STD174.DGN

DESIGN SECTION	WALL DIMENSIONS						REINFORCING STEEL SCHEDULE																✱ QUANTITIES PER LINEAR FOOT		DESIGN HEIGHT	DESIGN SECTION
							BARS C					BARS C1					BARS A			BARS A2	BARS A3			WALL & FOOTING			
	DESIGN HEIGHT	BASE	TOE	W	HEEL	D	SIZE	SPACING	A	B	LENGTH	SIZE	SPACING	A	B	LENGTH	SIZE	SPACING	LENGTH	LENGTH	SIZE	SPACING	LENGTH	CONCRETE (C.Y.)	REINFORCING (LBS.)		
1	4'-0"	2'-9"	1'-3"	11"	7"	9"	4	1'-0"	4'-5"	1'-10"	6'-3"	-	-	-	-	-	-	-	-	4'-5"	4	1'-0"	2'-5"	.20	22.73	4'-0"	1
2	6'-0"	3'-9"	1'-6"	1'-0"	1'-3"	9"	4	1'-0"	6'-5"	2'-1"	8'-6"	-	-	-	-	-	-	-	-	6'-5"	4	1'-0"	3'-4"	.30	27.68	6'-0"	2
3	8'-0"	4'-7"	1'-8"	1'-1"	1'-10"	9"	4	8"	8'-5"	2'-5"	10'-10"	-	-	-	-	-	-	-	-	8'-5"	4	1'-0"	4'-3"	.40	37.65	8'-0"	3
4	10'-0"	5'-7"	1'-11"	1'-2"	2'-6"	9"	5	1'-0"	5'-0"	2'-9"	7'-9"	5	1'-0"	4'-3"	2'-9"	7'-0"	4	1'-0"	7'-5"	10'-5"	5	10"	5'-3"	.51	56.82	10'-0"	4
5	12'-0"	6'-7"	2'-2"	1'-3"	3'-2"	11"	6	1'-0"	6'-6"	3'-1"	9'-5"	6	1'-0"	4'-9"	3'-1"	7'-10"	4	1'-0"	8'-0"	12'-6"	5	8"	6'-2"	.67	76.16	12'-0"	5
6	14'-0"	7'-6"	2'-5"	1'-4"	3'-9"	1'-1"	6	11"	9'-1"	3'-5"	12'-6"	6	11"	6'-9"	3'-5"	10'-2"	4	11"	7'-5"	14'-8"	5	7"	7'-1"	.84	97.12	14'-0"	6
7	16'-0"	8'-6"	2'-8"	1'-5"	4'-5"	1'-3"	6	10"	9'-6"	3'-9"	13'-4"	6	10"	7'-1"	3'-9"	10'-10"	4	10"	9'-4"	16'-10"	5	6"	8'-1"	1.04	117.65	16'-0"	7
8	18'-0"	9'-4"	2'-11"	1'-6"	4'-11"	1'-4"	6	9"	12'-3"	4'-1"	16'-4"	6	9"	7'-9"	4'-1"	11'-10"	4	9"	8'-9"	19'-0"	6	7"	9'-0"	1.21	145.73	18'-0"	8
9	20'-0"	10'-4"	3'-2"	1'-7"	5'-7"	1'-6"	8	1'-0"	13'-8"	4'-4"	18'-0"	8	1'-0"	8'-10"	4'-4"	13'-2"	4	1'-0"	9'-6"	21'-2"	6	6"	9'-11"	1.44	186.62	20'-0"	9
10	22'-0"	11'-8"	3'-5"	1'-8"	6'-7"	1'-9"	8	10"	15'-3"	4'-9"	20'-0"	8	10"	9'-10"	4'-9"	14'-6"	4	10"	10'-2"	23'-5"	6	4"	11'-3"	1.74	259.89	22'-0"	10

✱ QUANTITIES FOR REINFORCING STEEL INCLUDES BARS A1 AND A4 NOT SHOWN IN SCHEDULE.
ALL BARS A ARE STRAIGHT BARS.

CONST. NO. _____

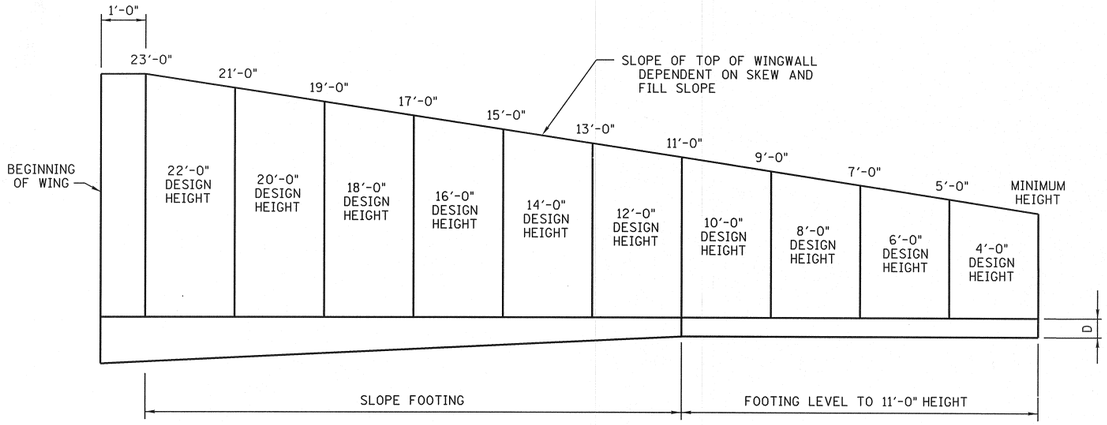
PROJECT NO.	YEAR	SHEET NO.
	2010	

REVISIONS

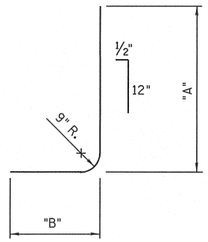
NO.	DATE	BY	BRIEF DESCRIPTION

NOTES

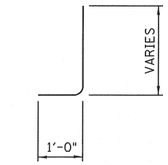
CONCRETE: TO BE CLASS "A" f'c = 3000 psi
REINFORCING: TO BE ASTM A615 GRADE 60



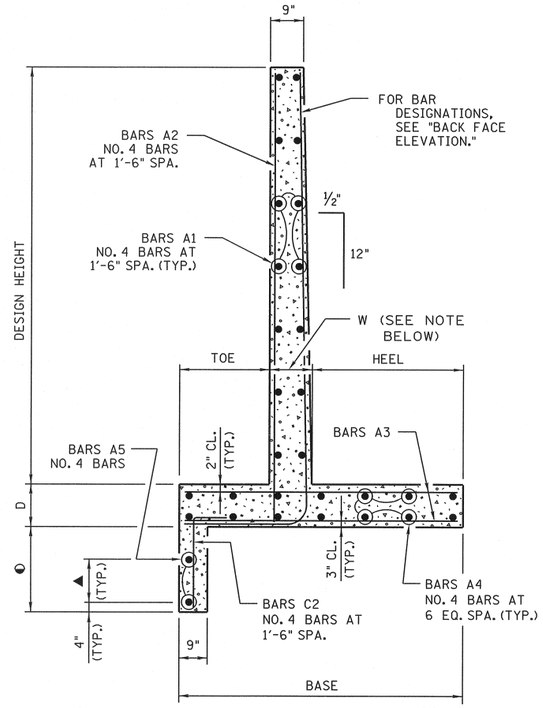
DESIGN SECTIONS



BARS C & C1



BARS C2



SECTION

(BOX BRIDGE SHOWN: SLAB BRIDGE SIMILAR)

NOTE: W DENOTES WIDTH OF WINGWALL AT TOP OF FOOTING

▲ DENOTES: FOR BAR PLACEMENT, SEE "ELEVATION OF WING FOOTING FOR CONCRETE BOX BRIDGE" ON STD-17-16

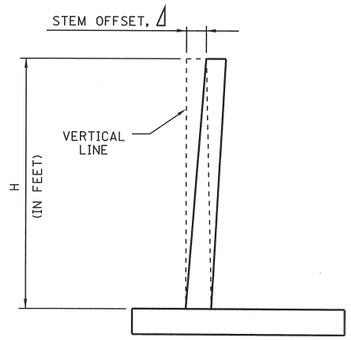
◐ DENOTES: CUT-OFF WALL VARIES FROM 0" TO (3'-6" - D) (BOX TYPE ONLY) (INCLUDED IN CUT-OFF WALL QUANTITIES)

STEM OFFSET

(Δ IN INCHES)

$\Delta = \frac{H}{16}$, FOR H ≦ 12'-0"

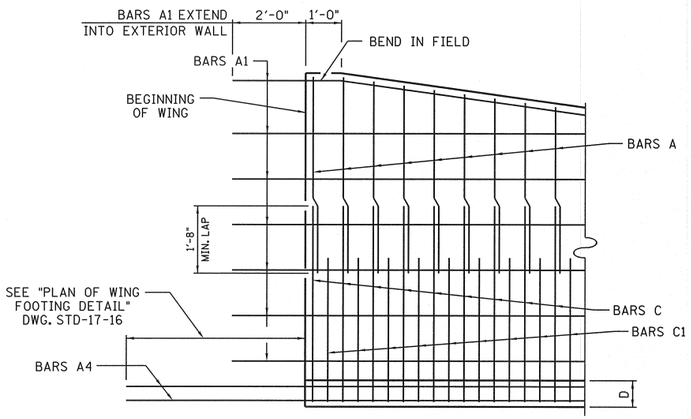
$\Delta = \frac{H - 6}{8}$, 2½" MAX., FOR H > 12'-0"



STEM OFFSET VALUES

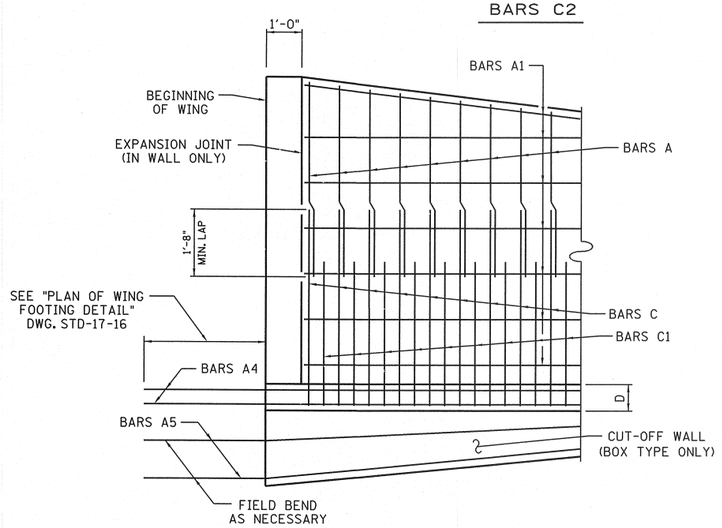
NOTE: CONSTRUCT FORMS TO COMPENSATE FOR STEM OFFSET.

(APPLICABLE TO FREE STANDING WINGWALLS ONLY.)



BACK FACE ELEVATION

(SLAB BRIDGES WITH WINGWALLS ≦ 15 FEET IN LENGTH.)



BACK FACE ELEVATION

(ALL BOX BRIDGES, AND SLAB BRIDGES WITH WINGWALLS > 15 FEET IN LENGTH.)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

WINGWALL AND SPECIAL RETAINING WALL DESIGN SECTIONS

STANDARD REINFORCED CONCRETE BRIDGE BOX AND SLAB TYPE

2010

CORRECT Edward P. Wasserman
ENGINEER OF STRUCTURES

STD-17-15

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

D:\dgn\stds\std174.dgn
10:01 2010