Deliverables 4   *File Naming Conventions*

D4.01   General

This chapter contains information on the file naming requirements for various files included in WSDOT electronic engineering data. These standards are mandatory components of designing a WSDOT project.

Using standard naming conventions greatly enhances data portability, ensuring that everyone can readily identify and utilize files generated by different users. Moreover, the guidelines outlined in this section aid in arranging files in a logical sequence and offer quick insight into their content.

Do not use special characters in folder or file names. This includes any of the following:

> ~`!@#$%^&* (){}[]|\:;"'<>,?/+=

In the CONNECT platform, data is stored in the DGN file format. The format includes three types of models:

- Design 2D or 3D – general working model for real-world drafting and engineering in full size. By default, design models have a black background.

- Drawing 2D – Used for annotation of referenced Design models. Multiple drawing models may reference the same design model element, but at different scales or view perspectives where annotation may conflict across the perspectives. By default, drawing models have a grey background.

- Sheet 2D – also referred to as paper space, this model is for printing at predefined sheet/paper sizes. Details are referenced from the Design or Drawing models or drawn directly in the sheet model. By default, sheet models have a white background.

At WSDOT data is organized in three primary categories:

- Base/Data Files – Project data

- Container Files – Collaboration repository for civil and plans production data

- Sheet Files – Plans production

D4.02   Survey Files

D4.02(1)   File Types

Survey files can encompass raw data outputs from equipment, processed data from software, researched data such as cadastral control and section information, as well as output reports from various stages of the survey process. OpenRoads stores survey field book in the DGN file along with the terrain when applicable. A survey deliverable DGN file will be created with a Complex Terrain Model (CTM) that will combine all the project Field Book DGN file(s) into a single terrain for the use in Design. Each of these file types shall be included in the structure as applicable.

D4.02(2)   File Naming Conventions

KEY:

Typical survey file name format: **ID1234_XXX_***Desc***.yyy**

Bold indicates mandatory file name sections.

Italics indicate user-defined file name sections using conventions described below.

Each file name section is separated by an underscore ("_").

> ***ID1234*** = Project ID – typically the charge number (*XL1234, C2005*)
>
> > Alternatively, some data may be *SR###MP#-MP#*
>
> **XXX**   = Two - four letters file type (see below File Type Code)
>
> *Desc*   = Brief, 10-character or less descriptive words indicating main content of file
>
> > For example:
> >
> > Bridge# = 3D bridge deck survey
> >
> > LIDAR   = LiDAR Point Cloud
> >
> > Topo   = General topography
> >
> > Traverse = Control network traverse

File Type Code	Comments
CTM	Complex Terrain Model – Combines project field books into a single terrain and survey graphics for Design.
DA	Data Acquisition – files imported into OpenRoads Field Book
FB	Field Book – 3D DGN that contains a Survey Data Acquisition file(s)
GCS	Geographic Coordinate System
RW	Right of Way
TRAV	Traverse output files

D4.02(2)(a)   Geographic Coordinate System & Control

File Name	Type	Contents
SR003MP2-MP5_GCS_PD.dgn	DGN	DGN that contains the Project Datum Geographic Coordinate System
SR003MP2-MP5_GCS_PD.prj	PRJ	Projection file that contains the Project Datum Geographic Coordinate System
SR003MP2-MP5_PDCalc.xml ID1234_PDCalc.pdf SR003MP2-MP5_PDCalc.xlsx ID1234_PDCalc.xlsx	ASCII PDF XLSX	Project Datum calculation documentation file
MonumentDesignation.pdf	PDF	Record of Survey Mark Report

D4.02(2)(b)   ASCII Data Acquisition Files

File Name	Contents
ID1234_DA_desc.dc	Trimble survey data file
ID1234_DA_desc.fwd	InRoads survey data file
ID1234_DA_desc.rw5	Carlson, TDS or Leica survey data file
ID1234_DA_desc.txt ID1234_DA_desc.csv	Point text file can be in many formats. WSDOT Survey ASCII is the preferred format.

D4.02(2)(c)   Processed Field Survey Files

File Name	Type	Contents
ID1234_CTM_Existing.dgn	DGN	3D DGN Complex Terrain Model (CTM) container file representing existing ground survey with the project's Field Book (FB) DGN referenced.
ID1234_FB_Bridge#.dgn	DGN	3D DGN containing field book with a bridge survey
ID1234_FB_Control.dgn	DGN	3D DGN containing field book data with only monuments and control data.
ID1234_FB_desc.dgn	DGN	3D DGN file containing field book all surveyed features with all associated information from field book.
ID1234_RW_Existing.dgn	DGN	2D DGN with existing R/W centerline, R/W limits, and Cadastral data.

D4.02(2)(d)   Report Files

File Name	Type	Contents
ID1234_desc.xml	ASCII	Alignment stakeout data
ID1234_desc.xml	ASCII	Baseline stationing output file
ID1234_TRV_desc.xxx	ASCII	Survey traverse adjustment file

D4.03   Engineering Files

D4.03(1)   File Types

OpenRoads stores all design information in the DGN file. OpenRoads civil workflows rely heavily on multiple DGN files being allied (referenced) in an organized, consistent, institutionalized format. While developing a project in OpenRoads, there should be one set of each of the files discussed below for every alignment that will have a plan and profile set of sheets (see Deliverables 6 for information contained in each of the file types listed).

D4.03(2)   Engineering File Naming Conventions

KEY:

Typical design file name format: **XL1234_XXX_***Desc***.dgn**

Bold indicates mandatory file name sections.

Italics indicate user-defined file name sections using conventions described below.

Each file name section is separated by an underscore ("_").

      XL1234 = Project number (*typically a charge number)*

      XXX   = Three letter file type (see below Example File Listing)

      Desc   = Brief, 10-character or less descriptive word indicating main content of file

           For example:

           ProjectName   = Identifies the project name used on project level resources

           AlignmentName   = Identifies the corridor alignment name

           PlanType   = Identifies the discipline plan type

           DesignerName   = Identifies the designer's name

D4.03(3)   Example File Listing

File Type Prefix/Naming Example	File Type	2D/3D Seed File
XL1234_GEOM_AlignmentName.dgn	Alignment/Geometry	2D
XL1234_COR_AlignmentName.dgn	Corridor file	2D
XL1234_SUP_AlignmentName.dgn	Superelevation file	2D
XL1234_DRN_AlignmentName_desc.dgn	Drainage file	2D
XL1234_XSC_AlignmentName.dgn	Cross section file	2D
XL1234_CCF_FileType.dgn	Civil Container Files	2D
XL1234_ProjectName.ITL	Template library	N/A
XL1234_TRN_AlignmentName.dgn	Corridor design terrain file	3D
XL1234_UTL_ProjectName.dgn	Utility file	2D
XL1234_BP_PlanType.dgn	Base Plan File, see D4.04	2D
XL1234_CTM_PRJ_ProjectName.dgn	Project Model Terrain	3D
XL1234_Reference_datatype_report.html	HTML/XML	N/A

D4.04   PS&E Plans Files

D4.04(1)   File Types

CONNECT plan sheet production incorporates the three basic file categories (Base, Container, and Sheet). Drafting requirements shall comply with *Deliverables 7 Drafting and Plans Preparation* of this manual.

D4.04(2)   PS&E Plans File Naming Conventions

KEY:

Typical BASE plan filename format: **ID1234_BP_XXYY_***Desc***.dgn**

Typical CONTAINER filename format: **ID1234_CF_XXYY.dgn**

Typical SHEET filename format: **ID1234_FT_XXYY_001.dgn**

Typical addendum sheet filename format: **ID1234_FT_XXYY_001_ZZ#.dgn**

Bold indicates mandatory file name sections.

Italics indicate user-defined file name sections using conventions described below.

Each file name section is separated by an underscore ("_").

ID1234 = Project number (*typically a charge number)*

FT   = Two to three letter FILE TYPE code (see below File Type Code).

XXX   = Two to four letters PLAN TYPE code (see D4.04(4)).

YY   = Two-letter *secondary* PLAN TYPE (PT) code: this code is used when combining multiple plan types on one file type (see D4.04(4)).

001   = Three-digit Plan Reference/Type sheet number

ZZ#   = Plan sheet change type and number AD=Addendum, CO=Change Order,

            RV =Revision

Desc   = Brief, 10-character or less descriptive word indicating the main content of file. A description may also be applied to sheet files only when necessary to concisely differentiate between multiple like sheet files. For example, staging.

            For example: AutoTurn = Turning radius analysis.

D4.04(3)   *File Type (FT) Codes*

Type	Description
BP	2D-Baseplan Plan File Type for Sheet Production
CF	Container File
DE	Detail sheet
EXB	Non-PS&E multi-purpose exhibit
FIG	Non-PS&E figures for reports or permit
NMBD	Named Boundary File for Sheet Layout
PFA	Plan for Approval
PR	Profile view sheet
PS	Plan view sheet
QT	*Quantity Tabs
SN	*Structure Notes
SQ	*Summary of Quantities
SS	*Sign Specifications
XS	Cross Section view sheet

* May be produced from QTabs, EBase or other non-CAD application.

D4.04(4)   Plan Type (PT) Codes/Plan Reference No.

PLAN REFERENCE No.: Plan Reference Number the alpha prefix is typically two digits (see *Plans Preparation Manual* Section 400.05(2) for requirements. Below are recommended plan reference codes.

Plan Type/Plan Reference	Description
AL	Alignment
BG	Bridges
BU	Building Plans and Details
CN	Contour Grading Plans
CT	Certification Sheet for PE Stamp Sig.
DD	Drainage Detail
DR	Drainage Plan
DP	Drainage Profile
DU	Detour Routes and Signing
EC	Temporary Erosion Sediment Control
EL	Electrical
EM	Environmental Compliance
EU	Existing Utilities
EX	Existing
GS	Grading Sections
HN	Hydraulic Plan
HP	Hydraulic Profile
HT	Hydraulic Details
IC	Interchange Contour
IL	Illumination
IN	Index
IR	Irrigation
LS	Landscape
MC	Miscellaneous
MK	Pavement Marking
PV	Paving
QT	Quantity Tabulation
RC	Reclamation, Borrow, Pit, Quarry, etc.
RD	Roadway
RM	Record of Monumentation
RS	Roadway Sections

Plan Type/Plan Reference	Description
SU	Staged Construction
SG	Signals
SI	Signing
SP	Site Preparation
SN	Structure Notes
ST	Structures/Minor Structures
TC	Traffic Control
TS	Intelligent Traffic Systems
UT	Utilities
VM	Vicinity Map

D4.04(5) Example File Listing

File Name	Type	Contents
ID1234_BP_XXX_desc.dgn	DGN	PS&E Base plan of features where *XXX* = Plan Type
ID1234_BP _UTEX.dgn	DGN	Base plan – Existing Utilities
ID1234_BP_PFA.dgn	DGN	Base plan – Plans for Approval
ID1234_BP_RW.dgn	DGN	R/W Base plan - For Design office work
ID1234_NMBD.dgn	DGN	All named boundaries for all sheets and scales
ID1234_NMBD_100Scale.dgn	DGN	Named Boundaries for 1"=100' plan sheets
ID1234_CF_XXX.dgn	DGN	Container file where XXX = Plan Type
ID1234_DE_SN_001.dgn	DGN	PS&E Detail Sheet – Signing Plan 001
ID1234_DE_DRPV_003.dgn	DGN	PS&E Detail Sheet – Drainage and Paving sheet 003
ID1234_PR_RD_001.dgn	DGN	PS&E Profile Sheet – Roadway Sheet 001
ID1234_ PS_AL_005.dgn	DGN	PS&E Sheet – Alignment Plan sheet 005
ID1234_PS_RW_001.dgn	DGN	PS&E Sheet – R/W (for PS&E) Plan Sheet 001
ID1234_PS_AL_001_AD2.dgn	DGN	PS&E Sheet – Alignment Plan Sheet 1 – Addendum 2
ID1234_PS_MSC_desc_001.dgn	DGN	Miscellaneous CAD file with description
ID1234_PS_INVM.dgn	DGN	PS&E Index Sheet and Vicinity Map
ID1234_QT_XXX.dgn	DGN	Quantity Tabulation Sheet in CAD file
ID1234_QT_XXX.xlsx	XLS	Quantity Tabulation Sheets in Excel spreadsheet

D4.05   Right of Way Plans (CADD) Files

D4.05(1)   *Right of Way Plan File Types*

Right of Way (R/W) plans include a base plan – representing the R/W project limits. They also include the individual sheet files for that project. If available, the base data will be in DGN file format. The available sheet information may be in DGN file or PDF file format. All R/W deliverables will be in DGN file format with PDF printable copies.

Additional supporting documents for Right of Way plans development and/or revision include PDFs, XML, CSV, and other formats. These are stored in the *Letter_YYYY-MM-DD* structure for submittal to HQ Right of Way Plans. Each submittal shall have a separate *Letter_YYYY-MM-DD* folder.

D4.05(2)   *Right of Way Plans Naming Conventions*

KEY:

Typical Base plan filename format:	**SR#-PLAN#_RW_BP.dgn**
Typical sheet filename format:	**SR#-PLAN#_RW_PS_SHEET#.dgn**
Typical Review filename format:	**SR#-PLAN#_RW_PS_SHEET#R.pdf**

Bold indicates mandatory file name sections.

Italics indicate user-defined file name sections using conventions described below.

Each file name section is separated by an underscore ("_").

> SR#   = State Route Number of highway
> Plan#   = R/W office file number (found in lower right-hand corner of sheet)
> RW   = Identifies electronic file as a Right of Way plan
> LA   = LA may be substituted for R/W on Split plans (Plans Showing Access)
> BP   = Base map typically prepared by region and used as a reference file.
> PS   = Plan View Sheet typically prepared by region.
> Sheet# = Sheet number assigned within plan set.
> R   = Region Review copy is a temporary copy of plan revision for review purposes only.

D4.05(1)   *Example Plan File Listing*

File Name	Type	Contents
005-136_RW_BP.dgn	DGN	Base Plan for Plan Number 136 on SR005
005-136_RW_PS_013.dgn	DGN PDF	Sheet 13 for project 136 on SR005
099-115_RW_PS_006R.dgn	DGN PDF	Review copy of sheet 6 for project 115 on SR099

D4.05(2)   Project Researched Survey/Cadastral Files

File Name	Type	Contents
ID1234_RW_Revision.dgn	DGN	Proposed R/W, easement, and boundary geometry changes

D4.05(3)   Additional Supporting Example File Listing

File Name	Type	Contents
YYYY-MM-DD_SubmittalMemo.docx	DOCX	Cover Letter
TitleFileNo_Owner_desc.pdf	PDF	Title Reports
Element_ReportType_desc.*	XML CSV DGN (varies)	Technical/Geometric Reports
RegionNo-ParcelNo.pdf	PDF	Assessors Maps
AFN#############.pdf	PDF	Records of Survey