WIRING ELEVATION AND POINT-TO-POINT WIRING DRAWINGS | AS REQUIRED | |

ALL WIRING AND CONNECTIONS BY DIVISION 26.

OPERATIONAL DESCRIPTION:

IMMEDIATE EGRESS ALWAYS ALLOWED. ACCESS BY KEY OR BY CARD READER. CARD READER WILL RELEASE ELECTRIC STRIKE AND ALLOW ACCESS. REQUEST TO EXIT AND DOOR CONTACT CONNECTED TO BUILDING'S SECURITY SYSTEM.

HARDWARE GROUP NO. 25 - (PAIR WITH SURFACE LESS BOTTOM ROD PANIC HARDWARE)

Provide each PR door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|-----|------------------|--------------------------|-----|
| 6 | EA | HINGE | 5BB1 SERIES AS SPECIFIED | IVE |
| 2 | EA | PANIC HARDWARE | CD-9927-L-LBR | VON |
| 2 | EA | MORTISE CYLINDER | AS REQUIRED | SCH |
| 2 | EA | SURFACE CLOSER | 4111 SCUSH | LCN |
| 2 | EA | KICK PLATE | 8400 10" X 1" LDW B-CS | IVE |
| 2 | SET | GASKETING | 429 | ZER |
| 2 | EA | DOOR BOTTOM | 369AA-Z49 | ZER |

KCWA – OFFICE AND MAINTENANCE BUILDING
35 Technology Way
West Greenwich, RI
Issued for Bidding

VISION 3 ARCHITECTS
Vision 3 Project #22007a
September 9, 2022
Revised September 30, 2022

HARDWARE GROUP NO. 26 - (OVERHEAD COILING DOORS)

Provide each RU door(s) with the following:

| QTY | | DESCRIPTION | CATALOG NUMBER | MFR |
|-----|----|---------------------|----------------------|-----|
| 1 | EA | CYLINDER | AS REQUIRED | SCH |
| 1 | | BALANCE OF HARDWARE | BY DOOR MANUFACTURER | |

END OF SECTION