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
- C. Painting: Section 09 91 00, PAINTING.
- D. Electrical: Division 26, ELECTRICAL.
- E. 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.

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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 VA COR for reference purposes. Tag shall identify items by Project Specification number and manufacturer's catalog number. These items shall remain on file in VA COR's office until all other similar items have been installed in project, at which time the VA COR will deliver items on file to Contractor for installation in predetermined locations on the project.
- B. Keying: All cylinders shall be keyed into existing 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 7 pin type. Keying information shall be furnished at a later date by the VA COR.

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.

	except as otherwise specified.
В.	American Society for Testing and Materials (ASTM):
	F883-04Padlocks
	E2180-07Standard 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):

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

D.

Ε.

A156.2-03Bored and Pre-assembled Locks and Latches
A156.3-08Exit Devices, Coordinators, and Auto Flush
Bolts
A156.4-08Door Controls (Closers)
A156.5-01Auxiliary Locks and Associated Products
A156.6-05Architectural Door Trim
A156.8-05Door Controls-Overhead Stops and Holders
A156.12-05Interconnected Locks and Latches
A156.13-05Mortise Locks and Latches Series 1000
A156.14-07Sliding and Folding Door Hardware
A156.15-06Release Devices-Closer Holder, Electromagnetic
and Electromechanical
A156.16-08Auxiliary Hardware
A156.17-04Self-Closing Hinges and Pivots
A156.18-06Materials and Finishes
A156.20-06Strap and Tee Hinges, and Hasps
A156.21-09Thresholds
A156.22-05Door Gasketing and Edge Seal Systems
A156.23-04Electromagnetic Locks
A156.24-03Delayed Egress Locking Systems
A156.25-07Electrified Locking Devices
A156.26-06Continuous 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
A250.8-03Standard Steel Doors and Frames
National Fire Protection Association (NFPA):
80-10Fire Doors and Fire Windows
101-09Life Safety Code
Underwriters Laboratories, Inc. (UL):
Building Materials Directory (2008)

PART 2 - PRODUCTS

2.1 BUTT HINGES

- A. ANSI A156.1. Provide only five-knuckle ball bearing 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 900 mm (3 feet) wide or less and Type A8111/A5111 for doors over 900 mm (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.
- B. Provide quantity and size of hinges per door leaf as follows:
 - 1. Doors 1210 mm (4 feet) to 2260 mm (7 feet 5 inches) high: 3 hinges minimum.
 - 2. Doors greater than 2260 mm (7 feet 5 inches) high: 4 hinges.
 - 3. Doors up to 900 mm (3 feet) wide, standard weight: 114 mm \times 114 mm (4-1/2 inches \times 4-1/2 inches) hinges.
 - 4. Doors over 900 mm (3 feet) to 1065 mm (3 feet 6 inches) wide, standard weight: 127 mm x 114 mm (5 inches x 4-1/2 inches) 4 hinges.
 - 5. Doors over 1065 mm (3 feet 6 inches) to 1210 mm (4 feet), heavy weight: 127 mm \times 114 mm (5 inches \times 4-1/2 inches) 4 hinges.
 - 6. Provide heavy-weight hinges where specified.

2.2 DOOR CLOSING DEVICES

A. Closing devices shall be products of one manufacturer.

2.3 OVERHEAD CLOSERS

- A. Conform to ANSI A156.4, Grade 1.
- B. Closers shall conform to the following:
 - 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. Material of closer body shall be forged or cast.
 - 4. Arm and brackets for closers shall be steel, malleable iron or high strength ductile cast iron.

- 5. 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.
- 6. Closers shall have full size cover..
- 7. Closers shall have adjustable hydraulic back-check, separate valves for closing and latching speed, adjustable back-check positioning valve, and adjustable delayed action valve.
- 8. 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.
- 9. 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.
- 10. Provide parallel arm closers with heavy duty rigid arm.
- 11. 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.
- 12. Provide all surface closers with the same body attachment screw pattern for ease of replacement and maintenance.
- 13. All closers shall have a 1 $\frac{1}{2}$ " (38mm) minimum piston diameter.

2.4 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 or masonry 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. Omit stops where floor mounted door holders are required and where automatic operated doors occur.
- F. Provide appropriate door mounted stop on doors in individual toilets where floor or wall mounted stops cannot be used.
- G. 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.

2.5 LOCKS AND LATCHES

- A. Conform to ANSI A156.2. Locks and latches for doors 45 mm (1-3/4 inch) thick or over shall have beveled fronts. Lock cylinders to accept best 7 pin interchangeable core. Cylinders for all locksets shall be removable core type. 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 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 19 mm (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 facility standard and be a minimum Grade 2. All locksets and latchsets shall have lever handles fabricated from cast stainless steel No substitute lever material shall be accepted. All locks and latchsets shall be furnished with 122.55 mm (4-7/8-inch) curved lip strike and wrought box. At outswing pairs with overlapping astragals, provide flat lip strip with 21mm (7/8-inch) lip-to-center dimension. Lock function F02 shall be furnished with emergency tools/keys for emergency entrance. 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 facility standard and be a Grade I. All locks and latchsets shall be furnished with 122.55 mm (4-7/8-inch) curved lip strike and wrought box. At outswing pairs with overlapping astragals, provide flat lip strip with 21mm (7/8-inch) lip-to-center dimension. Provide lever design to match existing facility standard lever design.
- 3. Auxiliary locks shall be as specified under hardware sets and conform to ANSI A156.5.
- 5. Privacy locks in non-mental-health patient rooms shall have an inside thumbturn for privacy and an outside thumbturn for emergency entrance.

2.6 ELECTRIC STRIKES

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

2.7 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

2.8 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, and mop plates of KYDEX.
 - 2. Provide kick plates and mop plates where specified. Kick plate size shown in hardware sets. Mop plate shown in hardware sets. Both kick and mop plates shall be minimum 1.27 mm (0.050 inches) thick.

Provide kick and mop plates beveled on all 4 edges (B4E). On push

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side of doors where jamb stop extends to floor, make kick plates 38 mm (1-1/2 inches) less than width of door, except pairs of metal doors which shall have plates 25 mm (1 inch) less than width of each door. Extend all other kick and mop plates to within 6 mm (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.

2.9 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.

2.10 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 38 mm by 90 mm (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.

2.11 DOOR PULLS WITH PLATES

A. Conform to ANSI A156.6. Pull Type J401, 152 mm (6 inches) high by 19 mm (3/4 inches) diameter with plate Type J302, 90 mm by 350 mm (3-1/2 inches by 14 inches), unless otherwise specified. Provide pull with projection of 70 mm (2 3/4 inches) and a clearance of 51 mm (2 inches). Cut plates of door pull plate for cylinders, or turn pieces where required.

2.12 PUSH PLATES

A. Conform to ANSI A156.6. Metal, Type J302, 200 mm (8 inches) wide by 350 mm (14 inches) high. Provide metal Type J302 plates 100 mm (4 inches wide by 350 mm (14 inches) high) where push plates are specified for doors with stiles less than 200 mm (8 inches) wide. Cut plates for cylinders, and turn pieces where required.

2.13 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.

2.14 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,. Provide cylinders to operate locking devices where specified for following partitions and doors:
 - 1. Folding doors and partitions.

2.15 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. Door Closers: Factory applied paint finish. Dull or Satin Aluminum color.
 - 4. Thresholds: Mill finish aluminum.
 - 5. Other primed steel hardware: 600.
- D. Hardware Finishes for Existing Buildings: U.S. Standard finishes shall match finishes of hardware in (similar) existing spaces
- 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.

2.16 BASE METALS

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

Finish	Base Metal
652	Steel

630	Stainless steel
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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 COR for approval.
- B. Locate hardware not found in the existing building, on doors at heights specified below, with all hand-operated hardware centered within 864 mm (34 inches) to 1200 mm (48 inches), unless otherwise noted:
- C. Hardware Heights from Finished Floor:
 - 1. Exit devices centerline of strike (where applicable) 1024 mm (40-5/16 inches).
 - 2. Locksets and latch sets centerline of strike 1024 mm (40-5/16 inches).
 - 3. Deadlocks centerline of strike 1219 mm (48 inches).
 - 4. Hospital arm pull 1168 mm (46 inches) to centerline of bottom supporting bracket.
 - 5. Centerline of door pulls to be 1016 mm (40 inches).
 - 6. Push plates and push-pull shall be 1270 mm (50 inches) to top of plate.
 - 7. Push-pull latch to be 1024 mm (40-5/16 inches) to centerline of strike.
 - 8. 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 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
45 mm (1-3/4 inch)	900 mm (3 feet) and less	113 mm (4-1/2 inches)
45 mm (1-3/4 inch)	Over 900 mm (3 feet) but	125 mm (5 inches)

	not more than 1200 mm (4 feet)	
35 mm (1-3/8 inch) (hollow core wood doors)	Not over 1200 mm (4 feet)	113 mm (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 VA COR. 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 1500 mm (5 ft) or less in height	2 butts
Doors over 1500 mm (5 ft) high and not over 2280 mm (7 ft 6 in) high	3 butts
Doors over 2280 mm (7 feet 6 inches) high	4 butts
Dutch type doors	4 butts
Doors with spring hinges 1370 mm (4 feet 6 inches) high or less	2 butts
Doors with spring hinges over 1370 mm (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 VA COR that keys operate their respective locks in accordance with keying requirements. (All keys, 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 VA COR 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 COR 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 VA COR and VA Locksmith.

ELECTRIC HARDWARE ABBREVIATIONS LEGEND:

ADO = Automatic Door Operator

EMCH = Electro-Mechanical Closer-Holder

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

INTERIOR SINGLE DOORS

HW-1

Each Door to Have:

NON-RATED

Hinges QUANTITY & TYPE AS REQUIRED KYDEX 8"x34"x0.80"THICK 1 Kick Plate 1 Door Pull W/ Plate J401 X J302 1 Push Plate J302 1 Mop Plate (@ Inswing Doors) KYDEX 8"x34"x0.80"THICK

1 Closer LCN 4041xp

1 Floor Stop L02121 x 3 FASTENERS

3 Silencers L03011

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Each Door to Have:	RATED/NON-RATED
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Hinges QUANTITY & TYPE AS REQUIRED

1 Entrance Lock set BEST 93K 7 AB 15 D S3 626 WITH OCCUPANCY

INDICATOR IN RM. 301a ONLY

1 Wall Stop (@ Inswing Doors) L02101 CONVEX

3 Silencers L03011

HW-3E

Each Door to Have: NON-RATED

Hinges QUANTITY & TYPE AS REQUIRED

1 Entrance Lock BEST 93K 7 AB 15 DS3 626

1 Wall Stop L02251 CONCAVE

1 Floor Stop (@ Room 325) L02141 AT DOOR B325

3 Silencers L03011 1 Coat Hook L03121

OMIT COAT HOOK IN ROOM 325.

HW-4G

Each Door to Have: RATED/NON-RATED

Hinges QUANTITY & TYPE AS REQUIRED

1 Entrance Lock BEST 93K 7 AB 15 DS3 626

1 Closer (@ Rated Doors) LCN 4041xp

1 Kick Plate KYDEX 8"x34"x0.80"THICK

1 Floor Stop L02141

1 Wall Stop (@ RM 302c) L02251 CONCAVE

3 Silencers L03011

 ${\tt HW-4J}$

Each Door to Have: RATED/NON-RATED

Hinges QUANTITY & TYPE AS REQUIRED 1 Entrance Lock BEST 93K 7 AB 15 DS3 626

1 Closer (@ Rated Doors) LCN 4041xp

KYDEX 8"x34"x0.80"THICK 1 Kick Plate

1 Floor Stop L02141

1 Wall Stop(@ Rm 307) L02251 CONCAVE

3 Silencers L03011

HW-4U

Each Door to Have: NON-RATED/RATED

QUANTITY & TYPE AS REQUIRED Hinges

1 Passage Lock BEST 93K 7 N 15 DS3 626

1 Closer LCN 4041xp

1 Kick Plate KYDEX 8"x34"x0.80"THICK 1 Mop Plate (@ Inswing Doors) KYDEX 8"x34"x0.80"THICK

1 Wall Stop (@ Inswing Doors) L02251 CONCAVE

3 Silencers L03011

PROVIDE NON-HOLD-OPEN CLOSER AT TOILET ROOMS.

HW-5D

Each Door to Have: NON-RATED

Hinges QUANTITY & TYPE AS REQUIRED

1 Storeroom Lock BEST 93K 7 D 15 DS3 626

1 Closer LCN 4041xp

KYDEX 8"x34"x0.80"THICK 1 Kick Plate

1 Floor Stop L02141 3 Silencers L03011

<u>HW-5G</u>

		11W-3G
Ea	ch Door to Have:	NON-RATED
	Hinges	QUANTITY & TYPE AS REQUIRED
1	Storeroom Lock	BEST 93K 7 D 15 DS3 626
1	Closer	LCN 4041xp
1	Kick Plate	KYDEX 8"x34"x0.80"THICK
1	Wall Stop	L02251 CONCAVE
3	Silencers	L03011
		<u>HW-5J</u>
Ea	ch Door to Have:	RATED
	Hinges	QUANTITY & TYPE AS REQUIRED
1	Storeroom Lock	BEST 93K 7 D 15 DS3 626
1	Closer	LCN 4041xp
1	Kick Plate	KYDEX 8"x34"x0.80"THICK
1	Floor Stop	L02141
3	Silencers	L03011
		<u>HW-6</u>
Ea	ch Door to Have:	RATED
1		
	Continuous Hinge	1 WIRED CONCEALED CONTINUOUS HINGE
	Continuous Hinge	1 WIRED CONCEALED CONTINUOUS HINGE 1 CONTINUOUS CONCELED HINGE (IN ACTIVE
	Continuous Hinge	
	Continuous Hinge	1 CONTINUOUS CONCELED HINGE (IN ACTIVE
	Continuous Hinge	1 CONTINUOUS CONCELED HINGE (IN ACTIVE LEAF ONLY to except 7 pin
	Continuous Hinge	1 CONTINUOUS CONCELED HINGE (IN ACTIVE LEAF ONLY to except 7 pin interchangeable Best core. Exit hardware
	Continuous Hinge	1 CONTINUOUS CONCELED HINGE (IN ACTIVE LEAF ONLY to except 7 pin interchangeable Best core. Exit hardward to have electronic retractions for
1	Continuous Hinge Entry Lock	1 CONTINUOUS CONCELED HINGE (IN ACTIVE LEAF ONLY to except 7 pin interchangeable Best core. Exit hardward to have electronic retractions for active leaf. Exit devise exposed
1		1 CONTINUOUS CONCELED HINGE (IN ACTIVE LEAF ONLY to except 7 pin interchangeable Best core. Exit hardward to have electronic retractions for active leaf. Exit devise exposed vertical rod w/ electronic retraction)
	Entry Lock	1 CONTINUOUS CONCELED HINGE (IN ACTIVE LEAF ONLY to except 7 pin interchangeable Best core. Exit hardward to have electronic retractions for active leaf. Exit devise exposed vertical rod w/ electronic retraction) BEST 45 HW 7 TDEU 15 S 626 LHRB IDH
1	Entry Lock Coordinator	1 CONTINUOUS CONCELED HINGE (IN ACTIVE LEAF ONLY to except 7 pin interchangeable Best core. Exit hardward to have electronic retractions for active leaf. Exit devise exposed vertical rod w/ electronic retraction) BEST 45 HW 7 TDEU 15 S 626 LHRB IDH DCI-#672
1	Entry Lock Coordinator Power Supply	1 CONTINUOUS CONCELED HINGE (IN ACTIVE LEAF ONLY to except 7 pin interchangeable Best core. Exit hardward to have electronic retractions for active leaf. Exit devise exposed vertical rod w/ electronic retraction) BEST 45 HW 7 TDEU 15 S 626 LHRB IDH DCI-#672 24VDC

1	Wall Stop	L01205 (on in-active leaf At 6'-10" a.f.f.)
3	Silencers	L03011
		HW-6A
Ea	ch Door to Have:	RATED
1	Continuous Hinge	1 WIRED CONCEALED CONTINUOUS HINGE
1	lock	BEST 45 HW 7 TDEU 15 S 626 RHRB IDH
1	Power Supply	24VDC
1	Closer	LCN 4041xp
1	Floor Stop	L02141
3	Silencers	L03011
		HW-10K
Ea	ch Door to Have:	NON-RATED
1	Continuous Hinge	1 WIRED CONCEALED CONTINUOUS HINGE
		1 CONCEALED CONTINUOUS HINGES (IN-ACTIVE
		LEAF)
1	Set Auto Flush Bolts	ROCKWOOD 1845 COMBINATION FLUSH BOLT KIT
1	Entry Lock	BEST 45 HW 7 TDEU 15 S 626 LHRB IDH
1	Power Supply	REGULATED, FILTERED, 24VDC, AMPERAGE
		AS REQUIRED
1	Closer	LCN 4041xp
1	Coordinator	DCI-#672
1	Overlapping Astragal with	R0Y634 x R0Y154 x THRU-BOLTS Self-
	Adhesive Seal	
1	Kick Plate	KYDEX 8"x34"x0.80"THICK
2		J208M / J211 (VERIFY), CUT: HARDWARE
1	Wall Stop (On Active leaf Onl	
3	Silencers	L03011.

HW-10Ka

Ea	ch Door to Have:	RATED
1	Continuous Hinge	1 CONCEALED CONTINUOUS HINGE
1	Set Auto Flush Bolts	ROCKWOOD 1845 COMBINATION FLUSH BOLT KIT
1	Entry Lock	BEST 93K 7 AB 15 DS3 626
1	Closer	LCN 4041xp (HCHUSH Stop on inactive leaf)
1	Coordinator	DCI-#672
1	Overlapping Astragal with	R0Y634 x R0Y154 x THRU-BOLTS
	Self-Adhesive Seal	
1	Kick Plate	KYDEX 8"x34"x0.80"THICK
2	Edge Guard (@ Wood Doors)	J208M / J211 (VERIFY), CUT: HARDWARE
1	Wall Stop (On Active leaf Onl	y) L02101 CONVEX
1	Set Self-Adhesive Seals	R0Y154

SW-5

RATED

1	Continuous Hinge	1 WIRED CONCEALED CONTINUOUS HINGE
1	lock	BEST 45 HW 7 TDEU 15 S 626 RH IDH
1	Power Supply	24VDC
1	Closer	LCN 4041xp

1 Floor Stop L02141 3 Silencers L03011

Each Door to Have:

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