

<u>SECTION 08700 - FINISH HARDWARE LINCOLN POLICE DEPT</u>
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PART 1 – GENERAL

RELATED DOCUMENTS

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

SUMMARY

This Section includes items known commercially as Finish or door hardware that are required for swing, sliding, and folding doors, except special types of unique hardware specified in the same sections as the doors and door frames on which they are installed.

This Section includes the following:

1. Hinges.
2. Continuous Hinges
3. Key control system.
4. Lock cylinders and keys.
5. Lock and latch sets.
6. Bolts.
7. Exit devices.
8. Push/pull units.
9. Closers.
10. Overhead holders.
11. Miscellaneous door control devices.
12. Door trim units.
13. Protection plates.
14. Weather-stripping for exterior doors.
15. Seals for interior doors.
16. Automatic drop seals (door bottoms).
17. Astragals or meeting seals on pairs of doors.
18. Thresholds.

Related Sections: The following Sections contain requirements that relate to this Section:

1. Division 8 Section "Hollow Metal Doors and Frames" for silencers integral with hollow metal frames.
2. Division 8 Section "Flush Wood Doors" for factory pre-fitting and factory pre-machining of doors for door hardware.
3. Division 8 Section "Aluminum Entrances and Storefronts" for aluminum entrance door hardware, except cylinders.

Door hardware supplier's responsibilities shall be as follows:

1. Submittals: Submit through Contractor required product data, final hardware schedule; separate keying schedule, and samples as specified in this Section, unless otherwise indicated.
2. Construction Schedule: Inform Contractor promptly of estimated times and dates that will be required to process submittals, to furnish templates, to deliver hardware, and to perform other work associated with furnishing door hardware for purposes of including this data in construction schedule. Comply with this schedule.
3. Coordination and Templates: Assist Contractor as required to coordinate hardware with other work in respect to both fabrication and installation. Furnish Contractor with templates and deliver hardware to proper locations.
4. Product Handling: Package, identify, deliver, and inventory door hardware specified in this Section.
5. Discrepancies: Based on requirements indicated in Contract Documents in effect at time of door hardware selection, furnish types, Finishes, and quantities of door hardware, including fasteners, and Owner's maintenance tools required to comply with specified requirements and as needed to install and maintain hardware. Furnish or replace any items of door hardware resulting from shortages and incorrect items at no cost to the Owner or Contractor. Obtain signed receipts from Contractor for all delivered materials.

Contractor's responsibilities shall be as follows:

1. Submittals: Coordinate and process submittals for door hardware in same manner as submittals for other work.
2. Construction Schedule: Cooperate with door hardware supplier in establishing scheduled dates for submittals and delivery of templates and door hardware. Incorporate in construction schedule the times and dates related to furnishing hardware by door hardware supplier.
3. Coordination: Coordinate door hardware with other Work. Furnish hardware supplier or manufacturer with shop drawings of other work where required or requested. Verify completeness and suitability of hardware with supplier.
4. Product Handling: Provide secure lock-up for hardware delivered to the site. Inventory hardware jointly with representative of hardware supplier and issue signed receipts for all delivered materials.
5. Installation Information: The general types and approximate quantities of hardware required for this Project are indicated at the end of this Section in order to establish Contractor's costs for installation and other work not included in allowance.
6. No adjustments in Contract sum will be made for costs other than those



covered by the allowances for subsequent increases or decreases in quantity of one or more hardware types that do not exceed 5 percent.

## SUBMITTALS

General: Submit the following in accordance with Conditions of Contract and Division 1 Specification sections.

Product data including manufacturers' technical product data for each item of door hardware, installation instructions, maintenance of operating parts and Finish, and other information necessary to show compliance with requirements.

Final hardware schedule coordinated with doors, frames, and related work to ensure proper size, thickness, hand, function, and Finish of door hardware.

## QUALITY ASSURANCE

Single Source Responsibility: Obtain each type of hardware (latch and lock sets, hinges, closers, etc.) from a single manufacturer.

Supplier Qualifications: A recognized architectural door hardware supplier that has a record of successful in-service performance for a minimum of 15 years, for supplying door hardware similar in quantity, type, and quality to that indicated for this Project and that employs an experienced "Certified" architectural hardware consultant (**AHC**) " and is current with **CEP** program with Door and hardware Institute ( DHI ) All submittals will require a current certification seal of AHC " who is available to Owner, Architect, and Contractor, at reasonable times during the course of the Work, for consultation.

Fire-Rated Openings: Provide door hardware for fire-rated openings that complies with NFPA Standard No. 80 and requirements of authorities having jurisdiction. Provide only items of door hardware that are listed and are identical to products tested by UL, Warnock Hersey, FM, or other testing and inspecting organization acceptable to authorities having jurisdiction for use on types and sizes of doors indicated in compliance with requirements of fire-rated door and door frame labels.

## PRODUCT HANDLING

Tag each item or package separately with identification related to final hardware schedule, and include basic installation instructions with each item or package.

Packaging of door hardware is responsibility of supplier. As material is received by hardware supplier from various manufacturers, sort and repackage in containers clearly marked with appropriate hardware set number to match set numbers of approved hardware schedule. Two or more identical sets may be packed in same container.

Inventory door hardware jointly with representatives of hardware supplier and hardware installer until each is satisfied that count is correct.

Deliver individually packaged door hardware items promptly to place of installation (shop or Project site).

Provide secure lock-up for door hardware delivered to the Project, but not yet installed. Control handling and installation of hardware items that are not immediately replaceable so that completion of the Work will not be delayed by hardware losses both before and after installation.

## MAINTENANCE

Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

## PART 2 – PRODUCTS

Manufacturers: Subject to compliance with requirements, manufacturers offering door hardware that may be incorporated in the Work (No other Manufacturer to be used unless prior approved by addenda)

### Hinges & Pivots:

Hager Companies  
Stanley  
Dorma  
ABH

1. Provide only template produced units
2. Provide Phillips flat-head or machine screws for installation of units, except furnish Phillips flat-head wood screws for installation of units in to wood. Finish screw heads to match surface of hinges or pivots.
3. Hinge pins, except as noted, are to be provided as follows:  
Steel Hinges: Steel pins  
Non-ferrous Hinges: Stainless steel pins  
Exterior Doors: Use Non Removable Pins  
Interior Doors: Non-rising pins  
Electric Hinges: Non-removable pins
4. Tips shall be flat button and matching plug, Finished to match leaves.
5. Provide number of hinges indicated but not less than three (3) hinges for door leaf of 90" or less in height and one additional hinge for each 30" of

- additional height.
6. Provide ball bearing hinges of the type and weight suggested by the hinge manufacturer for each type of door application.
  7. All continuous hinges shall meet Heavy Duty frequency use ratings.

Lock Cylinders & Keying:

Best CORMAX Series  
Dorma – SKC Series

1. All cylinders shall be keyed into a New System as directed by the owner.
2. A Keying Meeting between Owner, Architect, and Hardware Supplier will be required to determine Owners Request for keying of all cores/cylinders, keys, etc.
3. Keys shall be furnished per the following:
  - a. Minimum of (2) two operating cut keys per change.
  - b. Minimum of (5) master keys per master system.
  - c. Minimum of (2) control keys.
4. Supply a Key Cabinet with capacity of plus 150% of keys required equal to LUND HPC

Locksets & Latch-sets:

Best Access - 45H Series, 14H Trim  
Dorma 1000 Series LCB Trim

1. Mortise Type:
  - a. Locksets and latch-sets must be heavy duty mortise type with 2-3/4 in. backset, or greater as specified, with a 3/4 inch throw latch-bolt.
  - b. Locksets and latch-sets must conform to ANSI A156.2 Series 1000, Grade 1, and be UL Listed.
  - c. Locksets shall be furnished with a cylinder housing that accepts a small format interchangeable core.
  - d. Trim is to be BEST 14 H Dorma LCB design, US26D Finish

Exit Devices

Precision 2000 Series  
Dorma 9000 Series  
Fema Devices Securitech

Closers:



Dormakaba - 8900 Series  
Equal by Stanley / Best 9000 Series

1. Size of units: Except as otherwise specifically indicated, comply with the manufacturer's recommendations for size of door control unit, depending upon size of door, exposure to weather and anticipated frequency of use.
  - a. Where parallel arms are indicated for closers, provide closer unit one size larger than recommended for use with standard arm.
  - b. Where manual closers are indicated for doors required to be accessible to the physically handicapped, provide adjustable units, ANSI opening force and delayed action closing.
2. Provide manual closers that are certified to exceed one million (1,000,000) full load operating cycles by a recognized independent testing laboratory. Closers are to be fully hydraulic, rack and pinion action with high strength cast cylinders and one piece forged steel pistons. Hydraulic fluid to be of a type requiring no seasonal adjustments for temperature. Hydraulic regulation to be controlled by tamper-proof, non-critical screw valves, adjustable with a hex by tamper-proof, non-critical screw valves, adjustable with a hex wrench. Separate adjustments for back check, general speed, and latch speed. Where detailed on double lever arm closers, provide a delayed action feature to delay closing up to one minute for maximum opening to approximately 75. Back check shall be properly located for protection of the door, frame and applied hardware.
3. Use of closers with built-in spring or cushion stops will be allowed in lieu of overhead stops.
4. All door closers shall have a full cover.
5. All door closers shall comply with ANSI A156.4 Grade 1 and meet the standards of ANSI A117.1 for barrier-free accessibility.

Push/Pulls, Protection Plates:

Hager Companies  
Rockwood Manufacturing  
Trimco

1. Provide manufacturers standard exposed fasteners for installation, through bolted for matched pairs, but not of single units.
2. Provide 16 gauge minimum thickness for plates.
3. All push and pull plates shall have an antimicrobial protected coating.

Threshold, Weather-stripping & Gasketing:

Zero International  
Hager Companies  
National Guard Products

1. Provide continuous weather-stripping at each edge of every exterior door leaf, except as otherwise indicated.
2. Provide type, size and profile shown as scheduled.
3. Provide non-corrosive fasteners as recommended by manufacturer for application indicated. Do not specify adhesive backed weather-strip or gasket material.
4. Where replaceable seal strips are scheduled, provide only those units where resilient or flexible seal strip is easily replaceable from stocks maintained by manufacturer.
5. Provide standard metal threshold unit of type, size and profile shown as scheduled.

#### Electronic Hardware

1. Electric strike series Hager 2930 MOR
2. Keypad / Prox Reader Hager 2916
3. Power Supply Hager 2908

#### FINISHES

Provide as indicated in the hardware schedule and as previously noted herein.

#### PART 3 – EXECUTION

##### INSTALLATION

Install each hardware item in compliance with manufacturer's instructions and recommendations. Where cutting and fitting is required to install hardware onto or into surfaces that are later to be painted or finished in another way, install each item completely and then remove and store in a secure place during the finish application. After completion of the finishes, reinstall each item.

Do not install surface mounted items until finishes have been completed on the substrate.

Conform to ANSI A117.1 for positioning requirements for the handicapped.

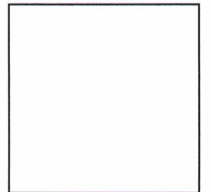
##### PROTECTION & CLEANING

After installation, clean metal surfaces on both interior and exterior of all mortar, paint and other contaminants. After cleaning, protect work against damage.

## FINAL ADJUSTMENT

Whenever hardware is installed more than one month prior to occupancy or acceptance, return during the week prior to acceptance or occupancy and make a final inspection and adjustment of all hardware items in such space or area.

Hardware SCHEDULE Follows:





**Hardware Set 01**

Door # 101A

Qty	Type	Description	Finish
2	Cont Hinge, 83"	A110HDC 83" 628, EPT PREP	628
1	Comb. Core	1CM COMBINATED 7-PIN CORMAX, US26D	626
1	Rim Cyl Hsg	87 R 10 00 LESS CORE US26D	626
1	Conc V-Rod	ELR 2801 EXIT ONLY	630
1	CV-Rod	ELR 2803 C03 CAST PLATE, US32D	630
2	Power Transfer	EPT-12C	
2	Closer	8916 DS SNTPK SN ALUM 689	689
2	Drop Plate	DP 89 DROP PLATE, ALUM 689	689
2	HD Spacer	BSHD SPACER (USE WITH DS, SPA)	
2	Offset Pull	1191-5 18" CTC, US32D	630
1	T/Hold	513-72" ALUM	628
1	* by others *	PERIMETER SEAL BY OTHERS	
1	* by others *	SWEEP STRIP BY OTHERS	
1	Power Supply	2908 1 AMP	
1	Keypad	2916P KEYPAD W/ PROX	630

**Hardware Set 02.1**

Door # 3A, 3B, 6B, A165C

Qty	Type	Description	Finish
1	Cont Hinge, 83"	A110HDC 83" 628, EPT PREP	628
1	Comb. Core	1CM COMBINATED 7-PIN CORMAX, US26D	626
1	Rim Cyl Hsg	87 R 10 00 LESS CORE US26D	626
1	Power Transfer	EPT-12C	
1	Rim Exit ELR	ELR 2103 4903D US32D	630
1	Closer	8916 DS SNTPK SN ALUM 689	689
1	HD Spacer	BSHD SPACER (USE WITH DS, SPA)	
1	Offset Pull	1191-5 18" CTC, US32D	630
1	T/Hold	513-36" ALUM	628
1	* by others *	PERIMETER SEAL BY OTHERS	
1	* by others *	SWEEP STRIP BY OTHERS	
1	Power Supply	2908 1 AMP	
1	Keypad	2916P KEYPAD W/ PROX	630

## **Hardware Set 02.2**

Door # 149B

Qty	Type	Description	Finish
1	Cont Hinge, 83"	A110HDC 83" 628, EPT PREP	628
1	Comb. Core	1CM COMBINATED 7-PIN CORMAX, US26D	626
1	Rim Cyl Hsg	87 R 10 00 LESS CORE US26D	626
1	Rim Exit ELR	ELR 2103 4903D US32D	630
1	Closer	8916 DS SNTPK SN ALUM 689	689
1	Drop Plate	DP 89 DROP PLATE, ALUM 689	689
1	HD Spacer	BSHD SPACER (USE WITH DS, SPA)	
1	Offset Pull	1191-5 18" CTC, US32D	630
1	T/Hold	513-48" ALUM	628
1	* by others *	PERIMETER SEAL BY OTHERS	
1	* by others *	SWEEP STRIP BY OTHERS	
1	Power Supply	2908 1 AMP	
1	Keypad	2916P KEYPAD W/ PROX	630

## **Hardware Set 03**

Door # 101B, 101C, 133, 140, 2A, 2B, 4, 6A

Qty	Type	Description	Finish
3	Hinge A8112	FBB179 4.5 X 4.5, US26D	652
1	Comb. Core	1CM COMBINATED 7-PIN CORMAX, US26D	626
1	Stor F07	45 H 7 D 14H, US26D CORMAX	626
1	Closer C02021	8916 AF89P AL, FC SNTPK PA SN1	689
1	Wall Stop	1270 WV "CONCAVE TYPE" US32D	630
1	Kick Plate	KO050 - 10 X 34 HEAVY B4E CSK US32D	630
1	Electric Strike	2930 MOR US32D	630
1	Power Supply	2908 1 AMP	
1	Keypad	2916P KEYPAD W/ PROX	630
3	Silencers	1229A-0 METAL FRAME	Grey

## **Hardware Set 04**

Door # 102, 103, 115, 144, 147A, A158, A159, A162, A163

Qty	Type	Description	Finish
3	Hinge A8112	FBB179 4.5 X 4.5, US26D	652
1	Comb. Core	1CM COMBINATED 7-PIN CORMAX, US26D	626
1	Dorm F13	45 H 7 T 14H VIN US26D	626
1	Closer C02011	8916 AF89 AL, FC SNTPK REG ARM LESS PA	689
1	Wall Stop	1270 WV "CONCAVE TYPE" US32D	630
1	Kick Plate	KO050 - 10 X 34 HEAVY B4E CSK US32D	630
3	Silencers	1229A-0 METAL FRAME	Grey

**Hardware Set 05**

Door # 104, 104D

Qty	Type	Description	Finish
3	Hinge A8112	FBB179 4.5 X 4.5, US26D	652
1	Comb. Core	1CM COMBINATED 7-PIN CORMAX, US26D	626
1	Class F05	45 H 7 R 14H, US26D	626
1	Closer C02011	8916 AF89 AL, FC SNTPK REG ARM LESS PA	689
1	Wall Stop	1270 WV "CONCAVE TYPE" US32D	630
1	Kick Plate	KO050 - 10 X 34 HEAVY B4E CSK US32D	630
3	Silencers	1229A-0 METAL FRAME	Grey

**Hardware Set 06**

Door # 106, 111, 112, 125, 131, 136, 142, 145, 146, 147B

Qty	Type	Description	Finish
3	Hinge A8112	FBB179 4.5 X 4.5, US26D	652
1	Comb. Core	1CM COMBINATED 7-PIN CORMAX, US26D	626
1	Stor F07	45 H 7 D 14H US26D	626
1	Closer C02011	8916 AF89 AL, FC SNTPK REG ARM LESS PA	689
1	Wall Stop	1270 WV "CONCAVE TYPE" US32D	630
1	Kick Plate	KO050 - 10 X 34 HEAVY B4E CSK US32D	630
3	Silencers	1229A-0 METAL FRAME	Grey

**Hardware Set 07**

Door # 107, 141, A151, A152, A153, A154, A155, A156, A157A, A160

Qty	Type	Description	Finish
3	Hinge A8112	FBB179 4.5 X 4.5, US26D	652
1	Comb. Core	1CM COMBINATED 7-PIN CORMAX, US26D	626
1	Class F05	45 H 7 R 14H, US26D	626
1	Closer C02011	8916 AF89 AL, FC SNTPK REG ARM LESS PA	689
1	Wall Stop	1270 WV "CONCAVE TYPE" US32D	630
1	Kick Plate	KO050 - 10 X 34 HEAVY B4E CSK US32D	630
3	Silencers	1229A-0 METAL FRAME	Grey

**Hardware Set 08**

Door # 108, 110

Qty	Type	Description	Finish
3	Hinge A8112	FBB179 4.5 X 4.5, US26D	652
1	Comb. Core	1CM COMBINATED 7-PIN CORMAX, US26D	626
1	Office F04	45 H 7 AT 14H , US26D	626
1	Closer C02011	8916 AF89 AL, FC SNTPK REG ARM LESS PA	689
1	Wall Stop	1270 WV "CONCAVE TYPE" US32D	630
1	Kick Plate	KO050 - 10 X 34 HEAVY B4E CSK US32D	630
3	Silencers	1229A-0 METAL FRAME	Grey



### **Hardware Set 09**

Door # 113, 114, 118, 120, 121, 132, 134, 135, 137, 149A, 150A, 150B

Qty	Type	Description	Finish
3	Hinge A8112	FBB179 4.5 X 4.5, US26D	652
1	Comb. Core	1CM COMBINATED 7-PIN CORMAX, US26D	626
1	Office F04	45 H 7 AT 14H , US26D	626
1	Closer C02021	8916 AF89P AL, FC SNTPK PA SN1	689
1	Wall Stop	1270 WV "CONCAVE TYPE" US32D	630
1	Kick Plate	KO050 - 10 X 34 HEAVY B4E CSK US32D	630
3	Silencers	1229A-0 METAL FRAME	Grey

### **Hardware Set 10**

Door # 116, 117

Qty	Type	Description	Finish
3	Hinge A8133	F179 4.5 X 4.5, US26D	652
1	Passage F75	9K3 0 N 14D S3 4-7/8" 2-3/4" BS US26D	626
1	Wall Stop	1270 WV "CONCAVE TYPE" US32D	630
3	Silencers	1229A-0 METAL FRAME	Grey

### **Hardware Set 11**

Door # 122, 124, 129, 138, 139

Qty	Type	Description	Finish
3	Hinge A8112	FBB179 4.5 X 4.5, US26D	652
1	Priv F19	45 H 0 L 14H VIN (INDICATOR) US26D	626
1	O/H Stop Only	9024 S "STOP ONLY" US32D, SURFACE	630
1	Closer C02021	8916 AF89P AL, FC SNTPK PA SN1	689
1	Kick Plate	KO050 - 10 X 34 HEAVY B4E CSK US32D	630
3	Silencers	1229A-0 METAL FRAME	Grey

### **Hardware Set 12**

Door # 123A, 123B, 128A, 128B

Qty	Type	Description	Finish
3	Hinge A8111	FBB168 4.5 X 4.5, US26D	652
1	Closer C02011	8916 AF89 AL, FC SNTPK REG ARM LESS PA	689
1	Pull Plate	1017-3, 4" X 16", US32D	630
1	Wall Stop	1270 WV "CONCAVE TYPE" US32D	630
1	Push Plate	1001-11 8 X 16 .050" US32D	630
1	Kick Plate	KO050 - 10 X 34 HEAVY B4E CSK US32D	630
3	Silencers	1229A-0 METAL FRAME	Grey

**Hardware Set 13**

Door # 126

Qty	Type	Description	Finish
3	Hinge A5112	FBB191 4.5 X 4.5 NRP, US32D	630
1	Comb. Core	1CM COMBINATED 7-PIN CORMAX, US26D	626
1	Stor F07	45 H 7 D 14H US26D	626
1	Closer	8916 DS SNTPK SN ALUM 689	689
1	W/Strip	160-17' (1@36" X 2@84") ALUM	628
1	Sweep	200NA-36" (914.4 MM) ALUM SS SMS	628
1	T/Hold	513-36" ALUM	628
1	Drip Strip	16A-40" ALUM	628

**Hardware Set 14**

Door # 141B, 141C, 148

Qty	Type	Description	Finish
3	Hinge A5111	FBB199 4.5 X 4.5 NRP, US32D	630
1	Comb. Core	1CM COMBINATED 7-PIN CORMAX, US26D	626
1	FEMA UL Exit	FIRE, 84T45 G1 IHD HVL X 630	630
1	Closer	8916 DS SNTPK SN ALUM 689	689
1	W/Strip	160-17' (1@36" X 2@84") ALUM	628
1	Sweep	200NA-36" (914.4 MM) ALUM SS SMS	628
1	T/Hold	513-36" ALUM	628

**Hardware Set 15**

Door # A157

Qty	Type	Description	Finish
2	Cont Hinge, 83"	A110HDC 83" ALUM 628 FULL MORTISE	628
2	Comb. Core	1CM COMBINATED 7-PIN CORMAX, US26D	626
2	Rim Cyl Hsg	87 R 10 00 LESS CORE US26D	626
2	CV-Rod Exit	2808 4908D 3'-0" SIZE	630
2	Closer	8916 DS SNTPK SN ALUM 689	689
2	Drop Plate	DP 89 DROP PLATE, ALUM 689	689
2	HD Spacer	BSHD SPACER (USE WITH DS, SPA)	
1	T/Hold	513-72" ALUM	628
1	* by others *	PERIMETER SEAL BY OTHERS	
1	* by others *	ASTRAGAL BY OTHERS	
2	* by others *	SWEEP STRIP BY OTHERS	

**Hardware Set 16**

Door # A165B

Qty	Type	Description	Finish
3	Hinge A5111	FBB199 4.5 X 4.5 NRP, US32D	630
1	Comb. Core	1CM COMBINATED 7-PIN CORMAX, US26D	626
1	Rim Cyl Hsg	87 R 10 00 LESS CORE US26D	626
1	Rim Exit	2108 V4908D, 36", LC US32D	630
1	Closer	8916 DS SNTPK SN ALUM 689	689
1	Kick Plate	KO050 - 10 X 34 HEAVY B4E CSK US32D	630
1	W/Strip	160-17' (1@36" X 2@84") ALUM	628
1	Sweep	200NA-36" (914.4 MM) ALUM SS SMS	628
1	T/Hold	513-36" ALUM	628
1	Drip Strip	16A-40" ALUM	628

**Hardware Set 99**

Door #

Qty	Type	Description	Finish
2	Key	1AM CORMAX OPERATING CUT KEY	152
5	Key	1AM CORMAX MASTER KEY	152
5	Key	1AM CORMAX GRANDMASTER KEY	152
5	Control Key	1AM CORMAX CONTROL KEY	152
10	Comb. Core	1CM COMBINATED 7-PIN CORMAX, US26D	626
1	Key Cab 120 Ca	HPC - KEKAB-120, 120 CAP	
2	HID Cards	2-679-0021 HID PROX II 25 CARDS	

**Hardware Set Notes:**

2 EACH ITEM 2BB065 PER EACH KEYED CORE