CONST. NO. _____

PROJECT NO.	YEAR	SHEET NO.

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

1 @ 16 x 13 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.	Bar 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	11.5	11	8	17.33	4	1	12	16.83	11	1	12	16.83	7	2	6	17.83	4	1	12	17.83	4	2	12	13.00	8	2	12	13.00	103	32	4	1.88	415
3	12	12	9	17.50	4	1	12	17.00	11	1	12	17.00	11	1	12	18.00	4	1	12	18.00	4	2	12	13.00	8	2	12	13.00	103	32	4	2.05	439
5	12	13	9	17.50	4	1	12	17.00	11	1	12	17.00	11	1	12	18.00	4	1	12	18.00	4	2	12	13.00	9	2	12	13.00	120	0	4	2.11	448
10	13	14	10	17.67	4	1	12	17.16	9	2	6	17.16	9	2	6	18.16	4	1	12	18.16	4	2	12	13.00	7	4	6	13.00	120	0	4	2.31	520
20	16	19	13	18.17	4	1	12	17.66	10	2	6	17.66	10	2	6	18.66	4	1	12	18.66	4	2	12	13.00	7	4	6	13.00	124	0	4	3.06	596
30	25	27	16	18.67	4	1	12	18.16	9	2	6	18.16	9	2	6	19.16	4	1	12	19.16	4	2	12	13.00	9	2	12	13.00	124	0	4	4.36	520
40	31	33	18	19.00	4	1	12	18.50	9	2	6	18.50	9	2	6	19.50	4	1	12	19.50	4	2	12	13.00	9	1	12	13.00	128	0	4	5.29	528
50	36	38	20	19.33	4	1	12	18.83	10	2	6	18.83	10	2	6	19.83	4	1	12	19.83	4	2	12	13.00	6	4	6	13.00	128	0	4	6.13	593
60	40	42	22	19.67	4	1	12	19.16	10	2	6	19.16	10	2	6	20.16	4	1	12	20.16	4	2	12	13.00	6	4	6	13.00	128	0	4	6.87	599

1 @ 16 x 14 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.	Bar 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	11.5	11	8	17.33	4	1	12	16.83	11	1	12	16.83	7	2	6	17.83	4	1	12	17.83	4	2	12	14.00	7	4	6	14.00	107	32	4	1.93	465
3	12	12	9	17.50	4	1	12	17.00	11	1	12	17.00	11	1	12	18.00	4	1	12	18.00	4	2	12	14.00	9	2	12	14.00	107	32	4	2.11	469
5	12	13	10	17.67	4	1	12	17.16	11	1	12	17.16	11	1	12	18.16	4	1	12	18.16	4	2	12	14.00	9	2	12	14.00	124	0	4	2.26	461
10	13	15	11	17.83	4	1	12	17.33	9	2	6	17.33	9	2	6	18.33	4	1	12	18.33	4	2	12	14.00	10	2	12	14.00	124	0	4	2.53	541
20	16	20	14	18.33	4	1	12	17.83	10	2	6	17.83	9	2	6	18.83	4	1	12	18.83	4	2	12	14.00	7	4	6	14.00	128	0	4	3.30	578
30	25	27	17	18.83	4	1	12	18.33	9	2	6	18.33	9	2	6	19.33	4	1	12	19.33	4	2	12	14.00	9	2	12	14.00	128	0	4	4.57	534
40	31	33	20	19.33	4	1	12	18.83	9	2	6	18.83	10	2	6	19.83	4	1	12	19.83	4	2	12	14.00	9	2	12	14.00	132	0	4	5.64	579
50	36	38	22	19.67	4	1	12	19.16	10	2	6	19.16	10	2	6	20.16	4	1	12	20.16	4	2	12	14.00	9	2	12	14.00	132	0	4	6.51	619
60	40	43	24	20.00	4	1	12	19.50	10	2	6	19.50	10	2	6	20.50	4	1	12	20.50	4	2	12	14.00	9	2	12	14.00	136	0	4	7.33	629

1 @ 16 x 15 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.	Bar 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	11.5	11	9	17.50	4	1	12	17.00	11	1	12	17.00	7	2	6	18.00	4	1	12	18.00	4	2	12	15.00	9	2	12	15.00	111	32	4	2.08	458
3	12	12	10	17.67	4	1	12	17.16	11	1	12	17.16	11	1	12	18.16	4	1	12	18.16	4	2	12	15.00	9	2	12	15.00	111	32	4	2.27	482
5	12	13	10	17.67	4	1	12	17.16	11	1	12	17.16	11	1	12	18.16	4	1	12	18.16	4	2	12	15.00	11	2	12	15.00	128	0	4	2.32	530
10	13	15	12	18.00	4	1	12	17.50	9	2	6	17.50	9	2	6	18.50	4	1	12	18.50	4	2	12	15.00	10	2	12	15.00	132	0	4	2.71	559
20	16	20	15	18.50	4	1	12	18.00	10	2	6	18.00	9	2	6	19.00	4	1	12	19.00	4	2	12	15.00	11	2	12	15.00	132	0	4	3.50	629
30	25	28	18	19.00	4	1	12	18.50	9	2	6	18.50	9	2	6	19.50	4	1	12	19.50	4	2	12	15.00	7	4	6	15.00	136	0	4	4.86	570
40	31	34	21	19.50	4	1	12	19.00	9	2	6	19.00	9	2	6	20.00	4	1	12	20.00	4	2	12	15.00	7	4	6	15.00	136	0	4	5.96	578
50	36	39	24	20.00	4	1	12	19.50	10	2	6	19.50	10	2	6	20.50	4	1	12	20.50	4	2	12	15.00	9	2	12	15.00	140	0	4	6.97	640
60	40	43	26	20.33	4	1	12	19.83	10	2	6	19.83	10	2	6	20.83	4	1	12	20.83	4	2	12	15.00	9	2	12	15.00	140	0	4	7.74	645

1 @ 16 x 16 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.	Bar 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	11.5	11	10	17.67	4	1	12	17.16	11	1	12	17.16	7	2	6	18.16	4	1	12	18.16	4	2	12	16.00	9	2	12	16.00	115	32	4	2.25	470
3	12	12	10	17.67	4	1	12	17.16	11	1	12	17.16	11	1	12	18.16	4	1	12	18.16	4	2	12	16.00	11	2	12	16.00	115	32	4	2.33	554
5	12	13	11	17.83	4	1	12	17.33	11	1	12	17.33	11	1	12	18.33	4	1	12	18.33	4	2	12	16.00	11	2	12	16.00	132	0	4	2.50	546
10	13	15	13	18.17	4	1	12	17.66	9	2	6	17.66	9	2	6	18.66	4	1	12	18.66	4	2	12	16.00	11	2	12	16.00	136	0	4	2.90	607
20	16	20	16	18.67	4	1	12	18.16	10	2	6	18.16	10	2	6	19.16	4	1	12	19.16	4	2	12	16.00	11	2	12	16.00	136	0	4	3.71	681
30	25	28	20	19.33	4	1	12	18.83	9	2	6	18.83	9	2	6	19.83	4	1	12	19.83	4	2	12	16.00	7	4	6	16.00	140	0	4	5.22	588
40	31	34	23	19.83	4	1	12	19.33	9	2	6	19.33	9	2	6	20.33	4	1	12	20.33	4	2	12	16.00	7	4	6	16.00	140	0	4	6.35	595
50	36	39	25	20.17	4	1	12	19.66	10	2	6	19.66	10	2	6	20.66	4	1	12	20.66	4	2	12	16.00	7	4	6	16.00	144	0	4	7.25	675
60	40	43	28	20.67	4	1	12	20.16	10	2	6	20.16	10	2	6	21.16	4	1	12	21.16	4	2	12	16.00	7	4	6	16.00	144	0	4	8.19	684

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 16'-0" CLEAR HEIGHTS 13'-0" THRU 16'-0" 0' THRU 60' FILL 2000

CORRECT Edward P. Wasserman
ENGINEER OF STRUCTURES

STD-15-47

DESIGNED BY JOHN PHILLIPS DATE 1-00
DRAWN BY KEVIN MARTINKO DATE 3-00
SUPERVISED BY FIELDS & HOLLORAN DATE 3-00
CHECKED BY JOHN PHILLIPS DATE 6-00

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