The EPG has been updated as described below:

**Implementation Statement: N/A**

<table>
<thead>
<tr>
<th>Revision Date</th>
<th>Items Revised</th>
<th>Description of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 2020</td>
<td>EPG: 751.6.2.17</td>
<td>Guidelines for calculating excavation quantities have been brought up to date!</td>
</tr>
<tr>
<td></td>
<td>Standard Drawings:</td>
<td></td>
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<tr>
<td></td>
<td>NA</td>
<td>Also added guidance for accounting for skew of spill slope when calculating wing excavation (see below).</td>
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<tr>
<td></td>
<td>MicroStation Cells:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NA</td>
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<tr>
<td></td>
<td>Std. Specifications:</td>
<td></td>
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<tr>
<td></td>
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<tr>
<td></td>
<td>Standard Plans:</td>
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<td></td>
<td>NA</td>
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</tbody>
</table>

Follow links above for more information, or to view more details about this (or any) revision, use the Revision Index Database.

Instructions:

1. Select the Revision Index Database.
2. Select “Read Only” and Click “O.K.”
3. Under Tables (left-hand side) double-click on Table1.
4. Scroll down to the bottom of the list to find the latest Revision.
5. Click on the link under the Effective Date to open the storage location for the Completed Revision.
Excavation Limits: Bridges

The following figures graphically show the excavation limits for various substructure types. The effects of skew on the fill slope ($H:V$) should be considered in determining excavation quantities at end bents.

\[
H_b = \frac{H}{\cos \theta}
\]

Where:
- $H:V$ = horizontal:vertical components of fill slope (Normal)
- $H_b$ = horizontal component of the fill slope parallel to centerline of roadway with $V = 1$
- $H$ = horizontal component of the fill slope normal to centerline of bent with $V = 1$
- $\theta$ = end bent skew angle

Excavation Limits: Integral End Bent (Case I)

Debbie M. Beckwith
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