



BAR LIST: FOR UNSKEWED GIRDER

MARK	SIZE	NO.	TYPE	X	Y	LENGTH	WEIGHT
S 301	3	284	C			1'-6	160
S 401	4	21	STR.			31'-0	235
S 502	5	107	B			6'-4	707
S 501	5	212	STR.			4'-9	1050
T 401	4	270	A			6'-2	1112
T 402	4	14	E			5'-0	28
T 601	6	4	D	4'-6		6'-6	39
D 601	6	6	D	4'-2		6'-2	56
D 602	6	4	D	5'-0		7'-0	48

TOTAL LBS: 3628

GENERAL NOTES:

- DESIGN:**
- A. S. N. C. 1973 SPECIFICATION EXCEPT ALLOWABLE FINAL CONCRETE STRESS = 300 P.S.I. IN TENSION. 4 WEB REINFORCEMENT ACCORDING TO A.C.I. 318-71 (NOT LESS THAN A.S.H.O. MIN.)
 - LOADING: 0.90 OF ONE WHEEL LINE OF AN HS25-44 TRUCK PLUS FULL DEAD LOAD PLUS 3/4" WEARING SURFACE.
- MATERIALS:**
- CONCRETE SHALL BE MANUFACTURED USING LIGHTWEIGHT COARSE AGGREGATE AND SAND FINES. LIGHTWEIGHT AGGREGATE SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION C 330 WITH MAXIMUM AGGREGATE SIZE OF 3/4". MINIMUM COMPRESSIVE STRENGTH SHALL BE 5,000 P.S.I. AT 28 DAYS. UNIT WEIGHT OF THE CONCRETE SHALL BE 120 LBS. PER CUBIC FOOT PLUS OR MINUS 3% IN THE PLASTIC STATE. ENTRAINED AIR SHALL BE NOT LESS THAN 3%.
 - PRESTRESSING STEEL SHALL BE 1/2" DIAMETER 7 WIRE 270 K STRAND.
- FABRICATION:**
- GIRDERS SHALL CONFORM TO THE REQUIREMENTS OF THE ALBERTA BRIDGE BRANCH SPECIFICATION 817 FOR THE MANUFACTURE OF PRESTRESSED CONCRETE BRIDGE UNITS.
 - REINFORCEMENT DIAMETER OF ALL BARS SHALL CONFORM TO THE RECOMMENDED DIMENSIONS AND ALL HOOKS, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE RECOMMENDED SIZES DETAILED IN THE A.C.I. MANUAL OF STANDARD PRACTICES FOR DETAILING REINFORCED CONCRETE STRUCTURES.
 - PRESTRESSING STEEL INITIAL TENSIONING LOAD = 25.75 K/STRAND DESIGN LOAD 1919.62 K/STRAND
 - CONCRETE MUST ATTAIN 4000 P.S.I. COMPRESSIVE STRENGTH BEFORE THE PRESTRESSING FORCE IS TRANSFERRED.
 - GALVANIZING SHALL BE IN ACCORDANCE WITH ASTM SPECIFICATION A 153.
 - SHEAR KEYS AND BLOCKOUTS SHALL BE SANDBLAST ROUGHENED BY THE GIRDER FABRICATOR TO THE APPROVAL OF THE ENGINEER.
 - RIBS AND CONNECTOR BOLT HOLES SHALL BE SMOOTHED ON OUTSIDE LEGS OF EXTERIOR GIRDERS.
 - EXTERIOR GIRDER DIAPHRAGM SHALL BE SPACED AT 17'-4" MAXIMUM.
 - CONNECTOR BOLTS, WASHERS, HEX NUTS, JAM NUTS AND RODOFOAM GASKETS SHALL BE SUPPLIED WITH THE GIRDERS.
- SECTION:**
- LIFTING FORCE AT EACH HOOK MUST BE VERTICAL AT ALL TIMES. GIRDER SURFACE MUST BE LEVEL AT ALL TIMES.

APPROVED

PROVINCE OF ALBERTA
DEPARTMENT OF HIGHWAYS AND TRANSPORT
BRIDGE BRANCH

PRESTRESSED CONCRETE
90'-0" TYPE VF 50 GIRDER

DESIGNED: V.G.D. DATE: W.J.S.

DRAWN BY: W.J.S.

CHECKED BY: DATE:

DATE: STREAM: LOCATION: HWY. NO.: SCALE: FILE NO.: SHEET: 5-1126