

# Table of Contents

<b>CHAPTER 5 - PROJECT STRUCTURE</b> .....	<b>5-1</b>
5.1 EXCEPTIONS .....	5-1
5.2 STANDARD PROJECT DIRECTORY .....	5-1
5.2.1 <i>Create Project Procedure</i> .....	5-1
5.2.2 <i>Discipline Sub-directories</i> .....	5-1
5.2.2.1 Sub-Directories Under the Discipline Directories .....	5-2
5.2.3 <i>Custom Sub-directories</i> .....	5-2
5.2.4 <i>Engineering Data Directory</i> .....	5-2
5.2.5 <i>Standard Project Directory Format</i> .....	5-2
5.3 STANDARD FILE NAMES .....	5-5
5.3.1 <i>Standard Design File Naming Convention</i> .....	5-5
5.3.2 <i>Print File Naming Convention</i> .....	5-5
5.3.2.1 Sheet Numbers .....	5-6
5.3.2.2 Print File Naming Format .....	5-7
5.3.3 <i>Standard File Name Extensions</i> .....	5-7
5.3.4 <i>Duplicate Files</i> .....	5-9
5.4 REFERENCE FILES .....	5-9
5.5 FILE SHARING AND MERGING .....	5-10
5.6 PROJECT INDEXING AND JOURNALING .....	5-11
5.6.1 <i>Index Guidelines and Format</i> .....	5-11
5.6.2 <i>Journal Guidelines and Format</i> .....	5-12

---

# Chapter 5 - PROJECT STRUCTURE

## CADD Production Criteria Handbook

### 5.1 EXCEPTIONS

This chapter describes the standard project file structure. Deviations should always be documented as exceptions in the project's Journal file and the appropriate Project Management staff should be informed.

### 5.2 STANDARD PROJECT DIRECTORY

The data for each Florida Department of Transportation (FDOT) Project is organized and delivered using a standard directory structure as described later in this chapter. In order to ensure the uniqueness of the Project directory name, the project directory root folder will be named the FDOT Financial Project Identification Number (FPID), using a minimum of all eleven digits. The FPID is available from FDOT Project Management. New (seed) projects should be created using tools developed and provided by the Engineering/CADD Systems Office (ECSO), and delivered with the FDOT CADD Software. FDOT provides an application called **FileChecker** to help confirm directory structures and file names.

#### 5.2.1 CREATE PROJECT PROCEDURE

The Create Project application, included in Electronic Delivery tools, creates the seed project directory structure and prompts the user for additional project specific information. A seed project is a copy of the FDOT standard directory structure created under the project directory (FPID) name as defined in this chapter.

The project directory contains standard sub-directories for defined disciplines, PEDDS data, along with support and resource files specific to the project. When a sub-directory is not used in a specific project, the unused sub-directory shall remain. For example, a cell library developed for a specific project has a holding sub-directory, *lcell*.

The *\\_META\_INFO* sub-directory contains the files created and used by PEDDS and used by the FDOT workspace to establish the top level of the project directory structure. Therefore only one *\\_META\_INFO* sub-directory should exist in a project directory structure.

#### 5.2.2 DISCIPLINE SUB-DIRECTORIES

The discipline sub-directories are defined for the division of work by file ownership, not necessarily the type of work. Roadway designers would typically place their files (the files they create and own) under the *\Roadway* sub-directory, Surveyors under the *\Survey* sub-directory, and so forth. In some cases, disciplines may have work that overlaps with other areas of a design. For example, if a roadway designer develops the drainage sheets, the files produced would, by the above convention, go in the *\Roadway* directory, rather than the *\Drainage* directory, as the "roadway" designer is the owner of the work.

However, if so desired, the files could be put in the *\Drainage* sub-directory, but file management permissions (TIMS, ProjectWise, etc.) must be taken into consideration, which leads to questions such as: Does the "roadway" designer have permission to write to the *\Drainage* sub-directory?

### 5.2.2.1 Sub-Directories Under the Discipline Directories

In some cases, it is advantageous to create “non-standard” sub-directories for additional segregation of work. This is common when multiple parties work on a single discipline design and the data must be managed and merged. These additional sub-directories can be created under the discipline specific standard sub-directories to accommodate these circumstances. **These custom sub-directories shall adhere to the restrictions for sub-directories as defined in Section 5.1.3 of this handbook.**

### 5.2.3 CUSTOM SUB-DIRECTORIES

Custom sub-directories can be created under the standard discipline sub-directory folders, but are not to be created under the root directory for the project.

Certain characters are not readable by some programs for sub-directory structure names. Alphanumeric characters, dashes (-), and underscores (\_) are the only allowable characters. Spaces are never to be used in any directory or file names and directory names must not exceed 16 characters. Examples of characters NOT to use in sub-directory (or file) names include: &, %, |, \$, ?, <, >, !, etc.

File path lengths are generally limited to 255 characters total. This must be taken into account when creating directory names (for overall path length) and limit the number of sub-directory levels below the project level.

**Note** For more information on the project directory format, see Section 5.2.5 to follow.

### 5.2.4 ENGINEERING DATA DIRECTORY

Each discipline sub-directory contains an additional sub-directory named `eng_data`. These sub-directories were designated to hold the sheet image files of the plan sheets for that discipline, the Quality Control (QC) reports (produced by the QC tools).

### 5.2.5 STANDARD PROJECT DIRECTORY FORMAT

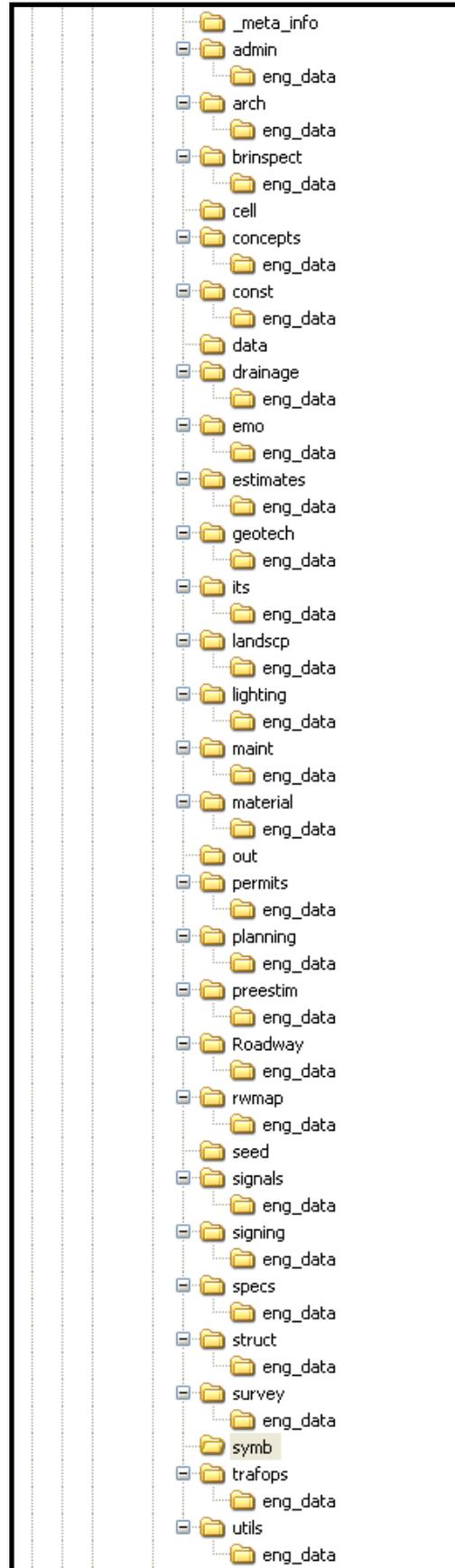
The FDOT standard project directory structure and file naming conventions are based on the normal workflow of FDOT projects and the separation of workgroups.

The standard project directory structure with a description of each directory’s purpose:

Folder Names	Purpose
Project Name (FPID)	
_meta_info	Files used by PEDDS application
_Shortcuts	Data shortcuts (data for Civil 3D projects only)
admin	Administrative documents (email, correspondence, etc.)
eng_data	
arch	Architectural design files
eng_data	
brinspect	Bridge Inspection files
eng_data	
Cell (Block)	Project specific cell libraries (Block libraries for C3D)
concepts	Various preliminary concepts
eng_data	
const	Construction files (i.e.: “As-builts”)
eng_data	
data	Project data files (i.e.: journals, material backgrounds for rendering, pen tables, plot configuration files, etc.)
drainage	Drainage calculation and design files
eng_data	

Folder Names		Purpose
	emo	Environmental Management files
	eng_data	
	estimates	Estimates files
	eng_data	
	geotech	Geotechnical data files
	eng_data	
	ITS	Intelligent Transportation Systems design files
	eng_data	
	landscp	Landscape design files
	eng_data	
	lighting	Lighting design files
	eng_data	
	maint	Maintenance department (This is not Maintenance of Traffic).
	eng_data	
	material	Other Materials data files
	eng_data	
	out	Other Output files
	permits	Permits for various items (i.e.: ponds, driveways, mailboxes, etc.)
	eng_data	
	planning	Planning files
	eng_data	
	preestim	Preliminary estimates files
	eng_data	
	roadway	Roadway design files
	eng_data	
	rwap	Right of Way Mapping files
	eng_data	
	seed	Project specific seed files
	signals	Signalization design files
	eng_data	
	signing	Signing and Pavement Marking design files
	eng_data	
	specs	Specification package
	eng_data	
	struct	Structure calculations and design files
	eng_data	
	survey	Survey database and files
	eng_data	
	symb	Project specific resource files for fonts and custom line styles
	trafops	Traffic Operations data files
	eng_data	
	utils	Utility data and design files
	eng_data	

The image to the right is a screen shot of Windows Explorer displaying the directory structure of a MicroStation project.



## 5.3 STANDARD FILE NAMES

This section describes file naming conventions used for all design files, standard input files and criteria files. In the event a particular file type needed for the project is not addressed, consult with either the Project Manager or the District CADD Manager to determine the proper file name.

FDOT identifies all standard graphic file names as Critical or Non-critical. Critical files are used in downstream applications, shared across disciplines and used in quantifying pay items. These critical files must meet a minimum compliancy threshold for CADD symbology (Chapter 4) and detailed in Chapter 7. Standard file names are discipline specific and are listed in whole within the respective discipline chapters of this document.

### 5.3.1 STANDARD DESIGN FILE NAMING CONVENTION

FDOT utilizes standard naming conventions for all of its design files. Some of the automation implemented in various tools provided by FDOT depends on naming conventions being met. More importantly, the naming convention confers information to the downstream customer of the data contained in the design file.

Standard file names should follow this format: **AAAABB##.ext**

Where

- AAAA** = abbreviated file description,
- BB** = Discipline Denotation,
- ##** = Sequence number (a padded integer, i.e. "00", "01", "02" ... "99"), used to sequence additional files of the same Description/Discipline
- ext** = File extension indicating the type of file.

**Example:** The first proposed roadway cross section file would be named – **rdxsrd01.dgn**

Preservation of the first six characters of the standard design file naming convention is critical for QC software and symbology filters. If it is necessary to add additional descriptive information in the filename, this descriptive information should be inserted after the discipline denotation "BB" and preceding the sequence number "##". Doing so should be a rare exception. Example: rdxsrdmpa01.dgn, indicating this proposed cross section sheet includes ramp A. Large projects might necessitate the need to exceed two digit sequence numbers, otherwise the sequence should be two digits.

### 5.3.2 PRINT FILE NAMING CONVENTION

In MicroStation, **Sheet Navigator** is an interactive application that runs in the background by **Electronic Delivery Indexer (EDI)** to extract the sheet and title block data from design files containing sheets and to define the components of the project. **Sheet Navigator** uses the SheetInfo.xml control file to provide the component order for sheets according to their location in the project directory structure in conjunction with the sheet prefix. The Sheetinfo.xml control file defines the standard search criteria to identify sheets in a project and is located in the FDOT CADD Software `\\mdlapps\` sub-directory.

### 5.3.2.1 Sheet Numbers

Sheet numbers used in plans can be composed of multiple parts using the format: **AAA-####Z**.

**AAA** Represents the Sheet Number Prefix, using multiple alpha characters as placeholders. Refer to the FDOT Plans Preparation Manual and Structures Manual for Prefix definitions.

**####(Z)** Defines the numeric order of the sheets within the Project Component. The (Z) allows for the insertion of appended sheets after the project has started. A single alpha character, A-Z, is added for each subsequent sheet inserted.

(Examples: S-001A; S-001B; PNC-01; A-15; A-16; T-1; T-2; and of course 1, 2, 3, etc).

Structures and Architecture disciplines have extended the sheet numbering schema and the respective discipline manuals should be consulted for guidance. These manuals are found at:

- [FDOT Structures Manual](#)
- CPCH Chapter 23

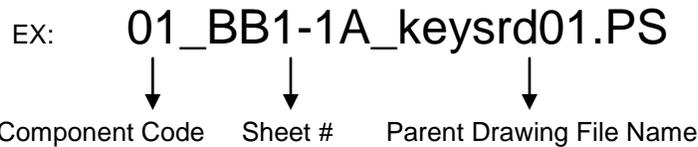
The following shows how **Sheet Navigator** and **EDI** will interpret sheet numbers to attempt to discern what plans component each sheet belongs to:

<u>Prefix</u>	<u>Component</u>
No prefix	Roadway Plans <i>(Typically - only an integer is used for sheet number)</i>
CTL	Roadway Plans
GR	Roadway Plans
PNC	Roadway Plans
TR	Roadway Plans
UTV	Roadway Plans
GS	Signing and Pavement Marking Plans
S	Signing and Pavement Marking Plans
GT	Signalization Plans
PTM	Signalization Plans
T	Signalization Plans
GL	Lighting Plans
L	Lighting Plans
GI	Intelligent Transportation System (ITS) Plans
IT	Intelligent Transportation System (ITS) Plans
LD	Landscape Plans
Begins with "A"	Architectural Plans
Begins with "B"	Structures Plans
Begins with "U"	Utility Joint Participation Agreement Plans

Roadway plans is typically the primary component of a FDOT Project plans set containing multiple plans components and can have non-prefixed sheet numbers (1,2,3,... etc.). Other disciplines can be the primary plans component only in the absence of a Roadway plan component. For example: a Lighting only project may omit the plans component prefix, and use the numbering format of 1, 2, 3, etc, although this practice is strongly discouraged.

### 5.3.2.2 Print File Naming Format

EDI implements an output file naming scheme for print files that removes ambiguity about which sheet the file represents (regardless of the sheet-numbering scheme used in the design file) and supports the more complex sheet numbering now be expected by some disciplines. The format file naming convention will be:



**Note** Print file extension will be .PS for postscript files, .PDF for Adobe Acrobat files, .TIF for tagged image format files, etc.

**Plans Component Code**      [01] The first two numbers represent the Plans Component with zero (0) used as place holder (for sorting purposes).

The FDOT Standard Plans Component codes are as follows:

- 01 – Roadway Plans
- 02 – Signing and Pavement Marking Plans
- 03 – Signalization Plans
- 04 – Intelligent Transportation System (ITS) Plans
- 05 – Lighting Plans
- 06 – Landscaping Plans
- 07 – Architectural Plans
- 08 – Structures Plans
- 09 – Utility Joint Participation Agreement Plans
- 10 – Right of Way Maps
- 99 – Unknown

**Sheet #**      After the Plans Component Code, an underscore ( \_ ) is inserted followed by the actual sheet number (i.e.: BB1-1A).

**Parent Drawing File Name**      After the Sheet #, an underscore ( \_ ) is inserted followed by the name of the source design files (i.e.: keysrd01).

### 5.3.3 STANDARD FILE NAME EXTENSIONS

File Name	Ext.	Saved-in Folder
3 Port Criteria Files	.3pc	Most appropriate discipline folder
Adobe Acrobat Files	.pdf	Most appropriate discipline folder \eng_data subfolder if signed
Cell Count Report	.ccp	Most appropriate discipline folder
Comma Separated Values	.csv	Most appropriate discipline folder
Coordinate Geometry Database Files	.gpk	Most appropriate discipline folder
Corridor Modeling Alignment Database	.alg	Most appropriate discipline folder
Corridor Modeling Cross Section Labeling Preference File	.xlp	Most appropriate discipline folder
Corridor Modeling Drafting Standards	.xin	Most appropriate discipline folder

File Name	Ext.	Saved-in Folder
Corridor Modeling Roadway Design Preference File	.rdp	Most appropriate discipline folder
Corridor Modeling Roadway Designer database	.ird	Most appropriate discipline folder
Corridor Modeling Surface Database	.dtm	Most appropriate discipline folder
Corridor Modeling Template Library	.itl	Most appropriate discipline folder
Cross Section Sheet Design Files <i>(No longer used in V8 or XM, but may be allowed.)</i>	.shg	Most appropriate discipline folder
Cross Section Sheet Layout Files <i>(No longer used in V8 or XM, but may be allowed.)</i>	.plg	Most appropriate discipline folder
Crystal Reports	.rpt	Most appropriate discipline folder
Descartes Raster Image Files	.hmr	Most appropriate discipline folder
Electronic Delivery Index Settings Files	.edi	Project Root folder
GDM QC Rule Files	.rul	Most appropriate discipline folder
GEOPAK COGO Database	.gpk	Most appropriate discipline folder
GEOPAK Criteria Files	.x	Most appropriate discipline folder
GEOPAK D&C Manager Database Files	.ddb	Most appropriate discipline folder
GEOPAK Input Files	.inp	Most appropriate discipline folder
GEOPAK Project Manager project File	.prj	Most appropriate discipline folder
GEOPAK Surface Database	.tin	Most appropriate discipline folder
Log File	.log	Most appropriate discipline folder
Microsoft Excel Spreadsheets	.xls	Most appropriate discipline folder
Microsoft Word Documents	.doc	Most appropriate discipline folder
MicroStation & GEOPAK Resource Files	.rsc	\eng_data subfolder for discipline
MicroStation Batch Plot Job Files	.job	\eng_data subfolder for discipline
MicroStation Cell Libraries	.cel	Cell Folder
MicroStation Design Files	.dgn	Most appropriate discipline folder
MicroStation Pen Tables	.tbl	\eng_data subfolder for discipline
MicroStation Plot Drivers	.plt	\eng_data subfolder for discipline
MicroStation Print Settings	.pset	Most appropriate discipline folder
MicroStation Project Configuration	.pcf	Project Root folder
MicroStation Standards Database	.dgnlib	\symb if copied to local project
Postscript Sheet Image Files	.ps	\eng_data subfolder for discipline
QC Exception Files	.xcp	\eng_data subfolder for discipline
QC Reports, QC"folder name"	.rpt, .txt	\eng_data subfolder for discipline
Web Pages	.htm	Project Root folder and \data subfolder
Web Pages	.html	Project Root folder and \data subfolder
XML Files	.xml	Project Root folder and \data subfolder

### 5.3.4 DUPLICATE FILES

***There shall be no duplicate graphical file names (of any file type) within a project directory structure*** to avoid ambiguity and problems downstream in the projects development. FDOT delivers the ***FileChecker*** application that can be used to find duplicate filenames (different or same content) across different sub-directories of the project, or files of the same content but different filenames (even in the same folder).

In MicroStation, to have proper attachments of reference files within a project, **a sub-directory** named “\\_meta\_info” must be listed under the root of the project. The MicroStation FDOT workspace configuration is set up such that, when attaching a reference file, the software looks for the \\_meta\_info directory, then goes up one folder level (the root directory of the project) and scans down the entire project directory structure, listing all directories below that level in the reference file path for MicroStation. The first occurrence of the file name is used as the reference file, if no relative path was used to attach the reference file.

Under no circumstances should absolute path be used when attaching reference files. All reference files for the project must reside within the project directory structure. For this reason, there should be no duplicate graphical file names within a project.

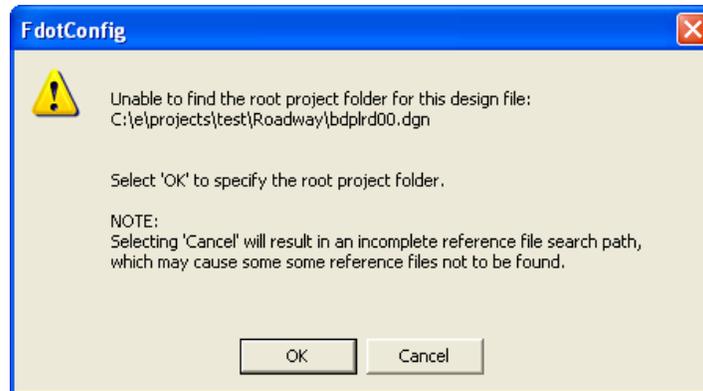
## 5.4 REFERENCE FILES

A reference file can be a MicroStation design file, an AutoCAD design file or a raster image file (such as a PDF, SID, TIF, or HMR). A reference file is attached as a background file to an active design file, thus allowing multiple users to share the same information without the need to copy the file(s) into the active design file directory, or copy the referenced file's content into the active design file.

In order to allow a project to be moved to a different drive without the loss of reference file attachments, specifically at the time of delivery to FDOT, **the reference files must be attached such that MicroStation can resolve the reference file attachments regardless of the project directory location.** Reference files shall be attached using the file name only, without the full path. Thus the option to “Save Full Path” when attaching reference files shall not be used. Always attach using relative path to the project root folder, allowing the project to be moved from drive to drive without losing the reference file attachments when accessed through the FDOT workspace. If one is certain of the uniqueness of reference file names, an attachment using no path should be used.

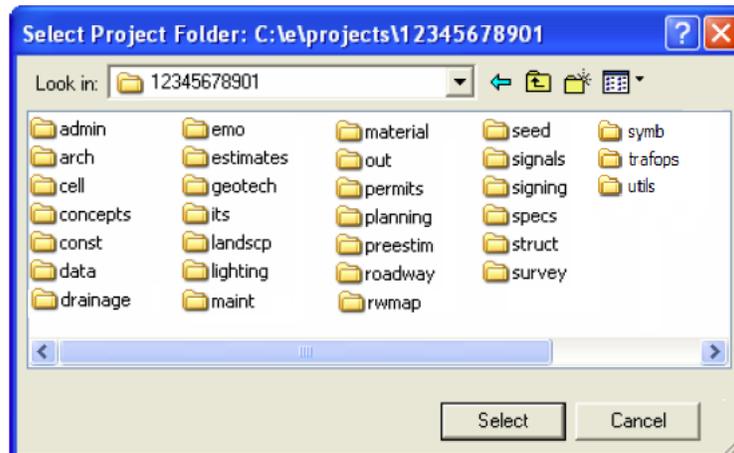
In MicroStation this capability is managed by an application (FDOTCONFIG) that is run at startup of any MicroStation file opened in the FDOT workspaces. This application looks for the \\_meta\_info folder and then moves up one folder to set the parent directory of the project. It then dynamically sets the MicroStation configuration variable, MS\_RFDIR, to search downward from the parent directory through all the found subdirectories to identify any reference files. Therefore all design files for a project must reside in the standard FDOT directory structure or its subdirectories in order to be located as a reference file. If it is necessary to reference a file that is external to the project, it must be done through the FDOTCONFIG application. FDOTConfig will manage the path to the file for referencing purposes. This capability is available from the FDOT Menu option ***Actions > Reference File Utilities > Attach Project External Reference Files.*** The configuration variable that initiates this application is preset in the FDOT workspace in the *sitefdot.txt* file.

When a file is opened in MicroStation in an FDOT workspace, if the \\_meta\_info does not exist, the user will be prompted to define the parent folder of the project, so that the application can set the search path for reference files. See the image below.



If Cancel is selected any reference to the models of files located in different subdirectories will not be displayed because the MS\_RFDIR variable could not be populated automatically.

If OK is selected the user will be given the opportunity to define the root of the project. The user can then navigate to the root of the project, named for the Financial Project Identification Number. In the example below notice the directory shown in the title bar of the dialog. A \\_meta\_info folder will be created directly under the directory shown in the title bar.



**Important:** If duplicate file names exist in the sub-directories of the project, MicroStation will attach the first matching filename it finds in the path. Therefore, duplicate file names are not allowed.

## 5.5 FILE SHARING AND MERGING

Every project will utilize and incorporate the entire FDOT Standard Directory Structure regardless of the project requirements. Data for each discipline is maintained in its sub-directory. **If a discipline requires information from another discipline, the needed design file(s) or individual models shall be referenced from the original directory, not copied.**

There are times when disciplines share files with other disciplines, such as the case where Roadway must differentiate between existing edge of pavement to be replaced and that to remain. This is because the elements representing existing edge of pavement often span several plan sheets.

For example, the Signing and Pavement marking design file (*DSGNSP*) references the Roadway design file (*DSGNRD*) and the Topography file (*TOPORD*). These files should not be copied into the Signing and Pavement Marking discipline sub-directory unless absolutely necessary.

**Note** If there is a specific justification to copy a file into another directory, the filename must be modified to reflect the discipline file name usage. For example, topord01.dgn (from the .\survey sub-directory)

would become toposp01.dgn, if copied to the .signing sub-directory, or as a minimum the sequence number would change to ensure that there is no doubt the copied file differs from the original file.

The data producer is responsible to ensure that up-to-date content of the original file is always reflected in their copied design file. Making copies of design files to different locations is strongly discouraged.

Because Roadway files are referenced by other disciplines and the elements are possibly used in quantity calculations, it may be necessary to break these elements at key points to assist the other disciplines in using the information in a logical manner. This can be accomplished by re-drawing the element(s) with logical breaks so it is not one long unmanageable element. Place breaks to coincide with clip borders or place the breaks at angular breaks in the element. Clip masking may also be used.

## 5.6 PROJECT INDEXING AND JOURNALING

### 5.6.1 INDEX GUIDELINES AND FORMAT

Florida Department of Transportation (FDOT) Project Index files will be produced and delivered in accordance with the FDOT CADD Manual. The purpose of the indexes is to document delivered project files belonging to the plan set.

FDOT provides the software tools, Electronic Delivery Indexer (EDI) for MicroStation projects to produce FDOT Project Indexes in the required formats. Since the index files are text based in .XML format, a user could conceivably produce these by other means, albeit with difficulty.

Indexes are crucial to the successful use of the electronic data by downstream customers. They should be updated and reviewed as the work progresses. These indexes may be maintained by software in the Electronic Delivery software suite. The indexes noted above include:

**Index.XML** This is a comprehensive index of file attribute meta-data produced by the Electronic Delivery Indexer which contains all indexed data and mined or user input attribute data for the files of the project. This file is placed in the root directory of the project.

**ProjectIndex.XML** This is the primary index of all plan sheets and their associated files produced by the EDI applications. From this index, an HTML report can be produced (Sheetndx.htm) by the EDI that is used as an interface to the plans image plot files by persons who do not have the FDOT Electronic Delivery software loaded, such as contractors, the public, etc. This file is also found in the root directory of the project.

**ProjectFiles.HTM** This is a report of project files (documentation) and their “EDMS” comments included in the delivery, produced by EDI. EDMS comments are additional metadata that users can add to file descriptions when documenting those files using EDI. Projectfiles.htm differs from Index.XML in that for many files of a standard name, EDI will look up what that file type represents and include that in the documentation for that file present in the delivery. If the data producer added EDMS comments to any given file using EDI, those comments will be represented in the output ProjectFiles.HTM. This file may also be found in the root directory of the project.

EDI also does the following:

- Mines the attribute data from design files being indexed, which includes properties, such as global origin, working units, attached reference files, etc. Design files containing plan sheets have additional sheet index information, such as sheet number, title, etc. Sheet Navigator application is called to pass this sheet index data to EDI.

**Note** The indexer relies upon data produced by Sheet Navigator, an FDOT software process running in the MicroStation environment which tags sheets in the MicroStation DGN file. If Sheet Navigator has not been executed, the sheets within the design file have not been tagged. Though a manual method is provided in EDI to enter/edit sheet information, the manual method for building the index is significantly more time consuming, and therefore not recommended. The main purpose of the manual edit function is to provide additional or corrective data that will add intelligence about a file or sheet.

- Provides the interface to the Journals, which are Rich Text Format (RTF) files, (changed from XML format in previous EDI releases). Allows users to manually record comment data to the attribute index files using EDI as the interface.
- Produces the index of plans sheets (Sheetndx.htm) used in the advertisement for letting, which also uses ProjectIndex.XML as input.
- Produces an index of files (ProjectFiles.XML) with the option to save a report in HTML format (ProjectFiles.htm).
- Produces a single file (Project.PDF), containing all indexed sheets in the project found in the project root folder.
- Provides for batch plotting of sheets to specified formats.

## 5.6.2 JOURNAL GUIDELINES AND FORMAT

Journal files are to be delivered in accordance with the FDOT CADD Manual. The purpose of the Journal files is to detail design aspects and decisions made during the life of the project, documenting processes used during the course of design that would be communicated to a down-stream user of the project data.

The Project Journal files will be delivered with the project. Journal files may be created to document the activities of a given professional discipline, or may be created to document a particular design activity (i.e. creating cross sections), or be the personal journal of a user/designer. Journal file entries should document methods employed, procedures used, decisions made, problems encountered, fixes included or other issues encountered during the design process.

For example: If custom line styles were created, the justification for the custom line style and the resource file name containing the custom line style should be documented in the Journal. Any information that would help in the regeneration of CADD files and/or plots should be recorded. The geometry information, database, controlling alignment, profile names, relevant survey and cross section information and the methodology used to obtain the final geometric controls in the CADD product should be recorded.

The FDOT CADD Software, Electronic Delivery Indexer (EDI) includes the functionality to create and maintain Journals. Rich Text Format (RTF) Journals are created by EDI. Create additional Journals in the RTF format as needed. Beginning with the use of FDOT2004 on projects, Journal files are stored in the **data** sub-folder of projects and are maintained as RTF files.

The Journal tool in EDI currently provided by FDOT has the following properties:

- Creates / edits a journal file through a dialog box. The journal file can be viewed with a standard editor or by the journal tool.
- Provides for automated text entry.
- Allows pre-loaded text inserts (a type of pick list), with user and company information. Each journal entry is date stamped.
- Provides for adding custom (reusable) text inserts.
- Allows for the storage and viewing of images attached to Journals.

The indexing tools mentioned in this chapter are documented in the Electronic Delivery software interface and in the applications themselves. Short videos have been created to document the operation of these tools and can be found on the FDOT website at:

<http://www.dot.state.fl.us/ecso/downloads/clips/>

