



# CAD

SITE/CIVIL CAD STANDARD

Massachusetts Port Authority  
 March 2019







## *Site/Civil CAD Standard*

Massachusetts Port Authority  
March 2019

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The Massachusetts Port Authority (MPA) connects the New England region to the rest of the world. MPA owns and operates three airports, a major cargo and passenger maritime facility along with hundreds of acres of land used for both economic development as well as for parkland. MPA is continuously making improvements to all of its facilities to be able to handle the growing needs of the traveling public, to be able to operate more efficiently and sustainably, and to enhance the passenger experience.

In order to make most of this happen, capital improvements and new construction is occurring throughout its facilities. This means that new design and engineering is required to improve and construct the roadways, buildings, airfield improvements, parklands and infrastructure. As part of the design phase for these projects Computer Aided Design (CAD) must be utilized. While BIM, 3D CAD and other CAD products are used for these projects, **this standard pertains specifically to all civil or horizontal projects**. MPA receives hundreds of CAD files each year and maintains thousands of designs, drawings and as-builts that are often requested later on to support a new project. In order to ensure that the information in the drawings that are delivered and then later requested for future work is, consistent, readable and easily located in MPA's systems, CAD Standards are a critical requirement

According to the National Institute of Building Sciences, CAD Standards (paraphrasing) "streamline and simplify the exchange of building design and construction data from project development throughout the life of a facility. They coordinate the efforts of the entire industry by classifying electronic building design data consistently allowing streamlined communication among owners and design and construction project teams. Use of CAD Standards can reduce costs and produce greater efficiency in the design and construction process."

**The CAD Standards in this document are a requirement that must be followed for all work contracted as of March 2019 for all Civil or Horizontal projects at all of MPA's properties and facilities.**

We look forward to continuing our partnership with our contractors, architects, engineers and design teams as we continue to improve MPA facilities to promote economic development, allow for the traveling public to be safe, secure and move through our facilities efficiently, and continue to make Massport a World Class operation.

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# 1 REVISION HISTORY AND CHANGE CONTROL

TABLE 1 - REVISION HISTORY

Version	Date Published	Summary of Changes
1	March 2019	Initial version



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## 2 INTRODUCTION

### 2.1 FOREWORD

The Design Technologies Integration Group (DTIG) of the Massachusetts Port Authority (“MPA” or “Authority”) developed this Site/Civil Computer Aided Drafting (CAD) Standard for design, construction, and facilities professionals working at MPA. The goal of the Standard is to assure consistency in processes and CAD development from MPA’s various service providers across multiple types of projects.

This document will be updated regularly and all professionals working on site/civil CAD drawings for MPA should verify they are using the latest version of this document.

### 2.2 PURPOSE OF THIS DOCUMENT

This Site/Civil CAD Standard document defines the requirements for all site/civil CAD work produced at and for the Authority. It specifies minimum software requirements; CAD data requirements, such as coordinate systems, object data, and symbology; the Authority’s layer naming convention; file organization; and finally, site/civil delivery requirements. These standards apply to the site/civil portion of a project for CAD deliverables, GIS and/or BIM project requirements should be used with those corresponding guidelines and/or standards.

These requirements assume that readers have a basic understanding of CAD concepts and terminology. Readers who are new to the Authority’s CAD requirements may wish to review the document in its entirety. Those who are familiar with the requirements may wish to use the document as a reminder of the specifics to which they must adhere.

The content of this manual supersedes all previously published Authority Site/Civil CAD Standard versions and is subject to change without notice. The Authority shall not be liable for errors and omissions in this Standard.

### 2.3 REFERENCED STANDARDS AND DOCUMENTS

The Authority’s Site/Civil CAD Standard is part of the overall Massport VDC/BIM guidelines and standards with which consultants and Authority staff must comply. Additional documents, which may be beneficial, can be provided by the Authority Project Manager (PM) and include:

- The Authority’s BIM Guidelines for Vertical and Horizontal Construction (2015)
- MPA Survey Unit’s Survey Control Standards
- The Authority’s GIS Standards
- Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5300-18B “General Guidance and Specifications for Submission of Aeronautical Surveys to NGS: Field Data Collection and Geographic Information System (GIS) Standards”, which can be found at [https://www.faa.gov/documentLibrary/media/Advisory\\_Circular/150-5300-18B-chg1-consolidated.pdf](https://www.faa.gov/documentLibrary/media/Advisory_Circular/150-5300-18B-chg1-consolidated.pdf)

This Standard is based heavily on the United States National CAD Standard (NCS) – V6, which can be found at <https://www.nationalcadstandard.org/ncs6/>. While these standards focus on topology rules, layers, line styles, blocks, object data and best practices, the MPA BIM guidelines should be referenced for other CAD requirements such as drawing layouts, title blocks, text styles, dimension styles, sheet sizes and other administrative components to drawing files.

### 2.4 UPDATE AND REVISION PROCEDURES

The Authority understands and expects that this Site/Civil CAD Standard will be updated over time. Consultants and Authority staff may submit requests for changes. These changes may be clarifications, additions, or deletions. Requests to add layers shall follow the layer naming conventions specified in the latest version of the NCS. Any proposed changes will not be implemented until approved by the Authority. Approved changes must be implemented before the first drawings of a contract are submitted. Change requests shall be submitted by emailing the form provided in Appendix A to DTIG at [dtig@massport.com](mailto:dtig@massport.com).



## 2.5 SOFTWARE REQUIREMENTS

All AutoCAD drawings shall be compatible with Autodesk AutoCAD, AutoCAD Map 3D®, or AutoCAD Civil 3D® version 2018 or later software. It is the consultant's responsibility to ensure that all requirements defined in this document are met in DWGs they create and convert from other software, without any loss of quality or accuracy when they are opened in Autodesk software.

## 2.6 RESOURCES

In order to comply with this Standard, the Authority has created the following resources. Consultants and Authority staff can request these resources from DTIG through the PM.

- MPA BIM Guidelines for Vertical and Horizontal Construction (2015)
- AutoCAD Template, MPACIVIL.dwt, for drawing entities: Layers, Linetypes and Symbols/Blocks
- Custom Linetype file: MPACIVIL.lin
- Custom Plot Style files: MPACIVIL.stb

The Authority's site/civil basemap AutoCAD file is only available by request. To request the Authority's basemap, please send an email to the PM and copy [dtig@massport.com](mailto:dtig@massport.com) stating why the basemap is needed, the Authority contract number and a DWG with a layer called C-LOCN-OTLN-PROJ that has a closed polyline showing the extent of the basemap area required. This can be placed on top of the key map for visual reference. The basemap shall only be used as an external reference file and shall not be altered.

## 3 OBJECTS IN CAD DRAWINGS

### 3.1 OBJECT TYPES

Objects that depict real-world features shall be of the following geometry types:

- Point features shall be symbolized by the appropriate AutoCAD block. Examples include airfield lights, signs, and poles.
- Linear features shall only be represented by AutoCAD polylines and/or 3D polylines. Subsurface features shall be represented by 3D polylines. Examples include utility pipes, conduits, and ductbanks.
- Polygonal features shall be represented by AutoCAD closed polylines. Hatch patterns may be used within polygonal features. Examples include property boundaries.

Objects in drawings that are used to convey graphical references or alphanumeric information, such as annotations, text, dimensions, and leader lines may use other AutoCAD object types, including construction lines, revision clouds and wipeouts. All text used, whether it is annotations associated with features, values within title blocks, or other text, shall be multiline text (MTEXT).

### 3.2 COORDINATE SYSTEMS & UNITS

In an effort to organize, consolidate and standardize the information generated and consumed by all locations within the Authority, Coordinate Systems must be used on all projects. The objective of this requirement is to make the data files easier for users to identify and integrate in planning and design.

The MPA horizontal coordinate system is North American Datum of 1983 (NAD83), Massachusetts Mainland State Plane (Zone 2001) US Feet. The European Petroleum Survey Group (EPSG) code for this horizontal coordinate system is 2249.

The MPA vertical coordinate system is North American Vertical Datum of 1988 (NAVD88). The EPSG code for this vertical coordinate system is 6360.

All features located by survey methods shall be based on the 2011 adjustment of NAD83 for horizontal coordinates. All survey grade positions shall derive from source control at the subject facility provided by the MPA Survey Unit and shall follow the standards within the MPA Survey Unit's Control Standards. For questions, contact the MPA Survey Unit at 617-561-1799.

All units for both horizontal and vertical data will be the U.S. Survey Foot (1200/3937 meters). Decimal units are used for all Authority site/civil basemaps.

Site/Civil basemaps should NEVER be moved or rotated in a manner that removes the drawing from the coordinate system. If the orientation of the base map needs to be changed, the use of Paper Space with a User Coordinate System should be used to rotate the perspective of the basemaps.

### 3.3 TOPOLOGICAL INTEGRITY REQUIREMENTS

DTIG supports both CAD and Geographic Information Systems (GIS) spatial datasets. CAD data is regularly converted to a GIS format for integration in MPA's GIS database. GIS has more stringent data requirements than AutoCAD. In an effort to make the conversion between both formats and to comply with the FAA's data requirements, this section details the topology requirements that must be followed for all CAD submittals to MPA. Topology refers to the positional relationship between features. All features are required to meet the following topology rules:

- **Collocated Vertices** – Collocated vertices must share the same X, Y and Z coordinates.

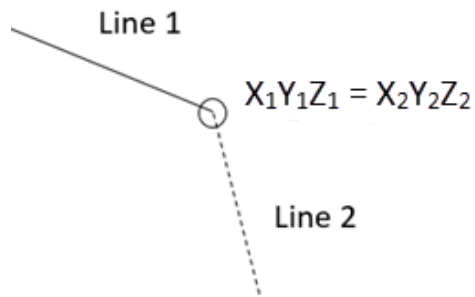


FIGURE 1 - COLLOCATED VERTICES

- **Polylines Meet at Endpoints** – Polylines that join to represent one continuous string of linear features (e.g., a utility network) should have collocated vertices as endpoints.

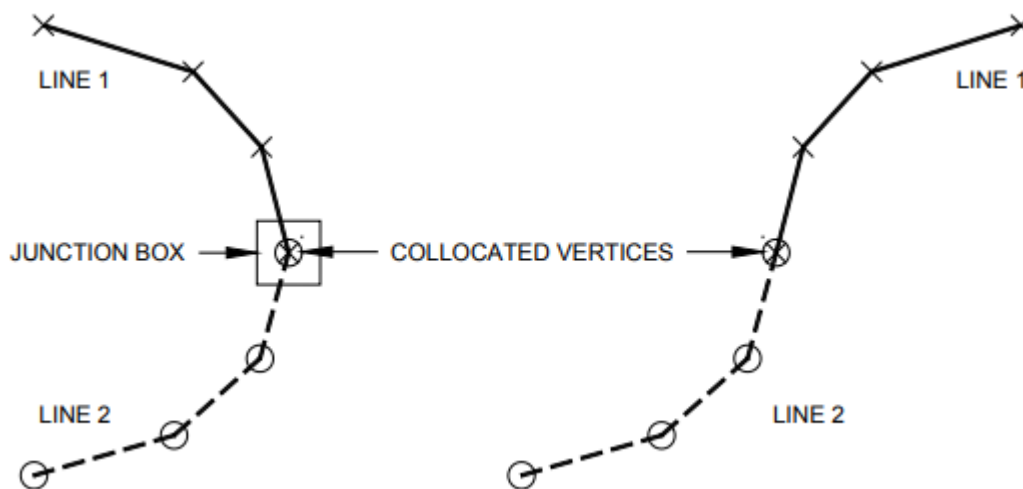


FIGURE 2 - LINES MEETING AT ENDPOINTS (SOURCE: FAA AC150/5300-18B, CHANGE 1)

- **Sufficient Density of Vertices** – Lines and polygon edges should contain one or more segments with vertices placed at intervals so the feature does not stray from the actual object it represents by more than half of the defined accuracy limit.

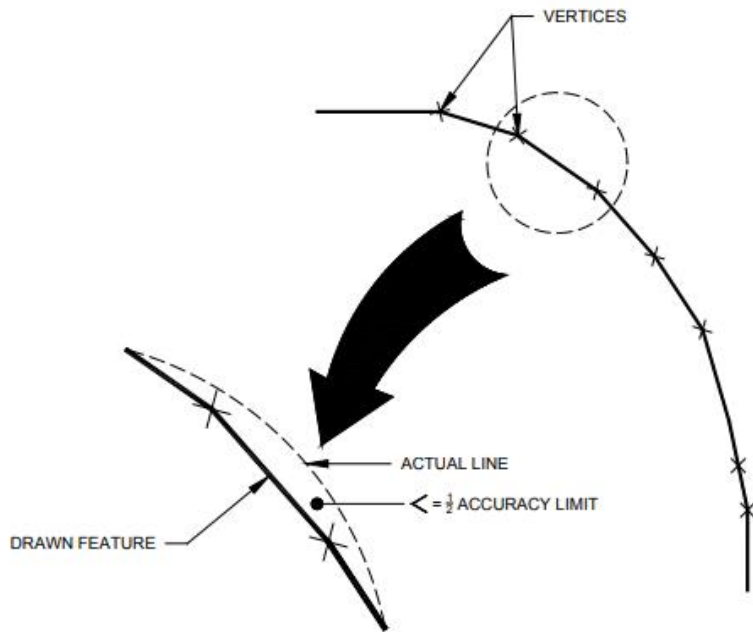


FIGURE 3 - DENSITY OF VERTICES (SOURCE: FAA AC150/5300-18B, CHANGE 1)

- **Shared Vertices between Adjacent Features** – Features that are intended to be adjacent to one another should share all collocated vertices along their common edge(s). This ensures that there are no unintentional gaps (empty space) or slivers (overlaps) between adjacent features.

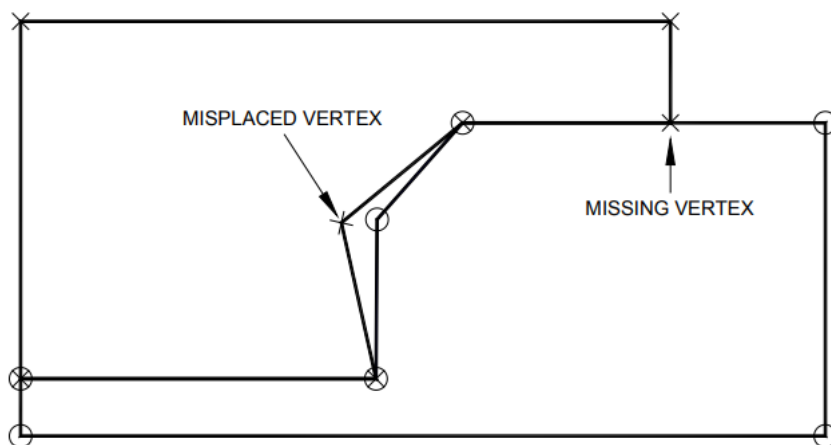


FIGURE 4 - SHARED VERTICES (SOURCE: FAA AC150/5300-18B, CHANGE 1)

- Polygons must be closed – The endpoints of line segments that form a polygon must be collocated and closed in the CAD program.

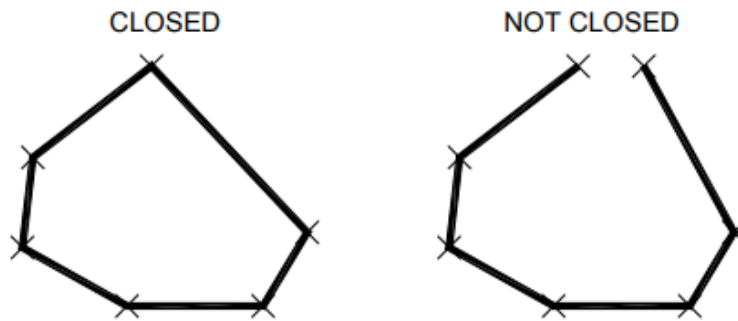


FIGURE 5 - CLOSED POLYGONS (SOURCE: FAA AC150/5300-18B, CHANGE 1)

### 3.4 ACCURACY & PRECISION

If the Consultant's contract specifies a horizontal and/or vertical positional accuracy, all newly collected objects that represent real-world objects shall be located within the specified tolerance from the real-world object they represent (i.e., absolute positional accuracy). The tolerances specified must be achieved at a 95-percent confidence level, meaning that, statistically, 95 percent or more of the objects will be at this accuracy level or better. Coordinate values shall be recorded to a precision (i.e., number of decimal places in the coordinate value) that is at least sufficient to represent the accuracy level specified.

Prior to any data collection efforts beginning, consultants shall confirm that the accuracy of the collection effort is appropriate to the needs of the Authority's Survey Unit.

### 3.5 OBJECT DATA

Object data is attribute data that is attached to objects in the CAD drawing and stored in tables in the drawing. Object data tables shall be connected to objects where attribute data and metadata are required. Appendix C details the object data required for CAD features.

In addition to the object data requirements defined in this document, Airports GIS (AGIS) projects must comply with the object data requirements of FAA AC 150/5300-18B. Please refer to this document for additional information.

### 3.6 OBJECT GRAPHICS

A template file (MPACIVIL.dwt) has been developed for use by consultants and Authority staff. This template file includes the appropriate layers, linetypes, and symbols/blocks for use with these standards. All objects in the CAD drawings shall use graphics that meet the requirements detailed in the following sections.

#### 3.6.1 BLOCKS

Point features are represented by blocks. The insertion point of these blocks is at the location of the object represented by the feature. The Authority uses standard engineering symbols as blocks (Appendix D) which are provided as part of the MPACIVIL.dwt template file (see Section 2.6). If the Authority does not have a particular block, the Consultant may use its symbol as the "block." However, the Consultant must provide all symbols used to create the drawings to the Authority in AutoCAD format. An index, in electronic and hard copy format, shall also be provided, listing the block names and contents.

Blocks shall be created in layer 0 (zero) and no block may be nested. All block properties shall be By Layer.





### 3.6.2 LINETYPES

The Authority accepts both AutoCAD default and custom linetypes. MPACIVIL.lin is available for download and does contain custom linetypes. For installation of these custom linetypes, the proper .shx files must be installed. It is recommended that users place these .shx files within the user support directory so that they're properly referenced in the template files. Support directory paths may be different on each PC but should generally be similar to this:

C:\Program Files\Autodesk\AutoCAD 2018\Support

The use of AutoCAD default linetypes shall be in accordance with industry standards. These generally include center, continuous, dashed, hidden and phantom linetypes. Please see Appendix E for all available linetypes within MPACIVIL.lin.

### 3.6.3 LINEWEIGHTS, LINEWORK AND PLOT STYLES

Lineweights shall be controlled via the layer manager only. The consultant shall use the Authority's plot style file MPACIVIL.stb, see Section 2.6). The MPACIVIL.stb has setup style-based plotting (specifically lineweights and screening) to correspond with each layer, which includes the following styles:

Style	Color	Screening	Mm Weight
Standard	Black	100%	0.35
Thin	Black	100%	0.18
Bold	Black	100%	0.70
30% Screening	Black	30%	0.35
60% Screening	Black	60%	0.35

An example of how the plot style should look is as follows:



New work (object lines) and text shall be of the same lineweight utilizing the Standard style. Dimension, hidden, center, background and phantom lines should typically utilize the Thin Style. Background items should utilize screening but caution should be exercised as items that may be a background items on one sheet, may not be a background item on other sheets. These fundamental guidelines may be deviated from but must be defined by the individual drafters in a consistent manner. Should the first drawing submittal prove to show an obvious degree of inconsistency, illegibility and/or disorganization, the drawings will be rejected and requested to be corrected to meet the requirements within these standards.

### 3.6.4 DIMENSION STYLES AND TEXT STYLES

Dimension Styles and Text Styles are not defined in this standard. For specific Dimension and text Style information please refer to the MPA BIM Guidelines for Vertical and Horizontal Construction.



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# 4 LAYERS

Objects shall be placed on a layer that corresponds to the type of real-world feature it represents. Objects that are used to provide supplemental information about features such as annotations, dimensions, leader lines, and revision clouds should be placed on layers designated for this purpose.

## 4.1 LAYER NAME FORMAT

This Standard complies with the NCS's layer naming conventions. Each layer name is made up of a discipline designator, a major group, two minor groups, and a status code, as shown in Figure 6 and described below. The discipline designator and major group fields are mandatory. The minor groups and status code are optional.

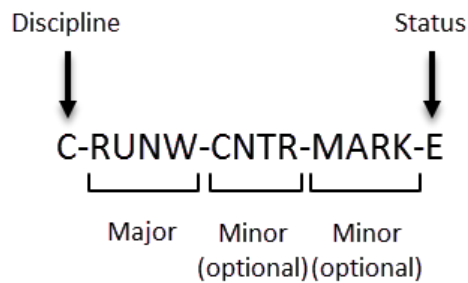


FIGURE 6 - LAYER NAME FORMAT

- **Discipline** – A one-character code that represents the discipline that typically designs or records the type of features on those layers. The following discipline codes are used in this Standard:

TABLE 2 - DISCIPLINE CODES

Code	Description
B	Geotechnical
C	Civil
E	Electrical
H	Hazardous Waste
L	Landscape
S	Structural
T	Telecommunications
U	Utilities
V	Survey/Mapping
Y	Environmental

- **Major** – After a dash delimiter, a four-character code is added to represent the type of system, general area, or grouping of similar types of features.
- **Minor** – After a dash delimiter, a four-character code is added to represent the specific class of feature. Feature classes define features that share similar types of attributes and are to be represented by a specific type of graphical object. For example, all buildings may be defined as a class because they share similar attributes, such as square footage and height, and are to be represented as polygons.
- **Second Minor (optional)** – After a dash delimiter, a four-character code may be added to represent the specific type of feature.



- **Status** – A one-character code is added after the discipline code to indicate the status of the real-world feature the object represents. The status codes are:

TABLE 3 - STATUS CODES

Code	Description
A	Abandoned
D	Demolished/Existing to be Demolished
E	Existing *
F	Future Work *
M	Item to be Moved *
N	New/As-built post design
P	Proposed/Design
T	Temporary Work *
S	Surveyed

\* These status codes indicate a status that is applicable to all MPA drawings. Drawings that represent the as-built or recorded final condition at the end of a project should use a status code of "N" for a new as-built record.

## 4.2 LAYERS TO USE

Only layers listed in Appendix B – with the appropriate status code added – may be used in Authority DWGs. The most appropriate layer for each object shall be selected from this list. Layers not listed in Appendix B shall not be used without the Authority's written approval.

## 4.3 DIMENSIONS, TEXT, AND ANNOTATION LAYERS

Dimensions, text/annotations, and hatching patterns used in reference to specific drawing objects outside of the title block shall be placed on layer names with DIMS, ANNO, and PATT designators appended before the status code of the layer on which the reference objects appear between dashes, based on the following rules.

- Dimensions are used to indicate distances, sizes, and measurements of or between objects. For example, dimensions related to specific bridges on a drawing should appear on the C-BRDG-DIMS layer.
- Annotations are used to provide additional details about specific objects. For example, the diameter of a storm pipe shall be placed on the C-STRM-PIPE-ANNO layer. Leader lines connecting an annotation with their corresponding objects shall appear on the same layer as the annotation itself. In some cases, such as with pavement markings, text is a physical feature or object that belongs on a specific layer and not on an ANNO layer. For example, runway numbers and letters that are painted on the pavement of a runway would appear on the C-RUNW-NUMB layer.
- Text is used to provide notes or general information that is not specific to objects. For example, general text items belong on C-MISC-TEXT. General text related to roads should be on C-ROAD-TEXT. It is the intent that all other text/annotations follow the ANNO layering reference above.
- Hatch patterns are used to fill an area with a color and/or pattern. For example, hatch patterns used to fill building footprints shall appear on C-BLDG-OTLN-PATT.

## 5 PRACTICES AND PROCEDURES

Drawings are made up of objects placed onto appropriate layers within model space or paper space. This work must be done in a methodical and organized manner that yields clear, consistent, and legible results.

### 5.1 PROJECT DIRECTORY STRUCTURE

All Authority Site/Civil CAD projects shall follow the directory structure as described in this section. The root folder shall include the following two folders underneath the main project folder which shall include both the project name and number:

- CAD – All CAD drawings shall be stored in this folder, including externally referenced files. This folder should also include any plot style files and any non-standard AutoCAD font files.
- \_Shortcuts – All automatically generated Civil 3D folders shall be placed under this subfolder and shall include:
  - Alignments
  - PipeNetworks
  - Profiles
  - Surfaces
  - ViewframeGroups

### 5.2 EXTERNALLY REFERENCED FILES

Basemaps and related drawings being developed by others shall be incorporated into a separate drawing for reference. These eXternally Referenced (XRef) drawings allow objects to be available for viewing and reference without the need to redundantly store a copy of these objects in the drawing itself. The insertion point for XRefs shall be 0,0 for two-dimensional drawings and 0,0,0 for three-dimensional drawings. The rotation angle shall be set to zero.

All external reference files shall be attached as “Overlays” and the path types shall be set to “Relative Path”. This ensures the proper exchange of drawings between consultants and the Authority.

XRef files should be appropriately and uniquely named and prefaced with an “X” for XRef.

### 5.3 EXTENT OF PROJECT AREA

At the start of a project, a drawing showing the extent of the project area shall be provided to MPA. The project extent shall be a closed polyline stored on a layer called C-LOCN-OTLN-PROJ within the drawing.

To request the Authority’s basemap for a specific project area, see Section 2.6.

It is the responsibility of the consultant or contractor to provide this information for MPA review and approval before work commences. Once approved, the matrix of layers and object data, matrix of data requirements, mapped project extent, and associated limitations, restrictions, and deviations will be attached to the scope of work and become a binding requirement of the contract or agreement.

### 5.4 SUBMITTAL OF MPA PROJECT AREA DIGITAL FILE (PADF)

In addition to the design and record project files, consultants shall extract all site/civil changes within the project area into a separate CAD file for submittal to MPA. This drawing will be used by MPA staff to update Massport’s basemaps.

The file name for the PADF should be the MPA project number followed by “-PADF”. For example: L404C01-PADF.dwg.



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## APPENDIX A: CHANGE REQUEST FORM

The form on the following page shall be used by airport staff or consultants that wish to propose a change to this standard. One form shall be used for each change requested, although similar changes to a series of layers or attributes can be provided on one form. A thorough description of why the existing standard does not accommodate a need should be provided. Additional pages can be submitted along with each form.

Completed forms shall be emailed to DTIG at [dtig@massport.com](mailto:dtig@massport.com) with "Requested Change to Civil/Site CAD Standard" in the subject line. Requested changes will be evaluated by DTIG stakeholders. The result of this evaluation will be communicated via a response to the request email. Approved changes may be implemented by data developers upon receipt of this email. Approved changes will be reflected in subsequent versions of this document.



**Requested Change to MPA Site/Civil CAD Standard**

**Date:**

**From:**

Requestor	
Company/Department	
Phone	

**To:** Design Technologies Integration Group (DTIG), Massachusetts Port Authority (MPA)

**Attention:** CAD Standard Coordinator

**MPA GIS Standard:**

Section		Sub-Section	
Page		Subject	

**Justification for Change:**

Existing Provisions are:

	Incomplete		Inaccurate		Redundant
	Conflicting		Obsolete		Other:

Staff Name/Title		Date	
Disapproved		Approved	
Reason for Disapproval			

**Detailed Justification:**


**Description of Change:**


**Reviewed By:**





## APPENDIX B: ACCEPTABLE LAYER NAMES

New Layer Name	Color	Linetype	Original Description
B-TPIT	1	CONTINUOUS	TEST PIT
C-AFLD-AHOA	6	DASHED2	AIR OPERATIONS AREA
C-AFLD-AIDS	1	CONTINUOUS	AIRFIELD NAVIGATIONAL AID - GENERAL
C-AFLD-AIDS-ANTN	5	CONTINUOUS	ANTENNA TOP
C-AFLD-AIDS-BEAC	253	CONTINUOUS	AIRPORT BEACON TOP
C-AFLD-AIDS-CRIT	1	HIDDEN	AIRFIELD NAVIGATIONAL AID - CRITICAL AREA
C-AFLD-AIDS-GSAF	7	DASHED	GLIDESLOPE ANTENNA FOUNDATION
C-AFLD-AIDS-GSAT	7	CONTINUOUS	GLIDESLOPE ANTENNA TOP
C-AFLD-AIDS-GSMF	7	DASHED	GLIDESLOPE MONITOR FOUNDATION
C-AFLD-AIDS-LOC	253	CONTINUOUS	LOCALIZER TOP CENTER POINT
C-AFLD-AIDS-LOCF	7	DASHED	LOCALIZER FOUNDATION
C-AFLD-AIDS-PAPI	8	CONTINUOUS	PAPI BOX FOUNDATION
C-AFLD-AIDS-REIL	7	DASHED	REIL LIGHTS FOUNDATION
C-AFLD-AIDS-RVR	7	CONTINUOUS	RVR TOWER CENTER POINT
C-AFLD-AIDS-SENS	7	DASHED2	PAVEMENT SENSOR
C-AFLD-AIDS-SIGN	7	CONTINUOUS	DETAIL SYMBOLS (SIGN, POST) MISCELLANEOUS SIGN
C-AFLD-AIDS-SITE	3	CONTINUOUS	AIRFIELD NAVIGATIONAL AID - SITE
C-AFLD-AIDS-SOCK	181	CONTINUOUS	WIND SOCK
C-AFLD-AIDS-VASI	7	DASHED	VASI BOX FOUNDATION
C-AFLD-AIDS-VORT	7	CONTINUOUS	VORTAC CENTER POINT
C-AFLD-APRN-CONC	7	CONTINUOUS	CONCRETE APRON AT TERMINALS FOR LOADING AIRCRAFT
C-AFLD-ASPH-EDGE	253	CONTINUOUS	EDGE OF ASPHALT
C-AFLD-CRGO-AREA	7	CONTINUOUS	CARGO AREA
C-AFLD-DSRF-BLDR	7	CONTINUOUS	BUILDING RESTRICTION LINE
C-AFLD-DSRF-KEYH	7	CONTINUOUS	KEY HOLES
C-AFLD-DSRF-NMOV	7	CONTINUOUS	AIRCRAFT NON-MOVEMENT AREA, TAXIWAY
C-AFLD-DSRF-OFA	7	CONTINUOUS	OBJECT FREE AREA
C-AFLD-DSRF-OFZ	7	CONTINUOUS	OBJECT FREE ZONE
C-AFLD-DSRF-POFA	7	CONTINUOUS	PRECISION OBJECT FREE AREA
C-AFLD-DSRF-RPZ	7	CONTINUOUS	RUNWAY PROTECTION ZONE
C-AFLD-DSRF-RSA	7	CONTINUOUS	RUNWAY SAFETY AREA



New Layer Name	Color	Linetype	Original Description
C-AFLD-JETB	3	CONTINUOUS	AIRPORT JETBRIDGE
C-AFLD-MRKG	253	CONTINUOUS	AIRFIELD PAVEMENT MARKING
C-AFLD-NAVN-LINE	7	DASHED	NAVIGATIONAL LINE
C-AFLD-OTLN-CPAD	5	CONTINUOUS	CONCRETE PAD (AIRFIELD)
C-AFLD-PVMT-EDGE	7	CONTINUOUS	EDGE OF PAVEMENT
C-AFLD-ROAD-EDGE	7	CONTINUOUS	EDGE OF OTHER AUTOMOBILE SERVICE ROAD SURFACES
C-AFLD-ROAD-MRKG	253	CONTINUOUS	AIRFIELD ROAD MARKINGS
C-AFLD-ROAD-PERI	253	CONTINUOUS	AIRFIELD PERIMETER ROAD
C-AFLD-ROAD-SERV	253	CONTINUOUS	AIRFIELD SERVICE ROAD
C-AFLD-ROAD-SERV-HIDD	252	CONTINUOUS	AIRFIELD SERVICE ROAD - HIDDEN LINE
C-AFLD-SECR-SIDA	6	CONTINUOUS	SECURITY IDENTIFICATION DISPLAY AREA
C-AFLD-SEDR-SECA	6	CONTINUOUS	AIRFIELD SECURITY AREA - AIRCRAFT MOVEMENT AREA
C-AFLD-SIGN-MISC	7	CONTINUOUS	MISCELLANEOUS AIRSIDE SIGN
C-AFLD-SLAB-EDGE	7	CONTINUOUS	MISCELLANEOUS EDGE OF SLAB
C-AFLD-STON-EDGE	3	CONTINUOUS	EDGE OF BLAST STONE
C-AFLD-STRC-DECK	4	CONTINUOUS	AIRFIELD PIER OR DECK (FOR EMAS AND APPROACH LIGHTS)
C-AFLD-SVPT-ARSR	7	CONTINUOUS	ASR CENTER POINT
C-AIRS-PART-APRC	6	CONTINUOUS	14 CFR PART 77 - APPROACH SURFACE
C-AIRS-PART-CONL	6	CONTINUOUS	14 CFR PART 77 - CONICAL SURFACE
C-AIRS-PART-HORZ	6	CONTINUOUS	14 CFR PART 77 - HORIZONTAL SURFACE
C-AIRS-PART-PRIM	6	CONTINUOUS	14 CFR PART 77 - PRIMARY SURFACE
C-AIRS-PART-TRNS	6	CONTINUOUS	14 CFR PART 77 - TRANSITIONAL SURFACE
C-AIRS-TERP	5	CONTINUOUS	TERPS ANALYSIS SURFACE INCLUDING THRESHOLD SITING
C-APRN-ACPK	6	CONTINUOUS	AIRCRAFT GATE STAND/PARKING LOCATION
C-APRN-ANOM	7	CONTINUOUS	AIRCRAFT NON-MOVEMENT AREA, APRON
C-APRN-DEIC	7	CONTINUOUS	AIRCRAFT DEICING AREA
C-APRN-HOLD	253	CONTINUOUS	HOLDING POSITION MARKING
C-APRN-JWAY	7	CONTINUOUS	PASSENGER JETWAY
C-APRN-MRKG	253	CONTINUOUS	APRON MARKING
C-APRN-MRKG-LEAD	253	CONTINUOUS	APRON LEAD-IN MARKING
C-APRN-OTLN	4	CONTINUOUS	APRON OUTLINE
C-APRN-ROAD	7	CONTINUOUS	VEHICLE ROADWAY MARKINGS ON APRON

New Layer Name	Color	Linetype	Original Description
C-APRN-SECU	253	CONTINUOUS	SECURITY ZONE MARKINGS
C-APRN-SHLD	253	CONTINUOUS	APRON SHOULDER MARKING
C-APRN-SIGN	7	CONTINUOUS	AIRFIELD SIGN ON APRON
C-BLDG-AIRC-UNIT	4	CONTINUOUS	LARGE GROUND AIR CONDITIONING UNIT
C-BLDG-APRT	52	CONTINUOUS	GENERAL BUILDING APPURTENANCES
C-BLDG-BLEA	5	CONTINUOUS	BLEACHERS
C-BLDG-BNCH	42	CONTINUOUS	BENCH
C-BLDG-CHIM	7	CONTINUOUS	LARGE CHIMNEY/EXHAUST/VENTILATION SHAFT
C-BLDG-CNPY	4	DASHED2	CANOPY
C-BLDG-CONS	7	CENTER	BUILDING UNDER CONSTRUCTION
C-BLDG-DECK	7	DASHED2	DECK
C-BLDG-DEMO	7	DASHED2	BUILDING (DEMOLISHED REMAINS)
C-BLDG-EQPM	7	CONTINUOUS	EQUIPMENT SHELTER
C-BLDG-FLAG	7	CONTINUOUS	FLAGPOLE
C-BLDG-GASP	1	CONTINUOUS	GAS PUMP
C-BLDG-HOME	7	CONTINUOUS	RESIDENTIAL HOUSE
C-BLDG-LOAD	4	CONTINUOUS	LOADING DOCK
C-BLDG-OTLN	7	CONTINUOUS	FOOTPRINT MAIN BUILDINGS
C-BLDG-PATI	7	DASHED2	PATIO
C-BLDG-PEAK-LINE	52	CONTINUOUS	BUILDING PEAK LINE
C-BLDG-PLAN	110	CONTINUOUS	CONCRETE PLANTER
C-BLDG-POOL	51	CONTINUOUS	SWIMMING POOL
C-BLDG-RAMP	110	CONTINUOUS	RAMP
C-BLDG-RECR	51	CONTINUOUS	RECREATION EQUIPMENT
C-BLDG-ROOF-LINE	52	CONTINUOUS	BUILDING ROOFLINE
C-BLDG-SECB	7	CONTINUOUS	SECURITY GUARD BOOTH
C-BLDG-STEP	110	CONTINUOUS	BUILDING STEPS
C-BLDG-TANK	52	CONTINUOUS	LARGE STORAGE TANKS (FUEL, WATER, ETC.)
C-BLDG-TOWR	42	DASHED2	TOWER
C-BLDG-TRLT	7	CONTINUOUS	TRAILER
C-BLDG-UNKS	7	CONTINUOUS	UNKNOWN STRUCTURE
C-BRDG	7	CONTINUOUS	BRIDGE ROADWAY



New Layer Name	Color	Linetype	Original Description
C-BRDG-ABUT	7	CONTINUOUS	BRIDGE ABUTMENT
C-BRDG-BUTT	7	CONTINUOUS	BRIDGE BUTTRESS
C-BRDG-CURB	7	CONTINUOUS	BRIDGE CURB
C-BRDG-EDGE	7	CONTINUOUS	EDGE OF BRIDGE/NO SLOPE E.G. OVER WATER
C-BRDG-EDGE-ELEV	7	CONTINUOUS	EDGE OF ELEVATED BRIDGE E.G. DOUBLE DECKER BRIDGE
C-BRDG-FOOT	7	CONTINUOUS	FOOT BRIDGE
C-BRDG-FTNG	30	DASHED2	CONCRETE FOOTING FOR BRIDGE
C-BRDG-JONT-EXPA	2	DOT	BRIDGE EXPANSION JOINT
C-BRDG-PIER	30	DASHED	BRIDGE PIER
C-BRDG-SIGN-OVRH	4	DASHED2	BRIDGE OVERHEAD SIGN
C-BRDG-STRC	252	CONTINUOUS	BRIDGE ROADWAY STRUCTURE
C-BRDG-SUPP	30	DASHED2	BRIDGE SUPPORT COLUMN
C-BRDG-TRUS	2	DASHED	BRIDGE TRUSS
C-DRED-OHWM	1	CONTINUOUS	ORDINARY HIGH WATER MARKS
C-HELI-TLOF	7	CONTINUOUS	OUTLINE HELIPAD
C-LOCN-OTLN-PROJ	6	CONTINUOUS	OUTLINE OF REQUESTED BASEMAP FOR PROJECTS
C-MISC-TEXT	1	CONTINUOUS	GENERIC TEXT
C-OVRN-CNTR	6	CONTINUOUS	OVERRUN CENTERLINE MARKING
C-OVRN-SHLD	6	CONTINUOUS	OVERRUN SHOULDER MARKING
C-PADS-OTLN	6	CONTINUOUS	PAD-OUTLINES
C-PADS-SHLD	6	CONTINUOUS	SHOULDER PAVEMENT WITH ANNOTATION
C-PARK-OTLN	5	CONTINUOUS	PARKING OUTLINE
C-PATH-EDGE	7	DASHED2	EDGE PATH/TRAIL
C-PKNG-ISLD	84	CONTINUOUS	PARKING ISLANDS
C-PKNG-MRKG	5	CONTINUOUS	PAINTED PARKING MARKINGS
C-PKNG-OTLN	84	CONTINUOUS	PARKING LOTS
C-PROP-CONS	161	CONTINUOUS	CONSTRUCTION LIMITS/CONTROLS, STAGING AREAS
C-PROP-PROP	8	CONTINUOUS	AIRPORT PROPERTY
C-PROP-RWAY	8	CONTINUOUS	RIGHTS OF WAY
C-PVMT-MRKG	253	CONTINUOUS	ROADWAY MARKINGS OTHER THAN WHITE OR YELLOW
C-PVMT-MRKG-TURF	6	CONTINUOUS	PAVEMENT PAINTED TO LOOK LIKE TURF
C-PVMT-MRKG-WHIT	6	CONTINUOUS	ROADWAY MARKINGS (WHITE)



New Layer Name	Color	Linetype	Original Description
C-PVMT-MRKG-YELO	6	CONTINUOUS	ROADWAY MARKINGS (YELLOW)
C-PVMT-SIGN	4	CONTINUOUS	OTHER (SURFACE PAINTED) SIGNS
C-RAIL-BRDG	7	CONTINUOUS	RAILROAD BRIDGE
C-RAIL-EDGE-PLTF	7	CONTINUOUS	EDGE OF RAILROAD PLATFORM
C-RAIL-EQPM-SIGN	1	CONTINUOUS	RAILROAD SIGNAL
C-RAIL-SWCH	40	CONTINUOUS	RAILROAD SWITCH
C-RAIL-TFMR	1	CONTINUOUS	RAILROAD TRANSFORMER
C-RAIL-TRAK	91	CONTINUOUS	CENTERLINE OF EACH PAIR OF RAILS
C-RAIL-TRES	7	CONTINUOUS	RAILROAD TRESTLE
C-RAIL-TUNN	30	CONTINUOUS	RAILROAD TUNNEL ENTRANCE
C-RAIL-YARD	4	CONTINUOUS	RAILROAD YARD
C-ROAD-ALLY-EDGE	7	CONTINUOUS	EDGE OF PAVED ALLEY
C-ROAD-CNTR	4	CONTINUOUS	CENTERLINE OF ROAD PAVEMENT
C-ROAD-COBL	7	CONTINUOUS	COBBLESTONE ROADWAY
C-ROAD-CROS	7	DOT	PEDESTRIAN CROSSING
C-ROAD-CURB	1	CONTINUOUS	TOP ROAD CURB
C-ROAD-CURB-BERM	7	CONTINUOUS	BOTTOM CONCRETE BIT BERM
C-ROAD-CURB-BOTM	7	CONTINUOUS	BOTTOM CONCRETE CURB
C-ROAD-DRIV	4	CONTINUOUS	DRIVEWAY EDGE OF PAVEMENT
C-ROAD-DRIV-CNTR	4	CONTINUOUS	DRIVEWAY CENTERLINE
C-ROAD-EDGE-BCON	7	CONTINUOUS	EDGE OF BIT CONCRETE ROAD PAVEMENT
C-ROAD-EDGE-CONC	7	CONTINUOUS	EDGE CONCRETE ROAD PAVEMENT
C-ROAD-EDGE-GRAV	7	DASHED2	EDGE GRAVEL ROAD
C-ROAD-EDGE-HIDN	7	DASHED2	EDGE OF ROAD FEATURES IN UNDERPASS, UNDER ELEVATED ROADS
C-ROAD-EDGE-NCRB	7	CONTINUOUS	EDGE OF PAVED ROAD WITHOUT CURBS
C-ROAD-EDGE-PVMT	7	CONTINUOUS	EDGE OF ROAD PAVEMENT
C-ROAD-ELEV	253	CONTINUOUS	ELEVATED ROADWAY
C-ROAD-ELEV-MRKG	253	CONTINUOUS	PAINTED ELEVATED ROAD MARKINGS
C-ROAD-FURN	7	CONTINUOUS	STREET FURNITURE
C-ROAD-ISLD-CURB	4	CONTINUOUS	TRAFFIC ISLAND WITH CURB
C-ROAD-ISLD-OTLN	4	CONTINUOUS	TRAFFIC ISLAND - PAINTED OUTLINE



New Layer Name	Color	Linetype	Original Description
C-ROAD-LINE-HIDN	7	DASHED2	ROAD DETAIL IN UNDERPASS, UNDER ELEVATED ROADS - LINES
C-ROAD-MAIL	7	DASHED2	MAILBOX
C-ROAD-MRKG	5	CONTINUOUS	PAINTED STREET MARKINGS
C-ROAD-OTLN	1	CONTINUOUS	ROAD EDGE OF PAVEMENT
C-ROAD-PARK-METR	2	CONTINUOUS	PARKING METER
C-ROAD-PORT	30	DASHED	PORTAL FOR TUNNEL/UNDERPASS
C-ROAD-POST	4	CONTINUOUS	POST
C-ROAD-RAMP-EDGE	7	MPA-ROAD-RAMP-EDGE	ELEVATED ON/OFF RAMP
C-ROAD-SHDR-PAVD	7	CONTINUOUS	PAVED ROAD SHOULDER
C-ROAD-SHDR-UPVD	7	DASHED2	UNPAVED ROAD SHOULDER
C-ROAD-SIGN-OVRH	4	CENTER	SIGN, OVERHEAD
C-ROAD-SIGN-SING	4	CONTINUOUS	SIGN, SMALL SINGLE POST
C-ROAD-SYMB-HIDN	7	DASHED2	ROAD DETAIL IN UNDERPASS, UNDER ELEVATED ROADS - SYMBOLS
C-ROAD-TEXT	7	CONTINUOUS	ROAD INFORMATION SUCH AS NAME, WIDTH, ETC.
C-ROAD-TUNL	10	CONTINUOUS	ROAD TUNNEL ENTRANCE
C-RUNW-ARST	3	CONTINUOUS	RUNWAY ARRESTING GEAR LOCATION
C-RUNW-BLST	4	CONTINUOUS	RUNWAY BLAST PAD
C-RUNW-BNDY-LINE	2	CONTINUOUS	RUNWAY EDGE MARKINGS
C-RUNW-CHEV-MRKG	252	CONTINUOUS	CHEVRON
C-RUNW-CLRW	3	CONTINUOUS	RUNWAY CLEARWAY
C-RUNW-CNTR	7	CONTINUOUS	RUNWAY CENTERLINE
C-RUNW-CNTR-MRKG	6	CONTINUOUS	RUNWAY CENTERLINE MARKING
C-RUNW-DISP	4	CONTINUOUS	RUNWAY DISPLACED THRESHOLD POINT
C-RUNW-DIST	5	CONTINUOUS	RUNWAY FIXED DISTANCE MARKINGS
C-RUNW-ENDP	5	CONTINUOUS	RUNWAY ENDPOINT
C-RUNW-IDEN-MRKG	6	CONTINUOUS	RUNWAY LABEL LOCATION POINT
C-RUNW-INTS	4	CONTINUOUS	RUNWAY INTERSECTION
C-RUNW-LAHS	3	CONTINUOUS	RUNWAY LAND AND HOLD SHORT MARKINGS
C-RUNW-MRKG	6	CONTINUOUS	RUNWAY MARKINGS NOT IDENTIFIED AS OTHER LAYERS
C-RUNW-NUMB	6	CONTINUOUS	RUNWAY DESIGNATION MARKING
C-RUNW-REFL	3	CONTINUOUS	RUNWAY REFLECTORS

New Layer Name	Color Linetype		Original Description
C-RUNW-SAFT	5	CONTINUOUS	RUNWAY SAFETY AREA
C-RUNW-SEGM	3	CONTINUOUS	RUNWAY ELEMENT (EDGE OF RUNWAY PAVEMENT)
C-RUNW-SHLD	6	CONTINUOUS	RUNWAY SHOULDER MARKING
C-RUNW-SIDE	6	CONTINUOUS	RUNWAY SIDE STRIPES
C-RUNW-SIGN	4	CONTINUOUS	NON-SURFACE PAINTED AIRFIELD SIGNS ON RUNWAY E.G. DISTANCE REMAINING SIGNS
C-RUNW-SIGN-HOLD	252	CONTINUOUS	RUNWAY HOLD SIGN
C-RUNW-STWY	3	CONTINUOUS	RUNWAY STOPWAY MARKINGS
C-RUNW-TDZM	6	CONTINUOUS	TOUCHDOWN ZONE MARKINGS
C-SECU-FENC	200	MPA-FENCE-CHAIN-LINK	SECURITY FENCING
C-SITE-BARR	200	CONTINUOUS	BARRIER - GENERAL
C-SITE-BARR-BOLL	4	CONTINUOUS	BOLLARD
C-SITE-BARR-DAM	42	CONTINUOUS	DAM
C-SITE-BARR-FENC	200	CONTINUOUS	FENCES AND HANDRAILS
C-SITE-BARR-FENC-BRWR	200	MPA-FENCE-BARBED-WIRE	FENCE, BARBED WIRE
C-SITE-BARR-FENC-CLNK	200	MPA-FENCE-CHAIN-LINK	FENCE, CHAIN LINK
C-SITE-BARR-FENC-IRON	200	MPA-FENCE-IRON	FENCE, IRON
C-SITE-BARR-FENC-PTRL	200	MPA-FENCE-POST-AND-RAIL	FENCE, POST AND RAIL
C-SITE-BARR-FENC-PTWR	200	MPA-POST-AND-WIRE	FENCE, POST AND WIRE
C-SITE-BARR-FENC-STCK	200	MPA-FENCE-STOCKADE	FENCE, STOCKADE
C-SITE-BARR-FENC-WOOD	200	MPA-FENCE-WOOD	FENCE, WOOD
C-SITE-BARR-GARD	181	MPA-BARRIER-GUARDRAIL-ST-ST	GUARDRAIL, STEEL BEAM WITH STEEL POSTS
C-SITE-BARR-GATE	200	CONTINUOUS	GATES ALONG FENCES OR OTHER BARRIERS INTENDED TO RESTRICT ACCESS
C-SITE-BARR-HWAL	42	CONTINUOUS	HEADWALL, CONCRETE
C-SITE-BARR-JERS	42	MPA-BARRIER-JERSEY	JERSEY BARRIER
C-SITE-BARR-RIPR	5	MPA-BARRIER-RIPRAP	RIP RAP
C-SITE-BARR-ROCK	42	CENTER	ROCK OUTCROP



New Layer Name	Color	Linetype	Original Description
C-SITE-BARR-SEAW	4	MPA-BARRIER-SEAWALL	SEA WALL
C-SITE-BARR-WALL-BLST	253	CONTINUOUS	TOP BLAST WALL
C-SITE-BARR-WALL-BOTM	90	CONTINUOUS	BOTTOM WALL - GENERAL
C-SITE-BARR-WALL-CONC	50	CONTINUOUS	TOP CONCRETE WALL
C-SITE-BARR-WALL-NOIS	200	MPA-BARRIER-NOISE	NOISE BARRIER WALL
C-SITE-BARR-WALL-RTWL	50	CONTINUOUS	TOP RETAINING WALL
C-SITE-BARR-WALL-STON	50	MPA-BARRIER-STONE-WALL-TOP	TOP STONE WALL
C-SITE-BARR-WALL-TOP	50	MPA-BARRIER-WALL-TOP	TOP WALL - GENERAL
C-SITE-BBRD	4	CENTER	BILLBOARD OR OTHER LARGE GROUND SIGN
C-SITE-BBRD-POST	4	CONTINUOUS	BILLBOARD OR OTHER LARGE SIGN POST
C-SITE-BOTM-RTWL	90	CONTINUOUS	BOTTOM RETAINING WALL
C-SITE-LOCN	7	CONTINUOUS	UNDER CONSTRUCTION LIMITS
C-SITE-PARK	7	CONTINUOUS	PARK AND SPORTS PARK LINES
C-SITE-SECU-CAM	7	CONTINUOUS	CMRA SECURITY CAMERA LOCATIONS OUTSIDE OF BUILDINGS
C-SITE-SLAB	7	DASHED2	SLAB
C-SITE-SNOW-MELT	5	DASHED	SNOW MELTERS
C-SITE-WALK	8	CONTINUOUS	WALKS, TRAILS AND BICYCLE PATHS
C-STRC-OTLN	4	CONTINUOUS	BRIDGES, PIERS, BREAKWATERS, DOCKS, FLOATS, ETC.-OUTLINES
C-STRC-TOWR	7	CONTINUOUS	TOWER
C-SWLK	8	CONTINUOUS	SIDEWALK
C-TAXI-CNTR	1	DASHED2	TAXIWAY CENTERLINE OF PAVEMENT
C-TAXI-CNTR-MRKG	6	CONTINUOUS	TAXIWAY CENTERLINE MARKING
C-TAXI-EDGE	6	CONTINUOUS	TAXIWAY EDGE MARKING
C-TAXI-HOLD	3	CONTINUOUS	TAXIWAY HOLD MARKINGS
C-TAXI-INTS	5	CONTINUOUS	TAXIWAY INTERSECTION
C-TAXI-MRKG	2	CONTINUOUS	TAXIWAY PAINT LINES
C-TAXI-OTLN	4	CONTINUOUS	TAXIWAY OUTLINES
C-TAXI-SHLD	6	CONTINUOUS	TAXIWAY SHOULDER MARKING





New Layer Name	Color	Linetype	Original Description
C-TAXI-SIGN	5	CONTINUOUS	NON-SURFACE PAINTED AIRFIELD SIGNS ON THE TAXIWAY SUCH AS TAXIWAY DESIGNATOR, HOLD SHORT, AND DIRECTIONAL SIGNS
C-TOPO-AUCO	5	CONTINUOUS	NOISE COMPLAINT
C-TOPO-AUST	4	CONTINUOUS	NOISE MONITORING STATION
C-TOPO-AUZN	3	CONTINUOUS	NOISE CONTOUR ZONE
C-TOPO-BORE	6	CONTINUOUS	BORING LOCATIONS
C-TOPO-FLZN	5	CONTINUOUS	FLOOD ZONE
C-TOPO-MAJR	2	CONTINUOUS	MAJOR CONTOURS
C-TOPO-MINR	40	CONTINUOUS	MINOR CONTOURS
C-TOPO-MINR-ONEF	52	CONTINUOUS	MINOR CONTOURS - ONE FOOT INTERVAL
C-TOPO-MINR-TWOF	32	CONTINUOUS	MINOR CONTOURS - TWO FOOT INTERVAL
C-TOPO-RNYE	4	CONTINUOUS	RUNWAY CENTERLINE ELEVATION POINT
C-TOPO-SHOR	1	CONTINUOUS	SHORELINES, LAND FEATURES, AND REFERENCES
C-WWAY-FEND	7	CONTINUOUS	WATERWAY FENDERS
E-AFLD-SIGN	1	CONTINUOUS	AIRSIDE GUIDANCE SIGN AND BASE
E-AFLD-VALT	1	CONTINUOUS	AIRFIELD LIGHTING VAULT
E-CAPS-IDEN	1	CONTINUOUS	CAP
E-CBOX	1	CONTINUOUS	ELECTRIC CONTROL BOX
E-COND	1	CONDUIT	RACEWAY/CONDUIT EXPOSED (ELEC/COMM)
E-DUCT-ACHI	1	CONTINUOUS	DUCT BANK - HIGH VOLTAGE
E-DUCT-ACLO	1	CONTINUOUS	DUCT BANK - LOW VOLTAGE
E-GENR	1	CONTINUOUS	GENERATOR
E-HHOL	1	CONTINUOUS	ELECTRIC HANDHOLE
E-JBOX	1	CONTINUOUS	ELECTRIC JUNCTION BOX
E-LINE	1	UELEC	ELECTRIC LINE - SUBSURFACE
E-LITE-APPR-EBAR	7	CONTINUOUS	APPROACH LIGHTING SYSTEM ELEVATION BAR
E-LITE-APPR-ELIT	7	CONTINUOUS	APPROACH LIGHTING SYSTEM ELEVATED LIGHT
E-LITE-APPR-SFBR	7	CONTINUOUS	APPROACH LIGHTING SYSTEM SEMI-FLUSH BAR
E-LITE-APPR-SFLT	7	CONTINUOUS	APPROACH LIGHTING SYSTEM SEMI-FLUSH LIGHT
E-LITE-BASE-METL	5	CONTINUOUS	METAL COVER LIGHT BASE
E-LITE-CAUT	1	CONTINUOUS	CAUTION LIGHT
E-LITE-DIST	1	CONTINUOUS	DISTANCE AND ARRESTING GEAR MARKERS AND LIGHTS



New Layer Name	Color	Linetype	Original Description
E-LITE-HMST	1	CONTINUOUS	HIGH MAST LIGHT POLE
E-LITE-LAMP	1	CONTINUOUS	LAMP
E-LITE-LANE	1	CONTINUOUS	HOVERLANE, TAXILANE, AND HELIPAD LIGHTS
E-LITE-MISC	1	CONTINUOUS	MISC LIGHTS
E-LITE-OBST	1	CONTINUOUS	OBSTRUCTION LIGHTS
E-LITE-PCAN-METL	5	CONTINUOUS	PULL CAN WITH METAL COVER
E-LITE-POLE	1	CONTINUOUS	UTILITY POLE WITH LIGHT
E-LITE-POST	1	CONTINUOUS	LAMP POST
E-LITE-RUNW-CNTR	7	CONTINUOUS	RUNWAY CENTERLINE LIGHTS
E-LITE-RUNW-DTGS1	1	CONTINUOUS	RUNWAY DISTANCE TO GO LIGHTS
E-LITE-RUNW-EDGE	1	CONTINUOUS	RUNWAY EDGE LIGHTS
E-LITE-RUNW-EDGE-ELEV	1	CONTINUOUS	RUNWAY EDGE ELEVATED LIGHTS
E-LITE-RUNW-EDGE-SMFL	1	CONTINUOUS	RUNWAY EDGE SEMI-FLUSH LIGHTS
E-LITE-RUNW-GARD	2	CONTINUOUS	RUNWAY GUARD LIGHTS
E-LITE-RUNW-GARD-ELEV	2	CONTINUOUS	RUNWAY GUARD ELEVATED LIGHTS
E-LITE-RUNW-GARD-SMFL	1	CONTINUOUS	RUNWAY GUARD SEMI-FLUSH LIGHTS
E-LITE-RUNW-STAT	1	CONTINUOUS	RUNWAY STATUS SEMI-FLUSH LIGHTS
E-LITE-RUNW-TDZN	1	CONTINUOUS	RUNWAY TOUCHDOWN ZONE LIGHTS
E-LITE-RUNW-THRS-ELEV	1	CONTINUOUS	RUNWAY THRESHOLD ELEVATED LIGHTS
E-LITE-RUNW-THRS-SMFL	1	CONTINUOUS	RUNWAY THRESHOLD SEMI-FLUSH LIGHTS
E-LITE-SIGN	3	CONTINUOUS	TAXIWAY GUIDANCE SIGNS
E-LITE-TAXI-CNTR	7	CONTINUOUS	TAXIWAY CENTERLINE LIGHTS
E-LITE-TAXI-EDGE	5	CONTINUOUS	TAXIWAY EDGE LIGHTS
E-LITE-TAXI-EDGE-ELEV	5	CONTINUOUS	TAXIWAY EDGE ELEVATED LIGHTS
E-LITE-TAXI-EDGE-SMFL	5	CONTINUOUS	TAXIWAY EDGE SEMI-FLUSH LIGHTS
E-LITE-THRS	1	CONTINUOUS	THRESHOLD LIGHTS
E-METR	1	CONTINUOUS	ELECTRIC METER
E-MHOL	1	CONTINUOUS	ELECTRIC MANHOLE
E-MISC-POI*	1	CONTINUOUS	MISC ELECTRIC POINT
E-OHWR	1	OELEC	ELECTRIC OVERHEAD WIRE
E-PBOX	1	CONTINUOUS	ELECTRIC PULL BOX
E-POLE	1	CONTINUOUS	UTILITY POLE

New Layer Name	Color	Linetype	Original Description
E-ROAD-CBOX	1	CONTINUOUS	TRAFFIC CONTROL BOX
E-ROAD-SIGL	1	CONTINUOUS	TRAFFIC SIGNAL
E-ROAD-SIGL-LOOP	1	CONTINUOUS	TRAFFIC INDUCTIVE LOOP DETECTOR
E-ROAD-TRAF-HHOL	1	CONTINUOUS	TRAFFIC CONTROL SYSTEM HANDHOLE
E-SOLR-PANL	1	CONTINUOUS	SOLAR PHOTOVOLTAIC (PV) PANELS
E-SUBS	10	CONTINUOUS	SUBSTATION STRUCTURE
E-SWCH	1	CONTINUOUS	SWITCH
E-TRAN	1	CONTINUOUS	TRANSFORMER
E-TRAN-POLE	1	CONTINUOUS	POLE MOUNT TRANSFORMER
E-VALT	1	CONTINUOUS	VAULT
E-VALT-UGND	1	CONTINUOUS	UNDERGROUND VAULT
E-VIAD-CBOX	1	CONTINUOUS	VIADUCT ELECTRICAL CONTROL BOX
E-VIAD-HHOL	1	CONTINUOUS	VIADUCT ELECTRICAL HANDHOLE
E-VIAD-LINE	1	CONTINUOUS	VIADUCT ELECTRICAL LINE
E-VIAD-LITE	1	CONTINUOUS	VIADUCT ELECTRICAL LIGHT
L-PLNT-BRSH	3	CONTINUOUS	INDIVIDUAL BRUSH/SHRUB
L-PLNT-SHRB-LINE	102	MPA-BRUSHL	BRUSH/HEDGE/SHRUB LINE
L-PLNT-STMP	110	CONTINUOUS	TREE STUMP
L-PLNT-TREE	3	CONTINUOUS	TREE
L-PLNT-TREE-CONI	3	CONTINUOUS	TREE - CONIFER
L-PLNT-TREE-DECI	3	MPA-DTREEL	TREE - DECIDUOUS
L-PLNT-TREE-EVGR	102	MPA-ETREEL	EVERGREEN TREE LINE
L-PLNT-TTOP	3	CONTINUOUS	TOP OF TREE
L-PLNT-TURF	3	CONTINUOUS	GRASS AREA
L-SITE-EDGE	110	DASHED2	EDGE OF LANDSCAPED AREA
L-SITE-GOLF	110	DASHED2	GOLF GREENS
L-SITE-PARK	42	CONTINUOUS	PARK AREA
L-SITE-PLTR	7	CONTINUOUS	PLANTER
L-SITE-TRAP-SAND	42	DASHED2	SAND TRAPS (GOLFING)
T-CCTV-CAMS	24	CONTINUOUS	CCTV CAMERA
T-COMM-ANTN	24	CONTINUOUS	COMMUNICATIONS ANTENNAE
T-COMM-DISH	7	CONTINUOUS	DISH ANTENNA



New Layer Name	Color	Linetype	Original Description
T-COMM-FBOX	24	CONTINUOUS	FIRE BOX
T-COMM-FSIG-LINE	24	FIREPROTECTION	FIRE SIGNAL LINE - SUBSURFACE
T-COMM-HHOL	24	CONTINUOUS	COMMUNICATIONS HANDHOLE
T-COMM-LINE	24	UCOMM	COMMUNICATIONS LINE - SUBSURFACE
T-COMM-MHOL	24	CONTINUOUS	COMMUNICATIONS MANHOLE
T-COMM-NODE-SPLC	24	CONTINUOUS	COMMUNICATION NODE/SPLICE POINT
T-COMM-OHWR	24	OCOMM	COMMUNICATIONS LINE - OVERHEAD WIRE
T-COMM-PBOX	24	CONTINUOUS	COMMUNICATION PULL BOX
T-COMM-SENS	24	CONTINUOUS	SURFACE SENSOR STRUCTURE - AIRPORT
T-COMM-VALT	24	CONTINUOUS	COMMUNICATIONS UNDERGROUND VAULT
T-PHON-BOX	24	CONTINUOUS	TELEPHONE BOOTH/BOX
T-PHON-HHOL	24	CONTINUOUS	TELEPHONE HANDHOLE
T-PHON-LINE	24	UTELE	TELEPHONE LINE - SUBSURFACE
T-PHON-MHOL	24	CONTINUOUS	TELEPHONE MANHOLE
T-PHON-POLE	24	CONTINUOUS	TELEPHONE POLE
U-CATV-MHOL	7	CONTINUOUS	CABLE TV MANHOLE
U-CWTR-PIPE	1	CONTINUOUS	WATERLINE PIPE
U-CWTR-RETN-PIPE	1	CONTINUOUS	WATERLINE RETURN PIPE
U-CWTR-SPLY-HOTS	1	CONTINUOUS	WATERLINE SUPPLY PIPE
U-FUEL-CAPS	3	CONTINUOUS	FUEL OIL LINE CAP
U-FUEL-DRAN	3	CONTINUOUS	FUEL DRAIN STRUCTURE
U-FUEL-GLYC	3	CONTINUOUS	GLYCOL FILL STATION
U-FUEL-HEAT-UNIT-OUTS	3	CONTINUOUS	OUTSIDE HEATING UNIT
U-FUEL-HYDT	3	CONTINUOUS	FUEL HYDRANT
U-FUEL-LINE	3	CONTINUOUS	FUEL OIL LINE
U-FUEL-METR	3	CONTINUOUS	FUEL METER
U-FUEL-MHOL	3	CONTINUOUS	FUEL OIL MANHOLE
U-FUEL-MISC	3	CONTINUOUS	MISC FUEL POINT
U-FUEL-PIPE-FILL	3	CONTINUOUS	FUEL OIL FILL PIPE
U-FUEL-PIPE-OIL	3	CONTINUOUS	FUEL OIL PIPE
U-FUEL-TANK	7	CONTINUOUS	FUEL TANK
U-FUEL-TANK-SUB	3	CONTINUOUS	FUEL TANK - SUBSURFACE

New Layer Name	Color	Linetype	Original Description
U-FUEL-TANK-VALV	3	CONTINUOUS	FUEL OIL TANK FILL VALVE
U-FUEL-TEST	3	CONTINUOUS	FUEL TEST STATION
U-FUEL-VALV	3	CONTINUOUS	FUEL OIL VALVE
U-FUEL-VENT	3	CONTINUOUS	FUEL OIL VENT STRUCTURE
U-MISC-OHWR	3	CONTINUOUS	MISC OVERHEAD WIRE
U-MISC-POI~	3	CONTINUOUS	MISC UTILITY POINT
U-MISC-ROOF	3	CONTINUOUS	MISC UTILITY ON ROOF
U-MISC-TANK	3	CONTINUOUS	MISC STORAGE TANK
U-NGAS-CAPS	94	CONTINUOUS	GAS CAP
U-NGAS-DRIP	94	CONTINUOUS	GAS DRIP
U-NGAS-GATE	94	CONTINUOUS	GAS GATE (ROUND, SQUARE)
U-NGAS-LEAK	94	CONTINUOUS	GAS LEAK DETECTOR
U-NGAS-METR	94	CONTINUOUS	GAS METER
U-NGAS-MHOL	94	CONTINUOUS	GAS MANHOLE
U-NGAS-PIPE	94	GAS	GAS LINE
U-NGAS-RDCR	94	CONTINUOUS	GAS REDUCER
U-NGAS-RGLR	94	CONTINUOUS	GAS REGULATOR
U-NGAS-STRC-OTHER	94	CONTINUOUS	OTHER GAS STRUCTURES
U-NGAS-TANK	94	CONTINUOUS	GAS PROPANE TANK
U-NGAS-VALV	94	CONTINUOUS	GAS VALVE/GATE
U-SITE-COVR-MISC	5	CONTINUOUS	MISC UTILITY METAL COVER
U-SITE-CULV-BOX	3	CONTINUOUS	BOX CULVERT
U-SITE-GATE	5	CONTINUOUS	GATE, METER
U-SITE-GUYP	7	CONTINUOUS	GUY POLE
U-SITE-GUYW	7	CONTINUOUS	GUY WIRE
U-SITE-LINE-MISC	7	CONTINUOUS	MISC LINE
U-SITE-MHOL-MISC	2	CONTINUOUS	MISC MANHOLE
U-SITE-NODE-MISC	6	CONTINUOUS	MISC NODES
U-SITE-OHWR	7	CONTINUOUS	MISC OVERHEAD WIRE
U-SITE-PAD-CONC	7	CONTINUOUS	CONCRETE PAD
U-SITE-PBOX	6	CONTINUOUS	PULL BOX
U-SITE-PIPE	30	DASHED2	PIPE - SURFACE



New Layer Name	Color	Linetype	Original Description
U-SITE-SLAB	6	CONTINUOUS	OUTLINE/SLABS, VAULTS
U-SITE-TOWR-WATR	7	CONTINUOUS	WATER TOWER
U-SITE-UTIL-POLE	6	CONTINUOUS	MISC UTILITY POLE
U-SITE-VALT-MISC	5	CONTINUOUS	MISC UTILITY VAULT
U-SITE-VALV-MISC	7	CONTINUOUS	MISC UTILITY VALVE
U-SSWR-CAPS	6	CONTINUOUS	SAN SEWER CAP
U-SSWR-COUT	6	CONTINUOUS	SAN SEWER CLEANOUT
U-SSWR-FLOW	6	CONTINUOUS	SAN SEWER LINE FLOW ARROWS
U-SSWR-FORC	6	FORCEMAIN	SAN SEWER FORCE MAIN
U-SSWR-MHOL	6	CONTINUOUS	SAN SEWER MANHOLE
U-SSWR-MHOL-INVT	6	CONTINUOUS	SAN SEWER MANHOLE INVERT
U-SSWR-OUTF	6	CONTINUOUS	SAN SEWER DISCHARGE LOCATION
U-SSWR-PIPE	6	SAN	SAN SEWER LINE - SUBSURFACE
U-SSWR-RDCR	6	CONTINUOUS	SAN SEWER REDUCER
U-SSWR-SEPA	6	CONTINUOUS	WASTE WATER OIL AND WATER SEPARATOR
U-SSWR-TANK	6	CONTINUOUS	SEPTIC TANK
U-STEM-AIR	1	CONTINUOUS	STEAM AIR
U-STEM-CAPS	204	CONTINUOUS	STEAM CAP
U-STEM-CNDS	204	CONTINUOUS	STEAM CONDENSATE
U-STEM-LINE	204	CONTINUOUS	STEAM LINE
U-STEM-MHOL	204	CONTINUOUS	STEAM MANHOLE
U-STEM-PIPE	204	CONTINUOUS	STEAM PIPE
U-STEM-PIPE-COND	204	CONTINUOUS	STEAM CONDENSATE LINE
U-STEM-PIPE-RETN	204	CONTINUOUS	STEAM RETURN LINE
U-STEM-PIPE-SPLY	204	CONTINUOUS	STEAM SUPPLY LINE
U-STEM-VALV	204	CONTINUOUS	STEAM VALVE
U-STRM	4	STM	STORM DRAIN LINE - SUBSURFACE
U-STRM-CAPS	4	CONTINUOUS	STORM DRAIN CAP
U-STRM-CBAS	4	CONTINUOUS	CATCH BASIN
U-STRM-COUT	4	CONTINUOUS	STORM DRAIN CLEANOUT
U-STRM-CULV	4	CONTINUOUS	CULVERTS
U-STRM-CURB	4	CONTINUOUS	CURB INLET



New Layer Name	Color	Linetype	Original Description
U-STRM-DISC	4	CONTINUOUS	STORM DRAIN DISCHARGE LOCATION
U-STRM-DWNS	4	CONTINUOUS	DOWN SPOUT
U-STRM-FLOW	4	CONTINUOUS	STORM DRAIN FLOW ARROWS
U-STRM-MHOL	4	CONTINUOUS	STORM DRAIN MANHOLE
U-STRM-MHOL-INV	4	CONTINUOUS	STORM SEWER MANHOLE INVERT
U-STRM-ORSR	4	CONTINUOUS	STORM DRAIN OBSERVATION RISER
U-STRM-OUTF	4	CONTINUOUS	STORM DRAIN OUTFALL
U-STRM-PIPE	4	CONTINUOUS	STORM DRAIN LINE - SUBSURFACE
U-STRM-SEPA	4	CONTINUOUS	STORM DRAIN OIL AND WATER SEPARATOR
U-STRM-TRDR	4	CONTINUOUS	TRENCH DRAIN
U-STRM-UNDR	4	CONTINUOUS	UNDERDRAIN CONNECTION
U-WATR-CAPS	5	CONTINUOUS	WATER CAP
U-WATR-CSTP	5	CONTINUOUS	WATER CURB STOP DRAIN
U-WATR-CWTR-RTRN	5	CONTINUOUS	CHILLED WATER RETURN
U-WATR-CWTR-SERV	5	CONTINUOUS	CHILLED WATER SERVICE
U-WATR-FAUC	5	CONTINUOUS	WATER FAUCET
U-WATR-FONT	5	CONTINUOUS	WATER FOUNTAIN
U-WATR-FTNG	5	CONTINUOUS	WATER FITTINGS
U-WATR-GATE	5	CONTINUOUS	WATER GATE
U-WATR-HYDT	5	CONTINUOUS	HYDRANT (ABOVE STREET SURFACE)
U-WATR-HYDT-FIRE	5	CONTINUOUS	NEW DESCRIPTION - FIRE DEPARTMENT CONNECTION ON BUILDING
U-WATR-LEAK	5	CONTINUOUS	WATER LEAK DETECTOR
U-WATR-METR	5	CONTINUOUS	WATER METER
U-WATR-MHOL	5	CONTINUOUS	WATER MANHOLE
U-WATR-PIPE	5	WTR	WATER LINE
U-WATR-PIV	5	CONTINUOUS	WATER POST INDICATOR VALVE
U-WATR-RDCR	5	CONTINUOUS	WATER REDUCER
U-WATR-RGLR	5	CONTINUOUS	WATER REGULATOR
U-WATR-SAMP	5	CONTINUOUS	DRINKING WATER SAMPLE
U-WATR-SPIP	5	CONTINUOUS	WATER STANDPIPE
U-WATR-SPKL	5	CONTINUOUS	WATER SPRINKLER HEAD
U-WATR-TANK	5	CONTINUOUS	WATER TANK



New Layer Name	Color	Linetype	Original Description
U-WATR-VALV	5	CONTINUOUS	WATER VALVE
U-WATR-WELL	5	CONTINUOUS	WATER MONITORING WELL
V-ADMN-LINE	7	DASHED	ADMINISTRATIVE LINES
V-CTRL-AERI-CNTL	7	CONTINUOUS	PHOTO CONTROL - AERIAL TRIANGULATION
V-CTRL-BOTH-PRIM	1	CONTINUOUS	PRIMARY HORIZONTAL AND VERTICAL CONTROL STATION
V-CTRL-BOTH-SECD	2	CONTINUOUS	SECONDARY HORIZONTAL AND VERTICAL CONTROL STATION
V-CTRL-BOTH-TERT	3	CONTINUOUS	TERTIARY HORIZONTAL AND VERTICAL CONTROL STATION
V-CTRL-HORZ-PRIM	1	CONTINUOUS	PRIMARY HORIZONTAL CONTROL STATION
V-CTRL-HORZ-SECD	2	CONTINUOUS	SECONDARY HORIZONTAL CONTROL STATION
V-CTRL-HORZ-TERT	3	CONTINUOUS	TERTIARY HORIZONTAL CONTROL STATION
V-CTRL-TICK-LL	7	CONTINUOUS	GRID TICK GEOGRAPHICAL LATITUDE AND LONGITUDE
V-CTRL-TICK-ND27	7	CONTINUOUS	GRID TICK NAD27 COORDINATE SYSTEM
V-CTRL-TICK-ND83	7	CONTINUOUS	GRID TICK NAD83 COORDINATE SYSTEM
V-CTRL-TRAV-DIMS	5	CONTINUOUS	TRAVERSE LINE DIMENSIONS
V-CTRL-TRAV-LINE	5	DASHED	TRAVERSE LINE
V-CTRL-VERT-PRIM	1	CONTINUOUS	PRIMARY VERTICAL CONTROL/BENCHMARK STATION
V-CTRL-VERT-SECD	2	CONTINUOUS	SECONDARY VERTICAL CONTROL/BENCHMARK STATION
V-CTRL-VERT-TERT	3	CONTINUOUS	TERTIARY VERTICAL CONTROL/BENCHMARK STATION
V-ESMT-LINE	49	PHANTOM	EASEMENT LINES
V-FHAZ-FEMA	160	CONTINUOUS	FEMA HAZARD ZONE
V-PROP-DIMS-INTR	3	CONTINUOUS	LEADER LINE FOR DIMENSIONS OF INTERIOR PARCELS
V-PROP-DIMS-LHOL	5	CONTINUOUS	LEADER LINE FOR DIMENSIONS FOR LEASEHOLD
V-PROP-DIMS-PERI	3	CONTINUOUS	LEADER LINE FOR DIMENSIONS OF PERIMETER
V-PROP-EVID-CRNR	49	CONTINUOUS	FIELD EVIDENCE (BUILDING CORNERS, FENCES)
V-PROP-HOOK-CMPA	1	CONTINUOUS	FEE HOOKS FOR MPA OWNED PARCELS
V-PROP-HOOK-FMPA	5	CONTINUOUS	FEE HOOKS FOR FORMELY MPA OWNED PARCELS
V-PROP-HOOK-NMPA	202	CONTINUOUS	FEE HOOK ABUTTERS (NEVER OWNED BY MPA)
V-PROP-JURR-LINE	204	HIDDEN	JURISDICTION LINES
V-PROP-LEAS-CMPA	5	DASHED	LEASEHOLD BOUNDARY CURRENTLY OWNED BY MASSPORT
V-PROP-LEAS-EXPD	5	DASHED	LEASEHOLD BOUNDARY EXPIRED
V-PROP-LEAS-OTHR	5	DASHED	LEASEHOLD BOUNDARY OWNED BY OTHERS
V-PROP-MONU-STON	7	CONTINUOUS	STONE BOUND



New Layer Name	Color	Linetype	Original Description
V-PROP-PARR	3	CONTINUOUS	FEE PARCEL BOUNDARY BY RECORD
V-PROP-PARS	3	CONTINUOUS	FEE PARCEL BOUNDARY BY SURVEYS
V-PROP-REST	30	HIDDEN	RESTRICTION LINES (ZONING, COVENANTS)
V-ROAD-OWNR	11	CONTINUOUS	ROADWAYS OWNER
V-ROAD-STAN	11	CONTINUOUS	ROADWAYS: STATIONING
V-TOPO-BLIN	30	DASHED2	BREAK LINE
V-TOPO-DEPR	200	CONTINUOUS	SUPPLEMENTAL CONTOUR
V-TOPO-MAJR	200	CONTINUOUS	INDEX CONTOUR - APPROXIMATE
V-TOPO-MEAN-LOWW	4	PHANTOM	CURRENT MEAN LOW WATER LINE
V-TOPO-MEAN-TIDE	5	DASHED	HISTORIC WATER/COAST/TIDAL LINES
V-TOPO-MINR	40	CONTINUOUS	INTERMEDIATE CONTOUR - APPROX
V-TOPO-SPOT	31	CONTINUOUS	LOCAL MIN/MAX SPOT ELEVATION
V-TOPO-SPOT-DTM	30	DASHED2	SPOTS FOR DTM PURPOSES
V-TOPO-SPOT-OTHR	31	CONTINUOUS	ELEVATION TOP BUILDING/STRUCTURE
Y-HYDR-BCNS	4	CONTINUOUS	BEACON
Y-HYDR-BCON-INDX	4	CONTINUOUS	BATHYMETRIC CONTOURS - INDEX
Y-HYDR-BCON-INTR	4	CONTINUOUS	BATHYMETRIC CONTOURS - INTERMEDIATE
Y-HYDR-BCON-SPOT	4	CONTINUOUS	BATHYMETRIC SPOT ELEVATIONS
Y-HYDR-BERT	4	CONTINUOUS	SHIP BERTH/DOCKING SITE
Y-HYDR-CANL	5	DIVIDE	CANAL
Y-HYDR-DOCK-DRY	4	CONTINUOUS	DRY DOCK
Y-HYDR-DTCH	5	DASHED	DITCH LINE
Y-HYDR-DTCH-DRY	5	DASHED	DRY DITCH LINE
Y-HYDR-LAKE	5	DIVIDE	LAKE
Y-HYDR-LOCK	7	CONTINUOUS	LOCKS
Y-HYDR-LTHS	7	CONTINUOUS	LIGHTHOUSE
Y-HYDR-MOOR	7	CONTINUOUS	MOORING
Y-HYDR-PIER	7	CONTINUOUS	PIER
Y-HYDR-POND	5	DIVIDE	POND
Y-HYDR-RIVR	5	DIVIDE	RIVER
Y-HYDR-RSRV	5	DIVIDE	RESERVOIR
Y-HYDR-SHOR	5	DIVIDE	SEASHORE



New Layer Name	Color Linetype		Original Description
Y-HYDR-STRE	5	DIVIDE	STREAM
Y-HYDR-SWAL	42	DASHED	SWALE
Y-HYDR-WETL	5	DIVIDE	MARSH/WETLANDS
Y-HYDR-WHRF	7	CONTINUOUS	WHARF

## APPENDIX C: OBJECT DATA TABLE DEFINITIONS

AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
<b>OD TABLE: CBG (Catch Basin-General)</b>		
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
DataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
description	Character	Description of the feature.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
FlowDirection	Character	General direction of the flow (i.e. N, NE, E, SE, S, SW, W, NW)
Guid	Character	A globally unique identifier applied to each feature in the database for reference.
installdate	Character	Date of installation, formatted YYYYMMDD.
lastmaint	Character	Date of last maintenane, formatted YYYYMMDD.
lifecyclestatus	Character	DISPOSTN_D
material	Character	Type of material.
NEDEPcode	Character	NEDEPcode
NextStructure	Character	NextStructure
notes	Character	Any unique items of note on the subject feature.
NumberOfPipes	Integer	Number of Pipes.
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
OutfallName	Character	Name of Outfall.
ownedby	Character	Name of Owner.
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
rimelev	Real	Elevation of the rim of the structure.



AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
SedimentDepth	Real	Depth of the sediment.
StructureIntegrity	Character	Integrity of the structure.
<b>OD TABLE: CO (Storm Drain Cleanout)</b>		
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
assettype	Short	TYPE_D
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
dataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
description	Character	Description of the feature.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
installdate	Character	Date of installation, formatted YYYYMMDD.
lifecyclestatus	Short	DISPOSTN_D
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
OutfallName	Character	Name of Outfall.
ownedby	Short	Name of Owner.
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
rimelev	Real	Elevation of the rim of the structure.
<b>OD TABLE: DMH (Storm Drain Manhole)</b>		
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
DataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.

AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
description	Character	Description of the feature.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
FlowDirection	Character	General direction of the flow (i.e. N, NE, E, SE, S, SW, W, NW)
installdate	Character	Date of installation, formatted YYYYMMDD.
lifecyclestatus	Short	DISPOSTN_D
material	Short	Type of material.
NEDEPcode	Character	NEDEPcode
NextStructure	Character	NextStructure
NumberOfPipes	Integer	Number of Pipes.
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
OutfallName	Character	Name of Outfall.
ownedby	Short	Name of Owner.
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
rimelev	Real	Elevation of the rim of the structure.
SedimentDepth	Real	Depth of the sediment.
StructureIntegrity	Character	Integrity of the structure.
<b>OD TABLE: DS (Down Spout)</b>		
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
assettype	Short	TYPE_D
barcode	Character	MODEL_NO
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
DataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
description	Character	Description of the feature.



AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
diameter	Real	The diameter of the feature.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
GroundElev	Real	The elevation of ground level at the feature.
lifecyclestatus	Short	DISPOSTN_D
ManufactureID	Character	The manufacturer ID number.
material	Short	Type of material.
measuredlength	Real	Measured length of the object.
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
ownedby	Short	Name of Owner.
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
rimelev	Real	Elevation of the rim of the structure.
<b>OD TABLE: FDC (Fire Department Connection on Building)</b>		
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
DataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
description	Character	Description of the feature.
DesignDiscriminator	Character	CON_TYPE_D
diameter	Real	The diameter of the feature.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
HydrantType	Character	The type of hydrant.
lifecyclestatus	Short	DISPOSTN_D



AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
Outlet1Diameter	Real	The diameter of Outlet 1, facing the object from left to right.
Outlet2Diameter	Real	The diameter of Outlet 2, facing the object from left to right.
Outlet3Diameter	Real	The diameter of Outlet 3, facing the object from left to right.
ownedby	Short	Name of Owner.
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
ValveType	Character	The type of valve.
OD TABLE: GASL (Gas Line)		
assetgroup	Integer	USE_D
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
assettype	Short	TYPE_D
collectionMethod	Character	The method used to collect the data.
CoverDepth	Real	Depth of cover underneath the ground level of the feature.
cpsubnetworkname	Character	Type of gas.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
DataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
Description	Character	Description of the feature.
downelev	Real	Elevation at bottom of pipe at end of pipe.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
lifecyclestatus	Short	DISPOSTN_D
maopdesign	Character	Maximum Allowable Operating Pressure by Design.
material	Character	Type of material.
measuredlength	Real	Measured length of the object.
nominaldiameter	Real	The diameter of the feature.



AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
operatingpressure	Character	Nominal operating pressure.
ownedby	Short	Name of Owner.
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
upelev	Real	Elevation at bottom of pipe at start of pipe.
OD TABLE: GMETER (Gas Meter)		
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
assettype	Short	TYPE_D
barcode	Character	MODEL_NO
Capacity	Character	Maximum capcty of the feature.
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
DataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
description	Character	Description of the feature.
DeviceELV	Real	Elevation of the device.
diameter	Real	The diameter of the feature.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
InstallType	Character	Instalation Type.
lifecyclestatus	Short	DISPOSTN_D
maopdesign	Character	Maximum Allowable Operating Pressure by Design.
MeterCustomer	Character	Name of individual, company, or customer metered.
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
ownedby	Short	Name of Owner.
QAStatus	Character	QAStatus



AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
serialnumber	Character	Serial number of the feature
<b>OD TABLE: GMH (Gas Manhole)</b>		
assetgroup	Integer	USE_D
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
assettype	Short	TYPE_D
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
dataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
description	Character	Description of the feature.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
invertlev	Real	Elevation of the invert of the structure
lifecyclestatus	Short	DISPOSTN_D
NumberOfPipes	Integer	Number of pipes.
NumberOfValves	Integer	Number of valves.
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
ownedby	Short	Name of Owner.
QAStatus	Character	QAStatus
ReasonCode	Character	AS_REASON_CODE
rimelev	Real	Elevation of the rim of the structure.
Quality	Character	Reliability and accuracy of the feature.
<b>OD TABLE: GRED (Gas Reducer)</b>		
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
assettype	Short	TYPE_D



AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
barcode	Character	MODEL_NO
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
DataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
description	Character	Description of the feature.
diameter	Real	The diameter of the feature.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
lifecyclestatus	Short	DISPOSTN_D
maopdesign	Character	Maximum Allowable Operating Pressure by Design.
notes	Character	Any unique items of note on the subject feature.
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
ownedby	Short	Name of Owner.
PressureIn	Real	Pressure of the line coming into the reducer.
PressureOut	Real	Pressure of the line going out of the reducer.
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
serialnumber	Character	Serial number of the feature
<b>OD TABLE: GV (Gas Valve)</b>		
assetgroup	Integer	USE_D
asset type	Short	TYPE_D
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.

AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
DataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
depth	Real	Depth of the feature.
description	Character	Description of the feature.
DeviceELV	Real	Elevation of the device.
diameter	Real	The diameter of the feature.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
lifecyclestatus	Short	DISPOSTN_D
Name	Character	Name of the feature.
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
ownedby	Short	Name of Owner.
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
systemsubnetworkname	Character	BRANCH_SYS
<b>OD TABLE: HYD (Hydrant)</b>		
ActualFireFlow	Integer	ACTFIRE_FLOW
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
dataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
description	Character	Description of the feature.
diameter	Real	The diameter of the feature.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
FireFlow	Real	The diameter of the feature.



AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
FlowDirection	Character	General direction of the flow (i.e. N, NE, E, SE, S, SW, W, NW)
FlowTest	Character	FLOW_TEST
HydrantAge	Integer	Age of the hydrant.
installdate	Character	Date of installation, formatted YYYYMMDD.
isconnected	Short	CONNECTIVITY
lifecyclestatus	Short	DISPOSTN_D
ManufactureID	Character	The manufacturer ID number.
maopdesign	Real	Maximum Allowable Operating Pressure by Design.
notes	Character	Any unique items of note on the subject feature.
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
ownedby	Short	Name of Owner.
PositionStatus	Character	Description of open or closed.
pressure	Real	PRESS_ACTUAL
PressureResidual	Real	PRESS_RESD
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
systemsubnetworkname	Character	BRANCH_SYS
<b>OD TABLE: OIL_WATER_SEP (Oil &amp; Water Separator)</b>		
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
assettype	Short	TYPE_D
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
DataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
description	Character	Description of the feature.
Disposal	Character	DISPOSAL
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.

AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
filelink	Character	File folder link to the project/task data folder for the feature information.
FlowDirection	Character	General direction of the flow (i.e. N, NE, E, SE, S, SW, W, NW)
lifecyclestatus	Short	DISPOSTN_D
NextStructure	Character	NextStructure
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
ownedby	Short	Name of Owner.
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
SeperatorCode	Character	SEP_CODE
SeperatorContent	Character	SEP_CONTNT
<b>OD TABLE: PROJECT_METADATA (Attributes for any other features not in other tables)</b>		
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
dataSource	Character	Project and/or task the feature is associated with.
dataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
quality	Character	Reliability and accuracy of the feature.
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
<b>OD TABLE: SCO (Sewer Line Cleanout)</b>		
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.



AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
dataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
description	Character	Description of the feature.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
ownedby	Short	Name of Owner.
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
rimelev	Real	Elevation of the rim of the structure.
<b>OD TABLE: SEWERL (Sewer Line)</b>		
assetgroup	Integer	USE_D
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
dataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
description	Character	Description of the feature.
diameter	Real	The diameter of the feature.
downelev	Real	Elevation at bottom of pipe at end of pipe.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
FlowDirection	Character	General direction of the flow (i.e. N, NE, E, SE, S, SW, W, NW)
installdate	Character	Date of installation, formatted YYYYMMDD.
lifecyclestatus	Short	DISPOSTN_D
material	Character	Type of material.
measuredlength	Real	Measured length of the object.

AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
NextStructure	Character	NextStructure
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
ownedby	Short	Name of Owner.
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
slope	Real	Slope of the pipe.
systemsubnetworkname	Character	BRANCH_SYS
upelev	Real	Elevation at bottom of pipe at start of pipe.
<b>OD TABLE: SMH (Sewer Manhole)</b>		
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
dataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
description	Character	Description of the feature.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
FlowDirection	Character	General direction of the flow (i.e. N, NE, E, SE, S, SW, W, NW)
installdate	Character	Date of installation, formatted YYYYMMDD.
invertelev	Real	Elevation of the invert of the structure
material	Short	Type of material.
NextStructure	Character	NextStructure
NumberOfPipes	Integer	Number of Pipes.
NumberRating	Real	NO_RATING
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
ownedby	Short	Name of Owner.
QAStatus	Character	QAStatus



AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
rimelev	Real	Elevation of the rim of the structure.
StructureIntegrity	Character	Integrity of the structure.
systemsubnetworkname	Character	BRANCH_SYS
<b>OD TABLE: STMWL (Stormwater line)</b>		
assetgroup	Integer	USE_D
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
assettype	Short	TYPE_D
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
dataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
description	Character	Description of the feature.
diameter	Real	The diameter of the feature.
downelev	Real	Elevation at bottom of pipe at end of pipe.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
FlowDirection	Character	General direction of the flow (i.e. N, NE, E, SE, S, SW, W, NW)
installdate	Character	Date of installation, formatted YYYYMMDD.
material	Character	Type of material.
measuredlength	Real	Measured length of the object.
NextStructure	Character	NextStructure
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
OutfallName	Character	Name of Outfall.
ownedby	Short	Name of Owner.
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.



AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
ReasonCode	Character	AS_REASON_CODE
slope	Real	Slope of the pipe.
upelev	Real	Elevation at bottom of pipe at start of pipe.
<b>OD TABLE: WATERL (Water line)</b>		
assetgroup	Integer	USE_D
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
assettype	Short	TYPE_D
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
DataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
Description	Character	Description of the feature.
diameter	Real	The diameter of the feature.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
FlowDirection	Character	General direction of the flow (i.e. N, NE, E, SE, S, SW, W, NW)
installdate	Character	Date of installation, formatted YYYYMMDD.
lifecyclestatus	Short	DISPOSTN_D
maopdesign	Real	Maximum Allowable Operating Pressure by Design.
measuredlength	Character	Measured length of the object.
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
operatingpressure	Character	Normal operating pressure.
ownedby	Short	Name of Owner.
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
systemsubnetworkname	Character	BRANCH_SYS
<b>OD TABLE: WFIT (Water Fitting)</b>		



AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
assetgroup	Integer	USE_D
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
assettype	Short	TYPE_D
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
dataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
description	Character	Description of the feature.
diameter	Real	The diameter of the feature.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
FlowDirection	Character	General direction of the flow (i.e. N, NE, E, SE, S, SW, W, NW)
installdate	Character	Date of installation, formatted YYYYMMDD.
lastmaint	Character	Date of last maintenane, formatted YYYYMMDD.
lifecyclestatus	Short	DISPOSTN_D
ManufactureID	Character	The manufacturer ID number.
NumberOfTurns	Integer	Number of turns in feature.
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
ownedby	Character	Name of Owner.
PositionStatus	Character	Description of open or closed.
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
systemsubnetworkname	Character	BRANCH_SYS
<b>OD TABLE: WMETER (Water Meter)</b>		
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
assettype	Short	TYPE_D

AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
dataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
lifecyclestatus	Short	DISPOSTN_D
locationdescription	Character	Description of general location.
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
ownedby	Short	Name of Owner.
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
systemsubnetworkname	Character	BRANCH_SYS
<b>OD TABLE: WMH (Water Manhole)</b>		
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
dataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
description	Character	Description of the feature.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
FlowDirection	Character	General direction of the flow (i.e. N, NE, E, SE, S, SW, W, NW)
lifecyclestatus	Short	DISPOSTN_D
ManufactureID	Character	The manufacturer ID number.



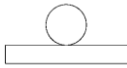



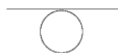










AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
material	Short	Type of material.
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
ownedby	Short	Name of Owner.
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
systemsubnetworkname	Character	BRANCH_SYS
<b>OD TABLE: WRED (Water Reducer)</b>		
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.
DataSource	Character	Project and/or task the feature is associated with.
dataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
description	Character	Description of the feature.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
ownedby	Character	Name of Owner.
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
<b>OD TABLE: WV (Water Valve)</b>		
assetgroup	Integer	USE_D
asset type	Short	TYPE_D
AssetId	Character	A unique identifier associated with this feature for linking to an asset management system.
collectionMethod	Character	The method used to collect the data.
dataEndDate	Character	The last date on which the data represented by this feature reflects a current, real world condition.

AutoCAD Object Data		
ATTRIBUTE	TYPE	DEFINITION
DataSource	Character	Project and/or task the feature is associated with.
dataStartDate	Character	The first date on which the data represented by this feature reflects a current, real world condition.
diameter	Real	The diameter of the feature.
FacilityId	Character	The 4-letter code identifying the facility. See the "MassPortFacilities" domain field.
filelink	Character	File folder link to the project/task data folder for the feature information.
FlowDirection	Character	General direction of the flow (i.e. N, NE, E, SE, S, SW, W, NW)
installdate	Character	Date of installation, formatted YYYYMMDD.
lastmaint	Character	Date of last maintenane, formatted YYYYMMDD.
lifecyclestatus	Short	DISPOSTN_D
locationdescription	Character	Description of general location.
ManufactureID	Character	The manufacturer ID number.
NumberOfTurns	Real	Number of turns in feature.
OldCADLayer	Character	Name of the CAD Layer in old MPA Standards
ownedby	Short	Name of Owner.
PositionStatus	Character	Description of open or closed.
QAStatus	Character	QAStatus
Quality	Character	Reliability and accuracy of the feature.
ReasonCode	Character	AS_REASON_CODE
systemsubnetworkname	Character	BRANCH_SYS



















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## APPENDIX D: BLOCKS




Symbol	Block Name	Description
	AIR-SIGN	MISCELLANEOUS AIRSIDE SIGN
	ALSELT	APPROACH LIGHTING SYSTEM ELEVATED LIGHT
	ALSFLT	APPROACH LIGHTING SYSTEM SEMI-FLUSH LIGHT
	ANTEN	ANTENNAE
	BB2	RUNWAY MARKER
	BEACON	BEACON
	BH	BORE HOLE
	BMK	PRIMARY VERTICAL CONTROL/BENCHMARK STATION
	BMK2	SECONDARY VERTICAL CONTROL/BENCHMARK STATION
	BMK3	TERTIARY VERTICAL CONTROL/BENCHMARK STATION
	BOLLARD	BOLLARD
	BRUSH	BRUSH
	CAMERA	VIDEO CAMERA
	CAP	CAP
	CBCI	CATCH BASIN - CURB INLET

















Symbol	Block Name	Description
	CBG	CATCH BASIN - GENERAL
	CHH	COMMUNICATIONS HANDHOLE
	CMH	COMMUNICATIONS MANHOLE
	CNODE	COMMUNICATIONS NODE/SPLICE POINT
	CNTBOX	ELECTRIC CONTROL BOX
	CO	CLEANOUT
	COMAN	COMMUNICATIONS ANTENNAE
	COMVLT	UNDERGROUND VAULT
	CPB	COMMUNICATIONS PULL BOX
	CULVRT	CULVERT
	CURBSTOP DRAIN	CURB STOP DRAIN
	DCG	DRAIN/SEWER DISCHARGE LOCATION
	DMH	STORM DRAIN MANHOLE
	DRIP	GAS DRIP
	DS	DOWN SPOUT
	DTREE	DECIDUOUS TREE














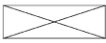





Symbol	Block Name	Description
	ECAP	ELECTRIC CAP
	EHH	ELECTRIC HANDHOLE
	EMETER	ELECTRIC METER
	EMH	ELECTRIC MANHOLE
	ETREE	EVERGREEN TREE
	EVLV	UNDERGROUND VAULT
	FDC	FIRE DEPARTMENT CONNECTION
	FDRAIN	FUEL DRAIN STRUCTURE
	FFV	FUEL OIL TANKFILL VALVE
	FHYD	FUEL HYDRANT
	FIREBX	FIRE BOX
	FLAG	FLAGPOLE
	FLOW	STORM/SEWER DRAIN FLOW ARROWS
	FMETER	FUEL METER
	FMH	FUEL OIL MANHOLE
	FNT	FOUNTAIN

















Symbol	Block Name	Description
	FTEST	FUEL TEST STATION
	FVAL	FUEL VALVE
	GEN	GENERATOR
	GG	GAS GATE
	GLYCOL	GLYCOL FILL STATION
	GMETER	GAS METER
	GMH	GAS MANHOLE
	GREDD	GAS REDUCER
	GREG	GAS REGULATOR
	GTANK	GAS PROPANE TANK
	GUIDE-SIGN	AIRSIDE GUIDANCE SIGN & BASE
	GUYP	GUY POLE
	GUYW	GUY WIRE
	GV	GAS VALVE/GATE
	HMLP	HIGH MAST LIGHT POLE
	HORZ	PRIMARY HORIZONTAL CONTROL MARK STATION










Symbol	Block Name	Description
	HOR2	SECONDARY HORIZONTAL CONTROL MARK STATION
	HOR3	TERTIARY HORIZONTAL CONTROL MARK STATION
	HV	PRIMARY HORIZONTAL & VERTICAL CONTROL STATION
	HV2	SECONDARY HORIZONTAL & VERTICAL CONTROL STATION
	HV3	TERTIARY HORIZONTAL & VERTICAL CONTROL STATION
	HYD	HYDRANT (ABOVE STREET SURFACE)
	JNCTBOX	ELECTRIC JUNCTION BOX
	LEAK	LEAK DETECTOR
	LGT	MISCELLANEOUS LIGHT
	LHYD	LOWRY HYDRANT (BELOW STREET SURFACE)
	LP	LAMP POST
	MAI	MAILBOX
	MC	MISC. UTILITY METAL COVER
	MCLB	METAL COVER LIGHT BASE
	METER	MISCELLANEOUS METER
	MG	GATE, METER

Symbol	Block Name	Description
	MH	MANHOLE
	MOOR	MOORING
	OIL-WATER SEP	OIL & WATER SEPARATOR
	OR	OBSERVATION RISER
	PARK	PARKING METER
	PAVSEN	PAVEMENT SENSORS
	PB	ELECTRIC PULL BOX
	PBOX	PULL BOX
	PC	PULL CAN WITH METAL COVER
	PHCON	PHOTO CONTROL - AERIAL TARGET
	PHONE	PHONE BOOTH/BOX
	PIV VALVE	POST INDICATOR VALVE
	POST	POST
	PTRANS	POLE MOUNT TRANSFORMER
	RED	REDUCER
	RRSIG	RAILROAD SIGNAL (SQUARE)

Symbol	Block Name	Description
	RWCLT	RUNWAY CENTERLINE LIGHTS
	RWELT	RUNWAY EDGE ELEVATED LIGHTS
	RWFLT	RUNWAY EDGE SEMI-FLUSH LIGHTS
	RWGELT	RUNWAY GUARD ELEVATED LIGHTS
	RWGFLT	RUNWAY GUARD SEMI-FLUSH LIGHTS
	RWSFLT	RUNWAY STATUS SEMI-FLUSH LIGHTS
	RWTELT	RUNWAY THRESHOLD ELEVATED LIGHTS
	RWTFLT	RUNWAY THRESHOLD SEMI-FLUSH LIGHTS
	RWTZFLT	RUNWAY TOUCHDOWN ZONE SEMI-FLUSH LIGHTS
	SB	STONE BOUND
	SB-D	STONE BOUND W/ DISK
	SB-DH	STONE BOUND W/ DRILL HOLE
	SB-EPLP	STONE BOUND W/ ESCUTCHEON PIN IN LEAD PLUG
	SCO	SEWER LINE CLEANOUT
	SDCO	STORM DRAIN CLEANOUT
	SEP	WASTEWATER & OIL SEPARATOR

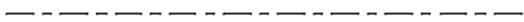









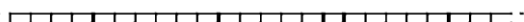




Symbol	Block Name	Description
	SMH	SEWER MANHOLE
	SPKH	WATER SPRINKLER HEAD
	SPOT	SPOT ELEVATION
	STANDP	STANDPIPE
	STMH	STEAM MANHOLE
	STR-SIGN	SIGN, SMALL SINGLE POST
	STUMP	TREE STUMP
	SV	STEAM VALVE
	SWI	RAILROAD SWITCH
	SWITCH	SWITCH
	TCB	TRAFFIC CONTROL BOX
	TCHH	TRAFFIC CONTROL SYSTEM HANDHOLE
	THH	TELEPHONE HANDHOLE
	TICK27	GRID TICK NAD' 27 COORDINATE SYSTEM
	TICK83	GRID TICK NAD' 83 COORDINATE SYSTEM
	TICKLL	GRID TICK GEOGRAPHICAL LATITUDE/LONGITUDE

Symbol	Block Name	Description
	TMH	TELEPHONE MANHOLE
	TP	TEST PIT
	TRANS	TRANSFORMER
	TSIG	TRAFFIC SIGNAL
	TWCLT	TAXIWAY CENTERLINE LIGHTS
	TWELT	TAXIWAY EDGE ELEVATED LIGHTS
	TWFLT	TAXIWAY EDGE SEMI-FLUSH LIGHTS
	UDC	UNDERDRAIN CONNECTION
	UNODE	MISCELLANEOUS NODE
	UP	UTILITY POLE
	UPL	UTILITY POLE WITH LIGHT
	UTIROOF	MISCELLANEOUS UTILITY ON ROOF
	VAL	MISCELLANEOUS VALVE
	VAULT	GENERIC VAULT
	VENT	FUEL OIL VENT STRUCTURE
	VLT	MISCELLANEOUS UTILITY UNDERGROUND VAULT

Symbol	Block Name	Description
	WET	SWAMP, MARSH, WETLANDS
	WFIT	WATER FITTING
	WIND	WIND SOCK
	WMETER	WATER METER
	WMH	WATER MANHOLE
	WMWELL	WATER MONITORING WELL
	WRED	WATER REDUCER
	WV	WATER VALVE
	XBATH	BATHYMETRIC SPOT ELEVATIONS



## APPENDIX E: LINETYPES

Name	Description	Example
CONDUIT	RACEWAY/CONDUIT EXPOSED (ELEC/COMM)	
FIBEROPTIC	FIBER OPTIC COMM LINE - SUBSURFACE	
FIREPROTECTION	FIRE SIGNAL LINE - SUBSURFACE	
FORCEMAIN	SAN SEWER FORCE MAIN	
GAS	GAS LINE	
MPA-BARRIER-GUARDRAIL-CB-TRI	GUARDRAIL, STEEL CABLE WITH TRIANGULAR POSTS	
MPA-BARRIER-GUARDRAIL-ST-ST	GUARDRAIL, STEEL BEAM WITH STEEL POSTS	
MPA-BARRIER-GUARDRAIL-WD	GUARDRAIL, WOOD	
MPA-BARRIER-JERSEY	JERSEY BARRIER	
MPA-BARRIER-NOISE	NOISE BARRIER WALL	
MPA-BARRIER-RIPRAP	RIP RAP	
MPA-BARRIER-SEAWALL	SEA WALL	
MPA-BARRIER-STONE-HEADWALL	HEADWALL, STONE	
MPA-BARRIER-STONE-WALL-TOP	TOP STONE WALL	
MPA-BARRIER-WALL-TOP	TOP WALL - GENERAL	



Name	Description	Example
MPA-BRUSHL	BRUSH LINE/HEDGES/SHRUBS	
MPA-DTREEL	DECIDUOUS TREE LINE	
MPA-ETREEL	EVERGREEN TREE LINE	
MPA-FENCE-BARBED-WIRE	FENCE, BARBED WIRE	
MPA-FENCE-CHAIN-LINK	FENCE, CHAINLINK	
MPA-FENCE-IRON	FENCE, IRON	
MPA-FENCE-POST-AND-RAIL	FENCE, POST AND RAIL	
MPA-FENCE-STOCKADE	FENCE, STOCKADE	
MPA-FENCE-WOOD	FENCE, WOOD	
MPA-POST-AND-WIRE	FENCE, POST AND WIRE	
MPA-ROAD-RAMP-EDGE	ELEVATED ON/OFF RAMP EDGE	
OCOMM	COMMUNICATIONS LINE - OVERHEAD WIRE	
OELEC	ELECTRIC OVERHEAD WIRE	
OTELE	TELEPHONE LINE - OVERHEAD WIRE	
SAN	SAN SEWER LINE - SUBSURFACE	
STM	STORM DRAIN LINE - SUBSURFACE	



Name	Description	Example
UCOMM	COMMUNICATIONS LINE - SUBSURFACE	———— — — — — UC —————
UELEC	ELECTRIC LINE - SUBSURFACE	———— — — — — UE —————
UTELE	TELEPHONE LINE - SUBSURFACE	———— — — — — UT —————



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Massachusetts Port Authority  
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