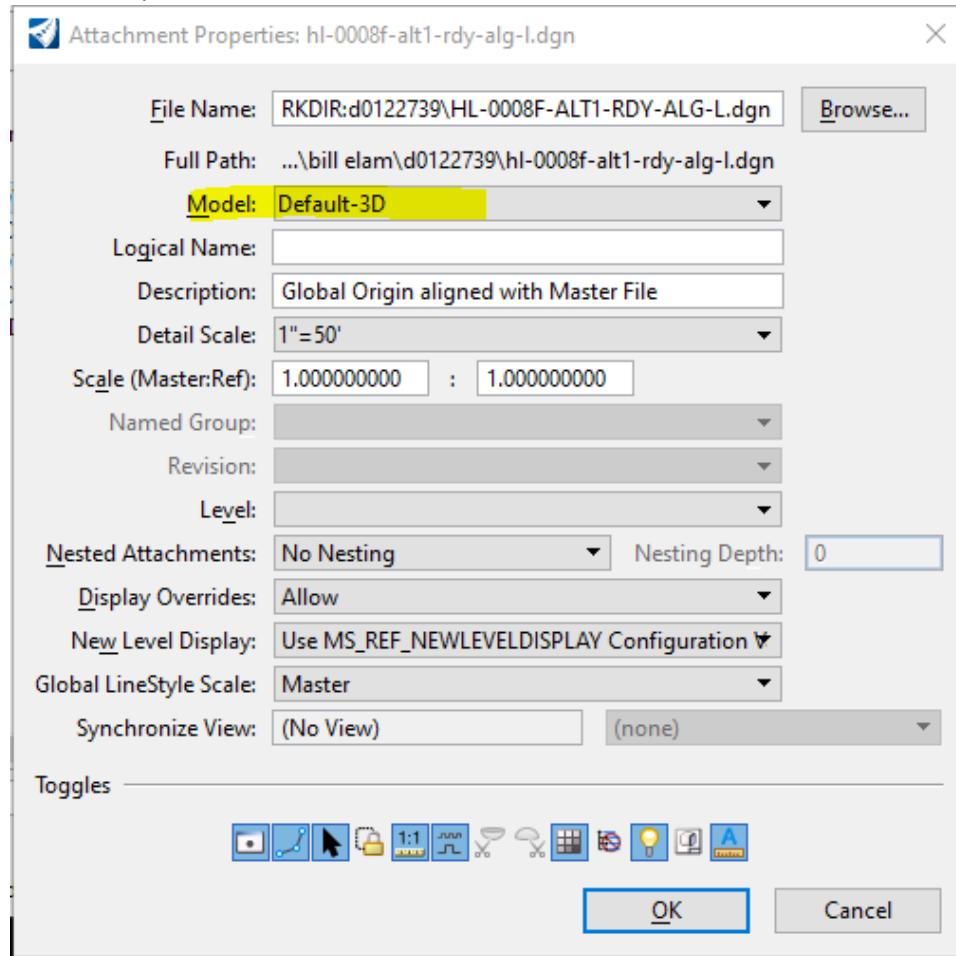
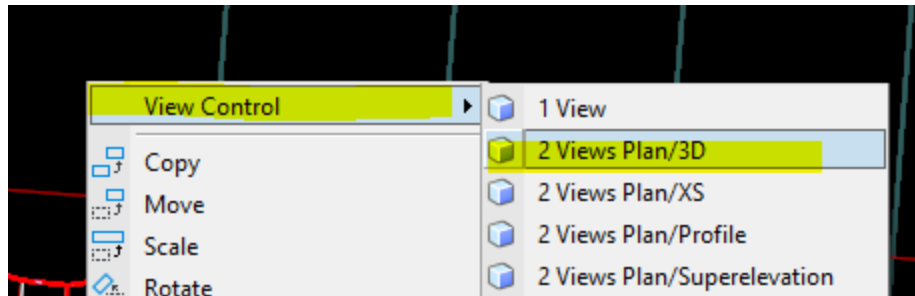


Creating Hydro Cross Sections for Redline Review

1. Create a New 2D file using NCDOT 2D seed file. See ORD Best Practices
2. Reference your complex terrain model. See Section 2 of the Drainage and Utilities Manual
3. Set the terrain to active. This will create a 3D model in the file.
4. Reference Roadway's CMD and ALG files. I recommend that you reference each one individually for more consistent results. Do not reference the combined CMD or ALG files.
 - a. Also when you reference these files, set the model to Default-3D



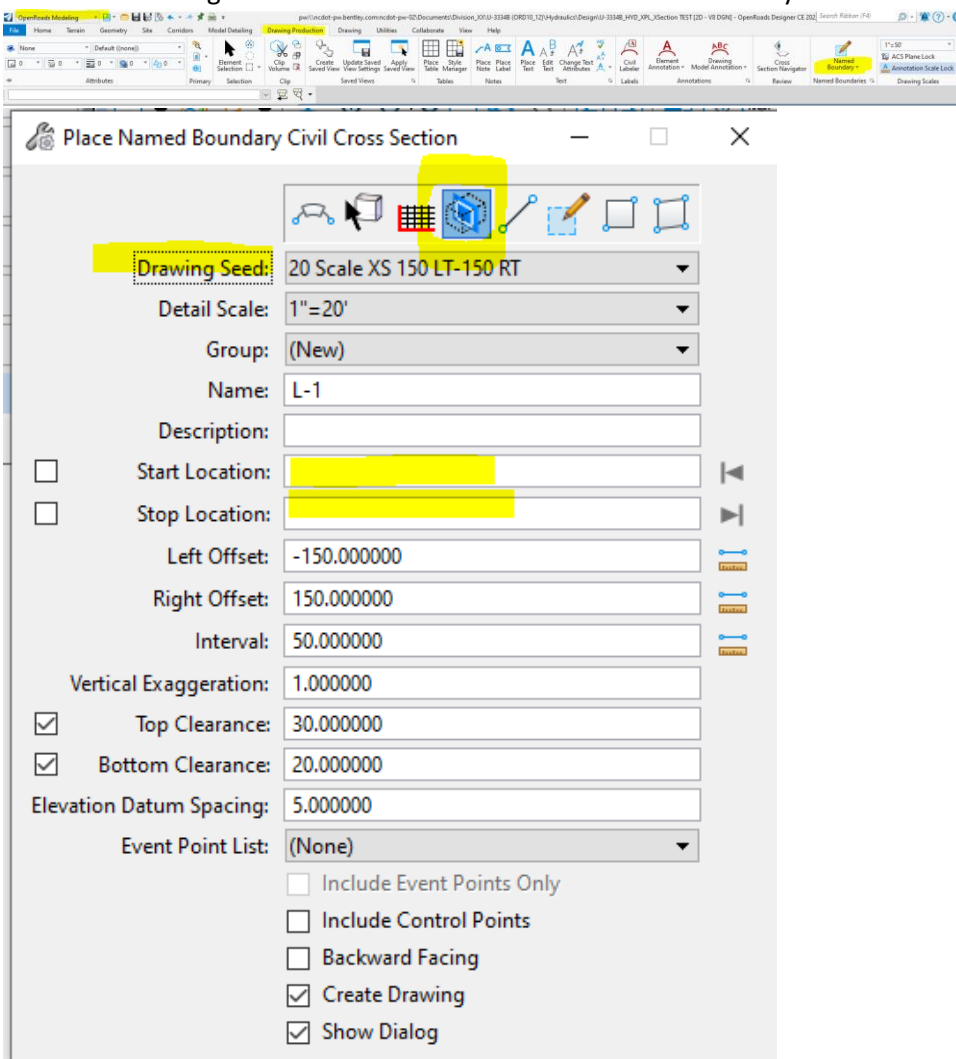
5. Once all the files are attached, make sure you are in the OpenRoads Modeling workflow
6. Right click and chose View Control>2Views Plan/3D



a.

7. Go to the Drawing Production tab and Select the Named Boundary tool

8.

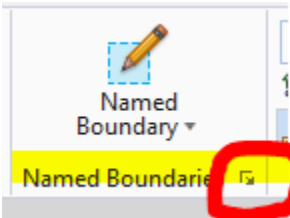


9.

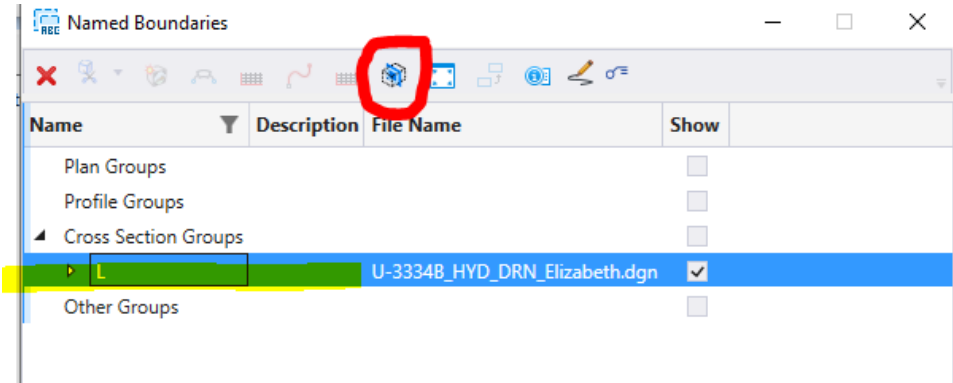
- a. The 4th button on top of the tool is the Civil Cross Section. Select that option
- b. Drawing Seed: Typically, you will pick the 20 Scale
- c. Next steps are to select the alignment and set the beginning and end stations. I have more success picking the alignment in the Plan View.
- d. Once you pick the alignment, you can either select the Start and Stop locations by moving your cursor or entering the stations in the fields.
- e. Follow prompts to accept all your inputs.

10. At this point you should see blue lines in the plan view and “panes’ in the 3D view where the cross sections will be created.

11. Now we need to create the Drawing Models and Sheets



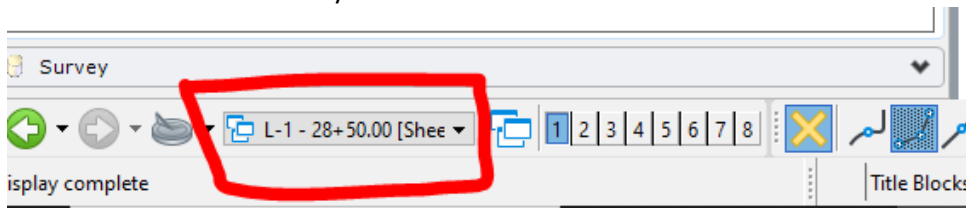
12. Select the button in the corner beside Named Boundaries.



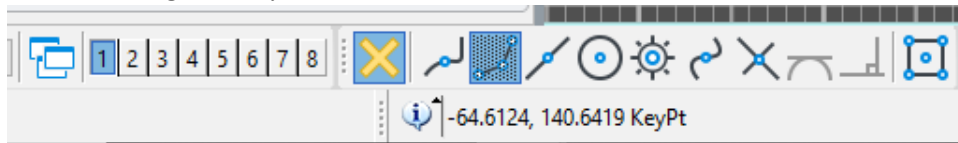
- 13.
- a. Path down to your cross sections by choosing Cross Section Groups and selecting your cross sections
 - b. Then select Create Cross Section Drawings (circled)

14. Depending on how many cross sections must be created it will take a while. I created 1300’ of cross sections at 50 ft intervals (so 26 cross sections), and it took about 2 minutes.

15. You have a drawing model for each cross section. You can change models using the tool in the bottom left hand corner of your screen.



16. In the drawing model you can use the coordinates for elevations and offsets.



17. Multiple cross sections can be put on a sheet.
18. How to print cross sections will be added later
19.