Commonwealth of Pennsylvania Department of Transportation

# SPECIFICATION FOR TYPE A BREAKAWAY SYSTEM WITH W AND S BEAM POSTS

August 10, 2020

## 1. <u>MATERIAL REQUIREMENTS</u>

- 1.1 <u>W Beam and S Beam Posts.</u> ASTM A 572 / A 572M Grade 50 steel, as specified.
- **1.2** <u>Low-Profile Breakaway Units.</u> These units shall be Transpo Industries Incorporated Type B525 or B650 or an approved equivalent. The units shall come complete with anchors, brackets, hinge plates, shims, couplings, washers, bolts, nuts, and all other items necessary for the field installation and erection on a concrete caisson or other department approved footing.

### 1.3 Breakaway Unit Accessories.

- **1.3.1 Brackets.** Brackets shall be Transpo Industries Type B525 or B650 System, as specified.
- **1.3.2** <u>**Template Jig Hardware.**</u> Any necessary hardware required for use with a template jig for spacing and alignment of the anchors shall be provided.
- **1.3.3** <u>Coupling Bolts.</u> These bolts shall be Transpo Industries, Incorporated, Part # SB-CBLP1 or equivalent, as specified. 1"-8UNC threads, ASTM-A449, galvanize in accordance with ASTM-A153.
- **1.3.4 Breakaway Couplings.** Transpo Industries, Incorporated Part #SB-CALP, SB-CARG, SB-CBLP, SB-CBRG or equivalent, as specified. AMS 6378D alloy steel galvanized in accordance with ASTM-A153.
- **1.3.5** <u>**Hinge Plates.**</u> Transpo Industries, Incorporated Part # SB-HB2 or SB-HB3 or equivalent, as specified. Galvanize in accordance with ASTM-A123.

## 2. <u>FABRICATION</u>

2.1 <u>Cutting and Drilling.</u> W beam or S beam posts shall be cut to proper length and shall have holes drilled for brackets and hinge plates prior to galvanizing.

- 2.2 <u>Carbon Content.</u> A certification or statement showing the carbon content of the W or S beam shall be furnished.
- 2.3 <u>Galvanization</u>. In accordance with ASTM-A120, B633, B695, A392, ASTM-B454, AASHTO-M111 (ASTM-A123), or AASHTO-M-232 (ASTM-A153), as applicable.
- **2.4** <u>Identification.</u> The top and bottom sections of all posts shall be clearly identified to ensure the proper combination and orientation of posts for field erection.

## 3. <u>SHIPMENT</u>

Complete installation instructions shall be included with each shipment of breakaway hardware.

/s/ Robert J. Pento, P.E.

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