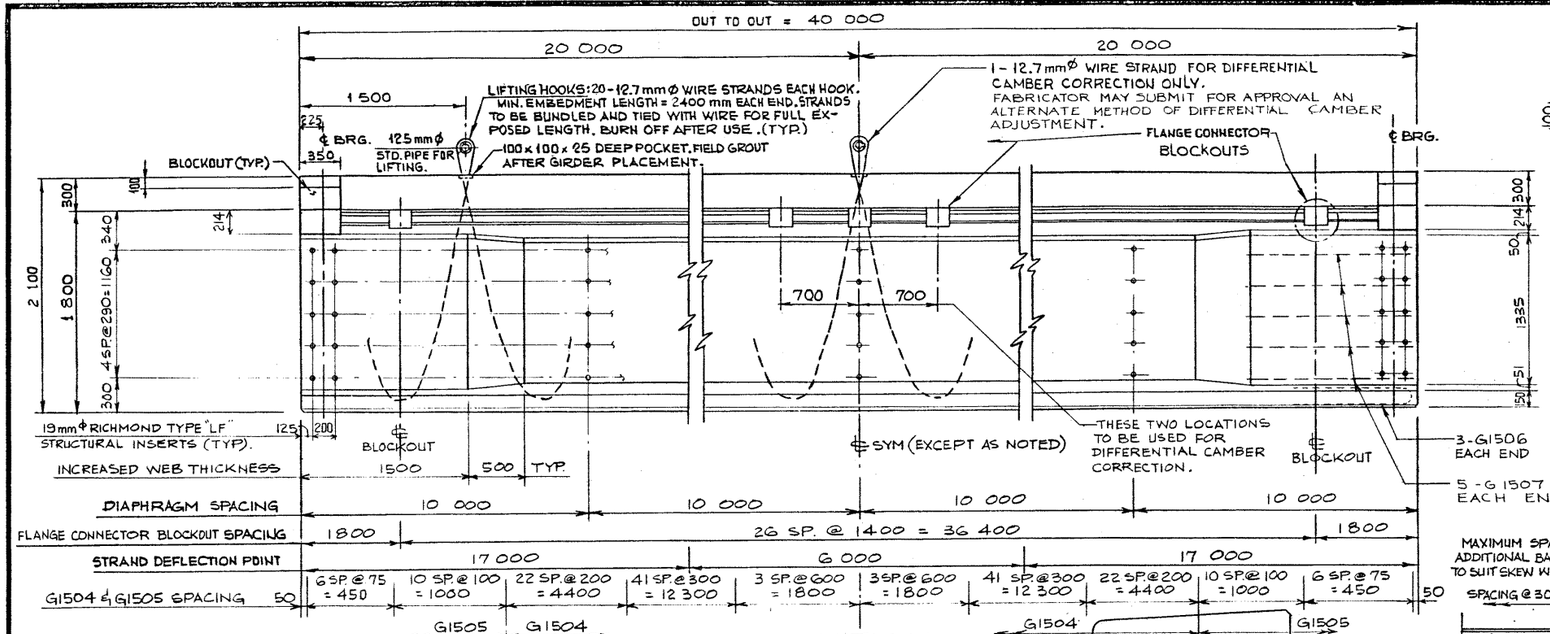
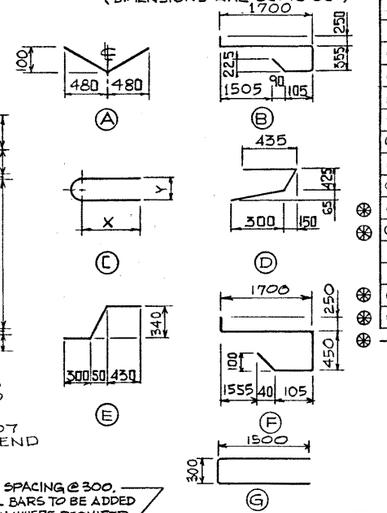


ELEVATION

N.T.S.

BAR TYPES:

(DIMENSIONS ARE OUT TO OUT)



BAR LIST ONE SQUARE GIRDER

MARK	SIZE	NO.	TYPE	X	Y	LENGTH	MASS
G 1501	15	24	STR.			10450	394
G 1502	15	141	A			980	217
G 1503	15	24	STR.			10 450	394
G 1504	15	262	B			2 655	1092
G 1505	15	68	F			2615	279
G 1506	15	6	C	945	110	2065	19
G 1507	15	10	G			3300	52
G 2001	20	188	STR.			960	425
G 2002	20	16	STR.			10 150	405
C 1501	15	20	STR.			10 450	329
C 1502	15	4	C	400	110	970	6
CG 1501	15	162	D			1 200	305
CG 1502	15	162	E			1 075	273

⊛ - INDICATES EPOXY COATED
PLAIN

TOTAL kg: 912
TOTAL kg: 3277
GIRDER TOTAL kg: 4189

GENERAL NOTES

DESIGN:

- C.S.A. CAN 3-S6-M78.
- NO TENSION IN TOP FLANGE OF GIRDER.

LOADING:

- DEAD LOAD - GIRDER & CURB = 17.2 kN/M
  - WEARING SURFACE, SHEAR KEYS, RAILS = 1.4 kN/M
- LIVE LOAD - C-S.A. CAN 3-S6-M78 - MS300 PLUS IMPACT
  - 0.95 WHEEL LINES/GIRDER

PRESTRESSING STEEL:

- PRESTRESSING STEEL SHALL BE 12.7 mm Ø - 7 WIRE LOW RELAXATION STRAND (f_{pu} = 1860 MPa)
- INITIAL TENSIONING LOAD: 128.61 kN/STRAND
- DESIGN LOAD AFTER LOSSES: 98.3 kN/STRAND

MATERIALS:

- STANDARD WEIGHT CONCRETE WITH NOT LESS THAN 5% AIR ENTRAINMENT (WHEN MEASURED IN PLASTIC STATE) SHALL BE USED AS NOTED.
- SEMI-LIGHT WT. CONCRETE SHALL HAVE A UNIT WEIGHT OF 1920 kg/m³ PLUS OR MINUS 5% IN PLASTIC STATE AND BE MADE USING LIGHTWEIGHT COARSE AGGREGATE AND NATURAL SAND FINES WITH AN AIR ENTRAINMENT OF NOT LESS THAN 6%.
- 28 DAY STRENGTH: 35 MPa
- RELEASE STRENGTH: 28 MPa
- REINFORCING STEEL SHALL BE A MINIMUM OF G30.12M GRADE 300.

FABRICATION:

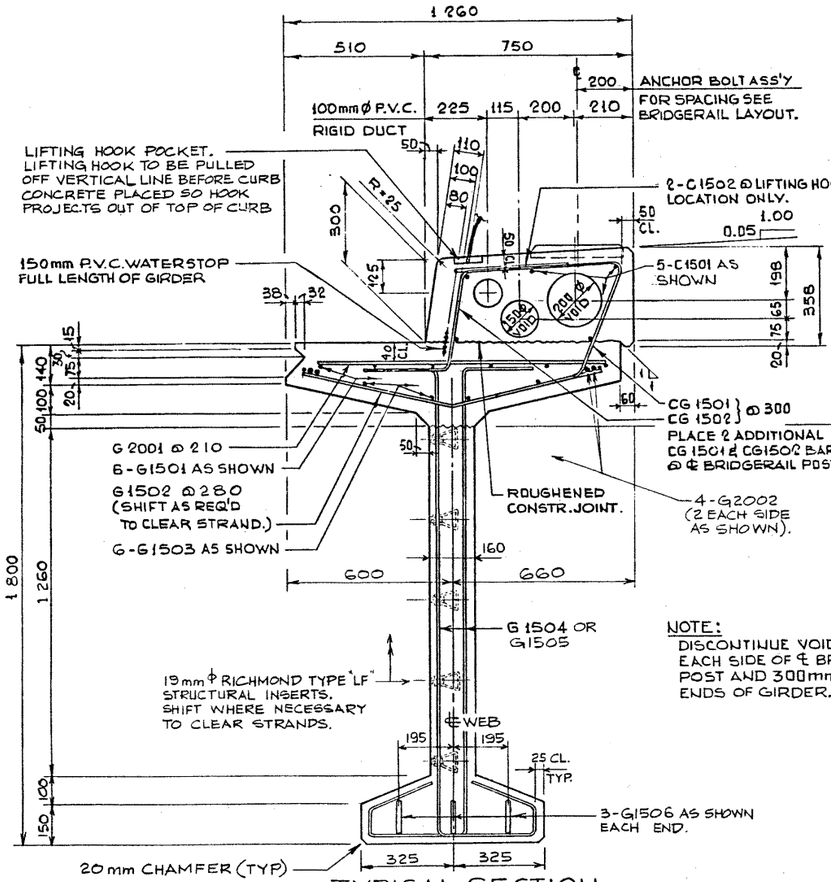
- GIRDERS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ALBERTA BRIDGE BRANCH "SPECIFICATION FOR THE MANUFACTURE OF PRESTRESSED AND PRECAST CONCRETE BRIDGE UNITS B-190M".
- ALL EXPOSED CONCRETE CORNERS TO HAVE 20 mm CHAMFER OR FILLET UNLESS OTHERWISE NOTED.
- GIRDER FORMS MUST BE ADJUSTABLE SUCH THAT THE TOP AND BOTTOM FLANGES OF THE GIRDER WILL FOLLOW THE SAME PARABOLIC CURVE WITH A MIDPOINT SAG AS SPECIFIED AT THE TIME OF CASTING.
- EXPECTED GIRDER CAMBER DUE TO PRESTRESS IS 70 mm.
- CURBS TO BE PLANT CAST WITH GIRDERS SIMPLY SUPPORTED.

ERECTION:

- LIFTING FORCE AT EACH HOOK MUST BE VERTICAL AT RELEASE.
- GIRDER SURFACE MUST BE LEVEL AT ALL TIMES.
- THEORETICAL MASS OF ONE GIRDER IS 95 TONNES.
- CAMBER DIFFERENTIAL TO BE ELIMINATED BEFORE WELDING FLANGE CONNECTORS, USING JACKING BEAM AT LIFTING HOOKS AT MIDSPAN.

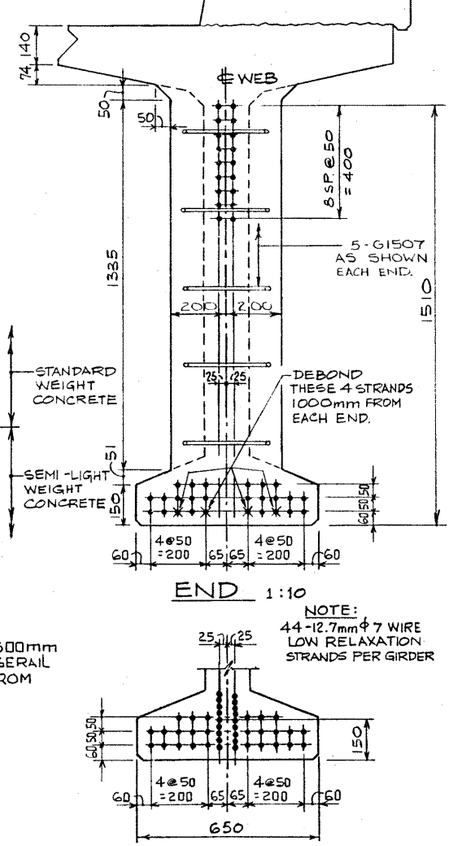
NOTE: GIRDERS SHALL BE GIVEN ADEQUATE TEMPORARY LATERAL SUPPORT IMMEDIATELY AFTER STRIPPING AND UNTIL GIRDERS ARE ERECTED.

SUPERSEDED 1 2



TYPICAL SECTION 1:10

NOTE: DISCONTINUE VOIDS 300mm EACH SIDE OF ℄ BRIDGERAIL POST AND 300mm FROM ENDS OF GIRDER.

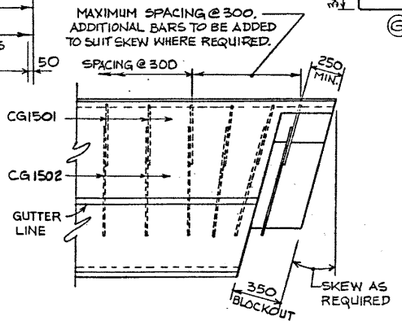


END 1:10

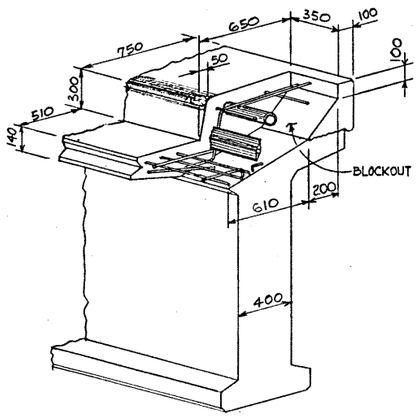
NOTE: 44-12.7mm Ø 7 WIRE LOW RELAXATION STRANDS PER GIRDER

MIDSPAN

PRESTRESSING PATTERN 1:10



SKEWED END RE-BAR PLAN 1:20



CURB END GIRDER BLOCKOUT 1:20

NO	DATE	DESCRIPTION

REVISIONS

APPROVED

CHIEF BRIDGE ENGINEER

DATE

Alberta TRANSPORTATION BRIDGE AND STRUCTURAL ENGINEERING BRANCH METRIC

PRESTRESSED CONCRETE 40m TYPE D.B.T. 1800 x 1200 CURB GIRDER

DESIGNED	DRAWN BY	DATE	CHECKED BY	DATE	STREAM	LOCATION	HWY. NO	SCALE	FILE NO	SHEET	DWG NO
J.K.F.	V.G.B	82-06-25						SHOWN		OF	S-1588

DESIGNED BY: J.A.S. | DRAWN BY: P.SZOTS | DATE: 8202 16 | M.P.-272

M.P.-272