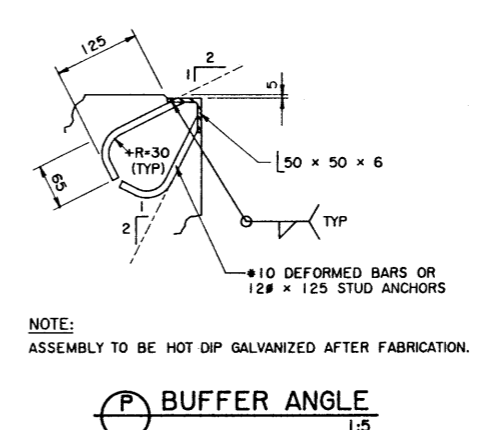
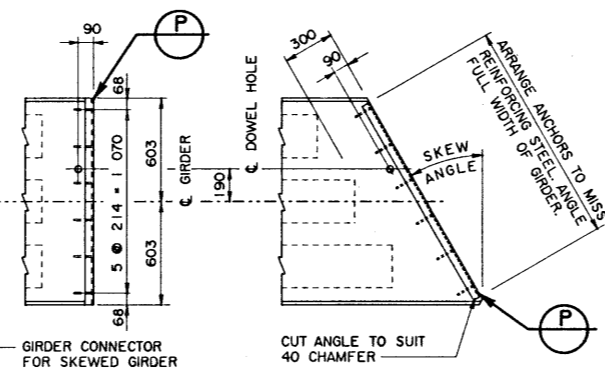
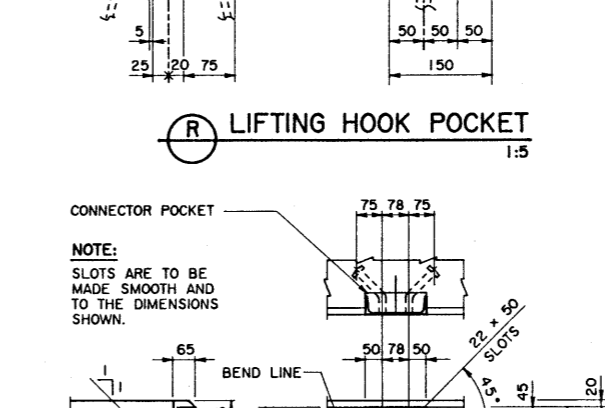
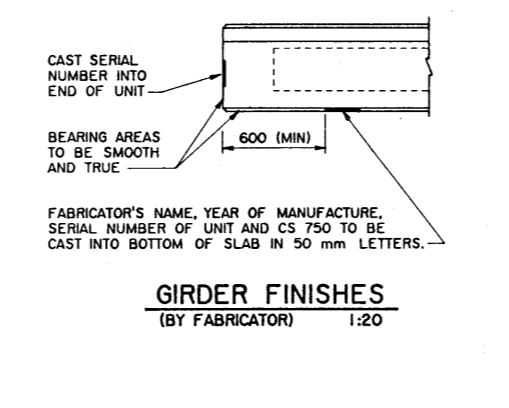
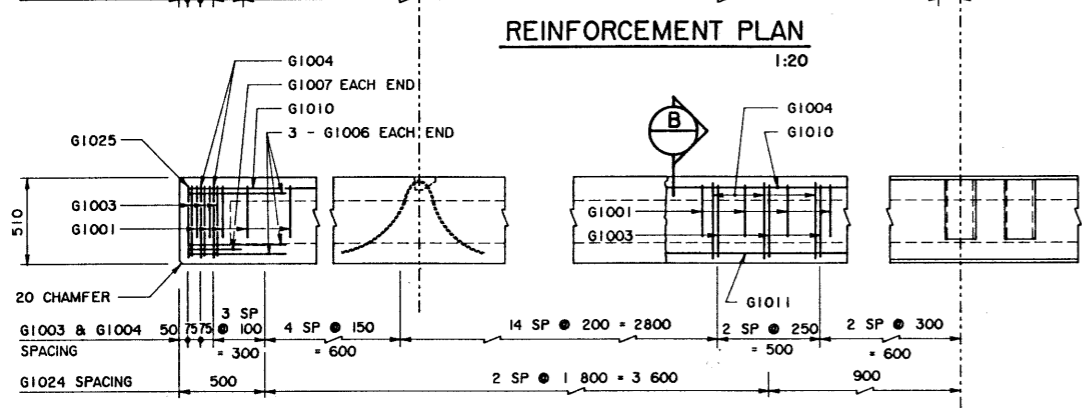
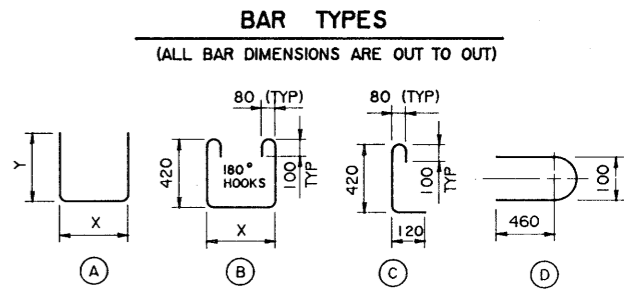
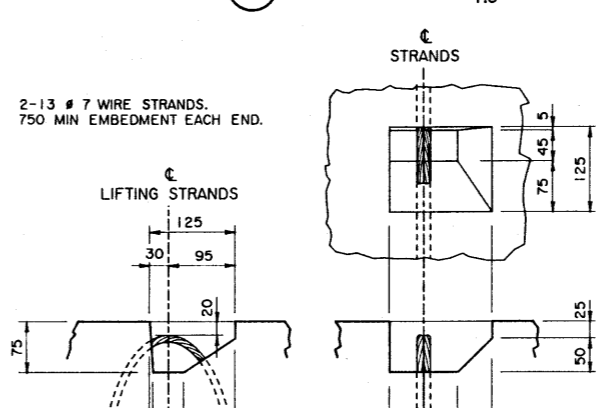
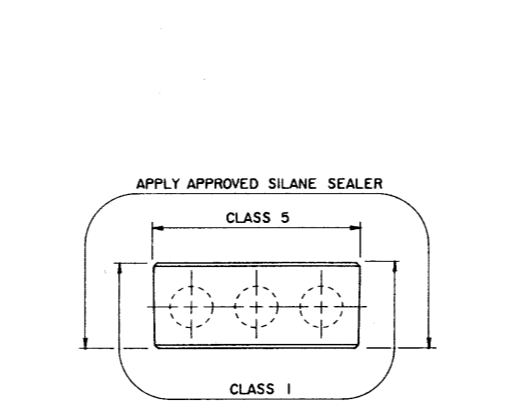
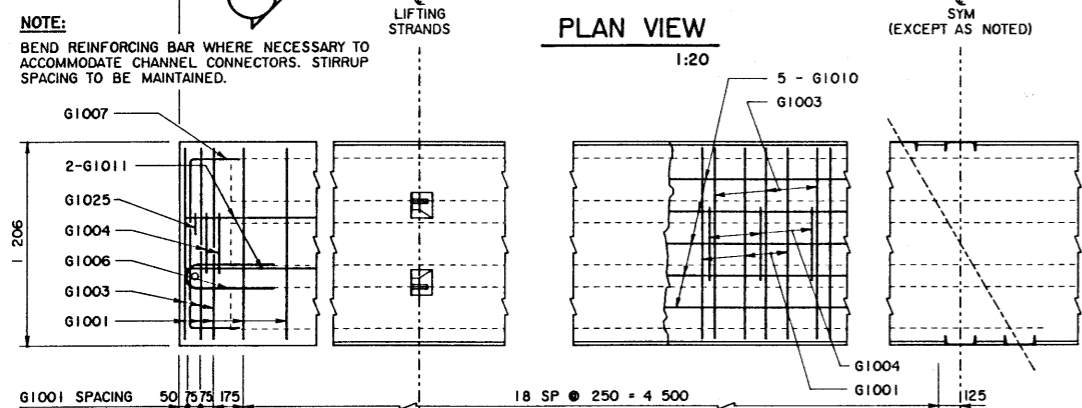


**NOTE:**  
FOR SKEWED END REINFORCING BAR DETAILS SEE DWG S-1543.

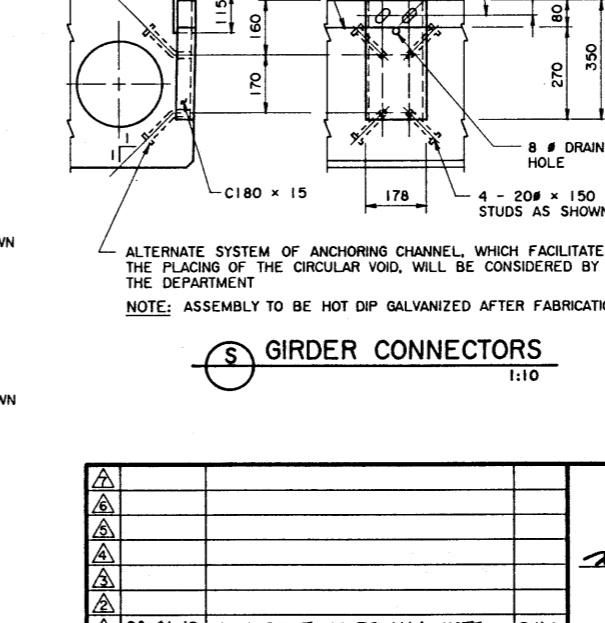
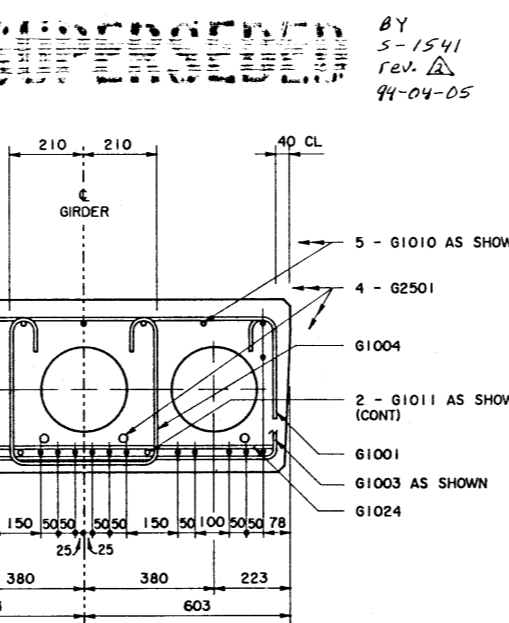
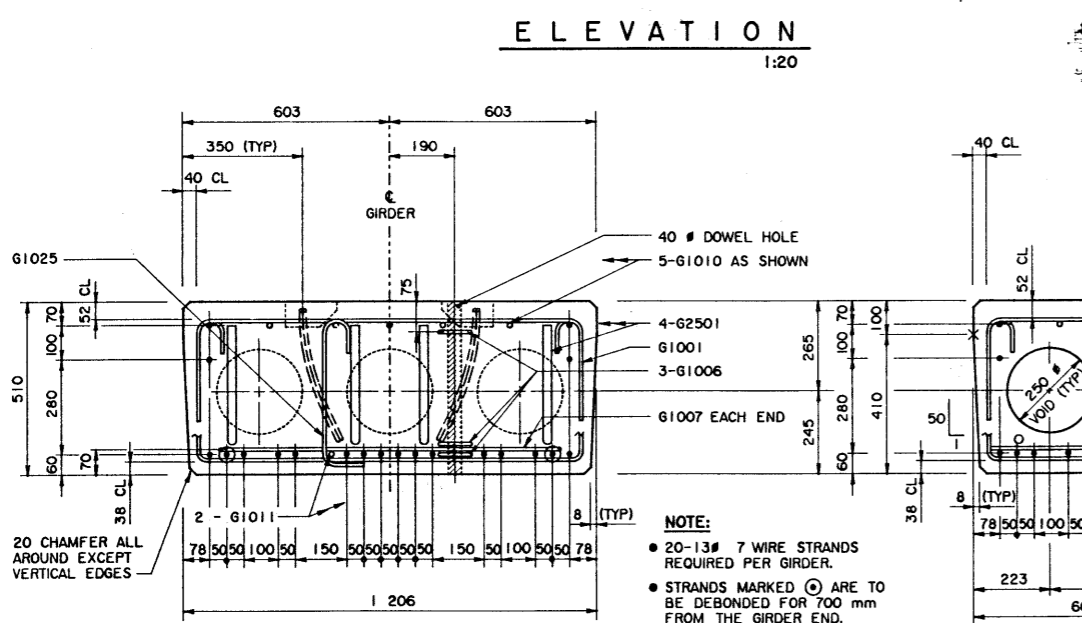


BAR LIST: FOR SQUARE GIRDER								
MARK	SIZE	NO	TYPE	X	Y	LENGTH	MASS	
G1001	10	44	A	1 125	300	1 725	60	
G1003	10	55	B	1 225		2 220	96	
G1004	10	53	C	420		1 520	63	
G1006	10	6	D			1 020	5	
G1007	10	2	A	1 000	300	1 600	3	
G1010	10	5	STR			9 900	39	
G1011	10	2	STR			9 800	15	
G1024	10	6	STR			1 100	5	
G1025	10	2	C			670	1	
G2501	25	4	A	9 850	350	10 550	166	
TOTAL							kg	453



**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**
  - 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/m<sup>3</sup>.
  - 28 DAY CONCRETE STRENGTH - 35 MPa
  - RELEASE STRENGTH - 28 MPa
  - PRESTRESSING STEEL SHALL BE 13# 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 = 106 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 9.48 t.
- WORK THESE DRAWINGS TOGETHER : S-1541, S-1542 AND S-1543



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**SUPERSEDED**

APPROVED		Alberta TRANSPORTATION AND UTILITIES BRIDGE ENGINEERING BRANCH	
EXECUTIVE DIRECTOR BRIDGE ENGINEERING		PRESTRESSED CONCRETE 10 m TYPE SC-510 INTERIOR GIRDER	
92-01-10	CONCRETE MATERIALS NOTE	D.H.Q.	DATE: AUG 23, 1990
DESIGNED	DRAWN	DATE	REVISIONS
LEA	VMV	90-07-02	T.J.S. 90-08-23
STREAM	LOCATION	HIGHWAY	FILE
			SHEET 1 of 4
			DRAWING S-1541