

**PROPOSED REGULATION OF THE
STATE BOARD OF PROFESSIONAL ENGINEERS AND
LAND SURVEYORS**

LCB File No. R007-24

May 6, 2024

EXPLANATION – Matter in *italics* is new; matter in brackets ~~omitted material~~ is material to be omitted.

AUTHORITY: §§ 1-3 and 5-9, NRS 625.140 and 625.250; § 4, NRS 625.140, 625.250 and 625.350.

A REGULATION relating to professional land surveyors; removing certain duplicative requirements concerning professional land surveyors; revising requirements for positional certainty for components of certain surveys and proposed fixed works; imposing certain requirements on professional land surveyors relating to the conducting of certain surveys; revising provisions governing the preparation of a scaled drawing of a survey; revising the classifications of land boundary surveys; requiring a professional land surveyor to retain certain materials created to support a survey; repealing certain obsolete provisions; and providing other matters properly relating thereto.

Legislative Counsel’s Digest:

Existing law authorizes the State Board of Professional Engineers and Land Surveyors to adopt all regulations, not inconsistent with the constitution and laws of this State, which are necessary for the proper performance of the Board, the regulation of the proceedings before it and the maintenance of a high standard of integrity and dignity in professional engineering and land surveying. (NRS 625.140) Existing law also requires the Board to administer certain provisions and requirements concerning professional land surveyors and requires it to do so by regulation as necessary. (NRS 625.250)

Existing regulations set forth various standards of practice for professional land surveyors. (NAC 625.651-625.795) **Section 1** of this regulation removes a duplicative requirement concerning the standards that a professional land surveyor is required to apply when engaging in the practice of land surveying in this State. **Section 9** of this regulation repeals a provision which provides that a professional land surveyor is responsible for adherence to the minimum standards of practice of land surveying on works where the professional land surveyor is the person in responsible charge of the work and that any failure to comply with minimum standards of practice may be considered by the Board as evidence of certain violations of the practice of land surveying. (NAC 625.660)

Existing regulations set forth certain requirements for positional certainty for the horizontal and vertical components of land boundary, control, geodetic and topographic surveys.

(NAC 625.666) Existing regulations divide land boundary surveys into the classifications of high urban, low urban, high rural and low rural and set forth requirements for positional certainty for the horizontal component of a land boundary survey specific to each classification. (NAC 625.666, 625.740) **Section 2** of this regulation eliminates the requirements for positional certainty for the horizontal and vertical components of control, geodetic and topographic surveys. **Section 5** of this regulation revises the classifications of land boundary surveys to divide such surveys into the classifications of urban, suburban and rural. **Section 2** revises requirements for positional certainty for the horizontal component of a land boundary survey to set forth requirements for such positional certainty specific to each of the new classifications set forth in **section 5**. **Section 5** additionally provides that land title surveys must be conducted using the requirements for positional certainty for the urban classification.

Section 2 additionally: (1) eliminates certain requirements for positional certainty that are measured in meters; (2) makes certain distinctions between decisions concerning monuments used for boundary determination and requirements for positional certainty; and (3) imposes certain requirements on a professional land surveyor relating to the conducting of a control survey and a topographic survey and the retention of certain documentation. **Section 9** repeals a provision imposing certain requirements concerning positional certainty for certain surveys that has been rendered obsolete by the revisions made in **section 2**. (NAC 625.668)

Existing regulations require a professional land surveyor to take certain actions in conducting a land boundary survey, including, without limitation, searching for and identifying monuments and other physical evidence that could affect the location of the boundaries of the surveyed property. (NAC 625.670) **Section 3** of this regulation specifies certain types of physical evidence that must be searched for and identified. **Section 3** additionally requires a professional land surveyor, in conducting a land boundary survey, to: (1) consider certain factors; and (2) include certain information on a survey map after making certain discoveries.

Existing regulations require a professional land surveyor to prepare a scaled drawing of the survey for presentation to the client and sets forth certain requirements for such a drawing. (NAC 625.720) **Section 4** of this regulation revises those provisions to eliminate the requirement that such a drawing be prepared and instead sets forth various requirements for a scaled drawing when such a drawing is prepared for a client.

Existing law requires a record of survey to contain a certificate prepared by the surveyor indicating certain information. (NRS 625.350) Existing regulations set forth the required form of a certificate if a certification by a professional land surveyor is required by a statute or local ordinance. (NAC 625.720) **Section 4** specifies that the form of such a certificate set forth under existing regulations applies to a certificate for a record of survey.

Existing regulations require a professional land surveyor who conducts a construction survey to place stakes or other materials used to mark the location of certain proposed fixed works within certain specified positional certainties. (NAC 625.775) **Section 7** of this regulation: (1) revises the proposed fixed works that are subject to such requirements; and (2) eliminates certain requirements for positional certainty that are measured in meters.

Existing regulations require a professional land surveyor who conducts a construction survey to provide to the owner's representative certain materials to describe the survey conducted. (NAC 625.780) **Section 8** of this regulation revises that requirement to instead require such a professional land surveyor to retain certain materials created to support the survey conducted.

Section 6 of this regulation makes a technical, nonsubstantive change to ensure the consistency of language used in the Nevada Revised Statutes and Nevada Administrative Code.

Section 1. NAC 625.655 is hereby amended to read as follows:

625.655 When engaging in the practice of land surveying in this State, a professional land surveyor shall apply all applicable statutes and regulations . ~~in addition to the minimum standards of practice for professional land surveyors established in NAC 625.651 to 625.795, inclusive.~~

Sec. 2. NAC 625.666 is hereby amended to read as follows:

625.666 1. ~~{The requirements for positional}~~ **Positional** certainty for the horizontal component of *a* land boundary ~~}, topographic, control and geodetic surveys are as follows:~~

Type of Survey	Positional Certainty	
	Meters	U.S. Survey Feet
Land Boundary Surveys		
— High Urban	±0.02 m	±0.05 ft
— Low Urban	±0.04 m	±0.15 ft
— High Rural	±0.1 m	±0.3 ft
— Low Rural	±0.15 m	±0.5 ft
Control and Geodetic Surveys		
— Precise Measurement Studies	±0.001 m to ±0.01 m	±0.002 ft to ±0.03 ft

Type of Survey

Positional Certainty

	Meters	U.S. Survey Feet
— State Network	±0.02 m	±0.05 ft
— County Network.....	±0.04 m	±0.15 ft
— Local Network	±0.06 m	±0.2 ft
— Photogrammetric Control	±0.06 m to ±1 m	±0.2 ft to ±3 ft

Topographic Surveys

— Engineering Design Surveys.....	±0.01 m to ±0.1 m	±0.03 ft to ±0.3 ft
— Planning Study Surveys.....	±0.02 m to ±0.05 m	±0.05 ft to ±0.15 ft
— Utilities Mapping.....	±0.15 m	±0.5 ft
— Feature Mapping.....	±0.3 m	±1 ft
— Resource Mapping.....	±0.5 m to ±100 m	±1.5 ft to ±330 ft}

survey must be:

(a) For a land boundary survey classified as urban pursuant to NAC 625.740, plus or minus 0.10 feet.

(b) For a land boundary survey classified as suburban pursuant to NAC 625.740, plus or minus 0.15 feet.

(c) For a land boundary survey classified as rural pursuant to NAC 625.740, plus or minus 0.5 feet.

2. ~~{The requirements for positional}~~ **Positional** certainty for the vertical component of *a* land boundary ~~{, control, geodetic and topographic surveys are as follows:~~

Type of Survey	Positional Certainty	
	Meters	U.S. Survey Feet
Land Boundary Surveys.....	±0.05 m	±0.15 ft
Control and Geodetic Surveys		
Other Than		
Photogrammetric Control		
Surveys.....	±0.005 m to ±0.03 m	±0.02 ft to ±0.1 ft
Photogrammetric Control		
Surveys.....	±0.03 m to ±0.5 m	±0.1 ft to ±1.5 ft
Topographic Surveys.....	National Map Accuracy Standards}	

survey must be plus or minus 0.15 feet.

3. ~~{For the purposes of this section, the National Map Accuracy Standards, as they existed on November 14, 1997, are hereby adopted by reference. A copy of the National Map Accuracy Standards may be obtained from the United States Geological Survey, Department of the Interior, 12201 Sunrise Valley Drive, Reston, Virginia 20192, at no cost.}~~ **The acceptance or**

rejection of an existing controlling monument used for boundary determination is separate and distinct from the requirements of positional certainty set forth in subsections 1 and 2.

4. A professional land surveyor shall:

(a) For a control survey, document the horizontal and vertical data, the coordinate system and the reference points used to establish the network of control points that provide control for subsequent boundary, topographic or construction surveys;

(b) For a topographic survey made to determine the configuration of the contour of the surface of the earth or the position of fixed objects, select the equipment and procedures to obtain horizontal positional certainty and vertical positional certainty appropriate for the project; and

(c) Retain all documentation concerning the level of precision and positional certainty of any map, plat or survey.

Sec. 3. NAC 625.670 is hereby amended to read as follows:

625.670 In conducting a land boundary survey, a professional land surveyor shall:

1. Search pertinent documents, including, but not limited to, maps, deeds, title reports, title opinions and the records of the U.S. Public Land Survey System.

2. Thoroughly examine the information and data acquired ~~and~~ *and consider:*

(a) Junior and senior property rights;

(b) Retracement of the original survey;

(c) Evidence provided by existing records; and

(d) Proper application of the priority of calls used to determine boundaries when there is a conflict between elements within a land description.

3. Diligently search for and identify monuments and other physical evidence , *including, without limitation, evidence of easements, lines of physical occupation and possible observed encroachments upon the property*, which could affect the location of the boundaries of the property being surveyed.

4. Conduct field measurements necessary to relate adequately the position of all apparent evidence pertinent to the boundaries of the property being surveyed.

5. Make computations to verify the correctness of field data acquired and confirm that results of measurements are within acceptable limits of tolerance. Computations must be made to determine the relative positions of all found evidence.

6. When a material discrepancy is discovered between the record information that is reported on a map or record of survey and the measured information that is collected by the professional land surveyor, show the measured information on the survey map in addition to all pertinent record information.

Sec. 4. NAC 625.720 is hereby amended to read as follows:

625.720 1. ~~{A}~~ *When a* professional land surveyor ~~{shall prepare}~~ *prepares* a scaled drawing of ~~{the}~~ *a* survey for presentation to ~~{the}~~ *a* client ~~{The}~~ , *the* drawing must ~~{comply}~~ :

(a) Comply with the provisions of NRS 625.340, 625.350 and 625.565 ~~{}~~ ;

(b) Be of a scale sufficient to clearly show details; and

(c) Include, without limitation:

(1) A scale, legend and north arrow;

(2) On each sheet of the drawing, an indication of the number of the sheet, the total number of sheets within the drawing and its relation to each adjoining sheet;

(3) All recorded, measured and mathematical information and data necessary to locate all monuments and to locate and retrace all interior and exterior boundary lines appearing thereon, including the bearings and distances of straight lines, central angle, radii and arc length for all curves and such information as may be necessary to determine the location of the centers of curves; and

(4) A written narrative on boundary analysis when necessary to explain any material discrepancies or support unclear portions of the drawing.

2. In cases where a certification is required by statute or local ordinance, the professional land surveyor shall certify only those matters personally known to be true.

3. The certificate *for a record of survey* must be in the following form:

SURVEYOR'S CERTIFICATE

I, (name of professional land surveyor), a Professional Land Surveyor registered in the State of Nevada, certify that:

1. This plat represents the results of a survey conducted under my supervision at the instance of (owner, trustee, etc.).

2. The land surveyed lies within (section, township, range, meridian, county and city, if incorporated), and the survey was completed on (date).

3. This plat complies with applicable statutes of this State and any local ordinances in effect on the date that the survey was completed, and the survey was conducted in accordance with chapter 625 of the Nevada Administrative Code.

4. The monuments depicted on the plat are of the character shown, occupy the positions indicated and are of sufficient durability.

5. (Any other information that the professional land surveyor personally knows to be true concerning the land surveyed.)

(Validated seal of the professional land surveyor);

(Name and license number of the professional land surveyor printed below the seal).

Sec. 5. NAC 625.740 is hereby amended to read as follows:

625.740 1. ~~{Boundary}~~ *Land boundary* surveys ~~{have-been}~~ *are* divided into the ~~{following four}~~ *urban, suburban and rural* classifications ~~{}~~. *The:*

(a) ~~{High}~~ Urban ~~{-Surveys-of}~~ *classification consists of surveys performed on* land lying within or adjoining a city or town, including surveys of commercial and industrial properties, condominiums, townhouses, apartments and other multiunit developments, regardless of geographic location.

(b) ~~{Low-Urban-Surveys-of}~~ *Suburban classification consists of surveys performed on* land lying outside ~~{high}~~ urban areas and ~~{used-almost-exclusively}~~ *developed* for single family residential use . ~~{or-residential-subdivisions.}~~

(c) ~~{High}~~ Rural ~~{-Surveys-of}~~ *classification consists of surveys performed on* land ~~{such-as}~~ *, including* farms and ~~{other}~~ undeveloped land , lying outside ~~{the-low}~~ urban *and suburban* areas . ~~{which-may-have-potential-for-future-development.}~~

~~(d) Low Rural. Surveys of land normally lying in remote areas with difficult or barren terrain and which usually have limited potential for development.~~

2. ~~1A~~ *Except as otherwise provided in subsection 3, a* professional land surveyor shall use the classifications described in subsection 1 and the requirements for positional certainty for those classifications prescribed in *subsection 1 of* NAC 625.666 to establish the locations of monuments in a *land* boundary survey.

3. *A professional land surveyor shall, when conducting a land title survey, use the requirements for positional certainty for the urban classification prescribed in paragraph (a) of subsection 1 of NAC 625.666 to establish the locations of monuments in the survey.*

Sec. 6. NAC 625.760 is hereby amended to read as follows:

625.760 Before beginning a construction survey, a professional land surveyor ~~shall~~ *must* obtain from the owner's representative a complete set of the contract drawings and specifications approved by the appropriate federal, state and local agencies and any special instructions for the proposed fixed works.

Sec. 7. NAC 625.775 is hereby amended to read as follows:

625.775 A professional land surveyor who conducts a construction survey shall place the stakes or other materials used to mark the location of the proposed fixed works within the following positional certainties:

Proposed Fixed Works	Horizontal Positional Certainty	Vertical Positional Certainty
	{Meters} Feet	{Meters} Feet

Rough Grades.....	{±0.03 m}	±1 ft	{±0.06 m}	±0.2 ft
Subgrades.....	{±0.15 m}	±0.5 ft	{±0.015 m}	±0.05 ft
Finish Grades	{±0.15 m}	±0.5 ft	{±0.015 m}	±0.05 ft
Buildings.....	{±0.015 m}	±0.05 ft	{±0.01 m}	±0.03 ft
{Sewer Facilities} <i>Sewers</i>	{±0.1 m}	±0.3 ft	{±0.015 m}	±0.05 ft
Waterlines	{±0.1 m}	±0.3 ft	{±0.03 m}	±0.1 ft
{Water Facilities Other Than				
Waterlines} <i>Hydrants</i>	{±0.03 m}	±0.1 ft	{±0.015 m}	±0.05 ft
Street Lights {and Devices for the				
Control of Traffic}	{±0.06 m}	±0.2 ft	{±0.03 m}	±0.1 ft
Curbs and Gutters	{±0.03 m}	±0.1 ft	{±0.015 m}	±0.05 ft

Sec. 8. NAC 625.780 is hereby amended to read as follows:

625.780 A professional land surveyor who conducts a construction survey shall ~~{provide the owner's representative}~~ *retain any* sketches, cut sheets or other field notes *created* to ~~{describe}~~ *support* the survey conducted.

Sec. 9. NAC 625.660 and 625.668 are hereby repealed.

TEXT OF REPEALED SECTIONS

625.660 Responsibility for compliance with standards of practice. (NRS 625.140, 625.250) Responsibility for adherence to the minimum standards of practice for engaging in the practice of land surveying rests with the professional land surveyor in responsible charge of the work. Failure on the part of any Nevada professional land surveyor to comply with these minimum standards may be considered by the Board as evidence of gross negligence, professional incompetence or misconduct in the practice of land surveying.

625.668 Positional certainty: Horizontal and vertical positions of monuments. (NRS 625.140, 625.250) When conducting a land boundary, topographic, control or geodetic survey, a professional land surveyor shall ensure that the horizontal and vertical positions of the monuments established by the surveyor comply with the requirements for positional certainty set forth in NAC 625.666.