Location Maps

This document provides the directions to set up a location map in a Microsoft Word document as per the T.D.O.T. Roadway Design Division Roadway Design Guidelines.

The location map is first prepared in **MicroStation** using a standard 8.5 x 11 form cell with a design and/or raster map file attachment. A raster image file of the completed location map is then created in MicroStation which can then be inserted into a **Microsoft Word** document.

To use the T.D.O.T. Design Division county map files, download from
http://www.tdot.state.tn.us/Chief_Engineer/assistant_engineer_design/design/v8maps/v8designmaps.htm .

The files are listed by county name. All maps are in NAD 83 English mapping coordinates as set up in the standard T.D.O.T. Design Division English MicroStation DGN seed file. Graphics are set for scale 1" = 5280'

Attach the County Map(s) to the Location Map Form

1. Create a new DGN file for the location map.

2. Reference your alignment DGN file to the location map DGN file.

3. Set the active scale = 5280.

4. Place a location map cell so the alignment is centered in the map area. In MicroStation running the T.D.O.T. interface, go to **T.D.O.T> Permits & Forms** or in Geopak's D&C Manager go to **Drafting Standards> Sheets> Permits & Forms.**

5. Reference the county DGN file to the location map DGN file. In MicroStation go to **File> Reference**. In the **Reference** dialog box, go to **Tools> Attach** and select the county DGN file**.** Set Attachment Method to **Coincident** (or Coincident World) and select **OK**.
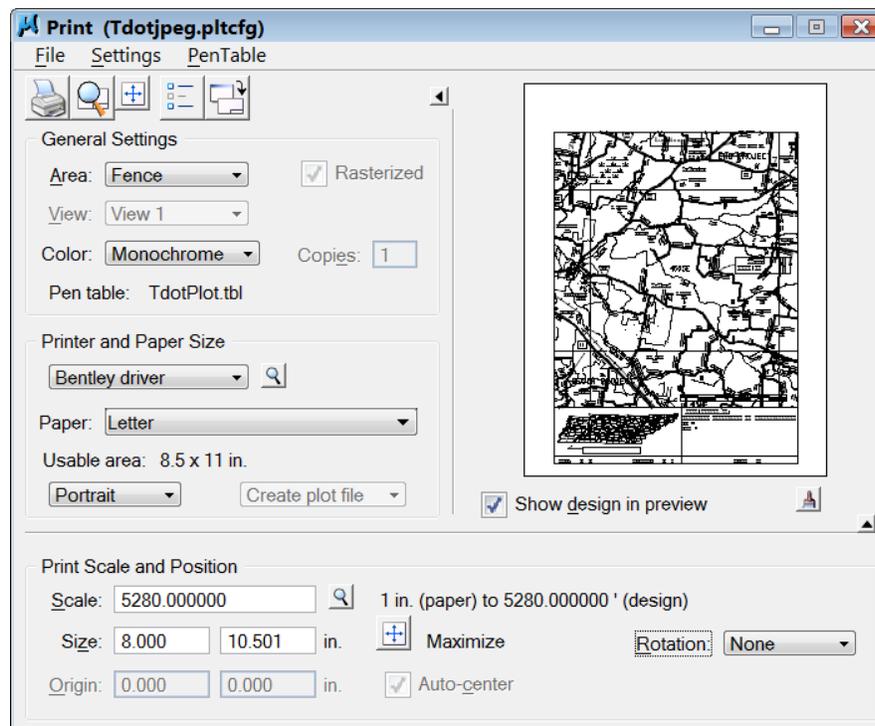
   If a large green box is seen around the county area, which means a TIF raster image file also needs to be attached.

6. If needed, attach the county TIF raster image file. In MicroStation go to **File> Raster Manager.** In the **Raster Manager** dialog box, go to **File> Attach** and select the county TIF file. Click on the options to **Place Interactively**. Select **OK** and pick two diagonal corners of the large green box.

7. Fence the map area you need on the location map and do a clip boundary for both the DGN county file and the TIF county file as needed.

a. In the **Reference File** dialog box, select the county map DGN, go to **Tools> Clip Boundary.** In the MicroStation Tool Settings box set Method to **Active Fence**, click on **Use References Dialog List** and data point to accept.

b. In the **Raster Manager** dialog box, select the county TIF file, go to **Edit> Clip**. In the MicroStation Tool Settings box set Method to **Fence**, Mode to **Clip Boundary** and data point to accept.

8. In MicroStation, turn off level **DESIGN - SCRATCH - User 1,** (#30)**,** in the county DGN reference and go to **File> Save Settings**.

9. Annotate the map as needed

Note:
The location map will plot at 1" = 5280'.

Generate JPG Image File of Location Map

1. In the MicroStation location map DGN file, set the view attributes to **Line Weights** on, **Data Fields** off, **Fill** on.

2. Create a fence by snapping to the green snap points on the location map cell. This will place the fence just inside of the 8.5" x 11" border lines.

3. Use MicroStation Print to create the JPG file. Go to File> Print. In the MicroStation Print dialog, attach the **Tdotjpeg.pltcfg** plotter driver. Go to **File> Select Bentley Driver.**

4. Set the **Print Scale** to 5280 or otherwise to match the map scale.

5. Go to **File> Print** (first icon) and save the JPG file to the project folder.

Insert JPG Image File into Microsoft Word Document

1. Open the Word document for the location map. Go to the **Page Layout** ribbon menu and click on **Margins**. Choose **Custom Margins** and set the margins on all sides to 0.25 inches.

2. Go to the **Insert** ribbon menu and click on **Picture.** Navigate to & select the image file created with MicroStation Print.

3. The image will come in to the available margin space in the Word file and if you used the green snap points on the form then the image size will be 8" X 10.5" which will be to scale. After insertion the **Picture Tools** ribbon menu is opened automatically and **Size** at the far right shows the width and height. For other map sizes, adjust these values to achieve the correct scale. (Map dimension in inches = Width in MicroStation / Scale).