

Position Statement on Sealed Truss Placement Diagrams for Commercial Projects in the State of Illinois

Updated May 27, 2008

Introduction:

The Truss Placement Diagram (TPD) is not to be viewed as an engineering document except as stated below; rather it is provided to assist the installer in properly locating the trusses within the structure. All the necessary truss engineering and analysis is found on the Truss Design Drawings (TDD).

If a TPD is provided, it is recommended that the Building Designer review and approve the TPD to ensure that the intended load paths have not been altered.

If a Truss Design Engineer were to seal a TPD, it has been suggested that they could inappropriately be held responsible for ensuring the proper flow of loads through the truss to the bearing and support structure below the truss and into the foundation.

A Truss Design Engineer would only undertake Building Designer responsibilities under a special set of circumstances, including that he/she is professionally capable of taking on such responsibility and that he/she are properly compensated for the work.

Issue:

Certain jurisdictions in Illinois are requesting engineering seals on Truss Placement Diagrams (TPD) (also commonly referred to as truss placement plans, truss layouts, truss framing plans or framing layouts). The following information should be used to provide insight into why component manufacturers should seriously consider all the ramifications of providing seals on TPD for commercial projects.

This information is based on the *Professional Engineering Practice Act of 1989 (225 IL CS 325)*¹, the *General Assembly's Illinois Administrative Code*², and the *2006 International Building Code*³.

Industry Recommendation:

The Illinois professional engineering law and the *IBC* provide the basis upon which to evaluate the need to provide an engineer's seal on a TPD. Based on this evaluation, TPD do not require a professional engineer's seal. Further, a Truss Design Engineer would only undertake Building Designer responsibilities under a special set of circumstances, including that he/she is professionally capable of taking on such responsibility and that he/she are properly compensated for the work.

¹ www.idfpr.com/dpr/WHO/pe.asp

² www.ilga.gov/commission/icar/admincode/068/06801380sections.html

³ Many Illinois Jurisdictions have adopted the *2006 International Building Code* including: Algonquin, Bellwood, Big Rock, Bloomington, Caledonia, Calumet City, Channahon, Columbia, Cortland, Du Page County, Edwardsville, Flossmoor, Fox River Grove, Galena, Granite City, Jersey County, Jerseyville, Kirkland, Kingston, Le Roy, Libertyville, Lincolnshire, Litchfield, Lynwood, Manhattan, Montgomery, Mt. Carmel, New Lenox, Niles, Normal, Ottawa, Palos Heights, Palos Park, Peoria, Peoria County, Round Lake, Sangamon County, South Holland, Sterling, and Tinley Park.



Prepared with assistance from SBCA - Illinois, a local chapter of SBCA.

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SBCA • 6300 Enterprise Lane • Madison, WI 53719
608/274-4849 • 608/274-3329 (fax) • www.sbcindustry.com

To require that they be sealed is contrary to Section 14 and 15 of the Professional Engineering Practice Act of 1989 (225 IL CS 325) as well as violating Section 24 (a-1)(14)(*see Appendix F*). This requirement would also be contrary to Title 68 Chapter VII of the General Assembly's Illinois Administrative Code violating Sections 1380.295 and 1380.300(a)(2) (*see Appendix G*), which state in part:

225 ILCS 325/14. Seal. ...The use of a professional engineer's seal on technical submissions constitutes a representation by the professional engineer that the work has been prepared by or under the personal supervision of the professional engineer or developed in conjunction with the use of accepted engineering standards. ...It is unlawful to affix one's seal to technical submissions if it masks the true identity of the person who actually exercised direction, control and supervision of the preparation of such work. ...

225 ILCS 325/15. Technical submissions. All technical submissions prepared by or under the personal supervision of a professional engineer shall bear that professional engineer's seal, signature, and license expiration date. ...

225 ILCS 325/24. Rules of professional conduct; disciplinary or administrative action. ...(a-1) The Department may, singularly or in combination, refuse to issue, restore, or renew a license or registration, revoke or suspend a license or registration, or place on probation, reprimand, or impose a civil penalty not to exceed \$10,000 upon any person, corporation, partnership, or professional design firm licensed or registered under this Act for any one or combination of the following: ...(14) Signing, affixing the professional engineer's seal or permitting the professional engineer's seal to be affixed to any technical submissions not prepared as required by Section 14 or completely reviewed by the professional engineer or under the professional engineer's direct supervision.

Section 1380.295. Seal Requirements. ...A professional engineer shall seal all documents prepared by or under the direct supervision and control of the professional engineer.

Section 1380.300. Standards of Professional Conduct. ...a) Professional Responsibility. ...2) Licensees shall approve and seal only those designs prepared by them or under their direct supervision...

Appendix A

Background:

The TPD is not to be viewed as an engineering document except as stated below; rather it is provided to assist the installer in properly locating the trusses within the structure.

All the necessary truss engineering and analysis is found on the Truss Design Drawings (TDD). If a TPD is provided, it is recommended that the project's Building Designer or Registered Design Professional (RDP) review and approve the TPD to ensure that the intended load paths have not been altered.

ANSI/TPI 1 Chapter 2 (*see Appendix D*), as adopted by the *2006 International Building Code (IBC)* by reference, defines Building Designer as follows:

ANSI/TPI 1-2002 Section 2.3.4 *Building Designer*: The Owner of the Building or the individual or organization (including either an Architect or Engineer or the Contractor) that contracts with the Owner for the design of the Building Structural System and/or who produces the Structural Design Documents.

The *IBC* defines RDP as follows:

REGISTERED DESIGN PROFESSIONAL. An individual who is registered or licensed to practice their respective design profession as defined by the statutory requirements of the professional registration laws of the state or jurisdiction in which the project is to be constructed.

In addition, Chapter 225 of the Illinois Compiled Statutes (ILCS) contains the Professional Engineering Practice Act of 1989 (225 ILCS 325) and defines Design Professional in Section 4 as:

225 ILCS 325/4. Definitions. As used in this Act:

(d) "Design professional" means an architect, structural engineer or professional engineer practicing in conformance with the Illinois Architecture Practice Act of 1989, the Structural Engineering Practice Act of 1989 or the Professional Engineering Practice Act of 1989.

If a Truss Designer were to seal a TPD, it has been suggested that they could inappropriately be held responsible for ensuring the proper flow of loads through the truss to the bearing and support structure below the truss and into the foundation.

Truss Designers would only undertake Building Designer responsibilities under a special set of circumstances, including that they are professionally capable of taking on such responsibility and that they are properly compensated for the work.

Analysis:

Commercial Construction Documents

In most jurisdictions, the Building Designer of a non-residential structure must be a RDP, as defined above; pursuant to the *IBC* Section 106.1 (*see Appendix C*):

IBC 106.1 Submittal documents. ...The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. ...

The construction documents should in turn clearly define the scope of the work proposed by the Building Designer or RDP:

IBC 106.1.1 Information on construction documents. ...Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations...

In preparing the construction documents, the RDP needs to provide the Truss Designer with the information necessary to properly design the trusses for the building. According to *ANSI/TPI 1-2002*

Chapter 2 (*see Appendix D*), which is adopted by reference in 2006 IBC [*see Appendix C (102.4), (2303.4), and (Chapter 35 “Reference Standards”)*], the following information should be provided:

ANSI/TPI 1-2002 Chapter 2

- 2.5.2 The Building Designer...shall provide the following:
 - 2.5.2.1 All Structural Element and Truss orientations and locations;
 - 2.5.2.2 Information to fully determine all Truss profiles;
 - 2.5.2.3 All Structural Element and Truss bearing conditions;
 - 2.5.2.4 The location, direction, and magnitude of all dead and live loads applicable to each Structural Element and Truss...
 - 2.5.2.5 All Structural Element and Truss anchorage designs required to resist uplift, gravity, and lateral loads;
 - 2.5.2.6 Allowable vertical and horizontal deflection criteria and any specific criteria...
 - 2.5.2.7 Proper transfer of design loads affecting the Structural Elements and Trusses;
 - 2.5.2.8 Adequate connections between Trusses and between Structural Elements...but not Truss to Truss girder connections...
 - 2.5.2.9 Permanent bracing design for the Building...and permanent bracing for all Structural Elements and Trusses...
- 2.5.3 The Building Designer shall be responsible for the adequacy of the design of the Building Structural System [and]...shall evaluate the effect of the Trusses and the Structural Elements supplied, on the Building Structural System.

Truss Design and Preparation of Truss Design Drawings

Assuming the requisite information is provided within the construction documents issued by the RDP or Building Designer, the Truss Designer’s sole responsibility is to properly design the trusses according to this information. Once designed, a truss is then depicted on a TDD. The Truss Designer is therefore specifically responsible for the single truss design depicted on each TDD.

Who Typically Prepares Truss Placement Diagrams?

Assuming the requisite information is provided in the construction documents, TPD are prepared by component manufacturer personnel who are not typically Truss Designers. The individuals preparing TPD are trained individuals who work as truss technicians, truss take-off specialists or truss salespeople. As TPD are typically prepared outside the Truss Designer’s scope of work, they may not be reviewed or even seen by the Truss Designer. TPD are generally not prepared within the typical duties of the Truss Designer and are therefore not prepared under the Truss Designer’s direct supervision.

Why are Truss Placement Diagrams Prepared?

TPD are intended to assist customers, erectors and code enforcement officials in positioning or locating the trusses and related structural components supplied by the component manufacturer. Their function is to serve as detailed installation instructions. They indicate the component manufacturer’s assumed location for each truss or related component that has been designed and manufactured.

For example, a truss or related structural building component is no different than a window that is manufactured and in turn installed within a building. A window may be a highly engineered component of a house with specific installation specifications and instructions. However, there is no requirement to provide an engineer’s seal on the installation instructions for windows.

The *Manual for Code Enforcement Officials and Design Professionals* published by the State of Illinois Department of Professional Regulation provides a definition for “shop drawings”. Similar to a shop drawing, a TPD is intended as a contractor detail and according to the *Manual for Code Enforcement Officials and Design Professionals* does not required to be sealed and signed unless otherwise required by the technical submissions (*see Appendix E*).

To Require Truss Placement Diagrams to be Sealed Would Violate Illinois Law.

Because TPD are generally neither created by nor created under the immediate personal supervision of a licensed design professional, they cannot and should not be sealed. To require that they be sealed is contrary to Section 14 and 15 of the Professional Engineering Practice Act of 1989 (225 IL CS 325) as well as violating Section 24 (a-1)(14)(see Appendix F). This requirement would also be contrary to Title 68 Chapter VII of the General Assembly's Illinois Administrative Code violating Sections 1380.295 and 1380.300(a)(2) (see Appendix G), which state in part:

225 ILCS 325/14. Seal. ...The use of a professional engineer's seal on technical submissions constitutes a representation by the professional engineer that the work has been prepared by or under the personal supervision of the professional engineer or developed in conjunction with the use of accepted engineering standards. ...It is unlawful to affix one's seal to technical submissions if it masks the true identity of the person who actually exercised direction, control and supervision of the preparation of such work. ...

225 ILCS 325/15. Technical submissions. All technical submissions prepared by or under the personal supervision of a professional engineer shall bear that professional engineer's seal, signature, and license expiration date. ...

225 ILCS 325/24. Rules of professional conduct; disciplinary or administrative action. ...(a-1) The Department may, singularly or in combination, refuse to issue, restore, or renew a license or registration, revoke or suspend a license or registration, or place on probation, reprimand, or impose a civil penalty not to exceed \$10,000 upon any person, corporation, partnership, or professional design firm licensed or registered under this Act for any one or combination of the following: ...(14) Signing, affixing the professional engineer's seal or permitting the professional engineer's seal to be affixed to any technical submissions not prepared as required by Section 14 or completely reviewed by the professional engineer or under the professional engineer's direct supervision.

Section 1380.295. Seal Requirements. ...A professional engineer shall seal all documents prepared by or under the direct supervision and control of the professional engineer.

Section 1380.300. Standards of Professional Conduct. ...a) Professional Responsibility. ...2) Licensees shall approve and seal only those designs prepared by them or under their direct supervision...

Going well beyond the TPD, Illinois law recognizes that it would be perfectly appropriate for a Truss Manufacturer employee to design the trusses without the involvement of an engineer. The Professional Engineering Practice Act of 1989 (225 ILCS 325) sets forth a manufacturer's exemption for engineering in Section 3(see Appendix F):

225 ILCS 325/3. Application of the Act; Exemptions.

(b) Nothing in this Act shall prevent:...(4) Services performed by employees of a business organization engaged in utility, industrial or manufacturing operations, or by employees of laboratory research affiliates of such business organization which are rendered in connection with the fabrication or production, sale, and installation of products, systems, or nonengineering services of the business organization or its affiliates.

The International Code Committee (ICC) Has Recently Codified That Truss Placement Diagrams Should Not Be Sealed

The 2003 edition of the *IBC* did not clearly define a TPD. As such, some incorrectly inferred that they were part of the "Truss Design Drawings". To clear up any confusion on this issue, Section 2303 of the 2006 *IBC* has been revised to include the following regarding "Truss Placement Diagram":

2006 IBC Section 2303.4.1.3 Truss placement diagram. The truss manufacturer shall provide a truss placement diagram that identifies the proposed location for each individually designated truss and references the corresponding truss design drawing. The truss placement diagram shall be provided as part of the truss submittal package, and with the shipment of trusses delivered to the job site. Truss placement diagrams shall not be required to bear the seal or signature of the truss designer.

Exception: When the truss placement diagram is prepared under the direct supervision of a registered design professional, it is required to be signed and sealed.

Appendix B

Key Definitions:

BUILDING DESIGNER:

Owner of the Building or the person that contracts with the Owner for the design of the Framing Structural System and/or who is responsible for the preparation of the Construction Documents. When mandated by the Legal Requirements, the Building Designer shall be a Registered Design Professional.⁴

CONSTRUCTION DOCUMENTS:

Written, graphic and pictorial documents prepared or assembled for describing the design (including the Framing Structural System), location and physical characteristics of the elements of a Building necessary to obtain a Building Permit and construct a Building.

REGISTERED DESIGN PROFESSIONAL (RDP):

Architect or engineer, who is licensed to practice their respective design profession as defined by the Legal Requirements of the Jurisdiction in which the Building is to be constructed.

TRUSS DESIGN DRAWING (TDD):

Written, graphic and pictorial depiction of an individual Truss that includes the design information required per *2006 International Building Code* Section 2303.4.1.2.

TRUSS DESIGN ENGINEER:

Person who is licensed to practice engineering as defined by the Legal Requirements of the Jurisdiction in which the Building is to be constructed and who supervises the preparation of the Truss Design Drawings.⁵

TRUSS PLACEMENT DIAGRAM (TPD):

Illustration identifying the assumed location of each Truss.

⁴ Adapted from *2006 IBC* Section 106.1

⁵ Adapted from *2006 IBC* Section 2303.4

Appendix C

The language in RED signifies sections of the code or law that have been used in the foregoing document to make it easier for the reader to see the language in context.

2006 International Building Code Chapter 1 ADMINISTRATION SECTION 102: APPLICABILITY

102.4 Referenced codes and standards. The codes and standards referenced in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

SECTION 106: CONSTRUCTION DOCUMENTS

106.1 Submittal documents. Construction documents, statements of special inspection, and other data shall be submitted in one or more sets with each application for a permit. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the building official is authorized to require additional construction documents to be prepared by a registered design professional.

IBC 106.1.1 Information on construction documents. Construction documents shall be dimensioned and drawn upon suitable material. Electronic media documents are permitted to be submitted when approved by the building official. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the building official.

Chapter 23 WOOD SECTION 2303: MINIMUM STANDARDS AND QUALITY

2303.4 Trusses.

2303.4.1 Design. Wood trusses shall be designed in accordance with the provisions of this code and accepted engineering practice. Members are permitted to be joined by nails, glue, bolts, timber connectors, metal connector plates or other approved framing devices.

2303.4.1.1 Truss designer. The individual or organization responsible for the design of trusses.

2303.4.1.2 Truss design drawings. The written, graphic and pictorial depiction of each individual truss shall be provided to the building official and approved prior to installation. Truss design drawings shall also be provided with the shipment of trusses delivered to the job site. Truss design drawings shall include, at a minimum, the information specified below:

1. Slope or depth, span and spacing;
2. Location of joints;
3. Required bearing widths;
4. Design loads as applicable;
5. Top chord live load (including snow loads);
6. Top chord dead load;
7. Bottom chord live load;
8. Bottom chord dead load;
9. Concentrated loads and their points of application as applicable;
10. Controlling wind and earthquake loads as applicable;
12. Each reaction force and direction;

13. Metal connector plate type, size, thickness or gage, and the dimensioned location of each metal connector plate except where symmetrically located relative to the joint interface;
14. Lumber size, species and grade for each member;
15. Connection requirements for:
 - 15.1. Truss to truss;
 - 15.2. Truss ply to ply; and
 - 15.3. Field splices.
16. Calculated deflection ratio and maximum vertical and horizontal deflection for live and total load as applicable;
17. Maximum axial tensile and compression forces in the truss members; and
18. Required permanent individual truss member bracing and method per Section 2303.4.1.5, unless a specific truss member permanent bracing plan for the roof or floor structural system is provided by a registered design professional.

Where required by one of the following, each individual truss design drawing shall bear the seal and signature of the truss designer:

- 1. Registered design professional; or**
- 2. Building official; or**
- 3. Statutes of the jurisdiction in which the project is to be constructed.**

Exceptions:

1. When a cover sheet/truss index sheet combined into a single cover sheet is attached to the set of truss design drawings for the project, the single sheet/truss index sheet is the only document that needs to be signed and sealed within the truss submittal package.
2. When a cover sheet and a truss index sheet are separately provided and attached to the set of truss design drawings for the project, both the cover sheet and the truss index sheet are the only documents that need to be signed and sealed within the truss submittal package.

2303.4.1.3 Truss placement diagram. The truss manufacturer shall provide a truss placement diagram that identifies the proposed location for each individually designated truss and references the corresponding truss design drawing. The truss placement diagram shall be provided as part of the truss submittal package, and with the shipment of trusses delivered to the job site. Truss placement diagrams shall not be required to bear the seal or signature of the truss designer.

Exception: When the truss placement diagram is prepared under the direct supervision of a registered sealed.

2303.4.1.4 Truss submittal package. The truss submittal package shall consist of each individual truss design drawing, the truss placement diagram for the project, the truss member permanent bracing specification and, as applicable, the cover sheet/truss index sheet.

2303.4.1.5 Truss member permanent bracing. Where permanent bracing of truss members is required on the truss design drawings, it shall be accomplished by one of the following methods:

1. The trusses shall be designed so that the buckling of any individual truss member can be resisted internally by the structure (e.g. buckling member T-bracing, L-bracing, etc.) of the individual truss. The truss individual member buckling reinforcement shall be installed as shown on the truss design drawing or on supplemental truss member buckling reinforcement diagrams provided by the truss designer.
2. Permanent bracing shall be installed using standard industry bracing details that conform with generally accepted engineering practice. Individual truss member continuous lateral bracing location(s) shall be shown on the truss design drawing.

2303.4.1.6 Anchorage. All transfer of loads and anchorage of each truss to the supporting structure is the responsibility of the registered design professional.

2303.4.1.7 Alterations to trusses. Truss members and components shall not be cut, notched, drilled, spliced or otherwise altered in any way without written concurrence and approval of a registered design professional. Alterations resulting in the addition of loads to any member (e.g., HVAC equipment, water heater) shall not be permitted without verification that the truss is capable of supporting such additional loading.

2303.4.2 Metal-plate-connected trusses. In addition to Sections 2303.4.1 through 2303.4.1.7, the design, manufacture and quality assurance of metal-plate-connected wood trusses shall be in accordance with TPI 1. Manufactured trusses shall comply with Section 1704.6 as applicable.

International Building Code
Chapter 35 REFERENCED STANDARDS



Truss Plate Institute
583 D'Onofrio Drive, Suite 200
Madison, WI 53719

Standard reference number	Title	Referenced in code section number
TPI 1—2002	National Design Standards for Metal-plate-connected Wood Truss Construction	2303.4.2, 2306.1

Appendix D

ANSI/TPI 1-2002

National Design Standard for Metal Plate Connected Wood Truss Construction

Chapter 2 – Standard Responsibilities in the Design Process Involving Metal Plate Connected Wood Trusses

2.5 BUILDING STRUCTURAL SYSTEM DESIGN DOCUMENTS

- 2.5.1 The Building Designer, through the Structural Design Documents shall provide that the Structural Elements and Trusses shall not be subjected to adverse influences including, but not limited to moisture, temperature, and corrosive chemicals and gases. This provision shall specifically include notice for the Truss Designer of environments expected to result in wood moisture content exceeding 19 percent, and temperatures and/or corrosion potential that are unusually high relative to typical wood buildings.
- 2.5.2 The Building Designer, through the Structural Design Documents shall provide information sufficiently accurate and reliable to be used for facilitating the supply of the Structural Elements and for developing the design of the Trusses for the Building, and shall provide the following:
- 2.5.2.1 All Structural Element and Truss orientations and locations;
- 2.5.2.2 Information to fully determine all Truss profiles;
- 2.5.2.3 All Structural Element and Truss bearing conditions;
- 2.5.2.4 The location, direction, and magnitude of all dead and live loads applicable to each Structural Element and Truss including, but not limited to, loads attributable to: roof, floor, partition including any directions other than given in ANSI/TPI 1-2002, mechanical, fire sprinkler, attic, storage, rain loads and ponding, design wind speed and exposure category, snow, snow drift, unbalanced snow load, and seismic forces;
- 2.5.2.5 All Structural Element and Truss anchorage designs required to resist uplift, gravity, and lateral loads;
- 2.5.2.6 Allowable vertical and horizontal deflection criteria and any specific criteria per ANSI/TPI 1-2002;
- 2.5.2.7 Proper transfer of design loads affecting the Structural Elements and Trusses;
- 2.5.2.8 Adequate connections between Trusses and between Structural Elements, including Truss to Structural Element connections, but not Truss to Truss girder connections except such connections that are excluded from the scope of the Truss Designer's responsibilities.
- 2.5.2.9 Permanent bracing design for the Building, including bracing to resist wind, seismic, or other lateral forces, and permanent bracing for all Structural Elements and Trusses. The permanent bracing design shall incorporate the continuous lateral chord and web member bracing that is designated on the individual Truss Design Drawings into the overall bracing for the entire Building Structural System.
- 2.5.3 The Building Designer shall be responsible for the adequacy of the design of the Building Structural System or the adequacy of the Structural Design Documents. The Building Designer shall evaluate the effect of the Trusses and the Structural Elements supplied, on the Building Structural System.

Appendix E

Manual for Code Enforcement Officials and Design Professionals State of Illinois Department of Professional Regulation

Purpose: This manual is not law itself, and is not intended to expand or change the meaning or intent of any state laws, but is intended to provide guidance as to the Department's interpretation and enforcement of the existing laws.

(page 25 of Manual)

FREQUENTLY ASKED QUESTIONS AND ANSWERS

6. Do "shop drawings" have to be sealed and signed?

Shop drawings, as defined under definitions, are intended as contractor or fabricator details and are not required to be sealed and signed unless otherwise required by the technical submissions. The Design Professional may specify that certain shop drawings or other contractor compliance submittals be submitted to the Design Professional for review; in such case, the permit holder must assure the Design Professional's continued involvement in the project as necessary for such reviews.

(page 10 of Manual)

DEFINITIONS

Shop Drawings: Drawings and descriptions of components or systems supplied by contractors or manufacturers for inclusion in the project or building which generally do not meet the requirements for technical submissions are considered shop drawings. Shop drawings should not be accepted by the Code Enforcement Official in lieu of technical submissions, but only as support documents to supplement the technical submissions.

Appendix F

Illinois Compiled Statutes (ILCS)
CHAPTER 225: PROFESSIONS AND OCCUPATIONS
DESIGN AND CONSTRUCTION
(225 ILCS 325/) Professional Engineering Practice Act of 1989.

Section 3. Application of the Act; Exemptions.

(a) Nothing in this Act shall be construed to prevent the practice of structural engineering as defined in the Structural Engineering Practice Act of 1989 or the practice of architecture as defined in the Illinois Architecture Practice Act of 1989 or the regular and customary practice of construction contracting and construction management as performed by construction contractors.

(b) Nothing in this Act shall prevent:

(1) Employees, including project representatives, of professional engineers lawfully practicing as sole owners, partnerships or corporations under this Act, from acting under the direct supervision of their employers.

(2) The employment of owner's representatives by the owner during the constructing, adding to, or altering of a project, or any parts thereof, provided that such owner's representative shall not have the authority to deviate from the technical submissions without the prior approval of the professional engineer for the project.

(3) The practice of officers and employees of the Government of the United States while engaged within this State in the practice of the profession of engineering for the Government.

(4) Services performed by employees of a business organization engaged in utility, industrial or manufacturing operations, or by employees of laboratory research affiliates of such business organization which are rendered in connection with the fabrication or production, sale, and installation of products, systems, or nonengineering services of the business organization or its affiliates.

(5) Inspection, maintenance and service work done by employees of the State of Illinois, any political subdivision thereof or any municipality.

(6) The activities performed by those ordinarily designated as chief engineer of plant operation, chief operating engineer, locomotive, stationary, marine, power plant or hoisting and portable engineers, electrical maintenance or service engineers, personnel employed in connection with construction, operation or maintenance of street lighting, traffic control signals, police and fire alarm systems, waterworks, steam, electric, and sewage treatment and disposal plants, or the services ordinarily performed by any worker regularly employed as a locomotive, stationary, marine, power plant, or hoisting and portable engineer or electrical maintenance or service engineer for any corporation, contractor or employer.

(7) The activities performed by a person ordinarily designated as a supervising engineer or supervising electrical maintenance or service engineer who supervises the operation of, or who operates, machinery or equipment, or who supervises construction or the installation of equipment within a plant which is under such person's immediate supervision.

(8) The services, for private use, of contractors or owners in the construction of engineering works or the installation of equipment.

(c) No officer, board, commission, or other public entity charged with the enforcement of codes and ordinances involving a professional engineering project shall accept for filing or approval any technical submissions that do not bear the seal and signature of a professional engineer licensed under this Act.

(d) Nothing contained in this Section imposes upon a person licensed under this Act the responsibility for the performance of any of the foregoing functions unless such person specifically contracts to provide it.

Section 14. Seal. Every professional engineer shall have a seal or stamp, the print of which shall be reproducible and contain the name of the professional engineer, the professional engineer's license number, and the words "Licensed Professional Engineer of Illinois". Any reproducible stamp heretofore authorized under the laws of this state for use by a professional engineer, including those with the words "Registered Professional Engineer of Illinois", shall serve the same purpose as the seal provided for by this Act. When technical submissions are prepared utilizing a computer or other electronic means, the seal may be generated by the computer. Signatures generated by computer shall not be permitted.

The use of a professional engineer's seal on technical submissions constitutes a representation by the professional engineer that the work has been prepared by or under the personal supervision of the professional engineer or developed in conjunction with the use of accepted engineering standards. The use of the seal further represents that the work has been prepared and administered in accordance with the standards of reasonable professional skill and diligence.

It is unlawful to affix one's seal to technical submissions if it masks the true identity of the person who actually exercised direction, control and supervision of the preparation of such work. A professional engineer who seals and signs technical submissions is not responsible for damage caused by subsequent changes to or uses of those technical submissions, where the subsequent changes or uses, including changes or uses made by State or local governmental agencies, are not authorized or approved by the professional engineer who originally sealed and signed the technical submissions.

Section 15. Technical submissions. All technical submissions prepared by or under the personal supervision of a professional engineer shall bear that professional engineer's seal, signature, and license expiration date. The licensee's written signature and date of signing, along with the date of license expiration, shall be placed adjacent to the seal. Computer generated signatures are not permitted.

The professional engineer who has contract responsibility shall seal a cover sheet of the technical submissions, and those individual portions of the technical submissions for which the professional engineer is legally and professionally responsible. The professional engineer practicing as the support design professional shall seal those individual portions of technical submissions for which the professional engineer is legally and professionally responsible.

All technical submissions intended for use in construction in the State of Illinois shall be prepared and administered in accordance with standards of reasonable professional skill and diligence. Care shall be taken to reflect the requirements of State statutes and, where applicable, county and municipal ordinances in such documents. In recognition that professional engineers are licensed for the protection of the public health, safety and welfare, documents shall be of such quality and scope, and be so administered as to conform to professional standards.

Section 24. Rules of professional conduct; disciplinary or administrative action.

(a) The Department shall adopt rules setting standards of professional conduct and establish appropriate penalty for the breach of such rules.

(a-1) The Department may, singularly or in combination, refuse to issue, restore, or renew a license or registration, revoke or suspend a license or registration, or place on probation, reprimand, or impose a civil penalty not to exceed \$10,000 upon any person, corporation, partnership, or professional design firm licensed or registered under this Act for any one or combination of the following:

- (1) Material misstatement in furnishing information to the Department.
- (2) Failure to comply with any provisions of this Act or any of its rules.

(3) Conviction of any crime under the laws of the United States, or any state or territory thereof, which is a felony, whether related to practice or not, or conviction of any crime, whether a felony, misdemeanor, or otherwise, an essential element of which is dishonesty or which is directly related to the practice of engineering.

(4) Making any misrepresentation for the purpose of obtaining licensure, or in applying for restoration or renewal; or practice of any fraud or deceit in taking any examination to qualify for licensure under this Act.

(5) Purposefully making false statements or signing false statements, certificates, or affidavits to induce payment.

(6) Negligence, incompetence or misconduct in the practice of professional engineering as a licensed professional engineer or in working as an engineer intern.

(7) Aiding or assisting another person in violating any provision of this Act or its rules.

(8) Failing to provide information in response to a written request made by the Department within 30 days after receipt of such written request.

(9) Engaging in dishonorable, unethical or unprofessional conduct of a character likely to deceive, defraud or harm the public.

(10) Habitual intoxication or addiction to the use of drugs.

(11) Discipline by the United States Government, another state, District of Columbia, territory, foreign nation or government agency, if at least one of the grounds for the discipline is the same or substantially equivalent to those set forth in this Act.

(12) Directly or indirectly giving to or receiving from any person, firm, corporation, partnership or association any fee, commission, rebate or other form of compensation for any professional services not actually or personally rendered.

(13) A finding by the Board that an applicant or registrant has failed to pay a fine imposed by the Department, a registrant whose license has been placed on probationary status has violated the terms of probation, or a registrant has practiced on an expired, inactive, suspended, or revoked license.

(14) Signing, affixing the professional engineer's seal or permitting the professional engineer's seal to be affixed to any technical submissions not prepared as required by Section 14 or completely reviewed by the professional engineer or under the professional engineer's direct supervision.

(15) Physical illness, including but not limited to deterioration through the aging process or loss of motor skill, which results in the inability to practice the profession with reasonable judgment, skill or safety.

(16) The making of a statement pursuant to the Environmental Barriers Act that a plan for construction or alteration of a public facility or for construction of a multi-story housing unit is in compliance with the Environmental Barriers Act when such plan is not in compliance.

(17) Failing to file a return, or to pay the tax, penalty or interest shown in a filed return, or to pay any final assessment of tax, penalty or interest as required by a tax Act administered by the Illinois Department of Revenue, until such time as the requirements of any such tax Act are satisfied.

(a-5) In enforcing this Section, the Board upon a showing of a possible violation may compel a person licensed to practice under this Act, or who has applied for licensure or certification pursuant to this Act, to submit to a mental or physical examination, or both, as required by and at the expense of the Department. The examining physicians shall

be those specifically designated by the Board. The Board or the Department may order the examining physician to present testimony concerning this mental or physical examination of the licensee or applicant. No information shall be excluded by reason of any common law or statutory privilege relating to communications between the licensee or applicant and the examining physician. The person to be examined may have, at his or her own expense, another physician of his or her choice present during all aspects of the examination. Failure of any person to submit to a mental or physical examination, when directed, shall be grounds for suspension of a license until the person submits to the examination if the Board finds, after notice and hearing, that the refusal to submit to the examination was without reasonable cause.

If the Board finds a person unable to practice because of the reasons set forth in this Section, the Board may require that person to submit to care, counseling, or treatment by physicians approved or designated by the Board as a condition, term, or restriction for continued, reinstated, or renewed licensure to practice; or, in lieu of care, counseling, or treatment, the Board may recommend to the Department to file a complaint to immediately suspend, revoke, or otherwise discipline the license of the person. Any person whose license was granted, continued, reinstated, renewed, disciplined, or supervised subject to such terms, conditions, or restrictions and who fails to comply with such terms, conditions, or restrictions shall be referred to the Director for a determination as to whether the person shall have his or her license suspended immediately, pending a hearing by the Board.

(b) The determination by a circuit court that a registrant is subject to involuntary admission or judicial admission as provided in the Mental Health and Developmental Disabilities Code, as now or hereafter amended, operates as an automatic suspension. Such suspension will end only upon a finding by a court that the patient is no longer subject to involuntary admission or judicial admission, the issuance of an order so finding and discharging the patient, and the recommendation of the Board to the Director that the registrant be allowed to resume practice.

Appendix G

The General Assembly's Illinois Administrative Code
TITLE 68: PROFESSIONS AND OCCUPATIONS
CHAPTER VII: DEPARTMENT OF PROFESSIONAL REGULATION
PART 1380 THE PROFESSIONAL ENGINEERING PRACTICE ACT OF 1989

Section 1380.295. Seal Requirements.

Every licensed professional engineer shall have a reproducible seal or facsimile, which may be computer generated, the impression of which shall contain the name, the license number of the professional engineer, and the words "Licensed Professional Engineer of Illinois". A professional engineer shall seal all documents prepared by or under the direct supervision and control of the professional engineer. Any document that bears the name of a professional design firm, rather than bearing the name of the individual licensed professional engineer responsible for the document, shall be deemed an invalid seal. The individual licensee's written signature and date of signing, along with the date of license expiration, shall be placed adjacent to the seal. Computer generated signatures will not be permitted.

Section 1380.300. Standards of Professional Conduct.

In order to safeguard life, health and property, to promote the public welfare, and to establish and maintain a high standard of integrity in the practice of professional engineering, the following Standards of Professional Conduct shall be binding on every person holding a license as a professional engineer and on all corporations authorized to practice professional engineering in this State.

- a) Professional Responsibility. Licensees shall be responsive to the needs of clients and employers, but shall hold paramount life, health, property and the welfare of the public.
 - 1) Licensees shall at all times recognize that their primary obligation is to protect the life, health, property and welfare of the public. If their professional judgment is overruled under circumstances where the life, health, property or welfare of the public is endangered, they shall notify their client or employer and such authority(ies) as may be appropriate (which may include the Department or other law enforcement agencies).
 - 2) Licensees shall approve and seal only those designs prepared by them or under their direct supervision and found to be safe for the public health, property and welfare. In circumstances where a licensee in responsible charge of the work is unavailable to complete the work in instances such as death, incapacity, termination of employment or relocation, a successor licensee may take responsible charge by performing all professional services, including design criteria, recalculations, code research and compliance, and any other necessary and appropriate changes, in order to complete the project. The successor licensee shall have control of and responsibility for the work product and the signed and sealed originals of all documents.
 - 3) Licensees shall not reveal confidential facts, data or information obtained in a professional capacity without the prior consent of the client, except as authorized or required by law.
 - 4) Licensees shall not permit the use of their name or firm's name, nor shall they be associated in business ventures with persons or firms which they have reason to believe to be engaging in fraudulent or dishonest business practices.
 - 5) Licensees having knowledge of any alleged violation of any of this Part shall cooperate with the Department, furnishing such information or assistance as may be required to conduct an investigation resulting from a complaint.

b) Competence. Licensees shall perform services only in areas of their competence.

1) Licensees shall undertake assignments only when qualified by education and experience in the specific technical field of engineering involved.

2) Licensees shall not affix their signature or seal to any plans or documents dealing with subject matter in which they lack competence, nor to any plan or document not prepared by them or under their direct supervisory control.

3) Licensees may accept an assignment outside of their fields of competence to the extent that their services are restricted to those phases of the project in which they are qualified, and to the extent that all other phases of the project will be performed by registrants qualified in those phases.

c) Professional Integrity. Licensees shall issue professional statements in an objective and truthful manner.

1) Licensees shall be completely objective and truthful in all professional reports, statements or testimony.

2) Licensees may express publicly a professional opinion on technical subjects only when it is founded upon adequate knowledge of the facts and a background of competence in the subject matter.

3) A licensee, when acting as a representative of an individual or organization, shall issue no statements, criticisms, or arguments on engineering matters without first prefacing such comments by explicitly identifying on whose behalf the comments will be made. When the licensee is acting as a consultant, expressing a professional opinion, such opinion shall be prefaced by complete personal identification as a consultant, without necessarily naming the client. Such licensee shall reveal any personal interest in the matter.

d) Conflict of Interest. Licensees shall act in professional matters for each employer or client as faithful agents or trustees and shall avoid conflicts of interest.

1) Licensees shall conscientiously avoid conflicts of interest with their employers or clients. Whenever conflicts of interest appear unavoidable; however, licensees shall disclose promptly to their employers or clients any business association, interest or circumstance which may influence judgment or quality of services.

2) Licensees shall not accept compensation, financial or other, from more than one party for services on a project or for services pertaining to a project unless the licensee makes full disclosure and receives consent of all interested parties.

3) Licensees shall not solicit or accept financial or other valuable consideration from any material supplier or equipment supplier for specifying the supplier's products except when the licensee is a known employee or agent of the supplier.

4) Licensees shall not solicit or accept gratuities, directly or indirectly, from any contractor, architect, engineer or other party dealing with the licensee's employer or client in connection with work for which the licensee is responsible.

5) Licensees in public service as members, advisors or employees of a governmental body or department shall not participate in decisions with respect to professional services solicited or provided by them or their organization.

6) Licensees shall not solicit or accept a professional contract from a governmental body on which a principal or officer of their firm or organization serves as a member.

e) Employment Solicitation. Licensees shall avoid improper solicitation of professional employment.

1) Licensees shall not offer to pay, either directly or indirectly, any commission, political contribution, gift or other consideration in order to secure professional assignments.

2) Licensees shall not falsify or permit misrepresentation of their, or their associates', academic or professional qualifications. They shall not misrepresent or exaggerate their degree of responsibility in or for the subject matter of prior assignments. Brochures or other presentations incident to the solicitation of employment shall not misrepresent pertinent facts concerning employers, employees, associates, joint ventures or past accomplishments with the intent or purpose of enhancing their qualifications and/or their work.



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