Index D813 Bridge Fencing (Over Railroad)

Design Criteria

NCHRP Report 350, Test Level 3 Criteria; ***AASHTO LRFD Bridge Design Specifications***; ***Structures Design Guidelines (SDG)***

Design Assumptions and Limitations

The Traffic Railing mounted version of this fence (back of railing mounted with tension wires) is based on a similar design that was successfully crash tested in accordance with the ***AASHTO Guide Specifications for Bridge Railings*** Performance Level 2 pickup test. Modifications have been made to improve the crashworthiness to ***NCHRP Report 350*** Test Level 3 Criteria. This fence can be used on Index 420, 422, 423, 424, 425, 427, 428 and 480 Series Traffic Railings, certain non-FDOT standard concrete traffic railings meeting the requirements of ***SDG*** 6.7 and on existing New Jersey and F-Shape Traffic Railings listed in the ***Instructions for Design Standards*** Index 402.

Evaluate the expansion joint movements of the bridge. If the total movement at an individual expansion joint is 6-inches or less, the bridge fence will span the joint without using an expansion assembly. If the total movement at an individual expansion joint exceeds 6-inches, an Expansion Assembly must be installed at these locations.

Use this Index when specially required to meet railroad permitting requirements when no sidewalk is provided behind the traffic railing. When a sidewalk is provided and shielded with a traffic railing use Index 811 Bridge Fencing (Curved Top) or Index 812 Bridge Fencing (Enclosed) based on project and site specific requirements.

Plan Content Requirements

In the Structures and/or Roadway Plans:

Show and label, by name or Index number, the Bridge Fencing (Over Railroad) on the Plan and Elevation, Typical Section, Superstructure and Approach Slab sheets, Retaining Wall Control Drawings, and other sheets as required.

Show the limits of fencing in the plans if they are not from begin of approach slab at Begin Bridge to end of approach slab at End Bridge.

Show quantities for bridge fencing with quantities for Traffic Railings.

Determine if bridge fencing requires grounding. If required, provide details in the superstructure sheets.

Provide locations for expansion joints requiring expansion assemblies in the superstructure layout sheets.

Designate the required finish in the General Notes, e.g., zinc or aluminum coated, or polyvinyl chloride (PVC) coated. If PVC coated fence is used, include the following notes in the General Notes:

1. A note specifying the color of the PVC coating for chain link fabric.
2. A note to paint the fence framework to match the color of the PVC chain link fabric.
3. A note for preparation of galvanized steel for painting.
4. A note to coat tension wire and fence fittings to match the color of the PVC chain link fabric.

Payment

Item number	Item Description	Unit Measure
550-10-334	Fencing, Type R, 6.1 - 7.0', W / Partial Enclosure	LF
550-10-344	Fencing, Type R, 7.1 - 8.0', W / Partial Enclosure	LF