OpenRoads Designer: Geometry Basemaps

Basemap Design Files

ODOT's CADD Standards detail the use of various basemap design files to store data such as plan, profile, corridor modeling, and cross section information. The basemaps store this information in real world dimensions, not scaled for a specific plan sheet presentation. These drawings are then referenced into sheet design files to produce the plan sheets for the project.

Several basemap files may be used depending on the project complexity. The ODOT CADD Standards allow for multiple basemap design files for each unique discipline (drainage, lighting, mot, roadway, signals, etc.)

The following basemap design file types will be used in this training course:

DGN File Type	Two-character code	Location
Survey Field Book	FB	300-Survey\Basemaps \
Geometry	BK	400-Engineering\Roadway\Basemaps \
Right-of-Way	BR	400-Engineering\RW\Basemaps\
Superelevation	KS	400-Engineering\Roadway\Basemaps\
3D Modeling	KM	400-Engineering\Roadway\Basemaps\

The **OHDOT Create Design Files** application is used to create new design files using the seed files for the project.

See the **ODOT CADD Engineering Standards Manual (OHDOT)**, **Section 300 File Management** for more details.

Geometry Basemaps

With OpenRoads Designer, all geometric information is stored in a MicroStation design file. A separate external database is not used as it was with Bentley's PowerGEOPAK software.

ODOT's CADD Standards designate a specific basemap design file for storing OpenRoads geometry. It is not recommended to store the OpenRoads geometry information in the same design file as the plan view graphics or the survey basemap. Geometry basemaps are stored in **400-Engineering\Basemaps** folder for the project.

Geometry basemap design files are named as follows:
    nnnnnn_BK###.dgn

    where:
        nnnnnn = the six-digit PID number for the project
        ### = a three-digit number for the file (001, 002, 003, etc.)

    Example: 123456_BK001.dgn

Using Multiple "Federated" Basemaps

ODOT recommends a "federated" approach to store each geometric alignment in its own design file. This "federated" approach will allow multiple designers to work on different alignments simultaneously.

The **OHDOT Create Design Files** application is used to create the geometry basemaps for the WorkSet.

OpenRoads Software Version

This document was prepared using the following software version:

OpenRoads Designer CONNECT Edition – 2021 Release 1 Update 10 – Version 10.10.01.03

Contacts

For any questions, suggestions, or problems with this document please contact the ODOT Office of CADD and Mapping Services by use of the following form on the ODOT website:

https://odot.formstack.com/forms/cadd_servicerequest