Georgia Department of Transportation

How to Correct DGN Files for EPD Review

Microstation J and Microstation V8

Office of Design Policy & Support

Developed By	Office of Design Policy & Support
Product Version	Microstation J and Microstation V8
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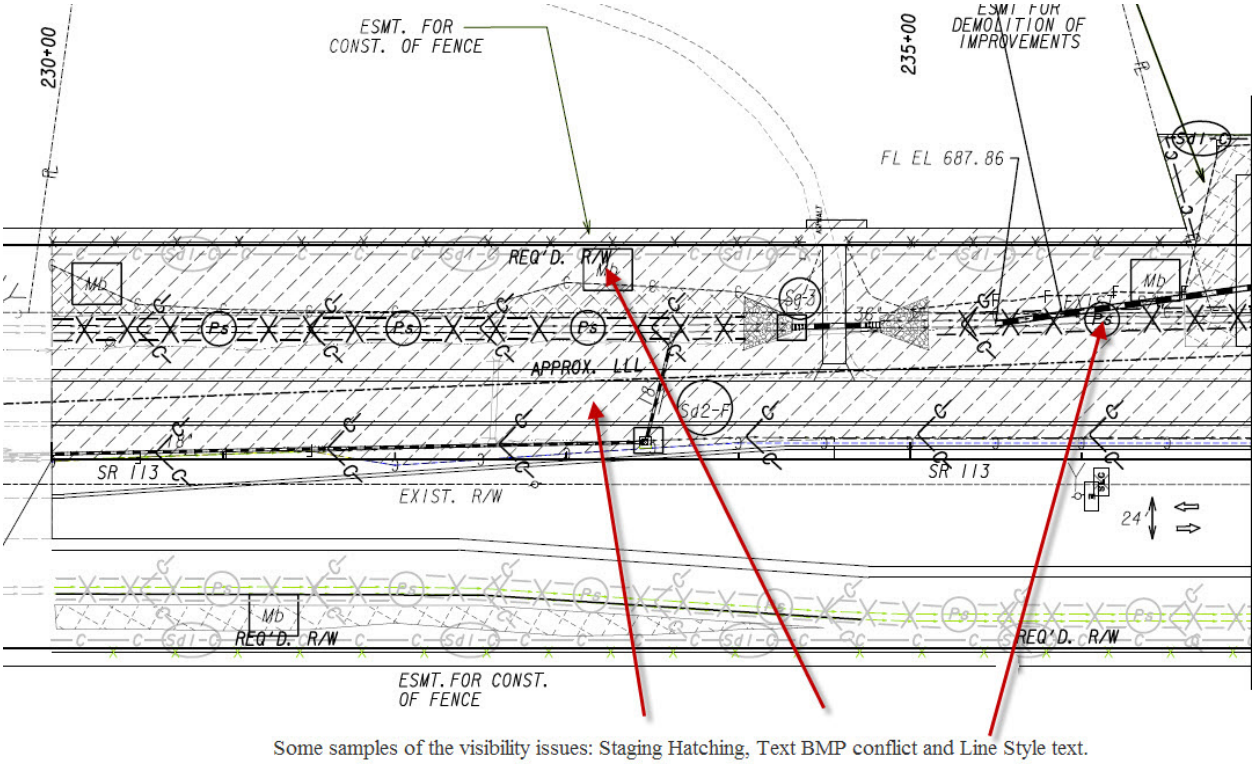
The Office of Design Policy & Support is working with the Hydrology / Hydraulics Studies Group to help resolve some concerns of the legibility of Erosion Control plans being submitted to the State Environmental Protection Division (EPD). These Erosion Control plans are for the EPD to review and ensure the Department's Erosion Control Plans are in Environmental compliance before approving the "Notice of Intent". The legibility issue consists of roadway items, construction limits, drainage structures and other construction activities not being clearly visible. Please see the screen caption below for some examples of the visibility issues.



Some samples of the visibility issues: Staging Hatching, Text BMP conflict and Line Style text.

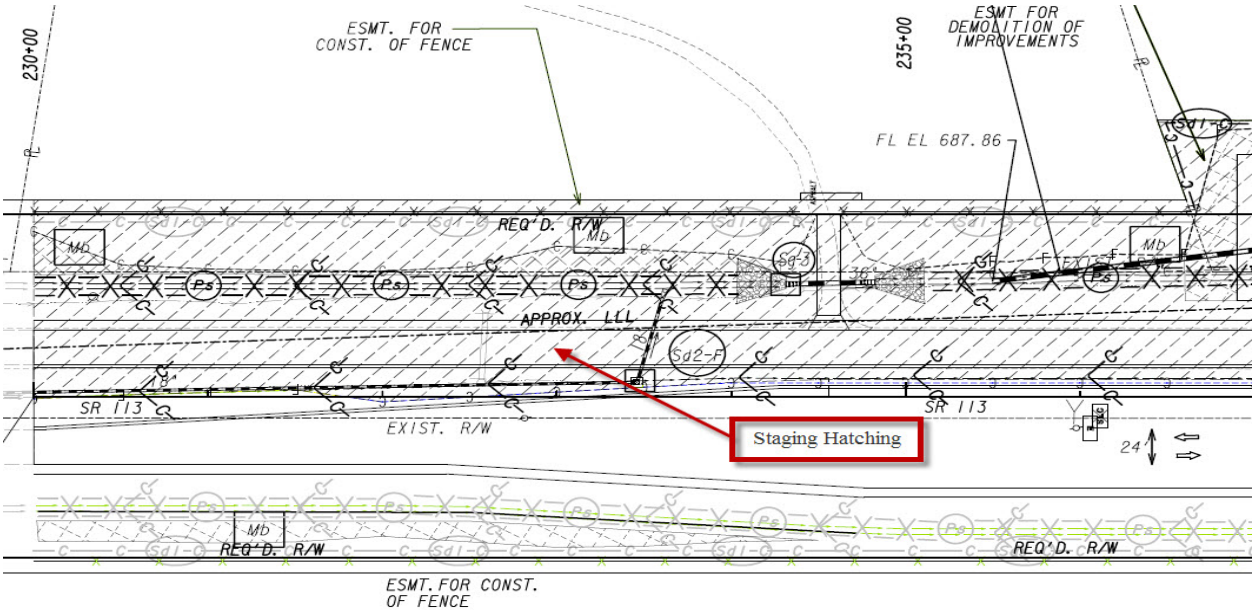
Example Erosion Control Plan Sheet Rejected by the EPD

Some of the things that can be done to clear up the visibility issue will be to turn off the Staging Hatching, Shift the line style elements and cells for clarity and then Fade-back everything except what is being built in this stage. The Office of Design Policy has agreed to come up with a workflow to help correct these issues. The following steps will show the designer:

- How to turn off the Staging hatching by using "Levels Off by Element" command.
- How to make line styles more visible by using the Shift Line Style Element command.
- How to save the Super View and Recall the Super View.
- How to use "TOP" in the logical name to fade back reference files.

1.) How to turn off the Staging Hatching level?

As you can see in the example below, the staging hatching adds clutter to the drawing file and it gives poor visibility to the BMP'S. The goal of turning off the level with the staging hatching can be accomplished by using the "Levels Off by Element" command. This method will be illustrated in the following examples for Microstation J and Microstation V8.

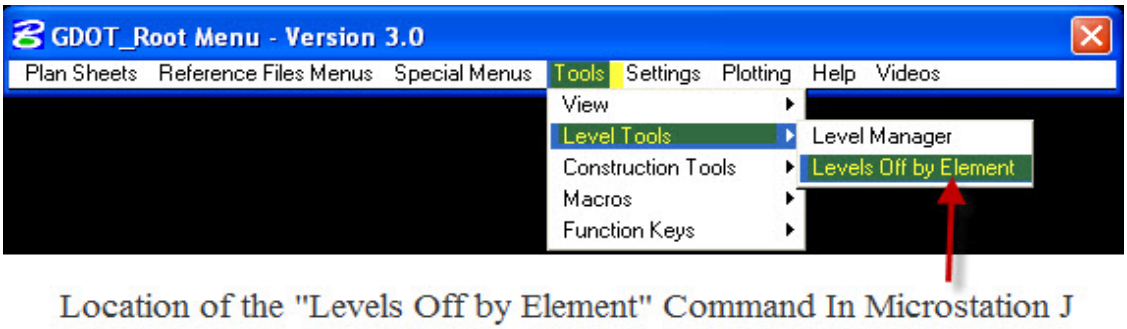


Example Erosion Control Plan sheet with Staging Hatching

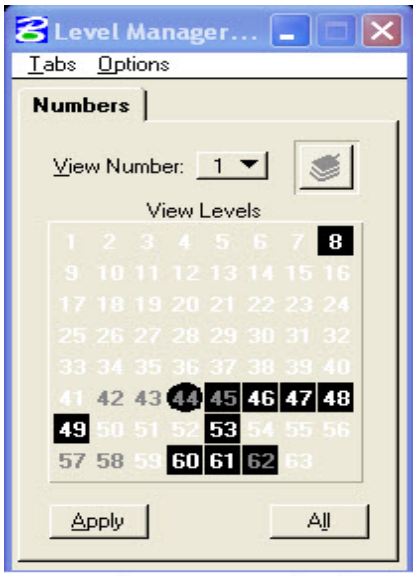
MICROSTATION J

To turn off the stage hatching level you need to go to the GDOT_Root Menu – Version 3.0 in Microstation J and Navigate to the following location.

Microstation J➔ GDOT_Root Menu – Version 3.0 ➔ Click on Tools ➔ Level Tools ➔ This will activate Level Display Level Manager dialog box.



Example Location of the "Levels off by Element" Command in Microstation J



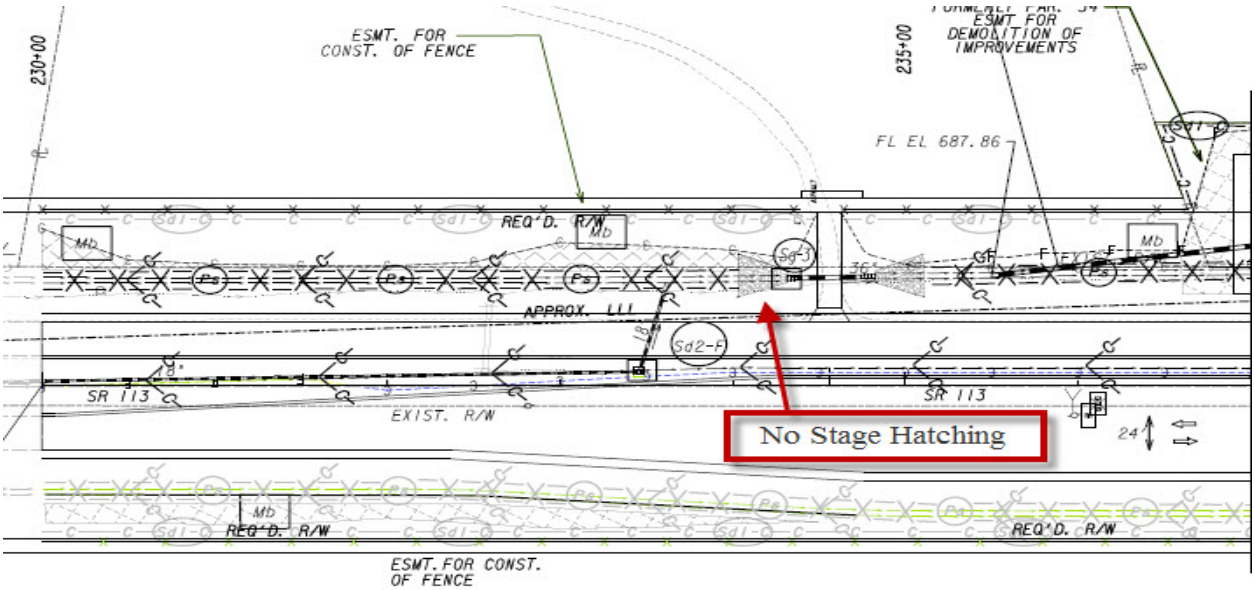
Level Manager Display
Dialog box

Example Level Manager dialog box

Once the Level Manager Dialog Box has been activated, you may begin selecting elements that need to be turned off. This command will turn off the level for any selected element located in the sheet file or the selected element in the associated attached reference file.

Warning: Please make sure that no elements, other than the Hatching pattern has been turned off by the "Levels off by Element" Command.

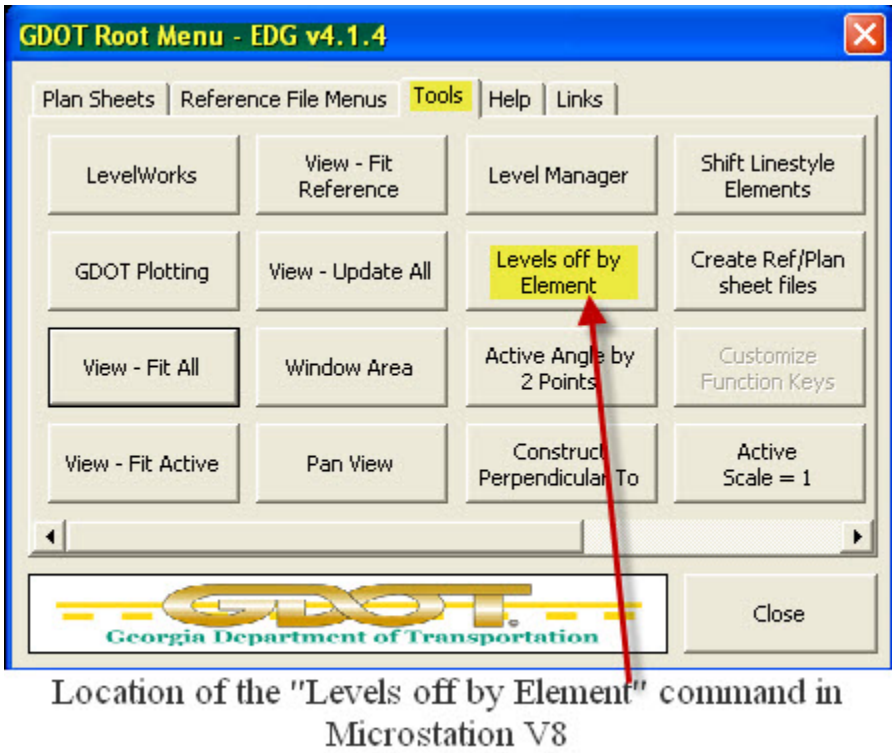
As you can see in the example below, the Bmp's are more visible with the Staging Hatching level turned off.



Example Erosion Control Plan sheet with Staging Hatching Level turned off

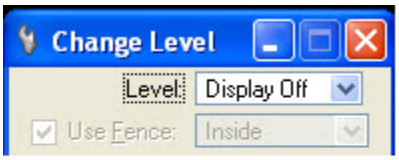
MICROSTATION V8 Select Series 2

To turn off the stage hatching level in Microstation V8 you will need to go to the GDOT_Root Menu – EDG v4.1.4 and Navigate to the following location.



Location of the "Levels off by Element" command in Microstation V8

Example Location of the "Levels off by Element" Command in Microstation V8



Change Level Dialog Box in Microstation V8

Example Change Level dialog box

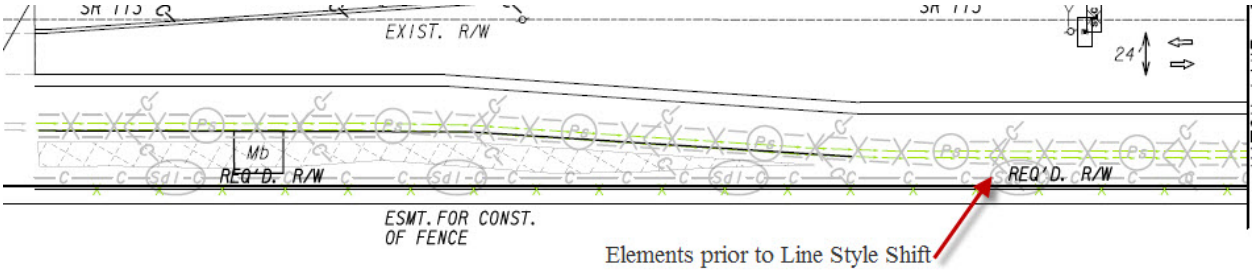
Once the Change Level Dialog Box has been activated, you may begin selecting elements that need to be turned off. This command will turn off the level for any selected element located in the sheet file or the selected element in the associated attached reference file.

Warning: Please make sure that no elements, other than the Hatching pattern has been turned off by the "Levels off by Element" Command.

2.) **How to make line styles more visible by using the "Shift Line Style Element" command?**

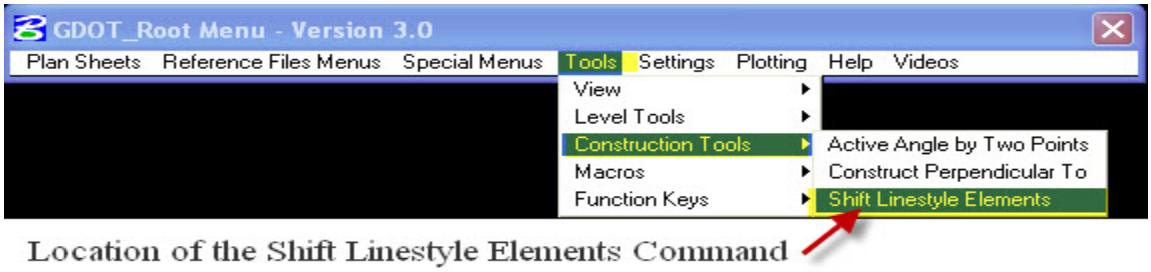
<u>MICROSTATION J</u>

In the picture below, you will see an example of an element in a custom line style that can be shifted by using the Shift Linestyle element command located in the GDOT Root Menu.



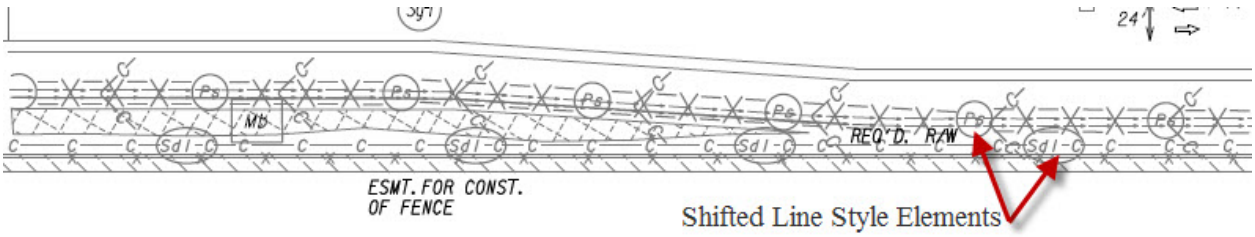
Example of elements in a line style that can be shifted to improve visibility

To activate Shift Linestyle elements command in Microstation J you will need to go to the GDOT_Root Menu➔Select Tools➔Construction Tools➔Click on the Shift Linestyle elements command. This will activate the Shift Linestyle elements command and then you can select and shift the element in the line style until it is visible.



Example showing location of the Shift Line Style Elements command in Microstation J

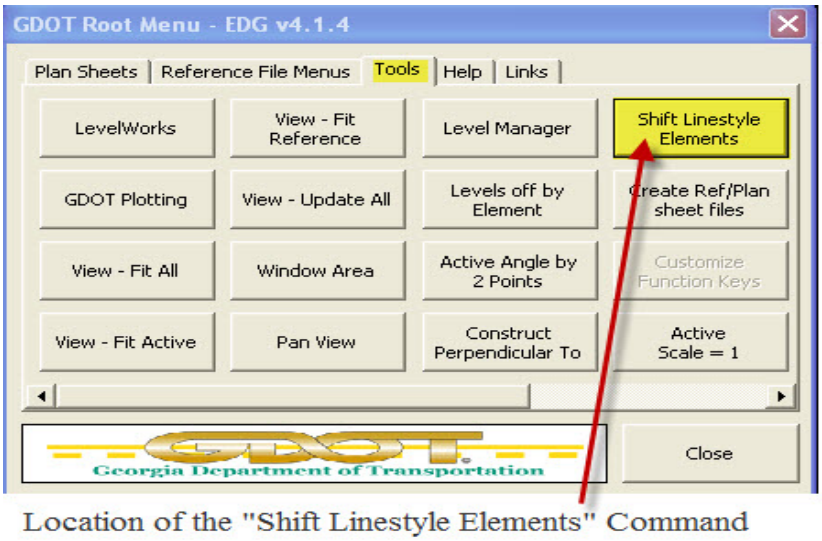
In the example below you will see the Linestyle elements after they have been shifted using the Shift Line Style Elements command.



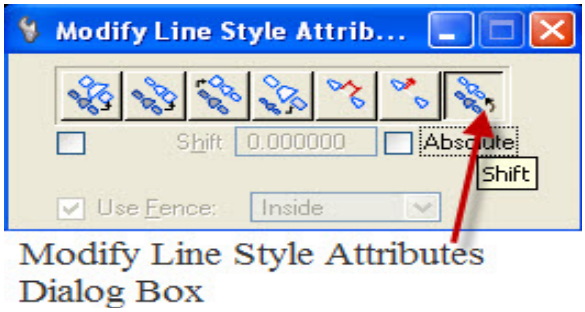
Example showing elements of Line Styles after they were shifted for clarity

MICROSTATION V8 Select Series 2

To activate the "Shift Linestyle elements" command in Microstation V8 you will need to go to the GDOT_Root Menu➔Select Tools➔Click on the "Shift Linestyle elements" command. This will activate the "Shift" command in the Modify Line Style Attributes Dialog Box and then you are able to select and shift the element in the line style until it is visible.



Example showing location of the Shift Line Style Elements command in Microstation V8

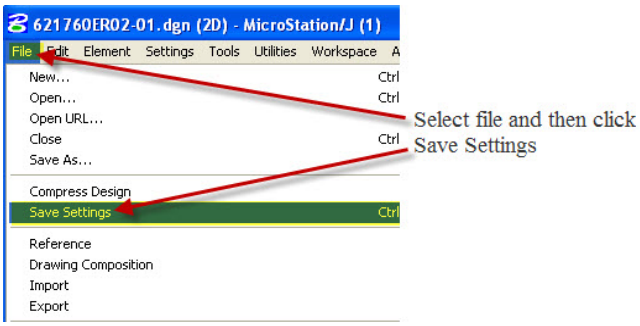


Example showing the "Shift Line Style Elements" command in Microstation V8

3.) How to save the Super View GPLOT and Recall the Super View GPLOT in V7?

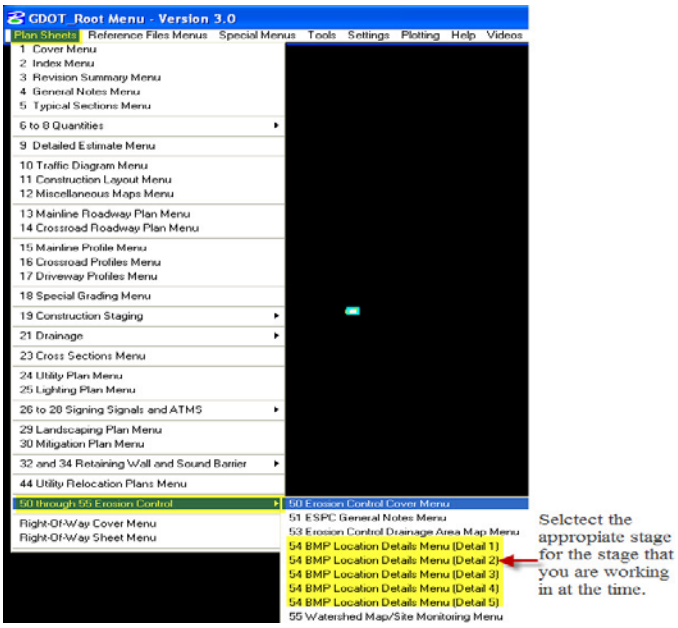
After the Erosion Control plans have been cleaned up for clarity, the designer should click on File and then click Save Settings. **The designer shall do a Save Super View GPLOT as required according to Section 1-11 in Electronic Data Guidelines.** This can be done with the following steps.

Upon completion of cleaning up the visibility of the plans a designer should save the settings by clicking on File and then selecting the Save Settings command as shown in the below picture.



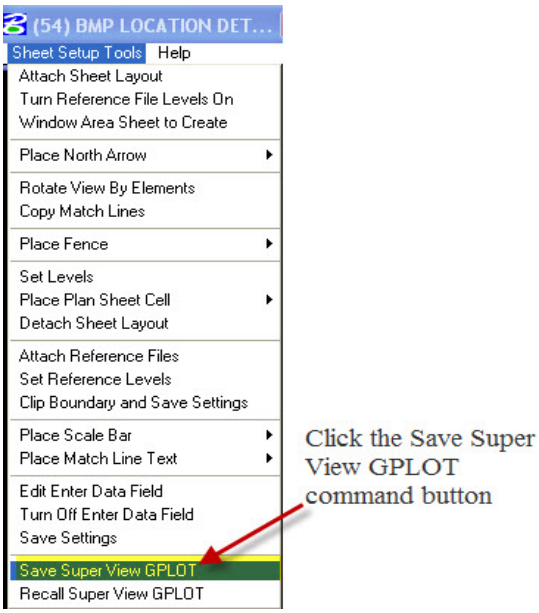
Location of Save Settings command

After saving the settings a user can Save the Super View GPLOT by navigating to the Super Save Button. In the GDOT _Root Menu ➔Click Plan sheets➔50 through 55 Erosion Control➔ Then select the appropriate Stage detail. This will activate BMP Location Detail Dialog box.



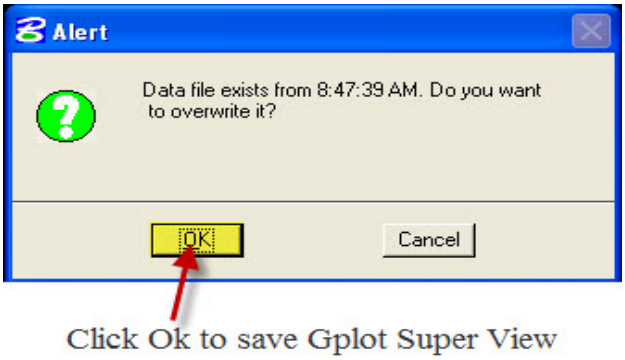
Example of the BMP Location Detail Dialog box

In the BMP Location Detail Dialog box➔ click Sheet Setup Tools➔Click Save Super View GPLOT

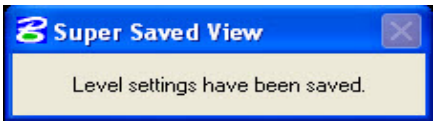


Example Location of the Save Super View GPLOT command

If you have a GPLOT Super View already saved it will ask you to overwrite. Click OK to continue saving your Super View.



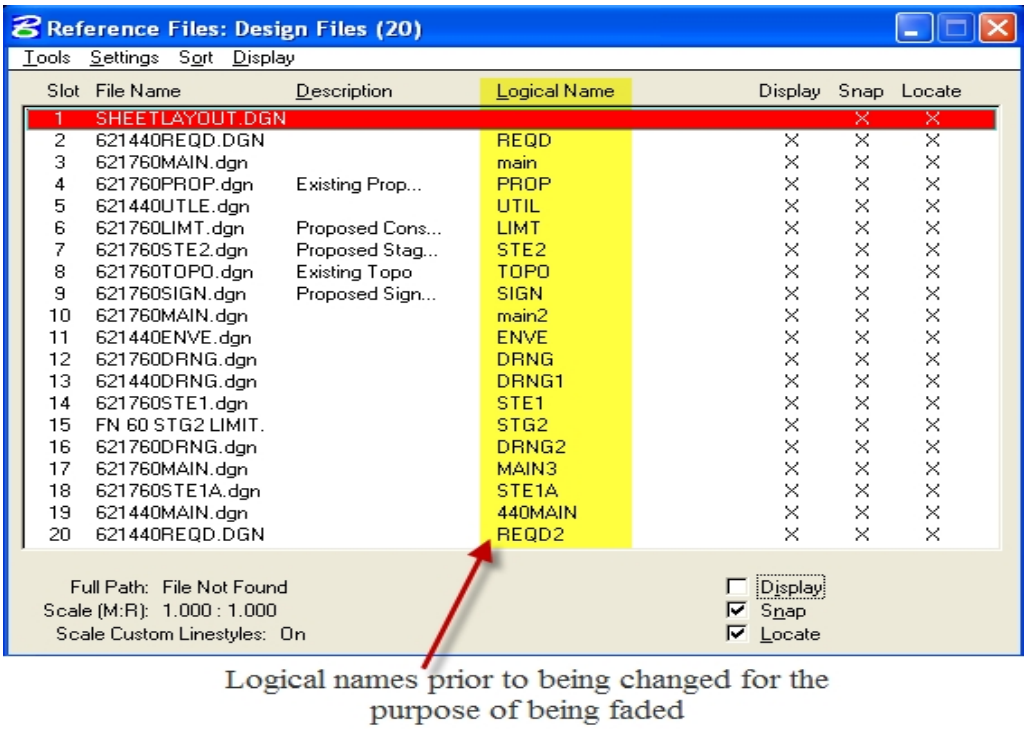
Once you click OK it will prompt you that the Level settings have been saved for your Super View. The GPLOT Super View will be located in the project folder with the same name as the dgn but with a .sbv extension. For example: 621760ER02-01.dgn and 621760ER02-01.sbv.



Note: If you have been working in your file and you have turned on additional levels after you have saved the super view and need to reset your levels to be plotted in GPLOT. All you will need to do is click on the Recall Super View GPLOT command located in the GDOT_Root Menu and this will set the view back to the correct levels.

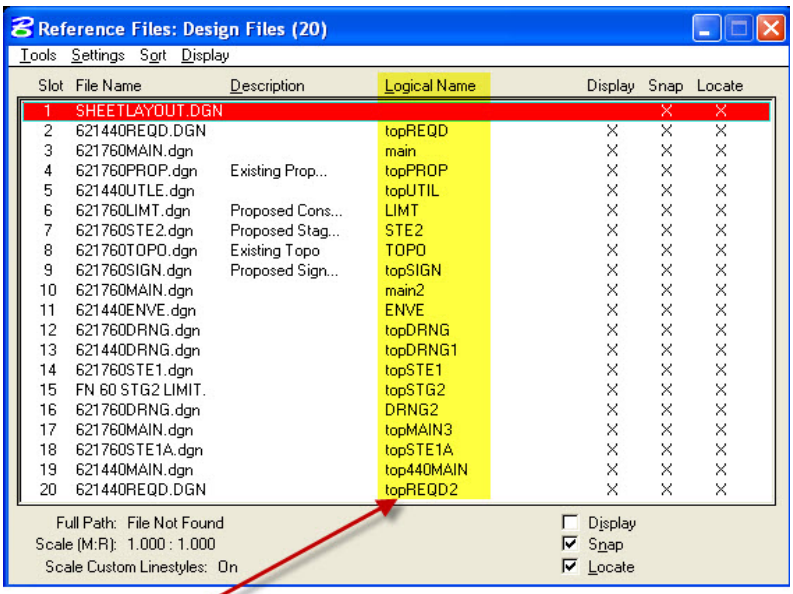
4.) **How to use TOP in the logical name to fade back reference files.**

As you can see in the example below the Logical names should follow and print according to the electronic data guidelines (EDG). The only reference file in the example below that will fade back is 621760TOPO.dgn with the logical name of TOPO.



Example of Reference file logical names prior to TOP being added to fade the reference file

In agreement with the EPD, the erosion control plans should **prominently** show all the roadway items such as the centerline alignment, edge of pavement, construction limits and drainage structures along with the BMP's for the stage being built. Then all the other reference file information should be faded back to help with the visibility of the erosion control sheets. The reference files that need to be faded back should have the word **top** added to the logical name. In the example below you will see how to name the logical names.



Added top to the front of the Logical Names Of the Reference files to be faded back.

Example: Adding "top" to the logical names for fading back reference files in GPLOT and Equorum.

Once the Logical names have been changed the plan sheet is ready for plotting.

NOTE : GDOT Internal Users have the option of re-creating PDF's through the Equorum Software by re-creating the prf and then submitting the new prf thru Plot Submit to create a PDF. If you have any questions please submit your request to the solutionscenter@dot.ga.gov