3 @ 16 x 13 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	11.5	11	8	8	50.67	7	2	6	50.17	7	2	6	50.17	7	1	12	51.17	6	2	6	51.17	4	2	12	13.00	7	4	6	13.00	4	8	6	13.00	256	48	8	4.84	1189
	3	15	15	9	8	50.83	7	2	6	50.33	7	2	6	50.33	8	1	12	51.33	9	1	12	51.33	4	2	12	13.00	7	4	6	13.00	4	8	6	13.00	256	48	8	6.12	1244
	5	15	15	9	8	50.83	8	2	6	50.33	7	2	6	50.33	6	2	6	51.33	7	2	6	51.33	4	2	12	13.00	8	4	6	13.00	4	8	6	13.00	306	0	8	6.12	1375
	10	18	18	10	8	51.00	7	2	6	50.50	7	2	6	50.50	6	2	6	51.50	7	2	6	51.50	4	2	12	13.00	9	4	6	13.00	4	8	6	13.00	310	0	8	7.17	1356
Moment Break	20	19	19	13	8	51.50	4	3	12	16.66	10	2	6	51.00	10	2	6	52.00	4	3	12	16.66	4	2	12	13.00	8	4	6	13.00	4	8	6	13.00	310	0	8	7.78	1493
	30	26	27	16	8	52.00	4	3	12	16.66	9	2	6	51.50	9	2	6	52.50	4	3	12	16.66	4	2	12	13.00	8	4	6	13.00	4	8	6	13.00	314	0	8	10.52	1316
	40	32	33	18	8	52.33	4	3	12	16.66	9	2	6	51.83	9	2	6	52.83	4	3	12	16.66	4	2	12	13.00	8	4	6	13.00	7	4	12	13.00	314	0	8	12.69	1358
	50	37	38	20	9	52.83	4	3	12	16.66	10	2	6	52.33	10	2	6	53.33	4	3	12	16.66	4	2	12	13.00	7	4	6	13.00	8	4	12	13.00	314	0	8	14.67	1555
	60	41	42	22	10	53.33	4	3	12	16.66	10	2	6	52.83	10	2	6	53.83	4	3	12	16.66	4	2	12	13.00	7	4	6	13.00	5	8	6	13.00	318	0	8	16.36	1536

3 @ 16 x 14 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	11.5	11	8	8	50.67	7	2	6	50.17	7	2	6	50.17	5	2	6	51.17	6	2	6	51.17	4	2	12	14.00	8	4	6	14.00	6	4	12	14.00	264	48	8	4.94	1256
	3	15	15	9	8	50.83	7	2	6	50.33	7	2	6	50.33	8	1	12	51.33	9	1	12	51.33	4	2	12	14.00	8	4	6	14.00	6	4	12	14.00	264	48	8	6.22	1309
	5	15	15	10	8	51.00	8	2	6	50.50	7	2	6	50.50	6	2	6	51.50	7	2	6	51.50	4	2	12	14.00	8	4	6	14.00	6	4	12	14.00	318	0	8	6.32	1413
	10	18	18	11	8	51.17	7	2	6	50.67	7	2	6	50.67	6	2	6	51.67	7	2	6	51.67	4	2	12	14.00	9	4	6	14.00	6	4	12	14.00	318	0	8	7.38	1393
Moment Break	20	19	20	14	8	51.67	4	3	12	16.66	10	2	6	51.17	9	2	6	52.17	4	3	12	16.66	4	2	12	14.00	8	4	6	14.00	6	4	12	14.00	318	0	8	8.18	1433
	30	26	27	17	8	52.17	4	3	12	16.66	9	2	6	51.67	9	2	6	52.67	4	3	12	16.66	4	2	12	14.00	8	4	6	14.00	6	4	12	14.00	322	0	8	10.78	1350
	40	32	33	20	9	52.83	4	3	12	16.66	9	2	6	52.33	10	2	6	53.33	4	3	12	16.66	4	2	12	14.00	8	4	6	14.00	6	4	12	14.00	322	0	8	13.21	1456
	50	37	38	22	9	53.17	4	3	12	16.66	10	2	6	52.67	10	2	6	53.67	4	3	12	16.66	4	2	12	14.00	8	4	6	14.00	8	4	12	14.00	326	0	8	15.10	1624
	60	41	43	24	10	53.67	4	3	12	16.66	10	2	6	53.17	10	2	6	54.17	4	3	12	16.66	4	2	12	14.00	8	4	6	14.00	5	8	6	14.00	326	0	8	16.98	1600

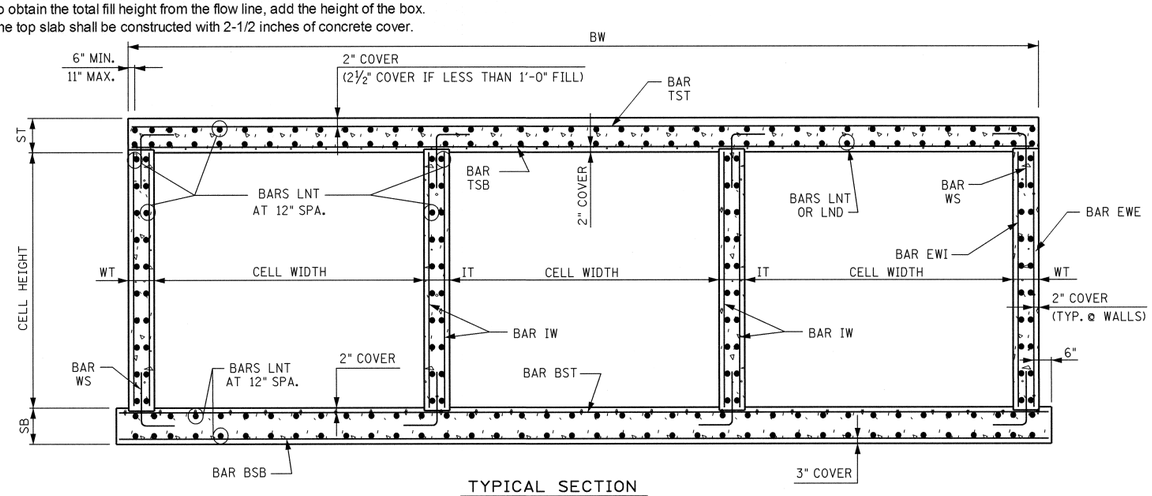
3 @ 16 x 15 REINFORCED CONCRETE BOX BRIDGE

	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	11.5	11	9	8	50.83	7	2	6	50.33	7	2	6	50.33	7	1	12	51.33	6	2	6	51.33	4	2	12	15.00	8	4	6	15.00	7	4	12	15.00	272	48	8	5.14	1312
	3	15	15	10	8	51.00	7	2	6	50.50	7	2	6	50.50	8	1	12	51.50	9	1	12	51.50	4	2	12	15.00	8	4	6	15.00	7	4	12	15.00	274	48	8	6.44	1368
	5	15	15	10	8	51.00	8	2	6	50.50	7	2	6	50.50	9	1	12	51.50	7	2	6	51.50	4	2	12	15.00	9	4	6	15.00	7	4	12	15.00	326	0	8	6.44	1533
	10	18	18	12	8	51.33	7	2	6	50.83	7	2	6	50.83	6	2	6	51.83	7	2	6	51.83	4	2	12	15.00	9	4	6	15.00	7	4	12	15.00	326	0	8	7.61	1454
Moment Break	20	19	20	15	8	51.83	4	3	12	16.66	10	2	6	51.33	9	2	6	52.33	4	3	12	16.66	4	2	12	15.00	9	4	6	15.00	7	4	12	15.00	326	0	8	8.43	1536
	30	26	28	18	9	52.50	4	3	12	16.66	9	2	6	52.00	9	2	6	53.00	4	3	12	16.66	4	2	12	15.00	8	4	6	15.00	6	4	12	15.00	330	0	8	11.34	1378
	40	32	34	21	9	53.00	4	3	12	16.66	9	2	6	52.50	9	2	6	53.50	4	3	12	16.66	4	2	12	15.00	8	4	6	15.00	7	4	12	15.00	330	0	8	13.68	1418
	50	37	39	24	10	53.67	4	3	12	16.66	10	2	6	53.17	10	2	6	54.17	4	3	12	16.66	4	2	12	15.00	8	4	6	15.00	8	4	12	15.00	334	0	8	15.86	1661
	60	41	43	26	10	54.00	4	3	12	16.66	10	2	6	53.50	10	2	6	54.50	4	3	12	16.66	4	2	12	15.00	8	4	6	15.00	6	8	6	15.00	334	0	8	17.47	1687

3 @ 16 x 16 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	11.5	11	10	8	51.00	7	2	6	50.50	7	2	6	50.50	7	1	12	51.50	7	2	6	51.50	4	2	12	16.00	8	4	6	16.00	8	4	12	16.00	284	48	8	5.35	1438
	3	15	15	10	8	51.00	7	2	6	50.50	7	2	6	50.50	8	1	12	51.50	9	1	12	51.50	4	2	12	16.00	9	4	6	16.00	8	4	12	16.00	284	48	8	6.55	1482
	5	15	15	11	8	51.17	8	2	6	50.67	7	2	6	50.67	9	1	12	51.67	7	2	6	51.67	4	2	12	16.00	9	4	6	16.00	8	4	12	16.00	334	0	8	6.66	1604
	10	18	18	13	8	51.50	7	2	6	51.00	7	2	6	51.00	6	2	6	52.00	7	2	6	52.00	4	2	12	16.00	9	4	6	16.00	8	4	12	16.00	334	0	8	7.85	1526
Moment Break	20	19	20	16	8	52.00	4	3	12	16.66	10	2	6	51.50	10	2	6	52.50	4	3	12	16.66	4	2	12	16.00	9	4	6	16.00	8	4	12	16.00	338	0	8	8.69	1704
	30	26	28	20	9	52.83	4	3	12	16.66	9	2	6	52.33	9	2	6	53.33	4	3	12	16.66	4	2	12	16.00	8	4	6	16.00	6	4	12	16.00	338	0	8	11.76	1406
	40	32	34	23	10	53.50	4	3	12	16.66	9	2	6	53.00	9	2	6	54.00	4	3	12	16.66	4	2	12	16.00	8	4	6	16.00	6	4	12	16.00	342	0	8	14.26	1418
	50	37	39	25	10	53.83	4	3	12	16.66	10	2	6	53.33	10	2	6	54.33	4	3	12	16.66	4	2	12	16.00	8	4	6	16.00	8	4	12	16.00	342	0	8	16.20	1692
	60	41	43	28	11	54.50	4	3	12	16.66	10	2	6	54.00	10	2	6	55.00	4	3	12	16.66	4	2	12	16.00	8	4	6	16.00	5	8	6	16.00	346	0	8	18.11	1669

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: 3 BARRELS AT 16'-0"
CLEAR HEIGHTS 13'-0" THRU 16'-0"
0' THRU 60' FILL
2010

CORRECT Edward P. Wasserman
ENGINEER OF STRUCTURES

CONST. NO. _____

PROJECT NO.	YEAR	SHEET NO.
	2010	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

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-17-104