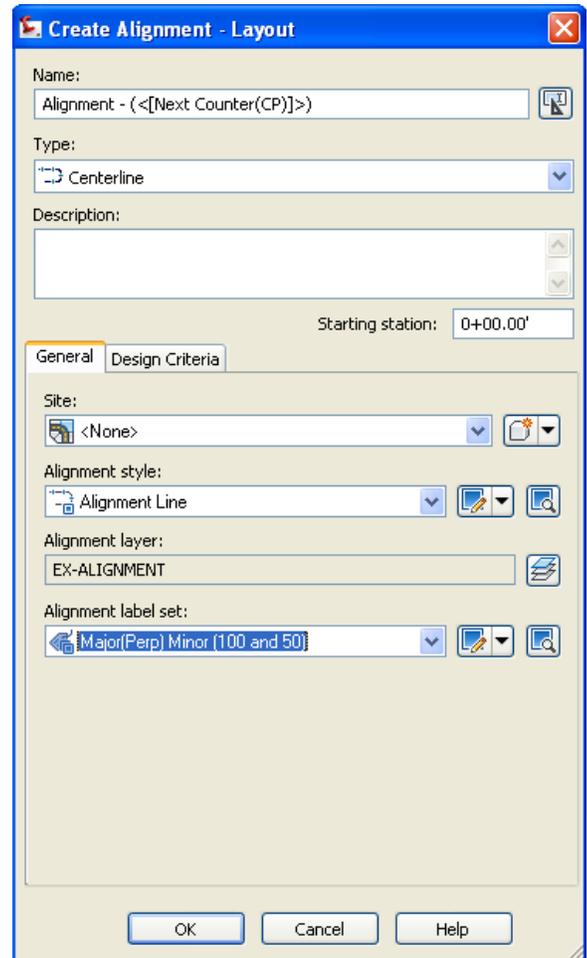


An alignment can be manually defined using a variety of tools provided on the *Alignment Layout Tools* toolbar. This toolbar includes a variety of commands to create lines, curves, spirals, and tangents used to define the alignment. The following procedure covers the procedure for creating a simple alignment consisting of two straight line segments joined by a curve with a radius of 200 feet.

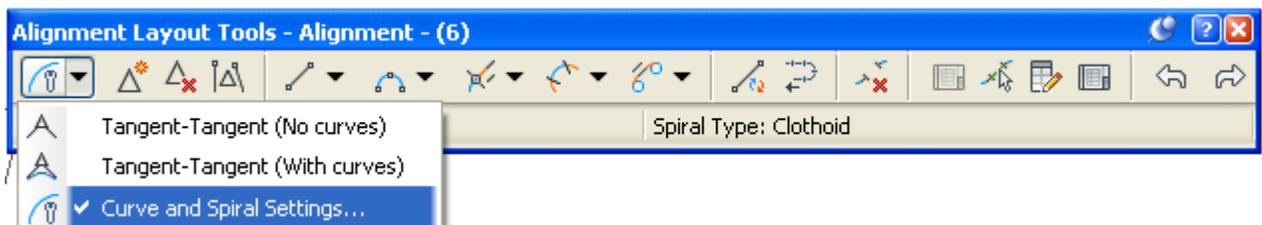
For more information on the commands included on the *Alignment Layout Tools* toolbar, refer to Quick Reference Guide 513.0 *Editing Alignments—Alignment Layout Tools*.

1. Go to the *Create Design* panel on the *Home* ribbon.
2. Click on the down arrow next to *Alignment* and select *Alignment Creating Tools*.
3. The *Create Alignment - Layout* window will now appear. The following settings can be made in this window:

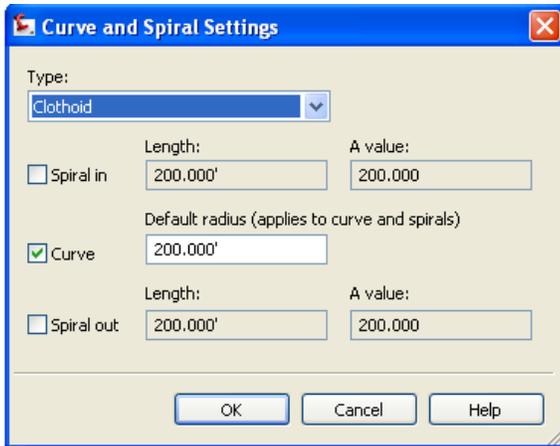
- Alignment Name: An alignment name will have been created based on the default naming convention provided in the Minnesota drawing template. You can replace this with your own alignment name.
- There are four types of alignments that you can specify; Centerline, Offset, Curb Return, and Miscellaneous. This procedure is an example of a centerline alignment.
- The starting station for the alignment can be specified.
- You can assign the alignment to a specific Site, if you have created sites in the drawing, or you can leave the site setting to <None>.
- Choose an alignment style. For more information on the alignment styles provided with the Minnesota drawing template, refer to Quick Reference Guide 500.0 *Styles - Alignment Lines*.
- By default, the alignment will be placed on the layer EX-ALIGNMENT. This can be changed by clicking on the icon next to the alignment layer.
- Choose an alignment label set. For more information on the alignment label sets provided with the Minnesota drawing template, refer to Quick Reference Guide 501.0 *Styles - Alignment Station Labels*.
- There is also a *Design Criteria* tab in the *Create Alignment from Objects* window where you can control criteria related to the design of roadways, such as roadway superelevation and sight distance requirements.
- Click on the *OK* button



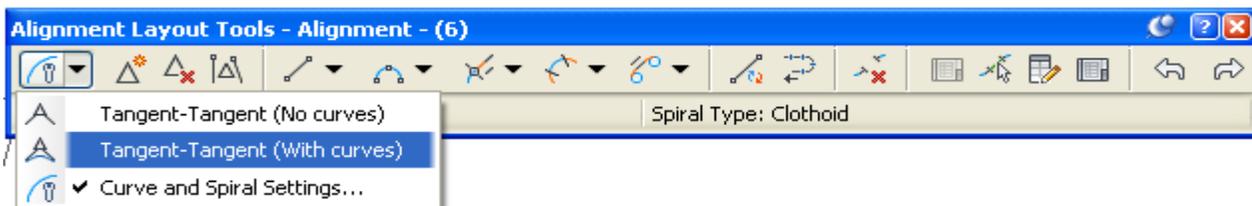
4. You will be returned to the drawing, and the *Alignment Layout Tools* toolbar will appear. Before specifying a starting point for the alignment, check the *Curve and Spiral Settings...* to see what the radius of curvature will be used for the curves placed between tangent sections.



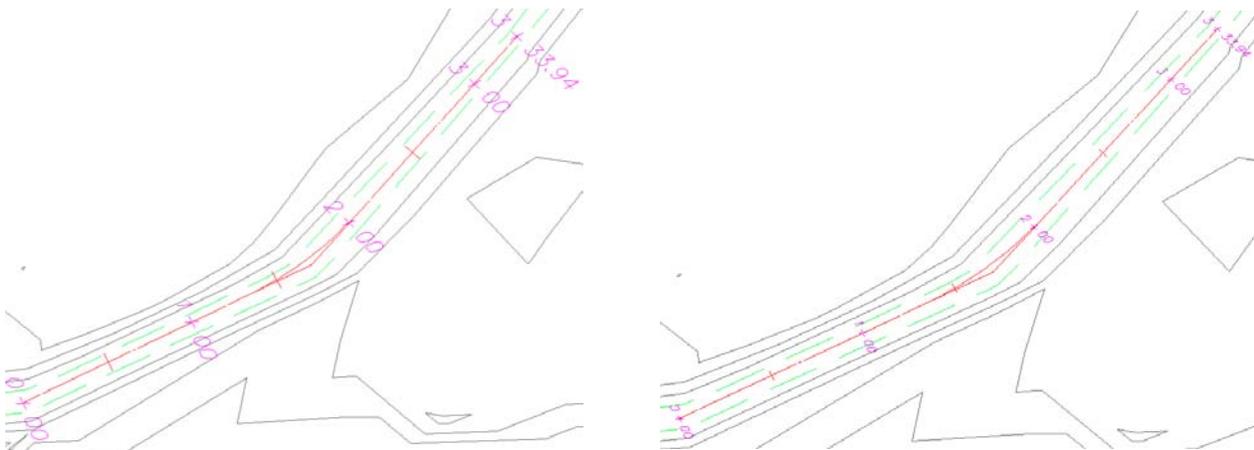
5. The Curve and Spiral Settings window will open where you can specify radius lengths for curves and spirals.



6. After you check the setting for the radius of curvature value, go back to the Alignment Layout Tools toolbar and click on the *Tangent-Tangent (With curves)* command.



7. Click on a starting point in the drawing, then click on subsequent break points along the alignment. At least one other point must be specified to define the ending point of the alignment. Right click or hit the ENTER key when you are finished defining the alignment.
8. An alignment has been created and the alignment labels will be placed based on the label set that you selected in the *Create Alignment - Layout* window, as shown in the figures below.



The size of the alignment labels is controlled using the drawing's annotation scale. The annotation scale is controlled using the menu on the Application Status Bar at the bottom of the window, as shown below. In the figures above and to the left, an annotation scale of 1"=100' is applied, while the figure above and to the right, an annotation scale of 1"=50' is applied.

