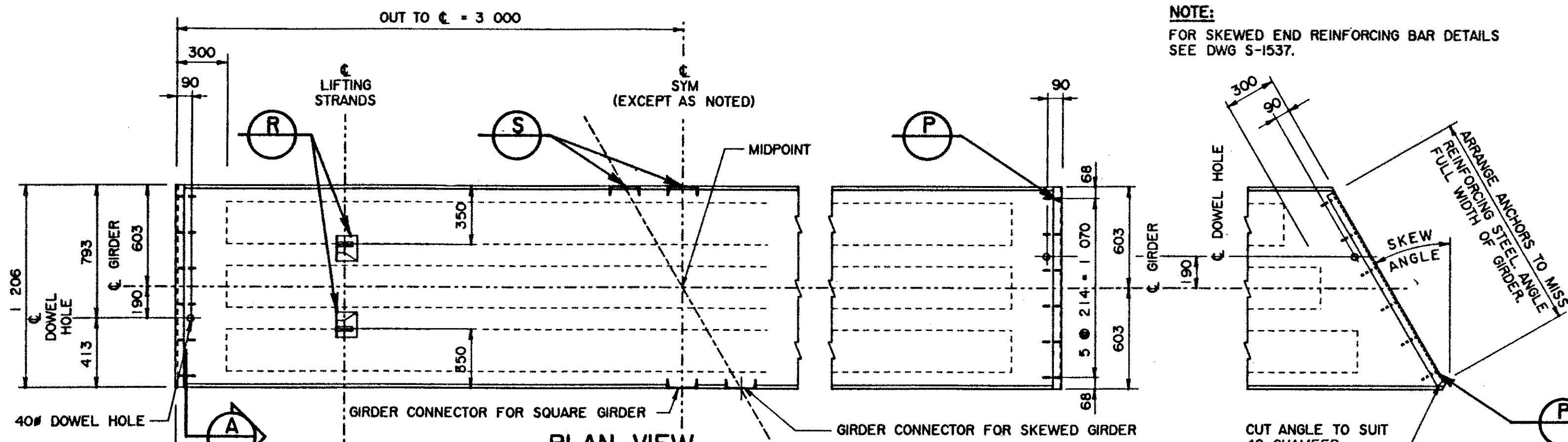
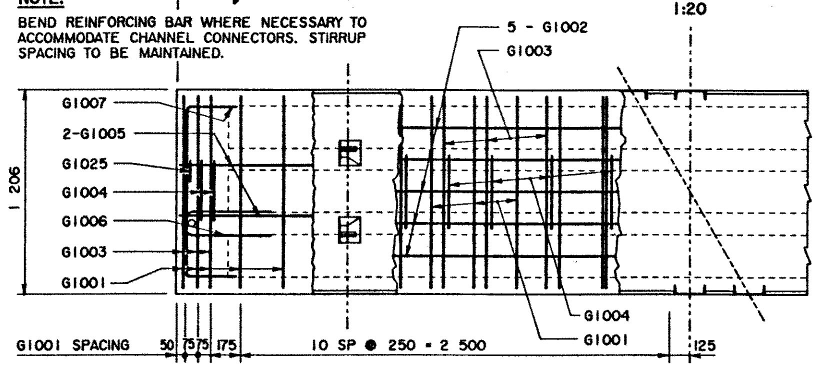


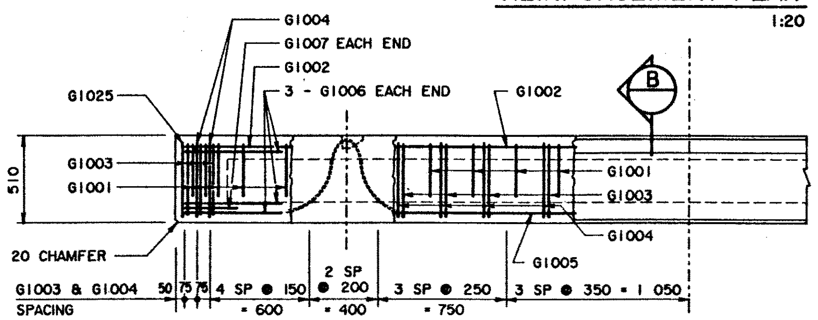
NOTE: FOR SKEWED END REINFORCING BAR DETAILS SEE DWG S-1537.

PLAN VIEW
1:20

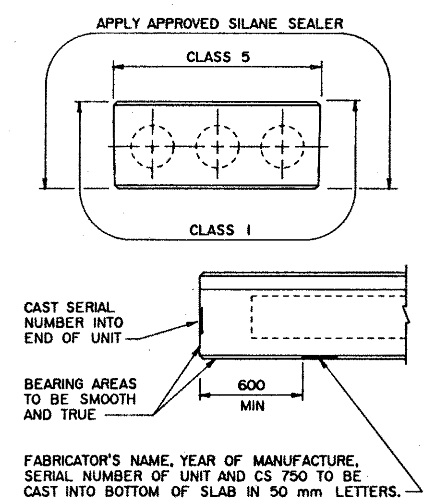
NOTE: BEND REINFORCING BAR WHERE NECESSARY TO ACCOMMODATE CHANNEL CONNECTORS. STIRRUP SPACING TO BE MAINTAINED.



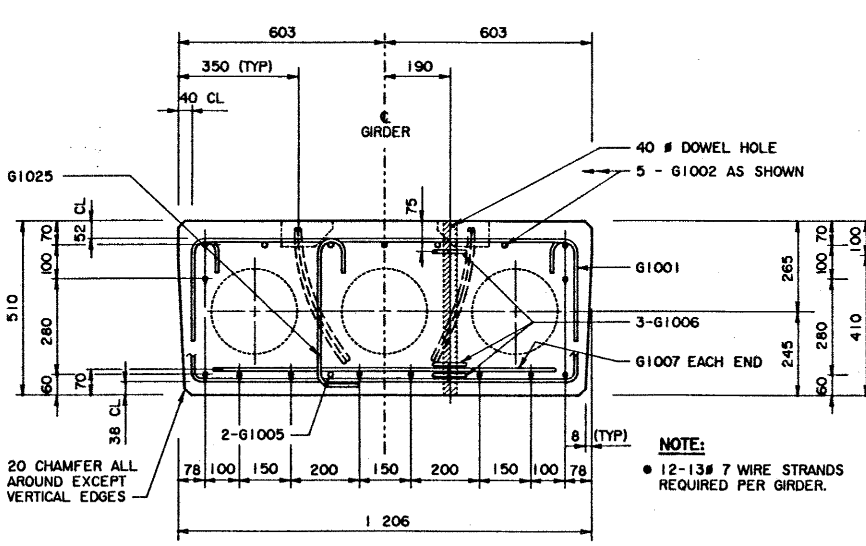
REINFORCEMENT PLAN
1:20



E L E V A T I O N
1:20

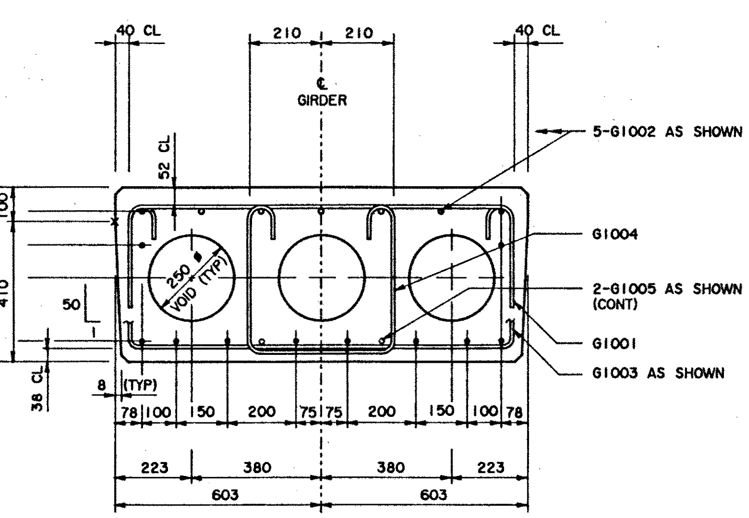


GIRDER FINISHES
(BY FABRICATOR) 1:20

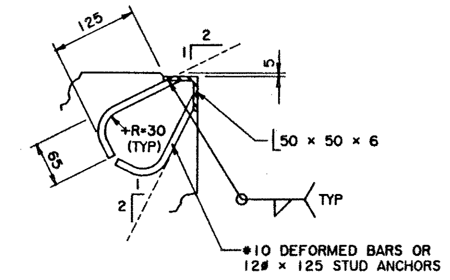


NOTE:
- 12-13ø 7 WIRE STRANDS REQUIRED PER GIRDER.

Ⓐ SECTION
1:10

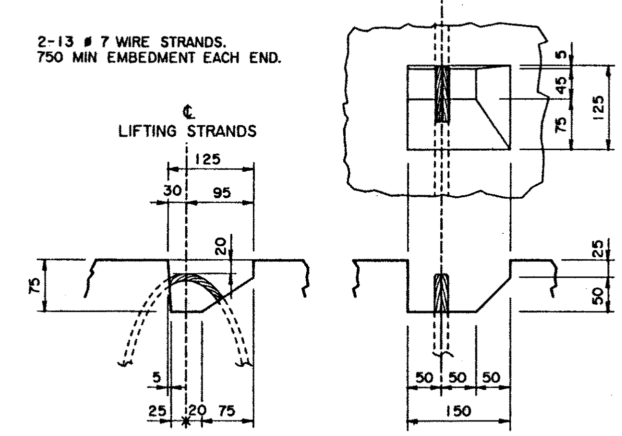


Ⓑ SECTION
1:10

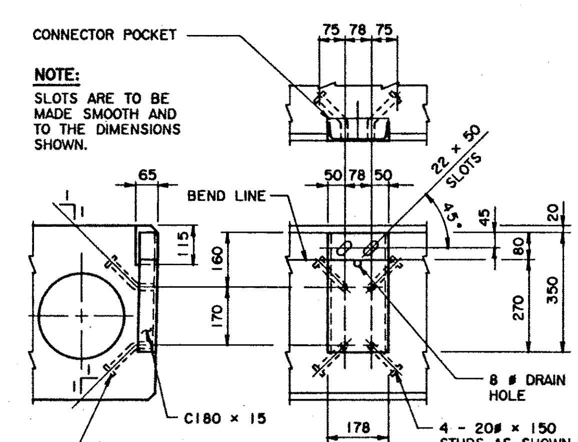


NOTE: ASSEMBLY TO BE HOT DIP GALVANIZED AFTER FABRICATION.

Ⓟ BUFFER ANGLE
1:5



Ⓡ LIFTING HOOK POCKET
1:5



NOTE: SLOTS ARE TO BE MADE SMOOTH AND TO THE DIMENSIONS SHOWN.

ALTERNATE SYSTEM OF ANCHORING CHANNEL, WHICH FACILITATES THE PLACING OF THE CIRCULAR VOID, WILL BE CONSIDERED BY THE DEPARTMENT

NOTE: ASSEMBLY TO BE HOT DIP GALVANIZED AFTER FABRICATION.

Ⓢ GIRDER CONNECTORS
1:10

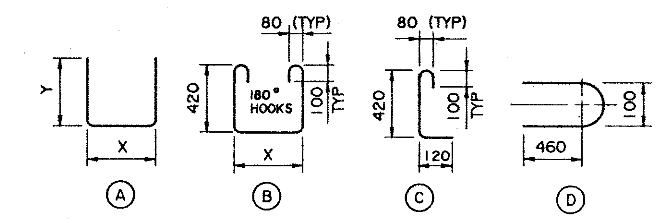
SUPERSEDED BY S-1535 rev. 2

BAR LIST: FOR SQUARE GIRDER

MARK	SIZE	NO	TYPE	X	Y	LENGTH	MASS
G1001	10	28	A	1 125	300	1 725	38
G1002	10	5	STR			5 900	23
G1003	10	29	B	1 125 *		2 220	51
G1004	10	27	B	420		1 520	32
G1005	10	10	STR			5 800	9
G1006	10	6	D			1 020	5
G1007	10	2	A	1 000	300	1 600	3
G1025	10	2	C			670	1

TOTAL kg : 162

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 40% OF MODULUS OF RUPTURE (SEVERE EXPOSURE CONDITIONS).
  - 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

- ⚠1 CONCRETE SHALL CONTAIN SILICA FUME AND BE MADE OF LIGHTWEIGHT COARSE AGGREGATE AND NATURAL SAND FINES. UNIT WEIGHT OF SEMI-LIGHT CONCRETE SHALL BE 1920 kg/m³.
- 28 DAY CONCRETE STRENGTH — 35 MPa
- RELEASE STRENGTH ——— 28 MPa
- PRESTRESSING STEEL SHALL BE 13ø 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 B190).
- FORCE IN PRESTRESSING STEEL:
  INITIAL TENSIONING LOAD = 129 kN/STRAND
  DESIGN LOAD AFTER LOSSES = 111 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.

ERECTION

- ANY FREE SPACE BETWEEN CONNECTORS SHALL BE FILLED WITH DROP-IN WASHERS.
- CALCULATED MASS OF ONE GIRDER IS 3.75 t.
- WORK THESE DRAWINGS TOGETHER : S-1535, S-1536 AND S-1537 ①②

SUPERSEDED ①②

REV	DATE	REVISIONS	BY
7			
6			
5			
4			
3			
2			
1	92-01-10	CONCRETE MATERIALS NOTE	DHQ

APPROVED

M. M. Boyd
EXECUTIVE DIRECTOR BRIDGE ENGINEERING

DATE AUG 23, 1990

Alberta TRANSPORTATION AND UTILITIES
BRIDGE ENGINEERING BRANCH

PRESTRESSED CONCRETE 6 m TYPE SC-510 INTERIOR GIRDER

DESIGNED	DRAWN	DATE	CHECKED	DATE	STREAM	LOCATION	HIGHWAY	FILE	SHEET	DRAWING
LEA	VMV	90-07-02	T.J.S.	90-08-23					1 of 4	S-1535

PLOTTED JUL 13,1990