OpenRoads Designer User Manual

U.S. Department of Transportation
Federal Highway Administration

Chapter 2

PROJECT SETUP

2021 R2 Update 10 – Version 10.10.21.04 – WorkSpace 10.10V
December 2022

Chapter 2 Project Setup

This chapter covers initial project setup.

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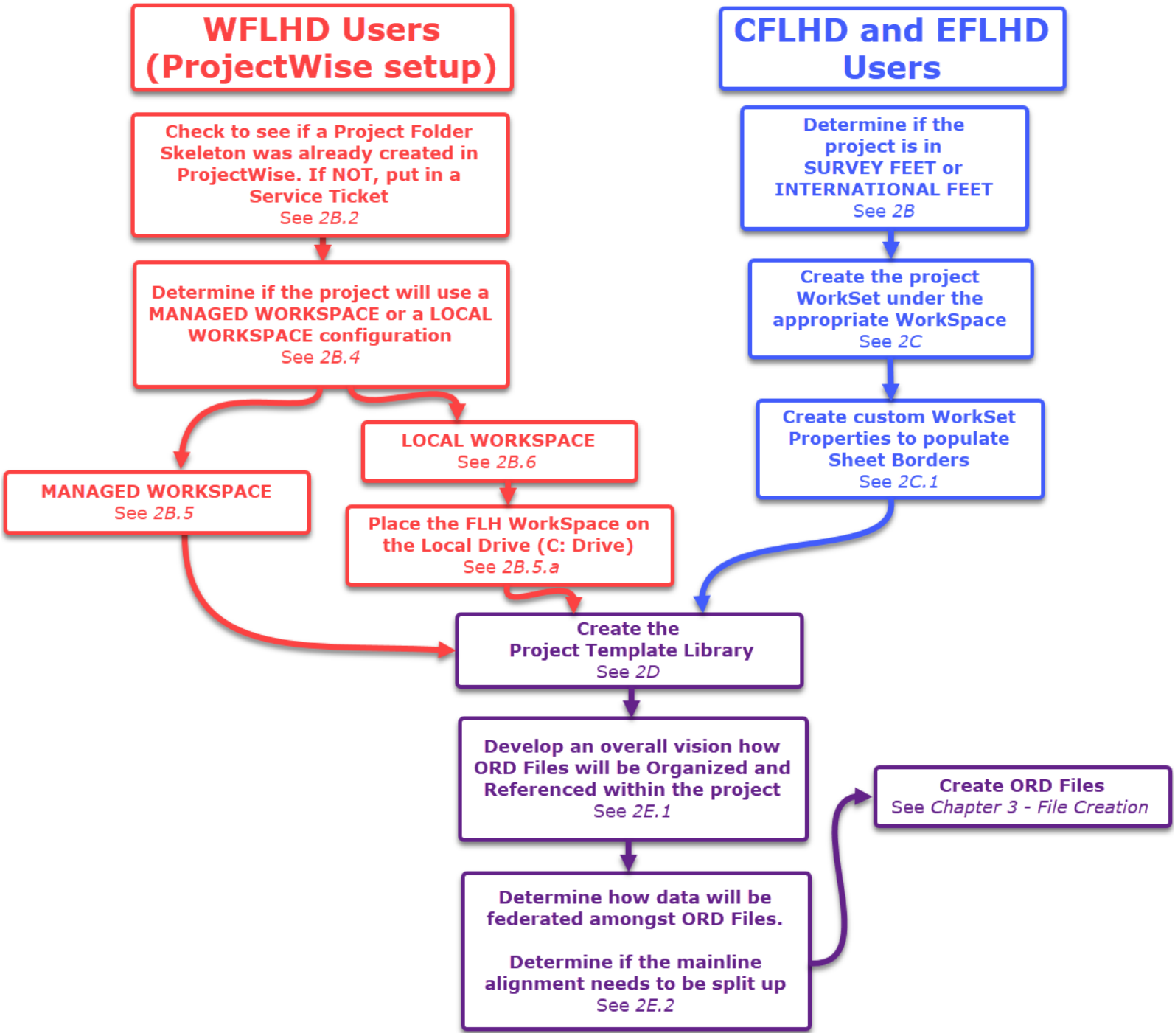
2A – PROJECT SETUP OVERVIEW FLOW CHART

This flowchart shows the processes and decisions involved when setting up a new project.



2B – INTRODUCTION TO THE WORKSPACE AND WORKSET

When an ORD File is opened, a **WorkSpace** and **WorkSet** are opened in the background. When setting up a new project, a new **WorkSet** must be created specifically for the project. All FLH projects use the same **WorkSpace**.

> ***NOTE:*** Opening previously-created ORD Files with the appropriate WorkSpace and WorkSet is discussed in *1A.1 Opening the Software and WorkSpace/WorkSet Selection Menu*.

WorkSpace: The WorkSpace is a custom OpenRoads Designer environment that contains agency specific ORD resources. Federal Lands Highway (FLH) manages a WorkSpace that is referred to as the "FLH WorkSpace" in this manual.

ORD Resources contained in the FLH WorkSpace:

- Level, Line Style and Feature Definition Libraries
- Cell Libraries and Sheet Borders
- The FLH Standard Template Library
- 2D and 3D Seed Files
- Printing Configurations Files and Pen Tables
- Horizontal and Vertical Annotations for alignment and profile labeling
- Geometric Design Standards, Superelevation equations, Curve Widening tables

> ***TIP:*** Before setting up a project, ensure that the current version of the FLH WorkSpace is installed. Verify the WorkSpace installation with your Engineering System Manager.

> **WorkSpace Version Number:** The FLH WorkSpace is updated periodically. At the time of developing this manual, the latest edition of the FLH WorkSpace was 10.10.21.00V. The current FLH WorkSpace is listed and available from the FLH Website: https://highways.dot.gov/federal-lands/cadd-support/downloads

WorkSet: The WorkSet can be thought of a *project* folder within the WorkSpace. WorkSets are used to organize different project that use the same WorkSpace. Every project should have a unique WorkSet.

Every ORD File is assigned to a specific WorkSet. ORD Files that belong to the same project should be assigned and opened with the project WorkSet.

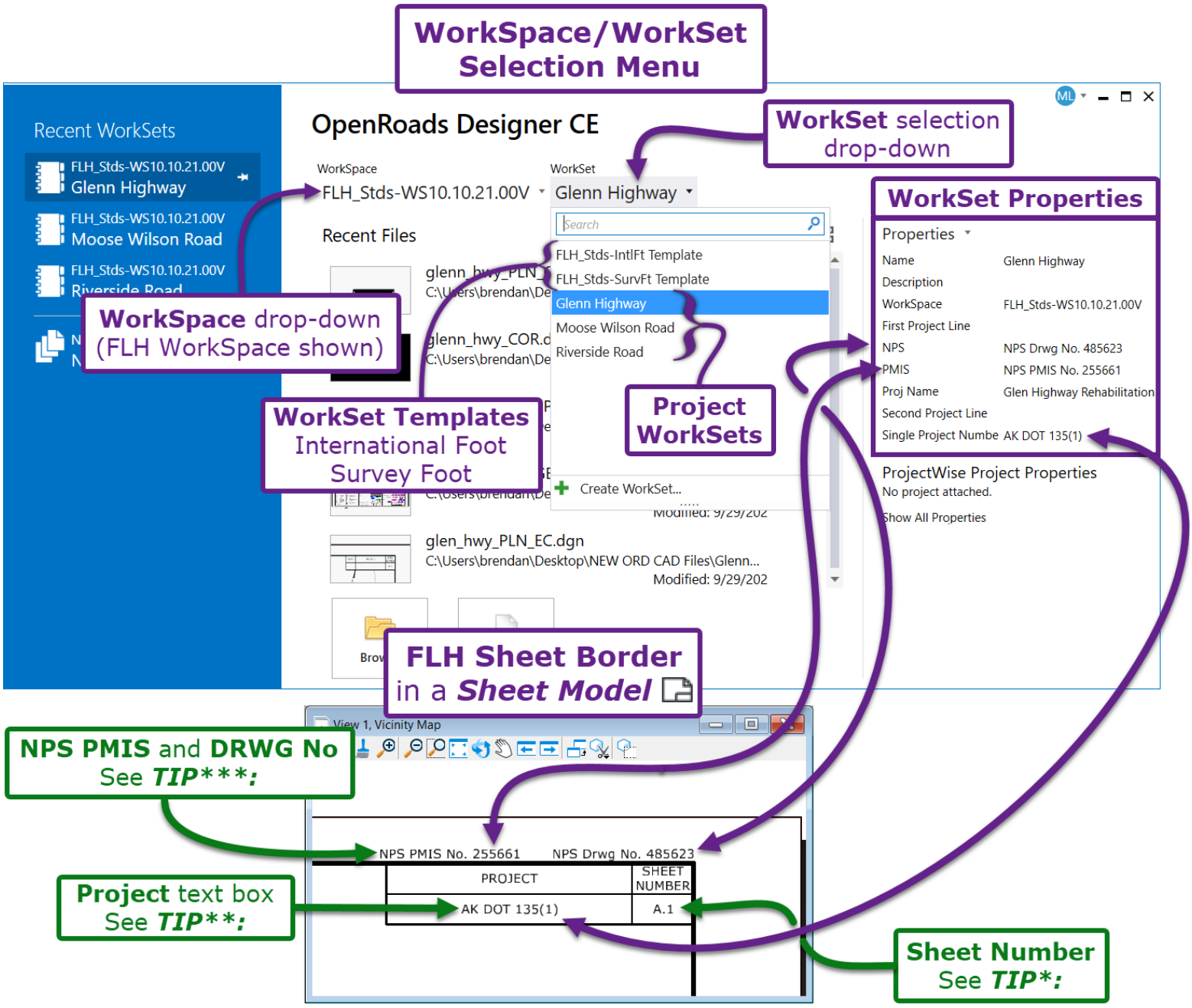
A WorkSpace contains project-specific information such as the Project Number, NPS PMIS Number, and NPS Drwg No – which are set in the WorkSpace Properties. WorkSet Properties are linked to text fields in the upper-right corner of the FLH Sheet Border. The FLH Sheet Border text fields are automatically populated after the WorkSpace Properties are set.

When creating a WorkSet, a template must be specified. There are two WorkSpace templates. A WorkSpace template used for projects surveyed in **Survey Feet** units and a template used for projects in **International Feet**.

TIP: The survey units that are used for a project depend on the State. **International Feet** units are used in the states of Montana, Oregon, Arizona, Michigan, North Dakota, and South Carolina. **Survey Feet** units are used for all other States.

CFL and EFL users are responsible for creating a project WorkSet and setting the WorkSet Properties. See *2D – Create a Project WorkSet – Non-ProjectWise Users* and 2D.1 Create WorkSet Properties for Sheet Borders - Workflow.

For WFL users, the project WorkSet and WorkSet Properties is created by the Engineering System Manager and stored on ProjectWise server. See *2C – Working In and Out of ProjectWise*.



TIP*: The **Sheet Number** text field is linked to the **Sheet Index**. When a *Sheet Model* is added to the Sheet Index, it is assigned a Sheet Number. For operation of the Sheet Index, see *Chapter 18 – Sheet Index*.

TIP**: For projects that show a single line of text in the **Project** text box, ONLY fill in the **Single Project Number** field located in the WorkSet Properties.

For projects that show two lines of text in the **Project** text box, fill in the **First Project Line** and **Second Project Line** fields located in the WorkSet Properties. Leave the **Single Project Number** field blank.

TIP:*** For National Park Service (NPS) projects, fill in the appropriate **NPS** and **PMIS** field values in the WorkSet Properties. For all other projects, leave the **NPS** and **PMIS** fields blank or insert a single (space). If left blank, then the NPS text fields will NOT be shown in the FLH Sheet Border.

2C – WORKING IN AND OUTSIDE OF PROJECTWISE

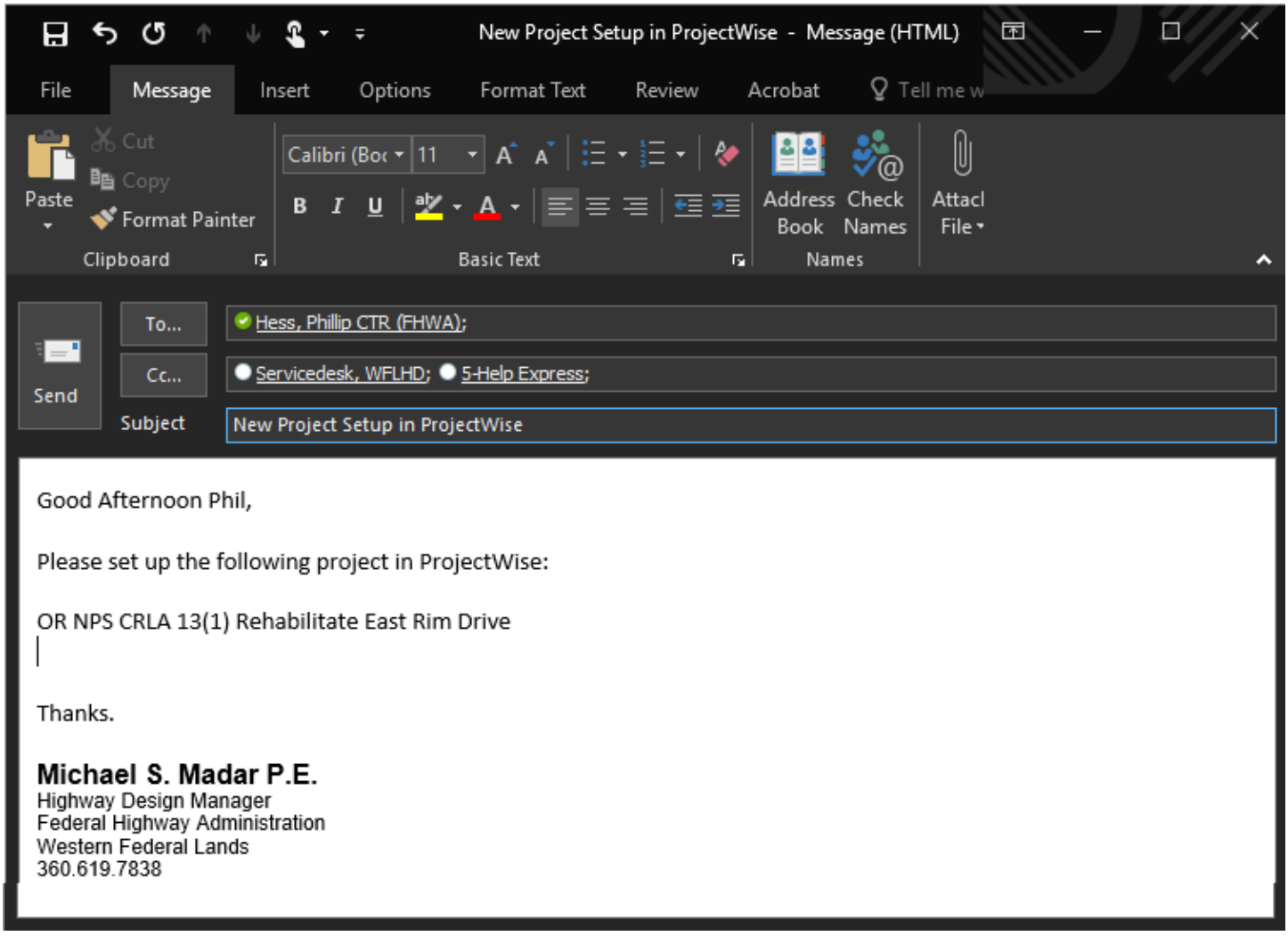
2C.1 WARNING to Non-ProjectWise Users- The ProjectWise setup and procedures described in this section are specific to the IT infrastructure, network pathing, and ProjectWise configurations used by Western Federal Lands Highway Division (WFLHD).

2C.2 Project Folder Skeleton Creation

At the beginning of a project, check to see if a folder skeleton has been created for the project. If a folder skeleton has not yet been created in ProjectWise send a service ticket with the Project ID to:

ProjectWise Administrator - Phillip Hess. Email: Phillip.Hess.ctr@dot.gov.

C.C. *Servicedesk, WFLHD* and *5-HelpExpress*



2C.3 ProjectWise Key Terms

It is crucial that the User understands how the following terms relate to accessing ORD Files through ProjectWise:

Managed – indicates an ORD File or WorkSpace is still associated and linked to ProjectWise.

Local or Unmanaged – indicates an ORD File or WorkSpace is not associated or linked with ProjectWise. Local WorkSpace and ORD Files are accessed from the User's local drive (C:\Drive).

Checked Out – to *lock* an ORD File for editing for other Users. Only the User that has Checked Out the ORD File may edit it.

Checked In – to remove the lock on an ORD File that was previously Checked Out. After an ORD File is Checked In, other Users may edit it.

Export – To copy an ORD File from the ProjectWise server and place it on the User's local drive (C:\ Drive). There are two options when Exporting an ORD File:

> **Managed Export** – The ORD File is copied onto the User's local drive AND is *Locked* in ProjectWise. Other Users will NOT be able to open and edit the ORD File until it is *Imported* back into ProjectWise.
>
> **Unmanaged Export** – The ORD File is placed on the User's local drive but is NOT *Locked* in ProjectWise. Other Users can still access and edit the ORD File via the ProjectWise server. This option is commonly used to try out or test a design concept for feasibility before incorporating into other portions of the design and ORD Files. Similarly, this option may be used if the User wishes to simply view an ORD File and not edit it – similar to a Read-Only scenario.

Import – To take an ORD File from the User's local drive and place it back on to the ProjectWise server. If the ORD File was previously *Exported* and *Locked*, it will become *Unlocked* when Imported back into ProjectWise.

2C.4 Managed vs Local Workspaces in ProjectWise

ORD Files can be worked on directly through ProjectWise OR ORD Files can be exported from the ProjectWise server and placed the User's local drive (C:\ Drive).

When working directly in ProjectWise, the FLH WorkSpace is stored and automatically accessed through the ProjectWise server. This configuration is called a ***Managed WorkSpace*** setup. When an ORD File is opened with a Managed Workspace Setup, the FLH WorkSpace is automatically transferred from the ProjectWise server to the User's workstation.

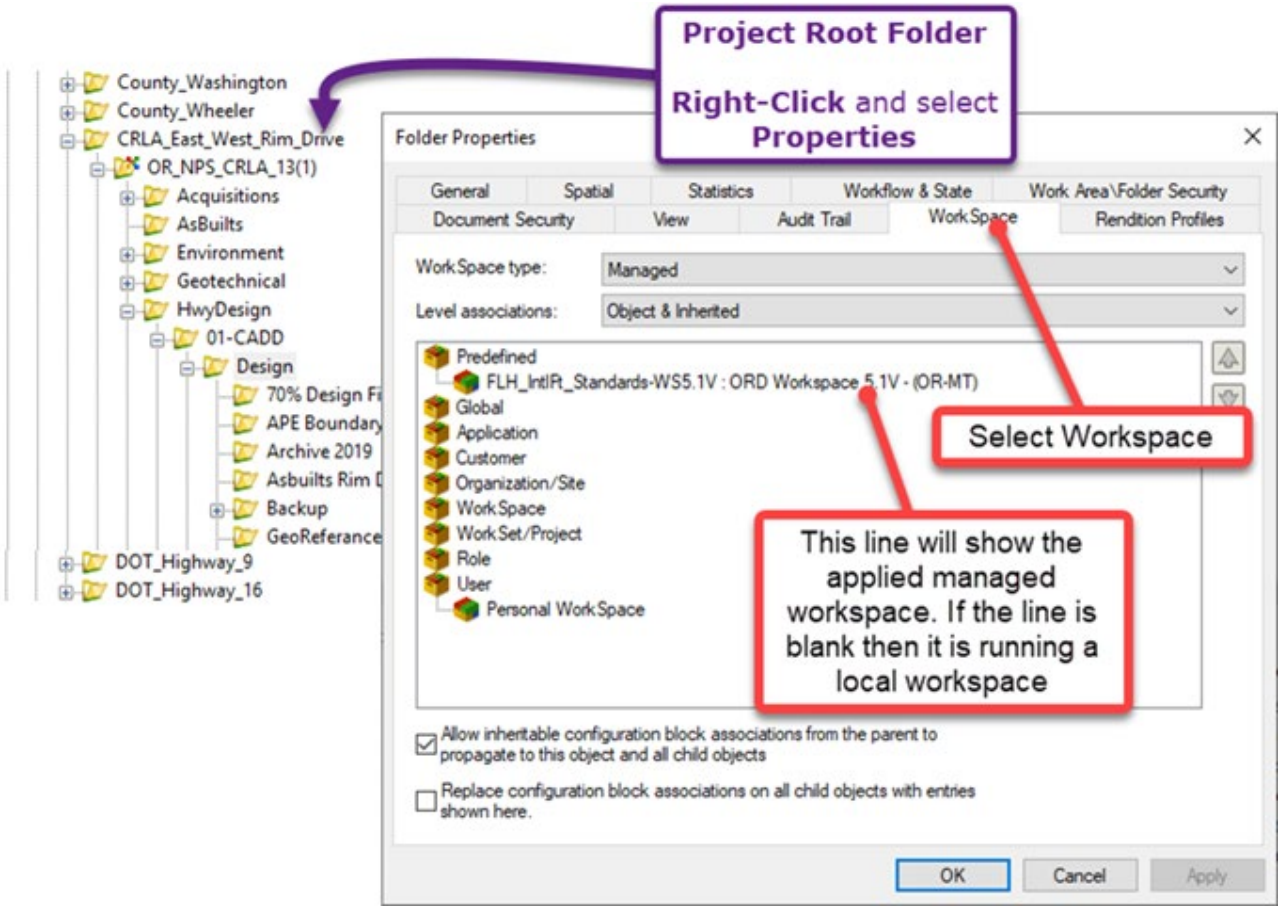
When working outside of ProjectWise, the FLH WorkSpace is manually placed on the User's local drive. This configuration is called a ***Local WorkSpace*** setup. When using a Local Workspace setup, the User will *Export* ORD Files from ProjectWise and temporarily place them on the local drive.

At this point in time, the ***Managed WorkSpace*** setup is ***NOT*** used or supported by WFLHD due to long delay times when design files are switched out or closed.

> ***NOTE:*** When running a ***Managed WorkSpace,*** the *WorkSpace/WorkSet Selection Menu* is NOT shown when the software is opened. Instead, the *WorkSpace/WorkSet Selection Menu* is accessed by selecting *File → Close* when an ORD File is opened. A User running a Managed WorkSpace may wish to enter the *WorkSpace/WorkSet Selection Menu* to create or edit *WorkSpace Properties.*

2C.4.a Identify Projects that Use a MANAGED Workspace in ProjectWise

Projects that use a ***Managed WorkSpace setup*** can be identified by right-clicking on the Project root folder and selecting *Properties*. In the *Folder Properties*, select the *WorkSpace* tab. If the FLH WorkSpace is listed under the *Predefined* line, then the project utilizes a ***Managed WorkSpace.*** If nothing is listed under the *Predefined* line, then a ***Local WorkSpace*** should be used.



2C.5 Local WorkSpace (Working OUTSIDE of ProjectWise)

When using the *Local WorkSpace* setup, the FLH Workspace is stored and accessed on the User's local drive (C:Drive). ORD Files are stored on the ProjectWise server, but can be *Exported* to the User's local drive to make Edits.

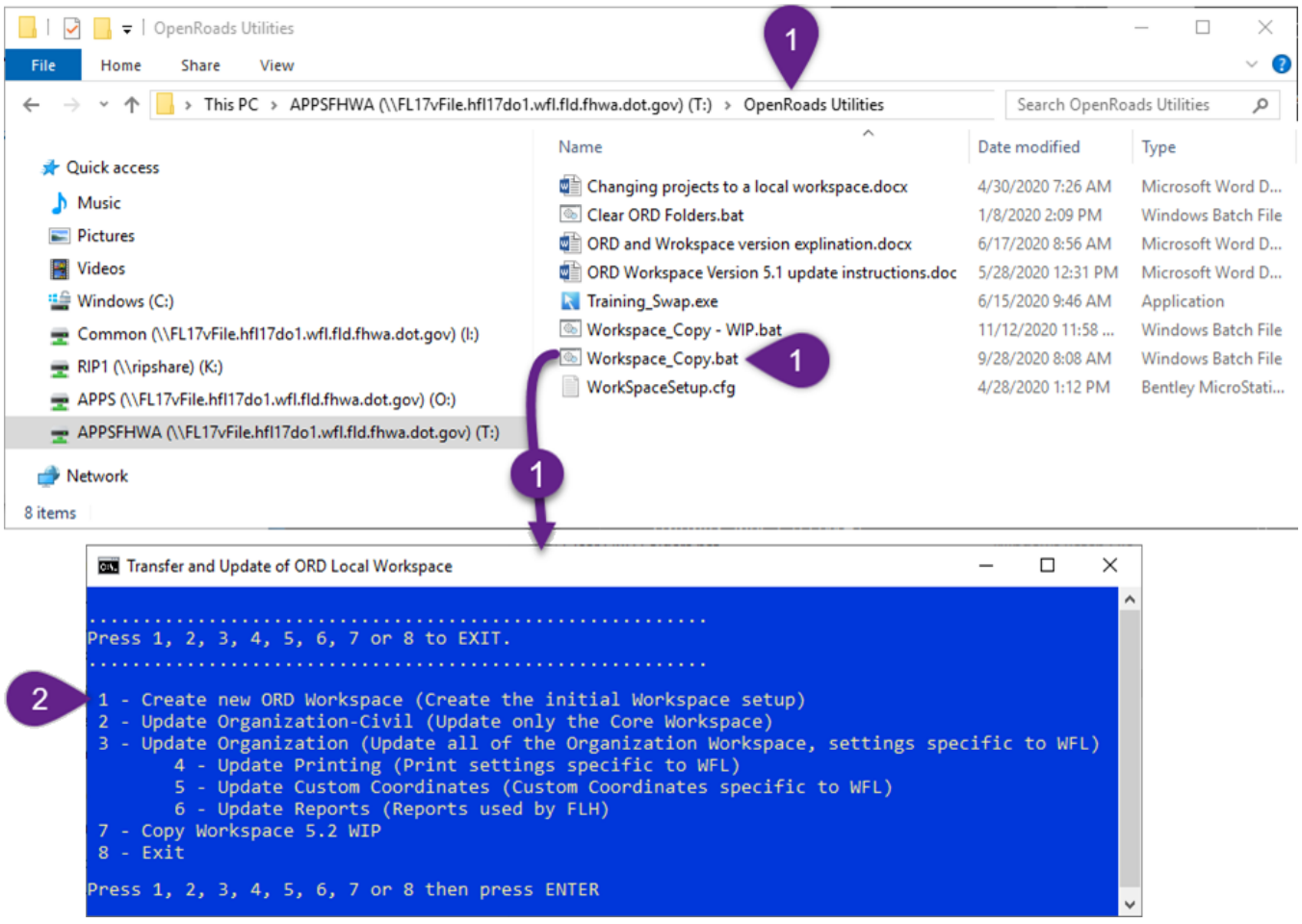
WARNING: Sheet Index information is stored in the .dgnws file – which is located within the WorkSpace. When using a LOCAL WORKSPACE configuration, each User will have different .dgnws files stored within the WorkSpace on their local drives. This means the Sheet Index information is un-synced for all Users working on a Project. In this case, the Leader Designer is solely responsible for maintaining the Sheet Index. In a MANAGED WORKSPACE configuration, all Users can access and maintain the Sheet Index because the WorkSpace and .dgnws file is managed through ProjectWise.

2C.5.a Prerequisite Procedures

The following steps need to be completed before an ORD File can be opened using an Unmanaged WorkSpace. These procedures only need to be performed once.

Copy the current FLH WorkSpace to the User Local Drive

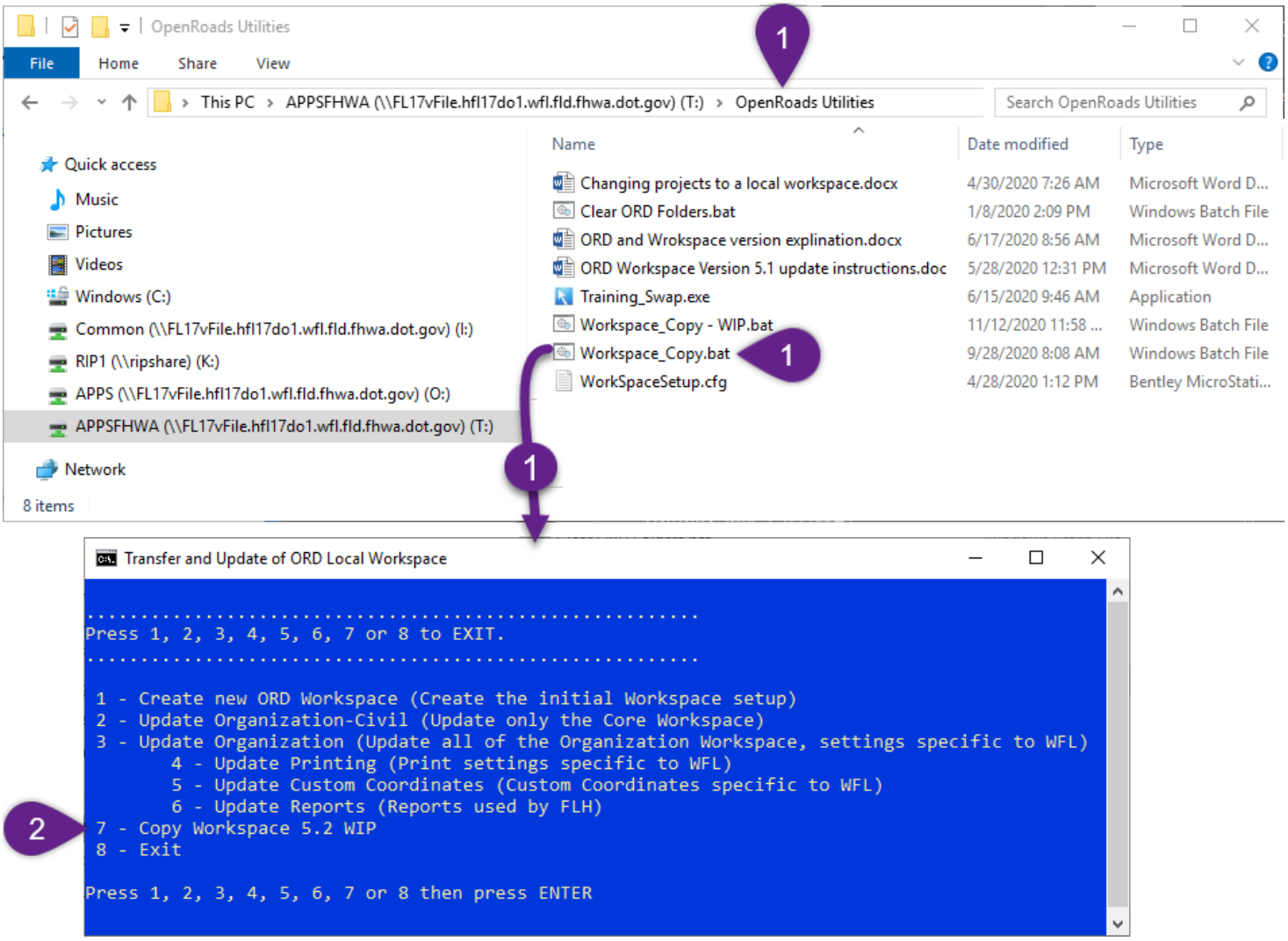
1	On the WFLHD Network, navigate to: "T:\OpenRoads Utilities" Open the "Workspace_Copy.bat" file.
2	Within the "Workspace_Copy.bat" program – press the 1 key to execute *Option 1*. This will place the latest version of the FLH WorkSpace onto local drive (C drive) of the User's computer.



Update to the Latest Version of the FLH Workspace on the User's Local Drive

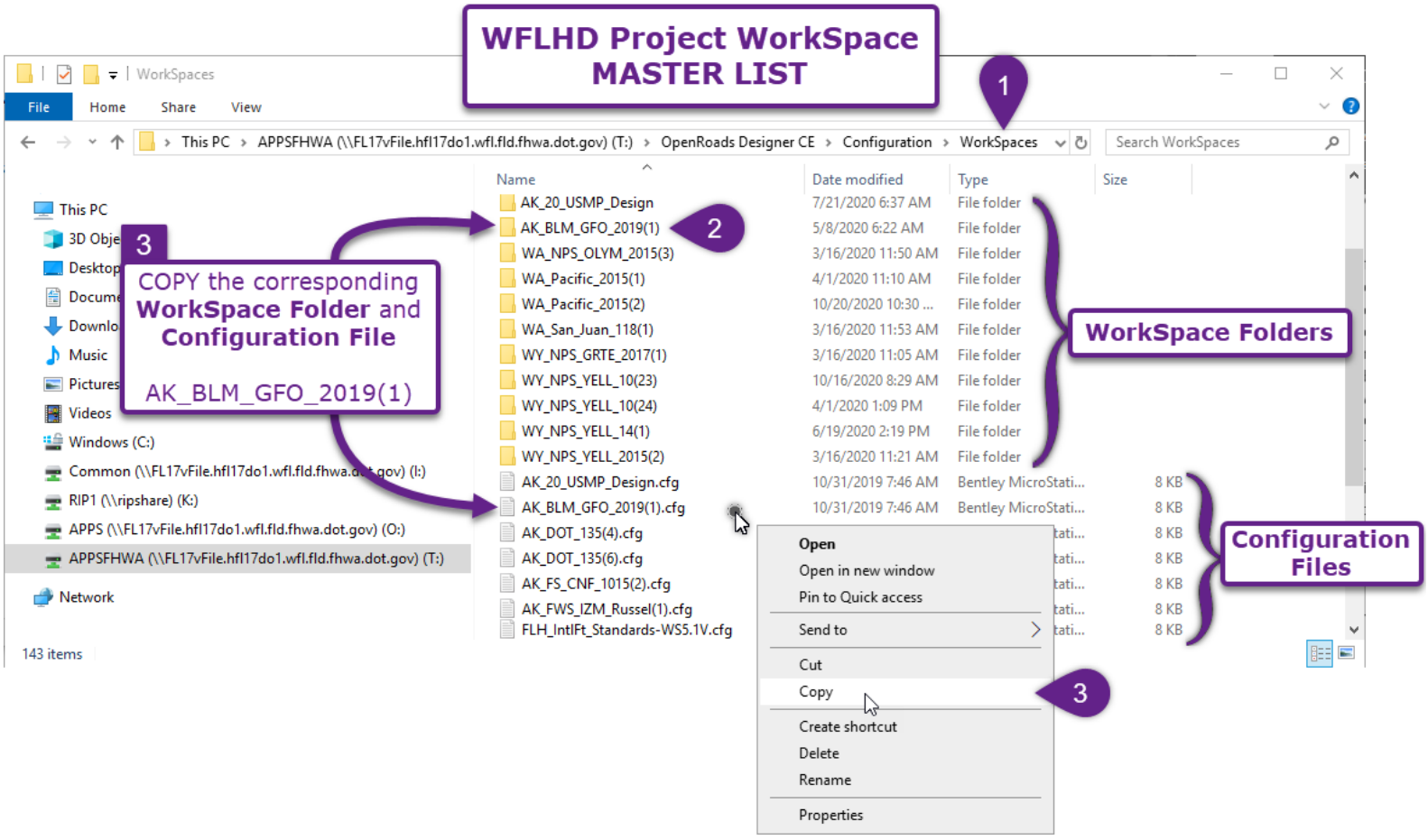
If the FLH Workspace on the User Local Drive needs to be updated:

1	On the WFLHD Network, navigate to: "T:\OpenRoads Utilities" Open the "Workspace_Copy.bat" file.
2	Within the "Workspace_Copy.bat" program - press the 7 key to execute Option 7. This will update the WorkSpace on the Local Drive to the latest version.

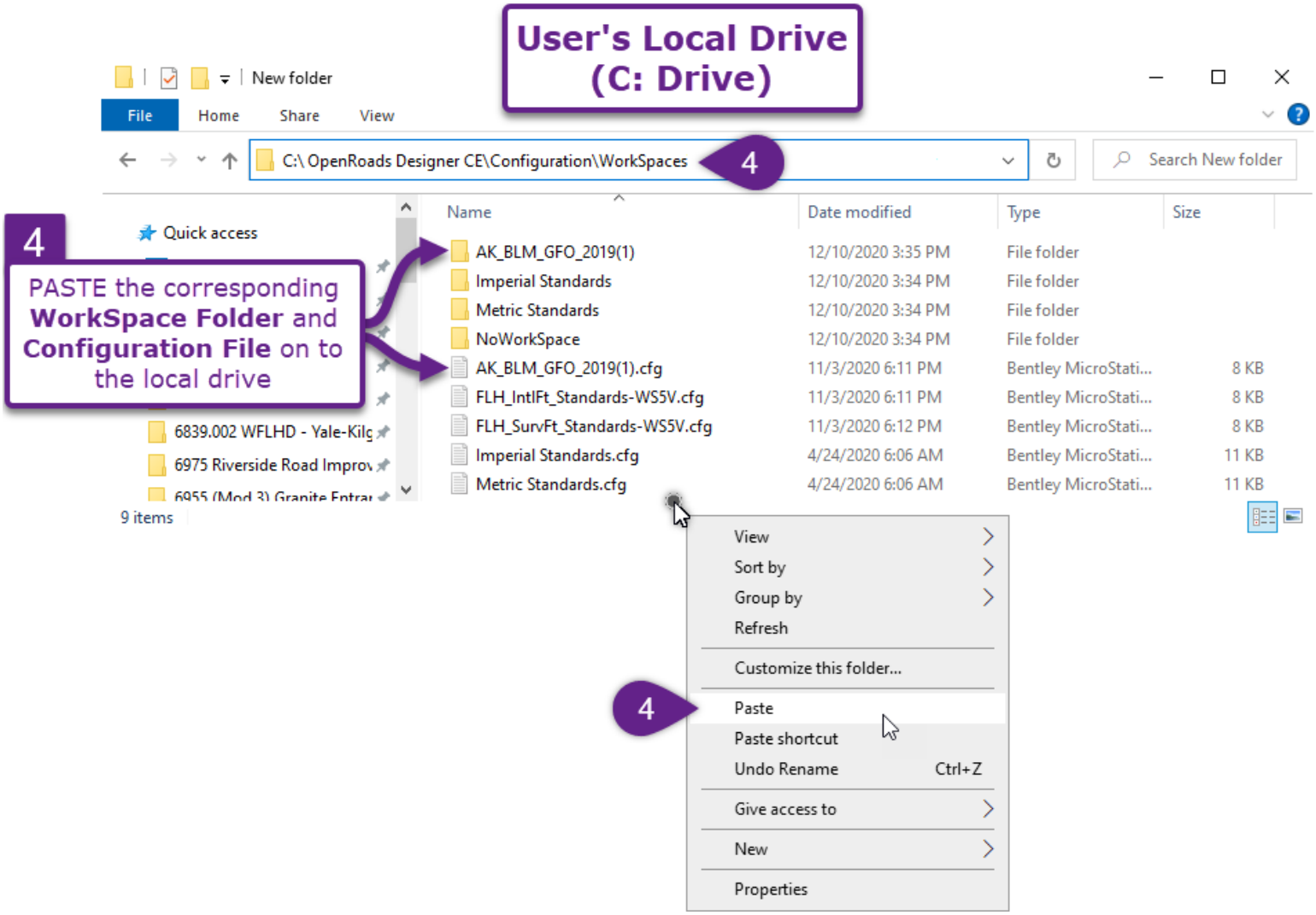


2C.5.b Accessing a Project WorkSpace and WorkSet for the First Time

Project-specific WorkSpaces and WorkSets are found on the WFLHD Network 'T-Drive' – BUT must be copied to the User's local drive for the Local Workspace setup to work. The Master List for WFLHD ORD projects are found on the network at: "T:\OpenRoads Designer CE\Configuration\WorkSpaces"



1	On the WFLHD Network, navigate to "T:\OpenRoads Designer CE\Configuration\WorkSpaces" This is the Master List for WFLHD ORD projects.
2	Confirm that the desired project is contained in the Master List. In this case, the desired project is "AK_BLM_GFO_2019(1)". ***If the desired project is NOT found in the Master List*** that means the WorkSpace and WorkSet have not yet been created. Submit a ticket with the Project ID to Bentley *ProjectWise Administrator*. Email: Phillip.Hess.CTR@dot.gov
3	Each project in the Master List will have a *WorkSpace Folder* and a corresponding *Configuration File*. The *Configuration File* may be located further down the list – past all the *WorkSpace Folders*. In the Master List, COPY the desired project *Workspace Folder* and corresponding *Configuration File*.



4	In the local drive (C Drive), navigate to: "C:\OpenRoads Designer CE\Configuration\WorkSpaces" Paste the *WorkSpace Folder* and *Configuration File* into this local drive location.

After this procedure is completed, the project *WorkSpace and WorkSet* will be accessible when the ORD Software is opened. To select the project *WorkSpace* and *WorkSet*, see *1A.1 Opening the Software and WorkSpace/WorkSet Selection Menu*.

2C.5.c Access (Export) ORD Files Using a Local WorkSpace

When using the *Unmanaged Workspace,* ORD Files can be exported from ProjectWise using the ***EXPORT*** tool. The *Export* tool will copy the ORD Files from the ProjectWise server and place them on the User's local drive. If a ***MANAGED EXPORT*** is used, then ORD Files will be *Locked* in ProjectWise – so other Users CANNOT edit them. If an ***UNMANAGED EXPORT*** is used, then the ORD File is copied to the User's local drive, but remains *Unlocked* – so other Users may edit that ORD File. See *2C.3 ProjectWise Key Terms*.

BEST PRACTICE: Use a ***MANAGED EXPORT*** when accessing file from ProjectWise for editing. An ***UNMANAGED EXPORT*** should only be used when an ORD File needs to be viewed, but NOT edited – similar to a READ-ONLY situation.

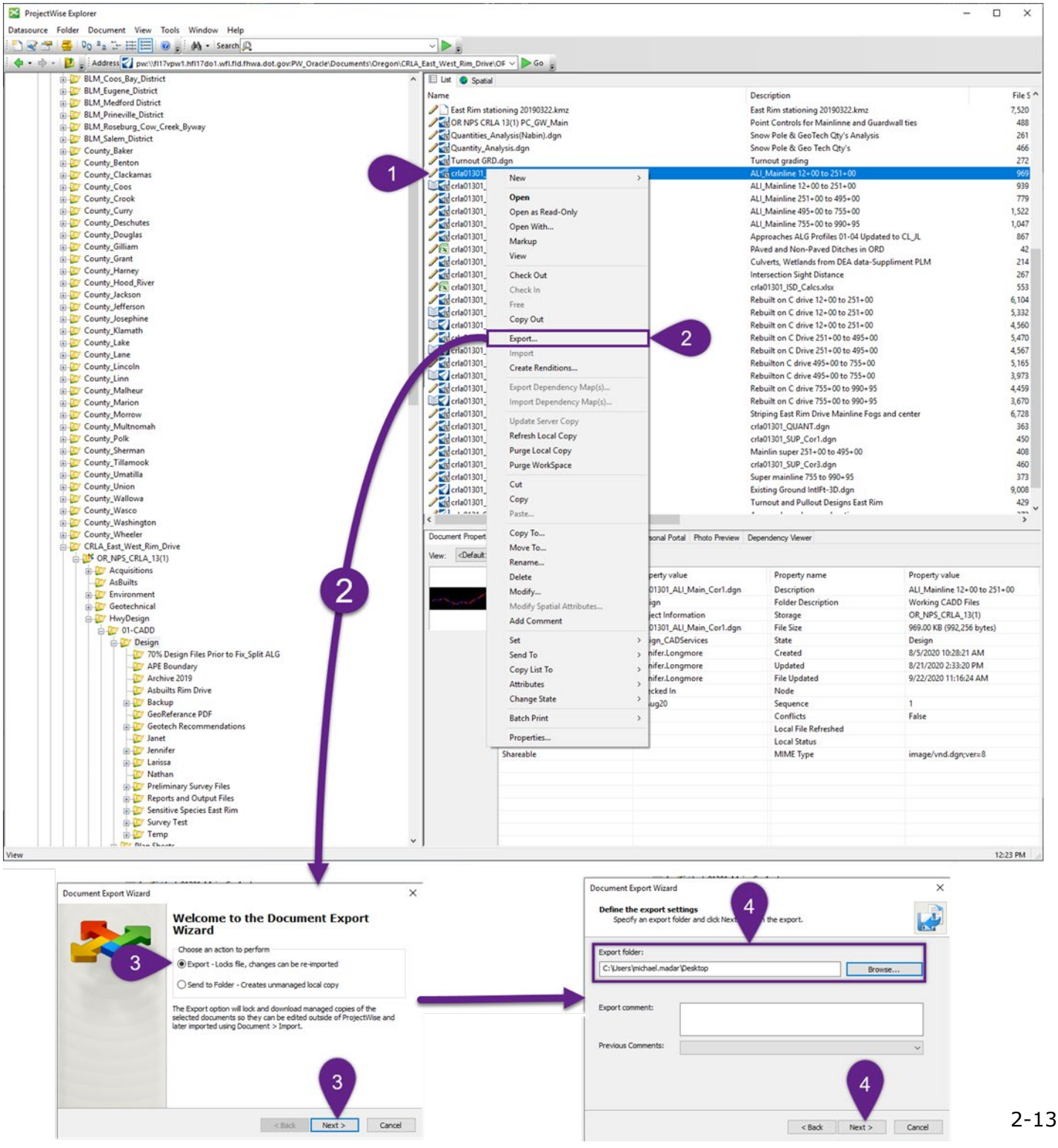
BEST PRACTICE: Always use ProjectWise as the main file repository. Do NOT keep ORD Files on the local drive longer than necessary. Always *import* ORD Files back to the ProjectWise server after use. See *2C.5.d Return (Import) ORD Files to the ProjectWise Server*.

If an ORD File contains *Reference Files,* a copy of all Reference Files will be included in the *Managed Export*. The ORD File will be *Locked*. However, the Reference Files will be *Unlocked* and available for editing by other Users. When the ORD File is *Imported* back into ProjectWise, the User will be notified if any of the Reference Files have been edited by a different User - since the time of the original Managed Export.

NOTE: Instead of exporting individual ORD Files, it is possible to export an entire Project folder. This is advisable when a SINGLE User is working on a project. The procedure for Exporting/Importing an entire Project Folder is performed in the same manner as an individual ORD File. An additional benefit to Exporting the entire project folder is that the Reference Files can be remapped within project ORD Files.

To perform a Managed Export of an ORD File:

1	Within ProjectWise, locate the desired ORD File (.DGN) to *Export*.
2	Right-Click on the desired ORD File and select *Export*. The *Document Export Wizard* will appear.
3	In the *Document Export Wizard*, select "Export – Locks file, changes can be re-imported". Continue to the next screen by selecting "Next>".
4	Specify the desired location on the local drive to place the ORD File by selecting "Browse…". Press "Next >" to complete the Export.



To open an Exported ORD File:

1	Open the ORD Software from the Windows Start menu or other shortcut location.
2	In the *WorkSpace/WorkSet Selection Menu*, select the appropriate project WorkSpace from the drop-down. If the project WorkSpace and WorkSet are NOT shown in the drop down, see *2C.5.b Accessing a Project WorkSpace and WorkSet for the First Time*.
3	Left-Click on *Browse* and navigate to the ORD File location specified in the Export.

2C.5.d Return (Import) ORD Files to the ProjectWise Server

To Import an ORD File back into ProjectWise:

1	Ensure that the ORD File is NOT currently opened in the ORD Software.
2	Within ProjectWise, locate the desired ORD File (.DGN) to *Import*. This will be the same folder location the ORD File was found in during the original Export.
3	Right-Click on the desired ORD File and select *Import*. The ORD Files will be automatically removed from the User's local drive. Also, the ORD File will be *Checked In* to ProjectWise – making it accessible and editable to other Users.
4	After the Import, the ORD File will be removed from the local drive. However, the unmanaged Reference Files will NOT be automatically deleted. Navigate to the original export folder location on the local drive. Select all the remaining Reference Files and delete them.

2C.6 Managed WorkSpace (Working in ProjectWise)

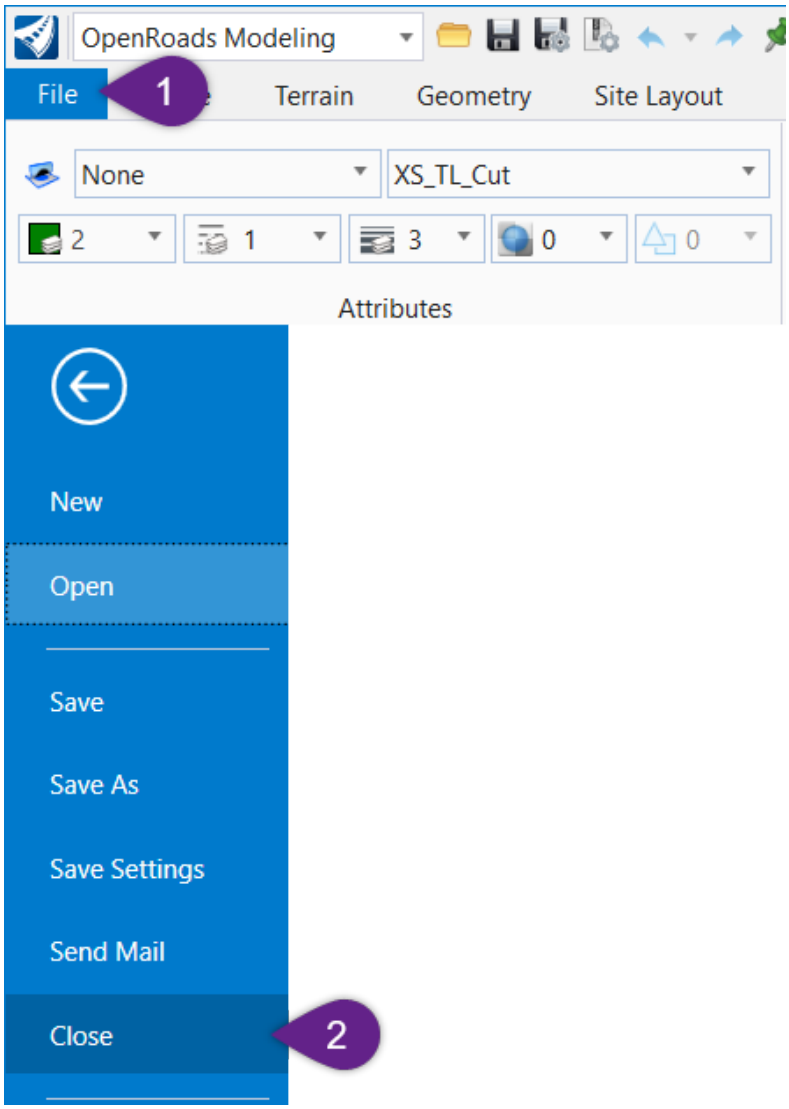
When running a *Managed WorkSpace*, both ORD Files and the FLH WorkSpace are stored on the ProjectWise server. ORD Files are directly opened from the project folder location within ProjectWise.

To Open and Check Out an ORD File using a Managed WorkSpace, simply *double-click* the ORD File in ProjectWise.

When an ORD File is opened using a Managed WorkSpace, the file will be automatically *Checked Out*, meaning it is inaccessible to other users. When closed, the ORD File will be automatically *Checked In* and available for access from other Users.

WARNING: Due to the teleworking environment the majority of project are using an Unmanaged WorkSpace configuration. See *2C.5 Local WorkSpace (Working OUTSIDE of ProjectWise)*.

> ***NOTE:*** When running a ***MANAGED WORKSPACE,*** the *WorkSpace/WorkSet Selection Menu* is NOT shown when the software is opened. Instead, the *WorkSpace/WorkSet Selection Menu* is accessed by selecting *File → Close* when an ORD File is opened. A User running a Managed WorkSpace may wish to enter the *WorkSpace/WorkSet Selection Menu* to create or edit *WorkSpace Properties.*

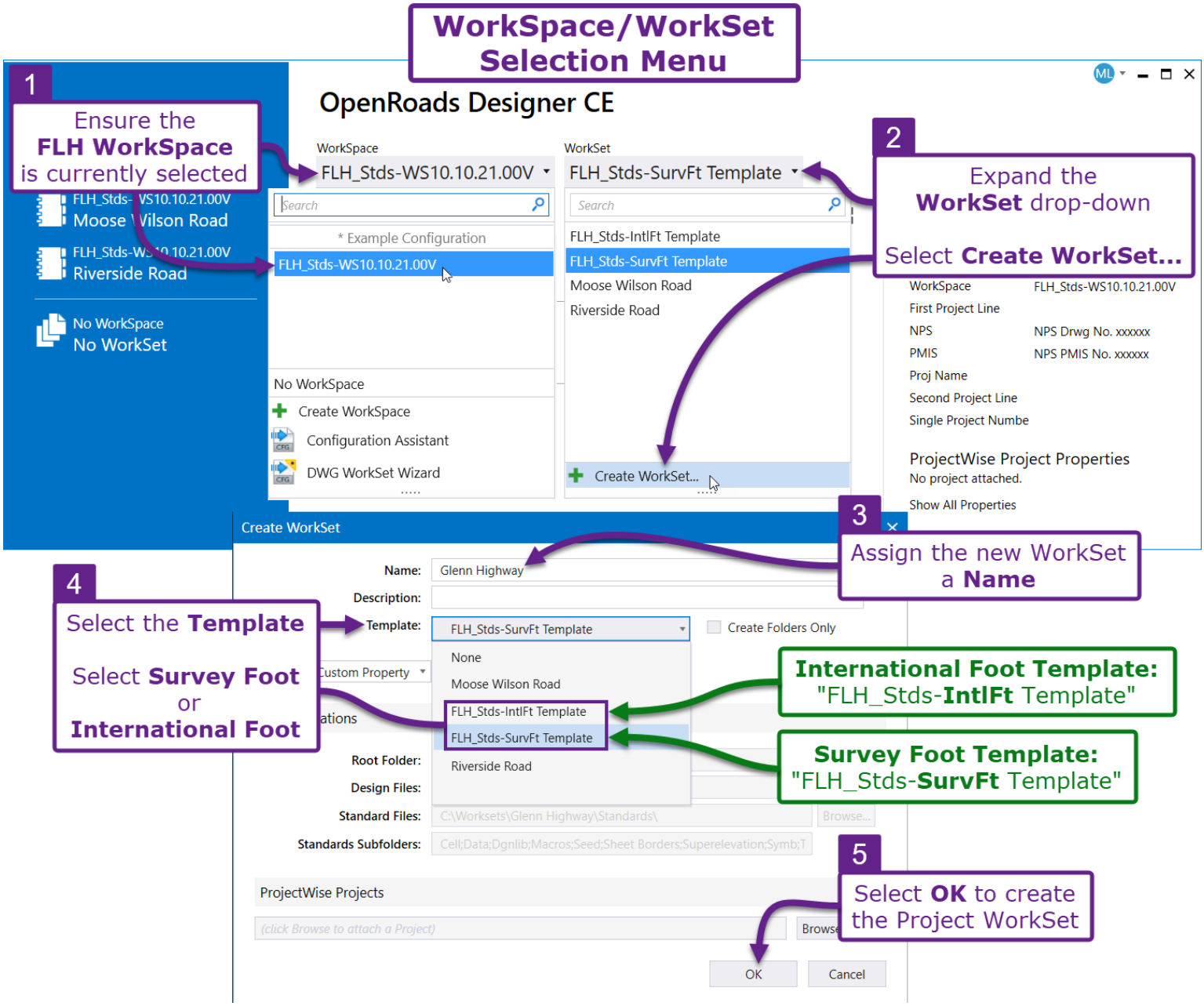


2D – CREATE A PROJECT WORKSET – NON-PROJECTWISE USERS

This workflow applies to agencies and Users that do NOT use ProjectWise file management software (i.e., CFL and EFL). This workflow demonstrates how to create a new WorkSet at the beginning of a project.

IMPORTANT: In Step 4, a **Template** for the new WorkSet must be specified. The Template to be selected depends on the Survey Units used for the project. For projects that use **Survey Foot** units, select the "FLH_Stds-**SurvFt** Template". For projects that use **International Foot** units, select the "FLH_Stds-**IntlFt** Template". ***WARNING:*** Do NOT select a previously-created project WorkSet as the Template.

TIP: **International Feet** units are used in the states of Montana, Oregon, Arizona, Michigan, North Dakota, and South Carolina. **Survey Feet** units are used for all other States.

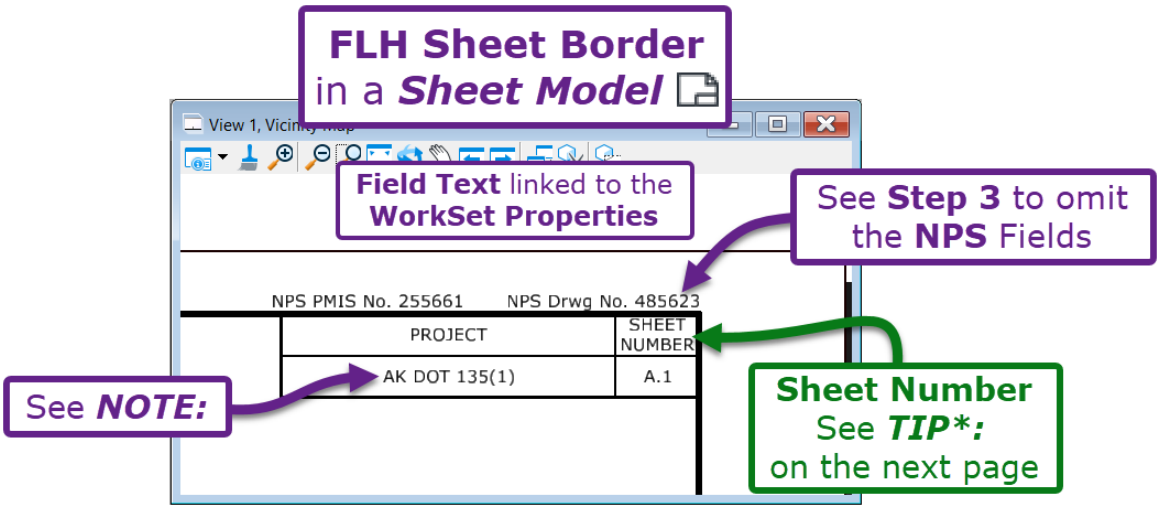


This procedure is performed from the **WorkSpace/WorkSet Selection Menu**. To access this menu, see *1A.1 Opening the Software and WorkSpace/WorkSet Selection Menu*.

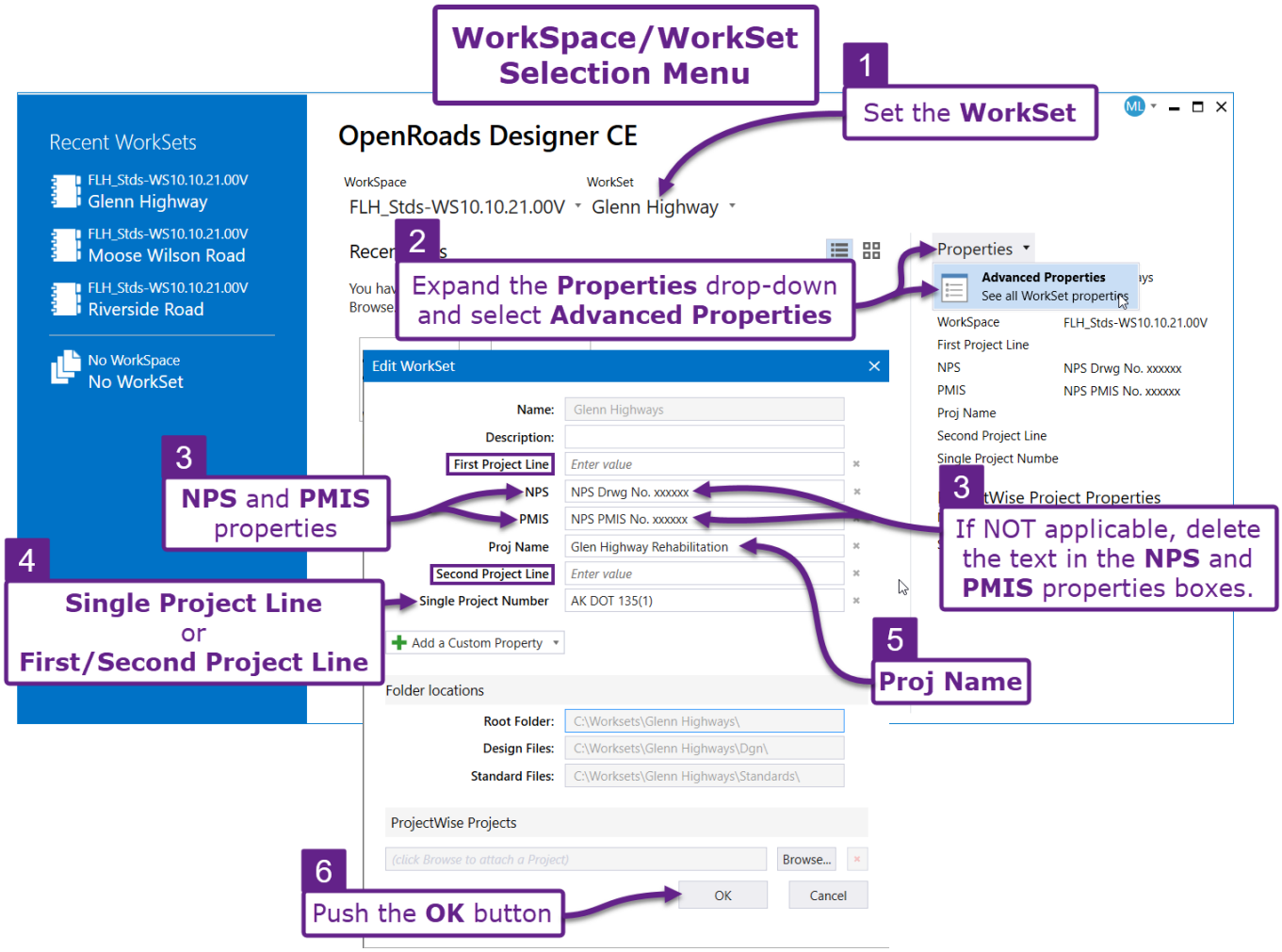
1	Ensure the **FLH WorkSpace** is currently selected. If NOT, expand the **WorkSpace** drop-down and select the FLH WorkSpace. ***NOTE:*** If the FLH WorkSpace is NOT shown in the WorkSpace drop-down, contact your Engineering System Manager.
2	Expand the **WorkSet** drop-down and select **Create WorkSet...**
3	In the *Create WorkSet* menu, assign the new WorkSet a **Name**.
4	Select the appropriate **Template** which corresponds with the **Survey Units** used on the project. For **Survey Foot** projects, select "FLH_Stds-**SurvFT** Template". For **International Foot** projects, select "FLH_Stds-**IntlFT** Template".
5	Select **OK** to create the new WorkSet.

2D.1 Create WorkSet Properties for Sheet Borders - Workflow

After a new project WorkSet is created, the WorkSet Properties can be set. WorkSet Properties are linked to the text fields shown in the upper-right corner of the FLH Sheet Border. The Project and NPS PMIS/DRWG text boxes are automatically populated from the WorkSet Properties.



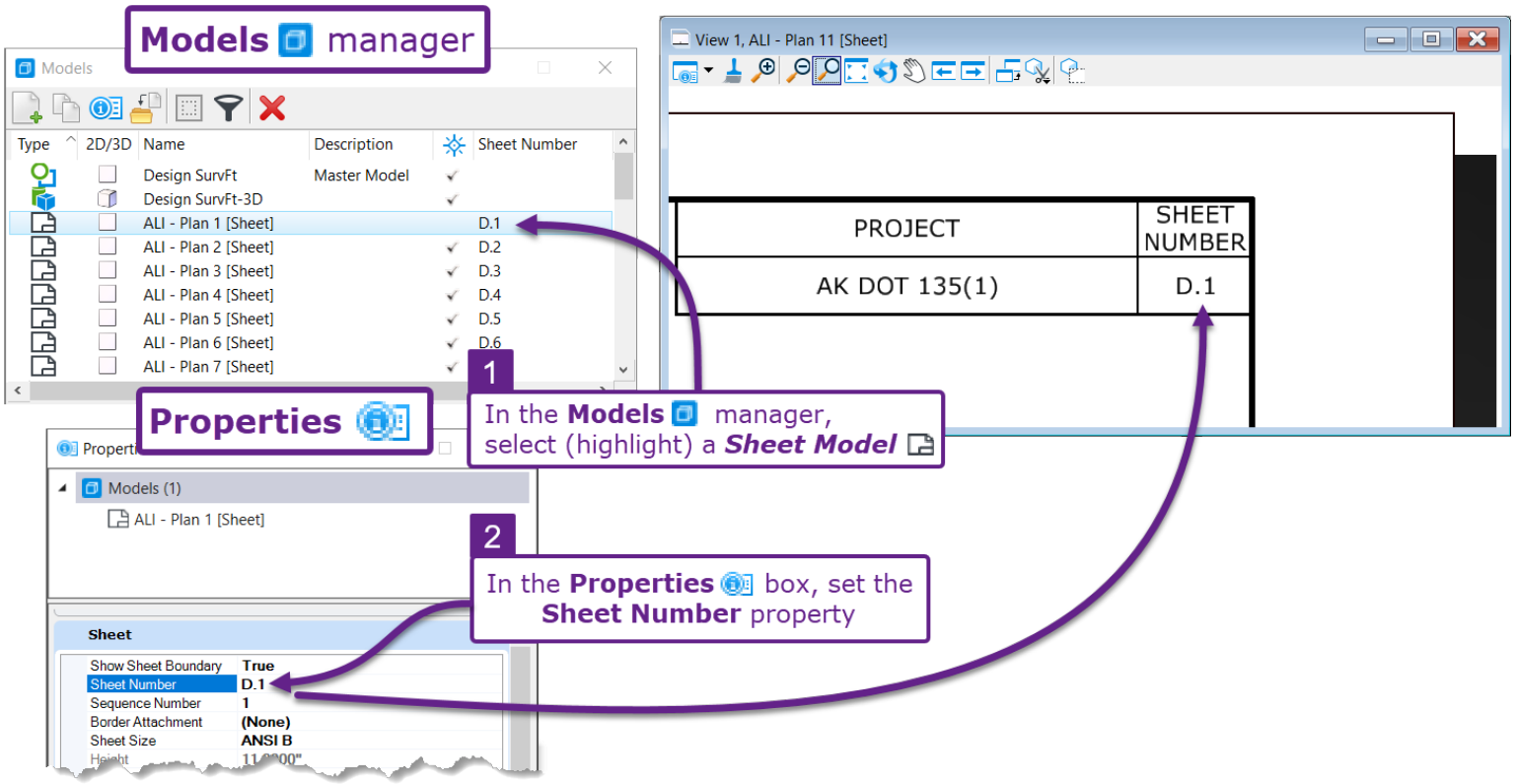
NOTE: The **Single Project Line**, **First Project Line**, and **Second Project Line** properties are all linked to the **Project** text box in the FLH Sheet Border. Do NOT fill out all three of these properties. If a single line of text is required in the Project box, ONLY fill out the **Single Project Line** property. If the Project text box requires TWO lines of text, fill OUT the **First Project Line** and **Second Project Line** properties.



1	In the WorkSpace/WorkSet Selection Menu, ensure that the appropriate WorkSpace and WorkSet are set.
2	Under the *Properties* drop-down, open the *Advanced Properties* menu.
3	If applicable, set the **NPS** and **PMIS** properties. These properties are ONLY applicable to National Park Service (NPS) projects. If these fields are NOT applicable, then delete the text shown in these property boxes.
4	**Single Project Number**, **First Project Line**, and **Second Project Line**: If the **Project** text box in the FLH Sheet Border only requires a single line of text, then set the **Single Project Number** property. This property typically corresponds with the project code (i.e., "AK DOT 135(1)"). If the **Project** text box requires TWO lines of text, then set **First Project Line** and **Second Project Lines** properties. When using TWO lines of text, do NOT set the **Single Project Number** property. ***WARNING:*** Either use the **Single Project Number** or the **First/Second Project Lines**. Do NOT fill out all three fields.

TIP*: The **Sheet Number** text field is linked to the **Sheet Index**. When a *Sheet Model* is added to the Sheet Index, it is automatically assigned a Sheet Number. For operation of the Sheet Index, see *Chapter 18 – Sheet Index*.

If the Sheet Index is NOT used for a project, then the Sheet Number text field should be set in the *Sheet Model* properties:



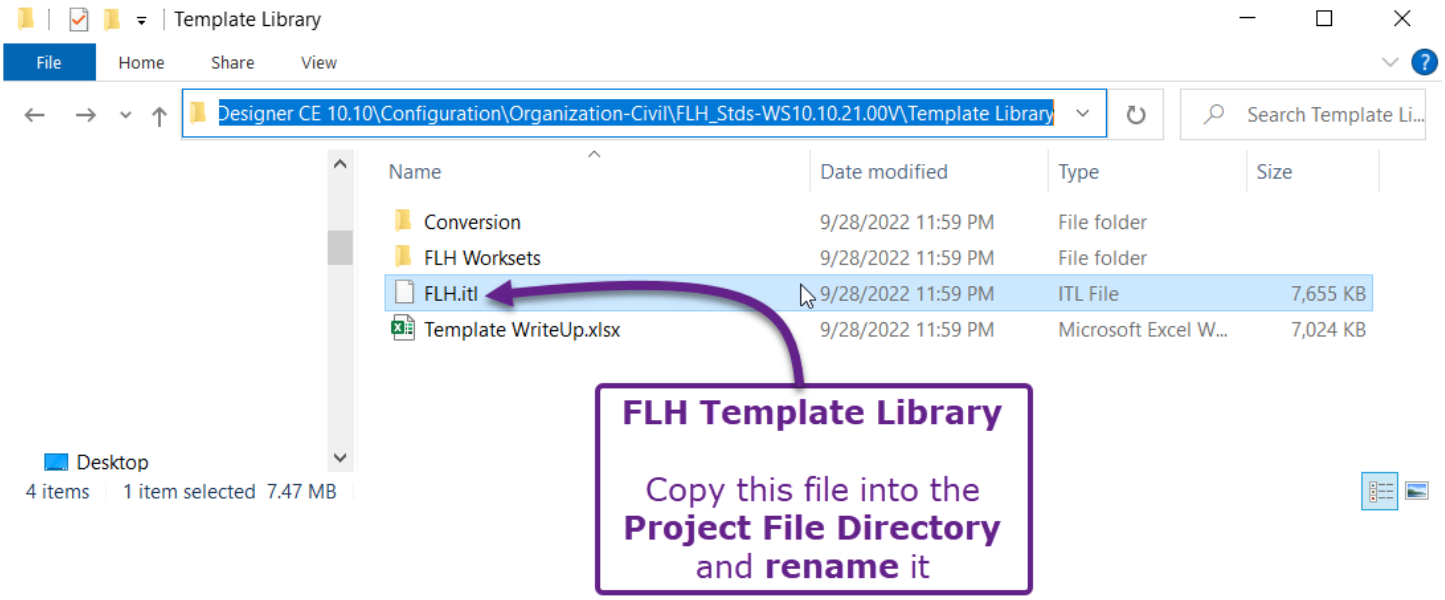
2E – CREATE THE PROJECT TEMPLATE LIBRARY

Every project that utilizes Corridor Modeling requires a unique Project Template Library.

Creating a new Project Template Library is achieved by *copying* the FLH Template Library .itl file and *pasting* into the project folder directory. Once pasted into the project folder directory, rename the FLH.itl file to match the project.

The FLH Template Library is found in the FLH WorkSpace folder in the following location:

…\OpenRoads Designer CE 10.10\Configuration\Organization-Civil\FLH_Stds-WS10.10.21.00V\Template Library



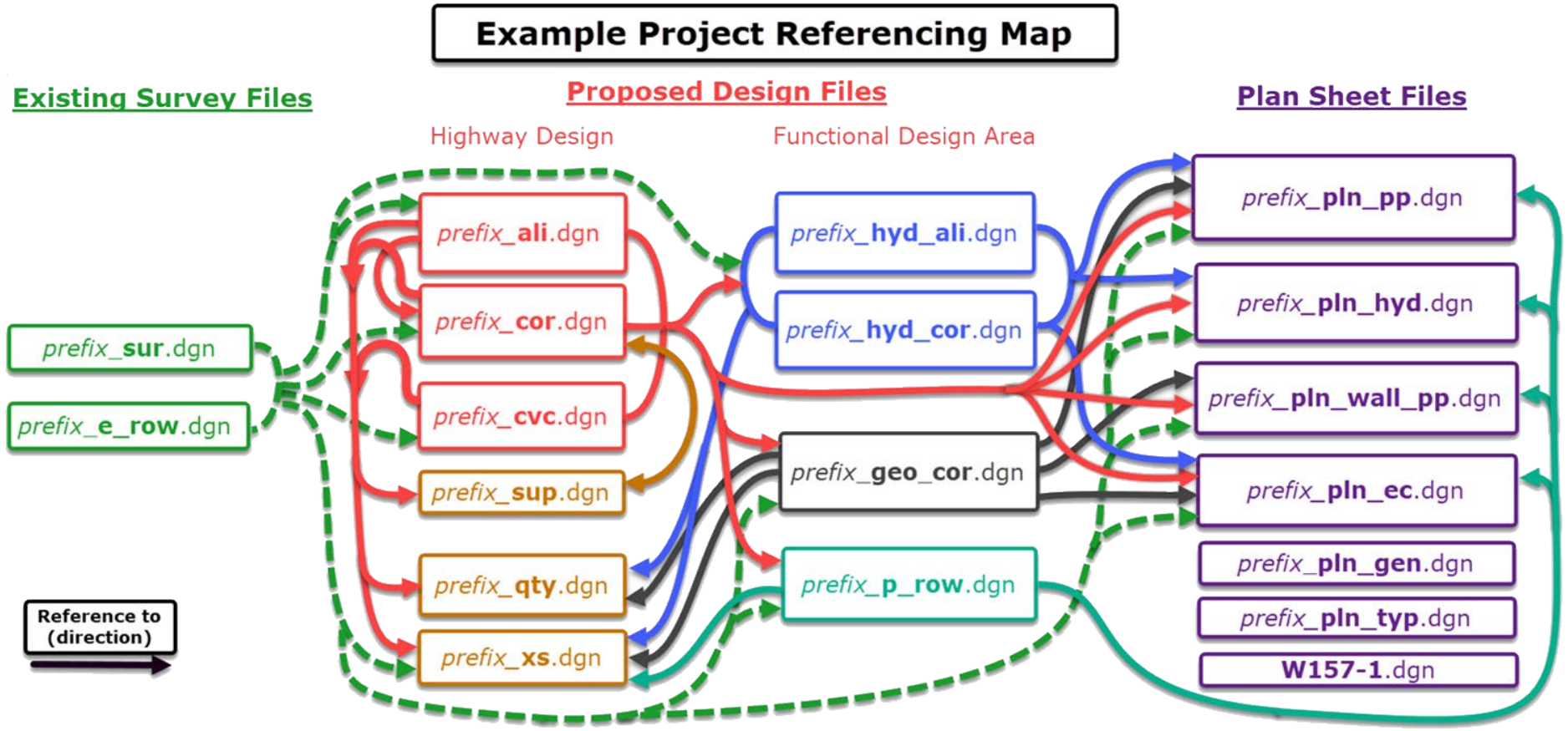
2F – PROJECT ORGANIZATION AND DATA FEDERATION BEST PRACTICES

2F.1 Project Organization and Referencing Map for ORD Files

The schematic below shows how ORD Files (.DGNs) in a project are organized through *Referencing*. The schematic assumes *Nested References* are NOT utilized. See *1E.4 Nested Attachments in Drawing Models and Sheet Models*.

The Reference Map below uses WFLHD naming conventions to identify ORD File types. See *3C.1 – WFLHD ORD File Naming Conventions*.

The schematic below also represents the overall workflow for a project. Existing Survey Files are created at the onset of project. Next, Proposed Highway Design Files are created to set the Alignment and Profile for the Project. The Highway Design Files are *referenced* into other Functional Design areas, such as bridge, hydraulic, or utilities. Lastly, Existing and Proposed Design Files are referenced into the Plan Sheet Files to create plan sheets (*Sheet Models*). ***NOTE:*** Plan Sheet Files should NOT be *referenced* into any other files. Similarly, do NOT create *Sheet Models* within Proposed Design Files.



2F.2 Data Federation Best Practices and Considerations

Data Federation refers to the division of civil elements, corridor components, and 3D models amongst separate ORD Files in a project. Data needs to be federated for the following reasons:

1. ORD Files with too much data can become slow and impractical to work in.
2. Partitioning data into separate ORD Files allows multiple Users to work simultaneously on a project.
3. Partitioning data can help to prevent complete loss of project data if an ORD File is corrupted or inadvertently deleted.

BEST PRACTICE: Consider how project data should be federated amongst the project ORD Files at the BEGINNING of a project.

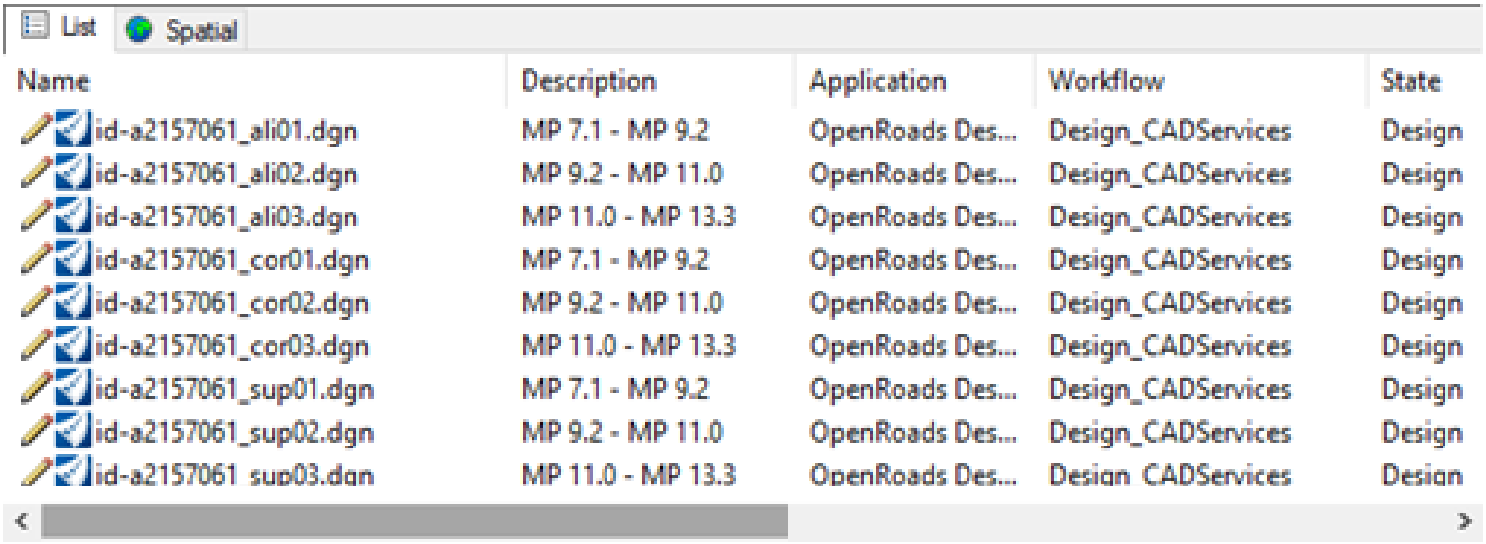
2F.2.a Alignment and Corridor Maximum Length Recommendation

At this time, for longer projects, it is *recommended* to split up alignment (_ali.dgn) and corridor (_cor.dgn) files into approximately ***2-Mile*** segments. Alignments and corridor over 2 miles in length may be impractical due to slow processing times when edits are made. See *2F.2.c ORD Element Processing Speed Considerations*.

It is anticipated that future updates to the ORD Software will increase processing speeds and efficiencies – which would make longer alignments and corridors more practical to work with. After updates to the software, check in with your Engineering System Manager for Alignment and Corridor maximum length recommendations.

2F.2.b Example Data Federation for a 6-Mile Long Project

The graphic below shows how a 6.2-mile long project (MP 7.1 – MP 13.3) can be split into multiple segments. The Alignment, Corridor, and Superelevation ORD Files should be split into corresponding segments of *about* 2-mile lengths.



The main reason alignments and corridors are split up for a long road project is to decrease processing times by using elements that are smaller and contain less data. However, splitting up the alignment can invite errors – specifically at the alignment/profile split points. A split alignment/profile must be horizontally and vertically tangent at the match points. When making edits to the one side of the alignment/profile or another, it is possible to inadvertently bump the adjoining alignments out of tangency at the split point.

2F.2.c ORD Element Processing Speed Considerations

When creating alignment, profiles, corridor models, and terrain models there are many factors that may affect processing speeds.

Alignment and Profile: When Alignments and Profiles become increasingly complex, they will bog down and become very slow to edit. The total length is NOT necessarily the cause for this – it has more to do with the number of PIs, VPIs, Persist Snaps, and Dependencies contained in an Alignment and Profile. For complex Alignment and Profiles (such as those in winding and/or mountainous topography), it may be prudent to shorten the maximum alignment length.

Edits made to an Alignment, will reprocess the ***Active Profile*** – which adds to total processing time.

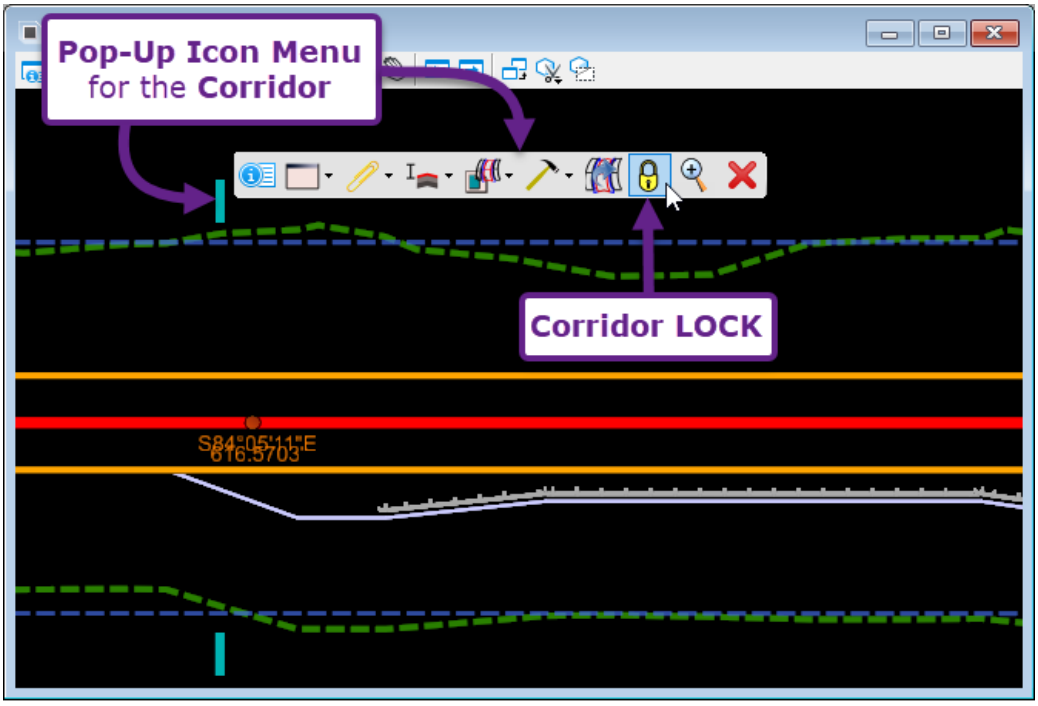
> ***TIP:*** Before making a series of horizontal edits to an alignment, *Deactivate* the Profile – to decrease processing times.

Corridor: Corridor processing times are likewise affected by overall complexity. Corridors that contain complex Templates with many Template Points and Components will increase processing time.

Similarly, the Template Drop Interval will affect processing time. When the Template Drop Interval is increased, fewer Templates will be dropped along the length of the corridor – which means corridor processing requirements are reduced. Also, when the Corridor Feature Definition is changed from *Design* to *Final*, the Template Drop Interval Multiplier is changed from 2 to 1. This means the interval distance between Template Drops is halved. See *9D.2 Corridor Feature Definitions: Design and Final*.

Other factors that increase corridor processing time include: Point Controls (including Superelevation, Curve Widening, and Horizontal Feature Constraints), Parametric Constraints, and Clipping References. When a Corridor is processed, All Point Controls, Parametric Constraints, and other corridor objects will be processed, which increases the overall processing times. By increasing the Template Drop Interval, processing times will shorten.

> ***TIP:*** Before making a series of edits to a slow corridor, *Lock* the corridor to prevent processing. After the edits are made, the corridor can be *Unlocked* and manually *Reprocessed*.



Active Terrain Model: During corridor processing, the End Conditions will analyze the entirety of the *Active Surface* to find a solution. Processing time will be decreased by reducing the Active Terrain Model size. When splitting up the mainline Alignment and Corridors for long projects, it may be prudent to also split up and clip the Existing Ground Terrain Model to match Alignment/Corridor lengths. Similarly, the Existing Ground Terrain Model can be narrowed so it is marginally wider than the slope stake limits. The Existing Ground Terrain Model should ONLY be manipulated by the Survey Department. Contact the Survey Department to split and clip the Existing Ground Terrain Model.

2F.2.d Design Consideration: Alignment and Corridor in the same File

It is conventional to separate the Mainline Alignment and Corridor into different ORD Files to allow two Users to work simultaneously. However, for alignments shorter than 1,000 feet in length, it can be advantageous to place both entities into a single ORD File. When the 2D Design Model, Profile Model, and Dynamic Cross Section Views are all open, the User will see a cyan line in the 2D Design Model and Profile Model that represents the current station in the Dynamic Cross Section Viewer. This cyan indicator line is useful for correlating all three views and making fine-tuning adjustments to the alignment and profile.

The disadvantages to this configuration are:

1. Only ONE USER can work with the Alignment and Corridor at a given time.
2. File may be SLOWER because more ORD Elements are processed in the same file.
3. If this ORD File is inadvertently deleted or corrupted, then all data is lost.

TIP: If the Alignment and Corridor are located in the same file, the Corridor will update when edits are made to the Alignment or active Profile. However, if a Corridor is *Locked*, it will not process when edits are made to the Alignment/Profile. See *9H.1 Locking and Processing the Corridor*.