



NGA.STND.0029_1.0
2011-12-07

NGA STANDARDIZATION DOCUMENT

Portrayal Standard For Global Topographic Data Store (GTDS) Data (2011-12-07)

Version 1.0

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Editor: NCGIS
File Name: GTDS_Symbology_V1.0_07_December_2011.pdf
Distribution: National System for Geospatial Intelligence (NSG)
Usage: This standard has been approved for use by the NSG Community to portray Global Topographic Data Store (GTDS) data.

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1 Introduction

The Global Topographic Data Store (GTDS) data is collected in accordance with the criteria established in the GTDS Version 4.0 Entity Catalog (EC) and Extraction Guide (EG). The GTDS is focused on data collection rather than portrayal of that data. This NSG standard is intended to provide portrayal requirements for GTDS data that can be used to produce a global derived graphic/chart. The portrayal rules that associate geospatial feature/attribute data instances with symbol specifications are based on the GTDS Entity Catalog (EC). The symbol specifications defined in this standard provide information about symbol graphics that vendors can implement in their own systems.

2 Scope

The scope of this standard is to provide portrayal rules and graphic symbols for features in the GTDS Entity Catalog (EC). Selected attribute information on these features must also be portrayed. Portrayal information consists of portrayal rules (which associate data to symbols) and symbol specifications (that define symbols).

3 Conformance

This clause discusses conformance to the GTDS Symbology Standard. See Annex J for the checklist of normative conformance.

4 Normative references

This document references several other documents for additional information:

- a. Global Topographic Data Store (GTDS) Entity Catalog (EC) is available from <https://nsgreg.nga.mil/doc/view?i=82079>
- b. DGIWG Feature Data Dictionary (DFDD)

Copies of the document are available from <https://www.dgiwg.org/FAD/>
- c. MIL-STD-2402, Mapping, Charting, and Geodesy (MC&G) Symbols for Graphic Products.
- d. MIL-STD-2410, Mapping, Charting, and Geodesy (MC&G) Reproduction and Printing
- e. MIL-T-89101, Tactical Pilotage Charts (TPC)

Copies of these documents (c, d, e) are available at <https://assist.daps.dla.mil/quicksearch/>

- f. Pantone Colors

Information on Pantone colors are available at <http://www.pantone.com>

- g. U.S. Department of Defense Standard Printing Color Catalog for Mapping, Charting, Geodetic Data and Related Products.

5 Terms and definitions

Area - Fill

A fill screen or pattern depicted within a surface symbol.

Area – Pattern (AP)

A unique and continuous graphic pattern depicted within a surface symbol. Area patterns applicable to this standard are defined in MIL-STD-2410.

Attribute

A characteristic of a feature.

Cased

Two parallel lines representing a linear feature.

Color

The quality of an object or substance with respect to light reflected by the object, usually determined visually by measurement of hue, saturation, and brightness of the reflected light; saturation or chroma; hue.

Color Token

A name by which a color is known. Color tokens are associated with different colors optimized for the viewing condition, such as red light readable, or blue-green light readable.

Dash Spacing

The distance between two consecutive dashes.

Distance between lines/line spacing

Distance measured from closest edges of two lines.

Feature

An abstraction of a real world phenomenon.

Fill

The appropriate color or pattern depicted within or overprinting the symbol.

Label

Labels consist of a variety of terminology and abbreviations, descriptive, or identifying, that are either free-standing (geographic names, text description), or directly associated with a graphic symbol (point, curve, surface).

Leader line

A line leading from a location point or symbol to the supporting information or text label.

Lineweight

The thickness of a line (in millimeters) measured between outside edges.

Line Fill

A line pattern (LP) depicted within the bounding outlines of a surface symbol.

Line Pattern (LP)

A unique and continuous graphic pattern depicted within a surface symbol. Line patterns applicable to this standard are defined in MIL-STD 2410.

Line Style

A group of parameters (e.g. line weight, color, dash length, dash spacing) which defines the appearance of the symbology (or portion of a symbology) applied to a linear element.

Lower case

All letters of a word or words are in lower case text. All numbers are considered lower case text in this standard.

Mixed case

The first letter in the first word entry is a capital letter, followed by all lower case text.

Open

A paper white fill (essentially a mask) is applied to symbols to prevent the portrayal of underlying patterns and/or tints. For example, a Tower within a Built-up Area would mask out the underlying screen.

Open circle

A circle whose dimensions are measured across the circle, outside perimeter edge to outside perimeter edge.

Open square

A square whose dimensions are measured across the square, outside perimeter edge to outside perimeter edge.

Origin (of symbol)

The place on a symbol that corresponds to the geographic location of the object it represents.

Perimeter

The limits of an areal feature as centered on the peripheral edge of that feature.

Portrayal

The presentation of information to users.

Portrayal catalogue

A collection of all defined portrayals.

Portrayal rule

A rule that is applied to the feature to determine which portrayal specification to use.

Portrayal specification

GTDS Portrayal Standard (v1.0)

A collection of operations applied to the feature instance to portray it.

Representative point

The point within the geometric surface used to place point symbols.

Screen

A regular pattern of dots, defined by a predetermined percentage (100% being solid) used to create tones of a given color.

Shape

A unique graphic symbol with a fixed geometry and used primarily for point features. Shape specifications are defined in Annex H.

Symbol

An object that represents information.

Symbol element

A component of a symbol. A symbol can be comprised of one symbol element or multiple symbol elements.

Symbol parameter

Basic drawing instructions needed to construct the symbol graphic.

Tick

A short line located at specific intervals along a linear symbol and normally positioned perpendicular to that line.

Tick interval

Distance between the centers of each repeating tick or set of ticks along a line.

Tick spacing

Distance between the centers of each tick in a set of two or more ticks.

Type

The letters, numbers, diacritics, etc, associated with labels.

Type size

The size of type, measured in point size.

Type style

Specifications on capitalization, and appearance of the type, such as normal, light, bold, italic and condensed.

Upper case

All letters of a word or words are in capital letters.

Wing tick

A short angular tick located at the endpoint of a linear or point symbol.

6 Symbol Requirements

6.1 GTDS Symbols

This standard provides a listing of symbols for the portrayal of Global Topographic Data Store (GTDS) data on global derived graphics/charts. The portrayal information is presented in Annex A. Subsequent Annexes provide additional supporting information and are described in the following sections. This standard also includes symbols for several features not included in the GTDS extraction guide that are required for global derived graphics/charts symbolization, including aeronautical information, boundaries information, elevation contours, spot elevations and maritime features.

6.1.1 Symbol Information

The Symbol Information section describes in detail the symbol graphic elements. Included is a graphic representation, descriptive name, placement instructions, an indication whether labeling is required (yes/no), element parameters including dimension information, color, etc. as well as details regarding how the symbol is constructed as a group.

The “*Apply Label to Symbol?*” field contains either a Yes or No value. A No value indicates that the symbol instance does not require any label to be placed. A Yes value indicates that this symbol is a candidate for labeling. The label information can be found by referencing the label information section provided for each symbol.

A symbol may be composed of one or more symbol elements. For each symbol element, the following information is provided.

- Element Name - A short, descriptive name for the symbol graphic.
- Element Reference – A unique element identifier for each symbol in the GTDS Symbol Standard.
- Element Type – Identifies whether the symbol is an area, line, or point symbol. The types may be further detailed as Line-Complex, Point-Simple, etc. Descriptions of these element types are provided in subsequent paragraphs.
- Description – A textual description of the element.
- Color Token – A name describing the color to apply to the symbol element.
- Parameters – The specifications for the symbol element. Specific information is dependent on what type of symbol element is involved.

The Parameters section provides the basic instructions needed to construct the symbol graphic. These parameters are specified at the element level. The following standard element parameters are used to specify the various elements of the symbol graphic.

Point – Simple

- Line Weight
- Length
- Diameter
- Headline

- Wingtick
- Orientation
- Note

Point – Shape – See Annex H for detailed drawing instructions for shapes

- Detail
- Note

Point – Complex

- Point 1 Name
- Point 2 Name
- Note

Line – Simple

- Line Weight
- Note

Line – Styled

- Line Weight
- Dash Length
- Dash Spacing
- Dash2 Length
- Dash2 Spacing
- Dash3 Length
- Dash3 Spacing
- Note

Line – Complex

- Line Style
- Line Style 2
- Line Style 3
- Line Style 4
- Fix at Start
- Fix at Centre
- Fix at End
- Repeating Point
- Repeating Point Interval
- Repeating Point 2
- Repeating Point 2 Interval
- Repeating Point 3
- Repeating Point 3 Interval
- Repeating Point 4
- Repeating Point 4 Interval
- Note

Area – Fill

- Screen Angle
- Note

Area – Pattern

- Color Token
- Area Pattern
- Note

Area – Complex

- Area Pattern 1
- Area Pattern 2

- Note

Many symbols are constructed by composing several different standard element parameters. Where different colored elements are overprinted to obtain the desired affect, a “painter’s model” is used to specify the symbol. In the painter’s model, the element specified first will be overwritten by elements that follow. For example, a cased road symbol: LN_Road_Primary is specified by a thick black line overprinted with a thinner dark brown line. The painter’s model in this standard is intended only to describe the symbol. A different implementation may be required for actual map production. In lithographic printing, for example, the thick black line would obscure anything else printed on top of it.

6.1.2 Symbol Graphic

Symbol Information		
	Symbol Graphic Name: LN_Road_Primary	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Road_Primary	Element Reference: L00287	Element Type: Line - Complex
Description: Black 0.8mm Solid Line (0.8mm wt) and Dk-Brown (Magenta 100% coincident with Yellow 100% and Black 67% bi-angle screen) 0.5mm Solid Line (0.5mm wt)		
Color Token: Dk-Brown	Parameters: Line Style: Black_0.8mmSolidLine Line Style 2: Dk-Brown_0.5mmSolidLine Note: The Black_0.8mmSolidLine line and the Dk-Brown_0.5mmSolidLine are centered on the linear feature. The Black line is placed beneath the Dk-Brown_0.5mmSolidLine to form the cased line.	
Element Name: Black_0.8mmSolidLine	Element Reference: L00155	Element Type: Line - Simple
Description: Black 0.8mm Solid Line (0.8mm wt)		
Color Token: Black	Parameters: Lineweight: 0.8mm	
Element Name: Dk-Brown_0.5mmSolidLine	Element Reference: L00286	Element Type: Line - Simple
Description: Dk-Brown (Magenta 100% coincident with Yellow 100% and Black 67% bi-angle screen) 0.5mm Solid Line (0.5mm wt)		
Color Token: Dk-Brown	Parameters: Lineweight: 0.5mm	

Sample Symbol Information and drawing instructions from Annex A

Each symbol in this standard is shown with a graphic. The graphic is intended to give a general representation of the symbols appearance in order to aid in understanding the drawing instructions in the symbol parameters. Many of the graphics are shown in an enlarged size compared to what would appear on a map/graphic. This enlargement was made in order to make the components of the symbol graphic more visible. This standard also provides symbol samples at the 1:500,000 map scale. The first graphic is a sample of the basic symbol as it might appear on a map. The second and third graphics show possible label examples associated with the symbol.

Symbol Sample		
	MONTEREY	
	ABANDONED SHARPE FIELD	
	Land Aerodrome with Runway info: MONTEREY 257	

6.1.3 Symbol Portrayal Rules

The Symbol Portrayal Rules section directly follows the Symbol Information parameters in the Annex and provides the portrayal rule information for the selection of the preceding symbol graphic. Portrayal rules are rules that indicate the condition in which the symbol is selected. They associate an instance of geospatial data with a particular symbol. Attributes included in the Criteria field are based on the GTDS EC and appear in all upper case. The Definitions of the entities and attributes in the GTDS EC are based on the DGIWG Feature Data Dictionary (DFDD).

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001329	Pipeline / on surface / not water (curve)	(LOC = 44 [On Surface] or LOC = -999999 [No Information]) and (PPO = 16 [Chemical] or PPO = 45 [Gas] or PPO = 46 [Petrol] or PPO = 83 [Petroleum] or PPO = 101 [Sewage] or PPO = 146 [Heating Steam and/or Water] or PPO = 999 [Other] or PPO = -999999 [No Information])

Sample symbol portrayal rule from Annex A

In a few cases the Criteria column is intentionally blank. In most cases, the Criteria column is populated indicating that specific attribute conditions are required for that particular symbol to be associated with a particular feature instance. A special criteria of ALL has been created. The ALL criteria indicate that all instances of the entity class will receive the symbol.

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001068	Built Up Area / all (surface)	ALL

Sample symbol portrayal rule from Annex A (ALL Criteria column)

When an entity delineation has more than one possible symbol (e.g. linear roads, point buildings, etc.), then more than one rule will exist for the entity delineation. An entity instance should match one and only one criteria.

Symbol Information		
	Symbol Graphic Name: LN_Cyan_River_Perennial	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Cyan_0.2mmSolidLine		Element Reference: L00015
Description: Cyan 0.2mm Solid Line (0.2mm wt)		
Color Token: Cyan	Parameters: Lineweight: 0.2mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R000204	River / perennial (curve)	(Z1024_HYP = 1 [Perennial] or Z1024_HYP = -999999 [No Information])

Symbol Information		
	Symbol Graphic Name: LN_Cyan_River_IntermittentDry	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Cyan_0.2mm-2.0mmLenDash-0.5mmGapLine	Element Reference: L00041	Element Type: Line - Styled
Description: Cyan 0.2mm Dash Line (0.2mm wt, 2.0mm dash, 0.5mm gap)		
Color Token: Cyan	Parameters:	
	Lineweight: 0.2mm	Dash Length: 2.0mm
		Dash Spacing: 0.5mm
Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R000205	River / intermittent, dry (curve)	(ZI024_HYP = 2 [Intermittent] or ZI024_HYP = 4 [Dry])

Sample of multiple symbols and rules for an entity class from Annex A

The syntax utilized in the portrayal rule is based on the Structured Query Language (SQL) and thereby is easily interpreted by implementation software applications.

The symbol portrayal parameters are defined as follows:

- Rule Reference – Static Unique identifier associated with the rule. Used to link the entry to entries in other Annexes.
- Description – Textual description of the portrayal rule.
- Criteria – Attribute information that identifies the specific symbol. This combined with the feature and delineation will associate a particular symbol to an instance of GTDS geospatial data. All units of measurement are in meters. All area (ARA) measurements are in square meters.

The Symbol Rule Criteria is based on SQL syntax. Attribute names are indicated by all upper case text such as PCF, ZI024_HYP, FFN, etc. Operators are generally defined as follows:

=	is equal
<>	is not equal
>	greater than
<	less than
>=	greater than or equal
<=	less then or equal
is Null	attribute is not populated
is not Null	attribute is populated

Other syntax operators

()	used to group like attributes or indicate precedence
or	indicates true if at least one of the conditions is true
and	indicates true if all conditions are true

Do Not Portray

This section identifies entities in the GTDS dataset which are not intended to be portrayed on the GTDS product.

- Aircraft Hanger
- Aquifer
- Camp Site
- Caravan Park
- Cave Mouth
- Cistern
- Control Point
- Crevasse
- Crevice
- Crop Land
- Crossing
- Cut
- Depression
- Desert
- Dry Dock
- Fence
- Fish Weir
- Ford
- Gate
- Grassland
- Hardened Aircraft Shelter
- Helipad
- Heliport
- Hop Field
- Mobile Home Park
- Motor Vehicle Station
- Natural Pool
- Non-water Well
- Penstock
- Pipeline Crossing Point
- Prepared Watercourse Crossing
- Railway Sidetrack
- Road Interchange
- Roadside Rest Area
- Shanty Town
- Sharp Curve
- Shed
- Steep Grade
- Stopway
- Surface Bunker
- Swimming Pool
- Trail
- Transportation Block
- Tunnel Mouth – see Tunnel

- Underground Bunker
- Vehicle Barrier
- Water Aerodrome
- Water Mill
- Water Well
- Weigh Station

6.1.4 Vertical Obstructions

Any feature with a height greater than or equal to 61 meters (HGT \geq 61) is symbolized as a vertical obstruction. The vertical obstruction symbol replaces the normal symbol for the feature.

This section identifies entities in the GTDS dataset which are only to be portrayed on the GTDS product as a vertical obstruction.

- Amusement Park Attraction
- Billboard
- Blast Furnace
- Bridge Superstructure
- Bridge Tower
- Building Superstructure
- Catalytic Cracker
- Control Tower
- Excavating Machine
- Flagpole
- Gantry
- Grain Storage Structure
- Grandstand
- Hopper
- Light Support Structure
- Light Vessel
- Mine Shaft Superstructure
- Mineral Pile
- Mooring Mast
- Non-building Structure
- Nuclear Reactor Containment
- Outdoor Theatre Screen
- Parking Garage
- Pylon
- Roundhouse
- Scoreboard
- Tethered Balloon

6.1.5 Color

A particular symbol may be a single color, or composed of multiple colors. Labels are generally specified in one color. Colors can be specified using several methodologies.

- U.S. Department of Defense Standard Printing Color Catalog for Mapping, Charting, Geodetic Data and Related Products, referred to as “SPC” is a methodology used in the U.S DOD to specify spot colors, which are unique mixtures of inks. MIL-STD-2402 uses SPC color specifications.
- Pantone colors – Pantone colors are commonly used in the printing industry and are based on specific mixes of inks. They are sometimes referred to as “spot” colors. Each pantone color has an identifier assigned to it.
- CMYK – Identifies the percentage of Cyan, Magenta, Yellow and Black (key) that is used to generate a specific color in process lithographic printing. Process printing allows a wide variety of colors to be produced from these three primary colors and the black.
- RGB – Red, Green, Blue is a common methodology for specifying colors on digital displays, giving the intensity of the respective color guns on a CRT monitor. Each color intensity ranges from 0 to 255. Color is additive, so 0 is no color, and 255 is maximum color.

The Color Token definitions utilized for this standard are provided in Annex C. This Annex provides a mapping from a specific color token to Pantone color names, to the MIL-STD-2402 based SPC Ink colors, to CMYK values and to RGB values. This mapping allows considerable flexibility in specifying equivalent colors in a variety of methodologies.

Color tokens are used to specify generic names of colors for symbol elements. Color tokens can be replaced with different tokens if maps for different viewing conditions are needed. For example, different viewing conditions may be red light readable, or blue/green light readable. The use of a Color Token methodology provides for the greatest degree of flexibility at implementation to provide for an easy adaptation to various color needs. It further allows for colors to be defined by the software applications as necessary to fulfill product requirements.

Colors in Annex A and Annex D are specified for each symbol element by Color Token. Annex C provides a listing of Pantone colors, CMYK values and RGB values that are applicable to the LTDS product. The color token values used in this Standard can be mapped to this table to determine the CMYK and RGB values.

When exchanging GTDS digital files of finished map products in Portable Document Format (PDF), it is important to note that specifying colors using the spot color channels in the PDF allows for much greater flexibility in the lithographic printing of the map. If colors are specified only in CMYK, then four-color process printing is the only printing option available and printing for red or green light readability may not be possible.

6.2 GTDS Label Information

Labeling can be used to identify or assist in identification of the meaning of symbols, and also may supply additional information about the feature being portrayed. Labeling requirements for symbols are identified in the symbol specification for each symbol.

Label Information	
Label Description:	Canal / named (curve)
Additional Labeling Criteria:	(ZI005_FNA <> "UNK") or (ZI005_FNA is not null)
Label String:	[ZI005_FNA]
Characteristics:	36 36 (Cyan, Regular, Italic, 6 pt, Mixed case)
Label Description:	Canal / unnamed (curve)
Additional Labeling Criteria:	(ZI005_FNA = "UNK") or (ZI005_FNA is null)
Label String:	"canal"
Characteristics:	34 34 (Cyan, Regular, Italic, 6 pt, Lower case)

Sample label information from Annex A

The labeling information is presented in the following order:

- Label Description – Textual description of the label placement rule.
- Additional Labeling Criteria – Criteria to further refine the label placement. This is in addition to the symbol portrayal rule.
- Label string – The content of the label, which can be fixed text, variable label portraying attribute, varying label derived from attribute, or a combination of these. Each label is listed in sequence.
- Characteristics – A type style code for each label in the label string in sequence. This is followed by the explanation of the code. A complete list of type characteristics codes is included in Annex D.

Labels can be of the following types:

- Fixed label – the symbol has a label, and the content of the label is fixed, for example, the label “falls” on a Waterfall, or “station” on a Transportation Station.
- Variable label portraying attribute – the content of the label changes, depending on attribute information being portrayed. An example would be showing the product type [ZI014_PPO] label on a Facility / refinery, such as “petroleum”, “gas”, “sugar”, etc. Another example would be to show the name of a feature [ZI005_FNA] as a label, for example, “Yellowstone National Park”.
- Variable label derived from attribute – the content of a label changes based on the attribute information, but the text of the label is not the attribute value. An example would be a mine type [MIN] of 8 - Peatery being labeled “peat cuttings”.
- Combination – a series of labels of the various types listed above.

6.3 Text Characteristics

The Text Characteristics table in Annex D contains information specific to the text characters. This information contains color, size, case, and style parameters. The parameters specified are as follows:

- Text Characteristic # - Reference to link the characteristics to the Label Information in Annex A.
- Color Token – Color Token for the text string.
- Font Style – Indication of Condensed, Light Condensed, or Regular.
- Style – Indication of **Bold** or *Italics*.
- Font Size – Point (PT) size of the text string.
- Case – Indication of capitalization. Valid values are Upper case, Lower case, and Mixed case.

Capitalization of label information on a symbol follows the general structure below:

- For multiple words used in the label string for Vertical Obstruction, the first letter of the first word is capitalized, for example, “Catalytic cracker” or “Bridge superstructure”.
- For names, the first letter in each word is capitalized, for example, “Yellowstone National Park”.

Note that in some cases, the text string may have to be modified depending on whether attribute information is portrayed. For example, if a label string is made up of a variable or attribute based element and a static element, then it wouldn’t make sense to have the label “No Information” or “Unknown output” for the variable portion. In these cases, the variable portion should be omitted rather than place the label containing an attribute based portion such as “No Information” or “Unknown” out on the product.

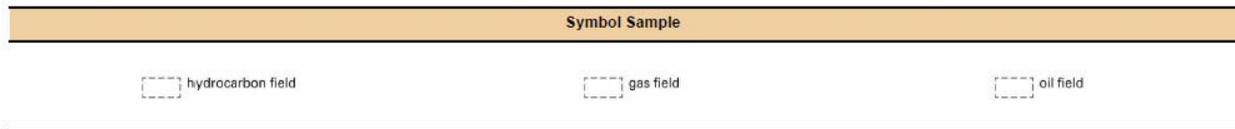
Note that some attributes are not intended to be labeled. These include:

- No Information
- Other
- Not applicable
- Unknown

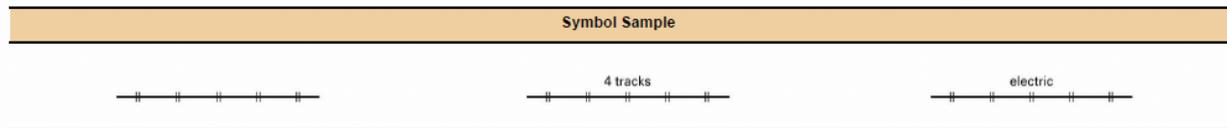
If an attribute is unknown or has not been collected, the label is not shown. Examples of these types of attributes are HGT, LTN, ZI005_FNA, and ZVH.

6.3.1 Type Placement

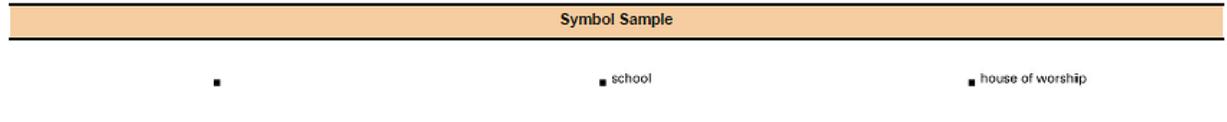
The proper selection and placement of type are of extreme importance, not only to the map user, but also because of the impact on the final appearance of the map. The sample symbols shown in Annex A provide a generic default type placement, but variation from the default may be required to resolve overprints.



Sample area label information from Annex A



Sample line label information from Annex A



Sample point label information from Annex A

See MIL-T-89101, Tactical Pilotage Charts (TPC) Appendix A for information on type placement typically used on TPC's.

6.3.2 Type Font

The TrueType Zurich font has been selected as the most appropriate font to represent the label information for the GTDS derived graphic product. The following criteria were considered in selecting the font:

- Format should be TrueType
- Must be compatible with the Windows environment
- Must be similar to Swiss742 fonts specified in the MIL-STD-2402 and MIL-STD-2410 (e.g. compatible with the colors, sizes, styles)
- Cost of the purchase of commercial fonts
- All the diacritic marks must be supported
- Extendable (must be possible to add new characters)

The analysis concluded that the standard should not be too rigid regarding the use of one or another font. Nevertheless, for avoiding problems with the diacritical marks, the best choice is to

use commercial fonts of recognized brand. These have Unicode codification and, in general, support all the current idiomatic characters.

Secondly, the analysis included not only TrueType but also OpenType because to choose one font in particular would lead to extra cost depending on the national mapping work flow. Therefore, the standard should be as flexible as possible.

OpenType will likely become the standard in the near future, given that OpenType has greater capabilities in complex writings (languages), extendable and advanced typography (kerning, and so on). However, some national mapping work flows are not yet fully compatible with the OpenType fonts. An example of this is what happens with the PDF/X standard. The fonts used in the document must be embedded in it, including the metric and the codification's data. Under the 1.6 version, the OpenType fonts are not accepted by the PDF format.

The Swiss742 font is one of the "sans serif" style type. The first step was to look for any commercial font available similar to the Swiss742 being, at least, TrueType specification. The digital format of the font was not available so the MIL-STD-2410 in PDF version was utilized for comparison. The main brands like Bitstream/Corel, Monotype and Linotype were taken into account. Even though the criterion of the MIL-STD-2410 was to choose a single font, it was determined that the output for paper maps is better if a set of diverse fonts is used. These are TrueType fonts and they produce a good balance of functionality and aesthetics.

Nevertheless, on the basis of these, a set of compatible or equivalent fonts can be established, and the producers may use them at will. Conversion tables must be as flexible and extendable as possible. *Table 1 Font Mapping* provides a mapping from the Swiss742 to Zurich and Univers TrueType fonts.

Table 1 – Font Mapping

Font	Style	To Zurich BT	Style	To Univers	Style
Swiss 742	<i>Regular (Medium)</i>	Zurich BT		Univers® 55	Roman
	<i>Italic</i>		<i>Italic</i>		<i>Roman Oblique</i>
	Bold		Bold	Univers® 65	Bold
	Condensed		Condensed	Univers® 57	Condensed
	Bold Condensed		Bold Condensed	Univers® 67	Bold Condensed
	Light Condensed		Light Condensed	Univers® 47	Light Condensed
	<i>Light Condensed Italic</i>		<i>Light Condensed Italic</i>		<i>Light Condensed Italic</i>

6.4 Masking

In the Portrayal Standard for Global Topographic Data Store (GTDS) Data, there are a number of symbols which could be interpreted as having "open" areas such that underlying symbols would show through the "open" portions of the symbol. Some sample point symbols are the PT_Black_Aerial (Annex A), PT_Blue072_Navaid_Other (Annex A), PT_Cyan_WaterTower (Annex A), or PT_Black_Windmill (Annex A). This listing is not an exhaustive listing, but a small sampling of symbols. In each of the symbols listed, there is an "open" or paper-white area within the bounds of the symbol. It is intended that underlying symbology such as vegetation not show through these openings, but rather that the symbol "mask out" underlying symbols all the way down to the paper.

Annex A – GTDS Symbols (normative)

GTDS Symbols

GTDS symbols and portrayal rules are specified in the Annex A. This information is sorted alphabetically by Entity Name (NAS AlphaCode). A cross reference to DFDD-like Code and specific page locations are provided in the Index (see Annex L).

GTDS Symbols

Administrative_Boundary (FA000)

Curve

Symbol Information		
	Symbol Graphic Name: LN_Dk-Brown_AdminBoundary_International	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Dk-Brown-54_International-Boundary		Element Reference: L00194
Element Type: Line - Complex		
Description: Black 0.5mm Dashed Line (0.5mm wt, 7.0mm dash, 2-2.0mm dashes, 1.0mm gaps) and Dk-Brown-54 (Magenta 79% bi-angle screen coincident with Yellow 100% and Black 42% bi-angle screen) 2.0mm Screened Line overprint		
Color Token: Dk-Brown-54	Parameters:	
	Line Style: Black_0.5mm-7mmDash-2x2mmDashLine	
	Line Style 2: Dk-Brown-54_2.0mmScreenedLine	
	Note: Dk-Brown-54 screened line is centered on Black dashed line.	
Element Name: Black_0.5mm-7mmDash-2x2mmDashLine		Element Reference: L00122
Element Type: Line - Styled		
Description: Black 0.5mm Dashed Line (0.5mm wt, 7.0mm dash, 2-2.0mm dashes, 1.0mm gaps)		
Color Token: Black	Parameters:	
	Lineweight: 0.5mm	Dash Length: 7.0mm
		Dash Spacing: 1.0mm
		Dash2 Length: 2.0mm
		Dash2 Spacing: 1.0mm
		Dash3 Length: 2.0mm
		Dash3 Spacing: 1.0mm
	Note: The line style is a 7.0mm dash, 1.0mm gap, 2.0mm dash, 1.0mm gap, 2.0mm dash, 1.0mm gap, then the pattern repeats.	
Element Name: Dk-Brown-54_2.0mmScreenedLine		Element Reference: L00139
Element Type: Line - Simple		
Description: Dk-Brown-54 (Magenta 79% bi-angle screen coincident with Yellow 100% and Black 42% bi-angle screen) 2.0mm Screened Line (2.0mm wt)		
Color Token: Dk-Brown-54	Parameters:	
	Lineweight: 2.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001002	Administrative Boundary / international (curve)	(LSP = 17 [Generic International Boundary])

Label Information

Label Description:	Administrative Boundary / international / definite (curve)
Additional Labeling Criteria:	(BST = 1 [Definite] or BST = -999999 [No Information])
Label String:	[Z1005_FNAA] [Z1005_FNAB]
Characteristics:	48 48 48 (Black, Condensed, Bold, 10 pt, Upper case)
Label Description:	Administrative Boundary / international / indefinite, in dispute (curve)
Additional Labeling Criteria:	(BST = 2 [Indefinite] or BST = 3 [In Dispute])
Label String:	[Z1005_FNAA] [BST] [Z1005_FNAB] [BST]
Characteristics:	48,48 48,48 48 (Black, Condensed, Bold, 10 pt, Upper case)

Administrative_Boundary (FA000) (continued)

Curve

Symbol Sample

CANADA

UNITED STATES OF AMERICA

Symbol Information		
	Symbol Graphic Name: LN_Dk-Brown_AdminBoundary_OtherLineOfSeparation	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Dk-Brown_AdminBoundary_Other	Element Reference: L00264	Element Type: Line - Complex
Description: Black 0.4mm Dotted Line (0.4mm wt, 2.5mm spacing) with a Dk-Brown-54 (Magenta 79% bi-angle screen coincident with Yellow 100% and Black 42% bi-angle screen) 2.0mm Screened Line overprint		
Color Token: Dk-Brown-54	Parameters: Line Style: Black_0.4mmDottedLine Line Style 2: Dk-Brown-54_2.0mmScreenedLine Note: Dk-Brown-54 screened line is centered on Black dashed line.	
Element Name: Black_0.4mmDottedLine	Element Reference: L00263	Element Type: Line - Styled
Description: Black 0.4mm diameter filled dots repeating with 2.5mm spacing		
Color Token: Black	Parameters: Repeating Point: Black_0.4mmFilledDot Repeating Point Interval: 2.5mm	
Element Name: Dk-Brown-54_2.0mmScreenedLine	Element Reference: L00139	Element Type: Line - Simple
Description: Dk-Brown-54 (Magenta 79% bi-angle screen coincident with Yellow 100% and Black 42% bi-angle screen) 2.0mm Screened Line (2.0mm wt)		
Color Token: Dk-Brown-54	Parameters: Lineweight: 2.0mm	
Element Name: Black_0.4mmFilledDot	Element Reference: P00082	Element Type: Point - Simple
Description: Black 0.4mm diameter filled circle		
Color Token: Black	Parameters: Diameter: 0.4mm Note: Circle is filled	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001001	Administrative Boundary / other (curve)	(LSP = 1 [Generic Administrative Boundary] or LSP = 2 [Provisional Administrative Line] or LSP = 4 [Line of Control] or LSP = 5 [Demarcation Line] or LSP = 6 [Line of Convenience] or LSP = 8 [Convention Line] or LSP = 9 [Claim Line] or LSP = 10 [Intercolonial Line] or LSP = 11 [Interentity Line] or LSP = 12 [Line of Adjacency] or LSP = 13 [Line of Withdrawal] or LSP = 14 [Military Disengagement Line] or LSP = 15 [Treaty Line] or LSP = 999 [Other])

Label Information

Label Description:	Administrative Boundary / known (curve)
Additional Labeling Criteria:	(LSP = 2 [Provisional Administrative Line] or LSP = 4 [Line of Control] or LSP = 5 [Demarcation Line] or LSP = 6 [Line of Convenience] or LSP = 8 [Convention Line] or LSP = 9 [Claim Line] or LSP = 10 [Intercolonial Line] or LSP = 11 [Interentity Line] or LSP = 12 [Line of Adjacency] or LSP = 13 [Line of Withdrawal] or LSP = 14 [Military Disengagement Line] or LSP = 15 [Treaty Line])
Label String:	[Z1005_FNAA] [LSP] [Z1005_FNAB]
Characteristics:	48,48 48 48 (Black, Condensed, Bold, 10 pt, Upper case)

Administrative_Boundary (FA000) (continued)

Curve

Label Description: Administrative Boundary / generic (curve)
Additional Labeling Criteria: (LSP = 1 [Generic Administrative Boundary])

Label String: [Z1005_FNAA] "ADMINISTRATIVE BOUNDARY"
 [Z1005_FNAB]
Characteristics: 48,48
 48
 48 (Black, Condensed, Bold, 10 pt, Upper case)

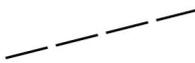
Label Description: Administrative Boundary / other (curve)
Additional Labeling Criteria: (LSP = 999 [Other]) and (Z1006_MEM <> "UNK" or Z1006_MEM is not null)

Label String: [Z1005_FNAA] [Z1006_MEM]
 [Z1005_FNAB]
Characteristics: 48,48
 48
 48 (Black, Condensed, Bold, 10 pt, Upper case)

Symbol Sample

LEBANON DEMARCATION LINE

ISRAEL

Symbol Information		
	Symbol Graphic Name: LN_Black_AdminBoundary_Armistice	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Black_0.3mm-5mmLenDash-1.0mmGapLine	Element Reference: L00125	Element Type: Line - Styled
Description: Black 0.3mm Dashed Line (0.3mm wt, 5.0mm dash, 1.0mm gap)		
Color Token: Black	Parameters:	
	Lineweight: 0.3mm	Dash Length: 5.0mm
		Dash Spacing: 1.0mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001003	Administrative Boundary / armistice line (curve)	(LSP = 3 [Armistice Line])

Label Information

Label Description: Administrative Boundary / armistice line (curve)
Additional Labeling Criteria: N/A

Label String: [Z1005_FNAA] "ARMISTICE LINE"
 [Z1005_FNAB]
Characteristics: 48,48
 48
 48 (Black, Condensed, Bold, 10 pt, Upper case)

Symbol Sample

NORTH KOREA ARMISTICE LINE

SOUTH KOREA

Administrative_Boundary (FA000) (continued)

Curve

Symbol Information		
	Symbol Graphic Name: LN_Black_AdminBoundary_CeaseFire	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Black_0.25mm-6mmLenDashLine		Element Reference: L00121
Description: Black 0.25mm Dashed Line (0.25mm wt, 6.0mm dash, 1.0mm gap)		
Color Token: Black	Parameters: Lineweight: 0.25mm Dash Length: 6.0mm Dash Spacing: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001004	Administrative Boundary / cease-fire (curve)	(LSP = 7 [Cease Fire Line])

Label Information	
Label Description: Additional Labeling Criteria:	Administrative Boundary / cease fire (curve) N/A
Label String: Characteristics:	"CEASE-FIRE LINE" 48 48 (Black, Condensed, Bold, 10 pt, Upper case)

Symbol Sample


Symbol Information		
	Symbol Graphic Name: LN_Black_AdminBoundary_Claim	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Black_0.4mm-5mmLenDashLine		Element Reference: L00001
Description: Black 0.4mm Dashed Line (0.4mm wt, 5.0mm dash, 1.0mm gap)		
Color Token: Black	Parameters: Lineweight: 0.4mm Dash Length: 5.0mm Dash Spacing: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001678	Administrative Boundary / claim line (curve)	(LSP = 9 [Claim Line])

Label Information	

Administrative_Boundary (FA000) (continued)

Curve

Label Description: Administrative Boundary / claim line (curve)
Additional Labeling Criteria: N/A

Label String: [ZI005_FNAA] "CLAIM LINE"
Characteristics: 21,21
 21 (Black, Condensed, 8 pt, Upper case)

Symbol Sample

INDIA CLAIM LINE

Symbol Information

Symbol Graphic NO DEFINED BOUNDARY	Symbol Graphic Name: LN_AdminBoundary_NoDefinedBoundary
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Static text label only. No Graphic Parameters.

LINE LABEL ONLY

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001450	Administrative Boundary / no defined boundary (curve)	(BST = 4 [No Defined Boundary])

Label Information

Label Description: Administrative Boundary / no defined boundary (curve)
Additional Labeling Criteria: N/A

Label String: [ZI005_FNAA]
 "NO DEFINED BOUNDARY"
 [ZI005_FNAB]

Characteristics: 21,21,21
 21 (Black, Condensed, 8 pt, Upper case)

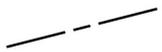
Symbol Sample

PAKISTAN
 NO DEFINED BOUNDARY
 INDIA

Administrative_Division (FA003)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Black_AdminDivision_Primary
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry. NOTE: The label is placed along the line inside the surface area aligned with the label of the adjoining surface with the same BAL attribute.

Administrative_Division (FA003) (continued)

Surface

Element Name: Black_0.3mm-7-1-2-1DashLine	Element Reference: L00130	Element Type: Line - Styled
Description: Black 0.3mm Dashed Line (0.3mm wt, 7.0mm dash, 2.0mm dash, 1.0mm gaps)		
Color Token: Black	Parameters: Lineweight: 0.3mm	Dash Length: 7.0mm Dash Spacing: 1.0mm
		Dash2 Length: 2.0mm Dash2 Spacing: 1.0mm
Note: The line style is a 7.0mm dash, 1.0mm gap, 2.0mm dash, 1.0mm gap, then the pattern repeats.		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001005	Administrative Division / primary (surface)	(BAL = 1 [First-order])

Label Information

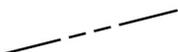
Label Description:	Administrative Division / primary (surface)
Additional Labeling Criteria:	N/A
Label String:	[Z1005_FNA]
Characteristics:	21 21 (Black, Condensed, 8 pt, Upper case)

Symbol Sample

NORTHERN TERRITORY

SOUTHERN TERRITORY

Symbol Information

	Symbol Graphic Name: AR_Black_AdminDivision_Secondary
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry. NOTE: The label is placed along the line inside the surface area aligned with the label of the adjoining surface with the same BAL attribute.

Element Name: Black_0.3mm-7-1-2-1-2-1DashLine	Element Reference: L00252	Element Type: Line - Styled
Description: Black 0.3mm Dashed Line (0.3mm wt, 7.0mm dash, 2-2.0mm dashes, 1.0mm gaps)		
Color Token: Black	Parameters: Lineweight: 0.3mm	Dash Length: 7.0mm Dash Spacing: 1.0mm
		Dash2 Length: 2.0mm Dash2 Spacing: 1.0mm
		Dash3 Length: 2.0mm Dash3 Spacing: 1.0mm
Note: The line style is a 7.0mm dash, 1.0mm gap, 2.0mm dash, 1.0mm gap, 2.0mm dash, 1.0mm gap, then the pattern repeats.		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001006	Administrative Division / secondary (surface)	(BAL = 2 [Second-order])

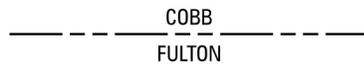
Label Information

Label Description:	Administrative Division / secondary (surface)
Additional Labeling Criteria:	N/A
Label String:	[Z1005_FNA]
Characteristics:	21 21 (Black, Condensed, 8 pt, Upper case)

Administrative_Division (FA003) (continued)

Surface

Symbol Sample



Aerial (AT011)

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Aerial	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of dot	
Element Name: Black_Communication_Tower		Element Reference: P00155
Element Type: Point - Shape		
Description: Black communication tower		
Color Token: Black	Parameters: Detail: Black_Communication_Tower Note: See Element: Black_Communication_Tower in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001451	Aerial / non-obstruction (point)	(HGT < 61)

Symbol Sample



Aerial_Farm (AT012)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_AerialFarm	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Element Type: Point - Simple		
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001453	Aerial Farm / all (surface)	ALL

Label Information

Aerial_Farm (AT012) (continued)

Surface

Label Description: Aerial Farm / all (surface)
Additional Labeling Criteria: N/A

Label String: "aerial farm"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ aerial farm

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_AerialFarm	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001454	Aerial Farm / all (point)	ALL

Label Information

Label Description: Aerial Farm / all (point)
Additional Labeling Criteria: N/A

Label String: "aerial farm"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ aerial farm

Aero_Navaid (GA035)

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Blue072_Navaid_Other	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled circle. A box (Blue072 solid line 0.3mm wt) with a minimum length of 11.0mm and minimum width of 4.0mm is placed around the label string and attached to the symbol with a leader line (Blue072 solid line 0.3mm wt).	

Aero_Navaid (GA035) (continued)

Point

Element Name: Blue072_Navaid_Other	Element Reference: P00212	Element Type: Point - Simple
Description: Blue072 1.9mm diameter open circle with a 0.3mm lineweight and a blue072 filled 0.4mm diameter filled circle in the center		
Color Token: Blue072	Parameters: Diameter: 1.9mm Lineweight: 0.3mm Note: 0.4mm diameter filled circle in the center of the open circle	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001680	Aero NAVAID / multiple, other (point)	(NST = 17 [Non-Directional Radio Beacon (NDB)] or NST = 18 [Non-Directional Radio Beacon (NDB) with Distance Measuring Equipment (DME) (NDB/DME)] or NST = 58 [Distance Measuring Equipment (DME)]) and (HGT < 61)

Label Information

Label Description:	Aero NAVAID / NDB (point)
Additional Labeling Criteria:	(NST = 17 [Non-Directional Radio Beacon (NDB)])
Label String:	"NDB" [NSX]
Characteristics:	29,29 29 (Blue072, Condensed, 7 pt, Upper case)
Label Description:	Aero NAVAID / NDB/DME (point)
Additional Labeling Criteria:	(NST = 18 [Non-Directional Radio Beacon (NDB) with Distance Measuring Equipment (DME) (NDB/DME)])
Label String:	"NDB/DME" [NSX]
Characteristics:	29,29 29 (Blue072, Condensed, 7 pt, Upper case)
Label Description:	Aero NAVAID / DME (point)
Additional Labeling Criteria:	(NST = 58 [Distance Measuring Equipment (DME)])
Label String:	"DME" [NSX]
Characteristics:	29,29 29 (Blue072, Condensed, 7 pt, Upper case)

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Blue072_Navaid_VOR
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Origin: Center of filled circle. A box (Blue072 solid line 0.3mm wt) with a minimum length of 11.0mm and minimum width of 4.0mm is placed around the label string and attached to the symbol with a leader line (Blue072 solid line 0.3mm wt).

Element Name: Blue072_Navaid_VOR	Element Reference: P00213	Element Type: Point - Shape
Description: Blue072 navaid vor		
Color Token: Blue072	Parameters: Detail: Blue072_Navaid_VOR Note: See Element: Blue072_Navaid_VOR in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
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Aero_Navaid (GA035) (continued)

Point

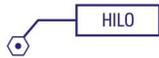
R001681 Aero NAVAID / VOR (point) (NST = 20 [VHF Omnidirectional Radio Beacon (VOR)]) and (HGT < 61)

Label Information

Label Description: Aero NAVAID / VOR (point)
Additional Labeling Criteria: N/A

Label String: [NSX]
Characteristics: 29
 29 (Blue072, Condensed, 7 pt, Upper case)

Symbol Sample



Symbol Information

	Symbol Graphic Name: PT_Blue072_Navaid_VORTAC		
	Apply Label to Symbol: Yes		
	Symbol Placement Instructions: Origin: Center of filled circle. A box (Blue072 solid line 0.3mm wt) with a minimum length of 11.0mm and minimum width of 4.0mm is placed around the label string and attached to the symbol with a leader line (Blue072 solid line 0.3mm wt).		
Element Name: Blue072_Navaid_VORTAC		Element Reference: P00214	Element Type: Point - Shape
Description: Blue072 navaid vortac			
Color Token: Blue072	Parameters: Detail: Blue072_Navaid_VORTAC Note: See Element: Blue072_Navaid_VORTAC in Annex H for detailed drawing instructions.		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001682	Aero NAVAID / VORTAC (point)	(NST = 22 [VHF Omnidirectional Radio Beacon (VOR) with Tactical Air Navigation Aid (TACAN) (VORTAC)]) and (HGT < 61)

Label Information

Label Description: Aero NAVAID / VORTAC (point)
Additional Labeling Criteria: N/A

Label String: [NSX]
 [CHL]
Characteristics: 29,29
 29 (Blue072, Condensed, 7 pt, Upper case)

Symbol Sample



Aero_Navaid (GA035) (continued)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Blue072_Navaid_TACAN	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled circle. A box (Blue072 solid line 0.3mm wt) with a minimum length of 11.0mm and minimum width of 4.0mm is placed around the label string and attached to the symbol with a leader line (Blue072 solid line 0.3mm wt).	
Element Name: Blue072_Navaid_TACAN		Element Reference: P00215
Description: Blue072 navaid tacan		
Color Token: Blue072	Parameters: Detail: Blue072_Navaid_TACAN Note: See Element: Blue072_Navaid_TACAN in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001683	Aero NAVAID / TACAN (point)	(NST = 23 [Tactical Air Navigation Aid (TACAN)]) and (HGT < 61)

Label Information	
Label Description:	Aero NAVAID / TACAN (point)
Additional Labeling Criteria:	N/A
Label String:	[NSX] [CHL]
Characteristics:	29,29 29 (Blue072, Condensed, 7 pt, Upper case)

Symbol Sample


Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Blue072_Navaid_VOR_DME	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled circle. A box (Blue072 solid line 0.3mm wt) with a minimum length of 11.0mm and minimum width of 4.0mm is placed around the label string and attached to the symbol with a leader line (Blue072 solid line 0.3mm wt).	
Element Name: Blue072_Navaid_VOR_DME		Element Reference: P00216
Description: Blue072 navaid vor dme		
Color Token: Blue072	Parameters: Detail: Blue072_Navaid_VOR_DME Note: See Element: Blue072_Navaid_VOR_DME in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001684	Aero NAVAID / VOR DME (point)	(NST = 21 [VHF Omnidirectional Radio Beacon (VOR) with Distance Measuring Equipment (DME) (VOR/DME)]) and (HGT < 61)

Label Information

Aero_Navaid (GA035) (continued)

Point

Label Description: Aero NAVAID / VOR DME (point)
Additional Labeling Criteria: N/A

Label String: [NSX]
Characteristics: 29
 29 (Blue072, Condensed, 7 pt, Upper case)

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Blue072_Navaid_VO	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of dot	
Element Name: Blue072_Navaid_VO		Element Reference: P00003
Description: Blue072 navaid vertical obstruction		
Color Token: Blue072	Parameters: Detail: Blue072_Navaid_VO Note: See Element: Blue072_Navaid_VO in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001303	Aero NAVAID / obstruction (point)	(HGT >= 61)

Label Information

Label Description: Aero NAVAID / obstruction / normal (point)
Additional Labeling Criteria: ZVH and HGT values are converted from meters to feet.

Label String: [ZVH]
 "[HGT]"
Characteristics: 61,62,62,62
 61 (Blue072, Condensed, Bold, Italic, 7 pt, Lower case)
 62 (Blue072, Condensed, Bold, 7 pt, Lower case)

Label Description: Aero NAVAID / obstruction / highest (point)
Additional Labeling Criteria: Highest structure within 30'x30' lines of graticule.
 ZVH and HGT values are converted from meters to feet.

Label String: [ZVH]
 "[HGT]"
Characteristics: 63,64,64,64
 63 (Blue072, Condensed, Bold, Italic, 8 pt, Lower case)
 64 (Blue072, Condensed, Bold, 8 pt, Lower case)

Symbol Sample



Aerodrome_Beacon (GB013)

Aerodrome_Beacon (GB013) (continued)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Blue072_Beacon	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of open circle	
Element Name: Blue072_Beacon		Element Reference: P00025
Description: Blue072 5-pointed filled star with an open circle in the center		
Color Token: Blue072	Parameters: Detail: Blue072_Beacon Note: See Element: Blue072_Beacon in Annex H for detailed drawing instructions.	

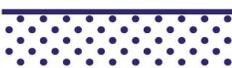
Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001679	Aerodrome Beacon / all (point)	ALL

Label Information	
Label Description:	Aerodrome Beacon / flashing (point)
Additional Labeling Criteria:	(CHA = 1 [Alternating] or CHA = 4 [Ultra Quick-flashing] or CHA = 6 [Fixed and Flashing] or CHA = 8 [Flashing] or CHA = 11 [Interrupted Quick-flashing] or CHA = 12 [Interrupted Ultra Quick-flashing] or CHA = 13 [Interrupted Very Quick-flashing] or CHA = 14 [Isophase] or CHA = 15 [Long-flashing] or CHA = 16 [Morse Code] or CHA = 17 [Occulting] or CHA = 28 [Group Quick-flashing] or CHA = 29 [Group Very Quick-flashing] or CHA = 44 [Quick-flashing] or CHA = 45 [Very Quick-flashing] or CHA = 46 [Flashing with Long-flash] or CHA = 47 [Occulting Flashing] or CHA = 48 [Fixed Long-flashing] or CHA = 49 [Occulting Alternating] or CHA = 50 [Long-flashing Alternating] or CHA = 51 [Flashing Alternating] or CHA = 57 [Quick-flashing with Long-flash] or CHA = 58 [Very Quick-flashing with Long-flash] or CHA = 59 [Ultra Quick-flashing with Long-flash] or CHA = 60 [Fixed with Alternating Flashing])
Label String:	"FL"
Characteristics:	29 29 (Blue072, Condensed, 7 pt, Upper case)

Symbol Sample	
★ FL	★ F

Airspace (GA005)

Surface

Symbol Information	
Symbol Graphic 	Symbol Graphic Name: AR_Blue072_Airspace_ADIZ
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry. The AP-98 filled line is on the inside of the surface.

Airspace (GA005) (continued)

Surface

Element Name: Blue072_Airspace_ADIZ		Element Reference: L00278	Element Type: Line - Complex
Description: Blue072 0.25mm Solid Line and a 2.5mm Width AP-98 (area pattern 98) Line combined			
Color Token: Blue072	Parameters: Line Style: Blue072_0.25mmSolidLine Line Style 2: Blue072_2.5mm-Width-AP-98Line Note: The solid line is centered on the perimeter of the surface geometry and the center of the AP-98 filled line is offset 0.375 mm to the inside of the surface's perimeter.		
Element Name: Blue072_0.25mmSolidLine		Element Reference: L00276	Element Type: Line - Simple
Description: Blue072 0.25mm Solid Line (0.25mm wt)			
Color Token: Blue072	Parameters: Lineweight: 0.25mm		
Element Name: Blue072_2.5mm-Width-AP-98Line		Element Reference: L00277	Element Type: Line - Simple
Description: Blue072 2.5mm width line filled with AP-98 (area pattern 98)			
Color Token: Blue072	Parameters: Note: The Blue072 2.5mm width line is filled with AP-98. See Element: Blue072_AP98_Fill in Annex I		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001019	Airspace / ADIZ (surface)	(ATY = 1 [Air Defense Identification Zone])

Label Information

Label Description:	Airspace / ADIZ (surface)
Additional Labeling Criteria:	N/A
Label String:	[NAA] "ADIZ"
Characteristics:	69,69 69 (Blue072, Condensed, Bold, 10-36 pt, Upper case)

Symbol Sample



CONTIGUOUS U.S. ADIZ

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Blue072_Airspace_SUAS		
	Apply Label to Symbol: Yes		
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry. The Blue072 31% 2.5mm screened line is on the inside of the surface.		
Element Name: Blue072_Airspace_SUAS_MOA		Element Reference: L00296	Element Type: Line - Complex
Description: Blue072 0.25mm Solid Line and a 2.5mm Blue072-31 Screened Line combined			
Color Token: Blue072	Parameters: Line Style: Blue072_0.25mmSolidLine Line Style 2: Blue072-31_2.5mmScreenedLine Note: The solid line is centered on the perimeter of the surface geometry and the center of the screened line is offset 0.375 mm to the inside of the surface's perimeter.		
Element Name: Blue072_0.25mmSolidLine		Element Reference: L00276	Element Type: Line - Simple
Description: Blue072 0.25mm Solid Line (0.25mm wt)			
Color Token: Blue072	Parameters: Lineweight: 0.25mm		
Element Name: Blue072-31_2.5mmScreenedLine		Element Reference: L00181	Element Type: Line - Simple
Description: Blue072-31 2.5mm Screened Line			
Color Token: Blue072-31	Parameters: Lineweight: 2.5mm		

Airspace (GA005) (continued)

Surface

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001047	Airspace / special use (surface)	(ATY = 3 [Alert Area] or ATY = 11 [Danger Area] or ATY =15 [Prohibited Area] or ATY = 16 [Restricted Area] or ATY = 31 [Warning Area])

Label Information

Label Description:	Airspace / alert area (surface)
Additional Labeling Criteria:	(ATY = 3 [Alert Area])
Label String:	[F11]/(A -"[AIA]")
Characteristics:	68,68,68,68 68 (Blue072, Condensed, Bold, 7-30 pt, Upper case)
Label Description:	Airspace / danger area (surface)
Additional Labeling Criteria:	(ATY = 11 [Danger Area])
Label String:	[F11]/(D -"[AIA]")
Characteristics:	68,68,68,68 68 (Blue072, Condensed, Bold, 7-30 pt, Upper case)
Label Description:	Airspace / prohibited area (surface)
Additional Labeling Criteria:	(ATY =15 [Prohibited Area])
Label String:	[F11]/(P -"[AIA]")
Characteristics:	68,68,68,68 68 (Blue072, Condensed, Bold, 7-30 pt, Upper case)
Label Description:	Airspace / restricted area (surface)
Additional Labeling Criteria:	(ATY = 16 [Restricted Area])
Label String:	[F11]/(R -"[AIA]")
Characteristics:	68,68,68,68 68 (Blue072, Condensed, Bold, 7-30 pt, Upper case)
Label Description:	Airspace / warning area (surface)
Additional Labeling Criteria:	(ATY = 31 [Warning Area])
Label String:	[F11]/(W -"[AIA]")
Characteristics:	68,68,68,68 68 (Blue072, Condensed, Bold, 7-30 pt, Upper case)

Symbol Sample

CY/(A-118)

RK/(R-107)

FR/(D-77)

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Blue072_Airspace_MOA
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry. The Blue072 31% 2.5mm screened line is on the inside of the surface.

Airspace (GA005) (continued)

Surface

Element Name: Blue072_Airspace_SUAS_MOA		Element Reference: L00296	Element Type: Line - Complex
Description: Blue072 0.25mm Solid Line and a 2.5mm Blue072-31 Screened Line combined			
Color Token: Blue072	Parameters: Line Style: Blue072_0.25mmSolidLine Line Style 2: Blue072-31_2.5mmScreenedLine Note: The solid line is centered on the perimeter of the surface geometry and the center of the screened line is offset 0.375 mm to the inside of the surface's perimeter.		
Element Name: Blue072_0.25mmSolidLine		Element Reference: L00276	Element Type: Line - Simple
Description: Blue072 0.25mm Solid Line (0.25mm wt)			
Color Token: Blue072	Parameters: Lineweight: 0.25mm		
Element Name: Blue072-31_2.5mmScreenedLine		Element Reference: L00181	Element Type: Line - Simple
Description: Blue072-31 2.5mm Screened Line			
Color Token: Blue072-31	Parameters: Lineweight: 2.5mm		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001173	Airspace / MOA (surface)	(ATY = 25 [Military Aerodrome Traffic Zone] or ATY = 27 [Military Terminal Control Area])

Label Information

Label Description:	Airspace / MOA (surface)
Additional Labeling Criteria:	N/A
Label String:	[NAA]
Characteristics:	68 68 (Blue072, Condensed, Bold, 7-30 pt, Upper case)

Symbol Sample



Amphitheatre (AK164)

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Amphitheatre
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Origin: Center of filled square
Element Name: Black_1.0mmSquareFilled	
Element Reference: P00123	
Element Type: Point - Simple	
Description: Black filled square with all sides 1.0mm	
Color Token: Black	Parameters: Length: 1.0mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001458	Amphitheatre / all (point)	ALL

Label Information

Amphitheatre (AK164) (continued)

Point

Label Description: Amphitheatre / all (point)
Additional Labeling Criteria: N/A

Label String: "amphitheater"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ amphitheater

Amusement_Park (AK030)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Black_AmusementPark	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine	Element Reference: L00210	Element Type: Line - Styled
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters: Lineweight: 0.1mm Dash Length: 1.0mm Dash Spacing: 0.5mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001009	Amusement Park / large area (surface)	(ARA >= 6250000)

Label Information

Label Description: Amusement Park / all (surface)
Additional Labeling Criteria: N/A

Label String: "amusement park"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

 amusement park

Symbol Information	
Symbol Graphic 	Symbol Graphic Name: PT_Black_AmusementPark
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square

Amusement_Park (AK030) (continued)

Surface

Element Name: Black_1.0mmSquareFilled	Element Reference: P00123	Element Type: Point - Simple
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001457	Amusement Park / small area (surface)	(ARA < 6250000)

Label Information

Label Description:	Amusement Park / small area (surface)
Additional Labeling Criteria:	N/A
Label String:	"amusement park"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ amusement park

Point

Symbol Information	
Symbol Graphic 	Symbol Graphic Name: PT_Black_AmusementPark
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Origin: Center of filled square

Element Name: Black_1.0mmSquareFilled	Element Reference: P00123	Element Type: Point - Simple
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001459	Amusement Park / all (point)	ALL

Label Information

Label Description:	Amusement Park / all (point)
Additional Labeling Criteria:	N/A
Label String:	"amusement park"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Amusement_Park (AK030) (continued)

Point

Symbol Sample

■ amusement park

Annotated_Location (ZD045)

Surface

Symbol Information

Symbol Graphic [Z1006_MEM]	Symbol Graphic Name: AR_AnnotatedLocation_Culture
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Dynamic text label only. No Graphic Parameters.

AREA LABEL ONLY

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001472	Annotated Location / black text (surface)	ALL

Label Information

Label Description: Annotated Location / black text (surface)
Additional Labeling Criteria: (Z1006_MEM <> "UNK") or (Z1006_MEM is not null)

Label String: [Z1006_MEM]
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

numerous rigs

Symbol Information

Symbol Graphic <i>[Z1006_MEM]</i>	Symbol Graphic Name: AR_AnnotatedLocation_Hydro
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Dynamic text label only. No Graphic Parameters.

AREA LABEL ONLY

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001473	Annotated Location / blue text (surface)	ALL

Label Information

Annotated_Location (ZD045) (continued)

Surface

Label Description: Annotated Location / blue text (surface)
Additional Labeling Criteria: (ZI006_MEM <> "UNK") or (ZI006_MEM is not null)

Label String: [ZI006_MEM]
Characteristics: 34
 34 (Cyan, Regular, Italic, 6 pt, Lower case)

Symbol Sample

numerous lakes

Curve

Symbol Information

Symbol Graphic [ZI006_MEM]	Symbol Graphic Name: LN_AnnotatedLocation_Culture
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Dynamic text label only. No Graphic Parameters.
LINE LABEL ONLY	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001467	Annotated Location / black text (curve)	ALL

Label Information

Label Description: Annotated Location / black text (curve)
Additional Labeling Criteria: (ZI006_MEM <> "UNK") or (ZI006_MEM is not null)

Label String: [ZI006_MEM]
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

numerous road barriers

Symbol Information

Symbol Graphic <i>[ZI006_MEM]</i>	Symbol Graphic Name: LN_AnnotatedLocation_Hydro
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Dynamic text label only. No Graphic Parameters.
LINE LABEL ONLY	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
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Annotated_Location (ZD045) (continued)

Curve

R001468 Annotated Location / blue text (curve) ALL

Label Information

Label Description: Annotated Location / blue text (curve)
Additional Labeling Criteria: (ZI006_MEM <> "UNK") or (ZI006_MEM is not null)

Label String: [ZI006_MEM]
Characteristics: 34
 34 (Cyan, Regular, Italic, 6 pt, Lower case)

Symbol Sample

numerous rapids

Point

Symbol Information

Symbol Graphic [ZI006_MEM]	Symbol Graphic Name: PT_AnnotatedLocation_Culture
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Dynamic text label only. No Graphic Parameters.

POINT LABEL ONLY

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001452	Annotated Location / black text (point)	ALL

Label Information

Label Description: Annotated Location / black text (point)
Additional Labeling Criteria: (ZI006_MEM <> "UNK") or (ZI006_MEM is not null)

Label String: [ZI006_MEM]
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

sinkhole

Symbol Information

Symbol Graphic <i>[ZI006_MEM]</i>	Symbol Graphic Name: PT_AnnotatedLocation_Hydro
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Dynamic text label only. No Graphic Parameters.

POINT LABEL ONLY

Annotated_Location (ZD045) (continued)

Point

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001460	Annotated Location / blue text (point)	ALL

Label Information

Label Description: Annotated Location / blue text (point)
Additional Labeling Criteria: (ZI006_MEM <> "UNK") or (ZI006_MEM is not null)

Label String: [ZI006_MEM]
Characteristics: 34
 34 (Cyan, Regular, Italic, 6 pt, Lower case)

Symbol Sample

wells

Aqueduct (BH010)

Curve

Symbol Information

	Symbol Graphic Name: LN_Cyan_Aqueduct_OnSurface		
	Apply Label to Symbol: Yes		
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.		
Element Name: Cyan_0.3mmSolidLine		Element Reference: L00016	Element Type: Line - Simple
Description: Cyan 0.3mm Solid Line (0.3mm wt)			
Color Token: Cyan	Parameters: Lineweight: 0.3mm		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001011	Aqueduct / surface (curve)	(LZN >= 12500) and (ATC = 5 [Surface])

Label Information

Label Description: Aqueduct / surface (curve)
Additional Labeling Criteria: N/A

Label String: "aqueduct"
Characteristics: 34
 34 (Cyan, Regular, Italic, 6 pt, Lower case)

Symbol Sample

aqueduct

Aqueduct (BH010) (continued)

Curve

Symbol Information		
	Symbol Graphic Name: LN_Cyan_Aqueduct_AboveSurface	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature. Point symbols are added at each end.	
Element Name: Cyan_Aqueduct / Penstock		Element Reference: L00106
Description: Cyan 0.3mm Solid Line with 'V' (0.3mm wt, 0.7mm long)		
Color Token: Cyan	Parameters: Line Style: Cyan_0.3mmSolidLine Fix at Start: Cyan_0.3mm-0.7mmLenV Fix at End: Cyan_0.3mm-0.7mmLenV Note: Origin: Apex of 'V' touches line ends with ticks facing away	
Element Name: Cyan_0.3mmSolidLine		Element Reference: L00016
Description: Cyan 0.3mm Solid Line (0.3mm wt)		
Color Token: Cyan	Parameters: Lineweight: 0.3mm	
Element Name: Cyan_0.3mm-0.7mmLenV		Element Reference: P00208
Description: Cyan "V" length of each leg is 0.7mm with a 0.3mm lineweight that intersect at a 90 degree angle		
Color Token: Cyan	Parameters: Lineweight: 0.3mm Length: 0.7mm Orientation: Apex is where the lines connect to form a "V" Note: Angle between legs: 90 degrees	
Element Name: Cyan_0.3mm-0.7mmLenV		Element Reference: P00208
Description: Cyan "V" length of each leg is 0.7mm with a 0.3mm lineweight that intersect at a 90 degree angle		
Color Token: Cyan	Parameters: Lineweight: 0.3mm Length: 0.7mm Orientation: Apex is where the lines connect to form a "V" Note: Angle between legs: 90 degrees	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001012	Aqueduct / raised (curve)	(LZN >= 12500) and (RLE = 1 [Raised]) or (SBB = 1001 [True])

Label Information

Label Description:	Aqueduct / raised (curve)
Additional Labeling Criteria:	N/A
Label String:	"aqueduct"
Characteristics:	34 34 (Cyan, Regular, Italic, 6 pt, Lower case)

Symbol Sample



Archeological_Site (AL012)

Surface

Archeological_Site (AL012) (continued)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_ArcheologicalSite	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001017	Archeological Site / non-obstruction (surface)	(HGT < 61)

Label Information	
Label Description:	Archeological Site / all (surface)
Additional Labeling Criteria:	N/A
Label String:	"archeological site"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample
 archeological site

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_ArcheologicalSite	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001018	Archeological Site / non-obstruction (point)	(HGT < 61)

Label Information

Archeological_Site (AL012) (continued)

Point

Label Description: Archeological Site / non-obstruction (point)
Additional Labeling Criteria: N/A

Label String: "archeological site"
Characteristics: 2
 2 (Black, point features, 6 pt, Mixed case)

Symbol Sample

■ archeological site

Astronomical_Observatory (AL142)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_AstronomicalObservatory	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled	Element Reference: P00123	Element Type: Point - Simple
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001466	Astronomical Observatory / non-obstruction (surface)	(HGT < 61)

Label Information

Label Description: Astronomical Observatory / all (surface)
Additional Labeling Criteria: N/A

Label String: "observatory"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ observatory

Point

Symbol Information	
Symbol Graphic 	Symbol Graphic Name: PT_Black_AstronomicalObservatory
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Origin: Center of filled square

Astronomical_Observatory (AL142) (continued)

Point

Element Name: Black_1.0mmSquareFilled	Element Reference: P00123	Element Type: Point - Simple
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001465	Astronomical Observatory / non-obstruction (point)	(HGT < 61)

Label Information

Label Description:	Astronomical Observatory / non-obstruction (point)
Additional Labeling Criteria:	N/A
Label String:	"observatory"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Bog (BH015)

Surface

Symbol Information	
	Symbol Graphic Name: AR_Cyan_Bog
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The surface geometry is filled with the area pattern.

Element Name: Cyan_AP12_Fill	Element Reference: A00018	Element Type: Area - Pattern
Description: Cyan Bog, Marsh Fill		
Color Token: Cyan	Parameters: Area Pattern: See Element: Cyan_AP12_Fill in Annex I Note: Area Pattern #12	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001021	Bog / all (surface)	ALL

Label Information

Label Description:	Bog / all (surface)
Additional Labeling Criteria:	N/A
Label String:	"BOG"
Characteristics:	37 37 (Cyan, Condensed, Italic, 7-16 pt, Upper case)

Bridge (AQ040) (continued)

Curve

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Bridge	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Point symbol is placed at the center and aligned to the curve geometry.	
Element Name: Black_Bridge	Element Reference: P00211	Element Type: Point - Simple
Description: Black filled square with all sides 0.8 mm and four black 1.0mm length, 0.15mm lineweight ticks extending out from each corner at 45, 135, 225, and 315 degrees.		
Color Token: Black	Parameters: Length: 1.0mm	Lineweight: 0.15mm

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001645	Bridge / small (curve)	(LZN >= 25 and < 250)

Symbol Sample		
		

Bridge_Superstructure (AQ050)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Blue072_LinearObstruction	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Point symbol is placed at the center of the curve geometry. Origin: Center of dot	
Element Name: Blue072_PT_LinearObstruction	Element Reference: P00113	Element Type: Point - Shape
Description: Blue072 linear vertical obstruction		
Color Token: Blue072	Parameters: Detail: Blue072_PT_LinearObstruction Note: See Element: Blue072_PT_LinearObstruction in Annex H for detailed drawing instructions	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001471	Bridge Superstructure / obstruction (curve)	(HGT >= 61)

Label Information	
Label Description:	Bridge Superstructure / obstruction / normal (curve)
Additional Labeling Criteria:	ZVH and HGT values are converted from meters to feet.
Label String:	"Bridge superstructure" [ZVH] ("[HGT]")
Characteristics:	60,61,62,62,62 60 (Blue072, Condensed, Bold, 7 pt, Mixed case) 61 (Blue072, Condensed, Bold, Italic, 7 pt, Lower case) 62 (Blue072, Condensed, Bold, 7 pt, Lower case)

Bridge_Superstructure (AQ050) (continued)

Point

Label Description: Bridge Superstructure / obstruction / highest (curve)
Additional Labeling Criteria: Highest structure within 30'x30' lines of graticule. ZVH and HGT values are converted from meters to feet.

Label String: "Bridge superstructure"
 [ZVH]
 ("[HGT]")"

Characteristics: 60,63,64,64,64
 60 (Blue072, Condensed, Bold, 7 pt, Mixed case)
 63 (Blue072, Condensed, Bold, Italic, 8 pt, Lower case)
 64 (Blue072, Condensed, Bold, 8 pt, Lower case)

Symbol Sample



Building (AL013)

Surface

Symbol Information		
	Symbol Graphic Name: AR_Black_Building_LargeArea	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The surface geometry is filled with the solid color. A minimum plotted width of 1.0mm is required.	
Element Name: Black_SolidAreaFill		Element Reference: A00006
Element Type: Area - Fill		
Description: Black Solid Fill		
Color Token: Black	Parameters: Note: Solid Fill	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001436	Building / large area (surface)	(PCF = 2 [Intact] or PCF = -999999 [No Information]) and (LZN >= 500)

Label Information

Label Description: Building / hospital (surface)
Additional Labeling Criteria: (FFN = 860 [Human Health Activities] or FFN = 861 [In-patient Care] or FFN = 863 [Urgent Medical Care])

Label String: "hospital"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Label Description: Building / house of worship (surface)
Additional Labeling Criteria: (FFN = 930 [Religious Activities] or FFN = 931 [Place of Worship] or FFN = 932 [Islamic Prayer Hall])

Label String: "house of worship"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Label Description: Building / school (point)
Additional Labeling Criteria: (FFN = 850 [Education] or FFN = 851 [Primary Education] or FFN = 852 [Secondary Education] or FFN = 855 [Higher Education] or FFN = 857 [Vocational Education])

Label String: "school"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Building (AL013) (continued)**Surface**

R001409	Building / other / small area (surface)	(PCF = 2 [Intact] or PCF = -999999 [No Information]) and (LZN > 249 and LZN < 500) and (HGT < 61) and (FFN = 2 [Agriculture] or FFN = 3 [Growing of Crops] or FFN = 9 [Raising of Animals] or FFN = 14 [Grazing] or FFN = 27 [Forest Warden] or FFN = 35 [Aquaculture] or FFN = 40 [Mining and Quarrying] or FFN = 95 [Ore Dressing] or FFN = 99 [Manufacturing] or FFN = 100 [Food Product Manufacture] or FFN = 101 [Food Processing] or FFN = 102 [Meat Processing] or FFN = 103 [Seafood Processing] or FFN = 104 [Fruit and/or Vegetable Processing] or FFN = 105 [Oil-mill] or FFN = 106 [Dairying] or FFN = 107 [Grain Milling] or FFN = 110 [Baking] or FFN = 111 [Sugar Manufacture] or FFN = 112 [Sugar Milling] or FFN = 113 [Sugar Refining] or FFN = 114 [Confection Manufacture] or FFN = 115 [Pasta Manufacture] or FFN = 116 [Prepared Meal Manufacture] or FFN = 118 [Beverage Manufacture] or FFN = 119 [Animal Feed Manufacture] or FFN = 120 [Ice Manufacture] or FFN = 121 [Spirit Distillery] or FFN = 122 [Winery] or FFN = 123 [Brewing] or FFN = 124 [Soft Drink Manufacture] or FFN = 125 [Tobacco Product Manufacture] or FFN = 129 [Textile, Apparel and Leather Manufacture] or FFN = 130 [Textile Manufacture] or FFN = 140 [Apparel Manufacture] or FFN = 150 [Leather Product Manufacture] or FFN = 155 [Footwear Manufacturing] or FFN = 160 [Wood-based Manufacturing] or FFN = 161 [Sawmilling] or FFN = 165 [Wooden Construction Product Manufacture] or FFN = 171 [Paper-mill] or FFN = 181 [Printing] or FFN = 190 [Petroleum and Coal Products Manufacturing] or FFN = 191 [Coke Manufacture] or FFN = 192 [Petroleum Refining] or FFN = 195 [Chemical Manufacture] or FFN = 210 [Medicinal Product Manufacture] or FFN = 221 [Rubber Product Manufacture] or FFN = 225 [Plastic Product Manufacture] or FFN = 230 [Nonmetallic Mineral Product Manufacturing] or FFN = 231 [Glass Product Manufacture] or FFN = 232 [Refractory Product Manufacture] or FFN = 233 [Clay Product 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or FFN = 322 [Musical Instrument Manufacture] or FFN = 323 [Sports Goods Manufacture] or FFN = 324 [Game and/or Toy Manufacture] or FFN = 325 [Medical and/or Dental Equipment Manufacture] or FFN = 330 [General Repair] or FFN = 331 [Fabricated Metal Product Repair] or FFN = 332 [Electronic Equipment Repair] or FFN = 333 [Electrical Equipment Repair] or FFN = 334 [Machinery Repair] or FFN = 340 [Ship Repair] or FFN = 341 [Aircraft Repair] or FFN = 342 [Railway Vehicle Repair] or FFN = 343 [Motor Vehicle Repair] or FFN = 350 [Utilities] or FFN = 351 [Power Generation] or FFN = 352 [Climate Control] or FFN = 355 [Cooling] or FFN = 356 [Heating] or FFN = 360 [Water Supply] or FFN = 362 [Water Treatment] or FFN = 363 [Water Distribution] or FFN = 370 [Sewerage] or FFN = 372 [Sewerage Screening] or FFN = 382 [Restroom] or FFN = 383 [Waste Treatment and Disposal] or FFN = 385 [Materials Recovery] or FFN = 440 [Commerce] or FFN = 459 [Wholesale Merchant] or FFN = 460 [Retail Sale] or FFN = 464 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or FFN = 604 [Television Broadcasting] or FFN = 610 [Telecommunications] or FFN = 612 [Retail Telecommunications] or FFN = 614 [Wired Telecommunications] or FFN = 615 [Main Telephone Exchange] or FFN = 616 [Branch Telephone Exchange] or FFN = 617 [Wired Repeater] or FFN = 620 [Wireless Telecommunications] or FFN = 621 [Mobile Phone Service] or FFN = 622 [Wireless Repeater] or FFN = 625 [Satellite Telecommunications] or FFN = 626 [Satellite Ground Control] or FFN = 632 [Information Service] or FFN = 633 [Public Records] or FFN = 640 [Financial Services] or FFN = 642 [Central Banking] or FFN = 643 [Retail Banking] or FFN = 651 [Insurance] or FFN = 662 [Financial Market Administration] or FFN = 663 [Security Brokerage] or FFN = 671 [Fund Management] or FFN = 680 [Real Estate Activities] or FFN = 681 [Professional, Scientific and Technical] or FFN = 691 [Legal Activities] or FFN = 696 [Accounting] or FFN = 701 [Head Office] or FFN = 706 [Business Management] or FFN = 711 [Architecture Consulting] or FFN = 714 [Engineering Design] or FFN = 717 [Surveying] or FFN = 720 [Scientific Research and Development] or FFN = 721 [Observation Station] or FFN = 722 [Weather Station] or FFN = 725 [Nuclear
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Building (AL013) (continued)

Surface

Research Centre] or FFN = 730 [Wind Tunnel] or FFN = 741 [Advertising] or FFN = 752 [Photography] or FFN = 757 [Veterinary] or FFN = 760 [Business and Personal Support Services] or FFN = 761 [Motor Vehicle Rental] or FFN = 770 [Employment Agency] or FFN = 775 [Travel Agency] or FFN = 780 [Security Enforcement] or FFN = 781 [Guard] or FFN = 791 [Custodial Service] or FFN = 795 [Landscaping Service] or FFN = 801 [Office Administration] or FFN = 807 [Call Centre] or FFN = 808 [Public Administration] or FFN = 809 [Headquarters] or FFN = 810 [Administration] or FFN = 811 [Government] or FFN = 812 [Local Government] or FFN = 813 [Subnational Government] or FFN = 814 [National Government] or FFN = 818 [Executive Activities] or FFN = 819 [Legislative Activities] or FFN = 821 [Polling Station] or FFN = 822 [Civil Activities] or FFN = 825 [Diplomacy] or FFN = 826 [Diplomatic Mission] or FFN = 827 [Embassy] or FFN = 828 [Consul] or FFN = 829 [Maritime Defense] or FFN = 830 [Public Order, Safety and Security Services] or FFN = 831 [Public Order] or FFN = 832 [Safety] or FFN = 833 [Security Services] or FFN = 835 [Defence Activities] or FFN = 836 [Armory] or FFN = 837 [Military Reserve Activities] or FFN = 838 [Military Recruitment] or FFN = 839 [CBRNE Civilian Support] or FFN = 840 [Judicial Activities] or FFN = 841 [Law Enforcement] or FFN = 842 [Immigration Control] or FFN = 845 [Firefighting] or FFN = 846 [Rescue and Paramedical Services] or FFN = 847 [Emergency Operations] or FFN = 848 [Civil Intelligence] or FFN = 862 [Out-patient Care] or FFN = 864 [Human Tissue Repository] or FFN = 865 [Public Health Activities] or FFN = 866 [Leprosy Care] or FFN = 871 [Intermediate Care] or FFN = 873 [Psychiatric In-patient Care] or FFN = 875 [Residential Care] or FFN = 881 [Emergency Shelter] or FFN = 882 [Homeless Shelter] or FFN = 883 [Refugee Shelter] or FFN = 884 [Emergency Youth Shelter] or FFN = 885 [Day Care] or FFN = 887 [Social Work] or FFN = 888 [Emergency Relief Services] or FFN = 890 [Cultural, Arts and Entertainment] or FFN = 891 [Theatre] or FFN = 892 [Auditorium] or FFN = 893 [Community Centre] or FFN = 894 [Opera House] or FFN = 895 [Night Club] or FFN = 900 [Sports, Amusement and Recreation] or FFN = 902 [Library] or FFN = 905 [Museum] or FFN = 906 [Aquarium] or FFN = 907 [Botanical and/or Zoological Reserve Activities] or FFN = 909 [Gambling] or FFN = 912 [Sports Centre] or FFN = 913 [Fitness Centre] or FFN = 914 [Shooting Range] or FFN = 919 [Animal Boarding] or FFN = 921 [Recreation] or FFN = 922 [Amusement] or FFN = 923 [Hobbies and/or Leisure Activities] or FFN = 950 [Membership Organization] or FFN = 954 [Club] or FFN = 955 [Yacht-club] or FFN = 961 [Laundry] or FFN = 962 [Beauty Treatment] or FFN = 963 [Funeral Services] or FFN = 964 [Cremation] or FFN = 965 [Mortuary Services] or FFN = 966 [Adult Entertainment] or FFN = 967 [Storage of Human Remains] or FFN = 970 [Meeting Place] or FFN = 980 [Death Care Services] or FFN = 999 [Other] or FFN = -999999 [No Information])

Symbol Sample



Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Building_ImportantLandmark	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001437	Building / important / landmark (point)	(FFN = 815 [Palace] or FFN = 817 [Capitol] or FFN = 843 [Imprisonment] or FFN = 844 [Juvenile Corrections] or FFN = 850 [Education] or FFN = 851 [Primary Education] or FFN = 852 [Secondary Education] or FFN = 855 [Higher Education] or FFN = 857 [Vocational Education] or FFN = 930 [Religious Activities] or FFN = 931 [Place of Worship] or FFN = 932 [Islamic Prayer Hall]) and (PCF = 2 [Intact] or PCF = -999999 [No Information]) and (LMC = 1001 [True]) and (HGT < 61)

Label Information

Building (AL013) (continued)

Point

Symbol Sample



Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_TransportationStation	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Symbol is centered on top of railway symbol. Origin: Center of open square	
Element Name: Passenger-Terminal	Element Reference: P00079	Element Type: Point - Complex
Description: A Black 0.8mm filled square inside of a larger open square. The smaller filled square is centered along and touching one side of the open square		
Color Token: Black	Parameters: Point 1 Name: Black_0.8mmFilledSquare Point 2 Name: Black_0.1mm-1.2mmwideOpenSquare Note: Point element "Black_SquareFilled" positioned inside the open square, touching side of open square that is parallel to railway track on the same side as the terminal building	
Element Name: Black_0.8mmFilledSquare	Element Reference: P00006	Element Type: Point - Simple
Description: Black filled square with all sides 0.8mm		
Color Token: Black	Parameters: Length: 0.8mm	
Element Name: Black_0.1mm-1.2mmwideOpenSquare	Element Reference: P00033	Element Type: Point - Simple
Description: Black open square (0.1mm wt, 1.2mm long/wide)		
Color Token: Black	Parameters: Length: 1.2mm	Lineweight: 0.1mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001479	Building / railway station / landmark (point)	(FFN = 490 [Railway Transport] or FFN = 491 [Railway Passenger Transport]) and (PCF = 2 [Intact] or PCF = -999999 [No Information]) and (LMC = 1001 [True]) and (HGT < 61)

Symbol Sample



Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Building_Landmark	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The point symbology is applied to the geometry of the feature.	
Element Name: Black_1.0mmSquareFilled	Element Reference: P00123	Element Type: Point - Simple
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
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Building (AL013) (continued)

Point

R001433 Building / other / landmark (point) (LMC = 1001) and (HGT < 61) and (PCF = 2 [Intact] or PCF = -999999 [No Information]) and (FFN = 2 [Agriculture] or FFN = 3 [Growing of Crops] or FFN = 9 [Raising of Animals] or FFN = 14 [Grazing] or FFN = 27 [Forest Warden] or FFN = 35 [Aquaculture] or FFN = 40 [Mining and Quarrying] or FFN = 95 [Ore Dressing] or FFN = 99 [Manufacturing] or FFN = 100 [Food Product Manufacture] or FFN = 101 [Food Processing] or FFN = 102 [Meat Processing] or FFN = 103 [Seafood Processing] or FFN = 104 [Fruit and/or Vegetable Processing] or FFN = 105 [Oil-mill] or FFN = 106 [Dairying] or FFN = 107 [Grain Milling] or FFN = 110 [Baking] or FFN = 111 [Sugar Manufacture] or FFN = 112 [Sugar Milling] or FFN = 113 [Sugar Refining] or FFN = 114 [Confection Manufacture] or FFN = 115 [Pasta Manufacture] or FFN = 116 [Prepared Meal Manufacture] or FFN = 118 [Beverage Manufacture] or FFN = 119 [Animal Feed Manufacture] or FFN = 120 [Ice Manufacture] or FFN = 121 [Spirit 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Building (AL013) (continued)

Point

Research Centre] or FFN = 730 [Wind Tunnel] or FFN = 741 [Advertising] or FFN = 752 [Photography] or FFN = 757 [Veterinary] or FFN = 760 [Business and Personal Support Services] or FFN = 761 [Motor Vehicle Rental] or FFN = 770 [Employment Agency] or FFN = 775 [Travel Agency] or FFN = 780 [Security Enforcement] or FFN = 781 [Guard] or FFN = 791 [Custodial Service] or FFN = 795 [Landscaping Service] or FFN = 801 [Office Administration] or FFN = 807 [Call Centre] or FFN = 808 [Public Administration] or FFN = 809 [Headquarters] or FFN = 810 [Administration] or FFN = 811 [Government] or FFN = 812 [Local Government] or FFN = 813 [Subnational Government] or FFN = 814 [National Government] or FFN = 818 [Executive Activities] or FFN = 819 [Legislative Activities] or FFN = 821 [Polling Station] or FFN = 822 [Civil Activities] or FFN = 825 [Diplomacy] or FFN = 826 [Diplomatic Mission] or FFN = 827 [Embassy] or FFN = 828 [Consul] or FFN = 829 [Maritime Defense] or FFN = 830 [Public Order, Safety and Security Services] or FFN = 831 [Public Order] or FFN = 832 [Safety] or FFN = 833 [Security Services] or FFN = 835 [Defence Activities] or FFN = 836 [Armory] or FFN = 837 [Military Reserve Activities] or FFN = 838 [Military Recruitment] or FFN = 839 [CBRNE Civilian Support] or FFN = 840 [Judicial Activities] or FFN = 841 [Law Enforcement] or FFN = 842 [Immigration Control] or FFN = 845 [Firefighting] or FFN = 846 [Rescue and Paramedical Services] or FFN = 847 [Emergency Operations] or FFN = 848 [Civil Intelligence] or FFN = 862 [Out-patient Care] or FFN = 864 [Human Tissue Repository] or FFN = 865 [Public Health Activities] or FFN = 866 [Leprosy Care] or FFN = 871 [Intermediate Care] or FFN = 873 [Psychiatric In-patient Care] or FFN = 875 [Residential Care] or FFN = 881 [Emergency Shelter] or FFN = 882 [Homeless Shelter] or FFN = 883 [Refugee Shelter] or FFN = 884 [Emergency Youth Shelter] or FFN = 885 [Day Care] or FFN = 887 [Social Work] or FFN = 888 [Emergency Relief Services] or FFN = 890 [Cultural, Arts and Entertainment] or FFN = 891 [Theatre] or FFN = 892 [Auditorium] or FFN = 893 [Community Centre] or FFN = 894 [Opera House] or FFN = 895 [Night Club] or FFN = 900 [Sports, Amusement and Recreation] or FFN = 902 [Library] or FFN = 905 [Museum] or FFN = 906 [Aquarium] or FFN = 907 [Botanical and/or Zoological Reserve Activities] or FFN = 909 [Gambling] or FFN = 912 [Sports Centre] or FFN = 913 [Fitness Centre] or FFN = 914 [Shooting Range] or FFN = 919 [Animal Boarding] or FFN = 921 [Recreation] or FFN = 922 [Amusement] or FFN = 923 [Hobbies and/or Leisure Activities] or FFN = 950 [Membership Organization] or FFN = 954 [Club] or FFN = 955 [Yacht-club] or FFN = 961 [Laundry] or FFN = 962 [Beauty Treatment] or FFN = 963 [Funeral Services] or FFN = 964 [Cremation] or FFN = 965 [Mortuary Services] or FFN = 966 [Adult Entertainment] or FFN = 967 [Storage of Human Remains] or FFN = 970 [Meeting Place] or FFN = 980 [Death Care Services] or FFN = 999 [Other] or FFN = -999999 [No Information]

Symbol Sample



Built-Up_Area (AL020)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Yellow_BUA	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry and the area is filled with the solid color.	
Element Name: Yellow_SolidAreaFill		Element Reference: A00068
Description: Yellow Solid Fill		
Color Token: Yellow	Parameters: Note: Solid Fill	
Element Name: Black_0.1mmSolidLine		Element Reference: L00007
Description: Black 0.1mm Solid Line (0.1mm wt)		
Color Token: Black	Parameters: Lineweight: 0.1mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001068	Built Up Area / all (surface)	ALL

Label Information

Built-Up_Area (AL020) (continued)

Surface

Label Description:	Built-Up Area / 1st class (surface)
Additional Labeling Criteria:	N/A
Label String:	[Z1005_FNA1] "["[Z1005_FNA2]"
Characteristics:	48,48,48,48 48 (Black, Condensed, Bold, 10 pt, Upper case)
Label Description:	Built-Up Area / 2nd class (surface)
Additional Labeling Criteria:	N/A
Label String:	[Z1005_FNA1] "["[Z1005_FNA2]"
Characteristics:	51,51,51,51 51 (Black, Condensed, Bold, 8 pt, Upper case)
Label Description:	Built-Up Area / 3rd class (surface)
Additional Labeling Criteria:	N/A
Label String:	[Z1005_FNA1] "["[Z1005_FNA2]"
Characteristics:	52,52,52,52 52 (Black, Condensed, Bold, 8 pt, Mixed case)
Label Description:	Built-Up Area / 4th class (surface)
Additional Labeling Criteria:	N/A
Label String:	[Z1005_FNA1] "["[Z1005_FNA2]"
Characteristics:	54,54,54,54 54 (Black, Condensed, Bold, 7 pt, Mixed case)

Symbol Sample



Point

Symbol Information		
	Symbol Graphic Name: PT_Built-upArea	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of open circle	
Element Name: Black_1.2mmOpenCircle	Element Reference: P00210	Element Type: Point - Simple
Description: Black 1.2mm diameter open circle with a lineweight of 0.1mm		
Color Token: Black	Parameters: Diameter: 1.2mm Lineweight: 0.1mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001072	Built Up Area / all (point)	ALL

Label Information

Built-Up_Area (AL020) (continued)

Point

Label Description: Built-Up Area / all (point)
Additional Labeling Criteria: N/A

Label String: [ZI005_FNA1] "["[ZI005_FNA2]"
Characteristics: 54,54,54,54
 54 (Black, Condensed, Bold, 7 pt, Mixed case)

Symbol Sample

○ Monroe

Cable (AT005)

Curve

Symbol Information

	Symbol Graphic Name: LN_Black_Cable_CommunicationLine		
	Apply Label to Symbol: Yes		
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.		
Element Name: Black_0.1mm-2mmLenDash-0.5mmGapLine		Element Reference: L00029	Element Type: Line - Styled
Description: Black 0.1mm Dashed Line (0.1mm wt, 2.0mm dash, 0.5mm gap)			
Color Token: Black	Parameters: Lineweight: 0.1mm		Dash Length: 2.0mm Dash Spacing: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001424	Cable / non-obstruction / other (curve)	(CAB = 3 [Telephone] or CAB = 4 [Telegraph] or CAB = 7 [Digital Communication Line] or CAB = 8 [Communication Line] or CAB = 9 [Fibre-optic] or CAB = 10 [Tethering] or CAB = 11 [Load Bearing] or CAB = 12 [Guide] or CAB = 13 [Barrier] or CAB = 14 [Restraining] or CAB = 15 [Towing] or CAB = 999 [Other] or CAB = -999999 [No Information]) and (HGT < 61)

Label Information

Label Description: Cable / communication / non-obstruction (curve)
Additional Labeling Criteria: (CAB = 3 [Telephone] or CAB = 4 [Telegraph] or CAB = 7 [Digital Communication Line] or CAB = 8 [Communication Line] or CAB = 9 [Fibre-optic])

Label String: "tel"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Label Description: Cable / other / non-obstruction (curve)
Additional Labeling Criteria: (CAB = 10 [Tethering] or CAB = 11 [Load Bearing] or CAB = 12 [Guide] or CAB = 13 [Barrier] or CAB = 14 [Restraining] or CAB = 15 [Towing] or CAB = 999 [Other] or CAB = -999999 [No Information])

Label String: "cable"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

-----tel----- cable-----

Cable (AT005) (continued)

Curve

Symbol Information		
	Symbol Graphic Name: LN_Blue072_Cable_Powerline	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature. Pylon element is perpendicular to line however, may need to be rotated to ensure the bottom is facing the south neatline.	
Element Name: Blue072_Powerline (Normal)		Element Reference: L00070
Element Type: Line - Complex		
Description: Blue072 0.4mm Solid Line with Pylons		
Color Token: Blue072	Parameters: Line Style: Blue072_0.4mmSolidLine Repeating Point: Blue072_Pylon Repeating Point Interval: 40mm Note: The repeating point is also positioned at points of directional change. The symbol should remain up most. Interval is 40mm	
Element Name: Blue072_0.4mmSolidLine		Element Reference: L00005
Element Type: Line - Simple		
Description: Blue072 0.4mm Solid Line (0.4mm wt)		
Color Token: Blue072	Parameters: Lineweight: 0.4mm	
Element Name: Blue072_Pylon		Element Reference: P00020
Element Type: Point - Shape		
Description: Blue072 pylon		
Color Token: Blue072	Parameters: Detail: Blue072_Pylon Orientation: Centered at 90 degrees to the line Note: See Element: Blue072_Pylon in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001425	Cable / powerline (curve)	(CAB = 2 [Power Line] or CAB = 6 [Transmission Line]) and (HGT < 61)

Symbol Sample



Symbol Information		
	Symbol Graphic Name: LN_Blue072_Cable_Obstruction	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Blue072_0.73mmSolidLine		Element Reference: L00006
Element Type: Line - Simple		
Description: Blue072 0.73mm Solid Line (0.73mm wt)		
Color Token: Blue072	Parameters: Lineweight: 0.73mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001426	Cable / obstruction / standard (curve)	(HGT >= 61) and (LZN >= 1250)

Label Information

Cable (AT005) (continued)

Curve

Label Description: Cable / obstruction / normal (curve)
Additional Labeling Criteria: ZVH and HGT values are converted from meters to feet.

Label String: "Cable"
[ZVH]
"("[HGT]")"

Characteristics: 60,61,62,62,62
60 (Blue072, Condensed, Bold, 7 pt, Mixed case)
61 (Blue072, Condensed, Bold, Italic, 7 pt, Lower case)
62 (Blue072, Condensed, Bold, 7 pt, Lower case)

Label Description: Cable / obstruction / highest (curve)
Additional Labeling Criteria: Highest structure within 30'x30' lines of graticule.
ZVH and HGT values are converted from meters to feet.

Label String: "Cable"
[ZVH]
"("[HGT]")"

Characteristics: 60,63,64,64,64
60 (Blue072, Condensed, Bold, 7 pt, Mixed case)
63 (Blue072, Condensed, Bold, Italic, 8 pt, Lower case)
64 (Blue072, Condensed, Bold, 8 pt, Lower case)

Symbol Sample

Cable
794
(236)

Cable
832
(274)

Point

Symbol Information

	Symbol Graphic Name: PT_Blue072_CableVO
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Point symbol is placed at the center of the curve geometry. Origin: Center of dot
Element Name: Blue072_Obstruction	
Element Reference: P00008	
Element Type: Point - Shape	
Description: Blue072 vertical obstruction	
Color Token: Blue072	Parameters:
	Detail: Blue072_Obstruction
	Note: See Element: Blue072_Obstruction in Annex H for detailed drawing instructions.

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001641	Cable / obstruction / small (curve)	(HGT >= 61) and (LZN < 1250)

Label Information

Label Description: Cable / obstruction / normal (curve)
Additional Labeling Criteria: ZVH and HGT values are converted from meters to feet.

Label String: "Cable"
[ZVH]
"("[HGT]")"

Characteristics: 60,61,62,62,62
60 (Blue072, Condensed, Bold, 7 pt, Mixed case)
61 (Blue072, Condensed, Bold, Italic, 7 pt, Lower case)
62 (Blue072, Condensed, Bold, 7 pt, Lower case)

Cable (AT005) (continued)

Point

Label Description: Cable / obstruction / highest (curve)
Additional Labeling Criteria: Highest structure within 30'x30' lines of graticule.
 ZVH and HGT values are converted from meters to feet.

Label String: "Cable"
 [ZVH]
 ("[HGT]")

Characteristics: 60,63,64,64,64
 60 (Blue072, Condensed, Bold, 7 pt, Mixed case)
 63 (Blue072, Condensed, Bold, Italic, 8 pt, Lower case)
 64 (Blue072, Condensed, Bold, 8 pt, Lower case)

Symbol Sample



Cableway (AT041)

Curve

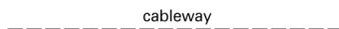
Symbol Information

	Symbol Graphic Name: LN_Black_Cableway		
	Apply Label to Symbol: Yes		
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.		
Element Name: Black_0.2mm-2mmLenDash-0.5mmGapLine		Element Reference: L00032	Element Type: Line - Styled
Description: Black 0.2mm Dashed Line (0.2mm wt, 2.0mm dash, 0.5mm gap)			
Color Token: Black	Parameters: Lineweight: 0.2mm		Dash Length: 2.0mm Dash Spacing: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001155	Cableway / non-obstruction (curve)	(HGT < 61)

Symbol Sample



Symbol Information

	Symbol Graphic Name: LN_Blue072_Cableway_Obstruction		
	Apply Label to Symbol: Yes		
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.		
Element Name: Blue072_0.73mmSolidLine		Element Reference: L00006	Element Type: Line - Simple
Description: Blue072 0.73mm Solid Line (0.73mm wt)			
Color Token: Blue072	Parameters: Lineweight: 0.73mm		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
----------	-------------	----------

Cableway (AT041) (continued)

Curve

R001158 Cableway / obstruction / standard (curve) (HGT >= 61) and (LZN >= 1250)

Label Information

Label Description: Cableway / obstruction / normal (curve)
Additional Labeling Criteria: ZVH and HGT values are converted from meters to feet.

Label String: "Cable"
 [ZVH]
 ("[HGT]")
Characteristics: 60,61,62
 60 (Blue072, Condensed, Bold, 7 pt, Mixed case)
 61 (Blue072, Condensed, Bold, Italic, 7 pt, Lower case)
 62 (Blue072, Condensed, Bold, 7 pt, Lower case)

Label Description: Cableway / obstruction / highest (curve)
Additional Labeling Criteria: Highest structure within 30'x30' lines of graticule.
 ZVH and HGT values are converted from meters to feet.

Label String: "Cable"
 [ZVH]
 ("[HGT]")
Characteristics: 60,63,64
 60 (Blue072, Condensed, Bold, 7 pt, Mixed case)
 63 (Blue072, Condensed, Bold, Italic, 8 pt, Lower case)
 64 (Blue072, Condensed, Bold, 8 pt, Lower case)

Symbol Sample

Cable
 794
 (236)

Cable
 832
 (274)

Point

Symbol Information

	Symbol Graphic Name: PT_Blue072_CablewayVO	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Point symbol is placed at the center of the curve geometry. Origin: Center of dot	
Element Name: Blue072_Obstruction		Element Reference: P00008
Element Type: Point - Shape		
Description: Blue072 vertical obstruction		
Color Token: Blue072	Parameters: Detail: Blue072_Obstruction Note: See Element: Blue072_Obstruction in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001642	Cableway / obstruction / small (curve)	(HGT >= 61) and (LZN < 1250)

Label Information

Cableway (AT041) (continued)

Point

Label Description: Cableway / obstruction / normal (curve)
Additional Labeling Criteria: ZVH and HGT values are converted from meters to feet.

Label String: "Cable"
 [ZVH]
 ("[HGT]")

Characteristics: 60,61,62,62,62
 60 (Blue072, Condensed, Bold, 7 pt, Mixed case)
 61 (Blue072, Condensed, Bold, Italic, 7 pt, Lower case)
 62 (Blue072, Condensed, Bold, 7 pt, Lower case)

Label Description: Cableway / obstruction / highest (curve)
Additional Labeling Criteria: Highest structure within 30'x30' lines of graticule.
 ZVH and HGT values are converted from meters to feet.

Label String: "Cable"
 [ZVH]
 ("[HGT]")

Characteristics: 60,63,64,64,64
 60 (Blue072, Condensed, Bold, 7 pt, Mixed case)
 63 (Blue072, Condensed, Bold, Italic, 8 pt, Lower case)
 64 (Blue072, Condensed, Bold, 8 pt, Lower case)

Symbol Sample



Canal (BH020)

Curve

Symbol Information		
	Symbol Graphic Name: LN_Cyan_Canal_Perennial	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Cyan_0.4mmSolidLine		Element Reference: L00017
Description: Cyan 0.4mm Solid Line (0.4mm wt)		
Color Token: Cyan	Parameters: Lineweight: 0.4mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001026	Canal / perennial (curve)	(Z1024_HYP = 1 [Perennial] or Z1024_HYP = -999999 [No Information]) and (LZN >= 12500)

Label Information

Label Description: Canal / named (curve)
Additional Labeling Criteria: (Z1005_FNA <> "UNK") or (Z1005_FNA is not null)

Label String: [Z1005_FNA]
Characteristics: 36

36 (Cyan, Regular, Italic, 6 pt, Mixed case)

Canal (BH020) (continued)

Curve

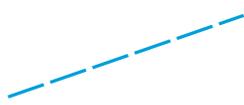
Label Description: Canal / unnamed (curve)
Additional Labeling Criteria: (ZI005_FNA = "UNK") or (ZI005_FNA is null)

Label String: "canal"
Characteristics: 34
 34 (Cyan, Regular, Italic, 6 pt, Lower case)

Symbol Sample



Symbol Information

	Symbol Graphic Name: LN_Cyan_Canal_IntermittentDry	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Cyan_0.4mm-2mmLenDash-0.5mmGapLine		Element Reference: L00045
Element Type: Line - Styled		
Description: Cyan 0.4mm Dashed Line (0.4mm wt, 2.0mm dash, 0.5mm gap)		
Color Token: Cyan	Parameters:	
	Lineweight: 0.4mm	Dash Length: 2.0mm
		Dash Spacing: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001027	Canal / intermittent, dry (curve)	(ZI024_HYP = 2 [Intermittent] or ZI024_HYP = 4 [Dry]) and (LZN >= 12500)

Label Information

Label Description: Canal / named (curve)
Additional Labeling Criteria: (ZI005_FNA <> "UNK") or (ZI005_FNA is not null)

Label String: [ZI005_FNA]
Characteristics: 36
 36 (Cyan, Regular, Italic, 6 pt, Mixed case)

Label Description: Canal / unnamed (curve)
Additional Labeling Criteria: (ZI005_FNA = "UNK") or (ZI005_FNA is null)

Label String: "canal"
Characteristics: 34
 34 (Cyan, Regular, Italic, 6 pt, Lower case)

Symbol Sample



Cart_Track (AP010)

Curve

Castle (AL375) (continued)

Surface

Symbol Sample

☐

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Castle	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of symbol	
Element Name: Black_Castle	Element Reference: P00130	Element Type: Point - Simple
Description: Black 1.1mm open square with a 0.15mm line weight and a 0.55mm filled square on each corner. Overall height and width is 1.5mm.		
Color Token: Black	Parameters: Length: 1.5mm Lineweight: 0.15mm Note: Four 0.55mm filled squares, one on each corner of the larger open square	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001435	Castle / non-obstruction (point)	(HGT < 61)

Symbol Sample

☐

Castle_Complex (AL376)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_CastleComplex	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_Castle	Element Reference: P00130	Element Type: Point - Simple
Description: Black 1.1mm open square with a 0.15mm line weight and a 0.55mm filled square on each corner. Overall height and width is 1.5mm.		
Color Token: Black	Parameters: Length: 1.5mm Lineweight: 0.15mm Note: Four 0.55mm filled squares, one on each corner of the larger open square	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001485	Castle Complex / all (surface)	ALL

Castle_Complex (AL376) (continued)

Surface

Symbol Sample

☐

Point

Symbol Information		
	Symbol Graphic Name: PT_Black_CastleComplex	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of symbol	
Element Name: Black_Castle	Element Reference: P00130	Element Type: Point - Simple
Description: Black 1.1mm open square with a 0.15mm lineweight and a 0.55mm filled square on each corner. Overall height and width is 1.5mm.		
Color Token: Black	Parameters: Length: 1.5mm Lineweight: 0.15mm Note: Four 0.55mm filled squares, one on each corner of the larger open square	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001486	Castle Complex / all (point)	ALL

Symbol Sample

☐

Causeway_Structure (AQ063)

Curve

Symbol Information		
	Symbol Graphic Name: LN_Causeway	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Dynamic text label only. No Graphic Parameters. The label is aligned with the feature listed in the TRS attribute.	
LINE LABEL ONLY		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001136	Causeway Structure / all (curve)	ALL

Label Information

Label Description:	Causeway Structure / all (curve)
Additional Labeling Criteria:	N/A
Label String:	"causeway"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Causeway_Structure (AQ063) (continued)

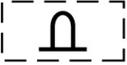
Curve

Symbol Sample

causeway

Cemetery (AL030)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Black_Cemetery	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry. The point shape is centered inside the area.	
Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine	Element Reference: L00210	Element Type: Line - Styled
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters: Lineweight: 0.1mm Dash Length: 1.0mm Dash Spacing: 0.5mm	
Element Name: Black_Cemetery	Element Reference: P00126	Element Type: Point - Shape
Description: Black cemetery		
Color Token: Black	Parameters: Detail: Black_Cemetery Note: See Element: Black_Cemetery in Annex H for detailed drawing instructions	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001078	Cemetery / large area (surface)	(ARA >= 6250000)

Symbol Sample



Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Cemetery	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of symbol	
Element Name: Black_Cemetery	Element Reference: P00126	Element Type: Point - Shape
Description: Black cemetery		
Color Token: Black	Parameters: Detail: Black_Cemetery Note: See Element: Black_Cemetery in Annex H for detailed drawing instructions	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001076	Cemetery / small area (surface)	(ARA < 6250000)

Cemetery (AL030) (continued)

Surface

Symbol Sample



Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Cemetery	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of symbol	
Element Name: Black_Cemetery		Element Reference: P00126
Description: Black cemetery		
Color Token: Black	Parameters: Detail: Black_Cemetery Note: See Element: Black_Cemetery in Annex H for detailed drawing instructions	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001083	Cemetery / landmark (point)	(LMC = 1001 [True])

Symbol Sample



Checkpoint (AH070)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Checkpoint	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of circle.	
Element Name: Black_Checkpoint		Element Reference: P00132
Description: Black checkpoint		
Color Token: Black	Parameters: Detail: Black_Checkpoint Note: See Element: Black_Checkpoint in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001033	Checkpoint / customs / landmark (point)	(FFN = 537 [Customs Checkpoint] or FFN = 538 [Inspection Station] or FFN = 842 [Immigration Control]) and (LMC = 1001 [True])

Checkpoint (AH070) (continued)

Point

Symbol Sample



Conservation_Area (FA210)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Black_ConservationArea		
	Apply Label to Symbol: Yes		
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.		
Element Name: Black_AdminBoundary		Element Reference: L00129	Element Type: Line - Complex
Description: Black 0.2mm Dashed Line (0.2mm wt, 6.1mm dash, 2.5mm gap) with 0.25mm filled dot centered in dash gap			
Color Token: Black	Parameters: Line Style: Black_0.2mm-6.1mmLenDash-2.5mmGapLine Repeating Point: Black_0.25mmFilledDot Repeating Point Interval: Dot centered in dash gap		
Element Name: Black_0.2mm-6.1mmLenDash-2.5mmGapLine		Element Reference: L00128	Element Type: Line - Styled
Description: Black 0.2mm Dashed Line (0.2mm wt, 6.1mm dash, 2.5mm gap)			
Color Token: Black	Parameters: Lineweight: 0.2mm	Dash Length: 6.1mm	Dash Spacing: 2.5mm
Element Name: Black_0.25mmFilledDot		Element Reference: P00047	Element Type: Point - Simple
Description: Black 0.25mm diameter filled circle			
Color Token: Black	Parameters: Diameter: 0.25mm		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001490	Conservation Area / all (surface)	ALL

Label Information

Label Description: Additional Labeling Criteria:	Conservation Area / known (surface) (CAM = 1 [Strict Nature Reserve] or CAM = 2 [Wilderness Area] or CAM = 3 [National Park] or CAM = 4 [Natural Monument] or CAM = 5 [Habitat and/or Species Management Area] or CAM = 6 [Habitat Management Area] or CAM = 7 [Species Management Area] or CAM = 8 [Breeding Ground] or CAM = 9 [Protected Landscape or Seascape] or CAM = 10 [Managed Resource Protected Area] or CAM = 11 [Managed Forest Protected Area])
Label String: Characteristics:	[ZI005_FNA] [CAM] 3,3 3 (Black, Condensed, 6-16 pt, Mixed case)
Label Description: Additional Labeling Criteria:	Conservation Area / unknown (surface) (CAM = 999 [Other] or CAM = -999999 [No Information])
Label String: Characteristics:	[ZI005_FNA] "Conservation area" 3,3 3 (Black, Condensed, 6-16 pt, Mixed case)

Conservation_Area (FA210) (continued)

Surface

Symbol Sample



Conveyor (AF020)

Curve

Symbol Information

	Symbol Graphic Name: LN_Black_Conveyor		
	Apply Label to Symbol: Yes		
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.		
Element Name: Black_0.2mm-2mmLenDash-0.5mmGapLine		Element Reference: L00032	Element Type: Line - Styled
Description: Black 0.2mm Dashed Line (0.2mm wt, 2.0mm dash, 0.5mm gap)			
Color Token: Black	Parameters: Lineweight: 0.2mm		Dash Length: 2.0mm Dash Spacing: 0.5mm

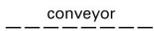
Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001034	Conveyor / standard (curve)	(LZN >= 1250)

Label Information

Label Description: Additional Labeling Criteria:	Conveyor / all (curve) N/A
Label String: Characteristics:	"conveyor" 2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Cooling_Facility (AD055)

Surface

Symbol Information

	Symbol Graphic Name: PT_Black_CoolingFacility		
	Apply Label to Symbol: Yes		
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square		
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123	Element Type: Point - Simple
Description: Black filled square with all sides 1.0mm			
Color Token: Black	Parameters: Length: 1.0mm		

Cooling_Facility (AD055) (continued)

Surface

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001493	Cooling Facility / all (surface)	ALL

Label Information

Label Description: Cooling Facility / all (surface)
Additional Labeling Criteria: N/A

Label String: "cooling facility"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ cooling facility

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_CoolingFacility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	
Element Type: Point - Simple		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001494	Cooling Facility / all (point)	ALL

Label Information

Label Description: Cooling Facility / all (point)
Additional Labeling Criteria: N/A

Label String: "cooling facility"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ cooling facility

Cooling_Tower (AF030)

Point

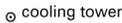
Cooling_Tower (AF030) (continued)

Point

Symbol Information		
	Symbol Graphic Name: PT_Black_CoolingTower	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of dot	
Element Name: Black_OpenCircleWithDot		Element Reference: P00010
Element Type: Point - Simple		
Description: Black 1.25mm diameter open circle with a 0.15mm line weight and a black filled 0.3mm diameter dot in the center		
Color Token: Black	Parameters: Diameter: 1.25mm Lineweight: 0.15mm Note: 0.3mm diameter dot in the center of the open circle	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001035	Cooling Tower / non-obstruction (point)	(HGT < 61)

Label Information	
Label Description:	Cooling Tower / non-obstruction (point)
Additional Labeling Criteria:	N/A
Label String:	"cooling tower"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample


Crane (AF040)

Point

Symbol Information		
	Symbol Graphic Name: PT_Black_Crane	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of open circle	
Element Name: Black_Crane		Element Reference: P00131
Element Type: Point - Shape		
Description: Black crane		
Color Token: Black	Parameters: Detail: Black_Crane Note: See Element: Black_Crane in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001038	Crane / on shore / non-obstruction (point)	(HGT < 61) and (SRL = 2 [Inland] or SRL = 3 [At Shoreline] or SRL = -999999 [No Information])

Crane (AF040) (continued)

Point

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Crane_Offshore	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of dot	
Element Name: Black_Offshore_VO		Element Reference: P00161
Description: Black vertical obstruction		
Color Token: Black	Parameters: Detail: Black_Offshore_VO Note: See Element: Black_Offshore_VO in Annex H for detailed drawing instructions	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001495	Crane / offshore / non-obstruction (point)	(HGT < 61) and (SRL = 1 [Offshore])

Label Information

Label Description:	Crane / non-obstruction (point)
Additional Labeling Criteria:	HGT value is converted from meters to feet.
Label String:	"Crane" "([HGT])"
Characteristics:	54 (Black, Condensed, Bold, 7 pt, Mixed case) 72 (Black, Condensed, Bold, 7 pt, Lower case)

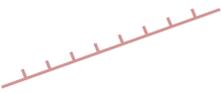
Symbol Sample



Cut_Line (DB071)

Curve

Symbol Information

Symbol Graphic 	Symbol Graphic Name: LN_Dk-Brown_Cutline	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature. Ticks point downhill.	

Dam (BI020) (continued)

Surface

Label Description: Dam / all (surface)
Additional Labeling Criteria: N/A

Label String: [Z1005_FNA]
Characteristics: 1
 1 (Black, Condensed, 6 pt, Mixed case)

Symbol Sample



Symbol Information

	Symbol Graphic Name: PT_Black_Dam	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The linear symbology is applied to the surface geometry centered along the length of the feature. Origin: Center of line	
Element Name: Black_0.35mm-1.5mmLenLine		Element Reference: P00051
Element Type: Point - Simple		
Description: Black 1.5mm length line with a 0.35mm lineweight		
Color Token: Black	Parameters:	
	Length: 1.5mm	Lineweight: 0.35mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001218	Dam / small (surface)	(LZN < 750)

Symbol Sample



Disposal_Site (AB000)

Surface

Symbol Information

	Symbol Graphic Name: AR_Black_DisposalSite	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine		Element Reference: L00210
Element Type: Line - Styled		
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters:	
	Lineweight: 0.1mm	Dash Length: 1.0mm
		Dash Spacing: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001278	Disposal Site / large area (surface)	(ARA >= 6250000)

Disposal_Site (AB000) (continued)

Surface

Label Information

Label Description: Disposal Site / all (surface)
Additional Labeling Criteria: N/A

Label String: "disposal site"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

 disposal site

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_DisposalSite	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	Element Type: Point - Simple

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001503	Disposal Site / small area (surface)	(ARA < 6250000)

Label Information

Label Description: Disposal Site / all (surface)
Additional Labeling Criteria: N/A

Label String: "disposal site"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

 disposal site

Ditch (BH030)

Curve

Symbol Information

Symbol Graphic 	Symbol Graphic Name: LN_Cyan_Ditch_Perennial	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	

Ditch (BH030) (continued)

Curve

Element Name: Cyan_0.1mmSolidLine	Element Reference: L00108	Element Type: Line - Simple
Description: Cyan 0.1mm Solid Line (0.1mm wt)		
Color Token: Cyan	Parameters: Lineweight: 0.1mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001181	Ditch / perennial (curve)	(ZI024_HYP = 1 [Perennial] or ZI024_HYP = -999999 [No Information]) and (LZN >= 12500)

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: LN_Cyan_Ditch_Intermittent
	Apply Label to Symbol: No
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.

Element Name: Cyan_0.1mm-2mmLenDash-0.5mmGapLine	Element Reference: L00246	Element Type: Line - Styled
Description: Cyan 0.1mm Dashed Line (0.1mm wt, 2.0mm dash, 0.5mm gap)		
Color Token: Cyan	Parameters: Lineweight: 0.1mm Dash Length: 2.0mm Dash Spacing: 0.5mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001182	Ditch / non-perennial (curve)	(ZI024_HYP = 2 [Intermittent] or ZI024_HYP = 4 [Dry]) and (LZN >= 12500)

Symbol Sample



Electric_Power_Station (AD010)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Black_ElectricPowerStation
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.

Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine	Element Reference: L00210	Element Type: Line - Styled
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters: Lineweight: 0.1mm Dash Length: 1.0mm Dash Spacing: 0.5mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
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Electric_Power_Station (AD010) (continued)

Surface

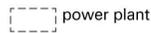
R001293 Electric Power Station / large area (surface) (ARA >= 6250000)

Label Information

Label Description: Electric Power Station / large area (surface)
Additional Labeling Criteria: N/A

Label String: "power plant"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_ElectricPowerStation	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

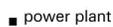
Rule Ref	Description	Criteria
R001688	Electric Power Station / small area (surface)	(ARA < 6250000)

Label Information

Label Description: Electric Power Station / small area (surface)
Additional Labeling Criteria: N/A

Label String: "power plant"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Point

Electric_Power_Station (AD010) (continued)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_ElectricPowerStation	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001294	Electric Power Station / all (point)	ALL

Label Information	
Label Description:	Electric Power Station / non-obstruction (point)
Additional Labeling Criteria:	N/A
Label String:	"power plant"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample


Elevation_Contour (CA010)

Curve

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: LN_Black_Contour_LandBasicAccurate	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Black-67_0.1mmSolidLine		Element Reference: L00268
Description: Black-67 0.1mm Solid Line (0.1mm wt)		
Color Token: Black-67	Parameters: Lineweight: 0.1mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001346	Elevation Contour / land / basic accurate (curve)	(ESC = 1 [Land] or ESC = -999999 [No Information]) and (HQC = 1 [Index Contour] or HQC = 2 [Intermediate Contour] or HQC = 19 [Intermediate Carrying Contour] or HQC = 21 [Index Carrying Contour])

Label Information

Elevation_Contour (CA010) (continued)

Curve

Label Description: Elevation Contour / land (curve)
Additional Labeling Criteria: Contour values above the datum plane. ZVH value is converted from meters to feet.

Label String: [ZVH]
Characteristics: 71
 71 (Black-67, Condensed, Italic, 7 pt, Lower case)

Label Description: Elevation Contour / land / zero (curve)
Additional Labeling Criteria: Contour values at the datum plane.

Label String: "ZERO"
Characteristics: 91
 91 (Black-67, Condensed, Italic, 7 pt, Upper case)

Label Description: Elevation Contour / land / minus (curve)
Additional Labeling Criteria: Contour values below the datum plane. ZVH value is converted from meters to feet.

Label String: "MINUS" [ZVH]
Characteristics: 91,71
 71 (Black-67, Condensed, Italic, 7 pt, Lower case)
 91 (Black-67, Condensed, Italic, 7 pt, Upper case)

Symbol Sample



Symbol Information		
	Symbol Graphic Name: LN_Black_Contour_LandBasicApproximate	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Black-67_0.1mm-5mmLenDash-0.5mmGapLine	Element Reference: L00269	Element Type: Line - Styled
Description: Black-67 0.1mm Dashed Line (0.1mm wt, 5.0mm dash, 0.5mm gap)		
Color Token: Black-67	Parameters: Lineweight: 0.1mm Dash Length: 5.0mm Dash Spacing: 0.5mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001347	Elevation Contour / land / basic approximate (curve)	(ESC = 1 [Land] or ESC = -999999 [No Information]) and (HQC = 7 [Approximate Index Contour] or HQC = 12 [Approximate Intermediate Contour])

Label Information

Label Description: Elevation Contour / land (curve)
Additional Labeling Criteria: Contour values above the datum plane. ZVH value is converted from meters to feet.

Label String: [ZVH]
Characteristics: 71
 71 (Black-67, Condensed, Italic, 7 pt, Lower case)

Elevation_Contour (CA010) (continued)

Curve

Label Description: Elevation Contour / land / zero (curve)
Additional Labeling Criteria: Contour values at the datum plane.

Label String: "ZERO"
Characteristics: 91
 91 (Black-67, Condensed, Italic, 7 pt, Upper case)

Label Description: Elevation Contour / land / minus (curve)
Additional Labeling Criteria: Contour values below the datum plane. ZVH value is converted from meters to feet.

Label String: "MINUS" [ZVH]
Characteristics: 91,71
 71 (Black-67, Condensed, Italic, 7 pt, Lower case)
 91 (Black-67, Condensed, Italic, 7 pt, Upper case)

Symbol Sample



Symbol Information

	Symbol Graphic Name: LN_Black_Contour_LandHalfAuxiliary	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Black-67_0.1mm-3mmLenDashLine		Element Reference: L00270
Element Type: Line - Styled		
Description: Black-67 0.1mm Dash Line (0.1mm wt, 3.0mm dash, 0.5mm gap)		
Color Token: Black-67	Parameters:	
	Lineweight: 0.1mm	Dash Length: 3.0mm
		Dash Spacing: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001350	Elevation Contour / land / half auxiliary (curve)	(ESC = 1 [Land] or ESC = -999999 [No Information]) and (HQC = 3 [Half Auxiliary Contour] or HQC = 20 [Auxiliary Carrying Contour])

Label Information

Label Description: Elevation Contour / land (curve)
Additional Labeling Criteria: Contour values above the datum plane. ZVH value is converted from meters to feet.

Label String: [ZVH]
Characteristics: 71
 71 (Black-67, Condensed, Italic, 7 pt, Lower case)

Label Description: Elevation Contour / land / zero (curve)
Additional Labeling Criteria: Contour values at the datum plane.

Label String: "ZERO"
Characteristics: 91
 91 (Black-67, Condensed, Italic, 7 pt, Upper case)

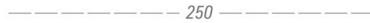
Elevation_Contour (CA010) (continued)

Curve

Label Description: Elevation Contour / land / minus (curve)
Additional Labeling Criteria: Contour values below the datum plane. ZVH value is converted from meters to feet.

Label String: "MINUS" [ZVH]
Characteristics: 91,71
 71 (Black-67, Condensed, Italic, 7 pt, Lower case)
 91 (Black-67, Condensed, Italic, 7 pt, Upper case)

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: LN_Black_Contour_Land_Mound	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature. Ticks point downhill. Mounds within depressions are shown by ticks added to the lowest contour defining the mound.	
Element Name: Black-67_Land-MoundIntermediate		Element Reference: L00272
Element Type: Line - Complex		
Description: Black-67 0.1mm Solid Line with repeating Black-67 0.1mm wt 0.5mm length ticks (2.0mm tick interval)		
Color Token: Black-67	Parameters:	
	Line Style: Black-67_0.1mmSolidLine	
	Repeating Point: Black-67_0.1mm-0.5mmLenTick	
	Repeating Point Interval: 2.0mm	
Element Name: Black-67_0.1mmSolidLine		Element Reference: L00268
Element Type: Line - Simple		
Description: Black-67 0.1mm Solid Line (0.1mm wt)		
Color Token: Black-67	Parameters:	
	Lineweight: 0.1mm	
Element Name: Black-67_0.1mm-0.5mmLenTick		Element Reference: P00219
Element Type: Point - Simple		
Description: Black-67 0.5mm length line with a 0.1mm lineweight		
Color Token: Black-67	Parameters:	
	Lineweight: 0.1mm	Length: 0.5mm
	Orientation: Based 90 degrees to line	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001359	Elevation Contour / land / mound (curve)	(ESC = 1 [Land] or ESC = -999999 [No Information]) and (HQC = 8 [Mound Index Contour] or HQC = 9 [Mound Intermediate Contour])

Label Information

Label Description: Elevation Contour / land (curve)
Additional Labeling Criteria: Contour values above the datum plane. ZVH value is converted from meters to feet.

Label String: [ZVH]
Characteristics: 71
 71 (Black-67, Condensed, Italic, 7 pt, Lower case)

Label Description: Elevation Contour / land / zero (curve)
Additional Labeling Criteria: Contour values at the datum plane.

Label String: "ZERO"
Characteristics: 91
 91 (Black-67, Condensed, Italic, 7 pt, Upper case)

Elevation_Contour (CA010) (continued)

Curve

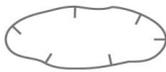
Label Description: Elevation Contour / land / minus (curve)
Additional Labeling Criteria: Contour values below the datum plane. ZVH value is converted from meters to feet.

Label String: "MINUS" [ZVH]
Characteristics: 91,71
 71 (Black-67, Condensed, Italic, 7 pt, Lower case)
 91 (Black-67, Condensed, Italic, 7 pt, Upper case)

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: LN_Black_Contour_Land_Depression	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The upper most depression contour shall have a tick interval of 3.0mm. Each successive descending contour shall have tick spacing of: 3.0mm, 2.0mm, 1.0mm, and 0.5mm. Ticks point downhill.	
Element Name: Black-67_Land-DepressionIntermediate		Element Reference: L00274
Element Type: Line - Complex		
Description: Black-67 0.1mm Solid Line with repeating Black-67 0.1mm wt 0.5mm length ticks		
Color Token: Black-67	Parameters:	
	Line Style: Black-67_0.1mmSolidLine	
	Repeating Point: Black-67_0.1mm-0.5mmLenTick	
	Repeating Point Interval: Variable	
	Note: Depression contours shall have ticks spaced equally on each descending depression contour line. Where the slope of a depression is such that the contours become very close, the length of the depression ticks may be reduced by 1/2 to achieve legibility.	
Element Name: Black-67_0.1mmSolidLine		Element Reference: L00268
Element Type: Line - Simple		
Description: Black-67 0.1mm Solid Line (0.1mm wt)		
Color Token: Black-67	Parameters:	
	Lineweight: 0.1mm	
Element Name: Black-67_0.1mm-0.5mmLenTick		Element Reference: P00219
Element Type: Point - Simple		
Description: Black-67 0.5mm length line with a 0.1mm lineweight		
Color Token: Black-67	Parameters:	
	Lineweight: 0.1mm	Length: 0.5mm
	Orientation: Based 90 degrees to line	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001356	Elevation Contour / land / depression (curve)	(ESC = 1 [Land] or ESC = -999999 [No Information]) and (HQC = 5 [Depression Index Contour] or HQC = 6 [Depression Intermediate Contour])

Label Information

Label Description: Elevation Contour / land (curve)
Additional Labeling Criteria: Contour values above the datum plane. ZVH value is converted from meters to feet.

Label String: [ZVH]
Characteristics: 71
 71 (Black-67, Condensed, Italic, 7 pt, Lower case)

Elevation_Contour (CA010) (continued)

Curve

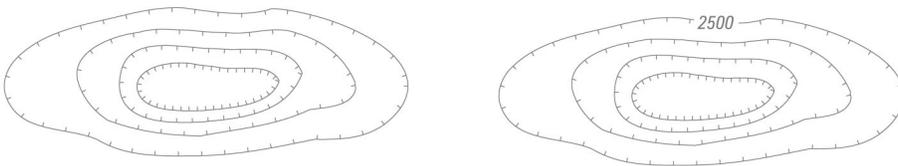
Label Description: Elevation Contour / land / zero (curve)
Additional Labeling Criteria: Contour values at the datum plane.

Label String: "ZERO"
Characteristics: 91
 91 (Black-67, Condensed, Italic, 7 pt, Upper case)

Label Description: Elevation Contour / land / minus (curve)
Additional Labeling Criteria: Contour values below the datum plane. ZVH value is converted from meters to feet.

Label String: "MINUS" [ZVH]
Characteristics: 91,71
 71 (Black-67, Condensed, Italic, 7 pt, Lower case)
 91 (Black-67, Condensed, Italic, 7 pt, Upper case)

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: LN_Black_Contour_Land_DepressionAuxiliary		
	Apply Label to Symbol: Yes		
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature. This symbol is for one-half of the interval. Ticks point downhill.		
Element Name: Black-67_Land-DepressionAuxiliary		Element Reference: L00275	Element Type: Line - Complex
Description: Black-67 0.1mm Dashed Line (0.1mm wt, 3.0mm dash, 0.5mm gap) with repeating Black-67 0.1mm wt 0.5mm length ticks			
Color Token: Black-67	Parameters: Line Style: Black-67_0.1mm-3mmLenDashLine Repeating Point: Black-67_0.1mm-0.5mmLenTick Repeating Point Interval: Centered on each dash		
Element Name: Black-67_0.1mm-3mmLenDashLine		Element Reference: L00270	Element Type: Line - Styled
Description: Black-67 0.1mm Dash Line (0.1mm wt, 3.0mm dash, 0.5mm gap)			
Color Token: Black-67	Parameters: Lineweight: 0.1mm	Dash Length: 3.0mm	Dash Spacing: 0.5mm
Element Name: Black-67_0.1mm-0.5mmLenTick		Element Reference: P00219	Element Type: Point - Simple
Description: Black-67 0.5mm length line with a 0.1mm lineweight			
Color Token: Black-67	Parameters: Lineweight: 0.1mm	Length: 0.5mm	
Orientation: Based 90 degrees to line			

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001362	Elevation Contour / land / depression auxiliary (curve)	(ESC = 1 [Land] or ESC = -999999 [No Information]) and (HQC = 22 [Depression Auxiliary Contour])

Label Information

Elevation_Contour (CA010) (continued)

Curve

Label Description: Elevation Contour / land (curve)
Additional Labeling Criteria: Contour values above the datum plane. ZVH value is converted from meters to feet.

Label String: [ZVH]
Characteristics: 71
 71 (Black-67, Condensed, Italic, 7 pt, Lower case)

Label Description: Elevation Contour / land / zero (curve)
Additional Labeling Criteria: Contour values at the datum plane.

Label String: "ZERO"
Characteristics: 91
 91 (Black-67, Condensed, Italic, 7 pt, Upper case)

Label Description: Elevation Contour / land / minus (curve)
Additional Labeling Criteria: Contour values below the datum plane. ZVH value is converted from meters to feet.

Label String: "MINUS" [ZVH]
Characteristics: 91,71
 71 (Black-67, Condensed, Italic, 7 pt, Lower case)
 91 (Black-67, Condensed, Italic, 7 pt, Upper case)

Symbol Sample



Symbol Information

	Symbol Graphic Name: LN_Cyan_Contour_SnowIceBasicAccurate	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Cyan_0.1mmSolidLine		Element Reference: L00108
Description: Cyan 0.1mm Solid Line (0.1mm wt)		
Color Token: Cyan	Parameters: Lineweight: 0.1mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001348	Elevation Contour / snow, ice / intermediate (curve)	(ESC = 2 [Snow Field and/or Ice-field]) and (HQC = 1 [Index Contour] or HQC = 2 [Intermediate Contour] or HQC = 19 [Intermediate Carrying Contour] or HQC = 21 [Index Carrying Contour])

Label Information

Label Description: Elevation Contour / snow, ice (curve)
Additional Labeling Criteria: Contour values above the datum plane. ZVH value is converted from meters to feet.

Label String: [ZVH]
Characteristics: 19
 19 (Cyan, Condensed, Italic, 7 pt, Lower case)

Elevation_Contour (CA010) (continued)

Curve

Label Description: Elevation Contour / snow, ice / zero (curve)
Additional Labeling Criteria: Contour values at the datum plane.

Label String: "ZERO"
Characteristics: 90
 90 (Cyan, Condensed, Italic, 7 pt, Upper case)

Label Description: Elevation Contour / snow, ice / minus (curve)
Additional Labeling Criteria: Contour values below the datum plane. ZVH value is converted from meters to feet.

Label String: "MINUS" [ZVH]
Characteristics: 90,19
 19 (Cyan, Condensed, Italic, 7 pt, Lower case)
 90 (Cyan, Condensed, Italic, 7 pt, Upper case)

Symbol Sample



Symbol Information

	Symbol Graphic Name: LN_Cyan_Contour_SnowIceBasicApproximate		
	Apply Label to Symbol: Yes		
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.		
Element Name: Cyan_0.1mm-5mmLenDash-0.5mmGapLine		Element Reference: L00178	Element Type: Line - Styled
Description: Cyan 0.1mm Dashed Line (0.1mm wt, 5.0mm dash, 0.5mm gap)			
Color Token: Cyan	Parameters: Lineweight: 0.1mm Dash Length: 5.0mm Dash Spacing: 0.5mm		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001349	Elevation Contour / snow, ice / intermediate approximate (curve)	(ESC = 2 [Snow Field and/or Ice-field]) and (HQC = 7 [Approximate Index Contour] or HQC = 12 [Approximate Intermediate Contour])

Label Information

Label Description: Elevation Contour / snow, ice (curve)
Additional Labeling Criteria: Contour values above the datum plane. ZVH value is converted from meters to feet.

Label String: [ZVH]
Characteristics: 19
 19 (Cyan, Condensed, Italic, 7 pt, Lower case)

Label Description: Elevation Contour / snow, ice / zero (curve)
Additional Labeling Criteria: Contour values at the datum plane.

Label String: "ZERO"
Characteristics: 90
 90 (Cyan, Condensed, Italic, 7 pt, Upper case)

Elevation_Contour (CA010) (continued)

Curve

Label Description: Elevation Contour / snow, ice / minus (curve)
Additional Labeling Criteria: Contour values below the datum plane. ZVH value is converted from meters to feet.

Label String: MINUS" [ZVH]
Characteristics: 90,19
 19 (Cyan, Condensed, Italic, 7 pt, Lower case)
 90 (Cyan, Condensed, Italic, 7 pt, Upper case)

Symbol Sample



Symbol Information

	Symbol Graphic Name: LN_Cyan_Contour_SnowIceHalfAuxiliary		
	Apply Label to Symbol: Yes		
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.		
Element Name: Cyan_0.1mm-3mmLenDashLine		Element Reference: L00110	Element Type: Line - Styled
Description: Cyan 0.1mm Dashed Line (0.1mm wt, 3.0mm dash, 0.5mm gap)			
Color Token: Cyan	Parameters: Lineweight: 0.1mm		Dash Length: 3.0mm
			Dash Spacing: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001351	Elevation Contour / snow, ice / half auxiliary	(ESC = 2 [Snow Field and/or Ice-field]) and (HQC = 3 [Half Auxiliary Contour] or HQC = 20 [Auxiliary Carrying Contour])

Label Information

Label Description: Elevation Contour / snow, ice (curve)
Additional Labeling Criteria: Contour values above the datum plane. ZVH value is converted from meters to feet.

Label String: [ZVH]
Characteristics: 19
 19 (Cyan, Condensed, Italic, 7 pt, Lower case)

Label Description: Elevation Contour / snow, ice / zero (curve)
Additional Labeling Criteria: Contour values at the datum plane.

Label String: "ZERO"
Characteristics: 90
 90 (Cyan, Condensed, Italic, 7 pt, Upper case)

Label Description: Elevation Contour / snow, ice / minus (curve)
Additional Labeling Criteria: Contour values below the datum plane. ZVH value is converted from meters to feet.

Label String: MINUS" [ZVH]
Characteristics: 90,19
 19 (Cyan, Condensed, Italic, 7 pt, Lower case)
 90 (Cyan, Condensed, Italic, 7 pt, Upper case)

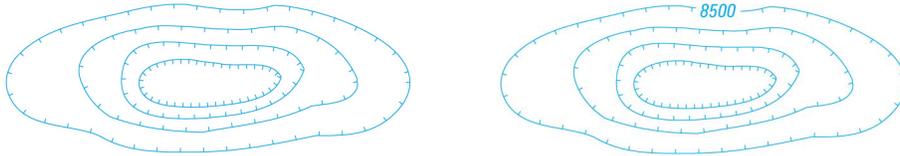
Elevation_Contour (CA010) (continued)

Curve

Label Description: Elevation Contour / snow, ice / minus (curve)
Additional Labeling Criteria: Contour values below the datum plane. ZVH value is converted from meters to feet.

Label String: MINUS" [ZVH]
Characteristics: 90,19
 19 (Cyan, Condensed, Italic, 7 pt, Lower case)
 90 (Cyan, Condensed, Italic, 7 pt, Upper case)

Symbol Sample



Symbol Information

	Symbol Graphic Name: LN_Cyan_Contour_SnowIcice_DepressionAuxiliary		
	Apply Label to Symbol: Yes		
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature. This symbol is for one-half of the interval. Ticks point downhill.		
Element Name: Cyan_SnowIcice-DepressionAuxiliary		Element Reference: L00120	Element Type: Line - Complex
Description: Cyan 0.1mm Dashed Line (0.1mm wt, 3.0mm dash, 0.5mm gap) with repeating Cyan 0.1mm wt 0.5mm length ticks			
Color Token: Cyan	Parameters: Line Style: Cyan_0.1mm-3mmLenDashLine Repeating Point: Cyan_0.1mm-0.5mmLenTick Repeating Point Interval: Centered on each dash		
Element Name: Cyan_0.1mm-3mmLenDashLine		Element Reference: L00110	Element Type: Line - Styled
Description: Cyan 0.1mm Dashed Line (0.1mm wt, 3.0mm dash, 0.5mm gap)			
Color Token: Cyan	Parameters: Lineweight: 0.1mm Dash Length: 3.0mm Dash Spacing: 0.5mm		
Element Name: Cyan_0.1mm-0.5mmLenTick		Element Reference: P00055	Element Type: Point - Simple
Description: Cyan 0.5mm length line with a 0.1mm lineweight			
Color Token: Cyan	Parameters: Lineweight: 0.1mm Length: 0.5mm Orientation: Based 90 degrees to line		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001363	Elevation Contour / snow, ice / depression auxiliary (curve)	(ESC = 2 [Snow Field and/or Ice-field]) and (HQC = 22 [Depression Auxiliary Contour])

Label Information

Label Description: Elevation Contour / snow, ice (curve)
Additional Labeling Criteria: Contour values above the datum plane. ZVH value is converted from meters to feet.

Label String: [ZVH]
Characteristics: 19
 19 (Cyan, Condensed, Italic, 7 pt, Lower case)

Elevation_Contour (CA010) (continued)

Curve

Label Description: Elevation Contour / snow, ice / zero (curve)
Additional Labeling Criteria: Contour values at the datum plane.

Label String: "ZERO"
Characteristics: 90
 90 (Cyan, Condensed, Italic, 7 pt, Upper case)

Label Description: Elevation Contour / snow, ice / minus (curve)
Additional Labeling Criteria: Contour values below the datum plane. ZVH value is converted from meters to feet.

Label String: MINUS" [ZVH]
Characteristics: 90,19
 19 (Cyan, Condensed, Italic, 7 pt, Lower case)
 90 (Cyan, Condensed, Italic, 7 pt, Upper case)

Symbol Sample



Elevation_Tint_Band (No Code)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_ElevationTintBand_Tint1		
	Apply Label to Symbol: No		
	Symbol Placement Instructions: The area between the shoreline and contour is filled with the screened color		
Element Name: ElevationTintBand#1		Element Reference: A00069	Element Type: Area - Fill
Description: Tint_Band_1 (Magenta 4% 30 degree angle screen coincident with Yellow 21% 15 degree angle screen)			
Color Token: Tint_Band_1		Parameters: Note: Two colors are combined together to make one color tint	

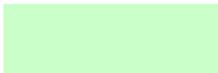
Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001051	Elevation Tint Band / tint #1 (surface)	Sea level to 250'

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_ElevationTintBand_Tint2		
	Apply Label to Symbol: No		
	Symbol Placement Instructions: The area between the two contours is filled with the screened color.		

Elevation_Tint_Band (No Code) (continued)

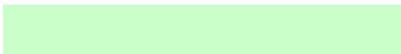
Surface

Element Name: ElevationTintBand#2	Element Reference: A00070	Element Type: Area - Fill
Description: Tint_Band_2 (Cyan 21% 30 degree angle screen coincident with Yellow 21% 75 degree angle screen)		
Color Token: Tint_Band_2	Parameters: Note: Two colors are combined together to make one color tint	

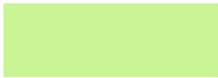
Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001064	Elevation Tint Band / tint #2 (surface)	250' to 500'

Symbol Sample



Symbol Information

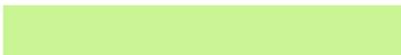
Symbol Graphic 	Symbol Graphic Name: AR_ElevationTintBand_Tint3
	Apply Label to Symbol: No
	Symbol Placement Instructions: The area between the two contours is filled with the screened color.

Element Name: ElevationTintBand#3	Element Reference: A00071	Element Type: Area - Fill
Description: Tint_Band_3 (Cyan 21% 60 degree angle screen coincident with Magenta 4% 30 degree angle screen and Yellow 42% 15 degree angle screen)		
Color Token: Tint_Band_3	Parameters: Note: Three colors are combined together to make one color tint	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001089	Elevation Tint Band / tint #3 (surface)	500' to 1000'

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_ElevationTintBand_Tint4
	Apply Label to Symbol: No
	Symbol Placement Instructions: The area between the two contours is filled with the screened color.

Element Name: ElevationTintBand#4	Element Reference: A00072	Element Type: Area - Fill
Description: Tint_Band_4 (Magenta 7% 30 degree angle screen coincident with Yellow 31% 60 degree angle screen)		
Color Token: Tint_Band_4	Parameters: Note: Two colors are combined together to make one color tint	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
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Elevation_Tint_Band (No Code) (continued)

Surface

R001095 Elevation Tint Band / tint 1000' to 2000'
#4 (surface)

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_ElevationTintBand_Tint5		
	Apply Label to Symbol: No		
	Symbol Placement Instructions: The area between the two contours is filled with the screened color.		
Element Name: ElevationTintBand#5		Element Reference: A00073	Element Type: Area - Fill
Description: Tint_Band_5 (Cyan 7% 15 degree angle screen coincident with Magenta 21% 30 degree angle screen and Yellow 67% 60 degree angle screen)			
Color Token: Tint_Band_5		Parameters: Note: Three colors are combined together to make one color tint	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001104	Elevation Tint Band / tint #5 (surface)	2000' to 5000'

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_ElevationTintBand_Tint6		
	Apply Label to Symbol: No		
	Symbol Placement Instructions: The area between the two contours is filled with the screened color.		
Element Name: ElevationTintBand#6		Element Reference: A00074	Element Type: Area - Fill
Description: Tint_Band_6 (Cyan 12% 15 degree angle screen coincident with Magenta 31% 30 degree angle screen and Yellow 67% 60 degree angle screen)			
Color Token: Tint_Band_6		Parameters: Note: Three colors are combined together to make one color tint	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001107	Elevation Tint Band / tint #6 (surface)	5000' to 9000'

Elevation_Tint_Band (No Code) (continued)

Surface

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_ElevationTintBand_Tint7
	Apply Label to Symbol: No
	Symbol Placement Instructions: The area between the two contours is filled with the screened color.

Element Name: ElevationTintBand#7	Element Reference: A00075	Element Type: Area - Fill
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Description: Tint_Band_7 (Cyan 12% 15 degree angle screen coincident with Magenta 42% 30 degree angle screen and Yellow 79% 60 degree angle screen)

Color Token: Tint_Band_7	Parameters: Note: Three colors are combined together to make one color tint
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Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001112	Elevation Tint Band / tint #7 (surface)	9000' to 12000'

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_ElevationTintBand_Tint8
	Apply Label to Symbol: No
	Symbol Placement Instructions: The area between the contour and maximum elevation is filled with the screened color.

Element Name: ElevationTintBand#8	Element Reference: A00052	Element Type: Area - Fill
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Description: Tint_Band_8 (Cyan 42% 15 degree angle screen coincident with Magenta 54% 30 degree angle screen and Yellow 79% 60 degree angle screen)

Color Token: Tint_Band_8	Parameters: Note: Three colors are combined together to make one color tint
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Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001135	Elevation Tint Band / tint #8 (surface)	12000' to max

Symbol Sample



Embankment (DB090)

Embankment (DB090) (continued)

Curve

Element Name: Dk-Brown-42_Levee		Element Reference: L00292	Element Type: Line - Complex
Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.15mm Solid Line casing varying based upon separation; Ticks (0.15mm wt, 0.5mm long)			
Color Token: Dk-Brown-42	Parameters: Line Style: Dk-Brown-42_0.15mmSolidDoubleLines Repeating Point: Dk-Brown-42_0.15mm-0.5mmLenTick Repeating Point Interval: 1.5mm Note: Tick end is on and at 90 degrees to line, facing downhill. Tick Interval: 1.5mm		
Element Name: Dk-Brown-42_0.15mmSolidDoubleLines		Element Reference: L00291	Element Type: Line - Simple
Description: Two parallel Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.15mm Solid Line (0.15mm wt)			
Color Token: Dk-Brown-42	Parameters: Lineweight: 0.15mm Note: Spacing is variable to the width of the over passing feature		
Element Name: Dk-Brown-42_0.15mm-0.5mmLenTick		Element Reference: P00221	Element Type: Point - Simple
Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.5mm length line with a 0.15mm lineweight			
Color Token: Dk-Brown-42	Parameters: Lineweight: 0.15mm Orientation: Based 90 degrees to line		Length: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001250	Embankment / with transportation (curve)	(FIC = 1 [Mound] or FIC = 3 [Dyke] or FIC = 5 [Levee] or FIC = 6 [Divider] or FIC = 999 [Other] or FIC = -999999 [No Information]) and (TRS = 2 [Aqueduct] or TRS = 5 [Canal] or TRS = 10 [Pipeline] or TRS = 12 [Railway] or TRS = 13 [Road])

Symbol Sample



Symbol Information

	Symbol Graphic Name: LN_Dk-Brown_Embankment_DykeWithoutTransportation		
	Apply Label to Symbol: No		
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.		
Element Name: Dk-Brown-42_Embankment(WithoutTransport)		Element Reference: L00293	Element Type: Line - Complex
Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.15mm Solid Line with Ticks (0.15mm wt, 0.8mm long)			
Color Token: Dk-Brown-42	Parameters: Line Style: Dk-Brown-42_0.15mmSolidLine Repeating Point: Dk-Brown-42_0.15mm-0.8mmLenTick Repeating Point Interval: 1.5mm Note: Tick is centered and 90 degrees to line. Tick Interval is 1.5mm		
Element Name: Dk-Brown-42_0.15mmSolidLine		Element Reference: L00289	Element Type: Line - Simple
Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.15mm Solid Line (0.15mm wt)			
Color Token: Dk-Brown-42	Parameters: Lineweight: 0.15mm		
Element Name: Dk-Brown-42_0.15mm-0.8mmLenTick		Element Reference: P00222	Element Type: Point - Simple
Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.8mm length line with a 0.15mm lineweight			
Color Token: Dk-Brown-42	Parameters: Lineweight: 0.15mm Orientation: Centered 90 degrees to line		Length: 0.8mm

Embankment (DB090) (continued)

Curve

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001251	Embankment / without transportation (curve)	(FIC = 1 [Mound] or FIC = 3 [Dyke] or FIC = 5 [Levee] or FIC = 6 [Divider] or FIC = 999 [Other] or FIC = -999999 [No Information]) and (TRS = 8 [No Transportation System] or TRS = 999 [Other] or TRS = -999999 [No Information])

Symbol Sample



Engine_Test_Cell (AF060)

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_EngineTestCell	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	
Element Type: Point - Simple		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001506	Engine Test Cell / non-obstruction (point)	(HGT < 61)

Label Information

Label Description:	Engine Test Cell / non-obstruction (point)
Additional Labeling Criteria:	N/A
Label String:	"engine test cell"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Engineered_Earthwork (AH025)

Curve

Symbol Information

Symbol Graphic 	Symbol Graphic Name: LN_Black_EngineeredEarthwork	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	

Extraction_Mine (AA010) (continued)

Surface

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001266	Extraction Mine / usable, not peat (surface)	(PCF = 2 [Intact] or PCF = -999999 [No Information]) and (MZN = 1 [Borrow-pit] or MZN = 3 [Opencast] or MZN = 4 [Placer] or MZN = 5 [Prospect] or MZN = 6 [Area Strip-mine] or MZN = 9 [Below Surface] or MZN = 10 [Quarry] or MZN = 11 [Contour Strip-mine] or MZN = 12 [Strip-mine] or MZN = 13 [Dredge] or MZN = 999 [Other] or MZN = -999999 [No Information]) and (FFN = 40 [Mining and Quarrying] or FFN = 50 [Solid Mineral Fuel Mining] or FFN = 70 [Metal Ore Mining] or FFN = 83 [Chemical Mining] or FFN = 85 [Salt Extraction] or FFN = 87 [Mineral Mining] or FFN = 999 [Other] or FFN = -999999 [No Information])

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Black_Mine_NotUsable		
	Apply Label to Symbol: No		
Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry. The point shape is centered inside the area.			
Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine		Element Reference: L00210	Element Type: Line - Styled
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)			
Color Token: Black	Parameters: Lineweight: 0.1mm Dash Length: 1.0mm Dash Spacing: 0.5mm		
Element Name: Black_PickAxeShovel180		Element Reference: P00002	Element Type: Point - Shape
Description: Black pickaxe and shovel (P00001) rotated 180 degrees			
Color Token: Black	Parameters: Detail: Black_PickAxeShovel180 Orientation: Rotated 180 degrees Note: See Element: Black_PickAxeShovel (P00001) in Annex H for detailed drawing instructions. Image will need to be rotated 180 degrees.		

Symbol Portrayal Rules

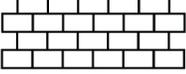
Rule Ref	Description	Criteria
R001267	Extraction Mine / not usable, not peat (surface)	(PCF = 1 [Construction] or PCF = 3 [Unmaintained] or PCF = 4 [Damaged] or PCF = 5 [Dismantled] or PCF = 6 [Destroyed]) and (MZN = 1 [Borrow-pit] or MZN = 3 [Opencast] or MZN = 4 [Placer] or MZN = 5 [Prospect] or MZN = 6 [Area Strip-mine] or MZN = 9 [Below Surface] or MZN = 10 [Quarry] or MZN = 11 [Contour Strip-mine] or MZN = 12 [Strip-mine] or MZN = 13 [Dredge] or MZN = 999 [Other] or MZN = -999999 [No Information]) and (FFN = 40 [Mining and Quarrying] or FFN = 50 [Solid Mineral Fuel Mining] or FFN = 70 [Metal Ore Mining] or FFN = 83 [Chemical Mining] or FFN = 85 [Salt Extraction] or FFN = 87 [Mineral Mining] or FFN = 999 [Other] or FFN = -999999 [No Information])

Symbol Sample



Extraction_Mine (AA010) (continued)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Black_Mine_PeatCuttings	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The surface geometry is filled with the area pattern.	
Element Name: Black_PeateryFill		Element Reference: A00001
Description: Black Peat Fill		
Color Token: Black	Parameters: Area Pattern: See Element: Black_PeateryFill in Annex I Note: Area Pattern #129	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001268	Extraction Mine / peat (surface)	(PCF = 2 [Intact] or PCF = -999999 [No Information]) and (MZN = 8 [Peatery]) or (FFN = 84 [Peat Extraction])

Symbol Sample	
	peat cuttings

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Mine_Operational	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Intersection of handles	
Element Name: Black_PickAxeShovel		Element Reference: P00001
Description: Black pickaxe and shovel		
Color Token: Black	Parameters: Detail: Black_PickAxeShovel Note: See Element: Black_PickAxeShovel in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001269	Extraction Mine / usable, not peat (point)	(PCF = 2 [Intact] or PCF = -999999 [No Information]) and (MZN = 1 [Borrow-pit] or MZN = 3 [Opencast] or MZN = 4 [Placer] or MZN = 5 [Prospect] or MZN = 6 [Area Strip-mine] or MZN = 9 [Below Surface] or MZN = 10 [Quarry] or MZN = 11 [Contour Strip-mine] or MZN = 12 [Strip-mine] or MZN = 13 [Dredge] or MZN = 999 [Other] or MZN = -999999 [No Information]) and (FFN = 40 [Mining and Quarrying] or FFN = 50 [Solid Mineral Fuel Mining] or FFN = 70 [Metal Ore Mining] or FFN = 83 [Chemical Mining] or FFN = 85 [Salt Extraction] or FFN = 87 [Mineral Mining] or FFN = 999 [Other] or FFN = -999999 [No Information])

Symbol Sample	
	

Extraction_Mine (AA010) (continued)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Mine_NotUsable	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Intersection of handles	
Element Name: Black_PickAxeShovel180		Element Reference: P00002
Element Type: Point - Shape		
Description: Black pickaxe and shovel (P00001) rotated 180 degrees		
Color Token: Black	Parameters: Detail: Black_PickAxeShovel180 Orientation: Rotated 180 degrees Note: See Element: Black_PickAxeShovel (P00001) in Annex H for detailed drawing instructions. Image will need to be rotated 180 degrees.	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001270	Extraction Mine / not usable, not peat (point)	(PCF = 1 [Construction] or PCF = 3 [Unmaintained] or PCF = 4 [Damaged] or PCF = 5 [Dismantled] or PCF = 6 [Destroyed]) and (MZN = 1 [Borrow-pit] or MZN = 3 [Opencast] or MZN = 4 [Placer] or MZN = 5 [Prospect] or MZN = 6 [Area Strip-mine] or MZN = 9 [Below Surface] or MZN = 10 [Quarry] or MZN = 11 [Contour Strip-mine] or MZN = 12 [Strip-mine] or MZN = 13 [Dredge] or MZN = 999 [Other] or MZN = -999999 [No Information]) and (FFN = 40 [Mining and Quarrying] or FFN = 50 [Solid Mineral Fuel Mining] or FFN = 70 [Metal Ore Mining] or FFN = 83 [Chemical Mining] or FFN = 85 [Salt Extraction] or FFN = 87 [Mineral Mining] or FFN = 999 [Other] or FFN = -999999 [No Information])

Symbol Sample		
✘		

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Mine_PeatCutting	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of open square	
Element Name: Black_0.8mmOpenSquare		Element Reference: P00024
Element Type: Point - Simple		
Description: Black 0.1mm lineweight open square with all sides 0.8mm		
Color Token: Black	Parameters: Length: 0.8mm Lineweight: 0.1mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001271	Extraction Mine / peat (point)	(PCF = 2 [Intact] or PCF = -999999 [No Information]) and (MZN = 8 [Peatery]) or (FFN = 84 [Peat Extraction])

Label Information	
Label Description:	Extraction Mine / peat (point)
Additional Labeling Criteria:	N/A
Label String:	"peat cuttings"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Extraction_Mine (AA010) (continued)

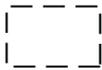
Point

Symbol Sample

□ peat cuttings

Facility (AL010)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Black_Facility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine	Element Reference: L00210	Element Type: Line - Styled
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters: Lineweight: 0.1mm	Dash Length: 1.0mm Dash Spacing: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001280	Facility / refinery / large area (surface)	(ARA >= 6250000) and (FFN = 91 [Gas Oil Separation] or FFN = 95 [Ore Dressing] or FFN = 113 [Sugar Refining] or FFN = 192 [Petroleum Refining] or FFN = 195 [Chemical Manufacture] or FFN = 242 [Metal Refining])

Label Information

Label Description: Facility / refinery / known (surface)
Additional Labeling Criteria: (ZI014_PPO = 1 [Aircraft] or ZI014_PPO = 2 [Aluminum] or ZI014_PPO = 3 [Ammunition] or ZI014_PPO = 4 [Asphalt] or ZI014_PPO = 5 [Motor Vehicle] or ZI014_PPO = 13 [Brick] or ZI014_PPO = 15 [Cement] or ZI014_PPO = 16 [Chemical] or ZI014_PPO = 18 [Coal] or ZI014_PPO = 20 [Coffee] or ZI014_PPO = 21 [Coke] or ZI014_PPO = 23 [Concrete] or ZI014_PPO = 25 [Consumer Goods] or ZI014_PPO = 26 [Copper] or ZI014_PPO = 28 [Cotton] or ZI014_PPO = 32 [Desalinated Water] or ZI014_PPO = 37 [Electric Power] or ZI014_PPO = 38 [Explosive] or ZI014_PPO = 39 [Fish] or ZI014_PPO = 41 [Food] or ZI014_PPO = 43 [Frozen Water] or ZI014_PPO = 44 [Fruit] or ZI014_PPO = 45 [Gas] or ZI014_PPO = 46 [Petrol] or ZI014_PPO = 47 [Glass] or ZI014_PPO = 48 [Gold] or ZI014_PPO = 57 [Ice] or ZI014_PPO = 58 [Iron] or ZI014_PPO = 59 [Lead] or ZI014_PPO = 60 [Lime] or ZI014_PPO = 61 [Liquefied Natural Gas (LNG)] or ZI014_PPO = 62 [Liquefied Petroleum Gas (LPG)] or ZI014_PPO = 63 [Lumber] or ZI014_PPO = 65 [Manganese] or ZI014_PPO = 69 [Metal] or ZI014_PPO = 70 [Milk] or ZI014_PPO = 74 [Non Solid Hydrocarbon Fuel] or ZI014_PPO = 80 [Paper] or ZI014_PPO = 83 [Petroleum] or ZI014_PPO = 84 [Plastic] or ZI014_PPO = 87 [Prestressed Concrete] or ZI014_PPO = 90 [Radioactive Material] or ZI014_PPO = 92 [Rice] or ZI014_PPO = 94 [Rubber] or ZI014_PPO = 95 [Salt] or ZI014_PPO = 101 [Sewage] or ZI014_PPO = 105 [Silver] or ZI014_PPO = 106 [Snow] or ZI014_PPO = 109 [Steel] or ZI014_PPO = 111 [Sugar] or ZI014_PPO = 114 [Textile] or ZI014_PPO = 117 [Tobacco] or ZI014_PPO = 120 [Uranium] or ZI014_PPO = 121 [Vegetation Product] or ZI014_PPO = 122 [Water] or ZI014_PPO = 123 [Wine] or ZI014_PPO = 126 [Zinc] or ZI014_PPO = 136 [Biochemical] or ZI014_PPO = 137 [Petrochemical] or ZI014_PPO = 146 [Heating Steam and/or Water] or ZI014_PPO = 147 [Electronic Equipment] or ZI014_PPO = 148 [Electrical Equipment] or ZI014_PPO = 150 [Fertilizer] or ZI014_PPO = 154 [Munitions] or ZI014_PPO = 155 [Olive Oil] or ZI014_PPO = 156 [Whale Products] or ZI014_PPO = 157 [Petroleum and/or Natural Gas] or ZI014_PPO = 160 [Milled Grain] or ZI014_PPO = 165 [Clothing] or ZI014_PPO = 192 [Petroleum Lubricant] or ZI014_PPO = 214 [Biodiesel] or ZI014_PPO = 279 [Fluorine] or ZI014_PPO = 325 [Phosphorus] or ZI014_PPO = 435 [Nuclear Fuel])

Label String: [ZI014_PPO] "refinery"
Characteristics: 2,2
 2 (Black, Regular, 6 pt, Lower case)

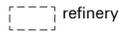
Label Description: Facility / refinery / unknown (surface)
Additional Labeling Criteria: (ZI014_PPO = 73 [No Product] or ZI014_PPO = 999 [Other] or ZI014_PPO = -999999 [No Information])

Label String: "refinery"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

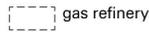
Facility (AL010) (continued)

Surface

Symbol Sample



refinery



gas refinery

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Facility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001532	Facility / refinery / small area (surface)	(ARA < 6250000) and (FFN = 91 [Gas Oil Separation] or FFN = 95 [Ore Dressing] or FFN = 113 [Sugar Refining] or FFN = 192 [Petroleum Refining] or FFN = 195 [Chemical Manufacture] or FFN = 242 [Metal Refining])

Label Information

Label Description:	Facility / refinery / known (surface)
Additional Labeling Criteria:	(ZI014_PPO = 1 [Aircraft] or ZI014_PPO = 2 [Aluminum] or ZI014_PPO = 3 [Ammunition] or ZI014_PPO = 4 [Asphalt] or ZI014_PPO = 5 [Motor Vehicle] or ZI014_PPO = 13 [Brick] or ZI014_PPO = 15 [Cement] or ZI014_PPO = 16 [Chemical] or ZI014_PPO = 18 [Coal] or ZI014_PPO = 20 [Coffee] or ZI014_PPO = 21 [Coke] or ZI014_PPO = 23 [Concrete] or ZI014_PPO = 25 [Consumer Goods] or ZI014_PPO = 26 [Copper] or ZI014_PPO = 28 [Cotton] or ZI014_PPO = 32 [Desalinated Water] or ZI014_PPO = 37 [Electric Power] or ZI014_PPO = 38 [Explosive] or ZI014_PPO = 39 [Fish] or ZI014_PPO = 41 [Food] or ZI014_PPO = 43 [Frozen Water] or ZI014_PPO = 44 [Fruit] or ZI014_PPO = 45 [Gas] or ZI014_PPO = 46 [Petrol] or ZI014_PPO = 47 [Glass] or ZI014_PPO = 48 [Gold] or ZI014_PPO = 57 [Ice] or ZI014_PPO = 58 [Iron] or ZI014_PPO = 59 [Lead] or ZI014_PPO = 60 [Lime] or ZI014_PPO = 61 [Liquefied Natural Gas (LNG)] or ZI014_PPO = 62 [Liquefied Petroleum Gas (LPG)] or ZI014_PPO = 63 [Lumber] or ZI014_PPO = 65 [Manganese] or ZI014_PPO = 69 [Metal] or ZI014_PPO = 70 [Milk] or ZI014_PPO = 74 [Non Solid Hydrocarbon Fuel] or ZI014_PPO = 80 [Paper] or ZI014_PPO = 83 [Petroleum] or ZI014_PPO = 84 [Plastic] or ZI014_PPO = 87 [Prestressed Concrete] or ZI014_PPO = 90 [Radioactive Material] or ZI014_PPO = 92 [Rice] or ZI014_PPO = 94 [Rubber] or ZI014_PPO = 95 [Salt] or ZI014_PPO = 101 [Sewage] or ZI014_PPO = 105 [Silver] or ZI014_PPO = 106 [Snow] or ZI014_PPO = 109 [Steel] or ZI014_PPO = 111 [Sugar] or ZI014_PPO = 114 [Textile] or ZI014_PPO = 117 [Tobacco] or ZI014_PPO = 120 [Uranium] or ZI014_PPO = 121 [Vegetation Product] or ZI014_PPO = 122 [Water] or ZI014_PPO = 123 [Wine] or ZI014_PPO = 126 [Zinc] or ZI014_PPO = 136 [Biochemical] or ZI014_PPO = 137 [Petrochemical] or ZI014_PPO = 146 [Heating Steam and/or Water] or ZI014_PPO = 147 [Electronic Equipment] or ZI014_PPO = 148 [Electrical Equipment] or ZI014_PPO = 150 [Fertilizer] or ZI014_PPO = 154 [Munitions] or ZI014_PPO = 155 [Olive Oil] or ZI014_PPO = 156 [Whale Products] or ZI014_PPO = 157 [Petroleum and/or Natural Gas] or ZI014_PPO = 160 [Milled Grain] or ZI014_PPO = 165 [Clothing] or ZI014_PPO = 192 [Petroleum Lubricant] or ZI014_PPO = 214 [Biodiesel] or ZI014_PPO = 279 [Fluorine] or ZI014_PPO = 325 [Phosphorus] or ZI014_PPO = 435 [Nuclear Fuel])
Label String:	[ZI014_PPO] "refinery"
Characteristics:	2,2 2 (Black, Regular, 6 pt, Lower case)
Label Description:	Facility / refinery / unknown (surface)
Additional Labeling Criteria:	(ZI014_PPO = 73 [No Product] or ZI014_PPO = 999 [Other] or ZI014_PPO = -999999 [No Information])
Label String:	"refinery"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Facility (AL010) (continued)

Surface

Symbol Sample

■ refinery

■ petroleum refinery

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Black_Facility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine		Element Reference: L00210
Element Type: Line - Styled		
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters:	
	Lineweight: 0.1mm	Dash Length: 1.0mm
		Dash Spacing: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001281	Facility / mill / large area (surface)	(ARA >= 6250000) and (FFN = 107 [Grain Milling] or FFN = 161 [Sawmilling] or FFN = 171 [Paper-mill] or FFN = 235 [Cement Mill] or FFN = 241 [Steel Mill])

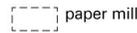
Label Information

Label Description:	Facility / mill / known (surface)
Additional Labeling Criteria:	(ZI014_PPO = 1 [Aircraft] or ZI014_PPO = 2 [Aluminum] or ZI014_PPO = 3 [Ammunition] or ZI014_PPO = 4 [Asphalt] or ZI014_PPO = 5 [Motor Vehicle] or ZI014_PPO = 13 [Brick] or ZI014_PPO = 15 [Cement] or ZI014_PPO = 16 [Chemical] or ZI014_PPO = 18 [Coal] or ZI014_PPO = 20 [Coffee] or ZI014_PPO = 21 [Coke] or ZI014_PPO = 23 [Concrete] or ZI014_PPO = 25 [Consumer Goods] or ZI014_PPO = 26 [Copper] or ZI014_PPO = 28 [Cotton] or ZI014_PPO = 32 [Desalinated Water] or ZI014_PPO = 37 [Electric Power] or ZI014_PPO = 38 [Explosive] or ZI014_PPO = 39 [Fish] or ZI014_PPO = 41 [Food] or ZI014_PPO = 43 [Frozen Water] or ZI014_PPO = 44 [Fruit] or ZI014_PPO = 45 [Gas] or ZI014_PPO = 46 [Petrol] or ZI014_PPO = 47 [Glass] or ZI014_PPO = 48 [Gold] or ZI014_PPO = 57 [Ice] or ZI014_PPO = 58 [Iron] or ZI014_PPO = 59 [Lead] or ZI014_PPO = 60 [Lime] or ZI014_PPO = 61 [Liquefied Natural Gas (LNG)] or ZI014_PPO = 62 [Liquefied Petroleum Gas (LPG)] or ZI014_PPO = 63 [Lumber] or ZI014_PPO = 65 [Manganese] or ZI014_PPO = 69 [Metal] or ZI014_PPO = 70 [Milk] or ZI014_PPO = 74 [Non Solid Hydrocarbon Fuel] or ZI014_PPO = 80 [Paper] or ZI014_PPO = 83 [Petroleum] or ZI014_PPO = 84 [Plastic] or ZI014_PPO = 87 [Prestressed Concrete] or ZI014_PPO = 90 [Radioactive Material] or ZI014_PPO = 92 [Rice] or ZI014_PPO = 94 [Rubber] or ZI014_PPO = 95 [Salt] or ZI014_PPO = 101 [Sewage] or ZI014_PPO = 105 [Silver] or ZI014_PPO = 106 [Snow] or ZI014_PPO = 109 [Steel] or ZI014_PPO = 111 [Sugar] or ZI014_PPO = 114 [Textile] or ZI014_PPO = 117 [Tobacco] or ZI014_PPO = 120 [Uranium] or ZI014_PPO = 121 [Vegetation Product] or ZI014_PPO = 122 [Water] or ZI014_PPO = 123 [Wine] or ZI014_PPO = 126 [Zinc] or ZI014_PPO = 136 [Biochemical] or ZI014_PPO = 137 [Petrochemical] or ZI014_PPO = 146 [Heating Steam and/or Water] or ZI014_PPO = 147 [Electronic Equipment] or ZI014_PPO = 148 [Electrical Equipment] or ZI014_PPO = 150 [Fertilizer] or ZI014_PPO = 154 [Munitions] or ZI014_PPO = 155 [Olive Oil] or ZI014_PPO = 156 [Whale Products] or ZI014_PPO = 157 [Petroleum and/or Natural Gas] or ZI014_PPO = 160 [Milled Grain] or ZI014_PPO = 165 [Clothing] or ZI014_PPO = 192 [Petroleum Lubricant] or ZI014_PPO = 214 [Biodiesel] or ZI014_PPO = 279 [Fluorine] or ZI014_PPO = 325 [Phosphorus] or ZI014_PPO = 435 [Nuclear Fuel])
Label String:	[ZI014_PPO] "mill"
Characteristics:	2,2 2 (Black, Regular, 6 pt, Lower case)
Label Description:	Facility / mill / unknown (surface)
Additional Labeling Criteria:	(ZI014_PPO = 73 [No Product] or ZI014_PPO = 999 [Other] or ZI014_PPO = -999999 [No Information])
Label String:	"mill"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Facility (AL010) (continued)

Surface

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Facility
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square
Element Name: Black_1.0mmSquareFilled	
Element Reference: P00123	
Element Type: Point - Simple	
Description: Black filled square with all sides 1.0mm	
Color Token: Black	Parameters: Length: 1.0mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001509	Facility / mill / small area (surface)	(ARA < 6250000) and (FFN = 107 [Grain Milling] or FFN = 161 [Sawmilling] or FFN = 171 [Paper-mill] or FFN = 235 [Cement Mill] or FFN = 241 [Steel Mill])

Label Information

Label Description: Additional Labeling Criteria:	Facility / mill / known (surface) (ZI014_PPO = 1 [Aircraft] or ZI014_PPO = 2 [Aluminum] or ZI014_PPO = 3 [Ammunition] or ZI014_PPO = 4 [Asphalt] or ZI014_PPO = 5 [Motor Vehicle] or ZI014_PPO = 13 [Brick] or ZI014_PPO = 15 [Cement] or ZI014_PPO = 16 [Chemical] or ZI014_PPO = 18 [Coal] or ZI014_PPO = 20 [Coffee] or ZI014_PPO = 21 [Coke] or ZI014_PPO = 23 [Concrete] or ZI014_PPO = 25 [Consumer Goods] or ZI014_PPO = 26 [Copper] or ZI014_PPO = 28 [Cotton] or ZI014_PPO = 32 [Desalinated Water] or ZI014_PPO = 37 [Electric Power] or ZI014_PPO = 38 [Explosive] or ZI014_PPO = 39 [Fish] or ZI014_PPO = 41 [Food] or ZI014_PPO = 43 [Frozen Water] or ZI014_PPO = 44 [Fruit] or ZI014_PPO = 45 [Gas] or ZI014_PPO = 46 [Petrol] or ZI014_PPO = 47 [Glass] or ZI014_PPO = 48 [Gold] or ZI014_PPO = 57 [Ice] or ZI014_PPO = 58 [Iron] or ZI014_PPO = 59 [Lead] or ZI014_PPO = 60 [Lime] or ZI014_PPO = 61 [Liquefied Natural Gas (LNG)] or ZI014_PPO = 62 [Liquefied Petroleum Gas (LPG)] or ZI014_PPO = 63 [Lumber] or ZI014_PPO = 65 [Manganese] or ZI014_PPO = 69 [Metal] or ZI014_PPO = 70 [Milk] or ZI014_PPO = 74 [Non Solid Hydrocarbon Fuel] or ZI014_PPO = 80 [Paper] or ZI014_PPO = 83 [Petroleum] or ZI014_PPO = 84 [Plastic] or ZI014_PPO = 87 [Prestressed Concrete] or ZI014_PPO = 90 [Radioactive Material] or ZI014_PPO = 92 [Rice] or ZI014_PPO = 94 [Rubber] or ZI014_PPO = 95 [Salt] or ZI014_PPO = 101 [Sewage] or ZI014_PPO = 105 [Silver] or ZI014_PPO = 106 [Snow] or ZI014_PPO = 109 [Steel] or ZI014_PPO = 111 [Sugar] or ZI014_PPO = 114 [Textile] or ZI014_PPO = 117 [Tobacco] or ZI014_PPO = 120 [Uranium] or ZI014_PPO = 121 [Vegetation Product] or ZI014_PPO = 122 [Water] or ZI014_PPO = 123 [Wine] or ZI014_PPO = 126 [Zinc] or ZI014_PPO = 136 [Biochemical] or ZI014_PPO = 137 [Petrochemical] or ZI014_PPO = 146 [Heating Steam and/or Water] or ZI014_PPO = 147 [Electronic Equipment] or ZI014_PPO = 148 [Electrical Equipment] or ZI014_PPO = 150 [Fertilizer] or ZI014_PPO = 154 [Munitions] or ZI014_PPO = 155 [Olive Oil] or ZI014_PPO = 156 [Whale Products] or ZI014_PPO = 157 [Petroleum and/or Natural Gas] or ZI014_PPO = 160 [Milled Grain] or ZI014_PPO = 165 [Clothing] or ZI014_PPO = 192 [Petroleum Lubricant] or ZI014_PPO = 214 [Biodiesel] or ZI014_PPO = 279 [Fluorine] or ZI014_PPO = 325 [Phosphorus] or ZI014_PPO = 435 [Nuclear Fuel])
Label String: Characteristics:	[ZI014_PPO] "mill" 2,2 2 (Black, Regular, 6 pt, Lower case)
Label Description: Additional Labeling Criteria:	Facility / mill / unknown (surface) (ZI014_PPO = 73 [No Product] or ZI014_PPO = 999 [Other] or ZI014_PPO = -999999 [No Information])
Label String: Characteristics:	"mill" 2 2 (Black, Regular, 6 pt, Lower case)

Facility (AL010) (continued)

Surface

Symbol Sample

■ mill

■ lumber mill

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Black_Facility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine		Element Reference: L00210
Element Type: Line - Styled		
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters:	
	Lineweight: 0.1mm	Dash Length: 1.0mm
		Dash Spacing: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001282	Facility / plant / large area (surface)	(ARA >= 6250000) and (FFN = 99 [Manufacturing] or FFN = 100 [Food Product Manufacture] or FFN = 101 [Food Processing] or FFN = 102 [Meat Processing] or FFN = 103 [Seafood Processing] or FFN = 104 [Fruit and/or Vegetable Processing] or FFN = 105 [Oil-mill] or FFN = 106 [Dairying] or FFN = 110 [Baking] or FFN = 111 [Sugar Manufacture] or FFN = 112 [Sugar Milling] or FFN = 114 [Confection Manufacture] or FFN = 115 [Pasta Manufacture] or FFN = 116 [Prepared Meal Manufacture] or FFN = 118 [Beverage Manufacture] or FFN = 119 [Animal Feed Manufacture] or FFN = 120 [Ice Manufacture] or FFN = 121 [Spirit Distillery] or FFN = 122 [Winery] or FFN = 123 [Brewing] or FFN = 124 [Soft Drink Manufacture] or FFN = 125 [Tobacco Product Manufacture] or FFN = 129 [Textile, Apparel and Leather Manufacture] or FFN = 130 [Textile Manufacture] or FFN = 140 [Apparel Manufacture] or FFN = 150 [Leather Product Manufacture] or FFN = 155 [Footwear Manufacturing] or FFN = 160 [Wood-based Manufacturing] or FFN = 165 [Wooden Construction Product Manufacture] or FFN = 181 [Printing] or FFN = 190 [Petroleum and Coal Products Manufacturing] or FFN = 191 [Coke Manufacture] or FFN = 210 [Medicinal Product Manufacture] or FFN = 221 [Rubber Product Manufacture] or FFN = 225 [Plastic Product Manufacture] or FFN = 230 [Nonmetallic Mineral Product Manufacturing] or FFN = 231 [Glass Product Manufacture] or FFN = 232 [Refractory Product Manufacture] or FFN = 233 [Clay Product Manufacture] or FFN = 234 [Ceramic Product Manufacture] or FFN = 236 [Cement Product Manufacture] or FFN = 237 [Stone Product Manufacture] or FFN = 240 [Primary Metal Manufacturing] or FFN = 243 [Foundry] or FFN = 250 [Metal Product Manufacturing] or FFN = 251 [Structural Metal Product Manufacture] or FFN = 255 [Munitions Manufacture] or FFN = 257 [Fabricated Metal Product Manufacture] or FFN = 260 [Electronic Equipment Manufacture] or FFN = 270 [Electrical Equipment Manufacture] or FFN = 280 [Machinery Manufacture] or FFN = 289 [Transportation Equipment Manufacturing] or FFN = 290 [Motor Vehicle Manufacture] or FFN = 301 [Ship Construction] or FFN = 304 [Railway Vehicle Manufacture] or FFN = 305 [Aircraft Manufacture] or FFN = 306 [Military Vehicle Manufacture] or FFN = 310 [Furniture Manufacture] or FFN = 320 [Miscellaneous Manufacturing] or FFN = 321 [Jewellery Manufacture] or FFN = 322 [Musical Instrument Manufacture] or FFN = 323 [Sports Goods Manufacture] or FFN = 324 [Game and/or Toy Manufacture] or FFN = 325 [Medical and/or Dental Equipment Manufacture] or FFN = 370 [Sewerage] or FFN = 385 [Materials Recovery])

Label Information

Facility (AL010) (continued)

Surface

Label Description: Facility / plant / known (surface)
Additional Labeling Criteria: (ZI014_PPO = 1 [Aircraft] or ZI014_PPO = 2 [Aluminum] or ZI014_PPO = 3 [Ammunition] or ZI014_PPO = 4 [Asphalt] or ZI014_PPO = 5 [Motor Vehicle] or ZI014_PPO = 13 [Brick] or ZI014_PPO = 15 [Cement] or ZI014_PPO = 16 [Chemical] or ZI014_PPO = 18 [Coal] or ZI014_PPO = 20 [Coffee] or ZI014_PPO = 21 [Coke] or ZI014_PPO = 23 [Concrete] or ZI014_PPO = 25 [Consumer Goods] or ZI014_PPO = 26 [Copper] or ZI014_PPO = 28 [Cotton] or ZI014_PPO = 32 [Desalinated Water] or ZI014_PPO = 37 [Electric Power] or ZI014_PPO = 38 [Explosive] or ZI014_PPO = 39 [Fish] or ZI014_PPO = 41 [Food] or ZI014_PPO = 43 [Frozen Water] or ZI014_PPO = 44 [Fruit] or ZI014_PPO = 45 [Gas] or ZI014_PPO = 46 [Petrol] or ZI014_PPO = 47 [Glass] or ZI014_PPO = 48 [Gold] or ZI014_PPO = 57 [Ice] or ZI014_PPO = 58 [Iron] or ZI014_PPO = 59 [Lead] or ZI014_PPO = 60 [Lime] or ZI014_PPO = 61 [Liquefied Natural Gas (LNG)] or ZI014_PPO = 62 [Liquefied Petroleum Gas (LPG)] or ZI014_PPO = 63 [Lumber] or ZI014_PPO = 65 [Manganese] or ZI014_PPO = 69 [Metal] or ZI014_PPO = 70 [Milk] or ZI014_PPO = 74 [Non Solid Hydrocarbon Fuel] or ZI014_PPO = 80 [Paper] or ZI014_PPO = 83 [Petroleum] or ZI014_PPO = 84 [Plastic] or ZI014_PPO = 87 [Prestressed Concrete] or ZI014_PPO = 90 [Radioactive Material] or ZI014_PPO = 92 [Rice] or ZI014_PPO = 94 [Rubber] or ZI014_PPO = 95 [Salt] or ZI014_PPO = 101 [Sewage] or ZI014_PPO = 105 [Silver] or ZI014_PPO = 106 [Snow] or ZI014_PPO = 109 [Steel] or ZI014_PPO = 111 [Sugar] or ZI014_PPO = 114 [Textile] or ZI014_PPO = 117 [Tobacco] or ZI014_PPO = 120 [Uranium] or ZI014_PPO = 121 [Vegetation Product] or ZI014_PPO = 122 [Water] or ZI014_PPO = 123 [Wine] or ZI014_PPO = 126 [Zinc] or ZI014_PPO = 136 [Biochemical] or ZI014_PPO = 137 [Petrochemical] or ZI014_PPO = 146 [Heating Steam and/or Water] or ZI014_PPO = 147 [Electronic Equipment] or ZI014_PPO = 148 [Electrical Equipment] or ZI014_PPO = 150 [Fertilizer] or ZI014_PPO = 154 [Munitions] or ZI014_PPO = 155 [Olive Oil] or ZI014_PPO = 156 [Whale Products] or ZI014_PPO = 157 [Petroleum and/or Natural Gas] or ZI014_PPO = 160 [Milled Grain] or ZI014_PPO = 165 [Clothing] or ZI014_PPO = 192 [Petroleum Lubricant] or ZI014_PPO = 214 [Biodiesel] or ZI014_PPO = 279 [Fluorine] or ZI014_PPO = 325 [Phosphorus] or ZI014_PPO = 435 [Nuclear Fuel])

Label String: [ZI014_PPO] "plant"
Characteristics: 2,2
 2 (Black, Regular, 6 pt, Lower case)

Label Description: Facility / plant / unknown (surface)
Additional Labeling Criteria: (ZI014_PPO = 73 [No Product] or ZI014_PPO = 999 [Other] or ZI014_PPO = -999999 [No Information])

Label String: "plant"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

 plant

 concrete plant

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Facility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
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Facility (AL010) (continued)

Surface

R001504	Facility / plant / small area (surface)	(ARA < 6250000) and (FFN = 99 [Manufacturing] or FFN = 100 [Food Product Manufacture] or FFN = 101 [Food Processing] or FFN = 102 [Meat Processing] or FFN = 103 [Seafood Processing] or FFN = 104 [Fruit and/or Vegetable Processing] or FFN = 105 [Oil-mill] or FFN = 106 [Dairying] or FFN = 110 [Baking] or FFN = 111 [Sugar Manufacture] or FFN = 112 [Sugar Milling] or FFN = 114 [Confection Manufacture] or FFN = 115 [Pasta Manufacture] or FFN = 116 [Prepared Meal Manufacture] or FFN = 118 [Beverage Manufacture] or FFN = 119 [Animal Feed Manufacture] or FFN = 120 [Ice Manufacture] or FFN = 121 [Spirit Distillery] or FFN = 122 [Winery] or FFN = 123 [Brewing] or FFN = 124 [Soft Drink Manufacture] or FFN = 125 [Tobacco Product Manufacture] or FFN = 129 [Textile, Apparel and Leather Manufacture] or FFN = 130 [Textile Manufacture] or FFN = 140 [Apparel Manufacture] or FFN = 150 [Leather Product Manufacture] or FFN = 155 [Footwear Manufacturing] or FFN = 160 [Wood-based Manufacturing] or FFN = 165 [Wooden Construction Product Manufacture] or FFN = 181 [Printing] or FFN = 190 [Petroleum and Coal Products Manufacturing] or FFN = 191 [Coke Manufacture] or FFN = 210 [Medicinal Product Manufacture] or FFN = 221 [Rubber Product Manufacture] or FFN = 225 [Plastic Product Manufacture] or FFN = 230 [Nonmetallic Mineral Product Manufacturing] or FFN = 231 [Glass Product Manufacture] or FFN = 232 [Refractory Product Manufacture] or FFN = 233 [Clay Product Manufacture] or FFN = 234 [Ceramic Product Manufacture] or FFN = 236 [Cement Product Manufacture] or FFN = 237 [Stone Product Manufacture] or FFN = 240 [Primary Metal Manufacturing] or FFN = 243 [Foundry] or FFN = 250 [Metal Product Manufacturing] or FFN = 251 [Structural Metal Product Manufacture] or FFN = 255 [Munitions Manufacture] or FFN = 257 [Fabricated Metal Product Manufacture] or FFN = 260 [Electronic Equipment Manufacture] or FFN = 270 [Electrical Equipment Manufacture] or FFN = 280 [Machinery Manufacture] or FFN = 289 [Transportation Equipment Manufacture] or FFN = 290 [Motor Vehicle Manufacture] or FFN = 301 [Ship Construction] or FFN = 304 [Railway Vehicle Manufacture] or FFN = 305 [Aircraft Manufacture] or FFN = 306 [Military Vehicle Manufacture] or FFN = 310 [Furniture Manufacture] or FFN = 320 [Miscellaneous Manufacturing] or FFN = 321 [Jewellery Manufacture] or FFN = 322 [Musical Instrument Manufacture] or FFN = 323 [Sports Goods Manufacture] or FFN = 324 [Game and/or Toy Manufacture] or FFN = 325 [Medical and/or Dental Equipment Manufacture] or FFN = 370 [Sewerage] or FFN = 385 [Materials Recovery])
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Label Information

Label Description:	Facility / plant / known (surface)
Additional Labeling Criteria:	(ZI014_PPO = 1 [Aircraft] or ZI014_PPO = 2 [Aluminum] or ZI014_PPO = 3 [Ammunition] or ZI014_PPO = 4 [Asphalt] or ZI014_PPO = 5 [Motor Vehicle] or ZI014_PPO = 13 [Brick] or ZI014_PPO = 15 [Cement] or ZI014_PPO = 16 [Chemical] or ZI014_PPO = 18 [Coal] or ZI014_PPO = 20 [Coffee] or ZI014_PPO = 21 [Coke] or ZI014_PPO = 23 [Concrete] or ZI014_PPO = 25 [Consumer Goods] or ZI014_PPO = 26 [Copper] or ZI014_PPO = 28 [Cotton] or ZI014_PPO = 32 [Desalinated Water] or ZI014_PPO = 37 [Electric Power] or ZI014_PPO = 38 [Explosive] or ZI014_PPO = 39 [Fish] or ZI014_PPO = 41 [Food] or ZI014_PPO = 43 [Frozen Water] or ZI014_PPO = 44 [Fruit] or ZI014_PPO = 45 [Gas] or ZI014_PPO = 46 [Petrol] or ZI014_PPO = 47 [Glass] or ZI014_PPO = 48 [Gold] or ZI014_PPO = 57 [Ice] or ZI014_PPO = 58 [Iron] or ZI014_PPO = 59 [Lead] or ZI014_PPO = 60 [Lime] or ZI014_PPO = 61 [Liquefied Natural Gas (LNG)] or ZI014_PPO = 62 [Liquefied Petroleum Gas (LPG)] or ZI014_PPO = 63 [Lumber] or ZI014_PPO = 65 [Manganese] or ZI014_PPO = 69 [Metal] or ZI014_PPO = 70 [Milk] or ZI014_PPO = 74 [Non Solid Hydrocarbon Fuel] or ZI014_PPO = 80 [Paper] or ZI014_PPO = 83 [Petroleum] or ZI014_PPO = 84 [Plastic] or ZI014_PPO = 87 [Prestressed Concrete] or ZI014_PPO = 90 [Radioactive Material] or ZI014_PPO = 92 [Rice] or ZI014_PPO = 94 [Rubber] or ZI014_PPO = 95 [Salt] or ZI014_PPO = 101 [Sewage] or ZI014_PPO = 105 [Silver] or ZI014_PPO = 106 [Snow] or ZI014_PPO = 109 [Steel] or ZI014_PPO = 111 [Sugar] or ZI014_PPO = 114 [Textile] or ZI014_PPO = 117 [Tobacco] or ZI014_PPO = 120 [Uranium] or ZI014_PPO = 121 [Vegetation Product] or ZI014_PPO = 122 [Water] or ZI014_PPO = 123 [Wine] or ZI014_PPO = 126 [Zinc] or ZI014_PPO = 136 [Biochemical] or ZI014_PPO = 137 [Petrochemical] or ZI014_PPO = 146 [Heating Steam and/or Water] or ZI014_PPO = 147 [Electronic Equipment] or ZI014_PPO = 148 [Electrical Equipment] or ZI014_PPO = 150 [Fertilizer] or ZI014_PPO = 154 [Munitions] or ZI014_PPO = 155 [Olive Oil] or ZI014_PPO = 156 [Whale Products] or ZI014_PPO = 157 [Petroleum and/or Natural Gas] or ZI014_PPO = 160 [Milled Grain] or ZI014_PPO = 165 [Clothing] or ZI014_PPO = 192 [Petroleum Lubricant] or ZI014_PPO = 214 [Biodiesel] or ZI014_PPO = 279 [Fluorine] or ZI014_PPO = 325 [Phosphorus] or ZI014_PPO = 435 [Nuclear Fuel])
Label String:	[ZI014_PPO] "plant"
Characteristics:	2,2 2 (Black, Regular, 6 pt, Lower case)
Label Description:	Facility / plant / unknown (surface)
Additional Labeling Criteria:	(ZI014_PPO = 73 [No Product] or ZI014_PPO = 999 [Other] or ZI014_PPO = -999999 [No Information])
Label String:	"plant"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Facility (AL010) (continued)

Surface

Symbol Sample

- plant
- concrete plant

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Black_Facility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine		Element Reference: L00210
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters:	
	Lineweight: 0.1mm	Dash Length: 1.0mm
		Dash Spacing: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001283	Facility / communications / large area (surface)	(ARA >= 6250000) and (FFN = 601 [Radio Broadcasting] or FFN = 604 [Television Broadcasting] or FFN = 610 [Telecommunications] or FFN = 612 [Retail Telecommunications] or FFN = 614 [Wired Telecommunications] or FFN = 615 [Main Telephone Exchange] or FFN = 616 [Branch Telephone Exchange] or FFN = 617 [Wired Repeater] or FFN = 620 [Wireless Telecommunications] or FFN = 621 [Mobile Phone Service] or FFN = 622 [Wireless Repeater] or FFN = 625 [Satellite Telecommunications] or FFN = 626 [Satellite Ground Control])

Label Information

Label Description:	Facility / communications (surface)
Additional Labeling Criteria:	N/A
Label String:	"comm facility"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

 comm facility

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Facility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters:	
	Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
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Facility (AL010) (continued)

Surface

R001500 Facility / communications / small area (surface) (ARA < 6250000) and (FFN = 601 [Radio Broadcasting] or FFN = 604 [Television Broadcasting] or FFN = 610 [Telecommunications] or FFN = 612 [Retail Telecommunications] or FFN = 614 [Wired Telecommunications] or FFN = 615 [Main Telephone Exchange] or FFN = 616 [Branch Telephone Exchange] or FFN = 617 [Wired Repeater] or FFN = 620 [Wireless Telecommunications] or FFN = 621 [Mobile Phone Service] or FFN = 622 [Wireless Repeater] or FFN = 625 [Satellite Telecommunications] or FFN = 626 [Satellite Ground Control])

Label Information

Label Description: Facility / communications (surface)
Additional Labeling Criteria: N/A

Label String: "comm facility"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ comm facility

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Black_Facility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine		Element Reference: L00210
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters:	
	Lineweight: 0.1mm	Dash Length: 1.0mm
		Dash Spacing: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001284	Facility / other / large area (surface)	(ARA >= 6250000) and (FFN = 725 [Nuclear Research Centre] or FFN = 999 [Other] or FFN = -999999 [No Information])

Label Information

Label Description: Facility / other (surface)
Additional Labeling Criteria: (FFN = 999 [Other] or FFN = -999999 [No Information])

Label String: "facility"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

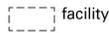
Label Description: Facility / nuclear research centre (surface)
Additional Labeling Criteria: (FFN = 725 [Nuclear Research Centre])

Label String: "nuclear research center"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Facility (AL010) (continued)

Surface

Symbol Sample



facility



nuclear research center

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Facility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Element Type: Point - Simple		
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001501	Facility / other / small area (surface)	(ARA < 6250000) and (FFN = 725 [Nuclear Research Centre] or FFN = 999 [Other] or FFN = -999999 [No Information])

Label Information

Label Description:	Facility / other (surface)
Additional Labeling Criteria:	(FFN = 999 [Other] or FFN = -999999 [No Information])
Label String:	"facility"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)
Label Description:	Facility / nuclear research centre (surface)
Additional Labeling Criteria:	(FFN = 725 [Nuclear Research Centre])
Label String:	"nuclear research center"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



facility



nuclear research center

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Facility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Element Type: Point - Simple		
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Facility (AL010) (continued)

Point

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001288	Facility / plant (point)	(FFN = 99 [Manufacturing] or FFN = 100 [Food Product Manufacture] or FFN = 101 [Food Processing] or FFN = 102 [Meat Processing] or FFN = 103 [Seafood Processing] or FFN = 104 [Fruit and/or Vegetable Processing] or FFN = 105 [Oil-mill] or FFN = 106 [Dairying] or FFN = 110 [Baking] or FFN = 111 [Sugar Manufacture] or FFN = 112 [Sugar Milling] or FFN = 114 [Confection Manufacture] or FFN = 115 [Pasta Manufacture] or FFN = 116 [Prepared Meal Manufacture] or FFN = 118 [Beverage Manufacture] or FFN = 119 [Animal Feed Manufacture] or FFN = 120 [Ice Manufacture] or FFN = 121 [Spirit Distillery] or FFN = 122 [Winery] or FFN = 123 [Brewing] or FFN = 124 [Soft Drink Manufacture] or FFN = 125 [Tobacco Product Manufacture] or FFN = 129 [Textile, Apparel and Leather Manufacture] or FFN = 130 [Textile Manufacture] or FFN = 140 [Apparel Manufacture] or FFN = 150 [Leather Product Manufacture] or FFN = 155 [Footwear Manufacturing] or FFN = 160 [Wood-based Manufacturing] or FFN = 165 [Wooden Construction Product Manufacture] or FFN = 181 [Printing] or FFN = 190 [Petroleum and Coal Products Manufacturing] or FFN = 191 [Coke Manufacture] or FFN = 210 [Medicinal Product Manufacture] or FFN = 221 [Rubber Product Manufacture] or FFN = 225 [Plastic Product Manufacture] or FFN = 230 [Nonmetallic Mineral Product Manufacturing] or FFN = 231 [Glass Product Manufacture] or FFN = 232 [Refractory Product Manufacture] or FFN = 233 [Clay Product Manufacture] or FFN = 234 [Ceramic Product Manufacture] or FFN = 236 [Cement Product Manufacture] or FFN = 237 [Stone Product Manufacture] or FFN = 240 [Primary Metal Manufacturing] or FFN = 243 [Foundry] or FFN = 250 [Metal Product Manufacturing] or FFN = 251 [Structural Metal Product Manufacture] or FFN = 255 [Munitions Manufacture] or FFN = 257 [Fabricated Metal Product Manufacture] or FFN = 260 [Electronic Equipment Manufacture] or FFN = 270 [Electrical Equipment Manufacture] or FFN = 280 [Machinery Manufacture] or FFN = 289 [Transportation Equipment Manufacturing] or FFN = 290 [Motor Vehicle Manufacture] or FFN = 301 [Ship Construction] or FFN = 304 [Railway Vehicle Manufacture] or FFN = 305 [Aircraft Manufacture] or FFN = 306 [Military Vehicle Manufacture] or FFN = 310 [Furniture Manufacture] or FFN = 320 [Miscellaneous Manufacturing] or FFN = 321 [Jewellery Manufacture] or FFN = 322 [Musical Instrument Manufacture] or FFN = 323 [Sports Goods Manufacture] or FFN = 324 [Game and/or Toy Manufacture] or FFN = 325 [Medical and/or Dental Equipment Manufacture] or FFN = 370 [Sewerage] or FFN = 385 [Materials Recovery])

Label Information

Label Description:

Facility / plant / known (point)

Additional Labeling Criteria:

(ZI014_PPO = 1 [Aircraft] or ZI014_PPO = 2 [Aluminum] or ZI014_PPO = 3 [Ammunition] or ZI014_PPO = 4 [Asphalt] or ZI014_PPO = 5 [Motor Vehicle] or ZI014_PPO = 13 [Brick] or ZI014_PPO = 15 [Cement] or ZI014_PPO = 16 [Chemical] or ZI014_PPO = 18 [Coal] or ZI014_PPO = 20 [Coffee] or ZI014_PPO = 21 [Coke] or ZI014_PPO = 23 [Concrete] or ZI014_PPO = 25 [Consumer Goods] or ZI014_PPO = 26 [Copper] or ZI014_PPO = 28 [Cotton] or ZI014_PPO = 32 [Desalinated Water] or ZI014_PPO = 37 [Electric Power] or ZI014_PPO = 38 [Explosive] or ZI014_PPO = 39 [Fish] or ZI014_PPO = 41 [Food] or ZI014_PPO = 43 [Frozen Water] or ZI014_PPO = 44 [Fruit] or ZI014_PPO = 45 [Gas] or ZI014_PPO = 46 [Petrol] or ZI014_PPO = 47 [Glass] or ZI014_PPO = 48 [Gold] or ZI014_PPO = 57 [Ice] or ZI014_PPO = 58 [Iron] or ZI014_PPO = 59 [Lead] or ZI014_PPO = 60 [Lime] or ZI014_PPO = 61 [Liquefied Natural Gas (LNG)] or ZI014_PPO = 62 [Liquefied Petroleum Gas (LPG)] or ZI014_PPO = 63 [Lumber] or ZI014_PPO = 65 [Manganese] or ZI014_PPO = 69 [Metal] or ZI014_PPO = 70 [Milk] or ZI014_PPO = 74 [Non Solid Hydrocarbon Fuel] or ZI014_PPO = 80 [Paper] or ZI014_PPO = 83 [Petroleum] or ZI014_PPO = 84 [Plastic] or ZI014_PPO = 87 [Prestressed Concrete] or ZI014_PPO = 90 [Radioactive Material] or ZI014_PPO = 92 [Rice] or ZI014_PPO = 94 [Rubber] or ZI014_PPO = 95 [Salt] or ZI014_PPO = 101 [Sewage] or ZI014_PPO = 105 [Silver] or ZI014_PPO = 106 [Snow] or ZI014_PPO = 109 [Steel] or ZI014_PPO = 111 [Sugar] or ZI014_PPO = 114 [Textile] or ZI014_PPO = 117 [Tobacco] or ZI014_PPO = 120 [Uranium] or ZI014_PPO = 121 [Vegetation Product] or ZI014_PPO = 122 [Water] or ZI014_PPO = 123 [Wine] or ZI014_PPO = 126 [Zinc] or ZI014_PPO = 136 [Biochemical] or ZI014_PPO = 137 [Petrochemical] or ZI014_PPO = 146 [Heating Steam and/or Water] or ZI014_PPO = 147 [Electronic Equipment] or ZI014_PPO = 148 [Electrical Equipment] or ZI014_PPO = 150 [Fertilizer] or ZI014_PPO = 154 [Munitions] or ZI014_PPO = 155 [Olive Oil] or ZI014_PPO = 156 [Whale Products] or ZI014_PPO = 157 [Petroleum and/or Natural Gas] or ZI014_PPO = 160 [Milled Grain] or ZI014_PPO = 165 [Clothing] or ZI014_PPO = 192 [Petroleum Lubricant] or ZI014_PPO = 214 [Biodiesel] or ZI014_PPO = 279 [Fluorine] or ZI014_PPO = 325 [Phosphorus] or ZI014_PPO = 435 [Nuclear Fuel])

Label String:

[ZI014_PPO] "plant"

Characteristics:

2,2
2 (Black, Regular, 6 pt, Lower case)

Label Description:

Facility / plant / unknown (point)

Additional Labeling Criteria:

(ZI014_PPO = 73 [No Product] or ZI014_PPO = 999 [Other] or ZI014_PPO = -999999 [No Information])

Label String:

"plant"

Characteristics:

2
2 (Black, Regular, 6 pt, Lower case)

Facility (AL010) (continued)

Point

Symbol Sample

- plant
- concrete plant

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Facility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled	Element Reference: P00123	Element Type: Point - Simple
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001289	Facility / communications (point)	(FFN = 601 [Radio Broadcasting] or FFN = 604 [Television Broadcasting] or FFN = 610 [Telecommunications] or FFN = 612 [Retail Telecommunications] or FFN = 614 [Wired Telecommunications] or FFN = 615 [Main Telephone Exchange] or FFN = 616 [Branch Telephone Exchange] or FFN = 617 [Wired Repeater] or FFN = 620 [Wireless Telecommunications] or FFN = 621 [Mobile Phone Service] or FFN = 622 [Wireless Repeater] or FFN = 625 [Satellite Telecommunications] or FFN = 626 [Satellite Ground Control])

Label Information

Label Description:	Facility / communications (point)
Additional Labeling Criteria:	N/A
Label String:	"comm facility"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

- comm facility

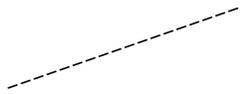
Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Facility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled	Element Reference: P00123	Element Type: Point - Simple
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001290	Facility / other (point)	(FFN = 725 [Nuclear Research Centre] or FFN = 999 [Other] or FFN = -999999 [No Information])

Ferry_Crossing (AQ070) (continued)

Curve

Symbol Information		
	Symbol Graphic Name: LN_Black_FerryCrossing	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Black_0.2mm-1mmLenDash-0.5mmGapLine		Element Reference: L00031
Description: Black 0.2mm Dashed Line (0.2mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters: Lineweight: 0.2mm	Dash Length: 1.0mm Dash Spacing: 0.5mm

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001137	Ferry Crossing / standard (curve)	(LZN >= 1250)

Label Information	
Label Description:	Ferry Crossing / known (curve)
Additional Labeling Criteria:	(TRS = 9 [Pedestrian] or TRS = 12 [Railway] or TRS = 13 [Road])
Label String:	[TRS] "ferry"
Characteristics:	2,2 2 (Black, Regular, 6 pt, Lower case)
Label Description:	Ferry Crossing / unknown (curve)
Additional Labeling Criteria:	(TRS = 999 [Other] or TRS = -999999 [No Information])
Label String:	"ferry"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample	
----- ferry -----	----- pedestrian ferry -----

Ferry_Station (AQ080)

Surface

Symbol Information		
	Symbol Graphic Name: PT_Black_FerryStation	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001285	Ferry Station / all (surface)	ALL

Ferry_Station (AQ080) (continued)

Surface

Label Information

Label Description: Ferry Station / all (surface)
Additional Labeling Criteria: N/A

Label String: "ferry station"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ ferry station

Fish_Farm_Facility (BH051)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Cyan_FishFarm	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry and the area is filled with the screened color.	
Element Name: Cyan-31_ScreenFill		Element Reference: A00007
Description: Cyan-31_ScreenFill area fill (Cyan 31% screen, 45 degree angle)		
Color Token: Cyan-31	Parameters:	
	Screen Angle: 45 degrees	
Element Name: Black_0.1mmSolidLine		Element Reference: L00007
Description: Black 0.1mm Solid Line (0.1mm wt)		
Color Token: Black	Parameters:	
	Lineweight: 0.1mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001184	Fish Farm Facility / standard (surface)	(ARA >= 1562500)

Label Information

Label Description: Fish Farm / all (surface)
Additional Labeling Criteria: N/A

Label String: "fish farm"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

 fish farm

Flare_Pipe (AF070)

Point

Flare_Pipe (AF070) (continued)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_FlarePipe	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of dot	
Element Name: Black_Flarepipe		Element Reference: P00145
Description: Black flarepipe		
Color Token: Black	Parameters: Detail: Black_Flarepipe Note: See Element: Black_Flarepipe in Annex H for detailed drawing instructions	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001041	Flare Pipe / on shore / non-obstruction (point)	(HGT < 61) and (SRL = 2 [Inland] or SRL = 3 [At Shoreline] or SRL = -999999 [No Information])

Symbol Sample	
	

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_FlarePipe_Offshore	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of dot	
Element Name: Black_Offshore_VO		Element Reference: P00161
Description: Black vertical obstruction		
Color Token: Black	Parameters: Detail: Black_Offshore_VO Note: See Element: Black_Offshore_VO in Annex H for detailed drawing instructions	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001526	Flare Pipe / offshore / non-obstruction (point)	(HGT < 61) and (SRL = 1 [Offshore])

Label Information	
Label Description:	Flare Pipe / non-obstruction (point)
Additional Labeling Criteria:	HGT value is converted from meters to feet.
Label String:	"Flare pipe" "([HGT])"
Characteristics:	54,72,72,72 54 (Black, Condensed, Bold, 7 pt, Mixed case) 72 (Black, Condensed, Bold, 7 pt, Lower case)

Flare_Pipe (AF070) (continued)

Point

Symbol Sample



Flood_Control_Structure (BI044)

Point

Symbol Information

	Symbol Graphic Name: PT_Black_FloodControlStructure	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbology is aligned perpendicular to the water course feature. Origin: Center of line	
Element Name: Black_0.35mm-1.5mmLenLine		Element Reference: P00051
Element Type: Point - Simple		
Description: Black 1.5mm length line with a 0.35mm lineweight		
Color Token: Black	Parameters: Length: 1.5mm Lineweight: 0.35mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001529	Flood Control Structure / all (point)	ALL

Label Information

Label Description: Additional Labeling Criteria:	Flood Control Structure / gate (curve) (FCS = 1 [Dyke Gate] or FCS = 2 [Emergency Gate] or FCS = 3 [Flood Gate])
Label String: Characteristics:	"gate" 2 2 (Black, Regular, 6 pt, Lower case)
Label Description: Additional Labeling Criteria:	Flood Control Structure / barrage (curve) (FCS = 4 [Fixed Barrage] or FCS = 5 [Movable Barrage])
Label String: Characteristics:	"barrage" 2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

— gate

— barrage

Foreshore (BA023)

Surface

Symbol Information

	Symbol Graphic Name: AR_BlackCyan_Foreshore	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry and the area is filled with the screened color. NOTE: This symbol is shown in conjunction with the Tidal Water symbol and should NOT mask out the Tidal Water symbol.	

Foreshore (BA023) (continued)

Surface

Element Name: CoversUncovers-Fill		Element Reference: A00049	Element Type: Area - Fill
Description: Cyan-31ScreenFill (Area Fill) coincident with Black-12ScreenFill-15degree (Area Fill)			
Color Token: Cyan-31_Black-12	Parameters: Note: The two area fills are combined as one symbol		
Element Name: Black_Dotted-Line		Element Reference: L00144	Element Type: Line - Styled
Description: Black 0.25mm diameter filled dots repeating with 0.75mm spacing			
Color Token: Black	Parameters: Repeating Point: Black_0.25mmFilledDot Repeating Point Interval: 0.75mm		
Element Name: Black_0.25mmFilledDot		Element Reference: P00047	Element Type: Point - Simple
Description: Black 0.25mm diameter filled circle			
Color Token: Black	Parameters: Diameter: 0.25mm Note: Circle is filled		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001666	Foreshore / all (surface)	ALL

Symbol Sample



Forest (EC015)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Green_Forest	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The surface geometry is filled with the area pattern.	
Element Name: Green_WoodsFill		Element Reference: A00010
Description: Green (Cyan 100% coincident with Yellow 100%) Woods Fill area pattern		
Color Token: Green	Parameters: Area Pattern: See Element: Green_WoodsFill in Annex I Note: Area Pattern #43	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001341	Forest / canopy cover >= 51% (surface)	(ARA >= 1562500) and (DMT >= 51)

Label Information

Label Description:	Forest / named (surface)
Additional Labeling Criteria:	N/A
Label String:	[Z1005_FNA]
Characteristics:	3 3 (Black, Condensed, 6-16 pt, Mixed case)

Forest (EC015) (continued)

Surface

Symbol Sample



Fortified Building (AH055)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Fortification	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of open square	
Element Name: Black_Fortification		Element Reference: P00108
Element Type: Point - Shape		
Description: Black open square with all sides 0.8mm and four black 0.5mm length ticks extending out from each corner at 45, 135, 225, and 315 degrees. All linewidths are 0.1mm.		
Color Token: Black	Parameters: Length: 0.5mm Lineweight: 0.1mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001671	Fortified Building / non-obstruction (surface)	(HGT < 61)

Symbol Sample



Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Fortification	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of open square	
Element Name: Black_Fortification		Element Reference: P00108
Element Type: Point - Shape		
Description: Black open square with all sides 0.8mm and four black 0.5mm length ticks extending out from each corner at 45, 135, 225, and 315 degrees. All linewidths are 0.1mm.		
Color Token: Black	Parameters: Length: 0.5mm Lineweight: 0.1mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R000045	Fortified Building / non-obstruction (point)	(HGT < 61)

Fortified_Building (AH055) (continued)

Point

Symbol Sample



Fuel_Storage_Facility (AM075)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_FuelStorageFacility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Element Type: Point - Simple		
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

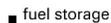
Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001535	Fuel Storage Facility / all (surface)	ALL

Label Information

Label Description:	Fuel Storage Facility / all (surface)
Additional Labeling Criteria:	N/A
Label String:	"fuel storage"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_FuelStorageFacility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Element Type: Point - Simple		
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
----------	-------------	----------

Fuel_Storage_Facility (AM075) (continued)

Point

R001536 Fuel Storage Facility / all (point) ALL

Label Information

Label Description: Fuel Storage Facility / all (point)
Additional Labeling Criteria: N/A

Label String: "fuel storage"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ fuel storage

Geologic_Fault (DB110)

Curve

Symbol Information

	Symbol Graphic Name: LN_Dk-Brown_GeologicFault
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.

Element Name: Dk-Brown-42_0.2mmSolidLine	Element Reference: L00294	Element Type: Line - Simple
Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.2mm Solid Line (0.2mm wt)		
Color Token: Dk-Brown-42	Parameters: Lineweight: 0.2mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001252	Geologic Fault / standard (curve)	(LZN >= 12500)

Label Information

Label Description: Geologic Fault / all (curve)
Additional Labeling Criteria: N/A

Label String: "fault"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

_____ fault

Geopolitical_Entity (FA002)

Surface

Geopolitical_Entity (FA002) (continued)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Black_GeopoliticalEntity_DMZ	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Black_0.25mm-5.0mmLenDash-1.0mmGapLine		Element Reference: L00237
Element Type: Line - Styled		
Description: Black 0.25mm Dashed Line (0.25mm wt, 5.0mm dash, 1.0mm gap)		
Color Token: Black	Parameters:	
	Lineweight: 0.25mm	Dash Length: 5.0mm
		Dash Spacing: 1.0mm

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001537	Geopolitical Entity / demilitarized zone (surface)	(GEC = 7 [Demilitarized Zone (DMZ)])

Label Information	
Label Description:	Geopolitical Entity / demilitarized zone (surface)
Additional Labeling Criteria:	N/A
Label String:	"DEMILITARIZED ZONE"
Characteristics:	48 48 (Black, Condensed, Bold, 10 pt, Upper case)

Symbol Sample


Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Black_GeopoliticalEntity_ZoneOfOccupation	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Black_0.25mm-2.5mmLenDash-1.0mmGapLine		Element Reference: L00258
Element Type: Line - Styled		
Description: Black 0.25mm Dashed Line (0.25mm wt, 2.5mm dash, 1.0mm gap)		
Color Token: Black	Parameters:	
	Lineweight: 0.25mm	Dash Length: 2.5mm
		Dash Spacing: 1.0mm

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001538	Geopolitical Entity / zone of occupation (surface)	(GEC = 8 [Zone of Occupation])

Label Information

Geopolitical_Entity (FA002) (continued)

Surface

Label Description: Geopolitical Entity / zone of occupation (surface)
Additional Labeling Criteria: N/A

Label String: [Z1005_FNA] "OCCUPIED"
Characteristics: 48,48
 48 (Black, Condensed, Bold, 10 pt, Upper case)

Symbol Sample

SOUTH OSSETIA OCCUPIED

Symbol Information

	Symbol Graphic Name: AR_Blue072_GeopoliticalEntity_BufferZone	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry. The AP-98 filled line is on the inside of the surface.	
Element Name: Blue072_BufferZone		Element Reference: L00280
Description: Blue072 0.25mm Solid Line with a Blue072 2.5mm Dashed Line (2.5mm width, 25mm dash, 13mm gap) filled with AP-98 (area pattern 98) combined		
Color Token: Blue072	Parameters: Line Style: Blue072_0.25mmSolidLine Line Style 2: Blue072_2.5mm-25mmLenDashAP-98Line Note: The solid line is centered on the perimeter of the surface geometry and the center of the AP-98 dashed filled line is offset 0.375 mm to the inside of the surface's perimeter.	
Element Name: Blue072_0.25mmSolidLine		Element Reference: L00276
Description: Blue072 0.25mm Solid Line (0.25mm wt)		
Color Token: Blue072	Parameters: Lineweight: 0.25mm	
Element Name: Blue072_2.5mm-25mmLenDashAP-98Line		Element Reference: L00279
Description: Blue072 2.5mm Dashed Line (2.5mm width, 25mm dash, 13mm gap) filled with AP-98 (area pattern 98)		
Color Token: Blue072	Parameters: Lineweight: 2.5mm Dash Length: 25mm Dash Spacing: 13mm Note: Blue072 2.5mm width 25mm length dash is filled with AP-98. See Element: Blue072_AP98_Fill in Annex I	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001020	Geopolitical Entity / buffer zone (surface)	(GEC = 17 [Buffer Zone])

Label Information

Label Description: Geopolitical Entity / buffer zone (surface)
Additional Labeling Criteria: N/A

Label String: [Z1005_FNA] "BUFFER ZONE"
Characteristics: 67,67
 67 (Blue072, Condensed, Bold, 6-12 pt, Upper case)

Symbol Sample

KOREAN BUFFER ZONE

Glacier (BJ030)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Cyan_Glacier	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry and the area is filled with the specified pattern.	
Element Name: Cyan_GlacierFill	Element Reference: A00017	Element Type: Area - Pattern
Description: Cyan Glacier Fill		
Color Token: Cyan	Parameters: Area Pattern: See Element: Cyan_GlacierFill in Annex I Note: Area Pattern #104	
Element Name: Cyan_0.2mm-1mmLenDash-0.5mmGapLine	Element Reference: L00040	Element Type: Line - Styled
Description: Cyan 0.2mm Dashed Line (0.2mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Cyan	Parameters: Lineweight: 0.2mm Dash Length: 1.0mm Dash Spacing: 0.5mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001228	Glacier / all (surface)	ALL

Label Information	
Label Description:	Glacier / named (surface)
Additional Labeling Criteria:	N/A
Label String:	[Z1005_FNA]
Characteristics:	38 38 (Cyan, Condensed, Italic, 6-16 pt, Mixed case)

Symbol Sample	
	

Golf_Course (AK100)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Green_GolfCourse	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Green_1.0mmFilledSquare	Element Reference: P00227	Element Type: Point - Simple
Description: Green (Cyan 100% coincident with Yellow 100%) filled square with all sides 1.0mm		
Color Token: Green	Parameters: Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001058	Golf Course / standard (surface)	(ARA >= 1562500)

Golf_Course (AK100) (continued)

Surface

Label Information

Label Description: Golf Course / all (surface)
Additional Labeling Criteria: N/A

Label String: "golf course"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ golf course

Grain_Elevator (AM030)

Point

Symbol Information

	Symbol Graphic Name: PT_Black_GrainElevator	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of dot	
Element Name: Black_OpenCircleWithDot		Element Reference: P00010
Element Type: Point - Simple		
Description: Black 1.25mm diameter open circle with a 0.15mm lineweight and a black filled 0.3mm diameter dot in the center		
Color Token: Black	Parameters: Diameter: 1.25mm Lineweight: 0.15mm Note: 0.3mm diameter dot in the center of the open circle	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001105	Grain Elevator / non-obstruction (point)	(HGT < 61)

Label Information

Label Description: Grain Elevator / non-obstruction (point)
Additional Labeling Criteria: N/A

Label String: "grain elevator"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

○ grain elevator

Greenhouse (AJ110)

Surface

Greenhouse (AJ110) (continued)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Green_Greenhouse	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface. Origin: Center of square	
Element Name: Green_1.0mmFilledSquare_0.1mmOutline		Element Reference: P00229
Element Type: Point - Simple		
Description: Black 1.0mm square with a 0.1mm lineweight outline perimeter and a Green (Cyan 100% coincident with Yellow 100%) fill inside.		
Color Token: Green	Parameters:	
	Length: 1.0mm	Lineweight: 0.1mm
Note: The 1.0mm square has a Black 0.1mm lineweight outline perimeter and a Green362 fill inside		

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001643	Greenhouse / all (surface)	ALL

Symbol Sample		
		

Hazardous_Rock (BD130)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_HazardousRock	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Where the line segments all intersect each other	
Element Name: Black_Rock		Element Reference: P00095
Element Type: Point - Simple		
Description: Total of three 1.5mm length lines with a 0.1mm lineweight oriented 60 degrees apart, starting at 30 degrees from north		
Color Token: Black	Parameters:	
	Length: 1.5mm	Lineweight: 0.1mm

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001658	Hazardous Rock / not always submerged (point)	(WLE = 1 [Partly Submerged] or WLE = 2 [Always Dry] or WLE = 4 [Covers and Uncovers] or WLE = 5 [Awash at Low Water] or WLE = 9 [Awash at Chart Datum] or WLE = 999 [Other] or WLE = -999999 [No Information])

Symbol Sample		
		

Heating_Facility (AD050)

Surface

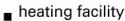
Heating_Facility (AD050) (continued)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_HeatingFacility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001299	Heating Facility / all (surface)	ALL

Label Information	
Label Description:	Heating Facility / all (surface)
Additional Labeling Criteria:	N/A
Label String:	"heating facility"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample


Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_HeatingFacility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001300	Heating Facility / all (point)	ALL

Label Information

Heating_Facility (AD050) (continued)

Point

Label Description: Heating Facility / all (point)
Additional Labeling Criteria: N/A

Label String: "heating facility"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ heating facility

Hulk (BD181)

Point

Symbol Information

	Symbol Graphic Name: PT_Black_Hulk
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Origin: Center of dot
Element Name: Black_OpenCircleWithDot	
Element Reference: P00010	
Element Type: Point - Simple	
Description: Black 1.25mm diameter open circle with a 0.15mm line weight and a black filled 0.3mm diameter dot in the center	
Color Token: Black	Parameters: Diameter: 1.25mm Line weight: 0.15mm Note: 0.3mm diameter dot in the center of the open circle

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001550	Hulk / non-obstruction (point)	(HGT < 61)

Label Information

Label Description: Hulk / all (point)
Additional Labeling Criteria: N/A

Label String: "hulk"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

○ hulk

Hydrocarbon_Products_Facility (AC040)

Surface

Hydrocarbon_Products_Facility (AC040) (continued)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Black_HydrocarbonProdFacility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine		Element Reference: L00210
Element Type: Line - Styled		
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters:	
	Lineweight: 0.1mm	Dash Length: 1.0mm
		Dash Spacing: 0.5mm

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001546	Hydrocarbon Products Facility / all (surface)	ALL

Label Information	
Label Description:	Hydrocarbon Products Facility / known (surface)
Additional Labeling Criteria:	(ZI014_PPO = 4 [Asphalt] or ZI014_PPO = 16 [Chemical] or ZI014_PPO = 45 [Gas] or ZI014_PPO = 46 [Petrol] or ZI014_PPO = 61 [Liquefied Natural Gas (LNG)] or ZI014_PPO = 62 [Liquefied Petroleum Gas (LPG)] or ZI014_PPO = 74 [Non-solid Hydrocarbon Fuel] or ZI014_PPO = 83 [Petroleum] or ZI014_PPO = 84 [Plastic] or ZI014_PPO = 137 [Petrochemical] or ZI014_PPO = 150 [Fertilizer] or ZI014_PPO = 157 [Petroleum and/or Natural Gas] or ZI014_PPO = 214 [Biodiesel])
Label String:	[ZI014_PPO] "facility"
Characteristics:	2,2 2 (Black, Regular, 6 pt, Lower case)
Label Description:	Hydrocarbon Products Facility / unknown (surface)
Additional Labeling Criteria:	(ZI014_PPO = 999 [Other] or ZI014_PPO = -999999 [No Information])
Label String:	"hydrocarbon facility"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

 hydrocarbon facility

 liquefied natural gas (LNG) facility

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_HydrocarbonProdFacility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Element Type: Point - Simple		
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters:	
	Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria

Hydrocarbons_Field (AA052) (continued)

Surface

Label Description: Hydrocarbons Field / gas (surface)
Additional Labeling Criteria: (PPO = 45 [Gas])

Label String: "gas field"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Label Description: Hydrocarbons Field / unknown (surface)
Additional Labeling Criteria: (PPO = 999 [Other] or PPO = -999999 [No Information])

Label String: "hydrocarbons field"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Ice Cap (BJ099)

Surface

Symbol Information		
	Symbol Graphic Name: AR_Cyan_IceCap	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The surface geometry is filled with the area pattern.	
Element Name: Cyan_AP103Fill		Element Reference: A00016
Element Type: Area - Pattern		
Description: Cyan Ice Cap, Polar Ice, Sabkha Fill		
Color Token: Cyan	Parameters: Area Pattern: See Element: Cyan_AP103 in Annex I Note: Area Pattern #103	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001672	Ice Cap / all (surface)	ALL

Label Information

Label Description: Ice Cap / all (surface)
Additional Labeling Criteria: N/A

Label String: "ice cap"
Characteristics: 31
 31 (Cyan, Bold, Condensed, 10 pt, Lower case)

Symbol Sample



Ice_Cliff (BJ040)

Curve

Ice_Cliff (BJ040) (continued)

Curve

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: LN_Cyan_IceCliff	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature. Ticks point downhill.	
Element Name: Cyan_IceCliff	Element Reference: L00063	Element Type: Line - Complex
Description: Cyan 0.2mm Dashed Line (0.2mm wt, 5.0mm dash, 0.5mm gap) with Ticks (0.1mm wt, 0.5mm long)		
Color Token: Cyan	Parameters: Line Style: Cyan_0.2mm-5mmLenDash-0.5mmGapLine Repeating Point: Cyan_0.1mm-0.5mmLenTick Repeating Point Interval: 0.5mm Note: Tick end is on and at 90 degrees to dashed line, facing downhill	
Element Name: Cyan_0.2mm-5mmLenDash-0.5mmGapLine	Element Reference: L00042	Element Type: Line - Styled
Description: Cyan 0.2mm Dashed Line (0.2mm wt, 5.0mm dash, 0.5mm gap)		
Color Token: Cyan	Parameters: Lineweight: 0.2mm Dash Length: 5.0mm Dash Spacing: 0.5mm	
Element Name: Cyan_0.1mm-0.5mmLenTick	Element Reference: P00055	Element Type: Point - Simple
Description: Cyan 0.5mm length line with a 0.1mm lineweight		
Color Token: Cyan	Parameters: Lineweight: 0.1mm Length: 0.5mm Orientation: Based 90 degrees to line	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001229	Ice Cliff / standard (curve)	(LZN >= 12500)

Symbol Sample



Ice_Peak (BJ060)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Dk-Brown_IcePeak	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of symbol	
Element Name: Dk-Brown-42_0.15mmTickCircle	Element Reference: P00223	Element Type: Point - Simple
Description: Total of eight Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.6mm length ticks with a 0.15mm lineweight extending out from an imaginary 1.5mm diameter circle.		
Color Token: Dk-Brown-42	Parameters: Length: 0.6mm Lineweight: 0.15mm Orientation: Ticks are oriented 45 degrees from each other starting at 0 degrees Note: Center circle diameter: 1.5mm Tick placement: 45 degree increments clockwise starting at 0 degrees from north.	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001230	Ice Peak / non frozen water (point)	(MCC = 84 [Rock] or MCC = 88 [Sand] or MCC = 104 [Soil] or MCC = 999 [Other] or MCC = -999999 [No Information])

Ice_Peak (BJ060) (continued)

Point

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Cyan_IcePeak	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of symbol	
Element Name: Cyan_0.15mm-0.6mmLenTickCircle		Element Reference: P00056
Element Type: Point - Simple		
Description: Total of eight Cyan 0.6mm length ticks with a 0.15mm lineweight extending out from an imaginary 1.5mm diameter circle.		
Color Token: Cyan	Parameters: Length: 0.6mm Lineweight: 0.15mm Orientation: Ticks are oriented 45 degrees from each other starting at 0 degrees Note: Center circle diameter: 1.5mm Tick placement: 45 degree increments clockwise starting at 0 degrees from north.	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001231	Ice Peak / frozen water (point)	(MCC = 103 [Frozen Water])

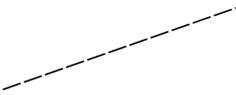
Symbol Sample



Ice_Route (AQ075)

Curve

Symbol Information

Symbol Graphic 	Symbol Graphic Name: LN_Black_IceRoute	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Black_0.2mm-2mmLenDash-0.5mmGapLine		Element Reference: L00032
Element Type: Line - Styled		
Description: Black 0.2mm Dashed Line (0.2mm wt, 2.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters: Lineweight: 0.2mm Dash Length: 2.0mm Dash Spacing: 0.5mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001138	Ice Route / all (curve)	ALL

Label Information

Ice_Route (AQ075) (continued)

Curve

Label Description: Ice Route / all (curve)
Additional Labeling Criteria: N/A

Label String: "ice route"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

----- ice route -----

Ice_Shelf (BJ065)

Surface

Symbol Information

	Symbol Graphic Name: AR_Cyan_IceShelf	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Cyan_0.2mm-2mmLenDash-0.5mmGapLine		Element Reference: L00041
Description: Cyan 0.2mm Dashed Line (0.2mm wt, 2.0mm dash, 0.5mm gap)		
Color Token: Cyan	Parameters: Lineweight: 0.2mm Dash Length: 2.0mm Dash Spacing: 0.5mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001551	Ice Shelf / all (surface)	ALL

Label Information

Label Description: Ice Shelf / all (surface)
Additional Labeling Criteria: N/A

Label String: "limits of ice shelf"
Characteristics: 34
 34 (Cyan, Regular, Italic, 6 pt, Lower case)

Symbol Sample

limits of ice shelf

Industrial_Farm (AL270)

Surface

Symbol Information

	Symbol Graphic Name: AR_Green_IndustrialFarm	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The surface geometry is filled with the area pattern.	

Industrial_Farm (AL270) (continued)

Surface

Element Name: Green_VegetationFill	Element Reference: A00076	Element Type: Area - Pattern
Description: Green (Cyan 100% coincident with Yellow 100%) Vegetation Fill area pattern		
Color Token: Green	Parameters: Area Pattern: See Element: Green_VegetationFill in Annex I Note: Area Pattern #74	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001578	Industrial Farm / standard (surface)	(ARA >= 1562500)

Symbol Sample



Inland_Waterbody (BH082)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Cyan_Lake_Perennial
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry and the area is filled with the screened color.

Element Name: Cyan-31_ScreenFill	Element Reference: A00007	Element Type: Area - Fill
Description: Cyan-31_ScreenFill area fill (Cyan 31% screen, 45 degree angle)		

Color Token: Cyan-31	Parameters: Screen Angle: 45 degrees
-----------------------------	---

Element Name: Cyan_0.2mmSolidLine	Element Reference: L00015	Element Type: Line - Simple
Description: Cyan 0.2mm Solid Line (0.2mm wt)		

Color Token: Cyan	Parameters: Lineweight: 0.2mm
--------------------------	--

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001187	Inland Waterbody / natural shoreline / perennial (surface)	(MNS = 1000 [False] or MNS = -999999 [No Information]) and (Z1024_HYP = 1 [Perennial] or Z1024_HYP = -999999 [No Information])

Label Information

Label Description:	Inland Waterbody / named (surface)
Additional Labeling Criteria:	N/A
Label String:	[Z1005_FNA]
Characteristics:	37 37 (Cyan, Condensed, Italic, 7-16 pt, Upper case)

Inland_Waterbody (BH082) (continued)

Surface

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Cyan_Lake_Dry
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry and the area is filled with the specified pattern.

Element Name: Cyan_DryDrainageFill	Element Reference: A00020	Element Type: Area - Pattern
---	----------------------------------	-------------------------------------

Description: Cyan Dry Drainage, Salt Flat Fill

Color Token: Cyan	Parameters: Area Pattern: See Element: Cyan_DryDrainageFill in Annex I Note: Area Pattern #95
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Element Name: Cyan_0.2mm-2mmLenDash-0.5mmGapLine	Element Reference: L00041	Element Type: Line - Styled
---	----------------------------------	------------------------------------

Description: Cyan 0.2mm Dashed Line (0.2mm wt, 2.0mm dash, 0.5mm gap)

Color Token: Cyan	Parameters: Lineweight: 0.2mm Dash Length: 2.0mm Dash Spacing: 0.5mm
--------------------------	---

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001189	Inland Waterbody / natural shoreline / intermittent, dry (surface)	(MNS = 1000 [False] or MNS = -999999 [No Information]) and (Z1024_HYP = 2 [Intermittent] or Z1024_HYP = 4 [Dry])

Label Information

Label Description:	Inland Waterbody / named (surface)
Additional Labeling Criteria:	N/A
Label String:	[Z1005_FNA]
Characteristics:	37 37 (Cyan, Condensed, Italic, 7-16 pt, Upper case)

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Cyan_Reservoir_Perennial
	Apply Label to Symbol: No
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry and the area is filled with the screened color.

Inland_Waterbody (BH082) (continued)

Surface

Element Name: Cyan-31_ScreenFill	Element Reference: A00007	Element Type: Area - Fill
Description: Cyan-31_ScreenFill area fill (Cyan 31% screen, 45 degree angle)		
Color Token: Cyan-31	Parameters: Screen Angle: 45 degrees	
Element Name: Black_0.1mmSolidLine	Element Reference: L00007	Element Type: Line - Simple
Description: Black 0.1mm Solid Line (0.1mm wt)		
Color Token: Black	Parameters: Lineweight: 0.1mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001190	Inland Waterbody / man-made shoreline / perennial (surface)	(MNS = 1001 [True]) and (ZI024_HYP = 1 [Perennial] or ZI024_HYP = -999999 [No Information])

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Cyan_Reservoir_IntermittentDry
	Apply Label to Symbol: No
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry and the area is filled with the specified pattern.

Element Name: Cyan_LP15Fill	Element Reference: A00021	Element Type: Area - Pattern
Description: Cyan Diagonal Line Fill - 35% coverage, 40L, 45 degree angle lines.		
Color Token: Cyan	Parameters: Area Pattern: See Element: Cyan_LP15Fill in Annex I Screen Angle: 45 degrees Note: Line Pattern #15	
Element Name: Black_0.1mm-2mmLenDash-0.5mmGapLine	Element Reference: L00029	Element Type: Line - Styled
Description: Black 0.1mm Dashed Line (0.1mm wt, 2.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters: Lineweight: 0.1mm Dash Length: 2.0mm Dash Spacing: 0.5mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001191	Inland Waterbody / man-made shoreline / intermittent, dry (surface)	(MNS = 1001 [True]) and (ZI024_HYP = 2 [Intermittent] or ZI024_HYP = 4 [Dry])

Symbol Sample



Installation (AL011)

Surface

Installation (AL011) (continued)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Black_Facility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine		Element Reference: L00210
Element Type: Line - Styled		
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters:	
	Lineweight: 0.1mm	Dash Length: 1.0mm
		Dash Spacing: 0.5mm

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001580	Installation / large area (surface)	(ARA >= 6250000)

Label Information	
Label Description:	Installation / large area (surface)
Additional Labeling Criteria:	N/A
Label String:	"installation"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample
 installation

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Installation	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Element Type: Point - Simple		
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters:	
	Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001651	Installation / small area (surface)	(ARA < 6250000)

Label Information

Installation (AL011) (continued)

Surface

Label Description: Installation / small area (surface)
Additional Labeling Criteria: N/A

Label String: "installation"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ installation

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Installation	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001581	Installation / all (point)	ALL

Label Information

Label Description: Installation / all (point)
Additional Labeling Criteria: N/A

Label String: "installation"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ installation

International_Date_Line (FA110)

Curve

Symbol Information

Symbol Graphic 	Symbol Graphic Name: LN_Black_InternationalDateLine	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	

International_Date_Line (FA110) (continued)

Curve

Element Name: Black_0.5mm-6mmLenDash-3.8mmGapLine	Element Reference: L00137	Element Type: Line - Styled
Description: Black 0.5mm Dashed Line (0.5mm wt, 6.0mm dash, 3.8mm gap)		
Color Token: Black	Parameters:	
	Lineweight: 0.5mm	Dash Length: 6.0mm
		Dash Spacing: 3.8mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001674	International Date Line / all (curve)	ALL

Label Information

Label Description:	International Date Line / all (curve)
Additional Labeling Criteria:	N/A
Label String:	"INTERNATIONAL DATE LINE" "(Monday)" "(Sunday)"
Characteristics:	21,42,42,42 42,42,42 21 (Black, Condensed, 8 pt, Upper case) 42 (Black, Condensed, 8 pt, Mixed case)

Symbol Sample

INTERNATIONAL DATE LINE (Monday)
(Sunday)

Island (BA030)

Surface

Symbol Information	
Symbol Graphic <i>[Z1005_FNA]</i>	Symbol Graphic Name: AR_Island
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Dynamic text label only. No Graphic Parameters.
AREA LABEL ONLY	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001164	Island / all (surface)	ALL

Label Information

Label Description:	Island / all (surface)
Additional Labeling Criteria:	N/A
Label String:	[Z1005_FNA]
Characteristics:	12 12 (Black, Regular, Italic 10-16 pt, Upper case)

Island (BA030) (continued)

Surface

Symbol Sample

KODIAK ISLAND

Point

Symbol Information

Symbol Graphic <i>[ZI005_FNA]</i>	Symbol Graphic Name: PT_Island
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Dynamic text label only. No Graphic Parameters.
POINT LABEL ONLY	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001673	Island / all (point)	ALL

Label Information

Label Description:	Island / all (point)
Additional Labeling Criteria:	N/A
Label String:	[ZI005_FNA]
Characteristics:	6 6 (Black, Condensed, Italic, 6-10 pt, Mixed case)

Symbol Sample

Maui

Isogonic_Line (No Code)

Curve

Symbol Information

Symbol Graphic 	Symbol Graphic Name: LN_Blue072_IsogonicLine	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Blue072_0.3mm-3.8mmLenDash-1.2mmGapLine	Element Reference: L00324	Element Type: Line - Styled
Description: Blue072 Dashed Line (0.3mm wt, 3.8mm dash, 1.2mm gap)		
Color Token: Blue072	Parameters: Lineweight: 0.3mm	Dash Length: 3.8mm Dash Spacing: 1.2mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001302	Isogonic Line / all (curve)	ALL

Isogonic_Line (No Code) (continued)

Curve

Label Information

Label Description: Isogonic Line / all (curve)
Additional Labeling Criteria: N/A

Label String: Magnetic Variation
Characteristics: 70
 70 (Blue072, Regular, Bold, Italic, 12 pt, Upper case)

Symbol Sample

— — — — — 4°W — — — — —

Land_Aerodrome (GB005)

Point

Symbol Information

	Symbol Graphic Name: PT_Blue072_Aerodrome_Major
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature and adjusted to match the ARP coordinate listed in the AAFIF. Origin: Center of filled circle
Element Name: Blue072_5.0mmCircleFilled	
Element Reference: P00217	
Element Type: Point - Simple	
Description: Blue072 5.0mm diameter filled circle	
Color Token: Blue072	Parameters:
	Diameter: 5.0mm
	Note: Circle is filled

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001317	Land Aerodrome / major (point)	(FPT = 1 [Major])

Label Information

Label Description: Land Aerodrome / major / active (point)
Additional Labeling Criteria: (ASY = 1 [A - Active Civilian] or ASY = 2 [B - Active Joint (Civilian/Military)] or ASY = 3 [C - Active Military] or ASY = 4 [D - Active (with less than the minimum facilities)] or ASY = 6 [F - Highway Strip] or ASY = -999999 [No Information]) and (PCF = 2 [Intact] or PCF = 3 [Unmaintained] or PCF = 4 [Damaged] or PCF = 5 [Dismantled] or PCF = 6 [Destroyed] or PCF = -999999 [No Information])
 See Runway (GB055) for additional label information as shown in the Symbol Samples

Label String: [ZI005_FNA]
Characteristics: 65
 65 (Blue072, Condensed, 8 pt, Upper case)

Label Description: Land Aerodrome / major / abandoned (point)
Additional Labeling Criteria: (ASY = 5 [E - Abandoned or Closed (with usable runways or landing areas)]) and (PCF = 2 [Intact] or PCF = 3 [Unmaintained] or PCF = 4 [Damaged] or PCF = 5 [Dismantled] or PCF = 6 [Destroyed] or PCF = -999999 [No Information])
 See Runway (GB055) for additional label information as shown in the Symbol Samples

Label String: "ABANDONED"
 [ZI005_FNA]
Characteristics: 65,65
 65 (Blue072, Condensed, 8 pt, Upper case)

Land_Aerodrome (GB005) (continued)

Point

Label Description: Land Aerodrome / major / unusable (point)
Additional Labeling Criteria: (ASY = 7 [G - Unusable for landing or take-off] or ASY = 12 [X - Decoy]) and (PCF = 2 [Intact] or PCF = 3 [Unmaintained] or PCF = 4 [Damaged] or PCF = 5 [Dismantled] or PCF = 6 [Destroyed] or PCF = -999999 [No Information])
 See Runway (GB055) for additional label information as shown in the Symbol Samples

Label String: "NOT USABLE"
 [ZI005_FNA]

Characteristics: 65,65
 65 (Blue072, Condensed, 8 pt, Upper case)

Label Description: Land Aerodrome / major / construction (point)
Additional Labeling Criteria: (PCF = 1 [Construction])
 See Runway (GB055) for additional label information as shown in the Symbol Samples

Label String: "CONSTRUCTION"
 [ZI005_FNA]

Characteristics: 65,65
 65 (Blue072, Condensed, 8 pt, Upper case)

Symbol Sample



Symbol Information

	Symbol Graphic Name: PT_Blue072_Aerodrome_Minor		
	Apply Label to Symbol: Yes		
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature and adjusted to match the ARP coordinate listed in the AAFIF. Origin: Center of open circle		
Element Name: Blue072_3.1mmOpenCircle		Element Reference: P00218	Element Type: Point - Simple
Description: Blue072 3.1mm diameter open circle with 0.5mm lineweight			
Color Token: Blue072	Parameters: Diameter: 3.1mm Lineweight: 0.5mm		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001675	Land Aerodrome / minor (point)	(FPT = 2 [Minor and Hard] or FPT = 3 [Minor and Soft] or FPT = 4 [Minor] or FPT = 999 [Other] or FPT = -999999 [No Information])

Label Information

Label Description: Land Aerodrome / minor / active (point)
Additional Labeling Criteria: (ASY = 1 [A - Active Civilian] or ASY = 2 [B - Active Joint (Civilian/Military)] or ASY = 3 [C - Active Military] or ASY = 4 [D - Active (with less than the minimum facilities)] or ASY = 6 [F - Highway Strip] or ASY = -999999 [No Information]) and (PCF = 2 [Intact] or PCF = 3 [Unmaintained] or PCF = 4 [Damaged] or PCF = 5 [Dismantled] or PCF = 6 [Destroyed] or PCF = -999999 [No Information])
 See Runway (GB055) for additional label information as shown in the Symbol Samples

Label String: [ZI005_FNA]

Characteristics: 65
 65 (Blue072, Condensed, 8 pt, Upper case)

Land_Aerodrome (GB005) (continued)

Point

Label Description: Land Aerodrome / minor / abandoned (point)
Additional Labeling Criteria: (ASY = 5 [E - Abandoned or Closed (with usable runways or landing areas)]) and (PCF = 2 [Intact] or PCF = 3 [Unmaintained] or PCF = 4 [Damaged] or PCF = 5 [Dismantled] or PCF = 6 [Destroyed] or PCF = -999999 [No Information])
 See Runway (GB055) for additional label information as shown in the Symbol Samples

Label String: "ABANDONED"
 [Z1005_FNA]

Characteristics: 65,65
 65 (Blue072, Condensed, 8 pt, Upper case)

Label Description: Land Aerodrome / minor / unusable (point)
Additional Labeling Criteria: (ASY = 7 [G - Unusable for landing or take-off] or ASY = 12 [X - Decoy]) and (PCF = 2 [Intact] or PCF = 3 [Unmaintained] or PCF = 4 [Damaged] or PCF = 5 [Dismantled] or PCF = 6 [Destroyed] or PCF = -999999 [No Information])
 See Runway (GB055) for additional label information as shown in the Symbol Samples

Label String: "NOT USABLE"
 [Z1005_FNA]

Characteristics: 65,65
 65 (Blue072, Condensed, 8 pt, Upper case)

Label Description: Land Aerodrome / minor / construction (point)
Additional Labeling Criteria: (PCF = 1 [Construction])
 See Runway (GB055) for additional label information as shown in the Symbol Samples

Label String: "CONSTRUCTION"
 [Z1005_FNA]

Characteristics: 65,65
 65 (Blue072, Condensed, 8 pt, Upper case)

Symbol Sample



Land_Subject_To_Inundation (BH090)

Surface

Symbol Information		
	Symbol Graphic Name: AR_Cyan_LSI	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The surface geometry is filled with the area pattern.	
Element Name: Cyan_LSIFill		Element Reference: A00015
Description: Cyan Land Subject to Inundation Fill		
Color Token: Cyan	Parameters:	
	Area Pattern: See Element: Cyan_LSIFill in Annex I	
	Note: Area Pattern #10	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001192	Land Subject To Inundation / all (surface)	ALL

Land_Subject_To_Inundation (BH090) (continued)

Surface

Symbol Sample



Land_Water_Boundary (BA010)

Curve

Symbol Information

	Symbol Graphic Name: LN_Cyan_LandWaterBoundary_Dry	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Cyan_0.2mmSolidLine		Element Reference: L00015
Description: Cyan 0.2mm Solid Line (0.2mm wt)		
Color Token: Cyan	Parameters: Lineweight: 0.2mm	

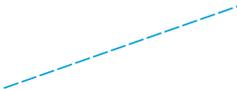
Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001162	Land Water Boundary / other (curve)	(SLT = 10 [Stony] or SLT = 11 [Building Rubble] or SLT = 12 [Erosion Rubble] or SLT = 13 [Sandy] or SLT = 14 [Shingly] or 16 [Coral] or SLT = 17 [Ice] or SLT = 18 [Mud] or SLT = 999 [Other] or SLT = -999999 [No Information])

Symbol Sample



Symbol Information

	Symbol Graphic Name: LN_Cyan_LandWaterBoundary_Wet	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Cyan_0.2mm-2mmLenDash-0.5mmGapLine		Element Reference: L00041
Description: Cyan 0.2mm Dashed Line (0.2mm wt, 2.0mm dash, 0.5mm gap)		
Color Token: Cyan	Parameters: Lineweight: 0.2mm	Dash Length: 2.0mm Dash Spacing: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001163	Land Water Boundary / mangrove, marsh (curve)	(SLT = 6 [Mangrove] or SLT = 8 [Marshy])

Symbol Sample



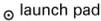
Launch_Pad (GB040)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_LaunchPad	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of dot	
Element Name: Black_OpenCircleWithDot		Element Reference: P00010
Element Type: Point - Simple		
Description: Black 1.25mm diameter open circle with a 0.15mm lineweight and a black filled 0.3mm diameter dot in the center		
Color Token: Black	Parameters: Diameter: 1.25mm Lineweight: 0.15mm Note: 0.3mm diameter dot in the center of the open circle	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001315	Launch Pad / non-obstruction (point)	(HGT < 61)

Label Information	
Label Description:	Launch Pad / all (point)
Additional Labeling Criteria:	N/A
Label String:	"launch pad"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample


Lighthouse (BC050)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Lighthouse	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of the dot	
Element Name: Black_Lighthouse		Element Reference: P00135
Element Type: Point - Shape		
Description: Black lighthouse		
Color Token: Black	Parameters: Detail: Black_Lighthouse Note: See Element: Black_Lighthouse in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001171	Lighthouse / non-obstruction (point)	(HGT < 61)

Lighthouse (BC050) (continued)

Point

Symbol Sample



Lock (BI030)

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Lock	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Apex of each "V" is centered on the drain and points upstream. Origin: Center of symbol	
Element Name: Black_PT_Lock		Element Reference: P00035
Element Type: Point - Shape		
Description: Two black "V" spaced 0.5mm apart with length of each leg 0.8mm and a 0.1mm linewidth that intersect at a 90 degree angle		
Color Token: Black	Parameters:	
	Length: 0.8mm	Lineweight: 0.1mm
	Orientation: Apex is where the lines connect to form a "V"	
	Note: Angle between legs: 90 degrees	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001223	Lock / all (point)	ALL

Symbol Sample



Maritime_Navigation_Light (BC040)

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Blue072_MarineNavigationLight	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled circle	
Element Name: Blue072_1.5mmCircleFilled		Element Reference: P00220
Element Type: Point - Simple		
Description: Blue072 1.5mm diameter filled circle		
Color Token: Blue072	Parameters:	
	Diameter: 1.5mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001053	Maritime Navigation Light / all (point)	ALL

Label Information

Maritime_Navigation_Light (BC040) (continued)

Point

Label Description: Maritime Navigation Light / flashing (point)
Additional Labeling Criteria: (CHA = 1 [Alternating] or CHA = 4 [Ultra Quick-flashing] or CHA = 6 [Fixed and Flashing] or CHA = 8 [Flashing] or CHA = 11 [Interrupted Quick-flashing] or CHA = 12 [Interrupted Ultra Quick-flashing] or CHA = 13 [Interrupted Very Quick-flashing] or CHA = 14 [Isophase] or CHA = 15 [Long-flashing] or CHA = 16 [Morse Code] or CHA = 17 [Occulting] or CHA = 28 [Group Quick-flashing] or CHA = 29 [Group Very Quick-flashing] or CHA = 44 [Quick-flashing] or CHA = 45 [Very Quick-flashing] or CHA = 46 [Flashing with Long-flash] or CHA = 47 [Occulting Flashing] or CHA = 48 [Fixed Long-flashing] or CHA = 49 [Occulting Alternating] or CHA = 50 [Long-flashing Alternating] or CHA = 51 [Flashing Alternating] or CHA = 57 [Quick-flashing with Long-flash] or CHA = 58 [Very Quick-flashing with Long-flash] or CHA = 59 [Ultra Quick-flashing with Long-flash] or CHA = 60 [Fixed with Alternating Flashing])

Label String: "FL"
Characteristics: 29
 29 (Blue072, Condensed, 7 pt, Upper case)

Label Description: Maritime Navigation Light / fixed (point)
Additional Labeling Criteria: (CHA = 5 [Fixed])

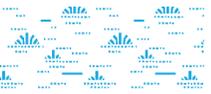
Label String: "F"
Characteristics: 29
 29 (Blue072, Condensed, 7 pt, Upper case)

Symbol Sample



Marsh (ED010)

Surface

Symbol Information		
	Symbol Graphic Name: AR_Cyan_Marsh	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The surface geometry is filled with the area pattern.	
Element Name: Cyan_AP12_Fill	Element Reference: A00018	Element Type: Area - Pattern
Description: Cyan Bog, Marsh Fill		
Color Token: Cyan	Parameters: Area Pattern: See Element: Cyan_AP12_Fill in Annex I Note: Area Pattern #12	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001312	Marsh / all (surface)	ALL

Symbol Sample



Memorial_Monument (AL130)

Point

Memorial_Monument (AL130) (continued)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Monument	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of triangle	
Element Name: Black_MemorialMonument		Element Reference: P00136
Description: Black memorial monument		
Color Token: Black	Parameters: Detail: Black_MemorialMonument Note: See Element: Black_MemorialMonument in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001087	Memorial Monument / non-obstruction / landmark (point)	(HGT < 61) and (LMC = 1001 [True])

Symbol Sample		
		

Military_Installation (SU001)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Black_MilitaryInstallation	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine		Element Reference: L00210
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters: Lineweight: 0.1mm Dash Length: 1.0mm Dash Spacing: 0.5mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001324	Military Installation / large area (surface)	(ARA >= 6250000)

Label Information	
Label Description:	Military Installation / named (surface)
Additional Labeling Criteria:	(ZI005_FNA <> "UNK") and (ZI005_FNA is not null)
Label String:	[ZI005_FNA]
Characteristics:	13 13 (Black, Regular, 6 pt, Mixed case)

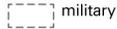
Military_Installation (SU001) (continued)

Surface

Label Description: Military Installation / unnamed (surface)
Additional Labeling Criteria: (ZI005_FNA = "UNK") or (ZI005_FNA is null)

Label String: "military"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_MilitaryInstallation	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Element Type: Point - Simple		
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001652	Military Installation / small area (surface)	(ARA < 6250000)

Label Information

Label Description: Military Installation / named (surface)
Additional Labeling Criteria: (ZI005_FNA <> "UNK") and (ZI005_FNA is not null)

Label String: [ZI005_FNA]
Characteristics: 13
 13 (Black, Regular, 6 pt, Mixed case)

Label Description: Military Installation / unnamed (surface)
Additional Labeling Criteria: (ZI005_FNA = "UNK") or (ZI005_FNA is null)

Label String: "military"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Point

Military_Installation (SU001) (continued)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_MilitaryInstallation	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001325	Military Installation / all (point)	ALL

Label Information	
Label Description:	Military Installation / named (point)
Additional Labeling Criteria:	(Z1005_FNA <> "UNK") and (Z1005_FNA is not null)
Label String:	[Z1005_FNA]
Characteristics:	13 13 (Black, Regular, 6 pt, Mixed case)
Label Description:	Military Installation / unnamed (point)
Additional Labeling Criteria:	(Z1005_FNA = "UNK") or (Z1005_FNA is null)
Label String:	"military"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample	
	

Moraine (BJ020)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Dk-Brown_Moraine	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The surface geometry is filled with the area pattern.	
Element Name: Dk-Brown-42_AP99_Fill		Element Reference: A00081
Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) Moraine, Sand and Gravel Fill		
Color Token: Dk-Brown-42	Parameters: Area Pattern: See Element: Dk-Brown-42_AP99_Fill in Annex I Note: Area Pattern #99	

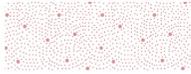
Symbol Portrayal Rules		
Rule Ref	Description	Criteria

Moraine (BJ020) (continued)

Surface

R001227 Moraine / all (surface) ALL

Symbol Sample



Mountain_Pass (DB150)

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_MountainPass	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is oriented to the contours. Origin: Center of symbol	
Element Name: Black_MountainPass		Element Reference: P00029
Description: Black mountain pass		
Color Token: Black	Parameters: Detail: Black_MountainPass Note: See Element: Black_MountainPass in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001255	Mountain Pass / all (point)	ALL

Label Information

Label Description: Mountain Pass / all (point)
Additional Labeling Criteria: ZVH value is converted from meters to feet.

Label String: [ZI005_FNA]
 [ZVH]
Characteristics: 79,72
 79 (Dk-Brown, Condensed, 6 pt, Mixed case)
 72 (Black, Condensed, Bold, 7 pt, Lower case)

Symbol Sample



Munition_Storage_Facility (AM065)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Black_MunitionStorageFacility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	

Munition_Storage_Facility (AM065) (continued)

Surface

Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine	Element Reference: L00210	Element Type: Line - Styled
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters: Lineweight: 0.1mm Dash Length: 1.0mm Dash Spacing: 0.5mm	

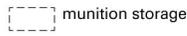
Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001589	Munition Storage Facility / above ground / large area (surface)	(ARA >= 6250000) and (LUN = 1000 [False])

Label Information

Label Description:	Munition Storage Facility / large area (surface)
Additional Labeling Criteria:	N/A
Label String:	"munition storage"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_MunitionStorageFacility
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square

Element Name: Black_1.0mmSquareFilled	Element Reference: P00123	Element Type: Point - Simple
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001636	Munition Storage Facility / above ground / small area (surface)	(ARA < 6250000) and (LUN = 1000 [False])

Label Information

Label Description:	Munition Storage Facility / small area (surface)
Additional Labeling Criteria:	N/A
Label String:	"munition storage"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Munition_Storage_Facility (AM065) (continued)

Surface

Symbol Sample

■ munition storage

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_MunitionStorageFacility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Element Type: Point - Simple		
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters:	
	Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001590	Munition Storage Facility / above ground (point)	(LUN = 1000 [False])

Label Information

Label Description: Munition Storage Facility / all (point)
Additional Labeling Criteria: N/A

Label String: "munition storage"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ munition storage

Named_Location (ZD040)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_NamedLocation	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Dynamic text label only. No Graphic Parameters.	
POINT LABEL ONLY		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001323	Named Location / all (point)	(NLT = 1 [Area] or NLT = 2 [Locality] or NLT = 3 [Region] or NLT = 4 [Arctic Land] or NLT = 5 [Populated Locality])

Named_Location (ZD040) (continued)

Point

Label Information

Label Description: Named Location / all (point)
Additional Labeling Criteria: N/A

Label String: [Z1005_FNA]
Characteristics: 45
 45 (Black, Light Condensed, 6-16 pt, Upper case)

Symbol Sample

BADLANDS

Oasis (EC020)

Surface

Symbol Information

<p>Symbol Graphic</p> 	Symbol Graphic Name: AR_Green_Oasis	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Green_0.2mmSolidLine		Element Reference: L00281
Description: Green (Cyan 100% coincident with Yellow 100%) 0.2mm Solid Line (0.2mm wt)		
Color Token: Green	Parameters: Lineweight: 0.2mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001310	Oasis / all (surface)	ALL

Label Information

Label Description: Oasis / all (surface)
Additional Labeling Criteria: N/A

Label String: "oasis"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

 oasis

Point

Oasis (EC020) (continued)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Green_Oasis	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled circle	
Element Name: Green_1.0mmFilledCircle		Element Reference: P00209
Element Type: Point - Simple		
Description: Green (Cyan 100% coincident with Yellow 100%) 1.0mm diameter filled circle		
Color Token: Green	Parameters: Diameter: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001654	Oasis / all (point)	ALL

Label Information	
Label Description:	Oasis / all (point)
Additional Labeling Criteria:	N/A
Label String:	"oasis"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample


Offshore_Construction (BD115)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_OffshorePlatform	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of dot	
Element Name: Black_OffshorePlatform		Element Reference: P00163
Element Type: Point - Simple		
Description: Black open square with all sides 1.2mm with a 0.1mm lineweight and a black filled 0.2mm diameter circle centered inside		
Color Token: Black	Parameters: Diameter: 0.2mm Length: 1.2mm Lineweight: 0.1mm Note: 0.2mm diameter dot in the center of the open square	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001176	Offshore Construction / platform / non-obstruction (point)	(OCS = 1 [Platform]) and (HGT < 61)

Label Information

Offshore_Construction (BD115) (continued)

Point

Label Description: Offshore Construction / non-obstruction (point)
Additional Labeling Criteria: N/A

Label String: "platform"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

□ platform

Orchard (EA040)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Green_Orchard	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The surface geometry is filled with the area pattern.	
Element Name: Green_VegetationFill		Element Reference: A00076
Element Type: Area - Pattern		
Description: Green (Cyan 100% coincident with Yellow 100%) Vegetation Fill area pattern		
Color Token: Green	Parameters: Area Pattern: See Element: Green_VegetationFill in Annex I Note: Area Pattern #74	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001305	Orchard / standard (surface)	(ARA >= 1562500)

Symbol Sample



Park (AK120)

Surface

Symbol Information	
Symbol Graphic 	Symbol Graphic Name: AR_Black_Park
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.

Park (AK120) (continued)

Surface

Element Name: Black_Park-Outline		Element Reference: L00104	Element Type: Line - Complex
Description: Black 0.2mm Dashed Line (0.2mm wt, 6.5mm dash, 2.5mm gap) with a Black Dot (0.25mm diameter) between dashes			
Color Token: Black	Parameters: Line Style: Black_0.2mm-6.5mmLenDash-2.5mmGapLine Repeating Point: Black_0.25mmFilledDot Repeating Point Interval: center dot in space between dashes		
Element Name: Black_0.2mm-6.5mmLenDash-2.5mmGapLine		Element Reference: L00034	Element Type: Line - Styled
Description: Black 0.2mm Dashed Line (0.2mm wt, 6.5mm dash, 2.5mm gap)			
Color Token: Black	Parameters: Lineweight: 0.2mm Dash Length: 6.5mm Dash Spacing: 2.5mm		
Element Name: Black_0.25mmFilledDot		Element Reference: P00047	Element Type: Point - Simple
Description: Black 0.25mm diameter filled circle			
Color Token: Black	Parameters: Diameter: 0.25mm		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001059	Park / standard (surface)	(ARA >= 1562500)

Label Information

Label Description:	Park / all (surface)
Additional Labeling Criteria:	N/A
Label String:	"park"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Particle Accelerator (AL140)

Curve

Symbol Information	
	Symbol Graphic Name: LN_Black_ParticleAccelerator
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.
Element Name: Black_0.5mmSolidLine	
Element Reference: L00014	
Element Type: Line - Simple	
Description: Black 0.5mm Solid Line (0.5mm wt)	
Color Token: Black	Parameters: Lineweight: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001597	Particle Accelerator / all (curve)	ALL

Label Information

Particle_Accelerator (AL140) (continued)

Curve

Label Description: Particle Accelerator / all (curve)
Additional Labeling Criteria: N/A

Label String: "particle accelerator"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

particle accelerator

Pipeline (AQ113)

Curve

Symbol Information		
	Symbol Graphic Name: LN_Black_Pipeline_NotWaterOnSurface	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Black_0.15mmSolidLine	Element Reference: L00008	Element Type: Line - Simple
Description: Black 0.15mm Solid Line (0.15mm wt)		
Color Token: Black	Parameters: Lineweight: 0.15mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001329	Pipeline / on surface / not water (curve)	(LOC = 44 [On Surface] or LOC = -999999 [No Information]) and (PPO = 16 [Chemical] or PPO = 45 [Gas] or PPO = 46 [Petrol] or PPO = 83 [Petroleum] or PPO = 101 [Sewage] or PPO = 146 [Heating Steam and/or Water] or PPO = 999 [Other] or PPO = -999999 [No Information])

Label Information

Label Description: Pipeline / on surface / not water (curve)
Additional Labeling Criteria: N/A

Label String: "pipeline"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

pipeline

Symbol Information	
	Symbol Graphic Name: LN_Cyan_Pipeline_WaterOnSurface
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.

Pipeline (AQ113) (continued)

Curve

Element Name: Cyan_0.15mmSolidLine	Element Reference: L00245	Element Type: Line - Simple
Description: Cyan 0.15mm Solid Line (0.15mm wt)		
Color Token: Cyan	Parameters: Lineweight: 0.15mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001330	Pipeline / on surface / water (curve)	(LOC = 44 [On Surface] or LOC = -999999 [No Information]) and (PPO = 122 [Water])

Label Information

Label Description:	Pipeline / on surface / water (curve)
Additional Labeling Criteria:	N/A
Label String:	"pipeline"
Characteristics:	34 34 (Cyan, Regular, Italic, 6 pt, Lower case)

Symbol Sample

pipeline

Symbol Information

	Symbol Graphic Name: LN_Black_Pipeline_NotWaterBelowSurface
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.

Element Name: Black_0.15mm-1.0mmLenDash-0.5mmGapLine	Element Reference: L00257	Element Type: Line - Styled
Description: Black 0.15mm Dashed Line (0.15mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters: Lineweight: 0.15mm	Dash Length: 1.0mm Dash Spacing: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001331	Pipeline / below ground surface / not water (curve)	(LOC = 40 [Below Ground Surface]) and (PPO = 16 [Chemical] or PPO = 45 [Gas] or PPO = 46 [Petrol] or PPO = 83 [Petroleum] or PPO = 101 [Sewage] or PPO = 146 [Heating Steam and/or Water] or PPO = 999 [Other] or PPO = -999999 [No Information])

Label Information

Label Description:	Pipeline / below surface / not water (curve)
Additional Labeling Criteria:	N/A
Label String:	"pipeline"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Pipeline (AQ113) (continued)

Curve

Symbol Sample

pipeline

Symbol Information		
	Symbol Graphic Name: LN_Cyan_Pipeline_WaterBelowSurface	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Cyan_0.15mm-1mmLenDash-0.5mmGapLine	Element Reference: L00234	Element Type: Line - Styled
Description: Cyan 0.15mm Dashed Line (0.15mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Cyan	Parameters: Lineweight: 0.15mm	Dash Length: 1.0mm Dash Spacing: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001332	Pipeline / below ground surface / water (curve)	(LOC = 40 [Below Ground Surface]) and (PPO = 122 [Water])

Label Information

Label Description: Pipeline / below surface / water (curve)
Additional Labeling Criteria: N/A

Label String: "pipeline"
Characteristics: 34
 34 (Cyan, Regular, Italic, 6 pt, Lower case)

Symbol Sample

pipeline

Symbol Information	
	Symbol Graphic Name: LN_Black_Pipeline_NotWaterElevated
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature. Point symbols are added at each end.

Pipeline (AQ113) (continued)

Curve

Element Name: Black_Pipeline (Other)		Element Reference: L00068	Element Type: Line - Complex
Description: Black 0.15mm Solid Line with 'V' (0.2mm wt, 0.7mm long)			
Color Token: Black	Parameters: Line Style: Black_0.15mmSolidLine Fix at Start: Black_0.2mm-0.7mmLenV Fix at End: Black_0.2mm-0.7mmLenV Note: Origin: Apex of 'V' touches pipeline ends with "legs" of "V" facing away		
Element Name: Black_0.15mmSolidLine		Element Reference: L00008	Element Type: Line - Simple
Description: Black 0.15mm Solid Line (0.15mm wt)			
Color Token: Black	Parameters: Lineweight: 0.15mm		
Element Name: Black_0.2mm-0.7mmLenV		Element Reference: P00045	Element Type: Point - Simple
Description: Black "V" length of each leg is 0.7mm with a 0.2mm lineweight that intersect at a 90 degree angle			
Color Token: Black	Parameters: Lineweight: 0.2mm Length: 0.7mm Orientation: Apex is where the lines connect to form a "V" Note: Angle between legs: 90 degrees		
Element Name: Black_0.2mm-0.7mmLenV		Element Reference: P00045	Element Type: Point - Simple
Description: Black "V" length of each leg is 0.7mm with a 0.2mm lineweight that intersect at a 90 degree angle			
Color Token: Black	Parameters: Lineweight: 0.2mm Length: 0.7mm Orientation: Apex is where the lines connect to form a "V" Note: Angle between legs: 90 degrees		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001333	Pipeline / above surface / not water (curve)	(LOC = 45 [Above Surface]) and (PPO = 16 [Chemical] or PPO = 45 [Gas] or PPO = 46 [Petrol] or PPO = 83 [Petroleum] or PPO = 101 [Sewage] or PPO = 146 [Heating Steam and/or Water] or PPO = 999 [Other] or PPO = -999999 [No Information])

Label Information

Label Description:	Pipeline / above surface / not water (curve)
Additional Labeling Criteria:	N/A
Label String:	"pipeline"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: LN_Cyan_Pipeline_WaterElevated
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature. Point symbols are added at each end.

Pipeline (AQ113) (continued)

Curve

Element Name: Cyan_Pipeline (Water)		Element Reference: L00069	Element Type: Line - Complex
Description: Cyan 0.15mm Solid Line with 'V' (0.2mm wt, 0.7mm long)			
Color Token: Cyan	Parameters: Line Style: Cyan_0.15mmSolidLine Fix at Start: Cyan_0.2mm-0.7mmLenV Fix at End: Cyan_0.2mm-0.7mmLenV Note: Origin: Apex of 'V' touches pipeline ends with "legs" of "V" facing away		
Element Name: Cyan_0.15mmSolidLine		Element Reference: L00245	Element Type: Line - Simple
Description: Cyan 0.15mm Solid Line (0.15mm wt)			
Color Token: Cyan	Parameters: Lineweight: 0.15mm		
Element Name: Cyan_0.2mm-0.7mmLenV		Element Reference: P00058	Element Type: Point - Simple
Description: Cyan "V" length of each leg is 0.7mm with a 0.2mm lineweight that intersect at a 90 degree angle			
Color Token: Cyan	Parameters: Lineweight: 0.2mm Length: 0.7mm Orientation: Apex is where the lines connect to form a "V" Note: Angle between legs: 90 degrees		
Element Name: Cyan_0.2mm-0.7mmLenV		Element Reference: P00058	Element Type: Point - Simple
Description: Cyan "V" length of each leg is 0.7mm with a 0.2mm lineweight that intersect at a 90 degree angle			
Color Token: Cyan	Parameters: Lineweight: 0.2mm Length: 0.7mm Orientation: Apex is where the lines connect to form a "V" Note: Angle between legs: 90 degrees		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001334	Pipeline / above surface / water (curve)	(LOC = 45 [Above Surface]) and (PPO = 122 [Water])

Label Information

Label Description:	Pipeline / above surface / water (curve)
Additional Labeling Criteria:	N/A
Label String:	"pipeline"
Characteristics:	34 34 (Cyan, Regular, Italic, 6 pt, Lower case)

Symbol Sample



Polar Ice (BJ080)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Cyan_PolarIce	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The surface geometry is filled with the area pattern.	
Element Name: Cyan_AP103Fill		Element Reference: A00016
Description: Cyan Ice Cap, Polar Ice, Sabkha Fill		
Color Token: Cyan	Parameters: Area Pattern: See Element: Cyan_ AP103 in Annex I Note: Area Pattern #103	

Polar Ice (BJ080) (continued)

Surface

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001599	Polar Ice / all (surface)	ALL

Label Information

Label Description: Polar Ice / all (surface)
Additional Labeling Criteria: N/A

Label String: "polar Ice"
Characteristics: 31
 31 (Cyan, Bold, Condensed, 10 pt, Lower case)

Symbol Sample



Port (BB009)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Black_Port	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine		Element Reference: L00210
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters:	
	Lineweight: 0.1mm	Dash Length: 1.0mm
		Dash Spacing: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001600	Port / large area (surface)	(ARA >= 6250000)

Label Information

Label Description: Port / large area (surface)
Additional Labeling Criteria: N/A

Label String: "port"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Port (BB009) (continued)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Port	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001220	Port / small area (surface)	(ARA < 6250000)

Label Information	
Label Description:	Port / small area (surface)
Additional Labeling Criteria:	N/A
Label String:	"port"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample


Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Port	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001601	Port / landmark (point)	(LMC = 1001 [True])

Label Information

Port (BB009) (continued)

Point

Label Description: Port / all (point)
Additional Labeling Criteria: N/A

Label String: "port"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ port

Power_Substation (AD030)

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_PowerSubstation
	Apply Label to Symbol: No
	Symbol Placement Instructions: Origin: Center of filled square
Element Name: Black_FilledPowerSubstation	
Element Reference: P00228	
Element Type: Point - Shape	
Description: Black filled power substation	
Color Token: Black	Parameters:
	Detail: Black_FilledPowerSubstation
	Note: See Element: Black_FilledPowerSubstation in Annex H for detailed drawing instructions.

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001298	Power Substation / landmark (point)	(LMC = 1001 [True])

Symbol Sample

⚡

Pumping_Station (AQ116)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_PumpingStation
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square
Element Name: Black_1.0mmSquareFilled	
Element Reference: P00123	
Element Type: Point - Simple	
Description: Black filled square with all sides 1.0mm	
Color Token: Black	Parameters:
	Length: 1.0mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
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Pumping_Station (AQ116) (continued)

Surface

R001142 Pumping Station / all (surface) ALL

Label Information

Label Description: Pumping Station / all (surface)
Additional Labeling Criteria: N/A

Label String: "pumping station"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ pumping station

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_PumpingStation	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001143	Pumping Station / all (point)	ALL

Label Information

Label Description: Pumping Station / all (point)
Additional Labeling Criteria: N/A

Label String: "pumping station"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ pumping station

Racetrack (AK130)

Curve

Racetrack (AK130) (continued)

Curve

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: LN_Black_Racetrack	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Black_0.4mmSolidLine	Element Reference: L00013	Element Type: Line - Simple
Description: Black 0.4mm Solid Line (0.4mm wt)		
Color Token: Black	Parameters: Lineweight: 0.4mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001060	Racetrack / all (curve)	ALL

Label Information	
Label Description:	Racetrack / all (curve)
Additional Labeling Criteria:	N/A
Label String:	"racetrack"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample


Radar_Station (AT045)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_RadarStation	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled	Element Reference: P00123	Element Type: Point - Simple
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001603	Radar Station / non-obstruction (surface)	(HGT < 61)

Label Information

Radar_Station (AT045) (continued)

Surface

Label Description: Radar Station / all (surface)
Additional Labeling Criteria: N/A

Label String: "radar station"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ radar station

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_RadarStation	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001159	Radar Station / non-obstruction (point)	(HGT < 61)

Label Information

Label Description: Radar Station / non-obstruction (point)
Additional Labeling Criteria: N/A

Label String: "radar station"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ radar station

Railway (AN010)

Curve

Symbol Information

Symbol Graphic 	Symbol Graphic Name: LN_Black_Railway_Multiple	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	

Railway (AN010) (continued)

Curve

Element Name: Black_Railway (DoubleNormalGaugeNon-electric)	Element Reference: L00072	Element Type: Line - Complex
Description: Black 0.3mm Solid Line with Double Ticks (0.15mm wt, 1.5mm long)		
Color Token: Black	Parameters: Line Style: Black_0.3mmSolidLine Repeating Point: Black_0.15mm-1.5mmLenTick Repeating Point 2: Black_0.15mm-1.5mmLenTick Repeating Point Interval: Initial offset: 3.2mm after that 6.4mm Repeating Point Interval 2: Initial offset: 3.7mm after that 6.4mm Note: Ticks are centered and 90 degrees to line.	
Element Name: Black_0.3mmSolidLine	Element Reference: L00011	Element Type: Line - Simple
Description: Black 0.3mm Solid Line (0.3mm wt)		
Color Token: Black	Parameters: Lineweight: 0.3mm	
Element Name: Black_0.15mm-1.5mmLenTick	Element Reference: P00044	Element Type: Point - Simple
Description: Black 0.15mm length line with a 0.15mm lineweight		
Color Token: Black	Parameters: Lineweight: 0.15mm Length: 1.5mm Orientation: Centered 90 degrees to line	
Element Name: Black_0.15mm-1.5mmLenTick	Element Reference: P00044	Element Type: Point - Simple
Description: Black 0.15mm length line with a 0.15mm lineweight		
Color Token: Black	Parameters: Lineweight: 0.15mm Length: 1.5mm Orientation: Centered 90 degrees to line	

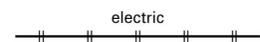
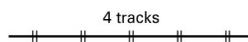
Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001378	Railway / multiple (curve)	(LTN >= 2)

Label Information

Label Description:	Railway / multiple > 3 (curve)
Additional Labeling Criteria:	(LTN > 3)
Label String:	[LTN] "tracks"
Characteristics:	2,2 2 (Black, Regular, 6 pt, Lower case)
Label Description:	Railway / multiple > 3 / electrified (curve)
Additional Labeling Criteria:	(LTN > 3) and (ZI017_RRA = 1 [Electrified Track] or ZI017_RRA = 3 [Overhead Electrified])
Label String:	[LTN] "tracks electric"
Characteristics:	2,2 2 (Black, Regular, 6 pt, Lower case)
Label Description:	Railway / multiple < 3 / electrified (curve)
Additional Labeling Criteria:	(LTN <= 3) and (ZI017_RRA = 1 [Electrified Track] or ZI017_RRA = 3 [Overhead Electrified])
Label String:	"electric"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Railway_Yard (AN060) (continued)

Surface

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001126	Railway Yard / all (surface)	ALL

Symbol Sample

■ railroad yard

Rapids (BH120)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Cyan_Rapids	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. The two parallel cyan lines are perpendicular to watercourse.	
Element Name: Cyan_0.2mm_1.3mmCasedLine		Element Reference: P00195
Element Type: Point - Simple		
Description: Two Cyan 1.3mm length lines with a 0.2mm lineweight parallel with a 0.5mm spacing between the lines		
Color Token: Cyan	Parameters: Length: 1.3mm Lineweight: 0.2mm Note: Spacing between lines is 0.5mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001197	Rapids / all (surface)	ALL

Label Information

Label Description: Rapids / all (surface)
Additional Labeling Criteria: N/A

Label String: "rapids"
Characteristics: 34
 34 (Cyan, Regular, Italic, 6 pt, Lower case)

Symbol Sample

= rapids

Curve

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Cyan_Rapids	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is centered on the linear geometry. The two parallel cyan lines are perpendicular to watercourse.	

Rapids (BH120) (continued)

Curve

Element Name: Cyan_0.2mm_1.3mmCasedLine	Element Reference: P00195	Element Type: Point - Simple
Description: Two Cyan 1.3mm length lines with a 0.2mm lineweight parallel with a 0.5mm spacing between the lines		
Color Token: Cyan	Parameters: Length: 1.3mm Lineweight: 0.2mm Note: Spacing between lines is 0.5mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001198	Rapids / all (curve)	ALL

Label Information

Label Description:	Rapids / all (curve)
Additional Labeling Criteria:	N/A
Label String:	"rapids"
Characteristics:	34 34 (Cyan, Regular, Italic, 6 pt, Lower case)

Symbol Sample

= rapids

Recycling_Site (AB010)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_RecyclingSite	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled	Element Reference: P00123	Element Type: Point - Simple
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001279	Recycling Site / all (surface)	ALL

Label Information

Label Description:	Recycling Site / all (surface)
Additional Labeling Criteria:	N/A
Label String:	"recycling site"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Recycling_Site (AB010) (continued)

Surface

Symbol Sample

■ recycling site

Reef (BD120)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_BlackCyan_Reef	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry with the open ended part of the symbol directed towards the inside of the reef and the area is filled with the screened color. NOTE: This symbol is shown in conjunction with the Tidal Water symbol and should NOT mask out the Tidal Water symbol.	
Element Name: CoversUncovers-Fill		Element Reference: A00049
Description: Cyan-31ScreenFill (Area Fill) coincident with Black-12ScreenFill-15degree (Area Fill)		
Color Token: Cyan-31_Black-12	Parameters: Note: The two area fills are combined as one symbol	
Element Name: Black_Reef		Element Reference: L00260
Description: Black reef arc in a repeating pattern.		
Color Token: Black	Parameters: Lineweight: 0.13mm Repeating Point: Black_ReefArc Repeating Point Interval: Point shapes connect together at each end.	
Element Name: Black_ReefArc		Element Reference: P00207
Description: Black arc with a 0.78mm diameter with a 0.55mm line extending from each end (190 degrees and 170 degrees). All lineweights are 0.13mm.		
Color Token: Black	Parameters: Diameter: 0.78mm Note: Overall height 0.8mm and width 0.86mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001663	Reef / standard (surface)	(ARA > 1562500)

Label Information

Label Description:	Reef / all (surface)
Additional Labeling Criteria:	N/A
Label String:	[Z1005_FNA]
Characteristics:	12 12 (Black, Regular, Italic 10-16 pt, Upper case)

Symbol Sample



 HERON REEF

Curve

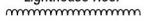
Reef (BD120) (continued)

Curve

Symbol Information		
	Symbol Graphic Name: LN_Black_Reef	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature with the open ended part of the symbol directed towards the inside of the reef.	
Element Name: Black_Reef	Element Reference: L00260	Element Type: Line - Styled
Description: Black reef arc in a repeating pattern.		
Color Token: Black	Parameters: Lineweight: 0.13mm Repeating Point: Black_ReefArc Repeating Point Interval: Point shapes connect together at each end.	
Element Name: Black_ReefArc	Element Reference: P00207	Element Type: Point - Simple
Description: Black arc with a 0.78mm diameter with a 0.55mm line extending from each end (190 degrees and 170 degrees). All lineweights are 0.13mm.		
Color Token: Black	Parameters: Lineweight: 0.13mm Diameter: 0.78mm Note: Overall height 0.8mm and width 0.86mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001662	Reef / all (curve)	LZN >= 1250

Label Information	
Label Description:	Reef / all (curve)
Additional Labeling Criteria:	N/A
Label String:	[Z1005_FNA]
Characteristics:	6 6 (Black, Condensed, Italic 6-10 pt, Mixed case)

Symbol Sample	
	<i>Lighthouse Reef</i> 

Rice_Field (BH135)

Surface

Symbol Information		
	Symbol Graphic Name: AR_Cyan_Rice	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The surface geometry is filled with the area pattern.	
Element Name: Cyan_RiceFill	Element Reference: A00019	Element Type: Area - Pattern
Description: Cyan Rice Fill		
Color Token: Cyan	Parameters: Area Pattern: See Element: Cyan_RiceFill in Annex I Note: Area Pattern #4	

Rice_Field (BH135) (continued)

Surface

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001200	Rice Field / all (surface)	ALL

Label Information

Label Description: Rice Field / terraced (surface)
Additional Labeling Criteria: (ZI013_FFP = 3 [Terraced])

Label String: "terraces"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Rig (AA040)

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Rig_Inland		
	Apply Label to Symbol: No		
	Symbol Placement Instructions: Origin: Center of dot		
Element Name: Black_Rig_Inland		Element Reference: P00162	Element Type: Point - Shape
Description: Black rig inland			
Color Token: Black	Parameters: Detail: Black_Rig_Inland Note: See Element: Black_Rig_Inland in Annex H for detailed drawing instructions		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001272	Rig / on shore / non-obstruction (point)	(HGT < 61) and (SRL = 2 [Inland] or SRL = 3 [At Shoreline] or SRL = -999999 [No Information])

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Rig_Offshore		
	Apply Label to Symbol: Yes		
	Symbol Placement Instructions: Origin: Center of dot		

Rig (AA040) (continued)

Point

Element Name: Black_Offshore_VO	Element Reference: P00161	Element Type: Point - Shape
Description: Black vertical obstruction		
Color Token: Black	Parameters: Detail: Black_Offshore_VO Note: See Element: Black_Offshore_VO in Annex H for detailed drawing instructions	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001612	Rig / offshore / non-obstruction (point)	(HGT < 61) and (SRL = 1 [Offshore])

Label Information

Label Description:	Rig / non-obstruction (point)
Additional Labeling Criteria:	HGT value is converted from meters to feet.
Label String:	"Rig" "("[HGT]")"
Characteristics:	54,72,72,72 54 (Black, Condensed, Bold, 7 pt, Mixed case) 72 (Black, Condensed, Bold, 7 pt, Lower case)

Symbol Sample



River (BH140)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Cyan_River_Perennial
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry and the area is filled with the screened color. The linear symbology is masked where the edges of two water features overlap.

Element Name: Cyan-31_ScreenFill	Element Reference: A00007	Element Type: Area - Fill
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Description: Cyan-31_ScreenFill area fill (Cyan 31% screen, 45 degree angle)		
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Color Token: Cyan-31	Parameters: Screen Angle: 45 degrees	
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Element Name: Cyan_0.2mmSolidLine	Element Reference: L00015	Element Type: Line - Simple
--	----------------------------------	------------------------------------

Description: Cyan 0.2mm Solid Line (0.2mm wt)		
--	--	--

Color Token: Cyan	Parameters: Lineweight: 0.2mm	
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Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001202	River / perennial (surface)	(Z1024_HYP = 1 [Perennial] or Z1024_HYP = -999999 [No Information])

Label Information

River (BH140) (continued)

Surface

Label Description: River / perennial / named (surface)
Additional Labeling Criteria: N/A

Label String: [Z1005_FNA]
Characteristics: 37
 37 (Cyan, Condensed, Italic, 7-16 pt, Upper case)

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Cyan_River_IntermittentDry	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry and the area is filled with the specified pattern. The linear symbology is masked where the edges of two water features overlap.	
Element Name: Cyan_DryDrainageFill		Element Reference: A00020
Description: Cyan Dry Drainage, Salt Flat Fill		
Color Token: Cyan	Parameters: Area Pattern: See Element: Cyan_DryDrainageFill in Annex I Note: Area Pattern #95	
Element Name: Cyan_0.2mm-2mmLenDash-0.5mmGapLine		Element Reference: L00041
Description: Cyan 0.2mm Dashed Line (0.2mm wt, 2.0mm dash, 0.5mm gap)		
Color Token: Cyan	Parameters: Lineweight: 0.2mm	Dash Length: 2.0mm Dash Spacing: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001203	River / intermittent, dry (surface)	(Z1024_HYP = 2 [Intermittent] or Z1024_HYP = 4 [Dry])

Label Information

Label Description: River / intermittent, dry / named (surface)
Additional Labeling Criteria: N/A

Label String: [Z1005_FNA]
Characteristics: 37
 37 (Cyan, Condensed, Italic, 7-16 pt, Upper case)

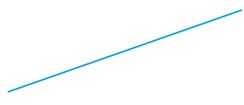
Symbol Sample



Curve

River (BH140) (continued)

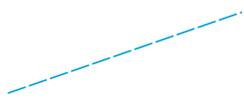
Curve

Symbol Information		
	Symbol Graphic Name: LN_Cyan_River_Perennial	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Cyan_0.2mmSolidLine	Element Reference: L00015	Element Type: Line - Simple
Description: Cyan 0.2mm Solid Line (0.2mm wt)		
Color Token: Cyan	Parameters: Lineweight: 0.2mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001204	River / perennial (curve)	(ZI024_HYP = 1 [Perennial] or ZI024_HYP = -999999 [No Information])

Label Information	
Label Description:	River / perennial / named (curve)
Additional Labeling Criteria:	N/A
Label String:	[ZI005_FNA]
Characteristics:	58 58 (Cyan, Condensed, Italic, 7-9 pt, Mixed case)

Symbol Sample	
	<i>Eagle River</i>

Symbol Information		
	Symbol Graphic Name: LN_Cyan_River_IntermittentDry	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Cyan_0.2mm-2mmLenDash-0.5mmGapLine	Element Reference: L00041	Element Type: Line - Styled
Description: Cyan 0.2mm Dashed Line (0.2mm wt, 2.0mm dash, 0.5mm gap)		
Color Token: Cyan	Parameters: Lineweight: 0.2mm Dash Length: 2.0mm Dash Spacing: 0.5mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001205	River / intermittent, dry (curve)	(ZI024_HYP = 2 [Intermittent] or ZI024_HYP = 4 [Dry])

Label Information	
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River (BH140) (continued)

Curve

Label Description: River / intermittent, dry / named (curve)
Additional Labeling Criteria: N/A

Label String: [Z1005_FNA]
Characteristics: 58
 58 (Cyan, Condensed, Italic, 7-9 pt, Mixed case)

Symbol Sample



Road (AP030)

Curve

Symbol Information

	Symbol Graphic Name: LN_Road_Primary
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.
Element Name: Road_Primary	
Element Reference: L00287	
Element Type: Line - Complex	
Description: The complex line is a combination of 2 lines. Display Level: Bottom (1):Black 0.8mm Solid Line (0.8mm wt), Top (2):Dk-Brown (Magenta 100% coincident with Yellow 100% and Black 67% bi-angle screen) 0.5mm Solid Line (0.5mm wt)	
Color Token: Dk-Brown	Parameters: Line Style: Black_0.8mmSolidLine Line Style 2: Dk-Brown_0.5mmSolidLine Note: Lines combined together form the cased line.
Element Name: Black_0.8mmSolidLine	
Element Reference: L00155	
Element Type: Line - Simple	
Description: Black 0.8mm Solid Line (0.8mm wt)	
Color Token: Black	Parameters: Lineweight: 0.8mm
Element Name: Dk-Brown_0.5mmSolidLine	
Element Reference: L00286	
Element Type: Line - Simple	
Description: Dk-Brown (Magenta 100% coincident with Yellow 100% and Black 67% bi-angle screen) 0.5mm Solid Line (0.5mm wt)	
Color Token: Dk-Brown	Parameters: Lineweight: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001368	Road / primary (curve)	(LTN >= 2) and (Z1016_WTC = 1 [All-weather] or Z1016_WTC = 4 [Limited All-weather] or Z1016_WTC = 5 [Closed in Winter]) and (Z1016_ROC = 7 [Rigid Pavement] or Z1016_ROC = 8 [Concrete] or Z1016_ROC = 9 [Asphalt] or Z1016_ROC = 10 [Asphalt over Concrete] or Z1016_ROC = 11 [Cobble-stone] or Z1016_ROC = 12 [Brick])

Label Information

Label Description: Road / multiple lanes (curve)
Additional Labeling Criteria: (LTN > 2)

Label String: [LTN] "lanes"
Characteristics: 2,2
 2 (Black, Regular, 6 pt, Lower case)

Road (AP030) (continued)

Curve

Symbol Sample

4 lanes

Symbol Information

	Symbol Graphic Name: LN_Road_Secondary
	Apply Label to Symbol: No
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.
Element Name: Road_Secondary	
Element Reference: L00282	
Element Type: Line - Complex	
Description: The complex line is a combination of 2 lines. Display Level: Bottom (1):Black 0.6mm Solid Line (0.6mm wt), Top (2):Dk-Brown (Magenta 100% coincident with Yellow 100% and Black 67% bi-angle screen) 0.3mm Solid Line (0.3mm wt)	
Color Token: Dk-Brown	Parameters: Line Style: Black_0.6mmSolidLine Line Style 2: Dk-Brown_0.3mmSolidLine Note: Lines combined together form the cased line.
Element Name: Black_0.6mmSolidLine	
Element Reference: L00153	
Element Type: Line - Simple	
Description: Black 0.6mm Solid Line (0.6mm wt)	
Color Token: Black	Parameters: Lineweight: 0.6mm
Element Name: Dk-Brown_0.3mmSolidLine	
Element Reference: L00283	
Element Type: Line - Simple	
Description: Dk-Brown (Magenta 100% coincident with Yellow 100% and Black 67% bi-angle screen) 0.3mm Solid Line (0.3mm wt)	
Color Token: Dk-Brown	Parameters: Lineweight: 0.3mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001367	Road / secondary (curve)	(LTN = 1) or (ZI016_WTC = 2 [Fair-weather] or ZI016_WTC = 3 [Winter Only] or ZI016_WTC = 5 [Closed in Winter] or ZI016_WTC = 999 [Other] or ZI016_WTC = -999999 [No Information]) or (ZI016_ROC = 1 [Unimproved] or ZI016_ROC = 2 [Stabilized Earth] or ZI016_ROC = 3 [Flexible Pavement] or ZI016_ROC = 4 [Aggregate] or ZI016_ROC = 5 [Macadam] or ZI016_ROC = 6 [Bound Surface] or ZI016_ROC = 13 [Metal] or ZI016_ROC = 14 [Wood] or ZI016_ROC = 15 [Corduroy] or ZI016_ROC = 16 [Wood Plank] or ZI016_ROC = 999 [Other] or ZI016_ROC = -999999 [No Information])

Symbol Sample

Rock_Formation (DB160)

Point

Symbol Information

	Symbol Graphic Name: PT_Dk-Brown_RockFormation
	Apply Label to Symbol: No
	Symbol Placement Instructions: Origin: Center of tick circle

Ruins (AL200) (continued)

Point

Element Name: Black_1.0mmSquareFilled	Element Reference: P00123	Element Type: Point - Simple
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001094	Ruins / small area (surface)	(ARA < 6250000)

Label Information

Label Description:	Ruins / small area (surface)
Additional Labeling Criteria:	N/A
Label String:	"ruins"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Ruins
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Origin: Center of filled square

Element Name: Black_1.0mmSquareFilled	Element Reference: P00123	Element Type: Point - Simple
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001093	Ruins / non-obstruction (point)	(HGT < 61)

Label Information

Label Description:	Ruins / non-obstruction (point)
Additional Labeling Criteria:	N/A
Label String:	"ruins"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Runway (GB055)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Blue072_Runway_Major_Multiple	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the center of the surface geometry aligned with the length of the feature.	
Element Name: Blue072_Runway_Multiple	Element Reference: L00150	Element Type: Line - Complex
Description: Blue072 0.85mm Solid Line (0.85mm wt) with a PaperWhite 0.25mm Solid Line (0.25mm wt) centered inside		
Color Token: Blue072	Parameters: Line Style: Blue072_0.85mmSolidLine Line Style 2: PaperWhite_0.25mmSolidLine Note: The Blue072 0.85mm solid line combined with the 0.25mm width paper white line placed inside form a 0.3mm linewidth outline with a total width of 0.85mm	
Element Name: Blue072_0.85mmSolidLine	Element Reference: L00298	Element Type: Line - Simple
Description: Blue072 0.85mm Solid Line (0.85mm wt)		
Color Token: Blue072	Parameters: Lineweight: 0.85mm	
Element Name: PaperWhite_0.25mmSolidLine	Element Reference: L00222	Element Type: Line - Simple
Description: PaperWhite 0.25mm Solid Line (0.25mm wt)		
Color Token: PaperWhite	Parameters: Lineweight: 0.25mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001428	Runway / major (surface)	(LZN >= 910) and (ZI019_ASU = 1 [Asphalt] or ZI019_ASU = 2 [Bituminous Mix] or ZI019_ASU = 3 [Brick] or ZI019_ASU = 5 [Concrete] or ZI019_ASU = 9 [Ice] or ZI019_ASU = 10 [Landing Mat] or ZI019_ASU = 15 [Pierced Steel Planking] or ZI019_ASU = 20 [Wood] or ZI019_ASU = 21 [Asphalt Over Concrete])

Label Information

Label Description:	Runway / hard surface (surface)
Additional Labeling Criteria:	ZVH value is converted from meters to feet.
Label String:	[ZVH]
Characteristics:	62 62 (Blue072, Condensed, Bold, 7 pt, Lower case)

Symbol Sample



Land Aerodrome with Runway info:



Symbol Information	
Symbol Graphic 	Symbol Graphic Name: AR_Blue072_Runway_Major_Single
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the center of the surface geometry aligned with the length of the feature.

Runway (GB055) (continued)

Surface

Element Name: Blue072_Runway_Single		Element Reference: L00149	Element Type: Line - Complex
Description: Blue072 1.1mm Solid Line (1.1mm wt) with a PaperWhite 0.3mm Solid Line (0.3mm wt) centered inside			
Color Token: Blue072	Parameters: Line Style: Blue072_1.1mmSolidLine Line Style 2: PaperWhite_0.3mmSolidLine Note: The Blue072 1.1mm solid line combined with the 0.3mm width paper white line placed inside form a 0.4mm lineweight outline with a total width of 1.1mm		
Element Name: Blue072_1.1mmSolidLine		Element Reference: L00297	Element Type: Line - Simple
Description: Blue072 1.1mm Solid Line (1.1mm wt)			
Color Token: Blue072	Parameters: Lineweight: 1.1mm		
Element Name: PaperWhite_0.3mmSolidLine		Element Reference: L00166	Element Type: Line - Simple
Description: PaperWhite 0.3mm Solid Line (0.3mm wt)			
Color Token: PaperWhite	Parameters: Lineweight: 0.3mm		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001428	Runway / major (surface)	(LZN >= 910) and (Z1019_ASU = 1 [Asphalt] or Z1019_ASU = 2 [Bituminous Mix] or Z1019_ASU = 3 [Brick] or Z1019_ASU = 5 [Concrete] or Z1019_ASU = 9 [Ice] or Z1019_ASU = 10 [Landing Mat] or Z1019_ASU = 15 [Pierced Steel Planking] or Z1019_ASU = 20 [Wood] or Z1019_ASU = 21 [Asphalt Over Concrete])

Label Information

Label Description:	Runway / hard surface (surface)
Additional Labeling Criteria:	ZVH value is converted from meters to feet.
Label String:	[ZVH]
Characteristics:	62 62 (Blue072, Condensed, Bold, 7 pt, Lower case)

Symbol Sample



Symbol Information

Symbol Graphic label only	Symbol Graphic Name: AR_Runway_Minor
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Dynamic text label only. No Graphic Parameters.

AREA LABEL ONLY

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001691	Runway / minor (surface)	(LZN < 910) or (Z1019_ASU = 4 [Clay] or Z1019_ASU = 6 [Coral] or Z1019_ASU = 7 [Earthen] or Z1019_ASU = 8 [Gravel] or Z1019_ASU = 11 [Laterite] or Z1019_ASU = 12 [Macadam] or Z1019_ASU = 13 [Membrane] or Z1019_ASU = 14 [Non-bituminous Mix] or Z1019_ASU = 16 [Sand] or Z1019_ASU = 17 [Snow] or Z1019_ASU = 18 [Stone] or Z1019_ASU = 999 [Other] or Z1019_ASU = -999999 [No Information])

Label Information

Runway (GB055) (continued)

Surface

Label Description: Runway / soft surface (surface)
Additional Labeling Criteria: (ZI019_ASU = 4 [Clay] or ZI019_ASU = 6 [Coral] or ZI019_ASU = 7 [Earthen] or ZI019_ASU = 8 [Gravel] or ZI019_ASU = 11 [Laterite] or ZI019_ASU = 12 [Macadam] or ZI019_ASU = 13 [Membrane] or ZI019_ASU = 14 [Non-bituminous Mix] or ZI019_ASU = 16 [Sand] or ZI019_ASU = 17 [Snow] or ZI019_ASU = 18 [Stone])
 LZN and ZVH values are converted from meters to feet. LZN [hundred feet] is LZN multiplied by 3.28, divided by 100 and rounded to a whole number.

Label String: [LZN] "/ s"
 [ZVH]

Characteristics: 66,66,62
 66 (Blue072, Condensed, 8 pt, Lower case)
 62 (Blue072, Condensed, Bold, 7 pt, Lower case)

Label Description: Runway / unknown surface (surface)
Additional Labeling Criteria: (ZI019_ASU = -999999 [No Information])
 LZN and ZVH values are converted from meters to feet. LZN [hundred feet] is LZN multiplied by 3.28, divided by 100 and rounded to a whole number.

Label String: [LZN] "/ U"
 [ZVH]

Characteristics: 66,65,62
 66 (Blue072, Condensed, 8 pt, Lower case)
 65 (Blue072, Condensed, 8 pt, Upper case)
 62 (Blue072, Condensed, Bold, 7 pt, Lower case)

Symbol Sample

27/s
700

18/U
82

Land Aerodrome with Runway info:
 SAN MARTIN 27/s
1380

Sabkha (BH160)

Surface

Symbol Information

	Symbol Graphic Name: AR_Cyan_Sabkha	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The surface geometry is filled with the area pattern.	
Element Name: Cyan_AP103Fill		Element Reference: A00016
Element Type: Area - Pattern		
Description: Cyan Ice Cap, Polar Ice, Sabkha Fill		
Color Token: Cyan	Parameters:	
	Area Pattern: See Element: Cyan_ AP103 in Annex I	
	Note: Area Pattern #103	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001209	Sabkha / standard (surface)	(ARA >= 1562500)

Symbol Sample

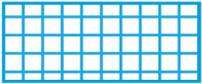


Salt Evaporator (BH155)

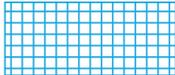
Surface

Salt_Evaporator (BH155) (continued)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Cyan_SaltEvaporator	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry and the area is filled with the specified pattern.	
Element Name: Cyan_SaltEvaporatorFill	Element Reference: A00044	Element Type: Area - Pattern
Description: A grid pattern comprised of 1.5mm x 1.5mm squares. Grid alignment is parallel to longest axis of the perimeter line and centered.		
Color Token: Cyan	Parameters:	
	Note: Lineweight: 0.2mm; Length: 1.5mm; Grid squares: 1.5mm x 1.5mm; Grid alignment parallel to longest axis of perimeter line and centered	
Element Name: Cyan_0.2mmSolidLine	Element Reference: L00015	Element Type: Line - Simple
Description: Cyan 0.2mm Solid Line (0.2mm wt)		
Color Token: Cyan	Parameters:	
	Lineweight: 0.2mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001208	Salt Evaporator / standard (surface)	(ARA >= 1562500)

Symbol Sample	
	

Salt_Flat (BH150)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Cyan_SaltFlat	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry and the area is filled with the specified pattern.	
Element Name: Cyan_DryDrainageFill	Element Reference: A00020	Element Type: Area - Pattern
Description: Cyan Dry Drainage, Salt Flat Fill		
Color Token: Cyan	Parameters:	
	Area Pattern: See Element: Cyan_DryDrainageFill in Annex I	
	Note: Area Pattern #95	
Element Name: Cyan_0.2mmSolidLine	Element Reference: L00015	Element Type: Line - Simple
Description: Cyan 0.2mm Solid Line (0.2mm wt)		
Color Token: Cyan	Parameters:	
	Lineweight: 0.2mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001608	Salt Flat / all (surface)	ALL

Label Information

Salt_Flat (BH150) (continued)

Surface

Label Description: Salt Flat / all (surface)
Additional Labeling Criteria: N/A

Label String: "salt flat"
Characteristics: 34
 34 (Cyan, Regular, Italic, 6 pt, Lower case)

Symbol Sample



Sand_Dunes (DB170)

Surface

Symbol Information

	Symbol Graphic Name: AR_Dk-Brown_SandDunes_Unknown	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The surface geometry is filled with the area pattern.	
Element Name: Dk-Brown-42_SandFill		Element Reference: A00082
Element Type: Area - Pattern		
Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) Sand Fill		
Color Token: Dk-Brown-42	Parameters: Area Pattern: See Element: Dk-Brown-42_SandFill in Annex I Note: Area Pattern #95	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001258	Sand Dunes / standard (surface)	(ARA >= 6250000)

Label Information

Label Description: Sand Dunes / all (surface)
Additional Labeling Criteria: N/A

Label String: "dunes"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Settlement (AL105)

Surface

Settlement (AL105) (continued)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Black_Settlement	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry and the area is filled with the screened color.	
Element Name: Black-12_ScreenFill	Element Reference: A00003	Element Type: Area - Fill
Description: Black-12 Area Fill (Black 12% 45 degree angle screen)		
Color Token: Black-12	Parameters:	
	Screen Angle: 45 degrees	
Element Name: Black_0.1mmSolidLine	Element Reference: L00007	Element Type: Line - Simple
Description: Black 0.1mm Solid Line (0.1mm wt)		
Color Token: Black	Parameters:	
	Lineweight: 0.1mm	

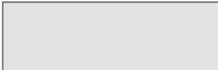
Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001085	Settlement / all (surface)	ALL

Label Information

Label Description:	Settlement / all / named (surface)
Additional Labeling Criteria:	N/A
Label String:	[Z1005_FNA]
Characteristics:	13 13 (Black, Regular, 6 pt, Mixed case)

Symbol Sample

	
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Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Settlement	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of open circle	
Element Name: Black_1.2mmOpenCircle	Element Reference: P00210	Element Type: Point - Simple
Description: Black 1.2mm diameter open circle with a lineweight of 0.1mm		
Color Token: Black	Parameters:	
	Diameter: 1.2mm	
	Lineweight: 0.1mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001086	Settlement / landmark (point)	(LMC = 1001 [True])

Label Information

Settlement (AL105) (continued)

Point

Label Description: Settlement / all (point)
Additional Labeling Criteria: N/A

Label String: "settlement"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

○ settlement

Sewage Treatment Plant (AC507)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_SewageTreatmentPlant	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001610	Sewage Treatment Plant / all (surface)	ALL

Label Information

Label Description: Sewage Treatment Plant / all (surface)
Additional Labeling Criteria: N/A

Label String: "sewage plant"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ sewage plant

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_SewageTreatmentPlant	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	

Sewage_Treatment_Plant (AC507) (continued)

Point

Element Name: Black_1.0mmSquareFilled	Element Reference: P00123	Element Type: Point - Simple
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001611	Sewage Treatment Plant / all (point)	ALL

Label Information

Label Description:	Sewage Treatment Plant / all (point)
Additional Labeling Criteria:	N/A
Label String:	"sewage plant"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ sewage plant

Ship_Elevator (BI006)

Curve

Symbol Information	
	Symbol Graphic Name: LN_Black_ShipElevator
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.

Element Name: Black_0.2mm-2mmLenDash-0.5mmGapLine	Element Reference: L00032	Element Type: Line - Styled
Description: Black 0.2mm Dashed Line (0.2mm wt, 2.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters: Lineweight: 0.2mm Dash Length: 2.0mm Dash Spacing: 0.5mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001617	Ship Elevator / all (curve)	ALL

Label Information

Label Description:	Ship Elevator / all (curve)
Additional Labeling Criteria:	N/A
Label String:	"ship elevator"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Ship_Elevator (BI006) (continued)

Curve

Symbol Sample

--- ship elevator ---

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_ShipElevator	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of dot	
Element Name: Black_OpenCircleWithDot		Element Reference: P00010
Element Type: Point - Simple		
Description: Black 1.25mm diameter open circle with a 0.15mm line weight and a black filled 0.3mm diameter dot in the center		
Color Token: Black	Parameters: Diameter: 1.25mm Lineweight: 0.15mm Note: 0.3mm diameter dot in the center of the open circle	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001618	Ship Elevator / non-obstruction (point)	(HGT < 61)

Label Information

Label Description: Ship Elevator / all (point)
Additional Labeling Criteria: N/A

Label String: "ship elevator"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

o ship elevator

Shipyard (BB241)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Black_Shipyard	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine		Element Reference: L00210
Element Type: Line - Styled		
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters: Lineweight: 0.1mm Dash Length: 1.0mm Dash Spacing: 0.5mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
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Shipyard (BB241) (continued)

Surface

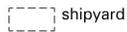
R001619 Shipyard / large area (surface) (ARA >= 6250000)

Label Information

Label Description: Shipyard / large area (surface)
Additional Labeling Criteria: N/A

Label String: "shipyard"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Shipyard	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001621	Shipyard / small area (surface)	(ARA < 6250000)

Label Information

Label Description: Shipyard / small area (surface)
Additional Labeling Criteria: N/A

Label String: "shipyard"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Point

Shipyard (BB241) (continued)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Shipyard	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001620	Shipyard / all (point)	ALL

Label Information	
Label Description:	Shipyard / all (point)
Additional Labeling Criteria:	N/A
Label String:	"shipyard"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample


Shoreline_Construction (BB081)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Black_ShorelineConstruction	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry and the area is filled with paper white.	
Element Name: Paper-White_Fill		Element Reference: A00046
Description: Paper-White Solid Fill		
Color Token: Paper-White	Parameters: Note: Solid Fill	
Element Name: Black_0.1mmSolidLine		Element Reference: L00007
Description: Black 0.1mm Solid Line (0.1mm wt)		
Color Token: Black	Parameters: Lineweight: 0.1mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001066	Shoreline Construction / pier, wharf, quay (surface)	(PWC = 1 [Pier] or PWC = 2 [Wharf] or PWC = 3 [Quay] or PWC = 7 [Recreational Pier])

Shoreline_Construction (BB081) (continued)

Surface

Label Information

Label Description:	Shoreline Construction / pier (surface)
Additional Labeling Criteria:	(PWC = 1 [Pier] or PWC = 7 [Recreational Pier])
Label String:	"pier"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Label Description:	Shoreline Construction / wharf (surface)
Additional Labeling Criteria:	(PWC = 2 [Wharf] or PWC = 3 [Quay])
Label String:	"wharf"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Curve

Symbol Information

	Symbol Graphic Name: LN_Black_ShorelineConstruction	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.	
Element Name: Black_0.2mmSolidLine	Element Reference: L00009	Element Type: Line - Simple
Description: Black 0.2mm Solid Line (0.2mm wt)		
Color Token: Black	Parameters: Lineweight: 0.2mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001067	Shoreline Construction / all (curve)	(PWC = 1 [Pier] or PWC = 2 [Wharf] or PWC = 3 [Quay] or PWC = 4 [Breakwater] or PWC = 5 [Groin] or PWC = 6 [Mole] or PWC = 7 [Recreational Pier] or PWC = 8 [Training Wall] or PWC = 11 [Seawall] or PWC = 18 [Promenade])

Label Information

Label Description:	Shoreline Construction / pier (curve)
Additional Labeling Criteria:	(PWC = 1 [Pier] or PWC = 7 [Recreational Pier])
Label String:	"pier"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Label Description:	Shoreline Construction / wharf (curve)
Additional Labeling Criteria:	(PWC = 2 [Wharf] or PWC = 3 [Quay])
Label String:	"wharf"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Shoreline_Construction (BB081) (continued)

Curve

Label Description: Shoreline Construction / breakwater (curve)
Additional Labeling Criteria: (PWC = 4 [Breakwater] or PWC = 6 [Mole])

Label String: "breakwater"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Label Description: Shoreline Construction / groin (curve)
Additional Labeling Criteria: (PWC = 5 [Groin] or PWC = 8 [Training Wall])

Label String: "groin"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Label Description: Shoreline Construction / seawall (curve)
Additional Labeling Criteria: (PWC = 11 [Seawall] or PWC = 18 [Promenade])

Label String: "seawall"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

_____ pier _____

_____ wharf _____

_____ breakwater _____

Ski_Jump (AK150)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_SkiJump	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of dot	
Element Name: Black_OpenCircleWithDot		Element Reference: P00010
Element Type: Point - Simple		
Description: Black 1.25mm diameter open circle with a 0.15mm lineweight and a black filled 0.3mm diameter dot in the center		
Color Token: Black	Parameters: Diameter: 1.25mm Lineweight: 0.15mm Note: 0.3mm diameter dot in the center of the open circle	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001626	Ski Jump / non-obstruction (point)	(HGT < 61)

Label Information

Label Description: Ski Jump / all (point)
Additional Labeling Criteria: N/A

Label String: "ski jump"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Ski_Jump (AK150) (continued)

Point

Symbol Sample

o ski jump

Smokestack (AF010)

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Smokestack	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of dot	
Element Name: Black_Smokestack		Element Reference: P00140
Element Type: Point - Shape		
Description: Black smokestack		
Color Token: Black	Parameters: Detail: Black_Smokestack Note: See Element: Black_Smokestack in Annex H for detailed drawing instructions	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001301	Smokestack / non-obstruction (point)	(HGT < 61)

Symbol Sample

f

Snow_Ice_Field (BJ100)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Cyan_SnowIceField	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry and the area is filled with the screened color.	
Element Name: Cyan-4_ScreenFill		Element Reference: A00008
Element Type: Area - Fill		
Description: Cyan-4 area fill (Cyan 4% screen, 45 degree angle)		
Color Token: Cyan-4	Parameters: Screen Angle: 45 degrees	
Element Name: Cyan_0.2mm-2mmLenDash-0.5mmGapLine		Element Reference: L00041
Element Type: Line - Styled		
Description: Cyan 0.2mm Dashed Line (0.2mm wt, 2.0mm dash, 0.5mm gap)		
Color Token: Cyan	Parameters: Lineweight: 0.2mm	Dash Length: 2.0mm
		Dash Spacing: 0.5mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001232	Snow Ice Field / all (surface)	ALL

Snow_Ice_Field (BJ100) (continued)

Surface

Label Information	
Label Description:	Snow Ice Field / named (surface)
Additional Labeling Criteria:	(ZI005_FNA <> "UNK") or (ZI005_FNA is not null)
Label String:	[ZI005_FNA]
Characteristics:	78 78 (Cyan, Regular, Italic, 7-16 pt, Mixed case)
Label Description:	Snow Ice Field / snow / unnamed (surface)
Additional Labeling Criteria:	(ZI005_FNA = "UNK") or (ZI005_FNA is null) and (SIC = 1 [Snowfield] or SIC = -999999 [No Information])
Label String:	"snow"
Characteristics:	34 34 (Cyan, Regular, Italic, 6 pt, Lower case)
Label Description:	Snow Ice Field / ice / unnamed (surface)
Additional Labeling Criteria:	(ZI005_FNA = "UNK") or (ZI005_FNA is null) and (SIC = 2 [Ice-field])
Label String:	"ice"
Characteristics:	34 34 (Cyan, Regular, Italic, 6 pt, Lower case)

Symbol Sample		
		

Soil_Surface_Region (DA010)

Surface

Symbol Information		
	Symbol Graphic Name: AR_Dk-Brown_SoilSurface_DistortedSurface	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The surface geometry is filled with the area pattern.	
Element Name: Dk-Brown-42_DistortedSurfaceFill	Element Reference: A00056	Element Type: Area - Pattern
Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) Distorted Surface Fill		
Color Token: Dk-Brown-42	Parameters: Area Pattern: See Element: Dk-Brown-42_DistortedSurfaceFill in Annex I Note: Area Pattern #103	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001235	Soil Surface Region / distorted surface (surface)	(SRD = 11 [Numerous Cobbles and Boulders] or SRD = 12 [Stony Areas] or SRD = 13 [Stony Soil with Surface Rock] or SRD = 14 [Stony Soil with scattered Boulders] or SRD = 15 [Stony Soil with numerous Boulders] or SRD = 16 [Numerous Boulders] or SRD = 17 [Numerous Rock Outcrops] or SRD = 18 [Scattered Boulders] or SRD = 19 [Talus] or SRD = 20 [Boulder Field] or SRD = 31 [Highly Fractured Rock] or SRD = 32 [Weathered Lava] or SRD = 33 [Unweathered Lava] or SRD = 34 [Stony Soil with numerous Rock Outcrops] or SRD = 35 [Irregular with deep Foliation Fractures] or SRD = 36 [Rugged with numerous Rock Outcrops] or SRD = 37 [Rugged Bedrock] or SRD = 43 [Highly Distorted with sharp Rocky Ridges] or SRD = 51 [Stony Soil with numerous Gullies] or SRD = 52 [Moderately Dissected] or SRD = 53 [Moderately Dissected with scattered Rock Outcrops] or SRD = 54 [Dissected Floodplain] or SRD = 55 [Highly Dissected] or SRD = 56 [Deep Erosional Gullies] or SRD = 57 [Steep Rugged Dissected with narrow Gullies] or SRD = 58 [Karst with numerous Sinkholes and Solution Valleys] or SRD = 59 [Karst with numerous Sinkholes] or SRD = 60 [Hummocky Karst with Large Hills] or SRD = 61 [Hummocky Karst with Low Mounds]) or (TSM = 9 [Loess])

Soil_Surface_Region (DA010) (continued)

Surface

Label Information

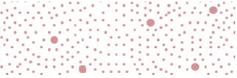
Label Description:	Soil Surface Region / boulders (surface)
Additional Labeling Criteria:	(SRD = 11 [Numerous Cobbles and Boulders] or SRD = 14 [Stony Soil with scattered Boulders] or SRD = 15 [Stony Soil with numerous Boulders] or SRD = 16 [Numerous Boulders] or SRD = 18 [Scattered Boulders] or SRD = 20 [Boulder Field])
Label String:	"boulders"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)
Label Description:	Soil Surface Region / rocky (surface)
Additional Labeling Criteria:	(SRD = 12 [Stony Areas] or SRD = 13 [Stony Soil with Surface Rock] or SRD = 17 [Numerous Rock Outcrops] or SRD = 19 [Talus] or SRD = 31 [Highly Fractured Rock] or SRD = 34 [Stony Soil with numerous Rock Outcrops] or SRD = 35 [Irregular with deep Foliation Fractures] or SRD = 36 [Rugged with numerous Rock Outcrops] or SRD = 37 [Rugged Bedrock] or SRD = 43 [Highly Distorted with sharp Rocky Ridges])
Label String:	"rocky"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)
Label Description:	Soil Surface Region / lava (surface)
Additional Labeling Criteria:	(SRD = 32 [Weathered Lava] or SRD = 33 [Unweathered Lava])
Label String:	"lava"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)
Label Description:	Soil Surface Region / dissected terrain (surface)
Additional Labeling Criteria:	(SRD = 51 [Stony Soil with numerous Gullies] or SRD = 52 [Moderately Dissected] or SRD = 53 [Moderately Dissected with scattered Rock Outcrops] or SRD = 54 [Dissected Floodplain] or SRD = 55 [Highly Dissected] or SRD = 56 [Deep Erosional Gullies] or SRD = 57 [Steep Rugged Dissected with narrow Gullies])
Label String:	"dissected terrain"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)
Label Description:	Soil Surface Region / karst (surface)
Additional Labeling Criteria:	(SRD = 58 [Karst with numerous Sinkholes and Solution Valleys] or SRD = 59 [Karst with numerous Sinkholes] or SRD = 60 [Hummocky Karst with Large Hills] or SRD = 61 [Hummocky Karst with Low Mounds])
Label String:	"karst"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)
Label Description:	Soil Surface Region / loess (surface)
Additional Labeling Criteria:	(TSM = 9 [Loess])
Label String:	"loess"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Soil_Surface_Region (DA010) (continued)

Surface

Symbol Information		
	Symbol Graphic Name: AR_Dk-Brown_SoilSurface_SandandGravel	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The surface geometry is filled with the area pattern.	
Element Name: Dk-Brown-42_AP99_Fill	Element Reference: A00081	Element Type: Area - Pattern
Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) Moraine, Sand and Gravel Fill		
Color Token: Dk-Brown-42	Parameters: Area Pattern: See Element: Dk-Brown-42_AP99_Fill in Annex I Note: Area Pattern #99	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001237	Soil Surface Region / gravel or sand and gravel (surface)	(TSM = 7 [Gravel]) or (TSM = 13 [Sand] and TSM2 = 7 [Gravel]) or (TSM = 7 [Gravel] and TSM2 = 13 [Sand])

Symbol Sample	
	

Symbol Information		
	Symbol Graphic Name: AR_Dk-Brown_SoilSurface_Sand	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The surface geometry is filled with the area pattern.	
Element Name: Dk-Brown-42_SandFill	Element Reference: A00082	Element Type: Area - Pattern
Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) Sand Fill		
Color Token: Dk-Brown-42	Parameters: Area Pattern: See Element: Dk-Brown-42_SandFill in Annex I Note: Area Pattern #95	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001238	Soil Surface Region / sand, and mud or boulders (surface)	(TSM = 13 [Sand]) or (TSM = 13 [Sand] and TSM2 = 10 [Mud]) or (TSM = 13 [Sand] and TSM2 = 3 [Boulders]) or (TSM = 3 [Boulders] and TSM2 = 13 [Sand]) or (TSM = 10 [Mud] and TSM2 = 13 [Sand])

Label Information	
Label Description:	Soil Surface Region / sand and boulders (surface)
Additional Labeling Criteria:	(TSM = 13 [Sand] and TSM2 = 3 [Boulders]) or (TSM = 3 [Boulders] and TSM2 = 13 [Sand])
Label String:	"sand and boulders"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

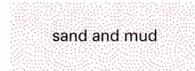
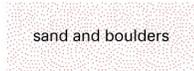
Soil_Surface_Region (DA010) (continued)

Surface

Label Description: Soil Surface Region / sand and mud (surface)
Additional Labeling Criteria: (TSM = 13 [Sand] and TSM2 = 10 [Mud]) or (TSM = 10 [Mud] and TSM2 = 13 [Sand])

Label String: "sand and mud"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Symbol Information

Symbol Graphic label only	Symbol Graphic Name: AR_SoilSurface_Other
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Dynamic text label only, repeated as necessary to properly define the limits of the surface geometry. No Graphic Parameters.

AREA LABEL ONLY

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001239	Soil Surface Region / numerous, other (surface)	(SRD = 69 [Numerous Small Lakes and Ponds] or SRD = 81 [Numerous Terraces] or SRD = 88 [Numerous Dykes] or SRD = 89 [Numerous Dyked Fields] or SRD = 91 [Numerous Stone Walls] or SRD = 92 [Numerous Man-made Drainage] or SRD = 93 [Numerous Terraced Fields] or SRD = 999 [Other])

Label Information

Label Description: Soil Surface Region / numerous (surface)
Additional Labeling Criteria: (SRD = 69 [Numerous Small Lakes and Ponds] or SRD = 81 [Numerous Terraces] or SRD = 88 [Numerous Dykes] or SRD = 89 [Numerous Dyked Fields] or SRD = 91 [Numerous Stone Walls] or SRD = 92 [Numerous Man-made Drainage] or SRD = 93 [Numerous Terraced Fields])

Label String: [SRD]
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Label Description: Soil Surface Region / other (surface)
Additional Labeling Criteria: (SRD = 999 [Other]) and (ZI006_MEM <> "UNK") and (ZI006_MEM is not null)

Label String: [ZI006_MEM]
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

numerous small lakes and ponds

numerous stone walls

Solar_Farm (AD025)

Surface

Solar_Farm (AD025) (continued)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Black_SolarFarm	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine		Element Reference: L00210
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters:	
	Lineweight: 0.1mm	Dash Length: 1.0mm
		Dash Spacing: 0.5mm

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001295	Solar Farm / large area (surface)	(ARA >= 6250000)

Label Information	
Label Description:	Solar Farm / large area (surface)
Additional Labeling Criteria:	N/A
Label String:	"solar farm"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample
 solar farm

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_SolarFarm	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters:	
	Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001630	Solar Farm / small area (surface)	(ARA < 6250000)

Label Information

Solar_Farm (AD025) (continued)

Surface

Label Description: Solar Farm / small area (surface)
Additional Labeling Criteria: N/A

Label String: "solar farm"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ solar farm

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_SolarFarm	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001296	Solar Farm / all (point)	ALL

Label Information

Label Description: Solar Farm / all (point)
Additional Labeling Criteria: N/A

Label String: "solar farm"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ solar farm

Space_Facility (AL351)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Black_SpaceFacility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	

Space_Facility (AL351) (continued)

Surface

Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine	Element Reference: L00210	Element Type: Line - Styled
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters: Lineweight: 0.1mm Dash Length: 1.0mm Dash Spacing: 0.5mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001627	Space Facility / large area (surface)	(ARA >= 6250000)

Label Information

Label Description:	Space Facility / all (surface)
Additional Labeling Criteria:	N/A
Label String:	"space facility"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_SpaceFacility
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square

Element Name: Black_1.0mmSquareFilled	Element Reference: P00123	Element Type: Point - Simple
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001562	Space Facility / small area (surface)	(ARA < 6250000)

Label Information

Label Description:	Space Facility / small area (surface)
Additional Labeling Criteria:	N/A
Label String:	"space facility"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



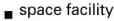
Space_Facility (AL351) (continued)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_SpaceFacility	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001628	Space Facility / all (point)	ALL

Label Information	
Label Description:	Space Facility / large area (surface)
Additional Labeling Criteria:	N/A
Label String:	"space facility"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample


Sports_Ground (AK040)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_SportsGround	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001631	Sports Ground / all (surface)	ALL

Label Information

Sports_Ground (AK040) (continued)

Surface

Label Description: Sports Ground / all (surface)
Additional Labeling Criteria: N/A

Label String: "sports ground"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ sports ground

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_SportsGround	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001632	Sports Ground / all (point)	ALL

Label Information

Label Description: Sports Ground / all (surface)
Additional Labeling Criteria: N/A

Label String: "sports ground"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ sports ground

Spot_Elevation (CA030)

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_SpotElevation_Earthen	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of intersection	

Spot_Elevation (CA030) (continued)

Point

Element Name: Black_0.1mm-1.0mmLenX		Element Reference: P00205	Element Type: Point - Simple
Description: Two Black lines (each length 1.0mm with a 0.1mm lineweight) intersect at a 45 degree angles to form an "X". Intersection is at the center of the two line segments.			
Color Token: Black	Parameters: Length: 1.0mm Lineweight: 0.1mm Orientation: Center of intersection Note: Two lines intersect at a 45 degree angles to form an "X".		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001322	Spot Elevation / earthen (point)	(ESC = 1 [Land])

Label Information

Label Description:	Spot Elevation / land / normal (point)
Additional Labeling Criteria:	ZVH value is converted from meters to feet.
Label String:	[ZVH]
Characteristics:	72 72 (Black, Condensed, Bold, 7 pt, Lower case)
Label Description:	Spot Elevation / land / critical (point)
Additional Labeling Criteria:	Highest ZVH within 30'x30' lines of graticule. ZVH value is converted from meters to feet.
Label String:	[ZVH]
Characteristics:	73 73 (Black, Condensed, Bold, 9 pt, Lower case)
Label Description:	Spot Elevation / land / highest on sheet (point)
Additional Labeling Criteria:	ZVH value is converted from meters to feet.
Label String:	[ZVH]
Characteristics:	48 48 (Black, Condensed, Bold, 10 pt, Lower case)

Symbol Sample

× 1005

× 6973

× 12770

Symbol Information

	Symbol Graphic Name: PT_Black_SpotElevation_Snow/Ice
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Origin: Center of intersection

Element Name: Black_0.1mm-1.0mmLenX		Element Reference: P00205	Element Type: Point - Simple
Description: Two Black lines (each length 1.0mm with a 0.1mm lineweight) intersect at a 45 degree angles to form an "X". Intersection is at the center of the two line segments.			
Color Token: Black	Parameters: Length: 1.0mm Lineweight: 0.1mm Orientation: Center of intersection Note: Two lines intersect at a 45 degree angles to form an "X".		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
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Spot_Elevation (CA030) (continued)

Point

R001685 Spot Elevation / snow,ice (point) ESC = 2 [Snow Field and/or Ice-field]

Label Information

Label Description: Spot Elevation / snow, ice / normal (point)
Additional Labeling Criteria: ZVH value is converted from meters to feet.

Label String: [ZVH]
Characteristics: 75
 75 (Cyan, Condensed, Bold, 7 pt, Lower case)

Label Description: Spot Elevation / snow, ice / critical (point)
Additional Labeling Criteria: Highest ZVH within 30'x30' lines of graticule.
 ZVH value is converted from meters to feet.

Label String: [ZVH]
Characteristics: 74
 74 (Cyan, Condensed, Bold, 9 pt, Lower case)

Label Description: Spot Elevation / snow, ice / highest on sheet (point)
Additional Labeling Criteria: ZVH value is converted from meters to feet.

Label String: [ZVH]
Characteristics: 31
 31 (Cyan, Condensed, Bold, 10 pt, Lower case)

Symbol Sample

× 2625

× 9186

× 12284

Symbol Information

	Symbol Graphic Name: PT_SpotElevation_Lake
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Dynamic text label only. No Graphic Parameters.
POINT LABEL ONLY	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001613	Spot Elevation / lake (point)	(ESC = 3 [Water] or ESC = 5 [Inland Water])

Label Information

Label Description: Spot Elevation / lake (point)
Additional Labeling Criteria: ZVH value is converted from meters to feet.

Label String: [ZVH]
Characteristics: 77
 77 (Cyan, Regular, Bold, 7 pt, Lower case)

Spot_Elevation (CA030) (continued)

Point

Symbol Sample

756

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_SpotElevation_Stream
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Dynamic text label only. No Graphic Parameters.
POINT LABEL ONLY	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001686	Spot Elevation / stream (point)	N/A

Label Information

Label Description:	Spot Elevation / stream (point)
Additional Labeling Criteria:	ZVH value is converted from meters to feet.
Label String:	[ZVH]
Characteristics:	76 76 (Cyan, Regular, Bold, Italic, 7 pt, Lower case)

Symbol Sample

620

Stadium (AK160)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: AR_Black_Stadium		
	Apply Label to Symbol: Yes		
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.		
Element Name: Black_0.5mmSolidLine		Element Reference: L00014	Element Type: Line - Simple
Description: Black 0.5mm Solid Line (0.5mm wt)			
Color Token: Black		Parameters: Lineweight: 0.5mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001061	Stadium / all (surface)	ALL

Label Information

Stadium (AK160) (continued)

Surface

Label Description: Stadium / all (surface)
Additional Labeling Criteria: N/A

Label String: "stadium"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Stadium	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	
Element Type: Point - Simple		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001062	Stadium / non-obstruction (point)	(HGT < 61)

Label Information

Label Description: Stadium / non-obstruction (point)
Additional Labeling Criteria: N/A

Label String: "stadium"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Steep_Terrain_Face (DB010)

Curve

Symbol Information

Symbol Graphic 	Symbol Graphic Name: LN_Dk-Brown_SteepTerrainFace_EqualOrGreaterThanContour	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature. Ticks point downhill.	

Storage_Depot (AM010) (continued)

Surface

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_StorageDepot	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001634	Storage Depot / above surface / small area (surface)	(ARA < 6250000) and (LUN = 1000 [False] or LUN = -999999 [No Information])

Label Information

Label Description:	Storage Depot / small area (surface)
Additional Labeling Criteria:	N/A
Label String:	"storage depot"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_StorageDepot	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001563	Storage Depot / above surface (point)	(LUN = 1000 [False] or LUN = -999999 [No Information])

Storage_Depot (AM010) (continued)

Point

Label Information

Label Description: Storage Depot / all (point)
Additional Labeling Criteria: N/A

Label String: "storage depot"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ storage depot

Storage_Tank (AM070)

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_StorageTank	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of circle	
Element Name: Black_0.8mmFilledCircle		Element Reference: P00053
Description: Black 0.8mm diameter filled circle		
Color Token: Black	Parameters: Diameter: 0.8mm Note: Circle is filled	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001116	Storage Tank / non-obstruction / other (point)	(HGT < 61) and ((PPO = 122 [Water]) and (SSC = 2 [Horizontal Capped Cylindrical] or SSC = 4 [Vertical Capped Cylindrical] or SSC = 12 [Pyramidal] or SSC = 17 [Spherical] or SSC = 59 [Cylindrical with Framework] or SSC = 65 [Cylindrical with Flat Top] or SSC = 66 [Cylindrical with Domed Top] or SSC = 71 [Cylindrical with Conical Top] or SSC = 87 [Domed] or SSC = 91 [Vertical Cylindrical] or SSC = 92 [Cubic] or SSC = 94 [Board-like Prism] or SSC = 99 [Horizontal Cylindrical] or SSC = 100 [Rectangular Prism] or SSC = 101 [Square Prism] or SSC = 999 [Other] or SSC = -999999 [No Information])) or (PPO = 16 [Chemical] or PPO = 45 [Gas] or PPO = 46 [Petrol] or PPO = 61 [Liquefied Natural Gas (LNG)] or PPO = 62 [Liquefied Petroleum Gas (LPG)] or PPO = 83 [Petroleum] or PPO = 90 [Radioactive Material] or PPO = 101 [Sewage] or PPO = 214 [Biodiesel] or PPO = 999 [Other] or PPO = -999999 [No Information])

Label Information

Label Description: Storage Tank / non-obstruction (point)
Additional Labeling Criteria: N/A

Label String: "tank"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

● tank

Storage_Tank (AM070) (continued)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Cyan_StorageTank_Water	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of dot	
Element Name: Cyan_WaterTower		Element Reference: P00142
Description: Cyan water tower		
Color Token: Cyan	Parameters: Detail: Cyan_WaterTower Note: See Element: Cyan_Water_Tower in Annex H for detailed drawing instructions	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001614	Storage Tank / non-obstruction / water tower (point)	(HGT < 61) and (PPO = 122 [Water]) and (SSC = 88 [Spherical on Column] or SSC = 89 [Cylindrical on Tower])

Symbol Sample		
		

Swamp (ED020)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Green_Swamp	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The surface geometry is filled with the screened color and area pattern combined.	
Element Name: Swamp		Element Reference: A00103
Description: Cyan-31ScreenFill (area fill) coincident with Green_ScatteredTreesFill (area pattern)		
Color Token: Green	Parameters: Area Fill/Pattern 1: Cyan-31_ScreenFill Area Fill/Pattern 2: Green_ScatteredTreesFill Note: The area fill and area pattern are combined as one symbol	
Element Name: Cyan-31_ScreenFill		Element Reference: A00007
Description: Cyan-31_ScreenFill area fill (Cyan 31% screen, 45 degree angle)		
Color Token: Cyan-31	Parameters: Screen Angle: 45 degrees	
Element Name: Green_ScatteredTreesFill		Element Reference: A00104
Description: Green (Cyan 100% coincident with Yellow 100%) Scattered Trees Fill area pattern		
Color Token: Green	Parameters: Area Pattern: See Element: Green_ScatteredTrees in Annex I Note: Area Pattern #44	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001313	Swamp / not nipa, not mangrove (surface)	(VSP = 8 [Cypress] or VSP = 999 [Other] or VSP = -999999 [No Information])

Swamp (ED020) (continued)

Surface

Symbol Sample



Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Green_NipaPalm	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The surface geometry is filled with the screened color and area pattern combined.	
Element Name: NipaPalm	Element Reference: A00079	Element Type: Area - Complex
Description: Cyan-31ScreenFill (area fill) coincident with Green_NipaPalmFill (area pattern)		
Color Token: Green	Parameters: Area Fill/Pattern 1: Cyan-31_ScreenFill Area Fill/Pattern 2: Green_NipaPalmFill Note: The area fill and area pattern are combined as one symbol	
Element Name: Cyan-31_ScreenFill	Element Reference: A00007	Element Type: Area - Fill
Description: Cyan-31_ScreenFill area fill (Cyan 31% screen, 45 degree angle)		
Color Token: Cyan-31	Parameters: Screen Angle: 45 degrees	
Element Name: Green_NipaPalmFill	Element Reference: A00077	Element Type: Area - Pattern
Description: Green (Cyan 100% coincident with Yellow 100%) Nipa Palm Fill area pattern		
Color Token: Green	Parameters: Area Pattern: See Element: Green_NipaPalmFill in Annex I Note: Area Pattern #7	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001335	Swamp / nipa (surface)	(VSP = 22 [Nipa])

Symbol Sample



Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Green_Mangrove	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The surface geometry is filled with the screened color and area pattern combined.	

Swamp (ED020) (continued)

Surface

Element Name: Mangrove		Element Reference: A00080	Element Type: Area - Complex
Description: Cyan-31ScreenFill (area fill) coincident with Green_MangroveFill (area pattern)			
Color Token: Green	Parameters: Area Fill/Pattern 1: Cyan-31_ScreenFill Area Fill/Pattern 2: Green_MangroveFill Note: The area fill and area pattern are combined as one symbol		
Element Name: Cyan-31_ScreenFill		Element Reference: A00007	Element Type: Area - Fill
Description: Cyan-31_ScreenFill area fill (Cyan 31% screen, 45 degree angle)			
Color Token: Cyan-31	Parameters: Screen Angle: 45 degrees		
Element Name: Green_MangroveFill		Element Reference: A00078	Element Type: Area - Pattern
Description: Green (Cyan 100% coincident with Yellow 100%) Mangrove Fill area pattern			
Color Token: Green	Parameters: Area Pattern: See Element: Green_MangroveFill in Annex I Note: Area Pattern #8		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001336	Swamp / mangrove (surface)	(VSP = 19 [Mangrove])

Symbol Sample



Tank_Farm (AM071)

Surface

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_TankFarm
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square
Element Name: Black_1.0mmSquareFilled	
Element Reference: P00123	
Element Type: Point - Simple	
Description: Black filled square with all sides 1.0mm	
Color Token: Black	Parameters: Length: 1.0mm

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001564	Tank Farm / all (surface)	ALL

Label Information

Label Description:	Tank Farm / all (surface)
Additional Labeling Criteria:	N/A
Label String:	"tank farm"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Tank_Farm (AM071) (continued)

Surface

Symbol Sample

■ tank farm

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_TankFarm	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001565	Tank Farm / all (point)	ALL

Label Information

Label Description: Tank Farm / all (point)
Additional Labeling Criteria: N/A

Label String: "tank farm"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ tank farm

Tidal_Water (BA040)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Cyan_TidalWater	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The surface geometry is filled with the screened color.	
Element Name: Cyan-31_ScreenFill		Element Reference: A00007
Description: Cyan-31_ScreenFill area fill (Cyan 31% screen, 45 degree angle)		
Color Token: Cyan-31	Parameters: Screen Angle: 45 degrees	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001165	Tidal Water / all (surface)	ALL

Tidal_Water (BA040) (continued)

Surface

Label Information

Label Description: Tidal Water / large area (surface)
Additional Labeling Criteria: N/A

Label String: [Z1005_FNA]
Characteristics: 59
 59 (Cyan, Condensed, Italic, 8-18 pt, Upper case)

Label Description: Tidal Water / small area (surface)
Additional Labeling Criteria: N/A

Label String: [Z1005_FNA]
Characteristics: 57
 57 (Cyan, Condensed, Italic, 7-10 pt, Mixed case)

Symbol Sample



Tower (AL241)

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Tower
	Apply Label to Symbol: No
	Symbol Placement Instructions: Origin: Center of dot.
Element Name: Black_Tower	
Element Reference: P00141	
Element Type: Point - Shape	
Description: Black tower	
Color Token: Black	Parameters: Detail: Black_Tower Note: See Element: Black_Tower in Annex H for detailed drawing instructions

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001096	Tower / non-communication (point)	(TTC = 2 [Observation Tower] or TTC = 10 [Lookout Tower] or TTC = 12 [Fire Tower] or TTC = 21 [Guard Tower] or TTC = 22 [Industrial Tower] or TTC = 23 [Drop Tower] or TTC = 24 [Solar Power Tower] or TTC = 999 [Other] or TTC = -999999 [No Information]) and (HGT < 61)

Symbol Sample



Tower (AL241) (continued)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Tower_Communication	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of dot	
Element Name: Black_Communication_Tower		Element Reference: P00155
Description: Black communication tower		
Color Token: Black	Parameters: Detail: Black_Communication_Tower Note: See Element: Black_Communication_Tower in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001561	Tower / communication (point)	(TTC = 20 [Telecommunication Tower]) and (HGT < 61)

Symbol Sample	
	

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Blue072_VO	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Use this symbol to replace any point feature with HGT >= 61. Origin: Center of dot	
Element Name: Blue072_Obstruction		Element Reference: P00008
Description: Blue072 vertical obstruction		
Color Token: Blue072	Parameters: Detail: Blue072_Obstruction Note: See Element: Blue072_Obstruction in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001690	Tower / obstruction / single (point)	(HGT >= 61)

Label Information	
Label Description:	Tower / obstruction / single / onshore / normal (point)
Additional Labeling Criteria:	ZVH and HGT values are converted from meters to feet.
Label String:	[ZVH] "([HGT])"
Characteristics:	61,62,62,62 61 (Blue072, Condensed, Bold, Italic, 7 pt, Lower case) 62 (Blue072, Condensed, Bold, 7 pt, Lower case)

Tower (AL241) (continued)

Point

Label Description: Tower / obstruction / single / onshore / highest (point)
Additional Labeling Criteria: Highest structure (if Tower) within 30'x30' lines of graticule and located onshore. ZVH and HGT values are converted from meters to feet.

Label String: [ZVH]
 "[[HGT]]"
Characteristics: 63,64,64,64
 63 (Blue072, Condensed, Bold, Italic, 8 pt, Lower case)
 64 (Blue072, Condensed, Bold, 8 pt, Lower case)

Label Description: Tower / obstruction / single / offshore / normal (point)
Additional Labeling Criteria: HGT value is converted from meters to feet.

Label String: "[[HGT]]"
Characteristics: 62,62,62
 62 (Blue072, Condensed, Bold, 7 pt, Lower case)

Label Description: Tower / obstruction / single / offshore / highest (point)
Additional Labeling Criteria: Highest structure (if Tower) within 30'x30' lines of graticule and located offshore. HGT value is converted from meters to feet.

Label String: "[[HGT]]"
Characteristics: 64,64,64
 64 (Blue072, Condensed, Bold, 8 pt, Lower case)

Symbol Sample



Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Blue072_Multiple_VO	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Use this symbol to replace a group of single vertical obstruction symbols that are overprinting in congested areas and normally have the same feature class. Origin: Center of dot of highest object in group	
Element Name: Blue072_Multiple_VO		Element Reference: P00101
Element Type: Point - Shape		
Description: Blue072 multiple vertical obstruction		
Color Token: Blue072	Parameters:	
	Detail: Blue072_Multiple_VO	
	Note: See Element: Blue072_Multiple_VO in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001689	Tower / obstruction / multiple (point)	(HGT >= 61)

Label Information

Label Description: Tower / obstruction / multiple / normal (point)
Additional Labeling Criteria: ZVH and HGT values are converted from meters to feet.

Label String: [ZVH]
 "[[HGT]]"
Characteristics: 61,62,62,62
 61 (Blue072, Condensed, Bold, Italic 7 pt, Lower case)
 62 (Blue072, Condensed, Bold, 7 pt, Lower case)

Tower (AL241) (continued)

Point

Label Description: Tower / obstruction / multiple / highest (point)
Additional Labeling Criteria: Highest structures (if Towers) within 30'x30' lines of graticule. ZVH and HGT values are converted from meters to feet.

Label String: [ZVH]
 "[[HGT]]"
Characteristics: 63,64,64,64
 63 (Blue072, Condensed, Bold, Italic, 8 pt, Lower case)
 64 (Blue072, Condensed, Bold, 8 pt, Lower case)

Label Description: Tower / obstruction / multiple / offshore / normal (point)
Additional Labeling Criteria: HGT value is converted from meters to feet.

Label String: "[[HGT]]"
Characteristics: 62,62,62
 62 (Blue072, Condensed, Bold, 7 pt, Lower case)

Label Description: Tower / obstruction / multiple / offshore / highest (point)
Additional Labeling Criteria: Highest structure (if Tower) within 30'x30' lines of graticule and located offshore. HGT value is converted from meters to feet.

Label String: "[[HGT]]"
Characteristics: 64,64,64
 64 (Blue072, Condensed, Bold, 8 pt, Lower case)

Symbol Sample



Training_Site (FA165)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_TrainingSite	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	
Element Type: Point - Simple		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001559	Training Site / all (surface)	ALL

Label Information

Label Description: Training Site / all (surface)
Additional Labeling Criteria: N/A

Label String: "training site"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Training_Site (FA165) (continued)

Surface

Symbol Sample

■ training site

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_TrainingSite	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001560	Training Site / all (point)	ALL

Label Information

Label Description: Training Site / all (point)
Additional Labeling Criteria: N/A

Label String: "training site"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ training site

Transportation_Route_Character_Change (AQ059)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_TransRouteCharacterChange	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The symbol is placed 90 degrees and on top of the linear feature only when a division of classification is necessary.	
Element Name: Black_0.15mm-2.0mmLenLine		Element Reference: P00153
Description: Black 2.0mm length line with a 0.15mm lineweight		
Color Token: Black	Parameters: Length: 2.0mm Lineweight: 0.15mm Orientation: Line is placed 90 degrees to linear feature	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
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Transportation_Route_Character_Change (AQ059) (continued)

Point

R001557 Transportation Route Characteristic Change / transportation (point) (TRS = 12 [Railway] or TRS = 13 [Road])

Symbol Sample

I

Transportation_Route_Protection_Structure (AL211)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Black_TransRouteProtectStruct	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry and the area is filled with the specified pattern. A minimum width of 2.5mm is required.	
Element Name: Black_LP15Fill		Element Reference: A00057
Element Type: Area - Pattern		
Description: Black Diagonal Line Fill - 35% coverage, 40L, 45 degree angle lines.		
Color Token: Black	Parameters:	
	Area Pattern: See Element: Black_LP15Fill in Annex I	
	Screen Angle: 45 degrees	
	Note: Line Pattern #15	
Element Name: Black_0.2mmSolidLine		Element Reference: L00009
Element Type: Line - Simple		
Description: Black 0.2mm Solid Line (0.2mm wt)		
Color Token: Black	Parameters:	
	Lineweight: 0.2mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001555	Transportation Route Protection Structure / all (surface)	ALL

Label Information

Label Description: Transportation Route Protection Structure / all (surface)
Additional Labeling Criteria: N/A
Label String: "protection shed"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

 protection shed

Point

Transportation_Route_Protection_Structure (AL211) (continued)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_TransRouteProtectStruct	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of rectangle	
Element Name: Black_PT_TransRouteProtectStruct		Element Reference: P00152
Element Type: Point - Simple		
Description: Black 1.5mm x 2.5mm rectangle with a 0.2mm lineweight outline perimeter and filled with the line pattern LP15.		
Color Token: Black	Parameters: Lineweight: 0.2mm Note: Black 1.5mm x 2.5mm rectangle has a 0.2mm lineweight outline perimeter and is filled with a line pattern. See Element: Black_LP15Fill in Annex I	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001556	Transportation Route Protection Structure / landmark (point)	(LMC = 1001 [True])

Label Information	
Label Description:	Transportation Route Protection Structure / all (point)
Additional Labeling Criteria:	N/A
Label String:	"protection shed"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample
 protection shed

Transportation_Station (AQ125)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Black_TransportationStation	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The surface geometry is filled with the solid color. A minimum plotted width of 1.0mm is required.	
Element Name: Black_SolidAreaFill		Element Reference: A00006
Element Type: Area - Fill		
Description: Black Solid Fill		
Color Token: Black	Parameters: Note: Solid Fill	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001144	Transportation Station / all (surface)	(FFN = 482 [Station] or FFN = 490 [Railway Transport] or FFN = 491 [Railway Passenger Transport]) and (TRS = 12 [Railway])

Label Information

Tundra (BJ110) (continued)

Surface

Symbol Information	
Symbol Graphic <i>TUNDRA</i>	Symbol Graphic Name: AR_Tundra
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Static text label only. No Graphic Parameters.
AREA LABEL ONLY	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001233	Tundra / all (surface)	ALL

Label Information

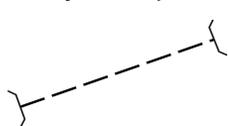
Label Description:	Tundra / all (surface)
Additional Labeling Criteria:	N/A
Label String:	"TUNDRA"
Characteristics:	39 39 (Black, Condensed, Italic, 7-16 pt, Upper case)

Symbol Sample

TUNDRA

Tunnel (AQ130)

Curve

Symbol Information	
Symbol Graphic 	Symbol Graphic Name: LN_Black_Tunnel
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.

Tunnel (AQ130) (continued)

Curve

Element Name: Black_Tunnel		Element Reference: L00096	Element Type: Line - Complex
Description: Black 0.2mm Dashed Line (0.2mm wt, 1.0mm dash, 0.5mm gap) with a Black 0.2mm Tick Entrance/Exit at each end			
Color Token: Black	Parameters: Line Style: Black_0.2mm-1mmLenDash-0.5mmGapLine Fix at Start: Black_0.2mmTick-Entrance/Exit Fix at End: Black_0.2mmTick-Entrance/Exit Note: A Black Entrance/Exit point symbol is placed centered at each end of the tunnel line at 90 degrees. Wing ticks always point away from the tunnel line.		
Element Name: Black_0.2mm-1mmLenDash-0.5mmGapLine		Element Reference: L00031	Element Type: Line - Styled
Description: Black 0.2mm Dashed Line (0.2mm wt, 1.0mm dash, 0.5mm gap)			
Color Token: Black	Parameters: Lineweight: 0.2mm Dash Length: 1.0mm Dash Spacing: 0.5mm		
Element Name: Black_0.2mmTick-Entrance/Exit		Element Reference: P00073	Element Type: Point - Simple
Description: Black 2.0mm length line with 0.6mm length wing ticks attached at a 45 degree angle at each endpoint. All lineweights are 0.2mm			
Color Token: Black	Parameters: Headline: Lineweight: 0.2mm Length: 2.0mm Wingtick: Lineweight: 0.2mm Length: 0.6mm Note: Wing tick placed at 45 degree angle outward from center of the headline end		
Element Name: Black_0.2mmTick-Entrance/Exit		Element Reference: P00073	Element Type: Point - Simple
Description: Black 2.0mm length line with 0.6mm length wing ticks attached at a 45 degree angle at each endpoint. All lineweights are 0.2mm			
Color Token: Black	Parameters: Headline: Lineweight: 0.2mm Length: 2.0mm Wingtick: Lineweight: 0.2mm Length: 0.6mm Note: Wing tick placed at 45 degree angle outward from center of the headline end		

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001146	Tunnel / standard (curve)	(LZN >= 1000)

Label Information

Label Description:	Tunnel / all (curve)
Additional Labeling Criteria:	N/A
Label String:	"tunnel"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

tunnel
}---{

Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_Tunnel
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Origin: Center of symbol (centered in the gap between the dashes)
Element Name: Black_PT_Tunnel	
Element Reference: P00151	
Element Type: Point - Shape	
Description: Black point tunnel	
Color Token: Black	Parameters: Detail: Black_PT_Tunnel Note: See Element: Black_PT_Tunnel in Annex H for detailed drawing instructions

Tunnel (AQ130) (continued)

Point

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001566	Tunnel / small (curve)	(LZN < 1000)

Label Information

Label Description: Tunnel / all (curve)
Additional Labeling Criteria: N/A

Label String: "tunnel"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

}- { tunnel

Vanishing Point (BH145)

Point

Symbol Information

	Symbol Graphic Name: PT_Cyan_VanishingPoint	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Apex points upstream and connects to drainage feature at apex. Origin: Apex	
Element Name: Cyan_0.2mm-1.0mmLenV		Element Reference: P00059
Element Type: Point - Simple		
Description: Cyan "V" length of each leg is 1.0mm with a 0.2mm lineweight that intersect at a 90 degree angle		
Color Token: Cyan	Parameters: Length: 1.0mm Lineweight: 0.2mm Orientation: Apex is where the lines connect to form a "V" Note: Angle between stems: 90 degrees	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001207	Vanishing Point / all (point)	ALL

Symbol Sample

<

Vertical Obstruction (No Code)

Point

Vertical_Obstruction (No Code) (continued)

Point

Symbol Information		
	Symbol Graphic Name: PT_Blue072_VO	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Use this symbol to replace any point feature with HGT >= 61. Origin: Center of dot	
Element Name: Blue072_Obstruction		Element Reference: P00008
Description: Blue072 vertical obstruction		
Color Token: Blue072	Parameters: Detail: Blue072_Obstruction Note: See Element: Blue072_Obstruction in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001512	Vertical Obstruction / single (point)	(Feature <> AL241 [Tower]) and (HGT >= 61)

Label Information

Label Description:	Vertical Obstruction (excluding Tower) / single / onshore / normal (point)
Additional Labeling Criteria:	ZVH and HGT values are converted from meters to feet.
Label String:	[Feature Name] [ZVH] "([HGT])"
Characteristics:	60,61,62,62,62 60 (Blue072, Condensed, Bold, 7 pt, Mixed case) 61 (Blue072, Condensed, Bold, Italic, 7 pt, Lower case) 62 (Blue072, Condensed, Bold, 7 pt, Lower case)
Label Description:	Vertical Obstruction (excluding Tower) / single / onshore / highest (point)
Additional Labeling Criteria:	Highest structure (excluding Tower) within 30'x30' lines of graticule and located onshore. ZVH and HGT values are converted from meters to feet.
Label String:	[Feature Name] [ZVH] "([HGT])"
Characteristics:	60,63,64,64,64 60 (Blue072, Condensed, Bold, 7 pt, Mixed case) 63 (Blue072, Condensed, Bold, Italic, 8 pt, Lower case) 64 (Blue072, Condensed, Bold, 8 pt, Lower case)
Label Description:	Vertical Obstruction (excluding Tower) / single / offshore / normal (point)
Additional Labeling Criteria:	HGT value is converted from meters to feet.
Label String:	[Feature Name] "([HGT])"
Characteristics:	60,62,62,62 60 (Blue072, Condensed, Bold, 7 pt, Mixed case) 62 (Blue072, Condensed, Bold, 7 pt, Lower case)
Label Description:	Vertical Obstruction (excluding Tower) / single / offshore / highest (point)
Additional Labeling Criteria:	Highest structure (excluding Tower) within 30'x30' lines of graticule and located offshore. HGT value is converted from meters to feet.
Label String:	[Feature Name] "([HGT])"
Characteristics:	60,64,64,64 60 (Blue072, Condensed, Bold, 7 pt, Mixed case) 64 (Blue072, Condensed, Bold, 8 pt, Lower case)

Vertical_Obstruction (No Code) (continued)

Point

Symbol Sample

 **Catalytic cracker**
961
(230)

 **Building**
1476
(686)

 **Rig**
(240)

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Blue072_Multiple_VO
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Use this symbol to replace a group of single vertical obstruction symbols that are overprinting in congested areas and normally have the same feature class. Origin: Center of dot of highest object in group

Element Name: Blue072_Multiple_VO	Element Reference: P00101	Element Type: Point - Shape
Description: Blue072 multiple vertical obstruction		
Color Token: Blue072	Parameters: Detail: Blue072_Multiple_VO Note: See Element: Blue072_Multiple_VO in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001513	Vertical Obstruction / multiple (point)	(Feature <> AL241 [Tower]) and (HGT >= 61)

Label Information

Label Description:	Vertical Obstruction (excluding Tower) / multiple / normal (point)
Additional Labeling Criteria:	ZVH and HGT values are converted from meters to feet.
Label String:	[Feature Name]"s" [ZVH] "("[HGT])"
Characteristics:	60,62,61,62,62,62 60 (Blue072, Condensed, Bold, 7 pt, Mixed case) 61 (Blue072, Condensed, Bold, Italic, 7 pt, Lower case) 62 (Blue072, Condensed, Bold, 7 pt, Lower case)
Label Description:	Vertical Obstruction (excluding Tower) / multiple / highest (point)
Additional Labeling Criteria:	Highest structures (excluding Towers) within 30'x30' lines of graticule. ZVH and HGT values are converted from meters to feet.
Label String:	[Feature Name]"s" [ZVH] "("[HGT])"
Characteristics:	60,62,63,64,64,64 60 (Blue072, Condensed, Bold, 7 pt, Mixed case) 62 (Blue072, Condensed, Bold, 7 pt, Lower case) 63 (Blue072, Condensed, Bold, Italic, 8 pt, Lower case) 64 (Blue072, Condensed, Bold, 8 pt, Lower case)
Label Description:	Vertical Obstruction (excluding Tower) / multiple / offshore / normal (point)
Additional Labeling Criteria:	HGT value is converted from meters to feet.
Label String:	[Feature Name]"s" "("[HGT])"
Characteristics:	60,62,62,62,62 60 (Blue072, Condensed, Bold, 7 pt, Mixed case) 62 (Blue072, Condensed, Bold, 7 pt, Lower case)

Vertical_Obstruction (No Code) (continued)

Point

Label Description: Vertical Obstruction (excluding Tower) / multiple / offshore / highest (point)
Additional Labeling Criteria: Highest structure (excluding Tower) within 30'x30' lines of graticule and located offshore. HGT value is converted from meters to feet.

Label String: [Feature Name]"s"
 ("[HGT]")"

Characteristics: 60,62,64,64,64
 60 (Blue072, Condensed, Bold, 7 pt, Mixed case)
 62 (Blue072, Condensed, Bold, 7 pt, Lower case)
 64 (Blue072, Condensed, Bold, 8 pt, Lower case)

Symbol Sample



Vineyard (EA050)

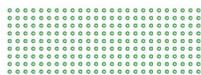
Surface

Symbol Information		
	Symbol Graphic Name: AR_Green_Vineyard	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: The surface geometry is filled with the area pattern.	
Element Name: Green_VegetationFill	Element Reference: A00076	Element Type: Area - Pattern
Description: Green (Cyan 100% coincident with Yellow 100%) Vegetation Fill area pattern		
Color Token: Green	Parameters: Area Pattern: See Element: Green_VegetationFill in Annex I Note: Area Pattern #74	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001306	Vineyard / all (surface)	ALL

Symbol Sample



Void_Collection_Area (ZD020)

Surface

Symbol Information		
	Symbol Graphic Name: AR_Black_VoidCollectionArea	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine	Element Reference: L00210	Element Type: Line - Styled
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters: Lineweight: 0.1mm Dash Length: 1.0mm Dash Spacing: 0.5mm	

Void_Collection_Area (ZD020) (continued)

Surface

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001319	Void Collection Area / all (surface)	(ARA >= 100000000) and (VCT = 1 [Hypsography] or VCT = 999 [Other])

Label Information

Label Description: Void Collection Area / all (surface)
Additional Labeling Criteria: N/A

Label String: "DATA INCOMPLETE"
Characteristics: 40
 40 (Black, Condensed, 6-16 pt, Upper case)

Symbol Sample



Volcano (DB180)

Point

Symbol Information

Symbol Graphic <i>[Z1005_FNA]</i>	Symbol Graphic Name: PT_Volcano
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: Dynamic text label only. No Graphic Parameters.
POINT LABEL ONLY	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001667	Volcano / other (point)	(VGT = 3 [Shield] or VGT = 4 [Caldera] or VGT = 5 [Composite] or VGT = -999999 (No Information))

Label Information

Label Description: Volcano / named (point)
Additional Labeling Criteria: (Z1005_FNA <> "UNK" or Z1005_FNA is not null)

Label String: [Z1005_FNA]
Characteristics: 7
 7 (Black, Condensed, Italic 7-10 pt, Mixed case)

Label Description: Volcano / unnamed / other (point)
Additional Labeling Criteria: (Z1005_FNA = "UNK" or Z1005_FNA is null) and (VGT = 3 [Shield] or VGT = 5 [Composite] or VGT = -999999 (No Information))

Label String: "Volcano"
Characteristics: 7
 7 (Black, Condensed, Italic 7-10 pt, Mixed case)

Water_Intake_Tower (BI050) (continued)

Point

Element Name: Black_WaterIntakeTower	Element Reference: P00148	Element Type: Point - Shape
Description: Black water intake tower		
Color Token: Black	Parameters: Detail: Black_WaterIntakeTower Note: See Element: Black_WaterIntakeTower in Annex H for detailed drawing instructions.	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001226	Water Intake Tower / non-obstruction (point)	(HGT < 61)

Symbol Sample



Water_Tower (AM080)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Cyan_WaterTower	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of dot	
Element Name: Cyan_WaterTower	Element Reference: P00142	Element Type: Point - Shape
Description: Cyan water tower		
Color Token: Cyan	Parameters: Detail: Cyan_WaterTower Note: See Element: Cyan_Water_Tower in Annex H for detailed drawing instructions	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001119	Water Tower / non-obstruction (point)	(HGT < 61)

Symbol Sample



Waterfall (BH180)

Curve

Symbol Information	
Symbol Graphic 	Symbol Graphic Name: LN_Cyan_Waterfall
	Apply Label to Symbol: Yes
	Symbol Placement Instructions: The linear symbology is applied to the geometry of the feature.

Waterfall (BH180) (continued)

Curve

Element Name: Cyan_0.2mmSolidLine	Element Reference: L00015	Element Type: Line - Simple
Description: Cyan 0.2mm Solid Line (0.2mm wt)		
Color Token: Cyan	Parameters: Lineweight: 0.2mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001212	Waterfall / landmark (curve)	(LMC = 1001 [True])

Label Information

Label Description:	Waterfall / named (curve)
Additional Labeling Criteria:	(ZI005_FNA <> "UNK" or ZI005_FNA is not null)
Label String:	[ZI005_FNA]
Characteristics:	36 36 (Cyan, Regular, Italic, 6 pt, Mixed case)
Label Description:	Waterfall / unnamed (curve)
Additional Labeling Criteria:	(ZI005_FNA <> "UNK" or ZI005_FNA is not null)
Label String:	"falls"
Characteristics:	34 34 (Cyan, Regular, Italic, 6 pt, Lower case)

Symbol Sample



Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Cyan_Waterfall	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Perpendicular to drain. Origin: Center of line	
Element Name: Cyan_0.2mm-1.5mmLenLine	Element Reference: P00061	Element Type: Point - Simple
Description: Cyan 1.5mm length line with a 0.2mm lineweight		
Color Token: Cyan	Parameters: Length: 1.5mm Lineweight: 0.2mm Orientation: Centered 90 degrees to line	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001213	Waterfall / landmark (point)	(LMC = 1001 [True])

Label Information

Waterfall (BH180) (continued)

Point

Label Description: Waterfall / named (point)
Additional Labeling Criteria: (ZI005_FNA <> "UNK" or ZI005_FNA is not null)

Label String: [ZI005_FNA]
Characteristics: 36
 36 (Cyan, Regular, Italic, 6 pt, Mixed case)

Label Description: Waterfall / unnamed (point)
Additional Labeling Criteria: (ZI005_FNA = "UNK" or ZI005_FNA is null)

Label String: "falls"
Characteristics: 34
 34 (Cyan, Regular, Italic, 6 pt, Lower case)

Symbol Sample

falls

Desoto Falls

Waterwork (BH220)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Waterwork	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Element Type: Point - Simple		
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001518	Waterwork / all (surface)	ALL

Label Information

Label Description: Waterwork / all (surface)
Additional Labeling Criteria: N/A

Label String: "waterworks"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample

■ waterworks

Point

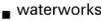
Waterwork (BH220) (continued)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Waterwork	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001519	Waterwork / all (point)	ALL

Label Information	
Label Description:	Waterwork / all (point)
Additional Labeling Criteria:	N/A
Label String:	"waterworks"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample


Wind_Farm (AD060)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: AR_Black_WindFarm	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The linear symbology is applied to the perimeter of the surface geometry.	
Element Name: Black_0.1mm-1.0mmLenDash-0.5mmGapLine		Element Reference: L00210
Description: Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)		
Color Token: Black	Parameters: Lineweight: 0.1mm Dash Length: 1.0mm Dash Spacing: 0.5mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001514	Wind Farm / large area (surface)	(ARA >= 6250000)

Label Information

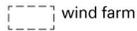
Wind_Farm (AD060) (continued)

Surface

Label Description: Wind Farm / large area (surface)
Additional Labeling Criteria: N/A

Label String: "wind farm"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_WindFarm	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001183	Wind Farm / small area (surface)	(ARA < 6250000)

Label Information

Label Description: Wind Farm / small area (surface)
Additional Labeling Criteria: N/A

Label String: "wind farm"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Point

Symbol Information

Symbol Graphic 	Symbol Graphic Name: PT_Black_WindFarm	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	

Wind_Farm (AD060) (continued)

Point

Element Name: Black_1.0mmSquareFilled	Element Reference: P00123	Element Type: Point - Simple
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001515	Wind Farm / all (point)	ALL

Label Information

Label Description:	Wind Farm / all (point)
Additional Labeling Criteria:	N/A
Label String:	"wind farm"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Wind_Turbine (AJ051)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Windturbine_OnShore	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of dot	
Element Name: Black_WindTurbine	Element Reference: P00143	Element Type: Point - Shape
Description: Black wind turbine		
Color Token: Black	Parameters: Detail: Black_WindTurbine Note: See Element: Black_WindTurbine in Annex H for detailed drawing instructions	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001054	Wind Turbine / on shore / non-obstruction (point)	(HGT < 61) and (SRL = 2 [Inland] or SRL = 3 [At Shoreline] or SRL = -999999 [No Information])

Symbol Sample



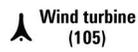
Wind_Turbine (AJ051) (continued)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_WindTurbine_Offshore	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of dot	
Element Name: Black_Offshore_VO		Element Reference: P00161
Description: Black vertical obstruction		
Color Token: Black	Parameters: Detail: Black_Offshore_VO Note: See Element: Black_Offshore_VO in Annex H for detailed drawing instructions	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001644	Wind Turbine / offshore / non-obstruction (point)	(HGT < 61) and (SRL = 1 [Offshore])

Label Information	
Label Description:	Wind Turbine / non-obstruction (point)
Additional Labeling Criteria:	HGT value is converted from meters to feet.
Label String:	"Wind turbine" "("[HGT]")"
Characteristics:	54,72,72,72 54 (Black, Condensed, Bold, 7 pt, Mixed case) 72 (Black, Condensed, Bold, 7 pt, Lower case)

Symbol Sample


Windmill (AJ050)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Windmill	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of dot	
Element Name: Black_Windmill		Element Reference: P00144
Description: Black windmill		
Color Token: Black	Parameters: Detail: Black_Windmill Note: See Element: Black_Windmill in Annex H for detailed drawing instructions	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001049	Windmill / non-obstruction (point)	(HGT < 61)

Windmill (AJ050) (continued)

Point

Symbol Sample



Wireless Telecommunication Information (ZI018)

Point

Symbol Information

	Symbol Graphic Name: PT_Blue072_WirelessTelecomInfo	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of dot. A box (Blue072 solid line 0.3mm wt) with a minimum length of 11.0mm and minimum width of 4.0mm is placed around the label string and attached to the symbol with a leader line (Blue072 solid line 0.3mm wt).	
Element Name: Blue072_Navaid_Other		Element Reference: P00212
Element Type: Point - Simple		
Description: Blue072 1.9mm diameter open circle with a 0.3mm lineweight and a blue072 filled 0.4mm diameter filled circle in the center		
Color Token: Blue072	Parameters:	
	Diameter: 1.9mm	
	Lineweight: 0.3mm	
	Note: 0.4mm diameter filled circle in the center of the open circle	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001687	Wireless Telecommunicaton Information / non-obstruction (point)	(HGT < 61) and (WIT = 4 [Radio Broadcast])

Label Information

Label Description:	Wireless Telecommunicaton Information / all (point)
Additional Labeling Criteria:	N/A
Label String:	[ZI005_FNA] [CHL]
Characteristics:	29,26 29 (Blue072, Condensed, 7 pt, Upper case) 26 (Blue072, Condensed, 7 pt, Lower case)

Symbol Sample



Wreck (BD180)

Point

Symbol Information

	Symbol Graphic Name: PT_Black_Wreck	
	Apply Label to Symbol: No	
	Symbol Placement Instructions: Origin: Center of open circle	

Wreck (BD180) (continued)

Point

Element Name: Black_Wreck	Element Reference: P00206	Element Type: Point - Shape
Description: Black wreck		
Color Token: Black	Parameters: Detail: Black_Wreck Note: See Element: Black_Wreck in Annex H for detailed drawing instructions	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001659	Wreck / not always submerged (point)	(WLE = 1 [Partly Submerged] or WLE = 2 [Always Dry] or WLE = 4 [Covers and Uncovers] or WLE = 5 [Awash at Low Water] or WLE = 9 [Awash at Chart Datum] or WLE = 999 [Other] or WLE = -999999 [No Information])

Symbol Sample



Zoo (AK180)

Surface

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Zoo	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: The point symbol is placed on the representative point of the surface feature. Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled	Element Reference: P00123	Element Type: Point - Simple
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters: Length: 1.0mm	

Symbol Portrayal Rules

Rule Ref	Description	Criteria
R001065	Zoo / all (surface)	ALL

Label Information

Label Description: Zoo / all (surface)
Additional Labeling Criteria: N/A

Label String: "zoo"
Characteristics: 2
 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample



Point

Zoo (AK180) (continued)

Point

Symbol Information		
Symbol Graphic 	Symbol Graphic Name: PT_Black_Zoo	
	Apply Label to Symbol: Yes	
	Symbol Placement Instructions: Origin: Center of filled square	
Element Name: Black_1.0mmSquareFilled		Element Reference: P00123
Element Type: Point - Simple		
Description: Black filled square with all sides 1.0mm		
Color Token: Black	Parameters:	
	Length: 1.0mm	

Symbol Portrayal Rules		
Rule Ref	Description	Criteria
R001511	Zoo / all (point)	ALL

Label Information	
Label Description:	Zoo / all (point)
Additional Labeling Criteria:	N/A
Label String:	"zoo"
Characteristics:	2 2 (Black, Regular, 6 pt, Lower case)

Symbol Sample


Annex B – Symbol Quick Reference Guide

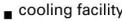
Symbol Quick Reference Guide

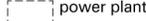
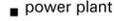
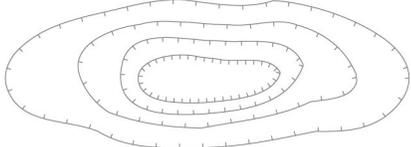
Symbol graphics in this Annex are examples only and may not show every instance of potential labeling. Representative labels are shown only for those symbols which always require labeling. Some symbols may require varying descriptive labels based on attribution (i.e. "gas field" or "oil field" for the PPO attribute on Hydrocarbons Field), and/or proper names when available. See Annex A for specific portrayal and labeling rules.

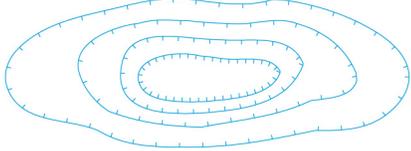
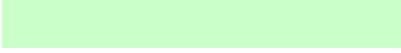
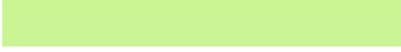
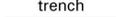
Description	Feature code	Symbol	Page
Administrative Boundary / international (curve)	FA000	<p style="text-align: center;">CANADA</p>  <p style="text-align: center;">UNITED STATES OF AMERICA</p>	A - 2
Administrative Boundary / other line of separation (curve)	FA000	<p style="text-align: center;">LEBANON DEMARCATION LINE</p>  <p style="text-align: center;">ISRAEL</p>	A - 3
Administrative Boundary / armistice line (curve)	FA000	<p style="text-align: center;"><u>NORTH KOREA ARMISTICE LINE</u></p> <p style="text-align: center;"><u>SOUTH KOREA</u></p>	A - 4
Administrative Boundary / cease-fire (curve)	FA000	<p style="text-align: center;"><u>CEASE-FIRE LINE</u></p>	A - 5
Administrative Boundary / claim line (curve)	FA000	<p style="text-align: center;"><u>INDIA CLAIM LINE</u></p>	A - 5
Administrative Boundary / no defined boundary (curve)	FA000	<p style="text-align: center;">PAKISTAN NO DEFINED BOUNDARY INDIA</p>	A - 6
Administrative Division / primary (surface)	FA003	<p style="text-align: center;"><u>NORTHERN TERRITORY</u></p> <p style="text-align: center;"><u>SOUTHERN TERRITORY</u></p>	A - 6
Administrative Division / secondary (surface)	FA003	<p style="text-align: center;"><u>COBB</u></p> <p style="text-align: center;"><u>FULTON</u></p>	A - 7
Aerial / non-obstruction (point)	AT011		A - 8
Aerial Farm / all (surface)	AT012	 aerial farm	A - 8
Aerial Farm / all (point)	AT012	 aerial farm	A - 9
Aero Navaid / other (point)	GA035		A - 9
Aero Navaid / VOR (point)	GA035		A - 10
Aero Navaid / VORTAC (point)	GA035		A - 11
Aero Navaid / TACAN (point)	GA035		A - 12
Aero Navaid / VOR DME (point)	GA035		A - 12
Aero Navaid / obstruction (point)	GA035		A - 13
Aerodrome Beacon / all (point)	GB013	 FL	A - 14
Airspace / ADIZ (surface)	GA005	 <p style="text-align: center;">CONTIGUOUS U.S. ADIZ</p>	A - 14

Description	Feature code	Symbol	Page
Airspace / special use (surface)	GA005		A - 15
Airspace / MOA	GA005		A - 16
Amphitheatre / all (point)	AK164	■ amphitheater	A - 17
Amusement Park / large area (surface)	AK030	amusement park	A - 18
Amusement Park / small area (surface)	AK030	■ amusement park	A - 18
Amusement Park / all (point)	AK030	■ amusement park	A - 19
Annotated Location / black text (surface)	ZD045	numerous rigs	A - 20
Annotated Location / blue text (surface)	ZD045	<i>numerous lakes</i>	A - 20
Annotated Location / black text (curve)	ZD045	numerous road barriers	A - 21
Annotated Location / blue text (curve)	ZD045	<i>numerous rapids</i>	A - 21
Annotated Location / black text (point)	ZD045	sinkhole	A - 22
Annotated Location / blue text (point)	ZD045	<i>wells</i>	A - 22
Aqueduct / surface (curve)	BH010		A - 23
Aqueduct / raised (curve)	BH010		A - 24
Archeological Site / all (surface)	AL012	■ archeological site	A - 25
Archeological Site / non-obstruction (point)	AL012	■ archeological site	A - 25
Astronomical Observatory / all (surface)	AL142	■ observatory	A - 26
Astronomical Observatory / non-obstruction (point)	AL142	■ observatory	A - 26
Bog / cranberry, peat (surface)	BH015		A - 27

Description	Feature code	Symbol	Page
Bridge / standard (curve)	AQ040		A - 28
Bridge / small (curve)	AQ040		A - 29
Bridge Superstructure / obstruction (curve)	AQ050		A - 29
Building / large area (surface)	AL013		A - 30
Building / important / small area (surface)	AL013		A - 31
Building / hospital / small area (surface)	AL013		A - 32
Building / railway station / small area (surface)	AL013		A - 33
Building / other / small area (surface)	AL013		A - 33
Building / important / landmark (point)	AL013		A - 35
Building / hospital / landmark (point)	AL013		A - 36
Building / railway station / landmark (point)	AL013		A - 37
Building / other / landmark (point)	AL013		A - 37
Built Up Area / all (surface)	AL020		A - 39
Built Up Area / all (point)	AL020		A - 40
Cable / non-obstruction / other (curve)	AT005		A - 41
Cable / powerline (curve)	AT005		A - 42
Cable / obstruction / standard (curve)	AT005		A - 42
Cable / obstruction / small (curve)	AT005		A - 43
Cableway / non-obstruction (curve)	AT041		A - 44
Cableway / obstruction / standard (curve)	AT041		A - 44

Description	Feature code	Symbol	Page
Cableway / obstruction / small (curve)	AT041		A - 45
Canal / perennial (curve)	BH020		A - 46
Canal / intermittent, dry (curve)	BH020		A - 47
Cart Track / all (curve)	AP010		A - 48
Castle / non-obstruction (surface)	AL375		A - 48
Castle / non-obstruction (point)	AL375		A - 49
Castle Complex / all (surface)	AL376		A - 49
Castle Complex / all (point)	AL376		A - 50
Causeway Structure / all (curve)	AQ063	causeway	A - 50
Cemetery / large area (surface)	AL030		A - 51
Cemetery / small area (surface)	AL030		A - 51
Cemetery / all (point)	AL030		A - 52
Checkpoint / customs / landmark (point)	AH070		A - 52
Conservation Area / all (surface)	FA210		A - 53
Conveyor / all (curve)	AF020		A - 54
Cooling Facility / all (surface)	AD055		A - 54
Cooling Facility / all (point)	AD055		A - 55
Cooling Tower / non-obstruction (point)	AF030		A - 56

Description	Feature code	Symbol	Page
Crane / on shore / non-obstruction (point)	AF040		A - 56
Crane / offshore / non-obstruction (point)	AF040		A - 57
Cut Line / all (curve)	DB071		A - 57
Dam / standard (surface)	BI020		A - 58
Dam / small (surface)	BI020		A - 59
Disposal Site / large area (surface)	AB000		A - 59
Disposal Site / small area (surface)	AB000		A - 60
Ditch / perennial (curve)	BH030		A - 60
Ditch / non-perennial (curve)	BH030		A - 61
Electric Power Station / large area (surface)	AD010		A - 61
Electric Power Station / small area (surface)	AD010		A - 62
Electric Power Station / all (point)	AD010		A - 63
Elevation Contour / land / basic accurate (curve)	CA010		A - 63
Elevation Contour / land / basic approximate (curve)	CA010		A - 64
Elevation Contour / land / half auxiliary (curve)	CA010		A - 65
Elevation Contour / land / mound (curve)	CA010		A - 66
Elevation Contour / land / depression (curve)	CA010		A - 67
Elevation Contour / land / depression auxiliary (curve)	CA010		A - 68

Description	Feature code	Symbol	Page
Elevation Contour / snow, ice / basic accurate (curve)	CA010		A - 69
Elevation Contour / snow, ice / basic approximate (curve)	CA010		A - 70
Elevation Contour / snow, ice / half auxiliary	CA010		A - 71
Elevation Contour / snow, ice / depression (curve)	CA010		A - 72
Elevation Contour / snow, ice / depression auxiliary (curve)	CA010		A - 73
Elevation Tint Band / tint #1 (surface)	No Code		A - 74
Elevation Tint Band / tint #2 (surface)	No Code		A - 74
Elevation Tint Band / tint #3 (surface)	No Code		A - 72
Elevation Tint Band / tint #4 (surface)	No Code		A - 75
Elevation Tint Band / tint #5 (surface)	No Code		A - 76
Elevation Tint Band / tint #6 (surface)	No Code		A - 76
Elevation Tint Band / tint #7 (surface)	No Code		A - 77
Elevation Tint Band / tint #8 (surface)	No Code		A - 77
Embankment / fill (curve)	DB090		A - 78
Embankment / with transportation (curve)	DB090		A - 78
Embankment / without transportation (curve)	DB090		A - 79
Engine Test Cell / non-obstruction (point)	AF060	 engine test cell	A - 80
Engineered Earthwork / all (curve)	AH025	 trench	A - 80

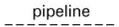
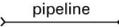
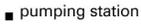
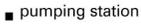
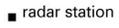
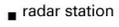
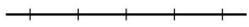
Description	Feature code	Symbol	Page
Extraction Mine / usable, not peat (surface)	AA010		A - 81
Extraction Mine / not usable, not peat (surface)	AA010		A - 82
Extraction Mine / peat (surface)	AA010	 peat cuttings	A - 83
Extraction Mine / usable, not peat (point)	AA010		A - 83
Extraction Mine / not usable, not peat (point)	AA010		A - 84
Extraction Mine / peat (point)	AA010	 peat cuttings	A - 84
Facility / refinery / large area (surface)	AL010	 refinery	A - 85
Facility / refinery / small area (surface)	AL010	 refinery	A - 86
Facility / mill / large area (surface)	AL010	 mill	A - 87
Facility / mill / small area (surface)	AL010	 mill	A - 88
Facility / plant / large area (surface)	AL010	 plant	A - 89
Facility / plant / small area (surface)	AL010	 plant	A - 90
Facility / communications / large area (surface)	AL010	 comm facility	A - 92
Facility / communications / small area (surface)	AL010	 comm facility	A - 92
Facility / other / large area (surface)	AL010	 facility	A - 93
Facility / other / small area (surface)	AL010	 facility	A - 94
Facility / refinery (point)	AL010	 refinery	A - 94
Facility / mill (point)	AL010	 mill	A - 95
Facility / plant (point)	AL010	 plant	A - 96
Facility / communications (point)	AL010	 comm facility	A - 98

Description	Feature code	Symbol	Page
Facility / other (point)	AL010	■ facility	A - 98
Fairground / standard (surface)	AK090	■ fairgrounds	A - 99
Ferry Crossing / standard (curve)	AQ070	----- ferry -----	A - 100
Ferry Station / all (surface)	AQ080	■ ferry station	A - 100
Fish Farm Facility / standard (surface)	BH051	 fish farm	A - 101
Flare Pipe / on shore / non-obstruction (point)	AF070		A - 102
Flare Pipe / offshore / non-obstruction (point)	AF070		A - 102
Flood Control Structure / all (point)	BI044	- gate	A - 103
Foreshore / all (surface)	BA023		A - 103
Forest / canopy cover >=51% (surface)	EC015		A - 104
Fortified Building / non-obstruction (surface)	AH055	⊠	A - 105
Fortified Building / non-obstruction (point)	AH055	⊠	A - 105
Fuel Storage Facility / all (surface)	AM075	■ fuel storage	A - 106
Fuel Storage Facility / all (point)	AM075	■ fuel storage	A - 106
Geologic Fault / standard (curve)	DB110	----- fault -----	A - 107
Geopolitical Entity / demilitarized zone (surface)	FA002		A - 108
Geopolitical Entity / zone of occupation (surface)	FA002		A - 108
Geopolitical Entity / buffer zone	FA002		A - 109

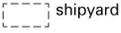
Description	Feature code	Symbol	Page
Glacier / all (surface)	BJ030		A - 110
Golf Course / standard (surface)	AK100	■ golf course	A - 110
Grain Elevator / non-obstruction (point)	AM030	○ grain elevator	A - 111
Greenhouse / all (surface)	AJ110	■	A - 112
Hazardous Rock / not always submerged (point)	BD130	*	A - 110
Heating Facility / all (surface)	AD050	■ heating facility	A - 113
Heating Facility / all (point)	AD050	■ heating facility	A - 113
Hulk / non-obstruction (point)	BD181	○ hulk	A - 114
Hydrocarbon Products Facility / all (surface)	AC040	▭ hydrocarbon facility	A - 115
Hydrocarbon Products Facility / all (point)	AC040	■ hydrocarbon facility	A - 115
Hydrocarbons Field / all (surface)	AA052	▭ hydrocarbon field	A - 116
Ice Cap / all (surface)	BJ099		A - 117
Ice Cliff / standard (curve)	BJ040		A - 118
Ice Peak / non frozen water (point)	BJ060	✱	A - 118
Ice Peak / frozen water (point)	BJ060	✱	A - 119
Ice Route / all (curve)	AQ075	--- ice route	A - 119
Ice Shelf / all (surface)	BJ065		A - 120
Industrial Farm / all (surface)	AL270		A - 120

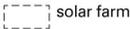
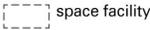
Description	Feature code	Symbol	Page
InlandWaterbody / natural shoreline / perennial (surface)	BH082		A - 121
InlandWaterbody / natural shoreline / intermittent, dry (surface)	BH082		A - 122
InlandWaterbody / man-made shoreline / perennial (surface)	BH082		A - 122
InlandWaterbody / man-made shoreline / intermittent, dry (surface)	BH082		A - 123
Installation / large area (surface)	AL011	 installation	A - 124
Installation / small area (surface)	AL011	 installation	A - 124
Installation / all (point)	AL011	 installation	A - 125
International Date Line / all (curve)	FA110		A - 125
Island / all (surface)	BA030	<i>KODIAK ISLAND</i>	A - 126
Island / all (point)	BA030	<i>Maui</i>	A - 127
Isogonic Line / all (curve)	No Code		A - 127
Land Aerodrome / major (point)	GB005	 MONTEREY	A - 128
Land Aerodrome / minor (point)	GB005	 SAN CARLOS	A - 129
Land Subject To Inundation / all (surface)	BH090		A - 130
Land Water Boundary / other (curve)	BA010		A - 131
Land Water Boundary / mangrove, marsh (curve)	BA010		A - 131
Launch Pad / non-obstruction (point)	GB040	 launch pad	A - 132
Lighthouse / non-obstruction (point)	BC050		A - 132

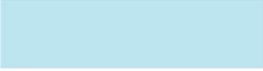
Description	Feature code	Symbol	Page
Lock / all (point)	BI030	«	A - 133
Maritime Navigation Light / all (point)	BC040	● FL	A - 130
Marsh / all (surface)	ED010		A - 134
Memorial Monument / non-obstruction / landmark (point)	AL130	⊙	A - 135
Military Installation / large area (surface)	SU001	⬜ military	A - 135
Military Installation / small area (surface)	SU001	■ military	A - 136
Military Installation / all (point)	SU001	■ military	A - 137
Moraine / all (surface)	BJ020		A - 137
Mountain Pass / all (point)	DB150) (4469	A - 138
Munition Storage Facility / above ground / large area (surface)	AM065	⬜ munition storage	A - 138
Munition Storage Facility / above ground / small area (surface)	AM065	■ munition storage	A - 139
Munition Storage Facility / above ground (point)	AM065	■ munition storage	A - 140
Named Location / all (point)	ZD040	BADLANDS	A - 140
Oasis / all (surface)	EC020	○ oasis	A - 141
Oasis / all (point)	EC020	● oasis	A - 142
Offshore Construction / platform / non-obstruction (point)	BD115	□ platform	A - 142
Orchard / standard (surface)	EA040		A - 143
Park / standard (surface)	AK120	⬜ park	A - 143

Description	Feature code	Symbol	Page
Particle Accelerator / all (curve)	AL140		A - 144
Pipeline / on surface / not water (curve)	AQ113		A - 145
Pipeline / on surface / water (curve)	AQ113		A - 145
Pipeline / below ground surface / not water (curve)	AQ113		A - 146
Pipeline / below ground surface / water (curve)	AQ113		A - 147
Pipeline / above surface / not water (curve)	AQ113		A - 147
Pipeline / above surface / water (curve)	AQ113		A - 148
Polar Ice / all (surface)	BJ080		A - 149
Port / large area (surface)	BB009		A - 150
Port / small area (surface)	BB009		A - 151
Port / landmark (point)	BB009		A - 151
Power Substation / landmark (point)	AD030		A - 152
Pumping Station / all (surface)	AQ116		A - 152
Pumping Station / all (point)	AQ116		A - 153
Racetrack / all (curve)	AK130		A - 154
Radar Station / non-obstruction (surface)	AT045		A - 154
Radar Station / non-obstruction (point)	AT045		A - 155
Railway / multiple (curve)	AN010		A - 155
Railway / single (curve)	AN010		A - 157

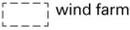
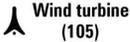
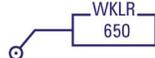
Description	Feature code	Symbol	Page
Railway Yard / all (point)	AN060	■ railroad yard	A - 157
Rapids / all (surface)	BH120	= rapids	A - 158
Rapids / all (curve)	BH120	= rapids	A - 158
Recycling Site / all (surface)	AB010	■ recycling site	A - 159
Reef / standard (surface)	BD120		A - 160
Reef / all (curve)	BD120		A - 161
Rice Field / all (surface)	BH135		A - 161
Rig / on shore / non-obstruction (point)	AA040	▲	A - 162
Rig / offshore / non-obstruction (point)	AA040	▲ Rig (128)	A - 162
River / perennial (surface)	BH140		A - 163
River / intermittent, dry (surface)	BH140		A - 164
River / perennial (curve)	BH140		A - 165
River / intermittent, dry (curve)	BH140		A - 165
Road / primary (curve)	AP030		A - 166
Road / secondary (curve)	AP030		A - 167
Rock Formation / all (point)	DB160	*	A - 167
Ruins / large area (surface)	AL200	□ ruins	A - 168
Ruins / small area (surface)	AL200	■ ruins	A - 168
Ruins / non-obstruction (point)	AL200	■ ruins	A - 169

Description	Feature code	Symbol	Page
Runway / major / multiple (surface)	GB055	 65	A - 170
Runway / major / single (surface)	GB055	 56	A - 170
Runway / minor (surface)	GB055	27/s 700	A - 171
Sabkha / standard (surface)	BH160		A - 172
Salt Evaporator / standard (surface)	BH155		A - 173
Salt Flat / all (surface)	BH150		A - 173
Sand Dunes / standard (surface)	DB170		A - 174
Settlement / all (surface)	AL105		A - 175
Settlement / landmark (point)	AL105	○ settlement	A - 175
Sewage Treatment Plant / all (surface)	AC507	■ sewage plant	A - 176
Sewage Treatment Plant / all (point)	AC507	■ sewage plant	A - 176
Ship Elevator / all (curve)	BI006	— ship elevator —	A - 177
Ship Elevator / non-obstruction (point)	BI006	○ ship elevator	A - 178
Shipyards / large area (surface)	BB241	 shipyard	A - 178
Shipyards / small area (surface)	BB241	■ shipyard	A - 179
Shipyards / all (point)	BB241	■ shipyard	A - 180
Shoreline Construction / pier, wharf, quay (surface)	BB081	 pier	A - 180
Shoreline Construction / all (curve)	BB081	— pier —	A - 181
Ski Jump / non-obstruction (point)	AK150	○ ski jump	A - 182

Description	Feature code	Symbol	Page
Smokestack / non-obstruction (point)	AF010		A - 183
Snow Ice Field / all (surface)	BJ100		A - 183
Soil Surface Region / distorted surface (surface)	DA010		A - 184
Soil Surface Region / gravel, sand and gravel (surface)	DA010		A - 186
Soil Surface Region / sand and mud or boulders (surface)	DA010		A - 186
Soil Surface Region / numerous, other (surface)	DA010	numerous small lakes and ponds	A - 187
Solar Farm / large area (surface)	AD025		A - 188
Solar Farm / small area (surface)	AD025	■ solar farm	A - 188
Solar Farm / all (point)	AD025	■ solar farm	A - 189
Space Facility / large area (surface)	AL351		A - 189
Space Facility / small area (surface)	AL351	■ space facility	A - 190
Space Facility / all (point)	AL351	■ space facility	A - 191
Sports Ground / all (surface)	AK040	■ sports ground	A - 191
Sports Ground / all (point)	AK040	■ sports ground	A - 192
Spot Elevation / earthen (point)	CA030	× 1005	A - 192
Spot Elevation / snow, ice (point)	CA030	× 2625	A - 193
Spot Elevation / lake (point)	CA030	756	A - 194
Spot Elevation / stream (point)	CA030	620	A - 195
Stadium / all (surface)	AK160		A - 195

Description	Feature code	Symbol	Page
Stadium / non-obstruction (point)	AK160	■ stadium	A - 196
Steep Terrain Face / >= contour (curve)	DB010		A - 196
Storage Depot / above ground / large area (surface)	AM010	 storage depot	A - 197
Storage Depot / above ground / small area (surface)	AM010	■ storage depot	A - 198
Storage Depot / above ground (point)	AM010	■ storage depot	A - 198
Storage Tank / non-obstruction / other (point)	AM070	● tank	A - 199
Storage Tank / non-obstruction / water tower (point)	AM070		A - 200
Swamp / not nipa, not magrove (surface)	ED020		A - 200
Swamp / nipa (surface)	ED020		A - 201
Swamp / magrove (surface)	ED020		A - 201
Tank Farm / all (surface)	AM071	■ tank farm	A - 202
Tank Farm / all (point)	AM071	■ tank farm	A - 203
Tidal Water / all (surface)	BA040		A - 203
Tower / non-communication (point)	AL241		A - 204
Tower / communication (point)	AL241		A - 205
Tower / single obstruction (point)	AL241		A - 205
Tower / multiple obstruction (point)	AL241		A - 206
Training Site / all (surface)	FA165	■ training site	A - 207
Training Site / all (point)	FA165	■ training site	A - 208

Description	Feature code	Symbol	Page
Transportation Route Characteristic Change / transportation (point)	AQ059		A - 208
Transportation Route Protection Structure / all (surface)	AL211	 protection shed	A - 209
Transportation Route Protection Structure / landmark (point)	AL211	 protection shed	A - 210
Transportation Station / all (surface)	AQ125	 station	A - 210
Transportation Station / non-obstruction (point)	AQ125		A - 211
Tundra / all (surface)	BJ110	<i>TUNDRA</i>	A - 212
Tunnel / standard (curve)	AQ130	tunnel }---{	A - 212
Tunnel / small (curve)	AQ130	}- { tunnel	A - 213
Vanishing Point / all (point)	BH145	<	A - 214
Vertical Obstruction / single (point)	No Code	 Catalytic cracker 961 (230)	A - 215
Vertical Obstruction / multiple (point)	No Code	 Buildings 437 (273)	A - 216
Vineyard / all (surface)	EA050		A - 217
Void Collection Area / all (surface)	ZD020	 DATA INCOMPLETE	A - 217
Volcano / other (point)	DB180	<i>Volcano</i>	A - 218
Volcano / cone (point)	DB180		A - 219
Wall / landmark (curve)	AL260		A - 220
Water Intake Tower / non-obstruction (point)	BI050		A - 220
Water Tower / non-obstruction (point)	AM080		A - 221

Description	Feature code	Symbol	Page
Waterfall / landmark (curve)	BH180		A - 221
Waterfall / landmark (point)	BH180		A - 222
Waterwork / all (surface)	BH220	■ waterworks	A - 223
Waterwork / all (point)	BH220	■ waterworks	A - 224
Wind Farm / large area (surface)	AD060	 wind farm	A - 224
Wind Farm / small area (surface)	AD060	■ wind farm	A - 225
Wind Farm / all (point)	AD060	■ wind farm	A - 225
Wind Turbine / on shore / non-obstruction (point)	AJ051		A - 226
Wind Turbine / offshore / non-obstruction (point)	AJ051		A - 227
Windmill / non-obstruction (point)	AJ050		A - 227
Wireless Telecommunicaton Information / non-obstruction (point)	ZI018		A - 228
Wreck / all (point)	BD180		A - 228
Zoo / all (surface)	AK180	■ zoo	A - 229
Zoo / all (point)	AK180	■ zoo	A - 230

Annex C – Color

Color

This Annex provides a mapping from a specific color token to Pantone color names, the MIL-STD-2402 based SPC Ink colors, CMYK and RGB values. This mapping allows considerable flexibility in specifying equivalent colors in a variety of methodologies. The color token name provides a link to Annexes A and C.

The Pantone Colors are normative/required, but the CMYK and RGB values in the color tables are informative and may be altered as necessary by the various vendors/implementers.

The colors specified in each row of the table are approximately equivalent. For lithographic printing, the Pantone or SPC inks are normative because they provide the best consistency. CMYK colors are provided as an alternative for plotting, but color consistency on a plot cannot be assured because plotters may be calibrated differently or have different parameter settings. RGB is provided for digital display of symbols, but color consistency on a digital display cannot be assured because monitors may be calibrated differently or have different parameter settings.

Color Token	Description	Pantone Ink Number	C	M	Y	K	R	G	B	SPC #
Black	Black	Process Black U	0	0	0	100	0	0	0	58600
Black-12	Black 12%	Process Black U	0	0	0	12	224	224	224	58600
Black-67	Black 67%	Process Black U	0	0	0	67	115	117	119	58600
Blue072	Blue	Blue 072 U	99	100	22	17	40	22	111	46351
Blue072-31	Blue 31%	Blue 072 U	19	22	3	0	203	193	216	56351
Cyan	Cyan	Process Cyan U	100	0	0	0	0	255	255	48253
Cyan-4	Cyan 4%	Process Cyan U	4	0	0	0	245	255	255	48253
Cyan-31	Cyan 31%	Process Cyan U	31	0	0	0	176	255	255	48253
Cyan-31 Black-12	Cyan 31% Black 12%		8	1	0	14	201	213	221	
Dk-Brown	Dark Brown	* DERIVED *	40	100	100	0	153	0	0	* DERIVED *
Dk-Brown-42	Dark Brown 42%	* DERIVED *	17	42	42	0	212	148	148	* DERIVED *
Dk-Brown-54	Dark Brown 54%	* DERIVED *	22	54	54	0	200	117	117	* DERIVED *
Green	Green	* DERIVED *	31	0	79	0	176	255	54	* DERIVED *
Paper-White	Paper White	None	0	0	0	0	255	255	255	
Tint_Band_1	Elevation Tint Band 1	* DERIVED *	0	4	21	0	255	245	201	* DERIVED *
Tint_Band_2	Elevation Tint Band 2	* DERIVED *	21	0	21	0	201	255	201	* DERIVED *
Tint_Band_3	Elevation Tint Band 3	* DERIVED *	21	4	42	0	201	245	148	* DERIVED *
Tint_Band_4	Elevation Tint Band 4	* DERIVED *	0	7	31	0	255	237	176	* DERIVED *
Tint_Band_5	Elevation Tint Band 5	* DERIVED *	7	21	67	0	237	201	84	* DERIVED *
Tint_Band_6	Elevation Tint Band 6	* DERIVED *	12	31	67	0	224	176	84	* DERIVED *
Tint_Band_7	Elevation Tint Band 7	* DERIVED *	12	42	79	0	224	148	54	* DERIVED *
Tint_Band_8	Elevation Tint Band 8	* DERIVED *	42	54	79	0	148	117	54	* DERIVED *
Yellow	Yellow	Process Yellow U	3	1	73	0	253	239	103	57377

* DERIVED * = color based on lithographic process color printing. The colors are achieved by the combination of the process colors and the printing percentages of tone shown in the "Standard Printing Color Catalog (Process) for Mapping, Charting, Geodetic Data and Products" (June 1975)

Annex D – Text Characteristics (normative)

Text Characteristics

The Text Characteristics associated with the label information provided in Annex A is detailed in this Annex. The Characteristic ID provides the link to Annex A Label Information. The Color token name provides the link to Annex C Color information.

Text Characteristics

Text Characteristic #	Color Token	Font Style	Bold	Italic	Font Size	Case	Sample usage(s)
1	Black	Condensed			6	Mixed case	point features (descriptive), pass
2	Black	Regular			6	Lower case	point features (descriptive)
3	Black	Condensed			6-16	Mixed case	forest, vegetation
6	Black	Condensed		<i>Italic</i>	6-10	Mixed case	crevice, small island, reef (curve)
7	Black	Condensed		<i>Italic</i>	7-10	Mixed case	sand dunes, volcano (large)
12	Black	Regular		<i>Italic</i>	10-16	Upper case	large island, reef (surface)
13	Black	Regular			6	Mixed case	named point features
16	Cyan	Condensed		<i>Italic</i>	6	Mixed case	named water features (blue)
19	Cyan	Condensed		<i>Italic</i>	7	Lower case	snow contour
21	Black	Condensed			8	Upper case	administrative
26	Blue072	Condensed			7	Lower case	aero blue, heliport, channel
29	Blue072	Condensed			7	Upper case	aero blue, nav aids
31	Cyan	Condensed	Bold		10	Lower case	ice cap, polar ice, highest snow spot
34	Cyan	Regular		<i>Italic</i>	6	Lower case	water features (descriptive)
36	Cyan	Regular		<i>Italic</i>	6	Mixed case	named water features
37	Cyan	Condensed		<i>Italic</i>	7-16	Upper case	river & inland water (surface)
38	Cyan	Condensed		<i>Italic</i>	6-16	Mixed case	other water areas
39	Black	Condensed		<i>Italic</i>	7-16	Upper case	mangrove, nipa, tundra
40	Black	Condensed			6-16	Upper case	data incomplete
42	Black	Condensed			8	Mixed case	bu a 5th class
45	Black	Light Condensed			6-16	Upper case	named location
48	Black	Condensed	Bold		10	Upper case	administrative boundary, bu a 1st class
51	Black	Condensed	Bold		8	Upper case	bu a 2nd class
52	Black	Condensed	Bold		8	Mixed case	bu a 3rd class
54	Black	Condensed	Bold		7	Mixed case	bu a 4th class
57	Cyan	Condensed		<i>Italic</i>	7-10	Mixed case	tidal water (small)
58	Cyan	Condensed		<i>Italic</i>	7-9	Mixed case	river (curve)
59	Cyan	Condensed		<i>Italic</i>	8-18	Upper case	tidal water (large)
60	Blue072	Condensed	Bold		7	Mixed case	vo feature type
61	Blue072	Condensed	Bold	<i>Italic</i>	7	Lower case	vo normal (ZVH)
62	Blue072	Condensed	Bold		7	Lower case	vo normal (HGT), runway elev & soft surface
63	Blue072	Condensed	Bold	<i>Italic</i>	8	Lower case	vo critical (ZVH)
64	Blue072	Condensed	Bold		8	Lower case	vo critical (HGT)
65	Blue072	Condensed			8	Upper case	airfield name
66	Blue072	Condensed			8	Lower case	runway length & unk surface

Text Characteristic #	Color Token	Font Style	Bold	Italic	Font Size	Case	Sample usage(s)
67	Blue072	Condensed	Bold		6-12	Upper case	buffer zone
68	Blue072	Condensed	Bold		7-30	Upper case	SUAS, MOA
69	Blue072	Condensed	Bold		10-36	Upper case	ADIZ
70	Blue072	Regular	Bold	<i>Italic</i>	12	Upper case	isogonic lines
71	Black-67	Condensed		<i>Italic</i>	7	Lower case	land contour
72	Black	Condensed	Bold		7	Lower case	land spot elev normal
73	Black	Condensed	Bold		9	Lower case	land spot elev critical
74	Cyan	Condensed	Bold		9	Lower case	snow spot elev critical
75	Cyan	Condensed	Bold		7	Lower case	snow spot elev normal
76	Cyan	Regular	Bold	<i>Italic</i>	7	Lower case	stream elev
77	Cyan	Regular	Bold		7	Lower case	lake elev
78	Cyan	Regular		<i>Italic</i>	7-16	Mixed case	named water features
79	Dk-Brown	Condensed			6	Mixed case	pass, gap
90	Cyan	Condensed		<i>Italic</i>	7	Upper case	snow contour
91	Black-67	Condensed		<i>Italic</i>	7	Upper case	land contour

Annex E – Surface Elements

Surface Elements

Each of the Surface elements used in Annex A – GTDS Symbols have been listed only one time in this Annex.

Surface Elements

Area - Complex

A00079

Element Name: NipaPalm		Color Token: Green	
Description: Cyan-31ScreenFill (area fill) coincident with Green_NipaPalmFill (area pattern)			
Miscellaneous Note: The area fill and area pattern are combined as one symbol			
Area Pattern 1:	Reference: A00007	Area Pattern 2: Green_NipaPalmFill	Reference: A00077
Name: Cyan-31_ScreenFill	Type: Area - Fill	Name: Green_NipaPalmFill	Type: Area - Pattern

A00080

Element Name: Mangrove		Color Token: Green	
Description: Cyan-31ScreenFill (area fill) coincident with Green_MangroveFill (area pattern)			
Miscellaneous Note: The area fill and area pattern are combined as one symbol			
Area Pattern 1:	Reference: A00007	Area Pattern 2: Green_MangroveFill	Reference: A00078
Name: Cyan-31_ScreenFill	Type: Area - Fill	Name: Green_MangroveFill	Type: Area - Pattern

A00103

Element Name: Swamp		Color Token: Green	
Description: Cyan-31ScreenFill (area fill) coincident with Green_ScatteredTreesFill (area pattern)			
Miscellaneous Note: The area fill and area pattern are combined as one symbol			
Area Pattern 1:	Reference: A00007	Area Pattern 2: Green_ScatteredTreesFill	Reference: A00104
Name: Cyan-31_ScreenFill	Type: Area - Fill	Name: Green_ScatteredTreesFill	Type: Area - Pattern

Area - Fill

A00003

Element Name: Black-12_ScreenFill	Color Token: Black-12	Screen : 45 degrees 12%
Description: Black-12 Area Fill (Black 12% 45 degree angle screen)		

A00006

Element Name: Black_SolidAreaFill	Color Token: Black
Description: Black Solid Fill	
Miscellaneous Note: Solid Fill	

A00007

Element Name: Cyan-31_ScreenFill	Color Token: Cyan-31	Screen : 45 degrees 31%
Description: Cyan-31_ScreenFill area fill (Cyan 31% screen, 45 degree angle)		

A00008

Element Name: Cyan-4_ScreenFill	Color Token: Cyan-4	Screen : 45 degrees 4%
Description: Cyan-4 area fill (Cyan 4% screen, 45 degree angle)		

A00046

Element Name: Paper-White_Fill	Color Token: Paper-White
Description: Paper-White Solid Fill	
Miscellaneous Note: Solid Fill	

A00048

Element Name: Black-12_ScreenFill-15degree	Color Token: Black-12	Screen : 15 degrees 12%
Description: Black-12 Area Fill (Black 12% 15 degree angle screen)		

A00049

Element Name: CoversUncovers-Fill	Color Token: Cyan-31_Black-12		
Description: Cyan-31ScreenFill (Area Fill) coincident with Black-12ScreenFill-15degree (Area Fill)			
Miscellaneous Note: The two area fills are combined as one symbol			
Area Pattern 1: Name: Cyan-31_ScreenFill	Reference: A00007 Type: Area - Fill	Area Pattern 2: Black-12_ScreenFill-15degree Name: Black-12_ScreenFill-15degree	Reference: A00048 Type: Area - Fill

A00052

Element Name: ElevationTintBand#8 **Color Token:** Tint_Band_8
Description: Tint_Band_8 (Cyan 42% 15 degree angle screen coincident with Magenta 54% 30 degree angle screen and Yellow 79% 60 degree angle screen)
Miscellaneous Note: Three colors are combined together to make one color tint

A00064

Element Name: Black-42_ScreenFill **Color Token:** Black-42 **Screen :** 45 degrees 42%
Description: Black-42 Area Fill (Black 42% 45 degree angle screen)

A00068

Element Name: Yellow_SolidAreaFill **Color Token:** Yellow
Description: Yellow Solid Fill
Miscellaneous Note: Solid Fill

A00069

Element Name: ElevationTintBand#1 **Color Token:** Tint_Band_1
Description: Tint_Band_1 (Magenta 4% 30 degree angle screen coincident with Yellow 21% 15 degree angle screen)
Miscellaneous Note: Two colors are combined together to make one color tint

A00070

Element Name: ElevationTintBand#2 **Color Token:** Tint_Band_2
Description: Tint_Band_2 (Cyan 21% 30 degree angle screen coincident with Yellow 21% 75 degree angle screen)
Miscellaneous Note: Two colors are combined together to make one color tint

A00071

Element Name: ElevationTintBand#3 **Color Token:** Tint_Band_3
Description: Tint_Band_3 (Cyan 21% 60 degree angle screen coincident with Magenta 4% 30 degree angle screen and Yellow 42% 15 degree angle screen)
Miscellaneous Note: Three colors are combined together to make one color tint

A00072

Element Name: ElevationTintBand#4 **Color Token:** Tint_Band_4
Description: Tint_Band_4 (Magenta 7% 30 degree angle screen coincident with Yellow 31% 60 degree angle screen)
Miscellaneous Note: Two colors are combined together to make one color tint

A00073

<p><u>Element Name:</u> ElevationTintBand#5</p> <p><u>Description:</u> Tint_Band_5 (Cyan 7% 15 degree angle screen coincident with Magenta 21% 30 degree angle screen and Yellow 67% 60 degree angle screen)</p> <p><u>Miscellaneous Note:</u> Three colors are combined together to make one color tint</p>	<p><u>Color Token:</u> Tint_Band_5</p>
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A00074

<p><u>Element Name:</u> ElevationTintBand#6</p> <p><u>Description:</u> Tint_Band_6 (Cyan 12% 15 degree angle screen coincident with Magenta 31% 30 degree angle screen and Yellow 67% 60 degree angle screen)</p> <p><u>Miscellaneous Note:</u> Three colors are combined together to make one color tint</p>	<p><u>Color Token:</u> Tint_Band_6</p>
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A00075

<p><u>Element Name:</u> ElevationTintBand#7</p> <p><u>Description:</u> Tint_Band_7 (Cyan 12% 15 degree angle screen coincident with Magenta 42% 30 degree angle screen and Yellow 79% 60 degree angle screen)</p> <p><u>Miscellaneous Note:</u> Three colors are combined together to make one color tint</p>	<p><u>Color Token:</u> Tint_Band_7</p>
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Area - Pattern

A00001

Element Name: Black_PeateryFill **Color Token:** Black
Description: Black Peat Fill
Miscellaneous Note: Area Pattern #129
Area Pattern Information: See Element: Black_PeateryFill in Annex I

A00010

Element Name: Green_WoodsFill **Color Token:** Green
Description: Green (Cyan 100% coincident with Yellow 100%) Woods Fill area pattern
Miscellaneous Note: Area Pattern #43
Area Pattern Information: See Element: Green_WoodsFill in Annex I

A00015

Element Name: Cyan_LSIFill **Color Token:** Cyan
Description: Cyan Land Subject to Inundation Fill
Miscellaneous Note: Area Pattern #10
Area Pattern Information: See Element: Cyan_LSIFill in Annex I

A00016

Element Name: Cyan_AP103Fill **Color Token:** Cyan
Description: Cyan Ice Cap, Polar Ice, Sabkha Fill
Miscellaneous Note: Area Pattern #103
Area Pattern Information: See Element: Cyan_AP103 in Annex I

A00017

Element Name: Cyan_GlacierFill **Color Token:** Cyan
Description: Cyan Glacier Fill
Miscellaneous Note: Area Pattern #104
Area Pattern Information: See Element: Cyan_GlacierFill in Annex I

A00018

Element Name: Cyan_AP12_Fill **Color Token:** Cyan
Description: Cyan Bog, Marsh Fill
Miscellaneous Note: Area Pattern #12
Area Pattern Information: See Element: Cyan_AP12_Fill in Annex I

A00019

Element Name: Cyan_RiceFill **Color Token:** Cyan
Description: Cyan Rice Fill
Miscellaneous Note: Area Pattern #4
Area Pattern Information: See Element: Cyan_RiceFill in Annex I

A00020

Element Name: Cyan_DryDrainageFill **Color Token:** Cyan
Description: Cyan Dry Drainage, Salt Flat Fill
Miscellaneous Note: Area Pattern #95
Area Pattern Information: See Element: Cyan_DryDrainageFill in Annex I

A00021

Element Name: Cyan_LP15Fill **Color Token:** Cyan **Screen :** 45 degrees 35%
Description: Cyan Diagonal Line Fill - 35% coverage, 40L, 45 degree angle lines.
Miscellaneous Note: Line Pattern #15
Area Pattern Information: See Element: Cyan_LP15Fill in Annex I

A00044

Element Name: Cyan_SaltEvaporatorFill **Color Token:** Cyan
Description: A grid pattern comprised of 1.5mm x 1.5mm squares. Grid alignment is parallel to longest axis of the perimeter line and centered.
Miscellaneous Note: Lineweight: 0.2mm; Length: 1.5mm; Grid squares: 1.5mm x 1.5mm; Grid alignment parallel to longest axis of perimeter line and centered

A00056

Element Name: Dk-Brown-42_DistortedSurfaceFill **Color Token:** Dk-Brown-42
Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) Distorted Surface Fill
Miscellaneous Note: Area Pattern #103
Area Pattern Information: See Element: Dk-Brown-42_DistortedSurfaceFill in Annex I

A00057

Element Name: Black_LP15Fill **Color Token:** Black **Screen :** 45 degrees 35%
Description: Black Diagonal Line Fill - 35% coverage, 40L, 45 degree angle lines.
Miscellaneous Note: Line Pattern #15
Area Pattern Information: See Element: Black_LP15Fill in Annex I

A00076

Element Name: Green_VegetationFill **Color Token:** Green
Description: Green (Cyan 100% coincident with Yellow 100%) Vegetation Fill area pattern
Miscellaneous Note: Area Pattern #74
Area Pattern Information: See Element: Green_VegetationFill in Annex I

A00077

Element Name: Green_NipaPalmFill **Color Token:** Green
Description: Green (Cyan 100% coincident with Yellow 100%) Nipa Palm Fill area pattern
Miscellaneous Note: Area Pattern #7
Area Pattern Information: See Element: Green_NipaPalmFill in Annex I

A00078

Element Name: Green_MangroveFill **Color Token:** Green
Description: Green (Cyan 100% coincident with Yellow 100%) Mangrove Fill area pattern
Miscellaneous Note: Area Pattern #8
Area Pattern Information: See Element: Green_MangroveFill in Annex I

A00081

Element Name: Dk-Brown-42_AP99_Fill **Color Token:** Dk-Brown-42
Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) Moraine, Sand and Gravel Fill
Miscellaneous Note: Area Pattern #99
Area Pattern Information: See Element: Dk-Brown-42_AP99_Fill in Annex I

A00082

Element Name: Dk-Brown-42_SandFill **Color Token:** Dk-Brown-42
Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) Sand Fill
Miscellaneous Note: Area Pattern #95
Area Pattern Information: See Element: Dk-Brown-42_SandFill in Annex I

A00098

<p><u>Element Name:</u> Dk-Brown-42_CrescentDunesFill</p> <p><u>Description:</u> Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) Crescent Sand Dunes Fill</p> <p><u>Miscellaneous Note:</u> Area Pattern #108</p> <p><u>Area Pattern Information:</u> See Element: Dk-Brown-42_CrescentDunesFill in Annex I</p>	<p><u>Color Token:</u> Dk-Brown-42</p>
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A00099

<p><u>Element Name:</u> Dk-Brown-42_LinearDunesFill</p> <p><u>Description:</u> Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) Linear Sand Dunes Fill</p> <p><u>Miscellaneous Note:</u> Area Pattern #118</p> <p><u>Area Pattern Information:</u> See Element: Dk-Brown-42_LinearDunesFill in Annex I</p>	<p><u>Color Token:</u> Dk-Brown-42</p>
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A00104

<p><u>Element Name:</u> Green_ScatteredTreesFill</p> <p><u>Description:</u> Green (Cyan 100% coincident with Yellow 100%) Scattered Trees Fill area pattern</p> <p><u>Miscellaneous Note:</u> Area Pattern #44</p> <p><u>Area Pattern Information:</u> See Element: Green_ScatteredTrees in Annex I</p>	<p><u>Color Token:</u> Green</p>
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L00277

<p><u>Element Name:</u> Blue072_AP98Fill</p> <p><u>Description:</u> Blue072 ADIZ, Buffer Zone Fill</p> <p><u>Miscellaneous Note:</u> Area Pattern #98</p> <p><u>Area Pattern Information:</u> See Element: Blue072_AP98_Fill in Annex I</p>	<p><u>Color Token:</u> Blue072</p>
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Annex F – Curve Elements

Curve Elements

Each of the curve elements used in Annex A – GTDS Symbols have been listed only one time in this Annex.

Curve Elements

Line - Complex

L00055

Element Name: Black_Bridge		Color Token: Black	
Description: Black 0.3mm Solid Line casing varying based upon separation; Wing Ticks (0.15mm wt, 0.75mm long)			
Miscellaneous Note: Tick angle depends on which end of the feature they are placed			
Line Style:	Element Name: Black_0.3mmSolidDoubleLine	Element Reference: L00019	Element Type: Line - Simple
Fix Point at Start of Line:			
	Element Name: Black_0.15mm-0.75mmLenWingTick	Element Reference: P00042	Element Type: Point - Simple
Fix Point at End of Line:			
	Element Name: Black_0.15mm-0.75mmLenWingTick	Element Reference: P00042	Element Type: Point - Simple

L00063

Element Name: Cyan_IceCliff		Color Token: Cyan	
Description: Cyan 0.2mm Dashed Line (0.2mm wt, 5.0mm dash, 0.5mm gap) with Ticks (0.1mm wt, 0.5mm long)			
Miscellaneous Note: Tick end is on and at 90 degrees to dashed line, facing downhill			
Line Style:	Element Name: Cyan_0.2mm-5mmLenDash-0.5mmGapLine	Element Reference: L00042	Element Type: Line - Styled
Repeating Point:	Element Name: Cyan_0.1mm-0.5mmLenTick	Element Reference: P00055	Element Type: Point - Simple
	Repeating Point Interval: 0.5mm		

L00068

Element Name: Black_Pipeline (Other)		Color Token: Black	
Description: Black 0.15mm Solid Line with 'V' (0.2mm wt, 0.7mm long)			
Miscellaneous Note: Origin: Apex of 'V' touches pipeline ends with "legs" of "V" facing away			
Line Style:	Element Name: Black_0.15mmSolidLine	Element Reference: L00008	Element Type: Line - Simple
Fix Point at Start of Line:			
	Element Name: Black_0.2mm-0.7mmLenV	Element Reference: P00045	Element Type: Point - Simple
Fix Point at End of Line:			
	Element Name: Black_0.2mm-0.7mmLenV	Element Reference: P00045	Element Type: Point - Simple

L00069

Element Name: Cyan_Pipeline (Water)		Color Token: Cyan	
Description: Cyan 0.15mm Solid Line with 'V' (0.2mm wt, 0.7mm long)			
Miscellaneous Note: Origin: Apex of 'V' touches pipeline ends with "legs" of "V" facing away			
Line Style:	Element Name: Cyan_0.15mmSolidLine	Element Reference: L00245	Element Type: Line - Simple
Fix Point at Start of Line:			
	Element Name: Cyan_0.2mm-0.7mmLenV	Element Reference: P00058	Element Type: Point - Simple
Fix Point at End of Line:			
	Element Name: Cyan_0.2mm-0.7mmLenV	Element Reference: P00058	Element Type: Point - Simple

L00070

Element Name: Blue072_Powerline (Normal)		Color Token: Blue072	
Description: Blue072 0.4mm Solid Line with Pylons			
Miscellaneous Note: The repeating point is also positioned at points of directional change. The symbol should remain up most. Interval is 40mm			
Line Style:	Element Name: Blue072_0.4mmSolidLine	Element Reference: L00005	Element Type: Line - Simple
Repeating Point:	Element Name: Blue072_Pylon	Element Reference: P00020	Element Type: Point - Shape
	Repeating Point Interval: 40mm		

L00072

Element Name: Black_Railway (DoubleNormalGaugeNon-electric)			Color Token: Black
Description: Black 0.3mm Solid Line with Double Ticks (0.15mm wt, 1.5mm long)			
Miscellaneous Note: Ticks are centered and 90 degrees to line.			
Line Style:	Element Name: Black_0.3mmSolidLine	Element Reference: L00011	Element Type: Line - Simple
Repeating Point:	Element Name: Black_0.15mm-1.5mmLenTick	Element Reference: P00044	Element Type: Point - Simple
	Repeating Point Interval: Initial offset: 3.2mm after that 6.4mm		
2nd Repeating Point:	Element Name: Black_0.15mm-1.5mmLenTick	Element Reference: P00044	Element Type: Point - Simple
	Repeating Point Interval: Initial offset: 3.7mm after that 6.4mm		

L00093

Element Name: Black_Railway (SingleNormalGaugeNon-electric)			Color Token: Black
Description: Black 0.3mm Solid Line with Ticks (0.15mm wt, 1.5mm long)			
Miscellaneous Note: Ticks are centered and 90 degrees to line			
Line Style:	Element Name: Black_0.3mmSolidLine	Element Reference: L00011	Element Type: Line - Simple
Repeating Point:	Element Name: Black_0.15mm-1.5mmLenTick	Element Reference: P00044	Element Type: Point - Simple
	Repeating Point Interval: Initial offset: 3.2mm after that 6.4mm		

L00096

Element Name: Black_Tunnel		Color Token: Black	
Description: Black 0.2mm Dashed Line (0.2mm wt, 1.0mm dash, 0.5mm gap) with a Black 0.2mm Tick Entrance/Exit at each end			
Miscellaneous Note: A Black Entrance/Exit point symbol is placed centered at each end of the tunnel line at 90 degrees. Wing ticks always point away from the tunnel line.			
Line Style:	Element Name: Black_0.2mm-1mmLenDash-0.5mmGapLine	Element Reference: L00031	Element Type: Line - Styled
Fix Point at Start of Line:			
	Element Name: Black_0.2mmTick-Entrance/Exit	Element Reference: P00073	Element Type: Point - Simple
Fix Point at End of Line:			
	Element Name: Black_0.2mmTick-Entrance/Exit	Element Reference: P00073	Element Type: Point - Simple

L00104

Element Name: Black_Park-Outline		Color Token: Black	
Description: Black 0.2mm Dashed Line (0.2mm wt, 6.5mm dash, 2.5mm gap) with a Black Dot (0.25mm diameter) between dashes			
Line Style:	Element Name: Black_0.2mm-6.5mmLenDash-2.5mmGapLine	Element Reference: L00034	Element Type: Line - Styled
Repeating Point:	Element Name: Black_0.25mmFilledDot	Element Reference: P00047	Element Type: Point - Simple
	Repeating Point Interval: center dot in space between dashes		

L00106

Element Name: Cyan_Aqueduct / Penstock		Color Token: Cyan	
Description: Cyan 0.3mm Solid Line with 'V' (0.3mm wt, 0.7mm long)			
Miscellaneous Note: Origin: Apex of 'V' touches line ends with ticks facing away			
Line Style:	Element Name: Cyan_0.3mmSolidLine	Element Reference: L00016	Element Type: Line - Simple
Fix Point at Start of Line:			
	Element Name: Cyan_0.3mm-0.7mmLenX	Element Reference: P00062	Element Type: Point - Simple
Fix Point at End of Line:			
	Element Name: Cyan_0.3mm-0.7mmLenX	Element Reference: P00062	Element Type: Point - Simple

L00112

Element Name: Cyan_SnowIce-DepressionIndex		Color Token: Cyan	
Description: Cyan 0.2mm Solid Line with repeating Blue 0.1mm wt 0.5mm long ticks			
Miscellaneous Note: Each depression contour shall have ticks spaced equally. Where the slope of a depression is such that the contours become very close, the length of the depression ticks may be reduced by one-half to achieve legibility.			
Line Style:	Element Name: Cyan_0.2mmSolidLine	Element Reference: L00015	Element Type: Line - Simple
Repeating Point:	Element Name: Cyan_0.1mm-0.5mmLenTick	Element Reference: P00055	Element Type: Point - Simple
	Repeating Point Interval: Variable		

L00114

Element Name: Cyan_SnowIce-DepressionIntermediate		Color Token: Cyan	
Description: Cyan 0.1mm Solid Line with repeating Blue 0.1mm wt 0.5mm long ticks			
Miscellaneous Note: Each depression contour shall have ticks spaced equally pointing into the depression. Where the slope of a depression is such that the contours become very close, the length of the depression ticks may be reduced by 1/2 to achieve legibility.			
Line Style:	Element Name: Cyan_0.1mmSolidLine	Element Reference: L00108	Element Type: Line - Simple
Repeating Point:	Element Name: Cyan_0.1mm-0.5mmLenTick	Element Reference: P00055	Element Type: Point - Simple
	Repeating Point Interval: Variable		

L00120

Element Name: Cyan_SnowIce-DepressionAuxiliary			Color Token: Cyan
Description: Cyan 0.1mm Dashed Line (0.1mm wt, 3.0mm dash, 0.5mm gap) with repeating Cyan 0.1mm wt 0.5mm length ticks			
Line Style:	Element Name: Cyan_0.1mm-3mmLenDashLine	Element Reference: L00110	Element Type: Line - Styled
Repeating Point:	Element Name: Cyan_0.1mm-0.5mmLenTick	Element Reference: P00055	Element Type: Point - Simple
	Repeating Point Interval: Centered on each dash		

L00129

Element Name: Black_AdminBoundary			Color Token: Black
Description: Black 0.2mm Dashed Line (0.2mm wt, 6.1mm dash, 2.5mm gap) with 0.25mm filled dot centered in dash gap			
Line Style:	Element Name: Black_0.2mm-6.1mmLenDash-2.5mmGapLine	Element Reference: L00128	Element Type: Line - Styled
Repeating Point:	Element Name: Black_0.25mmFilledDot	Element Reference: P00047	Element Type: Point - Simple
	Repeating Point Interval: Dot centered in dash gap		

L00149

Element Name: Blue072_Runway_Single			Color Token: Blue072
Description: Blue072 1.1mm Solid Line (1.1mm wt) with a PaperWhite 0.3mm Solid Line (0.3mm wt) centered inside			
Miscellaneous Note: The Blue072 1.1mm solid line combined with the 0.3mm width paper white line placed inside form a 0.4mm lineweight outline with a total width of 1.1mm			
Line Style:	Element Name: Blue072_1.1mmSolidLine	Element Reference: L00297	Element Type: Line - Simple
2nd Line Style:	Element Name: PaperWhite_0.3mmSolidLine	Element Reference: L00166	Element Type: Line - Simple

L00150

Element Name: Blue072_Runway_Multiple			Color Token: Blue072
Description: Blue072 0.85mm Solid Line (0.85mm wt) with a PaperWhite 0.25mm Solid Line (0.25mm wt) centered inside			
Miscellaneous Note: The Blue072 0.85mm solid line combined with the 0.25mm width paper white line placed inside form a 0.3mm lineweight outline with a total width of 0.85mm			
Line Style:	Element Name: Blue072_0.85mmSolidLine	Element Reference: L00298	Element Type: Line - Simple
2nd Line Style:	Element Name: PaperWhite_0.25mmSolidLine	Element Reference: L00222	Element Type: Line - Simple

L00194

Element Name: Dk-Brown-54_International-Boundary **Color Token:** Dk-Brown-54
Description: Black 0.5mm Dashed Line (0.5mm wt, 7.0mm dash, 2-2.0mm dashes, 1.0mm gaps) and Dk-Brown-54 (Magenta 79% bi-angle screen coincident with Yellow 100% and Black 42% bi-angle screen) 2.0mm Screened Line overprint
Miscellaneous Note: Dk-Brown-54 screened line is centered on Black dashed line.

Line Style:	Element Name: Black_0.5mm-7mmDash-2x2mmDashLine	Element Reference: L00122	Element Type: Line - Styled
2nd Line Style:	Element Name: Dk-Brown-54_2.0mmScreenedLine	Element Reference: L00139	Element Type: Line - Simple

L00212

Element Name: Black_Wall **Color Token:** Black
Description: Black 0.15mm Solid Line (0.15mm wt) with Black 0.15mm wt 0.35mm length ticks repeating along the line.
Miscellaneous Note: Ticks are centered and 90 degrees to the line.

Line Style:	Element Name: Black_0.15mmSolidLine	Element Reference: L00008	Element Type: Line - Simple
Repeating Point:	Element Name: Black_0.15mm-0.5mmLenTick	Element Reference: P00193	Element Type: Point - Simple
	Repeating Point Interval: Initial offset: 1.0mm after that 2.0mm spacing between ticks.		

L00264

Element Name: Dk-Brown_AdminBoundary_Other **Color Token:** Dk-Brown-54
Description: Black 0.4mm Dotted Line (0.4mm wt, 2.5mm spacing) with a Dk-Brown-54 (Magenta 79% bi-angle screen coincident with Yellow 100% and Black 42% bi-angle screen) 2.0mm Screened Line overprint
Miscellaneous Note: Dk-Brown-54 screened line is centered on Black dashed line.

Line Style:	Element Name: Black_0.4mmDottedLine	Element Reference: L00263	Element Type: Line - Styled
2nd Line Style:	Element Name: Dk-Brown-54_2.0mmScreenedLine	Element Reference: L00139	Element Type: Line - Simple
Repeating Point:	Element Name: Black_0.4mmFilledDot	Element Reference: P00082	Element Type: Point - Simple
	Repeating Point Interval: 2.5mm		

L00271

Element Name: Black-67_Land-MoundIndex		Color Token: Black-67	
Description: Black-67 0.2mm Solid Line with repeating Black-67 0.1mm wt 0.5mm length ticks (2.0mm tick interval)			
Line Style:	Element Name: Black-67_0.2mmSolidLine	Element Reference: L00266	Element Type: Line - Simple
Repeating Point:	Element Name: Black-67_0.1mm-0.5mmLenTick	Element Reference: P00219	Element Type: Point - Simple
	Repeating Point Interval: 2.0mm		

L00272

Element Name: Black-67_Land-MoundIntermediate		Color Token: Black-67	
Description: Black-67 0.1mm Solid Line with repeating Black-67 0.1mm wt 0.5mm length ticks (2.0mm tick interval)			
Line Style:	Element Name: Black-67_0.1mmSolidLine	Element Reference: L00268	Element Type: Line - Simple
Repeating Point:	Element Name: Black-67_0.1mm-0.5mmLenTick	Element Reference: P00219	Element Type: Point - Simple
	Repeating Point Interval: 2.0mm		

L00273

Element Name: Black-67_Land-DepressionIndex		Color Token: Black-67	
Description: Black-67 0.2mm Solid Line with repeating Black-67 0.1mm wt 0.5mm length ticks			
Miscellaneous Note: Each depression contour shall have ticks spaced equally on each descending depression contour. Where the slope of a depression is such that the contours become very close, the length of the depression ticks may be reduced by 1/2 to achieve legibility.			
Line Style:	Element Name: Black-67_0.2mmSolidLine	Element Reference: L00266	Element Type: Line - Simple
Repeating Point:	Element Name: Black-67_0.1mm-0.5mmLenTick	Element Reference: P00219	Element Type: Point - Simple
	Repeating Point Interval: Variable		

L00274

Element Name: Black-67_Land-DepressionIntermediate		Color Token: Black-67	
Description: Black-67 0.1mm Solid Line with repeating Black-67 0.1mm wt 0.5mm length ticks			
Miscellaneous Note: Depression contours shall have ticks spaced equally on each descending depression contour line. Where the slope of a depression is such that the contours become very close, the length of the depression ticks may be reduced by 1/2 to achieve legibility.			
Line Style:	Element Name: Black-67_0.1mmSolidLine	Element Reference: L00268	Element Type: Line - Simple
Repeating Point:	Element Name: Black-67_0.1mm-0.5mmLenTick	Element Reference: P00219	Element Type: Point - Simple
	Repeating Point Interval: Variable		

L00275

Element Name: Black-67_Land-DepressionAuxiliary		Color Token: Black-67	
Description: Black-67 0.1mm Dashed Line (0.1mm wt, 3.0mm dash, 0.5mm gap) with repeating Black-67 0.1mm wt 0.5mm length ticks			
Line Style:	Element Name: Black-67_0.1mm-3mmLenDashLine	Element Reference: L00270	Element Type: Line - Styled
Repeating Point:	Element Name: Black-67_0.1mm-0.5mmLenTick	Element Reference: P00219	Element Type: Point - Simple
	Repeating Point Interval: Centered on each dash		

L00278

Element Name: Blue072_Airspace_ADIZ		Color Token: Blue072	
Description: Blue072 0.25mm Solid Line and a 2.5mm Width AP-98 (area pattern 98) Line combined			
Miscellaneous Note: The solid line is centered on the perimeter of the surface geometry and the center of the AP-98 filled line is offset 0.375 mm to the inside of the surface's perimeter.			
Line Style:	Element Name: Blue072_0.25mmSolidLine	Element Reference: L00276	Element Type: Line - Simple
2nd Line Style:	Element Name: Blue072_2.5mm-Width-AP-98Line	Element Reference: L00277	Element Type: Line - Simple

L00280

Element Name: Blue072_BufferZone		Color Token: Blue072	
Description: Blue072 0.25mm Solid Line with a Blue072 2.5mm Dashed Line (2.5mm width, 25mm dash, 13mm gap) filled with AP-98 (area pattern 98) combined			
Miscellaneous Note: The solid line is centered on the perimeter of the surface geometry and the center of the AP-98 dashed filled line is offset 0.375 mm to the inside of the surface's perimeter.			
Line Style:	Element Name: Blue072_0.25mmSolidLine	Element Reference: L00276	Element Type: Line - Simple
2nd Line Style:	Element Name: Blue072_2.5mm-25mmLenDashAP-98Line	Element Reference: L00279	Element Type: Line - Simple

L00282

Element Name: Road_Secondary		Color Token: Dk-Brown	
Description: The complex line is a combination of 2 lines. Display Level: Bottom (1):Black 0.6mm Solid Line (0.6mm wt), Top (2):Dk-Brown (Magenta 100% coincident with Yellow 100% and Black 67% bi-angle screen) 0.3mm Solid Line (0.3mm wt)			
Miscellaneous Note: Lines combined together form the cased line.			
Line Style:	Element Name: Black_0.6mmSolidLine	Element Reference: L00153	Element Type: Line - Simple
2nd Line Style:	Element Name: Dk-Brown_0.3mmSolidLine	Element Reference: L00283	Element Type: Line - Simple

L00287

Element Name: Road_Primary		Color Token: Dk-Brown	
Description: The complex line is a combination of 2 lines. Display Level: Bottom (1):Black 0.8mm Solid Line (0.8mm wt), Top (2):Dk-Brown (Magenta 100% coincident with Yellow 100% and Black 67% bi-angle screen) 0.5mm Solid Line (0.5mm wt)			
Miscellaneous Note: Lines combined together form the cased line.			
Line Style:	Element Name: Black_0.8mmSolidLine	Element Reference: L00155	Element Type: Line - Simple
2nd Line Style:	Element Name: Dk-Brown_0.5mmSolidLine	Element Reference: L00286	Element Type: Line - Simple

L00290

Element Name: Dk-Brown-42_Cut_Fill		Color Token: Dk-Brown-42	
Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.15mm Solid Line with Ticks (0.15mm wt, 0.5mm long)			
Miscellaneous Note: Tick end is on and at 90 degrees to line, facing downhill. Tick Interval: 1.5mm			
Line Style:	Element Name: Dk-Brown-42_Cut_Fill	Element Reference: L00290	Element Type: Line - Complex
Repeating Point:	Element Name: Dk-Brown-42_0.15mm-0.5mmLenTick	Element Reference: P00221	Element Type: Point - Simple
	Repeating Point Interval: 1.5mm		

L00292

Element Name: Dk-Brown-42_Levee		Color Token: Dk-Brown-42	
Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.15mm Solid Line casing varying based upon separation; Ticks (0.15mm wt, 0.5mm long)			
Miscellaneous Note: Tick end is on and at 90 degrees to line, facing downhill. Tick Interval: 1.5mm			
Line Style:	Element Name: Dk-Brown-42_0.15mmSolidDoubleLines	Element Reference: L00291	Element Type: Line - Simple
Repeating Point:	Element Name: Dk-Brown-42_0.15mm-0.5mmLenTick	Element Reference: P00221	Element Type: Point - Simple
	Repeating Point Interval: 1.5mm		

L00293

Element Name: Dk-Brown-42_Embankment(WithoutTransport)		Color Token: Dk-Brown-42	
Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.15mm Solid Line with Ticks (0.15mm wt, 0.8mm long)			
Miscellaneous Note: Tick is centered and 90 degrees to line. Tick Interval is 1.5mm			
Line Style:	Element Name: Dk-Brown-42_0.15mmSolidLine	Element Reference: L00289	Element Type: Line - Simple
Repeating Point:	Element Name: Dk-Brown-42_0.15mm-0.8mmLenTick	Element Reference: P00222	Element Type: Point - Simple
	Repeating Point Interval: 1.5mm		

L00295

Element Name: Dk-Brown-42_Cliff(High)		Color Token: Dk-Brown-42	
Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.2mm Solid Line with Ticks (0.1mm wt, 0.5mm long)			
Miscellaneous Note: Tick end is on and at 90 degrees to line, facing downhill			
Line Style:	Element Name: Dk-Brown-42_0.2mmSolidLine	Element Reference: L00294	Element Type: Line - Simple
Repeating Point:	Element Name: Dk-Brown-42_0.1mm-0.5mmLenTick	Element Reference: P00225	Element Type: Point - Simple
	Repeating Point Interval: 0.5mm		

L00296

Element Name: Blue072_Airspace_SUAS_MOA		Color Token: Blue072	
Description: Blue072 0.25mm Solid Line and a 2.5mm Blue072-31 Screened Line combined			
Miscellaneous Note: The solid line is centered on the perimeter of the surface geometry and the center of the screened line is offset 0.375 mm to the inside of the surface's perimeter.			
Line Style:	Element Name: Blue072_0.25mmSolidLine	Element Reference: L00276	Element Type: Line - Simple
2nd Line Style:	Element Name: Blue072-31_2.5mmScreenedLine	Element Reference: L00181	Element Type: Line - Simple

Line - Simple

L00005

Element Name: Blue072_0.4mmSolidLine

Color Token: Blue072

Description: Blue072 0.4mm Solid Line (0.4mm wt)

Line Weight: 0.4mm

L00006

Element Name: Blue072_0.73mmSolidLine

Color Token: Blue072

Description: Blue072 0.73mm Solid Line (0.73mm wt)

Line Weight: 0.73mm

L00007

Element Name: Black_0.1mmSolidLine

Color Token: Black

Description: Black 0.1mm Solid Line (0.1mm wt)

Line Weight: 0.1mm

L00008

Element Name: Black_0.15mmSolidLine

Color Token: Black

Description: Black 0.15mm Solid Line (0.15mm wt)

Line Weight: 0.15mm

L00009

Element Name: Black_0.2mmSolidLine

Color Token: Black

Description: Black 0.2mm Solid Line (0.2mm wt)

Line Weight: 0.2mm

L00011

Element Name: Black_0.3mmSolidLine

Color Token: Black

Description: Black 0.3mm Solid Line (0.3mm wt)

Line Weight: 0.3mm

L00013**Element Name:** Black_0.4mmSolidLine**Color Token:** Black**Description:** Black 0.4mm Solid Line (0.4mm wt)**Line Weight:** 0.4mm**L00014****Element Name:** Black_0.5mmSolidLine**Color Token:** Black**Description:** Black 0.5mm Solid Line (0.5mm wt)**Line Weight:** 0.5mm**L00015****Element Name:** Cyan_0.2mmSolidLine**Color Token:** Cyan**Description:** Cyan 0.2mm Solid Line (0.2mm wt)**Line Weight:** 0.2mm**L00016****Element Name:** Cyan_0.3mmSolidLine**Color Token:** Cyan**Description:** Cyan 0.3mm Solid Line (0.3mm wt)**Line Weight:** 0.3mm**L00017****Element Name:** Cyan_0.4mmSolidLine**Color Token:** Cyan**Description:** Cyan 0.4mm Solid Line (0.4mm wt)**Line Weight:** 0.4mm**L00019****Element Name:** Black_0.3mmSolidDoubleLine**Color Token:** Black**Description:** Two parallel Black 0.3mm Solid Lines (0.3mm wt). The spacing between the two lines is variable per the width of the overpassing feature.**Miscellaneous Note:** Spacing is variable to the width of the over passing transportation feature**Line Weight:** 0.3mm

L00108

Element Name: Cyan_0.1mmSolidLine
Description: Cyan 0.1mm Solid Line (0.1mm wt)
Line Weight: 0.1mm

Color Token: Cyan

L00139

Element Name: Dk-Brown-54_2.0mmScreenedLine
Description: Dk-Brown-54 (Magenta 79% bi-angle screen coincident with Yellow 100% and Black 42% bi-angle screen) 2.0mm Screened Line (2.0mm wt)
Line Weight: 2.0mm

Color Token: Dk-Brown-54

L00153

Element Name: Black_0.6mmSolidLine
Description: Black 0.6mm Solid Line (0.6mm wt)
Line Weight: 0.6mm

Color Token: Black

L00155

Element Name: Black_0.8mmSolidLine
Description: Black 0.8mm Solid Line (0.8mm wt)
Line Weight: 0.8mm

Color Token: Black

L00158

Element Name: Black_1.0mmSolidLine
Description: Black 1.0mm Solid Line (1.0mm wt)
Line Weight: 1.0mm

Color Token: Black

L00166

Element Name: PaperWhite_0.3mmSolidLine
Description: PaperWhite 0.3mm Solid Line (0.3mm wt)
Line Weight: 0.3mm

Color Token: PaperWhite

L00181

Element Name: Blue072-31_2.5mmScreenedLine
Description: Blue072-31 2.5mm Screened Line
Line Weight: 2.5mm

Color Token: Blue072-31

L00219

Element Name: Black_1.45mmSolidLine
Description: Black 1.45mm Solid Line (1.45mm wt)
Line Weight: 1.45mm

Color Token: Black

L00222

Element Name: PaperWhite_0.25mmSolidLine
Description: PaperWhite 0.25mm Solid Line (0.25mm wt)
Line Weight: 0.25mm

Color Token: PaperWhite

L00245

Element Name: Cyan_0.15mmSolidLine
Description: Cyan 0.15mm Solid Line (0.15mm wt)
Line Weight: 0.15mm

Color Token: Cyan

L00265

Element Name: Blue072_0.3mmSolidLine
Description: Blue072 0.3mm Solid Line (0.3mm wt)
Line Weight: 0.3mm

Color Token: Blue072

L00268

Element Name: Black-67_0.1mmSolidLine
Description: Black-67 0.1mm Solid Line (0.1mm wt)
Line Weight: 0.1mm

Color Token: Black-67

L00276**Element Name:** Blue072_0.25mmSolidLine**Color Token:** Blue072**Description:** Blue072 0.25mm Solid Line (0.25mm wt)**Line Weight:** 0.25mm**L00277****Element Name:** Blue072_2.5mm-Width-AP-98Line**Color Token:** Blue072**Description:** Blue072 2.5mm width line filled with AP-98 (area pattern 98)**Miscellaneous Note:** The Blue072 2.5mm width line is filled with AP-98. See Element: Blue072_AP98_Fill in Annex I**Line Weight:****L00279****Element Name:** Blue072_2.5mm-25mmLenDashAP-98Line**Color Token:** Blue072**Description:** Blue072 2.5mm Dashed Line (2.5mm width, 25mm dash, 13mm gap) filled with AP-98 (area pattern 98)**Miscellaneous Note:** Blue072 2.5mm width 25mm length dash is filled with AP-98. See Element: Blue072_AP98_Fill in Annex I**Line Weight:** 2.5mm**L00281****Element Name:** Green_0.2mmSolidLine**Color Token:** Green**Description:** Green (Cyan 100% coincident with Yellow 100%) 0.2mm Solid Line (0.2mm wt)**Line Weight:** 0.2mm**L00283****Element Name:** Dk-Brown_0.3mmSolidLine**Color Token:** Dk-Brown**Description:** Dk-Brown (Magenta 100% coincident with Yellow 100% and Black 67% bi-angle screen) 0.3mm Solid Line (0.3mm wt)**Line Weight:** 0.3mm**L00286****Element Name:** Dk-Brown_0.5mmSolidLine**Color Token:** Dk-Brown**Description:** Dk-Brown (Magenta 100% coincident with Yellow 100% and Black 67% bi-angle screen) 0.5mm Solid Line (0.5mm wt)**Line Weight:** 0.5mm

L00288**Element Name:** Dk-Brown_1.15mmSolidLine**Color Token:** Dk-Brown**Description:** Dk-Brown (Magenta 100% coincident with Yellow 100% and Black 67% bi-angle screen) 1.15mm Solid Line (1.15mm wt)**Line Weight:** 1.15mm**L00289****Element Name:** Dk-Brown-42_0.15mmSolidLine**Color Token:** Dk-Brown-42**Description:** Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.15mm Solid Line (0.15mm wt)**Line Weight:** 0.15mm**L00291****Element Name:** Dk-Brown-42_0.15mmSolidDoubleLines**Color Token:** Dk-Brown-42**Description:** Two parallel Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.15mm Solid Line (0.15mm wt)**Miscellaneous Note:** Spacing is variable to the width of the over passing feature**Line Weight:** 0.15mm**L00294****Element Name:** Dk-Brown-42_0.2mmSolidLine**Color Token:** Dk-Brown-42**Description:** Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.2mm Solid Line (0.2mm wt)**Line Weight:** 0.2mm**L00297****Element Name:** Blue072_1.1mmSolidLine**Color Token:** Blue072**Description:** Blue072 1.1mm Solid Line (1.1mm wt)**Line Weight:** 1.1mm**L00298****Element Name:** Blue072_0.85mmSolidLine**Color Token:** Blue072**Description:** Blue072 0.85mm Solid Line (0.85mm wt)**Line Weight:** 0.85mm

Line - Styled**L00001**

Element Name: Black_0.4mm-5mmLenDashLine	Color Token: Black
Description: Black 0.4mm Dashed Line (0.4mm wt, 5.0mm dash, 1.0mm gap)	
Line Weight: 0.4mm	Dash Length: 5.0mm
	Dash Spacing: 1.0mm

L00029

Element Name: Black_0.1mm-2mmLenDash-0.5mmGapLine	Color Token: Black
Description: Black 0.1mm Dashed Line (0.1mm wt, 2.0mm dash, 0.5mm gap)	
Line Weight: 0.1mm	Dash Length: 2.0mm
	Dash Spacing: 0.5mm

L00031

Element Name: Black_0.2mm-1mmLenDash-0.5mmGapLine	Color Token: Black
Description: Black 0.2mm Dashed Line (0.2mm wt, 1.0mm dash, 0.5mm gap)	
Line Weight: 0.2mm	Dash Length: 1.0mm
	Dash Spacing: 0.5mm

L00032

Element Name: Black_0.2mm-2mmLenDash-0.5mmGapLine	Color Token: Black
Description: Black 0.2mm Dashed Line (0.2mm wt, 2.0mm dash, 0.5mm gap)	
Line Weight: 0.2mm	Dash Length: 2.0mm
	Dash Spacing: 0.5mm

L00034

Element Name: Black_0.2mm-6.5mmLenDash-2.5mmGapLine	Color Token: Black
Description: Black 0.2mm Dashed Line (0.2mm wt, 6.5mm dash, 2.5mm gap)	
Line Weight: 0.2mm	Dash Length: 6.5mm
	Dash Spacing: 2.5mm

L00040

Element Name: Cyan_0.2mm-1mmLenDash-0.5mmGapLine	Color Token: Cyan
Description: Cyan 0.2mm Dashed Line (0.2mm wt, 1.0mm dash, 0.5mm gap)	
Line Weight: 0.2mm	Dash Length: 1.0mm
	Dash Spacing: 0.5mm

L00041

Element Name: Cyan_0.2mm-2mmLenDash-0.5mmGapLine	Color Token: Cyan
Description: Cyan 0.2mm Dashed Line (0.2mm wt, 2.0mm dash, 0.5mm gap)	
Line Weight: 0.2mm	Dash Length: 2.0mm
	Dash Spacing: 0.5mm

L00042

Element Name: Cyan_0.2mm-5mmLenDash-0.5mmGapLine	Color Token: Cyan
Description: Cyan 0.2mm Dashed Line (0.2mm wt, 5.0mm dash, 0.5mm gap)	
Line Weight: 0.2mm	Dash Length: 5.0mm
	Dash Spacing: 0.5mm

L00045

Element Name: Cyan_0.4mm-2mmLenDash-0.5mmGapLine	Color Token: Cyan
Description: Cyan 0.4mm Dashed Line (0.4mm wt, 2.0mm dash, 0.5mm gap)	
Line Weight: 0.4mm	Dash Length: 2.0mm
	Dash Spacing: 0.5mm

L00110

Element Name: Cyan_0.1mm-3mmLenDashLine	Color Token: Cyan
Description: Cyan 0.1mm Dashed Line (0.1mm wt, 3.0mm dash, 0.5mm gap)	
Line Weight: 0.1mm	Dash Length: 3.0mm
	Dash Spacing: 0.5mm

L00121

Element Name: Black_0.25mm-6mmLenDashLine	Color Token: Black
Description: Black 0.25mm Dashed Line (0.25mm wt, 6.0mm dash, 1.0mm gap)	
Line Weight: 0.25mm	Dash Length: 6.0mm
	Dash Spacing: 1.0mm

L00122

Element Name: Black_0.5mm-7mmDash-2x2mmDashLine	Color Token: Black
Description: Black 0.5mm Dashed Line (0.5mm wt, 7.0mm dash, 2-2.0mm dashes, 1.0mm gaps)	
Miscellaneous Note: The line style is a 7.0mm dash, 1.0mm gap, 2.0mm dash, 1.0mm gap, 2.0mm dash, 1.0mm gap, then the pattern repeats.	
Line Weight: 0.5mm	Dash Length: 7.0mm
	Dash Spacing: 1.0mm
	2nd Dash Length: 2.0mm
	2nd Dash Spacing: 1.0mm
	3rd Dash Length: 2.0mm
	3rd Dash Spacing: 1.0mm

L00125

Element Name: Black_0.3mm-5mmLenDash-1.0mmGapLine	Color Token: Black
Description: Black 0.3mm Dashed Line (0.3mm wt, 5.0mm dash, 1.0mm gap)	
Line Weight: 0.3mm	Dash Length: 5.0mm
	Dash Spacing: 1.0mm

L00128

Element Name: Black_0.2mm-6.1mmLenDash-2.5mmGapLine	Color Token: Black
Description: Black 0.2mm Dashed Line (0.2mm wt, 6.1mm dash, 2.5mm gap)	
Line Weight: 0.2mm	Dash Length: 6.1mm
	Dash Spacing: 2.5mm

L00130

Element Name: Black_0.3mm-7-1-2-1DashLine	Color Token: Black
Description: Black 0.3mm Dashed Line (0.3mm wt, 7.0mm dash, 2.0mm dash, 1.0mm gaps)	
Miscellaneous Note: The line style is a 7.0mm dash, 1.0mm gap, 2.0mm dash, 1.0mm gap, then the pattern repeats.	
Line Weight: 0.3mm	Dash Length: 7.0mm
	2nd Dash Length: 2.0mm
	Dash Spacing: 1.0mm
	2nd Dash Spacing: 1.0mm

L00137

Element Name: Black_0.5mm-6mmLenDash-3.8mmGapLine	Color Token: Black
Description: Black 0.5mm Dashed Line (0.5mm wt, 6.0mm dash, 3.8mm gap)	
Line Weight: 0.5mm	Dash Length: 6.0mm
	Dash Spacing: 3.8mm

L00144

Element Name: Black_Dotted-Line	Color Token: Black
Description: Black 0.25mm diameter filled dots repeating with 0.75mm spacing	
Line Weight:	Dash Length:
	Dash Spacing:
Repeating Point:	Element Reference: P00047
Element Name: Black_0.25mmFilledDot	Element Type: Point - Simple

L00163**Element Name:** Black_0.6mm-2.5mmLenDash-0.5mmGapLine**Color Token:** Black**Description:** Black 0.6mm Dashed Line (0.6mm wt, 2.5mm Dash Length, 0.5mm Dash Gap)**Line Weight:** 0.6mm**Dash Length:** 2.5mm**Dash Spacing:** 0.5mm**L00178****Element Name:** Cyan_0.1mm-5mmLenDash-0.5mmGapLine**Color Token:** Cyan**Description:** Cyan 0.1mm Dashed Line (0.1mm wt, 5.0mm dash, 0.5mm gap)**Line Weight:** 0.1mm**Dash Length:** 5.0mm**Dash Spacing:** 0.5mm**L00210****Element Name:** Black_0.1mm-1.0mmLenDash-0.5mmGapLine**Color Token:** Black**Description:** Black 0.1mm Dashed Line (0.1mm wt, 1.0mm dash, 0.5mm gap)**Line Weight:** 0.1mm**Dash Length:** 1.0mm**Dash Spacing:** 0.5mm**L00234****Element Name:** Cyan_0.15mm-1mmLenDash-0.5mmGapLine**Color Token:** Cyan**Description:** Cyan 0.15mm Dashed Line (0.15mm wt, 1.0mm dash, 0.5mm gap)**Line Weight:** 0.15mm**Dash Length:** 1.0mm**Dash Spacing:** 0.5mm**L00237****Element Name:** Black_0.25mm-5.0mmLenDash-1.0mmGapLine**Color Token:** Black**Description:** Black 0.25mm Dashed Line (0.25mm wt, 5.0mm dash, 1.0mm gap)**Line Weight:** 0.25mm**Dash Length:** 5.0mm**Dash Spacing:** 1.0mm**L00246****Element Name:** Cyan_0.1mm-2mmLenDash-0.5mmGapLine**Color Token:** Cyan**Description:** Cyan 0.1mm Dashed Line (0.1mm wt, 2.0mm dash, 0.5mm gap)**Line Weight:** 0.1mm**Dash Length:** 2.0mm**Dash Spacing:** 0.5mm

L00252

Element Name: Black_0.3mm-7-1-2-1-2-1DashLine	Color Token: Black
Description: Black 0.3mm Dashed Line (0.3mm wt, 7.0mm dash, 2-2.0mm dashes, 1.0mm gaps)	
Miscellaneous Note: The line style is a 7.0mm dash, 1.0mm gap, 2.0mm dash, 1.0mm gap, 2.0mm dash, 1.0mm gap, then the pattern repeats.	
Line Weight: 0.3mm	Dash Length: 7.0mm
	Dash Spacing: 1.0mm
	2nd Dash Length: 2.0mm
	2nd Dash Spacing: 1.0mm
	3rd Dash Length: 2.0mm
	3rd Dash Spacing: 1.0mm

L00257

Element Name: Black_0.15mm-1.0mmLenDash-0.5mmGapLine	Color Token: Black
Description: Black 0.15mm Dashed Line (0.15mm wt, 1.0mm dash, 0.5mm gap)	
Line Weight: 0.15mm	Dash Length: 1.0mm
	Dash Spacing: 0.5mm

L00258

Element Name: Black_0.25mm-2.5mmLenDash-1.0mmGapLine	Color Token: Black
Description: Black 0.25mm Dashed Line (0.25mm wt, 2.5mm dash, 1.0mm gap)	
Line Weight: 0.25mm	Dash Length: 2.5mm
	Dash Spacing: 1.0mm

L00260

Element Name: Black_Reef	Color Token: Black
Description: Black reef arc in a repeating pattern.	
Line Weight: 0.13mm	Dash Length:
	Dash Spacing:
Repeating Point:	Element Name: Black_ReefArc
	Element Reference: P00207
	Element Type: Point - Simple

L00263

Element Name: Black_0.4mmDottedLine	Color Token: Black
Description: Black 0.4mm diameter filled dots repeating with 2.5mm spacing	
Line Weight:	Dash Length:
	Dash Spacing:
Repeating Point:	Element Name: Black_0.4mmFilledDot
	Element Reference: P00082
	Element Type: Point - Simple

L00269

Element Name: Black-67_0.1mm-5mmLenDash-0.5mmGapLine	Color Token: Black-67
Description: Black-67 0.1mm Dashed Line (0.1mm wt, 5.0mm dash, 0.5mm gap)	
Line Weight: 0.1mm	Dash Length: 5.0mm
	Dash Spacing: 0.5mm

L00270

Element Name: Black-67_0.1mm-3mmLenDashLine	Color Token: Black-67
Description: Black-67 0.1mm Dash Line (0.1mm wt, 3.0mm dash, 0.5mm gap)	
Line Weight: 0.1mm	Dash Length: 3.0mm
	Dash Spacing: 0.5mm

L00324

Element Name: Blue072_0.3mm-3.8mmLenDash-1.2mmGapLine	Color Token: Blue072
Description: Blue072 Dashed Line (0.3mm wt, 3.8mm dash, 1.2mm gap)	
Line Weight: 0.3mm	Dash Length: 3.8mm
	Dash Spacing: 1.2mm

Annex G – Point Elements

Point Elements

Each of the point elements used in Annex A – GTDS Symbols have been listed only one time in this Annex.

Point Elements

Point - Shape

P00001

<p><u>Element Name:</u> Black_PickAxeShovel</p> <p><u>Description:</u> Black pickaxe and shovel</p> <p><u>Miscellaneous Note:</u> See Element: Black_PickAxeShovel in Annex H for detailed drawing instructions.</p>	<p><u>Color Token:</u> Black</p>
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P00002

<p><u>Element Name:</u> Black_PickAxeShovel180</p> <p><u>Description:</u> Black pickaxe and shovel (P00001) rotated 180 degrees</p> <p><u>Miscellaneous Note:</u> See Element: Black_PickAxeShovel (P00001) in Annex H for detailed drawing instructions. Image will need to be rotated 180 degrees.</p> <p><u>Orientation:</u> Rotated 180 degrees</p>	<p><u>Color Token:</u> Black</p>
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P00003

<p><u>Element Name:</u> Blue072_Navaid_VO</p> <p><u>Description:</u> Blue072 navaid vertical obstruction</p> <p><u>Miscellaneous Note:</u> See Element: Blue072_Navaid_VO in Annex H for detailed drawing instructions.</p>	<p><u>Color Token:</u> Blue072</p>
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P00008

<p><u>Element Name:</u> Blue072_Obstruction</p> <p><u>Description:</u> Blue072 vertical obstruction</p> <p><u>Miscellaneous Note:</u> See Element: Blue072_Obstruction in Annex H for detailed drawing instructions.</p>	<p><u>Color Token:</u> Blue072</p>
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P00012

<p><u>Element Name:</u> Black_HospitalCross</p> <p><u>Description:</u> Black 1.75mm diameter filled circle with a 1.25mm (0.25mm lineweight) paper white plus centered inside</p> <p><u>Miscellaneous Note:</u> The 1.25mm (0.25mm lineweight) paper white plus is centered inside the black 1.75mm diameter filled circle.</p> <p><u>Diameter:</u> 1.75mm</p> <p><u>Line Weight:</u> 0.25mm</p>	<p><u>Color Token:</u> Black</p>
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P00020**Element Name:** Blue072_Pylon**Color Token:** Blue072**Description:** Blue072 pylon**Miscellaneous Note:** See Element: Blue072_Pylon in Annex H for detailed drawing instructions.**Orientation:** Centered at 90 degrees to the line**P00025****Element Name:** Blue072_Beacon**Color Token:** Blue072**Description:** Blue072 5-pointed filled star with an open circle in the center**Miscellaneous Note:** See Element: Blue072_Beacon in Annex H for detailed drawing instructions.**P00029****Element Name:** Black_MountainPass**Color Token:** Black**Description:** Black mountain pass**Miscellaneous Note:** See Element: Black_MountainPass in Annex H for detailed drawing instructions.**P00035****Element Name:** Black_PT_Lock**Color Token:** Black**Description:** Two black "V" spaced 0.5mm apart with length of each leg 0.8mm and a 0.1mm lineweight that intersect at a 90 degree angle**Miscellaneous Note:** Angle between legs: 90 degrees**Orientation:** Apex is where the lines connect to form a "V"**Line Weight:** 0.1mm**Length:** 0.8mm**P00101****Element Name:** Blue072_Multiple_VO**Color Token:** Blue072**Description:** Blue072 multiple vertical obstruction**Miscellaneous Note:** See Element: Blue072_Multiple_VO in Annex H for detailed drawing instructions.**P00108****Element Name:** Black_Fortification**Color Token:** Black**Description:** Black open square with all sides 0.8mm and four black 0.5mm length ticks extending out from each corner at 45, 135, 225, and 315 degrees. All lineweights are 0.1mm.**Line Weight:** 0.1mm**Length:** 0.5mm

P00113

<p>Element Name: Blue072_PT_LinearObstruction</p> <p>Description: Blue072 linear vertical obstruction</p> <p>Miscellaneous Note: See Element: Blue072_PT_LinearObstruction in Annex H for detailed drawing instructions</p>	<p>Color Token: Blue072</p>
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P00126

<p>Element Name: Black_Cemetery</p> <p>Description: Black cemetery</p> <p>Miscellaneous Note: See Element: Black_Cemetery in Annex H for detailed drawing instructions</p>	<p>Color Token: Black</p>
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P00131

<p>Element Name: Black_Crane</p> <p>Description: Black crane</p> <p>Miscellaneous Note: See Element: Black_Crane in Annex H for detailed drawing instructions.</p>	<p>Color Token: Black</p>
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P00132

<p>Element Name: Black_Checkpoint</p> <p>Description: Black checkpoint</p> <p>Miscellaneous Note: See Element: Black_Checkpoint in Annex H for detailed drawing instructions.</p>	<p>Color Token: Black</p>
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P00135

<p>Element Name: Black_Lighthouse</p> <p>Description: Black lighthouse</p> <p>Miscellaneous Note: See Element: Black_Lighthouse in Annex H for detailed drawing instructions.</p>	<p>Color Token: Black</p>
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P00136

<p>Element Name: Black_MemorialMonument</p> <p>Description: Black memorial monument</p> <p>Miscellaneous Note: See Element: Black_MemorialMonument in Annex H for detailed drawing instructions.</p>	<p>Color Token: Black</p>
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P00140

<p>Element Name: Black_Smokestack</p> <p>Description: Black smokestack</p> <p>Miscellaneous Note: See Element: Black_Smokestack in Annex H for detailed drawing instructions</p>	<p>Color Token: Black</p>
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P00141

Element Name: Black_Tower

Color Token: Black

Description: Black tower

Miscellaneous Note: See Element: Black_Tower in Annex H for detailed drawing instructions

P00142

Element Name: Cyan_WaterTower

Color Token: Cyan

Description: Cyan water tower

Miscellaneous Note: See Element: Cyan_Water_Tower in Annex H for detailed drawing instructions

P00143

Element Name: Black_WindTurbine

Color Token: Black

Description: Black wind turbine

Miscellaneous Note: See Element: Black_WindTurbine in Annex H for detailed drawing instructions

P00144

Element Name: Black_Windmill

Color Token: Black

Description: Black windmill

Miscellaneous Note: See Element: Black_Windmill in Annex H for detailed drawing instructions

P00145

Element Name: Black_Flarepipe

Color Token: Black

Description: Black flarepipe

Miscellaneous Note: See Element: Black_Flarepipe in Annex H for detailed drawing instructions

P00148

Element Name: Black_WaterIntakeTower

Color Token: Black

Description: Black water intake tower

Miscellaneous Note: See Element: Black_WaterIntakeTower in Annex H for detailed drawing instructions.

P00151

Element Name: Black_PT_Tunnel

Color Token: Black

Description: Black point tunnel

Miscellaneous Note: See Element: Black_PT_Tunnel in Annex H for detailed drawing instructions

P00155

<p>Element Name: Black_Communication_Tower</p> <p>Description: Black communication tower</p> <p>Miscellaneous Note: See Element: Black_Communication_Tower in Annex H for detailed drawing instructions.</p>	<p>Color Token: Black</p>
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P00161

<p>Element Name: Black_Offshore_VO</p> <p>Description: Black vertical obstruction</p> <p>Miscellaneous Note: See Element: Black_Offshore_VO in Annex H for detailed drawing instructions</p>	<p>Color Token: Black</p>
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P00162

<p>Element Name: Black_Rig_Inland</p> <p>Description: Black rig inland</p> <p>Miscellaneous Note: See Element: Black_Rig_Inland in Annex H for detailed drawing instructions</p>	<p>Color Token: Black</p>
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P00206

<p>Element Name: Black_Wreck</p> <p>Description: Black wreck</p> <p>Miscellaneous Note: See Element: Black_Wreck in Annex H for detailed drawing instructions</p>	<p>Color Token: Black</p>
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P00213

<p>Element Name: Blue072_Navaid_VOR</p> <p>Description: Blue072 navaid vor</p> <p>Miscellaneous Note: See Element: Blue072_Navaid_VOR in Annex H for detailed drawing instructions.</p>	<p>Color Token: Blue072</p>
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P00214

<p>Element Name: Blue072_Navaid_VORTAC</p> <p>Description: Blue072 navaid vortac</p> <p>Miscellaneous Note: See Element: Blue072_Navaid_VORTAC in Annex H for detailed drawing instructions.</p>	<p>Color Token: Blue072</p>
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P00215

<p>Element Name: Blue072_Navaid_TACAN</p> <p>Description: Blue072 navaid tacan</p> <p>Miscellaneous Note: See Element: Blue072_Navaid_TACAN in Annex H for detailed drawing instructions.</p>	<p>Color Token: Blue072</p>
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P00216

Element Name: Blue072_Navaid_VOR_DME

Color Token: Blue072

Description: Blue072 navaid vor dme

Miscellaneous Note: See Element: Blue072_Navaid_VOR_DME in Annex H for detailed drawing instructions.

P00228

Element Name: Black_FilledPowerSubstation

Color Token: Black

Description: Black filled power substation

Miscellaneous Note: See Element: Black_FilledPowerSubstation in Annex H for detailed drawing instructions.

Point - Simple

P00010

Element Name: Black_OpenCircleWithDot	Color Token: Black
Description: Black 1.25mm diameter open circle with a 0.15mm lineweight and a black filled 0.3mm diameter dot in the center	
Miscellaneous Note: 0.3mm diameter dot in the center of the open circle	
Diameter: 1.25mm	
Line Weight: 0.15mm	

P00024

Element Name: Black_0.8mmOpenSquare	Color Token: Black
Description: Black 0.1mm lineweight open square with all sides 0.8mm	
Line Weight: 0.1mm	Length: 0.8mm

P00042

Element Name: Black_0.15mm-0.75mmLenWingTick	Color Token: Black
Description: Black 0.75mm fixed length line (lineweight 0.15mm) that is angled at 45, 135, 225 or 315 to the line with which it attaches.	
Miscellaneous Note: Angle depends on which end of the feature the ticks are placed	
Orientation: Based 45, 135, 225, and 315 degrees to line outward, from center of line ends	
Line Weight: 0.15mm	Length: 0.75mm

P00044

Element Name: Black_0.15mm-1.5mmLenTick	Color Token: Black
Description: Black 0.15mm length line with a 0.15mm lineweight	
Orientation: Centered 90 degrees to line	
Line Weight: 0.15mm	Length: 1.5mm

P00045

Element Name: Black_0.2mm-0.7mmLenV	Color Token: Black
Description: Black "V" length of each leg is 0.7mm with a 0.2mm lineweight that intersect at a 90 degree angle	
Miscellaneous Note: Angle between legs: 90 degrees	
Orientation: Apex is where the lines connect to form a "V"	
Line Weight: 0.2mm	Length: 0.7mm

P00047

Element Name: Black_0.25mmFilledDot **Color Token:** Black
Description: Black 0.25mm diameter filled circle
Miscellaneous Note: Circle is filled
Diameter: 0.25mm

P00051

Element Name: Black_0.35mm-1.5mmLenLine **Color Token:** Black
Description: Black 1.5mm length line with a 0.35mm lineweight
Line Weight: 0.35mm **Length:** 1.5mm

P00053

Element Name: Black_0.8mmFilledCircle **Color Token:** Black
Description: Black 0.8mm diameter filled circle
Miscellaneous Note: Circle is filled
Diameter: 0.8mm

P00055

Element Name: Cyan_0.1mm-0.5mmLenTick **Color Token:** Cyan
Description: Cyan 0.5mm length line with a 0.1mm lineweight
Orientation: Based 90 degrees to line
Line Weight: 0.1mm **Length:** 0.5mm

P00056

Element Name: Cyan_0.15mm-0.6mmLenTickCircle **Color Token:** Cyan
Description: Total of eight Cyan 0.6mm length ticks with a 0.15mm lineweight extending out from an imaginary 1.5mm diameter circle.
Miscellaneous Note: Center circle diameter: 1.5mm Tick placement: 45 degree increments clockwise starting at 0 degrees from north.
Orientation: Ticks are oriented 45 degrees from each other starting at 0 degrees
Line Weight: 0.15mm **Length:** 0.6mm

P00058

Element Name: Cyan_0.2mm-0.7mmLenV	Color Token: Cyan
Description: Cyan "V" length of each leg is 0.7mm with a 0.2mm lineweight that intersect at a 90 degree angle	
Miscellaneous Note: Angle between legs: 90 degrees	
Orientation: Apex is where the lines connect to form a "V"	
Line Weight: 0.2mm	Length: 0.7mm

P00059

Element Name: Cyan_0.2mm-1.0mmLenV	Color Token: Cyan
Description: Cyan "V" length of each leg is 1.0mm with a 0.2mm lineweight that intersect at a 90 degree angle	
Miscellaneous Note: Angle between stems: 90 degrees	
Orientation: Apex is where the lines connect to form a "V"	
Line Weight: 0.2mm	Length: 1.0mm

P00061

Element Name: Cyan_0.2mm-1.5mmLenLine	Color Token: Cyan
Description: Cyan 1.5mm length line with a 0.2mm lineweight	
Orientation: Centered 90 degrees to line	
Line Weight: 0.2mm	Length: 1.5mm

P00073

Element Name: Black_0.2mmTick-Entrance/Exit	Color Token: Black
Description: Black 2.0mm length line with 0.6mm length wing ticks attached at a 45 degree angle at each endpoint. All lineweights are 0.2mm	
Miscellaneous Note: Wing tick placed at 45 degree angle outward from center of the headline end	
Headline: Lineweight: 0.2mm Length: 2.0mm	Wing Tick: Lineweight: 0.2mm Length: 0.6mm

P00082

Element Name: Black_0.4mmFilledDot	Color Token: Black
Description: Black 0.4mm diameter filled circle	
Miscellaneous Note: Circle is filled	
Diameter: 0.4mm	

P00095

Element Name: Black_Rock **Color Token:** Black
Description: Total of three 1.5mm length lines with a 0.1mm lineweight oriented 60 degrees apart, starting at 30 degrees from north
Line Weight: 0.1mm **Length:** 1.5mm

P00123

Element Name: Black_1.0mmSquareFilled **Color Token:** Black
Description: Black filled square with all sides 1.0mm
Length: 1.0mm

P00130

Element Name: Black_Castle **Color Token:** Black
Description: Black 1.1mm open square with a 0.15mm lineweight and a 0.55mm filled square on each corner. Overall height and width is 1.5mm.
Miscellaneous Note: Four 0.55mm filled squares, one on each corner of the larger open square
Line Weight: 0.15mm **Length:** 1.5mm

P00149

Element Name: Black_0.15mm-0.35mmLenTick **Color Token:** Black
Description: Black 0.15mm lineweight line that is 0.35mm long
Orientation: Based 90 degrees to line
Line Weight: 0.15mm **Length:** 0.35mm

P00152

Element Name: Black_PT_TransRouteProtectStruct **Color Token:** Black
Description: Black 1.5mm x 2.5mm rectangle with a 0.2mm lineweight outline perimeter and filled with the line pattern LP15.
Miscellaneous Note: Black 1.5mm x 2.5mm rectangle has a 0.2mm lineweight outline perimeter and is filled with a line pattern. See Element: Black_LP15Fill in Annex I
Line Weight: 0.2mm

P00153**Element Name:** Black_0.15mm-2.0mmLenLine**Color Token:** Black**Description:** Black 2.0mm length line with a 0.15mm lineweight**Orientation:** Line is placed 90 degrees to linear feature**Line Weight:** 0.15mm**Length:** 2.0mm**P00163****Element Name:** Black_OffshorePlatform**Color Token:** Black**Description:** Black open square with all sides 1.2mm with a 0.1mm lineweight and a black filled 0.2mm diameter circle centered inside**Miscellaneous Note:** 0.2mm diameter dot in the center of the open square**Diameter:** 0.2mm**Line Weight:** 0.1mm**Length:** 1.2mm**P00195****Element Name:** Cyan_0.2mm_1.3mmCasedLine**Color Token:** Cyan**Description:** Two Cyan 1.3mm length lines with a 0.2mm lineweight parallel with a 0.5mm spacing between the lines**Miscellaneous Note:** Spacing between lines is 0.5mm**Line Weight:** 0.2mm**Length:** 1.3mm**P00205****Element Name:** Black_0.1mm-1.0mmLenX**Color Token:** Black**Description:** Two Black lines (each length 1.0mm with a 0.1mm lineweight) intersect at a 45 degree angles to form an "X". Intersection is at the center of the two line segments.**Miscellaneous Note:** Two lines intersect at a 45 degree angles to form an "X".**Orientation:** Center of intersection**Line Weight:** 0.1mm**Length:** 1.0mm

P00207

Element Name: Black_ReefArc **Color Token:** Black
Description: Black arc with a 0.78mm diameter with a 0.55mm line extending from each end (190 degrees and 170 degrees). All lineweights are 0.13mm.
Miscellaneous Note: Overall height 0.8mm and width 0.86mm
Diameter: 0.78mm
Line Weight: 0.13mm

P00208

Element Name: Cyan_0.3mm-0.7mmLenV **Color Token:** Cyan
Description: Cyan "V" length of each leg is 0.7mm with a 0.3mm lineweight that intersect at a 90 degree angle
Miscellaneous Note: Angle between legs: 90 degrees
Orientation: Apex is where the lines connect to form a "V"
Line Weight: 0.3mm **Length:** 0.7mm

P00209

Element Name: Green_1.0mmFilledCircle **Color Token:** Green
Description: Green (Cyan 100% coincident with Yellow 100%) 1.0mm diameter filled circle
Diameter: 1.0mm

P00210

Element Name: Black_1.2mmOpenCircle **Color Token:** Black
Description: Black 1.2mm diameter open circle with a lineweight of 0.1mm
Diameter: 1.2mm
Line Weight: 0.1mm

P00211

Element Name: Black_Bridge **Color Token:** Black
Description: Black filled square with all sides 0.8 mm and four black 1.0mm length, 0.15mm lineweight ticks extending out from each corner at 45, 135, 225, and 315 degrees.
Line Weight: 0.15mm **Length:** 1.0mm

P00212

Element Name: Blue072_Navid_Other **Color Token:** Blue072
Description: Blue072 1.9mm diameter open circle with a 0.3mm lineweight and a blue072 filled 0.4mm diameter filled circle in the center
Miscellaneous Note: 0.4mm diameter filled circle in the center of the open circle
Diameter: 1.9mm
Line Weight: 0.3mm

P00217

Element Name: Blue072_5.0mmCircleFilled **Color Token:** Blue072
Description: Blue072 5.0mm diameter filled circle
Miscellaneous Note: Circle is filled
Diameter: 5.0mm

P00218

Element Name: Blue072_3.1mmOpenCircle **Color Token:** Blue072
Description: Blue072 3.1mm diameter open circle with 0.5mm lineweight
Diameter: 3.1mm
Line Weight: 0.5mm

P00219

Element Name: Black-67_0.1mm-0.5mmLenTick **Color Token:** Black-67
Description: Black-67 0.5mm length line with a 0.1mm lineweight
Orientation: Based 90 degrees to line
Line Weight: 0.1mm **Length:** 0.5mm

P00220

Element Name: Blue072_1.5mmCircleFilled **Color Token:** Blue072
Description: Blue072 1.5mm diameter filled circle
Diameter: 1.5mm

P00221**Element Name:** Dk-Brown-42_0.15mm-0.5mmLenTick**Color Token:** Dk-Brown-42**Description:** Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.5mm length line with a 0.15mm lineweight**Orientation:** Based 90 degrees to line**Line Weight:** 0.15mm**Length:** 0.5mm**P00222****Element Name:** Dk-Brown-42_0.15mm-0.8mmLenTick**Color Token:** Dk-Brown-42**Description:** Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.8mm length line with a 0.15mm lineweight**Orientation:** Centered 90 degrees to line**Line Weight:** 0.15mm**Length:** 0.8mm**P00223****Element Name:** Dk-Brown-42_0.15mmTickCircle**Color Token:** Dk-Brown-42**Description:** Total of eight Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.6mm length ticks with a 0.15mm lineweight extending out from an imaginary 1.5mm diameter circle.**Miscellaneous Note:** Center circle diameter: 1.5mm Tick placement: 45 degree increments clockwise starting at 0 degrees from north.**Orientation:** Ticks are oriented 45 degrees from each other starting at 0 degrees**Line Weight:** 0.15mm**Length:** 0.6mm**P00224****Element Name:** Dk-Brown-42_0.25mmTickCircle**Color Token:** Dk-Brown-42**Description:** Total of six Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.6mm length ticks with a 0.25mm lineweight extending out from an imaginary 0.244mm diameter circle.**Miscellaneous Note:** Center circle diameter: 0.244mm Tick placement: 60 degree increments clockwise starting at 30 degrees from north. Overall tick diameter: 1.44mm**Orientation:** Ticks are oriented 60 degrees from each other starting at 30 degrees**Line Weight:** 0.25mm**Length:** 0.6mm

P00225**Element Name:** Dk-Brown-42_0.1mm-0.5mmLenTick**Color Token:** Dk-Brown-42**Description:** Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 0.1mm lineweight line that is 0.5mm long**Orientation:** Based 90 degrees to line**Line Weight:** 0.1mm**Length:** 0.5mm**P00226****Element Name:** Dk-Brown-42_1.0mmOpenCirclewithTicks**Color Token:** Dk-Brown-42**Description:** Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) 1.0mm diameter open circle with alternating (1.0mm long, 0.5mm short) ticks extending out every 45 degrees all with a 0.1mm lineweight.**Miscellaneous Note:** Ticks alternate in length (short tick 0.5mm length, long tick 1.0mm length) starting with a long tick at the top, each at a 45 degree angle increment from the last. Each tick connects with the outside of the circle radiating outwards.**Diameter:** 1.0mm (circle)**Line Weight:** 0.1mm**Length:** Long Tick: 1.0mm
Short Tick: 0.5mm**P00227****Element Name:** Green_1.0mmFilledSquare**Color Token:** Green**Description:** Green (Cyan 100% coincident with Yellow 100%) filled square with all sides 1.0mm**Length:** 1.0mm**P00229****Element Name:** Green_1.0mmFilledSquare_0.1mmOutline**Color Token:** Green**Description:** Black 1.0mm square with a 0.1mm lineweight outline perimeter and a Green (Cyan 100% coincident with Yellow 100%) fill inside.**Miscellaneous Note:** The 1.0mm square has a Black 0.1mm lineweight outline perimeter and a Green362 fill inside**Line Weight:** 0.1mm**Length:** 1.0mm

Annex H – Detailed Drawing Instructions (normative)

Detailed Drawing Instructions

This Annex contains detailed drawing instructions for the point elements used in Annex A – GTDS Symbols that could not be readily explained in a small set of parameters. The pictures shown in this Annex are not to scale, but have been enlarged to make it easier to view the drawing.

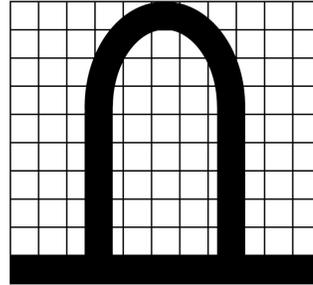
Detailed Drawing Instructions

Element Name: Black_Cemetery

Element Reference: P00126

Element Type: Point - Shape

Description: Black cemetery



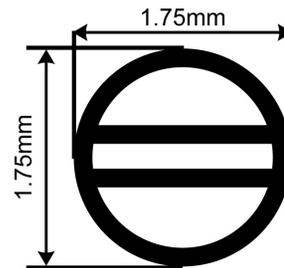
Grid squares: 0.2 mm x 0.2 mm
 Overall height: 2.0 mm
 Overall width: 2.2 mm
 Lineweight: 0.2 mm
 Origin: center of base

Element Name: Black_Checkpoint

Element Reference: P00132

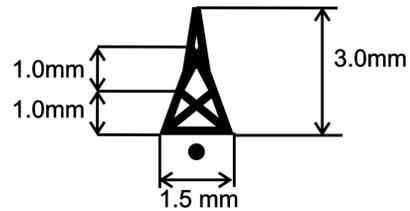
Element Type: Point - Shape

Description: Black checkpoint



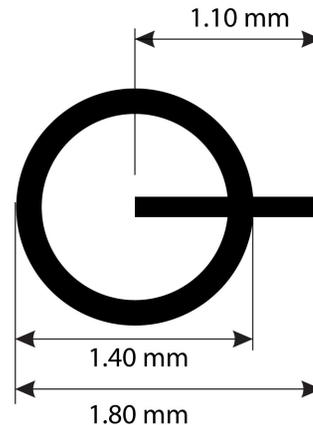
All lineweights : 0.15 mm
 Horizontal bars are
 centered in the circle
 and spaced 0.20 mm apart
 Origin: Center of circle

Element Name: Black_Communication_Tower
Element Reference: P00155
Element Type: Point - Shape
Description: Black communication tower



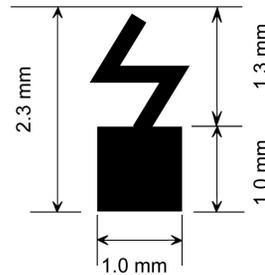
Lineweight (all): 0.20mm
 Dot 0.4mm circle with a gap
 of 0.2mm between edge of
 dot and edge of tower base.
 Lattice:
 Bottom corner to 1.0 mm up along edge
 1.0 mm up edge to 2.0 mm up along edge
 Angles:
 Base to "Mid": 70 degrees
 "Mid" to "Top": 81.5 degrees
 Origin: Center of dot

Element Name: Black_Crane
Element Reference: P00131
Element Type: Point - Shape
Description: Black crane



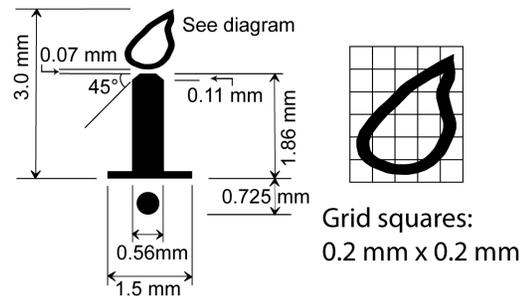
All lineweights: 0.15 mm
 Origin: center of circle

Element Name: Black_FilledPowerSubstation
Element Reference: P00228
Element Type: Point - Shape
Description: Black filled power substation



All lineweights: 0.2 mm
 Top section is made of a
 0.78 mm line at 59 degrees
 0.82 mm line at 180 degrees
 0.78 mm line at 59 degrees
 centered on the box
 Origin: center of symbol

Element Name: Black_Flarepipe
Element Reference: P00145
Element Type: Point - Shape
Description: Black flarepipe



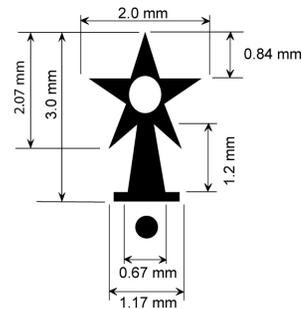
Base lineweight: 0.15 mm
 Dot: 0.4 mm diameter
 0.25 mm gap from rest of symbol
 Origin: Center of dot

Element Name: Black_Lighthouse

Element Reference: P00135

Element Type: Point - Shape

Description: Black lighthouse



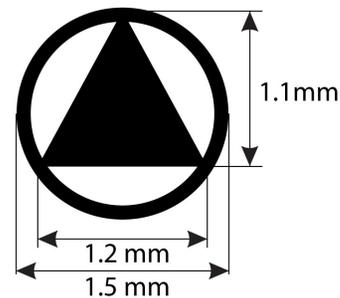
Base lineweight: 0.17 mm
 Body tapers from 0.67 mm to 0.29 mm
 Star symbol is horizontally symmetrical
 Paper white center ellipse
 0.57 mm wide by 0.66 mm high
 Dot: 0.40 mm diameter
 0.25 mm gap from rest of symbol
 Origin: center of symbol

Element Name: Black_MemorialMonument

Element Reference: P00136

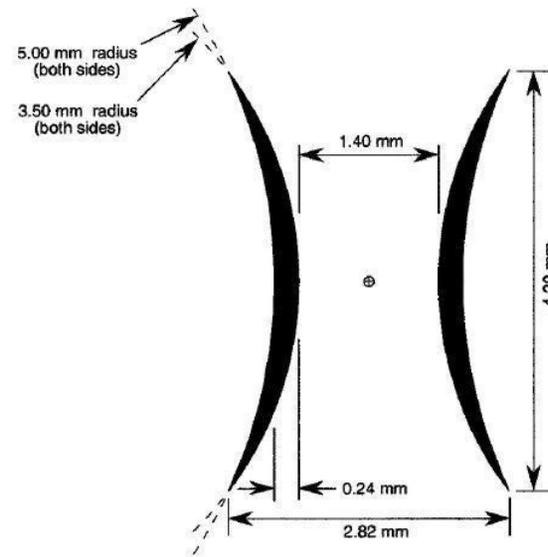
Element Type: Point - Shape

Description: Black memorial monument



Open circle lineweight: 0.1 mm
 Triangle fits within open circle
 and is 1.2 mm wide by 1.1 mm high
 Origin: center of circle

Element Name: Black_MountainPass
Element Reference: P00029
Element Type: Point - Shape
Description: Black mountain pass



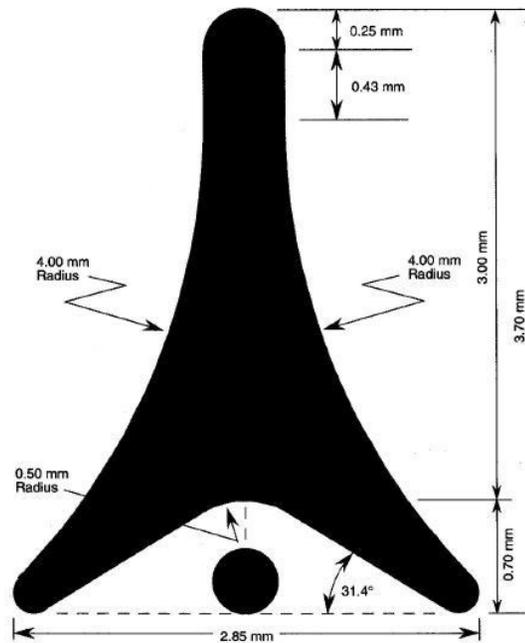
Space between inner and outer arc radii forms the symbol.
Inner arc radii : 3.50 mm Outer arc radii : 5.00 mm
Symbol is horizontally and vertically symmetrical.
Origin : Centre of symbol, indicated by : ⊕

Element Name: Black_Offshore_VO

Element Reference: P00161

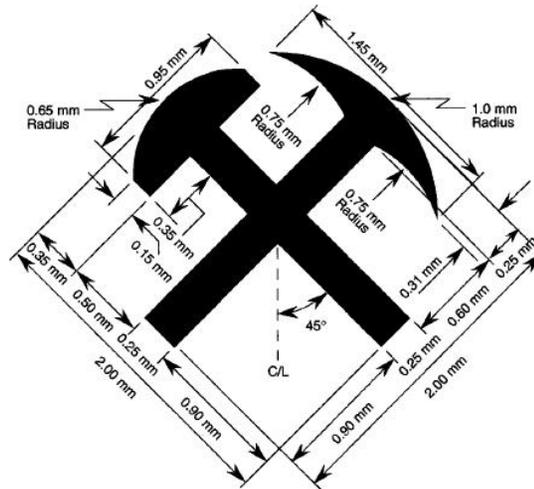
Element Type: Point - Shape

Description: Black vertical obstruction



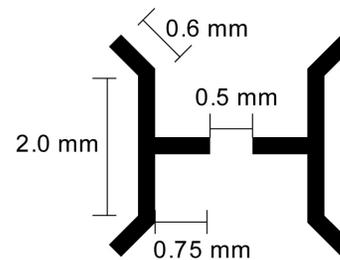
Base Dot : 0.40 mm diameter centred between legs
Base Leg End Radii : 0.125 mm. Tip Radius : 0.25 mm
Origin : Centre of base dot.

Element Name: Black_PickAxeShovel
Element Reference: P00001
Element Type: Point - Shape
Description: Black pickaxe and shovel



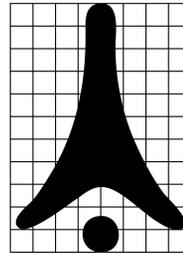
Lineweights : 0.25 mm
 Origin : Intersection of handles

Element Name: Black_PT_Tunnel
Element Reference: P00151
Element Type: Point - Shape
Description: Black point tunnel



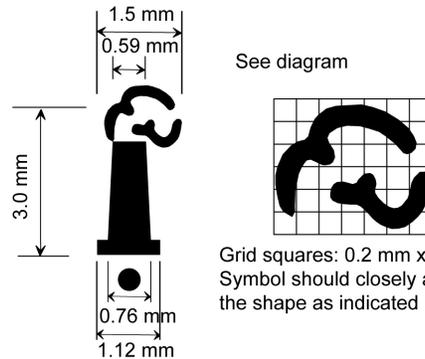
All lineweights: 0.2 mm
 All headline lengths: 2.0 mm
 All wingtick lengths: 0.6 mm
 All wingticks connected at a
 multiple of 45 degrees
 to headline
 Gap distance: 0.5 mm

Element Name: Black_Rig_Inland
Element Reference: P00162
Element Type: Point - Shape
Description: Black rig inland



Base dot : 0.32 mm diameter
 centered with the symbol
 Base leg end radius : 0.10 mm
 Tip radius : 0.25 mm
 Symbol overall dimensions:
 Height : 2.20 mm, Width : 1.50
 Symbol should closely approximate
 the shape as indicated
 Symbol is horizontally symmetrical
 Grid squares : 0.20 mm x 0.20 m
 Origin : Center of base dot

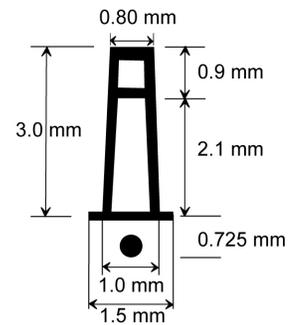
Element Name: Black_Smokestack
Element Reference: P00140
Element Type: Point - Shape
Description: Black smokestack



Grid squares: 0.2 mm x 0.2 mm
 Symbol should closely approximate
 the shape as indicated

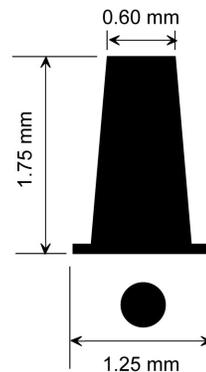
Base linewidth : 0.25 mm
 Dot: 0.4 mm diameter with
 a 0.25 mm gap from rest of symbol
 Origin: center of dot

Element Name: Black_Tower
Element Reference: P00141
Element Type: Point - Shape
Description: Black tower



Base lineweight: 0.15 mm
 All other lineweights: 0.2 mm
 Dot: 0.4 mm diameter with a
 0.25 mm gap from rest of symbol
 Origin: center of dot

Element Name: Black_WaterIntakeTower
Element Reference: P00148
Element Type: Point - Shape
Description: Black water intake tower



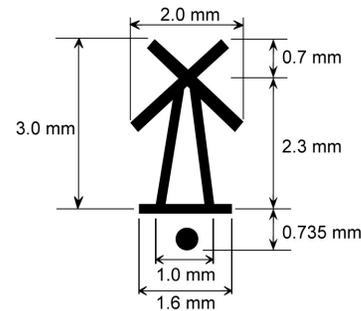
Base lineweight : 0.10 mm
 Body tapers from 0.6 mm to 0.8 mm
 Dot: 0.4 mm diameter with a 0.25 mm
 gap from rest of symbol
 Origin: center of dot

Element Name: Black_Windmill

Element Reference: P00144

Element Type: Point - Shape

Description: Black windmill



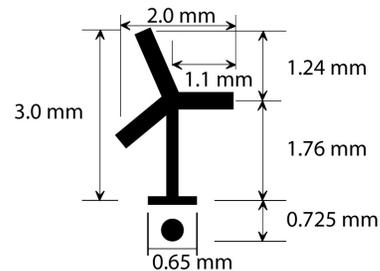
“X” lineweight : 0.2 mm
 All other lineweights: 0.17 mm
 Body tapers from 1.0 mm to 0.5 mm
 Dot: 0.4 mm diameter with a 0.25 mm
 gap from rest of symbol
 Origin: center of dot

Element Name: Black_WindTurbine

Element Reference: P00143

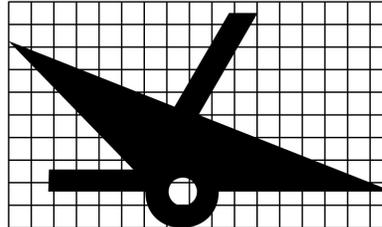
Element Type: Point - Shape

Description: Black wind turbine



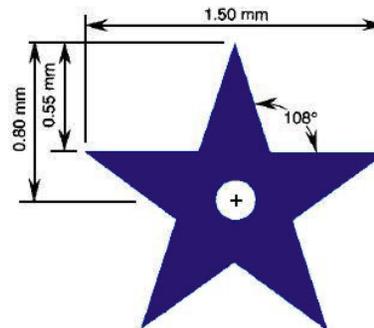
Lineweights:
 Base: 0.15 mm; Staff: 0.2 mm; Blades: 0.3 mm
 Blades:
 connected to staff at 0, 120, and 212 degrees
 Dot: 0.4 mm diameter with a gap of 0.25 mm
 from rest of symbol
 Origin: center of dot

Element Name: Black_Wreck
Element Reference: P00206
Element Type: Point - Shape
Description: Black wreck



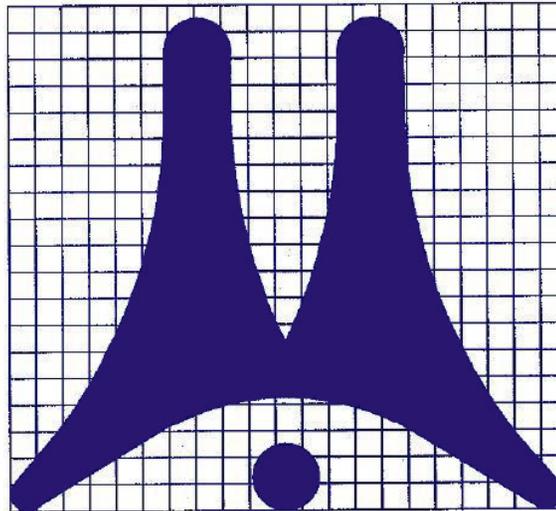
Grid squares: 0.2 mm x 0.2 mm
Symbol should closely approximate
the shape as indicated above
Origin: center of open circle

Element Name: Blue072_Beacon
Element Reference: P00025
Element Type: Point - Shape
Description: Blue072 5-pointed filled star with an
open circle in the center



Symbol is horizontally symmetrical
Open circle diameter : 0.25 mm
Origin : Centre of circle

Element Name: Blue072_Multiple_VO's
Element Reference: P00101
Element Type: Point - Shape
Description: Blue072 multiple vertical obstruction



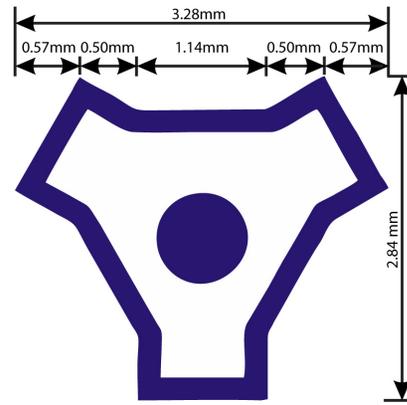
Dot diameter : 0.50 mm
Bottom arc radius : 1.85 mm
Symbol overall dimensions :
Height : 3.70 mm, Width : 4.16 mm
Symbol should closely approximate the
shape as indicated. Dot is aligned to vertical
centreline. Symbol is horizontally symmetrical.
Grid squares : 0.20 mm x 0.20 mm
Origin : Centre of dot

Element Name: Blue072_Navaid_TACAN

Element Reference: P00215

Element Type: Point - Shape

Description: Blue072 navaid tacan



Posicut is equilaterally symmetrical.
 All interior angles : 120
 Inner dot diameter : 0.80 mm
 Hexagon lineweight : 0.20 mm
 Origin : Center of dot

Element Name: Blue072_Navaid_VO

Element Reference: P00003

Element Type: Point - Shape

Description: Blue072 navaid vertical obstruction



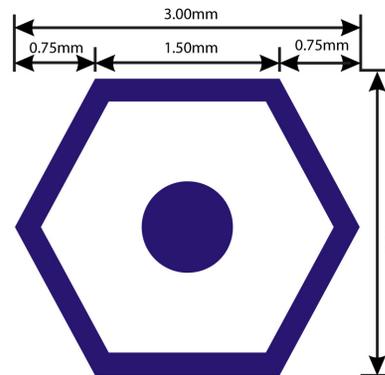
Circle lineweight: 0.30 mm
 Dot diameter: 0.30 mm
 Circle centerline diameter: 1.70 mm
 Dot is centered in circle. Dot and circle are centered on the vertical centerline of the upper "VO" symbol.
 The upper "VO" symbology is identical to Blue072_Obstruction and spaced 0.10 mm above the edge of the circle. Origin: center of dot

Element Name: Blue072_Navaid_VOR

Element Reference: P00213

Element Type: Point - Shape

Description: Blue072 navaid vor



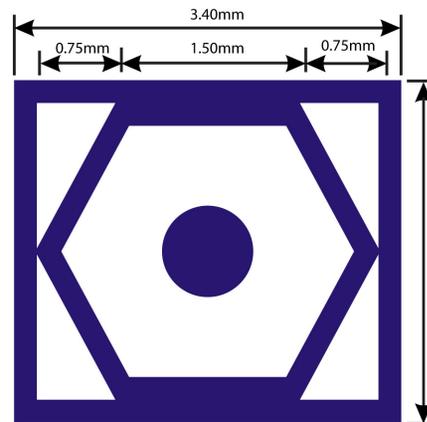
Posicut is equilaterally symmetrical.
All interior angles : 120
Inner dot diameter : 0.80 mm
Hexagon lineweight : 0.20 mm
Origin : Center of dot

Element Name: Blue072_Navaid_VOR_DME

Element Reference: P00216

Element Type: Point - Shape

Description: Blue072 navaid vor dme



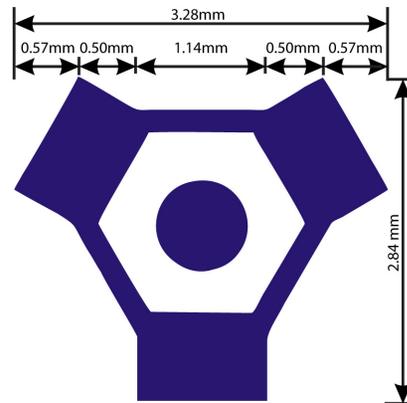
Hexagon/dot dimensions same as Blue072_Navaid_VOR.
Inner edge of rectangle is tangent with outer hexagon perimeter.
All lineweights : 0.20 mm Origin : Center of dot

Element Name: Blue072_Navaid_VORTAC

Element Reference: P00214

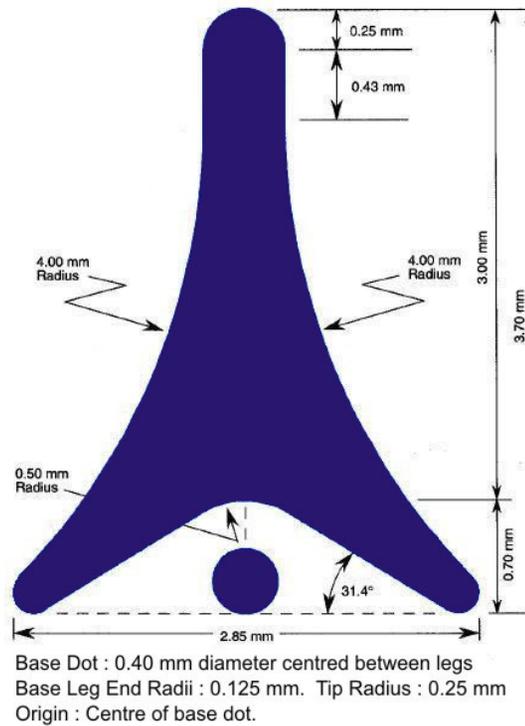
Element Type: Point - Shape

Description: Blue072 navaid vortac

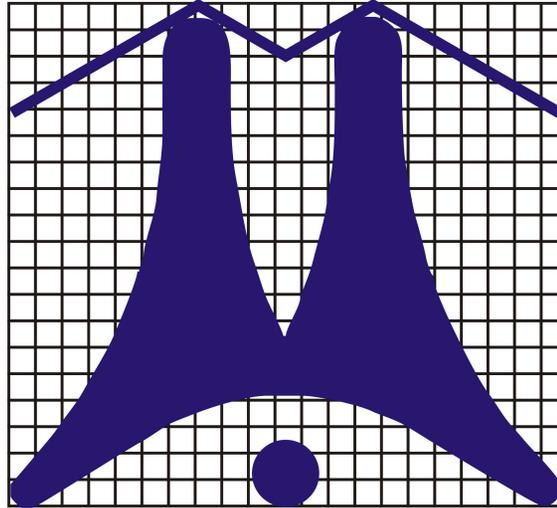


Posicut is equilaterally symmetrical.
All interior angles : 120"
Inner dot diameter : 0.80 mm
Hexagon lineweight : 0.20 mm
Origin : Center of dot

Element Name: Blue072_Obstruction
Element Reference: P00008
Element Type: Point - Shape
Description: Blue072 vertical obstruction



Element Name: Blue072_PT_LinearObstruction
Element Reference: P00113
Element Type: Point - Shape
Description: Blue072 linear vertical obstruction

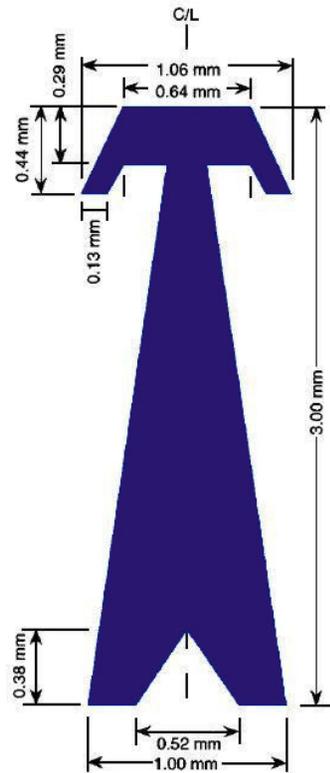


Dot diameter: 0.50 mm
Bottom arc radius : 1.85 mm
Multiple Vertical Obstruction
Symbol overall dimensions:
Height : 3.70 mm,
Width : 4.16 mm
Linear zigzag top:
Lineweight: 0.40 mm
Segments 1 and 4: 1.60 mm
Segments 2 and 3: 0.75 mm
Segments oriented 30 degrees
from horizontal.

Symbol should closely approximate
the shape as indicated.
Dot is aligned to vertical centreline.
Symbol is horizontally symmetrical.

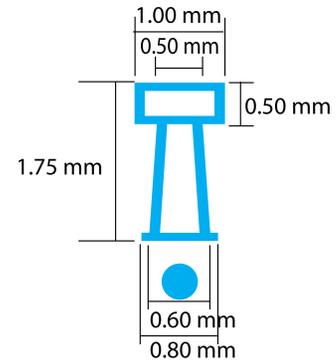
Grid squares : 0.20 mm x 0.20 mm
Origin : Centre of dot.

Element Name: Blue072_Pylon
Element Reference: P00020
Element Type: Point - Shape
Description: Blue072 pylon



Origin : Bottom centre of pylon

Element Name: Cyan_WaterTower
Element Reference: P00142
Element Type: Point - Shape
Description: Cyan water tower



Overall height: 2.4 mm width: 1.0 mm
Base lineweight: 0.1 mm
Other lineweights: 0.15 mm
Dot: 0.4 mm diameter with a
0.25 mm gap from rest of symbol
Origin: center of dot

Annex I – Patterns

Patterns

Samples of the Patterns referenced in the GTDS Symbology Standard Annex A are provided in this annex. The Element Name and Element Reference provide the link to Annex A – GTDS Symbols. Since the surface patterns were inherited from the MIL-STD-2410 document, a historical reference has been made in the document for each of the patterns in Annex I to identify its original pattern number in the MIL-STD-2410 document. For example, the field “*MIL-STD-2402 Reference: Area Pattern #108*” means that the area pattern was originally AP-108 in the MIL-STD-2410 document dated 31 January 1995. The reader may wish to reference the listed area pattern in the MIL-STD-2410 dated 31 January 1995, for additional information.

Patterns

Element Name: Black_LP15Fill

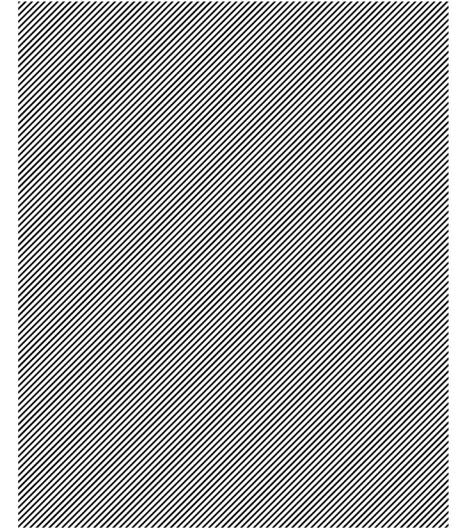
Element Reference: A00057

Element Type: Area - Pattern

Description: Black Diagonal Line Fill - 35% coverage, 40L, 45 degree angle lines.

MIL-STD-2410

Reference: Line Pattern #15



Element Name: Black_PeateryFill

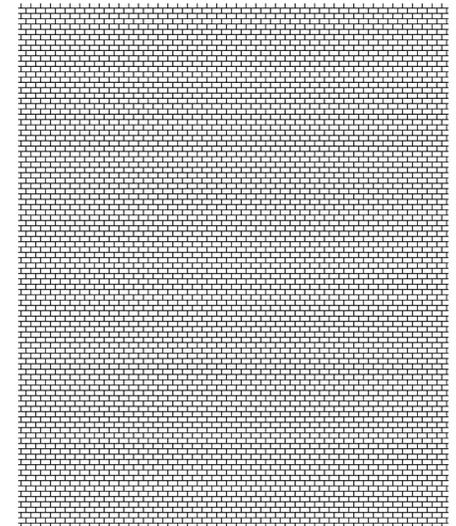
Element Reference: A00001

Element Type: Area - Pattern

Description: Black Peat Fill

MIL-STD-2410

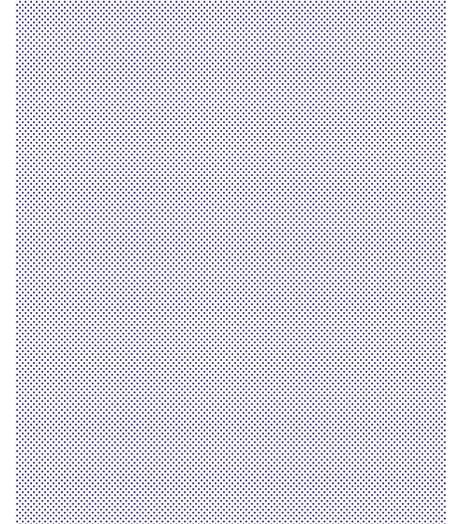
Reference: Area Pattern #129



Patterns

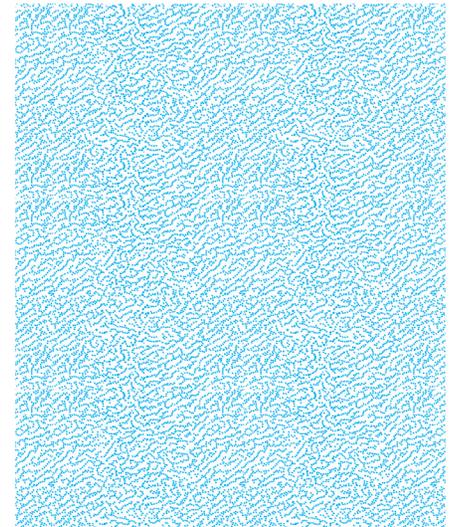
Element Name: Blue072_AP98Fill
Element Reference: L00277
Element Type: Area - Pattern
Description: Blue072 ADIZ, Buffer Zone Fill

MIL-STD-2410
Reference: Area Pattern #98



Element Name: Cyan_AP103Fill
Element Reference: A00016
Element Type: Area - Pattern
Description: Cyan Ice Cap, Polar Ice, Sabkha Fill

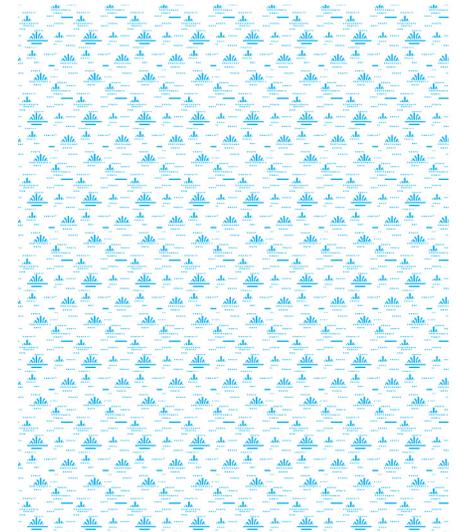
MIL-STD-2410
Reference: Area Pattern #103



Patterns

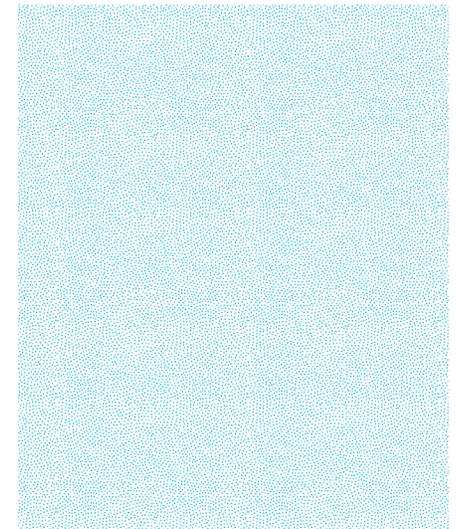
Element Name: Cyan_AP12_Fill
Element Reference: A00018
Element Type: Area - Pattern
Description: Cyan Bog, Marsh Fill

MIL-STD-2410 Reference: Area Pattern #12



Element Name: Cyan_DryDrainageFill
Element Reference: A00020
Element Type: Area - Pattern
Description: Cyan Dry Drainage, Salt Flat Fill

MIL-STD-2410 Reference: Area Pattern #95



Patterns

Element Name: Cyan_GlacierFill

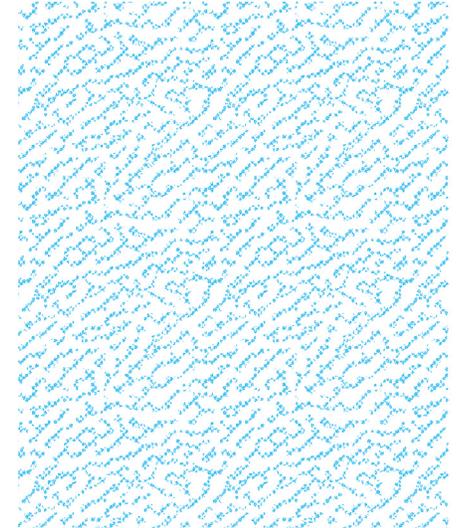
Element Reference: A00017

Element Type: Area - Pattern

Description: Cyan Glacier Fill

MIL-STD-2410

Reference: Area Pattern #104



Element Name: Cyan_LP15Fill

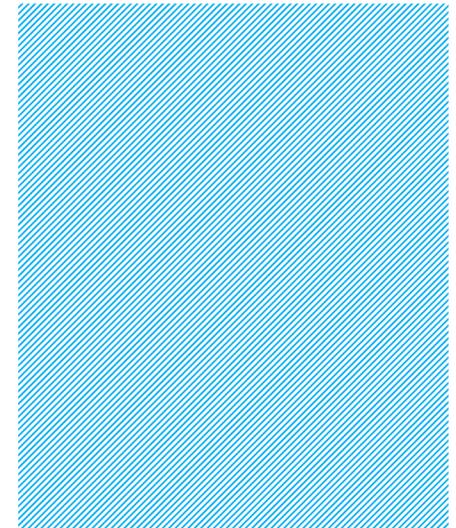
Element Reference: A00021

Element Type: Area - Pattern

Description: Cyan Diagonal Line Fill - 35% coverage, 40L, 45 degree angle lines.

MIL-STD-2410

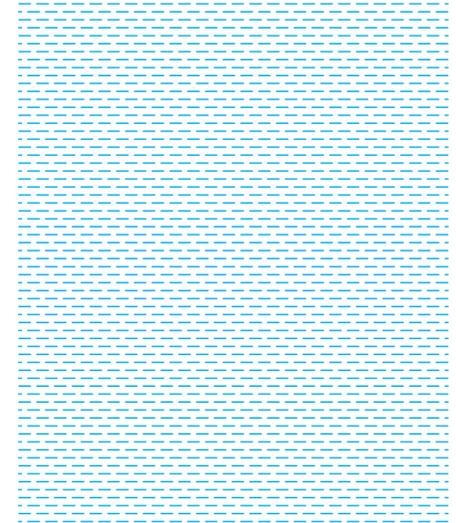
Reference: Line Pattern #15



Patterns

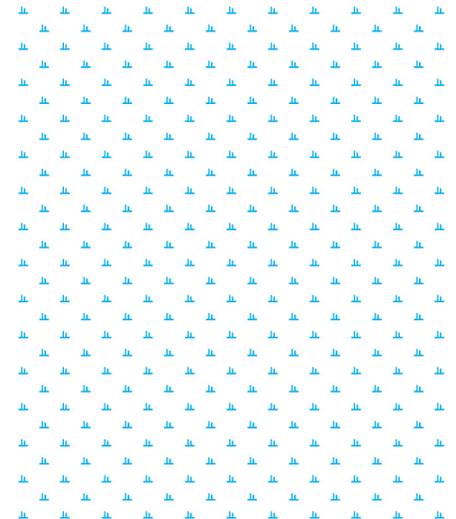
Element Name: Cyan_LSIFill
Element Reference: A00015
Element Type: Area - Pattern
Description: Cyan Land Subject to Inundation Fill

MIL-STD-2410
Reference: Area Pattern #10



Element Name: Cyan_RiceFill
Element Reference: A00019
Element Type: Area - Pattern
Description: Cyan Rice Fill

MIL-STD-2410
Reference: Area Pattern #4



Patterns

Element Name: Cyan_SaltEvaporatorFill

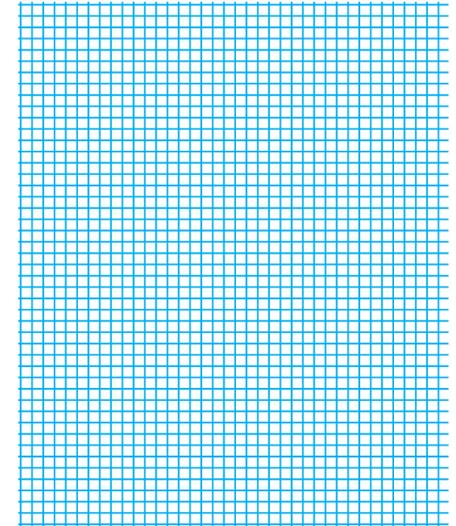
Element Reference: A00044

Element Type: Area - Pattern

Description: A grid pattern comprised of 1.5mm x 1.5mm squares. Grid alignment is parallel to longest axis of the perimeter line and centered.

MIL-STD-2410

Reference: Lineweight: 0.2mm; Length: 1.5mm; Grid squares: 1.5mm x 1.5mm; Grid alignment parallel to longest axis of perimeter line and centered



Element Name: Dk-Brown-42_AP99_Fill

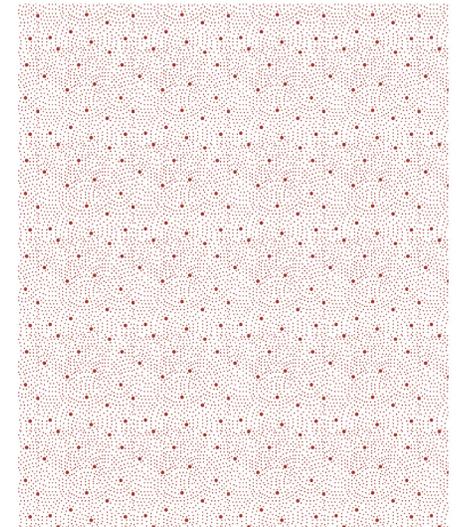
Element Reference: A00081

Element Type: Area - Pattern

Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) Moraine, Sand and Gravel Fill

MIL-STD-2410

Reference: Area Pattern #99



Patterns

Element Name: Dk-Brown-42_DistortedSurfaceFill

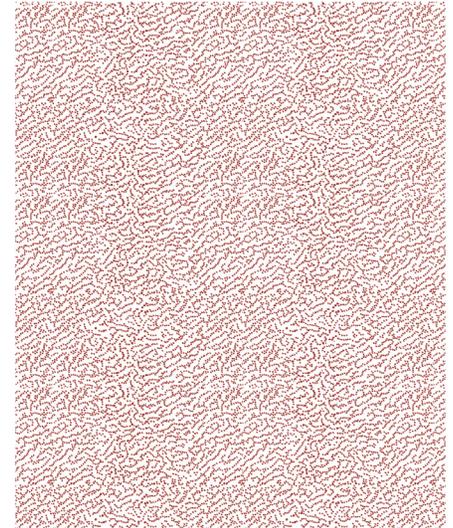
Element Reference: A00056

Element Type: Area - Pattern

Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) Distorted Surface Fill

MIL-STD-2410

Reference: Area Pattern #103



Element Name: Dk-Brown-42_SandFill

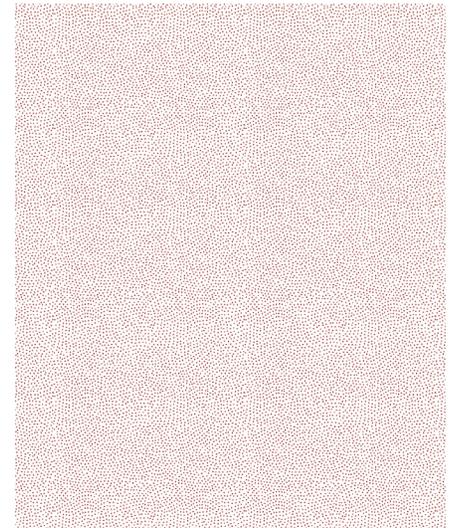
Element Reference: A00082

Element Type: Area - Pattern

Description: Dk-Brown-42 (Magenta 54% bi-angle screen coincident with Yellow 42% bi-angle screen and Black 54% bi-angle screen) Sand Fill

MIL-STD-2410

Reference: Area Pattern #95



Patterns

Element Name: Green_MangroveFill

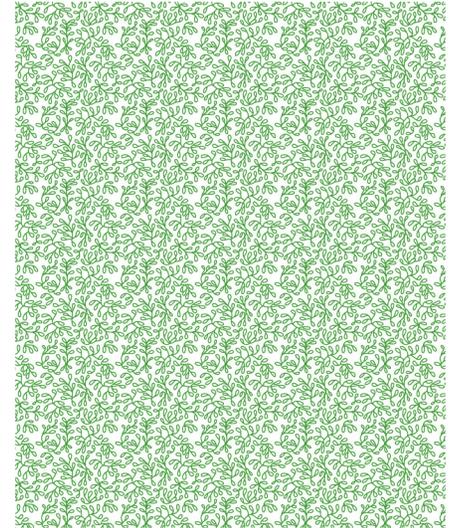
Element Reference: A00078

Element Type: Area - Pattern

Description: Green (Cyan 100% coincident with Yellow 100%) Mangrove
Fill area pattern

MIL-STD-2410

Reference: Area Pattern #8



Element Name: Green_NipaPalmFill

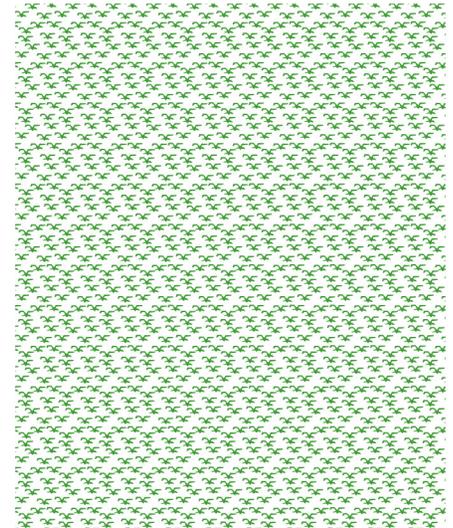
Element Reference: A00077

Element Type: Area - Pattern

Description: Green (Cyan 100% coincident with Yellow 100%) Nipa Palm
Fill area pattern

MIL-STD-2410

Reference: Area Pattern #7



Patterns

Element Name: Green_ScatteredTreesFill

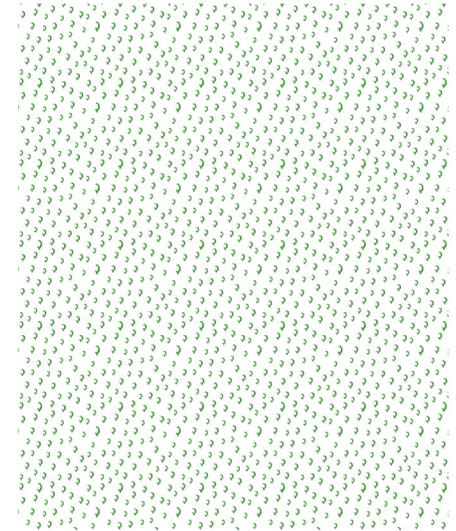
Element Reference: A00104

Element Type: Area - Pattern

Description: Green (Cyan 100% coincident with Yellow 100%) Scattered
Trees Fill area pattern

MIL-STD-2410

Reference: Area Pattern #44



Element Name: Green_VegetationFill

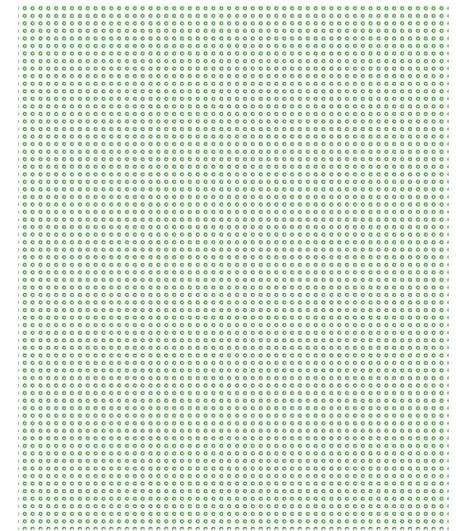
Element Reference: A00076

Element Type: Area - Pattern

Description: Green (Cyan 100% coincident with Yellow 100%)
Vegetation Fill area pattern

MIL-STD-2410

Reference: Area Pattern #74



Patterns

Element Name: Green_WoodsFill

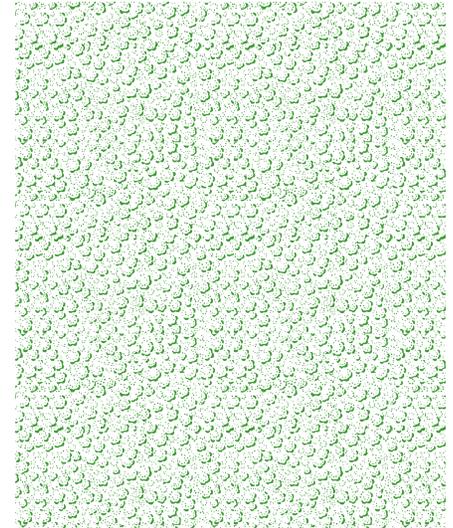
Element Reference: A00010

Element Type: Area - Pattern

Description: Green (Cyan 100% coincident with Yellow 100%) Woods
Fill area pattern

MIL-STD-2410

Reference: Area Pattern #43



Annex J - Conformance (normative)

Conformance

For symbols to conform to this standard they must meet the following criteria.

- Symbols shall be “visually equivalent” to those symbol graphics in the standard. Visually equivalent symbols are those that would be recognized by users as representing the same entity or information. Symbols on actual maps shall conform to the delineation of the geospatial feature (surface, curve, point). Shapes shown in this standard are representative examples only. All labels shall be shown in accordance with this standard. Conditional attribute labels will be filled in with the applicable information associated with the entity instance rather than the generic attribute labels shown in the standard.
- Colors on printed maps shall be in accordance with Annex C – Color.

Annex K – Additional Information

Additional information

This portrayal standard was prepared by the National Center for Geospatial Intelligence Standards (NCGIS) for Global Topographic Data Store (GTDS) producers, and other NSG members who intend to generate map products from GTDS data.

Comments, suggestions or questions on this document should be addressed to the National Geospatial-Intelligence Agency, National Center for Geospatial Intelligence Standards (NCGIS), Mail Stop N32-OCIO CE, 7500 GEOINT Drive, Springfield, VA 22150-7500, or emailed to ncgis-mail@nga.mil.

Annex L – Index

Index

The features symbolized in Annex A are listed here based on three different sort orders. First the items are sorted based upon GTDS Feature Name. Second the items are sorted by Feature Code. Finally, a list of “former” names by which NGA and related community may know the feature/symbol is used as a sort order. The text in the following Index pages have been linked with the location in Annex A where the given feature class / symbol information begins. If there is more than one symbol for the selected feature class, the reader may have to scroll down through the document to locate the symbol which he/she is interested in reviewing.

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Forest	EC015	A - 104
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Geopolitical_Entity	FA002	A - 107
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Isogonic_Line	No Code	A - 127
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The National Geospatial-Intelligence Agency (NGA) and related community have used various names over the years to identify features and/or feature instances. This section of Annex L (Index) "maps" some of the more common former names into the Global Topographic Data Store schema.

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