

### 3 @ 16 x 9 REINFORCED CONCRETE SLAB BRIDGE

| Fill Height ft. | Dimensions |        |        |        | Bars TST |     |             |            | Bars TSB |     |             |            | Bars EWE |     |             |            | Bars EWI |     |             |            | Bars IW |     |             |            | Concrete CY/LF | Reinf. Steel LB/LF |   |   |      |      |      |     |
|-----------------|------------|--------|--------|--------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|---------|-----|-------------|------------|----------------|--------------------|---|---|------|------|------|-----|
|                 | ST in.     | WT in. | IT in. | BW ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size    | No. | Spacing in. | Length ft. |                |                    |   |   |      |      |      |     |
|                 |            |        |        |        |          |     |             |            |          |     |             |            |          |     |             |            |          |     |             |            |         |     |             |            |                |                    |   |   |      |      |      |     |
| No Fill         | 11.5       | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 4        | 2   | 12          | 7.50       | 5        | 2   | 12          | 7.50       | 4       | 4   | 12          | 7.50       | 118            | 48                 | 4 | 4 | 1.67 | 1.67 | 2.72 | 707 |
| 3               | 15         | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 4        | 2   | 12          | 7.50       | 5        | 2   | 12          | 7.50       | 4       | 4   | 12          | 7.50       | 118            | 48                 | 4 | 4 | 1.67 | 1.67 | 3.26 | 707 |
| 5               | 15         | 8      | 8      | 50.67  | 8        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 4        | 2   | 12          | 7.50       | 5        | 2   | 12          | 7.50       | 4       | 4   | 12          | 7.50       | 168            | 0                  | 4 | 4 | 1.67 | 1.67 | 3.26 | 753 |
| 10              | 18         | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 4        | 2   | 12          | 7.50       | 5        | 2   | 12          | 7.50       | 4       | 4   | 12          | 7.50       | 168            | 0                  | 4 | 4 | 1.67 | 1.67 | 3.73 | 697 |
| 20              | 19         | 8      | 8      | 50.67  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 50.17      | 4        | 2   | 12          | 7.50       | 7        | 2   | 12          | 7.50       | 5       | 4   | 12          | 7.50       | 168            | 0                  | 4 | 4 | 1.67 | 1.67 | 3.89 | 771 |
| 30              | 26         | 10     | 8      | 51.00  | 4        | 3   | 12          | 16.66      | 9        | 2   | 6           | 50.50      | 4        | 2   | 12          | 7.50       | 6        | 2   | 12          | 7.50       | 4       | 8   | 6           | 7.50       | 170            | 0                  | 4 | 4 | 1.83 | 1.67 | 5.12 | 685 |
| 40              | 32         | 11     | 8      | 51.17  | 4        | 3   | 12          | 16.66      | 9        | 2   | 6           | 50.67      | 4        | 2   | 12          | 7.50       | 6        | 2   | 12          | 7.50       | 7       | 4   | 12          | 7.50       | 170            | 0                  | 4 | 4 | 1.92 | 1.67 | 6.14 | 708 |
| 50              | 37         | 12     | 8      | 51.33  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 50.83      | 4        | 2   | 12          | 7.50       | 5        | 2   | 12          | 7.50       | 6       | 8   | 6           | 7.50       | 170            | 0                  | 4 | 4 | 2.00 | 1.67 | 7.00 | 823 |
| 60              | 41         | 13     | 8      | 51.50  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 51.00      | 4        | 2   | 12          | 7.50       | 5        | 2   | 12          | 7.50       | 6       | 8   | 6           | 7.50       | 170            | 0                  | 4 | 4 | 2.08 | 1.67 | 7.71 | 824 |

### 3 @ 16 x 10 REINFORCED CONCRETE SLAB BRIDGE

| Fill Height ft. | Dimensions |        |        |        | Bars TST |     |             |            | Bars TSB |     |             |            | Bars EWE |     |             |            | Bars EWI |     |             |            | Bars IW |     |             |            | Concrete CY/LF | Reinf. Steel LB/LF |   |   |      |      |      |     |
|-----------------|------------|--------|--------|--------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|---------|-----|-------------|------------|----------------|--------------------|---|---|------|------|------|-----|
|                 | ST in.     | WT in. | IT in. | BW ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size    | No. | Spacing in. | Length ft. |                |                    |   |   |      |      |      |     |
|                 |            |        |        |        |          |     |             |            |          |     |             |            |          |     |             |            |          |     |             |            |         |     |             |            |                |                    |   |   |      |      |      |     |
| No Fill         | 11.5       | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 4        | 2   | 12          | 8.50       | 5        | 2   | 12          | 8.50       | 4       | 4   | 12          | 8.50       | 126            | 48                 | 4 | 4 | 1.67 | 1.67 | 2.79 | 718 |
| 3               | 15         | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 4        | 2   | 12          | 8.50       | 5        | 2   | 12          | 8.50       | 4       | 4   | 12          | 8.50       | 126            | 48                 | 4 | 4 | 1.67 | 1.67 | 3.34 | 718 |
| 5               | 15         | 8      | 8      | 50.67  | 8        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 4        | 2   | 12          | 8.50       | 6        | 2   | 12          | 8.50       | 4       | 4   | 12          | 8.50       | 176            | 0                  | 4 | 4 | 1.67 | 1.67 | 3.34 | 772 |
| 10              | 18         | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 4        | 2   | 12          | 8.50       | 5        | 2   | 12          | 8.50       | 4       | 4   | 12          | 8.50       | 176            | 0                  | 4 | 4 | 1.67 | 1.67 | 3.81 | 719 |
| 20              | 19         | 9      | 8      | 50.83  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 50.33      | 4        | 2   | 12          | 8.50       | 6        | 4   | 6           | 8.50       | 5       | 4   | 12          | 8.50       | 176            | 0                  | 4 | 4 | 1.75 | 1.67 | 4.03 | 804 |
| 30              | 26         | 11     | 8      | 51.17  | 4        | 3   | 12          | 16.66      | 9        | 2   | 6           | 50.67      | 4        | 2   | 12          | 8.50       | 7        | 2   | 12          | 8.50       | 4       | 8   | 6           | 8.50       | 178            | 0                  | 4 | 4 | 1.92 | 1.67 | 5.28 | 711 |
| 40              | 32         | 12     | 8      | 51.33  | 4        | 3   | 12          | 16.66      | 9        | 2   | 6           | 50.83      | 4        | 2   | 12          | 8.50       | 5        | 4   | 6           | 8.50       | 7       | 4   | 12          | 8.50       | 178            | 0                  | 4 | 4 | 2.00 | 1.67 | 6.31 | 737 |
| 50              | 37         | 14     | 8      | 51.67  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 51.17      | 4        | 2   | 12          | 8.50       | 6        | 2   | 12          | 8.50       | 6       | 8   | 6           | 8.50       | 178            | 0                  | 4 | 4 | 2.17 | 1.67 | 7.26 | 854 |
| 60              | 41         | 15     | 8      | 51.83  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 51.33      | 4        | 2   | 12          | 8.50       | 6        | 2   | 12          | 8.50       | 6       | 8   | 6           | 8.50       | 178            | 0                  | 4 | 4 | 2.25 | 1.67 | 7.98 | 856 |

### 3 @ 16 x 11 REINFORCED CONCRETE SLAB BRIDGE

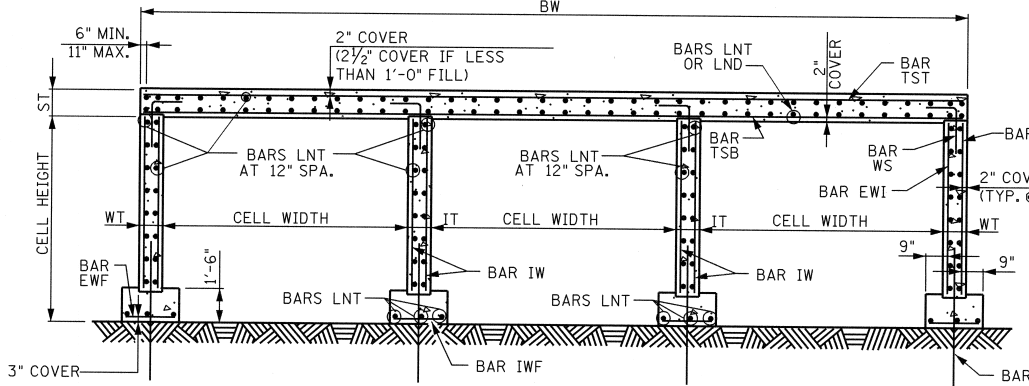
| Fill Height ft. | Dimensions |        |        |        | Bars TST |     |             |            | Bars TSB |     |             |            | Bars EWE |     |             |            | Bars EWI |     |             |            | Bars IW |     |             |            | Concrete CY/LF | Reinf. Steel LB/LF |   |   |      |      |      |     |
|-----------------|------------|--------|--------|--------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|---------|-----|-------------|------------|----------------|--------------------|---|---|------|------|------|-----|
|                 | ST in.     | WT in. | IT in. | BW ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size    | No. | Spacing in. | Length ft. |                |                    |   |   |      |      |      |     |
|                 |            |        |        |        |          |     |             |            |          |     |             |            |          |     |             |            |          |     |             |            |         |     |             |            |                |                    |   |   |      |      |      |     |
| No Fill         | 11.5       | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 4        | 2   | 12          | 9.50       | 5        | 2   | 12          | 9.50       | 4       | 4   | 12          | 9.50       | 134            | 48                 | 4 | 4 | 1.67 | 1.67 | 2.86 | 730 |
| 3               | 15         | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 4        | 2   | 12          | 9.50       | 6        | 2   | 12          | 9.50       | 4       | 4   | 12          | 9.50       | 134            | 48                 | 4 | 4 | 1.67 | 1.67 | 3.41 | 738 |
| 5               | 15         | 8      | 8      | 50.67  | 8        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 4        | 2   | 12          | 9.50       | 5        | 4   | 6           | 9.50       | 4       | 4   | 12          | 9.50       | 184            | 0                  | 4 | 4 | 1.67 | 1.67 | 3.41 | 796 |
| 10              | 18         | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 4        | 2   | 12          | 9.50       | 7        | 4   | 6           | 9.50       | 4       | 4   | 12          | 9.50       | 184            | 0                  | 4 | 4 | 1.67 | 1.67 | 3.88 | 771 |
| 20              | 19         | 10     | 8      | 51.00  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 50.50      | 4        | 2   | 12          | 9.50       | 7        | 4   | 6           | 9.50       | 5       | 4   | 12          | 9.50       | 186            | 0                  | 4 | 4 | 1.83 | 1.67 | 4.19 | 844 |
| 30              | 26         | 12     | 8      | 51.33  | 4        | 3   | 12          | 16.66      | 9        | 2   | 6           | 50.83      | 4        | 2   | 12          | 9.50       | 6        | 4   | 6           | 9.50       | 4       | 8   | 6           | 9.50       | 186            | 0                  | 4 | 4 | 2.00 | 1.67 | 5.46 | 746 |
| 40              | 32         | 13     | 8      | 51.50  | 4        | 3   | 12          | 16.66      | 9        | 2   | 6           | 51.00      | 4        | 2   | 12          | 9.50       | 6        | 4   | 6           | 9.50       | 7       | 4   | 12          | 9.50       | 186            | 0                  | 4 | 4 | 2.08 | 1.67 | 6.49 | 774 |
| 50              | 37         | 15     | 8      | 51.83  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 51.33      | 4        | 2   | 12          | 9.50       | 6        | 4   | 6           | 9.50       | 6       | 8   | 6           | 9.50       | 186            | 0                  | 4 | 4 | 2.25 | 1.67 | 7.46 | 906 |
| 60              | 41         | 16     | 9      | 52.17  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 51.67      | 4        | 2   | 12          | 9.50       | 6        | 4   | 6           | 9.50       | 5       | 8   | 6           | 9.50       | 188            | 0                  | 4 | 4 | 2.33 | 1.75 | 8.24 | 876 |

### 3 @ 16 x 12 REINFORCED CONCRETE SLAB BRIDGE

| Fill Height ft. | Dimensions |        |        |        | Bars TST |     |             |            | Bars TSB |     |             |            | Bars EWE |     |             |            | Bars EWI |     |             |            | Bars IW |     |             |            | Concrete CY/LF | Reinf. Steel LB/LF |   |   |      |      |      |     |
|-----------------|------------|--------|--------|--------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|---------|-----|-------------|------------|----------------|--------------------|---|---|------|------|------|-----|
|                 | ST in.     | WT in. | IT in. | BW ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size    | No. | Spacing in. | Length ft. |                |                    |   |   |      |      |      |     |
|                 |            |        |        |        |          |     |             |            |          |     |             |            |          |     |             |            |          |     |             |            |         |     |             |            |                |                    |   |   |      |      |      |     |
| No Fill         | 11.5       | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 4        | 2   | 12          | 10.50      | 6        | 2   | 12          | 10.50      | 4       | 4   | 12          | 10.50      | 142            | 48                 | 4 | 4 | 1.67 | 1.67 | 2.94 | 751 |
| 3               | 15         | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 4        | 2   | 12          | 10.50      | 5        | 4   | 6           | 10.50      | 4       | 4   | 12          | 10.50      | 142            | 48                 | 4 | 4 | 1.67 | 1.67 | 3.48 | 763 |
| 5               | 15         | 8      | 8      | 50.67  | 8        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 4        | 2   | 12          | 10.50      | 6        | 4   | 6           | 10.50      | 4       | 4   | 12          | 10.50      | 192            | 0                  | 4 | 4 | 1.67 | 1.67 | 3.48 | 828 |
| 10              | 18         | 9      | 8      | 50.83  | 7        | 2   | 6           | 50.33      | 7        | 2   | 6           | 50.33      | 4        | 2   | 12          | 10.50      | 7        | 4   | 6           | 10.50      | 4       | 4   | 12          | 10.50      | 192            | 0                  | 4 | 4 | 1.75 | 1.67 | 4.04 | 790 |
| 20              | 19         | 11     | 8      | 51.17  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 50.67      | 4        | 2   | 12          | 10.50      | 7        | 4   | 6           | 10.50      | 5       | 4   | 12          | 10.50      | 194            | 0                  | 4 | 4 | 1.92 | 1.67 | 4.36 | 865 |
| 30              | 26         | 13     | 8      | 51.50  | 4        | 3   | 12          | 16.66      | 9        | 2   | 6           | 51.00      | 4        | 2   | 12          | 10.50      | 7        | 4   | 6           | 10.50      | 4       | 8   | 6           | 10.50      | 194            | 0                  | 4 | 4 | 2.08 | 1.67 | 5.64 | 788 |
| 40              | 32         | 15     | 8      | 51.83  | 4        | 3   | 12          | 16.66      | 9        | 2   | 6           | 51.33      | 4        | 2   | 12          | 10.50      | 6        | 4   | 6           | 10.50      | 7       | 4   | 12          | 10.50      | 194            | 0                  | 4 | 4 | 2.25 | 1.67 | 6.78 | 798 |
| 50              | 37         | 17     | 8      | 52.17  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 51.67      | 4        | 2   | 12          | 10.50      | 6        | 4   | 6           | 10.50      | 6       | 8   | 6           | 10.50      | 196            | 0                  | 4 | 4 | 2.42 | 1.67 | 7.76 | 935 |
| 60              | 41         | 18     | 9      | 52.50  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 52.00      | 4        | 2   | 12          | 10.50      | 6        | 4   | 6           | 10.50      | 5       | 8   | 6           | 10.50      | 196            | 0                  | 4 | 4 | 2.50 | 1.75 | 8.56 | 900 |

Note: Maximum fill height is measured from the bottom of the top slab. To obtain the total fill height from the flow line, add the height of the box.  
 Note: When height of fill above the top slab is less than 1 foot, the top mat of reinforcing in the top slab shall be constructed with 2-1/2 inches of concrete cover.

The following bar information applies to all fill cases in the tables above:  
 Bars LNT Size = 4 Spacing = 12 in.  
 Bars LND Size = 5 Spacing = 12 in.  
 Bars WS Size = 8 Length = 5.00 ft. Spacing = 12 in.  
 Bars WF Size = 8 Length = 6.00 ft. Spacing = 12 in.  
 Bars IW Size = 4 No. = 2 Spacing = 12 in.  
 Bars EWF Size = 4 No. = 2 Spacing = 12 in.



NOTE: FOR DESCRIPTIONS OF BOX DIMENSIONS AND REINFORCING BAR DESIGNATIONS SEE STANDARD DRAWING NO. STD-17-5.

STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
**STANDARD REINFORCED CONCRETE  
 SLAB BRIDGE**  
 INTERIOR SECTION  
 SPANS: 3 BARRELS AT 16'-0"  
 CLEAR HEIGHTS 9'-0" THRU 12'-0"  
 0' THRU 60' FILL  
 2010

CORRECT *Edward P. Wasserman*  
 ENGINEER OF STRUCTURES

|               |                |      |       |
|---------------|----------------|------|-------|
| DESIGNED BY   | RLL/ALP        | DATE | 12-09 |
| DRAWN BY      | KEVIN MARTINKO | DATE | 1-10  |
| SUPERVISED BY | EPW/RLC        | DATE | 12-09 |
| CHECKED BY    | RLL/ALP        | DATE | 2-10  |