SECTION 111313 - LOADING DOCK BUMPERS

Revise this Section by deleting and inserting text to meet Project-specific requirements.

Verify that Section titles referenced in this Section are correct for this Project's Specifications; Section titles may have changed.

1. GENERAL
	* + 1. SUMMARY
				1. Section includes loading dock bumpers.
				2. Related Requirements:

Retain subparagraph below to cross-reference requirements Contractor might expect to find in this Section but are specified in other Sections.

Section 111319 "Stationary Loading Dock Equipment" for loading dock bumpers that are integral with dock levelers.

* + - 1. SUBMITTALS
				1. Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the General Conditions.
				2. Manufacturer’s installation instructions shall be provided along with product data.
				3. Submittals shall be provided in the order in which they are specified and tabbed (for combined submittals).
				4. Product Data: For each type of loading dock bumper.
				5. Shop Drawings: For dock bumpers. Include plans, elevations, sections, and attachment details.
1. PRODUCTS

Manufacturers and products listed in SpecAgent and MasterWorks Paragraph Builder are neither recommended nor endorsed by the AIA or Deltek. Before inserting names, verify that manufacturers and products listed there comply with requirements retained or revised in descriptions and are both available and suitable for the intended applications.

* + - 1. LOADING DOCK BUMPERS
				1. General: Surface-mounted bumpers; of type, size, and construction indicated; designed to absorb kinetic energy and minimize damage to loading dock structure.

Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Durable Corporation.

Hugger Dock Equipment Company; Columbus Foam Products, Inc.

Rotary Products Inc.

Approved equivalent.

Source Limitations: Obtain from single source from single manufacturer.

Copy any of first four dock bumper paragraphs below and re-edit for each product.

Insert drawing designation. Use these designations on Drawings to identify each product.

Coordinate depth of dock bumpers with depth of dock seals and shelters, and with dock levelers.

Not all types of loading dock bumpers are available from all manufacturers. See the "Dock Bumper Table" Article in the Evaluations and verify with manufacturers.

Molded-rubber loading dock bumpers are suitable for low traffic, light duty applications.

* + - * 1. Molded-Rubber Loading Dock Bumpers **<Insert drawing designation>**: Fabricated from molded-rubber compound reinforced with nylon, rayon, or polyester cord; with Shore A durometer hardness of 80, plus or minus 5, when tested according to ASTM D2240; of size and configuration indicated. Fabricate units with not less than two predrilled anchor holes.

Configuration: **[T shape] [Inverted-L shape] [Square] [Rectangular] [As indicated on Drawings]**.

Thickness: **[2 inches] [3 inches] [4 inches] [6 inches] [As indicated on Drawings]**.

Extruded-rubber loading dock bumpers are intended to provide a medium to high level of protection

* + - * 1. Extruded-Rubber Loading Dock Bumpers **<Insert drawing designation>**: Fabricated from ASTM D2000, extruded synthetic rubber with Shore A durometer hardness of 75, plus or minus 5, when tested according to ASTM D2240; of size and configuration indicated. Furnish units with predrilled anchor holes and concealed, flat, steel mounting bar.

Configuration: **[Flat or ribbed, with 2-inch nominal thickness and 9-inch height] [4-1/2-inch- wide base and 4-inch depth with half-oval shape that compresses and returns to original shape] [As indicated on Drawings]**.

Laminated tread dock bumpers offer a high level of protection

* + - * 1. Laminated-Tread Loading Dock Bumper **<Insert drawing designation>**: Fabricated from multiple, uniformly thick plies cut from fabric-reinforced rubber tires. Laminate plies under pressure on not less than two 3/4-inch- diameter, steel supporting rods that are welded at one end to 1/4-inch- thick, structural-steel end angle and secured with a nut and angle at the other end. Fabricate angles with predrilled anchor holes and sized to provide not less than 1 inch of tread plies extending beyond the face of closure angles.

Thicknesses of 9, 10-1/2, and 12 inches are also available from some manufacturers.

Thickness: **[4-1/2 inches] [6 inches] [As indicated on Drawings]**.

Horizontal Style: **[6 inches] [10 inches] [12 inches] high by [length indicated on Drawings]**.

Vertical Style: 8 inches wide by **[20 inches high] [24 inches high] [36 inches high] [height indicated on Drawings]**.

Steel-face, laminated loading dock bumpers offer the highest level of protection

* + - * 1. Steel-Face, Laminated-Tread Loading Dock Bumpers **<Insert drawing designation>**: Fabricated from multiple, uniformly thick plies cut from fabric-reinforced rubber tires and with 3/8-inch steel faceplate of same size as rubber surface. Laminate plies under pressure on not less than two 3/4-inch- diameter, steel supporting rods that are welded at one end to 1/4-inch- thick, structural-steel end angle and secured with a nut and angle at the other end. Fabricate angles with predrilled anchor holes and sized to provide not less than 1 inch of tread plies extending beyond the face of closure angles. Weld faceplate to two steel support brackets, which shall extend back to and engage 3/4-inch- diameter support rods in elongated holes, allowing steel face to float on impact.

Thickness: **[4-1/2 inches] [6 inches] [As indicated on Drawings]**.

Horizontal Style: **[6 inches] [10 inches] [12 inches] high by [length indicated on Drawings]**.

Vertical Style: 8 inches wide by **[20 inches high] [24 inches high] [36 inches high] [height indicated on Drawings]**.

Usually, retain "Anchorage Devices" paragraph below for dock bumpers. Delete if an all-welded attachment method suits product(s) and Project.

* + - * 1. Anchorage Devices: Galvanized-steel anchor bolts, nuts, washers, bolts, sleeves, cast-in-place plates, and other anchorage devices as required to fasten bumpers securely in place and to suit installation type indicated. Hot-dip galvanized according to ASTM A153 or ASTM F2329.
				2. Materials: ASTM A36 for steel plates, shapes, and bars. Hot-dip galvanize according to ASTM A123.
1. EXECUTION
	* + 1. EXAMINATION
				1. Examine areas and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
				2. Proceed with installation only after unsatisfactory conditions have been corrected.
			2. INSTALLATION, GENERAL
				1. Loading Dock Bumpers: Attach loading dock bumpers to face of loading dock in a manner that complies with requirements indicated for spacing, arrangement, and position relative to top of platform and anchorage.

"Welded Attachment" subparagraph below is inapplicable to molded- or extruded-rubber loading dock bumpers.

Welded Attachment: Plug-weld anchor holes in contact with steel inserts and fillet weld at other locations.

Bolted Attachment: Attach dock bumpers to preset anchor bolts embedded in concrete or to cast-in-place inserts or threaded studs welded to embedded-steel plates or angles. If preset anchor bolts, cast-in-place inserts, or threaded studs welded to embedded-steel plates or angles are not provided, attach dock bumpers by drilling and anchoring with expansion anchors and bolts.

Screw Attachment: Attach dock bumpers to wood construction with lag bolts as indicated.

* + - 1. ADJUSTING
				1. After completing installation of exposed, factory-finished dock bumpers, inspect exposed finishes and repair damaged finishes.

END OF SECTION 111313