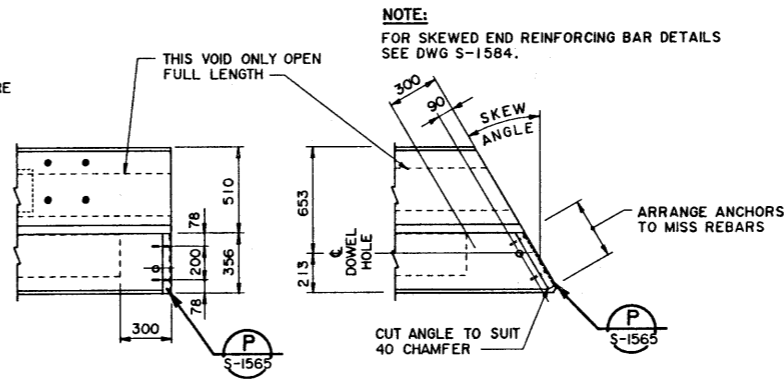


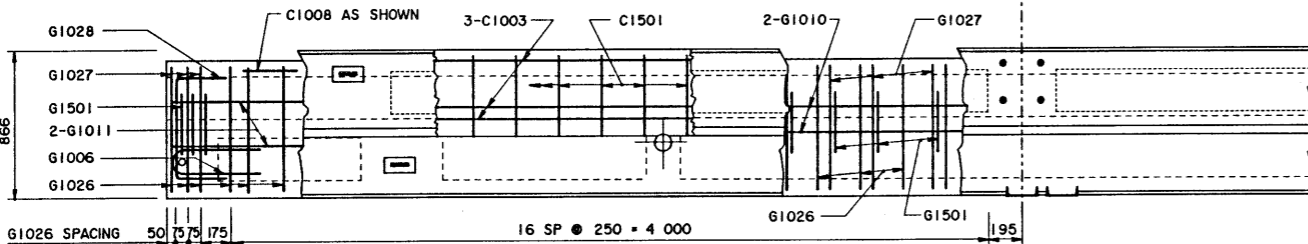
**NOTE:**  
BEND REINFORCING BAR WHERE NECESSARY TO ACCOMMODATE CHANNEL CONNECTORS. STIRRUP SPACING TO BE MAINTAINED.

**PLAN VIEW**  
1:20

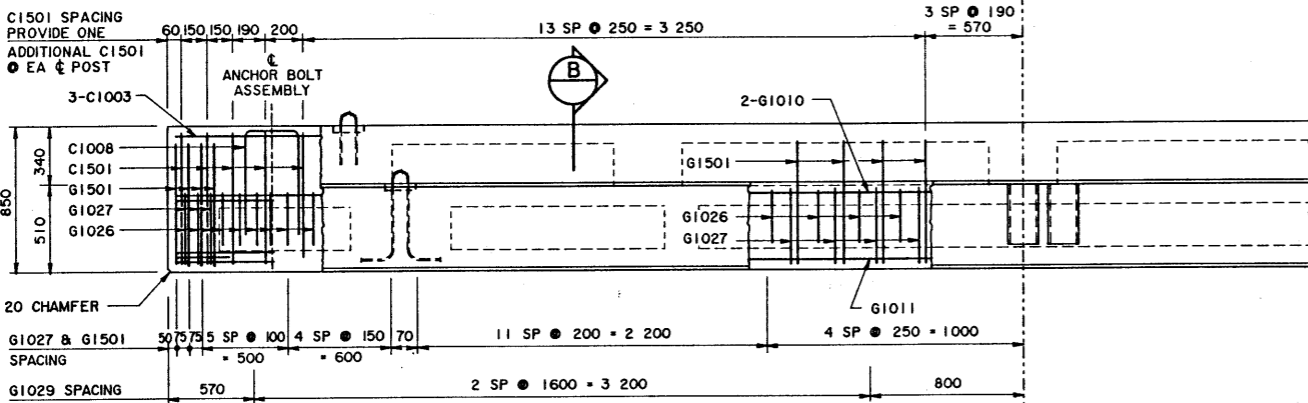


BAR LIST: FOR SQUARE GIRDER							
MARK	SIZE	NO	TYPE	X	Y	LENGTH	MASS
C1003	10	3	STR			9 050	21
C1008	10	2	A	310	600	1 510	2
C1501	15	46	E			1 455	105
G1006	10	6	D			1 080	5
G1010	10	2	STR			9 050	14
G1011	10	2	STR			8 950	14
G1026	10	41	A	725	300	1 325	43
G1027	10	55	B	725		1 820	79
G1028	10	2	A	600	300	1 200	2
G1029	10	6	STR			700	3
G1501	15	55	C			1 140	98
G2501	25	2	A	9 000	350	9 700	76

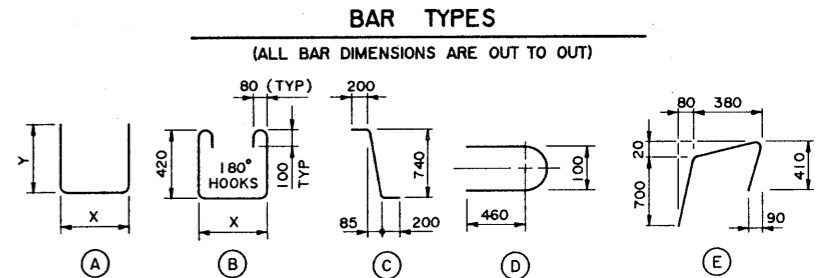
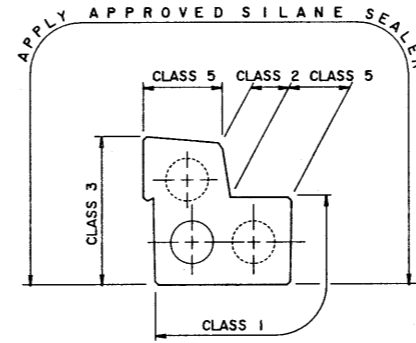
TOTAL kg : 462



**REINFORCEMENT PLAN**  
1:20



**ELEVATION**  
1:20



**GENERAL NOTES**

- ALL DRAWING REFERENCES ARE TO CURRENT DRAWINGS.
- DESIGN**
  - CAN/CSA-S6-88 SPECIFICATIONS EXCEPT AS MODIFIED BELOW:
    - ALLOWABLE TENSION AT MIDSPAN IS 40% OF MODULUS OF RUPTURE (SEVERE EXPOSURE CONDITIONS).
    - NO TENSION ALLOWED IN DECK SURFACE.
- LOADING:**
  - LIVE LOAD - CAN/CSA-S6-88; CS-750  
0.8 WHEEL LINES PER GIRDER
  - DEAD LOAD - GIRDER = 0.86 t/m
  - WEARING SURFACE = 0.09 t/m

**MATERIALS**

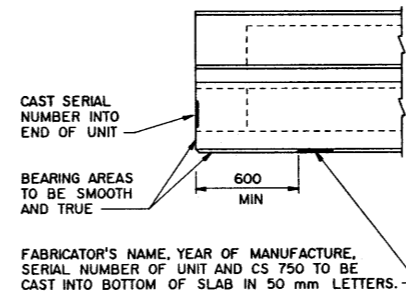
- CONCRETE SHALL CONTAIN SILICA FUME AND BE MADE OF LIGHTWEIGHT COARSE AGGREGATE AND NATURAL SAND FINES. UNIT WEIGHT OF SEMI-LIGHTWEIGHT CONCRETE SHALL BE 1920 kg/m<sup>3</sup>.
- 28 DAY CONCRETE STRENGTH - 35 MPa
- RELEASE STRENGTH - 28 MPa
- PRESTRESSING STEEL SHALL BE 13 #, 7 WIRE LOW RELAXATION STRAND (fpu = 1860 MPa).
- REINFORCING STEEL SHALL BE GRADE 400W (YIELD STRENGTH OF GRADE 300 USED IN DESIGN TO ALLOW TACK WELDING OF SHEAR REINFORCEMENT).

**FABRICATION**

- GIRDERS SHALL CONFORM TO THE CURRENT REQUIREMENTS OF THE BRIDGE MATERIALS SPECIFICATION FOR THE MANUFACTURE OF PRESTRESSED CONCRETE BRIDGE UNITS (SPEC 8190).
- FORCE IN PRESTRESSING STEEL:**
  - INITIAL TENSIONING LOAD = 129 kN/STRAND
  - DESIGN LOAD AFTER LOSSES = 112 kN/STRAND
- CURB SHALL BE CAST MONOLITHICALLY WITH GIRDER.
- ANCHOR BOLT ASSEMBLIES SHALL BE CAST IN GIRDER AT SPACINGS SHOWN ON DRAWING S-1567.
- ALL GALVANIZING SHALL CONFORM TO ASTM SPEC A123 OR A153 AS APPLICABLE.
- BEND OR SHIFT REINFORCING WHERE REQUIRED TO CLEAR GIRDER CONNECTORS AND LIFTING HOOK ASSEMBLIES. STIRRUP SPACING SHALL BE MAINTAINED. FOR CONNECTIONS TO LIFTING HOOK LOCATIONS SEE DWG S-1567.

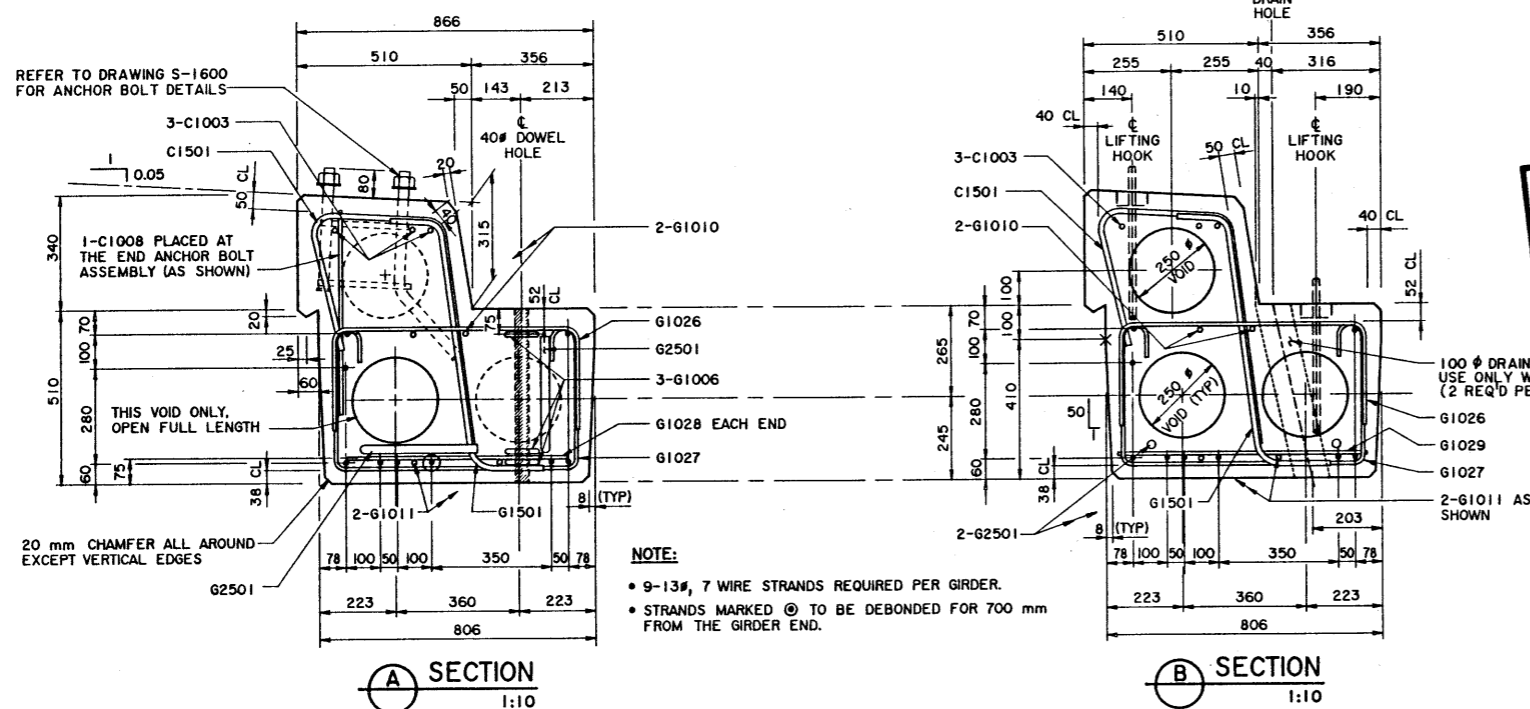
**ERECTION**

- ANY FREE SPACE BETWEEN CONNECTORS SHALL BE FILLED WITH DROP-IN WASHERS.
- CALCULATED MASS OF ONE GIRDER IS 8.3 t.



**GIRDER FINISHES**  
(BY FABRICATOR) 1:20

**SUPERSEDED**  
BY REVISION 43-07-10



**SECTION A**  
1:10

**SECTION B**  
1:10

APPROVED				<b>Alberta</b> TRANSPORTATION AND UTILITIES BRIDGE ENGINEERING BRANCH			
EXECUTIVE DIRECTOR BRIDGE ENGINEERING				PRESTRESSED CONCRETE 9.14 m TYPE SC-510 CURB GIRDER			
DESIGNED	DRAWN	DATE	CHECKED	DATE	STREAM	LOCATION	HIGHWAY
LEA	VMV	94-03-15	SBD	94-03-16			
REV	DATE	REVISIONS		BY	FILE	SHEET	DRAWING
						2 of 4	S-1566

**SUPERSEDED**