



**US Army Corps
of Engineers®**
Engineer Research and
Development Center

Master Guide Documentation

US ARMY CORPS OF ENGINEERS CIVIL ENGINEERING TEMPLATE FOR CIVIL 3D

Templates based on the Autodesk Civil 3D® 2022 Software

Manual : USACE Civil 3D® 2022 Template v5.0
Configuration – PART 1

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1 OVERVIEW

Advanced Modeling for the United States Corps of Engineers (USACE) not only includes Building Information Modeling (BIM) but Civil Information Modeling (CIM). Taking advantage of current software advances to provide capabilities for using computer models on projects allows more integrated engineering, analysis, design, and documentation and improves the quality and delivery of Civil engineering projects.

To assist the designers with the setup and implementation of this complex software, standard templates are needed that have been prepared to allow users to focus on the design, planning and implementation of the project instead of project configuration. Proper symbology must be set up for different CIM processes: Hydrology, Navigation, Port, Coastal, Harbor and River control and protection. Customization as needed for special situations is a simple and quick process.

The USACE Civil 3D standards provide support for designers using Autodesk® Civil 3D® software to create Advanced Modeling infrastructure projects for the U.S. Army Corps of Engineers. Since the diversity of USACE Civil projects are so great, these standards provide a collection of the most commonly needed object style settings based on several different model object types.

The USACE Civil 3D Templates provide preset layer settings (layer color, line styles, colors, line weights) as well as custom civil and survey Styles. Civil modeling involves design “objects” such as alignments, surfaces, profiles, assemblies, sections, piping systems and their various annotation settings. As an example, surfaces are used to represent topography, slope analysis, surface points, TIN, watershed analysis, and more. Profiles are built from an alignment and a surface. Typical section Assemblies such as Levees, roads, and dredged areas are assigned to the alignment and profile and integrated to the site to connect back into the site surface at the edges.

A Levee object can be created along an alignment based on a designed profile that is linked to an existing or proposed site. Changes to the Levee system can be made by adjusting the profile or elevation or levee section. Related views are automatically updated similar to the process of adding a door to a BIM floor plan and having the door added automatically in the appropriate elevation, section, and door schedule. Profile views and sections are created from this set of information with correct symbology applied. Annotation labels extract information from the object that they are assigned to without having user interpretation. Placing a ground elevation point can return the point location (Northing, Easting, vertical elevation) as well as any other information associated with the point (Head Wall, Gravel, Gas Meter, ID number, user attributes...). Correct symbols based upon the AEC CAD Standards are set as part of the annotation label configuration.

This manual provides a written description of the complete configuration settings and styles that have been created for the USACE Civil 3D Standards. This manual is a reference guide and not an instruction manual for the use of Autodesk Civil 3D software or a tutorial for understanding how the civil objects should be created and used. The user should be familiar with the software and the process of modeling civil projects.

Note: For step-by-step instructions and tips and tricks for using these USACE standards during production, refer to “Applying and Using USACE Civil 3D 2022 Standards.docx” which accompanies this file in the “Documentation” folder of the standards folder structure.

2 GENERAL

2.1 Introduction

This document (Part 1) is an overview of settings and styles that the USACE Autodesk Civil 3D 2022 templates contain. The appendix document (Part 2) contains detailed samples and screen captures.

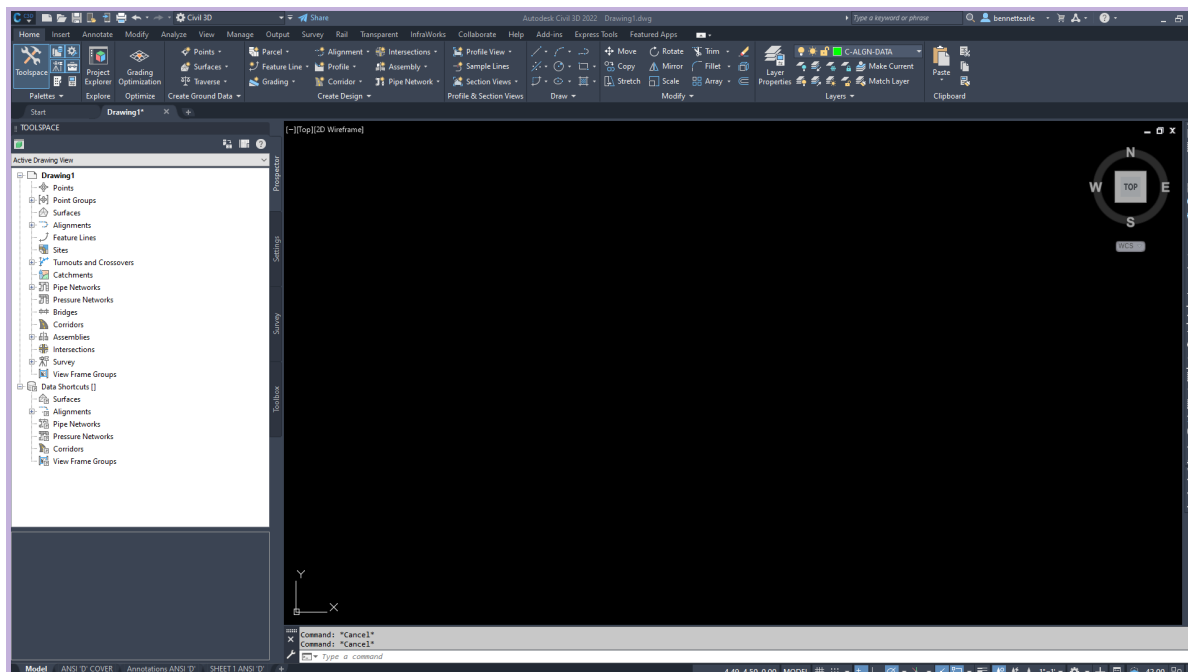
Because of the extensive flexibility of the software, setup for specific processes (create topo with 1' minor and 5' major contours, an elevation or slope analysis, etc.) can use up project design and production time. The ability to use software for modeling and analysis, as well as documentation in the design process has become a required method for civil projects. The USACE Civil 3D template contains preconfigured settings (called "Styles") to simplify the process for display. Settings for point styles for Hydrology, Coastal, Navigation, Geotechnical, Communications and Utilities have been set up with symbols and data labels. Survey information brought into the template may be quickly assigned to the correct symbols. In addition, Table styles have been created for consistency in line weights and font sizes for all project tables.

Questions may be submitted to "[USACE Civil 3D Template Team](#)" or to "[USACE CAD/BIM Knowledge Management Portal](#)".

2.2 Toolspace Overview

The Toolspace is the primary Civil 3D object property and management window. It is a palette that is used for handling Civil 3D objects and settings of all Civil 3D styles for Civil 3D objects and labels. The Toolspace has four important tabs:

- **Prospector:** Use this tab for managing and accessing properties for Civil 3D objects.
- **Settings:** Use this tab for general settings and managing the library of Civil 3D styles.
- **Toolbox:** Use this tab for generating typical reports for various Civil 3D objects.
- **Survey:** Use this tab to manage survey data and settings.



2.3 Prospector

The Prospector tab in the Toolspace is used to access, select, and manage Civil 3D objects and projects. All of the intelligent objects in the drawing are grouped into their major categories and displayed in an expandable Object tree. From this tree, the user can examine some object settings, select objects in the drawing, change object properties, delete objects, and more.

In addition, the Prospector also provides access to Data Shortcut Projects and Objects.

2.4 Settings

All Civil 3D objects, intelligent labels, and object tables are displayed based on styles. These styles control the appearance, layers, and settings of the different object types, as well as content and layout of labels and tables. The Settings tab is where the library of styles that are present in a drawing can be created, reviewed, and/or edited. In the styles, items such as component visibility, component layer assignments, and other visual properties are determined, standardizing how objects will appear in the drawing.

Note: While each component can be assigned a different layer in the style definition, all Civil 3D objects are assigned a master layer to hold the object as a whole.

Standard Styles have been established in USACE template. These templates should be used for the creation of every new drawing.

Note: Any new styles created in a user's drawing will not automatically be saved in the template. This has to be done manually with Drag and Drop. Any styles to be added must go through proper USACE CAD administration before being added to the existing template.

2.5 [Toolbox](#)

Civil 3D provides a report manager under the Toolbox for generating various reports for a host of Civil 3D objects such as Parcel and Alignments. The two buttons on the top left allow for the customization of report settings and adding new content.

2.6 [Survey](#)

The Survey tab of Toolspace controls the use of survey data, equipment, linework code sets, and the figure prefix database. The button in the top left controls the path to various data.

3 USACE CIVIL 3D 2022 TEMPLATES

3.1 Drawing Templates

USACE's Civil 3D standards include master drawing templates that can be used for the creation of any new project drawings. In addition, there are discipline-specific templates that have been established as subsets of these main templates and should be used for the creation of new project drawings for those disciplines.

Master and discipline-specific templates have been established for working with Imperial Units or Metric units. Two templates of each unit type were created for the master templates as well as the discipline-specific templates to allow for the user to work with a CTB file or an STB file.

3.1.1 Master Templates

There are 4 master templates for working in Civil 3D 2022 include the following:

- USACE Civil 3D 2022 Imperial_CTB.dwt
- USACE Civil 3D 2022 Imperial_STB.dwt
- USACE Civil 3D 2022 Metric_CTB.dwt
- USACE Civil 3D 2022 Metric_STB.dwt

The Master templates contain all of the civil elements that can be used across disciplines, including:

- All B-, C-, CM-, G-, and V- Layers
- Layer filters for all disciplines
- All AutoCAD AEC Text, Dimension, Multileader, and Table Styles
- All Geotechnical (B-), Civil (C-), General (G-), and Survey (V-) Civil 3D Styles
- Description Key Sets for Alphanumeric and Numeric field codes, as well as Proposed point placement
- Full list of Point Groups
- All blocks that are used in the Civil 3D Styles, as well as some annotation blocks for use in Paper Space.

These drawing templates are stored in a folder called "Templates" under the Standards folder structure.

Note: The details of contents such as Layers, Layer Filters, AutoCAD Styles, Point Groups, Description Key Sets, Civil 3D Styles, and blocks are covered in subsequent sections of this document as well as "USACE Civil 3D 2022 Template Document v5.0 – Part 2.docx"

3.1.2 Discipline-Specific Templates

Subset templates exist for the following disciplines:

- Survey
- Navigation & Marine Design
- Site Design

All discipline-specific templates are stored under “Templates\Discipline-Specific Templates\” in the Standards folder structure.

3.1.2.1 Survey Templates

These templates are intended for use by USACE’s Survey groups for use on standard, topo, and hydrologic survey projects. They include:

- USACE Civil 3D 2022 Survey_Imperial_CTB.dwt
- USACE Civil 3D 2022 Survey_Imperial_STB.dwt
- USACE Civil 3D 2022 Survey_Metric_CTB.dwt
- USACE Civil 3D 2022 Survey_Metric_STB.dwt

As a subset of the Master templates, the Survey templates contain the following:

- All CM-, G-, and V- Layers
- Survey Layer Filters
- Survey (V-) and General (G-) Civil 3D Styles
- Only the C- layers that are necessary for use in Styles and Blocks
- Description Key Sets for Alphanumeric and Numeric field codes
- All Point Groups
- Blocks necessary for the remaining Civil 3D Styles and annotation blocks for use in Paper Space.

3.1.2.2 Navigation & Marine Design Templates

These templates are intended for use in Civil 3D for navigation design, dredging, and other Marine construction projects. They include:

- USACE Civil 3D 2022 Navigation and Marine Design_Imperial_CTB.dwt
- USACE Civil 3D 2022 Navigation and Marine Design_Imperial_STB.dwt
- USACE Civil 3D 2022 Navigation and Marine Design_Metric_CTB.dwt
- USACE Civil 3D 2022 Navigation and Marine Design_Metric_STB.dwt

As a subset of the Master templates, the Navigation and Marine Design templates contain the following:

- All C-, CM-, and G- Layers
- All Layer Filters
- All Civil (C-) and General (G-) Styles
- Only Survey (V-) Styles that are necessary for representing existing conditions.
- Only the V- layers that are necessary for use in Styles and Blocks
- No Description Key Sets
- All Point Groups
- Blocks necessary for the remaining Civil 3D Styles and annotation blocks for use in Paper Space.

3.1.2.3 Site Design Templates

These templates are intended for use in Civil 3D for site design, flood control, and pavement projects.

They include:

- USACE Civil 3D 2022 Site Design_Imperial_CTB.dwt
- USACE Civil 3D 2022 Site Design_Imperial_STB.dwt
- USACE Civil 3D 2022 Site Design_Metric_CTB.dwt
- USACE Civil 3D 2022 Site Design_Metric_STB.dwt

As a subset of the Master templates, the Site Design templates contain the following:

- All B-, CM-, and G- Layers
- All C- Layers except the following groups:
 - C-BECH
 - C-CHAN
 - C-DRED
- All Layer Filters
- All Geotechnical (B-) and General (G-) Styles
- Only Civil (C-) Styles that are necessary for Site Design
- Only Survey (V-) Styles that are necessary for representing existing conditions
- Only the C- and V- layers that are necessary for use in Styles and Blocks
- Description Key Set for the creation of Proposed AFLD and BORE points.
- Smaller list of Point Groups
 - _All Points
 - Points to Triangulate
 - No Show
 - No Show (overrides)
- Blocks necessary for the remaining Civil 3D Styles and annotation blocks for use in Paper Space.

3.2 Sheet-Specific Templates

USACE has 12 different template files that should be used for the creation of new Sheets as well as in Civil 3D Plan Production functionality (Section Sheets, Plan and Profile Sheets, etc.). As with the drawing templates, there are Sheet templates for working in both Imperial and Metric units, and in both CTB and STB environments. These templates are listed below:

- USACE Civil 3D 2022 Imperial_CTB_PlanProf Sheets.dwt
- USACE Civil 3D 2022 Imperial_CTB_Section Sheets.dwt
- USACE Civil 3D 2022 Imperial_STB_PlanProf Sheets.dwt
- USACE Civil 3D 2022 Imperial_STB_Section Sheets.dwt
- USACE Civil 3D 2022 Metric_ANSID_CTB_PlanProf Sheets.dwt
- USACE Civil 3D 2022 Metric_ANSID_CTB_Section Sheets.dwt
- USACE Civil 3D 2022 Metric_ANSID_STB_PlanProf Sheets.dwt
- USACE Civil 3D 2022 Metric_ANSID_STB_Section Sheets.dwt
- USACE Civil 3D 2022 Metric_ISO1_CTB_PlanProf Sheets.dwt
- USACE Civil 3D 2022 Metric_ISO1_CTB_Section Sheets.dwt
- USACE Civil 3D 2022 Metric_ISO1_STB_PlanProf Sheets.dwt
- USACE Civil 3D 2022 Metric_ISO1_STB_Section Sheets.dwt

The “USACE Civil 3D 2022 ...PlanProf Sheets” files listed above contain the necessary layout sheets to be used for the creation of the following sheet types at a number of different scales using Civil 3D’s Plan Production tools:

- Plan Sheets
- Plan Sheets in Series
- Profile Sheets in Series
- Plan over Plan Sheets in Series
- Plan over Profile Sheets in Series
- Profile over Profile Sheets in Series

The “USACE Civil 3D 2022 ...Section Sheets” files listed above contain the necessary layout sheets to be used for the creation of Section View Sheets in Civil 3D.

These Sheet templates are stored under “Templates\Plan Production and Sheet Creation\” in the Standards folder structure.

3.3 Sheet Set Template (.DST)

The USACE standards contain 4 Sheet Set Templates that can be used for the creation of new project Sheet Sets:

- AEC_Sheet Set_Imperial (CTB).dst
- AEC_Sheet Set_Imperial (STB).dst
- AEC_Sheet Set_Metric (CTB).dst
- AEC_Sheet Set_Metric (STB).dst

Each of these Sheet Set Templates is pointed to the corresponding Sheet Creation Template that matches the desired units and Plot Style types. See section [2.2 Sheet Specific Templates](#) for more information.

The templates contain custom Sheet-level and Sheet Set-level properties that are referenced in the USACE Titleblocks. The screenshot below shows a list of these properties and their default values.

Sheet Set

Name	AEC_Sheet Set_Imperial (STB)
Sheet set data file	U:\USACE Civil 3D 2022 Standards\Templates\Plan Production and Sheet Creation\AEC_Sheet Set_Imperial (STB).dst (v1.1)
Description	A/E/C Standard Sheet Set - Imperial - for STB
Model view	
Label block for views	Drawing Area Title(U:\USACE Civil 3D 2022 Standards\Templates\USACE Civil 3D 2022 Imperial_STB.dwt)
Callout blocks	
Page setup overrides file	

Project Control

Sheet Custom Properties

AEC_BLDG_ID	+BLDG ID
AEC_CHECKER	+J. CHECKER
AEC_DES_1_NAME	+DESIGN FIRM NAME
AEC_DES_2_ADD	+DESIGN FIRM ADDRESS 2
AEC_DES_3_CITY	+DESIGN FIRM ADDRESS 3
AEC_DES_4_ADD	+DESIGN FIRM ADDRESS 4
AEC_DESIGNER	+J. DESIGNER
AEC_DRAWER	+J. DRAWER
AEC_OPTION1	+%OPTIONAL VALUE 1%
AEC_OPTION2	+%OPTIONAL VALUE 2%
AEC_SHT_TITLE1	+SHEET TITLE 1
AEC_SHT_TITLE2	+SHEET TITLE 2
AEC_SHT_TITLE3	+SHEET TITLE 3
AEC_SUBMITTER	+J. SUBMITTER

Sheet Creation

Sheet storage location	U:\USACE Civil 3D 2022 Standards\Templates\Plan Production and Sheet Creation
Sheet creation template	ANSI 'D'(U:\USACE Civil 3D 2022 Standards\Templates\Plan Production and Sheet Creation\USACE Civil 3D 2022 Imperial_STB_PlanProf Sheets.dwt)
Prompt for template	No

Sheet Set Custom Properties

AEC_HOST_AG	+HOST_AG
AEC_HOST_AG_ADD1	+ADDRESS
AEC_HOST_AG_ADD2	+CITY, ST ZIP
AEC_MAN_CONTRNUM	+XXXXXX-XX-X-XXXX
AEC_MAN_DATE	+MMMMMMMMMM YYYY
AEC_MAN_OPT1TAG	+%OPTIONAL FIELD 1%
AEC_MAN_OPT2TAG	+%OPTIONAL FIELD 2%
AEC_MAN_SIZE	+SIZE
AEC_MAN_SOLICNUM	+XXXXXX-XX-X-XXXX
AEC_PROJ_1_LOCATION	+PROJECT/CONTRACT LOCATION 1
AEC_PROJ_2_DISC	+PROJECT/CONTRACT DESCRIPTION 2
AEC_PROJ_3_DESCID	+PROJECT/CONTRACT DESCRIPTION / IDENTIFIER 3
AEC_PROJ_4_ID	+PROJECT/CONTRACT IDENTIFIER IF NEEDED 4
AEC_PROJ_STATUS	+%STATUS%
AEC_PROJ_VOLUME	+VOLUME X
LastSheetID	20

[Edit Custom Properties...](#) [OK](#) [Cancel](#) [Help](#)

The Sheet Set Templates are stored in the standards folder structure in the following location:

- U:\USACE Civil 3D 2022 Standards\Templates\Plan Production and Sheet Creation

This path is established as the default Sheet Set Template location in the USACE custom Profiles. To make use of one of the templates, open the “Sheet Set Manager”, click “New Sheet Set” from the drop-down at the top of the Palette, and choose “An example sheet set” in the wizard that appears.

4 AUTOCAD TEXT STYLES

The table below lists the AutoCAD Text Styles in the USACE Imperial templates.

Text Styles	Font	Annotative	Text Height (in)
AEC_Normal	Arial	Yes	0.10
AEC_Subtitle	Arial	Yes	0.13
AEC_Title	Arial	Yes	0.19
Arial	Arial	No	0
Arial-I	Arial (Italicized)	No	0

The table below lists the AutoCAD Text Styles in the USACE Metric templates.

Text Styles	Font	Annotative	Text Height (mm)
AEC_Normal	Arial	Yes	3
AEC_Subtitle	Arial	Yes	4
AEC_Title	Arial	Yes	5.08
Arial	Arial	No	0
Arial-I	Arial (Italicized)	No	0

Dimension Styles, Label Styles, and Table Styles are setup to use “Arial” for consistency and simplicity. “Arial-I” is used for Italic fonts in some areas.

5 AUTOCAD DIMENSION STYLES

The tables below show the Dimension Styles in the USACE Imperial Templates:

IMPERIAL DIMENSION STYLES (2)	
AEC_Civil_Arrow	
Modify Dimension Style: AEC_Civil_Arrow Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances Dimension lines Color: ☐ ByLayer Linetype: ☐ ByLayer Lineweight: ☐ Default Extend beyond ticks: 0.00 Baseline spacing: 0.375 Extension lines Color: ☐ ByLayer Linetype ext line 1: ☐ ByLayer Linetype ext line 2: ☐ ByLayer Lineweight: ☐ Default Suppress: ☐ Ext line 1 ☐ Ext line 2 Extend beyond dim lines: 0.05 Offset from origin: 0.05 ☐ Fixed length extension lines Length: 1.00 OK Cancel Help	Modify Dimension Style: AEC_Civil_Arrow Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances Arrowheads First: ☐ Closed filled Second: ☐ Closed filled Leader: ☐ Closed filled Arrow size: 0.10 Center marks ☐ None ☒ Mark: 0.10 ☐ Line Dimension Break Break size: 0.0104 Ar length symbol ☒ Preceding dimension text ☐ Above dimension text ☐ None Radius jog dimension Jog angle: 45.00 Linear jog dimension Jog height factor: 1.50 * Text height OK Cancel Help
Modify Dimension Style: AEC_Civil_Arrow Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances Text appearance Text style: Arial Text color: ☐ ByLayer Fill color: ☐ None Text height: 0.10 Fraction height scale: 1.00 ☐ Draw frame around text Text placement Vertical: Above Horizontal: Centered View Direction: Left-to-Right Offset from dim line: 0.05 Text alignment ☐ Horizontal ☒ Aligned with dimension line ☐ ISO standard OK Cancel Help	Modify Dimension Style: AEC_Civil_Arrow Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances Fit options If there isn't enough room to place both text and arrows inside extension lines, the first thing to move outside the extension lines is: ☒ Either text or arrows (best fit) ☐ Arrows ☐ Text ☐ Both text and arrows ☐ Always keep text between ext lines ☐ Suppress arrows if they don't fit inside extension lines Text placement When text is not in the default position, place it: ☒ Beside the dimension line ☐ Over dimension line, with leader ☐ Over dimension line, without leader Scale for dimension features ☒ Annotative ☐ Scale dimensions to layout ☐ Use overall scale of: 0.00 Fine tuning ☐ Place text manually ☐ Draw dim line between ext lines OK Cancel Help
Modify Dimension Style: AEC_Civil_Arrow Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances Linear dimensions Unit format: Decimal Precision: 0.00 Fraction format: Horizontal Decimal separator: . (Period) Round off: 0.00 Prefix: Suffix: Measurement scale Scale factor: 1.00 ☐ Apply to layout dimensions only Zero suppression ☐ Leading ☐ Trailing Sub-units factor: 100.00 Sub-unit suffix: ☐ 0 feet ☐ 0 inches Angular dimensions Units format: Decimal Degrees Precision: 0 ☐ Leading ☐ Trailing OK Cancel Help	Modify Dimension Style: AEC_Civil_Arrow Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances Display alternate units ☐ Alternate units Unit format: Decimal Precision: 0.00 Multiplier for alt units: 25.40 Round distances to: 0.00 Prefix: Suffix: Zero suppression ☐ Leading ☐ Trailing Sub-units factor: ☒ 0 feet ☒ 0 inches Sub-units suffix: Placement ☒ After primary value ☐ Below primary value OK Cancel Help

AEC_Civil_Slash

Modify Dimension Style: AEC_Civil_Slash

Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances

Dimension lines

Color: ☐ ByLayer

Linetype: ☐ ByLayer

Lineweight: ☐ Default

Extend beyond ticks: 0.00

Baseline spacing: 0.375

Suppress: ☐ Dim line 1 ☐ Dim line 2

Extension lines

Color: ☐ ByLayer

Linetype ext line 1: ☐ ByLayer

Linetype ext line 2: ☐ ByLayer

Lineweight: ☐ Default

Suppress: ☐ Ext line 1 ☐ Ext line 2

Extend beyond dim lines: 0.05

Offset from origin: 0.05

☐ Fixed length extension lines

Length: 1.00

OK Cancel Help

Modify Dimension Style: AEC_Civil_Slash

Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances

Arrowheads

First: ☒ Architectural tick

Second: ☒ Architectural tick

Leader: ☒ Closed filled

Arrow size: 0.10

Center marks

☒ None

☐ Mark

☐ Line

0.00

Dimension Break

Break size: 0.0469

Arc length symbol

☒ Preceding dimension text

☐ Above dimension text

☐ None

Radius jog dimension

Jog angle: 45.00

Linear jog dimension

Jog height factor: 1.50 * Text height

OK Cancel Help

Modify Dimension Style: AEC_Civil_Slash

Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances

Text appearance

Text style: Arial

Text color: ☐ ByLayer

Fill color: ☐ None

Text height: 0.10

Fraction height scale: 1.00

☐ Draw frame around text

Text placement

Vertical: Above

Horizontal: Centered

View Direction: Left-to-Right

Offset from dim line: 0.05

Text alignment

☐ Horizontal

☒ Aligned with dimension line

☐ ISO standard

OK Cancel Help

Modify Dimension Style: AEC_Civil_Slash

Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances

Fit options

If there isn't enough room to place both text and arrows inside extension lines, the first thing to move outside the extension lines is:

☒ Either text or arrows (best fit)

☐ Arrows

☐ Text

☐ Both text and arrows

☐ Always keep text between ext lines

☐ Suppress arrows if they don't fit inside extension lines

Scale for dimension features

☒ Annotative

☐ Scale dimensions to layout

☒ Use overall scale of: 1.00

Text placement

When text is not in the default position, place it:

☐ Beside the dimension line

☒ Over dimension line, with leader

☐ Over dimension line, without leader

Fine tuning

☐ Place text manually

☐ Draw dim line between ext lines

OK Cancel Help

Modify Dimension Style: AEC_Civil_Slash

Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances

Linear dimensions

Unit format: Decimal

Precision: 0.00

Fraction format: Not Stacked

Decimal separator: . (Period)

Round off: 0.00

Prefix:

Suffix:

Measurement scale

Scale factor: 1.00

☐ Apply to layout dimensions only

Zero suppression

☐ Leading ☐ Trailing

Sub-units factor: 100.00

☐ 0 feet ☐ 0 inches

Sub-unit suffix:

Angular dimensions

Units format: Decimal Degrees

Precision: 0

Zero suppression

☐ Leading ☐ Trailing

OK Cancel Help

Modify Dimension Style: AEC_Civil_Slash

Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances

☐ Display alternate units

Alternate units

Unit format: Decimal

Precision: 0.00

Multiplier for alt units: 25.40

Round distances to: 0.00

Prefix:

Suffix:

Zero suppression

☐ Leading ☐ Trailing

Sub-units factor: 100.00

☒ 0 feet ☒ 0 inches

Sub-units suffix:

Placement

☒ After primary value

☐ Below primary value

OK Cancel Help

The tables below show the Dimension Styles in the USACE Metric Templates:

METRIC DIMENSION STYLES (2)	
AEC_Civil_Arrow	
Modify Dimension Style: AEC_Civil_Arrow Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances Dimension lines Color: ☐ ByLayer Linetype: ☐ ByLayer Lineweight: ☐ Default Extend beyond ticks: 0.00 Baseline spacing: 7.00 Suppress: ☐ Dim line 1 ☐ Dim line 2 Extension lines Color: ☐ ByLayer Linetype ext line 1: ☐ ByLayer Linetype ext line 2: ☐ ByLayer Lineweight: ☐ Default Suppress: ☐ Ext line 1 ☐ Ext line 2 Extend beyond dim lines: 1.20 Offset from origin: 1.20 ☐ Fixed length extension lines Length: 1.00 OK Cancel Help	Modify Dimension Style: AEC_Civil_Arrow Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances Arrowheads First: ☐ Closed filled Second: ☐ Closed filled Leader: ☐ Closed filled Arrow size: 3.00 Center marks ☒ None ☐ Mark 0.00 ☐ Line Dimension Break Break size: 3.75 Arc length symbol ☒ Preceding dimension text ☐ Above dimension text ☐ None Radius jog dimension Jog angle: 45.000 Linear jog dimension Jog height factor: 1.55 * Text height OK Cancel Help
Modify Dimension Style: AEC_Civil_Arrow Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances Text appearance Text style: Arial Text color: ☐ ByLayer Fill color: ☐ None Text height: 3.00 Fraction height scale: 1.00 ☐ Draw frame around text Text placement Vertical: ☐ Above Horizontal: ☐ Centered View Direction: ☐ Left-to-Right Offset from dim line: 1.10 Text alignment ☐ Horizontal ☐ Aligned with dimension line ☒ ISO standard OK Cancel Help	Modify Dimension Style: AEC_Civil_Arrow Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances Fit options If there isn't enough room to place both text and arrows inside extension lines, the first thing to move outside the extension lines is: ☒ Either text or arrows (best fit) ☐ Arrows ☐ Text ☐ Both text and arrows ☐ Always keep text between ext lines ☐ Suppress arrows if they don't fit inside extension lines Text placement When text is not in the default position, place it: ☒ Beside the dimension line ☐ Over dimension line, with leader ☐ Over dimension line, without leader Scale for dimension features ☒ Annotative ☐ Scale dimensions to layout ☐ Use overall scale of: 0.00 Fine tuning ☐ Place text manually ☐ Draw dim line between ext lines OK Cancel Help
Modify Dimension Style: AEC_Civil_Arrow Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances Linear dimensions Unit format: Decimal Precision: 0.0000 Fraction format: Horizontal Decimal separator: . (Period) Round off: 0.00 Prefix: Suffix: m Measurement scale Scale factor: 1.00 ☐ Apply to layout dimensions only Zero suppression ☐ Leading ☐ Trailing Sub-units factor: 100.00 ☐ 0 feet ☐ 0 inches Sub-unit suffix: Angular dimensions Units format: Decimal Degrees Precision: 0 Zero suppression ☐ Leading ☐ Trailing OK Cancel Help	Modify Dimension Style: AEC_Civil_Arrow Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances ☐ Display alternate units Alternate units Unit format: Decimal Precision: 0.00 Multiplier for all units: 25.40 Round distances to: 0.00 Prefix: Suffix: Zero suppression ☐ Leading ☐ Trailing Sub-units factor: 100.00 ☒ 0 feet ☒ 0 inches Sub-units suffix: Placement ☒ After primary value ☐ Below primary value OK Cancel Help

AEC_Civil_Slash

Modify Dimension Style: AEC_Civil_Slash

Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances

Dimension lines

Color: ☐ ByLayer

Linetype: ☐ ByLayer

Lineweight: ☐ Default

Extend beyond ticks: 0.00

Baseline spacing: 7.00

Suppress: ☐ Dim line 1 ☐ Dim line 2

Extension lines

Color: ☐ ByLayer

Linetype ext line 1: ☐ ByLayer

Linetype ext line 2: ☐ ByLayer

Lineweight: ☐ Default

Suppress: ☐ Ext line 1 ☐ Ext line 2

Extend beyond dim lines: 0.18

Offset from origin: 0.0625

☐ Fixed length extension lines

Length: 1.00

OK Cancel Help

Modify Dimension Style: AEC_Civil_Slash

Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances

Arrowheads

First: ☒ Architectural tick

Second: ☒ Architectural tick

Leader: ☒ Closed filled

Arrow size: 3.00

Center marks

☒ None

☐ Mark

☐ Line

0.00

Dimension Break

Break size: 3.75

Arc length symbol

☒ Preceding dimension text

☐ Above dimension text

☐ None

Radius jog dimension

Jog angle: 45.000

Linear jog dimension

Jog height factor: 1.50 * Text height

OK Cancel Help

Modify Dimension Style: AEC_Civil_Slash

Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances

Text appearance

Text style: Arial

Text color: ☐ ByLayer

Fill color: ☐ None

Text height: 3.00

Fraction height scale: 1.00

☐ Draw frame around text

Text placement

Vertical: Above

Horizontal: Centered

View Direction: Left-to-Right

Offset from dim line: 1.10

Text alignment

☐ Horizontal

☐ Aligned with dimension line

☒ ISO standard

OK Cancel Help

Modify Dimension Style: AEC_Civil_Slash

Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances

Fit options

If there isn't enough room to place both text and arrows inside extension lines, the first thing to move outside the extension lines is:

☒ Either text or arrows (best fit)

☐ Arrows

☐ Text

☐ Both text and arrows

☐ Always keep text between ext lines

☐ Suppress arrows if they don't fit inside extension lines

Scale for dimension features

☒ Annotative

☐ Scale dimensions to layout

☐ Use overall scale of: 1.00

Text placement

When text is not in the default position, place it:

☐ Beside the dimension line

☒ Over dimension line, with leader

☐ Over dimension line, without leader

Fine tuning

☐ Place text manually

☐ Draw dim line between ext lines

OK Cancel Help

Modify Dimension Style: AEC_Civil_Slash

Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances

Linear dimensions

Unit format: Decimal

Precision: 0.00

Fraction format: Not Stacked

Decimal separator: . (Period)

Round off: 0.00

Prefix:

Suffix: m

Measurement scale

Scale factor: 1.00

☐ Apply to layout dimensions only

Zero suppression

☐ Leading

☐ Trailing

Sub-units factor: 100.00

☐ 0 feet

☐ 0 inches

Sub-unit suffix:

Angular dimensions

Units format: Decimal Degrees

Precision: 0

Zero suppression

☐ Leading

☐ Trailing

OK Cancel Help

Modify Dimension Style: AEC_Civil_Slash

Lines Symbols and Arrows Text Fit Primary Units Alternate Units Tolerances

☐ Display alternate units

Alternate units

Unit format: Decimal

Precision: 0.00

Multiplier for alt units: 25.40

Round distances to: 0.00

Prefix:

Suffix:

Zero suppression

☐ Leading

☐ Trailing

Sub-units factor: 100.00

☒ 0 feet

☒ 0 inches

Sub-units suffix:

Placement

☒ After primary value

☐ Below primary value

OK Cancel Help

6 LINETYPES

The USACE standards contain two (2) Linetype files that contain the line patterns to be used in the Imperial and Metric templates above. These files are:

- AEC_C3D_Linetypes_5.0.lin
- AEC_C3D_Linetypes_5.0_ISO.lin

The linetypes in these files will resize themselves based on the Model Space and/or Viewport Scales. All of the linetypes that display a text element use the “Arial” Text Style listed above in Section 3 of this document with a Text Size of 0.1” or 3mm, respectively.

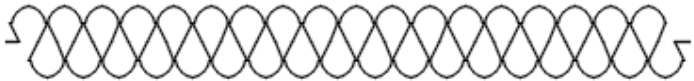
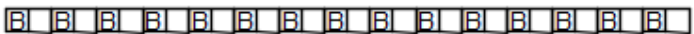
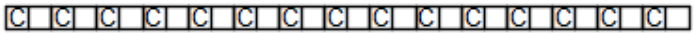
These Linetype files are accompanied by additional files which carry shape definitions for some of the more complex linetypes. These files are all stored under a folder called “Support Files” in the USACE Standards folder structure. They include:

- AEC_LT_Shapes.shx
- AEC_LT_Shapes.shp
- AeccLand.shx
- AeccLand.shp
- Tsaec.shx
- USACE.shx
- USACE.shp

To ensure that the linetypes load correctly, the path to the “Support Files” folder mentioned above has been added to the “Support File Search Paths” in the Options dialog in Civil 3D for all Profiles.

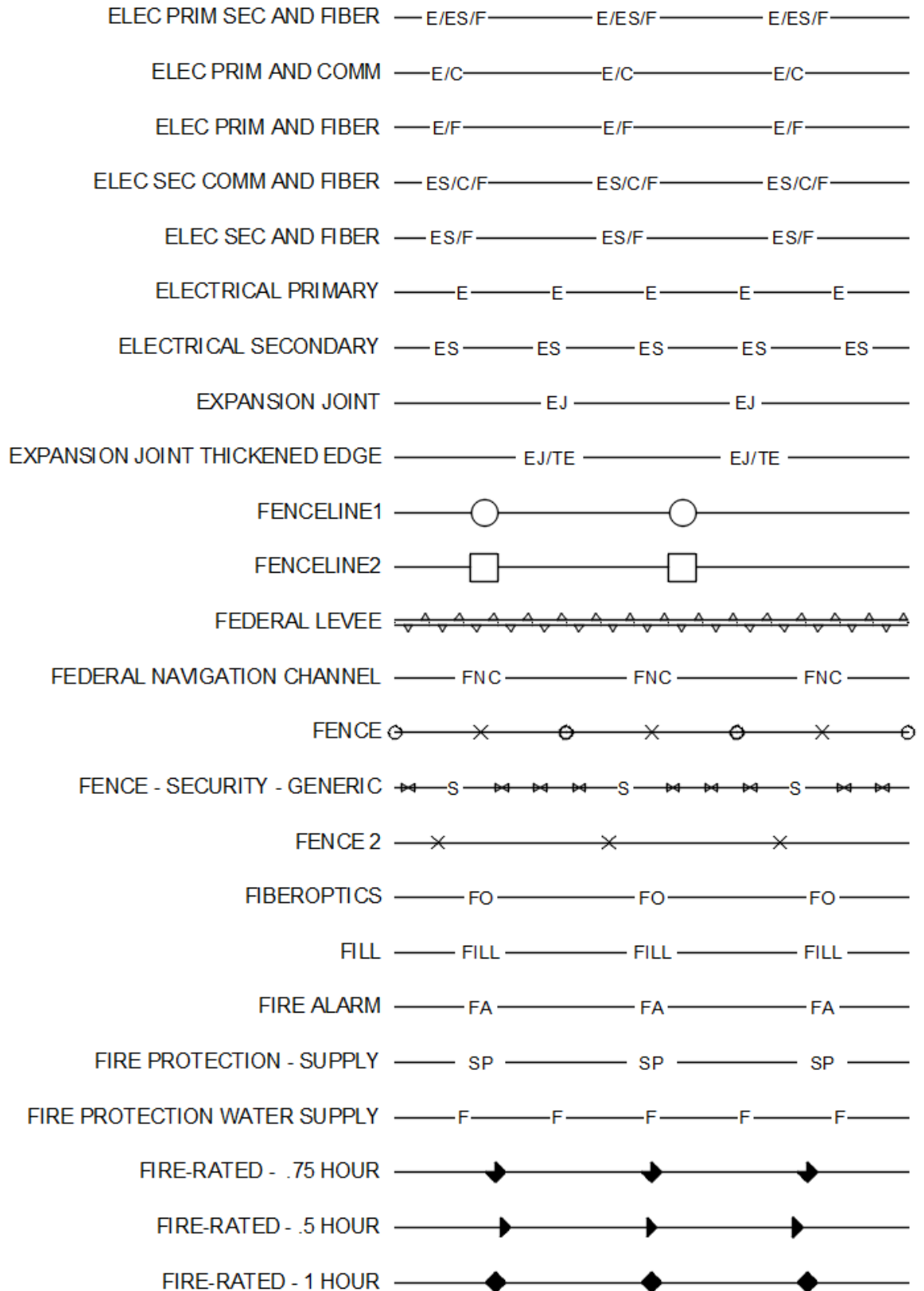
Illustrations of the USACE Standard Linetypes are shown below:

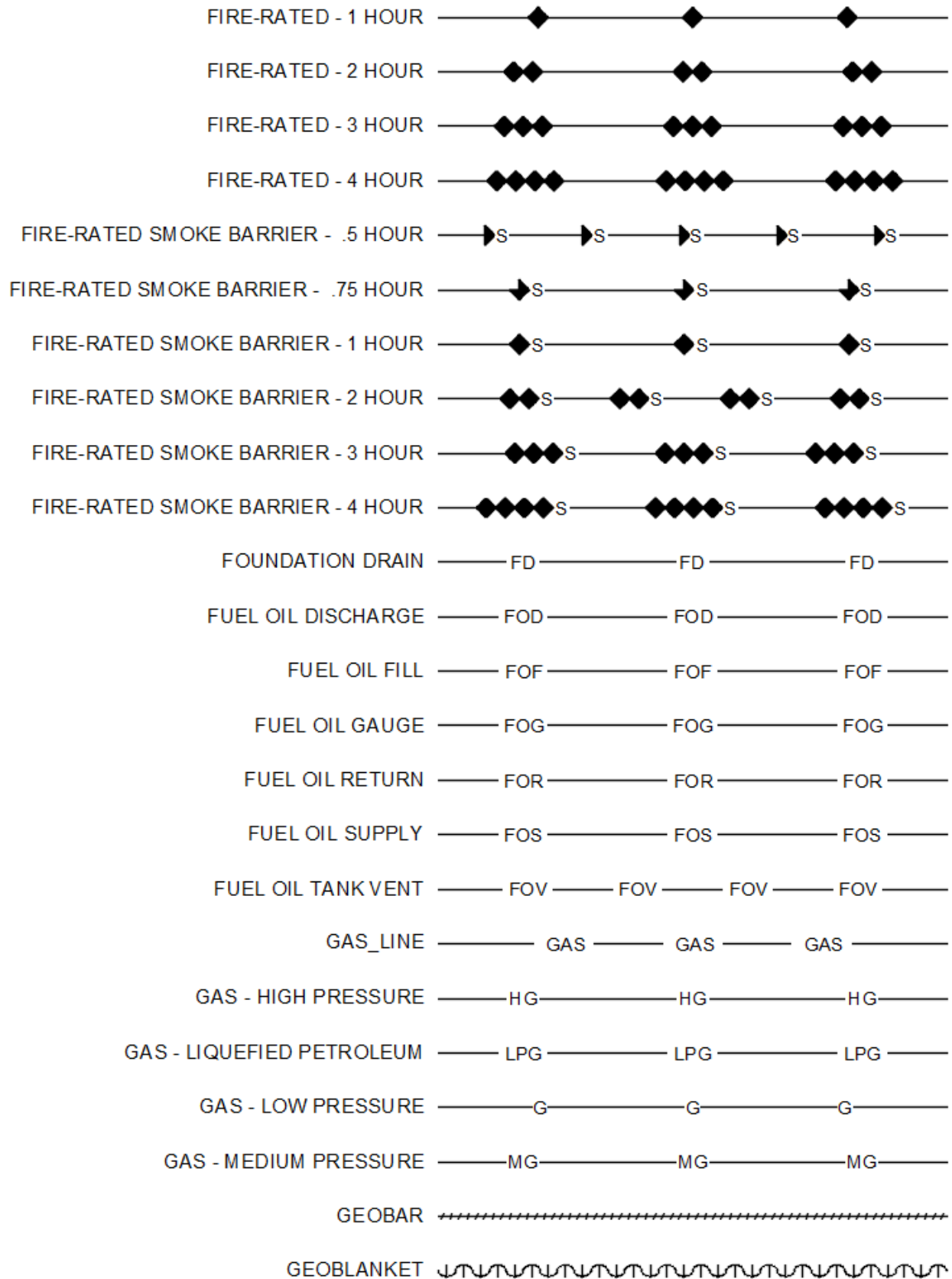
2-PHASE PRIMARY	———	2ØP	———	2ØP	———	2ØP	———	2ØP	———
2-PHASE SECONDARY	———	2ØS	———	2ØS	———	2ØS	———	2ØS	———
3-PHASE PRIMARY	———	3ØP	———	3ØP	———	3ØP	———	3ØP	———
3-PHASE SECONDARY	———	3ØS	———	3ØS	———	3ØS	———	3ØS	———
ACAD_ISO02W100	——	———	———	———	———	———	——		
ACAD_ISO03W100	———			———			———		
ACAD_ISO04W100	———	.	———	.	———	.	———		
ACAD_ISO05W100	———	...	———	...	———	...	———		
ACAD_ISO06W100	———	...	———	...	———	...	———		
ACAD_ISO07W100	.		.		.		.		
ACAD_ISO08W100	———	——	———	——	———	——	———		
ACAD_ISO09W100	———	——	——	——	———	——	———		
ACAD_ISO10W100	——	.	———	.	———	.	———	.	——
ACAD_ISO11W100	———	———	.	———	———	.	———	.	———
ACAD_ISO12W100	———	.	———	...	———	...	———	.	———
ACAD_ISO13W100	——	———	.	———	———	.	———	.	——
ACAD_ISO14W100	——	...	———	...	———	...	———	...	——
ACAD_ISO15W100	———	———	.	...	———	.	———		
AIR - COMPRESSED	———	A	———	A	———	A	———		
AIR RELIEF	———	ATV	———	ATV	———	ATV	———		
ARGON	———	AR	———	AR	———	AR	———		
AUDIO - AES DIGITAL	———	AES	———	AES	———	AES	———		
AUDIO - ANALOG	———	AUD	———	AUD	———	AUD	———		
AUDIO - DIGITAL	———	DGA	———	DGA	———	DGA	———		

AUDIO - MICROPHONE	— MIC — MIC — MIC —
BATTING	
BORDER	— — — — —
BORDER2	- - - - -
BORDERX2	— — — — —
BANK - LEFT	
BANK - RIGHT	
BARRIER - SECURITY - MASONRY	 M  M  M
BERM	
BOILER BLOW DOWN	— BBD — BBD — BBD —
BOILER FEED WATER	— BFW — BFW — BFW —
BREAK LINE	
BRINE - RETURN	— BR — BR — BR —
BRINE - SUPPLY	— BS — BS — BS —
BUSWAY	
CENTER	— — — — —
CENTER2	- - - - -
CENTERX2	— — — — —
CABLE LADDER	
CABLE TV	— CATV — CATV — CATV —
CENTER LINE	- - - - -
CHEMICAL - SUPPLY	— CS — CS — CS —
CHILLED WATER - RETURN	— CHWR — CHWR — CHWR — CHWR —
CHILLED WATER - SUPPLY	— CHWS — CHWS — CHWS — CHWS —

CLOSED CIRCUIT TV	—	CCTV	—	CCTV	—	CCTV	—
COMM AND FIBER	—	C/F	—	C/F	—	C/F	—
COMMUNICATION	—	COMM	—	COMM	—	COMM	—
COMPOST FILTER SOCK	—	CFS	—	CFS	—	CFS	—
CONDENSATE - DRAIN	—	CD	—	CD	—	CD	—
CONDENSATE FLOW	—	C	—	C	—	C	—
CONDENSER WATER - RETURN	—	CWR	—	CWR	—	CWR	—
CONDENSER WATER - SUPPLY	—	CWS	—	CWS	—	CWS	—
CONDUIT - FLEXIBLE							
CONDUIT - RIGID	—	RC	—	RC	—	RC	—
CONSTRUCTION CONTRACT LIMIT	—	••	—	••	—	••	—
CONSTRUCTION EASEMENT	—	C/E	—	C/E	—	C/E	—
CONSTRUCTION JOINT	—	CJ	—	CJ	—		—
CONTROL	—	CTRL	—	CTRL	—	CTRL	—
COOLING TOWER WATER - RETURN	—	CTWR	—	CTWR	—	CTWR	—
COOLING TOWER WATER - SUPPLY	—	CTWS	—	CTWS	—	CTWS	—
CULVERT	—	CP	—	CP	—	CP	—
CULVERT PROFILE							
DASHDOT	—	·	—	·	—	·	—
DASHDOT2	—	·	—	·	—	·	—
DASHDOTX2	—		·		—		—
DASHED	—	—	—	—	—	—	—
DASHED2	—	—	—	—	—	—	—
DASHEDX2	—		—		—		—

DIVIDE	— . . . — . . . — . . . — . . . —
DIVIDE2	— . . . — . . . — . . . — . . . — . . . — . . . —
DIVIDEX2	— — — — — —
DOT	
DOT2	
DOTX2	
DATA IP	— IP — IP — IP —
DEMOLITION LINE	- - - - -
DIESEL GAS	— DIESEL — DIESEL —
DIRECT CURRENT	— DC — DC — DC —
DITCH	— ○ ○ ○ — ○ ○ ○ — ○ ○ ○ — ○ ○ ○ —
DITCH BARRIER	
DITCH AND BERM BARRIER	
DOMESTIC WATER - COLD	— DCW — DCW — DCW —
DOMESTIC WATER - HOT - RETURN	— DHWR — DHWR — DHWR —
DOMESTIC WATER - HOT - SUPPLY	— DHW — DHW — DHW —
DRAIN	— D — D — D —
DRAIN - INDIRECT	— IW — IW — IW —
DRAIN - STORM	— SD — SD — SD —
DUAL TEMPERATURE - RETURN	— H/C R — H/C R —
DUAL TEMPERATURE - SUPPLY	— H/C S — H/C S —
DUCT BANK	- [] - [] - [] -
ELEC PRIM COMM AND FIBER	— E/C/F — E/C/F — E/C/F —
ELEC PRIM SEC AND COMM	— E/ES/C — E/ES/C — E/ES/C —



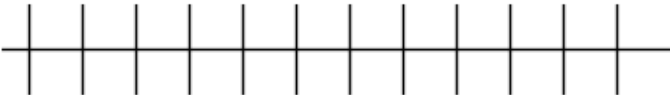
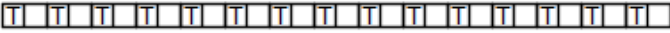


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HIDDEN LINE	----	----	----	----
HOT WATER - HIGH TEMPERATURE - RETURN	HTWR	HTWR	HTWR	HTWR
HOT WATER - HIGH TEMPERATURE - SUPPLY	HTWS	HTWS	HTWS	HTWS
HOT WATER - LOW TEMPERATURE - RETURN	HWR	HWR	HWR	HWR
HOT WATER - LOW TEMPERATURE - SUPPLY	HWS	HWS	HWS	HWS
HOT WATER - MEDIUM TEMPERATURE - RETURN	MTWR	MTWR	MTWR	MTWR
HOT WATER - MEDIUM TEMPERATURE - SUPPLY	MTWS	MTWS	MTWS	MTWS
HUMIDIFICATION	H	H	H	H
HYDROGEN	HYD	HYD	HYD	HYD
INDUSTRIAL COLD WATER	ICW	ICW	ICW	ICW
INDUSTRIAL HOT WATER - RETURN	IHR	IHR	IHR	IHR
INDUSTRIAL HOT WATER - SUPPLY	IWS	IWS	IWS	IWS
INDUSTRIAL WASTE	INW	INW	INW	INW
INTERCOM	I	I	I	I
JET FUEL	JF	JF	JF	JF
JET PETROLEUM	JP	JP	JP	JP
JET PETROLEUM -A	JET-A	JET-A	JET-A	JET-A
LAWN SPRINKLER	LS	LS	LS	LS
LIMITED WORK LIMITS	LWL	LWL	LWL	LWL
LIQUID NITROGEN	LN	LN	LN	LN
LIQUID OXYGEN	LOX	LOX	LOX	LOX
LONGITUDINAL CONTRACTION JOINT	LCJ	LCJ	LCJ	LCJ
MEAN HIGH HIGH WATER	MHHW	MHHW	MHHW	MHHW
MEAN HIGH WATER	MHW	MHW	MHW	MHW

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SPEAKER	SPKR	SPKR	SPKR
STANDPIPE - COMBINATION	CSP	CSP	CSP
STANDPIPE - DRY	DSP	DSP	DSP
STANDPIPE - WET	WSP	WSP	WSP
STEAM - HIGH PRESSURE	HPS	HPS	HPS
STEAM - LOW PRESSURE	LPS	LPS	LPS
STEAM - MEDIUM PRESSURE	MPS	MPS	MPS
STEAM CONDENSATE - HIGH PRESSURE	HPC	HPC	HPC
STEAM CONDENSATE - LOW PRESSURE	LPC	LPC	LPC
STEAM CONDENSATE - MEDIUM PRESSURE	MPC	MPC	MPC
STORM DRAIN	ST	ST	ST
SUB DRAIN			
SUPER SILT FENCE	SSF	SSF	SSF
TRACKS			
TELEPHONE	T	T	T
TIED JOINT	TJ	TJ	
TRANSVERSE CONTRACTION JOINT	TCJ	TCJ	
TREELINE_L			
TREELINE_R			
TROLLEY DUCT			
UG COMM AND FIBER	C/F	C/F	C/F
UG COMMUNICATION	COMM	COMM	COMM
UG ELEC PRIM COMM AND FIBER	E/C/F	E/C/F	E/C/F
UG ELEC PRIM SEC AND COMM	E/ES/C	E/ES/C	E/ES/C

UG ELEC PRIM SEC AND FIBER - - - E/ES/F- - - - - E/ES/F- - - - - E/ES/F- - - -

UG ELEC PRIM AND COMM - - - E/C- - - - - E/C- - - - - E/C- - - -

UG ELEC PRIM AND COMM - - - E/C- - - - - E/C- - - - - E/C- - - -

UG ELEC PRIM AND FIBER - - - E/F- - - - - E/F- - - - - E/F- - - -

UG ELEC SEC COMM AND FIBER - - - ES/C/F- - - - - ES/C/F- - - - - ES/C/F- - - -

UG ELEC SEC AND COMM - - - ES/C- - - - - ES/C- - - - - ES/C- - - -

UG ELEC SEC AND FIBER - - - ES/F- - - - - ES/F- - - - - ES/F- - - -

UG ELECTRICAL PRIMARY - - - E- - - E- - - E- - - E- - - E- - - E- - -

UG ELECTRICAL SECONDARY - - - ES- - - ES- - - ES- - - ES- - - ES- - - ES- - -

UG GROUND SYSTEM CIRCUITS - - - GND- - - - - GND- - - - - GND- - - -

UNDERGROUND POWER - - - UGP - - - - - UGP - - - - -

UNLEADED GAS - - - MOGAS - - - - - MOGAS - - - - -

UTILITY CONDUIT - - - CO- - - - - CO- - - - - CO- - - - -

VACUUM - AIR - - - VAC - - - - - VAC - - - - - VAC - - - - -

VACUUM - CLEANING - - - VC- - - - - VC- - - - - VC- - - - -

VACUUM PUMP DISCHARGE - - - VPD - - - - - VPD - - - - - VPD - - - - -

VENT - - - V- - - - - V- - - - - V- - - - -

VENT - ACID - - - AV - - - - - AV - - - - - AV - - - - -

VIDEO - ASI DIGITAL - - - ASI - - - - - ASI - - - - - ASI - - - - -

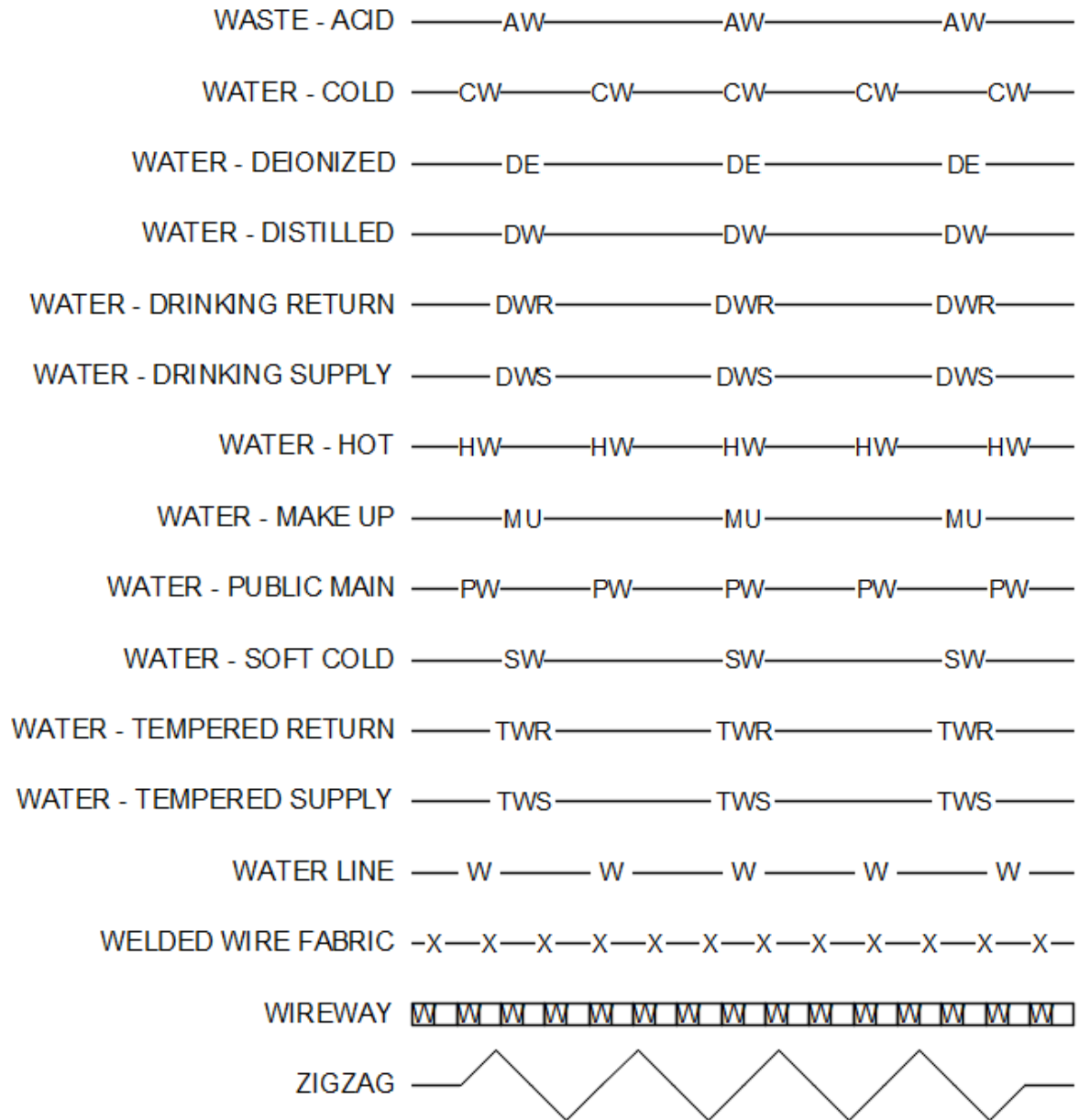
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VIDEO - SDI DIGITAL - - - SDI - - - - - SDI - - - - - SDI - - - - -

VIDEO - SYNCRONIZED - - - SYNC - - - - - SYNC - - - - - SYNC - - - - -

WASTE & VENT COMBINATION - - - SV - - - - - SV - - - - - SV - - - - -



Note: The Linetype “BATTING” uses an older method of creating lines. The current preferred method is inserting the dynamic block called “BATTING” from the “USACE Blocks – Imperial.dwg” or the “USACE Blocks – Metric.dwg” block library files. This is a dynamic block that allows the length to be set easily.

7 AUTOCAD LAYERS

The tables below list the USACE Standard layers and some of their properties.

7.1 Architectural

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
A-ANNO-NPLT	No	0,0,255	blue	Continuous	0.09mm	Annotation Text - No Plot
A-ANNO-SYMB	Yes	magenta	magenta	Continuous	0.35mm	Miscellaneous symbols
A-ANNO-TEXT	Yes	255,255,0	yellow	Continuous	0.09mm	General Annotation Text
A-AREA-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Room numbers, tenant identifications, area calculations
A-AREA-LINE	Yes	0,255,255	cyan	Continuous	0.50mm	Architectural area calculation boundary lines
A-AREA-OCCP	Yes	210,210,0	52	Continuous	0.35mm	Occupant or employee names
A-AREA-PATT	Yes	128,128,128	8	Continuous	0.18mm	Area cross hatching
A-BARR-AIR~	Yes	0,0,255	blue	Continuous	0.25mm	Air barrier
A-CLNG-ACCS	Yes	255,0,255	magenta	Continuous	0.35mm	Access panels
A-CLNG-CTLJ	Yes	210,210,0	52	Continuous	0.35mm	Ceiling control joints
A-CLNG-GRID	Yes	255,0,0	red	Continuous	0.25mm	Ceiling grid
A-CLNG-LITE	Yes	0,255,255	cyan	Continuous	0.50mm	Specialty ceiling lights not shown on the Electrical Lighting Plan
A-CLNG-OPNG	Yes	128,128,128	8	Continuous	0.18mm	Openings, ceiling/roof penetrations (see also A-FLOR-OVHD in Floor Plan model file)
A-CLNG-PATT	Yes	128,128,128	8	Continuous	0.18mm	Ceiling patterns
A-CLNG-SFFT	Yes	210,210,0	52	Continuous	0.25mm	Soffits
A-CLNG-SUSP	Yes	0,0,255	blue	Continuous	0.18mm	Suspended elements, ceiling mounted specialties (e.g., clocks, fans, etc.)
A-CLNG-TEES	Yes	0,0,255	blue	Continuous	0.18mm	Main tees
A-COLS-ENCL	Yes	0,255,255	cyan	Continuous	0.50mm	Column enclosures/fire protection
A-DETL-GRPH	Yes	white	white	Continuous	0.35mm	Graphics, gridlines, non-text items
A-DOOR-FULL	Yes	0,255,0	green	Continuous	0.25mm	Full height (to ceiling) door: swing and leaf
A-DOOR-IDEN	Yes	0,255,0	green	Continuous	0.25mm	Door number and symbol, hardware group, etc.
A-DOOR-PRHT	Yes	255,0,255	magenta	Continuous	0.35mm	Partial height door: swing and leaf
A-DOOR-SYMB	Yes	255,0,0	red	Continuous	0.25mm	Miscellaneous door symbols (e.g., overhead, bifold, pocket, etc.)
A-ELEV-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Component identification numbers
A-ELEV-OTLN	Yes	0,255,255	cyan	Continuous	0.50mm	Outlines
A-ELEV-PATT	Yes	128,128,128	8	Continuous	0.18mm	Textures and hatch patterns
A-EQPM-ACCS	Yes	255,0,255	magenta	Continuous	0.35mm	Equipment access
A-EQPM-FIXD	Yes	0,255,255	cyan	Continuous	0.50mm	Fixed equipment

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
A-EQPM-IDEN	Yes	255,0,255	magenta	Continuous	0.35mm	Equipment identification numbers
A-EQPM-MOVE	Yes	255,0,255	magenta	Continuous	0.35mm	Moveable equipment
A-EQPM-OVHD	Yes	255,0,255	magenta	Continuous	0.35mm	Overhead, ceiling mounted, or suspended equipment
A-FLOR-CSWK	Yes	0,255,0	green	Continuous	0.25mm	Casework (manufactured cabinets)
A-FLOR-EVTR	Yes	210,210,0	52	Continuous	0.35mm	Elevator cars and equipment
A-FLOR-FIXT	Yes	223,127,255	201	Continuous	0.25mm	Plumbing fixtures
A-FLOR-FTPT	Yes	0,255,255	cyan	Continuous	0.70mm	Floor/building footprint
A-FLOR-HRAL	Yes	255,0,0	red	Continuous	0.25mm	Stair and balcony handrails, guard rails
A-FLOR-IDEN	Yes	0,255,0	green	Continuous	0.35mm	Room name, space identification text
A-FLOR-LEVL	Yes	255,0,255	magenta	Continuous	0.35mm	Level changes, shafts, ramps, pits, breaks in construction, and depressions
A-FLOR-NUMB	Yes	0,255,0	green	Continuous	0.35mm	Room/space identification number and symbol
A-FLOR-OVHD	Yes	128,128,128	8	MS2 Medium Dash	0.18mm	Overhead items (overhangs, etc.)
A-FLOR-PATT	Yes	128,128,128	8	Continuous	0.18mm	Paving, tile, carpet patterns
A-FLOR-PERI	Yes	210,210,0	52	Continuous	0.35mm	Room perimeter shape (interior walls)
A-FLOR-RAIS	Yes	210,210,0	52	Continuous	0.25mm	Access (raised) flooring
A-FLOR-SIGN	Yes	255,0,0	red	Continuous	0.25mm	Signage
A-FLOR-SPCL	Yes	0,255,0	green	Continuous	0.25mm	Architectural specialties (e.g., toilet room accessories, display cases)
A-FLOR-STRS	Yes	255,0,0	red	Continuous	0.25mm	Stair risers/treads, escalators, ladders
A-FLOR-TPTN	Yes	255,0,0	red	Continuous	0.25mm	Toilet partitions
A-FLOR-WDWK	Yes	0,255,0	green	Continuous	0.25mm	Architectural woodwork (field built cabinets and counters)
A-GLAZ-FULL	Yes	255,0,0	red	Continuous	0.25mm	Full height glazed walls and partitions (see A-WALL-CURT for curtain walls)
A-GLAZ-IDEN	Yes	0,255,0	green	Continuous	0.35mm	Window number and symbol
A-GLAZ-PRHT	Yes	255,0,0	red	Continuous	0.25mm	Windows and partial height glazed partitions
A-GLAZ-SILL	Yes	0,0,255	blue	Continuous	0.18mm	Window sills
A-ROOF-CRKT	Yes	255,0,0	red	Continuous	0.25mm	Crickets flow arrows flow info
A-ROOF-DRNS	Yes	255,0,0	red	Continuous	0.25mm	Roof drains
A-ROOF-EXPJ	Yes	0,0,255	blue	Continuous	0.18mm	Expansion joints
A-ROOF-GUTR	Yes	128,128,128	8	Continuous	0.18mm	Roof internal gutters
A-ROOF-HRAL	Yes	0,0,255	blue	Continuous	0.18mm	Stair handrails, nosings, guard rails
A-ROOF-LEVL	Yes	0,0,255	blue	Continuous	0.18mm	Level changes
A-ROOF-OTLN	Yes	255,0,255	magenta	Continuous	0.35mm	Roof perimeter/edge, roof geometry
A-ROOF-PATT	Yes	128,128,128	8	Continuous	0.18mm	Roof surface patterns, hatching

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
A-ROOF-PRPT	Yes	210,210,0	52	Continuous	0.35mm	Parapet walls and wall caps
A-ROOF-SKLT	Yes	128,128,128	8	MS2 Medium Dash	0.18mm	Skylights
A-ROOF-SPCL	Yes	0,255,0	green	Continuous	0.25mm	Roof specialties, accessories, access hatches, dormers
A-ROOF-STRS	Yes	0,0,255	blue	Continuous	0.18mm	Stair risers/treads, ladders
A-ROOF-WALK	Yes	0,255,0	green	Continuous	0.25mm	Roof walkways
A-SECT-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Component identification numbers
A-SECT-MBND	Yes	0,0,255	blue	Continuous	0.18mm	Material beyond section cut
A-SECT-MCUT	Yes	white	white	Continuous	0.35mm	Material cut by section
A-SECT-PATT	Yes	128,128,128	8	Continuous	0.18mm	Textures and hatch patterns
A-WALL-CAVI	Yes	128,128,128	8	Continuous	0.18mm	Cavity wall lines
A-WALL-CNTR	Yes	0,0,255	blue	CENTER2	0.25mm	Wall centerlines
A-WALL-CURT	Yes	255,0,0	red	Continuous	0.25mm	Curtain wall mullions and glass
A-WALL-FIRE	Yes	210,210,0	52	Continuous	0.35mm	Fire wall designators (patterning)
A-WALL-FULL-EXTR	Yes	210,210,0	52	Continuous	0.35mm	Exterior full height walls
A-WALL-FULL-INTR	Yes	0,255,0	green	Continuous	0.25mm	Interior full height walls
A-WALL-HEAD	Yes	255,0,0	red	Continuous	0.25mm	Door and window headers
A-WALL-IDEN	Yes	0,255,0	green	Continuous	0.35mm	Wall identification/type text or tags
A-WALL-JAMB	Yes	255,0,0	red	Continuous	0.25mm	Door and window jambs
A-WALL-MESH	Yes	0,0,255	blue	Continuous	0.18mm	Mesh or wire wall
A-WALL-MOVE	Yes	0,0,255	blue	Continuous	0.18mm	Moveable walls/partitions
A-WALL-OPNG-LVRS	Yes	255,0,0	red	Continuous	0.25mm	Louvers
A-WALL-PATT	Yes	128,128,128	8	Continuous	0.18mm	Wall insulation, hatching, and fill
A-WALL-PRHT	Yes	255,0,0	red	Continuous	0.25mm	Partial height walls (do not appear on Reflected Ceiling Plan)
A-WALL-SPCL	Yes	255,0,0	red	Continuous	0.25mm	Wall-hung/attached specialties (e.g., fixtures, grab bars (incl. handicap), telephone booths)

7.2 Geotechnical

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
B-BLDG-FTPT	Yes	white	white	Continuous	0.50mm	Building footprints
B-BLDG-IDEN	Yes	210,210,0	52	Continuous	0.25mm	Building and other structure annotation
B-BORE-CONE	Yes	0,41,165	172	Continuous	0.35mm	Cone penetrometer test location
B-BORE-HOLE	Yes	0,41,165	172	Continuous	0.35mm	Geophysical boring locations
B-BORE-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Geophysical location identification
B-BORE-LINE	Yes	0,255,255	cyan	Continuous	0.50mm	Geophysical transect lines
B-BORE-PUSH	Yes	0,41,165	172	Continuous	0.35mm	Direct push test location
B-BORE-STRK	Yes	0,41,165	172	Continuous	0.35mm	Geophysical strike line
B-CONS-DATA	Yes	255,0,255	magenta	Continuous	0.25mm	Consolidation curve data
B-CONS-DATA-TEXT	Yes	255,0,255	magenta	Continuous	0.25mm	Consolidation curve data text
B-CONS-FRAM	Yes	0,255,255	cyan	Continuous	0.50mm	Consolidation curve frame
B-CONS-GRID	Yes	255,0,0	red	Continuous	0.25mm	Consolidation curve grid
B-CONS-GRID-TEXT	Yes	210,210,0	52	Continuous	0.25mm	Consolidation curve grid text
B-DETL-GRPH	Yes	white	white	Continuous	0.35mm	Graphics, gridlines, non-text items
B-EXCV-EXST	Yes	255,0,0	red	MS2 Medium Dash	0.25mm	Existing excavation
B-EXCV-FUTR	Yes	0,0,255	blue	MS1 Dot	0.35mm	Future excavation
B-EXCV-PROP	Yes	0,255,0	green	Continuous	0.35mm	Proposed excavation
B-GROU-ALGN	Yes	210,210,0	52	MS4 Dot Dash	0.25mm	Grout hole alignments
B-GROU-HOLE	Yes	128,128,128	8	Continuous	0.35mm	Borehold made specifically for grouting
B-GROU-PRIM	Yes	0,255,0	green	Continuous	0.35mm	Primary grout holes
B-GROU-QUAT	Yes	0,255,255	cyan	Continuous	0.35mm	Quaternary grout holes
B-GROU-SECD	Yes	255,0,0	red	Continuous	0.35mm	Secondary grout holes
B-GROU-TERT	Yes	0,0,255	blue	Continuous	0.35mm	Tertiary grout holes
B-H2OC-ATTB-DATA	Yes	0,255,0	green	Continuous	0.25mm	Water content Atterberg limits
B-H2OC-ATTB-TEXT	Yes	0,255,0	green	Continuous	0.25mm	Water content Atterberg limits text
B-H2OC-GRID-MAJR	Yes	255,0,0	red	Continuous	0.25mm	Water content major grid
B-H2OC-GRID-MINR	Yes	128,128,128	8	MS1 Dot	0.18mm	Water content minor grid
B-H2OC-GRID-TEXT	Yes	210,210,0	52	Continuous	0.25mm	Water content grid text
B-H2OC-MOIS-DATA	Yes	255,0,255	magenta	Continuous	0.25mm	Water content moisture content points and lines
B-H2OC-MOIS-TEXT	Yes	255,0,255	magenta	Continuous	0.25mm	Water content moisture content text
B-INST-EXTN	Yes	191,0,255	200	Continuous	0.35mm	Extensometers
B-INST-EXTN-IDEN	Yes	191,0,255	200	Continuous	0.35mm	Extensometer identification
B-INST-GAGE	Yes	191,0,255	200	Continuous	0.35mm	Pressure gages
B-INST-GAGE-IDEN	Yes	191,0,255	200	Continuous	0.35mm	Pressure gage identification
B-INST-INCL	Yes	191,0,255	200	Continuous	0.35mm	Inclinometers
B-INST-INCL-IDEN	Yes	191,0,255	200	Continuous	0.35mm	Inclinometer identification
B-INST-SETL	Yes	191,0,255	200	Continuous	0.35mm	Settlement monuments
B-INST-SETL-IDEN	Yes	191,0,255	200	Continuous	0.35mm	Settlement monument identification
B-JNTS-CNTJ-LONG	Yes	255,0,255	magenta	Continuous	0.35mm	Construction joints - longitudinal
B-JNTS-CNTJ-TRAV	Yes	255,0,255	magenta	Continuous	0.35mm	Construction joints - transverse

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
B-JNTS-CTRJ-LONG	Yes	210,210,0	52	Continuous	0.35mm	Contraction joints - longitudinal
B-JNTS-CTRJ-TRAV	Yes	210,210,0	52	Continuous	0.35mm	Contraction joints - transverse
B-JNTS-EDGE	Yes	0,255,255	cyan	Continuous	2.00mm	Thickened edges
B-JNTS-EXPJ	Yes	165,0,0	12	Continuous	0.35mm	Expansion joints
B-LOGS-FDTA	Yes	0,255,0	green	Continuous	0.25mm	Field data
B-LOGS-FORM	Yes	white	white	Continuous	0.35mm	Bore log form
B-LOGS-FRAM	Yes	0,255,255	cyan	Continuous	0.50mm	Frame for boring log and associated test data
B-LOGS-FRAM-TEXT	Yes	210,210,0	52	Continuous	0.25mm	Text associated with boring log frame
B-LOGS-LDTA	Yes	255,0,0	red	Continuous	0.25mm	Laboratory data
B-LOGS-PATT	Yes	128,128,128	8	Continuous	0.18mm	Soil/rock patterns
B-MONP-SEEP	Yes	0,0,255	blue	Continuous	0.35mm	Seepage monitoring point
B-MONP-WEIR	Yes	0,255,255	cyan	Continuous	0.35mm	Weirs
B-NORM-DATA	Yes	255,0,255	magenta	Continuous	0.25mm	Normal stress data
B-NORM-DATA-TEXT	Yes	255,0,255	magenta	Continuous	0.25mm	Normal stress data text
B-NORM-GRID-MAJR	Yes	255,0,0	red	Continuous	0.25mm	Normal stress major grid
B-NORM-GRID-MINR	Yes	128,128,128	8	MS1 Dot	0.18mm	Normal stress minor grid
B-NORM-GRID-TEXT	Yes	210,210,0	52	Continuous	0.25mm	Normal stress grid text
B-PLAS-DATA	Yes	255,0,255	magenta	Continuous	0.25mm	Plasticity chart data
B-PLAS-DATA-TEXT	Yes	255,0,255	magenta	Continuous	0.25mm	Plasticity chart data text
B-PLAS-FRAM	Yes	0,255,255	cyan	Continuous	0.50mm	Plasticity chart frame
B-PLAS-GRID	Yes	white	white	Continuous	0.35mm	Plasticity chart grid
B-PLAS-GRID-TEXT	Yes	white	white	Continuous	0.35mm	Plasticity chart grid text
B-PVMT-MISM	Yes	255,0,255	magenta	Continuous	0.35mm	Mismatched pavement joint
B-PVMT-OTLN-AGSC	Yes	191,0,255	200	Continuous	0.35mm	Outline - aggregate surface course and gravel
B-PVMT-OTLN-HMAC	Yes	255,0,255	magenta	Continuous	0.35mm	Outline - hot mix, asphaltic concrete
B-PVMT-OTLN-PCCP	Yes	210,210,0	52	Continuous	0.35mm	Outline - Portland cement, concrete pavement
B-PVMT-PATT-AGSC	Yes	128,128,128	8	Continuous	0.18mm	Pattern - aggregate surface course and gravel
B-PVMT-PATT-HMAC	Yes	128,128,128	8	Continuous	0.18mm	Pattern - hot mix, asphaltic concrete
B-PVMT-PATT-PCCP	Yes	128,128,128	8	Continuous	0.18mm	Pattern - Portland cement, concrete pavement
B-PVMT-REIN	Yes	255,0,255	magenta	Continuous	0.35mm	Reinforced pavement
B-SAMP-AUGR	Yes	76,38,38	19	Continuous	0.35mm	Auger sample location
B-SAMP-CORE	Yes	76,38,38	19	Continuous	0.35mm	Core sample location
B-SAMP-DRVE	Yes	76,38,38	19	Continuous	0.35mm	Drive sample (shelby split spoon) location
B-SAMP-GRAB	Yes	76,38,38	19	Continuous	0.35mm	Grab sample location
B-SAMP-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Sample location identification
B-SAMP-PERC	Yes	103,165,82	85	Continuous	0.50mm	Percolation test hole
B-SAMP-PITS	Yes	103,165,82	85	Continuous	0.50mm	Test pit sample location
B-SAMP-VERT	Yes	0,165,124	122	Continuous	0.35mm	Vertical core hole location
B-SAMP-WASH	Yes	0,165,124	122	Continuous	0.35mm	Wash bored hole location
B-SECT-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Component identification numbers

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
B-SECT-MBND	Yes	0,0,255	blue	Continuous	0.18mm	Material beyond section cut
B-SECT-MCUT	Yes	white	white	Continuous	0.35mm	Material cut by section
B-SECT-PATT	Yes	128,128,128	8	Continuous	0.18mm	Textures and hatch patterns
B-SECT-SLOG	Yes	0,255,0	green	Continuous	0.35mm	Stick log graphics
B-SECT-STRA	Yes	128,128,128	8	Continuous	0.18mm	Stratigraphy
B-SSNS-DATA	Yes	255,0,255	magenta	Continuous	0.25mm	Shear strength vs. normal stress data
B-SSNS-DATA-TEXT	Yes	255,0,255	magenta	Continuous	0.25mm	Shear strength vs. normal stress data text
B-SSNS-FRAM	Yes	0,255,255	cyan	Continuous	0.50mm	Shear strength vs. normal stress frame
B-SSNS-GRID	Yes	255,0,0	red	Continuous	0.25mm	Shear strength vs. normal stress grid
B-SSNS-GRID-TEXT	Yes	210,210,0	52	Continuous	0.35mm	Shear strength vs. normal stress grid text
B-SSTR-1TST-DATA	Yes	0,255,255	cyan	Continuous	0.25mm	Shear strength 1 Point Q test data
B-SSTR-1TST-TEXT	Yes	0,255,255	cyan	Continuous	0.25mm	Shear strength 1 Point Q test text
B-SSTR-GRID-MAJR	Yes	255,0,0	red	Continuous	0.25mm	Shear strength major grid
B-SSTR-GRID-MINR	Yes	128,128,128	8	MS1 Dot	0.18mm	Shear strength minor grid
B-SSTR-GRID-TEXT	Yes	210,210,0	52	Continuous	0.25mm	Shear strength grid text
B-SSTR-QTST-DATA	Yes	255,0,255	magenta	Continuous	0.25mm	Shear strength Q test data
B-SSTR-QTST-TEXT	Yes	255,0,255	magenta	Continuous	0.25mm	Shear strength Q test text
B-SSTR-RTST-DATA	Yes	210,210,0	52	Continuous	0.25mm	Shear strength R test data
B-SSTR-RTST-TEXT	Yes	210,210,0	52	Continuous	0.25mm	Shear strength R test text
B-SSTR-STST-DATA	Yes	0,0,255	blue	Continuous	0.25mm	Shear strength S test data
B-SSTR-STST-TEXT	Yes	0,0,255	blue	Continuous	0.25mm	Shear strength S test text
B-SSTR-UTST-DATA	Yes	0,255,0	green	Continuous	0.25mm	Shear strength UCT test data
B-SSTR-UTST-TEXT	Yes	0,255,0	green	Continuous	0.25mm	Shear strength UCT test text
B-SSTR-VTST-DATA	Yes	white	white	Continuous	0.25mm	Shear strength Vane shear test data
B-SSTR-VTST-TEXT	Yes	white	white	Continuous	0.25mm	Shear strength Vane shear test text
B-TABT-DATA	Yes	255,0,255	magenta	Continuous	0.25mm	Tabular test data
B-TABT-DATA-TEXT	Yes	255,0,255	magenta	Continuous	0.25mm	Tabular test data text
B-TABT-FRAM	Yes	0,255,255	cyan	Continuous	0.50mm	Tabular test data frame
B-TABT-GRID	Yes	255,0,0	red	Continuous	0.25mm	Tabular test data grid
B-TABT-GRID-TEXT	Yes	210,210,0	52	Continuous	0.35mm	Tabular test data grid text
B-WELL-ASR~	Yes	41,165,0	82	Continuous	0.35mm	ASR wells
B-WELL-HORZ	Yes	41,165,0	82	Continuous	0.35mm	Horizontal drain
B-WELL-MONT	Yes	41,165,0	82	Continuous	0.35mm	Monitoring wells
B-WELL-PIZO	Yes	41,165,0	82	Continuous	0.35mm	Piezometers
B-WELL-VERT	Yes	41,165,0	82	Continuous	0.35mm	Vertical drain
B-WETD-DATA	Yes	255,0,255	magenta	Continuous	0.25mm	Wet density data
B-WETD-DATA-TEXT	Yes	255,0,255	magenta	Continuous	0.25mm	Wet density data text
B-WETD-GRID-MAJR	Yes	255,0,0	red	Continuous	0.25mm	Wet density major grid
B-WETD-GRID-MINR	Yes	128,128,128	8	MS1 Dot	0.18mm	Wet density minor grid
B-WETD-GRID-TEXT	Yes	210,210,0	52	Continuous	0.25mm	Wet density grid text

7.3 Civil

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
C-AFLD-BCNS-IDEN	Yes	181,143,227	181	Continuous	0.13mm	Identifier tags, symbol modifiers, and text
C-AFLD-BCNS-MISC	Yes	181,143,227	181	Continuous	0.30mm	Miscellaneous navaids - windcones and beacons
C-AFLD-CIRC-CTRL	Yes	145,82,165	205	Continuous	0.35mm	Control and monitoring circuits
C-AFLD-CIRC-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Circuit identifier tags, symbol modifier, and text
C-AFLD-CIRC-MULT	Yes	145,82,165	205	Continuous	0.35mm	Multiple circuits
C-AFLD-CIRC-SERS	Yes	145,82,165	205	Continuous	0.35mm	Series circuits
C-AFLD-DBNK	Yes	145,82,165	205	Duct Bank	0.25mm	Ductbanks
C-AFLD-DEVC	Yes	145,82,165	205	Continuous	0.35mm	Capacitors, voltage regulators, motors, buses, generators, meters, grounds, and markers
C-AFLD-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Airfield annotation
C-AFLD-JBOX	Yes	145,82,165	205	Continuous	0.35mm	Junction boxes, pull boxes, manholes, handholes, pedestals, splices
C-AFLD-LITE-APPR	Yes	145,82,165	205	Continuous	0.35mm	Approach lights
C-AFLD-LITE-DIST	Yes	145,82,165	205	Continuous	0.35mm	Distance and arresting gear markers
C-AFLD-LITE-LANE	Yes	145,82,165	205	Continuous	0.35mm	Hoverlane, taxilane, and helipad lights
C-AFLD-LITE-OBST	Yes	145,82,165	205	Continuous	0.35mm	Obstruction lights
C-AFLD-LITE-RUNW	Yes	145,82,165	205	Continuous	0.35mm	Runway lights
C-AFLD-LITE-SIGN	Yes	145,82,165	205	Continuous	0.35mm	Taxiway guidance signs
C-AFLD-LITE-TAXI	Yes	145,82,165	205	Continuous	0.35mm	Taxiway lights
C-AFLD-LITE-THRS	Yes	145,82,165	205	Continuous	0.35mm	Threshold lights
C-AFLD-PNTS	Yes	145,82,165	205	Continuous	Default	Airfield survey points
C-AFLD-VALT	Yes	145,82,165	205	Continuous	0.35mm	Airfield lighting vaults
C-ALGN-DATA	Yes	0,255,0	green	Continuous	0.35mm	Alignment coordinates and curve data
C-ALGN-LINE	Yes	255,200,0	40	MS4 Dot Dash	0.35mm	Alignments
C-ALGN-MAJR	Yes	255,0,0	red	Continuous	0.35mm	Alignment major stationing and tick marks
C-ALGN-MARK	Yes	0,255,0	green	Continuous	0.35mm	Alignment tick marks
C-ALGN-MINR	Yes	255,0,255	magenta	Continuous	0.18mm	Alignment minor stationing and tick marks
C-ALGN-PROF	Yes	0,255,255	cyan	Continuous	0.50mm	Profile Finished grade
C-ALGN-PROF-SYMB	Yes	255,0,255	magenta	Continuous	0.35mm	Alignment symbols (PVIs)
C-ALGN-STAT	Yes	0,255,0	green	Continuous	0.35mm	Alignment stationing and tick marks, alignment PI stations
C-ALGN-SYMB	Yes	255,0,255	magenta	Continuous	0.35mm	Alignment symbols (PIs)
C-ALGN-TEXT	Yes	255,200,0	40	Continuous	0.35mm	Alignment text, annotation with associated leaders
C-ANNO-TABL	Yes	red	red	Continuous	Default	Civil: Table
C-APRN-CNTR	Yes	255,0,0	red	Center Line	0.25mm	Apron centerlines
C-APRN-CNTR-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Apron centerline annotation
C-APRN-GRND	Yes	255,200,0	40	Continuous	0.35mm	Grounding points
C-APRN-HOLD	Yes	255,0,0	red	Continuous	0.25mm	Holding position markings

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
C-APRN-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Airfield apron - annotation
C-APRN-MOOR	Yes	255,200,0	40	Continuous	0.35mm	Mooring points
C-APRN-MRKG	Yes	0,255,255	cyan	Continuous	0.50mm	Apron markings
C-APRN-OTLN	Yes	0,255,255	cyan	Continuous	0.50mm	Airfield apron - outlines
C-APRN-SECU	Yes	255,0,0	red	Continuous	0.25mm	Security zone markings
C-APRN-SHLD	Yes	255,200,0	40	Continuous	0.35mm	Shoulders with annotation
C-APRN-SHLD-MRKG	Yes	255,200,0	40	Continuous	0.35mm	Shoulder stripes
C-BECH-BANK-TOP~	Yes	255,0,255	magenta	Continuous	0.25mm	Beach top of bank
C-BECH-BKLN	Yes	0,0,255	blue	MS2 Medium Dash	0.35mm	Beach breakline
C-BECH-BLIN	Yes	0,255,255	cyan	Continuous	0.50mm	Beach baseline and control line
C-BECH-BLIN-IDEN	Yes	0,255,255	cyan	Continuous	0.25mm	Beach baseline and control line annotation
C-BECH-BNCH	Yes	165,41,0	24	MS6 Dash Dot Dot	0.35mm	Beach bench
C-BECH-CNTR	Yes	0,0,255	blue	Center Line	0.25mm	Beach centerline
C-BECH-CNTR-IDEN	Yes	255,0,255	magenta	Continuous	0.25mm	Beach centerline annotation
C-BECH-ELIN	Yes	0,255,255	cyan	Continuous	0.50mm	Beach erosion control line
C-BECH-ELIN-IDEN	Yes	255,0,255	magenta	Continuous	0.25mm	Beach erosion control line annotation
C-BECH-LIMIT	Yes	0,255,255	cyan	Continuous	0.50mm	Beach limit lines
C-BECH-OHWM	Yes	255,200,0	40	Continuous	0.35mm	Ordinary high water marks
C-BECH-OTLN	Yes	255,200,0	40	Continuous	0.25mm	Beach outline
C-BECH-SLOP-IDEN	Yes	white	white	Continuous	0.25mm	Beach slope indicator with annotation
C-BECH-SLOP-TOP~	Yes	165,41,0	24	MS2 Medium Dash	0.35mm	Beach top of slope
C-BECH-SYMB	Yes	255,0,255	magenta	Continuous	0.18mm	Beach symbols
C-BECH-TOE~	Yes	0,0,255	blue	MS3 Long Dash	0.50mm	Beach toe
C-BECH-TOE~-IDEN	Yes	white	white	Continuous	0.25mm	Beach toe annotation
C-BLDG-DECK	Yes	0,255,255	cyan	Continuous	0.50mm	Outdoor decks (attached, no roof overhead)
C-BLDG-DOCK	Yes	0,255,255	cyan	Continuous	0.50mm	Loading docks
C-BLDG-FTPT	Yes	white	white	Continuous	0.70mm	Building footprints
C-BLDG-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Building and other structure annotation
C-BLDG-OVHD	Yes	0,255,255	cyan	Continuous	0.50mm	Building overhangs
C-BLDG-PRCH	Yes	0,255,255	cyan	Continuous	0.50mm	Porches (attached, roof overhead)
C-BORW-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Borrow/spoil area annotation
C-BORW-LINE	Yes	255,200,0	40	MS2 Medium Dash	0.35mm	Borrow/spoil area
C-BRDG-CHRD-LOW~	Yes	0,255,255	cyan	Continuous	0.50mm	Low chord
C-BRDG-CNTR	Yes	255,0,0	red	Center Line	0.25mm	Bridge centerlines
C-BRDG-CTLJ	Yes	0,255,255	cyan	Continuous	0.25mm	Control joints
C-BRDG-DECK	Yes	0,255,255	cyan	Continuous	0.50mm	Bridge deck
C-BRDG-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Bridge annotation
C-BRDG-OTLN	Yes	0,255,255	cyan	Continuous	0.50mm	Bridge outlines
C-BRDG-RLG~	Yes	0,255,255	cyan	Continuous	0.25mm	Bridge railing
C-CHAN-BANK-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Channel/canal top of bank annotation
C-CHAN-BANK-TOP~	Yes	255,200,0	40	Continuous	0.35mm	Channel/canal top of bank

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
C-CHAN-BNCH	Yes	255,200,0	40	Continuous	0.35mm	Channel/canal bench design feature lines (breaklines form DTMs)
C-CHAN-BWTR	Yes	255,0,255	magenta	Continuous	0.35mm	Breakwaters
C-CHAN-CNTR	Yes	0,0,255	blue	Center Line	0.25mm	Channel centerline and survey report lines
C-CHAN-CNTR-IDEN	Yes	0,0,255	blue	Continuous	0.35mm	Channel centerline and survey report lines - annotation
C-CHAN-DACL	Yes	0,255,0	green	Continuous	0.35mm	De-authorized channel limits, anchorages, etc.
C-CHAN-DACL-IDEN	Yes	0,255,0	green	Continuous	0.35mm	De-authorized channel limits, anchorages, etc. - annotation
C-CHAN-DOCK	Yes	255,0,255	magenta	Continuous	0.35mm	Docks, decks, floats, piers, and mooring facilities
C-CHAN-LIMIT	Yes	255,0,255	magenta	Continuous	0.35mm	Channel limits, anchorages, turning basins, disposal areas, etc.
C-CHAN-LIMIT-IDEN	Yes	255,0,255	magenta	Continuous	0.35mm	Channel limits, anchorages, turning basins, disposal areas, etc. - annotation
C-CHAN-NAID	Yes	white	white	Continuous	0.35mm	Navigation aids and text
C-CHAN-SLOP-LINE	Yes	255,200,0	40	Continuous	0.35mm	Channel cut/fill slope (Indicates cut and fill lines)
C-CHAN-SPOL	Yes	0,255,255	cyan	Continuous	0.50mm	Spoil limits
C-CHAN-SYMB	Yes	255,0,255	magenta	Continuous	0.35mm	Channel/canal symbols
C-CHAN-TEXT	Yes	255,200,0	40	Continuous	0.35mm	Channel/canal text, annotation with associated leaders
C-CHAN-TOE~	Yes	0,0,255	blue	MS3 Long Dash	0.50mm	Channel/canal toe
C-CHAN-TOE~-IDEN	Yes	255,0,255	magenta	Continuous	0.35mm	Channel/canal toe annotation
C-CHAN-TURN	Yes	255,200,0	40	Continuous	0.35mm	Turning points
C-CHAN-WIDE	Yes	0,255,255	cyan	MS3 Long Dash	0.50mm	Channel/canal widener
C-DETL-GRPH	Yes	white	white	Continuous	0.35mm	Graphics, gridlines, non-text items
C-DOMW-DEVC	Yes	255,0,255	magenta	Continuous	0.35mm	Connectors, faucets, reducers, regulators, vents, intake points, taps, backflow preventers, and valves
C-DOMW-FTTG	Yes	255,0,255	magenta	Continuous	0.35mm	Caps, cleanouts, crosses, and tees
C-DOMW-IDEN	Yes	255,255,0	yellow	Continuous	0.35mm	Domestic water identifier tags, symbol modifiers, and text
C-DOMW-MAIN-PIPE	Yes	255,0,255	magenta	Water Line	0.35mm	Main domestic water piping
C-DOMW-MAIN-PIPE-PROF	Yes	255,0,255	magenta	Continuous	0.35mm	Main domestic water piping in Profile
C-DOMW-MAIN-PIPE-SECT	Yes	255,0,255	magenta	Continuous	0.35mm	Water Pipes in Cross Sections
C-DRED-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Dredging annotation
C-DRED-LIMIT	Yes	0,255,255	cyan	Continuous	0.50mm	Dredge limit lines
C-DRED-LIMIT-OVDP	Yes	0,255,255	cyan	Continuous	0.50mm	Dredge limit lines - Allowable Overdepth
C-DRED-LIMIT-REQD	Yes	0,255,255	cyan	Continuous	0.50mm	Dredge limit lines - Required

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
C-DRED-OHWM	Yes	255,200,0	40	Continuous	0.35mm	Ordinary high water marks
C-DTCH-BOTM	Yes	0,0,255	blue	Ditch	0.25mm	Bottom of ditch or wash
C-DTCH-CNTR	Yes	0,0,255	blue	Center Line	0.25mm	Centerline of ditch or wash
C-DTCH-EWAT	Yes	0,255,255	cyan	Continuous	0.25mm	Edge of water
C-DTCH-IDEN	Yes	0,255,0	green	Continuous	0.35mm	Ditches and washes annotation
C-DTCH-TOP~	Yes	0,255,0	green	Continuous	0.25mm	Top of ditch or wash
C-ECCO-BURR	Yes	0,255,255	cyan	Continuous	0.50mm	Burrow
C-ECCO-DENS	Yes	0,255,255	cyan	Continuous	0.50mm	Den
C-ECCO-GATR	Yes	255,0,255	magenta	MS2 Medium Dash	0.35mm	Gator hole
C-ECCO-HUMK	Yes	255,0,255	magenta	Continuous	0.35mm	Hummocks
C-ECCO-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Habitat annotation
C-ECCO-NEST	Yes	0,255,255	cyan	Continuous	0.50mm	Nest, nesting tree
C-ECCO-PRCH	Yes	0,255,255	cyan	Continuous	0.50mm	Perch/nesting hole
C-EROS-CIPR	Yes	0,255,0	green	Continuous	0.25mm	Culvert inlet protection
C-EROS-CNTE	Yes	255,0,255	magenta	Continuous	0.35mm	Construction entrance
C-EROS-DDIV	Yes	0,255,255	cyan	Continuous	0.50mm	Drainage divides
C-EROS-DVDK	Yes	0,255,255	cyan	Continuous	0.50mm	Diversion dike
C-EROS-IDEN	Yes	0,255,0	green	Continuous	0.35mm	Erosion and sediment control annotation
C-EROS-INPR	Yes	0,255,0	green	Continuous	0.25mm	Inlet protection
C-EROS-SILT	Yes	255,200,0	40	Silt Fence	0.35mm	Silt fence
C-EROS-SILT-CHCK	Yes	255,200,0	40	Continuous	0.35mm	Silt check
C-EROS-SILT-TRAP	Yes	255,200,0	40	Continuous	0.35mm	Silt trap
C-EROS-SSLT	Yes	255,200,0	40	Super Silt Fence	0.35mm	Super silt fence
C-ESMT-ROAD	Yes	23	23	Continuous	Default	Easements: roadway
C-FIRE-HYDT	Yes	255,0,0	red	Continuous	0.35mm	Hydrants and connections
C-FIRE-PIPE	Yes	255,0,0	red	Fire Protection Water Supply	0.35mm	Piping
C-FLHA-025Y	Yes	255,0,255	magenta	MS6 Dash Dot Dot	0.35mm	25 year mark
C-FLHA-050Y	Yes	255,200,0	40	MS3 Long Dash	0.35mm	50 year mark
C-FLHA-100Y	Yes	255,0,255	magenta	Continuous	0.35mm	100 year mark
C-FLHA-200Y	Yes	255,200,0	40	MS2 Medium Dash	0.35mm	200 year mark
C-FLHA-500Y	Yes	255,0,255	magenta	MS7 Long Dash Short Dash	0.35mm	500 year mark
C-FLHA-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Flood hazard area annotation
C-FLOD-BASE	Yes	255,63,0	20	Continuous	0.50mm	Floodwall base of wall
C-FLOD-BASE-IDEN	Yes	255,63,0	20	Continuous	0.35mm	Floodwall base of wall annotation
C-FLOD-CNTR	Yes	255,63,0	20	Center Line	0.25mm	Floodwall centerline
C-FLOD-CNTR-IDEN	Yes	255,63,0	20	Continuous	0.35mm	Floodwall centerline annotation
C-FLOD-DRNS	Yes	255,0,255	magenta	Continuous	0.35mm	Floodwall toe drain
C-FLOD-DRNS-IDEN	Yes	255,0,255	magenta	Continuous	0.35mm	Floodwall toe drain annotation
C-FLOD-PILE	Yes	165,41,0	24	Continuous	0.50mm	Floodwall sheet piling
C-FLOD-PILE-IDEN	Yes	165,41,0	24	Continuous	0.35mm	Floodwall sheet piling annotation
C-FLOD-TOE~	Yes	0,255,255	cyan	Continuous	0.35mm	Floodwall toe outline
C-FLOD-TOP~	Yes	255,200,0	40	Continuous	0.50mm	Floodwall top of wall

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
C-FLOD-TOP~-IDEN	Yes	255,63,0	20	Continuous	0.35mm	Floodwall top of wall annotation
C-FUEL-BERM	Yes	255,200,0	40	Continuous	0.35mm	Berms for retaining fuel in case of major tank/line rupture
C-FUEL-DEFL-PIPE	Yes	255,200,0	40	Continuous	0.35mm	Defueling piping
C-FUEL-DEVC	Yes	255,200,0	40	Continuous	0.35mm	Air eliminators, filter strainers, hydrant fill points, line vents, markers, oil/water separators, reducers, regulators, and valves
C-FUEL-FLOW	Yes	255,200,0	40	Continuous	0.35mm	Flow direction arrows
C-FUEL-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Identifier tags, symbol modifier, and text
C-FUEL-JBOX	Yes	255,200,0	40	Continuous	0.35mm	Junction boxes, manholes, handholes, test boxes
C-FUEL-MAIN-PIPE	Yes	255,200,0	40	Gas - Liquefied Petroleum	0.35mm	Main fuel piping
C-FUEL-METR	Yes	255,200,0	40	Continuous	0.35mm	Meters
C-FUEL-SERV-PIPE	Yes	255,200,0	40	Continuous	0.35mm	Service piping
C-FUEL-STNS-PUMP	Yes	255,200,0	40	Continuous	0.35mm	Booster pump stations
C-FUEL-TANK	Yes	255,200,0	40	Continuous	0.35mm	Fuel tanks
C-FUEL-TRCH	Yes	255,200,0	40	Continuous	0.35mm	Fuel line trench
C-FUEL-VALT	Yes	255,200,0	40	Continuous	0.35mm	Hydrant control/valve/vent pits/vaults
C-GRAD-ALLOW	Yes	255,0,255	magenta	Continuous	0.35mm	Allowable over depth
C-GRAD-BNCH	Yes	255,0,255	magenta	Continuous	0.35mm	Bench cut
C-GRAD-DSGN	Yes	0,255,0	green	Continuous	0.35mm	Design grade (proposed)
C-GRAD-EXCV	Yes	0,255,255	cyan	Continuous	0.50mm	Excavation grade
C-GRAD-EXST	Yes	255,0,255	magenta	MS3 Long Dash	0.35mm	Existing grade, ground line
C-GRAD-FNSH	Yes	0,255,255	cyan	Continuous	0.50mm	Finished grade
C-GRAD-FNSH-PRP1	Yes	128,128,128	8	Continuous	0.35mm	Proposed Surface #1
C-GRAD-FNSH-PRP2	Yes	128,128,128	8	Continuous	0.35mm	Proposed Surface #2
C-GRAD-FNSH-PRP3	Yes	128,128,128	8	Continuous	0.35mm	Proposed Surface #3
C-GRAD-FNSH-PRP4	Yes	128,128,128	8	Continuous	0.35mm	Proposed Surface #4
C-GRAD-GTXL	Yes	255,0,0	red	Continuous	0.25mm	Geotextile placement grade
C-GRAD-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Grade annotation for cross sections and profiles
C-GRAD-REQD	Yes	255,0,255	magenta	Continuous	0.35mm	Required depth
C-GRAD-SCLN	Yes	0,0,255	blue	MS7 Long Dash Short Dash	0.50mm	Stability control line
C-GRAD-WATR	Yes	255,200,0	40	Continuous	0.35mm	Water surface in section view
C-GRID-CNTR	Yes	210,210,0	52	Center Line	0.35mm	Centerline grid line
C-GRID-FRAM	Yes	0,255,255	cyan	Continuous	0.50mm	Frame
C-GRID-MAJR	Yes	128,128,128	8	MS1 Dot	0.35mm	Major grid lines
C-GRID-MINR	Yes	128,128,128	8	MS1 Dot	0.18mm	Minor grid lines
C-GRID-PATT	Yes	128,128,128	8	Continuous	0.18mm	Textures and hatch patterns
C-GRID-TEXT	Yes	255,200,0	40	MS1 Dot	0.35mm	Border text, annotation
C-HELI-BLST	Yes	255,0,0	red	Continuous	0.35mm	Blast pad and stopway markings
C-HELI-CNTR	Yes	255,0,0	red	Continuous	0.35mm	Centerline markings
C-HELI-DISP	Yes	255,0,0	red	Continuous	0.35mm	Displaced threshold markings
C-HELI-DIST	Yes	255,0,0	red	Continuous	0.35mm	Fixed distance markings
C-HELI-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Heliport numbers and letters

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
C-HELI-SHLD	Yes	255,0,255	magenta	Continuous	0.35mm	Shoulder markings
C-HELI-SIDE	Yes	0,255,255	cyan	Continuous	0.50mm	Side stripes
C-HELI-TDZM	Yes	255,0,255	magenta	Continuous	0.35mm	Touchdown zone markers
C-HELI-THRS	Yes	255,0,255	magenta	Continuous	0.35mm	Threshold markers
C-INDW-DEVC	Yes	255,63,0	20	Continuous	0.35mm	Grit chambers, flumes, neutralizers, oil/water separators, ejectors, tanks, and valves
C-INDW-FLOW	Yes	255,63,0	20	Continuous	0.35mm	Flow direction arrows
C-INDW-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Identifier tags, symbol modifier, and text
C-INDW-JBOX	Yes	255,63,0	20	Continuous	0.35mm	Junction boxes and manholes
C-INDW-LAGN	Yes	255,63,0	20	Continuous	0.35mm	Lagoons
C-INDW-MAIN-PIPE	Yes	255,63,0	20	Industrial Waste	0.35mm	Main industrial waste water piping
C-INDW-METR	Yes	255,63,0	20	Continuous	0.35mm	Meters
C-INDW-PLNT	Yes	255,63,0	20	Continuous	0.35mm	Treatment plants
C-INDW-SERV-PIPE	Yes	255,63,0	20	Continuous	0.35mm	Industrial waste water service piping
C-INDW-SIGN	Yes	255,63,0	20	Continuous	0.35mm	Surface markers/signs
C-INDW-STNS-LIFT	Yes	255,63,0	20	Continuous	0.35mm	Lift stations
C-JNTS-CNSL	Yes	255,0,255	magenta	Continuous	0.35mm	Construction joints - longitudinal
C-JNTS-CNST	Yes	255,0,255	magenta	Continuous	0.35mm	Construction joints - transverse
C-JNTS-CNTL	Yes	255,200,0	40	Continuous	0.35mm	Contraction joints - longitudinal
C-JNTS-CNTT	Yes	255,200,0	40	Continuous	0.35mm	Contraction joints - transverse
C-JNTS-EDGE	Yes	0,255,255	cyan	Continuous	0.35mm	Thickened edges
C-JNTS-EXPJ	Yes	165,0,0	12	Continuous	0.35mm	Expansion joints
C-JNTS-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Joint annotation
C-LEVE-BANK-IDEN	Yes	255,63,0	20	Continuous	0.25mm	Levee top of bank annotation
C-LEVE-BERM	Yes	255,0,255	magenta	Continuous	0.35mm	Levee berm outline
C-LEVE-BERM-HNGE	Yes	255,0,255	magenta	Continuous	0.30mm	Levee berm hinge
C-LEVE-BERM-TOE~	Yes	255,0,255	magenta	Continuous	0.30mm	Levee berm toe
C-LEVE-BNCH	Yes	255,63,0	20	Continuous	0.35mm	Levee bench design feature lines (breaklines form DTMs)
C-LEVE-BNCH-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Levee bench annotation
C-LEVE-BRRW	Yes	0,255,255	cyan	Continuous	0.50mm	Borrow limits
C-LEVE-CNTR	Yes	255,63,0	20	Center Line	0.25mm	Levee centerline
C-LEVE-CNTR-IDEN	Yes	255,63,0	20	Continuous	0.35mm	Levee centerline annotation
C-LEVE-DGRD	Yes	255,0,255	magenta	Continuous	0.30mm	Levee degrade
C-LEVE-HNGE	Yes	255,0,255	magenta	Continuous	0.30mm	Levee hinge
C-LEVE-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Levee annotation
C-LEVE-OTLN	Yes	0,255,255	cyan	Continuous	0.50mm	Levee outline
C-LEVE-ROAD	Yes	255,0,255	magenta	Continuous	0.30mm	Levee road
C-LEVE-ROAD-CNTR	Yes	255,0,255	magenta	Continuous	0.30mm	Levee road centerline
C-LEVE-ROAD-HNGE	Yes	255,0,255	magenta	Continuous	0.30mm	Levee road hinge
C-LEVE-SLOP	Yes	255,200,0	40	Continuous	0.35mm	Levee slope indicator with annotation
C-LEVE-STAN	Yes	255,200,0	40	Continuous	0.35mm	Levee stationing
C-LEVE-TOE~	Yes	255,63,0	20	MS2 Medium Dash	0.35mm	Levee toe
C-LEVE-TOE~-IDEN	Yes	255,63,0	20	Continuous	0.25mm	Levee toe annotation

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
C-LEVE-TOPB	Yes	255,200,0	40	Continuous	0.35mm	Levee top of bank
C-MILR-BATP	Yes	0,255,255	cyan	Continuous	0.50mm	Battle positions
C-MILR-CAMS	Yes	255,0,255	magenta	Continuous	0.35mm	Range cameras
C-MILR-FOXH	Yes	255,0,255	magenta	Continuous	0.35mm	Fox holes and pits
C-MILR-MATS	Yes	0,255,255	cyan	Continuous	0.50mm	Moving army targets
C-MILR-MITS	Yes	0,255,255	cyan	Continuous	0.50mm	Moving infantry targets
C-MILR-MITS-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Moving infantry targets annotation
C-MILR-PUTS	Yes	0,255,255	cyan	Continuous	0.50mm	Pop up targets
C-MILR-PUTS-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Pop up targets annotation
C-MILR-SATS	Yes	0,255,255	cyan	Continuous	0.50mm	Stationary army targets
C-MILR-SATS-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Stationary army targets annotation
C-MILR-SITS	Yes	0,255,255	cyan	Continuous	0.50mm	Stationary infantry targets
C-MILR-SITS-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Stationary infantry targets annotation
C-NGAS-EQPM	Yes	255,200,0	40	Continuous	0.35mm	Equipment (pumps, motors, etc.)
C-NGAS-FLOW	Yes	255,200,0	40	Continuous	0.35mm	Flow direction arrows
C-NGAS-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Identifier tags, symbol modifier, and text
C-NGAS-INST	Yes	255,200,0	40	Continuous	0.35mm	Instrumentation (valves, etc.)
C-NGAS-METR	Yes	255,200,0	40	Continuous	0.35mm	Meters
C-NGAS-MHOL	Yes	255,200,0	40	Continuous	0.35mm	Manholes
C-NGAS-PIPE	Yes	255,200,0	40	Gas - Low Pressure	0.35mm	Natural gas piping
C-NGAS-SIGN	Yes	255,200,0	40	Continuous	0.35mm	Surface markers/signs
C-NGAS-STNS-PUMP	Yes	255,200,0	40	Continuous	0.35mm	Compressor stations
C-NGAS-STNS-REDC	Yes	255,200,0	40	Continuous	0.35mm	Reducing stations
C-NGAS-TANK	Yes	255,200,0	40	Continuous	0.25mm	Tanks
C-NGAS-VALT	Yes	255,200,0	40	Continuous	0.35mm	Valve/vent pits/vaults
C-OBST-AIRS	Yes	0,255,0	green	Continuous	0.35mm	Airspace obstructions
C-OBST-AIRS-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Obstruction annotation
C-OVRN-CNTR	Yes	255,0,0	red	Center Line	0.25mm	Centerlines
C-OVRN-CNTR-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Centerline annotation
C-OVRN-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Airfield overrun area - annotation
C-OVRN-OTLN	Yes	0,255,255	cyan	Continuous	0.35mm	Airfield overrun area - outlines
C-OVRN-SHLD-MRKG	Yes	0,255,255	cyan	Continuous	0.35mm	Shoulder markings
C-PADS-CNTR	Yes	255,0,0	red	Center Line	0.25mm	Centerlines
C-PADS-CNTR-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Centerline annotation
C-PADS-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Pads - annotation
C-PADS-OTLN	Yes	0,255,255	cyan	Continuous	0.35mm	Pad - outlines
C-PADS-SHLD	Yes	255,200,0	40	Continuous	0.25mm	Shoulders with annotation
C-PRKG-CARS	Yes	255,200,0	40	Continuous	0.35mm	Graphic illustration of cars
C-PRKG-CNTR	Yes	255,0,0	red	Center Line	0.25mm	Parking lot centerlines
C-PRKG-CNTR-IDEN	Yes	255,0,0	red	Continuous	0.25mm	Parking lot centerline annotation
C-PRKG-CURB	Yes	0,255,0	green	Continuous	0.35mm	Curbs and gutters
C-PRKG-DRAIN	Yes	255,0,0	red	Continuous	0.35mm	Drainage slope indications
C-PRKG-FIXT	Yes	127,255,127	91	Continuous	0.35mm	Parking lot fixtures (e.g., wheel stops, parking meters)
C-PRKG-FLNE	Yes	255,0,0	red	Continuous	0.25mm	Fire lanes

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
C-PRKG-IDEN	Yes	255,0,255	magenta	Continuous	0.35mm	Parking lot annotation
C-PRKG-MRKG	Yes	255,200,0	40	Continuous	0.35mm	Pavement markings
C-PRKG-OTLN	Yes	0,255,255	cyan	Continuous	0.50mm	Parking lot outlines
C-PRKG-SIGN	Yes	255,200,0	40	Continuous	0.35mm	Signs
C-PROP-BNDY	Yes	150	150	Continuous	Default	Property: boundary
C-PROP-BRNG	Yes	255,0,255	magenta	Continuous	0.35mm	Bearings and distance labels
C-PROP-CONS	Yes	white	white	Construction Contract Limit	0.70mm	Construction limits/controls, staging area
C-PROP-ESMT	Yes	white	white	Construction Easement	0.70mm	Easements
C-PROP-IDEN	Yes	255,0,255	magenta	Continuous	0.35mm	Property annotation
C-PROP-LINE	Yes	255,200,0	40	Property Line	0.50mm	Property lines
C-PROP-LOTS	Yes	magenta	magenta	Continuous	Default	Property: lots
C-PROP-PATT	Yes	150	150	Continuous	Default	Property: parcel hatching
C-PROP-RSRV	Yes	94	94	Continuous	Default	Property: reserved
C-PROP-RWAY	Yes	white	white	Right Of Way	0.70mm	Right of ways
C-PROP-RWAY-ACQU	Yes	white	white	Continuous	0.70mm	Right of way to be acquired in perpetuity
C-PROP-SBCK	Yes	white	white	MS3 Long Dash	0.25mm	Setback lines
C-PROP-SECT	Yes	255,0,255	magenta	MS7 Long Dash Short Dash	0.50mm	Section lines
C-PROP-SECT-IDEN	Yes	255,0,255	magenta	Continuous	0.35mm	Section lines annotation
C-PROP-TEXT	Yes	92	92	Continuous	Default	Property: label
C-PROP-TSHP	Yes	255,0,255	magenta	MS4 Dot Dash	0.50mm	Township/range lines
C-PROP-TSHP-IDEN	Yes	255,0,255	magenta	Continuous	0.35mm	Township/range lines annotation
C-PVMT-ASPH	Yes	128,128,128	8	Continuous	0.18mm	Pavement pattern - asphalt
C-PVMT-CONC	Yes	128,128,128	8	Continuous	0.18mm	Pavement pattern - concrete
C-PVMT-GRVL	Yes	128,128,128	8	Continuous	0.18mm	Pavement pattern - gravel
C-PVMT-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Road, parking lot, railroad, airfield pavement annotation
C-PVMT-MRKG	Yes	255,200,0	40	Continuous	0.35mm	Pavement markings
C-PVMT-PATT	Yes	128,128,128	8	Continuous	0.18mm	Joint patterns, text and dimensions
C-RAIL-CNTR	Yes	255,0,0	red	Center Line	0.25mm	Railroad track centerlines
C-RAIL-CNTR-IDEN	Yes	255,0,0	red	Continuous	0.35mm	Railroad track centerline annotation
C-RAIL-EQPM	Yes	127,255,127	91	Continuous	0.35mm	Railroad equipment (e.g., gates, signals)
C-RAIL-IDEN	Yes	255,0,255	magenta	Continuous	0.35mm	Railroad - annotation
C-RAIL-TRAK	Yes	255,200,0	40	Railroad	0.35mm	Railroad tracks
C-RIVR-BOTM	Yes	0,0,255	blue	Continuous	0.35mm	River bottom
C-RIVR-CNTR	Yes	255,0,0	red	Center Line	0.25mm	Centerline of river
C-RIVR-EDGE	Yes	0,0,255	blue	Continuous	0.50mm	River edge
C-RIVR-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
C-RIVR-TOPB	Yes	0,0,255	blue	Continuous	0.35mm	Top of river bank
C-ROAD-ASPH	Yes	128,128,128	8	Continuous	0.25mm	Road outlines - asphalt surface
C-ROAD-ASSM	Yes	40	40	Continuous	Default	Roadways: assemblies and subassemblies
C-ROAD-ASSM-BLIN	Yes	red	red	Continuous	Default	Roadways: assembly baseline

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
C-ROAD-ASSM-OFFS	Yes	red	red	Continuous	Default	Roadways: assembly offset
C-ROAD-ASSM-TEXT	Yes	white	white	Continuous	Default	Roadways: assembly text
C-ROAD-BRNG	Yes	red	red	Continuous	Default	Roadways: bearings
C-ROAD-CNTR	Yes	255,0,0	red	Center Line	0.25mm	Road centerlines
C-ROAD-CNTR-IDEN	Yes	255,0,0	red	Continuous	0.25mm	Road centerline annotation
C-ROAD-CNTR-N	Yes	92	92	Continuous	Default	Roadways: centerline, NEW
C-ROAD-CONC	Yes	white	white	Continuous	0.25mm	Road outlines - concrete surface
C-ROAD-CORR	Yes	white	white	Continuous	0.18mm	Corridor Links
C-ROAD-CORR-BNDY	Yes	red	red	CENTER2	Default	Roadways: corridor boundary
C-ROAD-CORR-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Corridor Annotation
C-ROAD-CORR-PATT	Yes	150	150	Continuous	Default	Roadways: corridor patterns
C-ROAD-CURB	Yes	255,0,255	magenta	Continuous	0.35mm	Curbs and gutters
C-ROAD-CURV	Yes	blue	blue	Continuous	Default	Roadways: curves
C-ROAD-FEAT	Yes	182	182	Continuous	Default	Roadways: feature line
C-ROAD-GRAL	Yes	255,0,255	magenta	Guardrail	0.35mm	Guard rails
C-ROAD-GRVL	Yes	255,63,0	20	Continuous	0.25mm	Road outlines - gravel surface
C-ROAD-IDEN	Yes	255,0,255	magenta	Continuous	0.35mm	Road, street, highway annotation
C-ROAD-INTS	Yes	blue	blue	Continuous	Default	Roadways: Intersection
C-ROAD-INTS-TEXT	Yes	white	white	Continuous	Default	Roadways: Intersection Text
C-ROAD-LABL	Yes	92	92	Continuous	Default	Roadways: labels
C-ROAD-LINE	Yes	red	red	Continuous	Default	Roadways: tangent lines
C-ROAD-LINE-EXTN	Yes	252	252	HIDDEN	Default	Roadways: PVI extention lines
C-ROAD-LINK	Yes	150	150	Continuous	Default	Roadways: corridor and section links
C-ROAD-LINK-TEXT	Yes	white	white	Continuous	Default	Roadways: corridor and section link text
C-ROAD-MARK	Yes	212	212	Continuous	Default	Roadways: corridor and section marks
C-ROAD-MRKG	Yes	255,200,0	40	Continuous	0.35mm	Pavement markings
C-ROAD-PATT	Yes	128,128,128	8	Continuous	0.18mm	Joint patterns, text and dimensions
C-ROAD-PROF	Yes	red	red	DASHED	Default	Roadways: profiles
C-ROAD-PROF-ASMC	Yes	92	92	Continuous	Default	Roadways: profile assymetrical curves
C-ROAD-PROF-CURV	Yes	blue	blue	Continuous	Default	Roadways: profile vertical curves
C-ROAD-PROF-DIAG	Yes	150	150	Continuous	Default	Roadways: profile band diagrams
C-ROAD-PROF-GRID	Yes	150	150	Continuous	Default	Roadways: profile grid
C-ROAD-PROF-GRID-GEOM	Yes	blue	blue	Continuous	Default	Roadways: profile gridline @ geometry points
C-ROAD-PROF-GRID-MAJR	Yes	8	8	Continuous	Default	Roadways: profile gridline @ major stations
C-ROAD-PROF-GRID-MINR	Yes	8	8	Continuous	Default	Roadways: profile gridline @ minor stations
C-ROAD-PROF-LABL	Yes	92	92	Continuous	Default	Roadways: profile label
C-ROAD-PROF-LINE	Yes	red	red	Continuous	Default	Roadways: profile vertical lines
C-ROAD-PROF-LINE-EXTN	Yes	252	252	HIDDEN	Default	Roadways: centerline extention
C-ROAD-PROF-LTOF	Yes	11	11	Continuous	Default	Roadways: profile left offset sample line
C-ROAD-PROF-PARB	Yes	white	white	Continuous	Default	Roadways: profile parabolic curves

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
C-ROAD-PROF-PNTS	Yes	252	252	HIDDEN	Default	Roadways: profile geometry points
C-ROAD-PROF-PROP	Yes	150	150	Continuous	Default	Roadways: profile new
C-ROAD-PROF-RTOF	Yes	red	red	Continuous	Default	Roadways: profile right offset sample line
C-ROAD-PROF-STAN-GEOM	Yes	11	11	Continuous	Default	Roadways: profile geometry point labels
C-ROAD-PROF-STAN-MAJR	Yes	11	11	Continuous	Default	Roadways: profile major station labels
C-ROAD-PROF-STAN-MINR	Yes	11	11	Continuous	Default	Roadways: profile minor station labels
C-ROAD-PROF-TEXT	Yes	11	11	Continuous	Default	Roadways: profile text
C-ROAD-PROF-TICK	Yes	white	white	Continuous	Default	Roadways: profile tick marks
C-ROAD-PROF-TITL	Yes	11	11	Continuous	Default	Roadways: profile label
C-ROAD-PROF-TTLB	Yes	blue	blue	Continuous	Default	Roadways: profile label
C-ROAD-SAMP	Yes	150	150	HIDDEN	Default	Roadways: sample lines
C-ROAD-SAMP-TEXT	Yes	11	11	Continuous	Default	Roadways: sample lines text
C-ROAD-SECT	Yes	white	white	Continuous	Default	Roadways: grade in sections
C-ROAD-SECT-DIAG	Yes	212	212	Continuous	Default	Roadways: section diagram
C-ROAD-SECT-GRID	Yes	white	white	Continuous	Default	Roadways: section grid
C-ROAD-SECT-LABL	Yes	92	92	Continuous	Default	Roadways: section labels
C-ROAD-SECT-N	Yes	150	150	Continuous	Default	Roadways: section, NEW
C-ROAD-SECT-TEXT	Yes	92	92	Continuous	Default	Roadways: section text
C-ROAD-SECT-TICK	Yes	white	white	Continuous	Default	Roadways: section tick marks
C-ROAD-SECT-TITL	Yes	92	92	Continuous	Default	Roadways: section title
C-ROAD-SECT-TTLB	Yes	blue	blue	Continuous	Default	Roadways: section border
C-ROAD-SGHT-EYE-PATH	Yes	white	white	Continuous	Default	Roadways: sight distance eye path
C-ROAD-SGHT-LIMT-LINE	Yes	254	254	Continuous	Default	Roadways: sight distance sight limitation line
C-ROAD-SGHT-OBST-AREA	Yes	red	red	Continuous	Default	Roadways: sight distance obstructed area
C-ROAD-SGHT-OBST-LINE	Yes	30	30	Continuous	Default	Roadways: sight distance obstructed sight lines
C-ROAD-SGHT-OBST-PATH	Yes	red	red	Continuous	Default	Roadways: sight distance obstructed eye path
C-ROAD-SGHT-VIS-LINE	Yes	92	92	Continuous	Default	Roadways: sight distance visible sight lines
C-ROAD-SHAP	Yes	32	32	Continuous	Default	Roadways: corridor and section shapes
C-ROAD-SHAP-PATT	Yes	white	white	Continuous	Default	Roadways: corridor and section shapes hatching
C-ROAD-SHLD	Yes	255,0,255	magenta	Continuous	0.35mm	Roadway shoulder
C-ROAD-SIGN	Yes	255,0,0	red	Continuous	0.25mm	Signs
C-ROAD-SPIR	Yes	92	92	Continuous	Default	Roadways: spirals
C-ROAD-STAN	Yes	11	11	Continuous	Default	Roadways: stationing
C-ROAD-STAN-MAJR	Yes	11	11	Continuous	Default	Roadways: major stationing labels
C-ROAD-STAN-MINR	Yes	11	11	Continuous	Default	Roadways: minor stationing labels
C-ROAD-TEXT	Yes	11	11	Continuous	Default	Roadways: text

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
C-ROAD-UPVD	Yes	0,255,0	green	Continuous	0.25mm	Road outlines - unpaved surface
C-RRAP-GABN	Yes	255,0,0	red	Continuous	0.25mm	Gabions
C-RRAP-MATS	Yes	0,255,0	green	Continuous	0.25mm	Articulated concrete mats
C-RRAP-RVMT	Yes	255,0,0	red	Continuous	0.25mm	Revetments
C-RRAP-WEIR	Yes	0,255,0	green	Continuous	0.25mm	Weirs
C-RUNW-BLST	Yes	255,0,0	red	Continuous	0.35mm	Blast pad and stopway markings
C-RUNW-CNTR	Yes	255,0,0	red	Center Line	0.25mm	Centerlines
C-RUNW-CNTR-MRKG	Yes	255,0,0	red	Continuous	0.35mm	Centerline markings
C-RUNW-DISP	Yes	255,0,0	red	Continuous	0.35mm	Displaced threshold markings
C-RUNW-DIST	Yes	255,0,0	red	Continuous	0.35mm	Fixed distance markings
C-RUNW-EDGE	Yes	255,0,255	magenta	Continuous	0.35mm	Airfield runway edges
C-RUNW-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Airfield runway annotation
C-RUNW-SHLD	Yes	255,0,255	magenta	Continuous	0.35mm	Shoulder markings
C-RUNW-SIDE	Yes	0,255,255	cyan	Continuous	0.35mm	Side stripes
C-RUNW-TDZM	Yes	255,0,255	magenta	Continuous	0.35mm	Touchdown zone markers
C-RUNW-THRS	Yes	255,0,255	magenta	Continuous	0.35mm	Threshold markers
C-SECT-DSGN	Yes	0,255,0	green	Continuous	0.35mm	Sections, Design
C-SECT-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Component identification numbers
C-SECT-MBND	Yes	0,0,255	blue	Continuous	0.18mm	Material beyond section cut
C-SECT-MCUT	Yes	white	white	Continuous	0.35mm	Cuts through road surfaces, buildings, structures, fence lines, etc.
C-SECT-PATT	Yes	128,128,128	8	Continuous	0.18mm	Textures and hatch patterns
C-SECT-WATR	Yes	210,210,0	52	Continuous	0.35mm	Sections, Water
C-SITE-BLIN	Yes	0,255,0	green	MS2 Medium Dash	0.35mm	Site breakline
C-SITE-FENC	Yes	255,0,255	magenta	Fence	0.35mm	Fences and handrails
C-SITE-IDEN	Yes	255,0,255	magenta	Continuous	0.35mm	Site feature annotation
C-SITE-STRC	Yes	165,41,0	24	Continuous	0.35mm	Structures (bridges, sheds, foundation pads, footings, etc.)
C-SITE-STRS	Yes	255,0,255	magenta	Continuous	0.35mm	Stairs and ramps
C-SITE-WALK	Yes	255,200,0	40	Continuous	0.35mm	Walks, trails and bicycle paths
C-SSWR-CNTR	Yes	200	200	Continuous	Default	Sanitary Sewer: centerline
C-SSWR-DEVC	Yes	0,255,0	green	Continuous	0.35mm	Grease traps, grit chambers, flumes, neutralizers, oil/water separators, ejectors, and valves
C-SSWR-FILT	Yes	0,255,0	green	Continuous	0.35mm	Filtration beds
C-SSWR-FLOW	Yes	0,255,0	green	Continuous	0.35mm	Flow direction arrows
C-SSWR-FTTG	Yes	255,0,255	magenta	Continuous	0.35mm	Caps and cleanouts
C-SSWR-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Identifier tags, symbol modifier, and text
C-SSWR-JBOX	Yes	0,255,0	green	Continuous	0.35mm	Junction boxes and manholes
C-SSWR-LAGN	Yes	0,255,0	green	Continuous	0.35mm	Lagoons
C-SSWR-LEAC	Yes	0,255,0	green	Continuous	0.35mm	Leach field
C-SSWR-MAIN-PIPE	Yes	0,255,0	green	Sanitary Waste	0.35mm	Sanitary sewer piping
C-SSWR-MAIN-PIPE-PROF	Yes	0,255,0	green	Continuous	0.35mm	Sewer Pipes in Profile
C-SSWR-MAIN-PIPE-SECT	Yes	0,255,0	green	Continuous	0.35mm	Sewer Pipes in Cross Sections

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
C-SSWR-NITF	Yes	0,255,0	green	Continuous	0.35mm	Nitrification drain fields
C-SSWR-PIPE	Yes	200	200	Continuous	Default	Sanitary Sewer: piping
C-SSWR-PIPE-PATT	Yes	white	white	Continuous	Default	Sanitary Sewer: piping, hatching
C-SSWR-PLNT	Yes	0,255,0	green	Continuous	0.35mm	Treatment plants
C-SSWR-PROF	Yes	200	200	Continuous	Default	Sanitary Sewer: profile
C-SSWR-SERV-PIPE	Yes	0,255,0	green	Continuous	0.35mm	Sanitary sewer service piping
C-SSWR-SERV-PIPE-PROF	Yes	0,255,0	green	Continuous	0.35mm	Sanitary sewer service piping in Profile
C-SSWR-SERV-PIPE-SECT	Yes	0,255,0	green	Continuous	0.35mm	Sewer Pipes in Cross Sections
C-SSWR-SIGN	Yes	0,255,0	green	Continuous	0.35mm	Surface markers/signs
C-SSWR-STNS-PUMP	Yes	0,255,0	green	Continuous	0.35mm	Booster pump stations
C-SSWR-STRC	Yes	200	200	Continuous	Default	Sanitary Sewer: structures
C-SSWR-STRC-PATT	Yes	200	200	Continuous	Default	Sanitary Sewer: structures, hatching
C-SSWR-STRC-PROF	Yes	0,255,0	green	Continuous	0.35mm	Sewer Junction boxes and manholes in Profiles
C-SSWR-STRC-SECT	Yes	0,255,0	green	Continuous	0.35mm	Sewer Junction boxes and manholes in Cross Sections
C-SSWR-TANK	Yes	0,255,0	green	Continuous	0.35mm	Septic tanks
C-SSWR-TEXT	Yes	white	white	Continuous	Default	Sanitary Sewer: text
C-STRM-AFFF	Yes	0,255,0	green	Continuous	0.35mm	AFFF lagoon/detention pond
C-STRM-CHUT	Yes	0,255,0	green	Continuous	0.35mm	Chutes and concrete erosion control structures
C-STRM-CNTR	Yes	170	170	CENTER2	Default	Storm Sewer: centerline
C-STRM-CULV	Yes	0,255,0	green	Culvert	0.35mm	Culverts
C-STRM-CULV-PROF	Yes	0,255,0	green	Continuous	0.35mm	Culverts in Profile
C-STRM-CULV-SECT	Yes	0,255,0	green	Continuous	0.25mm	Culverts in Sections
C-STRM-DEVC	Yes	0,255,0	green	Continuous	0.35mm	Downspouts, flumes, oil/water separators, and flap gates
C-STRM-FLOW	Yes	0,255,0	green	Continuous	0.35mm	Flow direction arrows
C-STRM-FMON	Yes	0,255,0	green	Continuous	0.35mm	Flow monitoring station
C-STRM-FTTG	Yes	255,0,255	magenta	Continuous	0.35mm	Caps and cleanouts
C-STRM-HWAL	Yes	0,255,0	green	Continuous	0.50mm	Headwalls and endwalls
C-STRM-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Identifier tags, symbol modifier, and text
C-STRM-INLT	Yes	0,255,0	green	Continuous	0.35mm	Inlets (curb, surface, and catch basins)
C-STRM-MAIN-PIPE	Yes	0,255,0	green	Drain - Storm	0.35mm	Storm sewer piping
C-STRM-MAIN-PIPE-PROF	Yes	0,255,0	green	Continuous	0.35mm	Storm sewer Pipes in Profile
C-STRM-MAIN-PIPE-SECT	Yes	0,255,0	green	Continuous	0.35mm	Storm sewer Pipes in Cross Sections
C-STRM-MHOL	Yes	0,255,0	green	Continuous	0.35mm	Manholes
C-STRM-PIPE	Yes	170	170	Continuous	Default	Storm Sewer: piping
C-STRM-PIPE-PATT	Yes	white	white	Continuous	Default	Storm Sewer: piping, hatching
C-STRM-PIPE-PROF	Yes	0,255,0	green	Continuous	0.35mm	Storm sewer piping
C-STRM-POND	Yes	0,255,0	green	Continuous	0.35mm	Retention ponds, lagoons, watersheds, and basins
C-STRM-PROF	Yes	170	170	Continuous	Default	Storm Sewer: profile
C-STRM-ROOF	Yes	0,255,0	green	Continuous	0.35mm	Roof drain line

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
C-STRM-SERV-PIPE	Yes	0,255,0	green	Continuous	0.35mm	Storm sewer service piping
C-STRM-SERV-PIPE-PROF	Yes	0,255,0	green	Continuous	0.35mm	Storm sewer service piping in Profile
C-STRM-SERV-SECT	Yes	0,255,0	green	Continuous	0.35mm	Storm sewer Pipes in Cross Sections
C-STRM-SIGN	Yes	0,255,0	green	Continuous	0.35mm	Surface markers/signs
C-STRM-STNS-PUMP	Yes	0,255,0	green	Continuous	0.35mm	Pump stations
C-STRM-STRC	Yes	170	170	Continuous	Default	Storm Sewer: structures
C-STRM-STRC-PATT	Yes	white	white	Continuous	Default	Storm Sewer: structures, hatching
C-STRM-STRC-PROF	Yes	0,255,0	green	Continuous	0.35mm	Storm sewer Structures in Profiles
C-STRM-STRC-SECT	Yes	0,255,0	green	Continuous	0.35mm	Storm sewer Structures in Cross Sections
C-STRM-SUBS-CHIM	Yes	0,255,0	green	Continuous	0.35mm	Subsurface chimney drain
C-STRM-SUBS-COLL	Yes	0,255,0	green	Continuous	0.35mm	Subsurface drain collector
C-STRM-SUBS-DRAIN	Yes	0,255,0	green	Continuous	0.35mm	Subsurface drainage layer
C-STRM-SUBS-FILT	Yes	0,255,0	green	Continuous	0.25mm	Subsurface drain filter
C-STRM-SUBS-GEOX	Yes	0,255,0	green	Continuous	0.50mm	Subsurface drain geotextile material and filter fabric
C-STRM-SUBS-INCP	Yes	0,255,0	green	Continuous	0.35mm	Subsurface interceptor drain
C-STRM-SUBS-PIPE	Yes	0,255,0	green	Continuous	0.35mm	Subsurface drain piping
C-STRM-SUBS-SEPR	Yes	0,255,0	green	Continuous	0.35mm	Subsurface drain separation layer
C-STRM-TEXT	Yes	white	white	Continuous	Default	Storm Sewer: text
C-SURF-EG SURVEY	Yes	white	white	Continuous	Default	C-SURF-EG SURVEY
C-SURV-DATA	Yes	255,0,255	magenta	Continuous	0.35mm	Survey data (benchmarks and horizontal control points or monuments)
C-SURV-IDEN	Yes	255,0,255	magenta	Continuous	0.35mm	Survey, baseline, and control line annotation
C-SURV-LINE	Yes	0,255,255	cyan	MS2 Medium Dash	0.35mm	Survey, baseline, and control lines
C-TABL	Yes	white	white	Continuous	Default	Model Object: Tables
C-TAXI-CNTR	Yes	255,0,0	red	Center Line	0.25mm	Centerlines
C-TAXI-CNTR-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Centerline annotation
C-TAXI-CNTR-MRKG	Yes	255,0,0	red	Continuous	0.25mm	Centerline markings
C-TAXI-EDGE	Yes	0,255,255	cyan	Continuous	0.35mm	Edge markings
C-TAXI-HOLD	Yes	255,200,0	40	Continuous	0.35mm	Holding lines
C-TAXI-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Taxiway - annotation
C-TAXI-OTLN	Yes	0,255,255	cyan	Continuous	0.35mm	Taxiway - outlines
C-TAXI-SHLD	Yes	255,200,0	40	Continuous	0.35mm	Shoulders with annotation
C-TINN	Yes	cyan	cyan	Continuous	Default	Triangulated irregular network
C-TINN-BNDY	Yes	110	110	Continuous	Default	Triangulated irregular network: boundary
C-TINN-VIEW	Yes	252	252	Continuous	Default	Triangulated irregular network: triangle view
C-TOPO-BKLN	Yes	white	white	MS4 Dot Dash	0.50mm	Breaklines
C-TOPO-BKLN-COMM	Yes	white	white	Communication	0.50mm	Subsurface utilities communications breakline
C-TOPO-BKLN-DOMW	Yes	white	white	Water Line	0.50mm	Subsurface utilities water breakline
C-TOPO-BKLN-ELEC	Yes	white	white	Electrical Primary	0.50mm	Subsurface utilities electric breakline

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
C-TOPO-BKLN-FUEL	Yes	white	white	Gas - Liquefied Petroleum	0.50mm	Subsurface utilities liquid fuel breakline
C-TOPO-BKLN-NGAS	Yes	white	white	Gas - Low Pressure	0.50mm	Subsurface utilities natural gas breakline
C-TOPO-BKLN-SSWR	Yes	white	white	Sanitary Waste	0.50mm	Subsurface utilities sanitary sewer breakline
C-TOPO-BKLN-STRM	Yes	white	white	Drain - Storm	0.50mm	Subsurface utilities storm sewer breakline
C-TOPO-BNDY-EXTR	Yes	0,255,0	green	Continuous	0.18mm	Surface exterior boundary
C-TOPO-BNDY-INTR	Yes	255,0,0	red	MS2 Medium Dash	0.18mm	Surface interior boundary
C-TOPO-BORE	Yes	255,0,255	magenta	Continuous	0.35mm	Boring locations and text
C-TOPO-CONT-TEXT	Yes	white	white	Continuous	Default	Topography: contour labels
C-TOPO-CONT-TEXT-N	Yes	red	red	Continuous	Default	Topography: contours labels, NEW
C-TOPO-COOR	Yes	0,165,124	122	Continuous	0.35mm	Coordinate grid text annotation
C-TOPO-COOR-LALO	Yes	0,255,0	green	Continuous	0.25mm	Latitude and longitude grid ticks
C-TOPO-COOR-STAT	Yes	0,255,0	green	Continuous	0.25mm	State Plane coordinate ticks
C-TOPO-COOR-UTM~	Yes	0,255,0	green	Continuous	0.25mm	UTM coordinate ticks
C-TOPO-DTMO	Yes	255,0,255	magenta	Continuous	0.35mm	DTM obscure area boundary
C-TOPO-DTMP	Yes	255,0,255	magenta	Continuous	0.35mm	DTM points
C-TOPO-DTMT	Yes	165,41,0	24	Continuous	0.35mm	DTM triangles
C-TOPO-GRAD	Yes	94	94	Continuous	Default	Topography: grading
C-TOPO-GRAD-CUTS	Yes	red	red	Continuous	Default	Topography: grading cut material
C-TOPO-GRAD-FILL	Yes	94	94	Continuous	Default	Topography: grading fill material
C-TOPO-IDEN	Yes	white	white	Continuous	Default	Surface - annotation
C-TOPO-MAJR	Yes	255,200,0	40	Continuous	0.35mm	Major contours
C-TOPO-MAJR-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Major contours - annotation
C-TOPO-MAJR-N	Yes	92	92	Continuous	Default	Topography: major contours, NEW
C-TOPO-MINR	Yes	0,255,0	green	Continuous	0.25mm	Minor contours
C-TOPO-MINR-IDEN	Yes	0,255,0	green	Continuous	0.25mm	Minor contours - annotation
C-TOPO-MINR-N	Yes	11	11	Continuous	Default	Topography: minor contours, NEW
C-TOPO-SHAP	Yes	255,0,0	red	Continuous	0.25mm	Inroads generated shapes/lines
C-TOPO-SHOR	Yes	0,255,255	cyan	Continuous	0.35mm	Shorelines, land features, and references
C-TOPO-SLOP-FILL	Yes	255,200,0	40	Continuous	0.35mm	Cut/fill slopes
C-TOPO-SLOP-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Cut/fill slope, top/toe slope annotation
C-TOPO-SLOP-TOPT	Yes	255,0,255	magenta	Continuous	0.35mm	Top/toe slopes
C-TOPO-SOUN	Yes	white	white	Continuous	0.18mm	Soundings and overbanks
C-TOPO-SPOT	Yes	255,200,0	40	Continuous	0.35mm	Spot elevations
C-TOPO-SPOT-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Spot elevations - annotation
C-TOPO-SURF-PERI	Yes	0,255,0	green	Continuous	0.18mm	Surface perimeter
C-TOPO-SURF-PONT	Yes	white	white	Continuous	0.25mm	Surface feature points
C-TOPO-SURF-VOID	Yes	255,0,0	red	Continuous	0.18mm	Surface void region
C-TOPO-TEXT	Yes	white	white	Continuous	Default	Topography: text
C-TOPO-USER	Yes	10	10	Continuous	0.18mm	User contours
C-TOPO-USER-IDEN	Yes	10	10	Continuous	0.18mm	User contours - annotation
C-TOPO-WATR	Yes	white	white	MS3 Long Dash	0.50mm	Water level reference (LWRP, after-grading LWRP, SWL, etc.)
C-TOPO-WSHD	Yes	150	150	Continuous	Default	Topography: watershed

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
C-TOPO-WSHD-TEXT	Yes	white	white	Continuous	Default	Topography: watershed text
C-TRAF-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Airfield traffic area annotation
C-TRAF-TYPA	Yes	0,255,255	cyan	MS4 Dot Dash	0.50mm	Type A traffic area
C-TRAF-TYPB	Yes	0,255,255	cyan	MS6 Dash Dot Dot	0.50mm	Type B traffic area
C-TRAF-TYPC	Yes	0,255,255	cyan	MS1 Dot	0.50mm	Type C traffic area
C-WATR-APPT	Yes	blue	blue	Continuous	Default	Water Network: appurtenances
C-WATR-APPT-PATT	Yes	white	white	Continuous	Default	Water Network: appurtenances, hatching
C-WATR-CNTR	Yes	blue	blue	Continuous	Default	Water Network: centerline
C-WATR-DEVC	Yes	0,255,255	cyan	Continuous	0.35mm	Connectors, faucets, reducers, regulators, vents, intake points, taps, backflow preventers, and valves
C-WATR-FITT	Yes	blue	blue	Continuous	Default	Water Network: fittings
C-WATR-FITT-PATT	Yes	white	white	Continuous	Default	Water Network: fittings, hatching
C-WATR-HYDT	Yes	0,255,255	cyan	Continuous	0.35mm	Flushing hydrants
C-WATR-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Identifier tags, symbol modifier, and text
C-WATR-MAIN-PIPE	Yes	0,255,255	cyan	Water Line	0.35mm	Main domestic water piping
C-WATR-MAIN-PIPE-PROF	Yes	0,255,255	cyan	Continuous	0.35mm	Main domestic water piping in Profile
C-WATR-MAIN-PIPE-SECT	Yes	0,255,255	cyan	Continuous	0.35mm	Water Pipes in Cross Sections
C-WATR-METR	Yes	0,255,255	cyan	Continuous	0.35mm	Meters
C-WATR-NPW~-PIPE	Yes	0,255,255	cyan	Non-Potable Water	0.35mm	Non-potable water piping
C-WATR-PIPE	Yes	blue	blue	Continuous	Default	Water Network: pressure pipe
C-WATR-PIPE-PATT	Yes	white	white	Continuous	Default	Water Network: pressure pipe, hatching
C-WATR-PROF	Yes	blue	blue	Continuous	Default	Water Network: profile
C-WATR-SCTN	Yes	blue	blue	Continuous	Default	Water Network: section
C-WATR-SERV-PIPE	Yes	0,255,255	cyan	Continuous	0.35mm	Domestic water service piping
C-WATR-SIGN	Yes	0,255,255	cyan	Continuous	0.35mm	Surface markers/signs
C-WATR-STNS-PUMP	Yes	0,255,255	cyan	Continuous	0.35mm	Booster pump stations
C-WATR-STNS-REDC	Yes	0,255,255	cyan	Continuous	0.35mm	Pressure reducing stations
C-WATR-TANK	Yes	0,255,255	cyan	Continuous	0.35mm	Water storage tanks
C-WATR-TEXT	Yes	white	white	Continuous	Default	Water Network: text
C-WATR-VALT	Yes	0,255,255	cyan	Continuous	0.35mm	Valve/vent pits/vaults
C-WATR-WELL	Yes	0,255,255	cyan	Continuous	0.35mm	Water well houses
C-WETL-BOGS	Yes	255,0,255	magenta	Continuous	0.35mm	Bogs
C-WETL-FENS	Yes	255,200,0	40	Continuous	0.35mm	Fens
C-WETL-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Wetland annotation
C-WETL-MRSH	Yes	0,41,165	172	Continuous	0.35mm	Fresh water marshes
C-WETL-MRSH-SALT	Yes	0,41,165	172	Continuous	0.35mm	Tidal saltwater marshes
C-WETL-MRSH-TIDL	Yes	0,41,165	172	Continuous	0.35mm	Tidal freshwater marsh
C-WETL-PCSN	Yes	255,0,255	magenta	Continuous	0.35mm	Pocosins
C-WETL-PHOL	Yes	255,0,255	magenta	Continuous	0.35mm	Vernal pools, playas, prairie potholes, wet meadows, and wet prairies
C-WETL-RPRN	Yes	0,41,165	172	Continuous	0.35mm	Riparian forested wetlands

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
C-WETL-SLGH	Yes	0,41,165	172	Continuous	0.35mm	Sloughs
C-WETL-SWMP	Yes	0,41,165	172	Continuous	0.35mm	Swamps

7.4 Civil 3D Object (Master Layers)

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
CM-ALGN	Yes	white	white	Continuous	Default	Model Object: Alignment
CM-ALGN-LABL	Yes	white	white	Continuous	Default	Model Object: Alignment Labeling
CM-ALGN-TABL	Yes	white	white	Continuous	Default	Model Object: Alignments Tables
CM-BLDG-SITE	Yes	white	white	Continuous	Default	Model Object: Imported REVIT Building Site
CM-CANT-VIEW	Yes	white	white	Continuous	Default	Model Object: Cant Views
CM-CATC	Yes	white	white	Continuous	Default	Model Object: Catchments
CM-CATC-LABL	Yes	white	white	Continuous	Default	Model Object: Catchment Labeling
CM-CORR	Yes	white	white	Continuous	Default	Model Object: Corridors
CM-CORR-ASSY	Yes	white	white	Continuous	Default	Model Object: Assembly
CM-CORR-SECT	Yes	white	white	Continuous	Default	Model Object: Corridor Section
CM-GRAD	Yes	white	white	Continuous	Default	Model Object: Grading Projections
CM-GRAD-LABL	Yes	white	white	Continuous	Default	Model Object: Grading Labeling
CM-INTS	Yes	white	white	Continuous	Default	Model Object: Intersections
CM-INTS-LABL	Yes	white	white	Continuous	Default	Model Object: Intersection Labeling
CM-MASS	Yes	white	white	Continuous	Default	Model Object: Mass Haul Line
CM-MASS-VIEW	Yes	white	white	Continuous	Default	Model Object: Mass Haul View
CM-MATC	Yes	white	white	Continuous	Default	Model Object: Match Lines
CM-MATC-LABL	Yes	white	white	Continuous	Default	Model Object: Match Line Labeling
CM-MATL	Yes	white	white	Continuous	Default	Model Object: Material Section
CM-MATL-LABL	Yes	white	white	Continuous	Default	Model Object: Material Section Labeling
CM-NOTE-LABL	Yes	white	white	Continuous	Default	Model Object: General Note Labeling
CM-PARC	Yes	white	white	Continuous	Default	Model Object: Parcels and Segments
CM-PARC-LABL	Yes	white	white	Continuous	Default	Model Object: Parcel and Segment Labeling
CM-PARC-TABL	Yes	white	white	Continuous	Default	Model Object: Parcel Table
CM-PIPE	Yes	white	white	Continuous	Default	Model Object: Pipes
CM-PIPE-INTF	Yes	white	white	Continuous	Default	Model Object: Interference
CM-PIPE-LABL	Yes	white	white	Continuous	Default	Model Object: Pipe Labeling
CM-PIPE-PROF	Yes	white	white	Continuous	Default	Model Object: Pipe or Structure in Profile Views
CM-PIPE-SECT	Yes	white	white	Continuous	Default	Model Object: Pipe Network Objects in Section Views
CM-PIPE-STRC	Yes	white	white	Continuous	Default	Model Object: Structures
CM-PIPE-STRC-LABL	Yes	white	white	Continuous	Default	Model Object: Structure Labeling
CM-PIPE-TABL	Yes	white	white	Continuous	Default	Model Object: Pipe Tables
CM-PNTS-TABL	Yes	white	white	Continuous	Default	Model Object: Point Tables
CM-PPIP-APUR	Yes	white	white	Continuous	Default	Model Object: Appurtenance
CM-PPIP-APUR-LABL	Yes	white	white	Continuous	Default	Model Object: Appurtenance Labeling
CM-PPIP-FITT	Yes	white	white	Continuous	Default	Model Object: Fittings
CM-PPIP-FITT-LABL	Yes	white	white	Continuous	Default	Model Object: Fitting Labeling
CM-PPIP-PIPE	Yes	white	white	Continuous	Default	Model Object: Pressure Pipe

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
CM-PIIP-PROF	Yes	white	white	Continuous	Default	Model Object: Pipe or Structure in Profile Views
CM-PIIP-SECT	Yes	white	white	Continuous	Default	Model Object: Pipe or Structure in Section Views
CM-PIIP-TABL	Yes	white	white	Continuous	Default	Model Object: Pressure Network Tables
CM-PROF	Yes	white	white	Continuous	Default	Model Object: Profiles
CM-PROF-LABL	Yes	white	white	Continuous	Default	Model Object: Profile Labeling
CM-PROF-VIEW	Yes	white	white	Continuous	Default	Model Object: Profile Views
CM-PROF-VIEW-LABL	Yes	white	white	Continuous	Default	Model Object: Profile View Labeling
CM-SASS	Yes	white	white	Continuous	Default	Model Object: Subassembly
CM-SECT	Yes	white	white	Continuous	Default	Model Object: Sections
CM-SECT-LABL	Yes	white	white	Continuous	Default	Model Object: Section Labeling
CM-SECT-TABL	Yes	white	white	Continuous	Default	Model Object: Section Tables
CM-SECT-VIEW	Yes	white	white	Continuous	Default	Model Object: Section Views
CM-SECT-VIEW-LABL	Yes	white	white	Continuous	Default	Model Object: Section View Labeling
CM-SEGM-LABL	Yes	white	white	Continuous	Default	Model Object: General Segment Labeling
CM-SHET	Yes	white	white	Continuous	Default	Model Object: Sheets
CM-SLIN	Yes	white	white	Continuous	Default	Model Object: Sample Line
CM-SLIN-LABL	Yes	white	white	Continuous	Default	Model Object: Sample Line Labeling
CM-SUPR-VIEW	Yes	white	white	Continuous	Default	Model Object: Section View
CM-SURF	Yes	white	white	Continuous	Default	Model Object: Tin, Grid and Volume Surfaces
CM-SURF-LABL	Yes	white	white	Continuous	Default	Model Object: Tin, Grid and Volume Surface Labeling
CM-SURF-TABL	Yes	white	white	Continuous	Default	Model Object: Tin, Grid and Volume Surface Tables
CM-SURV-FIGR	Yes	white	white	Continuous	Default	Model Object: Survey Figures
CM-SURV-FIGR-LABL	Yes	white	white	Continuous	Default	Model Object: Survey Figure Labeling
CM-SURV-NETW	Yes	white	white	Continuous	Default	Model Object: Survey Network
CM-TOPO-FEAT	Yes	94	94	Continuous	Default	Topography: feature line
CM-VIEW-FRAM	Yes	white	white	Continuous	Default	Model Object: View Frames
CM-VIEW-FRAM-LABL	Yes	white	white	Continuous	Default	Model Object: View Frame Labeling

7.5 Electrical

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
E-AFLD-CIRC-CTRL	Yes	145,82,165	205	Continuous	0.50mm	Control and monitoring circuits
E-AFLD-CIRC-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Circuit identifier tags, symbol modifier, and text
E-AFLD-CIRC-MULT	Yes	145,82,165	205	Continuous	0.50mm	Multiple circuits
E-AFLD-CIRC-SERS	Yes	145,82,165	205	Continuous	0.50mm	Series circuits
E-AFLD-DBNK	Yes	145,82,165	205	Duct Bank	0.50mm	Ductbanks
E-AFLD-DEVC	Yes	145,82,165	205	Continuous	0.50mm	Capacitors, voltage regulators, motors, buses, generators, meters, grounds, and markers
E-AFLD-JBOX	Yes	145,82,165	205	Continuous	0.50mm	Junction boxes, pull boxes, manholes, handholes, pedestals, splices
E-AFLD-LITE-APPR	Yes	145,82,165	205	Continuous	0.50mm	Approach lights
E-AFLD-LITE-DIST	Yes	145,82,165	205	Continuous	0.50mm	Distance and arresting gear markers
E-AFLD-LITE-LANE	Yes	145,82,165	205	Continuous	0.50mm	Hoverlane, taxilane, and helipad lights
E-AFLD-LITE-OBST	Yes	145,82,165	205	Continuous	0.50mm	Obstruction lights
E-AFLD-LITE-RUNW	Yes	145,82,165	205	Continuous	0.50mm	Runway lights
E-AFLD-LITE-SIGN	Yes	145,82,165	205	Continuous	0.50mm	Taxiway guidance signs
E-AFLD-LITE-TAXI	Yes	145,82,165	205	Continuous	0.50mm	Taxiway lights
E-AFLD-LITE-THRS	Yes	145,82,165	205	Continuous	0.50mm	Threshold lights
E-AFLD-VALT	Yes	145,82,165	205	Continuous	0.50mm	Airfield lighting vaults
E-ALRM-EQPM	Yes	255,63,0	20	Continuous	0.50mm	Alarm system equipment
E-ALRM-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
E-BCNS-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
E-BCNS-MISC	Yes	145,82,165	205	Continuous	0.50mm	Miscellaneous nav aids - windcones and beacons
E-BCNS-STRB	Yes	145,82,165	205	Continuous	0.50mm	Strobe beacons
E-BELL-EQPM	Yes	255,63,0	20	Continuous	0.50mm	Bell system equipment
E-BELL-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
E-CABL-COAX	Yes	255,63,0	20	MS2 Medium Dash	0.50mm	Coax cable
E-CABL-FIBR	Yes	255,63,0	20	Fiber optics	0.50mm	Fiber optics cable
E-CABL-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
E-CABL-MULT	Yes	255,63,0	20	Continuous	0.50mm	Multi-conductor cable
E-CABL-TRAY	Yes	255,63,0	20	Continuous	0.50mm	Cable trays and wireways
E-CATH-ANOD	Yes	105,0,0	16	Continuous	0.50mm	Sacrificial anode system
E-CATH-CURR	Yes	105,0,0	16	Continuous	0.50mm	Impress current system
E-CATH-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifier, and text
E-CATH-TEST	Yes	105,0,0	16	Continuous	0.50mm	Test stations
E-CATV-EQPM	Yes	255,63,0	20	Cable TV	0.50mm	Cable TV system equipment
E-CATV-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
E-CCTV-EQPM	Yes	255,63,0	20	Closed Circuit TV	0.50mm	Closed-circuit television system equipment
E-CCTV-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
E-CLOK-EQPM	Yes	255,63,0	20	Continuous	0.50mm	Clock system equipment
E-CLOK-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
E-COMM-ANTN	Yes	255,63,0	20	Continuous	0.50mm	Antennae
E-COMM-CIRC	Yes	255,63,0	20	Continuous	0.50mm	Circuits
E-COMM-CNMB	Yes	210,210,0	52	Continuous	0.35mm	Communication circuit numbers (e.g., panel/circuit number, wire/conduit size)
E-COMM-EQPM	Yes	255,63,0	20	Continuous	0.50mm	Other communications distribution equipment
E-COMM-JBOX	Yes	255,63,0	20	Continuous	0.50mm	Communication junction boxes, pull boxes, handholes, pedestals, and splices
E-COMM-MHOL	Yes	255,63,0	20	Continuous	0.50mm	Manholes
E-COMM-OVHD	Yes	255,63,0	20	Communication	0.50mm	Overhead communications/telephone lines
E-COMM-OVHD-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifier and text
E-COMM-POLE	Yes	255,63,0	20	Continuous	0.50mm	Poles
E-COMM-POLE-GUYS	Yes	255,63,0	20	Continuous	0.50mm	Guying equipment
E-COMM-POLE-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
E-COMM-UGND	Yes	255,63,0	20	Communication	0.50mm	Underground communications/telephone lines
E-COMM-UGND-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifier and text
E-DBNK-MULT	Yes	105,0,0	16	Duct Bank	0.50mm	Ductbank
E-DBNK-MULT-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifier and text
E-DETL-GRPH	Yes	white	white	Continuous	0.35mm	Graphics, gridlines, non-text items
E-DIAG-GRPH	Yes	white	white	Continuous	0.35mm	Graphics, gridlines, non-text items
E-DIAG-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
E-DICT-EQPM	Yes	255,63,0	20	Continuous	0.50mm	Central dictation system equipment
E-DICT-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
E-DISC-INFO	Yes	0,255,0	green	Continuous	0.25mm	Clearances and working space information (NEC code, etc.)
E-EMCS-EQPM	Yes	105,0,0	16	Continuous	0.50mm	Energy monitoring control system equipment
E-EMCS-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
E-FLOR-IDEN	Yes	0,255,0	green	Continuous	0.25mm	Room name, space identification text (copied from Architectural - Floor Plan model file)
E-FLOR-NUMB	Yes	0,255,0	green	Continuous	0.25mm	Room/space identification number and symbol (copied from Architectural - Floor Plan model file)
E-GRND-CIRC	Yes	105,0,0	16	Continuous	0.50mm	Circuits
E-GRND-DIAG	Yes	105,0,0	16	Continuous	0.50mm	Ground system diagram
E-GRND-EQUI	Yes	105,0,0	16	Continuous	0.50mm	Equipotential ground system
E-GRND-REFR	Yes	105,0,0	16	Continuous	0.50mm	Reference ground system
E-INTC-EQPM	Yes	255,63,0	20	Continuous	0.50mm	Intercom system equipment
E-INTC-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
E-LITE-CIRC	Yes	255,0,0	red	Continuous	0.50mm	Lighting circuits (including crosslines and homeruns)
E-LITE-CLNG	Yes	255,0,0	red	Continuous	0.50mm	Ceiling mounted (surface/pendant) fixtures
E-LITE-CNMB	Yes	210,210,0	52	Continuous	0.35mm	Lighting circuit numbers (e.g., panel/circuit number, wire/conduit size)
E-LITE-EMER	Yes	255,0,0	red	Continuous	0.50mm	Emergency fixtures (outline of light (if ceiling mounted) should go on E-LITE-CLNG)
E-LITE-EXIT	Yes	255,0,0	red	Continuous	0.50mm	Exit fixtures (outline of light (if ceiling mounted) should go on E-LITE-CLNG)
E-LITE-EXTR	Yes	255,0,0	red	Continuous	0.50mm	Exterior lights
E-LITE-FLOR	Yes	255,0,0	red	Continuous	0.50mm	Floor mounted fixtures (e.g., stage)
E-LITE-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Light fixture identifier tags
E-LITE-JBOX	Yes	255,0,0	red	Continuous	0.50mm	Junction boxes
E-LITE-PANL	Yes	255,0,0	red	Continuous	0.50mm	Main distribution panels, switchboards, lighting panels
E-LITE-ROOF	Yes	255,0,0	red	Continuous	0.50mm	Roof lighting
E-LITE-SPCL	Yes	255,0,0	red	Continuous	0.50mm	Special fixtures
E-LITE-SWCH	Yes	255,0,0	red	Continuous	0.50mm	Lighting contactors, photoelectric controls, low-voltage lighting controls, etc.
E-LITE-WALL	Yes	255,0,0	red	Continuous	0.50mm	Wall mounted fixtures
E-LTNG-COND	Yes	105,0,0	16	Continuous	0.50mm	Lightning protection conductors
E-LTNG-TERM	Yes	105,0,0	16	Continuous	0.35mm	Lightning protection terminals
E-NURS-EQPM	Yes	255,63,0	20	Continuous	0.50mm	Nurse call/paging system equipment
E-NURS-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
E-POWR-BUSW	Yes	105,0,0	16	Continuous	0.50mm	Busways
E-POWR-CIRC	Yes	105,0,0	16	Continuous	0.50mm	Power circuits (including crosslines and homeruns)
E-POWR-CLNG	Yes	105,0,0	16	Continuous	0.50mm	Ceiling outlets (receptacles and switches)

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
E-POWR-CNDT	Yes	105,0,0	16	Continuous	0.50mm	Conduit
E-POWR-CNMB	Yes	210,210,0	52	Continuous	0.35mm	Power circuit numbers (e.g., panel/circuit number, wire/conduit size)
E-POWR-DEVC	Yes	105,0,0	16	Continuous	0.50mm	Capacitors, voltage regulators, motors, buses, grounds, and markers
E-POWR-DSCO	Yes	105,0,0	16	Continuous	0.50mm	Disconnect switches
E-POWR-FEED	Yes	105,0,0	16	Continuous	0.50mm	Feeders
E-POWR-GENR	Yes	105,0,0	16	Continuous	0.50mm	Generators and auxiliary equipment
E-POWR-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
E-POWR-JBOX	Yes	105,0,0	16	Continuous	0.50mm	Junction boxes, pull boxes, manholes, handholes, pedestals, splices
E-POWR-METR	Yes	105,0,0	16	Continuous	0.50mm	Meters
E-POWR-MOTR	Yes	105,0,0	16	Continuous	0.50mm	Motors and utilization equipment
E-POWR-PANL	Yes	105,0,0	16	Continuous	0.50mm	Panelboards, MCC, backing boards, patch panel racks
E-POWR-POLE	Yes	105,0,0	16	Continuous	0.50mm	Power poles
E-POWR-POLE-GUYS	Yes	105,0,0	16	Continuous	0.50mm	Guying equipment
E-POWR-SBST	Yes	105,0,0	16	Continuous	0.50mm	Substation equipment
E-POWR-SWBD	Yes	105,0,0	16	Continuous	0.50mm	Switchboards
E-POWR-SWCH	Yes	105,0,0	16	Continuous	0.50mm	Fuse cutouts, motor starters, contactors, pole mounted switches, circuit breakers, reclosers, cubicle switches
E-POWR-URAC	Yes	105,0,0	16	MS3 Long Dash	0.50mm	Underfloor raceways
E-POWR-WALL	Yes	105,0,0	16	Continuous	0.50mm	Wall/floor outlets (receptacles and switches)
E-POWR-XFMR-PADM	Yes	105,0,0	16	Continuous	0.50mm	Pad mounted transformers
E-POWR-XFMR-POLM	Yes	105,0,0	16	Continuous	0.50mm	Pole mounted transformers
E-PRIM-OVHD	Yes	105,0,0	16	Electrical Primary	0.50mm	Overhead electrical utility lines
E-PRIM-OVHD-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
E-PRIM-UGND	Yes	105,0,0	16	Electrical Primary	0.50mm	Underground electrical utility lines
E-PRIM-UGND-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
E-SECD-OVHD	Yes	105,0,0	16	Electrical Secondary	0.50mm	Overhead electrical utility lines
E-SECD-OVHD-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
E-SECD-UGND	Yes	105,0,0	16	Electrical Secondary	0.50mm	Underground electrical utility lines
E-SECD-UGND-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
E-SERT-ACCS	Yes	255,63,0	20	Continuous	0.50mm	Access control system

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
E-SERT-CLNG	Yes	255,63,0	20	Continuous	0.50mm	Ceiling mounted sensors
E-SERT-FLOR	Yes	255,63,0	20	Continuous	0.50mm	Floor mounted sensors
E-SERT-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
E-SERT-UNDR	Yes	255,63,0	20	Continuous	0.50mm	Buried sensors
E-SERT-WALL	Yes	255,63,0	20	Continuous	0.50mm	Wall mounted sensors
E-SOUN-EQPM	Yes	255,63,0	20	Continuous	0.50mm	Sound system equipment
E-SOUN-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
E-SPCL-SYST	Yes	105,0,0	16	Continuous	0.50mm	Special systems (UMCS, EMCS, etc.)
E-SPCL-SYST-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Special systems (UMCS, EMCS, etc.) identifier tags, symbol modifier, and text
E-SPCL-TRAF	Yes	105,0,0	16	Continuous	0.50mm	Traffic signal system
E-SPCL-TRAF-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Traffic signal identifier tags, symbol modifier, and text

7.6 Fire Protection

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
F-AFFF-EQPM	Yes	255,0,0	red	Continuous	0.35mm	Equipment
F-AFFF-PIPE	Yes	255,0,0	red	Continuous	0.35mm	Piping
F-CO2S-EQPM	Yes	255,0,0	red	Continuous	0.35mm	Equipment
F-CO2S-PIPE	Yes	255,0,0	red	Continuous	0.35mm	CO2 piping or CO2 discharge nozzle piping
F-CTRL-PANL	Yes	165,103,82	25	Continuous	0.50mm	Control panels
F-DETL-GRPH	Yes	white	white	Continuous	0.35mm	Graphics, gridlines, non-text items
F-FLOR-IDEN	Yes	0,255,0	green	Continuous	0.25mm	Room name, space identification text (copied from Architectural - Floor Plan model file)
F-FLOR-NUMB	Yes	0,255,0	green	Continuous	0.25mm	Room/space identification number and symbol (copied from Architectural - Floor Plan model file)
F-HALN-EQPM	Yes	255,0,0	red	Continuous	0.35mm	Equipment
F-HALN-PIPE	Yes	255,0,0	red	Continuous	0.35mm	Piping
F-IGAS-EQPM	Yes	255,0,0	red	Continuous	0.35mm	Equipment
F-IGAS-PIPE	Yes	255,0,0	red	Continuous	0.35mm	Piping
F-LITE-EMER	Yes	165,103,82	25	Continuous	0.50mm	Emergency fixtures
F-LITE-EXIT	Yes	145,82,165	205	Continuous	0.50mm	Exit fixtures
F-LSFT-EGRE	Yes	255,0,255	magenta	Continuous	0.35mm	Egress requirements designator
F-LSFT-OCCP	Yes	255,0,255	magenta	Continuous	0.35mm	Occupant load for egress capacity
F-LSFT-TRVL	Yes	255,0,255	magenta	Continuous	0.35mm	Maximum travel distances
F-PROT-ALRM-INDC	Yes	103,165,82	85	Continuous	0.50mm	Indicating appliances
F-PROT-ALRM-MANL	Yes	165,103,82	25	Continuous	0.50mm	Manual fire alarm pull stations
F-PROT-EXTI	Yes	210,210,0	52	Continuous	0.35mm	Fire extinguishers
F-PROT-EXTI-CABN	Yes	210,210,0	52	Continuous	0.35mm	Fire extinguisher cabinets
F-PROT-HOSE	Yes	210,210,0	52	Continuous	0.35mm	Fire hoses
F-PROT-HOSE-CABN	Yes	210,210,0	52	Continuous	0.35mm	Fire hose cabinets
F-PROT-RATE-DOOR	Yes	0,255,255	cyan	Continuous	0.50mm	Door fire ratings
F-PROT-RATE-WALL	Yes	0,255,255	cyan	Continuous	0.50mm	Wall fire ratings
F-PROT-SMOK	Yes	165,103,82	25	Continuous	0.50mm	Smoke detectors and heat sensors
F-SMOK-DMPR	Yes	165,41,0	24	Continuous	0.35mm	Dampers
F-SPKL-CLHD	Yes	255,0,0	red	Continuous	0.35mm	Sprinkler - ceiling heads
F-SPKL-OTHD	Yes	255,0,0	red	Continuous	0.35mm	Sprinkler - other heads
F-SPKL-PIPE	Yes	255,0,0	red	Fire Protection - Supply	0.50mm	Sprinkler piping
F-SPKL-STAN	Yes	255,0,0	red	Continuous	0.35mm	Standpipe system
F-WATR-HYDT	Yes	255,0,0	red	Continuous	0.35mm	Hydrants and connections
F-WATR-PIPE	Yes	255,0,0	red	Fire Protection Water Supply	0.50mm	Piping
F-WATR-PUMP	Yes	255,0,0	red	Continuous	0.35mm	Fire pumps

7.7 General

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
G-ANNO-DIMS	Yes	255,0,0	red	Continuous	0.35mm	Witness/extension lines dimension terminators dimension text
G-ANNO-KEYN	Yes	white	white	Continuous	0.35mm	Reference keynotes with associated leaders
G-ANNO-LEGN	Yes	white	white	Continuous	0.35mm	Legends and symbol keys
G-ANNO-MASK	Yes	82,165,124	115	Continuous	0.18mm	Text/shape mask for use with photo backgrounds
G-ANNO-MATC	Yes	255,0,255	magenta	Center Line	0.70mm	Match lines
G-ANNO-MISC	Yes	yellow	yellow	Continuous	Default	Miscellaneous Annotation
G-ANNO-MTCH	Yes	white	white	DASHEDX2	Default	Match Lines
G-ANNO-NOTE	Yes	255,200,0	40	Continuous	0.35mm	Sheet-specific notes and general remarks
G-ANNO-NPLT	No	0,0,255	blue	Continuous	0.18mm	Non-plotting graphic information
G-ANNO-PATT	Yes	128,128,128	8	Continuous	0.18mm	Patterning, shading, and hatching
G-ANNO-RDME	Yes	0,0,255	blue	Continuous	0.18mm	Read-me information
G-ANNO-REDL	Yes	255,0,0	red	Continuous	0.18mm	Redlines
G-ANNO-REFR	Yes	white	white	Continuous	0.35mm	Reference files and raster attachments
G-ANNO-REVC	Yes	0,255,255	cyan	Continuous	0.35mm	Revision clouds
G-ANNO-REVS	Yes	0,255,255	cyan	Continuous	0.35mm	Revision indicators and text
G-ANNO-SCHD	Yes	white	white	Continuous	0.35mm	Schedules
G-ANNO-SCHD-BRDR	Yes	white	white	Continuous	0.70mm	Table Border
G-ANNO-SCHD-DATA	Yes	white	white	Continuous	0.25mm	Table Data
G-ANNO-SCHD-HEAD	Yes	white	white	Continuous	0.35mm	Table Header
G-ANNO-SCHD-PATT	Yes	255	255	Continuous	0.00mm	Table Fill Pattern
G-ANNO-SCHD-TITL	Yes	white	white	Continuous	0.35mm	Table Title
G-ANNO-SYMB	Yes	255,0,255	magenta	Continuous	0.35mm	Miscellaneous symbols
G-ANNO-TEXT	Yes	white	white	Continuous	0.35mm	Sheet-specific text and callouts with associated leaders
G-ANNO-TTLB	Yes	white	white	Continuous	0.35mm	Border and titleblock linework
G-ANNO-TTLB-GRID	No	0,0,255	blue	MS7 Long Dash Short Dash	0.18mm	Grid lines inside border
G-ANNO-TTLB-GRID (Construction)	No	0,0,255	blue	MS7 Long Dash Short Dash	0.18mm	Grid lines inside border
G-COOR-LALO	Yes	255,200,0	40	Continuous	0.25mm	Latitude/longitude coordinate grid ticks
G-COOR-LALO-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Latitude/longitude coordinate text
G-COOR-STAT	Yes	255,200,0	40	MS3 Long Dash	0.25mm	State plane coordinate grid ticks
G-COOR-STAT-IDEN	Yes	255,200,0	40	Continuous	0.25mm	State plane coordinate text
G-DEMO-PHS1	Yes	255,120,0	30	Demolition Line	0.50mm	Items to be demolished
G-DETL-GRPH	Yes	white	white	Continuous	0.35mm	Graphics, gridlines, non-text items
G-GRID-COOR	Yes	white	white	Continuous	0.25mm	X-Y coordinate grid lines
G-GRID-COOR-IDEN	Yes	white	white	Continuous	0.25mm	X-Y coordinate grid lines annotation
G-GRID-EXTR	Yes	0,0,255	blue	Center Line	0.18mm	Column grid outside building
G-GRID-IDEN	Yes	255,0,0	red	Continuous	0.25mm	Column grid tags

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
G-PLAN-OTLN	Yes	255,0,255	magenta	Continuous	0.35mm	Floor outline/perimeter/building footprint
G-SECT-EXCV	Yes	0,255,255	cyan	Continuous	0.50mm	Section Line Excavation
G-SITE-OTLN	Yes	255,0,255	magenta	Continuous	0.35mm	Site plan - key map

7.8 Hazardous Materials

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
H-ABAT-BARR	Yes	210,210,0	52	Continuous	0.50mm	Tape barrier
H-ABAT-BARR-STRC	Yes	0,0,255	blue	Continuous	0.35mm	Critical structural barriers
H-ABAT-POLY	Yes	0,255,0	green	MS2 Medium Dash	0.50mm	Polyethylene sheeting
H-BLDG-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Annotation
H-BLDG-OTLN	Yes	210,210,0	52	Continuous	0.35mm	Command posts, information centers
H-DECN-EQPM	Yes	255,0,0	red	Continuous	0.25mm	Decontamination equipment
H-DECN-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Annotation
H-DETL-GRPH	Yes	white	white	Continuous	0.35mm	Graphics, gridlines, non-text items
H-DISP-HAZW	Yes	0,0,255	blue	Continuous	0.18mm	Hazardous waste
H-DISP-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Annotation
H-DISP-MUNT	Yes	0,0,255	blue	Continuous	0.18mm	Munitions
H-DISP-TANK	Yes	255,0,255	magenta	Continuous	0.35mm	Spill containment tanks
H-FIXT-EYEW	Yes	0,255,0	green	Continuous	0.25mm	Emergency eyewashes
H-FIXT-SHWR	Yes	0,255,0	green	Continuous	0.25mm	Emergency showers
H-MNST-AIRQ	Yes	0,255,0	green	Continuous	0.25mm	Air quality
H-MNST-GWTR	Yes	0,255,0	green	Continuous	0.25mm	Ground water
H-MNST-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Annotation
H-MNST-LAND	Yes	0,255,0	green	Continuous	0.25mm	Landfill gas
H-MNST-SOIL	Yes	0,255,0	green	Continuous	0.25mm	Soil gas
H-MNST-SWTR	Yes	0,255,0	green	Continuous	0.25mm	Surface water
H-POLL-CONC	Yes	210,210,0	52	Continuous	0.35mm	Polluted area of concern
H-POLL-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Annotation
H-POLL-ORIG	Yes	210,210,0	52	Continuous	0.35mm	Point of pollution origin
H-POLL-POTN	Yes	210,210,0	52	Continuous	0.35mm	Potential spill, emission, or release source
H-SAMP-AIRS	Yes	255,0,0	red	Continuous	0.25mm	Air samples
H-SAMP-BIOL	Yes	255,0,0	red	Continuous	0.25mm	Biological samples
H-SAMP-BLDG	Yes	255,0,0	red	Continuous	0.25mm	Building material samples (e.g., asbestos, lead, PCBs, etc.)
H-SAMP-GWTR	Yes	255,0,0	red	Continuous	0.25mm	Ground water samples
H-SAMP-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Annotation
H-SAMP-MAGN	Yes	255,0,0	red	Continuous	0.25mm	Magnetometer location points
H-SAMP-SEDI	Yes	255,0,0	red	Continuous	0.25mm	Sediment samples
H-SAMP-SOIL	Yes	255,0,0	red	Continuous	0.25mm	Soil samples
H-SAMP-SOLI	Yes	255,0,0	red	Continuous	0.25mm	Solid material samples
H-SAMP-SWTR	Yes	255,0,0	red	Continuous	0.25mm	Surface water samples
H-SAMP-WAST	Yes	255,0,0	red	Continuous	0.25mm	Waste samples
H-SECT-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Component identification numbers
H-SECT-MBND	Yes	0,0,255	blue	Continuous	0.18mm	Material beyond section cut
H-SECT-MCUT	Yes	0,255,255	cyan	Continuous	0.50mm	Material cut by section
H-SECT-PATT	Yes	128,128,128	8	Continuous	0.18mm	Textures and hatch patterns
H-STOR-HAZM	Yes	255,0,255	magenta	Continuous	0.35mm	Hazardous materials
H-STOR-HAZW	Yes	255,0,255	magenta	Continuous	0.35mm	Hazardous waste
H-STOR-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Annotation
H-WELL-INJN	Yes	0,0,255	blue	Continuous	0.25mm	Injection well
H-WELL-XTRA	Yes	0,0,255	blue	Continuous	0.25mm	Extraction well

7.9 Interiors

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
I-CRPT-ROLL-ACNT	Yes	255,0,0	red	Continuous	0.35mm	Carpet (roll goods) - accent color
I-CRPT-ROLL-FILD	Yes	191,255,0	60	Continuous	0.35mm	Carpet (roll goods) - field color
I-CRPT-TILE-ACN1	Yes	28,0,38	198	Continuous	0.35mm	Carpet tile - accent color
I-CRPT-TILE-ACN2	Yes	76,0,38	238	Continuous	0.35mm	Carpet tile - accent color
I-CRPT-TILE-FILD	Yes	95,0,127	206	Continuous	0.35mm	Carpet tile - field color
I-DETL-GRPH	Yes	white	white	Continuous	0.35mm	Graphics, gridlines, non-text items
I-ELEV-IDEN	Yes	255,0,0	red	Continuous	0.25mm	Component identification numbers
I-ELEV-OTLN	Yes	0,255,255	cyan	Continuous	0.50mm	Outlines
I-ELEV-PATT	Yes	0,0,255	blue	Continuous	0.18mm	Textures and hatch patterns
I-EQPM-ACCS	Yes	128,128,128	8	MS2 Medium Dash	0.18mm	Equipment access
I-EQPM-CHLD	Yes	210,210,0	52	Continuous	0.35mm	Child development (play toys, teaching rugs, play forms)
I-EQPM-COPY	Yes	210,210,0	52	Continuous	0.35mm	Copiers, fax machines, office equipment
I-EQPM-FIXD	Yes	0,0,255	blue	Continuous	0.18mm	Fixed equipment
I-EQPM-IDEN	Yes	255,0,0	red	Continuous	0.25mm	Equipment identification numbers
I-EQPM-MEDI	Yes	210,210,0	52	Continuous	0.35mm	Medical (exam beds, dental chairs, etc.)
I-EQPM-MOVE	Yes	0,0,255	blue	MS2 Medium Dash	0.18mm	Moveable equipment
I-EQPM-OVHD	Yes	0,255,0	green	Continuous	0.25mm	Overhead, ceiling mounted, and suspended equipment
I-EQPM-STOR	Yes	210,210,0	52	Continuous	0.35mm	Storage equipment
I-FLOR-SIGN	Yes	255,0,255	magenta	Continuous	0.35mm	Signage
I-FLRG-CONC	Yes	128,128,128	8	Continuous	0.35mm	Concrete flooring
I-FLRG-MATS	Yes	0,255,255	cyan	Continuous	0.35mm	Entrance mat components and frames
I-FLRG-STON	Yes	82,124,165	155	Continuous	0.35mm	Stone flooring
I-FLRG-TRAN	Yes	0,0,255	blue	Continuous	0.35mm	All floor thresholds and transition moldings
I-FLRG-WOOD	Yes	165,41,0	24	Continuous	0.35mm	Wood parquet tile or planks
I-FURN-ACCS	Yes	255,0,0	red	Continuous	0.25mm	Accessories (vestibule mats, partitions, draperies, clocks, trash cans, lecturns, lamps, etc.)
I-FURN-ADPC	Yes	210,210,0	52	Continuous	0.35mm	Automated Data Processing Components
I-FURN-ARTW	Yes	210,210,0	52	Continuous	0.35mm	Artwork
I-FURN-FLOR	Yes	210,210,0	52	Continuous	0.35mm	Flooring (carpet, rugs, etc.)
I-FURN-FREE	Yes	255,0,255	magenta	Continuous	0.35mm	Free-standing furnishings (desks, beds, tables, dressers, credenzas, casegoods)
I-FURN-GRID	Yes	0,255,255	cyan	Continuous	0.50mm	Planning grid/modular outline
I-FURN-IDEN	Yes	0,255,0	green	Continuous	0.25mm	Furniture code identification
I-FURN-PLNT	Yes	0,255,0	green	Continuous	0.25mm	Plants
I-FURN-SEAT	Yes	210,210,0	52	Continuous	0.35mm	Seating (chairs, sofas, etc.)

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
I-FURN-STOR	Yes	210,210,0	52	Continuous	0.35mm	File cabinets, high density storage, shelving, storage cabinets
I-MONO-SRFL-ACNT	Yes	145,82,165	205	Continuous	0.35mm	Seamless resinous flooring - accent color
I-MONO-SRFL-FILD	Yes	192,192,192	9	Continuous	0.35mm	Seamless resinous flooring - field color
I-MONO-TERR-ACN1	Yes	0,95,127	146	Continuous	0.35mm	Terrazzo - accent color
I-MONO-TERR-ACN2	Yes	66,76,38	79	Continuous	0.35mm	Terrazzo - accent color
I-MONO-TERR-FILD	Yes	88,19,28	218	Continuous	0.35mm	Terrazzo - field color
I-SHTP-ACNT	Yes	127,0,255	190	Continuous	0.35mm	Sheet product (vinyl/rubber/linoleum) - accent color
I-SHTP-FILD	Yes	255,127,159	241	Continuous	0.35mm	Sheet product (vinyl/rubber/linoleum) - field color
I-SYST-FURN	Yes	210,210,0	52	Continuous	0.35mm	Furniture
I-SYST-IDEN	Yes	255,0,0	red	Continuous	0.25mm	Code identification components
I-SYST-IDPL	Yes	255,0,0	red	Continuous	0.25mm	Code identification panels
I-SYST-LITE	Yes	0,255,255	cyan	Continuous	0.50mm	Lighting components
I-SYST-PATT	Yes	128,128,128	8	Continuous	0.18mm	Patterns
I-SYST-PNLS	Yes	210,210,0	52	Continuous	0.35mm	Panels
I-SYST-POWR	Yes	0,255,255	cyan	Continuous	0.50mm	Power, communication components
I-SYST-STOR	Yes	210,210,0	52	Continuous	0.35mm	Storage components
I-SYST-WALL	Yes	210,210,0	52	Continuous	0.35mm	System furniture partition walls
I-SYST-WKSF	Yes	210,210,0	52	Continuous	0.35mm	Work surface components
I-TILE-CERM-ACNT	Yes	82,124,165	155	Continuous	0.35mm	Ceramic mosaic tile - accent color
I-TILE-CERM-FILD	Yes	0,127,95	124	Continuous	0.35mm	Ceramic mosaic tile - field color
I-TILE-LINO-ACNT	Yes	76,0,38	238	Continuous	0.35mm	Linoleum tile - accent color
I-TILE-LINO-FILD	Yes	191,255,0	60	Continuous	0.35mm	Linoleum tile - field color
I-TILE-PORC-ACN1	Yes	19,38,0	88	Continuous	0.35mm	Porcelain tile - accent color
I-TILE-PORC-ACN2	Yes	192,192,192	9	Continuous	0.35mm	Porcelain tile - accent color
I-TILE-PORC-FILD	Yes	0,38,28	108	Continuous	0.35mm	Porcelain tile - field color
I-TILE-QUAR-ACNT	Yes	210,210,0	52	Continuous	0.35mm	Quarry tile - accent color
I-TILE-QUAR-FILD	Yes	255,127,0	30	Continuous	0.35mm	Quarry tile - field color
I-TILE-RUBB-ACNT	Yes	88,19,88	218	Continuous	0.35mm	Rubber tile - accent color
I-TILE-RUBB-FILD	Yes	255,63,0	20	Continuous	0.35mm	Rubber tile - field color
I-TILE-TERR-ACN1	Yes	0,95,127	146	Continuous	0.35mm	Terrazzo tile - accent color
I-TILE-TERR-ACN2	Yes	66,76,38	79	Continuous	0.35mm	Terrazzo tile - accent color
I-TILE-TERR-ACN3	Yes	255,127,223	221	Continuous	0.35mm	Terrazzo tile - accent color
I-TILE-TERR-FILD	Yes	88,19,28	218	Continuous	0.35mm	Terrazzo tile - field color
I-TILE-VNYL-ACN1	Yes	145,82,165	205	Continuous	0.35mm	Vinyl or Vinyl composition tile - accent color
I-TILE-VNYL-ACN2	Yes	63,127,95	117	Continuous	0.35mm	Vinyl or Vinyl composition tile - accent color
I-TILE-VNYL-FILD	Yes	23,38,19	118	Continuous	0.35mm	Vinyl or Vinyl composition tile - field color

7.10 Landscaping

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
L-DETL-GRPH	Yes	white	white	Continuous	0.35mm	Graphics, gridlines, non-text items
L-IRRG-COVR	Yes	124,0,165	204	Continuous	0.18mm	Irrigation coverage, spray distribution patterns
L-IRRG-EQPM	Yes	124,0,165	204	Continuous	0.35mm	Equipment (e.g., controllers, valves, RPBPs, etc.)
L-IRRG-HEAD	Yes	124,0,165	204	Continuous	0.25mm	Irrigation heads, bubblers, and drip irrigation emitters
L-IRRG-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Annotation
L-IRRG-PIPE	Yes	124,0,165	204	Lawn Sprinkler	0.35mm	Piping
L-IRRG-SPKL	Yes	124,0,165	204	Continuous	0.35mm	Sprinklers
L-PLNT-BEDS	Yes	255,0,255	magenta	Continuous	0.35mm	Planting beds (perennial and annual beds)
L-PLNT-BUSH	Yes	103,165,82	85	Continuous	0.50mm	Bushes and shrubs (e.g., evergreen, deciduous, etc.)
L-PLNT-BUSH-LINE	Yes	103,165,82	85	Continuous	0.50mm	Bush and shrub line
L-PLNT-CTNR	Yes	255,0,0	red	Continuous	0.25mm	Containers or planters
L-PLNT-GCVR	Yes	41,165,0	82	Continuous	0.35mm	Groundcover and vines
L-PLNT-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Annotation
L-PLNT-MLCH	Yes	0,255,0	green	Continuous	0.25mm	Mulches - organic and inorganic
L-PLNT-PLNT	Yes	103,165,82	85	Continuous	0.50mm	Planting plants (e.g., ornamental annuals and perennials)
L-PLNT-SHAD	Yes	0,0,255	blue	Continuous	0.18mm	Shadow areas
L-PLNT-SPRG	Yes	0,255,0	green	Continuous	0.25mm	Sprigs
L-PLNT-TREE	Yes	103,165,82	85	Continuous	0.50mm	Trees (e.g., evergreen, deciduous, etc.)
L-PLNT-TREE-LINE	Yes	103,165,82	85	Tree Line	0.50mm	Tree line
L-PLNT-TURF	Yes	165,103,82	25	Continuous	0.50mm	Lawn areas (turfing limits)
L-SITE-BRDG	Yes	165,41,0	24	Continuous	0.35mm	Bridges (pedestrian)
L-SITE-DECK	Yes	165,0,82	234	Continuous	0.35mm	Decks
L-SITE-FENC	Yes	210,210,0	52	Continuous	0.35mm	Fencing
L-SITE-FURN	Yes	0,255,255	cyan	Continuous	0.50mm	Furnishings
L-SITE-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Annotation
L-SITE-PLAY	Yes	210,210,0	52	Continuous	0.35mm	Play structures
L-SITE-POOL	Yes	0,41,165	172	Continuous	0.35mm	Pools and spas
L-SITE-ROCK	Yes	255,0,0	red	Continuous	0.25mm	Boulders and cobble
L-SITE-RTWL	Yes	0,255,255	cyan	Continuous	0.50mm	Retaining walls
L-SITE-SPRT	Yes	210,210,0	52	Continuous	0.35mm	Sports fields
L-SITE-SWLK	Yes	white	white	Continuous	0.35mm	Sidewalks and steps

7.11 Mechanical

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
M-ACID-EQPM	Yes	255,63,0	20	Continuous	0.35mm	Acid, alkaline, and oil waste equipment
M-ACID-PIPE	Yes	255,63,0	20	Waste - Acid	0.50mm	Acid, alkaline, and oil waste piping
M-ACID-VENT	Yes	255,63,0	20	MS2 Medium Dash	0.50mm	Acid, alkaline, and oil waste vent piping
M-AFRZ-EQPM	Yes	255,63,0	20	Continuous	0.35mm	Anti-freeze equipment
M-AFRZ-SPLY-PIPE	Yes	255,63,0	20	Continuous	0.50mm	Anti-freeze supply piping
M-AFRZ-WAST-PIPE	Yes	255,63,0	20	Continuous	0.50mm	Anti-freeze waste piping
M-BRIN-EQPM	Yes	0,255,0	green	Continuous	0.35mm	Brine system equipment
M-BRIN-RETN-PIPE	Yes	0,255,0	green	Brine - Return	0.50mm	Brine system return piping
M-BRIN-SPLY-PIPE	Yes	0,255,0	green	Brine - Supply	0.50mm	Brine system supply piping
M-CHEM-EQPM	Yes	255,63,0	20	Continuous	0.35mm	Chemical treatment system equipment
M-CHEM-RETN-PIPE	Yes	255,63,0	20	Continuous	0.50mm	Chemical treatment system return piping
M-CHEM-SPLY-PIPE	Yes	255,63,0	20	Continuous	0.50mm	Chemical treatment system supply piping
M-CMPA-EQPM	Yes	0,0,255	blue	Continuous	0.70mm	Equipment
M-CMPA-PIPE	Yes	0,0,255	blue	Air - Compressed	0.50mm	Piping
M-CNDW-EQPM	Yes	0,255,0	green	Continuous	0.35mm	Condenser water system equipment
M-CNDW-RETN-PIPE	Yes	0,255,0	green	Condenser Water - Return	0.50mm	Condenser water system return piping
M-CNDW-SPLY-PIPE	Yes	0,255,0	green	Condenser Water - Supply	0.50mm	Condenser water system supply piping
M-CONT-THER	Yes	255,0,0	red	Continuous	0.25mm	Thermostats
M-CONT-WIRE	Yes	255,0,0	red	MS2 Medium Dash	0.25mm	Low voltage wiring
M-CVAL-BASE	Yes	210,210,0	52	Continuous	0.35mm	Culvert valve machinery base
M-CVAL-BEAM	Yes	210,210,0	52	Continuous	0.35mm	Culvert valve beams
M-CVAL-CYLD	Yes	63,255,0	80	Continuous	0.35mm	Culvert valve machinery cylinder (outline not for details)
M-CVAL-SEAL	Yes	0,255,0	green	Continuous	0.35mm	Culvert valve seals
M-CVAL-SKIN	Yes	255,0,0	red	Continuous	0.35mm	Culvert valve skin plate
M-CVAL-STIF	Yes	0,255,255	cyan	Continuous	0.35mm	Stiffener plates, angles, etc.
M-CVAL-TRUN	Yes	255,0,255	magenta	Continuous	0.35mm	Culvert valve trunnion beam
M-CWTR-CNDS	Yes	255,127,191	241	Condensate - Drain	0.50mm	Condensate piping
M-CWTR-EQPM	Yes	0,0,255	blue	Continuous	0.35mm	Chilled water equipment
M-CWTR-RETN-PIPE	Yes	0,0,255	blue	Chilled Water - Return	0.50mm	Chilled water return piping
M-CWTR-SPLY-PIPE	Yes	0,0,255	blue	Chilled Water - Supply	0.50mm	Chilled water supply piping
M-DETL-GRPH	Yes	white	white	Continuous	0.35mm	Graphics, gridlines, non-text items
M-DIAG-GRPH	Yes	white	white	Continuous	0.35mm	Graphics, gridlines, non-text items
M-DUAL-EQPM	Yes	255,0,255	magenta	Continuous	0.35mm	Dual temperature system equipment

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
M-DUAL-RETN-PIPE	Yes	255,0,255	magenta	Dual Temperature - Return	0.50mm	Dual temperature system return piping
M-DUAL-SPLY-PIPE	Yes	255,0,255	magenta	Dual Temperature - Supply	0.50mm	Dual temperature system supply piping
M-DUST-DUCT	Yes	145,82,165	205	Continuous	0.50mm	Dust and fume ductwork
M-DUST-DUCT-CNTR	Yes	0,0,255	blue	CENTER2	0.25mm	Dust and fume ductwork centerlines
M-DUST-EQPM	Yes	145,82,165	205	Continuous	0.35mm	Dust and fume equipment
M-DUST-GRIL	Yes	145,82,165	205	Continuous	0.35mm	Dust and fume grilles
M-ELEV-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Component identification numbers
M-ELEV-OTLN	Yes	255,0,255	magenta	Continuous	0.35mm	Outlines
M-ELEV-PATT	Yes	128,128,128	8	Continuous	0.18mm	Textures and hatch patterns
M-EXHS-DUCT	Yes	103,165,82	85	Continuous	0.50mm	Exhaust ductwork
M-EXHS-DUCT-CNTR	Yes	0,0,255	blue	CENTER2	0.25mm	Exhaust ductwork centerlines
M-EXHS-EQPM	Yes	103,165,82	85	Continuous	0.35mm	Exhaust equipment
M-EXHS-GRIL	Yes	103,165,82	85	Continuous	0.35mm	Grilles
M-FLOR-IDEN	Yes	0,255,0	green	Continuous	0.25mm	Room name, space identification text (copied from Architectural - Floor Plan model file)
M-FLOR-NUMB	Yes	0,255,0	green	Continuous	0.25mm	Room/space identification number and symbol (copied from Architectural - Floor Plan model file)
M-FLOR-PENE	Yes	0,255,0	green	MS2 Medium Dash	0.25mm	Floor penetrations
M-FUEL-DIES-RETN	Yes	210,210,0	52	Continuous	0.50mm	Diesel fuel return piping
M-FUEL-DIES-SPLY	Yes	210,210,0	52	Continuous	0.50mm	Diesel fuel supply piping
M-FUEL-DIES-VENT	Yes	210,210,0	52	Continuous	0.50mm	Diesel fuel vent piping
M-FUEL-EQPM	Yes	210,210,0	52	Continuous	0.70mm	Equipment
M-FUEL-GGEP-LQPG	Yes	210,210,0	52	Gas - Liquefied Petroleum	0.50mm	Liquid petroleum gas
M-FUEL-OGEP-RETN	Yes	210,210,0	52	Fuel Oil Return	0.50mm	Return oil piping
M-FUEL-OGEP-SPLY	Yes	210,210,0	52	Fuel Oil Supply	0.50mm	Supply oil piping
M-FUEL-OGEP-VENT	Yes	210,210,0	52	Fuel Oil Tank Vent	0.50mm	Oil piping vent
M-GLYC-EQPM	Yes	165,165,0	54	Continuous	0.35mm	Glycol system equipment
M-GLYC-RETN-PIPE	Yes	165,165,0	54	Glycol - Return	0.50mm	Glycol system return piping
M-GLYC-SPLY-PIPE	Yes	165,165,0	54	Glycol - Supply	0.50mm	Glycol system supply piping
M-GTHP-EQPM	Yes	0,76,76	138	Continuous	0.35mm	Geothermal heat pump system equipment
M-GTHP-RETN-PIPE	Yes	0,76,76	138	Continuous	0.50mm	Geothermal heat pump system return piping
M-GTHP-SPLY-PIPE	Yes	0,76,76	138	Continuous	0.50mm	Geothermal heat pump system supply piping
M-HCSF-CYLD	Yes	255,63,0	20	Continuous	0.35mm	Hydraulic cylinders
M-HCSF-CYLD-PSTN	Yes	255,63,0	20	Continuous	0.35mm	Hydraulic cylinder pistons
M-HCSF-CYLD-WEAR	Yes	255,63,0	20	Continuous	0.35mm	Wear rings
M-HCSF-EQPM	Yes	255,63,0	20	Continuous	0.35mm	Hydraulic system equipment
M-HCSF-FTTG	Yes	255,63,0	20	Continuous	0.35mm	Hose and pipe fittings
M-HCSF-HOSE	Yes	255,63,0	20	Continuous	0.35mm	Hydraulic hoses
M-HCSF-MOTR	Yes	255,63,0	20	Continuous	0.35mm	Hydraulic motors and actuators

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
M-HCSF-OTLN	Yes	255,63,0	20	Continuous	0.35mm	Outlines of machinery, etc. in the vicinity of the hydraulic components
M-HCSF-PUMP	Yes	255,63,0	20	Continuous	0.35mm	Hydraulic pumps and pump motors
M-HCSF-RETN-PIPE	Yes	255,63,0	20	Continuous	0.50mm	Hydraulic system return piping
M-HCSF-ROOM	Yes	255,63,0	20	Continuous	0.35mm	Floor, walls, etc. that hydraulic system attaches to
M-HCSF-SCHM-MISC	Yes	255,63,0	20	Continuous	0.35mm	Miscellaneous schematic figures (i.e., common location lines)
M-HCSF-SPLY-PIPE	Yes	255,63,0	20	Continuous	0.50mm	Hydraulic system supply piping
M-HCSF-SUPT	Yes	255,63,0	20	Continuous	0.35mm	Pipe supports, hangers, etc.
M-HCSF-VALV	Yes	255,63,0	20	Continuous	0.35mm	Hydraulic valves
M-HCSF-VALV-CONT	Yes	255,63,0	20	Continuous	0.35mm	Hydraulic directional control valves
M-HCSF-VALV-FLOW	Yes	255,63,0	20	Continuous	0.35mm	Flow control valves, check valves, etc.
M-HCSF-VALV-PRES	Yes	255,63,0	20	Continuous	0.35mm	Pressure control valves: relief valves, counterbalance valves, etc.
M-HCSF-VALV-SOFF	Yes	255,63,0	20	Continuous	0.35mm	Hydraulic shutoff type valves (ball, gate, etc.)
M-HCSW-DEVC	Yes	0,0,255	blue	Continuous	0.35mm	Stilling wells, rigid anchors, anchor guides, rectifiers, reducers, markers, meters, regulators, tanks, and valves
M-HCSW-EQPM-ACCS	Yes	0,0,255	blue	Continuous	0.25mm	Equipment access doors
M-HCSW-IDEN	Yes	210,210,0	52	Continuous	0.25mm	Device identifiers
M-HCSW-PUMP	Yes	0,0,255	blue	Continuous	0.35mm	Pump station equipment
M-HCSW-PUMP-PIPE	Yes	0,0,255	blue	Continuous	0.50mm	Pump piping (includes fittings and valves)
M-HTCW-CWTR-MAIN	Yes	0,0,255	blue	Continuous	0.35mm	Main chilled water piping
M-HTCW-CWTR-PLNT	Yes	0,0,255	blue	Continuous	0.35mm	Chilled water plant
M-HTCW-CWTR-SERV	Yes	0,0,255	blue	Continuous	0.25mm	Chilled water service piping
M-HTCW-DEVC	Yes	255,0,255	magenta	Continuous	0.35mm	Rigid anchors, anchor guides, rectifiers, reducers, markers, meters, pumps, regulators, tanks, and valves
M-HTCW-HWTR-MAIN	Yes	255,0,0	red	Continuous	0.35mm	Main high temperature piping
M-HTCW-HWTR-PLNT	Yes	255,0,0	red	Continuous	0.35mm	High temperature water plant
M-HTCW-HWTR-SERV	Yes	255,0,0	red	Continuous	0.25mm	High temperature service piping
M-HTCW-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
M-HTCW-JBOX	Yes	255,0,255	magenta	Continuous	0.25mm	Junction boxes, manholes, handholes, test boxes

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
M-HTCW-LWTR-MAIN	Yes	210,210,0	52	Continuous	0.35mm	Main low temperature piping
M-HTCW-LWTR-SERV	Yes	210,210,0	52	Continuous	0.25mm	Low temperature service piping
M-HTCW-METR	Yes	255,0,255	magenta	Continuous	0.35mm	Main chilled water meter
M-HTCW-RETN-PIPE	Yes	255,0,255	magenta	Continuous	0.18mm	Return for all HTCW lines
M-HTCW-STEM-MAIN	Yes	255,127,191	241	Continuous	0.35mm	Main steam piping
M-HTCW-STEM-SERV	Yes	255,127,191	241	Continuous	0.25mm	Steam service piping
M-HTCW-STNS-PUMP	Yes	255,0,255	magenta	Continuous	0.35mm	Pump stations
M-HTCW-VALT	Yes	255,0,255	magenta	Continuous	0.25mm	Valve pits/vaults, steam pits
M-HVAC-ACCS	Yes	0,255,0	green	Continuous	0.25mm	Equipment access doors
M-HVAC-CDFF	Yes	255,63,0	20	Continuous	0.35mm	Ceiling diffusers, registers, and grilles
M-HVAC-DMPR	Yes	255,0,0	red	Continuous	0.25mm	Fire, smoke, volume dampers
M-HVAC-EQPM	Yes	210,210,0	52	Continuous	0.35mm	Equipment (non-powered)
M-HVAC-EQPM-EFAN	Yes	210,210,0	52	Continuous	0.35mm	Equipment with electric fans or motors
M-HVAC-EQPM-EPIP	Yes	210,210,0	52	Continuous	0.35mm	Equipment with piping and electricity
M-HVAC-EQPM-FLOR	Yes	210,210,0	52	Continuous	0.35mm	Equipment - floor mounted
M-HVAC-EQPM-SUSP	Yes	210,210,0	52	Continuous	0.35mm	Equipment - suspended
M-HVAC-FDFF	Yes	0,41,165	172	Continuous	0.35mm	Floor diffusers, registers, and grilles
M-HVAC-IDEN	Yes	255,0,255	magenta	Continuous	0.35mm	Duct sizes and pressure classes
M-HVAC-RDFF	Yes	165,103,82	25	Continuous	0.35mm	Return air diffusers
M-HVAC-RETN	Yes	165,103,82	25	Continuous	0.50mm	Return ductwork
M-HVAC-RETN-CNTR	Yes	0,0,255	blue	CENTER2	0.25mm	Return ductwork centerlines
M-HVAC-ROOF	Yes	210,210,0	52	Continuous	0.35mm	Roof mounted HVAC equipment
M-HVAC-SPLY	Yes	0,255,255	cyan	Continuous	0.50mm	Supply ductwork
M-HVAC-SPLY-CNTR	Yes	0,0,255	blue	CENTER2	0.25mm	Supply ductwork centerlines
M-HVAC-SPLY-HDUC	Yes	0,255,255	cyan	Continuous	0.50mm	Supply ductwork - high pressure
M-HVAC-SPLY-LDUC	Yes	0,255,255	cyan	Continuous	0.50mm	Supply ductwork - low pressure
M-HVAC-TAGS	Yes	255,0,255	magenta	Continuous	0.35mm	Diffuser/register/grille tags and air flow arrows
M-HVAC-WDFF	Yes	210,210,0	52	Continuous	0.35mm	Wall diffusers, registers, and grilles
M-HWTR-EQPM	Yes	255,63,0	20	Continuous	0.35mm	Hot water heating system equipment
M-HWTR-RETN-PIPE	Yes	255,63,0	20	Hot Water - Low Temperature - Return	0.50mm	Hot water heating system return piping
M-HWTR-SPLY-PIPE	Yes	255,63,0	20	Hot Water - Low Temperature - Supply	0.50mm	Hot water heating system supply piping
M-INSL-EQPM	Yes	255,63,0	20	Continuous	0.35mm	Insulating oil equipment
M-INSL-RETN-PIPE	Yes	255,63,0	20	Continuous	0.50mm	Insulating oil return piping
M-INSL-SPLY-PIPE	Yes	255,63,0	20	Continuous	0.50mm	Insulating oil supply piping
M-LUBE-EQPM	Yes	255,63,0	20	Continuous	0.35mm	Lubrication oil equipment
M-LUBE-RETN-PIPE	Yes	255,63,0	20	Continuous	0.50mm	Lubrication oil return piping
M-LUBE-SPLY-PIPE	Yes	255,63,0	20	Continuous	0.50mm	Lubrication oil supply piping

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
M-MACH-AXLE	Yes	210,210,0	52	Continuous	0.35mm	Shafts and axles
M-MACH-BASE	Yes	210,210,0	52	Continuous	0.35mm	Machinery bases
M-MACH-BEAR	Yes	210,210,0	52	Continuous	0.35mm	Bearings and couplings
M-MACH-BELT	Yes	165,41,0	24	Continuous	0.35mm	Wire rope, chains, and belts
M-MACH-BSHG	Yes	210,210,0	52	Continuous	0.35mm	Bushings, wear plates, shims, and spacers
M-MACH-CLEV	Yes	165,41,0	24	Continuous	0.35mm	Clevises
M-MACH-COMP	Yes	210,210,0	52	Continuous	0.35mm	Miscellaneous machinery parts and components
M-MACH-COVR	Yes	0,255,255	cyan	Continuous	0.35mm	Machinery covers, cover plates, and guarding
M-MACH-FSTN	Yes	210,210,0	52	Continuous	0.35mm	Fasteners, nuts, and bolts
M-MACH-GEAR	Yes	255,0,255	magenta	Continuous	0.35mm	Gears
M-MACH-KEYS	Yes	165,41,0	24	Continuous	0.35mm	Keys and keeper plates
M-MACH-LROT	Yes	255,0,255	magenta	Continuous	0.35mm	Large rotating machinery (turbine and pump outlines)
M-MACH-MOTR	Yes	255,0,255	magenta	Continuous	0.35mm	Machinery motors
M-MACH-PINS	Yes	165,41,0	24	Continuous	0.35mm	Pins
M-MACH-PULL	Yes	165,41,0	24	Continuous	0.35mm	Pulleys, drums, and sheaves
M-MACH-RAIL	Yes	165,41,0	24	Continuous	0.35mm	Rails (e.g., crane rails, rail hoots, splice plates, etc.)
M-MACH-ROLL	Yes	165,41,0	24	Continuous	0.35mm	Rollers and wheels
M-MACH-ROLL-TRAK	Yes	165,41,0	24	Continuous	0.35mm	Roller tracks
M-MACH-SEAL	Yes	165,41,0	24	Continuous	0.35mm	Seals
M-MACH-SHOE	Yes	165,41,0	24	Continuous	0.35mm	Sliding shoes, skids, etc.
M-MACH-SPRG	Yes	165,41,0	24	Continuous	0.35mm	Springs
M-MACH-SUPT	Yes	210,210,0	52	Continuous	0.35mm	Support brackets
M-MAIR-DUCT	Yes	white	white	Continuous	0.50mm	Mixed air ductwork
M-MAIR-DUCT-CNTR	Yes	0,0,255	blue	CENTER2	0.25mm	Mixed air ductwork centerlines
M-MAIR-EQPM	Yes	white	white	Continuous	0.35mm	Mixed air equipment
M-MATL-CRAN	Yes	210,210,0	52	Continuous	0.35mm	Cranes
M-MATL-CRAN-BOOM	Yes	210,210,0	52	Continuous	0.35mm	Crane boom
M-MATL-HOIS	Yes	210,210,0	52	Continuous	0.35mm	Hoists
M-MATL-HOOK	Yes	210,210,0	52	Continuous	0.35mm	Hooks, eyes, and other end attachments
M-MATL-LIFT	Yes	255,0,255	magenta	Continuous	0.35mm	Miscellaneous lifting equipment
M-MATL-WIRE	Yes	255,0,255	magenta	Continuous	0.35mm	Wire rope, chains, and other hoisting medium
M-MITR-BASE	Yes	210,210,0	52	Continuous	0.35mm	Miter gate machinery base
M-MITR-CLEV	Yes	165,41,0	24	Continuous	0.35mm	Clevises
M-MITR-CRNG	Yes	0,255,0	green	Continuous	0.35mm	Cardanic ring
M-MITR-CYLD	Yes	63,255,0	80	Continuous	0.35mm	Miter gate machinery cylinder (outline not for details)
M-MITR-TRUN	Yes	255,0,0	red	Continuous	0.35mm	Miter gate machinery trunnion
M-MKUP-DUCT	Yes	210,210,0	52	Continuous	0.50mm	Makeup air ductwork
M-MKUP-DUCT-CNTR	Yes	0,0,255	blue	CENTER2	0.25mm	Makeup air ductwork centerlines
M-MKUP-EQPM	Yes	210,210,0	52	Continuous	0.35mm	Makeup air equipment
M-MKUP-GRIL	Yes	210,210,0	52	Continuous	0.35mm	Makeup air grilles
M-NGAS-EQPM	Yes	210,210,0	52	Continuous	0.35mm	Natural gas equipment

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
M-NGAS-PIPE	Yes	210,210,0	52	Gas - Low Pressure	0.35mm	Natural gas piping
M-PROC-EQPM	Yes	255,63,0	20	Continuous	0.35mm	Process equipment
M-PROC-RETN-PIPE	Yes	255,63,0	20	Continuous	0.50mm	Process return piping
M-PROC-SPLY-PIPE	Yes	255,63,0	20	Continuous	0.50mm	Process supply piping
M-RAIR-DUCT	Yes	255,0,0	red	Continuous	0.50mm	Relief air ductwork
M-RAIR-DUCT-CNTR	Yes	0,0,255	blue	CENTER2	0.25mm	Relief air ductwork centerlines
M-RAIR-EQPM	Yes	255,0,0	red	Continuous	0.35mm	Relief air equipment
M-RAIR-GRIL	Yes	255,0,0	red	Continuous	0.35mm	Relief air grilles
M-RCOV-EQPM	Yes	145,82,165	205	Continuous	0.35mm	Energy recovery system equipment
M-RCOV-RETN-PIPE	Yes	145,82,165	205	Continuous	0.50mm	Energy recovery system return piping
M-RCOV-SPLY-PIPE	Yes	145,82,165	205	Continuous	0.50mm	Energy recovery system supply piping
M-REFG-DISC	Yes	255,63,0	20	Refrigerant - Discharge	0.50mm	Refrigeration system discharge
M-REFG-EQPM	Yes	255,63,0	20	Continuous	0.35mm	Refrigeration system equipment
M-REFG-RETN-PIPE	Yes	255,63,0	20	Refrigerant - Suction	0.50mm	Refrigeration system return piping
M-REFG-SPLY-PIPE	Yes	255,63,0	20	Refrigerant - Liquid	0.50mm	Refrigeration system supply piping
M-ROOF-PENE	Yes	255,0,0	red	MS2 Medium Dash	0.25mm	Roof penetrations
M-RWTR-EQPM	Yes	79,127,63	87	Continuous	0.35mm	Raw water equipment
M-RWTR-RETN-PIPE	Yes	79,127,63	87	Continuous	0.50mm	Raw water return piping
M-RWTR-SPLY-PIPE	Yes	79,127,63	87	Continuous	0.50mm	Raw water supply piping
M-SECT-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Component identification numbers
M-SECT-MBND	Yes	0,0,255	blue	Continuous	0.18mm	Material beyond section cut
M-SECT-MCUT	Yes	0,255,255	cyan	Continuous	0.50mm	Material cut by section
M-SECT-PATT	Yes	128,128,128	8	Continuous	0.18mm	Textures and hatch patterns
M-STEM-BLBD	Yes	255,127,191	241	Boiler Blow Down	0.50mm	Boiler blow down piping
M-STEM-CNDS	Yes	255,127,191	241	Condensate - Drain	0.50mm	Condensate piping
M-STEM-EQPM	Yes	255,127,191	241	Continuous	0.35mm	Steam system equipment
M-STEM-HPIP	Yes	255,127,191	241	Steam - High Pressure	0.50mm	High pressure steam piping
M-STEM-LPIP	Yes	255,127,191	241	Steam - Low Pressure	0.50mm	Low pressure steam piping
M-STEM-MPIP	Yes	255,127,191	241	Steam - Medium Pressure	0.50mm	Medium pressure steam piping
M-TAIR-DUCT	Yes	191,0,255	200	Continuous	0.50mm	Transfer air ductwork
M-TAIR-DUCT-CNTR	Yes	0,0,255	blue	CENTER2	0.18mm	Transfer air ductwork centerlines
M-TAIR-EQPM	Yes	191,0,255	200	Continuous	0.35mm	Transfer air equipment
M-WALL-PENE	Yes	210,210,0	52	MS2 Medium Dash	0.25mm	Wall penetrations

7.12 Plumbing

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
P-DETL-GRPH	Yes	white	white	Continuous	0.35mm	Graphics, gridlines, non-text items
P-DIAG-GRPH	Yes	white	white	Continuous	0.35mm	Graphics, gridlines, non-text items
P-DOMW-CPIP	Yes	0,255,255	cyan	Domestic Water - Cold	0.50mm	Cold water piping
P-DOMW-EQPM	Yes	0,255,255	cyan	Continuous	0.70mm	Hot and cold water equipment
P-DOMW-EQPM-ACCS	Yes	0,255,255	cyan	Continuous	0.35mm	Equipment access doors
P-DOMW-FPIP	Yes	0,255,255	cyan	Continuous	0.50mm	Domestic filtered water piping
P-DOMW-HPIP	Yes	0,255,255	cyan	Domestic Water - Hot - Supply	0.50mm	Hot water piping
P-DOMW-RISR	Yes	0,255,255	cyan	MS2 Medium Dash	0.25mm	Hot and cold water risers
P-FLOR-IDEN	Yes	0,255,0	green	Continuous	0.25mm	Room name, space identification text (copied from Architectural - Floor Plan model file)
P-FLOR-NUMB	Yes	0,255,0	green	Continuous	0.25mm	Room/space identification number and symbol (copied from Architectural - Floor Plan model file)
P-FLOR-PENE	Yes	0,255,0	green	MS2 Medium Dash	0.25mm	Floor penetrations
P-GRAY-EQPM	Yes	124,0,165	204	Continuous	0.70mm	Equipment
P-GRAY-PIPE	Yes	124,0,165	204	Gray Water	0.50mm	Graywater piping
P-LGAS-DH2O	Yes	255,63,0	20	Water - Distilled	0.50mm	Distilled water piping
P-LGAS-DIS~	Yes	255,63,0	20	Water - Deionized	0.50mm	Deionized water piping
P-LGAS-EQPM	Yes	255,63,0	20	Continuous	0.70mm	Equipment
P-LGAS-H2~~	Yes	255,63,0	20	Hydrogen	0.50mm	Hydrogen piping
P-LGAS-HE~~	Yes	255,63,0	20	Helium	0.50mm	Helium piping
P-LGAS-NITG	Yes	255,63,0	20	Nitrogen	0.50mm	Nitrogen piping
P-LGAS-OXYG	Yes	255,63,0	20	Oxygen	0.50mm	Pure O2 piping
P-MDGS-CAIR	Yes	0,0,255	blue	Air - Compressed	0.50mm	Compressed air
P-MDGS-EQPM	Yes	210,210,0	52	Continuous	0.70mm	Equipment
P-MDGS-NITG	Yes	210,210,0	52	Nitrogen	0.50mm	Nitrogen piping
P-MDGS-NOXG	Yes	210,210,0	52	Nitrous Oxide	0.50mm	Nitrous oxide piping
P-MDGS-OXYG	Yes	210,210,0	52	Oxygen	0.50mm	Pure O2 piping
P-MDGS-SAIR	Yes	210,210,0	52	Continuous	0.50mm	Scavenge air
P-MDGS-VACU	Yes	0,0,255	blue	Vacuum - Air	0.50mm	Medical vacuum piping
P-ROOF-PENE	Yes	255,0,0	red	MS2 Medium Dash	0.25mm	Roof penetrations
P-SSWR-CNDS	Yes	255,127,191	241	Continuous	0.50mm	Condensate piping
P-SSWR-DRNS	Yes	0,255,0	green	Continuous	0.35mm	Floor drains, sinks, and cleanouts
P-SSWR-EQPM	Yes	0,255,0	green	Continuous	0.70mm	Equipment (e.g., sand/oil/water separators)
P-SSWR-PIPE	Yes	0,255,0	green	Sanitary Waste	0.50mm	Piping
P-SSWR-RISR	Yes	0,255,0	green	MS2 Medium Dash	0.50mm	Sanitary risers
P-SSWR-VENT	Yes	0,255,0	green	Vent	0.50mm	Vent piping
P-STRM-DRNS	Yes	0,255,0	green	Continuous	0.50mm	Roof drains
P-STRM-PIPE	Yes	0,255,0	green	Drain - Storm	0.50mm	Storm drain piping
P-STRM-RISR	Yes	0,255,0	green	MS2 Medium Dash	0.50mm	Storm drain risers
P-WALL-PENE	Yes	210,210,0	52	MS2 Medium Dash	0.25mm	Wall penetrations

7.13 Structural

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
S-ACCS-ADIT	Yes	255,159,127	21	Continuous	0.35mm	Adits in galleries and passages
S-ACCS-CHAM	Yes	165,41,0	24	Continuous	0.35mm	Chambers
S-ACCS-EVTR	Yes	0,165,165	122	Continuous	0.35mm	Elevators
S-ACCS-GLRY	Yes	255,127,0	30	Continuous	0.35mm	Galleries, cross overs, trenches, etc.
S-ACCS-HTCH	Yes	165,82,0	34	Continuous	0.25mm	Hatches
S-ACCS-LADD	Yes	0,41,165	172	Continuous	0.35mm	Ladders and ladder safety devices
S-ACCS-MHOL	Yes	103,165,82	85	Continuous	0.35mm	Manholes
S-ACCS-MISC	Yes	103,165,82	85	Continuous	0.35mm	Miscellaneous access
S-ACCS-STRS	Yes	82,165,165	134	Continuous	0.35mm	Stairs
S-ACCS-STRS-FRMG	Yes	63,127,127	137	Continuous	0.35mm	Stair framing
S-ACCS-TUNL	Yes	165,124,0	44	Continuous	0.35mm	Tunnels
S-ARMR-CRNR	Yes	82,145,165	145	Continuous	0.25mm	Corner protection, corner cap casting
S-ARMR-LINR	Yes	0,165,124	122	Continuous	0.25mm	Protective liner (used for walls, culverts, etc.)
S-ARMR-MISC	Yes	82,145,165	145	Continuous	0.25mm	Miscellaneous armor
S-ARMR-WALL	Yes	82,145,165	145	Continuous	0.25mm	Wall armor
S-BEAM-CNTR	Yes	127,0,127	216	CENTER2	0.25mm	Beam centerlines
S-BEAM-IDEN	Yes	white	white	Continuous	0.25mm	Beam Annotations, identification
S-BEAM-PRIM	Yes	255,127,255	221	Continuous	0.50mm	Continuous beam or primary beam of two-way beam system
S-BEAM-RBAR	Yes	0,0,255	blue	Continuous	0.70mm	Beam rebar
S-BEAM-SECD	Yes	165,0,165	214	Continuous	0.35mm	Girders or secondary beams of two-way beam system
S-BRCG-DIA~	Yes	127,159,255	153	Continuous	0.35mm	Diagonal bracing
S-BRCG-HORZ	Yes	127,159,255	153	Continuous	0.35mm	Horizontal bracing
S-BRCG-VERT	Yes	0,95,127	146	Continuous	0.35mm	Vertical bracing
S-BRDG-ABUT	Yes	103,165,82	85	Continuous	0.50mm	Abutments
S-BRDG-ABUT-RBAR	Yes	0,0,255	blue	Continuous	0.70mm	Abutment rebar
S-BRDG-BEAR	Yes	0,82,165	154	Continuous	0.35mm	Bridge bearing
S-BRDG-BEAR-CNTR	Yes	127,0,127	216	CENTER2	0.25mm	Bridge bearing centerlines
S-BRDG-BENT	Yes	0,255,0	green	Continuous	0.35mm	Bent cap
S-BRDG-BENT-CNTR	Yes	127,0,127	216	CENTER2	0.25mm	Centerline of bents
S-BRDG-BENT-RBAR	Yes	0,0,255	blue	Continuous	0.70mm	Bent cap rebar
S-BRDG-CURB	Yes	210,210,0	52	Continuous	0.35mm	Curbs/sidewalks on structure
S-BRDG-DIAP	Yes	0,0,255	blue	Continuous	0.35mm	Diaphragms
S-BRDG-DIAP-RBAR	Yes	0,0,255	blue	Continuous	0.70mm	Diaphragm rebar
S-BRDG-DRNS	Yes	165,41,0	24	Continuous	0.25mm	Drains
S-BRDG-FENC	Yes	0,255,0	green	Continuous	0.25mm	Fencing rails, fabric, supports, and gates
S-BRDG-FEND	Yes	95,127,63	87	Continuous	0.35mm	Fenders
S-BRDG-GIRD	Yes	127,255,0	70	Continuous	0.35mm	Girders
S-BRDG-GIRD-CNTR	Yes	127,0,127	216	CENTER2	0.25mm	Girder centerline
S-BRDG-HEAD	Yes	0,165,82	112	Continuous	0.35mm	Headers
S-BRDG-PIER	Yes	103,165,82	85	Continuous	0.50mm	Piers
S-BRDG-STRG	Yes	165,0,165	214	Continuous	0.35mm	Stringers
S-COLS-CNTR	Yes	255,191,0	40	CENTER2	0.25mm	Column centerlines/working lines

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
S-COLS-IDEN	Yes	white	white	Continuous	0.25mm	Column Annotations, identification
S-COLS-POST	Yes	47,76,38	99	Continuous	0.35mm	Short columns
S-COLS-PRIM	Yes	0,255,0	green	Continuous	0.35mm	Primary columns
S-COLS-RBAR	Yes	0,0,255	blue	Continuous	0.70mm	Column rebar
S-COLS-SECD	Yes	31,127,0	86	Continuous	0.35mm	Secondary columns
S-DECK-BRDG	Yes	165,41,0	24	Continuous	0.35mm	Bridge deck
S-DECK-BRDG-RBAR	Yes	0,0,255	blue	Continuous	0.70mm	Bridge deck rebar
S-DECK-FLOOR	Yes	127,255,159	101	Continuous	0.25mm	Floor deck
S-DECK-FLOOR-OPNG	Yes	255,0,0	red	MS2 Medium Dash	0.25mm	Floor deck openings
S-DECK-RBAR	Yes	0,0,255	blue	Continuous	0.70mm	Bridge deck rebar
S-DECK-ROOF	Yes	124,165,0	64	Continuous	0.25mm	Roof deck
S-DECK-ROOF-OPNG	Yes	255,0,0	red	Continuous	0.25mm	Roof deck openings
S-DETL-GRPH	Yes	white	white	Continuous	0.35mm	Graphics, gridlines, non-text items
S-EROS-BARR	Yes	165,82,124	235	Continuous	0.25mm	Vapor/capillary water barriers
S-EROS-GABN	Yes	255,127,159	241	Continuous	0.25mm	Gabions
S-EROS-PVMT	Yes	255,127,159	241	Continuous	0.25mm	Slope paving
S-EROS-RRAP	Yes	165,0,82	234	Continuous	0.25mm	Riprap, stone protection, jetties, breakwaters
S-FABR-EMBD	Yes	103,82,165	185	Continuous	0.35mm	Embedded metals (framing around openings)
S-FABR-HOIS	Yes	0,124,165	142	Continuous	0.25mm	Hoist structures
S-FABR-HOOK	Yes	0,124,165	142	Continuous	0.25mm	Line hooks, lifting hooks, check posts etc.
S-FABR-MOOR	Yes	0,124,165	142	Continuous	0.35mm	Mooring bits, chocks, rings
S-FABR-PL~~	Yes	0,124,165	142	Continuous	0.35mm	Plates
S-FABR-TRSH	Yes	0,124,165	142	Continuous	0.35mm	Trash racks, intake screens
S-FNDN-ANCH	Yes	165,124,0	44	Continuous	0.35mm	Anchor piles, blocks, strands, deadmen, soil/rock anchors
S-FNDN-BLRD	Yes	165,124,0	44	Continuous	0.35mm	Bollards, bollard foundations
S-FNDN-CNTR	Yes	127,95,0	46	CENTER2	0.25mm	Foundation centerlines
S-FNDN-DRNS	Yes	165,145,82	45	Continuous	0.25mm	Foundation drainage features and objects
S-FNDN-FTNG	Yes	165,124,0	44	Continuous	0.35mm	Footings
S-FNDN-FTNG-RBAR	Yes	0,0,255	blue	Continuous	0.70mm	Footing rebar
S-FNDN-GRBM	Yes	165,165,0	54	Continuous	0.50mm	Grade beams
S-FNDN-PCAP	Yes	165,165,0	54	Continuous	0.35mm	Pile caps
S-FNDN-PEDS	Yes	255,223,127	31	Continuous	0.35mm	Foundation pedestals/pads
S-FNDN-PIER	Yes	82,165,0	95	Continuous	0.50mm	Piers, drilled shafts, caissons
S-FNDN-PILE	Yes	255,191,0	40	Continuous	0.35mm	Piles
S-FNDN-PL~~	Yes	165,82,82	15	Continuous	0.25mm	Column base plates
S-FNDN-RIBS	Yes	165,165,0	54	Continuous	0.35mm	Ribbed mat foundation
S-FNDN-TRMT	Yes	255,255,127	51	Continuous	0.35mm	Foundation treatment (grouting)
S-FNDN-TUNL	Yes	165,124,0	44	Continuous	0.35mm	Service tunnel/duct banks
S-FSTN-ABLT	Yes	255,127,0	30	Continuous	0.25mm	Anchor bolts
S-FSTN-MISC	Yes	165,82,82	15	Continuous	0.25mm	Fasteners and connections (non-specific)
S-FSTN-PL~~	Yes	165,82,82	15	Continuous	0.25mm	Connection plates (shear plates, gusset plates, etc.

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
S-GATE-ANCH	Yes	255,127,0	30	Continuous	0.25mm	Gate anchorages
S-GATE-ANCH-DEAD	Yes	255,127,0	30	Continuous	0.25mm	Dead man anchorage
S-GATE-ARMS	Yes	127,159,255	153	Continuous	0.35mm	Arm
S-GATE-AXIS	Yes	127,0,127	216	CENTER2	0.25mm	Gate axis and centerlines
S-GATE-BLKH	Yes	0,0,255	blue	Continuous	0.35mm	Bulkhead
S-GATE-BLKH-NDLB	Yes	165,0,165	214	Continuous	0.35mm	Bulkhead needles beam
S-GATE-BLKH-NDLS	Yes	165,82,82	15	Continuous	0.35mm	Bulkhead needles
S-GATE-CONN	Yes	255,127,0	30	Continuous	0.35mm	Gate connects, links
S-GATE-DIA~	Yes	165,82,82	15	Continuous	0.35mm	Diagonals, gussets, sleeve nut
S-GATE-DIA~-CHAN	Yes	165,82,82	15	Continuous	0.35mm	Diagonal channels
S-GATE-DIA~-GUST	Yes	165,82,82	15	Continuous	0.35mm	Diagonal gusset plate
S-GATE-DIA~-SUPT	Yes	165,82,82	15	Continuous	0.35mm	Diagonal gusset plate support
S-GATE-DIAP	Yes	0,0,255	blue	Continuous	0.35mm	Diaphragms
S-GATE-FEND	Yes	95,127,63	87	Continuous	0.35mm	Gate fenders
S-GATE-FLNG	Yes	0,0,255	blue	Continuous	0.35mm	Flange
S-GATE-FLNG-DNST	Yes	0,0,255	blue	Continuous	0.35mm	Downstream flange
S-GATE-FLNG-GIRD	Yes	255,127,0	30	Continuous	0.35mm	Girder flange
S-GATE-FLNG-UPST	Yes	0,0,255	blue	Continuous	0.35mm	Upstream flange
S-GATE-GIRD-WEB~	Yes	0,41,165	172	Continuous	0.35mm	Girder web plates
S-GATE-GUDG	Yes	255,0,255	magenta	Continuous	0.35mm	Gudgeon
S-GATE-GUDG-HOOD	Yes	255,0,255	magenta	Continuous	0.35mm	Gudgeon hood
S-GATE-GUDG-HUB~	Yes	255,0,255	magenta	Continuous	0.35mm	Gudgeon hub
S-GATE-GUDG-PIN~	Yes	255,0,255	magenta	Continuous	0.35mm	Gudgeon pin
S-GATE-GUDG-STIF	Yes	255,0,255	magenta	Continuous	0.35mm	Gudgeon (hood) stiffener
S-GATE-GUDG-SUPT	Yes	255,0,255	magenta	Continuous	0.35mm	Gudgeon (pin) support
S-GATE-HORZ	Yes	255,127,255	221	Continuous	0.35mm	Horizontal rolled shapes
S-GATE-ICST	Yes	0,165,165	122	Continuous	0.35mm	Intercostals
S-GATE-JACK	Yes	0,0,255	blue	Continuous	0.35mm	Gate jack
S-GATE-JACK-HORZ	Yes	0,0,255	blue	Continuous	0.35mm	Gate jack - horizontal
S-GATE-JACK-VERT	Yes	0,0,255	blue	Continuous	0.35mm	Gate jack - vertical
S-GATE-LIFT	Yes	0,124,165	142	Continuous	0.35mm	Lifting mechanism
S-GATE-LTCH	Yes	0,0,255	blue	Continuous	0.35mm	Latching device
S-GATE-LTCH-BOTM	Yes	0,0,255	blue	Continuous	0.35mm	Latching device - bottom
S-GATE-LTCH-TOP~	Yes	0,0,255	blue	Continuous	0.35mm	Latching device - top
S-GATE-LUBE	Yes	0,0,255	blue	Continuous	0.25mm	Lubrication system
S-GATE-MISC	Yes	0,0,255	blue	Continuous	0.25mm	Gates incidental to structure
S-GATE-MITR-ASSY	Yes	0,82,165	154	Continuous	0.35mm	Miter guide assembly
S-GATE-PIN~	Yes	255,127,0	30	Continuous	0.25mm	Gate pins
S-GATE-PNTL	Yes	255,127,0	30	Continuous	0.35mm	Pintle ball, bushing & base
S-GATE-PNTL-CAST	Yes	124,165,0	64	Continuous	0.35mm	Pintle casting
S-GATE-QOIN	Yes	0,82,165	154	Continuous	0.35mm	Quoin
S-GATE-QOIN-FLNG	Yes	0,82,165	154	Continuous	0.35mm	Quoin flange
S-GATE-QOIN-MITR	Yes	0,82,165	154	Continuous	0.35mm	Quoin, miter
S-GATE-QOIN-STIF	Yes	0,82,165	154	Continuous	0.35mm	Quoin stiffener
S-GATE-QOIN-TRST	Yes	0,82,165	154	Continuous	0.35mm	Quoin thrust plate
S-GATE-QOIN-WALL	Yes	0,82,165	154	Continuous	0.35mm	Quoin, wall
S-GATE-QOIN-WEB~	Yes	0,82,165	154	Continuous	0.35mm	Quoin web
S-GATE-RAIL	Yes	0,82,165	154	Continuous	0.35mm	Rails and guides
S-GATE-SEAL	Yes	165,0,82	234	Continuous	0.35mm	Gate seal
S-GATE-SEAL-HORZ	Yes	165,0,82	234	Continuous	0.35mm	Gate seal - horizontal

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
S-GATE-SEAL-VERT	Yes	165,0,82	234	Continuous	0.35mm	Gate seal - vertical
S-GATE-SHOE	Yes	0,124,165	142	Continuous	0.35mm	Gate shoe
S-GATE-SKIN	Yes	0,124,165	142	Continuous	0.25mm	Skin plates
S-GATE-STIF	Yes	0,0,255	blue	Continuous	0.35mm	Stiffener
S-GATE-STIF-LONG	Yes	0,0,255	blue	Continuous	0.35mm	Stiffener - longitudinal
S-GATE-STIF-TRAN	Yes	0,0,255	blue	Continuous	0.35mm	Stiffener - transverse
S-GATE-STOP	Yes	165,124,0	44	Continuous	0.35mm	Stoplogs
S-GATE-THBL	Yes	255,127,159	241	Continuous	0.25mm	Thimble
S-GATE-TRST	Yes	0,165,124	122	Continuous	0.25mm	Thrust plate
S-GATE-TRUN	Yes	255,0,255	magenta	Continuous	0.35mm	Trunion
S-GATE-VALV	Yes	124,0,165	204	Continuous	0.35mm	Valves (general shape)
S-GATE-VERT	Yes	0,95,127	146	Continuous	0.35mm	Rolled vertical shapes
S-GATE-WALK	Yes	0,165,165	122	Continuous	0.35mm	Walkway
S-GATE-WALK-FRMG	Yes	0,165,165	122	Continuous	0.35mm	Walkway - framing
S-GATE-WALK-GRTG	Yes	0,165,165	122	Continuous	0.35mm	Walkway - grating
S-GATE-WALK-SUPT	Yes	0,165,165	122	Continuous	0.35mm	Walkway - support
S-GATE-WEB~	Yes	0,41,165	172	Continuous	0.35mm	Web
S-GRID-HORZ	Yes	255,0,255	magenta	MS7 Long Dash Short Dash	0.18mm	Grid lines (horizontal)
S-GRID-HORZ-IDEN	Yes	255,0,255	magenta	Continuous	0.25mm	Column I.D. tags (horizontal)
S-GRID-VERT	Yes	255,0,255	magenta	MS7 Long Dash Short Dash	0.18mm	Grid lines (vertical)
S-GRID-VERT-IDEN	Yes	255,0,255	magenta	Continuous	0.25mm	Column I.D. tags (vertical)
S-GRLN-SURF-E	Yes	255,191,127	31	MS3 Long Dash	0.25mm	Existing ground
S-GRLN-SURF-N	Yes	165,82,0	34	Continuous	0.35mm	Finished grade
S-HYDR-AXIS	Yes	124,0,165	204	MS4 Dot Dash	0.18mm	Axis of structure
S-HYDR-BAFL	Yes	0,165,124	122	Continuous	0.35mm	Baffle blocks, splash pads
S-HYDR-BASN	Yes	0,165,124	122	Continuous	0.35mm	Stilling and settling basins
S-HYDR-CHAN	Yes	0,165,124	122	Continuous	0.35mm	Channel (Does not include earthen structures)
S-HYDR-COFF	Yes	165,124,0	44	Continuous	0.35mm	Cofferdam
S-HYDR-COND	Yes	0,165,124	122	Continuous	0.35mm	Diversiory/bypass conduits and culverts
S-HYDR-DAM~	Yes	0,165,124	122	Continuous	0.35mm	Dam
S-HYDR-FISH	Yes	0,165,124	122	Continuous	0.35mm	Fish ladder or passage
S-HYDR-FLUM	Yes	0,165,124	122	Continuous	0.35mm	Flume
S-HYDR-INTK	Yes	0,165,124	122	Continuous	0.35mm	Intake, outlet
S-HYDR-NOVR	Yes	0,165,124	122	Continuous	0.35mm	Non-overflow structures
S-HYDR-PENS	Yes	0,165,124	122	Continuous	0.35mm	Penstock outline and features
S-HYDR-STRC-POWR	Yes	0,127,95	124	Continuous	0.35mm	Powerhouse
S-HYDR-SWAY	Yes	0,165,124	122	Continuous	0.35mm	Spillway
S-HYDR-WEIR	Yes	0,165,124	122	Continuous	0.35mm	Weirs and sluiceways
S-JNTS-CNTJ	Yes	0,165,124	122	Continuous	0.25mm	Construction/lift joints
S-JNTS-CTLJ	Yes	0,165,124	122	Continuous	0.25mm	Control/contraction joints (saw cut)
S-JNTS-EXPI	Yes	0,127,95	124	Continuous	0.25mm	Expansion joints, joint materials (e.g., felt)
S-JNTS-STUC	Yes	127,255,191	111	Continuous	0.25mm	Stucco joints
S-JNTS-WTRS	Yes	255,127,223	221	Continuous	0.25mm	Waterstops
S-JOIS-BRGX	Yes	41,165,0	82	Continuous	0.35mm	Bridging

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
S-JOIS-GIRD	Yes	0,165,124	122	Continuous	0.50mm	Joist girders
S-JOIS-PERI	Yes	0,124,165	142	Continuous	0.35mm	Perimeter channel or rim joist
S-JOIS-PRIM	Yes	0,165,165	122	Continuous	0.35mm	Primary joists
S-JOIS-SECD	Yes	0,127,127	134	Continuous	0.35mm	Secondary joists
S-JOIS-TRIM	Yes	0,127,127	134	Continuous	0.35mm	Partial length or trimmer floor joist
S-OTLN-BLDG	Yes	0,0,255	blue	MS6 Dash Dot Dot	0.25mm	Building outline
S-OTLN-FLOOR	Yes	0,0,255	blue	MS6 Dash Dot Dot	0.25mm	Floor outline
S-OTLN-OPNG	Yes	0,0,255	blue	MS6 Dash Dot Dot	0.25mm	Openings
S-OTLN-ROOF	Yes	0,0,255	blue	MS6 Dash Dot Dot	0.25mm	Roof
S-OTLN-STRC	Yes	0,0,255	blue	MS6 Dash Dot Dot	0.25mm	Misc. structures
S-PADS-EQPM	Yes	255,159,127	21	Continuous	0.35mm	Equipment pads
S-PIPE-CULV	Yes	191,0,255	200	Continuous	0.35mm	Precast/manufactured culverts
S-PLAT-FRMG	Yes	165,0,165	214	Continuous	0.35mm	Platform frame/stringers
S-PLAT-GRTG	Yes	127,255,223	121	Continuous	0.25mm	Platform grating (add a second minor group to indicate platform # or elev)
S-PLAT-WALK	Yes	165,124,82	35	Continuous	0.35mm	Platform walkway
S-REIN-RBAR	Yes	0,0,255	blue	Continuous	0.70mm	Steel reinforcing, welded wire fabric
S-REIN-TEND-HORZ	Yes	159,127,255	181	Continuous	0.50mm	Horizontal Tendons
S-REIN-TEND-VERT	Yes	159,127,255	181	Continuous	0.50mm	Vertical Tendons
S-SAFE-FENC	Yes	0,255,0	green	Continuous	0.25mm	Fencing rails, fabric, supports, and gates
S-SAFE-GRAL	Yes	124,165,0	64	Continuous	0.35mm	Guardrails
S-SAFE-HRAL	Yes	0,255,0	green	Continuous	0.25mm	Handrails, railings
S-SAFE-PRPT	Yes	0,255,0	green	Continuous	0.50mm	Parapet/jersey barrier
S-SAFE-PRPT-RBAR	Yes	0,0,255	blue	Continuous	0.70mm	Parapet/jersey barrier rebar
S-SAFE-WATR	Yes	0,255,0	green	Continuous	0.35mm	Waterway safety barriers
S-SECT-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Component identification numbers
S-SECT-MBND	Yes	0,0,255	blue	Continuous	0.18mm	Material beyond section cut
S-SECT-MCUT	Yes	white	white	Continuous	0.35mm	Material cut by section
S-SECT-PATT	Yes	128,128,128	8	Continuous	0.18mm	Textures and hatch patterns
S-SIGN-BUOY	Yes	165,0,41	244	Continuous	0.35mm	Sign buoys
S-SIGN-EXTN	Yes	165,0,165	214	Continuous	0.35mm	Extrusions
S-SIGN-FRMG	Yes	0,255,0	green	Continuous	0.35mm	Framing and connections
S-SIGN-GAGE	Yes	165,0,82	234	Continuous	0.35mm	Staff gages
S-SIGN-PANL	Yes	165,0,82	234	Continuous	0.35mm	Sign panels
S-SIGN-SPRT	Yes	0,0,255	blue	Continuous	0.35mm	Supports
S-SIGN-TEXT	Yes	165,0,124	224	Continuous	0.35mm	Signage text
S-SLAB-APPR	Yes	255,223,127	41	Continuous	0.35mm	Approach slab
S-SLAB-APPR-RBAR	Yes	0,0,255	blue	Continuous	0.70mm	Approach slab rebar
S-SLAB-EDGE	Yes	255,223,127	41	Continuous	0.35mm	Edge of slab
S-SLAB-OPNG	Yes	255,0,0	red	MS2 Medium Dash	0.25mm	Openings (and depressions)
S-SLAB-RBAR	Yes	0,0,255	blue	Continuous	0.70mm	Slab rebar
S-SLAB-SECD	Yes	255,223,127	41	Continuous	0.35mm	Second pour, slab cap
S-SLAB-SILL	Yes	255,223,127	41	Continuous	0.35mm	Sill
S-STIF-LONG	Yes	0,255,0	green	Continuous	0.35mm	Stiffeners - longitudinal
S-STIF-TRAV	Yes	0,255,0	green	Continuous	0.35mm	Stiffeners - transverse

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
S-TRUS-BRGX	Yes	41,165,0	82	Continuous	0.35mm	Truss bridging
S-TRUS-PRIM	Yes	0,255,255	cyan	Continuous	0.50mm	Primary trusses
S-TRUS-SECD	Yes	255,0,255	magenta	Continuous	0.35mm	Secondary trusses
S-WALL-ABUT	Yes	103,165,82	85	Continuous	0.35mm	Abutments
S-WALL-CELL	Yes	165,165,82	55	Continuous	0.35mm	Cell
S-WALL-COFF	Yes	255,127,0	30	Continuous	0.35mm	Cutoff wall
S-WALL-CURT	Yes	82,165,0	95	Continuous	0.35mm	Curtain/breast wall
S-WALL-FULL	Yes	0,255,0	green	Continuous	0.35mm	Wall going to the top of the structure
S-WALL-GARD	Yes	82,165,0	95	Continuous	0.35mm	Guard/guide walls
S-WALL-LOAD	Yes	0,255,0	green	Continuous	0.35mm	Load bearing walls
S-WALL-MONO	Yes	0,255,0	green	Continuous	0.35mm	Wall monoliths
S-WALL-MSE~	Yes	82,165,0	95	Continuous	0.35mm	Mechanically stabilized earth (MSE) wall
S-WALL-NONL	Yes	82,165,0	95	Continuous	0.35mm	Non-load bearing walls
S-WALL-PCST	Yes	0,76,57	128	Continuous	0.35mm	Pre-cast concrete walls
S-WALL-PRHT	Yes	82,165,0	95	Continuous	0.35mm	Wall that does not reach to the top of the structure
S-WALL-RBAR	Yes	0,0,255	blue	Continuous	0.70mm	Wall rebar
S-WALL-RTWL	Yes	82,165,0	95	Continuous	0.35mm	Retaining wall (flood walls, wingwalls, etc.)
S-WALL-SHEA	Yes	127,255,159	101	Continuous	0.35mm	Shear walls
S-WALL-STUD	Yes	165,124,0	44	Continuous	0.35mm	Stud walls
S-WATR-SURF	Yes	127,159,255	153	Continuous	0.25mm	Water surface
S-WWAY-DLPH	Yes	0,165,124	122	Continuous	0.35mm	Dolphins (associated with but not part of bridges, locks and guidewalls)
S-WWAY-FEND	Yes	95,127,63	87	Continuous	0.35mm	Fenders
S-WWAY-MOOR	Yes	0,124,165	142	Continuous	0.35mm	Mooring cells

7.14 Telecommunications

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
T-CABL-COAX	Yes	255,63,0	20	MS2 Medium Dash	0.50mm	Coax
T-CABL-FIBR	Yes	255,63,0	20	Fiberoptics	0.50mm	Fiber optics cable
T-CABL-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Cable identifiers
T-CABL-MULT	Yes	255,63,0	20	Continuous	0.50mm	Multi-conductor cable
T-CABL-TRAY	Yes	255,63,0	20	Continuous	0.50mm	Cable trays and wireways
T-COMB-JACK	Yes	255,63,0	20	Continuous	0.50mm	Combination telephone and data/LAN jacks
T-COMM-CIRC	Yes	255,63,0	20	Continuous	0.50mm	Circuits
T-COMM-CNMB	Yes	255,63,0	20	Continuous	0.50mm	Circuit numbers
T-COMM-EQPM	Yes	255,63,0	20	Continuous	0.50mm	Equipment
T-COMM-JBOX	Yes	255,63,0	20	Continuous	0.50mm	Junction boxes
T-DATA-JACK	Yes	255,63,0	20	Continuous	0.50mm	Data/LAN jacks
T-DETL-GRPH	Yes	white	white	Continuous	0.35mm	Graphics, gridlines, non-text items
T-DIAG-GRPH	Yes	white	white	Continuous	0.35mm	Graphics, gridlines, non-text items
T-DIAG-IDEN	Yes	210,210,0	52	Continuous	0.35mm	Identifier tags, symbol modifiers, and text
T-DISC-INFO	Yes	255,63,0	20	Continuous	0.35mm	Information and notes for other disciplines
T-EQPM-COMB	Yes	255,63,0	20	Continuous	0.50mm	Distribution equipment for both copper and fiber optics
T-EQPM-COPP	Yes	255,63,0	20	Continuous	0.50mm	Distribution equipment for copper
T-EQPM-FIBR	Yes	255,63,0	20	Continuous	0.50mm	Distribution equipment for fiber optic
T-EQPM-OTHR	Yes	255,63,0	20	Continuous	0.50mm	Other telecommunications equipment
T-EQPM-RELA	Yes	255,63,0	20	Continuous	0.50mm	Relays, resistors, capacitors, and inducers
T-FLOR-IDEN	Yes	0,255,0	green	Continuous	0.25mm	Room name, space identification text (copied from Archictural - Floor Plan model file)
T-FLOR-NUMB	Yes	0,255,0	green	Continuous	0.25mm	Room/space identification number and symbol (copied from Architectural - Floor Plan model file)
T-PHON-JACK	Yes	255,63,0	20	Continuous	0.50mm	Telephone jacks

7.15 Survey

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
V-AERI-BNDY	Yes	255,0,255	magenta	Continuous	0.35mm	Aerial photography boundaries
V-AERI-BNDY-NEAT	Yes	255,200,0	40	Continuous	0.35mm	Neat model boundary
V-AERI-FLYS	Yes	255,0,255	magenta	Continuous	0.35mm	Fly station
V-AERI-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Aerial annotation
V-AERI-INDX	Yes	white	white	Continuous	0.70mm	Aerial photo index
V-AERI-PATH	Yes	165,41,0	24	MS6 Dash Dot Dot	0.35mm	Aerial flight lines/paths
V-AERI-PHOT	Yes	165,41,0	24	Continuous	0.35mm	Photo center (exposure station)
V-AERI-PNPT	Yes	255,0,255	magenta	Continuous	0.35mm	Panel points
V-AERI-PNTS	Yes	255,0,255	magenta	Continuous	Default	Aerial survey points
V-AFLD-BCNS-IDEN	Yes	181,143,227	181	Continuous	0.13mm	Identifier tags, symbol modifiers, and text
V-AFLD-BCNS-MISC	Yes	181,143,227	181	Continuous	0.30mm	Miscellaneous nav aids - windcones and beacons
V-AFLD-CIRC-CTRL	Yes	145,82,165	205	Continuous	0.35mm	Control and monitoring circuits
V-AFLD-CIRC-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Circuit identifier tags, symbol modifier, and text
V-AFLD-CIRC-MULT	Yes	145,82,165	205	Continuous	0.35mm	Multiple circuits
V-AFLD-CIRC-SERS	Yes	145,82,165	205	Continuous	0.35mm	Series circuits
V-AFLD-DBNK	Yes	145,82,165	205	Duct Bank	0.25mm	Ductbanks
V-AFLD-DEVC	Yes	145,82,165	205	Continuous	0.35mm	Capacitors, voltage regulators, motors, buses, generators, meters, grounds, and markers
V-AFLD-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Airfield annotation
V-AFLD-JBOX	Yes	145,82,165	205	Continuous	0.35mm	Junction boxes, pull boxes, manholes, handholes, pedestals, splices
V-AFLD-LITE-APPR	Yes	145,82,165	205	Continuous	0.35mm	Approach lights
V-AFLD-LITE-DIST	Yes	145,82,165	205	Continuous	0.35mm	Distance and arresting gear markers
V-AFLD-LITE-LANE	Yes	145,82,165	205	Continuous	0.35mm	Hoverlane, taxilane, and helipad lights
V-AFLD-LITE-OBST	Yes	145,82,165	205	Continuous	0.35mm	Obstruction lights
V-AFLD-LITE-RUNW	Yes	145,82,165	205	Continuous	0.35mm	Runway lights
V-AFLD-LITE-SIGN	Yes	145,82,165	205	Continuous	0.35mm	Taxiway guidance signs
V-AFLD-LITE-TAXI	Yes	145,82,165	205	Continuous	0.35mm	Taxiway lights
V-AFLD-LITE-THRS	Yes	145,82,165	205	Continuous	0.35mm	Threshold lights
V-AFLD-PNTS	Yes	145,82,165	205	Continuous	Default	Airfield survey points
V-AFLD-VALT	Yes	145,82,165	205	Continuous	0.35mm	Airfield lighting vaults
V-ALGN-DATA	Yes	0,255,0	green	Continuous	0.25mm	Alignment coordinates and curve data
V-ALGN-LINE	Yes	255,200,0	40	MS4 Dot Dash	0.25mm	Alignments
V-ALGN-MAJR	Yes	255,0,0	red	Continuous	0.25mm	Alignment major stationing and tick marks
V-ALGN-MARK	Yes	0,255,0	green	Continuous	0.25mm	Alignment tick marks
V-ALGN-MINR	Yes	255,0,255	magenta	Continuous	0.18mm	Alignment minor stationing and tick marks
V-ALGN-PNTS	Yes	255,0,255	magenta	Continuous	Default	Alignment survey points
V-ALGN-PROF	Yes	255,0,255	magenta	MS3 Long Dash	0.35mm	Profile Existing grade, ground line
V-ALGN-STAT	Yes	0,255,0	green	Continuous	0.25mm	Alignment stationing

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
V-ALGN-SYMB	Yes	255,0,255	magenta	Continuous	0.25mm	Alignment symbols (PIs)
V-ALGN-TEXT	Yes	255,200,0	40	Continuous	0.25mm	Alignment text, annotation with associated leaders
V-APRN-CNTR	Yes	255,0,0	red	Center Line	0.18mm	Apron centerlines
V-APRN-CNTR-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Apron centerline annotation
V-APRN-GRND	Yes	255,200,0	40	Continuous	0.25mm	Grounding points
V-APRN-HOLD	Yes	255,0,0	red	Continuous	0.18mm	Holding position markings
V-APRN-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Airfield apron - annotation
V-APRN-MOOR	Yes	255,200,0	40	Continuous	0.25mm	Mooring points
V-APRN-MRKG	Yes	0,255,255	cyan	Continuous	0.35mm	Apron markings
V-APRN-OTLN	Yes	0,255,255	cyan	Continuous	0.35mm	Airfield apron - outlines
V-APRN-PNTS	Yes	0,255,255	cyan	Continuous	Default	Apron survey points
V-APRN-SECU	Yes	255,0,0	red	Continuous	0.18mm	Security zone markings
V-APRN-SHLD	Yes	255,200,0	40	Continuous	0.25mm	Shoulders with annotation
V-APRN-SHLD-MRKG	Yes	255,200,0	40	Continuous	0.25mm	Shoulder stripes
V-BCNS-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Identifier tags, symbol modifiers, and text
V-BCNS-MISC	Yes	145,82,165	205	Continuous	0.35mm	Miscellaneous navaids - windcones and beacons
V-BCNS-PNTS	Yes	145,82,165	205	Continuous	Default	Beacon survey points
V-BCNS-STRB	Yes	145,82,165	205	Continuous	0.35mm	Strobe beacons
V-BECH-BANK-TOP~	Yes	255,0,255	magenta	Continuous	0.18mm	Beach top of bank
V-BECH-BKLN	Yes	0,0,255	blue	MS2 Medium Dash	0.25mm	Beach breakline
V-BECH-BNCH	Yes	165,41,0	24	MS6 Dash Dot Dot	0.25mm	Beach bench
V-BECH-BUOY	Yes	magenta	magenta	Continuous	0.18mm	Buoy symbols
V-BECH-CNTR	Yes	0,0,255	blue	Center Line	0.18mm	Beach centerline
V-BECH-IDEN	Yes	52	52	Continuous	0.25mm	Beach Annotation
V-BECH-LIMT	Yes	0,255,255	cyan	Continuous	0.35mm	Beach limit lines
V-BECH-OHWM	Yes	255,200,0	40	Continuous	0.25mm	Ordinary high water marks
V-BECH-OTLN	Yes	255,200,0	40	Continuous	0.18mm	Beach outline
V-BECH-PNTS	Yes	255,200,0	40	Continuous	Default	Beach survey points
V-BECH-SLOP-IDEN	Yes	white	white	Continuous	0.18mm	Beach slope indicator with annotation
V-BECH-SLOP-TOP~	Yes	165,41,0	24	MS2 Medium Dash	0.25mm	Beach top of slope
V-BECH-SYMB	Yes	255,0,255	magenta	Continuous	0.18mm	Beach symbols
V-BECH-TOE~	Yes	0,0,255	blue	MS3 Long Dash	0.35mm	Beach toe
V-BECH-TOE~-IDEN	Yes	white	white	Continuous	0.18mm	Beach toe annotation
V-BLDG-DECK	Yes	0,255,255	cyan	Continuous	0.35mm	Outdoor decks (attached, no roof overhead)
V-BLDG-DOCK	Yes	0,255,255	cyan	Continuous	0.35mm	Loading docks
V-BLDG-FTPT	Yes	white	white	Continuous	0.50mm	Building footprints
V-BLDG-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Building and other structure annotation
V-BLDG-OTLN	Yes	170	170	Continuous	Default	Survey Buildings: outline
V-BLDG-OVHD	Yes	0,255,255	cyan	Continuous	0.35mm	Building overhangs
V-BLDG-PNTS	Yes	0,255,255	cyan	Continuous	Default	Building survey points
V-BLDG-PRCH	Yes	0,255,255	cyan	Continuous	0.35mm	Porches (attached, roof overhead)
V-BORE-GENL-IDEN	Yes	255,200,0	40	Continuous	0.25mm	General boring annotation
V-BORE-GENL-LOCN	Yes	255,0,255	magenta	Continuous	0.35mm	General boring X,Y location marker

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
V-BORE-GENL-NAME	Yes	255,0,255	magenta	Continuous	0.35mm	General boring name
V-BORE-GENL-NOTE	Yes	255,0,255	magenta	Continuous	0.35mm	General boring notes
V-BORE-GPRO-LOCN	Yes	255,0,255	magenta	Continuous	0.35mm	GeoProbe X,Y location marker
V-BORE-GPRO-NAME	Yes	255,0,255	magenta	Continuous	0.35mm	GeoProbe boring name
V-BORE-GPRO-NOTE	Yes	255,0,255	magenta	Continuous	0.35mm	GeoProbe boring notes
V-BORE-PIZO	Yes	255,0,255	magenta	Continuous	0.35mm	Piezometer
V-BORE-PIZO-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Piezometer Annotation
V-BORE-PNTS	Yes	255,200,0	40	Continuous	Default	Boring survey points
V-BORE-UNDS-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Undisturbed boring annotation
V-BORE-UNDS-LOCN	Yes	255,0,255	magenta	Continuous	0.35mm	Undisturbed boring X,Y location marker
V-BORE-UNDS-NAME	Yes	255,0,255	magenta	Continuous	0.35mm	Undisturbed boring name
V-BORE-UNDS-NOTE	Yes	255,0,255	magenta	Continuous	0.35mm	Undisturbed boring notes
V-BORE-VCOR-LOCN	Yes	255,0,255	magenta	Continuous	0.35mm	Vibra-Core X,Y location marker
V-BORE-VCOR-NAME	Yes	255,0,255	magenta	Continuous	0.35mm	Vibra-Core name
V-BORE-VCOR-NOTE	Yes	255,0,255	magenta	Continuous	0.35mm	Vibra-Core notes
V-BORW-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Borrow/spoil area annotation
V-BORW-LINE	Yes	255,200,0	40	MS2 Medium Dash	0.25mm	Borrow/spoil area
V-BORW-PNTS	Yes	255,200,0	40	Continuous	Default	Borrow/spoil area survey points
V-BRDG-BENT	Yes	0,255,0	green	Continuous	0.35mm	Bent cap
V-BRDG-CHRD-LOW~	Yes	0,255,255	cyan	Continuous	0.35mm	Low chord
V-BRDG-CNTR	Yes	255,0,0	red	Center Line	0.18mm	Bridge centerlines
V-BRDG-CTLJ	Yes	0,255,255	cyan	Continuous	0.18mm	Control joints
V-BRDG-DECK	Yes	0,255,255	cyan	Continuous	0.35mm	Bridge deck
V-BRDG-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Bridge annotation
V-BRDG-OTLN	Yes	0,255,255	cyan	Continuous	0.35mm	Bridge outlines
V-BRDG-PIER	Yes	103,165,82	85	Continuous	0.50mm	Piers
V-BRDG-PNTS	Yes	103,165,82	85	Continuous	Default	Bridge survey points
V-BRDG-RLG~	Yes	0,255,255	cyan	Continuous	0.18mm	Bridge railing
V-CATH-ANOD	Yes	105,0,0	16	Continuous	0.35mm	Sacrificial anode system
V-CATH-CURR	Yes	105,0,0	16	Continuous	0.35mm	Impress current system
V-CATH-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Identifier tags, symbol modifier, and text
V-CATH-TEST	Yes	105,0,0	16	Continuous	0.35mm	Test stations
V-CHAN-BANK-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Channel/canal top of bank annotation
V-CHAN-BANK-TOP~	Yes	255,200,0	40	Continuous	0.25mm	Channel/canal top of bank
V-CHAN-BNCH	Yes	255,200,0	40	Continuous	0.25mm	Channel/canal bench design feature lines (breaklines form DTMs)
V-CHAN-BWTR	Yes	255,0,255	magenta	Continuous	0.25mm	Breakwaters
V-CHAN-CNTR	Yes	0,0,255	blue	Center Line	0.18mm	Channel centerline and survey report lines
V-CHAN-CNTR-IDEN	Yes	0,0,255	blue	Continuous	0.25mm	Channel centerline and survey report lines - annotation
V-CHAN-DACL	Yes	0,255,0	green	Continuous	0.25mm	De-authorized channel limits, anchorages, etc.
V-CHAN-DACL-IDEN	Yes	0,255,0	green	Continuous	0.25mm	De-authorized channel limits, anchorages, etc. - annotation

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
V-CHAN-DOCK	Yes	255,0,255	magenta	Continuous	0.25mm	Docks, decks, floats, piers, and mooring facilities
V-CHAN-LIMIT	Yes	255,0,255	magenta	Continuous	0.25mm	Channel limits, anchorages, turning basins, disposal areas, etc.
V-CHAN-LIMIT-IDEN	Yes	255,0,255	magenta	Continuous	0.25mm	Channel limits, anchorages, turning basins, disposal areas, etc. - annotation
V-CHAN-NAID	Yes	210,210,0	52	Continuous	0.25mm	Navigation aids
V-CHAN-NAID-IDEN	Yes	210,210,0	52	Continuous	0.25mm	Navigation aids - annotation
V-CHAN-PNTS	Yes	255,200,1	40	Continuous	Default	Channel survey points
V-CHAN-SLOP-LINE	Yes	255,200,0	40	Continuous	0.25mm	Channel cut/fill slope (Indicates cut and fill lines)
V-CHAN-SPOL	Yes	0,255,255	cyan	Continuous	0.35mm	Spoil limits
V-CHAN-SYMB	Yes	255,0,255	magenta	Continuous	0.25mm	Channel/canal symbols
V-CHAN-SYMB-NPLT	No	255,0,0	red	Continuous	Default	Survey Node
V-CHAN-TEXT	Yes	255,200,0	40	Continuous	0.25mm	Channel/canal text, annotation with associated leaders
V-CHAN-TOE~	Yes	0,0,255	blue	MS3 Long Dash	0.35mm	Channel/canal toe
V-CHAN-TOE~-IDEN	Yes	255,0,255	magenta	Continuous	0.25mm	Channel/canal toe annotation
V-CHAN-TURN	Yes	255,200,0	40	Continuous	0.25mm	Turning points
V-CHAN-WIDE	Yes	0,255,255	cyan	MS3 Long Dash	0.35mm	Channel/canal widener
V-COMM-ANTN	Yes	255,63,0	20	Continuous	0.35mm	Antennae
V-COMM-EQPM	Yes	255,63,0	20	Continuous	0.35mm	Other communications distribution equipment
V-COMM-IDEN	Yes	255,255,0	yellow	Continuous	0.13mm	Communication - annotation
V-COMM-JBOX	Yes	255,63,0	20	Continuous	0.35mm	Communication junction boxes, pull boxes, handholes, pedestals, and splices
V-COMM-MHOL	Yes	255,63,0	20	Continuous	0.35mm	Manholes
V-COMM-OVHD	Yes	255,63,0	20	Communication	0.35mm	Overhead communications/telephone lines
V-COMM-OVHD-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Identifier tags, symbol modifier and text
V-COMM-PNTS	Yes	255,200,0	40	Continuous	Default	Communication survey points
V-COMM-POLE	Yes	255,63,0	20	Continuous	0.35mm	Poles
V-COMM-POLE-GUYS	Yes	255,63,0	20	Continuous	0.35mm	Guying equipment
V-COMM-POLE-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Identifier tags, symbol modifiers, and text
V-COMM-UGND	Yes	255,63,0	20	Communication	0.35mm	Underground communications/telephone lines
V-COMM-UGND-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Identifier tags, symbol modifier and text
V-CTRL-BMRK	Yes	255,0,255	magenta	Continuous	0.35mm	Benchmarks
V-CTRL-GRID	Yes	0,255,0	green	Continuous	0.25mm	Grid
V-CTRL-HCPT	Yes	150	150	Continuous	Default	Survey Control points: horizontal.
V-CTRL-HORZ	Yes	255,0,255	magenta	Continuous	0.35mm	Horizontal control points
V-CTRL-HVPT	Yes	255,0,255	magenta	Continuous	0.35mm	Horizontal/vertical control points
V-CTRL-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Control point annotation
V-CTRL-LINE-DIRC	Yes	magenta	magenta	Continuous	Default	Survey Control points: traverse lines

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
V-CTRL-LINE-NETW	Yes	11	11	Continuous	Default	Survey Control points: traverse network
V-CTRL-LINE-SHOT	Yes	45	45	Continuous	Default	Survey Control points: traverse sideshot
V-CTRL-NODE-KNOW	Yes	92	92	Continuous	Default	Survey Control points: known points
V-CTRL-NODE-SHOT	Yes	11	11	Continuous	Default	Survey Control points: sideshots
V-CTRL-NODE-UNKN	Yes	red	red	Continuous	Default	Survey Control points: unknown points
V-CTRL-TRAV	Yes	255,0,255	magenta	Continuous	0.35mm	Transverse points
V-CTRL-TRAV-ERRO	Yes	92	92	Continuous	Default	Survey Control points: traverse errors
V-CTRL-VCPT	Yes	150	150	Continuous	Default	Survey Control points: vertical.
V-CTRL-VERT	Yes	255,0,255	magenta	Continuous	0.35mm	Vertical control points
V-DBNK-MULT	Yes	105,0,0	16	Duct Bank	0.35mm	Ductbank
V-DBNK-MULT-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Identifier tags, symbol modifier and text
V-DOMW-DEVC	Yes	0,255,0	green	Continuous	0.13mm	Connectors, faucets, reducers, regulators, vents, intake points, taps, backflow preventers, and valves
V-DOMW-FTTG	Yes	255,0,0	red	Continuous	0.35mm	Caps, cleanouts, crosses, and tees
V-DOMW-HYDT	Yes	255,0,0	red	Continuous	0.13mm	Hydrants
V-DOMW-IDEN	Yes	255,255,0	yellow	Continuous	0.13mm	Identifier tags, symbol modifier, and text
V-DOMW-METR	Yes	0,255,0	green	Continuous	0.13mm	Meters
V-DOMW-WELL	Yes	255,0,0	red	Continuous	0.13mm	Water well houses
V-DTCH-BOTM	Yes	0,0,255	blue	Ditch	0.18mm	Bottom of ditch or wash
V-DTCH-CNTR	Yes	0,0,255	blue	Center Line	0.18mm	Centerline of ditch or wash
V-DTCH-EWAT	Yes	0,255,255	cyan	Continuous	0.18mm	Edge of water
V-DTCH-IDEN	Yes	0,255,0	green	Continuous	0.25mm	Ditches and washes annotation
V-DTCH-PNTS	Yes	0,255,0	green	Continuous	Default	Ditch survey points
V-DTCH-TOP~	Yes	0,255,0	green	Continuous	0.18mm	Top of ditch or wash
V-ECCO-BURR	Yes	0,255,255	cyan	Continuous	0.35mm	Burrow
V-ECCO-DENS	Yes	0,255,255	cyan	Continuous	0.35mm	Den
V-ECCO-GATR	Yes	255,0,255	magenta	MS2 Medium Dash	0.25mm	Gator hole
V-ECCO-HUMK	Yes	255,0,255	magenta	Continuous	0.25mm	Hummocks
V-ECCO-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Habitat annotation
V-ECCO-NEST	Yes	0,255,255	cyan	Continuous	0.35mm	Nest, nesting tree
V-ECCO-PNTS	Yes	0,255,255	cyan	Continuous	Default	Habitat survey points
V-ECCO-PRCH	Yes	0,255,255	cyan	Continuous	0.35mm	Perch/nesting hole
V-EROS-CIPR	Yes	0,255,0	green	Continuous	0.25mm	Culvert Inlet Protection
V-EROS-DDIV	Yes	0,255,255	cyan	Continuous	0.50mm	Drainage divides
V-EROS-DVDK	Yes	0,255,255	cyan	Continuous	0.50mm	Drainage divides
V-EROS-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Erosion Control annotation
V-EROS-INPR	Yes	0,255,0	green	Continuous	0.25mm	Inlet Protection
V-EROS-SILT	Yes	255,200,0	40	Silt Fence	0.35mm	Silt Fence
V-EROS-SILT-TRAP	Yes	255,200,0	40	Continuous	0.35mm	Silt Trap
V-FIRE-HYDT	Yes	255,0,0	red	Continuous	0.25mm	Hydrants

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V-FIRE-PIPE	Yes	255,0,0	red	Fire Protection Water Supply	0.25mm	Piping
V-FIRE-PNTS	Yes	255,0,0	red	Fire Protection Water Supply	Default	Fire piping survey points
V-FLHA-025Y	Yes	255,0,255	magenta	MS6 Dash Dot Dot	0.25mm	25 year mark
V-FLHA-050Y	Yes	255,200,0	40	MS3 Long Dash	0.25mm	50 year mark
V-FLHA-100Y	Yes	255,0,255	magenta	Continuous	0.25mm	100 year mark
V-FLHA-200Y	Yes	255,200,0	40	MS2 Medium Dash	0.25mm	200 year mark
V-FLHA-500Y	Yes	255,0,255	magenta	MS7 Long Dash Short Dash	0.25mm	500 year mark
V-FLHA-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Flood hazard area annotation
V-FLOD-BASE	Yes	255,63,0	20	Continuous	0.35mm	Floodwall base of wall
V-FLOD-BASE-IDEN	Yes	255,63,0	20	Continuous	0.25mm	Floodwall base of wall annotation
V-FLOD-CNTR	Yes	255,63,0	20	Center Line	0.18mm	Floodwall centerline
V-FLOD-CNTR-IDEN	Yes	255,63,0	20	Continuous	0.25mm	Floodwall centerline annotation
V-FLOD-DRNS	Yes	255,0,255	magenta	Continuous	0.25mm	Floodwall toe drain
V-FLOD-DRNS-IDEN	Yes	255,0,255	magenta	Continuous	0.25mm	Floodwall toe drain annotation
V-FLOD-PILE	Yes	165,41,0	24	Continuous	0.35mm	Floodwall sheet piling
V-FLOD-PILE-IDEN	Yes	165,41,0	24	Continuous	0.25mm	Floodwall sheet piling annotation
V-FLOD-PNTS	Yes	165,41,0	24	Continuous	Default	Floodwall survey points
V-FLOD-TOE~	Yes	0,255,255	cyan	Continuous	0.25mm	Floodwall toe outline
V-FLOD-TOP~	Yes	255,200,0	40	Continuous	0.35mm	Floodwall top of wall
V-FLOD-TOP~IDEN	Yes	255,63,0	20	Continuous	0.25mm	Floodwall top of wall annotation
V-FUEL-BERM	Yes	255,200,0	40	Continuous	0.25mm	Berms for retaining fuel in case of major tank/line rupture
V-FUEL-DEFL-PIPE	Yes	255,200,0	40	Continuous	0.25mm	Defueling piping
V-FUEL-DEVC	Yes	255,200,0	40	Continuous	0.25mm	Air eliminators, filter strainers, hydrant fill points, line vents, markers, oil/water separators, reducers, regulators, and valves
V-FUEL-FLOW	Yes	255,200,0	40	Continuous	0.25mm	Flow direction arrows
V-FUEL-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Identifier tags, symbol modifier, and text
V-FUEL-JBOX	Yes	255,200,0	40	Continuous	0.25mm	Junction boxes, manholes, handholes, test boxes
V-FUEL-MAIN-PIPE	Yes	255,200,0	40	Gas - Liquefied Petroleum	0.25mm	Main fuel piping
V-FUEL-METR	Yes	255,200,0	40	Continuous	0.25mm	Meters
V-FUEL-PNTS	Yes	255,200,0	40	Continuous	Default	Liquid fuel survey points
V-FUEL-SERV-PIPE	Yes	255,200,0	40	Continuous	0.25mm	Service piping
V-FUEL-STNS-PUMP	Yes	255,200,0	40	Continuous	0.25mm	Booster pump stations
V-FUEL-TANK	Yes	255,200,0	40	Continuous	0.25mm	Fuel tanks
V-FUEL-TRCH	Yes	255,200,0	40	Continuous	0.25mm	Fuel line trench
V-FUEL-VALT	Yes	255,200,0	40	Continuous	0.25mm	Vent/valve/hydrant pits/vaults
V-GRAD-AFTR	Yes	255,200,0	40	Continuous	0.35mm	After dredge depth
V-GRAD-EXST	Yes	255,0,255	magenta	MS3 Long Dash	0.35mm	Existing grade, ground line
V-GRAD-EXST-BASE	Yes	165,41,0	24	MS2 Medium Dash	0.18mm	Base survey
V-GRAD-EXST-SYR1	Yes	255,0,255	magenta	MS4 Dot Dash	0.18mm	Survey year one or area one
V-GRAD-EXST-SYR2	Yes	255,200,0	40	MS1 Dot	0.18mm	Survey year two or area two

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V-GRAD-EXST-SYR3	Yes	0,255,0	green	MS6 Dash Dot Dot	0.18mm	Survey year three or area three
V-GRAD-EXST-SYR4	Yes	82,165,124	115	MS3 Long Dash	0.18mm	Survey year four or area four
V-GRAD-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Grade annotation
V-GRAD-PRED	Yes	255,200,0	40	Continuous	0.35mm	Pre-dredge
V-GRAD-SCLN	Yes	0,0,255	blue	MS7 Long Dash Short Dash	0.35mm	Stability control line
V-GRID-FRAM	Yes	0,255,255	cyan	Continuous	0.35mm	Frame
V-GRID-MAJR	Yes	128,128,128	8	MS1 Dot	0.25mm	Major grid lines
V-GRID-MINR	Yes	128,128,128	8	MS1 Dot	0.18mm	Minor grid lines
V-GRID-TEXT	Yes	255,200,0	40	Continuous	0.25mm	Border text, annotation
V-GTHP-EQPM	Yes	0,76,76	138	Continuous	0.25mm	Geothermal heat pump system equipment
V-GTHP-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Geothermal heat pump annotation
V-GTHP-PNTS	Yes	255,200,0	40	Continuous	Default	Geothermal heat pump system survey points
V-GTHP-RETN-PIPE	Yes	0,76,76	138	Continuous	0.35mm	Geothermal heat pump system return piping
V-GTHP-SUPP-PIPE	Yes	0,76,76	138	Continuous	0.35mm	Geothermal heat pump system supply piping
V-HTCW-CWTR-MAIN	Yes	0,0,255	blue	Continuous	0.25mm	Main chilled water piping
V-HTCW-CWTR-PLNT	Yes	0,0,255	blue	Continuous	0.25mm	Chilled water plant
V-HTCW-CWTR-SERV	Yes	0,0,255	blue	Continuous	0.18mm	Chilled water service piping
V-HTCW-DEVC	Yes	255,0,255	magenta	Continuous	0.25mm	Rigid anchors, anchor guides, rectifiers, reducers, markers, pumps, regulators, tanks, and valves
V-HTCW-HWTR-MAIN	Yes	255,0,0	red	Continuous	0.25mm	Main high temperature piping
V-HTCW-HWTR-PLNT	Yes	255,0,0	red	Continuous	0.25mm	High temperature water plant
V-HTCW-HWTR-SERV	Yes	255,0,0	red	Continuous	0.18mm	High temperature service piping
V-HTCW-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Identifier tags, symbol modifier, and text
V-HTCW-JBOX	Yes	255,0,255	magenta	Continuous	0.18mm	Junction boxes, manholes, handholes, test boxes
V-HTCW-LWTR-MAIN	Yes	255,200,0	40	Continuous	0.25mm	Main low temperature piping
V-HTCW-LWTR-SERV	Yes	255,200,0	40	Continuous	0.18mm	Low temperature service piping
V-HTCW-METR	Yes	255,0,255	magenta	Continuous	0.25mm	Meters
V-HTCW-PITS	Yes	255,0,255	magenta	Continuous	0.25mm	Valve pits/vaults, steam pits
V-HTCW-PNTS	Yes	255,0,255	magenta	Continuous	Default	High temperature/chilled water system survey points
V-HTCW-RETN-PIPE	Yes	255,0,255	magenta	Continuous	0.18mm	Return for all HTCW lines
V-HTCW-STEM-MAIN	Yes	255,127,191	241	Continuous	0.25mm	Main steam piping
V-HTCW-STEM-SERV	Yes	255,127,191	241	Continuous	0.18mm	Steam service piping
V-HTCW-STNS-PUMP	Yes	255,0,255	magenta	Continuous	0.25mm	Pump stations
V-HTCW-VALT	Yes	255,0,255	magenta	Continuous	0.18mm	Valve pits/vaults, steam pits
V-HYDS-BKLN	Yes	white	white	MS4 Dot Dash	0.35mm	Breaklines
V-HYDS-BKLN-COMM	Yes	white	white	Communication	0.35mm	Subsurface utilities communications breakline

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V-HYDS-BKLN-DOMW	Yes	white	white	Water Line	0.35mm	Subsurface utilities water breakline
V-HYDS-BKLN-ELEC	Yes	white	white	Electrical Primary	0.35mm	Subsurface utilities electric breakline
V-HYDS-BKLN-FUEL	Yes	white	white	Gas - Liquefied Petroleum	0.35mm	Subsurface utilities liquid fuel breakline
V-HYDS-BKLN-NGAS	Yes	white	white	Gas - Low Pressure	0.35mm	Subsurface utilities natural gas breakline
V-HYDS-BKLN-SSWR	Yes	white	white	Sanitary Waste	0.35mm	Subsurface utilities sanitary sewer breakline
V-HYDS-BKLN-STRM	Yes	white	white	Drain - Storm	0.35mm	Subsurface utilities storm sewer breakline
V-HYDS-BNDY-EXTR	Yes	0,255,0	green	Continuous	0.18mm	Surface exterior boundary
V-HYDS-BNDY-INTR	Yes	255,0,0	red	MS2 Medium Dash	0.18mm	Surface interior boundary
V-HYDS-BORE	Yes	255,0,255	magenta	Continuous	0.25mm	Boring locations and text
V-HYDS-COOR	Yes	0,165,124	122	Continuous	0.25mm	Coordinate grid text annotation
V-HYDS-COOR-LALO	Yes	0,255,0	green	Continuous	0.18mm	Latitude and longitude grid ticks
V-HYDS-COOR-STAT	Yes	0,255,0	green	Continuous	0.18mm	State Plane coordinate ticks
V-HYDS-COOR-UTM~	Yes	0,255,0	green	Continuous	0.18mm	UTM coordinate ticks
V-HYDS-DTMO	Yes	255,0,255	magenta	Continuous	0.25mm	DTM obscure area boundary
V-HYDS-DTMP	Yes	255,0,255	magenta	Continuous	0.25mm	DTM points
V-HYDS-DTMT	Yes	165,41,0	24	Continuous	0.25mm	DTM triangles
V-HYDS-MAJR	Yes	255,200,0	40	Continuous	0.25mm	Major contours
V-HYDS-MAJR-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Major contours - annotation
V-HYDS-MINR	Yes	0,255,0	green	Continuous	0.18mm	Minor contours
V-HYDS-MINR-IDEN	Yes	0,255,0	green	Continuous	0.18mm	Minor contours - annotation
V-HYDS-MLLW-IDEN	Yes	160	160	Continuous	0.25mm	User Defined MLLW Contour - Annotation
V-HYDS-PERI	Yes	0,255,0	green	Continuous	0.18mm	Surface perimeter
V-HYDS-SHAP	Yes	255,0,0	red	Continuous	0.18mm	Inroads generated shapes/lines
V-HYDS-SHOR	Yes	0,255,255	cyan	Continuous	0.25mm	Shorelines, land features, and references
V-HYDS-SLOP-FILL	Yes	255,200,0	40	Continuous	0.25mm	Cut/fill slopes
V-HYDS-SLOP-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Cut/fill slope, top/toe slope annotation
V-HYDS-SLOP-TOPT	Yes	255,0,255	magenta	Continuous	0.25mm	Top/toe slopes
V-HYDS-SOUN	Yes	white	white	Continuous	0.18mm	Soundings and overbanks
V-HYDS-SPOT	Yes	255,200,0	40	Continuous	0.25mm	Spot elevations
V-HYDS-USER	Yes	10	10	Continuous	0.50mm	User-Defined Contour
V-HYDS-USER-MLLW	Yes	160	160	Continuous	0.70mm	User-Defined MLLW Contour
V-HYDS-VOID	Yes	255,0,0	red	Continuous	0.18mm	Surface void region
V-HYDS-WATR	Yes	white	white	Continuous	0.35mm	Water level reference (e.g., LWRP, after-grading LWRP, SWP, etc.)
V-INDW-DEVC	Yes	255,63,0	20	Continuous	0.25mm	Grit chambers, flumes, neutralizers, oil/water separators, ejectors, tanks, and valves
V-INDW-FLOW	Yes	255,63,0	20	Continuous	0.25mm	Flow direction arrows
V-INDW-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Identifier tags, symbol modifier, and text
V-INDW-JBOX	Yes	255,63,0	20	Continuous	0.25mm	Junction boxes and manholes

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
V-INDW-LAGN	Yes	255,63,0	20	Continuous	0.25mm	Lagoons
V-INDW-MAIN-PIPE	Yes	255,63,0	20	Industrial Waste	0.25mm	Main industrial waste water piping
V-INDW-METR	Yes	255,63,0	20	Continuous	0.25mm	Meters
V-INDW-PLNT	Yes	255,63,0	20	Continuous	0.25mm	Treatment plants
V-INDW-PNTS	Yes	255,63,0	20	Continuous	Default	Industrial waste water survey points
V-INDW-SERV-PIPE	Yes	255,63,0	20	Continuous	0.25mm	Industrial waste water service piping
V-INDW-SIGN	Yes	255,63,0	20	Continuous	0.25mm	Surface markers/signs
V-INDW-STNS-LIFT	Yes	255,63,0	20	Continuous	0.25mm	Lift stations
V-IRRG-EQPM	Yes	124,0,165	204	Continuous	0.25mm	Irrigation equipment (e.g., controllers, valves, etc.)
V-IRRG-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Irrigation annotation
V-IRRG-PIPE	Yes	124,0,165	204	Continuous	0.25mm	Irrigation piping
V-IRRG-PNTS	Yes	124,0,165	204	Continuous	Default	Irrigation piping and equipment survey points
V-IRRG-WELL	Yes	124,0,165	204	Continuous	0.18mm	Irrigation wells
V-JNTS-CNSL	Yes	255,0,255	magenta	Continuous	0.25mm	Construction joints - longitudinal
V-JNTS-CNST	Yes	255,0,255	magenta	Continuous	0.25mm	Construction joints - transverse
V-JNTS-CNTL	Yes	255,200,0	40	Continuous	0.25mm	Contraction joints - longitudinal
V-JNTS-CNTT	Yes	255,200,0	40	Continuous	0.25mm	Contraction joints - transverse
V-JNTS-EDGE	Yes	0,255,255	cyan	Continuous	0.25mm	Thickened edges
V-JNTS-EXPJ	Yes	165,0,0	12	Continuous	0.25mm	Expansion joints
V-JNTS-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Joint annotation
V-JNTS-PNTS	Yes	255,200,0	40	Continuous	Default	Construction, contraction, and expansion joint survey points
V-LEVE-BANK-IDEN	Yes	255,63,0	20	Continuous	0.25mm	Levee top of bank annotation
V-LEVE-BERM	Yes	255,0,255	magenta	Continuous	0.25mm	Existing berms
V-LEVE-BERM-HNGE	Yes	255,0,255	magenta	Continuous	0.25mm	Levee Berm Hinge
V-LEVE-BERM-TOE~	Yes	255,0,255	magenta	Continuous	0.25mm	Levee Berm Toe
V-LEVE-BNCH	Yes	255,63,0	20	Continuous	0.25mm	Levee bench design feature lines (breaklines form DTMs)
V-LEVE-BNCH-IDEN	Yes	255,200,0	40	Continuous	0.18mm	Levee bench annotation
V-LEVE-BRRW	Yes	0,255,255	cyan	Continuous	0.35mm	Borrow limits
V-LEVE-CNTR	Yes	255,63,0	20	Center Line	0.18mm	Levee centerline
V-LEVE-CNTR-IDEN	Yes	255,63,0	20	Continuous	0.25mm	Levee centerline annotation
V-LEVE-DGRD	Yes	255,0,255	magenta	Continuous	0.25mm	Levee Degrade
V-LEVE-HNGE	Yes	255,0,255	magenta	Continuous	0.25mm	Levee Hinge
V-LEVE-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Levee annotation
V-LEVE-OTLN	Yes	0,255,255	cyan	Continuous	0.35mm	Levee outline
V-LEVE-PNTS	Yes	0,255,255	cyan	Continuous	Default	Levee survey points
V-LEVE-ROAD	Yes	255,0,255	magenta	Continuous	0.25mm	Levee Road
V-LEVE-ROAD-CNTR	Yes	255,0,255	magenta	Continuous	0.25mm	Levee Road Centerline
V-LEVE-ROAD-HNGE	Yes	255,0,255	magenta	Continuous	0.25mm	Levee Road Hinge
V-LEVE-SLOP	Yes	255,200,0	40	Continuous	0.25mm	Levee slope indicator with annotation
V-LEVE-STAN	Yes	255,200,0	40	Continuous	0.25mm	Levee stationing
V-LEVE-TOE~	Yes	255,63,0	20	MS2 Medium Dash	0.25mm	Levee toe
V-LEVE-TOE~-IDEN	Yes	255,63,0	20	Continuous	0.18mm	Levee toe annotation

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V-LEVE-TOPB	Yes	255,63,0	20	Continuous	0.25mm	Levee top of bank
V-LITE-EXTR	Yes	255,0,0	red	Continuous	0.35mm	Exterior lights
V-LITE-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Light identifier tags, symbol modifiers, and text
V-MILR-BATP	Yes	0,255,255	cyan	Continuous	0.35mm	Battle positions
V-MILR-CAMS	Yes	255,0,255	magenta	Continuous	0.25mm	Range cameras
V-MILR-FOXH	Yes	255,0,255	magenta	Continuous	0.25mm	Fox holes and pits
V-MILR-MATS	Yes	0,255,255	cyan	Continuous	0.35mm	Moving army targets
V-MILR-MITS	Yes	0,255,255	cyan	Continuous	0.35mm	Moving infantry targets
V-MILR-MITS-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Moving infantry targets annotation
V-MILR-PNTS	Yes	255,200,0	40	Continuous	Default	Military range survey points
V-MILR-PUTS	Yes	0,255,255	cyan	Continuous	0.35mm	Pop up targets
V-MILR-PUTS-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Pop up targets annotation
V-MILR-SATS	Yes	0,255,255	cyan	Continuous	0.35mm	Stationary army targets
V-MILR-SATS-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Stationary army targets annotation
V-MILR-SITS	Yes	0,255,255	cyan	Continuous	0.35mm	Stationary infantry targets
V-MILR-SITS-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Stationary infantry targets annotation
V-NGAS-EQPM	Yes	255,200,0	40	Continuous	0.25mm	Equipment (pumps, motors, etc.)
V-NGAS-FLOW	Yes	255,200,0	40	Continuous	0.25mm	Flow direction arrows
V-NGAS-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Identifier tags, symbol modifier, and text
V-NGAS-INST	Yes	255,200,0	40	Continuous	0.25mm	Instrumentation (valves, etc.)
V-NGAS-METR	Yes	255,200,0	40	Continuous	0.25mm	Meters
V-NGAS-MHOL	Yes	255,200,0	40	Continuous	0.25mm	Manholes
V-NGAS-PIPE	Yes	255,200,0	40	Gas - Low Pressure	0.25mm	Natural gas piping
V-NGAS-PITS-VALV	Yes	0,255,0	green	Continuous	0.13mm	Valve pits/boxes
V-NGAS-PNTS	Yes	0,255,0	green	Continuous	Default	Natural gas survey points
V-NGAS-SIGN	Yes	255,200,0	40	Continuous	0.25mm	Surface markers/signs
V-NGAS-STNS-PUMP	Yes	255,200,0	40	Continuous	0.25mm	Compressor stations
V-NGAS-STNS-REDC	Yes	255,200,0	40	Continuous	0.25mm	Reducing stations
V-NGAS-TANK	Yes	255,200,0	40	Continuous	0.18mm	Tanks
V-NGAS-VALT	Yes	255,200,0	40	Continuous	0.25mm	Valve/vent pits/vaults
V-NODE	Yes	255,255,0	yellow	Continuous	0.13mm	Points
V-OBST-AIRS	Yes	0,255,0	green	Continuous	0.25mm	Airspace obstructions
V-OBST-AIRS-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Airspace obstruction annotation
V-OBST-PNTS	Yes	255,200,0	40	Continuous	Default	Obstruction survey points
V-OBST-UWTR	Yes	255,0,0	red	MS2 Medium Dash	0.25mm	Underwater obstructions (e.g., sunken ship, barge, etc.)
V-OBST-UWTR-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Underwater obstruction annotation
V-OVRN-CNTR	Yes	255,0,0	red	Center Line	0.18mm	Centerlines
V-OVRN-CNTR-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Centerline annotation
V-OVRN-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Airfield overrun area - annotation
V-OVRN-OTLN	Yes	0,255,255	cyan	Continuous	0.25mm	Airfield overrun area - outlines
V-OVRN-PNTS	Yes	0,255,255	cyan	Continuous	Default	Overrun area survey points
V-OVRN-SHLD-MRKG	Yes	0,255,255	cyan	Continuous	0.25mm	Shoulder markings
V-PADS-CNTR	Yes	255,0,0	red	Center Line	0.18mm	Centerlines

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V-PADS-CNTR-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Centerline annotation
V-PADS-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Pads - annotation
V-PADS-OTLN	Yes	0,255,255	cyan	Continuous	0.25mm	Pad - outlines
V-PADS-PNTS	Yes	0,255,255	cyan	Continuous	Default	Pad survey points
V-PADS-SHLD	Yes	255,200,0	40	Continuous	0.18mm	Shoulders with annotation
V-POWR-DEVC	Yes	105,0,0	16	Continuous	0.35mm	Capacitors, voltage regulators, motors, buses, grounds, and markers
V-POWR-GENR	Yes	105,0,0	16	Continuous	0.35mm	Generators
V-POWR-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Power annotation
V-POWR-JBOX	Yes	105,0,0	16	Continuous	0.35mm	Junction boxes, pull boxes, manholes, handholes, pedestals, splices
V-POWR-METR	Yes	105,0,0	16	Continuous	0.35mm	Meters
V-POWR-PNTS	Yes	105,0,0	16	Continuous	Default	Pwr device survey points
V-POWR-POLE	Yes	105,0,0	16	Continuous	0.35mm	Power poles
V-POWR-POLE-GUYS	Yes	105,0,0	16	Continuous	0.35mm	Guying equipment
V-POWR-POLE-IDEN	Yes	181,143,227	181	Continuous	0.13mm	Identifier tags, symbol modifiers, and text
V-POWR-SBST	Yes	105,0,0	16	Continuous	0.35mm	Substation equipment
V-POWR-SWCH	Yes	105,0,0	16	Continuous	0.35mm	Fuse cutouts, pole mounted switches, circuit breakers, gang operated disconnects, reclosers, cubicle
V-POWR-XFMR	Yes	105,0,0	16	Continuous	0.35mm	Transformers
V-POWR-XFMR-PADM	Yes	105,0,0	16	Continuous	0.35mm	Pad mounted transformers
V-POWR-XFMR-POLM	Yes	105,0,0	16	Continuous	0.35mm	Pole mounted transformers
V-PRIM-OVHD	Yes	105,0,0	16	Electrical Primary	0.35mm	Overhead electrical utility lines
V-PRIM-OVHD-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Identifier tags, symbol modifiers, and text
V-PRIM-PNTS	Yes	255,200,0	40	Continuous	Default	Primary electric cable survey points
V-PRIM-UGND	Yes	105,0,0	16	Electrical Primary	0.35mm	Underground electrical utility lines
V-PRIM-UGND-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Identifier tags, symbol modifiers, and text
V-PRKG-CNTR	Yes	255,0,0	red	Center Line	0.18mm	Parking lot centerlines
V-PRKG-CNTR-IDEN	Yes	255,0,0	red	Continuous	0.18mm	Parking lot centerline annotation
V-PRKG-CURB	Yes	0,255,0	green	Continuous	0.25mm	Curbs and gutters
V-PRKG-DRAIN	Yes	255,0,0	red	Continuous	0.25mm	Drainage slope indications
V-PRKG-FIXT	Yes	127,255,127	91	Continuous	0.25mm	Parking lot fixtures (e.g., wheel stops, parking meters)
V-PRKG-FLNE	Yes	255,0,0	red	Continuous	0.18mm	Fire lanes
V-PRKG-IDEN	Yes	255,0,255	magenta	Continuous	0.25mm	Parking lot annotation
V-PRKG-MRKG	Yes	255,200,0	40	Continuous	0.25mm	Pavement markings
V-PRKG-OTLN	Yes	0,255,255	cyan	Continuous	0.35mm	Parking lot outlines
V-PRKG-PNTS	Yes	0,255,255	cyan	Continuous	Default	Parking lot survey points
V-PRKG-SIGN	Yes	255,200,0	40	Continuous	0.25mm	Signs
V-PROP-BRNG	Yes	255,0,255	magenta	Continuous	0.35mm	Bearings and distance labels

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
V-PROP-ESMT	Yes	white	white	Construction Easement	0.50mm	Easements
V-PROP-IDEN	Yes	255,0,255	magenta	Continuous	0.25mm	Property annotation
V-PROP-LINE	Yes	255,200,0	40	Property Line	0.35mm	Property lines (Existing recorded plats)
V-PROP-PNTS	Yes	255,200,0	40	Property Line	Default	Property survey points
V-PROP-QTRS	Yes	255,0,255	magenta	MS1 Dot	0.35mm	Quarter lines
V-PROP-RWAY	Yes	white	white	Right Of Way	0.50mm	Right of ways
V-PROP-SBCK	Yes	white	white	MS3 Long Dash	0.18mm	Setback lines
V-PROP-SECT	Yes	255,0,255	magenta	MS7 Long Dash Short Dash	0.35mm	Section lines
V-PROP-SECT-IDEN	Yes	255,0,255	magenta	Continuous	0.25mm	Section lines annotation
V-PROP-SUBD	Yes	255,0,0	red	Continuous	0.25mm	Subdivision (interior) lines
V-PROP-SXTS	Yes	255,0,255	magenta	Phantom Line	0.35mm	Sixteenth lines (40 lines)
V-PROP-TSHP	Yes	255,0,255	magenta	MS4 Dot Dash	0.35mm	Township/range lines
V-PROP-TSHP-IDEN	Yes	255,0,255	magenta	Continuous	0.25mm	Township/range lines annotation
V-PVMT-ASPH	Yes	128,128,128	8	Continuous	0.18mm	Pavement pattern - asphalt
V-PVMT-CONC	Yes	128,128,128	8	Continuous	0.18mm	Pavement pattern - concrete
V-PVMT-GRVL	Yes	128,128,128	8	Continuous	0.18mm	Pavement pattern - gravel
V-PVMT-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Road, parking lot, railroad, airfield pavement annotation
V-PVMT-MRKG	Yes	255,200,0	40	Continuous	0.35mm	Pavement markings
V-PVMT-PATT	Yes	128,128,128	8	Continuous	0.18mm	Joint patterns, text and dimensions
V-PVMT-PNTS	Yes	128,128,128	8	Continuous	Default	Pavement survey points
V-RAIL-CNTR	Yes	255,0,0	red	Center Line	0.18mm	Railroad track centerlines
V-RAIL-CNTR-IDEN	Yes	255,0,0	red	Continuous	0.25mm	Railroad track centerline annotation
V-RAIL-EQPM	Yes	127,255,127	91	Continuous	0.25mm	Railroad equipment (e.g., gates, signals)
V-RAIL-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Railroad - annotation
V-RAIL-PNTS	Yes	255,200,0	40	Continuous	Default	Railroad survey points
V-RAIL-TRAK	Yes	255,200,0	40	Railroad	0.25mm	Railroad tracks
V-RIVR-BOTM	Yes	0,0,255	blue	Continuous	0.25mm	River bottom
V-RIVR-CNTR	Yes	255,0,0	red	Center Line	0.18mm	Centerline of river
V-RIVR-EDGE	Yes	0,0,255	blue	Continuous	0.35mm	River edge
V-RIVR-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Identifier tags, symbol modifiers, and text
V-RIVR-PNTS	Yes	255,200,0	40	Continuous	Default	River survey points
V-RIVR-TOPB	Yes	0,0,255	blue	Continuous	0.25mm	Top of river bank
V-ROAD-ASPH	Yes	128,128,128	8	Continuous	0.18mm	Road outlines - asphalt surface
V-ROAD-CNTR	Yes	255,0,0	red	Center Line	0.18mm	Road centerlines
V-ROAD-CNTR-IDEN	Yes	255,0,0	red	Continuous	0.18mm	Road centerline annotation
V-ROAD-CONC	Yes	white	white	Continuous	0.18mm	Road outlines - concrete surface
V-ROAD-CORR	Yes	255,0,255	magenta	MS3 Long Dash	0.35mm	Corridor Object in Sections
V-ROAD-CURB	Yes	255,0,255	magenta	Continuous	0.25mm	Curbs and gutters
V-ROAD-CURB-PNTS	Yes	255,0,255	magenta	Continuous	Default	Curb and gutter survey points
V-ROAD-GRAL	Yes	255,0,255	magenta	Guardrail	0.25mm	Guard rails
V-ROAD-GRVL	Yes	255,63,0	20	Continuous	0.18mm	Road outlines - gravel surface
V-ROAD-IDEN	Yes	255,0,255	magenta	Continuous	0.25mm	Road, street, highway annotation

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
V-ROAD-MRKG	Yes	255,200,0	40	Continuous	0.25mm	Pavement markings
V-ROAD-OTLN	Yes	0,255,255	cyan	Continuous	0.25mm	Road outlines
V-ROAD-PATT	Yes	128,128,128	8	Continuous	0.18mm	Joint patterns, text and dimensions
V-ROAD-PNTS	Yes	128,128,128	8	Continuous	Default	Road outline survey points
V-ROAD-SHLD	Yes	255,0,255	magenta	Continuous	0.25mm	Roadway shoulders
V-ROAD-SIGN	Yes	255,0,0	red	Continuous	0.18mm	Signs
V-ROAD-UPVD	Yes	0,255,0	green	Continuous	0.18mm	Road outlines - unpaved surface
V-RRAP-BLKT	Yes	255,0,0	red	Continuous	0.18mm	Natural/synthetic mats, blankets, textiles, and grids used for slope stabilization
V-RRAP-EDGE	Yes	165,0,82	234	Continuous	0.25mm	Riprap, stone protection, jetties, breakwaters
V-RRAP-GABN	Yes	255,0,0	red	Continuous	0.18mm	Gabions
V-RRAP-GABN-CNTR	Yes	255,0,0	red	Center Line	0.18mm	Gabions Centerline
V-RRAP-MATS	Yes	0,255,0	green	Continuous	0.18mm	Articulated concrete mats
V-RRAP-PNTS	Yes	0,255,0	green	Continuous	Default	Riprap survey points
V-RRAP-RVMT	Yes	255,0,0	red	Continuous	0.18mm	Revetments
V-RRAP-TRET	Yes	0,255,0	green	Continuous	0.18mm	Soil cement, fiber reinforced soil, and chemical erosion control treatments
V-RRAP-VEGE	Yes	255,0,0	red	MS6 Dash Dot Dot	0.18mm	Erosion control aquatic vegetation and planted riparian buffers
V-RRAP-WEIR	Yes	0,255,0	green	Continuous	0.18mm	Weirs
V-RUNW-BLST	Yes	255,0,0	red	Continuous	0.25mm	Blast pad and stopway markings
V-RUNW-CNTR	Yes	255,0,0	red	Center Line	0.18mm	Centerlines
V-RUNW-CNTR-MRKG	Yes	255,0,0	red	Continuous	0.25mm	Centerline markings
V-RUNW-DISP	Yes	255,0,0	red	Continuous	0.25mm	Displaced threshold markings
V-RUNW-DIST	Yes	255,0,0	red	Continuous	0.25mm	Fixed distance markings
V-RUNW-EDGE	Yes	255,0,255	magenta	Continuous	0.25mm	Airfield runway edges
V-RUNW-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Airfield runway annotation
V-RUNW-PNTS	Yes	255,200,0	40	Continuous	Default	Runway survey points
V-RUNW-SHLD	Yes	255,0,255	magenta	Continuous	0.25mm	Shoulder markings
V-RUNW-SIDE	Yes	0,255,255	cyan	Continuous	0.25mm	Side stripes
V-RUNW-TDZM	Yes	255,0,255	magenta	Continuous	0.25mm	Touchdown zone markers
V-RUNW-THRS	Yes	255,0,255	magenta	Continuous	0.25mm	Threshold markers
V-SAMP-PERC	Yes	255,63,0	20	Continuous	Default	Percolation test hole
V-SAMP-VERT	Yes	255,63,0	20	Continuous	Default	Vertical core hole location
V-SECD-OVHD	Yes	105,0,0	16	Electrical Secondary	0.35mm	Overhead electrical utility lines
V-SECD-OVHD-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Identifier tags, symbol modifiers, and text
V-SECD-PNTS	Yes	255,200,0	40	Continuous	Default	Secondary electric cable survey points
V-SECD-UGND	Yes	105,0,0	16	Electrical Secondary	0.35mm	Underground electrical utility lines
V-SECD-UGND-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Identifier tags, symbol modifiers, and text
V-SECT-AFTR	Yes	255,200,0	40	MS3 Long Dash	0.35mm	Section, After Dredge Surface

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V-SECT-EXST	Yes	255,0,255	magenta	MS3 Long Dash	0.35mm	Section, Existing
V-SECT-IDEN	Yes	255,200,0	40	Continuous	0.35mm	Component identification numbers
V-SECT-MBND	Yes	0,0,255	blue	Continuous	0.18mm	Material beyond section cut
V-SECT-MCUT	Yes	0,255,255	cyan	Continuous	0.50mm	Material cut by section
V-SECT-PATT	Yes	128,128,128	8	Continuous	0.18mm	Textures and hatch patterns
V-SECT-PRED	Yes	255,200,0	40	MS3 Long Dash	0.35mm	Section, Pre-Dredge Surface
V-SITE-EWAT	Yes	0,41,165	172	Continuous	0.35mm	Edge of water
V-SITE-FENC	Yes	255,0,255	magenta	Fence	0.25mm	Fences and handrails
V-SITE-FENC-IDEN	Yes	255,0,255	magenta	Continuous	0.13mm	Fence, handrail, ramp, and trail annotation
V-SITE-FLDS	Yes	255,0,0	red	Continuous	0.25mm	Stump fields
V-SITE-IDEN	Yes	255,0,255	magenta	Continuous	0.25mm	Existing site feature/structure annotation
V-SITE-OTLN	Yes	0,255,255	cyan	Continuous	0.50mm	Existing site features (play structures, bike racks, benches, recreational equipment)
V-SITE-PNTS	Yes	0,255,255	cyan	Continuous	Default	Site feature survey points
V-SITE-POST	Yes	0,255,255	cyan	Continuous	0.50mm	Posts
V-SITE-ROCK	Yes	255,0,0	red	Continuous	0.25mm	Rock and rock outcroppings, boulders and cobble
V-SITE-SCAN	Yes	white	white	Continuous	Default	Point Cloud Scan
V-SITE-SIGN	Yes	0,255,255	cyan	Continuous	0.50mm	Signs
V-SITE-SOIL	Yes	255,0,0	red	Continuous	0.25mm	Soil
V-SITE-STRC	Yes	165,41,0	24	Continuous	0.25mm	Structures (bridges, sheds, foundation pads, footings, etc.)
V-SITE-STRS	Yes	255,0,255	magenta	Continuous	0.25mm	Stairs and ramps
V-SITE-UTIL-UNKN-LINE	Yes	255,63,0	20	Continuous	0.50mm	Unkown Utility Line
V-SITE-UTIL-UNKN-STRC	Yes	255,63,0	20	Continuous	0.50mm	Unkown Structure
V-SITE-VEGE	Yes	41,165,0	82	TREELINE_L	0.35mm	Existing treelines and vegetation
V-SITE-VEGE-IDEN	Yes	41,165,0	82	Continuous	0.35mm	Existing treelines and vegetation - identification
V-SITE-VEGE-TREE	Yes	41,165,0	82	Continuous	0.35mm	Trees, Shrubs, Bushes, etc.
V-SITE-WALK	Yes	255,200,0	40	Continuous	0.25mm	Walks, trails, and bicycle paths
V-SITE-WATR	Yes	0,41,165	172	Continuous	0.35mm	Water features
V-SPCL-PNTS	Yes	105,0,0	16	Continuous	Default	Special system survey points
V-SPCL-SYST	Yes	105,0,0	16	Continuous	0.35mm	Special systems (UMCS, EMCS, etc.)
V-SPCL-SYST-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Special systems (UMCS, EMCS, etc.) identifier tags, symbol modifier, and text
V-SPCL-TRAF	Yes	105,0,0	16	Continuous	0.35mm	Traffic signal system
V-SPCL-TRAF-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Traffic signal identifier tags, symbol modifier, and text
V-SSWR-DEVC	Yes	0,255,0	green	Continuous	0.25mm	Grease traps, grit chambers, flumes, neutralizers, oil/water separators, ejectors, and valves
V-SSWR-FILT	Yes	0,255,0	green	Continuous	0.25mm	Filtration beds
V-SSWR-FLOW	Yes	0,255,0	green	Continuous	0.25mm	Flow direction arrows

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
V-SSWR-FTTG	Yes	255,0,255	magenta	Continuous	0.13mm	Caps and cleanouts
V-SSWR-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Identifier tags, symbol modifier, and text
V-SSWR-JBOX	Yes	0,255,0	green	Continuous	0.25mm	Junction boxes and manholes
V-SSWR-LAGN	Yes	0,255,0	green	Continuous	0.25mm	Lagoons
V-SSWR-LEAC	Yes	0,255,0	green	Continuous	0.25mm	Leach field
V-SSWR-MAIN-PIPE	Yes	0,255,0	green	Sanitary Waste	0.25mm	Sanitary sewer piping
V-SSWR-MAIN-PIPE-PROF	Yes	0,255,0	green	MS2 Medium Dash	0.25mm	Sewer Pipes in Profile
V-SSWR-MAIN-PIPE-SECT	Yes	0,255,0	green	MS2 Medium Dash	0.25mm	Sewer Pipes in Cross Sections
V-SSWR-NITF	Yes	0,255,0	green	Continuous	0.25mm	Nitrification drain fields
V-SSWR-PLNT	Yes	0,255,0	green	Continuous	0.25mm	Treatment plants
V-SSWR-PNTS	Yes	0,255,0	green	Continuous	Default	Sanitary sewer survey points
V-SSWR-SERV-PIPE	Yes	0,255,0	green	Continuous	0.25mm	Sanitary sewer service piping
V-SSWR-SIGN	Yes	0,255,0	green	Continuous	0.25mm	Surface markers/signs
V-SSWR-STNS-PUMP	Yes	0,255,0	green	Continuous	0.25mm	Booster pump stations
V-SSWR-STRC-PROF	Yes	0,255,0	green	MS2 Medium Dash	0.25mm	Sewer Structures in Profiles
V-SSWR-STRC-SECT	Yes	0,255,0	green	MS2 Medium Dash	0.25mm	Sewer Structures in Cross Sections
V-SSWR-TANK	Yes	0,255,0	green	Continuous	0.25mm	Septic tanks
V-STRM-AFFF	Yes	0,255,0	green	Continuous	0.25mm	AFFF lagoon/detention pond
V-STRM-CHUT	Yes	0,255,0	green	Continuous	0.25mm	Chutes and concrete erosion control structures
V-STRM-CULV	Yes	0,255,0	green	Culvert	0.25mm	Culverts
V-STRM-CULV-PROF	Yes	0,255,0	green	MS2 Medium Dash	0.25mm	Culvert Profiles
V-STRM-CULV-SECT	Yes	0,255,0	green	MS2 Medium Dash	0.25mm	Culvert Sections
V-STRM-DEVC	Yes	0,255,0	green	Continuous	0.25mm	Downspouts, flumes, oil/water separators, and flap gates
V-STRM-FLOW	Yes	0,255,0	green	Continuous	0.25mm	Flow direction arrows
V-STRM-FMON	Yes	0,255,0	green	Continuous	0.25mm	Flow monitoring station
V-STRM-HWAL	Yes	0,255,0	green	Continuous	0.35mm	Headwalls and endwalls
V-STRM-IDEN	Yes	0,255,0	green	Continuous	0.25mm	Identifier tags, symbol modifier, and text
V-STRM-INLT	Yes	0,255,0	green	Continuous	0.25mm	Inlets (curb, surface, and catch basins)
V-STRM-MAIN-PIPE	Yes	0,255,0	green	Drain - Storm	0.25mm	Storm sewer piping
V-STRM-MAIN-PIPE-PROF	Yes	0,255,0	green	MS2 Medium Dash	0.25mm	Storm sewer Pipes in Profile
V-STRM-MAIN-PIPE-SECT	Yes	0,255,0	green	MS2 Medium Dash	0.25mm	Storm sewer Pipes in Cross Sections
V-STRM-MHOL	Yes	0,255,0	green	Continuous	0.25mm	Manholes
V-STRM-PNTS	Yes	0,255,0	green	Continuous	Default	Storm sewer survey points
V-STRM-POND	Yes	0,255,0	green	Continuous	0.25mm	Lagoons, ponds, watersheds, and basins
V-STRM-ROOF	Yes	0,255,0	green	Continuous	0.25mm	Roof drain line
V-STRM-SERV-PIPE	Yes	0,255,0	green	Continuous	0.25mm	Storm sewer service piping
V-STRM-SIGN	Yes	0,255,0	green	Continuous	0.25mm	Surface markers/signs
V-STRM-STNS-PUMP	Yes	0,255,0	green	Continuous	0.25mm	Pump stations
V-STRM-STRC-PROF	Yes	0,255,0	green	MS2 Medium Dash	0.25mm	Storm sewer Structures in Profiles
V-STRM-STRC-SECT	Yes	0,255,0	green	MS2 Medium Dash	0.25mm	Storm sewer Structures in Cross Sections

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
V-STRM-SUBS-PIPE	Yes	0,255,0	green	Continuous	0.25mm	Subsurface drain piping
V-SURV-DATA	Yes	255,0,255	magenta	Continuous	0.25mm	Survey data (benchmarks and horizontal control points or monuments)
V-SURV-IDEN	Yes	255,0,255	magenta	Continuous	0.25mm	Survey, baseline, and control line annotation
V-SURV-LABL	Yes	122	122	Continuous	Default	Survey: text
V-SURV-LINE	Yes	0,255,255	cyan	MS2 Medium Dash	0.25mm	Survey, baseline, and control line
V-SURV-SYMB	Yes	255,200,0	40	Continuous	0.35mm	Survey line symbol (PIs)
V-TAXI-CNTR	Yes	255,0,0	red	Center Line	0.18mm	Centerlines
V-TAXI-CNTR-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Centerline annotation
V-TAXI-CNTR-MRKG	Yes	255,0,0	red	Continuous	0.18mm	Centerline markings
V-TAXI-EDGE	Yes	0,255,255	cyan	Continuous	0.25mm	Edge markings
V-TAXI-HOLD	Yes	255,200,0	40	Continuous	0.25mm	Holding lines
V-TAXI-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Taxiway - annotation
V-TAXI-OTLN	Yes	0,255,255	cyan	Continuous	0.25mm	Taxiway - outlines
V-TAXI-PNTS	Yes	0,255,255	cyan	Continuous	Default	Taxiway survey points
V-TAXI-SHLD	Yes	255,200,0	40	Continuous	0.25mm	Shoulders with annotation
V-TOPO-BKLN	Yes	white	white	MS4 Dot Dash	0.35mm	Breaklines
V-TOPO-BKLN-COMM	Yes	white	white	Communication	0.35mm	Subsurface utilities communications breakline
V-TOPO-BKLN-DOMW	Yes	white	white	Water Line	0.35mm	Subsurface utilities water breakline
V-TOPO-BKLN-ELEC	Yes	white	white	Electrical Primary	0.35mm	Subsurface utilities electric breakline
V-TOPO-BKLN-FUEL	Yes	white	white	Gas - Liquefied Petroleum	0.35mm	Subsurface utilities liquid fuel breakline
V-TOPO-BKLN-NGAS	Yes	white	white	Gas - Low Pressure	0.35mm	Subsurface utilities natural gas breakline
V-TOPO-BKLN-SSWR	Yes	white	white	Sanitary Waste	0.35mm	Subsurface utilities sanitary sewer breakline
V-TOPO-BKLN-STRM	Yes	white	white	Drain - Storm	0.35mm	Subsurface utilities storm sewer breakline
V-TOPO-BNDY-EXTR	Yes	0,255,0	green	Continuous	0.18mm	Surface exterior boundary
V-TOPO-BNDY-INTR	Yes	255,0,0	red	MS2 Medium Dash	0.18mm	Surface interior boundary
V-TOPO-BORE	Yes	255,0,255	magenta	Continuous	0.25mm	Boring locations and text
V-TOPO-COOR	Yes	0,165,124	122	Continuous	0.25mm	Coordinate grid text annotation
V-TOPO-COOR-LALO	Yes	0,255,0	green	Continuous	0.18mm	Latitude and longitude grid ticks
V-TOPO-COOR-STAT	Yes	0,255,0	green	Continuous	0.18mm	State Plane coordinate ticks
V-TOPO-COOR-UTM~	Yes	0,255,0	green	Continuous	0.18mm	UTM coordinate ticks
V-TOPO-DTMO	Yes	255,0,255	magenta	Continuous	0.25mm	DTM obscure area boundary
V-TOPO-DTMP	Yes	255,0,255	magenta	Continuous	0.25mm	DTM points
V-TOPO-DTMT	Yes	165,41,0	24	Continuous	0.25mm	DTM triangles
V-TOPO-MAJR	Yes	129,0,0	16	DASHED	0.25mm	Major contours
V-TOPO-MAJR-IDEN	Yes	129,0,0	16	Continuous	0.25mm	Major contours - annotation
V-TOPO-MINR	Yes	150,150,150	252	DASHED2	0.18mm	Minor contours
V-TOPO-MINR-IDEN	Yes	150,150,150	252	Continuous	0.18mm	Minor contours - annotation
V-TOPO-PERI	Yes	0,255,0	green	Continuous	0.18mm	Surface perimeter
V-TOPO-SHAP	Yes	255,0,0	red	Continuous	0.18mm	Inroads generated shapes/lines

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
V-TOPO-SHOR	Yes	0,255,255	cyan	Continuous	0.25mm	Shorelines, land features, and references
V-TOPO-SLOP-FILL	Yes	255,200,0	40	Continuous	0.25mm	Cut/fill slopes
V-TOPO-SLOP-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Cut/fill slope, top/toe slope annotation
V-TOPO-SLOP-TOPT	Yes	255,0,255	magenta	Continuous	0.25mm	Top/toe slopes
V-TOPO-SOUN	Yes	white	white	Continuous	0.18mm	Soundings and overbanks
V-TOPO-SPOT	Yes	255,200,0	40	Continuous	0.25mm	Spot elevations
V-TOPO-SPOT-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Spot elevations - annotation
V-TOPO-USER	Yes	10	10	Continuous	0.18mm	User contours
V-TOPO-USER-IDEN	Yes	10	10	Continuous	0.18mm	Minor contours - annotation
V-TOPO-VOID	Yes	255,0,0	red	Continuous	0.18mm	Surface void region
V-TOPO-WATR	Yes	white	white	Continuous	0.35mm	Water level reference (e.g., LWRP, after-grading LWRP, SWP, etc.)
V-TRAF-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Airfield traffic area annotation
V-TRAF-PNTS	Yes	255,200,0	40	Continuous	Default	Airfield traffic area survey points
V-TRAF-TYPA	Yes	0,255,255	cyan	MS4 Dot Dash	0.35mm	Type A traffic area
V-TRAF-TYPB	Yes	0,255,255	cyan	MS6 Dash Dot Dot	0.35mm	Type B traffic area
V-TRAF-TYPC	Yes	0,255,255	cyan	MS1 Dot	0.35mm	Type C traffic area
V-UTIL-DEVC	Yes	255,63,0	20	Continuous	Default	Connectors, reducers, regulators, vents, backflow preventers, valves
V-UTIL-IDEN	Yes	255,63,0	20	Continuous	Default	Identifier tags, symbol modifier, and text
V-UTIL-JBOX	Yes	255,63,0	20	Continuous	Default	Junction boxes
V-UTIL-METR	Yes	255,63,0	20	Continuous	Default	Meters
V-UTIL-MHOL	Yes	255,63,0	20	Continuous	Default	Manhole
V-UTIL-MONT	Yes	255,63,0	20	Continuous	Default	Monitoring wells
V-UTIL-POLE	Yes	255,63,0	20	Continuous	Default	Utility Poles
V-UTIL-VALT	Yes	255,63,0	20	Continuous	Default	Vaults
V-WATR-DEVC	Yes	0,255,255	cyan	Continuous	0.25mm	Connectors, faucets, reducers, regulators, vents, intake points, taps, backflow preventers, and valves
V-WATR-HYDT	Yes	0,255,255	cyan	Continuous	0.25mm	Flushing hydrants
V-WATR-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Identifier tags, symbol modifier, and text
V-WATR-MAIN-PIPE	Yes	0,255,255	cyan	Water Line	0.25mm	Main domestic water piping
V-WATR-METR	Yes	0,255,255	cyan	Continuous	0.25mm	Meters
V-WATR-NPW~-PIPE	Yes	0,255,255	cyan	Non-Potable Water	0.25mm	Non-potable water piping
V-WATR-PNTS	Yes	0,255,255	cyan	Non-Potable Water	Default	Water supply survey points
V-WATR-SERV-PIPE	Yes	0,255,255	cyan	Continuous	0.25mm	Domestic water service piping
V-WATR-SIGN	Yes	0,255,255	cyan	Continuous	0.25mm	Surface markers/signs
V-WATR-STNS-PUMP	Yes	0,255,255	cyan	Continuous	0.25mm	Booster pump stations
V-WATR-STNS-REDC	Yes	0,255,255	cyan	Continuous	0.25mm	Pressure reducing stations
V-WATR-TANK	Yes	0,255,255	cyan	Continuous	0.25mm	Water storage tanks
V-WATR-VALT	Yes	0,255,255	cyan	Continuous	0.25mm	Valve/vent pits/vaults
V-WATR-WELL	Yes	0,255,255	cyan	Continuous	0.25mm	Water well houses
V-WELL-PIZO	Yes	255,63,0	20	Continuous	Default	Piezometers
V-WELL-RELF	Yes	255,63,0	20	Continuous	Default	Relief wells

Name	Plot	Color (STB)	Color (CTB)	Linetype	Lineweight	Description
V-WETL-BOGS	Yes	255,0,255	magenta	Continuous	0.25mm	Bogs
V-WETL-FENS	Yes	255,200,0	40	Continuous	0.25mm	Fens
V-WETL-IDEN	Yes	255,200,0	40	Continuous	0.25mm	Wetland annotation
V-WETL-MRSH	Yes	0,41,165	172	Continuous	0.25mm	Fresh water marshes
V-WETL-MRSH-SALT	Yes	0,41,165	172	Continuous	0.25mm	Tidal saltwater marshes
V-WETL-MRSH-TIDL	Yes	0,41,165	172	Continuous	0.25mm	Tidal freshwater marsh
V-WETL-PCSN	Yes	255,0,255	magenta	Continuous	0.25mm	Pocosins
V-WETL-PHOL	Yes	255,0,255	magenta	Continuous	0.25mm	Vernal pools, playas, prairie potholes, wet meadows, and wet prairies
V-WETL-PNTS	Yes	255,0,255	magenta	Continuous	Default	Wetland survey points
V-WETL-RPRN	Yes	0,41,165	172	Continuous	0.25mm	Riparian forested wetlands
V-WETL-SLGH	Yes	0,41,165	172	Continuous	0.25mm	Sloughs
V-WETL-SWMP	Yes	0,41,165	172	Continuous	0.25mm	Swamps

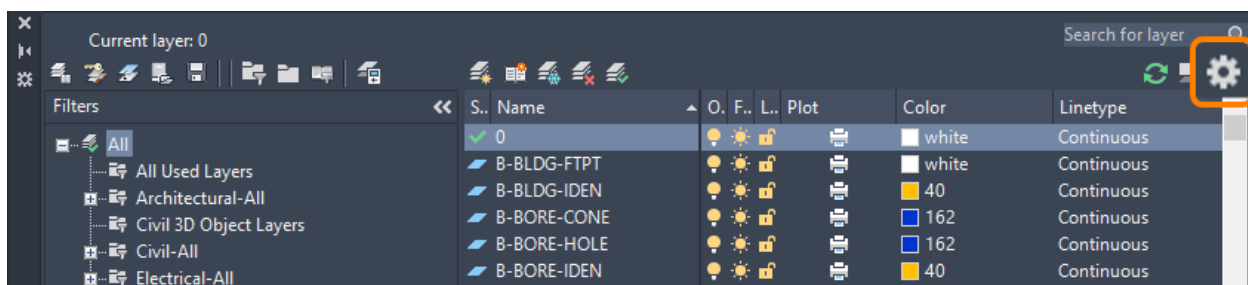
7.16 Layer Filters

To assist with layer management and use, USACE's templates contain layer filters that allow the user to quickly limit the list of layers that will be shown in the Layer Properties Manager and in the Layer drop-down on the "Layers" panel of the **Home** Ribbon tab.

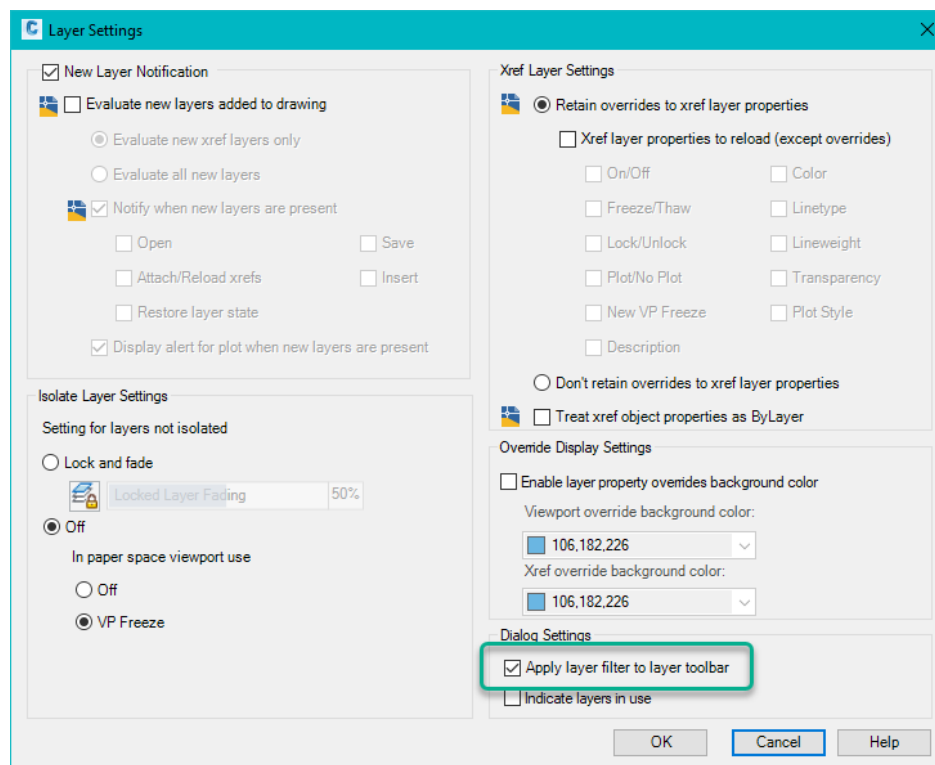
7.16.1 Layer Drop-Down Setting Option

The limitation of the Layer drop-down by a Layer Filter is a setting that can be turned on and off based on the needs of the user. Follow the instructions below to access this setting:

1. Open Civil 3D
2. On the **Home** tab of the Ribbon, on the "Layers" panel, click on "Layer Properties" to open the **Layer Properties Manager** palette.
3. In the top-right corner of the palette, click on the gear button.



4. In the dialog that appears, in the bottom-right corner, use the "Apply Layer Filter to Layer Toolbar" check box to turn this option on/off.



7.16.2 List of Layer Filters

The following Layer Filters are available in the USACE standard templates:

- Architectural – All
 - A-Area Calculations Occupancy Plan
 - A-Details
 - A-Elevations
 - A-Equipment Plan
 - A-Floor Plan
 - A-Reflected Ceiling Plan
 - A-Roof Plan
 - A-Sections
- Civil 3D Object Layers
- Civil - All
 - C-Airfield Plan
 - C-Beach Renourishment Plan
 - C-Details
 - C-Eco-Restoration Plan
 - C-Elevations
 - C-Flood Control Plan
 - C-Grading Plan
 - C-Joint Layout Plan
 - C-Navigation Dredging Plan
 - C-Profiles
 - C-Site Plan
 - C-Transportation Site Plan
 - C-Utilities Plan
 - C-X-Sections
 - C-X-Sections
- Electrical - All
 - E-Airfield Lighting Plan
 - E-Details
 - E-Electrical Utilities Plan
 - E-Exterior Communication Systems Plan
 - E-Grounding Systems Plan
 - E-Lighting Plan
 - E-Power Plan
 - E-Riser One-Line Diagrams
 - E-Special Systems Plan
- Fire Protection - All
 - F-Detail
 - F-Fire Alarm Detection Plan
 - F-Fire Suppression Plan
 - F-Life Safety Plan

- Geospatial - All
 - B-Boring Log
 - B-Detail
 - B-Joint Layout Plan
 - B-Pavement Site Plan
 - B-Section
 - B-Subsurface Investigation Plan
- Hazmat - All
 - H-Detail
 - H-Pollution Prevention Plan
 - H-Sections
- Interiors - All
 - I-Details
 - I-Elevations
 - I-Floor Patterns
 - I-Furniture Plan
 - I-Signage Placement Plan
 - I-System Furniture Plan
- Landscape - All
 - L-Detail
 - L-Irrigation Plan
 - L-Landscape Plan
- Mechanical - All
 - M-Detail
 - M-Elevation
 - M-HTCW Utilities Plan
 - M-HVAC Plan
 - M-Hydraulic Systems
 - M-Machine Design Plan
 - M-Material Handling Plan
 - M-Section
 - M-Specialty Piping and Equipment Plan
- Plumbing - All
 - P-Detail
 - P-Piping Plan
 - P-Riser Diagram

- Structural - All
 - S-Bridge Plan Deck
 - S-Bridge Plan Substructure
 - S-Bridge Plan Superstructure
 - S-Column Plan
 - S-Dams
 - S-Detail
 - S-Flood Control_Misc Small Civil Work Structures
 - S-Foundation Plan
 - S-Framing Plan
 - S-Hydraulic Steel Structures
 - S-Locks
 - S-Section
- Telecommunications - All
 - T-Detail
 - T-Riser Diagram
 - T-Telephone Data Plan
- Survey - All
 - V-Existing Airfield Lighting Plan
 - V-Existing Communication System Plan
 - V-Existing Electrical Utilities Plan
 - V-Existing HTCW Utilities Plan
 - V-Existing Hydrographic Survey and Mapping Plan
 - V-Existing Profile
 - V-Existing Utilities Plan
 - V-Existing X-Section
 - V-Property Boundary
 - V-Survey and Mapping Plan

8 BLOCKS & SYMBOLS

The USACE standards package includes a large number of blocks for use in civil and survey projects. These include standard symbols for use in existing condition and design as well as some custom blocks developed for use by USACE. There is also a small library of annotation blocks that are intended to be placed on sheets in Paper Space.

8.1 AEC Block Files

The standard AEC Block library files are stored in the “Blocks” folder of the Standards folder structure. Below is a list of all available library files:

- AEC_Div01 - General Requirements.dwg
- AEC_Div02 - Existing Conditions.dwg
- AEC_Div03 - Concrete.dwg
- AEC_Div04 - Masonry.dwg
- AEC_Div05 - Metals.dwg
- AEC_Div06 - Wood, Plastics, Composites.dwg
- AEC_Div07 - Thermal and Moisture Protection.dwg
- AEC_Div08 - Openings.dwg
- AEC_Div09 - Finishes.dwg
- AEC_Div10 - Specialties.dwg
- AEC_Div11 - Equipment.dwg
- AEC_Div12 - Furnishings.dwg
- AEC_Div13 - Special Construction.dwg
- AEC_Div21 - Fire Suppression.dwg
- AEC_Div22 - Plumbing.dwg
- AEC_Div23 - Heating, Ventilating, and Air Conditioning (HVAC).dwg
- AEC_Div25 - Integrated Automation.dwg
- AEC_Div26 - Electrical.dwg
- AEC_Div27 - Communications.dwg
- AEC_Div28 - Electronic Safety and Security.dwg
- AEC_Div31 - Earthwork.dwg
- AEC_Div31.1 - Earthwork.dwg
- AEC_Div31.2 - Earthwork.dwg
- AEC_Div32 - Exterior Improvements.dwg
- AEC_Div33 - Utilities.dwg
- AEC_Div34 - Transportation.dwg
- AEC_Div35 - Waterway and Marine Construction.dwg
- AEC_Div40 - Process Integration.dwg
- AEC_Div44 - Pollution and Waste Control Equipment.dwg

Note: All of the blocks contained in these drawings are Imperial (inches).

For more information regarding these block libraries and the symbols they contain, see the AEC Standards documentation.

8.2 Custom USACE Block Files

When the USACE Civil 3D templates and other standards were developed, additional block libraries were created containing custom blocks that meet the needs of USACE's projects. To allow for use by the largest number of installations, files were created containing both Imperial and Metric Annotation blocks. Like the AEC block libraries, these files are also stored in the "Blocks" folder of the Standards folder structure. These files are:

- USACE Blocks – Imperial.dwg
- USACE Blocks – Metric.dwg

Please refer to [Appendix A](#) of this document for illustrations of these blocks.

8.3 USACE Annotation Block Files

When the USACE Civil 3D templates and other standards were developed, additional block libraries were created containing Annotation blocks that can be used in Paper Space. To allow for use by the largest number of installations, files were created containing both Imperial and Metric Annotation blocks. Like the AEC block libraries, these files are also stored in the "Blocks" folder of the Standards folder structure. These files are:

- USACE Annotation Blocks – Imperial.dwg
- USACE Annotation Blocks – Metric.dwg

Please refer to [Appendix A](#) of this document for illustrations of these blocks.

9 PLOTTING CONFIGURATION

9.1 Style Based (.stb)

Some of the USACE templates make use of style-based plotting. The plot style table to be assigned for these templates is “AEC_B&W.stb”. There are seven (7) different plot styles. All of these styles share the following properties:

- Convert to greyscale: Off
- Use Assigned Pen #: Automatic
- Virtual Pen#: Automatic
- Linetype: Use object linetype
- Adaptive Adjustment: On
- Lineweight: Use object lineweight
- Line End Style: Use object end style
- Line Join Style: Use object join style
- Fill Style: Use object fill style

The table below describes the 8 plot styles and their various properties:

Style Name	Color	Dithering	Screening	Intended Use
Normal	Use Object Color	On	100%	Plot Object Lineweight and Object Color
Black	Black	On	100%	Plot Object Lineweight, 100% Screening
Screened_20%	204, 204, 204	Off	100%	Plot Object Lineweight, 20% Screening
Screened_30%	179, 179, 179	Off	100%	Plot Object Lineweight, 30% Screening
Screened_40%	153, 153, 153	Off	100%	Plot Object Lineweight, 40% Screening
Screened_50%	128, 128, 128	Off	100%	Plot Object Lineweight, 50% Screening
Screened_60%	102, 102, 102	On	100%	Plot Object Lineweight, 60% Screening

“AEC_B&W.stb” is stored under a folder called “Support Files” under the Standards folder structure.

9.2 Color Based (.ctb)

The remaining USACE templates make use of color-based plotting. The plot style table to be assigned for these templates is “AEC_NCS_4_MONO.ctb”.

In this CTB file, AutoCAD Colors 1 – 249 all plot with the following settings:

- Color: Black
- Dithering: On
- Convert to greyscale: Off
- Linetype: Use object linetype
- Adaptive Adjustment: Off
- Screening: 100%
- Lineweight: Use object lineweight
- Line End Style: Use object end style
- Line Join Style: Use object join style
- Fill Style: Use object fill style

The remaining AutoCAD colors (250 – 255) are used for screening purposes. These colors use all of the same settings shown above except for the screening value. These are outlined below:

Color	Screening
250	60%
251	50%
252	40%
253	30%
254	20%
255	0%

“AEC_NCS_5_MONO.ctb” is stored under a folder called “Support Files” under the Standards folder structure.

10 CIVIL 3D DRAWING SETTINGS

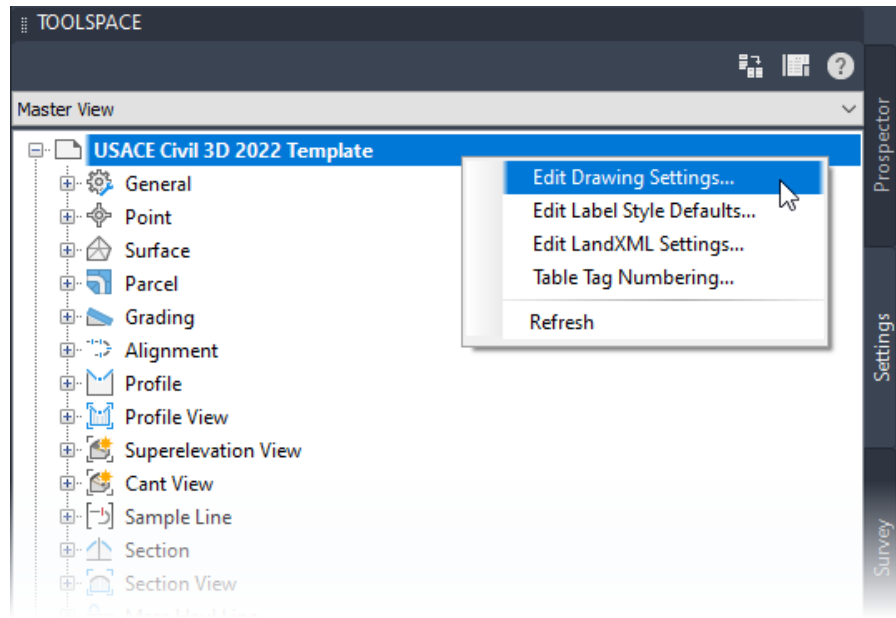
10.1 Style Naming Conventions

The USACE Standard Civil 3D Styles are stored in the drawing template files discussed in Section 4 of this document. Once a drawing is created with these templates, the Civil 3D Styles are shown and accessed in the Settings tab of the Toolspace. They are grouped by Object type and listed alphabetically under each category. A consistent naming convention is used for the style that contains prefixes and descriptive terms spaced using underscores “_”. The table below describes the standard prefixes and the intended use of the styles that contain them.

Name	Description
_No_Display	All components turned OFF in All views and set to Layer 0. Due to the naming, these typically appear at top of the styles lists.
C_	Intended for Proposed Objects. Style layers set to Civil layers with the C-* Prefix (ex. C-TOPO-MAJR)
G_	Generic style, intended for analysis, editing, standard notation, or reviewing. Style layers set to General layers with the G-* prefix (ex. G-ANNO-NOTE)
V_	Intended for Existing and Survey Objects. Style layers set to Civil layers with the V-* Prefix (ex. V-TOPO-MAJR)
<i>Standard</i>	<i>Not created for USACE use. Civil 3D sometimes creates styles in one or more categories with this name as default.</i>

10.2 Civil 3D Drawing Settings

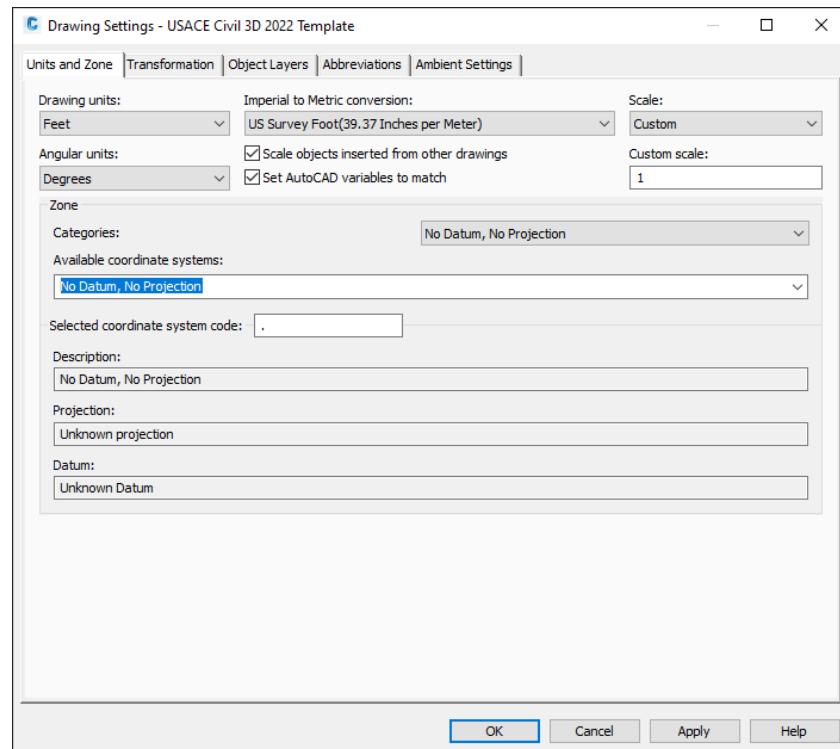
All Civil 3D templates have settings that are applied to the drawing as a whole. These settings are accessed by right-clicking on the name of the drawing in the Settings tab of the Toolspace and choosing “Edit Drawing Settings”, as shown below:



This section provides information regarding the Drawing Settings established in the USACE Drawing Templates.

10.2.1 Units and Zone

In this tab, the units, scale, and coordinate zone of a drawing are set.



All of the USACE Drawing templates are set to “No Datum, No Projection”. The actual project coordinate system should be set in every project drawing (where possible) using this tab of the dialog.

The imperial USACE Drawing templates are set to Drawing Units of “Feet” and the “Imperial to metric conversion” option set to “US Survey Foot...”. The metric USACE Drawing templates are set to Drawing Units of “Meters” and the “Imperial to metric conversion” option set to “International Foot...”

10.2.2 Object Layers

In this tab, the master layers for each object type are established. Many of these layer settings have been established with a Suffix of “ - * “. This will cause a new layer to be created for each new object of this type that ends with the name of the object (ex. CM-ALGN-SPANIEL DR). The screen shots below show the master object layers and their settings for each object type.

Object	Layer	Modifier	Value	Locked
Alignment	CM-ALGN	Suffix	.*	
Alignment-Labeling	CM-ALGN-LABL	None		
Alignment Table	CM-ALGN-TABL	None		
Appurtenance	CM-PPIP-APUR	None		
Appurtenance-Labeling	CM-PPIP-APUR-LABL	None		
Assembly	CM-CORR-ASSY	Suffix	.*	
Building Site	CM-BLDG-SITE	None		
Cant View	CM-CANT-VIEW	None		
Catchment	CM-CATC	None		
Catchment-Labeling	CM-CATC-LABL	None		
Corridor	CM-CORR	Suffix	.*	
Corridor Section	CM-CORR-SECT	None		
Crossover Group	0	None		
Feature Line	CM-TOPO-FEAT	Suffix	.*	
Fitting	CM-PPIP-FITT	None		
Fitting-Labeling	CM-PPIP-FITT-LABL	Suffix	.*	
General Note Label	CM-NOTE-LABL	None		
General Segment Label	CM-SEGM-LABL	None		
Grading	CM-GRAD	Suffix	.*	
Grading-Labeling	CM-GRAD-LABL	None		
Grid Surface	CM-SURF	Suffix	.*	
Grid Surface-Labeling	CM-SURF-LABL	None		
Interference	CM-PIPE-INTF	Suffix	.*	
Intersection	CM-INTS	Suffix	.*	
Intersection-Labeling	CM-INTS-LABL	None		
Mass Haul Line	CM-MASS	Suffix	.*	
Mass Haul View	CM-MASS-VIEW	Suffix	.*	
Match Line	CM-MATC	None		
Match Line-Labeling	CM-MATC-LABL	None		
Material Section	CM-MATL	None		
Material Table	CM-MATL-LABL	None		
Parcel	CM-PARC	None		
Parcel-Labeling	CM-PARC-LABL	None		
Parcel Segment	CM-PARC	None		
Parcel Segment-Labeling	CM-PARC-LABL	None		
Parcel Table	CM-PARC-TABL	None		
Pipe	CM-PIPE	None		
Pipe-Labeling	CM-PIPE-LABL	None		
Pipe and Structure Table	CM-PIPE-TABL	None		

Object	Layer	Modifier	Value	Locked
Point Table	CM-PNTS-TABL	None		
Pressure Network Section	CM-PPIP-SECT	None		
Pressure Part Profile	CM-PPIP-SECT	None		
Pressure Part Table	CM-PPIP-TABL	None		
Pressure Pipe	CM-PPIP-PIPE	None		
Pressure Pipe-Labeling	CM-PPIP-FITT-LABL	None		
Profile	CM-PROF	Suffix	.*	
Profile-Labeling	CM-PROF-LABL	None		
Profile View	CM-PROF-VIEW	Suffix	.*	
Profile View-Labeling	CM-PROF-VIEW-LABL	None		
Sample Line	CM-SLIN	None		
Sample Line-Labeling	CM-SLIN-LABL	None		
Section	CM-SECT	None		
Section-Labeling	CM-SECT-LABL	None		
Section View	CM-SECT-VIEW	None		
Section View-Labeling	CM-SECT-VIEW-LABL	None		
Section View Quantity Ta...	CM-SECT-TABL	None		
Sheet	CM-SHET	None		
Structure	CM-PIPE-STRC	None		
Structure-Labeling	CM-PIPE-STRC	None		
Subassembly	CM-SASS	None		
Superelevation View	CM-SUPR-VIEW	None		
Surface Legend Table	CM-SURF	None		
Survey Figure	CM-SURV-FIGR	None		
Survey Figure-Labeling	CM-SURV-FIGR-LABL	None		
Survey Figure Segment L...	CM-SURV-FIGR-LABL	None		
Survey Network	CM-SURV-NETW	None		
Tin Surface	CM-SURF	Suffix	.*	
Tin Surface-Labeling	CM-SURF-LABL	None		
Turnout	0	None		
View Frame	CM-VIEW-FRAM	None		
View Frame-Labeling	CM-VIEW-FRAM-L...	None		

10.2.3 Ambient Settings

This tab allows for the establishment of general drawing, unit, and measurement behaviors. While the settings below apply to the drawing as a whole, they can be overridden at the object and/or command level. The screen shots below show the Ambient Settings established in the USACE Civil 3D templates.

10.2.3.1 Imperial Drawing Template Ambient Settings

Drawing Settings - USACE Civil 3D 2022 Template

Units and Zone | Transformation | Object Layers | Abbreviations | **Ambient Settings**

Property	Value	Override	Child O...	Lock
General				
Plotted Unit Display Type	decimal			
Set AutoCAD Units	Yes			
Save Command Changes to Settings	No			
Show Event Viewer	Yes			
Show Tooltips	Yes			
Imperial to Metric conversion	Use US Survey Foot			
New Entity Tooltip State	On			
Driving Direction	Right Side of the Road			
Drawing Unit	foot			
Drawing Scale	1.000			
Scale Inserted Objects	Yes			
Independent Layer On	Yes			
Degree of Curvature				
Unit Chord Length	100.000			
Unit Arc Length	100.000			
Labeling				
Labeling Prompt Method	Command Line			
Time				
Unit	hr			
Precision	3			
Rounding	round normal			
Unitless				
Precision	3			
Rounding	round normal			
Sign	sign negative '-'			
Distance				
Unit	foot			
Precision	3			
Rounding	round normal			
Sign	sign negative '-'			

OK Cancel Apply Help

Drawing Settings - USACE Civil 3D 2022 Template

Units and Zone
Transformation
Object Layers
Abbreviations
Ambient Settings

Property	Value	Override	Child Ov...	Lock
Dimension				
Unit	inch			
Precision	3			
Rounding	round normal			
Sign	sign negative '-'			
Coordinate				
Unit	foot			
Precision	4			
Rounding	round normal			
Sign	sign negative '-'			
Grid Coordinate				
Unit	foot			
Precision	4			
Rounding	round normal			
Sign	sign negative '-'			
Elevation				
Unit	foot			
Precision	3			
Rounding	round normal			
Sign	sign negative '-'			
Area				
Unit	square foot			
Precision	2			
Rounding	round normal			
Sign	sign negative '-'			
Volume				
Unit	cubic yard			
Precision	2			
Rounding	round normal			
Sign	sign negative '-'			
Speed				
Unit	mile/hr.			
Precision	0			
Rounding	round normal			
Sign	sign negative '-'			
Angle				
Unit	degree			
Precision	4			
Rounding	round normal			
Format	decimal			
Sign	sign negative '-'			
Drop Decimal for Whole Numbers	no			
Drop Leading Zeros for Degrees	no			
Direction				
Unit	degree			
Precision	6			
Rounding	round normal			
Format	DD° MM' SS.SS" (spaced)			
Direction	short name			
Capitalization	upper case			

OKCancelApplyHelp

Drawing Settings - USACE Civil 3D 2022 Template

Units and Zone | Transformation | Object Layers | Abbreviations | Ambient Settings

Property	Value	Override	Child Ov...	Lock
Direction				
Unit	degree			
Precision	6			
Rounding	round normal			
Format	DD° MM' SS.SS" (spaced)			
Direction	short name			
Capitalization	upper case			
Sign	sign negative '-'			
Measurement Type	Bearings			
Bearing Quadrant	1 - NE			
Drop Decimal for Whole Numbers	no			
Drop Leading Zeros for Degrees	no			
Lat Long				
Unit	degree			
Precision	6			
Rounding	round normal			
Format	DD° MM' SS.SS" (spaced)			
Direction	prefix short name			
Capitalization	upper case			
Drop Decimal for Whole Numbers	no			
Drop Leading Zeros for Degrees	no			
Grade				
Precision	2			
Rounding	round normal			
Format	percent			
Sign	sign negative '-'			
Slope				
Precision	2			
Rounding	round normal			
Format	run:rise			
Sign	sign negative '-'			
Grade/Slope				
Precision	2			
Rounding	round normal			
Format	percent			
Sign	sign negative '-'			
Station				
Unit	foot			
Format	station format			
Precision	2			
Rounding	round normal			
Sign	sign negative '-'			
Station Delimiter Character	plus sign '+'			
Station Delimiter Position	1+00			
Drop Decimal for Whole Numbers	no			
Drop Leading Zeros Right of Station Character	yes			
Minimum Display Width	0			
Acceleration				
Unit	foot/sec.^2			
Precision	2			

OK Cancel Apply Help

Drawing Settings - USACE Civil 3D 2022 Template

Units and Zone | Transformation | Object Layers | Abbreviations | Ambient Settings

Property	Value	Override	Child Ov...	Lock
Unit	degree			
Precision	6			
Rounding	round normal			
Format	DD° MM' SS.SS" (spaced)			
Direction	prefix short name			
Capitalization	upper case			
Drop Decimal for Whole Numbers	no			
Drop Leading Zeros for Degrees	no			
Grade				
Precision	2			
Rounding	round normal			
Format	percent			
Sign	sign negative '-'			
Slope				
Precision	2			
Rounding	round normal			
Format	run:rise			
Sign	sign negative '-'			
Grade/Slope				
Precision	2			
Rounding	round normal			
Format	percent			
Sign	sign negative '-'			
Station				
Unit	foot			
Format	station format			
Precision	2			
Rounding	round normal			
Sign	sign negative '-'			
Station Delimiter Character	plus sign '+'			
Station Delimiter Position	1+00			
Drop Decimal for Whole Numbers	no			
Drop Leading Zeros Right of Station Character	yes			
Minimum Display Width	0			
Acceleration				
Unit	foot/sec.^2			
Precision	3			
Rounding	round normal			
Sign	sign negative '-'			
Pressure				
Unit	psi			
Precision	2			
Rounding	round normal			
Sign	sign negative '-'			
Transparent Commands				
Prompt for 3D Points	False			
Prompt for Y before X	False			
Prompt for Easting then Northing	False			
Prompt for Longitude then Latitude	False			

OK Cancel Apply Help

10.2.3.2 Metric Drawing Template Ambient Settings

Drawing Settings - USACE Civil 3D 2022 Template_Metric

Units and Zone | Transformation | Object Layers | Abbreviations | **Ambient Settings**

Property	Value	Overri...	Child ...	Lock
General				
Plotted Unit Display Type	decimal			
Set AutoCAD Units	Yes			
Save Command Changes to Settings	No			
Show Event Viewer	Yes			
Show Tooltips	Yes			
Imperial to Metric conversion	Use International Foot			
New Entity Tooltip State	On			
Driving Direction	Right Side of the Road			
Drawing Unit	meter			
Drawing Scale	1.000			
Scale Inserted Objects	Yes			
Independent Layer On	Yes			
Degree of Curvature				
Unit Chord Length	100.000			
Unit Arc Length	100.000			
Labeling				
Labeling Prompt Method	Command Line			
Time				
Unit	hr			
Precision	3			
Rounding	round normal			
Unitless				
Precision	3			
Rounding	round normal			
Sign	sign negative '-'			
Distance				
Unit	meter			
Precision	3			
Rounding	round normal			
Sign	sign negative '-'			

OK Cancel Apply Help

Drawing Settings - USACE Civil 3D 2022 Template_Metric

Units and Zone | Transformation | Object Layers | Abbreviations | Ambient Settings

Property	Value	Overri...	Child ...	Lock
Dimension				
Unit	meter			
Precision	3			
Rounding	round normal			
Sign	sign negative '-'			
Coordinate				
Unit	meter			
Precision	4			
Rounding	round normal			
Sign	sign negative '-'			
Grid Coordinate				
Unit	meter			
Precision	4			
Rounding	round normal			
Sign	sign negative '-'			
Elevation				
Unit	meter			
Precision	3			
Rounding	round normal			
Sign	sign negative '-'			
Area				
Unit	square meter			
Precision	2			
Rounding	round normal			
Sign	sign negative '-'			
Volume				
Unit	cubic meter			
Precision	2			
Rounding	round normal			
Sign	sign negative '-'			
Speed				
Unit	kilometer/hr.			
Precision	0			
Rounding	round normal			
Sign	sign negative '-'			
Angle				
Unit	degree			
Precision	4			
Rounding	round normal			
Format	decimal			
Sign	sign negative '-'			
Drop Decimal for Whole Numbers	no			
Drop Leading Zeros for Degrees	no			
Direction				
Unit	degree			
Precision	6			
Rounding	round normal			
Format	DD° MM' SS.SS" (spaced)			
Direction	short name			
Capitalization	upper case			

OK Cancel Apply Help

Drawing Settings - USACE Civil 3D 2022 Template_Metric

Units and Zone | Transformation | Object Layers | Abbreviations | Ambient Settings

Property	Value	Overri...	Child ...	Lock
Direction				
Unit	degree			
Precision	6			
Rounding	round normal			
Format	DD° MM' SS.SS" (spaced)			
Direction	short name			
Capitalization	upper case			
Sign	sign negative '-'			
Measurement Type	Bearings			
Bearing Quadrant	1 - NE			
Drop Decimal for Whole Numbers	no			
Drop Leading Zeros for Degrees	no			
Lat Long				
Unit	degree			
Precision	6			
Rounding	round normal			
Format	DD° MM' SS.SS" (spaced)			
Direction	prefix short name			
Capitalization	upper case			
Drop Decimal for Whole Numbers	no			
Drop Leading Zeros for Degrees	no			
Grade				
Precision	2			
Rounding	round normal			
Format	percent			
Sign	sign negative '-'			
Slope				
Precision	2			
Rounding	round normal			
Format	run:rise			
Sign	sign negative '-'			
Grade/Slope				
Precision	2			
Rounding	round normal			
Format	percent			
Sign	sign negative '-'			
Station				
Unit	meter			
Format	station format			
Precision	2		↓	
Rounding	round normal			
Sign	sign negative '-'			
Station Delimiter Character	plus sign '+'			
Station Delimiter Position	1+000			
Drop Decimal for Whole Numbers	no			
Drop Leading Zeros Right of Station Character	yes			
Minimum Display Width	0			
Acceleration				
Unit	meter/sec.^2			
Precision	2			

OK Cancel Apply Help

Drawing Settings - USACE Civil 3D 2022 Template_Metric

Units and Zone | Transformation | Object Layers | Abbreviations | Ambient Settings

Property	Value	Overri...	Child ...	Lock
Unit	degree			
Precision	6			
Rounding	round normal			
Format	DD° MM' SS.SS" (spaced)			
Direction	prefix short name			
Capitalization	upper case			
Drop Decimal for Whole Numbers	no			
Drop Leading Zeros for Degrees	no			
Grade				
Precision	2			
Rounding	round normal			
Format	percent			
Sign	sign negative '-'			
Slope				
Precision	2			
Rounding	round normal			
Format	run:rise			
Sign	sign negative '-'			
Grade/Slope				
Precision	2			
Rounding	round normal			
Format	percent			
Sign	sign negative '-'			
Station				
Unit	meter			
Format	station format			
Precision	2		↓	
Rounding	round normal			
Sign	sign negative '-'			
Station Delimiter Character	plus sign '+'			
Station Delimiter Position	1+000			
Drop Decimal for Whole Numbers	no			
Drop Leading Zeros Right of Station Character	yes			
Minimum Display Width	0			
Acceleration				
Unit	meter/sec.^2			
Precision	3			
Rounding	round normal			
Sign	sign negative '-'			
Pressure				
Unit	kilopascal			
Precision	2			
Rounding	round normal			
Sign	sign negative '-'			
Transparent Commands				
Prompt for 3D Points	False			
Prompt for Y before X	False			
Prompt for Easting then Northing	False			
Prompt for Longitude then Latitude	False			

OK Cancel Apply Help

11 GENERAL CONFIGURATION

As mentioned above, Civil 3D objects make use of Object Styles, Label Styles, and Table Styles to dictate how established the objects and their annotation will be displayed. This section outlines the configuration and styles that are shared by multiple object types. These are accessed and managed on the “Settings” tab of the Toolspace under the “General” category.

11.1 Multipurpose Styles

11.1.1 Marker Styles

These Styles are used by multiple object types such as Alignments, Profiles, Assemblies (Code Sets), Sections, Spot Elevations, and more.

- *_No_Display (USACE)*
- *C_ALGN_Marker (USACE)*
- *C_ALGN_Marker_Geom (USACE)*
- *C_ALGN_Marker_PI (USACE)*
- *C_GRID_Marker (USACE)*
- *C_PROF_Marker_Geom (USACE)*
- *C_PROF_Marker_PVI (USACE)*
- *C_TOPO_Spot (USACE)*
- *G_CORR_Marked_Point_NPLT (USACE)*
- *G_CORR_Marker_Dot (USACE)*
- *G_CORR_Marker_Dot_NPLT (USACE)*
- *V_TOPO_Spot (USACE)*

11.1.2 Feature Line Styles

These Styles are used by multiple object types such as Feature Lines and Corridors for the display of linear features.

- *G_CORR_Feature Line_Curb (USACE)*
- *G_CORR_Feature Line_Daylight (USACE)*
- *G_CORR_Feature Line_EOP (USACE)*
- *G_CORR_Feature Line_Shoulder (USACE)*
- *G_CORR_Feature Line_SW (USACE)*
- *G_CORR_No Display (USACE)*
- *G_CORR_Feature Line [NPLT] (USACE)*
- *G_GRAD_Feature Line_By Layer (USACE)*

11.1.3 Slope Pattern Styles

These Styles are used by multiple object types such as Corridors (Code Sets) and Grading.

- *G_GRAD_Slope_Pattern (USACE)*

11.1.4 Projection Styles

These Styles are used by multiple object types when they are projected onto Profile Views or Section Views.

- *C_Projection (USACE)*

11.1.5 Code Set Styles

These Styles are used by multiple object types such as Corridors, Assemblies, and Sections to organize sets of styles to be assigned to certain components based on codes.

- *C_CORR_Proposed_Plan (USACE)*
- *C_CORR_Proposed_Sections with Labels (USACE)*
- *C_CORR_Proposed_Sections with Labels_Large (USACE)*
- *G_CORR_Simple (USACE)*
- *V_CORR_Existing (USACE)*

11.1.6 Link Styles

These Styles are used by multiple object types such as Corridors, Assemblies, and Sections to assign styles to certain linear components based on codes.

- *_No Display (USACE)*
- *C_CORR_Proposed (USACE)*
- *V_CORR_Existing (USACE)*

11.1.7 Shape Styles

These Styles are used by multiple object types such as Corridors, Assemblies, and Sections to assign hatching styles to area components based on their codes.

- *_No_Shade_No_Fill (USACE)*
- *C_GRID_PATT_Checkerd (USACE)*
- *C_GRID_PATT_Concrete (USACE)*
- *C_GRID_PATT_Cut_RED (USACE)*
- *C_GRID_PATT_Earth (USACE)*
- *C_GRID_PATT_Fill_GREEN (USACE)*
- *C_GRID_PATT_Gravel (USACE)*
- *C_GRID_PATT_Honey (USACE)*
- *C_GRID_PATT_Sand (USACE)*
- *C_GRID_PATT_Solid (USACE)*

11.2 Label Styles

11.2.1 Note

These Styles are used for the creation of general Note labels.

- *G_ANNO_NOTE Coords (USACE)*
- *G_ANNO_NOTE Empty (USACE)*

11.2.2 Line

These Styles are used by multiple object types such as Corridors, Assemblies, and Sections to assign labels to certain linear components based on codes.

- *C_PROP_Brng_over_Dist (USACE)*
 - *C_Brng_Only (USACE)*
 - *C_Dist_Only (USACE)*
- *C_PROP_Line_TAG (USACE)*
- *G_ANNO_Grade (USACE)*

- *G_ANNO_Slope (USACE)*
- *V_PROP_Brng_over_Dist (USACE)*
 - *V_Dist_Only (USACE)*
 - *V_Brng_Only (USACE)*

11.2.3 Curve

These Styles are used for the creation of dynamic curve labels on objects such as Lines, Polylines, Parcels, and Alignments.

- *C_ANNO_Grade (USACE)*
- *C_ANNO_Radi_PERP_Line (USACE)*
- *C_ANNO_Slope (USACE)*
- *C_PROP_Dist_over_Radi (USACE)*
 - *C_Dist_ONLY (USACE)*
 - *C_Radi_ONLY (USACE)*
- *C_PROP_Tag (USACE)*
- *V_PROP_Dist_over_Radi (USACE)*
 - *V_Dist_ONLY (USACE)*
 - *V_Radi_ONLY (USACE)*

11.2.4 Marker

These Styles are used by multiple object types such as Alignments, Profiles, Assemblies (Code Sets), Sections, Spot Elevations, and more to label marker locations.

- *C_ROAD_CORR_Elev and Offset - Daylight Text (USACE)*
- *C_ROAD_CORR_Elev_and_Offset [v] (USACE)*
 - *C_Elev_and_Offset [small] (USACE)*
- *C_ROAD_CORR_Elev_Only [v] (USACE)*
 - *C_Elev_Only [small] (USACE)*

11.2.5 Link

These Styles are used by multiple object types such as Corridors, Assemblies, and Sections to assign styles to certain linear components based on codes.

- *C_ROAD_CORR_Grade (USACE)*
 - *C_Grade [small] (USACE)*
- *C_ROAD_CORR_Grade_Above (USACE)*
 - *C_Grade [small] (USACE)*
- *C_ROAD_CORR_Grade_Above w Arrow (USACE)*
- *C_ROAD_CORR_Grade_Below (USACE)*
- *C_ROAD_CORR_Grade_Below w Arrow (USACE)*
- *C_ROAD_CORR_Length_Above (USACE)*
 - *C_Length Above [small] (USACE)*
- *C_ROAD_CORR_Length_Below (USACE)*
 - *C_Length Below [small] (USACE)*
- *C_ROAD_CORR_Length_Above (USACE)*
- *C_ROAD_CORR_Length_Below (USACE)*
- *C_ROAD_CORR_Slope (USACE)*
 - *C_Slope [small] (USACE)*

- *C_ROAD_CORR_Slope_Above (USACE)*
→ *C_Slope [small] (USACE)*
- *C_ROAD_CORR_Slope_Below (USACE)*

11.2.6 Shape

These Styles are used by multiple object types such as Corridors, Assemblies, and Sections to assign labels to area components based on their codes.

- *C_ROAD_CORR_Code_and_Area (USACE)*
→ *C-Code and Area [small] (USACE)*
- *C_ROAD_CORR_Code_Only (USACE)*
→ *C_Code_Only [small] (USACE)*

12 POINTS CONFIGURATION

This section outlines the configuration and styles used by Points, Point Labels, and Point Tables. These are accessed and managed on the “Settings” tab of the Toolspace under the “Point” category.

12.1 Point User Defined Properties

The USACE Templates contain a set of Point User-Defined Properties under a classification called “Survey User-Defined”. The properties under this Class are:

- Attribute1
- Attribute2
- Attribute3
- Attribute4
- Attribute5
- Attribute6
- Attribute7
- Attribute8
- Attribute9
- Attribute10
- USCG

12.2 Point Styles

These Styles are used to dictate how Points will be displayed.

- | | |
|---|---|
| • <i>__C_TOPO_Spot [x] (USACE)</i> | • <i>BECH_Buoy - Seaplane Anchorage (USACE)</i> |
| • <i>__G_TOPO_Spot By Layer [x] (USACE)</i> | • <i>BECH_Buoy - Spar Buoy Spindle (USACE)</i> |
| • <i>__V_TOPO_Spot [x] (USACE)</i> | • <i>BECH_Buoy - Spherical (USACE)</i> |
| • <i>_No_Display (USACE)</i> | • <i>BECH_Buoy - Super (USACE)</i> |
| • <i>AFLD_Light – Approach (USACE)</i> | • <i>BECH_Buoy - Whistle (USACE)</i> |
| • <i>AFLD_Light – Runway (USACE)</i> | • <i>BECH_Buoy (USACE)</i> |
| • <i>ALFD_Light – Taxiway (USACE)</i> | • <i>BECH_Buoyant Beacon (USACE)</i> |
| • <i>AFLD_Light – Threshold (USACE)</i> | • <i>BECH_Coast Guard Rescue Station (USACE)</i> |
| • <i>AFLD_Windcone_ (USACE)</i> | • <i>BECH_Coast Guard Rescue Station 2 (USACE)</i> |
| • <i>BCNS_Beacon - General (USACE)</i> | • <i>BECH_Coast Guard Rescue Station 3 (USACE)</i> |
| • <i>BCNS_Beacon - Lattice (USACE)</i> | • <i>BECH_Coast Guard Station (USACE)</i> |
| • <i>BCNS_Beacon - Refuge (USACE)</i> | • <i>BECH_Coast Guard Station 2 (USACE)</i> |
| • <i>BCNS_Beacon - Tower (USACE)</i> | • <i>BECH_Coast Guard Station 3 (USACE)</i> |
| • <i>BECH_Buoy - Barrel (USACE)</i> | • <i>BECH_Float - Light (USACE)</i> |
| • <i>BECH_Buoy - Barrel1 (USACE)</i> | • <i>BECH_Flood Gate (USACE)</i> |
| • <i>BECH_Buoy - Bell (USACE)</i> | • <i>BECH_Floodlight (USACE)</i> |
| • <i>BECH_Buoy - Can (USACE)</i> | • <i>BECH_Fog Signal (USACE)</i> |
| • <i>BECH_Buoy - Conical (USACE)</i> | • <i>BECH_Jetty (USACE)</i> |
| • <i>BECH_Buoy - Gong (USACE)</i> | • <i>BECH_Lanby Superbuoy Navaid (USACE)</i> |
| • <i>BECH_Buoy - Ocean Data Acq Sys (USACE)</i> | • <i>BECH_Location - Boarding Place (USACE)</i> |
| • <i>BECH_Buoy - Pillar (USACE)</i> | • <i>BECH_Location - Boat Harbor Marina (USACE)</i> |
| • <i>BECH_Buoy - Privately Maintained (USACE)</i> | • <i>BECH_Location - Dolphin (USACE)</i> |

- *BECH_Location - Lifeboat (USACE)*
- *BECH_Location - Lighthouse (USACE)*
- *BECH_Location - Pilot Office (USACE)*
- *BECH_Location - Production Platform Oil Derrick (USACE)*
- *BECH_Location - Tide Gauge (USACE)*
- *BECH_Marker - Green Day (USACE)*
- *BECH_Marker - Open River Mile (USACE)*
- *BECH_Marker - Red Day (USACE)*
- *BECH_Marker - Solid River Mile (USACE)*
- *BECH_Numerous Moorings (USACE)*
- *BECH_Range Extension (USACE)*
- *BECH_Range Star (USACE)*
- *BECH_Station - Coast Radar (USACE)*
- *BECH_Station - Distress Signal (USACE)*
- *BECH_Station - Port Control Signal (USACE)*
- *BECH_Station - Signal - General (USACE)*
- *BECH_Tidestaff (USACE)*
- *BECH_Vessel - Light (USACE)*
- *BECH_Vessel - Unmanned Light (USACE)*
- *BECH-Withy - Port Hand (USACE)*
- *BECH-Withy - Port Hand Perch (USACE)*
- *BECH-Withy - Starboard Hand (USACE)*
- *BECH-Withy - Starboard Hand Perch (USACE)*
- *BECH_Wreck - Depth Unknown - Dangerous (USACE)*
- *BECH_Wreck - Partly Exposed (USACE)*
- *BECH_Wreck - Sunken - Not Dangerous (USACE)*
- *BORE_Boring with Inclinator (USACE)*
- *BORE_Cairn (USACE)*
- *BORE_Cone Penetrometer Hole (USACE)*
- *BORE_Consolidated Drained (USACE)*
- *BORE_Consolidated Drained Dir Shear (USACE)*
- *BORE_Consolidated Undrained (USACE)*
- *BORE_Consolidated Undrained Triaxial Test (USACE)*
- *BORE_Consolidation (USACE)*
- *BORE_Consolidation Test (USACE)*
- *BORE_Core Drill Hole Drilled (USACE)*
- *BORE_Core Drill Hole Undrilled (USACE)*
- *BORE_Disturb Sample Boring With Piezometer (USACE)*
- *BORE_Drill Hole (USACE)*
- *BORE_Drive Sampled Spot And Cor (USACE)*
- *BORE_Drive Sampled Spot and Cor Hydraulic Press Test Piezometer (USACE)*
- *BORE_Drive Sampled Spot And Cor Hydraulic Press Tested (USACE)*
- *BORE_Drive Sampled Spot And Cor With Piezometer (USACE)*
- *BORE_Drive Sampled Spot Hole (USACE)*
- *BORE_Fault Block Movement 1 (USACE)*
- *BORE_Fault Block Movement 2 (USACE)*
- *BORE_High Angle Fault 1 (USACE)*
- *BORE_High Angle Fault 2 (USACE)*
- *BORE_Horizontal Beds (USACE)*
- *BORE_Location - Magnetometer Detection (USACE)*
- *BORE_Location - Potential Release (USACE)*
- *BORE_Monitoring Probe - Landfill Gas (USACE)*
- *BORE_Monitoring Probe - Soil Gas (USACE)*
- *BORE_Monitoring Station - Groundwater Quality (USACE)*
- *BORE_Monitoring Station - Surface Water Quality (USACE)*
- *BORE_Monitoring Well (USACE)*
- *BORE_Nonsampled Area Of Hole (USACE)*
- *BORE_Perc Test (USACE)*
- *BORE_Piezometer (USACE)*
- *BORE_Piezometer Abandoned (USACE)*
- *BORE_Piezometer Or Observat Hole (USACE)*
- *BORE_Proposed Exploration (USACE)*
- *BORE_Refusal Slashes (USACE)*
- *BORE_Relief Well (USACE)*
- *BORE_Sample (USACE)*
- *BORE_Strike Dip (USACE)*
- *BORE_Strike Dip Of Inclined (USACE)*
- *BORE_Strike Of Vertical Joint (USACE)*
- *BORE_Strike W Vertical Dip (USACE)*
- *BORE_Subsurface Investigation - Trench Exploration Completed (USACE)*
- *BORE_Subsurface Investigation - Trench Exploration Proposed (USACE)*
- *BORE_Subsurface Investigation - Tunnel Exploration Completed (USACE)*
- *BORE_Subsurface Investigation - Tunnel Exploration Proposed (USACE)*
- *BORE_Test Pit In Overburden (USACE)*
- *BORE_Unconsolidated Underground Triaxial Test (USACE)*
- *BORE_Unconsolidated Undrained (USACE)*

- *BORE_Undisturbed Denison Or Push (USACE)*
- *BORE_Undisturbed Sample Boring Piezometer (USACE)*
- *BORE_Uplift Cell (USACE)*
- *BORE_Vertical Core Hole (USACE)*
- *BORE_Vertical Core Hole Hydraulic Press Tested (USACE)*
- *BORE_Washbored (USACE)*
- *COMM_Antenna (USACE)*
- *COMM_Guy (USACE)*
- *COMM_Junction Box (USACE)*
- *COMM_Manhole - Communications (USACE)*
- *COMM_Manhole - Telephone (USACE)*
- *COMM_Pedestal - Communications (USACE)*
- *COMM_Pole - Arial With Guying (USACE)*
- *COMM_Pole – Signal (USACE)*
- *COMM_Pole - Utility (USACE)*
- *DOMW_Backflow Preventer Double Check (USACE)*
- *DOMW_Backflow Preventer Rpz (USACE)*
- *DOMW_Hydrant - Fire (USACE)*
- *DOMW_Hydrant - Pan (USACE)*
- *DOMW_Hydrant - Wall (USACE)*
- *DOMW_Hydrant - One Hose Outlet (USACE)*
- *DOMW_Hydrant - Two Hose Outlet (USACE)*
- *DOMW_Hydrant - Wall Two Hose Outlet (USACE)*
- *DOMW_Monitoring Well (USACE)*
- *DOMW_Piping-Thrust Block (USACE)*
- *DOMW_Storage Tank-Water Utility (USACE)*
- *DOMW_Submerged Production Well (USACE)*
- *DOMW_Suspended Well Depth Known (USACE)*
- *DOMW_Suspended Well Depth Unknown (USACE)*
- *DOMW_Utility-Water Handhole (USACE)*
- *DOMW_Utility-Water Manhole (USACE)*
- *DOMW_Utility-Water Meter (USACE)*
- *DOMW_Utility-Water Meter Station (USACE)*
- *DOMW_Utility-Water Plant (USACE)*
- *DOMW_Utility-Water Station Pump (USACE)*
- *DOMW_Utility-Water Tank (USACE)*
- *DOMW_Utility-Water Valve Vault (USACE)*
- *DOMW_Valve - General (USACE)*
- *DOMW_Valve - Regulator (USACE)*
- *EROS_Dam - Rock - Sediment Trap (USACE)*
- *EROS_Sediment Control Temporary Diversion (USACE)*
- *EROS_Sediment Trap - Stone Outlet (USACE)*
- *EROS_Silt Fence (USACE)*
- *EROS_Silt Fence - Rock Overflow (USACE)*
- *EROS_Straw Bale (USACE)*
- *FUEL_Manhole - Utility Services (USACE)*
- *FUEL_Tank - Above Ground (USACE)*
- *FUEL_Tank - Below Ground (USACE)*
- *FUEL_Tank - Fuel Storage (USACE)*
- *FUEL_Valve General (USACE)*
- *FUEL_Valve Regulator (USACE)*
- *HTCW-Steam Pit (USACE)*
- *HYDS_COORDINATE_GRID (N-E DEFAULT) (USACE)*
- *HYDS_GRID (HIDE) (USACE)*
- *HYDS_GRID (N-E DEFAULT) (USACE)*
- *HYDS_Sounding [xx.x] (USACE)*
- *INDW_Industrial Waste Lift Station (USACE)*
- *INDW_Industrial Waste Water Manhole (USACE)*
- *INDW_Industrial Waste Water Meter (USACE)*
- *INDW_Valve - General (USACE)*
- *INDW_Valve - Regulator (USACE)*
- *LITE_Light Pole (USACE)*
- *NGAS_Piping - Natural Gas - Receiver (USACE)*
- *NGAS_Piping - Natural Gas - Shutoff (USACE)*
- *NGAS_Tank - Above Ground (USACE)*
- *NGAS_Tank - Below Ground (USACE)*
- *NGAS_Utility - Gas Plant (USACE)*
- *NGAS_Utility - Natural Gas - Manhole (USACE)*
- *NGAS_Utility - Natural Gas - Meter (USACE)*
- *NGAS_Utility - Natural Gas - Trap (USACE)*
- *NGAS_Valve - Regulator (USACE)*
- *NGAS_Vavle General (USACE)*
- *OBST_Obstruction (USACE)*
- *OBST_Obstruction - Kelp Seaweed (USACE)*
- *OBST_Obstruction - Rock - Danger Low Water (USACE)*
- *OBST_Obstruction - Rock - Danger Underwater - Depth Unknown (USACE)*
- *OBST_Obstruction - Submerged Pile W Position (USACE)*
- *OBST_Obstruction - Wholly Submerged Post Or Pile (USACE)*
- *PAVE_MRKG [x] (USACE)*
- *POWR_Arial Rod (USACE)*

- *POWR_Distribution Switch Or Switching Station (USACE)*
- *POWR_Electrical - Guy Wire (USACE)*
- *POWR_Electrical - Handhole (USACE)*
- *POWR_Electrical - Meter (USACE)*
- *POWR_Electrical - Panel (USACE)*
- *POWR_Handhole - Electrical - Primary (USACE)*
- *POWR_Manhole - Electrical (USACE)*
- *POWR_Pole - Arial With Guying (USACE)*
- *POWR_Pole - Light - One Arm (USACE)*
- *POWR_Pole - Utility (USACE)*
- *POWR_Tower - Transmission (USACE)*
- *POWR_Transformer - Constant Current (USACE)*
- *POWR_Transformer - Pad Mounted (USACE)*
- *POWR_Transformer - Pole Mounted (USACE)*
- *POWR_Transformer - Vault (USACE)*
- *POWR_Transformer - Wye Connection (USACE)*
- *POWR_Weather Head - Arial Service (USACE)*
- *PRKG_Ballast (USACE)*
- *PRKG_MRKG [x] (USACE)*
- *PRKG_Tire Treddle (USACE)*
- *PROJ_LIMITS (DEFAULT) (USACE)*
- *RAIL_Signal (USACE)*
- *RAIL_Switch (USACE)*
- *ROAD_CL [x] (USACE)*
- *ROAD_MRKG - Parking Turn Arrow (USACE)*
- *ROAD_MRKG - Straight And Turn Arrow (USACE)*
- *ROAD_MRKG - Straight Direction Arrow (USACE)*
- *ROAD_MRKG [x] (USACE)*
- *ROAD_Sign (USACE)*
- *SITE_Barricade (USACE)*
- *SITE_Fence Post (USACE)*
- *SITE_Mailbox (USACE)*
- *SITE_Manhole - Utility Services (USACE)*
- *SITE_Pole - Arial With Guying (USACE)*
- *SITE_Pole - Utility (USACE)*
- *SITE_Post (USACE)*
- *SITE_Sign (USACE)*
- *SITE_Satellite Dish (USACE)*
- *SITE_Site Remediation - Storage Container Agent (USACE)*
- *SITE_Study Gauge (USACE)*
- *SITE_Tank - Above Ground (USACE)*
- *SITE_Tank - Below Ground (USACE)*
- *SITE_Tower (USACE)*
- *SITE_Utility - Unknown (USACE)*
- *SITE_Valve - General (USACE)*
- *SITE_Valve - Regulator (USACE)*
- *SITE_VEGE_Coniferous Shrub (USACE)*
- *SITE_VEGE_Coniferous Tree (USACE)*
- *SITE_VEGE_Deciduous Shrub (USACE)*
- *SITE_VEGE_Deciduous Tree (USACE)*
- *SITE_VEGE_Generic Tree (USACE)*
- *SITE_Water Level (USACE)*
- *SPCL_Traffic Arm (USACE)*
- *SPCL_Traffic Signal - Controller (USACE)*
- *SPCL_Traffic Signal - Mast Arm (USACE)*
- *SPCL_Traffic Signal - Ph No_Thru (USACE)*
- *SSWR_Sign (USACE)*
- *SSWR_Utility - Sanitary Cleanout (USACE)*
- *SSWR_Utility - Sanitary Invert (USACE)*
- *SSWR_Utility - Sanitary Manhole (USACE)*
- *SSWR_Utility - Sanitary Meter (USACE)*
- *SSWR_Utility - Sanitary Pressure Vessel (USACE)*
- *SSWR_Utility - Sanitary Sewer Lift Station (USACE)*
- *SSWR_Utility - Sanitary Valve Vault (USACE)*
- *SSWR_Utility - Septic Tank (USACE)*
- *SSWR_Valve - General (USACE)*
- *STRM_Culvert End Symbol (USACE)*
- *STRM_Curb Inlet (USACE)*
- *STRM_Drainage - Catch Basin (USACE)*
- *STRM_Drainage - Catch Basin - Round (USACE)*
- *STRM_Drainage - Open Tile Drain (USACE)*
- *STRM_Drainage - Spray Pond (USACE)*
- *STRM_Foundation Drain (USACE)*
- *STRM_Headwall (USACE)*
- *STRM_Inlet (USACE)*
- *STRM_Main Pipe [x] (USACE)*
- *STRM_Oil Water Separator (USACE)*
- *STRM_Pump Station (USACE)*
- *STRM_Roof [x] (USACE)*
- *STRM_Serv Pipe [x] (USACE)*
- *STRM_Sign (USACE)*
- *STRM_Utility - Storm Drainage Device (USACE)*
- *STRM_Utility - Storm Drainage Manhole (USACE)*
- *STRM_Weir (USACE)*
- *SURV_Bench Mark [CTRL] (USACE)*

- *SURV_Bench Mark Alternate (USACE)*
- *SURV_Boundary_Mark [CTRL] (USACE)*
- *SURV_CONTROL (DEFAULT) (USACE)*
- *SURV_Corner Not Found (USACE)*
- *SURV_Fixed Point (USACE)*
- *SURV_Iron Pin and Cap (USACE)*
- *SURV_Observation Spot (USACE)*
- *SURV_Photo Control Point (USACE)*
- *SURV_Pole Stake (USACE)*
- *SURV_Section Corner T Open (USACE)*
- *SURV_Stake Perch (USACE)*
- *SURV_Surface Displacement Monument (USACE)*
- *SURV_Survey Pedestal (USACE)*
- *SURV_Symbol - Hexagon (USACE)*
- *SURV_Symbol - Square (USACE)*
- *SURV_Symbol - Test Hole (USACE)*
- *SURV_Symbol - Triangle (USACE)*
- *SURV_Triangulation Point (USACE)*
- *SURV_Unsatisfactory Limit (USACE)*
- *SURV_Vertical Control (USACE)*
- *TOPO_Anticline (USACE)*
- *TOPO_Syncline (USACE)*
- *TOPO_Water Surface Elevation (USACE)*
- *WATR_Backflow Preventer Double Check (USACE)*
- *WATR_Backflow Preventer Rpz (USACE)*
- *WATR_Hydrant - Fire (USACE)*
- *WATR_Hydrant - Pan (USACE)*
- *WATR_Hydrant - Wall (USACE)*
- *WATR_Hydrant - One Hose Outlet (USACE)*
- *WATR_Hydrant - Two Hose Outlet (USACE)*
- *WATR_Hydrant - Wall Two Hose Outlet (USACE)*
- *WATR_Monitoring Well (USACE)*
- *WATR_Piping - Thrust Block (USACE)*
- *WATR_Sign (USACE)*
- *WATR_Storage Tank - Water Utility (USACE)*
- *WATR_Submerged Production Well (USACE)*
- *WATR_Suspended Well Depth Known (USACE)*
- *WATR_Suspended Well Depth Unknown (USACE)*
- *WATR_Tank - Above Ground (USACE)*
- *WATR_Tank - Below Ground (USACE)*
- *WATR_Utility - Water Handhole (USACE)*
- *WATR_Utility - Water Manhole (USACE)*
- *WATR_Utility - Water Meter (USACE)*
- *WATR_Utility - Water Meter Station (USACE)*
- *WATR_Utility - Water Plant (USACE)*
- *WATR_Utility - Water Station Pump (USACE)*
- *WATR_Utility - Water Tank (USACE)*
- *WATR_Utility - Water Valve Vault (USACE)*
- *WATR_Valve - General (USACE)*
- *WATR_Valve - Regulator (USACE)*
- *WATR_Water Softener (USACE)*
- *WETL_Swamp (USACE)*

12.3 Point Label Styles

These Styles are used to dictate how Point Labels will be displayed and the information they contain.

- *_No_Display (USACE)*
- *C_Elev_Only (USACE)*
- *C_Num_Elev_Desc (USACE)*
- *V_Desc_and Att_1-10 (USACE)*
- *V_Desc_N_E_Elev (USACE)*
- *V_Desc_Only (USACE)*
- *V_Elev_Only (USACE)*
- *V_HYDS Grid Edge Bottom - Easting Only (USACE)*
- *V_HYDS Grid Edge Left - Northing Only (USACE)*
- *V_HYDS Grid Edge Right - Northing Only (USACE)*
- *V_HYDS Grid Edge Top - Easting Only (USACE)*
- *V_HYDS Grid with N&E_NE (USACE)*
- *V_HYDS Grid with N&E_NW (USACE)*
- *V_HYDS Grid with N&E_SE (USACE)*
- *V_HYDS Grid with N&E_SW (USACE)*
- *V_Name Only (USACE)*
- *V_NAV AIDS Label - Name Only (USACE)*
- *V_Num_Elev_Desc (USACE)*
- *V_Project Limits - Point Number with Circle (USACE)*
- *V_Soundings Depth Only (USACE)*
- *V_Soundings Depth Only_No Negative (USACE)*
- *V_Survey_Control - Label (USACE)*

12.4 Point File Format

These items are using during the import of point files to tell Civil 3D the formatting of the incoming data.

The list of Point File Formats below includes two that have been customized for use by USACE.

- *_USACE NAME_N_E_Z_D (comma delimited)*
- *_USACE NUMB_N_E_Z_D (comma delimited)*
- *Autodesk Up-loadable File*
- *ENZ (comma delimited)*
- *ENZ (space delimited)*
- *External Project Point Database*
- *NEZ (comma delimited)*
- *NEZ (space delimited)*
- *PENZ (comma delimited)*
- *PENZ (space delimited)*
- *PENZD (comma delimited)*
- *PENZD (space delimited)*
- *PNE (comma delimited)*
- *PNE (space delimited)*
- *PNEZ (comma delimited)*
- *PNEZ (space delimited)*
- *PNEZD (comma delimited)*
- *PNEZD (space delimited)*

12.5 Description Keys

Description keys are a list of descriptions and parameters that control how points look and behave once they are imported or created in drawings. They are applied to a point during its creation or import based on the description given to the point. USACE has 3 Description Key Sets that are available for use in the standard templates. They are:

- National Alpha Codes (USACE)
- National Numeric Codes (USACE)
- Create Point Codes (USACE)

12.5.1 National Alpha Codes (USACE)

The “National Alpha Codes (USACE)” Description Key Set is intended for use in the field capture and drafting of Surveyed data (Existing Planimetrics, Topo, As-built, etc.). The table below outlines the keys in this set and the properties they assign. The asterisk (*) shown for some of the description keys is a wild card that allows the key to be used even if additional characters are included at the end of the matching description.

Code	Point Style	Point Label Style	Format	Layer
ABANDGASWELL	<default>	<default>	GAS WELL (ABANDONED)	V-FUEL-DEVC
ABUT*	<default>	<default>	BRIDGE ABUTMENT	V-BRDG-OTLN
ABUTEND*	<default>	<default>	BRIDGE ABUTMENT END	V-BRDG-OTLN
ABUTTOE*	<default>	<default>	BRIDGE ABUTMENT TOE	V-BRDG-OTLN
ABUTTOP	<default>	<default>	BRIDGE ABUTMENT TOP	V-BRDG-OTLN
AERIALPANEL	<default>	<default>	AERIAL PANEL	V-AERI-PNPT
AERIALPANELSET*	<default>	<default>	AERIAL PANEL SET	V-AERI-PNPT
AERIALPANELTEMP*	<default>	<default>	AERIAL PANEL TEMP	V-AERI-PNPT
AGST*	FUEL_Tank - Above Ground (USACE)	<default>	ABOVE GROUND STORAGE TANK	V-FUEL-TANK
ALIGNPIN*	<default>	<default>	ALIGNMENT PIN	V-SURV-DATA
ANT*	COMM_Antenna (USACE)	<default>	ANTENNA	V-COMM-ANTN
APNSHLD*	<default>	<default>	APRON SHOULDER	V-APRN-SHLD
APPLT*	AFLD_Light - Approach (USACE)	<default>	APPROACH LIGHT	V-AFLD-LITE-APPR
APRON*	<default>	<default>	APRON	V-APRN-GRND
ARCH*	<default>	<default>	BRIDGE ARCH	V-BRDG-DECK
ASPHREV	<default>	<default>	ASPHALT REVETMENT	V-RRAP-RVMT
ASPHREVEEDGE*	<default>	<default>	ASPHALT REVETMENT EDGE	V-RRAP-RVMT
ASPHSPOT*	<default>	<default>	ASPHALT SURFACE SPOT	V-RIVR-IDEN
ATMMACH*	<default>	<default>	ATM MACHINE	V-SITE-STRC
BAL*	PRKG_Ballast (USACE)	<default>	BALLAST	V-PRKG-FIXT
BANK	<default>	<default>	BANK	V-CHAN-BANK-TOP~
BANKTOE*	<default>	<default>	BANK TOE	V-CHAN-TOE~
BANKTOP*	<default>	<default>	BANK TOP	V-CHAN-BANK-TOP~
BARR*	SITE_Barricade (USACE)	<default>	BARRICADE	V-SITE-STRC
BASELINE*	<default>	<default>	BASELINE	V-SURV-LINE
BBOARD*	<default>	<default>	BILLBOARD	V-SITE-STRC

Code	Point Style	Point Label Style	Format	Layer
BBQGRILL*	<default>	<default>	BBQ GRILL/FIRE PIT	V-SITE-STRC
BEECHTREE*	SITE_VEGE - Deciduous Tree (USACE)	<default>	BEECH TREE	V-SITE-VEGE-IDEN
BENCHTIE*	<default>	<default>	BENCH TIE	V-CTRL-VERT
BERM	<default>	<default>	BERM	V-LEVE-BERM
BERMCL*	<default>	<default>	BERMCL	V-LEVE-BERM
BERMCRWN*	<default>	<default>	BERMCRWN	V-LEVE-BERM
BERMTOE*	<default>	<default>	BERMTOE	V-LEVE-BERM
BERMTOP*	<default>	<default>	BERMTOP	V-LEVE-BERM
BFW*	<default>	<default>	FLOODWALL BASE	V-FLOD-BASE
BLDG*	<default>	<default>	BUILDING	V-BLDG-FTPT
BM*	SURV_Bench Mark (USACE)	<default>	BENCHMARK	V-CTRL-BMRK
BOG*	<default>	<default>	BOG	V-WETL-BOGS
BOIL*	<default>	<default>	LEVEE BOIL	V-LEVE-OTLN
BOLRD*	<default>	<default>	BOLLARD	V-SITE-STRC
BONBOLTHYDRANT*	<default>	<default>	BONNET BOLD HYDRANT (C&S) X-CUT	V-CTRL-VERT
BORE*	BORE_Core Drill Hole Drilled (USACE)	<default>	BORE HOLE	V-BORE-GENL-LOCN
BORPIT	<default>	<default>	BORROW PIT	V-BORW-LINE
BORPITTOE*	<default>	<default>	BORROW PIT TOE	V-BORW-LINE
BORPITTOP*	<default>	<default>	BORROW PIT TOP	V-BORW-LINE
BOXCUL*	<default>	<default>	BOX CULVERT	V-STRM-CULV
BRAPPSLAB*	<default>	<default>	BRIDGE APPROACH SLAB	V-PVMT-CONC
BRDG	<default>	<default>	BRIDGE DECK	V-BRDG-DECK
BRDGCL*	<default>	<default>	BRIDGE CENTERLINE	V-BRDG-CNTR
BRDGCOR*	<default>	<default>	BRIDGE CORNER	V-BRDG-DECK
BRDGJNTEXP*	<default>	<default>	BRIDGE EXPANSION JOINT	V-BRDG-CTLJ
BRDGRAIL*	<default>	<default>	BRIDGE RAIL	V-BRDG-RLG~
BRK*	<default>	<default>	BREAKLINE	V-TOPO-BKLN
BRUSHLINE*	<default>	<default>	BRUSH LINE	V-SITE-VEGE
BSCHK*	<default>	<default>	BACK SIGHT (CHECK)	V-SURV-DATA
BTMDITCH*	<default>	<default>	DITCH BOTTOM	V-DTCH-BOTM
BUMPBLOCK*	<default>	<default>	BUMPER BLOCK	V-PRKG-FIXT
BUMPPOST*	<default>	<default>	BUMPING POST	V-RAIL-EQPM
BUOY*	CHAN_Buoy (USACE)	<default>	BUOY	V-BCNS-MISC
BUSSTOP*	<default>	<default>	BUS STOP (CORNER)	V-ROAD-OTLN
CABLELP	COMM_Pole - Utility (USACE)	<default>	CABLE/LIGHT POLE	V-COMM-POLE
CABLEPOLE*	COMM_Pole - Utility (USACE)	<default>	CABLE POLE	V-COMM-POLE
CACTUS*	SITE_VEGE - Generic Tree (USACE)	<default>	CACTUS	V-SITE-VEGE-IDEN
CAPSET*	SURV_Iron Pin and Cap (USACE)	<default>	REBAR WITH CAP SET (PROPERTY)	V-SURV-DATA
CARAXLE*	<default>	<default>	CAR AXLE	V-SURV-DATA

Code	Point Style	Point Label Style	Format	Layer
CAT	<default>	<default>	CAT TAILS EDGE	V-WETL-PHOL
CATGUARD*	<default>	<default>	CATTLE GUARD	V-SITE-STRC
CATVJBOX*	COMM_Junction Box (USACE)	<default>	CABLE TV JUNCTION BOX	V-COMM-JBOX
CATVLMRK*	<default>	<default>	CABLE TV LINE MARKER	V-COMM-UGND-IDEN
CATVPMRK*	<default>	<default>	CABLE TV PAINT MARKER	V-COMM-UGND-IDEN
CATVSERV	<default>	<default>	CABLE TV SERVICE	V-COMM-EQPM
CB	STRM_Drainage - Catch Basin (USACE)	<default>	CATCH BASIN	V-STRM-INLT
CDH*	BORE_Core Drill Hole Drilled (USACE)	<default>	CORE DRILL HOLE	V-BORE-GENL-LOCN
CEDARTREE*	SITE_VEGE - Deciduous Tree (USACE)	<default>	CEDAR TREE	V-SITE-VEGE-IDEN
CEMETERY*	<default>	<default>	CEMETERY	V-SITE-STRC
CFW*	<default>	<default>	FLOODWALL CENTERLINE	V-FLOD-CNTR
CHERRYTREE*	SITE_VEGE - Deciduous Tree (USACE)	<default>	CHERRY TREE	V-SITE-VEGE-IDEN
CHISSQUARE	<default>	<default>	CHISELED SQUARE	V-CTRL-VERT
CHISX*	<default>	<default>	CHISELED X	V-SURV-DATA
CHK*	<default>	<default>	BACK SIGHT (CHECK)	V-SURV-DATA
CK*	<default>	<default>	BACK SIGHT (CHECK)	V-SURV-DATA
CLAYPIPE*	<default>	<default>	CLAY PIPE	V-STRM-CULV
CLCHANNEL*	<default>	<default>	CHANNEL CENTERLINE	V-CHAN-CNTR
CLD*	<default>	<default>	DITCH CENTERLINE	V-DTCH-CNTR
CLL*	<default>	<default>	CENTERLINE LEVEE	V-LEVE-CNTR
CLN*	<default>	<default>	CENTERLINE	V-ALGN-LINE
CLRD*	<default>	<default>	CENTERLINE OF ROADWAY	V-ROAD-CNTR
CLRR*	<default>	<default>	RAILROAD CENTERLINE	V-RAIL-CNTR
CLSTREAM*	<default>	<default>	CENTERLINE STREAM	V-CHAN-CNTR
CLTAXI*	<default>	<default>	TAXIWAY CENTERLINE	V-TAXI-CNTR
CLTRACK*	<default>	<default>	TRACKS (CENTERLINE)	V-RAIL-CNTR
CMP*	<default>	<default>	CORRUGATED METAL PIPE (INV)	V-STRM-CULV
CO	SSWR_Utility - Sanitary Cleanout (USACE)	<default>	CLEANOUT	V-SSWR-DEVC
COLUMN*	<default>	<default>	COLUMN	V-SITE-STRC
COMOH*	<default>	<default>	PHONE LINE OVERHEAD	V-COMM-OVHD
COMUG*	<default>	<default>	PHONE LINE UNDERGROUND	V-COMM-UGND
CONC	<default>	<default>	CONCRETE	V-STRM-CHUT
CONCHK*	<default>	<default>	CONTROL CHECK	V-SURV-IDEN
CONCMON	<default>	<default>	CONCRETE MONUMENT	V-SURV-DATA
CONCMONSET*	SURV_Boundary Mark (USACE)	<default>	CONCRETE MONUMENT SET (PROPERTY)	V-SURV-DATA
CONCPIPE*	<default>	<default>	CONCRETE PIPE	V-STRM-CULV

Code	Point Style	Point Label Style	Format	Layer
CONDTTOE*	<default>	<default>	CONCRETE DITCH TOE	V-DTCH-BOTM
CONDTTOP*	<default>	<default>	CONCRETE DITCH TOP	V-DTCH-TOP~
CONEPT*	BORE_Cone Penetrometer Hole (USACE)	<default>	CONE PETROMETER	V-BORE-GPRO-LOCN
CONNGS*	SURV_Bench Mark (USACE)	<default>	USC&GS OR NGS CONTROL	V-CTRL-BMRK
CONSPOT*	STRM_Drainage - Catch Basin (USACE)	<default>	CATCH BASIN	V-STRM-INLT
CONUSGS*	SURV_Bench Mark (USACE)	<default>	USC&GS OR NGS CONTROL	V-CTRL-BMRK
CP	SURV_Horizontal Vertical Control (USACE)	<default>	CONTROL POINT	V-CTRL-HVPT
CPAD*	<default>	<default>	CONCRETE REVETMENT	V-RRAP-RVMT
CPP*	<default>	<default>	CORRUGATED PLASTIC PIPE	V-STRM-CULV
CPT*	<default>	<default>	CONTROL POINT	V-TOPO-DTMP
CRBINLT*	STRM_Curb Inlet (USACE)	<default>	CURB INLET	V-STRM-INLT
CROSSGATE*	<default>	<default>	CROSSING GATE	V-RAIL-EQPM
CUL	STRM_Culvert End Symbol (USACE)	<default>	CULVERT	V-STRM-CULV
CULT*	<default>	<default>	CULTIVATION	V-TOPO-BKLN
CURBSTOP*	<default>	<default>	CURB STOP	V-ROAD-CURB
CUTBOLTBASE*	<default>	<default>	CUT BOLT-SIGN OR LIGHT BASE	V-CTRL-VERT
DEBRIS*	<default>	<default>	DEBRIS PILE	V-TOPO-BKLN
DECK*	<default>	<default>	DECK	V-BLDG-DECK
DIKE*	<default>	<default>	DIKE	V-TOPO-SHOR
DIKECRWN*	<default>	<default>	DIKE CROWN	V-TOPO-SHOR
DIKETOE*	<default>	<default>	DIKE TOE	V-TOPO-SHOR
DIKETOP*	<default>	<default>	DIKE TOP	V-TOPO-SHOR
DIR*	<default>	<default>	DROP INLET ROUND	V-STRM-INLT
DISQ*	<default>	<default>	DROP INLET SQUARE	V-STRM-INLT
DITCH*	<default>	<default>	DITCH	V-DTCH-TOP~
DL*	<default>	<default>	TREE CANOPY/DRIP EDGE	V-SITE-VEGE
DOLPHIN*	<default>	<default>	DOLPHIN	V-BCNS-MISC
DOWNSPOUT*	<default>	<default>	DOWNSPOUT	V-STRM-DEVC
DRAINFIELD*	<default>	<default>	DRAIN FIELD	V-SSWR-NITF
DRAINPIT*	<default>	<default>	DRAIN PIT	V-SSWR-JBOX
DRILLHOLE*	<default>	<default>	DRILL HOLE	V-SURV-DATA
DRN*	STRM_Utility - Storm Drainage Device (USACE)	<default>	DRAIN	V-STRM-SUBS-PIPE
DRYWELL*	<default>	<default>	DRY WELL	V-WATR-WELL
DUCT*	<default>	<default>	DUCT	V-DBNK-MULT
DUCTIRONPIPE*	<default>	<default>	DUCTILE IRON PIPE	V-STRM-CULV
DUNE*	<default>	<default>	DUNE	V-SITE-IDEN

Code	Point Style	Point Label Style	Format	Layer
EC	<default>	<default>	CONCRETE EDGE	V-SITE-OTLN
ECR*	<default>	<default>	ROAD OUTLINE - CONCRETE SURFACE	V-ROAD-CONC
EDERBERRYTREE*	SITE_VEGE - Deciduous Tree (USACE)	<default>	TREE, ELDERBERRY	V-SITE-VEGE-IDEN
EDITCH*	<default>	<default>	DITCH TOP	V-DTCH-TOP~
EDR*	<default>	<default>	ROAD OUTLINE - UNPAVED SURFACE	V-ROAD-UPVD
EFB*	<default>	<default>	EDGE OF FLOWER BED	V-SITE-VEGE
EGRD*	<default>	<default>	ROAD OUTLINE - GRAVEL SURFACE	V-SITE-STRC
ELCABLEPOLE*	POWR_Pole - Utility (USACE)	<default>	ELECTRICAL/CABLE POLE	V-POWR-POLE
ELEVCHK*	SURV_Vertical Control (USACE)	<default>	ELEVATION CHECK	V-CTRL-VERT
ELLIGHTCABLEPOLE*	POWR_Pole - Utility (USACE)	<default>	ELECTRICAL/TELEPHONE/LIGHT/ CABLE POLE	V-POWR-POLE
ELLIGHTPOLE*	POWR_Pole - Utility (USACE)	<default>	ELECTRICAL/LIGHT POLE	V-POWR-POLE
ELLMRK*	<default>	<default>	ELECTRICAL LINE MARKER	V-POWR-IDEN
ELMTR*	POWR_Electrical - Meter (USACE)	<default>	ELECTRICAL METER	V-POWR-METR
ELPMRK*	<default>	<default>	ELECTRICAL PAINT MARK	V-POWR-IDEN
ELPP*	POWR_Pole - Light - One Arm (USACE)	<default>	ELECTRICAL POLE	V-POWR-POLE
ELTELECABLEPOLE*	POWR_Pole - Utility (USACE)	<default>	ELECTRICAL/TELEPHONE/CABLE POLE	V-POWR-POLE
ELTELELCPOLE*	POWR_Pole - Utility (USACE)	<default>	ELECTRICAL/TELEPHONE/LIGHT/ CABLE POLE	V-POWR-POLE
ELTELEPOLE*	POWR_Pole - Utility (USACE)	<default>	ELECTRICAL/TELEPHONE POLE	V-POWR-POLE
EMH*	POWR_Manhole - Electrical (USACE)	<default>	ELECTRIC MANHOLE	V-POWR-JBOX
EOA*	<default>	<default>	ROAD OUTLINE - ASPHALT SURFACE	V-ROAD-ASPH
EOB	<default>	<default>	BRIDGE OUTLINE	V-BRDG-OTLN
EOBAL*	<default>	<default>	BALLAST (EDGE)	V-RRAP-RVMT
EOCANOPY*	<default>	<default>	EDGE OF CANOPY	V-BLDG-OVHD
EOCONCSLAB*	<default>	<default>	EDGE OF CONCRETE SLAB/PAD	V-SITE-STRC
EODASP*	<default>	<default>	EDGE OF DRIVEWAY (ASPHALT)	V-ROAD-OTLN
EODCONC*	<default>	<default>	EDGE OF DRIVEWAY (CONCRETE)	V-ROAD-OTLN
EODGRVL*	<default>	<default>	EDGE OF DRIVEWAY (GRAVEL)	V-ROAD-OTLN
EODISTURB*	<default>	<default>	EDGE OF DISTURBANCE	V-TOPO-BKLN
EODRV*	<default>	<default>	DRIVEWAY EDGE	V-ROAD-OTLN
EOG	<default>	<default>	GRAVEL EDGE	V-ROAD-GRVL

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EOGAMBION	<default>	<default>	GAMBION EDGE	V-RRAP-GABN
EOHVAC*	<default>	<default>	HVAC UNIT OUTLINE	V-SITE-FENC
EOP	<default>	<default>	PAVEMENT EDGE	V-ROAD-OTLN
EOPATIO*	<default>	<default>	PATIO (EDGE)	V-SITE-STRC
EOREFUSE*	<default>	<default>	REFUSE (EDGE)	V-SITE-STRC
EOROCK*	<default>	<default>	ROCK(S) EDGE	V-SITE-ROCK
EOS	<default>	<default>	SHOULDER EDGE	V-ROAD-SHLD
EOSASP*	<default>	<default>	EDGE OF SHOULDER (ASPHALT)	V-ROAD-SHLD
EOSCONC*	<default>	<default>	EDGE OF SHOULDER (CONCRETE)	V-ROAD-SHLD
EOSGRVL*	<default>	<default>	EDGE OF SHOULDER (GRAVEL)	V-ROAD-SHLD
EOT*	<default>	<default>	TRAIL EDGE	V-SITE-WALK
EOXTIE*	<default>	<default>	EDGE OF TIES	V-RAIL-IDEN
EPL*	<default>	<default>	EDGE OF PARKING LOT	V-PRKG-OTLN
EQOL*	<default>	<default>	EQUIPMENT OUTLINE	V-SITE-OTLN
ER	<default>	<default>	EDGE OF ROAD	V-ROAD-OTLN
ESW	<default>	<default>	SIDEWALK	V-SITE-WALK
ESWASP*	<default>	<default>	SIDEWALK (ASPHALT)	V-SITE-WALK
ESWCONC*	<default>	<default>	SIDEWALK (CONCRETE)	V-SITE-WALK
FAL*	<default>	<default>	FUEL ACCESS LID	V-NGAS-VALT
FAULTLINE*	<default>	<default>	SCARP/FAULT LINE	V-TOPO-BKLN
FEP*	SITE_Fence Post (USACE)	<default>	FENCE POST	V-SITE-FENC
FFE*	<default>	<default>	FINISHED FLOOR ELEVATION	V-BLDG-FTPT
FH*	DOMW_Hydrant - Pan (USACE)	<default>	FIRE HYDRANT	V-WATR-HYDT
FIBEROH*	<default>	<default>	FIBER OPTIC OVERHEAD	V-COMM-OVHD
FIBPOST*	<default>	<default>	FIBER OPTIC LINE MARKER	V-COMM-UGND-IDEN
FIXEDPRISM*	<default>	<default>	FIXED PRISM	V-SURV-DATA
FLD*	<default>	<default>	FLOOD WALL	V-FLOD-BASE
FLDGATE*	CHAN_Flood Gate (USACE)	<default>	FLOOD GATE	V-STRM-DEVC
FLDWALL*	<default>	<default>	FLOODWALL	V-FLOD-TOP~
FNC	<default>	<default>	FENCE	V-SITE-FENC
FNCBW*	<default>	<default>	FENCE, BARB WIRE	V-SITE-FENC
FNCCL*	<default>	<default>	FENCE, CHAIN LINK	V-SITE-FENC
FNCPOST*	SITE_Fence Post (USACE)	<default>	FENCE POST	V-SITE-FENC
FNCW	<default>	<default>	FENCE, WOOD	V-SITE-FENC
FNCWW*	<default>	<default>	FENCE, WOVEN WIRE	V-SITE-FENC
FOJBOX*	COMM_Junction Box (USACE)	<default>	FIBER OPTIC JUNCTION BOX	V-COMM-JBOX
FOPMRK*	<default>	<default>	FIBER OPTIC PAINT MARK	V-COMM-UGND-IDEN
FOSERV*	<default>	<default>	FIBER OPTIC SERVICE	V-COMM-EQPM
FPOLE*	<default>	<default>	FLAG POLE	V-SITE-STRC
FROG_L	<default>	<default>	RAILROAD FROG_L	V-RAIL-EQPM
FROG_R	<default>	<default>	RAILROAD FROG_R	V-RAIL-EQPM

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FSC*	<default>	<default>	FLOOD SIDE CROWN	V-LEVE-CNTR
FST*	<default>	<default>	FLOOD SIDE TOE	V-FLD-DRNS
FTG*	<default>	<default>	FOOTING	V-SITE-STRC
FUELLN*	<default>	<default>	FUEL LINE	V-FUEL-MAIN-PIPE
FUELPIT*	<default>	<default>	FUEL PIT	V-FUEL-VALT
FUELUMP*	<default>	<default>	FUEL PUMP	V-FUEL-STNS-PUMP
FUELTANK*	FUEL_Tank - Above Ground (USACE)	<default>	FUEL TANK	V-FUEL-TANK
FXHOL	<default>	<default>	FOX HOLE	V-MILR-FOXH
GAGE*	<default>	<default>	RAIN GAGE	V-SITE-STRC
GASREG*	<default>	<default>	GAS REGULATOR	V-FUEL-DEVC
GASWELL*	<default>	<default>	GAS WELL	V-FUEL-JBOX
GATE	<default>	<default>	GATE	V-SITE-FENC
GATE_L*	<default>	<default>	GATE_L	V-SITE-FENC
GATE_P*	<default>	<default>	GATE_P	V-SITE-FENC
GFL*	<default>	<default>	CURB GUTTER FLOW LINE	V-ROAD-CURB
GL	<default>	<default>	GAS LINE	V-NGAS-PIPE
GLMRK*	<default>	<default>	GAS LINE MARKER	V-NGAS-METR
GM	NGAS_Utility - Natural Gas - Meter (USACE)	<default>	GAS METER	V-NGAS-METR
GND*	_V_TOPO_Spot [x] (USACE)	<default>	GROUND	V-TOPO-SPOT
GPMRK*	<default>	<default>	GAS PAINT MARK	V-NGAS-IDEN
GRAIL*	<default>	<default>	GUARD RAIL	V-ROAD-GRAL
GRDLGT	<default>	<default>	GROUND LIGHT	V-LITE-EXTR
GRNPNT*	<default>	<default>	GROUNDING LOOP	V-APRN-GRND
GUMTREE*	SITE_VEGE - Deciduous Tree (USACE)	<default>	TREE, GUM	V-SITE-VEGE-IDEN
GUTTER*	<default>	<default>	CONCRETE GUTTER	V-ROAD-CURB
GUYP*	COMM_Pole - Aerial With Guying (USACE)	<default>	GUY POLE	V-COMM-POLE-GUYS
GUYW*	POWR_Electrical - Guy Wire (USACE)	<default>	GUY WIRE	V-COMM-POLE-GUYS
GV	NGAS_Valve General (USACE)	<default>	GAS VALVE	V-NGAS-VALT
GVP*	<default>	<default>	GAS VENT PIPE	V-NGAS-VALT
HANDRAIL*	<default>	<default>	HANDRAIL	V-SITE-FENC
HB*	WATR_Hydrant - One Hose Outlet (USACE)	<default>	HOSE BIB	V-WATR-DEVC
HC*	<default>	<default>	HANDICAP RAMP	V-SITE-WALK
HEADSTONE*	<default>	<default>	HEADSTONE	V-SITE-STRC
HEMLOCKTREE*	SITE_VEGE - Coniferous Tree (USACE)	<default>	TREE, HEMLOCK	V-SITE-VEGE-IDEN
HH*	POWR_Electrical - Handhole (USACE)	<default>	HANDHOLE	V-POWR-JBOX

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HICKORYTREE*	SITE_VEGE - Coniferous Tree (USACE)	<default>	TREE, HICKORY	V-SITE-VEGE-IDEN
HIGHWALL*	<default>	<default>	HIGHWALL	V-SITE-STRC
HPLOR*	<default>	<default>	HIGH POINT LINE OF ROAD	V-ROAD-IDEN
HUB	<default>	<default>	HUB	V-SURV-DATA
HUBSET*	<default>	<default>	HUB SET _# LAYOUT	V-SURV-DATA
HVACCNTR*	<default>	<default>	HVAC UNTI (TOP CENTER)	V-SITE-STRC
HW	STRM_Headwall (USACE)	<default>	HEADWALL	V-STRM-HWAL
HWM*	<default>	<default>	HIGH WATER MARK	V-BECH-OHWM
INLETOUTLINE*	<default>	<default>	INLET OUTLINE	V-STRM-INLT
INV	STRM_Culvert End Symbol (USACE)	<default>	INVERT	V-STRM-IDEN
INVSD*	STRM_Culvert End Symbol (USACE)	<default>	STORM LINE INVERT (XX-SIZE)	V-STRM-MAIN-PIPE
INVSS*	SSWR_Utility - Sanitary Invert (USACE)	<default>	SANITARY LINE INVERT	V-SSWR-MAIN-PIPE
INWL*	<default>	<default>	INDUSTRIAL WASTE LINE	V-INDW-MAIN-PIPE
JBOX*	<default>	<default>	JUNCTION BOX	V-POWR-JBOX
JF*	<default>	<default>	JET FUEL LINE	V-FUEL-MAIN-PIPE
JNT	<default>	<default>	JOINT	V-PVMT-PATT
JNTCON*	<default>	<default>	JOINT CONTRACTION	V-JNTS-CNTL
JNTCST*	<default>	<default>	JOINT CONSTRUCTION	V-JNTS-CNSL
JNTEXP*	<default>	<default>	JOINT EXPANSION	V-JNTS-EXPJ
LAWNEDGE*	<default>	<default>	LAWN EDGE	V-TOPO-BKLN
LCHRD*	<default>	<default>	LOW CHORD	V-BRDG-CHRD-LOW~
LD	<default>	<default>	LINE DROP	V-SSWR-DEVC
LDOCK*	<default>	<default>	LOADING DOCK	V-BLDG-DOCK
LEACHFIELD*	<default>	<default>	LEACHING FIELD	V-SSWR-LEAC
LEACHLINE*	<default>	<default>	LEACH LINE	V-SSWR-LEAC
LEADPLUGTACK*	<default>	<default>	LEAD PLUG AND TACK	V-SURV-DATA
LED*	<default>	<default>	LEAK DETECTOR	V-SSWR-DEVC
LEVEE	<default>	<default>	LEVEE	V-LEVE-OTLN
LEVEECRW*	<default>	<default>	LEVEE CROWN	V-LEVE-TOPB
LEVEESLOP*	<default>	<default>	LEVEE SLOPE	V-LEVE-SLOP
LEVEETOE*	<default>	<default>	LEVEE TOE	V-LEVE-TOE~
LEVEETOP*	<default>	<default>	LEVEE TOP	V-LEVE-TOPB
LGHT	<default>	<default>	LIGHT	V-LITE-EXTR
LIFTSTA*	<default>	<default>	LIFT STATION	V-INDW-STNS-LIFT
LIGHTPOST*	<default>	<default>	LIGHT POST (DECORATIVE)	V-LITE-EXTR
LIP*	<default>	<default>	LIP OF GUTTER	V-ROAD-CURB
LIQPRO*	<default>	<default>	LIQUID PROPANE	V-FUEL-SERV-PIPE
LOCUSTTREE*	SITE_VEGE - Deciduous Tree (USACE)	<default>	TREE, LOCUST	V-SITE-VEGE-IDEN
LP*	POWR_Pole - Light - One Arm (USACE)	<default>	LIGHT POLE	V-LITE-EXTR

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LSLT*	<default>	<default>	LANDSCAPE LIGHT	V-LITE-EXTR
LSOUT*	<default>	<default>	LANDSCAPE OUTLINE	V-SITE-VEGE
LW*	<default>	<default>	LOW WIRE	V-PRIM-OVHD
MAGNAIL*	<default>	<default>	MAG NAIL	V-SURV-DATA
MAGPROP*	<default>	<default>	MAG PROPERTY	V-SURV-DATA
MAGSPIKESET*	SURV_Boundary Mark (USACE)	<default>	MAG SPIKE SET (PROPERTY)	V-SURV-DATA
MAPLETREE*	SITE_VEGE - Deciduous Tree (USACE)	<default>	TREE, MAPLE	V-SITE-VEGE-IDEN
MBOX*	SITE_Mailbox (USACE)	<default>	MAIL BOX	V-SITE-STRC
MDOCK*	<default>	<default>	MARINE DOCK	V-BLDG-DOCK
MER*	<default>	<default>	MULTI-ELECTRODE ELECTRICAL RESISTIVITY	V-BORE-GENL-LOCN
MH	STRM_Utility - Storm Drainage Manhole (USACE)	<default>	MANHOLE COVER	V-STRM-MHOL
MHCOMM*	COMM_Manhole - Communications (USACE)	<default>	COMMUNICATIONS MANHOLE	V-COMM-MHOL
MHFO*	COMM_Manhole - Communications (USACE)	<default>	FIBER OPTIC MANHOLE	V-COMM-MHOL
MHGAS*	NGAS_Utility - Natural Gas - Manhole (USACE)	<default>	GAS MANHOLE	V-COMM-MHOL
MHINDWST*	INDW_Industrial Waste Water Manhole (USACE)	<default>	INDUSTRIAL WASTE MANHOLE	V-INDW-DEVC
MHMISC*	<default>	<default>	MISCELLANEOUS/UNMARKED MAHOLE	V-SURV-SYMB
MHSAN*	SSWR_Utility - Sanitary Manhole (USACE)	<default>	SANITARY MANHOLE	V-SSWR-IDEN
MHSTEAM*	<default>	<default>	STEAM MANHOLE	V-HTCW-JBOX
MHTELE*	COMM_Manhole - Telephone (USACE)	<default>	TELEPHONE MANHOLE	V-COMM-MHOL
MHTV*	COMM_Manhole - Communications (USACE)	<default>	CABLE TV MANHOLE	V-COMM-MHOL
MHWTR*	WATR_Utility- Water Manhole (USACE)	<default>	WATER MANHOLE	V-WATR-VALT
MILEMKR*	<default>	<default>	MILE MARKER	V-ROAD-SIGN
MINEPORTAL*	<default>	<default>	MINE PORTAL (SINGLE SHOT)	V-TOPO-BKLN
MISSTRUCT*	<default>	<default>	MISCELLANEOUS SITE STRUCTURES	V-SITE-STRC
MON	SURV_Horizontal Vertical Control (USACE)	<default>	MONUMENT	V-CTRL-HVPT

Code	Point Style	Point Label Style	Format	Layer
MONDVC*	<default>	<default>	MONITORING DEVICE	V-BORE-GENL-LOCN
MPSIGN*	<default>	<default>	MULTI-POLE SIGN	V-ROAD-SIGN
MTR*	WATR_Utility- Water Meter (USACE)	<default>	METER	V-WATR-METR
MTX*	WATR_Utility- Water Meter (USACE)	<default>	METER BOX	V-WATR-METR
MULCHLINE*	WETL_Swamp (USACE)	<default>	MULCH EDGE	V-SITE-VEGE-IDEN
MW	BORE_Monitoring Well (USACE)	<default>	MONITORING WELL	V-BORE-GENL-LOCN
MWGND*	BORE_Monitoring Well (USACE)	<default>	MONITORING GROUND (_#)	V-BORE-GENL-LOCN
MWPVC*	BORE_Monitoring Well (USACE)	<default>	MONITORING WELL-PVC (_#)	V-BORE-GENL-LOCN
MWTOP*	BORE_Monitoring Well (USACE)	<default>	MONITORING WELL-TOP (_#)	V-BORE-GENL-LOCN
NAIL	<default>	<default>	60 PENNY NAIL OR MAG HUB	V-SURV-DATA
NAILSET*	<default>	<default>	NAIL SET (LAYOUT)	V-SURV-DATA
NAVLGT*	CHAN_Float - Light (USACE)	<default>	NAVIGATION LIGHT	V-BCNS-STRB
NBAPOLE*	<default>	<default>	BASKETBALL POLE	V-SITE-STRC
OAKTREE*	SITE_VEGE - Deciduous Tree (USACE)	<default>	TREE, OAK	V-SITE-VEGE-IDEN
OCCHK*	<default>	<default>	OTHER CONTROL CHECK	V-SURV-DATA
OHCAV*	<default>	<default>	OVERHEAD CABLE TV	V-COMM-OVHD
OHCOMM*	<default>	<default>	COMMUNICATION LINE OVERHEAD	V-COMM-OVHD
OHEL*	<default>	<default>	ELECTRIC OVERHEAD	V-PRIM-OVHD
OHMISC*	<default>	<default>	OVERHEAD MISCELLANEOUS	V-COMM-OVHD
OHTELELINE*	<default>	<default>	OVERHEAD TELEPHONE LINE	V-COMM-OVHD
OHTV*	<default>	<default>	CABLE TV OVERHEAD	V-COMM-OVHD
OHUTIL*	<default>	<default>	UTILITY LINE OVERHEAD	V-PRIM-OVHD
OILWELL*	<default>	<default>	OIL WELL	V-FUEL-DEVC
OILWTR*	STRM_Oil Water Separator (USACE)	<default>	OIL WATER SEPERATOR	V-STRM-DEVC
OVERHANG*	<default>	<default>	OVERHANG	V-BLDG-OVHD
PAD*	<default>	<default>	PAD	V-SITE-STRC
PAINTSTRIPE*	<default>	<default>	PAVEMENT STRIPING/MARKING	V-PVMT-MRKG
PARK	<default>	<default>	PARKING METER	V-PRKG-FIXT
PARKMTR*	<default>	<default>	PARKING METER	V-PRKG-FIXT
PB*	<default>	<default>	PHONE BOOTH	V-COMM-EQPM
PCOR*	SURV_Boundary Mark (USACE)	<default>	PROPERTY CORNER	V-PROP-LINE
PED*	<default>	<default>	PEDESTAL	V-POWR-JBOX

Code	Point Style	Point Label Style	Format	Layer
PERCTEST*	BORE_Perc Test (USACE)	<default>	PERC TEST	V-BORE-GENL-LOCN
PHOTOC*	SURV_Photo Control Point (USACE)	<default>	PHOTO CONTROL POINT	V-AERI-PNPT
PIER*	<default>	<default>	PIER	V-CHAN-DOCK
PINETREE*	SITE_VEGE - Coniferous Tree (USACE)	<default>	TREE, PINE	V-SITE-VEGE-IDEN
PIPE	<default>	<default>	PIPE (SIZE)	V-SURV-DATA
PIPE_L*	<default>	<default>	PIPE_L	V-SITE-STRC
PIPE_P	<default>	<default>	PIPE_P	V-SITE-STRC
PIPELINE	<default>	<default>	PIPELINE	V-NGAS-PIPE
PIPESUPP*	<default>	<default>	PIPELINE SUPPORT	V-SITE-STRC
PKNAIL*	<default>	<default>	PK NAIL	V-SURV-DATA
PLNTR*	<default>	<default>	PLANTER BOX	V-SITE-OTLN
PLTL*	<default>	<default>	PIPELINE TEST LEAD	V-WATR-DEVC
PNL*	POWR_Electrical - Panel (USACE)	<default>	PANEL	V-POWR-JBOX
POF*	<default>	<default>	POINT OF FROG	V-RAIL-EQPM
POLE*	<default>	<default>	POLE	V-SITE-STRC
POOL*	<default>	<default>	POOL	V-SITE-STRC
POPLARTREE	SITE_VEGE - Deciduous Tree (USACE)	<default>	TREE, POPLAR	V-SITE-VEGE-IDEN
PORCH*	<default>	<default>	PORCH	V-BLDG-PRCH
POST*	SITE_Fence Post (USACE)	<default>	POST	V-SITE-STRC
PROPCORNSET*	SURV_Boundary Mark (USACE)	<default>	OTHER PROP CORNER SET (PROPERTY)	V-SURV-DATA
PRVVALVE*	WATR_Valve - General (USACE)	<default>	4" POST WITH CABLE	V-WATR-DEVC
PULLBOX*	<default>	<default>	PULL BOX	V-COMM-JBOX
PUMPSTA*	STRM_Pump Station (USACE)	<default>	PUMP STATION	V-STRM-STNS-PUMP
PVCPIPE*	<default>	<default>	PVC PIPE	V-STRM-CULV
PZ	BORE_Piezometer (USACE)	<default>	PIEZOMETER	V-BORE-GENL-LOCN
PZGND*	BORE_Piezometer Or Observat Hole (USACE)	<default>	PIEZOMETERS GROUND (_#)	V-BORE-GENL-LOCN
PZPVC*	BORE_Piezometer Or Observat Hole (USACE)	<default>	PIEZOMETERS PVC (_#)	V-BORE-GENL-LOCN
PZTOP*	BORE_Piezometer Or Observat Hole (USACE)	<default>	PIEZOMETERS TOP (_#)	V-BORE-GENL-LOCN
RAMP*	<default>	<default>	RAMP	V-SITE-STRS
RD	<default>	<default>	ROAD	V-ROAD-OTLN
RDM*	<default>	<default>	RED DAY MARKER	V-BCNS-MISC
REBARCAP*	SURV_Iron Pin and Cap (USACE)	<default>	REBAR WITH OTHER CAP	V-SURV-DATA

Code	Point Style	Point Label Style	Format	Layer
REBARNOCAP*	<default>	<default>	REBAR NO CAP	V-SURV-DATA
REBARWCAP*	SURV_Iron Pin and Cap (USACE)	<default>	REBAR WITH CAP	V-SURV-DATA
RELIEFWELL*	BORE_Relief Well (USACE)	<default>	RELIEF WELL	V-BORE-GENL-LOCN
REV*	<default>	<default>	REVTMENT	V-RRAP-RVMT
RIF*	<default>	<default>	RIFFLE	V-TOPO-SPOT
RIPRAP*	<default>	<default>	RIPRAP	V-RRAP-RVMT
RNWEOP*	<default>	<default>	RUNWAY	V-RUNW-EDGE
RNWLGT	AFLD_Light - Runway (USACE)	<default>	RUNWAY LIGHT	V-AFLD-LITE-RUNW
RNWSHLD*	<default>	<default>	RUNWAY SHOULDER	V-RUNW-SHLD
ROCK	<default>	<default>	ROCK	V-SITE-ROCK
ROCKGUTTER*	<default>	<default>	ROCK GUTTER	V-ROAD-CURB
ROCKOUTCROP*	<default>	<default>	ROCK OUTCROP	V-SITE-ROCK
ROOFBOLT*	<default>	<default>	ROOF BOLT	V-SURV-DATA
ROTPNT*	<default>	<default>	ROTATION POINT	V-SURV-DATA
RRCONBOX*	<default>	<default>	RAILROAD CONTROL BOX	V-RAIL-EQPM
RRDWARFSIG*	<default>	<default>	RAILROAD DWARF SIGNAL	V-RAIL-EQPM
RRRAIL*	<default>	<default>	TRACKS (RAIL)	V-RAIL-TRAK
RRSIGPOLE	<default>	<default>	RAILROAD SIGNAL POLES	V-RAIL-EQPM
RRSPIKE	<default>	<default>	RAILROAD SPIKE	V-CTRL-VERT
RRSPIKECOR*	<default>	<default>	RAILROAD SPIKE	V-SURV-DATA
RRSW*	RAIL_Switch (USACE)	<default>	RAILROAD SWITCH	V-RAIL-EQPM
RRTP*	<default>	<default>	RAILROAD RAIL TOP	V-RAIL-TRAK
RUINS*	<default>	<default>	RUINS	V-SITE-OTLN
RW	<default>	<default>	RIGHT OF WAY	V-PROP-RWAY
RWMON*	<default>	<default>	RIGHT OF WAY MONUMENT	V-SURV-DATA
SANPMARK*	<default>	<default>	SANITARY PARK MARK	V-SSWR-IDEN
SATDISH*	SITE_Satellite Dish (USACE)	<default>	SATELLITE DISH	V-SITE-STRC
SEDIMENTPIN*	SURV_Sediment Pin (USACE)	<default>	SEDIMENT PIN / SDM	V-SURV-DATA
SEEP*	<default>	<default>	SEEP/SPRING	V-SITE-WATR
SEPTICTANK*	SSWR_Utility - Septic Tank (USACE)	<default>	SEPTIC TANK	V-SSWR-TANK
SHED*	<default>	<default>	OUTBUILDING/SHED	V-BLDG-FTPT
SHRUB	SITE_VEGE - Coniferous Shrub (USACE)	<default>	SHRUB	V-SITE-VEGE-IDEN
SHRUBC*	SITE_VEGE - Coniferous Shrub (USACE)	<default>	SHRUB CONIFEROUS	V-SITE-VEGE-IDEN
SHRUBD*	SITE_VEGE - Deciduous Shrub (USACE)	<default>	SHRUB DECIDUOUS	V-SITE-VEGE-IDEN

Code	Point Style	Point Label Style	Format	Layer
SHRUBLINE*	SITE_VEGE - Deciduous Shrub (USACE)	<default>	SHRUB LINE	V-SITE-VEGE-IDEN
SIGCONBOX*	<default>	<default>	SIGNAL CONTROL BOX	V-COMM-JBOX
SIGN*	SITE_Sign (USACE)	<default>	SIGN	V-ROAD-SIGN
SIGPOLE*	COMM_Pole - Signal (USACE)	<default>	SIGNAL POLE	V-COMM-POLE
SIGSUPPOLE*	<default>	<default>	SIGNAL POLE	V-COMM-POLE
SIP	<default>	<default>	SOLID IRON PIN	V-SURV-DATA
SLOPETOE*	<default>	<default>	TOE OF SLOPE	V-TOPO-SLOP-TOPT
SLOPETOP*	<default>	<default>	TOP OF SLOPE	V-TOPO-SLOP-TOPT
SNDG*	HYDS_Sounding [xx.x] (USACE)	V_Soundings Depth Only (USACE)	SOUNDING	V-HYDS-SOUN
SOILBORING*	BORE_Core Drill Hole Drilled (USACE)	<default>	SOIL BORING	V-BORE-GENL-LOCN
SP	<default>	<default>	SHEET PILE	V-FLOD-PILE
SPIGOT*	<default>	<default>	WATER SPIGOT	V-WATR-DEVC
SPKLR*	<default>	<default>	LAWN SPRINKLER	V-WATR-DEVC
SPOIL*	<default>	<default>	SPOIL	V-BORW-LINE
SPOT*	<default>	<default>	SPOT ELEVATION OTHER THAN SOIL	V-TOPO-SPOT
SPRINKHEAD*	<default>	<default>	SPRINKLER HEAD	V-WATR-DEVC
SPRUCETREE*	SITE_VEGE - Coniferous Tree (USACE)	<default>	TREE, SPRUCE	V-SITE-VEGE-IDEN
SSLN*	<default>	<default>	SANITARY LINE	V-SSWR-MAIN-PIPE
STAKESET*	<default>	<default>	STAKE SET _# (LAYOUT)	V-SURV-DATA
STEAMLINE*	<default>	<default>	STEAM LINE	V-HTCW-STEM-MAIN
STEAMPIT*	HTCW_Steam Pit (USACE)	<default>	STEAM PIT	V-HTCW-JBOX
STEELPIPE*	<default>	<default>	STEEL PIPE	V-STRM-CULV
STELVCHK*	<default>	<default>	STATION ELEVATION OR CHECK	V-SURV-DATA
STEPS*	<default>	<default>	STEPS	V-SITE-STRS
STGAGE*	CHAN_Location - Tide Gauge (USACE)	<default>	STUDY GAUGE	V-SITE-STRC
STLN*	<default>	<default>	STORM LINE	V-STRM-MAIN-PIPE
STONEMON*	<default>	<default>	STONE MONUMENT	V-SURV-DATA
STORMMH*	<default>	<default>	STORM MANHOLE	V-STRM-MHOL
STUMP	<default>	<default>	STUMP	V-SITE-VEGE-IDEN
STUMPHOLE*	<default>	<default>	STUMP OR STUMP HOLE	V-SURV-DATA
SWALE*	<default>	<default>	SWALE	V-DTCH-TOP~
SWMP*	WETL_Swamp (USACE)	<default>	SWAMP	V-WETL-SWMP
TABLE*	<default>	<default>	TABLE	V-SITE-STRC
TANK*	WATR_Tank - Above Ground (USACE)	<default>	TANK	V-WATR-TANK

Code	Point Style	Point Label Style	Format	Layer
TBC	<default>	<default>	CURB TOP BACK	V-ROAD-CURB
TBCHANNEL*	<default>	<default>	CHANNEL TOP OF BANK	V-CHAN-BANK-TOP~
TBM*	SURV_Bench Mark (USACE)	<default>	TEMPORARY OR SITE BM	V-CTRL-VERT
TBS*	<default>	<default>	TOP OF BALLAST	V-PRKG-FIXT
TC*	<default>	<default>	TOP CONCRETE	V-SITE-STRC
TCB*	<default>	<default>	TOP CONCRETE BANK	V-SITE-STRC
TCS*	<default>	<default>	TOP OF CONCRETE PAVEMENT (ON SLOPE)	V-ROAD-CONC
TCW*	<default>	<default>	TOP OF CONCRETE WALL	V-SITE-STRC
TEC*	<default>	<default>	TOP ON EDGE OF CONCRETE WALL	V-SITE-STRC
TED*	<default>	<default>	TOP EDGE OF DITCH	V-DTCH-TOP~
TEL*	<default>	<default>	TELEPHONE LINE	V-COMM-OVHD
TELECABLELP*	COMM_Pole - Utility (USACE)	<default>	TELEPHONE/CABLE/LIGHT POLE	V-POWR-POLE
TELECABLEPOLE*	COMM_Pole - Utility (USACE)	<default>	TELEPHONE/CABLE POLE	V-POWR-POLE
TELEJBOXPED*	COMM_Junction Box (USACE)	<default>	TELEPHONE JUNCTION BOX/PEDESTAL	V-COMM-JBOX
TELELINEMRK*	<default>	<default>	TELEPHONE LINE MARKIER	V-COMM-UGND-IDEN
TELELP*	COMM_Pole - Utility (USACE)	<default>	TELEPHONE/LIGHT POLE	V-POWR-POLE
TELEPMRK*	<default>	<default>	TELEPHONE PAINT MARKIER	V-COMM-UGND-IDEN
TELEPOLE*	COMM_Pole - Utility (USACE)	<default>	TELEPHONE POLE	V-COMM-POLE
TELESERV	<default>	<default>	TELEPHONE SERVICE	V-COMM-EQPM
TEP*	COMM_Pedestal - Communications (USACE)	<default>	PHONE PEDESTAL	V-COMM-JBOX
TESTPIT*	BORE_Test Pit In Overburden (USACE)	<default>	TEST PIT (_#)	V-BORE-GENL-LOCN
TEWALL*	<default>	<default>	TOP EDGE OF WALL	V-SITE-FENC
TFC*	<default>	<default>	CURB TOP FACE	V-ROAD-CURB
TFW*	<default>	<default>	FLOODWALL TOP	V-FLOD-TOP~
THALWEG*	<default>	<default>	THALWEG	V-RIVR-CNTR
THLGT*	AFLD_Light - Threshold (USACE)	<default>	THRESHOLD LIGHT	V-AFLD-LITE-THRS
TICMATCH*	<default>	<default>	TICKET MACHINE	V-PRKG-FIXT
TL*	<default>	<default>	TREE LINE	V-SITE-VEGE
TOE	<default>	<default>	BREAKLINE TOE	V-TOPO-SLOP-TOPT
TOERRAP*	<default>	<default>	RIPRAP TOE	V-RRAP-RVMT
TOP	<default>	<default>	BREAKLINE TOP	V-TOPO-SLOP-TOPT
TOPPIPE*	<default>	<default>	TOP PIPE (_SIZE & TYPE)	V-STRM-IDEN
TOPRRAP*	<default>	<default>	RIPRAP TOP	V-RRAP-RVMT
TPOST*	<default>	<default>	T-POST	V-SURV-DATA
TRAIL*	<default>	<default>	TRAIL	V-SITE-WALK
TRAILERCOR*	<default>	<default>	TRAILER 9CORNER)	V-SITE-STRC

Code	Point Style	Point Label Style	Format	Layer
TRC*	SITE_VEGE - Coniferous Tree (USACE)	<default>	\$1 \$2	V-SITE-VEGE-IDEN
TRD*	SITE_VEGE - Deciduous Tree (USACE)	<default>	\$1 \$2	V-SITE-VEGE-IDEN
TREE*	SITE_VEGE - Generic Tree (USACE)	<default>	\$1 \$2	V-SITE-VEGE-IDEN
TRENCHDRAIN*	<default>	<default>	TRENCH DRAIN	V-STRM-SUBS-PIPE
TRGT*	<default>	<default>	TARGET	V-MILR-MATS
TSB*	SPCL_Traffic Signal - Controller (USACE)	<default>	TRAFFIC SIGNAL BOX	V-SPCL-TRAF
TSP*	<default>	<default>	TRAFFIC SIGNAL POST	V-SPCL-TRAF
TSTWELL*	BORE_Monitoring Well (USACE)	<default>	TEST WELL	V-BORE-GENL-IDEN
TWLGT*	AFLD_Light - Taxiway (USACE)	<default>	TAXIWAY LIGHT	V-AFLD-LITE-TAXI
TWR	SITE_Tower (USACE)	<default>	TOWER	V-SITE-STRC
TWRCNT*	<default>	<default>	TOWER CENTER	V-SITE-STRC
TXWEOP*	<default>	<default>	TAXIWAY	V-TAXI-OTLN
TXWSHLD*	<default>	<default>	TAXIWAY SHOULDER	V-TAXI-SHLD
UGCATV*	<default>	<default>	UNDERGROUND CABLE TV	V-COMM-UGND
UGCOMM*	<default>	<default>	COMMUNICATION LINE UNDERGROUND	V-COMM-UGND
UGEL*	<default>	<default>	ELECTRIC UNDERGROUND	V-PRIM-UGND
UGFIBER*	<default>	<default>	FIBER OPTIC UNDERGROUND	V-COMM-UGND
UGMISC*	<default>	<default>	UNDERGROUND MISCELLANEOUS	V-COMM-UGND
UGT	NGAS_Tank - Below Ground (USACE)	<default>	UNDERGROUND TANK	V-NGAS-TANK
UGTELE*	<default>	<default>	UNDERGROUND TELEPHONE LINE	V-COMM-UGND
UGUTIL*	<default>	<default>	UTILITY LINE UNDERGROUND	V-PRIM-UGND
UP*	SITE_Pole - Utility (USACE)	<default>	UP \$1	V-POWR-POLE
USACECAP*	SURV_Iron Pin and Cap (USACE)	<default>	REBAR WITH USACE CAP	V-SURV-DATA
USACECONCMON*	SURV_Bench Mark (USACE)	<default>	USACE CONCRETE MONUMENT	V-CTRL-BMRK
USACEDISK*	SURV_Bench Mark (USACE)	<default>	USACE DISK	V-CTRL-BMRK
USACEPED*	SURV_Bench Mark (USACE)	<default>	USACE PEDESTAL	V-CTRL-BMRK
USACEPLUG*	<default>	<default>	USACE THREADED PLUG	V-CTRL-BMRK
VERNALP*	<default>	<default>	VERNAL POOL	V-WETL-PHOL
VERTICALDISK	SURV_Vertical Control (USACE)	<default>	VERTICAL DISK	V-CTRL-VERT

Code	Point Style	Point Label Style	Format	Layer
VLT	WATR_Utility- Water Valve Vault (USACE)	<default>	VAULT	V-WATR-DEVC
VLTCOMM*	<default>	<default>	COMMUNICATIONS VAULT	V-COMM-JBOX
VLTELE*	<default>	<default>	ELECTRICAL VAULT	V-POWR-JBOX
VLTGAS*	<default>	<default>	GAS VAULT	V-NGAS-VALT
VLTSEPTIC*	<default>	<default>	SANITARY SEWER VAULT	V-SSWR-JBOX
VLTSTEAM*	<default>	<default>	STEAM VAULT	V-HTCW-JBOX
VLTELE*	<default>	<default>	TELEPHONE VAULT	V-COMM-JBOX
VLV*	WATR_Valve - General (USACE)	<default>	VALVE	V-WATR-DEVC
VP*	<default>	<default>	VENT PIPE	V-WATR-DEVC
WALL	<default>	<default>	WALL	V-SITE-STRC
WALLBE*	<default>	<default>	BOTTOM EDGE OF WALL	V-SITE-FENC
WALNUTTREE*	SITE_VEGE - Deciduous Tree (USACE)	<default>	TREE, WALNUT	V-SITE-VEGE-IDEN
WEATHERHEAD*	<default>	<default>	WEATHER HEAD	V-POWR-JBOX
WELL	<default>	<default>	WELL	V-WATR-WELL
WELLHSE*	<default>	<default>	WELL HOUSE	V-WATR-WELL
WITPOST*	<default>	<default>	WITNESS POST	V-SSWR-SIGN
WL	<default>	<default>	WATERLINE	V-WATR-MAIN-PIPE
WOODPOST*	<default>	<default>	WOOD POST	V-SURV-DATA
WS	<default>	<default>	WATER SURFACE ELEVATION	V-TOPO-WATR
WTLND*	<default>	<default>	WETLAND	V-WETL-IDEN
WTRBASIN*	<default>	<default>	WATER BASIN	V-WATR-DEVC
WTREDG*	<default>	<default>	WATER EDGE	V-SITE-EWAT
WTRFOUNT*	<default>	<default>	WATER FOUNTAIN	V-WATR-DEVC
WTRLINEMRK*	<default>	<default>	WATER LINE MARKER	V-WATR-SIGN
WTRMTR*	WATR_Utility- Water Meter (USACE)	<default>	WATER METER	V-WATR-METR
WTRPMRK*	<default>	<default>	WATER PAINT MARK	V-WATR-SIGN
WTRTOWER*	<default>	<default>	WATER TOWER/TANK	V-WATR-TANK
WV	WATR_Valve - General (USACE)	<default>	WATER VALVE	V-WATR-VALT
WVVault*	<default>	<default>	WATER VALVE VAULT	V-WATR-VALT
WW	<default>	<default>	WING WALL	V-STRM-HWAL
XFMR*	POWR_Transformer - Constant Current (USACE)	<default>	TRANSFORMER	V-POWR-XFMR-PADM

12.5.2 National Numeric Codes (USACE)

The “National Numeric Codes (USACE)” Description Key Set is intended for use in the field capture and drafting of Surveyed data (Existing Planimetrics, Topo, As-built, etc.). The table below outlines the keys in this set and the properties they assign. The asterisk (*) shown for some of the description keys is a wild card that allows the key to be used even if additional characters are included at the end of the matching description.

Code	Point Style	Point Label Style	Format	Layer
100	<default>	<default>	BASELINE	V-SURV-LINE
101	SURV_Bench Mark (USACE)	<default>	BENCHMARK	V-CTRL-BMRK
102	<default>	<default>	CONTROL CHECK	V-SURV-IDEN
103	SURV_Horizontal Vertical Control (USACE)	<default>	CONTROL POINT	V-CTRL-HVPT
104	SURV_Vertical Control (USACE)	<default>	ELEVATION CHECK	V-CTRL-VERT
105	SURV_Horizontal Vertical Control (USACE)	<default>	MONUMENT	V-CTRL-HVPT
106	SURV_Photo Control Point (USACE)	<default>	PHOTO CONTROL POINT	V-AERI-PNPT
108	<default>	<default>	AERIAL PANEL	V-AERI-PNPT
109	<default>	<default>	BACK SIGHT (CHECK)	V-SURV-DATA
110	<default>	<default>	STATION ELEVATION OR CHECK	V-SURV-DATA
111	<default>	<default>	OTHER CONTROL CHECK	V-SURV-DATA
112	<default>	<default>	HUB	V-SURV-DATA
113	<default>	<default>	60 PENNY NAIL OR MAG HUB	V-SURV-DATA
114	<default>	<default>	MAG NAIL	V-SURV-DATA
115	<default>	<default>	PK NAIL	V-SURV-DATA
116	SURV_Iron Pin and Cap (USACE)	<default>	REBAR WITH USACE CAP	V-SURV-DATA
117	SURV_Iron Pin and Cap (USACE)	<default>	REBAR WITH OTHER CAP	V-SURV-DATA
118	<default>	<default>	LEAD PLUG AND TACK	V-SURV-DATA
119	SURV_Bench Mark (USACE)	<default>	USACE CONCRETE MONUMENT	V-CTRL-BMRK
120	SURV_Bench Mark (USACE)	<default>	USACE PEDESTAL	V-CTRL-BMRK
121	<default>	<default>	USACE THREADED PLUG	V-CTRL-BMRK
122	SURV_Bench Mark (USACE)	<default>	USACE DISK	V-CTRL-BMRK
123	SURV_Sediment Pin (USACE)	<default>	SEDIMENT PIN / SDM	V-SURV-DATA
124	<default>	<default>	ALIGNMENT PIN	V-SURV-DATA
125	<default>	<default>	FIXED PRISM	V-SURV-DATA
126	SURV_Bench Mark (USACE)	<default>	USC&GS OR NGS CONTROL	V-CTRL-BMRK
127	SURV_Bench Mark (USACE)	<default>	USC&GS OR NGS CONTROL	V-CTRL-BMRK

Code	Point Style	Point Label Style	Format	Layer
128	SURV_Bench Mark (USACE)	<default>	TEMPORARY OR SITE BM	V-CTRL-VERT
129	<default>	<default>	RAILROAD SPIKE	V-CTRL-VERT
130	<default>	<default>	BENCH TIE	V-CTRL-VERT
131	SURV_Vertical Control (USACE)	<default>	VERTICAL DISK	V-CTRL-VERT
132	<default>	<default>	CHISELED SQUARE	V-CTRL-VERT
133	<default>	<default>	BONNET BOLD HYDRANT (C&S) X-CUT	V-CTRL-VERT
134	<default>	<default>	CUT BOLT-SIGN OR LIGHT BASE	V-CTRL-VERT
135	<default>	<default>	SANITARY LINE	V-SSWR-MAIN-PIPE
136	<default>	<default>	HUB SET _# LAYOUT	V-SURV-DATA
137	<default>	<default>	NAIL SET (LAYOUT)	V-SURV-DATA
138	SURV_Iron Pin and Cap (USACE)	<default>	REBAR WITH CAP SET (PROPERTY)	V-SURV-DATA
139	SURV_Boundary Mark (USACE)	<default>	CONCRETE MONUMENT SET (PROPERTY)	V-SURV-DATA
140	SURV_Boundary Mark (USACE)	<default>	MAG SPIKE SET (PROPERTY)	V-SURV-DATA
141	SURV_Boundary Mark (USACE)	<default>	OTHER PROP CORNER SET (PROPERTY)	V-SURV-DATA
142	<default>	<default>	AERIAL PANEL SET	V-AERI-PNPT
143	<default>	<default>	AERIAL PANEL TEMP	V-AERI-PNPT
1000	<default>	<default>	CENTERLINE	V-ALGN-LINE
1001	<default>	<default>	ROTATION POINT	V-SURV-DATA
1500	SURV_Boundary Mark (USACE)	<default>	PROPERTY CORNER	V-PROP-LINE
1501	<default>	<default>	RIGHT OF WAY	V-PROP-RWAY
1502	<default>	<default>	RIGHT OF WAY MONUMENT	V-SURV-DATA
1503	<default>	<default>	SOLID IRON PIN	V-SURV-DATA
1504	<default>	<default>	REBAR NO CAP	V-SURV-DATA
1505	SURV_Iron Pin and Cap (USACE)	<default>	REBAR WITH CAP	V-SURV-DATA
1506	<default>	<default>	PIPE (SIZE)	V-SURV-DATA
1507	<default>	<default>	CHISELED X	V-SURV-DATA
1508	<default>	<default>	DRILL HOLE	V-SURV-DATA
1509	<default>	<default>	T-POST	V-SURV-DATA
1510	<default>	<default>	RAILROAD SPIKE	V-SURV-DATA
1511	<default>	<default>	WOOD POST	V-SURV-DATA
1512	<default>	<default>	STUMP OR STUMP HOLE	V-SURV-DATA
1513	<default>	<default>	CAR AXLE	V-SURV-DATA
1514	<default>	<default>	ROOF BOLT	V-SURV-DATA
1515	<default>	<default>	CONCRETE MONUMENT	V-SURV-DATA
1516	<default>	<default>	STONE MONUMENT	V-SURV-DATA
1517	<default>	<default>	MAG PROPERTY	V-SURV-DATA
2000	<default>	<default>	BREAKLINE	V-TOPO-BKLN
2001	<default>	<default>	BREAKLINE TOE	V-TOPO-SLOP-TOPT
2002	<default>	<default>	BREAKLINE TOP	V-TOPO-SLOP-TOPT

Code	Point Style	Point Label Style	Format	Layer
2003	<default>	<default>	CONTROL POINT	V-TOPO-DTMP
2004	__V_TOPO_Spot [x] (USACE)	<default>	GROUND	V-TOPO-SPOT
2005	HYDS_Sounding [xx.x] (USACE)	V_Soundings Depth Only (USACE)	SOUNDING	V-HYDS-SOUN
2006	<default>	<default>	TOE OF SLOPE	V-TOPO-SLOP-TOPT
2007	<default>	<default>	TOP OF SLOPE	V-TOPO-SLOP-TOPT
2008	<default>	<default>	CENTERLINE STREAM	V-CHAN-CNTR
2009	<default>	<default>	HIGH WATER MARK	V-BECH-OHWM
2010	<default>	<default>	SEEP/SPRING	V-SITE-WATR
2011	<default>	<default>	ROCK(S) EDGE	V-SITE-ROCK
2012	<default>	<default>	ROCK OUTCROP	V-SITE-ROCK
2013	<default>	<default>	HIGHWALL	V-SITE-STRC
2015	<default>	<default>	MINE PORTAL (SINGLE SHOT)	V-TOPO-BKLN
2016	<default>	<default>	SCARP/FAULT LINE	V-TOPO-BKLN
2017	<default>	<default>	DEBRIS PILE	V-TOPO-BKLN
2018	<default>	<default>	EDGE OF DISTURBANCE	V-TOPO-BKLN
2200	STRM_Drainage - Catch Basin (USACE)	<default>	CATCH BASIN	V-STRM-INLT
2201	<default>	<default>	CONCRETE	V-STRM-CHUT
2202	<default>	<default>	CONCRETE EDGE	V-SITE-OTLN
2203	<default>	<default>	CONCRETE REVETMENT	V-RRAP-RVMT
2204	<default>	<default>	ROAD OUTLINE - CONCRETE SURFACE	V-ROAD-CONC
2205	STRM_Culvert End Symbol (USACE)	<default>	CULVERT	V-STRM-CULV
2206	STRM_Curb Inlet (USACE)	<default>	CURB INLET	V-STRM-INLT
2207	<default>	<default>	DITCH	V-DTCH-TOP~
2208	<default>	<default>	DITCH BOTTOM	V-DTCH-BOTM
2209	<default>	<default>	DITCH CENTERLINE	V-DTCH-CNTR
2210	<default>	<default>	DITCH TOP	V-DTCH-TOP~
2211	STRM_Utility - Storm Drainage Device (USACE)	<default>	DRAIN	V-STRM-SUBS-PIPE
2213	<default>	<default>	DRAIN PIT	V-SSWR-JBOX
2214	STRM_Pump Station (USACE)	<default>	PUMP STATION	V-STRM-STNS- PUMP
2215	<default>	<default>	REVETMENT	V-RRAP-RVMT
2216	<default>	<default>	RIPRAP	V-RRAP-RVMT
2217	<default>	<default>	RIPRAP TOE	V-RRAP-RVMT
2218	<default>	<default>	RIPRAP TOP	V-RRAP-RVMT
2219	<default>	<default>	STORM LINE	V-STRM-MAIN-PIPE
2220	<default>	<default>	CONCRETE GUTTER	V-ROAD-CURB
2221	<default>	<default>	ROCK GUTTER	V-ROAD-CURB
2222	<default>	<default>	GAMBION EDGE	V-RRAP-GABN
2223	<default>	<default>	CONCRETE DITCH TOE	V-DTCH-BOTM
2224	<default>	<default>	CONCRETE DITCH TOP	V-DTCH-TOP~
2500	CHAN_Buoy (USACE)	<default>	BUOY	V-BCNS-MISC

Code	Point Style	Point Label Style	Format	Layer
2501	<default>	<default>	DIKE	V-TOPO-SHOR
2502	<default>	<default>	DIKE CROWN	V-TOPO-SHOR
2503	<default>	<default>	DIKE TOE	V-TOPO-SHOR
2504	<default>	<default>	DIKE TOP	V-TOPO-SHOR
2505	<default>	<default>	DOLPHIN	V-BCNS-MISC
2506	<default>	<default>	LEVEE	V-LEVE-OTLN
2507	<default>	<default>	RIFFLE	V-TOPO-SPOT
2508	<default>	<default>	SHEET PILE	V-FLD-PILE
2509	<default>	<default>	SWALE	V-DTCH-TOP~
2510	<default>	<default>	THALWEG	V-RIVR-CNTR
2511	<default>	<default>	WATER EDGE	V-SITE-EWAT
2512	CHAN_Location - Tide Gauge (USACE)	<default>	STUDY GAUGE	V-SITE-STRC
2513	<default>	<default>	RAIN GAGE	V-SITE-STRC
2514	CHAN_Float - Light (USACE)	<default>	NAVIGATION LIGHT	V-BCNS-STRB
2515	<default>	<default>	CHANNEL CENTERLINE	V-CHAN-CNTR
2516	<default>	<default>	CHANNEL TOP OF BANK	V-CHAN-BANK-TOP~
2700	<default>	<default>	BOG	V-WETL-BOGS
2701	<default>	<default>	CAT TAILS EDGE	V-WETL-PHOL
2702	WETL_Swamp (USACE)	<default>	SWAMP	V-WETL-SWMP
2703	<default>	<default>	WETLAND	V-WETL-IDEN
2704	<default>	<default>	VERNAL POOL	V-WETL-PHOL
3000	BORE_Core Drill Hole Drilled (USACE)	<default>	BORE HOLE	V-BORE-GENL-LOCN
3001	BORE_Cone Penetrometer Hole (USACE)	<default>	CONE PETROMETER	V-BORE-GPRO-LOCN
3002	BORE_Monitoring Well (USACE)	<default>	MONITORING WELL	V-BORE-GENL-LOCN
3003	<default>	<default>	MULTI-ELECTRODE ELECTRICAL RESISTIVITY	V-BORE-GENL-LOCN
3004	BORE_Piezometer (USACE)	<default>	PIEZOMETER	V-BORE-GENL-LOCN
3005	BORE_Core Drill Hole Drilled (USACE)	<default>	CORE DRILL HOLE	V-BORE-GENL-LOCN
3006	<default>	<default>	MONITORING DEVICE	V-BORE-GENL-LOCN
3007	BORE_Perc Test (USACE)	<default>	PERC TEST	V-BORE-GENL-LOCN
3008	BORE_Monitoring Well (USACE)	<default>	TEST WELL	V-BORE-GENL-IDEN
3009	BORE_Core Drill Hole Drilled (USACE)	<default>	SOIL BORING	V-BORE-GENL-LOCN
3010	BORE_Test Pit In Overburden (USACE)	<default>	TEST PIT (_#)	V-BORE-GENL-LOCN
3011	BORE_Monitoring Well (USACE)	<default>	MONITORING GROUND (_#)	V-BORE-GENL-LOCN
3012	BORE_Monitoring Well (USACE)	<default>	MONITORING WELL-TOP (_#)	V-BORE-GENL-LOCN
3013	BORE_Monitoring Well (USACE)	<default>	MONITORING WELL-PVC (_#)	V-BORE-GENL-LOCN

Code	Point Style	Point Label Style	Format	Layer
3014	BORE_Piezometer Or Observat Hole (USACE)	<default>	PIEZOMETERS GROUND (_#)	V-BORE-GENL-LOCN
3015	BORE_Piezometer Or Observat Hole (USACE)	<default>	PIEZOMETERS TOP (_#)	V-BORE-GENL-LOCN
3016	BORE_Piezometer Or Observat Hole (USACE)	<default>	PIEZOMETERS PVC (_#)	V-BORE-GENL-LOCN
3017	BORE_Relief Well (USACE)	<default>	RELIEF WELL	V-BORE-GENL-LOCN
3500	<default>	<default>	LANDSCAPE LIGHT	V-LITE-EXTR
3501	<default>	<default>	LANDSCAPE OUTLINE	V-SITE-VEGE
3502	SITE_VEGE - Coniferous Shrub (USACE)	<default>	SHRUB	V-SITE-VEGE-IDEN
3503	<default>	<default>	STUMP	V-SITE-VEGE-IDEN
3504	<default>	<default>	TREE CANOPY/DRIP EDGE	V-SITE-VEGE
3505	SITE_VEGE - Coniferous Tree (USACE)	<default>	\$1 \$2	V-SITE-VEGE-IDEN
3506	SITE_VEGE - Deciduous Tree (USACE)	<default>	\$1 \$2	V-SITE-VEGE-IDEN
3507	<default>	<default>	TREE LINE	V-SITE-VEGE
3508	<default>	<default>	LAWN EDGE	V-TOPO-BKLN
3509	<default>	<default>	CULTIVATION	V-TOPO-BKLN
3510	<default>	<default>	BRUSH LINE	V-SITE-VEGE
3511	SITE_VEGE - Generic Tree (USACE)	<default>	CACTUS	V-SITE-VEGE-IDEN
3512	SITE_VEGE - Generic Tree (USACE)	<default>	\$1 \$2	V-SITE-VEGE-IDEN
3513	SITE_VEGE - Deciduous Tree (USACE)	<default>	TREE, OAK	V-SITE-VEGE-IDEN
3514	SITE_VEGE - Deciduous Tree (USACE)	<default>	TREE, MAPLE	V-SITE-VEGE-IDEN
3515	SITE_VEGE - Deciduous Tree (USACE)	<default>	TREE, POPLAR	V-SITE-VEGE-IDEN
3516	SITE_VEGE - Coniferous Tree (USACE)	<default>	TREE, HICKORY	V-SITE-VEGE-IDEN
3517	SITE_VEGE - Deciduous Tree (USACE)	<default>	TREE, WALNUT	V-SITE-VEGE-IDEN
3518	SITE_VEGE - Deciduous Tree (USACE)	<default>	BEECH TREE	V-SITE-VEGE-IDEN
3519	SITE_VEGE - Deciduous Tree (USACE)	<default>	CHERRY TREE	V-SITE-VEGE-IDEN
3520	SITE_VEGE - Deciduous Tree (USACE)	<default>	TREE, GUM	V-SITE-VEGE-IDEN
3521	SITE_VEGE - Deciduous Tree (USACE)	<default>	TREE, LOCUST	V-SITE-VEGE-IDEN
3522	SITE_VEGE - Coniferous Tree (USACE)	<default>	TREE, PINE	V-SITE-VEGE-IDEN
3523	SITE_VEGE - Deciduous Tree (USACE)	<default>	CEDAR TREE	V-SITE-VEGE-IDEN
3524	<default>	<default>	SPRINKLER HEAD	V-WATR-DEVC
3525	SITE_VEGE - Coniferous Tree (USACE)	<default>	TREE, HEMLOCK	V-SITE-VEGE-IDEN

Code	Point Style	Point Label Style	Format	Layer
3526	SITE_VEGE - Coniferous Shrub (USACE)	<default>	SHRUB CONIFEROUS	V-SITE-VEGE-IDEN
3527	SITE_VEGE - Deciduous Shrub (USACE)	<default>	SHRUB DECIDUOUS	V-SITE-VEGE-IDEN
3528	SITE_VEGE - Deciduous Shrub (USACE)	<default>	SHRUB LINE	V-SITE-VEGE-IDEN
3529	WETL_Swamp (USACE)	<default>	MULCH EDGE	V-SITE-VEGE-IDEN
3530	SITE_VEGE - Deciduous Tree (USACE)	<default>	TREE, ELDERBERRY	V-SITE-VEGE-IDEN
3700	<default>	<default>	FLOODWALL	V-FLOD-TOP~
3701	<default>	<default>	FLOODWALL BASE	V-FLOD-BASE
3702	<default>	<default>	FLOODWALL CENTERLINE	V-FLOD-CNTR
3703	<default>	<default>	FLOODWALL TOP	V-FLOD-TOP~
3705	<default>	<default>	CENTERLINE LEVEE	V-LEVE-CNTR
3706	<default>	<default>	LEVEE SLOPE	V-LEVE-SLOP
3707	<default>	<default>	LEVEE TOE	V-LEVE-TOE~
3708	<default>	<default>	LEVEE TOP	V-LEVE-TOPB
3709	<default>	<default>	LEVEE BOIL	V-LEVE-OTLN
3710	<default>	<default>	LEVEE CROWN	V-LEVE-TOPB
3711	CHAN_Flood Gate (USACE)	<default>	FLOOD GATE	V-STRM-DEVC
3712	<default>	<default>	WATER SURFACE ELEVATION	V-TOPO-WATR
4000	COMM_Antenna (USACE)	<default>	ANTENNA	V-COMM-ANTN
4001	<default>	<default>	ELECTRIC OVERHEAD	V-PRIM-OVHD
4002	<default>	<default>	COMMUNICATION LINE UNDERGROUND	V-COMM-UGND
4003	COMM_Manhole - Communications (USACE)	<default>	COMMUNICATIONS MANHOLE	V-COMM-MHOL
4004	<default>	<default>	OVERHEAD MISCELLANEOUS	V-COMM-OVHD
4005	<default>	<default>	ELECTRIC UNDERGROUND	V-PRIM-UGND
4006	POWR_Manhole - Electrical (USACE)	<default>	ELECTRIC MANHOLE	V-POWR-JBOX
4007	DOMW_Hydrant - Pan (USACE)	<default>	FIRE HYDRANT	V-WATR-HYDT
4008	<default>	<default>	FUEL LINE	V-FUEL-MAIN-PIPE
4009	FUEL_Tank - Above Ground (USACE)	<default>	FUEL TANK	V-FUEL-TANK
4010	<default>	<default>	GAS LINE	V-NGAS-PIPE
4011	COMM_Pole - Aerial With Guying (USACE)	<default>	GUY POLE	V-COMM-POLE-GUYS
4012	POWR_Electrical - Guy Wire (USACE)	<default>	GUY WIRE	V-COMM-POLE-GUYS
4013	POWR_Electrical - Handhole (USACE)	<default>	HANDHOLE	V-POWR-JBOX
4014	STRM_Headwall (USACE)	<default>	HEADWALL	V-STRM-HWAL
4015	WATR_Hydrant - One Hose Outlet (USACE)	<default>	HOSE BIB	V-WATR-DEVC
4016	<default>	<default>	INDUSTRIAL WASTE LINE	V-INDW-MAIN-PIPE

Code	Point Style	Point Label Style	Format	Layer
4017	STRM_Culvert End Symbol (USACE)	<default>	INVERT	V-STRM-IDEN
4018	<default>	<default>	JUNCTION BOX	V-POWR-JBOX
4019	<default>	<default>	LIFT STATION	V-INDW-STNS-LIFT
4020	STRM_Utility - Storm Drainage Manhole (USACE)	<default>	MANHOLE COVER	V-STRM-MHOL
4021	WATR_Utility-Water Meter (USACE)	<default>	METER	V-WATR-METR
4022	STRM_Oil Water Separator (USACE)	<default>	OIL WATER SEPERATOR	V-STRM-DEVC
4023	POWR_Electrical - Panel (USACE)	<default>	PANEL	V-POWR-JBOX
4024	<default>	<default>	PEDESTAL	V-POWR-JBOX
4025	<default>	<default>	PIPELINE TEST LEAD	V-WATR-DEVC
4026	SITE_VEGE - Coniferous Tree (USACE)	<default>	TREE, SPRUCE	V-SITE-VEGE-IDEN
4027	SSWR_Utility - Sanitary Manhole (USACE)	<default>	SANITARY MANHOLE	V-SSWR-IDEN
4028	SITE_Satellite Dish (USACE)	<default>	SATELLITE DISH	V-SITE-STRC
4029	SSWR_Utility - Septic Tank (USACE)	<default>	SEPTIC TANK	V-SSWR-TANK
4030	POWR_Transformer - Constant Current (USACE)	<default>	TRANSFORMER	V-POWR-XFMR-PADM
4031	<default>	<default>	UTILITY LINE OVERHEAD	V-PRIM-OVHD
4032	<default>	<default>	UTILITY LINE UNDERGROUND	V-PRIM-UGND
4033	SITE_Pole - Utility (USACE)	<default>	UP \$1	V-POWR-POLE
4034	WATR_Valve - General (USACE)	<default>	VALVE	V-WATR-DEVC
4035	WATR_Utility-Water Valve Vault (USACE)	<default>	VAULT	V-WATR-DEVC
4036	<default>	<default>	VENT PIPE	V-WATR-DEVC
4037	<default>	<default>	WATERLINE	V-WATR-MAIN-PIPE
4038	<default>	<default>	WELL HOUSE	V-WATR-WELL
4039	<default>	<default>	WITNESS POST	V-SSWR-SIGN
4040	<default>	<default>	OVERHEAD CABLE TV	V-COMM-OVHD
4042	<default>	<default>	FIBER OPTIC OVERHEAD	V-COMM-OVHD
4043	<default>	<default>	FIBER OPTIC UNDERGROUND	V-COMM-UGND
4044	<default>	<default>	DRAIN FIELD	V-SSWR-NITF
4045	<default>	<default>	DRY WELL	V-WATR-WELL
4046	<default>	<default>	DUCT	V-DBNK-MULT
4047	<default>	<default>	JET FUEL LINE	V-FUEL-MAIN-PIPE
4048	<default>	<default>	LEACH LINE	V-SSWR-LEAC
4049	<default>	<default>	LEAK DETECTOR	V-SSWR-DEVC
4050	<default>	<default>	LINE DROP	V-SSWR-DEVC
4051	<default>	<default>	LIQUID PROPANE	V-FUEL-SERV-PIPE
4052	<default>	<default>	PHONE LINE OVERHEAD	V-COMM-OVHD

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4053	<default>	<default>	PHONE LINE UNDERGROUND	V-COMM-UGND
4054	COMM_Pedestal - Communications (USACE)	<default>	PHONE PEDESTAL	V-COMM-JBOX
4055	<default>	<default>	PIPELINE SUPPORT	V-SITE-STRC
4056	<default>	<default>	PIPELINE	V-NGAS-PIPE
4057	<default>	<default>	WELL	V-WATR-WELL
4058	HTCW_Steam Pit (USACE)	<default>	STEAM PIT	V-HTCW-JBOX
4059	<default>	<default>	STEAM LINE	V-HTCW-STEM-MAIN
4060	<default>	<default>	STAKE SET _# (LAYOUT)	V-SURV-DATA
4061	<default>	<default>	FUEL PIT	V-FUEL-VALT
4062	<default>	<default>	FUEL PUMP	V-FUEL-STNS-PUMP
4063	SSWR_Utility - Sanitary Cleanout (USACE)	<default>	CLEANOUT	V-SSWR-DEVC
4064	POWR_Pole - Light - One Arm (USACE)	<default>	LIGHT POLE	V-LITE-EXTR
4065	WATR_Utility-Water Meter (USACE)	<default>	WATER METER	V-WATR-METR
4066	NGAS_Utility - Natural Gas - Meter (USACE)	<default>	GAS METER	V-NGAS-METR
4067	POWR_Electrical - Meter (USACE)	<default>	ELECTRICAL METER	V-POWR-METR
4068	WATR_Valve - General (USACE)	<default>	WATER VALVE	V-WATR-VALT
4069	NGAS_Valve General (USACE)	<default>	GAS VALVE	V-NGAS-VALT
4070	NGAS_Utility - Natural Gas - Manhole (USACE)	<default>	GAS MANHOLE	V-COMM-MHOL
4071	<default>	<default>	WING WALL	V-STRM-HWAL
4072	<default>	<default>	WATER SPIGOT	V-WATR-DEVC
4073	COMM_Manhole - Communications (USACE)	<default>	CABLE TV MANHOLE	V-COMM-MHOL
4074	COMM_Junction Box (USACE)	<default>	CABLE TV JUNCTION BOX	V-COMM-JBOX
4075	<default>	<default>	CABLE TV LINE MARKER	V-COMM-UGND-IDEN
4076	<default>	<default>	CABLE TV PAINT MARKER	V-COMM-UGND-IDEN
4077	<default>	<default>	CABLE TV SERVICE	V-COMM-EQPM
4078	<default>	<default>	PULL BOX	V-COMM-JBOX
4079	<default>	<default>	ELECTRICAL LINE MARKER	V-POWR-IDEN
4080	<default>	<default>	ELECTRICAL PAINT MARK	V-POWR-IDEN
4082	<default>	<default>	GROUND LIGHT	V-LITE-EXTR
4083	COMM_Manhole - Communications (USACE)	<default>	FIBER OPTIC MANHOLE	V-COMM-MHOL
4084	COMM_Junction Box (USACE)	<default>	FIBER OPTIC JUNCTION BOX	V-COMM-JBOX
4085	<default>	<default>	FIBER OPTIC LINE MARKER	V-COMM-UGND-IDEN

Code	Point Style	Point Label Style	Format	Layer
4086	<default>	<default>	FIBER OPTIC PAINT MARK	V-COMM-UGND-IDEN
4087	<default>	<default>	FIBER OPTIC SERVICE	V-COMM-EQPM
4088	POWR_Pole - Light - One Arm (USACE)	<default>	ELECTRICAL POLE	V-POWR-POLE
4089	POWR_Pole - Utility (USACE)	<default>	ELECTRICAL/TELEPHONE POLE	V-POWR-POLE
4090	POWR_Pole - Utility (USACE)	<default>	ELECTRICAL/TELEPHONE/CABLE POLE	V-POWR-POLE
4092	POWR_Pole - Utility (USACE)	<default>	ELECTRICAL/TELEPHONE/LIGHT/CABLE POLE	V-POWR-POLE
4093	POWR_Pole - Utility (USACE)	<default>	ELECTRICAL/CABLE POLE	V-POWR-POLE
4094	POWR_Pole - Utility (USACE)	<default>	ELECTRICAL/TELEPHONE/LIGHT/CABLE POLE	V-POWR-POLE
4095	POWR_Pole - Utility (USACE)	<default>	ELECTRICAL/LIGHT POLE	V-POWR-POLE
4096	COMM_Pole - Utility (USACE)	<default>	TELEPHONE POLE	V-COMM-POLE
4097	COMM_Pole - Utility (USACE)	<default>	TELEPHONE/CABLE POLE	V-POWR-POLE
4098	COMM_Pole - Utility (USACE)	<default>	TELEPHONE/CABLE/LIGHT POLE	V-POWR-POLE
4099	COMM_Pole - Utility (USACE)	<default>	TELEPHONE/LIGHT POLE	V-POWR-POLE
4100	COMM_Pole - Utility (USACE)	<default>	CABLE POLE	V-COMM-POLE
4101	COMM_Pole - Utility (USACE)	<default>	CABLE/LIGHT POLE	V-COMM-POLE
4102	<default>	<default>	LIGHT POST (DECORATIVE)	V-LITE-EXTR
4103	COMM_Pole - Signal (USACE)	<default>	SIGNAL POLE	V-COMM-POLE
4104	<default>	<default>	SIGNAL POLE	V-COMM-POLE
4105	<default>	<default>	SIGNAL CONTROL BOX	V-COMM-JBOX
4106	<default>	<default>	GAS LINE MARKER	V-NGAS-METR
4107	<default>	<default>	GAS PAINT MARK	V-NGAS-IDEN
4108	<default>	<default>	GAS VENT PIPE	V-NGAS-VALT
4109	<default>	<default>	FUEL ACCESS LID	V-NGAS-VALT
4110	<default>	<default>	GAS WELL	V-FUEL-JBOX
4111	NGAS_Tank - Below Ground (USACE)	<default>	UNDERGROUND TANK	V-NGAS-TANK
4113	<default>	<default>	GAS REGULATOR	V-FUEL-DEVC
4114	<default>	<default>	GAS WELL (ABANDONED)	V-FUEL-DEVC
4115	<default>	<default>	OIL WELL	V-FUEL-DEVC
4116	SSWR_Utility - Sanitary Invert (USACE)	<default>	SANITARY LINE INVERT	V-SSWR-MAIN-PIPE
4117	<default>	<default>	LEACHING FIELD	V-SSWR-LEAC
4118	<default>	<default>	SANITARY PARK MARK	V-SSWR-IDEN
4119	<default>	<default>	STORM MANHOLE	V-STRM-MHOL
4120	<default>	<default>	DROP INLET SQUARE	V-STRM-INLT

Code	Point Style	Point Label Style	Format	Layer
4121	STRM_Culvert End Symbol (USACE)	<default>	STORM LINE INVERT (XX-SIZE)	V-STRM-MAIN-PIPE
4122	<default>	<default>	TRENCH DRAIN	V-STRM-SUBS-PIPE
4123	<default>	<default>	INLET OUTLINE	V-STRM-INLT
4124	<default>	<default>	DOWNSPOUT	V-STRM-DEVC
4125	COMM_Manhole - Telephone (USACE)	<default>	TELEPHONE MANHOLE	V-COMM-MHOL
4126	COMM_Junction Box (USACE)	<default>	TELEPHONE JUNCTION BOX/PEDESTAL	V-COMM-JBOX
4127	<default>	<default>	TELEPHONE LINE MARKIER	V-COMM-UGND-IDEN
4128	<default>	<default>	TELEPHONE PAINT MARKIER	V-COMM-UGND-IDEN
4129	<default>	<default>	TELEPHONE SERVICE	V-COMM-EQPM
4130	<default>	<default>	PHONE BOOTH	V-COMM-EQPM
4131	<default>	<default>	CABLE TV OVERHEAD	V-COMM-OVHD
4132	<default>	<default>	COMMUNICATION LINE OVERHEAD	V-COMM-OVHD
4133	<default>	<default>	OVERHEAD TELEPHONE LINE	V-COMM-OVHD
4134	<default>	<default>	UNDERGROUND TELEPHONE LINE	V-COMM-UGND
4135	<default>	<default>	UNDERGROUND CABLE TV	V-COMM-UGND
4136	<default>	<default>	UNDERGROUND MISCELLANEOUS	V-COMM-UGND
4137	WATR_Utility-Water Manhole (USACE)	<default>	WATER MANHOLE	V-WATR-VALT
4138	WATR_Valve - General (USACE)	<default>	4" POST WITH CABLE	V-WATR-DEVC
4139	<default>	<default>	WATER VALVE VAULT	V-WATR-VALT
4140	<default>	<default>	WATER LINE MARKER	V-WATR-SIGN
4141	<default>	<default>	WATER PAINT MARK	V-WATR-SIGN
4142	<default>	<default>	SPOT ELEVATION OTHER THAN SOIL	V-TOPO-SPOT
4143	<default>	<default>	WATER FOUNTAIN	V-WATR-DEVC
4144	<default>	<default>	WATER BASIN	V-WATR-DEVC
4145	<default>	<default>	WATER TOWER/TANK	V-WATR-TANK
4146	<default>	<default>	BOX CULVERT	V-STRM-CULV
4147	<default>	<default>	TOP PIPE (_SIZE & TYPE)	V-STRM-IDEN
4148	<default>	<default>	CORRUGATED METAL PIPE (INV)	V-STRM-CULV
4149	<default>	<default>	CORRUGATED PLASTIC PIPE	V-STRM-CULV
4150	<default>	<default>	DUCTILE IRON PIPE	V-STRM-CULV
4151	<default>	<default>	CONCRETE PIPE	V-STRM-CULV
4152	<default>	<default>	STEEL PIPE	V-STRM-CULV
4153	<default>	<default>	PVC PIPE	V-STRM-CULV
4154	<default>	<default>	CLAY PIPE	V-STRM-CULV
4155	<default>	<default>	COMMUNICATIONS VAULT	V-COMM-JBOX
4156	<default>	<default>	TELEPHONE VAULT	V-COMM-JBOX

Code	Point Style	Point Label Style	Format	Layer
4157	<default>	<default>	STEAM MANHOLE	V-HTCW-JBOX
4158	INDW_Industrial Waste Water Manhole (USACE)	<default>	INDUSTRIAL WASTE MANHOLE	V-INDW-DEVC
4160	<default>	<default>	MISCELLANEOUS/UNMARKED MAHOLE	V-SURV-SYMB
4500	<default>	<default>	BUILDING	V-BLDG-FTPT
4501	<default>	<default>	DECK	V-BLDG-DECK
4502	<default>	<default>	FINISHED FLOOR ELEVATION	V-BLDG-FTPT
4503	<default>	<default>	MISCELLANEOUS SITE STRUCTURES	V-SITE-STRC
4504	<default>	<default>	OVERHANG	V-BLDG-OVHD
4505	<default>	<default>	PORCH	V-BLDG-PRCH
4506	<default>	<default>	RAMP	V-SITE-STRS
4507	<default>	<default>	STEPS	V-SITE-STRS
4508	SITE_Tower (USACE)	<default>	TOWER	V-SITE-STRC
4509	<default>	<default>	TOWER CENTER	V-SITE-STRC
4510	<default>	<default>	WALL	V-SITE-STRC
4511	<default>	<default>	LOADING DOCK	V-BLDG-DOCK
4512	<default>	<default>	MARINE DOCK	V-BLDG-DOCK
4513	<default>	<default>	TABLE	V-SITE-STRC
4514	<default>	<default>	HANDRAIL	V-SITE-FENC
4515	<default>	<default>	EDGE OF CANOPY	V-BLDG-OVHD
4516	<default>	<default>	OUTBUILDING/SHED	V-BLDG-FTPT
4517	FUEL_Tank - Above Ground (USACE)	<default>	ABOVE GROUND STORAGE TANK	V-FUEL-TANK
4518	<default>	<default>	COLUMN	V-SITE-STRC
4519	<default>	<default>	RUINS	V-SITE-OTLN
5000	<default>	<default>	CURB TOP BACK	V-ROAD-CURB
5001	<default>	<default>	CURB TOP FACE	V-ROAD-CURB
5002	<default>	<default>	CURB GUTTER FLOW LINE	V-ROAD-CURB
5003	<default>	<default>	GUARD RAIL	V-ROAD-GRAL
5004	<default>	<default>	ROAD OUTLINE - ASPHALT SURFACE	V-ROAD-ASPH
5006	<default>	<default>	EDGE OF ROAD	V-ROAD-OTLN
5007	<default>	<default>	ROAD OUTLINE - GRAVEL SURFACE	V-SITE-STRC
5008	<default>	<default>	ROAD OUTLINE - UNPAVED SURFACE	V-ROAD-UPVD
5009	<default>	<default>	SHOULDER EDGE	V-ROAD-SHLD
5010	<default>	<default>	TRAFFIC SIGNAL POST	V-SPCL-TRAF
5011	SPCL_Traffic Signal - Controller (USACE)	<default>	TRAFFIC SIGNAL BOX	V-SPCL-TRAF
5012	<default>	<default>	DRIVEWAY EDGE	V-ROAD-OTLN
5013	<default>	<default>	PARKING METER	V-PRKG-FIXT
5014	<default>	<default>	CENTERLINE OF ROADWAY	V-ROAD-CNTR
5015	<default>	<default>	EDGE OF SHOULDER (CONCRETE)	V-ROAD-SHLD

Code	Point Style	Point Label Style	Format	Layer
5016	<default>	<default>	EDGE OF SHOULDER (ASPHALT)	V-ROAD-SHLD
5017	<default>	<default>	EDGE OF SHOULDER (GRAVEL)	V-ROAD-SHLD
5018	<default>	<default>	EDGE OF DRIVEWAY (CONCRETE)	V-ROAD-OTLN
5019	<default>	<default>	EDGE OF DRIVEWAY (ASPHALT)	V-ROAD-OTLN
5020	<default>	<default>	EDGE OF DRIVEWAY (GRAVEL)	V-ROAD-OTLN
5021	<default>	<default>	HIGH POINT LINE OF ROAD	V-ROAD-IDEN
5022	<default>	<default>	LIP OF GUTTER	V-ROAD-CURB
5500	<default>	<default>	CURB STOP	V-ROAD-CURB
5501	<default>	<default>	JOINT	V-PVMT-PATT
5502	<default>	<default>	JOINT CONSTRUCTION	V-JNTS-CNSL
5503	<default>	<default>	JOINT CONTRACTION	V-JNTS-CNTL
5504	<default>	<default>	JOINT EXPANSION	V-JNTS-EXPJ
5505	<default>	<default>	PAVEMENT STRIPING/MARKING	V-PVMT-MRKG
5506	<default>	<default>	SIDEWALK	V-SITE-WALK
5507	<default>	<default>	PAVEMENT EDGE	V-ROAD-OTLN
5508	STRM_Drainage - Catch Basin (USACE)	<default>	CATCH BASIN	V-STRM-INLT
5509	<default>	<default>	ASPHALT SURFACE SPOT	V-RIVR-IDEN
5510	<default>	<default>	EDGE OF PARKING LOT	V-PRKG-OTLN
5511	<default>	<default>	SIDEWALK (CONCRETE)	V-SITE-WALK
5512	<default>	<default>	SIDEWALK (ASPHALT)	V-SITE-WALK
5513	<default>	<default>	EDGE OF CONCRETE SLAB/PAD	V-SITE-STRC
5514	<default>	<default>	HANDICAP RAMP	V-SITE-WALK
6000	PRKG_Ballast (USACE)	<default>	BALLAST	V-PRKG-FIXT
6001	<default>	<default>	RAILROAD FROG_L	V-RAIL-EQPM
6002	<default>	<default>	RAILROAD FROG_R	V-RAIL-EQPM
6003	<default>	<default>	RAILROAD RAIL TOP	V-RAIL-TRAK
6004	<default>	<default>	RAILROAD CENTERLINE	V-RAIL-CNTR
6005	RAIL_Switch (USACE)	<default>	RAILROAD SWITCH	V-RAIL-EQPM
6007	<default>	<default>	TRACKS (RAIL)	V-RAIL-TRAK
6008	<default>	<default>	TRACKS (CENTERLINE)	V-RAIL-CNTR
6009	<default>	<default>	EDGE OF TIES	V-RAIL-IDEN
6010	<default>	<default>	POINT OF FROG	V-RAIL-EQPM
6011	<default>	<default>	BUMPING POST	V-RAIL-EQPM
6012	<default>	<default>	RAILROAD SIGNAL POLES	V-RAIL-EQPM
6013	<default>	<default>	RAILROAD DWARF SIGNAL	V-RAIL-EQPM
6014	<default>	<default>	RAILROAD CONTROL BOX	V-RAIL-EQPM
6015	<default>	<default>	BALLAST (EDGE)	V-RRAP-RVMT
6016	<default>	<default>	CROSSING GATE	V-RAIL-EQPM
6500	AFLD_Light - Approach (USACE)	<default>	APPROACH LIGHT	V-AFLD-LITE-APPR

Code	Point Style	Point Label Style	Format	Layer
6501	<default>	<default>	APRON	V-APRN-GRND
6502	<default>	<default>	APRON SHOULDER	V-APRN-SHLD
6503	<default>	<default>	ASPHALT REVETMENT	V-RRAP-RVMT
6504	<default>	<default>	ASPHALT REVETMENT EDGE	V-RRAP-RVMT
6505	<default>	<default>	GROUNDING LOOP	V-APRN-GRND
6506	<default>	<default>	RUNWAY	V-RUNW-EDGE
6507	AFLD_Light - Runway (USACE)	<default>	RUNWAY LIGHT	V-AFLD-LITE-RUNW
6508	<default>	<default>	RUNWAY SHOULDER	V-RUNW-SHLD
6509	<default>	<default>	TAXIWAY	V-TAXI-OTLN
6510	<default>	<default>	TAXIWAY CENTERLINE	V-TAXI-CNTR
6511	AFLD_Light - Taxiway (USACE)	<default>	TAXIWAY LIGHT	V-AFLD-LITE-TAXI
6512	<default>	<default>	TAXIWAY SHOULDER	V-TAXI-SHLD
6513	AFLD_Light - Threshold (USACE)	<default>	THRESHOLD LIGHT	V-AFLD-LITE-THRS
7000	<default>	<default>	BRIDGE ABUTMENT	V-BRDG-OTLN
7001	<default>	<default>	BRIDGE ABUTMENT END	V-BRDG-OTLN
7002	<default>	<default>	BRIDGE ABUTMENT TOE	V-BRDG-OTLN
7003	<default>	<default>	BRIDGE ABUTMENT TOP	V-BRDG-OTLN
7004	<default>	<default>	BRIDGE ARCH	V-BRDG-DECK
7005	<default>	<default>	BRIDGE CORNER	V-BRDG-DECK
7006	<default>	<default>	BRIDGE DECK	V-BRDG-DECK
7007	<default>	<default>	BRIDGE RAIL	V-BRDG-RLG~
7008	<default>	<default>	BRIDGE CENTERLINE	V-BRDG-CNTR
7009	<default>	<default>	BRIDGE OUTLINE	V-BRDG-OTLN
7010	<default>	<default>	LOW CHORD	V-BRDG-CHRD-LOW~
7011	<default>	<default>	PIER	V-CHAN-DOCK
7012	<default>	<default>	BRIDGE EXPANSION JOINT	V-BRDG-CTLJ
7013	<default>	<default>	BRIDGE APPROACH SLAB	V-PVMT-CONC
7500	SITE_Barricade (USACE)	<default>	BARRICADE	V-SITE-STRC
7501	<default>	<default>	BILLBOARD	V-SITE-STRC
7502	<default>	<default>	BOLLARD	V-SITE-STRC
7503	<default>	<default>	EQUIPMENT OUTLINE	V-SITE-OTLN
7504	<default>	<default>	FENCE	V-SITE-FENC
7505	SITE_Fence Post (USACE)	<default>	FENCE POST	V-SITE-FENC
7506	<default>	<default>	FLAG POLE	V-SITE-STRC
7507	<default>	<default>	FOX HOLE	V-MILR-FOXH
7508	<default>	<default>	GATE_L	V-SITE-FENC
7509	<default>	<default>	GATE_P	V-SITE-FENC
7510	<default>	<default>	GRAVEL EDGE	V-ROAD-GRVL
7511	<default>	<default>	LAWN SPRINKLER	V-WATR-DEVC
7512	<default>	<default>	LIGHT	V-LITE-EXTR
7513	SITE_Mailbox (USACE)	<default>	MAIL BOX	V-SITE-STRC
7514	<default>	<default>	PAD	V-SITE-STRC
7515	<default>	<default>	PIPE_L	V-SITE-STRC
7516	<default>	<default>	PIPE_P	V-SITE-STRC
7517	<default>	<default>	POLE	V-SITE-STRC

Code	Point Style	Point Label Style	Format	Layer
7518	SITE_Fence Post (USACE)	<default>	POST	V-SITE-STRC
7519	<default>	<default>	ROCK	V-SITE-ROCK
7520	SITE_Sign (USACE)	<default>	SIGN	V-ROAD-SIGN
7521	WATR_Tank - Above Ground (USACE)	<default>	TANK	V-WATR-TANK
7522	<default>	<default>	TARGET	V-MILR-MATS
7523	<default>	<default>	TRAIL	V-SITE-WALK
7524	<default>	<default>	BANK	V-CHAN-BANK-TOP~
7525	<default>	<default>	BANK TOE	V-CHAN-TOE~
7526	<default>	<default>	BANK TOP	V-CHAN-BANK-TOP~
7527	<default>	<default>	BORROW PIT	V-BORW-LINE
7528	<default>	<default>	BORROW PIT TOE	V-BORW-LINE
7529	<default>	<default>	BORROW PIT TOP	V-BORW-LINE
7530	<default>	<default>	CATTLE GUARD	V-SITE-STRC
7531	<default>	<default>	DUNE	V-SITE-IDEN
7532	<default>	<default>	SPOIL	V-BORW-LINE
7533	<default>	<default>	TRAIL EDGE	V-SITE-WALK
7534	<default>	<default>	BERM	V-LEVE-BERM
7535	<default>	<default>	BERMCL	V-LEVE-BERM
7536	<default>	<default>	BERMCRWN	V-LEVE-BERM
7537	<default>	<default>	BERMTOE	V-LEVE-BERM
7538	<default>	<default>	BERMTOP	V-LEVE-BERM
7539	<default>	<default>	MILE MARKER	V-ROAD-SIGN
7540	<default>	<default>	HEADSTONE	V-SITE-STRC
7541	<default>	<default>	CEMETERY	V-SITE-STRC
7542	<default>	<default>	MULTI-POLE SIGN	V-ROAD-SIGN
7543	<default>	<default>	TRAILER 9CORNER)	V-SITE-STRC
7544	<default>	<default>	BUS STOP (CORNER)	V-ROAD-OTLN
7546	<default>	<default>	BBQ GRILL/FIRE PIT	V-SITE-STRC
7547	<default>	<default>	TICKET MACHINE	V-PRKG-FIXT
7548	<default>	<default>	ATM MACHINE	V-SITE-STRC
7549	<default>	<default>	BUMPER BLOCK	V-PRKG-FIXT
7550	<default>	<default>	PATIO (EDGE)	V-SITE-STRC
7552	<default>	<default>	BASKETBALL POLE	V-SITE-STRC
7553	<default>	<default>	POOL	V-SITE-STRC
7554	<default>	<default>	HVAC UNTI (TOP CENTER)	V-SITE-STRC
7555	<default>	<default>	HVAC UNIT OUTLINE	V-SITE-FENC
7556	<default>	<default>	FENCE, BARB WIRE	V-SITE-FENC
7557	<default>	<default>	FENCE, CHAIN LINK	V-SITE-FENC
7558	<default>	<default>	FENCE, WOOD	V-SITE-FENC
7559	<default>	<default>	FENCE, WOVEN WIRE	V-SITE-FENC
7560	<default>	<default>	GATE	V-SITE-FENC
7561	<default>	<default>	TOP EDGE OF WALL	V-SITE-FENC
7562	<default>	<default>	BOTTOM EDGE OF WALL	V-SITE-FENC
VLTGAS*	<default>	<default>	GAS VAULT	V-NGAS-VALT
VLTSEPTIC*	<default>	<default>	SANITARY SEWER VAULT	V-SSWR-JBOX
VLTSTEAM*	<default>	<default>	STEAM VAULT	V-HTCW-JBOX

12.5.3 Create Point Codes (USACE)

The “Create Point Codes (USACE)” Description Key Set is intended for use in the creation of proposed COGO Points for Airfield and Boring locations. The table below outlines the keys in this set and the properties they assign. The asterisk (*) shown for some of the description keys is a wild card that allows the key to be used even if additional characters are included at the end of the matching description.

Code	Point Style	Point Label Style	Format	Layer
BORPR*	C_BORE_Proposed Borin Location (USACE)	<default>	PROPOSED BORING	C-TOPO-BORE
LTAPP*	C_AFLD_Light - Approach (USACE)	<default>	APPROACH LIGHT	C-AFLD-LITE-APPR
LTRW*	C_AFLD_Light - Runway (USACE)	<default>	RUNWAY LIGHT	C-AFLD-LITE-RUNW
LTAXI*	C_AFLD_Light - Taxiway (USACE)	<default>	TAXIWAY LIGHT	C-AFLD-LITE-TAXI
LTTRSH*	C_AFLD_Light - Threshold (USACE)	<default>	THRESHOLD LIGHT	C-AFLD-LITE-THRS
WINDCONE*	C_AFLD_Windcone (USACE)	<default>	WINDCONE	C-AFLD-BCNS-MISC

12.6 Point Tables

These Styles are used to dictate how Point Tables will be displayed, what information they will contain, and the formatting of those contents.

- *G_SCHD_Navigation_Aids (USACE)*
- *G_SCHD_Num_Lat_Long (USACE)*
- *G_SCHD_Num_North_East_Elev_Desc_Atts_1-10 (USACE)*
- *G_SCHD_Obstruction_Data (USACE)*
- *G_SCHD_Primary_SPI_PVI (USACE)*
- *G_SCHD_Project_Limits_By_PT_Name (USACE)*
- *G_SCHD_Project_Limits_By_PT_Num (USACE)*
- *G_SCHD_Secondary_SPI_PVI (USACE)*
- *G_SCHD_Sediment_Sample (USACE)*
- *G_SCHD_Survey_Control_Data (USACE)*
- *G_SCHD_Survey_Control_Points (USACE)*
- *G_SCHD_Water_Quality (USACE)*

12.7 Point Groups

The USACE Templates contain 9 Point Groups that can be used to quickly isolate, select, and change the display of desired groups of Points in drawings. While some of these are already set up with the information necessary to isolate certain types of points, others exist as placeholders that can be filled in with the desired criteria by the user. The 9 standard Point Groups are described in the table below:

Point Group	Criteria	Point Style	Label Style	Overrides?
Obstructions	(Placeholder)	_V_TOPO_Spot [x] (USACE)	V_Num_Elev_Desc (USACE)	None
Navigation Aids	Raw Descriptions Matching: BUOY*, FLDGATE*, NAVLGT*, STGAGE*, 2500, 2512, 2514, 3711	_V_TOPO_Spot [x] (USACE)	V_Num_Elev_Desc (USACE)	None
Soundings for Shallow-Beach	(Placeholder)	HYDS_Sounding [xx.x] (USACE)	V_Soundings Depth Only (USACE)	None
Soundings Above Depth	(Placeholder)	HYDS_Sounding [xx.x] (USACE)	V_Soundings Depth Only (USACE)	None
Soundings Below Depth	(Placeholder)	HYDS_Sounding [xx.x] (USACE)	V_Soundings Depth Only_No Negative (USACE)	None
Survey Control Points	Raw Descriptions Matching: 101, 103, 104, 105, 106, 116, 119, 120, 121, 122, 126, 127, 128, 129, 130, 131, 132, 133, 134, BENCHTIE*, BM*, BONBOLTHYDRANT*, CHISSQUARE, CONNGS*, CONUSGS*, CP, CPT*, ELEVCHK*, MON, PHOTOC*, RRSPIKE, TBM*, USACECAP*, USACECONCMON*, USACEDISK*, USACEPED*, USACEPLUG*, VERTICALDISK	_V_TOPO_Spot [x] (USACE)	V_Survey Control – Label (USACE)	None
Points to Triangulate	EXCLUDE Raw Descriptions Matching: AERIALPANEL*, CLN*, GRNPNT*, APRON*, APNSHLD, ABUT*, ARCH*, ASPHREV*, BANK*, BASELINE*, BERM*, BFW*, BLDG*, BOG*, BOIL*, BORPIT*, BRAPPSLAB*, BRDG*, BRK*, BRUSH*, BTMDITCH*, BUMP*, CAT*, CFW*, CL*, COM*, CONC*, CONDT*, CPAD*, CROSSGATE*, CULT*, CURBSTOP*, DEBRIS*, DECK*, DIKE*, DITCH*, DL*, DRAIN*, DUNE*, EC*, EDITCH*, EDR*, EGRD*, ELLMRK*, ELPMRK*, EO*, EPL*, EQOL*, ER*, ESW*, FAR*, FFE*, FIBEROH*, FIBERPOST*, FLDWALL*, FNC*, FOPMRK*, FUEL*, FXHOL*, GAS*, GATE*, GFL*, GL*, GRAIL*, GUTTER*, HANDRAIL*, HC*, HIGHWALL*, HW*, INWL*, JF*, JNT*, LAWNEDGE*, LCHRD*, LDOCK*, LEACH*, LEVEE*, LIP*, LIQPRO*, MDOCK*, MISSTRUCT*, MULCHLINE*, LSOUT*, OH*, OILWELL*, OVERHANG*, PAD*, PAINT*, PIER*, PIPELINE*, POOL*, PORCH*, RAMPS*, REV*, RIFFLE*, RIPRAP*, RNW*, ROCK*, RR*, RUINS*, RW*, SANPMARK*, SHED*, SHRUBLINE*, SLOPE*, SP*, SSLN*, STEAMLINE*, STEPS*, STLN*, SWALE*, SWMP*, TBC*, TELE*, TEWALL*, TFC*, TFW*, THALWEG*, TL*, TOE*, TOP*, TRAIL*, TWR*, TXW*, UG*, WALL*, WELLHSE*, WL*, WTLND*, WTR*, WW*, ABANDGASWELL*, DUCT*	_V_TOPO_Spot [x] (USACE)	V_Elev Only (USACE)	None

Point Group	Criteria	Point Style	Label Style	Overrides?
No Show	All Points	<none>	<none>	None
No Show (overrides)	All Points	<none>	<none>	Point Style, Point Label Style

13 SURFACES CONFIGURATION

This section outlines the configuration and styles used by Surfaces, Surface Labels, and Surface Tables. These are accessed and managed on the “Settings” tab of the Toolspace under the “Surface” category.

13.1 Surface Styles

These Styles are used to dictate how Surfaces will be displayed.

- *_No_Display (USACE)*
- *C_TOPO_Contours_1ft_5ft (USACE)*
- *C_TOPO_Contours_2ft_10ft (USACE)*
- *G_Analysis_Elevation (USACE)*
- *G_Analysis_Slopes (USACE)*
- *G_Analysis_Watershed (USACE)*
- *G_Review_TIN_Blue (USACE)*
- *G_Review_TIN_Red (USACE)*
- *G_Review_TIN_Yellow (USACE)*
- *G_TOPO_Border_Only (USACE)*
- *G_TOPO_Surface_Edits (USACE)*
- *V_HYDS_Contours_1ft_2ft (USACE)*
- *V_HYDS_Contours_2ft_10ft (USACE)*
- *V_HYDS_Contours_2ft_10ft_with_MLLW (USACE)*
- *V_TOPO_Contours_1ft_5ft (USACE)*
- *V_TOPO_Contours_2ft_10ft (USACE)*

13.2 Surface Label Styles

Surfaces have multiple types of Labels. Each label type has its own set of Styles.

13.2.1 Contour

These Styles are used to dictate how Surface Contour Labels will be displayed and the information they contain.

- *C_TOPO_Major (USACE)*
- *C_TOPO_Minor (USACE)*
- *C_TOPO_User (USACE)*
- *V_HYDS_Major (USACE)*
- *V_HYDS_Minor (USACE)*
- *V_HYDS_MLLW (USACE)*
- *V_TOPO_Major (USACE)*
- *V_TOPO_Minor (USACE)*
- *V_TOPO_Minor Slant (USACE)*
- *V_TOPO_User (USACE)*

13.2.2 Slope

These Styles are used to dictate how Surface Slope Labels will be displayed and the information they contain.

- *C_TOPO_Grade (USACE)*
- *C_TOPO_Slope (USACE)*
- *V_TOPO_Grade (USACE)*
- *V_TOPO_Slope (USACE)*

13.2.3 Spot Elevation

These Styles are used to dictate how Surface Slope Labels will be displayed and the information they contain.

- *C_GRAD_Edge of Pavement (USACE)*
- *C_GRAD_Finished Floor (USACE)*
- *C_GRAD_Spot*
- *C_GRAD_Top-Flow Line of Curb (USACE)*
- *C_GRAD_Top of Curb (USACE)*
- *C_GRAD_Top of Structure (USACE)*
- *C_GRAD_Top of Walk (USACE)*
- *C_TOPO_Spot_Elev & NE (USACE)*
- *C_TOPO_Spot_Elev (USACE)*
- *V_TOPO_Spot_Elev (USACE)*

13.2.4 Watershed

These Styles are used to dictate how Surface Watershed Labels will be displayed and the information they contain.

- *C_WATR_Watershed (USACE)*
- *G_TOPO_No Label (USACE)*
- *V_WATR_Watershed (USACE)*

13.3 Surface Table Styles

Surfaces have multiple types of tables. Each table type has its own Styles.

13.3.1 Direction

These Styles are used to dictate how Surface Direction Tables will be displayed, what information they will contain, and the formatting of those contents.

- *G_SCHD_Direction_Table (USACE)*

13.3.2 Elevation

These Styles are used to dictate how Surface Elevation Tables will be displayed, what information they will contain, and the formatting of those contents.

- *G_SCHD_Elevation_Table (USACE)*

13.3.3 Slope

These Styles are used to dictate how Surface Slope Tables will be displayed, what information they will contain, and the formatting of those contents.

- *G_SCHD_Slope_Table (USACE)*

13.3.4 Slope Arrow

These Styles are used to dictate how Surface Slope Arrow Tables will be displayed, what information they will contain, and the formatting of those contents.

- *G_SCHD_Slope_Arrow_Table (USACE)*

13.3.5 Contour

These Styles are used to dictate how Surface Contour Tables will be displayed, what information they will contain, and the formatting of those contents.

- *G_SCHD_Contour_Table (USACE)*

13.3.6 Watershed

These Styles are used to dictate how Surface Watershed Tables will be displayed, what information they will contain, and the formatting of those contents:

- *G_SCHD_Watershead_Table (USACE)*

13.3.7 User-Defined Contour

These Styles are used to dictate how Surface User-Defined Contour Tables will be displayed, what information they will contain, and the formatting of those contents:

- *G_SCHD_User_Defined_Contour_Table (USACE)*

14 PARCELS CONFIGURATION

This section outlines the configuration and styles used by Parcels, Parcel Labels, and Parcel Tables. These are accessed and managed on the “Settings” tab of the Toolspace under the “Parcel” category.

14.1 Parcel User-Defined Properties Classifications

N/A - None Crated.

14.2 Parcel Styles

These Styles are used to dictate how Parcels will be displayed.

- *_No_Display (USACE)*
- *G_PROP_NO_Fill_By_Layer (USACE)*

14.3 Parcel Label Styles

Parcels have multiple types of Labels. Each label type has its own set of Styles.

14.3.1 Area

These Styles are used to dictate how Parcel Area Labels will be displayed and the information they contain:

- *_No_Label (USACE)*
- *C_PROP_Name_Only (USACE)*
- *C_PROP_Number_and_Area (USACE)*
- *C_PROP_Number_Only (USACE)*
- *V_PROP_Name_Only (USACE)*
- *V_PROP_Number_and_Area (USACE)*
- *V_PROP_Number_Only (USACE)*

14.3.2 Line

These Styles are used to dictate how Parcel Line Labels will be displayed and the information they contain.

- *_Use_General_Set_Up (USACE)*

(Note: The General “Line Label Styles” listed in **Section 11** above can also be used to label Parcel line segments)

14.3.3 Curve

These Styles are used to dictate how Parcel Curve Labels will be displayed and the information they contain.

- *_Use_General_Set_Up (USACE)*

(Note: The General “Curve Label Styles” listed in **Section 11** above can also be used to label Parcel Curve segments)

14.4 Parcel Table Styles

Parcels have multiple types of tables. Each table type has its own Styles.

14.4.1 Line

These Styles are used to dictate how Parcel Line Segment Tables will be displayed, what information they will contain, and the formatting of those contents:

- *G_SCHD_Line_Table (USACE)*

14.4.2 Curve

These Styles are used to dictate how Parcel Curve Segment Tables will be displayed, what information they will contain, and the formatting of those contents:

- *G_SCHD_Curve_Table (USACE)*

14.4.3 Segment

These Styles are used to dictate how combined Parcel Line and Curve Segment Tables will be displayed, what information they will contain, and the formatting of those contents:

- *G_SCHD_Segments_Table (USACE)*

14.4.4 Area

These Styles are used to dictate how Parcel Area Tables will be displayed, what information they will contain, and the formatting of those contents:

- *G_SCHD_Area_Table (USACE)*

15 GRADING CONFIGURATION

This section outlines the configuration and styles used by Grading Objects. These are accessed and managed on the “Settings” tab of the Toolspace under the “Grading” category.

15.1 Grading Styles

These Styles are used to dictate how Grading Objects will be displayed. In all of these Styles, the objects are configured so that they will not plot. This is due to the fact that Grading objects are used for modeling grading conditions which are then used to create a “Final” surface. In addition, some of the style component colors have been set to individual values in order to reduce the number of necessary layers.

- *C_NPLT_Cut (USACE)*
- *C_NPLT_Fill (USACE)*
- *C_NPLT_General (USACE)*

15.2 Grading Criteria Set

Grading objects make use of projection and target criteria when they are created. These criteria can be set up to provide options or to establish hard-coded values. The USACE Standard makes use of one Criteria Set that establishes specific target types while allowing for the user to input the desired projection type and value. This Criteria Set and its established criteria are listed below:

- *C_Criteria Set (USACE)*
 - *Slope to Absolute Elev*
 - *Slope to Distance*
 - *Slope to Relative Elev*
 - *Slope to Surface*

16 ALIGNMENT CONFIGURATION

This section outlines the configuration and styles used by Alignments, Alignment Labels, and Alignment Tables. These are accessed and managed on the “Settings” tab of the Toolspace under the “Alignment” category.

16.1 Alignment Styles

These Styles are used to dictate how Alignments will be displayed:

- *_No_Display (USACE)*
- *C_ALGN_CL (USACE)*
- *C_ALGN_CL NO WARNING (USACE)*
- *G_ALGN_CL_By_Layer (USACE)*
- *V_ALGN_CL (USACE)*

16.2 Alignment Design Checks

N/A - None Created.

16.3 Alignment Label Styles

Alignments have multiple types of Labels. Each label type has its own set of Styles.

16.3.1 Label Sets

Alignments make use of saved Collections of pre-configured labels, locations and intervals. These collections are saved as Alignment Label Sets. The Styles used in these Sets will be listed in **Section**

16.3.2 below. The USACE Alignment Label Sets are:

- *_Empty Label Set (USACE)*
- *C_ALGN_PARA_LT_Majr100_Minr50_Geom_Pnts (USACE)*
- *C_ALGN_PARL_LT_Majr100_Only (USACE)*
- *C_ALGN_PERP_CNTR_LT_Majr100_Minr50 (USACE)*
- *C_ALGN_PERP_OFST_LT_Majr100_Minr50 (USACE)*
- *C_ALGN_PERP_OFST_RT_Majr100_Minr50 (USACE)*
- *C_LEVE_Levee Miles (USACE)*
- *C_LEVE_River Miles (USACE)*
- *V_ALGN_PARL_LT_Majr100_Minr50 (USACE)*
- *V_ALGN_PERP_CNTR_LT_Majr100_Minr50 (USACE)*
- *V_ALGN_PERP_LT_Majr100_Minr50 (USACE)*

16.3.2 Station

Station labels are one type of label that is applied to Alignments. There are multiple types of Station labels, and each type has its own set of Label Styles.

16.3.2.1 Major Station:

These Styles are used to dictate how Alignment Major Station Labels will be displayed and the information they contain.

- *C_ALGN_PARL_LT_Majr_Stat_Tick (USACE)*
- *C_ALGN_PARL_RT_Majr_Stat_Tick (USACE)*
- *C_ALGN_PERP_CNTR_LT_Majr_Stat_Plus (USACE)*
- *C_ALGN_PERP_CNTR_RT_Majr_Stat_Plus (USACE)*
- *C_ALGN_PERP_OFST_LT_Majr_Stat_Tick (USACE)*
→ *C_Stat_with_Line (USACE)*
- *C_ALGN_PERP_OFST_RT_Majr_Stat_Tick (USACE)*
→ *C_Stat_with_Line (USACE)*
- *C_LEVE_Majr_Stat_Tick (USACE)*
- *C_RIVR_Majr_Stat_Tick (USACE)*
- *V_ALGN_LEVEE_MILES_STA_ID (USACE)*
- *V_ALGN_PARL_LT_Majr_Stat_Tick (USACE)*
- *V_ALGN_PARL_RT_Majr_Stat_Tick (USACE)*
- *V_ALGN_PERP_CNTR_LT_Majr_Stat_Plus (USACE)*
- *V_ALGN_PERP_OFST_LT_Majr_Stat_Tick (USACE)*
- *V_ALGN_PERP_OFST_RT_Majr_Stat_Tick (USACE)*

16.3.2.2 Minor Station:

These Styles are used to dictate how Alignment Minor Station Labels will be displayed and the information they contain.

- *C_ALGN_PERP_CNTR_Minr_Tick_Only (USACE)*
- *C_LEVE_Minr_Stat_Tick (USACE)*
- *C_RIVR_Minr_Stat_Tick (USACE)*
- *V_ALGN_PERP_CNTR_Minr_Tick_Only (USACE)*

16.3.2.3 Geometry Point:

These Styles are used to dictate how Alignment Geometry Point Station Labels will be displayed and the information they contain.

- *C_ALGN_Horiz_RT_Coords_Line (USACE)*
- *C_ALGN_PERP_LT_Coords_Line (USACE)*
- *C_ALGN_PERP_LT_Geom_Pnts_Stat_Line (USACE)*
- *C_ALGN_PERP_LT_Geom_Pnts_Stat_No_Line (USACE)*
- *C_ALGN_PERP_RT_Geom_Pnts_Stat_Line (USACE)*
- *C_ALGN_Section_End_Label (USACE)*

16.3.2.4 Profile Geometry Point:

These Styles are used to dictate how Profile Geometry Point Station Labels will be displayed along an Alignment and the information they contain.

- *C_ALGN_PERP_LT_Prof_Geom_Pnts_Stat_Line (USACE)*

16.3.2.5 Station Equation:

These Styles are used to dictate how Alignment Station Equation Labels will be displayed and the information they contain.

- *C_ALGN_PERP_RT_Stat_Eqtn_Line (USACE)*

16.3.2.6 Design Speed:

These Styles are used to dictate how Alignment Design Speed Station Labels will be displayed and the information they contain:

- *C_ALGN_PERP_RT_Dsgn_Speed_Stat_Line (USACE)*

16.3.2.7 Superelevation Critical Points:

These Styles are used to dictate how Alignment Superelevation Critical Point Station Labels will be displayed and the information they contain.

- *C_ALGN_PERP_LT_Super_Stat_Line (USACE)*

16.3.2.8 Cant Critical Points:

These Styles are used to dictate how Alignment Cant Critical Point Station Labels will be displayed and the information they contain:

- *C_ALGN_PERP_LT_Cant_Pnts_Stat (USACE)*

16.3.3 Station Offset

These Styles are used to dictate how Alignment Station and Offset Labels will be displayed and the information they contain:

- *C_ALGN_Coords_ONLY (USACE)*
- *C_ALGN_Data_No_Border (USACE)*
- *C_ALGN_Data_with_Border (USACE)*
- *C_ALGN_Intersection_ALGN1_ALGN2 (USACE)*
- *C_ALGN_Stat_Only_PERP (USACE)*
- *C_ALGN_Stat_over_Ofst_LT (USACE)*
- *C_ALGN_Stat_over_Ofst_RT (USACE)*
- *C_ALNG_Offset_ONLY_PERP (USACE)*

16.3.4 Line

These Styles are used to dictate how Alignment Line Segment Labels will be displayed and the information they contain.

- *C_ALGN_Brng_Only (USACE)*
- *C_ALGN_Brng_over_Dist (USACE)*
- *C_ALGN_Dist_Only (USACE)*
- *C_ALGN_Name (USACE)*
- *C_ALGN_TAG_Line (USACE)*
- *V_ALGN_Brng_and_Dist (USACE)*
- *V_ALGN_Brng_over_Dist (USACE)*
- *V_ALGN_Dist_Only (USACE)*
- *V_ALGN_Name (USACE)*
- *V_ALNG_Brng_Only (USACE)*

(Note: The General “Line Label Styles” listed in **Section 11** above can also be used to label Alignment line segments)

16.3.5 Curve

These Styles are used to dictate how Alignment Line Segment Labels will be displayed and the information they contain.

- *C_ALGN_Curve_Data (USACE)*
- *C_ALGN_Dist_Only (USACE)*
- *C_ALGN_Dist_over_Radi (USACE)*
- *C_ALGN_Name (USACE)*
- *C_ALGN_Radi_Only (USACE)*
- *C_ALGN_Radi_with_Line (USACE)*
- *C_ALGN_TAG_Curve (USACE)*
- *V_ALGN_Curve_Data (USACE)*
- *V_ALGN_Dist_Only (USACE)*
- *V_ALGN_Dist_over_Radius (USACE)*
- *V_ALGN_Name (USACE)*
- *V_ALGN_Radi_Only (USACE)*
- *V_ALGN_Radi_with_Line (USACE)*

(Note: The General “Line Label Styles” listed in **Section 11** above can also be used to label Alignment curve segments)

16.3.6 Spiral

N/A - None Created.

16.3.7 Tangent Intersection

List of created styles:

- *C_ALGN_Stat_Coords (USACE)*

16.3.8 Point of Intersection

These Styles are used to dictate how Alignment POI Labels will be displayed and the information they contain:

- *C_ALGN_Horiz_PI_Curve_Data_Complex (USACE)*
- *C_ALGN_Horiz_PI_Curve_Data_Simple (USACE)*
- *C_ALGN_PERP_PI_Stat_Only (USACE)*
- *C_ALGN_PI_Marker_Only (USACE)*
- *C_ALGN_Stat_Coords (USACE)*
- *V_ALGN_PI_Marker_Only (USACE)*

16.4 Alignment Table Styles

Alignments have multiple types of tables. Each table type has its own Styles.

16.4.1 Line

These Styles are used to dictate how Alignment Line Segment Tables will be displayed, what information they will contain, and the formatting of those contents.

- *G_SCHD_Line_Table (USACE)*

16.4.2 Curve

These Styles are used to dictate how Alignment Curve Segment Tables will be displayed, what information they will contain, and the formatting of those contents.

- *G_SCHD_Curve_Table (USACE)*

16.4.3 Spiral

These Styles are used to dictate how Alignment Spiral Segment Tables will be displayed, what information they will contain, and the formatting of those contents.

- *G_SCHD_Spiral_Table (USACE)*

16.4.4 Segment

These Styles are used to dictate how combined Alignment Line, Curve, and Spiral Segment Tables will be displayed, what information they will contain, and the formatting of those contents:

- *G_SCHD_Segmnet_Table (USACE)*

17 PROFILE CONFIGURATION

This section outlines the configuration and styles used by Profiles and Profile Labels. These are accessed and managed on the “Settings” tab of the Toolspace under the “Profile” category.

17.1 Profile Styles

These Styles are used to dictate how Profiles will be displayed.

- *C_PROF_Grade (USACE)*
- *C_PROF_Grade NO WARNING (USACE)*
- *G_PROF_By_Layer (USACE)*
- *G_PROF_By_Layer NO WARNING (USACE)*
- *V_PROF_Grade (USACE)*
- *V_PROF_Grade NO WARNING (USACE)*

17.2 Profile Design Checks

N/A - None Created.

17.3 Profile Label Styles

Profiles have multiple types of Labels. Each label type has its own set of Styles.

17.3.1 Label Sets

Profiles make use of saved Collections of pre-configured labels, locations, intervals, and weeding. These collections are saved as Profile Label Sets. The Styles used in these Sets will be listed in Section **17.3.2 – Section 17.3.5** below. The USACE Profile Label Sets are:

- *_Empty_Label_Label_Set (USACE)*
- *C_GRAD_Exist_Ground_Note (USACE)*
- *C_GRAD_Prop_Grade_Note (USACE)*
- *C_GRAD_Roadway_Label_Set (USACE)*
- *G_ANNO_NPLT_Horiz_Geom (USACE)*

17.3.2 Station

Station labels are one type of label that is applied to Profiles. There are multiple types of Station labels, and each type has its own set of Label Styles.

17.3.2.1 Major Station

These Styles are used to dictate how Profile Major Station Labels will be displayed and the information they contain.

- *G_ANNO_NPLT_Majr_Stat_ABOVE [v] (USACE)*

17.3.2.2 Minor Station

These Styles are used to dictate how Profile Minor Station Labels will be displayed and the information they contain.

- *G_ANNO_NPLT_Minr_Stat_ABOVE [v] (USACE)*

17.3.2.3 Horizontal Geometry Points

These Styles are used to dictate how Horizontal Geometry Point Station Labels will be displayed along the Profile and the information they contain.

- *G_ANNO_NPLT_Horz_Geom_Pnts_BELOW [v] (USACE)*

17.3.3 Grade Breaks

These Styles are used to dictate how Profile Grade Break Labels will be displayed and the information they contain:

- *C_ALGN_STAT [v] (USACE)*

17.3.4 Line

These Styles are used to dictate how Profile Line Segment Labels will be displayed and the information they contain.

- *C_GRAD_Exist_Ground_Anno (USACE)*
- *C_GRAD_Percent (USACE)*
- *C_GRAD_Percent_w Length (USACE)*
- *C_GRAD_Prop_Grade_Anno (USACE)*
- *C_GRAD_Slope (USACE)*

17.3.5 Curve

These Styles are used to dictate how Profile Curve Segment Labels will be displayed and the information they contain:

- *C_ALGN_STAT_HI_Point [v] (USACE)*
- *C_ALGN_STAT_LOW_Point [v] (USACE)*
- *C_ALNG_STAT_PVI_ELEV [v] (USACE)*
- *G_ANNO_DIMS_Curve_Crest_w Grade (USACE)*
- *G_ANNO_DIMS_Curve_Crest_w Mid Ord (USACE)*
- *G_ANNO_DIMS_Curve_Sag_w Grade (USACE)*
- *G_ANNO_DIMS_Curve_Sag_w Grade (USACE)*

18 PROFILE VIEW CONFIGURATION

This section outlines the configuration and styles used by Profile Views, Profile View Labels, and Profile View Bands. These are accessed and managed on the “Settings” tab of the Toolspace under the “Profile View” category.

18.1 Profile View Styles

These Styles are used to dictate how Profile Views will be displayed. Profile Views vary between the Imperial and Metric Drawings.

18.1.1 Imperial Drawing Template Profile View Styles:

- *_EMPTY_PROFILE_H100_V10 (USACE)*
- *C_PROFILE_H20_V5 (USACE)*
- *C_PROFILE_H30_V5 (USACE)*
- *C_PROFILE_H40_V5 (USACE)*
- *C_PROFILE_H50_V5 (USACE)*
- *C_PROFILE_H100_V10 (USACE)*
- *C_PROFILE_H100_V10_LEFT (USACE)*
- *C_PROFILE_H100_V10_MID (USACE)*
- *C_PROFILE_H100_V10_RIGHT (USACE)*
- *C_PROFILE_H100|20_V10|2 MILES (USACE)*
- *C_PROFILE_H200_V20 (USACE)*
- *C_PROFILE_H200_V20_LEFT (USACE)*
- *C_PROFILE_H200_V20_MID (USACE)*
- *C_PROFILE_H200_V20_RIGHT (USACE)*
- *C_PROFILE_NO EXAG (USACE)*

18.1.2 Metric Drawing Template Profile View Styles:

- *_EMPTY_PROFILE_H100_V10 (USACE)*
- *C_PROFILE_H10_V5 (USACE)*
- *C_PROFILE_H20_V5 (USACE)*
- *C_PROFILE_H20_V5_LEFT (USACE)*
- *C_PROFILE_H20_V5_MID (USACE)*
- *C_PROFILE_H20_V5_RIGHT (USACE)*
- *C_PROFILE_H100_V10 (USACE)*
- *C_PROFILE_H100_V10_LEFT (USACE)*
- *C_PROFILE_H100_V10_MID (USACE)*
- *C_PROFILE_H100_V10_RIGHT (USACE)*
- *C_PROFILE_H250_V25 (USACE)*
- *C_PROFILE_H300_V30 (USACE)*
- *C_PROFILE_H500_V50 (USACE)*
- *C_PROFILE_NO EXAG (USACE)*

18.2 Label Styles

Profiles have multiple types of Labels. Each label type has its own set of Styles.

18.2.1 Station Elevation

These Styles are used to dictate how Profile View Station Elevation Labels will be displayed and the information they contain.

- *C_GRID_Elev_and_Stat [v] (USACE)*
 - *C_Elev_Only (USACE)*
 - *C_Stat_Only (USACE)*
- *C_GRID_Elev_and_Stat [v] (USACE) [Miles]*
- *C_GRID_Exist_Ground_Anno (USACE)*
- *C_GRID_Prop_Grade_Anno (USACE)*

18.2.2 Depth

These Styles are used to dictate how Profile View Depth Labels will be displayed and the information they contain.

- *C_GRID_Depth (USACE)*
- *C_GRID_Distance (USACE)*
- *C_GRID_Grade (USACE)*
- *C_GRID_Slope (USACE)*

18.2.3 Projection

These Styles are used to dictate how Profile View Projection Labels will be displayed and the information they contain.

- *C_GRID_Projection [v] (USACE)*

18.2.4 Crossing

N/A - None Created.

18.3 Band Styles

Profile View Bands are used to display sets of information across the bottom and/or top of the Profile View. There are multiple types of Bands that are available for Profile Views. Each Band type has its own set of Styles.

18.3.1 Band Sets

Profile Views make use of Collections of pre-configured Bands, locations, intervals, etc. These collections are saved as Profile View Band Sets. The Styles used in these Sets will be listed in **Sections**

18.3.2 – 18.3.8 below. The USACE Profile View Band Sets are:

- *_Empty_Band_Set (USACE)*
- *C_BAND_STA_Ex|Pr_and FG_Majr_Minr_BELOW (USACE)*
- *C_BAND_STA_Ex|Pr_and FG_Majr_Only_BELOW (USACE)*
- *C_BAND_STA_Ex|Pr_Majr_Minr_BELOW (USACE)*
- *C_BAND_STA_Ex|Pr_Majr_Only_BELOW (USACE)*
- *C_BAND_STA_Majr_Only_BELOW (USACE)*

18.3.2 Profile Data

These Styles are used to dictate how Profile View Profile Data Bands will be displayed and the information they contain:

- *C_GRID_STA_Ex_Only_Majr_Minr (USACE)*
- *C_GRID_STA_Ex_Only_Majr_ONLY (USACE)*
- *C_GRID_STA_Ex|Pr_Majr_Minr (USACE)*
- *C_GRID_STA_Ex|Pr_Majr_ONLY (USACE)*
- *C_GRID_STA_FG_Offset_Majr_Minr (USACE) [new]*
- *C_GRID_STA_FG_Offset_Majr_ONLY (USACE) [new]*
- *C_GRID_STA_Only_Majr_Only (USACE)*

18.3.3 Vertical Geometry

N/A - None Created.

18.3.4 Horizontal Geometry

N/A - None Created.

18.3.5 Superelevation Data

N/A - None Created.

18.3.6 Sectional Data

N/A - None Created.

18.3.7 Sectional Data

N/A - None Created.

18.3.8 Pipe Network

N/A - None Created.

19 SUPERELEVATION VIEW CONFIGURATION

This section outlines the configuration and styles used by Superelevation Views. These are accessed and managed on the “Settings” tab of the Toolspace under the “Superelevation View” category.

19.1 Superelevation View Styles

N/A - None Created.

20 CANT VIEW CONFIGURATION

This section outlines the configuration and styles used by Cant Views. These are accessed and managed on the “Settings” tab of the Toolspace under the “Cant View” category.

20.1 Cant View Styles

N/A - None Created.

21 SAMPLE LINE CONFIGURATION

This section outlines the configuration and styles used by Sample Lines and Sample Line Labels. These are accessed and managed on the “Settings” tab of the Toolspace under the “Sample Line” category.

21.1 Sample Line Styles

These Styles are used to dictate how Sample Lines will be displayed.

- *C_SECT_Line (USACE)*

21.2 Label Styles

These Styles are used to dictate how Sample Line Labels will be displayed and the information they contain.

- *C_SECT_Station (USACE)*

22 SECTION CONFIGURATION

This section outlines the configuration and styles used by Sections and Section Labels. These are accessed and managed on the “Settings” tab of the Toolspace under the “Section” category.

22.1 Section Styles

These Styles are used to dictate how Sections will be displayed.

- *C_SECT_Allowable Overdepth (USACE)*
- *C_SECT_Design (USACE)*
- *C_SECT_Excavation (USACE)*
- *C_SECT_Required Depth (USACE)*
- *C_SECT_Water_Surface (USACE)*
- *G_SECT_By_Layer (USACE)*
- *V_SECT_Dredge_After (USACE)*
- *V_SECT_Dredge_Pred (USACE)*
- *V_SECT_Existing (USACE)*

22.2 Label Styles

Sections have multiple types of Labels. Each label type has its own set of Styles

22.2.1 Label Sets

Sections make use of saved Collections of pre-configured labels, locations, intervals, and weeding.

These collections are saved as Section Label Sets. The Styles used in these Sets will be listed in **Section**

22.2.2 – Section 22.2.6 below. The USACE Section Label Sets are:

- *_Empty_Label_Set (USACE)*

22.2.2 Major Offset

N/A - None Created.

22.2.3 Minor Offsets

N/A - None Created.

22.2.4 Grade Break

N/A - None Created.

22.2.5 Segment

N/A - None Created.

22.2.6 Corridor Points

N/A - None Created.

23 SECTION VIEW CONFIGURATION

This section outlines the configuration and styles used by Section Views, Section View Labels, and Section View Bands. These are accessed and managed on the “Settings” tab of the Toolspace under the “Section View” category.

23.1 Section View Styles

These Styles are used to dictate how Profile Views will be displayed. Profile Views vary between the Imperial and Metric Drawings.

23.1.1 Imperial Drawing Template Section View Styles:

- *C_SECTION_H5_V5 (USACE)*
- *C_SECTION_H10_V10 (USACE)*
- *C_SECTION_H10_V10_Majr_Only_Miles (USACE)*
- *C_SECTION_H20_V20 (USACE)*
- *C_SECTION_H50_V10 (USACE)*
- *C_SECTION_H100_V10 (USACE)*
- *C_SECTION_H200_V20 (USACE)*

23.1.2 Metric Drawing Template Section View Styles:

- *C_SECTION_H2_V2 (USACE)*
- *C_SECTION_H5_V5 (USACE)*
- *C_SECTION_H10_V10 (USACE)*
- *C_SECTION_H20_V20 (USACE)*
- *C_SECTION_H300_V300 (USACE)*
- *C_SECTION_H600_V600 (USACE)*

23.2 Group Plot Styles

The Styles below are used to dictate how Section Views will be laid out when created in groups.

- *C_GRID_Plot_Style (USACE)*

23.3 Sheet Styles

The Styles below are used in earlier versions of Civil 3D to dictate Sheet layouts for Section View creation.

- *G_Sheet_Style (USACE)*

23.4 Label Styles

Section Views have multiple types of Labels. Each label type has its own set of Styles.

23.4.1 Offset Elevation

These Styles are used to dictate how Section View Offset Elevation Labels will be displayed and the information they contain.

- *C_SECT_Elev_Only [v] (USACE)*
- *C_SECT_Stat_over_Elev [v] (USACE)*

23.4.2 Grade

These Styles are used to dictate how Section View Offset Elevation Labels will be displayed and the information they contain.

- *C_SECT_Depth (USACE)*
- *C_SECT_Dist (USACE)*
- *C_SECT_Grade (USACE)*
- *C_SECT_Slope (USACE)*

23.4.3 Projection

These Styles are used to dictate how Section View Projection Labels will be displayed and the information they contain:

- *C_SECT_Projection_above [v] (USACE)*

23.4.4 Crossing

N/A - None Created.

23.5 Band Styles

Section View Bands are used to display sets of information across the bottom and/or top of the Profile View. There are multiple types of Bands that are available for Section Views. Each Band type has its own set of Styles.

23.5.1 Band Sets

Section Views make use of Collections of pre-configured Bands, locations, intervals, etc. These collections are saved as Section View Band Sets. The Styles used in these Sets will be listed in **Sections 23.3.2 – 23.3.8** below. The USACE Section View Band Sets are:

- *_No_Bands (USACE)*
- *C_BAND_Ex|Pr_CL (USACE)*

23.5.2 Section Data

These Styles are used to dictate how Section View Profile Data Bands will be displayed and the information they contain.

- *C_GRID_Ex|Pr_CL (USACE)*

23.5.3 Section Segment

N/A - None Created.

23.6 Table Styles

Parcels have multiple types of tables. Each table type has its own Styles.

23.6.1 Total Volume

These Styles are used to dictate how Section View Total Volume Tables will be displayed, what information they will contain, and the formatting of those contents.

- *G_SCHD_SECT_Total (USACE)*

23.6.2 Material

These Styles are used to dictate how Section View Material Volume Tables will be displayed, what information they will contain, and the formatting of those contents.

- *G_SCHD_SECT_Material (USACE)*

24 MASS HAUL LINE CONFIGURATION

This section outlines the configuration and styles used by Mass Haul Lines. These are accessed and managed on the “Settings” tab of the Toolspace under the “Mass Haul Line” category.

24.1 Mass Haul Line Styles

N/A - None Created.

25 MASS HAUL VIEW CONFIGURATION

This section outlines the configuration and styles used by Mass Haul Views. These are accessed and managed on the “Settings” tab of the Toolspace under the “Mass Haul View” category.

25.1 Mass Haul View Styles

N/A - None Created.

26 CATCHMENT CONFIGURATION

This section outlines the configuration and styles used by Catchments. These are accessed and managed on the “Settings” tab of the Toolspace under the “Catchment” category.

26.1 Catchment Styles

These Styles are used to dictate how Catchments will be displayed.

- *C_TOPO_Catchment (USACE)*

26.2 Label Styles

Catchments have multiple types of Labels. Each label type has its own set of Styles.

26.2.1 Area

These Styles are used to dictate how Catchment Area Labels will be displayed and the information they contain.

- *C_TOPO_CATC_Area (USACE)*

26.2.2 Flow Segment

These Styles are used to dictate how Catchment Flow Segment Labels will be displayed and the information they contain.

- *C_TOPO_CATC_Flow_Segment (USACE)*

27 PIPE NETWORKS (GRAVITY) CONFIGURATION

Gravity Pipe Networks in Civil 3D require configuration and styles in the form of part groupings called “Parts Lists” as well as Styles for representing interferences between networks. These are accessed and managed on the “Settings” tab of the Toolspace under the “Pipe Network” category.

27.1 Parts Lists

Each of the parts list is a compilation of gravity structures and pipes that are available to be used for designing existing and proposed sanitary sewer and storm sewer systems. Each structure and pipe is given an object style, rules for design, render material for graphic representation, and an optional pay item. The four available parts lists are:

- *C_SSWR_List (USACE)*
- *C_STRM_List (USACE)*
- *V_SSWR_List (USACE)*
- *V_STRM_List (USACE)*

27.2 Interference Styles

These Styles are used to dictate how Interferences will be displayed.

- *G_NPLT_Interference (USACE)*

28 PIPES (GRAVITY) CONFIGURATION

This section outlines the configuration and styles used by Gravity Pipes. These are accessed and managed on the “Settings” tab of the Toolspace under the “Pipe” category.

28.1 Pipe Styles

These Styles are used to dictate how Pipes will be displayed.

- *C_SSWR_MAIN_CL (USACE)*
- *C_SSWR_MAIN_double (USACE)*
- *C_SSWR_SERV_CL (USACE)*
- *C_STRM_CULV_double (USACE)*
- *C_STRM_MAIN_CL (USACE)*
- *C_STRM_MAIN_crossing (USACE)*
- *C_STRM_SERV_CL (USACE)*
- *V_SSWR_MAIN_CL (USACE)*
- *V_SSWR_MAIN_crossing (USACE)*
- *V_SSWR_MAIN_double (USACE)*
- *V_STRM_CULV (USACE)*
- *V_STRM_CULV_crossing (USACE)*
- *V_STRM_MAIN_CL (USACE)*
- *V_STRM_MAIN_crossing (USACE)*

28.2 Pipe Rule Sets

Rules define geometric constraints that are applied to pipes during layout. These Rules are grouped into sets and assigned to the pipes in the Parts Lists.

Note: Rules are only applied during creation and when manually applied. Civil 3D will not automatically change designs after initial layout.

The Rule Sets below are used to dictate these constraints.

- *_No Rules (USACE)*
- *C_SSWR_Rules (USACE)*
- *C_STRM_Rules (USACE)*

28.3 Pipe Label Styles

Pipes have multiple types of Labels. Each label type has its own set of Styles.

28.3.1 Plan Profile

These Styles are used to dictate how Pipe Labels will be displayed and the information they contain in Plan and Profile:

- *C_SSWR_PLAN (USACE)*
- *C_SSWR_PROF (USACE)*
- *C_STRM_PLAN (USACE)*

- *C_STRM_PROF (USACE)*
- *V_SSWR_PLAN (USACE)*
- *V_SSWR_PROF (USACE)*
- *V_STRM_PLAN (USACE)*
- *V_STRM_PROF (USACE)*

28.3.2 Crossing Section

These Styles are used to dictate how Pipe Labels will be displayed and the information they contain when applied to Crossing Pipes in Section.

- *C_SSWR_Crossing (USACE)*
- *C_STRM_Crossing (USACE)*

28.3.3 Crossing Profile

These Styles are used to dictate how Pipe Labels will be displayed and the information they contain when applied to crossing Pipes in Profile.

- *_No Display (USACE)*
- *C_SSWR_Crossing Label (USACE)*
- *C_STRM_Crossing Label (USACE)*
- *V_SSWR_Crossing Label (USACE)*
- *V_STRM_Crossing Label (USACE)*

28.4 Pipe Tables

These Styles are used to dictate how Pipe Tables will be displayed, what information they will contain, and the formatting of those contents.

- *G_SCHD_Drainage_Pipe_Table_1 (USACE)*
- *G_SCHD_Pipe_Data_Table_2 (USACE)*

29 STRUCTURES (GRAVITY) CONFIGURATION

This section outlines the configuration and styles used by Gravity Structures. These are accessed and managed on the “Settings” tab of the Toolspace under the “Structure” category.

29.1 Structure Styles

These Styles are used to dictate how Structures will be displayed.

- *_NPLT_Null (USACE)*
- *C_SSWR_FTTG (USACE)*
- *C_SSWR_JB_MH (USACE)*
- *C_STRM_FTTG (USACE)*
- *C_STRM_HW (USACE)*
- *C_STRM_INLT (USACE)*
- *C_STRM_MH (USACE)*
- *V_SSWR_FTTG (USACE)*
- *V_SSWR_JB_MH (USACE)*
- *V_STRM_HW (USACE)*
- *V_STRM_INLT (USACE)*
- *V_STRM_MH (USACE)*

29.2 Structure Rule Set

Rules define geometric constraints that are applied to structures during layout. These Rules are grouped into sets and assigned to the structures in the Parts Lists.

Note: Rules are only applied during creation and when manually applied. Civil 3D will not automatically change designs after initial layout.

The Rule Sets below are used to dictate these constraints:

- *_No Rules (USACE)*
- *C-SSWR (USACE)*
- *C-STRM (USACE)*

29.3 Structure Label Styles

These Styles are used to dictate how Structure Labels will be displayed and the information they contain.

- *C_SSWR_PLAN_Coords_Rt (USACE)*
 - *Left Drag*
- *C_SSWR_PLAN_Key_Note_DESC (USACE)*
- *C_SSWR_PLAN_Name_No_Arrow (USACE)*
- *C_SSWR_PLAN_Name_Rt (USACE)*
 - *Left Drag*
- *C_SSWR_PROF_Data_Btm_Rt (USACE)*
 - *Left Side*
- *C_SSWR_PROF_Data_Top [v] (USACE)*

- *C_SSWR_PROF_Data_Top_Rt (USACE)*
→ *Left Side*
- *C_SSWR_PROF_Key_Note (USACE)*
- *C_STRM_PLAN_Coords_Rt (USACE)*
→ *Left Drag*
- *C_STRM_PLAN_Key_Note (USACE)*
- *C_STRM_PLAN_Name_No_Arrow (USACE)*
- *C_STRM_PROF_Data_Btm_Rt (USACE)*
→ *Left Side*
- *C_STRM_PROF_Data_Top [v] (USACE)*
- *C_STRM_PROF_Data_Top_Rt (USACE)*
→ *Left Side*
- *C_STRM_PROF_Key_Note (USACE)*
- *V_SSWR_PLAN_Desc (USACE)*
- *V_STRM_PLAN_Desc (USACE)*

29.4 Structure Tables

These Styles are used to dictate how Structure Tables will be displayed, what information they will contain, and the formatting of those contents:

- *G_SCHD_Drainage_Structure_Table_1 (USACE)*
- *G_SCHD_Structre_Data_Table_2 (USACE)*

30 PRESSURE NETWORK CONFIGURATION

Pressure Networks in Civil 3D require configuration and styles in the form of part groupings called “Parts Lists”. These are accessed and managed on the “Settings” tab of the Toolspace under the “Pressure Network” category

30.1 Parts List

Each of the parts list is a compilation of available pipes, fittings, and appurtenances that are available to be used for designing proposed watermain. Each element is given an object style, render material for graphic representation, and an optional pay item. The two available parts lists are:

- *C_DOMW_List (USACE)*
- *C_WATR_List (USACE)*

31 PRESSURE PIPE CONFIGURATION

This section outlines the configuration and styles used by Pressure Pipes. These are accessed and managed on the “Settings” tab of the Toolspace under the “Pressure Pipe” category.

31.1 Pressure Pipe Styles

These Styles are used to dictate how Pressure Pipes will be displayed:

- *C_DOMW_MAIN_crossing (USACE)*
- *C_DOMW_MAIN_double (USACE)*
- *C_WATR_MAIN_CL (USACE)*
- *C_WATR_MAIN_crossing (USACE)*

31.2 Label Styles

Pressure Pipes have multiple types of Labels. Each label type has its own set of Styles.

31.2.1 Plan Profile

These Styles are used to dictate how Pressure Pipe Labels will be displayed and the information they contain in Plan and Profile:

- *C_DOMW_Anno (USACE)*
- *C_WATR_Anno (USACE)*

31.2.2 Crossing Section

N/A – None Created

31.2.3 Crossing Profile

These Styles are used to dictate how Pressure Pipe Labels will be displayed and the information they contain when applied to crossing Pressure Pipes in Profile.

- *_No Display (USACE)*
- *C_DOMW_Crossing Label (USACE)*
- *C_WATR_Crossing Label (USACE)*

31.3 Table Styles

N/A – None Created

32 FITTINGS CONFIGURATION

This section outlines the configuration and styles used by Pressure Fittings. These are accessed and managed on the “Settings” tab of the Toolspace under the “Fitting” category.

32.1 Fitting Styles

These Styles are used to dictate how Structures will be displayed.

- *C_DOWNM_FTTG_Outline (USACE)*
- *C_WATR_DEVC_CL (USACE)*

32.2 Label Styles

These Styles are used to dictate how Fitting Labels will be displayed and the information they contain.

- *C_DOMW_FTTG_Desc_Anno (USACE)*
- *C_WATR_FTTG_Desc_Anno (USACE)*

32.3 Table Styles

N/A - None Created.

33 APPURTENANCE CONFIGURATION

This section outlines the configuration and styles used by Pressure Appurtenances. These are accessed and managed on the “Settings” tab of the Toolspace under the “Appurtenance” category.

33.1 Appurtenance Styles

These Styles are used to dictate how Structures will be displayed.

- *C_DOMW_DEVC_Outline (USACE)*
- *C_WATR_DEVC_CL (USACE)*

33.2 Label Styles

These Styles are used to dictate how Appurtenance Labels will be displayed and the information they contain.

- *C_DOMW_APPT_Anno (USACE)*
- *C_WATR_APPT_Anno (USACE)*

33.3 Table Styles

N/A - None Created.

34 CORRIDORS CONFIGURATION

This section outlines the configuration and styles used by Corridors. These are accessed and managed on the “Settings” tab of the Toolspace under the “Corridor” category.

34.1 Corridor Styles

These Styles are used to dictate how Corridors will be displayed.

- *G_NPLT_Corridor (USACE)*

35 INTERSECTION CONFIGURATION

This section outlines the configuration and styles used by Intersections. These are accessed and managed on the “Settings” tab of the Toolspace under the “Intersection” category.

35.1 Intersection Styles

These Styles are used to dictate how Intersections will be displayed.

- *C_NPLT_Intersect (USACE)*

35.2 Label Styles

35.2.1 Intersection Location Labels

These Styles are used to dictate how Intersection Location Labels will be displayed and the information they contain.

- *G_NPLT_ANNO_Algn1_Algn2 (USACE)*

36 ASSEMBLY CONFIGURATION

This section outlines the configuration and styles used by Assemblies. These are accessed and managed on the “Settings” tab of the Toolspace under the “Assembly” category.

36.1 Assembly Styles

These Styles are used to dictate how Assemblies will be displayed.

- *G_NPLT_Assembly (USACE)*

37 SUBASSEMBLY CONFIGURATION

Only command settings available in this section.

38 QUANTITY TAKEOFF CRITERIA

This section outlines the configuration and styles used by Quantity Takeoff calculations. These are accessed and managed on the “Settings” tab of the Toolspace under the “Quantity Takeoff” category.

38.1 Quantity Takeoff Criteria

Quantity Takeoff run based on Sections makes use of material criteria, cut and fill factors, and Shape Styles. The USACE Standard makes use of two Quantity Takeoff Criteria Sets.

- *C_QTY_Earthwork (USACE)*
- *G_QTY_Corridor (USACE)*

38.2 Table Styles

Quantity Takeoff can be used to create have multiple types of tables. Each table type has its own Styles

38.2.1 Total Volume

These Styles are used to dictate how Total Volume Tables will be displayed, what information they will contain, and the formatting of those contents.

- *G_SCHD_QTY_Total (USACE)*

38.2.2 Material

These Styles are used to dictate how Total Volume Tables will be displayed, what information they will contain, and the formatting of those contents.

- *G_SCHD_Corridor_Quantity (USACE)*

39 SURVEY

This section outlines the configuration and styles used by Survey Data. These are accessed and managed on the “Settings” tab of the Toolspace under the “Survey” category.

39.1 Networks

Networks are inserted into drawings from Survey Databases.

39.1.1 Network Styles

These Styles are used to dictate how Networks will be displayed.

- *V_SURV_Network (USACE)*

39.2 Figures

Figures are inserted into drawings from Survey Databases.

39.2.1 Figure Styles

These Styles are used to dictate how Figures will be displayed:

- *V_SURV_Line_By_Layer (USACE)*

39.2.2 Label Styles

Figures have multiple types of Labels. Each label type has its own set of Styles.

39.2.2.1 Figure

These Styles are used to dictate how Figure Labels will be displayed and the information they contain.

- *V_SURV_Figure_Name (USACE)*

39.2.2.2 Line

These Styles are used to dictate how Figure Line Labels will be displayed and the information they contain.

- *V_SURV_Length_Only (USACE)*

39.2.2.3 Curve

These Styles are used to dictate how Figure Curve Labels will be displayed and the information they contain.

- *V_SURV_Radius_Only (USACE)*

39.3 Figure Prefix Database

Figure Prefixes are external databases used by drawings to dictate certain properties for Figures based on their description. These descriptions can also be used to automatically generate linework and assign the figures as Breaklines or Lot lines. Figure Prefix Databases are stored under the USACE Standard folder structure under a folder called “Survey”. They are accessed and organized on the “Survey” tab of the Toolspace under “Figure Prefix Databases”.

The USACE Standards contain two separate Figure Prefix Databases. They are:

- USACE – Alpha
- USACE - Numeric

39.3.1 USACE – Alpha

The “USACE – Alpha” Figure Prefix Database is intended for use in the field along with the Alphanumeric field codes. The following table lists these alphanumeric Figure Prefixes and the properties they assign.

Name	Breakline	Lot Line	Layer	Figure Style	Site
ABANDGASWELL	No	No	V-FUEL-DEVC	V_SURV_Line_By_Layer (USACE)	Survey Site
ABUT	Yes	No	V-BRDG-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
ABUTEND	Yes	No	V-BRDG-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
ABUTTOE	Yes	No	V-BRDG-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
ABUTTOP	Yes	No	V-BRDG-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
AERIALPANEL	Yes	No	V-AERI-PNPT	V_SURV_Line_By_Layer (USACE)	Survey Site
AERIALPANELSET	Yes	No	V-AERI-PNPT	V_SURV_Line_By_Layer (USACE)	Survey Site
AERIALPANELTEMP	Yes	No	V-AERI-PNPT	V_SURV_Line_By_Layer (USACE)	Survey Site
APNSHLD	Yes	No	V-APRN-SHLD	V_SURV_Line_By_Layer (USACE)	Survey Site
APRON	Yes	No	V-APRN-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
ARCH	Yes	No	V-BRDG-DECK	V_SURV_Line_By_Layer (USACE)	Survey Site
ASPHREV	Yes	No	V-RRAP-RVMT	V_SURV_Line_By_Layer (USACE)	Survey Site
ASPHREVEDGE	Yes	No	V-RRAP-RVMT	V_SURV_Line_By_Layer (USACE)	Survey Site
BANK	Yes	No	V-CHAN-BANK-TOP~	V_SURV_Line_By_Layer (USACE)	Survey Site
BANKTOE	Yes	No	V-CHAN-TOE~	V_SURV_Line_By_Layer (USACE)	Survey Site
BANKTOP	Yes	No	V-CHAN-BANK-TOP~	V_SURV_Line_By_Layer (USACE)	Survey Site
BARR	No	No	V-SITE-STRC	V_SURV_Line_By_Layer (USACE)	Survey Site
BASELINE	Yes	No	V-SURV-LINE	V_SURV_Line_By_Layer (USACE)	Survey Site
BERM	Yes	No	V-LEVE-BERM	V_SURV_Line_By_Layer (USACE)	Survey Site
BERMCL	Yes	No	V-LEVE-BERM	V_SURV_Line_By_Layer (USACE)	Survey Site
BERMCRWN	Yes	No	V-LEVE-BERM	V_SURV_Line_By_Layer (USACE)	Survey Site
BERMTOE	Yes	No	V-LEVE-BERM	V_SURV_Line_By_Layer (USACE)	Survey Site
BERMTOP	Yes	No	V-LEVE-BERM	V_SURV_Line_By_Layer (USACE)	Survey Site
BFW	Yes	No	V-FLOD-BASE	V_SURV_Line_By_Layer (USACE)	Survey Site
BLDG	Yes	No	V-BLDG-FTPT	V_SURV_Line_By_Layer (USACE)	Survey Site
BOG	Yes	No	V-WETL-BOGS	V_SURV_Line_By_Layer (USACE)	Survey Site
BOIL	Yes	No	V-LEVE-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
BORPIT	Yes	No	V-BORW-LINE	V_SURV_Line_By_Layer (USACE)	Survey Site
BORPITTOE	Yes	No	V-BORW-LINE	V_SURV_Line_By_Layer (USACE)	Survey Site
BORPITTOP	Yes	No	V-BORW-LINE	V_SURV_Line_By_Layer (USACE)	Survey Site
BRAPPSLAB	Yes	No	V-PVMT-CONC	V_SURV_Line_By_Layer (USACE)	Survey Site
BRDG	Yes	No	V-BRDG-DECK	V_SURV_Line_By_Layer (USACE)	Survey Site
BRDGCL	Yes	No	V-BRDG-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site

Name	Breakline	Lot Line	Layer	Figure Style	Site
BRDGCOR	Yes	No	V-BRDG-DECK	V_SURV_Line_By_Layer (USACE)	Survey Site
BRDGJNTEXP	No	No	V-BRDG-CTLJ	V_SURV_Line_By_Layer (USACE)	Survey Site
BRDGRAIL	No	No	V-BRDG-RLG~	V_SURV_Line_By_Layer (USACE)	Survey Site
BRK	Yes	No	V-TOPO-BKLN	V_SURV_Line_By_Layer (USACE)	Survey Site
BRUSHLINE	No	No	V-SITE-VEGE	V_SURV_Line_By_Layer (USACE)	Survey Site
BTMDITCH	Yes	No	V-DTCH-BOTM	V_SURV_Line_By_Layer (USACE)	Survey Site
BUMPBLOCK	No	No	V-PRKG-FIXT	V_SURV_Line_By_Layer (USACE)	Survey Site
BUMPPOST	No	No	V-RAIL-EQPM	V_SURV_Line_By_Layer (USACE)	Survey Site
CAT	No	No	V-WETL-PHOL	V_SURV_Line_By_Layer (USACE)	Survey Site
CATVLMRK	No	No	V-COMM-UGND-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
CATVPMRK	No	No	V-COMM-UGND-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
CFW	Yes	No	V-FLOD-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
CLCHANNEL	Yes	No	V-CHAN-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
CLD	Yes	No	V-DTCH-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
CLL	Yes	No	V-LEVE-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
CLN	Yes	No	V-ALGN-LINE	V_SURV_Line_By_Layer (USACE)	Survey Site
CLRD	Yes	No	V-ROAD-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
CLRR	Yes	No	V-RAIL-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
CLSTREAM	Yes	No	V-CHAN-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
CLTAXI	Yes	No	V-TAXI-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
CLTRACK	Yes	No	V-RAIL-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
COMOH	No	No	V-COMM-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
COMUG	No	No	V-COMM-UGND	V_SURV_Line_By_Layer (USACE)	Survey Site
CONC	Yes	No	V-STRM-CHUT	V_SURV_Line_By_Layer (USACE)	Survey Site
CONDTTOE	Yes	No	V-DTCH-BOTM	V_SURV_Line_By_Layer (USACE)	Survey Site
CONDTTOP	Yes	No	V-DTCH-TOP~	V_SURV_Line_By_Layer (USACE)	Survey Site
CPAD	Yes	No	V-RRAP-RVMT	V_SURV_Line_By_Layer (USACE)	Survey Site
CROSSGATE	No	No	V-RAIL-EQPM	V_SURV_Line_By_Layer (USACE)	Survey Site
CULT	Yes	No	V-TOPO-BKLN	V_SURV_Line_By_Layer (USACE)	Survey Site
CURBSTOP	No	No	V-ROAD-CURB	V_SURV_Line_By_Layer (USACE)	Survey Site
DEBRIS	Yes	No	V-TOPO-BKLN	V_SURV_Line_By_Layer (USACE)	Survey Site
DECK	No	No	V-BLDG-DECK	V_SURV_Line_By_Layer (USACE)	Survey Site
DIKE	Yes	No	V-TOPO-SHOR	V_SURV_Line_By_Layer (USACE)	Survey Site
DIKECRWN	Yes	No	V-TOPO-SHOR	V_SURV_Line_By_Layer (USACE)	Survey Site
DIKETOE	Yes	No	V-TOPO-SHOR	V_SURV_Line_By_Layer (USACE)	Survey Site
DIKETOP	Yes	No	V-TOPO-SHOR	V_SURV_Line_By_Layer (USACE)	Survey Site
DITCH	Yes	No	V-DTCH-TOP~	V_SURV_Line_By_Layer (USACE)	Survey Site
DL	No	No	V-SITE-VEGE	V_SURV_Line_By_Layer (USACE)	Survey Site
DRAINFIELD	Yes	No	V-SSWR-NITF	V_SURV_Line_By_Layer (USACE)	Survey Site
DRAINPIT	Yes	No	V-SSWR-JBOX	V_SURV_Line_By_Layer (USACE)	Survey Site
DUCT	No	No	V-DBNK-MULT	V_SURV_Line_By_Layer (USACE)	Survey Site
DUNE	Yes	No	V-SITE-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
EC	Yes	No	V-STRM-CHUT	V_SURV_Line_By_Layer (USACE)	Survey Site
ECR	Yes	No	V-ROAD-CONC	V_SURV_Line_By_Layer (USACE)	Survey Site
EDITCH	Yes	No	V-DTCH-TOP~	V_SURV_Line_By_Layer (USACE)	Survey Site
EDR	Yes	No	V-ROAD-UPVD	V_SURV_Line_By_Layer (USACE)	Survey Site
EGRD	Yes	No	V-ROAD-GRVL	V_SURV_Line_By_Layer (USACE)	Survey Site
ELLMRK	No	No	V-POWR-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
ELPMRK	No	No	V-POWR-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
EOA	Yes	No	V-ROAD-ASPH	V_SURV_Line_By_Layer (USACE)	Survey Site
EOB	No	No	V-BRDG-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
EOBAL	No	No	V-RRAP-RVMT	V_SURV_Line_By_Layer (USACE)	Survey Site
EOCANOPY	No	No	V-BLDG-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site

Name	Breakline	Lot Line	Layer	Figure Style	Site
EOCONCSLAB	Yes	No	V-SITE-STRC	V_SURV_Line_By_Layer (USACE)	Survey Site
EODASP	Yes	No	V-ROAD-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
EODCONC	Yes	No	V-ROAD-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
EODGRVL	Yes	No	V-ROAD-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
EODISTURB	Yes	No	V-TOPO-BKLN	V_SURV_Line_By_Layer (USACE)	Survey Site
EODRV	Yes	No	V-ROAD-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
EOG	Yes	No	V-ROAD-GRVL	V_SURV_Line_By_Layer (USACE)	Survey Site
EOGAMBION	Yes	No	V-RRAP-GABN	V_SURV_Line_By_Layer (USACE)	Survey Site
EOHVAC	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
EOP	Yes	No	V-ROAD-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
EOPATIO	Yes	No	V-SITE-STRC	V_SURV_Line_By_Layer (USACE)	Survey Site
EOREFUSE	Yes	No	V-TOPO-BKLN	V_SURV_Line_By_Layer (USACE)	Survey Site
EOROCK	No	No	V-SITE-ROCK	V_SURV_Line_By_Layer (USACE)	Survey Site
EOS	Yes	No	V-ROAD-SHLD	V_SURV_Line_By_Layer (USACE)	Survey Site
EOSASP	Yes	No	V-ROAD-SHLD	V_SURV_Line_By_Layer (USACE)	Survey Site
EOSCONC	Yes	No	V-ROAD-SHLD	V_SURV_Line_By_Layer (USACE)	Survey Site
EOSGRVL	Yes	No	V-ROAD-SHLD	V_SURV_Line_By_Layer (USACE)	Survey Site
EOT	Yes	No	V-SITE-WALK	V_SURV_Line_By_Layer (USACE)	Survey Site
EOXTIE	Yes	No	V-RAIL-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
EPL	Yes	No	V-PRKG-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
EQOL	Yes	No	V-SITE-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
ER	Yes	No	V-ROAD-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
ESW	Yes	No	V-SITE-WALK	V_SURV_Line_By_Layer (USACE)	Survey Site
ESWASP	Yes	No	V-SITE-WALK	V_SURV_Line_By_Layer (USACE)	Survey Site
ESWCONC	Yes	No	V-SITE-WALK	V_SURV_Line_By_Layer (USACE)	Survey Site
FAL	Yes	No	V-NGAS-VALT	V_SURV_Line_By_Layer (USACE)	Survey Site
FFE	Yes	No	V-BLDG-FTPT	V_SURV_Line_By_Layer (USACE)	Survey Site
FIBEROH	No	No	V-COMM-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
FIBPOST	No	No	V-COMM-UGND-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
FLDWALL	Yes	No	V-FLOD-TOP~	V_SURV_Line_By_Layer (USACE)	Survey Site
FNC	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
FNCBW	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
FNCCL	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
FNCW	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
FNCWW	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
FOPMRK	No	No	V-COMM-UGND-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
FUELLN	No	No	V-FUEL-MAIN-PIPE	V_SURV_Line_By_Layer (USACE)	Survey Site
FUELPIT	Yes	No	V-FUEL-VALT	V_SURV_Line_By_Layer (USACE)	Survey Site
FUELPUMP	No	No	V-FUEL-STNS-PUMP	V_SURV_Line_By_Layer (USACE)	Survey Site
FXHOL	Yes	No	V-MILR-FOXH	V_SURV_Line_By_Layer (USACE)	Survey Site
GASREG	No	No	V-FUEL-DEVC	V_SURV_Line_By_Layer (USACE)	Survey Site
GASWELL	No	No	V-FUEL-JBOX	V_SURV_Line_By_Layer (USACE)	Survey Site
GATE	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
GATE_L	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
GATE_P	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
GFL	Yes	No	V-ROAD-CURB	V_SURV_Line_By_Layer (USACE)	Survey Site
GL	No	No	V-NGAS-PIPE	V_SURV_Line_By_Layer (USACE)	Survey Site
GLMRK	No	No	V-NGAS-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
GPMRK	No	No	V-NGAS-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
GRAIL	No	No	V-ROAD-GRAL	V_SURV_Line_By_Layer (USACE)	Survey Site
GRNPNT	Yes	No	V-APRN-GRND	V_SURV_Line_By_Layer (USACE)	Survey Site
GUTTER	Yes	No	V-ROAD-CURB	V_SURV_Line_By_Layer (USACE)	Survey Site
HANDRAIL	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site

Name	Breakline	Lot Line	Layer	Figure Style	Site
HC	Yes	No	V-SITE-WALK	V_SURV_Line_By_Layer (USACE)	Survey Site
HIGHWALL	Yes	No	V-SITE-STRC	V_SURV_Line_By_Layer (USACE)	Survey Site
HW	Yes	No	V-STRM-HWAL	V_SURV_Line_By_Layer (USACE)	Survey Site
HWM	Yes	No	V-BECH-OHWM	V_SURV_Line_By_Layer (USACE)	Survey Site
INWL	No	No	V-INDW-MAIN-PIPE	V_SURV_Line_By_Layer (USACE)	Survey Site
JF	No	No	V-FUEL-MAIN-PIPE	V_SURV_Line_By_Layer (USACE)	Survey Site
JNT	Yes	No	V-PVMT-PATT	V_SURV_Line_By_Layer (USACE)	Survey Site
JNTCON	Yes	No	V-JNTS-CNTL	V_SURV_Line_By_Layer (USACE)	Survey Site
JNTCST	Yes	No	V-JNTS-CNSL	V_SURV_Line_By_Layer (USACE)	Survey Site
JNTEXP	Yes	No	V-JNTS-CNSL	V_SURV_Line_By_Layer (USACE)	Survey Site
LAWNEDGE	Yes	No	V-TOPO-BKLN	V_SURV_Line_By_Layer (USACE)	Survey Site
LCHRD	No	No	V-BLDG-DOCK	V_SURV_Line_By_Layer (USACE)	Survey Site
LDCK	No	No	V-BLDG-DOCK	V_SURV_Line_By_Layer (USACE)	Survey Site
LEACHFIELD	Yes	No	V-SSWR-LEAC	V_SURV_Line_By_Layer (USACE)	Survey Site
LEACHLINE	Yes	No	V-SSWR-LEAC	V_SURV_Line_By_Layer (USACE)	Survey Site
LEVEE	Yes	No	V-LEVE-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
LEVEECRWN	Yes	No	V-LEVE-TOPB	V_SURV_Line_By_Layer (USACE)	Survey Site
LEVEESLOP	Yes	No	V-LEVE-SLOP	V_SURV_Line_By_Layer (USACE)	Survey Site
LEVEETOE	Yes	No	V-LEVE-TOE~	V_SURV_Line_By_Layer (USACE)	Survey Site
LEVEETOP	Yes	No	V-LEVE-TOPB	V_SURV_Line_By_Layer (USACE)	Survey Site
LIP	Yes	No	V-ROAD-CURB	V_SURV_Line_By_Layer (USACE)	Survey Site
LIQPRO	No	No	V-FUEL-SERV-PIPE	V_SURV_Line_By_Layer (USACE)	Survey Site
LSOUT	No	No	V-SITE-VEGE	V_SURV_Line_By_Layer (USACE)	Survey Site
MDOCK	No	No	V-BLDG-DOCK	V_SURV_Line_By_Layer (USACE)	Survey Site
MISSTRUCT	Yes	No	V-SITE-STRC	V_SURV_Line_By_Layer (USACE)	Survey Site
MULCHLINE	No	No	V-SITE-VEGE-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
OHCAV	No	No	V-COMM-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
OHCOMM	No	No	V-COMM-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
OHEL	No	No	V-PRIM-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
OHMISC	No	No	V-COMM-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
OHTELELINE	No	No	V-COMM-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
OHTV	No	No	V-COMM-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
OHUTIL	No	No	V-PRIM-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
OILWELL	No	No	V-FUEL-DEVC	V_SURV_Line_By_Layer (USACE)	Survey Site
OVERHANG	No	No	V-BLDG-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
PAD	Yes	No	V-SITE-STRC	V_SURV_Line_By_Layer (USACE)	Survey Site
PAINTSTRIPE	No	No	V-PVMT-MRKG	V_SURV_Line_By_Layer (USACE)	Survey Site
PIER	No	No	V-CHAN-DOCK	V_SURV_Line_By_Layer (USACE)	Survey Site
PIPELINE	No	No	V-NGAS-PIPE	V_SURV_Line_By_Layer (USACE)	Survey Site
POOL	Yes	No	V-SITE-STRC	V_SURV_Line_By_Layer (USACE)	Survey Site
PORCH	Yes	No	V-BLDG-PRCH	V_SURV_Line_By_Layer (USACE)	Survey Site
RAMP	Yes	No	V-SITE-STRS	V_SURV_Line_By_Layer (USACE)	Survey Site
REV	Yes	No	V-RRAP-RVMT	V_SURV_Line_By_Layer (USACE)	Survey Site
RIF	Yes	No	V-TOPO-SPOT	V_SURV_Line_By_Layer (USACE)	Survey Site
RIPRAP	Yes	No	V-RRAP-RVMT	V_SURV_Line_By_Layer (USACE)	Survey Site
RNWEOP	Yes	No	V-RUNW-EDGE	V_SURV_Line_By_Layer (USACE)	Survey Site
RNWSHLD	Yes	No	V-RUNW-SHLD	V_SURV_Line_By_Layer (USACE)	Survey Site
ROCKGUTTER	Yes	No	V-ROAD-CURB	V_SURV_Line_By_Layer (USACE)	Survey Site
ROCKOUTCROP	Yes	No	V-SITE-ROCK	V_SURV_Line_By_Layer (USACE)	Survey Site
RRRAIL	Yes	No	V-RAIL-TRAK	V_SURV_Line_By_Layer (USACE)	Survey Site
RRTP	No	No	V-RAIL-TRAK	V_SURV_Line_By_Layer (USACE)	Survey Site
RUINS	No	No	V-SITE-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
RW	No	Yes	V-PROP-LINE	V_SURV_Line_By_Layer (USACE)	Survey Site
SANPMARK	No	No	V-SSWR-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
SHED	No	No	V-BLDG-FTPT	V_SURV_Line_By_Layer (USACE)	Survey Site

Name	Breakline	Lot Line	Layer	Figure Style	Site
SHRUBLINE	No	No	V-SITE-VEGE-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
SLOPETOE	Yes	No	V-TOPO-SLOP-TOPT	V_SURV_Line_By_Layer (USACE)	Survey Site
SLOPETOP	Yes	No	V-TOPO-SLOP-TOPT	V_SURV_Line_By_Layer (USACE)	Survey Site
SP	Yes	No	V-FLOD-PILE	V_SURV_Line_By_Layer (USACE)	Survey Site
SPOIL	Yes	No	V-BORW-LINE	V_SURV_Line_By_Layer (USACE)	Survey Site
SSLN	No	No	V-SSWR-MAIN-PIPE	V_SURV_Line_By_Layer (USACE)	Survey Site
STEAMLINE	No	No	V-HTCW-STEM-MAIN	V_SURV_Line_By_Layer (USACE)	Survey Site
STEPS	Yes	No	V-SITE-STRS	V_SURV_Line_By_Layer (USACE)	Survey Site
STLN	No	No	V-STRM-MAIN-PIPE	V_SURV_Line_By_Layer (USACE)	Survey Site
SWALE	Yes	No	V-DTCH-TOP~	V_SURV_Line_By_Layer (USACE)	Survey Site
SWMP	Yes	No	V-WETL-SWMP	V_SURV_Line_By_Layer (USACE)	Survey Site
TBC	Yes	No	V-ROAD-CURB	V_SURV_Line_By_Layer (USACE)	Survey Site
TBCHANNEL	Yes	No	V-CHAN-BANK-TOP~	V_SURV_Line_By_Layer (USACE)	Survey Site
TELELINEMRK	No	No	V-COMM-UGND-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
TELEPMRK	No	No	V-COMM-UGND-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
TEWALL	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
TFC	Yes	No	V-ROAD-CURB	V_SURV_Line_By_Layer (USACE)	Survey Site
TFW	Yes	No	V-FLOD-TOP~	V_SURV_Line_By_Layer (USACE)	Survey Site
THALWEG	Yes	No	V-RIVR-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
TL	No	No	V-SITE-VEGE	V_SURV_Line_By_Layer (USACE)	Survey Site
TOE	Yes	No	V-TOPO-SLOP-TOPT	V_SURV_Line_By_Layer (USACE)	Survey Site
TOERRAP	Yes	No	V-RRAP-RVMT	V_SURV_Line_By_Layer (USACE)	Survey Site
TOP	Yes	No	V-TOPO-SLOP-TOPT	V_SURV_Line_By_Layer (USACE)	Survey Site
TOPRRAP	Yes	No	V-RRAP-RVMT	V_SURV_Line_By_Layer (USACE)	Survey Site
TRAIL	Yes	No	V-SITE-WALK	V_SURV_Line_By_Layer (USACE)	Survey Site
TWR	Yes	No	V-SITE-STRC	V_SURV_Line_By_Layer (USACE)	Survey Site
TXWEOP	Yes	No	V-TAXI-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
TXWSHLD	Yes	No	V-TAXI-SHLD	V_SURV_Line_By_Layer (USACE)	Survey Site
UGCATV	No	No	V-COMM-UGND	V_SURV_Line_By_Layer (USACE)	Survey Site
UGCOMM	No	No	V-COMM-UGND	V_SURV_Line_By_Layer (USACE)	Survey Site
UGEL	No	No	V-PRIM-UGND	V_SURV_Line_By_Layer (USACE)	Survey Site
UGFIBER	No	No	V-COMM-UGND	V_SURV_Line_By_Layer (USACE)	Survey Site
UGMISC	No	Yes	V-COMM-UGND	V_SURV_Line_By_Layer (USACE)	Survey Site
UGT	No	No	V-COMM-UGND	V_SURV_Line_By_Layer (USACE)	Survey Site
UGTELE	No	No	V-COMM-UGND	V_SURV_Line_By_Layer (USACE)	Survey Site
UGUTIL	No	No	V-PRIM-UGND	V_SURV_Line_By_Layer (USACE)	Survey Site
WALL	Yes	No	V-SITE-STRC	V_SURV_Line_By_Layer (USACE)	Survey Site
WALLBE	Yes	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
WELLHSE	Yes	No	V-WATR-WELL	V_SURV_Line_By_Layer (USACE)	Survey Site
WL	No	No	V-WATR-MAIN-PIPE	V_SURV_Line_By_Layer (USACE)	Survey Site
WTLND	Yes	No	V-WETL-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
WTREDG	Yes	No	V-SITE-EWAT	V_SURV_Line_By_Layer (USACE)	Survey Site
WTRLINEMRK	No	No	V-WATR-SIGN	V_SURV_Line_By_Layer (USACE)	Survey Site
WTRPMRK	No	No	V-WATR-SIGN	V_SURV_Line_By_Layer (USACE)	Survey Site
WW	No	No	V-STRM-HWAL	V_SURV_Line_By_Layer (USACE)	Survey Site

39.3.2 USACE – Numeric

The “USACE – Numeric” Figure Prefix Database is intended for use in the field along with the Numeric field codes. The following table lists these numeric Figure Prefixes and the properties they assign.

Name	Breakline	Lot Line	Layer	Figure Style	Site
100	Yes	No	V-SURV-LINE	V_SURV_Line_By_Layer (USACE)	Survey Site
108	Yes	No	V-AERI-PNPT	V_SURV_Line_By_Layer (USACE)	Survey Site
135	No	No	V-SSWR-MAIN-PIPE	V_SURV_Line_By_Layer (USACE)	Survey Site
142	Yes	No	V-AERI-PNPT	V_SURV_Line_By_Layer (USACE)	Survey Site
143	Yes	No	V-AERI-PNPT	V_SURV_Line_By_Layer (USACE)	Survey Site
1000	Yes	No	V-ALGN-LINE	V_SURV_Line_By_Layer (USACE)	Survey Site
1501	No	Yes	V-PROP-LINE	V_SURV_Line_By_Layer (USACE)	Survey Site
2000	Yes	No	V-TOPO-BKLN	V_SURV_Line_By_Layer (USACE)	Survey Site
2001	Yes	No	V-TOPO-SLOP-TOPT	V_SURV_Line_By_Layer (USACE)	Survey Site
2002	Yes	No	V-TOPO-SLOP-TOPT	V_SURV_Line_By_Layer (USACE)	Survey Site
2006	Yes	No	V-TOPO-SLOP-TOPT	V_SURV_Line_By_Layer (USACE)	Survey Site
2007	Yes	No	V-TOPO-SLOP-TOPT	V_SURV_Line_By_Layer (USACE)	Survey Site
2008	Yes	No	V-CHAN-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
2009	Yes	No	V-BECH-OHWM	V_SURV_Line_By_Layer (USACE)	Survey Site
2010	No	No	V-BLDG-DOCK	V_SURV_Line_By_Layer (USACE)	Survey Site
2011	No	No	V-SITE-ROCK	V_SURV_Line_By_Layer (USACE)	Survey Site
2012	Yes	No	V-SITE-ROCK	V_SURV_Line_By_Layer (USACE)	Survey Site
2013	Yes	No	V-SITE-STRC	V_SURV_Line_By_Layer (USACE)	Survey Site
2017	Yes	No	V-TOPO-BKLN	V_SURV_Line_By_Layer (USACE)	Survey Site
2018	Yes	No	V-TOPO-BKLN	V_SURV_Line_By_Layer (USACE)	Survey Site
2201	Yes	No	V-STRM-CHUT	V_SURV_Line_By_Layer (USACE)	Survey Site
2202	Yes	No	V-STRM-CHUT	V_SURV_Line_By_Layer (USACE)	Survey Site
2203	Yes	No	V-RRAP-RVMT	V_SURV_Line_By_Layer (USACE)	Survey Site
2204	Yes	No	V-ROAD-CONC	V_SURV_Line_By_Layer (USACE)	Survey Site
2207	Yes	No	V-DTCH-TOP~	V_SURV_Line_By_Layer (USACE)	Survey Site
2208	Yes	No	V-DTCH-BOTM	V_SURV_Line_By_Layer (USACE)	Survey Site
2209	Yes	No	V-DTCH-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
2210	Yes	No	V-DTCH-TOP~	V_SURV_Line_By_Layer (USACE)	Survey Site
2213	Yes	No	V-SSWR-JBOX	V_SURV_Line_By_Layer (USACE)	Survey Site
2215	Yes	No	V-RRAP-RVMT	V_SURV_Line_By_Layer (USACE)	Survey Site
2216	Yes	No	V-RRAP-RVMT	V_SURV_Line_By_Layer (USACE)	Survey Site
2217	Yes	No	V-RRAP-RVMT	V_SURV_Line_By_Layer (USACE)	Survey Site
2218	Yes	No	V-RRAP-RVMT	V_SURV_Line_By_Layer (USACE)	Survey Site
2219	No	No	V-STRM-MAIN-PIPE	V_SURV_Line_By_Layer (USACE)	Survey Site
2220	Yes	No	V-ROAD-CURB	V_SURV_Line_By_Layer (USACE)	Survey Site
2221	Yes	No	V-ROAD-CURB	V_SURV_Line_By_Layer (USACE)	Survey Site
2222	Yes	No	V-RRAP-GABN	V_SURV_Line_By_Layer (USACE)	Survey Site
2223	Yes	No	V-DTCH-BOTM	V_SURV_Line_By_Layer (USACE)	Survey Site
2224	Yes	No	V-DTCH-TOP~	V_SURV_Line_By_Layer (USACE)	Survey Site
2501	Yes	No	V-TOPO-SHOR	V_SURV_Line_By_Layer (USACE)	Survey Site
2502	Yes	No	V-TOPO-SHOR	V_SURV_Line_By_Layer (USACE)	Survey Site
2503	Yes	No	V-TOPO-SHOR	V_SURV_Line_By_Layer (USACE)	Survey Site
2504	Yes	No	V-TOPO-SHOR	V_SURV_Line_By_Layer (USACE)	Survey Site
2506	Yes	No	V-LEVE-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
2507	Yes	No	V-TOPO-SPOT	V_SURV_Line_By_Layer (USACE)	Survey Site
2508	Yes	No	V-FLOD-PILE	V_SURV_Line_By_Layer (USACE)	Survey Site
2509	Yes	No	V-DTCH-TOP~	V_SURV_Line_By_Layer (USACE)	Survey Site
2510	Yes	No	V-RIVR-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
2511	Yes	No	V-SITE-EWAT	V_SURV_Line_By_Layer (USACE)	Survey Site
2515	Yes	No	V-CHAN-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
2516	Yes	No	V-CHAN-BANK-TOP~	V_SURV_Line_By_Layer (USACE)	Survey Site

Name	Breakline	Lot Line	Layer	Figure Style	Site
2700	Yes	No	V-WETL-BOGS	V_SURV_Line_By_Layer (USACE)	Survey Site
2701	No	No	V-WETL-PHOL	V_SURV_Line_By_Layer (USACE)	Survey Site
2702	Yes	No	V-WETL-SWMP	V_SURV_Line_By_Layer (USACE)	Survey Site
2703	Yes	No	V-WETL-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
3501	No	No	V-SITE-VEGE	V_SURV_Line_By_Layer (USACE)	Survey Site
3504	No	No	V-SITE-VEGE	V_SURV_Line_By_Layer (USACE)	Survey Site
3507	No	No	V-SITE-VEGE	V_SURV_Line_By_Layer (USACE)	Survey Site
3508	Yes	No	V-TOPO-BKLN	V_SURV_Line_By_Layer (USACE)	Survey Site
3509	Yes	No	V-TOPO-BKLN	V_SURV_Line_By_Layer (USACE)	Survey Site
3510	No	No	V-SITE-VEGE	V_SURV_Line_By_Layer (USACE)	Survey Site
3528	No	No	V-SITE-VEGE-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
3529	No	No	V-SITE-VEGE-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
3700	Yes	No	V-FLOD-TOP~	V_SURV_Line_By_Layer (USACE)	Survey Site
3701	Yes	No	V-FLOD-BASE	V_SURV_Line_By_Layer (USACE)	Survey Site
3702	Yes	No	V-FLOD-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
3703	Yes	No	V-FLOD-TOP~	V_SURV_Line_By_Layer (USACE)	Survey Site
3705	Yes	No	V-LEVE-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
3706	Yes	No	V-LEVE-SLOP	V_SURV_Line_By_Layer (USACE)	Survey Site
3707	Yes	No	V-LEVE-TOE~	V_SURV_Line_By_Layer (USACE)	Survey Site
3708	Yes	No	V-LEVE-TOPB	V_SURV_Line_By_Layer (USACE)	Survey Site
3709	Yes	No	V-LEVE-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
3710	Yes	No	V-LEVE-TOPB	V_SURV_Line_By_Layer (USACE)	Survey Site
4001	No	No	V-PRIM-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
4002	No	No	V-COMM-UGND	V_SURV_Line_By_Layer (USACE)	Survey Site
4004	No	No	V-COMM-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
4005	No	No	V-PRIM-UGND	V_SURV_Line_By_Layer (USACE)	Survey Site
4008	No	No	V-FUEL-MAIN-PIPE	V_SURV_Line_By_Layer (USACE)	Survey Site
4010	No	No	V-NGAS-PIPE	V_SURV_Line_By_Layer (USACE)	Survey Site
4014	Yes	No	V-STRM-HWAL	V_SURV_Line_By_Layer (USACE)	Survey Site
4016	No	No	V-INDW-MAIN-PIPE	V_SURV_Line_By_Layer (USACE)	Survey Site
4031	No	No	V-PRIM-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
4032	No	No	V-PRIM-UGND	V_SURV_Line_By_Layer (USACE)	Survey Site
4037	No	No	V-WATR-MAIN-PIPE	V_SURV_Line_By_Layer (USACE)	Survey Site
4038	Yes	No	V-WATR-WELL	V_SURV_Line_By_Layer (USACE)	Survey Site
4040	No	No	V-COMM-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
4042	No	No	V-COMM-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
4043	No	No	V-COMM-UGND	V_SURV_Line_By_Layer (USACE)	Survey Site
4044	Yes	No	V-SSWR-NITF	V_SURV_Line_By_Layer (USACE)	Survey Site
4046	No	No	V-DBNK-MULT	V_SURV_Line_By_Layer (USACE)	Survey Site
4047	No	No	V-FUEL-MAIN-PIPE	V_SURV_Line_By_Layer (USACE)	Survey Site
4048	Yes	No	V-SSWR-LEAC	V_SURV_Line_By_Layer (USACE)	Survey Site
4051	No	No	V-FUEL-SERV-PIPE	V_SURV_Line_By_Layer (USACE)	Survey Site
4052	No	No	V-COMM-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
4053	No	No	V-COMM-UGND	V_SURV_Line_By_Layer (USACE)	Survey Site
4056	No	No	V-NGAS-PIPE	V_SURV_Line_By_Layer (USACE)	Survey Site
4059	No	No	V-HTCW-STEM-MAIN	V_SURV_Line_By_Layer (USACE)	Survey Site
4061	Yes	No	V-FUEL-VALT	V_SURV_Line_By_Layer (USACE)	Survey Site
4062	No	No	V-FUEL-STNS-PUMP	V_SURV_Line_By_Layer (USACE)	Survey Site
4071	No	No	V-STRM-HWAL	V_SURV_Line_By_Layer (USACE)	Survey Site
4075	No	No	V-COMM-UGND-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
4076	No	No	V-COMM-UGND-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
4079	No	No	V-POWR-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
4080	No	No	V-POWR-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site

Name	Breakline	Lot Line	Layer	Figure Style	Site
4085	No	No	V-COMM-UGND-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
4086	No	No	V-COMM-UGND-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
4106	No	No	V-NGAS-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
4107	No	No	V-NGAS-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
4109	Yes	No	V-NGAS-VALT	V_SURV_Line_By_Layer (USACE)	Survey Site
4110	No	No	V-FUEL-JBOX	V_SURV_Line_By_Layer (USACE)	Survey Site
4111	No	No	V-COMM-UGND	V_SURV_Line_By_Layer (USACE)	Survey Site
4113	No	No	V-FUEL-DEVC	V_SURV_Line_By_Layer (USACE)	Survey Site
4114	No	No	V-FUEL-DEVC	V_SURV_Line_By_Layer (USACE)	Survey Site
4115	No	No	V-FUEL-DEVC	V_SURV_Line_By_Layer (USACE)	Survey Site
4117	Yes	No	V-SSWR-LEAC	V_SURV_Line_By_Layer (USACE)	Survey Site
4118	No	No	V-SSWR-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
4127	No	No	V-COMM-UGND-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
4128	No	No	V-COMM-UGND-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
4131	No	No	V-COMM-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
4132	No	No	V-COMM-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
4133	No	No	V-COMM-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
4134	No	No	V-COMM-UGND	V_SURV_Line_By_Layer (USACE)	Survey Site
4135	No	No	V-COMM-UGND	V_SURV_Line_By_Layer (USACE)	Survey Site
4136	No	Yes	V-COMM-UGND	V_SURV_Line_By_Layer (USACE)	Survey Site
4140	No	No	V-WATR-SIGN	V_SURV_Line_By_Layer (USACE)	Survey Site
4141	No	No	V-WATR-SIGN	V_SURV_Line_By_Layer (USACE)	Survey Site
4500	Yes	No	V-BLDG-FTPT	V_SURV_Line_By_Layer (USACE)	Survey Site
4501	No	No	V-BLDG-DECK	V_SURV_Line_By_Layer (USACE)	Survey Site
4502	Yes	No	V-BLDG-FTPT	V_SURV_Line_By_Layer (USACE)	Survey Site
4503	Yes	No	V-SITE-STRC	V_SURV_Line_By_Layer (USACE)	Survey Site
4504	No	No	V-BLDG-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
4505	Yes	No	V-BLDG-PRCH	V_SURV_Line_By_Layer (USACE)	Survey Site
4506	Yes	No	V-SITE-STRS	V_SURV_Line_By_Layer (USACE)	Survey Site
4507	Yes	No	V-SITE-STRS	V_SURV_Line_By_Layer (USACE)	Survey Site
4508	Yes	No	V-SITE-STRC	V_SURV_Line_By_Layer (USACE)	Survey Site
4510	Yes	No	V-SITE-STRC	V_SURV_Line_By_Layer (USACE)	Survey Site
4511	No	No	V-BLDG-DOCK	V_SURV_Line_By_Layer (USACE)	Survey Site
4512	No	No	V-BLDG-DOCK	V_SURV_Line_By_Layer (USACE)	Survey Site
4514	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
4515	No	No	V-BLDG-OVHD	V_SURV_Line_By_Layer (USACE)	Survey Site
4516	No	No	V-BLDG-FTPT	V_SURV_Line_By_Layer (USACE)	Survey Site
4519	No	No	V-SITE-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
5000	Yes	No	V-ROAD-CURB	V_SURV_Line_By_Layer (USACE)	Survey Site
5001	Yes	No	V-ROAD-CURB	V_SURV_Line_By_Layer (USACE)	Survey Site
5002	Yes	No	V-ROAD-CURB	V_SURV_Line_By_Layer (USACE)	Survey Site
5003	No	No	V-ROAD-GRAL	V_SURV_Line_By_Layer (USACE)	Survey Site
5004	Yes	No	V-ROAD-ASPH	V_SURV_Line_By_Layer (USACE)	Survey Site
5006	Yes	No	V-ROAD-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
5007	Yes	No	V-ROAD-GRVL	V_SURV_Line_By_Layer (USACE)	Survey Site
5008	Yes	No	V-ROAD-UPVD	V_SURV_Line_By_Layer (USACE)	Survey Site
5009	Yes	No	V-ROAD-SHLD	V_SURV_Line_By_Layer (USACE)	Survey Site
5012	Yes	No	V-ROAD-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
5014	Yes	No	V-ROAD-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
5015	Yes	No	V-ROAD-SHLD	V_SURV_Line_By_Layer (USACE)	Survey Site
5016	Yes	No	V-ROAD-SHLD	V_SURV_Line_By_Layer (USACE)	Survey Site
5017	Yes	No	V-ROAD-SHLD	V_SURV_Line_By_Layer (USACE)	Survey Site

Name	Breakline	Lot Line	Layer	Figure Style	Site
5018	Yes	No	V-ROAD-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
5019	Yes	No	V-ROAD-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
5020	Yes	No	V-ROAD-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
5022	Yes	No	V-ROAD-CURB	V_SURV_Line_By_Layer (USACE)	Survey Site
5500	No	No	V-ROAD-CURB	V_SURV_Line_By_Layer (USACE)	Survey Site
5501	Yes	No	V-PVMT-PATT	V_SURV_Line_By_Layer (USACE)	Survey Site
5502	Yes	No	V-JNTS-CNSL	V_SURV_Line_By_Layer (USACE)	Survey Site
5503	Yes	No	V-JNTS-CNTL	V_SURV_Line_By_Layer (USACE)	Survey Site
5504	Yes	No	V-JNTS-CNSL	V_SURV_Line_By_Layer (USACE)	Survey Site
5505	No	No	V-PVMT-MRKG	V_SURV_Line_By_Layer (USACE)	Survey Site
5506	Yes	No	V-SITE-WALK	V_SURV_Line_By_Layer (USACE)	Survey Site
5507	Yes	No	V-ROAD-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
5510	Yes	No	V-PRKG-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
5511	Yes	No	V-SITE-WALK	V_SURV_Line_By_Layer (USACE)	Survey Site
5512	Yes	No	V-SITE-WALK	V_SURV_Line_By_Layer (USACE)	Survey Site
5513	Yes	No	V-SITE-STRC	V_SURV_Line_By_Layer (USACE)	Survey Site
5514	Yes	No	V-SITE-WALK	V_SURV_Line_By_Layer (USACE)	Survey Site
6003	No	No	V-RAIL-TRAK	V_SURV_Line_By_Layer (USACE)	Survey Site
6004	Yes	No	V-RAIL-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
6007	Yes	No	V-RAIL-TRAK	V_SURV_Line_By_Layer (USACE)	Survey Site
6008	Yes	No	V-RAIL-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
6009	Yes	No	V-RAIL-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
6011	No	No	V-RAIL-EQPM	V_SURV_Line_By_Layer (USACE)	Survey Site
6015	No	No	V-RRAP-RVMT	V_SURV_Line_By_Layer (USACE)	Survey Site
6016	No	No	V-RAIL-EQPM	V_SURV_Line_By_Layer (USACE)	Survey Site
6501	Yes	No	V-APRN-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
6502	Yes	No	V-APRN-SHLD	V_SURV_Line_By_Layer (USACE)	Survey Site
6503	Yes	No	V-RRAP-RVMT	V_SURV_Line_By_Layer (USACE)	Survey Site
6504	Yes	No	V-RRAP-RVMT	V_SURV_Line_By_Layer (USACE)	Survey Site
6505	Yes	No	V-APRN-GRND	V_SURV_Line_By_Layer (USACE)	Survey Site
6506	Yes	No	V-RUNW-EDGE	V_SURV_Line_By_Layer (USACE)	Survey Site
6508	Yes	No	V-RUNW-SHLD	V_SURV_Line_By_Layer (USACE)	Survey Site
6509	Yes	No	V-TAXI-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
6510	Yes	No	V-TAXI-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
6512	Yes	No	V-TAXI-SHLD	V_SURV_Line_By_Layer (USACE)	Survey Site
7000	Yes	No	V-BRDG-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
7001	Yes	No	V-BRDG-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
7002	Yes	No	V-BRDG-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
7003	Yes	No	V-BRDG-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
7004	Yes	No	V-BRDG-DECK	V_SURV_Line_By_Layer (USACE)	Survey Site
7005	Yes	No	V-BRDG-DECK	V_SURV_Line_By_Layer (USACE)	Survey Site
7006	Yes	No	V-BRDG-DECK	V_SURV_Line_By_Layer (USACE)	Survey Site
7007	No	No	V-BRDG-RLG~	V_SURV_Line_By_Layer (USACE)	Survey Site
7008	Yes	No	V-BRDG-CNTR	V_SURV_Line_By_Layer (USACE)	Survey Site
7009	No	No	V-BRDG-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
7011	No	No	V-CHAN-DOCK	V_SURV_Line_By_Layer (USACE)	Survey Site
7012	No	No	V-BRDG-CTLJ	V_SURV_Line_By_Layer (USACE)	Survey Site
7013	Yes	No	V-PVMT-CONC	V_SURV_Line_By_Layer (USACE)	Survey Site
7500	No	No	V-SITE-STRC	V_SURV_Line_By_Layer (USACE)	Survey Site
7503	Yes	No	V-SITE-OTLN	V_SURV_Line_By_Layer (USACE)	Survey Site
7504	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
7507	Yes	No	V-MILR-FOXH	V_SURV_Line_By_Layer (USACE)	Survey Site
7508	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
7509	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
7510	Yes	No	V-ROAD-GRVL	V_SURV_Line_By_Layer (USACE)	Survey Site

Name	Breakline	Lot Line	Layer	Figure Style	Site
7514	Yes	No	V-SITE-STRC	V_SURV_Line_By_Layer (USACE)	Survey Site
7523	Yes	No	V-SITE-WALK	V_SURV_Line_By_Layer (USACE)	Survey Site
7524	Yes	No	V-CHAN-BANK-TOP~	V_SURV_Line_By_Layer (USACE)	Survey Site
7525	Yes	No	V-CHAN-TOE~	V_SURV_Line_By_Layer (USACE)	Survey Site
7526	Yes	No	V-CHAN-BANK-TOP~	V_SURV_Line_By_Layer (USACE)	Survey Site
7527	Yes	No	V-BORW-LINE	V_SURV_Line_By_Layer (USACE)	Survey Site
7528	Yes	No	V-BORW-LINE	V_SURV_Line_By_Layer (USACE)	Survey Site
7529	Yes	No	V-BORW-LINE	V_SURV_Line_By_Layer (USACE)	Survey Site
7531	Yes	No	V-SITE-IDEN	V_SURV_Line_By_Layer (USACE)	Survey Site
7532	Yes	No	V-BORW-LINE	V_SURV_Line_By_Layer (USACE)	Survey Site
7533	Yes	No	V-SITE-WALK	V_SURV_Line_By_Layer (USACE)	Survey Site
7534	Yes	No	V-LEVE-BERM	V_SURV_Line_By_Layer (USACE)	Survey Site
7535	Yes	No	V-LEVE-BERM	V_SURV_Line_By_Layer (USACE)	Survey Site
7536	Yes	No	V-LEVE-BERM	V_SURV_Line_By_Layer (USACE)	Survey Site
7537	Yes	No	V-LEVE-BERM	V_SURV_Line_By_Layer (USACE)	Survey Site
7538	Yes	No	V-LEVE-BERM	V_SURV_Line_By_Layer (USACE)	Survey Site
7549	No	No	V-PRKG-FIXT	V_SURV_Line_By_Layer (USACE)	Survey Site
7550	Yes	No	V-SITE-STRC	V_SURV_Line_By_Layer (USACE)	Survey Site
7553	Yes	No	V-SITE-STRC	V_SURV_Line_By_Layer (USACE)	Survey Site
7555	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
7556	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
7557	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
7558	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
7559	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
7560	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
7561	No	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site
7562	Yes	No	V-SITE-FENC	V_SURV_Line_By_Layer (USACE)	Survey Site

39.4 Linework Code Sets

Linework Code Sets are external databases containing the codes that are used for linework creation during Survey Data processing. Linework Code Sets are stored under the USACE Standard folder structure under a folder called "Survey". They are accessed and organized on the "Survey" tab of the Toolspace under "Linework Code Set". The following screen shot shows the Linework Code Set used by USACE.

The screenshot shows the 'Edit Linework Code Set' dialog box. The 'Property' column lists various code set properties, and the 'Value' column shows the corresponding values for the 'USACE - Line_Codes' set. The properties are organized into sections: Information, Coding Methods, Special Codes, Line Segment Codes, and Curve Segment Codes.

Property	Value
Information	
Name	USACE - Line_Codes
Description	Line Code Sets
Coding Methods	
Feature/Code delimiter	<Space>
Field code escape	/
Start in comment mode	☐ No
Automatic begin on figure prefix match	☐ No
Special Codes	
Begin	ST
Continue	C
End	E
Close	CL
Horizontal offset	H
Vertical offset	V
Stop offsets	SO
Line Segment Codes	
Recall point	JPT
Connect point	JNC
Rectangle	CLSRECT
Right turn	RT
Extend	X
Curve Segment Codes	
Begin curve	PC
End curve	PT
Circle	CIR
Point on curve	OC

At the bottom of the dialog box are three buttons: OK, Cancel, and Help.

40 VIEW FRAME GROUP CONFIGURATION

Only commands settings available in this section.

41 VIEW FRAME CONFIGURATION

This section outlines the configuration and styles used by View Frames. These are accessed and managed on the “Settings” tab of the Toolspace under the “View Frame” category.

41.1 View Frame Styles

These Styles are used to dictate how View Frames will be displayed:

- *G_ANNO_NPLT_FRAM (USACE)*

41.2 Label Styles

These Styles are used to dictate how View Frame Labels will be displayed and the information they contain.

- *G_ANNO_NPLT_FRAM (USACE)*

42 MATCH LINE CONFIGURATION

This section outlines the configuration and styles used by Match Lines. These are accessed and managed on the “Settings” tab of the Toolspace under the “Match Line” category.

42.1 Match Line Styles

These Styles are used to dictate how Match Lines will be displayed:

- *G_ANNO_MTCH_Line (USACE)*

42.2 Label Styles

Match Lines have two different label types. Each label type has its own set of Styles

42.2.1 Match Line Left

These Styles are used to dictate how Match Line Labels will be displayed on the left side of the Match Line and the information they contain.

- *G_ANNO_MTCH_Left_PREV_SHET (USACE)*

42.2.2 Match Line Right

These Styles are used to dictate how Match Line Labels will be displayed on the right side of the Match Line and the information they contain.

- *G_ANNO_MTCH_Right_NEXT_SHET (USACE)*

43 BUILDING SITE CONFIGURATION

This section outlines the configuration and styles used by Building Sites that are brought in from Revit. These are accessed and managed on the “Settings” tab of the Toolspace under the “Building Site” category.

43.1 Building Site Styles

These Styles are used to dictate how Building Sites will be displayed.

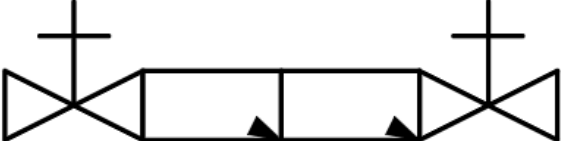
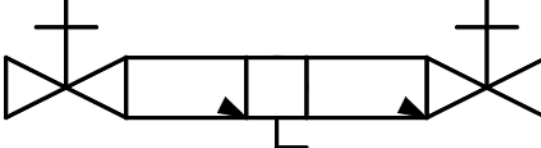
- *G_NPLT_Bldg (USACE)*

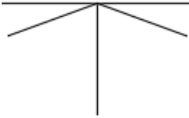
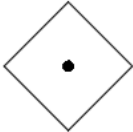
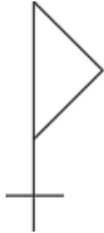
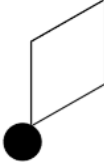
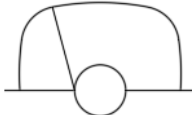
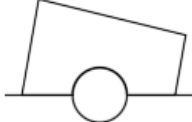
44 RAIL

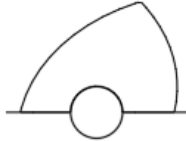
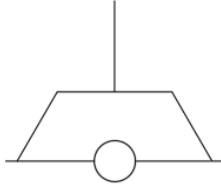
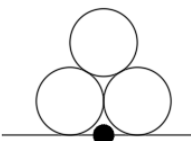
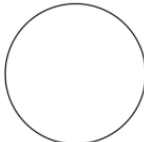
Only commands settings available in this section.

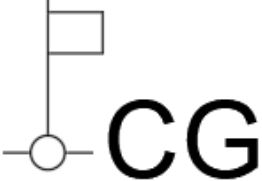
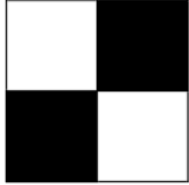
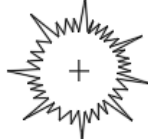
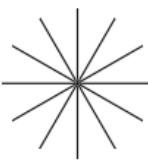
APPENDIX A: ILLUSTRATIONS OF USACE SYMBOLS AND BLOCKS

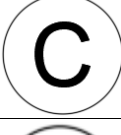
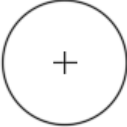
USACE Custom Symbol Blocks

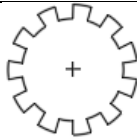
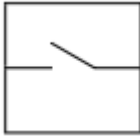
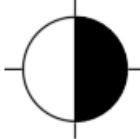
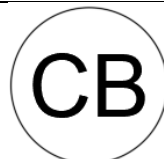
Block Name	Illustration
AeccTickCircle	
AeccTickLine	
Aerial Rod	
Anticline	
Arrow Filled	
Backflow Preventer Double Check	
Backflow Preventer Rpz	
BATTING	
Beacon - General	
Beacon - Refuge	
Beacon – Tower	

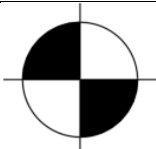
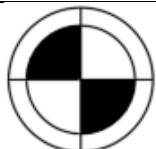
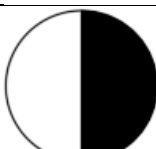
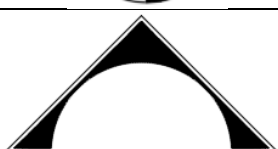
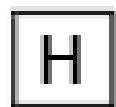
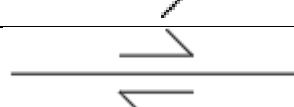
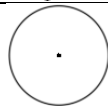
Bench Mark	
Bench Mark Alternate	
Boring With Inclinator	
Boundary Mark	
BREAK	
Break End	
Buoy	
Buoy - Barrel	
Buoy - Barrel1	
Buoy - Bell	
Buoy - Can	

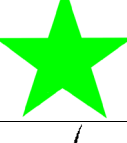
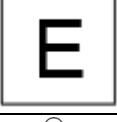
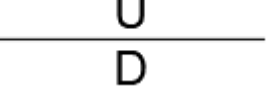
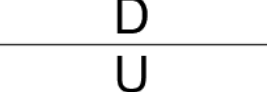
Buoy - Conical	
Buoy - Gong	 GONG
Buoy - Ocean Data Acq Sys	 ODAS
Buoy - Pillar	
Buoy - Privately Maintained	 Priv
Buoy - Seaplane Anchorage	 AERO
Buoy - Spar Buoy Spindle	
Buoy - Spherical	
Buoy - Super	
Buoy - Whistle	 WHIS
Buoyant Beacon	
Cairn	
Circle	

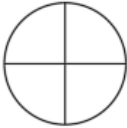
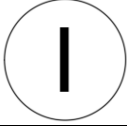
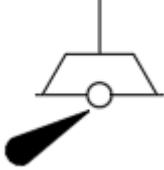
CNTLIN	
Coast Guard Rescue Station	
Coast Guard Rescue Station2	
Coast Guard Rescue Station3	
Coast Guard Station	
Coast Guard Station4	
Coast Guard Station5	
Cone Penetrometer Hole	
Coniferous Shrub	
Coniferous Tree	
Consolidated Drained	
Consolidated Drained Dir Shear	

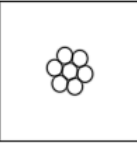
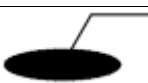
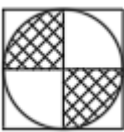
Consolidated Undrained	
Consolidated Undrained Triaxial Test	
Consolidation	
Consolidation Test	
Core Drill Hole Drilled	
Core Drill Hole Undrilled	
Corner Not Found	
Culvert End Symbol	
CX-VERT	
Dam - Rock - Sediment Trap	
Dam - Straw Bale	
Deciduous Shrub	

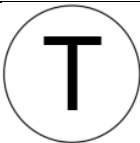
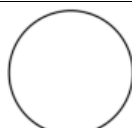
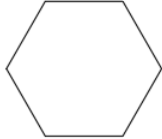
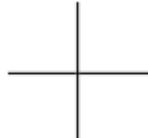
Deciduous Tree	
Detail Indicator [Broken]	
Detail Indicator [Solid]	
DIR_ARROW	
Distribution Switch Or Switching Station	
Disturb Sample Boring With Piezometer	
Drainage - Catch Basin	
Drainage - Catch Basin - Round	
Drainage - Open Tile Drain	
Drainage - Spray Pond	
Drawing Area Tile	 DRAWING_AREA_TITLE SCALE: _____
Drill Hole	
Drive Sampled Spot And Cor	
Drive Sampled Spot And Cor Hydrolic Press Tested	

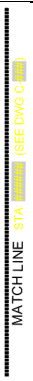
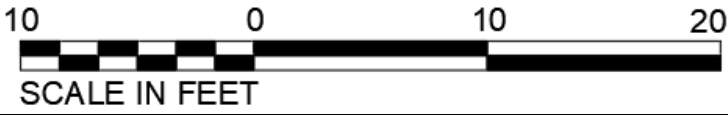
Drive Sampled Spot And Cor Wth Piezometer	
Drive Sampled Spot Cor Hydrolic Press Test Piezometer	
Drive Sampled Spot Hole	
DTLARW	
Electrical - Guy Wire	
Electrical - Handhole	
Elevation Indicator	
Fault Block Movement 1	
Fault Block Movement 2	
Fixed Point	
Float - Light	
Flood Gate	
Floodlight	
Flow Arrow	

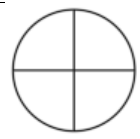
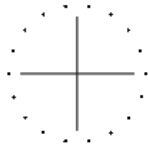
FLOW_ARROW	
Fog Signal	
Foundation Drain	
Generic Tree	
GLIGHT_1	
GLT_1	
GRBUOY_1	
gridtick	
Handhole - Electrical - Primary	
Handicap Chair	
Headwall	
Headwall_99	
High Angle Fault 1	
High Angle Fault 2	

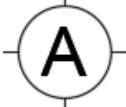
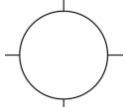
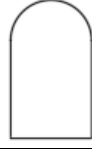
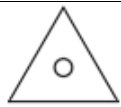
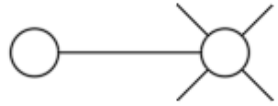
Horizontal Beds	
Hydrant - Fire	
Hydrant - Pan	
Hydrant - Wall	
Hydrant - One Hose Outlet	
Hydrant - Two Hose Outlet	
Hydrant - Wall Two Hose Outlet	
Industrial Waste Water Manhole	
Industrial Waste Water Meter	
Iron Pin And Cap	
Jetty	
Lanby Superbuoy Navaid	
LightBuoyBlock	
Location - Boarding Place	

Location - Boat Harbor Marina	
Location - Dolphin	
Location - Ground Spot Elevation	
Location - Lifeboat	
Location - Lighthouse	
Location - Magnetometer Detection	
Location - Pilot Office	 PIL STA
Location - Potential Release	
Location - Production Platform Oil Derrick	
Location - Sample - Surface Water	
Location - Tide Gauge	
Manhole - Communications	
Manhole - Electrical	

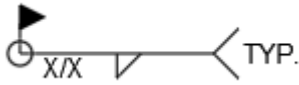
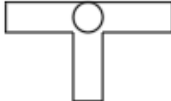
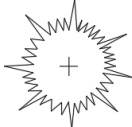
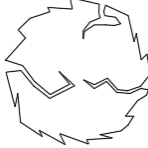
Manhole - Telephone	
Manhole - Utility Services	
Marker - Barrier	
Marker - Green Day	
Marker - Open River Mile	
Marker – Red Day	
Marker - Solid River Mile	
Marker_Circle	
Marker_Hex	
Marker_T	
Marker_Tick	
Match Line	MATCH LINE - SEE SHEET X-###

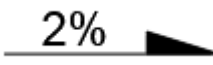
Match_Line	
MON	
Monitoring Probe - Landfill Gas	
Monitoring Probe - Soil Gas	
Monitoring Station - Groundwater Quality	
Monitoring Station - Surface Water Quality	
Monitoring Well	
MULTI-SCALE	
NAVAID	
None	
Nonsampled Area Hole	

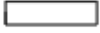
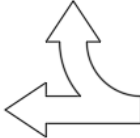
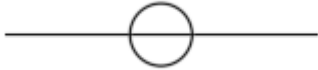
North Arrow	
North Arrow [RT]	
Numerous Moorings	
Observation Spot	
Obstruction	
Obstruction - Kelp Seaweed	
Obstruction - Rock - Danger Low Water	
Obstruction - Rock - Danger Underwater – Depth Unknown	
Obstruction - Submerged Pile W Position	
Obstruction - Wholly Submerged Post Or Pile	
Parking Turn Arrow	
Pedestal - Communications	
Photo Control Point	

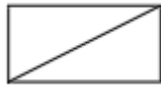
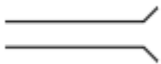
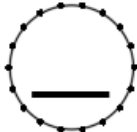
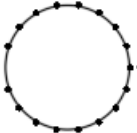
Piezometer	
Piezometer Abandoned	
Piezometer Or Observat Hole	
Pipe_End	
Piping-Thrust Block	
Piping - Natural Gas - Receiver	
Piping - Natural Gas - Shutoff	
Plan_Sec_Det_TITLE	MULTIPLE LINE TITLE X X XXX
Point	
Point - Horizontal Control	
Pole - Aerial With Guying	
Pole - Ljght - One Am	
Pole - Utility	
Pole Stake	

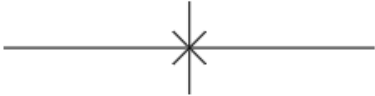
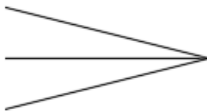
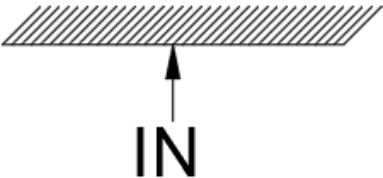
PortBuoyBlock	
Proposed Exploration	
Rail Signal	
Rail Switch	
Range Extension	
Range Star	
RDBUOY	
Rect	
Refusal Slashes	
Relief Well	
Sample	

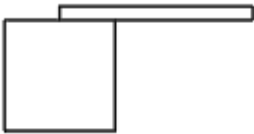
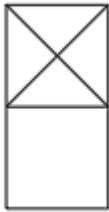
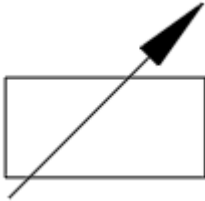
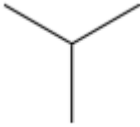
Scale Bar	
Scale Bar [ARCH]	
Screen	
SC-weld	
SDMHOL	
SECFLAG	
SECT_CUT_MARKER	
Section Corner T Open	
Sediment Control Temporary Diversion	
Sediment Trap - Stone Outlet	
Shrub	
Shrub 2	
Sign	

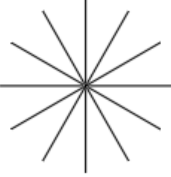
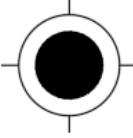
Silt Fence	
Silt Fence - Rock Overflow	
Site Remediation - Storage Container Agent	
SLOPE-RATIO	
SLOPE_ARROW	
SLOPE_CUT	
SLOPE_FILL	
SLOPE_INDICATOR	
Stake Perch	
StarboardBuoyBlock	
Station - Coast Radar	
Station - Distress Signal	

Station - Port Control Signal	○ HEC P
Station - Signal - General	
Steam Pit	
Storage Tank-Water Utility	 WATER UTILITY
Straight And Turn Arrow	
Straight Direction Arrow	
Strike Dip	
Strike Dip Of Inclined	
Strike Of Vertical Joint	
Strike W Vertical Dip	
Submerged Production Well	 WELL
Subsurface Investigation - Trench Exploration Completed	

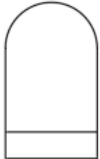
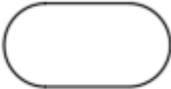
Subsurface - Trench Exploration Proposed	
Subsurface Investigation - Tunnel Exploration Completed	
Subsurface Investigation - Tunnel Exploration Proposed	
Surface Displacement Monument	◦ SDM
Survey Control	
Survey Pedestal	◦ SP
Suspended Well Depth Known	 WELL
Suspended Well Depth Unknown	 WELL
SWAMP	
Symbol - Hexagon	
Symbol - Square	
Symbol - Test Hole	
Symbol - Triangle	

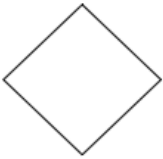
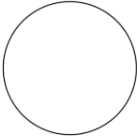
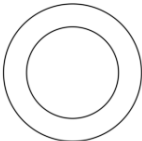
Syncline	
Tank - Above Ground	
Tank - Below Ground	
Tank - Fuel Storage	 FUEL STORAGE
TerminatorOpen_0.5	
Test Pit In Overburden	
Thru	
TickLine	
Tidestaff	
Tire Treddle	

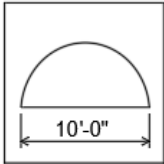
Tower - Transmission	
Traffic Arm	
Traffic Signal - Controller	
Traffic Signal - Mast Arm	
Transformer - Constant Current	
Transformer - Pad Mounted	
Transformer - Pole Mounted	
Transformer - Vault	
Transformer - Wye Connection	

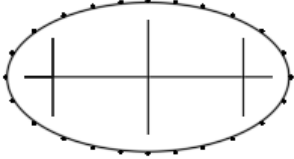
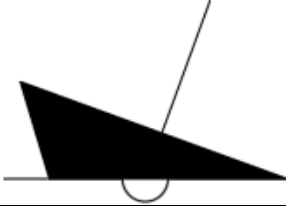
Tree	
Triangle	
Triangulation Point	
Tum	
Unconsolidated Underground Triaxial Test	
Unconsolidated Undrained	
Undisturbed Denison Or Push	
Undisturbed Sample Boring Piezometer	
Unsatisfactory Limit	
Uplift Cell	
USAC_SECTION	 SECTION SCALE

USACE_PLAN	
USACE_Plan Sec Det_TITLE	
USACE_XSEC_CUT	
Utility-Septic Tank	
Utility-Water Handhole	
Utility-Water Manhole	
Utility-Water Meter	
Utility-Water Meter Station	
Utility-Water Plant	
Utility-Water Station Pump	
Utility-Water Tank	
Utility-Water Valve Vault	

Utility - Gas Plant	
Utility-Natural Gas - Manhole	
Utility - Natural Gas - Meter	
Utility - Natural Gas - Trap	
Utility - Sanitary Cleanout	
Utility - Sanitary Manhole	
Utility - Sanitary Meter	
Utility - Sanitary Pressure Vessel	
Utility - Sanitary Sewer Lift Station	
Utility - Sanitary Valve Vault	
Utility - Storm Drainage Device	

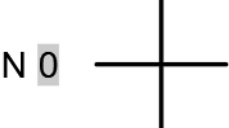
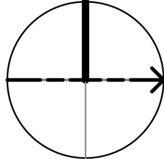
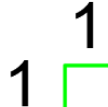
Utility - Storm Drainage Manhole	
Utility - Unknown	
Valve - General	
Valve - Regulator	
Vertical Core Hole	
Vertical Core Hole Hydraulic Press Tested	
Vessel - Light	
Vessel - Unmanned Light	
Washbored	
WATER-EL	

Water Level	▼ W.L. AT '()
Water Softener	WS
Weather Head – Aerial Service	
Weir	
Windcone	
Withy - Port Hand	
Withy - Port Hand Perch	
Withy - Starboard Hand	
Withy - Starboard Hand Perch	

Wreck - Depth Unknown - Dangerous	
Wreck - Partly Exposed	
Wreck - Sunken - Not Dangerous	

USACE Annotation Blocks

Block Name	Illustration
Detail Indicator [Broken]	
Detail Indicator [Solid]	
Drawing Area Title	
DTLARW	
Graphic Scale (ARCH)	
Graphic Scale (ENG)	
Gridtick	
Gridtick w E Label - Bottom	
Gridtick w E Label - Top	
Gndtick w N Label - Left	

Gidtick w N Label - Right	N 0 
North Arrow	PLAN NORTH 
North [RT]	PLAN NORTH 
Pole - Utility	
SECFLAG	I
SLOPE_RATIO	1 1 
SLOPE_CUT	
SLOPE_FILL	

AEC-TitleBlock_ANSI_D

10/3/2023

O	N	M	L	K	J	I	H	G	F	E	D	C	B	A	 US Army Corps of Engineers	<table border="1"> <tr> <td colspan="2">PROJECT NO.</td> <td colspan="2">DATE</td> </tr> <tr> <td colspan="2">PROJECT NAME</td> <td colspan="2">SHEET NO.</td> </tr> </table>	PROJECT NO.		DATE		PROJECT NAME		SHEET NO.	
																	PROJECT NO.		DATE					
PROJECT NAME		SHEET NO.																						

AEC_SHEET_INFO	AEC_SHEET_DATA
XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX	XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX

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