Cast-in-Place Moment Slab Traffic Barrier - Flat Grade Installation

1'9" (533 mm)

Cast-in-place traffic barrier (Texas T551 railing shown)

Steel ties per traffic barrier design
#4 (#13) bars at 6" (152 mm) O.C. minimum

Cast-in-place moment slab
30'-0" (9.1 m) Sections

#5 (#16) bars at 8" (203 mm) O.C., top and bottom

8'-0" Minimum

2" (51 mm) cover

Pavement

1'-0" (305 mm) minimum

Transverse reinforcement #4 (#13) bars at 11.5" (292 mm) O.C., top and bottom

Dowels at contraction and expansion joints

1" (25 mm) Expanded polystyrene foam
(Low density, 0.75 lb/ft³ 0.12 kN/m³)

AASHTO No. 57 stone

Materials
Concrete for cast-in-place barrier and moment slab shall be dot standard structure mix. Minimum 28 day compressive strength shall be 4,000 psi (27.6 mpa) or higher as specified. Reinforcing steel shall conform to ASTM A706 or AASHTO M31 Grade 60 (420 MPa).

Design
Moment slab shown is dimensioned based on an equivalent static load of 10,000 lbs (44.5 kN) per NCHRP Report 663. Moment slab reinforcement shown is based on AASHTO LRFD Bridge Design Specifications, 5th edition, 2010, TL-4 loading detailed in Table A13.2.1.

The selection and use of this detail, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the registered professional engineer in charge of the project.

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