SECTION 102600

WALL AND DOOR PROTECTION

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**NOTE TO SPECIFIER**

*Use this Specification Section for Mail Processing Facilities.*

***This is a Type 1 Specification with completely editable text; therefore, any portion of the text can be modified by the A/E preparing the Solicitation Package to suit the project.***

*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.*

Use plastic lumber wall bumpers or guard rails in all facilities; do not use wood lumber bumpers. Behind the bumpers, use wall protection panels to protect the gypsum wallboard from damage up to 8 feet above the floor. Other than wall bumpers, additional protection is usually not needed for masonry walls.

1. For moderate impact protection, use FRP panels and two rows of bumpers. FRP panels are also used in areas subject to moisture, such as Janitor’s Closets.
2. For locations subject to increased abuse, use 1/16-inch flat aluminum sheets and multiple rows of bumpers at heights that correspond to the MTE expected to be in the area.
3. For walls that may be subject to high levels of impact and utilize fork-lifts, use 1/8-inch diamond plated aluminum sheets and guard rails.

Use corner guards in areas that are subject to impact.

If the project includes Retail areas, refer to the CSF version of this specification for additional information.

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1. GENERAL
	1. SUMMARY
		1. Section Includes:
			1. Plastic Lumber Wall Bumpers.
			2. Guard Rails.
			3. Fiberglass Reinforced Plastic (FRP) Wall Protection.
			4. Metal Sheet Wall Protection.
			5. Corner Guards.
		2. Related Requirements:
			1. Section 013300 - Submittal Procedures: Procedures for submittals.
			2. Section 016000 - Product Requirement: Product options and substitutions.
	2. SUBMITTALS
		1. Product Data: Data indicating characteristics, available colors, and component dimensions.
		2. Samples:
			1. Panels: 12 by 12-inch square, each type and color.
			2. Plastic lumber and corner guards: 12-inch length, each type and color.
			3. Fasteners: One of each type.
	3. DELIVERY, STORAGE, AND HANDLING
		1. In accordance with manufacturer instructions for components.
2. PRODUCTS
	1. PLASTIC LUMBER BUMPERS
		1. Product Description:
			1. Solid reclaimed polyethylene or solid homogenous blend of approximately 50 percent reclaimed polyethylene and 50 percent waste wood (non-virgin).
			2. Size: 2 inches x 10 inches.
			3. Edge to be manufactuerer’s standard bullnose or chamfer.
			4. Spacer Blocks: Same as bumper material, 4 x 4 inch where indicated on the Drawings.
			5. Color: Beige as selected by Project Manager.
		2. Manufacturers:
			1. American Plastic Lumber, Inc., Shingle Springs, CA (877) 677-7701.
			2. Engineered Plastic Systems, Elgin, IL (800) 480-2327.
			3. Markstaar, Scarborough, ME (888) 846-2693.
			4. PlasTEAK, Copley, Ohio (800) 320-1841.
			5. Plastic Lumber Yard, Plymouth Meeting, PA (610) 277-3900.
		3. Bumper Fasteners:
			1. Concrete wall: Hooked bolts with heavy flat washer, lock washer and hex head nut; sizes as indicated on Drawings.
			2. Masonry wall: Hooked bolts with heavy flat washer, lock washer and hex head nut; sizes as indicated on Drawings.
			3. Metal stud wall: Toggle bolts plus a continuous 14 gauge metal plate backing welded to the metal studs; sizes as indicated on Drawings.
			4. Wood stud wall: Lag bolts plus 3 x 4 inch wood blocking between studs for frame wall anchorage; sizes as indicated on Drawings.
	2. GUARD RAILS
		1. Product Description:
			1. Rails: Standard highway W-beam profile, 12 gauge galvanized steel.
			2. Posts: W6x9 Galvanized.
	3. FIBERGLASS REINFORCED PLASTIC (FRP) PANELS
		1. Product Description:
			1. 0.09-inch thick, white, embossed finish, Class A Fire Rated panels.
			2. Provide Manufacturer’s trim, joining and cap accessories.
			3. Install panels in accordance with Manufacturer’s reccommendations.
		2. Manufacturer/Model:
			1. Crane Composites, Channahon,IL (800) 435-0080.
				1. Glasbord FX.
			2. Glasteel, Moscow, TN (800) 238-5546.
				1. Glasliner FRP.
	4. METAL SHEET WALL PROTECTION
		1. Type MS-1: Aluminum Flat Sheet
			1. 1/16-inch (0.063 inch) thick, 6061-T6 aluminum sheet, mill finish.
		2. Type MS-2: Aluminum Diamond Plate Sheet
			1. 1/8-inch (0.125 inch) thick, 6061-T6 aluminum diamond plate, mill finish.
	5. Corner Guards

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***NOTE TO SPECIFIER***

*Corner Guard Type 1: Use in office spaces.*

*Corner Guard Type 2: Use in workrooms and other areas where there are no bumpers, or where bumpers may not be adequate to protect the corner. Indicate on Drawings double-height corner guards to extend corner protection above 5 feet.*

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* + 1. Type CG-1: Snap-On Surface Mount With Continuous Aluminum Retainer.
			1. Product Description: 4 feet long, anchored to wall at 20 inches on center maximum, with molded end caps color matched to covers.
				1. Color: Most closely matched to adjacent finish wall color.
			2. Manufacturer/Model:
				1. Construction Specialties, Inc., Lebanon, NJ (800) 972-7214.

Acrovyn SM-20AN.

* + - * 1. Pawling Corporation, Wassaic, NY (800) 431-3456.

Pro-Tek Corner Guards CG-10P with TC-10 caps.

* + - * 1. InPro Corporation, Muskego, WI (800) 222-5556.

150 High Impact Corner Guard.

* + 1. Type CG-2: Aluminum Angle:
			1. Product Description: .063-inch thick minimum aluminum corner guards, 3-inch minimum legs, 4 feet long, anchored to wall at 20 inches on center maximum, bend to match angle of wall.
			2. Manufacturer/Model:
				1. Construction Specialties, Inc., Lebanon, NJ (800) 972-7214.

Acrovyn ASCO-8.

* + - * 1. Pawling Corporation, Wassaic, NY (800) 431-3456.

Pro-Tek Corner Guards CG-405.

1. EXECUTION
	1. EXAMINATION
		1. Verification of Conditions: Verify that field measurements, surfaces, substrates, and conditions are as required, and ready to receive Work.
	2. INSTALLATION
		1. Plastic Lumber Wall Bumpers:
			1. Use anchors as specified for each wall type.
			2. Provide for 1/8 inch gap at ends between plastic lumber pieces and between plastic lumber other materials.
			3. CMU Walls: Fill concrete masonry block cavities with concrete to 24-inch minimum for single bumper and to 48-inch minimum for double bumpers.
		2. Guard Rails:
			1. [Indicate approriate installation method and fasteners needed for project type].
		3. Fiberglass Reinforced Plastic (FRP) Wall Protection:
			1. Install FRP panels and corner guards in accordance with manufacturers recommendations.
		4. Metal Sheet Wall Protection:
			1. Install metal sheets with the long dimension horizontal over gypsum wallboard and screw to steel studs at 16 inches on center horizontally and vertically.
		5. Corner Guards:
			1. Install corner guards in accordance with manufacturers recommendations.
			2. Install single-height 4-foot corner guards with tops at 5 feet above finished floor.
			3. Install double-height 4-foot corner guards with top length at 9 feet above finished floor.
	3. FIELD QUALITY CONTROL

A. Inspect Products for proper material, color, placement, and alignment.

END OF SECTION

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***NOTE TO SPECIFIER***

DRAWING COORDINATION ITEMS

Drawings should indicate the following information related to this Section.

1. Location of wall bumpers and guard rails, and the heights above the floor.
2. Location of FRP and metal sheet wall protection and the heights above the floor.
3. Location of corner guards, single-height and double-height.

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