

TECHNICAL NOTES



Position Statement on Sealed Truss Placement Diagrams for Residential Projects in the State of New York

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Issue

Certain jurisdictions in New York are requesting engineering seals on Truss Placement Diagrams (TPD) (also known as a truss placement plan, truss layout, framing plan or framing layout). 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 residential projects.

This information is based on the *New York's Education Law*¹, *New York's Rules of the Board of Regents*², and the *2006 Residential Code of New York State*³.

Key Definitions:

TRUSS DESIGN DRAWING (TDD):

The graphic depiction of an individual truss, which describes the design and physical characteristics of the truss.

TRUSS PLACEMENT DIAGRAM (TPD):

The illustration supplied by the Truss Manufacturer identifying the location assumed for each truss, which references each individually designated 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.

CONSTRUCTION DOCUMENTS:

Written, graphic and pictorial documents prepared or assembled for describing the design, location and physical characteristics of the elements of a project necessary for obtaining a building permit. Construction drawings shall be drawn to an appropriate scale.

REGISTERED DESIGN PROFESSIONAL (RDP):

An individual who is a Registered Architect (RA) in accordance with Article 147 of the New York State Education Law or a licensed Professional Engineer (PE) in accordance with Article 145 of the New York State Education Law.⁴

¹ www.op.nysed.gov/article145.htm

² www.op.nysed.gov/part29.htm

³ The 2006 Residential Code of New York State is based on the 2003 International Residential Code.

⁴ Taken from Chapter 2 of the Building Code of New York State.



Prepared with assistance from WTCA – New York Chapter.
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Unique Definitions for Structures that require a RDP:

BUILDING DESIGNER:

The owner of the building contracts with a Registered Design Professional for the design of the building structural system and who is responsible for the Construction Documents.⁵

TRUSS DESIGN ENGINEER:

The individual or organization responsible for the design of trusses. Each individual Truss Design Drawing shall bear the seal and signature of the Truss Design Engineer.⁶

Unique Definitions for Structures that do not require a RDP:

BUILDING DESIGNER:

The owner of the building or the individual or organization that contracts with the owner for the design of the building structural system and/or who produces the Construction Documents.⁷

TRUSS DESIGNER:

The individual or organization responsible for the design of trusses.⁸

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 RDP review and approve the TPD to ensure that the intended load paths have not been altered.

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 Designer 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.

Analysis

Residential Construction Documents

The majority of residential structures are built using the prescriptive code within the *2006 Residential Code of New York State*. Trusses are simply replacements for the prescriptively applied joists and rafters, which are also highly engineered structural elements.

When the Building Designer involved with a residential project is an RDP, it is up to them to evaluate every structural component, (e.g., rafters, joists, I-joists, and trusses) to ensure their structural adequacy and that they are applied so that the structure's protection of life/safety is assured. The placement of trusses is just one of the elements the RDP must consider. Joists, rafters, I-joists, LVL, PSL, and glulam are other equally important structural elements that must be evaluated and integrated properly. The RDP will seal all his/her engineering work. Commonly the RDP delegates the design of the trusses to a Truss

⁵ Adapted from 2003 IBC Section 106.1

⁶ Adapted from 2003 IBC Section 2303.4

⁷ Adapted from 2003 IBC Section 106.1

⁸ Adapted from 2003 IBC Section 2303.4

Design Engineer. The RDP will then review and approve all engineering performed by the Truss Design Engineer.

The *2006 Residential Code of New York State* (see **Appendix A**) provides that the construction documents for a project shall be prepared by a RDP where required by the law of the jurisdiction in which the project is being constructed. In particular, the *2006 Residential Code of New York State* states:

R106.1 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:

R106.1.1 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...

ANSI/TPI 1-2002 Chapter 2 (see **Appendix C**), which is adopted by reference in the *2006 Residential Code of New York State* [see **Appendix A** (R102.4), (R502.11.1), (R802.10.2), and (Part IX, Referenced Standards, Chapter 43)], sets forth particular information that must also be contained in the construction documents so that the trusses can be properly designed for the residential structure. In preparing the construction documents, the Building Designer shall provide the following:

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 individual 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 Design Engineers and many times are the Truss Manufacturer's salespeople or are individuals who work as truss technicians or truss take-off specialists (Truss Designers). All these people are highly trained and skilled in the work they do but are generally non-engineers. Because these TPD are typically prepared outside the Truss Designer Engineer's

scope of work, they may not be reviewed or even seen by the Truss Design Engineer and are therefore not prepared under the Truss Design Engineer's direct supervision.

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

Because TPD are generally neither created by nor created under the immediate personal supervision of a licensed design professional, they cannot be sealed. Requesting a Truss Design Engineer to seal a non-registered person's work is illegal in New York per Article 145 (*Professional Engineering and Land Surveying*) of New York's Education Law Section §7209 (see **Appendix C**) and Part 29 (*Unprofessional Conduct*) of New York's Rules of the Board of Regents Section §29.3 (see **Appendix D**), which state in pertinent part:

Education Law: Article 145 (Professional Engineering and Land Surveying) Section §7209. Special provisions. (1)...All plans, specifications, plats and reports relating to the construction or alteration of buildings or structures prepared by such professional engineer and all plans, specifications, plats and reports prepared by such land surveyor or by a full-time or part-time subordinate under his supervision, shall be stamped with such seal and shall also be signed, on the original with the personal signature of such professional engineer or land surveyor when filed with public officials.

Rules of the Board of Regents: Part 29 (Unprofessional Conduct) Section §29.3 General provisions for design professions. (a) Unprofessional conduct shall also include, in the professions of architecture and landscape architecture, engineering and land surveying: ... **(3)** certifying by affixing the licensee's signature and seal to documents for which the professional services have not been performed by, or thoroughly reviewed by, the licensee...

New York's Education Law Article 145 Section §7208(k) (see **Appendix C**) states that manufacturers are exempt when "the practice of engineering by a manufacturing corporation or by employees of such corporation...in connection with or incidental to goods produced by, or sold by...such corporation or its manufacturing affiliates." Truss Placement Diagrams are prepared solely in the context of manufacturing selling and installing a truss. Hence, they serve purely as an installation guide. Under New York law they are not required to be signed and sealed by a professional engineer.

Why are Truss Placement Diagrams Prepared?

TPDs 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.

From this perspective, 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 International Code Committee (ICC) Has Recently Codified That Truss Placement Diagrams Should Not Be Sealed

The 2000 and 2003 editions of the International Residential Codes did not clearly define a TPD. As such, some incorrectly inferred that they were part of the "Truss Design Drawings" which are defined as follows [R502.11.4 and R802.10.1]:

R502.11.4 Truss design drawings. Truss design drawings, prepared in compliance with Section R502.11.1, shall be provided to the building official and approved prior to installation. ...

R802.10.1 Truss design drawings. Truss design drawings, prepared in conformance with Section R802.10.1, shall be provided to the building official and approved prior to installation. ...

To clear up any confusion on this issue, Section 2303 of the 2006 International Building Code (*see Appendix A*), which is the nationally recognized model building code the *2007 Building Code of New York State* is based upon, has been revised to include the following regarding “Truss Placement Diagram”:

2006 IBC 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.

This change will provide much greater clarity and better communication and appears in the 2006 Edition of the International Building Code. Identical language has been proposed and will be included in subsequent versions of the International Residential Code.

Conclusion

The New York professional engineering law and the *2006 Residential Code of New York State* provide the basis upon which to evaluate the need to provide an engineer’s seal on a Truss Placement Diagram (TPD). Based on the building code regulations and professional engineering law, unless prepared under the direct supervision of a Registered Design Professional, TPDs do not require a professional engineer’s seal.

Appendix A

2006 Residential Code of New York State Chapter 1 ADMINISTRATION

SECTION 102: APPLICABILITY

R102.4 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.

Exception: Where enforcement of a code provision would violate the conditions of the listing of the equipment or appliance, the conditions of the listing and manufacturer's instructions shall apply.

SECTION R106: CONSTRUCTION DOCUMENTS

R106.1 Submittal documents. Construction documents, special inspection and structural observation programs 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.

Exception: The building official is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that reviewing of construction documents is not necessary to obtain compliance with this code.

R106.1.1 Information on construction documents. Construction documents shall be 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 5 FLOORS

R502.11 Wood trusses.

R502.11.1 Design. Wood trusses shall be designed in accordance with approved engineering practice. The design and manufacture of metal plate connected wood trusses shall comply with ANSI/TPI 1. The truss design drawings shall be prepared by a registered professional where required by the statutes of the jurisdiction in which the project is to be constructed in accordance with Section R106.1.

R502.11.4 Truss design drawings. Truss design drawings, prepared in compliance with Section R502.11.1, shall be provided to the building official and approved prior to installation. Truss design drawing shall 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 all joints;
3. Required bearing widths;
4. Design loads as applicable;
 - 4.1 Top chord live load (including snow loads);
 - 4.2 Top chord dead load;
 - 4.3 Bottom chord live load;
 - 4.4 Bottom chord dead load;
 - 4.5 Concentrated loads and their points of application;
 - 4.6 Controlling wind and earthquake loads.

5. Adjustments to lumber and joint connector design values for conditions of use;
 6. Each reaction force and direction;
 7. Joint connector type and description (e.g., size, thickness or gauge); and the dimensioned location of each joint connector except where symmetrically located relative to the joint interface;
 8. Lumber size, species and grade for each member;
 9. Connection requirements for:
 - 9.1 Truss-to-truss girder;
 - 9.2 Truss ply-to-ply;
 - 9.3 Field splices.
 10. Calculated deflection ratio and/or maximum description for live and total load;
 11. Maximum axial compression forces in the truss members to enable the building designer to design the size, connections and anchorage of the permanent continuous lateral bracing. Forces shall be shown on the truss drawing or on supplemental documents; and,
 12. Required permanent truss member bracing location.
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Chapter 8 ROOF-CEILING CONSTRUCTION

R802.10 Wood trusses.

R802.10.1 Truss design drawings. Truss design drawings, prepared in conformance with Section R802.10.1, shall be provided to the building official and approved prior to installation. Truss design drawings shall include, at a minimum, the information specified below. Truss design drawing shall be provided with the shipment of trusses delivered to the job site.

1. Slope or depth, span, and spacing;
2. Location of all joints;
3. Required bearing widths;
4. Design loads as applicable;
 - 4.1 Top chord live load (including snow loads);
 - 4.2 Top chord dead load;
 - 4.3 Bottom chord live load;
 - 4.4 Bottom chord dead load;
 - 4.5 Concentrated loads and their points of application;
 - 4.6 Controlling wind and earthquake loads.
5. Adjustments to lumber and joint connector design values for conditions of use;
6. Each reaction force and direction;
7. Joint connector type and description (e.g., size, thickness or gauge); and the dimensioned location of each joint connector except where symmetrically located relative to the joint interface;
8. Lumber size, species and grade for each member;
9. Connection requirements for:
 - 9.1 Truss-to-truss girder;
 - 9.2 Truss ply-to-ply;
 - 9.3 Field splices.
10. Calculated deflection ratio and/or maximum description for live and total load;
11. Maximum axial compression forces in the truss members to enable the building designer to design the size, connections and anchorage of the permanent continuous lateral bracing. Forces shall be shown on the truss drawing or on supplemental documents; and,
12. Required permanent truss member bracing location.

R802.10.2 Design. Wood trusses shall be designed in accordance with accepted engineering practice. The design and manufacture of metal plate connected wood trusses shall comply with ANSI/TPI 1. The truss design drawings shall be prepared by a registered professional where required by the statutes of the jurisdiction in which the project is to be constructed in accordance with Section R106.1.

Part IX Referenced Standards
Chapter 43

TPI

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 Standard for Metal-plate-connected Wood Truss Construction	R502.11.1, R502.11.2, R802.10.2, R802.10.3, R802.11.1

Appendix B

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 C

**New York State Education Department
Office of the Professions
Education Law**

Section §7208. Exempt persons. This article shall not be construed to affect or prevent the following, provided that no title, sign, card or device shall be used in such manner as to tend to convey the impression that the person rendering such service is a professional engineer or a land surveyor licensed in this state or is practicing engineering or land surveying:

- a. Offering to practice in this state as a professional engineer or land surveyor by any person not a resident of, and having no established place of practice in this state, provided that such person is legally qualified for such practice in his own state or country;
- b. Practice as a professional engineer or land surveyor in this state by any person not a resident, or having no established place of practice in this state, or any person resident in this state but who has arrived in this state within six months, provided, however, such a person shall have filed an application for license as a professional engineer or land surveyor, and is legally qualified for such practice in the state or country in which he resides or has his place of practice or in which he had his previous residence or place of practice, such exemption continuing for only such reasonable time as the board requires to grant or deny the application for license, and a person intending to practice under this subdivision shall so state on the application;
- c. Practice of engineering or land surveying, by an employee of a county or town, in the construction, improvement or maintenance of a county road or town highway, or by an employee of a county, city, town or village, in the construction, improvement or maintenance of any public work wherein the contemplated expenditure for the completed project does not exceed five thousand dollars;
- d. Operation or maintenance of steam, power, or refrigeration plants by legally authorized persons not licensed under this article or persons engaged or employed as an engine man, operator or driver of any engine or of any mechanical, electrical, chemical or other device or machine;
- e. Making of surveys by professional engineers, except that the determination of real property boundaries may be done only by a licensed land surveyor;
- f. Employment or supervision of interns or other persons qualified by education or experience by professional engineers or land surveyors as assistants in the performance of engineering or land surveying, or as consultants or employees in special fields related to but not uniquely engineering or land surveying, provided that the engineers or land surveyors employing or supervising such persons shall not be relieved of any responsibility whatsoever by delegation to such persons, and provided further that such persons who have attained the bachelor's level of studies in accordance with the requirements of section seventy-two hundred six of this title may be employed as junior or assistant engineers or junior or assistant land surveyors, or similar titles, to act under the general direction of a professional engineer or land surveyor, or in work not covered by this article;
- g. Employment of any person as a junior or assistant engineer or junior or assistant land surveyor in the civil service of the state or its political subdivisions in a position the title of which was approved and in use as of July first, nineteen hundred seventy-one, provided such person acts under the general direction of a licensed professional engineer or land surveyor;
- h. Execution by a contractor or by others of work designed by a professional engineer, or land surveyor, or the superintendence of such work as a superintendent, foreman, or inspector;
- i. The practice of architecture by an architect licensed in this state, or the practice of landscape architecture by a landscape architect licensed in this state, provided that no such architect or landscape architect shall use the designation "engineer" or "engineering" unless licensed as a professional engineer in this state;
- j. The practice of engineering or land surveying or having the title "engineer" or "surveyor" solely as an officer or an employee of a corporation engaged in interstate commerce;
- k. **The practice of engineering by a manufacturing corporation or by employees of such corporation, or use of the title "engineer" by such employees, in connection with or incidental to goods produced**

by, or sold by, or nonengineering services rendered by, such corporation or its manufacturing affiliates;

- l. The practice of engineering or land surveying, or using the title "engineer" or "surveyor" exclusively as an officer or employee of a public service corporation by rendering to such corporation such services in connection with its lines and property which are subject to supervision with respect to the safety and security thereof by the public service commission of this state, the interstate commerce commission or other federal regulatory body and so long as such person is thus actually and exclusively employed and no longer;
- m. The making of land surveys by a professional engineer where such land surveys are essential to engineering projects, provided he was licensed as a professional engineer in this state on or before the first day of January in the year in which this act shall become a law and files evidence satisfactory to the board on or before the first day of July in the year next succeeding the year in which this act shall have become law, that he is competent and experienced in such land surveys;
- n. The design by a land surveyor of roads, drainage, water supply or sanitary sewerage facilities of a minor nature in connection with subdivisions and the extension and inspection thereof, but not including sewage disposal or treatment plants, lift stations, pumping stations, commercial buildings or bridges, provided the surveyor was licensed as a land surveyor in this state on or before the first day of January in the year in which this act shall have become a law and files evidence satisfactory to the board on or before the first day of July in the year next succeeding the year in which this act shall have become a law, attesting that he is competent and experienced in the engineering required for design of such facilities appurtenant to subdivisions; or
- o. Using the title "marine operating engineer", "stationary engineer", "port of customs surveyor", or "ship surveyor".
- p. Contractors or builders from engaging in construction management and administration of construction contracts.

§7209. Special provisions.

1. Every professional engineer and every land surveyor shall have a seal, approved by the board, which shall contain the name of the professional engineer and the words "Licensed Professional Engineer" or the name of the land surveyor and the words "Licensed Land Surveyor" and such other words or figures as the board may deem necessary. **All plans, specifications, plats and reports relating to the construction or alteration of buildings or structures prepared by such professional engineer** and all plans, specifications, plats and reports prepared by such land surveyor or by a full-time **or part-time subordinate under his supervision, shall be stamped with such seal and shall also be signed, on the original with the personal signature of such professional engineer** or land surveyor **when filed with public officials.** No official of this state, or of any city, county, town or village therein, charged with the enforcement of laws, ordinances or regulations shall accept or approve any plans or specifications that are not stamped:
 - a. With the seal of an architect or professional engineer or land surveyor licensed in this state and bearing the authorized facsimile of the signature of such architect or professional engineer or land surveyor, or
 - b. With the official seal and authorized facsimile of the signature of a professional engineer or land surveyor not a resident of this state and having no established business in this state, but who is legally qualified to practice as such in his own state or country, provided that such person may lawfully practice as such in this state, and provided further that the plans or specifications are accompanied by and have attached thereto written authorization issued by the department certifying to such right to practice at such time.
2. To all plans, specifications, plats and reports to which the seal of a professional engineer or land surveyor has been applied, there shall also be applied a stamp with appropriate wording warning that it is a violation of this law for any person, unless he is acting under the direction of a licensed professional engineer or land surveyor, to alter an item in any way. If an item bearing the seal of an engineer or land surveyor is altered,

the altering engineer or land surveyor shall affix to the item his seal and the notation "altered by" followed by his signature and the date of such alteration, and a specific description of the alteration.

3. No county, city, town or village or other political subdivision of this state shall engage in the construction or maintenance of any public work involving engineering or land surveying for which plans, specifications and estimates have not been made by, and the construction and maintenance supervised by, a professional engineer or land surveyor; provided that this section shall not apply to the construction, improvement or maintenance of county roads or town highways, nor to any other public works wherein the contemplated expenditure for the completed project does not exceed five thousand dollars. This section shall not be construed as affecting or preventing any county, city, town or village or other political subdivision of this state from engaging an architect licensed in this state for the preparation of plans, specifications and estimates for and the supervision of construction or maintenance of public works.
4. Engineers, land surveyors, architects, and landscape architects may join in the formation of a joint enterprise, or a partnership or a professional service corporation or may form any desired combination of such professions and may use in the name of such corporation the title of any of the professions which will be practiced. After the name of each member his profession shall be indicated.
5. A firm name may be continued by employees having at least fifteen years of continuous service if the retired members and legal representatives of deceased members consent to such continuance.
6. It shall be lawful for a corporation organized and existing under the laws of the state of New York which on the fifteenth day of April, nineteen hundred thirty-five and continuously thereafter, was lawfully practicing engineering or land surveying in New York state, to continue such practice provided that the chief executive officer shall be a professional engineer licensed under this article, if practicing engineering, or a land surveyor licensed under this article, if practicing land surveying, and provided further that the person or persons carrying on the actual practice of engineering or surveying on behalf of, or designated as "engineer" or "surveyor", with or without qualifying or characterizing word, by such corporation shall be authorized to practice engineering or land surveying as provided in this article. It shall be lawful for a corporation which, on account of or as a result of requirements, restrictions or provisions of federal law, was organized subsequent to April fifteenth, nineteen hundred thirty-five for the purpose of taking over an existing engineering organization established prior to such time and which has taken over such organization and continued its engineering activities, provided that the chief executive officer of such corporation shall be a professional engineer licensed under this article and provided further, that the person or persons carrying on the actual practice of engineering on behalf of, or designated as "engineer", with or without qualifying or characterizing word, by such corporation, shall be authorized to practice engineering as provided in this article. No such corporation shall change its name or sell its franchise or transfer its corporate rights, directly or indirectly to any person, firm or corporation without the consent of the department. Each such corporation shall obtain a triennial registration on payment of a fee of fifty dollars.
7. Nothing in this article shall be construed to apply:
 - a. To the preparation or execution of designs, drawings, plans or specifications for the construction or installation of machinery, or apparatus constructed or installed by the corporation preparing such designs, drawings, plans or specifications if the supervision of the preparation of any such designs, drawings, plans or specifications, construction or installation is done under the general direction of a professional engineer or land surveyor licensed under this article; or
 - b. To alterations to any building or structure costing ten thousand dollars or less which do not involve changes affecting the structural safety or public safety thereof nor to farm buildings, including barns, sheds, poultry houses and other buildings used directly and solely for agricultural purposes; nor to residence buildings of gross floor area of fifteen hundred square feet or less, not including garages, carports, porches, cellars, or uninhabitable basements or attics.
8. Nothing in this article shall prohibit a corporation organized and existing prior to the fifteenth day of April, nineteen hundred thirty-five under the laws of any state other than the state of New York, the name of which

includes the word "engineers", from obtaining a certificate of authority to do business in the state of New York, provided that the business proposed to be done by such corporation within this state, as set forth in the statement and designation provided for by section thirteen hundred four of the business corporation law, shall not include the practice within this state of engineering or land surveying.

9.
 - a. Any person who knowingly damages, destroys, disturbs, removes, resets, or replaces any boundary marker placed on any tract of land by a licensed land surveyor, or by any person at the direction of a licensed land surveyor, for the purpose of designating any point, course or line in the boundary of such tract of land in which he or she has no legal interest, shall be punished by a civil fine of not more than five hundred dollars and shall be liable for the cost of reestablishment of said boundary marker.
 - b. Notwithstanding the provisions of paragraph a of this subdivision, a licensed land surveyor licensed under section seventy-two hundred three of this article or a person acting at the direction of any such licensed land surveyor, may remove an existing marker if substandard in nature in order to place an upgraded marker in the same location and shall note the same on the map of survey.

Appendix D

**New York State Education Department
Office of the Professions
Laws, Rules & Regulations
Rules of the Board of Regents
Part 29, Unprofessional Conduct
§29.3 General provisions for design professions.**

- a. **Unprofessional conduct shall also include, in the professions of engineering** and land surveying:
1. being associated in a professional capacity with any project or practice known to the licensee to be fraudulent or dishonest in character, or not reporting knowledge of such fraudulence or dishonesty to the Education Department;
 2. failing to report in writing to the owner or to the owner's designated agent any unauthorized or improperly authorized substantial disregard by any contractor of plans or specifications for construction or fabrication, when professional observation or supervision of the work is provided for in the agreement between the owner and the design professional or when supervision of the work is under the control of the design professional;
 3. **certifying by affixing the licensee's signature and seal to documents for which the professional services have not been performed by, or thoroughly reviewed by, the licensee;** or failing to prepare and retain a written evaluation of the professional services represented by such documents in accordance with the following requirements:
 - i. a licensee who signs and seals documents not prepared by the licensee or by an employee under the licensee's direct supervision shall prepare, and retain for a period of not less than six years, a thorough written evaluation of the professional services represented by the documents, including but not limited to drawings, specifications, reports, design calculations and references to applicable codes and standards. Such written evaluation shall clearly identify the project and the documents to which it relates, the source of the documents and the name of the person or organization for which the written evaluation was conducted, and the date of the evaluation, and the seal and signature of the licensee shall also be affixed thereto; and
 - ii. nothing in this paragraph shall be construed as authorizing the practice of a design profession in this State by persons other than those authorized to practice pursuant to the provisions of Article 145, 147 or 148 of the Education Law;
 4. failure by a licensee to maintain for at least six years all preliminary and final plans, documents, computations, records and professional evaluations prepared by the licensee, or the licensee's employees, relating to work to which the licensee has affixed his seal and signature;
 5. having a substantial financial interest, without the knowledge and approval of the client or employer, in any products or in the bids or earnings of any contractor, manufacturer or supplier on work for which the professional has responsibility;
 6. permitting any person to share in the fees for professional services, other than: a partner, employee, associate in a professional firm or corporation, subcontractor or consultant. This prohibition shall include any arrangement or agreement whereby the amount received in payment for furnishing space, facilities, equipment, or personnel services used by a professional licensee constitutes a percentage of or is otherwise dependent upon the income or receipts of the licensee from such practice. This provision shall apply in lieu of Section 29.1(b)(4) of this Part;
 7. accepting any form of compensation from more than one party for services on the same project without fully disclosing the circumstances and receiving approval from all interested parties;

8. participating as a member, advisor or employee or a government body in those actions or deliberations which pertain to services provided by the practitioner or his or her organization for such government body; or
9. in the profession of land surveying, the revision, alteration, or update of any existing boundary survey without adequate confirmation of relevant boundary lines and monuments. To be adequate, such confirmation shall include a reasonable field verification and shall be sufficiently extensive to reasonably ensure the accuracy of the revision, alteration, or update, as appropriate to the circumstances of the revision, alteration, or update.

b. Unprofessional conduct shall not be construed to include:

1. the employment, with the knowledge of the client, of qualified consultants to perform work in which the consultant has special expertise. This provision shall apply in conjunction with Section 29.1(b)(9) of this Part; and
2. participation as a delegator, or delegatee in delegating or accepting delegation, through an intermediate entity not authorized to provide professional design services, of specifically defined work involving the performance of a design function requiring a professional license, under the following terms, conditions and limitations:
 - i. such specifically defined design work shall be limited to project components ancillary to the main components of the project;
 - ii. the delegator shall specify in writing to the delegatee all parameters which the design must satisfy;
 - iii. the design function shall be required to be performed in accordance with performance specifications established by the delegator;
 - iv. the delegatee shall be required to be licensed or otherwise legally authorized to perform the design work involved and shall be required to sign and certify any design prepared;
 - v. the delegator shall be required to review and approve the design submitted by the delegatee for conformance with the established specifications and parameters and such determination shall be in writing; and
 - vi. the delegator shall be required to determine that the design prepared by the delegatee conforms to the overall project design and can be integrated into such design and such determination shall be in writing.
3. As used in paragraph (2) of this subdivision:
 - i. *Delegator* means a primary design team or team of design professionals which may be composed of professional engineers, land surveyors, architects and landscape architects acting either alone or in combination, licensed and registered in accordance with Articles 145, 147 or 148 of the Education Law, and authorized to provide the services being delegated.
 - ii. *Intermediate entity* means a person or entity, typically a contractor or subcontractor, responsible for performing the work under the contract for construction.
 - iii. *Delegatee* means a design professional, licensed and registered in accordance with Articles 145, 147 or 148 of the Education Law, who is employed or retained by the intermediate entity to produce design work in compliance with the performance requirements and parameters specified by a delegator.
 - iv. *Certify* means a written statement by a licensee confirming responsibility for the work and attesting that the work prepared meets the specifications (as well as conforming to governing codes applicable at the time the work was prepared), and conforms to prevailing standards of practice.



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