

Hillsborough County Development 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:

- All files must be in PDF format and compatible with Adobe, minimum 300 dpi resolution.
- The size of any individual electronic file cannot exceed 500 MB.
- Every plan and document file must be appropriately named, (e.g., Site Construction plan, Architectural plan set, energy calculations, stormwater calculations, etc.).
- Plans and documents prepared by design professionals such as architects and engineers must be digitally signed and sealed

Note: Plans prepared by licensed professionals and contractors must contain an information 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.
- Files must be flattened.

Supporting Documents – Additional Electronic Submittal Requirements

In addition to the requirements outlined in the Electronic Submittal Requirements section of this document, supporting documents must meet the following requirements:

- Supporting documentation that includes multiple pages must be named accordingly and submitted as a single, combined, multi-page PDF file, minimum 300 dpi resolution. If, for example, energy calculations containing multiple pages are submitted, then all pages must be submitted as a combined PDF file and not as individually uploaded pages. Multi-page supporting documents submitted as part of the same project must also be separated by category.
- Supporting document files may be oriented either landscape or portrait, as long as the top of the page is always at the top of the monitor.

Additional Electronic Resubmittal Requirements

In the event plans and/or supporting documentation were disapproved during plan review and those plans/documents are required to be resubmitted, the following submittal requirements shall be observed:

- When resubmitting to address previous disapproval comments, you must resubmit the entire set of plans/documentation, in a combined pdf.
- All corrections shall be clouded; identified by number with a triangle. Each issue must be addressed with a narrative response that clearly identifies how and where the comment has been addressed on the plans.
- All sheet names must remain the same on resubmitted documents.
- Corrections must be in the same format (PDF), scale, orientation, etc. as the original submittal(s) and adhere to the submittal requirements outlined within this document.
- **For building plan revisions:**
 - Only revised sheets of plans to be submitted with changes clouded.
 - Provide a [building permit application](#) indicating revision.
 - Provide a narrative indicating how the necessary corrections are addressed.

Site Development and Subdivision - Additional Electronic Submittal Requirements

Coming soon. For immediate assistance, contact SitePlanAdminTasks@hcflgov.net.

Building Plans - Additional Electronic Submittal Requirements

In addition to the requirements outlined above, construction plans must meet the following requirements in order to be accepted by Hillsborough County Development Services staff:

- Plan sets that include multiple pages must be submitted as a single, combined, multi-page PDF file. If, for example, an electrical plan set includes five (5) pages, then all five (5) pages must be submitted as a combined PDF file and not uploaded as five (5) individual pages. Multi-page plan sets submitted as part of the same project must also be separated from one another by category/ trade according to the following:

Residential

- Building plans (should be its own file and include all architectural, foundation, elevation, electrical, etc. if prepared by the same design professional).
- Structural plans (if applicable, should be its own file if the structural set is prepared by a design professional different than the one who prepared the building plan set).
- Site plan (can be its own file with document type, 'Site Plans', and should not be included as part of the building plan set).

Commercial

Each discipline must be submitted as its own combined PDF provided they are produced by the same design professional.

- Architectural
- Civil
- Structural
- Mechanical

- Electrical
- Plumbing
- Any other trade/category not listed above
- 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-Plumbing 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-Plumbing 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	

- Plans must be generated to scale (e.g. ¼" = 1', 1/8" = 1' or 1:10).
- Plans must be set to landscape orientation with the page numbering at the lower right corner of each sheet.
- Plan files must be submitted with a cover/index page, including an index of sheets.

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](#)

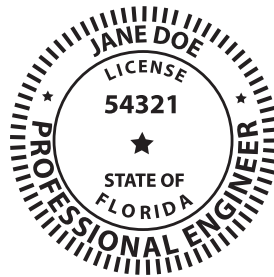
[Florida Administrative Code 61G15-23.003](#)

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 Statute 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.

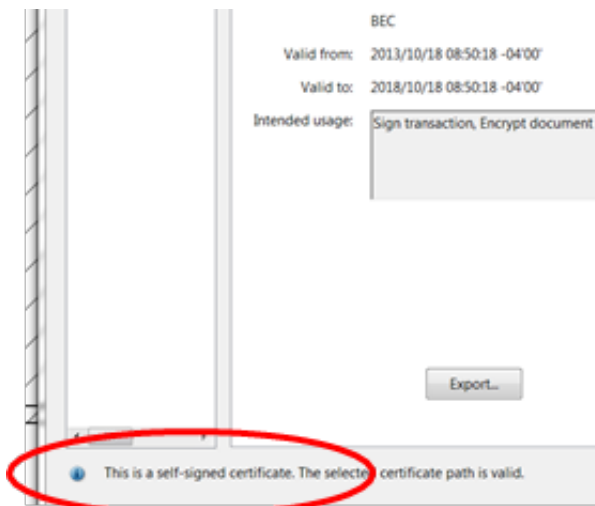
How does it Work?

When you apply a digital signature on a drawing, a cryptographic operation binds the digital certificate and the data being signed, such as a PDF or other drawing file, into one unique descriptor. Any change to the drawing will remove your unique descriptor or break the hash and will be indicated when opened in Adobe, stating the Signature is Invalid "This Document has been modified".

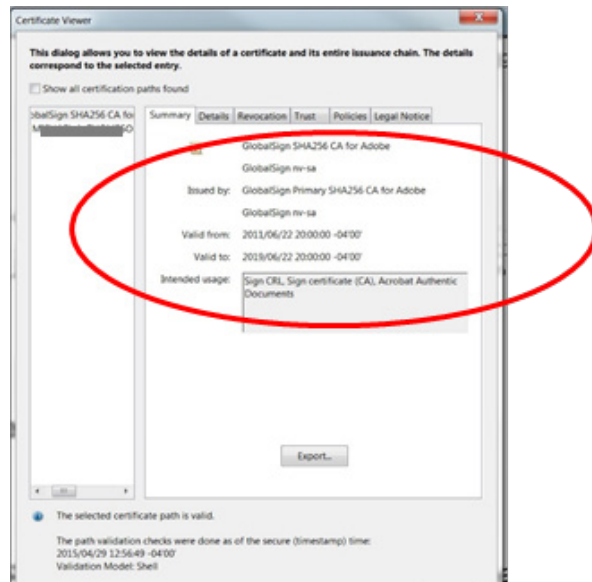
Authentication – since a third-party validated certificate is used to apply the signature, recipients can easily verify the validity of the drawing. A right click on the digital signature displays a pop up screen to validate the Public Key, Summary, Certificate Authority, Revocation, Trust, Date/Time, Signature Properties and Policies. When the drawing is opened in Adobe it will automatically try to verify the signature.

Data integrity – during the signature verification, Adobe checks to see if the data in the document has been changed since the signature was applied. Any change to the original document will result in the validation failing.

You must have your identity, digital seal and signature validated by a 3rd party Certificate Authority. Local Engineers, Architects and Surveyors are using Entrust, IdenTrust, and GlobalSign most frequently. These companies validate your identity then have you download a new digital certificate to your computer, use software or they will send you a USB drive with a token key or serial number.



Wrong – Self Signed

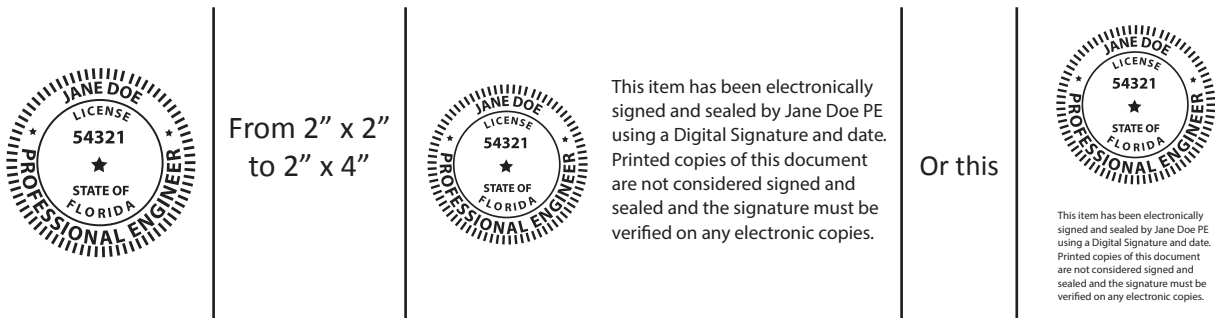


Correct – Certificate Authority Attached

Create the Appearance of your Digital Signature

Prepare Your Seal for Import

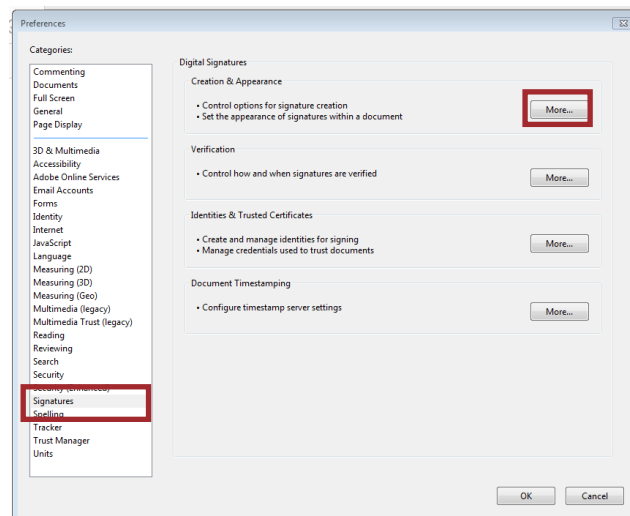
- 1) Take a blank piece of 8.5" x 11" printer paper and wet seal the paper with your Professional Engineers or Architects seal. A crimp stamp can be used however, you must highlight the ruffled edges of the seal with the side of a pencil lead.
- 2) Take your time and make it look nice and square as this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



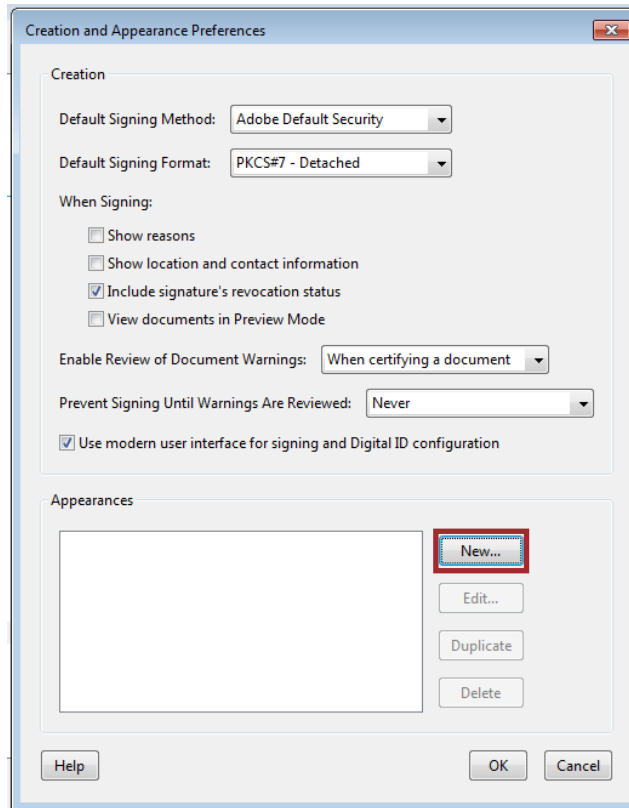
Build your Digital Seal and Signature Combo

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

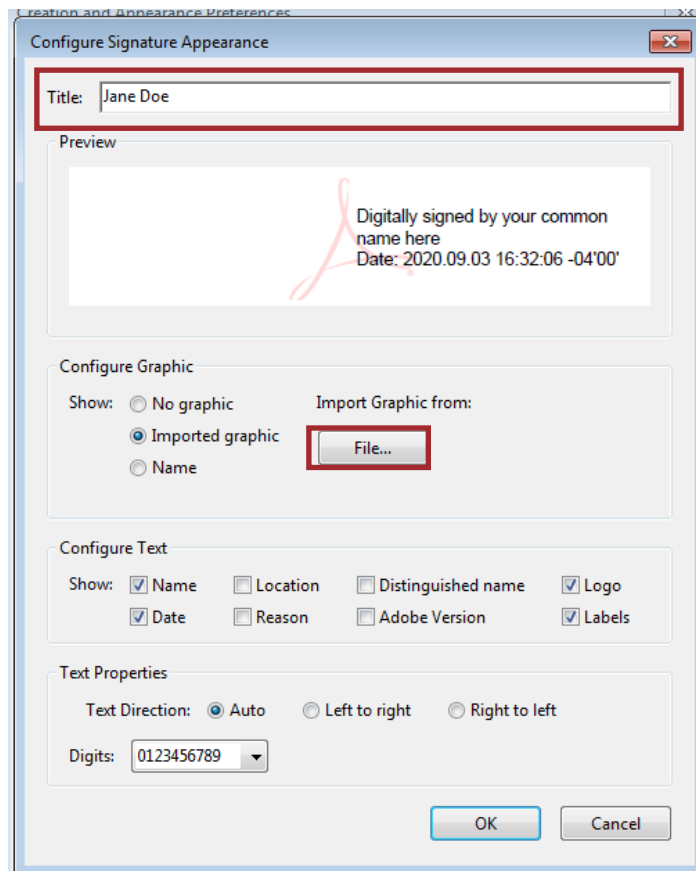
- 1) Main Menu>Choose Edit > Preferences > Signatures>Creation & Appearance, click More



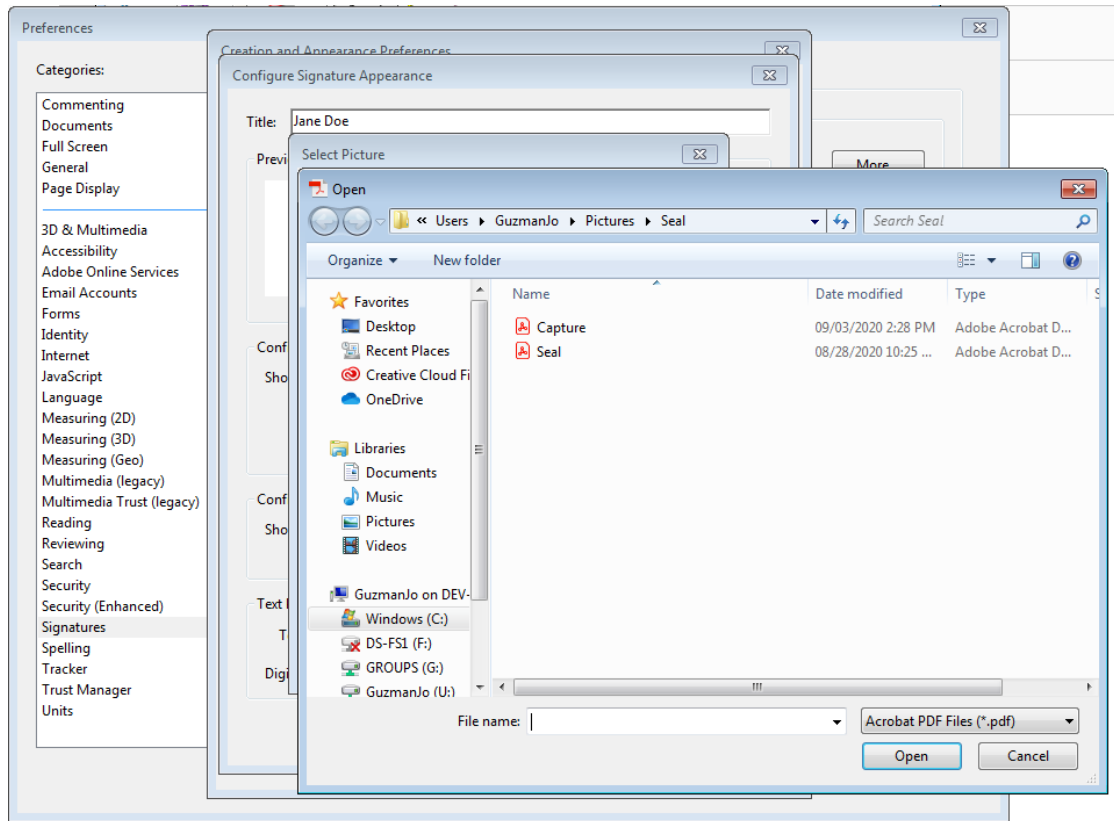
- 2) Adobe Default Security, PKCS#7 Detached, for Appearances click NEW.



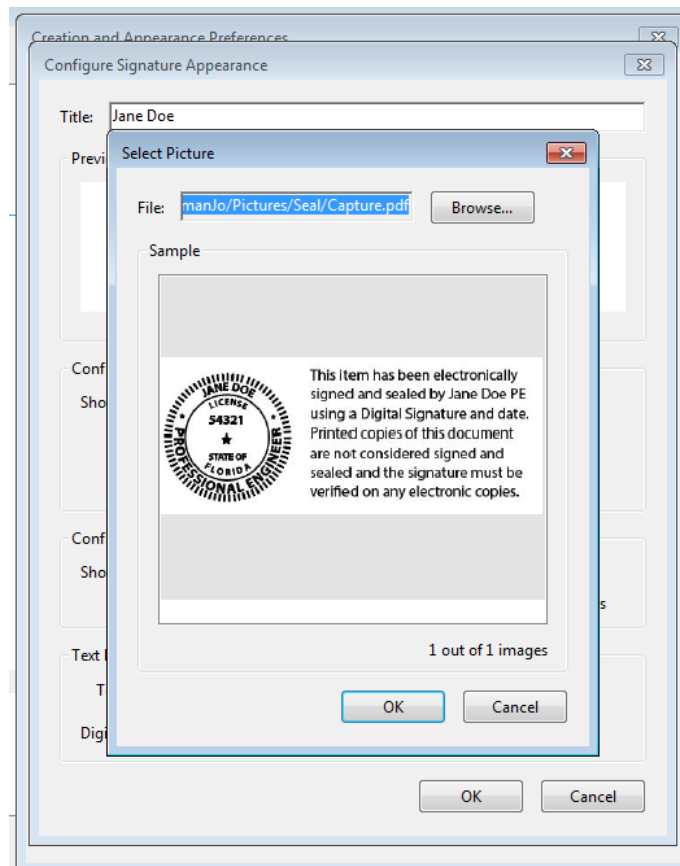
3) Type Title or Name of your new Signature, choose Imported Graphic, click File, then Browse



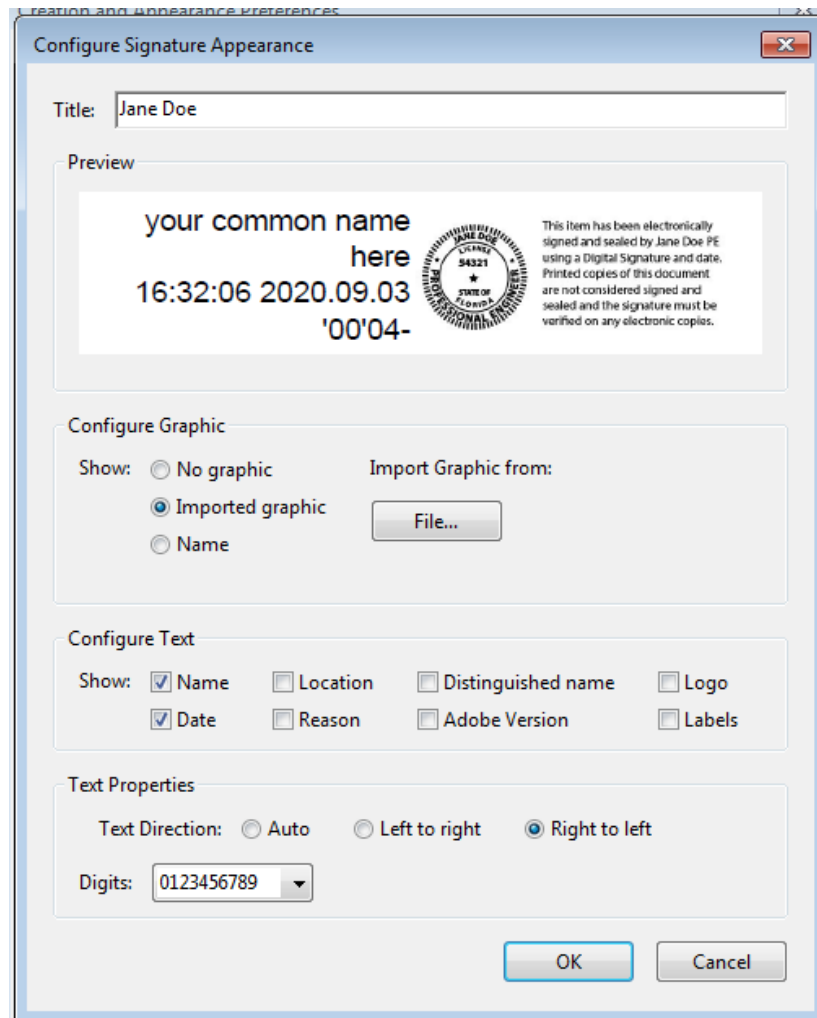
4) Select the file location where you saved the scanned .pdf of your seal



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.

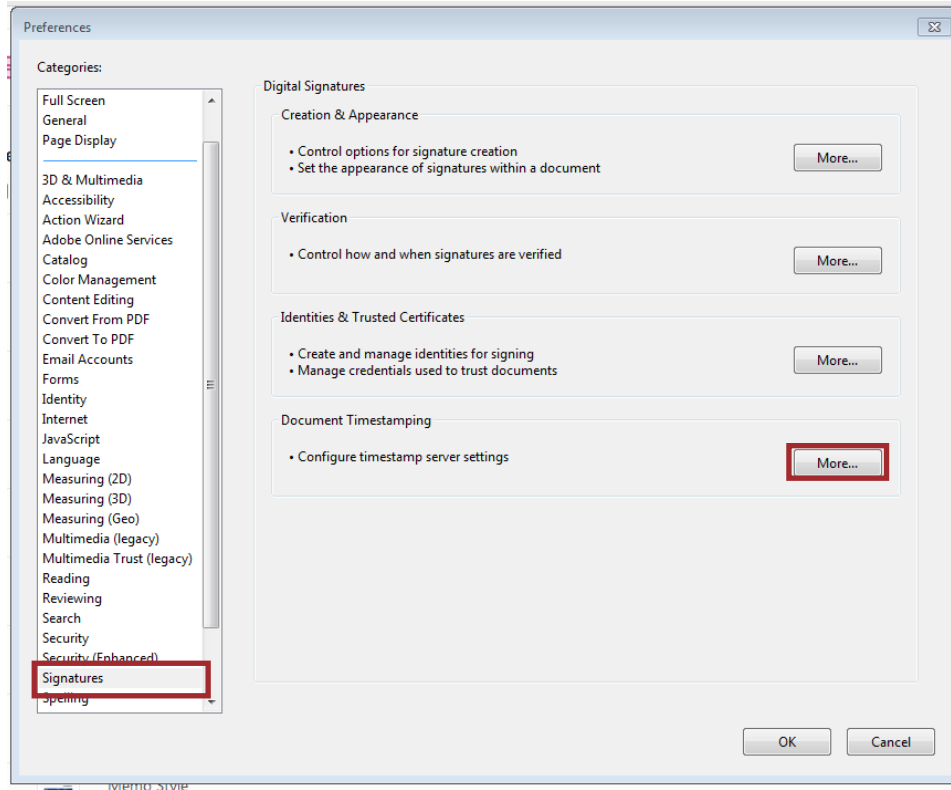
Add the Certificate Authority (CA) Verification Certificate

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.

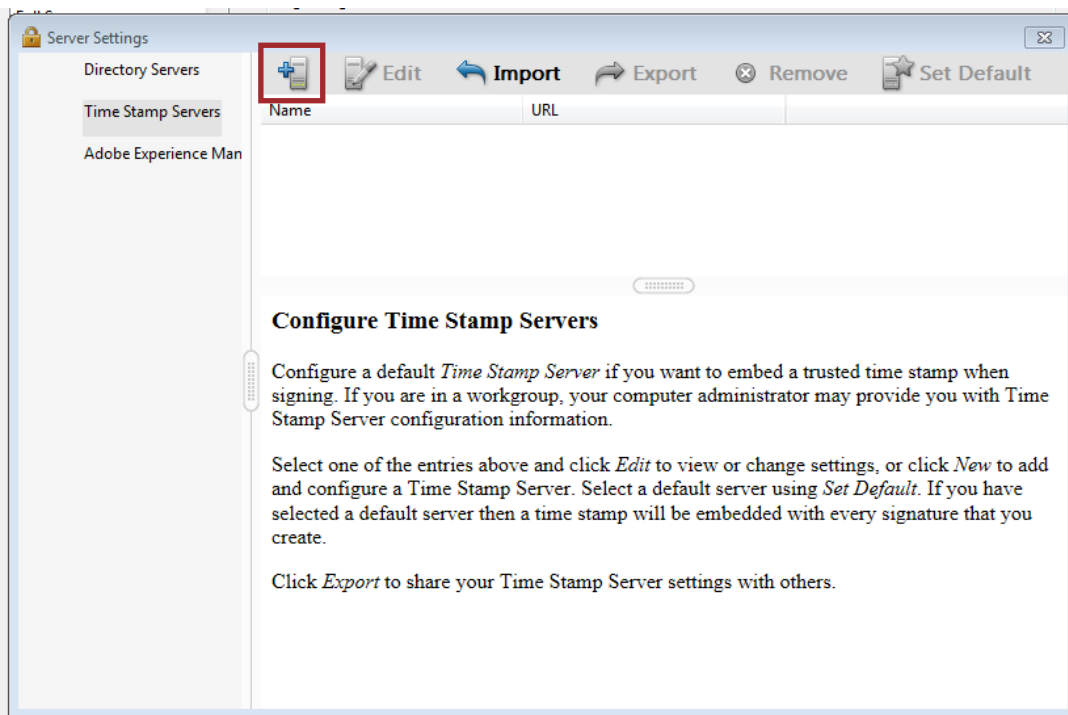
Add a Time Stamp Server to Adobe

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.

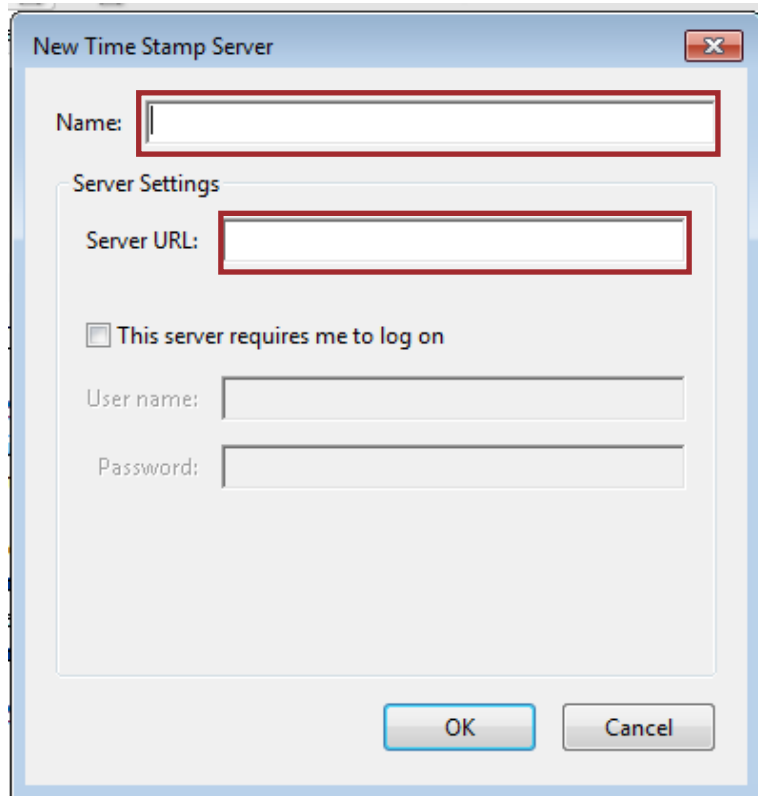
- 1) Open Adobe and click on Edit - Preferences
- 2) From the left-hand side menu, select “Signatures” and click on “More” under Document Timestamp



- 3) Click on “New” to add the new timestamp.



- 4) Enter the TimeStamp 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”.



The image shows a Windows-style dialog box titled "New Time Stamp Server". It features a close button in the top right corner. The main content area includes a "Name:" label followed by a text input field. Below this is a "Server Settings" section containing a "Server URL:" label and another text input field. A checkbox labeled "This server requires me to log on" is positioned below the URL field. Underneath the checkbox are two more text input fields labeled "User name:" and "Password:". At the bottom of the dialog are two buttons: "OK" and "Cancel". Red rectangular boxes are drawn around the "Name:" and "Server URL:" text input fields.

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/document-signing-certificates/>

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

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