MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

MASSDOT PROJECT DEVELOPMENT & DESIGN GUIDE
CHAPTER 18, VOL I: GENERAL STYLE SAMPLE PLANS

JUNE 2026

1.1 TITLE SHEET.DWG Plotted on 10-Dec-2025 12:43 PM

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General Notes

1. This sample plan set is provided for illustrative purposes only and is not intended to represent standard design practices or requirements for all MassDOT Highway Division projects. The design elements and project details shown herein may not reflect current or typical MassDOT design standards in all cases.

2. The primary purpose of VOL I: GENERAL STYLE SAMPLE PLANS is to demonstrate standardized graphical presentation and to provide guidance on the formatting, organization, and drafting methods used in the preparation of MassDOT Highway Division plan sets for all design sections. Users shall refer to the latest applicable MassDOT design manuals, standards, and project-specific requirements for actual design guidance.

3. The style sample plans demonstrate the applicable graphical and CAD standards required for MassDOT Highway Division plan submissions. Graphical standards (shown as red keynotes) refer to the drafted style of the plan and how the project information is conveyed. CAD standards (shown as blue keynotes) refer to the means and methods of drawing preparation using the MassDOT CAD Standards.

4. The samples and guidance provided within the sample plan set are intended to facilitate project drawing development, quality, and consistency. The sample plan set shall also be used as a primary reference for the review of all MassDOT Highway Division plan submissions.

5. The information found within the graphical and CAD standards keynotes is intended to serve as a summary only. Users shall be directed to the most detailed information within the MassDOT PDDG or CAD Standards documentation.

KEYNOTES LEGEND

[#] GRAPHICAL STANDARDS KEYNOTE

(#) CAD STANDARDS KEYNOTE

LINEWORK & LINEWEIGHT STANDARDS

1.2 LINEWORK STANDARDS.DWG Plotted on 4-Nov-2021 4:11 PM

MassDOT Linetype .LIN Files

ACAD.lin

- BORDER
- BORDER2
- BORDERX2
- CENTER
- CENTER1
- CENTER2
- CONTINUOUS
- DASHDOT2
- DASHDOTX2
- DASHED
- DASHED2
- DASHEDX2
- DIVIDE
- DIVIDE2
- DOT
- DOT2
- DOTX2
- HIDDEN
- HIDDEN2
- HIDDEN2
- HIDDENX2
- PHANTOM
- PHANTOM2
- PHANTOMX2
- ZIGZAG

MassDOT_Linetypes.lin

- BROKEN LANE LINE
- CONDUIT
- CONST BASELINE
- DASH14
- EXIST PROP LINE
- EXIST PROP LINE SYMBOL
- EXIST RR SIDELINE
- EXIST STATE BNDY LINE
- FENCE - CHAIN LINK
- FENCE - WOOD RAIL
- GRDRAIL-STEEL-DF
- GRDRAIL-STEEL-LT
- GRDRAIL-STEEL-RT
- GRDRAIL-WOOD-DF
- GRDRAIL-WOOD-LT
- GRDRAIL-WOOD-RT
- HIDDEN4
- LINE OF EASE
- RETWALL-LEFT
- RETWALL-RIGHT
- SED-BARRIER
- SED-BARRIER-COIRLOG
- STONEWALL
- TREELINE-LEFT
- TREELINE-RIGHT

Standard Lineweights

LINEWEIGHT

- 0.00197"
- 0.00354"
- 0.00512"
- 0.00600"
- 0.00800"
- 0.01000"
- 0.01181"
- 0.01378"
- 0.01500"
- 0.01772"
- 0.01969"
- 0.02087"
- 0.02400"
- 0.02559"
- 0.02756"
- 0.03150"

20 0 20 40

SCALE: 1" = 20'

1.3 ANNOTATION STYLES.DWG Plotted on 2-Dec-2025 10:06 AM

ANNOTATION STYLES

Font Standards and Text Styles

NAME	DESCRIPTION	SIZE (IN.)	FONT
DOT-STREET	Street and Town Text	0.25	Arial Bold
DOT-Standard	Sheet and Grid-View Text	0.125	Arial
DOT-Standard-Bold	Drawing and View Title Text	0.14	Arial Bold
DOT–BR4	Bridge Text	0.125	RomanS
DOT–BR5	Bridge Text	0.1563	RomanS
DOT–BR6	Bridge Text	0.1875	RomanS
DOT-BR8	Bridge Text	0.25	RomanS
DOT-BR8B	Bridge Text	0.25	BOLD
DOT–E	Existing Text	0.1	RomanS
DOT–E–OBL	Existing Text OBLIQUE	0.1	RomanS
DOT–LO	Layout Text	0.1	RomanS
DOT-P	Proposed Text	0.125	Arial
DOT-P-OBL	Proposed Text OBLIQUE	0.125	Arial
DOT-PB	Proposed Text BOLD	0.125	Arial Bold

Plan Set Text Styles

Plan Set Type	Text Styles	Annotation Type
All Plans	MassDOT-Standard	Sheet and Table Text
	MassDOT-Standard-Bold	Sheet Title and Heading Text
Bridge Plans	DOT-BR	Bridge Text
Environmental Plans	DOT-E	Existing Environmental Features
	DOT-P	Proposed Environmental Features
Highway Construction Plans	DOT-P	Proposed Highway Design Features
		Proposed Landscape Design Features
		Proposed Traffic Features
		Proposed Utility Features
Layout Plans	DOT-LO	Layout Features
Right of Way Plans	DOT-E	Existing Right of Way Features
	DOT-P	Proposed Right of Way Features
Survey Base Plans	DOT-E	Existing Survey Baseplan Features
Utility Plans	DOT-E	Existing Utility Features
	DOT-E-OBL	Record Location Utility Features
	DOT-P	Proposed Utility Features

Dimension Styles

DIMENSION APPLICATION AND STYLE	LINEAR/ALIGNED	ANGULAR	RADIUS | DIAMETER
BRIDGE PROPOSED FEATURES, FEET (DOT-BR-FT)	40'–0"	73°44'23"	R5'–0" Ø10'–0"
BRIDGE PROPOSED FEATURES, INCHES (DOT-BR-IN)	40"	73°44'23"	R5" Ø10"
PROPOSED FEATURES (DOT-P)	40.00'	73°44'23"	R5.00' Ø10.00'
PROPOSED FEATURES, ARCH UNITS (DOT-P-ARCH)	3'-4"	73°44'23"	R5" Ø10"
PROPOSED FEATURES, INCHES (DOT-P-ARCH-IN)	40"	73°44'23"	R5" Ø10"
EXISTING FEATURES (DOT-E)	40.00'	73°44'23"	R5.00' Ø10.00'

Multileader Styles

LEADER TIP STYLE NAME	MULTILEADER STYLES	APPLICATION NOTES
ARROWHEAD	DOT–BR_arrow DOT–BR_arrow_ONE LINE FR DOT–E_arrow DOT–LO_arrow DOT-P_arrow	DEFAULT LEADER TIP STYLE USED FOR POINT FEATURES
INTEGRAL	DOT–BR_arrow_tilde DOT–E_arrow_tilde DOT-P_arrow_tilde	USED TO IDENTIFY AN AREA FEATURE
DOT	DOT–E_dot DOT-P_dot	USED TO IDENTIFY A SPECIFIC POINT ON A LINE
SPLINE	DOT–LO_spline_arrow	USED TO IDENTIFY LAYOUT FEATURES

NOTES:

1. All text and dimensions must be placed on the correct MassDOT layer to draw all dimension, extension, and leader lines using the correct lineweight, color, and linetype.
2. The arrow size varies for each dimension and multileader tip style based on text style used:
   2.1. DOT-BR, DOT-E: 0.1"
   2.2. DOT-P: 0.12"
3. All multileader styles shown in this plan depict the leader on the right side. The leader may also be placed on the left, in which case the multileader style should be mirrored accordingly.

Multiple Line Text Callout Styles

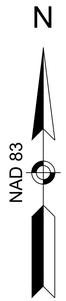
	MLINE TEXT ON THE LEFT	MLINE TEXT ON THE RIGHT
DOT-BR	MLINE TEXT ON THE LEFT	MLINE TEXT ON THE RIGHT
DOT-E	MLINE TEXT ON THE LEFT	MLINE TEXT ON THE RIGHT
DOT-LO	MLINE TEXT ON THE LEFT	MLINE TEXT ON THE RIGHT
DOT-P	MLINE TEXT ON THE LEFT	MLINE TEXT ON THE RIGHT

FIGURES ARE SHOWN AT 1" = 20' SCALE

20 0 20 40

SCALE: 1" = 20'

GENERAL SHEET SYMBOLS



CONTINUED ON SHEET NO. ##

SYMBOL NAME: Matchline Label
SYMBOL DESCRIPTION: Sheet matchline label blocks for calling out adjacent sheets not on the current baseline such as intersecting roadways.

BLOCK NAME: GE-MATCHLINE_LABEL-ADJ
LAYER: GE-TEXT
BLOCK TYPE: Sheet
DYNAMIC: Yes
SPACE: Paper
ANNOTATIVE: No
ROTATION REF: Varies
COMMENTS: Set sheet number value by editing the SheetNumber field. If layout is part of a sheet set, edit the field embedded in the attribute to use

SYMBOL NAME: Inset Plan Outline
SYMBOL DESCRIPTION: Standard inset plan limit outline.

BLOCK NAME: GE-INSET_PLAN
LAYER: GE-INSET
BLOCK TYPE: Sheet
DYNAMIC: Yes
SPACE: Model
ANNOTATIVE: No
ROTATION REF: Aligned
COMMENTS: Used to show an area of the Model view at a larger scale in more detail. Set an inset plan title and use the dynamic block grips to adjust the inset view limits.

INSET PLAN TITLE

SYMBOL NAME: Inset Plan Border
SYMBOL DESCRIPTION: Standard inset plan view border.

BLOCK NAME: GE-INSET_BORDER
LAYER: GE-SHEET
BLOCK TYPE: Sheet
DYNAMIC: Yes
SPACE: Paper
ANNOTATIVE: No
ROTATION REF: View
COMMENTS: Used to show an area of the Model view at a larger scale in more detail. Set an inset plan title and use the dynamic block grips to adjust the inset view limits.

INSET PLAN TITLE
SCALE: 1" = XX'

SYMBOL NAME: North Arrow
SYMBOL DESCRIPTION: Default MassDOT North Arrow block for use on all design plans excluding Bridge, ROW, and LO Plans.

BLOCK NAME: GE-NORTH
LAYER: GE-SHEET
BLOCK TYPE: Sheet
DYNAMIC: Yes
SPACE: Model
ANNOTATIVE: Yes
ROTATION REF: Model
COMMENTS: Choose North orientation reference from triangular cyan grip.

SYMBOL NAME: View Title
SYMBOL DESCRIPTION: Drawing view title.

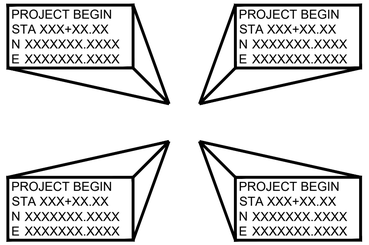
BLOCK NAME: GE-TITLE
LAYER: GE-TEXT
BLOCK TYPE: Sheet
DYNAMIC: Yes
SPACE: Either
ANNOTATIVE: Yes
ROTATION REF: View
COMMENTS: Choose view title configuration from downward-pointing triangular cyan grip, then adjust line to length with horizontal triangle grip.

TITLE
SUBTITLE
SCALE: X" = XX'

CONTINUED ON SHEET NO. 1

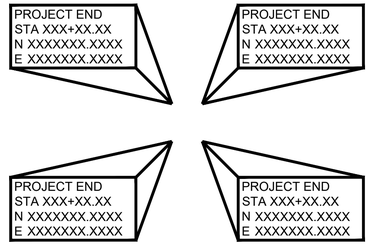
SYMBOL NAME: Matchline Label, Left
SYMBOL DESCRIPTION: Matchline label, left side of sheet.

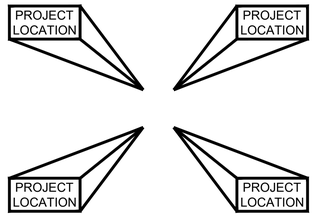
BLOCK NAME: GE-MATCHLINE_LABEL-LEFT
LAYER: GE-SHEET
BLOCK TYPE: Sheet
DYNAMIC: No
SPACE: Paper
ANNOTATIVE: No
ROTATION REF: Model
COMMENTS: Sheet number attribute preset from current sheet number - 1. Double-click to enter text manually after insertion.



SYMBOL NAME: Project Begin or End Locus Map Label
SYMBOL DESCRIPTION: Denote the project begin and end point stations and coordinates on Title sheet locus plans.

BLOCK NAME: GE-LOCUS-PROJ-BEG-END
LAYER: GE-TEXT
BLOCK TYPE: Sheet or Model
DYNAMIC: Yes
SPACE: Model
ANNOTATIVE: Yes
ROTATION REF: View
COMMENTS: Choose to display either a Project Begin or Project End label that is displayed in either the NE, SE, SW, or NW quadrant of the locus map. Changing the map quadrant places the location reference point indicator as appropriate for label placement on each quadrant of the locus map.





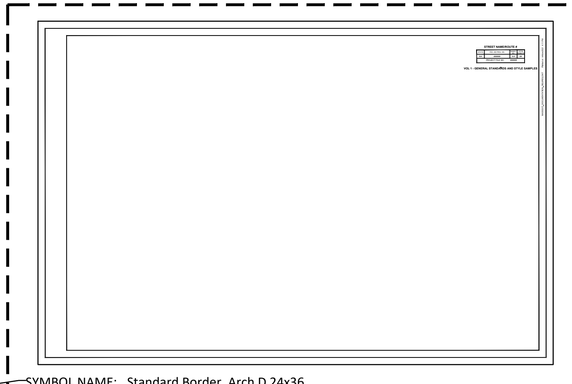
SYMBOL NAME: Project Location Locus Map Label
SYMBOL DESCRIPTION: Denote the project location on Title sheet locus plans.

BLOCK NAME: GE-LOCUS-PROJ-LOCA
LAYER: GE-TEXT
BLOCK TYPE: Sheet or Model
DYNAMIC: Yes
SPACE: Model
ANNOTATIVE: Yes
ROTATION REF: View
COMMENTS: Choose to display a Project Location label that is displayed in either the NE, SE, SW, or NW quadrant of the locus map. Changing the map quadrant places the location reference point indicator as appropriate for label placement on each quadrant of the locus map.

CONTINUED ON SHEET NO. 3

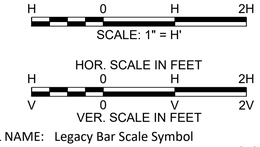
SYMBOL NAME: Matchline Label, Right
SYMBOL DESCRIPTION: Matchline label, right side of sheet.

BLOCK NAME: GE-MATCHLINE_LABEL-RIGHT
LAYER: GE-SHEET
BLOCK TYPE: Sheet
DYNAMIC: No
SPACE: Paper
ANNOTATIVE: No
ROTATION REF: Model
COMMENTS: Sheet number attribute preset from current sheet number + 1. Double-click to enter text manually after insertion.



SYMBOL NAME: Standard Border, Arch D 24x36
SYMBOL DESCRIPTION: Default MassDOT border block for use on all plans excluding LO Plans and reduced-size Environmental plots.

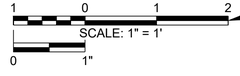
BLOCK NAME: GE-BORDER
LAYER: GE-TEXT
BLOCK TYPE: Sheet
DYNAMIC: Yes
SPACE: Paper
ANNOTATIVE: No
ROTATION REF: View
COMMENTS: Choose Federal-Aid block configuration from triangular cyan grip. Block attributes are pre-configured for use with MassDOT sheet set manager templates.



SYMBOL NAME: Legacy Bar Scale Symbol
SYMBOL DESCRIPTION: Legacy version MassDOT Bar Scale block to be used for only for project-specific scenarios.

BLOCK NAME: GE-BARSC
LAYER: GE-SHEET
BLOCK TYPE: Sheet
DYNAMIC: Yes
SPACE: Paper
ANNOTATIVE: Yes
ROTATION REF: View
COMMENTS: Choose scale format from triangular cyan grip. User scale values can be entered by selecting one of the User Scale options.

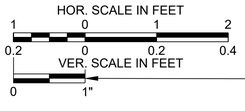
Scale Format: Plan Views



SYMBOL NAME: Bar Scale, View Scale
SYMBOL DESCRIPTION: Default MassDOT Bar Scale block for use on all plans.

BLOCK NAME: GE-BARSC-MODEL
LAYER: GE-SHEET
BLOCK TYPE: Sheet
DYNAMIC: Yes
SPACE: Model
ANNOTATIVE: Yes
ROTATION REF: View
COMMENTS: Choose scale format from triangular cyan grip. Scale components are read from the CANNOSCALEVALUE variable to correlate the bar scale to the viewport scale.

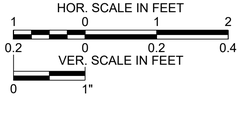
Scale Format: Profile Views



SYMBOL NAME: Bar Scale, Paper Inches
SYMBOL DESCRIPTION: Default MassDOT Bar Scale block for use on all plans.

BLOCK NAME: GE-BARSC-PAPER
LAYER: GE-SHEET
BLOCK TYPE: Sheet
DYNAMIC: Yes
SPACE: Paper
ANNOTATIVE: No
ROTATION REF: View
COMMENTS: Insert on the lower left corner of the bar scale in paper space only. Do not insert this block in Model space.

Scale Format: Section and Elevation Views



1.5 GENERAL STANDARDS.DWG Plotted on 4-Nov-2021 4:11 PM

Annotation Blocks

General ID Blocks

BLOCK NAME: GE-ID-CIRCLE
DESCRIPTION: CIRCLE GENERAL ID BLOCK
LAYER: VARIES
SIZE: 0.25 IN.
ORIENTATION: HORIZONTAL
Annotative block that can be used as an ID tag either in model or paper space. Enter ID characters and description of symbol as block attributes.

BLOCK NAME: GE-ID-DIAMOND
DESCRIPTION: DIAMOND GENERAL ID BLOCK
LAYER: VARIES
SIZE: 0.25 IN.
ORIENTATION: HORIZONTAL
Annotative block that can be used as an ID tag either in model or paper space. Enter ID characters and description of symbol as block attributes.

BLOCK NAME: GE-ID-HEX-LONG
DESCRIPTION: LONG HEXAGON GENERAL ID BLOCK
LAYER: VARIES
SIZE: 0.25 IN.
ORIENTATION: HORIZONTAL
Annotative block that can be used as an ID tag either in model or paper space for longer ID tags. Enter ID characters and description of symbol as block attributes.

BLOCK NAME: GE-ID-PENTAGON
DESCRIPTION: PENTAGON GENERAL ID BLOCK
LAYER: VARIES
SIZE: 0.25 IN.
ORIENTATION: HORIZONTAL
Annotative block that can be used as an ID tag either in model or paper space. Enter ID characters and description of symbol as block attributes.

BLOCK NAME: GE-ID-RECTANGLE
DESCRIPTION: RECTANGULAR GENERAL ID BLOCK
LAYER: VARIES
SIZE: 0.25 IN.
ORIENTATION: HORIZONTAL
Annotative block that can be used as an ID tag either in model or paper space for longer ID tags. Enter ID characters and description of symbol as block attributes.

BLOCK NAME: GE-ID-SQUARE
DESCRIPTION: SQUARE GENERAL ID BLOCK
LAYER: VARIES
SIZE: 0.25 IN.
ORIENTATION: HORIZONTAL
Annotative block that can be used as an ID tag either in model or paper space. Enter ID characters and description of symbol as block attributes.

BLOCK NAME: GE-ID-STAR
DESCRIPTION: STAR GENERAL ID BLOCK
LAYER: VARIES
SIZE: 0.25 IN.
ORIENTATION: HORIZONTAL
Annotative block that can be used as an ID tag either in model or paper space. Enter ID characters and description of symbol as block attributes.

BLOCK NAME: GE-ID-HEX
DESCRIPTION: HEXAGON GENERAL ID BLOCK
LAYER: VARIES
SIZE: 0.25 IN.
ORIENTATION: HORIZONTAL
Annotative block that can be used as an ID tag either in model or paper space. Enter ID characters and description of symbol as block attributes.

BLOCK NAME: GE-ID-HEX-ROT
DESCRIPTION: ROTATED HEXAGON GENERAL ID BLOCK
LAYER: VARIES
SIZE: 0.25 IN.
ORIENTATION: HORIZONTAL
Annotative block that can be used as an ID tag either in model or paper space. Enter ID characters and description of symbol as block attributes.

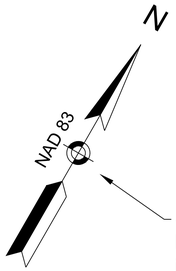
GENERAL ID BLOCK SYMBOLS

NOTE:
General ID symbols must be used in conjunction with a symbol legend indicating the description of the symbol the general ID symbol shape represents on all sheets they are shown on.

1.5 GENERAL STANDARDS.DWG Plotted on 4-Nov-2021 4:11 PM

0.5"

Node points are provided at each corner of the sheet to guide viewport creation.



Standard position for North Arrows shall be top left corner of inner border, inserted in paper space on layer GE-SHEET.

STREET NAME/ROUTE #

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	######	1.6	6
PROJECT FILE NO.	######		

SHEET BORDER & FEDERAL AID TITLE BLOCK

Refer to Federal Aid Title Block Setup sheet MSPT Help DOC for Highway Construction Plan Sets.

Node points are provided at each corner of the sheet to guide viewport creation.

Drawing file name and plot date shall be shown on each sheet.

1.6 SHEET BORDER & FEDERAL AID TITLE BLOCK.DWG Plotted on 2-Dec-2025 10:17 AM

22.0"

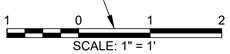
1.5" 33.0" 0.5"

MassDOT Standard Page Setups

Page Setup Name & Plot Style Table MassDOT_[ID]-[Sheet Size]-[Device]	Plan Set	Discipline
MassDOT-Design-36x24-PDF (MADOT-D.stb)	Bridge	Bridge
	Bridge Sketch Plans	Bridge
	Highway Construction Plans	Highway Design
		Landscape Design
		Traffic
MassDOT-Environmental-36x24-PDF (MADOT-E.stb)	Environmental Plans	Environmental
MassDOT-Environmental-11x17-PDF (MADOT-E.stb)	Notice of Intent Plans	Environmental
MassDOT-Layout-36x16-PDF (MADOT-LO.stb)	Layout Plans	Layout
MassDOT-ROW-36x24-PDF (MADOT-R.stb)	Right Of Way Plans	Right Of Way
MassDOT-Survey-36x24-PDF	Survey Baseplans	Survey
MassDOT-Utility-36x24-PDF	Highway Construction Plans (Drainage and Utility Plans Only)	Highway Design/Utility
	Utility Plans	Utility

Node points are provided at each corner of the sheet to guide viewport creation.

Standard position for drawing scale bar shall be bottom center of inner border, inserted on layer GE-SHEET.



Node points are provided at each corner of the sheet to guide viewport creation.

Drawing template information shall be shown in the paper space but will not be plotted.

MassDOT DWT Name: MassDOT_Template Name.dwt
MassDOT DWT Version: v20XX
MassDOT CAD Standards Version: X.X
Release Date: Month Year

0.5"