## 18_05 Civil Cells for Single Bridges

Effective immediately with the next CONNECT workspace update.

A new civil cell has been added, to the DGNLIB, for placing single bridges on the plans. Initially it will be 2D and in time upgraded to 3D for the roadway models. This civil cell will be evaluated on how it can be used to solve key design issues, in Corridor Modeling, such as bridge skew and the slope protection at bridge piers.

In the DSN file, use the civil geometry command **Place Line by Angle from Element** using the feature definition "Bridge Civil Cell Limits". The exact stationing is not required, as this can be adjusted after placement. The skew angle is initially set to 90° and can be changed after placement.
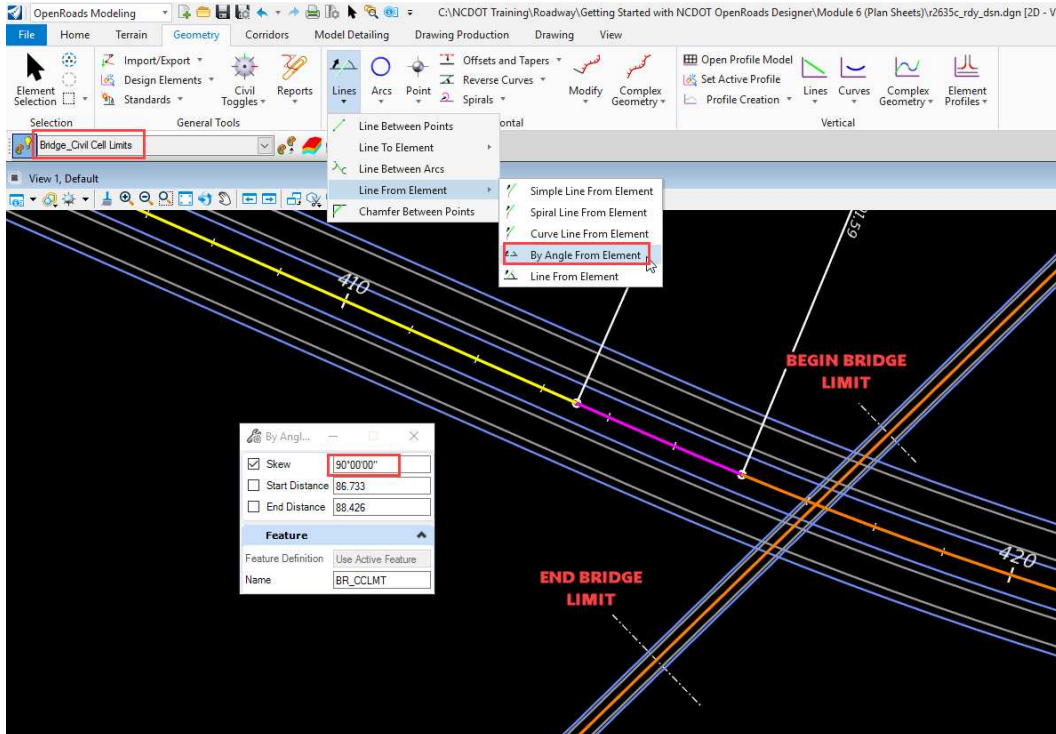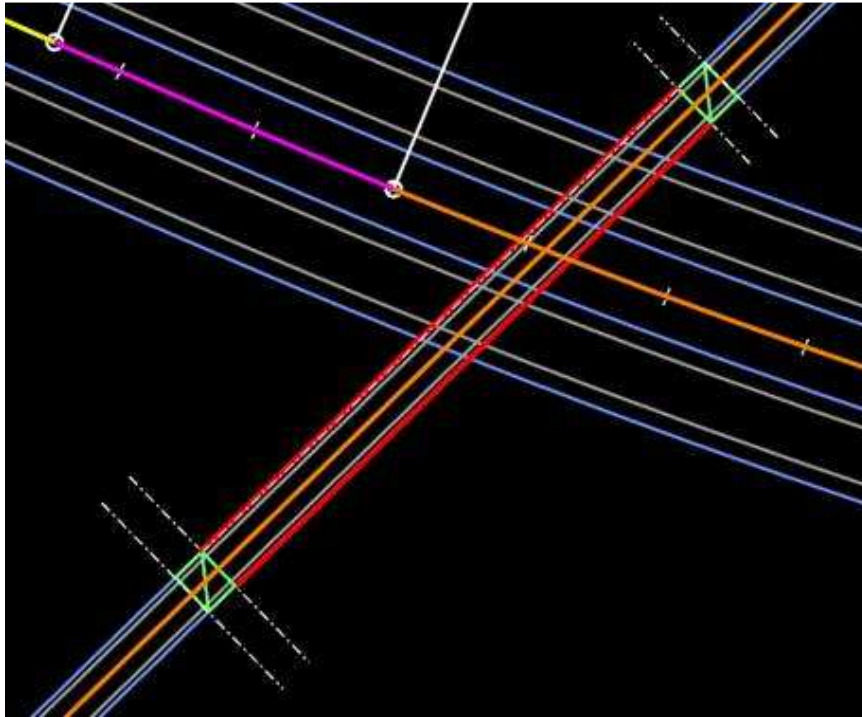

Place the **Bridge Single** civil cell.
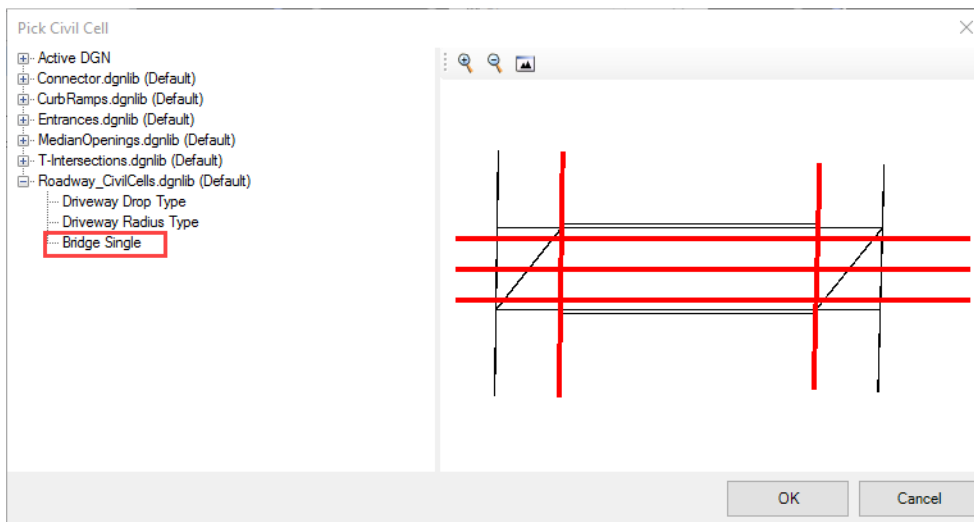
Five references are prompted to be selected onscreen in the following sequence:
- Bridge Begin Limit (1/5)
- Bridge End Limit (2/5)
- Road Centerline (3/5)
- Road EOT Right (4/5)
- Road EOT Left (5/5)

The referenced bridge limits are construction class elements, which will not be printed. Use them as civil geometry elements to change and adjust any of the bridge parameters.

To change the skew, use the bridge limit handle, at the end of the bridge, and keyin the desired value:
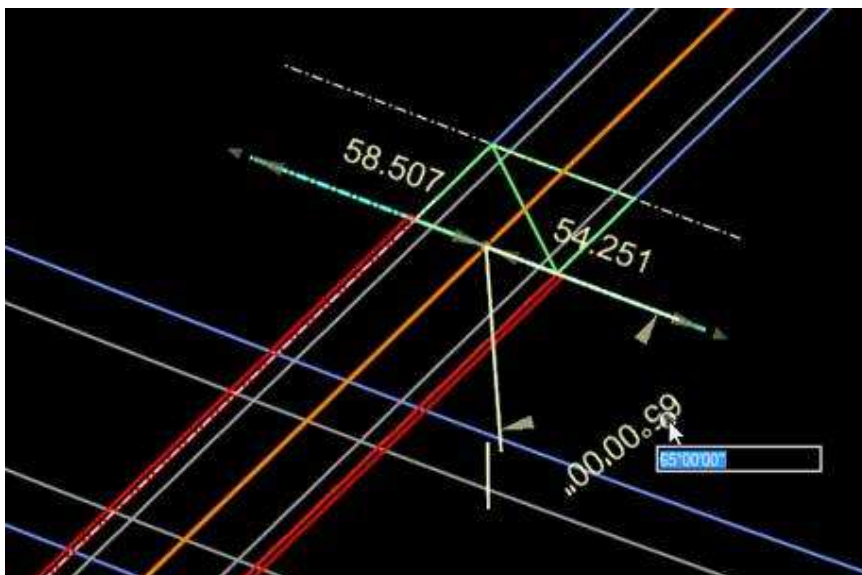
Use the handle at the middle, of the bridge, to move or slide the bridge limits up or down the centerline:
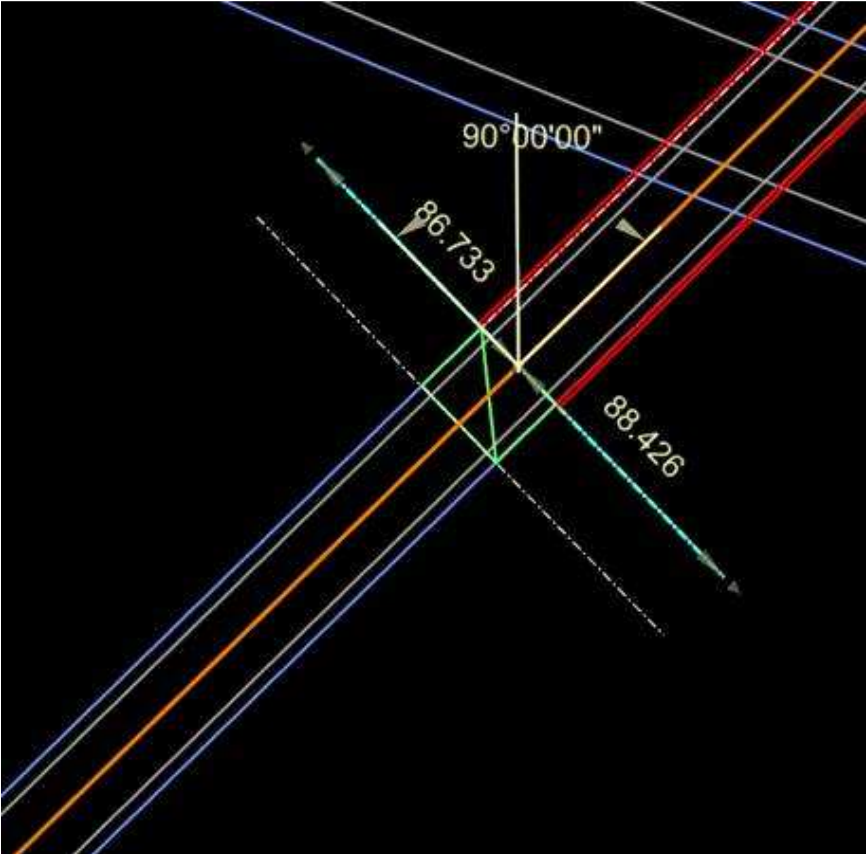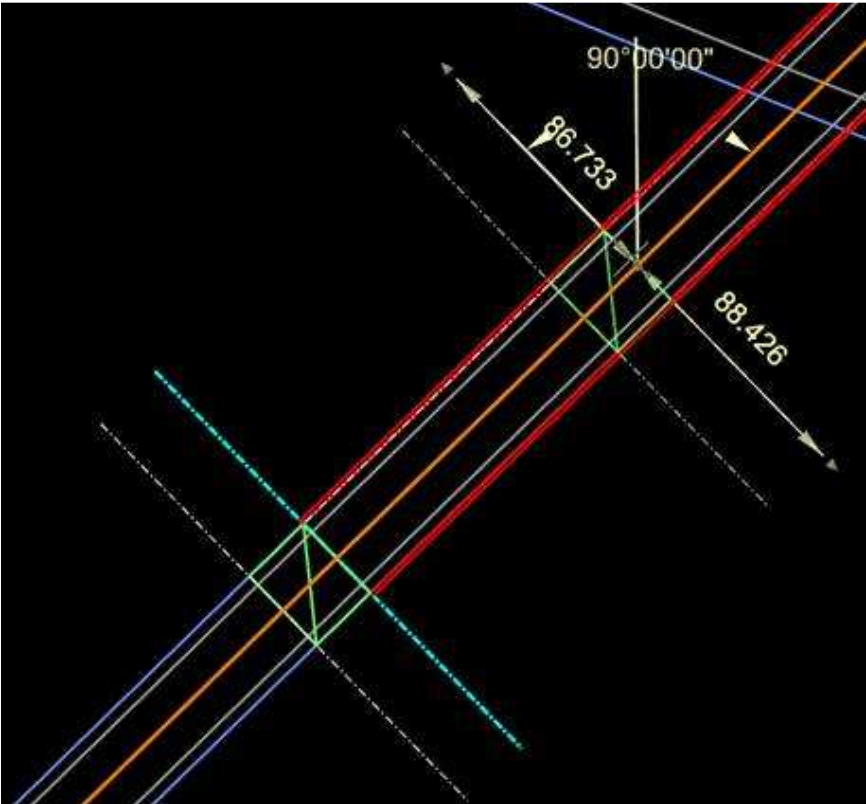
Use the handle at the middle, of the bridge, to adjust the rail offset from the EOT. The bridge civil cells are designed with a uniform rail offset, thus the middle handle is recommended. The handles at the ends will result in an error:
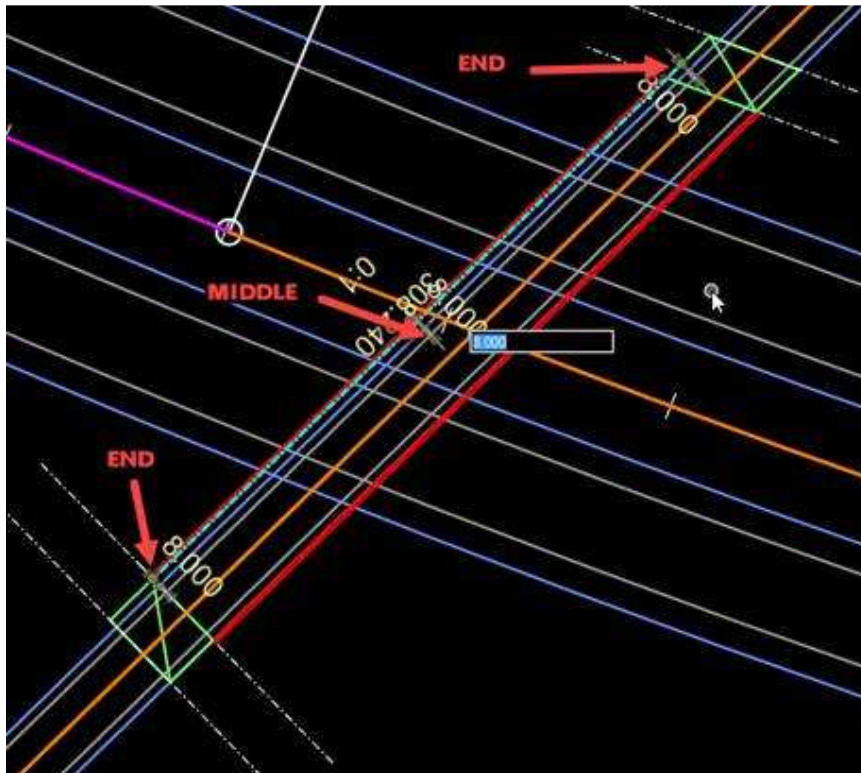
Currently, the paved shoulder lines (blue) are not automatically clipped. This can be done manually after placement. Currently, this civil cell can be used on projects with or without paved shoulders and with C&G. In time, this cell can be developed to automatically clip these elements.

Lastly there is a civil geometry handle, coinciding with the centerline, to control the length of the approach slabs. Use this to adjust the length of the approach slabs (default is 25').