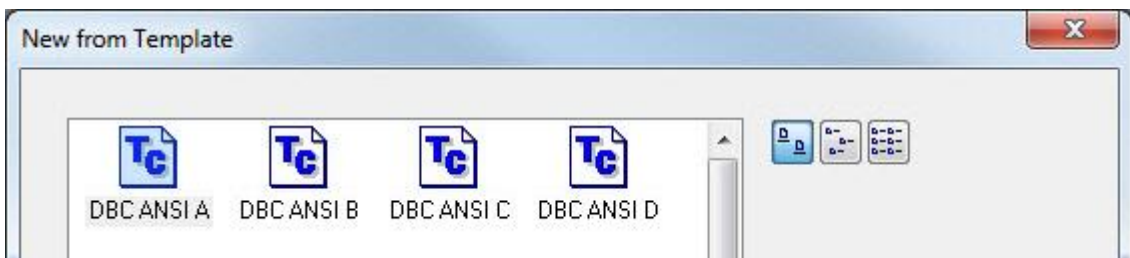
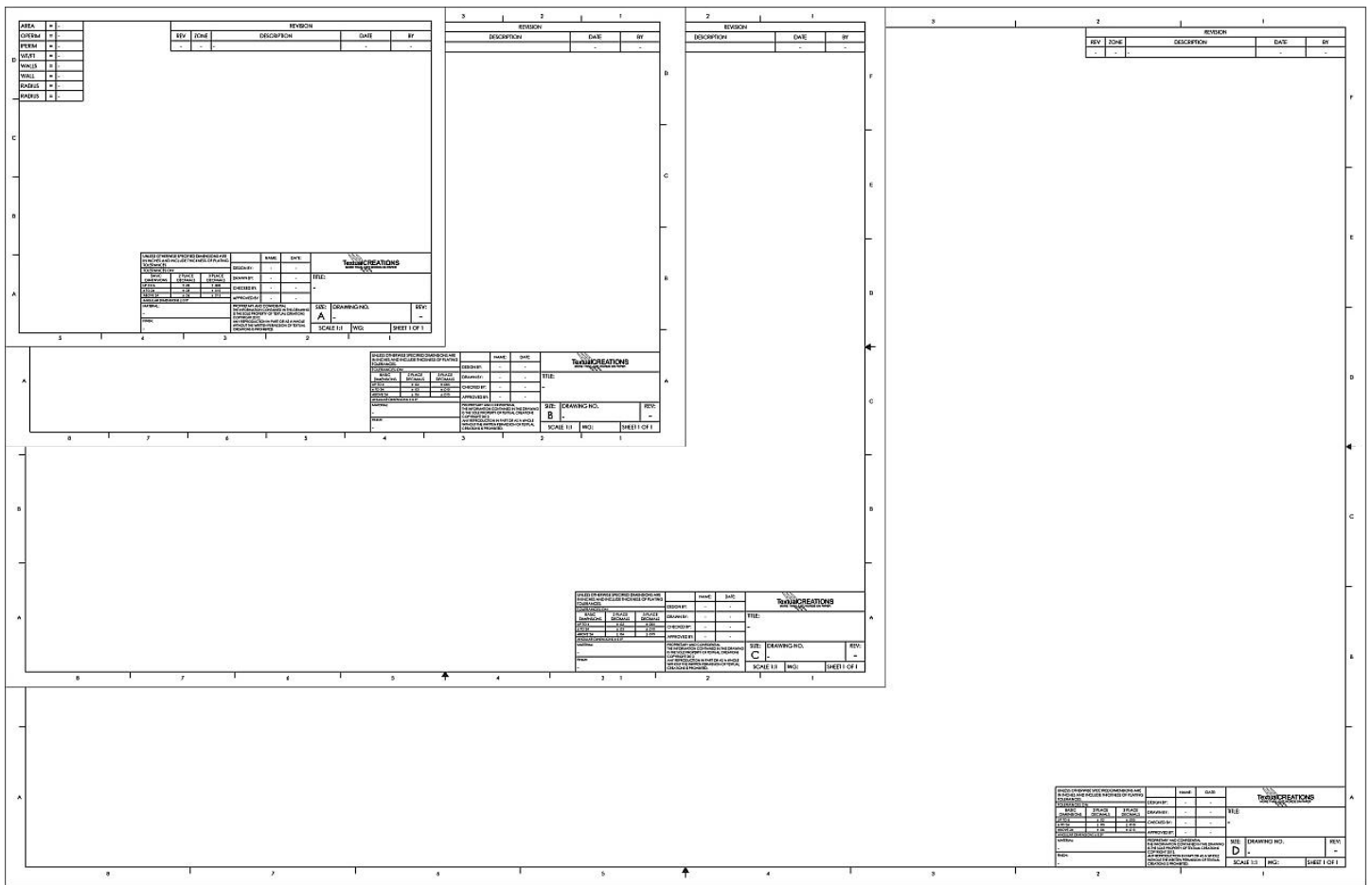


TurboCAD Pro V21 - Drawing Template

Create Reusable Drawing Templates Including ANSI A, B, C and D Size Sheets

Donald B. Cheke



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Special Note

All of the work presented within this tutorial is based on TurboCAD Pro V21 (64-Bit). Although users of previous versions are welcome to try the tutorial it cannot be stated what results will be achieved. Many changes, some subtle and others not so subtle, are made with each program revision. Although many steps and directions would be generic some may not be. The same can be said for tools between versions. Older versions may not have the same tools as Pro V21 and if the same tools are available the tools themselves may have been revised and hence, work in a different manner than they previously did.

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Introduction

One of the fundamental tenets of any CAD package is to never draw the same thing twice. This is very sound advice and a user would be wise to broaden this tenet to its fullest definition. This not only includes using blocks and symbols while drawing but it includes devising ways to approach the more mundane things such as repeating text and establishing tool properties or styles. One way to address much of this is to create a drawing template(s) where many properties have been pre-established and which includes at least one paper space page that has a reusable title block.

Within the tutorial the reader will be led through each keystroke to produce four ANSI size reusable TurboCAD templates with title blocks. These are based on the mechanical style the author uses in his daily work with one client within the manufacturing industry. The reader will find much discussion within the pages of this tutorial that will hopefully provide good insight into choices that are made.

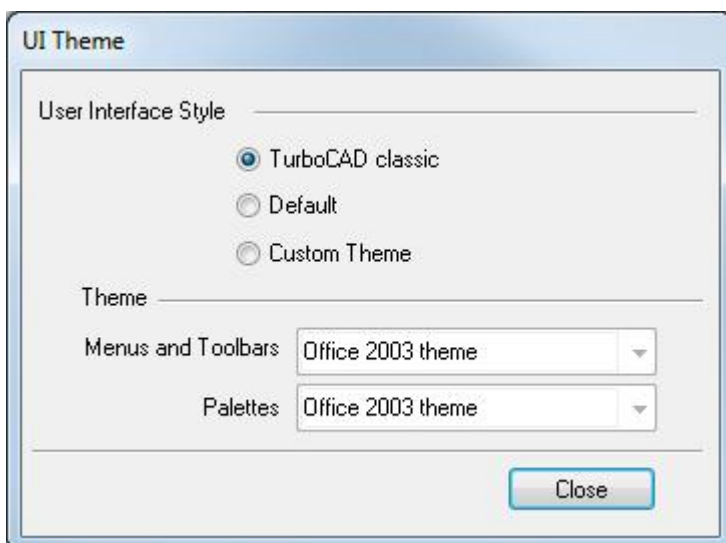
This tutorial is in no way intended to teach drafting standards but rather it is intended to teach the use of some of the tools that TurboCAD has to offer and to introduce the new user to a drawing methodology. The author feels confident that the techniques outlined within the tutorial can help lay the foundation for future successful TurboCAD drawing and illustration for even the newest user.

As with any technically advanced software, the user is generally faced with a steep learning curve. It is the hope of the author that the money and time spent working through a Textual Creations tutorial will help ease the learning and allow the reader to come away feeling confident that they made a wise decision.

This tutorial will assume that the reader has the Platinum edition of TurboCAD Pro V21, although no architectural or mechanical specific tools are used that the author is aware of.

There are many ways to approach a project and it is likely that each person using the program would proceed in very different ways, so be open to alternative methods as experience builds.

This tutorial assumes that the beginner has studied the desktop to some degree and can locate most of the tools. Since there are endless desktop configurations that can be set up in TurboCAD the author has opted to illustrate the required tools with the TurboCAD Classic user interface with its Office 2003 theme and the default toolbars in their undocked format.



Please remember that any supplied images and files are for use within the tutorial only and may not be shared or sold to others.

Place all tutorial images in a permanent location on the hard drive.

For those working through the tutorial in pre-V18 versions please note that most of the functions described in the tutorial, as being on the Modify menu, were on the Format menu in previous versions of the program.

Also note that render times are much better in V18 through V21 than one will see if using previous versions of TurboCAD. TurboCAD now uses Multi-Threading for renders and can make use of multiple processors.

Lastly, the Copy in Place tool was reintroduced into TurboCAD V18 as a permanent tool. Users who don't have this new tool will need to use the Make Copy method. That is to select the object to copy in place, select the Make Copy tool to turn it on, tab into the first field on the Inspector Bar – but don't change anything – simply press Enter. Select the Make Copy tool again to turn it off.

Additional Setup for Template

Normally within a Textual Creations tutorial the file that is being worked on would be saved at the point above with the tutorial name. However, it has been saved with its current name to ensure that a save has been made before proceeding much further. Other changes will be made now that will become part of the drawing template that can be used as the basis for future drawings. After the tutorial a reader can revisit this file and make additional changes that will better suit person needs.

A temporary object will be placed in the drawing so that it can be zoomed and all users will have the same initial view as part of the template.

Select the Box tool from the 3D Object toolbar.

Left mouse click in the drawing to place the first point of the box. Tab into the Inspector Bar and enter 12 in the Width field, 12 in the Length field and 12 in the Height field. Press Enter.



Press the Space Bar to exit the tool.

Select the box. Tab into the Inspector Bar and enter 0 in the X, Y and Z Position fields. Press Enter.



Select Zoom Extents at the top of the TurboCAD desktop.

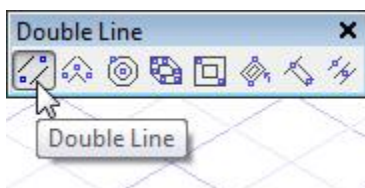


Press Esc to deselect the selection.

This is the point when a user must decide what they want as part of their template, as there are innumerable things that can be taken into account.

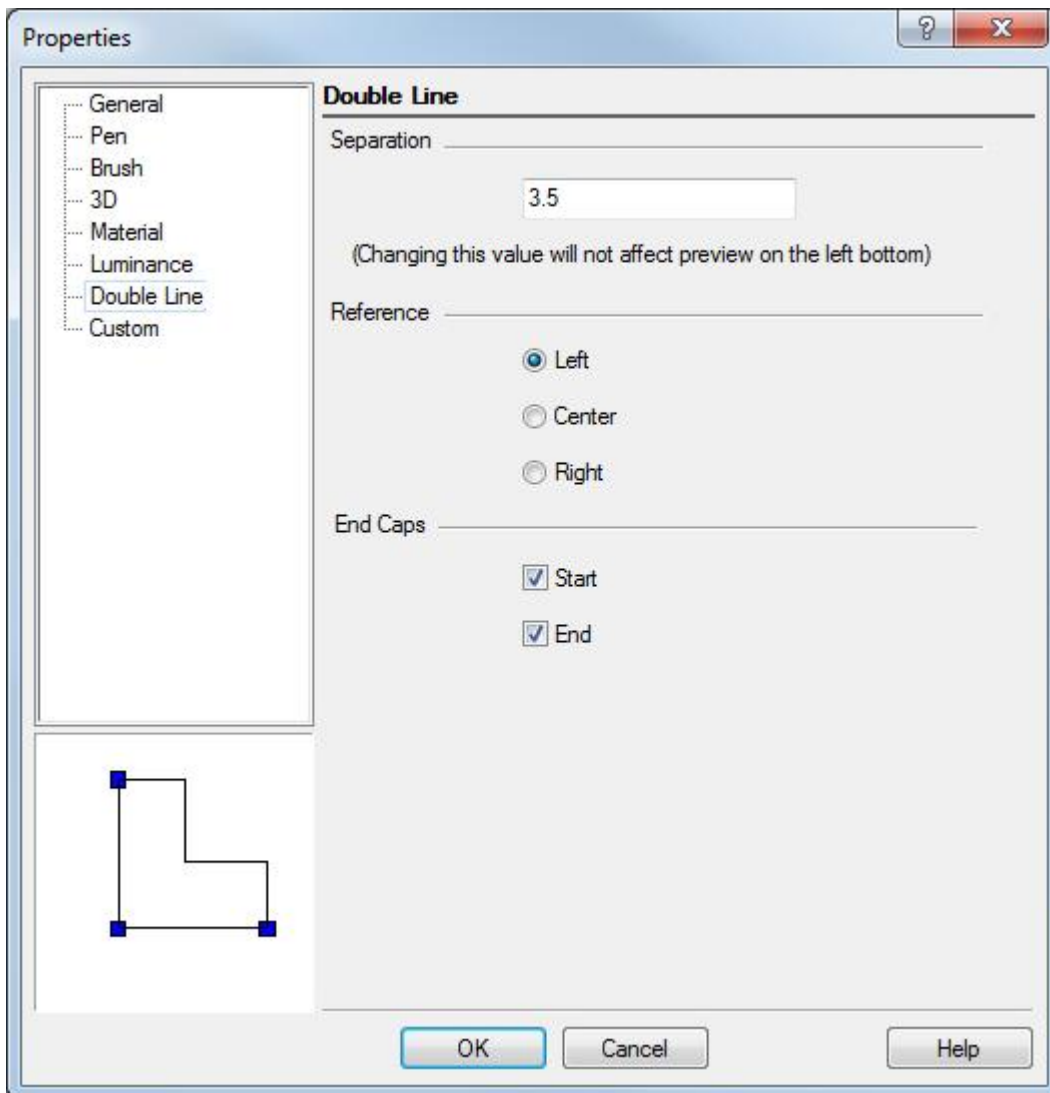
Tool settings are drawing dependant, so they can be changed. Several will be changed now.

Select the Double Line tool from the Double Line toolbar.



Right mouse click over the Double Line tool icon to open the Properties dialogue for the tool. The tool does not need to be selected to open the Properties dialogue, but sometimes it may need to be selected in order to make the icon available, say from a fly-out menu.

Under the Double Line tab, enter a Separation of 3.5, select Left Reference and check both End Caps. Keep in mind that a user will input data that they generally find most useful for their own purposes. And a user can change on the run as they work, but this will be the setting for any new drawing started from the user template. Click OK.



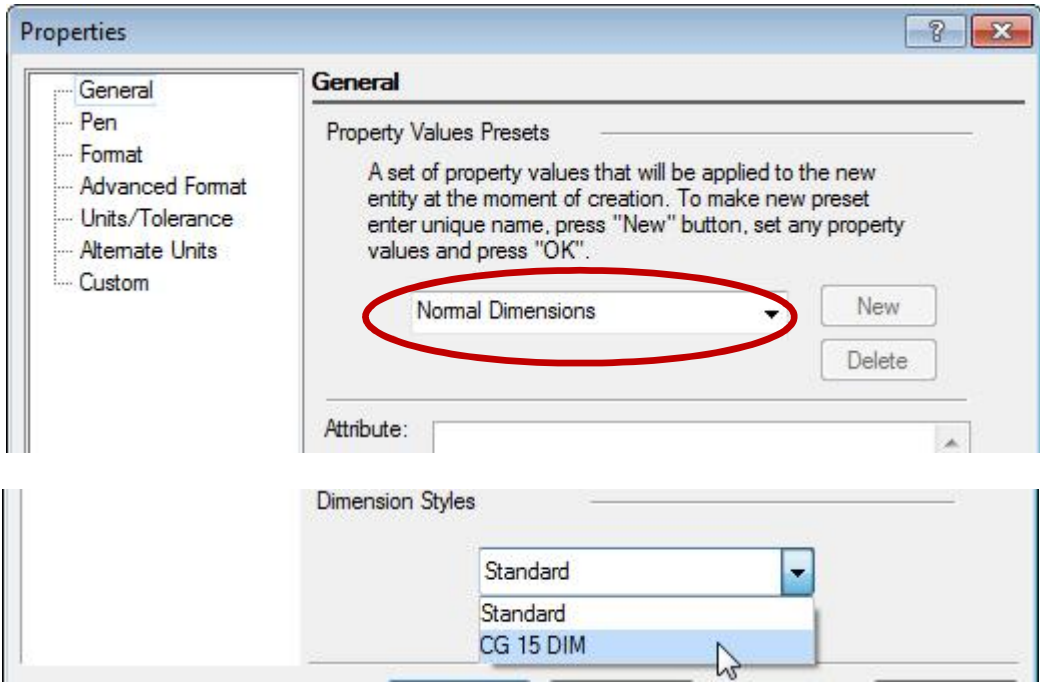
Press the Space Bar to exit the tool if it is engaged.

Right mouse click over the Wall tool icon on the Architecture toolbar to open the Properties dialogue for the tool.

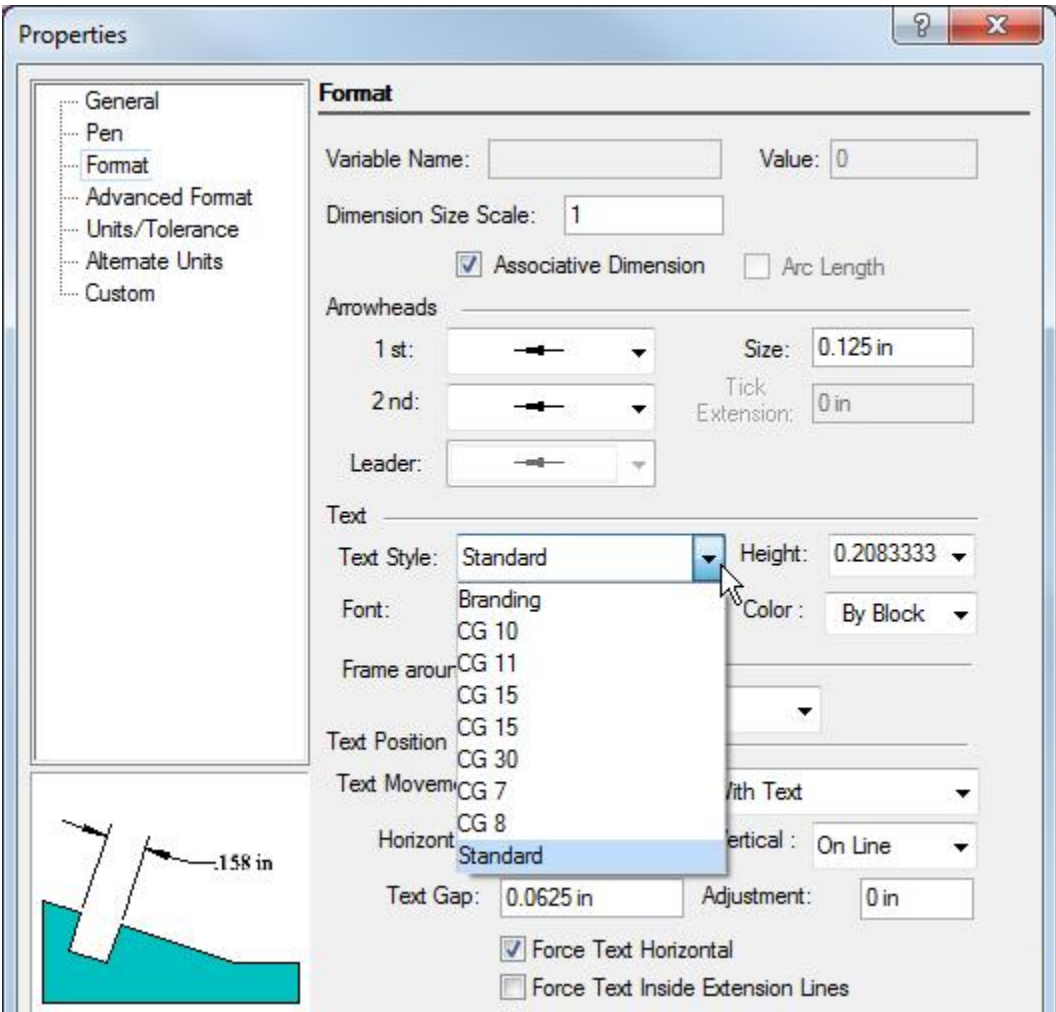


Under the Wall tab, enter Thickness of 3.5, a Height of 96, select Left Reference and check Show Miter. Click OK (see image on next page).

Right mouse click over the Orthogonal Dimension tool icon to open the Properties and note that Dimension styles are ready for selection too.



Dimension tool styles available, as seen here under the General tab of the Text tool Properties dialogue.



Dimensions format text styles available, as seen here under the Format tab of the Text tool Properties dialogue.

Click Cancel to exit without having made a new style selection.

The reader should use their personal or company name in place of Textual Creations.

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		NAME:	DATE:
DESIGN BY:	-	-	
DRAWN BY:	-	-	
CHECKED BY	-	-	
APPROVED BY:	-	-	
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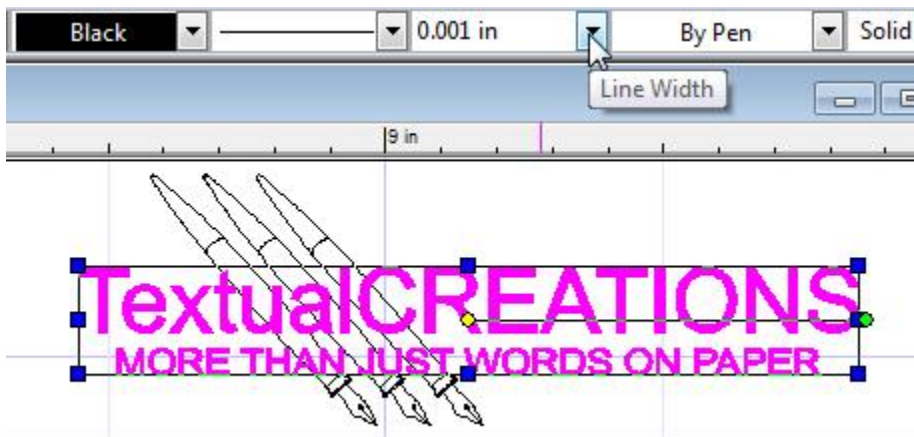
Moving on to the right hand section. Double click each of the text objects, as needed and change the text to read what is illustrated in the image below. Also change the sizes as indicated.


- Dash below Title (16 pt)
- A (22 pt)
- Dash below Drawing No.: (16 pt)
- Dash below Rev: (22 pt)
- Text that was not mentioned is the same size as created (11 pt)

TITLE:		
-		
SIZE:	DRAWING NO.:	REV:
A	-	-
SCALE 1:1	WG:	SHEET 1 OF 1

As for the logo (not supplied), the author has found that using a vector version works best, especially if converting drawings to dwg or dxf to share with collaborators or suppliers that need these formats.

It can be E SEKE snapped to the upper right rectangle. The author found that the line thickness set up at the beginning of this tutorial was to thick for the final hardcopy print, so the text-like components of the logo were selected and were assigned a line thickness of 0.001 inches.



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE THICKNESS OF PLATING TOLERANCES.			NAME:	DATE:				
TOLERANCES ON:			DESIGN BY:	-				-
BASIC DIMENSIONS	2 PLACE DECIMALS	3 PLACE DECIMALS	DRAWN BY:	-	-	TITLE:		
UP TO 6	± .02	± .005	CHECKED BY:	-	-	-		
6 TO 24	± .03	± .010	APPROVED BY:	-	-	-		
ABOVE 24	± .06	± .015	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TEXTUAL CREATIONS COPYRIGHT © 2012. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TEXTUAL CREATIONS IS PROHIBITED.			SIZE:	DRAWING NO.	REV:
ANGULAR DIMENSIONS ± 0.5°						A	-	-
MATERIAL:						SCALE 1:1	WG:	SHEET 1 OF 1
FINISH:								

This is a comparison printed to PDF. It looks even better when printed to paper. Final copy is in the logo box above title.

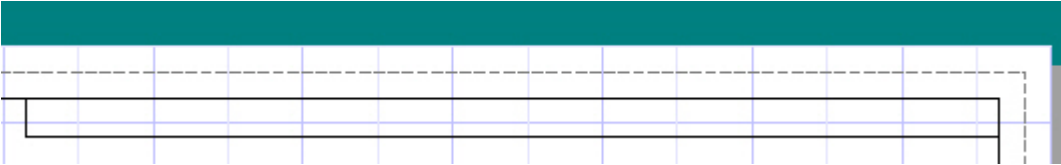


The Revision section of the Title Block will now be created.

Select the Rectangle tool from the Line toolbar.

V SEKE snap the first point of the first rectangle to the upper right corner of the 10.3 x 7.8 inch border. Move the cursor in a left downwardly direction for a short distance and then Tab into the Inspector Bar and enter 6.5 in the Size A field and .25 in the Size B field. Press Enter.

Size A	Size B
6.5	.25



V SEKE snap the first point of the next rectangle to the lower right corner of the last rectangle. Move the cursor in a left downwardly direction for a short distance and then Tab into the Inspector Bar and enter 1 in the Size A field and .25 in the Size B field. Press Enter.

Size A	Size B
1	.25

V SEKE snap the first point of the next rectangle to the upper left corner of the last rectangle. Move the cursor in a left downwardly direction for a short distance and then Tab into the Inspector Bar and enter 1.25 in the Size A field and .25 in the Size B field. Press Enter.

Size A	Size B
1.25	.25

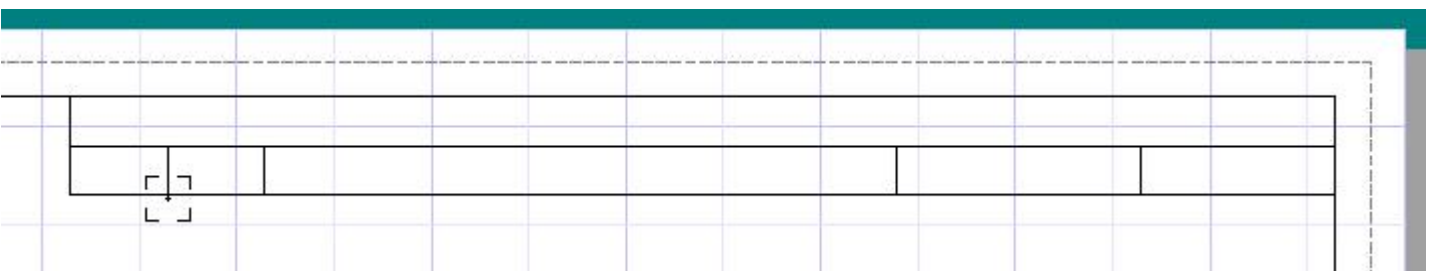
V SEKE snap the first point of the next rectangle to the upper left corner of the last rectangle. Move the cursor in a left downwardly direction for a short distance and then Tab into the Inspector Bar and enter 3.25 in the Size A field and .25 in the Size B field. Press Enter.

Size A	Size B
3.25	.25

V SEKE snap the first point of the next rectangle to the upper left corner of the last rectangle. Move the cursor in a left downwardly direction for a short distance and then Tab into the Inspector Bar and enter .5 in the Size A field and .25 in the Size B field. Press Enter.

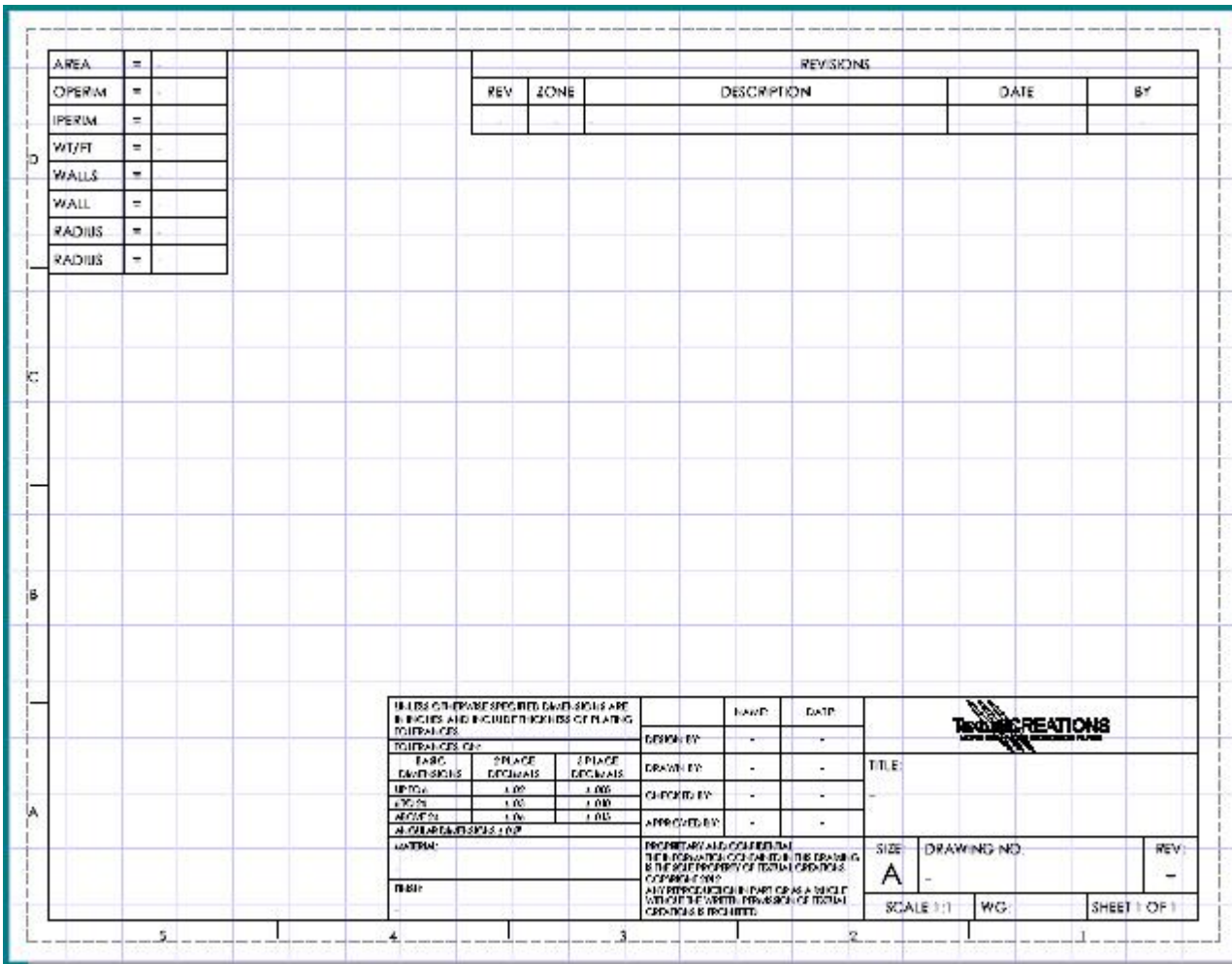
Size A	Size B
.5	.25

Using two **V SEKE** snaps place another rectangle as indicated in the picture below.

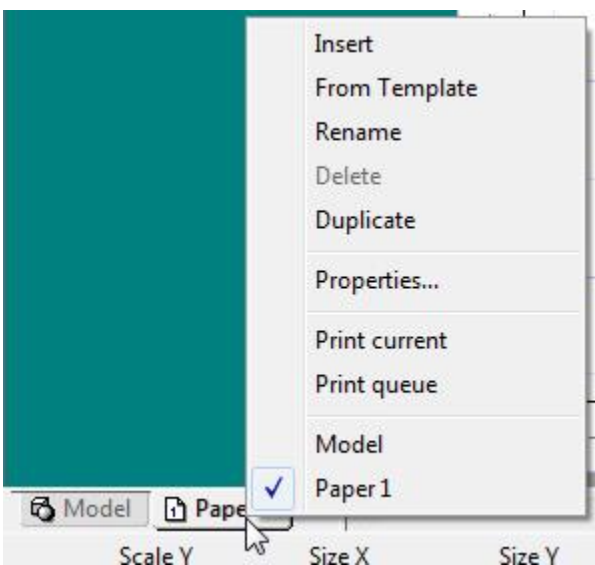


Press the Space Bar to exit the tool.

Select Zoom Full View.



Right mouse click on the Paper 1 tab and note that Duplicate (and other functions) can be selected when additional sheets are required during future projects. Press Esc to release without selection.



It might be useful to assign the paper elements as they are now to a new layer called Format.

Press Ctrl + A to select all elements.