

CITY UTILITIES DESIGN STANDARDS MANUAL

**Book 6
CADD Standards (CADD)
CADD7 Symbols**

June 2015

CADD7.01 Purpose

This Chapter establishes the minimum standards for symbols and notations as related to Computer Aided Design and Drafting (CADD) work performed by or for City Utilities Engineering (CUE).

Symbols and Notations requirements set by this chapter build on and conform to the United States National CAD Standard (NCS) Version 5 (Uniform Drawing System (UDS) modules 6.0, Symbols).

CADD7.02 Symbols

CUE has created and maintains a library of CADD resource files including commonly used symbols that are used for defining various features often found in a set of drawings. Consistent use of these files is essential to organize and standardize drawings to communicate the design efficiently.

The [CUE Standard Symbols](#) commonly used in preparing drawings projects are organized as a hierarchy by discipline.

There are unique situations that may require symbols that do not exist already. For such instances, first refer to the available list of standard symbols compiled by the NCS. If a standard symbol does not apply to the specific project feature, a symbol may be created. A graphical representation of the symbol with a clear description shall be included as part of the symbol project legend. Symbols shall be created with a specified base point and inserted into the drawing at an appropriate scale.

All plan sheets shall include a legend, which defines all symbols used in the drawing, including non-standard symbols. At a minimum, the legend shall be included as part of the General Notes/Index sheet. A sample key legend sheet is available from CUE.







CADD7.03 Symbols Classification

Symbols used in drawings are classified in terms of type. Figure CADD7.1 shows examples for the different symbol types.

- Identity: Identity symbols indicate individual objects and are generally used in mechanical and electrical drawings.
 - Line: Line symbols indicate continuous objects and are either single or double lines. These symbols are scale independent.
 - Material: Material symbols graphically indicate certain materials and are used to help the reader differentiate one material from another. These symbols may be in elevation, vertical, or horizontal section. These symbols should be used as necessary but not overdone and used where a material begins and ends or changes direction.
 - Object: Object symbols resemble the actual objects being symbolized. These symbols are scale dependent.
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- Reference: Reference symbols refer the reader to information in another area of the set of drawings or give basic information regarding the drawing or data on the drawing. Included with these symbols are drawing block titles, graphic scales, north indicator, fixture and equipment identifiers, key note identifiers, leaders, dimension lines with terminators, match lines, and revision clouds with identifiers. These symbols are scale independent.
- Text: Text symbols graphically indicate a word or words that may be used in notations on drawings.

Figure CADD7.1 Symbols Type Examples

<p>Symbol:</p> 	<p>Description:</p> <p>Elevation indicator</p> <p style="text-align: right;"><u>Example A – Identity Type</u></p>
<p>Symbol:</p> 	<p>Description:</p> <p>Chain link fence</p> <p style="text-align: right;"><u>Example B – Line Type</u></p>
<p>Symbol:</p> 	<p>Description:</p> <p>Riprap</p> <p style="text-align: right;"><u>Example C – Material Type</u></p>
<p>Symbol:</p> 	<p>Description:</p> <p>Column, I-beam symbol</p> <p style="text-align: right;"><u>Example D – Object Type</u></p>
<p>Symbol:</p> 	<p>Description:</p> <p>North indicator</p> <p style="text-align: right;"><u>Example E – Reference Type</u></p>
<p>Symbol:</p> 	<p>Description:</p> <p>Property line</p> <p style="text-align: right;"><u>Example F – Text Type</u></p>