Guide to Digital Signatures

City of Weston Permitting Services considers an **electronic signature** as a method of signing a document in a virtual environment. 2019 Florida Statute Title XXXIX; Chapter 668 allows staff to treat an electronic signature with the same authority as a handwritten or 'wet' signature.

What is a Digital Signature?

A **Digital Signature** differs from an electronic signature in that it carries the weight of a certificate authority that has verified the signer's identity, similar to how a notary would verify a signer's identity prior to certifying a signature. This allows a Digital Signature to act as a verified signature in a virtual environment. Documents prepared by design professionals, such as architects or engineers, are required to be signed and sealed using a digital signature.

Electronic Submittal Requirements

For plans and supporting documentation to be considered for acceptance through an electronic submittal, the following electronic submittal requirements must be met:

- Every plan and document file must be appropriately named in accordance with our naming conventions

- Plans and documents prepared by design professionals such as architects and engineers must be digitally signed and sealed
  Note: information Plans prepared by licensed professionals and contractors must contain a block that includes the name, license number, signature, contact information, and page numbering. Please see Figure 1 for an example of how pages should be numbered or visit https://www.nationalcadstandard.org/ncs6/pdfs/ncs6_uds1.pdf for additional information/guidance on how to name your plan sheets.

- Digital signatures must be placed on the first page only. It is not necessary to sign each sheet.

- Each sheet within a plan set must be bookmarked, and each plan bookmark should include the prefix of the trade (A for architectural, M for mechanical, etc.) followed by the sheet number and sheet name (see Figure 1 of this document for examples of typical plan sheet bookmarks as well as recommended bookmark naming conventions). The naming convention must start with a letter and should not be a single number.

Figure 1

Architectural	Life Safety
A2-1 – Level 1 Overall	AL2.0
A2-1B – Level 1 Area B	AL2.1
A2-1C – Level 1 Area C	AL2.2
Structural	AL2.3
S0.1 – General Structural Notes	**Mechanical**
S0-2 – General Structural Notes	M0-0- Mechanical Legend and Drawing Index
S0-3 – Structural Symbols and Annotations	M2-1- Mechanical 1st, 2nd & 3rd Floor Plan
S0-4- Structural Guideway Performance	M2-4- Mechanical Fourth Floor Plan
Plumbing	**Fire**
P0-0-Plubming Legends, Symbols and Notes	FP0-0- Fire Protection Legend
P3-1A-Plumbing Plan-First Level-Area A	FP3-1- Fire Protection Level 1 – Overall
P3-1B-Plubming Plan-First Level -Area B	FP3-2 – Fire Protection Plan Level 2 – Overall
Electrical	
E-0-0- Electrical Symbol Legend, General Notes	
E0-01- Lighting Schedule Interior	
E0-02- Lighting Schedule Interior	

Creating Your Digital Signatures

References:

2019 Florida Statute Title XXXIX; Chapter 668: Electronic Commerce; Part I: Electronic Signatures

2019 Florida Statute Title XXXII Regulation of Professions and Occupations
Chapter 471 Engineering Section 025 Seals

Florida Administrative Code 61G15-23.003

According to Florida Statute XXXIX 668.03, an "Electronic Signature" means any letters, characters, or symbols, manifested by electronic or similar means, executed or adopted by a party with an intent to authenticate a writing. A writing is electronically signed if an electronic signature is logically associated with such writing.

For documents prepared by architects, engineers and design professionals, a Digital Signature and Seal is required. All Digital Signatures must follow the following requirements for Digital Seals and Electronic Signatures.

An Engineer, Architect, and Surveyor's Digital Signature must comply with the latest **State Statue Requirements 471.025 and Florida Administrative Code 61G15-23.003**. The Digital Signature will include a Certificate Authority and the new additional two sentences added by FBPE.

JANE DOE

2018.07.04

12:04:02 '00'04
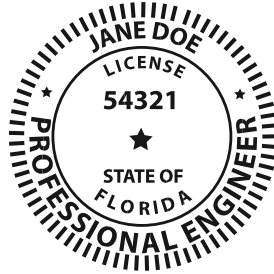
This item has been electronically signed and sealed by Jane Doe PE using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

A Digital Signature

The online equivalent of a notarized signature, in this case the Certificate Authority (CA) serves as the notary by verifying the identity while a trusted timestamp verifies the date and time the signature was applied. Digital signatures allow users to keep their entire workflow online. Individuals can certify and sign documents as needed right from the comfort of their computers. The Digital Plan Room will be utilized to confirm digital signatures by staff. The digital signature files will be uploaded into the Digital Plan Room for verification by staff.

A Digital Signature is made up of several components:

1) **Digital Certificate** - a way of proving the identity in online transactions and is unique when signing a document. The typical digital certificate includes the full name, email address and professional qualifications for signing.

2) **Certificate Authority (CA)** - a third party verification entity that certifies identity with a digital certificate, software or a Token Key on a Smart Card or USB drive. Some companies require background checks or other various ways to verify identity. The verification process can take up to two weeks.

3) **Secure Hash** - when the Engineer clicks "sign" in Adobe Acrobat Professional or Reader, a unique digital fingerprint (called a hash) of the document is created using a mathematical algorithm. This hash is specific to this particular document; even the slightest change would result in breaking the hash. The hash is encrypted using the Engineer's private key from the digital certificate. The encrypted hash and public key are combined into an Electronic Signature, which is applied to the document for security.

4) **Professional's Seal** - scan a wet stamp of the professional's seal into a 2" square jpeg or pdf file and save on the computer hard drive.

   Note: Per Florida Administrative Code 61G15-23, if plans and documents are being digitally signed and sealed by a Florida license professional engineer, the following verbiage must be present either
   a) next to the professional seal and saved as the PE Seal graphic about 2"h x 4.5"w or
   b) added anywhere on each drawing or legal document page:

(1) This item has been electronically signed and sealed by [LICENSEE NAME] using a Digital Signature and date. (2) Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.
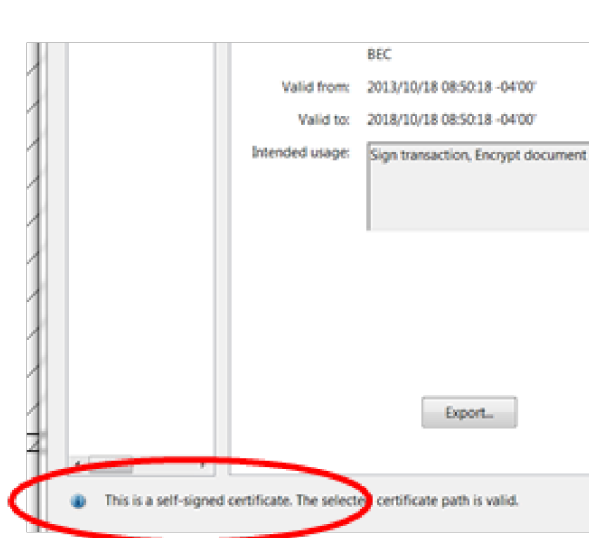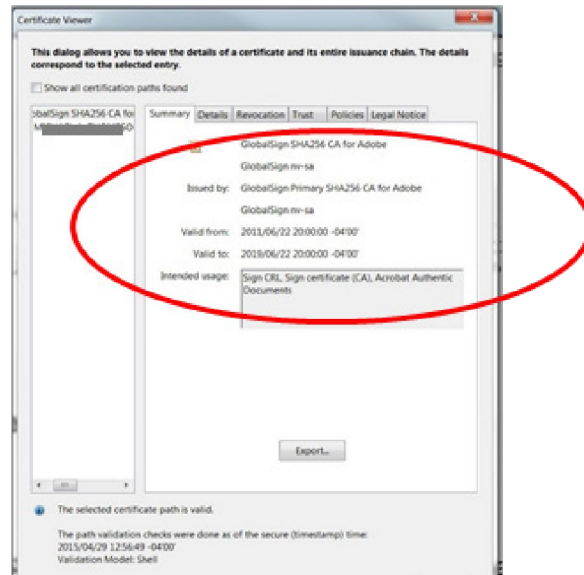
Wrong – Self Signed   Correct – Certificate Authority Attached

Create the Appearance of your Digital Signature

Prepare Your Seal for Import

1) Take a blank piece of 8.5" x 11" printer paper and wet seal the paper with your Professional Engineers or Architects seal. A crimp stamp can be used however, you must highlight the ruffled edges of the seal with the side of a pencil lead.

2) Take your time and make it look nice and square as this will represent you for the next five years.

3) Scan the seal into a graphic .jpg file and save it in an easy to find place on your computer hard drive.

4) Crop the .jpg of your seal down to just outside the edges of the seal approximately 2"x2" square in size.

5) If you choose to add the two sentences required by FBPE to your Seal graphic, you can do so now. The sentences will read: **This has been electronically signed and seal by [LICENSEE NAME] using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.**

6) *Most Adobe versions require the graphic to be a .pdf file instead of a .jpg file.

From 2" x 2"

To 2" x 4"

This item has been electronically signed and sealed by Jane Doe PE using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Or this

This item has been electronically signed and sealed by Jane Doe PE using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Build your Digital Seal and Signature Combo

Return to Adobe Acrobat to begin building your Digital Seal and Signature Combo appearance.

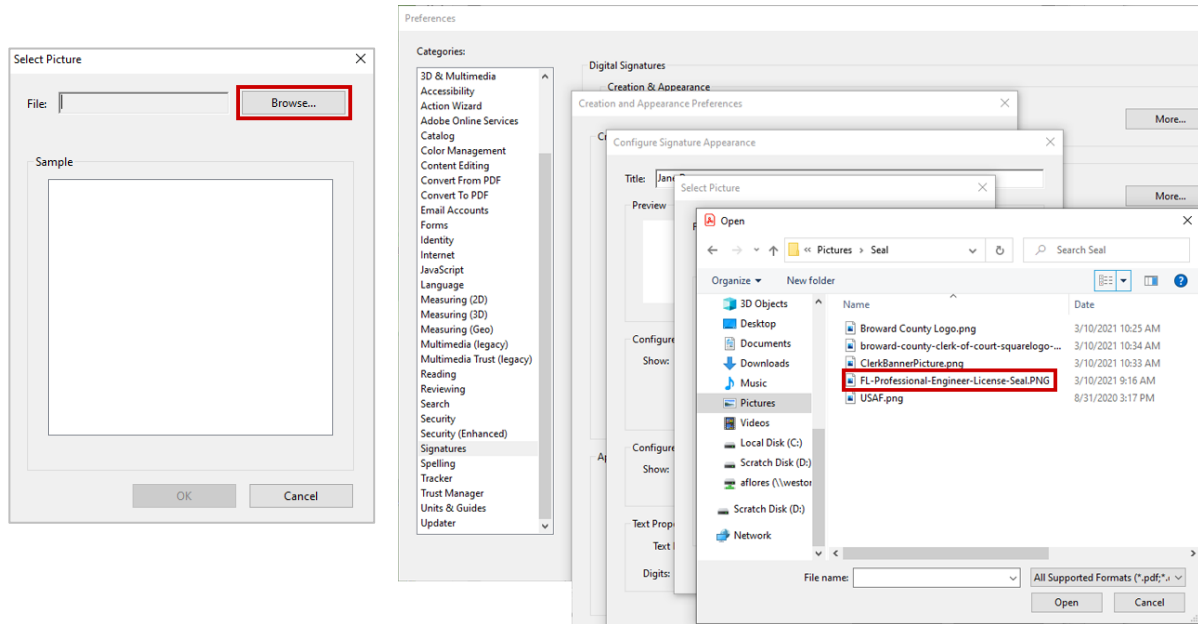1) Main Menu > Choose Edit > Preferences > Signatures > Creation & Appearance, click More.
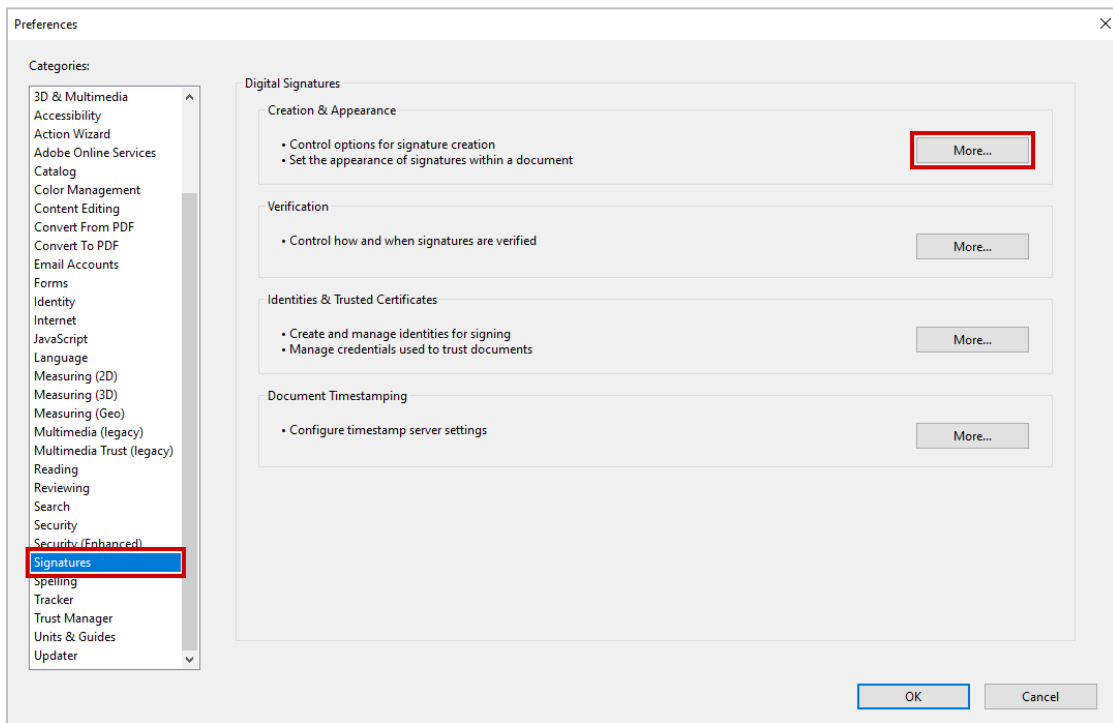
2) Adobe Default Security, PKCS#7 Detached, for Appearances click NEW.
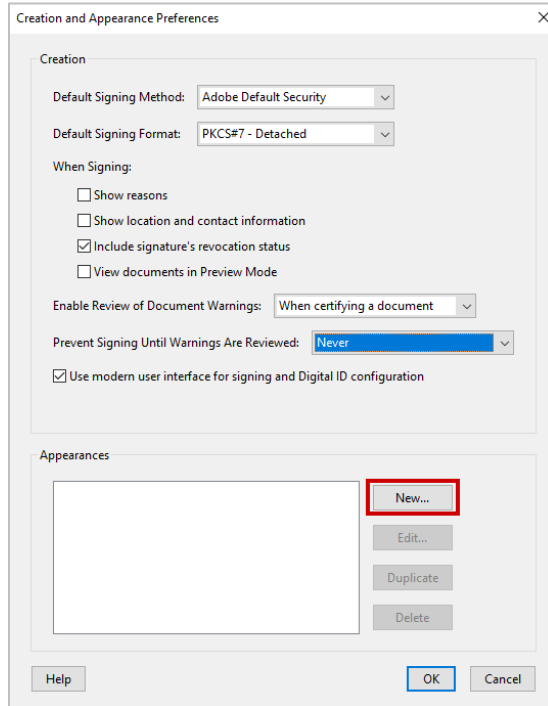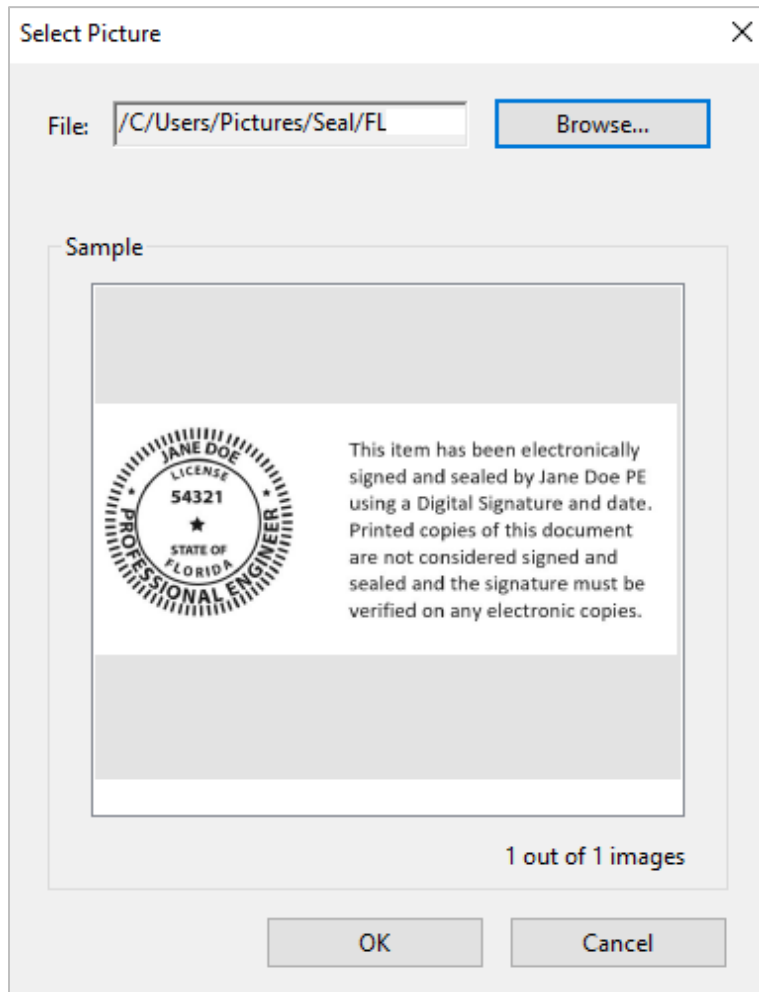

3) Type Title or Name of your new Signature, choose Imported Graphic, click File, then Browse.
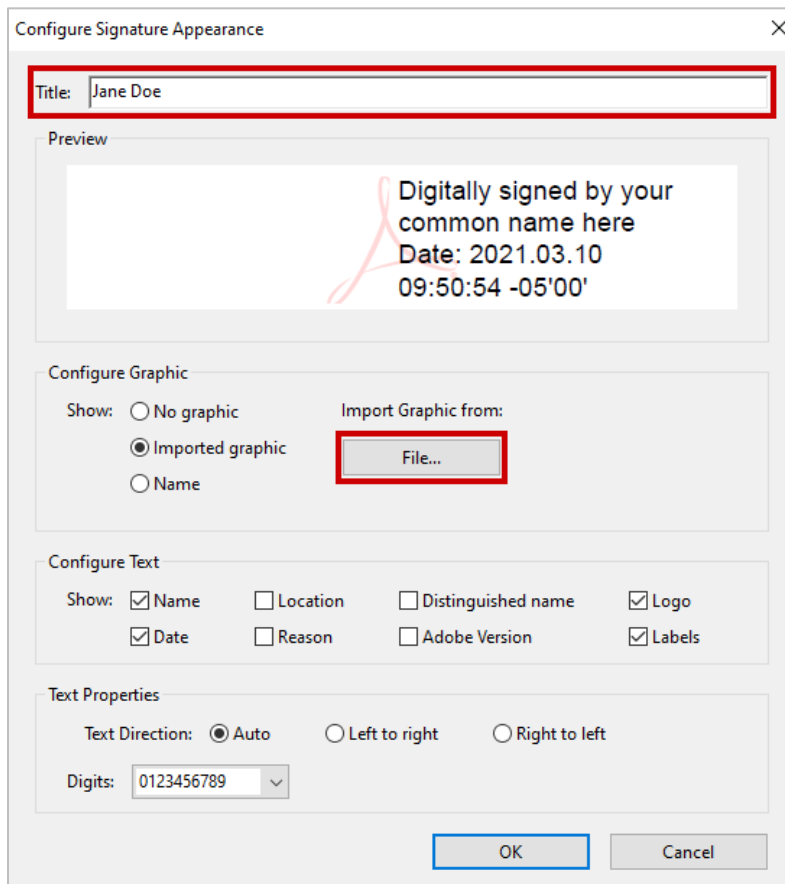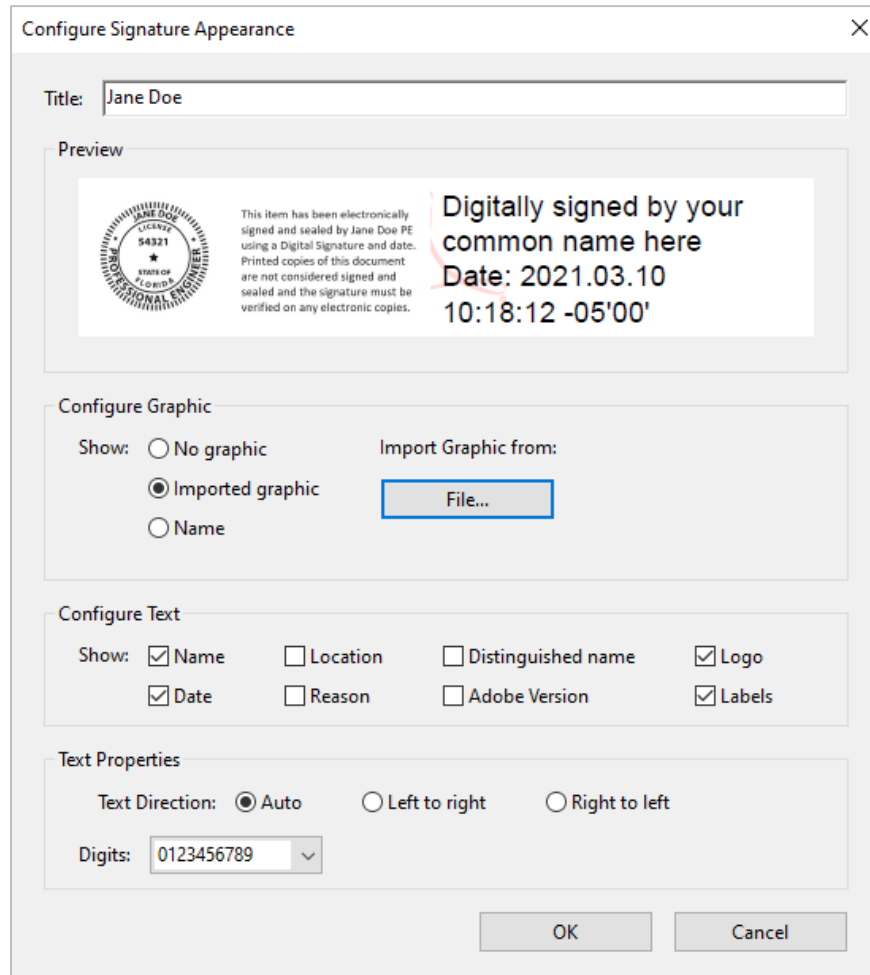
4) Browse to select the file location where you saved the scanned .pdf of your seal

5) The seal will appear ready for import into the digital signature, click OK.

6) Verify your seal, check only Name, Date, and uncheck the other six checkboxes, click OK.

Your Digital seal and signature combo is now ready to attach the Certificate Authority.

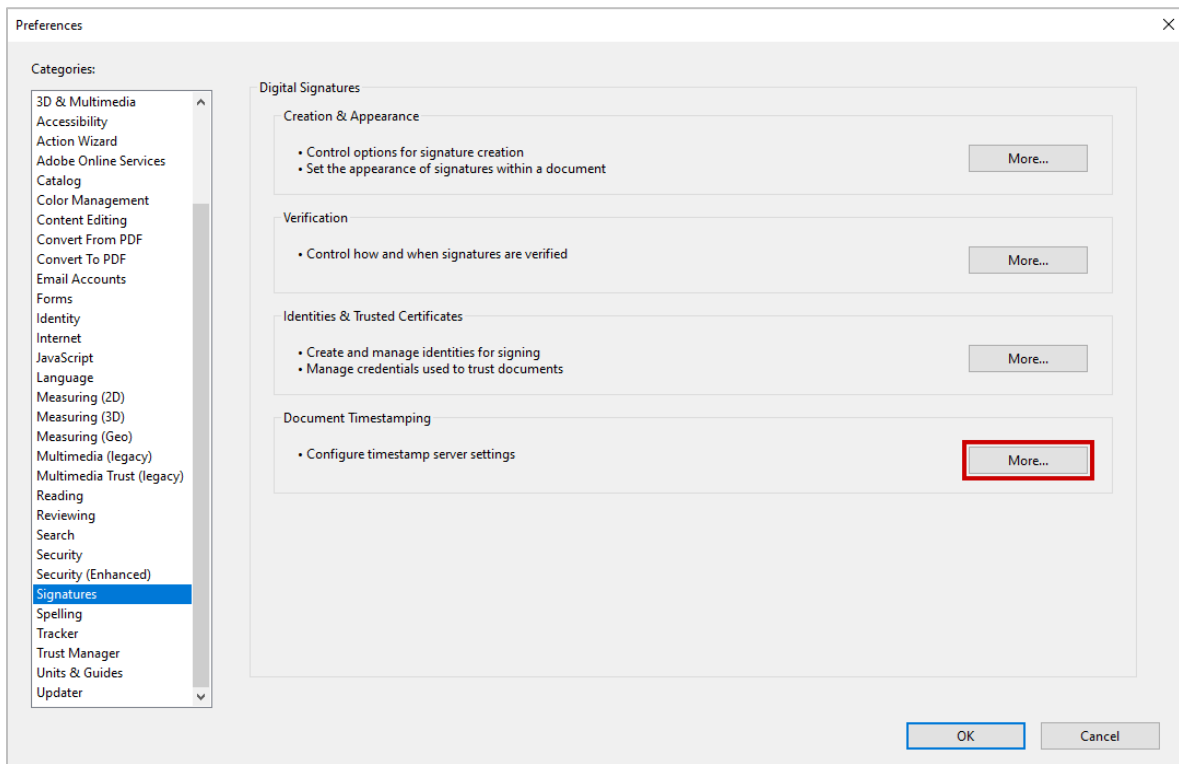## Add the Certificate Authority (CA) Verification Certificate

Certificate Authority – As mentioned at the beginning you must have a third-party company verify your identity via an added digital certificate. Each company will vary in the way they verify your identity and how you receive the digital certificate. Most will have you either download the certificate or send you the certificate on a smart card or usb drive to attach to the computer you will be using to sign with.

Add a Time Stamp Server to Adobe

Trusted timestamps are generated by trusted third parties and provide proof the digital signature was valid when the document was signed. Please verify your certificate to make sure that it has secured timestamp information embedded as shown in the screenshot below. If your certificate does not contain the timestamp field, please follow the instructions below the screenshot to set it up in Adobe.

1) Open Adobe and click on Edit – Preferences

2) From the left-hand side menu, select "Signatures" and click on "More" under Document Timestamp

3) Click on "New" to add the new timestamp.
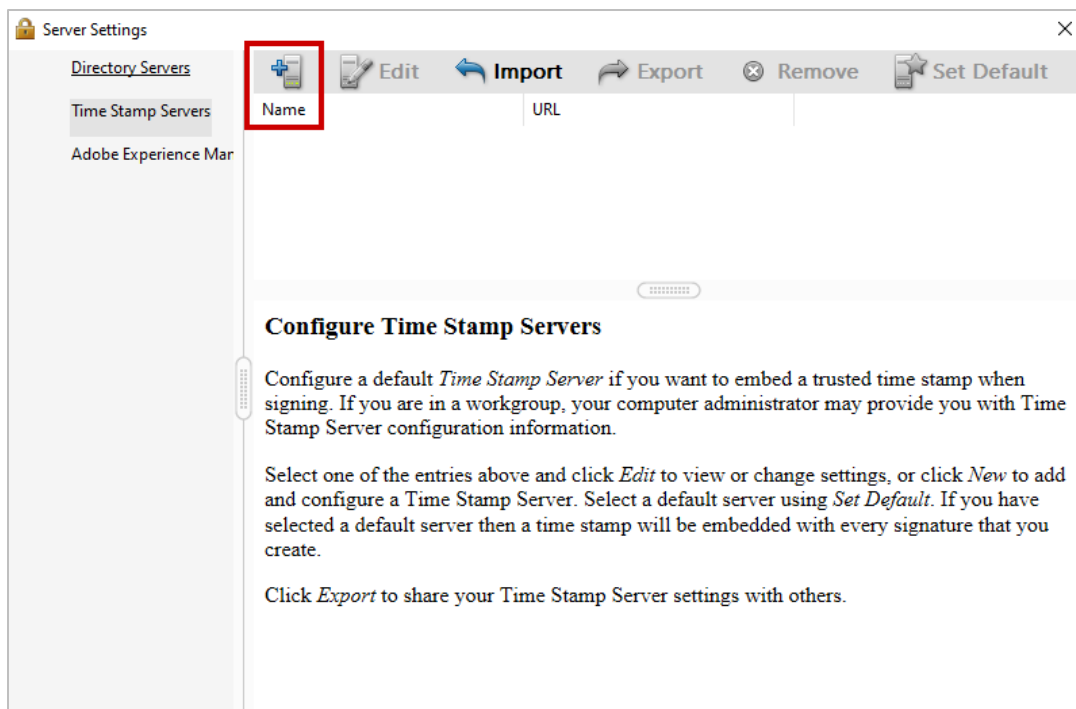
4) Enter the Time Stamp name and enter the server settings provided by the Certificate Authority. Please contact your Certificate Authority if you do not have the server URL. Click "OK".

While we cannot recommend which third party company to use we have narrowed down the list to some of the following companies that meet the requirements for signing construction plans and are already in use by other local Professional Engineers.

For Your Information – Links to websites

Identrust – http://identrust.com/fdot/

Entrust - https://www.entrust.com/products/digital-signing/document-signing-certificates

Globalsign – https://www.globalsign.com/en/digital-signatures/

DigiCert - https://www.digicert.com/document-signing/