MONTANA
Department of Transportation

RIGHT-OF-WAY PLACING PROPOSED R/W LINEWORK PROCEDURE

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Overview

This process document outlines referencing all relevant data sources required to create linework for new R/W Acquisition on a project. This process also covers adding proposed access control. For an in-depth look at the methodology behind placing proposed R/W, please see the R/W Design Manual, Chapter 23.

Process Provenance

- Date of development: 11/12/2025
- Revision date: *N/A*
- Application/Tool(s): *AutoCAD / Civil 3D*
- Version(s): *Civil 3D 2024*
- Environment(s): *MDT Civil 3D State Kit r2024 v2.21*
- Contact: *Open a Case*

References

Autodesk Civil 3D Naming Standards, File Types & Referencing Relationships

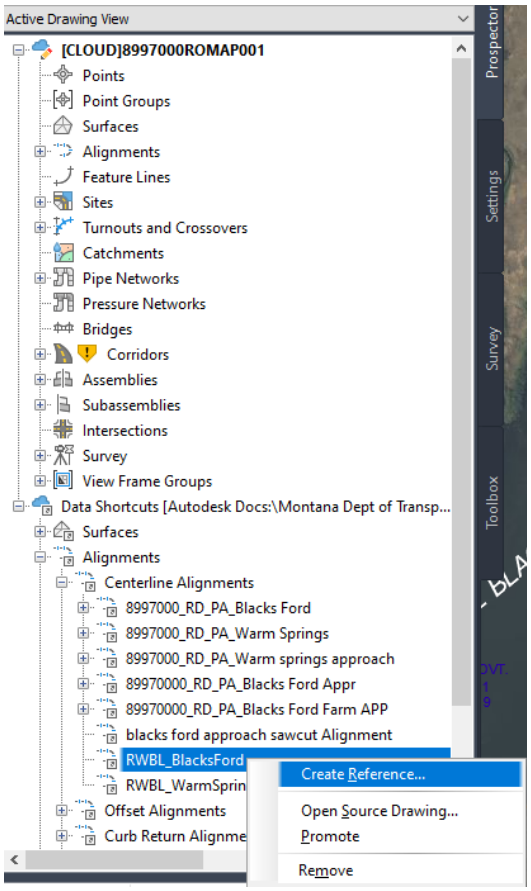
Right of Way Design Manual – Chapter 23

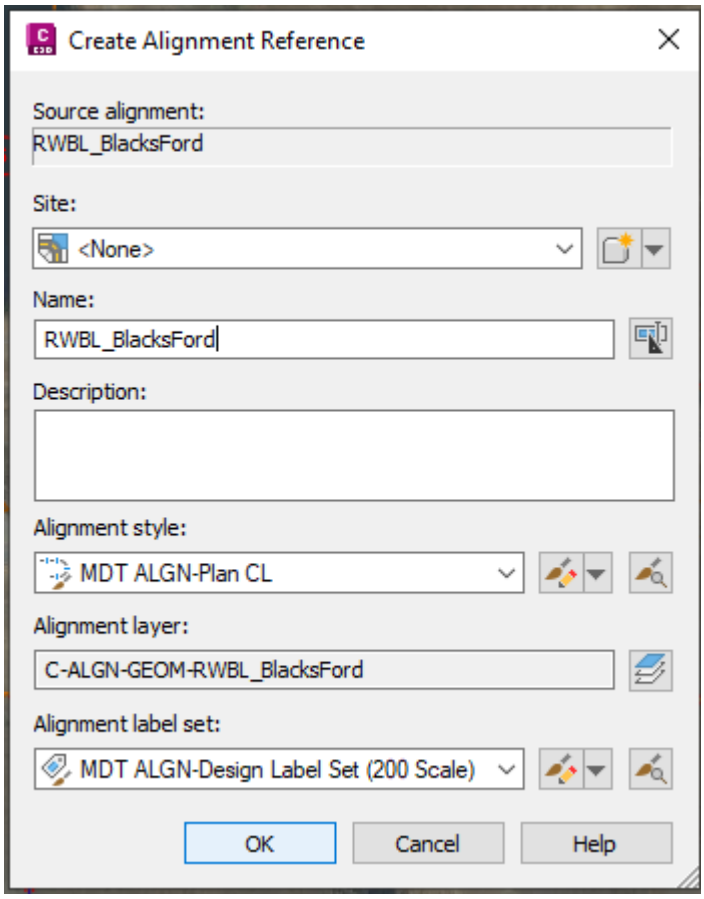
Placing Proposed R/W Linework

Section I. Referencing Design Alignments into ROMAP Drawing

Adding Baseline from Data Shortcuts

From the Prospector tab in the Toolspace palette, navigate to the Data Shortcuts -> Alignment -> Centerline Alignments navigate to the RWBL alignment(s) to be added to the ROMAP, right click each individually and select 'Create Reference'.





In the 'Create Alignment Reference' pop-up window, verify the Alignment style is 'MDT ALGN-Plan CL' and the Alignment label set is 'MDT ALGN-Design Label Set (200 Scale)' and select 'OK'.

Replicate this process for all R/W Design Alignments as needed.

Section II. Adding Label Data to Referenced Alignments

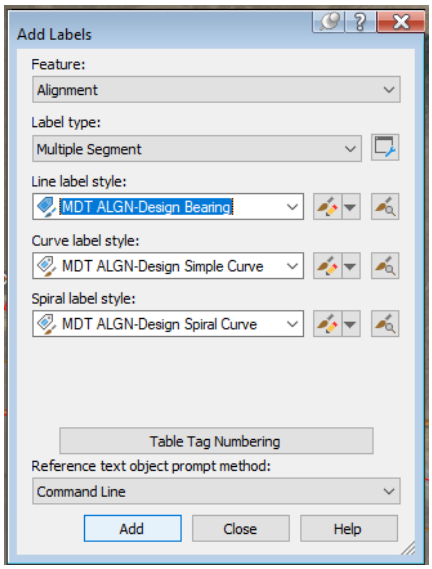
Placing Baseline Label Data

Placing Multiple Labels along an Entire Alignment

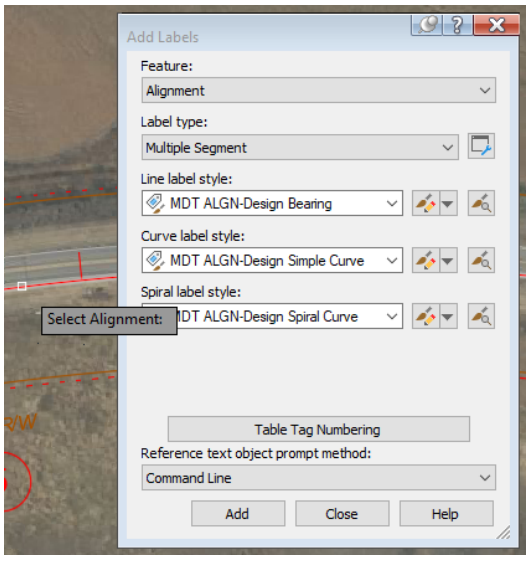
From the Annotate tab in the ribbon, select 'Add Labels'.

Ensure the proper settings are administered in the dialog box:

Add Labels Dialog Settings	
Feature	Alignment
Label Type	Multiple Segment
Line label style	MDT ALGN-Design Bearing
Curve label style	MDT ALGN-Design Simple Curve
Spiral label style	MDT ALGN-Design Spiral Curve



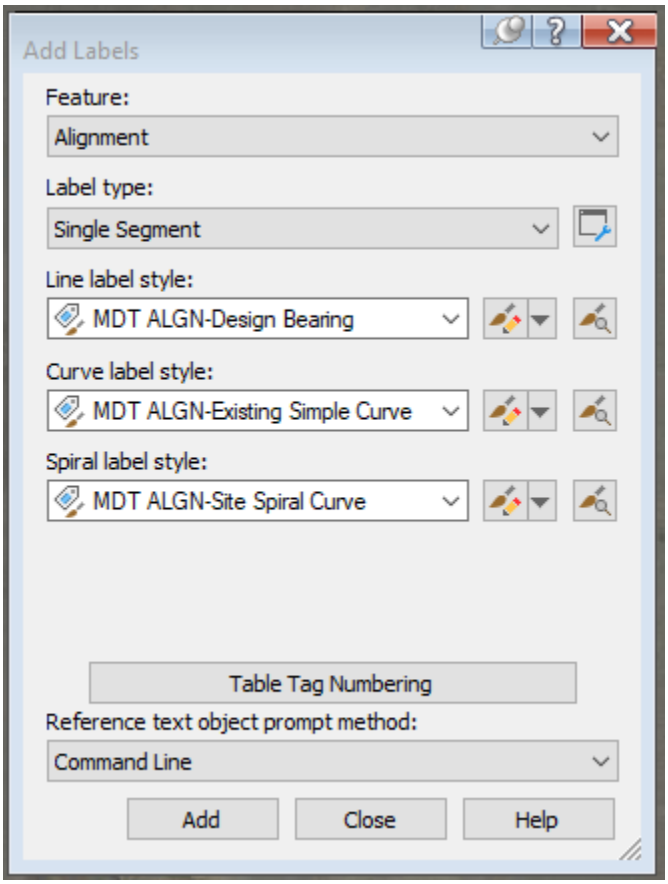
Select 'Add'. When prompted, select the alignment on screen to apply the labels to the alignment in model space.



These labels can be moved using by selecting the label and grabbing the blue square grip to move in any direction or the blue diamond grip to move along the alignment.

Placing a Single Label on an Entity of an Alignment

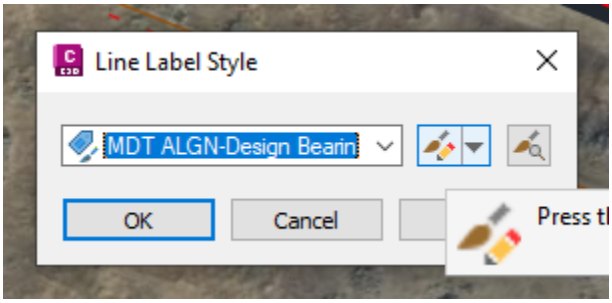
To add an additional label to a feature of the alignment, change the label type to 'Single Segment' and keep all the setting of multiple segment the same, select the entity you need two labels for and a single label will be placed at that location. *(In the event a page break splits a bearing/curve data into two, use the single segment label command to add the additional label to the drawing)*



Removing the Background Mask on an Alignment Label Entity

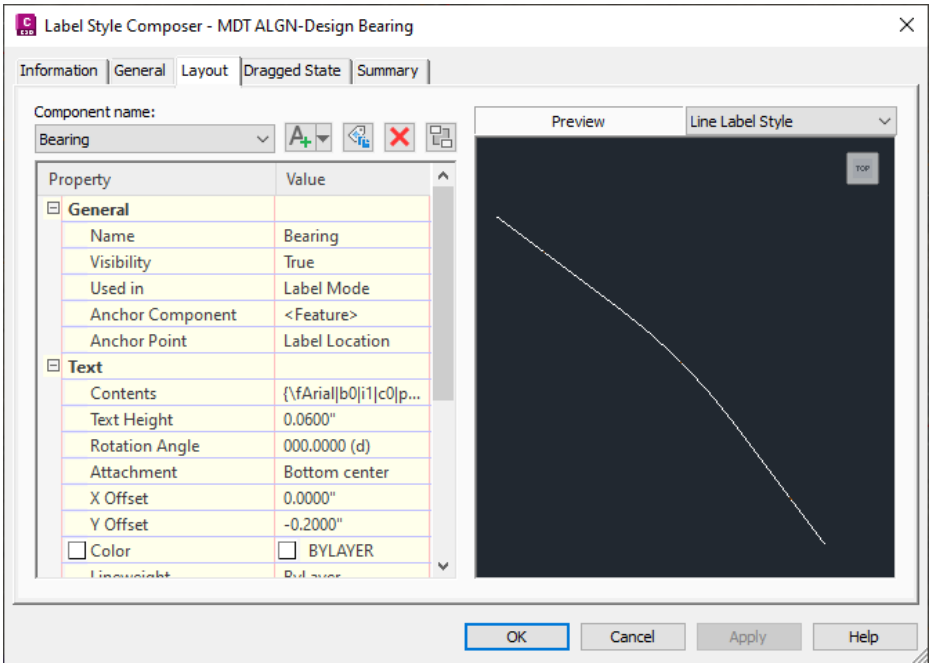
Select and right click on the entity to have the background mask removed. Select 'Edit Label Style' or use the command 'LABELSTYLEEDIT'.

Select the paintbrush/pencil icon to edit the label style.

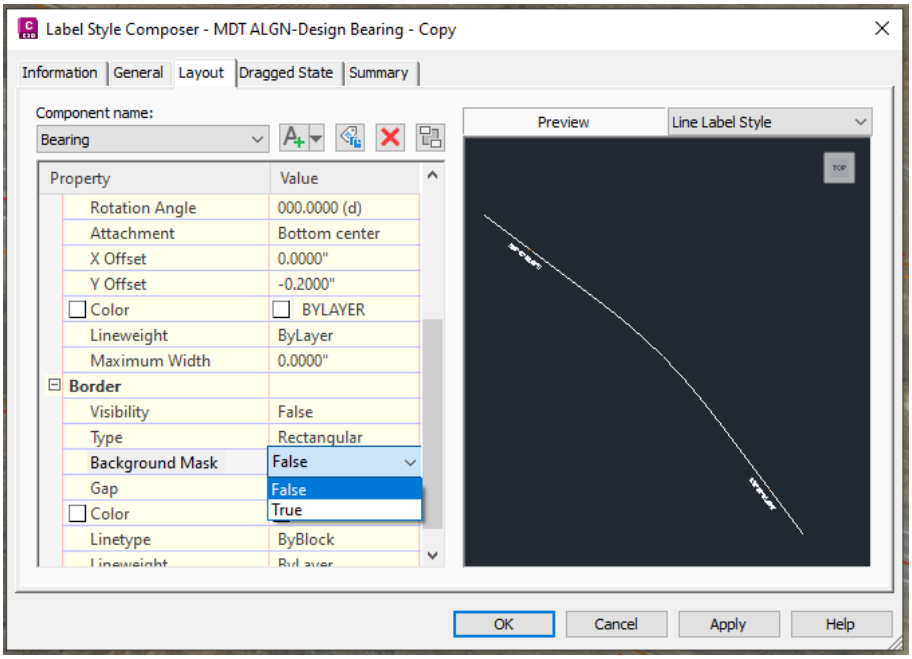


Removing the Background Mask on an Alignment Label Entity (Continued)

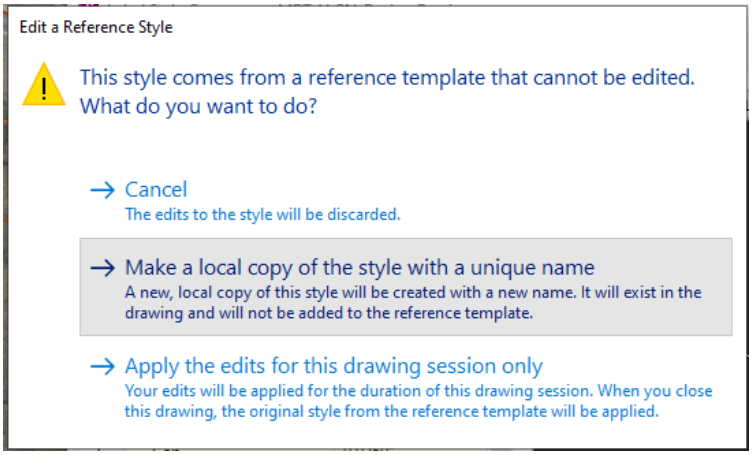
In the 'Label Style Composer' navigate to the Layout tab. Under the 'Component name:' drop down, change the selection to 'Bearing' from 'Table Tag'.



Inside the Property table, scroll down to the Border group, find 'Background Mask' and click the 'True' value to change it to 'False'.



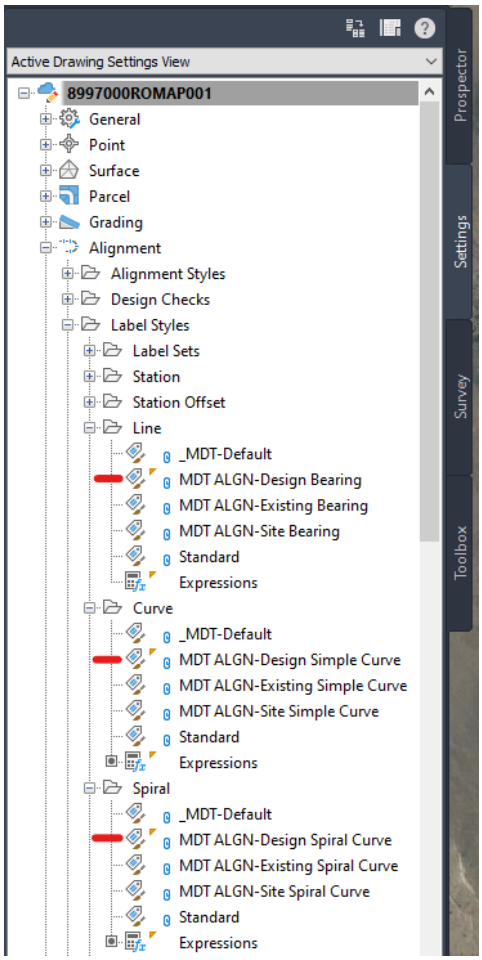
Removing the Background Mask on an Alignment Label Entity (Continued)
Select OK. When Prompted, select 'Make a local copy of the style with a unique name'.



You will now see that in the line label style, there is a MDT ALGN-Design Bearing – Copy.

If you wish to change the name of the Alignment label style, on the information tab of the 'Label Style Composer' under 'name', change the name to MDT ALGN-Design Bearing NBG, or some nomenclature that will let you have a masked and unmasked label style for your labels.

***You will have to change all three curve, spiral, and bearing styles to have no background masks for all label sets. To find all the label sets in once location go to the Settings tab on the Toolspace palette -> Alignment -> Label Styles -> 'Line', 'Curve', and 'Spiral' folders all contain the MDT ALGN-Design group label styles.*



Section III. Attaching Road Design Corridor Files

Preface

In return for R/W creating the ROXSF file, Road Design offers Construction Limits from the Corridor files in the RDDIS file. Corridor files are imported into the ROMAP file as an xref from the XXXXX00XRDDISCRR00X.dwg files saved on BIM 360. In order to prevent circular referencing in other work areas of preconstruction, R/W no longer data shortcuts corridor files into ROMAP drawings.

Attaching the RDDIS File

To import the RDDIS drawing, use the command 'XREF' or navigate to the 'Insert' ribbon, inside the 'Reference' group click 'Attach'. Navigate to the RD BIM 360 folder and attach the appropriate XXXXX00XRDDISCRR00X.dwg files.

Within the RDDIS dwg, both the construction limits and the pipe networks are included. Inside the pipe network are both existing and proposed pipes.

There is no need to change the corridor style, as the RDDISCRR is set up to the proper construction limit style. If the style does not appear to be correct, contact the Road Designer for the project, as the R/W Designer will not be able to change the source file.

Section IV. Placing Proposed R/W Linework

Adding Linework into Drawing

Use the 'Design-Linework' group under the 'RW-Design' group of the 'Right of Way' layer filter found inside the 'Layer Properties Manager' palette layer to place the appropriate linework for your project.

Use the OFFSET (O) and STATION OFFSET (L enter, 'SO enter) to create linework for acquisition areas. Verify that all offsets and breaks are relative to the RWBL alignment. Whenever possible, use even offsets, even stations, and geometry point (PC, PT, PCC, PRC, PI, TS, SC, CS, ST) stations to use a break points for R/W linework. Refer to R/W Design Manual (Chapter 23) for more detailed guidance into R/W linework placement.

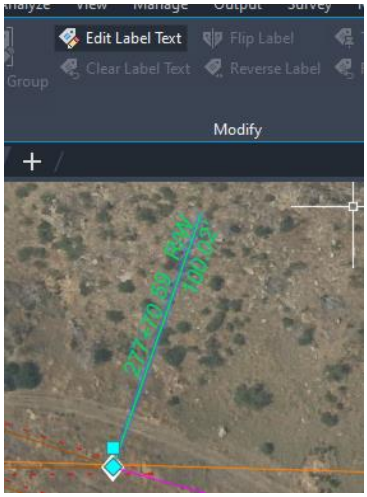
Adding Labels into Drawing

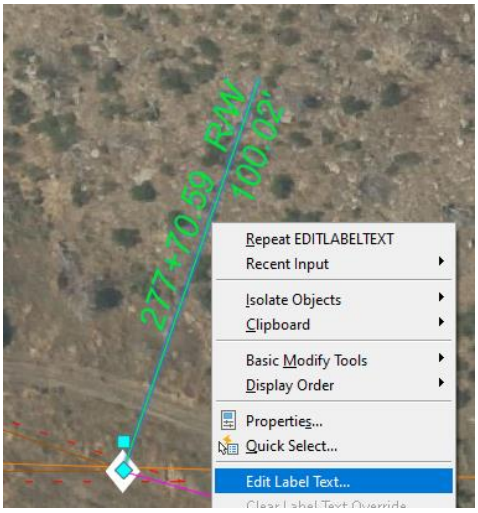
Adding Station/Offset Callouts

From the 'Add Labels' select the feature to 'Alignment', for the label tyle choose 'Station Offset - Fixed Point' turn the label marker style to ' <none>'. Finally, the 'Station offset label style:' to the appropriate label for the linework needing symbolized from the drop down list, the layer of the labels are automatically changed based on your selection and will not need to be adjusted (e.g. 'MDT ROW-RW' is set to the layer RR-RWAY-LABL and the label 'MDT ROW-Const PMT (Beg)' is set to RR-PMIT-LABL-T).

Editing Callout Labels Individually

Editing Labels is a rare occurrence. In the event that a label will need to be altered to fit a R/W circumstance, select the callout to be changed. The ribbon will change to the Modify Label tab. In the group 'Modify', select 'Edit Label Text'. Right clicking on the callout and selecting 'Edit Label Text', or using the command 'EDITLABELTEXT' all will allow you to select the component to be changed.

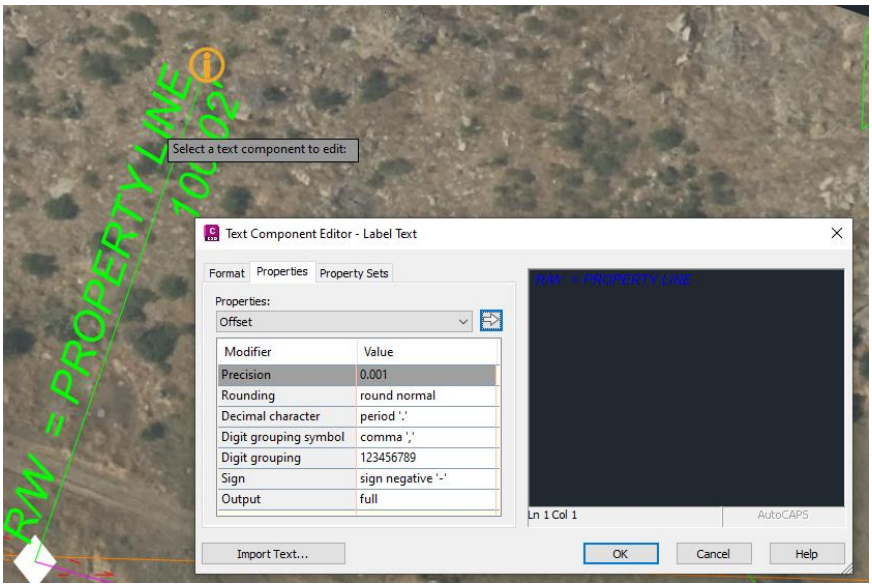




Editing Callout Labels Individually (Continued)

Once in the command, select the component you wish to change. In the Standard R/W callout there are three components, the Station, the 'R/W' Text, and the Offset.

For Example, if the R/W Equals a Property Boundary, the Station must not be shown, however the offset will remain. To edit the label to meet this condition, select the component Station. In the editor, select and delete all text in the righthand box. Then select the 'R/W' Text component and type 'R/W = PROPERTY LINE', then select Ok.

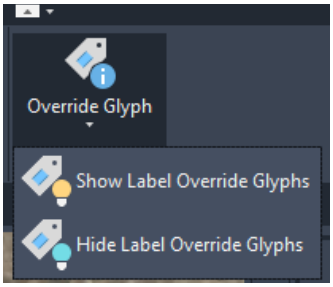


The Station should be removed and the Callout should now look like the image below:



Disabling Override Glyphs

To disable the override glyphs, select from the ribbon 'Annotate' tab, under 'Label Text' group select from the dropdown, 'Hide Label Override Glyphs'.

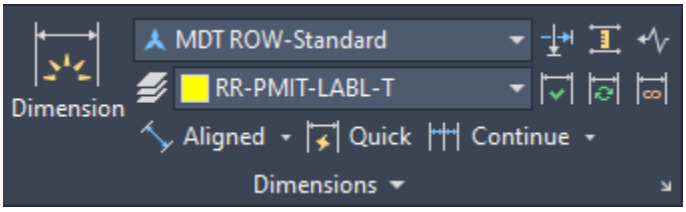


Adding Dimensioning Labels

For dimensioning labels, the active layer can be set to the appropriate layer for all R/W labels.

To set the active layer, go to the 'Annotate' tab on the ribbon, under the 'Dimensions' group change the dimension style from 'MDT STD-Arial .06' to 'MDT ROW - Standard', then change the layer to the appropriate layer for the feature being dimensioned (e.g. Setting the active layer in the dimensioning group from 'Use current' to 'RR-PMIT-LABL-T' will allow you to place all dimensions from centerline to the construction permit boundary on the correct layer).

It is also helpful to change the dimension type from 'Linear' to 'Aligned' when placing dimensions from centerline.



Section V. Adding Access Control Linework and Labels

Preface

R/W has created a custom palette to streamline Access Control Linework in the ROMAP. To access the palette, go to the 'MDT Tools' Tab on the Ribbon, in the 'MDT Palettes' group, select the 'MDT Right of Way' palette. There are two tabs in the palette, 'MDT RW Blocks' and 'Access Control'. On the Access Control Tab of the Palette there are 8 buttons to use, 4 for existing AC and 4 for proposed AC. Existing AC workflow notes may be found in *Right-of-Way Placing Existing R/W and PLSS Linework Procedure*.

The Access Control Palette works with annotation scale set at the time of placement, meaning if the scale of a project is 1" = 50', the annotation scale shall be set in model space to 1:50 for the placement of the access control linework. Once the linework is placed in model space, it will no longer become annotative.

Access Control ON Proposed Right of Way Linework

To place either FAC or LAC on R/W, use the correct button from the AC Palette, select the polyline, the command will then ask what side to place the new AC linework, select the side closest to the centerline, then hit 'Enter'.

Note: Be sure to enter out of the command fully, otherwise linework may be overridden to incorrect linetypes.

Access Control OFF Proposed Right of Way Linework

To place either FAC or LAC off the R/W Linework, use the appropriate button from the AC Palette. The command will enter a line command to draw linework. It may be easiest to have points or temporary lines drawn to place the access control lines in place using object snaps. Once the linework has been placed, hit 'Enter'.

Note: The individual lines drawn from the off R/W buttons are not automatically converted to polylines. It is best practice to use the Polyline Edit command [PEDIT] to convert and join the linework together. To Reverse the Text Placement above/below the line created, reverse the polyline direction using [PEDIT] then [R] for reverse direction.

Note: Be sure to enter out of the command fully, otherwise linework may be overridden to incorrect linetypes.