# PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 and 01 Specification Sections, apply to this Section.

## 1.2 SUMMARY

A. This Section includes the following:
   1. Door hardware, including electric hardware.
   2. Power supplies for electric hardware.
   3. Low energy door operators.
   4. Door position switches.

B. Related Sections
   1. Division 06: door hardware installation
   2. Division 07: sealant at exterior thresholds.
   3. Division 08: wood doors, hollow-metal frames and doors, aluminum and glass doors, storefront aluminum frame systems.
   4. Division 28: electronic security access systems

## 1.3 QUALITY ASSURANCE

A. Supplier:
   1. Direct factory contract supplier who employs a certified architectural hardware consultant (AHC), available at reasonable times during course of work for project hardware consultation to Owner, Architect and Contractor.
   2. Responsible for detailing, scheduling and ordering of finish hardware. Detailing implies that the submitted schedule of hardware is correct and complete for the intended function and performance of the openings.

B. Hardware:
   1. Free of defects, blemishes and excessive play. Obtain each kind of hardware (latch and locksets, exit devices, hinges and closers) from one manufacturer.

C. Exit Doors:
   1. Operable from inside with single motion without the use of a key or special knowledge or effort.

D. Fire rated Openings:
   1. NFPA 80 (2013) compliant. Hardware UL10C (positive pressure) compliant for given type/size opening and degree of label. Provide proper latching hardware, non-flaming door closers, approved-bearing hinges, and resilient seals. Coordinate with wood door section for required intumescent seals. Furnish openings complete.
   2. At completion, provide a written report certifying fire doors as NFPA 80 (2013) compliant with zero deficiencies. Report: prepared by qualified individual per Article 5.2 of NFPA 8 (2013).

E. Pre-installation Coordination:
   1. Initiate and conduct with supplier, installer and related trades, coordinate materials and techniques, and sequence complex hardware items and systems installation.

Include manufacturers' representatives of locks, panic hardware and door closers in the meetings. Convene prior to commencement of related work.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Coordinate delivery to appropriate locations (shops, field, storage facility)
   1. Permanent keys and cores**:** secured delivery direct to University locksmith.

B. Acceptance at Site**:** Items individually packaged in manufacturers' original containers, complete with proper fasteners and related pieces. Clearly mark packages to indicate contents, locations in hardware schedule and door numbers.

C. Storage**:** Provide securely locked storage area for hardware, protect from moisture, sunlight, paint, chemicals, dust, excessive heat and cold, etc.

1.5 PROJECT CONDITIONS AND COORDINATION

A. Where exact types of hardware specified are not adaptable to finished shape or size of members requiring hardware, provide suitable types having as nearly as practical the same operation and quality as type specified, subject to Architect's approval.

B. Coordination**:** Coordinate hardware with other work. Furnish hardware items of proper design for use on doors and frames of the thickness, profile, swing, security and similar requirements indicated, as necessary for proper installation and function, regardless of omissions or conflicts in the information on the Contract Documents. Furnish related trades with the following information:
   1. Location of embedded and attached items to concrete.
   2. Location of wall-mounted hardware, including wall stops.
   3. Location of finish floor materials and floor-mounted hardware.
   4. At masonry construction, coordinate with the anchoring and hollow metal supplier prior to frame installation by placing a strip of insulation, wood, or foam, on the back of the hollow metal frame behind the rabbet section for continuous hinges, as well as at rim panic hardware strike locations, silencers, coordinators, and door closer arm locations. When the frame is grouted in place, the backing will allow drilling and tapping without dulling or breaking the installer's bits.
   5. Locations for conduit and raceways as needed for electrical, electronic and electro-pneumatic hardware items. Fire/life-safety system interfacing. Point-to-point wiring diagrams plus riser diagrams to related trades.
   6. Coordinate: low-voltage power supply locations.
   7. Coordinate: back-up power for doors with automatic operators.
   8. Coordinate: flush top rails of doors at out-swinging exteriors, and throughout where adhesive-mounted seals occur.
   9. Manufacturers' templates to door and frame fabricators.

C. Check Shop Drawings for doors and entrances to confirm that adequate provisions will be made for proper hardware installation.

D. Environmental considerations**:** segregate unused recyclable paper and paper product packaging, uninstalled metals, and plastics, and have these sent to a recycling center.

1.6 WARRANTY

A. Part of respective manufacturers' regular terms of sale. Provide manufacturers' written warranties.

B. Include factory order numbers with close-out documents to validate warranty information, required for Owner in making future warranty claims.

1.7 COMMISSIONING

A. Conduct these tests prior to request for certificate of substantial completion:
   1. With installer present, test door hardware operation with climate control system and stairwell pressurization system both at rest and while in full operation.
   2. With installer, access control contractor and electrical contractor present, test electrical, electronic and electro-pneumatic hardware systems for satisfactory operation.
   3. With installer and electrical contractor present, test hardware interfaced with fire/life-safety system for proper operation, release, locking/unlocking, and positive latching.

1.8 REGULATORY REQUIREMENTS

A. Locate latching hardware between 34 inches to 44 inches above the finished floor, per 2013 California Building Code, Section 11B-404.2.7.
   1. Panic hardware: locate between 36 inches to 44 inches above the finished floor.

B. Handles, pull, latches, locks, other operable parts:
   1. Readily openable from egress side with one hand and without tight grasping, tight pinching, or twisting of the wrist to operate. 2013 California Building Code Section 11B-309.4.
   2. Force required to activate the operable parts: 5.0 pounds maximum, per 2013 California Building Code Section 11B-309.4.

C. Adjust doors to open with not more than 5.0-pounds pressure to open at exterior doors and 5.0-pounds at interior doors. As allowed per 2013 California Building Code Section 11B-404.2.9, local authority may increase the allowable pressure for fire doors to achieve positive latching, but not to exceed 15-pounds.

D. Low-energy powered doors: comply with ANSI/BHMA A156.19. Reference: 2013 California Building Code Section 11B-404.2.9, Exception 2.
   1. Where powered door serves an occupancy of 150 or more, provide back-up battery power or stand-by generator power, capable of supporting a minimum of 150 cycles.
   2. Actuators, vertical bar type: minimum 2-inches wide, 30-inches high, bottom located minimum 5-inches above floor or ground, top located minimum 35-inches above floor or ground. Displays International Symbol of Accessibility, per 2013 California Building Code Section 11B-703.7.
   3. Actuator location: conspicuously located, clear and level floor/ground space for forward or parallel approach.

E. 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 point 12 degrees from the latch, measured to the landing side of the door, per 2013 California Building Code Section 11B-404.2.7.

F. Smooth surfaces at bottom 10 inches of push sides of doors, facilitating push-open with wheelchair footrests, per 2013 California Building Code Section 11B-404.2.10.
   1. Applied kickplates and armor plates: at minimum, bevel the left and right edges; free of sharp or abrasive edges.

G. Door opening clear width no less than 32 inches, measured from face of frame stop, or edge of inactive leaf of pair of doors, to door face with door opened to 90 degrees. Hardware projection not a factor in clear width if located above 30 inches and below 80 inches, and the hardware projects no more than 4 inches. 2013 California Building Code Section 11B-404.2.3.
   1. Door closers and overhead stops: not less than 78 inches above the finished floor or ground, per 2013 California Building Code 11B-307.4.

H. Thresholds**:** floor or landing no more than 0.50 inches below the top of the threshold of the doorway, per 2013 California Building Code Section 11B-404.2.5. Vertical rise no more than 0.25 inches, change in level between 0.25 inches and 0.50 inches**:** beveled to slope no greater than 1**:**2 (50 percent slope). 2013 California Building Code Section 11B-303.2 & 3.

I. Floor stops**:** Do not locate in path of travel. Locate no more than 4 inches from walls, per DSA Policy #99-08 (Access).

J. Pairs of doors with independently-activated hardware both leafs**:** limit swing of right-hand or right-hand-reverse leaf to 90 degrees to protect persons reading wall-mounted tactile signage, per 2013 California Building Code Section 11B-703.4.2.

K. Door and door hardware encroachment**:** when door is swung fully-open into means-of-egress path, the doo may not encroach/project more than 7 inches into the required exit width, with the exception of door release hardware such as lockset levers or panic hardware. These hardware items must be located no less than 34-inches and no more than 48-inches above the floor/ground. 2013 California Building Code, Section 1005.7.1.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

A. Manufacturers and their abbreviations used in this schedule:
   1. ADA: Adams Rite
   2. MCK: McKinney
   3. PEM: Pemko
   4. RIX: Rixson
   5. ROC: Rockwood
   6. SAR: Sargent
   7. SEN: Sentrol
   8. TBD: -manufacturer to be determined-

### 2.2 HINGES

A. Drawings typically depict doors at 90 degrees, doors will actually swing to maximum allowable. Use wide-throw conventional or continuous hinges as needed up to 8 inches in width to allow door to stand parallel to wall for true 180-degree opening. Advise architect if 8-inch width is insufficient.

B. Conform to manufacturer's published hinge selection standard for door dimensions, weight and frequency, and to hinge selection as scheduled.
   1. Where manufacturer's standard exceeds the scheduled product, furnish the heavier of the two choices, notify Architect of deviation from scheduled hardware.
   2. Where specified/schedule hinge exceeds the manufacturer's standard, furnish the heavier of the two choices.

C. Conventional Hinges**:** Steel or stainless steel pins and approved bearings. Hinge open widths minimum, but of sufficient throw to permit maximum door swing.
   1. Out-swinging exterior doors**:** non-ferrous with non-removable (NRP) pins.
   2. Use non-ferrous material at exteriors and at doors subject to corrosive atmospheric conditions.

D. Equivalent products from these manufacturers, subject to approval:
   1. Hager
   2. Ives
   3. Stanley

2.3 LOCKSETS, LATCHSETS, DEADBOLTS

A. Mortise Locksets and Latchsets**:** Sargent 8200 series, LW1L design, as scheduled.
   1. Furnish with WBS wrought-box type strikes.
   2. Furnish with 7-pin cylinders.

2.4 EXIT DEVICES / PANIC HARDWARE

A. Sargent 80 series as scheduled.
   1. Less plastic touchpad plate.
   2. Flush end caps.
   3. Furnish with 7-pin cylinders.
   4. Furnish manufacturer's '5lbs-to-operate' version.
   5. Furnish with manufacturer's "SAR-block" retrofit piece to prevent standard touchpad from hooking clothing, purse straps, fire hoses, etc.
   6. Furnish Removable Mullions, sized for height of doors.

2.5 CLOSERS

A. Sargent 351 series as scheduled.

2.6 LOW ENERGY OPERATORS

A. Stanley Magic brand LE type

2.7 OTHER HARDWARE

A. Flushbolts: Generally, avoid their use entirely, especially the use of automatic flushbolts.

B. Overhead stops: Sargent brand where scheduled.

C. Protective plates: 0.050in minimum thickness, beveled four edges, sheet metal screws

D. Door stops: unless otherwise noted, use floor type. Where floor or wall type not practical, use an overhead stop.

1. Backstop arms furnished with the door closer are acceptable at low-trafficked openings and non-occupied spaces.

E. Seals: three-finned type. Self-compensating for warp, thermal bow, door settling, and out-of-plumb.

F. Automatic door bottoms: low operating force type.

G. Thresholds: as scheduled and per details. Request direction where conflicting information occurs, if any.
1. Exteriors: extruded bronze welded assemblies and single-extrusion saddles, as scheduled. Oxidized and oil-rubbed bronze finish (BHMA 722). Set in full bed of sealant, fasten with bronze ¼-in diameter machine screws and anchors.
2. Interiors: single-extrusion saddles as scheduled, mill-finish aluminum (BHMA 719), fastened with flat-head sleeve anchors (Pemko's FHSL).

H. Equivalent products from these manufacturers, subject to approval:
1. Rixson
2. Ives
3. National Guard
4. Trimco

2.8 FINISHES

A. Generally, dark oil-rubbed bronze at exteriors, and satin chrome / brushed stainless steel at interiors.

2.9 KEYING SYSTEM

A. Sargent brand 7-pin conventional cylinders, keyway as determined by University Lock Shop. Furnish project's keyed cylinders combinated to a single cut key combination, which will serve as the project's construction master key. University Lock Shop will re-combinate when University takes delivery of the project. Do not furnish "0"-bitted "keyed-to-blanks" cylinders.

PART 3 - EXECUTION

3.1 ACCEPTABLE INSTALLERS

A. Can read and understand manufacturers' templates, suppliers' hardware schedule and printed installation instructions. Can readily distinguish drywall screws from manufacturers' furnished fasteners. Available to meet with manufacturers' representatives and related trades to discuss installation of hardware.

3.2 PREPARATION

A. Ensure that walls and frames are square and plumb before hardware installation. Make corrections before commencing hardware installation. Installation denotes acceptance of wall/frame condition.

B. Locate hardware per SDI-100 and applicable building, fire, life-safety, accessibility, and security codes.

C. Overhead stops**:** before installing, determine proposed locations of furniture items, fixtures, and other items to be protected by the overhead stop's action.

3.3 INSTALLATION

A. Install hardware per manufacturer's instructions and recommendations. Do not install surface-mounted items until finishes have been completed on substrate. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate for proper installation and operation. Remove and reinstall or replace work deemed defective by Architect.
   1. Install sweeps across bottoms of doors before astragals, cope sweeps around bottom pivots, trim astragals to tops of sweeps.
   2. Use manufacturers' fasteners furnished with hardware items, or submit Request for Substitution with Architect.
   3. Replace fasteners damaged by power-driven tools.

B. Locate overhead stops for minimum 90 degrees at rest and for maximum allowable degree of swing.

C. Drill pilot holes for fasteners in wood doors and/or frames.

D. Locate floor stops no more than 4 inches from walls and not within paths of travel. See paragraph 2.2 regarding hinge widths, door should be well clear of point of wall reveal. Point of door contact no closer to the hinge edge than half the door width. Where situation is questionable or difficult, contact Architect for direction.

E. Fire-rated door clearances:
   1. Wood doors**:** adjust to 0.125 inches clearance at heads, jambs, and meeting stiles.
   2. Steel doors**:** adjust to 0.063 inches minimum to 0.188 inches maximum clearance at heads, jambs, and meeting stiles.
   3. Adjust wood and steel doors to 0.75 inches maximum clearance (undercut) above threshold or finish floor material under door.

F. Final inspection**:** Installer to provide letter to Owner that upon completion installer has visited the Project and has accomplished the following:
   1. Has re-adjusted hardware.
   2. Has evaluated maintenance procedures and recommend changes or additions, and instructed Owner's personnel.
   3. Has identified items that have deteriorated or failed, or has reason to believe will become a future warranty claim.
   4. Has submitted written report of these activities and findings.

3.4 PROTECTION/CLEANING

A. Cover installed hardware, protect from paint, cleaning agents, weathering, carts/barrows, etc. Remove covering materials and clean hardware just prior to substantial completion.

B. Clean adjacent wall, frame and door surfaces soiled from installation / reinstallation process.

3.5 DEMONSTRATION

A. Demonstrate mechanical hardware plus electric and electronic hardware systems, including adjustment and maintenance procedures.

3.6 SCHEDULE OF FINISH HARDWARE

A. See door schedule in drawings for hardware set assignments.

B. Do not order material until submittal has been reviewed, stamped, and signed by Architect's door hardware consultant.

HwSet 01A - Pr exterior storefront themed doors (type F, F1), panic hdw, card accessed

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 2 | EA | EL BRNZ HW HNG | T4B4386 4.5 X 4.0 QC8 | 613 | MCK |
| 6 | EA | BRNZ HW HNG | T4B4386 4.5 X 4.0 NRP | 613 | MCK |
| 1 | EA | MULLION | 650A x 10B | 313AN | SAR |
| 1 | EA | EXIT DEV (QEL-NL) | 19-43-GL-55-56-7P-8506-ETL, '5lbs'+SAR-block 24VDC | 613 | SAR |
| 1 | EA | EXIT DEVICE (QEL-DT) | 19-43-GL-55-56-8510-ETL, '5lbs'+SAR-block 24VDC | 613 | SAR |
| 2 | EA | SRFC CLSR, HD PA | 351 CPS | 695 | SAR |
| 2 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 613 | ROC |
| 1 | EA | MULLION SEAL | 5110 | BLK | PEM |
| 2 | EA | DR SWEEP | 315DN | 722 | PEM |
| 1 | EA | ENTRY THRSHLD ASSMBL | 195B+193B+195B, MTRD, BRNZ25MSA | 722 | PEM |
| 2 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 2 | EA | HARNESS | QC-C003 | | MCK |
| 2 | EA | HARNESS | QC-C1500P | | MCK |

Coordination items: Power/conduit/wiring/electronic security system.
Head, jamb, and meeting-stile seals: integral part of alum/glass frame and door system

HwSet 01B - Pr exterior themed doors (type F, F1), card accessed. 2nd flr Deck to 2nd flr South bldg

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 2 | EA | EL BRNZ HW HNG | T4B4386 4.5 X 4.0 QC8 | 613 | MCK |
| 4 | EA | BRNZ HW HNG | T4B4386 4.5 X 4.0 NRP | 613 | MCK |
| 1 | EA | MULLION | 650A x 10B | 313AN | SAR |
| 1 | EA | EXIT DEV (QEL-NL) | 19-43-GL-55-56-7P-8506ETL, '5lbs'+SAR-block 24VDC | 613 | SAR |
| 1 | EA | EXIT DEVICE (QEL-DT) | 19-43-GL-55-56-8510ETL, '5lbs'+SAR-block 24VDC | 613 | SAR |

| | | | | | |
|---|---|---|---|---|---|
| 1 | EA | MORT CYL | 42-7 | 613 | SAR |
| 2 | EA | SRFC CLOSER | 351CPS | 695 | SAR |
| 2 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 613 | ROC |
| 2 | EA | DR SWEEP | 315DN | 710 | PEM |
| 1 | EA | BRNZ ENTRY THRSHLD ASSMBL | 195B+193B+195B, MTRD, BRNZ25MSA | 722 | PEM |
| 2 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 2 | EA | HARNESS | QC-C003 | | MCK |
| 2 | EA | HARNESS | QC-C1500P | | MCK |

Coordination items: Power/conduit/wiring/electronic by security system.
Head, jamb, and meeting-stile seals: integral part of alum/glass frame and door system

HwSet 01C - Pr exterior wrought iron gates

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 6 | EA | GATE HNG/PIVOT | -GATE FABRICATOR- | | B/O |
| 2 | EA | CANE BOLT, PADLKABLE | - GATE FABRICATOR - | | B/O |
| 2 | EA | PADLOCK | - CAMPUS STD - | 606 | SAR |

Coordination items: Power/conduit/wiring/electronic security system.
Fire exit hardware: include '5lbs'+SAR-block features.
COORDINATE: power / wiring / conduit / fire & life-safety system. Fire door must release in an alarm event to self-close and positively latch.

HwSet 01D - Pr exterior themed doors (type F, F1), no outside access when secured, electrically locked & monitored.

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 2 | EA | EL BRNZ HW HNG | T4B4386 5.0 X 4.5 QC8 | 613 | MCK |
| 6 | EA | BRNZ HW HNG | T4B4386 5.0 X 4.5 NRP | 613 | MCK |
| 2 | EA | 2-POINT LOCK (ELR) | ELR 55 AD701015 ETL-VR96”+24VDC | 613 | SAR |
| 2 | EA | SRFC CLSR, HD CPS | 351 CPS | 695 | SAR |
| 2 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 613 | ROC |
| 2 | EA | DR SWEEP | 315DN | 710 | PEM |
| 1 | EA | BRNZ ENTRY THRSHLD ASSMBL | 195B+193B+195B, MTRD, BRNZ25MSA | 722 | PEM |
| 2 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 2 | EA | HARNESS | QC-C400 | | MCK |
| 2 | EA | HARNESS | QC-C1500P | | MCK |

Coordination items: Power/conduit/wiring/electronic by security system.
Head, jamb, and meeting-stile seals: integral part of alum/glass frame and door system

HwSet 02 - Sgl exterior themed door (type F3, F5), panic hdw exit only w/key,

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 2 | EA | BRNZ HW HNG | T4B4386 5.0 X 4.5 NRP | 613 | MCK |
| 1 | EA | EL BRNZ HW HNG | T4B4386 5.0 X 4.5 QC8 | 613 | MCK |
| 1 | EA | EXIT DEV | 19-43-55-GL-7P-8804, '5lbs'+SAR-block | 613 | SAR |
| 1 | EA | SRFC CLSR, HD PA | 351 P10 | 695 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 613 | ROC |
| 1 | EA | EXT FLR STOP | 481H | 613 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | BRNZ DR SWEEP | 315BN | 722 | PEM |
| 1 | EA | BRNZ ENTRY THRSHLD ASSMBL | 195B+193B+195B, MTRD, BRNZ25MSA | 722 | PEM |
| 1 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | HARNESS | QC-C003 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

Coordination items: Power/conduit/wiring/electronic by security system.

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HwSet 03 - Pair interior storage rm drs, limited outswing

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 8 | EA | STL HW HINGE | T4B786 4.5 X 4.5 NRP | 652 | MCK |
| 1 | SET | SELF-LATCH BOLT | 2842 | 630 | ROC |
| 1 | EA | DUST PROOF STRIKE | 570 | 626 | ROC |
| 1 | EA | OFFICE LOCK | LB-[7PIN]-8205 LW1L 7/8” LTC | 626 | SAR |
| 1 | EA | COORDINATOR | 2600 SERIES, COMPLETE | 628 | ROC |
| 2 | EA | BRACKETS | 2601AB | 628 | ROC |
| 2 | EA | SRFC CLOSER | 351 PSH | 689 | SAR |
| 2 | EA | KICKPLATE | K1050 10" X 1"LDW B4E | 630 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | ASTRAGAL | 357SP | 600 | PEM |
| 2 | EA | ALUM DR SWEEP | 315_N | 628 | PEM |
| 1 | EA | ALUM SADDLE | 272A FHSL (Verify Threshold required) | 719 | PEM |

HwSet 04 - Themed pair "Juliet" balcony access doors (type F, F1). Deadbolted -- not a means of egress.

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 8 | EA | BRNZ HNG | TB314 5.0 X 4.0 NRP | 613 | MCK |
| 1 | EA | TOP/BTM BOLTS | 4015+4016 | 710 | ADA |
| 2 | EA | 2-LVR DUMMY TRIM | 8294 LW1L | 613 | SAR |
| 1 | EA | SS STOREFRNT DEADLK | MS1950 MS4043 4089-02 | 710 | ADA |
| 1 | EA | MORT CYL | 42-7 x 101 @ Inside Building | 613 | SAR |
| 2 | EA | O.H. FRICTION STAY | 9-_16 SERIES | 613 | RIX |
| 2 | EA | BRNZ DR SWEEP | 315BN | 722 | PEM |
| 1 | EA | BRNZ OFFSET SADDLE | 172B BRNZ25MSA | 722 | PEM |

Head, jamb, and meeting-stile seals: integral part of alum/glass frame and door system
Furnish 6 each hinges @ 7' high doors

HwSet 05 - Themed single-leaf "Juliet" balcony access door (type F3, F5). Deadbolted -- not a means of egress.

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 8 | EA | BRNZ HNG | TB314 5.0 X 4.0 NRP | 613 | MCK |
| 1 | EA | TOP/BTM BOLTS | 4015+4016 | 710 | ADA |
| 2 | EA | 2-LVR DUMMY TRIM | 8294 LW1L | 613 | SAR |
| 1 | EA | SS STOREFRNT DEADLK | MS1950 MS4043 4089-02 | 710 | ADA |
| 1 | EA | MORT CYL | 42-7 x 101 @ Inside Building | 613 | SAR |
| 2 | EA | FLOOR STOP | 446 | 613 | ROC |
| 2 | EA | BRNZ DR SWEEP | 315BN | 722 | PEM |
| 1 | EA | BRNZ OFFSET SADDLE | 172B BRNZ25MSA | 722 | PEM |
| | | Seals integral part of alum/glass door system | | | |

HwSet 06 - entry, non-locking AUTO Push-Pull

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 6 | EA | BRNZ HW HNG | T4B4386 5.0 X 4.5 NRP | 613 | MCK |
| 2 | EA | PUSH BARS | 47 "PUSH" – verify CTC | 613E | ROC |
| 1 | EA | PULL | BFT112C6 @ Door 200C1 Active leaf | 613E | ROC |
| 1 | EA | AUTO OPERATOR | "MAGIC FORCE" DUAL-SWING DBL EGRESS | 695 | STA |
| 2 | EA | VERTICAL ACTUATOR | BRONZE: I36-5 | 722 | WIK |
| 2 | EA | EXT FLR STOP | 481H | 613 | ROC |
| 2 | EA | BRNZ DR SWEEP | 315BN | 722 | PEM |
| 1 | EA | BRNZ OFFSET SADDLE | 272B+282B BRNZ25MSA | 722 | PEM |

Operator, actuation switches and safety sensors furnished by Division 087113. Head, jamb, and meeting-stile seals: integral part of alum/glass frame and door system

HwSet 07 - Exterior multi-occ restroom AUTO

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | BRNZ HW HNG | T4B4386 4.5. X 4.5 NRP | 613 | MCK |
| 1 | EA | EXT CLASSRM LK | [7PIN]-8237 LW1L | 613 | SAR |
| 1 | EA | ELECTRIC STRIKE | 8500 x 851M x 2004M | 613 | SAR |
| 1 | EA | AUTO OPERATOR | "MAGIC FORCE" SWING-PULL SIDE | 695 | STA |
| 2 | EA | VERTICAL ACTUATOR | BRONZE: I36-5 | 722 | WIK |
| 1 | EA | KICKPLATE | K1050 10" X 1"LDW B4E | 613 | ROC |
| 1 | EA | EXT FLR STOP | 481H | 613 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | THRESHOLD | HARD SURFACE – By Other Division | | |
| 1 | EA | HARNESS | QC-C1500P | | MCK |
| 1 | EA | POWER SUPPLY | BPS-24-2 (1 each per each floor) | | SEC |

Operator, ON-OFF Key switch, actuation switches, safety sensors and wiring connections furnished by Division 087113

HwSet 07.1 - Exterior multi-occ restroom

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | BRNZ HW HNG | T4B4386 4.5. X 4.5 NRP | 613 | MCK |
| 1 | EA | EXT CLASSRM LK | [7PIN]-8237 LW1L | 613 | SAR |
| 1 | EA | SRFC CLOSER | 351 DA | 695 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1"LDW B4E | 613 | ROC |
| 1 | EA | EXT FLR STOP | 481H | 613 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | THRESHOLD | HARD SURFACE – By Other Division | | |

HwSet 08 - Interior stair door, card-access / PH electric lock from stair onto floor, fail-safe locking.

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL STEEL HW HNG | T4B4786 5.0 X 4.5 QC8 | 652 | MCK |
| 2 | EA | STL HW HINGE | T4B4786 5.0 X 4.5 NRP | 652 | MCK |
| 1 | EA | ELECT FIRE EXIT DEV | 12-19-43-GL-55-[7pin]-8875 X ETL (fail-safe) | 630 | SAR |
| 1 | EA | SRFC CLOSER | 351 | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | EXT FLR STOP | 481H | 626 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | ALUM SADDLE | 272A FHSL | 719 | PEM |
| 1 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | HARNESS | QC-C003 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

COORDINATE: power / wiring / conduit / fire&life-safety security system. Fire door exit device lever trim must unlock in an alarm event to allow ready exit from stair at any floor.
Fire exit hardware: include '5lbs'+SAR-block features.

HwSet 09 - Exterior stair door, free access from stair onto floor, (bronze finishes).

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | EXT STEEL HW HNG | T4B4786 5.0 X 4.5 NRP | 613E | MCK |
| 1 | EA | FIRE EXIT DEV | 12-19-43-8815 ETL | 613 | SAR |
| 1 | EA | SRFC CLOSER | 351 | 695 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 613 | ROC |
| 1 | EA | EXT FLR STOP | 481H | 613 | ROC |
| 1 | EA | 3FIN SEAL | S88D | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | BRNZ SADDLE | 272B BRNZ25MSA | 722 | PEM |

COORDINATE: Fire exit hardware: include '5lbs'+SAR-block features.

HwSet 10 - Interior stair door, card-access from corridor into stair (fail-safe locking).

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL STEEL HW HNG | T4B4786 4.5 X 4.5 QC8 | 652 | MCK |
| 2 | EA | STEEL HW HNG | T4B4786 4.5 X 4.5 NRP | 652 | MCK |
| 1 | EA | ELECTRIC LOCK | WBS/CLS-RX-[7PIN]-8270 LW1L FAIL-SAFE | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351 P10 | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | WALL STOP | 406 | 630 | ROC |
| 1 | EA | SEAL | S88 | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | SADDLE | 272A 25MSA | 719 | PEM |
| 1 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |

COORDINATE: power / wiring / conduit / fire&life-safety by security system. Fire door must unlock electric lever trim in an alarm event to allow ready exit to stairor.

HwSet 11 - Exterior door Jan/Data Room, et al, card accessed

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL BRNZ HNG | TB314 4.5 X 4.0 QC8 | 613 | MCK |
| 2 | EA | BRNZ HNG | TB314 4.5 X 4.0 NRP | 613 | MCK |
| 1 | EA | EXT EL STORERM LK | WBS/CLS-RX-[7PIN]-8271 LW1L | 613 | SAR |
| 1 | EA | SRFC CLOSER | 351 P9 (O arm @ Door 100T1-1) | 695 | SAR |
| 1 | EA | WALL STOP | 406 | 613 | ROC |
| 1 | EA | LATCH PROTECTOR | 325 (omit @ Door 100T1-1) | 10BE | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | BRNZ SADDLE | 272B BRNZ25MSA | 722 | PEM |
| 1 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | HARNESS | QC-C300 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

Coordination items: Power/conduit/wiring/electronic by security system.

HwSet 12 - Interior from large electrical room: panic hdw req'd due to equipment load.

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | BRNZ HW HNG | T4B4786 5.0 X 4.5 NRP | 652 | MCK |
| 1 | EA | EXIT DEVICE (NL) | 12-19-43-GL-[7PIN]-8806 ETL, '5lbs'+SAR-block | 630 | SAR |
| 1 | EA | SRFC CLOSER | 351 PS | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | BRNZ SADDLE | 272A 25MSA | 719 | PEM |

HwSet 13 - Exterior from utility space: storeroom lock

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | BRNZ HNG | TB4314 5.0 X 4.0 NRP | 613 | MCK |
| 1 | EA | EXT STORERM LOCK | WBS/CLS-LB-[7PIN]-8204 LW1L | 613 | SAR |
| 1 | EA | SRFC CLOSER | 351 P9 | 695 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 613 | ROC |
| 1 | EA | WALL STOP | 406 | 613 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | BRNZ SADDLE | 272B BRNZ25MSA | 722 | PEM |

HwSet 14 - Pair exterior storefront drs from Lab / Shop spaces. Unequal width leafs: 3-0 + 2-0, narrow leaf for equipment movement only. Card accessed.

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL BRNZ HW HNG | T4B4386 4.5 X 4.0 QC8 | 613 | MCK |
| 3 | EA | BRNZ HW HNG | T4B4386 4.5 X 4.0 NRP | 613 | MCK |
| 4 | EA | BRNZ HNG | TB4314 5.0 X 4.0 NRP | 613 | MCK |
| 2 | EA | FLUSH BOLT | 550 (x 24” EXT @ TOD ROD) | 613 | ROC |
| 1 | EA | DUST PROOF STRIKE | 570 | 613 | ROC |
| 1 | EA | MULLION | 650A x 10B | 313AN | SAR |
| 1 | EA | EXIT DEV (QEL-NL) | 19-43-GL-55-56-[7PIN]-8506ETL, '5lbs'+SAR-block | 613 | SAR |
| 2 | EA | SRFC CLSR | 351 CPS | 695 | SAR |
| 2 | EA | DR SWEEP | 315DN | 722 | PEM |
| 1 | EA | BRNZ ENTRY THRSHLD ASSMBL | 195B+193B+195B, MTRD, BRNZ25MSA | 722 | PEM |
| 2 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | HARNESS | QC-C003 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

Note: inactive leaf is not accessible.
Head, jamb, and meeting-stile seals: integral part of alum/glass frame and door system
Coordination items: Power, conduit/wiring/electronic by security system

HwSet 15 – Unequal Pair interior ~~storefront~~ doors from Lab / Shop spaces. Unequal width leafs: 3-0 + 1-6, narrow leaf for equipment movement only. Card accessed.

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL STEEL HW HNG | T4B4786 5.0 X 4.5 QC8 | 652 | MCK |
| 3 | EA | STL HW HINGE | T4B4786 5.0 X 4.5 NRP | 652 | MCK |
| 4 | EA | STL HINGE | TB4714 5.0 X 4.5 NRP | 652 | MCK |
| 2 | EA | FLUSH BOLT | 550 (x 18” EXT @ TOD ROD) | 626 | ROC |
| 1 | EA | DUST PROOF STRIKE | 570 | 626 | ROC |
| 1 | EA | INT EL STORERM LK | RX-[7PIN]-8271 LW1L 7/8” LTC Strike | 626 | SAR |
| 1 | EA | SRFC CLSR~~, TJ~~ | DA 351 P10 @ ACTIVE DOOR | 689 | SAR |
| 2 | EA | FLR STOP | 481H | 626 | ROC |
| 2 | EA | KICK PLATES | K1050 4BE 10” x 1” LDW | 630 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | ASTRAGAL | 357SP x S44 | 600 | PEM |
| 2 | EA | ALUM DR SWEEP | 315_N | 628 | PEM |
| 1 | EA | ALUM SADDLE | 272A FHSL | 719 | PEM |
| 2 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | HARNESS | QC-C003 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

Note: inactive leaf is not accessible. Coordination items: Power/conduit/wiring/electronic by security system. Furnish 5 each hinges and 1 transfer hinge at 7’ high doors.

HwSet 16 - Interior dr to Data Room, card accessed

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL STEEL HNG | TB4714 4.5 X 4.5QC8 | 652 | MCK |
| 2 | EA | STL HINGE | TB4714 4.5 X 4.5 NRP | 652 | MCK |
| 1 | EA | INT EL STORERM LK | WBS/CLS-RX-[7PIN]-8271 LW1L | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351 P9 | 689 | SAR |
| 1 | EA | WALL STOP | 406 | 630 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | ALUM SADDLE | 151A FHSL | 719 | PEM |
| 1 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | HARNESS | QC-C300 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

Coordination items: Power/conduit/wiring/electronic security system.

HwSet 17 - Exterior dr from Meeting/Conference Room, card accessed

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL BRNZ HNG | TB314 4.5 X 4.0 QC8 | 613 | MCK |
| 3 | EA | BRNZ HNG | TB314 4.5 X 4.0 NRP | 613 | MCK |
| 1 | EA | EXT EL STORERM LK | WBS/CLS-RX-[7PIN]-8271 LW1L | 613 | SAR |
| 1 | EA | SRFC CLOSER | 351 CPS | 695 | SAR |
| 1 | EA | LATCH PROTECTOR | 325 | 10BE | ROC |
| 1 | EA | DOOR BOTTOM | 4315DN | AL | PEM |
| 1 | EA | BRNZ SADDLE | 172B BRNZ25MSA | 722 | PEM |
| 1 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | HARNESS | QC-C400 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

Coordination items: Power/conduit/wiring/electronic by security system.
Head, jamb, and meeting-stile seals: integral part of alum/glass frame and door system

HwSet 18 – Exterior TGP Rated Storefront door to Meeting/Conference Room, card accessed

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL STEEL HNG | T4B3786 4.5 X 4.0 CC4 | 10B | MCK |
| 2 | EA | STL HINGE | T4B3786 4.5 X 4.0 NRP | 10B | MCK |
| 1 | EA | INT EL STORERM LK | WBS/CLS-RX-[7PIN]-8271 LW1L | 613 | SAR |
| 1 | EA | SRFC CLOSER | 351 (PUSH SIDE) | 695 | NOR |
| 1 | EA | WALL STOP | 406 | 613 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | BRNZ SADDLE | 172B FHSL | 722 | PEM |
| 1 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | POWER TRANSFER | EL-CEPT-10B | 613 | SEC |
| 1 | EA | HARNESS | QC-C306 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

Coordination items: Power/conduit/wiring/electronic security system.
Gasket seals furnished by Fire Glazed Storefront Division

HwSet 19 - Sgl interior office door, key-locking **office-function lock** only

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | STL HINGE | TB714 4.5 X 4.0 NRP | 652 | MCK |
| 1 | EA | OFFICE LOCK | WBS/CLS-LB-[7PIN]-8205 LW1L | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351 H | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | FLOOR STOP | 441H | 626 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |

Omit Stop, furnish Closer 351 PSH @ Door 6A-1

HwSet 20 - Sgl communicating door, card-access both directions.

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL STEEL HNG | TB714 4.5 X 4.0 QC8 | 652 | MCK |
| 2 | EA | STL HINGE | TB714 4.5 X 4.0 NRP | 652 | MCK |
| 1 | EA | ELECTRIC CMMNCTG LOCK | WBS/CLS-RX-[7PIN]-8273 LW1L | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351 H | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | FLOOR STOP | 441H | 626 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | HARNESS | QC-C300 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |
| 1 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |

Coordination items: Power, conduit/wiring/electronic by security system.

HwSet 21 - Interior from utility space: storeroom lock, fire-rated PH

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | STL HINGE | T4B4786 5.0 X 4.5 NRP | 652 | MCK |
| 1 | EA | FIRE EXIT DEV (NL) | 12-19-43-GL-[7PIN]-8806 ETL, '5lbs'+SAR-block | 630 | SAR |
| 1 | EA | SRFC CLOSER | 351 P9 | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | WALL STOP | 406 | 630 | ROC |
| 1 | EA | 3FIN SEAL | S88D | BRN | PEM |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | SADDLE | 272A 25MSA | AL | PEM |

HwSet 22 - Exterior from large electrical room: panic hdw req'd due to equipment load, fire-rated

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | EXT STEEL HW HNG | T4B786 5.0 X 4.5 NRP | 10BE | MCK |
| 1 | EA | FIRE EXIT DEV (NL) | 12-19-43-GL-[7PIN]-8806 ETL, '5lbs'+SAR-block | 613 | SAR |
| 1 | EA | SRFC CLSR, HD PA | 351 PS | 695 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 613 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | BRNZ SADDLE | 172B BRNZ25MSA | 722 | PEM |

HwSet 23 - Exterior dr to Conference Rm, sound seals, card accessed (NOT USED)

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL HINGE | TB2714 4.5 X 4.5 QC8 | 652 | MCK |
| 2 | EA | HINGE | TB2714 4.5 X 4.5 | 652 | MCK |
| 1 | EA | ELEC LOCK | WBS/CLS-RX-[7PIN]-8271 LW1L | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351 H | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | DOOR STOP | 06 | 630 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |

Coordination items: Power/conduit/wiring/electronic by security system.

HwSet 24 - Pair interior acoustic drs from energy wind tunnel lab. Unequal width leafs: 3-0 + 1-6, narrow leaf for equipment movement only. Card accessed. STC50

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 2 | EA | FLUSH BOLT | 550 ( 24” EXT @ Top Rod) | 626 | ROC |
| 1 | EA | DUST PROOF STRIKE | 570 | 626 | ROC |
| 1 | EA | ELEC LOCK | RX-[7PIN]-8271 LW1L-7/8” LTC STK | 626 | SAR |
| 1 | EA | SRFC CLSR | 351 P9 @ ACTIVE DOOR | 689 | SAR |
| 2 | EA | EXT FLR STOP | 481H | 626 | ROC |
| 2 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | POWER TRANSFER | EL-CEPT | | SEC |
| 1 | EA | HARNESS | QC-C300 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

Note: inactive leaf is not accessible.
Hinges, Head/jamb/bottom seal package, threshold, astragal and z-brackets: part of acoustic assembly package. Coordination items: Power/conduit/wiring/electronic by security system.

HwSet 25 - Double-egress cross-corridor smoke barrier doors, electromag h.o. w/ fire-alarm release

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 8 | EA | HW HNG | T4A3786 5.0” x 4.5” | 630 | MCK |
| 2 | EA | FIRE EXIT DEV -EO | 12-19-43-NB-MD8610, '5lbs'+SAR-block | 630 | SAR |
| 2 | EA | POCKET CLSR | 351 OTP | 689 | SAR |
| 2 | EA | KICKPLATE | K1050 10" X 1"LDW B4E | 630 | ROC |
| 2 | EA | WALL-MOUNT HLDR | 989 L0-PROFILE | 689 | RIX |
| 1 | EA | SEAL | S88D | BRN | PEM |
| 1 | EA | ASTRAGAL | 357 x S44 | 600 | PEM |
| 2 | EA | DOOR BOTTOM | 420APKL | AL | PEM |

NOTE: COORDINATE: power / wiring / conduit / fire&life-safety system. Fire door must release in an alarm event to self-close and positively latch.
Furnish 10 each hinges @ Door 1C-2

HwSet 26 - Interior utility/mech'l space, storeroom lock

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | STEEL HW HNG | T4B3786 4.5 X 4.5 NRP | 652 | MCK |
| 1 | EA | INT STORERM LOCK | WBS/CLS-LB-[7PIN]-8204 LW1L | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351 O (351 P9 @ Rev Bevel Door ) | 689 | SAR |
| 1 | EA | SRFC CLOSER | 351 PS @ Doors MCH-2 | 689 | SAR |
| 1 | EA | SRFC CLOSER | 351 PSH ( @ Door 14A-1) | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | FLOOR STOP | 441H @ INSWING DOORS | 626 | ROC |
| 1 | EA | WALL STOP | 406 | 626 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | ALUM SADDLE | 272A FHSL | 719 | PEM |

Omit Stop @ Doors with PS & PSH Closers

HwSet 27 - Exterior stair door, card-access from exterior stair, fail-secure locking (bronze finishes).

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EXT EL STEEL HW HNG | T4B4786 5.0 X 4.5 QC8 | 10BE | MCK |
| 2 | EA | EXT STEEL HW HNG | T4B4786 5.0 X 4.5 NRP | 10BE | MCK |
| 1 | EA | ELECT FIRE EXIT DEV | 12-19-43-GL-55-[7pin]-8876 ETL (secure) | 613 | SAR |
| 1 | EA | SRFC CLOSER | 351 P10 | 695 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 613 | ROC |
| 1 | EA | EXT FLR STOP | 481H | 613 | ROC |
| 1 | EA | SEAL | 332DS | 710 | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | BRNZ SADDLE | 172B BRNZ25MSA | 722 | PEM |
| 1 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | HARNESS | QC-C003 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

COORDINATE: power / wiring / conduit Fire exit hardware: include '5lbs'+SAR-block feature.

HwSet 28 - interior sgl-occ restroom

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | HW HNG | T4B4786 4.5. X 4.5 NRP | 652 | MCK |
| 1 | EA | PVCY KEY LOCK | LB-50-[pin]-8225 LW1L | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351 DA | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1"LDW B4E | 630 | ROC |
| 1 | EA | WALL STOP | 406 | 630 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | THRESHOLD | HARD SURFACE – BY Other Division | | |
| 2 | EA | COAT HOOK | 796 | 626 | ROC |

Locate coat hooks @ 48" & 60" FFF.

HwSet 29 - Exterior roll-up door

| Qty | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|

Hardware (including) Door Position Switch furnished complete by Roll-Down Door Division

HwSet 30 - Pair interior utility/mech'l rm drs, storeroom lk

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 8 | EA | STL HW HINGE | T4B3786 4.5 X 4.5 NRP | 652 | MCK |
| 1 | EA | FLUSH BOLT | 2848 | 626 | ROC |
| 1 | EA | COORDINATOR | 2672 x 2601AB BRACKETS | US28 | ROC |
| 1 | EA | INT STORERM LOCK | [7PIN]-8204 LW1L-7/8” LIP STRIKE | 626 | SAR |
| 2 | EA | SRFC CLOSER | DA 351 P10 | 689 | SAR |
| 2 | EA | KICKPLATE | K1050 10" X 1"LDW B4E | 630 | ROC |
| 2 | EA | EXT FLR STOP | 481H | 626 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | SEAL | S88D | BRN | PEM |
| 1 | EA | ASTRAGAL | 357SP x S88 | 600 | PEM |
| 2 | EA | DR BOTTOM | 420APKL | 628 | PEM |
| 1 | EA | ALUM SADDLE | 151A FHSL | 719 | PEM |

HwSet 31 – Uneven Pair interior lab rm drs. Unequal width leafs: 3-0 + 1-6, narrow leaf for equipment movement only. Card accessed. Panic Hardware.

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL STEEL HW HNG | T4B4786 4.5 X 4.0 QC8 | 652 | MCK |
| 2 | EA | STL HW HINGE | T4B4786 4.5 X 4.0 NRP | 652 | MCK |
| 3 | EA | STL HINGE | TB4714 4.5 X 4.0 NRP | 652 | MCK |
| 2 | EA | FLUSH BOLT | 550 (x 18” EXT @ TOD ROD) | 626 | ROC |
| 1 | EA | DUST PROOF STRIKE | 570 | 626 | ROC |
| 1 | EA | REM MULLION | 980S | 689 | MCK |
| 1 | EA | EXIT DEV (QEL-NL) | 19-43-GL-55-56-[7PIN]-8806ETL, '5lbs'+SAR-block | 630 | SAR |
| 1 | EA | SRFC CLSR | DA 351 PS @ ACTIVE DOOR | 689 | SAR |
| 1 | EA | FLR STOP | 481H | 626 | ROC |
| 2 | EA | KICK PLATES | K1050 4BE 10” x 1” LDW | 630 | ROC |

| | | | | | |
|---|---|---|---|---|---|
| 1 | EA | MULLION SEAL | 5110 | BLK | PEM |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 2 | EA | ALUM DR SWEEP | 315_N | 628 | PEM |
| 1 | EA | ALUM SADDLE | 272A FHSL | 719 | PEM |
| 2 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | HARNESS | QC-C003 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

Note: inactive leaf is not accessible. Coordination items: Power/conduit/wiring/electronic by security system.

HwSet 32 - Pair interior drs to MRI Lab space, inswinging, classroom lk

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | STL HW HINGE | T4B3786 4.5 X 4.5 | 652 | MCK |
| 3 | EA | STL HINGE | TB714 4.5 X 4.5 | 652 | MCK |
| 1 | SET | SELF-LATCH BOLT | 2805 | 630 | ROC |
| 1 | EA | INT CLASSRM LOCK | CLS-[7PIN]-**8237** LW1L | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351DA@ ACTIVE DOOR | 689 | SAR |
| 2 | EA | KICKPLATE | K1050 10" X 1"LDW B4E | 630 | ROC |
| 2 | EA | FLOOR STOP | 441H | 626 | ROC |
| 1 | EA | EXT JAMB SEAL | 332CR | 628 | PEM |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 2 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | ASTRAGAL | 357SP x S44D | 600 | PEM |
| 1 | EA | ALUM SADDLE | 18/1 A 4” FHSL where detailed | 719 | PEM |

HwSet 33 - Pair exterior storefront doors, unequal width leafs, panic hardware card reader AUTO

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL BRNZ HW HNG | T4B3386 4.5 X 4.0 QC8 | 613 | MCK |
| 7 | EA | BRNZ HW HNG | T4B3386 4.5 X 4.0 NRP | 613 | MCK |
| 1 | EA | FLUSH BOLT SET | 2842 | 613 | ROC |
| 1 | EA | DUST PROOF STRIKE | 570 | 613 | ROC |
| 1 | EA | COORDINATOR | 2660 | BLK | SAR |
| 1 | EA | EXIT DEV (QEL-NL) | 19-43-GL-55-56-[7PIN]-8304 ETL, '5lbs'+SAR-block | 613 | SAR |
| 1 | EA | AUTO OPERATOR | "MAGIC FORCE" DUAL-SWING PUSH | 695 | STA |
| 2 | EA | VERTICAL ACTUATOR | BRNZ I36-5 | 613 | WIK |
| 2 | EA | OHC STOP | 6 Series | 613E | RIX |
| 2 | EA | DR SWEEP | 315DN | 722 | PEM |
| 1 | EA | BRNZ ENTRY THRSHLD ASSMBL | 195B+193B+195B, MTRD, BRNZ25MSA | 722 | PEM |
| 1 | EA | ASTRAGAL | 355DS | 722 | PEM |
| 2 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | HARNESS | QC-C003 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

Note: Head, jamb, and meeting-stile seals: integral part of alum/glass frame and door system

Operator, ON-OFF Key switch, actuation switches, safety sensors and wiring connections by Division 087113
Coordination items: Power/conduit/wiring/electronic security system.

HwSet 33.1 - Pair exterior storefront doors, unequal width leafs, card reader AUTO

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL BRNZ HW HNG | T4B3386 4.5 X 4.5 QC8 | 613 | MCK |
| 7 | EA | BRNZ HW HNG | T4B3386 4.5 X 4.5 NRP | 613 | MCK |
| 1 | EA | FLUSH BOLT SET | 2842 | 613 | ROC |
| 1 | EA | DUST PROOF STRIKE | 570 | 613 | ROC |
| 1 | EA | COORDINATOR | 2660 | BLK | SAR |
| 1 | EA | 2-POINT LOCK (ELR) | ELR 55 AD701315 ETL-[7PIN]-24VDC | 613 | SAR |
| 1 | EA | AUTO OPERATOR | "MAGIC FORCE" DUAL-SWING PUSH | 695 | STA |
| 2 | EA | VERTICAL ACTUATOR | BRNZ I36-5 | 613 | WIK |
| 2 | EA | OHC STOP | 6 Series | 613E | RIX |
| 2 | EA | DR SWEEP | 315DN | 722 | PEM |
| 1 | EA | BRNZ ENTRY THRSHLD ASSMBL | 195B+193B+195B, MTRD, BRNZ25MSA | 722 | PEM |
| 1 | EA | ASTRAGAL | 355DS | 722 | PEM |
| 2 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | HARNESS | QC-C306 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

Note: Head, jamb, and meeting-stile seals: integral part of alum/glass frame and door system
Operator, ON-OFF Key switch, actuation switches, safety sensors and wiring connections by Division 087113. Coordination items: Power/conduit/wiring/electronic by security system.

HwSet 34 - Interior sgl-occ changing room

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | STL HINGE | TB786 4.5 X 4.0 | 652 | MCK |
| 1 | EA | NON-KEYED PVCY LK | WBS/CLS-LB-8265 LW1L | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351 DA | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | WALL STOP | 406 | 630 | ROC |
| 1 | EA | SEAL | S88D | BRN | PEM |
| 1 | EA | THRESHOLD | HARD SURFACE – BY Other Division | | |
| 2 | EA | COAT HOOK | 796 | 626 | ROC |

Locate coat hooks @ 48" & 60" FFF.

HwSet 35 - Interior electl rm, panic hdw

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | STEEL HW HNG | T4B3786 5.0 X 4.5 NRP | 652 | MCK |
| 1 | EA | FIRE EXIT DEV (NL) | 12-19-43-GL-[7PIN]-8806 ETL, '5lbs'+SAR-block | 630 | SAR |
| 1 | EA | SRFC CLOSER | 351 P10 | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | FLOOR STOP | 441H | 626 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | ALUM SADDLE | 154A FHSL | 719 | PEM |

Furnish 4 each Hinges @ Door EM2-1
Omit Stop, furnish Closer 351 PS @ Door E3-1

HwSet 36 - Interior multi-occ restroom AUTO

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | STL HW HINGE | T4B786 4.5X 4.5 NRP | 652 | MCK |
| 1 | EA | CLASSRM LK | [7PIN]-8237 LW1L | 626 | SAR |
| 1 | EA | ELECTRIC STRIKE | 1006 24VDC x 2004M | 630 | HES |
| 1 | EA | AUTO OPERATOR | "MAGIC FORCE" SWING PULL | 689 | STA |
| 2 | EA | VERTICAL ACTUATOR | I36-5 | 630 | WIK |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | EXT FLR STOP | 481H | 626 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | THRESHOLD | HARD SURFACE – BY Other Division | | |
| 1 | EA | HARNESS | QC-C1500P | | MCK |
| 1 | EA | POWER SUPPLY | BPS-24-2 (1 each per each floor) | | SEC |

Operator, ON-OFF Key switch, actuation switches, safety sensors and wiring connections by Division 087113

HwSet 36.1 - Interior multi-occ restroom

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | STL HW HINGE | T4B786 4.5X 4.5 NRP | 652 | MCK |
| 1 | EA | CLASSRM LK | [7PIN]-8237 LW1L | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351 DA | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | EXT FLR STOP | 481H | 626 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | THRESHOLD | HARD SURFACE – BY Other Division | | |

HwSet 37 - Interior utility/mech'l space, storeroom lock, wide door

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | STL HW HINGE | T4B4786 5.0 X 4.5 NRP | 652 | MCK |
| 1 | EA | INT STORERM LOCK | WBS/CLS-[7PIN]-8204 LW1L | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351 H | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | FLOOR STOP | 441H | 626 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | ALUM COVER | 18/1A 6” A FHSL | 719 | PEM |

HwSet 38 - all-glass door

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | BR DEADLOCK | MS1861-01 | 628 | ADA |
| 1 | EA | INDICATOR | 4089 | 628 | ADA |
| 1 | EA | DUST PROOF STRIKE | 570 | 626 | ROC |
| 1 | EA | MORT CYL | 42-7 x 101 @ Outside | 626 | SAR |
| 1 | EA | MORT CYL | 118TA X AR @ Inside | 626 | GMS |
| 2 | EA | STRAIGHT PULL | RM3300 36" BTB | 630 | ROC |
| 1 | EA | CNCLD FLR CLSR | PH5012A BC x 554 | 626 | RIX |
| 1 | EA | FLOOR STOP | RM850 | 626 | ROC |

HwSet 38.1 - all-glass door, card-access

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | PALM BUTTON | EBB | 630 | SEC |
| 1 | EA | CONC ELEC MAG LK | SAMD 24VDC | 628 | SEC |
| 2 | EA | STRAIGHT PULL | RM3300 36" BTB | 630 | ROC |
| 1 | EA | CNCLD FLR CLSR | PH5012A BC x 554 | 626 | RIX |
| 1 | EA | O.H.RELEASE SENSOR | XMS | | SEC |
| 1 | EA | FLOOR STOP | RM850 | 626 | ROC |
| 1 | EA | KEY SWITCH | MKA | 630 | SEC |
| 1 | EA | MORT CYL | 42-7 | 626 | SAR |

Normal operation: valid credential releases electromagnetic lock. From inside, user approaches door, triggering sensor to release the lock (if locked) -- door will typically be unlocked while room is occupied. Palm button available as an auxiliary redundant releasing device. Access control, power & wiring by security division.

Set 39 - Pair exterior storefront drs to meeting room, card accessed AUTO

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 2 | EA | EL BRNZ HW HNG | T4B3386 5.0 X 4.5 QC8 | 613 | MCK |
| 6 | EA | BRNZ HW HNG | T4B3386 5.0 X 4.5 NRP | 613 | MCK |
| 2 | EA | CONC OH STOP | 6-SERIES | 613E | RIX |
| 1 | EA | 2-POINT LOCK (ELR) | ELR 55 AD701315 ETL-VR96”+[7PIN]-24VDC | 613 | SAR |
| 1 | EA | 2-POINT LOCK (ELR) | ELR 55 AD701015 ETL-VR96”+24VDC | 613 | SAR |
| 1 | EA | AUTO OPERATOR | "MAGIC FORCE" DUAL-SWING PUSH | 695 | STA |
| 2 | EA | VERTICAL ACTUATOR | BRONZE: I36-5 | 722 | WIK |

| | | | | | |
|---|---|---|---|---|---|
| 2 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | BLK | SEN |
| 2 | EA | HARNESS | QC-C400 | | MCK |
| 2 | EA | HARNESS | QC-C1500P | | MCK |
| 2 | EA | BRNZ DR SWEEP | 315DN | 710 | PEM |
| 1 | EA | BRNZ SADDLE | 195Bx196Bx195B BRNZ25MSA Miter 1-2 | 722 | PEM |

Head, jamb, and meeting-stile seals: integral part of alum/glass frame and door system Operators, ON-OFF Key switch, actuation switches and safety sensors furnished by Division 087113. Coordination items: Power/conduit/wiring/electronic by security system.

HwSet 40 - Pair HM drs from Lab / Shop spaces. Unequal width leafs: 3-0 + 1-6, narrow leaf for equipment movement only. Card accessed.

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL HW HNG | T4B786 5.0 X 4.0 QC8 | 652 | MCK |
| 3 | EA | HW HNG | T4B786 5.0 X 4.0 NRP | 652 | MCK |
| 4 | EA | HNG | TB714 5.0 X 4.5 NRP | 652 | MCK |
| 2 | EA | FLUSH BOLT | 550 (18” EXT @ TOP ROD) | 626 | ROC |
| 1 | EA | DUST PROOF STRIKE | 570 | 626 | ROC |
| 1 | EA | INT EL STORERM LK | RX-[7PIN]-8271 LW1L 7/8” LTC Strike | 626 | SAR |
| 1 | EA | SRFC CLOSER | DA 351 P10 @ ACTIVE DOOR | 689 | SAR |
| 2 | EA | KICKPLATE | K1050 10" X 1"LDW B4E | 630 | ROC |
| 2 | EA | FLR STOP | 481H | 626 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | ASTRAGAL | 357SP x S44 | 600 | PEM |
| 2 | EA | DR SWEEP | 315AN | 628 | PEM |
| 2 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | HARNESS | QC-C300 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

Note: inactive leaf is not accessible. . Furnish 5 each Hinges and 1 Transfer Hinge @ Door 205-1. Coordination items: Power/conduit/wiring/electronic by security system

HwSet 40.1 - Pair HM drs from Corridor. Card accessed.

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 2 | EA | EL HW HNG | T4B3786 4.5 X 4.5 QC8 | 630 | MCK |
| 6 | EA | HW HNG | T4B3786 4.5. X 4.5 NRP | 630 | MCK |
| 1 | EA | FLUSH BOLT SET | 2842 | 626 | ROC |
| 1 | EA | DUST PROOF STRIKE | 570 | 626 | ROC |
| 1 | EA | COORDINATOR | 2672 x 2601AB BRACKETS | 628 | SAR |
| 1 | EA | INT EL STORERM LK | RX-[7PIN]-8271 LW1L 7/8” LTC Strike | 626 | SAR |
| 2 | EA | SRFC CLOSER | DA 351 P10 | 689 | SAR |
| 2 | EA | KICKPLATE | K1050 10" X 1"LDW B4E | 630 | ROC |
| 2 | EA | FLR STOP | 481H | 626 | ROC |
| 1 | EA | 3FIN SEAL | S88 | BRN | PEM |
| 1 | EA | ASTRAGAL | 357SP x S44 | 600 | PEM |
| 2 | EA | DR SWEEP | 315AN | 628 | PEM |
| 2 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | HARNESS | QC-C300 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

Coordination items: Power/conduit/wiring/electronic by security system.

HwSet 41 - Sgl interior Staff Receiving door, high-traffic, key-locking only

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | STL HINGE | TB2714 4.5 X 4.5 | 652 | MCK |
| 1 | EA | OFFICE LOCK | WBS/CLS-LB-[7PIN]-8205 LW1L | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351 PH9 | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | WALL STOP | 406 | 630 | ROC |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | SEAL | S88 | BRN | PEM |

HwSet 42 - Pair exterior HM drs from Fire Pump Rm.

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 8 | EA | BRNZ HW HNG | T4B4386 5.0 X 4.5 NRP | 613 | MCK |
| 2 | EA | FLUSH BOLT | 550 (24” EXT @ TOP ROD) | 613 | ROC |
| 1 | EA | DUST PROOF STRIKE | 570 | 613 | ROC |
| 1 | EA | EXT STORERM LOCK | -[7PIN]-8204 LW1L 7/8” LTC Strike | 613 | SAR |
| 1 | EA | HOLDER | No. x 1618D | 695 | NOR |
| 1 | EA | SRFC CLOSER | 351 P9H @ ACTIVE DOOR | 695 | SAR |
| 2 | EA | EXT FLR STOP | 481H | 613 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | ASTRAGAL | 357SP x S44 | 600 | PEM |
| 2 | EA | BRNZ DR SWEEP | 315DN | 710 | PEM |
| 1 | EA | THRESHOLD | 172D FHSL | 313 | PEM |
| 2 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |

Note: inactive leaf is not accessible.

HwSet 43 - Pair interior drs to teaching space, elec lock Card Access (non-fire-rated)

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL STEEL HNG | TB4714 4.5 X 4.0 QC8 | 652 | MCK |
| 5 | EA | STL HINGE | TB4714 4.5 X 4.0 NRP | 652 | MCK |
| 1 | SET | SELF-LATCH BOLT | 2842 | 630 | ROC |
| 1 | EA | DUST PROOF STRIKE | 570 | 626 | ROC |
| 1 | EA | COORDINATOR | 2672 | 628 | ROC |
| 1 | EA | INT EL STORERM LK | CLS-RX-[7PIN]-8271 LW1L | 626 | SAR |
| 2 | EA | SRFC CLOSER | 351 H | 689 | SAR |
| 2 | EA | KICKPLATE | K1050 10" X 1"LDW B4E | 630 | ROC |
| 2 | EA | FLOOR STOP | 441H | 626 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | ASTRAGAL | 357SP x S44 | 600 | PEM |
| 2 | EA | ALUM DR SWEEP | 315_N | 628 | PEM |
| 1 | EA | ALUM SADDLE | 272A FHSL | 719 | PEM |
| 2 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | HARNESS | QC-C300 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

Coordination items: Power/conduit/wiring/electronic security system.

HwSet 44 - Interior dr to teaching space, card accessed

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL STEEL HNG | TB4714 4.5 X 4.0 QC8 | 652 | MCK |
| 2 | EA | STL HINGE | TB4714 4.5 X 4.0 | 652 | MCK |
| 1 | EA | INT EL STORERM LK | WBS/CLS-RX-[7PIN]-8271 LW1L | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351 H | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | DOOR STOP | 406 | 630 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | ALUM SADDLE | 151A FHSL | 719 | PEM |
| 1 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | HARNESS | QC-C300 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

Coordination items: Power/conduit/wiring/electronic by security system.

HwSet 44.1 - Interior dr to service space, card accessed

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL STEEL HNG | TB714 4.5 X 4.0 QC8 | 652 | MCK |
| 2 | EA | STL HINGE | TB4714 4.5 X 4.0 | 652 | MCK |
| 1 | EA | INT EL STORERM LK | WBS/CLS-RX-[7PIN]-8271 LW1L | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351 DA | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | DOOR STOP | 441H | 626 | ROC |
| 1 | EA | SEAL | S88D | BRN | PEM |
| 1 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | HARNESS | QC-C300 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

Coordination items: Power/conduit/wiring/electronic by security system.

HwSet 45 - Exterior door from teaching space, card-access from exterior into stair, fail-secure locking (bronze finishes).

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL BRNZ HW HNG | T4B4386 5.0 X 4.5 QC8 | 613 | MCK |
| 3 | EA | BRNZ HW HNG | T4B4386 5.0 X 4.5 NRP | 613 | MCK |
| 1 | EA | ELECT EXIT DEV | 19-43-GL-55-56-7P-8806 X ETL 5lbs+SAR-blk | 613 | SAR |
| 1 | EA | SRFC CLOSER | DA 351 P10 | 695 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 613 | ROC |
| 1 | EA | EXT FLR STOP | 481H | 613 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | ENTRY THRSHLD ASSMBL | 195B+193B+195B, MTRD, BRNZ25MSA | 722 | PEM |
| 1 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |
| 1 | EA | HARNESS | QC-C003 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

COORDINATE: power / wiring / conduit / by security system. Fire exit hardware: include '5lbs'+SAR-block features.

HwSet 46 - Pair interior drs from Corridor. Unequal width leafs: 3-0 + 1-6, narrow leaf for equipment movement only. Key accessed (no card). STC 45

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | FLUSH BOLT SET | 550 (24” Ext Top Rod) | 626 | ROC |
| 1 | EA | DUST PROOF STRIKE | 570 | 626 | ROC |
| 1 | EA | LOCKSET | 7PIN]-LB-8205 LW1L 8 7/8” LTC Stk | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351 @ ACTIVE DOOR | 689 | SAR |
| 2 | EA | EXT FLR STOP | 441H | 626 | ROC |

Note: inactive leaf is not accessible. Hinges, Head/jamb/bottom seal package, threshold, astragal and z-brackets: part of acoustic assembly package.

HwSet 47 - Nanofab clean room interlock doors; each door to have:

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EL STEEL HW HNG | T4B4786 4.5 X 4.5 QC8 | 652 | MCK |
| 2 | EA | STL HW HINGE | T4B4786 4.5 X 4.5 NRP | 652 | MCK |
| 1 | EA | INT EL STORERM LK | WBS/CLS-RX-[7PIN]-8271 LW1L (110A-2) | 626 | SAR |
| 1 | EA | PASSAGE + RX | WBS/CLS-RX-8215 LW1L(110A-1) | 626 | SAR |
| 1 | EA | ELECTROMAG LK | M380BD | 628 | SEC |
| 1 | EA | SRFC CLOSER | 351 P9 | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | FLOOR STOP | 441H | 626 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | 1/8" ALUM SILL PLATE | 18/1 4" FHSL | 719 | PEM |
| 1 | EA | HARNESS | QC-C300 | | MCK |

| | | | | |
|---|---|---|---|---|
| 1 | EA | HARNESS | QC-C1500P | MCK |
| 1 | EA | POWER SUPPLY | BPS-24-3 (Per two doors) | SEC |
| 1 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | SEN |

Drs 110A-2 & 110A-1: cleanroom interlock; only one door can be open at any time in normal operation. Both doors instantly unlocked in an alarm/panic event.
Lockset at 110A-2, passage+RX at 110A-1.
Operation: valid card req'd to enter the airlock from Research 110. Dr 110A-2 cannot be opened until 110A-1 is closed. When 110A-2 is opened, 110A-1 is locked. When 110A-2 is re-closed, 110A-1 is available to be opened, and when opened, 110A-2 is locked.
Electromagnetic locks are actively locked only when one leaf is opened.
COORDINATE: power / wiring / conduit / fire&life-safety system. In an alarm condition, locking devices must unlock in an alarm event to afford immediate egress.
Coordination items: Power/conduit/wiring/electronic security system.

HwSet 48 - Pair interior drs to Receiving, classroom lk (non-fire-rated)

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 8 | EA | STL HW HNG, SWNG-CLR | T4B4795 5.0 | 652 | MCK |
| 1 | SET | SELF-LATCH BOLT | 2845 | 630 | ROC |
| 1 | EA | DUST PROOF STRIKE | 570 | 626 | ROC |
| 1 | EA | COORDINATOR | 2672 | 628 | ROC |
| 1 | EA | INT CLASSRM LK | CLS-[7PIN]-8237 LW1L | 626 | SAR |
| 2 | EA | SRFC CLOSER | 351 DA H | 689 | SAR |
| 2 | EA | ARMOR PLATE | K1050 34" X 1"LDW B4E | 630 | ROC |
| 2 | EA | EXT FLR STOP | 481H | 626 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | ASTRAGAL | 357SP x S44 | 600 | PEM |
| 1 | EA | HVY-DUTY THRSHLD | 2266 FHSL | 719 | PEM |

HwSet 49 - Pair interior storage / instrument rm drs, classroom lk (non-fire-rated)

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 6 | EA | STL HINGE | TB4714 4.5 X 4.0 NRP | 652 | MCK |
| 1 | SET | SELF-LATCH BOLT | 2845 | 630 | ROC |
| 1 | EA | DUST PROOF STRIKE | 570 | 626 | ROC |
| 1 | EA | INT CLASSRM LK | WBS/CLS-[7PIN]-8237 LW1L | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351 H @ ACTIVE DOOR | 689 | SAR |
| 2 | EA | FLOOR STOP | 441H | 626 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | ASTRAGAL | 357SP x S44 | 600 | PEM |
| 1 | EA | ALUM SADDLE | 272A FHSL | 719 | PEM |

Furnish 8 each Hinges @ Doors U1-1, 112C-1.

Set 50 - Sgl closet / storage door, classroom function lock only

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | STL HINGE | TB714 4.5 X 4.0 NRP | 630 | MCK |
| 3 | EA | STL HINGE | TB786 4.5 X 4.0 NRP @ 42” wide doors | 630 | MCK |
| 1 | EA | INT CLASSRM LK | WBS/CLS-[7PIN]-8237 LW1L | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351 | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | FLOOR STOP | 441H | 626 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |

HwSet 50.1 - Sgl door, classroom function lock only (RF Shielded Door)

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | STL HINGE | TB786 4.5 X 4.5 NRP | 630 | MCK |
| 1 | EA | INT CLASSRM LK | WBS/CLS-[7PIN]-8237 LW1L | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351 | 689 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 1 | EA | FLOOR STOP | 441H | 626 | ROC |

Coordination items: Door, frame, perimeter seals, copper primer, threshold & conductive caulk by RF Shielded Door Vendor

HwSet 51 - Exterior from roof utility space: storeroom lock

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | BRNZ HNG | TB4314 5.0 X 4.0 NRP | 613 | MCK |
| 1 | EA | EXT STORERM LOCK | WBS/CLS-LB-[7PIN]-8204 LW1L | 613 | SAR |
| 1 | EA | SRFC CLOSER | 351 H | 695 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 613 | ROC |
| 1 | EA | EXT FLR STOP | 481H | 613 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | THRESHOLD | Per Detail 11/A-710 x FHSL | 313 | PEM |

HwSet 52 - Sgl dr, attic spaces.

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 3 | EA | EXT STL HINGE | TB4714 4.5 X 4.0 NRP | 10BE | MCK |
| 1 | EA | PASSAGE SET | WBS/CLS-8215 LW1L | 613 | SAR |
| 1 | EA | SRFC CLSR, HD PA | 351 P10 | 695 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 613 | ROC |
| 1 | EA | EXT FLR STOP | 481H | 613 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | BRNZ DR SWEEP | 315BN | 722 | PEM |
| 1 | EA | THRESHOLD | 272 FHSL @ Detail 19/A-710 | 313 | PEM |
| 1 | EA | THRESHOLD | Per Detail @ 11/A-710 | 313 | PEM |
| 1 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | | SEN |

Coordination items: Power/conduit/wiring/electronic security system.

HwSet 53 - stair door (electric locked to attic).

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 1 | EA | EXT STEEL TRSF HNG | TB2714 4.5. X 4.5 QC8 | 10BE | MCK |
| 2 | EA | EXT STEEL HNG | TB2714 4.5. X 4.5 NRP | 10BE | MCK |
| 1 | EA | ELECTRIC LOCK | WBS/CLS-[7PIN]-8270 LW1L FAIL-SAFE | 626 | SAR |
| 1 | EA | SRFC CLOSER | 351 | 695 | SAR |
| 1 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 613 | ROC |
| 1 | EA | WALL STOP | 406 | 613 | ROC |
| 1 | EA | 3FIN SEAL | S773 | BRN | PEM |
| 1 | EA | DOOR BOTTOM | 420APKL | AL | PEM |
| 1 | EA | THRESHOLD | 272 FHSL | 313 | PEM |
| 1 | EA | THRESHOLD | Per Detail @ 11/A-710 | 313 | PEM |
| 1 | EA | HARNESS | QC-C300 | | MCK |
| 1 | EA | HARNESS | QC-C1500P | | MCK |

COORDINATE: power / wiring / conduit / fire&life-safety security system. Fire door electric lockset lever must unlock in an alarm event to allow ready exit from stair to Attic.

HwSet 54-AO - Pr exterior themed doors (type F, F1), panic hdw, card accessed, auto-operator (both leafs)

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 2 | EA | EL BRNZ HW HNG | T4B4386 4.5 X 4.0QC8 | 613 | MCK |
| 6 | EA | BRNZ HW HNG | T4B4386 4.5 X 4.0 NRP | 613 | MCK |
| 1 | EA | MULLION | 650A x 10B - | 313AN | SAR |
| 1 | EA | ELECT EXIT DEV | 19-43-GL-55-56-7P-8506 X ETL -[7PIN]- , 5lbs+SAR-blk | 613 | SAR |
| 1 | EA | EXIT DEVICE (QEL-DT) | 19-43-GL-55-56-8510 X ETL, '5lbs'+SAR-block | 613 | SAR |
| 1 | EA | AUTO OPERATOR | "MAGIC FORCE" DUAL-SWING PUSH | 695 | STA |
| 2 | EA | VERTICAL ACTUATOR | BRONZE: I36-5 | 722 | WIK |
| 2 | EA | OHC STOP | 6 Series | 613 | RIX |
| 2 | EA | ALUM DR SWEEP | 315_N | 710 | PEM |
| 1 | EA | ENTRY THRSHLD ASSMBL | 195B+193B+195B, MTRD, BRNZ25MSA | 722 | PEM |
| 2 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | BLK | SEN |
| 2 | EA | HARNESS | QC-C003 | | MCK |
| 2 | EA | HARNESS | QC-C1500P | | MCK |

Coordination items: Power/conduit/wiring/electronic by security system.
Head, jamb, and meeting-stile seals: integral part of alum/glass frame and door system
Operator, actuation switches, safety sensors and On-Off key switch furnished by Division 087111.
Furnish 6 each hinges @ Door 203C3-2

HwSet 55-AO - Pr exterior themed doors (type F, F1), auto-operator (both leafs)

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 2 | EA | EL BRNZ HW HNG | T4B3386 5.0 X 4.5 QC8 | 613 | MCK |
| 6 | EA | BRNZ HW HNG | T4B3386 5.0 X 4.5 NRP | 613 | MCK |
| 2 | EA | 2-POINT LOCK (ELR) | ELR 55 AD701015 ETL-VR96”+ 24VDC | 613 | SAR |
| 1 | EA | AUTO OPERATOR | "MAGIC FORCE" DUAL-SWING PUSH | 695 | STA |
| 2 | EA | VERTICAL ACTUATOR | BRONZE: I36-5 | 722 | WIK |
| 2 | EA | CONCEALED OH STOP | 6-SERIES | 613E | RIX |
| 2 | EA | ALUM DR SWEEP | 315_N | 710 | PEM |
| 1 | EA | ENTRY THRSHLD ASSMBL | 195B+193B+195B, MTRD, BRNZ25MSA | 722 | PEM |
| 2 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | BLK | SEN |
| 2 | EA | HARNESS | QC-C400 | | MCK |
| 2 | EA | HARNESS | QC-C1500P | | MCK |

Coordination items: Power/conduit/wiring/electronic by security system.
Head, jamb, and meeting-stile seals: integral part of alum/glass frame and door system
Operator, ON-OFF Key switch, actuation switches and safety sensors furnished by Division 087113

HwSet 56-AO - Pr basement HM doors, panic hdw, card accessed, auto-operator (both leafs)

| Qty | | Description | Catalog Number | Finish | Mfr |
|---|---|---|---|---|---|
| 2 | EA | EL BRNZ HW HNG | T4B3386 4.5 X 4.0 QC8 | 630 | MCK |
| 6 | EA | BRNZ HW HNG | T4B3386 4.5 X 4.0 NRP | 630 | MCK |
| 1 | EA | MULLION | 980S | 600 | SAR |
| 1 | EA | ELECT EXIT DEV | 19-43-GL-55-56-7PIN-8806 X ETL, 5lbs+SAR-blk | 630 | SAR |
| 1 | EA | EXIT DEVICE (QEL-DT) | 19-43-GL-55-56-8810 X ETL, '5lbs'+SAR-block | 630 | SAR |
| 1 | EA | AUTO OPERATOR | "MAGIC FORCE" DUAL-SWING PUSH | 689 | STA |
| 2 | EA | VERTICAL ACTUATOR | BRONZE: I36-5 | 722 | WIK |
| 1 | EA | SEAL | S88D | BRN | PEM |
| 1 | EA | MULLION SEAL | 5110 | BLK | PEM |
| 2 | EA | KICKPLATE | K1050 10" X 1.5"LDW B4E | 630 | ROC |
| 2 | EA | EXT FLR STOP | 481H | 626 | ROC |
| 2 | EA | ALUM DR SWEEP | 315_N | 628 | PEM |
| 1 | EA | ENTRY THRSHLD ASSMBL | 200A+193A+200A, MTRD, SS25MSA | 719 | PEM |
| 2 | EA | DOOR POSITION SWITCH | 1076W/1277W/1047H * | GRY | SEN |
| 2 | EA | HARNESS | QC-C003 | | MCK |
| 2 | EA | HARNESS | QC-C1500P | | MCK |

Operators ON-OFF Key switch, actuation switches and safety sensors furnished by Division 087113.
Coordination items: Power/conduit/wiring/electronic by security system.

MAINTENANCE ITEMS:

| | | | |
|---|---|---|---|
| 1 | EA | BINDER | CATALOG CUTS & HDW SCHEDULE |
| 1 | EA | BINDER | INSTALLATION / MAINTENANCE / ADJUSTEMNT INFO EA IT |
| 1 | EA | BINDER | WARRANTY, INVOICE NUMBERS, & MFR CONTACT INFO |
| 1 | SET | TOOLS | INSTALLATION & ADJUSTMENT TOOLS FURNISHED WITH THE HARDWARE, E.G. WRENCHES, DRIVERS, ETC. |

END OF SECTION