

NCDOT ROADWAY DESIGN PUBLIC HEARING MAP

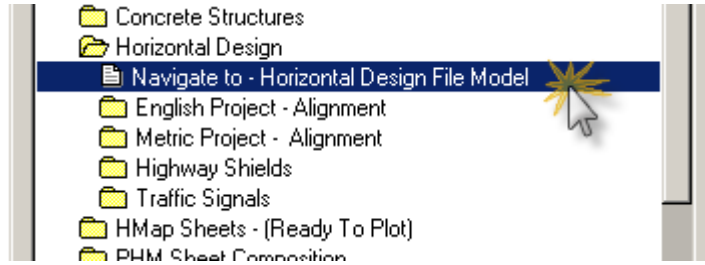
CHAPTER 7: CREATING THE HORIZONTAL DESIGN

Layout the Proposed Horizontal Alignment

Navigate to RDY PHM Prop Design File Model.

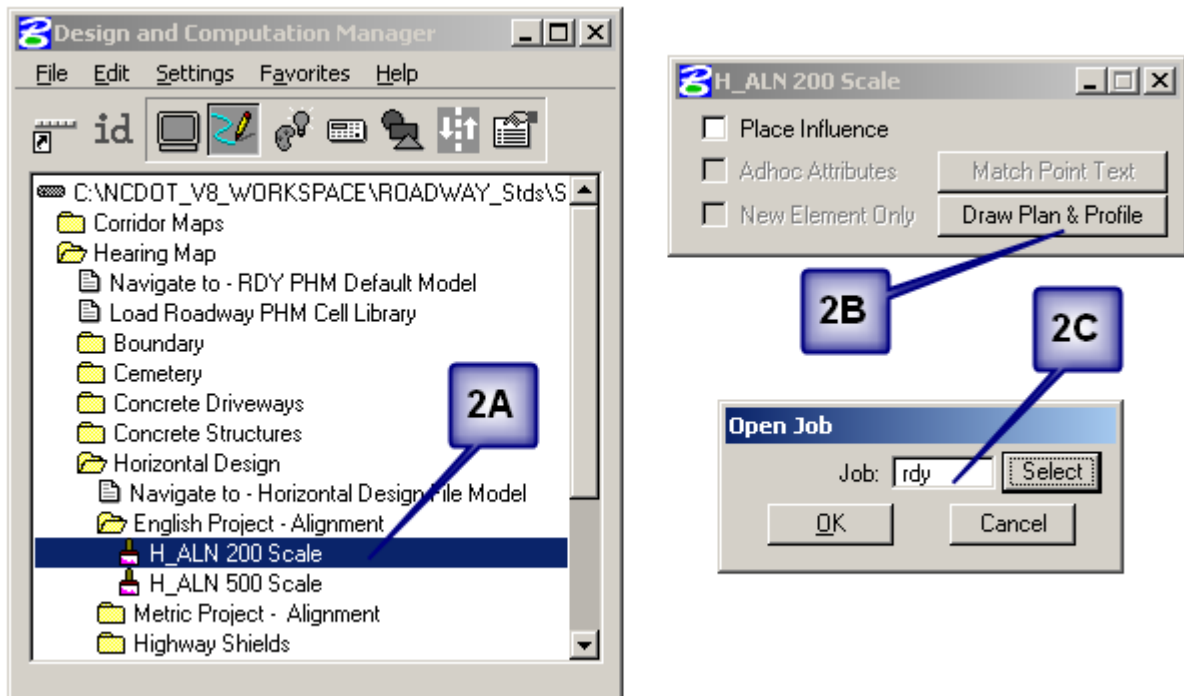
Step 1.

In the Hearing Map D&C Manager, navigate to the **RDY PHM Prop Design File** model.



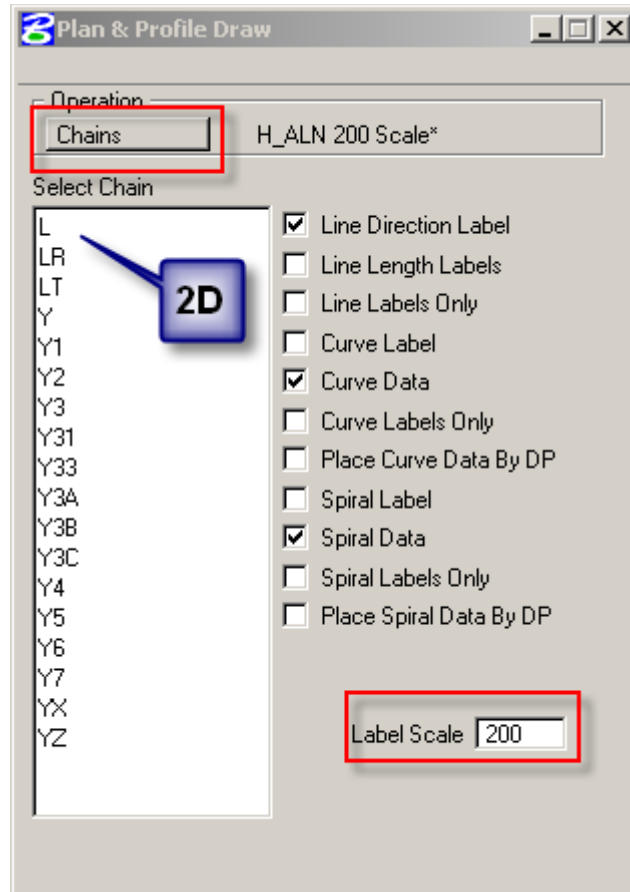
Step 2.

Layout the horizontal alignments.



- 2A. Select horizontal alignment layout scale.
- 2B. Click **Draw Plan & Profile**.
- 2C. Key in the **Job Number**.

NCDOT ROADWAY DESIGN PUBLIC HEARING MAP



2D. Select the Chain to layout. Make sure the Operation is set to “**Chains**” and **Label Scale** is key in as 200 or 500.

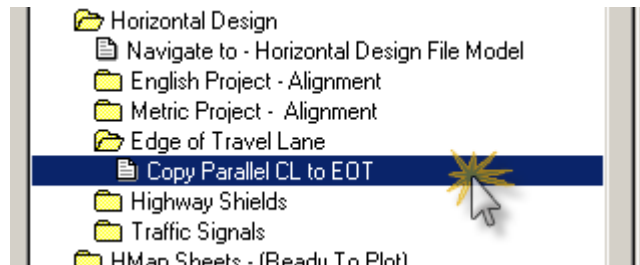
NCDOT ROADWAY DESIGN PUBLIC HEARING MAP

Construct the Proposed Edge of Travel Way (EOT)

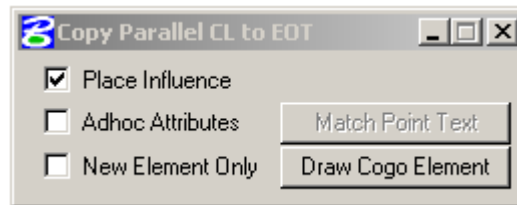
Navigate to RDY PHM Prop Design File Model.

Step 1.

Draw the edge of travel way by double clicking on the **Copy Parallel CL to EOT** tool item.

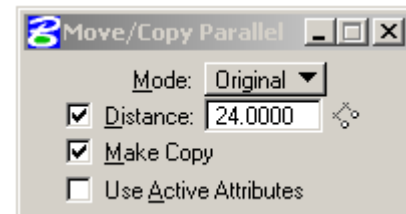
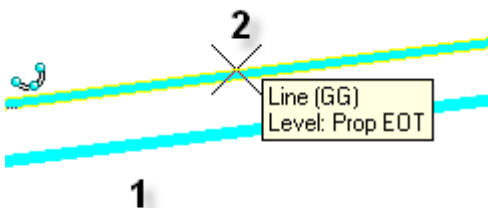


Note **Place Influence** is automatically turned on for this function.



Step 2.

Copy parallel the centerline. Make sure the “Distance” and the “Make Copy” options are checked.



Paved Shoulders for Public Hearing Maps

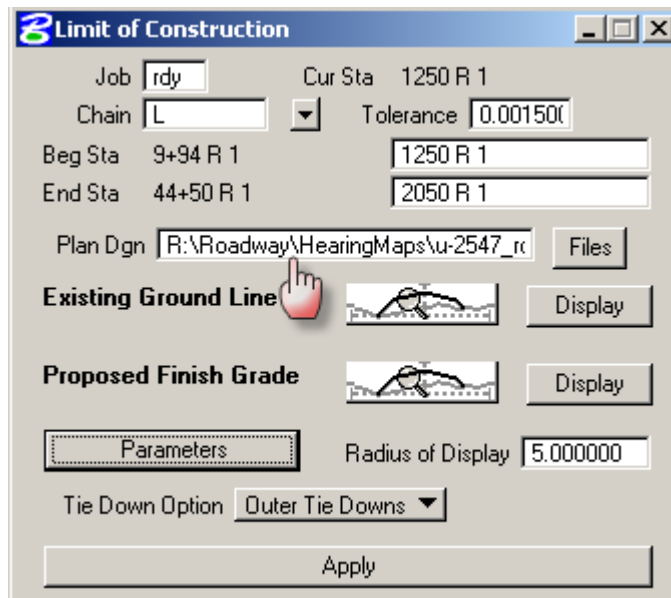
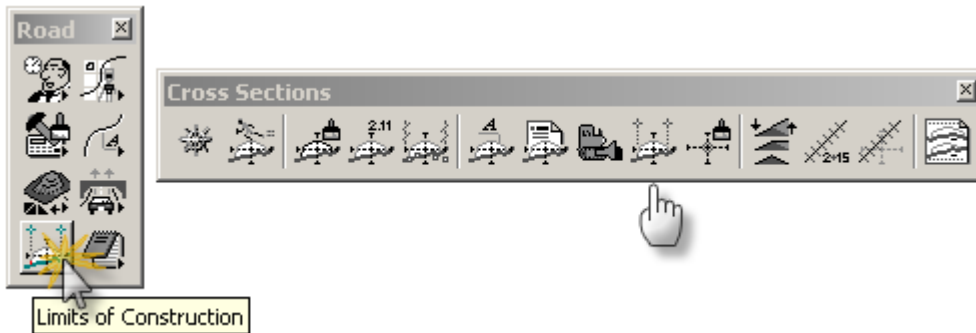
Note that paved shoulders lines are not drawn in as part of the proposed roadway shape. For hearing maps, only the edge of travel way (EOT) is considered as edge of pavement (EOP). However, paved shoulders are dimensioned on the hearing map typical sections.

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Drawing Slope Stake Lines with Limits of Construction

RDY PHM Prop Design File Model
(Limits of Construction starts in the XSC file.)

After the proposed cross sections have been completed, run the **Limits of Construction (LOC)** in the XSC file to produce slope stake lines.



Plan Dgn

The slope stake lines and text will be drawn into the last file model opened and closed. Thus make sure the hearing map file model **RDY PHM Prop Design File** is the last file model opened and closed before performing the Limits of Construction (LOC).

NCDOT ROADWAY DESIGN PUBLIC HEARING MAP

Place Highway Shield Cells

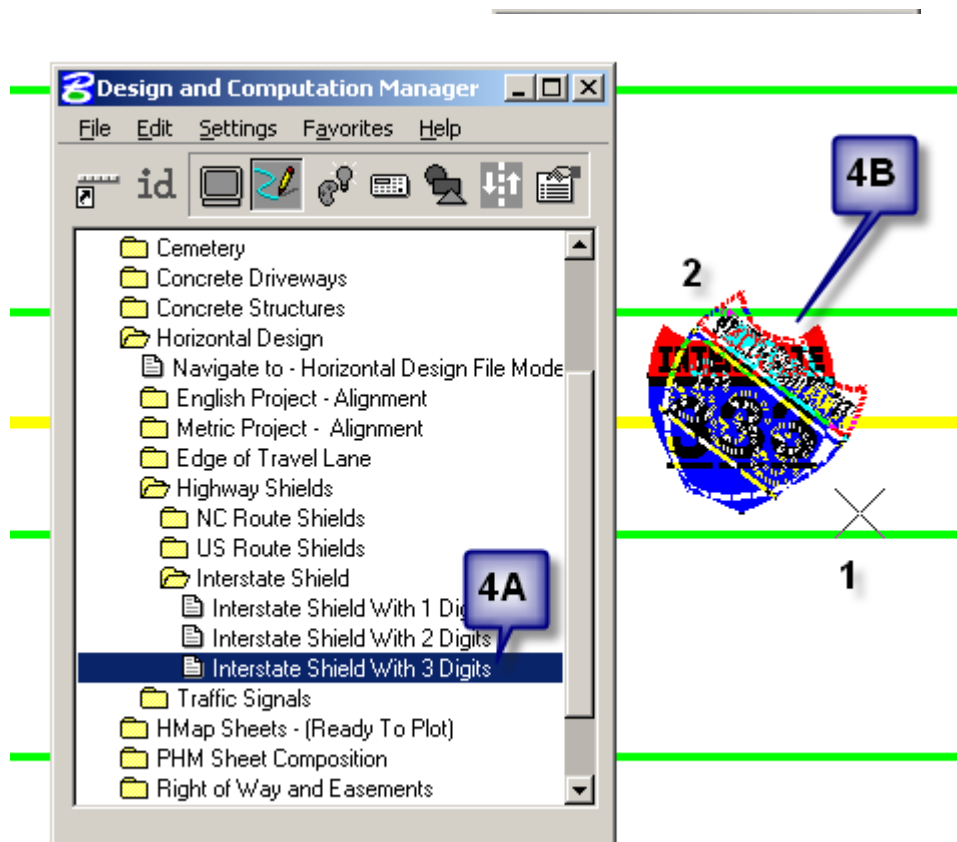
Navigate to RDY PHM Prop Design File Model.

Section 4.

Place highway shield cells.

NCDOT Project Scale

Sometimes, as with any cell placement through the NCDOT D&C Manager, the NCDOT Project Scale dialog box comes up. For hearing maps, select the corresponding **Active Model Scale** with the horizontal alignment layout scale.



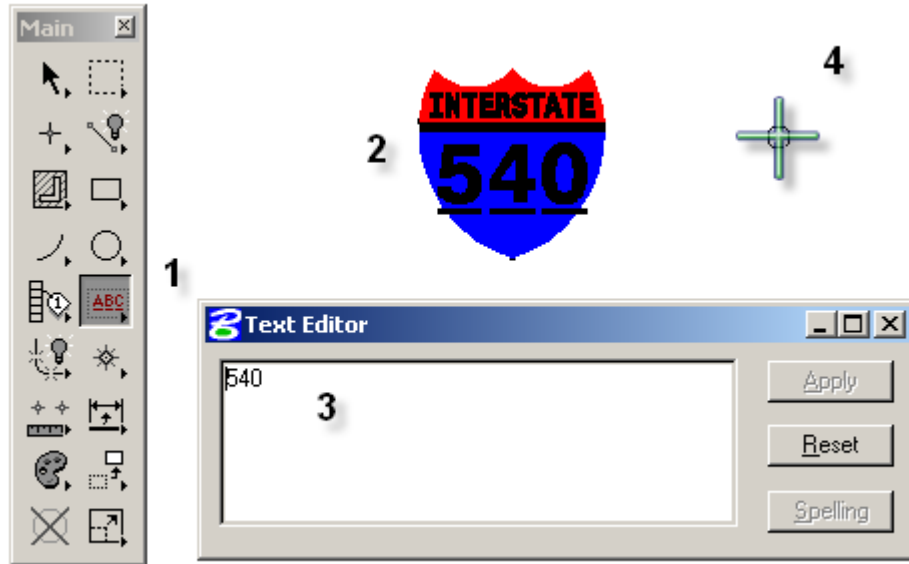
4A. Select (double click) the appropriate highway shield.

4B. 1) Place the cell origin.

2) Rotate the cursor to the desired angle and Data Point to accept the final position.

NCDOT ROADWAY DESIGN PUBLIC HEARING MAP

Note the highway numbers are Microstation editable data-field type elements. The Microstation Fill in Single Data Field tool can be used to edit the highway designation numbers.



1. Select the Fill in Single Data Field toolbox.
2. Select the highway number data field (on the cell). The number should be highlighted.
3. Key in the desired number.
4. Data Point on the screen to accept the entered number.

NC ROUTE



INTERSTATE



US ROUTE

Highway Shields - Color As Plotted

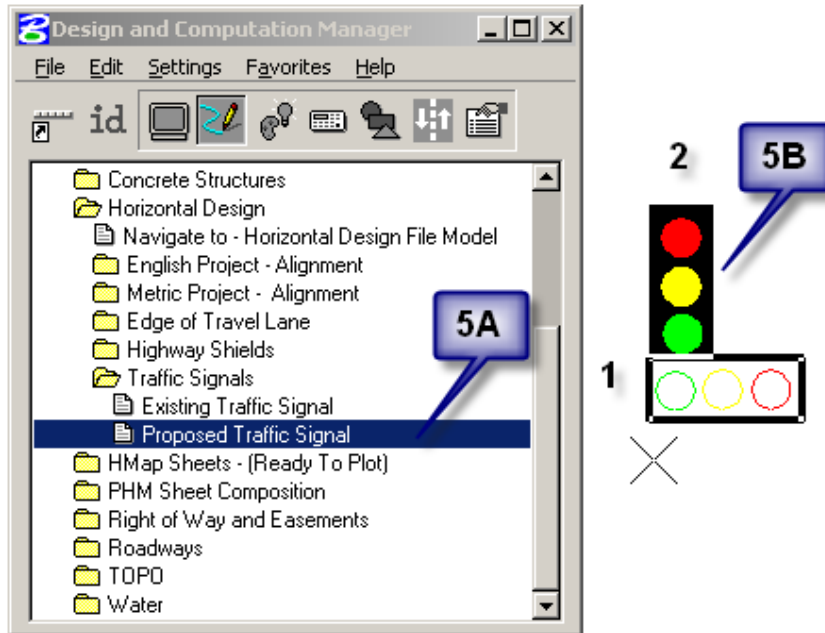
NCDOT ROADWAY DESIGN PUBLIC HEARING MAP

Place Traffic Signal Cells

Navigate to RDY PHM Prop Design File Model.

Section 5.

Place traffic signal cell.



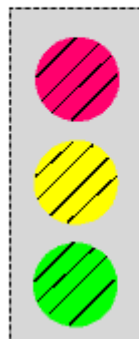
5A. Select (double click) the appropriate traffic signal cell.

5B. 1) Place the cell origin.

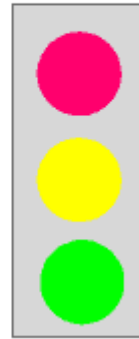
2) Rotate the cursor to the desired angle and Data Point to accept the final position.

Traffic Signal Cell

Existing



Proposed



Traffic Signals - Color As Plotted

NCDOT ROADWAY DESIGN PUBLIC HEARING MAP

Hands on Review

1. Navigate to the **RDY PHM Prop Design File** model.
2. Layout a horizontal alignment
 - Baseline: **L**
 - Scale: **200**
3. Copy parallel the whole centerline to form the proposed edge of pavement.
 - 16.5' left and right (33' total)
4. Layout the Limits of Construction (LOC).
 - Open and close **RDY PHM Prop Design File** model.
 - Be in the cross section file (XSC) : **u2547_rdy_xsc_1.dgn**
 - When selecting the slope stakes parameter settings, change filter to **Slope Stake** for faster slope stake levels selection in a **XSC** file.

PARAMETERS

Cut Level - Prop SS Cut Line: “**C**” (Prefix)

Fill Level - Prop SS Fill Line: “**F**” (Prefix)

Transition Level: Prop SS Transition Line

Text Size: 15

Outer Tie Downs Option

Note in our current Geopak version, we are limited to selecting only one level for the slope stake “**C**” and “**F**” texts. Choose **Prop SS Fill Text** as the default.