

SECTION 08450 - ALUMINUM STOREFRONTS & AUTOMATIC ENTRANCES

PART I - GENERAL

1.01 DESCRIPTION

A. Aluminum storefronts and automatic entrances include the following:

1. Storefront framing systems.
2. Automatic sliding entrance doors.
3. Interior storefront systems.

B. Electrical connections are specified in Division 16.

1.02 SYSTEM PERFORMANCE

A. General: Provide automatic entrance and storefront assemblies that have been designed and fabricated to comply with performance characteristics listed below.

1. Wind loading: System shall withstand uniform pressure of 30 PSF (1440 Pa) with maximum deflection of 1/175 of span and allowable stress with a safety factor of 1.65.

Entrance Operator: Provide operators which will open and close doors and maintain them in fully closed position when subjected to the 30 MPH wind velocity or equivalent inward differential pressures.

2. Air infiltration: Tested in accordance with ASTM E-283 shall not exceed .06 CFM/SQ. FT. of fixed area.
3. Water infiltration: Tested in accordance with ASTM E-331 shall allow no penetration at 8 PSF pressure.
4. Thermal: All framing members shall incorporate a thermal barrier eliminating direct contact between exterior and interior aluminum sections.

1.03 QUALITY ASSURANCE

A. Each type of system is based on one manufacturers system respectively. Acceptable alternate manufacturers are listed but must conform in every way to the base system.

1. Any deviation from Walgreens required finishes, colors, etc., must be approved by Walgreens and fully coordinated with all similar and related systems.

B. Powered door operators shall comply with UL 325.

C. Automatic entrances shall be UL listed as an exitway and comply with A.D.A. requirements.

1.04 SUBMITTALS

A. Submit shop drawings for each type of system.

PART II - PRODUCTS

2.01 ACCEPTABLE STOREFRONT MANUFACTURER

- A. Storefront Systems (base system): Kawneer Company #Trifab VG 451 -T-CG, thermally broken, center glazed, flush glazed system 2" x 4-1/2" profile with shear block, to receive 1" insulating glass. Store front in glass tower shall receive 1/4 thick glass.

Color: Clear Anodized, AA-M12C22 A41, Class I Anodic coating.

- B. Alternate Storefront Manufacturers:

1. United States Aluminum Corp. #IT 451, thermally broken.
2. Vistawall Architectural Products, Series 3000, Thermal Flush Glaze.

- C. Glass tower (only) shall receive 1/4" thick glass set in 1 3/4" x 4 1/2" profile, center glazed, flush glazed system, shear block construction.

1. Kawneer Trifab II 450
2. United States Aluminum Corp Series 450
3. Vistawall Architectural Products Series 2000

Color: Clear anodized AA-M12C22 A41 Class 1 Anodic coating.

2.02 ACCEPTABLE AUTOMATIC ENTRANCE MANUFACTURER (National Accounts)

- A. Automatic Entrance System (base system): Horton Automatic #2-2110WD/T single slide door or Stanley Access Technologies, model #313865. See Article 2.02.B regarding the National Account Program. The slide-swing panel, installed to the exterior of the fixed sidelight, shall swing out 90 degrees from any position of slide movement and include a concealed spring closer to reclose door if pushed open. System components include:

1. Aluminum doors with fixed sidelights, fixed center light and transom. Provide 1/4" thick glass at sliding panels, 1" insulating glass at all other panels, safety glazed as required by code.
2. Structural aluminum section to be 6063 -T alloy, minimum 0.125 " thick.
3. Continuous header concealing ball bearing wheels, support track operator and closers.
4. Bi-directional scan motion/presence detectors for one-way or two-way traffic (as required) and safety devices in door openings to detect objects present during closing cycle and recycle doors. Adjust for two-way traffic at liquor store locations.
5. Concealed spring door closers, ON-OFF hold open switches, keyed entry switch (at entry door only), rim cylinder locks with exterior cylinder guards and thumb-turn on interior side.
6. Aluminum thresholds and weatherstripping at j amb, head and sill.
7. Break-away door stops, flush (integrally glazed) muntin bars flush cart bars in sidelights, doors and center light, glass stops and recessed pull handle at entry door muntin bar.
8. Stainless steel tubular guide rails (with one horizontal) and guide posts (quantity may vary per project).

9. Walgreens required decals including "Caution Automatic Door".
 10. Finish: clear anodized, AA-M12 C22A41 Class I anodic coating.
 11. Key Switch: Located on exterior frame for after hours operation of door.
- B. National Accounts: Walgreens has established National Accounts with Horton Automatics and Stanley Access Technologies. Each manufacturer has been assigned specific geographic areas (indicated below) to which each will supply automatic entrance doors.
- Contacts: Mr. Marc Voilette
Stanley Access Technologies
65 Swamp Scott Road
Farmington, CT 06032
Phone: (860) 409-6522
Fax: (860) 679-6436
E-mail: MVoilette@stanleyworks.com
- C. Motion/Presence Detector: Sensing system utilizing planar K-band microwave motion detection and focused active infrared presence detection. The presence detection shall overlap the motion detection at the threshold. The presence detection shall never shut off during the closing cycle. Provide units with remote control adjustability. Provide on each side of door: Stanley "SU-100" motion detection and Stanley "Stanguard" infrared threshold sensors on Stanley doors. Color, all units: black. Provide a horizontal photoelectric holding beam for redundant safety.
- D. Operator: Electro-mechanical operator with 1/8 HP DC permanent magnet motor and regulated electronic controller. Operator functions to be microcomputer controlled to automatically provide operating forces and speeds as prescribed by ANSI A156 10-1985. An ON-OFF/hold open power switch shall be located on inside of header. Operator shall convert to free manual operation of door during power failure. Provide adjustable time delay from 1 to 28 seconds minimum. Operator shall reverse when 15 lbs. maximum is exerted to prevent door from closing. Include provisions to prevent damage to operator when locks/latches/bolts are engaged.
- E. Hardware: Closers: Spring closer
Rim Cylinder Lock: Adams Rite #MS 1850-S-050, anodized finish.
- Cylinder Guard: Adams Rite # MS4043.
Thumb Turn: Adams Rite #4066.
Key switch: By automatic entrance manufacturer.
Threshold: By automatic entrance manufacturer, continuous across entire masonry opening.
- F. Weatherstripping: Adjustable nylon sweeps on bottom of sliding doors.
Double pile weatherstripping on lead edges of sliding doors including lock area.
Single pile weatherstripping between carrier and header, on lead stiles of sidelights and pivot stiles of sliding doors

PART III - EXECUTION

3.01 PREPARATION

- A. Field Measurement: Take field measurements prior to preparation of shop drawings and fabrication, to ensure proper fitting of work.
1. Contractor shall provide rough opening to receive Walgreens standard size automatic entrance doors. See drawings for other sizes that apply to stores with liquor departments or vestibules. Non standard sizes must be approved in writing by Walgreens Project Architect.

3.02 INSTALLATION

- A. Comply with manufacturer's specifications and recommendations.
- B. Set units plumb, level and true to line, without warp or rack of frames or doors. Anchor securely in place. Separate aluminum and other corrodible metal surfaces from sources of corrosion or electrolytic action at points of contact with other materials.
- C. Set sill members in a bed of sealant or with joint fillers or gaskets to provide weathertight construction.
- D. Install complete door operator system in accordance with manufacturer's instructions, including piping (if any), controls, control wiring, and remote power units (if any).
- E. Glass and Glazing: See Section 08800.
- F. Guide rails to be set in cored holes and grouted in place.

3.03 ADJUST AND CLEAN

- A. Adjust operating devices and hardware to function properly, without binding, and to provide tight fit at contact points and weatherstripping.
- B. Clean aluminum surfaces promptly after installation. Remove excess glazing and sealant compounds, dirt and other substances.

END OF SECTION