The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

For vehicle safety, the following requirements must be met:
- For structures without bridge rail, construct curbs no more than 3' above finished grade.
- For structures with bridge rail, construct curbs flush with finished grade. Reduce curb heights, if necessary, to meet the above requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.

For curbs less than 7'-0" high, tilt Bars K or reduce bar height as necessary to maintain cover. For curbs less than 3'-0" high, Bars K may be omitted.

1'-0" typical. 2'-3" when the Rail Anchor Curb (RAC) standard sheet is referred to elsewhere in the plans.

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The Contractor may replace Bars B, C, E, F, F1, F2, H, I, and/or Z with deformed welded wire reinforcement (WWR) meeting the requirements of ASTM A1064. The area of required reinforcement may be reduced by the ratios of 60 ksi / 70 ksi. Spacing of WWR is limited to 4" Min and 18" Max. When required, provide lap splices in the WWR of the same length required for the equivalent bar size, rounded up for wire sizes between conventional bar sizes. The lap length required for WWR is never less than the lap length required for the provided D30.6 wire. The required spacing = (0.44 sq. in. per 0.5 ft) x (60 ksi / 70 ksi) = 0.755 sq. in. per ft. (D30.6 wire is used to meet the 0.755 sq. in. per ft. requirement. In this example, the required spacing = 0.308 sq. in. / 0.755 sq. in. per ft / 1.524 ft = 0.486" Max spacing. Required lap length for the provided D30.6 wire is rounded up for wire sizes between conventional bar sizes. Minimum lap length required for WWR is never less than the lap length required for uncoated #4 bars.

Example conversion: Replacing No. 6 Gr 60 at 6" Spacing with WWR

Required WWR = (0.44 sq. in. per 0.5 ft) x (60 ksi / 70 ksi) / 0.755 sq. in. per ft. (D30.6 wire is used to meet the 0.755 sq. in. per ft. requirement. In this example, the required spacing = 0.308 sq. in. / 0.755 sq. in. per ft / 1.524 ft = 0.486" Max spacing. Required lap length for the provided D30.6 wire is rounded up for wire sizes between conventional bar sizes. Minimum lap length required for WWR is never less than the lap length required for uncoated #4 bars.

CONSTRUCTION NOTES:
- Do not use permanent forms.
- Chamfer the bottom edge of the top slab 3" at the entrance.
- Optimize construction joints shown at the flow line by a maximum of 6". If this option is taken, Bars Y may be cut off or raised. Bars C and D may be reversed, and Bars F and Z may be reversed.

MATERIAL NOTES:
- Provide Grade #2 reinforcing steel.
- Provide galvanized reinforcing steel if required elsewhere in the plans.
- Provide Grade D10 concrete (F = 3,000 psi) for curbs, curbs, and sections. Provide bar laps, where required, as follows:
  - Uncored or galvanized = #4 = 2'-0" Min
  - Uncored or galvanized = #5 = 2'-1" Min
  - Uncored or galvanized = #6 = 2'-2" Min

GENERAL NOTES:
- Designed according to ASCE/LSMO A.S. Bridge Design Specifications for the range of fill heights shown.
- See the Multiple Box Culverts Cast-In-Place Miscellaneous Details (MC-MD) standard sheet for details pertaining to keyed ends, angle sections, and lengthening.

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### Section Dimensions

![Diagram showing section dimensions with tables for various lengths and sizes of reinforcing steel.]

### Bills of Reinforcing Steel (Per Box Length = 40 feet)

<table>
<thead>
<tr>
<th>Size</th>
<th>Spacing</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>338</td>
<td>10</td>
</tr>
<tr>
<td>26</td>
<td>439</td>
<td>10</td>
</tr>
<tr>
<td>35</td>
<td>439</td>
<td>10</td>
</tr>
</tbody>
</table>

### Quantiites

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,585</td>
<td>Length</td>
</tr>
<tr>
<td>9,652</td>
<td>Length</td>
</tr>
<tr>
<td>6,589</td>
<td>Length</td>
</tr>
</tbody>
</table>

**Notes:**
- Bars #6 over 60' include one bar lap; refer to MATERIAL NOTES for minimum lap lengths.
- The weight values include the weight of end anchorages.