SECTION 083313

RAPID ROLL-UP DOORS

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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.*

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PART 1 – GENERAL

1.1 SUMMARY

A. Interior and Exterior Rapid roll-up doors and operators.

1.2 SUBMITTALS

1. Shop Drawings: Required.
2. Product Data: Required.
3. Samples: Required
4. Certificates of Quality Assurance: Required

1.3 QUALITY ASSURANCE

1. Compliance with local governing codes.
2. Compliance with ASCE-7 for wind loading requirements.

PART 2 – PRODUCTS

2.1 RAPID ROLL-UP DOORS

1. Approved Manufacturers
   1. Rytec
   2. Marathon
   3. Horman
   4. Albany
   5. Dynaco
   6. Rite-Hite

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**NOTE TO SPECIFIER**

\*\*Required: Do not modify the basis of design without an approved deviation.

Note: Fabric doors cannot be used in the opening of an interior security wall.

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1. Interior Doors – Fabric
2. Basis of Design
   1. Rytec: Model PredaDoor PD5500NXT.
3. Materials:
4. Material: Minimum 71 oz., 2-ply monofilament curtain, color blue. Material to be laterally stiff and vertically flexible for enhanced wind/pressure resistance. Curtain sections connected by two integral extruded panel connecting ribs. Door curtain to have modular design to allow for easy curtain section replacement.
5. Usage: Door and all components to be designed for heavy-duty cycles and operation.
6. Bottom Bar: Rigid extruded aluminum with breakaway feature allowing release in either direction upon impact and immediate reset without the use of tools. Wireless with control-reliable 2-way communication, frequency-hopping technology and minimum 3-year battery life. Dual cut-off switches shut off motor when bottom bar is impacted.
7. Motor: Variable-speed, AC drive, 42-50 inches per second opening and 21 inches per second closing. Adjustable, independent opening and closing speeds.
8. Controls: Programmable self-diagnostic controller with two-line, 32-character external display for status messaging and diagnostics housed in a UL listed NEMA 4x-rated enclosure.
9. Activation Devices: Induction loop and manual push button with time-delay closing.
10. Safety: Full width pneumatic safety reversing edge and (2) two thru-beam photo eyes.
11. Travel Limits: Absolute rotary encoder to regulate door travel limits. Limits adjusted, without tools at control panel, not motor. Control software to incorporate a self-adjusting limit feature where the software monitors the door position and adjusts the limits, as required, to maintain a proper seal.
12. Vision Panel: Full width of door, minimum 31 inches high, replaceable.
13. Side Frames: Fully bolt-together, anodized aluminum construction.
14. Weatherseal: Dual, full-height weatherseals to seal against both sides of door panel long with full-width, header seal and full-width seal on bottom bar.
15. Warranty: 2-year warranty on door with an extended 5-year warranty on door curtain.

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**NOTE TO SPECIFIER**

\*\*Required: Do not modify the basis of design without an approved deviation.

Note: Fabric doors cannot be used in the opening of an exterior security wall.

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C. Exterior Doors – Fabric

1. Basis of Design:
   1. Rytec: Model Fast-Seal FS 1000.
2. Materials:
3. Material: Minimum 86 oz., 3-ply monofilament curtain, color blue. Material to be laterally stiff and vertically flexible for enhanced wind/pressure resistance.
4. Usage: Door and all components to be designed for heavy-duty cycles and operation.
5. Bottom Bar: Rigid extruded aluminum with breakaway feature allowing release in either direction upon impact and immediate reset without the use of tools. Wireless with control-reliable 2-way communication, frequency-hopping technology and minimum 3-year battery life. Dual cut-off switches shut off motor when bottom bar is impacted.
6. Counterbalance: Custom-Sized, dual counter-weight with life-time warranty on counter-weight system.
7. Curtain Tension: Must be separate from counterbalance system and maintain constant tension on door curtain.
8. Motor: Variable-speed, AC drive, 50 inches per second opening and closing and 21 inches per second closing. Adjustable, independent opening and closing speeds.
9. Controls: Programmable self-diagnostic controller with two-line, 32-character external display for status messaging and diagnostics.
10. Activation Devices: Motion sensors, one on each side with time-delay closing.
11. Safety: Full width pneumatic safety reversing edge and (2) two thru-beam photo eyes.
12. Travel Limits: Absolute rotary encoder to regulate door travel limits. Limits adjusted, without tools at control panel, not motor. Control software to incorporate a self-adjusting limit feature where the software monitors the door position and adjusts the limits, as required, to maintain a proper seal.
13. Windbars: Front and/or rear windbars according to manufacturer’s recommendation.
14. Vision Panel: Minimum 3 replaceable panels – 17 x 17 inch each.
15. Side Frames: 11-gauge reinforced side frames with front and rear wind bar guides, 14-gauge hinges access covers.
16. Weatherseals: Dual, full-height weatherseals to seal against both sides of door panel long with full-width, header seal and full-width seal on bottom bar.
17. Warranty: 1-year warranty on door with an extended 5-year warranty on door curtain.

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**NOTE TO SPECIFIER**

\*\*Required: Do not modify the basis of design without an approved deviation.

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D. Exterior Doors – Rigid

1. Basis of Design:

a. Rytec Corporation Spiral Door

2. Materials:

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**NOTE TO SPECIFIER**

Specify insulation filled door slats upon request by USPS project manager.

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* 1. Door Panel: Double-walled, aluminum slats are 6 inches high by 1 3/16 inches thick. Integral rubber weatherseal between each of the panels, with 3.25” high window slats. Door slats are connected by hinge system to provide additional rigidity and security to door panel. Door curtain does not require a tensioning system for additional wind/pressure resistance. Doors which require the use of a tensioning system for additional wind/pressure resistance will not be accepted.
  2. Side Frames: Powder coated steel side frames with full height weather seal on both sides to seal against door panel. “Intelligent” Advanced3 Light Curtain System mounted directly in door line (to 6’0” above finished floor). Doors using an external coil cord will not be accepted.
  3. Bottom Bar: Extruded aluminum bottom bar with electric, reversing edge that reverses the door upon contacting an object.
  4. Counterbalance: Up to six extension springs in each side column, depending on the size of the door. Springs assist the motor in opening the door. Mechanical release lever on side column allows door to be easily opened in the event of a power failure. Doors using torsion springs for counterbalance or doors with springs located within a barrel will not be accepted.

1. Doors utilizing direct drive with springless system accepted.

* 1. Drive system: Minimum 2 HP motor with variable speed AC drive which allows for soft acceleration and braking. Doors using a motor with a clutch or pump will not be accepted.
  2. Travel Speed: Opens at up to 60 inches per second and closes at 24 inches per second.
  3. Electrical Controls:
     + 1. Controller housed in a UL/cUL Listed NEMA 4X-rated enclosure with factory set parameters.
       2. Parameter changes and all door configurations can be made from the face of the control box, no exposure to high voltage. Control panels that require opening of the control box and reaching inside to make parameter changes will not be accepted.
       3. Controls include a variable speed AC drive system capable of infinitely variable speed control in both directions.
       4. Programmable inputs and outputs accommodate special control applications (traffic lights, horns, actuation devices, timing sequences, etc.) without the need for additional electrical components.
       5. Self-diagnostic scrolling two-line vacuum fluorescent display provides expanded informational messages for straightforward installation, control adjustments and error reporting.
       6. All errors have a time and date stamp for reference.
  4. Door to use rotary absolute encoder to regulate door travel limits. Limits to be selfadjusting, without the use of tools, from floor level at the control panel. Doors using mechanical limits switches or doors that require tools to set the limits will not be accepted.
  5. Door Track: Spiral rollup design features no metal-to-metal contact which results in ultraquiet, low maintenance operation and eliminates wear on panel slats. Doors that roll up on a barrel or whose track design allows metal-to-metal contact will not be accepted.
  6. Windload: Door testing indicatesthe door is capable of withstanding winds up to 127 mph (20 psf).
  7. All components factory finished.

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 of 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 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 startup 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 startup and shutdown, troubleshooting, servicing, and preventive maintenance.

3. Review data in the maintenance manuals. Refer to Division 1 Section "Contract Closeout."

4. Schedule training with Owner with at least 7 days' advance notice.

END OF SECTION

USPS MPF Specification Last Revised: 10/1/2022