

Labeling Using Point Codes

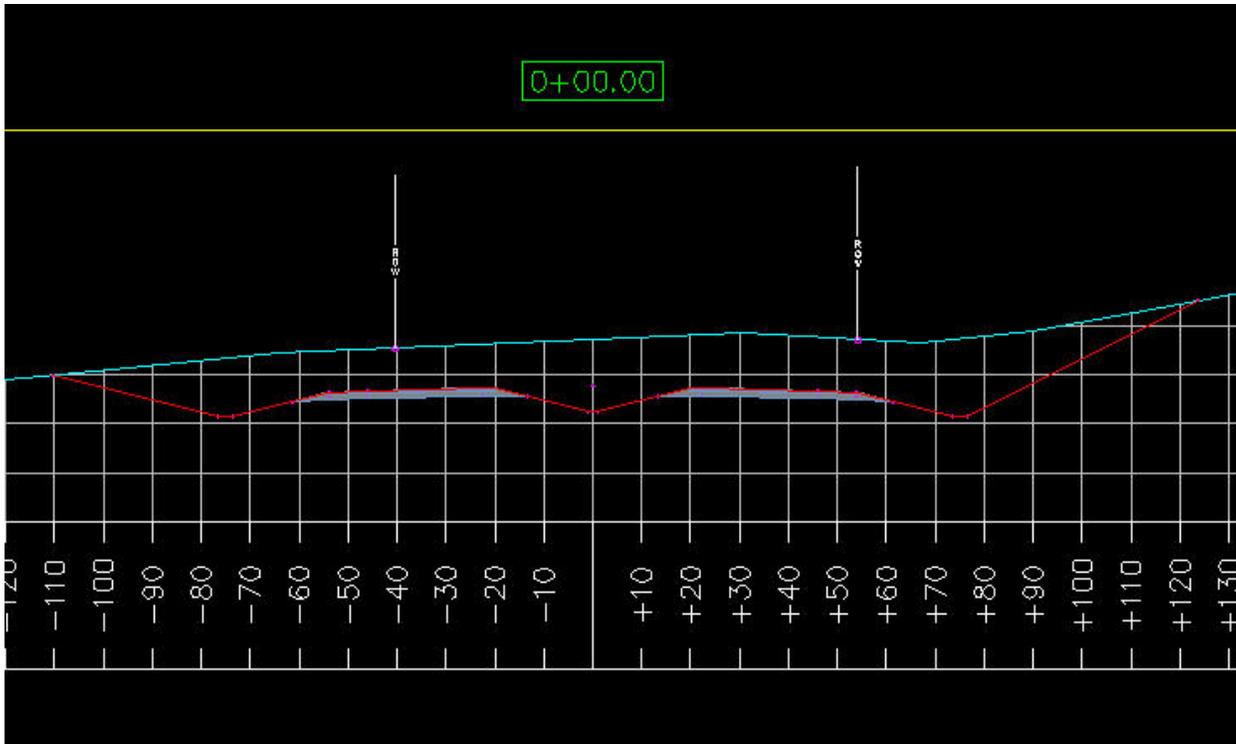
ROW Label used as example.

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Summary

This paper walks you through the creation of a fixed length vertical marker to represent your Right of Way bounds for your section views. In the end the result will look similar to:



The ROW markers can be attached to any surface and can follow any horizontal alignment. The ROW lines are completely separate so rebuilding the corridor need not be a factor.

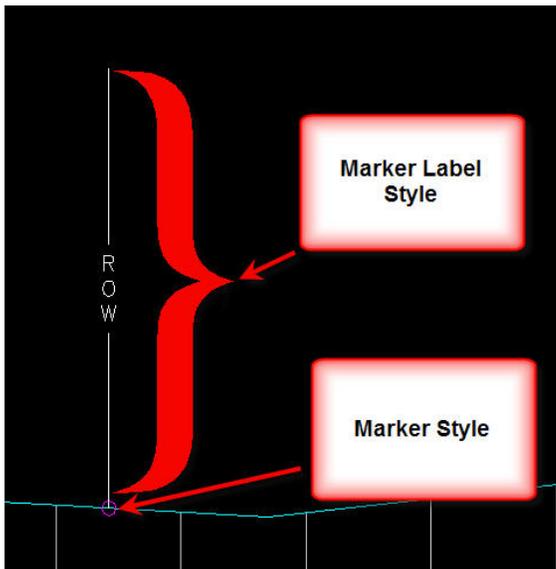
Before beginning this procedure make sure you have all the data you need to get the section views you need:

- A horizontal and vertical alignment.
- Left/Right alignment that defines the horizontal location of where the ROW lines are.
- Minimum of one surface to display in the section views and to determine what elevation to place the ROW lines at.
- Optional: A corridor model if a design needs to be labeled with ROW lines.

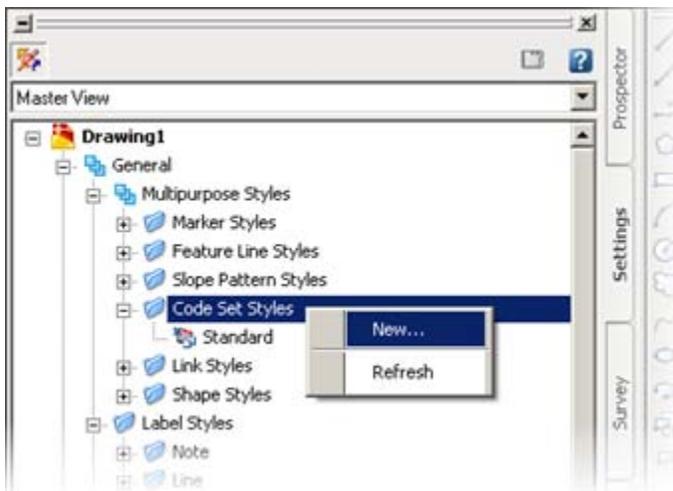
Note: If your DWG already contains the ROW marker and the ROW assembly (which can be created beforehand and made part of your company's template), then you can skip to the Setting Up the Corridor section of this paper.

Setting up the ROW label and marker (one time setup)

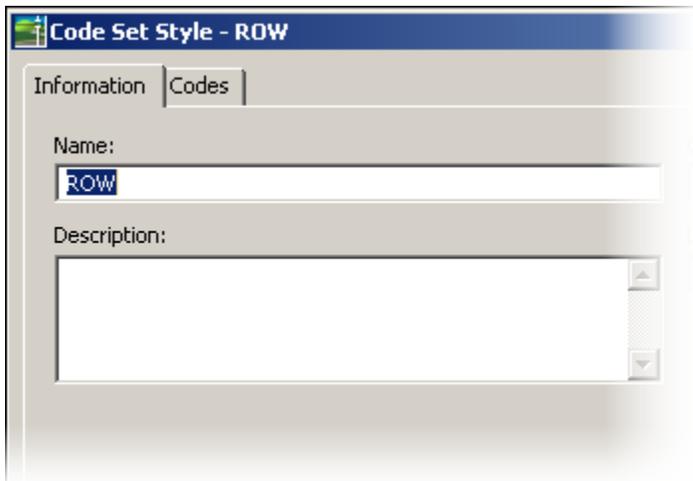
Before we actually get into creating a point code to label the ROW, here is a diagram to illustrate what the marker style is versus the marker label style:



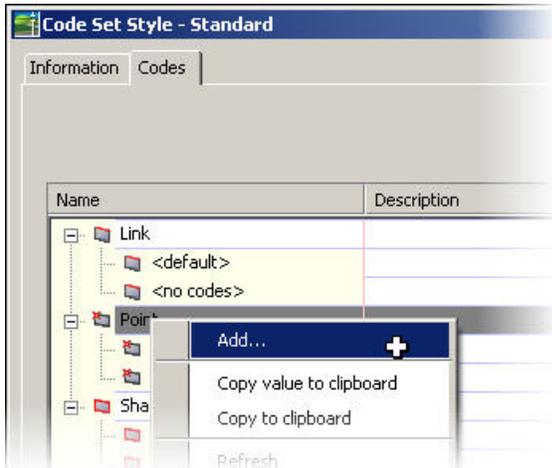
1. Create or edit a Code Set Style. In this example I will create a new Code Set Style. So I select Code Set Styles, right click and choose **New** from the submenu



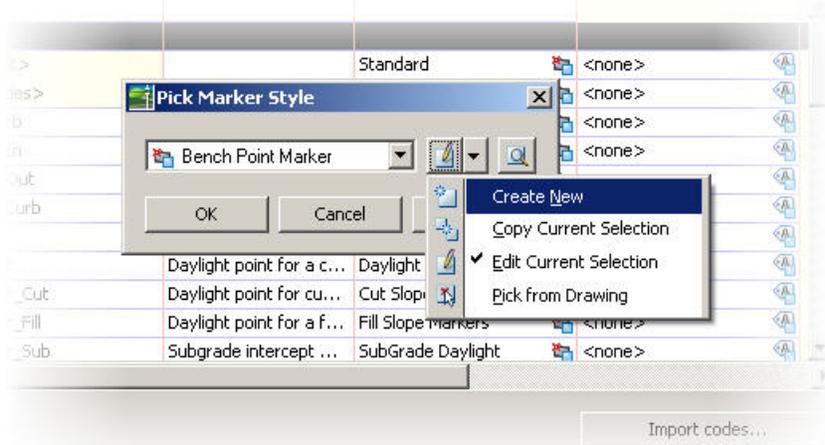
2. Change the name of the Code Set Style to *ROW* under the **Information** tab.



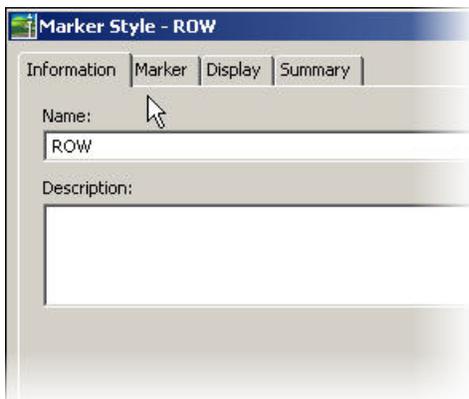
- Go to the **Codes** tab and add a new Point Code by right clicking the point node and selecting the Add... command.



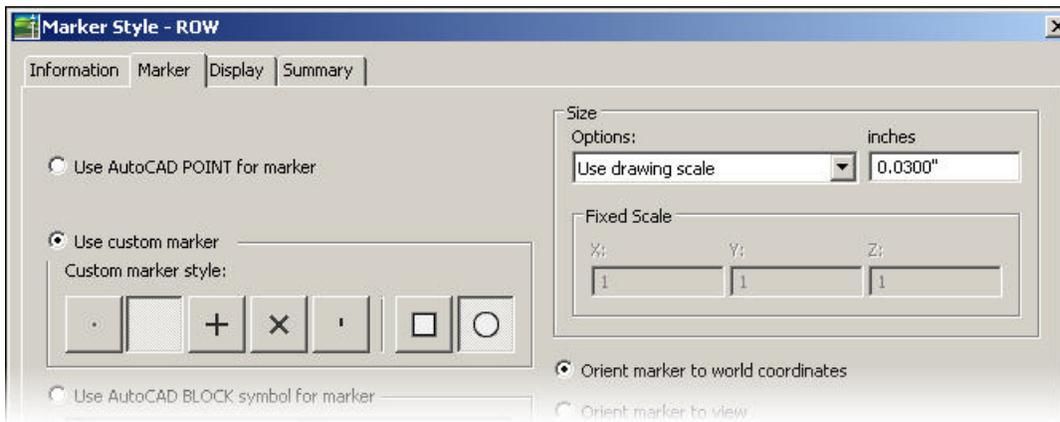
- When the point code is added, you'll be prompted to choose a Marker Style. Create a new one by clicking on the down arrow button and choosing the Create New command.



- A) Set the marker style name to *ROW* under the **Information** tab.

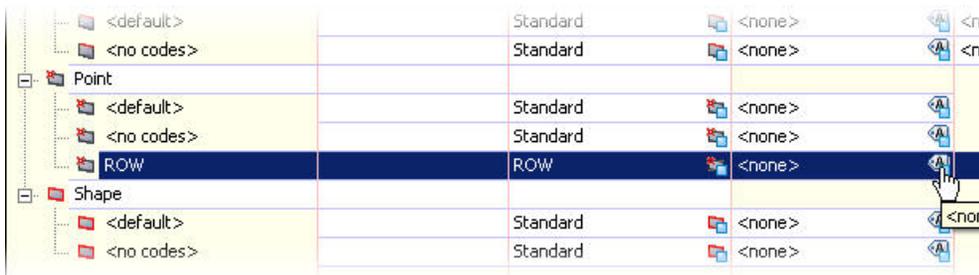


- B) Under the **Marker** tab check on Use custom marker and set it to be a circle with the appropriate size.

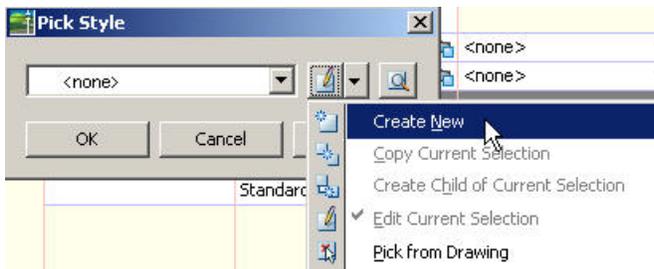


Press OK twice to return to the Code Set Style dialog box.

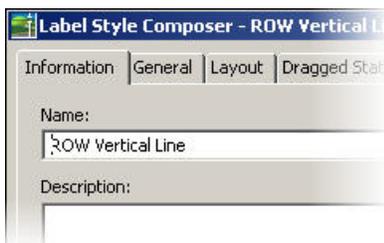
- Click on the lock button for the Label Style for the ROW point code you created in step 3.



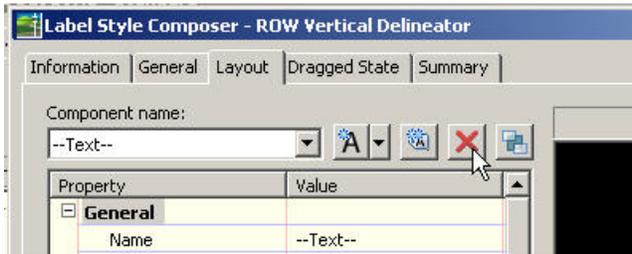
- Create a new Marker Label style by clicking the down arrow button and selecting the Create New command.



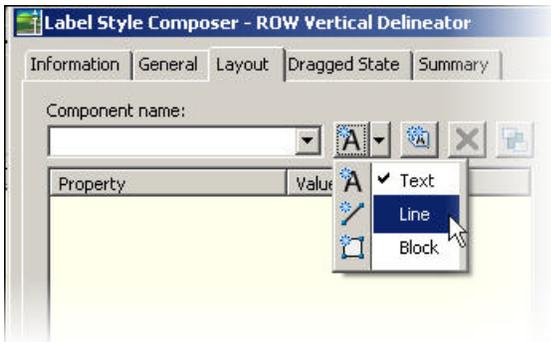
- Under the Information tab in the Label Style Composer dialog, change the name of the new label style to ROW Vertical Line.



- Select the Layout tab and if there is any data in it, click on the red X button until all the data is gone.



10. Once all the data is gone you can start to add new components to the style. Select the down arrow next to Create Component button and choose the Line object.



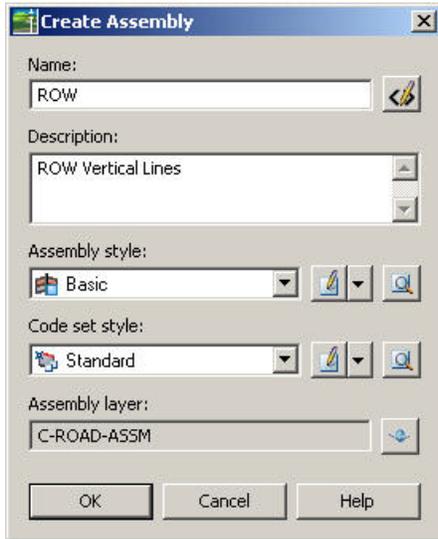
11. Set the following properties for the line:
- Name: Bottom Line
 - Length: 0.35
 - Angle: 90
12. Create a Text component with the following properties:
- Name: ROW Text
 - Anchor Component: Bottom Line
 - Anchor Point: End
 - Contents:
 - R
 - O
 - W
 - Text Height: 0.03"
 - Rotation Angle: 270
 - Attachment: Bottom Center
13. Create another Line component but with the following properties:
- Name: Top Line
 - Start point anchor component: ROW Text
 - Start point anchor point: Top Center
 - Length: 0.35
 - Angle: 90
14. Press OK twice to return to the Code Set Style dialog.
15. Check that the Marker Style is **ROW** and the Marker Label Style is **ROW Vertical Line**.

This concludes the creation of the ROW Label and ROW Marker.

Setting up the Assembly (one time setup)

This assembly is separate from the original design and so it can be included as part of a template to be reused.

1. Create the Assembly using the command Corridor > Create Assembly...
2. Set the name of the Assembly to ROW, the Code Set Style to the one that was edited/created in the previous procedure. In this example the code set style is called Standard.

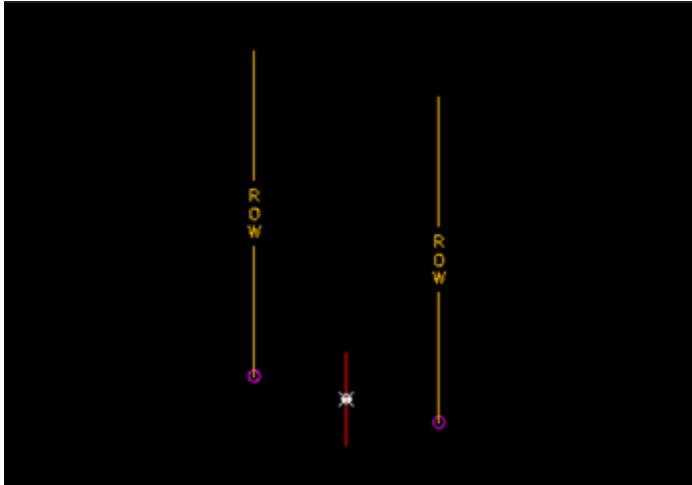


3. Press OK to continue.
4. Open the Tool Palettes to access the subassemblies by using the command *General > Tool Palettes Window* or pressing **CTRL-3**.
5. The subassembly we will be using is called LinkOffsetOnSurface. Select that Subassembly under the **Imperial Generic** tab.
6. Fill in the properties for that subassembly to match the contents below:

ADVANCED	
Parameters	
Version	R2008
Offset from Baseline	10.0000'
Point Codes	ROW
Link Codes	Top,Datum
Omit Link	Yes

7. Insert the subassembly

8. Change the Offset from Baseline to -10 and insert again. The result you will end up with is:



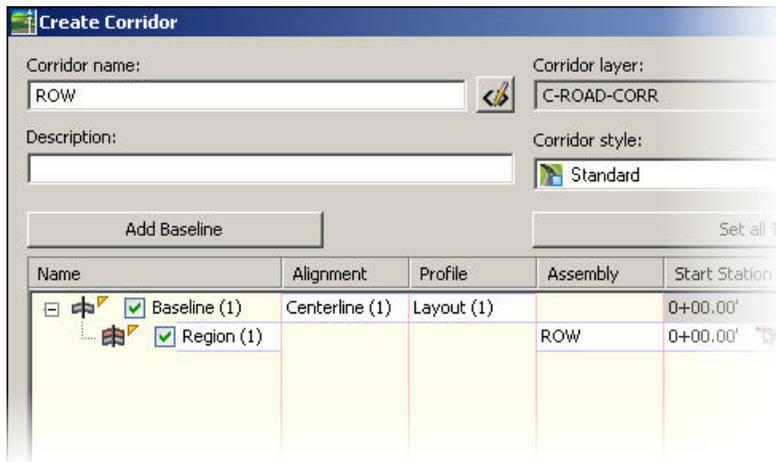
Do not concern yourself with the location of the ROW lines. The number 10 was just used as an offset to help differentiate between left and right sides. The elevation of the subassembly will change when the surface is targeted later.

9. Press <ESC> to get out of the subassembly insertion mode.
10. Select the right ROW label and right click.
11. Select the Subassembly properties...
12. Under the Information tab, change the Name to Right ROW.
13. Press OK.
14. Select the Left ROW label and repeat step 11-13.

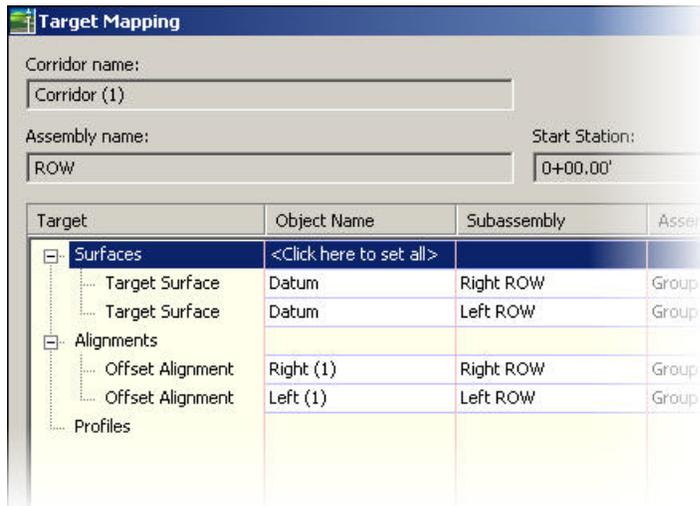
This concludes the creation of the Right of Way Assembly.

Setting up the Corridor

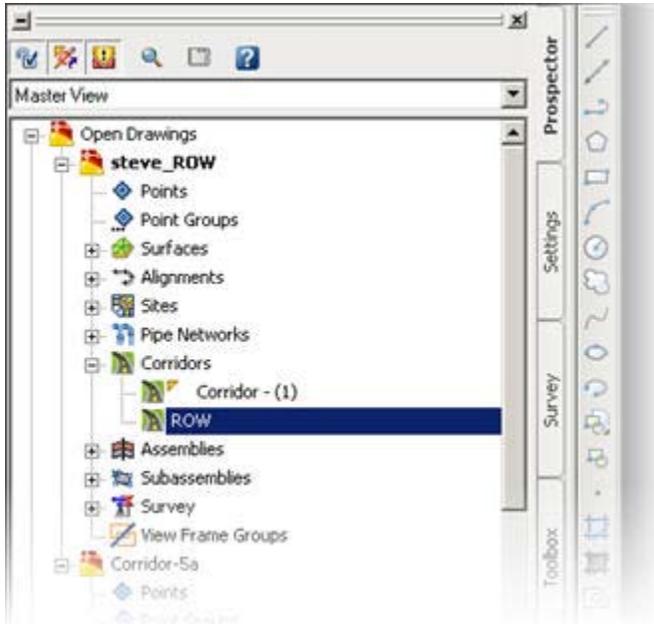
1. Create the surface you wish to have the markers placed at. I won't go through the steps here since there are many different ways a surface can be created in Civil 3D. *Hint: Go to the surfaces tab for the original corridor to create surfaces from it.*
2. Go to Corridors > Create Corridor
 - a. Select the same alignment and profile as you did for your design.
 - b. Select the ROW assembly you created in the steps above.
 - c. Set the Corridor name to ROW.



- Click on the ... button under the Target column for the region and fill in the surface and horizontal targets. The surface controls what elevation the ROW markers are placed at and the Right and Left alignments control what offset the markers will be placed at.



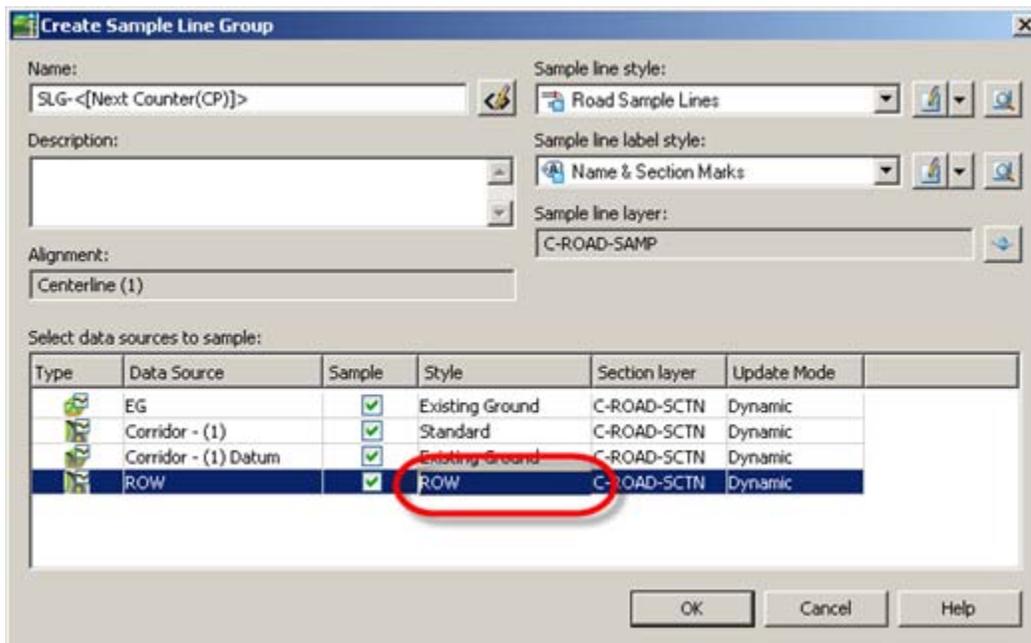
4. Press OK twice to accept the targets and build the ROW corridor.



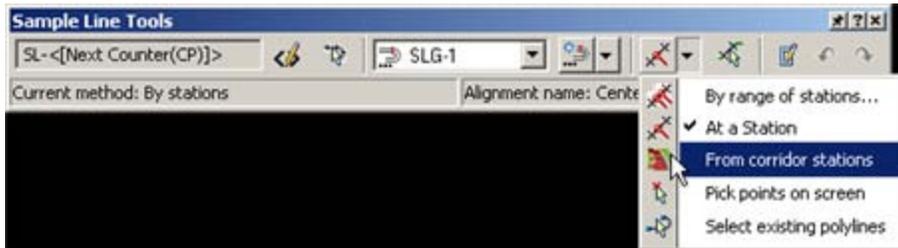
This concludes the creation of the corridor the ROW.

Displaying the Section Views

1. **Sections > Create Sample Lines.** When prompted choose the alignment used for your design. It should be the same alignment used for the ROW corridor. (see step 2a in the Setting up the Corridor procedure)
2. When the *Create Sample Line Group* dialog appears, set the style for the ROW to be ROW. If you skip this step you will not see the marker or the marker label.

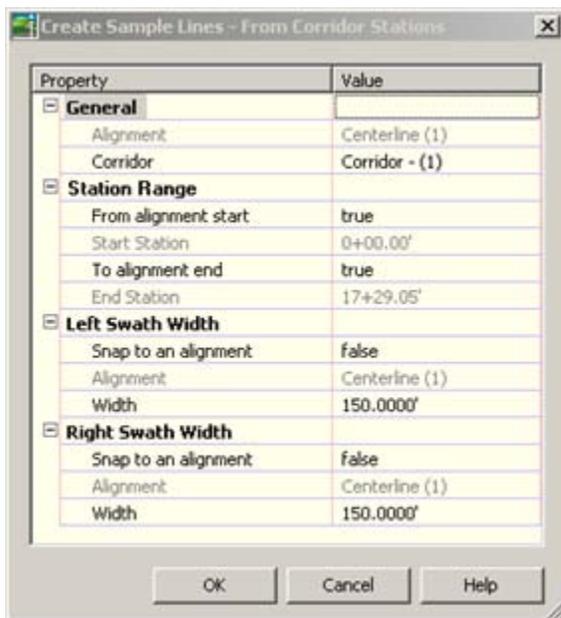


3. Press **OK**
4. Click on the arrow button for the *Sample Line Creation Method* command and select *From Corridor Stations...*



hint: you can choose any of the other methods for sample lines, but be aware that Civil 3D is interpolating your design for any stations that are not explicitly defined in corridor. If you choose a station that doesn't exist in the corridor, the design will probably not look correct in that section view.

- Set up the swath width and other options that you'd like to see for your section views. The image capture below is only an example.

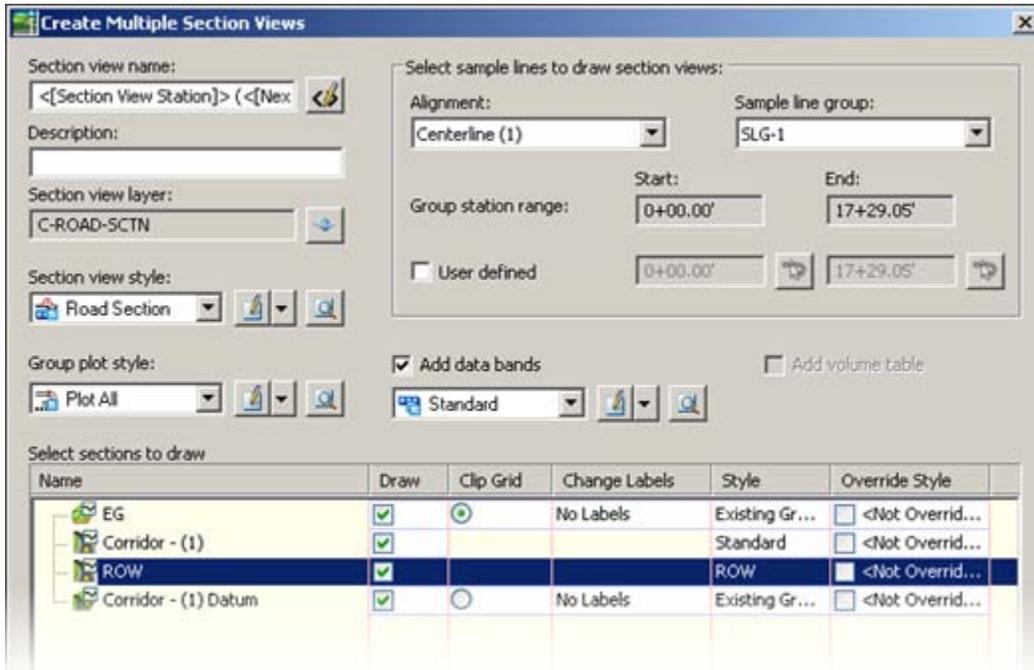


- Press OK and then close the Sample Line Tools dialog to create the sample lines.



- If you get a warning that the corridor is out of date, rebuild the corridors.
- Go to **Sections > Create Multiple Section Views** command.

- Make sure the Label Style and Style are selected properly for the surfaces and corridors that you are displaying in the section view. In particular make sure that your ROW corridor is using the ROW style.



- Press the OK button to continue.
- Select the bottom left corner for the placement of all the section views.