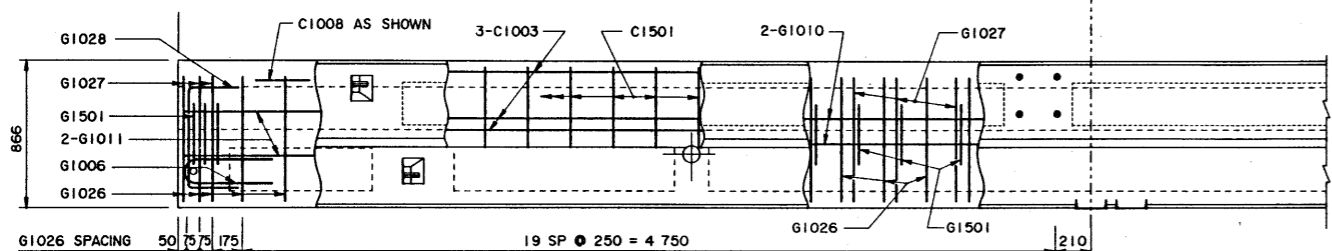
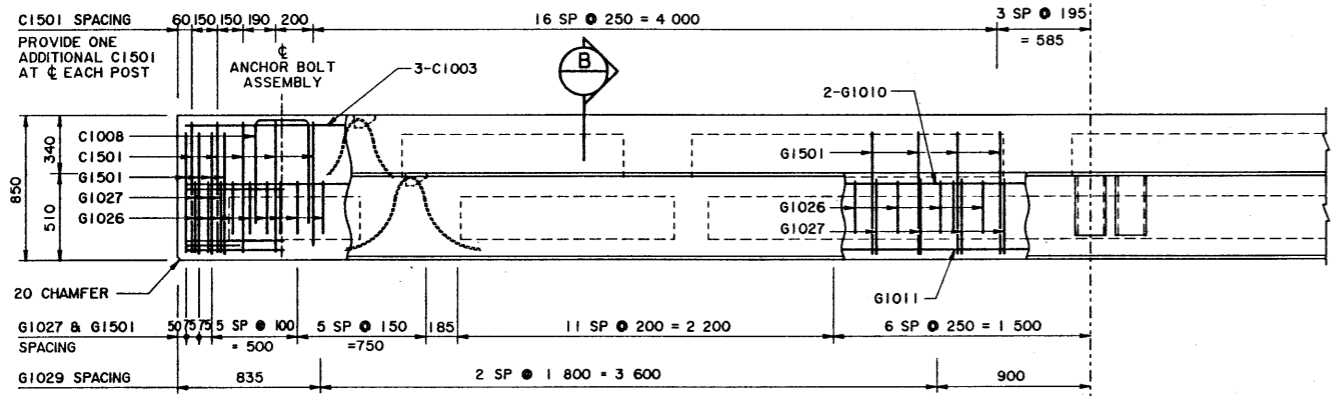


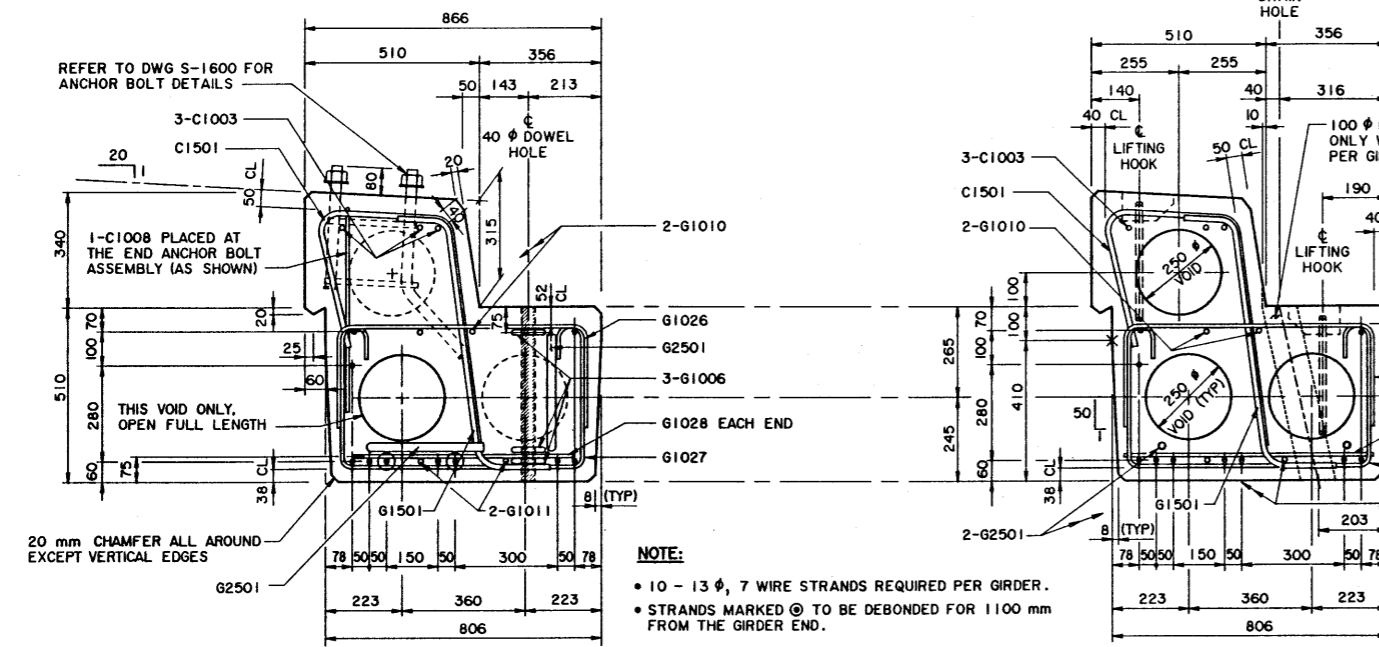
**PLAN VIEW**  
1:20



**REINFORCEMENT PLAN**  
1:20



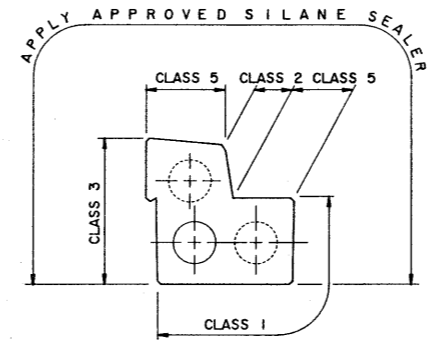
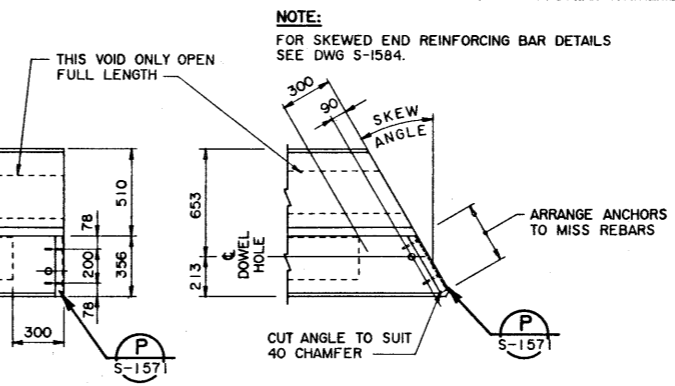
**ELEVATION**  
1:20



**SECTION A**  
1:10

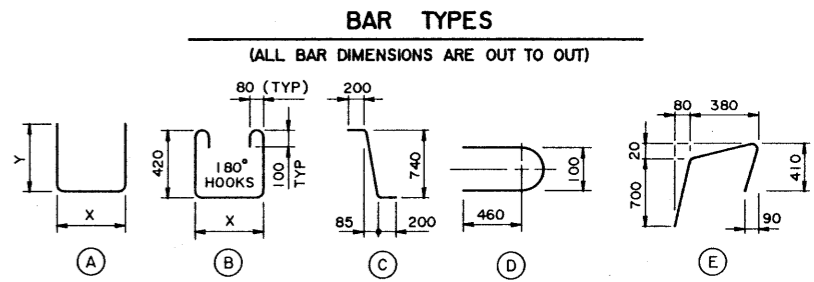
**SECTION B**  
1:10

**NOTE:**  
• 10 - 13  $\phi$ , 7 WIRE STRANDS REQUIRED PER GIRDER.  
• STRANDS MARKED  $\odot$  TO BE DEBONDED FOR 1100 mm FROM THE GIRDER END.



BAR LIST: FOR SQUARE GIRDER							
MARK	SIZE	NO	TYPE	X	Y	LENGTH	MASS
C1003	10	3	STR			10 570	25
C1008	10	2	A	310	600	1 510	2
C1501	15	52	E			1 455	119
G1006	10	6	D			1 020	5
G1010	10	2	STR			10 570	17
G1011	10	2	STR			10 470	16
G1026	10	47	A	725	300	1 325	49
G1027	10	61	B	725		1 820	87
G1028	10	2	A	600	300	1 200	2
G1029	10	6	STR			700	3
G1501	15	61	C			1 140	109
G2501	25	2	A	10 520	350	1 120	88

TOTAL kg : 522



**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  $\phi$ , 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**

- GIRDS SHALL CONFORM TO THE CURRENT REQUIREMENTS OF THE BRIDGE MATERIALS SPECIFICATION FOR THE MANUFACTURE OF PRESTRESSED CONCRETE BRIDGE UNITS (SPEC B190).
- FORCE IN PRESTRESSING STEEL:
  - INITIAL TENSIONING LOAD = 129 kN/STRAND
  - DESIGN LOAD AFTER LOSSES = 111 kN/STRAND
- CURB SHALL BE CAST MONOLITHICALLY WITH GIRDER.
- ANCHOR BOLT ASSEMBLIES SHALL BE CAST IN GIRDER AT SPACINGS SHOWN ON DRAWING S-1573.
- ALL GALVANIZING SHALL CONFORM TO ASTM SPEC A123 OR A153 AS APPLICABLE.
- BEND OR SHIFT REINFORCING WHERE REQUIRED TO CLEAR GIRDER CONNECTOR AND LIFTING HOOK ASSEMBLIES. STIRRUP SPACING SHALL BE MAINTAINED. FOR CONNECTION AND LIFTING HOOK LOCATIONS SEE DWG S-1573.

**ERECTION**

- ANY FREE SPACE BETWEEN CONNECTORS SHALL BE FILLED WITH DROP-IN WASHERS.
- CALCULATED MASS OF ONE GIRDER IS 9.6 t.

**SUPERSEDED**

DESIGNED				DRAWN				DATE				CHECKED				DATE				STREAM				LOCATION				HIGHWAY				FILE				SHEET				DRAWING																							
LEA				VMV				93-09-17																																																							
APPROVED																EXECUTIVE DIRECTOR BRIDGE ENGINEERING																PRELIM																DATE															
Albarta TRANSPORTATION AND UTILITIES BRIDGE ENGINEERING BRANCH																PRESTRESSED CONCRETE 10.67 m TYPE SC-510 CURB GIRDER																																															

