



TRIPLE 10 x 4 BARREL SECTION

BENT BAR DETAIL

BAR	D
4	3
5	3 1/2
6	4 1/2

NOTES:
 1. DIMENSIONS LISTED ON THIS SHEET TO BE USED IN CONJUNCTION WITH SHEET TRRCB G2-12.
 2. DIMENSIONS "A", "B", "C", "D", "E", AND "SP." LISTED IN THE BAR LIST ARE IN INCHES.

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

NOTES:
 1. DIMENSIONS LISTED ON THIS SHEET TO BE USED IN CONJUNCTION WITH SHEET TRRCB G2-12.
 2. DIMENSIONS "A", "B", "C", "D", "E", AND "SP." LISTED IN THE BAR LIST ARE IN INCHES.

VARIABLE DIMENSIONS AND QUANTITIES FOR TRIPLE 10 x 4 BARREL SECTIONS

DIMENSIONS														BAR LIST																																											
FILL	S	H	A	B	C	D	E	R	T	U	W	X	Z	BAR LIST																																											
														a1		a2		b1		b2		e1		e2		f1		f2		k1		k2		k3		k4		k6		k7																	
															SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L																
0	10	4	13	10	9	9	9	0'-0	0'-0	6'-5	2'-10	4'-4	3'-11	4	12	5'-10	6	9	5'-10	4	6	16	4	6	18	4	12	27	4	18	24	4	12	33	4	18	24	6	18	32'-8	6	18	10'-11	5	18	10'-9	4	6	6'-2	2'-11	3'-3	5	18	32'-8	6	18	12'-10
1	10	4	12.5	10	9	6	9	0'-5	0'-0	6'-1	2'-10	4'-4	3'-11	4	6	5'-9	6	9	5'-9	4	6	16	4	6	18	4	12	27	4	18	24	4	12	33	4	18	24	6	18	32'-8	6	18	10'-11	5	18	9'-11	4	6	6'-6	3'-3	3'-3	5	18	32'-8	6	18	12'-6
2	10	4	9.5	10	9	6	9	0'-9	0'-9	4'-9	2'-5	3'-8	3'-9	4	6	5'-6	7	9	5'-6	4	6	16	4	6	18	4	12	27	4	18	24	4	12	33	4	18	24	6	18	32'-8	6	18	10'-2	5	18	9'-3	5	6	6'-0	3'-0	3'-0	4	9	32'-8	4	9	11'-0
3-6	10	4	9	10	9	9	9	1'-2	0'-11	4'-3	2'-2	2'-10	3'-6	4	12	5'-6	7	9	5'-6	4	6	16	4	6	18	4	12	27	4	18	24	4	12	33	4	18	24	6	18	32'-8	6	18	9'-9	5	18	8'-5	5	6	5'-10	2'-11	2'-11	5	12	32'-8	5	12	9'-1
7-8	10	4	8	10	9	9	9	2'-6	2'-1	3'-6	2'-1	3'-0	3'-4	4	12	5'-5	6	9	5'-5	4	6	16	4	6	18	4	12	27	4	18	24	4	12	33	4	18	24	5	12	32'-8	5	12	7'-5	4	12	5'-9	5	6	5'-8	2'-10	2'-10	5	12	32'-8	6	12	7'-0
9-10	10	4	9	11	9	9	9	2'-8	2'-1	3'-5	2'-1	3'-0	3'-7	4	12	5'-7	6	9	5'-7	4	6	16	4	6	18	4	12	27	4	18	24	4	12	33	4	18	24	5	12	32'-8	5	12	7'-9	4	12	5'-5	6	9	5'-11	2'-8	3'-3	5	12	32'-8	6	12	6'-11
11-12	10	4	9.5	11.5	9	9	9	2'-7	1'-9	3'-6	2'-7	3'-6	3'-5	4	12	5'-8	6	9	5'-8	4	6	16	4	6	18	4	12	27	4	18	24	4	12	33	4	18	24	5	12	32'-8	5	12	8'-4	4	12	5'-7	5	6	5'-4	2'-5	2'-11	4	12	32'-8	7	12	7'-1
13-15	10	4	11.5	13.5	9	9	9	2'-9	1'-9	3'-5	2'-4	4'-2	3'-3	5	12	6'-0	6	9	6'-0	4	6	16	4	6	18	4	12	27	4	18	24	4	12	33	4	18	24	5	12	32'-8	5	12	8'-7	4	12	5'-3	4	6	5'-3	2'-2	3'-1	4	12	32'-8	7	12	7'-1
16-17	10	4	12.5	14.5	9	9	9	2'-9	1'-5	3'-4	1'-11	4'-4	3'-4	4	9	6'-2	6	9	6'-2	4	6	16	4	6	18	4	12	27	4	18	24	4	12	33	4	18	24	5	12	32'-8	5	12	9'-4	4	12	5'-3	4	6	5'-4	2'-2	3'-2	4	12	32'-8	7	12	7'-0
18-19	10	4	13.5	15.5	9	9	9	4'-1	1'-8	3'-4	1'-9	3'-11	3'-4	4	12	6'-4	6	9	6'-4	4	6	16	4	6	18	4	12	27	4	18	24	4	12	33	4	18	24	5	9	32'-8	4	9	9'-0	4	9	2'-7	6	12	5'-9	2'-2	3'-1	4	12	32'-8	7	12	7'-1
20-21	10	4	14	16	9	9	9	3'-7	1'-5	3'-4	1'-8	4'-3	3'-5	4	12	6'-5	6	9	6'-5	4	6	16	4	6	18	4	12	27	4	18	24	4	12	33	4	18	24	7	18	32'-8	6	18	9'-5	4	18	3'-7	6	12	5'-10	2'-2	3'-8	5	9	32'-8	5	9	7'-2
22-23	10	4	15	17.5	9	9	9	4'-3	1'-6	3'-5	1'-6	4'-3	3'-6	4	12	6'-7	6	9	6'-7	4	6	16	4	6	18	4	12	27	4	18	24	4	12	33	4	18	24	6	12	32'-8	5	12	9'-5	4	12	2'-3	4	6	5'-8	2'-3	3'-5	5	9	32'-8	5	9	7'-4
24-25	10	4	16.5	18.5	9	9	9	4'-4	1'-1	3'-6	1'-1	4'-3	3'-7	4	12	6'-10	6	9	6'-10	4	6	16	4	6	18	4	12	27	4	18	24	4	12	33	4	18	24	6	12	32'-8	5	12	9'-10	4	12	2'-1	4	6	5'-10	2'-4	3'-6	4	12	32'-8	7	12	7'-7

BAR LIST														QUANTITIES																	
FILL	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	CONCRETE (CY/FT)				STEEL (LB/FT)											
																SLAB	FLOOR	WALLS	TOTAL												
0	6	4.5	32'-8	5	12	33'-2	4	12	6'-2	4	12	2'-1	5	6	8'-6	4'-3	4'-3	5	18	33'-2	7	18	7'-9	7	4.5	33'-2	1,405	1,115	0.396	2,916	391.66
1	6	4.5	32'-8	5	12	33'-2	4	12	5'-11	4	12	2'-1	4	6	8'-0	3'-9	4'-3	5	18	33'-2	7	18	7'-9	7	4.5	33'-2	1,354	1,115	0.396	2,865	383.84
2	4	4.5	32'-8	5	12	33'-2	4	12	6'-8	4	12	3'-5	4	6	7'-3	3'-0	4'-3	5	18	33'-2	7	18	7'-7	7	4.5	33'-2	1,049	1,115	0.396	2,560	393.11
3-6	5	4.5	32'-8	4	9	33'-2	4	9	7'-3	4	9	5'-1	5	6	7'-2	2'-11	4'-3	4	12	33'-2	6	12	7'-2	6	4.5	33'-2	0,998	1,115	0.396	2,509	391.55
7-8	6	4.5	32'-8	5	12	33'-2	5	12	7'-3	4	12	4'-9	5	6	7'-0	2'-9	4'-3	5	12	33'-2	6	12	6'-9	6	4.5	33'-2	0,886	1,115	0.396	2,407	402.89
9-10	6	4.5	32'-8	5	12	33'-2	5	12	7'-8	4	12	4'-9	6	9	7'-0	2'-8	4'-4	5	18	33'-2	8	18	7'-4	8	4.5	33'-2	0,998	1,219	0.396	2,613	404.11
11-12	7	4.5	32'-8	5	9	33'-2	4	9	6'-10	4	9	3'-9	5	6	6'-10	2'-5	4'-5	4	12	33'-2	7	12	7'-0	7	4.5	33'-2	1,049	1,270	0.396	2,715	407.26
13-15	7	4.5	32'-8	5	9	33'-2	4	9	7'-5	4	9	2'-5	4	6	6'-10	2'-3	4'-7	5	12	33'-2	6	12	6'-10	6	4.5	33'-2	1,252	1,477	0.396	3,125	397.66
16-17	7	4.5	32'-8	5	9	33'-2	4	9	8'-4	4	9	2'-1	4	6	6'-10	2'-2	4'-8	5	12	33'-2	6	12	7'-0	6	4.5	33'-2	1,354	1,581	0.396	3,331	399.68
18-19	7	4.5	32'-8	5	9	33'-2	4	9	9'-0	4	9	2'-11	6	12	7'-0	2'-3	4'-9	5	12	33'-2	6	12	7'-2	6	4.5	33'-2	1,456	1,684	0.396	3,536	415.34
20-21	5	4.5	32'-8	6	12	33'-2	5	12	9'-2	4	12	2'-3	6	12	7'-0	2'-3	4'-9	4	12	33'-2	7	12	7'-3	7	4.5	33'-2	1,507	1,736	0.396	3,639	437.03
22-23	5	4.5	32'-8	6	12	33'-2	5	12	9'-6	4	12	2'-3	4	6	7'-2	2'-3	4'-11	4	12	33'-2	7	12	7'-6	7	4.5	33'-2	1,609	1,891	0.396	3,896	435.82
24-25	7	4.5	32'-8	6	12	33'-2	5	12	9'-11	4	12	2'-3	4	6	7'-4	2'-4	5'-0	4	12	33'-2	7	12	7'-9	7	4.5	33'-2	1,762	1,994	0.396	4,152	431.39

LATEST REVISION DATE APPROVED BY BRIDGE ENGINEER	
	STANDARD DESIGN TRIPLE REINFORCED CONCRETE BOX CULVERTS APRIL, 2012
	CULVERT BARREL DETAILS 10 x 4 BARREL SECTIONS
TRRCB 10-4-12	