

# Signing, Sealing and Electronically Transmitting Documents

David S. Tuttle, Board Counsel  
NC Board of Examiners for Engineers and  
Surveyors

[dstuttle@ncbels.org](mailto:dstuttle@ncbels.org)

(919) 791-2000 ext. 111

# *To Sign, or Not...*

*By David S. Tuttle, Board Counsel*

*...to sign? That is one of the questions.*  
Beyond that, when and how you, as a licensee, sign raises questions about facsimile signatures and also about electronic or digital signatures.

Spring 2011 Newsletter

<http://www.ncbels.org/forms/certifyingrecorddrawings.pdf>

# ELECTRONIC SUBMITTALS

One county is accepting electronic transmittal of plats for recording, with two more counties in line. Process was overseen by the Office of the NC Secretary of State in coordination with the Board Rules.

Plan submittals for permit application review are being allowed under a process developed jointly by the City of Raleigh (Jim Tschupp, AIA) and Mecklenburg County (James N. Bartl, AIA). A committee assisted in assuring compliance with the Board Rules. The process was also reviewed by the Board of Architecture and the Board of Landscape Architects.

# Where we're going!

RULES OF PROFESSIONAL CONDUCT

RULES FOR SEALING DOCUMENTS

Containing engineering or surveying  
knowledge, analysis, judgment or  
recommendations

ELECTRONIC TRANSMITTAL

Examples

Other Project Delivery Methods

Newsletter article

Record Drawings article

QUESTIONS

# Regulation of the Practice

[www.ncbels.org](http://www.ncbels.org) Rules and Laws

- ❑ NCGS 89C – The Statute
- ❑ NCAC Title 21 Chapter 56 – The Rules

# STANDARDS FOR CERTIFICATION

## 21 NCAC 56 (Board Rules)

.0700 Standards of Professional  
Conduct

.1100 Signing and sealing documents

# Sealing

Seal – NCAC 21-56.1100 (Board Rules)

Board Rule .1101

*It is misconduct for a Professional Engineer or Professional Land Surveyor to seal work done by another individual unless the work is performed under the "responsible charge" of the Professional Engineer or Professional Land Surveyor.*

# Sealing

## Multiple Seals – Delineating Work

### Board Rule .0701(c)(3)

*...The licensee may affix the seal and signature to drawings and documents depicting the work of two or more professionals provided it is designated by a note under the seal the specific subject matter for which each is responsible.*

# Seal – NCAC 21-56.1100 (Board Rules)

## Board Rule .1103 Standard Certification Requirements

- (a) Certification of Final Drawings*
- (b) Certification of Specifications and Reports*
- (c) Exceptions to Required Certification*

## *.1103(a) Certification of Final Drawings*

Drawings or maps not conforming to paragraph (c) shall conform to the following:

- 1) Certification is required on reproducibles or original drawings;
- (2) The seal may be a rubber stamp, embossed seal, computer-generated seal, or other facsimile that becomes a permanent addition to a plan sheet or map;

## *.1103(a) Certification of Final Drawings*

- (3) The licensee's written signature must be placed over, or near, the seal on the original document. **A facsimile signature is not acceptable;**
- (4) The date of signing must be annotated on the original document;
- (5) All sheets of engineering and surveying drawings must be sealed;

## *.1103(a) Certification of Final Drawings*

- (6) The name, address and license number of the licensee's firm shall be included on each sheet of engineering drawings. For surveys, the licensee's name, address and license number of the licensee's firm shall be included on the first sheet of the survey or title sheet; and
- (7) Any revision on a drawing after a licensee's certification is affixed shall be noted and dated and if not done under the responsible charge of the same licensee shall be separately certified.

## .1103(b) Certification of Specifications and Reports

All specifications, reports, or other documents, including letter reports and calculations, not conforming to paragraph (c) shall conform to the following:

- 1) Certification is required on original specifications, reports, or other documents, including letter reports and calculations;
- (2) The seal may be a rubber stamp, or other facsimile;

## *.1103(b) Certification of Specifications and Reports*

- (3) The licensee's written signature must be placed over, or near, the seal on the original document. **A facsimile signature is not acceptable;**
- (4) The date of signing must be annotated on the original document;

# *1103(b) Certification of Specifications and Reports*

- (5) The title sheet of engineering specifications and other reports must be certified and bear the name, address and license number of the licensee's firm. The title sheet of any survey report or written description of property shall include the name, address and license number of the licensee's firm; and
- (6) Any revision in the document after a licensee's certification is affixed shall be described and dated and if not done under the responsible charge of the same licensee shall be separately certified.

# Letters, reports, calculations, emails

Any document that conveys any engineering or surveying knowledge, analysis, judgment or recommendations must be signed and sealed.

Emails – Only current way is to scan and attach a copy of a signed and sealed document, unless it is sent in an authentication process as discussed later.

## *.1103(c) Exceptions to Required Certification*

The seal of a licensee on a map, drawing, plan, specification, plat, document, or report shall signify that it is the final work of the licensee unless the work is stamped or clearly marked substantially as follows so as to put the public on notice not to use as a final product, **in which case certification is optional:**

## *Exceptions to Required Certification*

- (1) "Preliminary - Do not use for construction";*
- (2) "Progress Drawings - Do not use for construction";*
- (3) "Preliminary Plat - Not for recordation, conveyances, or sales";*
- (4) "Final Drawing - Not released for construction";*
- (5) "Final Drawing - For Review Purposes Only";*

## *(c) Exceptions to Required Certification*

*(6) “Not a Certified Document – This document originally issued and sealed by (name of licensee), (license number), on (date of sealing). This document shall not be considered a certified document”;*

*(7) “Not a Certified Document as to the Original Document but Only as to the Revisions - This document originally issued and sealed by (name of licensee), (license number), on (date of sealing). This document is only certified as to the revisions”.*

# Certification

Unless otherwise indicated by a “preliminary” type statement, certification = final work product.

- Public should be able to rely upon it, once issued.

  - Can’t use the “it was only meant for...” excuse.

- Can’t retract certification after issuance.

  - If there is a problem notify the appropriate parties.

    - Issue revision to remedy.

- Can’t reissue final work as preliminary to limit its use.

# Electronically transmitted documents .1103(d),(e) and (f)

## .1103(d) Electronically transmitted documents

*After removal of the seal the electronic media shall have the following inserted in lieu of the signature and date: This document originally issued and sealed by (name of sealer), (license number), on (Date of sealing). This medium shall not be considered a certified document.*

## .1103(d) Electronically transmitted documents (cont'd)

*The scanned digital files of properly certified documents are not subject to the requirements of this paragraph. The electronic transmission of CAD, vector or other files subject to easy editing are subject to the requirements of this paragraph. Easy editing is based on the file consisting of separate elements that can be individually modified or deleted.*

## .1103(e) & (f) Electronically transmitted documents

*Authentication process for use of digital (electronic) signature. Not to be confused with a digitized signature.*

.1103(e) Documents to be electronically transmitted that are signed using a digital signature, shall contain the authentication procedure in a secure mode and a list of the hardware, software and parameters used to prepare the document(s). Secure mode means that the authentication procedure has protective measures to prevent alteration or overriding of the authentication procedure.

.1103(e) (cont'd) The term “digital signature” shall be an electronic authentication process that is attached to or logically associated with an electronic document. The digital signature shall be:

- (1) Unique to the licensee using it;
- (2) Capable of verification;
- (3) Under the sole control of the licensee; and
- (4) Linked to a document in such a manner that the digital signature is invalidated if any data in the document is changed.

.1103(f) A digital signature that uses a process approved by the Board will be conclusive that it meets the criteria set forth in (e) (1) through (4) above. The licensee shall confirm that if another process is used, that it meets the criteria.

# Website to explain Adobe Digital Signature

<http://www.adobe.com/products/acrobatpro/pdf-digital-electronic-signatures.html>

Adobe Acrobat /

Acrobat X Pro / Apply digital signatures

**Easily add a variety of electronic signatures to your PDF files**

As more workflows go digital, people are using digital signatures to save time and money. With Adobe® Acrobat® X Pro software, you can easily add electronic signatures to a PDF file, including simple signature scans and verifiable digital signatures. Anyone can view your signed PDF files using free Adobe Reader® software.

# Three Levels of Signing an Electronic Document

1. Digitized signature
2. Self certifying
3. Signature verified (required by Board Rules)

## **1. Apply a basic ink signature to a PDF file (digitized signature)**

Many documents require just a digital image of your signature. Using Acrobat, you can quickly sign documents electronically by creating and using a stamp with a digital scan of your signature. If you use a drawing tablet with a digital pen, you can also add a simple handwritten signature anywhere in a PDF file using the Apply Ink Signature tool.

## 2. Create your own digital ID to self-sign documents (self certifying)

To send and receive documents with confidence among trusted colleagues or business partners, Acrobat X lets you digitally sign documents with a free digital ID you create. Recipients can then validate your signature and easily determine if the document has been altered in any way since you signed it..

### 3. Apply digital signatures verified by third parties (to meet the Board's Rules)

Many business transactions, including financial and legal transactions, require formal verification of a document's integrity and the identity of all signers. Acrobat X enables such verification through powerful encryption and public key infrastructure (PKI) support. Using Acrobat, you can sign and certify PDF files using a higher assurance digital signature verified by a trusted third-party certificate authority through the purchase of a digital ID. Recipients can then use Acrobat or free Adobe Reader software to validate the authenticity of signed documents with certificate authorities.

Anyone can use free Adobe Reader software to view PDF files, validate digital signatures, and verify document certification. The encryption and signature verification is available from many software providers.

# Example of Authentication Software as Applied to a Document and as Received and Verified

**Signatures** Validate All

**Certified by** [redacted]

- No changes are allowed
- Valid certified Document:
  - Document has not been modified since it was
  - Signer's identity is valid
  - Signature is timestamped.
- Signature Details
  - Last Checked: 2012.05.14 14:11:54 -04'00'
  - Field: Signature2 on page 1

[redacted]

Digitally signed by [redacted]  
Date: 2012.05.09 14:07:59 -04'00'



SITE DATA

48.00 x 30.00 in TOTAL 109,604 SF (2.52 AC.)

**Signature Validation Status**

Document certification is valid, signed by [redacted].

- The Document has not been modified since it was certified.
- The signer's identity is valid.

Legal Notice... Signature Properties... Close

J  
1  
C  
7  
7  
C  
B  
2  
C  
9  
9  
S  
J  
1  
C  
9  
9

C1001-Site.pdf - Adobe Acrobat Pro

File Edit View Document Comments Forms Tools Advanced Window Help

Create Combine Collaborate Secure Sign Forms Multimedia Comment

1 / 1 100% Find

Sticky Note Text Edits Show

Certified by [redacted] certificate issued by GlobalSign CA for Adobe. Signature Panel

### Signature Properties

Document certification is valid, signed by George J Retschle <geoger@bapa.eng.pro>.

Summary Document **Signer** Date/Time Legal

The signer's identity is valid.

Signed by: [redacted] Show Certificate...

Click Show Certificate for more information about the signer's certificate and its validity details, or to change the trust settings for the certificate or an issuer certificate.

**Validity Details**

- The signer's certificate is directly trusted or has been issued by a certificate authority that you have trusted to issue certificates for the purpose of certifying PDF documents.
- The path from the signer's certificate to an issuer's certificate was successfully built.
- The signer's certificate is valid and has not been revoked.**

Signer's Contact Information: Not available

click here

Validate Signature Close

Digitally signed by [redacted]  
[redacted]  
Date: 2012.05.09  
14:07:59 -04'00'



001 MAIN CAMPUS DRIVE  
CUD TD  
0793-56-9390  
D OF TRUSTEES OF THE  
OWMENT FUND OF NCSU  
ALLIANCE CENTER, LLC  
3.80 ACRES

42,668 SF (0.97 AC.)  
66,936 SF (1.55 AC.)  
109,604 SF (2.52 AC.)

C1001-Site.pdf - Adobe Acrobat Pro

File Edit View Document Comments Forms Tools Advanced Window Help

Create Combine Collaborate Secure Sign Forms Multimedia Comment

1 / 1 100% Find

Sticky Note Text Edits Signature Panel

Certified by [redacted] certificate issued by GlobalSign CA for Adobe.

### Certificate Viewer

This dialog allows you to view the details of a certificate and its entire issuance chain. The details correspond to the selected entry.

Show all certification paths found

Root CA  
baSign Primary SHA256 CA  
SEIKO Timestamp Service.

Summary Details Revocation Trust Policies Legal Notice

SEIKO Timestamp Service. Advanced A01-004  
GlobalSign

Issued by: GlobalSign Primary SHA256 CA for Adobe  
GlobalSign nv-sa

Valid from: 2011/10/04 20:00:00 -04'00'

Valid to: 2022/05/04 20:00:00 -04'00'

Intended usage: Sign transaction, TimeStamping

Export...

The selected certificate path is valid.

The path validation and revocation checks were done at 2012/05/14 14:15:15 -04'00'  
Validation Model: Shell

OK

Digitally signed by [redacted]  
[redacted]  
Date: 2012.05.09 14:07:59 -04'00'



001 MAIN CAMPUS DRIVE  
CUD TD  
0793-56-9390  
D OF TRUSTEES OF THE  
OWMENT FUND OF NCSU  
ALLIANCE CENTER, LLC  
3.80 ACRES

42,668 SF (0.97 AC.)  
66,936 SF (1.55 AC.)  
109,604 SF (2.52 AC.)

### Signature Properties

Document certification is valid, signed by [REDACTED].

Summary Document Signer Date/Time Legal

When validating digital signatures, you should evaluate the Document that was signed and the signer identity. Click Signer Legal Notice to review important information relating to signer identity, including legal terms and conditions that apply should you rely upon any signature created using the signer identity.

You should always view the original signed document to see what was signed (you can do this by clicking View Signed Version in the Document tab). Other tools available in the Document tab can help you analyze what has changed since the document was signed; however, these tools are not a substitute for viewing the original signed document.

Some documents may contain content that can affect the document's on-screen and printed presentation. You can get a description of such content by clicking View Document Integrity Properties. In most cases the content is harmless (for example, a JavaScript used for form calculations). You should verify that a document with such content comes from a trusted source and that only permitted changes have been made to it before trusting it.

Signer Legal Notice... View Document Integrity Properties...

Validate Signature Close

Digitally signed by [REDACTED] Date: 2012.05.09 14:07:59 -04'00'



001 MAIN CAMPUS DRIVE  
 CUD TD  
 0793-56-9390  
 D OF TRUSTEES OF THE  
 OWMENT FUND OF NCSU  
 ALLIANCE CENTER, LLC  
 3.80 ACRES

42,668 SF (0.97 AC.)  
 66,936 SF (1.55 AC.)  
 109,604 SF (2.52 AC.)

# Another Example of Authentication Software as Applied to a Document and as Received and Verified

test stamp (2).pdf - Adobe Acrobat Pro, Ver

File Edit View Document Comments Forms To

1 / 1 94%

You are currently viewing a signed version. All editing a

**Signatures**

Validate All

Rev. 1: Signed by [redacted]

Signature is valid:

- Document has not been modified since this signature was applied.
- Signer's identity is valid
- Signature date/time are from the past

Signature Details

Certificate Details...

Last Checked: 2012.05.14 14:41:5

Field: Signature2 on page 1

[Click to view this version](#)

117 Items

Signature Properties

Signature is VALID, signed by [redacted]

Summary Document Signer Date/Time Legal

Signed by: [redacted] Show Certificate...

Reason: Not available

Date: 2012/02/10 15:31:44 -04'00' Location: Not available

Validity Summary

The Document has not been modified since this signature was applied.

Certificate Viewer

This dialog allows you to view the details of a certificate and its entire issuance chain. The details correspond to the selected entry.

Show all certification paths found

Summary Details Revocation Trust Policies Legal Notice

[redacted]

VeriSign, Inc.

Issued by: VeriSign Class 1 Individual Subscriber CA - G3

VeriSign, Inc.

Valid from: 2012/01/03 20:00:00 -04'00'

Valid to: 2012/03/04 19:59:59 -04'00'

Intended usage: Sign transaction, Encrypt keys, Email Protection, Client Authentication

Export...

The selected certificate path is valid.

The path validation and revocation checks were done at 2012/02/10 15:31:44 -04'00'

10 14:31:44 -05'00' - Adobe ...

View Report

ST

2012.02.10 14:31:44 -05'00'

Verifying all signatures

to date. Connected to Microsoft Exchange

test stamp (2).pdf - Adobe Acrobat Pro, Ver...

1 / 1 94%

You are currently viewing a signed version. All editing...

Signatures

Rev. 1: Signed by [redacted]

Signature is valid:  
Document has not been modified since this signature was applied.  
Signer's identity is valid.  
Signature date/time are from the document.

Signature Details

Certificate Details...

Last Checked: 2012.05.14 14:41:05

Field: Signature2 on page 1

Click to view this version

Signature Properties

Signature is VALID, signed by [redacted]

Summary Document Signer Date/Time Legal

Signed by: [redacted] Show Certificate...

Reason: Not available

Date: 2012/02/10 15:31:44 -04'00' Location: Not available

Validity Summary

The Document has not been modified since this signature was applied.

Certificate Viewer

This dialog allows you to view the details of a certificate and its entire issuance chain. The details correspond to the selected entry.

Show all certification paths found

Summary Details Revocation Trust Policies Legal Notice

VeriSign, Inc.

Issued by: VeriSign Class 1 Individual Subscriber CA - G3

VeriSign, Inc.

Valid from: 2012/01/03 20:00:00 -04'00'

Valid to: 2012/03/04 19:59:59 -04'00'

Intended usage: Sign transaction, Encrypt keys, Email Protection, Client Authentication

Export...

The selected certificate path is valid.

The path validation and revocation checks were done at 2012/02/10 15:31:44 -04'00'

10 14:31:44 -05'00' - Adobe ...

View Report

CLICK HERE



does current verification

Verifying all signatures

# Other Project Delivery Systems

IPD (Integrated Project Delivery)

Is the entity licensed?

BIM ( Building Information Modeling)

How certify?

How delineate responsibility?

How control or document revisions by others?

What are the contract documents?

# Articles

- *To Sign, or Not...*

*By David S. Tuttle, Board Counsel*

<http://www.ncbels.org/newsletters/Spring2011.pdf>

- *Certifying Record Drawings*

*By David S. Tuttle, Board Counsel*

<http://www.ncbels.org/forms/certifyingrecorddrawings.pdf>

# QUESTIONS