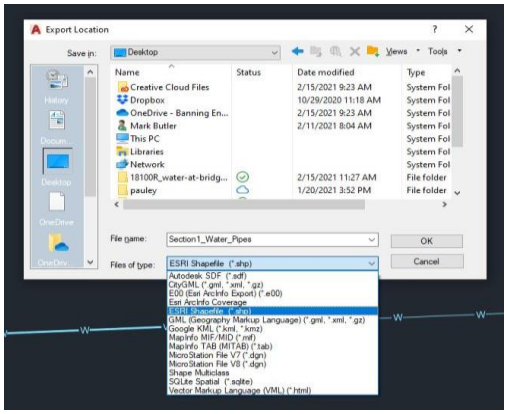
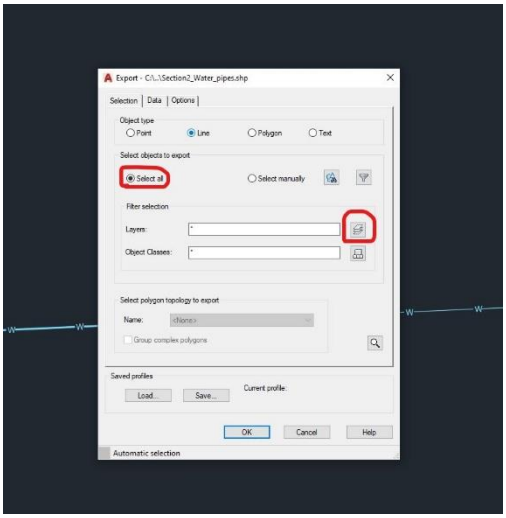
Danville Water As-Built Submission in GIS

QGIS to produce Shapefiles

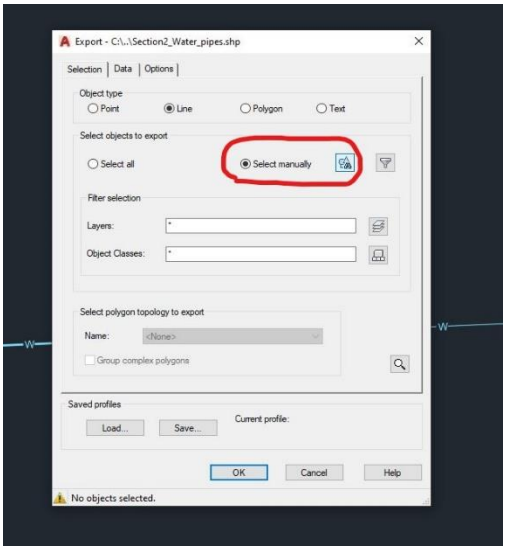
If you have Esri software (ie ArcGIS or ArcGIS Pro), load your CAD data into the supplied File Geodatabase (FGDB) for submission using the following steps as an outline:

1. Export AutoCAD to Esri Shapefile (.shp)
    a. Follow steps in AutoCAD to export to Esri Shapefile
        i. In command line, enter MAPEXPORT and click Enter
        ii. Browse to the folder to save your Shapefile, set the dropdown option for 'Files of type' to Esri Shapefile (*.shp), and click OK
        1. 

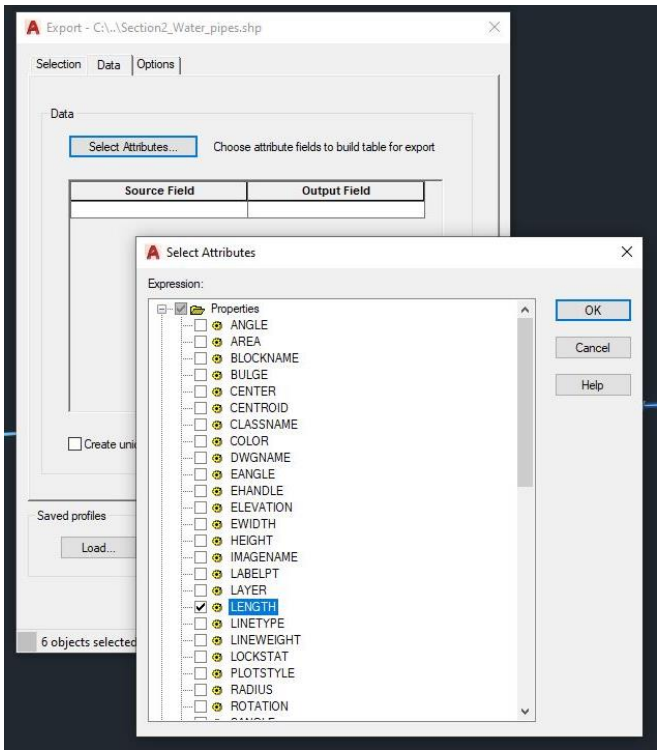
    iii. In the Selection tab, select the layer(s) to export
        1. Object type section
            a. click point or line (depending on the layer to create)
        2. Select objects to export
            a. To select all features in a CAD layer
                i. select the 'Select all' radio button and click the Layers button to specify the layer

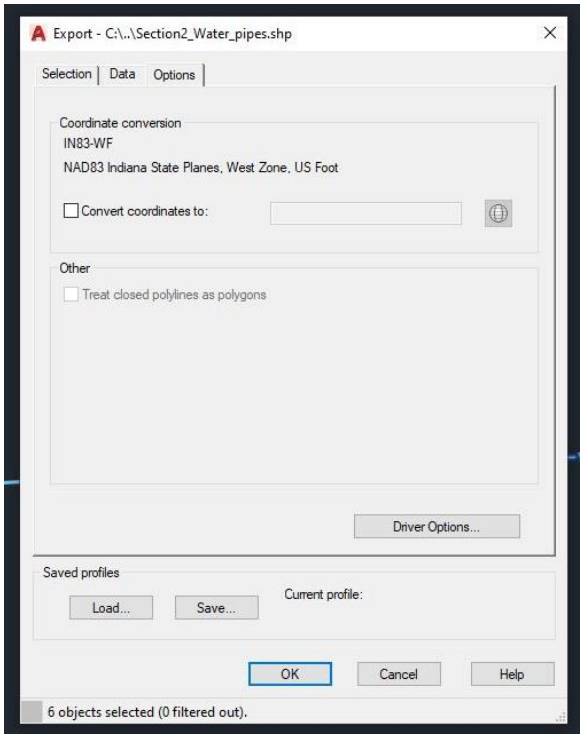
ii. 

b. To select some features in a CAD layer
    i. Select the ‘Select manually’ radio button and click the icon next to it
    ii. You will go to your DWG to manually select features to include with your Shapefile

iii. 

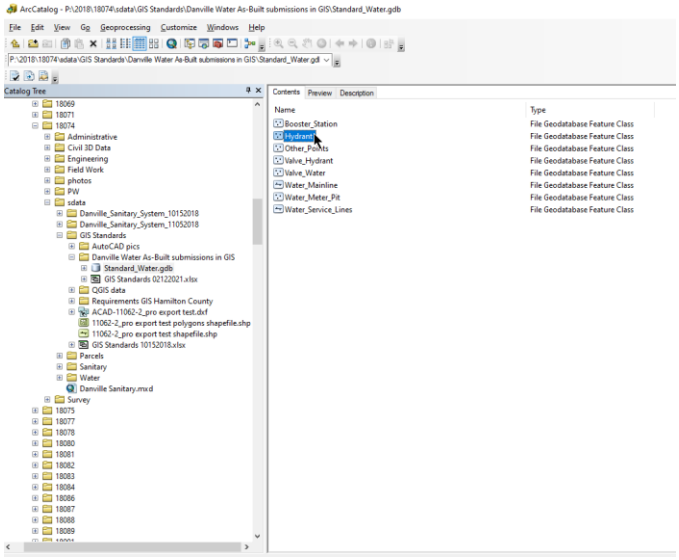
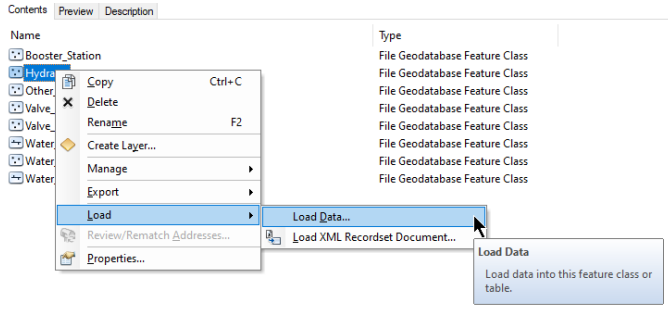
iv. In the Data tab, click Select Attributes to identify and select the attributes to export with the layer(s), then click OK

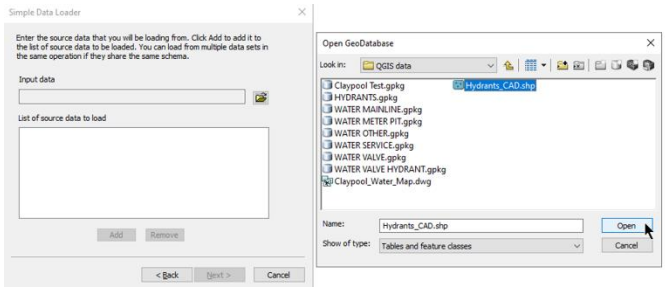
1. 

v. In the Options tab, select the appropriate coordinate system for the export
    1. For Danville, use the following
        a. NAD 1983 StatePlane Indiana West FIPS 1302 (US Feet)
2. 

vi. Click OK to export Esri Shapefile

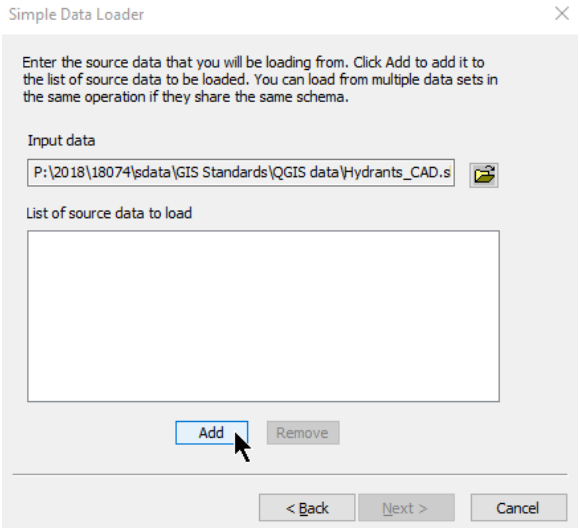
vii. Repeat steps above for each Shapefile needed

2. Open supplied Danville Water FGDB in ArcCatalog
3. Load the appropriate .shp data into FGDB feature layer using the “Load” function.
    a. Navigate to folder location of FGDB and identify Feature Layer to ‘Load’ Shapefile
        i. 
    b. Right click on that Feature Layer and click Load > Load Data…
        i. 

    c. Click the Folder icon to navigate to Shapefile location and click Open
        i. 

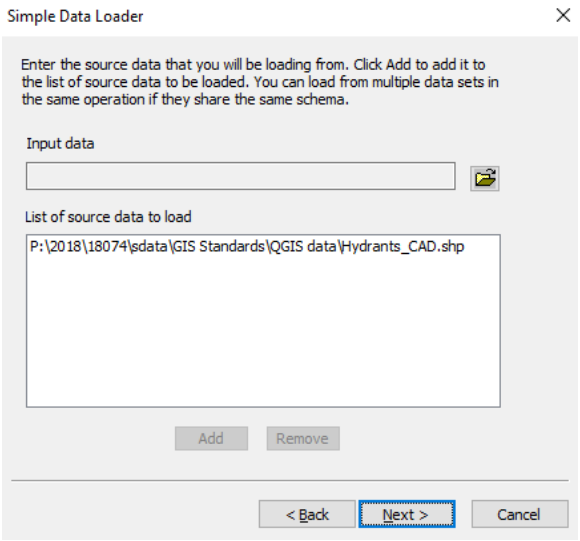
    d. In the Simple Data Loader wizard, click Add

i.



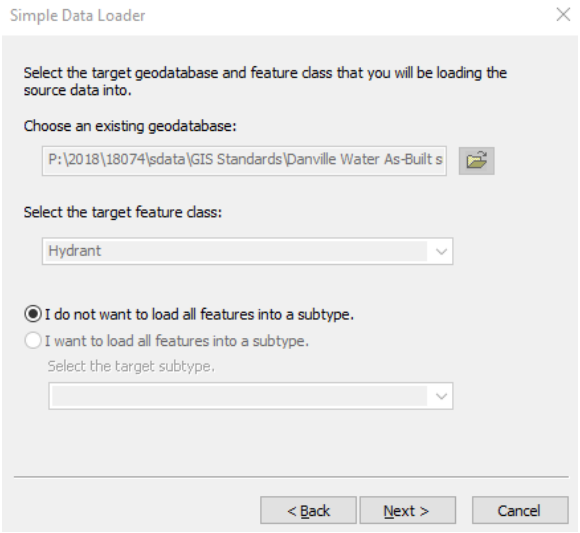
e. Your input data will now be visible in the List of source data to load section. Click Next

i.

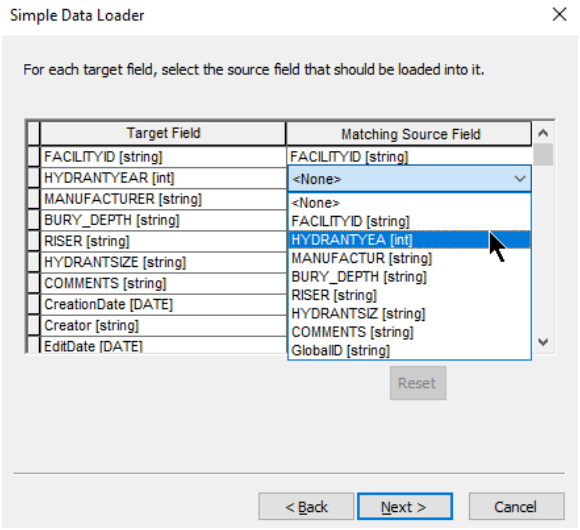


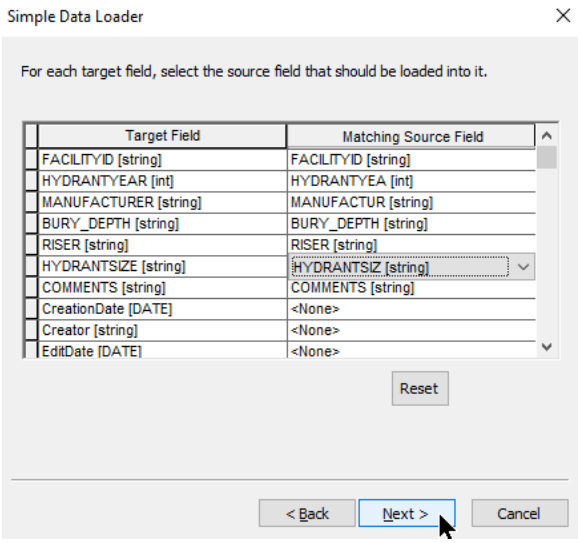
f. The Simple Data Loader wizard will now look like this. Click next

i.

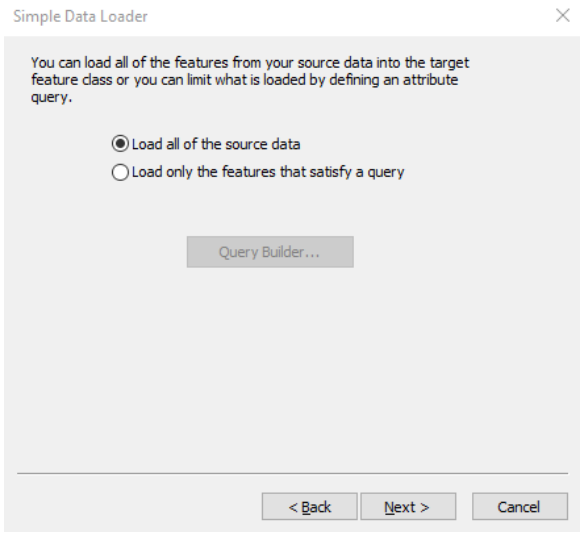


g. Ensure data loads to the appropriate Field
    i. The Target Field column are Fields in the Standard_Water.gdb
    ii. The Matching source Field column are Fields from the Shapefile you are loading
    iii. If you have data populated in the Shapefile, click a Fields dropdown options in Matching Source Field and locate the appropriate matching field. Do this for all Fields in the Matching Source Field column that you have a matching Shapefile Field, then click Next>

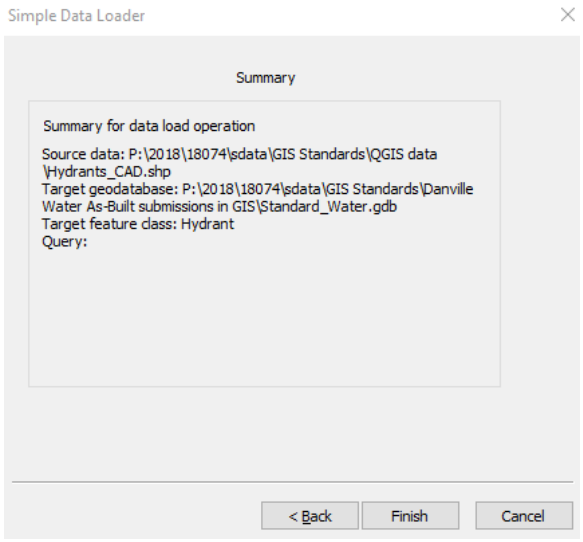
1. 

2. When selecting data in the Matching Source Field to match with the Target Field, make sure that the data types are the same, i.e. string, int, DATE, etc.
3. 

    iv. Select the Load all of the source data radio button, then click Next>

1. 

v. The Summary page will recap the Loading of Data process. Click Finish to complete

1. 

4. Repeat step 3 for each feature layer (i.e. valves, hydrants, pipes, etc)
5. Attach photos for hydrants and valves to the FGDB Feature Layer
    a. Using ArcGIS Pro – https://pro.arcgis.com/en/pro-app/latest/help/editing/edit-file-attachments.htm
    b. Using ArcGIS Desktop - https://desktop.arcgis.com/en/arcmap/latest/tools/data-management-toolbox/add-attachments.htm
6. Submit the FGDB to the Town of Danville for review/approval
7. Refer to the Danville Water Standards section 3.12N for more details.