CLOPAY MODEL 950 INSULATED POLYCARBONATE DOOR

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. All of the Contract Documents, including General and Supplementary Conditions, and Division 1 General Requirements, apply to the work of this Section.

1.02 SUMMARY

A. The work of this Section includes upward-acting sectional doors.

B. Related Sections: Other specification sections which directly relate to the work of this Section include,but are not limited to, the following:

1. Section 05500 - Miscellaneous Metal; metal framing and supports.
2. Section 08710 - Finish Hardware; key cylinders for locks.
3. Section 09900 - Painting; field painting.
4. Section 16100 - Electrical; wiring.

1.03 SUBMITTALS

A. Product Data: Submit manufacturers product data and installation instructions for each type of sectional door. Include both published data and any specific data prepared for this project.

B. Shop Drawings: Submit shop drawing for approval prior to fabrication. Include detailed plans, elevations, details of framing members, required clearances, anchors, and accessories. Include relationship with adjacent materials.

1.04. QUALITY ASSURANCE

A. Manufacturer: Sectional doors shall be manufactured by a firm with a minimum of five experience in the fabrication and installation of sectional doors. Manufacturers proposed for use, which are not named in these specifications, shall submit evidence of ability to meet performance and fabrication requirements specified, and include a list of five projects of similar design and complexity completed within the past five years.

B. Installer: Installation of sectional doors shall be performed by the authorized representative of the manufacturer.

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.

D. Pre-Installation Conference: Schedule and 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.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials and products in labeled protective packages. Store and handle in strict compliance with manufacturers instructions and recommendations. Protect from damage from weather, excessive temperatures and construction operations.

PART 2- PRODUCTS

2.1 MANUFACTURER

A. Clopay Building Products Company, Clopay Model 950

2.2 ALUMINUM SECTIONS

A. Construct door sections from 6063-T3 .070” thick aluminum alloy extrusions bolted together. Locations designated for bolt and hinge attachment reinforced to .115” min. wall thickness. Sections to be 2 ” thick clear anodized Aluminum with integral reinforcing fin. All extrusions incorporate a thermal break for minimum thermal

conductivity. All top, bottom, intermediate and end rails designed to prevent water penetration and infiltration. Interlocking meeting rails designed with a continuous hinges to inhibit water infiltration and freezing between joints. Center stiles spaced no more than 48" on center for added structural support. Solid panels to be .050" thick clear anodized aluminum, Glass panels to be 5/8" thick, triple wall, insulated, continuous sheet, translucent polycarbonate incased in a neoprene seal. Astragal to be "U" shaped low temperature PVC vinyl.
Provide manufacturer's standard aluminum angle as required for section reinforcement.

2.3 TRACK

A. Provide 3" powder coated galvanized steel track with steel mounting angles reversed for 1" lap used for installing tracks on steel jambs. Vertical track shall be inclined through the use of adjustable brackets assuring weathertight closure at jambs. Horizontal track shall be reinforced with factory-applied galvanized angles as required.

2.4 COUNTERBALANCE

A. Provide galvanized , helical-wound, torsion springs mounted on a crossheader shaft. Springs shall be engineered for industrial application (10,000 cycle minimum) and shall comply with durability properties specified under DASMA 102. Galvanized aircraft-type lift cables shall have a minimum safety factor of 7 to 1.

2.6 GLAZING

A. Provide glass quantity as directed.

2.7 WEATHERSEAL

A. Head, and jambs shall have continuous flexible vinyl weatherseal. Bottom door section to have full-length .050" aluminum retainer with U-shaped flexible PVC vinyl astragal.

2.8 HARDWARE

A. Roller brackets and hinges shall powder coated gray 14 gauge, heavy-duty, commercial grade galvanized steel. Lock shall be end stile friction type for inside security locking.
B. Rollers shall be 3" diameter Nystroll rollers,
C. Track shall be 13ga. 3" track powder coated gray tapered to provide wedge type closure against door opening.

2.9 FINISH

A. Panels shall be fabricated from .050 clear anodized aluminum.

2.10 ELECTRIC DOOR OPERATORS

A. General: Provide Electric door operator assembly of size and capacity recommended and provided by door manufacturer for door and operational life specified complete with electric motor and factory pre-wired motor controls, starter, gear-reduction unit, solenoid-operated brake, clutch, remote-control stations, control devices, integral gearing for locking door, and accessories required for proper operation. Comply with NFPA 70.

B. Disconnect Device: Provide hand-operated disconnect or mechanism for automatically engaging sprocket-chain operator and releasing brake for emergency manual operation while disconnecting motor, without affecting timing of limit switch. Mount disconnect and operator so they are accessible from floor level. Include interlock device to automatically prevent motor from operating when emergency operator is engaged.

C. Design operator so motor may be removed without disturbing limit switch adjustment and without affecting emergency auxiliary operator.

D. Provide control equipment complying with NEMA ICS1, NEMA ICS 2, and NEMA ICS 6, with NFPA 70 Class 2 control circuit, maximum 24-V, AC or DC.

E. Electric Motors: Provide high-starting torque, reversible, continuous-duty, Class A insulated, electric motor, complying with NEMA MG 1, with overload protection, sized to start, accelerate, and operate door in either direction, from any position, at not less than 2/3 fps (0.2 m/s) and not more than 1 fps (.03m/s), without exceeding nameplate ratings or considering service factor.

    1. Type: Polyphase, medium induction type; ¾ hp.

    2. Service factor: According to NEMA MG 1, unless otherwise indicated.

    3. Coordinate wiring requirements and electrical characteristics of motors with building electrical system.

    4. Provide totally enclosed, nonventilated or fan-cooled motors, fitted with plugged drain, controller with NEMA ICS 6, Type 4 enclosure at TMG Truck Wash.

F. Remote Control Station: Provide momentary contract, 3-button control station with push –button controls labeled “Open”, “Close” and “Stop”.

    1. Provide interior units, fully guarded, surface mounted, heavy-duty type, with general-purpose NEMA ICS 6, Type 1 enclosure.

G. Obstruction Detection Device: Provide each motorized door with indicated external automatic safety sensor able to protect full width of door opening. Activation of sensor immediately stops and reverses downward door travel.

    1. Sensor Edge: Provide each motorized door with an automatic safety sensing edge, located within astragal or weather stripping mounted to bottom bar. Contact with sensor immediately stops and reverses downward door travel.

Connect to control circuit using manufacturer's standard take-up reel or self-coiling cord.

H. Limit Switches: Provide adjustable switches, interlocked with motor controls and set to automatically stop door at fully opened and fully closed positions.

PART 3 –EXECUTION

3.1 EXAMINATION

A. Examine wall and overhead areas, including opening framing and blocking, with installer present, for compliance with requirements for installation tolerances, clearances, and other conditions affecting performance of Work in this Section.

1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Install door, track, and operating equipment complete with necessary hardware, jamb and head mold strips, anchors, inserts, hangers, and equipment supports according to Shop Drawings, manufacturer's written instructions, and as specified.

B. Fasten vertical track assembly to framing at not less than 24 inches (60 cm) o.c. Hang horizontal track from structural overhead framing with angle or channel hangers welded and bolt fastened in place. Provide sway bracing, diagonal bracing, and reinforcement as required for rigid installation of track and door-operating equipment.

3.3 ADJUSTING

A. Lubricate bearings and sliding parts; adjust doors to operate easily, free from warp, twist, or distortion and fitting weathertight for entire perimeter.

3.4 DEMONSTRATION

A. Startup Services: Engage a factory authorized service representative to perform start-up services and to train Owner's Maintenance personnel as specified below.

1. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

2. Train Owner's maintenance personnel on procedures and schedules related to start-up and shutdown, troubleshooting, servicing, and preventative maintenance.

3. Schedule training with Owner with at least seven-(7) days advance notice.

END OF SECTION