Draw Ancillary Features

Overview

This tool replaces input file processing of inplace, underground, linear utilities. IE Utild.inp. This tool will also place utilities in a Profile View however we don't generally do this at Mn/DOT so we won't be showing this feature. This demo will mimic what is accomplished using Utild.inp.

This demo will show the placement of utilities at a specific depth of cover (Vertical Offset) relative to existing ground, however it should be noted that depths of utilities can also be set relative to a TIN surface, or a profile elevation.

Files

util_xs1.dgn Cross section file.
utility_atp.dgn – Topog file with only utilities in them
mndotutil.afd – Ancillary Feature Database file.
> - This file should be copied to your project directory from:

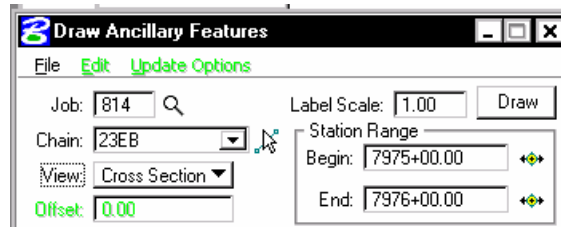**S:\MndotV8stds\DOT_GEOPAK\preference**.
> - This file has gas, tbur, pbur, water, and sanitary sewer features already set up.
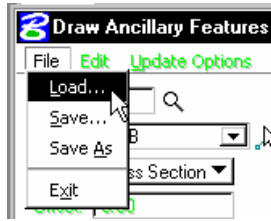
Process

1. Open up the Cross Section file **(util_xs1.dgn)**

2. Access the **Draw Ancillary Features** dialog from the Cross Section tool box.

3. Populate the dialog.
    a) Job: **814**
    b) Chain: **23EB**
    c) View: **Cross Section**
    d) Label Scale – Not used, can be left at default value.
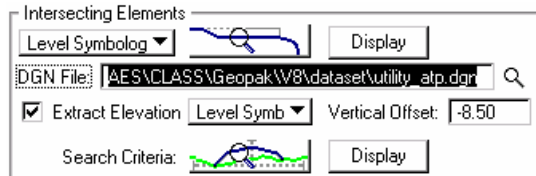   **e)** Station Range – Begin: **7975+00**
    >   End: **7976+00**

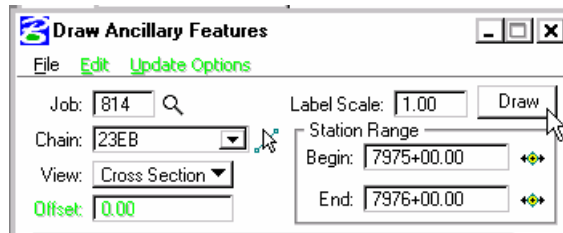f) Use the **File > Load** tool to load the **mndotutil.afd** file from your project directory.

g) Note the Element List and how it is set up.

h) Verify that the DGN file setting is pointing to the topog file **(utility_atp.dgn)** for each of the element types.

4. When the Element Set list is complete, activate by clicking the **DRAW** button in the upper right portion of the dialog.

5. Sections will scroll through for each utility element set. (This can be time consuming.)

6. When complete, use the XS Navigator to scroll through the sections and verify that the utilities have been drawn.

NOTE: To have utilities set at a profile elevation, set the Intersecting Elements option to Chain, and turn off the Extract Elevation toggle. This action allows the setting of the COGO Profile.
- THE CHAIN AND PROFILE STATIONING MUST BE COINCIDENTAL