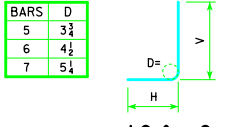


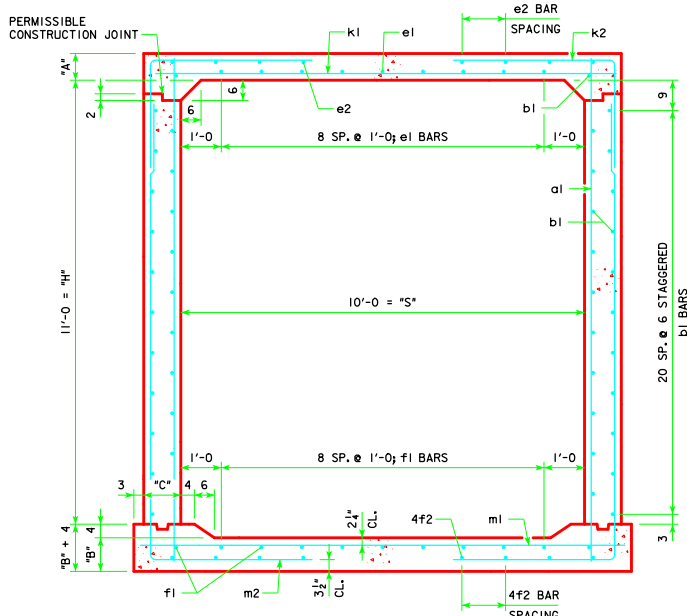
### VARIABLE DIMENSIONS AND QUANTITIES FOR 10 x 11 BARREL SECTIONS

DIMENSIONS										BAR LIST															QUANTITIES																								
FILL	S	H	A	B	C	D	a1		b1		e1		e2		f1		f2		k1			k2			k9			m1		m2		m9			CONCRETE (CY/FT)				STEEL (LB/FT)										
0	1	2	3-6	7-8	9-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	SIZE	SP.	L	SIZE	SP.	NO.	SIZE	SP.	NO.	SIZE	SP.	NO.	SIZE	SP.	NO.	SIZE	SP.	NO.	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	SLAB	FLOOR	WALLS	TOTAL	
0	10	11	12	12.5	11	9	4	12	12'-11	4	6	44	4	12	9	4	17	8	4	12	11	4	17	8	5	6	11'-6	6	9	10'-4	6'-10	3'-6	--	--	7	9	12'-0	6	9	18'-4	6'-10	11'-6	--	--	0.476	0.515	0.723	1.714	249.29
1	10	11	12	12.5	11	9	4	12	12'-11	4	6	44	4	12	9	4	17	8	4	12	11	4	17	8	5	6	11'-6	6	9	10'-4	6'-10	3'-6	--	--	7	9	12'-0	6	9	18'-4	6'-10	11'-6	--	--	0.476	0.515	0.723	1.714	249.29
2	10	11	8	10	11	9	4	9	12'-5	4	6	44	5	12	9	4	17	8	4	12	11	4	17	8	6	6	11'-6	5	6	9'-6	6'-8	2'-10	--	--	6	6	12'-0	5	6	16'-5	5'-2	11'-3	5	12'-0	0.330	0.420	0.723	1.473	260.32
3-6	10	11	8	10	11	9	4	9	12'-5	4	6	44	4	12	9	4	17	8	4	12	11	4	15	8	6	6	11'-6	5	6	9'-3	6'-5	2'-10	--	--	6	6	12'-0	5	6	15'-11	4'-8	11'-3	5	12'-0	0.330	0.420	0.723	1.473	253.79
7-8	10	11	8	10.5	11	9	4	12	12'-5	4	6	44	4	12	9	4	13	8	4	12	11	4	13	8	6	6	11'-6	5	6	6'-10	4'-0	2'-10	5	11'-6	6	6	12'-0	6	6	15'-5	4'-1	11'-4	6	12'-0	0.330	0.439	0.723	1.492	265.82
9-10	10	11	8	10.5	11	9	4	9	12'-5	4	6	44	4	12	9	4	13	8	4	12	11	4	13	8	6	6	11'-6	7	9	7'-8	4'-0	3'-8	7	11'-6	7	6	12'-0	7	9	15'-4	4'-0	11'-4	7	12'-0	0.330	0.439	0.723	1.492	293.58
11-15	10	11	9	11	11	9	4	12	12'-7	4	6	44	4	12	9	4	12	8	4	12	11	4	18	6	7	6	11'-6	7	9	7'-8	3'-10	3'-10	7	11'-6	7	6	12'-0	7	9	15'-1	3'-9	11'-7	7	12'-0	0.366	0.458	0.723	1.547	298.47
16-20	10	11	10.5	13.5	12	9	4	12	12'-11	4	6	44	4	12	9	4	12	8	4	12	11	4	17	6	7	6	11'-8	7	9	7'-10	3'-11	3'-11	7	11'-8	7	6	12'-2	7	9	15'-4	3'-9	11'-7	7	12'-2	0.429	0.562	0.788	1.779	302.71
21-25	10	11	12.5	15	13	9	4	9	13'-2	4	6	44	4	12	9	4	16	6	4	12	11	4	17	6	7	6	11'-10	7	9	7'-9	3'-8	4'-1	7	11'-10	7	6	12'-4	7	9	15'-5	3'-9	11'-8	7	12'-4	0.512	0.630	0.853	1.995	308.66
26-30	10	11	14	16.5	14.5	9	4	9	13'-5	4	6	44	4	12	9	4	16	6	4	12	11	4	17	6	7	6	12'-1	6	6	7'-8	3'-10	3'-10	6	12'-1	9	9	12'-7	6	6	15'-9	3'-11	11'-10	6	12'-7	0.583	0.704	0.951	2.238	328.58
31-35	10	11	15.5	18	15.5	9	4	9	13'-8	4	6	44	4	12	9	4	17	6	4	12	11	4	17	6	9	9	12'-3	6	6	8'-0	4'-0	4'-0	6	12'-3	9	9	12'-9	6	6	16'-0	4'-1	11'-11	6	12'-9	0.651	0.775	1.017	2.443	341.42
36-40	10	11	16.5	19.5	17	9	6	9	13'-11	4	6	44	4	12	9	4	17	6	4	12	11	4	18	6	9	9	12'-6	7	9	8'-6	4'-1	4'-5	7	12'-6	8	6	13'-0	7	9	16'-4	4'-3	12'-1	7	13'-0	0.707	0.854	1.115	2.676	380.37
41-45	10	11	17.5	20.5	18	9	6	9	14'-1	4	6	44	4	12	9	4	12	8	4	12	11	4	18	6	8	6	12'-8	7	9	9'-0	4'-6	4'-6	7	12'-8	8	6	13'-2	7	9	16'-6	4'-4	12'-2	7	13'-2	0.758	0.908	1.180	2.846	396.37
46-50	10	11	19	21.5	19	9	6	9	14'-3	4	6	44	4	12	9	4	12	8	4	12	11	4	12	8	8	6	12'-10	7	9	9'-2	4'-7	4'-7	7	12'-10	8	6	13'-4	7	9	16'-9	4'-6	12'-3	7	13'-4	0.830	0.963	1.245	3.038	402.53
51-55	10	11	20	23	20	6	5	6	14'-6	4	6	44	4	12	9	4	13	8	5	12	11	4	12	8	8	6	13'-0	7	9	9'-6	4'-9	4'-9	7	13'-0	8	6	13'-6	7	9	17'-0	4'-8	12'-4	7	13'-6	0.884	1.040	1.311	3.235	414.82

### BENT BAR DETAIL



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



10 x 11 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 <i>Thomas E. Mc Donnell</i>	<b>Iowa Department of Transportation Highway Division</b> STANDARD DESIGN <h2 style="margin: 0;">SINGLE REINFORCED CONCRETE BOX CULVERTS</h2> <p style="margin: 0;">APRIL, 2012</p>
		<h3 style="margin: 0;">CULVERT BARREL DETAILS</h3> <p style="margin: 0;">10 x 11 BARREL SECTIONS</p>
		RCB 10-11-12