7_1 TYPE I MEDIAN DITCH ENHANCEMENT

Question:
Can the capability to define a normal median slope be added to the existing Type I median ditch templates?

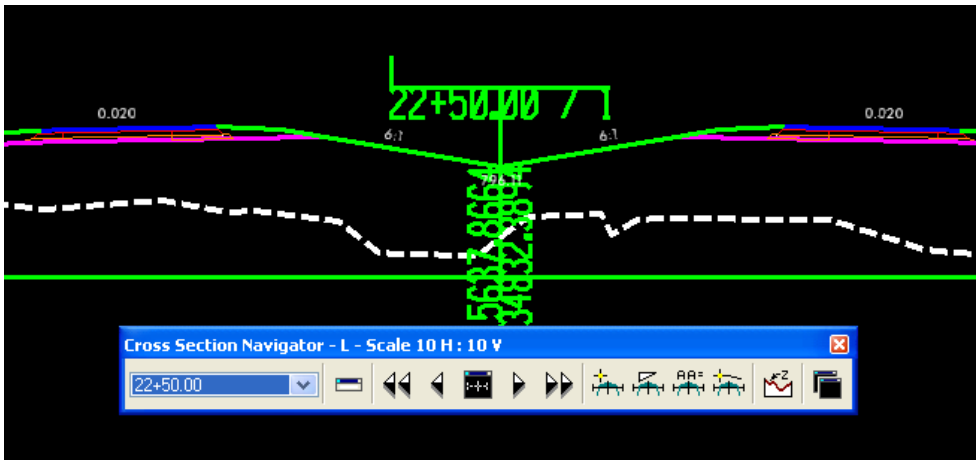
Answer:
Templates which uses Type I median ditch have been upgraded with this new feature. Remember that the Type I ditch point is located at the centerline and the median ditch slope is fixed on one side and varies on the other side depending on the high or low side of median shoulder. Type II median ditches have a fixed slope on both sides of the median, but the ditch point floats toward the low side of median shoulder.

Using a series of test null points, an advanced technique in template creation was devised to make this possible. First, two key parametric constraints were used.

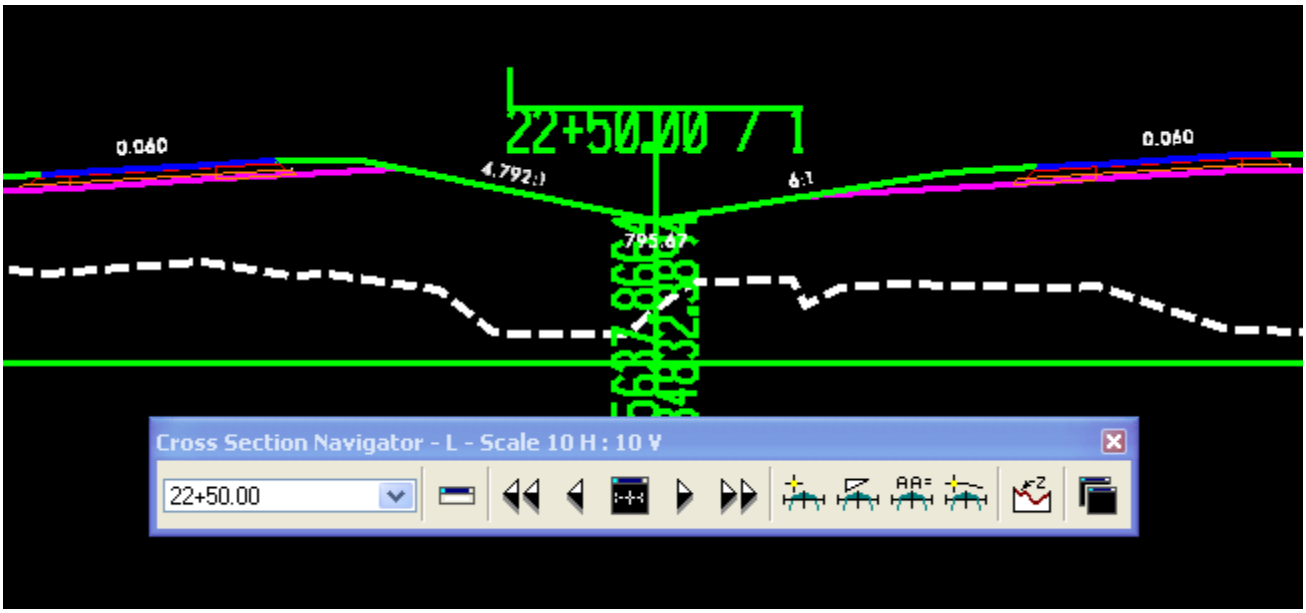
MD_Ditch Max Slope – Define the steepest possible median ditch slope (in the current templates). User re-definable - default is 25% (4:1).
MD_Ditch Slope – Define the normal median ditch slope (new). User re-definable - default is 16.6667% (6:1).

<u>Median Ditch Slope Rules</u>

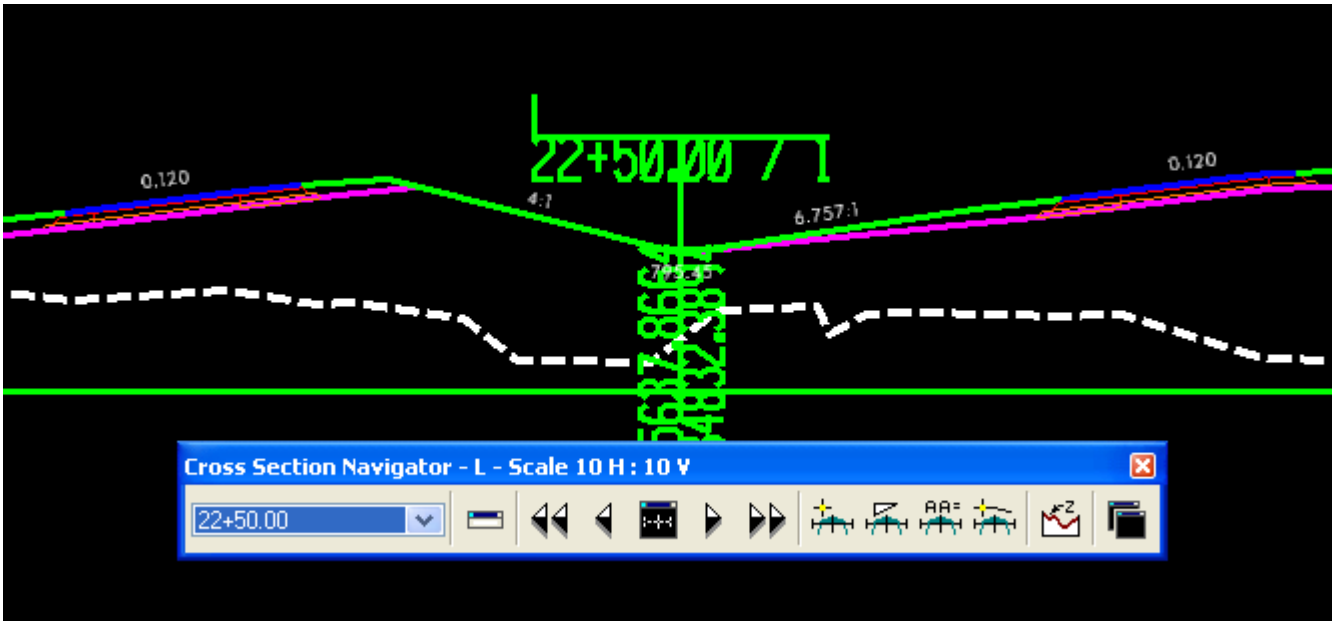
1. When the roadway pavement is at normal crown (both side of the median shoulders are equal in elevation), the defined normal median ditch slope is used.



2. In superelevation, the high side median shoulder is variable and steeper than the low side while the low side median shoulder is fixed at the defined normal ditch slope.



3. Once the defined maximum slope on the high side median shoulder is reached, the high side median shoulder will maintain the fixed maximum slope while the low side becomes variable and flatter.



Note: Extreme superelevation used for demonstration purpose only