

CENTERLINE COORDINATE TABLES IN AUTODESK

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Overview

This document contains the workflows necessary for creating a centerline coordinate table in Civil 3D.

Process Provenance

- Date of development: 11/29/2023
- Revision date: *N/A*
- Application/Tool(s): *Autodesk Civil 3D*
- Version(s): *13.4.2429.0 Civil 3D 2022.2.5*
- Environment(s): *MDT Civil 3D State Kit r2022 v1.22*
- Author: [MDT Road Design Workflow Subcommittee](#)

Statement of Need

A workflow specific to the creation of centerline coordinate tables was not covered in the Civil 3D production training classes. For that reason, the Road Design Workflow Subcommittee identified the need for documentation covering the topic.

Disclaimer: Because the State Kit is continuously being updated and improved, the styles and layers in this documentation may vary from what is in the current version of the State Kit.

References

[Title and Notes Sheets in Autodesk](#)

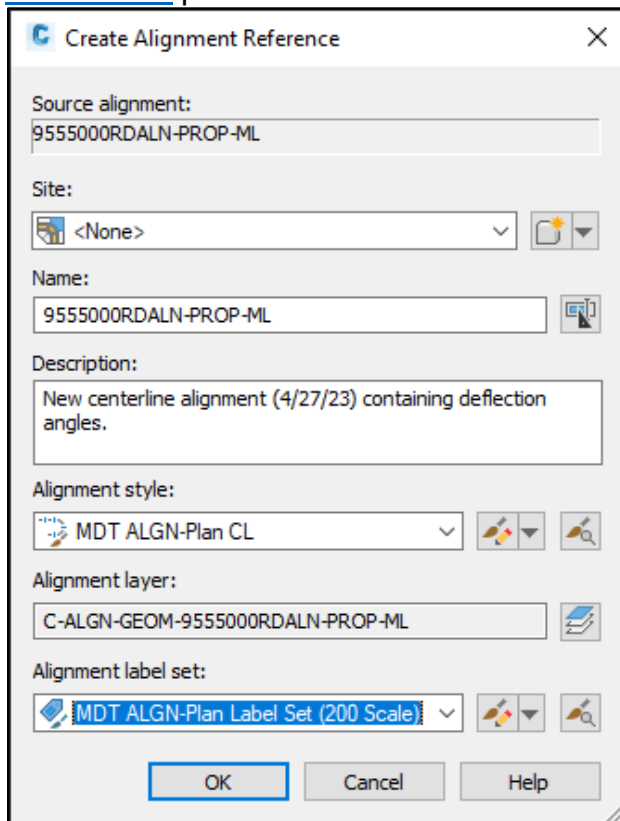
Process Description and Examples

Section I. Alignment Coordinate Table

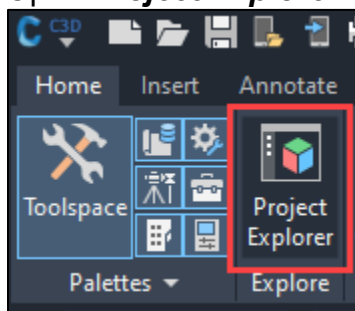
Procedure – Create Object Set

1. In the title sheet file, create a **data reference** to the design alignment while in the Model space. Do not create a reference to the profile.

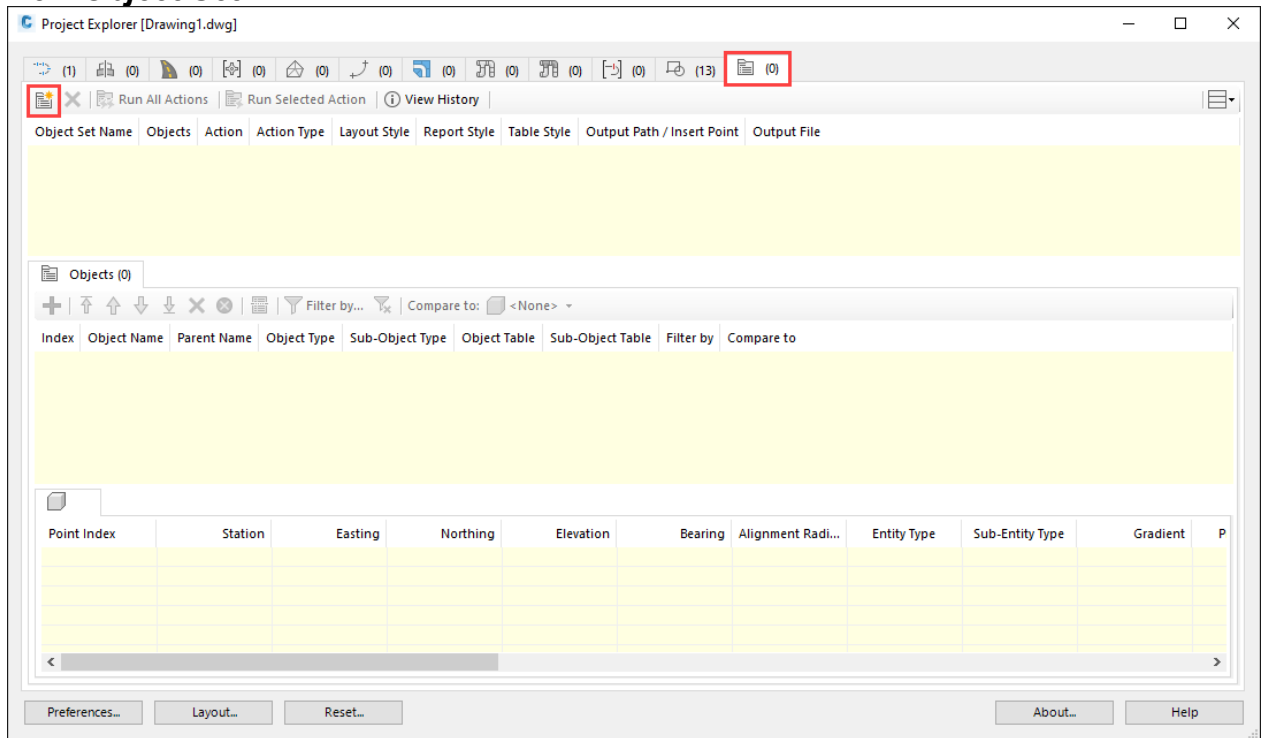
NOTE: If you have not created a title sheet file, follow the [Title and Notes Sheets in Autodesk](#) process.



2. Open **Project Explorer** from the **Home** tab in the **Explore** panel.



3. In the **Project Explorer** window, select the **Object Set(s)** tab, then select the **New Object Set** button.



4. In the **Create Object Set** popup window, name the **Object Set Name** "**CL COORD TABLE**." In the **Object Set Action**, select the dropdown and select **Export to AutoCAD Table(s) in MODEL Space**. Set the **Object Action Type** to **Dynamic**.

Project Explorer | Create Object Set

Object Set Name:
CL COORD TABLE 1

Object Set Description:

Object Set Action:
Export to AutoCAD Table(s) in MODEL Space 2

Object Set Action Type
 Manual Dynamic 3
Action is triggered when associated objects are modified or erased.

Layout Style:
 Use Layout of Project Explorer Window
 Use Specific Layout Style

Table Style:
 Use Default Table Style for Object Sets
 Use Specific Table Style

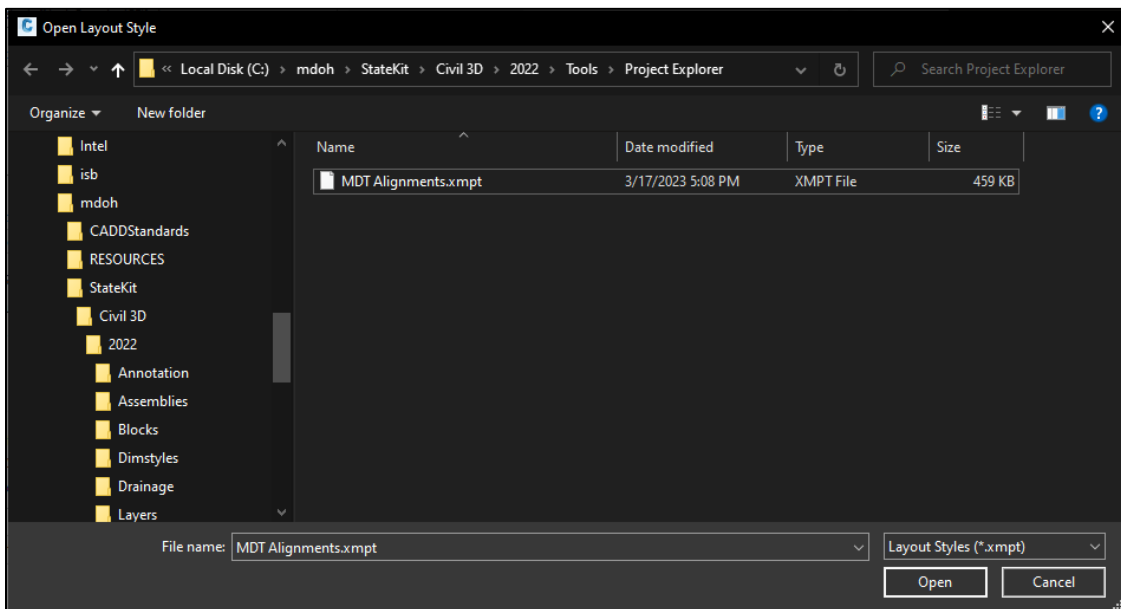
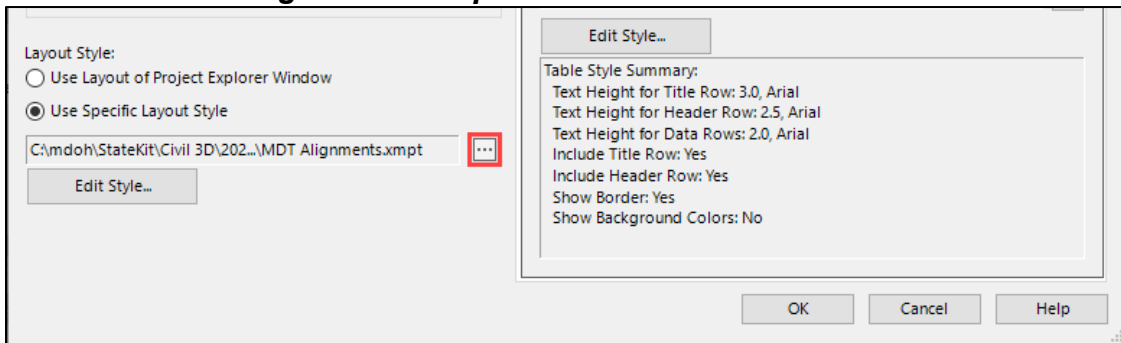
Table Style Summary:
Text Height for Title Row: 3.0, Arial
Text Height for Header Row: 2.5, Arial
Text Height for Data Rows: 2.0, Arial
Include Title Row: Yes
Include Header Row: Yes
Show Border: Yes
Show Background Colors: No

OK Cancel Help

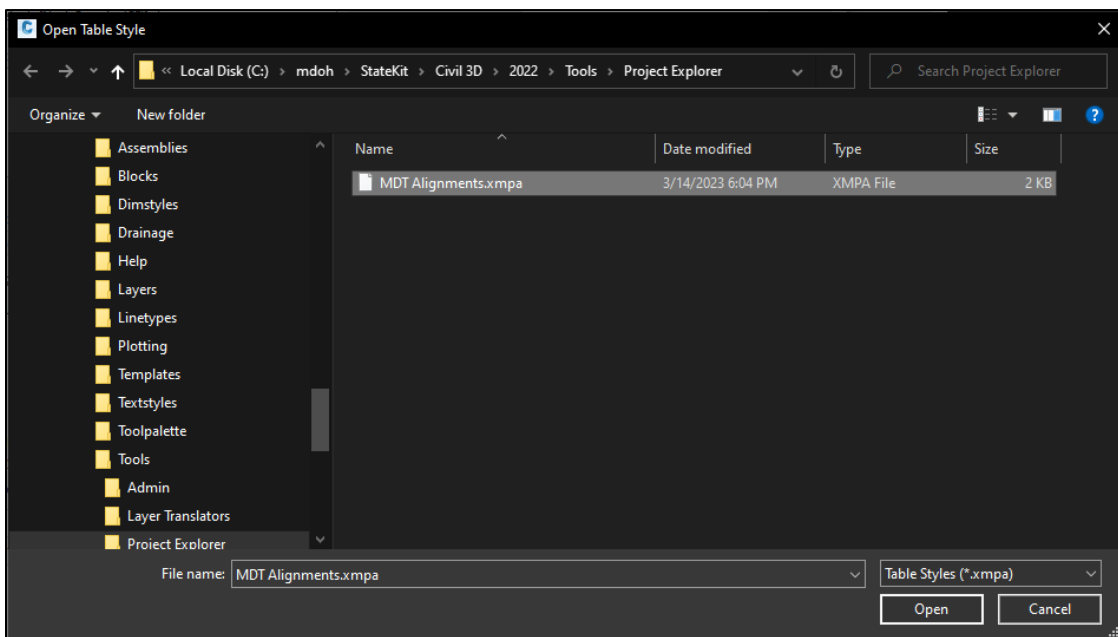
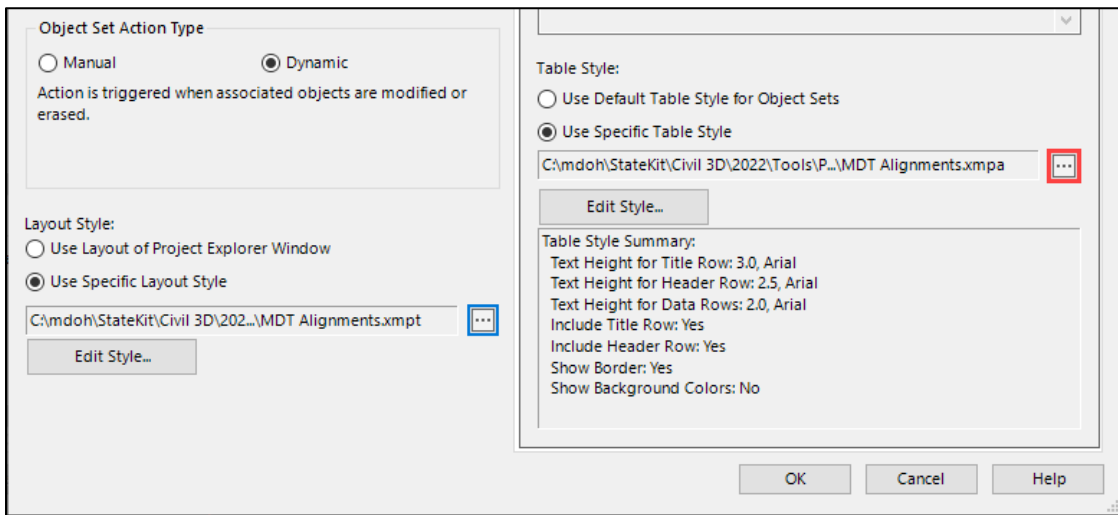
- In the *Layout Style* section, select **Use Specific Layout Style** and click the ellipsis to navigate to the following folder:

C:\mdoh\StateKit\Civil 3D\2022\Tools\Project Explorer

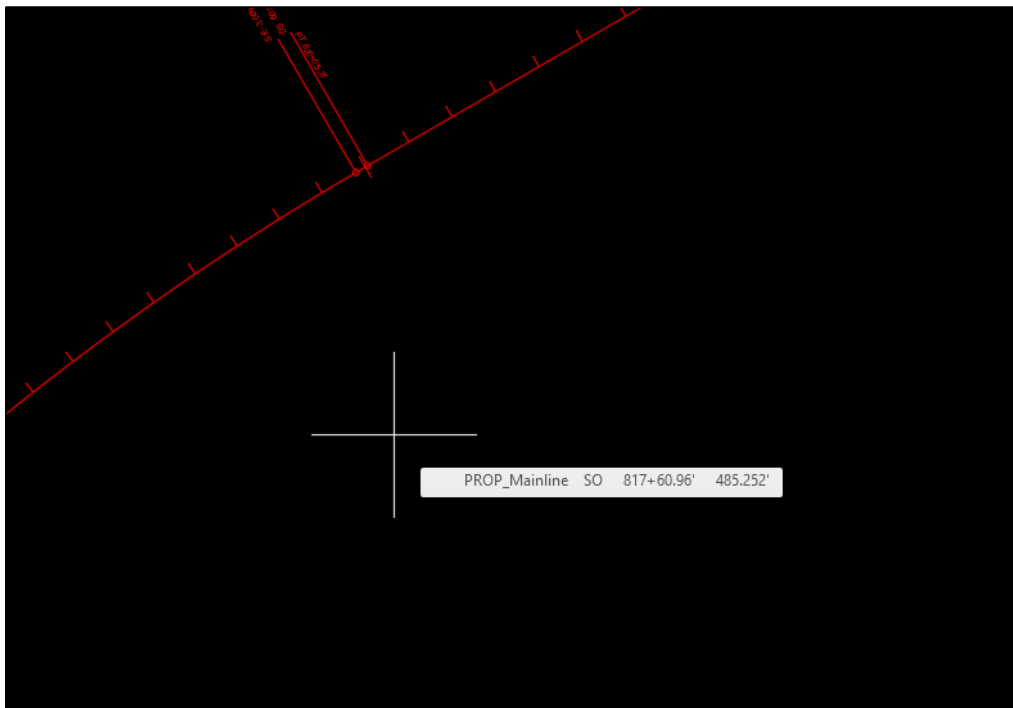
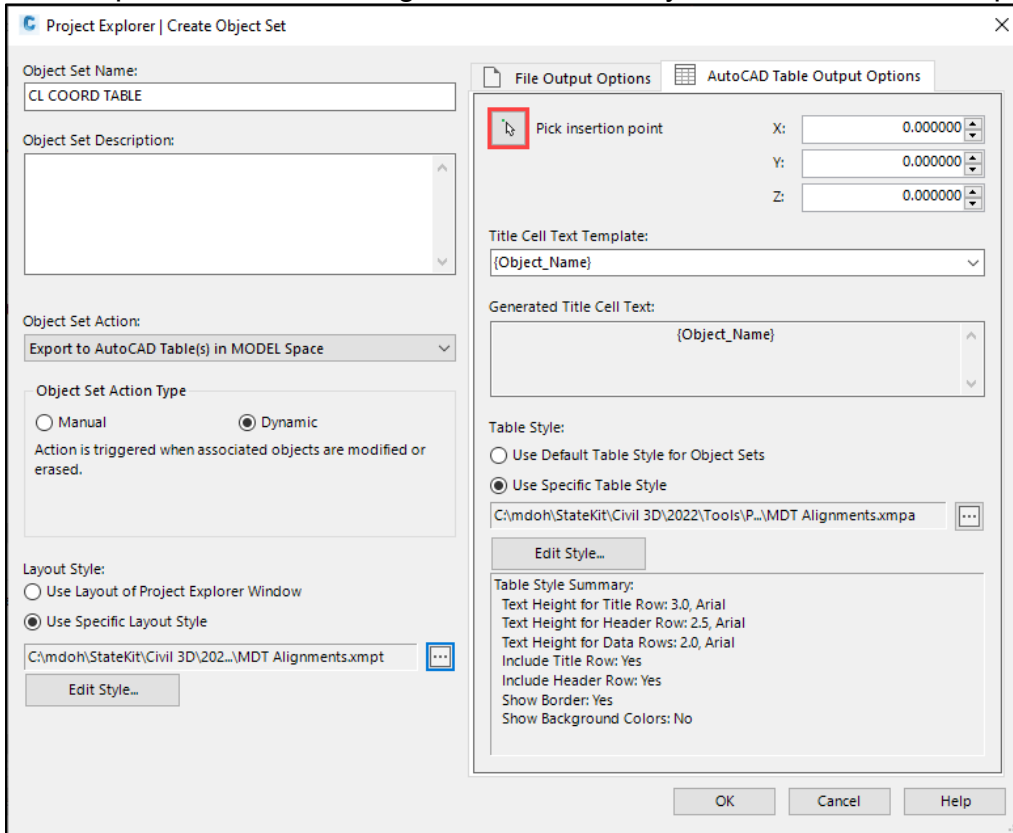
Select the **MDT Alignments.xmpt** file.



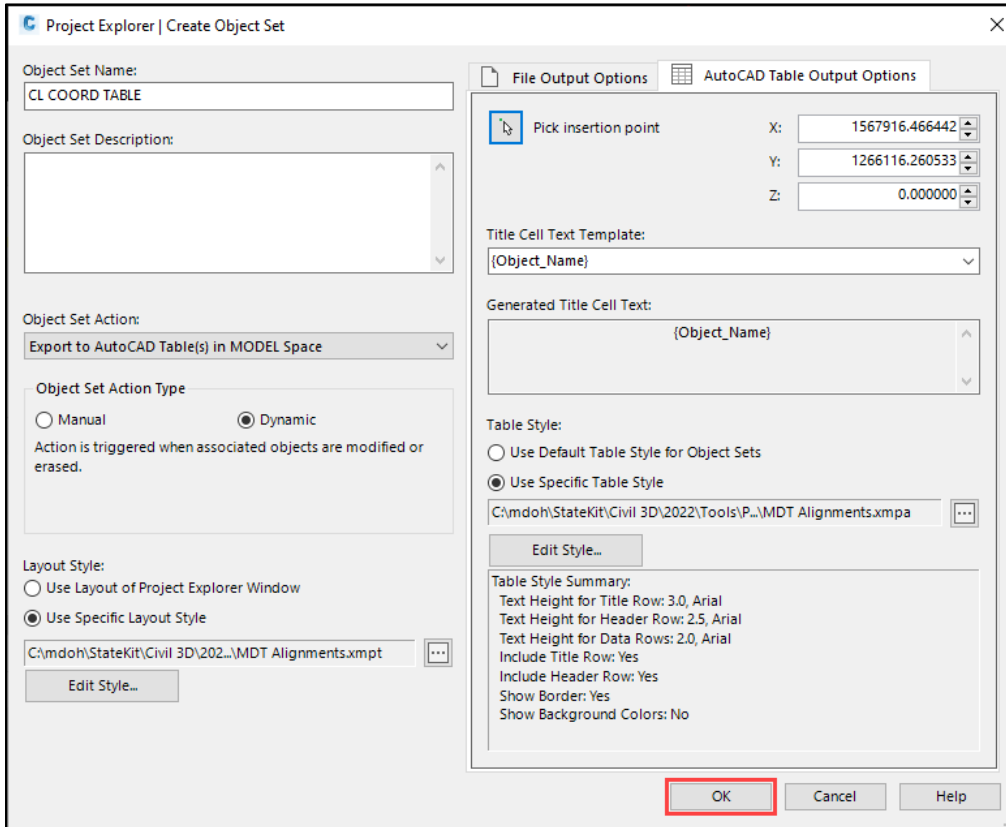
- In the *Table Style* section, select **Use Specific Table Style** and click the ellipsis to navigate to the same folder as in Step 5. Select the **MDT Alignments.xmpa** file.



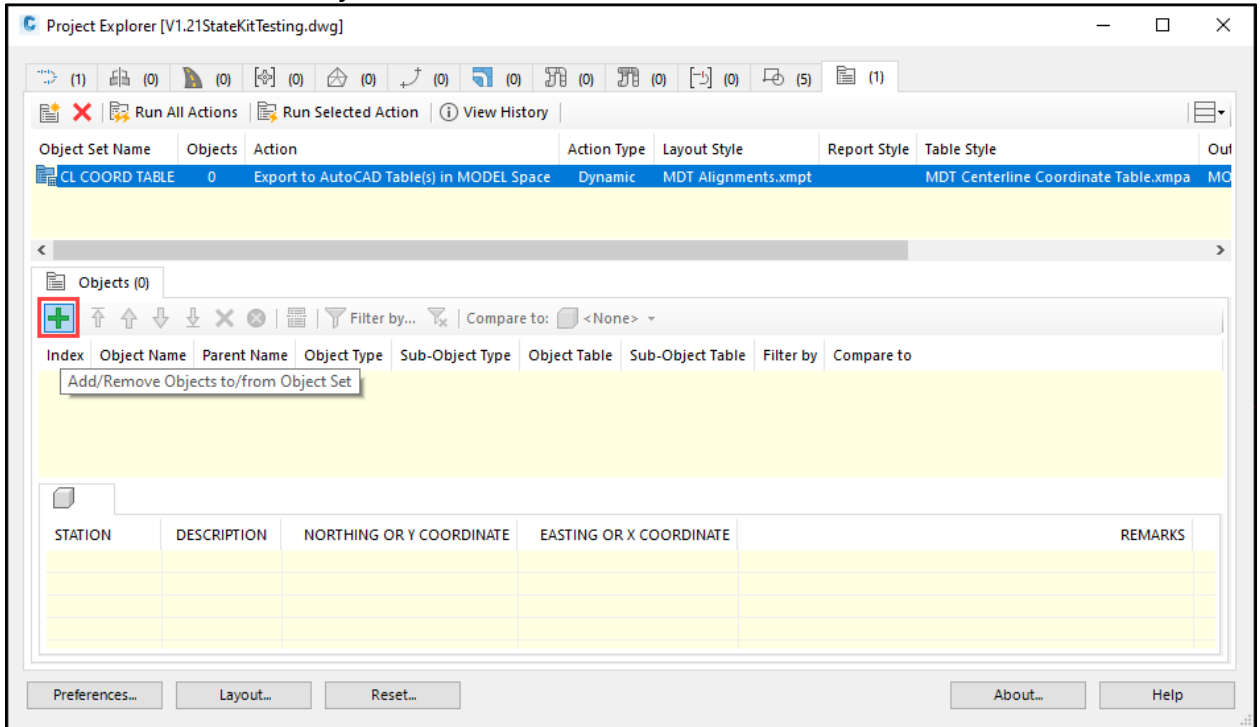
- Pick the insertion point** by left clicking the mouse pointer icon at a point in the model space close to the alignment so it is easy to find within the viewport.



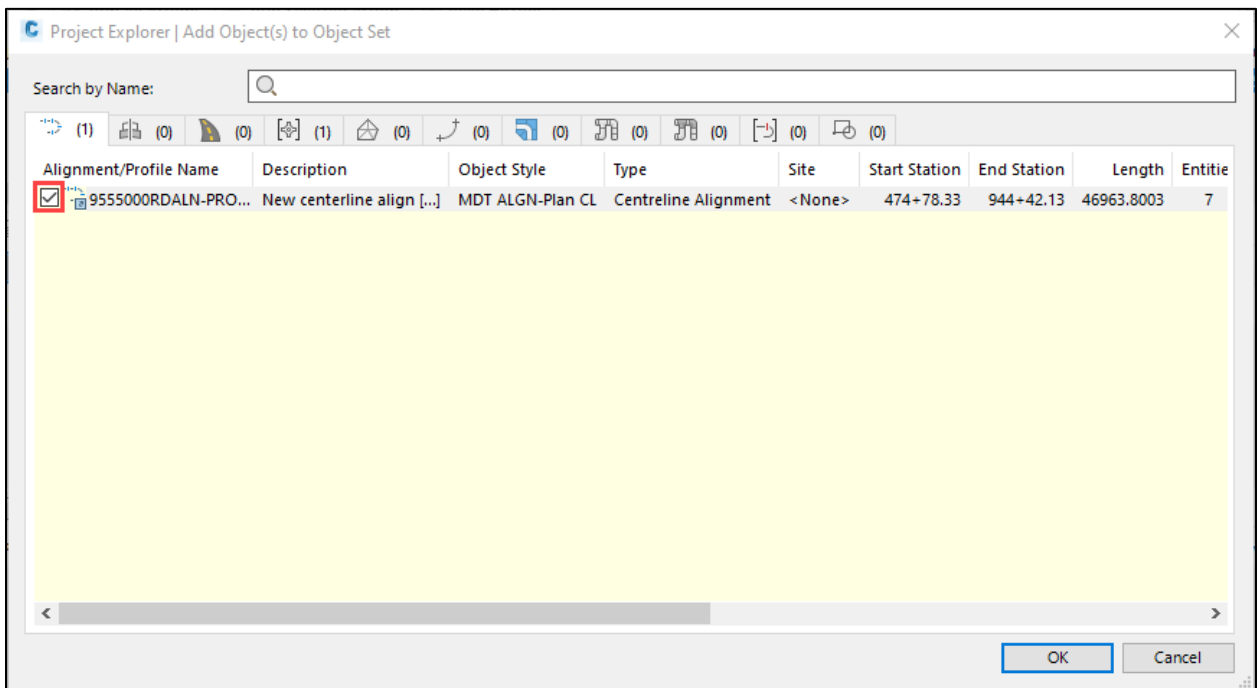
- Once the insertion point is set, return to the **Create Object Set** popup window and select **OK**.



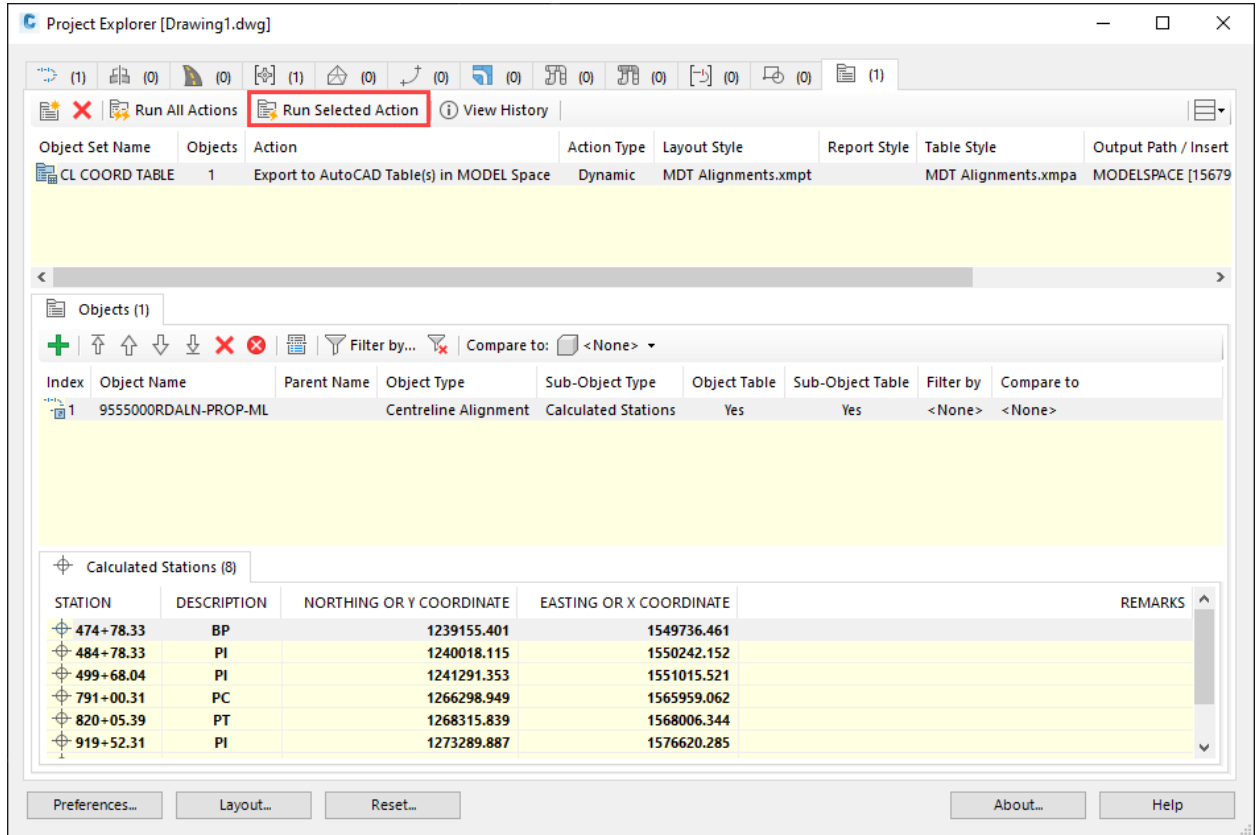
- In the **Project Explorer** window, select the green + to add the alignment to the **CL COORD TABLE** Object Set.



- Select the alignment, then select **OK**. The **Project Explorer** may take a few moments to load the information.



11. Once the *Objects* and *Calculated Stations* are populated in the **Project Explorer**, select **Run Selected Action**.

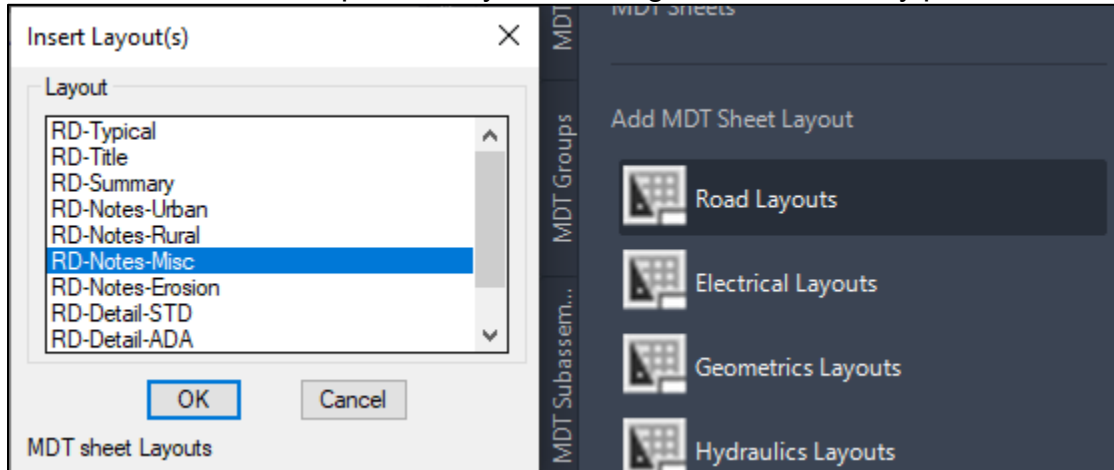


12. The table will be inserted in the model space at the specified insertion point. Close out of the **Project Explorer**.

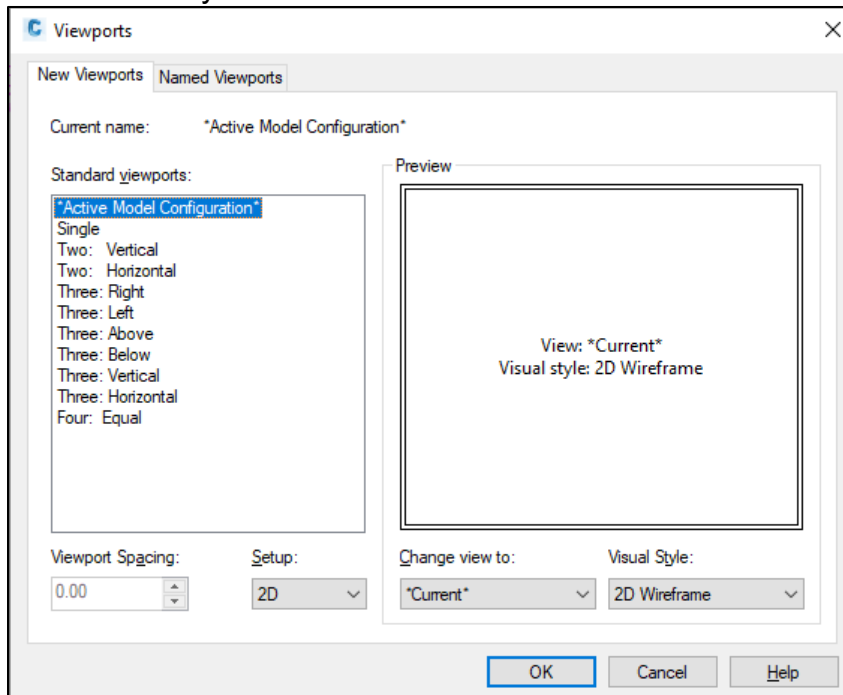
9555000RDALN-PROP-ML				
STATION	DESCRIPTION	NORTHING OR Y COORDINATE	EASTING OR X COORDINATE	REMARKS
474+78.33	BP	1239155.401	1549736.461	
484+78.33	PI	1240018.115	1550242.152	
499+68.04	PI	1241291.353	1551015.521	
791+00.31	PC	1266298.949	1565959.062	
820+05.39	PT	1268315.839	1568006.344	
919+52.31	PI	1273289.887	1576620.285	
934+42.13	PI	1274046.115	1577903.906	
944+42.13	EP	1274546.175	1578769.898	

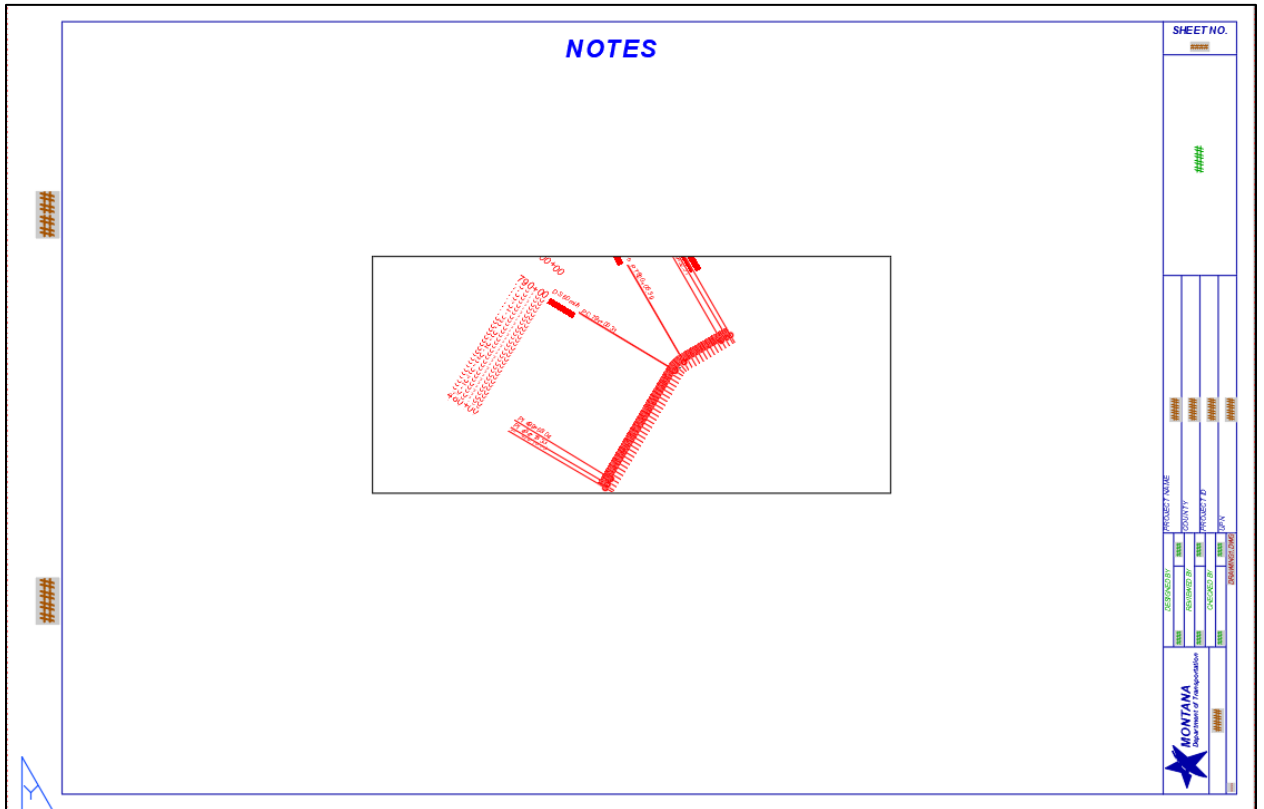
Procedure – Insert Table Into Layout

1. Add the **RD-Notes-Misc** layout from the **Road Layouts** within the **MDTSheets** tab within the MDT tool palette to your drawing if it is not already present.



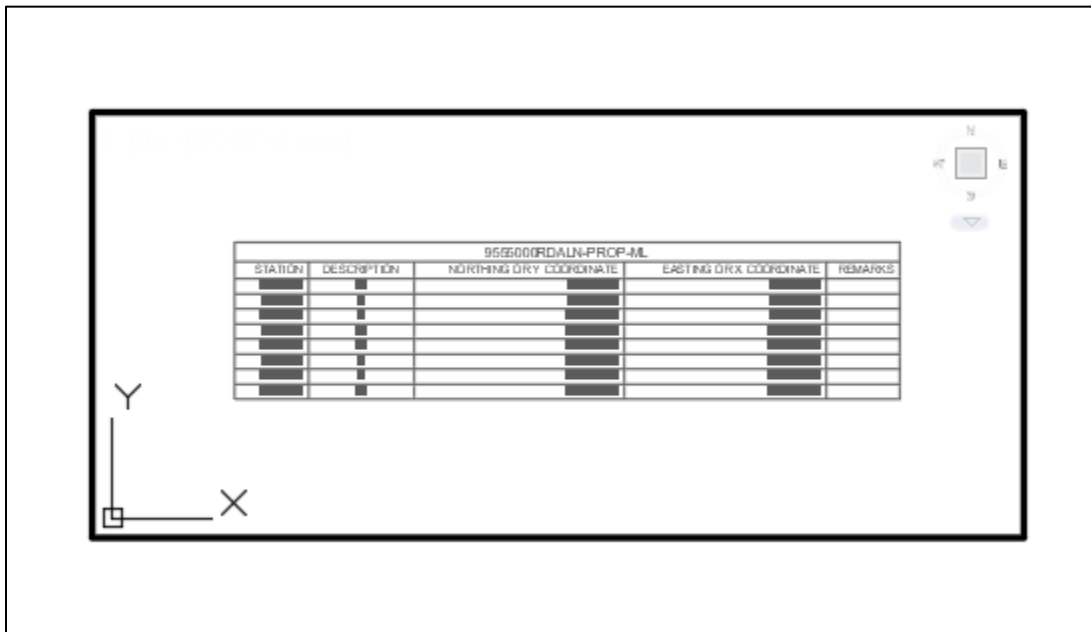
2. Create a viewport within the paper space using the **VPORTS** command. Accept the defaults of the command and draw a rectangular viewport approximately the same size as your table.



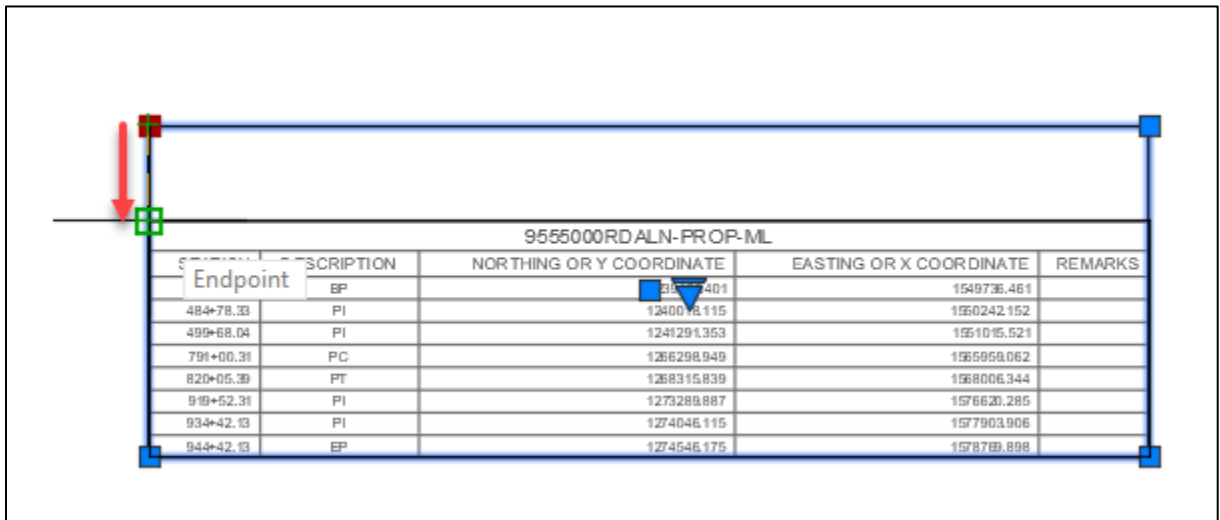


- Zoom to the table within the viewport using the **ZOOM** command with the **Window** option and snap to the extents of the table.

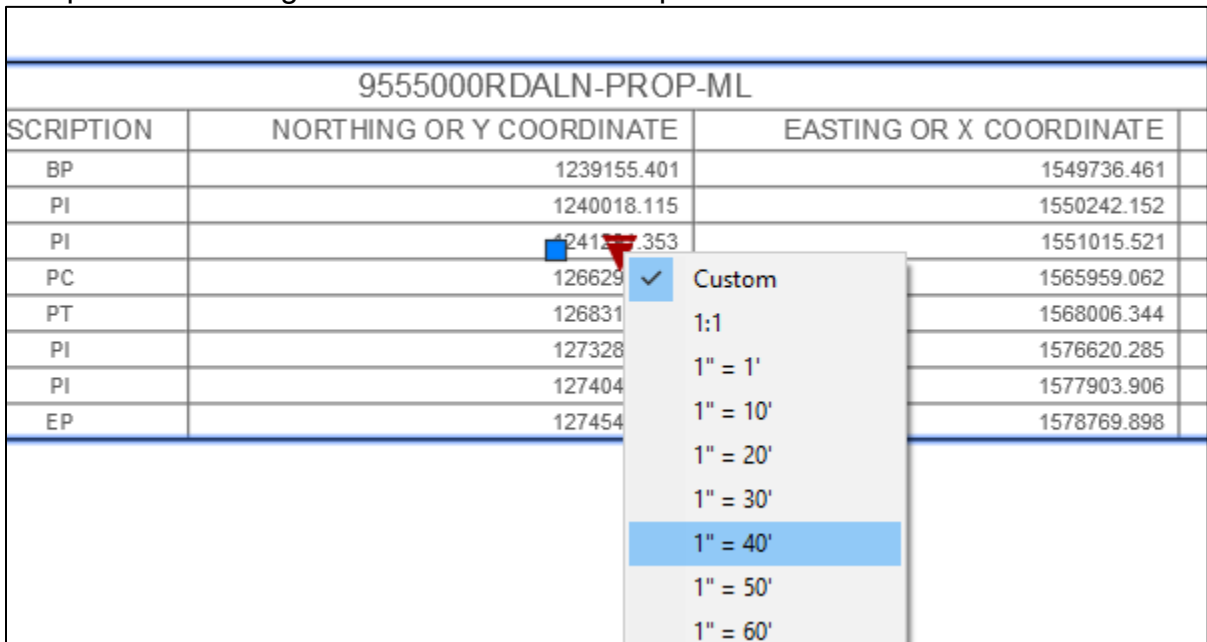
NOTE: If object snaps are not working with the table, use the **OSNAPCOORD** command and set the default variable to **0**.



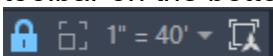
- In paper space, adjust the extents of the viewport using the grips to snap to the corners of the table.



- Change the scale of the viewport to **1" = 40'** by selecting the border of the viewport and clicking the arrow next to the midpoint of the box.



- Lock the viewport by selecting the viewport lock button in the **Quick Access** toolbar on the bottom of the screen.



- Use the **MOVE** command to adjust the positioning of your viewport within the paper space as needed.

NOTES

955900R/DALN-PROP-AL				
STATION	DESCRIPTION	NORTHING OR Y COORDINATE	EASTING OR X COORDINATE	REMARKS
04+78.10	BT	12128.845	10202.641	
04+78.10	PI	12029.118	10202.702	
04+83.40	PI	12128.845	10202.641	
79+02.17	PC	12029.240	10202.622	
02+46.20	PI	12029.240	10202.622	
10+02.17	PI	12128.847	10202.635	
04+02.10	PI	12029.118	10202.638	
04+02.11	BT	12128.845	10202.638	

SHEET NO.

####

DESIGNED BY	PROJECT NAME	PROJECT DATE	PROJECT NO.	PROJECT ID	PROJECT DWN
CHECKED BY	PROJECT NO.	PROJECT DATE	PROJECT NO.	PROJECT ID	PROJECT DWN
PROJECT NO.	PROJECT DATE	PROJECT NO.	PROJECT ID	PROJECT DWN	PROJECT DWN

DRAWN BY: ####