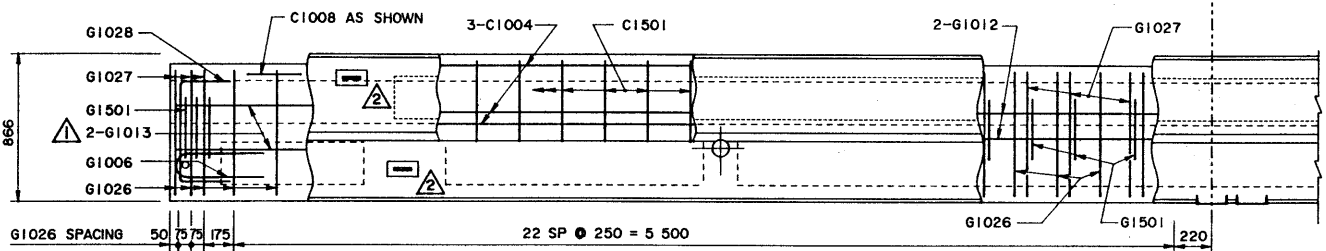
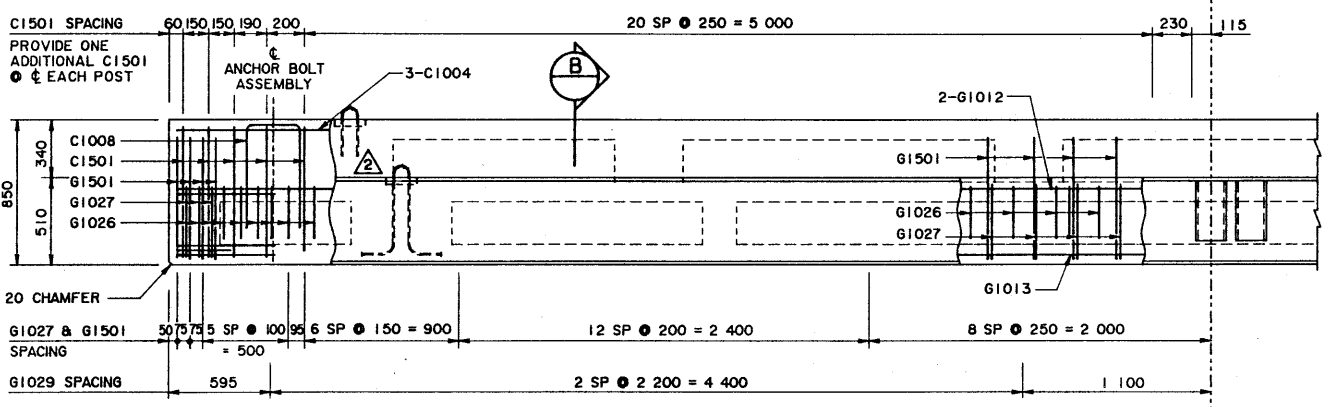


BAR LIST: FOR SQUARE GIRDER							
MARK	SIZE	NO	TYPE	X	Y	LENGTH	MASS
C1004	10	3	STR			12 090	28
C1008	10	2	A	310	600	1 510	2
C1501	15	58	E			1 455	132
G1006	10	6	D			1 080	5
G1012	10	2	STR			12 090	19
G1013	10	2	STR			11 990	19
G1026	10	53	A	725	300	1 325	55
G1027	10	69	B	725		1 820	99
G1028	10	2	A	600	300	1 200	2
G1029	10	6	STR			700	3
G1501	15	69	C			1 140	123
G2502	25	2	A	12 040	350	12 740	100

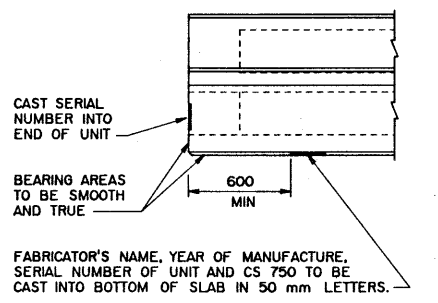
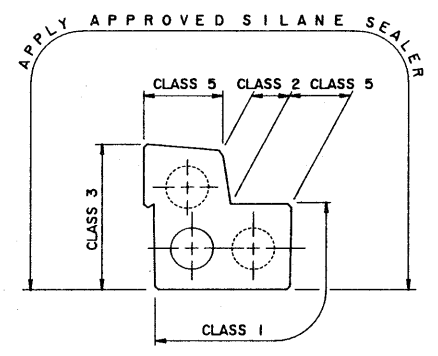
TOTAL kg : 587



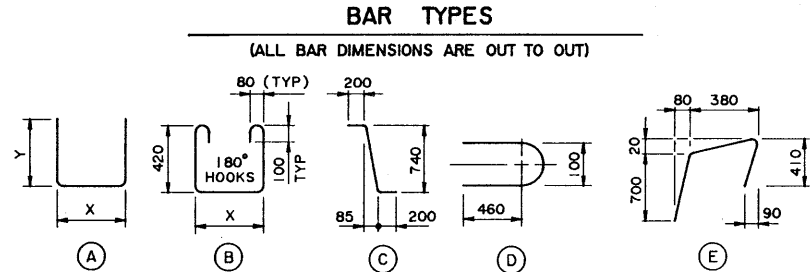
REINFORCEMENT PLAN  
1:20



ELEVATION  
1:20

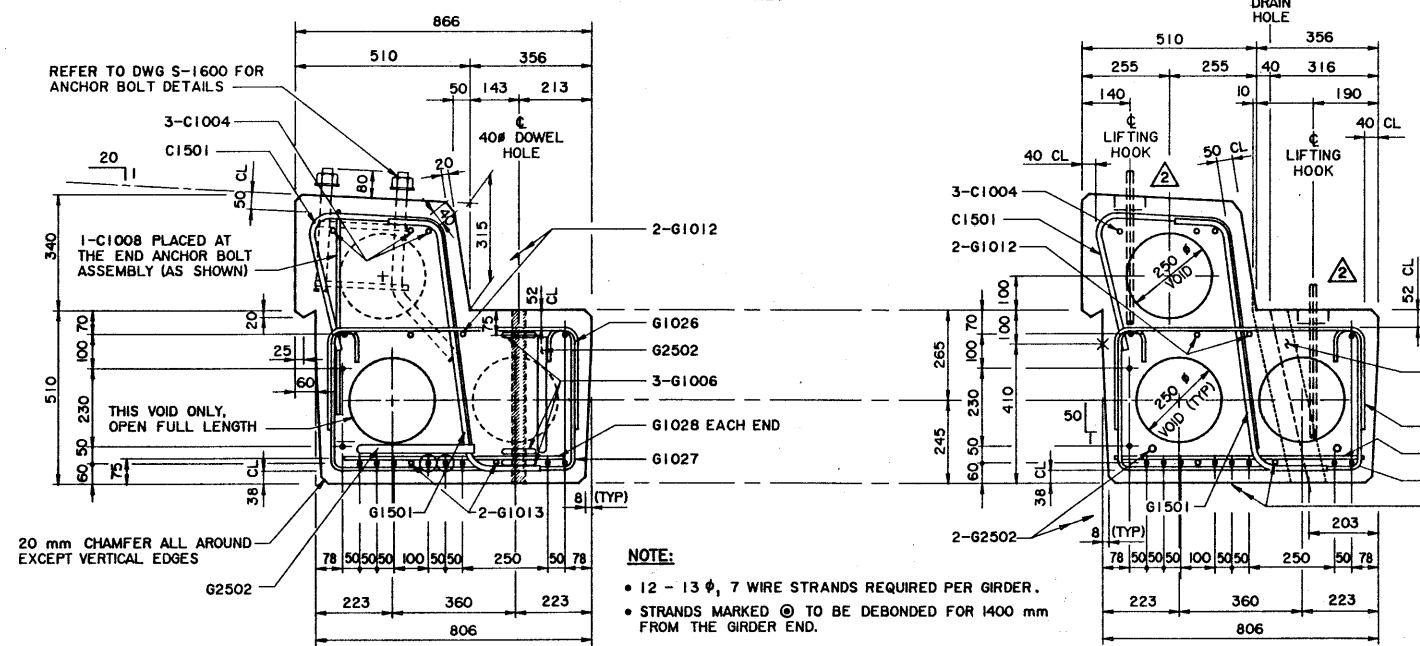


GIRDER FINISHES  
(BY FABRICATOR) 1:20



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
  - 0.8 WHEEL LINES PER GIRDER
  - DEAD LOAD - GIRDER = 0.86 t/m
  - WEARING SURFACE = 0.09 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 Ø, 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 = 109 kN/STRAND
  - CURB SHALL BE CAST MONOLITHICALLY WITH GIRDER.
  - ANCHOR BOLT ASSEMBLIES SHALL BE CAST IN GIRDER AT SPACINGS SHOWN ON DRAWING S-1579.
  - ALL GALVANIZING SHALL CONFORM TO ASTM SPEC A123 OR A153 AS APPLICABLE.
  - BEND OR SHIFT REINFORCING WHERE REQUIRED TO CLEAR GIRDER CONNECTORS AND LIFTING HOOK ASSEMBLIES. STIRRUP SPACING SHALL BE MAINTAINED FOR CONNECTOR AND LIFTING HOOK LOCATIONS SEE DWG S-1579.
- ERECTION**
  - ANY FREE SPACE BETWEEN CONNECTORS SHALL BE FILLED WITH DROP-IN WASHERS.
  - CALCULATED MASS OF ONE GIRDER IS 11.0 t.



SECTION A  
1:10

SECTION B  
1:10

- NOTE:
- 12 - 13 Ø, 7 WIRE STRANDS REQUIRED PER GIRDER.
  - STRANDS MARKED ● TO BE DEBONDED FOR 1400 mm FROM THE GIRDER END.

**SUPERSEDED**  
BY REVISION 45 07 10

**SUPERSEDED**

DESIGNED S. Leung LEA		DRAWN VMV		DATE 93-09-17		CHECKED S. Donald SBD		DATE 94-05-16		APPROVED [Signature] EXECUTIVE DIRECTOR BRIDGE ENGINEERING		<b>Albarta</b> TRANSPORTATION AND UTILITIES BRIDGE ENGINEERING BRANCH  <b>PRESTRESSED CONCRETE</b> <b>12.19 m TYPE SC-510</b> <b>CURB GIRDER</b>	
REV		DATE		REVISIONS		BY		DATE		STREAM		LOCATION	
94-04-05				LIFTING HOOK POCKET				LEA					
93-12-13				BAR MARK & BAR LIST REVISED				SBD					
FILE		DRAWING		SHEET		DRAWING		DATE		HIGHWAY		FILE	
S-1578		S-1578		2 of 4		S-1578		May 24/94					