

## **DIVISION 8 – DOORS AND WINDOWS**

### **SECTION 08111 - STEEL DOORS AND FRAMES**

#### **PART 1 - GENERAL**

##### 1.01 SUMMARY

- A. Provide steel doors and frames:
  - 1. Interior steel doors and frames.
  - 2. Exterior steel doors and frames.
  - 3. Remodeling existing steel doors and frames.

##### 1.02 SUBMITTALS

- A. Submit for approval samples, shop drawings, product data.

##### 1.03 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Standards: ANSI/SDI-100, Recommended Specifications for Standard Steel Doors and Frames.
- C. Performance Standards:
  - 1. Fire-Rated Assemblies: NFPA 80, and acceptable testing agency listing.
  - 2. Thermal-Rated Assemblies at Exterior: ASTM C 236 or ASTM C 976.
  - 3. Sound-Rated Assemblies at Mechanical Rooms: ASTM E 90, and ASTM E 413.

#### **PART 2 - PRODUCTS**

##### 2.01 MATERIALS

- A. Manufacturers: Amweld Building Products, Ceco Door Products, Curries Co., Mesker Door, Steelcraft or approved equal.
- B. Steel Doors:
  - 1. Door Type: Standard steel doors with hollow or composite construction.
  - 2. Interior Doors: ANSI/SDI-100, Grade II, heavy-duty, minimum 18 gage (.0358 inch) cold-rolled steel, 1-3/4 inches thick.
  - 3. Exterior Doors: ANSI/SDI-100, Grade III, extra-heavy-duty, minimum 16 gage (.0598 inch) galvanized sheet steel, 1-3/4 inches thick.
  - 4. Finish: Factory primed and field painted.
- C. Steel Frames:
  - 1. Interior Frames: Welded type, 16 gage (.0598 inch) sheet steel, mitered or coped corners.
  - 2. Exterior Frames: Welded type, 16 gage (.0598 inch) galvanized sheet steel, mitered or coped corners.
  - 3. Accessories: Door silencers.
  - 4. Finish: Factory primed and field painted.

### **PART 3 - EXECUTION**

#### 3.01 INSTALLATION

- A. Fabricate work to be rigid, neat and free from seams, defects, dents, warp, buckle, and exposed fasteners. Install doors and frames in compliance with SDI-100, NFPA 80, and requirements of authorities having jurisdiction.
- B. Provide thermally improved doors with maximum U-value of 0.24 BTU/hr./sq. ft. degree F (ASTM C 236) for all exterior doors and elsewhere as noted.
- C. Hardware: Prepare doors and frames to receive hardware on final schedule. Provide for 3 silencers on single door frames; 2 on double door frames. Coordinate fabrication with doors hardware supplier.

- D. Shop Finish: Clean, treat and prime paint all work with rust-inhibiting primer comparable with finish paint specified in Division 9 section. Provide asphalt emulsion sound deadening coating on concealed frame interiors.
- E. Touch-up damaged coatings and leave ready to receive finish painting.

\*\*\*\*\* END OF SECTION 08111 – STEEL DOORS  
AND FRAMES \*\*\*\*\*

## **SECTION 08360 - SECTIONAL OVERHEAD DOORS**

### **PART 1 - GENERAL**

#### 1.01 SUMMARY

- A. Provide sectional overhead doors:

- 1. Exterior units.

#### 1.02 SUBMITTALS

- A. Submit for approval shop drawings, product data.

#### 1.03 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

### **PART 2 - PRODUCTS**

#### 2.01 MATERIALS

- A. Manufacturers: AMARR, Atlas Roll-Lite Overhead Doors, Overhead Door Corp., Raynor Garage Door Co., Wayne/Dalton Corp. or approved equal.

B. Sectional Overhead Doors: (AMARR, Model 1380, Insulated Sectional Steel Door)

1. Frame and Panels: Galvanized steel frame and steel panels.
2. Panel Profile: Ribbed or fluted.
3. Track Type: Standard track, weathertight enclosures.
4. Weatherstripping: Vinyl.
5. Operation: Manual.
6. Steel Finish: Factory backed paint, finished, 10 year warranty.
7. Aluminum Finish: Conversion coating for site finish.

Core: EPS foam insulated core, 1-3/8" thick, R = 5.5 or greater.

Window Lites: 24" x 12", plexiglas, 2 per door.

Springs: Torsion springs, helical.

C. Auxiliary Materials:

1. Lifting handles and locking bars.

**PART 3 - EXECUTION**

3.01 INSTALLATION

- A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.
- B. Install assemblies complete with all hardware, anchors, inserts, supports and accessories. Restore damaged finishes and test for proper operation. Clean and protect work from damage.

\*\*\*\*\* END OF SECTION 08360 – SECTIONAL OVERHEAD DOORS \*\*\*\*\*

## **SECTION 08520 - ALUMINUM WINDOWS**

### **PART 1 - GENERAL**

#### 1.01 SUMMARY

- A. Provide aluminum windows:
  - 1. Individual units set in wall construction.

#### 1.02 SUBMITTALS

- A. Submit for approval samples, shop drawings, product data, mock-ups, warranty, test reports, maintenance data.

#### 1.03 QUALITY ASSURANCE

- A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- B. Testing: Window performance.
- C. Performance: Comply with AAMA 101 for grade of window required.

### **PART 2 - PRODUCTS**

#### 2.01 MATERIALS

- A. Manufacturers: Don Young Company, Series 8200 or approved equal. Size as shown on drawings.

B. Aluminum Windows: Type A

1. Window Operation: Single-hung.
2. Glazing: 3/4" Insulating glass.
3. Glazing Color: Clear glass.
4. Construction: Thermal-break type.
5. Aluminum Window Members: Aluminum extrusions.
6. Anchors, Clips, and Window Accessories: Aluminum, nonmagnetic stainless steel, or galvanized steel.
7. Aluminum Finish: Electrostatic finish.

C. Aluminum Windows: Type B

1. Window Operation: Fixed
2. Glazing: 1/4" plate glass.
3. Glazing Color: Clear glass.
4. Aluminum Window Members: Aluminum extrusions.
5. Anchors, Clips, and Window Accessories: Aluminum, nonmagnetic stainless steel, or galvanized steel.
6. Aluminum Finish: Electrostatic finish.

D. Auxiliary Materials:

1. Operating hardware.
2. Insect screening, half.

**PART 3 - EXECUTION**

3.01 INSTALLATION

- A. Fabricate windows to conform to AAMA standards and accept glass specified.
- B. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.

- C. Operation: Provide locking units with manual operation.
- D. Restore damaged finishes and test for proper operation. Clean and protect work from damage.

\*\*\*\*\* END OF SECTION 8520 – ALUMINUM  
WINDOWS \*\*\*\*\*

## **SECTION 08710 - DOOR HARDWARE**

### **PART 1 - GENERAL**

#### **SUMMARY**

This Section includes items known commercially as finish or door hardware that are required for all types of 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:

- Hinges.
- Lock cylinders and keys.
- Lock and latch sets.
- Closers.
- Miscellaneous door hardware.

Final replacement cores and keys to be installed by Owner.

#### **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.

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

Keying information.

Provide templates for doors, frames, and other work specified to be factory prepared for the installation of door hardware. Check shop drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.

### QUALITY ASSURANCE

Supplier Qualifications: A recognized architectural door hardware supplier, with warehousing facilities in the Project's vicinity, that has a record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project and that employs an experienced architectural hardware consultant (AHC) who is available to Owner, Architect, and Contractor, at reasonable times during the course of the Work, for consultation.

## **PART 2 - PRODUCTS**

### MANUFACTURERS

Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include the following:

Butts and Hinges:

Stanley Hardware, Div. Stanley Works - FBB179 4.5" x 4.5" NRP.

Cylinders and Locks:

Sargent Manufacturing Company. ( No others considered) - 8000 series.

Overhead Closers:

LCN, Div. Ingersoll-Rand Door Hardware Group - 4000 series.

Door Stripping and Seals:

Hager Hinge Co.  
National Guard Products, Inc.  
Pemko Manufacturing Co., Inc.  
Reese Enterprises, Inc.  
Sealeze Corp.  
Ultra Industries.  
Zero International, Inc.

### SCHEDULED HARDWARE

Requirements for design, grade, function, finish, size, and other distinctive qualities of each type of finish hardware are indicated in the "Door Schedule" on the drawings.

### LOCK CYLINDERS AND KEYING

Existing System: Grandmasterkey the locks to the Owner's existing system. Furnish final cores and keys for installation by Owner. Comply with Owner's instructions for all keying.

Key Quantity: Furnish 3 change keys for each lock, 5 master keys for each master system.

Deliver keys to Owner (OSU Keyshop) - Kathy McGuire (405) 744-7160.

### CLOSERS AND DOOR CONTROL DEVICES

Access-Free Manual Closers: Where manual closers are indicated for doors required to be accessible to the physically handicapped, provide adjustable units complying with ANSI A117.1 provisions for door opening force and delayed action closing.

### HARDWARE FINISHES

The designations used in schedules and elsewhere to indicate hardware finishes are the industry-recognized standard commercial finishes, except as otherwise noted.

## **PART 3 - EXECUTION**

### INSTALLATION

Mount hardware units at heights indicated in following applicable publications, except as specifically indicated or required to comply with governing regulations and except as otherwise directed by Architect.

"Recommended Locations for Builders Hardware for Standard Steel Doors and Frames" by the Door and Hardware Institute.

NWWDA Industry Standard I.S.1.7, "Hardware Locations for Wood Flush Doors."

Install each hardware item in compliance with the 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, coordinate removal, storage, and reinstallation or application of surface protection with finishing work specified in the Division 9 Sections. Do not install surface-mounted items until finishes have been completed on the substrates involved.

ADJUSTING, CLEANING, AND DEMONSTRATING

Adjust and check each operating item of hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate freely and smoothly or as intended for the application made.

HARDWARE SCHEDULE

General: Provide hardware for each door to comply with Door Schedule shown on drawings.

\*\*\*\*\* END OF SECTION 08710 – DOOR HARDWARE  
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\*\*\*\*\* END OF DIVISION 8 – DOORS AND  
WINDOWS \*\*\*\*\*