

South Carolina Department of Transportation **DIGITAL SIGNATURES MANUAL** May 2024



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# **Digital Signature Fundamentals**

### **Overview**

As design documents are now routinely submitted, reviewed, and stored in purely electronic form, allowing them to be easily reproduced and modified, the use of digital signatures provides improved security and convenience for engineers needing to sign and seal their work. Digital signatures allow viewers to confirm that the signature is valid, not copied or forged, and that no changes have been made to an electronic document since it was signed. As documents can be signed in electronic form without being printed and re-scanned, digital signatures also help prevent visual quality losses from scanning, eliminate paper waste, and speed up the process of revising and re-certifying plans.

### Visual Seals and Signatures

Computer generated seals shall be identical in size, design, and content with the approved impression seals. Computer generated signature and date shall be affixed under or across the face and beyond the circumference of the seal. The licensee's license number, name, signature, and date shall be legible.

### **Digital Certificates**

In order for a digital signature to be verifiable, it must incorporate a digital certificate that confirms the signatory's identity. SCDOT must be able to verify the authenticity of the certificate through a certification authority, independently of the submitter or signatory and without expense to SCDOT. Verification must also be possible independent of the continued future operation of that authority; all files and programs necessary for this purpose shall be provided and stored with the signed documents.

External consultants to SCDOT, it is required to send along the public certificate file (\*.cer) along with files that are digitally signed if a self-signed digital ID was used in the digital signing process. External consultants may elect to use 3rd party public Certificate Authority in accordance to their firm's internal policies and practices.

### **Electronic Files**

The design drawings, final construction plans, and plats prepared by or under the responsible charge of a licensee(s) shall consist of separate electronic files for each sheet and carry the required seal(s), date(s), signature(s), and digital signature certificate(s) on each sheet. The electronic sheet filename(s) shall include a prefix to clearly define the sheet sequence. Electronic files shall be created in or converted to the Adobe PDF format. All engineer plan submittals shall be "full-size" of either 22in. x 36in. or 22in. x 34in.

Only for specifications, documents, and reports, where more than one page is bound together in one volume, the licensee(s) or permit holder(s) may digitally seal, date, and sign only the Title Sheet, Table of Contents Sheet, or Index Sheet if the signed sheet clearly identifies all of the other sheets comprising the bound volume with responsibility clearly delineated.



SCDOT reserves the right to request one or more paper copies of any electronic document be submitted as part of the review or approval process. The use of electronic documents signed using digital signatures is permitted, not required, by SCDOT. Traditional paper documents signed and sealed by hand are still permitted under existing standards.

# **PDF File Configurations / Naming Conventions**

Proper file naming is crucial for the efficient and knowledgeable transfer of data internally within core SCDOT systems, and externally between SCDOT and our business partners. Following a proper naming schema improves many factors such as following:

- Easy and efficient file searching.
- Correct display and interpretation within system and browsing windows.
- User ability to find proper files.

The following are the general rules which are to be followed when configuring and naming PDFs for submitting:

- Final submittals are to be Unlocked, Unprotected, Digitally Signed, and Single Page PDFs.
- Files flow in sequence the way they would be viewed in a physical plan set.
- File names are as short as possible but descriptive enough to mitigate confusion.
- File names are limited to 75 Characters.
- File names only have lowercase letters.
- File names do NOT contain any special characters such as \ / ; : ? \* ' , . " [] { } ( ) ! @ # \$ % ^&.
- File names are to contain the Project ID, which makes the files unique enough in case of misplacement.

The following is the SCDOT preferred file pdf file naming convention for digital plan submittals:

#### \$####\_##\_Project ID\_Description

- \$ will designate a letter for either roadway or bridge construction plan set with cross sections separated:
  - R = Road
  - B = Bridge
  - X = Cross Sections
- #### will be numerical designation of the page in the plan set such as 0001, 0002, 0003, etc.
- *##* is a modifier purely for the aid of adding sheets after the first submittal.
- Project ID is the project ID such as P012345. Old projects this could start with "0" instead of "P"
- Description can be anything deemed meaningful or reasonable. An example for the title sheet would be ts, t\_sheet, or simply title\_sheet. All of these options would be acceptable and will be determined by a firm's internal wants and needs.

The whole goal is to allow room for extra sheets to be added if need be and to have the file naming allow for the sorting of files to keep them in the proper order of which they appear in a plan set.



- Only Underscores are permitted to be used as separators.
- If a sheet is to be replaced, it must be named the same as the original sheet.
- If a sheet is to be added, it will be named with the same #### numerical designation as the proceeding sheet in the plan set, but with the ## modifier changed to accordingly to 01, 02, 03, etc.
- Revised and/or additional plan sheets should be sent in separate folders to Plans Storage for processing and adding into the Plans Library.

#### Example of Replacement:

Original:	0005_00_P040990_Summary_of_Estimated_Quantities
Replacement:	0005_00_P040990_Summary_of_Estimated_Quantities

#### Example of addition:

Original:	0005_00_P040990_Summary_of_Estimated_Quantities
Additional:	0005_01_P040990_Summary_of_Estimated_Quantities

Name	Date modified	Туре	Size
000_00_P040990_title_sheet.pdf	6/20/2025 3:53 PM	Adobe Acrobat Document	820 KB
001_00_P040990_title_sheet.pdf	6/19/2025 5:07 PM	Adobe Acrobat Document	715 KB
002_00_P040990_row_title_sheet.pdf	6/19/2025 5:07 PM	Adobe Acrobat Document	573 KB
003_00_P040990_summary_of_estimated_quantities.pdf	6/19/2025 5:07 PM	Adobe Acrobat Document	857 KB
004_00_P040990_moving_items_sheet.pdf	6/19/2025 5:07 PM	Adobe Acrobat Document	463 KB
005_00_P040990_typical_sections.pdf	6/19/2025 5:07 PM	Adobe Acrobat Document	310 KB
006_00_P040990_typical_sections.pdf	6/19/2025 5:07 PM	Adobe Acrobat Document	316 KB
007_00_P040990_typical_sections.pdf	6/19/2025 5:07 PM	Adobe Acrobat Document	310 KB
008_00_P040990_rw_data.pdf	6/19/2025 5:07 PM	Adobe Acrobat Document	695 KB
009_00_P040990_property_strip_map.pdf	6/19/2025 5:07 PM	Adobe Acrobat Document	274 KB
010_00_P040990_general_construction_notes.pdf	6/19/2025 5:07 PM	Adobe Acrobat Document	866 KB
011_00_P040990_survey_control_data.pdf	6/19/2025 5:07 PM	Adobe Acrobat Document	229 KB
012_00_P040990_reference_data.pdf	6/19/2025 5:07 PM	Adobe Acrobat Document	276 KB
013_00_P040990_reference_data.pdf	6/19/2025 5:07 PM	Adobe Acrobat Document	765 KB
014_00_P040990_station_offset.pdf	6/19/2025 5:08 PM	Adobe Acrobat Document	799 KB
015_00_P040990_plan_sheet.pdf	6/19/2025 5:08 PM	Adobe Acrobat Document	667 KB
🔒 016_00_P040990_plan_sheet.pdf	6/19/2025 5:08 PM	Adobe Acrobat Document	362 KB
017_00_P040990_plan_sheet.pdf	6/19/2025 5:08 PM	Adobe Acrobat Document	426 KB
018_00_P040990_profile_sheet.pdf	6/19/2025 5:08 PM	Adobe Acrobat Document	498 KB
019_00_P040990_top_of_curb_profile_sheet.pdf	6/19/2025 5:08 PM	Adobe Acrobat Document	472 KB
020_00_P040990_profile_sheet.pdf	6/19/2025 5:08 PM	Adobe Acrobat Document	636 KB
021_00_P040990_top_of_curb_profile_sheet.pdf	6/19/2025 5:08 PM	Adobe Acrobat Document	530 KB
022_00_P040990_drainage_sheet.pdf	6/19/2025 5:08 PM	Adobe Acrobat Document	883 KB
023_00_P040990_drainage_sheet.pdf	6/19/2025 5:08 PM	Adobe Acrobat Document	368 KB
024_00_P040990_drainage_sheet.pdf	6/19/2025 5:08 PM	Adobe Acrobat Document	405 KB
025_00_P040990_traffic_control_sheet.pdf	6/19/2025 5:08 PM	Adobe Acrobat Document	676 KB
026_00_P040990_traffic_control_sheet.pdf	6/19/2025 5:08 PM	Adobe Acrobat Document	615 KB
027_00_P040990_traffic_control_sheet.pdf	6/19/2025 5:08 PM	Adobe Acrobat Document	658 KB
028_00_P040990_signing_and_pavement_marking.pdf	6/19/2025 5:08 PM	Adobe Acrobat Document	660 KB
029_00_P040990_signing_and_pavement_marking.pdf	6/19/2025 5:08 PM	Adobe Acrobat Document	560 KB
030_00_P040990_erosion_control_data_sheet.pdf	6/19/2025 5:08 PM	Adobe Acrobat Document	852 KB
031_00_P040990_standard_notes_and_constr_sequence.pdf	6/19/2025 5:08 PM	Adobe Acrobat Document	2,378 KB

Name	Date modified	Туре	Size
A x0001_00_P031968_xs.pdf	3/27/2025 10:49 AM	Adobe Acrobat D	190 KB
x0002_00_P031968_xs.pdf	3/27/2025 10:49 AM	Adobe Acrobat D	209 KB
A x0003_00_P031968_xs.pdf	3/27/2025 10:49 AM	Adobe Acrobat D	172 KB
x0004_00_P031968_xs.pdf	3/27/2025 10:49 AM	Adobe Acrobat D	218 KB
x0005_00_P031968_xs.pdf	3/27/2025 10:49 AM	Adobe Acrobat D	173 KB
x0006_00_P031968_xs.pdf	3/27/2025 10:49 AM	Adobe Acrobat D	196 KB
A x0007_00_P031968_xs.pdf	3/27/2025 10:49 AM	Adobe Acrobat D	187 KB
x0008_00_P031968_xs.pdf	3/27/2025 10:49 AM	Adobe Acrobat D	162 KB
x0009_00_P031968_xs.pdf	3/27/2025 10:49 AM	Adobe Acrobat D	191 KB
x0010_00_P031968_xs.pdf	3/27/2025 10:49 AM	Adobe Acrobat D	202 KB



# Creating Digital ID's, Signatures, and PE/PLS Seals in Adobe Acrobat

### **Digital ID's**

The first step in starting the process of digitally signing and sealing plans starts with the creation of a digital ID.

1. Open Adobe Acrobat 2017.



2. From the Menu Toolbar select Edit then Preferences.





3. Select the Signatures Category from the left side menu.

Preferences		×
Categories:	Dickel Constants	
Documents	Digital Signatures	
Full Screen	Creation & Appearance	
General		
Page Display	<ul> <li>Control options for signature creation</li> </ul>	More
rage Display	<ul> <li>Set the appearance of signatures within a document</li> </ul>	
3D & Multimedia		
Accessibility	Verification	
Action Wizard		
Catalon	<ul> <li>Control how and when signatures are verified</li> </ul>	More
Color Management		Worea
Content Editing		
Convert From PDF	Identities & Trusted Certificates	
Convert To PDE		
Email Accounts	<ul> <li>Create and manage identities for signing</li> </ul>	More
Forms	<ul> <li>Manage credentials used to trust documents</li> </ul>	Worea
Identity		
Internet	Document Timestamping	
lavaScript	bocument minestamping	
Language	Configure timestamp server settings	Maria
Measuring (2D)		iviore
Measuring (3D)		
Measuring (Geo)		
Multimedia (legacy)		
Multimedia Trust (legacy)		
Reading		
Reviewing		
Search		
Security		
Security (Enhanced)		
Signatures		
Spelling		
y V	ОК	Cancel

4. Select the 3<sup>rd</sup> "More..." button under the group for Identities & Trusted Certificates.

Identities & Trusted Certificates	
<ul> <li>Create and manage identities for signing</li> <li>Manage credentials used to trust documents</li> </ul>	More
· Manage creatinais used to trast documents	



🔒 Digital ID and Trusted Certifi	icate Settings			×
Digital IDs	tage O	ptions 👻 💽 Certificate Detail	s 🧀 Export 🔁 Refresh (	Remove ID
Roaming ID Accour	Name	lssuer	Storage Mechanism	Expires
Digital ID Files				
Windows Digital IDs				
PKCS#11 Modules a				
Trusted Certificates	<			>
	Manage My Dig This is a list of the of private and should r decrypt documents of Each digital ID has about you and which documents for you, click Certificate Den certificate with othe Use Set Default to s documents. Use Add view. Use Remove I	<b>tital IDs</b> <b>ligital IDs</b> that are avain to be shared. They are that are encrypted for y a corresponding <i>public</i> h you can share with ot or to validate your digitatis to view information rs. et or clear which digitation d ID to add a new digitation to permanently remotion	ilable for your use on thi used when you create a ou using <i>Certificate Sect</i> certificate which contain hers. This certificate is u tal signatures. Select one on from your certificate. I ID is used by default w al ID or to find an existin ove a digital ID from this	s computer. Digital IDs are digital signature or when you <i>urity</i> . Ins identifying information ised by others to encrypt to f the entries above and Use <i>Export</i> to share your when you sign or encrypt ng digital ID and add it to this list and wherever it is stored.

5. The Digital ID and Trusted Certificate Settings window will appear.

6. Click on the Add ID button from the ribbon bar.



7. Select the bottom radio button for "A new digital ID I want to create now."

Add Digital ID	×				
Add or create a digital ID to sign and encrypt documents. The certificate that comes with your digital ID is sent to others so that they can verify your signature. Add or create a digital ID using: O <b>My existing digital ID from:</b>					
● A file					
<ul> <li>A roaming digital ID accessed via a server</li> <li>A device connected to this computer</li> </ul>					
A new digital ID I want to create now					
Cancel < Back Next >					



8. Select the bottom radio button for "Windows Certificate Store" (this is chosen to allow users to sign without having to type a password because the user's windows login will serve to authenticate the user).

Add Digital ID	×
Where would you like to store your self-signed digital ID?	
○ New PKCS#12 digital ID file	
Creates a new password protected digital ID file that uses the standard PKCS#12 format. This common digital ID file format is supported by most security software applications, including major web browsers. PKCS#12 files have a .pfx or .p12 file extension.	
Windows Certificate Store	
Your digital ID will be stored in the Windows Certificate Store where it will also be available to other Windows applications. The digital ID will be protected by your Windows login.	
Cancel < Back Next >	

9. Fill in your information and select Finish.

Add Digital ID		×
<b>F</b> (1) (2) (2)		
Enter your identity inform	ation to be used when generating the self-signed certificate.	
Na <u>m</u> e (e.g. John Smith):	John K. Smith	
Organizational <u>U</u> nit:	RPG 5 - Structures	
Organization Name:	SCDOT	
<u>E</u> mail Address:	SmithJK@scdot.org	
<u>C</u> ountry/Region:	US - UNITED STATES	
<u>K</u> ey Algorithm:	2048-bit RSA 🗸	
Use digital ID <u>f</u> or:	Digital Signatures and Data Encryption	
Cancel	< Back Finish	



10. Click on your newly created Digital ID to highlight.

🔒 Dig	gital ID and Trusted Certificate Setting	s						×
$\sim$	Digital IDs	Add ID	🥖 Usage Options 🗸	Certificate Details	≓ Export	🔁 Refresh	🔕 Remove	e ID
	Roaming ID Accounts	Name		lssuer		Storage Mech	anism	Expires
	Digital ID Files	John K. Smith	n <smithjk@scdot.org></smithjk@scdot.org>	John K. Smith <smith< td=""><td>JK@scdot.org&gt;</td><td>Windows Cert</td><td>tificate Store</td><td>2026.03.22 14:17:11 Z</td></smith<>	JK@scdot.org>	Windows Cert	tificate Store	2026.03.22 14:17:11 Z
	Windows Digital IDs							
	PKCS#11 Modules and Tokens			John K. Smith				
	Trusted Certificates			SCDOT				
	Issued by: John K. Smith							
				SCDOT				
			Valid from:	2021/03/22 10:17	7:11 -04'00	/ · · · · · ·		
	Valid to: 2026/03/22 10:17:11 -04'00'							
			Intended usage:	Digital Signature	e, Encrypt I	Document, I	Key Agre	eement

11. Select the Usage Options button and then select Use for Signing from the list of options.



12. A new icon will appear in front of your name of your Digital ID. This sets this Digital ID to default for signing in adobe which is helpful if you use more than one software program is sign with.





# For External Customers only:

- 13. If you are an external customer to SCDOT, it is required that you send along your public certificate file along with files that you digitally sign. This is a quick process that only needs to be done once per each digital ID created, or when one is remade due to expiration. With your Digital ID highlighted, click on the Export button from the Ribbon Bar.
- 14. Select the radio button for "Save the data to a File" and click Next.



15. Choose the <u>.CER</u> format from the Save as type options and where you want to save the file in a memorable and quickly accessible location for emailing purposes.





16. You will get a message from Acrobat Security stating the export process is complete.



17. This ends the portion on creating a Digital ID in Adobe Acrobat 2017.



## **Digital Signature Appearances**

The next step in the process of digitally signing and sealing plans starts with the creation of digital signature appearances. Multiple signature appearances can be utilized in different scenarios.

1. Open Adobe Acrobat 2017.



2. From the Menu Toolbar select Edit then Preferences.





3. Select the Signatures Category from the left side menu.

Categories:          Documents <ul> <li>Greation &amp; Appearance</li> <li>Creation &amp; Appearance</li> <li>Control options for signature creation</li> <li>More</li> </ul> 3D & Multimedia <ul> <li>Accessibility</li> <li>Set the appearance of signatures within a document</li> <li>More</li> </ul> Verification <ul> <li>Control how and when signatures are verified</li> <li>More</li> </ul> Color Management <ul> <li>Control how and when signatures are verified</li> <li>More</li> </ul> Convert From PDF <ul> <li>Create and manage identities for signing</li> <li>More</li> </ul> Identity <ul> <li>Manage credentials used to trust documents</li> <li>More</li> <li>Configure timestamping             <ul> <li>Configure timestamp server settings</li> <li>More</li> <li>More</li> <li>More</li> </ul>          Measuring (2D)          <ul> <li>Measuring (Geo)</li> <li>Multimedia (legacy)</li> <li>Reading</li> <li>Reviewing</li> </ul></li></ul>	Preferences		×
Documents       Image: Creation & Appearance         General       - Control options for signature creation         Page Display       - Set the appearance of signatures within a document         3D & Multimedia       - Control options for signatures within a document         Accessibility       - Control how and when signatures are verified       More         Color Management       - Control how and when signatures are verified       More         Convert From PDF       Identities & Trusted Certificates       - Create and manage identities for signing       More         Forms       - Create and manage identities for signing       More       Document Timestamping         JavaScript       - Configure timestamp server settings       More         Measuring (3D)       Measuring (Geo)       More         Multimedia (legacy)       Reading       More	Categories:		
Creation & Appearance General Page Display 3D & Multimedia Accessibility Action Wizard Catalog Color Management Content Editing Convert Form PDF Convert To PDF Email Accounts Forms Identities & Trusted Certificates Convert To PDF Email Accounts Forms Identities & Trusted Certificates Convent To PDF Email Accounts Forms Identities & Trusted Certificates Convent To PDF Email Accounts Forms Identities Document Timestamping AvaScript Language Measuring (3D) Measuring (3D) Measuring (Geo) Multimedia (Legacy) Multimedia Trust (Legacy) Reading Reading Reviewing	Documents	Digital Signatures	
Constrained       • Control options for signature creation       More         3D & Multimedia       • Control options for signatures within a document       More         3D & Multimedia       • Control how and when signatures are verified       More         Accessibility       • Control how and when signatures are verified       More         Color Management       • Control how and when signatures are verified       More         Convert From PDF       • Create and manage identities for signing       More         Convert To PDF       • Create and manage identities for signing       More         Forms       • Configure timestamping       • Configure timestamp server settings       More         Measuring (3D)       • Configure timestamp server settings       More         Multimedia (legacy)       • Multimedia (legacy)       More         Multimedia (legacy)       • Configure timestamp server settings       More	Full Screen	Creation & Appearance	
Verification       . Set the appearance of signature creation       More         3D & Multimedia       . Set the appearance of signatures within a document       More         3D & Multimedia       . Control options for signatures within a document       More         3D & Multimedia       . Control options for signatures within a document       More         3D & Multimedia       . Control options for signatures within a document       More         Accessibility       . Control how and when signatures are verified       More         Color Management       . Control how and when signatures are verified       More         Convert To PDF       . Create and manage identities for signing       More         Forms       . Create and manage identities for signing       More         Identity       . Configure timestamping       . Configure timestamping         JavaScript       . Configure timestamp server settings       More         Massuring (3D)       . Configure timestamp server settings       More         Multimedia (legacy)       . Configure timestamp server settings       More         Multimedia (legacy)       . Reviewing       . Configure timestamp server settings       More	General		
3D & Multimedia         Accessibility         Accessibility         Action Wizard         Catalog         Color Management         Convert From PDF         Convert To PDF         Email Accounts         Forms         Identity         Internet         JavaScript         Language         Measuring (3D)         Measuring (Geo)         Multimedia Trust (legacy)         Multimedia Trust (legacy)         Reviewing	Page Display	Control options for signature creation     Set the appearance of signatures within a document	
Accessibility       Verification         Action Wizard       • Control how and when signatures are verified       More         Catalog       • Control how and when signatures are verified       More         Color Management       Identities & Trusted Certificates       Identities & Trusted Certificates         Convert To PDF       Identities & Trusted Certificates       More         Convert To PDF       • Create and manage identities for signing       More         Forms       • Manage credentials used to trust documents       More         Identity       Internet       Document Timestamping         JavaScript       • Configure timestamp server settings       More         Measuring (2D)       • Configure timestamp server settings       More         Multimedia Trust (legacy)       • Multimedia Trust (legacy)       Forma         Reading       Reviewing       • Configure timestamp       • Configure timestamp	3D & Multimedia		
Action Wizard       • Control how and when signatures are verified       More         Catalog       • Control how and when signatures are verified       More         Color Management       • Control how and when signatures are verified       More         Convert From PDF       Identities & Trusted Certificates       • Create and manage identities for signing       More         Forms       • Create and manage identities for signing       More       More         Identity       • Control how and when signatures are verified       More         Identity       • Create and manage identities for signing       More         Identity       • Control how and when signatures are verified       More         JavaScript       • Configure timestamping       More         Language       • Configure timestamp server settings       More         Measuring (3D)       • Configure timestamp server settings       More         Multimedia Trust (legacy)       • Multimedia Trust (legacy)       • Reading         Reviewing       • More       • More	Accessibility	Verification	
Catalog       • Control now and when signatures are venited       More         Color Management          Content Editing          Convert From PDF          Convert To PDF          Email Accounts          Forms          Identity          Internet          JavaScript          Language          Measuring (3D)          Multimedia Trust (legacy)       More         Multimedia Trust (legacy)          Reading       Reviewing	Action Wizard		
Color Management         Content Editing         Convert From PDF         Convert To PDF         Email Accounts         Forms         Identity         Internet         JavaScript         Language         Measuring (3D)         Multimedia (legacy)         Multimedia Trust (legacy)         Reading         Reviewing	Catalog	Control how and when signatures are verified     More	
Content Editing         Convert From PDF         Convert To PDF         Email Accounts         Forms         Identity         Internet         JavaScript         Language         Measuring (2D)         Measuring (3D)         Multimedia Trust (legacy)         Multimedia Trust (legacy)         Reading         Reviewing	Color Management		
Convert From PDF       Identifies & Trusted Certificates         Convert To PDF       • Create and manage identifies for signing         Forms       • Manage credentials used to trust documents         Identify       • Document Timestamping         JavaScript       • Configure timestamp server settings         Language       • Configure timestamp server settings         Measuring (2D)       • More         Measuring (3D)       • More         Measuring (Geo)       • Multimedia (legacy)         Multimedia Trust (legacy)       • Reviewing	Content Editing		
Convert To PDF         Email Accounts         Forms         Identity         Internet         JavaScript         Language         Measuring (2D)         Measuring (3D)         Measuring (Geo)         Multimedia (legacy)         Multimedia Trust (legacy)         Reading         Reviewing	Convert From PDF	Identities & Trusted Certificates	
Email Accounts       • Create and manage identities for signing       More         Forms       • Manage credentials used to trust documents       •         Identity       •       Document Timestamping       •         JavaScript       •       Configure timestamp server settings       More         Language       •       Configure timestamp server settings       More         Measuring (3D)       •       More       •         Measuring (Geo)       •       Multimedia (legacy)       •         Multimedia Trust (legacy)       •       Forma       •         Reading       Reviewing       •       •       •	Convert To PDF	Create and manager identities for similar	
Forms     Identity       Identity     Identity       Internet     Document Timestamping       JavaScript     .       Language     . Configure timestamp server settings       Measuring (3D)     .       Measuring (Geo)     .       Multimedia (legacy)     .       Multimedia Trust (legacy)     .       Reading     .	Email Accounts	Manage credentials used to trust documents	
Identity       Internet       JavaScript       Language       Measuring (2D)       Measuring (3D)       Multimedia (legacy)       Multimedia Trust (legacy)       Reading       Reviewing	Forms		
Internet Document Timestamping JavaScript L Language · Configure timestamp server settings More Measuring (3D) Measuring (Geo) Multimedia (legacy) Multimedia Trust (legacy) Reading Reviewing	Identity		
JavaScript Language Measuring (2D) Measuring (3D) Measuring (Geo) Multimedia (legacy) Multimedia Trust (legacy) Reading Reviewing	Internet	Document Timestamping	
Language     • Configure timestamp server settings     More       Measuring (3D)     More     More       Measuring (Geo)     Multimedia (legacy)       Multimedia Trust (legacy)     Reading       Reviewing     Image: Configure timestamp server settings	JavaScript	Confirmention of the second attribute	
Measuring (2D) Measuring (3D) Measuring (Geo) Multimedia (legacy) Multimedia Trust (legacy) Reading Reviewing	Language	Configure timestamp server settings     More	
Measuring (3D) Measuring (Geo) Multimedia (legacy) Multimedia Trust (legacy) Reading Reviewing	Measuring (2D)		
Measuring (Geo) Multimedia (legacy) Multimedia Trust (legacy) Reading Reviewing	Measuring (3D)		
Multimedia (legacy) Multimedia Trust (legacy) Reading Reviewing	Measuring (Geo)		
Reading Reviewing	Multimedia (legacy)		
Reviewing	Reading		
Reviewing .	Reviewing		
Coarch	Soarch		
	Security		
Security (Enhanced)	Security (Enhanced)		
Security (Liniariceu)	Signatures		
Selling	Spelling		
OK Cancel	spennig	OK Cancel	

4. Select the 1<sup>st</sup> More... button under the group for Creation & Appearance.

Creation & Appearance	
<ul> <li>Control options for signature creation</li> <li>Set the appearance of signatures within a document</li> </ul>	More

5. From the Creation and Appearance Preferences window that appeared, match the preferences shown in the following picture then select the New button in the Appearances area on the lower half of the window.



Creation and Appearance Prefere	nces						$\times$
Creation							
			•	_			
Default Signing Method:	Adobe Defau	ilt Secur	ity	$\sim$			
Default Signing Format:	PKCS#7 - De	tached		$\sim$			
When Signing:							
Show reasons							
Show location and	contact inforr	nation					
Include signature's	revocation sta	atus					
View documents in	Preview Mod	e					
Enable Review of Docume	nt Warnings:	When	certifying	g a docu	ment	$\sim$	
Prevent Signing Until Warr	ings Are Revie	ewed:	Never			~	
Use modern user interfa	ce for signing	and Dic	gital ID co	onfigurat	tion		
Enable CryptoTokenKit	framework su	oport		2			
Appearances							
				N	ew/		
				E	dit		
				Du	plicate		
				D	elete		
Help					OK	Cance	8



- 6. In the Configure Signature Appearance window set the following options (see image below):
  - a. Title: enter in whatever you would like to call your signature appearance.
  - b. Configure Graphic: If you want to use an image of your real signature chose imported graphic.
  - c. \*SCDOT employees contact Design Automation Office for assistance with creating a signature file with transparency saved and emailed to you as a .PNG file.
  - d. Otherwise you should just leave the radio button defaulted with Name.
  - e. Configure Text: Only Date is required.
  - f. Text Properties: It is recommended to not use the Auto feature (at least for signature with dates).

Configure Signature Appearance	×
Title: Full Signature - Left - John K. Smith	_
Preview	
John R. Smith 2021.03.22 13:58:44 -04'00'	
Configure Graphic	
Show: O No graphic Import Graphic from:	
<ul> <li>Imported graphic</li> <li>Name</li> </ul>	
Configure Text	
Show: Name Location Distinguished name Logo	
Date Reason Adobe Version Labels	
Text Properties	
Text Direction:     O Auto     Image: Left to right     O Right to left       Digits:     0123456789     V	
OK Cancel	



7. If setting your handwritten signature file (.PNG) click on the File... Button to get the following window:

Select Picture			$\times$
File:		Browse	
Sample			
	ОК	Cancel	

8. Click Browse and find your file.





9. Click Open and you should see your signature appear in the preview window then click OK and OK.

Select P	icture			×
File:	/C/Users/	/Desktop/Sign	Browse	
San	nple			
	01	1/x	1.71	
	yom	$n \in \mathbb{Z}$	mich	
	0			
			1 out of 1 images	

10. Now back in the Creation and Appearance Preferences window, select your new appearance, click Duplicate, select your new appearance, click Edit.



Creation and Appearance Preferences X			
Creation			
Default Signing Method: Adobe Default Security ~			
Default Signing Format: PKCS#7 - Detached V			
When Signing:			
Show reasons			
Show location and contact information			
Include signature's revocation status			
View documents in Preview Mode			
Enable Review of Document Warnings: When certifying a document			
Prevent Signing Until Warnings Are Reviewed: Never			
Use modern user interface for signing and Digital ID configuration			
Enable CryptoTokenKit framework support			
Appearances			
Copy of Full Signature - Left - John K. Smith New			
Edit 4			
Duplicate 2			
Delete			
Help OK Cancel			

11. Change your title and switch the Text Properties to the other directional option.



Configure Signature Appearance	×
Title: Full Signature - Right - John K. Smith Preview	
2021.03.22 John H. Smith '00'04- 14:26:54 John H. Smith	
Configure Graphic	
Show: O No graphic Import Graphic from: Imported graphic File Name	
Configure Text	
Show:     Name     Location     Distinguished name     Logo       Date     Reason     Adobe Version     Labels	
Text Properties Text Direction: O Auto O Left to right O Right to left Digits: 0123456789	
OK Cancel	

12. Repeat this process again and create an appearance without a date checkbox and the text direction set to Auto.

Configure Signature Appearance	×
Title: Full Signature - w/o Date - John K. Smith	
Preview	
John H. Smith	
Configure Graphic	
Show: O No graphic Import Graphic from:	
Imported graphic     File     Name	
Configure Text	
Show: Name Location Distinguished name Logo	
Date Reason Adobe Version Labels	
Text Properties	
Text Direction:	
Digits: 0123456789 V	
OK Cancel	



13. Your Creation and Appearance window should look like this giving you two signature options with dates and one without the date for a total of 3 signature appearances. Users can go even further by repeating these steps with their initials and/or blue vs black ink etc.

Creation and Appearance Preferences	×
Creation	
Default Signing Method: Adobe Default Security	$\sim$
Default Signing Format: PKCS#7 - Detached	~
When Signing:	
Show reasons	
Show location and contact information	
Include signature's revocation status	
View documents in Preview Mode	
Enable Review of Document Warnings When certifying	a document
	ga documente de la
Prevent Signing Until Warnings Are Reviewed: Never	$\sim$
Use modern user interface for signing and Digital ID co	onfiguration
Enable CryptoTokenKit framework support	
Appearances	
Full Signature - Left - John K. Smith	New
Full Signature - Right - John K. Smith	
r di signatare - wyo bate - sonn k. sinitir	Edit
	Duplicate
	Delete
	Delete
Help	OK Cancel



14. Click Ok then Select the 2nd More... button under the group for Verification then match the following settings:

Verification	
Control how and when signatures are verified	More

Signature Verification Preferences	×
Verify signatures when the document is opened	
When document has valid but untrusted signatures, prom	pt to review and trust signers
Verification Behavior When Verifying: Use the document-specified method; prompt if ur Use the document-specified method; if unavailable Always use the default method: Require certificate revocation checking to succeed when Use expired timestamps Ignore document validation information	navailable le, use default method fault Security enever possible during signature verification
Verification Time	Verification Information
<ul> <li>Verify Signatures Using:</li> <li>Time at which the signature was created</li> </ul>	Automatically add verification information when saving signed PDF:
Secure time (timestamp) embedded	Ask when verification information is too big
in the signature	() Always
O Current time	○ Never
Windows Integration Trust ALL root certificates in the Windows Certificate Store Validating Signatures Validating Certified Documents Selecting either of these options may result in arbitrae Take care before enabling these features.	e for: ry material being treated as trusted content.
Help	OK Cancel

15. Click OK then OK.

You have now finished the process of creating your digital signature appearance.



# **Digital PE/PLS Seal as a Stamp**

The last step in the configuration for the process of digitally signing and sealing plans is importing a digital PE/PLS seal into Adobe Acrobat as a stamp.

1. Open Adobe Acrobat 2017.



2. Select Tools from your main adobe ribbon bar.



Select Stamp from either the main window or the categories on the right hand side of your screen.
 \*Tip: if you want items to appear on the right hand side of your screen, click the Add from the dropdown under each tool.

\*Tip: you must be on this screen to reorder the tools on the right hand side of your screen.

Adobe Acrobat Pro 2017 File Edit View Window Help		- 0 ×
Home Tools		
Q Find your tools here	Create & Edit	Stamp
	Create PDF Combine Files Organize Pages Edit PDF Export PDF Enhance Scans Rich Media	Create PDF  Create PDF  Cut PDF  Edit PDF  Comment
	Review & Approve	Comment Grganize Pages Compare Files Compare Files
	Open + Add + Open + Open + Add + Forms & Signatures	
	Fill & Sign     Prepare Form     Certificates       Open +     Open +     Open +	
	Protect & Standardize	



4. Select Custom Stamps then Create... from the newly opened toolbar.



5. Browse for your PE or PLS seal and click Open then OK.\*Tip: The Design Automation office can create and email you a .pdf format of your seal.



6. Enter the Category (SCDOT for Internal Customers) followed by your name and uncheck the checkbox to down the sample stamp to reduce file size option. Then click OK.

Create Custom Stamp		×
No. 8675309	Category: SCDOT   Name: John K. Smith  Down sample stamp to reduce file size	
Help	OK Cancel	



Click on the Stamp button from the toolbar and select the category you created to view the stamp.
 \*Tip: Click on the show stamp names to view by name vs. the small thumbnail of the seal where it is impossible to read the information on the seals (helpful if you are placing multiple seals).

<mark>요</mark> Sta	mp 👻 🤮 Stamps Palette 🕰	Custom Stamp	ps 👻 🚾 Bates Numbering	▼
	Approved			
	SCDOT	Þ	John K. Smith	
	Dynamic	· · · ·		
	Sign Here	•		
	Standard Business	· ·	`	
	Add Cu <u>r</u> rent Stamp To Favorites			
	Remove Current Stamp From Favor	rites		
~	Show Stamp <u>N</u> ames			
e.	Paste Clipboar <u>d</u> Image as Stamp To	ol		

You have now completed the process of making an Adobe Stamp from a .pdf formatted seal.



# **Digitally Signing and Sealing Documents in Adobe Acrobat**

# **Digitally Sealing**

- 1. Open the file to be signed and sealed in Adobe Reader or Adobe Acrobat.
- 2. Open the "Stamp" tool from the side menu of the program. If not shown, click on the "More Tools" at the bottom of the list to find and add it.



3. Click on the "Stamp" button from the "Stamp" toolbar, followed by your group, finally the seal you wish to place on the plan sheet. \*Tip: have the "Show Stamp Names" Checked to easily identify the seal.





4. Move the stamp to the proper location on the plan sheet and click to place. The stamp is able to be clicked on and moved again if placement needs adjusted. Do not resize the seal. If resized by accidently grabbing one of the handles, right-click, delete the stamp, and place again from scratch.



# **Digitally Signing**

- 1. Open the file to be signed in Adobe Reader or Adobe Acrobat.
- 2. Open the "Certificates" tool from the side menu of the program. If not shown, click on the "More Tools" at the bottom of the list to find and add it.





3. Click on the "Digitally Sign" button from the "Certificates" toolbar.



4. Click and drag on the pdf to create the signature field. If a PE Seal was placed, the form should begin on the left side of the seal three-quarters of the way up, extending three-quarters of the way down the seal and right to the edge of the white space of the stamp. If a PE seal was not placed, the signature field needs to be large enough for the signature and all accompanying text to be legible. It can be adjusted later if it is too large or small.



5. The Sign with a Digital ID popup should appear. Choose your Digital ID and click the "Continue" button.





6. Select your Appearance from the dropdown box. DO NOT click on the checkbox to "Lock document after signing" as this limits the ability for slip-sheeting and commenting. Click the "Sign" button to continue.



- 7. Adobe will ask you to save the file. You can overwrite the unsigned version of the document or save it as a new document with a revised name (recommended).
  \*Tip: it is highly recommended to have two separate folders, one for original documents and one for the signed copies.
- If necessary, reposition and resize the signature field to line up with the seal without obscuring your name or PE number. Before the field can be altered, the signature must be cleared.
   Right-click on the signature and select "Clear Signature" from the menu.





9. Open the "Prepare Form" tool from the side menu of the program.



10. Select the signature field and drag it to reposition it. Use the grips on the sides and corners, marked with boxes, to resize it. The signature box also can be deleted if no longer necessary. Click the "Esc" button on your keyboard to exit the "Prepare Form" function.



11. Left-click on the signature field to open the "Sign with a Digital ID" window again and follow steps #5-7 to re-sign the document.



12. Any changes to the document, including adjustment of stamps, will invalidate the signature requiring the signatures to be cleared and reapplied.

> If multiple signatures are required on a document, the signatures must be applied after ALL stamps have been added. Engineers may be required to each apply their PE Seal stamp in turn, then recirculate the document to each sign it.