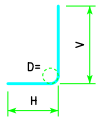
VARIABLE DIMENSIONS AND QUANTITIES FOR 12 x 8 BARREL SECTIONS

DIMENSIONS							BAR LIST																																							QUANTITIES				
							a1			b1			e1			e2			f1			f2			k1			k2				k9			m1			m2						m9		CONCRETE (CY/FT)				STEEL
FILL	S	H	A	B	C	D	SIZE	SP.	L	SIZE	SP.	NO.	SIZE	SP.	NO.	SIZE	SP.	NO.	SIZE	SP.	NO.	SIZE	SP.	NO.	SIZE	SP.	L	SIZE	SP.	L	H	V	SIZE	L	SIZE	SP.	L	SIZE	SP.	L	H	V	SIZE	L	SLAB	FLOOR	WALLS	TOTAL	(LB/FT)
0	12	8	13.5	13.5	9	9	4	12	10'-2	4	6	32	5	12	11	4	15	10	4	12	13	4	15	8	6	6	13'-2	6	12	9'-2	5'-7	3'-7	6	13'-2	7	9	13'-8	7	12	13'-0	4'-5	8'-7	7	13'-8	0.595	0.620	0.424	1.639	235.66
1	12	8	12.5	13	9	9	4	12	10'-0	4	6	32	5	12	11	4	15	10	4	12	13	4	15	8	7	9	13'-2	5	6	9'-0	5'-9	3'-3	5	13'-2	7	9	13'-8	5	6	12'-11	4'-5	8'-6	5	13'-8	0.553	0.598	0.424	1.575	237.42
2	12	8	8.5	10.5	9	6	4	6	9'-6	4	6	32	6	12	11	4	14	8	4	12	13	4	13	8	7	6	13'-2	5	6	6'-11	4'-1	2'-10	5	13'-2	7	6	13'-8	5	6	12'-3	3'-11	8'-4	5	13'-8	0.387	0.490	0.424	1.301	275.76
3-6	12	8	8.5	10.5	9	6	4	6	9'-6	4	6	32	4	12	11	4	12	8	4	12	13	4	12	8	7	6	13'-2	5	6	6'-6	3'-8	2'-10	5	13'-2	7	6	13'-8	5	6	12'-0	3'-8	8'-4	5	13'-8	0.387	0.490	0.424	1.301	263.84
7-9	12	8	8.5	11.5	9	6	4	6	9'-7	4	6	32	4	12	11	4	16	6	4	12	13	4	16	6	7	6	13'-2	6	6	6'-8	3'-4	3'-4	6	13'-2	7	6	13'-8	5	6	11'-8	3'-3	8'-5	5	13'-8	0.387	0.534	0.424	1.345	273.47
10	12	8	9	12.5	9	9	4	12	9'-8	4	6	32	4	12	11	4	16	6	4	12	13	4	15	6	7	6	13'-2	7	9	7'-1	3'-4	3'-9	7	13'-2	7	6	13'-8	7	9	11'-7	3'-1	8'-6	7	13'-8	0.407	0.577	0.424	1.408	278.76
11-15	12	8	10.5	12.5	9	9	4	12	9'-10	4	6	32	4	12	11	4	14	6	4	12	13	4	15	6	8	6	13'-2	7	9	6'-11	3'-0	3'-11	7	13'-2	8	6	13'-8	7	9	11'-7	3'-1	8'-6	7	13'-8	0.470	0.577	0.424	1.471	312.08
16-20	12	8	12.5	14.5	9	9	4	12	10'-2	4	6	32	4	12	11	4	12	6	4	12	13	4	13	6	8	6	13'-2	7	9	6'-9	2'-8	4'-1	7	13'-2	9	6	13'-8	7	9	11'-5	2'-9	8'-8	7	13'-8	0.553	0.663	0.424	1.640	330.84
21-25	12	8	14.5	17	10	9	6	9	10'-6	4	6	32	4	12	11	4	13	6	4	12	13	4	13	6	9	6	13'-4	5	6	6'-3	2'-10	3'-5	5	13'-4	9	6	13'-10	5	6	11'-8	2'-10	8'-10	5	13'-10	0.647	0.782	0.471	1.900	351.79
26-30	12	8	16.5	19	10.5	9	6	9	10'-10	4	6	32	4	12	11	4	13	6	4	12	13	4	13	6	9	6	13'-5	6	9	6'-10	2'-11	3'-11	6	13'-5	9	6	13'-11	6	9	12'-0	3'-0	9'-0	6	13'-11	0.736	0.874	0.496	2.106	358.08
31-35	12	8	18	20.5	11.5	9	4	9	11'-1	4	6	32	4	12	11	4	13	6	4	12	13	4	14	6	9	6	13'-7	7	9	7'-7	3'-1	4'-6	7	13'-7	9	6	14'-1	7	9	12'-4	3'-2	9'-2	7	14'-1	0.812	0.952	0.542	2.306	372.05
36-40	12	8	19.5	22	12.5	9	6	9	11'-4	4	6	32	4	12	11	4	14	6	5	12	13	4	14	6	9	6	13'-9	5	6	7'-1	3'-3	3'-10	5	13'-9	9	6	14'-3	5	6	12'-7	3'-4	9'-3	5	14'-3	0.889	1.032	0.589	2.510	373.16
41-45	12	8	21	23.5	13	9	5	12	11'-7	4	6	32	4	12	11	4	15	6	5	12	13	4	15	6	9	6	13'-10	7	9	8'-2	3'-5	4'-9	7	13'-10	9	6	14'-4	7	9	12'-10	3'-5	9'-5	7	14'-4	0.961	1.107	0.613	2.681	391.50
46-50	12	8	23	25.5	14	9	6	9	11'-11	4	6	32	5	12	11	4	15	6	5	12	13	4	16	6	9	6	14'-0	5	6	7'-8	3'-7	4'-1	5	14'-0	9	6	14'-6	5	6	13'-3	3'-8	9'-7	5	14'-6	1.063	1.213	0.659	2.935	388.29
51-55	12	8	25.5	28	14.5	9	6	9	12'-4	4	6	32	5	12	11	4	16	6	5	12	13	4	17	6	9	6	14'-1	6	9	8'-6	3'-10	4'-8	6	14'-1	9	6	14'-7	6	9	13'-8	3'-11	9'-9	6	14'-7	1.181	1.335	0.683	3.199	396.32

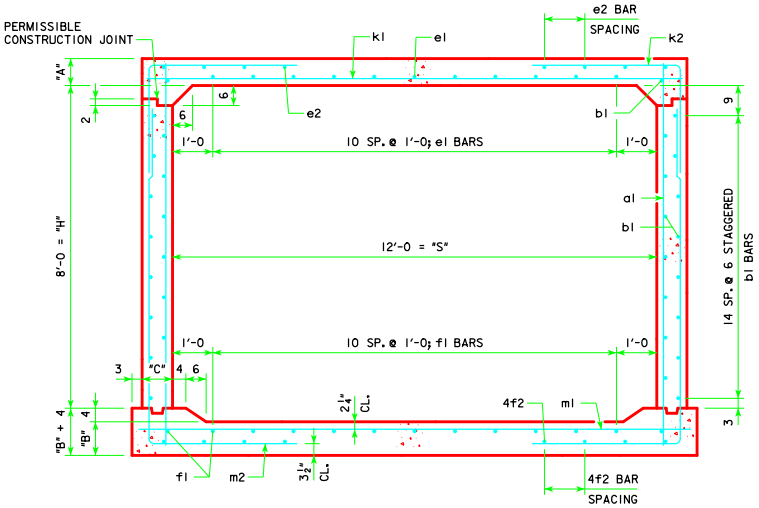
BENT BAR DETAIL

BARS	D
5	$3\frac{3}{4}$
6	$4\frac{1}{2}$
7	$5\frac{1}{4}$



k2 & m2

NOTE:
ALL DIMENSIONS ARE OUT TO OUT.
D = PIN DIAMETER.



12 x 8 BARREL SECTION

NOTES:

1. DIMENSIONS LISTED ON THIS SHEET TO BE USED IN CONJUNCTION WITH SHEET RCB G2-12.
2. THE k2 AND m2 BARS HORIZONTAL LEGS MAY LAP IN LOW FILL SITUATIONS.
3. DIMENSIONS "A", "B", "C", "D", AND "SP." LISTED IN THE BAR LIST ARE IN INCHES.

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN

SINGLE REINFORCED CONCRETE BOX CULVERTS

APRIL, 2012

CULVERT BARREL DETAILS

12 x 8 BARREL SECTIONS

RCB 12-8-12

ENGLISH,RFDSIGNEDSINGLECULVERTS.DGN - RCB 12-8-12 - THIS SHEET ISSUED 04-12.