

Section 10.2

DW-2016 AEC Template.dwt

OVERVIEW - SECTION 10.2

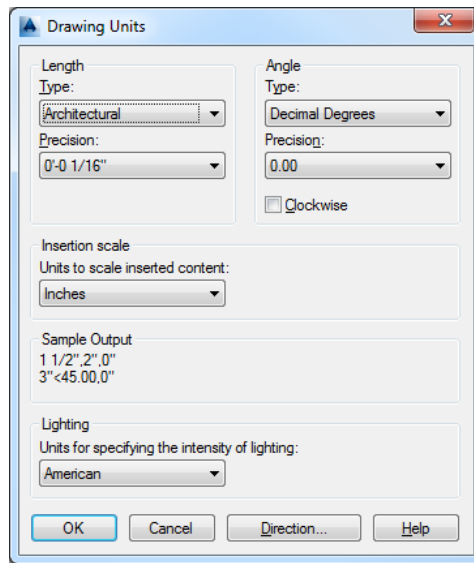
This template shall be used to create detail drawings (Architectural, Mechanical, Structural, and Electrical); the title block is linked to the DW_DSGN.dst Sheet Set [see [Section 7.0 – Sheet Set Manager](#)]; this template is not a C3D drawing, therefore it does not contain any custom C3D styles. This template is primarily used for Capital Projects.

Always use the C3D template [see [Section 10.1 – DW-2016 C3D Template.dwt](#)] for site plans, including Architectural, Mechanical, Structural, and Electrical – all site plans are considered Civil drawings.

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DRAWING UNITS

In this template the drawing units have been set to “Architectural – Inches”:

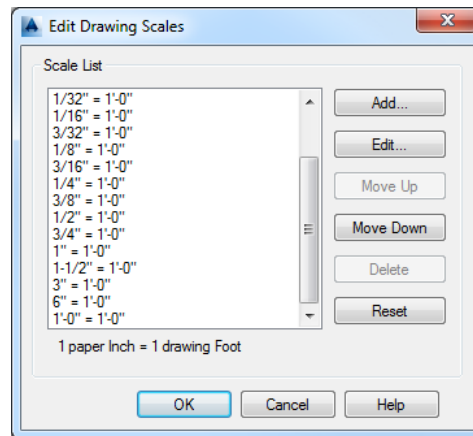


ATTENTION
The drawing units are very specific for Architecturally based work, if the units are changed it will affect everything related to scales including: dimensions, text, and plotting.

NOTE: The drawing units should not be changed for civil based drawings, use the “C3D” template for this purpose [see [Section 10.1 – DW-2016 C3D Template.dwt](#)].

DRAWING SCALES

Only the acceptable drawings scales [see [Section 4.1 – Model/Paper Space and Annotation Scales](#)] have been added to this template.



NOTE: Model Space does NOT have a Coordinate System predefined.

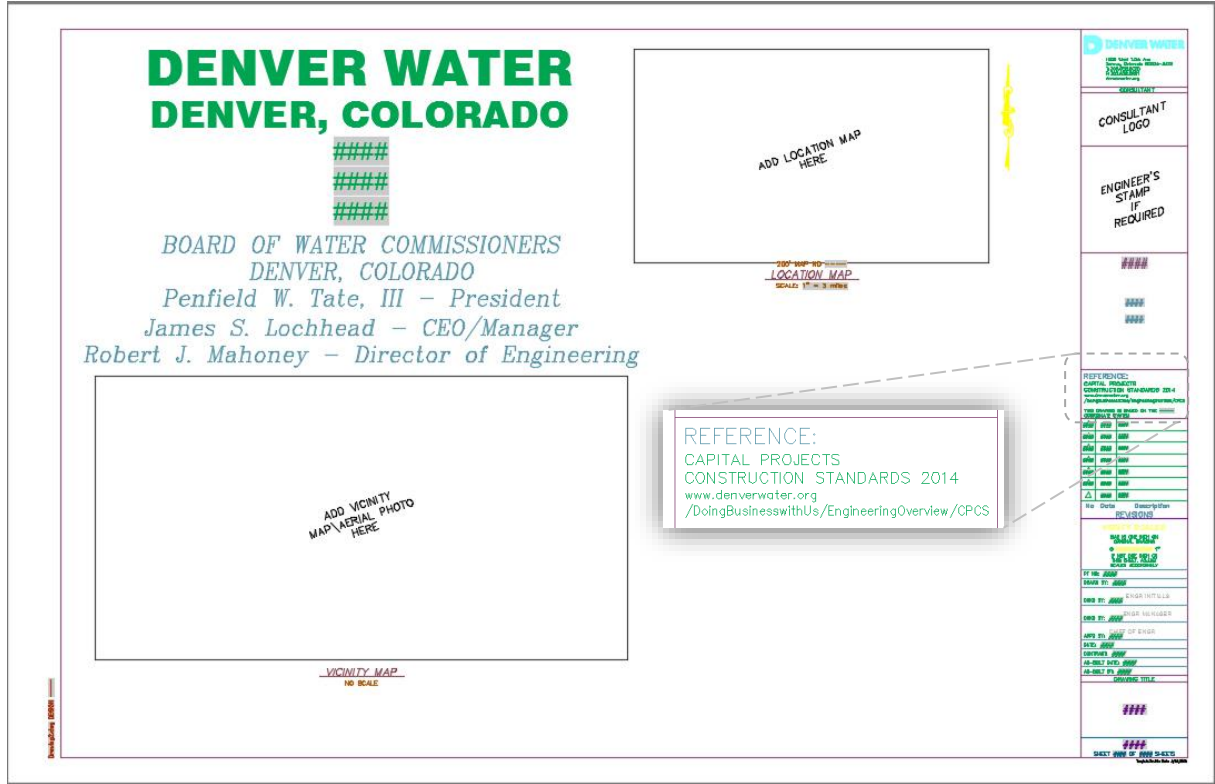
LAYOUT TAB

This template has one predefined layout tab (Paper Space) that contains the title block for Design Drafting:



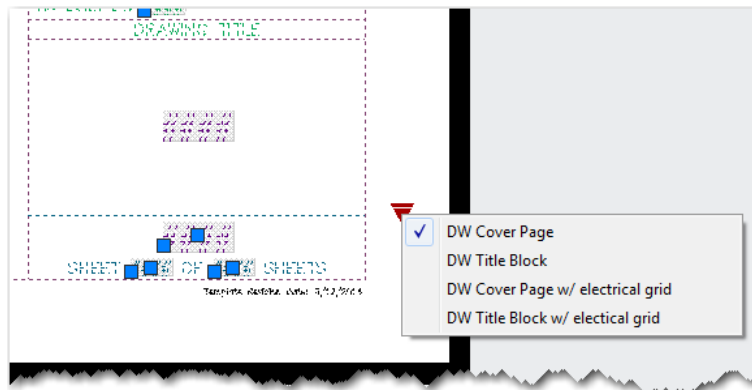
DESIGN LAYOUT TAB

The DESIGN layout tab contains the DW_DSGN Title Block and references the CPCS 2nd Edition:



NOTE: Viewports are placed for general guidance and can be modified and deleted as needed.

The sheet size is set to 22x34 and defaulted to the Cover Sheet information. In the lower right corner of the DW_DSGN Title Block select the Dynamic grip for Visibility States and choose the appropriate Title Block type:



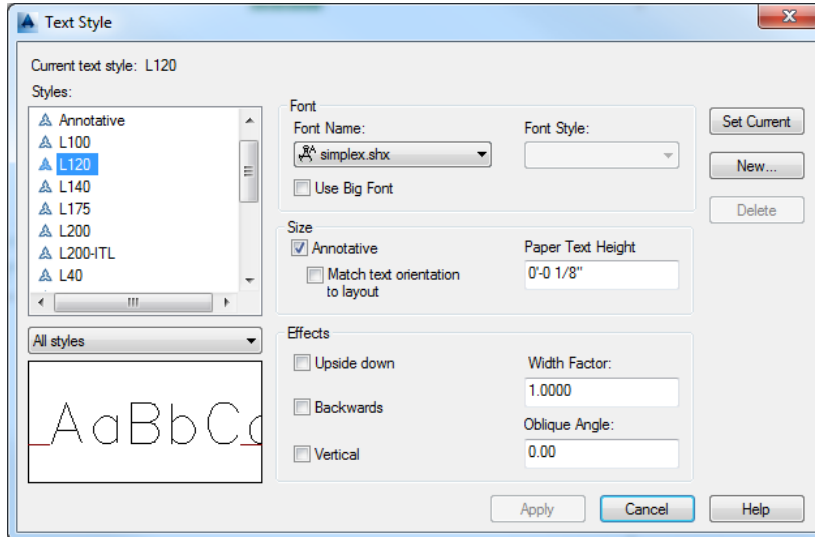
ANNOTATION

Every sheet within a plan set requires a certain level of labeling and annotation. Contained within this template are the standard styles for use with Architecturally based projects, see [Section 13.0 – Labeling and Annotation](#), for a full explanation of the *Annotate* tab located on the Ribbon.

NOTE: All customized annotation styles (text styles, dim styles, etc.) have been created to be “annotative”, meaning they will scale up and down automatically based on the Drawing Scale.

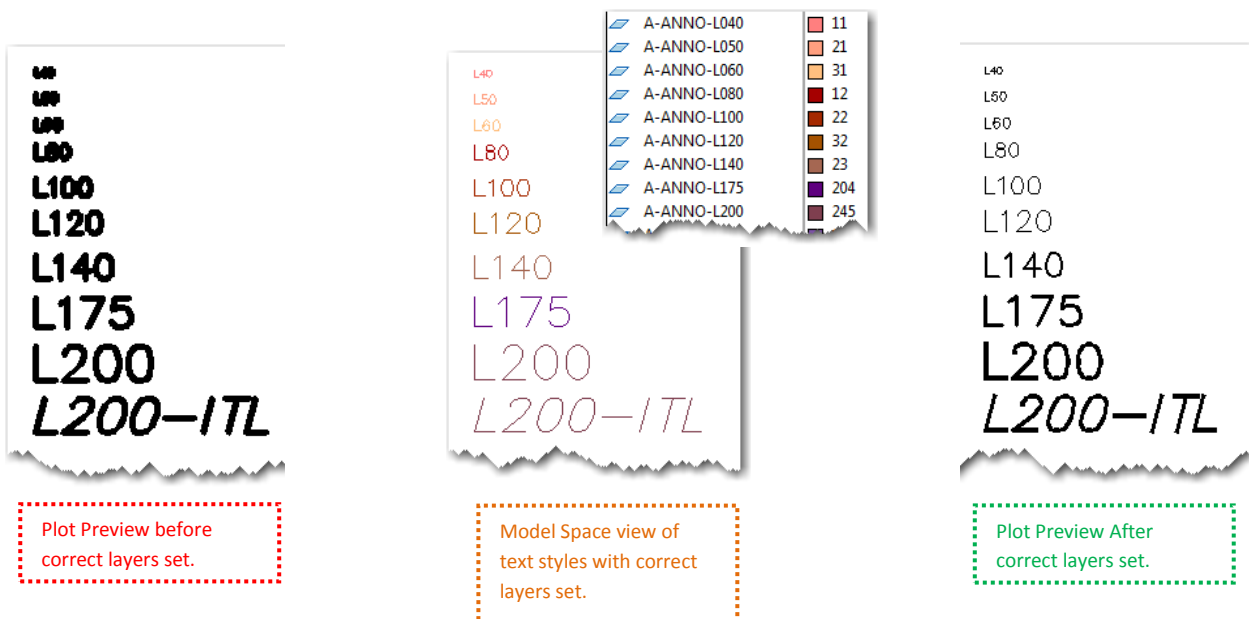
TEXT STYLES

DW’s custom text styles are consistent throughout all of DW’s templates, most text styles are based on a “simplex” font style:



NOTE: When the Text Styles are used properly the settings above should never need to be modified.

For plotting purposes, always place text on a Layer that indicates which text style was used:

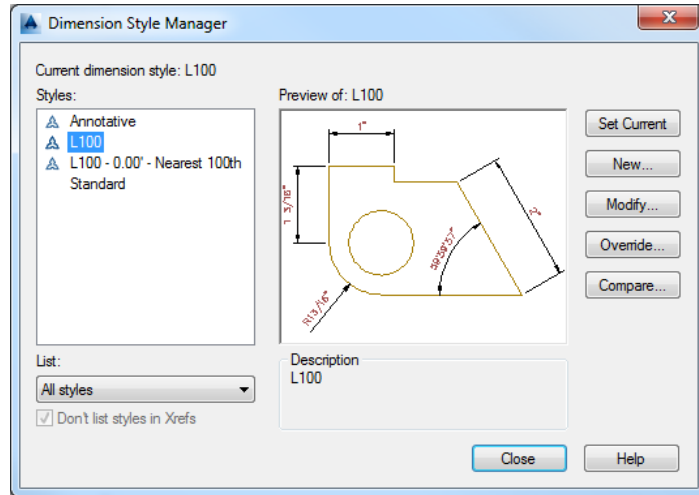


NOTE: Each Discipline Designator has a specific set of “text” layers.

DIMENSION STYLES

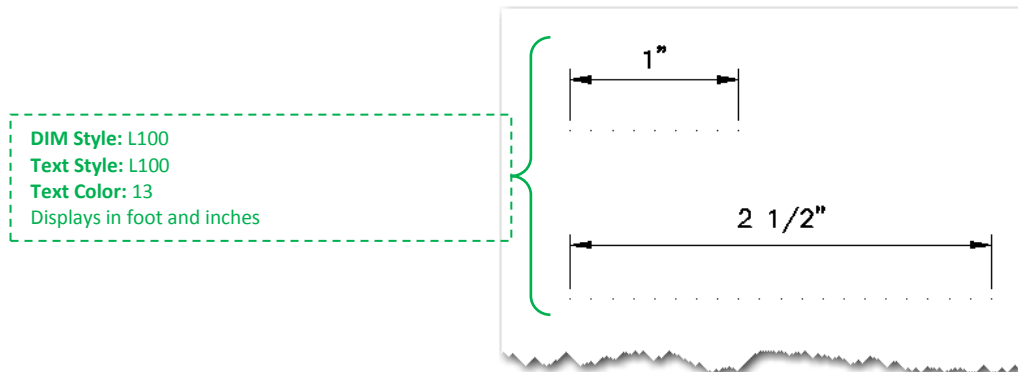
DW's custom Dimension (Dim) Styles have been created to reference the corresponding Text Styles. All Dim Styles are based on a "simplex" font style, and text should be located above the line.

The Dim Styles located in this template are for Architecturally based work only – L100 should primarily be used:

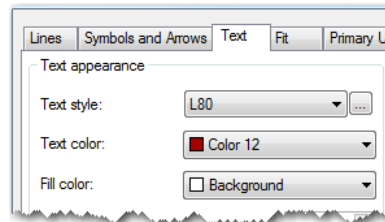
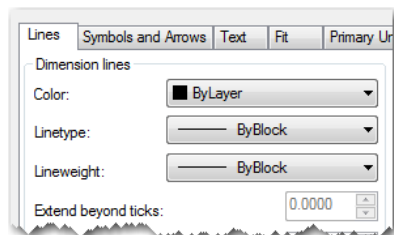


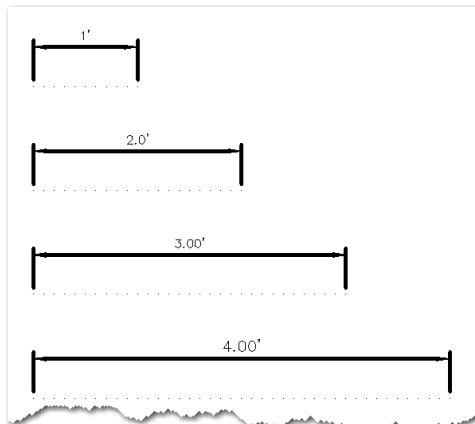
NOTE: This is a relatively new template and may be expanded on in the near future. Dim styles may also need to be modified for specific needs – contact DW's CAD Manager for template enhancement requests.

Below is a quick visual of how the L100 Dim Style should appear:



The Dim Style has been modified so that the lines are ByLayer/ByBlock, and text is set to plot at a "Pen 3" width [see [Section 17.0 – CTB's – DW's Color Charts](#)]:



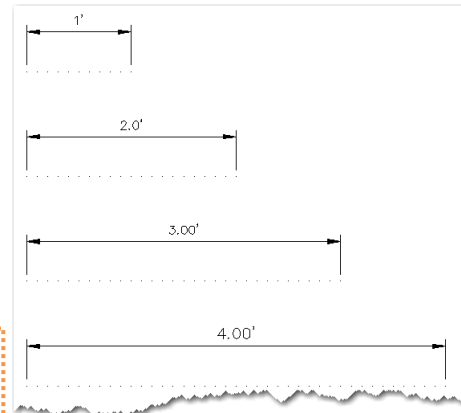


Plot Preview before correct layers set.

Dimensions on the appropriate "DIMS" Layer:

- A-ANNO-DIMS
- C-ANNO-DIMS
- E-ANNO-DIMS
- EI-ANNO-DIMS
- G-ANNO-DIMS
- L-ANNO-DIMS
- M-ANNO-DIMS
- S-ANNO-DIMS
- V-ANNO-DIMS

Layer choices per Discipline Designator

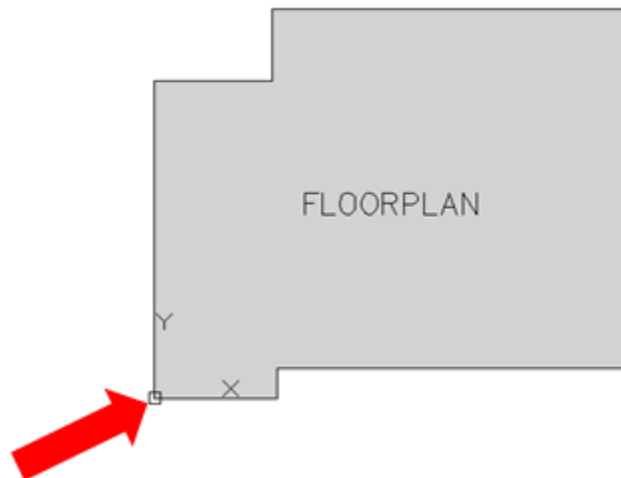


Plot Preview After correct layers set.

COMBINING AEC AND CIVIL DRAWINGS

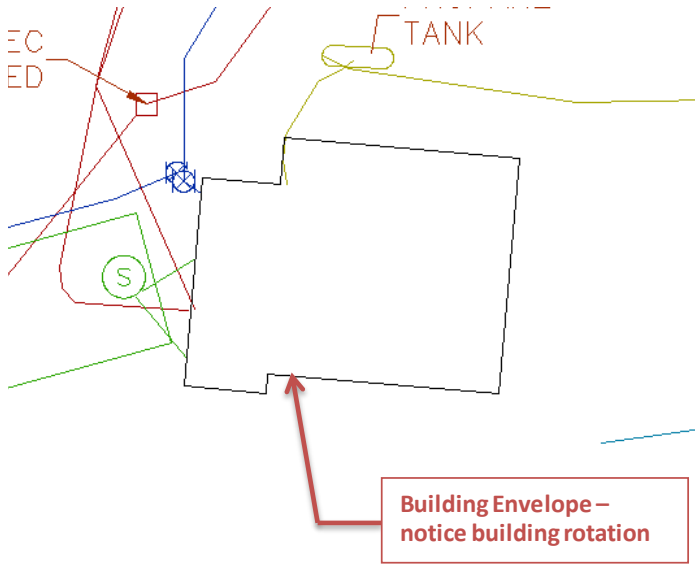
Sometimes it is necessary to have some kind of combination with Architecturally based and Civil based drawings. The best method of combining is XREF'ing, when XREF'ing the two types of plans (AEC and Civil) the AEC based drawing shall be brought INTO the Civil based drawing. For example, the floorplan should be referenced *into* the site plan, and not the other way around.

Building outlines should have one "known" building corner, such as 0, 0:

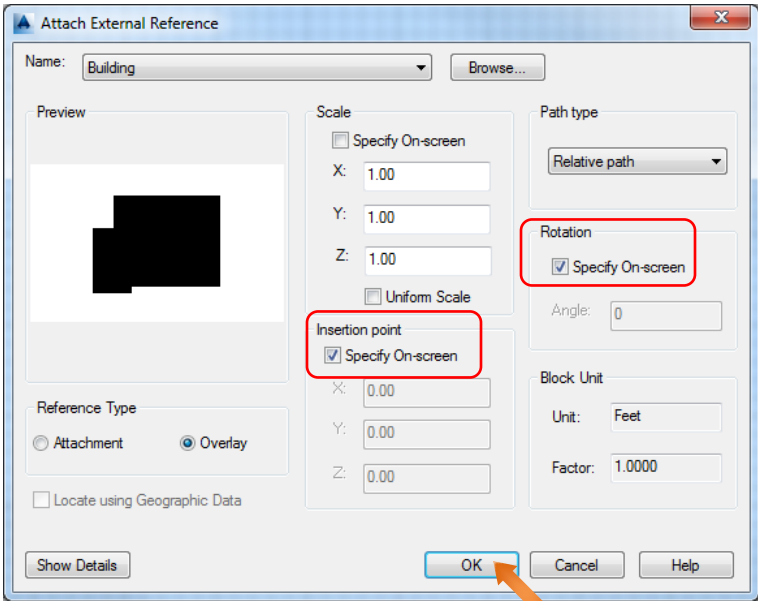


NOTE: The building outline drawing should have originated from the "AEC" template.

In the site plan, a building corner and angle must be identified (i.e. “building envelope”) before XREF’ing the floorplan:

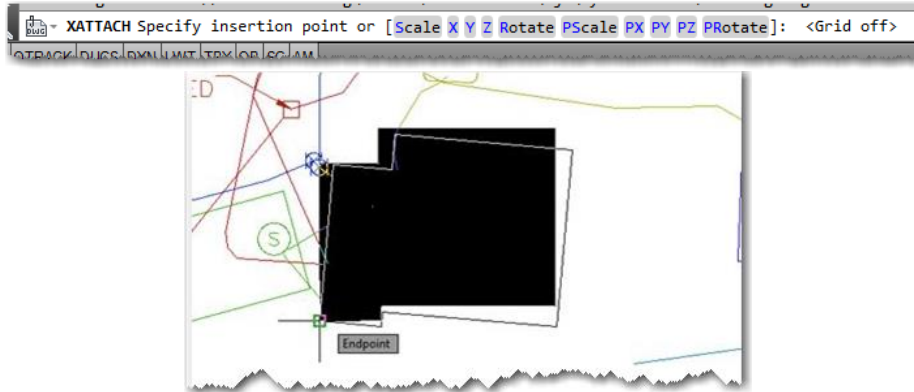


In the XREF pop-up dialog, check the options for *Insertion Point* and *Rotation* (do not check *Scale*), click <OK>:

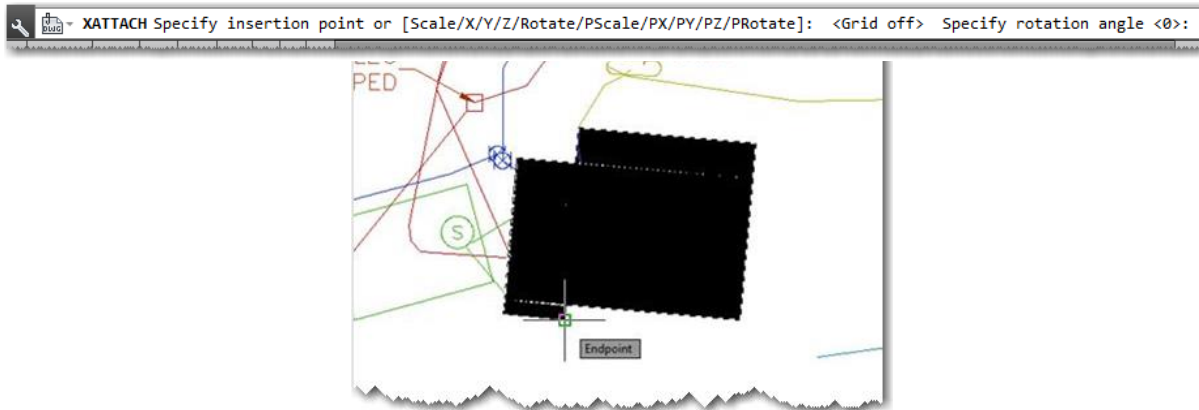


After pressing ok, place the building according to the envelope and rotate into place.

When prompted at the command line to Specify insertion point, pick the matching building corner in the “Civil” drawing:



As indicated on the command, Specify rotation angle by choosing another building corner:



NOTE: It is important to pay close attention to scales when inserting XREFs. If the above floor plan was drawn using architectural units, it needs to be scaled (1/12) to insert it into the civil drawing.

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