Creating a Plot Plan

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QUESTION

I would like to know how to create a <u>plot plan</u> 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.

- <u>Creating a plot plan polyline</u>
- 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

- 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.

New CAD Point	×
Current Point	_
X Position: 0'	
Y Position: 0'	
New Point	_
Absolute Location	
Relative to Current Point	
Polar	
X Position: 0'	
Y Position: 0'	
Next	
Number Style OK Cancel Help]

3. From the menu, select **CAD> North Pointer** *N*, 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** Mainstead.

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:

Dialog Number/Angle Style	×	
Choose the number and angle styles used in dialogs and the Status Bar. Examples are shown.		
Number Style		
 Fractional Inches 	13 1/2"	
 Feet, Fractional Inches 	1' 1 1/2"	
 Decimal Inches 	13.5"	
Decimal Feet	1.125'	
Angle Style		
O Degrees	45.51°	
O Degrees, Minutes	45° 31'	
 Degrees, Minutes, Seconds 	45° 30' 36"	
Quadrant Bearing	N44º 29' 24"E	
Azimuth Bearing	44º 29' 24"	
O Pitch	12 3/16 in 12	
OK Cancel	Help:	

- 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.

New CAD Line	×
Start Point	
X Position: 0'	
Y Position: 0'	
End Point	
Absolute Location	
Relative to Start Point	
🗹 Polar	
Relative to Previous Line	
Distance: 50'	
Angle: 90°	
Next	
Number Style OK Cancel Help	

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.

New CAD Line X
Start Point
X Position: 50'
Y Position: 0'
End Point
Absolute Location
Relative to Start Point
✓ Polar
Relative to Previous Line
Distance: 100'
Angle: 0°
Next
Number Style OK Cancel Help

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** is 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** \times 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** $\widehat{}$ 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** 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** ^[1] from the menu, expand the **CAD** category, select **General CAD**, then click the **Edit** button.
- 2. In the CAD Defaults dialog:

CAD Defaults ×
Current CAD Layer CAD, Default ~ Define
Displayed Line Length Format Preview
10'-3 1/8"
Define
Display Line Angle as
O Minutes + Seconds
O Minutes
O Degrees
O Quadrant Bearing
Azimuth Bearing
Options
Show Arc Centers and Ends
OK Cancel Help

- 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

Displayed Line Length	×		
Format			
Units: '-"			
Leading Zeroes			
Trailing Zeroes			
Thousands Separator			
Use Comma (,)			
🔿 Use Space			
Display as Inches			
Less than or equal to 1.5'			
○ Smallest Fraction: 1 / 16			
Show Denominator			
Reduce Fractions			
Use Greatest Com	nmon Divisor		
O Use Closest Fraction			
10'-3 1"			
OK Cancel	Help		

- 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:

Polyline Specificatio	n	×
Polyline Selected Arc Line Style Fill Style Label Object Information Schedule	Line Options Layer: Default CAD, Plot Plan ✓ Define Color: 🖾 By Layer	
	Drawing Group Default: 21 - CAD Display Options Image: Show Length Image: Show Angle Image: Im	

• 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 <u>Related Articles</u> 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** and then click the **Paste Hold Position** if edit button.
- 2. With the plot plan polyline selected click the **Concentric Resize** addit button.
 - With the **Concentric Resize** addit button selected click the **Set Concentric Jump** for 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:

Polyline Specificatio	on	×
Polyline Selected Line	Line Options	 ✓ Define
Line Style Fill Style Label	Color: By Layer	
Object Information Schedule	Style: 🗹 By Layer	 ✓ Library
	Bumping CAD Stops Move	
	Wall Stops Move	
	Drawing Group Default: 21 - CAD V	
	Display Options	
	Show Length	
	All Angles Reverse Angle	

- 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

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:

→ Preferences	×
 Appearance Colors Font Library Browser Text General File Management Folders Ruby New Plans Unit Conversions Time Tracker 	Rotate/Resize About Object Center Current Point Rotate Jump: O° Primary Movement Method Orthogonal Polar Continuous Drawing Behavior Stop When Connected
 CAD Edit Behaviors Snap Properties Materials List Report Style Master List Render Ray Trace Video Card Status Reset Options 	Edit Type Default Alternate Move Resize Concentric Jump: 10' Fillet Behavior Indicators

- 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:

Polyline Specificatio	on	×
Polyline Selected Line	Line Options	 ✓ Define
Line Style Fill Style Label	Color: By Layer	
Object Information Schedule	Style: 🗹 By Layer	 ✓ Library
	Bumping CAD Stops Move	
	Wall Stops Move	
	Drawing Group Default: 21 - CAD V	
	Display Options	
	Show Length	
	All Angles Reverse Angle	

- 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 S** option to switch back to the default edit behavior.

To accurately position a building

 Navigate to CAD> Points> Place Point X 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.
- 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**.

Convert Polyline	×
Terrain	^
O Elevation Line/Region	
🔿 Terrain Break	
🔘 Garden Bed	
🔘 Grass Region	
Flat Region	
○ Hill/Valley	
Raised/Lowered Region	
🔿 Terrain Wall	
🔿 Terrain Curb	
O Sprinkler Line	
Terrain Feature	
Terrain Perimeter	~
Retain Original Polyline	
Layer Options for Converted Object	
Same Layer as New Terrain Perimeter (Terrain Perimeter)	
O Same Layer as Original Object (CAD, Default)	
○ Specify Layer: CAD, Default ∨ Define	2
OK Cancel Help	

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-displayof-wall-layers.html)
- Converting a Polyline into a Terrain Perimeter (/support/article/KB-00324/convertinga-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)



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