

LEARNING OBJECTIVES

After completing this lesson, you will be able to:

1. Understand the Polyline command
2. Draw a Polyline and a Polyarc
3. Assign widths to polylines
4. Set the Fill mode to On or Off.
5. Explode a Polyline


LESSON 23

POLYLINES

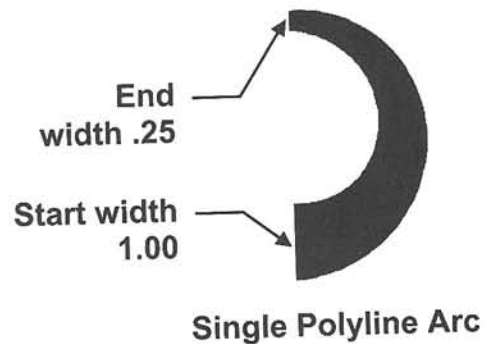
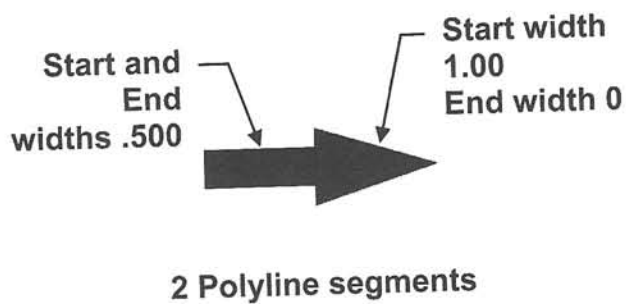
A **POLYLINE** is very similar to a LINE. It is created in the same way a line is drawn. It requires first and second endpoints. But a POLYLINE has additional features, as follows:

1. A **POLYLINE** is ONE object, even though it may have many segments.
2. You may specify a specific width to each segment.
3. You may specify a different width to the start and end of a polyline segment.

Select the Polyline Command using one of the following:

Ribbon = Home tab / Draw panel / 
or
Keyboard = PL <enter>

THE FOLLOWING ARE EXAMPLES OF POLYLINES WITH WIDTHS ASSIGNED.



Refer to the next page for more polyline options

POLYLINES....continued

OPTIONS:

WIDTH

Specify the starting and ending width.



You can create a tapered polyline by specifying different starting and ending widths.



HALFWIDTH

The same as Width except the starting and ending halfwidth specifies half the width rather than the entire width.



ARC

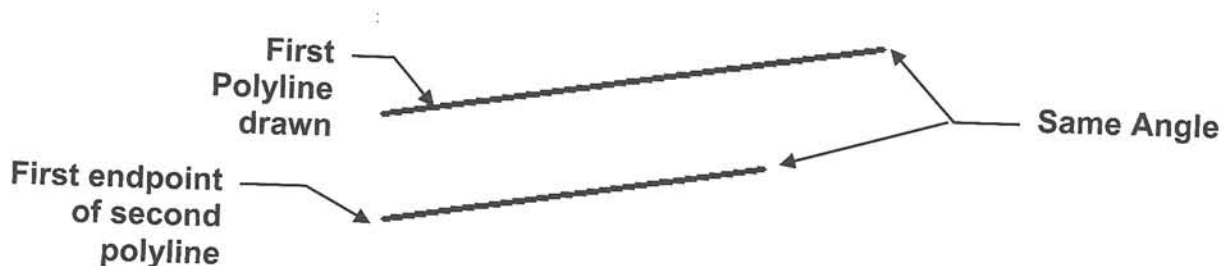
This option allows you to create a circular polyline less than 360 degrees. You may use (2) 180 degree arcs to form a full circular shape.

CLOSE

The close option is the same as in the Line command. Close attaches the last segment to the first segment.

LENGTH

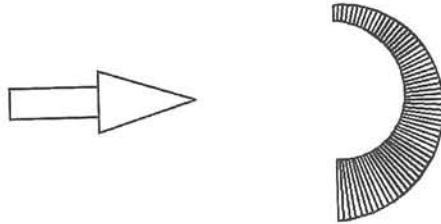
This option allows you to draw a polyline at the same angle as the last polyline drawn. This option is very similar to the OFFSET command. You specify the first endpoint and the length. The new polyline will automatically be drawn at the same angle as the previous polyline.



POLYLINES....continued

CONTROLLING THE FILL MODE

If you turn the FILL mode OFF the polylines will appear as shown below.

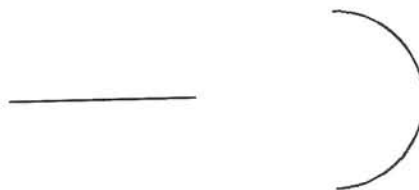


How to turn FILL MODE on or off.

1. Command: **type FILL <enter>**
2. Enter mode [On / Off] <ON>: **type ON or Off <enter>**
3. Command: **type REGEN <enter>** or select: **View / Regen**

EXPLODING A POLYLINE


NOTE: *If you explode a POLYLINE it loses its width and turns into a regular line as shown below.*



POLYLINES....continued

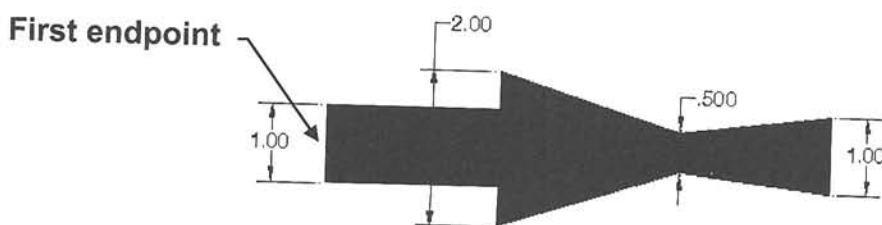
The following is an example of how to draw a polyline with Width.

1. Select the Polyline Command using one of the following:

Ribbon = Home tab / Draw panel / 
or
Keyboard = PL <enter> Polyline

Command: `_pline`

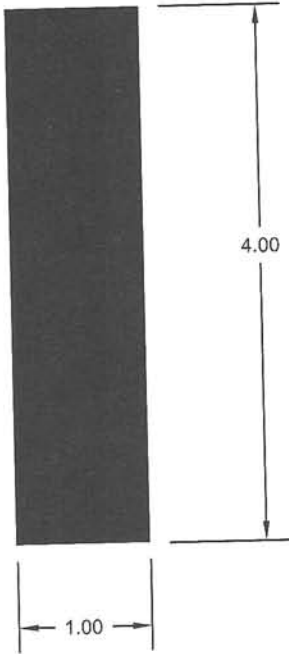
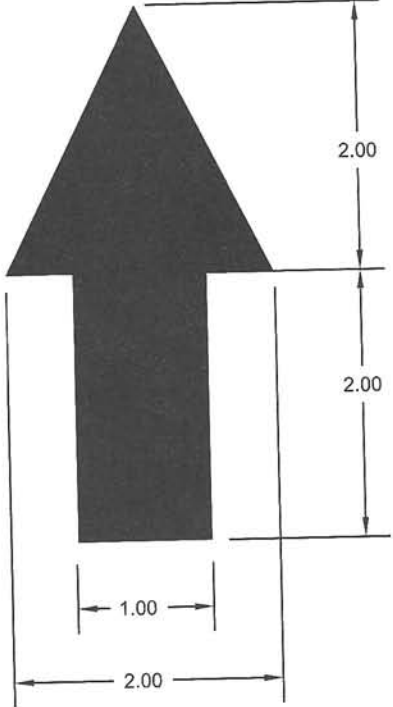
2. Specify start point: **place the first endpoint of the line**
Current line-width is 0.000
3. Specify next point or [Arc/Halfwidth/Length/Undo/Width]: **select width option**
4. Specify starting width <0.000>: **1** <enter>
5. Specify ending width <0.000>: **1** <enter>
6. Specify next point or [Arc/Close/Halfwidth/Length/Undo/Width]: **select Length option**
7. Specify Length: **3** <enter>
8. Specify next point or [Arc/Halfwidth/Length/Undo/Width]: **select width option**
9. Specify starting width <0.000>: **2** <enter>
10. Specify ending width <0.000>: **.5** <enter>
11. Specify next point or [Arc/Close/Halfwidth/Length/Undo/Width]: **select Length option**
12. Specify Length: **2.75** <enter>
13. Specify next point or [Arc/Halfwidth/Length/Undo/Width]: **select width option**
14. Specify starting width <0.000>: **.5** <enter>
15. Specify ending width <0.000>: **1** <enter>
16. Specify next point or [Arc/Close/Halfwidth/Length/Undo/Width]: **select Length option**
17. Specify Length: **2.50** <enter>
18. Specify next point or [Arc/Close/Halfwidth/Length/Undo/Width]: **press <enter> to stop**



EXERCISE 23A

INSTRUCTIONS:

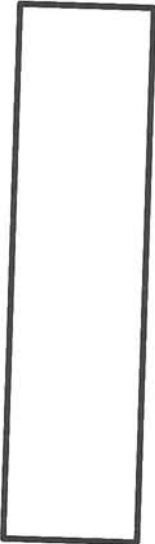
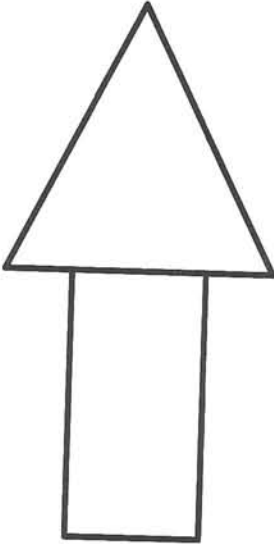
1. Start a **New** file using **Border A-2013.dwt**
2. Draw the Polylines as shown using layer **Object line**.
3. Do not dimension
4. Edit the Title and Ex-XX by double clicking on the text. Do not erase and replace.
5. Save as **EX23A**
6. Plot using Page Setup **Class Model A**

 <p>A vertical rectangle with a width of 1.00 and a height of 4.00. Dimension lines indicate the width and height.</p>	 <p>A vertical arrow with a base width of 2.00, a stem width of 1.00, and a total height of 4.00 (2.00 for the stem and 2.00 for the arrowhead). Dimension lines indicate the width and height.</p>	
Your Name Here	Simple Polylines with width	Ex-23A

EXERCISE 23B

INSTRUCTIONS:

1. Open **EX23A**
2. Turn off the **Fill** mode. (Refer to page 23-4)
3. Do not dimension
4. Edit the Title and Ex-XX by double clicking on the text. Do not erase and replace.
5. Save as **EX23B**
6. Plot using Page Setup **Class Model A**

		
Your Name Here	Fill mode turned OFF	Ex-23B



EXERCISE 23C

INSTRUCTIONS:

1. Open **EX23B**
2. Explode each of the polylines.

Note: I am sure most Architectural students were thinking that the polyline command would be good to use when creating Floor plan walls. But notice what happens if you explode the polylines. Consider Multiline or Double line (LT) commands for Floor plan walls. You can find these commands in the Help Menu

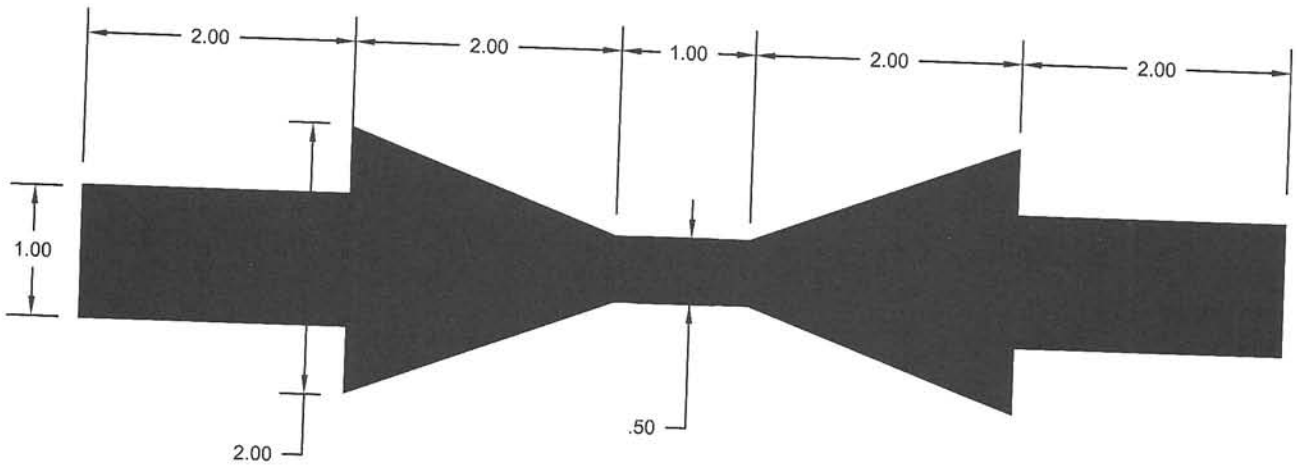
3. Edit the Title and Ex-XX by double clicking on the text. Do not erase and replace.
4. Save as **EX23C**
5. Plot using Page Setup **Class Model A**

		
Your Name Here	Explode the Polylines	Ex-23C

EXERCISE 23D

INSTRUCTIONS:

1. Start a **New** file using **Border A-2013.dwt**
2. Draw the Polyline as shown using layer Object Line.
3. Do not Dimension.
4. Edit the Title and Ex-XX by double clicking on the text. Do not erase and replace.
5. Save as **EX23D**
6. Plot using Page Setup **Class Model A**



Your Name Here

Polyline and Design

Ex-23D

EXERCISE 23E

INSTRUCTIONS:

1. Start a **New** file using **Border A-2013.dwt**
2. Select the Polyline Command.
3. Place the **start point** approximately as shown.
4. Set the **Widths**: Starting width = .10 Ending width = .50
5. Select option **Arc**
6. Select option **Radius** and enter **2.50**
7. Select option **Angle** and enter **180**
8. Enter **90** for the **Direction of the Chord**.
9. Press **<enter>** to **stop**
10. Do not Dimension.
11. Edit the Title and Ex-XX by double clicking on the text. Do not erase and replace.
12. Save as **EX23E**
13. Plot using Page Setup **Class Model A**

