SMU SharePoint Guidelines for Bridge Program Projects

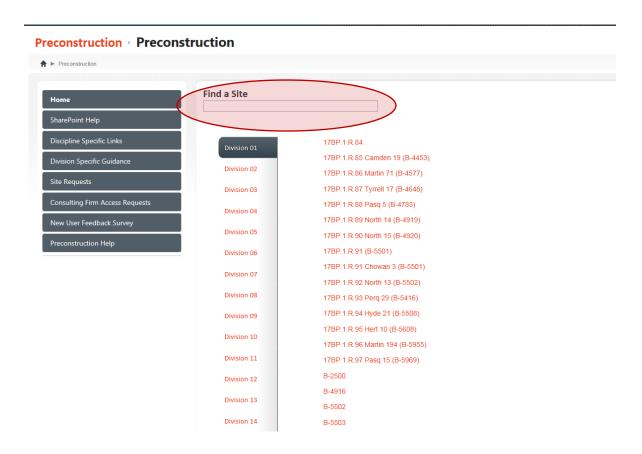
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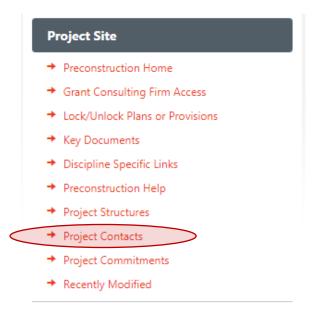
Structures Management will be utilizing SharePoint for project delivery. Here are instructions on how to setup your projects.

Site Overview Instructions

- You will need to use the Preconstruction Site: https://connect.ncdot.gov/site/preconstruction/SitePages/Home.aspx
- 2) Find your project on the NCDOT Preconstruction (SharePoint) Site. Type in your project name in the "Find a Site" search box.

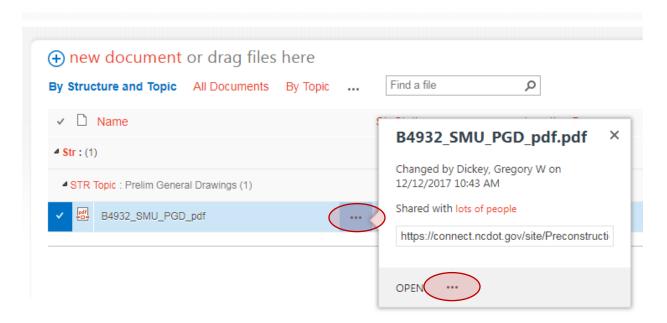


3) At the start of a new project, fill out the Project Contacts. See the link on the left side of the project's home page. You can update your contact information on existing projects as well.

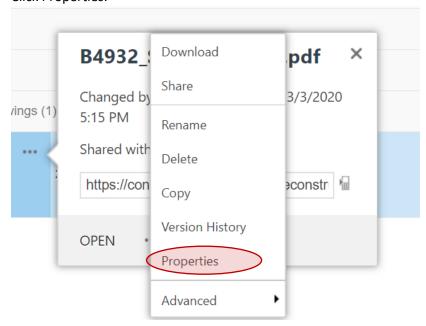




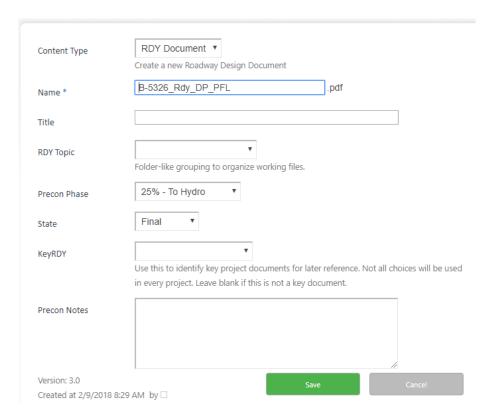
- 4) <u>METADATA</u>: SharePoint allows for files to have additional information/details to be attached to each individual file, so please utilize this feature when uploading files.
 - a. Click the ellipsis icon next to a file or document set to add metadata.



b. Click Properties.



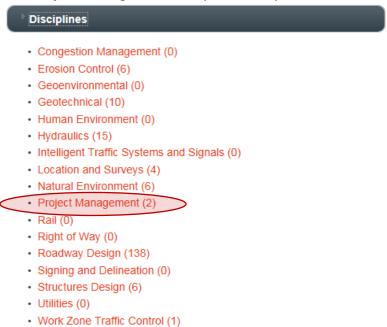
c. Fill out the metadata in this section. (See Roadway Design Submittal Instructions for more detail.)



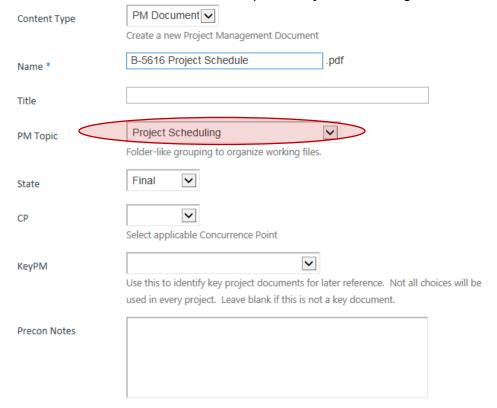
d. Click Save.

Project Management Instructions

1) Click on the Project Management Discipline library.



- 2) Upload the approved project schedule to this library.
 - a. Name the schedule: "B/BR-XXXX Project Schedule"
 - b. Edit the metadata to label the PM Topic as *Project Scheduling* as shown below.



- c. Maintain the project schedule throughout the life of the project. If the schedule is revised at any point in the project, upload the revised version and denote the revised date in the *Precon Notes* metadata.
- d. Notify the NCDOT Project Manager once the schedule is uploaded.
- e. Firm can also import the MS Project Schedule into SharePoint by using the Project Schedule link under the Project Site homepage (left side of the page).

Roadway Design Submittal Instructions

Please note that it is SMU's preference to avoid the use of the Submittal Tracker.

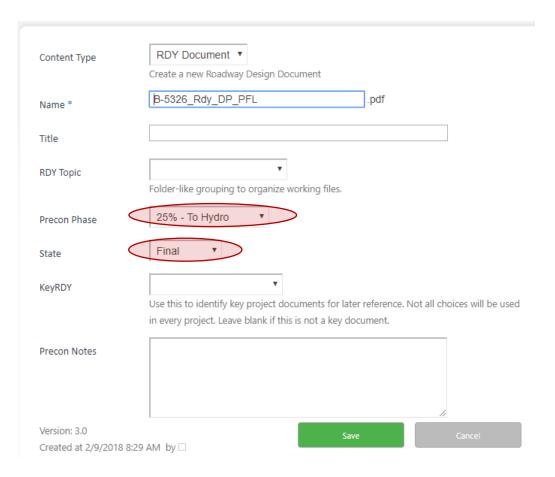
1) Click on the Roadway Design Discipline library.

Disciplines

- · Congestion Management (0)
- . Erosion Control (6)
- · Geoenvironmental (0)
- · Geotechnical (10)
- · Human Environment (0)
- · Hydraulics (15)
- · Intelligent Traffic Systems and Signals (0)
- · Location and Surveys (4)
- · Natural Environment (6)
- · Project Management (2)
- Rail (0)
- · Right of Way (0)
- Roadway Design (138)
 - Signing and Delineation (0)
 - · Structures Design (6)
 - · Utilities (0)
 - · Work Zone Traffic Control (1)
- 2) In order to organize the Roadway Design library, utilize document sets instead of folders as document sets can be assigned metadata.
- 3) Create document sets at important Roadway Milestones of the project (i.e. 25%, 65%, etc.)
 - See link on How to Create a Document Set:
 https://connect.ncdot.gov/site/preconstruction/Preconstruction%20Help/Design%20Document%20Sets
 %20Help.pdf
 - b. Naming convention should be as follows:
 - i. Functional_Plan_Review
 - ii. Design_Criteria_Review
 - iii. 25 Percent Plan Review
 - iv. 65 Percent Plan Review
 - v. 75_Percent_Plan_Review
 - vi. 90 Percent Plan Review
 - vii. 100_Percent_Plan_Review
 - viii. Past Plans
 - ix. Correspondence

NOTE: The use of document sets should be kept to a minimum.

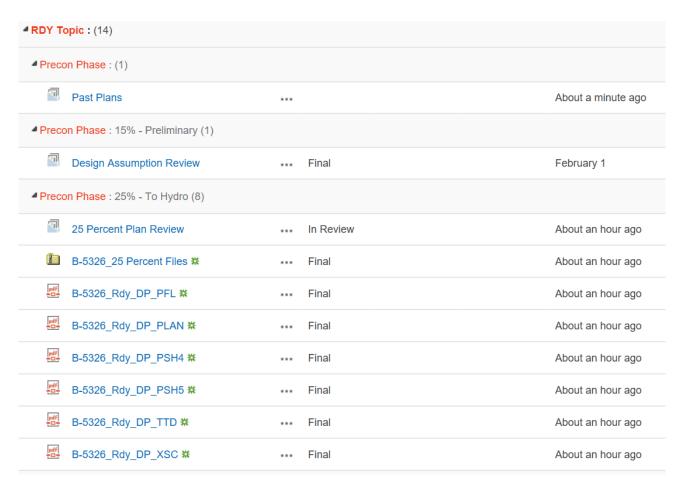
- c. Add metadata to each of these document sets.
 - i. Most importantly: Add the State and Precon Phase.
 - ii. For review document sets, label the State as 'In Review' and label the Precon Phase accordingly. Past Plans will not have any metadata assigned to it. Any documentation of decisions that affect the design throughout the life of the project and any items that would typically be identified in the "Brown Folder" should be labeled as a "Decision Document" and placed into the Correspondence document set.
 - iii. **DO NOT** fill out the Topic metadata field at this time for any of the document sets.
 - iv. See Final Plan Turn-in Instructions for an explanation of the Key Document Metadata.



NOTE: **ONLY** create the Milestone document sets when you reach that particular Milestone in the project.

- 4) Place a Final version of that Milestone's plans and design files outside of the document set into the Roadway Discipline library. Use metadata to label the Precon Phase and State of the files.
 - a. This will include PDFs of the plans and one zipped file with all supporting design files sorted using the Roadway File System Guidelines and Naming Convention:

https://connect.ncdot.gov/projects/Roadway/RoadwayDesignAdministrativeDocuments/Roadway/%20Design%20Consultant%20Coordination%20Guidelines.pdf.



- 5) Repeat Step 4 at each Milestone when completed and approved. Then, move the previous Milestone's plans and design files into the *Past Plans* document set.
- 6) All other files that are not a part of plan reviews/turn-ins will be placed into the Correspondence document set.
 - a. See Final Plan Turn-in Instructions for more detail.

Field Scoping Meeting (FSM) Preparation Instructions

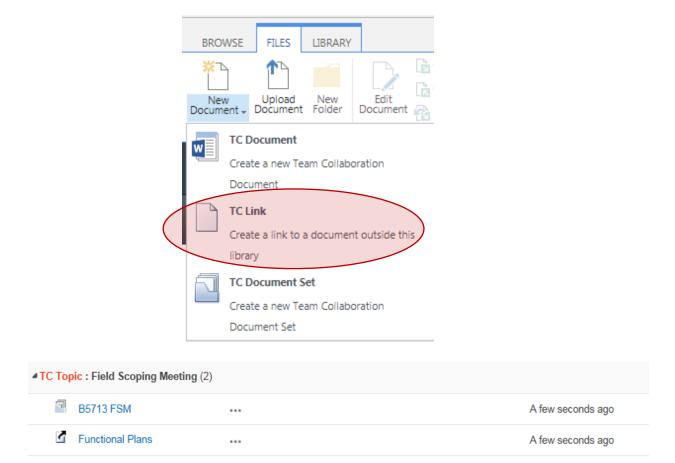
- 1) Submit Functional Plans and Designs for review into the appropriate location within the Roadway Discipline Library as indicated in previous instructions.
- 2) Begin setting up the SharePoint site for the FSM. This includes using the provided FSM template, inputting the known project history, and coordinating with the Division to set up the meeting.
- 3) Send out the FSM worksheets to the following people for their Discipline's input and allow two weeks for turnaround:
 - a. Location and Surveys (Dale Burton)
 - b. Utilities Unit (Barry Whitaker) & Regional Utilities Manager (Bo Hemphill Divisions 1-4 & 6, TBD Division 5 & 7-9, Michael Bright Divisions 10-14)
 - c. Environmental Analysis Unit (Chris Rivenbark Divisions 1-6 & 8 or Michael Turchy Divisions 7 & 9-14)
 - d. Geotechnical Engineering (Chris Kreider Divisions 1-7 or Eric Williams Divisions 8-14)
 - e. Work Zone Traffic Control Unit (Don Parker Divisions 1-4 & 6, Kenneth Thornewell Divisions 5, 7-9, or Karmen Dias Divisions 10-14)
 - f. Structures Management Unit (Kristy Alford Divisions 1-7 or Keith Paschal Divisions 8-14)
 - g. Rail Division (James B. Harris) ONLY for projects involving railroads.
 - h. Hydraulics Unit (Galen Cail Divisions 1-9 or Jon Moore Divisions 10-14)
 - i. SMU's GEC Reviewers

NOTE: This list of contacts is subject to change.

- 4) Coordinate with the Division to set up a date, time, and place. Ask the Division whether they prefer to meet onsite or at the Division office. Once a date and time are chosen, send out a calendar invite to all relevant parties (ie. Agencies, RPO, MPO). Include smupef@ncdot.gov in the calendar invite.
- 5) SharePoint Preparation for FSMs:
 - a. Use the Collaboration -> Team Collaboration Library



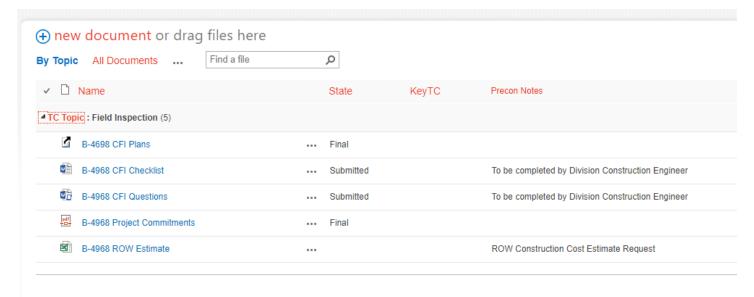
- b. Create a *TC Document Set* and name it **Project Name* FSM* For the metadata be sure to select the "Field Scoping Meeting" by the TC Topic, then click *Save*.
- c. Include a *link* to the functional plans and any other relevant documents that you have placed in the other Discipline libraries.
 - i. Adding a link In the Team Collaboration Library, click the File tab then the word New Document, then TC Link. Fill out the information that provides a link to the functional plans or any relevant data that you have already uploaded to the SharePoint site. For the metadata, be sure to select the "Field Scoping Meeting" by the TC Topic, then click Save. TIP: Copy the link you want to use before going to add the link to the library.



d. After the FSM occurs, place the completed FSM worksheet, all correspondence, and any documentation of decisions made at the FSM into this document set. **<u>DO NOT</u>** forget to add that metadata! You will need to identify the completed FSM worksheet as a *Key Document*.

Combined Field Inspection (CFI) Preparation Instructions

- 1) Contact the Division Construction Engineer (DCE) and Division Staff Construction Engineer (if applicable) for the appropriate Division at least a month before the scheduled CFI Milestone to set up a date, time, and location for the CFI.
 - a. Coordinate with the Division on where and when they would like to hold the CFI.
 - b. Provide the Division with the CFI questions and the Preliminary Estimate after the Roadway plans and design have gone through the 65% Roadway review.
 - c. Send out the CFI letter to all Disciplines to notify them of the intended meeting. Fill out the SMU CFI letter template and have the SMU Project Engineer docusign the completed letter.
 - d. Once a preferred date has been set, have the Division place a hold for the meeting. You will need to send the meeting invite out to all Disciplines per the CFI letter. Include the following contacts in addition to all others in the letter:
 - i. SMU's group email: smupef@ncdot.gov
 - ii. SMU's GEC
- 2) SharePoint Preparations for CFIs:
 - a. See *SharePoint Preparations for FSMs*. The main differences for CFIs will be the labeling of files with metadata, the relevant documents, and the *links* for the 65%/CFI Milestone.
 - i. Use the *Field Inspection* metadata to organize the CFI files (Creating a document is not necessary)
 - ii. These files include: the CFI checklist, Project Commitments (a *link* to the Environmental Documentation), a link to 65%/CFI Plans, CFI questions, etc. Each file that is added to the Team Collaboration Library will need the *Field Inspection* metadata added after they are uploaded.



3) Upon completion of the CFI, please remember to upload the approved CFI minutes, completed CFI Question and add the "Field Inspection Minutes" key document (KEYTC) metadata.

Final Plan Turn-in Instructions

Final Plan Turn-in to the Contract Standards and Development Unit will utilize SharePoint. For more details see Appendix A (SMU Bridge Program Consultant Guidance for Final Plan Turn-in)

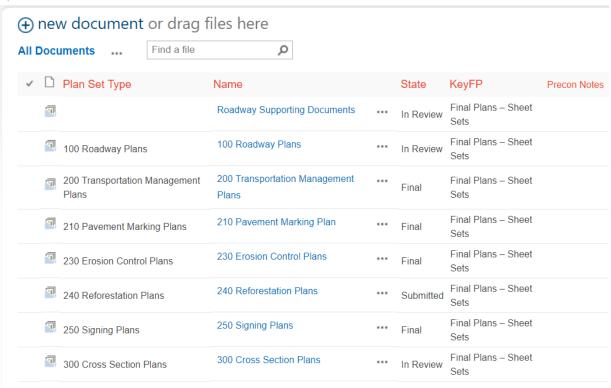
1) Go to the LET Preparations Library. Final Plans, Special Provisions, and Roadway Supporting Documents (aka the Manila Folder) will be placed here for final review by Plan Checking.



NOTE: Hard copies will no longer be required for Final Plan Turn-in.

Final Let -> Roadway Supporting Documents = Manila Folder Roadway -> Correspondence Folder = Brown Folder

2) Create document sets for Roadway Plans, Cross Section Plans, and Roadway Supporting Documents as shown below. If you have been tasked with other disciplines, coordinate with other NCDOT Units for Final Turn-in.



a. Roadway Supporting Documents will include the documents listed per the Roadway Guidelines found in Part II, Section 13-1, Page 6:

 $\frac{https://connect.ncdot.gov/projects/roadway/roadway%20design\%20manual/13.\%20roadway\%20plans.pdf}{ans.pdf}$

- Name Roadway Plans according to standard Project Store-> Common Folder naming convention.
 See:
 - $\frac{https://connect.ncdot.gov/site/preconstruction/Preconstruction\%20Help/Quick\%20Reference\%20-\\ 20Final\%20Plans\%20and\%20Special\%20Provisions.pdf}$
- c. Please match the "Plan Set Type" and "Name" of each plan document set.
- d. When updated files are requested during the Contract Plan Checking review, overwrite the PDFs in the document set. SharePoint saves older versions of the files if they need to be referenced in the future. Make sure the file names match exactly.
- 3) Once the Contracts Unit completes its review, a final Sealed set of plans can be placed in the Final Plans Library overwriting the unsealed, final plans. One set of zipped dgns can be placed in the *Roadway Supporting Documents* document set *TIP Name*_Final_Files.
- 4) Please note the Contracts Unit will now lock the Final Plans Library and in some cases all libraries at least 7 weeks prior to the project Let date. During this time, you will be unable to upload any files to the project SharePoint site. If you need to upload files, email the Contracts Unit at finalplans@ncdot.gov and contact your NCDOT Project Managers
- 5) Please enter all quantities for each discipline into the project PIQ (Pay Items and Quantities) Tool on SharePoint. These quantities should be identical to the quantities provided in the CSV files. PIQ tool instructions can be found at the link below.
 - $\underline{https://connect.ncdot.gov/site/preconstruction/Preconstruction\%20Help/Pay\%20Items\%20and\%20Quantities\%20one\%20page\%20summary.pdf$

General SharePoint Instructions

1) KEY DOCUMENTS

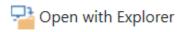
a. Metadata has been added to SharePoint to label certain documents as "Key Documents" for final plan review purposes. These documents include files such as the Environmental Documents, correspondence in which major project decisions were made, Final Pavement Design, etc.

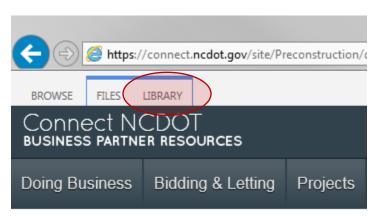
This page pulls together the Key Documents that have been marked for this project.		
Key Document	Name	Library
Bid Proposal	F_B5170 TC 1-2 11-7-17.pdf	Special Provisions - Lock
Bid Proposal	P_B-5170 Project Special Provisions.pdf	Special Provisions - Lock
Bid Proposal	J_B-5170 11-17-17.pdf	Special Provisions - Lock
Bid Proposal	i_B-5170 UBO_PSP 11-17-17.pdf	Special Provisions - Lock
Bid Proposal	R_B-5170_Mitchell_Permit_PNR_12-4-17.pdf	Special Provisions - Lock
Bid Proposal	D_5170-Soil Provisions -CONTAMINATED SOIL.pdf	Special Provisions - Lock
Bid Proposal	C_B5170 11-22-17.pdf	Special Provisions - Lock
Bid Proposal	B-5170_Mitchell_1-22-18.pdf	Special Provisions - Lock
Bridge Survey Report	600029 2017 B5170 BIG ROCK CREEK NC 226 DET.PDF	Hydraulics
Bridge Survey Report	60 0029 2017 B5170 BIG ROCK CREEK NC 226.PDF	Hydraulics
Decision Document	B5170_GEO_SHRG_Recs.pdf	Geotechnical
Decision Document	B-5170 EC Transport Quantities.pdf	Erosion Control
Decision Document	Planning	Roadway Design
Decision Document	GENCOR Series 200.doc	Roadway Design
Decision Document	Correspondence	Roadway Design
Decision Document	B5170_Alt2.pdf	Roadway Design
Decision Document	B5170_Alt.1.pdf	Roadway Design
Decision Document	B-5170 Request for Final Pavement Design.pdf	Roadway Design
Decision Document	B-5170 Final Pavement Design.pdf	Roadway Design
Decision Document	2009-12-08_B-5170_DSR.pdf	Congestion Management
Decision Document	B5170_GEO_SHRG_Details.pdf	Geotechnical
Decision Document	B-5170 Structure Survey Recommendations.pdf	Hydraulics
Decision Document	B-5170 Design Exception Checklist.docx	Roadway Design
Field Inspection Minutes	Combined Field Inspection(Answers).pdf	Team Collaboration
Field Inspection Minutes	CFI_Correspondence.pdf	Team Collaboration
Field Inspection Minutes	B-5170 Combined Field Inspection (letter).pdf	Team Collaboration
Final Envt Doc	B-5170_CE_Final_10142016.pdf	Project Development
Final Plans – Consolidated PDFs	Roadway Supporting Documents	Final Plans
Final Plans – Sheet Sets	200 Transportation Management Plans	Final Plans
Final Plans – Sheet Sets	210 Pavement Marking Plans	Final Plans
Final Plans – Sheet Sets	230 Erosion Control Plans	Final Plans
Final Plans – Sheet Sets	250 Signing Plans	Final Plans
Final Plans – Sheet Sets	290 Utility by Others Plans	Final Plans
Final Plans – Sheet Sets	300 - Cross Sections	Final Plans
Final Plans – Sheet Sets	400 Structure Plans - Bridges	Final Plans
Final Plans – Sheet Sets	100 Roadway Plans	Final Plans
Final Recommendations	B5170_GEO_BRDG0029_SubsurfaceInv.pdf	Geotechnical
Final Recommendations	B-5170 GEO RDWY Recs.pdf	Geotechnical
Final Recommendations	B-5170 GEO RDWY Sum of Qty.pdf	Geotechnical
Final Recommendations	B5170_GEO_BRDG0029_Recs.pdf	Geotechnical
Final Recommendations	B-5170 GEO RDWY RECS Summary Tables.pdf	Geotechnical

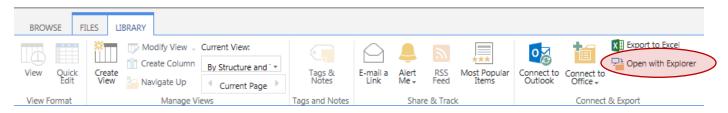
2) ATLAS DELIVERABLES – The ATLAS (Advancing Transportation through Linkages, Automation, and Screening) Workbench will be used to upload the final planning and environmental deliverables. These deliverables will be automatically populated into the project's SharePoint site into their corresponding discipline library. https://connect.ncdot.gov/resources/Environmental/EAU/Project-Atlas/Documents/ATLAS%20Comprehensive%20Document%20List.pdf

3) FILE EXPLORER

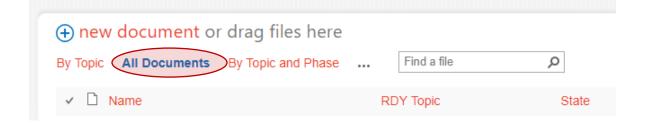
- a. In the upper left corner of your browser, just under the URL, click on the Library Tab
- b. Now click on the *Open with Explorer* button. This should open up the File or Windows Explorer on your computer. *You may need to log in once again.*
- c. This allows you to view files in a more familiar way.
- d. NOTE: This option is only available in the Internet Explorer browser.



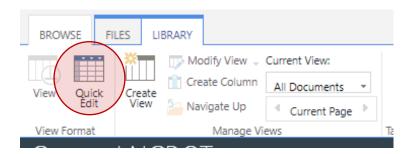




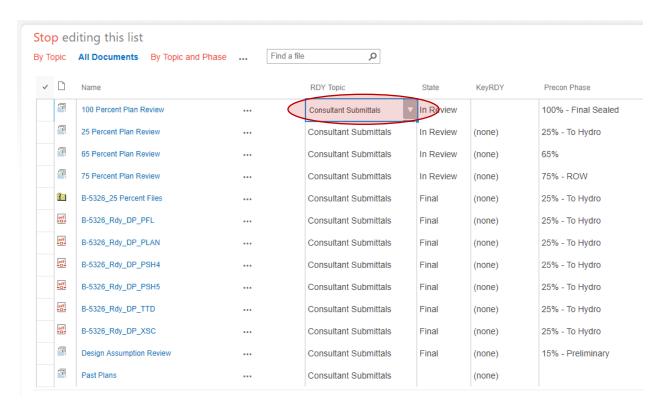
- 4) Quick Edit This feature allows the user to edit the metadata of several files at once.
 - a. In a Discipline Library, click the "All Documents" link. This will show all the documents that have been uploaded into the library without sorting based on metadata.



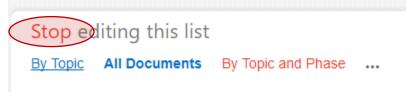
b. Click the Library Tab in the upper left corner of the browser. Then click the "Quick Edit" icon



c. Quick Edit will allow you to drag and copy metadata in the metadata table.



d. Click "Stop" when you have finished making edits to the metadata table and this will save your changes.



Give someone a high-five!!! You have a beautiful and well-organized file structure on SharePoint!!!!

Congratulations, you are now a SharePoint Expert!

Appendix A

SMU Bridge Program Consultant Guidance for Final Plan Turn-in

General Directions

- If you are tasked with multiple disciplines' plans (i.e. TMP, SIGN, PMP, EC, UO/UC, etc.), coordinate directly with those NCDOT Units on their Final Plan Turn-in Process. Coordinate with Tierre Peterson and Jacquelyn Bowles for the Roadway Plan turn-in for SMU managed bridge replacement projects and general questions about the final plan turn-in process.
- All plans and special provisions are now expected to be uploaded by either the Consultant or the NCDOT Unit
 onto SharePoint in the Let Preparation > Final Plans & Special Provisions Libraries as all Centrally Let Projects are
 now advertised via SharePoint.
- Final Plan Turn-in to SMU and other NCDOT Units for Centrally Let Projects is expected 15 weeks before the Let Date.
 - See the Project Flow Chart Generator to confirm your project's Final Plan Turn-in Date: https://apps.ncdot.gov/Vendor/Flowchart/
- SMU expects Consultants to follow NCDOT Roadway Design's Naming Convention Guidelines & the SMU Bridge Program SharePoint Guidelines for the turn-in of Final Plans.
- CSV files: Each discipline will have a separate .csv file for their quantities. The Roadway/Hydraulic quantities .csv file will be uploaded to the "Roadway Supporting Documents" document set and emailed to Tierre Peterson and Jacquelyn Bowles. All other disciplines (EC, TMP, PMP, etc) individual .csv files will be emailed directly to each NCDOT Unit's point of contact and uploaded to the "Roadway Supporting Documents" document set.
- PIQ Tool: All quantities for each discipline will also be input into the SharePoint PIQ Tool. These quantities should match the quantities in each disciplines' .csv file.

Roadway Supporting Documents

SMU would like for you to submit copies of following items into the Roadway Supporting Documents Document Set in the Let Preparation Library:

- Calculation of Quantities Package
- Cost base estimate quantity breakdown sheet
- Earthwork Computation and Balance Card (separate file, PDF format) this PDF gets advertised
- Index Sheet (8"x11") [This info will be added to the 1A Roadway sheet once reviewed.]
- List of Roadways Standards
- General notes
- CSV file generated for estimate
- Check list for coordination of roadway and structure plans
- 200 Series R/W items/memo
- Pay Item package starting with the SOQ pay item sheet, these need to be in order (PDF format)
- Final Plans Checklist
- See below Guidelines/Resources for additional documents expected
- Once plans are approved and final and have been docusigned, upload a zipped file of the dgns

Key Documents

The key documents metadata will be used to identify important files/documents that were previously placed in the "Brown Folder" turned into Plan Checking by Roadway Design. See below for a list of files expected to have the "key documents" metadata attached to it:

- Final Pavement Design Letter
- Combined Field Inspection (CFI) Minutes, CFI Questions, CFI Checklist
- Bridge Foundation Report
- Geotech Roadway Report
- Shoring Recommendations including letters, SP's, details, etc.
- All Plans that are going to be advertised (the folder they are in)
- Municipal Agreements, Betterments, etc.
- Planning Document (CE or MCDC)
- Consultations (ROW and/or Construction)
- Traffic Forecast
- NRTR
- Agency Coordination
- R/W letter sent to R/W branch Letter of Authorization (if a Federally Funded project)
- Other key/important decisions made on a project (i.e. Alternative selection, design decisions, etc.)

Guidelines/Resources to use for Final Plan Turn-in

- Contracts Unit Resources: https://connect.ncdot.gov/resources/Specifications/Pages/Contracts-Resources.aspx (see top right of page for checklists)
- SMU Bridge Program SharePoint Guidelines: https://connect.ncdot.gov/resources/Structures/StructureResources/Structures%20SharePoint%20Guidelines.p
 df
- Roadway Design Manual Guidelines: https://connect.ncdot.gov/projects/Roadway/Roadway%20Design%20Manual/13.%20Roadway%20Plans.pdf#p
 age=6
- SMU SharePoint Guidelines for Structures Design Library:
 https://connect.ncdot.gov/resources/Structures/StructureResources/Structures%20SharePoint%20Guidelines.p
 df

General Notes

- L&S no longer produces 1C survey control sheets. The control sheets are now termed Right of Way Plan Sheets (RW-01, etc). These sheets will be placed after the roadway profile sheet(s) and have their own Document Set in the Final Plan Library. They will be labeled "150 Right of Way Plans". L&S should upload these plan sheets, but the Consultant will confirm these plans are uploaded and have the correct naming convention.
 - See L&S guidance here for more information about RW sheets:
 https://connect.ncdot.gov/resources/Location/Manual%20Documents/Forms/AllItems.aspx?RootFolder
 =%2fresources%2fLocation%2fManual%20Documents%2fRight%20Of%20Way%20Sheets&FolderCTID=0
 x012000B73D950EAD3E314080F7C75EAA98363C
- Structure Final Plans & SPs:
 - Coordinate with Hoang Dieu in the SMU PEF/PS&E Group and follow the SMU SharePoint Guidelines for Structures Design Library for final plan turn-in.