MEETING OF THE LAND SURVEYOR TECHNICAL ADVISORY COMMITTEE OF THE BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS

Ventura County Government Center
Public Works Administration
800 South Victoria Avenue
Atlantic Conference, Room 253
Ventura, CA 93009

WEDNESDAY, MARCH 2, 2016, 1:00 p.m.

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1. Roll Call

2. Public Comment for Items Not on the Agenda

3. Approval of November 4, 2015, LS TAC Meeting Minutes

DRAFT

MINUTES OF THE MEETING OF THE LAND SURVEYOR TECHNICAL ADVISORY COMMITTEE OF THE BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS

San Bernardino County Public Works
825 E. 3rd Street
San Bernardino, CA 92415

Wednesday, November 4, 2015

Members Present:	Greg Hopkins, PLS, Chair; Edward M Reading, PLS, Vice Chair; Scott (Landon) Blake, PLS; Michael S. Butcher, PLS
Board Liaison:	Patrick J. Tami, PLS
Staff Liaison:	Raymond L. Mathe, PLS

1. Roll Call

Mr. Hopkins called the meeting to order at 2:06 p.m. Roll call was taken, and a quorum was established.

2. Public Comment

No Public Comment

3. Approval of LS TAC Minutes, Wednesday, June 10, 2015

MOTION:	Mr. Butcher and Mr. Reading moved to approve the minutes.
VOTE:	All Aye; Motion Carried

Member Name	Yes	No	Abstain	Absent	Recusal
Scott (Landon) Blake	X				
Michael Butcher	X				
Greg Hopkins	X				
Edward Reading	X				

4. Update on Rulemaking Proposal to Amend Board Rule 464 (Title 16, California Code of Regulations section 464) regarding Corner Records

Mr. Mathe reported that the public comment period will begin on November 13, 2015, and end on January 4, 2016, and a public hearing will be held on January 5, 2016, at the Board office.

5. Review and Discussion of Possible Amendments to Board Rule 425 (Title 16, California Code of Regulations section 425) regarding Experience Requirements – Professional Land Surveyors

There was discussion of the various options available in the current laws and regulations to grant credit for education, including Associates Degrees and college-level courses taken when no degree is awarded. It was noted that the laws currently provided for proportional credit; for example, one year of credit may be given for an Associates Degree and one-half year of credit may be given for each year of education in a Board-approved program that did not result in the awarding of a degree. Ms. Eissler noted that the terms “approved land surveying curriculum” and “non-approved land surveying curriculum” are already defined in Board Rule 404 and should not be redefined in Board Rule 425.

Concerns were expressed with removing the list of items from subdivisions (c) and (d). Questions were raised whether the regulation could be changed to remove the list of specific items and then have a separate list of more general items that could be distributed as an outreach tool. Mr. Moore explained that such a list would likely be viewed as an underground regulation because people would try to apply it as if it were part of the laws. Mr. Mathe suggested that the terms “independent judgment” and “responsible training” could be defined in the regulation to provide clarity for the applicants and references.

The addition of the word “mentorship” as a requirement for the references was discussed. Concerns were raised as to how it would be monitored or verified.

There was discussion on what is meant by “coordinates the work” in Section 8726(k). It was pointed out that a secretary scheduling the crews to go into the field to set monuments could be construed as “coordinates the work.” It was suggested that subdivision (k) be added to the list of subdivisions for which only one year may be given in subdivision (b) and six months in subdivision (e).

Mr. Mathe noted that the Engagement Record and Reference Form and Log Book form would need to be amended through the rulemaking process to coincide with any amendments to Board Rule 425.

Mr. Moore reminded the Committee that the experience requirements relate to a person’s qualifications for licensure, not to sit for the examination. He pointed out that the examination is only one component in qualifying for licensure; experience is an equal component in the requirements to qualify to be licensed.

It was decided that the Committee members would review the language and bring specific suggestions for revisions to the language to the next meeting.

6. Review and Discussion of Possible Revisions to the Board’s “Guide to Engineering and Land Surveying for City and County Officials” pertaining to Sections Pertinent to the Practice of Land Surveying

Mr. Blake suggested including more information regarding the roles and responsibilities of an agency in reviewing Records of Survey, such as what level of authority the agency has in requiring changes and the requirement that the

review be performed by or under the responsible charge of someone legally authorized to practice land surveying.

Mr. Butcher provided a list of suggested revisions.

Mr. Moore asked if the Committee thought it would be beneficial to direct the Guide to State agencies as well as counties and cities. The Committee agreed it would be helpful to address other levels and types of entities, such as the State and districts and special districts.

Mr. Herrin suggested including information addressing whether and when government agencies are exempt from filing requirements.

Mr. Hofferber asked if a draft would be sent to professional associations for review. Mr. Tami explained that since this is an informational guide published by the Board, it would not be sent out for general public comment; however, individuals or groups are encouraged to submit comments and suggestions to the Board through its staff or at TAC or Board meetings.

7. Date of Next TAC Meeting

The next TAC Meeting will be held in conjunction with the March 2016 Board meeting.

8. Other Business Not Requiring Committee Action

No report given.

9. Adjourn

Meeting adjourned at 3:46 p.m.

PUBLIC PRESENT

Tom Herrin, PLS
Bill Hofferber, PLS
Rob McMillan, PLS, representing CLSA
Dave Woolley, PLS

4. Update on Rulemaking Proposal to Amend Board Rule 464 (Title 16, California Code of Regulations section 464) regarding Corner Records

5. Discussion and Possible Recommendation of Amendments to Board Rule 425 (Title 16, California Code of Regulations section 425) regarding Experience Requirements – Professional Land Surveyors

Discussion and Possible Recommendation of Amendments to Board Rule 425 (Title 16, California Code of Regulations section 425) regarding Experience Requirements – Professional Land Surveyors

At the November 2015 meeting, the LSTAC discussed proposed amendments to Board Rule 425 regarding the experience requirements for licensure as a professional land surveyor. Based on the discussion at that meeting and further review by staff, changes have been made for the LSTAC to discuss at this meeting. The original proposed amendments are shown in single underlined text and ~~single strikethrough text~~. The new changes are shown in double underlined text and ~~double strikethrough text~~.

425. Experience Requirements - Professional Land Surveyors.

(a) An applicant for licensure as a professional land surveyor shall be granted credit towards the experience requirements contained in Sections 8741 and 8742 of the Code, for the following education curriculum:

(1) Four (4) years experience credit for graduation from an approved land surveying curriculum ~~leading to a baccalaureate degree~~.

(2) Two (2) years experience credit for graduation from a non-approved land surveying curriculum ~~leading to a baccalaureate degree~~.

~~(3) Two (2) years experience credit for graduation from a Board approved land surveying curriculum leading to an associate degree.~~

(~~4~~3) Five (5) years of experience credit for graduation from an approved cooperative work-study land surveying curriculum.

(~~5~~4) One-half (1/2) year of education credit for each year of study completed in an approved land surveying curriculum that did not result in the awarding of a baccalaureate degree, except that the maximum of such experience shall be two (2) years. A year of study shall be at least 32 semester units or 48 quarter units, no less than 10 semester units or 15 quarter units of which shall be from classes clearly identified as being land surveying subjects.

"Life Experience Degrees" are not acceptable and will not be counted towards the education credit.

(b) All qualifying work experience in land surveying shall be performed under the responsible charge~~, with direct control, direction and mentorship~~ of a person legally authorized to practice land surveying. An applicant shall possess at least two years of actual responsible training experience in land surveying which shall involve at least four of the land surveying activities specified in subdivisions (a) - (g) and (k) - (n) of Section 8726 of the Code. Qualifying experience in activities specified in subdivision (a), (b), (k), (m), and (n) of Section 8726 shall not exceed one year. Qualifying experience shall be computed on an actual time worked basis, but not to exceed forty hours per week.

(c) ~~Responsible training shall be exercising independent judgment under the direct control, direction and mentorship of a person legally authorized to practice land surveying.~~ For purposes of Section 8742 of the Code, the terms "responsible field training" and "responsible office training" ~~experience includes,~~ include the land surveying activities specified in subdivisions (a) - (g) and (k) - (n) of Section 8726 of the Code performed in a field or office environment~~s, specified in subdivisions (a) - (g) and (k) - (n) of Section 8726 of the Code~~. Responsible training means the exercise of independent judgment under the responsible charge of a person legally authorized to practice land surveying.

~~may include, but is not limited to, the land surveying activities listed below. Under the responsible charge, direction, and review of a person legally authorized to practice land surveying, the applicant:~~

~~(1) Determines field survey methods and procedures, including selection of accuracy standards.~~

~~(2) Selects or verifies that the correct control monumentation is used to establish the designated survey datum(s) (horizontal and vertical) and selects on-the-ground locations for control monuments.~~

~~(3) Determines the relevance of monuments and physical field evidence for the purpose of establishing boundary and property lines.~~

~~(4) Reviews measurement observations for the determination of accuracy, completeness, and consistency.~~

~~(5) Reviews field notes and records for application of proper field survey procedures.~~

~~(6) Plans, performs, and reviews field checks and, based on such checks, determines if completed field surveys are accurate and sufficient.~~

~~(7) Searches for boundary and control monuments; assists in analyzing field evidence for locating boundary points and lines; identifies and describes such evidence; compares record data to found physical evidence; compares record data to measured data; documents discrepancies; assists in acquiring and documenting testimony regarding boundary locations; recommends boundary location and/or establishment; selects or verifies that the correct controlling monuments are used to locate or establish boundary points and lines; and prepares draft record documents.~~

~~(8) Coordinates the fieldwork necessary to prepare maps, plats, reports, descriptions, or other documents.~~

~~(9) Recommends when existing boundary monuments are to be replaced, selects the method(s) to be used for replacing and resetting monuments, and prepares field documentation of such work, including that necessary for Parcel Maps, Final Maps, Record of Survey Maps, and Corner Records.~~

~~(10) Functions as a party chief, chief of parties, or lead person in charge of field crew(s) in the performance of field surveys.~~

~~(11) Plans and performs field observations using Global Positioning System technology and determines if completed field surveys are accurate and sufficient in geodetic and land surveying applications.~~

~~(12) Performs surveys to facilitate the location or construction of infrastructure and fixed works of improvement.~~

~~The enumeration of the above tasks does not preclude the Board from awarding "responsible field training" credit for training of a similar character in other current or future land surveying activities not specifically enumerated herein. It is also understood that the listed tasks are only some of those that may be considered as responsible training, and that this list is not in any way intended to enumerate all of the tasks which may be performed by licensed Professional Land Surveyors.~~

(d) ~~For purposes of Section 8742 of the Code, the term "responsible office training" experience may include, but is not limited to, the land surveying activities listed below. Under the responsible charge, direction, and review of a person authorized to practice land surveying, the applicant:~~

~~(1) Performs the planning and analysis necessary for the preparation of survey documents, such as Parcel Maps, Final Maps, Record of Survey Maps, Corner Records, legal descriptions, topographic maps, plat maps, lot line adjustments, annexations, and boundary line agreements.~~

~~(2) Reduces and evaluates field data.~~

~~(3) Develops procedures and systems for the collection, reduction, adjustment, and use of land surveying data.~~

~~(4) Prepares data to be used by field surveyors or field crews.~~

~~(5) Coordinates the processing of maps, plats, reports, descriptions, or other documents with local agencies, other licensed surveyors, or County Surveyors Offices.~~

~~(6) Coordinates the office work necessary to prepare maps, plats, reports, descriptions, or other documents.~~

~~(7) Coordinates survey and design efforts for improvement plans as required for sufficiency to enable proper location of improvements in the field.~~

~~(8) Researches public and private records to obtain survey and title data.~~

~~(9) Performs boundary analysis and determination using record descriptions, survey, and title data.~~

~~(10) Plans and coordinates the application of Global Positioning System technology for geodetic and land surveying applications.~~

~~(11) Plans, coordinates, performs, and reviews the entry of property boundary related geo-referenced data into an electronic database.~~

~~(12) Prepares topographic mapping utilizing photogrammetric methods.~~

~~The enumeration of the above tasks does not preclude the Board from awarding "responsible office training" credit for training of a similar character in other current or future land surveying activities not specifically enumerated herein. It is also understood that the listed tasks are only some of those that may be considered as responsible training, and that this list is not in any way intended to enumerate all of the tasks which may be performed by licensed professional land surveyors.~~

~~(e)~~ Computation of qualifying experience for a license as a professional land surveyor shall be to the date of filing of the application, or it shall be to the final filing date announced for the examination if the application is filed within a period of thirty (30) days preceding the final filing date announced for such examination.~~ Qualifying experience shall be computed on an actual time worked basis, but not to exceed forty hours per week.~~

(e~~f~~) An applicant for licensure as a land surveyor who holds a valid and unexpired license as a civil engineer is exempt from the application requirements of ~~(~~subdivisions (b)~~,~~ and (c)~~, and (d)~~ of this section provided he or she submits sufficient documentation that he or she has a minimum of two years of actual broad based progressive experience in land surveying as required by Business and Professions Code Section 8742(a)(3)~~.~~ which shall involve at least four of the land surveying activities specified in subdivisions (a) - (g) and (k) - (n) of Section 8726 of the Code. All qualifying work experience in land surveying shall be performed under the responsible charge~~, with direct control, direction and mentorship~~ of a person legally authorized to practice land surveying. Qualifying experience in activities specified in subdivision (a), (b), (k), (m), and (n) of Section 8726 shall not exceed six months. Qualifying experience shall be computed on an actual time worked basis, but not to exceed forty hours per week.

6. Discussion and Possible Recommendation of Revisions to the Board's "Guide to Engineering and Land Surveying for City and County Officials" Pertaining to Sections Pertinent to the Practice of Land Surveying

Discussion and Possible Recommendation of Revisions to the Board's "Guide to Engineering and Land Surveying for City and County Officials" Pertaining to Sections Pertinent to the Practice of Land Surveying

At the November 2015 meeting, the LSTAC discussed possible revisions to the "Guide to Engineering and Land Surveying for City and County Officials." Mike Butcher provided some suggestions in writing at the meeting. It was decided that discussion of this item should be continued to the next meeting so that the LSTAC members could provide additional suggested revisions. A copy of the current Guide is included in this packet, followed by Mr. Butcher's suggestions.

CALIFORNIA BOARD FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

GUIDE TO

Engineering & Land Surveying

for City and County Officials

BPELS

BPELS

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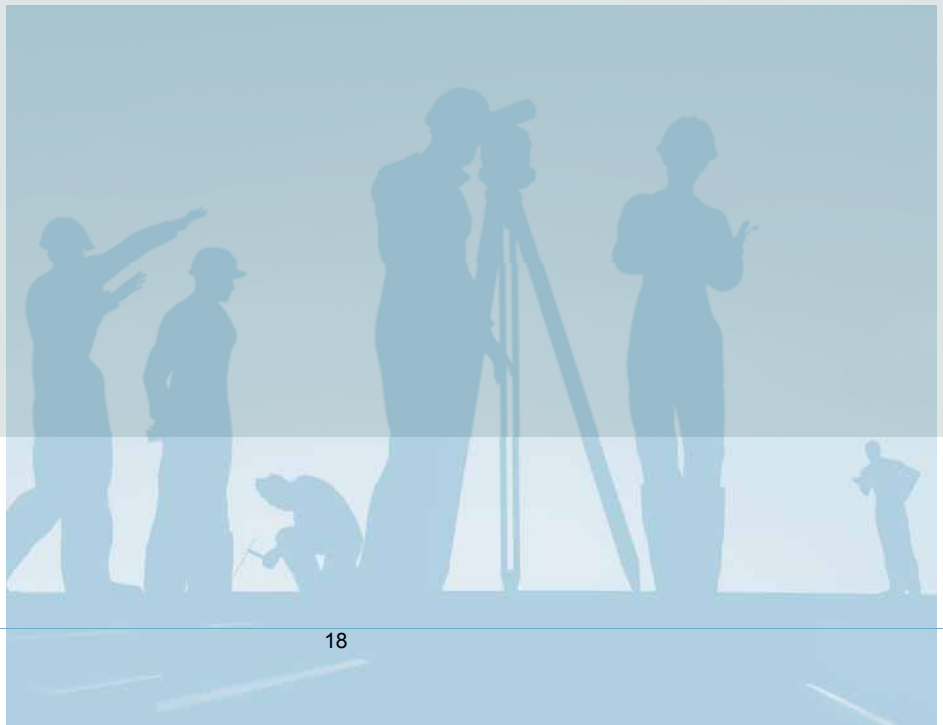


INTRODUCTION

This guide was written to serve as a quick reference for California's city and county building officials, county surveyors, city engineers, and public works officials to help answer questions about engineers and land surveyors—what they can do or cannot do and what constitutes unlicensed practice. Your comments are encouraged so that we can update and revise this guide to include information you need. Please telephone, write or e-mail the Board's Enforcement Unit if you have a question that is not answered here.

BPELS
BOARD FOR PROFESSIONAL ENGINEERS & LAND SURVEYORS

How can city and county officials help the Board? In order to do our job, we need the support and assistance of city and county officials, city engineers, and county surveyors. California consumers are much more likely to discuss issues with a city or county official rather than Board staff. As a city or county official or county surveyor, you see the people who hire engineers and land surveyors. You can let consumers know that if they have a complaint, they can contact the Board's Enforcement staff. The Board investigates consumer complaints and takes legal action when the law is violated. You are also encouraged to distribute the Board's *Consumer Guide to Professional Engineering and Professional Land Surveying* publication to consumers.

What resources can the Board provide to me? We hope to help you by answering your questions, either here, on the telephone, through e-mail, at Enforcement Outreach meetings scheduled with your office, or via other printed information. A copy of the Board's complaint form in included at the back of this guide. You may make copies yourself or request copies from the Board's office. We've also published a *Consumer Guide to Professional Engineering and Professional Land Surveying* to help consumers decide when they need an engineer or land surveyor, how to hire one, and what to expect. Call, write, or e-mail the Board to have multiple copies sent to your agency. The *Consumer Guide* and the Complaint Form are also available online at www.pels.ca.gov. If you'd like to schedule an Enforcement Outreach meeting to discuss the Board's laws and rules or problems you frequently encounter, contact the Board's Enforcement Unit at (866) 780-5370 (toll free) or via e-mail at BPELS_Enforcement_Outreach@dca.ca.gov.

Where can I get a copy of the laws dealing with engineers and land surveyors? The powers and duties of the Board rest with the authority given in the Professional Engineers Act (Business and Professions Code §§ 6700 - 6799), the Professional Land Surveyors Act (Business and Professions Code §§ 8700 - 8805), and the Board's regulations as codified in Title 16, California Code of Regulations, §§ 400 – 476 (often referred to as the "Board Rules"). The laws are available on the Board's Web site at www.pels.ca.gov.

Abbreviations Used in this Guidebook

B&P Code – Business and Professions Code

CCR – California Code of Regulations

Board – Board for Professional Engineers and Land Surveyors

§ - section (as in B&P Code § 6700)

§§ - more than one section

ENGINEERS

PRACTICE ACT, TITLE ACT, AND TITLE AUTHORITY

1. There are three categories of licensure in California: Practice Acts, Title Acts, and Title Authorities.

A. The **practice acts** consist of **civil, electrical, and mechanical engineering**. Only a person licensed with the Board in the appropriate discipline may practice or offer to practice these disciplines. There are, however, several exemptions to the Professional Engineers Act, listed under Business and Professions Code §§ 6739 – 6747.

Civil engineering includes studies or activities in connection with fixed works for irrigation, drainage, waterpower, water supply, flood control, inland waterways, harbors, municipal improvements, railroads, highways, tunnels, airports and airways, purification of water, sewerage, refuse disposal, foundations, grading, framed and homogeneous structures, buildings, or bridges. Civil engineering also includes city and regional planning concerning the features listed above. Civil engineers licensed prior to January 1, 1982, (with a license number before 33966) are authorized to practice all land surveying and engineering surveying. (B&P Code §§ 6731, 6731.1)

Electrical engineering includes studies or activities relating to the generation, transmission, and utilization of electrical energy, including the design of electrical, electronic and magnetic circuits and the technical control of their operation and of the design of electrical gear. It is concerned with research, organizational and economic aspects of the above. (B&P Code § 6731.5)

Mechanical engineering deals with engineering problems relating to generation, transmission, and utilization of energy in the thermal or mechanical form and also within engineering problems relating to the production of tools, machinery, and their products and to heating, ventilation, refrigeration and plumbing. (B&P Code § 6731.6)

B. The title acts consist of the branches of Agricultural, Chemical, Control System, Fire Protection, Industrial, Metallurgical, Nuclear, Petroleum, and Traffic Engineering. Only a person licensed in that engineering branch may use the <u>title</u> of that branch.

The title is regulated, but the practice is not. Anyone—whether or not they are licensed—may practice in any of the title act disciplines. Each title act branch is defined in Title 16, California Code of Regulations, § 404.

C. **Title authorities** apply to two specialized areas of civil engineering: structural engineering and geotechnical engineering. Only the use of the title is restricted. Civil engineers may choose to obtain the additional licenses giving them the authority to use the titles "Structural Engineer," "Geotechnical Engineer," "Soil Engineer," and "Soils Engineer." Any civil engineer may practice structural engineering or geotechnical engineering except in specifically restricted areas. Specifically, only a structural engineer may design a hospital or public school (primary, secondary, and junior college). (These restrictions are contained in the Health & Safety Code and the Education Code.) Civil engineers may perform all geotechnical work. The titles "Geotechnical Engineer," "Soil Engineer'" and "Soils Engineer" are synonymous. Since structural engineering and geotechnical engineering are part of the practice of civil engineering, and since all structural engineers and geotechnical engineers are also civil engineers, any reference to "civil engineering" or "civil engineer" inherently includes structural and geotechnical engineering and structural and geotechnical engineers. (B&P Code §§ 6736, 6736.1)

2. Is there a difference between "registered" and "licensed" for engineers? (B&P Code § 6732)

No. The terms are interchangeable.

3. Can all licensed engineers use the titles or abbreviations of the titles, "Professional Engineer," "Consulting Engineer," "Licensed Engineer," and "Registered Engineer"? (B&P Code § 6732)

Yes. All engineers licensed in any branch may use these titles, in addition to their specific branch titles.

OFFERING ENGINEERING SERVICES

4. Can an unlicensed person offer engineering services? (B&P Code §§ 6730, 6732, 6736, 6736.1)

An unlicensed person cannot offer to practice civil (including structural and geotechnical), electrical, or mechanical engineering services, unless otherwise exempt.

An unlicensed person can offer to and practice any of the "title act" branches of engineering. See previous section on **Practice Act, Title Act and Title Authority** for additional information.

5. Can an unlicensed person use the title "engineer"?
(B&P Code § 6732)

The word "engineer" by itself is considered generic and is not regulated. However, it is unlawful for anyone to use the title "Professional Engineer," "Licensed Engineer," "Registered Engineer," or "Consulting Engineer," or any of the following **titles,** or any combination of such words and phrases or abbreviations unless licensed in the respective branch or authority of engineering.

Civil Engineer	Agricultural Engineer	Metallurgical Engineer
Electrical Engineer	Chemical Engineer	Nuclear Engineer
Mechanical Engineer	Control System Engineer	Petroleum Engineer
Structural Engineer	Fire Protection Engineer	Traffic Engineer
Geotechnical Engineer or Soil Engineer or Soils Engineer	Industrial Engineer	

It is also unlawful for an unlicensed person to use the title "engineer" in any way that would misrepresent that he or she is licensed by this Board or that he or she is authorized to practice civil, electrical, or mechanical engineering.

The Board no longer regulates the titles "Corrosion Engineer," "Manufacturing Engineer," "Quality Engineer," and "Safety Engineer." Anyone may use these titles, whether or not they are licensed. However, individuals who obtained licensure in these disciplines before the titles were deregulated and who maintain their licenses by paying their renewal fees may used the titles "Registered Engineer," "Licensed Engineer," "Consulting Engineer," and "Professional Engineer."

6. Can an unlicensed person own an engineering business?
(B&P Code § 6738)

An unlicensed person cannot be the sole owner of an engineering business offering civil (including structural and geotechnical), electrical, or mechanical services. However, an unlicensed person may be a partner or officer, provided that a licensed engineer is also a partner or officer in charge of the engineering practice of the business.

7. Does an engineering business need to be licensed by the Board?
(16 CCR § 463; B&P Code § 6738)

No, but a licensed engineer who is associated as a partner, member, officer, or employee in responsible charge of professional engineering services offered or performed by a firm, partnership, or corporation must file an Organization Record with the Board within 30 days of such association.

ENGINEERS' RESPONSIBILITIES

8. What does the term "responsible charge" mean as applied to professional engineering? (B&P Code § 6703; 16 CCR § 404.1)

"Responsible charge" relates to the extent or degree of control a licensed engineer is required to maintain while exercising independent control and direction of engineering services or creative work, and to the engineering decisions which can be made only by a licensed engineer. It does not refer to the concepts of management, hierarchy, or financial liability.

The extent of control necessary to be in responsible charge shall be such that the licensed engineer:

a) Makes or reviews and approves the engineering decisions (described below).

b) In making or reviewing and approving the engineering decisions, determines the applicability of design criteria and technical recommendations provided by others before incorporating such criteria or recommendations.

Engineering decisions include those within the purview of the Professional Engineers Act. They do not include decisions concerning administrative or personnel management. Engineering decisions of the licensed engineer in responsible charge may include, but are not limited to:

a) The selection of engineering alternatives to be investigated and the comparison of alternatives for the project;

b) The selection or development of design standards or methods, and materials to be used;

c) The decisions related to the preparation of engineering plans, specifications, calculations, reports, and other documents for the engineered works;

d) The selection or development of techniques or methods of testing to be used in evaluating materials or completed projects, either new or existing;

e) The review and evaluation of manufacturing, fabrication or construction methods or controls to be used and the evaluation of test results, materials and workmanship insofar as they affect the character and integrity of the completed project;

f) The development and control of operating and maintenance procedures.

Questions to be answered by the licensed engineer in responsible charge may relate to the criteria for design, methods of analysis, methods of manufacture and construction, selection of materials and systems, and environmental considerations. The licensed engineer should be able to clearly express the extent of control and how it is exercised and to demonstrate that the licensed engineer is answerable within the extent of control.

9. What structures or parts of structures can an unlicensed person design? (B&P Code §§ 6731, 6737.1, 6745)

An unlicensed person may prepare plans, drawings, or specifications for:

a) Single family dwellings of wood frame construction not more than two stories and basement in height;

b) Multiple dwellings with not more than four dwelling units of wood frame construction not more than two stories and basement in height;

c) Garages and other structures appurtenant to buildings described above, of wood frame construction and not more than two stories and basement in height.

d) Agricultural and ranch buildings of wood frame construction, unless the building official having jurisdiction deems an undue risk to the public health, safety, or welfare is involved;

If any portion of a) through d) deviates from conventional framing requirements for wood frame construction found in Title 24 of the California Code of Regulations or other state or local building codes, such portions shall be designed by, or under the responsible charge of, a licensed architect or licensed engineer.

An unlicensed person may prepare the plans, drawings, and specifications for any alterations or additions to any buildings necessary to the installation of store fronts, interior alterations or additions, fixtures, cabinet work, furniture, appliances or equipment as long as the alterations or additions do not affect the structural safety of the building.

10. Can a contractor prepare electrical or mechanical drawings? (B&P Code § 6737.3)

A contractor appropriately licensed by the Contractors State License Board (CSLB) may only design electrical or mechanical systems which he or she will install. An employee of the contractor may perform the installation. However, the contractor cannot subcontract the installation to another contractor.

11. Must all plans, specifications and reports contain the professional engineer's seal and signature? (B&P Code §§ 6735, 6735.3, 6735.4; 16 CCR § 411)

Only **final documents** – those which have been finalized, permitted, or released for construction – are required to be signed and stamped. They must also include the date on which they are signed and stamped. The presence of the responsible charge engineer's signature and stamp and date of signing is intended to represent that those documents have been completed, reviewed, permitted, or are ready to be released for construction. **Interim documents** (such as drafts, preliminary documents, work-in-progress documents, or building department review documents) must include the

name and license number of the licensed engineer in responsible charge. These **interim** documents must also include a notation indicating their status, such as "preliminary," "for plan check only," or "not for construction."

12. Can a local agency require all engineering documents that are submitted for review to be signed and sealed?
(B&P Code §§ 6735, 6735.3, 6735.4)

A local agency may adopt ordinances or regulations to require that all engineering documents submitted for review be signed and sealed. However, the interim documents, even if signed and sealed, must still contain the interim notation as required by state law.

13. What information must be included in a professional engineer's seal?
(16 CCR§ 411)

The professional engineer's seal (stamp or digital representation) must contain the licensed engineer's name, license number, and branch or authority of engineering in which licensed.

14. Can an unlicensed person use the seal or stamp of a licensed engineer?
(B&P Code §§ 6732, 6735, 6735.3, 6735.4)

No. It is unlawful for anyone other than a licensed professional engineer to stamp or seal any plans, specifications, reports, or other engineering documents. An unlicensed person cannot sign for a licensed person.

15. Are licensed engineers required to have liability insurance or be bonded?

No. The laws do not require licensed engineers to have liability insurance or be bonded.

16. Can an unlicensed person practice civil engineering?
(B&P Code §§ 6730.2, 6732, 6736, 6736.1, 6739, 6740, 6746)

Only if the person is:

a) A federal officer or employee;

b) An employee of the state, or any city or county, who was in responsible charge of engineering work on or before January 1, 1985, until such time that person is replaced;

c) Working under the responsible charge of a licensed civil engineer;

d) An employee of a communications company under the jurisdiction of the Public Utilities Commission (PUC), or an employee of a contractor engaged in work for such a communications company, while engaged in work on communication lines and equipment for communications companies under the jurisdiction of the PUC.

Individuals covered by these exemptions may not use any of the restricted titles listed in B&P Code Sections 6732, 6736, or 6736.1.

17. When can an unlicensed person practice mechanical or electrical engineering?

(B&P Code §§ 6730.2, 6737.3, 6739, 6740, 6746, 6746.1, 6747)

An unlicensed person can practice mechanical or electrical engineering if he or she is:

a) A federal officer or employee;

b) An employee of the state, or any city or county, who was in responsible charge of engineering work on or before January 1, 1985, until such time that person is replaced;

c) Working under the responsible charge of a licensed mechanical or electrical engineer, as appropriate;

d) An employee of a communications company or an employee of a contractor engaged in work for such a communications company, while engaged on work on communication lines and equipment for a communications company;

e) An employee, consultant, temporary employee, a person hired pursuant to a third-party contract, or a contract employee of a manufacturing, mining, public utility, research and development, or other industrial corporation provided that work is in connection with the products, systems, or services of that corporation or its affiliates;

f) A contractor appropriately licensed by the Contractors State License Board (CSLB) and only designs electrical or mechanical systems which he or she will install. An employee of the contractor may perform the installation. However, the contractor cannot subcontract the installation to another contractor.

18. Who can practice geotechnical engineering?

(B&P Code §§ 460, 6736.1)

All civil engineers are legally authorized to practice geotechnical engineering. This includes preparing soils reports.

Geotechnical engineers are civil engineers who have obtained an additional license which authorizes them to use the title "Geotechnical Engineer." The terms "Geotechnical Engineer," "Soil Engineer," and "Soils Engineer" are synonymous.

Local agencies cannot require a geotechnical engineer to prepare geotechnical engineering documents rather than a civil engineer.

19. Can licensed geologists and licensed engineering geologists practice civil engineering?

No. There is no exemption in the Professional Engineers Act that allows licensed geologists or licensed engineering geologists to practice civil engineering.

20. Can a civil engineer sign mechanical or electrical engineering drawings if the civil engineer is not licensed in those disciplines? (B&P Code § 6737.2)

Yes, as long as the electrical or mechanical work is in connection with or supplementary to civil engineering work.

21. Can a mechanical engineer sign civil or electrical engineering documents? (B&P Code §§ 6704, 6730, 6732, 6735, 6735.3, 6735.4)

No.

22. Can an electrical engineer sign civil or mechanical engineering documents? (B&P Code §§ 6704, 6730, 6732, 6735, 6735.3, 6735.4)

No.

24. Who can practice structural engineering? (B&P Code §§ 460, 6736; Health & Safety Code § 129805; Education Code § 17302)

All civil engineers are legally authorized to practice structural engineering under the Professional Engineers Act. However, only structural engineers may design hospitals or public schools, pursuant to the Health and Safety Code and the Education Code.

Structural engineers are civil engineers who have obtained an additional license which authorizes them to use the title "Structural Engineer."

Local agencies cannot require a structural engineer to prepare structural engineering documents rather than a civil engineer.

25. Can someone with an expired (delinquent) license still practice civil, structural, geotechnical, electrical, or mechanical engineering? (B&P Code §§ 6733, 6796, 6796.3)

No. If the license is expired (delinquent), the person cannot practice, offer to practice, or act as a consultant. However, as with any unlicensed individual, the person may work under the responsible charge of a licensed engineer.

26. Can someone with a cancelled, denied, retired, revoked, suspended, or surrendered license still practice civil, structural, geotechnical, electrical, or mechanical engineering? (B&P Code §§ 6733, 6796.1, 6796.2)

No. If the license has a status of cancelled, denied, retired, revoked, suspended or surrendered, the person cannot practice, offer to practice, or act as a consultant. However, as with any unlicensed individual, the person may work under the responsible charge of a licensed engineer.

27. If the license has expired between the time the engineering documents were prepared and the time when the local agency's review is performed, do the documents need to be re-sealed by a licensee with a current license? (B&P Code §§ 6733, 6735, 6735.3, 6735.4)

As long as the license was current at the time the engineering documents were prepared, the documents do not need to be re-sealed prior to review by the local agency. However, any changes (updates or modifications) to the documents that are made following the review by the local agency would have to be prepared by a licensed engineer with a current license and those changes would have to be signed and sealed.

BUILDING OFFICIALS RESPONSIBILITIES WITH RESPECT TO THE PROFESSIONAL ENGINEERS ACT

28. Are building officials required to verify whether the individual who prepares engineering documents has a current license?

They are not required to do so by law, however, the Board encourages building officials to verify licensure. Building officials may verify that the individual who prepares engineering documents is currently licensed or is working under the responsible charge of a licensed engineer. To verify licensure online, visit the Board's Web site at www.pels.ca.gov or call (866) 780-5370.

29. Can a building official require a civil engineer to prepare plans, drawings, specifications, or calculations for portions of a wood-framed residential structure? (B&P Code § 6737.1)

Yes. If any portion of any structure exempted by section 6737.1 deviates from substantial compliance with conventional framing requirements for wood frame construction found in the most recent edition of Title 24 of the California Code of Regulations or tables of limitation for wood frame construction, as defined by the applicable building code duly adopted by the local jurisdiction or the state, the building official having jurisdiction shall require the preparation of plans, drawings, specifications, or calculations for that portion by, or under the responsible charge of, a licensed architect or licensed engineer. The documents for that portion shall bear the stamp and signature of the licensee who is responsible for their preparation.

SIGNING AND SEALING

30. What engineering documents are required to be signed and sealed? (B&P Code §§ 6735, 6735.3, 6735.4; 16 CCR § 411)

All final civil (including geotechnical and structural), electrical, or mechanical engineering plans, specifications, reports, or documents must bear the professional engineer's seal or stamp, as well as his/her signature. If there are multiple pages, the seal or stamp, and signature must appear on each sheet of the plans, and on the original title page of the specifications, calculations and reports. Each licensee shall include the date of signing and sealing immediately below or next to the signature and seal.

Interim (non-final) documents are not required to be signed and sealed. However, the interim documents must include the name and license number of the engineer, as well as a notation as to their intended purpose, such as "for review only," "not for construction," or "draft."

31. Are professional engineers and land surveyors required to include their license expiration date when they sign and seal engineering or land surveying documents? (B&P Code §§ 6735, 6735.3, 6735.4, 6764, 8750, 8761 & 8764.5)

No. January 1,2010, professional engineers and land surveyors are no longer required to include their license expiration date when they sign and seal engineering or land surveying documents. It is also no longer required that the license expiration date be included in their professional seal/stamp.

32. Are electronic seals and/or signatures acceptable? (16 CCR § 411)

Yes. Licensed engineers may choose to affix their signature and seals to their documents through electronic means. However, a rubber stamp of the signature is prohibited and may not be used. A rubber stamp for the seal is acceptable. Local agencies may adopt ordinances or regulations requiring "wet" stamps and/or signatures.

33. Can a civil engineer sign mechanical or electrical engineering drawings if the civil engineer is not licensed in those disciplines? (B&P Code § 6737.2)

Yes, as long as the electrical or mechanical work is in connection with or supplementary to civil engineering work.

34. Who can sign and seal for the engineering design of building components? (B&P Code § 6735; 16 CCR §§ 404.1, 411)

A licensed engineer designing a portion of a building is in responsible charge of the engineering of that portion of the project and is required to seal and sign the documents related to that portion of the project. The licensed engineer must indicate on all documents exactly which portions he or she is in responsible charge of.

35. What happens when a licensed engineer does not complete a project and a new licensed engineer takes over? (16 CCR §§ 404.1, 411)

The new licensed engineer (successor licensee) may assume responsible charge of a project and complete the design as long as he or she exercises the extent of control and assumed responsibility for the engineering decisions. Thus, this successor licensee must review drawings, calculations, studies, etc., to the degree that meets the responsible charge criteria. The successor licensee cannot be required to assume responsibility for portions of the project where responsible charge was by the original licensed engineer (stamped and signed by the original licensed engineer). However, the original licensed engineer is not relieved of any responsibility arising from engineering services of which he or she was in responsible charge (documents stamped and signed only by the original licensed engineer).

36. Can a licensed engineer modify or add to a project for which another licensed engineer is in responsible charge? (16 CCR § 404.1)

The licensed engineer (called a "successor licensee") can modify or add to a project which has been designed under the responsible charge of another licensed engineer. The "successor licensee" must exercise the requisite extent of control and assume the responsibility for the engineering decisions for all new work and for the effect the new work has on the existing work. The "successor licensee" is not required to assume responsible charge of the entire project.

37. Can a licensed engineer be in responsible charge of only a portion or portions of a project? (16 CCR § 404.1)

The licensed engineer may provide services for a portion or portions of an engineering project as long as he or she exercises the requisite extent of control and assumes the responsibility for the engineering decisions relating to those portions. The licensed engineer is not required to assume responsible charge of the entire project.

38. Can a local agency require all engineering documents that are submitted for review to be signed and sealed? (B&P Code §§ 6735, 6735.3, 6735.4)

A local agency may adopt ordinances or regulations to require that all engineering documents submitted for review be signed and sealed. However, the interim documents, even if signed and sealed, must still contain the interim notation as required by state law.

39. What information must be included in a professional engineer's seal?

The professional engineer's seal (stamp or digital representation) must contain the licensed engineer's name, license number, and branch or authority of engineering in which licensed.

PLAN CHECKING

40. Does the plan checking of documents prepared by a licensed engineer have to be done by a licensed engineer? (B&P Code §§ 6704, 6730, 6730.2; 16 CCR § 404.1)

If the level of review done during plan checking is strictly simple code compliance—a non-discretionary comparison of the engineering documents with the clearly mandated code requirements and a determination of whether the engineering documents comply with those clearly mandated code requirements—then the plan checking does not rise to the level of professional engineering and does not have to be performed by, or under the responsible charge of, an appropriately licensed engineer.

HOWEVER, if the level of review done during plan checking involves the exercise of professional engineering discretion and independent engineering judgments, analyses, and determinations by the plan checker, then the plan checking would rise to the level of professional engineering and would have to be performed by, or under the responsible charge of, an appropriately licensed engineer.

41. Do plan check comments have to be signed and sealed by a licensed engineer? (B&P Code §§ 6704, 6730, 6730.2, 6735, 6735.3, 6735.4; 16 CCR §§ 404.1, 411)

If the plan check comments involve the exercise of professional engineering discretion and independent engineering judgments, analyses, and determinations by the plan checker, then the plan check comments constitute an engineering report and must be signed and sealed by the licensed engineer in responsible charge of the plan checking that resulted in plan check comments. (See previous question for additional information.)

LAND SURVEYORS

OFFERING LAND SURVEYING SERVICES

42. Can an unlicensed person offer land surveying services?
(B&P Code §§ 8725, 8726)

No. A person not licensed in California as a land surveyor or a civil engineer cannot offer to practice land surveying in the State.

43. What titles can only be used by a licensed land surveyor?
(B&P Code §§ 8701, 8708, 8751, 8775)

Professional Land Surveyor	Licensed Land Surveyor	Land Surveyor
Photogrammetrist	Photogrammetric Surveyor	Geodetic Engineer
Land Survey Engineer	Survey Engineer	Geomatics Engineer
Geometronic Engineer		

44. Can an unlicensed person own a land surveying business?
(B&P Code § 8729)

An unlicensed person cannot be the sole owner of a land surveying business. However, an unlicensed person may be a partner or an officer, provided that a licensed land surveyor or legally authorized civil engineer is a partner or officer in charge of the land surveying practice of the business.

LAND SURVEYORS' RESPONSIBILITIES

45. Who can perform land surveying activities without being licensed as a land surveyor or civil engineer legally authorized to practice land surveying? (B&P Code §§ 8725, 8726, 8730, 8731)

a) An employee of the State or any city, county, or city and county who is in responsible charge of land surveying work on or before January 1, 1986, until such time that person is replaced;

b) A civil engineer licensed prior to January 1, 1982, with a license number below C 33966;

c) Officers and employees of the United States of America practicing solely in that capacity, except when surveying the exterior boundaries of federal lands in California;

d) An officer or employee of an electric, gas, or telephone corporation as defined in Public Utilities Code §§ 218, 222, and 234, with annual revenues of twenty-five million dollars ($25,000,000) or more, in the preparation of a legal description of an easement for utility distribution lines and service facilities;

e) A subordinate working under the responsible charge of a land surveyor or legally authorized civil engineer.

46. Can ALL civil engineers practice land surveying?
(B&P Code §§ 6731, 6731.1, 6731.2, 8731)

Only civil engineers licensed prior to January 1, 1982, are authorized to practice all land surveying. The last license number issued to a civil engineer before January 1, 1982, was 33965. Civil engineers licensed after January 1, 1982, may only practice "engineering surveying" as defined in Business and Professions Code § 6731.1.

A civil engineer licensed after January 1, 1982, can offer land surveying work incidental to his or her civil engineering practice, provided all the land surveying work is performed by, or under the direction of, a licensed land surveyor or licensed civil engineer legally authorized to perform land surveying.

47. Can land surveyors prepare grading plans?
(B&P Code §§ 6731, 8728)

No, only licensed civil engineers can prepare grading plans.

48. What surveys do not require a professional land surveyor or legally authorized civil engineer? (B&P Code §§ 6731.1, 8726, 8727)

Engineering surveys as defined in B&P Code §§ 6731.1 may also be done by civil engineers licensed after January 1, 1982.

Surveys made exclusively for geological or landscaping purposes not involving property line determination do not constitute surveying under the Professional Land Surveyors Act.

49. Under what conditions must a record of survey be filed? (B&P Code §§ 8762, 8767, 8768, 8771, 8773(b))

The following conditions require the filing of a record of survey:

a) Every survey relating to land boundaries or property lines done by a professional land surveyor or legally authorized civil engineer using existing subdivision maps, official maps, or records of survey that discloses any one or more of the following:

   1) Material evidence or physical change is found which does not appear on the existing maps;

   2) A material discrepancy with the information contained on the existing maps concerning the position of points, lines, or dimensions;

   3) Evidence that might result in materially alternate positions of lines or points;

   4) Establishment of one or more points or lines not shown on the existing maps;

   5) Points or lines set for a parcel of land described in a deed or other instrument of title that are not shown on a map of record.

b) After the establishment of a lost corner, as defined by the Manual of Instructions for the Survey of the Public Lands of the United States.

c) If the county surveyor and the licensed land surveyor or legally authorized civil engineer disagree upon matters appearing on a record of survey after the record of survey has been resubmitted for filing without further changes, an explanation of the differences must be noted on the map for filing. If the county surveyor and the licensed land surveyor or legally authorized civil engineer cannot agree on the language explaining the differences, both must note an explanation, specific enough to identify the factual basis for the difference, on the record of survey.

50. When is a record of survey not required?
(B&P Code § 8765)

A record of survey is not required when:

a) It has been made by a public officer in his or her official capacity and a copy has been filed with the county surveyor of the county where the land is located.

b) A survey has been made by the United States Bureau of Land Management.

c) A map is in preparation for recording or shall have been recorded under the provisions of the Subdivision Map Act.

d) The survey is a retracing of lines shown on a subdivision map, official map, or a record of survey, where no material discrepancies in the position of points or lines, or in dimensions, are found, provided that a corner record is filed for any corners set or reset or found to be different than indicated by prior records.

51. When is a corner record required?
(B&P Code §§ 8771, 8773)

Prior to the time when any streets, highways, other rights-of-way, or easements are improved, constructed, reconstructed, maintained, resurfaced, or relocated, any monuments that exist that control the location of subdivisions, tracts, boundaries, roads, streets, or highways, or provide horizontal or vertical survey control shall be located and referenced by or under the direction of a licensed land surveyor or legally authorized civil engineer and a corner record (or record of survey) of the references shall be filed with the county surveyor.

Upon completion of the new construction, a new suitable monument or permanent witness monuments shall be set to perpetuate the location of the destroyed, damaged, covered or otherwise obliterated monument and a corner record (or record of survey) shall be filed with the county surveyor prior to the recording of a certificate of completion for the project.

A corner record shall be filed with the county surveyor for any corner and every accessory to such corner which is found, set, reset, or used as control in any survey by a licensed land surveyor for every corner established by the Survey of the Public Lands of the United States, except “lost corners” as defined by the Manual of Instructions for the Survey of the Public Lands of the United States.

52. What must be included in a record of survey?
(B&P Code §§ 8763, 8764)

The record of survey shall be a map, legibly drawn or printed by a process guaranteeing a permanent record in black on tracing cloth, or polyester-base film, 18 by 26 inches or 460 by 660 millimeters, with a marginal line around each sheet leaving a blank margin of one inch or 25 millimeters.

The record of survey must show the following:

a) All monuments found, set, reset, replaced, or removed, describing their kind, size, and location, and other related data;

b) Bearing or witness monuments, basis of bearings, bearing and length of lines, scale of map, and north arrow;

c) Name and legal designation of the property and the date of the survey;

d) The relationship of adjacent tracts, streets, or senior conveyances which have common lines with the survey;

e) Memorandum of oaths;

f) Statements required by section 8764.5;

g) Any other data necessary for interpretation of the various items and locations of the points, lines, and areas shown, or for identification of the survey or surveyor.

The record of survey must also show the reason why the mandatory filing provisions of Section 8762(b)(1)–(5) apply.

53. What are the time frames for filing and for examining a record of survey and/or resubmitting such record after examination?
(B&P Code §§ 8762, 8766, 8767, 8768)

Submission of record of survey is required within 90 days after setting of boundary monuments or within 90 days after completion of a field survey, whichever comes first. If for reasons beyond his or her control the licensed land surveyor or legally authorized civil engineer cannot comply with the time limit, he or she must provide a letter stating that inability to the county surveyor before the 90-day time limit has expired. The letter must give an estimate of date of completion of the record of survey, reasons for the delay, and a general statement of the location of the survey including assessor's parcel number or numbers.

Examination of record of survey—The county surveyor must examine the record of survey within 20 working days of receipt of the record of survey, or within additional time as mutually agreed upon by the licensed land surveyor or legally authorized civil engineer and the county surveyor.

Resubmittal of record of survey—The licensed land surveyor or legally authorized civil engineer has 60 days following receipt of the county surveyor's written statement of changes necessary to make the record of survey conform to the section 8766 requirements. That time may be extended as mutually agreed upon by the licensed land surveyor or legally authorized civil engineer and the county surveyor.

Record of survey explanation of differences—If the county surveyor and the licensed land surveyor or legally authorized civil engineer cannot agree upon matters appearing on a record of survey within 10 working days after the record of survey has been resubmitted with a request that it be filed without further change, an explanation of the differences must be noted on the map and it must be presented by the county surveyor to the county recorder for filing. If the county surveyor and the licensed land surveyor or legally authorized civil engineer cannot agree on the language explaining the differences, both must note an explanation, specific enough to identify the factual basis for the difference of opinion, on the record of survey.

54. What items must be examined by the county surveyor for a record of survey? (B&P Code § 8766)

a) The accuracy of the mathematical data shown on the record of survey.

b) The record of survey must be in substantial compliance with Sections 8762.5, 8763, 8764, 8764.5, 8771.5 and 8772 of the Business and Professions Code and indicates:

1) Monuments found, set, reset, replaced, or removed, describing their kind, size and location, and giving other related data;

2) Bearing or witness monuments, basis of bearings, bearing and length of lines, scale of map and north arrow;

3) Name and legal designation of the property in which the survey is located and the date or time period of the survey;

4) Relationship to portions of adjacent tracts, streets, or senior conveyances which have common lines with the survey;

5) Memorandum of oaths;

6) Statements required by section 8764.5;

7) Any other data necessary to interpret the items and locations of the points, lines, and areas shown.

The record of survey must also show, either graphically or by note, the reason or reasons, if any, why the mandatory filing provisions of section 8762(b)(1)-(5) apply.

A record of survey which divides into additional parcels of land which is shown on the latest adopted county assessment roll as a unit or as contiguous units cannot be filed without a certificate by the county surveyor (if the land lies within an unincorporated area) or city engineer (if the land lies within a city) of compliance with the provisions of the Subdivision Map Act, Division 2 (commencing with section 66410) of Title 7 of the Government Code, and any applicable local ordinance enacted pursuant thereto.

55. What must be done if the land surveyor or legally authorized civil engineer and the county surveyor disagree about matters on the record of survey or corner record? (B&P Code §§ 8768, 8773.2)

If the county surveyor and the licensed land surveyor or legally authorized civil engineer cannot agree upon matters appearing on a record of survey or corner record within 10 working days after the record of survey or corner record has been resubmitted with a request that it be filed without further change, an explanation of the differences must be noted on the map and it must be presented by the county surveyor to the county recorder for filing. If the county surveyor and the licensed land surveyor or legally authorized civil engineer cannot agree on the language explaining the differences, both must note an explanation, specific enough to identify the factual basis for the difference of opinion, on the record of survey.

56. What are the city local agencies' responsibilities with regard to the preservation and perpetuation of monuments? (B&P Code § 8771)

When monuments exist that control the location of subdivisions, tracts, boundaries, roads, streets, or highways, or provide horizontal or vertical survey control, the monuments shall be located and referenced by or under the direction of a licensed land surveyor or legally authorized civil engineer prior to the time when any streets, highways, other rights-of-way, or easements are improved, constructed, reconstructed, maintained, resurfaced, or relocated and a corner record or record of survey of the references shall be filed with the county surveyor.

It shall be the responsibility of the governmental agency or others performing construction work to provide for the monumentation required. It shall be the duty of every land surveyor or civil engineer to cooperate with the governmental agency in matters of maps, field notes, and other pertinent records.

The project engineer/surveyor should coordinate with the contractor to reset monuments or provide permanent witness monuments and file the required documentation with the county surveyor, per Business and Professions Code section 8771.

57. Can a civil engineer licensed after January 1, 1982, determine property boundaries? (B&P Code §§ 6731, 8726, 8731)

No. Civil engineers licensed after January 1, 1982, cannot determine property boundaries.

58. Can a civil engineer licensed after January 1, 1982, prepare site plans? (B&P Code §§ 6731, 6731.1, 8726, 8731)

Site plans showing grading, utilities, paving, and layout of a building site may be done by all civil engineers, no matter when their license was issued. However, civil engineers licensed after January 1, 1982, may not determine the property boundaries in relationship to the fixed works shown on the site plan.

59. Can a civil engineer licensed after January 1, 1982, certify elevations and prepare topographic or elevation surveys? (B&P Code §§ 6731, 6731.1, 8726, 8731)

All civil engineers, no matter when their license was issued, may certify elevations of any portion of a structure or other fixed work and may prepare topographic and elevation surveys. However, civil engineers licensed after January 1, 1982, may not determine the property boundaries in relationship to the fixed works shown on the topographic or elevation surveys.

60. Can someone with a delinquent license still practice land surveying? (B&P Code §§ 8802, 8803, 8803.1, 8761)

No. If the license is delinquent, the person cannot practice, offer to practice, or act as a consultant. However, as with any unlicensed individual, the person may work under the responsible charge of a licensed land surveyor or legally authorized civil engineer.

61. Can someone with a cancelled, denied, retired, revoked, suspended or surrendered license still practice land surveying? (B&P Code §§ 8761, 8802.1, 8802.2)

No. If the license has a status of denied, retired, revoked, suspended or surrendered, the person cannot practice, offer to practice, or act as a consultant. However, as with any unlicensed individual, the person may work under the responsible charge of a licensed land surveyor or legally authorized civil engineer.

SIGNING AND SEALING

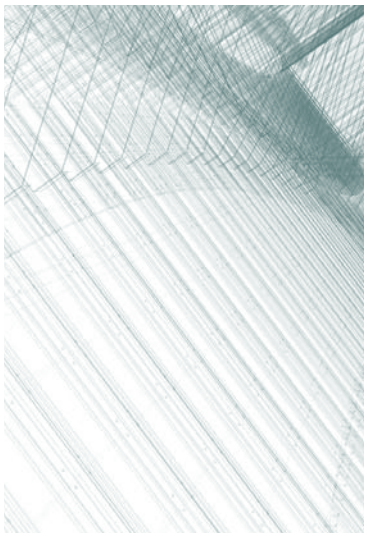
62. Who can sign and seal land surveying documents? (B&P Code §§ 8761, 8761.1; 16 CCR § 411)

A professional land surveyor or a legally authorized civil engineer must sign and seal all maps, plats, reports, and descriptions that are prepared under his or her responsible charge. The required signature and seal must appear on the original map or plat and on the title page of descriptions, documents, and reports. The signature and seal is not required on every sheet of a final map.

Interim (non-final) documents are not required to be signed and sealed. However, the interim documents must include the name and license number of the land surveyor, as well as a notation as to their intended purpose, such as "for review only," "preliminary," or "draft."

63. Are professional engineers and land surveyors required to include their license expiration date when they sign and seal engineering or land surveying documents? (B&P Code §§ 6735, 6735.3, 6735.4, 6764, 8750, 8761 & 8764.5)

No. January 1,2010, professional engineers and land surveyors are no longer required to include their license expiration date when they sign and seal engineering or land surveying documents. It is also no longer required that the license expiration date be included in their professional seal/stamp.



64. What does the term "responsible charge" mean as applied to land surveying? (16 CCR § 404.2)

Responsible charge relates to the extent of control a licensed land surveyor or legally authorized civil engineer is required to maintain while exercising independent control and direction of land surveying work, and the land surveying decisions which can only be made by a licensed land surveyor or legally authorized civil engineer. It does not refer to the concepts of management, hierarchy, or financial liability.

The extent of control necessary to be in responsible charge shall be such that the land surveyor:

a) Makes or reviews and approves that land surveying decisions (described below).

b) In making or reviewing and approving the land surveying decisions, determines the applicability of survey criteria and technical recommendations provided by others before incorporating such criteria or recommendations.

Land surveying decisions include those within the purview of the Professional Land Surveyors Act. They do not include decisions concerning administrative or personnel management. Land surveying decisions of the licensed land surveyor or legally authorized civil engineer in responsible charge may include, but are not limited to:

a) Selecting the methods, procedures, and tolerances of field work.

b) Determining calculation and adjustment methods.

c) Determining and specifying the information to be shown on maps or documents furnished in connection with the land surveying services, including the format of the information and the format of the maps or documents.

d) The decisions related to the preparation of maps, plats, land surveying reports, descriptions and other land surveying documents furnished in connection with the land surveying services.

e) Reviewing the sufficiency and accuracy of the work product.

Examples of questions to be answered by the licensed land surveyor or legally authorized civil engineer in responsible charge could relate to the criteria for measurement, surveying, methods, analysis, and conclusions made including, but not limited to, the retracement of government surveys, interpretation and construction of deed descriptions, conflicts between construction drawings and actual conditions, determination of the proper control datum and epoch, application of proportion methods and analysis of evidence related to written and unwritten property rights. The licensee should be able to clearly express the extent of control and how it is exercised and to demonstrate that he or she is answerable within the extent of control.

CONTRACTORS

65. Can a licensed contractor perform design services under the direction of a licensed civil engineer for a non-exempt structure?
(B&P Code §§ 5537.2, 6740)

Yes, provided that the contractor works under the responsible charge of the civil engineer, and the civil engineer signs and seals all work prepared by the contractor.

66. Can licensed mechanical and electrical contractors prepare and sign drawings for their respective systems without the supervision of a licensed engineer?
(B&P Code § 6737.3)

A contractor appropriately licensed by the Contractors State License Board (CSLB) may only design systems which he or she will install. An employee of the contractor may perform the installation. However, the contractor cannot subcontract the installation to another contractor.

67. Can a contractor prepare civil engineering or land surveying documents?

No.

ENGINEERING, LAND SURVEYING AND ARCHITECTURAL SERVICES

68. Are architects exempt from the Professional Engineers Act?
(B&P Code § 6737)

An architect who holds a certificate to practice architecture in California is exempt from licensure as an engineer as long as he or she practices architecture as it is defined in the Architects Practice Act (B&P Code §§ 5500 – 5610). An architect may not use any of the restricted engineering titles or offer civil, geotechnical, structural, electrical, or mechanical engineering services separate from their architectural services unless licensed as an engineer by the Board for Professional Engineers and Land Surveyors.

69. Are architects exempt from the Professional Land Surveyors Act?

No.

70. Can a civil engineer licensed after January 1, 1982, prepare, approve, or sign a record of survey, a parcel map, a final map, or legal description related to the completion of a subdivision as defined in the Subdivision Map Act or a survey as defined in the Professional Land Surveyors Act?
(B&P Code § 8731; Government Code §§ 66442, 66450)

No. However, per Government Code Sections 66442(b) and 66450(b), a civil engineer licensed after January 1, 1982, acting as the City or County Engineer may sign the map for the City or County. However, in this case, the City or County Engineer may not sign for the technical correctness of the map; this may only be done by someone legally authorized to practice land surveying.

71. Can architects prepare plans for grading work?
(B&P Code §§ 5500.1, 6737)

Yes. An architect responsible for preparation of a site plan is authorized to prepare site grading and drainage plans, except where such plans are submitted pursuant to the Subdivision Map Act. However, an architect may not determine property lines.

72. Can a land surveyor prepare grading plans? (B&P Code § 6731)

No.

VIOLATIONS, COMPLAINTS, LETTERS OF INQUIRY

73. Who can file a complaint?

Anyone who believes there has been a violation of the Board's licensing laws may file a complaint. All complaints must be filed in writing with a description of the problem and as much identifying information as possible, such as plans, pictures, maps, etc. Although a complaint form is not necessary, such forms are available from the Board office or on the Internet at www.pels.ca.gov.

The Board also accepts anonymous complaints; however, the Board can only investigate the complaint if there is sufficient evidence provided with the complaint to indicate a violation may have occurred.

74. How does someone find out if there is a complaint against a licensed engineer or land surveyor or an unlicensed person?

Call the Board's Enforcement Unit at (866) 780-5370 to verify that the person is licensed and to find out if there have been any complaints or disciplinary actions taken against him or her. You may also e-mail the Enforcement Unit at BPELS_Enforcement_Information@dca.ca.gov.

73. What can an individual do if he or she is concerned that someone may be violating the Professional Engineers Act or the Professional Land Surveyors Act?

Anyone may write, e-mail, or call the Board's Enforcement Unit at (866) 780-5370. If it appears that a violation has occurred, staff will ask the caller to provide evidence so an investigation can be initiated.

Also, a letter or e-mail may be sent to the Board to request clarification of any law or rule or inquiring whether or not an action is a violation. If it appears that a violation has occurred, the Board may investigate the matter on its own. It is not necessary to be the owner of the property or to have engaged the services being questioned to file a complaint.

BOARD FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS
2535 Capitol Oaks Drive, Suite 300, Sacramento, CA 95833-2944
Telephone: (916) 263-2222 Toll Free: 1-866-780-5370
Facsimile: (916) 263-2246
www.pels.ca.gov

COMPLAINT FORM

1. SUBJECT (Engineer or Land Surveyor)

Name of individual and license number, if known

Business Name, if any

Mailing Address

City, State, Zip Code

Daytime Phone Number Fax Number

Home/Evening Phone Number Cell Phone Number

E-mail Address or Website, if known

2. COMPLAINANT (Person filing complaint)

Your Name

Business Name, if any

Mailing Address

City, State, Zip Code

Daytime Phone Number FAX Number

Home/Evening Phone Number Cell Phone Number

E-mail Address

3. SUBJECT PROPERTY ADDRESS (if different from answer # 2) and/or description of property location, including city and/or county.

PLEASE COMPLETE QUESTIONS 4 AND 5 AND DECLARATION ON NEXT SHEET

<<<<<<<<<<<<<Section for office use only — Please do not write below this line >>>>>>>>>>>

Case No. _____ Class Code _____ Source Code _____
Date Opened _____ Violation §§ _____ Ack Card Sent:
License No./Exp. Date _____ Date: _____
Initials: _____

Organization Record: Yes ☐ No ☐
Previous Cases: _____

4. DESCRIBE YOUR COMPLAINT: Be specific. What happened? Who else is involved, including City or County agencies (names, addresses, phone numbers)? Give dates and details. Include copies of **ALL DOCUMENTS**, including plans, maps, letters, contracts, etc. If there is no written contract, explain the details of the agreement, including dates. Attach extra pages as required — be as complete as possible. See "How to File a Complaint" for more details.

_____

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5. WHAT WOULD YOU LIKE THE BOARD TO ACCOMPLISH IN RESOLVING YOUR COMPLAINT?

_____

_____

_____

6. DECLARATION

I declare, under penalty of perjury, that the information contained in this complaint, including any attached pages, is true and correct to the best of my knowledge and belief.

Signature _____ Date _____

Please let us know how you obtained this form. This information will help us evaluate the effectiveness of the different methods we use to inform consumers of the services provided by the Board for Professional Engineers and Land Surveyors. Thank you.

_____

_____

NOTES

NOTES

BPELS

BOARD FOR PROFESSIONAL ENGINEERS & LAND SURVEYORS

This guide was produced by the BPELS Enforcement Unit Staff
For additional copies, write, e-mail or telephone:

2535 Capitol Oaks Drive, Suite 300
Sacramento, ca 95833-2944
BPELS_Enforcement_Information@dca.ca.gov
(866) 780-5370 (toll-free)

STATE OF CALIFORNIA

dca

DEPARTMENT OF CONSUMER AFFAIRS

51
09-080

The following pages are the comments submitted by Mike Butcher.

ENGINEERS' RESPONSIBILITIES

8. What does the term "responsible charge" mean as applied to professional engineering? (B&P Code § 6703; 16 CCR § 404.1)

"Responsible charge" relates to the extent or degree of control a licensed engineer is required to maintain while exercising independent control and direction of engineering services or creative work, and to the engineering decisions which can be made only by a licensed engineer. It does not refer to the concepts of management, hierarchy, or financial liability.

The extent of control necessary to be in responsible charge shall be such that the licensed engineer:

a) Makes or reviews and approves the engineering decisions (described below).

b) In making or reviewing and approving the engineering decisions, determines the applicability of design criteria and technical recommendations provided by others before incorporating such criteria or recommendations.

Engineering decisions include those within the purview of the Professional Engineers Act. They do not include decisions concerning administrative or personnel management. Engineering decisions of the licensed engineer in responsible charge may include, but are not limited to:

a) The selection of engineering alternatives to be investigated and the comparison of alternatives for the project;

b) The selection or development of design standards or methods, and materials to be used;

c) The decisions related to the preparation of engineering plans, specifications, calculations, reports, and other documents for the engineered works;

d) The selection or development of techniques or methods of testing to be used in evaluating materials or completed projects, either new or existing;

e) The review and evaluation of manufacturing, fabrication or construction methods or controls to be used and the evaluation of test results, materials and workmanship insofar as they affect the character and integrity of the completed project;

f) The development and control of operating and maintenance procedures.

Questions to be answered by the licensed engineer in responsible charge may relate to the criteria for design, methods of analysis, methods of manufacture and construction, selection of materials and systems, and environmental considerations. The licensed engineer should be able to clearly express the extent of control and how it is exercised and to demonstrate that the licensed engineer is answerable within the extent of control.

how about (6730.2)?

LAND SURVEYORS

OFFERING LAND SURVEYING SERVICES

42. Can an unlicensed person offer land surveying services?
(B&P Code §§ 8725, 8726)

No. A person not licensed in California as a land surveyor or a civil engineer cannot offer to practice land surveying in the State.

43. What titles can only be used by a licensed land surveyor? "RETIRED." 8747.5
(B&P Code §§ 8701, 8708, 8751, 8775)

Professional Land Surveyor ✓	Licensed Land Surveyor ✓	Land Surveyor ✓
Photogrammetrist ✓	Photogrammetric Surveyor ✓	Geodetic Engineer ✓
Land Survey Engineer ✓	Survey Engineer ✓	Geomatics Engineer ✓
Geometronic Engineer ✓		

44. Can an unlicensed person own a land surveying business?
(B&P Code § 8729)

An unlicensed person cannot be the sole owner of a land surveying business. However, an unlicensed person may be a partner or an officer, provided that a licensed land surveyor or legally authorized civil engineer is a partner or officer in charge of the land surveying practice of the business.

48. What surveys do not require a professional land surveyor or legally authorized civil engineer? (B&P Code §§ 6731.1, 8726, 8727)

Engineering surveys as defined in B&P Code §§ 6731.1 may also be done by civil engineers licensed after January 1, 1982.

Surveys made exclusively for geological or landscaping purposes not involving property line determination do not constitute surveying under the Professional Land Surveyors Act.

49. Under what conditions must a record of survey be filed? (B&P Code §§ 8762, 8767, 8768, 8771, 8773(b))

The following conditions require the filing of a record of survey:

a) Every survey relating to land boundaries or property lines done by a professional land surveyor or legally authorized civil engineer using existing subdivision maps, official maps, or records of survey that discloses any one or more of the following:

1) Material evidence or physical change is found which does not appear on the existing maps;

2) A material discrepancy with the information contained on the existing maps concerning the position of points, lines, or dimensions;

3) Evidence that might result in materially alternate positions of lines or points;

Needs to be updated 8762(b)(4)

4) Establishment of one or more points or lines not shown on the existing maps;

5) Points or lines set for a parcel of land described in a deed or other instrument of title that are not shown on a map of record.

b) After the establishment of a lost corner, as defined by the Manual of Instructions for the Survey of the Public Lands of the United States.

c) If the county surveyor and the licensed land surveyor or legally authorized civil engineer ~~disagree~~ cannot agee upon matters appearing on a record of survey after the record of survey has been resubmitted for filing without further changes, an explanation of the differences must be noted on the map for filing. If the county surveyor and the licensed land surveyor or legally authorized civil engineer cannot agree on the language explaining the differences, both must note an explanation, specific enough to identify the factual basis for the difference, on the record of survey.

Should parallel 8768. 10 day

50. When is a record of survey not required?
(B&P Code § 8765)

A record of survey is not required when:

a) It has been made by a public officer in his or her official capacity and a copy has been filed with the county surveyor of the county where the land is located.

b) A survey has been made by the United States Bureau of Land Management.

c) A map is in preparation for recording or shall have been recorded under the provisions of the Subdivision Map Act.

d) The survey is a retracing of lines shown on a subdivision map, official map, or a record of survey, where no material discrepancies in the position of points or lines, or in dimensions, are found, provided that a corner record is filed for any corners set or reset or found to be different than indicated by prior records.

8765 e) mobilehome park

51. When is a corner record required?
(B&P Code §§ 8771, 8773)

Prior to the time when any streets, highways, other rights-of-way, or easements are improved, constructed, reconstructed, maintained, resurfaced, or relocated, any monuments that exist that control the location of subdivisions, tracts, boundaries, roads, streets, or highways, or provide horizontal or vertical survey control shall be located and referenced by or under the direction of a licensed land surveyor or legally authorized civil engineer and a corner record (or record of survey) of the references shall be filed with the county surveyor.

Upon completion of the new construction, a new suitable monument or permanent witness monuments shall be set to perpetuate the location of the destroyed, damaged, covered or otherwise obliterated monument and a corner record (or record of survey) shall be filed with the county surveyor prior to the recording of a certificate of completion for the project.

A corner record shall be filed with the county surveyor for any corner and every accessory to such corner which is found, set, reset, or used as control in any survey by a licensed land surveyor for every corner established by the Survey of the Public Lands of the United States, except "lost corners" as defined by the Manual of Instructions for the Survey of the Public Lands of the United States.

Need to elaborate on 8771 duties 6730.2(c)

52. What must be included in a record of survey?
(B&P Code §§ 8763, 8764)

The record of survey shall be a map, legibly drawn or printed by a process guaranteeing a permanent record in black on tracing cloth, or polyester-base film, 18 by 26 inches or 460 by 660 millimeters, with a marginal line around each sheet leaving a blank margin of one inch or 25 millimeters.

The record of survey must show the following:

a) All monuments found, set, reset, replaced, or removed, describing their kind, size, and location, and other related data;

b) Bearing or witness monuments, basis of bearings, bearing and length of lines, scale of map, and north arrow;

c) Name and legal designation of the property and the date or time period of the survey;

d) The relationship of those portions adjacent tracts, streets, or senior conveyances which have common lines with the survey;

e) Memorandum of oaths;

f) Statements required by section 8764.5;

g) Any other data necessary for interpretation of the various items and locations of the points, lines, and areas shown, or for identification of the survey or surveyor, as may be determined by surveyor.

The record of survey must also show the reason why the mandatory filing provisions of Section 8762(b)(1)–(5) apply.

8764 last line
The ~~res~~ ROS need not consist of a survey of an entire property.

53. What are the time frames for filing and for examining a record of survey and/or resubmitting such record after examination?
(B&P Code §§ 8762, 8766, 8767, 8768)

Submission of record of survey is required within 90 days after setting of boundary monuments or within 90 days after completion of a field survey, whichever comes first. If for reasons beyond his or her control the licensed land surveyor or legally authorized civil engineer cannot comply with the time limit, he or she must provide a letter stating that inability to the county surveyor before the 90-day time limit has expired. The letter must give an estimate of date of completion of the record of survey, reasons for the delay, and a general statement of the location of the survey including assessor's parcel number or numbers.

Examination of record of survey—The county surveyor must examine the record of survey within 20 working days of receipt of the record of survey, or within additional time as mutually agreed upon by the licensed land surveyor or legally authorized civil engineer and the county surveyor.

Resubmittal of record of survey—The licensed land surveyor or legally authorized civil engineer has 60 days following receipt of the county surveyor's written statement of changes necessary to make the record of survey conform to the section 8766 requirements. That time may be extended as mutually agreed upon by the licensed land surveyor or legally authorized civil engineer and the county surveyor.

Record of survey explanation of differences—If the county surveyor and the licensed land surveyor or legally authorized civil engineer cannot agree upon matters appearing on a record of survey within 10 working days after the record of survey has been resubmitted with a request that it be filed without further change, an explanation of the differences must be noted on the map and it must be presented by the county surveyor to the county recorder for filing. If the county surveyor and the licensed land surveyor or legally authorized civil engineer cannot agree on the language explaining the differences, both must note an explanation, specific enough to identify the factual basis for the difference of opinion, on the record of survey.

54. What items must be examined by the county surveyor for a record of survey? (B&P Code § 8766)

a) The accuracy of the mathematical data shown on the record of survey.

b) The record of survey must be in substantial compliance with Sections 8762.5, 8763, 8764, 8764.5, 8771.5 and 8772 of the Business and Professions Code and indicates:

1) Monuments found, set, reset, replaced, or removed, describing their kind, size and location, and giving other related data;

2) Bearing or witness monuments, basis of bearings, bearing and length of lines, scale of map and north arrow;

3) Name and legal designation of the property in which the survey is located and the date or time period of the survey;

4) Relationship to portions of adjacent tracts, streets, or senior conveyances which have common lines with the survey;

5) Memorandum of oaths;

6) Statements required by section 8764.5;

7) Any other data necessary to interpret the items and locations of the points, lines, and areas shown.

The record of survey must also show, either graphically or by note, the reason or reasons, if any, why the mandatory filing provisions of section 8762(b)(1)-(5) apply.

8776 2(b)(c) & (d)

A record of survey which divides into additional parcels of land which is shown on the latest adopted county assessment roll as a unit or as contiguous units cannot be filed without a certificate by the county surveyor (if the land lies within an unincorporated area) or city engineer (if the land lies within a city) of compliance with the provisions of the Subdivision Map Act, Division 2 (commencing with section 66410) of Title 7 of the Government Code, and any applicable local ordinance enacted pursuant thereto.

55. What must be done if the land surveyor or legally authorized civil engineer and the county surveyor disagree about matters on the record of survey or corner record? (B&P Code §§ 8768, 8773.2)

If the county surveyor and the licensed land surveyor or legally authorized civil engineer cannot agree upon matters appearing on a record of survey or corner record within 10 working days after the record of survey or corner record has been resubmitted with a request that it be filed without further change, an explanation of the differences must be noted on the map and it must be presented by the county surveyor to the county recorder for filing. If the county surveyor and the licensed land surveyor or legally authorized civil engineer cannot agree on the language explaining the differences, both must note an explanation, specific enough to identify the factual basis for the difference of opinion, on the record of survey.

56. What are the city local agencies' responsibilities with regard to the preservation and perpetuation of monuments? (B&P Code § 8771)

When monuments exist that control the location of subdivisions, tracts, boundaries, roads, streets, or highways, or provide horizontal or vertical survey control, the monuments shall be located and referenced by or under the direction of a licensed land surveyor or legally authorized civil engineer prior to the time when any streets, highways, other rights-of-way, or easements are improved, constructed, reconstructed, maintained, resurfaced, or relocated and a corner record or record of survey of the references shall be filed with the county surveyor.

8771(d)

It shall be the responsibility of the governmental agency or others performing construction work to provide for the monumentation required. It shall be the duty of every land surveyor or civil engineer to cooperate with the governmental agency in matters of maps, field notes, and other pertinent records.

The project engineer/surveyor should coordinate with the contractor to reset monuments or provide permanent witness monuments and file the required documentation with the county surveyor, per Business and Professions Code section 8771.

7. Discussion of Business and Professions Code section 8726 and Licensed Contractors Performing Land Surveying

8. Date of Next TAC Meeting

9. Other Business Not Requiring Committee Action

10. Adjourn