3 @ 18 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.	Bar EWI Size	No.	Spacing in.	Length ft.	Bar 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	9	8	8	56.67	11	1	12	56.16	7	2	6	56.16	7	1	12	57.16	8	1	12	57.16	4	2	12	9.00	4	2	12	9.00	4	4	12	9.00	240	54	8	4.32	1169
	3	12	10	8	8	56.67	11	1	12	56.16	7	2	6	56.16	6	2	6	57.16	7	2	6	57.16	4	2	12	9.00	5	2	12	9.00	4	4	12	9.00	240	54	8	4.76	1311
	5	12	11	8	8	56.67	11	1	12	56.16	7	2	6	56.16	7	2	6	57.16	11	1	12	57.16	4	4	6	9.00	4	4	12	9.00	4	4	12	9.00	296	0	8	4.94	1430
	10	15	16	8	8	56.67	11	1	12	56.15	7	2	6	56.15	7	2	6	57.15	11	1	12	57.15	4	2	12	9.00	7	2	12	9.00	4	4	12	9.00	296	0	8	6.36	1442
Moment Break	20	18	20	9	8	56.83	4	3	12	18.66	11	2	6	56.33	10	2	6	57.33	4	3	12	18.66	4	2	12	9.00	8	2	12	9.00	5	4	12	9.00	296	0	8	7.67	1569
	30	28	29	11	8	57.17	4	3	12	18.66	10	2	6	56.66	10	2	6	57.66	4	3	12	18.66	4	2	12	9.00	7	2	12	9.00	4	8	6	9.00	300	0	8	11.20	1462
	40	35	36	13	8	57.50	4	3	12	18.66	10	2	6	57.00	10	2	6	58.00	4	3	12	18.66	4	2	12	9.00	7	4	12	9.00	4	8	6	9.00	300	0	8	13.87	1480
	50	40	42	14	8	57.67	4	3	12	18.66	10	2	6	57.16	10	2	6	58.16	4	3	12	18.66	4	2	12	9.00	6	2	12	9.00	8	4	12	9.00	300	0	8	15.94	1509
	60	45	47	15	8	57.83	4	3	12	18.66	10	2	6	57.33	10	2	6	58.33	4	3	12	18.66	4	2	12	9.00	5	2	12	9.00	6	8	6	9.00	300	0	8	17.84	1515

3 @ 18 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.	Bar EWI Size	No.	Spacing in.	Length ft.	Bar 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	9	8	8	56.67	11	1	12	56.16	7	2	6	56.16	7	1	12	57.16	8	1	12	57.15	4	2	12	10.00	5	2	12	10.00	4	4	12	10.00	248	54	8	4.42	1187
	3	12	10	8	8	56.67	11	1	12	56.16	7	2	6	56.16	6	2	6	57.16	7	2	6	57.15	4	2	12	10.00	4	4	6	10.00	4	4	12	10.00	248	54	8	4.86	1328
	5	12	12	8	8	56.67	11	1	12	56.16	7	2	6	56.16	9	1	12	57.16	7	2	6	57.15	4	2	12	10.00	4	4	6	10.00	4	4	12	10.00	304	0	8	5.22	1332
	10	15	16	8	8	56.67	11	1	12	56.15	7	2	6	56.15	7	2	6	57.15	11	1	12	57.15	4	2	12	10.00	6	4	6	10.00	4	4	12	10.00	304	0	8	6.45	1475
Moment Break	20	18	20	10	8	57.00	4	3	12	18.66	11	2	6	56.50	10	2	6	57.50	4	3	12	18.66	4	2	12	10.00	8	2	12	10.00	5	4	12	10.00	308	0	8	7.85	1591
	30	28	29	12	8	57.33	4	3	12	18.66	10	2	6	56.83	10	2	6	57.83	4	3	12	18.66	4	2	12	10.00	7	2	12	10.00	4	8	6	10.00	308	0	8	11.41	1482
	40	35	36	14	8	57.67	4	3	12	18.66	10	2	6	57.16	10	2	6	58.16	4	3	12	18.66	4	2	12	10.00	7	4	12	10.00	7	4	12	10.00	308	0	8	14.10	1516
	50	40	42	16	8	58.00	4	3	12	18.66	10	2	6	57.50	10	2	6	58.50	4	3	12	18.66	4	2	12	10.00	7	2	12	10.00	8	4	12	10.00	312	0	8	16.29	1548
	60	45	47	17	8	58.17	4	3	12	18.66	10	2	6	57.66	10	2	6	58.66	4	3	12	18.66	4	2	12	10.00	4	4	6	10.00	6	8	6	10.00	312	0	8	18.20	1550

3 @ 18 x 11 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.	Bar EWI Size	No.	Spacing in.	Length ft.	Bar 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	9	8	8	56.67	11	1	12	56.16	7	2	6	56.16	7	1	12	57.16	8	1	12	57.16	4	2	12	11.00	5	2	12	11.00	4	4	12	11.00	256	54	8	4.52	1198
	3	12	10	8	8	56.67	11	1	12	56.16	7	2	6	56.16	6	2	6	57.16	7	2	6	57.16	4	2	12	11.00	6	2	12	11.00	4	4	12	11.00	256	54	8	4.96	1344
	5	12	12	8	8	56.67	11	1	12	56.16	7	2	6	56.16	9	1	12	57.16	7	2	6	57.16	4	2	12	11.00	8	2	12	11.00	4	4	12	11.00	312	0	8	5.32	1373
	10	15	17	9	8	56.83	11	1	12	56.33	7	2	6	56.33	9	1	12	57.33	10	1	12	57.33	4	2	12	11.00	6	4	6	11.00	4	4	12	11.00	312	0	8	6.81	1396
Moment Break	20	18	20	11	8	57.17	4	3	12	18.66	11	2	6	56.66	10	2	6	57.66	4	3	12	18.66	4	2	12	11.00	8	2	12	11.00	5	4	12	11.00	316	0	8	8.05	1610
	30	28	30	13	8	57.50	4	3	12	18.66	10	2	6	57.00	10	2	6	58.00	4	3	12	18.66	4	2	12	11.00	8	2	12	11.00	4	8	6	11.00	316	0	8	11.81	1514
	40	35	36	15	8	57.83	4	3	12	18.66	10	2	6	57.33	10	2	6	58.33	4	3	12	18.66	4	2	12	11.00	8	2	12	11.00	7	4	12	11.00	316	0	8	14.34	1551
	50	40	42	17	8	58.17	4	3	12	18.66	10	2	6	57.66	10	2	6	58.66	4	3	12	18.66	4	2	12	11.00	7	2	12	11.00	8	4	12	11.00	320	0	8	16.54	1573
	60	45	47	19	8	58.50	4	3	12	18.66	10	2	6	58.00	10	2	6	59.00	4	3	12	18.66	4	2	12	11.00	7	2	12	11.00	6	8	6	11.00	320	0	8	18.58	1594

3 @ 18 x 12 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.	Bar EWI Size	No.	Spacing in.	Length ft.	Bar 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	9	8	8	56.67	11	1	12	56.16	7	2	6	56.16	7	1	12	57.16	8	1	12	57.16	4	2	12	12.00	6	2	12	12.00	5	4	12	12.00	264	54	8	4.62	1239
	3	12	10	8	8	56.67	11	1	12	56.16	7	2	6	56.16	6	2	6	57.16	7	2	6	57.16	4	2	12	12.00	8	2	12	12.00	5	4	12	12.00	264	54	8	5.06	1403
	5	12	12	9	8	56.83	11	1	12	56.33	7	2	6	56.33	9	1	12	57.33	7	2	6	57.33	4	2	12	12.00	8	2	12	12.00	5	4	12	12.00	320	0	8	5.50	1409
	10	15	17	10	8	57.00	11	1	12	56.50	7	2	6	56.50	9	1	12	57.50	10	1	12	57.50	4	2	12	12.00	6	4	6	12.00	5	4	12	12.00	324	0	8	7.01	1435
Moment Break	20	18	21	12	8	57.33	4	3	12	18.66	11	2	6	56.83	10	2	6	57.83	4	3	12	18.66	4	2	12	12.00	9	2	12	12.00	5	4	12	12.00	324	0	8	8.44	1646
	30	28	30	15	8	57.83	4	3	12	18.66	10	2	6	57.33	10	2	6	58.33	4	3	12	18.66	4	2	12	12.00	8	2	12	12.00	4	8	6	12.00	324	0	8	12.14	1537
	40	35	37	17	8	58.17	4	3	12	18.66	10	2	6	57.66	10	2	6	58.66	4	3	12	18.66	4	2	12	12.00	8	2	12	12.00	7	4	12	12.00	328	0	8	14.89	1579
	50	40	42	19	8	58.50	4	3	12	18.66	10	2	6	58.00	10	2	6	59.00	4	3	12	18.66	4	2	12	12.00	8	2	12	12.00	8	4	12	12.00	328	0	8	16.93	1615
	60	45	47	20	8	58.67	4	3	12	18.66	10	2	6	58.16	10	2	6	59.16	4	3	12	18.66	4	2	12	12.00	8	2	12	12.00	5	8	6	12.00	328	0	8	18.87	1634

3 @ 18 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.	Bar EWI Size	No.	Spacing in.	Length ft.	Bar 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	9	8	8	56.67	11	1	12	56.16	7	2	6	56.16	7	1	12	57.16	8	1	12	57.16	4	2	12	13.00	8	2	12	13.00	4	8	6	13.00	272	54	8	4.72	1298
	3	12	10	9	8	56.83	11	1	12	56.33	7	2	6	56.33	9	1	12	57.33	7	2	6	57.33	4	2	12	13.00	8	2	12	13.00	4	8	6	13.00	272	54	8	5.25	1459
	5	12	12	9	8	56.83	11	1	12	56.33	7	2	6	56.33	9	1	12	57.33	10	1	12	57.33	4	2	12	13.00	9	2	12	13.00	4	8	6	13.00	328	0	8	5.61	1472
	10	15	17	10	8	57.00	11	1	12	56.50	7	2	6	56.50	9	1	12	57.50	10	1	12	57.50	4	2	12	13.00	10	2	12	13.00	4	8	6	13.00	332	0	8	7.12	1501
Moment Break	20	18	21	13	8	57.50	4	3	12	18.66	11	2	6	57.00	10	2	6	58.00	4	3	12	18.66	4	2	12	13.00	9	2	12	13.00	4	8	6	13.00	332	0	8	8.67	1683
	30	28	30	16	8	58.00	4	3	12	18.66	10	2	6	57.50	10	2	6	58.50	4	3	12	18.66	4	2	12	13.00	6	4	6	13.00	4	8	6	13.00	336	0	8	12.40	1568
	40	35	37	18	8	58.33	4	3	12	18.66	10	2	6	57.83	10	2	6	58.83	4	3	12	18.66	4	2	12	13.00	9	2	12	13.00	7	4	12	13.00	336	0	8	15.16	1621
	50	40	42	20	8	58.67	4	3	12	18.66	10	2	6	58.16	10	2	6	59.16	4	3	12	18.66	4	2	12	13.00	6	4	12	13.00	4	8	6	13.00	336	0	8	17.22	1649
	60	45	47	22	8	59.00	4	3	12	18.66	10	2	6	58.50	10	2	6	59.50	4	3	12	18.66	4	2	12	13.00	6	4	6	13.00	6	8	6	13.00	340	0	8	19.30	1675

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 = 5 Spacing = 12 in.
Bars WS Size = 8 Length = 5.00 ft. Spacing = 12 in.

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

CONST. NO.

PROJECT NO.	YEAR	SHEET NO.

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

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: 3 BARRELS AT 18'-0"
CLEAR HEIGHTS 9'-0" THRU 13'-0"
0' THRU 60' FILL
2000

CORRECT Edward P. Wasserman
ENGINEER OF STRUCTURES

STD-15-89

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