

SECTION 08 71 00
DOOR HARDWARE

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Door hardware and related items necessary for complete installation and operation of doors.

1.2 RELATED WORK

- A. Caulking: Section 07 92 00 JOINT SEALANTS.
- B. Application of Hardware: Section 08 14 00, WOOD DOORS, Section 08 11 13, HOLLOW METAL DOORS AND FRAMES, Section 08 17 10, INTEGRATED DOOR ASSEMBLIES, Section 08 41 13, ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS, Section 08 71 13, AUTOMATIC DOOR OPERATORS, Section 08 71 13.11, LOW ENERGY DOOR OPERATORS, Section 13 49 00, RADIATION PROTECTION.
- C. Finishes: Section 09 06 00, SCHEDULE FOR FINISHES.
- D. Painting: Section 09 91 00, PAINTING.
- E. Card Readers: Section 28 13 11, PHYSICAL ACCESS CONTROL SYSTEMS.
- F. Electrical: Division 26, ELECTRICAL.
- G. Fire Detection: Section 28 31 00, FIRE DETECTION AND ALARM.

1.3 GENERAL

- A. All hardware shall comply with UFAS, (Uniform Federal Accessible Standards) unless specified otherwise.
- B. Provide rated door hardware assemblies where required by most current version of the International Building Code (IBC).
- C. Hardware for Labeled Fire Doors and Exit Doors: Conform to requirements of NFPA 80 for labeled fire doors and to NFPA 101 for exit doors, as well as to other requirements specified. Provide hardware listed by UL, except where heavier materials, large size, or better grades are specified herein under paragraph HARDWARE SETS. In lieu of UL labeling and listing, test reports from a nationally recognized testing agency may be submitted showing that hardware has been tested in accordance with UL test methods and that it conforms to NFPA requirements.
- D. Hardware for application on metal and wood doors and frames shall be made to standard templates. Furnish templates to the fabricator of these items in sufficient time so as not to delay the construction.
- E. The following items shall be of the same manufacturer, except as otherwise specified:

1. Mortise locksets.
2. Hinges for hollow metal and wood doors.
3. Surface applied overhead door closers.
4. Exit devices.
5. Floor closers.

1.4 WARRANTY

A. Automatic door operators shall be subject to the terms of FAR Clause 52.246-21, except that the Warranty period shall be two years in lieu of one year for all items except as noted below:

1. Locks, latchsets, and panic hardware: 5 years.
2. Door closers and continuous hinges: 10 years.

1.5 MAINTENANCE MANUALS

A. In accordance with Section 01 00 00, GENERAL REQUIREMENTS Article titled "INSTRUCTIONS", furnish maintenance manuals and instructions on all door hardware. Provide installation instructions with the submittal documentation.

1.6 SUBMITTALS

A. Submittals shall be in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES. Submit 6 copies of the schedule per Section 01 33 23. Submit 2 final copies of the final approved schedules to VAMC Locksmith as record copies (VISN Locksmith if the VAMC does not have a locksmith).

B. Hardware Schedule: Prepare and submit hardware schedule in the following form:

Hardware Item	Quantity	Size	Reference Publication Type No.	Finish	Mfr. Name and Catalog No.	Key Control Symbols	UL Mark (if fire rated and listed)	ANSI/BHMA Finish Designation

C. Samples and Manufacturers' Literature:

1. Samples: All hardware items (proposed for the project) that have not been previously approved by Builders Hardware Manufacturers Association shall be submitted for approval. Tag and mark all items with manufacturer's name, catalog number and project number.

2. Samples are not required for hardware listed in the specifications by manufacturer's catalog number, if the contractor proposes to use the manufacturer's product specified.

D. Certificate of Compliance and Test Reports: Submit certificates that hardware conforms to the requirements specified herein. Certificates shall be accompanied by copies of reports as referenced. The testing shall have been conducted either in the manufacturer's plant and certified by an independent testing laboratory or conducted in an independent laboratory, within four years of submittal of reports for approval.

1.7 DELIVERY AND MARKING

A. Deliver items of hardware to job site in their original containers, complete with necessary appurtenances including screws, keys, and instructions. Tag one of each different item of hardware and deliver to Resident Engineer for reference purposes. Tag shall identify items by Project Specification number and manufacturer's catalog number. These items shall remain on file in Resident Engineer's office until all other similar items have been installed in project, at which time the Resident Engineer will deliver items on file to Contractor for installation in predetermined locations on the project.

1.8 PREINSTALLATION MEETING

A. Convene a preinstallation meeting not less than 30 days before start of installation of door hardware. Require attendance of parties directly affecting work of this section, including Contractor and Installer, Architect, Project Engineer and VA Locksmith, Hardware Consultant, and Hardware Manufacturer's Representative. Review the following:

1. Inspection of door hardware.
2. Job and surface readiness.
3. Coordination with other work.
4. Protection of hardware surfaces.
5. Substrate surface protection.
6. Installation.
7. Adjusting.
8. Repair.
9. Field quality control.
10. Cleaning.

1.9 INSTRUCTIONS

- A. Hardware Set Symbols on Drawings: Except for protective plates, door stops, mutes, thresholds and the like specified herein, hardware requirements for each door are indicated on drawings by symbols. Symbols for hardware sets consist of letters (e.g., "HW") followed by a number. Each number designates a set of hardware items applicable to a door type.
- B. Keying: All cylinders shall be keyed into existing Yale Great Grand Master Key System. Provide removable core cylinders that are removable only with a special key or tool without disassembly of knob or lockset. Cylinders shall be 6 pin type. Keying information shall be furnished at a later date by the Resident Engineer.
- C. Manufacturers' Catalog Number References: Where manufacturers' products are specified herein, products of other manufacturers which are considered equivalent to those specified may be used. Manufacturers whose products are specified are identified by abbreviations as follows:

Adams-Rite	Adams Rite Mfg. Co.	Glendale, CA
Glynn Johnson	Glynn Johnson Co.	Chicago, IL
LCN	LCN Closers	Princeton, IL
Firemark	Rixon-Firemark Co.	Chicago, IL
Hager	Hager Hinge Company	Saint Louis, MO
Sargent	Sargent Manufacturing Company	New Haven, CT
Stanley	The Stanley Works	New Britain, CT
Trimco	Triangle Brass Mfg. Co.	Los Angeles, CA
Unican	Simplex Security Systems	Collinsville, CT
Von Duprin	Von Duprin Hardware Co.	Indianapolis, IN
Zero	Zero Weather Stripping Co.	New York, NY
Best	Best Access Systems	Indianapolis, IN

1.10 APPLICABLE PUBLICATIONS

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only. In text, hardware items are referred to by series, types, etc., listed in such specifications and standards, except as otherwise specified.

B. American Society for Testing and Materials (ASTM):

F883-04.....Padlocks

E2180-07.....Standard Test Method for Determining the
Activity of Incorporated Antimicrobial Agent(s)
In Polymeric or Hydrophobic Materials

C. American National Standards Institute/Builders Hardware Manufacturers Association (ANSI/BHMA):

A156.1-06.....Butts and Hinges

A156.2-03.....Bored and Pre-assembled Locks and Latches

A156.3-08.....Exit Devices, Coordinators, and Auto Flush
Bolts

A156.4-08.....Door Controls (Closers)

A156.5-01.....Auxiliary Locks and Associated Products

A156.6-05.....Architectural Door Trim

A156.8-05.....Door Controls-Overhead Stops and Holders

A156.12-05Interconnected Locks and Latches

A156.13-05.....Mortise Locks and Latches Series 1000

A156.14-07Sliding and Folding Door Hardware

A156.15-06.....Release Devices-Closer Holder, Electromagnetic
and Electromechanical

A156.16-08.....Auxiliary Hardware

A156.17-04Self-Closing Hinges and Pivots

A156.18-06.....Materials and Finishes

A156.20-06Strap and Tee Hinges, and Hasps

A156.21-09.....Thresholds

A156.22-05.....Door Gasketing and Edge Seal Systems

A156.23-04.....Electromagnetic Locks

A156.24-03.....Delayed Egress Locking Systems

A156.25-07Electrified Locking Devices

A156.26-06.....Continuous Hinges

A156.28-07Master Keying Systems

A156.29-07Exit Locks and Alarms

A156.30-03High Security Cylinders

A156.31-07Electric Strikes and Frame Mounted Actuators

A250.8-03.....Standard Steel Doors and Frames

D. National Fire Protection Association (NFPA):

80-10.....Fire Doors and Fire Windows

101-09.....Life Safety Code

E. Underwriters Laboratories, Inc. (UL):

Building Materials Directory (2008)

PART 2 - PRODUCTS

2.1 BUTT HINGES

A. ANSI A156.1. Provide only three-knuckle hinges, except five-knuckle where the required hinge type is not available in a three-knuckle version (e.g., some types of swing-clear hinges). The following types of butt hinges shall be used for the types of doors listed, except where otherwise specified:

1. Interior Doors: Type A8112/A5112 for doors 3 feet wide or less and Type A8111/A5111 for doors over 3 feet wide. Hinges for doors exposed to high humidity areas (shower rooms, toilet rooms, kitchens, janitor rooms, etc. shall be of stainless steel material.
2. Exterior Doors: Type A2112 for doors 3 feet wide or less and Type A2111 for doors over 3 feet wide. Hinges for exterior doors shall have non-removable pins.

B. Provide quantity and size of hinges per door leaf as follows:

1. Doors up to 4 feet high: 2 hinges.
2. Doors 4 feet to 7 feet 5 inches high: 3 hinges minimum.
3. Doors greater than 7 feet 5 inches high: 4 hinges.
4. Doors up to 3 feet wide, standard weight: 4-1/2 inches x 4-1/2 inches hinges.
5. Doors over 3 feet to 3 feet 6 inches wide, standard weight: 5 inches x 4-1/2 inches.
6. Doors over 3 feet 6 inches to 4 feet, heavy weight: 5 inches x 4-1/2 inches.
7. Provide heavy-weight hinges where specified.
8. At doors weighing 150 lbs. or more, furnish 5 inch high hinges.

C. See Articles "MISCELLANEOUS HARDWARE" and "HARDWARE SETS" for pivots and hinges other than butts specified above and continuous hinges specified below.

2.2 CONTINUOUS HINGES N/A

2.3 DOOR CLOSING DEVICES

A. Closing devices shall be products of one manufacturer for each type specified.

2.4 OVERHEAD CLOSERS

A. Conform to ANSI A156.4, Grade 1.

B. Closers shall conform to the following:

1. The closer shall have minimum 50 percent adjustable closing force over minimum value for that closer and have adjustable hydraulic back check effective between 60 degrees and 85 degrees of door opening.
2. Where specified, closer shall have hold-open feature.
3. Size Requirements: Provide multi-size closers, sizes 1 through 6, except where multi-size closer is not available for the required application.
4. Material of closer body shall be forged or cast.
5. Arm and brackets for closers shall be steel, malleable iron or high strength ductile cast iron.
6. Where closers are exposed to the exterior or are mounted in rooms that experience high humidity, provide closer body and arm assembly of stainless steel material.
7. Closers shall have full size metal cover; plastic covers will not be accepted.
8. Closers shall have adjustable hydraulic back-check, separate valves for closing and latching speed, adjustable back-check positioning valve, and adjustable delayed action valve.
9. Provide closers with any accessories required for the mounting application, including (but not limited to) drop plates, special soffit plates, spacers for heavy-duty parallel arm fifth screws, bull-nose or other regular arm brackets, longer or shorter arm assemblies, and special factory templating. Provide special arms, drop plates, and templating as needed to allow mounting at doors with overhead stops and/or holders.
10. Closer arms or backcheck valve shall not be used to stop the door from overswing, except in applications where a separate wall, floor, or overhead stop cannot be used.
11. Provide parallel arm closers with heavy duty rigid arm.
12. Where closers are to be installed on the push side of the door, provide parallel arm type except where conditions require use of top jamb arm.

13. Provide all surface closers with the same body attachment screw pattern for ease of replacement and maintenance.

14. All closers shall have a 1 ½" minimum piston diameter.

2.5 FLOOR CLOSERS AND FLOOR PIVOT SETS

- A. Comply with ANSI A156.4. Provide stainless steel floor plates for floor closers and floor pivots, except where metal thresholds occur. Provide cement case for all floor closers. Floor closers specified for fire doors shall comply with Underwriters Laboratories, Inc., requirements for concealed type floor closers for classes of fire doors indicated on drawings. Hold-open mechanism, where required, shall engage when door is opened 105 degrees, except when door swing is limited by building construction or equipment, the hold-open feature shall engage when door is opened approximately 90 degrees. The hold-open mechanism shall be selectable on/off by turning a screw through the floor plate. Floor closers shall have adjustable hydraulic back-check, adjustable close speed, and adjustable latch speed. Provide closers with delayed action where a hold-open mechanism is not required. Floor closers shall be multi-sized. Single acting floor closers shall also have built in dead stop. Where required, provide closers with special cement cases appropriate for shallow deck installation or where concrete joint lines run through the floor blockout. At offset-hung doors installed in deep reveals, provide special closer arm and spindle to allow for installation. Where stone or terrazzo is applied over the floor closer case, provide closer without floor plate and with extended spindle (length as required) and special cover pan (depth as required) to allow closer to be accessed without damaging the material applied over the closer. Pivots for non-labeled doors shall be cast, forged or extruded brass or bronze.
- B. Where floor closer appears in hardware set provide the following as applicable.
1. Double Acting Floor Closers: Type C06012.
 2. Single Acting Floor Closer: Type C06021 (center pivoted).
(Intermediate pivot is not required).
 3. Single Acting Floor Closers: Type C06041 (offset pivoted).
 4. Single Acting Floor Closer for Labeled Fire Doors: Type C06051
(offset pivoted).

5. Single Acting Floor Closers For Lead Lined Doors: Type C06071
(offset pivoted).

2.6 DOOR STOPS

- A. Conform to ANSI A156.16.
- B. Provide door stops wherever an opened door or any item of hardware thereon would strike a wall, column, equipment or other parts of building construction. For concrete, masonry or quarry tile construction, use lead expansion shields for mounting door stops.
- C. Where cylindrical locks with turn pieces or pushbuttons occur, equip wall bumpers Type L02251 (rubber pads having concave face) to receive turn piece or button.
- D. Provide floor stops (Type L02141 or L02161 in office areas; Type L02121 x 3 screws into floor elsewhere. Wall bumpers, where used, must be installed to impact the trim or the door within the leading half of its width. Floor stops, where used, must be installed within 4-inches of the wall face and impact the door within the leading half of its width.
- E. Where drywall partitions occur, use floor stops, Type L02141 or L02161 in office areas, Type L02121 elsewhere.
- F. Provide stop Type L02011, as applicable for exterior doors. At outswing doors where stop can be installed in concrete, provide stop mated to concrete anchor set in 3-inch core-drilled hole and filled with quick-setting cement.
- G. Omit stops where floor mounted door holders are required and where automatic operated doors occur.
- H. Provide appropriate roller bumper for each set of doors (except where closet doors occur) where two doors would interfere with each other in swinging.
- I. Provide appropriate door mounted stop on doors in individual toilets where floor or wall mounted stops cannot be used.
- J. Provide overhead surface applied stop Type C02541, ANSI A156.8 on patient toilet doors in bedrooms where toilet door could come in contact with the bedroom door.
- K. Provide door stops on doors where combination closer magnetic holders are specified, except where wall stops cannot be used or where floor stops cannot be installed within 4-inches of the wall.

- L. Where the specified wall or floor stop cannot be used, provide concealed overhead stops (surface-mounted where concealed cannot be used).

2.7 OVERHEAD DOOR STOPS AND HOLDERS

- A. Conform to ANSI Standard A156.8. Overhead holders shall be of sizes recommended by holder manufacturer for each width of door. Set overhead holders for 110 degree opening, unless limited by building construction or equipment. Provide Grade 1 overhead concealed slide type: stop-only at rated doors and security doors, hold-open type with exposed hold-open on/off control at all other doors requiring overhead door stops.

2.8 FLOOR DOOR HOLDERS

- A. Conform to ANSI Standard A156.16. Provide extension strikes for Types L01301 and L01311 holders where necessary.

2.9 LOCKS AND LATCHES

- A. Conform to ANSI A156.2. Locks and latches for doors 1-3/4 inch thick or over shall have beveled fronts. Lock cylinders shall have not less than seven pins. Cylinders for all locksets shall be removable core type. Cylinders shall be furnished with construction removable cores and construction master keys. Cylinder shall be removable by special key or tool. Construct all cores so that they will be interchangeable into the core housings of all mortise locks, rim locks, cylindrical locks, and any other type lock included in the Great Grand Master Key System. Disassembly of lever or lockset shall not be required to remove core from lockset. All locksets or latches on double doors with fire label shall have latch bolt with 3/4 inch throw, unless shorter throw allowed by the door manufacturer's fire label. Provide temporary keying device or construction core of allow opening and closing during construction and prior to the installation of final cores.
- B. In addition to above requirements, locks and latches shall comply with following requirements:
 - 1. Mortise Lock and Latch Sets: Conform to ANSI/BHMA A156.13. Mortise locksets shall be series 1000, minimum Grade 2. All locksets and latchsets, except on designated doors in Psychiatric (Mental Health) areas, shall have lever handles Sargent LNL and WTL Falcon S Design. Lever handle shall be fabricated from wrought stainless steel. No substitute lever material shall be accepted. All locks and latchsets shall be furnished with 4-7/8-inch curved lip strike and wrought

- box. At outswing pairs with overlapping astragals, provide flat lip strip with 7/8-inch lip-to-center dimension. Lock function F02 shall be furnished with emergency tools/keys for emergency entrance. All lock cases installed on lead lined doors shall be lead lined before applying final hardware finish. Furnish armored fronts for all mortise locks. Where mortise locks are installed in high-humidity locations or where exposed to the exterior on both sides of the opening, provide non-ferrous mortise lock case.
2. Cylindrical Lock and Latch Sets: levers shall meet ADA (Americans with Disabilities Act) requirements. Cylindrical locksets shall be series 4000 Grade I. All locks and latchsets shall be furnished with 4-7/8-inch curved lip strike and wrought box. At outswing pairs with overlapping astragals, provide flat lip strip with 7/8-inch lip-to-center dimension. Provide lever design to match design selected by Architect or to match existing lever design. Where two turn pieces are specified for lock F76, turn piece on inside knob shall lock and unlock inside knob, and turn piece on outside knob shall unlock outside knob when inside knob is in the locked position. (This function is intended to allow emergency entry into these rooms without an emergency key or any special tool.)
 3. Auxiliary locks shall be as specified under hardware sets and conform to ANSI A156.5.
 4. Locks on designated doors in Psychiatric (Mental Health) areas shall be paddle type with arrow projection covers and be UL Listed. Provide these locks with paddle in the down position on both sides of the door. Locks shall be fabricated of wrought stainless steel.
 5. Privacy locks in non-mental-health patient rooms shall have an inside thumbturn for privacy and an outside thumbturn for emergency entrance. Single occupancy patient privacy doors shall typically swing out; where such doors cannot swing out, provide center-pivoted doors with rescue hardware (see HW-2B).

2.10 PUSH-BUTTON COMBINATION LOCKS

- A. ANSI/BHMA A156.13, Grade 1. Battery operated pushbutton entry.
- B. Construction: Heavy duty mortise lock housing conforming to ANSI/BHMA A156.13, Grade 1. Lever handles and operating components in compliance with the UFAS and the ADA Accessibility Guidelines. Match lever handles of locks and latchsets on adjacent doors.

- C. Special Features: Key override to permit a master keyed security system and a pushbutton security code activated passage feature to allow access without using the entry code.

2.11 ELECTROMAGNETIC LOCKS

- A. ANSI/BHMA A156.23; electrically powered, of strength and configuration indicated; with electromagnet attached to frame and armature plate attached to door. Listed under Category E in BHMA's "Certified Product Directory."
1. Type: Full exterior or full interior, as required by application indicated.
 2. Strength Ranking: 1000 lbf.
 3. Inductive Kickback Peak Voltage: Not more than 53V.
 4. Residual Magnetism: Not more than 4 lbf to separate door from magnet.
- B. Delayed-Egress Locks: BHMA A156.24. Listed under Category G in BHMA's "Certified Product Directory".
1. Means of Egress Doors: Lock releases within 15 seconds after applying a force not more than 15 lbf for not more than 3 seconds, as required by NFPA 101.
 2. Security Grade: Activated from secure side of door by initiating device.
 3. Movement Grade: Activated by door movement as initiating device.
 4. The lock housing shall not project more than 4-inches from the underside of the frame head stop.

2.12 ELECTRIC STRIKES

- A. ANSI/ BHMA A156.31 Grade 1.
- B. General: Use fail-secure electric strikes at fire-rated doors.

2.13 KEYS

- A. Stamp all keys with change number and key set symbol. Furnish keys in quantities as follows:

Locks/Keys	Quantity
Cylinder locks	2 keys each
Cylinder lock change key blanks	100 each different key way
Master-keyed sets	6 keys each
Grand Master sets	6 keys each
Great Grand Master set	5 keys

Control key	2 keys
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- B. Psychiatric keys shall be cut so that first two bittings closest to the key shoulder are shallow to provide greater strength at point of greatest torque.

2.14 KEY CABINET

- A. ANSI Standard A156.5. Provide key cabinet made of cold rolled, 0.0478 inch thick furniture steel electro-welded. Doors shall have "no sag" continuous brass-pin piano type hinge and be equipped with chrome plated locking door handles, hook cam and mechanical pushbutton door lock. Key Cabinet and Key Control System shall accommodate all keys for this project plus 25 percent. Provide minimum number of multiple cabinets where a single cabinet of largest size will not accommodate the required number of keys.
- B. Key tags shall consist of two sets: Permanent self-locking and loan key snaphook type with tag colors as follows: Red fiber marker of the permanent self-locking type approximately 1-1/4 inch in diameter engraved with the legend "FILE KEY MUST NOT BE LOANED." Also furnish for each hook a white cloverleaf key marker with snap-hooks engraved with the legend "LOAN KEY."
- C. The manufacturer of the lock cylinders and locks shall attach a key tag to keys of each lock cylinder and shall mark thereon the respective item number and key change number. Provide each group of keys in a key gathering envelope (supplied by Key Cabinet Manufacturer) in which the lock manufacturer shall include the following information: Item number, key change number and door number. The contractor shall furnish the Key Cabinet Manufacturer the hardware and keying schedules and change keys.
- D. The Key Cabinet Manufacturer shall set up a three-way cross index system, including master keys, listing the keys alphabetically, the hooks numerically and the key changes numerically on different colored index cards. Index cards shall be typewritten and inserted in a durable binder. Attach the keys to the two sets of numbered tags supplied with the cabinet. (The permanent tag and the loan key tag). Instruct the owner in proper use of the system. Install cabinet as directed by the Resident Engineer.

2.15 ARMOR PLATES, KICK PLATES, MOP PLATES AND DOOR EDGING

- A. Conform to ANSI Standard A156.6.

B. Provide protective plates and door edging as specified below:

1. Kick plates, mop plates and armor plates of metal, Type J100 series.
2. Provide kick plates and mop plates where specified. Kick plates shall be 10 inches or 12 inches high. Mop plates shall be 6 inches high. Both kick and mop plates shall be minimum 0.050 inches thick. Provide kick and mop plates beveled on all 4 edges (B4E). On push side of doors where jamb stop extends to floor, make kick plates 1-1/2 inches less than width of door, except pairs of metal doors which shall have plates 1 inch less than width of each door. Extend all other kick and mop plates to within 1/4 inch of each edge of doors. Kick and mop plates shall butt astragals. For jamb stop requirements, see specification sections pertaining to door frames.
3. Kick plates and/or mop plates are not required on following door sides:
 - a. Armor plate side of doors;
 - b. Exterior side of exterior doors;
 - c. Closet side of closet doors;
 - d. Both sides of aluminum entrance doors.
4. Armor plates for doors are listed under Article "Hardware Sets". Armor plates shall be thickness as noted in the hardware set, 35 inches high and 1-1/2 inches less than width of doors, except on pairs of metal doors. Provide armor plates beveled on all 4 edges (B4E). Plates on pairs of metal doors shall be 1 inch less than width of each door. Where top of intermediate rail of door is less than 35 inches from door bottom, extend armor plates to within 1/2 inch of top of intermediate rail. On doors equipped with panic devices, extend armor plates to within 1/2 inch of panic bolt push bar.
5. Where louver or grille occurs in lower portion of doors, substitute stretcher plate and kick plate in place of armor plate. Size of stretcher plate and kick plate shall be 10 inches high.
6. Provide stainless steel edge guards where so specified at wood doors. Provide mortised type instead of surface type except where door construction and/or ratings will not allow. Provide edge guards of bevel and thickness to match wood door. Provide edge guards with factory cut-outs for door hardware that must be installed through or extend through the edge guard. Provide full-

height edge guards except where door rating does not allow; in such cases, provide edge guards to height of bottom of typical lockset armor front. Forward edge guards to wood door manufacturer for factory installation on doors.

2.16 EXIT DEVICES

- A. Conform to ANSI Standard A156.3. Exit devices shall be Grade 1; type and function are specified in hardware sets. Provide flush with finished floor strikes for vertical rod exit devices in interior of building. Trim shall have cast satin stainless steel lever handles of design similar to locksets, unless otherwise specified. Provide key cylinders for keyed operating trim and, where specified, cylinder dogging.
- B. Surface vertical rod panics shall only be provided less bottom rod; provide fire pins as required by exit device and door fire labels. Do not provide surface vertical rod panics at exterior doors.
- C. Concealed vertical rod panics shall be provided less bottom rod at interior doors, unless lockable or otherwise specified; provide fire pins as required by exit device and door fire labels. Where concealed vertical rod panics are specified at exterior doors, provide with both top and bottom rods.
- D. Where removable mullions are specified at pairs with rim panic devices, provide mullion with key-removable feature.
- E. At non-rated openings with panic hardware, provide panic hardware with key cylinder dogging feature.
- F. Exit devices for fire doors shall comply with Underwriters Laboratories, Inc., requirements for Fire Exit Hardware. Submit proof of compliance.

2.17 FLUSH BOLTS (LEVER EXTENSION)

- A. Conform to ANSI A156.16. Flush bolts shall be Type L24081 unless otherwise specified. Furnish proper dustproof strikes conforming to ANSI A156.16, for flush bolts required on lower part of doors.
- B. Lever extension manual flush bolts shall only be used at non-fire-rated pairs for rooms only accessed by maintenance personnel.
- C. Face plates for cylindrical strikes shall be rectangular and not less than 1 inch by 2-1/2 inches.
- D. Friction-fit cylindrical dustproof strikes with circular face plate may be used only where metal thresholds occur.

- E. Provide extension rods for top bolt where door height exceeds 7 feet 2 inches.

2.18 FLUSH BOLTS (AUTOMATIC)

- A. Conform to ANSI A156.3. Dimension of flush bolts shall conform to ANSI A115. Bolts shall conform to Underwriters Laboratories, Inc., requirements for fire door hardware. Flush bolts shall automatically latch and unlatch. Furnish dustproof strikes conforming to ANSI A156.16 for bottom flushbolt. Face plates for dustproof strike shall be rectangular and not less than 1-1/2 by 3-1/2 inches.
- B. At interior doors, provide auto flush bolts less bottom bolt, unless otherwise specified, except at wood pairs with fire-rating greater than 20 minutes; provide fire pins as required by auto flush bolt and door fire labels.

2.19 DOOR PULLS WITH PLATES

- A. Conform to ANSI A156.6. Pull Type J401, 6 inches high by 3/4 inches diameter with plate Type J302, 3-1/2 inches by 14 inches, unless otherwise specified. Provide pull with projection of 2 3/4 inches and a clearance of 2 inches. Cut plates of door pull plate for cylinders, or turn pieces where required.

2.20 PUSH PLATES

- A. Conform to ANSI A156.6. Metal, Type J302, 8 inches wide by 14 inches high. Provide metal Type J302 plates 4 inches wide by 14 inches high where push plates are specified for doors with stiles less than 8 inches wide. Cut plates for cylinders, and turn pieces where required.

2.21 COMBINATION PUSH AND PULL PLATES

- A. Conform to ANSI 156.6. Type J303, stainless steel 1/8 inch thick, 3-1/3 inches wide by 16 inches high, top and bottom edges shall be rounded. Secure plates to wood doors with 1-1/2 inch long No. 12 wood screws. Cut plates for turn pieces, and cylinders where required. Pull shall be mounted down.

2.22 COORDINATORS

- A. Conform to ANSI A156.16. Coordinators, when specified for fire doors, shall comply with Underwriters Laboratories, Inc., requirements for fire door hardware. Coordinator may be omitted on exterior pairs of doors where either door will close independently regardless of the position of the other door. Coordinator may be omitted on interior pairs of non-labeled open where open back strike is used. Open back

strike shall not be used on labeled doors. Paint coordinators to match door frames, unless coordinators are plated. Provide bar type coordinators, except where gravity coordinators are required at acoustic pairs. For bar type coordinators, provide filler bars for full width and, as required, brackets for push-side surface mounted closers, overhead stops, and vertical rod panic strikes.

2.23 THRESHOLDS

- A. Conform to ANSI A156.21, mill finish extruded aluminum, except as otherwise specified. In existing construction, thresholds shall be installed in a bed of sealant with ¼-20 stainless steel machine screws and expansion shields. In new construction, embed aluminum anchors coated with epoxy in concrete to secure thresholds. Furnish thresholds for the full width of the openings.
- B. For thresholds at elevators entrances see other sections of specifications.
- C. At exterior doors and any interior doors exposed to moisture, provide threshold with non-slip abrasive finish.
- D. Provide with miter returns where threshold extends more than 0.5 inch from frame face.

2.24 AUTOMATIC DOOR BOTTOM SEAL AND RUBBER GASKET FOR LIGHT PROOF OR SOUND CONTROL DOORS

- A. Conform to ANSI A156.22. Provide mortise or under-door type, except where not practical. For mortise automatic door bottoms, provide type specific for door construction (wood or metal).

2.25 WEATHERSTRIPS (FOR EXTERIOR DOORS)

- A. Conform to ANSI A156.22. Air leakage shall not to exceed 0.50 CFM per foot of crack length.

2.26 MISCELLANEOUS HARDWARE

- A. Access Doors (including Sheet Metal, Screen and Woven Wire Mesh Types): Except for fire-rated doors and doors to Temperature Control Cabinets, equip each single or double metal access door with Lock Type E76213, conforming to ANSI A156.5. Key locks as directed. Ship lock prepaid to the door manufacturer. Hinges shall be provided by door manufacturer.
- B. Cylinders for Various Partitions and Doors: Key cylinders same as entrance doors of area in which partitions and door occur, except as otherwise specified. Provide cylinders to operate locking devices where specified for following partitions and doors:
 - 1. Folding doors and partitions.

2. Wicket door (in roll-up door assemblies).
 3. Slide-up doors.
 4. Swing-up doors.
 5. Fire-rated access doors-Engineer's key set.
 6. Doors from corridor to electromagnetic shielded room.
 7. Day gate on vault door.
- C. Mutes: Conform to ANSI A156.16. Provide door mutes or door silencers Type L03011 or L03021, depending on frame material, of white or light gray color, on each steel or wood door frame, except at fire-rated frames, lead-lined frames and frames for sound-resistant, lightproof and electromagnetically shielded doors. Furnish 3 mutes for single doors and 2 mutes for each pair of doors, except double-acting doors. Provide 4 mutes or silencers for frames for each Dutch type door. Provide 2 mutes for each edge of sliding door which would contact door frame.

2.27 PADLOCKS FOR VARIOUS DOORS, GATES AND HATCHES

- A. ASTM E883, size 2 inch wide chain; furnish extended shackles as required by job conditions. Provide padlocks, with key cylinders, for each door in following areas as noted.
- B. Key padlocks as follows:
1. Constant Temperature and Cold Rooms in Research Departments: Research Laboratory Set.
 2. Cold Room in Morgue Department: Autopsy Set.
 3. Refrigerators in Canteen Department: Canteen Storage Set.
 4. All Refrigerator Rooms in Main Kitchen Department: Kitchen Storage Set.
 5. Chain Link Fence Gates for Electrical Substation and other Fenced Buildings or Areas: Engineer's set, except as otherwise specified.
 6. Chain Link Fence Gates for Oxygen Storage Buildings: Maintenance supply set.
 7. Roof Access and Scuttles: Engineer's set.
 8. Hinged Wicket in Post Office Partitions: Post Office set.
- C. Omit padlocks on communicating refrigerator doors.

2.28 THERMOSTATIC TEMPERATURE CONTROL VALVE CABINETS

- A. Where lock is shown, equip each cabinet door (metal) with lock Type E06213, conforming to ANSI A156.5. Key locks in Key Sets approved by

Contracting Officer. See mechanical drawings and specifications for location of cabinets.

- B. Cabinet manufacturer shall supply the hinges, bolts and pulls. Ship locks to cabinet manufacturer for installation.

2.29 HINGED WIRE GUARDS (FOR WINDOWS, DOORS AND TRANSOMS) AND WIRE PARTITION DOORS

- A. Butt hinges, type A8133 (special swaging) 4 inches by 3-1/2 inches, Finish US2C.
1. 3 hinges for guards over 3-1/2 feet high.
 2. 2 hinges for guards less than 3-1/2 feet high.
- B. Conform to ANSI A156.5. Lock Type E06081 for guards and Type E06061 for partitions.
1. Keying: Except as noted otherwise, key locks like entrance door or space wherein guards and partitions are located except as otherwise specified.
 2. Key locks for partitions enclosing mechanical and electrical equipment in Engineer's Set. (See detailed drawings for number of locks and butt hinges required for each guard).

2.30 FINISHES

- A. Exposed surfaces of hardware shall have ANSI A156.18, finishes as specified below. Finishes on all hinges, pivots, closers, thresholds, etc., shall be as specified below under "Miscellaneous Finishes." For field painting (final coat) of ferrous hardware, see Section 09 91 00, PAINTING.
- B. 626 or 630: All surfaces on exterior and interior of buildings, except where other finishes are specified.
- C. Miscellaneous Finishes:
1. Hinges --exterior doors: 626 or 630.
 2. Hinges --interior doors: 652 or 630.
 3. Pivots: Match door trim.
 4. Door Closers: Factory applied paint finish. Dull or Satin Aluminum color.
 5. Thresholds: Mill finish aluminum.
 6. Cover plates for floor hinges and pivots: 630.
 7. Other primed steel hardware: 600.
- D. Hardware Finishes for Existing Buildings: U.S. Standard finishes shall match finishes of hardware in (similar) existing spaces except where otherwise specified.

- E. Special Finish: Exposed surfaces of hardware for dark bronze anodized aluminum doors shall have oxidized oil rubbed bronze finish (dark bronze) finish on door closers shall closely match doors.
- F. Anti-microbial Coating: All hand-operated hardware (levers, pulls, push bars, push plates, paddles, and panic bars) shall be provided with an anti-microbial/anti-fungal coating that has passed ASTM E2180 tests. Coating to consist of ionic silver (Ag⁺). Silver ions surround bacterial cells, inhibiting growth of bacteria, mold, and mildew by blockading food and respiration supplies.

2.31 BASE METALS

- A. Apply specified U.S. Standard finishes on different base metals as following:

Finish	Base Metal
652	Steel
626	Brass or bronze
630	Stainless steel

PART 3 - EXECUTION

3.1 HARDWARE HEIGHTS

- A. For existing buildings locate hardware on doors at heights to match existing hardware. The Contractor shall visit the site, verify location of existing hardware and submit locations to VA Resident Engineer for approval.
- B. For new buildings locate hardware on doors at heights specified below, with all hand-operated hardware centered within 34 inches to 48 inches, unless otherwise noted:
- C. Hardware Heights from Finished Floor:
- Exit devices centerline of strike (where applicable) 40-5/16 inches.
 - Locksets and latch sets centerline of strike 40-5/16 inches.
 - Deadlocks centerline of strike 48 inches.
 - Hospital arm pull 46 inches to centerline of bottom supporting bracket.
 - Centerline of door pulls to be 40 inches.
 - Push plates and push-pull shall be 50 inches to top of plate.
 - Push-pull latch to be 40-5/16 inches to centerline of strike.
 - Locate other hardware at standard commercial heights. Locate push and pull plates to prevent conflict with other hardware.

3.2 INSTALLATION

A. Closer devices, including those with hold-open features, shall be equipped and mounted to provide maximum door opening permitted by building construction or equipment. Closers shall be mounted on side of door inside rooms, inside stairs, and away from corridors except security bedroom, bathroom and anteroom doors which shall have closer installed parallel arm on exterior side of doors. At exterior doors, closers shall be mounted on interior side. Where closers are mounted on doors they shall be mounted with sex nuts and bolts; foot shall be fastened to frame with machine screws.

B. Hinge Size Requirements:

Door Thickness	Door Width	Hinge Height
1-3/4 inch	3 feet and less	4-1/2 inches
1-3/4 inch	Over 3 feet but not more than 4 feet	5 inches
1-3/8 inch (hollow core wood doors)	Not over 14 feet	4-1/2 inches

C. Hinge leaves shall be sufficiently wide to allow doors to swing clear of door frame trim and surrounding conditions.

D. Where new hinges are specified for new doors in existing frames or existing doors in new frames, sizes of new hinges shall match sizes of existing hinges; or, contractor may reuse existing hinges provided hinges are restored to satisfactory operating condition as approved by Resident Engineer. Existing hinges shall not be reused on door openings having new doors and new frames. Coordinate preparation for hinge cut-outs and screw-hole locations on doors and frames.

E. Hinges Required Per Door:

Doors 5 ft or less in height	2 butts
Doors over 5 ft high and not over 7 ft 6 in high	3 butts
Doors over 7 feet 6 inches high	4 butts
Dutch type doors	4 butts
Doors with spring hinges 4 feet 6 inches high or less	2 butts
Doors with spring hinges over 4 feet 6 inches	3 butts

F. Fastenings: Suitable size and type and shall harmonize with hardware as to material and finish. Provide machine screws and lead expansion

shields to secure hardware to concrete, ceramic or quarry floor tile, or solid masonry. Fiber or rawl plugs and adhesives are not permitted. All fastenings exposed to weather shall be of nonferrous metal.

- G. After locks have been installed; show in presence of Resident Engineer that keys operate their respective locks in accordance with keying requirements. (All keys, Master Key level and above shall be sent Registered Mail to the Medical Center Director along with the bitting list. Also a copy of the invoice shall be sent to the Resident Engineer for his records.) Installation of locks which do not meet specified keying requirements shall be considered sufficient justification for rejection and replacement of all locks installed on project.

3.3 FINAL INSPECTION

- A. Installer to provide letter to VA Resident/Project Engineer that upon completion, installer has visited the Project and has accomplished the following:
1. Re-adjust hardware.
 2. Evaluate maintenance procedures and recommend changes or additions, and instruct VA personnel.
 3. Identify items that have deteriorated or failed.
 4. Submit written report identifying problems.

3.4 DEMONSTRATION

- A. Demonstrate efficacy of mechanical hardware and electrical, and electronic hardware systems, including adjustment and maintenance procedures, to satisfaction of Resident/Project Engineer and VA Locksmith.

3.5 HARDWARE SETS

- A. Following sets of hardware correspond to hardware symbols shown on drawings. Only those hardware sets that are shown on drawings will be required. Disregard hardware sets listed in specifications but not shown on drawings.
- B. Hardware Consultant working on a project will be responsible for providing additional information regarding these hardware sets. The numbers shown in the following sets come from BHMA standards.

ELECTRIC HARDWARE ABBREVIATIONS LEGEND:

ADO = Automatic Door Operator

EMCH = Electro-Mechanical Closer-Holder

MHO = Magnetic Hold-Open (wall- or floor-mounted)

SINGLE DOORS**HW-1****Each Door to Have:****NON-RATED**

Hinges	QUANTITY & TYPE AS REQUIRED
1 Door Pull w/ Plate	J401 x J302
1 Push Plate	J302
1 Armor Plate	J101 x 0.050 INCH THICKNESS
1 Closer	C02021
1 Floor Stop	L02121 x 3 FASTENERS
3 Silencers	L03011

HW-1E**Each Door to Have:****RATED**

1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X SWING-CLEAR X ADJUSTA-SCREWS
1 Hospital Latch	F01 x PADDLES POINTING DOWN
1 Closer	C02011/C02021
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Wall Stop (@ Inswing Doors)	L02101 CONVEX
1 Set Self-Adhesive Seals	R0Y154

HW-1Q**Each Door to Have:****RATED/NON-RATED**

1	Continuous Hinge	
1	Latchset	F04
1	Kick Plate	J102
1	Closer (@ rated doors)	C02011/C02021
1	Wall Stop	L02101 CONVEX
1	Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1	Auto Door Bottom	R0Y346 - HEAVY DUTY
2	Sets Self-Adhesive Seals	R0Y154

HW-1R**Each Door to Have:****RATED/NON-RATED**

Hinges	QUANTITY & TYPE AS REQUIRED
1 Latchset	F04
1 Kick Plate	J102
1 Closer (@ rated doors)	C02021
1 Wall Stop	L02101 CONVEX
1 Set Self-Adhesive Seals	R0Y154

HW-1Y**Each Door to Have to Have:****NON-RATED**

Hinges	V-CAM DOUBLE ACTING, QUANTITY & TYPE AS REQUIRED
2 Push Plate	J302
2 KICK Plate	J102
1 Floor Stop	L02121 x 3 FASTENERS

HW-2**Each Door to Have:****RATED/NON-RATED**

Hinges	QUANTITY & TYPE AS REQUIRED
1 Keyed Privacy Indicator Lock	F13 x OCCUPANCY INDICATOR
1 Closer	C02021
1 Kick Plate	J102
1 Mop Plate (@ Inswing Doors)	J103
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154
1 Threshold	J33100 x 2-1/4 INCHES WIDTH

STONE THRESHOLD BY OTHER TRADES.

HW-2C**Each Door to Have:****NON-RATED**

Hinges	QUANTITY & TYPE AS REQUIRED
1 Privacy Lock	F02-MOD X OCCUPANCY INDICATOR
1 Closer	C02021
1 Kick Plate	J102
1 Mop Plate (@ Inswing Doors)	J103
1 Wall Stop	L02101 CONVEX
3 Silencers	L03011
1 Threshold	J33100 x 2-1/4 INCHES WIDTH

STONE THRESHOLD BY OTHER TRADES.

HW-2C-1**Each Door to Have:****NON-RATED**

1	Pivot Set	C07162 x 1000 LBS WEIGHT CAPACITY
1	Privacy Lock	F02-MOD X LEAD-LINED x OCCUPANCY INDICATOR
1	Closer	C02021
1	Kick Plate	J102
1	Mop Plate (@ Inswing Doors)	J103
1	Wall Stop	L02101 CONVEX
3	Silencers	L03011
1	Threshold	J33100 x 2-1/4 INCHES WIDTH

STONE THRESHOLD BY OTHER TRADES.

HW-3**Each Door to Have:****RATED**

	Hinges	QUANTITY & TYPE AS REQUIRED
1	Office Lock	F04
1	Closer	C02011/C02021
1	Kick Plate	J102
1	Floor Stop	L02121 x 3 FASTENERS
1	Set Self-Adhesive Seals	R0Y154

HW-3B**Each Door to Have:****NON-RATED/RATED**

	Hinges	QUANTITY & TYPE AS REQUIRED
1	Office Lock	F04
1	Closer	C02011/C02021
1	Floor Stop	L02121 x 3 FASTENERS
1	Door Viewer	L03221 - 190° (VIEW INTO CORRIDOR)
1	Set Self-Adhesive Seals	R0Y154

OMIT VIEWER IF DOOR PROVIDED WITH VISION LITE.

HW-3E**Each Door to Have:****NON-RATED**

Hinges	QUANTITY & TYPE AS REQUIRED
1 Office Lock	F04
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154
1 Coat Hook	L03121

OMIT COAT HOOK WHERE GLASS LITE PREVENTS INSTALLATION.

HW-3G**Each Door to Have:****NON-RATED**

Hinges	QUANTITY & TYPE AS REQUIRED
1 Office Lock	F04
1 Floor Stop	L02121 x 3 FASTENERS
1 Coat Hook	L03121
1 Door Viewer (Mental Health Only)	L03221 - 190° (VIEW INTO CORRIDOR)
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

OMIT VIEWER IF DOOR PROVIDED WITH VISION LITE.

OMIT COAT HOOK WHERE GLASS LITE PREVENTS INSTALLATION.

HW-3X**Each Door to Have:****RATED**

Hinges	QUANTITY & TYPE AS REQUIRED
1 Security Lock	F34
1 Auxiliary Lock	4874 Deadlock
1 Closer	C02021
1 Kick Plate	J102
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-4B**Each Door to Have:****NON-RATED/RATED**

	QUANTITY & TYPE AS REQUIRED
Hinges	
1 Public Restroom Lock	F09
1 Closer	C02021
1 Closer	CO2061
1 Kick Plate	J102
1 Mop Plate (@ Inswing Doors)	J103
1 Floor Stop (@ Outswing Doors)	L02121 x 3 FASTENERS
1 Wall Stop (@ Inswing Doors)	L02101 CONVEX
1 Threshold	J32300 x 2-1/4 INCHES WIDTH
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

PROVIDE NON-HOLD-OPEN CLOSER AT TOILET ROOMS.

STONE THRESHOLD BY OTHER TRADES.

HW-4D**Each Door to Have:****RATED**

1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Classroom Lock	F08
1 Closer	C02011/C02021
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Mop Plate (@ Inswing Doors)	J103
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop (@ inswing Doors)	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-4F**Each Door to Have:****RATED**

1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Utility Lock	F09
1 Closer	C02011/C02021
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop (@ Outswing Doors)	L02121 x 3 FASTENERS
1 Wall Stop (@ Inswing Doors)	L02101 CONVEX
1 Set Self-Adhesive Seals	R0Y154

HW-4G**Each Door to Have:****RATED/NON-RATED**

Hinges	QUANTITY & TYPE AS REQUIRED
1 Utility Lock	F09
1 Closer (@ Rated Doors)	C02021
1 Kick Plate	J102
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-4H**Each [MHO] Door to Have:****RATED**

Hinges	QUANTITY & TYPE AS REQUIRED
1 Classroom Lock	F08
1 Closer	C02021
1 Kick Plate	J102
1 Set Self-Adhesive Seals	R0Y154

HW-4KEach Door to Have:RATED

Hinges	QUANTITY & TYPE AS REQUIRED
1 Utility Lock	F09
1 Closer	C02021
1 Armor Plate	J101 x 0.050 INCH THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-4NEach Door to Have:RATED/NON-RATED

1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Utility Lock	F09
1 Closer (@ rated doors)	C02011/C02021
1 Kick Plate	J102
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154

HW-4UEach Door to Have:NON-RATED/RATED

1	Continuous Hinge	
1	Public Restroom Lock	F09
1	Closer	C02011/C02021
1	Closer	CO2051/CO2061
1	Kick Plate	J102
1	Mop Plate (@ Inswing Doors)	J103
1	Floor Stop (@ Outswing Doors)	L02121 x 3 FASTENERS
1	Wall Stop (@ Inswing Doors)	L02101 CONVEX
1	Set Self-Adhesive Seals	R0Y154

PROVIDE NON-HOLD-OPEN CLOSER AT TOILET ROOMS.

STONE THRESHOLD BY OTHER TRADES.

HW-5BEach Door to Have:RATED

Hinges	QUANTITY & TYPE AS REQUIRED
1 Storeroom Lock	F07
1 Closer	C02021
1 Armor Plate	J101 x 0.050 INCH THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-5B-1Each Door to Have, EXTERIOR DOOR:RATED

Hinges	QUANTITY & TYPE AS REQUIRED
1 Storeroom Lock	F07
1 Closer	C02021
1 Armor Plate	J101 x 0.050 INCH THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold (outswing door)	J32120 x SILICONE GASKET
1 Threshold (inswing door)	ALUMINUM, PER ARCHITECTURAL DETAIL
1 Door Sweep	R0Y416
1 Set Frame Seals	R0Y164
1 Drip	R0Y976

HW-5DEach Door to Have:NON-RATED

Hinges	QUANTITY & TYPE AS REQUIRED
1 Storeroom Lock	F07
1 Kick Plate	J102 (@ STORAGE, EVM, & HAC ROOMS ONLY)
1 Floor Stop (@ Inswing Doors)	L02121 x 3 FASTENERS
1 Wall Stop (@ Outswing Doors)	L02101 CONVEX
3 Silencers	L03011

HW-5D-1Each Door to Have:RATED

Hinges	QUANTITY & TYPE AS REQUIRED
1 Storeroom Lock	F07
1 Closer	C02021
1 Kick Plate	J102 (@ STORAGE, EVM, & HAC ROOMS ONLY)
1 Floor Stop (@ Inswing Doors)	L02121 x 3 FASTENERS
1 Wall Stop (@ Outswing Doors)	L02101 CONVEX
3 Silencers	L03011
1 Set Self-Adhesive Seals	R0Y154

HW-5E**Each Door to Have:****NON-RATED**

1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS
1 Storeroom Lock	F13-MOD x RIGID OUTSIDE LEVER x KEY RETRACTS DEADBOLT AND LATCHBOLT
1 Armor Plate	J101 x 3.125 MM (0.125 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-6**Each Door to Have, EXTERIOR DOOR:****RATED**

Hinges	QUANTITY & TYPE AS REQUIRED
1 Exit Device	TYPE 1 F13 LEVER
1 Key Cylinder	TYPE AS REQUIRED
1 Closer	C02021
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold (outswing door)	J32120 x SILICONE GASKET
1 Threshold (inswing door)	ALUMINUM, PER ARCHITECTURAL DETAIL
1 Door Sweep	R0Y416
1 Set Frame Seals	R0Y164
1 Drip	R0Y976

HW-6B**Each [MHO] Door to Have:****RATED**

Hinges	QUANTITY & TYPE AS REQUIRED
1 Exit Device	TYPE 1 F08 LEVER
1 Key Cylinder	TYPE AS REQUIRED
1 Closer	C02021
1 Kick Plate	J102
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Magnetic Holder	C00011 TRI-VOLTAGE
1 Set Self-Adhesive Seals	R0Y154

POWER, WIRING, CONDUIT, AND FIRE ALARM CONNECTION BY DIVISION 26.

HW-6YEach [MHO] Door to Have:RATED

Hinges	QUANTITY & TYPE AS REQUIRED
1 Passage Lock	F01
1 Key Cylinder	TYPE AS REQUIRED
1 Closer	C02021
1 Kick Plate	J102
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Water-Proof Magnetic Lock	C00011 TRI-VOLTAGE
1 Threshold	J32120 x SILICONE GASKET
1 Door Sweep	R0Y416
1 Set Frame Seals	R0Y164
1 Drip	R0Y976

POWER, WIRING, CONDUIT, AND FIRE ALARM CONNECTION BY DIVISION 26.

PAIRS OF DOORS**HW-8B**Each Pair to Have:NON-RATED

2 Continuous Hinge	
2 Push Plate	J304 8" x 16"
2 Hospital Grip	J401
2 Kick Plate	J102
2 Mop Plate (@ Inswing Doors)	J103
2 Closer	C02011/C02021
2 Floor Stop	L02121 x 3 FASTENERS
2 Silencers	L03011

HW-8B-1Each Pair to Have:NON-RATED

Hinges	QUANTITY & TYPE AS REQUIRED
2 Push Plate	J304 8" x 16"
2 Electromagnetic locks	FULL INTERIOR
1 Coordinator	TYPE 21A
2 Hospital Grip	J401
2 Kick Plate	J102
2 Mop Plate (@ Inswing Doors)	J103
2 Closer	C02021
2 Floor Stop	L02121 x 3 FASTENERS
2 Silencers	L03011

HW-10Each Pair to Have:RATED

Hinges	QUANTITY & TYPE AS REQUIRED
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT
1 Classroom Lock	F08
1 Coordinator	TYPE 21A
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Closers	C02021
2 Heavy-Duty Armor Plates	J101 x 0.125 INCH THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
1 Threshold	J32300 x 2-1/4 INCHES
2 Auto Door Bottoms	R0Y346 - HEAVY DUTY
2 Set Self-Adhesive Seals	R0Y154

INSTALL LOCK TRIM PROTECTOR BAR ON PUSH SIDE OF ACTIVE LEAF TO PROTECT
LEVER TRIM.

HW-10-1**Each Pair to Have:****NON-RATED**

2	Pivot Sets	C07162 x 1000 LBS WEIGHT CAPACITY
1	Entrance Lock	ADAMS RITE MS18590A OR APPROVED EQUAL
1	Coordinator	TYPE 21A
2	GRIP PULLS	TRIMCO 1195-6 SS OR APPROVED EQUAL
2	Closers	C02021
1	Threshold	J32300 x 2-1/4 INCHES
2	Auto Door Bottoms	R0Y346 - HEAVY DUTY
2	Set Self-Adhesive Seals	R0Y154

HW-10B**Each Pair to Have:****NON-RATED/RATED**

Hinges	QUANTITY & TYPE AS REQUIRED
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT
1 Classroom Hospital Lock	F08 x PADDLES POINTING DOWN
1 Coordinator	TYPE 21A
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
1 Closers (@ rated doors)	C02021
2 Heavy-Duty Armor Plates	J101 x 0.125 INCH THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS

INSTALL LOCK TRIM PROTECTOR BAR ON PUSH SIDE OF ACTIVE LEAF TO PROTECT
LEVER TRIM.

HW-10DEach Pair to Have:NON-RATED

Hinges	QUANTITY & TYPE AS REQUIRED
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT
1 Office Lock	F04
1 Coordinator	TYPE 21A
2 Closers	C02021
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Kick Plates	J102
2 Floor Stops	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-10EEach Lead Lined Pair to Have:NON-RATED

1 Continuous Transfer Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS x 8-THRUWIRE TRANSFER X IN-HINGE ACCESS PANEL
1 Continuous Transfer Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS x 4-THRUWIRE
2 Pivot Sets	C07162 x 1000 LBS WEIGHT CAPACITY
2 Intermediate Pivots	C07311
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT x LEAD-LINED
1 Classroom Lock	F08 x LEAD-LINED x PADDLES POINTING DOWN
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS X LEAD-LINED
1 Electric Unlatch Strike	E09321 (FAIL-SECURE)
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
2 Armor Plates	J101 x 0.050 INCH THICKNESS
4 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

AUTOMATIC DOOR OPERATORS AND CONTROLS BY SECTION 08 71 13, AUTOMATIC DOOR OPERATORS.

POWER TRANSFER **SHARED BY ELECTRIC STRIKE AND** RE-ACTIVATION SENSOR WIRING (RE-ACTIVATION SENSORS PROVIDED BY SECTION 08 71 13).

*AT WOOD PAIRS RATED 45-MINUTES OR MORE, PROVIDE ELECTRIC STRIKE 310-2-3/4 (FOLGER ADAM OR EQUAL) IN LIEU OF SPECIFIC UNLATCH STRIKE.

HW-11

Each Pair to Have:

NON-RATED/NR

Hinges	QUANTITY & TYPE AS REQUIRED
1 Set Auto Flush Bolts	TYPE 25 LESS BOTTOM BOLT
1 Storeroom Lock	F07
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Kick Plates	J102 (@ STORAGE ROOMS ONLY)
1 Set Self-Adhesive Seals	R0Y154

HW-11B

Each Pair to Have:

RATED

Hinges	QUANTITY & TYPE AS REQUIRED
1 Set Auto Flush Bolts	TYPE 25
1 Storeroom Lock	F07
1 Coordinator	TYPE 21A
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Closers	C02021
2 Armor Plates	J101 x 0.050 INCH THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-11B-1Each Pair to Have, EXTERIOR DOOR:RATED

Hinges	QUANTITY & TYPE AS REQUIRED
1 Set Auto Flush Bolts	TYPE 25
1 Storeroom Lock	F07
1 Coordinator	TYPE 21A
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Closers	C02021
2 Armor Plates	J101 x 0.050 INCH THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
1 Threshold (outswing door)	J32120 x SILICONE GASKET
1 Threshold (inswing door)	ALUMINUM, PER ARCHITECTURAL DETAIL
2 Door Sweep	R0Y416
1 Set Frame Seals	R0Y164
1 Drip	R0Y976

HW-12Each Pair to Have:RATED

Hinges	QUANTITY & TYPE AS REQUIRED
1 Exit Device	TYPE 7 or 8 F01
1 Exit Device	TYPE 7 or 8 F08 LEVER
1 Key Cylinder	TYPE AS REQUIRED
1 Coordinator	TYPE 21A
1 Set Meeting Stile Astragals	R0Y834
2 Closers	C02021
2 Floor Stops	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-12BEach [ADO] Pair Integrated Doors to Have:RATED

1	Steel Frame	
1	Integrated Pair Doors	Q2231 x TYPE 8 (E04) ELECTRIC EXIT
	w/Elec Exit Devices	DEVICES (F01 / F08)
2	Continuous Transfer Hinges	A51031B x 8-THRUWIRE
		TRANSFER x IN-HINGE ACCESS PANEL
1	Power Supply	BY EXIT DEVICE MFR. FOR E04 FUNCTION
1	Self-Adhesive Astragal	R0Y_14
2	Armor Plates	J101 x 1.275 MM (0.050 INCH) THICKNESS
2	Floor Stops	L02121 x 3 FASTENERS
1	Set Self-Adhesive Seals	R0E154

HW-12CEach [MHO] Pair Integrated Double Egress Doors to Have: RATED

Hinges	QUANTITY & TYPE AS REQUIRED
1	CORRIDOR/DORMITORY
	LATCH F13
1	Coordinator
	TYPE 21A
2	Closers
4	Kick/MOP Plate
	J102
2	WALL STOP

ALL HARDWARE BY SECTION 08 17 10, INTEGRATED DOOR ASSEMBLIES

HW-E3**Each Door to Have:****NON-RATED**

1	Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL
		X ADJUSTA-SCREWS
1	Storeroom Lock	F13-MOD x RIGID OUTSIDE LEVER x KEY
		RETRACTS DEADBOLT AND LATCHBOLT
1	Latch Protector (outswing dr)	
1	Closer	C02011/C02021
1	Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1	Armor Plate	J101 x 3.125 MM (0.125 INCH) THICKNESS
1	Overhead Holder	C01511-ADJUSTABLE
1	Threshold (outswing door)	J32120 x SILICONE GASKET
1	Threshold (inswing door)	ALUMINUM, PER ARCHITECTURAL DETAIL
1	Door Sweep	R0Y416
1	Set Frame Seals	R0Y164
1	Drip	R0Y976

HW-SH-3**Each [AC, EL, REX, DPS] Door to Have:****RATED/NON-RATED**

Hinges	QUANTITY & TYPE AS REQUIRED
1 Transfer Hinge	4-WIRE TYPE AS REQUIRED
1 Electrified Lock	F07 (E01-REX, E06) 24VDC
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE
	AS REQUIRED
1 Closer	C02011/C02021
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
2 Sets Self-Adhesive Seals	R0Y154
1 Alarm Contact	

120VAC POWER, CONDUIT, AND WIRING BY DIVISION 26.
CARD READER BY DIVISION 28.

HW-SH-3B**Each [PB] Door to Have:****RATED**

Hinges	QUANTITY & TYPE AS REQUIRED
1 Push-button Combination Lock	N3 - A156.13 F07 G1 E06
1 Coordinator	TYPE 21A
1 Closer	C02021
1 Kick Plate	J102
1 Mop Plate (@ Inswing Doors)	J103
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-SH-3C**Each [PB] Door to Have:****NON-RATED/RATED**

Hinges	QUANTITY & TYPE AS REQUIRED
1 Push-button Combination Lock	N3 - A156.13 F07 G1 E06
1 Coordinator	TYPE 21A
1 Closer	C02021
1 Armor Plate	J101 x 0.050 INCH THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-SH-3DEach [AC, EL, REX, DPS] Door to Have:RATED

Hinges	QUANTITY & TYPE AS REQUIRED
	TRANSFER X IN-HINGE ACCESS PANEL
1 Electrified Lock	F07 (E01-REX, E06) 24VDC
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
1 Coordinator	TYPE 21A
1 Closer	C02021
1 Armor Plate	J101 x 0.050 INCH THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Sets Self-Adhesive Seals	R0Y154
1 Alarm Contact	

120VAC POWER, CONDUIT, AND WIRING BY DIVISION 26.
CARD READER BY DIVISION 28.

HW-SH-3HEach [AC, EL, REX, DPS] Door to Have:NON-RATED/RATED

1 Continuous Transfer Hinge	X 4-THRUWIRE TRANSFER x IN-HINGE ACCESS PANEL
1 Electrified Lock	F13-MOD x RIGID OUTSIDE LEVER X KEY RETRACTS LATCHBOLT AND DEADBOLT (E01- REX, E06) 24VDC
1 Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
1 Closer	C02011/C02021
1 Kick Plate	J102
1 Floor Stop	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154
1 Door Viewer	L03221 - 190°
1 Alarm Contact	

120VAC POWER, CONDUIT, AND WIRING BY DIVISION 26.
CARD READER BY DIVISION 28.

HW-SH-4Each [AC, EL, REX, DPS] Integrated Door to Have:RATED

1	Steel Frame	
1	Integrated Door w/Elec.	Q2131 x TYPE 8 ELECTRIC EXIT DEVICE
	Exit Device	(E01, E05/E06-VERIFY) x F13 LEVER
1	Continuous Transfer Hinge	A51031B x 4-THRUWIRE TRANSFER x IN- HINGE ACCESS PANEL
1	Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
1	Closer	C02021 (PT4D, PT4F, PT4H)
1	Armor Plates	J101 x 1.275 MM (0.050 INCH) THICKNESS
1	Floor Stop	L02121 x 3 FASTENERS
1	Set Self-Adhesive Seals	R0E154
1	Alarm Contact	

HW-SH-9Each [AC, EL, REX, DPS] Pair to Have:RATED

	Hinges	QUANTITY & TYPE AS REQUIRED
1	Transfer Hinge	4-WIRE TYPE AS REQUIRED
1	Set Auto Flush Bolts	TYPE 25
1	Dust Proof Strike	L04021
1	Electrified Lock	F07 (E01-REX, E06) 24VDC
1	Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
1	Coordinator	TYPE 21A
1	Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2	Closers	C02011/C02021
2	Kick Plates	J102 (@ STORAGE ROOMS ONLY)
2	Floor Stops	L02121 x 3 FASTENERS
1	Set Self-Adhesive Seals	R0Y154
2	Alarm Contacts	

120VAC POWER, CONDUIT, AND WIRING BY DIVISION 26.
CARD READER BY DIVISION 28.

HW-SH-9AEach [PB] Pair to Have:RATED

Hinges	QUANTITY & TYPE AS REQUIRED
1 Set Auto Flush Bolts	TYPE 25
1 Dust Proof Strike	L04021
1 Push-button Combination Lock	N3 - A156.13 F07 G1 E06
1 Coordinator	TYPE 21A
1 Overlapping Astragal with Self-Adhesive Seal	R0Y634 x R0Y154 x THRU-BOLTS
2 Closers	C02021
2 Armor Plates	J101 x 0.050 INCH THICKNESS
2 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
2 Floor Stops	L02121 x 3 FASTENERS
1 Set Self-Adhesive Seals	R0Y154

HW-SH-10Each [AC, EL, REX, DPS] Pair Integrated Doors to Have:RATED

1 CARD READER (BY Owner)	TYPE AS REQUIRED,
EXTERIOR DOOR	
1 Threshold (outswing door)	J32120 x SILICONE GASKET
1 Threshold (inswing door)	ALUMINUM, PER ARCHITECTURAL DETAIL
2 Door Sweep	R0Y416
1 Set Frame Seals	R0Y164
1 Drip	R0Y976

BALANCE OF HARDWARE BY SECTION 08 17 10, INTEGRATED DOOR ASSEMBLIES

HW-SH-10AEach [AC, ADO, EL, REX, DPS] Pair Integrated Doors to Have:RATED

1 CARD READER (BY Owner)	TYPE AS REQUIRED
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BALANCE OF HARDWARE BY SECTION 08 17 10, INTEGRATED DOOR ASSEMBLIES.

AUTOMATIC DOOR OPERATORS AND CONTROLS BY SECTION 08 71 13, AUTOMATIC DOOR OPERATORS.

HW-SH-13**RATED**

Hinges	QUANTITY & TYPE AS REQUIRED
2 Exit Device	TYPE 2-FUNCTION 01 LBR AND TYPE 2-FUNCTION 08 LBS
1 Coordinator	TYPE 21A
2 Closers	C02021 WITH DEAD STOP
2 ELECTRC STRIKES	AT HEAD
1 CARD READER (BY Owner)	
2 Kick Plate	J102
2 Mop Plate (@ Inswing Doors)	J103

HW-SH-13A**RATED**

Hinges	QUANTITY & TYPE AS REQUIRED
2 Exit Device	TYPE 2-FUNCTION 01 LBR AND TYPE 2-FUNCTION 08 LBS
1 Coordinator	TYPE 21A
2 Closers	C02021
2 ELECTRC STRIKES	AT HEAD
1 CARD READER (BY Owner)	
2 Kick Plate	J102
2 Mop Plate (@ Inswing Doors)	J103

TWO DOOR STATUS SWITCH BY OTHERS (ALARM SOUNDS W/O CARD READER)

HW-MH4Each [AC, RR, EL, REX, DPS] Door to Have:RATED

1	Continuous Transfer Hinge	x INTEGRAL HINGE GUARD CHANNEL X ADJUSTA-SCREWS x 4-THRUWIRE TRANSFER x IN-HINGE ACCESS PANEL
1	Electrified Lock	F07 (E01-REX, E06) 24VDC x LESS TRIM
1	Set Anti-Ligature Trim	
1	Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
1	Closer	C02011/C02021
1	Kick Plate	J102
1	Stretcher Plate	J101
1	Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1	Floor Stop	L02121 x 3 FASTENERS
1	Door Viewer	L03221 - 190° (VIEW INTO WAITING ROOM)
1	Door Viewer	L03221 - 190° (VIEW INTO TREATMENT AREA)
1	Set Self-Adhesive Seals	R0Y154
1	Alarm Contact	1078-G (G.E. SECURITY), OR EQUAL

OMIT DOOR VIEWERS AT DOORS WITH VISION LITES.

INSTALL DOOR CLOSER ON WAITING ROOM SIDE.

PROVIDE SECURITY FASTENERS FOR ALL HARDWARE ITEMS.

120VAC POWER, CONDUIT, AND WIRING BY DIVISION 26.

CARD READER BY DIVISION 28.

HW-MH5Each Door to Have:RATED/NON-RATED

1 Continuous Hinge	x INTEGRAL HINGE GUARD CHANNEL X HOSPITAL TIP X ADJUSTA-SCREWS
2 Anti-Ligature Pulls	
1 Deadlatch	F30 LESS TRIM BOTH SIDES
1 Armor Plate	J101 x 1.275 MM (0.050 INCH) THICKNESS
1 Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1 Floor Stop	L02121 x 3 FASTENERS
1 Threshold	J32300 x 57 MM WIDTH (2-1/4 INCHES)
1 Auto Door Bottom	R0Y346 - HEAVY DUTY
1 Set Seals	R0Y164

PROVIDE SECURITY FASTENERS FOR ALL HARDWARE ITEMS.

NO CLOSER REQUIRED AT RATED DOORS DUE TO EXEMPTION FOR PATIENT ROOM DOORS.

- - - E N D - - -