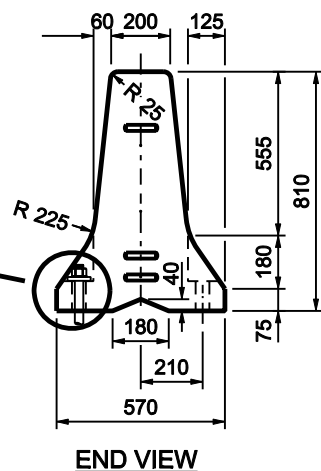
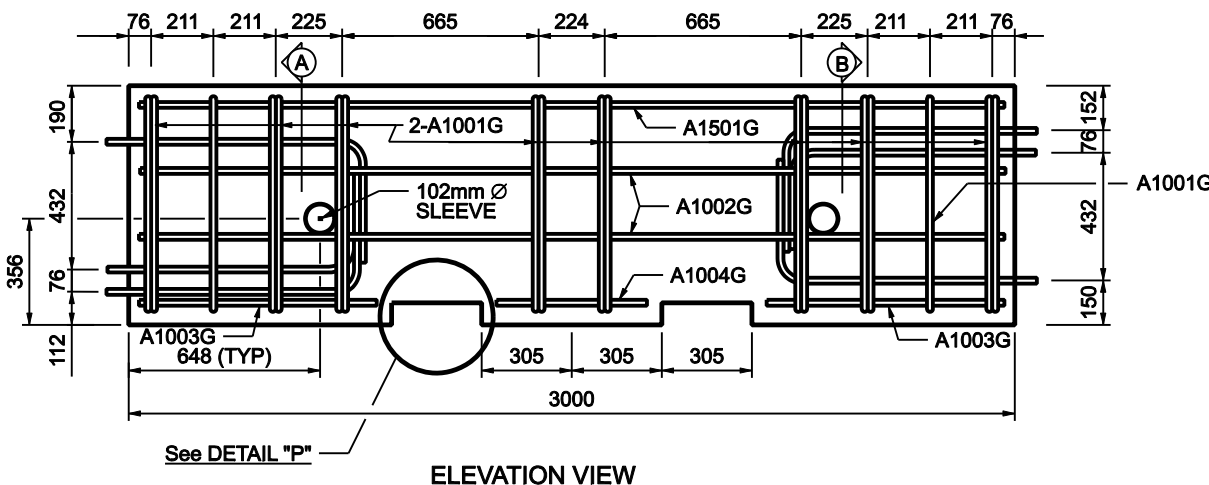


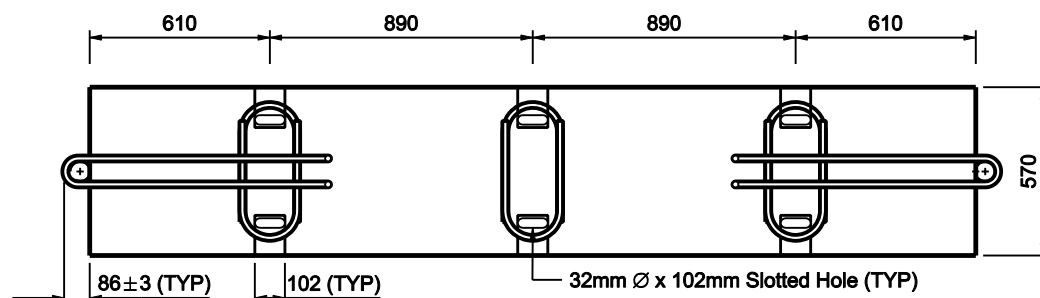
**OPTIONAL ANCHORS**  
(Traffic Side Only)



**END VIEW**

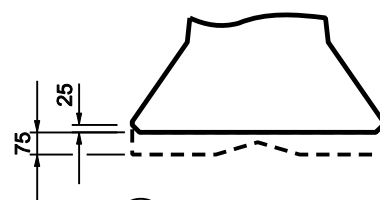


**ELEVATION VIEW**

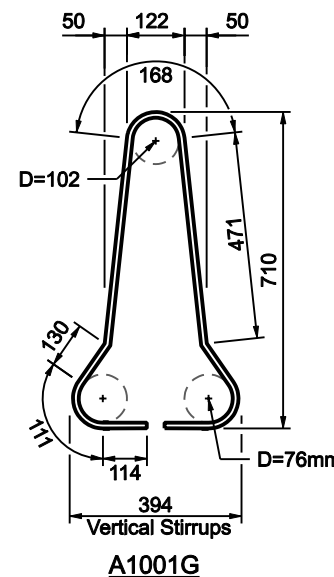


**PLAN VIEW**

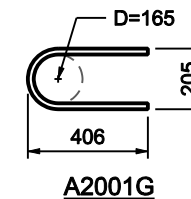
NOTE: Remaining rebars are omitted for clarity



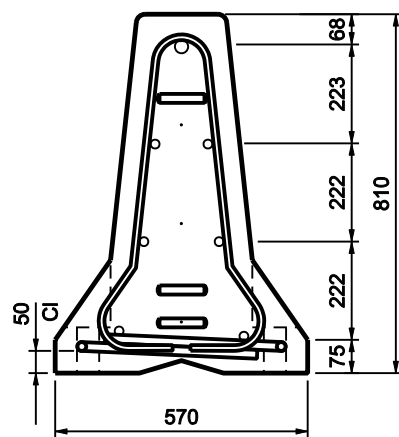
**LIFTING SLOT DETAIL**  
(25mm Chamfer to prevent spalling)



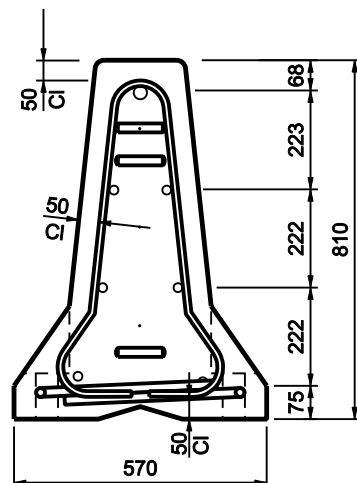
**A1001G**



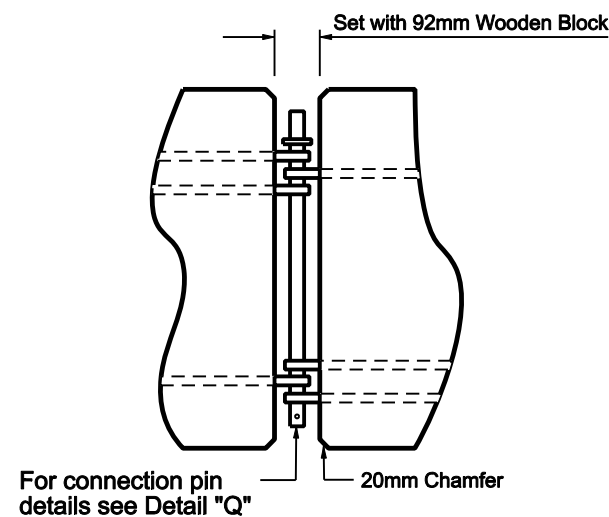
**A2001G**



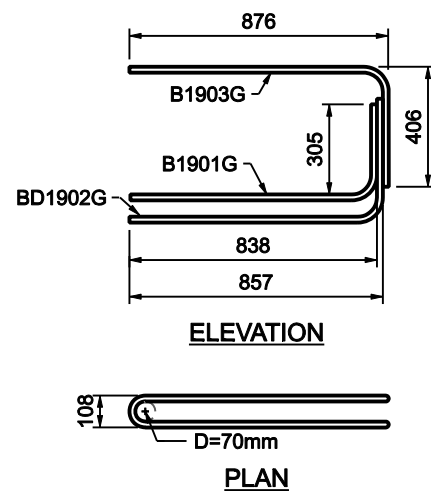
**SECTION A**



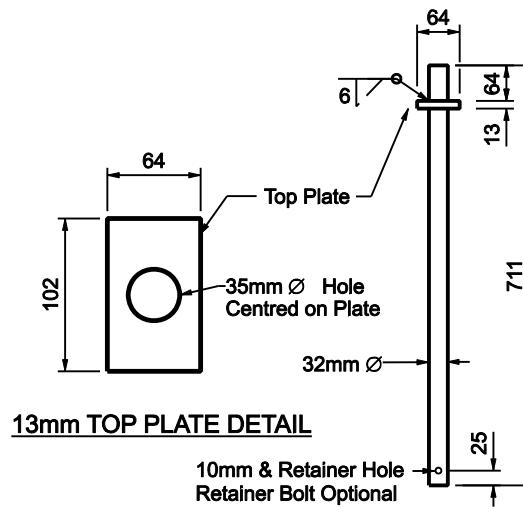
**SECTION B**



**DETAILS OF BARRIER CONNECTION**



**LOOP BAR ASSEMBLY**  
Material as stated in General Notes



**13mm TOP PLATE DETAIL**

10mm & Retainer Hole  
Retainer Bolt Optional

**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 @ 25°   | Approx deflection                    |
|---|--------------------------------------|
| Unanchored  | 1800 mm                              |
| Four 25 mm diameter by 1m long steel dowels per segment driven through holes provided | 75 mm                                |
| Three 19 diameter 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 |
|-----|-----------|----|------|
|     |           |    |      |

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 |
|------------------|-----------------|---------------|-----------------------|