Index 425  Traffic Railing (42" F Shape)

Design Criteria


Design Assumptions and Limitations

The 42" F-Shape Traffic Railing should be used where a railing with Test Level 5 crashworthiness is warranted. Use this railing in accordance with the requirements of SDG 6.7.

Design bridge decks supporting 42" F-Shape Traffic Railings in accordance with the requirements of SDG 4.2. For bridge decks up to a maximum thickness of 11", the two Bars 5S2 placed in the bridge deck may substitute for the longitudinal deck steel located within the limits of Bars 5V, provided that the total area of longitudinal deck steel beneath the railing, as required by calculation, is not reduced.

*Design Standards* Indexes 20900, 20910 and 6100 Series contain details for the use of 42" F-Shape Traffic Railings on retaining walls and approach slabs.

The “Slab Depth” specified in SDG 4.2.4 for use with a 42” F-shape Traffic Railing is only required within the same deck span as the Traffic Railing itself.

For treatment of 42" F-Shape Traffic Railings on skewed bridges see Index 420.

Plan Content Requirements

In the Structures Plans:

In the Materials Note on the General Notes Sheet, specify the concrete class in accordance with the superstructure environment classification. See SDG 1.4.

Include the following Bridge Name Note on the General Notes Sheet:

Place the following bridge name on the traffic railing in accordance with the Traffic Railing Design Standard:

Use the name of the bridge or non-roadway facility crossed, or include the name of both facilities for roadway crossings, e.g.:

- THOMASVILLE ROAD FLYOVER
- TOMOKA RIVER
- CSX RAILROAD
- US 19 OVER EAST BAY DR

For multiple bridges, identify the associated bridge number, e.g.:

<table>
<thead>
<tr>
<th>Bridge No.</th>
<th>Name</th>
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<tr>
<td>600103</td>
<td>CHOCTAWHATCHEE BAY</td>
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<tr>
<td>600104</td>
<td>CHOCTAWHATCHEE BAY RELIEF</td>
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</table>
Show and label the 42" F-Shape Traffic Railing on the Plan and Elevation, Typical Section, Superstructure, Approach Slab and Finish Grade Elevations Cross Section sheets, Retaining Wall Control Drawings, and other sheets as required. Show limiting stations when transitioning to other types of traffic railings. Include cross references to Design Standards Index 425 and 20900 or 20910 as appropriate.

On the Superstructure section sheets, show the two Bars 5S2 placed in the bridge deck within the Bars 5V along with the rest of the deck steel.

In the Roadway Plans when the 42" F-Shape Traffic Railing is used on retaining walls:

In the Materials Note on the General Notes Sheet, specify the concrete class in accordance with the retaining wall environment classification. See SDG 1.4.

Show and label the 42" F-Shape Traffic Railing on the Retaining Wall Control Drawings, and other sheets as required. Show limiting stations when transitioning to other types of traffic railings. Include cross references to Design Standards Index 425 and 6100 Series as appropriate.

All concrete and Bars 5P, 5S, 8S, 8T and 5V required to construct the traffic railing are included in the Estimated Traffic Railing Quantities. Do not include traffic railing concrete in the estimated concrete quantities, or Bars 5P, 5S, 8S, 8T and 5V in the reinforcing bar lists and estimated reinforcing steel quantities for supporting bridge decks, approach slabs or retaining walls.

### Payment

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<th>Item number</th>
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