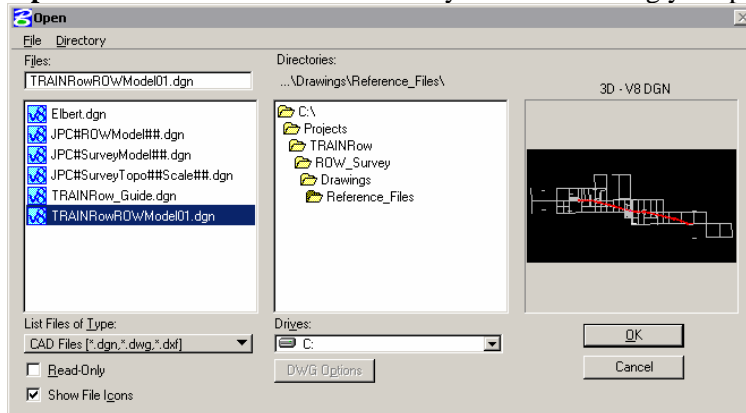


CDOT CREATING MULTIPLE PLAN SHEETS

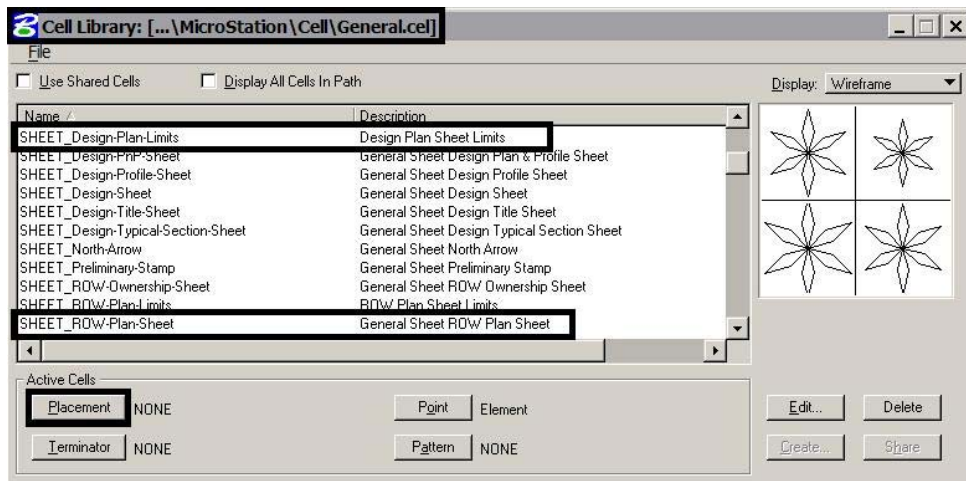
This document guides you through manually assembling multiple plan sheets using MicroStation. The major benefit of this workflow is the limits and orientations of plan sheets are determined early in the process. These sheet limits can be used to identify proper position, size, and rotation of text and tables.

Placing the Sheet Plan Limits Cell

1. Open a MicroStation model file that you will be basing your plan sheets on.



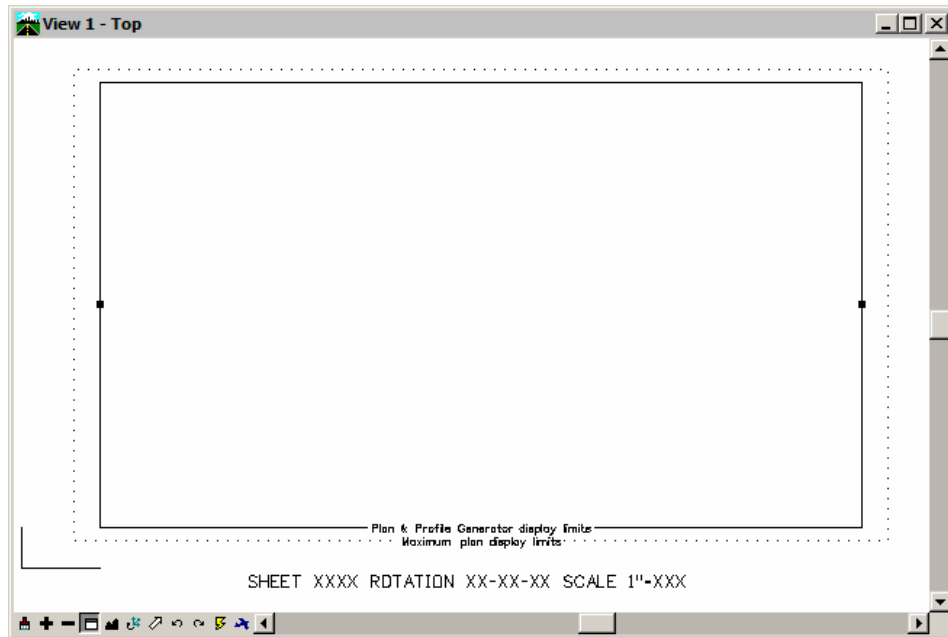
2. Select **Element > Cells** and open the **General** cell library. There are two cells in the General cell library that set the plan limits. **SHEET_Design-Plan-Limits** is to be used with the border cell SHEET_Design-Sheet. **SHEET_ROW-Plan-Limits** is to be used with the border cell SHEET_ROW-Plan-Sheet.



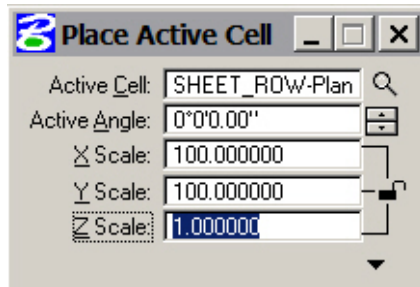
3. Set one of the two cells active depending on your discipline by double-clicking or selecting **Placement**.

4. *About the Sheet Plan Limit cell:*

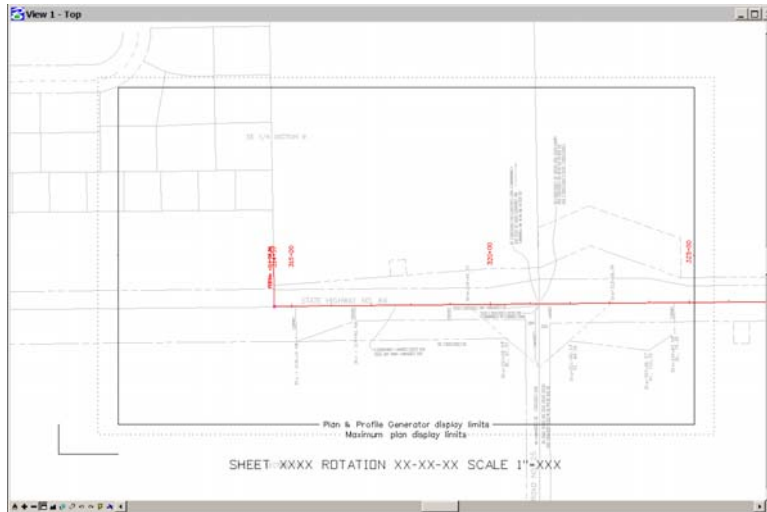
This cell helps to define the plan sheet limits in the model file before placing the border. It contains text characters that can be edited to indicate sheet name, rotation, & scale. The outer line-work depicts the maximum display limits for graphics as it relates to the border sheet. The inside shape reflects 1/2 inch inside this maximum limit and is the clipping boundary. All graphical information for this cell is on to the MicroStation level, **GEN_INFO_No-Plot**.



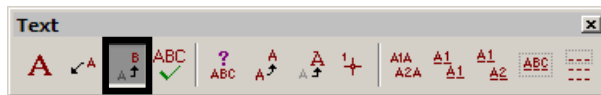
5. Under Place Active cell, set the Active Scale to the desired plot scale and set the Active Angle to 0.



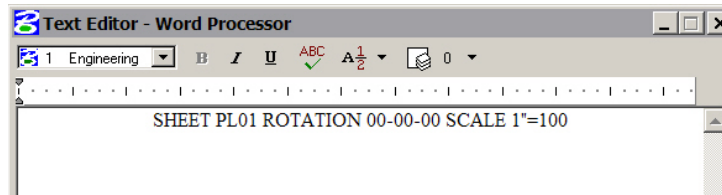
- Position the Sheet File cell as you see fit and place the cell in the model file.



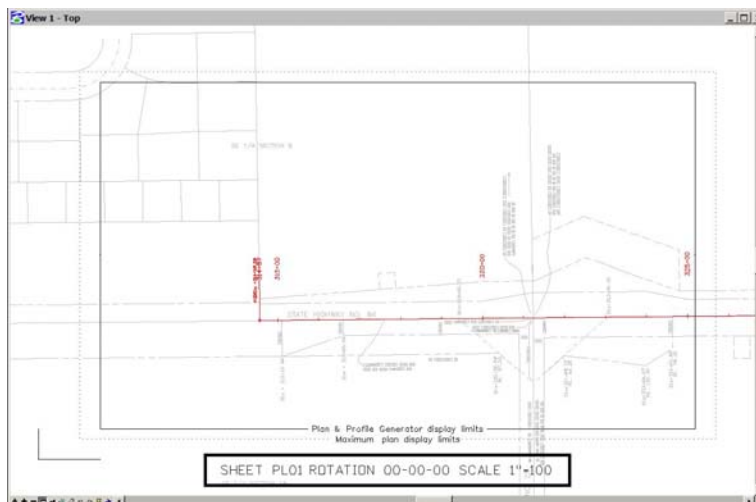
- Use the **Edit Text** command to update the text at the bottom of the sheet. This will assist in managing the sheet plan limits.



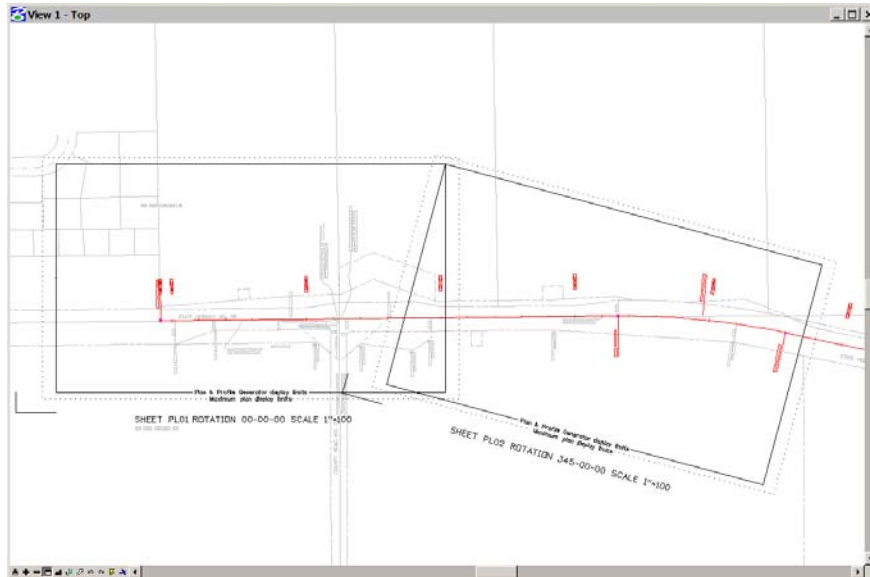
- Select the text at the bottom of the layout sheet and replace the appropriate sheet information in the **Text Editor**.



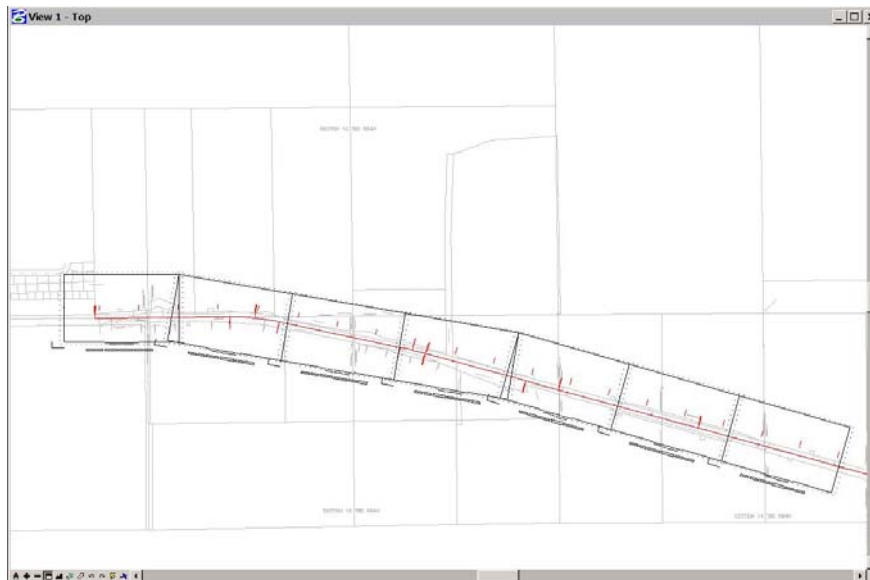
The plan sheet information text will be updated.



9. Use the MicroStation **Copy** command to duplicate the graphics for the second sheet
10. Use the MicroStation **Rotate** command to align the graphics for the second sheet.
11. Edit the information based on the Sheet name and Rotation angle for the second sheet using the **Text Enter** command.

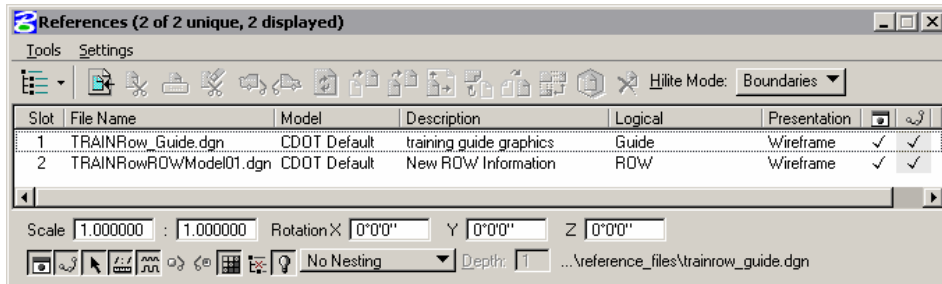


12. Continue planning the sheet layout for the remainder of the project

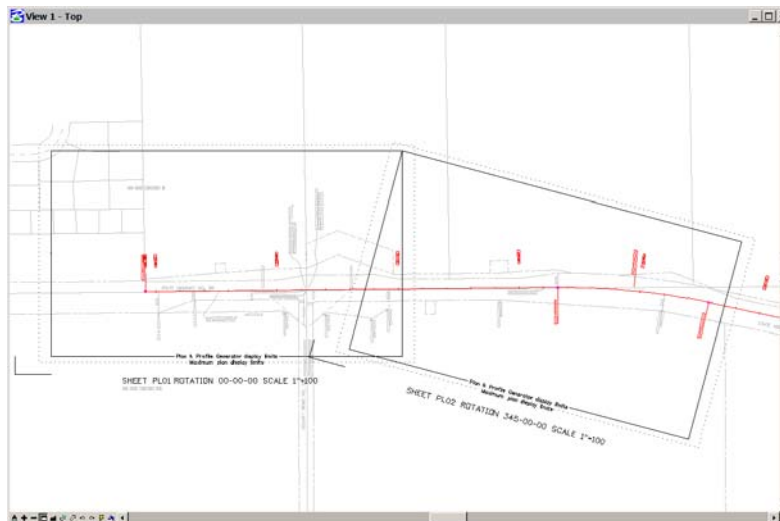


ASSEMBLING THE PLAN SHEETS

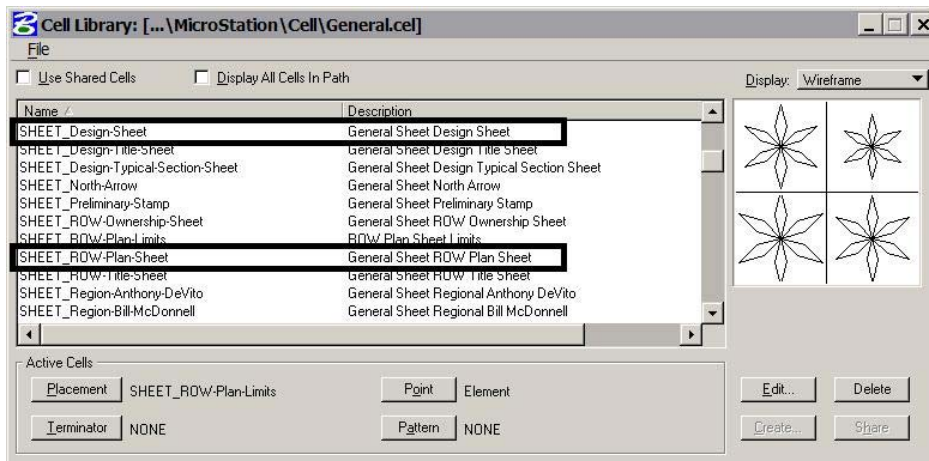
- Open up a MicroStation Sheet file and attach the model file where the Sheet Plan Limit cells were placed.



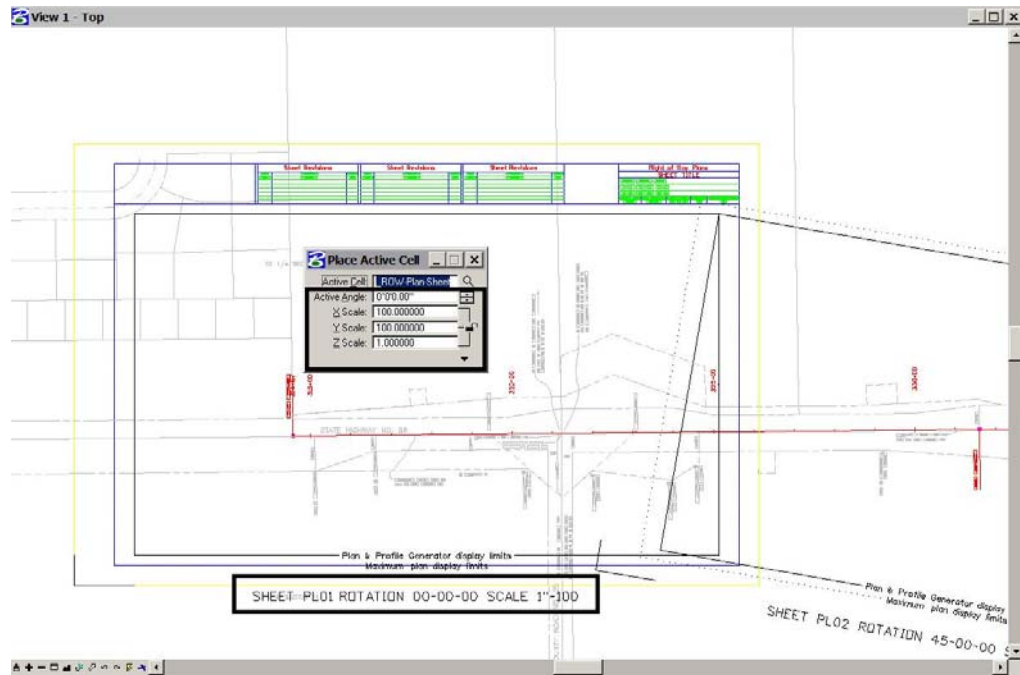
- Window** or **Zoom** into the beginning of the project so you can begin placing the border cell.



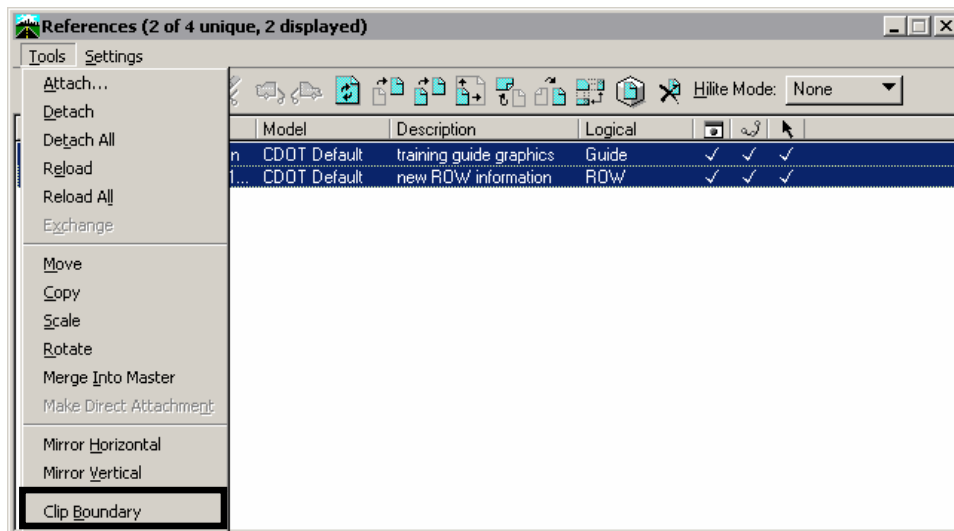
- Select the plan sheet border cell **SHEET_ROW-Plan-Sheet** for ROW and Survey or select **SHEET_Design-Sheet** for all other disciplines from the **General** cell library.



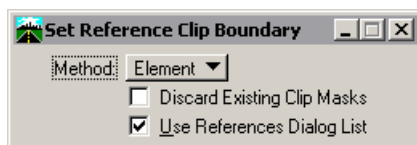
- Place the sheet border cell so the lower-left corner coincides with the corner indicated on the sheet limits cell previously placed. Set the **Active Angle** and the **Active Scale** to the same value that is indicated in the Sheet Plan Limits cell.



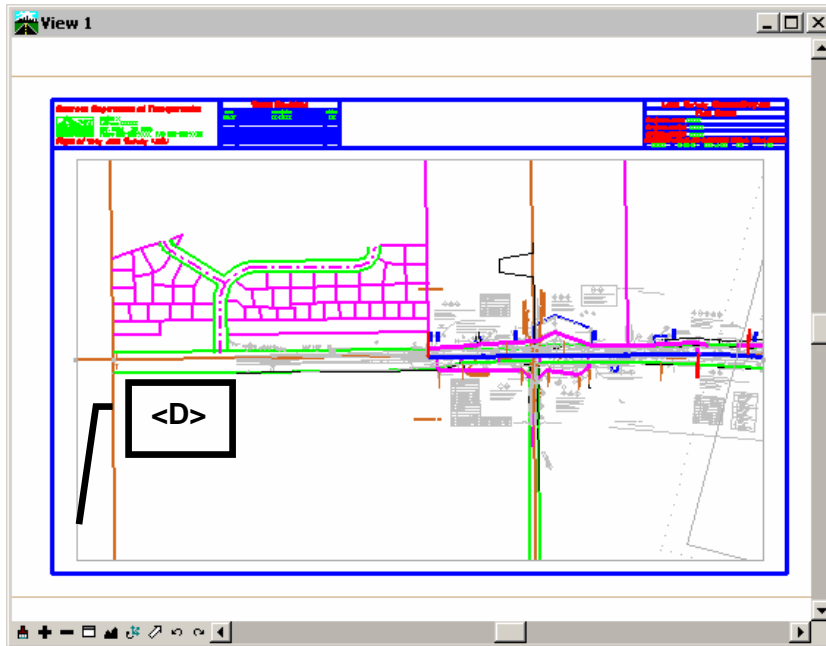
- In the Reference dialog, highlight both the reference files and select **Tools > Clip Boundary**



- In the Tool Settings dialog, select **Element**.

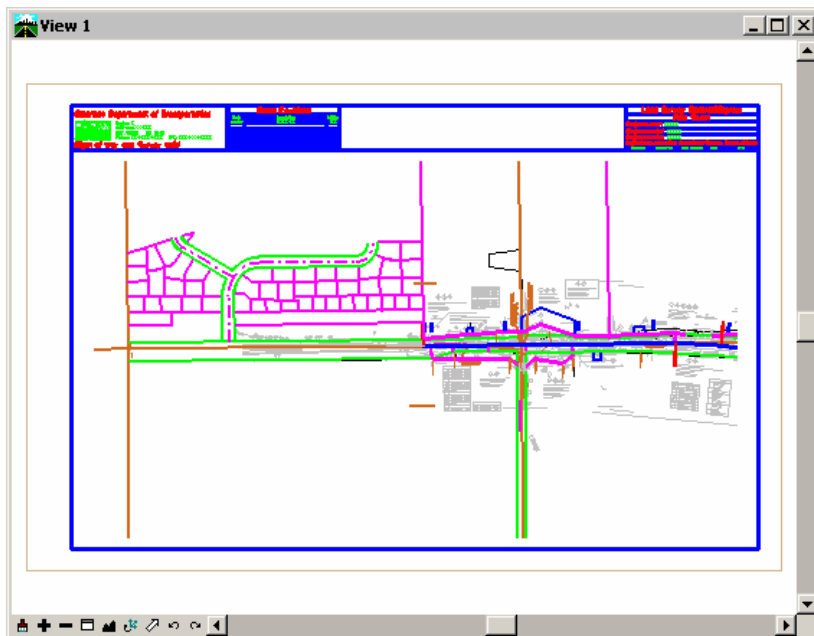


19. <D> on the shape inset 1/2 inch from the border



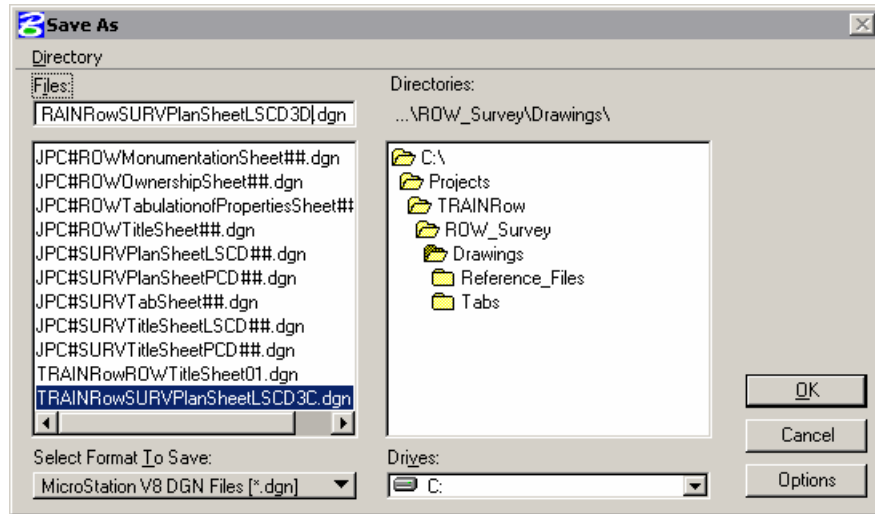
The plan sheet display limits are now constrained to a desirable limit.

20. Make appropriate edits to the title block and add any sheet specific information necessary.

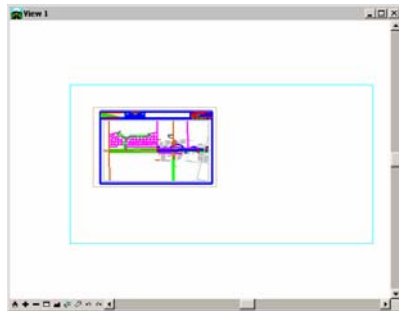


Using the tentative (snap) button on the mouse to query coordinates reports values that correctly reflect project coordinates. Additionally an InRoads command, such as tracking, will verify the graphics are coordinately correct.

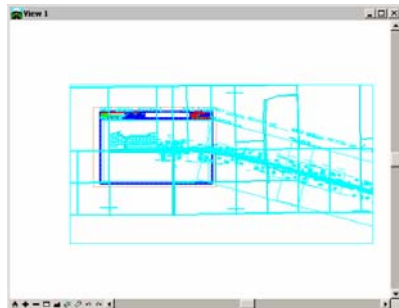
21. Once the first sheet is done, the second sheet is much easier. It is easier because the sheet file can be duplicated with the reference files already attached. Moving the border sheet and redefining the clipping boundaries will define subsequent sheets.
22. Select **File > Save as** and input the next consecutive file name.



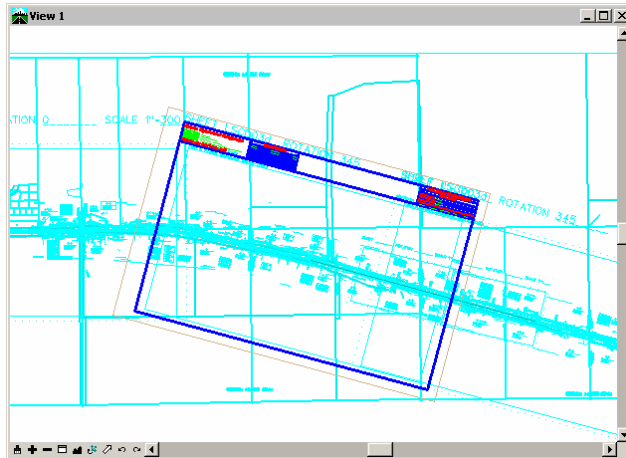
Note: The Save As command will automatically save the current drawing to the hard drive, then copy and rename to the specified file name and open the new drawing.



23. Place a MicroStation *fence* over an area that would encompass the next sheet in the set
24. In the References dialog, identify both files and Select **Tools > Clip Boundary** – use fence



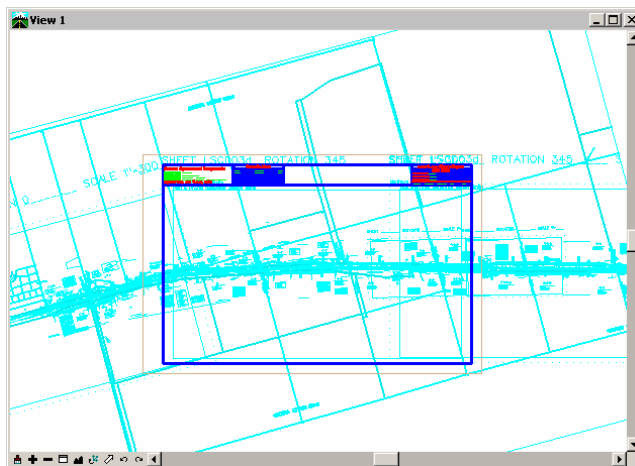
25. <D> on the MicroStation screen to accept the new clip boundary
26. **Turn On** the level *GEN_INFO_No-Plot* in the reference file *TRAINRowRowModel01.dgn* to turn the sheet lay-outs back on
27. Use the MicroStation **Move** command to relocate the border sheet. Also **Rotate** the border sheet to align with the predefined sheet limits



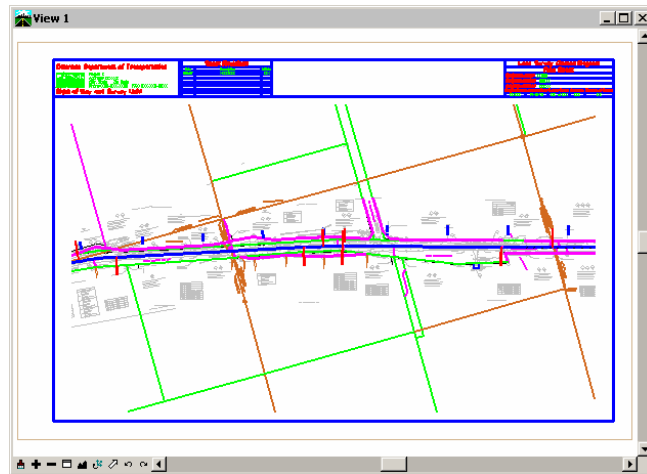
Rotate the MicroStation view so that the sheet is normal to the view

28. Key-in *rv=0,0,15* (rotate view = value) for this 3D file
rv=15 if in a 2D file
29. <D> on the MicroStation screen to initialize the rotation

Note: The above key-ins vary based on the dimension of the MicroStation file, 2D or 3D. When working in a 3D file, the key-in is: *rv=15* (rotate view=x-value, y-value, z-value)
Rotation is specified in relative to the Z axis as that is the axis perpendicular to the view.



30. Define the reference file clip boundaries as in steps 17-19 above



Note: Rotating a MicroStation view simply rotates the viewing of the graphics. The coordinate system is still relative to the graphics and any coordinate or alignment information extracted will be correct.

31. **Update** information in the title block of the sheet as necessary
32. Select **File > Save Settings**
33. Repeat this procedure to complete the remainder of the sheets.