



Alabama State Board of Licensure for
Professional Engineers and Land Surveyors

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Mr. Russell T. Hyde, P.E.
Hyde Engineering
3120 8th Avenue South
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Rule Number: 330-X-2.01(10)B
Rule Number: 330-X-11.02(5)
Rule Number: 330-X-11.03(8)
Rule Number: 330-X-14.06(6)

General Question: Is a PE allowed to “upload” a computer generated seal with signature for an architect’s use in the BIM model without the ability to control or limit the use of seal/signature?

Dear Mr. Hyde:

This Declaratory Ruling of the Board of Licensure for Professional Engineers and Land Surveyors is issued in response to your petition. All of the questions contained in the petition concern the circumstances in which an architect has employed a professional engineer (PE) to design the electrical systems for a building and is seeking to require that professional engineer to use the Building Information Modeling (BIM) software package called REVIT to produce the work product.

It is the Board’s understanding that REVIT is a product of Autodesk, Inc., and that construction documents are produced from the BIM Model.

QUESTION 1

Is the PE allowed to “upload” a digital image of a seal with signature for an architect’s use in the BIM model without the ability to control/limit the use of the stamp?

FACTS, LAW, AND ANALYSIS

Section 34-11-7(c), Code of Alabama, 1975 states in part that “each professional engineer should upon licensure obtain a seal of the design authorized by the board, bearing the licensee’s name, licensure number, and the legend, “licensed professional engineer.” Previously purchased seals bearing the terminology “registered” vs. “licensed” may continue to be used until replacement is required. Engineering drawings, plans, specifications, plats, and reports issued by a licensee or by qualified persons under the direction of the licensee and for which the licensee assumes full responsibility shall be certified pursuant to this chapter.”

Section 34-11-11(a)4, Code of Alabama 1975 states “The board shall have the power to reprimand, censure, place on probation, or fine any licensee or certified engineer intern or land surveyor intern or corporation, partnership, or firm holding a certificate of authorization and to suspend, refuse to renew, or revoke the certificate of any licensee or certified engineer intern or land surveyor intern or the certificate of authorization of a corporation, partnership, or firm found guilty of any of the following: (4) Permitting his or her seal, or facsimile thereof, to be used by another.

Chapter 330-X-14-.06(a)6 of the Administrative Code of the Board states “The engineer or surveyor shall not “Permit or allow his or her professional identification, seal, firm, or business name, or his or her services to be used or made use of, directly or indirectly, or in any manner whatsoever, so as to make possible or create the opportunity for the unauthorized practice of engineering or land surveying by any person, firm, or corporation in this State;”

Chapter 330-X-14-.06(b) of the Administrative Code of the Board states in part “The engineer or land surveyor shall be personally and professionally responsible and accountable for the care, custody, control, and use of his or her engineer’s or land surveyor’s seal, professional signature, and identification.”

CONCLUSION

A professional engineer cannot “upload” a computer generated seal with signature for an architect’s use in the BIM model unless they have the ability to control/limit the use of the Stamp\Signature.

QUESTIONS

(2) What safeguards would be required by the Board to allow use of a “Stamp\Signature” in an electronic BIM model to produce contract documents?

(3) Since a REVIT model exists only in electronic form, can a model be “stamped\signed”?

(4) What safeguards would be required by the Board to prevent unauthorized changes to the REVIT model (and subsequent contract documents) once a “Stamp\Signature” has been associated with the REVIT model?

FACTS, LAW, AND ANALYSIS

Chapter 330-X-14-.06(a)6 of the Administrative Code of the Board states “The engineer or surveyor shall not “Permit or allow his or her professional identification, seal, firm, or business name, or his or her services to be used or made use of, directly or indirectly, or in any manner whatsoever, so as to make possible or create the opportunity for the unauthorized practice of engineering or land surveying by any person, firm, or corporation in this State;”

Chapter 330-X-14-.06(b) of the Administrative Code of the Board states in part “The engineer or land surveyor shall be personally and professionally responsible and accountable for the care, custody, control, and use of his or her engineer’s or land surveyor’s seal, professional signature, and identification.”

Chapter 330-X-2-.01(10)b of the Administrative Code of the Board states in part “The term “Signature” shall mean handwritten or digital as follows: A digital signature that is an electronic authentication process attached to or logically associated with an electronic document. The digital signature must be:

1. Unique to the person using it,
2. Capable of verification,
3. Under the sole control of the person using it, and
4. Linked to a document in such a manner that the digital signature is invalidated if any data in the document is changed.
5. A digital signature that uses a process approved by the board will be presumed to meet the criteria set forth in subsections (b)1. through (b)4. above.

Chapter 330-X-11-.02(5) of the Administrative Code of the Board states “Drawings, reports, or documents that are signed using a digital signature, as defined in 330-X-.02(10), shall contain authentication procedures.

Chapter 330-X-11-.03(8) of the Administrative Code of the Board states “A computer generated seal or facsimile is acceptable only when the signature of the professional engineer or professional land surveyor and the date the document was signed are on or adjacent to the computer generated or facsimile seal. Any variation from this procedure must be submitted to and approved by the Board.”

Drawings, specifications, plans, reports, or documents which do not require certification may be transmitted electronically but shall have the generated seal, if

any, removed before transmitting and shall have the following inserted in lieu of the signature and date: "This document originally issued and sealed by (name of licensee), P.E. # ____/P.L.S. # ____ on (date of sealing). This document should not be considered a certified document.

CONCLUSION

The process of allowing someone other than the licensee to produce documents at will which contain the seal of the licensee violates the rules. The person whose license is represented by that seal must have full control over it to the greatest extent possible. Computer Aided Drafting files by design are easily modified. If the seal of a licensed engineer is placed within the file, that seal is available for use regardless of the modifications to the file and without knowledge of the licensee owner of the seal. Once a Stamp\Signature is associated with a document in any form that association must contain authentication procedures. A computer generated seal or facsimile is acceptable only when the signature of the professional engineer or professional land surveyor and the date the document was signed are on or adjacent to the computer generated or facsimile seal. The digital signature associated with the computer generated seal must be 1. Unique to the person using it, 2. Capable of verification, 3. Under the sole control of the person using it, and 4. Linked to a document in such a manner that it is invalidated if any data in the document is changed. If such procedures are not possible, the model could not be stamped and signed.


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