

CONST. NO.			
PROJECT NO.	YEAR	SHEET NO.	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

1 @ 10 x 7 REINFORCED CONCRETE BOX BRIDGE																																	
Maximum Fill Height ft.	Dimensions				Bars TST				Bars TSB				Bars BST				Bars BSB				Bars EWE				Bar EWI				Concrete CY/LF	Reinf. Steel LB/LF			
	ST in.	SB in.	WT in.	BW ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.					
No Fill	9.5	9	8	11.33	4	1	12	10.83	7	2	6	10.83	8	1	12	11.83	4	1	12	11.83	4	2	12	7.00	4	2	12	7.00	61	20	4	1.01	217
3	10	9	8	11.33	4	1	12	10.83	7	2	6	10.83	9	1	12	11.83	4	1	12	11.83	4	2	12	7.00	4	2	12	7.00	61	20	4	1.03	225
5	9	10	8	11.33	4	1	12	10.83	6	2	6	10.83	9	1	12	11.83	4	1	12	11.83	4	2	12	7.00	4	2	12	7.00	72	0	4	1.04	207
10	9	10	8	11.33	4	1	12	10.83	7	2	6	10.83	7	2	6	11.83	4	1	12	11.83	4	2	12	7.00	5	2	12	7.00	72	0	4	1.04	233
20	11	13	8	11.33	4	1	12	10.83	11	1	12	10.83	11	1	12	11.83	4	1	12	11.83	4	2	12	7.00	7	2	12	7.00	72	0	4	1.22	274
30	17	18	9	11.50	4	1	12	11.00	7	2	6	11.00	7	2	6	12.00	4	1	12	12.00	4	2	12	7.00	7	2	12	7.00	72	0	4	1.68	248
40	21	22	11	11.83	4	1	12	11.33	7	2	6	11.33	10	1	12	12.33	4	1	12	12.33	4	2	12	7.00	4	4	6	7.00	72	0	4	2.11	244
50	24	25	12	12.00	4	1	12	11.50	10	1	12	11.50	11	1	12	12.50	4	1	12	12.50	4	2	12	7.00	5	2	12	7.00	76	0	4	2.41	260
60	26	28	13	12.17	4	1	12	11.66	11	1	12	11.66	11	2	12	12.66	4	1	12	12.66	4	2	12	7.00	5	2	12	7.00	76	0	4	2.67	273

1 @ 10 x 8 REINFORCED CONCRETE BOX BRIDGE																																	
Maximum Fill Height ft.	Dimensions				Bars TST				Bars TSB				Bars BST				Bars BSB				Bars EWE				Bar EWI				Concrete CY/LF	Reinf. Steel LB/LF			
	ST in.	SB in.	WT in.	BW ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.					
No Fill	9.5	9	8	11.33	4	1	12	10.83	7	2	6	10.83	8	1	12	11.83	4	1	12	11.83	4	1	12	8.00	4	2	12	8.00	65	20	4	1.06	222
3	10	9	8	11.33	4	1	12	10.83	7	2	6	10.83	9	1	12	11.83	4	1	12	11.83	4	1	12	8.00	4	2	12	8.00	65	20	4	1.08	231
5	9	10	8	11.33	4	1	12	10.83	6	2	6	10.83	9	1	12	11.83	4	1	12	11.83	4	1	12	8.00	5	2	12	8.00	76	0	4	1.09	219
10	9	11	8	11.33	4	1	12	10.83	7	2	6	10.83	9	1	12	11.83	4	1	12	11.83	4	1	12	8.00	4	4	6	8.00	76	0	4	1.12	236
20	11	13	9	11.50	4	1	12	11.00	11	1	12	11.00	11	1	12	12.00	4	1	12	12.00	4	1	12	8.00	7	2	12	8.00	76	0	4	1.33	285
30	17	18	11	11.83	4	1	12	11.33	7	2	6	11.33	7	2	6	12.33	4	1	12	12.33	4	1	12	8.00	7	2	12	8.00	76	0	4	1.87	260
40	21	22	12	12.00	4	1	12	11.50	7	2	6	11.50	10	1	12	12.50	4	1	12	12.50	4	1	12	8.00	7	2	12	8.00	80	0	4	2.25	266
50	24	25	13	12.16	4	1	12	11.66	10	1	12	11.66	11	1	12	12.66	4	1	12	12.66	4	1	12	8.00	7	2	12	8.00	80	0	4	2.55	283
60	26	28	15	12.50	4	1	12	12.00	11	1	12	12.00	11	1	12	13.00	4	1	12	13.00	4	1	12	8.00	4	4	6	8.00	80	0	4	2.91	287

1 @ 10 x 9 REINFORCED CONCRETE BOX BRIDGE																																	
Maximum Fill Height ft.	Dimensions				Bars TST				Bars TSB				Bars BST				Bars BSB				Bars EWE				Bar EWI				Concrete CY/LF	Reinf. Steel LB/LF			
	ST in.	SB in.	WT in.	BW ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.					
No Fill	9.5	9	8	11.33	4	1	12	10.83	7	2	6	10.83	8	1	12	11.83	4	1	12	11.83	4	2	12	9.00	4	2	12	9.00	69	20	4	1.12	227
3	10	9	8	11.33	4	1	12	10.83	7	2	6	10.83	9	1	12	11.83	4	1	12	11.83	4	2	12	9.00	5	2	12	9.00	69	20	4	1.13	242
5	9	10	8	11.33	4	1	12	10.83	6	2	6	10.83	9	1	12	11.83	4	1	12	11.83	4	2	12	9.00	5	2	12	9.00	80	0	4	1.13	225
10	9	11	8	11.33	4	1	12	10.83	7	2	6	10.83	9	1	12	11.83	4	1	12	11.83	4	2	12	9.00	7	2	12	9.00	80	0	4	1.17	254
20	11	13	10	11.67	4	1	12	11.17	11	1	12	11.17	11	1	12	12.17	4	1	12	12.17	4	2	12	9.00	7	2	12	9.00	80	0	4	1.45	294
30	17	18	12	12.00	4	1	12	11.50	7	2	6	11.50	10	1	12	12.50	4	1	12	12.50	4	2	12	9.00	7	2	12	9.00	84	0	4	2.01	275
40	21	22	13	12.17	4	1	12	11.67	7	2	6	11.67	10	1	12	12.67	4	1	12	12.67	4	2	12	9.00	5	4	6	9.00	84	0	4	2.40	277
50	24	25	15	12.50	4	1	12	12.00	10	1	12	12.00	11	1	12	13.00	4	1	12	13.00	4	2	12	9.00	7	2	12	9.00	84	0	4	2.80	295
60	26	28	16	12.67	4	1	12	12.17	11	1	12	12.17	11	1	12	13.17	4	1	12	13.17	4	2	12	9.00	7	2	12	9.00	84	0	4	3.08	309

1 @ 10 x 10 REINFORCED CONCRETE BOX BRIDGE																																	
Maximum Fill Height ft.	Dimensions				Bars TST				Bars TSB				Bars BST				Bars BSB				Bars EWE				Bar EWI				Concrete CY/LF	Reinf. Steel LB/LF			
	ST in.	SB in.	WT in.	BW ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.					
No Fill	9.5	9	8	11.33	4	1	12	10.83	7	2	12	10.83	8	1	12	11.83	4	1	12	11.83	4	2	12	10.00	5	2	12	10.00	73	20	4	1.17	240
3	10	9	8	11.33	4	1	12	10.83	7	2	6	10.83	9	1	12	11.83	4	1	12	11.83	4	2	12	10.00	4	4	6	10.00	73	20	4	1.18	255
5	9	10	8	11.33	4	1	12	10.83	6	2	6	10.83	9	1	12	11.83	4	1	12	11.83	4	2	12	10.00	7	2	12	10.00	84	0	4	1.18	251
10	9	11	8	11.33	4	1	12	10.83	7	2	6	10.83	9	1	12	11.83	4	1	12	11.83	4	2	12	10.00	9	2	12	10.00	84	0	4	1.22	290
20	11	14	11	11.83	4	1	12	11.33	11	1	12	11.33	7	2	6	12.33	4	1	12	12.33	4	2	12	10.00	8	2	12	10.00	84	0	4	1.63	302
30	17	19	13	12.17	4	1	12	11.67	7	2	6	11.67	7	2	6	12.67	4	1	12	12.67	4	2	12	10.00	8	2	12	10.00	88	0	4	2.21	294
40	21	22	15	12.50	4	1	12	12.00	7	2	6	12.00	10	1	12	13.00	4	1	12	13.00	4	2	12	10.00	8	2	12	10.00	88	0	4	2.65	300
50	24	25	16	12.67	4	1	12	12.17	10	1	12	12.17	11	1	12	13.17	4	1	12	13.17	4	2	12	10.00	8	2	12	10.00	88	0	4	2.98	318
60	26	28	18	13.00	4	1	12	12.50	11	1	12	12.50	11	1	12	13.50	4	1	12	13.50	4	2	12	10.00	5	4	6	10.00	92	0	4	3.36	324

Note: Maximum fill height shown in the table is measured from the bottom of the top slab. To obtain the total fill height from the flow line, add the height of the box.
Note: When top slab is the riding surface (No Fill), the concrete cover to the top mat of reinforcing shall be 2-1/2 inches.

The following bar information applies to all fill cases in the table above:
Bars LNT Size = 4 Spacing = 12 in.
Bars LND Size = 4 Spacing = 6 in.
Bars WS Size = 8 Length = 5.00 ft. Spacing = 12 in.

NOTE: FOR DESCRIPTIONS OF BOX DIMENSIONS AND REINFORCING BAR DESIGNATIONS SEE STANDARD DRAWING NO. STD-15-4.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STANDARD REINFORCED CONCRETE
BOX BRIDGE
INTERIOR SECTION
SPANS: 1 BARREL AT 10'-0"
CLEAR HEIGHTS 7'-0" THRU 10'-0"
0' THRU 60' FILL
2000

CORRECT *Edward P. Wasserman*
ENGINEER OF STRUCTURES

DESIGNED BY LEFEVRE & HARPER DATE 1-00
DRAWN BY KEVIN MARTINKO DATE 3-00
SUPERVISED BY FIELDS & HOLLORAN DATE 3-00
CHECKED BY ROBERT LEFEVRE DATE 6-00

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