STD174.DGN

45° SKEW

2:1 SLOPE

H	WL	hl	WS	hs	CONCRETE (C.Y.)	REINF. STEEL (LBS.)
4	9.75	2.50	4.50	1.75	4.9	720
4.5	11.00	2.75	5.00	1.75	5.9	782
5	12.25	3.25	5.50	2.00	7.6	886
5.5	13.75	3.50	6.25	2.25	9.1	1,067
6	15.00	3.75	6.75	2.50	10.5	1,173
6.5	16.25	4.25	7.25	2.75	12.2	1,242
7	17.75	4.50	8.00	3.00	14.7	1,614
7.5	19.00	4.75	8.50	3.00	16.4	1,731
8	20.25	5.25	9.00	3.25	19.1	1,878
8.5	21.50	5.50	9.75	3.50	21.3	2,090
9	23.00	5.75	10.25	3.75	24.6	3,137
9.5	24.25	6.25	10.75	4.00	27.3	3,253
10	25.50	6.50	11.50	4.00	29.9	3,573
10.5	26.75	6.75	12.00	4.25	32.6	3,756
11	28.25	7.25	12.50	4.50	37.7	4,237
11.5	29.50	7.50	13.25	4.75	42.4	5,191
12	30.75	7.75	13.75	5.00	46.1	5,566
12.5	32.25	8.25	14.25	5.25	50.2	5,730
13	33.50	8.50	15.00	5.25	57.0	6,753
13.5	34.75	8.75	15.50	5.50	60.9	7,336
14	36.00	9.00	16.00	5.75	66.2	7,741
14.5	37.50	9.50	16.75	6.00	71.5	8,221
15	38.75	9.75	17.25	6.25	80.1	8,868
15.5	40.00	10.00	17.75	6.50	84.8	9,888
16	41.25	10.50	18.50	6.50	90.3	10,387
16.5	42.75	10.75	19.00	6.75	95.9	12,228
17	44.00	11.00	19.75	7.00	109.5	13,789
17.5	45.25	11.50	20.25	7.25	115.7	13,669
18	46.75	11.75	20.75	7.50	122.1	14,206
18.5	48.00	12.00	21.50	7.75	128.6	14,503
19	49.25	12.50	22.00	7.75	141.7	15,966
19.5	50.50	12.75	22.50	8.00	148.4	18,028
20	52.00	13.00	23.25	8.25	161.3	19,025
20.5	53.25	13.50	23.75	8.50	169.1	19,598
21	54.50	13.75	24.25	8.75	189.1	21,559

3:1 SLOPE

H	WL	hl	WS	hs	CONCRETE (C.Y.)	REINF. STEEL (LBS.)
4	11.25	3.00	5.50	2.00	6.0	765
4.5	12.75	3.25	6.25	2.25	7.3	845
5	14.25	3.75	7.00	2.50	9.4	967
5.5	15.75	4.00	7.75	2.75	11.1	1,167
6	17.25	4.50	8.50	3.00	13.0	1,273
6.5	18.75	4.75	9.25	3.25	14.9	1,376
7	20.25	5.25	10.00	3.50	18.4	1,776
7.5	21.75	5.50	10.75	3.75	20.8	1,935
8	23.25	6.00	11.50	4.00	22.9	2,047
8.5	24.75	6.25	12.25	4.50	26.2	2,302
9	26.25	6.75	13.00	4.75	30.4	3,505
9.5	27.75	7.00	13.50	5.00	34.3	3,703
10	29.25	7.50	14.25	5.25	37.8	4,078
10.5	30.75	7.75	15.00	5.50	41.3	4,299
11	32.25	8.25	15.75	5.75	46.6	4,795
11.5	33.50	8.50	16.50	6.00	51.9	5,807
12	35.00	8.75	17.25	6.25	56.1	6,156
12.5	36.50	9.25	18.00	6.50	61.9	6,514
13	38.00	9.50	18.75	6.75	70.3	7,629
13.5	39.50	10.00	19.50	7.00	76.2	8,299
14	41.00	10.25	20.25	7.25	81.5	8,673
14.5	42.50	10.75	21.00	7.50	87.3	9,189
15	44.00	11.00	21.50	7.75	101.3	10,056
15.5	45.50	11.50	22.25	8.00	107.9	11,271
16	47.00	11.75	23.00	8.25	114.3	11,918
16.5	48.50	12.25	23.75	8.50	121.4	14,121
17	50.00	12.50	24.50	8.75	132.4	15,415
17.5	51.50	13.00	25.25	9.00	145.7	15,580
18	53.00	13.25	26.00	9.25	153.4	16,233
18.5	54.50	13.75	26.75	9.50	161.8	16,591
19	56.00	14.00	27.50	9.75	177.9	18,233
19.5	57.50	14.50	28.25	10.00	187.1	20,634
20	59.00	14.75	29.00	10.25	196.0	21,405
20.5	60.50	15.25	29.75	10.50	212.2	22,465
21	61.75	15.50	30.25	10.75	234.6	24,397

4:1 SLOPE

H	WL	hl	WS	hs	CONCRETE (C.Y.)	REINF. STEEL (LBS.)
4	12.25	3.25	6.50	2.25	6.9	806
4.5	13.75	3.50	7.25	2.75	8.3	887
5	15.50	4.00	8.00	3.00	10.7	1,023
5.5	17.00	4.25	9.00	3.25	12.5	1,225
6	18.75	4.75	9.75	3.50	14.7	1,360
6.5	20.25	5.25	10.50	3.75	17.4	1,474
7	21.75	5.50	11.50	4.00	20.6	1,885
7.5	23.50	6.00	12.25	4.50	23.5	2,029
8	25.00	6.25	13.00	4.75	26.2	2,183
8.5	26.50	6.75	14.00	5.00	29.7	2,451
9	28.25	7.25	14.75	5.25	35.0	3,819
9.5	29.75	7.50	15.50	5.50	38.3	3,973
10	31.25	8.00	16.50	6.00	42.4	4,366
10.5	33.00	8.25	17.25	6.25	46.3	4,594
11	34.50	8.75	18.00	6.50	52.0	5,106
11.5	36.00	9.00	19.00	6.75	59.3	6,335
12	37.75	9.50	19.75	7.00	64.9	6,794
12.5	39.25	10.00	20.50	7.25	70.0	6,997
13	40.75	10.25	21.25	7.75	79.3	8,146
13.5	42.50	10.75	22.25	8.00	85.6	8,858
14	44.00	11.00	23.00	8.25	94.5	9,374
14.5	45.75	11.50	23.75	8.50	101.2	9,976
15	47.25	12.00	24.75	8.75	113.9	10,756

6:1 SLOPE

H	WL	hl	WS	hs	CONCRETE (C.Y.)	REINF. STEEL (LBS.)
4	13.25	3.50	7.50	2.75	7.8	847
4.5	15.00	3.75	8.50	3.00	9.4	940
5	16.75	4.25	9.50	3.50	12.2	1,090
5.5	18.50	4.75	10.50	3.75	14.4	1,304
6	20.25	5.25	11.50	4.00	17.4	1,462
6.5	22.00	5.50	12.50	4.50	20.0	1,584
7	23.50	6.00	13.25	4.75	23.4	1,990

CONST. NO.

PROJECT NO.	YEAR	SHEET NO.
	2010	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

NOTE: QUANTITIES ON THIS SHEET ARE ESTIMATED TOTALS FOR ALL FOUR WINGWALLS.

NOTE: ADDITIONAL CONCRETE AND REINFORCEMENT QUANTITIES FOR BOX CULVERT CUT-OFF WALL SHALL BE ADJUSTED BASED ON AS-BUILT DIMENSIONS.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

WINGWALL DIMENSIONS AND QUANTITIES

STANDARD REINFORCED CONCRETE BRIDGE BOX AND SLAB TYPE

2010

CORRECT Edward P. Wasserman
ENGINEER OF STRUCTURES

STD-17-14

DESIGNED BY CMH / MAH DATE 12-09
DRAWN BY DIANE BUSH DATE 04-10
SUPERVISED BY RLH / JWP / MAH DATE 12-09
CHECKED BY _____ DATE _____

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