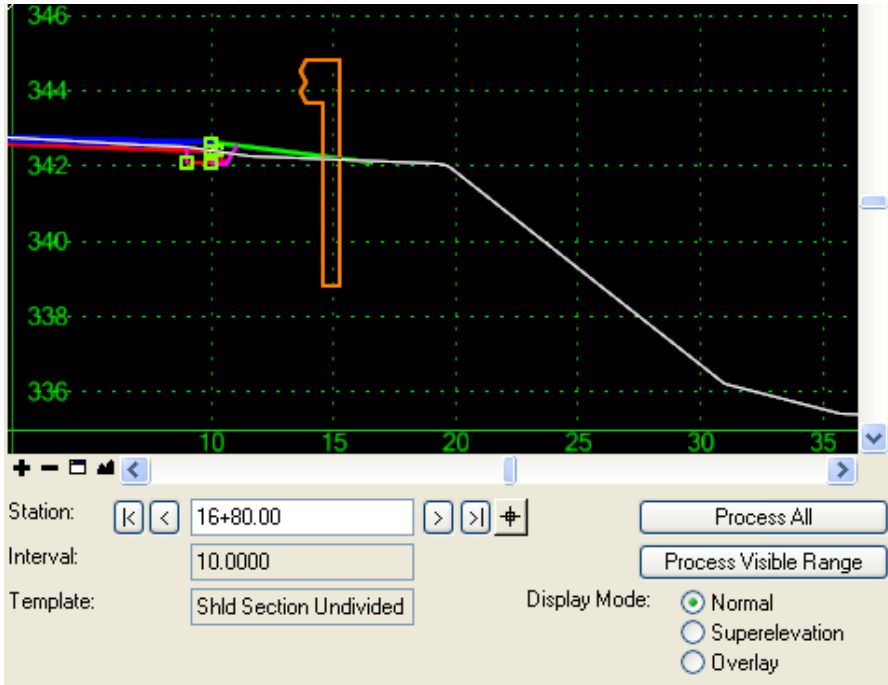


2_6 INDETERMINATE END CONDITIONS

Question:

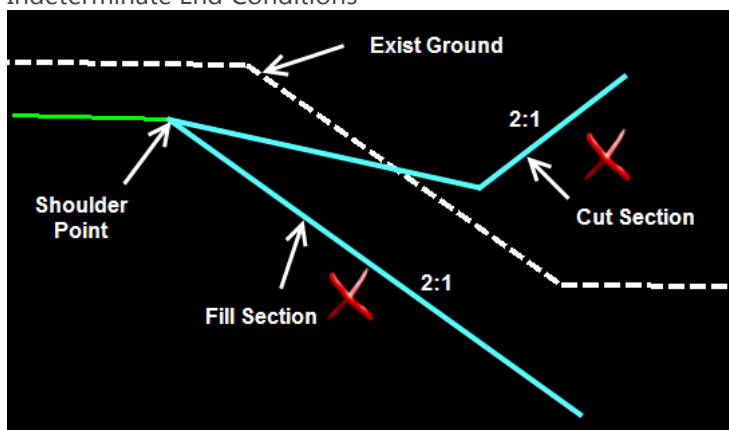
The side slopes are not drawn in some cross sections. What can be the cause?



Answer:

The issue is with the end conditions, specifically not being able to form a cut or fill slope base on the existing terrain. Each EC has a set of parameter constraints, such as fill slope 2:1 for infinity, ditch slope 4:1 for 8', and cut slope 2:1 for infinity. When applying these parameters to an existing ground surface, usually a cut or fill slope can be formed. However on a few occasions, neither a fill or cut slope can be determine base on the existing terrain. This is called "indeterminate end conditions".

Indeterminate End Conditions



A few ways to resolve indeterminate end conditions:

1. Vary the side slopes. When making the side slopes variable, a horizontal width must be set, e.g. variable from 6:1 to 2:1 at a set horizontal width of 10' of side slope.
2. Flatten the fill slope to 4:1 or 6:1 to intersect existing ground (parametric constraints).
3. Sometime it is possible to tie the proposed shoulder to existing ground and therefore not initiating any EC tests for cuts and fills. Tie Shoulder to Existing Ground Override
4. Make the end conditions target a specific existing DTM feature such as existing shoulder point, existing toe of fill, or existing ditch base/boundaries. Slope Stake Tie to Existing DTM Features

