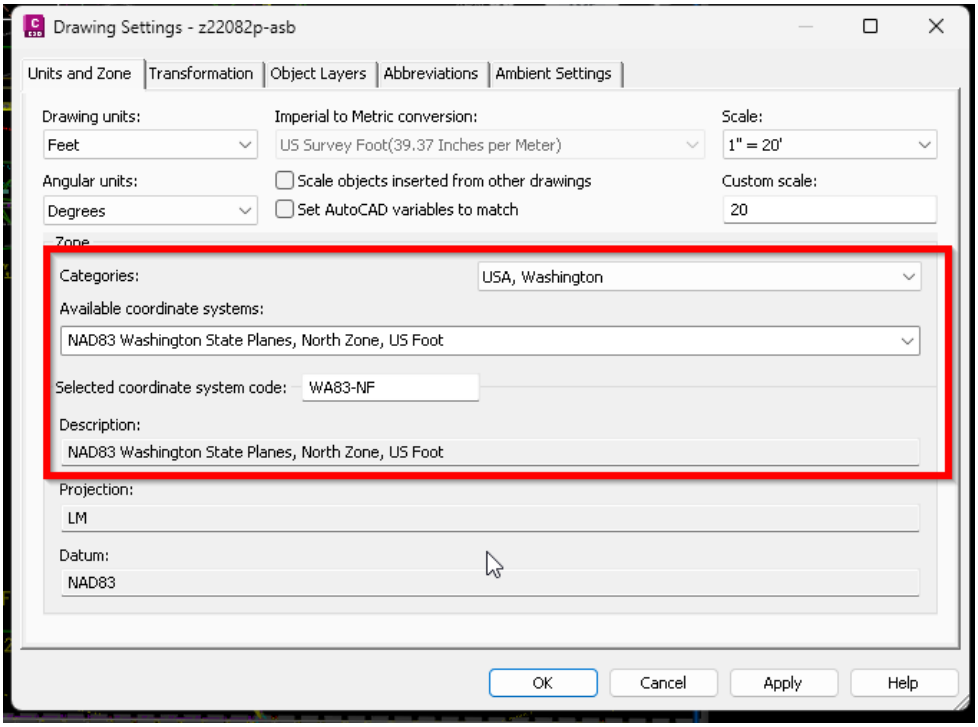
Export Civil 3d Data to GIS Best Practices

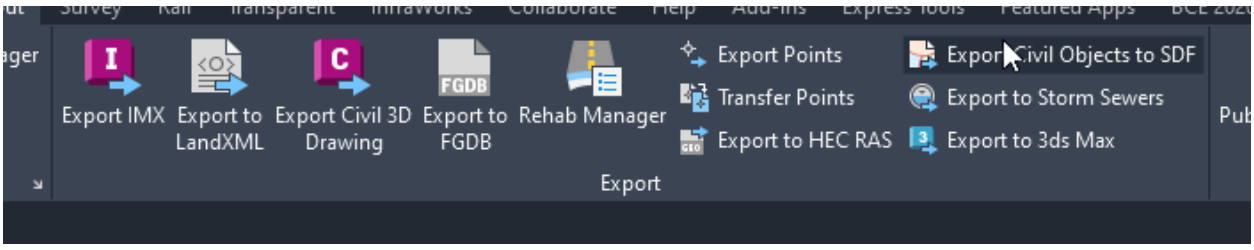
We are getting more requests from jurisdictions to supply them with GIS data in the form of a shapefile. Usually, they are satisfied if we send them the pipe network data. So, we will start with that.

Civil 3d can't export directly to shapefile. So we will start by exporting our Civil data to SDF file.

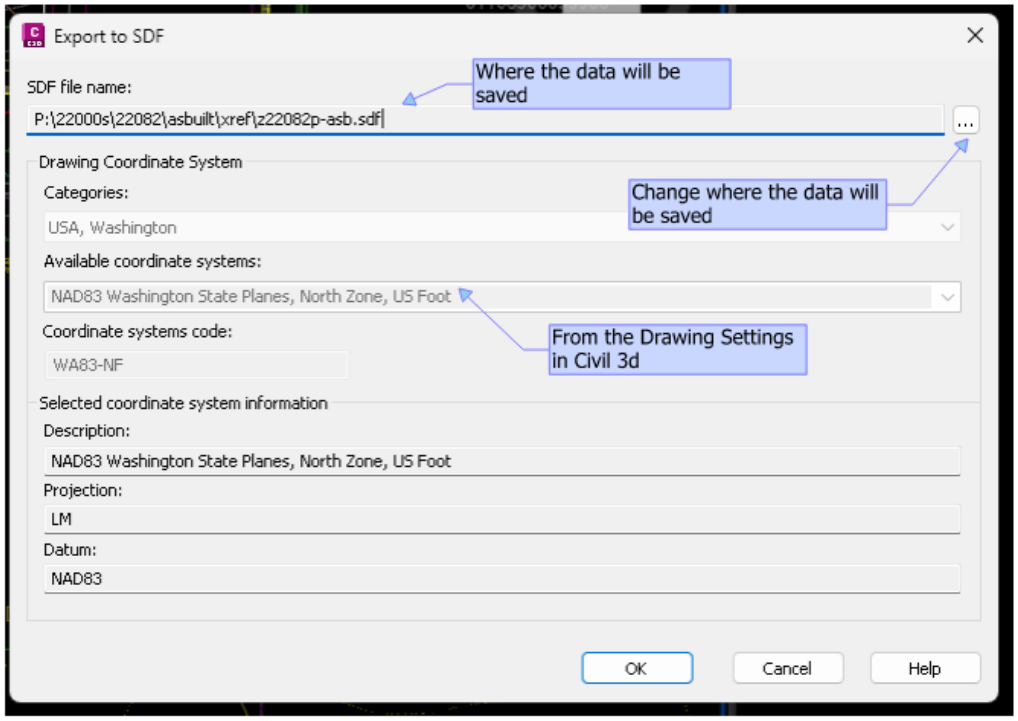
All exports require a coordinate system to be set in the drawing. If we go to the Civil 3d settings tab, select the drawing right click and select 'Edit Drawing Settings' we get this screen. We need to have this information set in the drawing for any export to GIS functions to work properly.



Now we need to go to the Output tab in Civil 3d and select 'Export Civil Objects to SDF'.

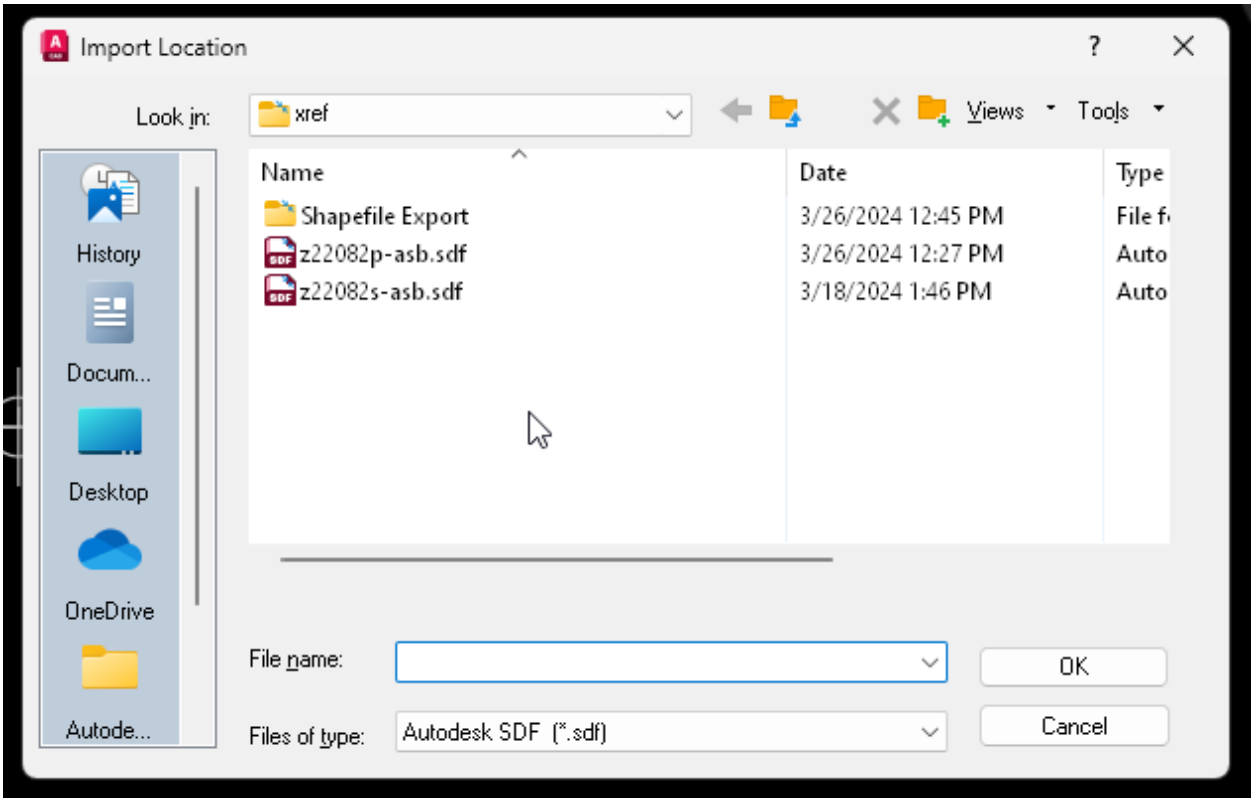


Here are the settings for the export to SDF.

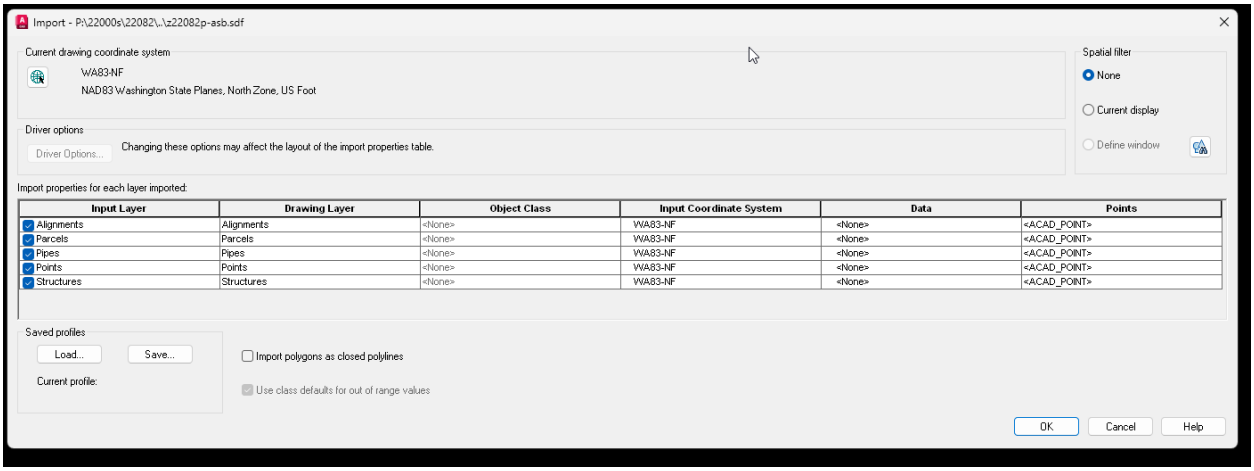


SDF is an AutoCAD format GIS file. Most jurisdictions will want shapefiles, so we can convert the SDF to shapefile format.

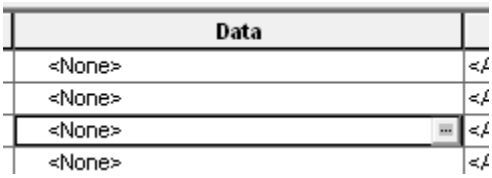
2) Create a new drawing and set the coordinate zone to match the one set above. Type in MAPIMPORT. Change the file type to Autodesk SDF (*.sdf) Select the previously exported file.



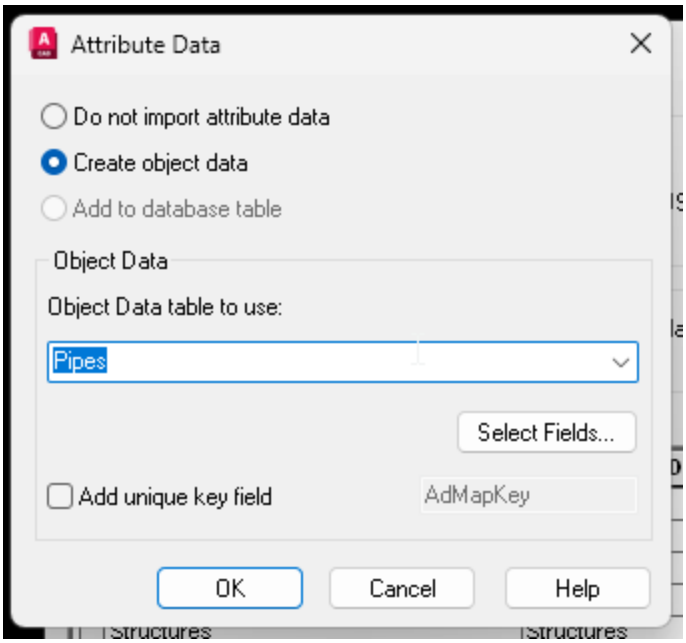
Once you select a file, you will see a window like the one below:



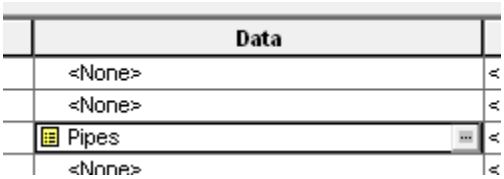
I am going to uncheck everything except Pipes and Structures. I need to tell it what data to import, so I'm going to adjust the data import for the pipes here:



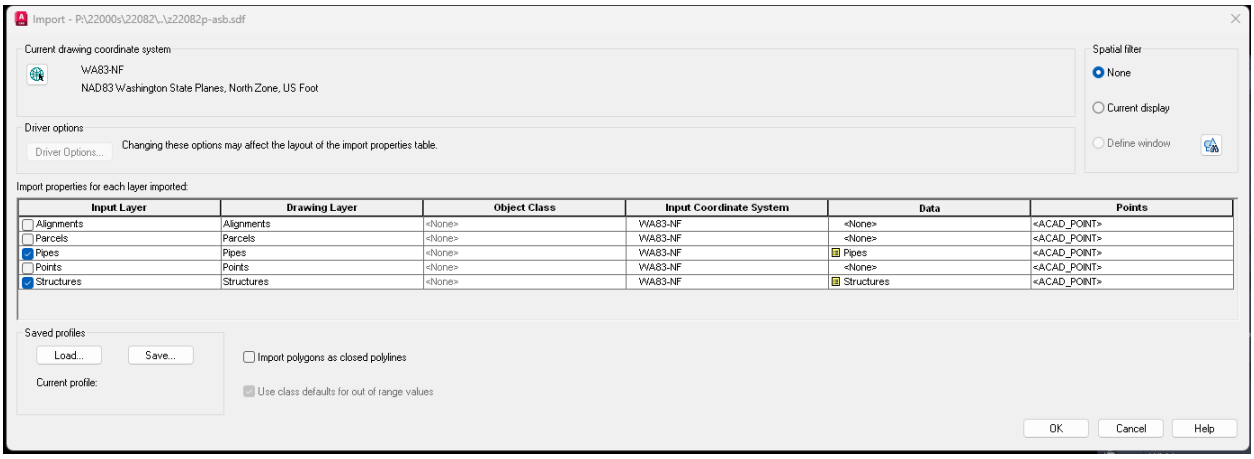
When you click the ellipsis at the edge of the cell you will get this window. We need to create Object data.



When I add that data information, it will mark that it has it added in the main table with a yellow box.

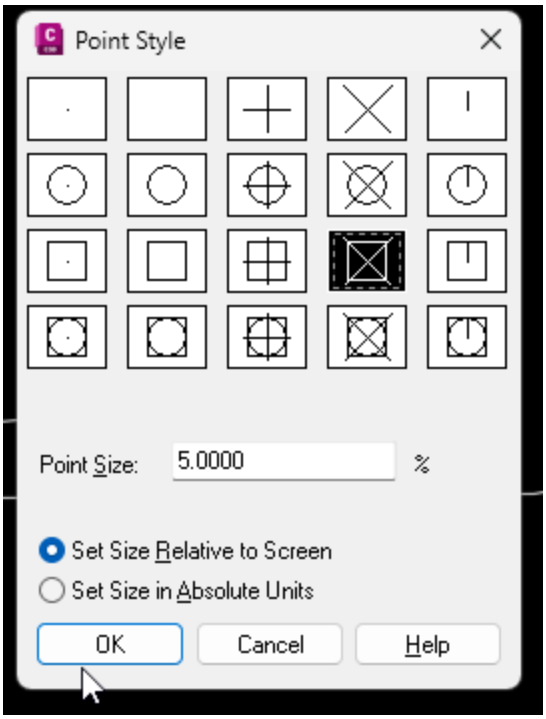


When the setup is complete it will look like this:

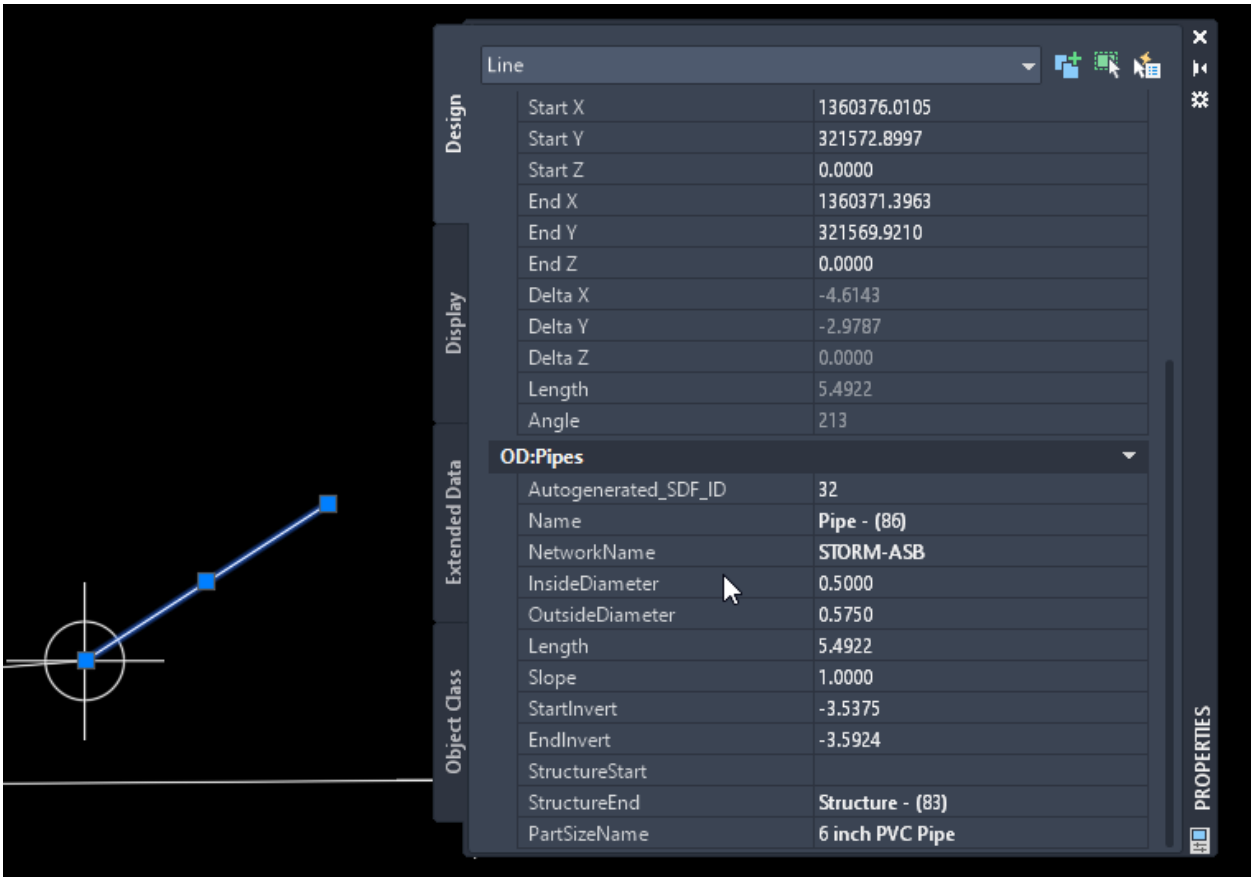


Do the same thing for Structures. When complete we can then click OK and it will import the data.

Pipes will be imported as lines, and structures will be imported as points. By default, you likely won't see the structures. Go into the PTYPE command to select an appropriate style.



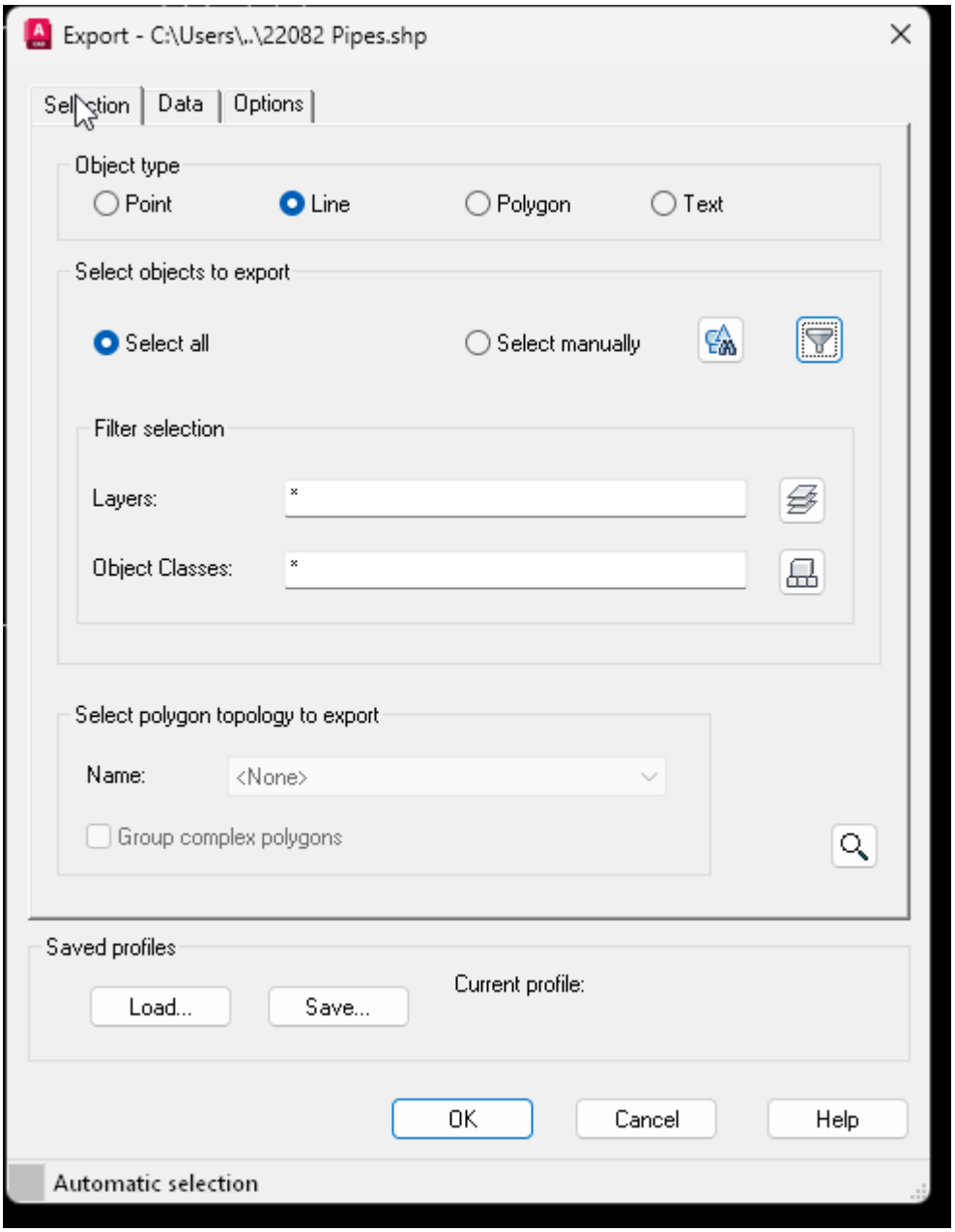
If I select a pipe I can see the data attached to it in the properties palette when I scroll down.



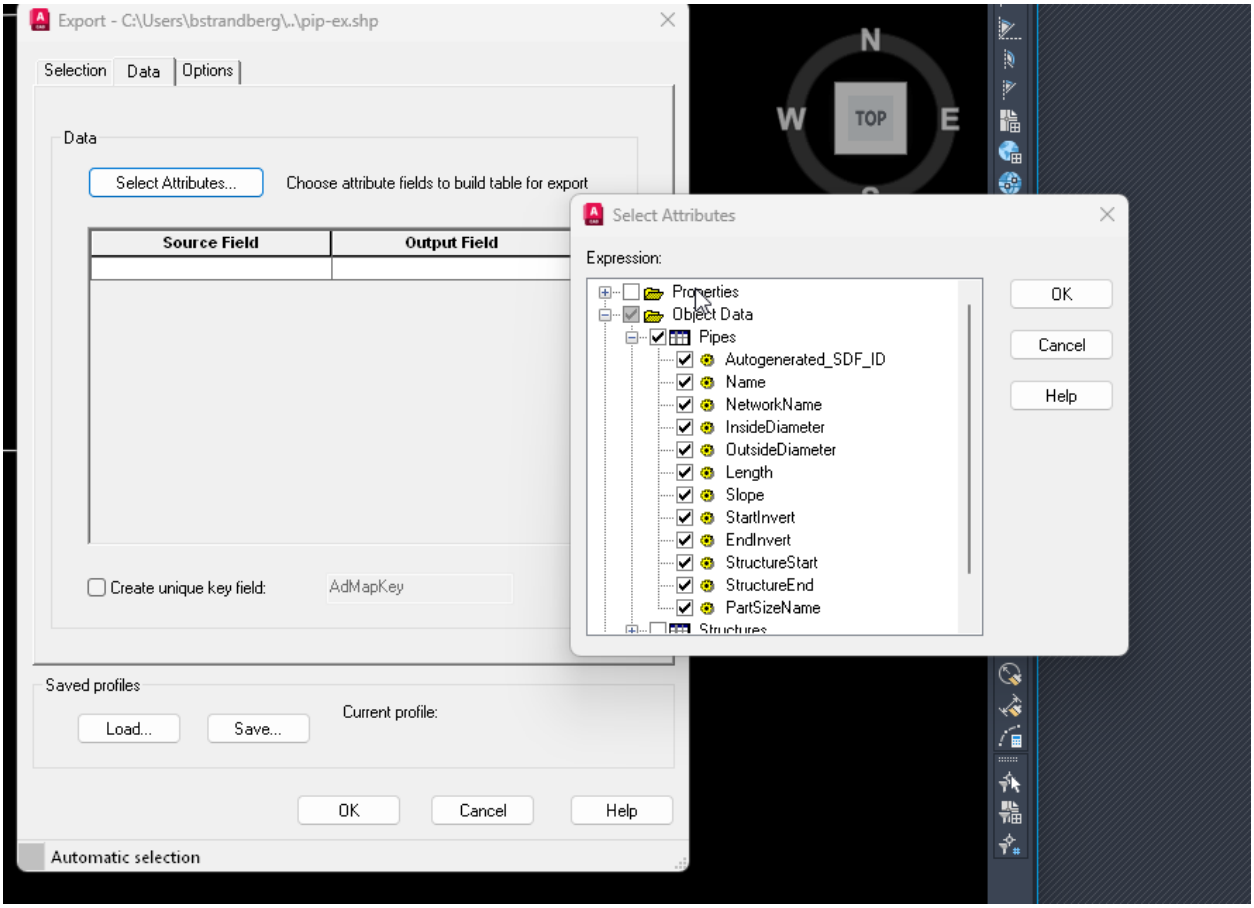
Once I have the data in the drawing – I can use the MAPEXPORT command to export to shapefile. Shapefile will export a series of files, so I recommend you have an empty folder ready to receive this data.

Type in MAPEXPORT, change the Files of Type to ESRI Shapefile (*.shp) and select the folder you want these to go to. You will need to name each one, I used 22082Pipes.

After importing the data, my pipes are represented with Line. Select Line. Objects to Export, select All.



Then go to the Data Tab. Click Select Attributes, Check Object Data.



Then Press OK to complete the export.

It will export a series of files which constitute the shapefile. I usually recommend zipping these files before transmitting.