3' X 2'

MARK	SIZE	NO (1)	LGTH FT	LGTH IN	K FT	K IN
A1	5	2	4	7		
A2	5	2	8	2		
C1	4	1	10	0		
C2	4	1	13	5		
E1	5	2	10	4	7	4
E2	5	2	10	10	7	10
F	4	8	1	3	0	6
G1	4	2	9	4		
G2	4	3	12	0		
H	4	7	6	0	4	4
K1	4	1	2	0		
K2	4	1	3	10		
N1	4	3	4	0		
N2	4	3	13	9		
Q	4	2	3	4		
R	4	4	1	1		
S1	5	2	1	11		
S2	5	2	3	5		
S3	5	2	4	9		
S4	5	2	5	10		
T1	5	2	1	7		
T2	5	2	2	3		
T3	5	2	3	0		
T4	5	2	3	8		
T5	5	2	4	0		
V1	5	2	2	9	1	6
V2	5	2	3	3	2	0
V3	5	2	3	11	2	8
V4	5	2	4	6	3	3
V5	5	6	4	7	3	4
W1	5	2	2	10	1	7
W2	5	2	4	0	2	9

3' X 3'

MARK	SIZE	NO (1)	LGTH FT	LGTH IN	K FT	K IN
A1	5	2	5	9		
A2	5	2	10	2		
C1	4	1	10	0		
C2	4	1	13	8		
C3	4	1	15	9		
E1	5	2	10	4	7	4
E2	5	2	10	10	7	10
F	4	8	1	3	0	6
G1	4	1	8	3		
G2	4	2	11	1		
G3	4	3	14	0		
H	4	8	7	0	5	4
K1	4	1	2	1		

3' X 3' (CONTINUED)

MARK	SIZE	NO (1)	LGTH FT	LGTH IN	K FT	K IN
K2	4	1	3	11		
K3	4	1	5	0		
N1	4	3	5	0		
N2	4	3	15	9		
Q	4	2	3	4		
R	4	4	1	1		
S1	5	2	1	11		
S2	5	2	3	5		
S3	5	2	4	9		
S4	5	2	5	10		
T1	5	2	1	7		
T2	5	2	2	3		
T3	5	2	3	0		
T4	5	2	3	8		
T5	5	2	4	0		
V1	5	2	3	3	2	0
V2	5	2	3	9	2	6
V3	5	2	4	4	3	1
V4	5	2	4	11	3	8
V5	5	2	5	6	4	3
V6	5	6	5	7	4	4
W1	5	2	3	4	2	1
W2	5	2	4	5	3	2
W3	5	1	5	6	4	3

4' X 2'

MARK	SIZE	NO (1)	LGTH FT	LGTH IN	K FT	K IN
A1	5	2	4	9		
A2	5	2	8	6		
C1	4	1	11	10		
C2	4	1	15	3		
E1	5	2	12	8	9	8
E2	5	2	13	2	10	2
F	4	10	1	3	0	6
G1	4	1	8	8		
G2	4	2	11	3		
G3	4	3	14	0		
H	4	8	6	2	4	6
K1	4	1	2	2		
K2	4	1	3	11		
N1	4	3	4	2		
N2	4	3	15	9		
Q	4	2	4	6		
R	4	5	1	2		
S1	5	2	2	2		
S2	5	2	3	7		
S3	5	2	5	1		
S4	5	2	6	5		
S5	5	2	7	6		

4' X 2' (CONTINUED)

MARK	SIZE	NO (1)	LGTH FT	LGTH IN	K FT	K IN
T1	5	2	1	4		
T2	5	2	2	0		
T3	5	2	2	9		
T4	5	2	3	5		
T5	5	2	4	2		
T6	5	2	4	10		
T7	5	2	5	2		
V1	5	2	2	9	1	6
V2	5	2	3	3	2	0
V3	5	2	3	10	2	7
V4	5	2	4	5	3	2
V5	5	8	4	8	3	5
W1	5	2	2	10	1	7
W2	5	2	3	11	2	8

4' X 3'

MARK	SIZE	NO (1)	LGTH FT	LGTH IN	K FT	K IN
A1	5	2	5	11		
A2	5	2	10	6		
C1	4	1	11	11		
C2	4	1	15	6		
C3	4	1	17	9		
E1	5	2	12	8	9	8
E2	5	2	13	2	10	2
F	4	10	1	3	0	6
G1	4	2	10	4		
G2	4	2	13	2		
G3	4	3	16	0		
H	4	9	7	2	5	6
K1	4	1	2	2		
K2	4	1	4	1		
K3	4	1	5	2		
N1	4	3	5	2		
N2	4	3	17	9		
Q	4	2	4	6		
R	4	5	1	2		
S1	5	2	2	2		
S2	5	2	3	7		
S3	5	2	5	1		
S4	5	2	6	5		
S5	5	2	7	6		
T1	5	2	1	4		
T2	5	2	2	0		
T3	5	2	2	9		
T4	5	2	3	5		
T5	5	2	4	2		
T6	5	2	4	10		
T7	5	2	5	2		
V1	5	2	2	3	1	11

4' X 3' (CONTINUED)

MARK	SIZE	NO (1)	LGTH FT	LGTH IN	K FT	K IN
V2	5	2	3	9	2	6
V3	5	2	4	4	3	1
V4	5	2	4	10	3	7
V5	5	2	5	5	4	2
V6	5	8	5	8	4	5
W1	5	2	3	4	2	1
W2	5	2	4	5	3	2
W3	5	1	5	6	4	3

4' X 4'

MARK	SIZE	NO (1)	LGTH FT	LGTH IN	K FT	K IN
A1	5	2	7	1		
A2	5	2	12	7		
C1	4	1	12	1		
C2	4	1	15	9		
C3	4	1	19	6		
C4	4	1	19	9		
E1	5	2	12	8	9	8
E2	5	2	13	2	10	2
F	4	10	1	3	0	6
G1	4	1	9	3		
G2	4	2	12	1		
G3	4	2	15	0		
G4	4	3	18	0		
H	4	10	8	2	6	6
K1	4	1	2	3		
K2	4	1	4	2		
K3	4	1	6	0		
K4	4	1	6	3		
N1	4	3	6	3		
N2	4	3	19	9		
Q	4	2	4	6		
R	4	5	1	2		
S1	5	2	2	2		
S2	5	2	3	7		
S3	5	2	5	1		
S4	5	2	6	5		
S5	5	2	7	6		
T1	5	2	1	4		
T2	5	2	2	0		
T3	5	2	2	9		
T4	5	2	3	5		
T5	5	2	4	2		
T6	5	2	4	10		
T7	5	2	5	2		
V1	5	2	3	9	2	6
V2	5	2	4	3	3	0
V3	5	2	4	10	3	7
V4	5	2	5	4	4	1

4' X 4' (CONTINUED)

MARK	SIZE	NO (1)	LGTH FT	LGTH IN	K FT	K IN
V5	5	2	5	11	4	8
V6	5	2	6	6	5	3
V7	5	8	6	8	5	5
W1	5	2	3	10	2	7
W2	5	2	4	11	3	8
W3	5	2	6	0	4	9

5' X 3'

MARK	SIZE	NO (1)	LGTH FT	LGTH IN	K FT	K IN
A1	5	2	6	1		
A2	5	2	10	10		
C1	4	1	10	5		
C2	4	1	14	0		
C3	4	1	17	5		
C4	4	1	19	9		
E1	5	2	14	10	11	10
E2	5	2	15	4	12	4
F	4	12	1	3	0	6
G1	4	2	12	6		
G2	4	2	15	3		
G3	4	3	18	0		
H	4	10	7	4	5	8
K1	4	1	2	4		
K2	4	1	4	2		
K3	4	1	5	4		
N1	4	3	5	4		
N2	4	3	19	9		
Q	4	2	5	8		
R	4	6	1	3		
S1	5	2	1	0		
S2	5	2	2	4		
S3	5	2	3	10		
S4	5	2	5	2		
S5	5	2	6	7		
S6	5	2	8	0		
S7	5	2	9	1		
T1	5	2	1	0		
T2	5	2	1	9		
T3	5	2	2	5		
T4	5	2	3	2		
T5	5	2	3	10		
T6	5	2	4	7		
T7	5	2	5	3		
T8	5	2	6	0		
T9	5	2	6	4		
V1	5	2	3	3	2	0
V2	5	2	3	9	2	6
V3	5	2	4	4	3	1
V4	5	2	5	0	3	8

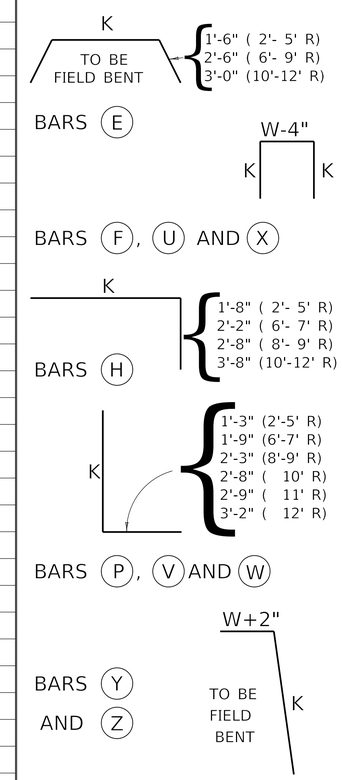
5' X 3' (CONTINUED)

MARK	SIZE	NO (1)	LGTH FT	LGTH IN	K FT	K IN
V5	5	2	5	5	4	2
V6	5	10	5	9	4	6
W1	5	2	3	4	2	1
W2	5	2	4	5	3	2
W3	5	2	5	6	4	3

NOTES

1. NUMBER OF BARS IN ONE HEADWALL.
2. DIMENSIONS ARE 0. TO 0. OF BARS.
3. ALL BARS ARE STRAIGHT EXCEPT THOSE SHOWN BELOW.
4. R = BOX OR PIPE RISE
5. W = WING WALL WIDTH

BENT BAR SHAPES



KENTUCKY DEPARTMENT OF HIGHWAYS

BILL OF REINFORCEMENT
3' X 2' – 5' X 3' HEADWALLS
PRECAST BOX CULVERTS
45° SKEW

STANDARD DRAWING NO. RDH-1348-03

SUBMITTED _____ DIRECTOR DIVISION OF DESIGN _____ DATE

APPROVED _____ STATE HIGHWAY ENGINEER _____ DATE