

DU Updating DGNs for Prototypes, Element Templates, and Feature Definitions

Design standards for Drainage and Utilities (feature definitions, element templates, and even prototypes) are embedded into the DGN the first time that you run Drainage and Utilities in that DGN. This makes the Drainage and Utilities **design standards** static in the DGN. The best way to apply new drainage design standards is to create a new DGN, embed the design standards into it, and import the database. Nodes must still be edited to force the adoption of new prototypes.

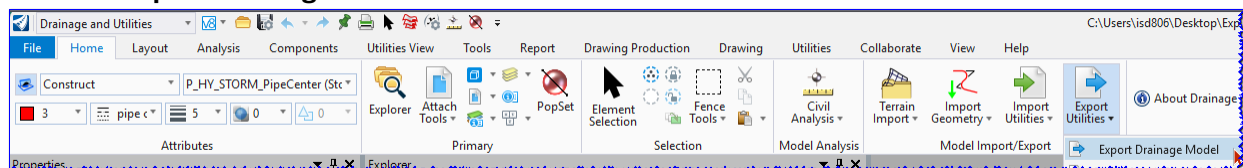
The following is a process to get changes made to the Drainage and Utilities DGNLIB for prototypes, feature definitions, and element templates to affect previously laid out/computed drainage nodes, conduits, gutters, and channels in an older DGN file.

1. Export the drainage model from older DGN file.
2. Create a new DGN file from ORD_Seed2D.dgn and Import the drainage model (new feature definitions and element templates will be written to the DGN)
3. Import the Prototypes from the WorkSpace DGNLIB
4. Force the existing elements to use the new prototype by changing all elements with the updated feature definition to a different feature definition and then back to the correct updated feature definition. (jiggle the elements)

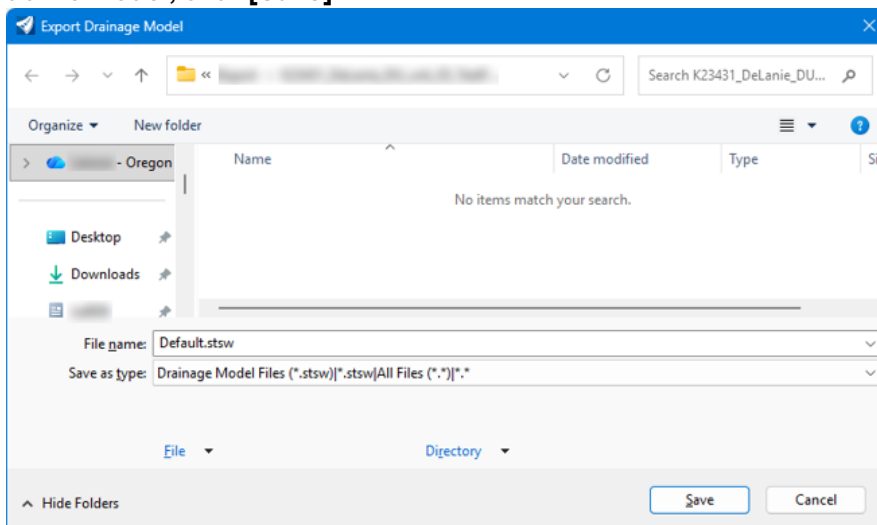
The drawing of the 3D structures is not static but is not dynamic, either. When a change occurs to a cell in a DU cell library, the 3D solid of the structure is not aware of that change until a drainage property for that particular node is modified. The change in the property causes the 3D structure to be redrawn using the updated cell. If cells are updated at the same time as prototypes are updated, step #5 above will cause the 3D structures to redraw.

1. Export the Drainage Model

Open the older DGN and run **Drainage and Utilities>Home>Model Import/Export\Export Utilities\Export Drainage Model**.

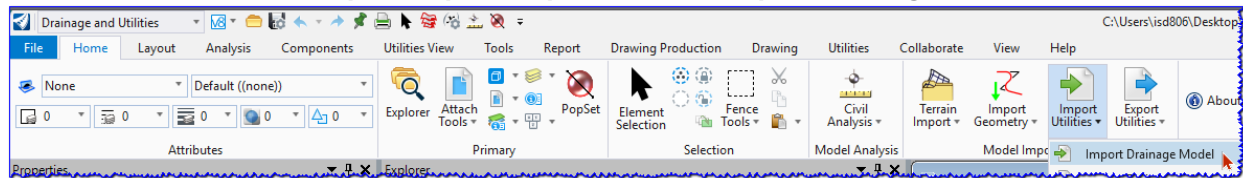


The Export Drainage Model dialog will prompt you to save a SewerGEMS file (.stsw), named for your active model; click **[Save]**.

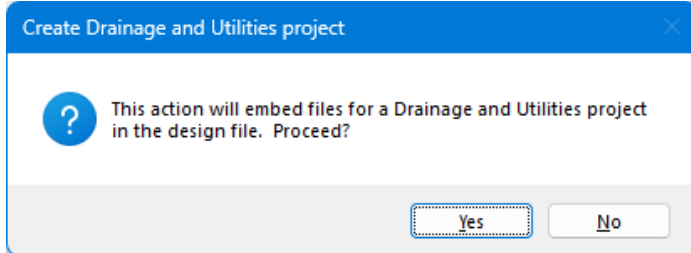


2. Import the Drainage Model into a New 2D DGN

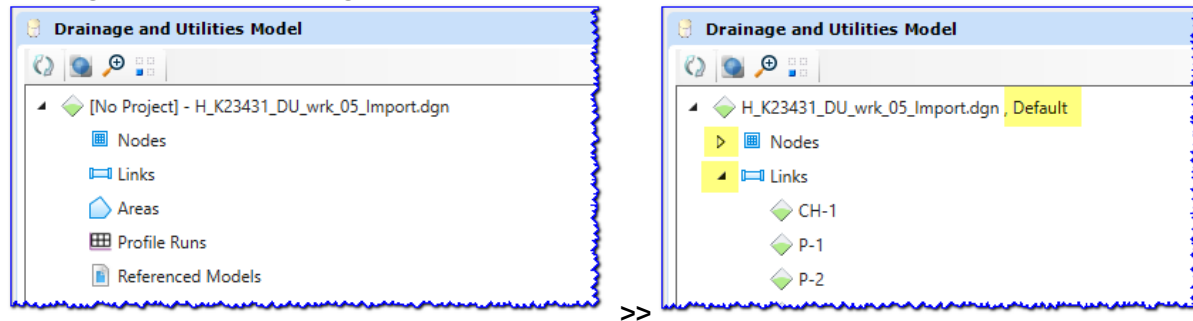
Create a new DGN from the OpenRoads 2D Seed, open it, and run **Drainage and Utilities>Home>Model Import/Export\Import Utilities\Import Drainage Model**.



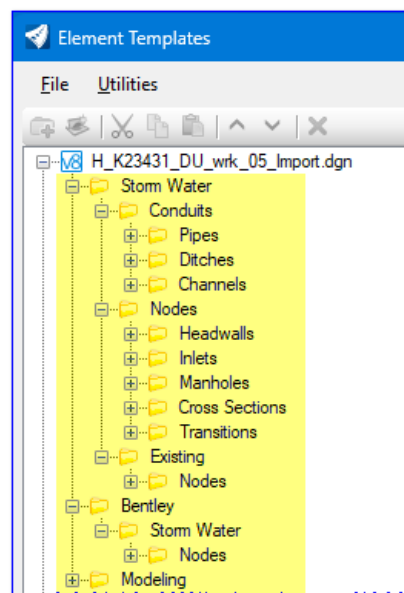
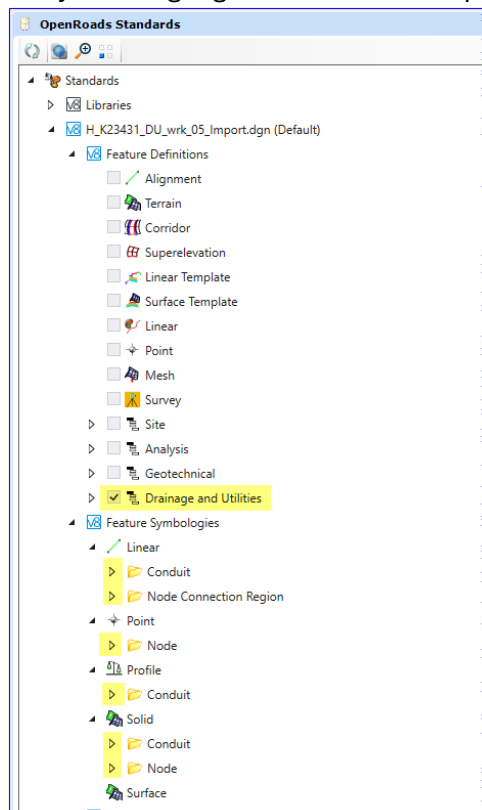
Respond [Yes] to the Create Drainage Utilities project prompt.



Then navigate to and select the SewerGEMS project (.stsw) you exported earlier. This will import the drainage model and catalogs.

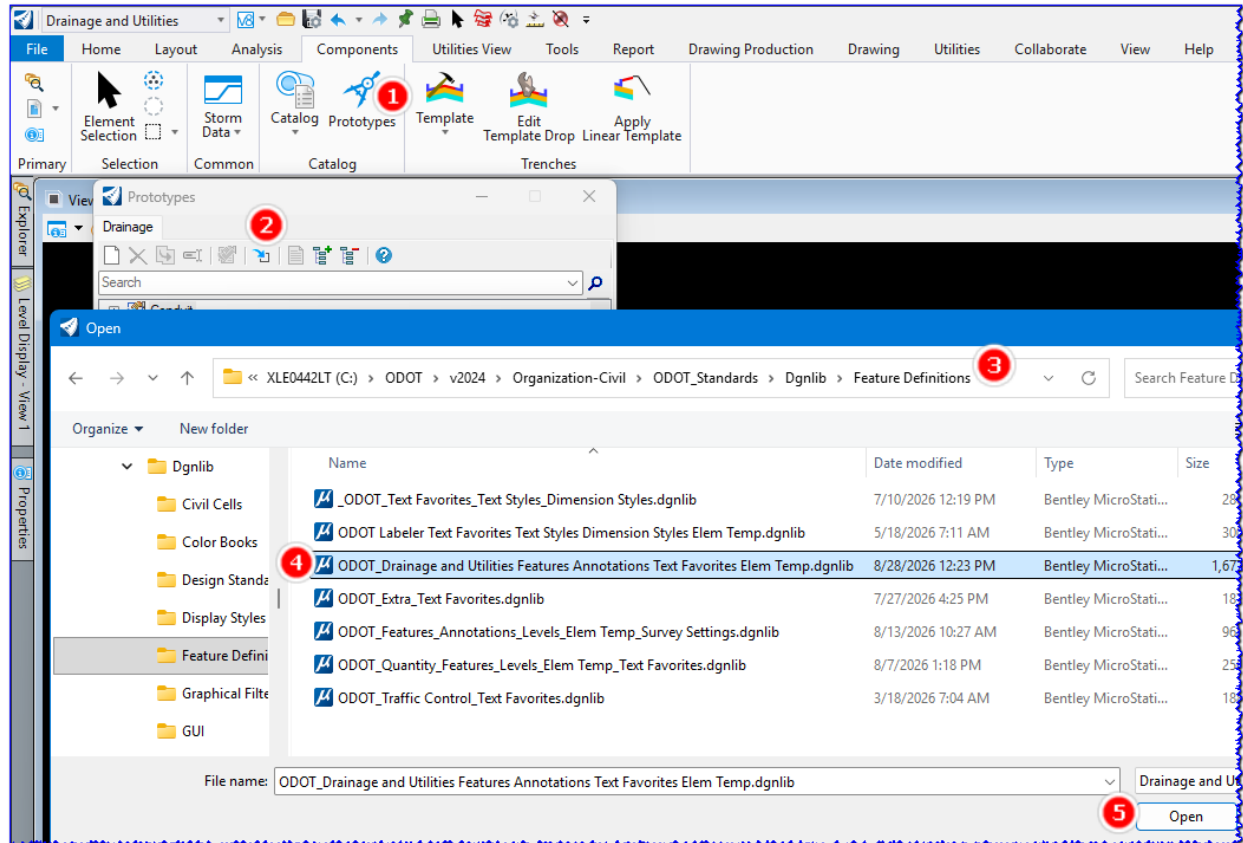


The yellow highlighted areas in the OpenRoads Standards show the embedded feature definitions.



3. Import the Prototypes from the WorkSpace DGNLIB

Run **Drainage and Utilities>Components>Prototypes**, then choose the **[Import]** button from the **Drainage** tab. The numbered red circles below show the order of steps and the location of the “...Drainage and Utilities...” DGNLIB on the **Open** dialog.



The Prototypes list will be updated with the latest prototypes and the catalogs will be updated with the currently available catalog items, making them available for use with the older data.

4. Force the existing elements to use the new prototype

Because Bentley does not overwrite prototype properties on nodes and links automatically, to force existing drainage elements to use a new prototype assigned in its feature definition:

- a. Select the drainage element (node/link/gutter/channel).
- b. Change its Feature Definition to something else temporarily.
- c. Change it back to the correct updated Feature Definition.

Changing the feature definition triggers a re-application of the updated prototype values.