# Chapter 5 - Right of Way / Easements and Utilities

# TABLE OF CONTENTS

CHAPTE	R 5	2
5	.1	Introduction to Right of Way Plan Sheets
5.	.2	Preparing Plans for Public Hearing2
5	.3	Plan Preparation after Utility Field Inspection2
5	.4	Managing Permissions to folders in Falcon
5	.5	Right of Way Submission
5	.6	Right of Way Revisions
5	.7	Directory Structure and File Names5
5	.8	Seed Files
5	.9	Color and Symbology6
5.	.10	Level Structure   8     5.10.1   New Levels.   8     5.10.2   Level Filters.   12
5	.11	Labeling /Pluses & Offsets   13     5.11.1   Labeling   13     5.11.2   Pluses & Offsets   14
5.	.12	Text Sizes15
5	.13	Demolition Numbers and Parcel Numbers175.13.1Demolition Numbers175.13.2Parcel Numbers17
5	.14	Survey Property Owners File
5.	.15	Right of Way Data Sheet 19   5.15.1 Legacy Projects prior to July 2016 19   5.15.2 Permissions 19   5.15.3 Cells 19   5.15.4 Projects after July 2016 20   5.15.5 Permissions 21   5.15.6 Editing the Datasheet 21
5.	.16	Right of Way Parcel Checks
5.	.17	Utility Sheets (UT)21
5	.18	Plotting / Printing

# *Chapter 5 – Right of Way / Easements / Utilities*

## 5.1 Introduction to Right of Way Plan Sheets

In January 2013, a new method for recording Right of Way and Easements was implemented. This method requires additional plan sheets to be included in the plan assembly called "Right of Way Plan Sheets" (RW series). This Chapter will provide detailed information on who is responsible for creating each MicroStation file and PDF file, Falcon directory structure, Falcon permissions, and Signing and Sealing responsibility. All files related to the new method will be stored in Falcon under the appropriate directories as outlined later in this chapter. See example of the "Index of Sheets" in the <u>Road Design Manual</u> for location of these plan sheets in the plan assembly.

## 5.2 Preparing Plans for Public Hearing

Prior to Public Hearing, the roadway engineer will prepare the initial master Right of Way design file, Right of Way data sheet files, and Right of Way data sheet cell files in MicroStation as in the past, except no pluses and offsets should be included at this time. Reference files will be used so that all parties involved have the latest information. Files are NOT to be merged. The master Right of Way design file will only include the proposed line work and labels. The roadway engineer will have his/her own labels in the master roadway design file. These files are to be incorporated into the plan assembly prior to Public Hearing.

## 5.3 Plan Preparation after Utility Field Inspection

The roadway engineer will pass the task of finalizing the master Right of Way design file, Right of Way plan sheet files, and Right of Way data sheet cell files to the surveyor after all changes from the Utility Field Inspection have been incorporated into the plan set. At this time, the roadway engineer will create the Right of Way plan sheet files and name them correctly for the surveyor. From this point forward, the surveyor will make all changes to the master Right of Way design file, Right of Way plan sheet files, and the Right of Way data sheet cell files. The surveyor will use the same labeling nomenclature the roadway designer used and insert additional labeling as needed for the Right of Way plan sheets. Pluses and offsets should be added to the Right of Way plan sheets as survey finalizes the sheets.

Communication is a key factor especially when plan changes are involved. The Project Manager and all disciplines should be notified of all changes to the plans. If changes occur, the design team will make the corrections and coordinate with Survey.

# 5.4 Managing Permissions to folders in Falcon

As with other folders, permissions to the Right of Way directory will be managed through Falcon. Internal VDOT staff will use <u>SARA</u> to request permissions to folders. Consultants will use the Falcon Access Request form (LD-894). The roadway engineer will have full access to the Right of Way folder ("R" UPC#) up until the point of "Final Design and Right of Way Acquisition Phase" when the surveyor will take complete control of the folder to finalize the files and develop the Right of Way plan sheets. Falcon permissions must be managed accordingly as the transfer takes place. For more information about each phase of the Project Development Process Flow Chart, see link to <u>Flow Chart</u>.

# 5.5 Right of Way Submission

Plans (in PDF format) will remain in Falcon Current Drawings until the Right of Way plans are ready to be signed and sealed by the surveyor. The PDF files will be electronically signed and sealed by the surveyor just prior to Notice to Proceed (NTP).

When the Right of Way plans are ready to be signed and sealed, an email request is to be sent to the CADDSupport Helpdesk along with a copy of the LD-406 requesting the PDF files be copied from Current Drawings to the Right of Way Plan Room of Falcon. The request will not be processed without the LD-406. As with any request, it should be clearly stated in the email which Plan Room of Falcon the files are to be copied. Waiting until NTP to copy and store the Right of Way Submission set of plans in the Right of Way Plan File Room should reduce the total number of formal revisions.

For more information see The <u>Road Design Manual Section 2F</u> and the <u>Electronic Plan</u> <u>Submission Process Flow Chart</u>.

## 5.6 Right of Way Revisions

Right of Way Division has requested that all right of way plans be kept, because eminent domain cases may be held years after the acquisition of the right of way. Court cases are based on circumstances and plans in place at the time the certificate was filed. Sometimes our opposing counsel will point out differences in the plans used as evidence and the plans filed with the certificate. Although there may be no significant circumstance that affects value or even the parcel in question, the discrepancy allows the opposing attorney to create doubt in the eyes of the jurors that VDOT is consistently and fully disclosing all the facts.

For more information on formal revisions, see The <u>Road Design Manual Section 2F.</u> This section clearly defines what constitutes a formal revision and when formal revisions would start. When making a <u>formal</u> Right of Way revision, make the changes inside the appropriate MicroStation files. Then in Falcon Docman, update the database field for "Sheet #" by adding a \_r1, \_r2, \_r3 etc. depending on the number of the revision. The \_r # should coincide with the revision number shown on the revision data sheet. The MicroStation file names <u>do not</u> change. The revision number will be depicted on the revision data sheet in the upper left corner of each revision inside the symbol with a number inside. See example below:

(R1) March	23, 2015	0614-056-194, RW201	
)			
Sheet 1A: Added	Sheet 1F to the Index of Sheets.		
Sheet 1D, 3, 3R	W: Revised Property Owner Names	on Parcels 002 and 003.	
Sheet 1F: Added	this sheet.		
₹"?@			
This revision was made at the request of the RW Division.			

Then change the *Generate PDF* database field to *CURRENT DRAWINGS* for all the sheets that are to be included in the revision. The MicroStation files are now ready for PDF files to be generated and submitted to Falcon.



Note: The pick list has been updated to remove Right of Way and Right of Way revision.

When a formal Right of Way revision is ready to be processed, an email request is to be sent to the CADDSupport Helpdesk along with a copy of the LD-36 requesting the PDF files be updated in Current Drawings and a copy of the revised files for the formal revision be placed in the Right of Way Plan Room of Falcon. The old files will be moved to a **void folder** under the project folder in the Right of Way plan file room. CADDSupport will remove the UPC number from the Falcon database field so that the **void** files no longer show up on Falcon Web.

The request will not be processed without the LD-36. As with any request, it should be clearly stated in the email which Plan Room of Falcon the files are to be copied. It is the Project Managers and the Designers responsibility to verify the files are updated correctly in all locations. Consultants will submit pdf files named in accordance with Chapter 5 and <u>Chapter1 Section 1.4.3</u> of the CADD Manual.

# 5.7 Directory Structure and File Names

The Right of Way Section is assigned the directory of "R" UPC#. See <u>Chapter 1 Table</u> <u>1-1</u> for a complete description of the CADD directory structure for MicroStation. This directory will be utilized to store the master Right of Way design file, Right of Way data sheet cell file, and the Right of Way Plan sheet files. All directories and files are to be managed using Falcon. The roadway engineer will initially create these files in the "R" folder for later use by the surveyor. The Right of Way Data Sheet border file will remain in the "D" folder so the roadway engineer can assign the sheet number and fill out the title block and project number information. Consultants should utilize Falcon Web to store files so that the entire design team can access the same files within the "Consultant Environment" of Falcon. Below is an example of the current directory structure:

🖻 🛅 Projects	I
🖻 🧰 100023	
- 🗀 d100023	
- 🛅 h100023	
🧰 r100023	
🕀 🧰 s100023	
🛅 t100023	
🛁 🧀 u100023	

The following file names shall be used at all times.

"r" + UPC # + "rw" for Master Right of Way Design File ("R" folder)

"r" + UPC # + "rwdata" for Right of Way Data Sheet Cell File ("R" folder)

"d" + UPC # + "01b" for Right of Way Data Sheet file("D" folder, and a "1" series sheet)

"r" + UPC # + "03rw" for Right of Way Plan Sheet File ("R" folder)

"r" + UPC # + "04rw" for Right of Way Plan Sheet File, etc. ("R" folder)

(Note: The Right of Way Plan Sheet File will follow the last sheet for that series. The roadway engineer will copy and rename his/her existing roadway plan sheet files so the match lines and station limits of the Right of Way plan sheets correspond with the roadway plan sheets. The surveyor will be responsible for turning on and off the levels of the reference files as needed to accomplish their work.)

EXAMPLE:r38504rw.dgn (Master Right of Way design file for UPC# 38504rwdata.dgn (Right of Way data sheet cell file for UPC# 3			
	d3850401b.dgn (Master Right of Way data sheet file for UPC# 38504)		
	r3850403rw.dgn (Right of Way Plan sheet 3 file for UPC# 38504)		
	r3850404rw.dgn (Right of Way Plan sheet 4 file for UPC# 38504)		

# 5.8 Seed Files

All MicroStation design files must be created from a seed file. A separate and specific seed file has been developed for each type of design file. For example, there is a different seed file for plan sheets, general notes sheets, typical section sheets, etc. These seed files have several operating parameters set specific to that sheet's purpose and scale. See <u>Chapter 3 Section 3.1.3</u> and <u>MicroStation/OpenRoads Standards 2016</u> for more details about seed files.

The following seed files should be used to create the master Right of Way design file Right of Way data cell file, and Right of Way plan sheet files.

vdotseed.dgn or USFootSeed.dgn (2014 level structure)

# 5.9 Color and Symbology

The standard **VDOT MicroStation Color Table** named (vdotcolr.tbl) should be used at all times. If one of the suggested seed files (vdotseed.dgn or USFootSeed.dgn) is used to create the file, the correct color table will automatically be attached. If those seed files are not used, then you will need to attach the correct color table (vdotcolr.tbl) to your design file. The color table can be found in the directory \\coapp52\proj\supv8i\colortbl. Color number is designated in parentheses.

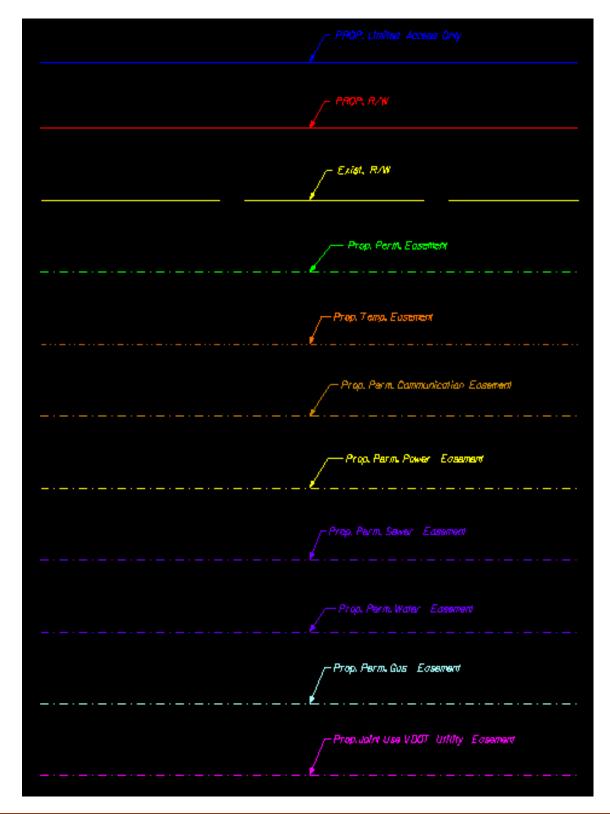
- Proposed Right of Way **Red** (CO= 3, LC=0, WT=6)
- Existing Right of Way **Yellow** (CO= 4, LC=RW, WT=2)

Note: White if "Level overrides" is turned on

- Permanent Easements **Green** (CO= 2, LC=4, WT=6)
- Temporary Easements **Orange** (CO= 17, LC=6, WT=6)
- Limited Access Only **Dark Blue** (CO= 1, LC=0, WT=6)
- Electric or Power Easements **Yellow** (CO= 4, LC=4, WT=6)
- Communication Easements (Telephone, Cable, etc.) Brown (CO= 114, LC=4, WT=6)
- Gas Easements Light Blue (CO= 150, LC=4, WT=6)
- Sewer Easements **Purple** (CO= 33, LC=4, WT=6)
- Water Easements **Purple** (CO= 33, LC=4, WT=6)
- Joint Use VDOT Utility Easements **Pink** (CO= 5, LC=4, WT=6)

The color will automatically be set correctly if the item is placed on the predefined level or if the user draws the item using the Design & Computation Manager in GEOPAK.

Examples of different types of easements:



# 5.10 Level Structure

## 5.10.1 New Levels

The "Levels DGN Library" has been updated to incorporate several new level names. Level Names are a relatively new feature in MicroStation that allows administrators to set and lock symbology per level. "By Level" must be turned "On" so that the symbology assigned to the level will override the active settings. The table below shows the new level names on the left and a brief description on the right. The color, line style, and weights have also been included in the description. The level structure for the Master Right of Way Design File and Right of Way Plan Sheet Files should be as follows:

Master Right of Way Design File		
Level	Description	
Level 1 - 22	Not assigned	
Level 23	Generic R/W and Easement Line Work	
Level 24 - 52	Not assigned	
Level 53	Generic R/W and Easement Text	
Level 54- 63	Not assigned	
RW_PR_RW	Proposed Right of Way (CO= 3, LC=0, WT=6)	
RW_PR_RW_TXT	Proposed Right of Way Text (CO= 3, LC=0, WT=5)	
RW_PR_RW_PLUS	Proposed Right of Way Pluses / Offsets (CO= 3, LC=0, WT=5)	
RW_PR_ESMT_PERMANENT	Proposed Permanent Easements (CO= 2, LC=4, WT=6)	
RW_PR_ESMT_PERMANENT_TXT	Proposed Permanent Easement Text (CO= 2, LC=0, WT=5)	

Master Right of Way Design File		
Level	Description	
RW_PR_ESMT_PERMANENT_PLUS	Proposed Permanent Easement Pluses and Offsets (CO= 2, LC=0, WT=5)	
RW_PR_ESMT_TEMPORARY	Proposed Temporary Easements (CO= 17, LC=6, WT=6)	
RW_PR_ESMT_TEMPORARY_TXT	Proposed Temporary Easement Text (CO= 17, LC=0, WT=5)	
RW_PR_ESMT_TEMPORARY_PLUS	Proposed Temporary Easement Pluses and Offsets (CO= 17, LC=0, WT=5)	
RW_PR_ESMT_COMMUNICATIONS	Proposed Communication Easements (CO= 114, LC=4, WT=6)	
RW_PR_ESMT_COMMUNICATION_TXT	Proposed Communication Easement Text (CO= 114, LC=0, WT=5)	
RW_PR_ESMT_COMMUNICATION_PLUS	Proposed Communication Easement Pluses and Offsets (CO= 114, LC=0, WT=5)	
RW_PR_ESMT_SEWER	Proposed Sewer Easements (CO= 5, LC=4, WT=6)	
RW_PR_ESMT_SEWER_TXT	Proposed Sewer Easement Text (CO= 5, LC=0, WT=5)	
RW_PR_ESMT_SEWER_PLUS	Proposed Sewer Easement Pluses and Offsets (CO= 5, LC=0, WT=5)	

Master Right of Way Design File		
Level	Description	
RW_PR_ESMT_WATER	Proposed Water Easements	
	(CO= 1, LC=4, WT=6)	
RW_PR_ESMT_WATER_TXT	Proposed Water Easement Text	
	(CO= 1, LC=0, WT=5)	
RW_PR_ESMT_WATER_PLUS	Proposed Water Easement Pluses and Offsets	
	(CO= 1, LC=0, WT=5)	
RW_PR_ESMT_GAS	Proposed Gas Easements	
	(CO= 150, LC=4, WT=6)	
RW_PR_ESMT_GAS_TXT	Proposed Gas Easement Text	
	(CO= 150, LC=0, WT=5)	
RW_PR_ESMT_GAS_PLUS	Proposed Gas Easement Pluses / Offsets	
	(CO= 150, LC=0, WT=5)	
RW_PR_ESMT_ELECTRIC	Proposed Electric Easements	
	(CO= 4, LC=4, WT=6)	
RW_PR_ESMT_ELECTRIC_TXT	Proposed Electric Easement Text	
	(CO= 4, LC=0, WT=5)	
RW_PR_ESMT_ELECTRIC_PLUS	Proposed Electric Easement Pluses and Offsets	
	(CO= 4, LC=0, WT=5)	
RW_PR_DEMOLITION_NUMBERS	Proposed Demolition Numbers	
	(CO= 0, LC=0, WT=5)	
RW_PR_PARCEL_NUMBERS	Proposed Parcel Numbers	
	(CO= 0, LC=0, WT=5)	

Master Right of Way Design File			
Level	Description		
RW_PR_LIMITED_ACCESS	Proposed Limited Access Only (CO=1, LC=0, WT=6)		
RW_PR_LIMITED_ACCESS_TXT	Proposed Limited Access Only Text (CO=1, LC=0, WT=5)		
RW_PR_LIMITED_ACCESS_PLUS	Proposed Limited Access Only Pluses / Offsets (CO=1, LC=0, WT=5)		
RW_PR_ESMT_VDOT_JOINT_USE	Proposed Joint Use VDOT Utility Easements (CO=5, LC=4, WT=6)		
RW_PR_ESMT_VDOT_JOINT_USE_TXT	Proposed Joint Use VDOT Utility Easements Text (CO=5, LC=0, WT=5)		
RW_PR_ESMT_VDOT_JOINT_USE_PLUS	Proposed Joint Use VDOT Utility Easements Pluses / Offsets (CO=5, LC=0, WT=5)		

Right of Way Plan Sheet Files		
Level	Description	
SURVEY_EXISTING_RW*	Existing Right of Way (CO= 4, LC=RW, WT=2)	
SURVEY_EXISTING_RW_TXT*	Existing Right of Way Text (CO= 4, LC=0, WT=3)	
SURVEY_RW_SHEET_TXT	Right of Way Plan Sheet Notes (CO= 0, LC=0, WT=5)	
SURVEY_RW_SHEET_LEGEND	Right of Way Plan Sheet Legend (CO= 0, LC=0, WT=5)	

## \*These levels remain in Master Survey File.

## 5.10.2 Level Filters

**Level Filters** can be used to turn on and off levels needed to perform a specific task. Several new level filters have been created to assist with the creation of the Right of Way plans.

#### **New Filter Names:**

- **RW** All levels that begin with RW are used to create the master Right of Way design file.
- **Survey** All levels that begin with Survey are used to create the Right of Way plan sheet files.



# 5.11 Labeling /Pluses & Offsets

## 5.11.1 Labeling

Labels are to be placed in the master Right of Way design file and should be placed using the **Plan View Labeler Tool** within GEOPAK. The label to identify the line work shall be placed on the new level created for text for each type of Easement or Right of Way. See <u>Section 5.10</u> of the chapter for detailed information on levels.

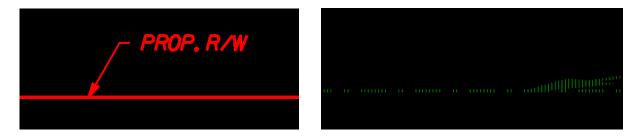
The roadway engineer will be responsible for placement of the labels in the master Right of Way file up until the file is passed to the surveyor. They should copy the labels into their master design file before passing the file to the surveyor. From that point on, the surveyor can revise and add additional labels as needed to finalize the Right of Way plan sheets.

In most cases, there will be labels in the master Right of Way design file and the master design file so that each Easement or Right of Way line is clearly annotated for the various types of plan sheets.

#### Plan View Labeler:

🛿 Plan View Labeler - Style:\road\labels\ 📃 🗖 🔀				
Style Files Options Scale Tools				
Text   Params:   Shape   Leader   Rotate   Styles   Item Selectori B Easement Temporary Pluse: Prop. Limited Access Line Prop. Perm. Drainage Easer Prop. Perm. Utility Easement Prop. RAW Prop. Temp. Constr. Easement Prop. RAW Prop. Temp. Constr. Easement Proposed R/W & Limited Ac	PROP. R/W Space Return Clear Delimit Place Label			
New Category Scale : 1.00 🍐 Node and Shape Only 😪				

#### Examples:



Note: Labels are a line weight of 5 and leader lines are line weight of 3.

## 5.11.2 Pluses & Offsets

Pluses & Offsets are to be placed in the master Right of Way design file by the Surveyor and should be placed using the **Plan View Labeler** Tool within GEOPAK. The Plus & Offset shall be placed on the new level created for each type of Easement or Right of Way Plus & Offset. See <u>Section 5.10</u> of the chapter for detailed information on levels.

There are other methods of placing Pluses & Offsets such as **Cells** and **Special Applications**. These are acceptable methods to use as long as the level and symbology matches the new standards.

Plan View Labeler:

🛙 Plan View Labeler - Style:\road\la	abels\ 📘 🗖 🔀
Style <u>F</u> iles <u>O</u> ptions <u>S</u> cale <u>T</u> ools	
Text Params. Shape Leader Rotate Styles   Item Selectori Style Preview	41.25'- d-e-l-i-m-i-tl-: +55.89 Space Return Clear Delimit Place Label

#### Examples:



Note: Pluses & Offsets are a line weight of 5

# 5.12 Text Sizes

This section describes the **Text Size** to be used on Imperial projects. Right of Way plan sheets will <u>not</u> be developed using Metric units. Text Size is based on the scale of the project. Text should match the same color as proposed line work. New levels have been created to automatically set the color, line style, and weight. See <u>Section 5.10</u> of the chapter for detailed information on levels.

Imperial			
Text Size	Scale	Text Size	Weight
A	1" = 100'	16'	5
	1" = 50'	8'	5
	1" = 25'	4'	5
	Ir	nperial	
Text Size	Scale	Text Size	Weight
В	1" = 100'	12'	5
	1" = 50'	6'	5
	1" = 25'	3'	5
	Ir	nperial	
Text Size	Scale	Text Size	Weight
С	1" = 100'	8'	3
	1" = 50'	4'	3
	1" = 25'	2'	3

#### Text Sizes or Styles:

Right of Way Labels / Text – Text Size BSurvey TextExisting Easement Labels / Text – Text Size CSurvey Easement TextPluses & Offsets – Text Size BPlan Sheet Notes / Legends – Text Size BAlignment Annotation – Text Size AProjects Numbers / Sheet Numbers – Text Size A

# 5.13 Demolition Numbers and Parcel Numbers

## 5.13.1 Demolition Numbers

Demolition numbers are to remain in the master design file ("d" + UPC # + "des".dgn). A new level has been created for the demolition numbers named **RW\_PR\_DEMOLITION\_NUMBERS**. Existing projects can still utilize level 53. The roadway engineer will be responsible for placement and revisions to these numbers. Demolition numbers can be added as soon as they are provided by District R/W staff.

Demolition Numbers			
D- 0 - 499	Structures (Houses, Sheds, Wells, etc.)	WT=5, LC=0, CO=0	
D- 500 - 599	Underground Tanks	WT=5, LC=0, CO=0	
D- 700 - 799	Signs	WT=5, LC=0, CO=0	
D- 900 - 999	Parcel Clearing Items	WT=5, LC=0, CO=0	

Demolition Numbers are a Text Size A.

## 5.13.2 Parcel Numbers

Parcel numbers are to go into the master Right of Way design ("r" + UPC # + "rw".dgn) file. А new level has been created for the parcel numbers named **RW PR PARCEL NUMBERS.** Existing projects can still utilize level 53. The roadway engineer will be responsible for placement and revisions to these numbers up until the file is passed to the surveyor. Parcel numbers can be added as soon as they are provided by District R/W staff.

Parcel Numbers		
Parcel Numbers	WT=5, LC=0, CO=0	

Parcel Numbers are a Text Size of A.

# 5.14 Survey Property Owners File

Since 2001, the property owner information has not been placed in the master survey file. Instead the survey parties have been submitting a separate "spo" file that contains only property owner information, i.e., owner's name(s), tax map number, deed book and page, acreage, etc. The property lines, bearings, and distances continue to be placed in the master survey file. The "spo" file will now be in a new "o" folder ("o" UPC#) which is a *sub folder* under the "s" directory and it will appear beside the "dt" ("dt" UPC#) folder. Roadway design staff will have full access to the "o" folder so they can make the needed changes to the "spo" file but they will not be able to access any other information in the "s" folder. Other relevant files must be referenced to the "spo" file to ensure the owner information is being located between the property lines and does not interfere with any other text, topographic, or design features.

#### The file name for Survey Property Owners file will be:

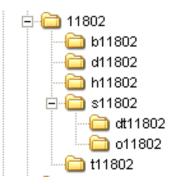
spo(upc#).dgn (ex. spo1234.dgn)

#### Storing of files in Falcon:

All files will be stored in Falcon as described in the following document.

Instructions for using Falcon V6

#### Example Folder Structure in Falcon:



#### Updating of file:

It will not be necessary to create separate property owner files when updating. All changes must be made in this "spo" file. This file should remain referenced to the master design files and sheet files at all times so that each discipline will have the latest information. All changes are to remain on the same level, at the same size, weight, style, etc. Property Owner name changes should be performed by Surveyor. Designers should only move text for clarity.

# 5.15 Right of Way Data Sheet

## 5.15.1 Legacy Projects prior to July 2016

The roadway engineer will initially create the Right of Way Data Cell file in the "R" folder for later use and completion by the surveyor. The Right of Way Data Sheet file will remain in the "D" folder so the roadway engineer can assign the sheet number and fill out the title block and project number information.

The following file names shall be used at all times.

"r" + UPC # + "rwdata" for Right of Way Data Cell file ("R" folder)

"d" + UPC # + "01b" for Right of Way Data Sheet file("D" folder, and a "1" series sheet)

**Note:** The Right of Way Data Cell file in the "R" folder is to be referenced to the Right of Way Data Sheet file in the "D" folder.

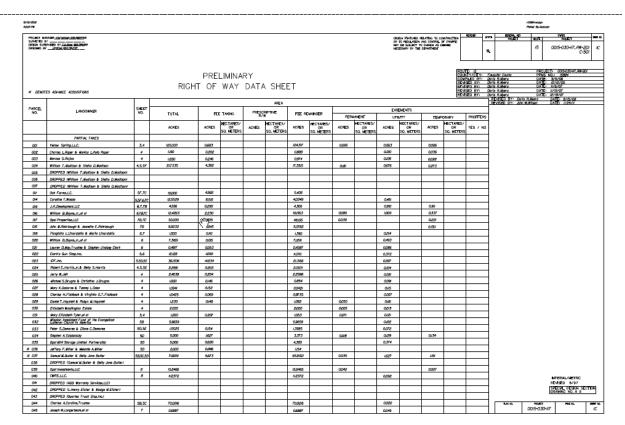
## 5.15.2 Permissions

The roadway engineer will have full access to the Right of Way folder ("R" UPC#) up until the point of "Final Design and Right of Way Acquisition Phase" when the surveyor will take complete control of the folder to finalize all Right of Way files and further develop the Right of Way plan sheets. Falcon permissions must be managed accordingly as the transfer takes place.

## 5.15.3 Cells

The Preliminary Right of Way Data Sheet Cell is located in the MicroStation Cell Library named sheet2000.cel. The name of the cell is "PRELRWDATA".

Use Shared Cells	Display All Cells In Path		Display: Wireframe
Name	Description	Туре	
PLA2	FULL PLAN SHEET WITHOUT SEALS	Grph	
PLOTBO	PLOT BORDER	Grph	A - A - A - A - A - A - A - A - A - A -
PP	PLAN AND PROFILE SHEET	Grph	
PRELRWDATA	Preliminary Right of Way Data Sheet (7/13/11)	Giph	
PRO	FULL PROFILE SHEET	Grph	
RDSDDEV	Roadside Development Sheet	Grph	
REVDATA	Revision Data Sheet	Grph	
RICHMP	RICHMOND DISTRICT PLAN LABEL	Grph	
RICHMT	RICHMOND DISTRICT TITLE LABEL	Grph	=
RO_RCDATA	Radial Offset / Reverse Curve Data	Grph	
SALEMP	SALEM DISTRICT PLAN LABEL	Grph	
SALEMT	SALEM DISTRICT TITLE LABEL	Giph	
SBAR1	SCALE BAR 1 100FT	Grph	
SBAR25	SCALE BAR 1 25FT	Grph	
SBAR50	SCALE BAR 1 50FT	Grph	8
<			S
The second s			
Active Cells			
Placement PLA	Point Element		Edit Delete
Eldeement PLA			Editor Doiote



## Example Preliminary Right of Way Data Sheet:

## 5.15.4 Projects after July 2016

The roadway engineer will initially create the Right of Way file in the "R" folder for later use and completion by the surveyor. The Right of Way Data Sheet file will remain in the "D" folder so the roadway engineer can assign the sheet number and fill out the title block and project number information.

The following file names shall be used at all times.

"r" + UPC # + "rwdata" for Right of Way Datasheet file ("R" folder)

- Use Seed file RWDATA

"d" + UPC # + "01b" for Right of Way Data Sheet file("D" folder, and a "1" series sheet)

**Note:** The Right of Way Data file in the "R" folder is to be referenced to the Right of Way Data Sheet file in the "D" folder. Reference the rUPC#rwdata to the dUPC#01b file using the appropriate model (25, 50, or full size). The border sheet insertion points are provided to set the sheets.

## 5.15.5 Permissions

<u>The roadway engineer will have full access to the Right of Way folder ("R" UPC#) up</u> until the point of "Final Design and Right of Way Acquisition Phase" when the surveyor will take complete control of the folder to finalize all Right of Way files and further develop the Right of Way plan sheets. Falcon permissions must be managed accordingly as the transfer takes place.

## 5.15.6 Editing the Datasheet

The datasheet has been setup as an embedded Excel spreadsheet. To input the data, go to the Datasheet model in the rUPC#rwdata file. Double click on the perimeter of the table. Excel will open the spreadsheet. Go to the INPUT Table worksheet. Input the appropriate data in each cell. Cells that are purple are editable and all others are locked for editing. Parcel deed acreage must match the deeded information. You will need to input the number then select AC (acreage) or the SF (square footage) for each parcel in the parcel information area. All other information must be input as square footage for all columns. The RWDATA tab will auto calculate based on the INPUT table. Areas greater than one (1) acre will be shown in acres. Areas less than 1 acre will be shown in square feet. The remainder area for the parcel information will match the deeded units. The excel file will need to be on the RWDATA worksheet prior to saving and exiting. The 25, 50, and Full size models will show the RWDATA sheet worksheet results. Insertion points for sheets are indicated on each model sheet.

## 5.16 Right of Way Parcel Checks

The survey parcel check file (sp###UPC# file/mode)I for each parcel must be attached to each RW sheet and clipped to the sheet by Survey. See Section 2.3.6 for the check level names to be used. Colors are set to match the colors outlined in the Right of Way manual Section 4.5.2. Once attached and clipped the visibility will be set to off.

This information will print to the pdf file in the background, in color and can be turned on/off by parcel to generate the colored sheets for Right of Way.

## 5.17 Utility Sheets (UT)

A utility sheet (UT) will be created by the Design section for use at Utility Field Inspection (UFI).

Sheet will be named: d + UPC# + Sheet#ut. See Cadd Manual Section 3.1.2.

This sheet will be provided in addition to, or supplement the standard UFI plans. This sheet is informational only and will not be incorporated into the construction plan set.

This sheet will be copy of each plan sheet saved as the file name shown above. This sheet will print with the design suppressed, the existing boundary and proposed boundary in black and white, and the SUE file (suUPC#) will be in color to clarify the existing utility location.

The plot configuration is shown in Section 5.18.

# 5.18 Plotting / Printing

The Right of Way Plan Sheets will be submitted for Right of Way as PDF files. The PDF files will be electronically signed and sealed by the surveyor. The PDF files are to be printed to scale and have a dimension of 35" x 23". The PDF files can be printed at half size when filed at the courthouse. Survey staff is responsible for generating their own PDF files.

The standard VDOT pen tables and logical names for reference file should be adhered to so that the line weights are correct at all scales and print sizes. There are plot configuration files already in place to generate PDF files that have the defaults set.

Utility sheets (UT) will be plotted using the ld\_v95\_utilities-Color.tbl configuration.

For more detailed instructions see <u>Chapter 3 Section 3.11</u> on plotting with MicroStation V8i.