

Understanding Professional Licensure Requirements

An Introduction to State Licensing
of Engineers, Land Surveyors and Geologists

December 10, 2018

California Board for Professional Engineers, Land Surveyors and Geologists

Our Common Mission

Underground Facilities Safe Excavation Board

Underground Facilities Safe Excavation Board ***improves public and worker safety*** *by facilitating communication and learning among excavators and the operators of subsurface installations by investigating accidents to determine their causes.*

Board for Professional Engineers, Land Surveyors and Geologists

We ***protect the public's safety and property*** *by promoting standards for competence and integrity through licensing and regulating the Board's professions. Our vision is a California that leads the nation in* ***protecting the public and environment*** *with competent and ethical professional services by the Board's licensees.*

What is a “Licensed Professional”?

license

1. formal permission from a governmental or other constituted authority to do something, as to carry on some business or profession.

2. a certificate, tag, plate, etc., giving proof of such permission; official permit: *a driver's license.*

professional

1. Person formally certified as belonging to a specific profession by virtue of having completed a required course of studies and/or practice. And whose competence can usually be measured against an established set of standards.

2. Person who has achieved an acclaimed level of proficiency in a calling or trade. See also *professionalism.*

Types of Licenses

Practice Act – Practice and Title regulated

Title Authority – Additional authority subsequent to foundation license

Title Act – Title **only** regulated

Discipline	Practice Act	Title Authority	Title Act
Engineering	Civil Electrical Mechanical	Geotechnical (civil) Structural (civil)	Agricultural Chemical Control System Fire Protection Industrial Metallurgical Nuclear Petroleum Traffic (CA only)
Land Surveying	Land Surveyor	None	None
Geology	Geologist Geophysicist	Engineering Geologist Hydrogeologist	None



What does this have to do with Safe Excavation?

California licensing laws apply to issues that the Dig Safe Board is addressing such as:

- Location of subsurface installations
- Subsurface Utility Engineering (SUE) and ASCE 38-02
- Grading activities along road shoulders and dirt roads

Common Ground Alliance (CGA)

Gov. Code §4216 (n)(1)—refers to the CGA Best Practices Guide

- 4-12 Locating Electromagnetically
- National Utility Locating Contractors Association (NULCA) training standards
- 6-18 Excavation Area Details and Emerging Technologies



Geophysics

- BPC §7802.1 --*"……measuring its natural and* ***induced fields of force, including but not limited to****, electric, gravity, and magnetic, and its responses to the natural and induced energy and the interpreting of these measurements……."*
- Excludes tasks where analysis or interpretation are lacking.



Ground Penetrating Radar (GPR)

- *GPR uses a high-frequency (e.g. 40 to 1,500 MHz) EM pulse transmitted from a radar antenna to probe the earth.*
- *The transmitted radar pulses are reflected from various interfaces within the ground, and this return is detected by the radar receiver.*
- Interpreting the reflected radar pulses and the return is the practice of geophysics.

BPC 8726. Land surveying defined

- A person, including any person employed by the state or by a city, county, or city and county within the state, practices land surveying within the meaning of this chapter who, either in a public or private capacity, does or offers to do any one or more of the following:
- (a) Locates, relocates, establishes, reestablishes, or retraces the alignment or elevation for any of the fixed works embraced within the practice of civil engineering, as described in Section 6731.
- (b) Determines the configuration or contour of the earth's surface, or the position of fixed objects above, on, or below the surface of the earth by applying the principles of mathematics or photogrammetry.

BPC 8726. Land surveying defined

- (f) Geodetic or cadastral surveying. As used in this chapter, geodetic surveying means performing surveys, in which account is taken of the figure and size of the earth to determine or predetermine the horizontal or vertical positions of fixed objects thereon or related thereto, geodetic control points, monuments, or stations for use in the practice of land surveying or for stating the position of fixed objects, geodetic control points, monuments, or stations by California Coordinate System coordinates.
- (g) Determines the information shown or to be shown on any map or document prepared or furnished in connection with any one or more of the functions described in subdivisions (a), (b), (c), (d), (e), and (f).

8725.1. Legislative intent - requirement for responsible charge at state and local government entities

- It is the intent of the Legislature that the licensure requirements that are imposed upon private sector professional land surveyors and land surveying partnerships, firms, or corporations shall be imposed upon the state and any city, county, city and county, district, and special district that shall adhere to those requirements. Therefore, for the purposes of Section 8725 and this chapter, at least one person authorized to practice land surveying shall be designated the person in responsible charge of professional land surveying work practiced in any department or agency of the state, city, county, city and county, district, or special district.

Identifying the Licensee in Responsible Charge

- Organization Record Form
  - For businesses
  - Required pursuant to Sections BPC 6738 and 8729

- Notice of Department Designation Form
  - For Government organizations, Special Districts
  - Required pursuant to Sections BPC 6730.2(b) and 8725.1

Agency Licensee
Monument Preservation Laws

- **6730.2(c)**
  - The **designated person** in responsible charge of professional **civil engineering projects** (NODD form) of **any** department or agency of the state, city, county, city and county, district, or special district pursuant to this section **is responsible for compliance** with subdivisions (b) and (c) of 8771.

What is Section 8771? How does it apply?

Monument Preservation Facts

- Monuments, once set, are the property of the **general public**.
- **Licensees authorized to practice land surveying** are responsible for identifying, setting, locating, recovering, referencing, resetting, documenting, and preserving the monuments and location thereof.
- **Agencies**, **through their licensees**, are responsible for ensuring that general public's interests in the location of the those monuments is protected by enlisting the services of a licensee authorized to perform land surveying for the purposes of identifying, documenting, and preserving the locations of those monuments.

Monument Preservation Facts

- **8771(b)**
  - Protect monuments that **exist**
  - Perpetuate the **location** before (reference ties)
  - File CR (or RS) **showing** reference ties
- **8771(c)**
  - Set or Replace **sufficient** monuments to allow retracement of all that were destroyed
  - File CR (or RS) showing new monument(s)
- **8771(d)**
  - Agency performing/permitting work is **responsible**

Successful Implementation Example
(when Agency Surveyor is Available)

- **Agency project**
  - Agency survey staff is responsible for all compliance with 8771
  - All departments are required to notify Agency survey staff of impending projects
  - Agency surveyor -> Responsible Agency civil engineer

- **Agency-issued Permit**
  - Agency surveyor determines whether compliance is necessary
  - Acknowledgment required by PLS in responsible charge prior to issuing permit
  - Acknowledgment required by PLS certifying compliance prior to final acceptance
  - Agency surveyor -> Responsible Agency civil engineer

Successful Implementation Example
(when Agency doesn't have Surveyor on staff)

- **Agency project**
  - All departments are required to notify Agency civil engineer of impending projects
  - Responsible Agency civil engineer contracts with PLS to perform 8771(b)
  - Contracted PLS provides copies of filed CR or RS to Agency civil engineer
- **Agency-issued Permit**
  - Agency civil engineer requires permittee to consult with PLS to determine if compliance is necessary
  - Acknowledgment required by PLS in responsible charge prior to issuing permit
  - Acknowledgment required by PLS certifying compliance prior to final acceptance
  - Contracted PLS provides copies of filed CR or RS to Agency civil engineer

Contact Information

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Laws and Regulations: http://www.bpelsg.ca.gov/laws/index.shtml

Questions about the Laws and Regulations
(916) 263-2284 or BPELSG.Enforcement.Information@dca.ca.gov

Questions about Filing a Complaint:
(916) 263-2284 or BPELSG.Enforcement.Information@dca.ca.gov