CONST. NO. _____

PROJECT NO.	YEAR	SHEET NO.
	2010	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

2 @ 10 x 7 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	10.5	10	8	8	22.00	6	2	6	21.50	8	1	12	21.50	5	2	6	22.50	6	2	6	22.50	4	2	12	7.00	5	2	12	7.00	4	2	12	7.00	110	20	6	1.94	444
	3	13	13	8	8	22.00	7	2	6	21.50	6	2	6	21.50	5	2	6	22.50	8	1	12	22.50	4	2	12	7.00	5	2	12	7.00	4	2	12	7.00	110	20	6	2.32	467
	5	13	13	8	8	22.00	6	2	6	21.50	5	2	6	21.50	5	2	6	22.50	6	2	6	22.50	4	2	12	7.00	5	2	12	7.00	4	2	12	7.00	132	0	6	2.32	426
	10	13	13	8	8	22.00	8	2	6	21.50	5	2	6	21.50	7	1	12	22.50	9	1	12	22.50	4	2	12	7.00	6	2	12	7.00	4	2	12	7.00	132	0	6	2.32	490
Moment Break	20	12	13	8	8	22.00	4	2	12	10.66	8	2	6	21.50	11	1	12	22.50	4	2	12	10.66	4	2	12	7.00	6	4	6	7.00	4	2	12	7.00	132	0	6	2.26	492
	30	18	18	9	8	22.17	4	2	12	10.66	7	2	6	21.67	7	2	6	22.67	4	2	12	10.66	4	2	12	7.00	6	4	6	7.00	5	2	12	7.00	132	0	6	3.08	444
	40	22	22	11	8	22.50	4	2	12	10.66	7	2	6	22.00	10	1	12	23.00	4	2	12	10.66	4	2	12	7.00	5	4	6	7.00	5	2	12	7.00	132	0	6	3.77	439
	50	25	25	12	8	22.67	4	2	12	10.66	8	2	6	22.17	11	1	12	23.17	4	2	12	10.66	4	2	12	7.00	6	2	12	7.00	4	4	6	7.00	132	0	6	4.27	487
	60	29	29	13	8	22.83	4	2	12	10.66	9	2	6	22.33	11	1	12	23.33	4	2	12	10.66	4	2	12	7.00	6	2	12	7.00	7	2	12	7.00	132	0	6	4.91	532

2 @ 10 x 8 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	10.5	10	8	8	22.00	6	2	6	21.50	8	1	12	21.50	5	2	6	22.50	6	2	6	22.50	4	2	12	8.00	5	2	12	8.00	4	2	12	8.00	116	20	6	2.02	453
	3	13	13	8	8	22.00	7	2	6	21.50	6	2	6	21.50	5	2	6	22.50	8	1	12	22.50	4	2	12	8.00	5	2	12	8.00	4	2	12	8.00	116	20	6	2.40	476
	5	13	13	8	8	22.00	6	2	6	21.50	5	2	6	21.50	5	2	6	22.50	9	1	12	22.50	4	2	12	8.00	5	2	12	8.00	4	2	12	8.00	138	0	6	2.40	443
	10	13	13	8	8	22.00	8	2	6	21.50	5	2	6	21.50	7	1	12	22.50	9	1	12	22.50	4	2	12	8.00	5	4	6	8.00	4	2	12	8.00	138	0	6	2.40	509
Moment Break	20	12	13	9	8	22.17	4	2	12	10.66	8	2	6	21.67	11	1	12	22.67	4	2	12	10.66	4	2	12	8.00	6	4	6	8.00	4	2	12	8.00	138	0	6	2.39	506
	30	18	18	11	8	22.50	4	2	12	10.66	7	2	6	22.00	7	2	6	23.00	4	2	12	10.66	4	2	12	8.00	6	4	6	8.00	5	2	12	8.00	138	0	6	3.30	460
	40	22	22	12	8	22.67	4	2	12	10.66	7	2	6	22.17	10	1	12	23.17	4	2	12	10.66	4	2	12	8.00	6	4	6	8.00	5	2	12	8.00	138	0	6	3.94	467
	50	25	25	13	8	22.83	4	2	12	10.66	8	2	6	22.33	11	1	12	23.33	4	2	12	10.66	4	2	12	8.00	6	4	6	8.00	4	4	6	8.00	142	0	6	4.44	527
	60	29	29	15	8	23.17	4	2	12	10.66	9	2	6	22.67	11	1	12	23.67	4	2	12	10.66	4	2	12	8.00	5	4	6	8.00	7	2	12	8.00	142	0	6	5.17	560

2 @ 10 x 9 REINFORCED CONCRETE BOX BRIDGE

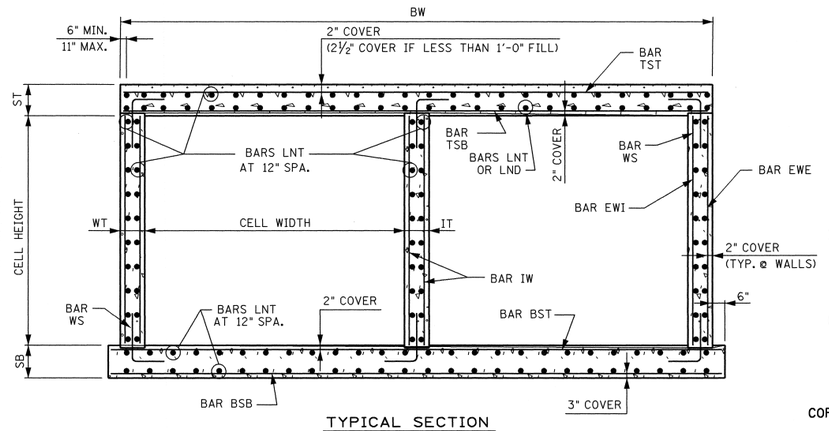
	Maximum Fill Height ft.	Dimensions ST in.	SB in.	WT in.	IT in.	BW ft.	Bars TST Size	No.	Spacing in.	Length ft.	Bars TSB Size	No.	Spacing in.	Length ft.	Bars BST Size	No.	Spacing in.	Length ft.	Bars BSB Size	No.	Spacing in.	Length ft.	Bars EWE Size	No.	Spacing in.	Length ft.	BarsEWI Size	No.	Spacing in.	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	10.5	10	8	8	22.00	6	2	6	21.50	8	1	12	21.50	5	2	6	22.50	6	2	6	22.50	4	2	12	9.00	4	2	12	9.00	5	2	12	9.00	126	20	6	2.09	464
	3	13	13	8	8	22.00	7	2	6	21.50	6	2	6	21.50	5	2	6	22.50	8	1	12	22.50	4	2	12	9.00	5	2	12	9.00	5	2	12	9.00	126	20	6	2.47	494
	5	13	13	8	8	22.00	6	2	6	21.50	5	2	6	21.50	5	2	6	22.50	9	1	12	22.50	4	2	12	9.00	4	4	6	9.00	5	2	12	9.00	148	0	6	2.47	467
	10	13	13	8	8	22.00	8	2	6	21.50	5	2	6	21.50	7	1	12	22.50	9	1	12	22.50	4	2	12	9.00	7	2	12	9.00	5	2	12	9.00	148	0	6	2.47	529
Moment Break	20	12	13	10	8	22.33	4	2	12	10.67	8	2	6	21.83	11	1	12	22.83	4	2	12	10.67	4	2	12	9.00	7	2	12	9.00	5	2	12	9.00	148	0	6	2.54	513
	30	18	18	12	8	22.67	4	2	12	10.67	7	2	6	22.17	10	1	12	23.17	4	2	12	10.67	4	2	12	9.00	7	2	12	9.00	5	2	12	9.00	148	0	6	3.46	465
	40	22	22	13	8	22.83	4	2	12	10.67	7	2	6	22.33	10	1	12	23.33	4	2	12	10.67	4	2	12	9.00	5	4	6	9.00	6	2	12	9.00	148	0	6	4.11	476
	50	25	25	15	8	23.17	4	2	12	10.67	8	2	6	22.67	11	1	12	23.67	4	2	12	10.67	4	2	12	9.00	7	2	12	9.00	5	4	6	9.00	152	0	6	4.71	543
	60	29	29	16	8	23.33	4	2	12	10.67	9	2	6	22.83	11	1	12	23.83	4	2	12	10.67	4	2	12	9.00	7	2	12	9.00	5	2	12	9.00	152	0	6	5.38	560

2 @ 10 x 10 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	10.5	10	8	8	22.00	6	2	6	21.50	8	1	12	21.50	5	2	6	22.50	6	2	6	22.50	4	2	12	10.00	5	2	12	10.00	5	2	12	10.00	132	20	6	2.16	481
	3	13	13	8	8	22.00	7	2	6	21.50	6	2	6	21.50	5	2	6	22.50	8	1	12	22.50	4	2	12	10.00	5	2	12	10.00	5	2	12	10.00	132	20	6	2.55	504
	5	13	13	8	8	22.00	6	2	6	21.50	5	2	6	21.50	5	2	6	22.50	9	1	12	22.50	4	2	12	10.00	7	2	12	10.00	5	2	12	10.00	154	0	6	2.55	491
	10	13	13	8	8	22.00	8	2	6	21.50	5	2	6	21.50	7	1	12	22.50	9	1	12	22.50	4	2	12	10.00	9	2	12	10.00	5	2	12	10.00	154	0	6	2.55	567
Moment Break	20	12	14	11	8	22.50	4	2	12	10.67	8	2	6	22.00	7	2	6	23.00	4	2	12	10.67	4	2	12	10.00	8	2	12	10.00	5	2	12	10.00	154	0	6	2.77	511
	30	18	19	13	8	22.83	4	2	12	10.67	7	2	6	22.33	7	2	6	23.33	4	2	12	10.67	4	2	12	10.00	8	2	12	10.00	6	2	12	10.00	154	0	6	3.72	495
	40	22	22	15	8	23.17	4	2	12	10.67	7	2	6	22.67	10	1	12	23.67	4	2	12	10.67	4	2	12	10.00	8	2	12	10.00	6	2	12	10.00	158	0	6	4.39	505
	50	25	25	16	8	23.33	4	2	12	10.67	8	2	6	22.83	11	1	12	23.83	4	2	12	10.67	4	2	12	10.00	8	2	12	10.00	5	4	6	10.00	158	0	6	4.91	571
	60	29	29	18	8	23.67	4	2	12	10.67	9	2	6	23.17	11	1	12	24.17	4	2	12	10.67	4	2	12	10.00	5	4	6	10.00	6	4	6	10.00	158	0	6	5.68	615

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 10'-0"
CLEAR HEIGHTS 7'-0" THRU 10'-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-17-75

Box_drwgs\stdboxes\tables\1-6-10\Official Culvert Files 1-6-10\10' Span\STD-17-74¢75_2barrel_box10'.dgn
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