STD-17-71_2BARREL_BOX6'.DGN

CONST. NO.

PROJECT NO.	YEAR	SHEET NO.
	2010	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	5-1-14	JHW	REV. SB DIMENSION & CONC. QUANTITIY

2 @ 6 x 3 REINFORCED CONCRETE BOX BRIDGE

	Maximum Fill Height ft.	Dimensions ST in.	SB in.	WT in.	IT 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 IW Size	No.	Spacing in.	Length ft.	Bars LNT No.	Bars LND No.	Bars WS No.	Concrete CY/LF	Reinf. Steel LB/LF
Continuous	No Fill	8.5	9	8	8	14.00	7	1	12	13.50	5	2	6	13.50	4	2	6	14.50	5	2	6	14.50	4	2	12	3.00	5	2	12	3.00	4	2	12	3.00	62	12	6	1.01	254
	3	10	10	8	8	14.00	8	1	12	13.50	5	2	6	13.50	4	2	6	14.50	5	2	6	14.50	4	2	12	3.00	5	2	12	3.00	4	2	12	3.00	62	12	6	1.12	262
	5	9	9	8	8	14.00	5	2	6	13.50	5	2	6	13.50	4	2	6	14.50	5	2	6	14.50	4	2	12	3.00	5	2	12	3.00	4	2	12	3.00	76	0	6	1.03	251
	10	9	9	8	8	14.00	5	2	6	13.50	4	2	6	13.50	4	2	6	14.50	7	1	12	14.50	4	2	12	3.00	5	2	12	3.00	4	2	12	3.00	76	0	6	1.03	240
Moment Break	20	8	9	8	8	14.00	4	2	12	6.66	6	2	6	13.50	6	2	6	14.50	4	2	12	6.66	4	2	12	3.00	5	2	12	3.00	4	2	12	3.00	76	0	6	0.98	247
	30	11	12	8	8	14.00	4	2	12	6.66	6	2	6	13.50	8	1	12	14.50	4	2	12	6.66	4	2	12	3.00	5	2	12	3.00	4	2	12	3.00	76	0	6	1.25	242
	40	14	15	8	8	14.00	4	2	12	6.66	6	2	6	13.50	8	1	12	14.50	4	2	12	6.66	4	2	12	3.00	5	2	12	3.00	4	2	12	3.00	76	0	6	1.52	242
	50	16	17	8	8	14.00	4	2	12	6.66	6	2	6	13.50	8	1	12	14.50	4	2	12	6.66	4	2	12	3.00	5	2	12	3.00	5	2	12	3.00	76	0	6	1.70	244
	60	17	18	8	8	14.00	4	2	12	6.66	7	2	6	13.50	6	2	6	14.50	4	2	12	6.66	4	2	12	3.00	5	2	12	3.00	5	2	12	3.00	76	0	6	1.79	264

2 @ 6 x 4 REINFORCED CONCRETE BOX BRIDGE

	Maximum Fill Height ft.	Dimensions ST in.	SB in.	WT in.	IT 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 IW Size	No.	Spacing in.	Length ft.	Bars LNT No.	Bars LND No.	Bars WS No.	Concrete CY/LF	Reinf. Steel LB/LF
Continuous	No Fill	8.5	9	8	8	14.00	7	1	12	13.50	5	2	6	13.50	4	2	6	14.50	5	2	6	14.50	4	2	12	4.00	5	2	12	4.00	4	2	12	4.00	68	12	6	1.08	262
	3	10	10	8	8	14.00	8	1	12	13.50	5	2	6	13.50	4	2	6	14.50	4	2	6	14.50	4	2	12	4.00	5	2	12	4.00	4	2	12	4.00	68	12	6	1.19	260
	5	9	9	8	8	14.00	5	2	6	13.50	5	2	6	13.50	4	2	6	14.50	5	2	6	14.50	4	2	12	4.00	5	2	12	4.00	4	2	12	4.00	82	0	6	1.10	260
	10	9	9	8	8	14.00	5	2	6	13.50	4	2	6	13.50	4	2	6	14.50	5	2	6	14.50	4	2	12	4.00	5	2	12	4.00	4	2	12	4.00	82	0	6	1.10	250
Moment Break	20	8	9	8	8	14.00	4	2	12	6.66	6	2	6	13.50	6	2	6	14.50	4	2	12	6.66	4	2	12	4.00	5	2	12	4.00	4	2	12	4.00	82	0	6	1.06	256
	30	11	13	8	8	14.00	4	2	12	6.66	6	2	6	13.50	8	1	12	14.50	4	2	12	6.66	4	2	12	4.00	5	2	12	4.00	4	2	12	4.00	82	0	6	1.37	251
	40	14	15	8	8	14.00	4	2	12	6.66	6	2	6	13.50	8	1	12	14.50	4	2	12	6.66	4	2	12	4.00	5	2	12	4.00	4	2	12	4.00	82	0	6	1.60	251
	50	16	16	8	8	14.00	4	2	12	6.66	6	2	6	13.50	8	1	12	14.50	4	2	12	6.66	4	2	12	4.00	5	2	12	4.00	4	2	12	4.00	82	0	6	1.73	251
	60	17	18	9	8	14.17	4	2	12	6.66	7	2	6	13.67	8	1	12	14.67	4	2	12	6.66	4	2	12	4.00	5	2	12	4.00	5	2	12	4.00	82	0	6	1.91	270

2 @ 6 x 5 REINFORCED CONCRETE BOX BRIDGE

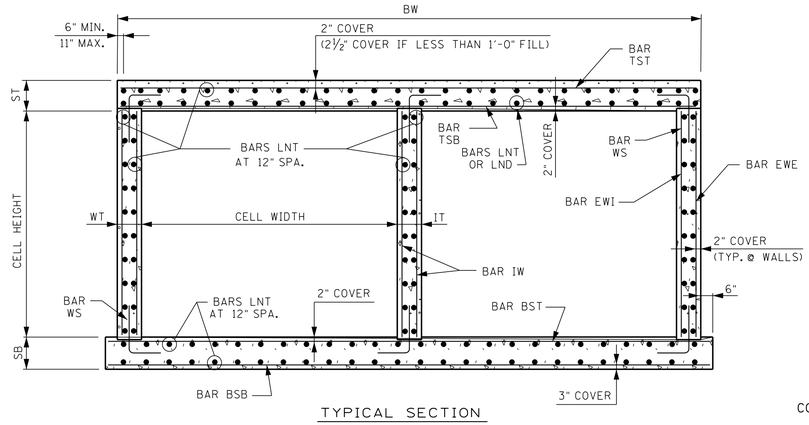
	Maximum Fill Height ft.	Dimensions ST in.	SB in.	WT in.	IT in.	BW ft.	Bars TST Size	No.	Spacing in.	Length ft.	Bars TSB Size	No.	Spacing in.	Length ft.	Bars BST Size	No.	Spacing in.	Length ft.	Bars BSB Size	No.	Spacing in.	Length ft.	Bars EWE Size	No.	Spacing in.	Length ft.	Bars EWI Size	No.	Spacing in.	Length ft.	Bars IW Size	No.	Spacing in.	Length ft.	Bars LNT No.	Bars LND No.	Bars WS No.	Concrete CY/LF	Reinf. Steel LB/LF
Continuous	No Fill	8.5	9	8	8	14.00	7	1	12	13.50	5	2	6	13.50	4	2	6	14.50	5	2	6	14.50	4	2	12	5.00	5	2	12	5.00	4	2	12	5.00	74	12	6	1.15	271
	3	10	10	8	8	14.00	8	1	12	13.50	5	2	6	13.50	4	2	6	14.50	4	2	6	14.50	4	2	12	5.00	5	2	12	5.00	4	2	12	5.00	74	12	6	1.27	269
	5	9	9	8	8	14.00	5	2	6	13.50	5	2	6	13.50	4	2	6	14.50	5	2	6	14.50	4	2	12	5.00	5	2	12	5.00	4	2	12	5.00	88	0	6	1.18	269
	10	9	9	8	8	14.00	5	2	6	13.50	4	2	6	13.50	4	2	6	14.50	5	2	6	14.50	4	2	12	5.00	5	2	12	5.00	4	2	12	5.00	88	0	6	1.18	258
Moment Break	20	8	10	8	8	14.00	4	2	12	6.66	6	2	6	13.50	8	1	12	14.50	4	2	12	6.66	4	2	12	5.00	5	2	12	5.00	4	2	12	5.00	88	0	6	1.18	260
	30	11	13	8	8	14.00	4	2	12	6.66	6	2	6	13.50	8	1	12	14.50	4	2	12	6.66	4	2	12	5.00	6	2	12	5.00	4	2	12	5.00	88	0	6	1.45	264
	40	14	15	9	8	14.17	4	2	12	6.66	6	2	6	13.67	8	1	12	14.67	4	2	12	6.66	4	2	12	5.00	6	2	12	5.00	4	2	12	5.00	88	0	6	1.72	265
	50	16	17	10	8	14.33	4	2	12	6.66	6	2	6	13.83	8	1	12	14.83	4	2	12	6.66	4	2	12	5.00	5	2	12	5.00	5	2	12	5.00	88	0	6	1.94	265
	60	17	18	10	8	14.33	4	2	12	6.66	7	2	6	13.83	6	2	6	14.83	4	2	12	6.66	4	2	12	5.00	6	2	12	5.00	5	2	12	5.00	88	0	6	2.04	290

2 @ 6 x 6 REINFORCED CONCRETE BOX BRIDGE

	Maximum Fill Height ft.	Dimensions ST in.	SB in.	WT in.	IT 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 IW Size	No.	Spacing in.	Length ft.	Bars LNT No.	Bars LND No.	Bars WS No.	Concrete CY/LF	Reinf. Steel LB/LF
Continuous	No Fill	8.5	9	8	8	14.00	7	1	12	13.50	5	2	6	13.50	4	2	6	14.50	5	2	6	14.50	4	2	12	6.00	6	2	12	6.00	4	2	12	6.00	80	12	6	1.23	285
	3	10	10	8	8	14.00	8	1	12	13.50	5	2	6	13.50	4	2	6	14.50	4	2	6	14.50	4	2	12	6.00	6	2	12	6.00	4	2	12	6.00	80	12	6	1.34	283
	5	9	9	8	8	14.00	5	2	6	13.50	5	2	6	13.50	4	2	6	14.50	5	2	6	14.50	4	2	12	6.00	6	2	12	6.00	4	2	12	6.00	94	0	6	1.25	283
	10	9	9	8	8	14.00	5	2	6	13.50	4	2	6	13.50	4	2	6	14.50	5	2	6	14.50	4	2	12	6.00	6	2	12	6.00	4	2	12	6.00	94	0	6	1.25	273
Moment Break	20	8	10	8	8	14.00	4	2	12	6.66	6	2	6	13.50	8	1	12	14.50	4	2	12	6.66	4	2	6	6.00	6	4	6	6.00	4	2	12	6.00	94	0	6	1.25	292
	30	11	13	9	8	14.17	4	2	12	6.66	6	2	6	13.67	8	1	12	14.67	4	2	12	6.66	4	2	12	6.00	6	4	12	6.00	4	2	12	6.00	94	0	6	1.57	293
	40	14	15	10	8	14.33	4	2	12	6.66	6	2	6	13.83	8	1	12	14.83	4	2	12	6.66	4	2	12	6.00	6	4	12	6.00	4	2	12	6.00	94	0	6	1.85	294
	50	16	17	11	8	14.50	4	2	12	6.66	6	2	6	14.00	8	1	12	15.00	4	2	12	6.66	4	2	12	6.00	6	4	12	6.00	5	2	12	6.00	94	0	6	2.08	299
	60	17	18	12	8	14.67	4	2	12	6.66	7	2	6	14.17	6	2	6	15.17	4	2	12	6.66	4	2	12	6.00	7	2	12	6.00	5	2	12	6.00	94	0	6	2.23	309

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 = 12 in.
Bars WS Size = 8 Length = 5.00 ft. Spacing = 12 in.



TYPICAL SECTION

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: 2 BARRELS AT 6'-0" CLEAR HEIGHTS 3'-0" THRU 6'-0" 0' THRU 60' FILL 2010

CORRECT Edward P. Wasserman
ENGINEER OF STRUCTURES

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

STD-17-71