SECTION 084229

AUTOMATIC ENTRANCES

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**NOTE TO SPECIFIER**

*Use this Specification Section for Mail Processing Facilities.*

***This is a Type 2 Specification with primarily editable text; therefore, most of the text can be edited, but there is some required text which is noted within the Section with a “Note to Specifier.” Do not revise these paragraphs without an approved Deviation from USPS Headquarters, Facilities Program Management, through the USPS Project Manager.***

*For Design/Build projects, do not delete the Notes to Specifier in this Section so that they may be available to Design/Build entity when preparing the Construction Documents.*

*For the Design/Build entity, this specification is intended as a guide for the Architect/Engineer preparing the Construction Documents.*

*The MPF specifications may also be used for Design/Bid/Build projects. In either case, it is the responsibility of the design professional to edit the Specifications Sections as appropriate for the project.*

*Text shown in brackets must be modified as needed for project specific requirements.* *See the “Using the USPS Guide Specifications” document in Folder C for more information.*

*The last date that USPS revised this standard specification section occurs in two places, at the end of this section and in the Table of Contents. If the date in this section matches the date in the Table of Contents, then you are using the latest version. Do not delete or revise the “last revised” date at the end of the section during the development of the Project Manual.*

*The footer in this section should be edited to replace the text, “USPS MPF SPECIFICATION” with the project name, and the blank date in the center should be replaced with the submission date, for interim design reviews, or the issue date of the completed Project Manual.*

**Entrance doors are not required to have a door operator, unless the door cannot meet RE-4, 404.2.9 Door and Gate Opening Force, and be opened with a maximum of pounds of force (for instance the area is very windy), then automatic door operators may be necessary. The same applies if the door cannot meet the approach or maneuvering clearances required by RE-4. If automatic doors are used at facilities that are not open 24 hours a day, provide a key switch and/or timer to shut off power after-hours.**

**Automatic entry doors should be bi-parting sliding doors, however automatic high-energy swinging doors can also be used. Both push-button and sensor type operators are acceptable. Automatic high-energy swinging doors must use guide rails to prevent accidents. Provide guiderails on the swing side of such doors to prevent accidents and design them for child safety.**

**See Handbook AS-503, Standard Design Criteria, Module 1, Paragraph 2-7.2.1, Doors, for more information.**

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1. GENERAL
	1. SUMMARY
		1. Section Includes:
			1. Automatic sliding entrance doors with automatic actuators.
		2. Related Documents: The Contract Documents, as defined in Section 011000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other Documents.
		3. Related Sections:
			1. Section 084113, Aluminum-Framed Entrances and Storefronts
			2. Section 087100, Door Hardware
			3. Section 088000, Glazing
			4. Division 16, Electrical: 115 volt AC, minimum 15 amp (for two operators), single-phase wiring in conduit between operator enclosure and building power supply and low voltage wiring between enclosure and actuators. Wiring is to be concealed. Surface wiring is not permitted.
		4. Automatic doors shall be installed by a factory authorized representative and will include all accessories, trim, finish, safety guards, hardware and other pertinent devices and details needed for a complete installation and intended use.
	2. REFERENCES
		1. American National Standard Institute (ANSI):
			1. ANSI/BHMA A156.10, American National Standard for Power Operated Pedestrian Doors.
			2. ANSI A156.3, National Standard for Exit devices.
			3. ANSI A156.13 - National Standard for Mortise Locks & Latches.
		2. Underwriter’s Laboratories (UL):
			1. UL #325, Standard for Door, Drapery, Gate, Louver and Window Operators and Systems.
	3. SUBMITTALS
		1. Section 013300 - Submittal Procedures: Procedures for submittals.
			1. Product Data: Manufacturer’s catalog data, detail sheets, installation data and specifications.
				1. Shop Drawings: Prepared specifically for this project, showing profiles, door dimensions, location of components, joining method and anchorage details, adjacent construction interface, operators, actuators and wiring diagrams.
		2. Section 017704 - Closeout Procedures and Training: Procedures for closeout submittals.
			1. Operating and Maintenance Data: Operating and maintenance instructions, parts lists and wiring diagrams.
			2. Submit written special warranty with forms completed in United States Postal Service name and registered with manufacturer as specified in this Section.
	4. QUALITY ASSURANCE
		1. Qualifications:
			1. Automatic doors will be manufactured and installed by the Factory Authorized Contractor.
		2. Pre-Installation Meetings:
			1. Convene a pre-installation meeting one week prior to commencing Work of this Section.
			2. Require attendance of parties directly affecting Work of this Section.
			3. Review conditions of operations, procedures, and coordination with related Work.
	5. DELIVERY, STORAGE, AND HANDLING
		1. Comply with Section 016000 - Product Requirements: Manufacturer will pack and transport Product(s) to the job site. Receive, handle, store, and protect Products.
	6. WARRANTY
		1. Comply with Section 017704 - Closeout Procedures and Training: Procedures for closeout submittals.
		2. Manufacturer warranty to cover all material and labor required to repair or replace automatic doors and door components for a period of two years from time of acceptance by USPS, within a guaranteed maximum repair response time of ten calendar days.
	7. MAINTENANCE
		1. Comply with Section 017704 - Closeout Procedures and Training: Procedures for closeout submittals.
		2. Operating Instruction: Document training by furnishing a sign-in sheet with a description of the training provided, instructors name and organization and those who receive training. Refer to 017704 1.3, 1.4 and 1.5 for more specific training requirements.
2. PRODUCTS

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***REQUIRED****: Do not modify the list of acceptable manufacturers, the basis of design, or the features of the door without an approved deviation.*

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* 1. MANUFACTURERS
		1. Acceptable Manufacturers:
			1. Stanley Access Technologies LLC, Stanley Security Solutions Company, 735 Thiebes, Labadie, MO 63055.
			2. Besam Assa Abloy, 1900 Airport Road, Monroe, N.C. 28110.
			3. Horton Entry Solutions, [www.hortondoors.com](http://www.hortondoors.com)
		2. Comply with Section 016000 - Product Requirements: Product substitutions: Follow same product solutions.
	2. AUTOMATIC SLIDING DOORS
		1. Basis of Design: Stanley, Dura-Glide 2000 Bi-Parting.
		2. Materials
			1. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
				1. Headers, stiles, rails, and frames: 6063-T6
				2. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221.
				3. Sheet and Plate: ASTM B 209
			2. Sealants and Joint Fillers: Performed under Division 7 Section “Joint Sealants”.
		3. Warranty: Two-year on parts and labor.
		4. Automatic Entrance Door Assemblies
			1. Provide manufacturer’s standard automatic entrance door assemblies including doors, sidelites, framing, headers, carrier assemblies, roller tracks, door operators, activation and safety devices, and accessories required for a complete installation.
			2. Sliding Automatic Entrance Doors:
				1. Bi-Parting sliding doors:

Configuration: Two sliding leaves and two full sidelites.

Traffic Pattern: Two-way.

Emergency Breakaway Capability: Sliding leaves only.

Mounting: Between jambs

* + 1. Components
			1. Framing Members: Manufacturer's standard extruded aluminum reinforced as required to support imposed loads.
				1. Nominal Size: 1 3/4 inch by 4 1/2 inch.
			2. Stile and Rail Doors and Sidelites: Manufacturer's standard 1-3/4 inch thick glazed doors with extruded-aluminum tubular stile and rail members. Incorporate concealed tie-rods that span full length of top and bottom rails or mechanically fasten corners with reinforcing brackets that are welded.
				1. Glazing Stops and Gaskets: Snap-on, extruded-security aluminum stops and preformed gaskets.
				2. Stile Design: Narrow stile; 2 inches nominal width.
				3. Bottom Rail Design: 10 inches nominal height.
				4. Muntin Bars: Horizontal tubular rail member for each door; 2 inches nominal width.
			3. Glazing: 1/4 inch clear tempered glass.
			4. Thresholds: Manufacturer's standard thresholds as indicated below:
				1. Continuous standard tapered extrusion double bevel.
				2. All thresholds to conform to details and requirements for code compliance.
			5. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, non-staining, non-bleeding fasteners and accessories compatible with adjacent materials.
			6. Signage: Provide signage in accordance with ANSI/BHMA A156.10.
		2. Door Operators
			1. Provide door operators of size recommended by manufacturer for door size, weight, and movement; for condition of exposure; and for long-term, operation under normal traffic load for type of occupancy indicated.
			2. Electrical service to door operators shall be provided under Division 16 Electrical. Minimum service to be 120 VAC, 10 amps.
		3. Electrical Controls
			1. Electrical Control System: Electrical control system shall include a microprocessor controller and position encoder. The encoder shall monitor revolutions of the operator shaft and send signals to microprocessor controller to define door position and speed. Systems utilizing external magnets and magnetic switches are not acceptable. A single controller shall be capable of controlling up to 2 operators per entrance system.
		4. Activation and Safety Devices
			1. Motion Sensors: Motion sensors shall be mounted on each side of door header to detect pedestrians in the activating zone, and to provide a signal to open doors in accordance with ANSI/BHMA A156.10. Units shall be programmable for bi-directional or uni-directional operation and shall incorporate K-band microwave frequency to detect all motion in both directions.
			2. Presence Sensors: Presence sensors shall be provided to sense people or objects in the threshold safety zone in accordance with ANSI/BHMA A156.10. Units shall be self-contained, fully adjustable, and shall function accordingly with motion sensors provided. The sensor shall be enabled simultaneously with the door-opening signal and shall emit an elliptical shaped infrared presence zone, centered on the doorway threshold line. Presence sensors shall be capable of selectively retuning to adjust for objects which may enter the safety zone; tuning out, or disregarding, the presence of small nuisance objects and not tuning out large objects regardless of the time the object is present in the safety zone. The door shall close only after all sensors detect a clear surveillance field.
			3. Photoelectric Beams: In addition to the threshold sensor include a minimum of two doorway holding beams. Photoelectric beams shall be pulsed infrared type, including sender receiver assemblies for recessed mounting.
		5. Hardware
			1. Provide units in sizes and types recommended by automatic entrance door and hardware manufacturers for entrances and uses indicated.
		6. Fabrication
			1. Factory fabricates automatic entrance door assembly components to designs, sizes, and thickness indicated and to comply with indicated standards.
				1. Form aluminum shapes before finishing.
				2. Use concealed fasteners to greatest extent possible.

Where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration, use self-locking devices.

Reinforce members as required to receive fastener threads.

* + - 1. Framing: Provide automatic entrance doors as prefabricated assemblies.
				1. Fabricate tubular and channel frame assemblies with manufacturer's standard mechanical or welded joints. Provide sub-frames and reinforcement as required for a complete system to support required loads.
				2. Perform fabrication operations in manner that prevents damage to exposed finish surfaces.
				3. Form profiles that are sharp, straight, and free of defects or deformations.
				4. Prepare components to receive concealed fasteners and anchor and connection devices.
			2. Doors: Factory fabricated and assembled in profiles indicated. Reinforce as required to support imposed loads and for installing hardware.
			3. Door Operators: Factory fabricated and installed in headers, including adjusting and testing.
			4. Glazing: Fabricate framing with minimum glazing edge clearances for thickness and type of glazing indicated.
			5. Hardware: Factory install hardware to the greatest extent possible; remove only as required for final finishing operation and for delivery to and installation at Project site.
		1. Doors and Hardware Package

 2 ea. Stanley Dura-Glide 2000 Bi-Parting sliding door package

 Finish: [clear anodized][dark bronze anodized]

 Glass: 1/4-inch clear tempered safety glass

 StanGuard Overhead Safety System

 Emergency break-away on active leafs

 Fixed sidelites

 Narrow stile doors

 2-inch Muntin

 10-inch Bottom rails

 Alarm contacts

 4 ea. Stanley SU-100 motion sensor

 2 ea. Doorway holding beam

 2 ea. 6-inch Double beveled thresholds

 For exterior door:

 1 ea. Adams Rite 2-point MS lock [clear anodized][dark bronze anodized] finish

 1 ea. Best 1E76 C181 RP3 cylinder w/construction core, [626 satin chromium plated][\_\_\_\_\_\_\_\_] finish

1. EXECUTION
	1. EXAMINATION
		1. Section 017300 - Execution: Verification of existing conditions before starting work.
		2. Verification of Conditions: Verify that field measurements, surfaces, substrates, and conditions are as required, and ready to receive Work.
			1. Verify that door openings and doors are properly installed and ready for installation of automatic door equipment.
			2. Verify that electrical service is available, properly located and of proper type.
		3. Report in writing to Contracting Officer prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.
		4. By beginning Work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the United States Postal Service.
	2. INSTALLATION
		1. Installation by manufacturer in compliance with ANSI A156.10.
			1. Coordinate the mounting height of the required signs on the doors with USPS "station ID", "Hours of Operation" or other door mounted vinyls.
		2. Verify that electrical connections are made correctly.
	3. FIELD QUALITY CONTROL
		1. Section 014000 - Quality Requirements: Field testing and inspection.
	4. ADJUST AND CLEAN
		1. Adjust doors and operators for proper operation, without binding, scraping or excessive noise.
		2. Adjust operators in compliance with ANSI A156.10.
	5. PROTECTION
		1. Protect finishes until substantial completion.
	6. OPERATING INSTRUCTION
		1. Provide on-site instruction to review the operation of the system and detail any common troubleshooting or maintenance that is required to ensure normal operation.
		2. Provide one complete set of equipment operating, installation, and programming manuals that will remain at the installed location.

END OF SECTION

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