ORD File Exchange and Workflow – *Environmental*

During project development and delivery of an ORD project, it is anticipated that multiple disciplines will work on a project which will result in ORD project file(s) being exchanged via the project team. The tables noted below detail the **.dgn** file names and types for the interaction between **Roadway Design** and **Environmental.** For example, one scenario where this would occur is during the development of Natural Stream Design Sheets (**NS-Sheets**), as referenced in the TDOT Drainage Manual. For a PDN project, work related to Environmental is typically initiated as early as Stage 0 – Planning and NS-sheets are created during Stage 2 – Footprint Established.

A single workset with a single sheet index will be turned-in as part of the Construction Planset submittal (or PS&E for a PDN project). This single workset and associated sheet index will include the design files and sheet models of all applicable disciplines to complete a project's design. The **Roadway Design** Workset will be the master workset that all other disciplines' work will be added to. During the development of plans, the **Roadway Design** Workset should be provided via zip file, which includes the files noted in the tables below, as part of the handoff and interaction between **Roadway Design** and **Environmental**.

The project SWPPP consultant may also request design files to verify the outfalls and to get the outfall stationing for the SWPPP sheets but does not typically return any design files to **Roadway Design**.

Depending on project needs there is potential for ORD design file(s) being exchanged between **Environmental** and **Structures**. Guidance for this interaction is detailed in Appendix A.

The file naming convention information noted in these tables references the TDOT ORD File Naming Convention Standards document. (**Note:** For example, SR-1 in Cheatham County would be **11S001**-SHT-Proposed Layout.dgn. This file will contain all proposed sheet models along with the motif model and drawing model(s).)

ROADWAY DESIGN >> ENVIRONMENTAL

As a reminder, the **Roadway Design** Workset will be provided. The files below will be most useful to the **Environmental Lead** to complete their design.

Document Description	File Naming Convention	Notes
Horizontal and Vertical Alignments	PRJ NAME-SUR-Alignment	Survey preliminary centerline horizontal alignment with profile, existing ROW, property lines, parcel lines, property owners, tract numbers, and projected existing drainage and utilities (profile only).
Field Survey Data	PRJ NAME-SUR-Model	Existing graphics imported from the original Field Book(s).
Existing Terrain	PRJ NAME-SUR-Terrain	Combined field survey TIN and aerial survey TIN, if applicable.
Roadway Alignments / Profiles	PRJ NAME-DES-Alignments-Master	All Horizontal and Vertical Alignment(s).
Roadway Corridor	PRJ NAME-DES-Corridor-Master	All Corridor Models Including Roadways and Structures in the Project Area.
Drainage Model	PRJ NAME-DES-Drainage-Hydraulic Model	All Drainage models including size, and placement of drainage structures and devices.
Drainage Structures Model	PRJ NAME-DES-Drainage-Structures Model	3D Model for Box Culvert(s) or Slab Bridge(s) in the Project Area.
Erosion Prevention & Sediment Control (EPSC) Design Files	PRJ NAME-DES-EPSC-I, II, III, IV	Includes Design EPSC files for each stage.
Proposed ROW Linework, Patterning and Text	PRJ NAME-DES-ROW	
All Proposed Terrain Files merged with the Existing Terrain	PRJ NAME-DES-Terrain-Merged	Required Terrain type.
Present Layout Sheets	PRJ NAME-SHT-Present Layout	File containing the motif model, drawing model(s), and sheet model(s) for all Present Layout Sheets.
Roadway Layout Sheets	PRJ NAME-SHT-Proposed Layout	File containing the motif model, drawing model(s), and sheet model(s) for all Proposed Layout Sheets.
Roadway Profile Sheets	PRJ NAME-SHT-Proposed Profiles	File containing the motif model, drawing model(s), and sheet model(s) for all Proposed Mainline Profile Sheets.
Side Road Profile Sheets	PRJ NAME-SHT-Proposed Sideroad Profiles	File containing the motif model, drawing model(s), and sheet model(s) for all Proposed Sideroad Profile Sheets.

Document Description	File Naming Convention	Notes
Culvert Sections	PRJ NAME-SHT-Culvert Sections	File Containing the motif model, drawing model(s), and sheet model(s) for all Culvert Section Sheets.
EPSC Staging Sheets	PRJ NAME-SHT-EPSC-I, II, III, IV	File containing the motif model, drawing model(s), and sheet model(s) for all corresponding EPSC Staging Sheets.
Roadway XS Sheets	PRJ NAME-SHT-XS-Road Name	File containing the motif model, End-Area Calcs, drawing model(s), and sheet model(s) for all Roadway XS Sheets.
Side Road XS Sheets	PRJ NAME-SHT-XS-Side Road	File containing the motif model, End-Area Calcs, drawing model(s), and sheet model(s) for all Side Road XS Sheets. (Each Side Road gets its own file.)

ENVIRONMENTAL >> ROADWAY DESIGN

The **Environmental Lead** should provide the files listed below to the **Roadway Design Lead**.

Document Description	File Naming Convention	Notes
3D Stream Relocation Model	*PRJ NAME-DES-Drainage-Stream Relocation Model*	
Signature Sheet	PRJ NAME-SHT-*Environmental* Signature	Add the Environmental signature and applicable sheets.
Natural Stream Design Index Sheet(s)	*PRJ NAME-SHT-Natural Stream Index*	File containing the sheet model(s) for all Natural Stream Indexes.
Natural Steam Design Notes Sheet(s)	*PRJ NAME-SHT-Natural Stream Notes*	File containing the sheet model(s) for all Natural Stream Design Notes.
Natural Stream Design Layouts	*PRJ NAME-SHT-Natural Stream*	File containing the motif model, drawing model(s), and sheet model(s) for all Natural Stream Design Layout Sheets.

RED TEXT = New file or new portion of file name.

Appendix A. Environmental and Structures

During project development and delivery of an ORD project, there is potential for project file exchange between **Environmental** and **Structures**. For example, one scenario where this may occur is during the development of Natural Stream Design Sheets (**NS-Sheets**), as referenced in the [TDOT Drainage Manual](#). The tables noted below detail the **.dgn** file names and types for this interaction. The **Roadway Design** Workset would remain as the master workset that all other divisions' work will be added to. (**Note:** The interaction detailed in this Appendix between **Environmental** and **Structures** is project specific and is not typical for the project development process.)

The file naming convention information noted in these tables references the [TDOT ORD File Naming Convention Standards](#) document. (**Note:** For example, SR-1 in Cheatham County would be **11S001**-SHT-Proposed Layout.dgn. This file will contain all proposed sheet models along with the motif model and drawing model(s).)

ENVIRONMENTAL >> STRUCTURES (Bridges / Retaining Walls)

The **Environmental Lead** should provide the files listed below to the **Structures Lead**.

Document Description	File Naming Convention	Notes
3D Stream Relocation Model	*PRJ NAME-DES-Drainage-Stream Relocation Model*	
Signature Sheet	PRJ NAME-SHT-*Environmental* Signature	Add the Environmental signature and applicable sheets.
Natural Stream Design Index Sheet(s)	*PRJ NAME-SHT-Natural Stream Index*	File containing the sheet model(s) for all Natural Stream Indexes.
Natural Steam Design Notes Sheet(s)	*PRJ NAME-SHT-Natural Stream Notes*	File containing the sheet model(s) for all Natural Stream Design Notes.
Natural Stream Design Layouts	*PRJ NAME-SHT-Natural Stream*	File containing the motif model, drawing model(s), and sheet model(s) for all Natural Stream Design Layout Sheets.

RED TEXT = New file or new portion of file name.

STRUCTURES (Bridges) >> ENVIRONMENTAL

The **Structures Lead** should provide the files listed below to the **Environmental Lead**.

Document Description	File Naming Convention	Notes
Bridge Reference File(s)	*PRJ NAME-DES-Bridge Master*	File containing all necessary Structural plan information that will be referenced into the sheet models. It is the responsibility of the Roadway Engineer to apply necessary bridge information to the Proposed Profile Sheets.
Signature Sheet (ORD)	PRJ NAME-SHT-*Bridge* Signature	Add the Structures signature and applicable sheets.
Bridge Index Sheet(s)	*PRJ NAME-SHT-Bridge Index*	File containing the sheet model(s) for all Bridge Indexes.
Bridge Notes Sheet(s)	*PRJ NAME-SHT-Bridge Notes*	File containing the sheet model(s) for all Bridge Notes.
Bridge Details Sheet(s)	*PRJ NAME-SHT-Bridge Details*	File containing the sheet model(s) for all Bridge Details and Typical Sections.
Bridge Layout Sheets	*PRJ NAME-SHT-Bridge Layouts*	File containing the motif model, drawing model(s), and sheet model(s) for all Bridge Layout Sheets.
Bridge XS Sheets	PRJ NAME-SHT-XS-*Bridge*	File containing the motif model of all references needed for the Bridge XS, including construction phasing.