

SECTION 08462

AUTOMATIC SLIDING DOORS

PART GENERAL

SECTION INCLUDES

Aluminum sliding doors and frames.

All-glass sliding doors and frames.

Automatic door operators, actuators, and safeties.

Sidelights and transoms.

RELATED SECTIONS

Section 03300 - Cast-in-Place Concrete: Recess in concrete slab for track at sidelight areas.

Section \_\_\_\_\_ - \_\_\_\_\_: Aluminum doors and frames.

Section 08211 - Flush Wood Doors.

Division 16 - Electrical: 115 VAC, single-phase wiring in conduit between operator enclosure and building power supply and low voltage wiring between enclosure and actuators and safeties.

Division 16 - Electrical: 115 VAC, single-phase wiring in conduit between operator enclosure and remote switch station.

REFERENCES

ANSI/BHMA A156.10 - American National Standard for Power-Operated Pedestrian Doors.

UL 325 - Standard for Door, Drapery, Gate, Louver, and Window Operators and Systems.

SUBMITTALS

Submit under provisions of Section 01300.

Product Data: Manufacturer's catalog data, detail sheets, and specifications.

Shop Drawings: Prepared specifically for this project; show dimensions of doors, operators, and interface with other products.

Operating and Maintenance Data: Operating and maintenance instructions, parts lists, and wiring diagrams.

#### QUALITY ASSURANCE

Installer Qualifications: Factory-trained, with minimum 3 years experience.

#### WARRANTY

Provide manufacturer's warranty for roller track for five years from date of completion.

#### PART PRODUCTS

##### MANUFACTURERS

Acceptable manufacturer: Provide products made by Dor-O-Matic, 7350 West Wilson Avenue, Harwood Heights, IL 60656-4786. ASD. Tel: (708) 867-7400 or (800) 543-4635. Fax: (708) 867-0291.

Requests for substitutions will be considered in accordance with provisions of Section 01600.

Substitutions: Not permitted.

Provide all door operators from a single manufacturer.

#### DOORS AND FRAMES

Automatic Sliding Doors: Heavy duty anodized extruded aluminum header and jambs, with interlocked sections and thru-rod bolted connections; complete with doors, sidelights, transom, and all hardware and accessories; complying with ANSI/BHMA A156.10 and UL 325.

Type: Bi-parting, two sliding leaves.

Type: Single sliding, one sliding leaf.

Type: Bi-parting and telescoping, six sliding leaves.

Type: Single sliding and telescoping, three sliding leaves.

Doors sliding on outside of fixed sidelights.  
Doors sliding on inside of breakaway sidelights.  
Non-breakaway doors sliding on inside of fixed sidelights.  
Actuators: Motion detector, both sides.  
Actuators: Push plate, one side; motion detector, other side.  
Actuators: Mat-type, both sides.  
Actuators: \_\_\_\_\_.  
Safety: Overhead-mounted infrared presence detector and safety beams in door opening.  
Finish: Dark bronze anodized.  
Finish: Natural aluminum anodized.  
Finish: Black anodized.  
Finish: Kynar 500(tm) coating; color: \_\_\_\_\_.  
Finish: Clad, \_\_\_\_\_.  
No exposed fasteners.

Header: Completely enclosing track, operator, and belt drive, with anti-riser stops.

Track: 1/2 inch (13 mm) wide stainless steel-capped roller track.

Header Dimensions: 6-3/4 inches (171 mm) high by 4 inches (102 mm) wide; full width of rough opening.

Header Dimensions: 9 inches (229 mm) high by 6 inches (152 mm) wide; full width of rough opening.

Provide access door on bottom of enclosure for access to controls and removable components without removal of door or operator.

Doors: Sliding panels with emergency swing out operation (breakaway) to 90 degrees at any position in opening cycle.

Door Panels: Glazed extruded anodized aluminum, with thru-bolted connections, matching header and jams.

Glass: 1/4 inch (6 mm) clear tempered glass.

Glass: 1 inch (25 mm) thick sealed insulating units, clear, tempered.

Rail Height: 5 inches (127 mm); top rails 3-1/2 inches (89 mm).

Meeting stile weatherstripping: Dual nylon pile.

Overlapping stiles of doors and sidelights:

Single nylon pile weatherstripping.

Door Panels: 1/2 inch (13 mm) thick fully tempered glass.

Clear glass.

Gray tinted glass.

Bronze tinted glass.

Top and bottom rail: Extruded aluminum, matching header.

Meeting stile weatherstripping: None.

Overlapping stiles of doors and sidelights:  
Clear Lexan seals.

Door Suspension: 1-3/4 inch (44 mm) diameter nylon rollers, mounted over centerline of door, with steel corner support at hinge stile pivot to prevent sag.

Locking: Manual lock with interior thumbturn release.

Latching of Breakaway Panels: Magnetic latches.

Latching of Breakaway Panels: Ball detent catches.

Breakaway Closer: Provide mechanical spring closer to return swing out panel to normal sliding position.

Breakaway Closer: Provide hydraulic closer to return swing out panel to normal sliding position.

Limit Arm: Provide limit arm to prevent swinging to more than 90 degrees.

Weatherstripping:

Bottom: Adjustable nylon sweeps.

Carrier and header contact surfaces: Single weatherstripping.

Security Limited Access Hardware: Exit device mounted on breakaway panel, electric locking system, and controls.

Exit Device: Concealed vertical rod type, mid-panel with muntin in door, or push pad; requiring not more than 8 pounds (35 N) pressure to open; 3/8 inch (9.5 mm) bar travel.

Electric Lock: 5/8 inch (16 mm) steel bolt in header engaging sliding panel carrier; solenoid operated.

Two Position Switch: Switch between day and night control options.

Day Operation: Normal operation using actuators.

Night Operation:

Outside: Actuators deactivated; electric lock prevents forcible entry by positively locking sliding panels.

Outside: In addition to the above, secure actuator \_\_\_\_\_ operates doors as in day operation; doors reclose and relock.

Inside - at door: Normal actuators deactivated; exit device operates breakaway, complying with NFPA 101 and local codes; swinging panels close and relock after exit.

Inside - remote operation: In addition to above, remote station open/close switch operates electric lock and door; doors reclose and relock.

In case of power failure, doors remain locked.  
In case of power failure, doors are unlocked.

Sidelights: Same construction as doors.

Doors Sliding on Outside of Sidelight: Provide fixed sidelights; provide doors with side guides using roller bearing pivot assemblies, within sidelight area only.

Doors Sliding on Inside of Sidelight: Make sidelights swing out to allow breakaway, with limit arm same as for door; provide floor guides for doors within sidelight area only; provide security latches to positively latch sliding door to sidelite when door is in closed position.

Doors Not Requiring Breakaway: Provide doors with side guides using roller bearing pivot assemblies, within sidelight area only.

Locking function: When doors are closed and locked, sidelights will not swing out.

Glass: Same as for doors.

Glass: 1/4 inch (6 mm) clear tempered glass.

Glass: 5/8 inch (16 mm) thick sealed insulating units, clear, tempered.

Glass: 1 inch (25 mm) thick sealed insulating units, clear, tempered.

Door Operators: Completely electro-mechanical, DC motor powered, with positive pulley and cog belt drive in both opening and closing cycles; comply with ANSI A156.10.

Provide microprocessor control; do not use rotary cam mechanisms or door position switches in header.

Adjustable opening and closing speed.

Hold-open time adjustable from 1 to 30 seconds.

Adjustable safety reverse: If object is encountered during closing cycle, re-open door; if object is encountered during opening cycle (in sidelight area), stop door and slowly reclose.

Provide positive backcheck and latching by pre-set forces that drive the door fully open and closed.

"On-Off-Hold Open" switch: Three-position toggle or rocker type.

Energy Conservation Switch: Manual switch that reduces door opening width.

Service conditions: Satisfactory operation between minus 30 degrees F (minus 34 degrees C) and 160 degrees F (71 degrees C).

Power supply required: 115 VAC.

## ACTUATORS

Motion Detectors: Dor-O-Matic "Astro-Scan".

Provide directional movement detection; allow door to close sooner when motion is away from door.

Operation: Detect movement within adjustable zone near door and activate operator; deactivate operator upon no movement.

Operation: Detect approaching movement within adjustable zone near door and activate operator; deactivate operator upon no movement or departing movement.

Adjustable sensitivity and time delay.

Housing: Black Lexan.

Lens: Red Lexan, sealed to provide weather- and dust-proofing.

Mounting: Flush against header/wall.

Operating unit: Gimbal-mounted oscillator allowing pattern adjustment.

Electronics: Removable printed circuit board with gold-plated contacts; unaffected by radio frequency interference, normal police, fire, and ambulance frequencies, and other two-way radio frequencies; designed to eliminate line noise and surge current.

Service conditions: Satisfactory operation between minus 30 degrees F (minus 34 degrees C) and 160 degrees F (71 degrees C); unaffected by humidity or moisture.

Push Plate Actuator: Formed metal plate with rounded corners, satin finish; approximately 5 inches (127 mm) square; with depressed marking.

Material: Stainless steel.

Material: Brass.

Material: \_\_\_\_\_.

Marking: "Push to operate door", filled red.

Marking: Handicapped symbol, filled blue.

Mat-Type Actuator/Safety: Manufacturer's standard rubber mat type.

Frame for recessed mounting in floor slab.

Frame for surface mounting, with transition strips.

Color: As selected from manufacturer's standard selection.

Color: \_\_\_\_\_.

Overhead-Mounted Infrared Presence Detector and Safety Beams: Dor-O-Matic "Look-See" system with 2 safety

beams, interconnected with actuators.

Housing: Mounted in door frame (header).

Detection (safety) zone: Elliptical shaped, full width of door opening by 30 inches (760 mm) deep, centered on door opening.

Controls: Microprocessor.

Detector or Safety Beam Inoperative: Prevent open door from closing.

Object detected in safety zone during door closing: Re-open door.

Object detected in safety zone, door open: Continue to hold door open.

Signs: Provide signs complying with ANSI A156.10 and applicable codes; white letters on red background.

Outside: "AUTOMATIC SLIDING DOOR."

Inside (push side for breakaway): "IN EMERGENCY PUSH TO OPEN."

## PART EXECUTION

### EXAMINATION

Verify that door openings and doors are properly installed and ready for installation of automatic door equipment.

Verify that electrical service is available, properly located, and of proper type.

### INSTALLATION

Install in accordance with manufacturer's instructions; comply with ANSI A156.10.

Grout recess around track.

Install mat-type actuators in recesses in floor, level, and grout securely.

Verify that electrical connections are made correctly.

### ADJUST AND CLEAN

Adjust doors and operators for proper operation, without binding or scraping and without excessive noise.

END OF SECTION