

Part 1 General

1.1 SECTION INCLUDES

- .1 Hardware for hollow steel, aluminum doors.
- .2 Thresholds.
- .3 Weatherstripping, seals, and door gaskets.

1.2 RELATED SECTIONS

- .1 Section 08 11 00 - Metal Doors and Frames.

1.3 REFERENCES

- .1 AWI/AWMAC - Quality Standards Illustrated (QSI), current edition.
- .2 BHMA (Builders Hardware Manufacturers Association) - A156 series.
- .3 CSDFMA (Canadian Steel Door and Frame Manufacturers Association).
- .4 DHI (Door Hardware Institute) - A115 series.
- .5 DHI (Door Hardware Institute) - WDHS.3 - Hardware Locations for Wood Flush Doors.
- .6 NFPA 252 - Fire Tests of Door Assemblies.
- .7 UL 10B - Fire Tests of Door Assemblies.

1.4 SUBMITTALS FOR REVIEW

- .1 Section 01 33 00: Submission procedures.
- .2 Shop Drawings:
 - .1 Indicate locations and mounting heights of each type of hardware, schedules, catalogue cuts, electrical characteristics and connection requirements.
 - .2 Submit manufacturer's parts lists, and templates.

1.5 SUBMITTALS AT PROJECT CLOSEOUT

- .1 Section 01 78 10: Submission procedures.
- .2 Maintenance Data: Include data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.
- .3 Keys: Deliver with identifying tags to City by security shipment direct from hardware supplier.

1.6 QUALITY ASSURANCE

- .1 Hardware Supplier Qualifications: Company specializing in supplying approved by manufacturers.

1.7 DELIVERY, STORAGE, AND PROTECTION

- .1 Package hardware items individually; label and identify each package with door opening code to match hardware schedule.

1.8 PROJECT CONDITIONS

- .1 Coordinate the work with other directly affected sections involving manufacture or fabrication of internal reinforcement for door hardware and recessed items.
- .2 Sequence installation to ensure utility connections are achieved in an orderly and expeditious manner.
- .3 Coordinate City's keying requirements during the course of the Work.

1.9 MAINTENANCE PRODUCTS

- .1 Provide special wrenches and tools applicable to each different or special hardware component.
- .2 Provide maintenance tools and accessories supplied by hardware component manufacturer.

Part 2 Products

2.1 MANUFACTURERS

- .1 Refer to hardware schedule listed at the end of this specification section.
- .2 Automatic Door Operators:
 - .1 Acceptable Manufacturers: Horton Automatics: 7900 series.

2.2 DOOR HARDWARE

- .1 Butts; Provide 1 - ½ pair for all doors, except doors over 900 mm wide or over 2200 mm high are to have 2 pair.

2.3 KEYING

- .1 Door Locks: Keyed to existing building.

2.4 FINISHES

- .1 Finishes: Identified in Schedule at end of section.

Part 3 Execution

3.1 EXAMINATION

- .1 Verify that doors and frames are ready to receive work and dimensions are as instructed by the manufacturer.
- .2 Verify that electric power is available to power operated devices and is of the correct characteristics.

3.2 INSTALLATION

- .1 Install hardware in accordance with manufacturer's instructions.
- .2 Use templates provided by hardware item manufacturer.
- .3 Mounting heights for hardware from finished floor to centre line of hardware item:
 - .1 Locksets: 40 5/16" inch.
 - .2 Push/Pulls: 42 inch.
 - .3 Dead Locks: 47 1/4 inch.
 - .4 Exit Devices: 39 13/16 inch.
 - .5 All other door operating devices to be mounted as per DHI A115 Series, except maximum height to be limited to 43 5/16 inch.

3.3 ADJUSTING

- .1 Adjust hardware for smooth operation.

3.4 PROTECTION OF FINISHED WORK

- .1 Do not permit adjacent work to damage hardware or finish.

3.5 SCHEDULES

- .1 Door Hardware Group No.1

For use on door #(s):

| B01A | B01B | B05A | B05B | | |
|------|------------------|------|--------------------------|-----|-----|
| 3 EA | HW HINGE | | 3CB1HW 114 X 114 NRP | 652 | IVE |
| 1 EA | CLASSROOM D.BOLT | | B663P | 626 | SCH |
| 1 EA | PUSH PLATE | | 8200 205MM X 405MM | 630 | IVE |
| 1 EA | PULL PLATE | | 8303 255MM 150MM X 405MM | 630 | IVE |
| 1 EA | OH STOP | | 90S | 630 | GLY |
| 1 EA | SURFACE CLOSER | | 4040XP EDA ST-2731 | 689 | LCN |
| 1 EA | KICK PLATE | | 8400 254MM X 40MM LDW | 630 | IVE |
| 3 EA | SILENCER | | SR64 | GRY | IVE |

.2 Door Hardware Group No.2

For use on door #(s):

B02

| | | | | | |
|---|----|----------------|-----------------------|-----|-----|
| 3 | EA | HINGE | 3CB1 114 X 102 | 652 | IVE |
| 1 | EA | STOREROOM LOCK | ND80PD RHO | 626 | SCH |
| 1 | EA | SURFACE CLOSER | 1461 | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 254MM X 40MM LDW | 630 | IVE |
| 1 | EA | FLOOR STOP | FS434 | 604 | IVE |
| 3 | EA | SILENCER | SR64 | GRY | IVE |

.3 Door Hardware Group No.3

For use on door #(s):

B07

B08

| | | | | | |
|---|-----|--------------------|-----------------------|-----|-----|
| 3 | EA | HW HINGE | 3CB1HW 114 X 114 | 652 | IVE |
| 1 | EA | FIRE EXIT HARDWARE | 98-L-BE-F-06 | 626 | VON |
| 1 | EA | SURFACE CLOSER | 4040XP | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 254MM X 40MM LDW | 630 | IVE |
| 1 | EA | WALL STOP | WS406/407CVX | 630 | IVE |
| 1 | SET | WEATHERSTRIP | W-21 | BLK | KNC |
| 1 | EA | DOOR BOTTOM | CT-54 36" W/SHIM | 627 | KNC |

.4 Door Hardware Group No.4

For use on door #(s):

105

111

B06

B01C

| | | | | | |
|---|----|----------------|-----------------------|-----|-----|
| 3 | EA | HINGE | 3CB1 114 X 102 | 652 | IVE |
| 1 | EA | STOREROOM LOCK | ND80PD RHO | 626 | SCH |
| 1 | EA | SURFACE CLOSER | 1461 | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 254MM X 40MM LDW | 630 | IVE |
| 1 | EA | FLOOR STOP | FS434 | 604 | IVE |
| 3 | EA | SILENCER | SR64 | GRY | IVE |

.5 Door Hardware Group No.5

For use on door #(s):

112A

| | | | | | |
|---|-----|-------------------|----------------------|-------|-----|
| 3 | EA | HW HINGE | 3CB1HW 127 X 114 NRP | 652 | IVE |
| 1 | EA | STOREROOM LOCK | ND80PD RHO | 626 | SCH |
| 1 | EA | ELECTRIC STRIKE | 6211 FSE CON | 630 | VON |
| 1 | EA | AUTO OPERATOR | 9542 MS | ANCLR | LCN |
| 1 | EA | ACTUATOR, WALL MT | 8310-836T | 630 | LCN |
| 1 | EA | WALL STOP | WS406/407CVX | 630 | IVE |
| 1 | SET | WEATHERSTRIP | W-21 | BLK | KNC |
| 1 | EA | DOOR BOTTOM | CT-54 36" W/SHIM | 627 | KNC |
| 1 | EA | FLUSH MT KEYPAD | KP2000E | | SCE |
| 1 | EA | DOOR CONTACT | 679-05HM | BLK | SCE |

Operational Description

Electric strike is released when power is applied (Fail Secure). With Connector Access by Keypad Exterior or key - Auto Operator operable at all times by Actuator Interior, and upon valid code at exterior keypad.

.6 Door Hardware Group No.6

For use on door #(s):

101

| | | | | | |
|---|-----|-------------------|----------------------------------|-------|-----|
| 6 | EA | HW HINGE | 3CB1HW 127 X 114 NRP | 626 | IVE |
| 1 | EA | REMOVABLE MULLION | 4854 | 689 | VON |
| 2 | EA | PANIC HARDWARE | 98-TP | 626 | VON |
| 2 | EA | RIM CYLINDER | 20-021 EV C | 626 | SCH |
| 1 | EA | ELECTRIC STRIKE | 6111 FSE CON | 630 | VON |
| 1 | EA | OH STOP | 90S | 630 | GLY |
| 1 | EA | SURFACE CLOSER | 4040XP EDA ST-2731 | 689 | LCN |
| 1 | EA | AUTO OPERATOR | 9542 MS | ANCLR | LCN |
| 2 | EA | ACTUATOR, WALL MT | 8310-836T | 630 | LCN |
| 2 | EA | KICK PLATE | 8400 254MM X 40MM LDW | 630 | IVE |
| 2 | EA | HEAD SEAL | W-20N TO SUIT DOOR WIDTH | 627 | KNC |
| 2 | SET | WEATHERSTRIP | W-49 2 pcs - To Suit Door Height | 627 | KNC |
| 2 | EA | DOOR SWEEP | W-13S 48" | 628 | KNC |
| 1 | EA | THRESHOLD | CT-45 To Suit Door Width | 627 | KNC |

Operational Description

Free Egress at all times. Pressing Push Bar retracts latchbolts. Latchbolt retracted by thumbpiece unless locked by key. Key locks and unlocks thumbpiece. Dogging by hex key, locks down the pushbar or crossbar so the latchbolt remains retracted. Self-Closing.

.7 Door Hardware Group No.7

For use on door #(s):

104A

| | | | | | |
|---|-----|-------------------|---------------------------------|-------|-----|
| 3 | EA | HINGE | 3CB1 114 X 102 | 652 | IVE |
| 1 | EA | CLASSROOM D.BOLT | B663P | 626 | SCH |
| 1 | SET | PULL PLATE | PR 8303 255MM 150MM X 405MM J-N | 630 | IVE |
| 1 | EA | AUTO OPERATOR | 9542 MS | ANCLR | LCN |
| 2 | EA | ACTUATOR, WALL MT | 8310-836T | 630 | LCN |
| 1 | EA | KICK PLATE | 8400 254MM X 40MM LDW | 630 | IVE |
| 1 | EA | FLOOR STOP | FS434 | 604 | IVE |
| 1 | SET | WEATHERSTRIP | W-21 | BLK | KNC |
| 1 | EA | DOOR BOTTOM | CT-54 36" W/SHIM | 627 | KNC |
| 1 | EA | KEYSWITCH | 653-04 CYL | 630 | SCE |

.8 Door Hardware Group No.8

For use on door #(s):

112B

| | | | | | |
|---|-----|-------------------|----------------------------------|-------|-----|
| 3 | EA | HW HINGE | 3CB1HW 127 X 114 NRP | 626 | IVE |
| 1 | EA | PANIC HARDWARE | 98-TP | 626 | VON |
| 1 | EA | RIM CYLINDER | 20-021 EV C | 626 | SCH |
| 1 | EA | ELECTRIC STRIKE | 6111 FSE CON | 630 | VON |
| 1 | EA | AUTO OPERATOR | 9542 MS | ANCLR | LCN |
| 2 | EA | ACTUATOR, WALL MT | 8310-836T | 630 | LCN |
| 1 | EA | KICK PLATE | 8400 254MM X 40MM LDW | 630 | IVE |
| 1 | EA | HEAD SEAL | W-20N TO SUIT DOOR WIDTH | 627 | KNC |
| 1 | SET | WEATHERSTRIP | W-49 2 pcs - To Suit Door Height | 627 | KNC |
| 1 | EA | DOOR SWEEP | W-13S 48" | 628 | KNC |
| 1 | EA | THRESHOLD | CT-45 To Suit Door Width | 627 | KNC |
| 1 | EA | KEYSWITCH | 653-04 CYL | 630 | SCE |

Operational Description

Free Egress at all times. Pressing Push Bar retracts latchbolts. Latchbolt retracted by thumbpiece unless locked by key. Key locks and unlocks thumbpiece. Dogging by hex key, locks down the pushbar or crossbar so the latchbolt remains retracted. Keyswitch to control.

.9 Door Hardware Group No.9

For use on door #(s):

| | | | | | | | |
|------|-----|----------------|--|----------------------------------|--|-----|-----|
| 104B | | 107 | | 108 | | | |
| 3 | EA | HW HINGE | | 3CB1HW 114 X 114 NRP | | 626 | IVE |
| 1 | EA | PANIC HARDWARE | | 98-EO | | 626 | VON |
| 1 | EA | OH STOP | | 90S | | 630 | GLY |
| 1 | EA | SURFACE CLOSER | | 4040XP EDA ST-2731 | | 689 | LCN |
| 1 | EA | KICK PLATE | | 8400 254MM X 40MM LDW | | 630 | IVE |
| 1 | EA | HEAD SEAL | | W-20N TO SUIT DOOR WIDTH | | 627 | KNC |
| 1 | SET | WEATHERSTRIP | | W-49 2 pcs - To Suit Door Height | | 627 | KNC |
| 1 | EA | DOOR SWEEP | | W-13S 36" | | 628 | KNC |
| 1 | EA | THRESHOLD | | CT-45 To Suit Door Width | | 627 | KNC |

.10 Door Hardware Group No.10

For use on door #(s):

| | | | | | | | |
|-----|----|----------------|--|----------------|--|-----|-----|
| 110 | | 114 | | | | | |
| 3 | EA | HINGE | | 3CB1 114 X 102 | | 652 | IVE |
| 1 | EA | PRIVACY LOCK | | ND40S RHO | | 626 | SCH |
| 1 | EA | SURFACE CLOSER | | 1461 | | 689 | LCN |
| 1 | EA | WALL STOP | | WS406/407CCV | | 630 | IVE |
| 3 | EA | SILENCER | | SR64 | | GRY | IVE |

.11 Door Hardware Group No.10R

For use on door #(s):

| | | | | | | | |
|------|----|--------------------|--|---------------------------------------|--|-----|-----|
| 113R | | | | | | | |
| 3 | EA | HINGE | | 3CB1 114 X 102 | | 652 | IVE |
| 1 | EA | CYL X TURN D. LOCK | | L9460P 06A L583-363 XL11-886 x 09-611 | | 626 | SCH |
| 1 | EA | AUTO OPERATOR | | 4642 | | 689 | LCN |
| 2 | EA | ACTUATOR, WALL MT | | 8310-836T | | 630 | LCN |
| 2 | EA | ESCUTCHEON | | 8310-874 | | 689 | LCN |
| 1 | EA | KICK PLATE | | 8400 254MM X 40MM LDW | | 630 | IVE |
| 1 | EA | WALL STOP | | WS406/407CCV | | 630 | IVE |
| 3 | EA | SILENCER | | SR64 | | GRY | IVE |
| 1 | EA | LATCH MONITOR | | LML-2 | | | SEC |

Operational Description

Inside lever retracts deadbolt. Outside lever is fixed, c/w ADA Thumbturn.
Deadbolt thrown will indicate "Occupied" and actuators are shunted.
Auto Operator Automatically Opens & Closes Door.

.12 Door Hardware Group No.11

For use on door #(s):

| | | | | |
|------|------|------|------|------|
| 101B | 102 | 103A | 103B | 109A |
| 109B | 109C | 115 | | |

EXISTING DOOR, FRAME AND HARDWARE TO REMAIN

END OF SECTION