

### Bill of Reinforcing for One Headwall 30° Skew Span x Culvert Height

Bar	Location	Shape	14' x 14'			14' x 13'			14' x 12'			14' x 11'			14' x 10'			14' x 9'			14' x 8'			Bar
			No.	Length	Wt.	No.	Length	Wt.	No.	Length	Wt.	No.	Length	Wt.	No.	Length	Wt.	No.	Length	Wt.	No.	Length	Wt.	
5fa	Fence Anchor (Galv.)		2	2'-10"	6	2	2'-10"	6	2	2'-10"	6	2	2'-10"	6	2	2'-10"	6	2	2'-10"	6	2	2'-10"	6	5fa
4b1	Wingwall, B.F.H, Long		1	63'-6"	44	1	59'-4"	41	1	55'-2"	38	1	51'-0"	36	1	46'-10"	33	1	42'-8"	30	1	38'-6"	26	4b1
4b2	Wingwall, B.F.H, Short		1	48'-5"	34	1	45'-4"	32	1	42'-2"	30	1	39'-1"	26	1	36'-0"	24	1	32'-10"	22	1	29'-9"	20	4b2
4b3	Wingwall, B.F.H, Long		12	15'-8" to 61'-7"	319	11	15'-8" to 57'-5"	277	10	15'-8" to 53'-3"	237	9	15'-8" to 49'-1"	199	8	15'-8" to 44'-11"	165	7	15'-8" to 40'-9"	134	6	15'-8" to 36'-7"	105	4b3
4b4	Wingwall, B.F.H, Short		12	12'-11" to 47'-0"	245	11	12'-11" to 43'-11"	212	10	12'-11" to 40'-9"	181	9	12'-11" to 37'-8"	152	8	12'-11" to 34'-7"	127	7	12'-11" to 31'-5"	103	6	12'-11" to 28'-4"	82	4b4
5b5	Wingwall, F.F.H, Long		1	63'-7"	69	1	59'-5"	64	1	55'-3"	60	1	51'-1"	56	1	46'-11"	51	1	42'-9"	47	1	38'-7"	40	5b5
5b6	Wingwall, F.F.H, Short		1	48'-6"	53	1	45'-5"	50	1	42'-3"	47	1	39'-2"	41	1	36'-0"	38	1	32'-11"	34	1	29'-9"	31	5b6
5b7	Wingwall, F.F.H, Long		13	11'-7" to 61'-8"	512	12	11'-7" to 57'-6"	445	11	11'-7" to 53'-4"	382	10	11'-7" to 49'-1"	324	9	11'-7" to 44'-11"	270	8	11'-7" to 40'-9"	221	7	11'-7" to 36'-7"	176	5b7
5b8	Wingwall, F.F.H, Short		13	9'-11" to 47'-1"	394	12	9'-11" to 44'-0"	342	11	9'-11" to 40'-10"	293	10	9'-11" to 37'-9"	248	9	9'-11" to 34'-7"	208	8	9'-11" to 31'-6"	172	7	9'-11" to 28'-4"	139	5b8
4c1	Wingwall, F.F.V, Long		60	2'-10" to 17'-0"	397	56	2'-10" to 16'-0"	352	51	2'-10" to 14'-10"	301	47	2'-10" to 13'-10"	262	43	2'-10" to 12'-11"	226	39	2'-10" to 11'-11"	192	35	2'-10" to 10'-10"	162	4c1
4c2	Wingwall, F.F.V, Short		45	2'-10" to 17'-0"	298	42	2'-10" to 16'-0"	264	38	2'-10" to 14'-9"	223	35	2'-10" to 13'-9"	194	32	2'-10" to 12'-10"	167	29	2'-10" to 11'-10"	142	26	2'-10" to 10'-10"	119	4c2
4c3	Wingwall, F.F.V, Long		32	9'-8" to 17'-1"	286	28	9'-8" to 16'-1"	241	23	9'-8" to 14'-11"	189	19	9'-8" to 14'-0"	150	15	9'-8" to 13'-0"	114	11	9'-8" to 12'-1"	80	--	--	--	4c3
4c4	Wingwall, F.F.V, Short		25	9'-5" to 17'-1"	221	22	9'-5" to 16'-1"	187	18	9'-5" to 14'-11"	146	15	9'-5" to 13'-11"	117	12	9'-5" to 12'-11"	90	9	9'-5" to 12'-0"	64	--	--	--	4c4
4c5	Wingwall, F.F.V, Long		1	15'-9"	11	1	14'-9"	10	2	13'-9"	18	2	12'-9"	17	2	11'-9"	16	1	10'-9"	7	1	9'-9"	7	4c5
4c5	Wingwall, F.F.V, Short		1	15'-9"	11	1	14'-9"	10	2	13'-9"	18	2	12'-9"	17	2	11'-9"	16	1	10'-9"	7	1	9'-9"	7	4c5
5c6	Wingwall, B.F.V, Long		11	2'-10" to 5'-3"	46	11	2'-10" to 5'-3"	46	11	2'-10" to 5'-3"	46	11	2'-10" to 5'-3"	46	11	2'-10" to 5'-3"	46	11	2'-10" to 5'-3"	46	11	2'-10" to 5'-3"	46	5c6
5c7	Wingwall, B.F.V, Short		5	2'-10" to 4'-2"	18	5	2'-10" to 4'-2"	18	5	2'-10" to 4'-2"	18	5	2'-10" to 4'-2"	18	5	2'-10" to 4'-2"	18	5	2'-10" to 4'-2"	18	5	2'-10" to 4'-2"	18	5c7
6c8	Wingwall, B.F.V, Long		49	9'-6" to 21'-0"	1122	45	9'-6" to 20'-0"	997	40	9'-6" to 18'-10"	851	36	9'-6" to 17'-10"	739	32	9'-6" to 16'-11"	635	28	9'-6" to 15'-11"	534	24	9'-6" to 14'-10"	442	6c8
6c9	Wingwall, B.F.V, Short		40	8'-6" to 21'-0"	886	37	8'-6" to 20'-0"	792	33	8'-6" to 18'-9"	675	30	8'-6" to 17'-9"	591	27	8'-6" to 16'-10"	514	24	8'-6" to 15'-10"	439	21	8'-6" to 14'-10"	368	6c9
6c10	Wingwall, B.F.V, Long		40	10'-6"	631	36	10'-6"	568	31	10'-6"	499	27	10'-6"	426	23	10'-6"	363	19	10'-6"	300	15	10'-6"	237	6c10
6c10	Wingwall, B.F.V, Short		30	10'-6"	473	27	10'-6"	426	23	10'-6"	363	20	10'-6"	315	17	10'-6"	268	14	10'-6"	221	11	10'-6"	173	6c10
6c11	Wingwall, B.F.V, Long		1	19'-9"	30	1	18'-9"	28	2	17'-9"	33	2	16'-9"	50	2	15'-9"	47	1	14'-9"	42	1	13'-9"	21	6c11
6c11	Wingwall, B.F.V, Short		1	19'-9"	30	1	18'-9"	28	2	17'-9"	33	2	16'-9"	50	2	15'-9"	47	1	14'-9"	42	1	13'-9"	21	6c11
4d1	Apron, Longit., Bott.		9	36'-6"	219	9	34'-3"	206	9	31'-11"	192	9	29'-7"	178	9	27'-3"	164	9	25'-0"	150	9	22'-8"	136	4d1
4d2	Apron, Longit., Bott, Long		3	57'-1"	119	3	52'-11"	111	3	48'-9"	103	3	44'-7"	94	3	40'-5"	86	3	36'-3"	73	3	32'-1"	64	4d2
4d3	Apron, Longit., Bott, Short		3	43'-6"	92	3	40'-5"	86	3	37'-3"	75	3	34'-2"	68	3	31'-0"	62	3	27'-11"	56	3	24'-9"	50	4d3
4f1	Apron, Longit., Top		13	36'-6"	713	13	34'-3"	669	13	31'-11"	623	13	29'-7"	578	13	27'-3"	532	13	25'-0"	488	13	22'-8"	443	6f1
6f2	Apron, Longit., Top Long		13	5'-5" to 33'-1"	376	12	5'-5" to 30'-10"	327	11	5'-4" to 28'-6"	279	10	5'-4" to 26'-2"	237	9	5'-4" to 23'-10"	197	8	5'-4" to 21'-7"	162	7	5'-3" to 19'-3"	129	6f2
6f3	Apron, Longit., Top Short		10	5'-6" to 33'-4"	292	9	5'-6" to 31'-0"	252	8	5'-4" to 28'-8"	214	7	5'-4" to 26'-5"	180	7	5'-5" to 25'-10"	155	6	5'-4" to 21'-9"	126	5	5'-4" to 19'-6"	99	6f3
6f4	Apron, Longit., Top Long		1	63'-7"	99	1	59'-5"	93	1	55'-3"	87	1	51'-1"	80	1	46'-11"	74	1	42'-9"	68	1	38'-7"	58	6f4
6f5	Apron, Longit., Top Short		1	48'-6"	76	1	45'-5"	72	1	42'-3"	67	1	39'-2"	59	1	36'-0"	54	1	32'-11"	49	1	29'-9"	45	6f5
4i1	Parapet, Vertical		29	6'-4"	123	29	6'-4"	123	29	6'-4"	123	29	6'-4"	123	29	6'-4"	123	29	6'-4"	123	29	6'-4"	123	4i1
9j1	Parapet, Horizontal		4	18'-5"	250	4	18'-1"	246	4	17'-10"	243	4	17'-10"	243	4	17'-8"	240	4	17'-8"	240	4	17'-8"	240	9j1
6m1	Apron, Trans., Top		7	17'-4" to 18'-5"	188	7	17'-0" to 18'-1"	184	7	17'-0" to 18'-1"	184	7	16'-10" to 17'-11"	183	7	16'-7" to 17'-9"	180	7	16'-7" to 17'-9"	180	7	16'-7" to 17'-9"	180	6m1
6m2	Apron, Trans., Top		33	18'-9" to 30'-9"	1227	30	18'-5" to 29'-3"	1074	27	18'-5" to 28'-2"	945	24	18'-3" to 26'-10"	813	21	18'-1" to 25'-7"	689	18	18'-1" to 24'-5"	575	15	18'-1" to 23'-4"	467	6m2
6m3	Apron, Trans., Top		11	9'-11" to 21'-0"	255	11	9'-0" to 20'-2"	241	11	8'-4" to 19'-6"	230	11	7'-8" to 18'-9"	218	11	7'-4" to 17'-4"	185	10	7'-4" to 17'-4"	185	10	7'-4" to 17'-4"	185	6m3
6m4	Apron, Trans., Bott.		28	11'-2" to 29'-6"	855	26	11'-2" to 28'-2"	768	24	11'-2" to 26'-10"	685	22	11'-2" to 25'-5"	604	20	11'-2" to 24'-1"	529	18	11'-2" to 22'-9"	458	16	11'-2" to 21'-4"	391	6m4
6p1	Curtain, Horizontal		4	16'-4"	98	4	16'-4"	98	4	16'-4"	98	4	16'-4"	98	4	16'-4"	98	4	16'-4"	98	4	16'-4"	98	6p1
6p2	Curtain, Horizontal, Long		4	32'-1"	193	4	30'-1"	181	4	28'-0"	168	4	26'-0"	156	4	24'-0"	142	4	22'-0"	132	4	20'-0"	120	6p2
6p3	Curtain, Horizontal, Short		4	18'-0"	108	4	17'-0"	102	4	15'-11"	96	4	14'-11"	90	4	13'-10"	83	4	12'-10"	77	4	11'-9"	71	6p3
6s1	Wing Slope, Both F., Long		2	8'-0"	24	2	8'-0"	24	2	8'-0"	24	2	8'-0"	24	2	8'-0"	24	2	8'-0"	24	2	8'-0"	24	6s1
6s2	Wing Slope, Both F., Short		2	6'-11"	21	2	6'-11"	21	2	6'-11"	21	2	6'-11"	21	2	6'-11"	21	2	6'-11"	21	2	6'-11"	21	6s2
6s3	Wing Slope, Both F., Long		2	57'-6"	180	2	53'-2"	167	2	48'-11"	154	2	44'-7"	141	2	40'-4"	128	2	36'-0"	108	2	31'-9"	95	6s3
6s4	Wing Slope, Both F., Short		2	44'-7"	141	2	41'-4"	131	2	38'-0"	114	2	34'-9"	104	2	31'-6"	95	2	28'-2"	85	2	24'-11"	75	6s4
6s5	Wing Slope, F.F, Long		1	63'-7"	99																			