APPENDIX C – CAD SUBMITTAL STANDARD AND POLICY

Improvement Projects

CAD Submittal Standards and Policy

July 2007

Article I. Table of Contents

1.0   Introduction

This section will assist in understanding this document and its overall relationship to the City of Hughson.

1.1   Purpose

This technical document establishes the data standard for Computer Aided Drafting (CAD) submittals to the City of Hughson. This standard is necessary to ensure efficient data transfer between the City of Hughson, its consultants and developers. Developed specifically for engineering, this standard is designed to enforce commonality amongst data required throughout the City of Hughson.

1.2   Scope

This document provides instructions for standardizing various aspects of CAD data produced for the City of Hughson. This standard applies only to CAD drawings generated for the City of Hughson's improvement projects. However, other City Departments may include these Standards as part of their scope of services to be performed by a consultant.

1.3   Additions/Changes

This standard is intended to be updated and enhanced as appropriate over time. Recommended additions and modifications are to be directed, for review, to:

David Chase, P.E.
City of Hughson
Director, Public Works
7018 Pine St.
Hughson, CA 95326

Fax: (209) 883-2638
E-mail: dchase@hughson.org

If a recommended addition or modification will result in any changes to the template, or any of the supporting files, then the appropriate files need to be submitted. Allow 30 days for review.

CAD Data Standards

Form for Proposed Additions and Modifications
to CAD Data Standards

Date Submitted: _____

Contact: _____   Attn: David Chase, P.E.
Company: _____   City of Hughson
Phone: _____   Public Works
E-mail: _____   7018 Pine St.
Address: _____

Justification for Revision:

☐ Incomplete   ☐ Inaccurate   ☐ Obsolete
☐ Conflicting   ☐ Redundant   ☐ Other _____

Description

_____
_____
_____
_____

Proposed Revision Description

_____
_____
_____
_____
_____

Filename	File Content

COH USE ONLY

Reviewed by: _____   Date: _____   ☐ Approved
                                                            ☐ Disapproved

Comments

_____
_____
_____

2.0   Drawing Organization

This section addresses CAD files model space and paper space (layout), naming files, external references and project sheet order.

2.1   Model Space and Paper Space Files

Two types of CAD spaces are addressed in this standard: model space and paper space. Model space contains the physical components of a particular area at actual size and typically represents plans, profiles, elevations, cross-sections, etc.

The City of Hughson established a local horizontal and vertical control published in December 2006. The Datum used by the City is NAD83 and NAGVD29 is shown in the Horizontal and Vertical Control Layout for the City of Hughson, California and will be the basis of all maps submitted to the City. A minimum of two (2) ties will be made to horizontal and vertical monuments.

All model space drawings are to be setup to **State Plane Coordinates** (NAD83, Zone III, US foot) and UCS set to world. Units shall be set to decimal, with a precision of at least a hundredth. Paper space is the plotted sheet for the project, which has a particular view of a portion of the model space. All notes, leaders and dimensions shall be in model space.

2.2   File Names

Naming standards for electronic drawing files allows the users to identify the content and relevance of the drawing. They provide basic information for organizing the files within a project directory. When electronic files are submitted to the City of Hughson, the files must be saved within a folder that has been properly named with a brief description of the project, *i.e. Charles Street Project.*

Table 2.2 is a standard of file names, including x-references, and layout information to include, but not be limited to the items listed.

Table 2.2 File Layout

File Name	Paper Space	Model Space
Master	No information	All existing and proposed information for project area
Tblk	Border, Text (any text that remains constant for all sheets, *i.e. project number, total sheets, etc.),* Engineer Stamp and Company Logo	Nothing
Cover (see Appendix A)	*Tblk.dwg* as an x-ref Title block information** All text Vicinity Map hatch	*Master.dwg* as an x-ref
Clearing-StreetName* *i.e. Clearing-Charles*	*Tblk.dwg* as an x-ref Title block information* All text, callouts and leaders	*Master.dwg* as an x-ref with appropriate clearing and grubbing information.

File Name	Paper Space	Model Space
Construction-StreetName* *i.e. Construction-Charles*	*Tblk.dwg* as an x-ref Title block information** All text, callouts and leaders	*Master.dwg* as an x-ref with appropriate construction information, including AC, curb, pipe work, etc.
Details	*Tblk.dwg* as an x-ref Title block information**	All detail information including text and leaders.
Electrical -StreetName* *i.e. Electrical-Charles*	*Tblk.dwg* as an x-ref Title block information** All text, callouts and leaders	*Master.dwg* as an x-ref with appropriate electrical plans, including street lighting.
Landscape-StreetName* *i.e. Landscape-Charles*	*Tblk.dwg* as an x-ref Title block information** All text, callouts and leaders	*Master.dwg* as an x-ref with appropriate landscaping information, including irrigation.
Traffic-StreetName* *i.e. Traffic-Charles*	*Tblk.dwg* as an x-ref Title block information** All text, callouts and leaders	*Master.dwg* as an x-ref with appropriate traffic plan information, including signal, striping and pavement markings

*   There shall be only one of each file per a street. If the project includes more than one (1) street, then clearing, construction and landscape files need to be provided for each street within the project scope of work. Some exceptions may apply.

**   Refer to Section 3.2.2 Title Block below.

2.3   External Reference (x-refs) and Image Files

External references to other CAD files may be used to subdivide a large CAD drawing into several smaller, more efficient drawings. The use of this procedure will reduce drawing size, increase performance and improve operator efficiency. There shall be no specific drive or directory references associated with the reference files. All references must reside in the same directory as the drawing files (relative path only). External references shall be brought in as an overlay only, not attached, bound or inserted. There shall be no aerial images on construction plans.

2.4   Drawing Order

The drawings shall be setup and placed in a particular order, based on Table 2.4 Project Sheets. If street will take more than one (1) sheet, then the project shall read continuously from west to east or south to north.

Table 2.4 Project Sheets

	Sheets	Description
1	Cover	Cover of Project (see Sample Cover - Appendix A)
2	Site Plan	General overview of project, if project includes multiple categories *(i.e. pipework, electrical, curb and gutter, landscape)*
3	Demolition Plan	Callout items to be removed or modified.
4	Utility Plan	Plan and corresponding profile of Sanitary Sewer, Storm Drain and Water Systems as well as other utilities.
5	Electrical Plan	Electrical System

	Sheets	Description
6	Road Plan	All concrete work, to include any and all curb, gutter, medians, drive approaches, sidewalks, curve table and any necessary details of curb sections.
7	Striping Plan	Illustrating existing and new striping and pavement markings.
8	Details	Details that pertain to any previous sheets in the order that they appear. With Detail 1 starting on the upper right corner of the sheet and continuing down and to the left. (see Section 4.1)
9	Landscaping Plan	Landscaping and irrigation plans, including details of landscaping.
10	Signal Plan	Complete signal plans.

3.0   Appearance and Presentation

In this Standard, CAD appearance and presentation involves lines, text, hatch patterns, sheet organization and drawing scale.

3.1   Appearance

Appearance involves primarily line width, line style, line color and text style.

3.1.1 Line Width

Using a variety of line widths substantially improves a drawing's readability. AutoCAD provides extensive control over line width to support viewing and plotting. The City of Hughson makes use of the line width option in the plot style setup (see Plot Style - Appendix B).

Pipe networks to be drawn with global line widths set equal to pipe diameter in inches.

3.1.2 Line Style

The line styles selected for this standard are listed in Table 3.1.2. Line styles corresponding to each layer are listed in the Layer Dictionary-Appendix C. Utility lines shall contain one letter representing the category (i.e. *E for electrical),* and the size if available. This information shall appear a minimum of three (3) times per a sheet for each line. The text shall conform to Section 3.1.4 Text Style for dimensions and callouts.

Table 3.1.2 Standard Line Types

Description	Example
Center2	————— — —————
Continuous	
Dashed	
Dashed2	
Divide2	
Fenceline1	

Description	Example
Hidden	
Hidden2	
Phantom2	

3.1.3 Line Color

The primary reason to use color in CAD drawings is to improve the clarity of the drawings on a computer monitor. The variety of colors available in a CAD application depends on the capabilities of the monitor and its video card. Today, most systems are capable of displaying from 16 to 256 colors. Based on the limitations of monitor color display capabilities and differing CAD systems plotting methods, this standard requires that all drawings be created using the colors presented in Table 3.1.3. Line colors corresponding to each feature type on a drawing are described in the Layer Dictionary - Appendix C.

Table 3.1.3 Required Line Colors

Color	Color No.
Red	1
Yellow	2
Green	3
Cyan	4
Blue	5
Magenta	6
White	7
Grey	8
Dark Grey	250
Medium/Dark Grey	251
Medium/Light Grey	252
Light Grey	253
Grey	254

3.1.4 Text Style

The text style used shall be ROMANS or may be changed to ARIAL when specified (see Table 3.1.4 Text Style). Contrasting text sizes and colors are used within a drawing to delineate different types of information. All lettering shall be done to facilitate reading from the bottom or right hand edge of the sheet. All lettering shall be capital (uppercase). Callouts shall be done in model space using a scaled ROMANS font found in Hughson.lsp. In general, any text that has the possibility of being dis-associated with its object shall be in model space. General Notes for each drawing sheet shall be located in paper space as well as general utility, symbols, abbreviations, border and title block information.

Table 3.1.4 Text Style

Text Application	Style Name	Font Name	Height**
"CITY OF HUGHSON"*	L750	ARIAL	.75
"PLANS FOR CONSTRUCTION"""	L350	ARIAL	.35
Project Title*	L500	ARIAL	.50
Project Limits*	L350	ARIAL	.35
Project Number*	L500	ARIAL	.50
General Notes Title*	L140	ROMANS	.14
General Notes*	L100	ROMANS	.10
Sheet Index Title*	L140	ROMANS	.14
Sheet Index Numbering and Description*	L100	ROMANS	.10
Utility Contact Title	L140	ROMANS	.14
Utility Contact*	L100	ROMANS	.10
Symbol Legend Title*	L140	ROMANS	.14
Symbol Legend*	L100	ROMANS	.10
Abbreviation Title	L140	ROMANS	.14
Abbreviations*	L100	ROMANS	.10
Sheet Title in Title Block	L200	ARIAL	.20
All other Title Block Text	L80	ROMANS	.08
Scale Ratio	L100	ROMANS	.10
Callouts**	XX SCALE	ROMANS	---
Dimensions***	XX SCALE	ROMANS	---
Detail Name	L200	ROMANS	.20
Detail Description	L120	ROMANS	.12

*   See Project Cover Sheet Sample Appendix A
**   Use appropriate text scale from **Hughson.lsp** based on viewport scale.
***   Use appropriate scale as found in AutoCAD Dimension Style. Dimension styles loaded with lisp routine **Hughson.lsp**.

3.2   Sheet Organization

Sheet organization primarily involves sheet size and title block.

3.2.1 Sheet Size

All project drawings shall be 24" x 36" (ARCH D), with a 2" border on the left and a 1" border on all remaining sides.

3.2.2 Title Block

Consultants to use their own title block. The information to be included, but not limited to, shall be consultant information, logo and engineer stamp; project information, date, City of Hughson project number, sheet number, scale, drawn by, City Use approved by and engineer stamp area, and revision number, date and description.

The sheet number for multi-sheet drawings shall be located in the title block. The drawing title shall include the following:

SHEET TYPE (see Table 2.4 Project Sheets)

STREET/AVENUE/BOULEVARD NAME

STATION NUMBERING

3.3   Drawing Scale

For each drawing, a numerical scale ratio used per plan shall be shown by the respective title on all sheets (paper space). All construction plans within one project shall have the same scale. The horizontal scale of the plans are not to exceed 1"=30' and shall have a minimum of 1"=50'. The only exception for the horizontal scale is on the Signal Plan, which can have a scale of 1"=20". The vertical scale of the plans are not to exceed 1"=1' and shall have a minimum of 1"= 4'. Scales used shall be standard engineering scales of 1"=30', 1"=40' or 1"=50'. Every sheet shall also include a graphical scale bar that represents the numerical scale and a north arrow pointed to the top or right of the sheet.

3.3.1 Dimensioning and Leaders

Dimension/Leader arrows shall be "closed filled" with a size of 0.1200. All leaders for clearing, construction and landscape plans shall be in paper space (see Table 2.2 File Layout). Dimension lettering in model space shall be arranged to read from the bottom or right hand side of the sheet. Repetition of dimensions in a single sheet shall be avoided.

3.4   Hatch

All hatching shall be on one of the hatch layers (see Layer Dictionary - Appendix C). The hatch pattern shall appear and be plotted behind all text, lines, grids, etc. Refer to Table 3.4 Hatch Patterns for approved hatch patterns.

Table 3.4 Hatch Patterns

Description	Hatch Pattern	Scale
New AC	Solid Hatch	1
AC to be removed	ANSI 37	10
Details	Earth, Conc, etc.	various

3.5   Drawing Aesthetics

The aesthetics of the drawing are an important component of the project. The goal is to have a complete and accurate set of plans that are legible to all involved; Engineer, Contractor, Plan Checker, Inspectors, etc. In order to accomplish this, the following items shall be included on the drawings:

- State Plane coordinate with basis of bearing;

- Bearing on Construction Line;

- Monument with Northing and Easting noted;

- Hatch legend on corresponding sheets;

- Enlarged details of particular areas that require more information than what may fit legibly.

In addition, to maintain legible drawings refer to Table 3.5 Dos and Don'ts.

Table 3.5 Dos and Don'ts

Do	Don't
1. One (1) note per a leader.	1. Break leaders or dimension lines.
2. Multiple leaders per a note.	2. Break profile grid vertically.
3. Create a detail of an area that will be overwhelmed with text and information.	3. Place matchlines at odd alignments, i.e. 50+23.
4. Make all note/callout text size uniform in size and style.	4. Place aerials on construction sheets.
5. Align text vertically or horizontally when possible	5. Overlap text, with exception to topography tags and station labels.
6. Keep title block information uniform throughout project.	6. Repeat pipework calculation. Linear feet of pipe shall only reflect the feet illustrated on current sheet.

4.0   Details, Blocks and Profiles

This section will address the requirements for details, blocks and profiles.

4.1   Details

Details shall be located on the detail sheet, unless sufficient space is available on the corresponding construction sheet. Include details that pertain to any previous sheets in the order that they appear. With detail one (1) starting on the upper right corner of the sheet and continuing down and to the left. The electronic copy of the City of Hughson "Improvement Standards" shall not be reduced more than 25% of the original size when included on the drawings. Any modified or special details shall be at a reasonable scale that makes the detail legible, including use of linetype and hatch pattern.

4.2   Blocks

A block in AutoCAD is a group of graphical elements that can be manipulated as a single entity. Examples of typical blocks are manholes, fire hydrants, water valves, etc. The use of such symbols enhances CAD productivity. Any traffic, including striping and signal (i.e. *turn arrows, railroad crossing*) standards shall be obtained from Cal-Trans. All utility access points (vaults, boxes) larger than one (1) square foot shall be drawn to scale.

4.3 Profiles

Profiles shall be shown on a grid sheet format conforming in scale to the plans. The alignment for plan and profile shall be in line vertically, when possible. Profiles shall not be broken vertically, see Section 3.3 Drawing Scale for appropriate scale. The alignment shall be labeled in increments of 100 feet for plan and profile. Grid lines shall be a minimum of 100 foot increments with lighter (in linetype) lines at 50 foot horizontally and every foot vertically.

5.0 Layers

CAD layers (levels) are analogous to overlays in manual drafting systems and serve to separate graphic elements (lines, shapes, and text) according to the feature type they represent. This section addresses layer naming convention and layer assignment. Layer Dictionary - Appendix C consists of a detailed standard layer table.

These layers are also directly linked to the way our drawings are inserted into the City of Hughson's Utility Master Plan. By referring to the color chart, you will notice that specific colors have been assigned unique line weights. This helps insure ease of insertion of submitted AutoCAD drawings into the master plan.

For your convenience, a LISP routine has been created to assist the City's consultants and developers when starting a new drawing. The LISP routine automatically loads the appropriate layers, dimension styles, and text styles for you.

5.1 Layer Naming

Layer names consists of distinct data fields separated from one another by a dash, with the exception of the alignment, profile grid and title block (see Layer Dictionary - Appendix C).

Example: **C-ROAD-WALK**

C = Prefix   Road = General   Walk = Specific

The Prefix

The Layer Manager sorts the layers in alphabetical order by default. Several prefixes are used to help group similar layers together.

C   Layers with this prefix are proposed civil features. Generally, they are on colors that, when plotted, standout above existing and future features. C = construction

X   Layers with this prefix are existing civil features. These layers will be faded back by using color 252 so as not to stand out above the proposed features.

F   Layers with this prefix are future civil features and are also faded back similar to the existing features.

D   Layers with this prefix are details of larger sections either of existing features or features to be constructed.

A	Layers with this prefix are used for attributes in paper space relating to title block information, north arrow and legend.
SV	Layers with this prefix are used primarily by surveyors for survey information.

General

The general description helps to sort the layers into more specific groups. The following is a description of these general layer names:

ANNO	Any text in a drawing is placed on a layer with this general description
BORD	This is used for border information
BDRY	This is used for boundary data. Most commonly used in the creation of site and parcel boundaries, including lot lines.
DETL	Detail information/linework/objects
ESMT	Easement boundary linework
ROAD	Road features including pavements curb and gutter, etc.
SITE	General site features including objects such as buildings, fences, etc.
STRP	Striping features corresponding to Cal-Trans
UTIL	Utility features; storm drain, sanitary sewer, electric, and so on
GRAD	Graded features such as swales, berms, hinge points and toes. Basically any graded feature.

6.0   CAD Data Submittal

This section will address how a consultant or developer is to submit a completed improvement project to the City of Hughson, Public Works Department, to include but not be limited to a plotted set of CAD drawings and the electronic version of all necessary CAD files and any supporting files.

6.1   CAD Hard Copy

Preliminary plan sets shall be plotted on bond, bound and stapled along the left edge when viewing the plan set. Binding shall be plain white paper with Submittal Title only, no company logo or advertisements (i.e. *95% Submittal*). The preliminary plans shall include a "Preliminary, Not For Construction" stamp. Final plan sets shall be plotted on mylar or polyester and unbound. Each sheet in the final plan set shall include a "plot stamp" in the bottom left corner and orientated vertically. The "plot stamp" shall include the file name, date and time plotted. A letter of transmittal is required with each hard copy plan set, to include the City of Hughson Director of Public Works, consultant Project Manager with contact information, project name, project number, and submittal description.

6.2   CAD Electronic Format

When submitting electronic files to the City of Hughson, the consultant or developer must submit all files on a CD or a DVD. All AutoCAD files shall be saved as a .dwg in version 2005, and as a .dwf or .pdf file. The files shall be saved as outlined in Table 2.2. A letter of transmittal is required with each submittal, sent to the City of Hughson Director of Public Works, with contact information, project name, project number, and submittal description.

6.3   CAD Submittal Compliance

Since nearly all layers have been created for you already, the consultant or developer will rarely be required to produce new layers. New layers must be approved by the City prior to their use. Any consultant or developer making revisions, designing, etc. is responsible for using the correct layers

CAD drawings not submitted in accordance with City of Hughson CAD Submittal Standard and Policy will be subject to a MINIMUM fine of $800. Changes to incorrectly formatted CAD submittals will be performed by the City with fines in excess of $800 being charged on a time and materials basis to bring CAD submittals into compliance. This fine is necessary to ensure compliance and to encourage developers and consultants to follow the City's standards.

6.4   Support Files

Any and all support files shall be included with the electronic CAD files. Support files shall include, but not be limited to, external references and data point files. The data point file shall be provided in a .txt version. The consultant or developer shall not change or provide any other text style than what has been previously stated.

7.0   Appendices

Appendix A – Project Cover Sheet Sample

Appendix B – Plot Style Table

Appendix C – Layer Dictionary

Appendix A – Insert "PLANS FOR CONSTRUCTION" GRAPHIC

Appendix B - Plot Style

Object Color		Plot Color	Screening	Lineweight (mm)
Name	Color #			
Red	1	Black	100	0.008
Yellow	2	Black	100	0.015
Green	3	Black	100	0.020
Cyan	4	Black	100	0.025
Blue	5	Black	100	0.030
Magenta	6	Black	100	0.010
White	7	Black	100	0.010
Dark Gray	250	Gray	100	0.010
Med./Dark Gray	251	Gray	100	0.010
Med./Light Gray	252	Gray	100	0.010
Light Gray	253	Gray	100	0.010
Light Gray	254	Gray	100	0.010

Default lineweight = 0.15mm

Appendix C – Layer Dictionary

The Layer Dictionary - Appendix C present the following:

- A layer name (see Section 5.1 above)
- A brief description
- The presentation graphics associated with each layer

CONSTRUCTION LINEWORK LAYERS

Layer Name	Description	Color	Linetype
A-BORD	SHEET BORDER IN PAPER SPACE	VARIES	CONT
A-BORD-ATT	BORDER ATTRIBUTES	VARIES	CONT
A-BORD-NORTH	NORTH ARROW	VARIES	CONT
A-BORD-TEXT	TEXT IN PAPER SPACE	VARIES	CONT
DAYSTAMP	DAYSTAMP	VARIES	CONT
C-ANNO-BEAR	BEARING, DISTANCE	6	CONT
C-ANNO-CURV	CURVE DATA	6	CONT
C-ANNO-DIMN	DIMENSION, TEXT LEADER	6	CONT
C-ANNO-HTCH	HATCH, POCHE	VARIES	CONT
C-ANNO-LEAD	CROW'S FOOT	6	CONT
C-ANNO-LNUM	LOT NUMBER	2	CONT
C-ANNO-MTCH	MATCHLINE	5	PHANTOM2
C-ANNO-NAME	STREET NAME, BUILDING NAME	2	CONT
C-ANNO-RADL	RADIAL DATA	6	CONT
C-ANNO-STAT	STATION TEXT, STATION TIC	1	CONT
C-ANNO-STAT-NAME	STATION NAME	1	CONT
C-ANNO-TEXT	GENERAL TEXT	7	CONT
C-ANNO-SYMB	SYMBOL, BLOCK	2	CONT
C-BDRY-CNTR	CENTERLINE	7	CENTER2
C-BDRY-DIMN	DIMENSION, TEXT LEADER	6	CONT
C-BDRY-ELEV	GRADE ELEVATION	7	CONT
C-BDRY-HTCH	HATCH, POCHE	253	CONT

Layer Name	Description	Color	Linetype
C-BDRY-LINE	LOT LINE, PARCEL LINE	2	DASHED2
C-BDRY-LOTS	PROPERTY LOTS	2	CONT
C-BDRY-PROP	PROPERTY LINE	2	CONT
C-BDRY-ROFW	RIGHT OF WAY	3	PHANTOM2
C-BDRY-SECT	SECTION LINE	1	PHANTOM2
C-BDRY-STBK	SETBACK	1	HIDDEN2
C-BDRY-SYMB	SYMBOLS, BLOCKS	2	CONT
C-BDRY-TEXT	BOUNDARY TEXT	7	CONT
C-STRP-DIMN	DIMENSION, TEXT LEADER	6	CONT
C-STRP-FOGG	FOG LINE	4	CONT
C-STRP-HTCH	HATCH, POCHE	VARIES	CONT
C-STRP-LANE	LANE STRIPE	4	VARIES
C-STRP-MARK	STREET PAINT, MARKING	2	CONT
C-STRP-MISC	MISC.	7	CONT
C-STRP-PARK	PARKING STRIPE	1	CONT
C-STRP-SIGN	STREET SIGN	2	CONT
C-STRP-STRP	STRIPING	3	CONT
C-STRP-SYMB	SYMBOL, BLOCK	2	CONT
C-STRP-TEXT	CHANNELIZATION TEXT	7	CONT
C-ESMT- *	EASEMENT - * USE MODIFIER	6	HIDDEN
C-ESMT-BDRY	EASEMENT BOUNDARY	6	CONT
C-ESMT-DIMN	DIMENSION, TEXT LEADER	6	CONT
C-ESMT-GRAD	EASEMENT GRADE	6	CONT
C-ESMT-HTCH	HATCH, POCHE	VARIES	CONT
C-ESMT-ROAD	ROAD EASEMENT	6	CONT
C-ESMT-TEXT	EASEMENT TEXT	7	CONT
C-ESMT-TOPO	EASEMENT TOPO	6	CONT
C-ESMT-UTIL	UTILITY EASEMENT	6	CONT

Layer Name	Description	Color	Linetype
C-GRAD-BERM	BERM	2	CONT
C-GRAD-CULV	CULVERT, DITCH STRUCTURE	2	CONT
C-GRAD-DIMN	DIMENSION, TEXT LEADER	6	CONT
C-GRAD-ELEV	GRADE, SPOT ELEVATION	7	CONT
C-GRAD-FLOW	DRAINAGE FLOW LINE	1	DASHDOT2
C-GRAD-HTCH	HATCH, POCHE	VARIES	CONT
C-GRAD-HP	HINGE POINT	2	CONT
C-GRAD-POND	POND BANK, CONTOUR	7	CONT
C-GRAD-SWAL	SWALE, DITCH BANK	2	CONT
C-GRAD-RRAP	DRAINAGE FILTER, RIP RAP	250	CONT
C-GRAD-SYMB	SYMBOL, BLOCK	7	CONT
C-GRAD-TEXT	GRADING TEXT	7	CONT
C-GRAD-TOE	TOE	7	CONT
C-GRAD-VGUT	VALLEY GUTTER	1	CONT
C-GRAD-DESIGN-BW	DESIGN –BACK OF WALK	7	CONT
C-GRAD-DESIGN-DIMN	DESIGN –DIMENSION, TEXT LEADER	7	CONT
C-GRAD-DESIGN-FL	DESIGN –DRAINAGE FLOW LINE	7	CONT
C-GRAD-DESIGN-FTG	DESIGN –FOOTING	7	CONT
C-GRAD-DESIGN-GB	DESIGN –GRADE BREAK	7	CONT
C-GRAD-DESIGN-SD	DESIGN –STORM DRAIN	7	CONT
C-GRAD-DESIGN-SS	DESIGN –SANITARY SEWER	7	CONT
C-GRAD-DESIGN-TEXT	DESIGN -TEXT	7	CONT
C-ROAD-CNTR	STREET CENTERLINE	7	CENTER2
C-ROAD-DIMN	DIMENSION, TEXT LEADER	6	CONT
C-ROAD-DRIV	DRIVEWAY APPROACH	6	CONT
C-ROAD-FL	FLOW LINE OF CURB	1	CONT
C-ROAD-CG	CURB AND GUTTER	6	CONT
C-ROAD-HTCH	HATCH, POCHE	254	CONT

Layer Name	Description	Color	Linetype
C-ROAD-LIP	LIP OF GUTTER	7	DASHED2
C-ROAD-MEDN	MEDIAN CURB	6	CONT
C-ROAD-PAVE	EDGE OF PAVEMENT	2	CONT
C-ROAD-RAMP	ACCESS RAMP	1	CONT
C-ROAD-RW	ROAD RIGHT OF WAY	3	CONT
C-ROAD-SAW	SAWCUT LINE	6	DASHDOT2
C-ROAD-SCOR	PAVMT. SCORING, CONC. PATTERN	1	CONT
C-ROAD-SYMB	SYMBOL, BLOCK	2	CONT
C-ROAD-TC	TOP OF CURB	1	CONT
C-ROAD-TEXT	ROADWAY TEXT	7	CONT
C-ROAD-WALK	SIDEWALK, PATH	6	CONT
C-SITE-BLDG	BUILDING	2	CONT
C-SITE-BOL	BOLLARD	2	CONT
C-SITE-CONC	CONCRETE STRUCTURE	2	CONT
C-SITE-DIMN	DIMENSION, TEXT LEADER	6	CONT
C-SITE-FENC	FENCE	2	FENCELINE1
C-SITE-FTNG	FOOTING	2	CONT
C-SITE-GATE	GATES	2	CONT
C-SITE-HTCH	HATCH, POCHE	VARIES	CONT
C-SITE-POST	POST, COLUMN, SUPPORT	2	CONT
C-SITE-RAIL	RAIL ROAD	1	CONT
C-SITE-ROCK	ROCK, GRAVEL, BOULDER	2	CONT
C-SITE-SURF	SITE , MANMADE FEATURE	2	CONT
C-SITE-SYMB	SYMBOL, BLOCK	7	CONT
C-SITE-TEXT	SITE TEXT	7	CONT
C-SITE-TREE	TREES	1	CONT
C-SITE-VEGE	VEGETATION	1	CONT
C-SITE-WALL	ROCK WALL, RETAINING WALL	7	CONT

Layer Name	Description	Color	Linetype
C-UTIL-CATV	CABLE TV	2	CONT
C-UTIL-CBOX	BOX	2	CONT
C-UTIL-DIMN	DIMENSION, TEXT LEADER	6	CONT
C-UTIL-ELEC	ELECTRIC	2	CONT
C-UTIL-FH	FIRE HYDRANT	5	CONT
C-UTIL-HTCH	HATCH, POCHE	VARIES	CONT
C-UTIL-IRR	IRRIGATION	2	CONT
C-UTIL-NGAS	NATURAL GAS	2	CONT
C-UTIL-PP	POWER POLE	2	CONT
C-UTIL-SD	STORM DRAIN	4	CONT
C-UTIL-SDCB	STORM DRAIN CATCH BASIN	4	CONT
C-UTIL-SDDI	STORM DRAIN INLET	4	CONT
C-UTIL-SDMH	STORM DRAIN MANHOLE	4	CONT
C-UTIL-SS	SANITARY SEWER	3	CONT
C-UTIL-SSMH	SANITARY SEWER MANHOLE	3	CONT
C-UTIL-*-SYMB	SYMBOL, BLOCK	7	CONT
C-UTIL-TANK	TANK	2	CONT
C-UTIL-TELE	TELEPHONE	2	CONT
C-UTIL-TEXT	UTILITY TEXT	7	CONT
C-UTIL-TP	TELEPHONE POLE	2	CONT
C-UTIL-UP	UTILITY POLE	2	CONT
C-UTIL-WATR	WATER	2	CONT
C-UTIL-WELL	WATER WELL	4	CONT
C-UTIL-WM	WATER METER	2	CONT
C-UTIL-WV	WATER VALVE	2	CONT

DETAIL LINEWORK LAYERS

Layer Name	Description	Color	Linetype
D-DETL-1	DETAIL LINE	1	CONT
D-DETL-2	DETAIL LINE	2	CONT
D-DETL-3	DETAIL LINE	3	CONT
D-DETL-4	DETAIL LINE	4	CONT
D-DETL-5	DETAIL LINE	5	CONT
D-DETL-6	DETAIL LINE	6	CONT
D-DETL-7	DETAIL LINE	7	CONT
D-DETL-8	DETAIL LINE (SCREENED)	252	CONT
D-DETL-HIDD	DETAIL LINE (HIDDEN)	7	HIDDEN2
D-DETL-TEXT	DETAIL TEXT	2	CONT
D-DETL-DIMN	DIMENSION, TEXT LEADER	6	CONT
D-DETL-HTCH	HATCH, POCHE	VARIES	CONT
D-DETL-SYMB	SYMBOL, BLOCK	7	CONT

FUTURE LINEWORK LAYERS

Layer Name	Description	Color	Linetype
F-ANNO-BEAR	BEARING, DISTANCE	1	CONT
F-ANNO-CURV	CURVE DATA	1	CONT
F-ANNO-DIMN	DIMENSION, TEXT LEADER	1	CONT
F-ANNO-HTCH	HATCH, POCHE	VARIES	CONT
F-ANNO-LEAD	CROW'S FOOT	1	CONT
F-ANNO-LNUM	LOT NUMBER	1	CONT
F-ANNO-NAME	STREET NAME, BUILDING NAME	1	CONT
F-ANNO-RADL	RADIAL DATA	1	CONT
F-ANNO-STAT	STATION TEXT, STATION TIC	1	CONT
F-ANNO-STAT-NAME	STATION NAME	1	CONT
F-ANNO-SYMB	SYMBOL, BLOCK	2	CONT
F-ANNO-TEXT	GENERAL TEXT	6	CONT

Layer Name	Description	Color	Linetype
F-BDRY-CNTR	CENTERLINE	1	CENTER2
F-BDRY-DIMN	DIMENSION, TEXT LEADER	6	CONT
F-BDRY-ELEV	GRADE EVEVATION	1	CONT
F-BDRY-HTCH	HATCH, POCHE	VARIES	CONT
F-BDRY-LINE	PROPERTY LINE	1	CONT
F-BDRY-LOTS	PROPERTY LOTS	1	CONT
F-BDRY-PROP	PROPERTY LINE	1	CONT
F-BDRY-ROFW	RIGHT OF WAY	1	CONT
F-BDRY-SECT	SECTION LINE	1	PHANTOM2
F-BDRY-STBK	SETBACK	1	HIDDEN2
F-BDRY-SYMB	SYMBOL, BLOCK	1	CONT
F-BDRY-TEXT	BOUNDARY TEXT	7	CONT
F-ESMT- *	EASEMENT - * USE MODIFIER	1	HIDDEN
F-ESMT-BDRY	EASEMENT BOUNDARY	1	CONT
F-ESMT-DIMN	DIMENSION, TEXT LEADER	1	CONT
F-ESMT-GRAD	EASEMENT GRADE	1	CONT
F-ESMT-HTCH	HATCH, POCHE	VARIES	CONT
F-ESMT-ROAD	ROAD EASEMENT	1	CONT
F-ESMT-TEXT	EASEMENT TEXT	1	CONT
F-ESMT-TOPO	EASEMENT TOPO	1	CONT
F-ESMT-UTIL	UTILITY EASEMENT	1	CONT
F-STRP-DIMN	DIMENSION, TEXT LEADER	1	CONT
F-STRP-FOGG	FOG LINE	1	CONT
F-STRP-HTCH	HATCH, POCHE	VARIES	CONT
F-STRP-LANE	LANE STRIPE	1	VARIES
F-STRP-MARK	STREET PAINT, MARKING	1	CONT
F-STRP-MISC	MISC.	1	CONT
F-STRP-PARK	PARKING STRIPE	1	CONT

Layer Name	Description	Color	Linetype
F-STRP-SIGN	STREET SIGN	1	CONT
F-STRP-STRP	STRIPING	1	CONT
F-STRP-SYMB	SYMBOL, BLOCK	1	CONT
F-STRP-TEXT	CHANNELIZATION TEXT	1	CONT
F-GRAD-BERM	BERM	1	CONT
F-GRAD-DIMN	DIMENSION, TEXT LEADER	1	CONT
F-GRAD-ELEV	GRADE, SPOT ELEVATION	1	CONT
F-GRAD-FLOW	DRAINAGE FLOW LINE	1	DASHDOT2
F-GRAD-HTCH	HATCH, POCHE	VARIES	CONT
F-GRAD-HP	HINGE POINT	1	CONT
F-GRAD-POND	POND BANK, CONTOUR	1	CONT
F-GRAD-SWAL	SWALE, DITCH BANK	1	CONT
F-GRAD-RRAP	DRAINAGE FILTER, RIP RAP	250	CONT
F-GRAD-SYMB	SYMBOL, BLOCK	1	CONT
F-GRAD-TEXT	GRADING TEXT	7	CONT
F-GRAD-TOE	TOE	1	CONT
F-GRAD-VGUT	VALLEY GUTTER	1	CONT
F-GRAD-DESIGN-BW	DESIGN –BACK OF WALK	1	CONT
F-GRAD-DESIGN-DIMN	DESIGN –DIMENSION, TEXT LEADER	1	CONT
F-GRAD-DESIGN-FL	DESIGN –DRAINAGE FLOW LINE	1	CONT
F-GRAD-DESIGN-FTG	DESIGN –FOOTING	1	CONT
F-GRAD-DESIGN-GB	DESIGN –GRADE BREAK	1	CONT
F-GRAD-DESIGN-SD	DESIGN –STORM DRAIN	1	CONT
F-GRAD-DESIGN-SS	DESIGN –SANITARY SEWER	1	CONT
F-GRAD-DESIGN-TEXT	DESIGN -TEXT	1	CONT
F-ROAD-CNTR	STREET CENTERLINE	1	CENTER2
F-ROAD-DIMN	DIMENSION, TEXT LEADER	1	CONT
F-ROAD-DRIV	DRIVEWAY APPROACH	1	CONT

Layer Name	Description	Color	Linetype
F-ROAD-FL	FLOW LINE OF CURB	1	CONT
F-ROAD-CG	CURB AND GUTTER	1	CONT
F-ROAD-HTCH	HATCH, POCHE	VARIES	CONT
F-ROAD-LIP	LIP OF GUTTER	1	CONT
F-ROAD-MEDN	MEDIAN CURB	1	CONT
F-ROAD-PAVE	EDGE OF PAVEMENT	1	CONT
F-ROAD-RAMP	ACCESS RAMP	1	CONT
F-ROAD-RW	ROAD RIGHT OF WAY	1	CONT
F-ROAD-SCOR	PAVMT. SCORING, CONC. PATTERN	1	CONT
F-ROAD-SYMB	SYMBOL, BLOCK	1	CONT
F-ROAD-TC	TOP OF CURB	1	CONT
F-ROAD-TEXT	ROADWAY TEXT	1	CONT
F-ROAD-WALK	SIDEWALK, PATH	1	CONT
F-SITE-BLDG	BUILDING	1	CONT
F-SITE-BOL	BOLLARD	1	CONT
F-SITE-CONC	CONCRETE STRUCTURE	1	CONT
F-SITE-DIMN	DIMENSION, TEXT LEADER	1	CONT
F-SITE-FENC	FENCE	1	FENCELINE1
F-SITE-FTNG	FOOTING	1	CONT
F-SITE-GATE	GATES	1	CONT
F-SITE-HTCH	HATCH, POCHE	VARIES	CONT
F-SITE-POST	POST, COLUMN, SUPPORT	1	CONT
F-SITE-RAIL	RAIL ROAD	1	CONT
F-SITE-ROCK	ROCK, GRAVEL, BOULDER	1	CONT
F-SITE-SURF	SITE , MANMADE FEATURE	1	CONT
F-SITE-SYMB	SYMBOL, BLOCK	1	CONT
F-SITE-TEXT	SITE TEXT	1	CONT
F-SITE-TREE	TREES	1	CONT
F-SITE-VEGE	VEGETATION	1	CONT

Layer Name	Description	Color	Linetype
F-SITE-WALL	ROCK WALL, RETAINING WALL	1	CONT
F-UTIL-CATV	CABLE TV	1	CONT
F-UTIL-CBOX	BOX	1	CONT
F-UTIL-DIMN	DIMENSION, TEXT LEADER	1	CONT
F-UTIL-ELEC	ELECTRIC	1	CONT
F-UTIL-FH	FIRE HYDRANT	1	CONT
F-UTIL-HTCH	HATCH, POCHE	VARIES	CONT
F-UTIL-IRR	IRRIGATION	1	CONT
F-UTIL-NGAS	NATURAL GAS	1	CONT
F-UTIL-PP	POWER POLE	1	CONT
F-UTIL-SD	STORM DRAIN	1	CONT
F-UTIL-SDCB	STORM DRAIN CATCH BASIN	1	CONT
F-UTIL-SDDI	STORM DRAIN INLET	1	CONT
F-UTIL-SDMH	STORM DRAIN MANHOLE	1	CONT
F-UTIL-SS	SANITARY SEWER	1	CONT
F-UTIL-SSMH	SANITARY SEWER MANHOLE	1	CONT
F-UTIL-*-SYMB	SYMBOL, BLOCK	1	CONT
F-UTIL-TANK	TANK	1	CONT
F-UTIL-TELE	TELEPHONE	1	CONT
F-UTIL-TEXT	UTILITY TEXT	1	CONT
F-UTIL-TP	TELEPHONE POLE	1	CONT
F-UTIL-UP	UTILITY POLE	1	CONT
F-UTIL-WATR	WATER	1	CONT
F-UTIL-WELL	WATER WELL	1	CONT
F-UTIL-WM	WATER METER	1	CONT
F-UTIL-WV	WATER VALVE	1	CONT

SURVEY AND MAPPING LAYERS

Layer Name	Description	Color	Linetype
SV-ANNO-BD	BEARINGS, DISTANCES	6	CONT
SV-ANNO-DIMN	DIMENSION, TEXT LEADER	6	CONT
SV-ANNO-TEXT	GENERAL SURVEY/MAPPING TEXT	6	CONT
SV-CTRL	CONTROL POINTS	7	CONT
SV-MONUMENT	MONUMENT SYMBOLS & TEXT	7	CONT
SV-RADIAL	RADIALS TEXT & LEADERS	6	CONT
SV-BDRY-CL	CENTERLINE	7	CENTER2
SV-BDRY-PHAS	PHASE LINE	7	CENTER2
SV-BDRY-DIMN	DIMENSION, TEXT LEADER	6	CONT
SV-BDRY-ELEV	GRADE, SPOT ELEVATION	7	CONT
SV-BDRY-ESLD	LANDSCAPE EASEMENT	3	DASHED
SV-BDRY-ESPU	PUBLIC UTILITIES EASEMENT	3	HIDDEN
SV-BDRY-ESSD	STORM DRAIN EASEMENT	3	HIDDEN
SV-BDRY-ESWR	WATER EASEMENT	3	DASHED
SV-BDRY-HTCH	HATCH, POCHE	VARIES	CONT
SV-BDRY-IOD	IRREVOCABLE OFFER OF DEDICATION	2	CONT
SV-BDRY-LINE	LOT LINE, PARCEL LINE	2	CONT
SV-BDRY-LOTS	LOTS	2	CONT
SV-BDRY-PROP	PROPERTY LINE	2	CONT
SV-BDRY-ROW	RIGHT OF WAY	3	PHANTOM2
SV-BDRY-SECT	SECTION LINE	2	PHANTOM2
SV-BDRY-SITE	SYMBOL, BLOCK	2	CONT
SV-BDRY-STBK	SETBACK	1	HIDDEN2
SV-BDRY-SYMB	SYMBOL, BLOCK	2	CONT
SV-BDRY-TEXT	BOUNDARY TEXT	7	CONT

EXISTING LINEWORK LAYERS

Layer Name	Description	Color	Linetype
X-ANNO-BEAR	BEARING, DISTANCE	252	CONT
X-ANNO-CURV	CURVE DATA	252	CONT
X-ANNO-DIMN	DIMENSION, TEXT LEADER	252	CONT
X-ANNO-LEAD	CROW'S FOOT	252	CONT
X-ANNO-LNUM	LOT NUMBER	252	CONT
X-ANNO-NAME	STREET NAME	252	CONT
X-ANNO-HTCH	HATCH, POCHE	253	CONT
X-ANNO-RADL	RADIAL DATA	252	CONT
X-ANNO-STAT	STATION TEXT, STATION TIC	252	CONT
X-ANNO-STAT-NAME	STATION NAME	252	CONT
X-ANNO-SYMB	SYMBOL, BLOCK	252	CONT
X-ANNO-TEXT	GENERAL TEXT	252	CONT
X-STRP-DIMN	DIMENSION, TEXT LEADER	252	CONT
X-STRP-FOGG	FOG LINE	252	CONT
X-STRP-HTCH	HATCH, POCHE	253	CONT
X-STRP-LANE	LANE STRIPE	252	VARIES
X-STRP-MARK	STREET PAINT, MARKING	252	CONT
X-STRP-MISC	MISC.	252	CONT
X-STRP-PARK	PARKING STRIPE	252	CONT
X-STRP-SIGN	STREET SIGN	252	CONT
X-STRP-STRP	STRIPING	252	CONT
X-STRP-SYMB	SYMBOL, BLOCK	252	CONT
X-STRP-TEXT	CHANNELIZATION TEXT	252	CONT
X-BDRY-CNTR	CENTERLINE	252	CENTER2
X-BDRY-DIMN	DIMENSION, TEXT LEADER	252	CONT
X-BDRY-ELEV	GRADE ELEVATION	252	CONT
X-BDRY-HTCH	HATCH, POCHE	253	CONT

Layer Name	Description	Color	Linetype
X-BDRY-LINE	LOT LINE, PARCEL LINE	252	DASHED2
X-BDRY-LOTS	PROPERTY LOTS	252	CONT
X-BDRY-PROP	PROPERTY LINE	252	DASHED2
X-BDRY-ROFW	RIGHT OF WAY	251	DIVIDE2
X-BDRY-SECT	SECTION LINE	1	PHANTOM2
X-BDRY-STBK	SETBACK	252	HIDDEN2
X-BDRY-SYMB	SYMBOLS, BLOCKS	252	CONT
X-BDRY-TEXT	BOUNDARY TEXT	252	CONT
X-ESMT- *	EASEMENT - * USE MODIFIER	252	HIDDEN
X-ESMT-BDRY	EASEMENT BOUNDARY	252	CONT
X-ESMT-DIMN	DIMENSION, TEXT LEADER	252	CONT
X-ESMT-GRAD	EASEMENT GRADE	252	CONT
X-ESMT-HTCH	HATCH, POCHE	253	CONT
X-ESMT-ROAD	ROAD EASEMENT	252	CONT
X-ESMT-TEXT	EASEMENT TEXT	252	CONT
X-ESMT-TOPO	EASEMENT TOPO	252	CONT
X-ESMT-UTIL	UTILITY EASEMENT	252	CONT
X-GRAD-BERM	EARTH BERM	252	CONT
X-GRAD-CMJR	MAJOR CONTOURS	253	CONT
X-GRAD-CMNR	MINOR CONTOURS	251	CONT
X-GRAD-CULV	CULVERT	252	CONT
X-GRAD-DIMN	DIMENSION, TEXT LEADER	252	CONT
X-GRAD-ELEV	GRADE, SPOT ELEVATION	252	CONT
X-GRAD-FLOW	DRAINAGE FLOW LINE	252	DASHDOT2
X-GRAD-HP	HINGE POINT	252	DIVIDE2
X-GRAD-HTCH	HATCH, POCHE	253	CONT
X-GRAD-POND	POND BANK, CONTOURS	252	HIDDEN2
X-GRAD-RRAP	RIP RAP, DRAINAGE FILTER	252	CONT

Layer Name	Description	Color	Linetype
X-GRAD-SWALE	SWALE, DITCH BANK	252	DIVIDE2
X-GRAD-SYMB	SYMBOL, BLOCK	252	CONT
X-GRAD-TEXT	GRADING TEXT	252	CONT
X-GRAD-TOE	TOE	252	DASHDOT2
X-GRAD-VGUT	VALLEY GUTTER	252	CONT
X-ROAD-CNTR	STREET CENTERLINE	252	CENTER2
X-ROAD-DIMN	DIMENSION, TEXT LEADER	252	CONT
X-ROAD-DRIV	DRIVEWAY APPROACH	252	CONT
X-ROAD-FL	FLOW LINE OF CURB	252	CONT
X-ROAD-CG	CURB AND GUTTER	252	CONT
X-ROAD-HTCH	HATCH, POCHE	253	CONT
X-ROAD-LIP	LIP OF GUTTER	252	DASHED2
X-ROAD-MEDN	MEDIAN CURB	252	CONT
X-ROAD-PAVE	EDGE OF PAVEMENT	252	CONT
X-ROAD-RAMP	ACCESS RAMP	252	CONT
X-ROAD-RW	ROAD RIGHT OF WAY	252	CONT
X-ROAD-SCOR	PAVMT. SCORING, CONC. PATTERN	252	CONT
X-ROAD-SYMB	SYMBOL, BLOCK	252	CONT
X-ROAD-TC	TOP OF CURB	252	CONT
X-ROAD-TEXT	ROADWAY TEXT	252	CONT
X-ROAD-WALK	SIDEWALK, PATH	252	CONT
X-SITE-BLDG	BUILDING	252	CONT
X-SITE -BOL	BOLLARD	252	CONT
X-SITE -CONC	CONCRETE STRUCTURES	252	CONT
X-SITE-DIMN	DIMENSION, TEXT LEADER	252	CONT
X-SITE -FENC	FENCE	252	CONT
X-SITE -FTG	FOOTING	252	CONT
X-SITE -GATE	GATES	252	CONT

Layer Name	Description	Color	Linetype
X-SITE -HTCH	HATCH, POCHE	253	CONT
X-SITE -MISC	MISC	252	CONT
X-SITE -POST	POST, COLUMN	252	CONT
X-SITE -RAIL	RAIL ROAD	252	CONT
X-SITE -ROCK	ROCK, GRAVEL	252	CONT
X-SITE-SURF	SITE , MANMADE FEATURE	252	CONT
X-SITE -SYMB	SYMBOL, BLOCK	252	CONT
X-SITE -TEXT	TOPOGRAPHY TEXT	252	CONT
X-SITE -TREE	TREES	253	CONT
X-SITE -VEGE	VEGETATION	253	CONT
X-SITE -WALL	ROCK WALL, RETAINING WALL	252	CONT
X-UTIL-CATV	CABLE TV	252	CONT
X-UTIL-CBOX	BOX	252	CONT
X-UTIL-DIMN	DIMENSION, TEXT LEADER	252	CONT
X-UTIL-ELEC	ELECTRIC	252	CONT
X-UTIL-FH	FIRE HYDRANT	252	CONT
X-UTIL-HTCH	HATCH	253	CONT
X-UTIL-IRR	IRRIGATION	252	CONT
X-UTIL-NGAS	NATURAL GAS	252	CONT
X-UTIL-PP	POWER POLE	252	CONT
X-UTIL-SD	STORM DRAIN	252	CONT
X-UTIL-SDCB	STORM DRAIN CATCH BASIN	252	CONT
X-UTIL-SDDI	STORM DRAIN INLET	252	CONT
X-UTIL-SDMH	STORM DRAIN MANHOLE	252	CONT
X-UTIL-SS	SANITARY SEWER	252	CONT
X-UTIL-SSMH	SANITARY SEWER MANHOLE	252	CONT
X-UTIL- * -SYMB	SYMBOL, BLOCK	252	CONT
	* utility modifier SS, SD, ETC.		
X-UTIL-TANK	TANK	252	CONT

Layer Name	Description	Color	Linetype
X-UTIL-TELE	TELEPHONE	252	CONT
X-UTIL-TEXT	UTILITY TEXT	252	CONT
X-UTIL-TP	TELEPHONE POLE	252	CONT
X-UTIL-UP	UTILITY POLE	252	CONT
X-UTIL-WATR	WATER LINE	252	CONT
X-UTIL-WELL	WATER WELL	252	CONT
X-UTIL-WM	WATER METER	252	CONT
X-UTIL-WV	WATER VALVE	252	CONT