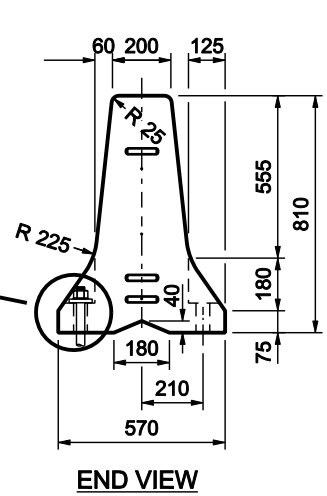
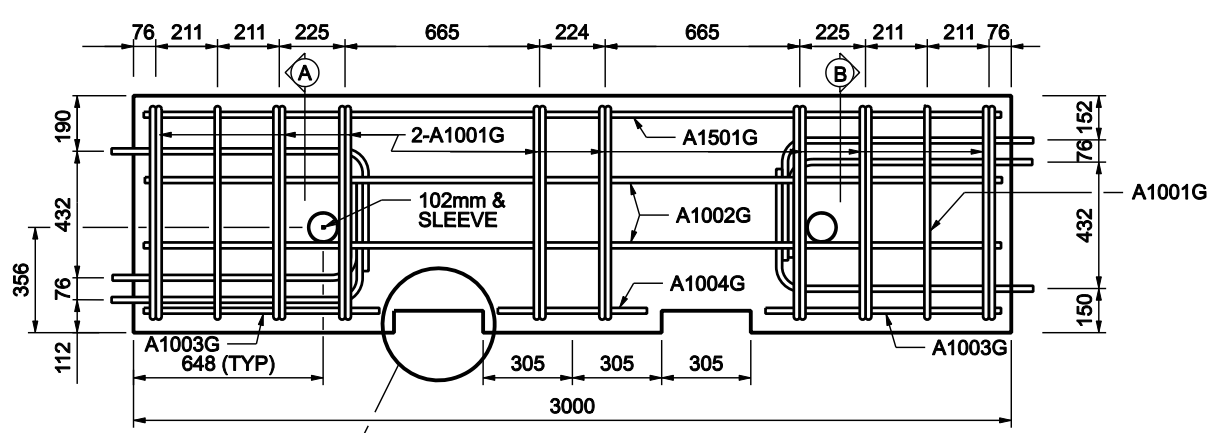


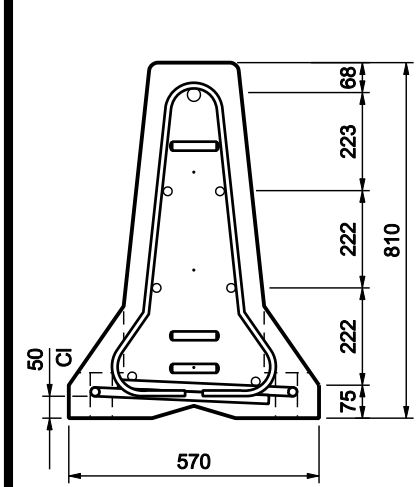
OPTIONAL ANCHOR BOLTS
(Traffic Side Only)



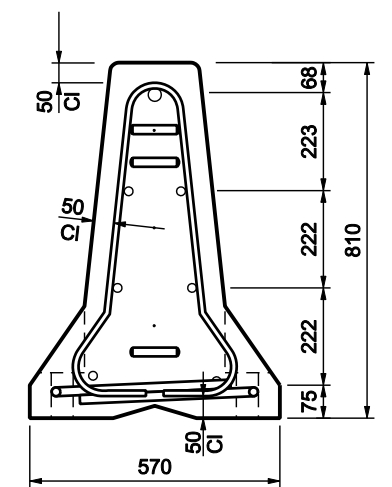
END VIEW



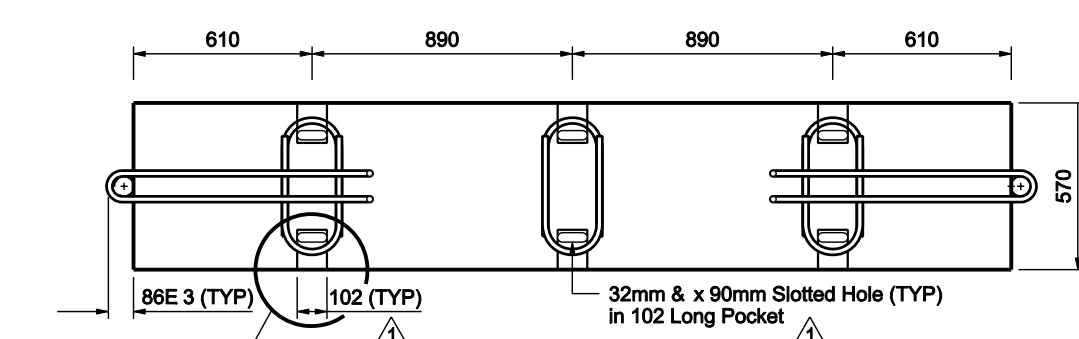
ELEVATION VIEW



SECTION A

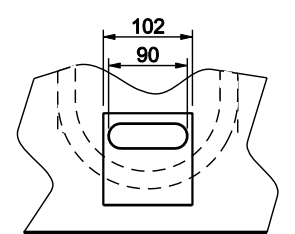


SECTION B

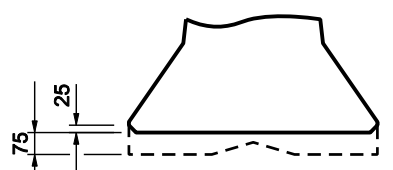


PLAN VIEW

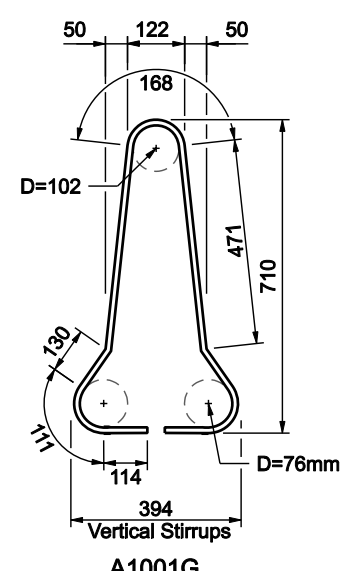
NOTE: Remaining rebars are omitted for clarity



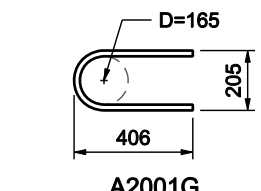
SLOTTED HOLE DETAIL



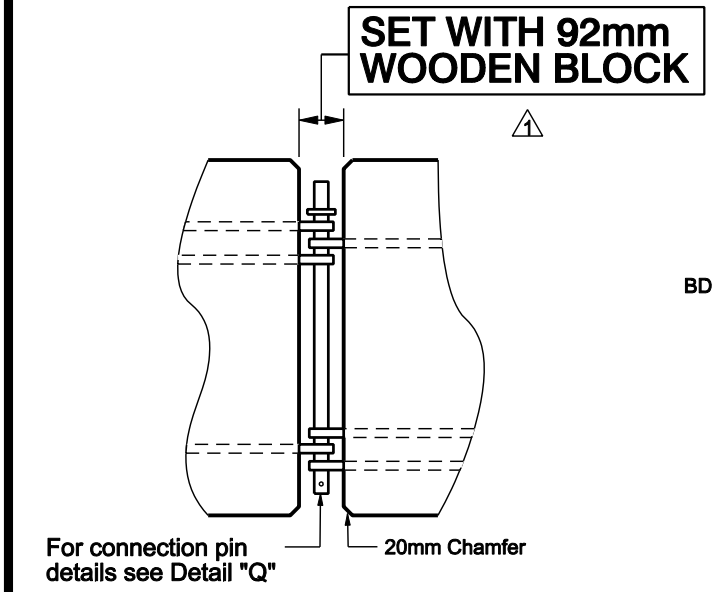
LIFTING SLOT DETAIL
(25mm Chamfer to prevent spalling)



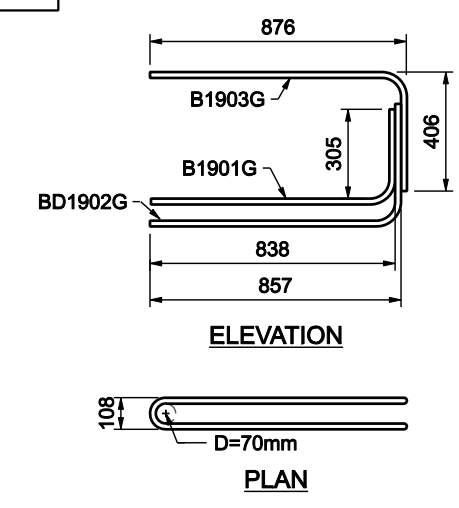
A1001G



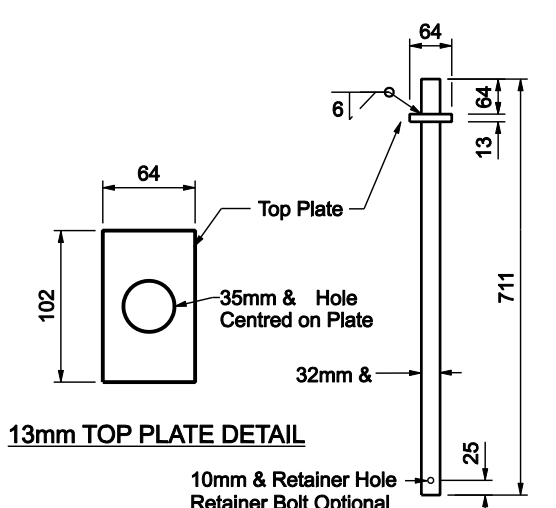
A2001G



DETAILS OF BARRIER CONNECTION



LOOP BAR ASSEMBLY
Material as stated in General Notes



CONNECTION PIN DETAIL

General Notes:

1. The barrier is based on a design that has been crash tested and meets the requirements of NCHRP Test Level 3. The following deflection information is provided for guidance on the use of this barrier:

2000 kg pick-up truck test @ 100kph @ 258	Approx deflection
Unanchored	1800 mm
Four 25 mm diameter by 1m long deformed rebar dowels to be driven through holes provided to be flush with the face of the concrete barrier to prevent snagging	75 mm
Three 19 diameter anchor bolts c/w drop-in anchors in concrete slab on traffic side	900 mm (anchor failure is expected)
Three 28 diameter A307 fully developed tension anchor bolts on traffic side	300 mm (deflection on top edge only)

When using this barrier, it is the responsibility of the user to ensure appropriate deflection room or anchoring commensurate with the risks based on traffic and site conditions.

Materials:

1. Reinforcing bars – Grade 400W.
2. 19 mm diameter loop bars – Minimum yield 420 MPa, minimum tensile strength 550 MPa, minimum 14% elongation in 203 mm, pass a 180 degree bend test using a 3.5D bend diameter.
3. 32 mm diameter pin – ASTM A36.
4. All reinforcing bars and steel hardware to be hot-dip galvanized after fabrication to the requirements of CSA G164.
5. Concrete strength shall be 40 MPa @ 28 days, and all requirements of Section 7 -Precast Concrete Units of the Specifications for Bridge Construction shall be met.

Handling and installation:

1. At no time shall the barriers be lifted, moved, etc. by the use of the loop bars at the ends.
2. For barriers placed on a paved surface, all loose dirt and sand shall be removed from the roadway just prior to placement of the barriers. Barriers can also be placed on a compacted base material with a minimum thickness of 150 mm and a minimum width of 1.2 m.
3. Calculated mass of one segment = 1.8 tonnes

BAR LIST : 3000 SEGMENT					
Mark	Size	Shape	No.	Length	Mass
A1001G	10		18	1820	26.0
A2001G	20		6	898	13.0
A1501G	15		1	2900	5.0
A1002G	10		4	2900	9.1
A1003G	10		4	790	2.0
A1004G	10		2	510	1.0
TOTAL Kg					55.0

No.	REVISIONS	BY	DATE
2	General Note #1	RY	10 Aug 2011
1	Notes and Details	BK	Sept/06

Approved:
Original signed by
Allan Kwan

Executive Director,
Technical Standards Branch

Date: NOVEMBER 23, 2004

PRECAST 'F' SHAPE BARRIER
NCHRP 350 TEST LEVEL 3

Prepared By: M.T	Checked By: R.Y	Scale: N.T.S.	Dwg No.: CB6 4.2 M 16
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