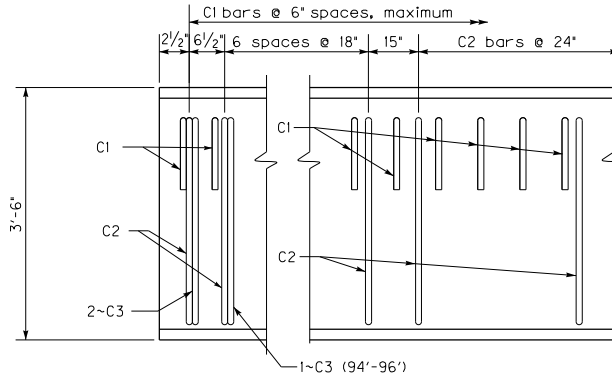
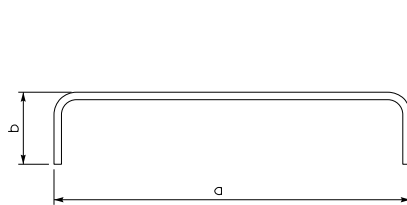


B42 BEAM



B42 ELEVATION OF 0° SKEW

(Refer to BDP-003, for skewed details)



C1(e) Bar



C2(e)-C3(e) Bars

TABLE OF STRAND DATA

Beam Type	Beam Length (feet)	Number of Strands Required		
		Row ①	Row ②	Row ③
B42	80	17	6	
	82	17	7	
	84	17	8	
	88	17	10	
	90	17	12	
	92	17	13	
	94	17	14	2
96	17	15	2	

BAR QUANTITIES TABLE

Beam Type	Beam Length (feet)	C1	C2	C3		
B42	80	161	46	4		
	82	165	47	4		
	84	169	48	4		
	86	173	49	4		
	88	177	50	4		
	90	181	51	4		
	92	185	52	4		
94	189	53	6			
96	193	54	6			

DESIGN DATA

Beam Type	Beam Length (feet)	DC kips	DW kips	LL kips	LL+I kips		
B42	80	38.5	2.3	55.5	68.6		
	82	39.5	2.3	56.1	69.2		
	84	40.4	2.4	56.6	69.8		
	86	41.4	2.4	57.1	70.3		
	88	42.4	2.5	57.6	70.9		
	90	43.3	2.6	58.1	71.4		
	92	44.3	2.6	58.6	72.0		
94	45.3	2.7	59.1	72.5			
96	46.2	2.7	59.6	73.0			

Straight Reinforcement

Mark	Size	Length
A(E)	#5	Beam Length Minus 3'
D(E)	#8	2'-0"

NOTE: A1 bars are to be lapped 2'-2" when necessary.

Bent Reinforcement

Mark	Size	a	b
C1(e)	#5	3'-9"	6"
C2(e)	#4	3'-9"	3'-2 1/4"
C3(e)	#5	11 3/8"	3'-2 3/8"

KENTUCKY
DEPARTMENT OF HIGHWAYS

BOX BEAM
B42
DETAILS

STANDARD DRAWING NO. BDP-011-04

SUBMITTED *Mark* *Wit* 12-02-11
DIRECTOR DIVISION OF STRUCTURAL DESIGN DATE
 APPROVED *[Signature]* 12-02-11
STATE HIGHWAY ENGINEER DATE