(This guide was written for NCDOT personnel, others please see "Business Partners" at the end of this document)

Electronic Plans

The Department has implemented procedures for Professional Engineers to digitally seal and sign plans. All plans will be turned in electronically in a PDF format with digital signatures. DocuSign was chosen by NCDOT to provide the digital signatures. Initially, a paper copy of the electronic plans will be turned in to Roadway and the electronic plans will be stored on Project Store TIP# as shown below.

R:\Common\Final Plans\280 Utility Construction Plans

R:\Utilities\Engineering\UC\Proj\PDF

The PDF files for Utilities By Others Plans will be stored directly to the Utilities By Others folders as shown below. Electronic Signatures are not required.

R:\Common\Final Plans\290 Utilities By Others Plans

R:\Utilities\Engineer\UBO\Proj\PDF

The instructions below outline how the PDF files are created and signed with DocuSign.

Step 1 - Create PDF files

There are two ways to create PDF files with Microstation, the first is to open each plan sheet, fence the border and use iplot to convert the plan sheet to a PDF file, the second method is to use iplot organizer to create multiple PDF files in one session.

PDF Formatting Guidelines:

Remove any content that should not be included in final output
Include image of professional seal, if document is to be sealed
Use landscape layout (rotation 0 degrees)
Ensure PDFs are text searchable where possible (Convert using Microstation)(Do not scan paper copy)
One plan page per PDF file
Format the design at full size (22"x34" size) Ensure
PDFs are printable at the appropriate scale
Ensure sheets print correctly if printed on either 22"x34" or 11"x17" size paper

The Utility Construction and Utilities By Others PDF Plan Sheets shall have the following naming convention:

(Unit Prefix Number: Utility Construction - 280 and Utilities By Others - 290) (Numbers used to place plan sheets in order, skip numbers to allow for plan revisions – 001, 003, 005 etc.) (Unit File Naming Convention).

Utility Construction Plans
280_001_B4475_ut_tsh_UC01_psh.pdf - Utility Construction Title Plan Sheet
March 26, 2015

(This guide was written for NCDOT personnel, others please see "Business Partners" at the end of this document)

280_003_B4475_ut_sym_UC02_psh.dgn.pdf – Utility Construction Symbology Plan Sheet
280_005_B4475_ut_notes_UC03_psh.pdf – Utility Construction Notes Plan Sheet
280_007_B4475_ut_dtl_UC03A_psh.pdf – Utility Construction Detail Plan Sheet
280_009_B4475_ut_rdy4_UC04_psh.pdf – Utility Construction Plan Sheet
280_011_B4475_ut_pfl_UC05_psh.pdf – Utility Construction Profile Plan Sheet

Utilities By Others Plans
290_001_B4475_ut_tsh_UO01_psh.pdf - Utilities By Others Title Plan Sheet
290_003_B4475_ut_rdy4_UO02_psh.pdf – Utilities By Others Plan Sheet

Store the final PDF files in the following folders:

Utility Construction Plans

R:\Utilities\Engineering\UC\Proj\PDF

The Utility Construction PDF files can't be stored under the folder R:\Common\Final Plans \280 Utility Construction Plans until signed with DocuSign as shown in Step 2.

Utilities By Others Plans

R:\Utilities\Engineer\UBO\Proj\PDF

R:\Common\Final Plans\290 Utilities By Others Plans

Note: Need to create PDF folder under R:\Utilities\Engineer\UO\Proj\ before transferring files

Step 2 – Digital Signature with DocuSign

1. Login to DocuSign

2. Start a new envelope

3. (**Upload a File**)
   Browse and select the PDF files stored in folder
   R:\Utilities\Engineering\UC\Proj\PDF

   Note: The Symbology Sheet does not require a signature so don't upload this sheet

4. Identify the **First** and **Last Name** and **Email Address** of the person who will be signing the plans.

5. Customize the **Subject Line and Message** to address the person who will be signing the PE seal. (The subject will be used as the name of the zip file of the results, so include the TIP #.)

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> 6. Press "Next" to move forward.
>
> 7. (**Fields**)
> Drag and drop **Sign Here Field** - (For Signature) over to where you want the Signature on the PE Seal. Repeat for every sheet where a signature should appear.
>
> Drag and drop **Date Signed Field** - (For Date Signed) below the PE Seal. Repeat for every sheet where a date should appear.
>
> 8. Preview to make sure it all looks right, then Send.
>
> 9. DocuSign will email you to let you when the plans are signed as requested.

The Utility Construction PDF plan sheets emailed to you from DocuSign will need to be stored in two places on Project Store TIP#.

R:\Common\Final Plans \280 Utility Construction Plans

R:\Utilities\Engineering\UC\Proj\PDF

Once you receive the email from DocuSign confirming the plans are signed, the PDF files copied to R:\Utilities\Engineering\UC\Proj\PDF folder should overwrite the existing PDF files in the Folder. If you don't overwrite the existing PDF files you will have one copy of PDF files with no signatures and one copy with digital signature from DocuSign.

Business Partners

Those external to the Dept. (private engineering firms, utility owners, etc.) currently do not have access to the "Project Store" server (aka, R:/). Please submit electronic plans (following the above naming convention) to Utilities Unit personnel who will transfer to the Project Store.

Additionally, while the Dept. has selected DocuSign for digital signatures there may be other suitable vendors available to our Business Partners. Plans produced by external personnel can be digitally signed by:

1. Submit unsigned PDF files to Utilities Unit personnel who will route back to the designer via a DocuSign "envelope". The designer digitally signs under the Department's DocuSign account and routes back to the Utilities Unit.

Or

2. The business partner contracts with a suitable vendor of digital signatures and submits signed PDF files directly to the Utilities Unit.

March 26, 2015