

## SECTION 08 3600 SECTIONAL OVERHEAD DOORS

### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

- A. Insulated Sectional Overhead Doors.
- B. Electric Operators and Controls.
- C. Operating Hardware, tracks, and support.

#### 1.2 RELATED SECTIONS

- A. Section 03300 - Cast-In-Place Concrete: Prepared opening in concrete. Execution requirements for placement of anchors in concrete wall construction.
- B. Section 04810 - Unit Masonry Assemblies: Prepared opening in masonry. Execution requirements for placement of anchors in masonry wall construction.
- C. Section 05500 - Metal Fabrications: Steel frame and supports.
- D. Section 06114 - Wood Blocking and Curbing: Rough wood framing and blocking for door opening.
- E. Section 07900 - Joint Sealers: Perimeter sealant and backup materials.
- F. Section 08710 - Door Hardware: Cylinder locks.
- G. Section 09900 - Paints and Coatings: Field painting.
- H. Section 11150 - Parking Control Equipment: Remote door control.
- I. Section 16130 - Raceway and Boxes: Empty conduit from control station to door operator.
- J. Section 16150 - Wiring Connections: Electrical service to door operator.

#### 1.3 REFERENCES

- A. ANSI/DASMA 102 - American National Standard Specifications for Sectional Overhead Type Doors.

#### 1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Wind Loads: Design and size components to withstand loads caused by pressure and suction of wind acting normal to plane of wall as calculated in accordance with applicable codes.
- B. Wiring Connections: Requirements for electrical characteristics.
  - 1. 115 volts, single phase, 60 Hz.
- C. Single-Source Responsibility: Provide doors, tracks, motors, and accessories from one manufacturer for each type of door. Provide secondary components from source acceptable to manufacturer of primary components.

#### 1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.

- 3. Installation methods.
  - C. Shop Drawings: Indicate plans and elevations including opening dimensions and required tolerances, connection details, anchorage spacing, hardware locations, and installation details.
  - D. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
  - E. Operation and Maintenance Data.
- 1.6 QUALITY ASSURANCE
- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum five years documented experience.
  - B. Installer Qualifications: Authorized representative of the manufacturer with minimum five years documented experience.
  - C. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories, Inc. acceptable to authority having jurisdiction as suitable for purpose specified.
- 1.7 DELIVERY, STORAGE, AND HANDLING
- A. Store products in manufacturer's unopened labeled packaging until ready for installation.
  - B. Protect materials from exposure to moisture until ready for installation.
  - C. Store materials in a dry, ventilated weather tight location.
- 1.8 PROJECT CONDITIONS
- A. Pre-Installation Conference: Convene a pre-installation conference just prior to commencement of field operations, to establish procedures to maintain optimum working conditions and to coordinate this work with related and adjacent work.
- 1.9 WARRANTY
- A. Warranty: Manufacturer's limited door and operators System warranty for 10 year against delamination of polyurethane foam from steel face and all other components for 3 years or 20,000 cycles, whichever comes first.
  - B. Warranty: Manufacturer's limited door and operators System warranty for 8 year against delamination of polyurethane foam from steel face and all other components for 3 years or 20,000 cycles, whichever comes first.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Overhead Door Corporation, which is located at: 2501 S. State Highway 121 Bus. Suite 200 ; Lewisville, TX 75067; Toll Free Tel: 800-929-3667; Tel: 469-549-7100; Fax: 972-906-1499; Email: [request info \(arc@overheaddoor.com\)](mailto:request_info(arc@overheaddoor.com)); Web: [www.overheaddoor.com](http://www.overheaddoor.com)
- B. Substitutions: As stipulated in these specifications
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

### 2.2 INSULATED SECTIONAL OVERHEAD DOORS

- A. Insulated Steel Sectional Overhead Doors: Thermacore AP Model 850 Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
1. Door Assembly: Metal/foam/metal sandwich panel construction, with 1-3/4 inch wide PVC thermal break and patents pending weather-tight Dual Barrier tongue-in-groove meeting joints.
    - a. Panel Thickness: 3 inches (76.2 mm).
    - b. Exterior Surface: Microgroove, textured.
    - c. Exterior Steel: .015 inch (.38 mm), hot-dipped galvanized.
    - d. End Stiles: 16 gauge single end stiles provided on doors up to and including 16 feet 2 inches wide; 16 gauge double end stiles provided on doors greater than 16 feet 2 inches wide up to and including 26 feet 2 inches.
    - e. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of diecast aluminum with high strength galvanized aircraft cable. Sized with a minimum 7 to 1 safety factor.
      - 1) Standard cycle spring: 10,000 cycles.
    - f. Insulation: CFC-free and HCFC-free polyurethane, fully encapsulated.
    - g. Thermal Values: Calculated R-value of 26; U-value of 0.038.
    - h. Installed U-factor: 0.14 Btu/hr/SF degrees F.
    - i. Air Infiltration: .09 cfm at 15 mph.
    - j. Sound Transmission Rating: STC 22
    - k. High-Usage Package: Provide with optional high-usage package.
    - l. Partial Glazing of Steel Panels:
      - 1) Color matched frame: white,
        - a) 1/2 inch (12.7 mm) Tempered Insulated
  2. Finish and Color:
    - a. Two coat baked-on polyester:
      - 1) Interior color, white.
      - 2) Exterior color, almond
  3. Wind load Design: Provide to meet the Design/Performance requirements specified.
  4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
  5. Lock:
    - a. Keyed lock with interlock switch for automatic operator.
  6. Weatherstripping:
    - a. PVC retainer with dual durometer PVC bulb seal.
  7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.
    - a. Type:
      - 1) Standard lift at parking garage
      - 2) High lift at dock
  8. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
    - a. Entrapment Protection: Required for momentary contact, includes radio control operation.
      - 1) Electric sensing edge monitored to meet UL 325/2010.
      - 2) Photoelectric sensors monitored to meet UL 325/2010.

- b. Operator Controls:
  - 1) Push-button operated control stations with open, close, and stop buttons at dock.
  - 2) Exterior location.
- c. Special Operation:
  - 1) Card reader control at parking garage door.
  - 2) Explosion and dust ignition proof control wiring.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Do not begin installation until openings have been properly prepared.
- B. Verify wall openings are ready to receive work and opening dimensions and tolerances are within specified limits.
- C. Verify electric power is available and of correct characteristics.
- D. If preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### 3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

### 3.3 INSTALLATION

- A. Install overhead doors and track in accordance with approved shop drawings and the manufacturer's printed instructions.
- B. Coordinate installation with adjacent work to ensure proper clearances and allow for maintenance.
- C. Anchor assembly to wall construction and building framing without distortion or stress.
- D. Securely brace door tracks suspended from structure. Secure tracks to structural members only.
- E. Fit and align door assembly including hardware.
- F. Coordinate installation of electrical service. Complete power and control wiring from disconnect to unit components.

### 3.4 CLEANING AND ADJUSTING

- A. Adjust door assembly to smooth operation and in full contact with weatherstripping.
- B. Clean doors, frames and glass.
- C. Remove temporary labels and visible markings.

### 3.5 PROTECTION

- A. Do not permit construction traffic through overhead door openings after adjustment and cleaning.
- B. Protect installed products until completion of project.
- C. Touch-up, damaged coatings and finishes and repair minor damage before Substantial Completion.

END OF SECTION