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## SENATE BILL 5984

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State of Washington 60th Legislature 2007 Regular Session

By Senators Murray and Clements

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Read first time 02/12/2007. Referred to Committee on Labor Commerce, Research & Development.

- AN ACT Relating to performing engineering services on significant structures; and amending RCW 18.43.040 and 18.43.020.
- 3 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:
- 4 **Sec. 1.** RCW 18.43.040 and 2000 c 172 s 1 are each amended to read 5 as follows:
  - (1) The following will be considered as minimum evidence satisfactory to the board that the applicant is qualified for registration as a professional engineer, engineer-in-training, professional land surveyor, or land-surveyor-in-training, respectively:
  - (a)(i) As a professional engineer: A specific record of eight years or more of experience in engineering work of a character satisfactory to the board and indicating that the applicant is competent to practice engineering; and successfully passing a written or oral examination, or both, in engineering as prescribed by the board.
- (ii) Graduation in an approved engineering curriculum of four years or more from a school or college approved by the board as of satisfactory standing shall be considered equivalent to four years of such required experience. The satisfactory completion of each year of

p. 1 SB 5984

such an approved engineering course without graduation shall be considered as equivalent to a year of such required experience. Graduation in a curriculum other than engineering from a school or college approved by the board shall be considered as equivalent to two years of such required experience((: PROVIDED, That)). However, no applicant shall receive credit for more than four years of experience because of undergraduate educational qualifications. The board may, at its discretion, give credit as experience not in excess of one year, for satisfactory postgraduate study in engineering. 

(iii) Structural engineering is recognized as a specialized branch of professional engineering. To receive a certificate of registration in structural engineering, an applicant must hold a current registration in this state in engineering and have at least two years of structural engineering experience, of a character satisfactory to the board, in addition to the eight years' experience required for registration as a professional engineer. An applicant for registration as a structural engineer must also pass an additional examination as prescribed by the board. Applicants for a certificate of registration in structural engineering who have had their application approved by the board prior to July 1, 2001, are not required to have an additional two years of structural engineering experience if the applicant passes the additional structural examination before January 30, 2002.

- (iv) An engineer must be registered as a structural engineer in order to provide structural engineering services for significant structures. The board may waive the requirements of this subsection (1)(a)(iv) until December 31, 2009, if:
- (A) On January 1, 2007, the engineer is registered with the board as a professional engineer; and
- (B) Within two years of January 1, 2007, the engineer demonstrates to the satisfaction of the board that the engineer has sufficient experience in the duties typically provided by a professional structural engineer regarding significant structures.

(b)(i) As an engineer-in-training: An applicant for registration as a professional engineer shall take the prescribed examination in two stages. The first stage of the examination may be taken upon submission of his or her application for registration as an engineer-in-training and payment of the application fee prescribed in RCW 18.43.050 at any time after the applicant has completed four years of

SB 5984 p. 2

the required engineering experience, as defined in this section, or has achieved senior standing in a school or college approved by the board. The first stage of the examination shall test the applicant's knowledge of appropriate fundamentals of engineering subjects, including mathematics and the basic sciences.

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(ii) At any time after the completion of the required eight years of engineering experience, as defined in this section, the applicant may take the second stage of the examination upon submission of an application for registration and payment of the application fee prescribed in RCW 18.43.050. This stage of the examination shall test the applicant's ability, upon the basis of his or her greater experience, to apply his or her knowledge and experience in the field of his or her specific training and qualifications.

(c)(i) As a professional land surveyor: A specific record of eight years or more of experience in land surveying work of a character satisfactory to the board and indicating that the applicant is competent to practice land surveying, and successfully passing a written or oral examination, or both, in surveying as prescribed by the board.

(ii) Graduation from a school or college approved by the board as of satisfactory standing, including the completion of an approved course in surveying, shall be considered equivalent to four years of the required experience. Postgraduate college courses approved by the board shall be considered for up to one additional year of the required experience.

(d)(i) As a land-surveyor-in-training: An applicant for registration as a professional land surveyor shall take the prescribed examination in two stages. The first stage of the examination may be taken upon submission of his or her application for registration as a land-surveyor-in-training and payment of the application fee prescribed in RCW 18.43.050 at any time after the applicant has completed four years of the required land surveying experience, as defined in this section, or has achieved senior standing in a school or college approved by the board. The first stage of the examination shall test the applicant's knowledge of appropriate fundamentals of land surveying subjects, including mathematics and the basic sciences.

(ii) At any time after the completion of the required eight years of land surveying experience, as defined in this section, the applicant

p. 3 SB 5984

may take the second stage of the examination upon submission of an application for registration and payment of the application fee prescribed in RCW 18.43.050. This stage of the examination shall test the applicant's ability, upon the basis of greater experience, to apply knowledge and experience in the field of land surveying.

- (iii) The first stage shall be successfully completed before the second stage may be attempted. Applicants who have been approved by the board to take the examination based on the requirement for six years of experience under this section before July 1, 1996, are eligible to sit for the examination.
- (2) No person shall be eligible for registration as a professional engineer, engineer-in-training, professional land surveyor, or land-surveyor-in-training, who is not of good character and reputation.
- (3) Teaching, of a character satisfactory to the board shall be considered as experience not in excess of two years for the appropriate profession.
- (4) The mere execution, as a contractor, of work designed by a professional engineer, or the supervision of the construction of such work as a foreman or superintendent shall not be deemed to be practice of engineering.
- (5) Any person having the necessary qualifications prescribed in this chapter to entitle him or her to registration shall be eligible for such registration although the person may not be practicing his or her profession at the time of making his or her application.
- **Sec. 2.** RCW 18.43.020 and 1995 c 356 s 1 are each amended to read as follows:
- 27 <u>The definitions in this section apply throughout this chapter</u> 28 unless the context clearly requires otherwise.
- 29 (1) ((Engineer: The term)) "Engineer" ((as used in this chapter 30 shall)) means a professional engineer as ((hereinafter)) defined in this section.
- (2) ((Professional engineer: The term)) "Professional engineer"
  ((within the meaning and intent of this chapter, shall)) means a person
  who, by reason of his or her special knowledge of the mathematical and
  physical sciences and the principles and methods of engineering
  analysis and design, acquired by professional education and practical

SB 5984 p. 4

experience, is qualified to practice engineering as ((hereinafter)) defined <u>in this section</u>, as attested by his or her legal registration as a professional engineer.

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- (3) ((Engineer-in-training: The term)) "Engineer-in-training" ((as used in this chapter)) means a candidate who ((has)): (a) Has satisfied the experience requirements in RCW 18.43.040 for registration; (b) has successfully passed the examination in the fundamental engineering subjects; and (c) is enrolled by the board as an engineer-in-training.
- (4) ((Engineering: The term)) "Engineering" ((as used in this chapter shall)) means the "practice of engineering" as ((hereinafter)) defined in this section.
  - (5) ((Practice of engineering: The term)) (a) "Practice of engineering" ((within the meaning and intent of this chapter shall)) means any professional service or creative work requiring engineering education, training, and experience and the application of special knowledge of the mathematical, physical, and engineering sciences to such professional services or creative work as consultation, investigation, evaluation, planning, design, and supervision of construction for the purpose of assuring compliance with specifications and design, in connection with any public or private utilities, structures, buildings, machines, equipment, processes, works, or projects.
  - (b) A person shall be construed to practice or offer to practice engineering, within the meaning and intent of this chapter, who practices any branch of the profession of engineering; or who, by verbal claim, sign, advertisement, letterhead, card, or in any other way represents himself or herself to be a professional engineer, or through the use of some other title implies that he or she is a professional engineer; or who holds himself or herself out as able to perform, or who does perform, any engineering service or work or any other professional service designated by the practitioner or recognized by educational authorities as engineering.
- (c) The practice of engineering ((shall)) does not include the work ordinarily performed by persons who operate or maintain machinery or equipment.
- (6) ((<del>Land surveyor: The term</del>)) "<u>L</u>and surveyor" ((<del>as used in this chapter shall</del>)) mean<u>s</u> a professional land surveyor.

p. 5 SB 5984

- (7) ((Professional land surveyor: The term)) "Professional land surveyor" ((as used in this chapter)) means a person who, by reason of his or her special knowledge of the mathematical and physical sciences and principles and practices of land surveying, which is acquired by professional education and practical experience, is qualified to practice land surveying and as attested to by his or her legal registration as a professional land surveyor.
- (8) (( $\frac{\text{Land-surveyor-in-training:}}{\text{training:}}$  The term)) "Land-surveyor-intraining" (( $\frac{\text{as used in this chapter}}{\text{this chapter}}$ )) means a candidate who: (a) Has satisfied the experience requirements in RCW 18.43.040 for registration; (b) successfully passes the examination in the fundamental land surveying subjects; and (c) is enrolled by the board as a land-surveyor-in-training.
- (9) ((Practice of land surveying: The term)) "Practice of land surveying" ((within the meaning and intent of this chapter, shall)) means assuming responsible charge of the surveying of land for the establishment of corners, lines, boundaries, and monuments, the laying out and subdivision of land, the defining and locating of corners, lines, boundaries, and monuments of land after they have been established, the survey of land areas for the purpose of determining the topography thereof, the making of topographical delineations and the preparing of maps and accurate records thereof, when the proper performance of such services requires technical knowledge and skill.
- (10) ((Board: The term)) "Board" ((as used in this chapter shall)) means the state board of registration for professional engineers and land surveyors, provided for by this chapter.
  - (11) "Significant structures" include:
- (a) Hazardous facilities, defined as: Structures housing, supporting, or containing sufficient quantities of explosive substances to be of danger to the safety of the public if released;
- (b) Essential facilities that have a ground area of more than five thousand square feet and are more than twenty feet in mean roof height above average ground level. Essential facilities are defined as:
- 34 <u>(i) Hospitals and other medical facilities having surgery and</u>
  35 <u>emergency treatment areas;</u>
  - (ii) Fire and police stations;

37 (iii) Tanks or other structures containing, housing, or supporting

SB 5984 p. 6

1	water or fire suppression material or equipment required for the
2	protection of essential or hazardous facilities or special occupancy
3	structures;
4	(iv) Emergency vehicle shelters and garages;
5	(v) Structures and equipment in emergency preparedness centers;
6	(vi) Standby power-generating equipment for essential facilities;
7	(vii) Structures and equipment in government communication centers
8	and other facilities requiring emergency response;
9	(viii) Aviation control towers, air traffic control centers, and
10	emergency aircraft hangars; and
11	(ix) Buildings and other structures having critical national
12	defense functions;
13	(c) Structures exceeding one hundred feet in height above average
14	ground level;
15	(d) Buildings that are customarily occupied by human beings and are
16	five stories or more above average ground level;
17	(e) Bridges having a total span of more than two hundred feet and
18	piers having a surface area greater than ten thousand square feet; and
19	(f) Buildings and other structures where more than three hundred
20	people congregate in one area.

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p. 7 SB 5984