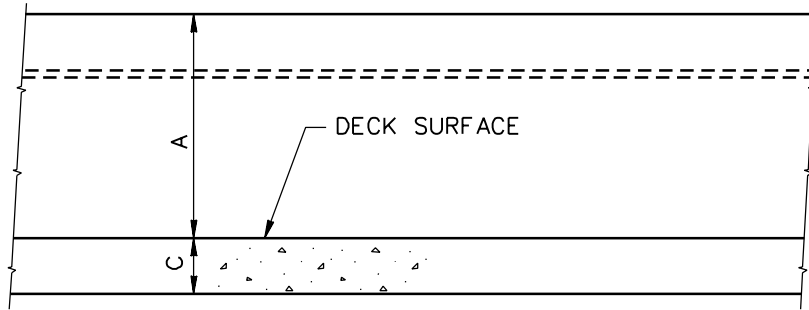
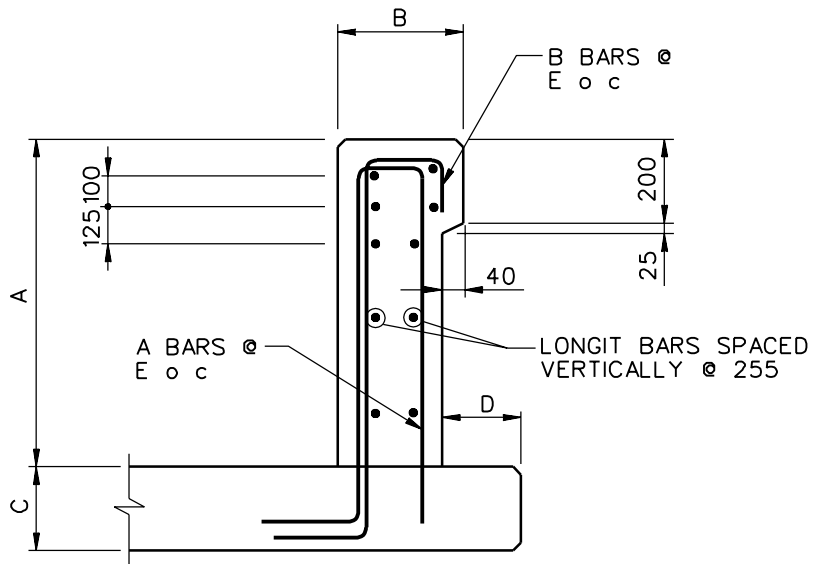


- NOTE:**
1. USE 40 COVER THROUGHOUT.
  2. A AND B BARS SHOULD ALTERNATE.



**ELEVATION**



**SECTION**

SYSTEM	A	B	C MIN	D	E	LONGIT BAR SIZE	NO. LONGIT BAR
SBC01a	710	220	200	65	200	10	4
SBC01b	810	255	200	75	200	15	8
SBC01c	1070	305	255	200	300	25	10

1994

**VERTICAL - WALL BRIDGE RAILING**

**SBC01a-c**

SHEET NO. REF. NO.

1 of 4

### INTENDED USE

The vertical wall bridge railing can be used as an AASHTO Performance Level 1 (SBC01a), 2 (SBC01b), or 3 (SBC01c) bridge railing with the appropriate modifications. The 685 mm high version (SBC01a) is similar to the Texas T201 and California Type 26 bridge railings which have not been crash tested although their reinforcement details are similar to other 685-mm high tested bridge railings. SBC01b and SBC01c have been crash tested and satisfy AASHTO Performance Level 2 and 3 respectively. The Performance Level 2 and 3 versions are listed in the 1990 FHWA memorandum on crash-tested bridge rails as systems 17 and 22 respectively.

This drawing and specification address only the bridge railing and not the design or detailing of the bridge deck. Only reinforcement directly related to the bridge rail is shown. Bridge decks should be designed to develop the full strength of the bridge railing.

### COMPONENTS

Concrete shall develop a minimum 28-day strength of not less than 28 MPa. The concrete shall use a cement conforming to AASHTO M85 (ASTM C150) Type I or II. Reinforcing steel shall be Grade 400 MPa and shall conform to either of the following:

- (a) Epoxy-coated deformed bars as specified in AASHTO M284M (ASTM D3963M).
- (b) AASHTO M31M (ASTM A615M) deformed and plain billet steel reinforcing bars for use with calcium nitrite corrosion inhibitor (30% calcium nitrite solution).

## VERTICAL-WALL BRIDGE RAILING

# SBC01a-c

SHEET NO.

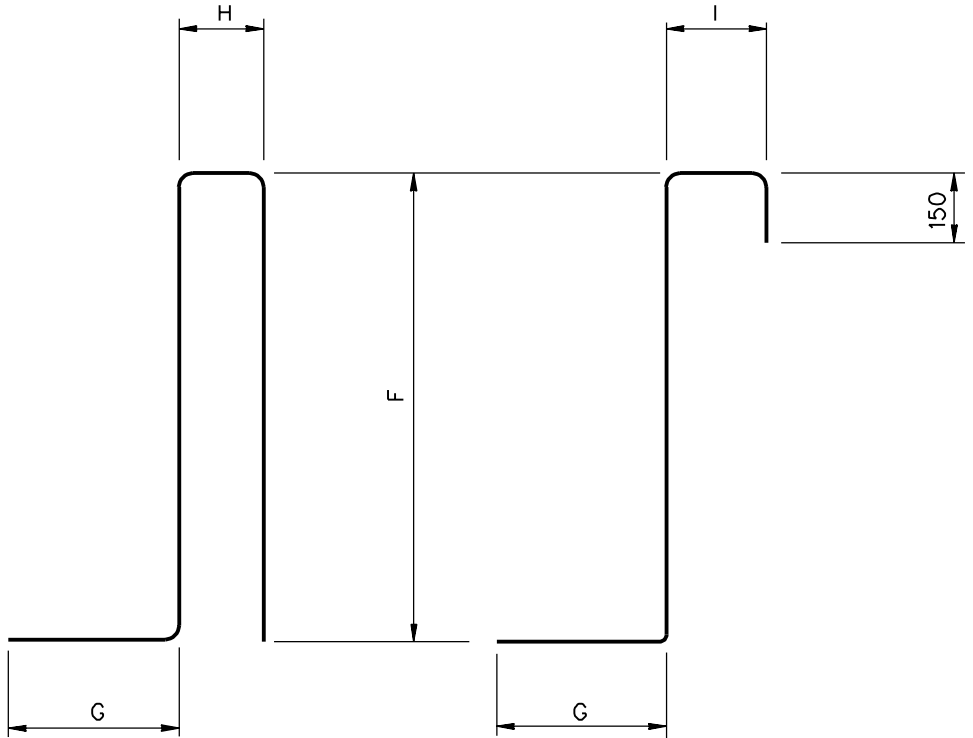
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DATE

03-05-06



SYSTEM	F	G	H	I
BC01a	600	255	100	140
BC01b	955	255	130	180
BC01c	1220	370	180	230



BAR A (15)

BAR B (15)

1994

VERTICAL-WALL BRIDGE RAILING

SBC01a-c

SHEET NO. REF. NO.

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## REFERENCES

T. O. Willet, *Crash Tested Bridge Rails*, Memorandum to Regional FHWA Administrators, Federal Highway Administration, Washington, D.C., August 13, 1990.

C.E. Buth, T.J. Hirsch, and W. L. Menges, "*Testing of New Bridge Rail and Transition Designs*", FHWA Report No. FHWA-RD-93-058, Federal Highway Administration, Washington, D.C., May 1993.

C.E. Buth, T.J. Hirsch, and C.F. McDevitt, *Performance Level Two Bridge Railings*, Transportation Research Record, Transportation Research Board, Washington, D.C., 1990.

## VERTICAL-WALL BRIDGE RAILING

# SBC01a-c

SHEET NO.

DATE

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03-05-06

