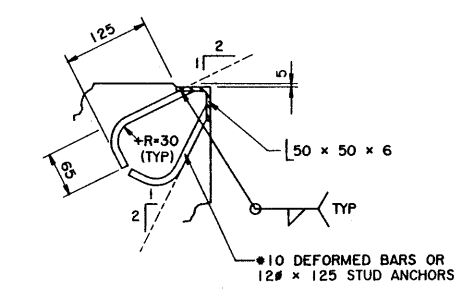
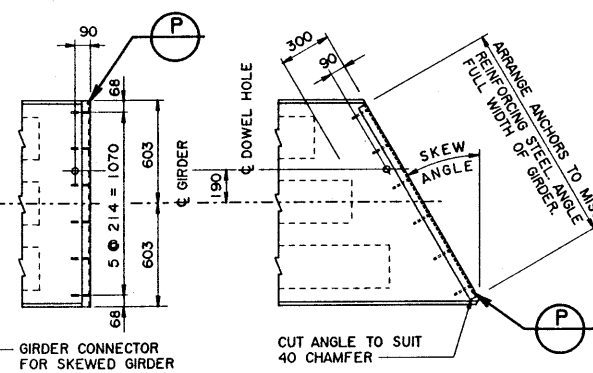


NOTE:  
FOR SKEWED END REINFORCING BAR DETAILS SEE DWG S-1579



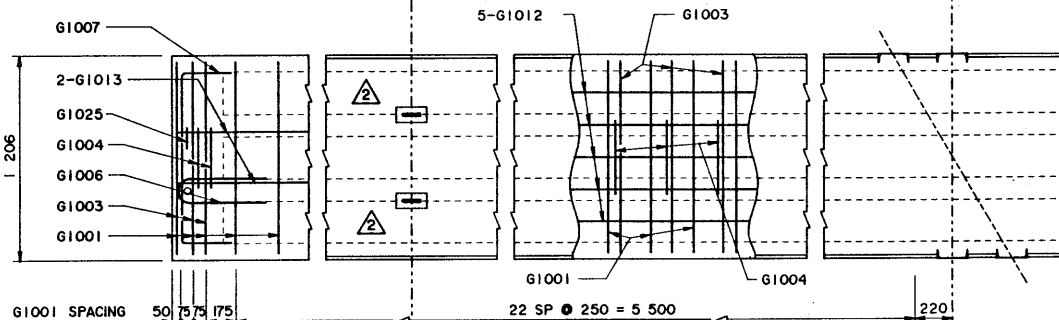
NOTE:  
ASSEMBLY TO BE HOT DIP GALVANIZED AFTER FABRICATION.

**P BUFFER ANGLE**  
1:5

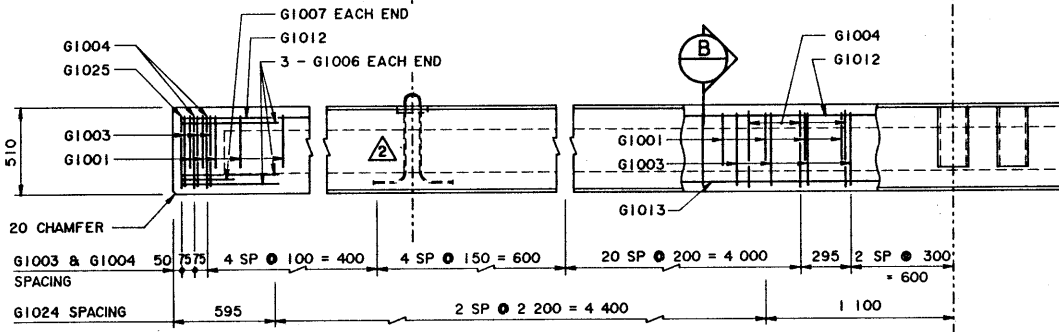
BAR LIST: FOR SQUARE GIRDER							
MARK	SIZE	NO	TYPE	X	Y	LENGTH	MASS
G1001	10	53	A	1 125	300	1 725	72
G1003	10	67	B	1 125		2 220	117
G1004	10	65	B	420		1 520	78
G1006	10	6	D			1 080	5
G1007	10	2	A	1 000	300	1 600	3
G1012	10	5	STR			12 090	47
G1013	10	2	STR			11 990	19
G1024	10	6	STR			1 100	5
G1025	10	2	C			670	1
G2502	25	4	A	12 040	350	12 740	200
TOTAL kg :							547

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

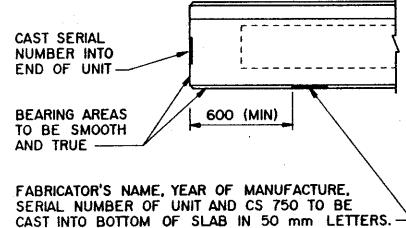
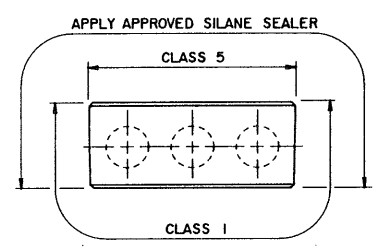
**PLAN VIEW**  
1:20



**REINFORCEMENT PLAN**  
1:20

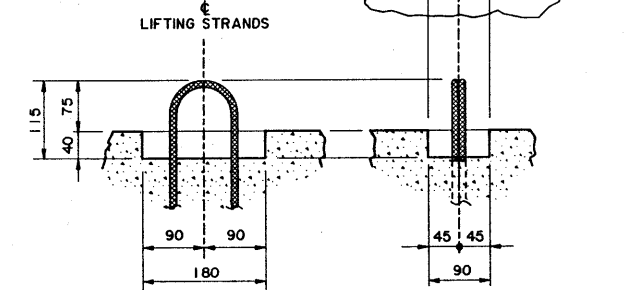


**ELEVATION**  
1:20

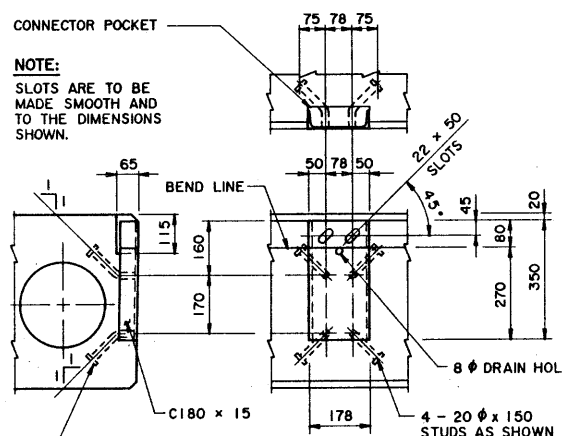


**GIRDER FINISHES**  
(BY FABRICATOR) 1:20

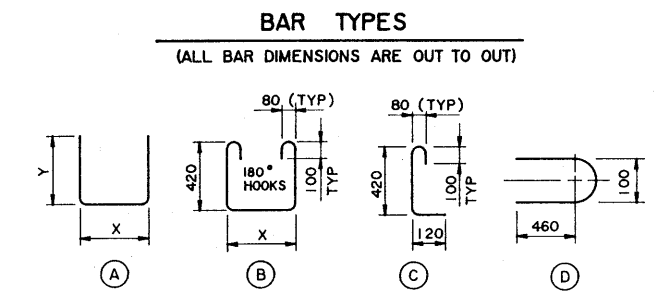
NOTE:  
• 2 - 13 φ, 7 WIRE STRANDS. 750 MIN EMBEDMENT EACH END.  
• AFTER GIRDERS ARE ERECTED, LIFTING STRANDS ARE TO BE CUT-OFF FLUSH WITH BOTTOM OF POCKET. POCKET TO BE FILLED WITH AN LTH MATERIAL APPROVED IN ACCORDANCE WITH BRIDGE MATERIALS SPEC B391.



**R LIFTING HOOK POCKET**  
1:5



**S GIRDER CONNECTORS**  
1:10



**BAR TYPES**  
(ALL BAR DIMENSIONS ARE OUT TO OUT)

**GENERAL NOTES**

- ALL DRAWING REFERENCES ARE TO CURRENT DRAWINGS.
- CAN/CSA-S6-88 SPECIFICATIONS EXCEPT AS MODIFIED BELOW:
  - ALLOWABLE TENSION AT MIDSPAN IS 54% OF MODULUS OF RUPTURE WITH 50 mm WEARING SURFACE (66% 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 - 40 MPa
- RELEASE STRENGTH - 28 MPa
- PRESTRESSING STEEL SHALL BE 13 φ, 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**

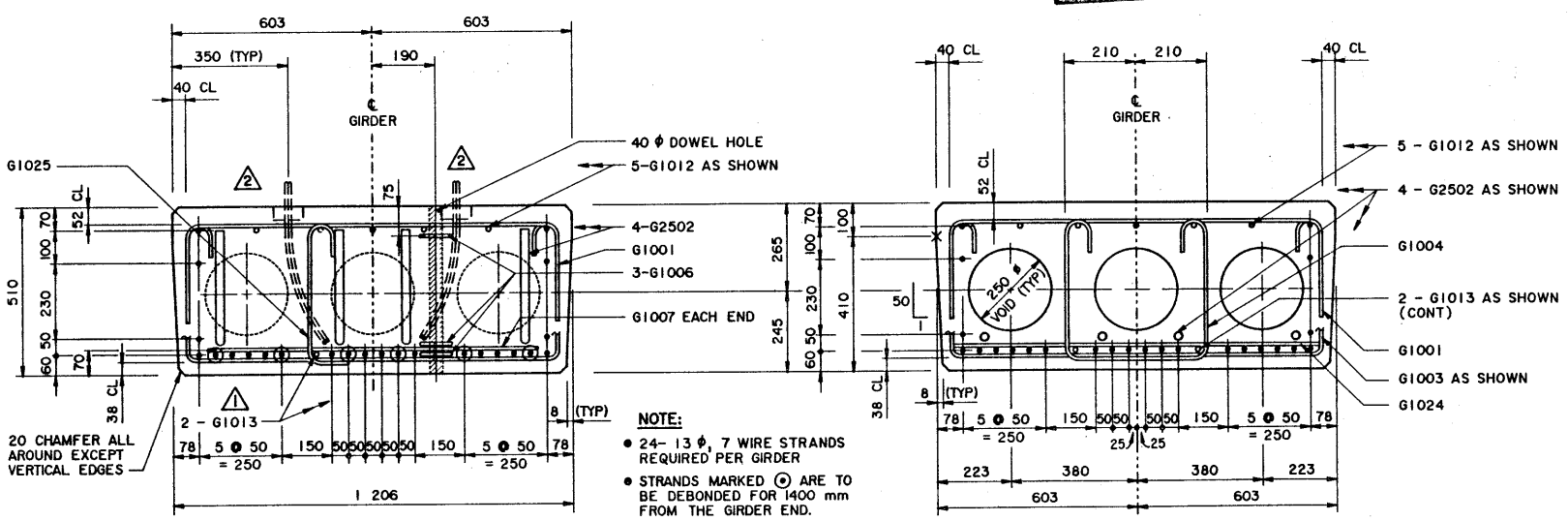
- GIRDERS SHALL CONFORM TO THE CURRENT REQUIREMENTS OF THE BRIDGE MATERIALS SPECIFICATION FOR THE MANUFACTURE OF PRESTRESSED CONCRETE BRIDGE UNITS (SPEC B190).
- FORCE IN PRESTRESSING STEEL:
  - INITIAL TENSIONING LOAD = 129 kN/STRAND
  - DESIGN LOAD AFTER LOSSES = 104 kN/STRAND
- ALL GALVANIZING SHALL CONFORM TO ASTM SPEC 123.
- BEND OR SHIFT REINFORCING WHERE REQUIRED TO CLEAR GIBBY CONNECTORS AND LIFTING HOOK ASSEMBLIES. STIRRUP SPACING IS TO BE MAINTAINED. FOR CONNECTOR AND LIFTING HOOK LOCATION SEE DWG S-1579.

**ERECTION**

- ANY FREE SPACE BETWEEN CONNECTORS SHALL BE FILLED WITH DROP-IN WASHERS.
- CALCULATED MASS OF ONE GIRDER IS 11.52 t.

**SUPERSEDED**  
BY REVISION

**SUPERSEDED**



**A SECTION**  
1:10

**B SECTION**  
1:10

NOTE:  
• 24 - 13 φ, 7 WIRE STRANDS REQUIRED PER GIRDER  
• STRANDS MARKED (C) ARE TO BE DEBONDED FOR 1400 mm FROM THE GIRDER END.

REV	DATE	REVISIONS	BY
94-04-05		LIFTING HOOK POCKET	LEA
93-12-13		BAR LIST REVISED & BAR MARK CORRECTED	SBD

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

**Alberta TRANSPORTATION AND UTILITIES**  
BRIDGE ENGINEERING BRANCH

**PRESTRESSED CONCRETE**  
12.19 m TYPE SC-510  
INTERIOR GIRDER

DESIGNED	DRAWN	DATE	CHECKED	DATE	STREAM	LOCATION	HIGHWAY	FILE	SHEET	DRAWING
LEA	VMV	93-09-16	S. D. SBD	94-05-16					1 of 4	S-1577