

***CONNECTICUT DEPARTMENT OF  
TRANSPORTATION***

***Construction Contractor Digital  
Submission Instructions***

***Version 1.01***

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## Introduction and Getting Started

This publication provides detailed technical and technology assistance for Contractors for submitting digital documents to the Department for construction contracts.

Contractors submitting digital documents to CTDOT, will need the following:

- A valid license for the Bluebeam software REVU or Extreme, which are Portable Document Format (PDF) software, similar to Adobe Acrobat. This software is required to prepare and markup Contractor submittals. The software is available from [www.bluebeam.com](http://www.bluebeam.com) or another various resellers.
- Documents, such as working drawings and calculations, shall be digitally signed by the Professional Engineer that prepared the drawings or calculations in accordance with this publication. Documents such as letters and other correspondence from the Contractor shall be digitally signed in accordance with this publication.
- Access to CTDOT's document management system called Projectwise. All Contractor submittals shall be delivered to and reside on Projectwise. User names and passwords are requested by submitting a [CTDOT Projectwise New User Form](#).

After receiving a Projectwise user name and password, follow the [Projectwise Thin Client First Time Set Up](#) instructions. This step is only required once per user name.

- Projectwise is available in two ways. The Thick Client version is easier to use, but is not necessary to complete all the tasks associated with this publication:
  - Thin Client – Is a web based version (**Internet Explorer Must be Used, Chrome or Firefox will not work**) which is free to use and can be accessed at this website: <https://ctdot.projectwiseonline.com>
  - Thick Client – Software installed on the user's computer called, Projectwise Explorer Client and has a cost associate with it. To purchase Projectwise Explorer Client, contact Bentley at 1(800)BENTLEY.

If using the Thin Client, the following setup must be done the first time: [Projectwise Thin Client First Time Set Up](#). This step is only required once per user name. (**Internet Explorer Must be Used, Chrome or Firefox will not work**)

Questions on subjects covered by this publication should be forwarded to the following individuals:

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## Submittal Format

The following section includes the format requirements for Shop Drawings, Working Drawings, and Product Data submittals.

### Shop Drawings

1. Sheets shall be sized ANSI D (34 in. x 22 in.) and be combined into (1) multipage PDF file.
2. The file names for a submittal shall be named: Item Number and Description.pdf
3. Each sheet shall have a border, title block and a rectangular box, 2.25 in. wide x 1.75 in. high, in the lower right hand corner for the action stamp.
4. The minimum text height and width on sheets shall be 0.125 in.
5. All letter characters shall be uppercase.
6. All sheets shall be submitted in black and white.
7. Sheets shall be searchable.
8. If a submittal need to be resubmitted, the new submittal will include all of the sheets from the previous revision that were stamped No Exceptions Noted or Exceptions as Noted along with the new sheets that were required to be resubmitted.

### Product Data

1. Sized ANSI A (8.5 in. x 11 in.) and be a single multi-page PDF file.
2. The file name for a submittal shall include a description of what the submittal is for, Traffic Control Products.pdf.
3. Marked to indicate applicable choices and options.
4. Where non-applicable information and products are included, notations shall be made to clearly delineate applicable from non-applicable information.
5. Readily legible.
6. Include the following information and confirmation of conformance with the Contract to the extent applicable:
  - a. Manufacturer's printed recommendations
  - b. Compliance with recognized trade association standards
  - c. Compliance with recognized testing agency standards
  - d. Application of testing agency labels and seals
  - e. Notation of coordination requirements
  - f. Contract item number
  - g. Any other information required by the individual Contract provisions.
7. If a submittal need to be resubmitted, the new submittal will include all of the sheets from the previous revision that were stamped No Exceptions Noted or Exceptions as Noted along with the new sheets that were required to be resubmitted.

### Working Drawings

Working drawings shall conform to the following requirements:

1. Sheets shall be sized ANSI D (34 in. x 22 in.) and be in a single multi-page PDF file.
2. Each sheet shall have a border, title block and a rectangular box, 2.25 in. wide x 1.75 in. high, in the lower right hand corner for the reviewer's stamp.
3. The minimum text height and width on sheets shall be 0.125 in.
4. All letter characters shall be uppercase.
5. Sheets shall be searchable.

6. All sheets shall be submitted in black and white.
7. The first sheet shall include the Contractor’s designer’s Professional Engineer’s digital signature, meeting the requirements of Adobe’s Certified Document Services (CDS) or Adobe’s Approved Trust List (AATL), and all other sheets shall include a watermark of the Professional Engineer’s stamp in a common area of the border.
8. Calculations shall be sized ANSI A (8.5 in. x 11in.) and be in a single PDF file.
9. The first sheet of calculations shall include the Contractor’s designer’s Professional Engineer’s digital signature meeting the CDS or AATL requirements.
10. Supporting Documentation shall be in a PDF separate from the drawings and calculations.
11. The file names for the documents that are included in a submittal shall be: “Drawings.pdf,” “Calculations.pdf” or “Supporting Documentation.pdf,” as applicable.
12. If a submittal need to be resubmitted, the new submittal will include all of the sheets/documents from the previous revision that were stamped No Exceptions Noted or Exceptions as Noted along with the new sheets/documetns that were required to be resubmitted.

## **Digital Signature Requirements**

A digital ID must be purchased in order to apply a digital signature. Digital ID’s must meet the specifications of Adobe’s Certified Document Services (CDS) or Adobe Approved Trusted List (AATL). The necessary hardware and software needed to apply the required digital signatures may be purchased from the vendor list provided at the following websites:

CDS - [http://www.adobe.com/security/partners\\_cds.html](http://www.adobe.com/security/partners_cds.html)

AATL - <https://helpx.adobe.com/acrobat/kb/approved-trust-list2.html>

## **Graphic Appearances**

A graphic appearance must be attached to a digital signature when signing documents. The following section shows the graphic appearance requirements when signing as a Professional Engineer (PE) and when signing as a non-PE. For Working Drawings, two graphic appearances must be created. One is just an appearance of your PE stamp which will be attached to the digital signature, and the other appearance shall be your PE stamp along with your firms address and be used as a watermark that shall be placed in the border of all working drawings.

## **Professional Engineer - Graphic Appearance of the Digital Signature**

Two graphic appearances, one of the engineer’s PE Stamp and one with the engineer’s PE stamp and company address, must be created in accordance with the following. One will be used as the appearance of the digital signature and one will be used as a watermark that is to be placed on all Working Drawings.

The graphic signature that accompanies the digital signature only needs to include the designer’s signature and P.E. Stamp, and shall be created as follows:

1. Stamp and Sign a blank piece of paper.
2. Scan this signature.
3. Crop the image to approximately 250 pixels wide by 250 pixels high.
4. Save the image, in PDF to an area on your PC or server, where you can easily access it for later use in the signature set-up procedure.



Figure 1 ((Example of Consultant Engineer Graphic image of Signature – Applied to 1<sup>st</sup> page only with digital signature)

### **Graphic Appearance used as a Watermark**

In addition to the designer's signature and P.E. Stamp, the graphic signature that is placed as a watermark shall also include the designer's company name and address, and shall be created as follows:

1. On blank paper – Print company name and address.
2. Place P.E. stamp next to company name and address.
3. Sign P.E. Stamp.
4. Scan the image created in steps 1 thru 3 above.
5. Crop the image to approximately 500 pixels wide by 250 pixels high.
6. Save the image, in PDF to an area on your PC or server, where you can easily access it for later use in the watermarking procedure.



Figure 2 (Example of Consultant Engineer Graphic image of Signature – applied to all pages as a watermark)

Once the graphic images have been properly created and saved, the digital signature appearance preferences must be set as follows:

### **Regular Signer - Graphic Appearance of the Digital Signature**

The following graphic appearance shall be used when signing as a regular signer. This appearance will be used for signing letters and other types of documents.

The graphic signature appearance shall be created as follows:

1. Signer must sign a blank piece of paper.
2. Scan this signature.
3. Crop the image so that the image is approximately 300 pixels wide by 100 pixels high.
4. Save the images, in PDF to an area on your PC.



Figure 3 (Example of a Graphic Image of Signature – Used with Digital Signature)

### Setting up the Appearance of a Digital Signature

1. Launch Bluebeam.
2. Make sure the USB token that has your digital signature on it is inserted into the computer. Then in Bluebeam go to the Document tab and select Signatures>Digital ID's:

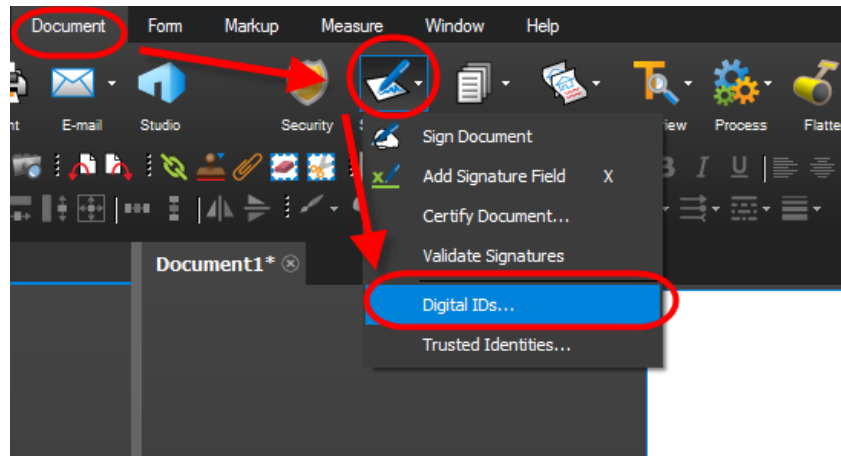


Figure 4 - Digital Appearance

3. Next click on your ID and click Manage Appearances:  
is form it signifies [redacted] delete and has had As-Built information applied to th

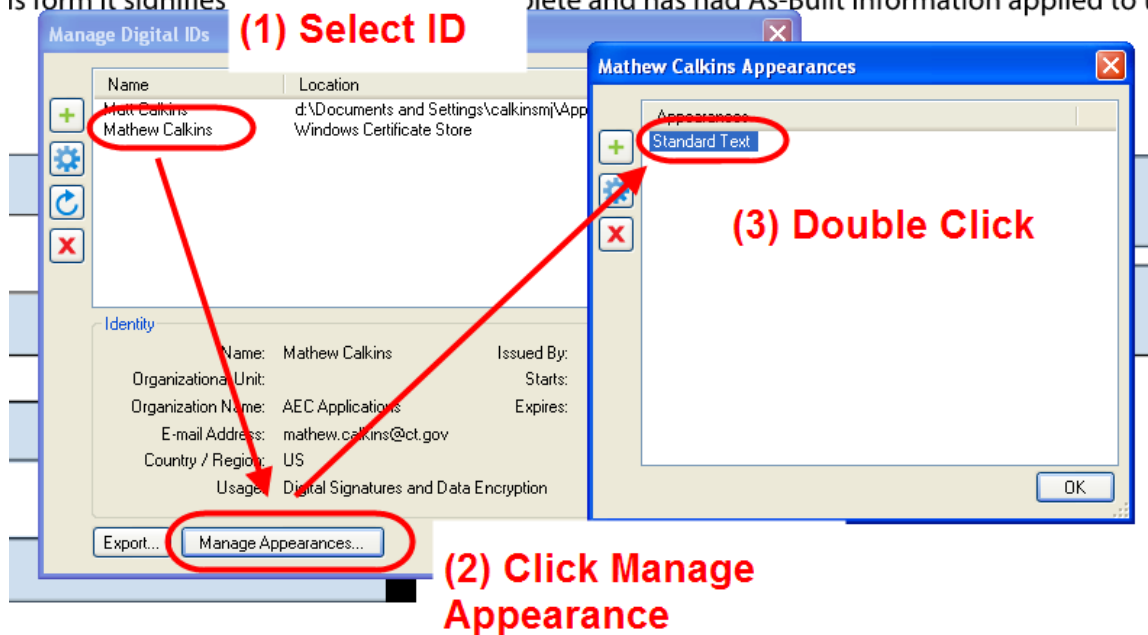


Figure 5 - Manage Appearance

- Next follow the figure below to add the applicable graphic appearance and set the correct settings:

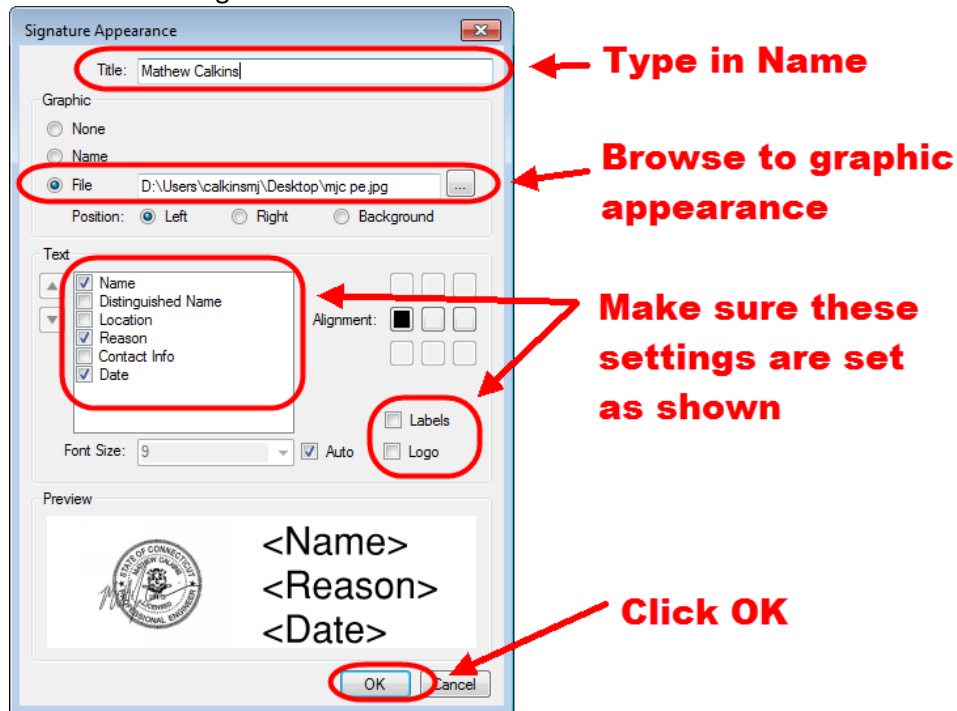


Figure 6 - Setting the Digital Appearance

- Now the digital appearance will be saved and can be used to digitally sign.

### Digitally Signing

The Digital signature must be applied to the Working Drawings, calculations, and other documents in accordance with the following:

The following settings must be selected when digitally signing:

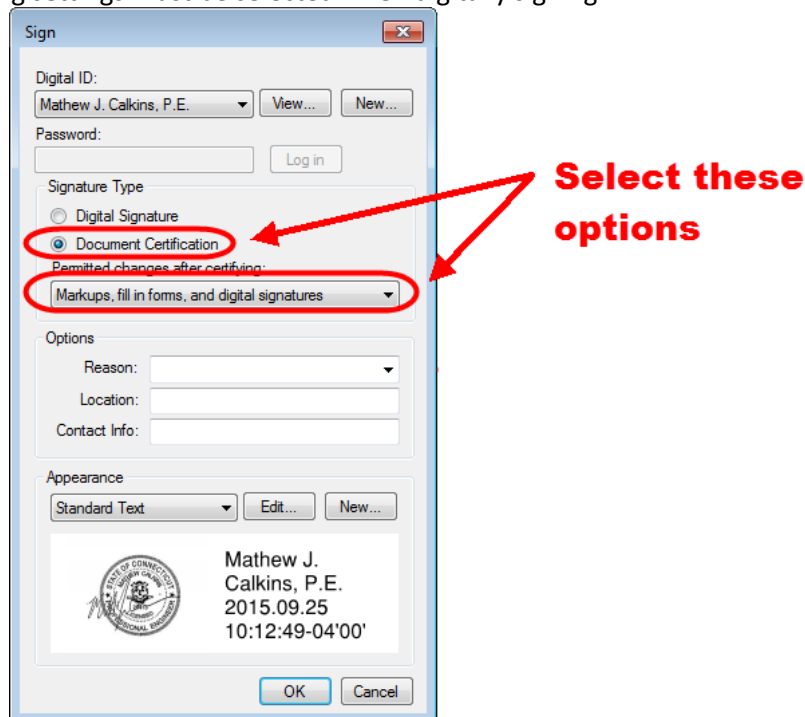


Figure 7 - Digitally Signing



The following are examples of Working Drawings and calculations that have been digitally signed:

**Working Drawing Plans**

The first plan sheet in the submittal shall have a digital signature and a watermark placed on it as shown below. All others sheets will only have the watermark. A place in the border of the plan sheets shall have a spot for this watermark.

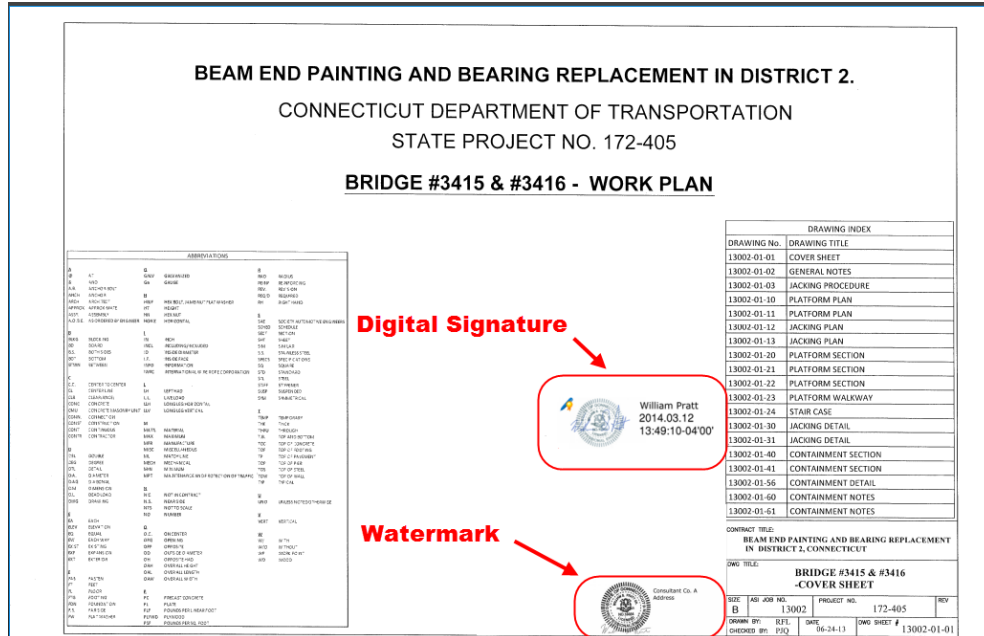


Figure 8 - Working Drawing for Permanent Structures

**Working Drawing Calculations**

The first sheet of the calculations shall have a digital signature as shown below:

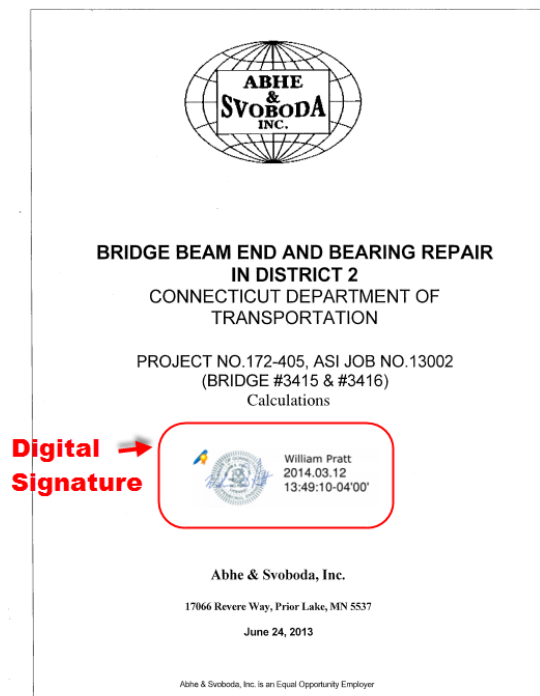


Figure 9 - Working Drawing for Permanent Structures

## Submitting and Preparing Contractor Submittals

The first time logging into Projectwise, this document must be followed to set up Projectwise to work correctly. This only needs to be followed the first time in: [Projectwise Thin Client First Time Set Up](#)

### Working Drawings, Shop Drawings, Product Data, and Submittals

1. Log into Projectwise by clicking on this link and enter your Projectwise Username and Password- <https://ctdot.projectwiseonline.com>

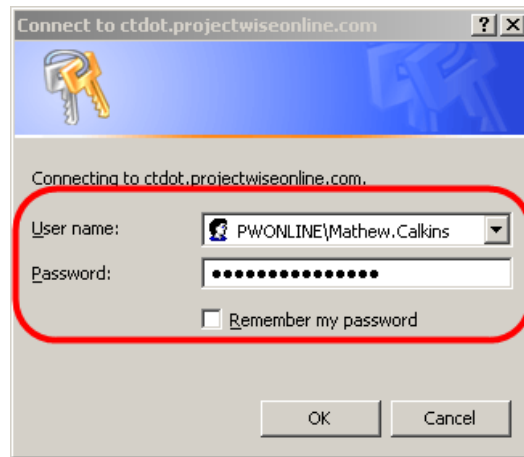


Figure 10 - Projectwise Log In Screen

2. Once logged into Projectwise go to View>Interfaces and select the “CTDOT\_Doc\_Code” Interface.

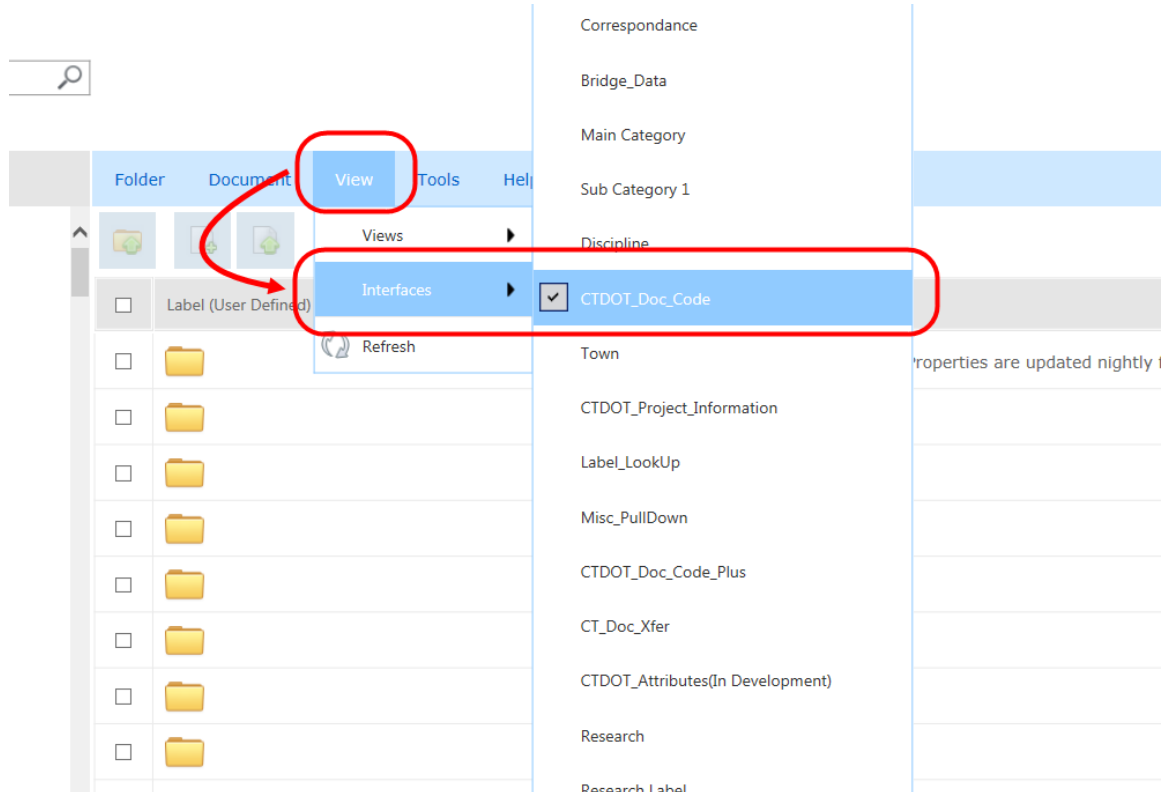


Figure 11 - Selecting the Interface

3. Browse to the “01.0 – Projects Active” area in Projectwise. Then browse to a specific project (e.g., 0004-0133) and then to the 120\_Contractor Submittal folder as shown below:

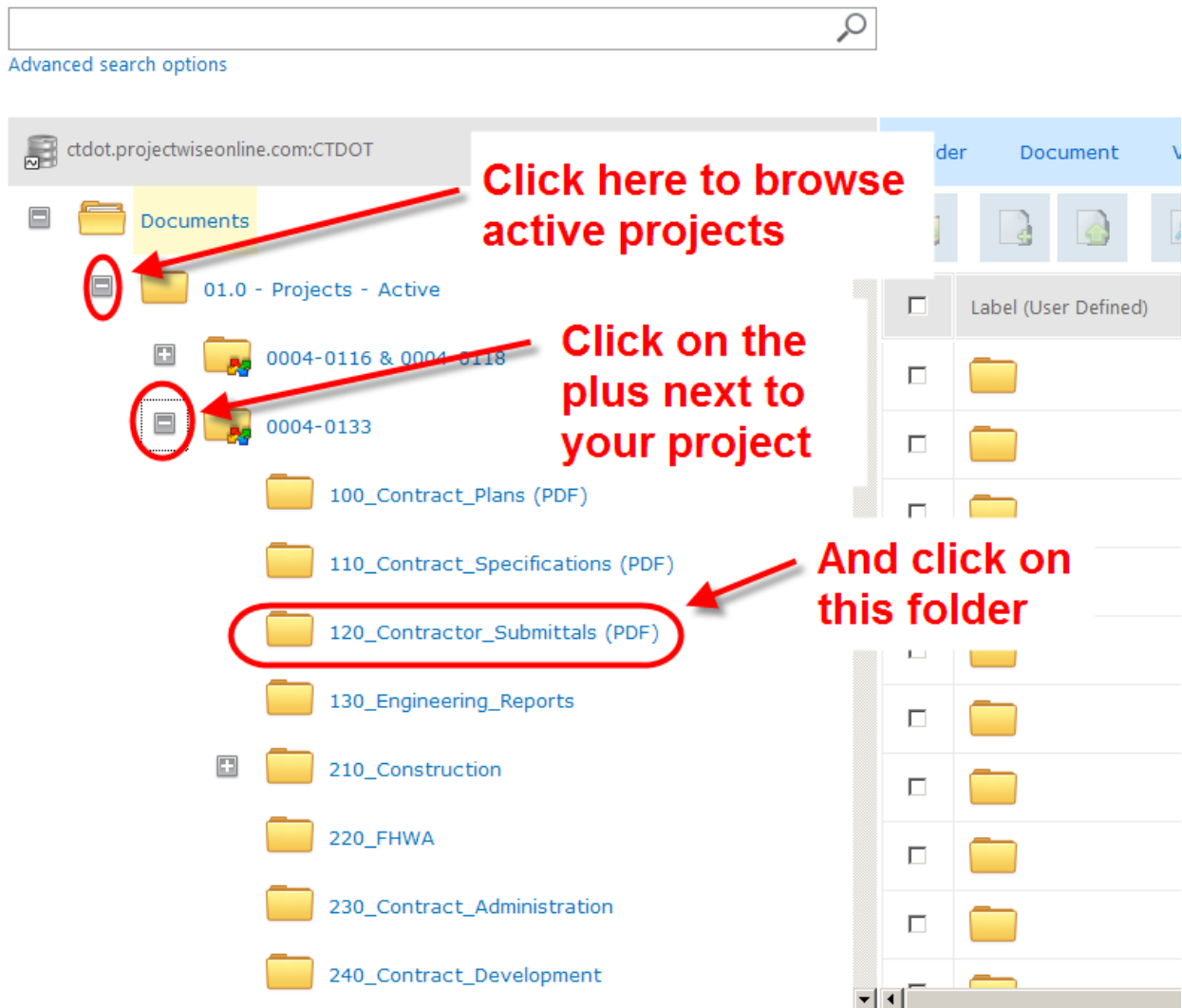


Figure 12 - Browsing to a Folder

4. Prepare the drawings/documents for the submittal in accordance with the contract specifications (usually Special Provision Article 1.05.02. For submittals that required a revised submittal due to being stamped Revise and Resubmit, the revised submittal shall be a complete submittal that includes all the drawings/documents for that submittal. Do not only include the drawings/documents that were required to be revised.

5. Next select Document>Upload as shown below:

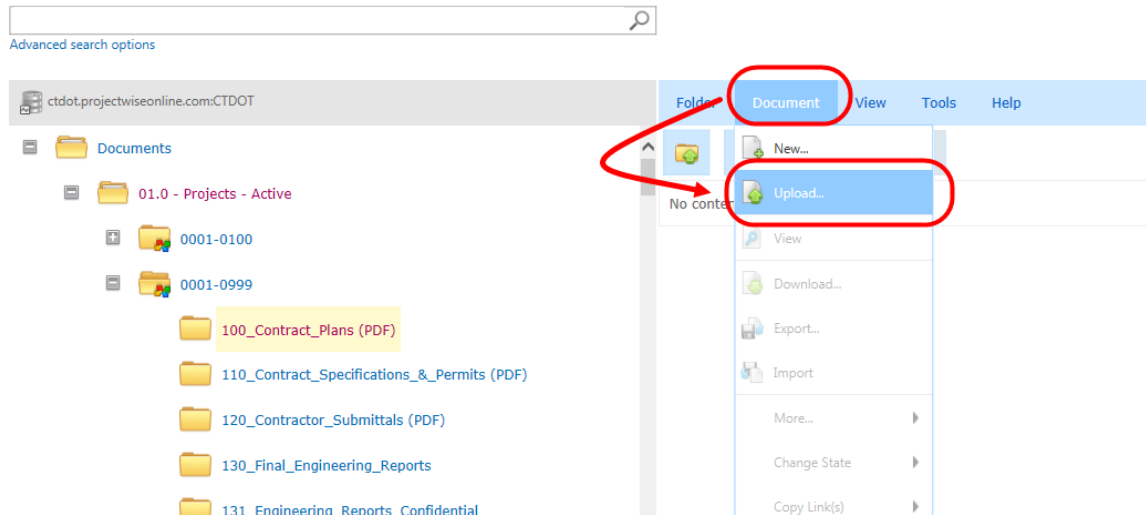


Figure 13 - Uploading Document into Projectwise (Thin Client)

6. Then browse out to the document you want to upload.

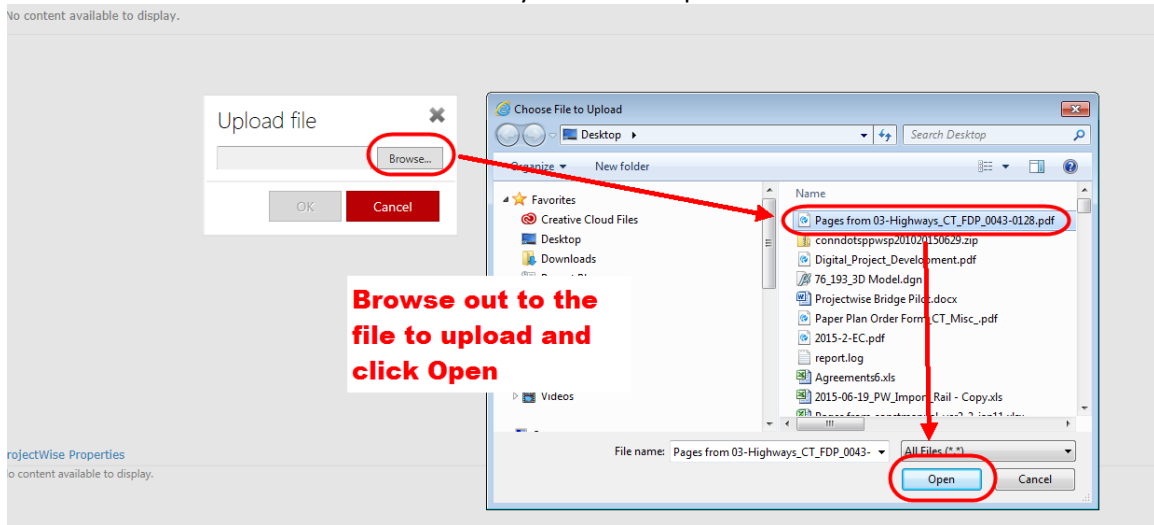


Figure 14 - Uploading a File to Projectwise

7. After the file uploads, right click on the file and select Properties:

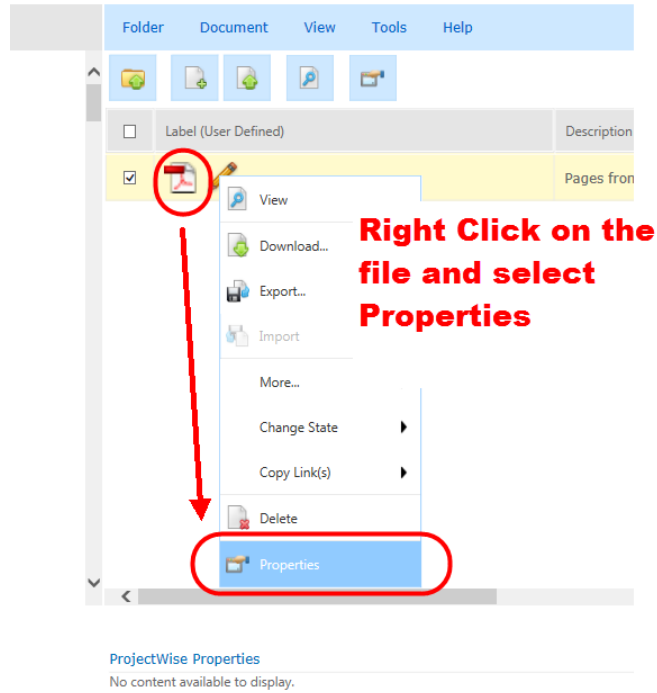


Figure 15 - Select Properties

8. Then scroll down to the bottom of the page and find the Attributes area. Assign the attributes as follows and click Save:
  - Discipline = Select CTR
  - Main Category = Select CONTRACTOR
  - Sub-Category = Select Applicable Submittal Type
  - Document Date = Type in Submittal Date
  - Label = Type in label in this format - ###-Item Number-##, where the first ### is the chronological submittal number created by the Contractor starting at 001, item number is the 7 digital item number, and the last ## is the revision of a submittal number. The first version of a submittal shall be 01, the second version of a submittal shall be 02, etc.
  - Description = Type in the description of the submittal.
  - Asset Tags = Select the applicable asset tag for a submittal. If the submittal affects a bridge, tag that submittal with the bridge number in a five digit format, ##### or 01234.

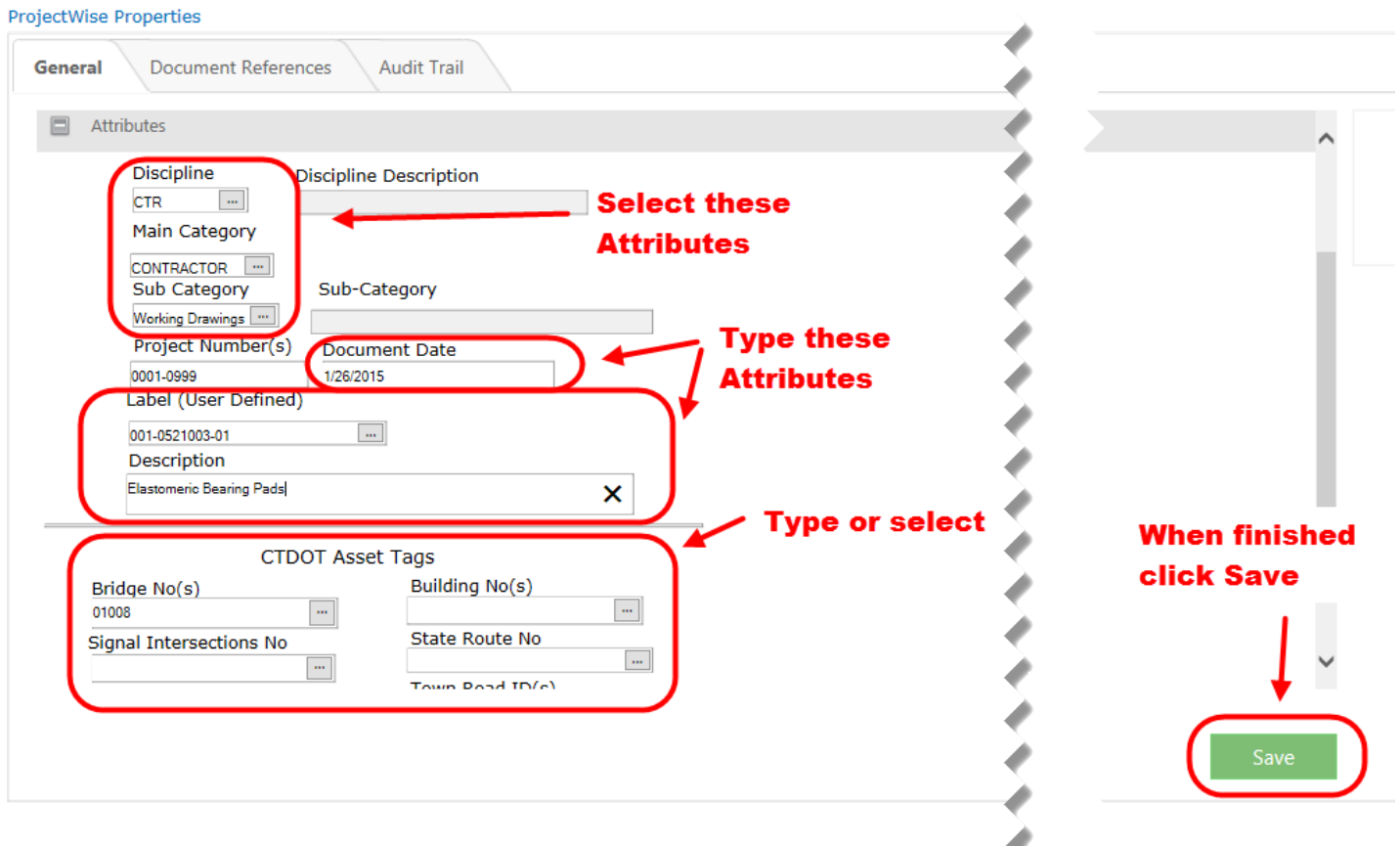


Figure 16 - Assigning Attributes

9. After the submittal is uploaded to Projectwise, send an email notifying **the applicable Designer and Construction District (for Working Drawings for Permanent Structures, Shop Drawings and Product Data submittals) and District Construction (for Working Drawings for Temporary submittals)**. The email must include the following in the subject line in this order:

- Full Project Number (####-####)
- Type of Submittal (WD, SD or PD)
- Full Item Number
- Submittal Number
- Brief Description

Examples: **0144-0193 – WD1201801A-001 – Site 5 Drilled Shaft Foundation**

Also include a link to the submittal, by copying the link as shown below:

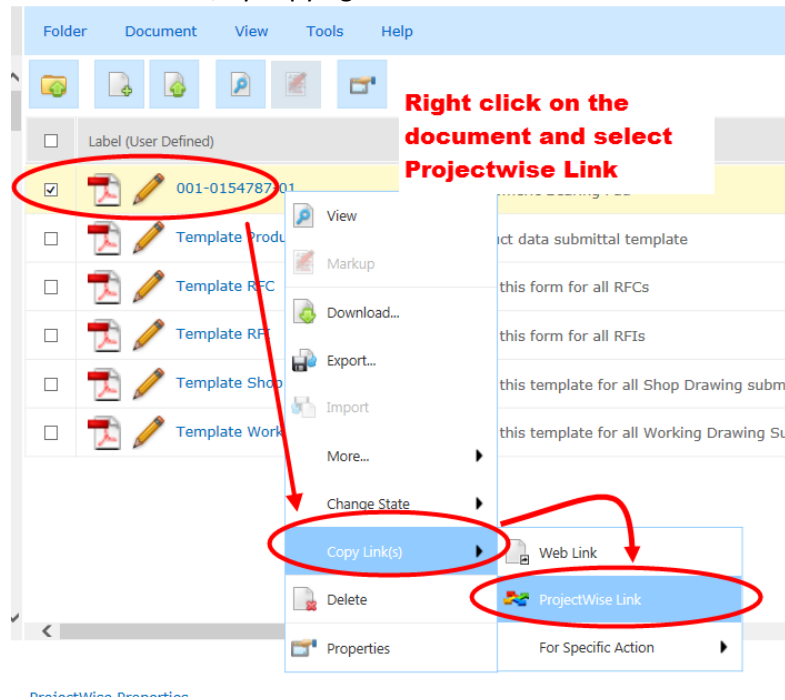


Figure 17 - Projectwise Link

Then click Allow Access:

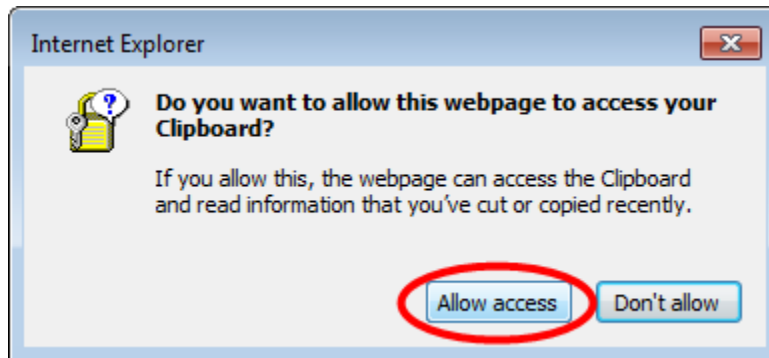


Figure 18 - Allow Access

Then right click in the email and select Hyperlink:

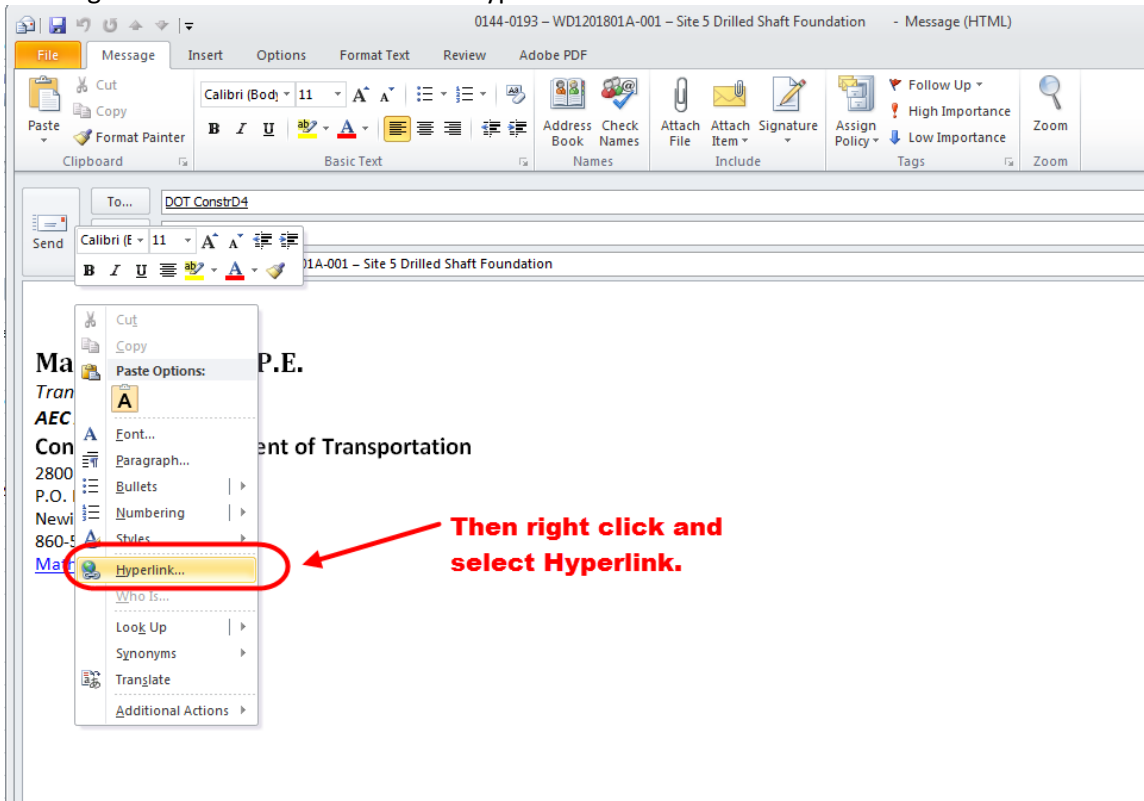


Figure 19 - Adding Hyperlink to Email

Then paste the Projectwise link into the address bar and select OK:

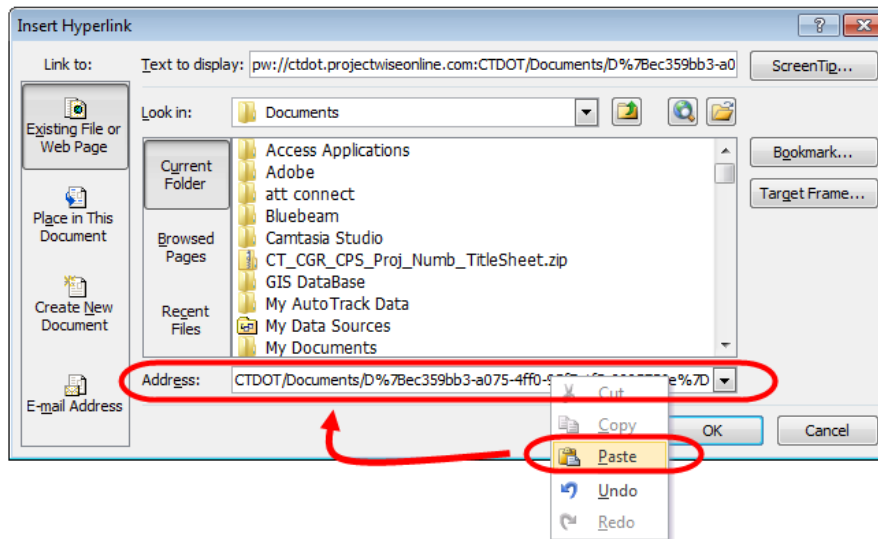


Figure 20 - Pasting a Hyperlink



Below is an example of an email for a shop drawing submittal, but the process is the same for a Working Drawing or a Product Data submittal.



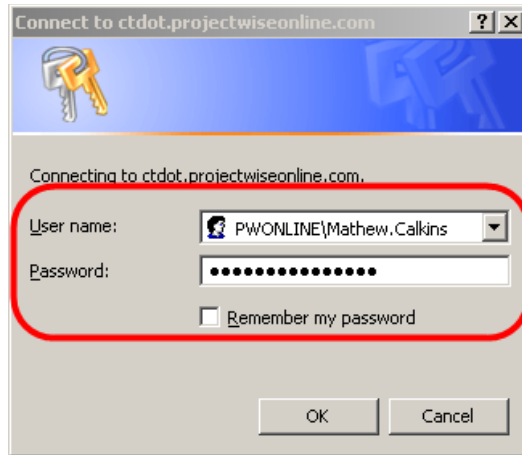
**Figure 21 - Email Example for a Shop Drawing Submittals**

## Submitting RFIs and RFCs

The first time logging into Projectwise, this document must be followed to set up Projectwise to work correctly. This only needs to be followed the first time in: [Projectwise Thin Client First Time Set Up](#)

The following shows the procedures and responsibilities of the Contractor when submitting an RFI or RFC.

1. Log into Projectwise by clicking on this link and entering your Projectwise Username and Password- <https://ctdot.projectwiseonline.com>



**Figure 22 - Projectwise Log In Screen**

2. Browse to the active construction projects located in the 01.0 – Projects Active area in Projectwise. Then browse out to your project and click on the 120\_Contractor Submittal folder as shown below:

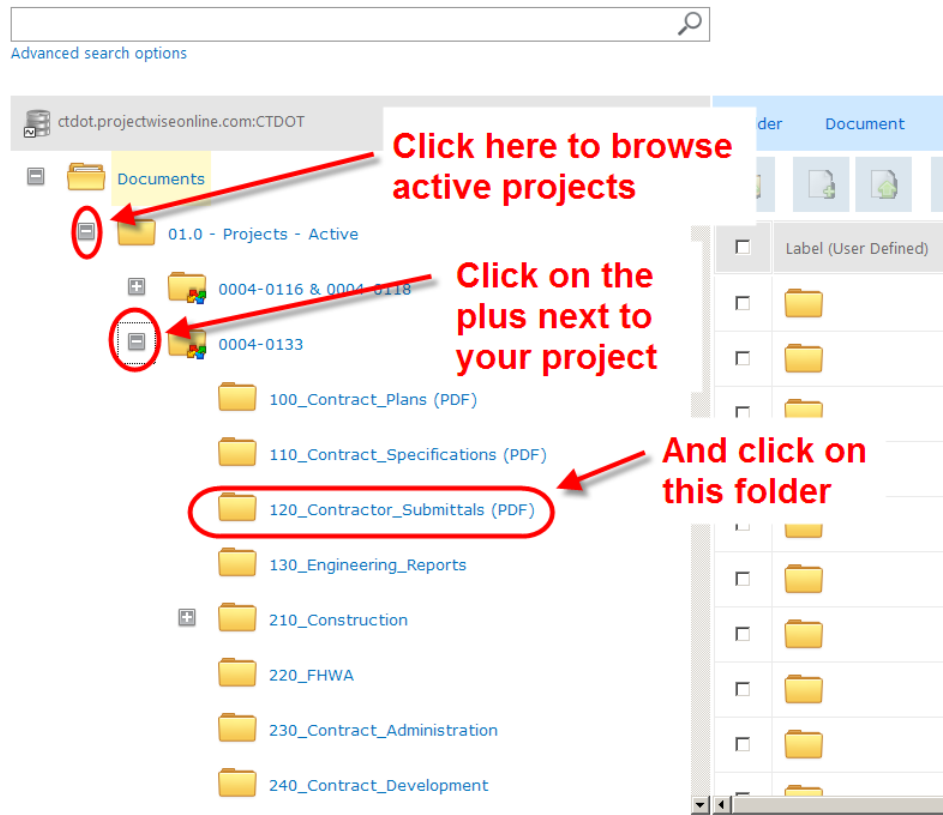


Figure 23 - Browsing out to a Folder

3. Next upload the file to Projectwise by click on the upload icon as shown below:

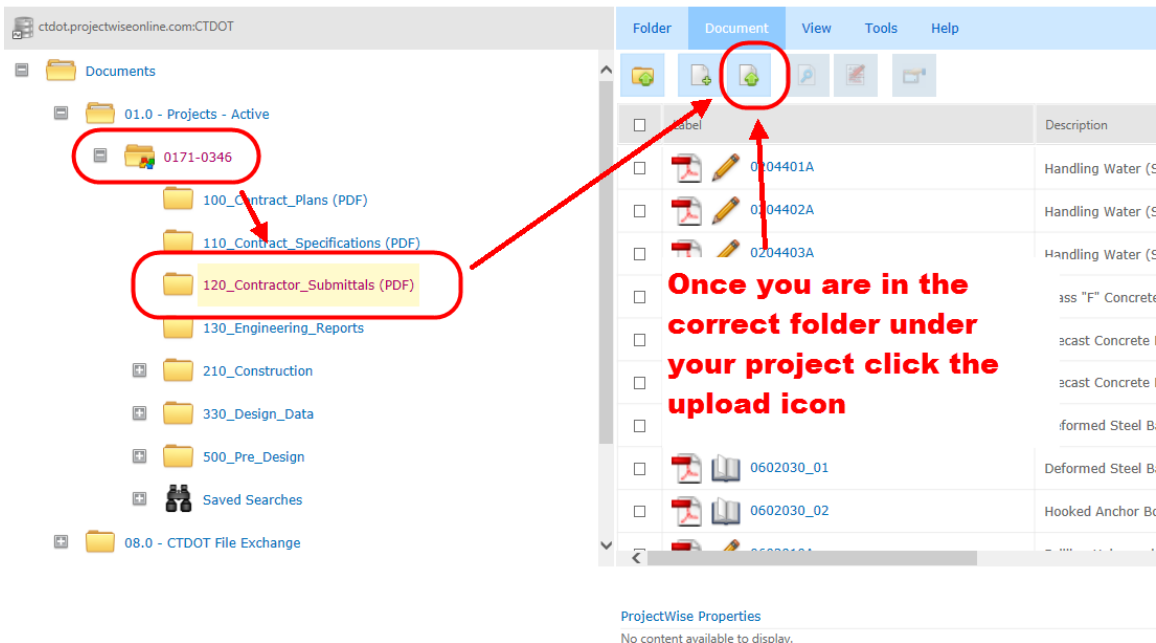


Figure 24 - Uploading a file to Projectwise

4. Next browse out to your file and click open:

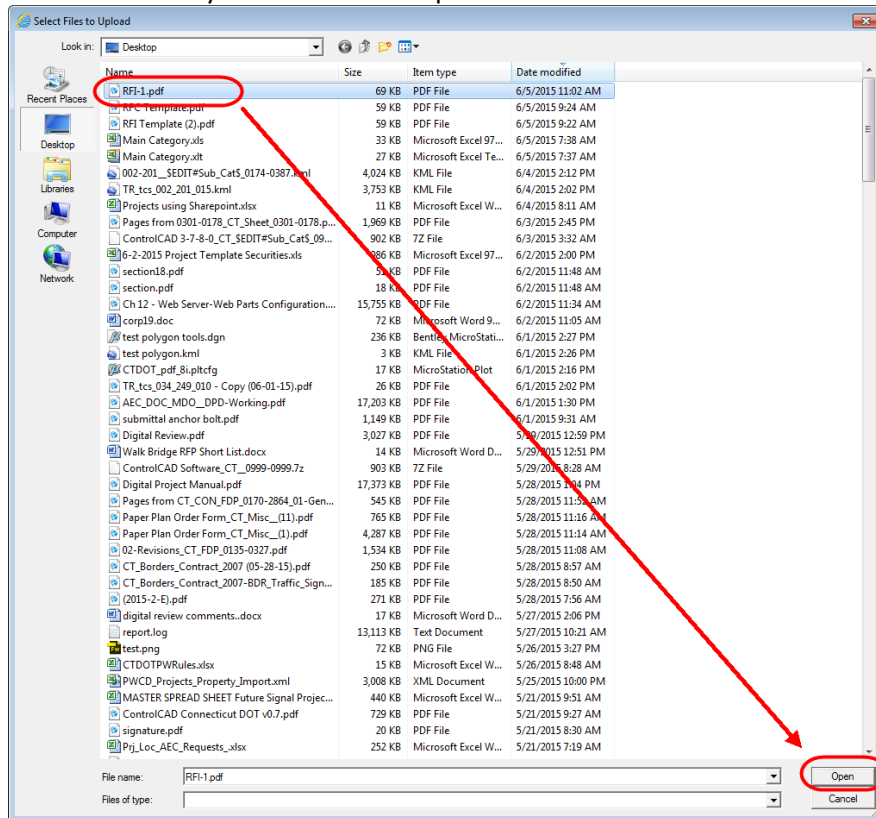


Figure 25 - Selecting a file

5. Next right click on the file and click Properties:

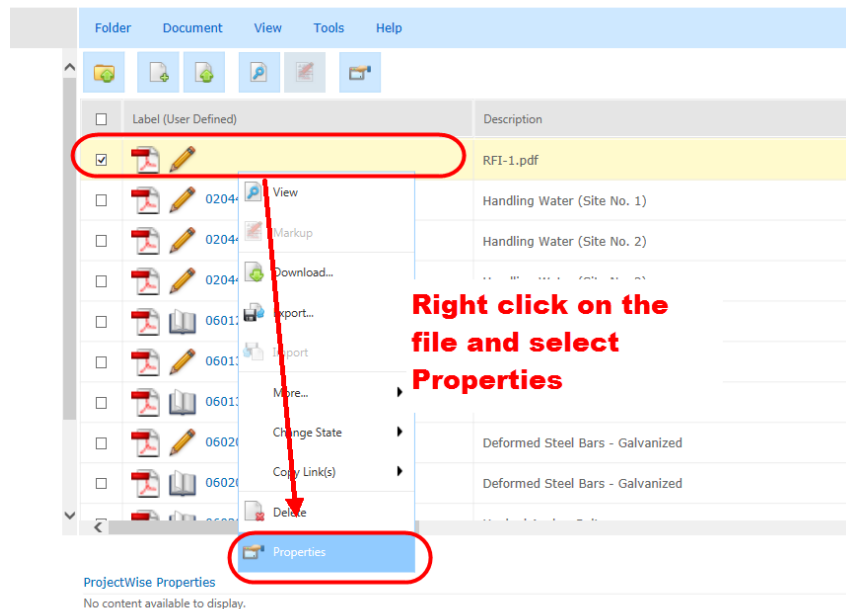


Figure 26 - Attributing a Document

6. Then scroll down to the bottom of the page and assign the attributes as shown below:

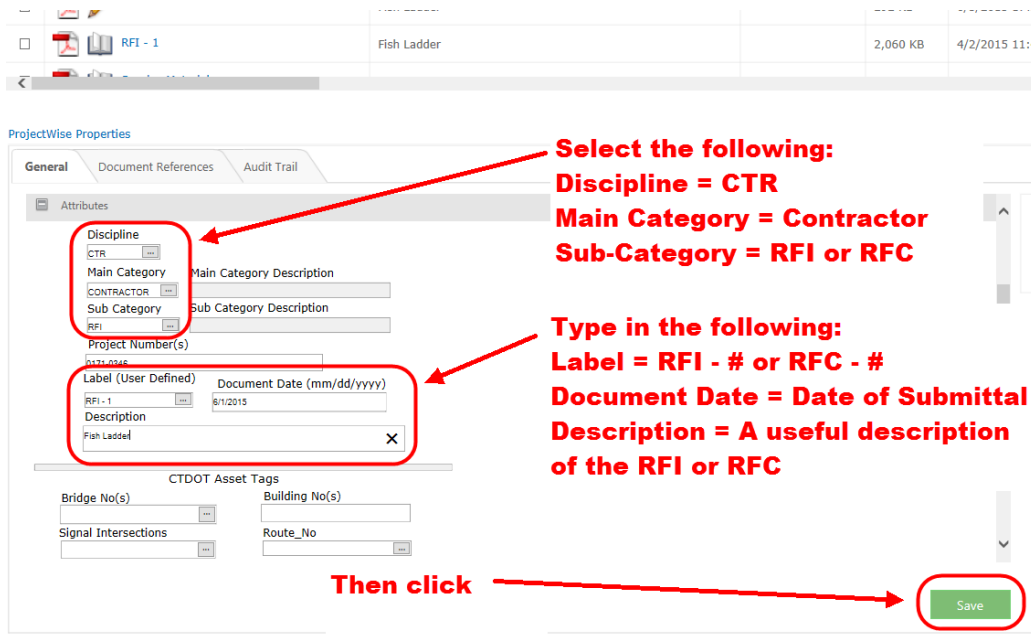


Figure 27 - Attributing a Document

7. After the RFI or RFC is uploaded into Projectwise, send an email notifying **District Construction**. The email must include the following in the subject line in this order:

- Full Project Number (####-####)
- RFI or RFC Number
- Brief Description

Examples:

- **0152-0157 – RFI 003 – Survey Vertical Control**
- **0098-0071 – RFC 002 – Lightweight Fill**

Also include a hyperlink to the submittal in the email.

## Submitting Other Documents – Letters, Material Certifications, etc.

The first time logging into Projectwise, this document must be followed to set up Projectwise to work correctly. This only needs to be followed the first time in: [Projectwise Thin Client First Time Set Up](#)

The following shows the procedures and responsibilities of the Contractor when submitting other document types:

1. Log into Projectwise by clicking on this link and entering your Projectwise Username and Password- <https://ctdot.projectwiseonline.com>

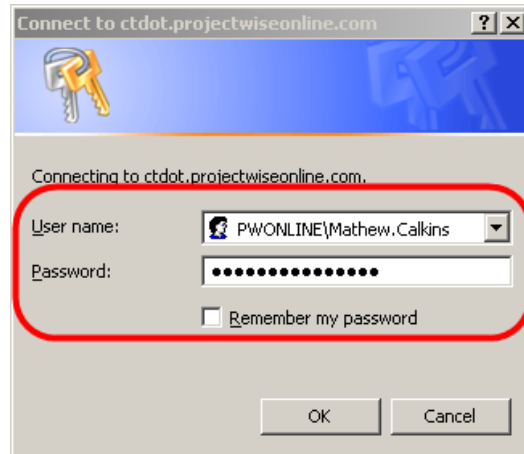


Figure 28 - Projectwise Log In Screen

2. Browse to the active construction projects located in the 01.0 – Projects Active area in Projectwise. Then browse out to your project and click on the 120\_Contractor Submittal folder as shown below:

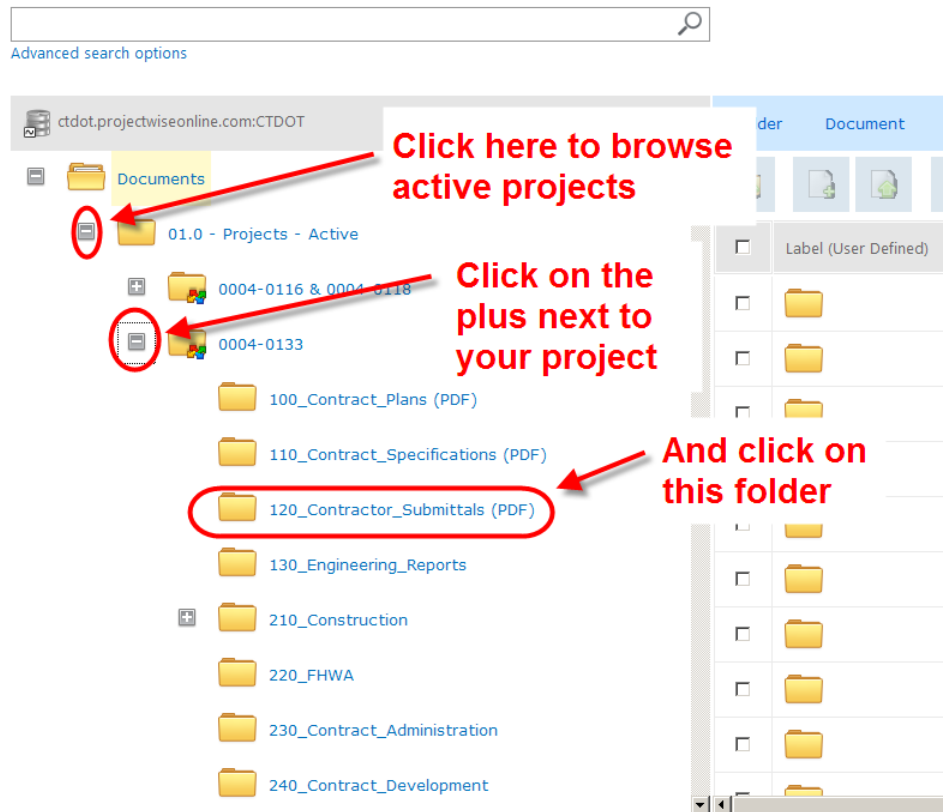


Figure 29 - Browsing out to a Folder

3. Next upload the file to Projectwise by click on the upload icon as shown below:

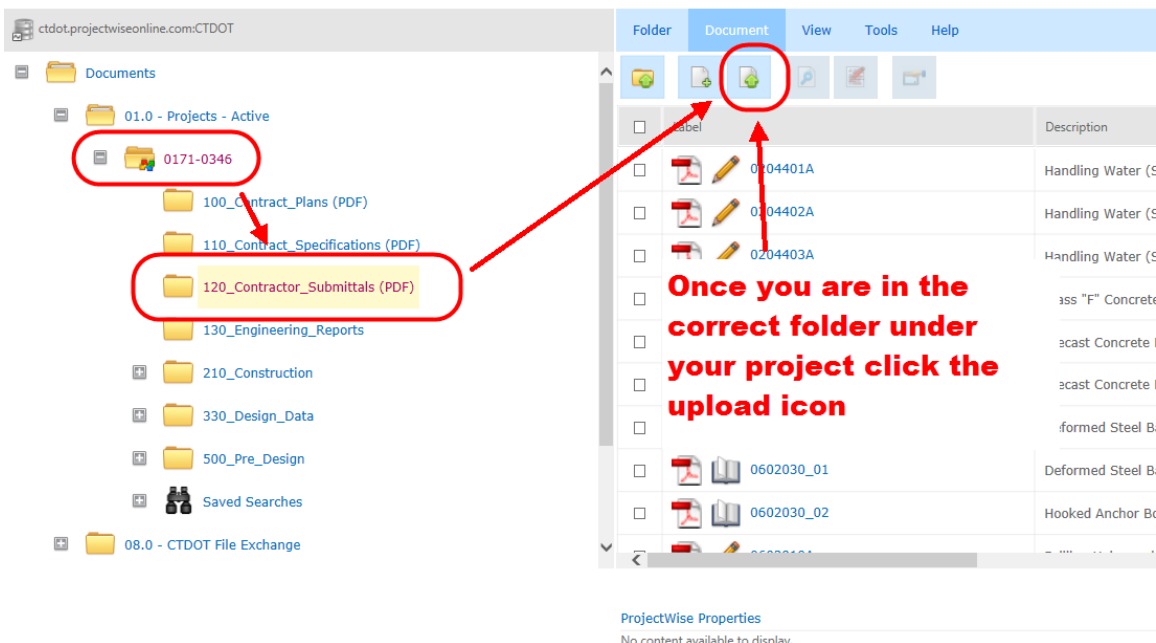


Figure 30 - Uploading a file to Projectwise

4. Next browse out to your file and click open:

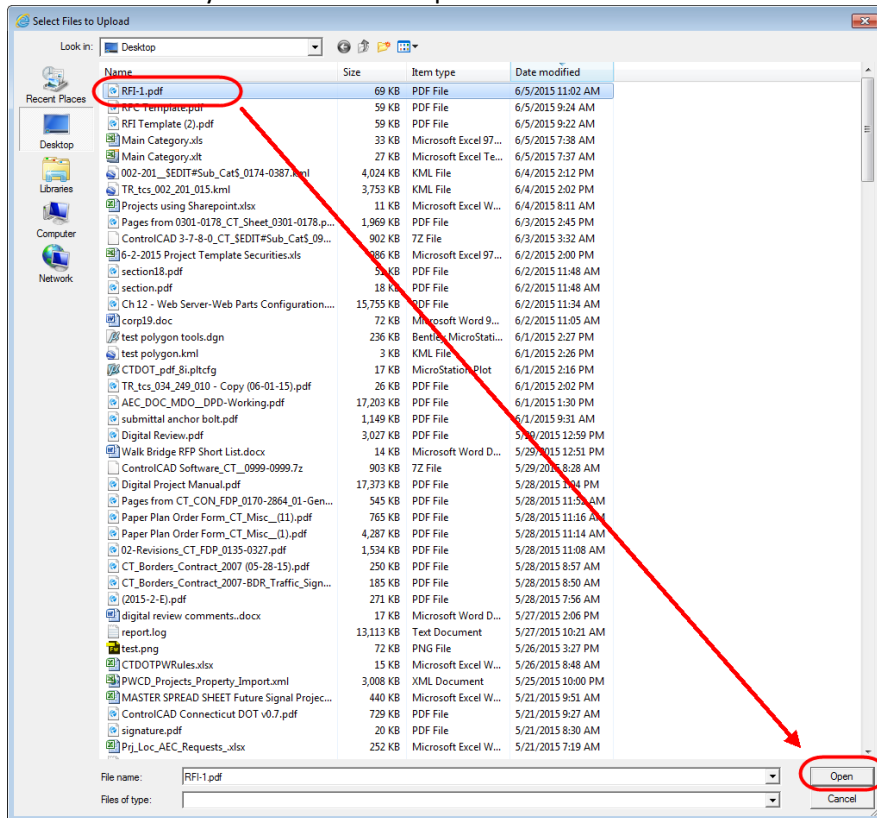


Figure 31 - Selecting a file

5. Next right click on the file and click Properties:

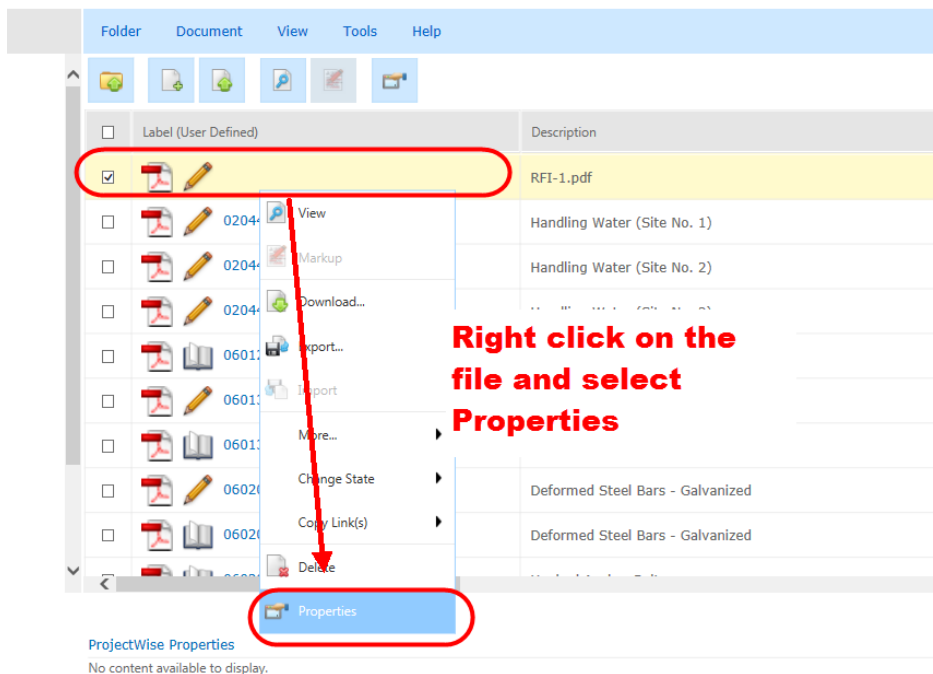


Figure 32 - Attributing a Document



6. Then scroll down to the bottom of the page and assign the applicable attributes for the document type shown in this table:

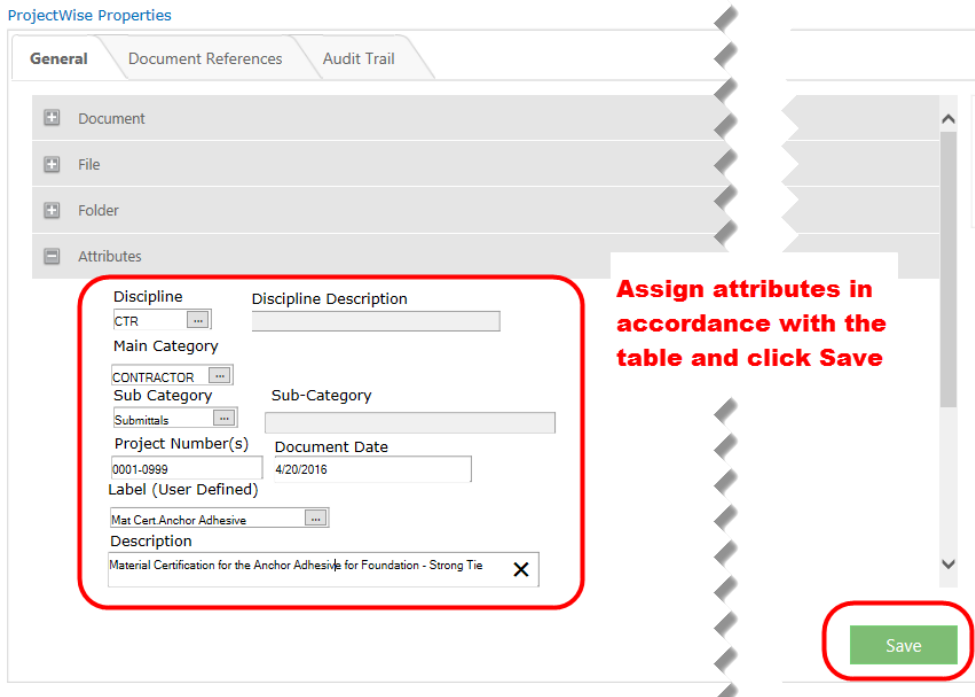


Figure 33 - Assigning Attributes

Document	Attributes						
	Discipline	Main Category	Sub Category	Label	Document Date	Description	Asset Tags
<b>Contractor Submittals – 120_Contractor_Submittals</b>							
Working Drawings for Permanent Structures	CTR	CONTRACTOR	Working Drawings	###-Item Number-##	Date of Submittal	Type a useful description	Assign Applicable asset tags
Working Drawings for Temporary Structures	CTR	CONTRACTOR	Working Drawings	###-Item Number-##			Assign Applicable asset tags
Shop Drawings	CTR	CONTRACTOR	Shop Drawings	###-Item Number-##			Assign Applicable asset tags
Product Data	CTR	CONTRACTOR	Product Data	###-Item Number-##			Assign Applicable asset tags
Submittals – Material Certs., other types of submittals	CTR	CONTRACTOR	Submittals	Self-explanatory label of the submittal			Assign Applicable asset tags
RFI	CTR	CONTRACTOR	RFI	RFI - #			N/A
RFC	CTR	CONTRACTOR	RFC	RFC - #			N/A
Correspondence – Letters, etc.	CTR	CONTRACTOR	Correspondence	Self-explanatory label of the submittal			N/A

10. After the submittal is uploaded to Projectwise, send an email notifying **District Construction**. The email must include the following in the subject line in this order:

- Full Project Number (#####-#####)
- Type of Submission
- Brief Description

Examples:

- **0172-0417 – Price Submission – Unsuitable Material Excavation**
- **0152-0149 – Letter – Request for Time Extension**