2 @ 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	34.00	10	1	12	33.50	8	2	6	33.50	5	2	6	34.50	8	2	6	34.50	4	2	12	13.00	7	4	6	13.00	4	4	6	13.00	182	64	6	3.36	982
	3	14	14	9	8	34.17	7	2	6	33.67	7	2	6	33.67	7	1	12	34.67	8	2	6	34.67	4	2	12	13.00	7	4	6	13.00	4	4	6	13.00	182	64	6	4.04	934
	5	15	15	9	8	34.17	11	1	12	33.67	6	2	6	33.67	8	1	12	34.67	8	2	6	34.67	4	2	12	13.00	8	4	6	13.00	4	4	6	13.00	216	0	6	4.25	973
	10	18	18	10	8	34.33	9	2	6	33.83	6	2	6	33.83	8	1	12	34.83	8	2	6	34.83	4	2	12	13.00	9	4	6	13.00	4	4	6	13.00	216	0	6	4.99	1064
Moment Break	20	19	19	13	8	34.83	4	2	12	16.66	10	2	6	34.33	10	2	6	35.33	4	2	12	16.66	4	2	12	13.00	8	4	6	13.00	4	4	6	13.00	216	0	6	5.51	1059
	30	26	27	16	8	35.33	4	2	12	16.66	9	2	6	34.83	9	2	6	35.83	4	2	12	16.66	4	2	12	13.00	8	4	6	13.00	4	4	6	13.00	220	0	6	7.47	943
	40	32	33	18	8	35.67	4	2	12	16.66	9	2	6	35.17	9	2	6	36.17	4	2	12	16.66	4	2	12	13.00	8	4	6	13.00	7	2	12	13.00	220	0	6	9.02	966
	50	37	38	20	9	36.08	4	2	12	16.66	10	2	6	35.58	10	2	6	36.58	4	2	12	16.66	4	2	12	13.00	7	4	6	13.00	8	2	12	13.00	224	0	6	10.44	1088
	60	41	42	22	10	36.50	4	2	12	16.66	10	2	6	36.00	10	2	6	37.00	4	2	12	16.66	4	2	12	13.00	7	4	6	13.00	5	4	6	13.00	224	0	6	11.65	1080

2 @ 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	34.00	10	1	12	33.50	8	2	6	33.50	5	2	6	34.50	8	2	6	34.50	4	2	12	14.00	8	4	6	14.00	6	2	12	14.00	188	64	6	3.43	1038
	3	14	14	9	8	34.17	7	2	6	33.67	7	2	6	33.67	7	1	12	34.67	8	2	6	34.67	4	2	12	14.00	8	4	6	14.00	6	2	12	14.00	188	64	6	4.12	990
	5	15	15	10	8	34.33	11	1	12	33.83	6	2	6	33.83	8	1	12	34.83	8	2	6	34.83	4	2	12	14.00	8	4	6	14.00	6	2	12	14.00	222	0	6	4.44	999
	10	18	18	11	8	34.50	9	2	6	34.00	6	2	6	34.00	8	1	12	35.00	8	2	6	35.00	4	2	12	14.00	9	4	6	14.00	6	2	12	14.00	222	0	6	5.19	1093
Moment Break	20	19	20	14	8	35.00	4	2	12	16.66	10	2	6	34.50	9	2	6	35.50	4	2	12	16.66	4	2	12	14.00	8	4	6	14.00	6	2	12	14.00	226	0	6	5.83	1024
	30	26	27	17	8	35.50	4	2	12	16.66	9	2	6	35.00	9	2	6	36.00	4	2	12	16.66	4	2	12	14.00	8	4	6	14.00	6	2	12	14.00	226	0	6	7.71	969
	40	32	33	20	9	36.08	4	2	12	16.66	9	2	6	35.58	10	2	6	36.58	4	2	12	16.66	4	2	12	14.00	8	4	6	14.00	6	2	12	14.00	230	0	6	9.46	1045
	50	37	38	22	9	36.42	4	2	12	16.66	10	2	6	35.92	10	2	6	36.92	4	2	12	16.66	4	2	12	14.00	8	4	6	14.00	8	2	12	14.00	230	0	6	10.84	1148
	60	41	43	24	10	36.83	4	2	12	16.66	10	2	6	36.33	10	2	6	37.33	4	2	12	16.66	4	2	12	14.00	8	4	6	14.00	5	4	6	14.00	230	0	6	12.19	1139

2 @ 16 x 15 REINFORCED CONCRETE BOX BRIDGE

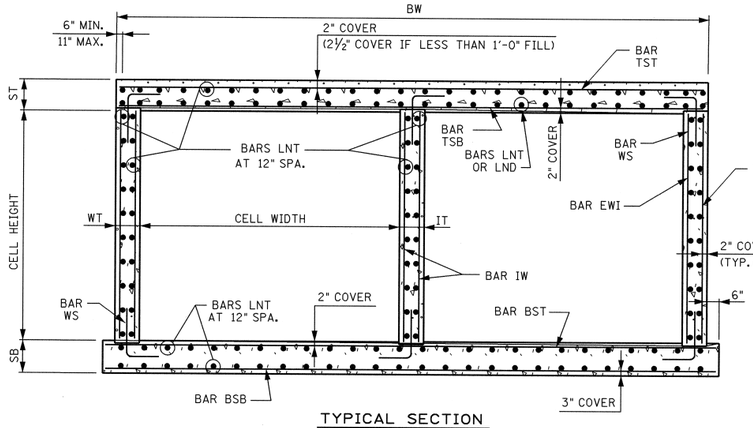
	Maximum Fill Height ft.	Dimensions ST in.	SB in.	WT in.	IT in.	BW ft.	Bars TST Size	No.	Spacing in.	Length ft.	Bars TSB Size	No.	Spacing in.	Length ft.	Bars BST Size	No.	Spacing in.	Length ft.	Bars BSB Size	No.	Spacing in.	Length ft.	Bars EWE Size	No.	Spacing in.	Length ft.	Bars EWI Size	No.	Spacing 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	34.17	10	1	12	33.67	8	2	6	33.67	5	2	6	34.67	8	2	6	34.67	4	2	12	15.00	8	4	6	15.00	7	2	12	15.00	194	64	6	3.61	1076
	3	14	14	10	8	34.33	7	2	6	33.83	7	2	6	33.83	5	2	6	34.83	8	2	6	34.83	4	2	12	15.00	8	4	6	15.00	7	2	12	15.00	194	64	6	4.31	1029
	5	15	15	10	8	34.33	11	1	12	33.83	6	2	6	33.83	8	1	12	34.83	8	2	6	34.83	4	2	12	15.00	9	4	6	15.00	7	2	12	15.00	228	0	6	4.52	1078
	10	18	18	12	8	34.67	9	2	6	34.17	6	2	6	34.17	8	1	12	35.17	8	2	6	35.17	4	2	12	15.00	9	4	6	15.00	7	2	12	15.00	228	0	6	5.39	1134
Moment Break	20	19	20	15	8	35.17	4	2	12	16.66	10	2	6	34.67	9	2	6	35.67	4	2	12	16.66	4	2	12	15.00	9	4	6	15.00	7	2	12	15.00	232	0	6	6.05	1106
	30	26	28	18	9	35.75	4	2	12	16.66	9	2	6	35.25	9	2	6	36.25	4	2	12	16.66	4	2	12	15.00	8	4	6	15.00	6	2	12	15.00	232	0	6	8.13	991
	40	32	34	21	9	36.25	4	2	12	16.66	9	2	6	35.75	9	2	6	36.75	4	2	12	16.66	4	2	12	15.00	8	4	6	15.00	7	2	12	15.00	236	0	6	9.85	1017
	50	37	39	24	10	36.83	4	2	12	16.66	10	2	6	36.33	10	2	6	37.33	4	2	12	16.66	4	2	12	15.00	8	4	6	15.00	8	2	12	15.00	236	0	6	11.45	1177
	60	41	43	26	10	37.17	4	2	12	16.66	10	2	6	36.67	10	2	6	37.67	4	2	12	16.66	4	2	12	15.00	8	4	6	15.00	6	4	6	15.00	240	0	6	12.64	1195

2 @ 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	34.33	10	1	12	33.83	8	2	6	33.83	6	2	6	34.83	8	2	6	34.83	4	2	12	16.00	8	4	6	16.00	8	2	12	16.00	200	64	6	3.80	1070
	3	14	14	10	8	34.33	7	2	6	33.83	7	2	6	33.83	5	2	6	34.83	8	2	6	34.83	4	2	12	16.00	9	4	6	16.00	8	2	12	16.00	200	64	6	4.39	1116
	5	15	15	11	8	34.50	11	1	12	34.00	6	2	6	34.00	8	1	12	35.00	8	2	6	35.00	4	2	12	16.00	9	4	6	16.00	8	2	12	16.00	234	0	6	4.72	1124
	10	18	18	13	8	34.83	9	2	6	34.33	6	2	6	34.33	6	2	6	35.33	9	2	6	35.33	4	2	12	16.00	9	4	6	16.00	8	2	12	16.00	234	0	6	5.60	1244
Moment Break	20	19	20	16	8	35.33	4	2	12	16.66	10	2	6	34.83	10	2	6	35.83	4	2	12	16.66	4	2	12	16.00	9	4	6	16.00	8	2	12	16.00	238	0	6	6.29	1216
	30	26	28	20	9	36.08	4	2	12	16.66	9	2	6	35.58	9	2	6	36.58	4	2	12	16.66	4	2	12	16.00	8	4	6	16.00	6	2	12	16.00	242	0	6	8.52	1017
	40	32	34	23	10	36.67	4	2	12	16.66	9	2	6	36.17	9	2	6	37.17	4	2	12	16.66	4	2	12	16.00	8	4	6	16.00	6	2	12	16.00	242	0	6	10.34	1025
	50	37	39	25	10	37.00	4	2	12	16.66	10	2	6	36.50	10	2	6	37.50	4	2	12	16.66	4	2	12	16.00	8	4	6	16.00	8	2	12	16.00	242	0	6	11.76	1201
	60	41	43	28	11	37.58	4	2	12	16.66	10	2	6	37.08	10	2	6	38.08	4	2	12	16.66	4	2	12	16.00	8	4	6	16.00	5	4	6	16.00	246	0	6	13.19	1195

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 = 4 Spacing = 6 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 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-17-84

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