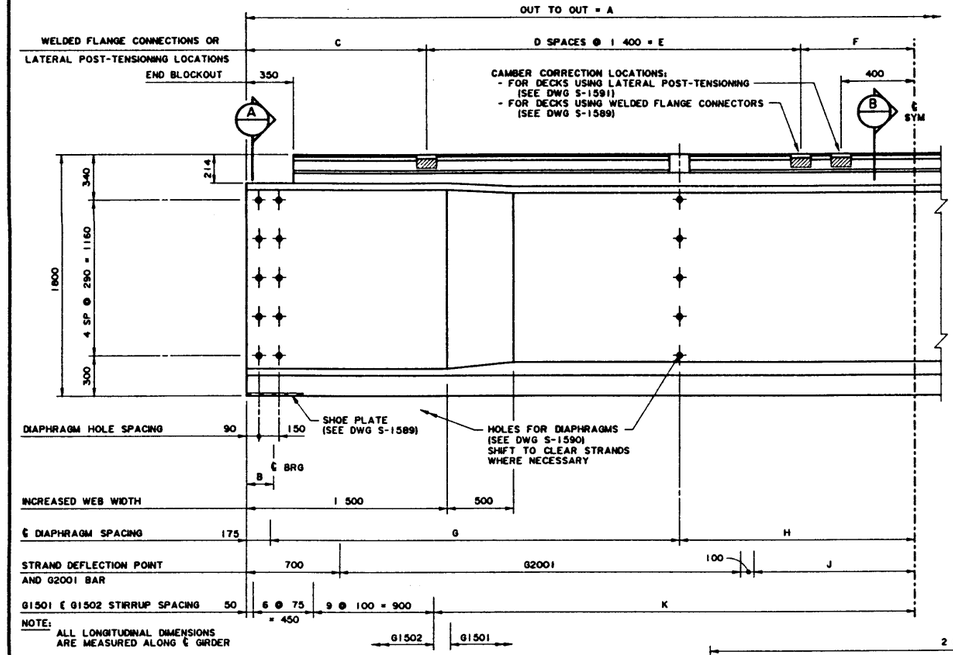


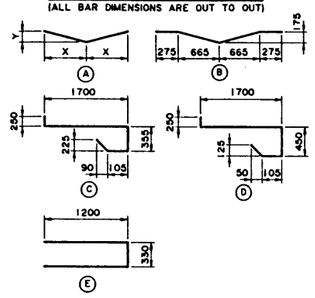
ELEVATION

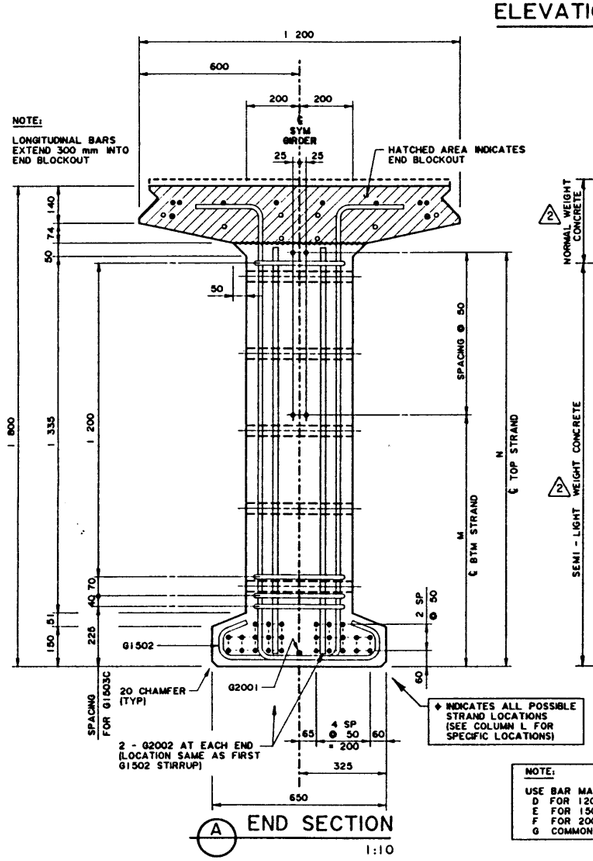
1:20

BAR LIST: TYPICAL SQUARE GIRDER						
MARK	SIZE	TYPE	FLANGE WIDTH	X	Y	LENGTH
D1501	15	A	1200	550	120	1 130
E1501	15	A	1500	680	150	1 390
F1501	15	B	2000			1 930
G1501	15	C	ALL			2 650
G1502	15	D	ALL			2 640
G1503C	15	E	ALL			2 730
G1504	15	STR	ALL			
G1505C	15	STR	ALL			
D2001C	20	STR	1200			1 000
E2001C	20	STR	1500			1 300
F2001C	20	STR	2000			1 800
G2001	20	STR	ALL			
G2002	20	STR	ALL			1 520
G2003	20	STR	ALL			

BAR TYPES

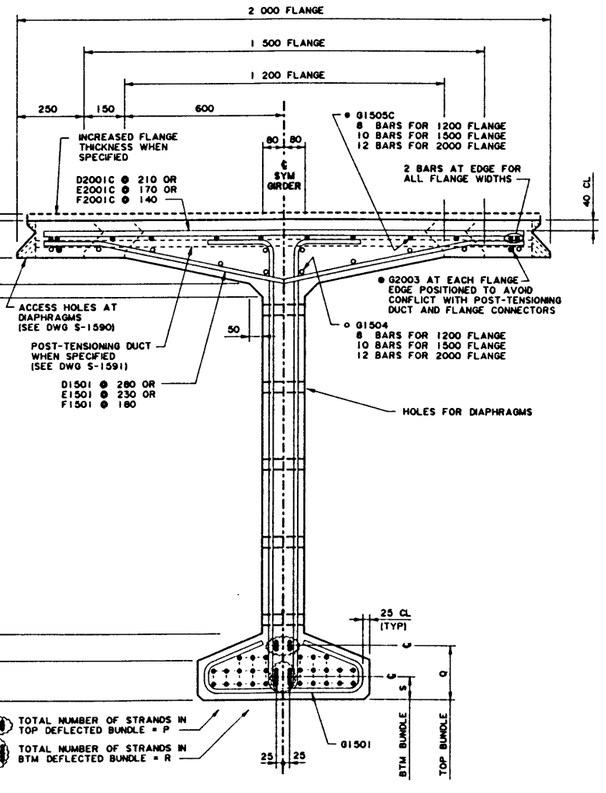
(ALL BAR DIMENSIONS ARE OUT TO OUT)





A END SECTION

1:10



NOTE:

USE BAR MARKS PREFIXED:
D FOR 1200 FLANGE
E FOR 1500 FLANGE
F FOR 2000 FLANGE
G COMMON FOR ALL FLANGES

B TYP SECTION

1:10

SHOWS MIDSPAN STRAND PATTERN

	O/O (m)	℄ BRG	FLANGE CONNECTOR SPACING			INTERMEDIATE DIAPHRAGM SPACING		DEFL POINT	SPACING OF G1501 STIRRUPS	BULB STRAND PATTERN SYM	DEFLECTED WEB STRANDS ℄ PATTERN		TOTAL NUMBER OF STRANDS	STRAND FORCE (kN)	CONCRETE f'c (MPa)		CAMBER 140 FLANGE 165 FLANGE			GIRDER MASS (t)	WHEEL LINE DIST PER GIRDER
	A	B	C	D E	F	NO	G H	J	K		L	M - N (MM)	P ● Q R ● S		INITIAL F'ci	RLSE 28 DAY	RLSE	ERECT	FINAL	140 FLANGE 165 FLANGE	
1200 FLANGE	42	250	700	14 19600	700	3	10325 10500	4600	10 ● 100, 2 ● 250 25 ● 350, 13 ● 400 5 ● 500, 3 ● 550		℄	960 - 1410 (20)	10 ● 220 10 ● 85	46	128.6 94.6	30 38	86 83	132 138	126 162	55.9 58.8	(1) 0.730
	40	250	1100	13 18200	700	3	9825 10000	4600	10 ● 100, 6 ● 250 31 ● 350, 9 ● 450 2 ● 600		℄	910 - 1360 (20)	10 ● 220 10 ● 85	44	128.6 94.6	30 38	82 77	125 131	126 156	53.4 56.2	0.736
	38	250	800	12 16800	1400	3	9325 9500	4600	10 ● 100, 7 ● 250 19 ● 400, 10 ● 450 5 ● 550		℄	1110 - 1460 (16)	6 ● 208 10 ● 85	40	128.6 95.7	28 35	73 69	112 116	114 139	51.0 53.6	0.742
	36	250	500	12 16800	700	2	11825 6000	3600	10 ● 100, 11 ● 250 19 ● 400, 8 ● 500 5 ● 550		℄	1060 - 1410 (16)	6 ● 208 10 ● 85	38	128.6 95.7	28 35	64 61	100 104	107 127	48.1 50.5	0.748
	34	250	900	11 15400	700	2	11325 5500	3600	10 ● 100, 5 ● 250 4 ● 350, 15 ● 450 4 ● 550, 5 ● 600		℄	1110 - 1410 (14)	4 ● 201 10 ● 85	34	128.6 97.4	28 35	53 51	84 87	91 107	45.6 47.8	0.754
	32	250	1300	10 14000	700	2	10525 5300	3600	10 ● 100, 6 ● 250 5 ● 400, 13 ● 500 6 ● 600		℄	1160 - 1410 (12)	2 ● 195 10 ● 85	30	128.6 98.4	28 35	43 41	69 71	75 87	43.1 46.3	0.761
	30	250	1000	9 12600	1400	2	9825 5000	3600	10 ● 100, 5 ● 250 4 ● 400, 8 ● 550 8 ● 600		℄	1260 - 1460 (10)	10 ● 85	26	128.6 101.5	28 35	34 33	54 56	59 69	40.6 42.7	0.772
	28	200	700	9 12600	700	2	9225 4600	3500	10 ● 100, 3 ● 250 4 ● 350, 3 ● 450 6 ● 550, 8 ● 600		℄	1160 - 1360 (10)	10 ● 85	24	128.6 102.2	28 35	29 28	47 48	52 60	38.2 40.1	0.782
	26	200	1100	8 11200	700	2	8525 4300	2500	10 ● 100, 2 ● 250 3 ● 400, 500, 14 ● 600		℄	1260 - 1410 (8)	8 ● 79	20	128.6 104.7	28 35	20 20	33 34	36 41	36.7 37.4	0.793
	24	200	800	7 9800	1400	1	11825 0	2500	10 ● 100, 3 ● 250 3 ● 400, 3 ● 550 10 ● 600		℄	1160 - 1310 (8)	8 ● 79	18	128.6 105.5	28 35	17 16	27 28	31 35	32.8 34.4	0.803
	22	200	500	7 9800	700	1	10825 0	0	10 ● 100, 2 ● 250 2 ● 450, 12 ● 600		℄	1510 - 1560 (4)	4 ● 66	14	128.6 108.5	28 35	10 10	16 16	18 20	30.3 31.8	0.811
	20	200	900	6 8400	700	1	9825 0	0	10 ● 100, 2 ● 250 3 ● 400, 500, 9 ● 600		℄	1210 - 1310 (6)	6 ● 125	14	128.6 108.0	28 35	8 8	14 14	16 18	27.8 29.2	0.816
	18	200	1300	5 7000	700	1	9825 0	0	10 ● 100, 2 ● 250 2 ● 400, 500, 8 ● 600		℄	1010 - 1110 (6)	6 ● 150	12	128.6 109.4	28 35	6 6	10 10	12 13	25.4 26.6	0.816
1500 FLANGE	38	250	800	12 16800	1400	3	9325 9500	4600	10 ● 100, 12 ● 250 18 ● 350, 13 ● 400 2 ● 500, 2 ● 550		℄	960 - 1410 (20)	10 ● 220 10 ● 85	46	128.6 93.1	32 40	81 77	126 131	133 160	56.0 59.4	(2) 0.922
	36	250	500	12 16800	700	2	11825 6000	3500	10 ● 100, 8 ● 250 25 ● 300, 9 ● 400 5 ● 500		℄	910 - 1360 (20)	10 ● 220 10 ● 85	44	128.6 92.7	30 38	74 70	117 121	128 150	52.7 55.8	0.930
	34	250	900	11 15400	700	2	11325 5500	3500	10 ● 100, 10 ● 250 2 ● 350, 18 ● 400 6 ● 500, 2 ● 600		℄	1110 - 1460 (16)	6 ● 208 10 ● 85	40	128.6 94.1	30 38	63 60	100 103	112 129	50.0 53.0	0.938
	32	250	1300	10 14000	700	2	10525 5300	3500	10 ● 100, 11 ● 250 16 ● 400, 7 ● 550 600		℄	1010 - 1360 (16)	6 ● 208 10 ● 85	36	128.6 95.3	28 35	53 51	86 88	97 111	47.4 50.2	0.945
	30	250	1000	9 12600	1400	2	9825 5000	3500	10 ● 100, 12 ● 250 11 ● 400, 8 ● 500 2 ● 600		℄	1060 - 1360 (14)	4 ● 201 10 ● 85	32	128.6 97.4	28 35	43 42	70 72	80 91	44.7 47.3	0.951
	28	200	700	9 12600	700	2	9225 4600	3500	10 ● 100, 8 ● 250 3 ● 350, 11 ● 400 6 ● 600		℄	1360 - 1560 (10)	10 ● 85	28	128.6 99.3	28 35	35 33	56 58	65 73	42.0 44.4	0.954
	26	200	1100	8 11200	700	2	8525 4300	2500	10 ● 100, 7 ● 250 3 ● 350, 6 ● 500 8 ● 600		℄	1160 - 1360 (10)	10 ● 85	24	128.6 101.6	28 35	26 25	41 43	47 54	39.3 41.6	0.955
	24	200	800	7 9800	1400	1	11825 0	2500	10 ● 100, 5 ● 250 3 ● 400, 550, 11 ● 600		℄	1260 - 1410 (8)	8 ● 79	20	128.6 104.1	28 35	19 18	30 31	35 40	36.0 38.1	0.955
	22	200	500	7 9800	700	1	10825 0	2500	10 ● 100, 3 ● 250 2 ● 400, 3 ● 550 9 ● 600		℄	1410 - 1510 (6)	6 ● 73	16	128.6 106.8	28 35	13 12	20 21	24 27	33.3 35.3	0.955
	20	200	900	6 8400	700	1	9825 0	2500	10 ● 100, 2 ● 250 3 ● 400, 500, 9 ● 600		℄	1210 - 1310 (6)	6 ● 73	14	128.6 107.9	28 35	10 9	16 16	18 21	30.7 32.4	0.956
	18	200	1300	5 7000	700	1	8825 0	0	10 ● 100, 2 ● 250 4 ● 350, 500, 7 ● 600		℄	1210 - 1310 (6)	6 ● 225	14	128.6 108.1	28 35	7 7	12 12	14 15	28.0 29.5	0.956
	16	200	1000	4 5600	1400	1	7825 0	0	10 ● 100, 2 ● 250 3 ● 400, 3 ● 500 4 ● 600		℄	1510 - 1560 (4)	4 ● 300	12	128.6 109.7	28 35	5 5	8 8	10 10	25.3 26.7	0.956
	14	200	700	4 5600	700	1	6825 0	0	10 ● 100, 4 ● 250 3 ● 400, 4 ● 600		℄	1010 - 1110 (6)	6 ● 550	12	128.6 111.1	28 35	3 3	6 6	7 7	22.6 23.8	0.955
2000 FLANGE	32	250	1300	10 14000	700	2	10525 5300	3500	10 ● 100, 21 ● 150 22 ● 250, 9 ● 350 4 ● 450		℄	1060 - 1460 (18)	8 ● 214 10 ● 85	42	128.6 92.7	30 38	60 57	96 100	109 126	54.5 58.3	1.117
	30	250	1000	9 12600	1400	2	9825 5000	3500	10 ● 100, 14 ● 150 18 ● 250, 6 ● 350 5 ● 450, 3 ● 550		℄	1210 - 1510 (14)	4 ● 201 10 ● 85	36	128.6 95.3	28 35	48 46	78 80	88 101	51.5 55.0	1.117
	28	200	700	9 12600	700	2	9225 4600	3500	10 ● 100, 17 ● 150 17 ● 250, 7 ● 400 4 ● 500		℄	1160 - 1460 (14)	4 ● 201 10 ● 85	34	128.6 95.6	28 35	42 40	68 70	79 90	48.5 51.8	1.117
	26	200	1100	8 11200	700	2	8525 4300	2500	10 ● 100, 8 ● 200 11 ● 250, 7 ● 350 4 ● 500, 3 ● 600		℄	1160 - 1410 (12)	2 ● 195 10 ● 85	28	128.6 99.2	28 35	30 28	48 48	55 63	45.5 48.5	1.117
	24	200	800	7 9800	1400	1	11825 0	0	10 ● 100, 7 ● 200 10 ● 250, 7 ● 400 3 ● 500, 3 ● 600		℄	1210 - 1410 (10)	10 ● 85	24	128.6 101.2	28 35	20 20	33 34	38 43	41.5 44.3	1.128
	22	200	500	7 9800	700	1	10825 0	0	10 ● 100, 7 ● 200 6 ● 500, 3 ● 450 3 ● 550, 4 ● 600		℄	1260 - 1410 (8)	8 ● 79	20	128.6 103.7	28 35	15 14	24 25	31 31	38.5 41.0	1.138
	20	200	900	6 8400	700	1	9825 0	0	10 ● 100, 6 ● 250 2 ● 400, 500, 8 ● 600		℄	1010 - 1160 (8)	8 ● 138	16	128.6 107.0	28 35	10 9	15 16	18 20	35.5 37.8	1.142
	18	200	1300	5 7000	700	1	8825 0	0	10 ● 100, 8 ● 250 2 ● 350, 3 ● 500 4 ● 600		℄	1060 - 1210 (8)	8 ● 225	16	128.6 106.8	28 35	8 8	13 13	16 17	32.4 34.5	1.142
	16	200	1000	4 5600	1400	1	7825 0	0	10 ● 100, 2 ● 250 3 ● 350, 450, 8 ● 600		℄	1060 - 1160 (6)	6 ● 240	12	128.6 108.9	28 35	5 5	8 8	9 10	29.4 31.2	1.142
	14	200	700	4 5600	700	1	6825 0	0	10 ● 100, 2 ● 250 3 ● 400, 500, 4 ● 600		℄	1310 - 1360 (4)	4 ● 250	10	128.6 110.8	28 35	3 3	5 5	6 7	26.4 28.0	1.142
	12	200	1100	3 4200	700	0	-- --	0	10 ● 100, 6 ● 250 400, 500, 2 ● 600		℄	1310 - 1360 (4)	4 ● 475	10	128.6 111.4	28 35	2 2	4 4	5 5	22.6 23.8	1.142

TABLE NOTES:

(1) 42 m 1800 x 1200
- WHEN USED FOR 10.71 m CLEAR ROADWAY (0.730 WHEEL LINES PER GIRDER), FINAL BOTTOM FLANGE TENSION WILL BE 1.01 MPa.
- WHEN USED FOR 14.34 m CLEAR ROADWAY (0.726 WHEEL LINES PER GIRDER), FINAL BOTTOM FLANGE TENSION WILL BE 0.93 MPa.
- WHEN USED FOR 7.08 m CLEAR ROADWAY (0.719 WHEEL LINES PER GIRDER), FINAL BOTTOM FLANGE TENSION WILL BE 0.87 MPa.

(2) 38 m 1800 x 1500
- WHEN USED FOR 10.09 m CLEAR ROADWAY (0.922 WHEEL LINES PER GIRDER), FINAL BOTTOM FLANGE TENSION WILL BE 1.00 MPa.

REV	DATE	DESCRIPTION	BY
6			
5			
4			
3			
2	92-01-30	CONCRETE TYPES INDICATED ON SEC B	TL
1	90-10-29	REDRAWN FROM DWG S-1553	TL

REVISIONS

APPROVED

EXECUTIVE DIRECTOR BRIDGE ENGINEERING

DATE 91-03-07

Alberta TRANSPORTATION AND UTILITIES
BRIDGE ENGINEERING BRANCH

STANDARD DBC SERIES 1800 DEEP INTERIOR GIRDER

DESIGNED	DRAWN	DATE	CHECKED	DATE	STREAM	LOCATION	HIGHWAY	FILE	SHEET	DRAWING
TL	MIK VGB	90-10-29							OF	S-1597

MAR 05, 1991 BBNER/S1597X90.DWG;1