

***Plan Production –  
Civil Geometry & Civil Cells for  
2D FDOTSS4 OpenRoads***



**Vern Danforth**

## *Session Topics*

### PowerGEOPAK SS4 Civil Tools in FDOTSS4

- ◆ Rule based design and why?
- ◆ Horizontal Geometry
- ◆ Civil Cells



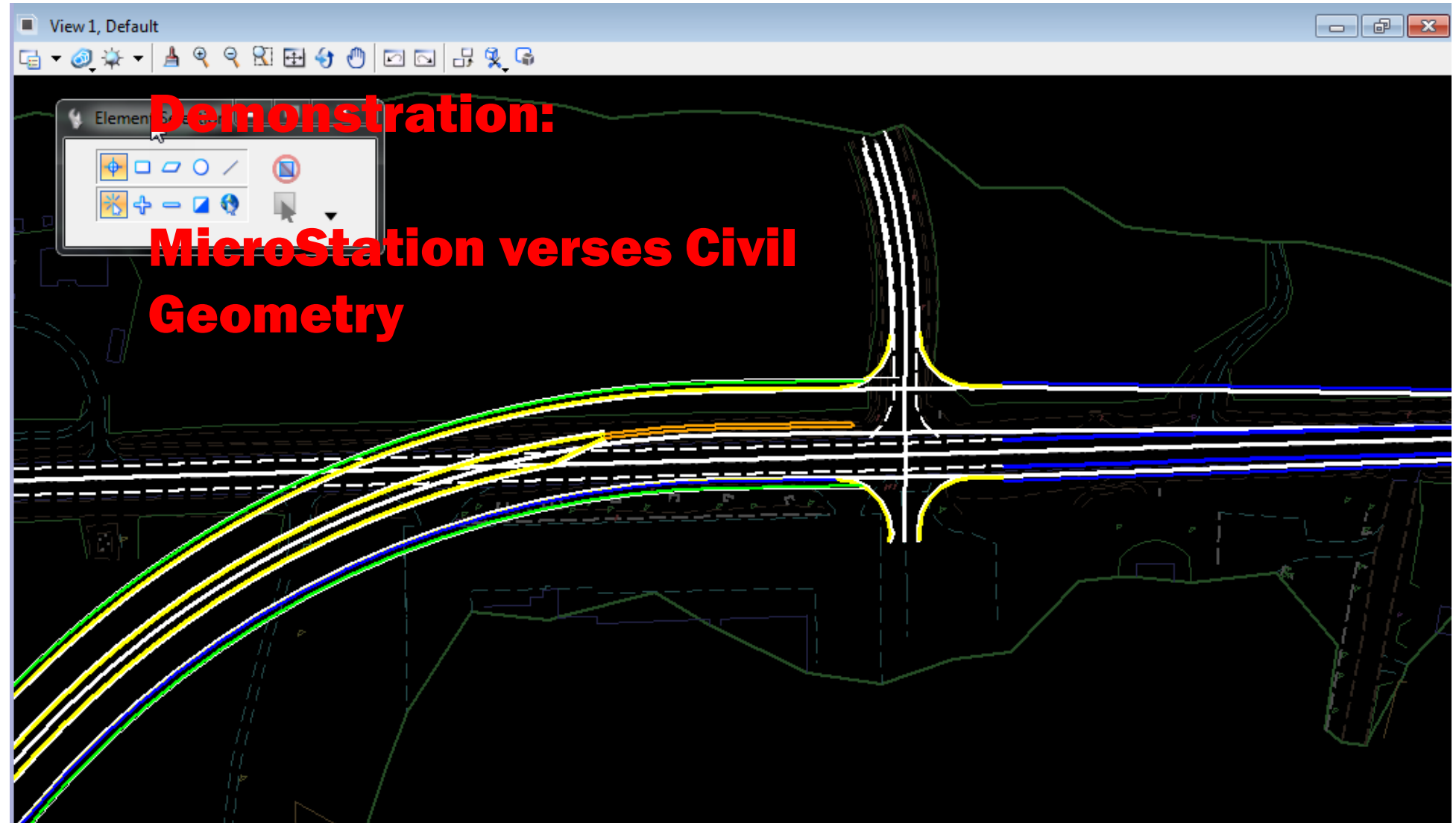
## *Rule based design and why?*

- ◆ Design changes will update “heal”:
  - ✓ 2D geometry
  - ✓ Profiles (if ruled to the existing terrain or another profile)
  - ✓ 3D Model
  - ✓ Pay item elements
  - ✓ Plan Sheets via reference files
  - ✓ Cross Sections (future)
  - ✓ Labels (Labels)
  - ✓ Summary of Quantity tables (future)
  - ✓ Etc.

Learning these tools will improve productivity now and for future releases!

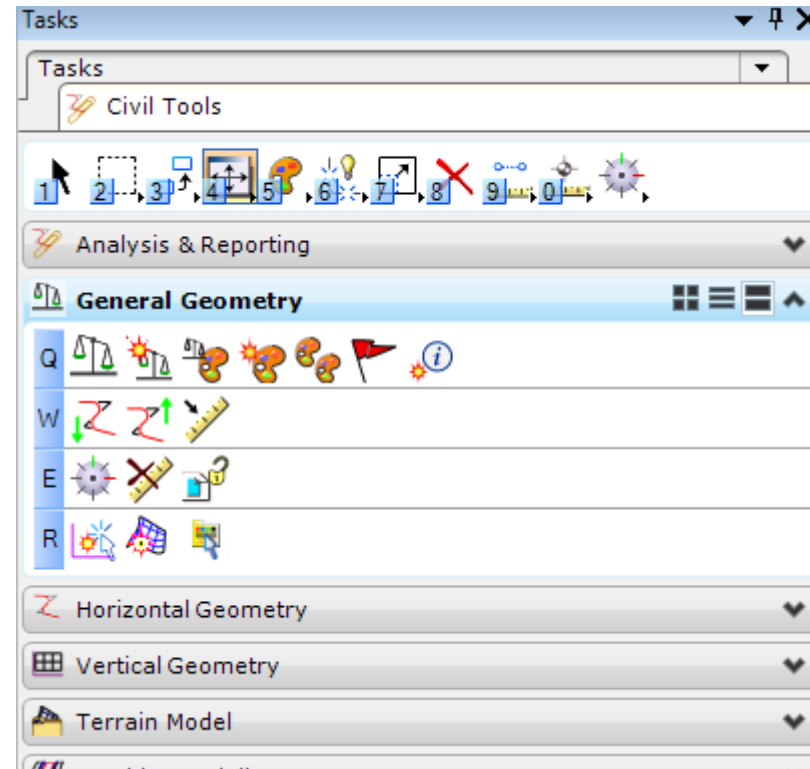


## *Rule based design and why?*



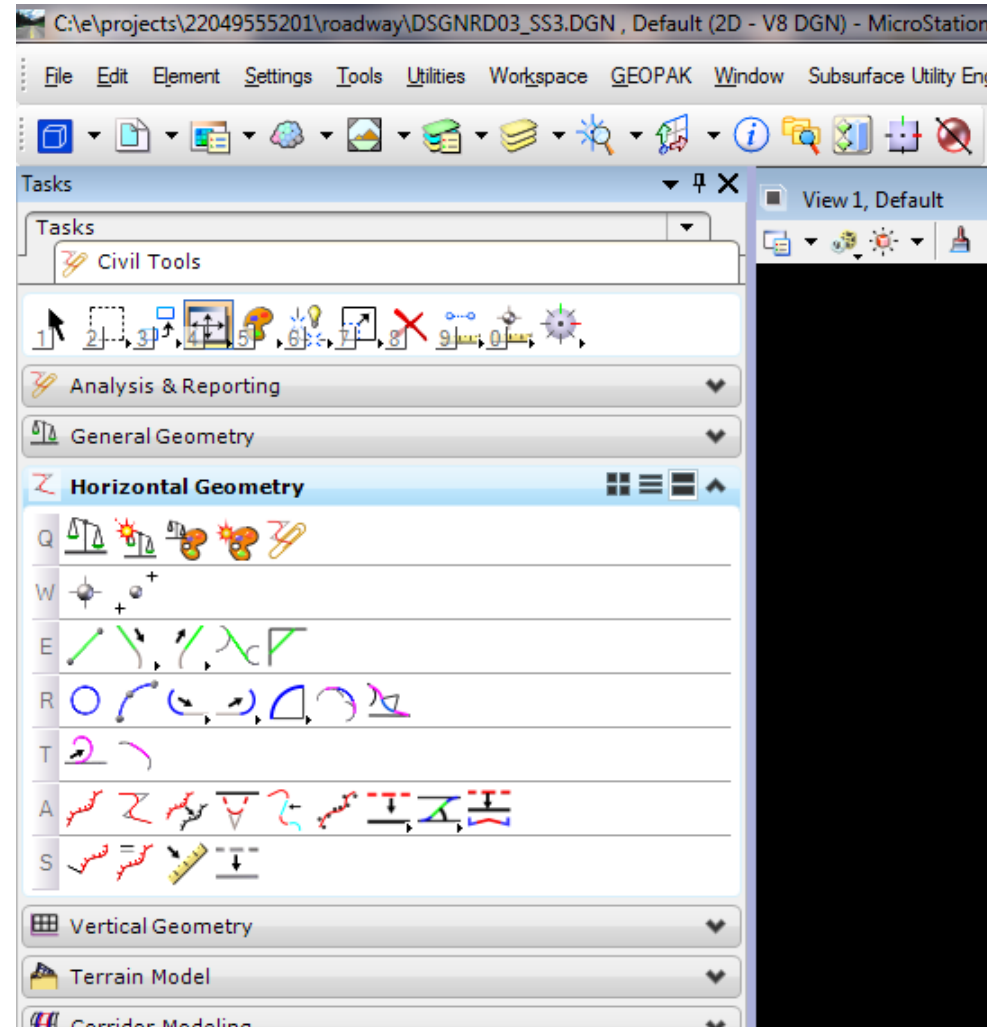
## Civil Tools - General Geometry:

- ◆ Geometry Toggles
  - ✓ Design Standards
  - Feature Definitions
  - Civil Message Center
- ◆ Import/Export
- ◆ Create Civil Rule
- ◆ Civil Accudraw
- ◆ Set Active Profile/Terrain



## Civil Tools – Horizontal Geometry:

- ◆ Lines Simple, To, From
- ◆ Arcs Between Elements
- ◆ Offsets and Tapers
- ◆ Complex by Elements
- ◆ Modify Civil Elements

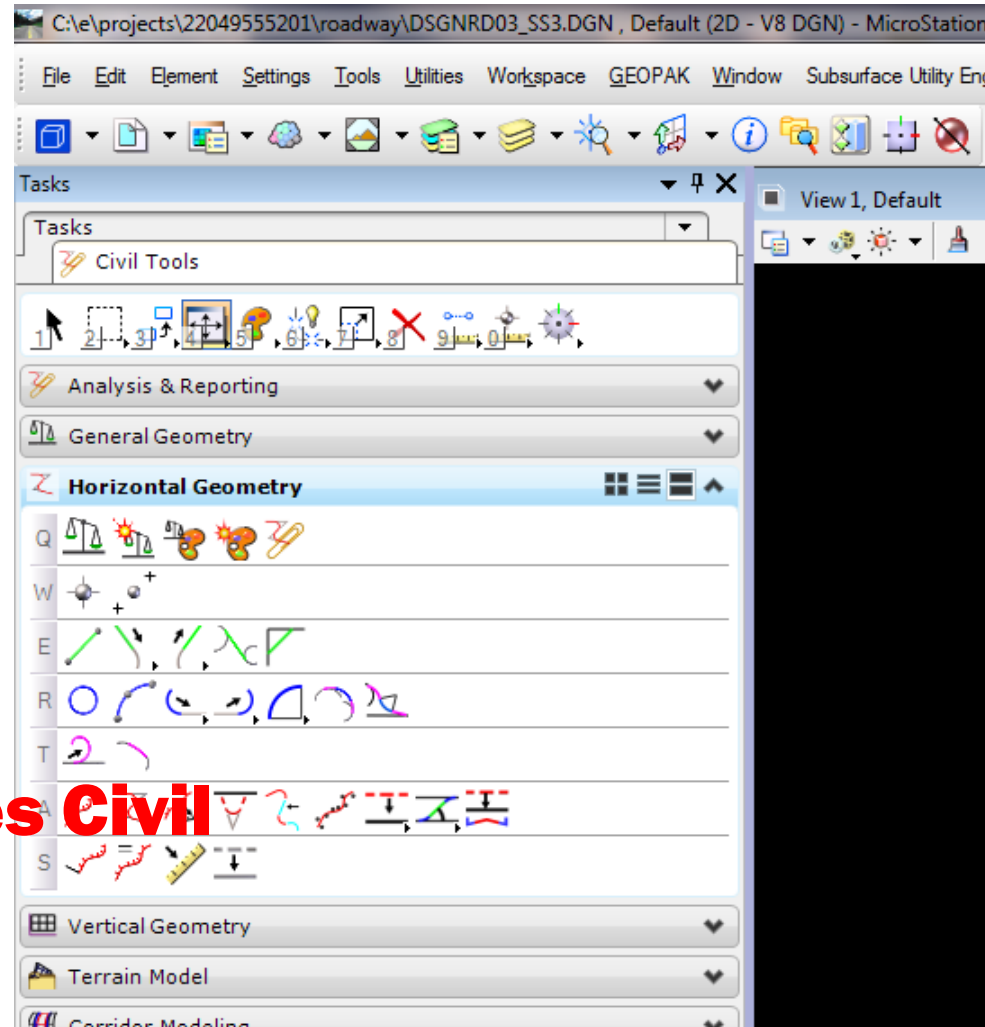


## Civil Tools – Horizontal Geometry:

- ◆ Lines Simple, To, From
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- ◆ Modify Civil Elements

**Demonstration:**

**MicroStation versus Civil  
Geometry**

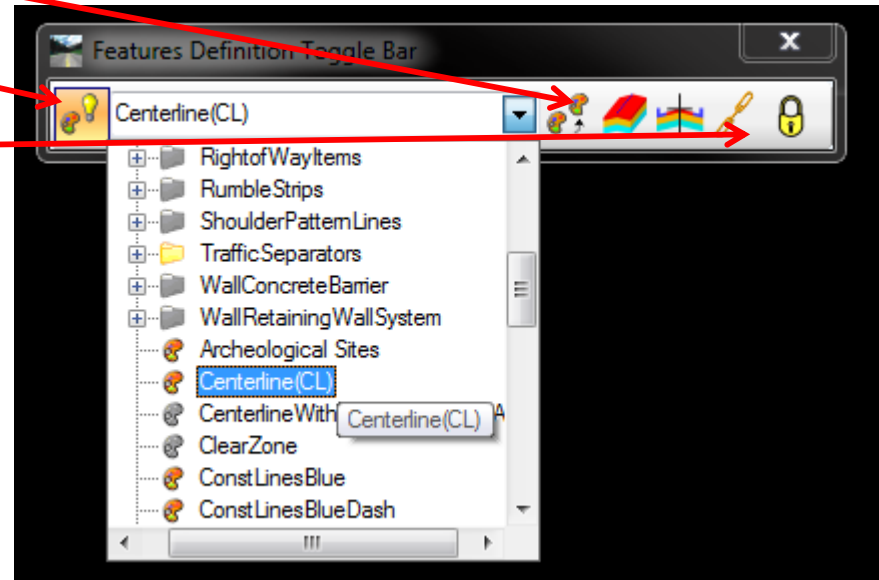
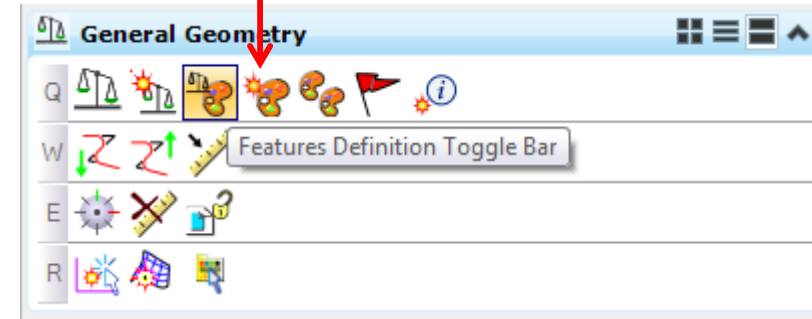


# Geometry Toggles

## Feature Definition Toggle Bar

- Match
- Use Active
- Chain Feature

Set Feature

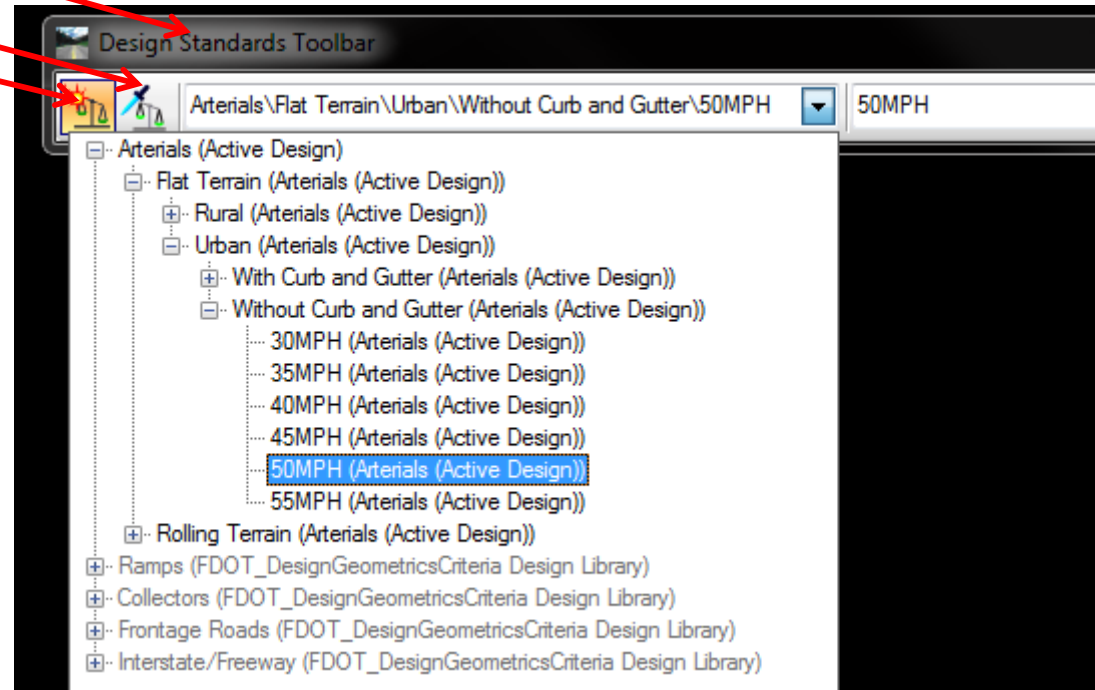
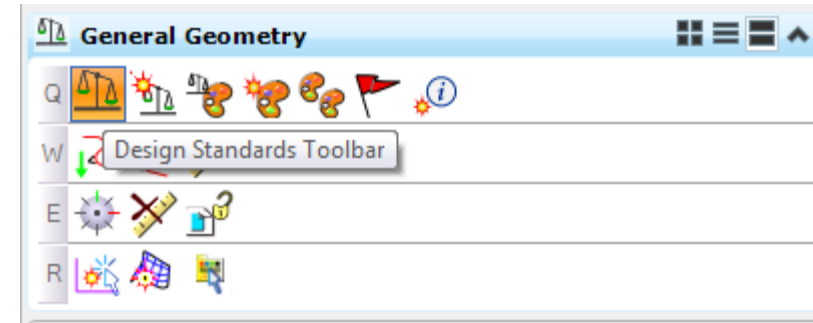




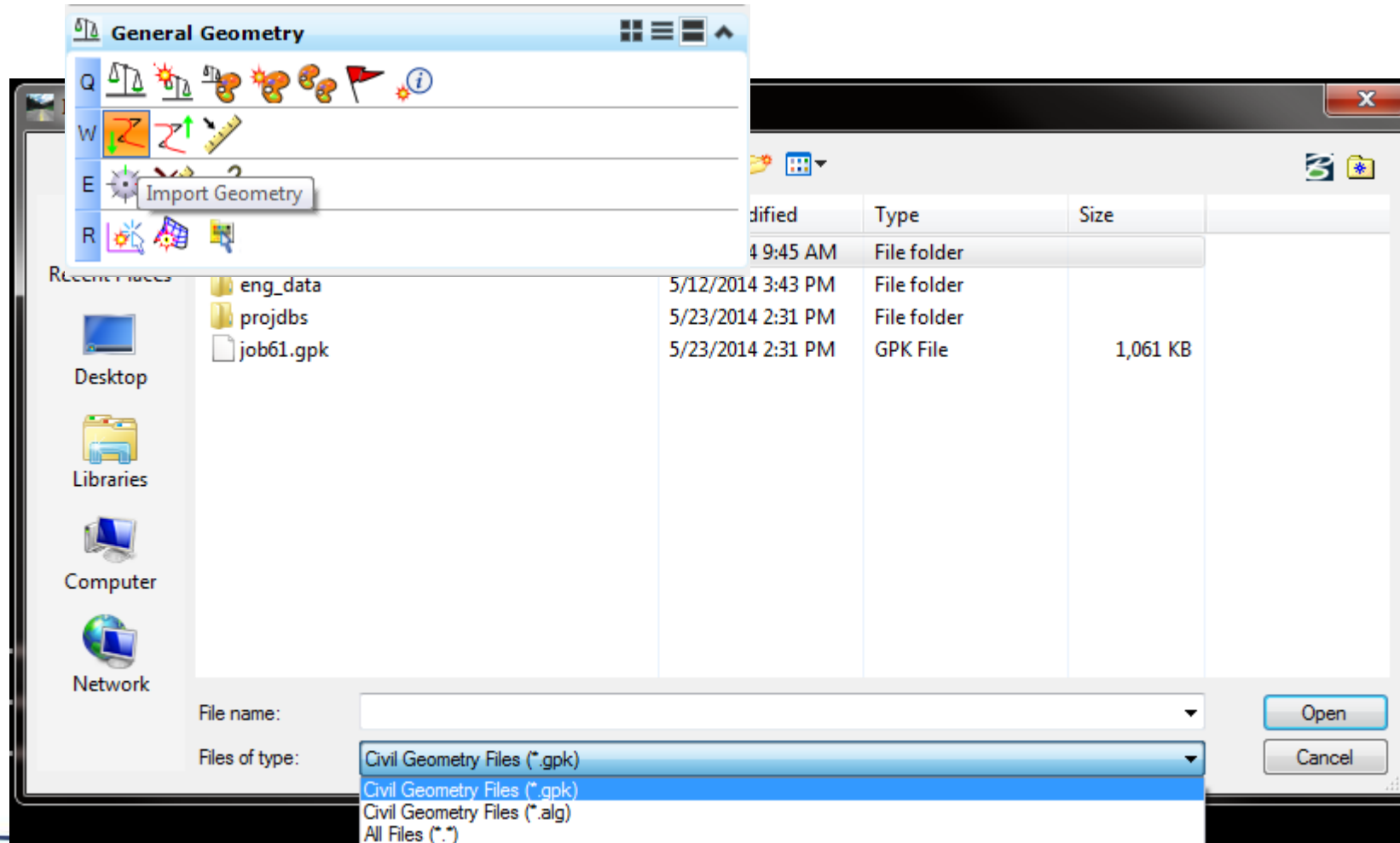
# Geometry Toggles

## Design Standards

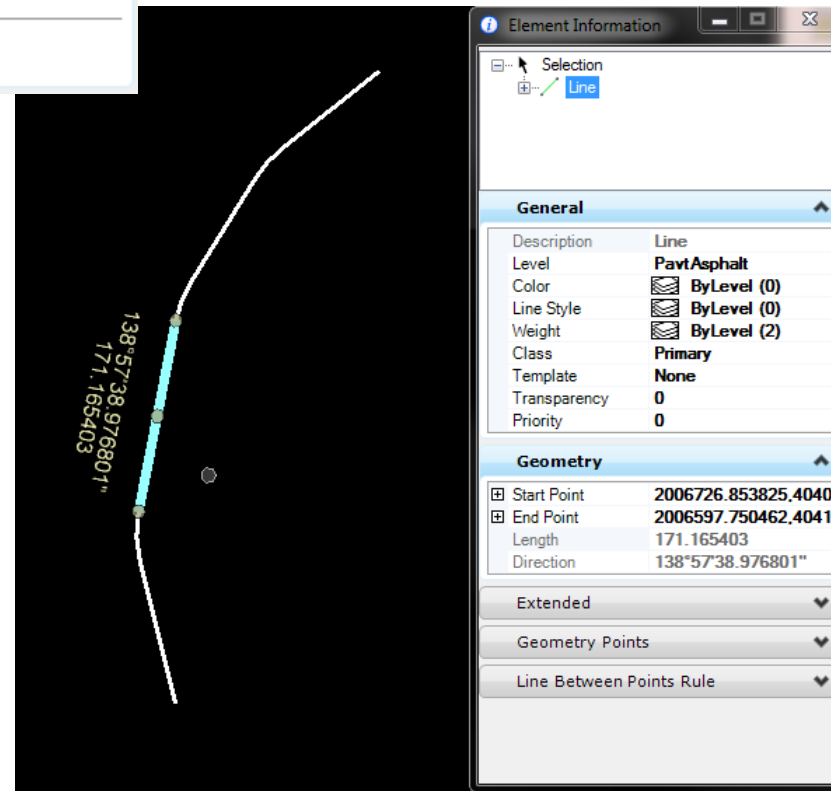
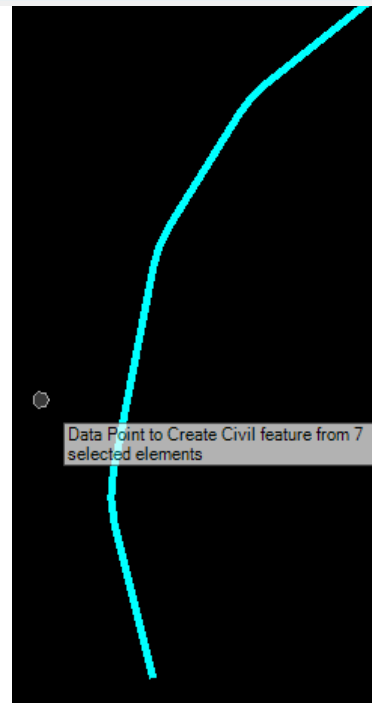
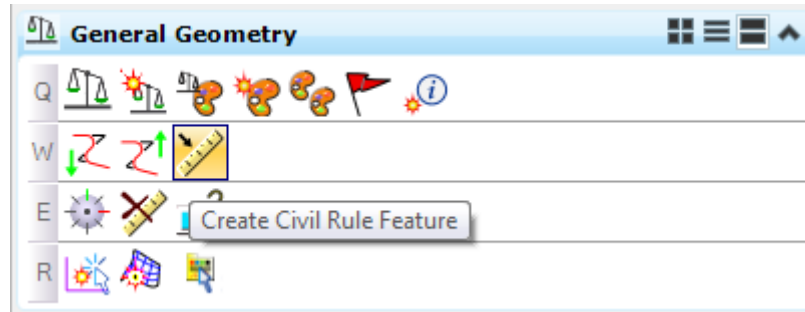
- Toolbar
- Match
- Set Active



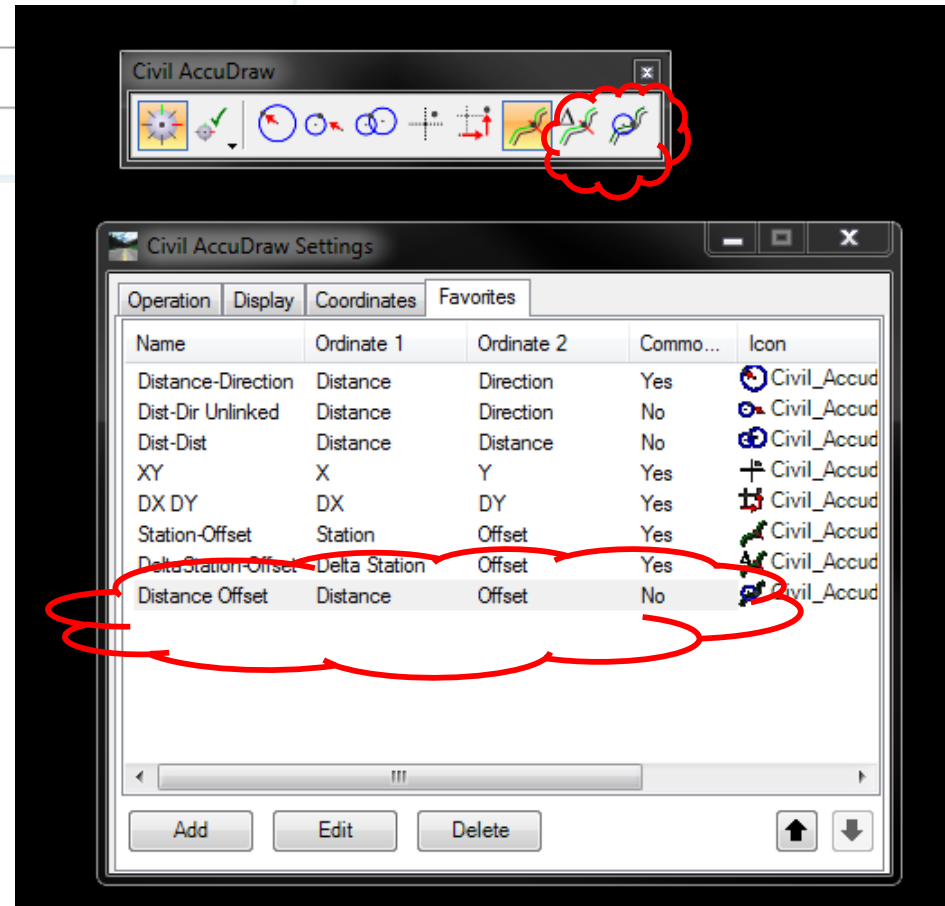
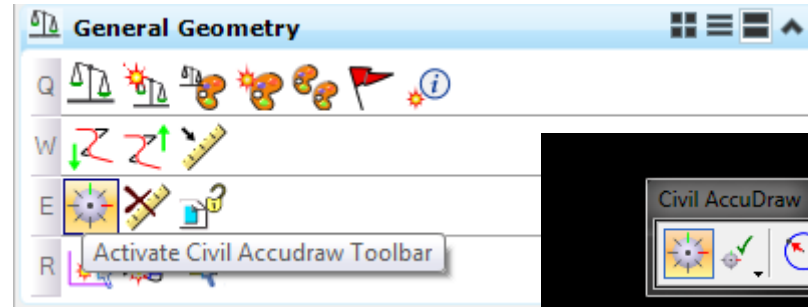
# Import/Export



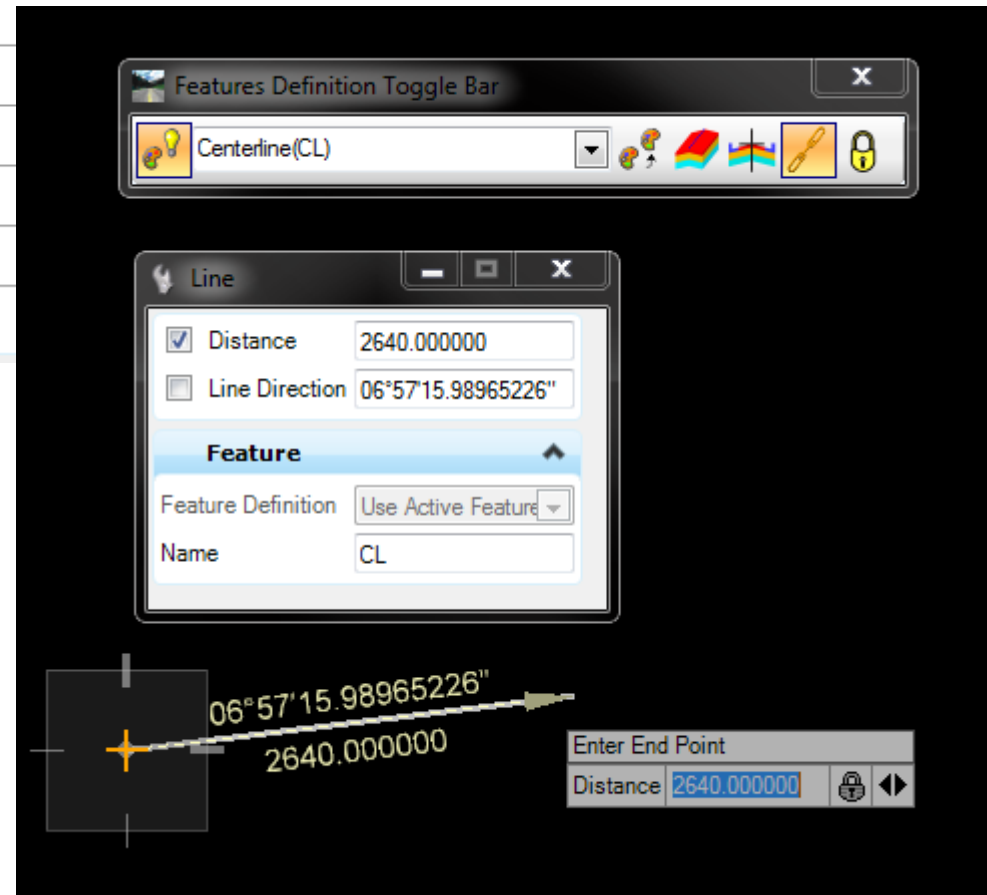
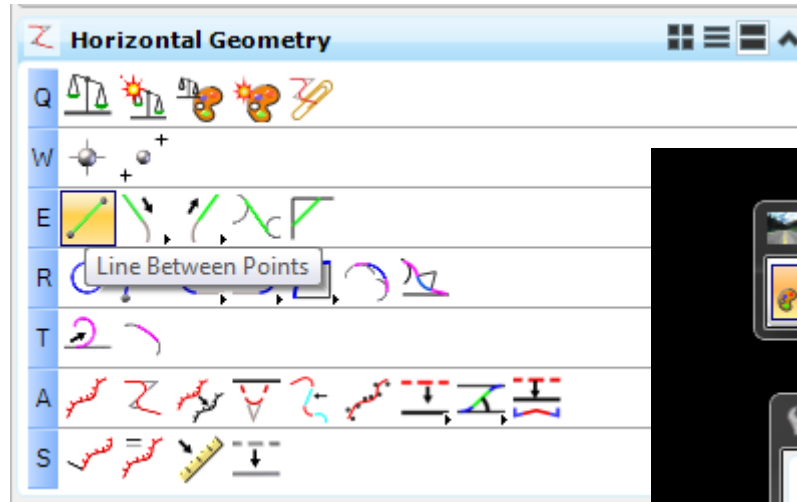
# Create Civil Rule



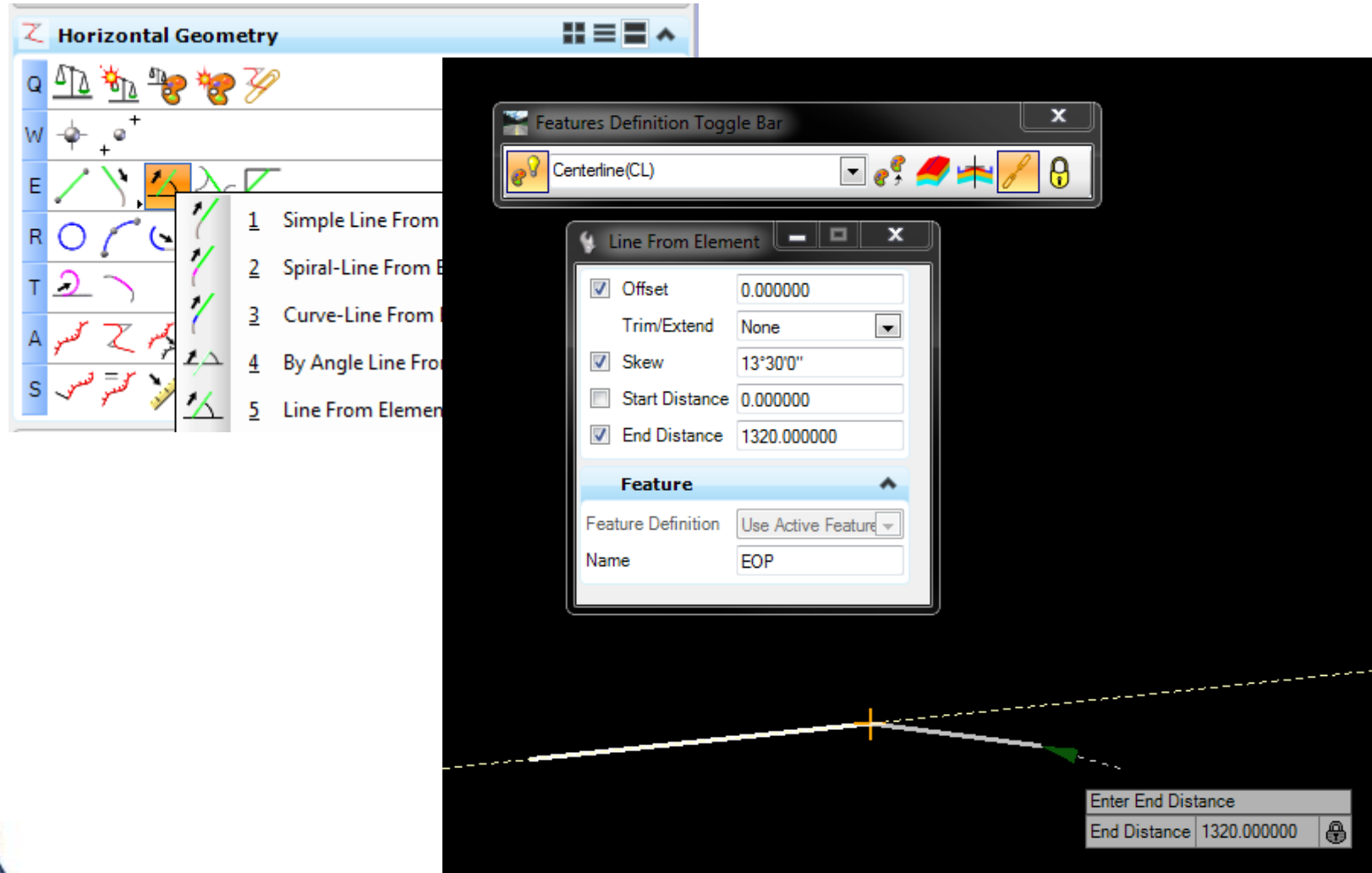
# Civil Accudraw



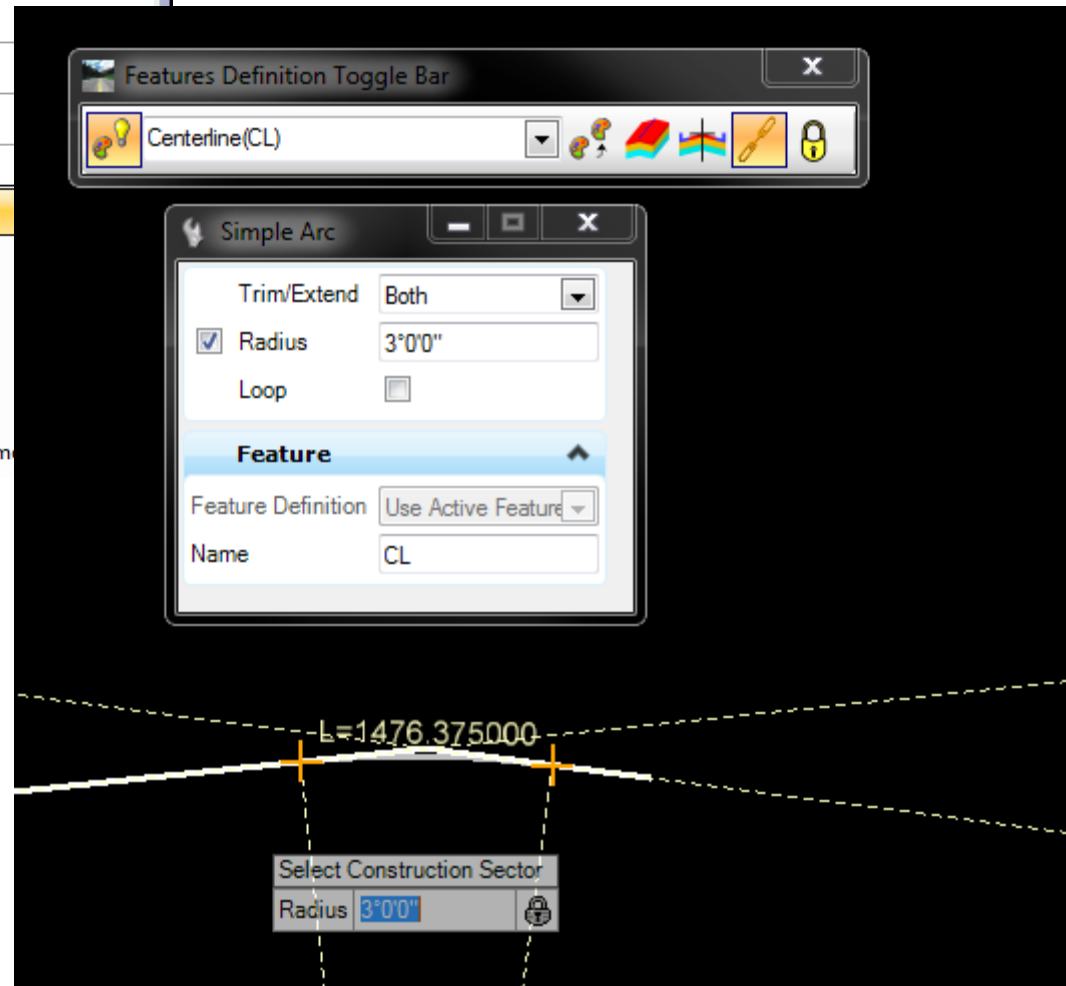
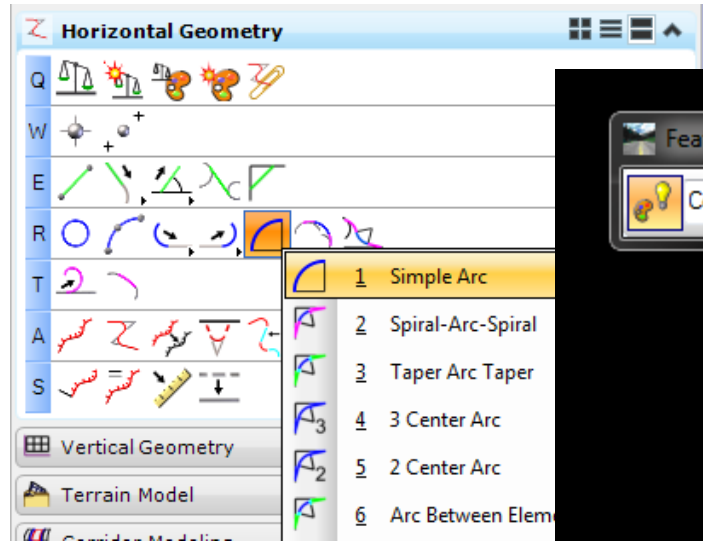
# Lines; Simple, To, From



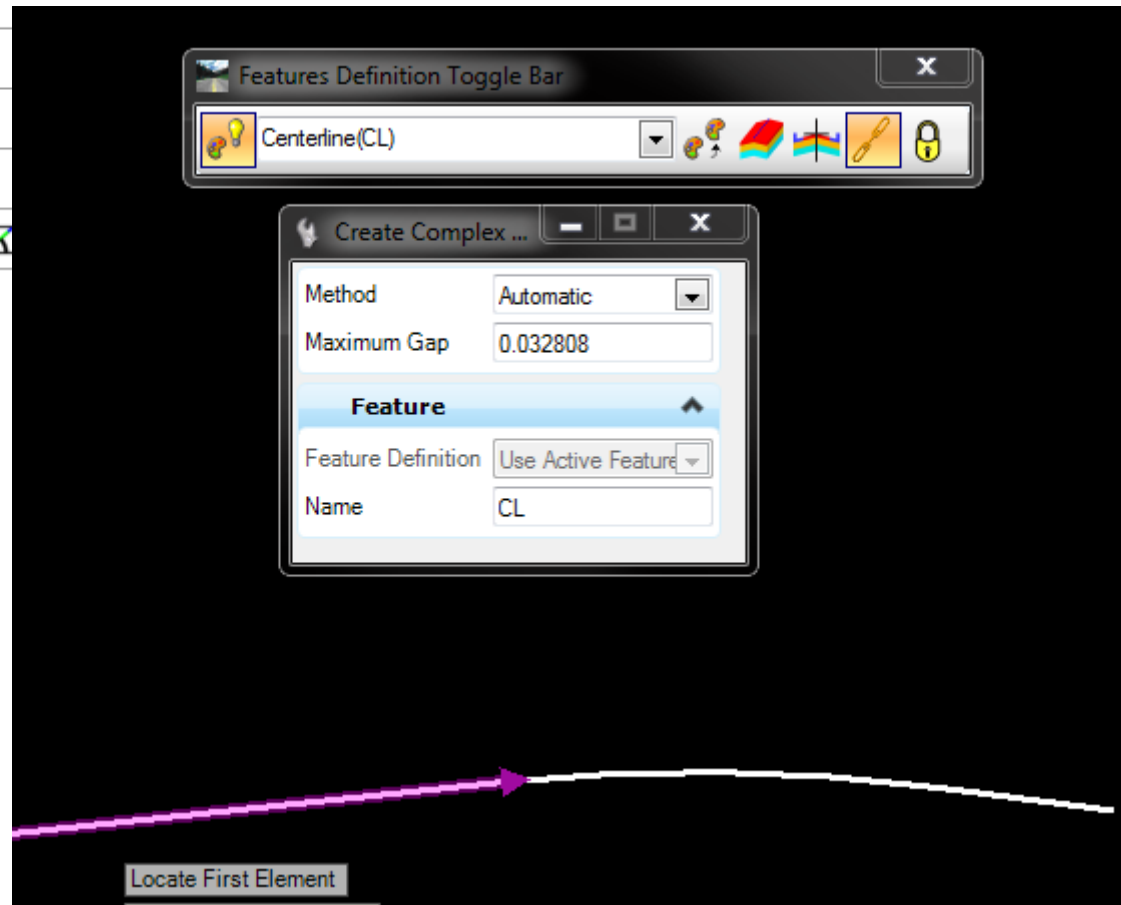
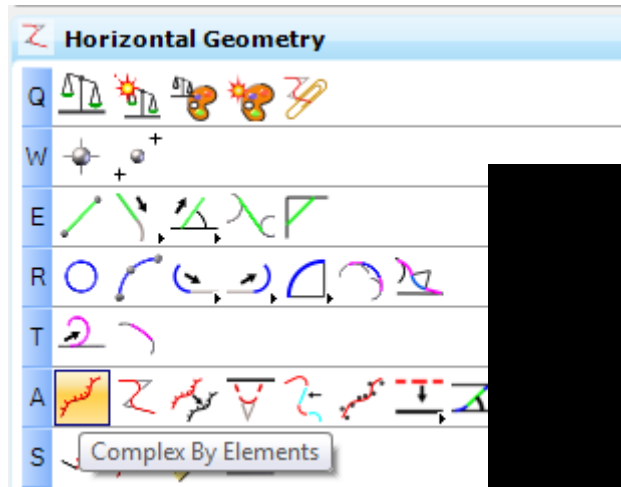
# Lines; Simple, To, From



# Arcs Between Elements

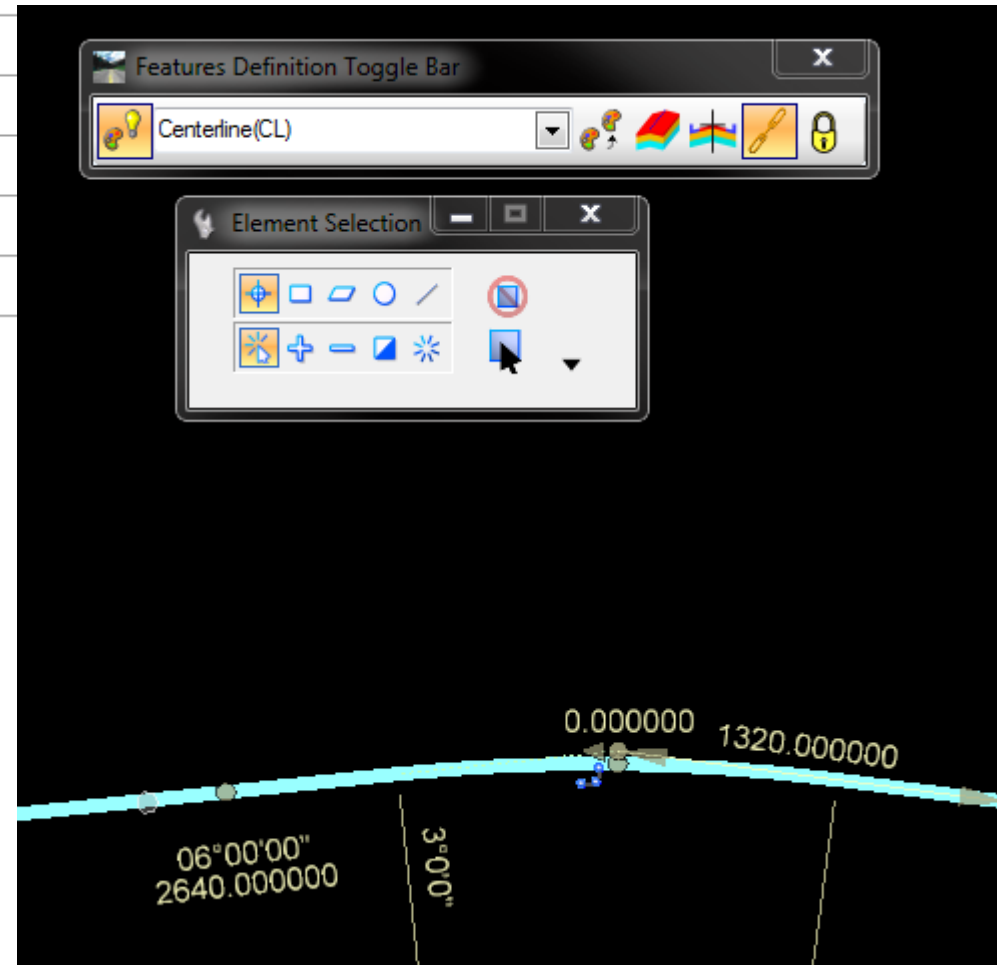
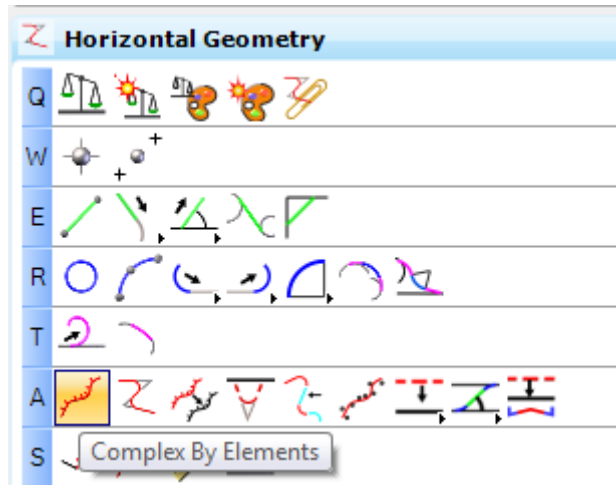


# Complex by Elements

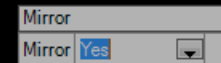
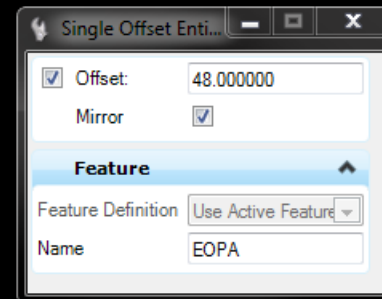
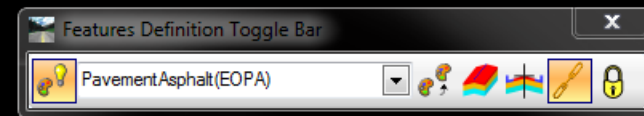
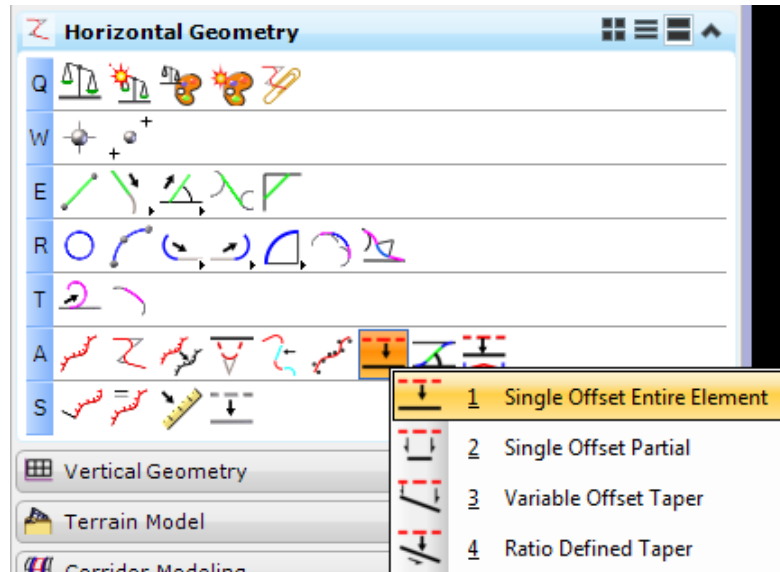




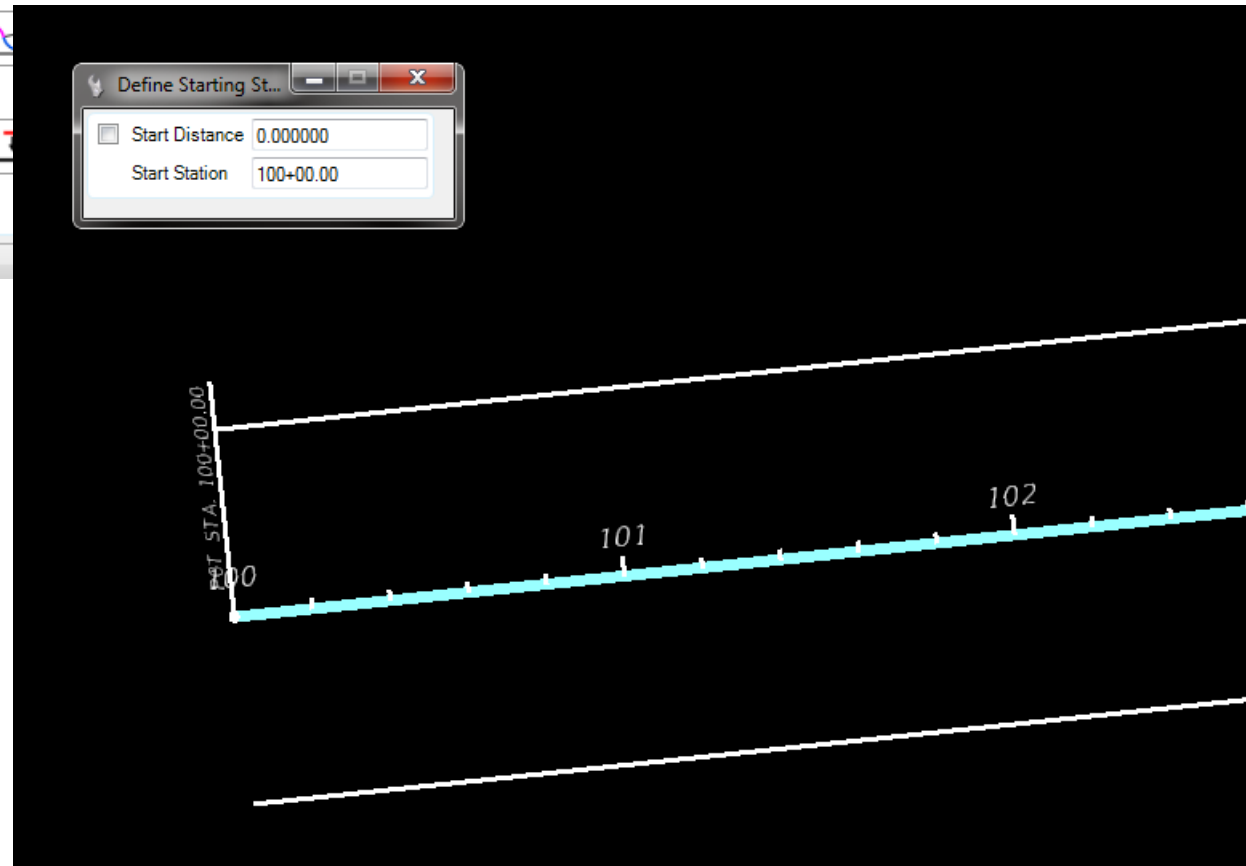
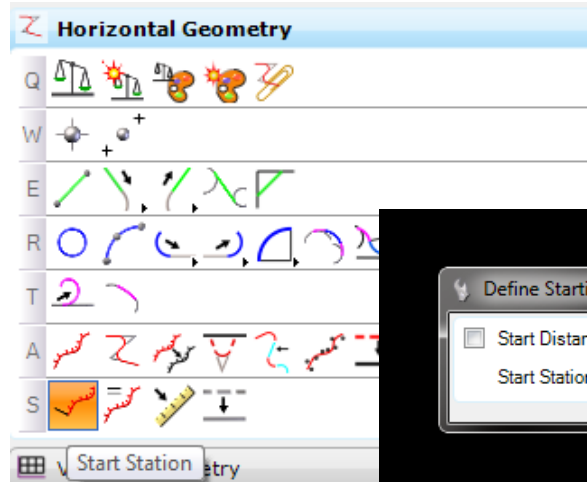
# Complex by Elements



# Offsets and Tapers

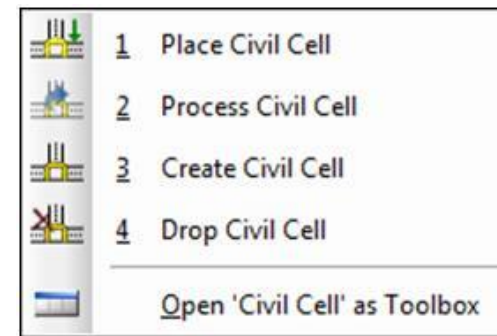


# Modify Civil Elements

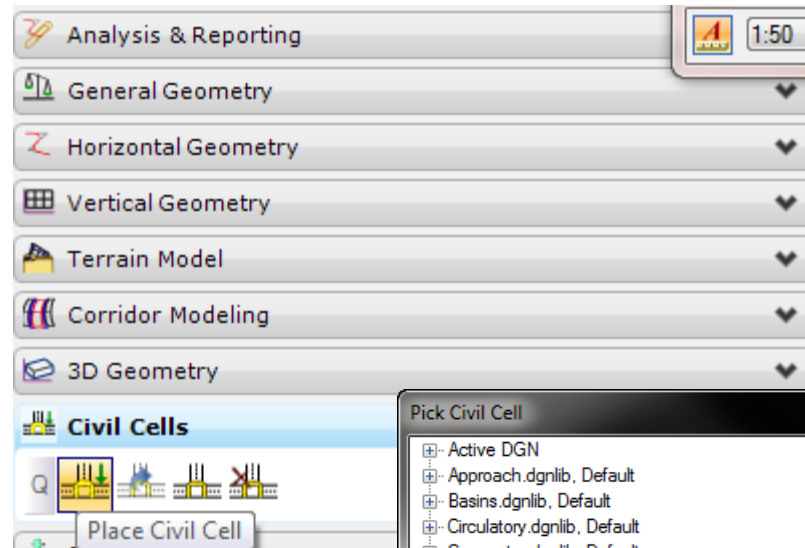


## Civil Tools – Civil Cells

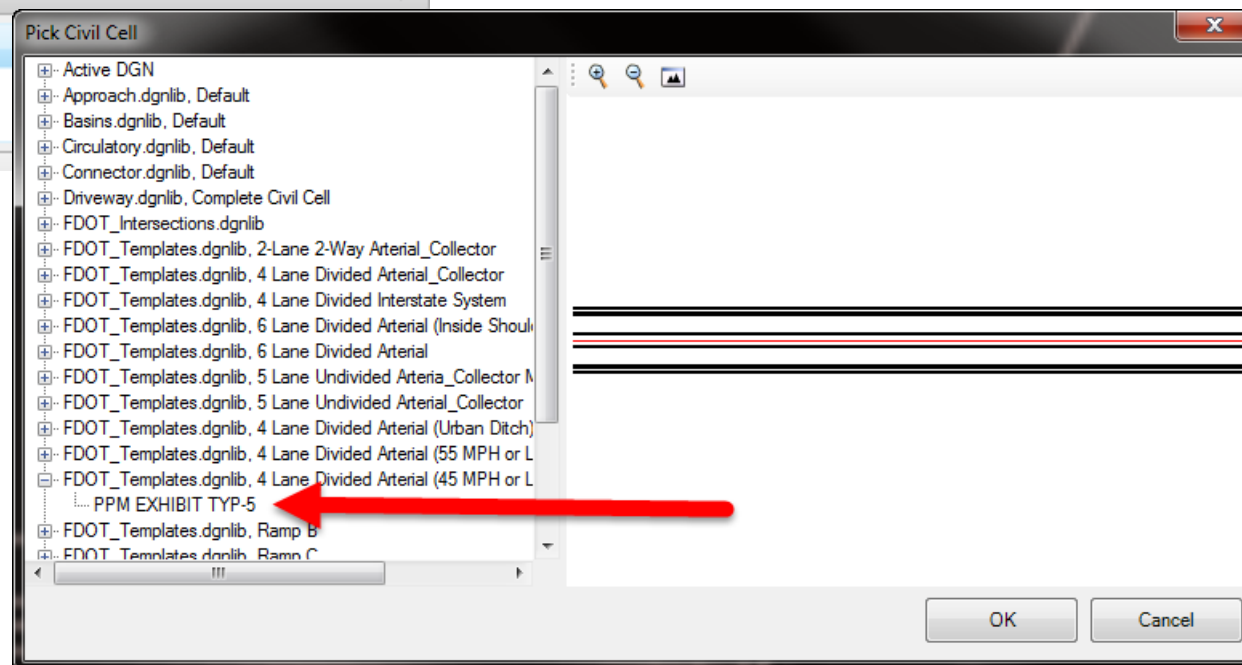
- ◆ Place Civil Cells
  - Draw 2D Template Lines
  - Left Turn with TS
  - Right Turn
  - Rural Sideroad
  - Urban Driveway



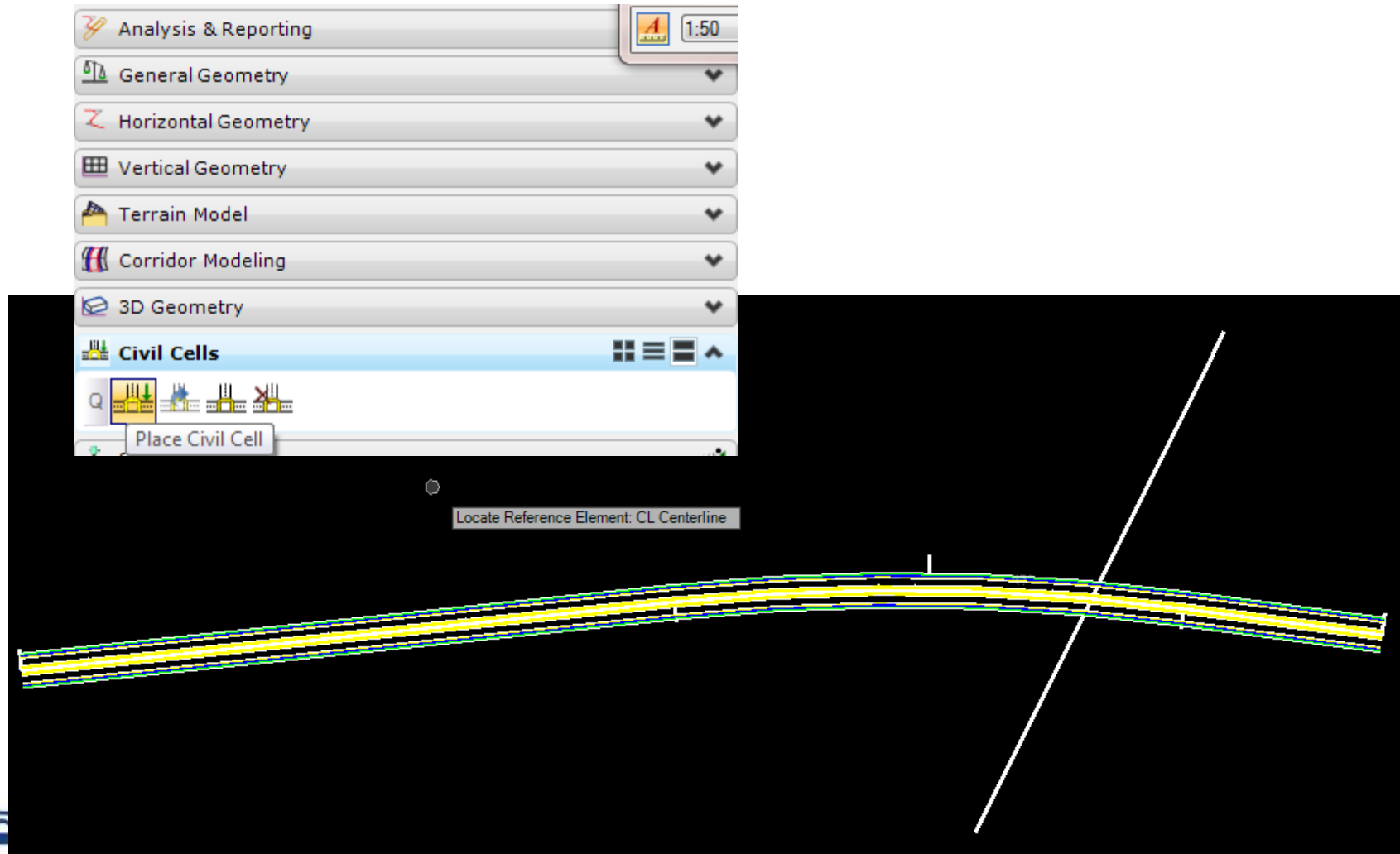
# Place Civil Cells



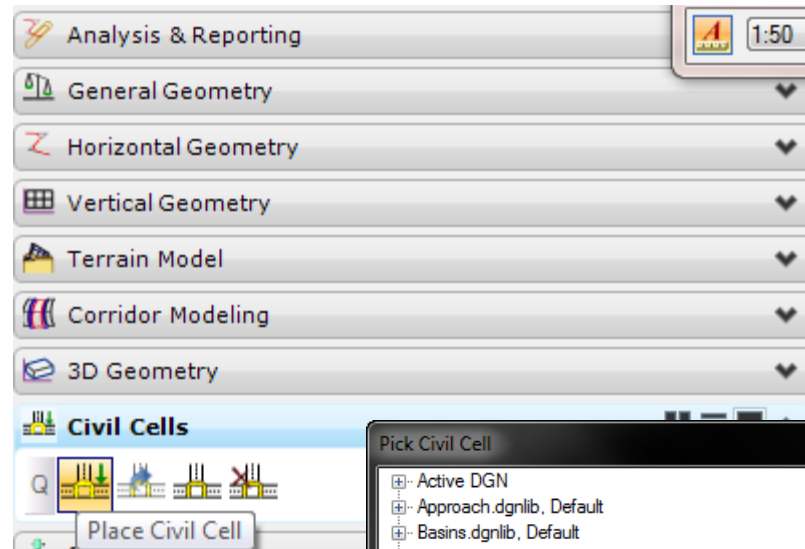
2D Template Lines



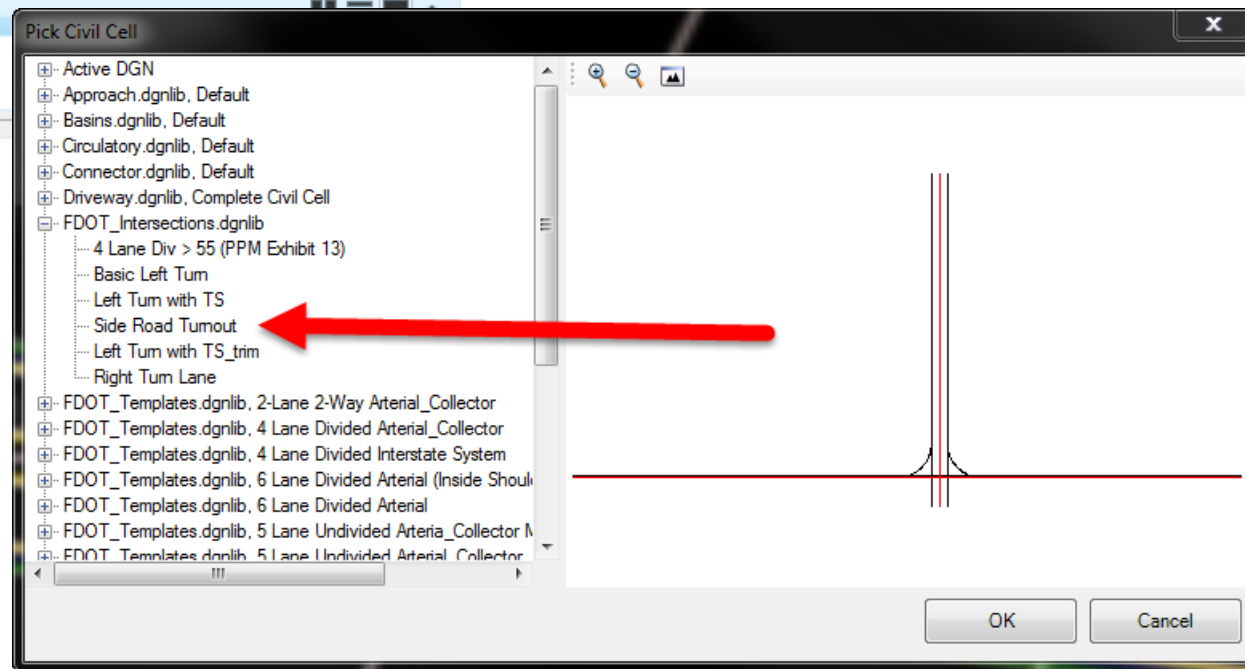
# Place Civil Cells



# Place Civil Cells



Side Road

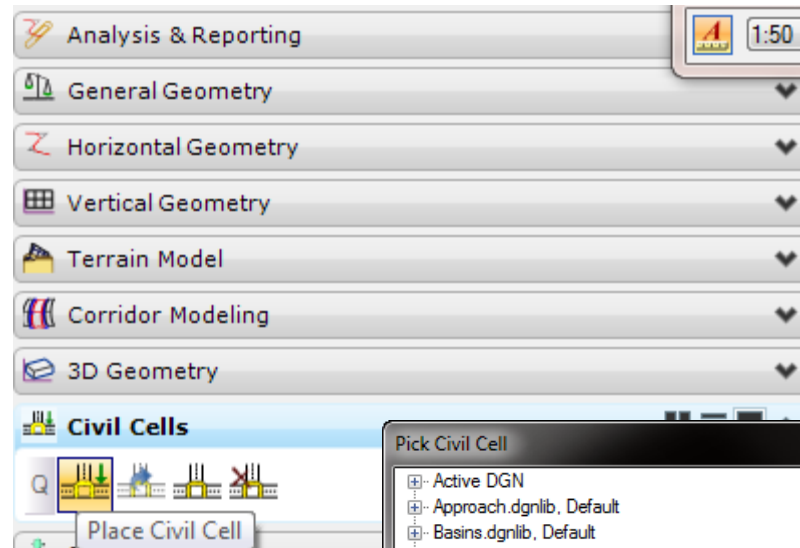


# Place Civil Cells

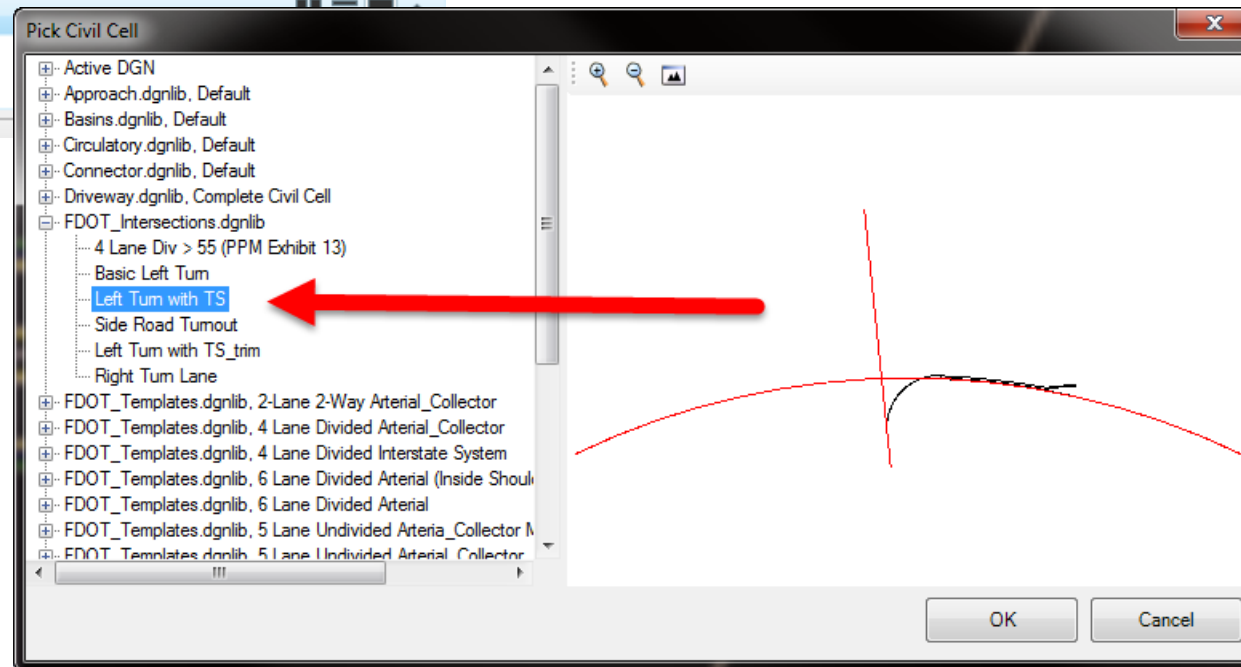




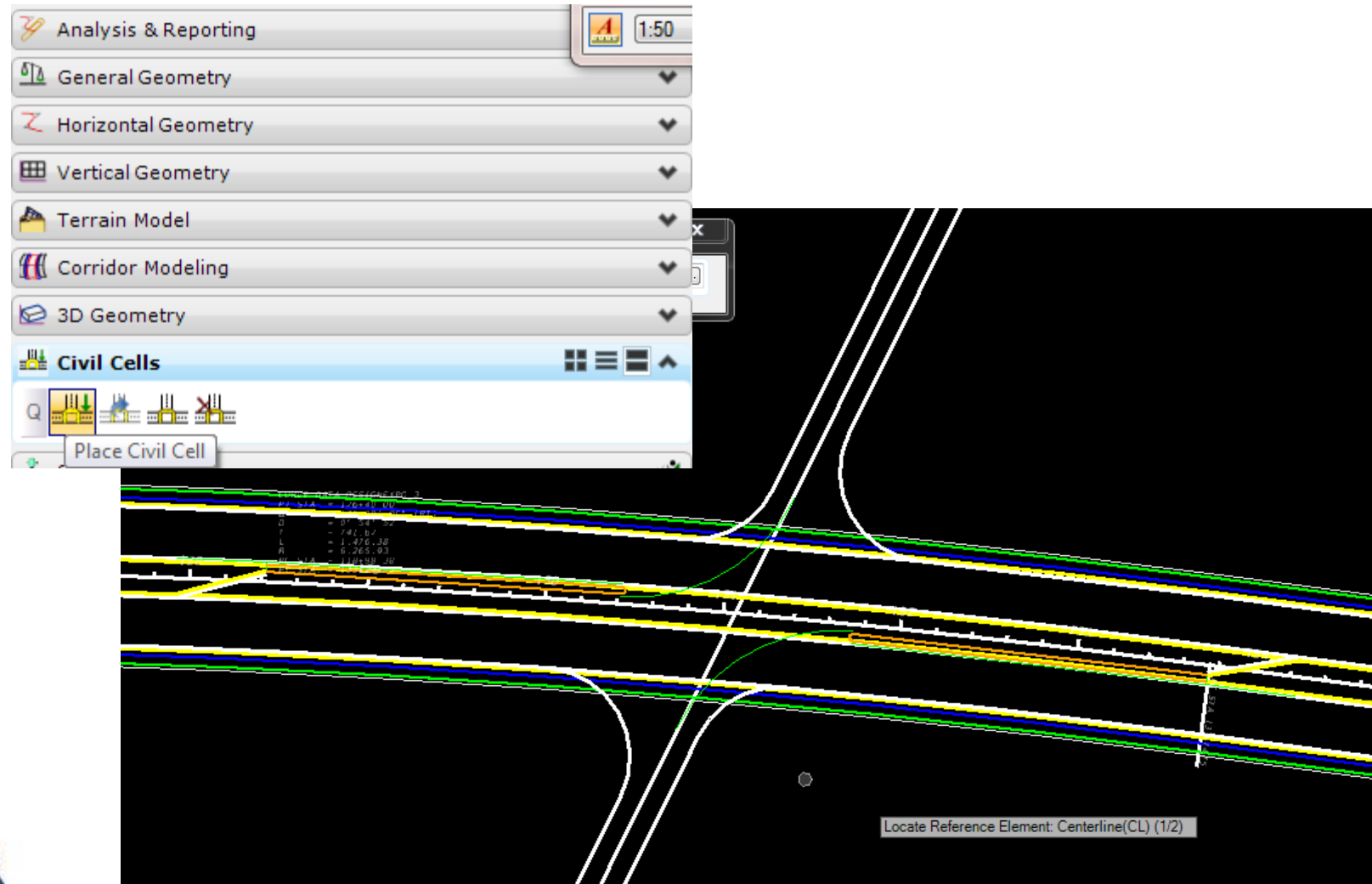
# Place Civil Cells



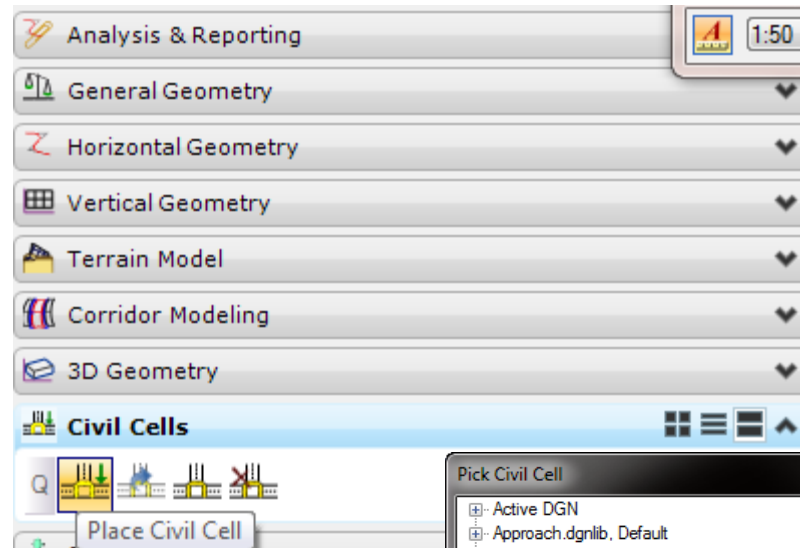
Left Turn w/ TS



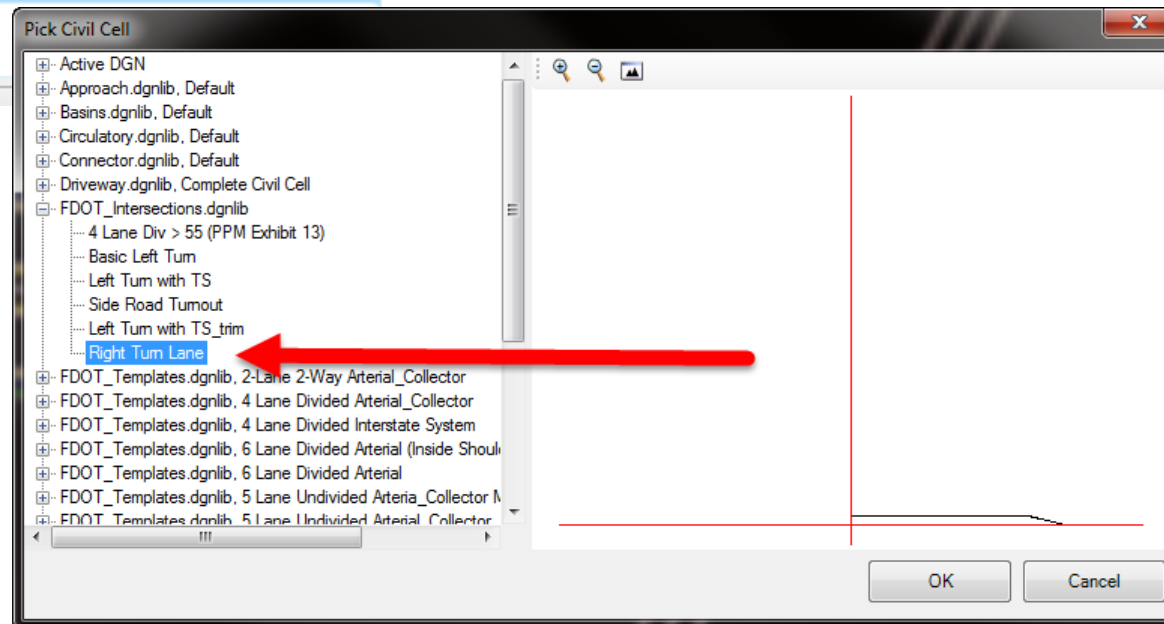
# Place Civil Cells



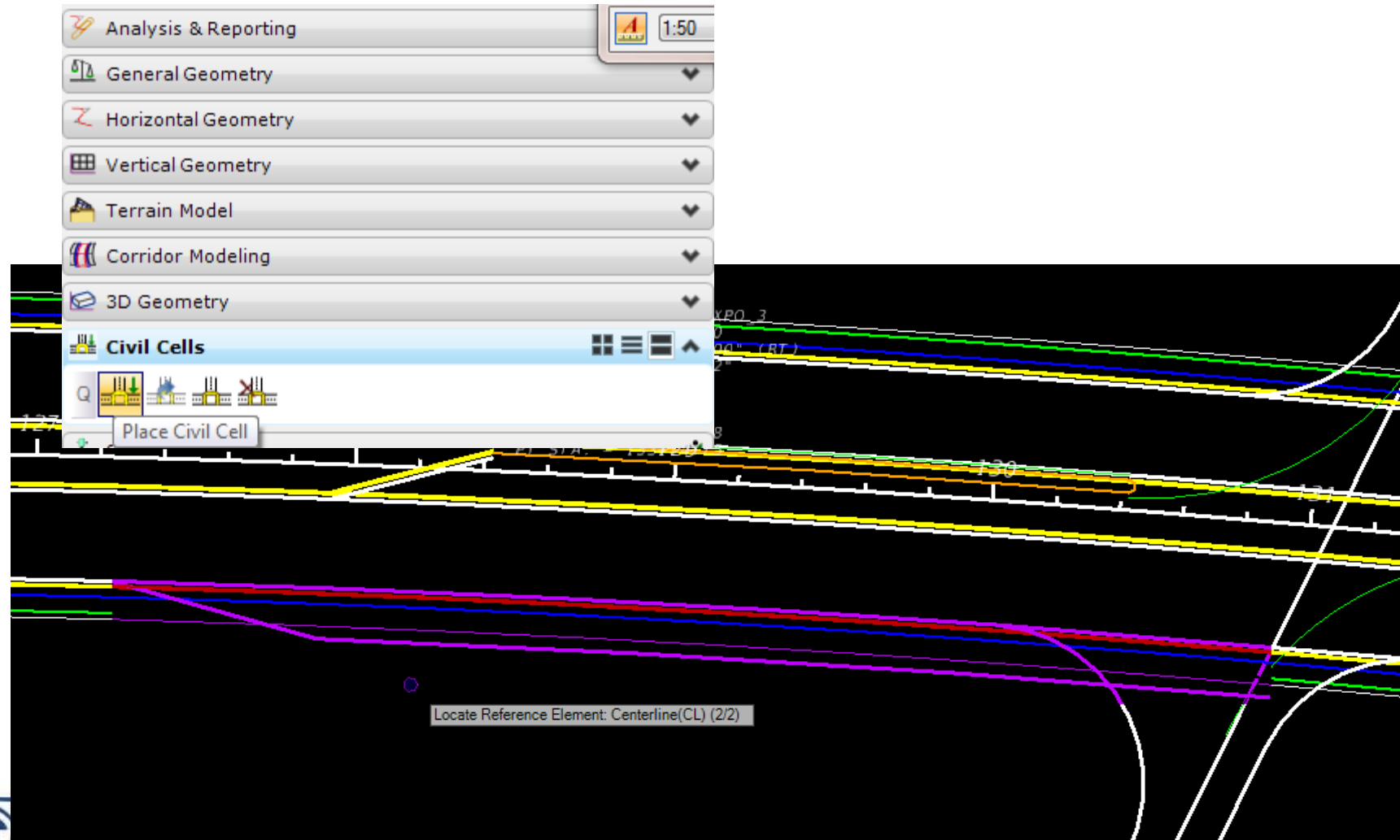
# Place Civil Cells



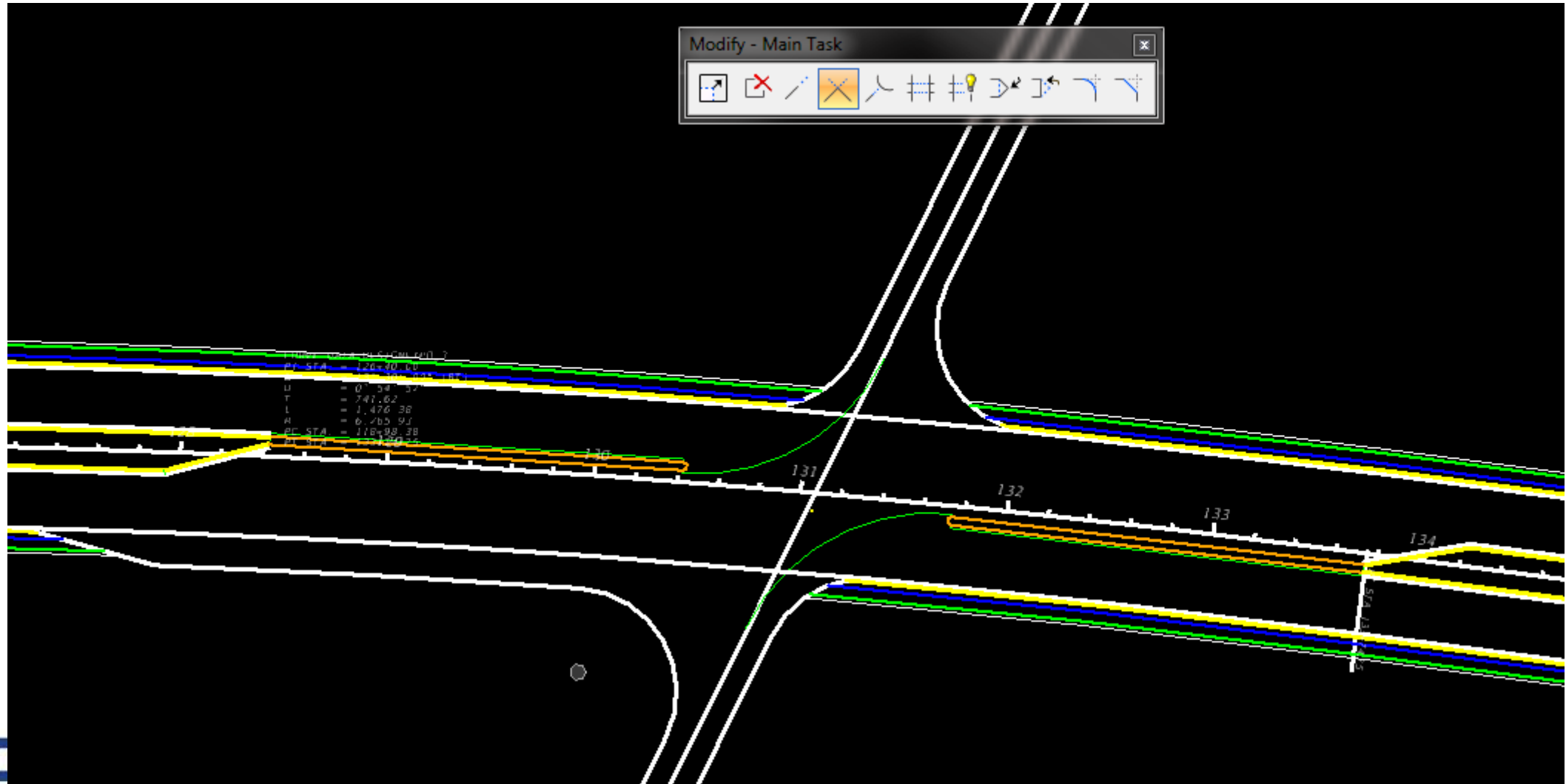
Right Turn Lane



# Place Civil Cells



# Modify Civil Elements

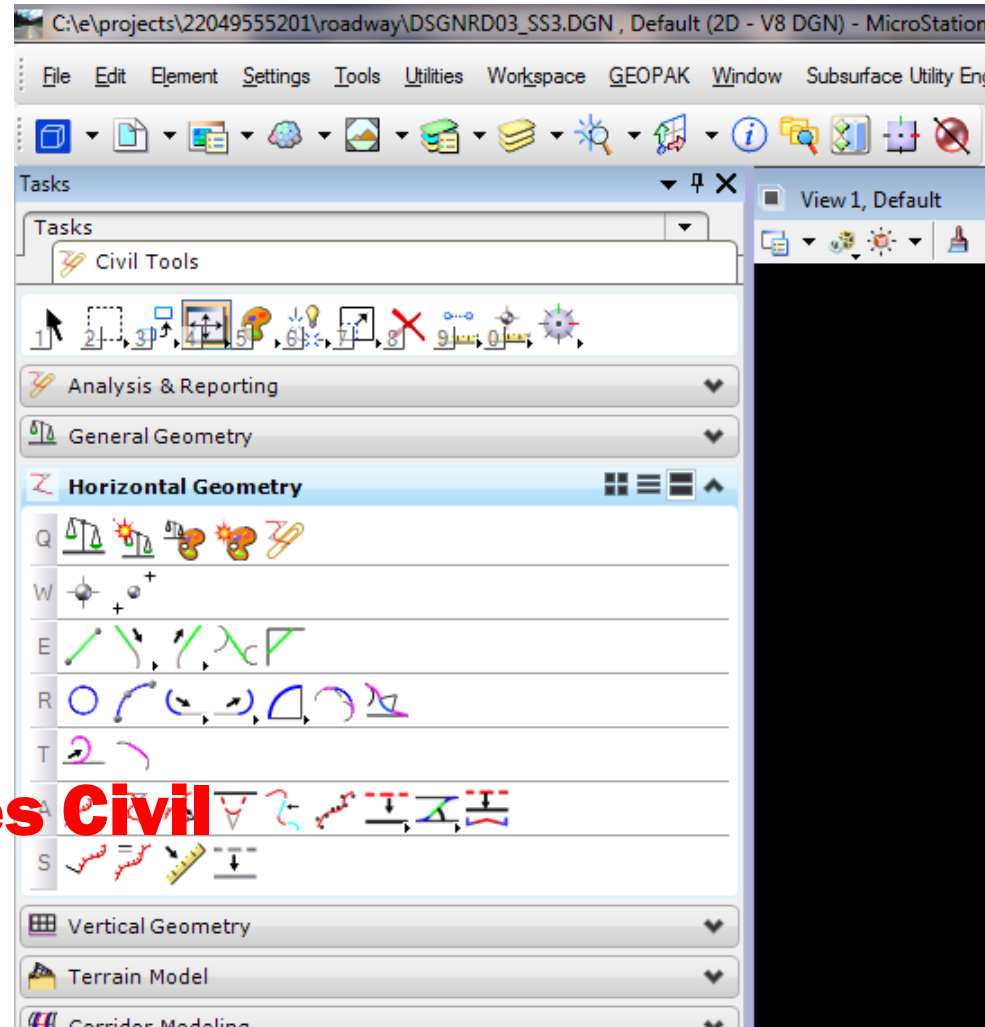


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**Demonstration:**

**MicroStation versus Civil  
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## Contact Information

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