

45° SKEW 32'-0" - 33'-6" BRIDGE WIDTH 2:1 FILL SLOPES

MARK		Bill of Reinforcement																					
TYPE		A1	A2	A3	A4	A5*	A6				A7	A8	A9	A10	A11	A12	A13	A14*	A15	A16	A17	A18	
SIZE		Str.	Str.	Str.	Str.	Str.	4				Str.	Str.	Str.	8	8	8	8	7	7	Str.	Str.	Str.	
H	No.	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.	in.	ft.	in.		
15-16	112	10	8	12	11	8	12	24	20	6	24	38	11	109	9	11	12	8	11	12	140	5	9
13-14	107	9	10	8	12	10	7	18	8	12	22	16	2	22	34	16	2	6	1	10	128	3	9
11-12	101	8	9	8	12	10	6	9	8	12	16	20	9	26	6	1	9	7	1	11	114	5	9
9-10	94	7	8	8	12	9	5	8	8	12	13	6	18	24	8	16	9	8	9	9	100	5	9
7-8	89	6	7	2	12	8	5	7	2	12	10	11	16	18	11	16	5	7	1	11	86	5	9
5-6	83	5	6	2	12	8	3	5	6	2	12	14	8	7	14	13	9	4	5	6	72	5	9

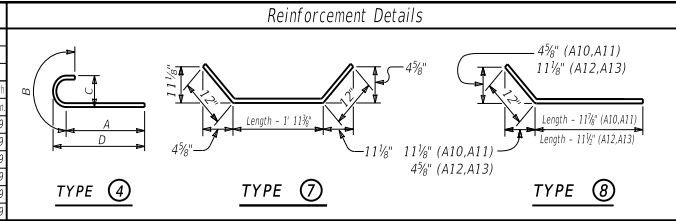
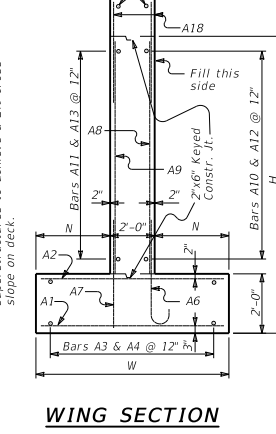
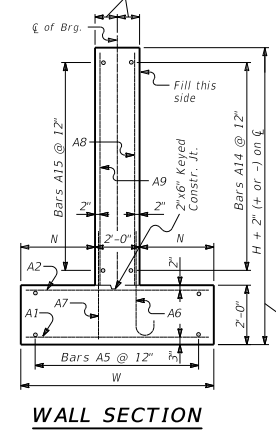
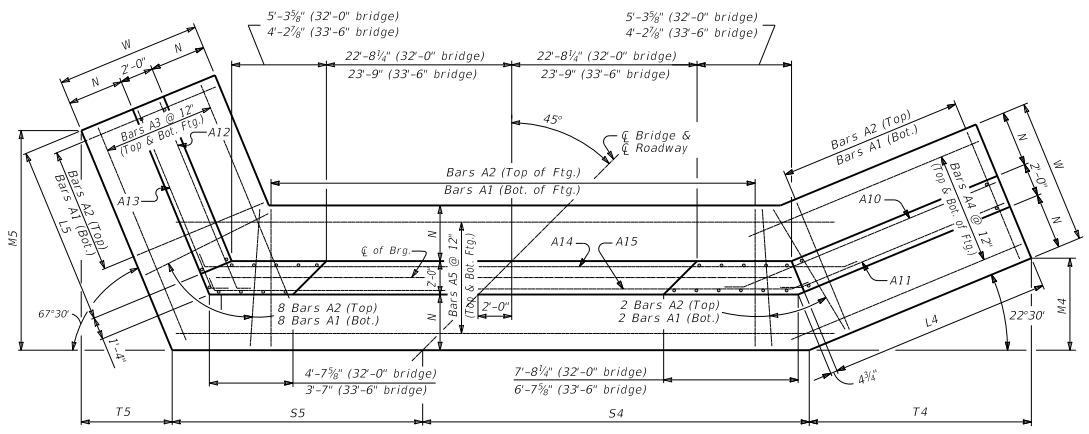


Table of Dimensions																		
H	W	N	M4	MS	S4	S5	T4	T5	L4	L5	Length							
											ft.	in.	ft.	in.	ft.	in.	ft.	in.
15-16	12	0	5	0	14	6	1	14	6	1	14	6	1	14	6	1	37	16
13-14	11	0	4	6	13	1	10	13	1	10	13	1	10	13	1	10	33	14
11-12	10	0	4	0	11	2	14	9	3	2	6	1	14	9	3	2	28	12
9-10	9	0	3	6	9	2	13	7	5	4	7	2	13	7	5	4	23	10
7-8	7	6	2	9	7	3	11	3	3	8	2	11	6	4	3	8	18	8
5-6	6	6	2	3	5	3	8	2	3	6	1	10	7	12	9	3	13	6

NOTE: Bars with * next to mark may have lengths over 60 ft and may require a lap splice of 2'-2". The contractor shall determine the lap location and include the extra length necessary for the lap when ordering the steel reinforcement. This extra length is not included in the quantities and shall be incidental to the rebar.

4 foot min. shoulder



Quantities	
H	Concrete* Reinforcement
5	58.5 4790
6	64.2 4790
7	82.8 6667
8	89 6667
9	113.5 9350
10	120.2 9350
11	144.2 13073
12	157.4 13073
13	178 18220
14	185.8 18220
15	213 23554
16	221.2 23554

*Concrete quantities computed using 21" beam depth on 1/2" pad & 32'-0" Bridge Width

(Left Skew as shown; right skew opp. hand) **PLAN** **NOTE:** Trim A16 & A17 bars if necessary

WALL SECTION **WING SECTION**

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 33'-6" rolled steel beam bridge width.

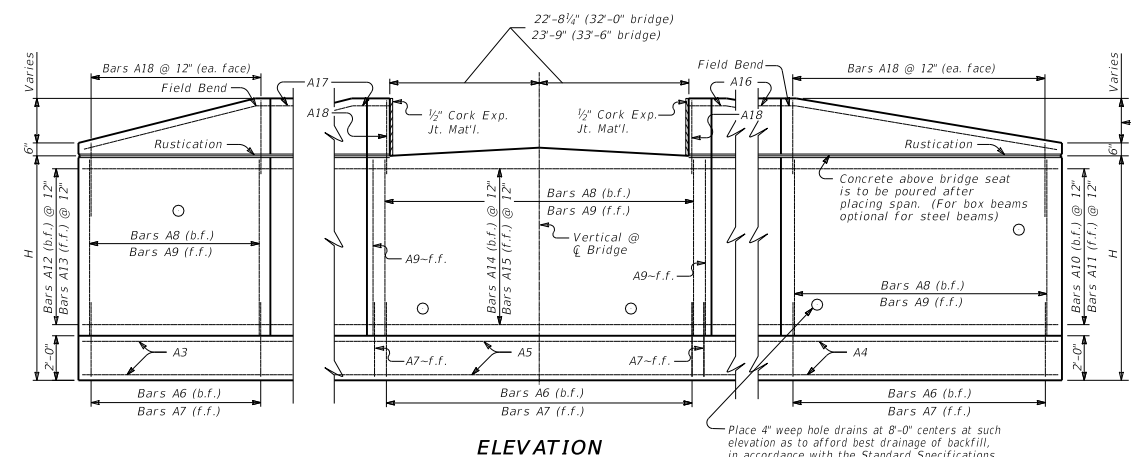
FOUNDATION PRESSURE: Construct abutment footings on solid rock bearing material that can support a pressure of 8000 psf service or 10,800 psf strength factored as recommended by a geotechnical engineer.

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



ELEVATION Place 4" weep hole drains at 8'-0" centers at such elevation as to afford best drainage of backfill, in accordance with the Standard Specifications.

KENTUCKY DEPARTMENT OF HIGHWAYS

45° SKEW

32'-0"-33'-6" BRIDGE WIDTH

2:1 FILL SLP, 4' MIN. SHLDR.

STANDARD DRAWING NO. BSA-112

SUBMITTED *Boyd Adams* DIRECTOR DIVISION OF STRUCTURAL DESIGN 02-26-20
DATE

APPROVED *[Signature]* STATE ENGINEER 02-26-20
DATE