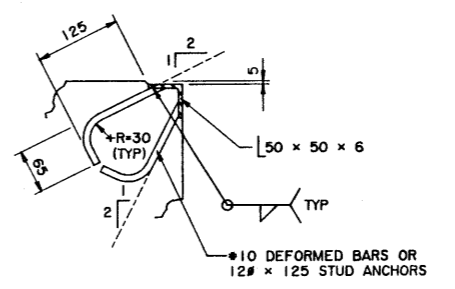
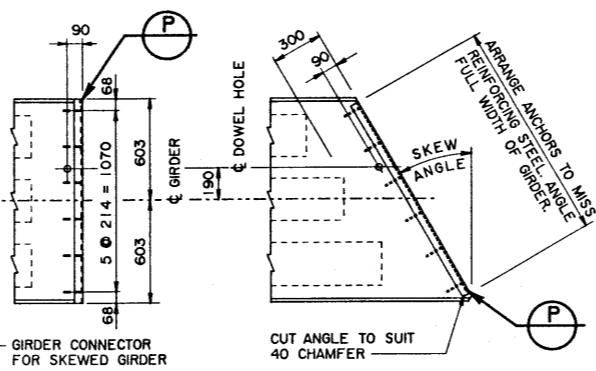


**NOTE:**  
FOR SKEWED END REINFORCING BAR DETAILS SEE DWG S-1583



**NOTE:**  
ASSEMBLY TO BE HOT DIP GALVANIZED AFTER FABRICATION.

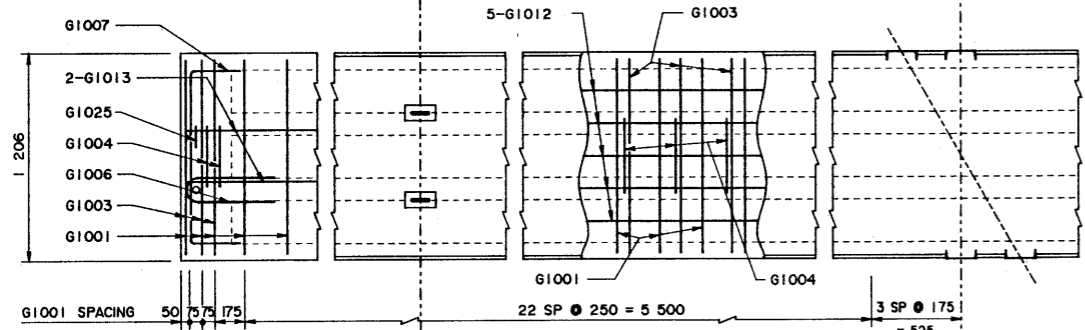
**P BUFFER ANGLE**  
1:5

BAR LIST: FOR SQUARE GIRDER							
MARK	SIZE	NO	TYPE	X	Y	LENGTH	MASS
G1001	10	57	A	1 125	300	1 725	77
G1003	10	69	B	1 125		2 220	120
G1004	10	67	B	420		1 520	80
G1006	10	6	D			1 080	5
G1007	10	2	A	1 000	300	1 600	3
G1012	10	5	STR			12 700	50
G1013	10	2	STR			12 600	20
G1024	10	6	STR			1 100	5
G1025	10	2	C			670	1
G2502	25	4	A	12 650	350	13 350	210

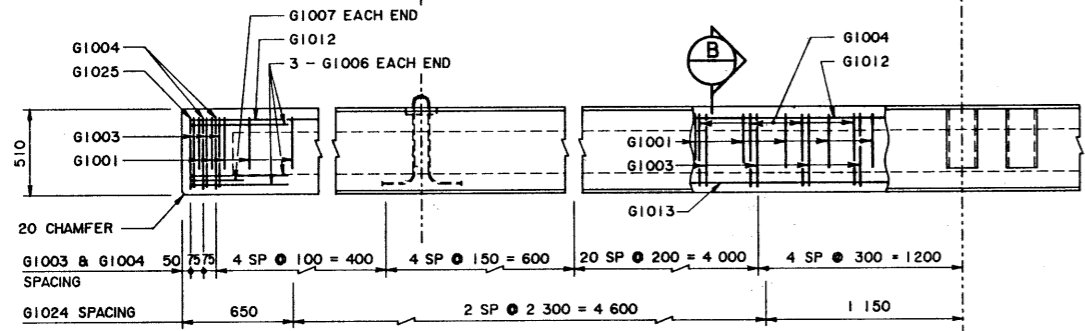
TOTAL kg : 571

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

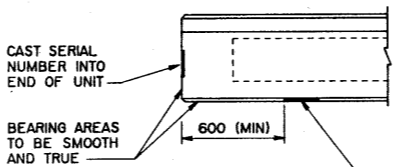
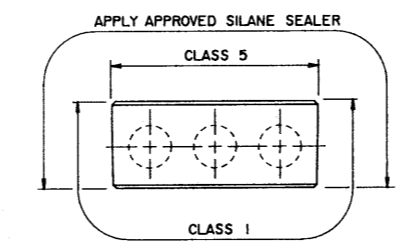
**PLAN VIEW**  
1:20



**REINFORCEMENT PLAN**  
1:20

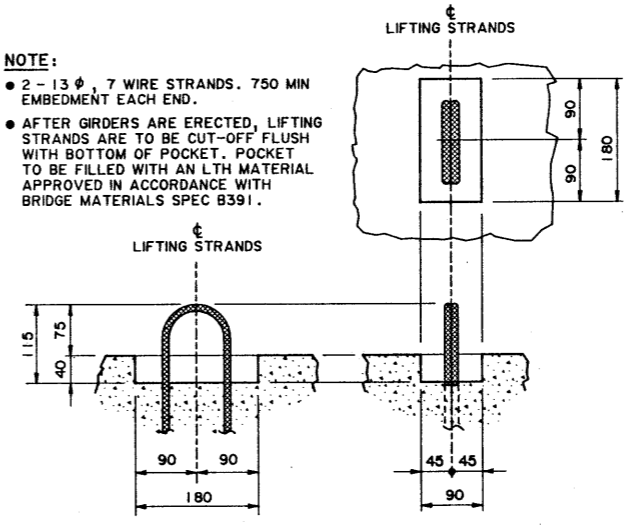


**ELEVATION**  
1:20

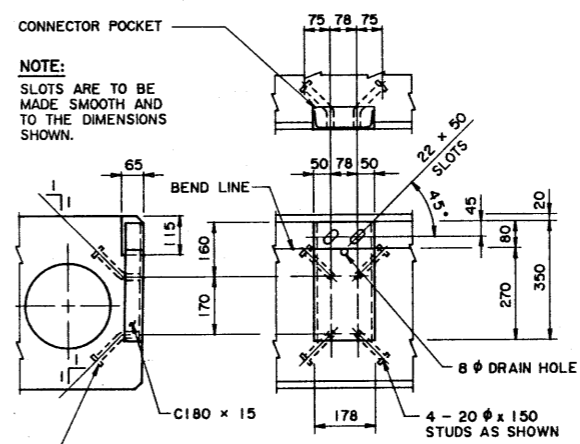


**GIRDER FINISHES**  
(BY FABRICATOR)  
1:20

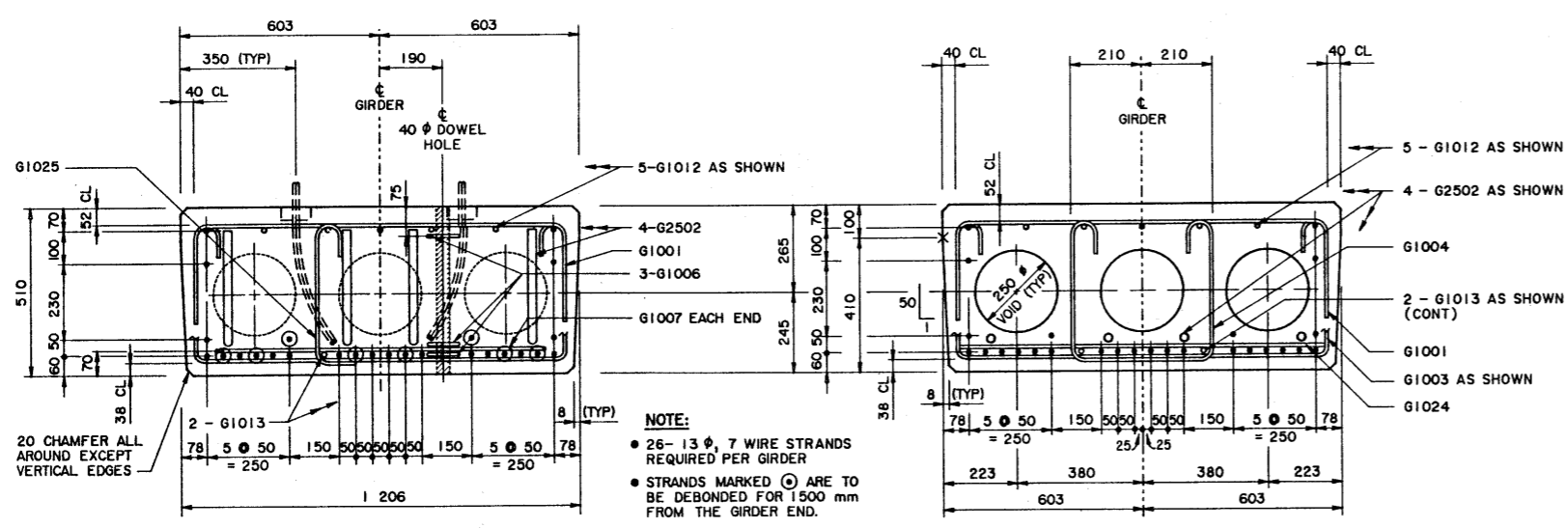
**NOTE:**  
• 2 - 13 Ø, 7 WIRE STRANDS. 750 MIN EMBEDMENT EACH END.  
• AFTER GIRDERS ARE ERECTED, LIFTING STRANDS ARE TO BE CUT-OFF FLUSH WITH BOTTOM OF POCKET. POCKET TO BE FILLED WITH AN LTH MATERIAL APPROVED IN ACCORDANCE WITH BRIDGE MATERIALS SPEC B391.



**R LIFTING HOOK POCKET**  
1:5



**S GIRDER CONNECTORS**  
1:10

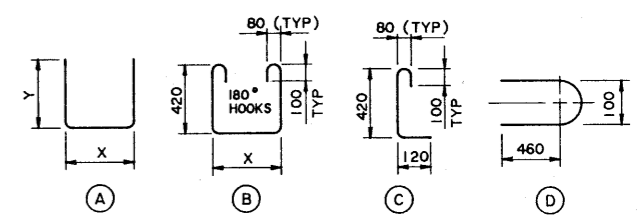


**A SECTION**  
1:10

**B SECTION**  
1:10

**BAR TYPES**

(ALL BAR DIMENSIONS ARE OUT TO OUT)



**GENERAL NOTES**

- ALL DRAWING REFERENCES ARE TO CURRENT DRAWINGS.
- DESIGN**
- CAN/CSA-S6-88 SPECIFICATIONS EXCEPT AS MODIFIED BELOW:
  - ALLOWABLE TENSION AT MIDSPAN IS 67% OF MODULUS OF RUPTURE WITH 50 mm WEARING SURFACE (80% WITH 90 mm WEARING SURFACE).
  - NO TENSION ALLOWED IN DECK SURFACE.
- LOADING:**
  - LIVE LOAD - CAN/CSA-S6-88; CS-750 ONE WHEEL LINE PER GIRDER
  - DEAD LOAD - GIRDER = 0.93 t/m
  - WEARING SURFACE = 0.24 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 - 45 MPa
- RELEASE STRENGTH - 28 MPa
- PRESTRESSING STEEL SHALL BE 13 Ø, 7 WIRE LOW RELAXATION STRAND (f<sub>pu</sub> = 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 B190).
- FORCE IN PRESTRESSING STEEL:
  - INITIAL TENSIONING LOAD = 129 kN/STRAND
  - DESIGN LOAD AFTER LOSSES = 103 kN/STRAND
- ALL GALVANIZING SHALL CONFORM TO ASTM SPEC A123.
- BEND OR SHIFT REINFORCING WHERE REQUIRED TO CLEAR GIRDER CONNECTORS AND LIFTING HOOK ASSEMBLIES. STIRRUP SPACING IS TO BE MAINTAINED FOR CONNECTOR AND LIFTING HOOK LOCATIONS SEE DWG S-1583.

**ERECTION**

- ANY FREE SPACE BETWEEN CONNECTORS SHALL BE FILLED WITH DROP-IN WASHERS.
- CALCULATED MASS OF ONE GIRDER = 12 700 t.

**SUPERSEDED**

**SUPERSEDED**  
S-1581 BY REVISION 95-07-10

APPROVED  
*Signature*  
EXECUTIVE DIRECTOR  
BRIDGE ENGINEERING  
DATE: May 24/94

Albarta TRANSPORTATION AND UTILITIES  
BRIDGE ENGINEERING BRANCH  
**PRESTRESSED CONCRETE**  
12.80 m TYPE SC-510  
INTERIOR GIRDER

REV	DATE	REVISIONS	BY	STREAM	LOCATION	HIGHWAY	FILE	SHEET	DRAWING
DESIGNED	94-03-15	VMV	94-03-15	94-05-16				1 of 4	S-1581