LAB 19 - Create a Title Sheet

In this lab, you'll learn how to insert a Vicinity Map into the Project Title Sheet.

Chapter Objectives:

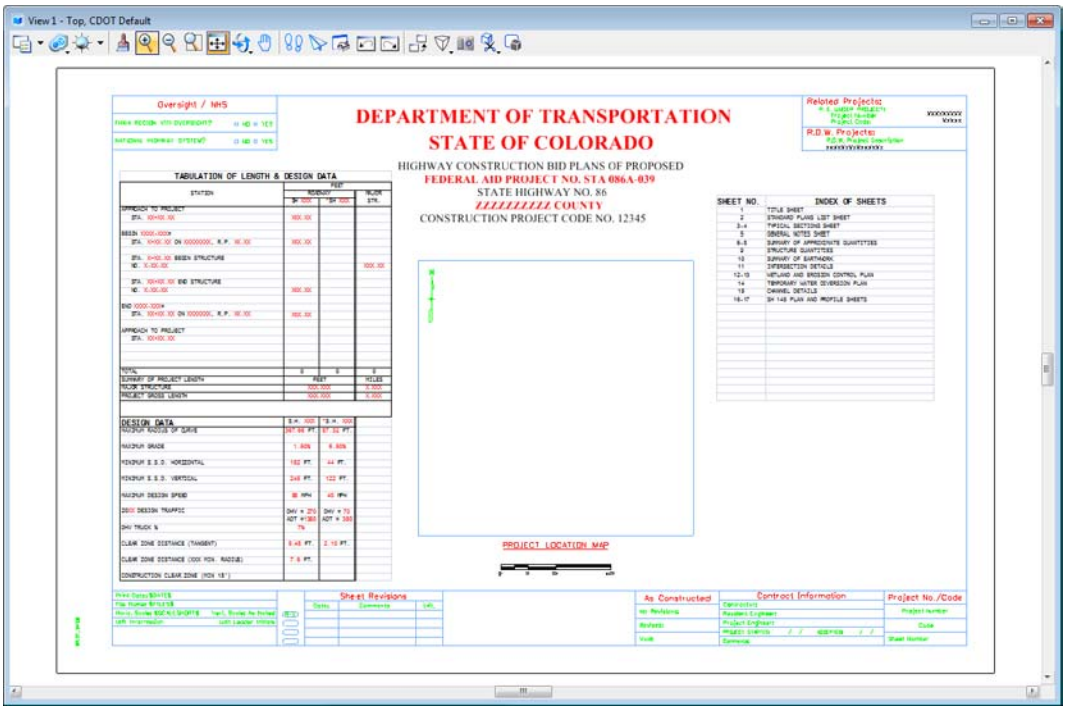
After completing this exercise you will know how to:

- Open a project Title Sheet.
- Locate a vicinity map.
- Attach a vicinity map as a reference to the Title Sheet.
- Move and Clip the vicinity reference.

Lab 19.1 - Create Project Title Sheet

Open the Title Sheet file

1. Start MicroStation and open the file **12345DES_TitleSht.dgn** for the **C:\Projects\12345\Design\Drawings** folder**.**

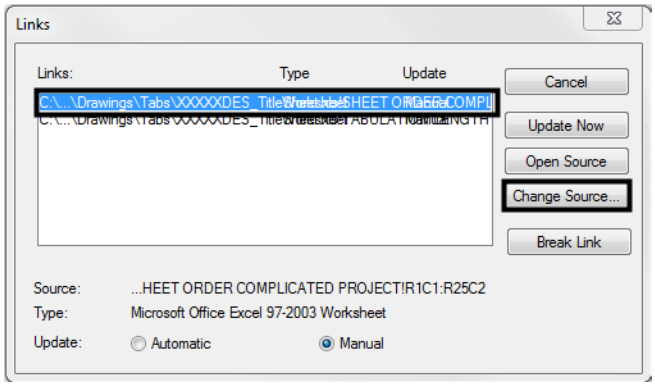


This file was automatically generated by the Create Project Utility program and contains a links to an Excel spreadsheet file in the generic project template folder. You will need to update these links to the **12345DES_TitleSht.xls** file in the project folder.

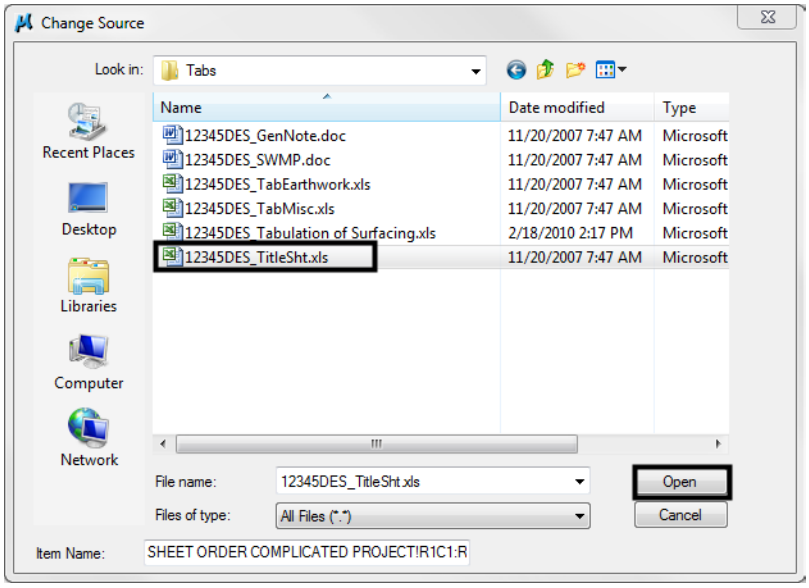
Updating Links

1. Select **Edit > Links**.

2. Highlight the first link in the list and select **Change Source**.

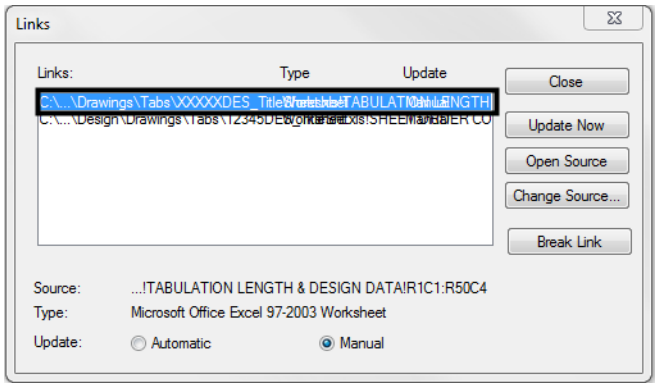


3. In the **Change Source** dialog box, set the Look in folder to **C:\Projects\12345\Design\Drawings\Tabs** and select the file **12345DES_TitleSht.xls**.



4. Select **Open** to update the link.

5. Repeat this process for the second link.



Note: If the text is garbled (like in th eimage above), look for the "XXXXX" in the file path. Those are the links that need to be updated.

6. **Close** the **Links** dialog box.

7. **Save Settings** (**File > Save Settings**).

   The Title sheet design file is now linked to the Excel spreadsheet file in the project-specific folder. You can now edit the Excel file for your project-specific requirements.

Edit the spreadsheet file

1. Double-click on the **Tabulation of Length & Design Data** link.

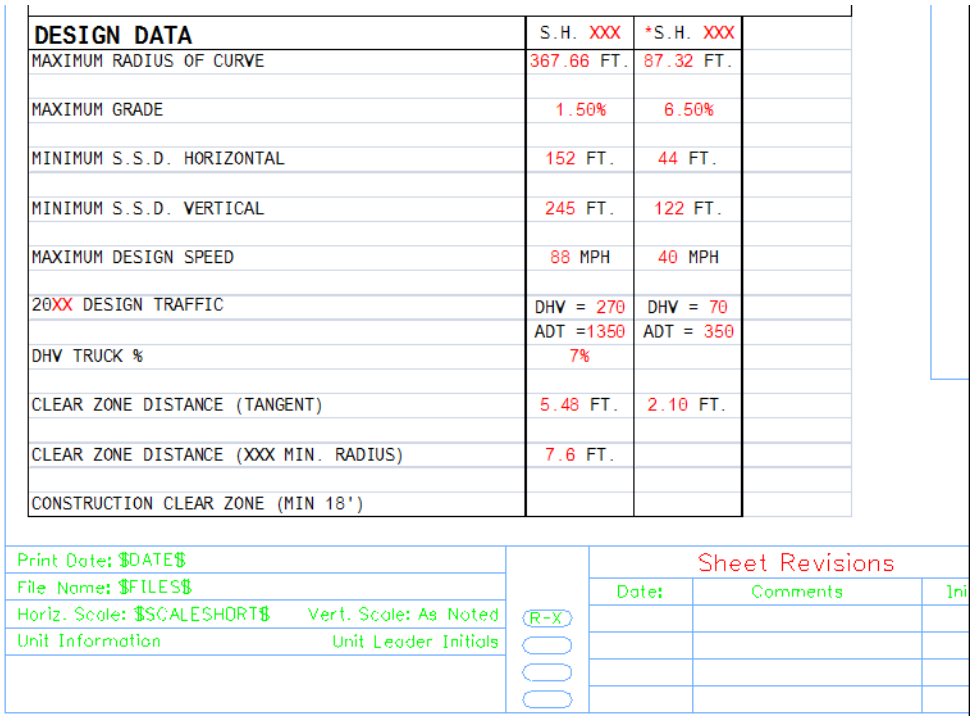
2. Excel starts and opens the **12345DES_TitleSht.xls** file.

3. In the *Design Data* portion of the file, make the following edits:

31	**DESIGN DATA**	S.H. XXX	*S.H. XXX
32	MAXIMUM RADIUS OF CURVE	367.66 FT.	87.32 FT.
33			
34	MAXIMUM GRADE	1.50%	6.50%
35			
36	MINIMUM S.S.D. HORIZONTAL	152 FT.	44 FT.
37			
38	MINIMUM S.S.D. VERTICAL	245 FT.	122 FT.
39			
40	MAXIMUM DESIGN SPEED	88 MPH	40 MPH
41			
42	20XX DESIGN TRAFFIC	DHV = 270	DHV = 70
43		ADT =1350	ADT = 350
44	DHV TRUCK %	7%	
45			
46	CLEAR ZONE DISTANCE (TANGENT)	5.48 FT.	2.10 FT.
47			
48	CLEAR ZONE DISTANCE (XXX MIN. RADIUS)	7.6 FT.	
49			
50	CONSTRUCTION CLEAR ZONE (MIN 18')		
51			

4. When finished, select **File > Exit** In Excel. When prompted to save changes to the file, select **Yes**.

5. Switch back to the MicroStation file and note that the edits are now updated in the DGN file.



DESIGN DATA	S.H. XXX	*S.H. XXX
MAXIMUM RADIUS OF CURVE	367.66 FT.	87.32 FT.
MAXIMUM GRADE	1.50%	6.50%
MINIMUM S.S.D. HORIZONTAL	152 FT.	44 FT.
MINIMUM S.S.D. VERTICAL	245 FT.	122 FT.
MAXIMUM DESIGN SPEED	88 MPH	40 MPH
20XX DESIGN TRAFFIC	DHV = 270	DHV = 70
	ADT =1350	ADT = 350
DHV TRUCK %	7%	
CLEAR ZONE DISTANCE (TANGENT)	5.48 FT.	2.10 FT.
CLEAR ZONE DISTANCE (XXX MIN. RADIUS)	7.6 FT.	
CONSTRUCTION CLEAR ZONE (MIN 18')		

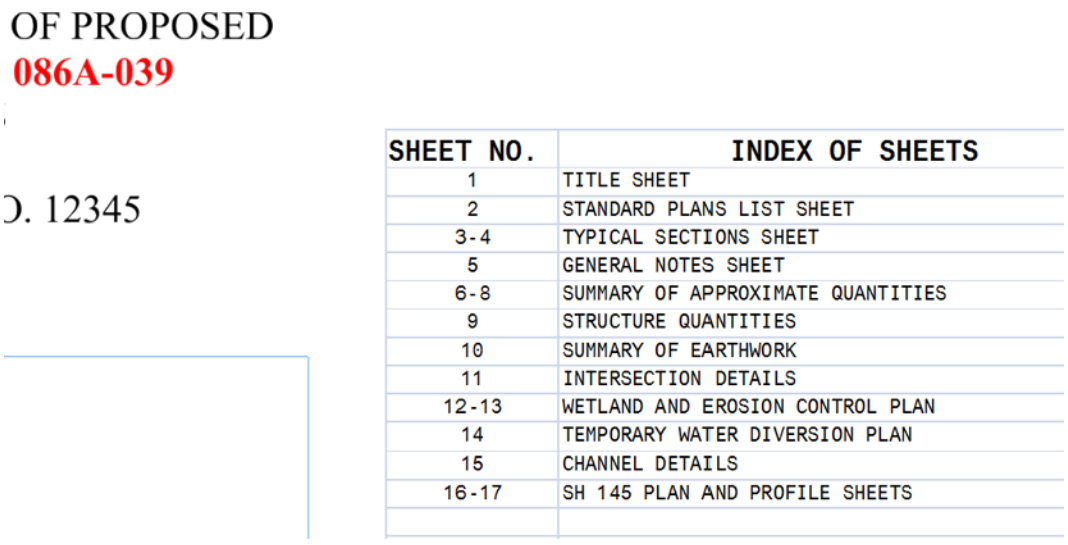
Print Date: $DATE$
File Name: $FILES$
Horiz. Scale: $SCALESHORT$ Vert. Scale: As Noted
Unit Information Unit Leader Initials

R-X

Sheet Revisions

Date:	Comments	Ini

6. Window in on the *Index of Sheets* link on the right side of the sheet.



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SHEET NO.	INDEX OF SHEETS
1	TITLE SHEET
2	STANDARD PLANS LIST SHEET
3-4	TYPICAL SECTIONS SHEET
5	GENERAL NOTES SHEET
6-8	SUMMARY OF APPROXIMATE QUANTITIES
9	STRUCTURE QUANTITIES
10	SUMMARY OF EARTHWORK
11	INTERSECTION DETAILS
12-13	WETLAND AND EROSION CONTROL PLAN
14	TEMPORARY WATER DIVERSION PLAN
15	CHANNEL DETAILS
16-17	SH 145 PLAN AND PROFILE SHEETS

7. Using what you've learned, Edit the **12345DES_TitleSht.xls** file and update the DGN file to read as shown below.

Note: When entering page ranges (e.g. 3-4) be sure to put a quote mark (') at the beginning of text entry, otherwise Excel will interpret this as a date (i.e. March 4).

Note: You can insert and delete rows as needed in Excel.

SHEET NO.	INDEX OF SHEETS
1	TITLE SHEET
2	STANDARD PLANS LIST SHEET
3-4	TYPICAL SECTIONS SHEET
5	GENERAL NOTES SHEET
6-8	SUMMARY OF APPROXIMATE QUANTITIES
9	STRUCTURE QUANTITIES
10	SUMMARY OF EARTHWORK
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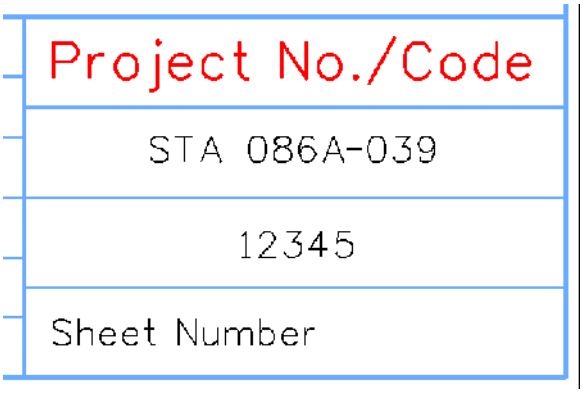
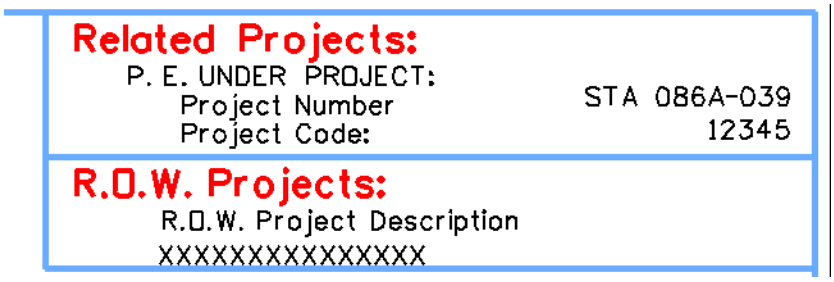
8. Edit the Border Text
9. Use the **Edit Text** command to make project specific edits to the border as shown.
10. **Window** in to the top center of the title sheet and edit the project numbers, highway number and county name as shown.

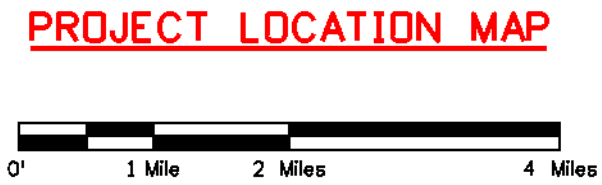
11. **Window** in to the lower-right corner and make the project edits as shown.



12. **Window** in to the upper-right corner and make the project edits as shown.

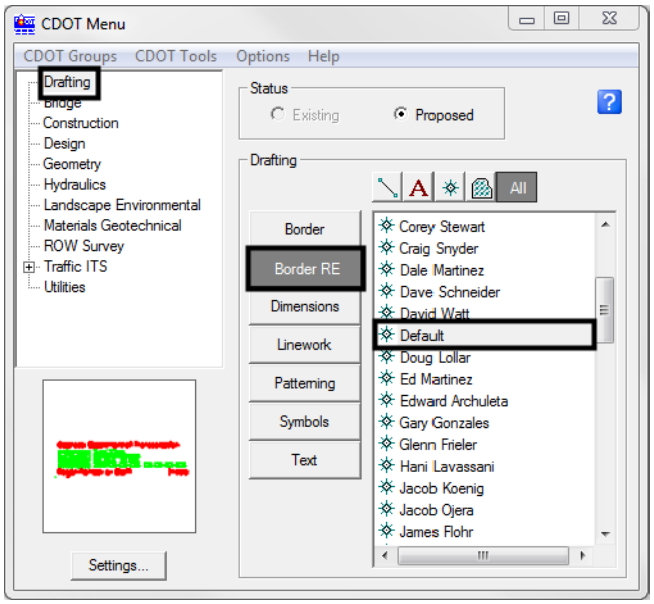


13. **Window** around the bar scale and edit the text as shown.

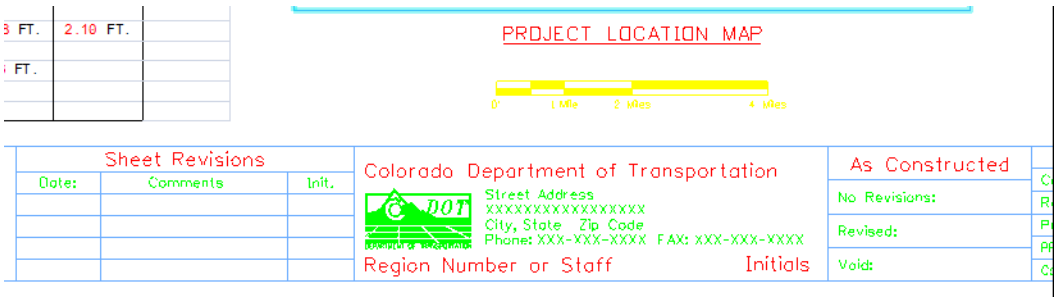


Place the RE cell

1. From the **CDOT Menu**, select **Border RE** from the **Drafting** group.



2. Place the **Default** RE cell in the location shown by snapping to the lower-left corner.



3. **Fit** the View.

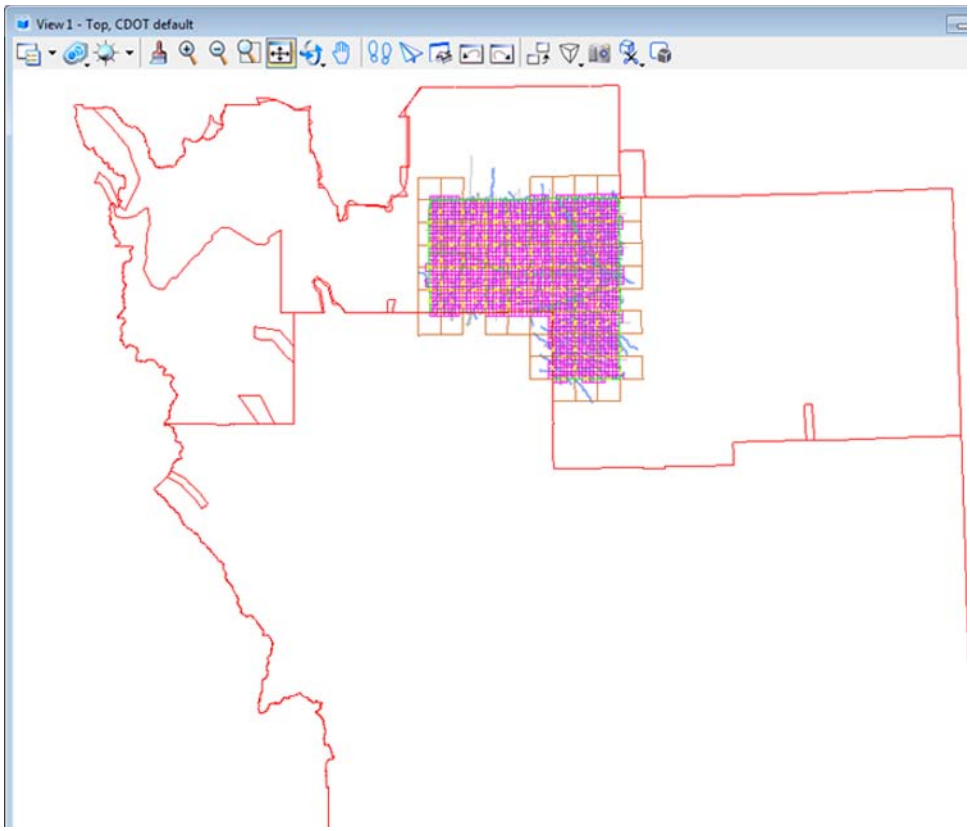
4. **Save Settings**.

Lab 19.2 - Review the Vicinity Map

Vicinity maps can be referenced to the title sheet. These maps can be in the form of vector files (CADD elements) or raster files (images).

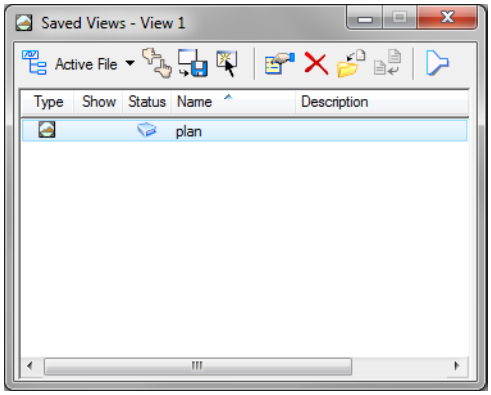
The CDOT standard procedure is to use county maps that have been translated from GIS information, these maps can be found on the shared drive at: \\public\CADD County Maps\. The county of interest should be copied to your project's **...\Design\Drawings\Reference_Files** folder and can be attached as a reference to the project's Title Sheet file.

5. Select **File > Open** and open **Elbert.dgn** from the **C:\Projects\12345\Design\Drawings\Reference_Files** folder.

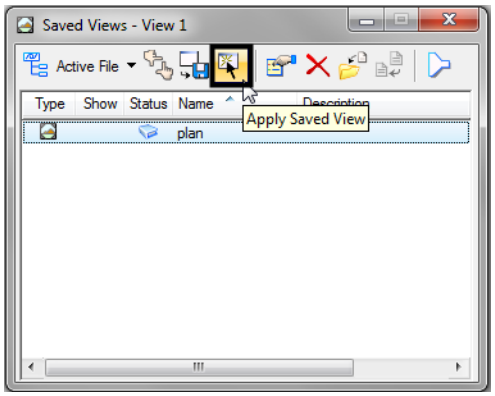


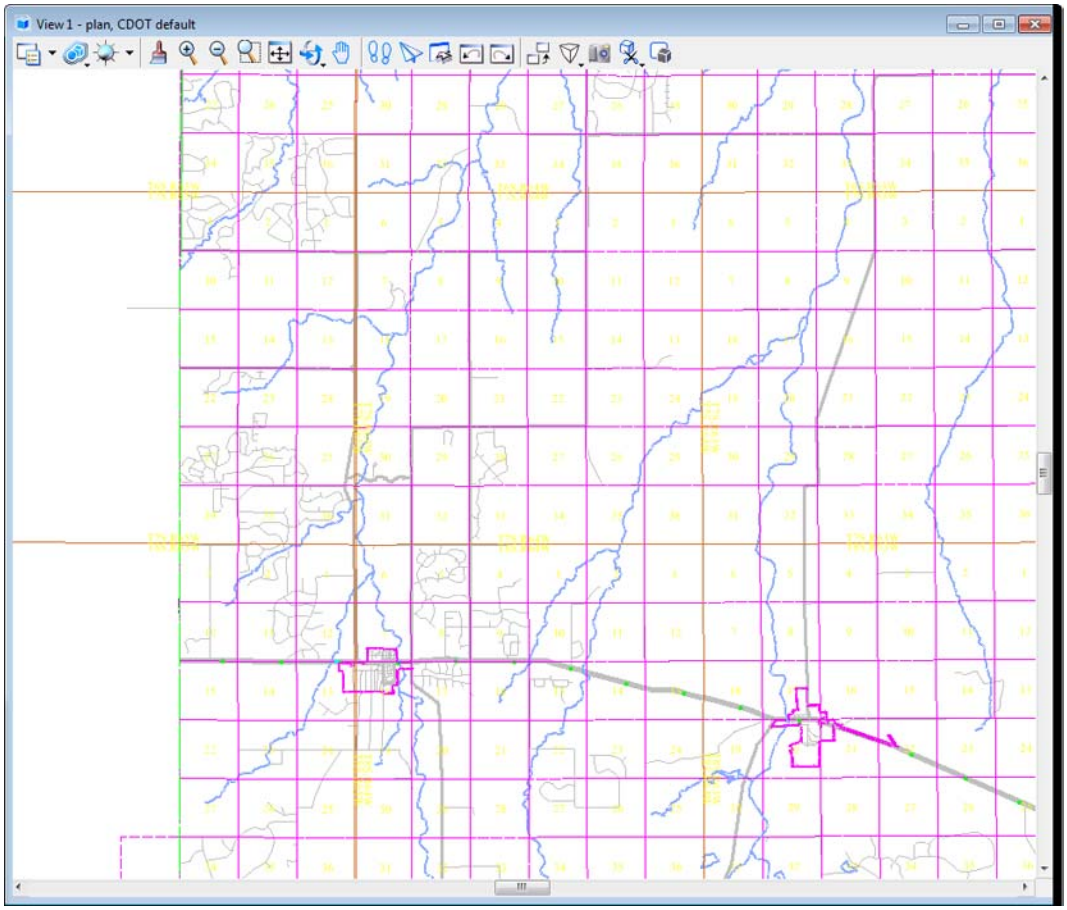
The Elbert county map was translated from GIS and copied from the \\public\CADD County Maps\ shared drive. This file contains a ***Saved View*** to assist in attaching it as a reference file.

6. Select **Utilities > Saved Views** from the MicroStation pull-down menu



7. **<D>** on the saved view by the name of ***plan*** and select the **Apply Saved View** button, then **<D>** in the view.

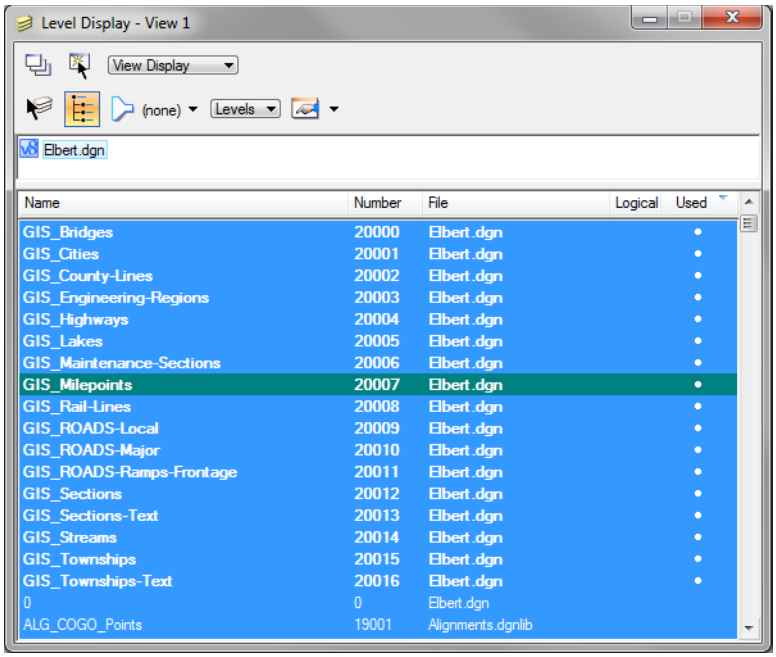




The MicroStation view updates to the limits of the saved view.

8. **Close** the **Saved Views** dialog box.

9. **Open** the **Level Display** from the **Primary** toolbar. Note that all information resides on **GIS_*** levels.



10. Turn level displays **on** and **off** to verify the data is on the correct levels. Turn all levels **on** when finished.

Attaching a vicinity map as a reference file

In the next series of steps, you will attach the vicinity file as a reference to the title sheet. Once attached, you can move, scale and clip the reference to fit the display limits in the sheet file.

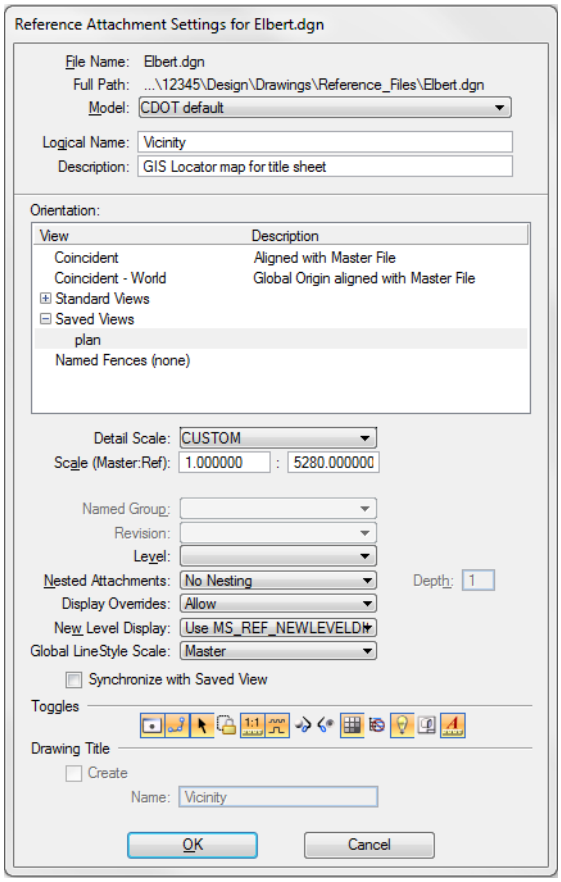
1. Select **File > Open** and reopen the title sheet **12345DES_TitleSht.dgn** from the project's **...\Design\Drawings folder.**

2. Select **References** from the **Primary** toolbar.

3. In the **References** dialog, select **Tools > Attach**.

4. Set the directory to the project's **...\Design\Drawings\Reference_Files** folder and select **Elbert.dgn**.

5. In the **Attachment Settings** box:



- Under **Orientation**, select **plan** (the saved view).
- Key in a **Logical Name** of ***Vicinity*** and a **Description** of ***GIS locator map for title sheet***.
- Key in a **Scale** of ***1:5280***

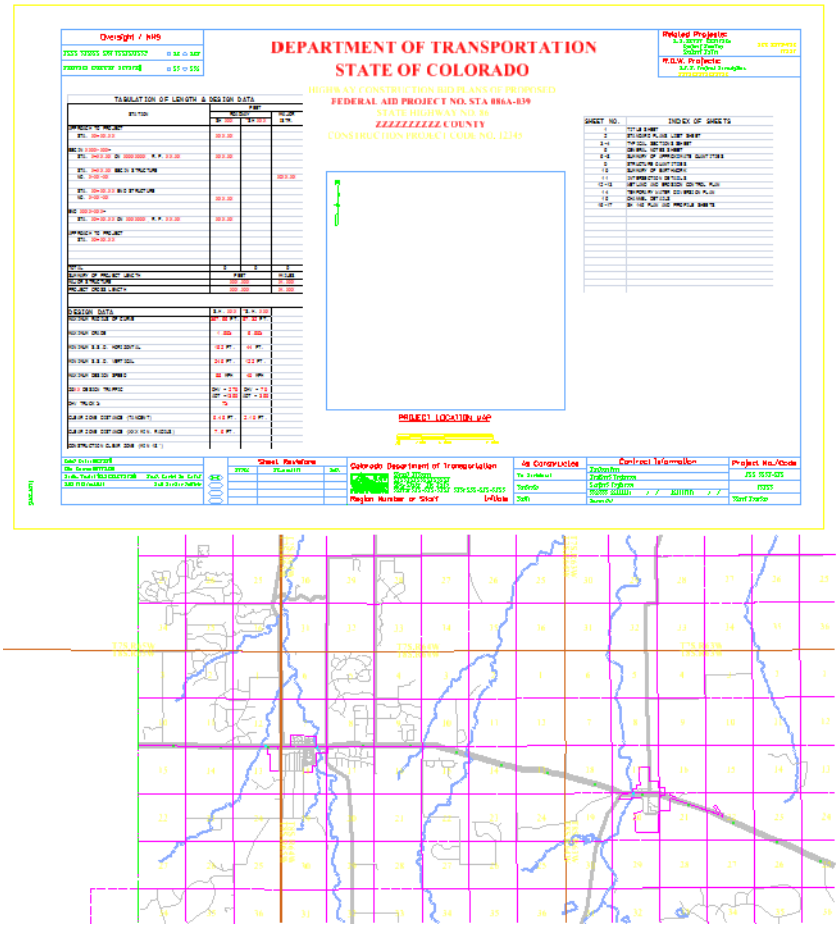
Note: CDOT GIS maps are designed based on a 1-mile insertions scale (1 inch = 1 mile) for graphics. The linestyle and text scale factors are also based on this scale.

6. Select **OK**.

   The outline of the saved view reference is attached to your cursor.

7. **<D>** anywhere underneath the plan sheet to attach the reference.

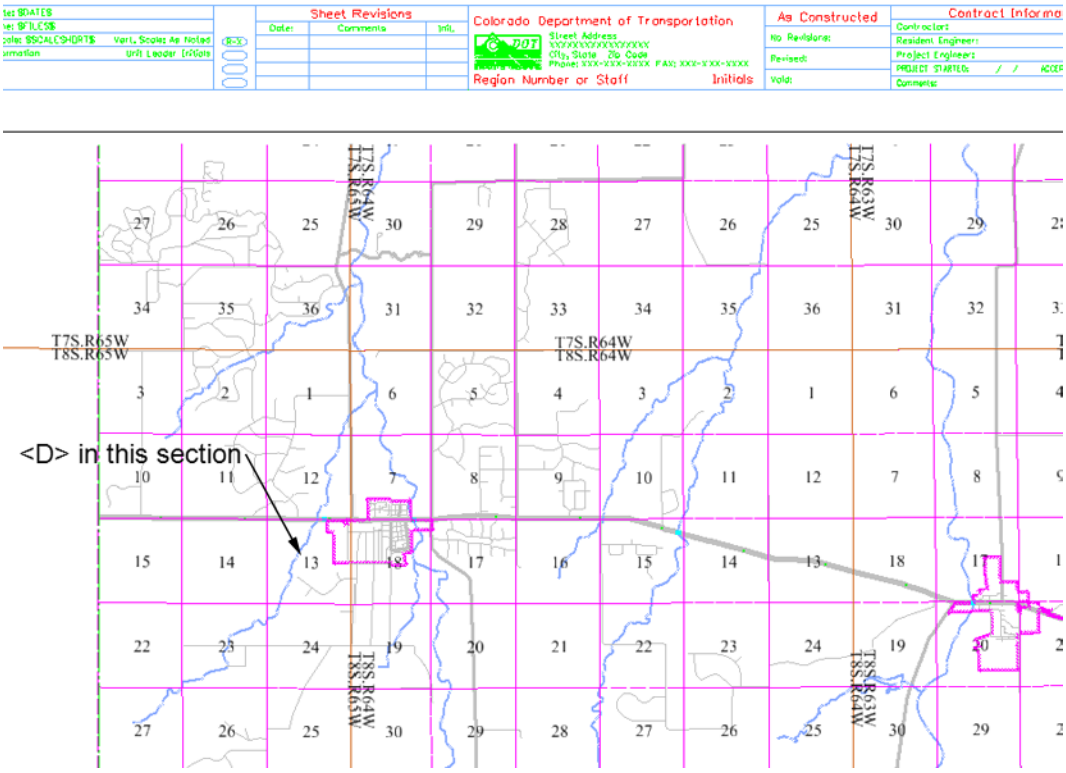
8. Select the MicroStation **Fit** command



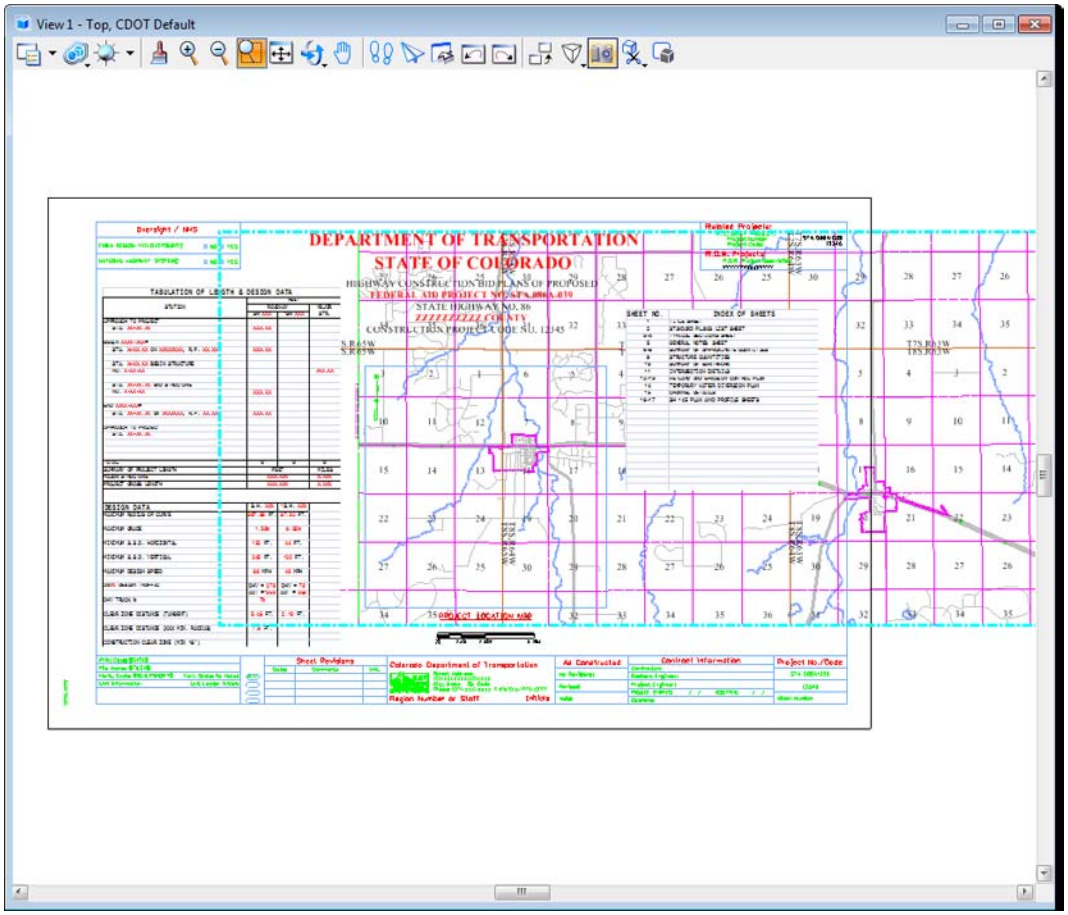
Move the reference file to align with the title sheet

1. In the **References** dialog box, select **Tools > Move.**

2. When prompted to enter a point to move from, **<D>** on section 13 on the vicinity reference.



3. **<D>** approximately in the center of the project location map block for the move to point.



4. Continue to use the **Move Reference** command as needed to position the reference as shown.

5. **<R>** when done.

Clip the vicinity map reference

1. In the **Reference** dialog, highlight the **Vicinity** reference

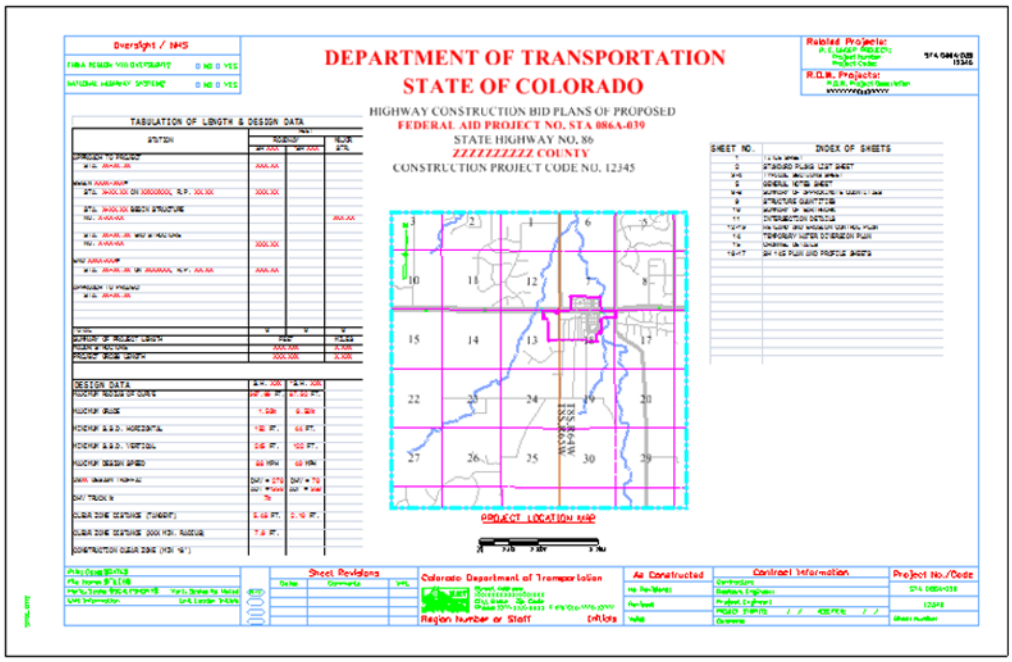
2. Select **Tools > Clip Boundary** from the **Reference File** dialog.

3. In the **Tool Settings** box, set **Method** to **Element**.

4. MicroStation prompts 'Select clipping element'

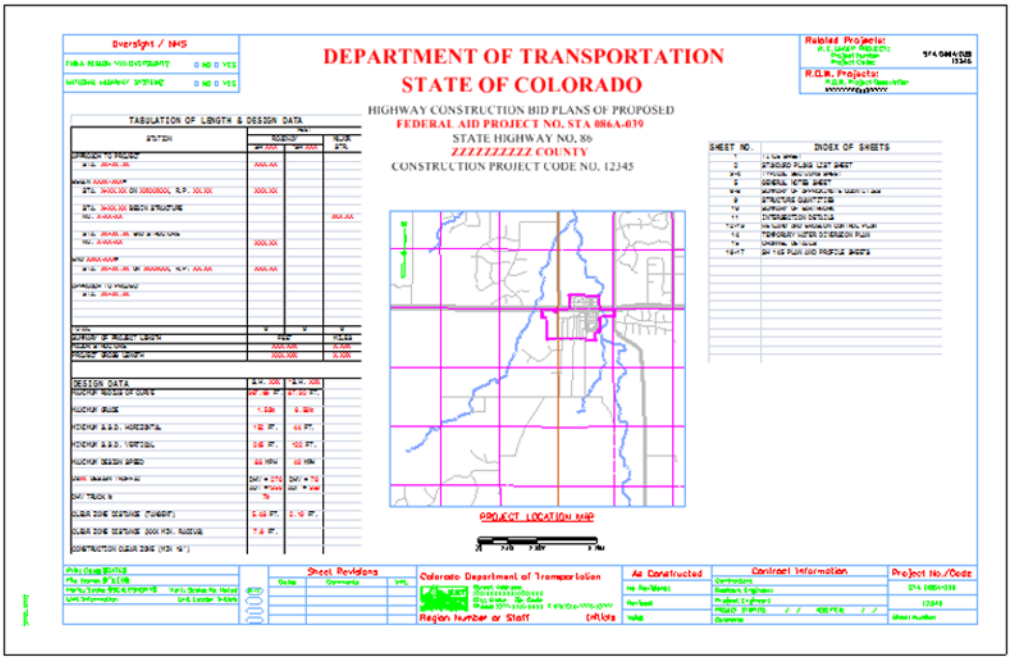
5. **<D>** on the shape representing the limits of the project location map.

6. **<D>** to accept.



7. Open **Level Display** and turn off the **GIS_Sections-Text** and **GIS_Township-Text**.

8. **Fit** the view.



9. **Save Settings**.

10. **Exit** MicroStation.