

Understanding Design Model/View Integration



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Description

- In this session we will discuss the viewing integration used in FDOTSS4 OpenRoads Technology. The new Civil Modeling tools work harmoniously once a basic understanding is achieved.

VIEWS

- Plan,
- Profile,
- 3D,
- Cross Section.

Introducing the 3D design file in DSGNRD

- This is a big hurdle, conceptually!
- Most Civil Designers and Engineers have always used 2D CAD tools for Plan, Profile and Cross Sections
- OpenRoads integrates the three 2D drawing planes to make the 3D model for us!

FACT is

- You do not have to learn 3D CAD to get started!
- This is F.E.A.R. (False Evidence Appearing Real)

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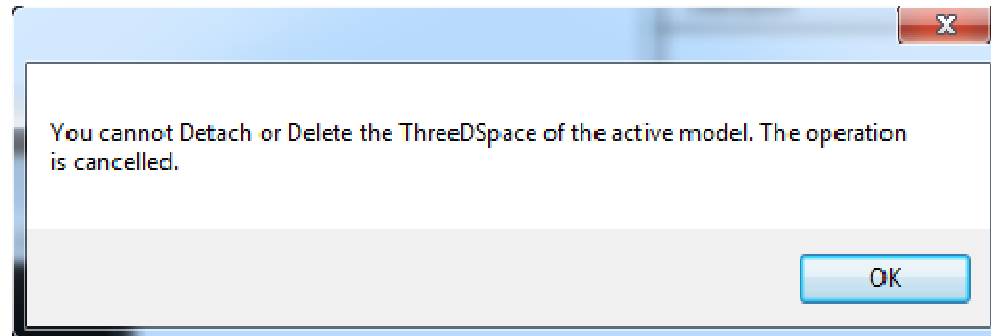
The Default-3D Model

This model is created in a 2D file when:

- A terrain model is attached as a reference file and set as active.
- A new terrain model is imported from a file
- A new profile is created for an alignment
- A profile is imported from a gpk file

It is a separate model with separate elements from the 2D file

- Only one Default-3D Model per design file!
- Cannot delete it
- And it should not be detached as reference file

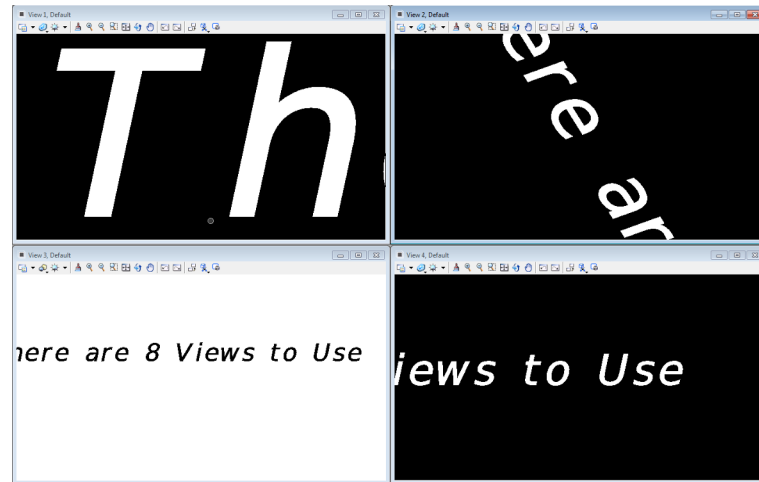


Views are dependent and Independent!

- There are 8 views to Use, so ... **use them!**

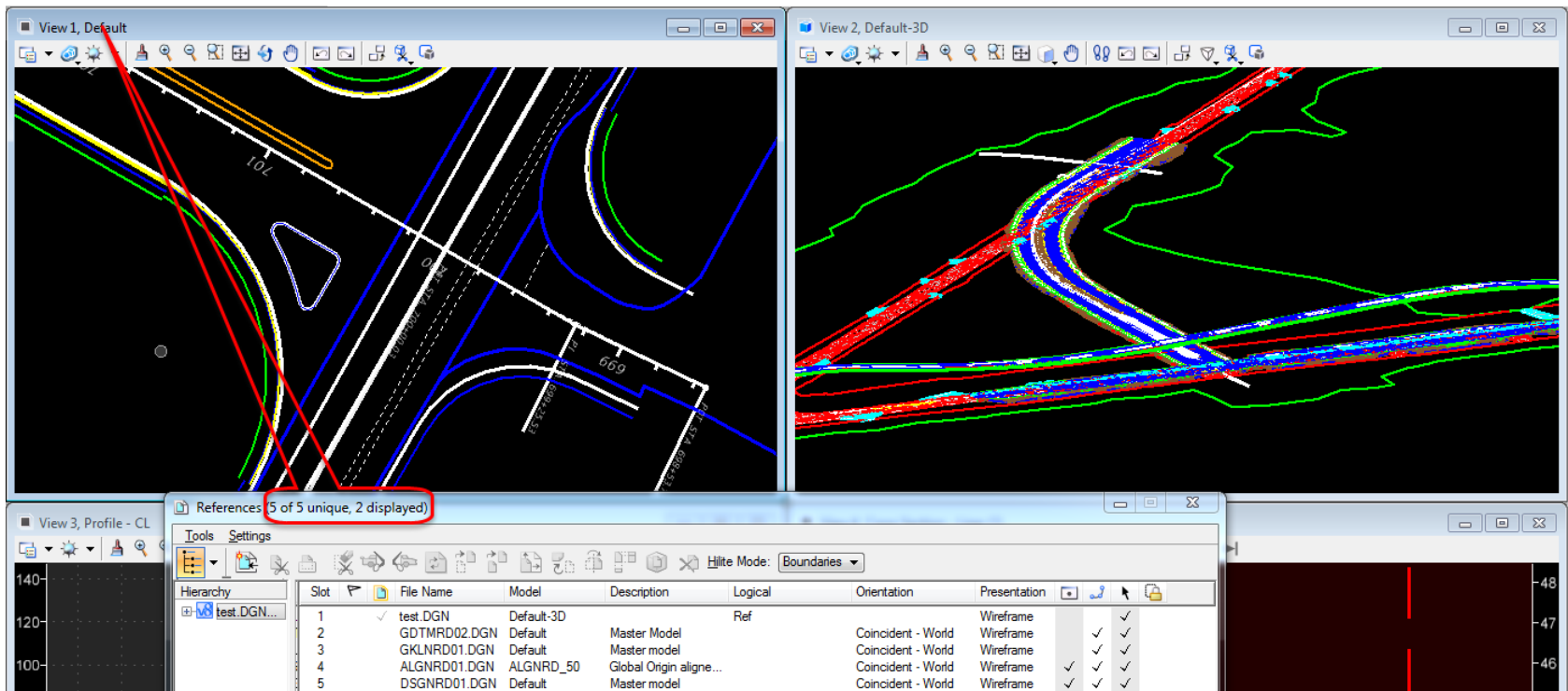
- Unique View Attributes

- Level display
- Model display
- Reference file display
- Rotation
- Display Styles
- Zoom level
- Etc.



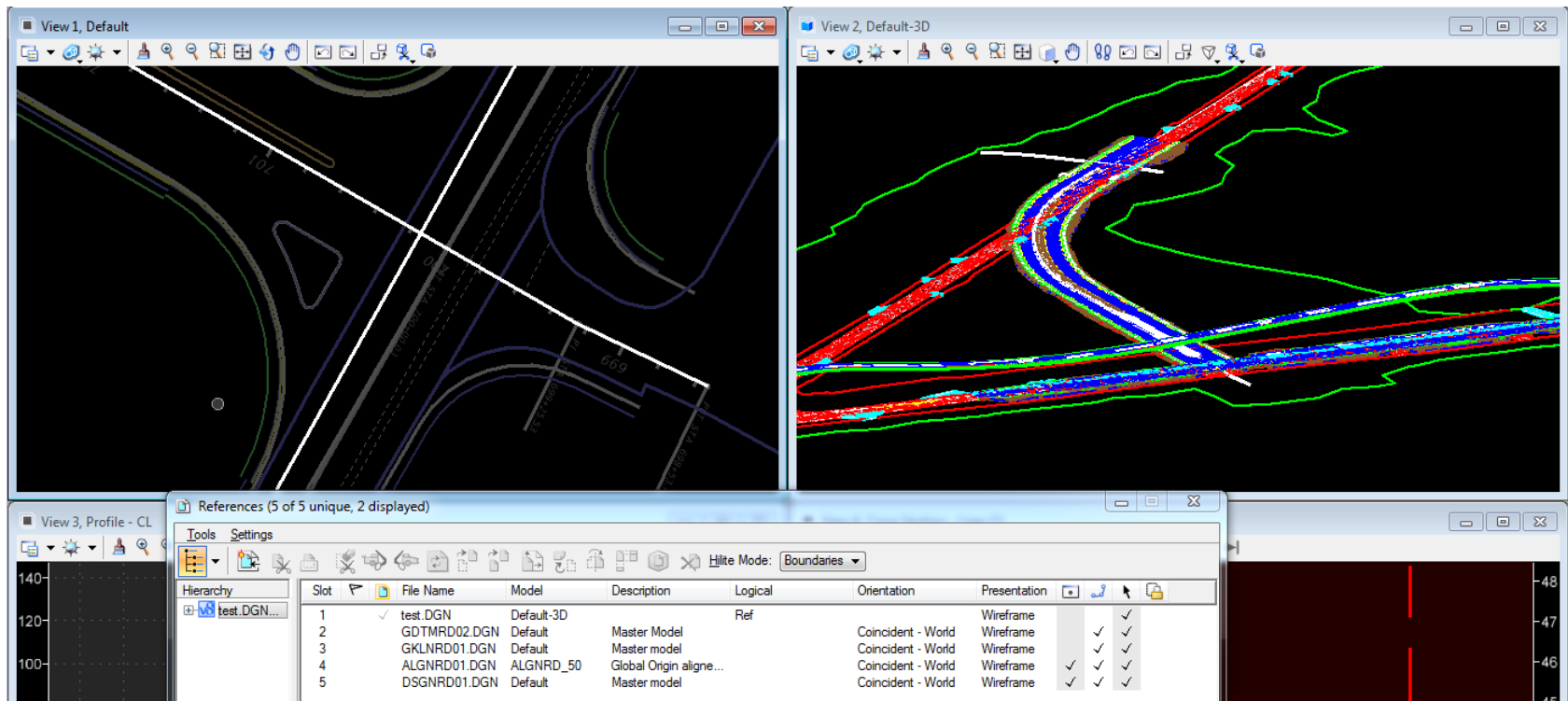
Referencing 2D and 3D files

- A 3D model or file can be referenced to a 2D model or file
- A 2D model or file can be referenced to a 3D model or file
- Take care to know what is displayed, F5 will dim References



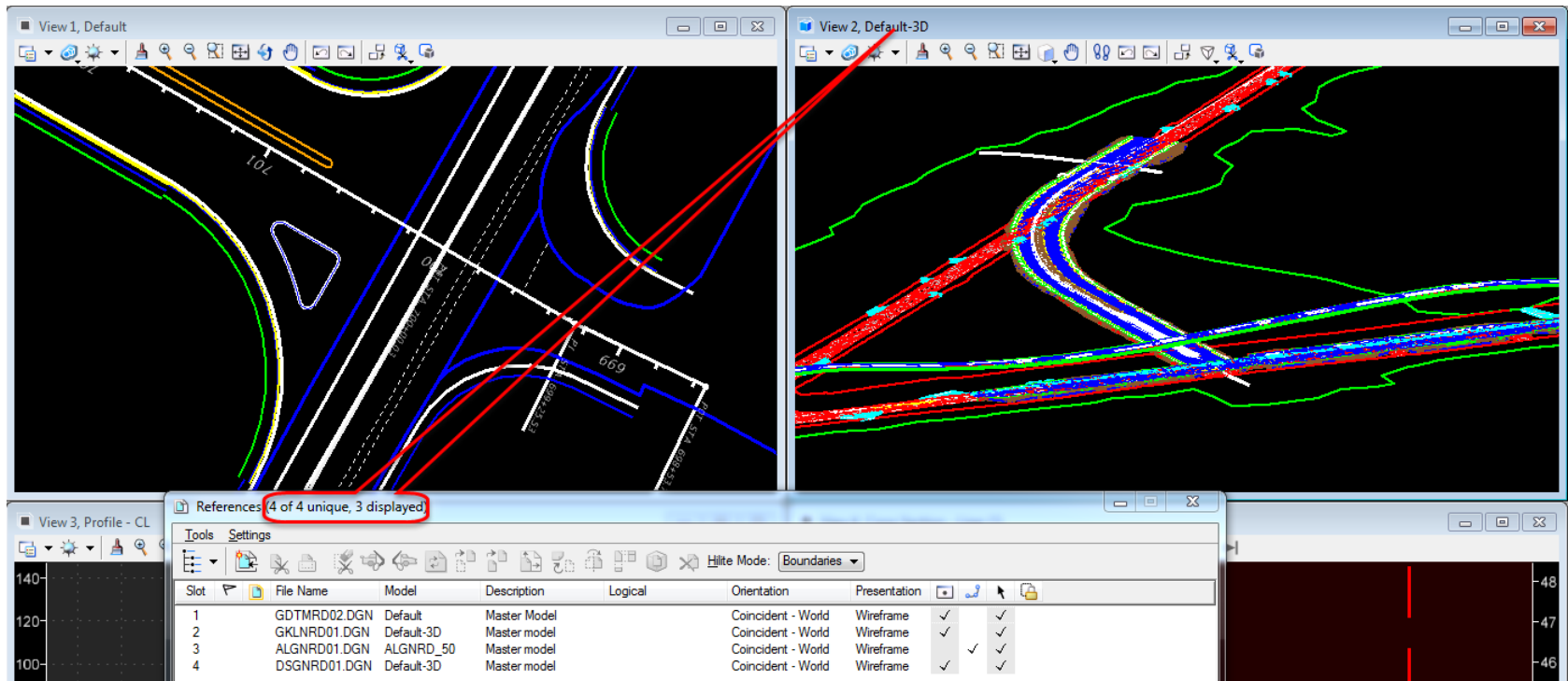
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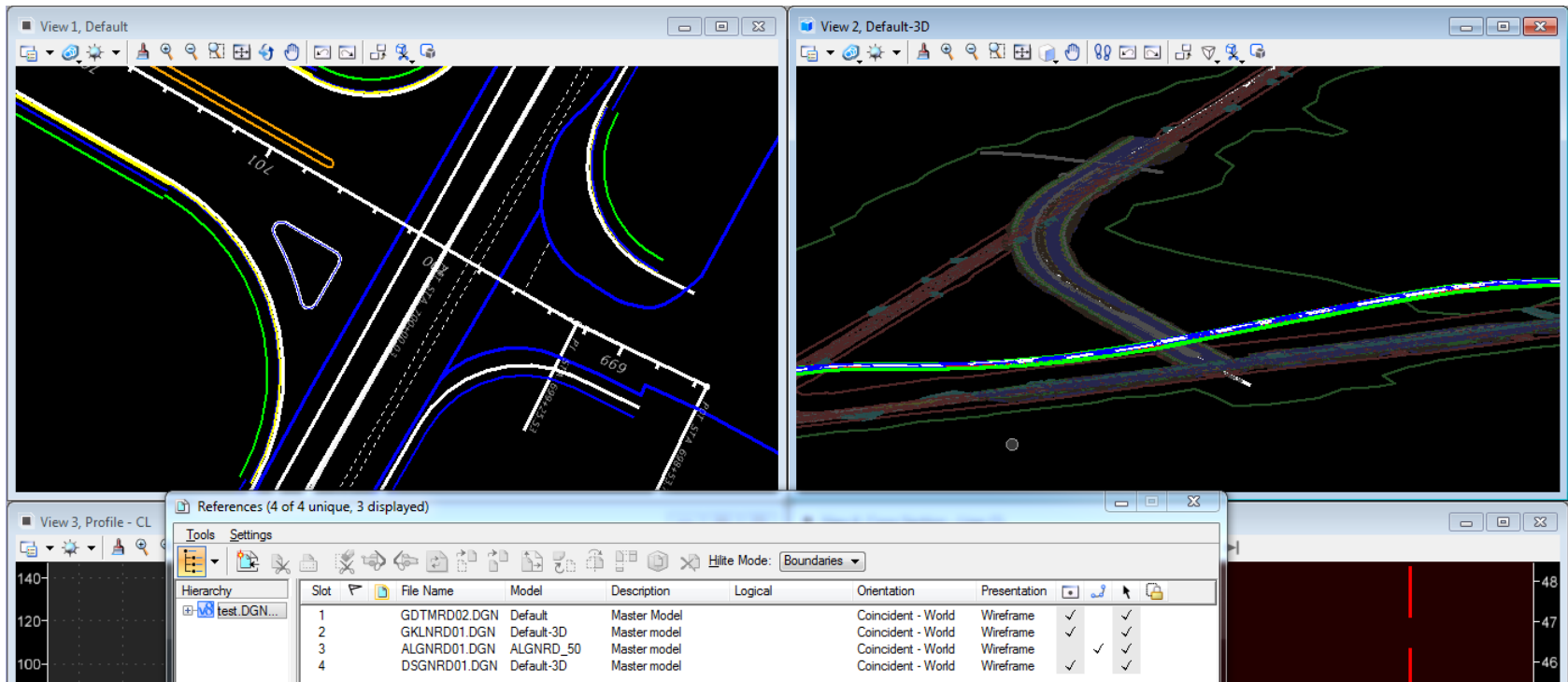
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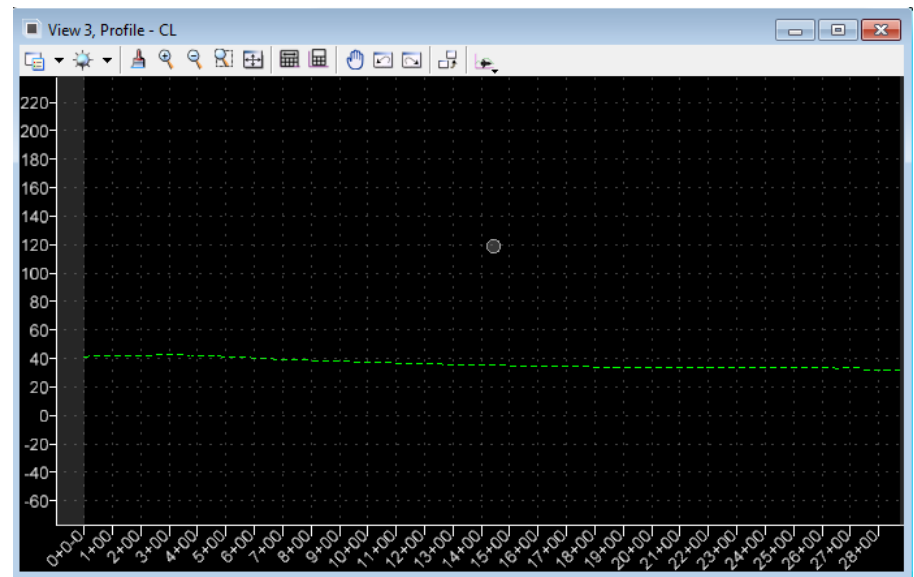
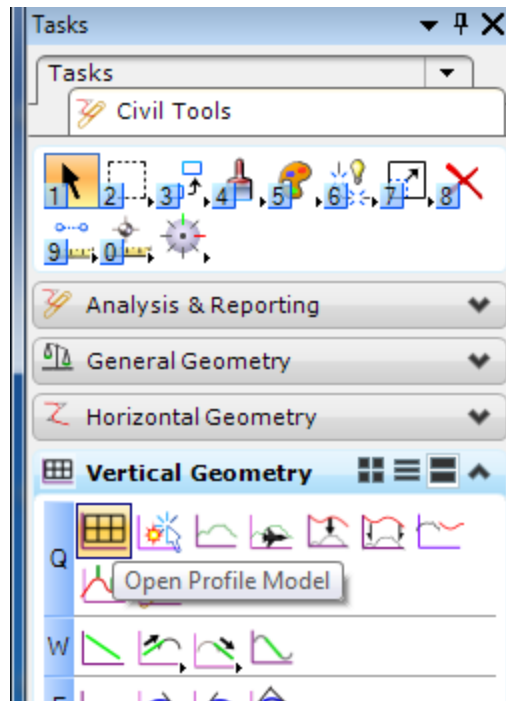
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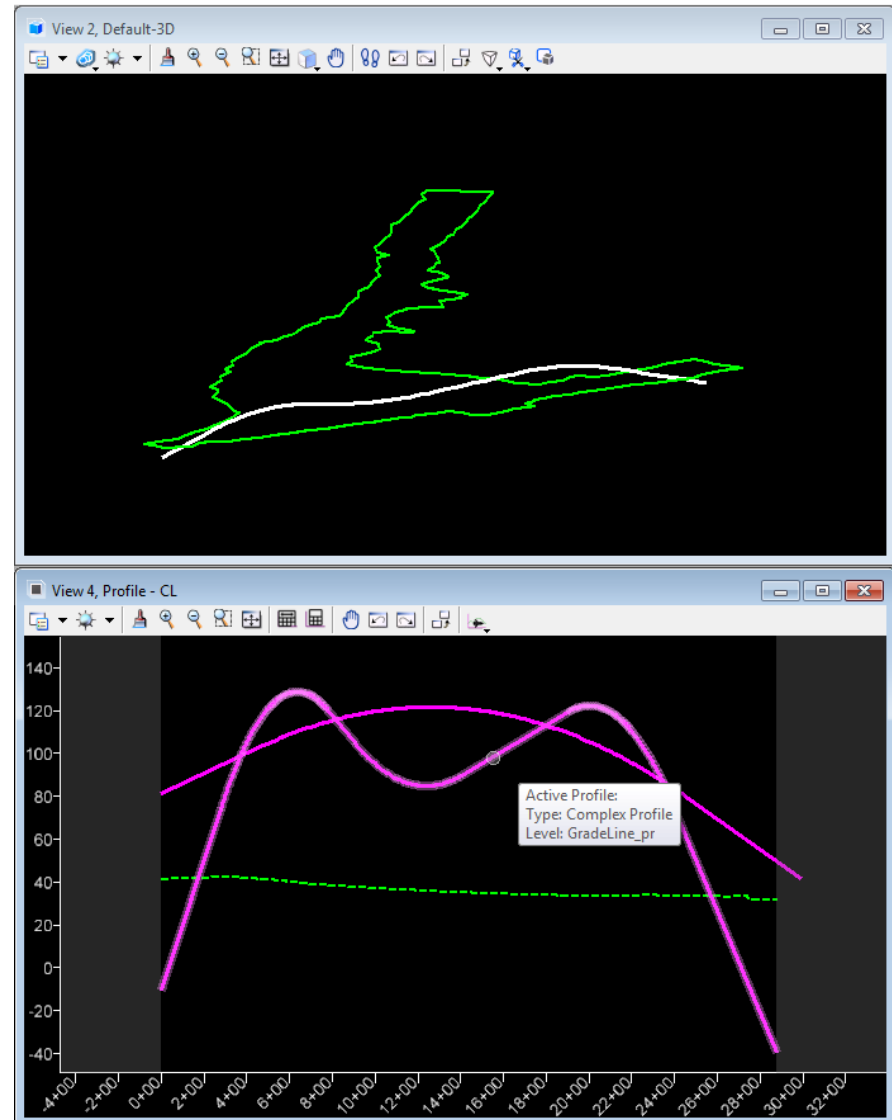
OpenRoads “special” Views - Profile

- Open Profile View - Generates a View that presents a desired feature in profile thus enabling the Vertical Geometry tools to interact with the chosen feature.



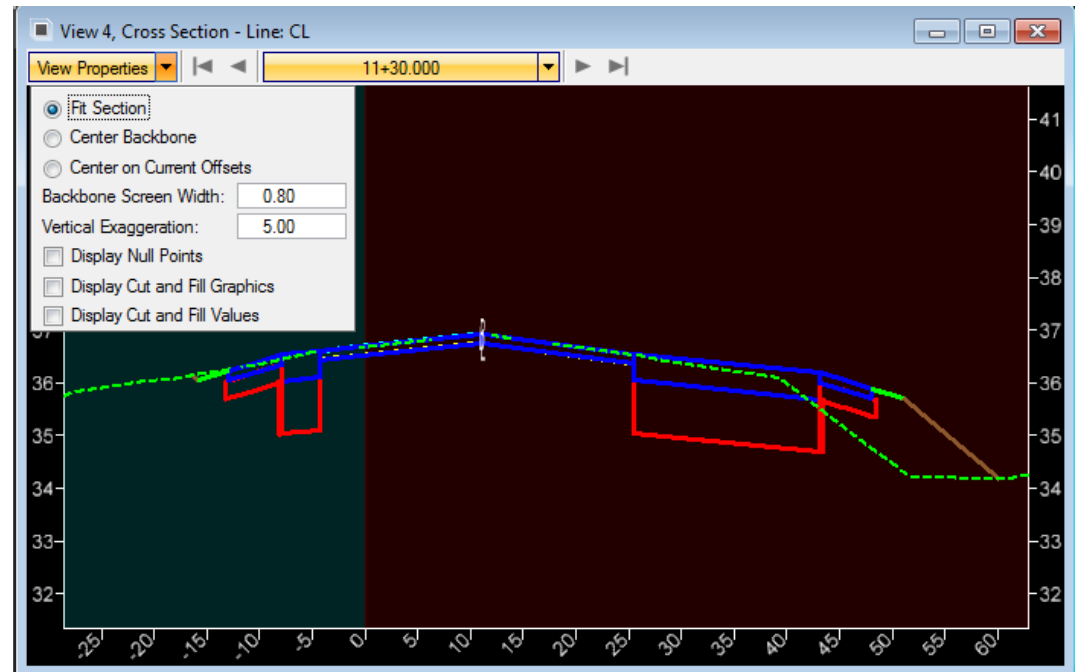
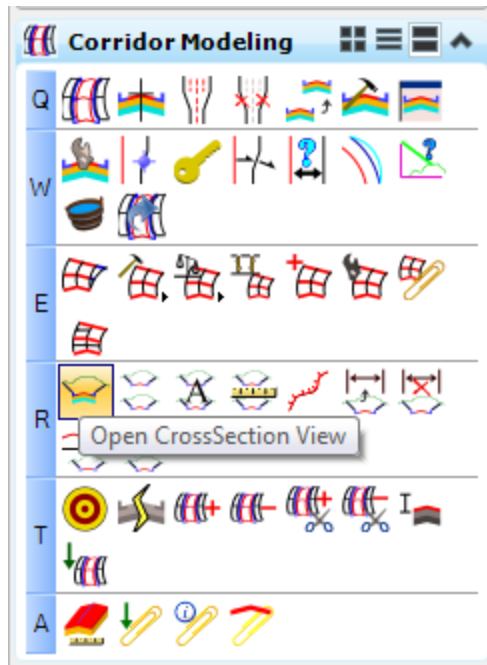
OpenRoads “special” Views - Profile

- Open Profile View – When a line in the profile view is set as active, it creates a 3D line in the Default-3D model.
- The 3D line will change with the active line in the profile view
- Additional 3D lines can be created with other Vertical Geometry tools



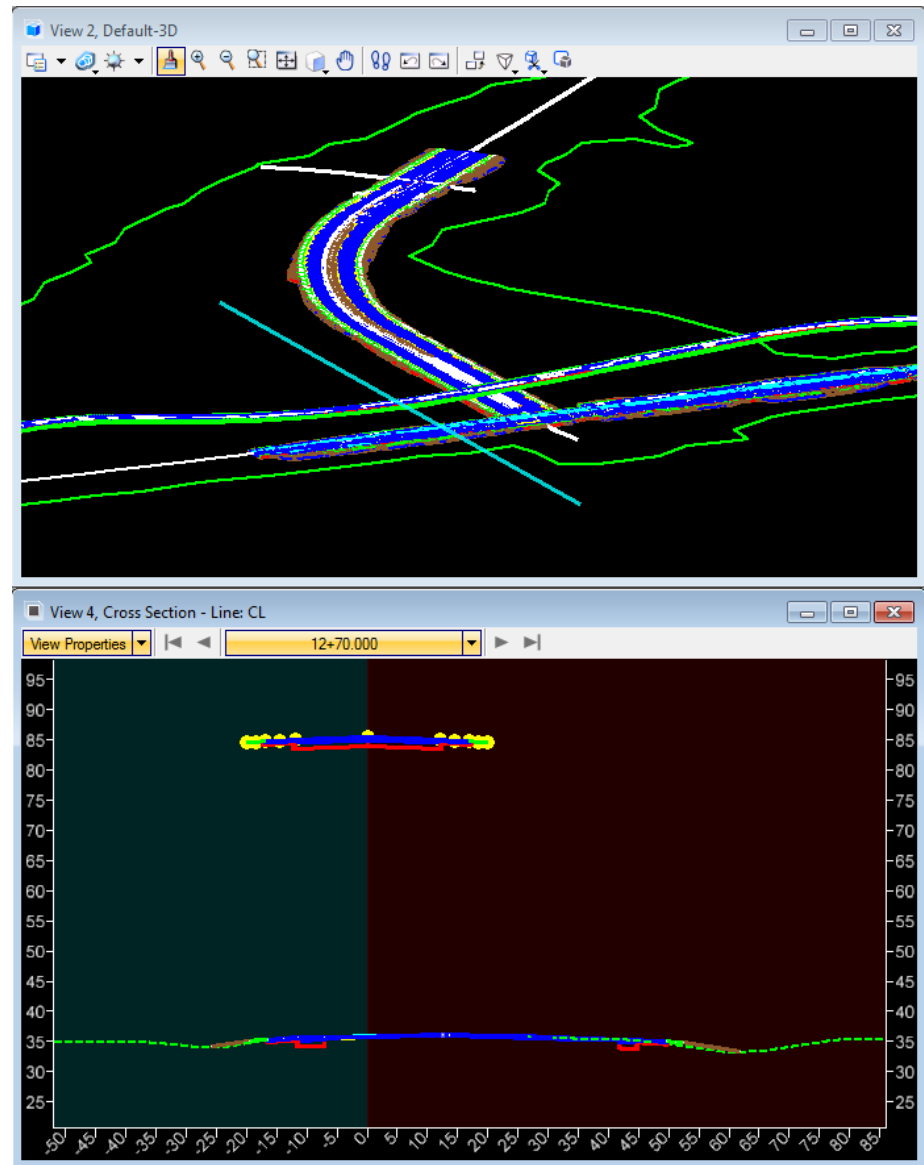
OpenRoads “special” Views – Cross Section

- Open Cross Section View - Using the specified baseline reference to a corridor, or any Civil horizontal geometry, creates a dynamic cross section view in the user-selected MicroStation view.



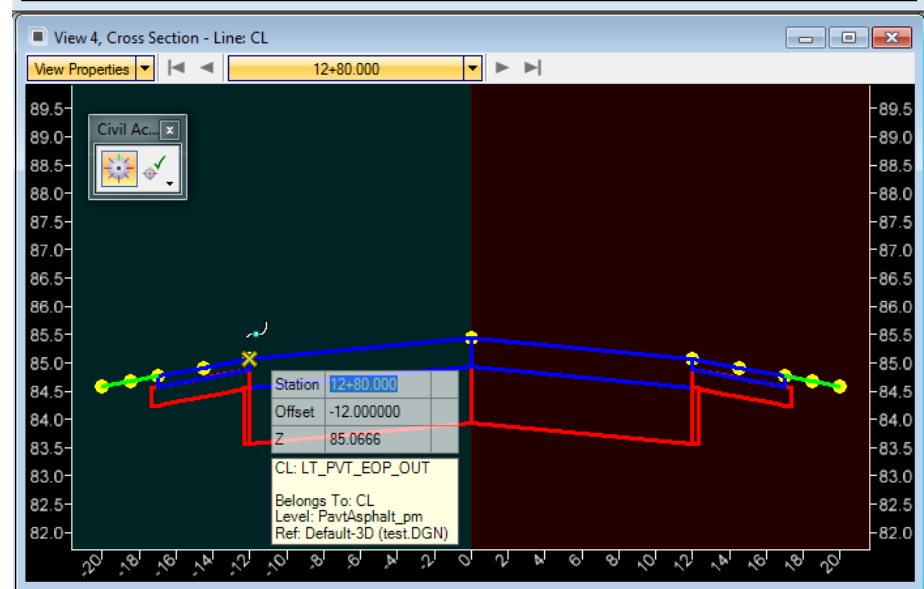
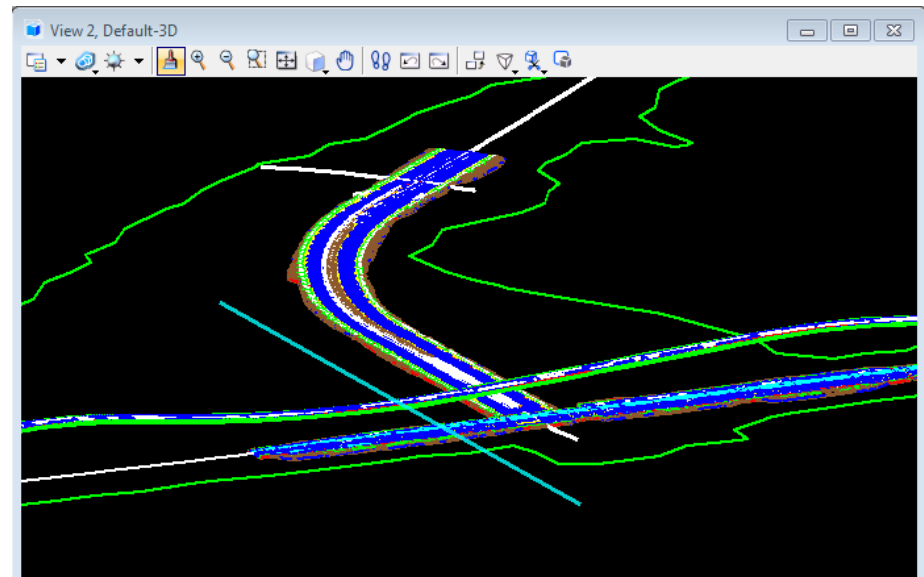
OpenRoads “special” Views – Cross Section

- Open Cross Section View – shows a slice of the Default-3D model at the specified location including displayed references.
- Yellow Dots are the 3D lines and can be turned off



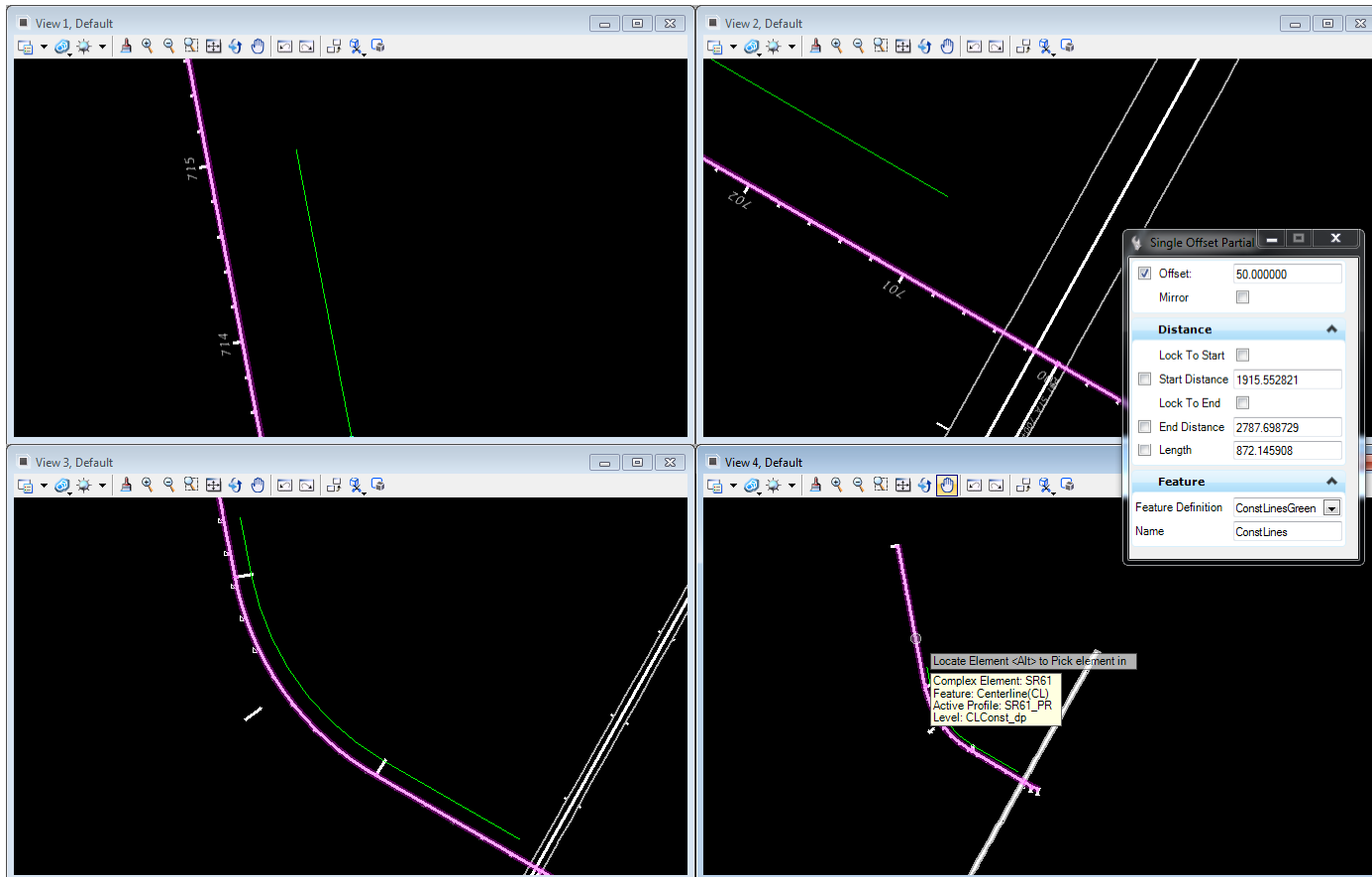
OpenRoads “special” Views – Cross Section

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- Yellow Dots are the 3D lines and can be turned off
- Elevation and offsets can be checked with Civil AccuDraw



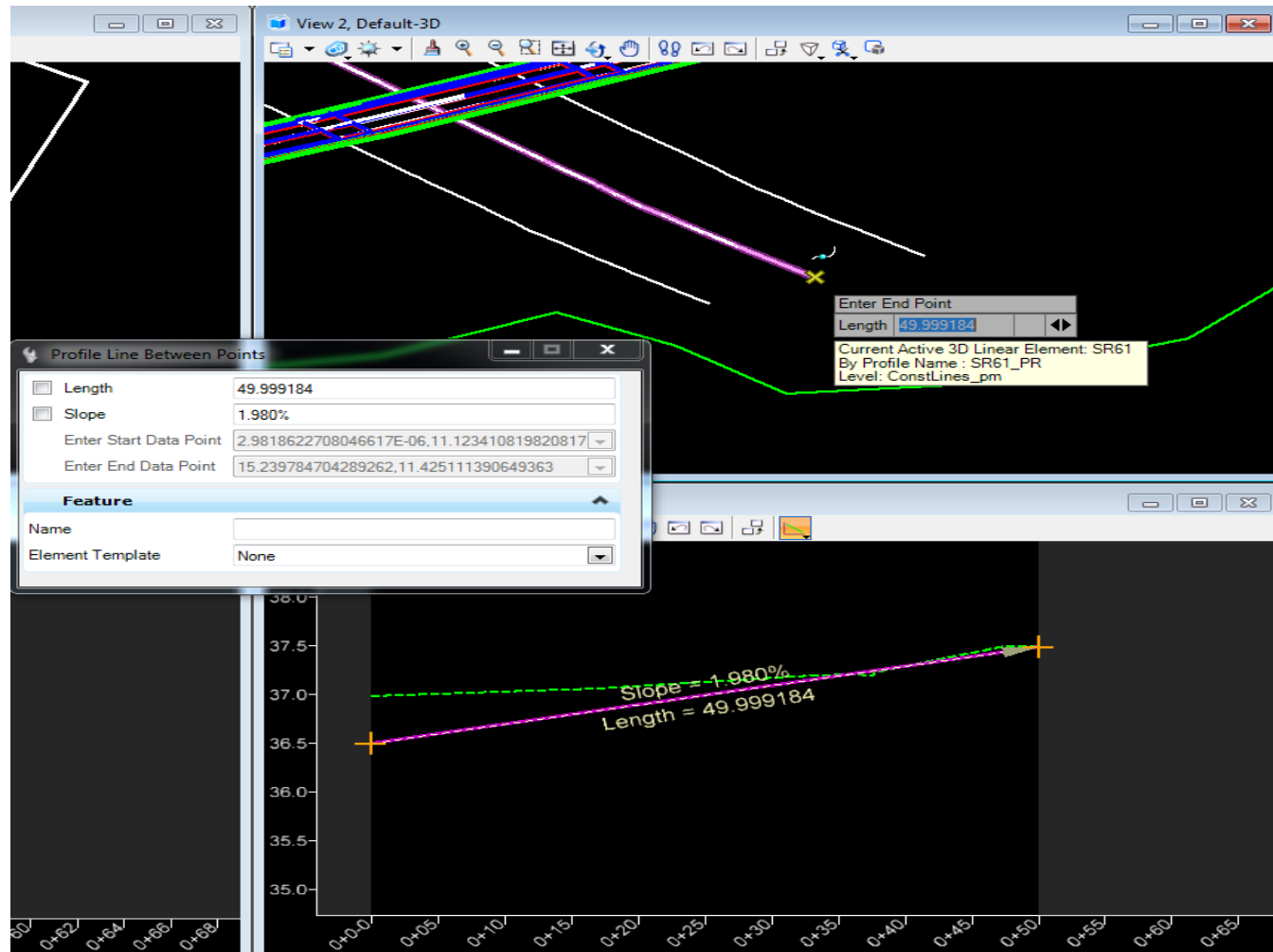
Drawing Between Views

- Usually between same 2D plan different views



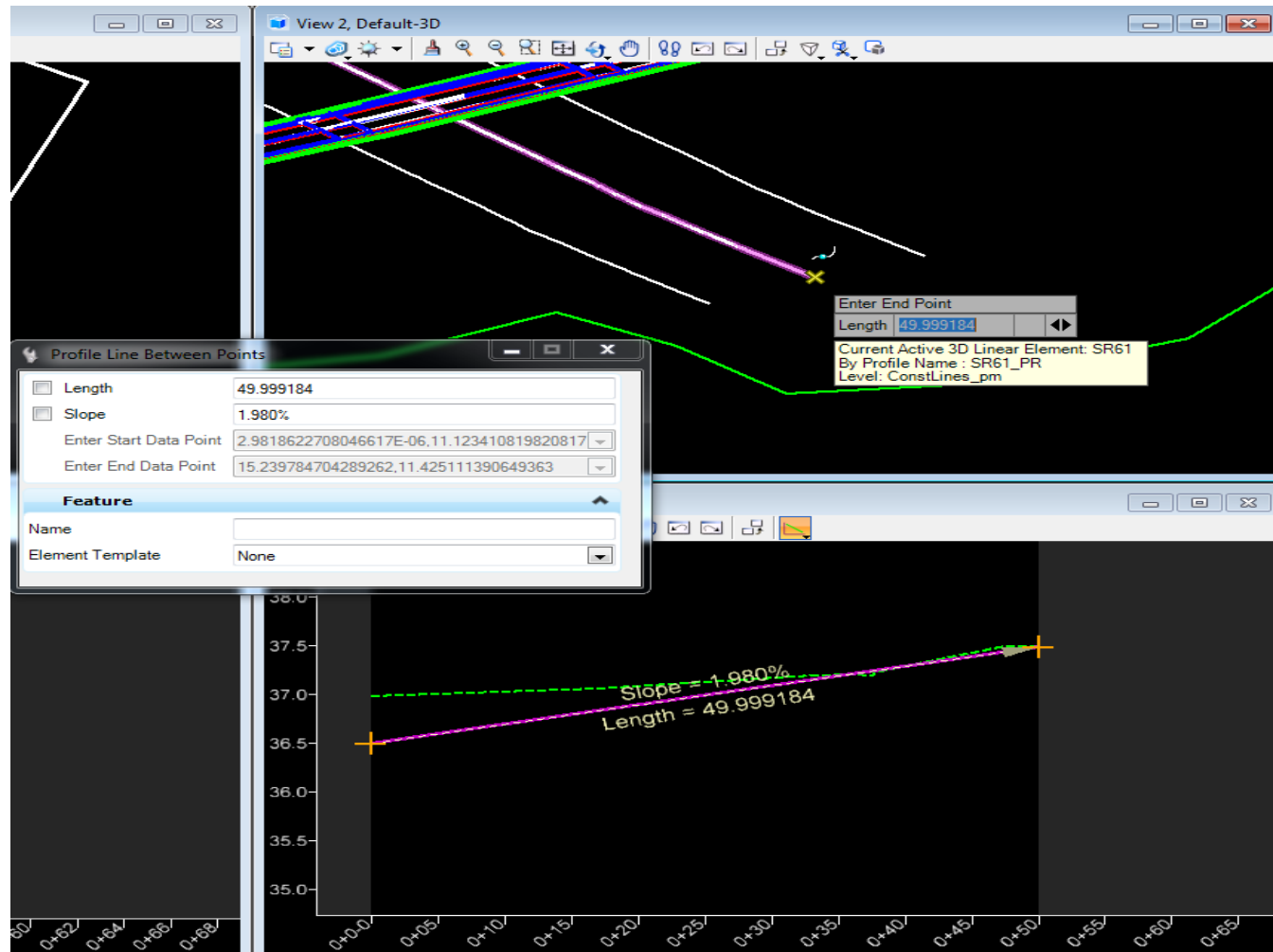
Drawing Between Views

- Also between profile and 3D Model views



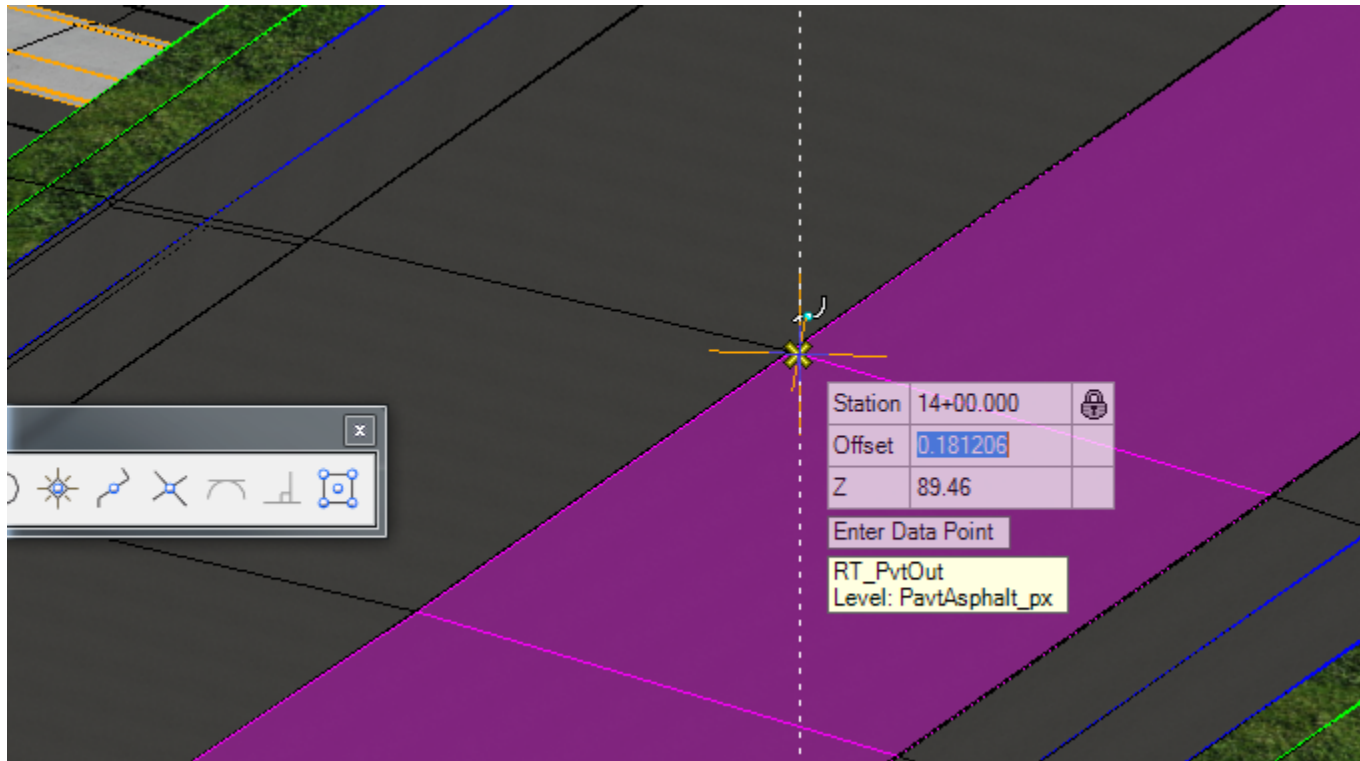
Vertical Verification Locates on Utilities

- Also between profile and 3D Model views



Civil AccuDraw Between Views

- Also tracks Station Offset and Elevation in 3D Model view



Contact Information

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