



Triple 10' x 6' Barrel Section

Bent Bar Detail

Bars	D
4	3"
5	3 3/8"
6	4 1/2"
7	5 3/8"

k4 & m4

Notes:

- Dimensions listed on this sheet to be used in conjunction with Sheet TRRCB G3-20.
- Fill, dimensions "A", "H", "C", "D", and "Sp." listed in the bar list are in inches.
- Dimensions "L", "H", "V" are in feet and inches.

Note: All dimensions are out to out. D = pin diameter.

Variable Dimensions and Quantities for Triple 10' x 6' Barrel Sections

Dimensions													Bar List																																												
Fill	S	H	A	B	C	D	E	R	T	U	W	X	Z	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.	No.	Size	Sp.	L	Size	Sp.	L	Size	Sp.	L																												
0	10	6	13	10.5	9	6	9	0'-0	0'-0	6'-2	2'-9	4'-2	3'-11	4	6	7'-10	6	9	7'-10	4	6	24	4	6	26	4	12	27	4	18	24	6	18	32'-8	5	18	10'-11	4	18	10'-9	4	6	7'-0	3'-11	3'-1	4	12	32'-8	4	12	12'-4						
1	10	6	12.5	10	9	6	9	0'-8	0'-3	6'-2	2'-9	3'-8	3'-10	4	6	7'-9	6	9	7'-9	4	6	24	4	6	26	4	12	27	4	18	24	4	12	33	4	18	24	6	18	32'-8	5	18	10'-8	4	18	9'-5	4	6	7'-0	3'-11	3'-1	4	12	32'-8	4	12	12'-4
2	10	6	9	10	9	9	9	1'-4	0'-11	5'-2	2'-3	3'-8	3'-9	5	12	7'-6	6	9	7'-6	4	6	24	4	6	26	4	12	27	4	18	24	4	12	33	4	18	24	5	12	32'-8	5	12	9'-10	4	12	8'-1	5	6	6'-4	3'-2	3'-2	5	18	32'-8	7	18	11'-11
3-6	10	6	8	10	9	9	9	2'-0	1'-8	4'-0	2'-8	3'-8	3'-8	4	9	7'-5	6	9	7'-5	4	6	24	4	6	26	4	12	27	4	18	24	4	12	33	4	18	24	5	12	32'-8	5	12	8'-2	4	12	6'-9	7	12	7'-2	3'-3	3'-11	5	12	32'-8	5	12	8'-6
7-8	10	6	8	10	9	6	9	2'-11	2'-2	3'-5	2'-2	3'-5	3'-4	4	6	7'-5	6	9	7'-5	4	6	24	4	6	26	4	12	27	4	18	24	4	12	33	4	18	24	5	12	32'-8	5	12	7'-5	4	12	4'-11	4	6	5'-8	2'-10	2'-10	5	12	32'-8	6	12	7'-0
9-10	10	6	9	11	9	6	9	2'-11	2'-2	3'-4	2'-1	3'-5	3'-3	4	6	7'-7	6	9	7'-7	4	6	24	4	6	26	4	12	27	4	18	24	4	12	33	4	18	24	5	12	32'-8	5	12	7'-9	4	12	4'-11	4	6	5'-8	2'-10	2'-10	5	12	32'-8	6	12	6'-10
11-12	10	6	9.5	12	9	6	9	2'-10	1'-10	3'-5	2'-6	4'-2	3'-3	4	6	7'-8	6	9	7'-8	4	6	24	4	6	26	4	12	27	4	18	24	4	12	33	4	18	24	5	12	32'-8	5	12	8'-3	4	12	5'-1	4	6	5'-8	2'-10	2'-10	4	12	32'-8	7	12	7'-1
13-15	10	6	11.5	13.5	9	9	9	3'-2	1'-7	3'-3	2'-3	3'-6	3'-3	5	12	8'-0	6	9	8'-0	4	6	24	4	6	26	4	12	27	4	18	24	4	12	33	4	18	24	5	12	32'-8	5	12	9'-1	4	12	4'-5	4	6	5'-5	2'-5	3'-0	5	12	32'-8	6	12	6'-10
16-17	10	6	12.5	14.5	9	9	9	3'-5	2'-0	3'-4	2'-1	3'-5	3'-3	5	12	8'-2	6	9	8'-2	4	6	24	4	6	26	4	12	27	4	18	24	4	12	33	4	18	24	5	9	32'-8	4	9	8'-3	4	9	3'-11	4	6	5'-6	2'-5	3'-1	4	12	32'-8	7	12	7'-0
18-19	10	6	13.5	15.5	9	9	9	3'-4	1'-8	3'-4	1'-10	3'-9	3'-4	4	9	8'-4	6	9	8'-4	4	6	24	4	6	26	4	12	27	4	18	24	4	12	33	4	18	24	5	9	32'-8	4	9	8'-10	4	9	4'-1	4	6	5'-7	2'-5	3'-2	4	12	32'-8	7	12	7'-1
20-21	10	6	14.5	16.5	9	9	9	4'-2	1'-5	3'-4	1'-7	3'-9	3'-5	4	9	8'-6	6	9	8'-6	4	6	24	4	6	26	4	12	27	4	18	24	4	12	33	4	18	24	5	9	32'-8	4	9	9'-6	4	9	2'-5	4	6	5'-9	2'-6	3'-3	4	12	32'-8	7	12	7'-2
22-23	10	6	16	17.5	9	9	9	4'-2	1'-2	3'-5	1'-5	3'-9	3'-6	4	9	8'-8	6	9	8'-8	4	6	24	4	6	26	4	12	27	4	18	24	4	12	33	4	18	24	5	9	32'-8	4	9	9'-9	4	9	2'-5	4	6	5'-10	2'-6	3'-4	5	12	32'-8	6	12	7'-5
24-25	10	6	17	19	9	9	9	4'-2	1'-0	3'-6	1'-0	3'-9	3'-7	4	12	8'-11	6	9	8'-11	4	6	24	4	6	26	4	12	27	4	18	24	4	12	33	4	18	24	5	9	32'-8	4	9	9'-11	4	9	2'-5	4	6	6'-1	2'-7	3'-6	5	12	32'-8	6	12	7'-7

Bar List													Quantities																		
Fill	k9	m1	m2	m3	m4	m5	m6	m7	m9	Slab	Floor	Walls	Total	Steel (LB/FT)																	
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	Size	Sp.	L		
0	4	4.5	32'-8	5	12	33'-2	4	12	6'-4	4	12	2'-5	4	6	11'-4	5'-0	6'-4	5	18	33'-2	7	18	7'-10	7	4.5	33'-2	1,405	1,167	0,618	3,190	399.24
1	4	4.5	32'-8	5	12	33'-2	4	12	6'-4	4	12	2'-5	4	6	10'-8	4'-5	6'-3	5	18	33'-2	7	18	7'-8	7	4.5	33'-2	1,354	1,115	0,618	3,087	396.16
2	7	4.5	32'-8	5	12	33'-2	5	12	7'-4	4	12	3'-5	4	6	9'-7	3'-4	6'-3	5	18	33'-2	7	18	7'-7	7	4.5	33'-2	0,998	1,115	0,618	2,731	426.55
3-6	5	4.5	32'-8	5	12	33'-2	4	12	6'-6	4	12	3'-5	6	12	9'-4	3'-1	6'-3	5	12	33'-2	5	12	7'-6	7	4.5	33'-2	0,896	1,115	0,618	2,629	419.71
7-8	6	4.5	32'-8	5	12	33'-2	5	12	7'-6	4	12	3'-11	4	6	9'-0	2'-9	6'-3	5	12	33'-2	6	12	6'-10	6	4.5	33'-2	0,896	1,115	0,618	2,629	419.79
9-10	6	4.5	32'-8	5	12	33'-2	5	12	7'-8	4	12	3'-11	4	6	8'-11	2'-7	6'-4	5	12	33'-2	6	12	6'-9	6	4.5	33'-2	0,998	1,219	0,618	2,835	420.97
11-12	7	4.5	32'-8	5	9	33'-2	4	9	7'-0	4	9	2'-5	4	6	8'-11	2'-6	6'-5	5	12	33'-2	6	12	6'-9	6	4.5	33'-2	1,049	1,322	0,618	2,989	427.66
13-15	6	4.5	32'-8	5	9	33'-2	4	9	7'-9	4	9	3'-9	4	6	9'-1	2'-6	6'-7	5	12	33'-2	6	12	6'-10	6	4.5	33'-2	1,252	1,477	0,618	3,347	431.37
16-17	7	4.5	32'-8	5	9	33'-2	4	9	8'-4	4	9	3'-11	4	6	9'-2	2'-6	6'-8	5	12	33'-2	6	12	6'-11	6	4.5	33'-2	1,354	1,581	0,618	3,553	439.05
18-19	7	4.5	32'-8	5	9	33'-2	4	9	8'-10	4	9	3'-3	4	6	9'-3	2'-6	6'-9	5	12	33'-2	6	12	7'-2	6	4.5	33'-2	1,456	1,684	0,618	3,758	440.05
20-21	7	4.5	32'-8	6	12	33'-2	5	12	9'-5	4	12	3'-3	4	6	9'-4	2'-6	6'-10	4	12	33'-2	7	12	7'-4	7	4.5	33'-2	1,558	1,787	0,618	3,963	448.05
22-23	6	4.5	32'-8	6	12	33'-2	5	12	9'-7	4	12	3'-3	4	6	9'-6	2'-7	6'-11	4	12	33'-2	7	12	7'-6	7	4.5	33'-2	1,711	1,891	0,618	4,227	454.55
24-25	6	4.5	32'-8	6	12	33'-2	5	12	10'-0	4	12	3'-3	4	6	9'-8	2'-8	7'-0	5	12	33'-2	6	12	7'-9	6	4.5	33'-2	1,813	2,046	0,618	4,477	458.16

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

IOWADOT Highway Division

Standard Design

Triple Reinforced Concrete Box Culverts

July, 2020

Culvert Barrel Details

10' x 6' Barrel Sections

TRRCB 10-6-20

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