Chief Architect®
Architectural Home Design Software

Creating a Plot Plan

Reference Number: **KB-00575**
Last Modified: **March 27, 2024**

QUESTION

I would like to know how to create a plot plan in Chief Architect. How is this accomplished?

ANSWER

A plot plan is essentially a map of a property's legal description. This article describes how to create an accurate plot plan by inputting lines, arcs and setbacks using the CAD tools available in Chief Architect.

- Creating a plot plan polyline
- Correcting an error
- Creating a curved property line
- Displaying line length, angle, and arc radius information
- Creating setback lines
- Accurately positioning a building
- Converting a plot plan to a terrain perimeter

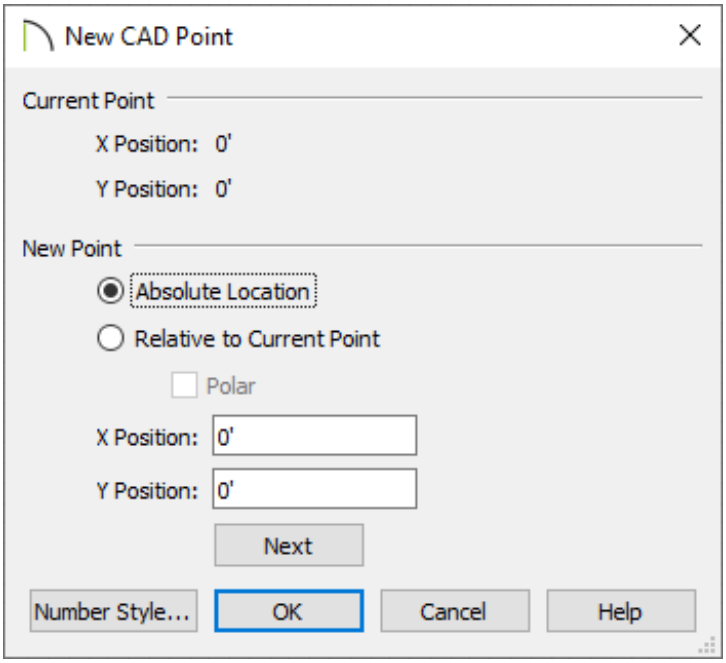
To create a plot plan polyline

1. Select **CAD> Points> Input Point**  from the menu to open the **New CAD Point** dialog.

2. Select **Absolute Location**, define the point's position at **(0,0)** for the **X Position** and

Y Position, then click **OK**.

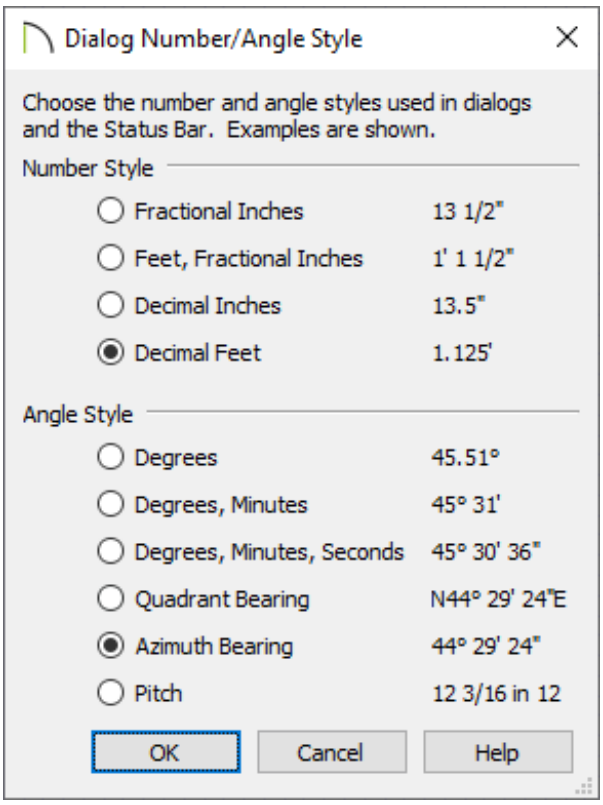
This is the current point and will serve as the Start Point for the first line of the plot plan.



3. From the menu, select **CAD> North Pointer**, then click and drag the line upward to create a North Pointer pointing up to the top of the screen.

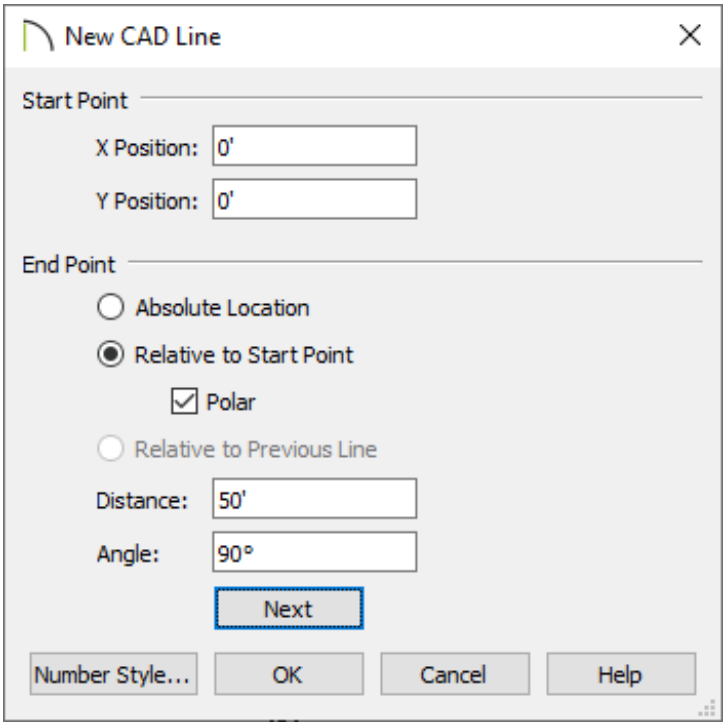
   In X14 and prior select **CAD> Lines> North Pointer** instead.

4. Select **CAD> Lines> Input Line** to open the **New CAD Line** dialog. Notice that the Start Point is **(0,0)**, which is the location of the current point that you just created. Click the **Number Style** button at the bottom of the dialog and in the **Dialog Number/Angle Style** dialog:



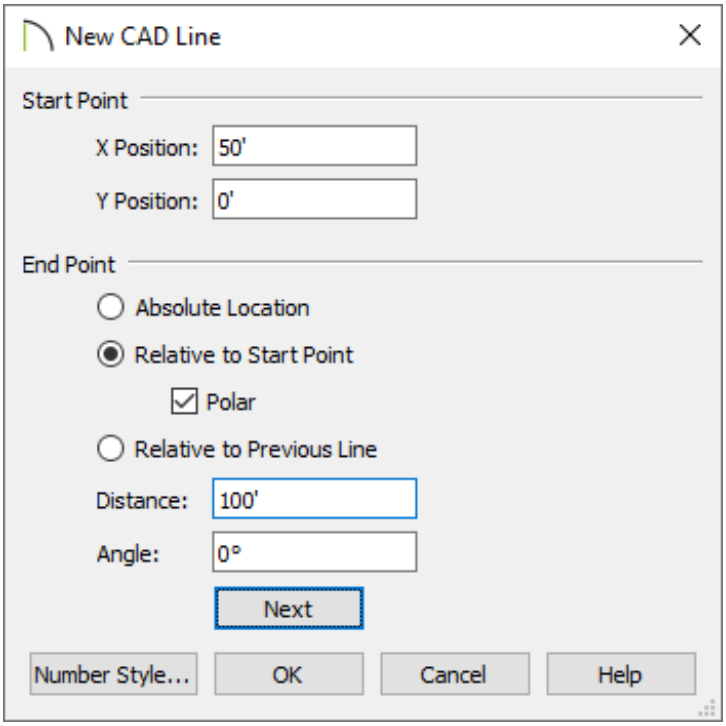
- Select **Decimal Feet** for the Number Style.
- Choose the Angle Style that matches your data, such as **Quadrant Bearing** or **Azimuth Bearing**.
- Click **OK**.

5. Staying in the **New CAD Line** dialog, select the **Relative to Start Point** option and check **Polar**. Enter the length of the first side of your property boundary's legal description in the **Distance** field, and the angle of that line in the **Angle** field.



6. Click **Next** and enter the **Distance** and **Angle** of the next property line.

   The next property line will be the one adjoining the end point of your first line, rather than the start point.

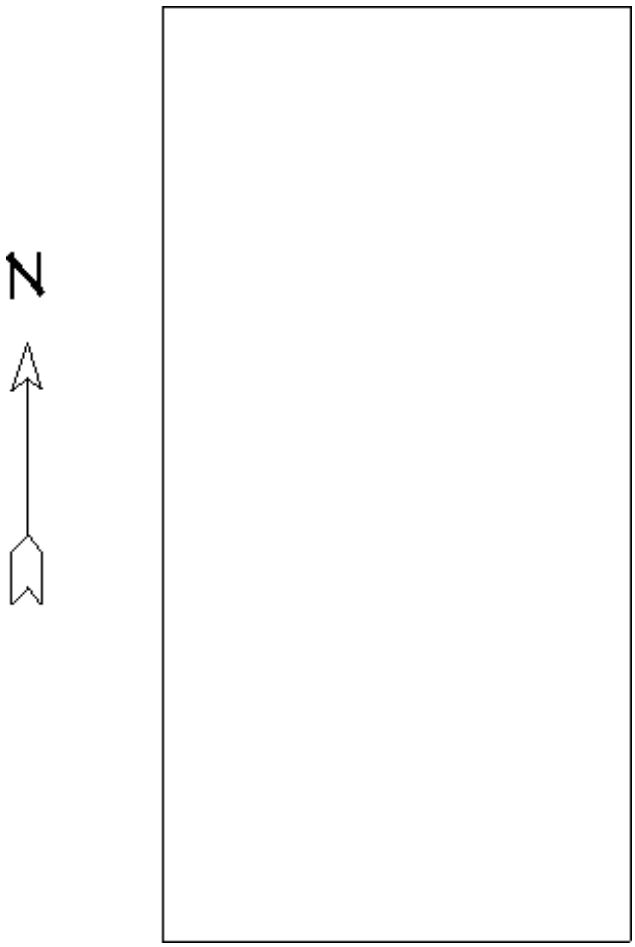


Note: With the North Pointer pointing in the up direction, an angle of 90 degrees will travel in the direction of left to right, 0 degrees will go from bottom to top, 270 degrees will go from right to left, while 180 degrees will travel from top to bottom.

7. Continue until all property lines are entered, then click **OK** to close the dialog.

   The property line created should be closed, with the end-point of the last line being the same as the start point of the first line.

8. If you'd like to remove the CAD point from the drawing go to **CAD> Points> Delete Temporary Points**



If you have received plot plan information from a surveyor, keep in mind that any given line can be described in two ways using Quadrant Bearings, and not all surveyors will describe the lines of a given plot in the same direction (ie, clockwise or counterclockwise).

If the lines are not described in the same direction, then your result will not be a closed polyline.

To correct an error

1. If a line is entered incorrectly, click **OK** to close the **New CAD Line** dialog.

2. Click on the incorrect line to select it, then click on the **Disconnect Selected Edge**  edit button.

3. With the incorrect line now separate from the rest of the polyline, it can be deleted. Select the **Delete**  edit button or the **Delete** key on your keyboard.

4. Place a CAD point at the end of the last correct line using the **Place Point**  tool to create a new current point.

5. Select the **Input Line**  tool and continue entering data in the **New CAD Line** dialog as described in the section above.

To create a curved property line

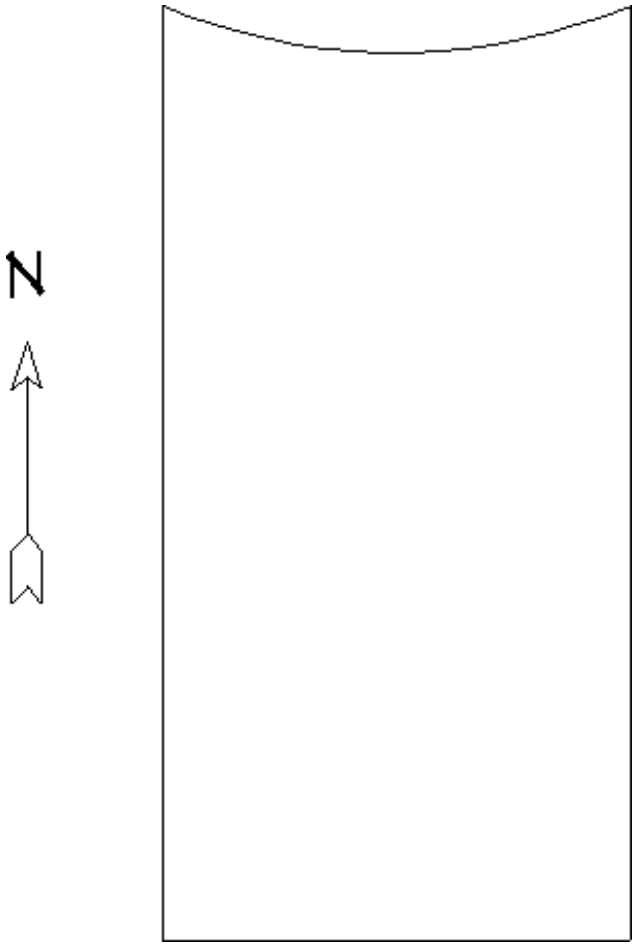
1. Click on an existing property line to select it, then click the **Change Line/Arc**  edit button to turn this line into an arc.

2. If necessary, use the triangular reshape edit handle to make the arc concave or convex.

3. Click the **Open Object**  edit button to open the **Polyline Specification** dialog.

4. On the SELECTED ARC panel, click the **Chord** radio button under the Lock category, specify the length of the **Radius**, then click **OK**.

In this example, a value of 65' is specified.

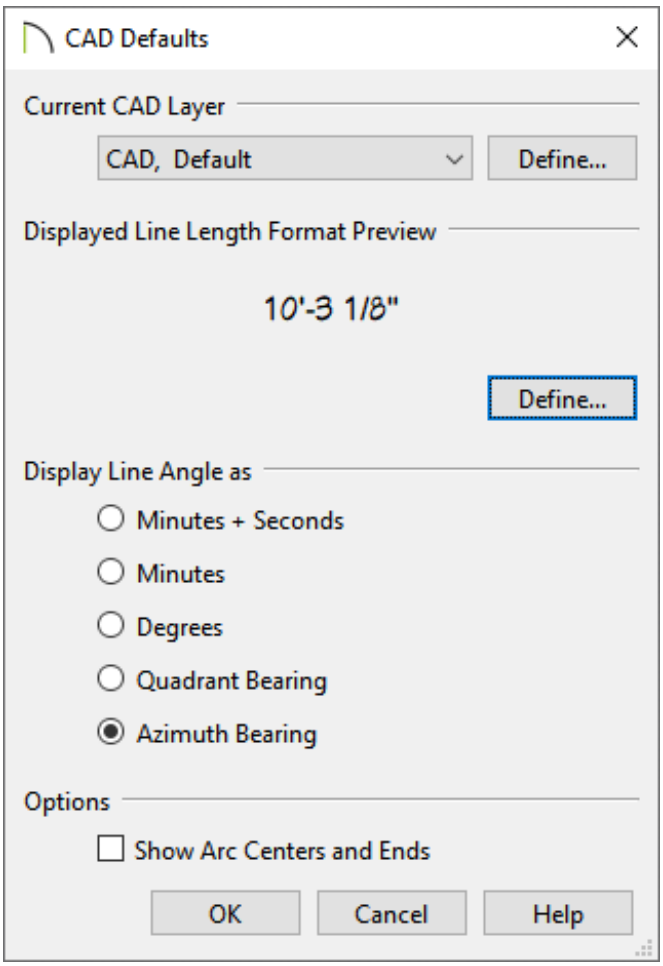


> A curved property line can also be created by entering data in the New Arc dialog. See the Chief Architect Reference Manual for more information.

To display line length, angle, and arc radius information

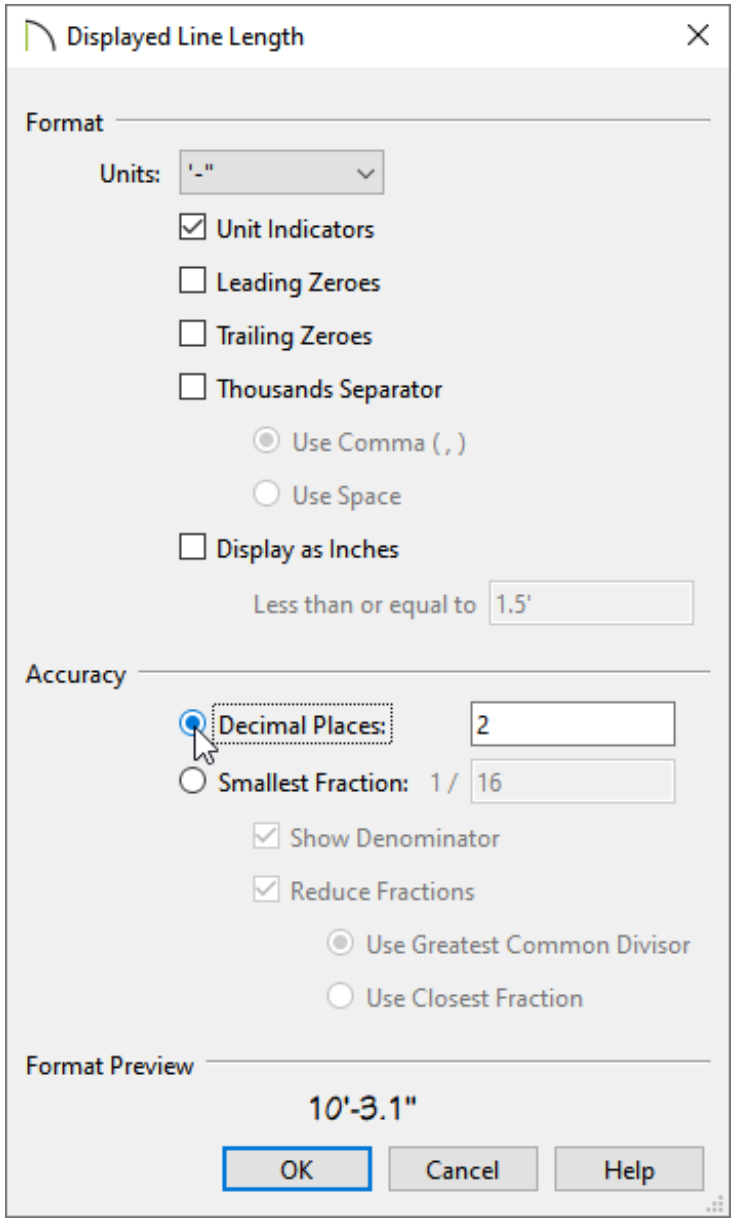
1. Select **Edit> Default Settings** from the menu, expand the **CAD** category, select **General CAD**, then click the **Edit** button.

2. In the **CAD Defaults** dialog:



- Choose the angle display method that matches your data under the Display Line Angle as section.

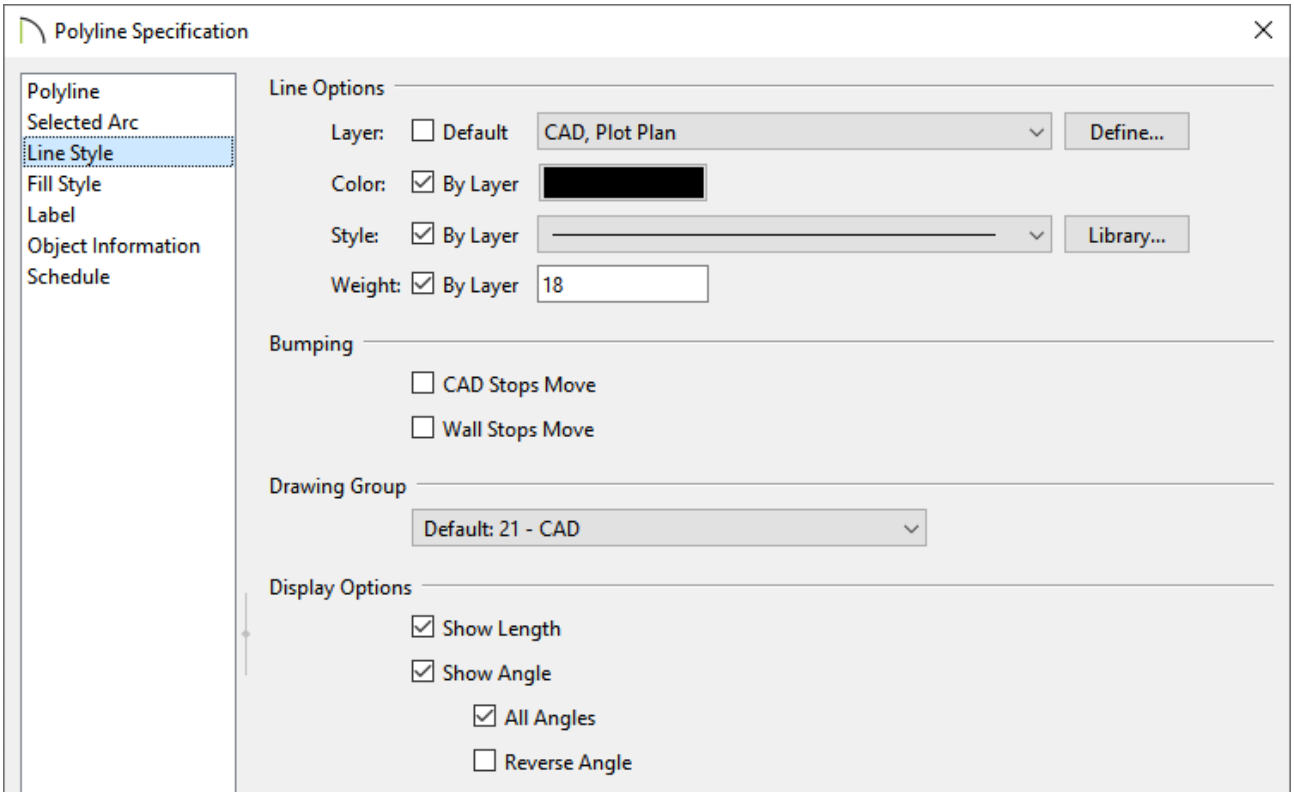
- Click on the **Define** button under Displayed Line Length Format Preview to display the **Displayed Line Length** dialog, and under Accuracy, select the **Decimal Places** radio button



- Click **OK** and/or **Done** on all dialogs to confirm the changes.

3. Click on the plot plan polyline to select it and click the **Open Object** edit button.

4. On the LINE STYLE panel of the **Polyline Specification** dialog:



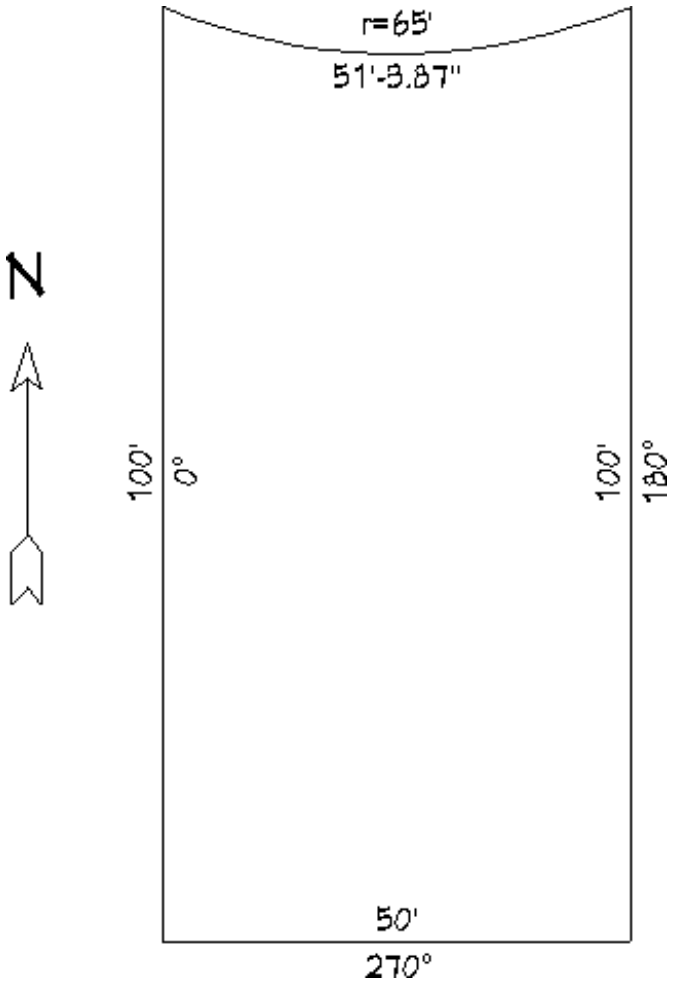
- If you're using the Plot Plan Saved Plan View, the plot plan may already be on the **CAD, Plot Plan** layer.

  If you're not using the Plot Plan Saved Plan View, change the layer to **CAD, Plot Plan**, click the **Define** button next to the Layer drop-down, and ensure that the **CAD, Plot Plan** layer is set to be displayed.

  For more information on layers and layer sets, please see the Related Articles section below.

- Check **Show Length**, **Show Angle** and **All Angles**.

- Click **OK** to close the dialog and apply your changes.



To create setback lines in X16 and newer

1. Using the **Select Objects** tool click on your plot plan polyline to select it, click the **Copy/Paste** edit button, and then click the **Paste Hold Position** edit button**.**

2. With the plot plan polyline selected click the **Concentric Resize** edit button.

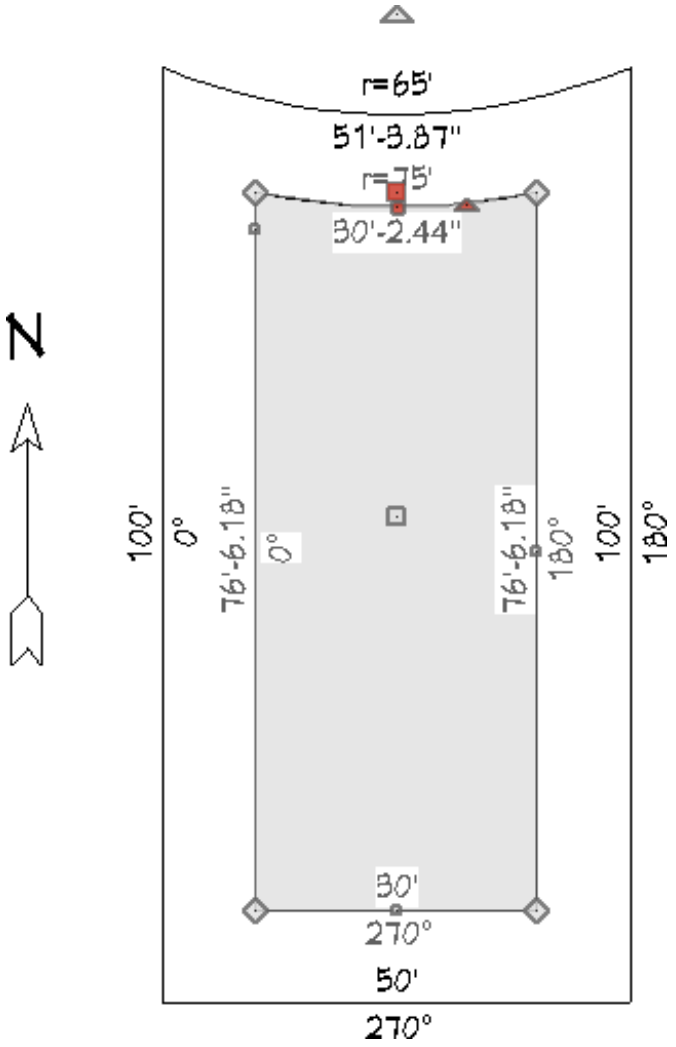
   - With the **Concentric Resize** edit button selected click the **Set Concentric Jump** edit button to open the **Set Concentric Jump Distance** dialog.

   - In the **Jump Distance** box type in the setback distance required by your local planning department.

   - Click **OK** to close the dialog and apply your changes.

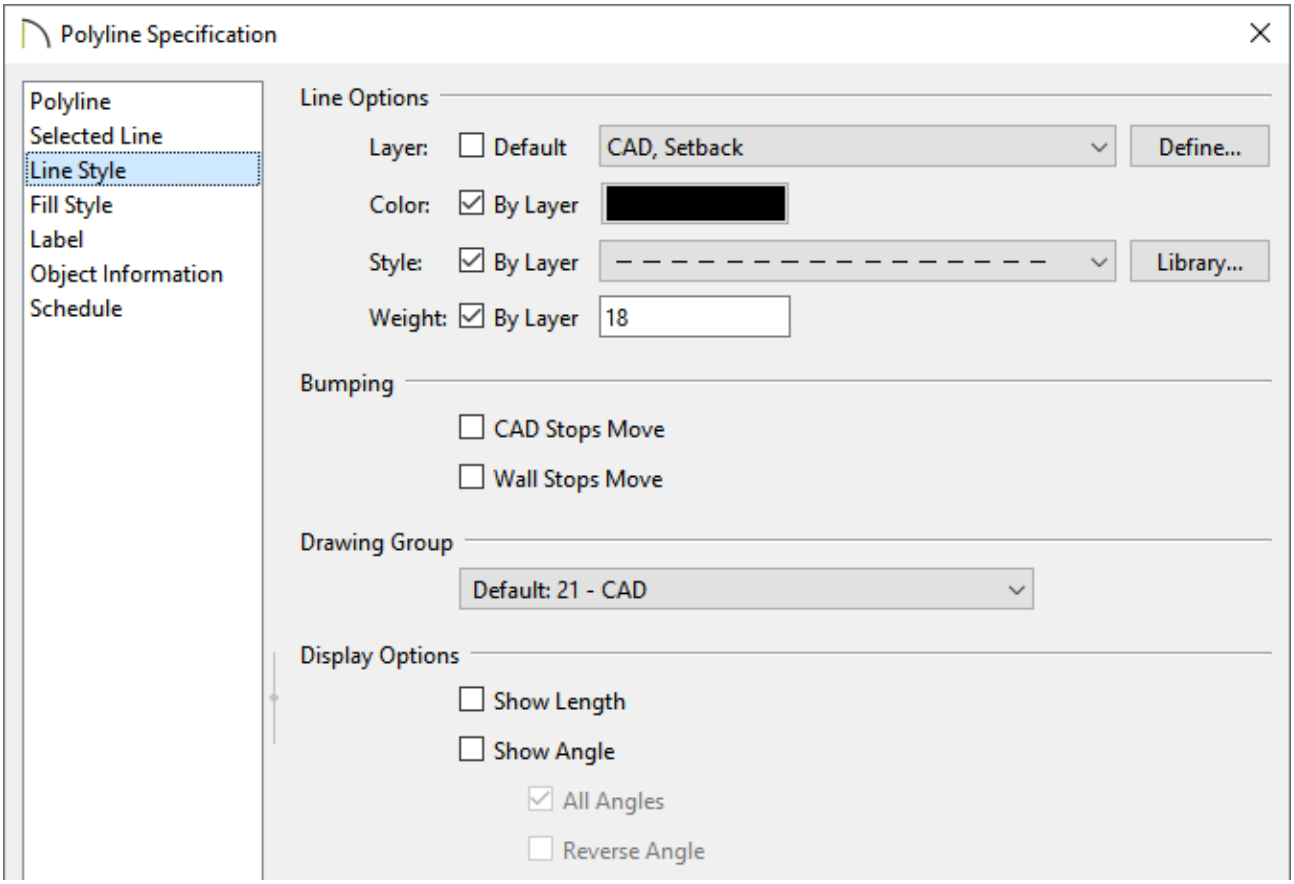
3. Place your cursor over a corner edit handle, then click and drag towards the center

of the polyline. When a second, inner polyline displays, release the mouse.



4. Select the inner polyline and click the **Open Object** edit button.

5. On the LINE STYLE panel of the **Polyline Specification** dialog:

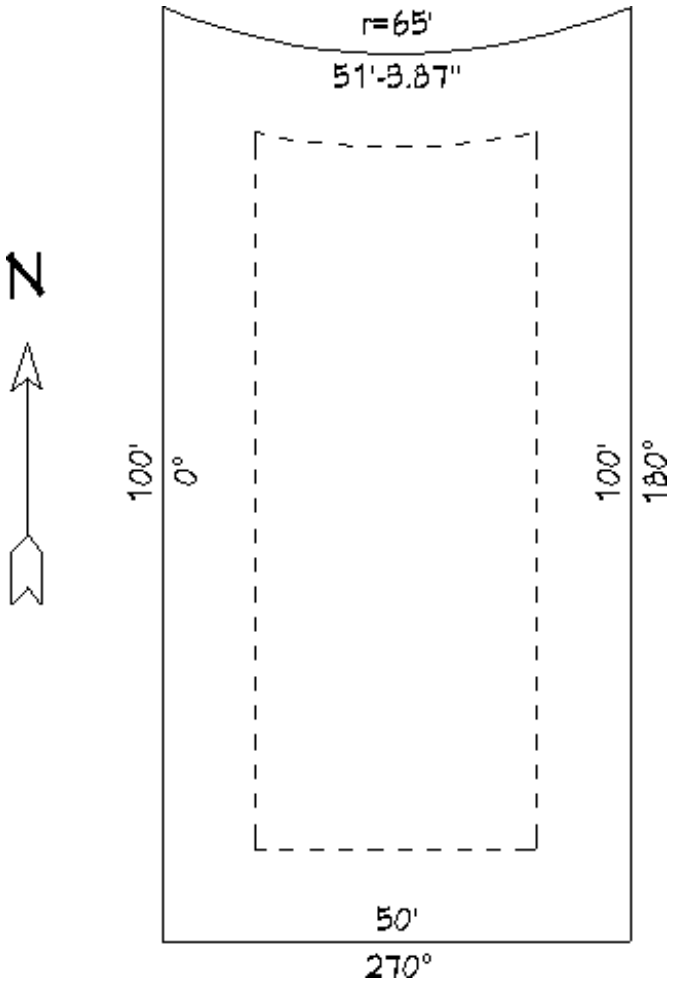


- Click the **Define** button next to the Layer drop-down and in the **Layer Display Options** dialog that displays, click the **Copy** button to copy the layer, and change the name of the newly created layer to **CAD, Setback**.

- Change the **Line Style** to a dashed line style.

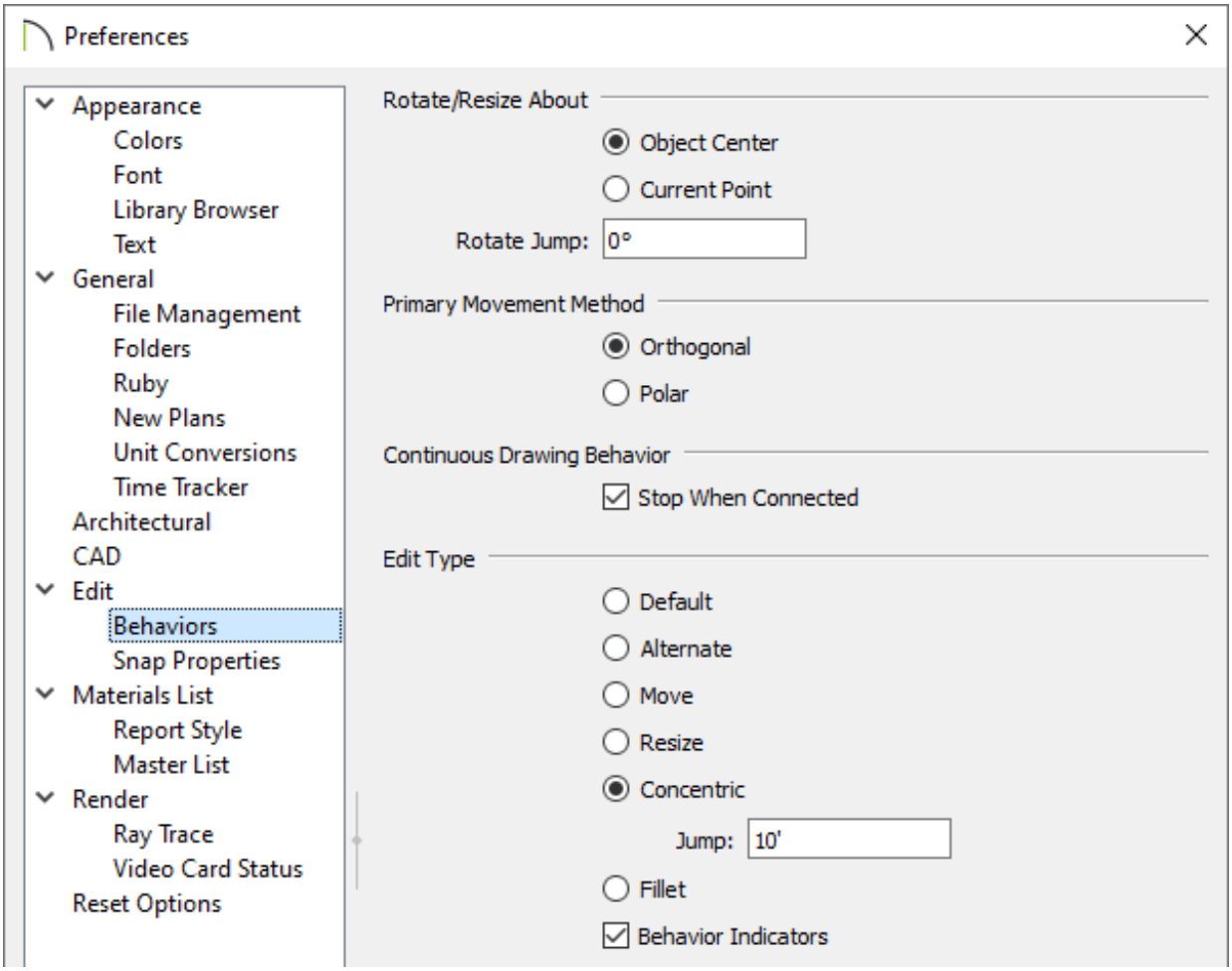
- Uncheck the **Show Length** and **Show Angle** boxes, if desired.

- Click **OK** to close the dialog and apply your changes.



To create setback lines in X15 and prior

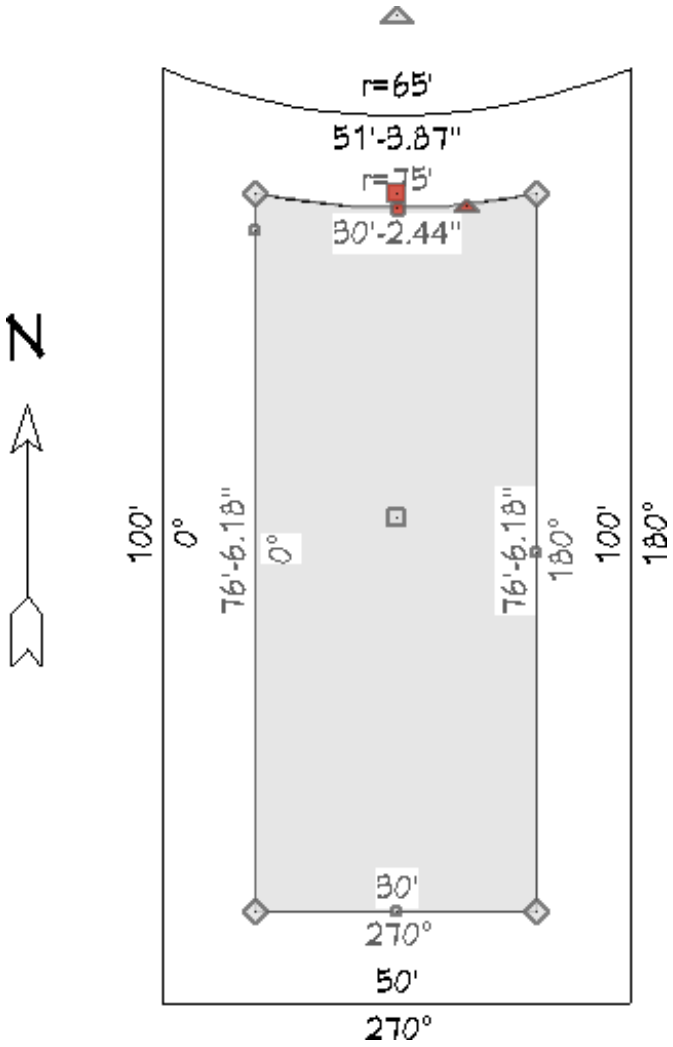
1. Select **Edit> Preferences** if you're on a Windows PC or **Chief Architect> Preferences** if you're on a Mac, and on the BEHAVIORS panel of the **Preferences** dialog:



- Select the **Concentric** radio button under Edit Type.
- In the **Jump** field, type in the setback distance required by your local planning department
- Click **OK** to close the dialog and apply your changes.

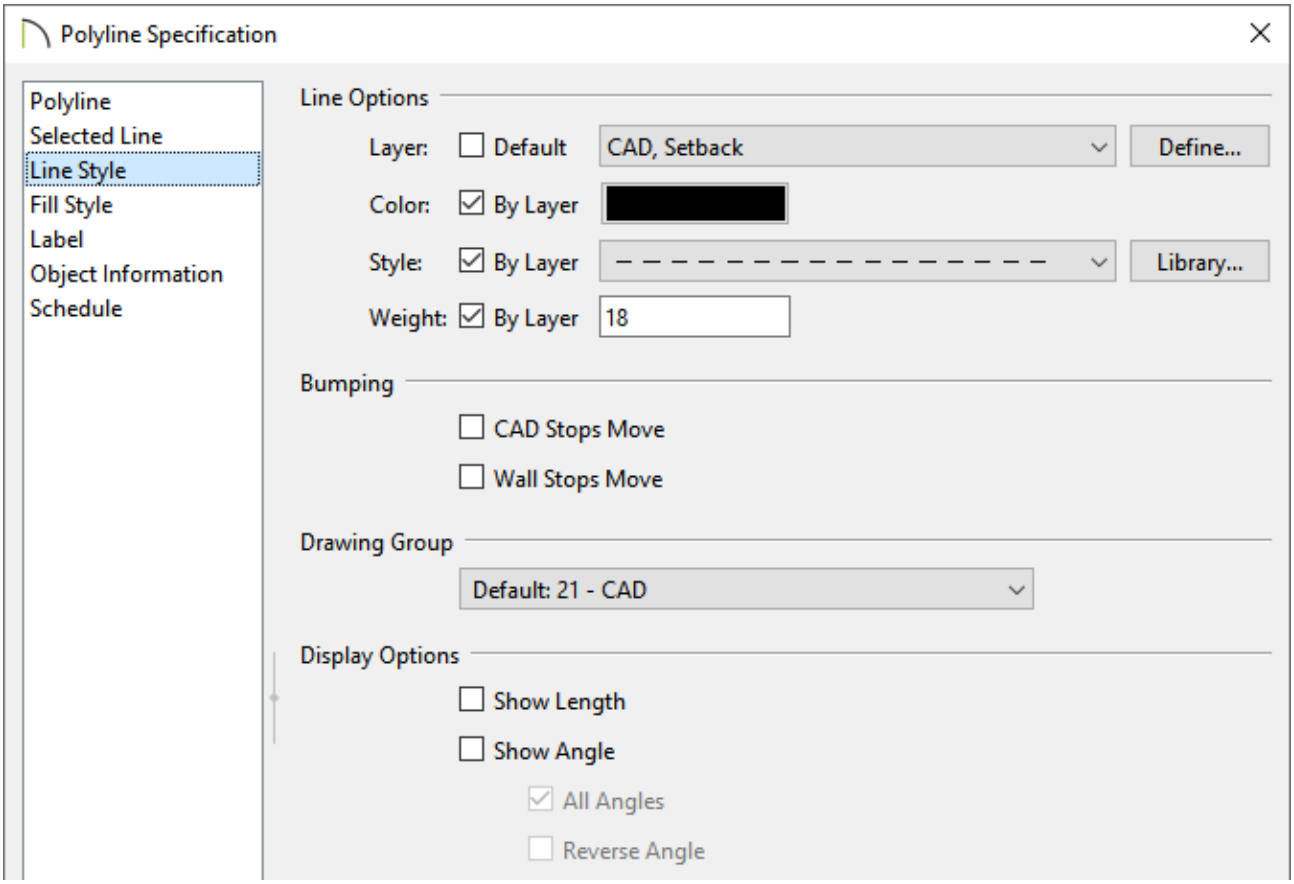
2. Click on the plot plan polyline to select it, then click the **Copy/Paste** edit button.

3. Place your cursor over a corner edit handle, then click and drag towards the center of the polyline. When a second, inner polyline displays, release the mouse.



4. Select the inner polyline and click the **Open Object** edit button.

5. On the LINE STYLE panel of the **Polyline Specification** dialog:

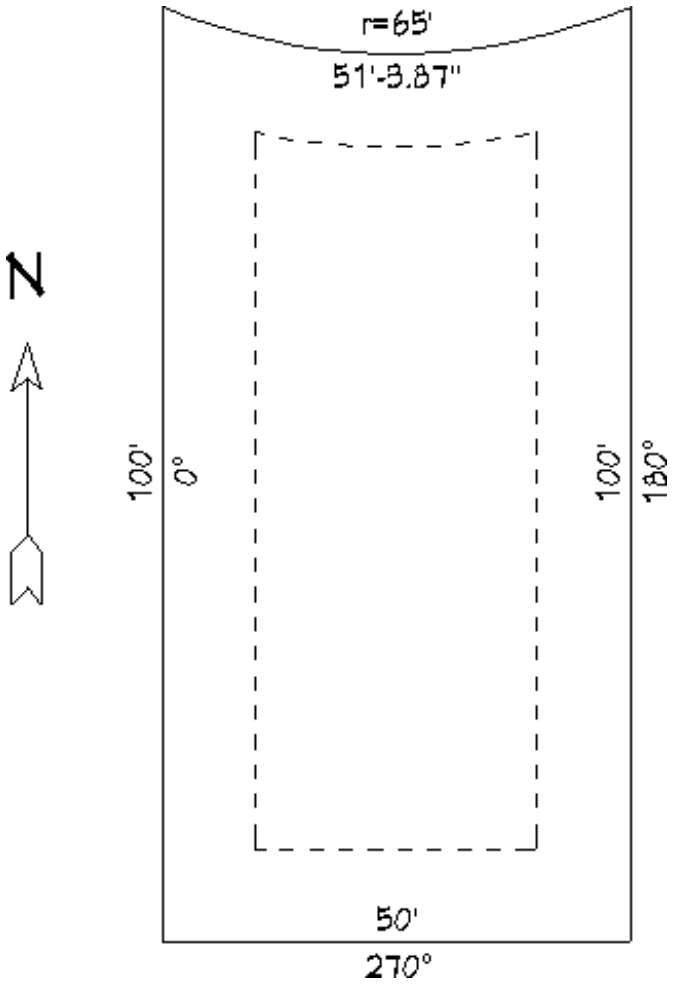


- Click the **Define** button next to the Layer drop-down and in the **Layer Display Options** dialog that displays, click the **Copy** button to copy the layer, and change the name of the newly created layer to **CAD, Setback**.

- Change the **Line Style** to a dashed line style.

- Uncheck the **Show Length** and **Show Angle** boxes, if desired.

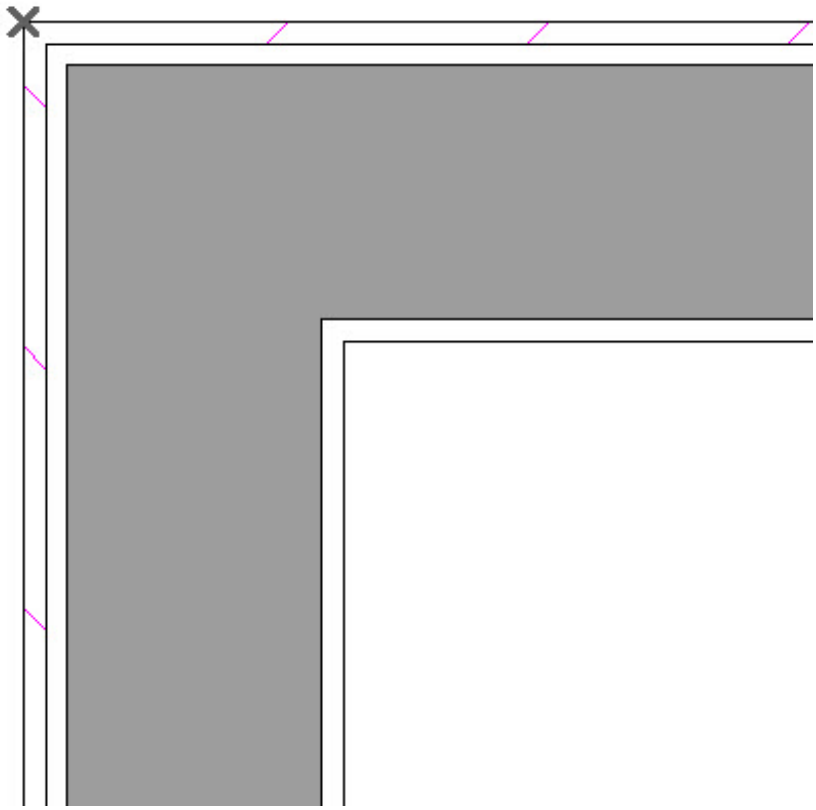
- Click **OK** to close the dialog and apply your changes.



6. Once the setback is created, navigate to **Edit> Edit Behaviors** and select the **Default** option to switch back to the default edit behavior.

To accurately position a building

1. Navigate to **CAD> Points> Place Point** and place a point along the perimeter of the property, such as a corner. Alternately, use the starting point for your plot plan polyline, **(0,0)**, as a reference.



2. Select **CAD> Points> Input Point** to open the **New CAD Point** dialog.

3. Select **Absolute Location** and specify the desired distance that the building will be from this point in the **X Position** and **Y Position** fields.

4. If you have placed a CAD point at a different location, select **Relative to Current Point** and specify the desired distance from that point. Unless you would like to specify the location in distance and bearing, Polar (CCW from horz) should remain unchecked.

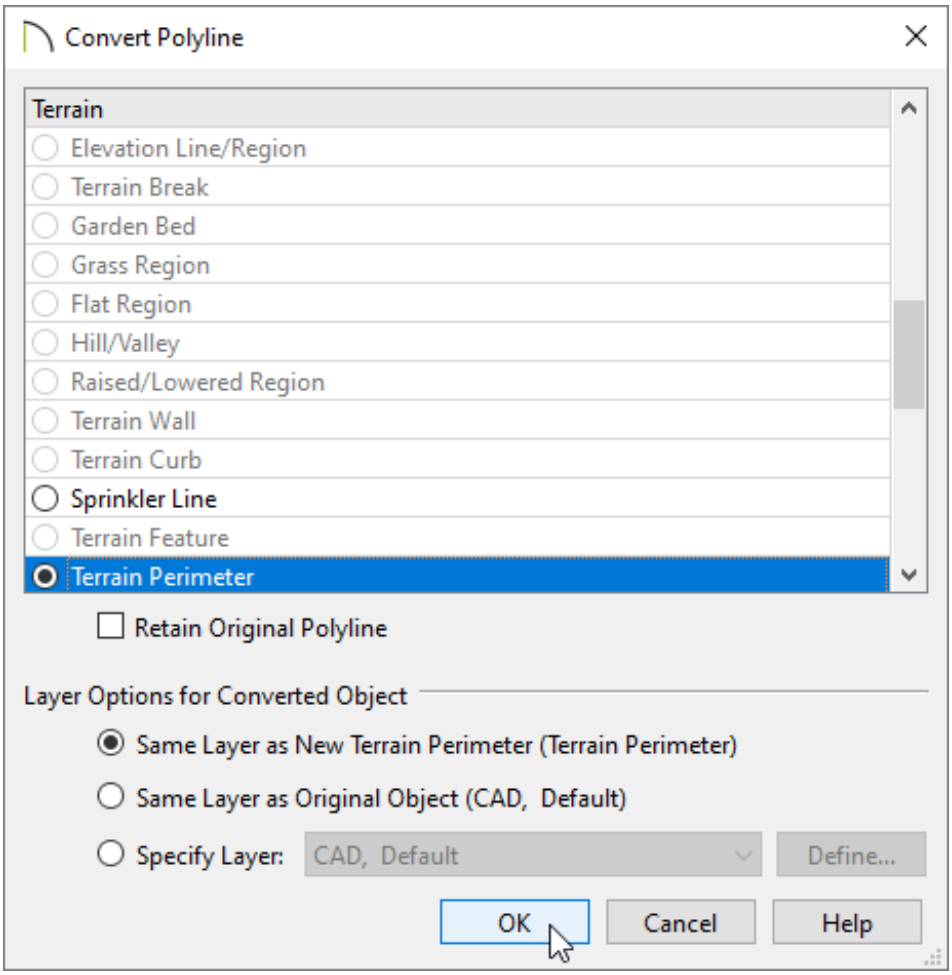
5. When you click **OK**, a point will be created at the specified location. Use this point as a reference to accurately position a wall or corner of the building.

To convert a plot plan to a terrain perimeter

If you'd like to have your Plot Plan appear in 3D views as a grass pad with a thickness, you can convert it to a Terrain Perimeter.

1. Select the plot plan polyline and click the **Convert Polyline** edit button.

2. In the **Convert Polyline** dialog, select **Terrain Perimeter**, specify the Layer you would like the Terrain Perimeter to go on, then click **OK**.



3. Make any needed changes, then click **OK** to close the dialog.

   The plot plan polyline that you created is now your Terrain Perimeter.

Related Articles

- Adjusting the Display of Wall Layers (/support/article/KB-00034/adjusting-the-display-of-wall-layers.html)
- Converting a Polyline into a Terrain Perimeter (/support/article/KB-00324/converting-a-polyline-into-a-terrain-perimeter.html)

- Understanding Layer Sets (/support/article/KB-00765/understanding-layer-sets.html)
- Understanding Layers (/support/article/KB-03183/understanding-layers.html)
- Using the Point to Point Move Tool (/support/article/KB-00734/using-the-point-to-point-move-tool.html)

(https://chieftalk.chiefarchitect.com/)

(/blog/)

(https://www.facebook.com/ChiefArchitect)

(https://www.youtube.com/user/ChiefArchitectInc)

(https://www.instagram.com/chiefarchitect/)

(https://www.houzz.com/pro/chiefarchitect/)

(https://www.pinterest.com/chiefarchitect/)