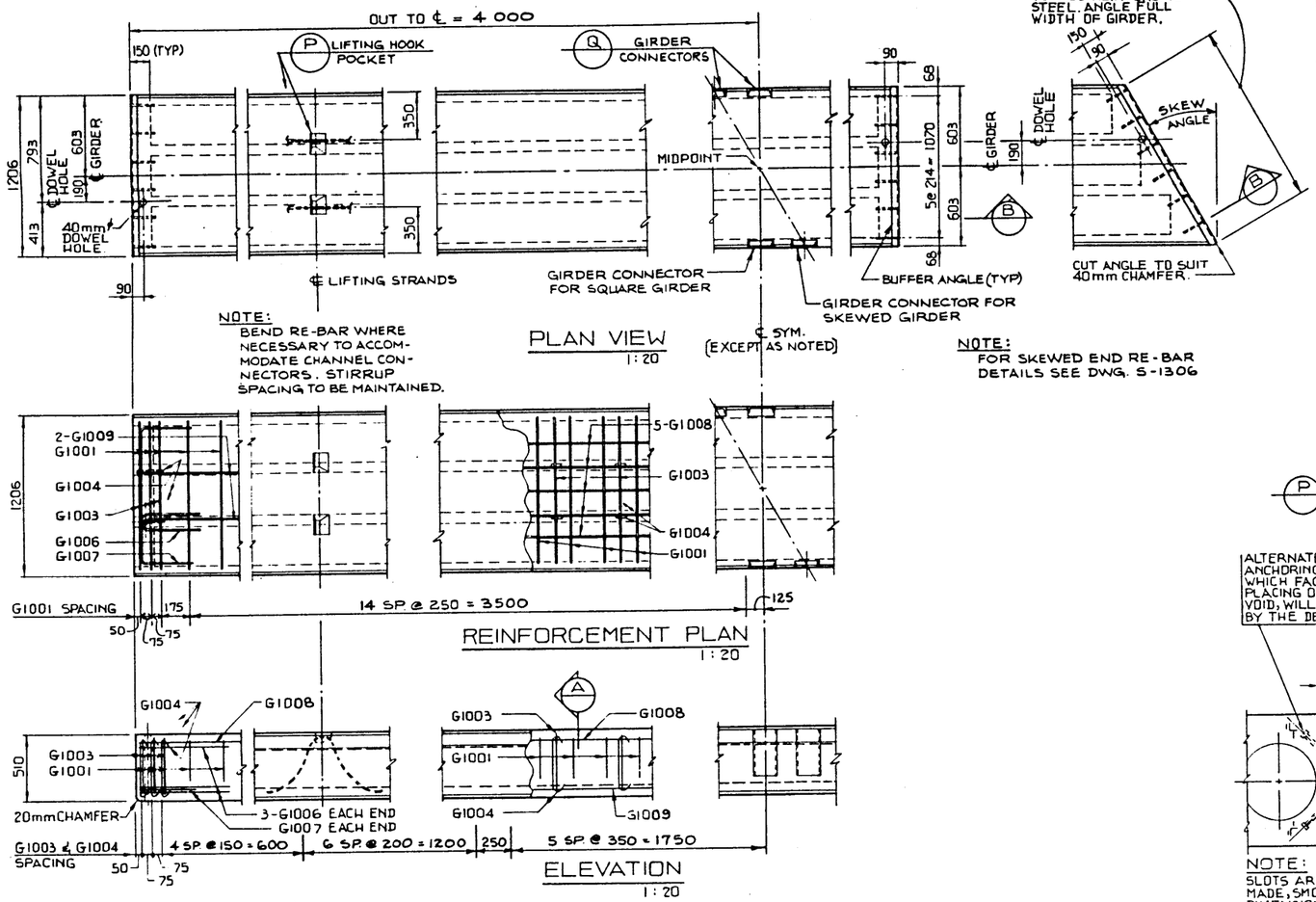
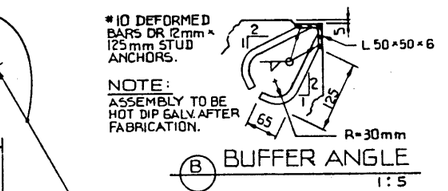
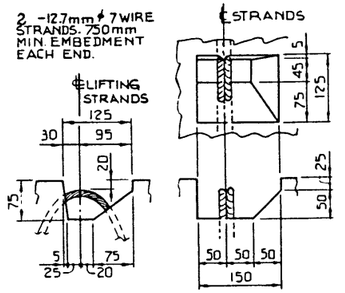
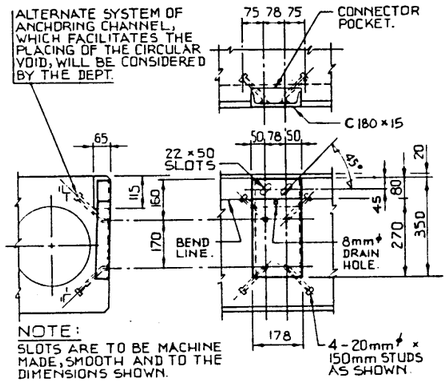
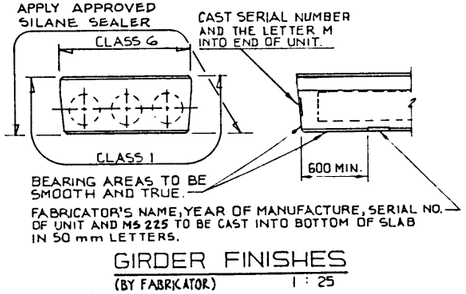








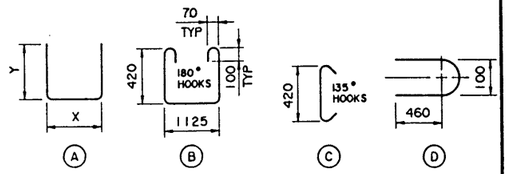


BAR LIST: FOR SQUARE GIRDER							
MARK	SIZE	NO	TYPE	X	Y	LENGTH	MASS
G1001	10	36	A	1 125	300	1 725	49
G1003	10	37	B			2 220	64
G1004	10	72	C			620	35
G1006	10	6	D			1 020	5
G1007	10	2	A	1 000	300	1 600	3
G1008	10	5	STR			7 900	31
G1009	10	2	STR			7 800	12

TOTAL kg : 199

BAR TYPES

(ALL BAR DIMENSIONS ARE OUT TO OUT)



GENERAL NOTES

- ALL DRAWING REFERENCES ARE TO CURRENT DRAWINGS.

DESIGN

- AASHTO 1973 SPECIFICATIONS PLUS INTERIMS TO 1976 EXCEPT AS MODIFIED BELOW:
  - ALLOWABLE TENSION AT MIDSPAN IS 80% OF MODULUS OF RUPTURE.
  - NO TENSION ALLOWED IN DECK SURFACE.
  - WEB REINFORCEMENT - ACCORDING TO ACI 318-71, BUT NOT LESS THAN AASHTO MINIMUM.
  - CAPACITY REDUCTION FACTORS ACCORDING TO CSA S6-1974.
- LOADING:

  LIVE LOAD - CSA CAN3-S6-M78; MS 225-77
  - ONE WHEEL LINE PER GIRDER

  DEAD LOAD - GIRDER • 0.78 t/m
  - WEARING SURFACE • 0.15 t/m

MATERIALS

- CONCRETE IN GIRDER SHALL BE MADE OF LIGHTWEIGHT COARSE AGGREGATE AND SAND FINES.
- 28 DAY CONCRETE STRENGTH — 35 MPa
- RELEASE STRENGTH ——— 28 MPa
- UNIT WEIGHT OF SEMI-LIGHT WEIGHT CONCRETE 1920 kg/m³.
- PRESTRESSING STEEL SHALL BE 12.7 mm ϕ 7 WIRE LOW RELAXATION STRAND (f's = 1860 MPa).
- REINFORCING STEEL SHALL BE GRADE 400 (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 A153.
- BEND OR SHIFT REINFORCING WHERE REQUIRED TO CLEAR GIRDER CONNECTORS AND LIFTING HOOK ASSEMBLIES. STIRRUP SPACING SHALL BE MAINTAINED.

ERECTION

- ANY FREE SPACE BETWEEN CONNECTORS SHALL BE FILLED WITH WASHERS.
- CALCULATED MASS OF ONE GIRDER IS 6.30 t.

- WORK THESE DRAWINGS TOGETHER : S-1304 , S-1305 AND S-1306. (4)

REV	DATE	DESCRIPTION	BY
1	88-06-21	REDRAWN FROM S-1304	D H O

REVISIONS

APPROVED
EXECUTIVE DIRECTOR BRIDGE ENGINEERING
DATE June 29, 1988

Alberta TRANSPORTATION AND UTILITIES
BRIDGE ENGINEERING BRANCH

PRESTRESSED CONCRETE 8 m TYPE SM-510 INTERIOR GIRDER

DESIGNED	DRAWN	DATE	CHECKED	DATE	STREAM	LOCATION	HIGHWAY	FILE	SHEET	DRAWING
R W L	V G B W S	88-06-21							1 OF 3	S-1304-88

MP 236 DESIGN: RWL DRAWN: MMF 78-02-10