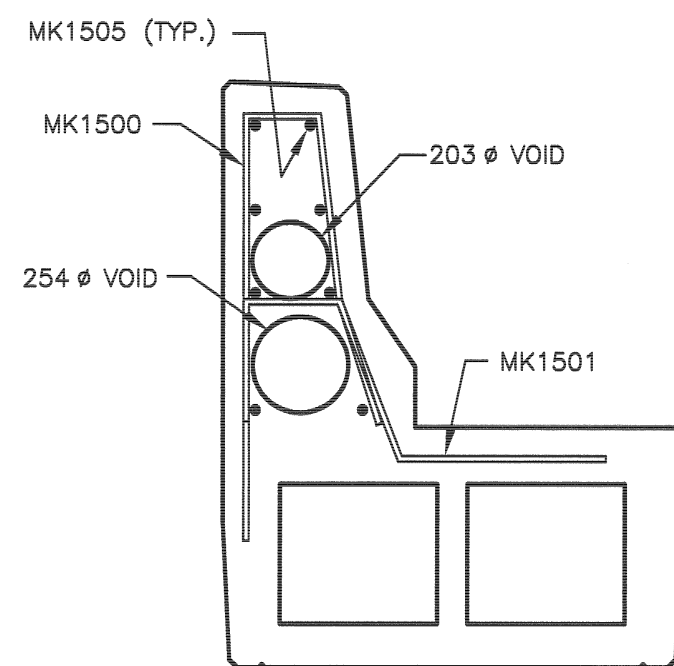
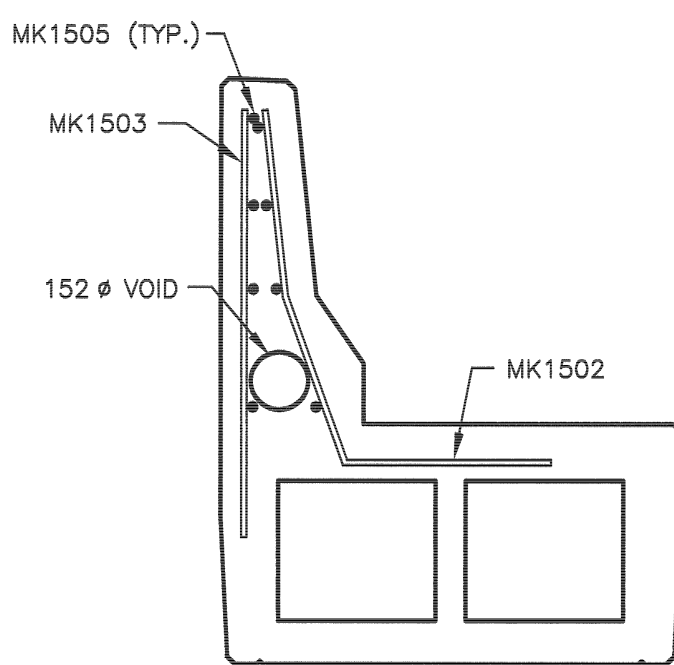
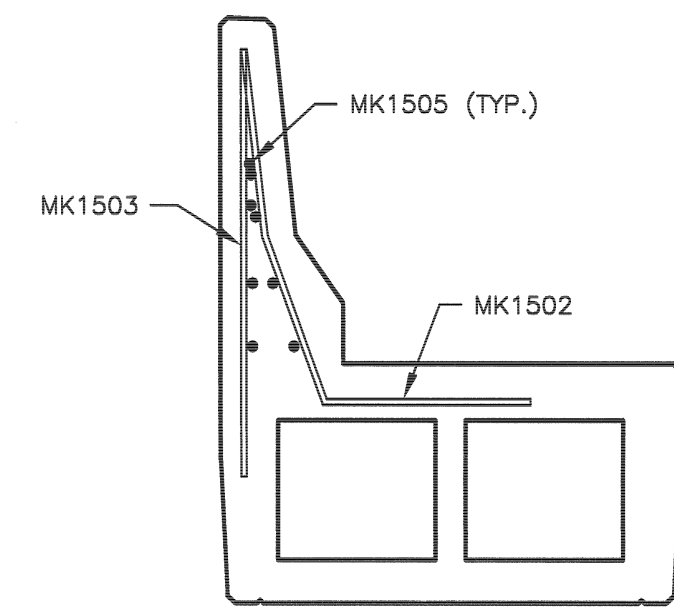




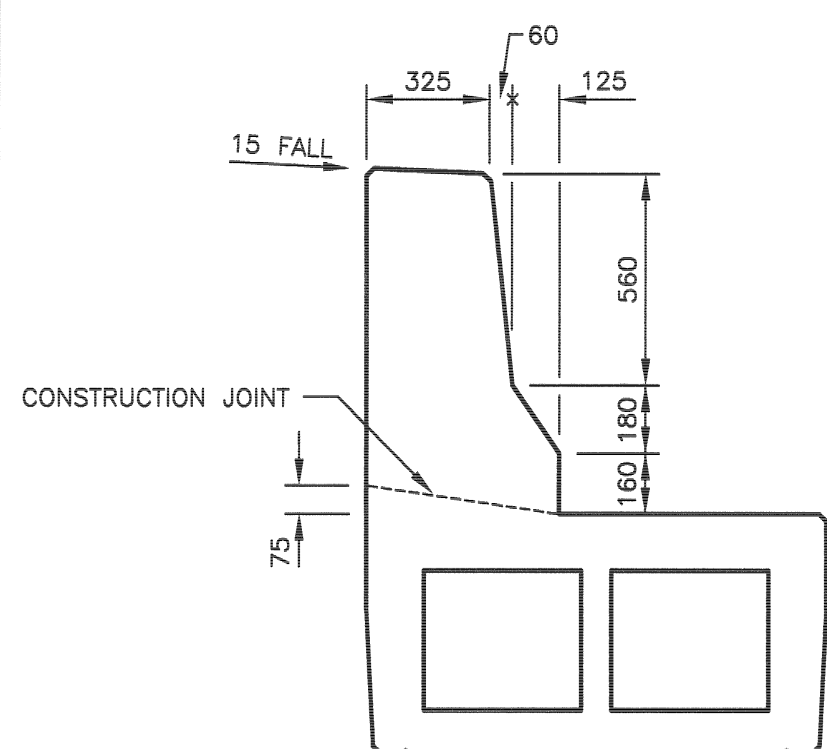
SECTION A-A
SCALE 1:20



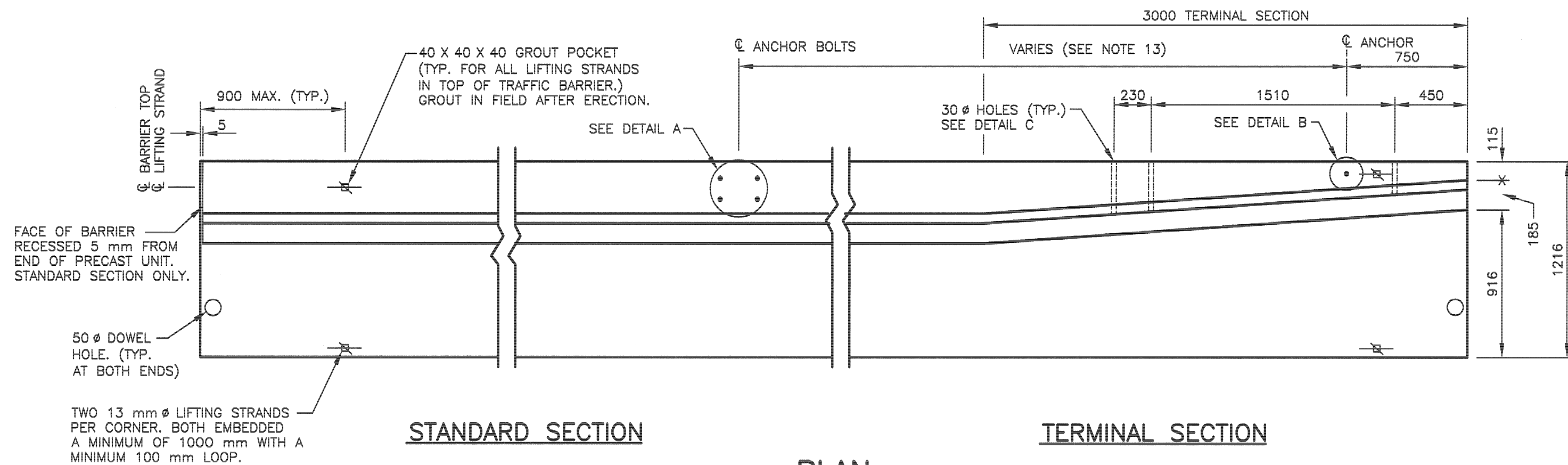
SECTION B-B
SCALE 1:20



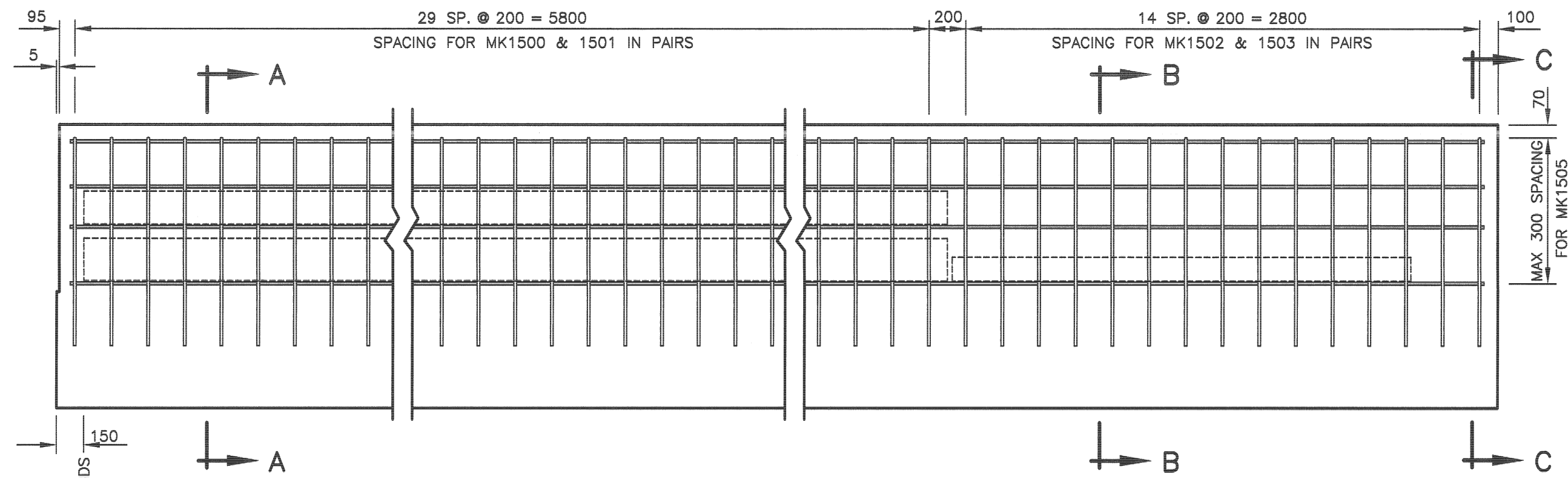
SECTION C-C
SCALE 1:20



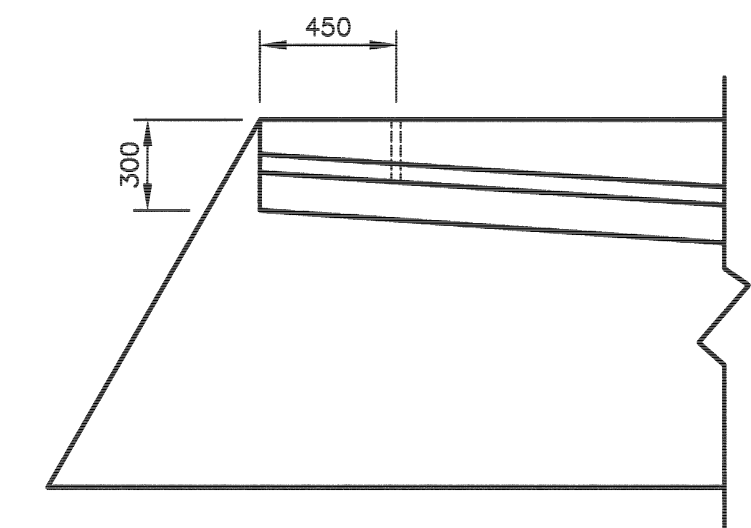
STANDARD CROSS SECTION
SCALE 1:20



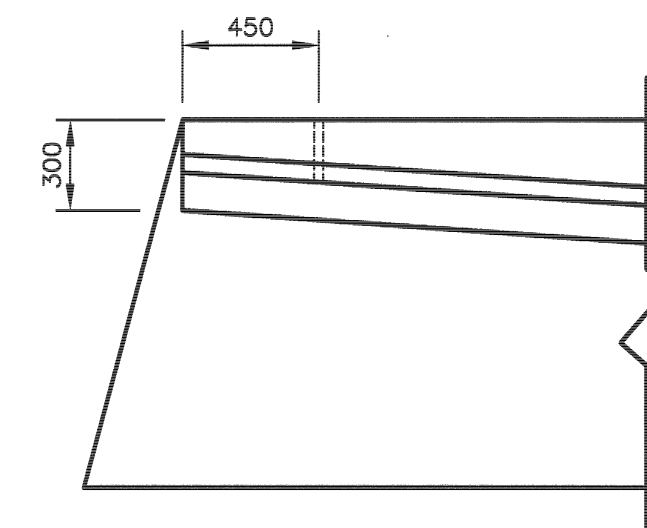
PLAN
SCALE 1:25



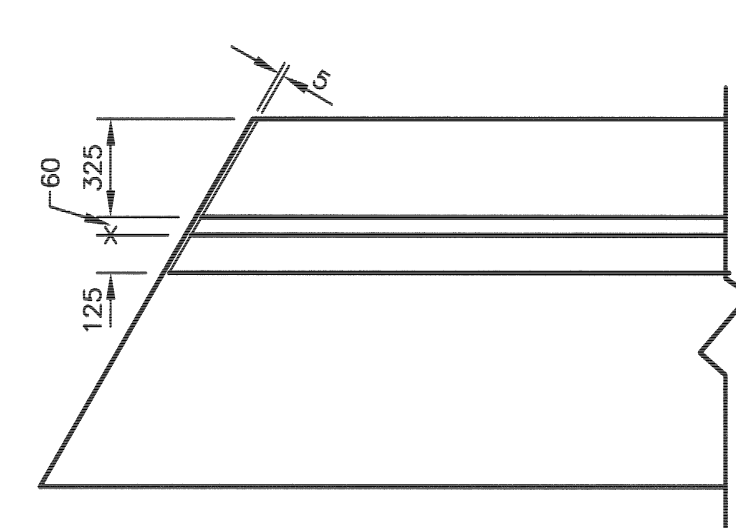
ELEVATION REINFORCEMENT
SCALE 1:25



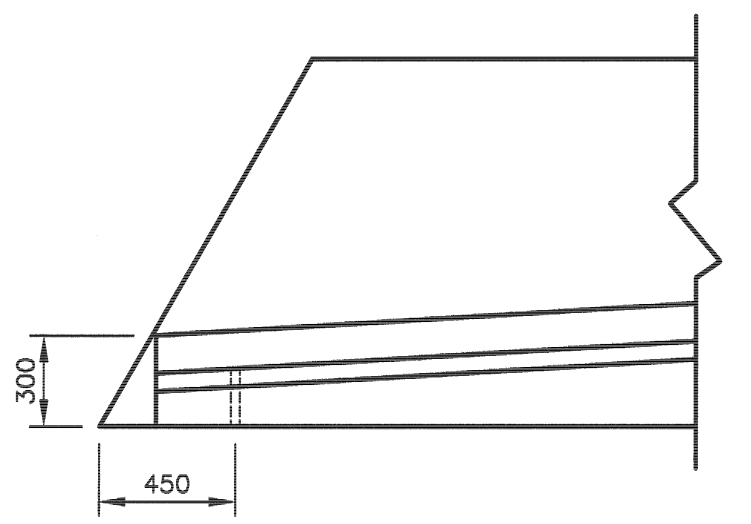
30° SKEW - TERMINAL SECTION



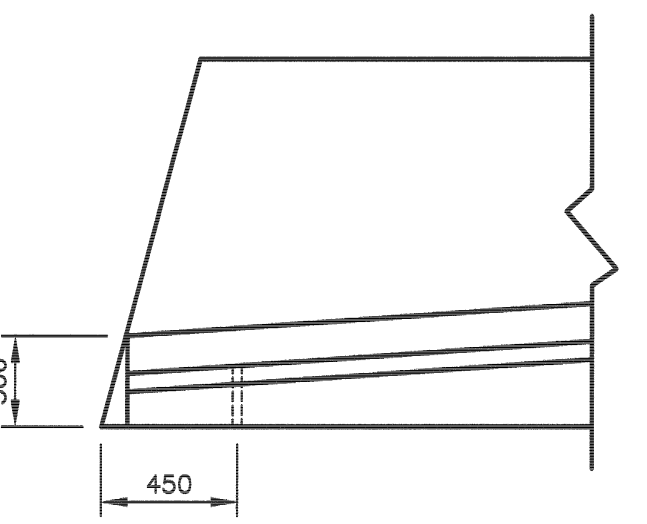
15° SKEW - TERMINAL SECTION



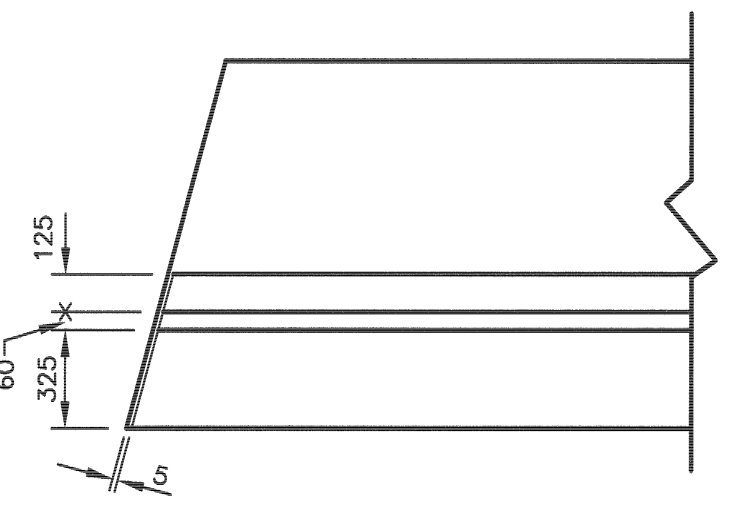
30° SKEW - STANDARD SECTION



30° SKEW - TERMINAL SECTION



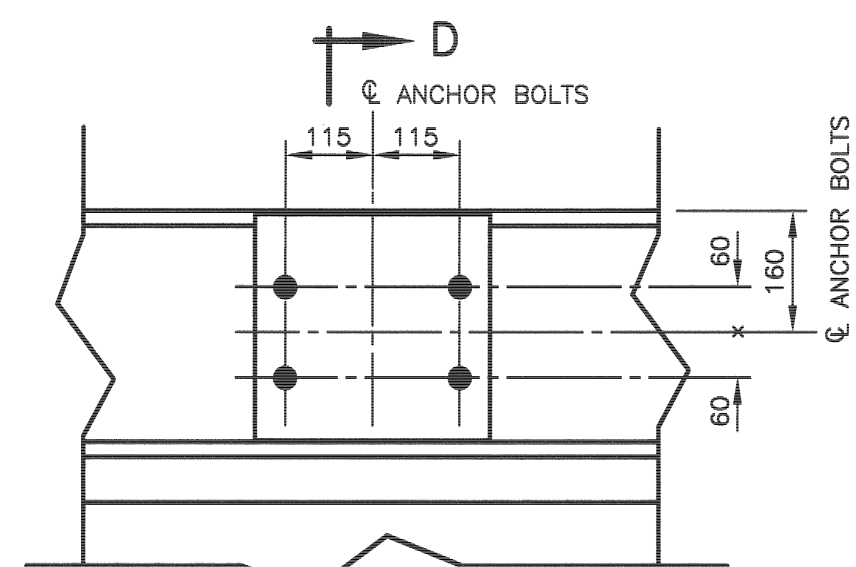
15° SKEW - TERMINAL SECTION



15° SKEW - STANDARD SECTION

SKEWED END TREATMENT

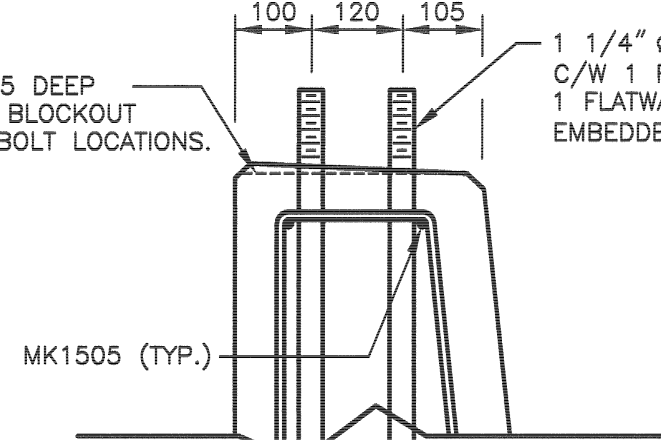
SCALE 1:25



PLAN

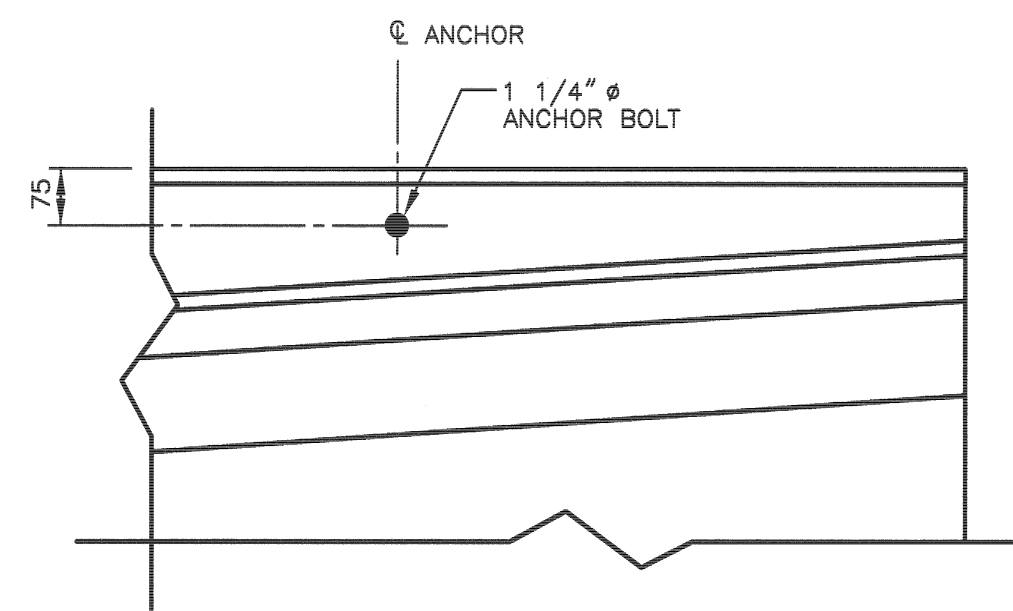
DETAIL A
SCALE 1:10

PROVIDE A 15 DEEP X 310 LONG BLOCKOUT AT ANCHOR BOLT LOCATIONS.



SECTION D-D

NOTE: ANCHORS SHALL BE INSTALLED VERTICALLY

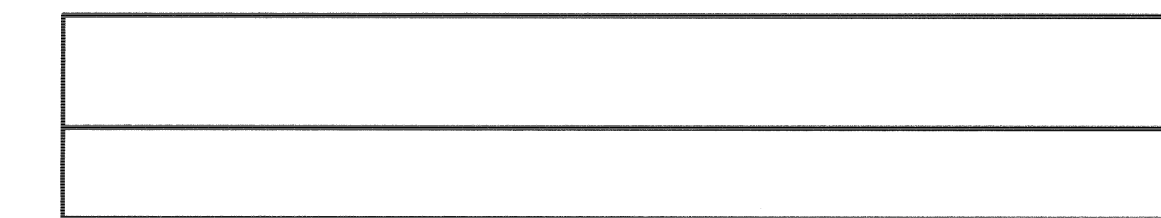


DETAIL B

SCALE 1:10

REINFORCING SCHEDULES

NOTE: ALL DIMENSIONS ARE OUT TO OUT



MARK	TYPE	NO.	TYPE	LENGTH	TOTAL LENGTH	GRADE	MASS (kg)
1500	15 M	45	A	1860	83 700	400	131
1501	15 M	45	B	1910	85 950	400	135
1505	15 M	8	STR.	8860	70 880	400	111

NOTE: USE FOR INTERIOR SPANS ONLY.
0° SKEW. SEE NOTE 19.

TYPE I

(STANDARD SECTION FULL LENGTH)

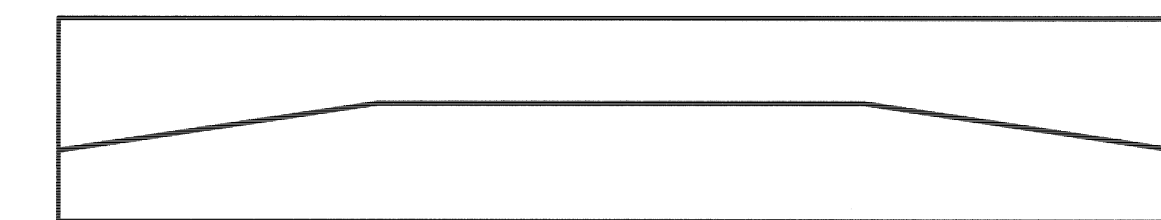


MARK	TYPE	NO.	TYPE	LENGTH	TOTAL LENGTH	GRADE	MASS (kg)
1500	15 M	30	A	1860	55 800	400	88
1501	15 M	30	B	1910	57 300	400	90
1502	15 M	15	C	1505	22 575	400	35
1503	15 M	15	STR.	1130	16 950	400	27
1505	15 M	8	STR.	8860	70 880	400	111

NOTE: USE FOR END SPANS ONLY.
0° SKEW. SEE NOTE 19.
REQUIRE 1 RIGHT HAND AND
1 LEFT HAND PER SIDE.
RIGHT HAND AS SHOWN.

TYPE II

(TERMINAL SECTION ONE END)

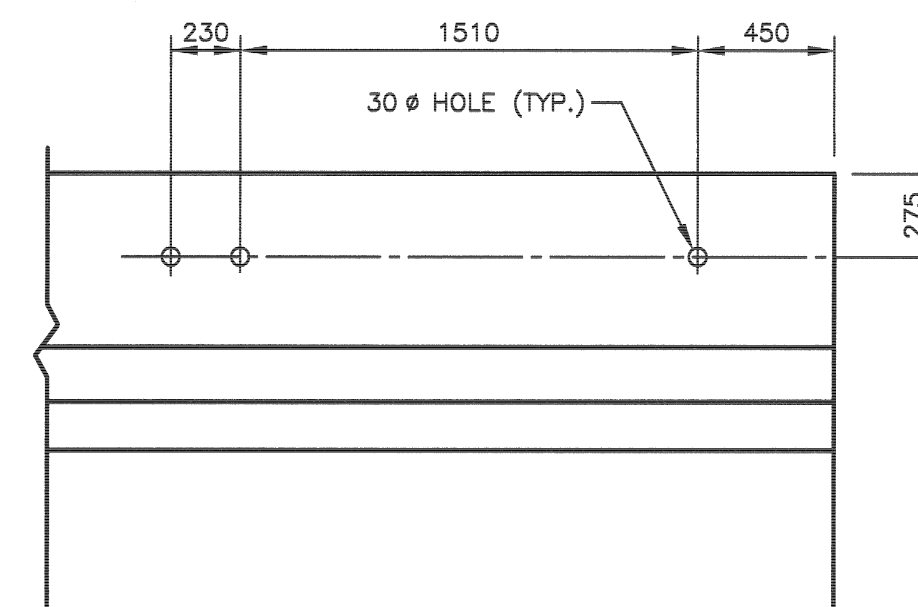


MARK	TYPE	NO.	TYPE	LENGTH	TOTAL LENGTH	GRADE	MASS (kg)
1500	15 M	15	A	1860	27 900	400	44
1501	15 M	15	B	1910	28 650	400	45
1502	15 M	30	C	1505	45 150	400	71
1503	15 M	30	STR.	1130	33 900	400	53
1505	15 M	8	STR.	8860	70 880	400	111

NOTE: USE FOR SINGLE SPAN BRIDGES
ONLY. 0° SKEW. SEE NOTE 19.

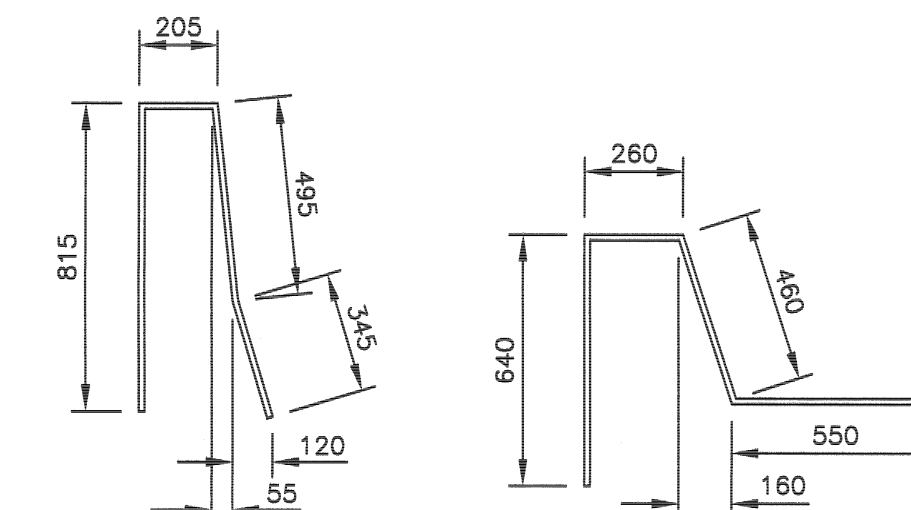
TYPE III

(TERMINAL SECTION BOTH ENDS)



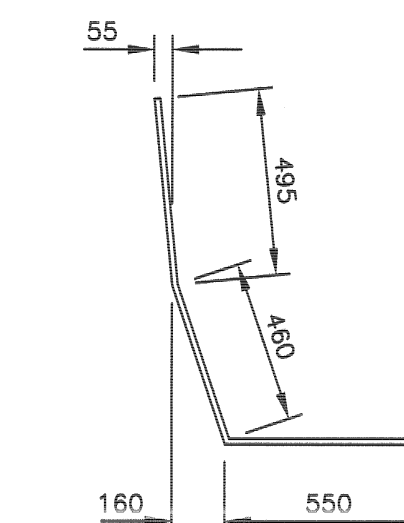
DETAIL C

SCALE 1:25



TYPE A

TYPE B



TYPE C

NOTES:

- Design Specifications - CAN/CSA-S6-06.
- Performance Level PL-2.
- Concrete for barriers shall be standard weight containing Type GU, General Use Portland cement with silica fume and 6% ± 1% entrained air. Maximum aggregate size shall be 20 mm.
- Concrete shall attain a minimum 28 day compressive strength of 35 Mpa.
- Reinforcing steel shall be fabricated from deformed bars conforming to the requirements of CAN/CSA-G30.18-M, Grade 400.
- Diameters of hooks and bends, unless otherwise noted, shall conform to the recommended sizes in CAN/CSA-S6-06.
- Girder units shall be exterior units as per Standard Plan BS102 modified to include a traffic barrier as noted on this plan.
- A midspan camber of 5 mm shall be cast into the top of the traffic barrier.
- Barrier reinforcement shall be free of concrete mortar before barrier forms are set in place.
- Prior to casting the barrier, the top surface of the precast unit shall be horizontal in a transverse direction with both ends of the unit at the same elevation. The unit shall be continuously supported throughout its length until the concrete in the barrier has attained a compressive strength of 15 MPa.
- All surfaces of traffic barrier shall be finished to a smooth uniform colour and texture.
- Barrier units shall have provision for only one dowel hole at each end.
- Bridgerail anchor details on Standard Plan BS102 do not apply to barrier units. Bridgerail anchor details shall be as shown on this sheet. Anchor spacing shall be as specified in the order.
- The 1 1/4" φ headed anchor bolts shall conform to the requirements of CAN/CSA-G40.21-M, Grade 300, and shall be galvanized. All galvanizing shall conform to the requirements of CSA Standard G164.
- Quantities shown are for the traffic barrier. These quantities are additional to those shown on Standard Plan BS102.
- All voids shall be formed with Norlux Fibre-Forms or equivalent. Ends of the voids shall be capped.
- Minimum clear cover for the reinforcing steel in the traffic face and top surface of the barrier shall be 70 mm. Minimum clear cover for the reinforcing steel in the rear face of the barrier shall be 55 mm.
- All exposed corners shall have a 20 mm chamfer.
- For skewed units, Type A, Type B and Type C bars shall be detailed and spaced as required.
- All dimensions are in millimetres unless noted otherwise.

QUANTITIES

ITEM	QUANTITY		
	TYPE I	TYPE II	TYPE III
REINFORCING STEEL	377 kg	351 kg	324 kg
CONCRETE	2.5 m ³	2.4 m ³	2.2 m ³
VOIDS	254 #	8700	5850
	203 #	8700	5850
	152 #	--	2450



BRIDGE STANDARDS

9 METRE BOX GIRDER

STANDARD BARRIER UNITS

RECOMMENDED BY: DATE: 29-MAY-2013
APPROVED BY: DATE: 29-MAY-2013

DESIGN	DRAWN	CHECKED	FILE
G.L.	S.A.	A.H.	
DATE	DATE	DATE	PLAN
27-Feb-2013	28-Feb-2013	14-Mar-2013	BS202

NO.	DATE	DESCRIPTION
		REVISIONS

Sheet 1 of 1

LAST REVISED DATE: 08-MAY-2013 3:20 PM

