45° SKEW 24'-0" – 25'-6" BRIDGE WIDTH 2:1 FILL SLOPES

Bill of Reinforcement

MARK	A1			A2			A3	A4	A5	A6							A7			A8			A9			A10	A11	A12	A13	A14	A15	A16	A17	A18			
TYPE	Str.			Str.			Str.	Str.	Str.	4							Str.			Str.			Str.			8	8	8	8	7	7	Str.	Str.	Str.			
SIZE							#5	#5	#5														#5			#5	#5	#5	#5	#5	#5	#5	#5	#5			
H	No.	Size	Length ft.	in.	No.	Size	Length ft.	in.	No	Length ft.	in.	No.	Size	Length ft.	in.	Staking	No.	Size	Length ft.	in.	No.	Size	Length ft.	in.	Staking	No.	Length ft.	in.	Staking	No.	Length ft.	in.	No.	Length ft.	in.	No.	Length ft.	in.
15–16	101	10	11	8	12	101	7	11	8	12	24	20	6	24	38	11	24	50	9	98	9	9	11	12	8	⅛	1	10	0	11⅞	8	6	102	5	4	11	12	98	6	12	10	12	102	12	10	12	14	41	8	14	38	2	14	18	6	14	18	1	14	52	3	14	48	1	2	45	0	2	21	11	140	5	9
13–14	95	9	10	8	12	95	7	10	8	12	22	22	18	2	22	34	10	22	50	4	92	8	8	3	12	6	11	1	3	0	8	7	3	96	5	4	11	12	92	6	10	10	12	96	10	10	12	12	37	9	12	34	2	12	16	6	12	16	1	12	52	4	12	48	1	2	41	0	2	19	11	128	5	9
11–12	90	8	9	8	12	90	6	9	8	12	20	20	15	10	20	29	9	20	49	11	85	7	7	1	12	5	10½	1	2	0	7	6	2	89	5	4	11	12	85	5	8	10	12	89	8	10	12	10	32	9	10	29	2	10	14	6	10	14	1	10	52	4	10	48	1	2	36	0	2	17	11	114	5	9
9–10	83	7	8	8	12	83	5	8	8	12	18	13	6	18	24	8	18	49	6	78	6	6	1	12	5	1	1	0	0	6	5	4	82	5	4	11	12	78	5	6	10	12	82	6	10	12	8	27	9	8	24	2	8	12	6	8	12	1	8	52	4	8	48	1	2	31	0	2	15	11	100	5	9
7–8	78	6	7	2	12	78	5	7	2	12	16	10	11	16	18	11	16	48	7	71	5	5	7	12	4	8½	0	10	0	5	4	11	75	5	4	11	12	71	5	4	10	12	75	4	10	12	6	22	10	6	19	2	6	10	6	6	10	1	6	52	5	6	48	1	2	26	0	2	13	11	86	5	9
5–6	71	5	6	2	12	71	5	6	2	12	14	8	7	14	13	9	14	48	2	64	5	5	7	12	4	8½	0	10	0	5	4	11	68	5	4	11	12	64	5	2	10	12	68	2	10	12	4	17	10	4	14	2	4	8	6	4	8	1	4	52	5	4	48	1	2	21	0	2	11	11	72	5	9

Reinforcement Details

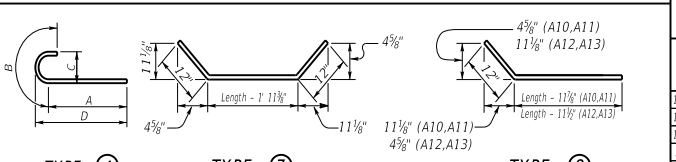
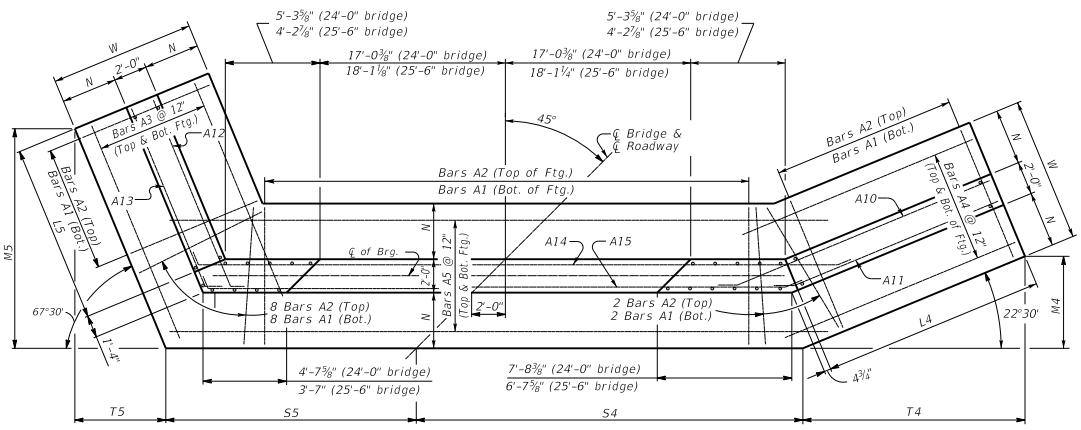


Table of Dimensions

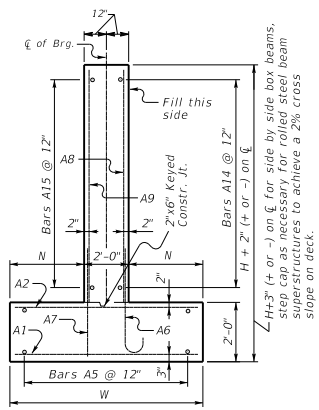
H	W	N	M4	M5	S4	S5	T4	T5	L4	L5
	Length	Length	Length	Length	Length	Length	Length	Length	Length	Length
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft.	ft.
15–16	12 0	5 0	14 8½	19 1¼	30 8½	20 ⅛	35 5⅝	7 11	37	16
13–14	11 0	4 6	13 1½	16 11⅜	30 1½	20 2½	33 8¾	7 ½	33	14
11–12	10 0	4 0	11 2	14 9½	29 6⅝	20 4⅛	26 11⅜	6 11½	28	12
9–10	9 0	3 6	9 2⅝	12 7⅜	28 11⅛	20 6⅛	22 3⅜	5 2¾	23	10
7–8	7 6	2 9	7 3	10 3⅞	28 ⅜	20 9⅛	17 6	4 3⅜	18	8
5–6	6 6	2 3	5 3⅜	8 2	27 5⅛	20 11⅝	13 9½	3 4⅜	13	6

4 foot min. shoulder

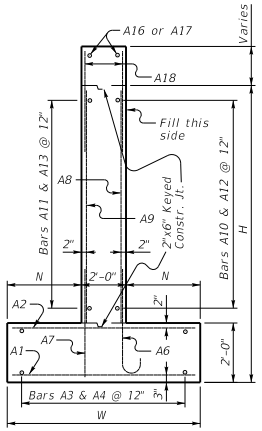


(Left Skew as shown; right skew opp. hand)

PLAN



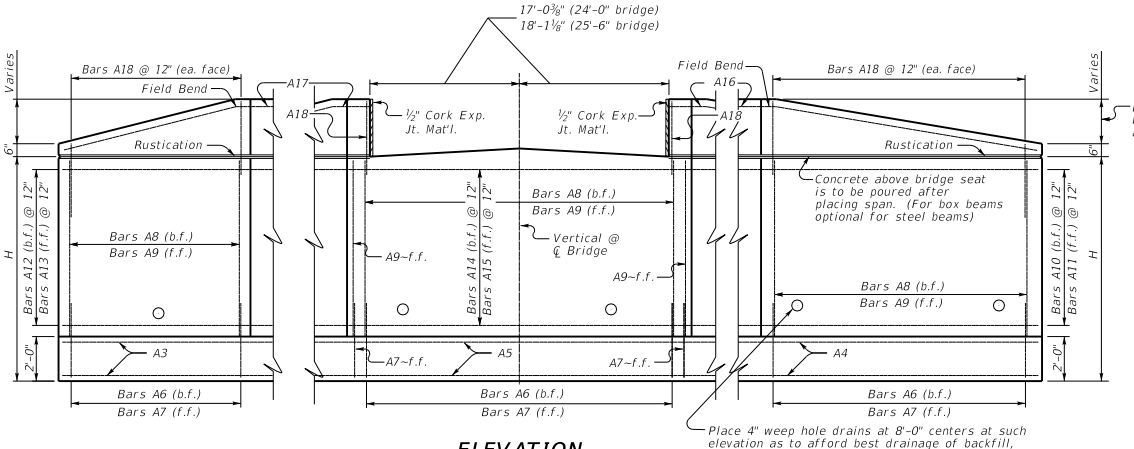
WALL SECTION



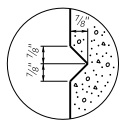
WING SECTION

Quantities		
H	Concrete*	Reinforcement
	C.Y.	LBS.
5	50.3	4189
6	55.2	4189
7	72	5902
8	77.4	5902
9	99.8	8339
10	105.7	8339
11	128	11734
12	134.4	11734
13	159.4	16476
14	166.3	16476
15	191.8	21351
16	199.2	21351

*Concrete quantities computed using 21" beam depth on ½" pad & 24'-0" Bridge Width



ELEVATION



RUSTICATION GROOVE

NOTE: Trim A16 & A17 bars if necessary

GENERAL NOTES

SPECIFICATIONS: *Construct abutments according to the current edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction. Abutments are designed for side by side box beams as detailed in Standard Drawings BDP-001 through BDP-012, current edition. Dimensions may be adjusted to allow for 25'-6" rolled steel beam bridge width.*

FOUNDATION PRESSURE: *Construct abutment footings on solid rock bearing material that can support a pressure of 8000 psf service or 10,800 psf strength factored as recommended by a geotechnical engineer.*

WING LENGTHS: *Calculated assuming 21" superstructure depth and stream bank elevation at top of footing.*

FOOTING ELEVATION: *Construct bottom of footing below the anticipated scour elevation. (This typically entails embedding the footings 1'-0" to 2'-0" into rock and pouring concrete directly against cut rock faces as recommended by geotechnical engineer.)*

NOTE: *Distances to bars shown are clear dimensions unless otherwise noted.*

MATERIAL SPECIFICATIONS:
Concrete, Class "A" = 3500 psi
Steel Reinforcement = Grade 60

KENTUCKY
DEPARTMENT OF HIGHWAYS

45° SKEW
24'-0"–25'-6" BRIDGE WIDTH
2:1 FILL SLP, 4' MIN. SHLDR.

STANDARD DRAWING NO. *BSA-111*

SUBMITTED _____ DIRECTOR DIVISION OF STRUCTURAL DESIGN — DATE 02-26-20

APPROVED _____ STATE HIGHWAY ENGINEER — DATE 02-26-20