CONST. NO.

PROJECT NO.	YEAR	SHEET NO.
	2010	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

1 @ 8 x 3 REINFORCED CONCRETE BOX BRIDGE

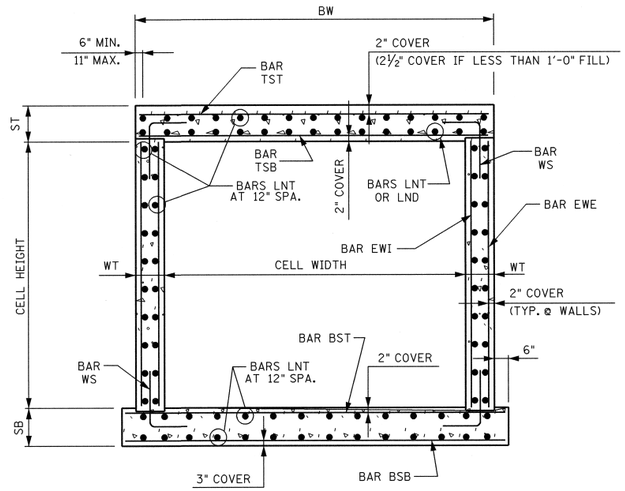
Maximum Fill Height ft.	Dimensions ST in.	SB in.	WT in.	BW ft.	Bars TST Size	No.	Spacing in.	Length ft.	Bars TSB Size	No.	Spacing in.	Length ft.	Bars BST Size	No.	Spacing in.	Length ft.	Bars BSB Size	No.	Spacing in.	Length ft.	Bars EWE Size	No.	Spacing in.	Length ft.	Bars EWI Size	No.	Spacing in.	Length ft.	Bars LNT No.	Bars LND No.	Bars WS No.	Concrete CY/LF	Reinf. Steel LB/LF
No Fill	9.5	9	8	9.33	4	1	12	8.83	6	2	6	8.83	8	1	12	9.83	4	1	12	9.83	4	2	12	3.00	5	2	12	3.00	42	16	4	0.71	174
3	11	11	8	9.33	4	1	12	8.83	7	2	6	8.83	6	2	6	9.83	4	1	12	9.83	4	2	12	3.00	5	2	12	3.00	42	16	4	0.82	187
5	9	9	8	9.33	4	1	12	8.83	7	2	6	8.83	6	2	6	9.83	4	1	12	9.83	4	2	12	3.00	5	2	12	3.00	50	0	4	0.69	175
10	9	9	8	9.33	4	1	12	8.83	8	2	6	8.83	8	1	12	9.83	4	1	12	9.83	4	2	12	3.00	5	2	12	3.00	50	0	4	0.69	183
20	10	11	8	9.33	4	1	12	8.83	7	2	6	8.83	7	2	6	9.83	4	1	12	9.83	4	2	12	3.00	5	2	12	3.00	50	0	4	0.79	186
30	14	15	8	9.33	4	1	12	8.83	7	2	6	8.83	9	1	12	9.83	4	1	12	9.83	4	2	12	3.00	5	2	12	3.00	50	0	4	1.03	179
40	18	18	8	9.33	4	1	12	8.83	7	2	6	8.83	9	1	12	9.83	4	1	12	9.83	4	2	12	3.00	5	2	12	3.00	50	0	4	1.24	179
50	21	21	8	9.33	4	1	12	8.83	7	2	6	8.83	9	1	12	9.83	4	1	12	9.83	4	2	12	3.00	5	2	12	3.00	50	0	4	1.42	179
60	24	24	8	9.33	4	1	12	8.83	7	2	6	8.83	7	2	6	9.83	4	1	12	9.83	4	2	12	3.00	5	2	12	3.00	50	0	4	1.60	186

1 @ 8 x 4 REINFORCED CONCRETE BOX BRIDGE

Maximum Fill Height ft.	Dimensions ST in.	SB in.	WT in.	BW ft.	Bars TST Size	No.	Spacing in.	Length ft.	Bars TSB Size	No.	Spacing in.	Length ft.	Bars BST Size	No.	Spacing in.	Length ft.	Bars BSB Size	No.	Spacing in.	Length ft.	Bars EWE Size	No.	Spacing in.	Length ft.	Bars EWI Size	No.	Spacing in.	Length ft.	Bars LNT No.	Bars LND No.	Bars WS No.	Concrete CY/LF	Reinf. Steel LB/LF
No Fill	9.5	9	8	9.33	4	1	12	8.83	6	2	6	8.83	8	1	12	9.83	4	1	12	9.83	4	2	12	4.00	5	2	12	4.00	46	16	4	0.76	180
3	11	11	8	9.33	4	1	12	8.83	7	2	6	8.83	5	2	6	9.83	4	1	12	9.83	4	2	12	4.00	5	2	12	4.00	46	16	4	0.87	184
5	9	9	8	9.33	4	1	12	8.83	7	2	6	8.83	6	2	6	9.83	4	1	12	9.83	4	2	12	4.00	5	2	12	4.00	54	0	4	0.74	181
10	9	9	8	9.33	4	1	12	8.83	8	2	6	8.83	8	1	12	9.83	4	1	12	9.83	4	2	12	4.00	5	2	12	4.00	54	0	4	0.74	189
20	10	11	8	9.33	4	1	12	8.83	7	2	6	8.83	7	2	6	9.83	4	1	12	9.83	4	2	12	4.00	5	2	12	4.00	54	0	4	0.84	192
30	14	15	8	9.33	4	1	12	8.83	7	2	6	8.83	9	1	12	9.83	4	1	12	9.83	4	2	12	4.00	5	2	12	4.00	54	0	4	1.08	185
40	18	18	8	9.33	4	1	12	8.83	7	2	6	8.83	9	1	12	9.83	4	1	12	9.83	4	2	12	4.00	5	2	12	4.00	54	0	4	1.29	185
50	21	21	8	9.33	4	1	12	8.83	7	2	6	8.83	9	1	12	9.83	4	1	12	9.83	4	2	12	4.00	5	2	12	4.00	54	0	4	1.47	185
60	24	24	9	9.50	4	1	12	9.00	7	2	6	9.00	7	2	6	10.00	4	1	12	10.00	4	2	12	4.00	5	2	12	4.00	54	0	4	1.70	194

1 @ 8 x 5 REINFORCED CONCRETE BOX BRIDGE

Maximum Fill Height ft.	Dimensions ST in.	SB in.	WT in.	BW ft.	Bars TST Size	No.	Spacing in.	Length ft.	Bars TSB Size	No.	Spacing in.	Length ft.	Bars BST Size	No.	Spacing in.	Length ft.	Bars BSB Size	No.	Spacing in.	Length ft.	Bars EWE Size	No.	Spacing in.	Length ft.	Bars EWI Size	No.	Spacing in.	Length ft.	Bars LNT No.	Bars LND No.	Bars WS No.	Concrete CY/LF	Reinf. Steel LB/LF
No Fill	9.5	9	8	9.33	4	1	12	8.83	6	2	6	8.83	8	1	12	9.83	4	1	12	9.83	4	2	12	5.00	5	2	12	5.00	50	16	4	0.81	186
3	11	11	8	9.33	4	1	12	8.83	7	2	6	8.83	8	1	12	9.83	4	1	12	9.83	4	2	12	5.00	5	2	12	5.00	50	16	4	0.91	195
5	9	9	8	9.33	4	1	12	8.83	7	2	6	8.83	6	2	6	9.83	4	1	12	9.83	4	2	12	5.00	5	2	12	5.00	58	0	4	0.79	187
10	9	9	8	9.33	4	1	12	8.83	8	2	6	8.83	8	1	12	9.83	4	1	12	9.83	4	2	12	5.00	5	2	12	5.00	58	0	4	0.79	195
20	10	11	8	9.33	4	1	12	8.83	7	2	6	8.83	7	2	6	9.83	4	1	12	9.83	4	2	12	5.00	5	2	12	5.00	58	0	4	0.89	198
30	14	15	8	9.33	4	1	12	8.83	7	2	6	8.83	9	1	12	9.83	4	1	12	9.83	4	2	12	5.00	6	2	12	5.00	58	0	4	1.13	196
40	18	18	9	9.50	4	1	12	9.00	7	2	6	9.00	9	1	12	10.00	4	1	12	10.00	4	2	12	5.00	5	2	12	5.00	58	0	4	1.39	193
50	21	21	9	9.50	4	1	12	9.00	7	2	6	9.00	9	1	12	10.00	4	1	12	10.00	4	2	12	5.00	5	2	12	5.00	58	0	4	1.57	193
60	24	24	10	9.67	4	1	12	9.17	7	2	6	9.17	7	2	6	10.17	4	1	12	10.17	4	2	12	5.00	5	2	12	5.00	58	0	4	1.81	201



TYPICAL SECTION

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 height of fill above the top slab is less than 1 foot, the top mat of reinforcing in the top slab shall be constructed with 2-1/2 inches of concrete cover.

The following bar information applies to all fill cases in the tables above:
Bars LNT Size = 4 Spacing = 12 in.
Bars LND Size = 5 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-17-5.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
STANDARD REINFORCED CONCRETE BOX BRIDGE
INTERIOR SECTION
SPANS: 1 BARREL AT 8'-0"
CLEAR HEIGHTS 3'-0" THRU 5'-0"
0' THRU 60' FILL
2010

CORRECT Edward P. Wasserman
ENGINEER OF STRUCTURES

STD-17-52

DESIGNED BY RLL/ALP DATE 12-09
DRAWN BY KEVIN MARTINKO DATE 1-10
SUPERVISED BY EPW/RLC DATE 12-09
CHECKED BY RLL/ALP DATE 2-10

Plot By: kmartinko on Bridges\roddell-6-10\Structural Files 1-6-10\8' Spans\std-17-52&53-1barrel_box8.dgn
Plot Date: 2/5/2010