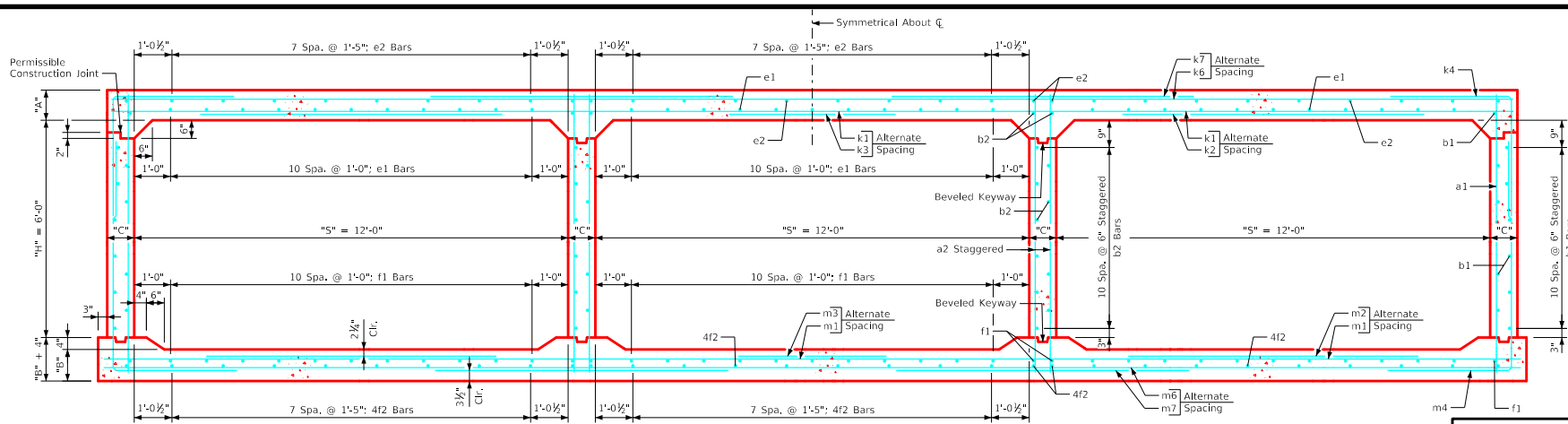


ENGLISH\FDS\DESIGNED\TRIPLE\TRRCB.dgn - TRRCB 12-6-20 - THIS SHEET ISSUED 07-2020.



Triple 12' x 6' Barrel Section

### Bent Bar Detail

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

k4 & m4

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

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

Variable Dimensions and Quantities for Triple 12' 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																														
0	12	6	14	11.5	9	9	9	0'-0"	0'-0"	7'-7"	2'-9"	4'-4"	4'-3"	4	12	8'-0"	6	9	8'-0"	4	6	24	4	6	26	4	12	33	4	17	30	4	12	39	4	17	30	6	18	38'-8"	6	18	12'-11"	4	18	12'-9"	4	6	7'-2"	3'-7"	3'-7"	5	18	38'-8"	6	18	14'-8"
1	12	6	13	11	9	9	9	0'-8"	0'-2"	7'-1"	2'-8"	4'-5"	4'-3"	4	12	7'-11"	6	9	7'-11"	4	6	24	4	6	26	4	12	33	4	17	30	4	12	39	4	17	30	6	18	38'-8" <td>6</td> <td>18</td> <td>12'-9" <td>4</td> <td>18</td> <td>11'-5" <td>6</td> <td>12</td> <td>7'-10" <td>3'-11" <td>3'-11" <td>5</td> <td>18</td> <td>38'-8" <td>6</td> <td>18</td> <td>14'-8" </td></td></td></td></td></td></td>	6	18	12'-9" <td>4</td> <td>18</td> <td>11'-5" <td>6</td> <td>12</td> <td>7'-10" <td>3'-11" <td>3'-11" <td>5</td> <td>18</td> <td>38'-8" <td>6</td> <td>18</td> <td>14'-8" </td></td></td></td></td></td>	4	18	11'-5" <td>6</td> <td>12</td> <td>7'-10" <td>3'-11" <td>3'-11" <td>5</td> <td>18</td> <td>38'-8" <td>6</td> <td>18</td> <td>14'-8" </td></td></td></td></td>	6	12	7'-10" <td>3'-11" <td>3'-11" <td>5</td> <td>18</td> <td>38'-8" <td>6</td> <td>18</td> <td>14'-8" </td></td></td></td>	3'-11" <td>3'-11" <td>5</td> <td>18</td> <td>38'-8" <td>6</td> <td>18</td> <td>14'-8" </td></td></td>	3'-11" <td>5</td> <td>18</td> <td>38'-8" <td>6</td> <td>18</td> <td>14'-8" </td></td>	5	18	38'-8" <td>6</td> <td>18</td> <td>14'-8" </td>	6	18	14'-8"
2	12	6	10	10	9	9	9	2'-2"	1'-11"	5'-11"	3'-7"	5'-2"	4'-1"	4	9	7'-7"	7	9	7'-7"	4	6	24	4	6	26	4	12	33	4	17	30	4	12	39	4	17	30	6	12	38'-8" <td>5</td> <td>12</td> <td>10'-0" <td>4</td> <td>12</td> <td>8'-5" <td>6</td> <td>9</td> <td>7'-4"</td> <td>3'-8"</td> <td>3'-8"</td> <td>5</td> <td>18</td> <td>38'-8" <td>8</td> <td>18</td> <td>13'-11" </td></td></td></td>	5	12	10'-0" <td>4</td> <td>12</td> <td>8'-5" <td>6</td> <td>9</td> <td>7'-4"</td> <td>3'-8"</td> <td>3'-8"</td> <td>5</td> <td>18</td> <td>38'-8" <td>8</td> <td>18</td> <td>13'-11" </td></td></td>	4	12	8'-5" <td>6</td> <td>9</td> <td>7'-4"</td> <td>3'-8"</td> <td>3'-8"</td> <td>5</td> <td>18</td> <td>38'-8" <td>8</td> <td>18</td> <td>13'-11" </td></td>	6	9	7'-4"	3'-8"	3'-8"	5	18	38'-8" <td>8</td> <td>18</td> <td>13'-11" </td>	8	18	13'-11"
3-6	12	6	9	10	9	9	9	3'-11"	2'-6"	4'-8"	3'-4"	5'-2"	4'-0"	4	9	7'-6"	6	9	7'-6"	4	6	24	4	6	26	4	12	33	4	17	30	4	12	39	4	17	30	5	9	38'-8" <td>4</td> <td>9</td> <td>8'-8" <td>4</td> <td>9</td> <td>4'-11"</td> <td>6</td> <td>9</td> <td>7'-2"</td> <td>3'-7"</td> <td>3'-7"</td> <td>5</td> <td>9</td> <td>38'-8" <td>5</td> <td>9</td> <td>10'-1" </td></td></td>	4	9	8'-8" <td>4</td> <td>9</td> <td>4'-11"</td> <td>6</td> <td>9</td> <td>7'-2"</td> <td>3'-7"</td> <td>3'-7"</td> <td>5</td> <td>9</td> <td>38'-8" <td>5</td> <td>9</td> <td>10'-1" </td></td>	4	9	4'-11"	6	9	7'-2"	3'-7"	3'-7"	5	9	38'-8" <td>5</td> <td>9</td> <td>10'-1" </td>	5	9	10'-1"
7-8	12	6	10	11	9	9	9	5'-2"	2'-11"	3'-11"	3'-1"	5'-2"	3'-9"	4	9	7'-8"	6	9	7'-8"	4	6	24	4	6	26	4	12	33	4	17	30	4	12	39	4	17	30	5	9	38'-8" <td>4</td> <td>9</td> <td>8'-3"</td> <td>4</td> <td>9</td> <td>2'-5"</td> <td>6</td> <td>9</td> <td>6'-7"</td> <td>2'-11"</td> <td>3'-8"</td> <td>5</td> <td>9</td> <td>38'-8" <td>5</td> <td>9</td> <td>8'-3" </td></td>	4	9	8'-3"	4	9	2'-5"	6	9	6'-7"	2'-11"	3'-8"	5	9	38'-8" <td>5</td> <td>9</td> <td>8'-3" </td>	5	9	8'-3"
9-10	12	6	11	12.5	9	9	9	5'-2"	2'-9"	3'-10"	2'-9"	5'-2"	3'-10"	4	12	7'-10"	6	9	7'-10"	4	6	24	4	6	26	4	12	33	4	17	30	4	12	39	4	17	30	5	9	38'-8" <td>4</td> <td>9</td> <td>8'-9"</td> <td>4</td> <td>9</td> <td>2'-5"</td> <td>5</td> <td>6</td> <td>5'-11"</td> <td>2'-7"</td> <td>3'-4"</td> <td>4</td> <td>9</td> <td>38'-8" <td>6</td> <td>9</td> <td>8'-0" </td></td>	4	9	8'-9"	4	9	2'-5"	5	6	5'-11"	2'-7"	3'-4"	4	9	38'-8" <td>6</td> <td>9</td> <td>8'-0" </td>	6	9	8'-0"
11-12	12	6	12	14	9	9	9	5'-2"	2'-9"	3'-10"	2'-8"	4'-3"	3'-9"	4	12	8'-1"	6	9	8'-1"	4	6	24	4	6	26	4	12	33	4	17	30	4	12	39	4	17	30	6	12	38'-8" <td>5</td> <td>12</td> <td>8'-11"</td> <td>4</td> <td>12</td> <td>2'-5"</td> <td>5</td> <td>6</td> <td>6'-0"</td> <td>2'-7"</td> <td>3'-5"</td> <td>5</td> <td>12</td> <td>38'-8" <td>7</td> <td>12</td> <td>8'-1" </td></td>	5	12	8'-11"	4	12	2'-5"	5	6	6'-0"	2'-7"	3'-5"	5	12	38'-8" <td>7</td> <td>12</td> <td>8'-1" </td>	7	12	8'-1"
13-15	12	6	13.5	15.5	9	9	9	4'-1"	2'-5"	3'-10"	2'-3"	4'-2"	3'-10"	4	6	8'-4"	6	9	8'-4"	4	6	24	4	6	26	4	12	33	4	17	30	4	12	39	4	17	30	6	12	38'-8" <td>5</td> <td>12</td> <td>10'-0"</td> <td>4</td> <td>12</td> <td>4'-7"</td> <td>4</td> <td>6</td> <td>5'-8"</td> <td>2'-6"</td> <td>3'-2"</td> <td>5</td> <td>12</td> <td>38'-8" <td>7</td> <td>12</td> <td>8'-1" </td></td>	5	12	10'-0"	4	12	4'-7"	4	6	5'-8"	2'-6"	3'-2"	5	12	38'-8" <td>7</td> <td>12</td> <td>8'-1" </td>	7	12	8'-1"
16-17	12	6	14.5	16.5	9	9	9	4'-0"	1'-10"	3'-10"	2'-0"	4'-1"	3'-10"	5	12	8'-6"	6	9	8'-6"	4	6	24	4	6	26	4	12	33	4	17	30	4	12	39	4	17	30	7	18	38'-8" <td>7</td> <td>18</td> <td>11'-1"</td> <td>4</td> <td>18</td> <td>4'-9"</td> <td>4</td> <td>6</td> <td>5'-9"</td> <td>2'-6"</td> <td>3'-3"</td> <td>5</td> <td>9</td> <td>38'-8" <td>6</td> <td>9</td> <td>8'-3" </td></td>	7	18	11'-1"	4	18	4'-9"	4	6	5'-9"	2'-6"	3'-3"	5	9	38'-8" <td>6</td> <td>9</td> <td>8'-3" </td>	6	9	8'-3"
18-19	12	6	15.5	17.5	9	9	9	3'-11"	1'-9"	3'-11"	1'-10"	4'-9"	3'-11"	5	12	8'-8"	6	9	8'-8"	4	6	24	4	6	26	4	12	33	4	17	30	4	12	39	4	17	30	7	18	38'-8" <td>7</td> <td>18</td> <td>11'-2"</td> <td>4</td> <td>18</td> <td>4'-11"</td> <td>4</td> <td>6</td> <td>5'-11"</td> <td>2'-7"</td> <td>3'-4"</td> <td>5</td> <td>9</td> <td>38'-8" <td>6</td> <td>9</td> <td>8'-5" </td></td>	7	18	11'-2"	4	18	4'-11"	4	6	5'-11"	2'-7"	3'-4"	5	9	38'-8" <td>6</td> <td>9</td> <td>8'-5" </td>	6	9	8'-5"
20-21	12	6	16.5	19	9	9	9	3'-10"	1'-4"	3'-11"	1'-3"	4'-7"	4'-0"	4	9	8'-10"	6	9	8'-10"	4	6	24	4	6	26	4	12	33	4	17	30	4	12	39	4	17	30	5	9	38'-8" <td>5</td> <td>9</td> <td>11'-7"</td> <td>4</td> <td>9</td> <td>5'-1"</td> <td>4</td> <td>6</td> <td>6'-0"</td> <td>2'-7"</td> <td>3'-5"</td> <td>5</td> <td>9</td> <td>38'-8" <td>6</td> <td>9</td> <td>8'-6" </td></td>	5	9	11'-7"	4	9	5'-1"	4	6	6'-0"	2'-7"	3'-5"	5	9	38'-8" <td>6</td> <td>9</td> <td>8'-6" </td>	6	9	8'-6"
22-23	12	6	18	20	9	9	9	4'-0"	1'-1"	4'-0"	1'-2"	4'-8"	4'-1"	4	9	9'-1"	6	9	9'-1"	4	6	24	4	6	26	4	12	33	4	17	30	4	12	39	4	17	30	5	9	38'-8" <td>5</td> <td>9</td> <td>11'-10"</td> <td>4</td> <td>9</td> <td>4'-9"</td> <td>4</td> <td>6</td> <td>6'-3"</td> <td>2'-8"</td> <td>3'-7"</td> <td>5</td> <td>9</td> <td>38'-8" <td>6</td> <td>9</td> <td>8'-9" </td></td>	5	9	11'-10"	4	9	4'-9"	4	6	6'-3"	2'-8"	3'-7"	5	9	38'-8" <td>6</td> <td>9</td> <td>8'-9" </td>	6	9	8'-9"
24-25	12	6	19.5	21.5	9	9	9	4'-4"	1'-0"	4'-1"	1'-0"	4'-9"	4'-2"	4	9	9'-4"	6	9	9'-4"	4	6	24	4	6	26	4	12	33	4	17	30	4	12	39	4	17	30	6	12	38'-8" <td>6</td> <td>12</td> <td>11'-11"</td> <td>4</td> <td>12</td> <td>4'-1"</td> <td>4</td> <td>6</td> <td>6'-5"</td> <td>2'-9"</td> <td>3'-8"</td> <td>5</td> <td>9</td> <td>38'-8" <td>6</td> <td>9</td> <td>8'-11" </td></td>	6	12	11'-11"	4	12	4'-1"	4	6	6'-5"	2'-9"	3'-8"	5	9	38'-8" <td>6</td> <td>9</td> <td>8'-11" </td>	6	9	8'-11"

Bar List													Quantities																		
Fill	k9	m1	m2	m3	m4	m6	m7	m9	Slab	Floor	Walls	Total	Steel (LB/FT)																		
0	6	4.5	38'-8"	4	9	39'-2"	4	9	8'-10"	4	9	4'-1"	5	6	11'-1"	4'-8"	6'-5"	4	12	39'-2"	6	12	8'-7"	6	4.5	39'-2"	1,766	1,463	0.618	3,867	476.47
1	6	4.5	38'-8"	5	12	39'-2"	4	9	8'-8"	4	12	3'-11"	7	12	10'-10"	4'-6"	6'-4"	4	9	39'-2"	5	9	8'-7"	5	4.5	39'-2"	1,646	1,422	0.618	3,686	494.53
2	8	4.5	38'-8"	5	9	39'-2"	4	9	6'-9"	4	9	2'-5"	6	9	9'-9"	3'-6"	6'-4"	5	9	39'-2"	5	9	8'-4"	5	4.5	39'-2"	1,285	1,301	0.618	3,204	566.68
3-6	5	4.5	38'-8"	6	12	39'-2"	5	12	7'-2"	4	12	2'-5"	6	9	9'-8"	3'-5"	6'-3"	5	9	39'-2"	6	9	8'-2"	6	4.5	39'-2"	1,165	1,301	0.618	3,084	561.58
7-8	5	4.5	38'-8"	6	12	39'-2"	5	12	7'-11"	4	12	2'-5"	6	9	9'-5"	3'-1"	6'-4"	5	9	39'-2"	6	9	7'-9"	6	4.5	39'-2"	1,285	1,422	0.618	3,325	551.26
9-10	6	4.5	38'-8"	6	12	39'-2"	5	12	8'-9"	4	12	2'-5"	5	6	9'-3"	2'-9"	6'-6"	5	12	39'-2"	7	12	8'-0"	7	4.5	39'-2"	1,405	1,605	0.618	3,628	531.16
11-12	7	4.5	38'-8"	6	12	39'-2"	5	12	9'-2"	4	12	4'-3"	5	6	9'-2"	2'-7"	6'-7"	4	9	39'-2"	6	9	7'-11"	6	4.5	39'-2"	1,526	1,788	0.618	3,932	543.21
13-15	7	4.5	38'-8"	5	9	39'-2"	5	9	10'-5"	4	9	4'-5"	4	6	9'-4"	2'-9"	6'-9"	5	12	39'-2"	7	12	8'-2"	7	4.5	39'-2"	1,706	1,971	0.618	4,295	549.47
16-17	6	4.5	38'-8"	5	9	39'-2"	5	9	11'-0"	4	9	4'-7"	4	6	9'-5"	2'-7"	6'-10"	5	12	39'-2"	7	12	8'-3"	7	4.5	39'-2"	1,827	2,093	0.618	4,538	564.34
18-19	6	4.5	38'-8"	5	9	39'-2"	5	9	11'-2"	4	9	3'-3"	4	6	9'-6"	2'-7"	6'-11"	5	9	39'-2"	6	9	8'-6"	6	4.5	39'-2"	1,947	2,215	0.618	4,780	572.29
20-21	6	4.5	38'-8"	5	9	39'-2"	5	9	11'-9"	4	9	3'-7"	4	6	9'-8"	2'-8"	7'-0"	5	12	39'-2"	7	12	8'-8"	7	4.5	39'-2"	2,067	2,398	0.618	5,083	568.47
22-23	6	4.5	38'-8"	6	12	39'-2"	6	12	11'-10"	4	12	3'-5"	4	6	9'-10"	2'-9"	7'-1"	5	9	39'-2"	6	9	8'-11"	6	4.5	39'-2"	2,248	2,520	0.618	5,386	591.74
24-25	6	4.5	38'-8"	6	12	39'-2"	6	12	12'-0"	4	12	3'-3"	4	6	10'-1"	2'-10"	7'-3"	5	9	39'-2"	6	9	9'-1"	6	4.5	39'-2"	2,428	2,703	0.618	5,749	618.16

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Standard Design

## Triple Reinforced Concrete Box Culverts

July, 2020

TRRCB 12-6-20

Culvert Barrel Details

12' x 6' Barrel Sections

TRRCB 12-6-20