VARIABLE DIMENSIONS AND QUANTITIES FOR TWIN 12 x 6 BARREL SECTIONS

DIMENSIONS											
FILL	S	H	A	B	C	D	E	U	W	X	Z
0	12	6	14.5	12	9	9	9	0'-0	7'-8	2'-6	6'-3
1	12	6	13.5	12	9	9	9	0'-9	7'-8	2'-6	5'-11
2	12	6	10	10	9	6	9	2'-0	6'-5	3'-0	4'-9
3	12	6	10.5	10	9	6	9	2'-3	5'-11	2'-8	4'-5
4	12	6	9.5	10	9	9	9	2'-9	5'-0	3'-0	4'-3
5-7	12	6	10	11	9	9	9	2'-9	4'-9	3'-3	4'-2
8-10	12	6	11.5	13	9	9	9	3'-1	4'-3	3'-3	4'-2
11-13	12	6	13	15	9	9	9	2'-10	4'-3	3'-0	4'-4
14-16	12	6	14.5	16.5	9	9	9	2'-5	4'-4	2'-5	4'-5
17-19	12	6	16.5	18.5	9	9	9	2'-2	4'-6	2'-3	4'-7
20-22	12	6	18	20	9	9	9	1'-6	4'-7	1'-7	4'-8
23-25	12	6	19.5	21.5	9	9	9	1'-4	4'-8	1'-6	4'-10

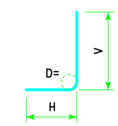
	BAR LIST														
	a1			a2			b1			b2			e1		
FILL	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	NO.	SIZE	SP.	NO.	SIZE	SP.	NO.
0	4	12	8'-1	6	9	8'-1	4	6	24	4	6	13	4	12	22
1	4	12	8'-0	6	9	8'-0	4	6	24	4	6	13	4	12	22
2	4	6	7'-7	6	9	7'-7	4	6	24	4	6	13	5	12	22
3	4	6	7'-7	6	9	7'-7	4	6	24	4	6	13	4	12	22
4	5	12	7'-6	6	9	7'-6	4	6	24	4	6	13	4	12	22
5-7	4	9	7'-8	6	9	7'-8	4	6	24	4	6	13	4	12	22
8-10	4	12	7'-11	6	9	7'-11	4	6	24	4	6	13	4	12	22
11-13	5	12	8'-3	6	9	8'-3	4	6	24	4	6	13	4	12	22
14-16	4	9	8'-6	6	9	8'-6	4	6	24	4	6	13	4	12	22
17-19	4	12	8'-10	6	9	8'-10	4	6	24	4	6	13	4	12	22
20-22	4	12	9'-1	6	9	9'-1	4	6	24	4	6	13	4	12	22
23-25	4	12	9'-4	6	9	9'-4	4	6	24	4	6	13	4	12	22

	BAR LIST																											
	e2			f1			f2			k1			k2			k4					k6			k7			k9		
FILL	SIZE	SP.	NO.	SIZE	SP.	NO.	SIZE	SP.	NO.	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	H	V	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L
0	5	17	20	4	12	26	4	17	20	5	12	25'-11	5	12	12'-11	5	9	7'-2	3'-7	3'-7	5	18	25'-11	7	18	15'-4	7	4.5	25'-11
1	4	17	20	4	12	26	4	17	20	6	18	25'-11	6	18	12'-2	5	9	7'-2	3'-7	3'-7	5	18	25'-11	7	18	15'-4	7	4.5	25'-11
2	4	17	20	4	12	26	4	17	20	6	12	25'-11	5	12	10'-4	6	9	6'-10	3'-5	3'-5	5	12	25'-11	6	12	12'-10	6	4.5	25'-11
3	4	17	20	4	12	26	4	17	20	6	12	25'-11	5	12	9'-10	5	6	6'-4	3'-2	3'-2	4	12	25'-11	7	12	11'-10	7	4.5	25'-11
4	4	17	20	4	12	26	4	17	20	6	12	25'-11	5	12	8'-10	6	9	6'-8	3'-4	3'-4	5	9	25'-11	5	9	10'-0	5	4.5	25'-11
5-7	4	17	20	4	12	26	4	17	20	5	9	25'-11	4	9	8'-6	6	9	6'-4	3'-0	3'-4	5	12	25'-11	7	12	9'-6	7	4.5	25'-11
8-10	4	17	20	4	12	26	4	17	20	5	9	25'-11	4	9	8'-6	5	6	5'-9	2'-7	3'-2	5	9	25'-11	6	9	8'-6	6	4.5	25'-11
11-13	4	17	20	4	12	26	4	17	20	5	9	25'-11	4	9	9'-5	4	6	5'-9	2'-6	3'-3	4	9	25'-11	7	9	8'-6	7	4.5	25'-11
14-16	4	17	20	4	12	26	4	17	20	6	12	25'-11	5	12	10'-0	4	6	5'-10	2'-6	3'-4	5	12	25'-11	8	12	8'-8	8	4.5	25'-11
17-19	4	17	20	4	12	26	4	17	20	6	12	25'-11	5	12	10'-9	6	12	6'-5	2'-7	3'-10	5	12	25'-11	8	12	9'-0	8	4.5	25'-11
20-22	4	17	20	4	12	26	4	17	20	7	18	25'-11	7	18	11'-5	6	12	6'-8	2'-8	4'-0	5	9	25'-11	7	9	9'-2	7	4.5	25'-11
23-25	4	17	20	5	12	26	4	17	20	7	18	25'-11	7	18	11'-7	6	12	6'-10	2'-9	4'-1	5	9	25'-11	7	9	9'-4	7	4.5	25'-11

	BAR LIST																				QUANTITIES				
	m1			m2			m4					m6			m7			m9			CONCRETE (CY/FT)				STEEL
FILL	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	H	V	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	SLAB	FLOOR	WALLS	TOTAL	(LB/FT)
0	5	12	26'-5	5	12	9'-1	6	9	12'-3	5'-10	6'-5	4	12	26'-5	6	12	12'-6	6	4.5	26'-5	1.232	1.050	0.465	2.747	374.42
1	5	12	26'-5	5	12	9'-1	6	9	11'-3	4'-10	6'-5	5	12	26'-5	5	12	11'-10	5	4.5	26'-5	1.151	1.050	0.465	2.666	362.87
2	5	9	26'-5	5	9	7'-10	6	9	9'-9	3'-6	6'-3	5	12	26'-5	7	12	9'-6	7	4.5	26'-5	0.867	0.885	0.465	2.217	417.00
3	5	9	26'-5	5	9	8'-3	5	6	9'-8	3'-5	6'-3	5	9	26'-5	6	9	8'-10	6	4.5	26'-5	0.907	0.885	0.465	2.257	409.37
4	5	9	26'-5	5	9	7'-9	6	9	9'-7	3'-4	6'-3	5	9	26'-5	6	9	8'-6	6	4.5	26'-5	0.826	0.885	0.465	2.176	407.05
5-7	6	12	26'-5	5	12	7'-8	6	9	9'-6	3'-2	6'-4	5	9	26'-5	6	9	8'-4	6	4.5	26'-5	0.867	0.967	0.465	2.299	394.13
8-10	6	12	26'-5	5	12	8'-3	5	6	9'-2	2'-8	6'-6	5	9	26'-5	6	9	8'-4	6	4.5	26'-5	0.989	1.132	0.465	2.586	394.42
11-13	6	12	26'-5	5	12	9'-2	4	6	9'-3	2'-7	6'-8	4	9	26'-5	7	9	8'-8	7	4.5	26'-5	1.110	1.297	0.465	2.872	372.87
14-16	6	12	26'-5	5	12	10'-5	4	6	9'-5	2'-7	6'-10	5	12	26'-5	8	12	8'-10	8	4.5	26'-5	1.232	1.421	0.465	3.118	393.68
17-19	6	12	26'-5	5	12	10'-9	6	12	9'-8	2'-8	7'-0	5	12	26'-5	8	12	9'-2	8	4.5	26'-5	1.394	1.586	0.465	3.445	405.89
20-22	7	18	26'-5	7	18	11'-5	6	12	9'-10	2'-9	7'-1	5	9	26'-5	7	9	9'-4	7	4.5	26'-5	1.515	1.710	0.465	3.690	437.00
23-25	7	18	26'-5	7	18	11'-6	6	12	10'-1	2'-10	7'-3	5	9	26'-5	7	9	9'-8	7	4.5	26'-5	1.637	1.834	0.465	3.936	450.79

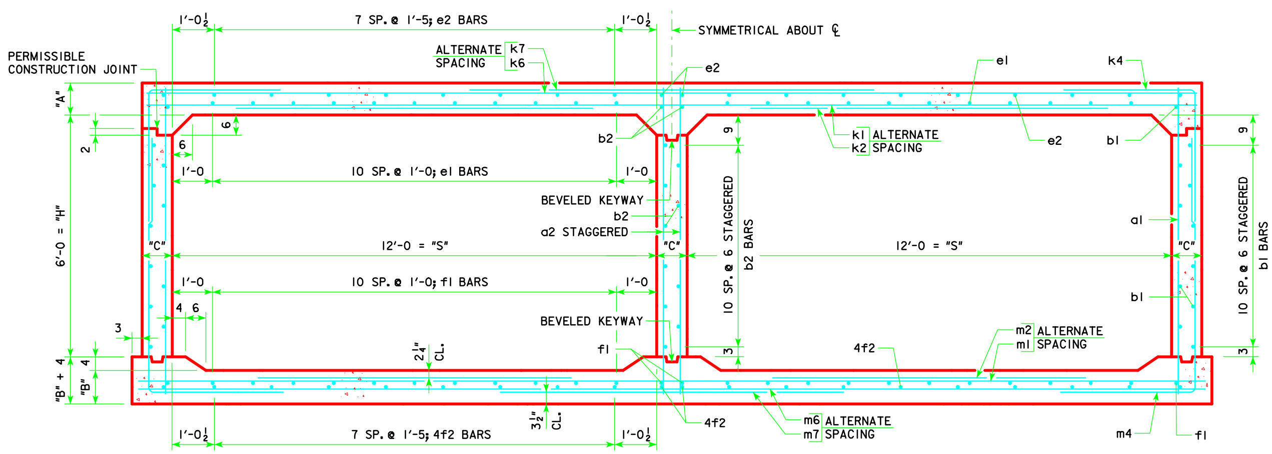
BENT BAR DETAIL

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



k4 & m4

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



TWIN 12 x 6 BARREL SECTION

NOTES:

1. DIMENSIONS LISTED ON THIS SHEET TO BE USED IN CONJUNCTION WITH SHEET TWRCB G2-12.
2. DIMENSIONS "A", "B", "C", "D", "E", 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
TWIN REINFORCED CONCRETE BOX CULVERTS
APRIL, 2012

CULVERT BARREL DETAILS
12 x 6 BARREL SECTIONS

TWRCB 12-6-12

ENGLISH\RFDSIGNED\TWINCULVERTS.DGN - TWRCB 12-6-12 - THIS SHEET ISSUED 04-12.