



## Security Solutions

Stanley Security Solutions, Inc.  
 6161 E 75th St.  
 Indianapolis, IN 46250-2701  
 Phone: (317) 849-2250  
 Fax: (317) 806-3276

[www.stanleysecuritysolutions.com](http://www.stanleysecuritysolutions.com)

This MANU-SPEC® utilizes the Construction Specifications Institute (CSI) *Project Resource Manual* (PRM), including *MasterFormat*™, *SectionFormat*™ and *PageFormat*™. A MANU-SPEC is a manufacturer-specific proprietary product specification using the proprietary method of specifying applicable to project specifications and master guide specifications. Optional text is indicated by brackets [ ]; delete optional text in final copy of specification. Specifier Notes typically precede specification text; delete notes in final copy of specification. Trade/brand names with appropriate symbols typically are used in Specifier Notes; symbols are not used in specification text. Metric conversion, where used, is soft metric conversion.

This MANU-SPEC specifies door hardware products. These products are manufactured by Stanley Security Solutions, Inc. (Stanley, Best Access Systems, Precision). Revise MANU-SPEC section number and title below to suit project requirements, specification practices and section content. Refer to CSI *MasterFormat* for other section numbers and titles.

### SECTION 08 71 00 DOOR HARDWARE

#### PART 1 GENERAL

##### 1.01 SUMMARY

- A. Section Includes:
1. Butt hinges.
  2. Geared continuous hinges.
  3. Locksets and Latchsets [Mechanical] [Electromechanical].
    - a. Mortise type.
  4. Knob cylinder locksets.
  5. Lever cylinder locksets.
  6. Closers.
  7. Exit devices.

Specifier Note: Revise paragraph below to suit project requirements. Add section numbers and titles per CSI *MasterFormat* and specifier's practice.

- B. Related Sections:
1. Section [01 33 00 - Submittal Procedures] [\_\_\_\_\_].
  2. Section [01 45 00 - Quality Control] [\_\_\_\_\_].
  3. Section [01 78 00 - Closeout Submittals] [\_\_\_\_\_].
  4. Section [08 11 00 - Metal Doors and Frames] [\_\_\_\_\_].
  5. Section [08 11 16 Aluminum Doors and Frames] [\_\_\_\_\_].
  6. Section [08 14 16 - Flush Wood Doors] [\_\_\_\_\_].

Specifier Note: Article below may be omitted when specifying manufacturer's proprietary products and recommended installation. Retain Reference Article when specifying products and installation by an industry reference standard. If retained, list standard(s) referenced in this section. Indicate issuing authority name, acronym, standard designation and title. Establish policy for indicating edition date of standard referenced. Conditions of the Contract or Division 01 References Section may establish the edition date of

standards. This article does not require compliance with standard, but is merely a listing of references used. Article below should list only those industry standards referenced in this section. Retain only those reference standards to be used within the text of this Section. Add and delete as required for specific project.

## 1.02 REFERENCES

- A. American National Standards Institute/Builders Hardware Manufacturers Association (ANSI/BHMA):
  - 1. ANSI/BHMA A156.1 Butts & Hinges.
  - 2. ANSI/BHMA A156.2 Bored and Preassembled Locks and Latches.
  - 3. ANSI/BHMA A156.3 Exit Devices.
  - 4. ANSI/BHMA A156.4 Door Controls - Closers.
  - 5. ANSI/BHMA A156.13 Mortise Locks & Latches.
  - 6. ANSI/BHMA A156.18 Materials & Finishes.
  - 7. ANSI/BHMA A156.21 Thresholds.
  - 8. ANSI/BHMA A156.22 Door Gasketing Systems.
  - 9. ANSI/BHMA A156.26 Continuous Hinges.
- B. American National Standards Institute (ANSI):
  - 1. ANSI A117.1 Accessible and Usable Buildings and Facilities.
- C. Underwriters Laboratories, Inc. (UL):
  - 1. UL 10B Fire Tests of Door Assemblies.
  - 2. UL 10C Positive Pressure Fire Tests of Door Assemblies.
  - 3. UL 305 Panic Hardware.
  - 4. UL 1034 Burglary-Resistant Electric Locking Mechanisms.

Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this article with Architect's and Contractor's duties and responsibilities in Conditions of the Contract and Division 01 Submittal Procedures Section.

## 1.03 SUBMITTALS

- A. General: Submit listed submittals per Conditions of the Contract and Division 01 Submittal Procedures.
- B. Product Data: Submit manufacturer's complete product literature for specified hardware items, detailed installation diagrams and instructions, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.
- C. Samples:

Specifier Note: Describe specific types and quantities of samples required to determine style, finish or other characteristics.

- 1. Submit [One] [\_\_\_\_\_] sample[s] of each type of threshold or accessory.
  - 2. Identify each sample by label indicating applicable specification paragraph number, brand name and number, finish and hardware package number.
  - 3. After approval, samples will be returned for incorporation into work.
- D. Shop Drawings: Submit shop drawings detailing installation procedures, including layout, dimensions and placement of hardware.
- E. Quality Assurance:
  - 1. Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

2. Manufacturer's Instructions: Manufacturer's installation instructions.

Specifier Note: Coordinate paragraph below with Part 3 Field Quality Requirements Article. Retain or delete as applicable.

- F. Closeout Submittals: Submit the following:
  1. Warranty: Manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.
  2. Operation and Maintenance Data: Operation and maintenance data for installed products per Division 01 Closeout Submittals (Maintenance Data and Operation Data) Section. Include methods for maintaining installed products and precautions against cleaning materials and methods detrimental to finishes and performance.

#### 1.04 QUALITY ASSURANCE

- A. Qualifications: Installer experienced in performing work of this section who has specialized in installation of work similar to that required for this project.
- B. Hardware Supplier: Company specializing in the supply of door hardware, approved by manufacturer with [Specify years.] years documented experience and an Architectural Hardware Consultant (AHC) to properly handle, detail and service hardware in a satisfactory manner.

Specifier Note: Paragraph below should list obligations for compliance with specific code requirements particular to this section. General statements to comply with a particular code are typically addressed in Conditions of the Contract and Division 01 Regulatory Requirements Section. Repetitive statements should be avoided.

- C. Preinstallation Meetings: Conduct preinstallation meeting to verify project requirements, manufacturer's installation instructions and manufacturer's warranty requirements. Comply with Division 01 Project Management and Coordination (Project Meetings).

#### 1.05 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Division 01 Product Requirements.
- B. Ordering: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.
- C. Delivery, Storage and Protection:
  1. Deliver, store and handle per Section [01 61 00 - Common Product Requirements] [\_\_\_\_\_].
  2. Deliver, store and handle materials per manufacturer's written instructions.
  3. Deliver in original packaging with labels and identification intact.
  4. Ship hardware items in lots coordinated with openings, as numbered in door schedule.
  5. Inspect hardware items upon delivery to ensure that specified products have been received.
  6. Store hardware items in secure dry location, protected from weather until ready for installation.
- D. Waste Management and Disposal:

Specifier Note: ENVIRONMENT: The disposal of packaging waste into landfill site demonstrates an inefficient use of natural resources and consumes valuable landfill space.

1. Separate waste materials for [Reuse] [And] [Recycling] [\_\_\_\_\_] per Section [01 74 19 - Construction Waste Management and Disposal] [\_\_\_\_\_].
2. Remove from site and dispose of packaging materials at appropriate recycling facilities.
3. Collect and separate for disposal [Paper] [Plastic] [Polystyrene] [Corrugated cardboard] [\_\_\_\_\_] packaging material [In appropriate onsite bins] [\_\_\_\_\_] for recycling.

#### 1.06 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

Specifier Note: Coordinate article below with Conditions of the Contract and with Division 01 Closeout Submittals (Warranty).

#### 1.07 WARRANTY

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents. Manufacturer's standard warranty: One calendar year from date of delivery to Project.

#### 1.08 EXTRA MATERIALS

- A. Deliver to Owner extra materials from same production run as products installed. Package products with protective covering and identify with descriptive labels. Comply with Division 01 Closeout Submittals (Maintenance Materials) Section.

Specifier Note: Revise Paragraph below specifying size and percentage as required for project.

1. Quantity: Furnish quantity of full-size units equal to 5% of amount installed.
  - a. Provide [10] [ ] extra interchangeable cores for each [Master] keyed group.
2. Special Tools: Provide special wrenches and tools applicable to each different or special hardware component.
3. Maintenance Tools: Provide maintenance tools and accessories supplied by hardware component manufacturer.
4. Delivery, Storage and Protection: Comply with Owner's requirements for delivery, storage and protection of extra materials.

### PART 2 PRODUCTS

Specifier Note: Retain article below for proprietary method specification. Add product attributes, performance characteristics, material standards and descriptions as applicable. Use of such phrases as "or equal" or "or approved equal" or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining "or equal" products.

#### 2.01 DOOR HARDWARE

- A. Manufacturer: Stanley Security Solutions, Inc.
  1. Contact: 6161 E 75th St., Indianapolis, IN 46250-2701; Telephone: (317) 849-2250; Fax: (317) 806-3276; website: [www.stanleysecuritysolutions.com](http://www.stanleysecuritysolutions.com).
- B. Proprietary Products/Systems: Stanley Security Solutions door hardware.

#### 2.02 HINGES

- A. Butt Hinges: To ANSI/BHMA A156.1, [Two] [Three] [Five] [ ] knuckle, flush concealed bearings, non-handed, material [Steel] [Brass] [Stainless steel] [ ], finish to ANSI/BHMA A156.18, BHMA [ ], [ ].

Specifier Note: Only steel hinges can be used on fire-rated openings.

1. Cold headed, drawn stock steel pin.
  2. Template screw hole locations.
  3. Permanently lubricated non-detachable hardened chrome alloy vertical-thrust ball-bearings, 2 minimum.
  4. Easily seated, non-rising pins.
  5. Sufficient size to allow 180 degree swing of door.
- B. Geared Continuous Hinges: To ANSI A156.26 Grade 1, UL10B listed, non-handed, anti-spinning through fastener, pins [ ], [Fire pins for 3-hour fire ratings] [ ].

#### 2.03 LOCKSETS & LATCHSETS [MECHANICAL] [ELECTROMECHANICAL]

- A. Mortise Type:
  1. Locksets and Latchsets: To ANSI A156.13, [Series 1000, Operational Grade 1] [Security Grade 2] UL listed.
  2. Mortise lock to offer multi-function case with ability to be field configured to ANSI function[s] [ ] [ ].
  3. Heavy duty mortise type with 1-piece 3/4 inch (19.1 mm) throw latchbolt, made with self-lubricating stainless steel, self-aligning, through-bolted trim, ability to change handing without opening case.
  4. Deadbolt and latchbolt extension into lock case minimum of 3/8 inch (9.5 mm) when fully extended.

5. Handles: [Knob] [Lever] type, [Both sides] [\_\_\_\_\_].
  6. Locksets with 7-pin [\_\_\_\_\_], interchangeable core cylinders; with [Restricted] [Patented] [Mortise cylinders with concealed internal set screw accessible only by removing core from cylinder body].
  7. Locksets with tactile, abrasive or knurled notes or levers for identification of hazardous areas.
  8. Lever Handles: To ANSI A117.1, solid forged or cast construction.
  9. Spindle: Design when forced will twist first, then break, preventing forced entry.
  10. Knobs and Levers: Operate with roller bearing spindle hub mechanism.
  11. Permanent core face same finish as lockset finish.
  12. Cylinder Retaining Screw, Auxiliary Latch and Strike: [Non-handed] [\_\_\_\_\_].
  13. Locking toggle indication on door face to show mortise lock is locked or unlocked.
  14. Cover and armored front to interlock at latch, preventing cover from spreading or bowing.
  15. Acceptable Material: Best Series [35HW] [45H] [\_\_\_\_\_].
- B. Knob Cylinder Locksets:**
1. Locksets and Latchsets: To ANSI A156.2, Series 4000, Grade 1, UL listed, extra heavy-duty cylindrical type.
  2. Backset 2 3/4 inches (70 mm).
  3. Latchbolt throw 9/16 inch (14.3 mm).
  4. 7 Pin Interchangeable Core: [Restricted] [Patented] [\_\_\_\_\_] keyway.
    - a. Acceptable Material: Best Series [\_\_\_\_\_].
  5. Knobs: Brass or bronze material, minimum of 0.100 inches (2.5 mm) thick at thinnest point of knob wall.
  6. Locksets with tactile, abrasive or knurled notes or levers for identification of hazardous areas.
  7. Shank: Solid with no opening for access to keyed knob keeper.
  8. Keyed Knob:
    - a. Removable only after core is removed, by authorized control key, to allow access to knob keeper.
    - b. Protected by breakaway mechanism to prevent forced entry.
    - c. Capable of changing hand before and after installation by rotating knob face.
  9. Permanent Core Face: Same finish as lockset finish.
  10. Acceptable Material: Best Access Systems Series [8K], trim [\_\_\_\_\_].
- C. Lever Cylinder Locksets:**
1. Locksets and Latchsets: To ANSI A156.2, Series 4000, Grade 1, UL listed, extra heavy-duty cylindrical type.
  2. Backset 2 3/4 inches (70 mm).
  3. Interchangeable Core: [Restricted keyway] [Patented] [Standard] [\_\_\_\_\_].
  4. Locksets to have anti-rotational studs that are through-bolted.
  5. Keyed lever with no exposed keeper hole.
  6. Each lever to have independent spring mechanism designed to control lever only.
  7. Outside lever sleeve seamless, 1-piece construction, hardened steel alloy.
  8. Keyed Lever: Removable only after core is removed, by authorized control key, to allow access to knob keeper.
  9. Hub, side plate, anti-rotational studs 1-piece casting with shrouded locking lug.
  10. Permanent core face same finish as lockset finish.

Specifier Note: Use the following article for electromechanical lever locksets and latchsets.

11. Lock solenoid, door status sensor and Request-to-Exit sensor included within mortise case.
12. Acceptable Material: Best Access Systems Series [9K] [9KW], trim [\_\_\_\_\_].

2.04 DOOR CLOSERS

- A. Closers: To ANSI A156.4 Grade 1, non-handed, sizes 1 - 6, with adjustable latching, closing and backcheck using 3 separate non-critical V-slot hydraulic control valves.
  - 1. ANSI A156.4 PT4-C 50%.
  - 2. Conforms to ANSI A117.1.
  - 3. UL10C listed.
  - 4. Opening and closing cycle controlled hydraulically.
  - 5. Hydraulic fluid viscosity range of 0 - 100 degrees F (-18 - 38 degrees C).
  - 6. Extra-duty arms and knuckle with forged or cast main arm, forearms and mounting shoes.
  - 7. Full rack-and-pinion operation.
  - 8. Covers: High impact, self-extinguishing.
  - 9. Closer Body: R14 cast silicon aluminum.
  - 10. Piston diameter minimum of 1 1/2 inches (38 mm).
  - 11. Acceptable Material: Stanley door closer model number [\_\_\_\_\_].

2.05 EXIT DEVICES

- A. Exit Devices: To ANSI A156.3 Grade 1, stainless steel, with stainless steel deadlocking latchbolts and complete with:
  - 1. Touch-pad device with pad covering half of door width, minimum, with sound reduction dampening feature of touch-pad during depression and extension.
  - 2. Lock stile chassis of investment cast steel.
  - 3. UL 305 listed for panic hardware.
  - 4. UL 10C listed for fire (as specified).
  - 5. Adjustable, investment cast stainless steel strikes.
  - 6. 14 gauge (0.075 mm thick) device housing exposed surfaces, 16 gauge (0.060 mm thick) stainless steel.
  - 7. Outside Trim: Cast or forged brass/bronze, full escutcheon, through-bolted to chassis.
  - 8. Field convertible handing and function.
  - 9. Vandal resistant lever trim.
  - 10. Metal end caps secured to bracket interlocking with device's channel base and hinge side filler.
  - 11. Key removable mullions by device manufacturer.
  - 12. Device to provide 1/4 inch (6.4 mm) between door face and housing.
  - 13. Acceptable Material: Precision Exit Devices catalog number [\_\_\_\_\_].

Specifier Note: Use the following article to specify heavy duty high security exit devices. These devices can be specified with, or without, an internal alarm; wired directly to a building alarm system. No outside trim is available, and these devices are for egress only.

- B. Security Exit Devices: To ANSI A156.3 Grade 1, heavy duty high security exit devices with UL 305 listed for panic hardware, UL 10B listed for fire (as specified) and UL 1034 forced entry tested, complete with:
  - 1. Touch pad operated.
  - 2. 2 point locking, 1 bolt into hinge jamb/1 bolt into strike jamb with 2 inch (51 mm) engagement each side.
  - 3. Device to span entire door and frame, non-handed, factory preassembled, locking bar to show security visually with automatic re-locking.
  - 4. 1 1/4 inch (32 mm) square telescoping steel bolts with roller bearing tips.
  - 5. 3/8 inch (9.5 mm) grade 5 hardened through-bolt mounting with tamper resistant outside washers and internal support sleeve.
  - 6. [Alarmed] [Non-alarmed] components contained within device and activated by mortise cylinder.

7. Direct wiring to external alarm.
8. Alarm: [92db 9V] [\_\_\_\_\_].
9. Acceptable Material: Sargent and Greenleaf High Security Exit Devices model number [\_\_\_\_\_].

## 2.06 KEYS & KEYING

- A. Cylinders: 7-pin, interchangeable core and keyed into a [New] [Existing] factory registered Grand Masterkey System with a [Standard] [Restricted] [Patented] keyway.
  1. Acceptable Material: Cylinders as manufactured by Best Access Systems.
- B. Provide construction cores and keys during construction period. Construction control and operating keys and cores are not part of permanent keying system or furnished on same keyway (or key section) as permanent keying system.
- C. Permanent Keys and Cores: Prepare permanent cores and keys in accordance with keying schedule. [Stamp with applicable key mark for identification.] [Do not stamp.] [\_\_\_\_\_].
- D. Provide Grand Masterkeys, Masterkeys and other Security Keys.
- E. Furnish keys in the following quantities:
  1. [4] [\_\_\_\_\_] each Grand Masterkeys.
  2. [4] [\_\_\_\_\_] each Masterkeys per set.
  3. [2] [\_\_\_\_\_] each Change keys each keyed core.
  4. [6] [\_\_\_\_\_] each Construction masterkeys.
  5. [2] [\_\_\_\_\_] each Control keys.
  6. Install permanent cores in locksets.
- F. Return construction cores to [{Best} factory representative] [Hardware manufacturer's representative].

Specifier Note: Edit Paragraph below to suit project requirements. If substitutions are permitted, edit text below. Add text to refer to Division 01 Project Requirements (Product Substitution Procedures) Section.

## 2.07 PRODUCT SUBSTITUTIONS

- A. Substitutions: No substitutions permitted.

## PART 3 EXECUTION

### 3.01 MANUFACTURER'S INSTRUCTIONS

Specifier Note: Article below is an addition to the CSI *SectionFormat* and a supplement to MANU-SPEC. Revise article below to suit project requirements and specifier's practice.

- A. Compliance: Comply with manufacturer's written data, including product technical bulletins, product catalog installation instructions and product carton installation instructions.
- B. Furnish metal door and frame manufacturers with complete instructions and templates for preparation of their work to receive hinges.
  1. Furnish manufacturers' instructions for proper installation of each hinge component.

### 3.02 EXAMINATION

- A. Site Verification of Conditions: Verify that substrate conditions are acceptable for product installation per manufacturer's instructions.

### 3.03 INSTALLATION

Specifier Note: Note there are special hinge mounting height requirements for elementary schools and accessible doors.

Specifier Note: Check frame types for hinge mounting locations. Some frame manufacturers have predetermined mounting heights for hinges.

- A. Install hinges to standard hardware location dimensions per manufacturer's instructions.

- B. Use only manufacturer's supplied fasteners. Failure to comply may void manufacturer's warranties and applicable licensed labels. Use of "quick" type fasteners, unless specifically supplied by manufacturer, is unacceptable.

### 3.04 ADJUSTING

- A. Adjust door hardware for optimum, smooth operating condition.
  - 1. Lubricate hinges and other moving hardware where directed by manufacturer.
  - 2. Adjust door hinges to provide tight fit at contact points with frames.
- B. Adjust weatherstrip and seals to allow for unobstructed door operation.
- C. Adjust thresholds and accessories to allow for unobstructed door operation.
- D. Adjust door closers to manufacturer's instructions and as follows:
  - 1. Adjust closing time based on expected usage.
  - 2. Adjust latch speed so door completely closes and latches.
  - 3. Adjust backcheck accordingly to prevent excessive opening speed.
  - 4. Adjust delay action accordingly to obtain desired delay time.
  - 5. Use 5/32 inch (4 mm) hex wrench to adjust door closer for corresponding door size.
  - 6. Lubricate where directed by manufacturer.
- E. Adjust locking components for optimum, smooth operating condition.
  - 1. Lubricate where directed by manufacturer.
- F. Adjust installed pull plates and pushplates and protection items for proper function.

### 3.05 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch up, repair or replace damaged products before Substantial Completion.

### 3.06 FIELD QUALITY CONTROL

- A. Site Tests, Inspection: Inspect completed assembly for proper locknut screw-in depth, after installation and prior to final acceptance. Report component damage to [Supplier] [\_\_\_\_\_].

### 3.07 CLEANUP

- A. Proceed in accordance with Section [01 74 00 - Cleaning and Waste Management] [\_\_\_\_\_].
- B. Clean hinges with damp rag and approved nonabrasive cleaner, and polish hinges per manufacturer's instructions.
- C. Remove protective material from hinges where present.
- D. Upon completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.

**END OF SECTION**