MONTANA
Department of Transportation

Project Development & Delivery - Digital Design and Modeling Services

Support Guide

Application/Tool(s): AutoCAD / Civil 3D
Version(s): 13.4.2429.0 Civil 3D 2022.2.5 Update
Environment: MDT Civil 3D State Kit r2022 v1.22
Released/Revised: 10/3/2023



SUPPORT
Open a Case

CONVERTING MICROSTATION FILE TYPES TO AUTODESK

ISSUE:

Several users have encountered problems when attempting to open MicroStation files in the Autodesk platform. Issues encountered include layer standards, scaling issues in Civil 3D, unusable CAD line types.

SOLUTION:

Archived files created in previous design platform will need to be used in new Autodesk environment. The following guide outlines how to convert MicroStation .dgn files to Autodesk .dwg files.

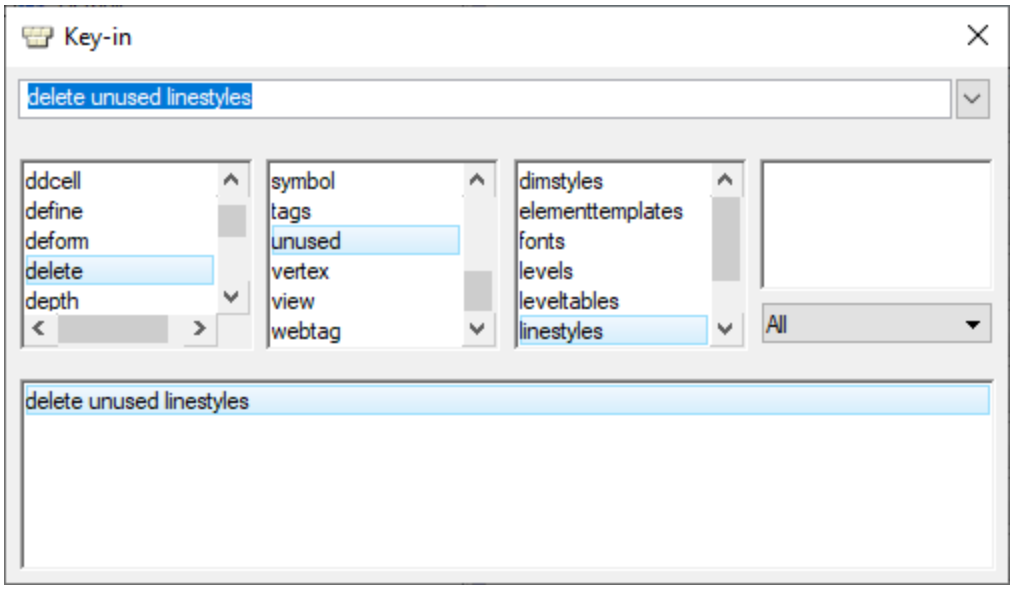
PROCEDURE:

Creating DWG

1) Open DGN in preferred MicroStation workgroup.

2) Set drawing scale to end goal scale in Civil 3D. (There are certain types of CAD features that will not be easy to scale in Civil 3D.

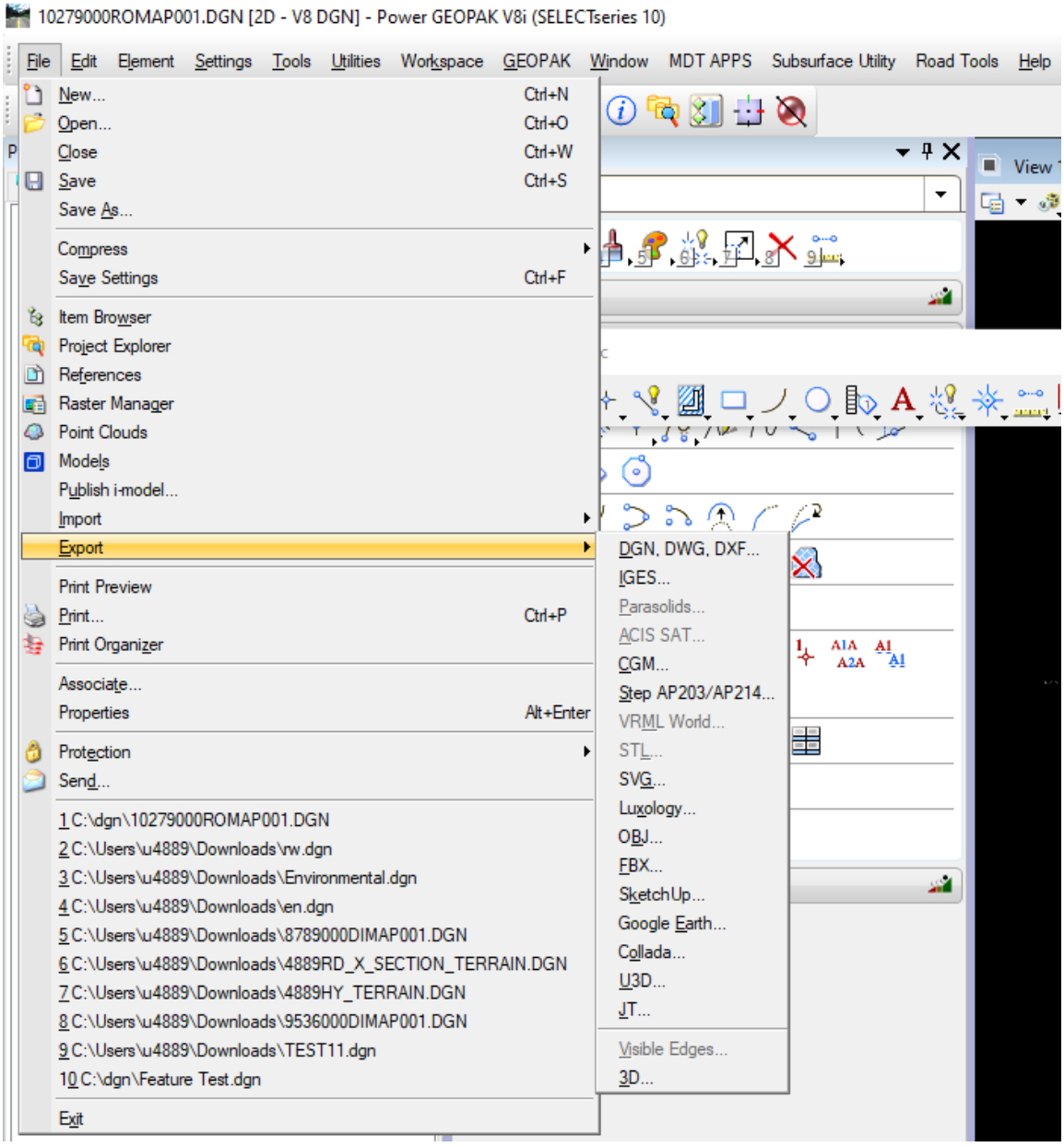
3) Key In: DELETE UNUSED LINESTYLES.



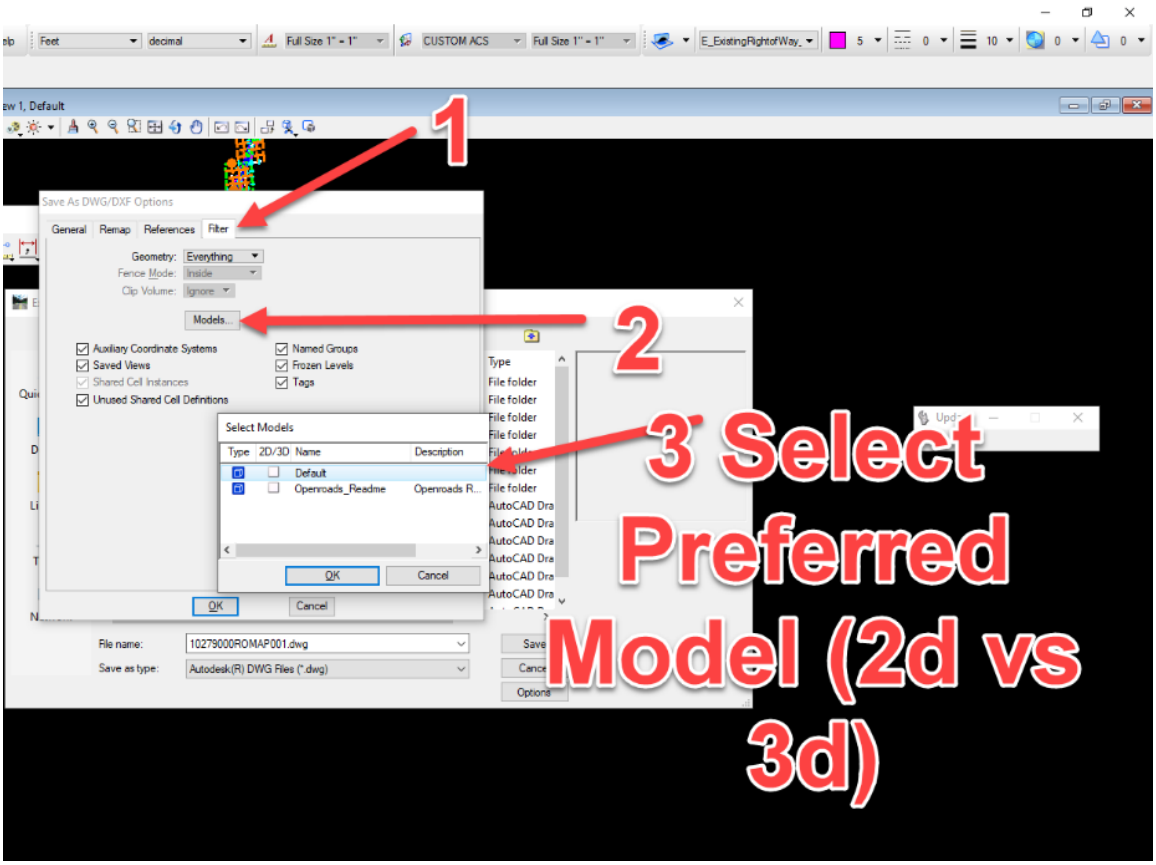
4) Export DGN as DWG.

a. File->Export->DWG.

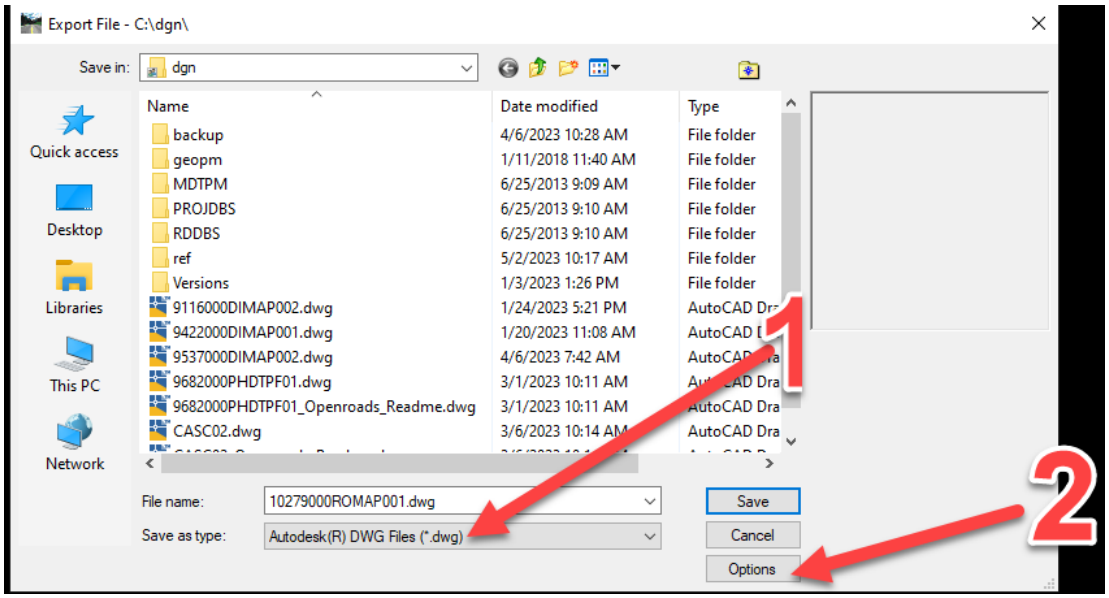
MicroStation or Power GEOPAK



b. Configure settings for DWG export.



i. Select DWG for file type, then Options.



ii. Click on ‘Filter’ tab and select desired model to be exported.

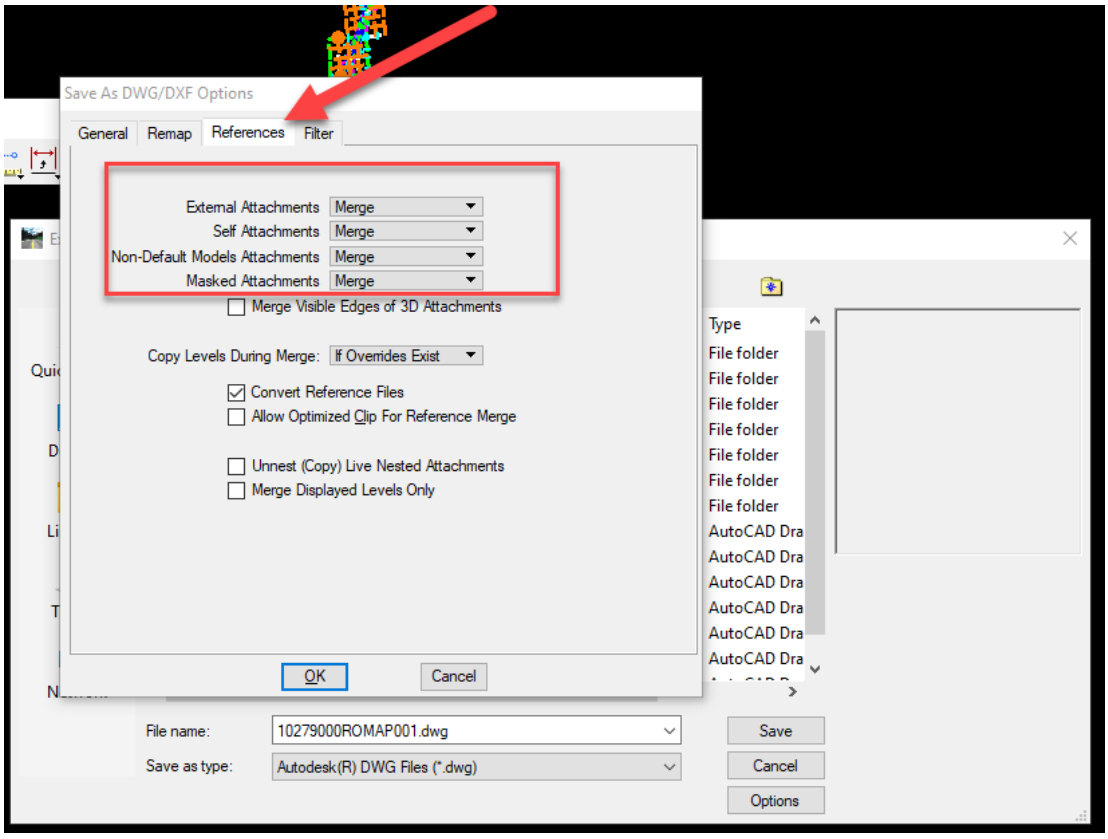
iii. Click on ‘References’ tab. This tab controls how attachments will be exported. There are 4 options:

1. Retain
   a. References are retained as references, limited functionality in Civil 3D.

2. Merge
   a. Merges references into master file.

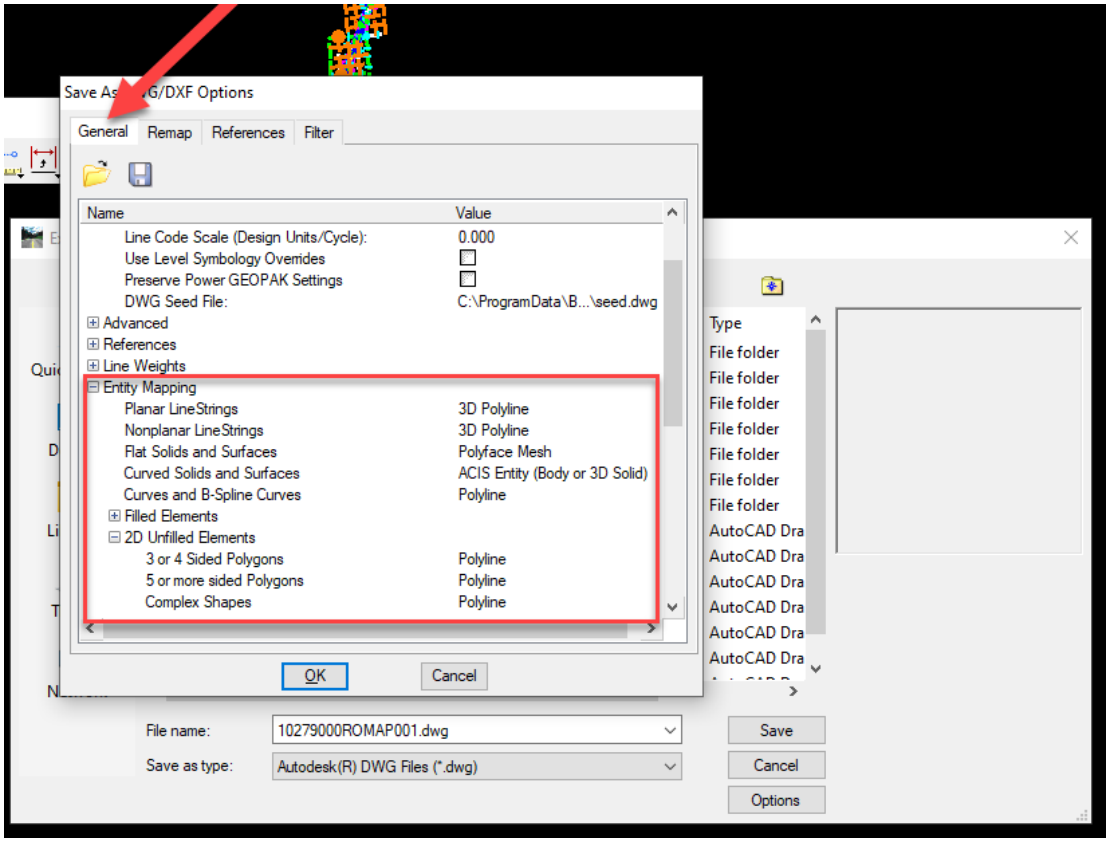
3. Merge as Cell
   a. Merges references as a ‘block’ in Civil 3D.

4. Omit
   a. Omits references, only exports master file.



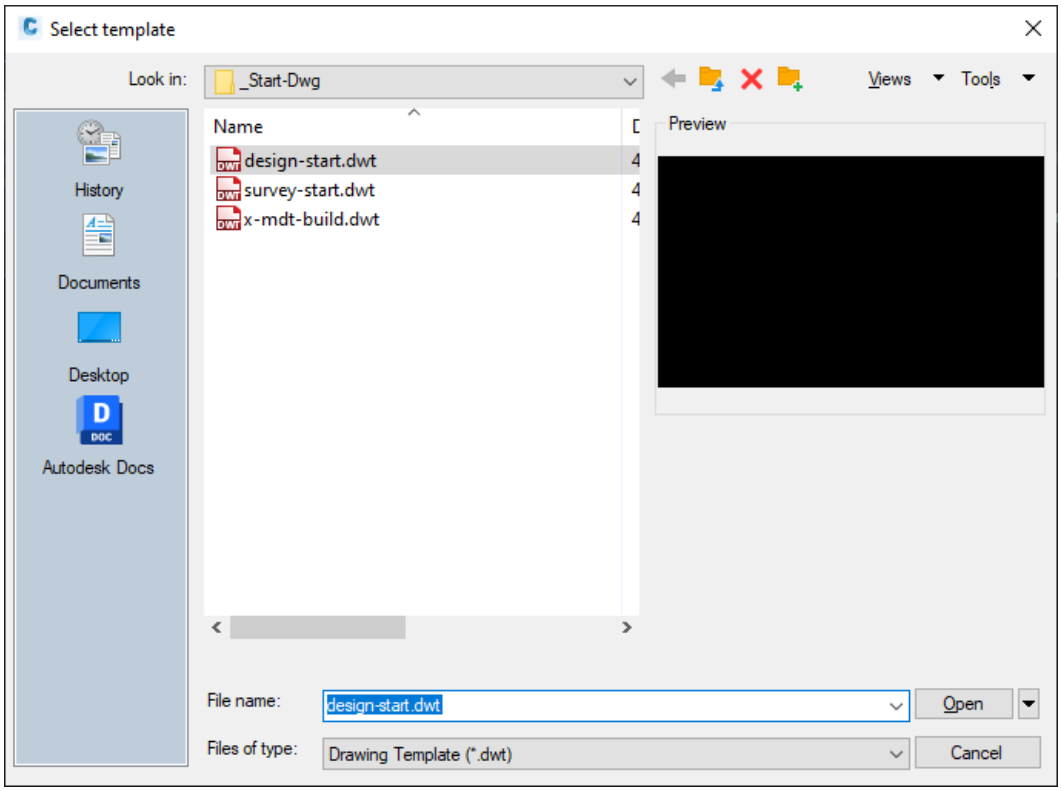
iv. Click on ‘General’ tab.

Expand ‘Entity Mapping’. This setting controls how CAD features will be exported. Splines will be difficult to modify in Civil 3D. These can be converted to polylines in this window.



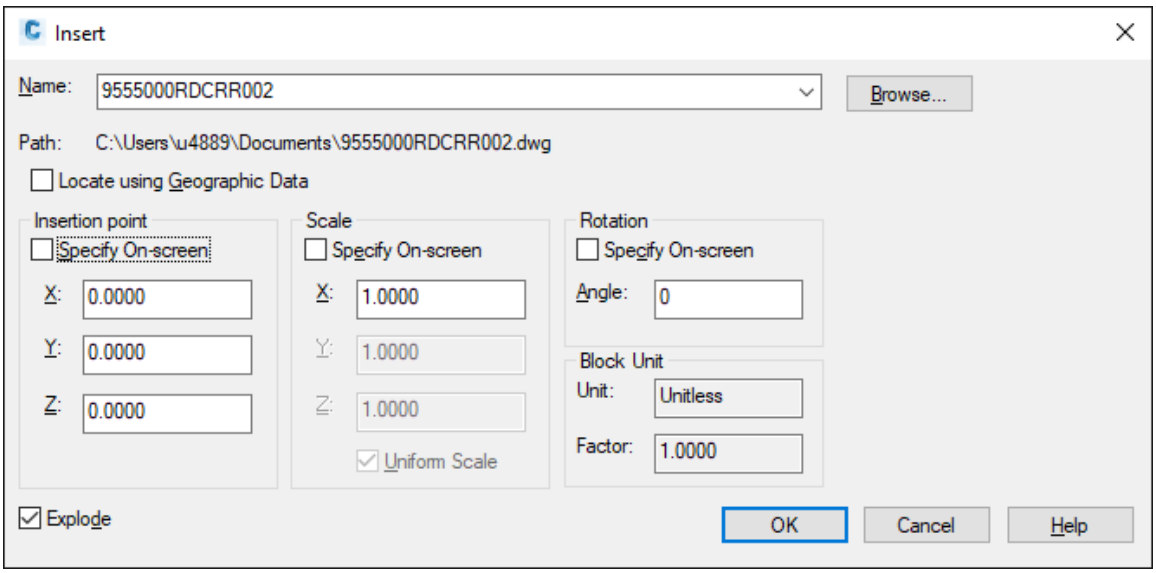
Setting up DWG in Civil 3D

1) Create new DWG in preferred MDT .dwt environment. (Design Start vs Survey Start)

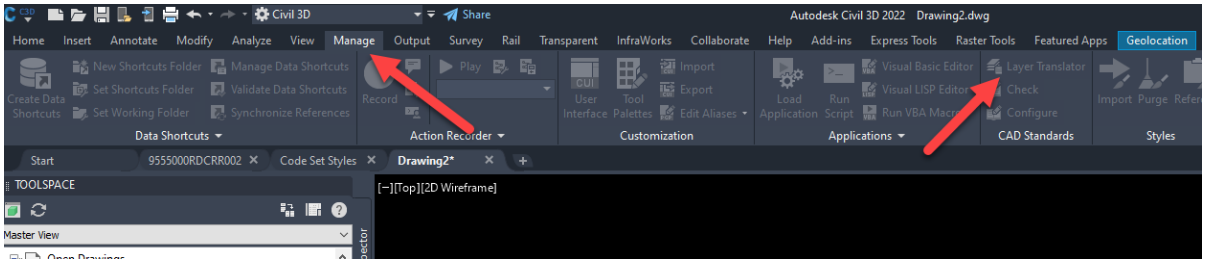


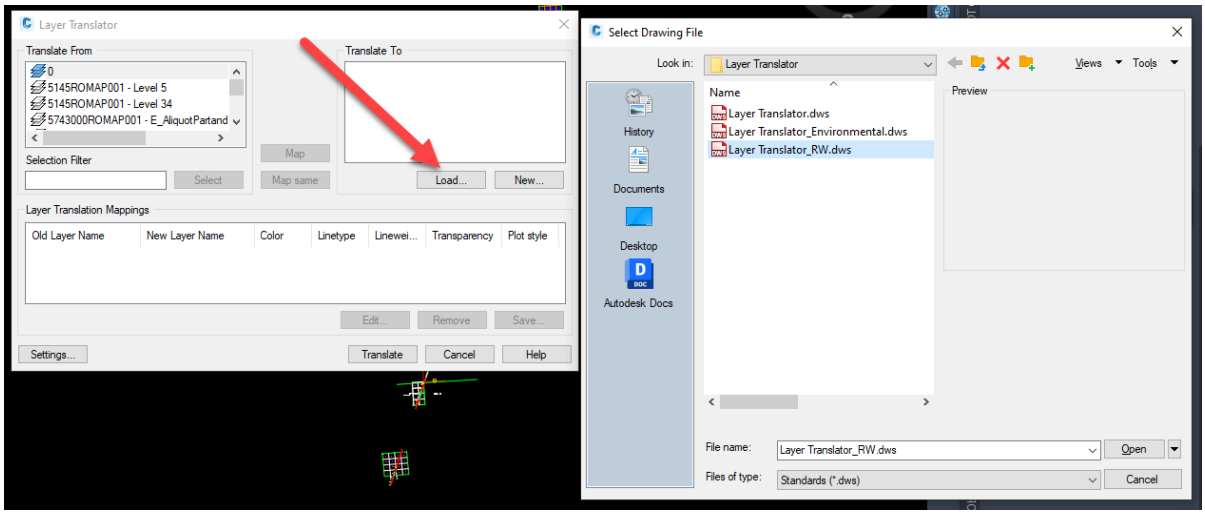
2) Type in ‘classicinsert’ select newly created DWG.

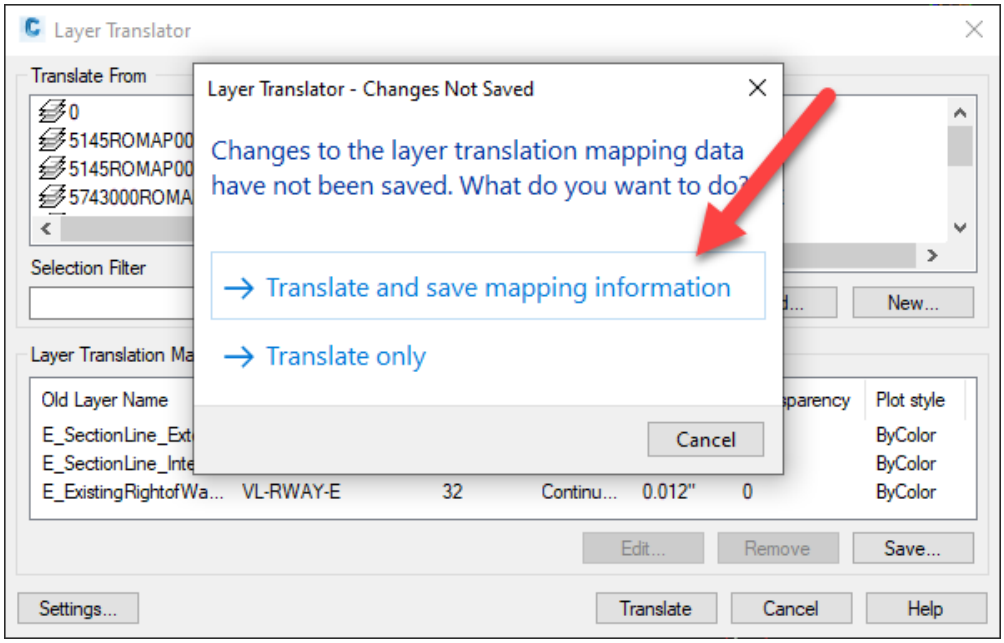
   a. Toggle Explode.



3) Utilize layer translator (C:mdoh:StateKit:Civil 3D:2026:Tools:Layer Translators) that applies to work group. (Default settings within translator will translate using ByLayers: color, linetype, etc.)







4) Type command ‘LINETYPE3DPLINEON’ (This will allow polylines to be annotatively scaled).

5) Type command ‘MDTDWGCLEAN’ or use DWG Clean tool.

6) Save as on BIM 360 in correct design workgroup.