

# TITLE 21 – OCCUPATIONAL LICENSING BOARDS AND COMMISSIONS

## CHAPTER 56 – PROFESSIONAL ENGINEERS AND LAND SURVEYORS

*Notice is hereby given in accordance with G.S. 150B-21.2 that the NC Board of Examiners for Engineers and Surveyors intends to amend the rules cited as 21 NCAC 56 .0501 - .0503, .0505, .0602 - .0603, .0606, .0701, .0802, .0804, .1102 - .1103, .1106, .1301, .1413, .1602 - .1604, .1606 - .1608, .1702 - .1703, .1705 - .1707, .1712 - .1713.*

**Proposed Effective Date:** March 1, 2009

**Public Hearing:**

**Date:** December 12, 2008

**Time:** 9:00 a.m.

**Location:** 4601 Six Forks Road, Suite 310, Raleigh, NC 27609

**Reason for Proposed Action:** Update and clarify names of organizations in 21 NCAC 56 .0501 and .0502; add standard for reasonable exam accommodation in .0503 and .0603; clarify that a two hour exam is required for surveying comity in .0602; update exam name in .0603; increase renewal fee in .0505, .0606 and .0804; clarify language and define timely in .0701; clarify language in .0802; clarify seal size in .1102; require firm license number on documents and clarify language in .1103, .1106 and .1301; delete time requirement for service of decision in .1413; revise Standards of Practice for Land Surveying to: require map or report in .1602, clarify language in .1603 and .1604, add certification statement in .1604, clarify cost of required standard for topographic and planimetric mapping in .1606, revise definition of Global Positioning System and required certification in .1607, allow choice of accuracy standard for LIS/GIS surveys in .1608; delete deemed acceptability of sponsor courses in .1702; add internet courses, clarify language and define active participation in .1703; define credit for correspondence type courses in .1705; revise to require log and records and delete reference to national records database in .1706 and .1712; clarify exemption in .1707; clarify requirement for residents of other jurisdictions in .1709; and sponsor fee and revised requirements in .1713.

**Procedure by which a person can object to the agency on a proposed rule:** Objections to the proposed rule amendments may be submitted, in writing, to David S. Tuttle, Board Counsel, NC Board of Examiners for Engineers and Surveyors, 4601 Six Forks Road, Suite 310, Raleigh, NC 27609. Objections may also be submitted during the public hearing. Objections shall include the specific rule citation(s), the nature of the objection(s), and the complete name(s) and contact information for the individual submitting the objection(s). Objections must be received by the end of the comment period at 5:00 p.m. on January 2, 2009

**Comments may be submitted to:** David S. Tuttle, Board Counsel, NC Board of Examiners for Engineers and Surveyors, 4601 Six Forks Road, Suite 310, Raleigh, NC 27609, phone (919) 791-2000 ext 111, email [dstuttle@ncbels.org](mailto:dstuttle@ncbels.org)

**Comment period ends:** January 2, 2009

**Procedure for Subjecting a Proposed Rule to Legislative Review:** If an objection is not resolved prior to the adoption of the rule, a person may also submit written objections to the Rules Review Commission. If the Rules Review Commission receives written and signed objections in accordance with G.S. 150B-21.3(b2) from 10 or more persons clearly requesting review by the legislature and the Rules Review Commission approves the rule, the rule will become effective as provided in G.S. 150B-21.3(b1). The Commission will receive written objections until 5:00 p.m. on the day following the day the Commission approves the rule. The Commission will receive those objections by mail, delivery service, hand delivery, or facsimile transmission. If you have any further questions concerning the submission of objections to the Commission, please call a Commission staff attorney at 919-733-2721.

**Fiscal Impact:**

- State
- Local
- Substantive ( $\geq$ \$3,000,000)
- None

### SECTION .0500 - PROFESSIONAL ENGINEER

#### 21 NCAC 56 .0501 REQUIREMENTS FOR LICENSING

(a) Education. The education of an applicant shall be considered in determining eligibility for licensing as a Professional Engineer. The following terms used by the Board for the specific educational requirements to be eligible to be licensed as a Professional Engineer are defined by the Board as follows:

- (1) Engineering Curriculum of Four or More Years Approved by the Board is defined as a program that has been accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET). This program is incorporated by reference including subsequent amendments and editions. This material is available for inspection at the office of the North Carolina Board of Examiners for Engineers and Surveyors. Copies may be obtained at the Board office at a cost of five dollars (\$5.00) per copy.

- (2) Engineering or Related Science Curriculum of Four or More Years Other than Ones Approved by the Board is defined as a curriculum, although not accredited by ABET, of technical courses which contains engineering or scientific principles.
- (3) Equivalent Education Satisfactory to the Board:
  - (A) A graduate degree in Engineering from an institution in which the same discipline undergraduate engineering program has been accredited by ABET (EAC) ~~shall be~~ is considered equivalent to an engineering curriculum of four or more years approved by the Board.
  - (B) A bachelor's degree in Engineering ~~Technology~~ Technology, whether or not accredited by the Technology Accreditation Commission (TAC) of ABET, ~~shall be~~ is considered equivalent to an engineering or related science curriculum of four or more years other than one approved by the Board.
  - (C) An associate degree in an engineering related curriculum with an additional two years of progressive engineering experience ~~shall be~~ is considered equivalent to an engineering or related science curriculum of four or more years other than one approved by the Board.
  - (D) A high school diploma with an additional four years of progressive engineering experience ~~shall be~~ is considered equivalent to an engineering or related science curriculum of four or more years other than one approved by the Board.
  - (E) Foreign degrees ~~shall be~~ are considered only after receipt of an evaluation equivalency report from the Foreign Engineering Education Evaluation Program (FEEEP) Center for Professional Engineering Education Services, an affiliate of the National Council of Examiners for Engineering and Surveying (NCEES), or from the American Association of Collegiate Registrars and Admissions Officers (AACRAO). The Board shall equate the degree to one of the education categories in ~~(a)(1)-(3)~~ Subparagraphs (a)(1) through (3) of this subsection .0501-Rule.

(b) Experience:

- (1) General. The experience of an applicant shall be considered in determining whether an applicant is eligible to be licensed as a Professional Engineer.
- (2) Required Experience. In evaluating the work experience required, the Board may consider the total experience record and the progressive nature of the record. (Not less than half of required engineering experience shall be of a professional grade and character, and shall be performed under the responsible charge of a licensed Professional Engineer, or if not, a written explanation shall be submitted showing why the experience should be considered acceptable and the Board may approve if satisfied of the grade and character of the progressive experience.)
- (3) Definition. The terms "progressive engineering experience" or "progressive experience on engineering projects" mean that during the period of time in which an applicant has made a practical utilization of acquired knowledge, continuous improvement, growth and development have been shown in the utilization of that knowledge as revealed in the complexity and technical detail of the work product or work record. The applicant must show continuous assumption of greater individual responsibility for the work product over that period of time. The progressive experience on engineering projects shall be of a grade and a character which indicates to the ~~board~~ Board that the applicant ~~may be~~ is competent to practice engineering.
- (4) Specific Credit for Experience. In evaluating progressive engineering experience, the Board may give credit for experience in the following areas of work:
  - (A) Graduate schooling or research in an approved engineering program resulting in award of an advanced engineering degree, one year for each such degree - maximum two years;
  - (B) Progressive land surveying - maximum two years; and
  - (C) Teaching of engineering subjects at the university level in an approved engineering program offering a four year or more degree approved by the Board - maximum two years.

The Board, however, shall not accept combinations, restricted only to the categories noted above, as fulfilling all the necessary statutory experience requirements. Every applicant for licensure as a Professional Engineer, as part of the total experience requirement, shall show a minimum of one year experience of a progressive engineering nature in industry, or government, or under a licensed Professional Engineer offering service to the public.

Full-time engineering faculty members who teach in an approved engineering program offering a four year or more degree approved by the Board, may request waiver of the minimum one year experience in industry, government, or private practice if they demonstrate consulting or research work of at least one year's duration, which was pursued to fruition, and which is of a progressive engineering nature. The faculty applicant shall document the work and demonstrate that the work meets the Board's requirement.
- (5) Other Experience is Considered if it is:
  - (A) Experience obtained prior to graduation as part of an ABET accredited engineering program which must be shown on the transcript, with a maximum credit of one year; or ~~it is~~
  - (B) Experience obtained in a foreign country that is performed under direct supervision of a Professional Engineer licensed with a member Board of the National Council of Examiners for Engineering and Surveying (NCEES).

Authority G.S. 89C-10; 89C-13.

**21 NCAC 56 .0502 APPLICATION PROCEDURE: INDIVIDUAL**

- (a) General. A person desiring to become licensed as a Professional Engineer must make application to the Board on a form prescribed and furnished by the Board.
- (b) Request. A request for an appropriate application form may be made ~~at~~ to the Board ~~address~~ office or obtained from the website.

(c) Applicable Forms:

- (1) Engineering Intern Form. This form requires the applicant to set forth personal history, educational background, provide character references, and furnish a photograph for identification purposes. The form is for use by those graduating, or those having graduated, from an engineering curriculum approved by the Board as follows:
  - (A) Students graduating within two semesters, or the equivalent, of the semester in which the fundamentals of engineering examination is administered.
  - (B) Graduates with less than two years since graduation.
- (2) Professional Engineer Form:
  - (A) All persons, including comity applicants and graduates of an engineering curriculum approved by the Board with more than two years progressive engineering experience, shall apply for licensure by using the Professional Engineer form. The submission of this form shall signify that the applicant seeks licensure, and shall result in seating for each examination required, when the applicant is so qualified. This form requires the applicant to set forth personal and educational background, engineering experience and character references. A passport-type photographic quality portrait that is adequate for current ~~clear~~ identification purposes is required.
  - (B) Persons who have previously completed the fundamentals examination by use of the Engineering Intern Form shall submit the Professional Engineer Form to request licensure when qualified to take the final eight-hour examination.
- (3) Supplemental Form. Persons who initially applied for the fundamentals of engineering exam using the Professional Engineer form must supplement the initial application upon applying for the principles and practice examination. The supplemental form requires that engineering experience from the date of the initial application until the date of the supplemental application be listed. Five references shall be submitted which are current to within one year of the examination date.
- (4) Reference Forms:
  - (A) Persons applying to take the examination for fundamentals of engineering must submit to the Board names of three individuals who are familiar with the applicant's work, character and reputation. Persons applying to take the examination for principles and ~~practices~~ practice of engineering must submit to the Board names of five individuals who are familiar with the applicant's work, character and reputation. Two of these individuals must be Professional Engineers.
  - (B) In addition to the applicant submitting names to the Board of individuals familiar with the applicant's work, character and reputation, those individuals listed shall submit to the Board their evaluations of the applicant on forms supplied them by the applicant.
  - (C) The reference form requires the individual evaluating the applicant to state the evaluating individual's profession, knowledge of the applicant and information concerning the applicant's engineering experience, character and reputation.
  - (D) ~~The Board shall provide the~~ reference forms shall be received by ~~to~~ the applicant with the application. The reference forms shall then be distributed by the applicant to the persons listed on the application as references. The applicant shall see that the individuals listed as references return the reference forms to the Board prior to the filing deadline for the examination.

(d) Fees:

- (1) Engineering Intern Form. The examination fee for applicants applying for examination on the fundamentals of engineering using the engineering intern form is payable with the filing of the application. Once the applicant passes the examination on the fundamentals of engineering, the application fee of one hundred dollars (\$100.00) and the examination fee for the principles and practice of engineering examination are payable with the applicant's subsequent application for licensure as a Professional Engineer using the Professional Engineer form.
- (2) Professional Engineer Form. The application fee of one hundred dollars (\$100.00) and ~~appropriate~~ examination fee for applicants applying for the examination on the fundamentals of engineering or the principles and practice of engineering using the Professional Engineer form are payable with the filing of the application.
- (3) Comity. The licensure fee of one hundred dollars (\$100.00) is payable with the filing of the application.
- (4) Examination. The examination fee for any applicant is payable with the filing of the application in accordance with G.S. 89C-14.

(e) The Board shall accept the records maintained by the National Council of Examiners for Engineering and Surveying (NCEES) as evidence of licensure in another state. For comity licensure the NCEES record shall be accepted in lieu of completing the experience, education and references sections of the application. A comity application, with or without a NCEES record, shall be administratively approved by the Executive Director based upon evidence of current licensure in another jurisdiction based on comparable qualifications, required references and no record of disciplinary action, without waiting for the next regular meeting of the Board at which time the action shall be reported to the Board for final approval.

(f) Model Law Engineer. The term "Model Law Engineer" refers to a person who meets the requirements of section .0500 by meeting the requirements of NCEES and has a current NCEES record on file and is designated as a "Model Law Engineer." A "Model Law Engineer" application ~~is~~ shall be administratively approved by the Executive Director based upon the designation, without waiting for the next regular meeting of the Board at which time the action shall be reported to the Board for final approval.

(g) Personal interview. During the application process, the applicant may be interviewed by the Board members. ~~The purpose of the interview is to augment the evidence submitted in an application with regard to education and experience.~~

## **21 NCAC 56 .0503 EXAMINATIONS**

- (a) Fundamentals of Engineering. This eight-hour written examination is designed primarily to test the applicant's proficiency and knowledge of the fundamentals of engineering.
- (b) Principles and Practice of Engineering. This eight-hour written examination is designed to test the applicant's proficiency and knowledge of engineering principles and practices.
- (c) Examination Aids. Examinees may utilize examination aids as specified by the exam preparer.
- (d) Preparation of Examination. The examinations in the fundamentals of engineering and in the principles and practice of engineering are national examinations ~~promulgated~~ provided by the National Council of Examiners for Engineering and Surveying (NCEES) of which the Board is a member.
- (e) Examination Sequence. Before the applicant is permitted to be examined on the principles and practice of engineering, the applicant must pass the examination on the fundamentals of engineering, unless the applicant can evidence 20 years of progressive engineering experience and receives a waiver from the fundamentals of engineering exam by the Board. In no event is an applicant allowed to take both examinations at the same time or at the same scheduled examination date.
- (f) Examination Filing Deadline. The applicant who wishes to take an examination must have the completed application (which includes all necessary references, transcripts, and verifications) in the Board office prior to August 1 for Fall examinations and January 2 for Spring examinations.
- (g) Seating Notice. After approval of an application to take either the examination on the fundamentals of engineering or principles and practice, the applicant shall be sent a seating ~~notice by the Board~~ notice. This notice shall inform the applicant of the date, time and location of the examination and the seat number assigned.
- (h) Unexcused Absences. After a seating notice has been issued for a scheduled examination by the Board, and the applicant fails to appear, that applicant's record ~~will~~ shall reflect "unexcused absence" unless the absence was for official jury duty or the applicant was not physically able to be present, as indicated by a doctor's certificate. The examination fee is forfeited.
- (i) Re-Examination. A person who has failed an examination may apply to take the examination again at the next regularly scheduled examination period by making written request and submitting the required exam fee. A person having a combined record of three failures or unexcused absences ~~shall~~ is only be eligible after submitting a new application with appropriate application fee, and shall be considered by the Board for reexamination at the end of 12 months. After the end of the 12-month period, the applicant may take the examination no more than once every calendar year. The applicant must demonstrate to the Board that actions have been taken to improve the applicant's chances for passing the exam.
- (j) Special Accommodation. An applicant ~~with a diagnosed disability~~ may make a written request, before the application deadline, for special accommodation for the exam. Reasonable ~~accommodation~~ accommodation ~~will~~ shall be ~~granted~~ granted based upon meeting the Guidelines for Requesting Religious and ADA Accommodations published by the National Council of Examiners for Engineering and Surveying (NCEES).
- (k) Exam Results. Exam results shall be supplied in writing as pass or fail. No results will be given in any other manner.
- (l) Review of Failed Exams. An applicant who fails to make a passing score on an exam ~~may request in writing within 30 days of receiving the result to have an opportunity to review the exam. The review shall be done in the Board office under supervision of staff and is limited on one hour~~ will receive an exam analysis.

*Authority G.S. 89C-10; 89C-13; 89C-14; 89C-15.*

## **21 NCAC 56 .0505 EXPIRATIONS AND RENEWALS OF CERTIFICATES**

- (a) Professional Engineer Licensure. An annual renewal fee of ~~forty six~~ sixty dollars (~~\$50.00~~)(\$60.00) for certificates of licensure for Professional Engineers shall be payable to the Board. ~~A late fee shall be applied in accordance with G.S. 89C-17.~~ The Board shall send to each licensed Professional Engineer a form which requires the licensee to provide the Board with both the business and residential addresses, and the professional development hours (PDH) obtained during the previous year. The licensee shall give notice to the Board of a change of business or residential address within 30 days of the change.
- (b) Engineering Intern Certificate. The Engineering Intern certificate does not expire and, therefore, does not have to be renewed.

*Authority G.S. 89C-10; 89C-17.*

## **SECTION .0600 - PROFESSIONAL LAND SURVEYOR**

### **21 NCAC 56 .0602 APPLICATION PROCEDURE: INDIVIDUAL**

- (a) General. A person desiring to become a Professional Land Surveyor must make application to the Board on a form prescribed and furnished by the Board.
- (b) Request. A request for the application form may be made ~~at~~ to the Board ~~address~~ office or obtained from the website.
- (c) Application Form. All persons applying to be licensed as a Professional Land Surveyor shall apply using the standard application form. This form requires the applicant to set forth personal background, plus educational background, land surveying experience, and references. A passport-type photographic quality portrait that shall be adequate for current clear identification purposes shall be required also.
- (d) Supplemental Form. Persons who initially applied for licensure as a land surveyor, but were not eligible initially to be admitted to the examination for principles and practice of ~~land~~ surveying, must supplement their initial applications upon ultimately applying for the second examination. The applicant must supplement the initial application by using the supplemental form, which requires the listing of land surveying experience from the date of the initial application to the date of the supplemental application. Five references shall be submitted which are current to within one year of the examination date.

(e) Reference Forms:

- (1) Persons applying to take the examination for the fundamentals of ~~land~~-surveying or the examination for principles and practice must submit to the Board names of individuals who are familiar with the applicant's work, character and reputation. The names are submitted by the applicant on the application form.
- (2) Persons applying for the fundamentals of ~~land~~-surveying examination must submit three references, one of which must be a Professional Land Surveyor. Persons applying for the principles and practice examination must submit five references, two of which must be Professional Land Surveyors.
- (3) In addition to the applicant submitting names to the Board of such individuals, those individuals shall submit to the Board their evaluations of the applicant on reference forms supplied them by the applicant.
- (4) The reference form requires the individual evaluating the applicant to state the evaluating individual's profession, knowledge of the applicant and information concerning the applicant's land surveying experience, character and reputation.
- (5) The reference forms shall be received by the applicant along with the application for licensure. The reference forms shall then be distributed by the applicant to the persons listed on the application as references. The applicant shall see that the individuals listed as references return the forms to the Board prior to the filing deadline for the examination applied for by the applicant.

(f) Fees:

- (1) Regular. The application fee of one hundred dollars (\$100.00) and appropriate examination fee for those applying for licensure based upon examination, experience, character and exhibit are payable with the filing of the application.
- (2) Comity. The licensure fee of one hundred dollars (\$100.00) and appropriate examination fee for those applying for licensure based upon comity are payable with the filing of the application.
- (3) Examination. The examination fee for any applicant shall be payable with the filing of the application in accordance with G.S. 89C-14.

(g) The Board shall accept the records maintained by the National Council of Examiners for Engineering and Surveying (NCEES) as evidence of licensure in another state. For comity licensure the NCEES record shall be accepted in lieu of completing the experience, education and references sections of the application. A comity application, with or without a NCEES record, shall be administratively approved by the Executive Director based upon evidence of current licensure in another jurisdiction based on comparable qualifications, ~~required references~~ references, and having passed the two-hour North Carolina portion of the exam and no record of disciplinary action, without waiting for the next regular meeting of the Board at which time the action shall be reported to the Board for final approval.

(h) Personal Interview. During the application process, the applicant may be interviewed by Board members. ~~The purpose of the interview shall be to augment the evidence submitted in an application with regard to education and experience.~~

*Authority G.S. 89C-10; 89C-13; 89C-14.*

## **21 NCAC 56 .0603 EXAMINATIONS**

(a) Fundamentals of ~~Land~~-Surveying. This eight-hour written examination is designed primarily to test the applicant's proficiency and knowledge of the fundamentals of ~~land~~-surveying. Reference to Fundamentals of Surveying is the revised name of the national exam that is the Fundamentals of Land Surveying in G.S. 89C.

(b) Principles and Practice of ~~Land~~-Surveying. This eight-hour written examination is designed to test the applicant's proficiency and knowledge of land surveying practices and procedures generally and specifically within North Carolina.

(c) Examination Aids. Examinees may utilize examination aids as specified by the national exam preparer.

(d) Preparation of Examination. The examination in the fundamentals of ~~land~~-surveying and six hours of the examination in the principles and practice of ~~land~~-surveying are national examinations ~~promulgated~~ provided by the National Council of Examiners for Engineering and Surveying (NCEES) of which the Board is a ~~member~~ member or other examinations as adopted by the Board. The two-hour North Carolina portion of the principles and practice of ~~land~~-surveying examination is ~~prepared and graded~~ provided by the Board.

(e) Examination Filing Deadline. The applicant who wishes to take an examination must have the completed application (which includes all necessary references, transcripts, and verifications) in the Board office prior to August 1 for Fall examinations and January 2 for Spring examinations.

(f) Seating Notice. After approval of an application the applicant ~~will~~ shall receive ~~be sent~~ a seating notice. This notice ~~will~~ shall inform the applicant of the date, time and location of the examination and the seat number assigned.

(g) Unexcused Absences. After a seating notice for a scheduled examination has been ~~issued by the Board~~ issued, and the applicant fails to appear, the applicant's record ~~will~~ shall reflect "unexcused absence" unless the absence was for official jury duty or the applicant was not physically able to be present, as indicated by a doctor's certificate. The examination fee is forfeited.

(h) Re-Examination. A person who has failed an examination ~~is allowed to~~ may apply to take the examination again at the next regularly scheduled examination period. A person having a combined record of three failures or unexcused absences ~~shall~~ is only be eligible after submitting a new application with appropriate application fee, and shall be considered by the Board for re-examination at the end of 12 months. After the end of the 12-month period, the applicant may take the examination no more than once every calendar year. The applicant must demonstrate to the Board that actions have been taken to improve the applicant's chances for passing the exam.

(i) Special Accommodation. An applicant ~~with a diagnosed disability~~ may make a written request, before the application deadline, for special accommodation for the exam. Reasonable ~~accommodation~~ accommodation ~~will~~ shall be ~~granted~~ granted based upon meeting the Guidelines for Requesting Religious and ADA Accommodations published by the National Council of Examiners for Engineering and Surveying (NCEES).

(j) Exam Results. Exam results shall be supplied in writing as pass or fail. No results ~~will~~ shall be given in any other manner.

(k) Review of Failed Exams. An applicant who fails to make a passing score on ~~an~~ the two-hour North Carolina portion of the exam may request in writing within thirty (30) days of receiving the result to have an opportunity to review ~~the~~ that portion of the exam. The review shall be done in the Board Office under supervision of staff and is limited to one hour.

*Authority G.S. 89C-10; 89C-15.*

## **21 NCAC 56 .0606 EXPIRATIONS AND RENEWALS OF CERTIFICATES**

(a) Professional Land Surveyor Licensure. An annual renewal fee of ~~fifty~~ sixty dollars (~~\$50.00~~)(\$60.00) for certificates of licensure for Professional Land Surveyors ~~shall be~~ is payable to the Board. ~~A late fee shall be applied in accordance with G.S. 89C-17.~~ The Board ~~will send~~ shall provide each Professional Land Surveyor a form which requires the licensee to provide to the Board the business and residential addresses, and the professional development hours (PDH) obtained during the previous year. The licensee shall give notice to the Board of a change of business or residential address within 30 days of the change.

(b) Surveyor Intern Certificate. The surveyor intern certificate does not expire and, therefore, does not have to be renewed.

*Authority G.S. 89C-17.*

## **SECTION .0700 – RULES OF PROFESSIONAL CONDUCT**

### **21 NCAC 56 .0701 RULES OF PROFESSIONAL CONDUCT**

(a) In order to safeguard the life, health, property and welfare of the public and to establish and maintain a high standard of integrity, skills, and practice in the professions of engineering and land surveying, the ~~following~~ Rules of professional conduct in this Rule are promulgated in accordance with G..S. 89C-20 and ~~shall be~~ are binding upon every person holding a certificate of licensure as a Professional Engineer or Professional Land Surveyor (licensee), and on all business entities authorized to offer or perform engineering or land surveying services in this state. All persons licensed under the provisions of Chapter 89C of the General Statutes are charged with having knowledge of the ~~existence of the rules of professional conduct,~~ Board Rules, including the Rules of professional conduct, and ~~shall be~~ are deemed to be familiar with their ~~several~~ provisions and to understand them.

(b) The licensee shall conduct the practice in order to protect the public health, safety and welfare. The licensee shall at all times recognize the primary obligation to protect the public in the performance of the professional duties. If the licensee's engineering or land surveying judgment is overruled under circumstances where the safety, health and welfare of the public are endangered, the licensee shall inform the employer, the client, the contractor, contractor, other affected parties and ~~the~~ any appropriate regulatory agency of the possible consequences of the situation.

(c) The licensee shall perform services only in areas of the licensee's competence and:

- (1) Shall undertake to perform engineering and land surveying assignments only when qualified by education or experience in the specific technical field of professional engineering or land surveying involved.
- (2) May accept an assignment or project requiring education or experience outside of the licensee's own field of competence, but only to the extent that the services are restricted to those portions or disciplines of the project in which the licensee is qualified. All other portions or disciplines of such project shall be performed by associates, consultants, or employees who are licensed and competent in those portions or disciplines.
- (3) Shall not affix the signature or seal to any engineering or land surveying plan or document dealing with subject matter for which the licensee lacks competence by virtue of education or experience, nor to any such plan or document not prepared under the licensee's direct supervisory control. Direct supervisory control (responsible charge) requires a licensee or employee to carry out all client contacts, provide internal and external financial control, oversee employee training, and exercise control and supervision over all job requirements to include research, planning, design, field supervision and work product review. Direct supervisory control may be accomplished face to face or by other means of communication. A licensee shall not contract with a non-licensed individual to provide these professional services. Research, such as title searches and soil testing, may be contracted to a non-licensed individual, provided that individual is qualified or licensed to provide such service and provided the licensee reviews the work. The licensee may affix the seal and signature to drawings and documents depicting the work of two or more professionals provided it is designated by a note under the seal the specific subject matter for which each is responsible.

(d) The licensee shall issue public statements only in an objective and truthful manner and:

- (1) Shall be objective and truthful in all professional reports, statements or testimony. The licensee shall include all relevant and pertinent information in such reports, statements or testimony.
- (2) When serving as an expert or technical witness before any court, commission, or other tribunal, shall express an opinion only when it is founded upon adequate knowledge of the facts in issue, upon a background of technical competence in the subject matter, and upon honest conviction of the accuracy and propriety of the licensee's testimony.
- (3) Shall issue no statements, criticisms, or arguments on engineering or land surveying matters connected with public policy which are inspired or paid for by an interested party, or parties, unless the licensee has prefaced the comment by explicitly identifying the licensee's name, by disclosing the identities of the party or parties on whose behalf the licensee is speaking, and by revealing the existence of any pecuniary interest the licensee may have in the ~~instant~~ matters.
- (4) Shall not attempt to injure, maliciously or falsely, directly or indirectly, the professional reputation, prospects, practice or employment of another engineer or land surveyor, nor indiscriminately criticize another engineer or land surveyor's work in public. Indiscriminate criticism includes statements without valid basis or cause or that are not objective and truthful or that fail to include all relevant and pertinent information. If the licensee believes that another engineer or land

surveyor is guilty of misconduct or illegal practice, such information shall be presented to the North Carolina Board of ~~Examiners~~. Examiners in the form of a complaint.

(e) The licensee shall avoid conflicts of interest and:

- (1) Shall promptly inform the employer or ~~client-client~~, and any reviewing ~~agency-agency~~, of any business association, interests, or circumstances which could influence judgment or the quality of services.
- (2) Shall not accept compensation, financial or otherwise, from more than one party for services on the same project, or for services pertaining to the same project, unless the circumstances are ~~fully~~ disclosed to, and agreed to, in writing, by all interested parties.
- (3) Shall not solicit or accept financial or other valuable considerations from material or equipment suppliers for specifying their products.
- (4) Shall not solicit or accept gratuities, directly or indirectly, from contractors, their agents, or other parties dealing with the client or employer in connection with work for which the licensee is responsible.
- (5) When in public service as a member, advisor, or employee of a governmental body or department, shall not participate in considerations or actions with respect to services provided by the licensee or the licensee's organization in private engineering and land surveying practices.
- (6) Shall not solicit or accept an engineering or land surveying contract from a governmental body on which a principal or officer of the licensee's organization serves as a member.
- (7) Shall not attempt to supplant another engineer or land surveyor in a particular employment after becoming aware that the other has been selected for the employment.

(f) The licensee shall solicit or accept work only on the basis of qualifications and:

- (1) Shall not offer to pay, either directly or indirectly, any commission, political contribution, gift, or other consideration in order to secure work, exclusive of securing salaried positions through employment agencies.
- (2) Shall compete for employment on the basis of professional qualification and competence to perform the work. The licensee shall not solicit or submit proposals for professional services containing a false, fraudulent, misleading, deceptive or unfair statement or claim regarding the cost, quality or extent of services to be rendered.
- (3) Shall, with regard to fee bidding on public projects, comply with the provisions of G.S. 143-64.31 et seq., (or for federal projects, the Brooks Act, 40 U.S. Code 541 et seq.) and shall not knowingly cooperate in a violation of any provision of G.S. 143-64.31 et seq. (or of 40 U.S. Code 541 et seq.)
- (4) Shall not falsify or permit misrepresentation of academic or professional qualifications and shall only report educational qualifications when a degree or certificate was awarded, unless it is ~~clearly~~ stated that no degree or certificate was awarded. The licensee shall not misrepresent degree of responsibility in or for the subject matter of prior assignments. Brochures or other presentations incident to the solicitation of employment shall not misrepresent pertinent facts concerning employers, employees, associates, joint ventures, or past accomplishments with the intent and purpose of enhancing qualifications and work.

(g) The Licensee shall perform services in an ethical and lawful manner and:

- (1) Shall not knowingly associate with or permit the use of the licensee's name or firm name in a business venture by any person or firm which the licensee knows, or has reason to believe, is engaging in business or professional practices of a fraudulent or dishonest nature or is not properly licensed.
- (2) If the licensee has knowledge or reason to believe that another person or firm may be in violation of ~~any of these provisions~~ the Board Rules (Title 21 NCAC Chapter 56) or of the North Carolina Engineering and Land Surveying Act, Act (G.S. 89C), shall present such information to the Board in writing in the form of a complaint and shall cooperate with the Board in furnishing such further information or assistance as may be required by the Board. The licensee shall timely respond to all inquiries and correspondence from the Board and shall timely claim correspondence from the U. S. Postal Service, or other delivery service, sent to the licensee from the Board. Timely is defined as within the time specified in the correspondence, or if no time is specified, within 30 days of receipt. Certified mail is timely claimed if prior to being returned by the Post Office to the Board office.

(h) A Professional Engineer or Professional Land Surveyor who has received a reprimand or civil penalty or whose professional license is revoked, suspended, denied, or surrendered as a result of disciplinary action by another jurisdiction ~~shall be~~ is subject to discipline by the Board if the licensee's action constitutes a violation of G.S. 89C or the rules adopted by the Board.

*Authority G.S. 89C-17; 89C-20.*

## **SECTION .0800 - FIRM REGISTRATION**

### **21 NCAC 56 .0802 PROCEDURE**

(a) Professional Corporations and Limited Liability Companies:

- (1) Request. A request for an application for licensure as a professional corporation or professional limited liability company engaged in the practice of engineering or land surveying may be made at the Board ~~address-office or obtained from the website.~~
- (2) Applicable Form. All professional corporations and professional limited liability companies complying with the statutory requirements of G.S. 89C, G.S. 55B and G.S. 57C which desire to practice engineering or land surveying shall apply by using a form prepared by the Board. This form ~~shall require~~ requires the applicant, by and through an officer, director and shareholder of the professional corporation or limited liability company who is currently licensed with the North Carolina Board of Examiners for Engineers and Surveyors in the field(s) of professional services to be offered, to certify

that it and the stockholders of the corporation or members of the limited liability company have complied with the provisions of the applicable provisions of the General Statutes and requires that the officers, directors, shareholders, members and professional employees be listed on that application.

(3) Certificate of Licensure:

- (A) Upon receiving the application with application fee of one hundred dollars (\$100.00), the Board, after determining that the firm has complied with the statutory requirements, ~~will then shall~~ issue a certificate of compliance.
- (B) The ~~firm, then, firm~~ must forward the certificate of compliance to the Secretary of State along with its articles of incorporation or articles of organization.
- (C) Upon approval by the Secretary of State, the firm ~~then~~ must forward to the Board a certified copy of its articles of incorporation or articles of organization.
- (D) Upon receipt of the certified copy of the articles of the firm, if all statutory requirements have been met, the Board ~~will shall~~ approve the application and issue the firm a certificate of licensure.

(b) Business Firms and Chapter 87 Corporations:

- (1) Request. A request for an application for licensure as a business firm or Chapter 87 corporation [as defined in G.S. 55B-15(a)(2)] engaged in the practice of engineering or land surveying may be made at the Board ~~address. office or obtained from the website.~~ A sole proprietorship owned and operated by the individual licensee in the licensee's name as reflected in the Board's records is exempt from firm licensure.
- (2) Applicable Form. All business firms or Chapter 87 corporations that desire to practice engineering or land surveying shall apply by using a form prepared by the Board. The form ~~shall require requires~~ the applicant, through a principal officer, partner or owner, to certify that the business firm ~~shall will~~ be operated in compliance with the laws of the State of North Carolina and the ~~rules Rules~~ of the North Carolina Board of Examiners for Engineers and Surveyors.
- (3) Certificate of Licensure. Upon receiving the application with application fee of one hundred dollars (\$100.00), the Board, after determining that the firm has complied with the statutory requirements, shall ~~then~~ issue a certificate of licensure.

Authority G.S. 55B-4; 55B-10; 57C-2.01; 89C-10; 89C-24.

#### 21 NCAC 56 .0804 ANNUAL RENEWAL

(a) Renewal. The certificate of licensure for a business entity, including a professional corporation, limited liability company, Chapter 87 corporation, or business firm shall be renewed annually.

(b) Expiration. The certificate of licensure ~~shall expire expires~~ on the last day of June following its issuance by the Board and ~~shall become becomes~~ invalid on that date unless renewed.

(c) Written Application. Upon written application on a renewal form prescribed by the Board accompanied by the prescribed fee of ~~fifty sixty~~ ~~dollars (\$50.00)(\$60.00)~~ the Board shall renew the certificate of licensure providing that the firm has complied with all Rules of the Board and applicable General Statutes of North Carolina. The form shall be mailed to all licensees in good standing no later than June 1st. ~~A late fee shall be applied in accordance with G.S. 89C-17.~~ The licensed entity shall give notice to the Board of a change of business address within 30 days of the change.

(d) ~~Failure of~~ If a firm fails to renew its certificate of licensure within one year of the expiration ~~date date, shall require~~ the firm to shall submit a new application for a new certificate of licensure in accordance with all requirements of ~~these Rules and of all applicable statutes.~~

21 NCAC 56 .0802.

Authority G.S. 55B-11; 57C-2-01; 89C-10; 89C-14; 89C-17; 89C-24.

#### SECTION .1100 - SEAL

#### 21 NCAC 56 .1102 DESIGN

The standard design of the seal shall be two concentric circles in which North Carolina and the name of the licensee are placed within the outermost circle and in which the license number of the licensee and either "Professional Engineer" or "Professional Land Surveyor," is placed within the innermost circle. The size shall be ~~approximately 1 3/4 1 1/2 to 1 3/4~~ inches in diameter.

Authority G.S. 89C-10; 89C-16.

#### 21 NCAC 56 .1103 STANDARD CERTIFICATION REQUIREMENTS

(a) Certification of Final Drawings. Drawings or maps not conforming to paragraph (c) of this ~~subsection-Rule~~ shall conform to the following:

- (1) Certification is required on reproducibles or original drawings;
- (2) The seal may be a rubber stamp, embossed seal, computer-generated seal, or other facsimile that becomes a permanent addition to a plan sheet or map;
- (3) The licensee's written signature must be placed over, or near, adjacent to, the seal on the original document. A facsimile signature is not acceptable;
- (4) The date of signing must be annotated on the original document;
- (5) All sheets of engineering and surveying drawings must be ~~sealed; certified;~~

- (6) The ~~name and name~~, address and license number of the licensee's firm shall be included on each sheet of engineering drawings. For surveys, the ~~licensee's name and name~~, address and licensee number of the licensee's firm shall be included on the first sheet of the survey or title sheet; and
- (7) Any revision on a drawing after a licensee's certification is affixed shall be ~~noted~~described and dated and if not done under the responsible charge of the same licensee shall be separately certified.
- (b) Certification of Specifications and Reports. All specifications, reports, or other documents, including letter reports and calculations, not conforming to paragraph (c) of this ~~subsection~~Rule shall conform to the following:
- (1) Certification is required on original specifications, reports, or other documents, including letter reports and calculations;
  - (2) The seal may be a rubber stamp, or other facsimile;
  - (3) The licensee's written signature must be placed over, or ~~near~~,adjacent to, the seal on the original document. A facsimile signature is not acceptable;
  - (4) The date of signing must be annotated on the original document;
  - (5) The title sheet of engineering specifications or other reports must be ~~sealed~~certified and bear the ~~name name~~, and address and license number of the licensee's firm. The title sheet of any survey report or written description of property shall include the ~~name name~~, and address and license number of the Professional Land Surveyor; licensee's firm; and
  - (6) Any revision in the document after a licensee's certification is affixed shall be ~~noted~~described and dated and if not done under the responsible charge of the same licensee shall be separately certified.
- (c) Exceptions to Required Certification. The ~~seal~~certification of a licensee on a map, drawing, plan, specification, plat, document, or report shall signify that it is the final work of the licensee unless the work is stamped or ~~clearly~~ marked substantially as follows so as to put the public on notice not to use as a final product, in which case certification is optional:
- (1) "Preliminary - Do not use for construction";
  - (2) "Progress Drawings - Do not use for construction";
  - (3) "Preliminary Plat - Not for recordation, conveyances, or sales";
  - (4) "Final Drawing - Not released for construction";
  - (5) "Final Drawing - For Review Purposes Only";
  - (6) "Not a Certified Document – This document originally issued and sealed by (name of licensee), (license number), on (date of sealing). This document shall not be considered a certified document";
  - (7) "Not a Certified Document as to the Original Document but Only as to the Revisions - This document originally issued and sealed by (name of licensee), (license number), on (date of sealing). This document is only certified as to the revisions".
- (d) Electronically ~~transmitted~~Transmitted documents.~~Documents~~. Documents, including drawings, specifications and reports, that are transmitted electronically ~~to a client or a governmental agency beyond the direct control of the licensee~~ shall have the computer-generated seal removed from the original file, unless signed with a digital signature as defined in paragraph (e). After removal of the seal the electronic media shall have the following inserted in lieu of the signature and date: ~~This~~"This document originally issued and sealed by (name of sealer), (license number), on (Date of sealing). This medium shall not be considered a certified document." Hardcopy documents containing the original seal, signature and date of the licensee may be duplicated by photocopy or electronic scanning processes and distributed either in hardcopy or electronic medium. The scanned digital files of ~~properly~~ certified documents are not subject to the requirements of this paragraph. The electronic transmission beyond the direct control of the licensee of CAD, vector or other files subject to easy editing are subject to the requirements of this paragraph. Easy editing is based on the file consisting of separate elements that can be individually modified or deleted. Documents that are excepted from certification by a statement meeting the requirements of Subparagraphs (c)(1) through (c)(5) of this Rule are not subject to the requirements of this Paragraph.
- (e) Documents to be electronically transmitted beyond the direct control of the licensee that are signed using a digital signature, shall contain the authentication procedure in a secure mode and a list of the hardware, software and parameters used to prepare the document(s). Secure mode means that the authentication procedure has protective measures to prevent alteration or overriding of the authentication procedure. The term "digital signature" shall be an electronic authentication process that is attached to or logically associated with an electronic document. The digital signature shall be:
- (1) Unique to the licensee using it;
  - (2) Capable of verification;
  - (3) Under the sole control of the licensee; and
  - (4) Linked to a document in such a manner that the digital signature is invalidated if any data in the document is changed.
- (f) A digital signature process may be submitted to the Board for approval that it meets the criteria set forth in Subparagraphs (e)(1) through (4) of this Rule. The licensee shall confirm that if another process is used, that it meets the criteria.

Authority G.S. 89C-10; 89C-16.

## 21 NCAC 56 .1106 CERTIFICATION OF STANDARD DESIGN PLANS

Standard design plans that were initially prepared and ~~sealed~~certified by an individual who is a licensed engineer in the state of origin of such plans (including North Carolina) may then be reviewed by a North Carolina Professional Engineer for code conformance, design adequacy, and site adaptation for the specific application within North Carolina. The reviewing Professional Engineer who is licensed in North Carolina assumes responsibility for such standard designs. Standard plans, which bear the seal of ~~an individual~~the original design engineer who is a licensed engineer in another state, or North Carolina, shall be sealed by the reviewing North Carolina Professional Engineer who is assuming responsibility. In addition to the seal, a statement shall be included as follows: "These plans have been properly examined by the undersigned. I have determined that they comply with existing local North Carolina codes, and have been properly site adapted for use in this area."

## SECTION .1300 – BOARD DISCIPLINARY PROCEDURES

### 21 NCAC 56 .1301 IMPROPER PRACTICE BY A LICENSEE

(a) General. Alleged ~~improper~~ practice that may violate the Board Rules 21 NCAC 56 or G.S. 89C by a licensee ~~shall be~~ is subject to Board investigation and disciplinary action by the Board if necessary.

(b) Preferring Charges. Any person who believes that any licensed Professional Engineer, Professional Land Surveyor or firm holding a certificate of authorization is in violation of the provisions of G.S. 89C or the rules in this Chapter may prefer charges against that person or firm by setting forth in writing those charges and swearing to their authenticity, along with providing corroborative evidence. The charges shall be filed ~~at~~ with the Board's office in Raleigh, North Carolina.

(c) Preliminary Review:

- (1) Upon receipt of a properly filed charge, ~~an investigation shall be initiated.~~ a case shall be opened.
- ~~(2) A written notice and explanation of the charge shall be forwarded to the person or firm against whom the charge is made and a response is requested of the person or firm so charged to show compliance with all lawful requirements for retention of the license. Notice of the charge and of the alleged facts or alleged conduct shall be given personally or by certified mail, return receipt requested.~~
- ~~(3)~~(2) In the discretion of the executive director, a field investigation may be ~~performed.~~ performed if determined necessary by the Executive Director.
- ~~(3) If the executive director determines that the charges are corroborated by evidence, a written notice and explanation of the charge shall be forwarded to the person or firm against whom the charge is made and a response is requested of the person or firm so charged to show compliance with all lawful requirements for retention of the license. Notice of the charge and of the alleged facts or alleged conduct shall be given personally or by certified mail, return receipt request.~~
- (4) After preliminary evidence has been obtained, the matter shall be referred to the Board's review committee which is made up of the following individuals:
  - (A) one member of the Board who is licensed in the respective profession,
  - (B) the legal counsel of the Board, and
  - (C) the executive director of the Board.
- (5) Upon review of the available evidence, the review committee shall present to the Board a written recommendation that:
  - (A) the charge be dismissed as unfounded or trivial;
  - (B) when the charge is admitted as true, the Board accept the admission of guilt by the person charged and order that person not to commit in the future the specific act or acts admitted and also not to violate any of the provisions of the Board Rules or the statutes at any time in the future;
  - (C) the charge, whether admitted or denied, be presented to the full Board for a hearing and determination by the Board on the merits of the charge in accordance with the substantive and procedural requirements of the provisions of Section .1400 of this Chapter and the provisions of G.S. 150B; or
  - (D) whether the charge is admitted or denied, the Board give notice to the licensee of a contemplated action as set out in Rule .1403(b) of this Chapter.

(d) Consultant. A consultant to the review committee shall be designated by the Board Chair if a current board member is a complainant, witness or respondent in a case. The consultant shall be a currently licensed professional engineer or professional land surveyor, depending on the nature of the case, and selected from a list provided by the executive director of former Board members or other licensed professionals who are knowledgeable with the Board's ~~processes and have expressed an interest in serving as a consultant.~~ processes. The consultant shall review all case materials and make a recommendation for consideration by the review committee as to the merits of the case. The consultant shall review any new information presented in the event of a settlement conference and make a recommendation to the settlement conference committee.

(e) Board Decision. Notice of the decision by the Board on recommendations of the review committee shall be given to the party against whom the charges have been brought and the party submitting the charge. Though it is not forbidden to do so, the Board is not required to notify the parties of the reasons of the Board in making its determination.

(f) Settlement Conference. When the Board issues a citation for hearing or notice of a contemplated action, the licensee may request in writing a settlement conference to pursue resolution of the issue(s) through informal procedures. If, after the completion of a settlement conference, the licensee and Board's settlement committee do not agree to a resolution of the dispute for the full Board's consideration, the original administrative proceeding shall commence. During the course of the settlement conference, no sworn testimony shall be taken nor shall any witnesses be cross-examined:

- (1) The Board's settlement committee shall be made up of the following individuals:
  - (A) the member of the Board who served on the review committee or the replacement if ~~no longer a member of the Board,~~ not available,
  - (B) one public member from the Board,
  - (C) the legal counsel of the Board, and
  - (D) the executive director of the Board.
- (2) Upon review of the available evidence, the settlement committee shall present to the Board a written recommendation that:
  - (A) the charge be dismissed as unfounded or trivial;

- (B) when the charge is admitted as true, the Board accept the admission of guilt by the person charged and order the person not to commit in the future the specific act or acts admitted and, also, not to violate any provisions of the Board Rules or the statutes at any time in the future;
- (C) the charge, whether admitted or denied, be presented to the full Board for a hearing and determination by the Board on the merits of the charge in accordance with the substantive and procedural requirements of the provisions of Section .1400 of this Chapter and the provisions of G.S. 150B; or
- (D) whether the charge is admitted or denied, the Board give notice to the licensee of a contemplated action as set out in Rule .1403(b) of this Chapter.

*Authority G.S. 89C-10; 89C-21; 89C-22.*

## **SECTION .1400 - CONTESTED CASES**

### **21 NCAC 56 .1413 DECISION OF BOARD**

- (a) Manner and Time of Rendering Decision. After a hearing has been completed the Board shall proceed to consider the case and as soon as practicable shall render their decision. The decision must be rendered within 90 days after the hearing.
- (b) Service of Written Decision. ~~Within five working days after the decision is rendered the~~The Board shall serve upon each party a written copy of the decision, either personally or by certified mail. If the decision is sent by certified mail it shall be deemed to have been served on the date borne on the return receipt.
- (c) Final Decision. The final decision of the Board shall be in the manner and form prescribed by G.S. 150B-42(a).
- (d) Official Record. The official record ~~will~~shall be prepared in all contested cases in accordance with the requirements of G.S. 150B-42(b).

*Authority G.S. 89C-10; 89C-21; 89C-22; 150B-42.*

## **SECTION .1600 – STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA**

### **21 NCAC 56 .1602 SURVEYING PROCEDURES**

- (a) A Professional Land Surveyor shall spend the necessary time and effort to make adequate investigation to determine if there are encroachments, gaps, lappages, or other irregularities along each line surveyed. Points may be placed on the line from nearby closed or verified traverses and the necessary investigations made from these points. If these investigations are not made, then the surveyor shall not certify to an actual survey of that line and the plat must contain the appropriate qualifications in accordance with the rules in this Section.
- (b) Any and all visible or determined encroachments or easements on the property being surveyed shall be accurately located and ~~clearly~~indicated.
- (c) With respect to investigation of property boundaries and recorded easements, the surveyor ~~shall, at a minimum, shall~~examine the most recent deeds and recorded plats adjacent to the subject property as well as all deeds and plats recorded after the date of the deed or plat upon which the survey is being based (the survey reference deed or plat).
- (d) Except as provided in Paragraph (e) of the Rule, metal stakes or materials of comparable permanence shall be placed at all corners.
- (e) Where a corner falls in a right-of-way, in a tree, in a stream, or on a fence post, boulder, stone, or similar object, one or more monuments or metal stakes shall be placed in the boundary ~~line~~so that the inaccessible point may be located accurately on the ground and the map.
- (f) The results of a survey ~~when shall be~~ reported to the user of that survey as a map or report of survey and, whether in written or graphic form, shall be prepared in a clear and factual manner. All reference sources shall be identified. Artificial monuments called for in such reports shall be described as found or set. When no monument is found or set for points described in Paragraph ~~(d)~~(e) of this Rule, that fact shall be noted.
- (g) Where the results of a survey are reported in the form of a plat or a written description, one or more corners shall, by a system of azimuths or courses and distances, be accurately tied to and coordinated with a horizontal control monument of some United States or State Agency survey system, such as the North Carolina Geodetic Survey, where such monument is within 2000 feet of the subject property, right-of-way, easement or other surveyed entity. Where the North Carolina grid system coordinates of said monument are on file in the North Carolina Office of State Planning, the coordinates of both the referenced corner or point and the monument(s) shall be shown in X (easting) and Y (northing) coordinates on the plat or in the written description or document. The coordinates shall be identified as based on 'NAD 83', indicating North American Datum of 1983 or as 'NAD 27' indicating North American Datum of 1927. The tie lines to the monuments must be sufficient to establish true north or grid north bearings for the plat or description if the monuments exist in pairs. Control monuments within a previously recorded subdivision may be used in lieu of grid control. In the interest of bearing consistency with previously recorded plats, existing bearing control may be used where practical. In the absence of Grid Control, other natural or artificial monuments or landmarks shall be used. In all cases, the tie lines shall be sufficient to accurately reproduce the subject lands from the control or reference points used.
- (h) Area is to be computed by double meridian distance or equally accurate method and shown on the face of the plat, written description or other document. Area computations by estimation, by planimeter, by scale, or by copying from another source are not acceptable methods, except in the case of tracts containing inaccessible areas and in these areas the method of computation shall be clearly stated.

*Authority G.S. 89C-10; 89C-20.*

### **21 NCAC 56 .1603 CLASSIFICATION OF BOUNDARY SURVEYS**

General. Boundary surveys are defined as surveys made to establish or to retrace a boundary line on the ground, or to obtain data for constructing a map or plat showing a boundary line. For the purpose of this Rule, the term refers to all surveys, including "loan" or "physical" surveys, which involve the determination or depiction of property lines. For the purpose of specifying minimum allowable surveying standards for boundary surveys, the following four general classifications of lands in North Carolina are established from the standpoint of their real value, tax value, or location. Each map shall contain a statement of the calculated ratio of precision before ~~adjustments, adjustments or a statement of positional accuracy. Positional or partial accuracy may be used in addition to Ratio of Precision when a network of multiple traverse loops is used in the field and the network has been adjusted by the least squares method.~~

- (1) Local Control Network Surveys (Class AA). Local control network surveys are traverse networks utilizing permanent points for the purpose of establishing local horizontal control networks for future use of local surveyors. For Class AA boundary surveys in North Carolina, the angular error of closure shall not exceed ten seconds times the square root of the number of angles turned. The ratio of precision shall not exceed an error of closure of one foot per 20,000 feet of perimeter of the parcel of land (1:20,000). When using positional accuracy standards for Class AA control and boundary surveys, neither axis of the ~~95%~~95 percent confidence level error ellipse for any control point or property corner shall exceed 0.05 feet or 0.015 meters measured relative to the position(s) of the horizontal control points used and referenced on the survey.
- (2) Urban Land Surveys (Class A). Urban surveys include lands which normally lie within a town or city. For Class A boundary surveys in North Carolina, the angular error of closure shall not exceed 20 seconds times the square root of the number of angles turned. The ratio of precision shall not exceed an error of closure of one foot per 10,000 feet of perimeter of the parcel of land (1:10,000). When using positional accuracy standards for Class A control and boundary surveys, neither axis of the ~~95%~~95 percent confidence level error ellipse for any control point or property corner shall exceed 0.10 feet or 0.030 meters measured relative to the position(s) of the horizontal control points used and referenced on the survey.
- (3) Suburban Land Surveys (Class B). Suburban surveys include lands in or surrounding the urban properties of a town or city. For Class B boundary surveys in North Carolina, the angular error of closure shall not exceed 25 seconds times the square root of the number of angles turned. The ratio of precision shall not exceed an error of closure of one foot per 7,500 feet of perimeter of the parcel of land (1:7,500). When using positional accuracy standards for Class B control and boundary surveys, neither axis of the ~~95%~~95 percent confidence level error ellipse for any control point or property corner shall exceed 0.12 feet or 0.037 meters measured relative to the position(s) of the horizontal control points used and referenced on the survey.
- (4) Rural and Farmland Surveys (Class C). Rural and farmland surveys include lands located in rural areas of North Carolina and generally outside the suburban properties. For Class C boundary surveys in North Carolina, the angular error of closure shall not exceed 30 seconds times the square root of the number of angles turned. The ratio of precision shall not exceed an error of closure of one foot per 5,000 feet of perimeter of the parcel of land (1:5,000). When using positional accuracy standards for Class C control and boundary surveys, neither axis of the ~~95%~~95 percent confidence level error ellipse for any control point or property corner shall exceed 0.15 feet or 0.046 meters measured relative to the position(s) of the horizontal control points used and referenced on the survey.

*Authority G.S. 89C-10; 89C-20.*

## **21 NCAC 56 .1604 MAPPING REQUIREMENTS FOR BOUNDARY SURVEYS**

- (a) The size of a map shall be such that all details ~~can be shown clearly.~~ are legible on a copy.
- (b) Any lines that are not actually surveyed must be ~~clearly~~ indicated on the map and a statement included revealing the source of information from which the line is derived.
- ~~(c) Any revision on a map after a surveyor's seal is affixed shall be noted and dated.~~
- ~~(d)(c)~~ All surveys based on the North Carolina grid system shall contain a statement identifying the coordinate system referenced datum used.
- ~~(e)(d)~~ All plats (maps), unless ~~clearly~~ marked as "Preliminary Plat - Not for recordation, conveyances, or sales" shall be sealed, signed and dated by the Professional Land Surveyor and shall contain the following:
  - (1) An accurately positioned north arrow coordinated with any bearings shown on the plat. Indication shall be made as to whether the north index is true, magnetic, North Carolina grid ('NAD 83' or 'NAD27'), or is referenced to old deed or plat bearings. If the north index is magnetic or referenced to old deed or plat bearings, the date and the source (if determined) shall be ~~clearly~~ indicated.
  - (2) The azimuth or courses and distances of every property line surveyed shall be shown. Distances shall be in feet or meters and decimals thereof. The number of decimal places shall be appropriate to the class of survey required.
  - (3) All plat lines shall be horizontal or grid measurements. All lines shown on the plat shall be correctly plotted to the scale shown. Enlargements of portions of a plat are acceptable in the interest of clarity, where shown as inserts. Where the North Carolina grid system is used, the combined grid factor shall be shown on the face of the plat. If grid distances are used, it must be shown on the plat.
  - (4) Where a boundary is formed by a curved line, the following data must be given: actual survey data, or as a series of subchords with bearings and distances around the curve. If standard curve data is used, the bearing and distance of the long chord (from point of curvature to point of tangency) must be shown on the face of the plat.
  - (5) Where a subdivision of land is set out on the plat, all streets and lots shall be accurately plotted with dimension lines indicating widths and all other information pertinent to retracing all lines in the field. This shall include bearings and distances sufficient to form a continuous closure of the entire perimeter.

- (6) Where control corners have been established in compliance with G.S. 39-32.1, 39-32.2, 39-32.3, and 39-32.4, as amended, the location and information as required in the referenced statute shall be shown on the plat. All other corners that are marked by monument or natural object shall be so identified on all plats, and where practical all corners of adjacent owners along the boundary lines of the subject tract that are marked by monument or natural object shall be shown.
- (7) The surveyor shall show one of the following where they could be determined:
  - (A) The names of adjacent land owners; or
  - (B) The lot, block, parcel and subdivision designations; or
  - (C) Other legal reference where applicable.
- (8) All visible and apparent rights-of-way, easements, watercourses, utilities, roadways, and other such improvements shall be accurately located where crossing or forming any boundary line of the property shown.
- (9) Tie lines as required and defined in Rule .1602(g) of this Section shall be ~~clearly and~~ accurately shown on the face of the plat, whether or not the plat is to be recorded.
- (10) A vicinity map (location map) shall appear on the face of the plat.
- (11) Each map shall contain the property designation, name of owner or prospective owner, location (including township, county, and state), and the date or dates the survey was conducted. In addition each map shall contain a scale of the drawing listed in words or figures; a bargraph; ~~the name, address, license number, and seal of the surveyor;~~ the title source; and a legend depicting nomenclature or symbols not otherwise labeled.
- (12) Each map shall contain a certificate signed by the Professional Land Surveyor in substantially the following form:  
"I certify that this map was drawn under my supervision from an actual survey made under my supervision ( deed description recorded in Book \_\_\_\_\_, page \_\_\_\_\_ or other reference source \_\_\_\_\_ ); that the boundaries not surveyed are indicated as drawn from information in Book \_\_\_\_\_, page \_\_\_\_\_ or other reference source \_\_\_\_\_ ; that the ratio of precision or positional accuracy is \_\_\_\_\_ ; and that this map meets the requirements of The Standards of Practice for Land Surveying in North Carolina (21 NCAC 56 .1600)."  
This \_\_\_\_\_ day of \_\_\_\_\_, 2\_\_\_\_\_.  
Seal \_\_\_\_\_  
Professional Land Surveyor

Authority G.S. 89C-10; 89C-20.

**21 NCAC 56 .1606 SPECIFICATIONS FOR TOPOGRAPHIC AND PLANIMETRIC MAPPING, INCLUDING GROUND, AIRBORNE, AND SPACEBORNE SURVEYS**

- (a) General.
  - (1) Topographic surveys are defined as surveys that have as their major purpose the determination of the configuration (relief) of the earth (ground) and the location of natural or artificial objects thereon.
  - (2) Planimetric mapping is defined as producing a map that presents the horizontal positions only for the features represented; distinguished from a topographic map by the omission of relief in measurable form.
  - (3) Airborne and spaceborne surveys are defined as the use of photogrammetry, LIDAR, IFSAR, or other similar measurement technologies for obtaining reliable information about physical objects and the environment, including terrain surface, through the process of recording, measuring, and interpreting images and patterns of electromagnetic radiant energy and other phenomena. This Rule establishes minimum allowable photogrammetric production procedures and standards for photogrammetric mapping and digital data production.
- (b) Production procedures for topographic and planimetric mapping surveys shall be in accordance with the standards established by ~~Chapter Part~~ Part 3 of the Federal Geographic Data Committee (FGDC) Geospatial Positioning Accuracy Standard and applicable extensions and revisions. These standards are incorporated by reference including subsequent amendments and editions. The material is available from the Board office at the cost of five dollars (\$5.00) per copy reproduction as a public record or from the ~~FGDC-FGDC~~ at www.fgdc.gov at no cost. Reporting accuracy shall be in accordance with Part 1 of the FGDC geospatial standards.
- (c) Topographic or planimetric maps, orthophotos, ~~and/or~~ and related electronic data, unless ~~clearly~~ clearly-marked as "Preliminary Map," shall meet contractually specified FGDC Standards for horizontal and vertical accuracies (in the absence of specified standards, the National Map Accuracy Standards apply) and shall be ~~sealed, signed and dated~~ certified by the licensee.
- (d) When the resulting product is a digital (electronic) data set, or a map or document consists of more than one sheet or otherwise cannot be ~~signed and sealed, certified,~~ certified, signed and sealed, certified. ~~Such The~~ report shall be ~~clearly~~ clearly-marked "Preliminary" if applicable.
- (e) Ground control for topographic and planimetric mapping projects shall be in North Carolina State Plane Coordinate System grid coordinates and distances when the project is tied to Grid. A minimum of one permanent project vertical control point shall be shown.
- (f) The project map or report shall contain the applicable following information:
  - (1) Date of original data acquisition.
  - (2) Altitude of sensor and sensor focal length, as applicable.
  - (3) Date of document or data set compilation.
  - (4) If hard copy product is produced, the maps shall contain a north arrow, map legend, final document scale, including bargraph, and contour interval, as applicable.
  - (5) Coordinate system for horizontal and vertical denoting SI or English units (i.e., NAD83, assumed, or other coordinate system).

- (6) A list or note showing the control points used for the project. The minimum data shown for each point shall include: physical attributes (~~i.e.e.g. iron rod, railroad spike, etc.~~ spike), latitude and longitude (or X and Y Grid coordinates), and elevation, as applicable.
- (7) If other data is included, the source and accuracy of those items must be ~~clearly~~ clearly indicated.
- (8) A statement of accuracy complying with contractually specified FGDC standards consistent with Paragraph (c) of this Rule.
- (9) For topographic maps or data sets, contours in areas obscured by man-made or natural features shall be uniquely identified or enclosed by a polygon ~~clearly~~ clearly identifying the obscured area. The accuracies of the contours or of features in this obscured area shall be noted "No reliance is to be placed on the accuracy of these contours."
- (10) A vicinity map depicting the project location ~~shall appear~~ on the first sheet of all hard copy maps or in the report accompanying digital files.
- ~~(11) Company name, address and phone number.~~
- ~~(12)~~ (11) The name of the client for whom the project was conducted.

(g) Nothing in this Section shall be construed to negate or replace the relative accuracy standards found in Rules .1601 through .1608.

(h) A certificate, substantially in the following form, shall be affixed to all maps or reports:

" I, \_\_\_\_\_, certify that this project was completed under my direct and responsible charge from an actual (insert as appropriate: ground or airborne, airborne) ~~photogrammetric~~ survey made under my supervision; that this photogrammetric survey was performed to meet Federal Geographic Data Committee Standards as applicable; that the imagery and/or original data was obtained on \_\_\_\_\_ (date) \_\_\_\_\_; that the ~~photogrammetric~~ survey was completed on \_\_\_\_\_ (date) \_\_\_\_\_; that contours shown as [broken lines] may not meet the stated standard; and all coordinates are based on \_\_\_\_\_."

(i) Documents transmitted electronically shall have the computer-generated seal removed from the original file and a copy of the project report shall be ~~signed, sealed~~ certified and sent to the client. The electronic data shall have the following inserted in lieu of the signature and date:

"This document originally issued and sealed by (name of sealer), (license number), on (date of sealing). This electronic media shall not be considered a certified document. See the project report for certificate and seal."

Authority G.S. 89C-10; 89C-20.

## 21 NCAC 56 .1607 GLOBAL POSITIONING SYSTEMS SURVEYS

a) General. ~~Global Positioning System (GPS) surveys are defined as any survey performed by using the GPS 3-dimensional measurement system based on observations of the radio signals of the Department of Defense's NAVSTAR (Navigation Satellite Timing and Ranging) GPS System. Global Positioning Systems (GPS) are defined as the navigation and positioning systems that comprise the Global Navigation Satellite System (GNSS), which includes NAVSTAR, GLONASS, GALILEO, COMPASS, and any other satellite-based navigation and positioning systems. All GPS boundary and geodetic control surveys, aerial photography control surveys, and GIS/LIS collection surveys of features included in surveys as defined in G.S. 89C-3(7) performed in North Carolina shall be performed by a Professional Land Surveyor licensed in North Carolina.~~

~~(b) Geodetic control surveys for inclusion of the data in the National Spatial Data Network (Blue Book) shall be performed in accordance with specifications established by the Federal Geographic Data Committee (FGDC) and the National Geodetic Survey. These specifications are incorporated by reference including subsequent amendments and editions. The material is available for inspection at the office of the North Carolina Geodetic Survey, 121 W. Jones Street (Elks Building), Raleigh, North Carolina 27603, www.ncgs.state.nc.us. Copies may be obtained at the office of the North Carolina Geodetic Survey. Copies may be obtained at a cost of two dollars (\$2.00). GPS surveys performed to other Federal Standards shall conform to the appropriate Federal standard procedures for the specific project.~~

~~(b) The Professional Land Surveyor in responsible charge of the GPS survey shall certify, sign and seal~~ certify all prepared documents. When a map or document consists of more than one sheet, only one sheet must contain the certificate and all others must be ~~signed and sealed.~~ certified. The certificate ~~and/or metadata notes~~ shall contain the following information:

- (1) ~~Class of GPS survey.~~ survey as defined in the Standards of Practice (or list the sections).
- (2) ~~Type of GPS field procedure~~ procedure, such as, but not limited to (Static, Static, Kinematic, Pseudo Kinematic), Pseudo Kinematic, Real-time Kinematic, Real-time Kinematic networks, and Online Position User Service.
- (3) ~~Type of adjustment used.~~ Positional accuracy.
- (4) Dates of survey.
- ~~(5) Type and model of GPS receivers used.~~
- ~~(6)~~ (5) What datum and epoch coordinates or geographic positions are based on.
- (6) Designation of fixed-control stations and their positional data.
- (7) Geoid model used.
- (8) Combined grid factor(s).

The certificate shall be substantially in the following form:

"I, \_\_\_\_\_, certify that this map was drawn under my supervision from an actual GPS survey made under my ~~supervision~~, supervision and the following information was used to perform the survey: that this GPS survey was performed to \_\_\_\_\_ FGCC specifications and that I used \_\_\_\_\_. GPS field procedures and coordinates were obtained by \_\_\_\_\_ adjustment. That this survey was performed on \_\_\_\_\_ using (type) (number) of receivers and all coordinates are based on \_\_\_\_\_."

- (1) Class of survey: \_\_\_\_\_
- (2) Positional accuracy: \_\_\_\_\_
- (3) Type of GPS field procedure: \_\_\_\_\_

- (4) Dates of survey: \_\_\_\_\_
- (5) Datum/Epoch: \_\_\_\_\_
- (6) Published/Fixed-control use: \_\_\_\_\_
- (7) Geoid model: \_\_\_\_\_
- (8) Combined grid factor(s): \_\_\_\_\_
- (9) Units: \_\_\_\_\_

Prepared documents shall include coordinates (see paragraph f. below for the list of data to show) of all monuments and a map showing all non-trivial vectors measured. The map shall also contain the following information:

- (1) Scale (bar or numerical).
- (2) Legend.
- (3) Loop closures before any adjustment.
- (4) Certification.
- (5) Company name, license number, address and phone number.

(c) GPS surveys performed to provide local-control networks for use as a network base shall be performed using static or rapid static methods. These surveys shall be performed in such a manner that a 95%~~95~~ percent confidence level of the positional accuracy of each point relative to the published positions of the control points used and shall meet the accuracy standards of a Class AA survey as set out in Rule .1603.

(d) GPS surveys performed to provide local horizontal or vertical Grid control on a parcel of land where the boundary or topography of that parcel will be shown relative to NC Grid horizontal or vertical datum shall be performed using static or rapid static techniques, or kinematic or real time kinematic techniques. These surveys shall be performed using techniques that will provide the standards of accuracy for the class of survey being performed while determining the horizontal or vertical positions of objects as set out in Rule .1603 or Rule .1606 as applicable.

(e) All plats, maps, and reports published based upon this type of GPS survey shall contain a statement worded substantially as follows: "The NC Grid coordinates shown on this [plat or report] were derived by [static or rapid static or kinematic or real time kinematic] differential GPS observations using [number of receivers] [brand name] [model number] receivers. The vectors were adjusted using the fixed station(s) shown using [software brand and program name] software producing a weighted least squares adjustment of the [WGS 84 or NAD 83 or other system] positions. The median vector error is computed to be [x.x] ppm. A loop of [miles or kilometers or feet or meters] using the un-adjusted vectors passing through the fixed and derived control stations yields a loop precision of [1:xxx or xx.x ppm]."

~~(f)~~(e) A list or note showing the fixed Fixed station(s) used for the project shall appear on the map, plat, or report. The minimum data shown for each fixed station shall be station name, horizontal position (northing and easting) or latitude, longitude, elevation (ellipsoid or orthometric), and geoid height datum and epoch, epoch. (93, 96, 99, etc.), and the coordinate reference system. State plane coordinates may be added if desired.

Authority G.S. 89C-10; 89C-20.

## 21 NCAC 56 .1608 CLASSIFICATION/LAND INFORMATION SYSTEM/GEOGRAPHIC INFORMATION SYSTEM SURVEYS

(a) General: Land Information System/Geographic Information System (LIS/GIS) surveys are defined as the measurement of existing surface and subsurface features for the purpose of determining their accurate geospatial location for inclusion in an LIS/GIS database. All LIS/GIS surveys as they relate to property lines, rights-of-way, easements, subdivisions of land, the position for any survey monument or reference point, the determination of the configuration or contour of the earth's surface or the position of fixed objects thereon, and geodetic surveying which includes surveying for determination of the size and shape of the earth both horizontally and vertically and the precise positioning of points on the earth utilizing angular and linear measurements through spatially oriented spherical geometry, shall be performed by a Land Surveyor who is a licensee of this Board. For the purpose of specifying minimum allowable surveying standards, ~~three~~four general classifications of LIS/GIS surveys are established: established, any of which may be specified by the client. In the absence of a specified standard, the surveyor shall conform the survey to the requirements for a Class B survey. The four general classifications are:

- (1) ~~Urban and Suburban LIS/GIS surveys (Class A)~~ Urban and suburban LIS/GIS surveys include the location of features within lands which lie in or adjoining a town or city. Class A LIS/GIS surveys. For Class A LIS/GIS surveys in North Carolina, the relative accuracy shall be equal to or less than 0.5 meter (1.64 feet). (1.64 feet);
- (2) ~~Class B LIS/GIS surveys.~~ For Class B LIS/GIS surveys in North Carolina, the relative accuracy shall be equal to or less than 1.0 meter (3.28 feet);
- ~~(2)~~(3) ~~Rural LIS/GIS surveys (Class B)~~ Class C LIS/GIS surveys. Rural LIS/GIS surveys include the location of features within lands which lie outside of suburban areas. For Class B C LIS/GIS surveys in North Carolina, the relative accuracy shall be equal to or less than 2 meters (6.56 feet); (6.56 feet); and
- ~~(3)~~(4) ~~Regional LIS/GIS surveys (Class C)~~ Class D LIS/GIS surveys. Regional LIS/GIS surveys include the location of features within lands which lie in multi-county areas. For Class C D LIS/GIS surveys in North Carolina, the relative accuracy shall be equal to or less than 5 meters (16.40 feet).

(b) Nothing in this Rule shall be construed to negate or replace negates or replaces the relative accuracy standards found in Rules .1601 through .1607 of this Chapter.

(c) The Professional Land Surveyor in responsible charge of the LIS/GIS boundary or geodetic control survey shall certify to all of the following in either written or digital form:

- (1) Class of LIS/GIS survey, survey. Method used to evaluate the accuracy shall be described as either statistical testing or least squares adjustment results, comparison with values of higher accuracy, and repeat measurements. The reporting

standard in the horizontal component is the radius of a circle of uncertainty, such that the true or theoretical location of the point falls within that circle 95 percent of the time. For vertical accuracy requirements, see .1606.

- (2) Method of measurement (i.e. global positioning system, theodolite and electronic distance meter, transit and tape),
- (3) Date(s) of the survey, and
- (4) Datum used for the survey.

Authority G.S. 89C-10; 89C-20.

## SECTION .1700 – CONTINUING PROFESSIONAL COMPETENCY

### 21 NCAC 56 .1702 DEFINITIONS

Terms used in this Section are defined as follows:

- (1) Professional Development Hour (PDH) - A contact hour (nominal) of instruction or presentation. The common denominator for other units of credit.
- (2) Continuing Education Unit (CEU) - Unit of credit customarily used for continuing education courses. One continuing education unit equals 10 contact hours of instruction or presentation.
- (3) College/Unit Semester/Quarter Hour - Credit for Accreditation Board for Engineering and Technology approved course or other related college course.
- (4) Course/Activity - Any course or activity with a clear purpose and objective which will maintain, improve, and/or expand the skills and knowledge relevant to the licensee's field of practice.
- (5) Dual Licensee - A person who is licensed as both an engineer and a land surveyor.
- (6) Sponsor - Organization or individual that has supplied information on a form prescribed and furnished by the Board with respect to the organization or individual's ability to provide instruction in "for credit" courses. Courses offered by those designated as "Sponsor" must contain a clear purpose and objective, and result in the maintenance, improvement, and/or expansion of skills and knowledge relevant to a licensee's field of practice. ~~Courses offered by "Sponsors" are deemed acceptable for PDH credit without scrutiny of individual course content.~~

Authority G.S. 89C-10(a); 89C-17.

### 21 NCAC 56 .1703 REQUIREMENTS

Every licensee shall obtain 15 PDH units during the renewal period. If a licensee exceeds the annual requirement in any renewal period, a maximum of 15 PDH units may be carried forward into the subsequent renewal period. Selection of courses and activities which meet the requirements of Rule .1702(4) of this Section is the responsibility of the licensee. Licensees may select courses other than those offered by sponsors. ~~Post evaluation of courses offered by other than sponsors as defined in Rule .1702(6) of this Section may result in non-acceptance.~~ PDH units may be earned as follows:

- (1) Completion of college courses;
- (2) Completion of continuing education ~~courses;~~ courses, seminars, or workshops;
- (3) Completion of correspondence, televised, internet, videotaped, audiotaped, and other ~~short courses/tutorials;~~ courses/tutorials provided an exam is required for completion;
- (4) Presenting or attending seminars, in-house courses, workshops, or professional or technical presentations made at meetings, conventions or conferences;
- (5) Teaching or instructing in Items (1) through (4) of this Rule;
- (6) Authoring published papers, articles, or books;
- (7) Active participation in professional or technical ~~societies;~~ societies as defined in Rule .1705(e) of this Section;
- (8) Patents; and
- (9) Authoring exam questions accepted for use in the engineering or land surveying exams.

Authority G.S. 89C-10(a); 89C-17.

### 21 NCAC 56 .1705 DETERMINATION OF CREDIT

(a) The Board of Examiners has final authority with respect to approval of courses, sponsors, credit, PDH value for courses, and other methods of earning credit.

(b) Credit for college or community college courses shall be based upon course credit established by the college.

(c) Credit for continuing education courses, seminars and workshops shall be based on one PDH unit for each hour of attendance. Attendance at programs presented at professional and technical society meetings shall earn PDH units for the actual time of each program.

(d) Credit for correspondence, televised, internet, videotaped, audiotaped, and other courses/tutorials, provided an exam is required for completion, shall be based upon one PDH unit for each hour assigned to the course, provided such hours are a reasonably estimated time for an average professional to complete the course.

~~(d)(e)~~ Credit determination for published papers, articles and books and obtaining patents is the responsibility of the licensee.

~~(e)(f)~~ Credit for active participation in professional and technical societies (limited to 2 PDH per organization), requires that a licensee serve as an officer or actively participate in a committee of the organization. PDH credits are not earned until the end of each year of service is completed.

Authority G.S. 89C-10(a); 89C-17.

## 21 NCAC 56 .1706 RECORDKEEPING

The licensee shall maintain the following records to be used to support credits ~~claimed.~~claimed: ~~Records required include, but are not limited to:~~

- (1) a log showing the type of activity claimed, title or specific subject, sponsoring organization, location, duration, date, instructor's or speaker's name, and PDH credits ~~earned;~~ earned, and other information on a form as prescribed by the Board; and
- (2) attendance verification records in the form of completion certificates, or other documents supporting evidence of ~~attendance;~~ attendance.
- (3) ~~records as maintained by the National Professional Development Registry for Engineers and Surveyors (NPDRES) of the National Society of Professional Engineers (NSPE).~~

These records must be maintained for a period of three years and copies may be requested by the board for audit verification purposes. The Board shall approve other records that contain the information required by this Rule.

Authority G.S. 89C-10(a); 89C-17.

## 21 NCAC 56 .1707 EXEMPTIONS

A licensee may be exempt from the professional development educational requirements for one of the following reasons:

- (1) New licensees by way of examination or ~~reciprocity~~comity shall be exempt for their first renewal period.
- (2) A licensee serving on temporary active duty in the uniformed services of the United States for a period of time exceeding 120 consecutive days in a year ~~shall be~~ exempt from obtaining the professional development hours required during that year.
- (3) The Board shall exempt a licensee ~~Licensees experiencing physical disability, illness, or other extenuating circumstances as reviewed and approved by the board~~ Board may be exempt determines that the licensee is experiencing physical disability, illness, or other extenuating circumstances that prevent the licensee from obtaining professional development hours. Supporting documentation must be furnished to the board.
- (4) Licensees who list their occupation as "Inactive" on the board approved renewal form and who ~~further certify that they are no longer receiving any remuneration from~~ providing professional engineering or land surveying services ~~shall be~~ exempt from the professional development hours required. In the event such a person elects to return to active practice of professional engineering or land surveying, professional development hours must be earned in accordance with the requirements of Rule .1708 in this Section before returning to active practice for each year exempted not to exceed the annual requirement for two years.

Authority G.S. 89C-10(a); 89C-17.

## 21 NCAC 56 .1709 COMITY/OUT-OF-JURISDICTION RESIDENT

Licensees who are residents of jurisdictions other than North Carolina ~~must~~ shall meet the CPC requirements of their resident jurisdiction. ~~The requirements for North Carolina will be deemed as satisfied when a non-resident licensee provides evidence of having met the requirements of his or her resident jurisdiction. If licensees reside~~ the licensee resides in a jurisdiction that has no ~~CPC continuing professional competency (CPC) requirement, or the licensee is exempt from the CPC requirement in the licensee's resident jurisdiction,~~ the resident licensee must meet the requirements of North Carolina.

Authority G.S. 89C-10(a); 89C-17.

## 21 NCAC 56 .1712 COMPLIANCE

(a) Compliance with annual Continuing ~~professional~~ Professional Competency (CPC) requirements shall be determined through an audit process conducted by the Board. Determination of individuals to be audited shall be accomplished through a random selection process or as the result of information available to the Board. Individuals selected for auditing shall provide the Board with the following documentation of the CPC activities claimed for the renewal ~~period, including but not limited to:~~ period:

- (1) Attendance verification records in the form of transcripts, completion certificates, other documents supporting evidence of attendance, ~~or~~ and a log as defined in Rule .1706 of the ~~Section.~~ Section; and
- (2) Information regarding course content, instructors and sponsoring organization, for activities presented by other than approved sponsors as defined in Rule .1713 of this Section.

(b) Attendance records shall be maintained by individual licensees for a period of three years for audit verification purposes.

~~(e) Failure to comply with annual CPC requirements shall result in non-renewal and all disciplinary actions allow by G. S. 89C21.~~

Authority G.S. 89C-10(a); 89C-17.

## 21 NCAC 56 .1713 SPONSORS

(a) The Board shall approve sponsors of Continuing Professional Competency (CPC) ~~activities and not particular courses.~~ activities. The Board shall maintain a list of sponsors which have agreed to conduct programs in accordance with the standards of CPC activities set forth in 21 NCAC 56.1700. Such sponsors shall indicate their agreement with the requirements by executing a Sponsor Agreement on a form

provided by the Board. These sponsors shall be designated as "Approved Sponsors," Sponsors" based upon approval by the Board of the sponsor application and payment of a one hundred fifty dollar (\$150.00) application fee.

(b) By entering into an agreement with the Board to be designated as an "Approved Sponsor," the sponsor shall agree to:

- (1) Allow persons designated by this Board to attend any or all courses, without fee or charge, for the purpose of determining that said course meets the standards of the Board.
- (2) Allow persons designated by this Board to review course material for the purpose of determining that ~~said~~the course meets the standards of the Board.
- (3) State in every brochure, publication or announcement concerning the course, the general content of the course and the specific knowledge or skill to be taught or addressed, as well as the credit to be earned in Professional Development Hours (PDH).
- (4) Ensure that the instructors or presenters of the course or program are qualified to teach the subject matter.
- (5) Provide persons completing the course with written documentation attesting to that person's attendance to the course, as well as the name of the course, the date and location held, the instructor's name and the number of PDHs earned.
- (6) Provide attendees an evaluation form as provided by the Board that is to be collected and retained for audit by the Board.
- ~~(6)~~(7) Submit quarterly reports to the Board (whether, or not, a course was offered in that quarter) which shall include the sponsor's name, the name of the course, the date and location held, the instructor's name, the number of PDHs earned and a list of attendees.
- ~~(7)~~(8) Have a visible, continuous and identifiable contact person who is charged with the administration of the sponsor's CPC program and who has the responsibility for assuring and demonstrating to the Board compliance with ~~these Rules, this Rule,~~ as well as for any other organization working with the sponsor for the development, distribution ~~and/or~~ presentation of CPC courses or activities.
- ~~(8)~~(9) Retain for a period of three years a copy of the ~~above documentation.~~ documentation required by this Paragraph.

(c) Sponsors shall renew annually on a form provided by the Board.

(d) Failure of an approved sponsor to comply with the terms of the CPC sponsor agreement ~~shall be~~ grounds for the Board to revoke, suspend or terminate the agreement, to remove the sponsor's name from the list of approved sponsors and to notify the public of such action. A sponsor that is given notice of revocation, suspension or termination ~~can~~ may request an administrative hearing to be conducted as provided in 21 NCAC ~~56.1400~~ 56.1400 Contested Cases.

(e) Approval of a sponsor is equivalent to the language of licensing a sponsor in G.S. 89C-10(h).

*Authority G.S. 89C-10; 89C-17.*