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***IMPORTANT - OFFICIAL NOTICE***  
***PROPOSED RULE CHANGES***

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**Notice of Text  
and  
Proposed Rules for Official Notice for NC Register**

**Written Comment Period**

December 16, 2019 - February 14, 2020

*Identifying the rule, please email comments to David Tuttle at: [NCBELSRulesComments@ncbels.org](mailto:NCBELSRulesComments@ncbels.org)  
or mail to his attention to the below Board office by US Postal Service or other delivery service.*

NC Board of Examiners for Engineers and Surveyors  
4601 Six Forks Road, Suite 310  
Raleigh, North Carolina 27609

**Public Hearing**

January 15, 2020

These proposed rules are published on the Board's website as a public service. However, the official versions of the proposed rules are maintained by the Office of Administrative Hearings (OAH), and can be reviewed at: <http://www.ncoah.com/>.

## **Summary of Proposed Changes to the Board Rules that are included in the Notice of Text in the North Carolina Register**

**.0303 – Clarifies process to disperse funds for education programs.**

**.0304 – Adoption of new rule to address suspension of authority to expend funds pursuant to G.S. 93B-2(d) for failure to file an annual report.**

**.0501 – Clarifies requirements for licensing as a Professional Engineer.**

**.0503 – Reflects changes to the examination process for licensing as a Professional Engineer.**

**.0601 – Clarifies requirements for licensing as a Professional Land Surveyor.**

**.0603 – Reflects changes to the examination process for licensing as a Professional Land Surveyor.**

**.0804 – Clarifies business (firm) annual renewal and 30-day reporting of violations, criminal convictions, change of address(es), resident professional, company name, officers, directors or owners, or the services being offered.**

**.0902 – Clarifies the requirements for the business titles to be determined as not misleading.**

**.1301 – Clarifies and makes revisions to the disciplinary procedures for improper practice by a licensee.**

**.1302– Clarifies and makes revisions to the disciplinary procedures for unlawful practice by a non-licensee.**

**.1403 – Clarifies notice of contemplated action as to applicant for licensure.**

**.1603 – Clarifies positional accuracy standards for surveys.**

**.1604 – Clarifies mapping requirements for boundary surveys and deletes reference to the subdivision control corner statute G.S. 39-32.1 that was repealed.**

**.1607 – Updates the names of the satellite-based global positioning systems.**

1 21 NCAC 56 .0303 is proposed for amendment as follows:

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3 **21 NCAC 56 .0303 DISBURSEMENT OF FUNDS**

4 The Board shall dispense Funds-funds for educational programs ~~will be allocated and dispensed~~ in the following  
5 manner:

- 6 (1) ~~Funds will be dispensed by vote of the~~The Board shall dispense funds after Board Committees, as  
7 organized, study each specific committee related request and recommendation-recommend  
8 funding of each specific request by the appropriate committee of the Board.
- 9 (2) The Board ~~will~~shall consider requests for funds only from the following entities: approved schools  
10 or professional organizationscommunity colleges, public or private institutions of higher learning,  
11 State and county boards of education, or governing authorities for any industrial education center.
- 12 ~~(3) Requests will be considered for any use that will directly further engineering or surveying education~~  
13 ~~and competence.~~
- 14 (3) The Board shall consider educational programs to establish instructional programs for individuals  
15 currently licensed and those seeking to become licensed.
- 16 (4) ~~Requests-Approved entities for money~~shall be request funds in writing and provide the following  
17 information:
- 18 (a) The amount needed,~~or appropriate limits thereof;~~
- 19 (b) ~~Intended uses to be made of the requested monies~~The intended use of the funds;
- 20 (c) Subject material to be presented ~~with~~and qualifications of instructors to be employed;
- 21 (d) Itemized ~~estimate~~breakdown of the amount needed and the total expected costs;
- 22 (e) Source and amount of assistance being given by any other person or organization.

23  
24 *History Note: Authority G.S. 89C-10(g); ~~89C-11;~~*  
25 *Eff. February 1, 1976;*  
26 *Readopted Eff. September 29, 1977;*  
27 *Amended Eff. \_\_\_\_\_; April 1, 1989; January 1, 1982;*  
28 *Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. April 27,*  
29 *2019.*

1 21 NCAC 56 .0304 is proposed for adoption as follows:

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3 **21 NCAC 56 .0304           SUSPENSION OF AUTHORITY TO EXPEND FUNDS**

4 In the event that the Board's authority to expend funds is suspended pursuant to G.S. 93B-2(d), the Board shall  
5 continue to issue and renew licenses and collect all fees set forth in G.S. 89C-14, 89C-17, and 89C-24. The Board  
6 shall maintain an escrow account into which any fees tendered during the Board's period of suspension shall be  
7 deposited. Once the Board's authority is restored, the funds shall be moved from the escrow account into the general  
8 operating account.

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10 *History Note:*    *Authority G.S. 89C-10; 89C-11; 93B-2*

11                    *Eff. May 1, 2020*

1 21 NCAC 56 .0501 is proposed for amendment as follows:  
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3 **SECTION .0500 - PROFESSIONAL ENGINEER**  
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5 **21 NCAC 56 .0501 REQUIREMENTS FOR LICENSING**

6 (a) Education. The Board shall consider the education of an applicant ~~shall be considered~~ in determining eligibility  
7 for licensing as a Professional Engineer. The terms used by the Board for the ~~specific~~ educational requirements in  
8 G.S. 89C-13(a1) to be eligible to be licensed as a Professional Engineer are defined as follows:

9 (1) "Engineering curriculum of four or more years approved by the Board" is defined as a program that  
10 has been accredited by the Engineering Accreditation Commission (EAC) of the Accreditation  
11 Board for Engineering and Technology (ABET). This program is incorporated by reference  
12 including subsequent amendments and editions. This material is available at  
13 [www.abet.org/accreditation-criteria-policies-documents/](http://www.abet.org/accreditation-criteria-policies-documents/) at no cost, or for inspection at the office of  
14 the North Carolina Board of Examiners for Engineers and Surveyors. Copies may be obtained at the  
15 Board office at a cost of five dollars (\$5.00) per copy.

16 (2) "Engineering or related science curriculum of four or more years other than ones approved by the  
17 Board" is defined as a curriculum, although not accredited by ABET, of technical courses ~~which~~  
18 that contains engineering or scientific principles.

19 (3) "Equivalent education satisfactory to the board" is defined as:

20 (A) A graduate degree in Engineering from an institution ~~in which~~ where the same discipline  
21 undergraduate engineering program has been accredited by ABET (EAC) shall be  
22 considered equivalent to an engineering curriculum of four or more years approved by the  
23 Board.

24 (B) A bachelor's degree in Engineering Technology, whether or not accredited by the  
25 Technology Accreditation Commission (TAC) of ABET, shall be considered equivalent to  
26 an engineering or related science curriculum of four or more years other than one approved  
27 by the Board.

28 (C) ~~Until June 30, 2016, an associate degree in an engineering related curriculum with an~~  
29 ~~additional two years of progressive engineering experience shall be considered equivalent~~  
30 ~~to an engineering or related science curriculum of four or more years other than one~~  
31 ~~approved by the Board and may be used until that date as a basis for admission to the~~  
32 ~~principles and practice of engineering examination. Once admitted to the examination, an~~  
33 ~~applicant may continue to re take the examination until required to submit a new~~  
34 ~~application as set out in Rule .0503 of this Section.~~ After June 30, 2016 an associate degree  
35 shall no longer be used as a basis for admission to that examination, unless the individual  
36 has passed the fundamentals of engineering examination prior to June 30, 2016, in which  
37 case the individual may continue the process to take the principles and practices exam

1 based upon the associate degree and it will not be necessary to qualify for admission to the  
2 principles and practice of engineering examination prior to June 30, 2016.

3 (D) Foreign degrees ~~are~~ shall be considered equivalent only after receipt of an evaluation report  
4 that the degree is substantially equivalent to an EAC/ABET accredited engineering  
5 curriculum from the Center for Professional Engineering Education Services, an affiliate  
6 of the National Council of Examiners for Engineering and Surveying (NCEES), or from  
7 the American Association of Collegiate Registrars and Admissions Officers (AACRAO).  
8 The Board shall equate the degree to an EAC/ABET accredited engineering curriculum of  
9 four or more years approved by the Board in Subparagraph (a)(1) of this Rule if it receives  
10 a substantially equivalent evaluation.

11 (b) Experience. The experience of an applicant shall be considered in determining whether an applicant is eligible to  
12 be licensed as a Professional Engineer.

13 (1) Required Experience. In evaluating the work experience required, the Board shall consider the total  
14 experience record and the progressive nature of the record. Experience shall be of a progressive  
15 engineering nature obtained after graduation from a program that meets the criteria set forth in  
16 paragraph (a) of this Rule. Not less than half of required engineering experience shall be of a  
17 professional grade and character, and shall be performed under the responsible charge of a licensed  
18 Professional Engineer, or if not, the applicant shall submit a written explanation to the Board  
19 explaining why the experience should be considered acceptable. The Board shall approve if it is  
20 satisfied of the grade and character of the progressive experience on a case-by-case basis." a written  
21 explanation shall be submitted showing why the experience should be considered acceptable and  
22 the Board shall approve if satisfied of the grade and character of the progressive experience.  
23 Experience gained under the technical supervision of an unlicensed individual shall be considered  
24 if the appropriate based upon the engineering education and experience credentials of the unlicensed  
25 supervisor ~~are submitted to the Board~~. Experience gained in the armed services, usually while  
26 serving in an engineering or engineering related group, shall be ~~considered if of a character~~ accepted  
27 only if substantially equivalent to that which would have been gained in the civilian sector doing  
28 similar civilian work.

29 (2) Definition. The word "progressive" in the terms "progressive nature of the record," "progressive  
30 engineering experience," "progressive land surveying," "progressive engineering nature," or  
31 "progressive experience on engineering projects" mean means that during the period of time that an  
32 applicant ~~has~~ made a practical utilization of acquired knowledge, continuous improvement, growth  
33 and development have been shown in the utilization of that knowledge as revealed in the complexity  
34 and technical detail of the work product or work record. The applicant shall show continuous  
35 assumption of greater individual responsibility for the work product over that period of time. The  
36 progressive experience on engineering projects shall be of a grade and a character that ~~indicates~~  
37 shows to the Board that the applicant is competent to practice engineering.

1 (3) ~~Specific~~ Credit for Experience. In evaluating progressive engineering experience, the Board shall  
2 give credit for experience in the following areas of work:

- 3 (A) Graduate schooling or research in an engineering program resulting in award of a master's  
4 degree from an institution that offers EAC/ABET-accredited programs – one year;
- 5 (B) Graduate schooling or research in an engineering program resulting in award of an earned  
6 doctoral degree in engineering from an institution that offers EAC/ABET-accredited  
7 programs – two years, with or without a master's degree, but this includes the one year for  
8 the master's degree, if obtained;
- 9 (C) Progressive land surveying - maximum two years; and
- 10 (D) Teaching of engineering subjects at the university level in an engineering program offering  
11 a four year or more degree approved by the Board.

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

16 Full-time engineering faculty members who teach in an engineering program offering a four year or more degree  
17 approved by the Board, may request and shall be granted waiver of the minimum one year experience in industry,  
18 government, or private practice if they demonstrate consulting or research work of at least one year's duration, which  
19 was pursued to ~~fruition~~ completion of the project, and ~~which that~~ is of a progressive engineering nature. The faculty  
20 applicant shall document the work ~~and demonstrate to evidence~~ that the work meets the Board's requirement.

21 (4) An exception to the requirement in subparagraph (b)(1) that experience be obtained after graduation  
22 is for long-established practice of 20 years or more, as provided for in G.S. 89C-13(a3).

23 (5) Other experience is considered if it ~~is~~ shall be:

- 24 (A) Experience obtained prior to graduation as part of an ABET accredited engineering  
25 program shown on the transcript, with a maximum credit of one year; or
- 26 (B) Experience obtained in a foreign country that is performed under direct supervision of a  
27 Professional Engineer licensed with a member Board of the National Council of Examiners  
28 for Engineering and Surveying (NCEES).

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30 *History Note: Authority G.S. 89C-10; 89C-13;*  
31 *Eff. February 1, 1976;*  
32 *Readopted Eff. September 29, 1977;*  
33 *Amended Eff. \_\_\_\_\_; August 1, 2014; August 1, 2011; May 1, 2009; August 1, 2002; August*  
34 *1, 2000; August 1, 1998; November 2, 1992; April 1, 1989; January 1, 1982;*  
35 *Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. April 27,*  
36 *2019.*

1 21 NCAC 56 .0503 is proposed for amendment as follows:

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3 **21 NCAC 56 .0503 EXAMINATIONS**

4 (a) The Board offers the following examinations that are the national examinations of the National Council of  
5 Examiners for Engineering and Surveying (NCEES) with application made directly to NCEES to take the exam:

6 (1) Fundamentals of Engineering (FE):- This examination is designed to test the applicant's proficiency and  
7 knowledge of the fundamentals of engineering; and

8 ~~(b)~~(2) Principles and Practice of Engineering (PE):- This examination is designed to test the applicant's  
9 proficiency and knowledge of engineering principles and practices.

10 ~~(c)~~(b) Examination Aids. Examinees may utilize examination aids as specified and published by ~~the exam~~  
11 ~~preparer~~NCEES.

12 ~~(d) Preparation of Examination. The examinations in the fundamentals of engineering and in the principles and~~  
13 ~~practice of engineering are national examinations provided by the National Council of Examiners for Engineering and~~  
14 ~~Surveying (NCEES), of which the Board is a member.~~

15 ~~(e)~~(c) Examination Sequence. Before the applicant shall be permitted to be examined on the principles and practice  
16 of engineering, the applicant shall pass the examination on the fundamentals of engineering, unless the applicant can  
17 provide evidence of 20 years of progressive engineering experience, or as is a full-time engineering faculty member,  
18 or possesses an earned doctoral degree in engineering to be exempt from taking the fundamentals of engineering exam.  
19 NCEES administers the fundamentals of engineering examination as a computer-based exam. Application shall be  
20 made directly to NCEES to take the exam.

21 ~~(f) Examination Filing Deadline. Only those applicants who have met the education requirements as set forth in Rule~~  
22 ~~.0501(b), and have passed the FE exam may sit for the PE exam prior to gaining the required experience. Upon gaining~~  
23 ~~the required experience, as set forth in Rule .0501(b), an applicant may apply for the PE license. The applicant who~~  
24 ~~wishes to take the principles and practice of engineering examination shall deliver the completed application, including~~  
25 ~~all necessary references, transcripts, and verifications, to the Board office prior to August 1 for Fall examinations and~~  
26 ~~January 2 for Spring examinations.~~

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

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

33 ~~(i)~~(d) Re-Examination. A person who failed an examination may apply to take the examination again ~~at the next~~  
34 ~~regularly scheduled examination period~~after a six month waiting period by making written request and submitting the  
35 required exam fee. A person having a combined record of three failures or unexcused absences shall be eligible only  
36 after submitting a new application with appropriate application fee, and shall be considered by the Board for  
37 reexamination at the end of 12 months. After the end of the 12-month period, the applicant may take the examination

1 no more than once every calendar year. The applicant shall demonstrate to the Board that actions, such as additional  
2 courses of study, have been taken to improve the applicant's chances for passing the exam.

3 ~~(j)~~(e) Reasonable Accommodation. An applicant may make a written request to NCEES, before the application  
4 deadline, for reasonable accommodation for the exam. Reasonable accommodation shall be granted based upon  
5 meeting the Guidelines for Requesting Religious and ADA Accommodations published by the National Council of  
6 Examiners for Engineering and Surveying (NCEES), which are hereby incorporated by reference, including  
7 subsequent amendments and editions. Copies are available at no cost at [www.ncees.org](http://www.ncees.org).

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

10 ~~(l)~~(g) Review of Failed Exams. An applicant who fails to make a passing score on an exam shall receive an exam  
11 analysis by NCEES.

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13 *History Note: Authority G.S. 89C-10; 89C-13; 89C-14; 89C-15;*  
14 *Eff. February 1, 1976;*  
15 *Readopted Eff. September 29, 1977;*  
16 *Amended Eff. \_\_\_\_\_; August 1, 2014; September 1, 2009; May 1, 2009; April 1, 2001; August*  
17 *1, 1998; November 2, 1992; April 1, 1989; January 1, 1982;*  
18 *Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. April 27,*  
19 *2019.*

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1 21 NCAC 56 .0601 is proposed for amendment as follows:

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

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5 **21 NCAC 56 .0601 REQUIREMENTS FOR LICENSING**

6 (a) Education. The terms used by the Board for the specific education requirements to be eligible to be licensed as a  
7 Professional Land Surveyor are defined as follows:

8 (1) "B.S. in surveying or other equivalent curriculum." These degrees shall contain a minimum of 45  
9 semester hours, or their quarter-hour equivalents, ~~of subjects directly related to the practice of~~  
10 ~~surveying.~~ Of the 45 semester hours, a minimum of 12 semester hours of surveying fundamentals,  
11 12 semester hours of applied surveying practice and 12 semester hours of advanced or theoretical  
12 surveying courses are required. The remainder of the required surveying courses may be  
13 elective-type courses ~~directly related to surveying;~~ in any of the categories and

14 (2) "Associate degree in surveying technology." This degree shall contain a minimum of 20 semester  
15 hours, or quarter-hour equivalents, ~~of subjects directly related to the practice of surveying.~~ Courses  
16 shall be in surveying fundamentals, applied surveying practice and advanced or theoretical  
17 surveying courses, to include, at a minimum, courses in surveying practices, subdivision design and  
18 planning, surface drainage drainage, and photogrammetry which must be completed with a passing  
19 grade.

20 (b) Experience:

21 (1) Definition. As used in the North Carolina Engineering and Land Surveying Act, the term  
22 "progressive practical ~~surveying~~ experience" means that during the period of time in which an  
23 applicant has made a practical utilization of the knowledge of the principles of geometry and  
24 trigonometry in determining the shape, boundaries, ~~position~~ position, and extent of the earth's  
25 surface, such that continuous improvement, growth and development in the utilization of that  
26 knowledge have been shown. In addition, the applicant shall show the continuous assumption of  
27 greater individual responsibility for the work product over that period of time.

28 (2) ~~Required Experience-Accepted.~~ In evaluating the work experience required, the Board shall consider  
29 the total experience record and the progressive nature of the record. ~~Half or more~~ Not less than half  
30 of the required land surveying experience shall be of a professional grade and character, and shall  
31 be performed under the responsible charge of a Professional Land Surveyor. If the work was not  
32 under the responsible charge of a Professional Land Surveyor, the applicant shall submit a written  
33 explanation to the Board explaining why the experience should be considered acceptable and the  
34 The Board shall approve if it is satisfied of the grade and character of the progressive  
35 experience. ~~experience on a case by case basis. Experience gained under the technical supervision~~  
36 of an unlicensed individual shall be considered based upon the engineering education and experience  
37 credential of the unlicensed supervisor. Experience gained in the armed services, usually while

1 servicing in an engineering or surveying related group, shall be accepted only if substantially  
2 equivalent to that which would have been gained in civilian work.

3 (3) Other Experience. The applicant shall document the nature and details of the work ~~Work~~ done in  
4 the following areas ~~requires to~~ evidence to the Board of its equivalency to land surveying:

- 5 (A) construction layout;
- 6 (B) engineering surveying; or
- 7 (C) part-time surveying work.

8 (c) Exhibits, Drawings, ~~Plats:~~ Maps:

9 (1) Required Exhibit Before Principles and Practice of Surveying Examination:

10 (A) General. The applicant shall submit, along with the application, an actual ~~plat~~ map of a  
11 boundary survey of an actual project prepared ~~by, or~~ under the direct supervision and  
12 responsible charge of a Professional Land Surveyor who states that of, the applicant did  
13 the preparatory work of the survey; that shows—shows, by its conformance, that the  
14 applicant is knowledgeable of the contents of the Standards of Practice for Land Surveying  
15 in North Carolina as set forth in Section .1600 of this ~~Chapter,~~ Chapter; and that shows that  
16 the applicant is able to apply this knowledge by preparing a ~~plat~~ map in accordance with  
17 the various legal and professional requirements of land surveying.

18 (B) Physical Requirement. The map submitted shall be a clean, clear, legible print of an original  
19 map in the file of a Professional Land Surveyor.

20 (2) Specific Requirements. The ~~specific~~ details that shall be evaluated are those applicable to the  
21 particular project as described in the Standards of Practice for Land Surveying in North Carolina as  
22 set forth in Section .1600 of this Chapter, and as described in G.S. 47-30. In addition, the exhibit  
23 shall contain a statement that the field work, ~~calculation~~ calculation, and mapping were performed  
24 by the applicant under the supervision of a Professional Land Surveyor, attested to by that  
25 Professional Land Surveyor.

26 (3) Requirements for Comity Applicant. The map submitted by an applicant under comity may be a  
27 ~~sample plat~~ representative map of an actual survey of a project or work performed in the state of  
28 ~~licensure.~~ licensure that is modified to meet the requirements in subparagraph (c)(2) of this Rule and  
29 ~~It shall be evaluated in accordance with legal requirements of North Carolina~~ the requirements  
30 applicable to the particular project as described in the Standards of Practice for Land Surveying in  
31 North Carolina as set forth in Section .1600 of this Chapter, and as described in G.S. 47-30.

32  
33 *History Note:* Authority G.S. 47-30; 89C-10; 89C-13;  
34 Eff. February 1, 1976;  
35 Readopted Eff. September 29, 1977;  
36 Amended Eff. \_\_\_\_\_; August 1, 2014; July 1, 2009; August 1, 2000; August 1, 1998; November  
37 2, 1992; April 1, 1989; December 1, 1984; January 1, 1982;

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*Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. April 27, 2019.*

1 21 NCAC 56 .0603 is proposed for amendment as follows:

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3 **21 NCAC 56 .0603 EXAMINATIONS**

4 (a) The Board offers the following examinations that are the national examinations of the National Council of  
5 Examiners for Engineering and Surveying (NCEES) with application made directly to NCEES to take the exam:

6 (1) Fundamentals of ~~Surveying~~ Surveying (FS): This examination is designed to test the applicant's  
7 proficiency and knowledge of the fundamentals of surveying. ~~Reference~~ (Reference to Fundamentals of  
8 Surveying is the revised name of the national exam that is the Fundamentals of Land Surveying in G.S. 89C.);  
9 and

10  
11 ~~(b)~~(2) Principles and Practice of Surveying. This examination is designed to test the applicant's proficiency  
12 and knowledge of land surveying practices and procedures generally and specifically within North Carolina.

13 (b) State-Specific Exam. The state-specific portion of the principles and practice of surveying examination shall be  
14 provided by the Board.

15 (1) Examination Filing Deadline. The applicant who wishes to take the state-specific portion of the principles  
16 and practice of surveying examination shall deliver the completed application, including all necessary  
17 references, transcripts, and verifications, to the Board office at least 60 days prior to the date for taking the  
18 exam.

19 (2) Unexcused Absences. For the state-specific portion of the principles and practices of surveying  
20 examination, after a seating notice for a scheduled examination has been issued, if applicant fails to appear,  
21 the applicant's record shall reflect "unexcused absence," unless the absence was for jury duty or the applicant  
22 was not physically able to be present, as indicated by a doctor's certificate. The examination fee shall be  
23 forfeited if the applicant's record reflects an unexcused absence.

24 (3) Re-Examination. A person who failed the state-specific portion of the principles and practices of  
25 surveying examination may apply to take the examination again at the after a six-month waiting period by  
26 making written request and submitting the required exam fee. A person having a combined record of three  
27 failures shall be eligible only after submitting a new application with appropriate application fee, and shall  
28 be considered by the Board for re-examination at the end of 12 months after the last failure.

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

30 (d) Preparation of Examination. ~~The examination in the fundamentals of surveying and of the examination in the~~  
31 ~~principles and practice of surveying are national examinations provided by the National Council of Examiners for~~  
32 ~~Engineering and Surveying (NCEES), of which the Board is a member, or other examinations as adopted by the Board.~~  
33 ~~The North Carolina portion of the principles and practice of surveying examination shall be provided by the Board.~~  
34 NCEES administers the fundamentals of surveying examination and the examination in the principles and practice of  
35 surveying as a computer-based exam exams. Application is shall be made directly to NCEES to take the exam.

1 ~~(e) Examination Filing Deadline. The applicant who wishes to take the principles and practice of surveying~~  
2 ~~examination shall deliver the completed application, including all necessary references, transcripts, and verifications,~~  
3 ~~to the Board office prior to August 1 for Fall examinations and January 2 for Spring examinations.~~

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

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

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

16 ~~(i)(c) Reasonable Accommodation. An applicant may make a written request, before the application deadline, for~~  
17 ~~reasonable accommodation for the exam. Reasonable accommodation shall be granted based upon meeting the~~  
18 ~~Guidelines for Requesting Religious and ADA Accommodations published by the National Council of Examiners for~~  
19 ~~Engineering and Surveying (NCEES).~~

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

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

27  
28 *History Note: Authority G.S. 89C-10; 89C-15;*  
29 *Eff. February 1, 1976;*  
30 *Readopted Eff. September 29, 1977;*  
31 *Amended Eff. \_\_\_\_\_; August 1, 2014; May 1, 2009; April 1, 2001; August 1, 1998; November*  
32 *2, 1992; April 1, 1989; January 1, 1982;*  
33 *Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. April 27,*  
34 *2019.*  
35  
36

1 21 NCAC 56 .0804 is proposed for amendment as follows:

2  
3 **21 NCAC 56 .0804 ANNUAL RENEWAL AND 30-DAY REPORTING OF VIOLATIONS AND**  
4 **CHANGE OF ADDRESS**

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

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

9 (c) Written Application. ~~Upon~~ The applicant shall submit a written application on a renewal form provided by the  
10 ~~Board~~ that requires the physical place of business address and report of disciplinary ~~actions~~ actions, accompanied by  
11 a fee of seventy-five dollars ~~(\$75.00)~~ (\$75.00). ~~the~~ The Board shall renew the certificate of ~~licensure~~ licensure,  
12 providing that the ~~firm~~ business has complied with all Rules of the Board and applicable General Statutes of North  
13 Carolina. The form shall be provided to all licensees in good standing no later than June 1st.

14 (d) Reporting. ~~The licensed entity~~ business shall give notice to the Board of a change ~~of~~ of:

15 (1) business address and branch locations;

16 (2) resident professional (or licensee in responsible charge);

17 (3) company name;

18 (4) officers, directors or owners; or

19 (5) the services being offered within 30 days of ~~the any~~ change.

20 The ~~firm~~ business shall give notice to the Board of any disciplinary actions or conviction of any crime, in any  
21 jurisdiction on any license within 30 days of the disciplinary ~~action~~ action or conviction.

22 ~~(d)~~ (e) If a ~~firm~~ business fails to renew its certificate of licensure within one year of the expiration date, the ~~firm~~  
23 business shall submit a new application for a new certificate of licensure in accordance with all requirements of 21  
24 NCAC 56 .0802.

25 ~~(e)~~ (f) If any business ~~entity~~ that holds a current certificate of licensure ceases business because the professional  
26 licensee receives a waiver from paying the individual renewal fee under 21 NCAC 56 .0506 or 21 NCAC 56  
27 ~~.0607~~ .0607, the annual renewal fee for the business shall be waived for the same time period.

28  
29 *History Note: Authority G.S. 55B-11; ~~57C-2-01~~; 57D-2-01; 89C-10; 89C-14; 89C-17; 89C-24;*

30 *Eff. February 1, 1976;*

31 *Readopted Eff. September 29, 1977;*

32 *Amended Eff. \_\_\_\_\_; August 1, 2011; July 1, 2010; July 1, 2009; December 4, 2002; April 1,*  
33 *2001; February 1, 1996; May 1, 1994.*

1 21 NCAC 56 .0902 is proposed for amendment as follows:

2  
3 **21 NCAC 56 .0902 BUSINESS TITLES OF BUSINESS ENTITIES**

4 (a) Companies, partnerships, corporations, limited liability ~~companies-companies,~~ or any other business ~~organization~~  
5 providing professional engineering or land surveying services in North Carolina shall not practice under a name that  
6 is misleading. Except as provided ~~below,~~ in Paragraph (b), for purposes of this Rule, “misleading” means that the titles  
7 of engineering or land surveying companies, partnerships, corporations, limited liability ~~companies-companies,~~ or any  
8 other business ~~organization~~ organized primarily to provide for the primary purpose of providing such professional  
9 services shall not contain the name of an individual (1) not licensed to provide the professional services ~~offered-offered~~  
10 in North Carolina; ~~or~~ (2) who is not eligible for licensure by comity to provide the professional services offered in  
11 North Carolina under the provisions of G.S. 89C-13-G.S. 89C-13; or (3) is licensed to provide the professional  
12 services, offered in North Carolina, in a state where the ~~company~~business (or of a successor to that ~~company~~business  
13 or ~~company~~business created to comply with G.S. 55B), is incorporated, organized, or is authorized to transact business.

14 (b) A ~~firm-business~~ may include in its title the name or names of one or more deceased or retired former members of  
15 the ~~firm-business,~~ or of a successor to that ~~company~~business or a ~~company~~business created to comply with G.S. 55B,  
16 provided that the ~~firm-business~~ submits a letter of request and explanation with its application to the Board, and that  
17 the Board finds as fact that the use of the name is not misleading.

18 (c) A business ~~organization~~ shall not change its title, or operate under an assumed name, without first applying to the  
19 Board for a determination that the proposed title meets the requirements of Paragraph (a) or (b) of this Rule. Requests  
20 for name changes shall be made in writing on forms provided by the Board for this purpose.

21  
22 *History Note: Authority G.S. 55B-5; ~~57C-2.01; 57D-2.01;~~ 89C-10; 89C-24;*  
23 *Eff. February 1, 1976;*  
24 *Readopted Eff. September 29, 1977;*  
25 *Amended Eff. \_\_\_\_\_; August 1, 2000; August 1, 1998; May 1, 1994; April 1, 1989; April 1,*  
26 *1980;*  
27 *Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. April 27,*  
28 *2019.*

1 21 NCAC 56 .1301 is proposed for amendment as follows:

2  
3 **SECTION .1300 – BOARD DISCIPLINARY PROCEDURES**  
4

5 **21 NCAC 56 .1301 IMPROPER PRACTICE BY A LICENSEE**

6 (a) General. ~~Alleged practice~~Practice that may violate the rules in this Chapter or G.S. 89C by a licensee is subject to  
7 Board investigation and disciplinary action by the Board.

8 (b) Preferring Charges. Any person who believes that any licensed Professional Engineer, Professional Land Surveyor  
9 ~~Surveyor, or firm-business~~ holding a certificate of ~~authorization-licensure~~ is in violation of the provisions of G.S. 89C  
10 or the rules in this Chapter may prefer charges against that person or firm ~~by setting forth in writing those charges and~~  
11 ~~swearing to their authenticity, business,~~ along with providing corroborative ~~evidence-evidence that helps support the~~  
12 ~~charges. A complaint form is provided by the Board to aid in filing the complaint. The charges shall be filed with the~~  
13 ~~Board's office in Raleigh, North Carolina.~~

14 (c) Preliminary Review:

15 (1) Upon receipt of a properly filed charge, a case shall be opened. Other information indicating that a  
16 licensee is in violation of the provisions of G.S. 89C or the rules in this Chapter may be a basis for  
17 opening a case by the Board.

18 (2) A field investigation may be performed if determined necessary by the Executive ~~Director, Director~~  
19 in order to obtain additional information and evidence.

20 (3) If the Executive Director determines that the charges are corroborated by evidence, a written notice  
21 and explanation of the charge shall be forwarded to the person or firm against whom the charge is  
22 made and a response is requested of the person or firm so charged to ~~show show, within fifteen days,~~  
23 compliance with all lawful requirements G.S. 89C and the rules in this Chapter for retention of the  
24 license. Notice of the charge and of the alleged facts or alleged conduct shall be given personally or  
25 by certified mail, return receipt request.

26 (4) After preliminary evidence has been obtained, the matter shall be referred to the Board's review  
27 ~~committee-committee, which is~~ made up of the following individuals:

28 (A) one member of the Board who is licensed in the respective ~~profession, profession;~~

29 (B) the legal counsel of the ~~Board, Board;~~ and

30 (C) the Executive Director of the Board or Assistant Executive Director if designated by the  
31 Executive Director.

32 (5) Upon review of the ~~available~~ evidence, the review committee ~~shall present to the Board a written~~  
33 ~~recommendation that shall:~~

34 (A) recommend that the Board dismiss the charge ~~be dismissed~~ as unfounded or trivial;

35 (B) when the charge is admitted as true, recommend that the Board accept the admission of  
36 guilt by the person charged and order that person not to commit in the future the specific

1 act or acts admitted and also not to violate any of the provisions of the Board ~~Rules~~ rules  
2 or the statutes at any time in the future;

3 (C) the charge, whether admitted or denied, be presented to the full Board for a hearing and  
4 determination by the Board on the merits of the charge in accordance with the substantive  
5 and procedural requirements of the provisions of Section .1400 of this Chapter and the  
6 provisions of G.S. 150B; or

7 (D) whether the charge is admitted or denied, ~~the Board give~~ written notice to the licensee ~~of a~~  
8 ~~contemplated action as set out in Rule .1403(b) of this Chapter that:~~

9 (i) sufficient evidence exists which, if not rebutted or explained, would justify the Board  
10 in taking an action set out in Rule .1402(4) through (12);

11 (ii) stating the nature of the evidence; and

12 (iii) that unless the licensee, within 20 days after service of said notice, deposits in the mail  
13 a certified letter addressed to the Board and containing a request for a hearing or settlement  
14 conference, that it will recommend that the Board take the action(s) specified in the notice,  
15 set out in Rule .1402(4) through (12).

16 (d) Consultant. A consultant to the review committee shall be designated by the Board Chair if a board member is a  
17 complainant, ~~witness~~ witness, or respondent in a case. The consultant shall be a licensed professional engineer or  
18 professional land surveyor, depending on the nature of the ~~case, case, and selected from a list provided by the Executive~~  
19 ~~Director of former Board members or other licensed professionals who are knowledgeable with the Board's processes.~~  
20 The consultant shall review all case materials and make a recommendation for consideration by the review committee  
21 as to the merits of the case. The consultant shall review any new information presented in the event of a settlement  
22 conference and make a recommendation to the settlement conference committee.

23 (e) Board Decision. ~~Notice of the decision by the Board on recommendations of the review committee~~ When the  
24 review committee proceeds to any Part of Subparagraph (c)(5) of this Rule shall be given to the party against whom  
25 the charges have been brought and the party submitting the charge. Though it is not forbidden to do so, the The Board  
26 is not required to notify the parties of the reasons of the Board in making its determination.

27 (f) Settlement Conference. ~~When the Board issues a citation for hearing or notice of a contemplated action, review~~  
28 committee proceeds pursuant to Parts (c)(5)(C) or (D) of this Rule, the licensee may request in writing a settlement  
29 conference to pursue resolution of the issue(s) through informal procedures. If, after the completion of a settlement  
30 conference, the licensee and Board's settlement committee do not agree to a resolution of the dispute for the full  
31 Board's consideration, the original administrative proceeding shall commence. During the course of the settlement  
32 conference, no sworn testimony shall be ~~taken~~ taken, nor shall any witnesses be cross-examined.

33 (1) The Board's settlement committee shall be made up of the following individuals:

34 (A) the member of the Board who served on the review committee or ~~the replacement a~~  
35 replacement member if the member is not ~~available~~ available;

36 (B) one public member from the ~~Board~~ Board;

37 (C) the legal counsel of the ~~Board~~ Board; and

1 (D) the Executive Director of the Board or Assistant Executive Director if designated by the  
2 Executive Director.

3 (2) Upon review of the available evidence, the settlement committee shall present to the Board a written  
4 recommendation that shall:

- 5 (A) recommend that the Board dismiss the charge ~~be dismissed~~ as unfounded or trivial;
- 6 (B) when the charge is admitted as true, recommend the Board accept the admission of guilt  
7 by the person charged and order the person not to commit in the future the specific act or  
8 acts admitted and, also, not to violate any provisions of the Board Rules or the statutes at  
9 any time in the future;
- 10 (C) direct that the charge, whether admitted or denied, be presented to the full Board for a  
11 hearing and determination by the Board on the merits of the charge in accordance with the  
12 substantive and procedural requirements of the provisions of Section .1400 of this Chapter  
13 and the provisions of G.S. 150B; or
- 14 (D) ~~whether the charge is admitted or denied, the Board give notice to the licensee of a~~  
15 ~~contemplated action as set out in Rule .1403(b) of this Chapter.~~ recommend that the Board  
16 approve a settlement agreed to by the licensee and proposed by the settlement conference  
17 committee.

18  
19 *History Note:* Authority G.S. 89C-10; 89C-21; 89C-22;  
20 Eff. February 1, 1976;  
21 Readopted Eff. September 29, 1977;  
22 Amended Eff. \_\_\_\_\_; August 1, 2011; July 1, 2009; May 1, 2009; August 1, 2000; August 1,  
23 1998; March 1, 1996; April 1, 1989; December 1, 1984; January 1, 1982;  
24 Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. April 27,  
25 2019.  
26  
27

1 21 NCAC 56 .1302 is proposed for amendment as follows:

2  
3 **21 NCAC 56 .1302 UNLAWFUL PRACTICE BY AN UNLICENSED PERSON**

4 (a) General. Alleged unlawful practice by an unlicensed person shall be subject to Board investigation and  
5 enforcement, to include applying for relief by injunction or referral to an agency of the state for appropriate legal  
6 action.

7 (b) Preferring Charges. Any person who believes that any person or firm (party) is in violation of the acts specified  
8 in G.S. 89C may prefer charges against that person or firm by setting forth in writing those charges ~~and swearing to~~  
9 ~~their authenticity~~ to the best knowledge and belief, in the form of a complaint, along with providing corroborative  
10 evidence. The charges shall be filed ~~at~~ with the Board's office in Raleigh, North Carolina.

11 (c) Preliminary or Threshold Determination:

12 (1) Upon receipt of a properly filed charge, a case ~~an investigation~~ shall be ~~initiated, opened~~. Other  
13 information indicating that a party is in violation of the provisions of G.S. 89C or the rules in this  
14 Chapter may be a basis for opening a case by the Board.

15 (2) At the discretion of the executive director, a field investigation may be performed without notifying  
16 any of the parties involved,

17 (3) If the Executive Director determines that charges are corroborated by evidence, a written notice and  
18 explanation of the charge shall be forwarded to the person or firm against whom the charge is made  
19 and a response is requested of the person or firm so charged to show compliance with all lawful  
20 requirements. Notice of the charge and of the alleged facts or alleged conduct shall be given  
21 personally or by certified mail, return receipt requested.

22 (4) After preliminary evidence has been obtained, the matter shall be referred to the Board's review  
23 committee which is made up of the following individuals:

24 (A) one member of the Board;

25 (B) the legal counsel of the Board; and

26 (C) the Executive Director of the Board or Assistant Executive Director if designated by the  
27 Executive Director.

28 ~~(4) The review committee shall recommend to the Board whether there is probable cause to believe that~~  
29 ~~a party against whom a charge has been brought in fact has violated the provisions of G.S. 89C.~~

30 (5) Upon review of the available evidence, the review committee shall make a threshold determination  
31 of the charges brought. The review committee shall ~~then present~~ recommend to the Board ~~written~~  
32 ~~recommendations~~ that:

33 (A) ~~The~~ the investigation be continued; continued and the party be notified with an explanation  
34 of the charge(s) and given an opportunity to provide a response to show compliance with  
35 all lawful requirements;

36 (B) ~~The~~ the charge be dismissed as unfounded or trivial; ~~or~~

1                    (C) a letter be issued informing of the possible violation of G.S. 89C and that further action  
2                    may be pursued under G.S. 89C-23; or

3                    ~~(D)~~ ~~The~~ the matter be referred to an appropriate agency for necessary legal action.

4 (d) Board Decision. Notice of decision by the Board on recommendations of the review committee shall be given to  
5 the party submitting the charge.

6  
7 *History Note:*     *Authority G.S. 89C-10; 89C-23;*  
8                    *Eff. February 1, 1976;*  
9                    *Readopted Eff. September 29, 1977;*  
10                  *Amended Eff. \_\_\_\_\_; August 1, 2011; August 1, 2000; August 1, 1998; May 1, 1994; April 1,*  
11                  *1989; January 1, 1982.*  
12  
13

1 21 NCAC 56 .1403 is proposed for amendment as follows:

2  
3 **21 NCAC 56 .1403 NOTICE OF CONTEMPLATED BOARD ACTION: ACTION TO APPLICANT:**  
4 **REQUEST FOR HEARING**

5 ~~(a) When the Board takes an action of a type specified in Subparagraphs (1), (2) or (3) of Rule .1402 of this Section,~~  
6 ~~it shall give to the applicant a written notice containing a statement:~~

- 7 (1) that the applicant ~~has failed to satisfy the Board of~~ meet the qualifications to be examined or to be  
8 issued a ~~license, as the case may be;~~ license;  
9 (2) ~~indicating stating in what respects the applicant has so failed to satisfy the Board;~~ specific  
10 deficiencies as to why the applicant failed; and  
11 (3) that unless the applicant, within 20 days after service of ~~said~~ the notice, deposits in the mail a  
12 certified letter addressed to the Board and containing a request for a hearing, the Board's action will  
13 become final.

14 In any Board proceeding involving the denial of a ~~duly made~~ an application to take an examination, or refusal to issue  
15 a license after an applicant has taken and passed an examination, the burden of satisfying the Board of the applicant's  
16 qualifications shall be upon the applicant.

17 ~~(b) When the Board contemplates taking any action of a type specified in Subparagraphs (4), (5), (6), (7), (8), or (9)~~  
18 ~~of Rule .1402 of this Section, it shall give to the licensee a written notice containing a statement:~~

- 19 (1) ~~that the Board has sufficient evidence which, if not rebutted or explained, will justify the Board in~~  
20 ~~taking the contemplated action;~~  
21 (2) ~~indicating the general nature of the evidence; and~~  
22 (3) ~~that unless the licensee, within 20 days after service of said notice, deposits in the mail a certified~~  
23 ~~letter addressed to the Board and containing a request for a hearing or settlement conference, the~~  
24 ~~Board will take the contemplated action.~~

25  
26 *History Note: Authority G.S. 89C-10; 89C-21; 89C-22; 150B-38;*  
27 *Eff. February 1, 1976;*  
28 *Readopted Eff. September 29, 1977;*  
29 *Amended Eff. \_\_\_\_\_; August 1, 1998; December 1, 1984; January 1, 1982;*  
30 *Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. April 27,*  
31 *2019.*  
32  
33

1 21 NCAC 56 .1603 is proposed for amendment as follows:

2  
3 **21 NCAC 56 .1603 CLASSIFICATION OF BOUNDARY SURVEYS**

4 General. "Boundary surveys" are defined as surveys made to establish or to retrace a boundary line on the ground, or  
5 to obtain data for constructing a map, plat, or report showing a boundary line. For the purpose of this Rule, the term  
6 refers to all surveys, including "loan" or "physical" surveys, that involve the determination or depiction of property  
7 lines. For the purpose of specifying minimum allowable surveying standards for boundary surveys, the following four  
8 general classifications of lands in North Carolina are established from the standpoint of their real value, tax value, or  
9 location. Each map shall contain a statement of the calculated ratio of precision before adjustments or a statement of  
10 positional accuracy.

- 11 (1) Local Control Network Surveys (Class AA). Local control network surveys are traverse networks  
12 utilizing permanent points for the purpose of establishing local horizontal control networks for  
13 future use by local surveyors. For Class AA boundary surveys in North Carolina, the angular error  
14 of closure shall not exceed ten seconds times the square root of the number of angles turned. The  
15 ratio of precision shall not exceed an error of closure of one foot per 20,000 feet of perimeter of the  
16 parcel of land (1:20,000). When using positional accuracy standards for Class AA control and  
17 boundary surveys, neither axis of the 95 percent confidence level error ellipse for any control point  
18 or property corner shall exceed 0.05 feet or 0.015 meters plus 30 ppm measured relative to the  
19 position(s) of the horizontal control points used and referenced on the survey.
- 20 (2) Urban Land Surveys (Class A). Urban surveys include lands that normally lie within a town or city.  
21 For Class A boundary surveys in North Carolina, the angular error of closure shall not exceed 20  
22 seconds times the square root of the number of angles turned. The ratio of precision shall not exceed  
23 an error of closure of one foot per 10,000 feet of perimeter of the parcel of land (1:10,000). When  
24 using positional accuracy standards for Class A control and boundary surveys, neither axis of the  
25 95 percent confidence level error ellipse for any control point or property corner shall exceed 0.10  
26 feet or 0.030 meters plus 50 ppm measured relative to the position(s) of the horizontal control points  
27 or property corners used and referenced on the survey.
- 28 (3) Suburban Land Surveys (Class B). Suburban surveys include lands in or surrounding the urban  
29 properties of a town or city. For Class B boundary surveys in North Carolina, the angular error of  
30 closure shall not exceed 25 seconds times the square root of the number of angles turned. The ratio  
31 of precision shall not exceed an error of closure of one foot per 7,500 feet of perimeter of the parcel  
32 of land (1:7,500). When using positional accuracy standards for Class B control and boundary  
33 surveys, neither axis of the 95 percent confidence level error ellipse for any control point or property  
34 corner shall exceed 0.12 feet or 0.037 meters plus 90 ppm measured relative to the position(s) of the  
35 horizontal control points or property corners used and referenced on the survey.
- 36 (4) Rural and Farmland Surveys (Class C). Rural and farmland surveys include lands located in rural  
37 areas of North Carolina and generally outside the suburban properties. For Class C boundary surveys

1 in North Carolina, the angular error of closure shall not exceed 30 seconds times the square root of  
2 the number of angles turned. The ratio of precision shall not exceed an error of closure of one foot  
3 per 5,000 feet of perimeter of the parcel of land (1:5,000). When using positional accuracy standards  
4 for Class C control and boundary surveys, neither axis of the 95 percent confidence level error  
5 ellipse for any control point or property corner shall exceed 0.15 feet or 0.046 meters plus 150 ppm  
6 measured relative to the position(s) of the horizontal control points or property corners used and  
7 referenced on the survey.

8  
9 *History Note:* Authority G.S. 89C-10; 89C-20;  
10 Eff. July 1, 1989;  
11 Amended Eff. \_\_\_\_\_; August 1, 2014; May 1, 2009; August 1, 2000; August 1, 1998; November  
12 2, 1992; January 1, 1992;  
13 Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. April 27,  
14 2019.  
15  
16

1 21 NCAC 56 .1604 is proposed for amendment as follows:

2  
3 **21 NCAC 56 .1604 MAPPING REQUIREMENTS FOR BOUNDARY SURVEYS**

4 (a) The size of a map shall be such that all details are legible on a copy.

5 (b) Any lines that are not actually surveyed shall be indicated on the map and a statement included revealing the  
6 source of information from which the line is derived.

7 (c) All surveys based on the North Carolina grid system shall contain a statement identifying the coordinate system  
8 referenced datum used.

9 (d) All plats (maps), unless marked as "Preliminary Plat - Not for recordation, conveyances, or sales" shall be sealed,  
10 ~~signed~~ signed, and dated by the Professional Land Surveyor and shall contain the following:

11 (1) An accurately positioned north arrow coordinated with any bearings shown on the plat. Indication  
12 shall be made as to whether the north index is true, magnetic, North Carolina grid ('NAD 83' and  
13 realization (date of adjustment of coordinate system) or 'NAD27'), or is referenced to old recorded  
14 deed or recorded plat bearings. If the north index is magnetic or referenced to old recorded deed or  
15 recorded plat bearings, the date and the source (note if not determined) shall be indicated.

16 (2) The azimuth or courses and distances of every property line surveyed shall be shown. Distances  
17 shall be in feet or meters and decimals thereof. The number of decimal places shall be appropriate  
18 to the class of survey required in Rule .1603 of this Section.

19 (3) All plat lines shall be horizontal or grid measurements. All lines shown on the plat shall be correctly  
20 plotted to the scale shown. Enlargements of portions of a plat ~~are acceptable in the interest of clarity,~~  
21 ~~where shown as inserts are not required to be to scale.~~ Where the North Carolina grid system is used,  
22 the combined grid factor shall be shown on the face of the plat. If grid distances are used, they shall  
23 be shown on the plat.

24 (4) Where a boundary is formed by a curved line, the following data ~~must~~ shall be given: actual survey  
25 data, or ~~as~~ a series of subchords with bearings and distances around the curve. If standard curve data  
26 is used, the bearing and distance of the long chord (from point of curvature to point of tangency)  
27 ~~must~~ shall be shown on the face of the plat.

28 (5) Where a subdivision of land is set out on the plat, all streets and lots shall be accurately plotted with  
29 dimension lines indicating widths and all other information pertinent to retracing all lines in the  
30 field. This shall include bearings and distances ~~sufficient~~ to form a continuous closure of the entire  
31 perimeter.

32 (6) ~~Where control corners have been established in compliance with G.S. 39-32.1, 39-32.2, 39-32.3,~~  
33 ~~and 39-32.4, as amended, the location and information as required in the referenced statute shall be~~  
34 ~~shown on the plat. All Control corners, and all other corners that are marked by monument or natural~~  
35 ~~object shall be so identified on all plats, and where practical, all corners of adjacent owners along~~  
36 the boundary lines of the subject tract that are marked by monument or natural object shall be shown.

1 (7) The surveyor shall show one of the following ~~where they~~ (or note if could not be  
2 determined:determined):

- 3 (A) The names of adjacent land owners;
- 4 (B) The lot, block, parcel and subdivision designations; or
- 5 (C) Other legal ~~reference where applicable~~ reference.

6 (8) All visible and apparent rights-of-way, easements, watercourses, utilities, roadways, and other such  
7 improvements shall be accurately located where crossing or forming any boundary line of the  
8 property shown.

9 (9) Tie lines as required and defined in Rule .1602(g) of this Section shall be accurately shown on the  
10 face of the plat, whether or not the plat is to be recorded.

11 (10) A vicinity map (location map) shall appear on the face of the plat.

12 (11) Each map shall contain:

- 13 (A) the property designation;
- 14 (B) the name of owner or prospective owner;
- 15 (C) the location (including township, county, and ~~state~~); State);
- 16 (D) the date or dates the survey was conducted;
- 17 (E) a scale of the drawing listed in words or figures;
- 18 (F) a bargraph;
- 19 (G) the title source; and
- 20 (H) a legend depicting nomenclature or symbols not otherwise labeled.

21 (12) Any map not certified for recording under G.S. 47-30, and all reports of survey, shall contain this  
22 certificate signed by the Professional Land Surveyor in substantially the following form:

23 "I certify that this map was drawn under my supervision from an actual survey made under my supervision (deed  
24 description recorded in Book \_\_\_\_\_, page \_\_\_\_\_ or other reference source \_\_\_\_\_); that the  
25 boundaries not surveyed are indicated as drawn from information in Book \_\_\_\_\_, page \_\_\_\_\_ or other reference  
26 source \_\_\_\_\_; that the ratio of precision or positional accuracy is \_\_\_\_\_; and that  
27 this map meets the requirements of The Standards of Practice for Land Surveying in North Carolina (21 NCAC 56.  
28 1600)."

29 This \_\_\_\_\_ day of \_\_\_\_\_, 2\_\_\_\_\_.

30 Seal \_\_\_\_\_

31 Professional Land Surveyor

32  
33 *History Note: Authority G.S. 89C-10; 89C-16; 89C-20;*

34 *Eff. July 1, 1989;*

35 *Amended ~~Eff.~~Eff. \_\_\_\_\_; August 1, 2014; May 1, 2009; August 1, 2000; August 1, 1998; February*

36 *1, 1996; November 2, 1992; January 1, 1992;*

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3  
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*Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. April 27, 2019.*

1 21 NCAC 56 .1607 is proposed for amendment as follows:

2

3 **21 NCAC 56 .1607 GLOBAL POSITIONING SYSTEMS SURVEYS**

4 (a) General. ~~Global Positioning Systems (GPS) are defined as the~~Navigation Satellite Systems (GNSS) is the generic  
5 name of navigation and positioning systems with global coverage that is ~~comprise~~ comprised of the Global Navigation  
6 Satellite System (GNSS), which includes GPS (Global Positioning System, United States, originally  
7 NAVSTAR, Navstar), GLONASS, GLONASS (Global Navigation Satellite System, Russia), GALILEO, Galileo  
8 (Europe), COMPASS, BDS (BeiDou Navigation Satellite System, China, also known as COMPASS), and any other  
9 satellite-based navigation and positioning ~~systems~~systems that provide global coverage.

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

- 13 (1) Class of GPS survey as defined in the Standards of Practice (or list the sections);
- 14 (2) Type of GPS field procedure, such as Static, Kinematic, Pseudo-Kinematic, Real-time Kinematic,  
15 Real-time Kinematic networks, and Online Position User Service;
- 16 (3) Positional accuracy;
- 17 (4) Dates of survey;
- 18 (5) What datum and epoch coordinates or geographic positions are based on;
- 19 (6) Designation of fixed-control stations and their positional data;
- 20 (7) Geoid model used;
- 21 (8) Combined grid factor(s); and
- 22 (9) Units.

23 The certificate shall be substantially in the following form:

24 "I, \_\_\_\_\_, certify that this map was drawn under my supervision from an actual GPS survey made  
25 under my supervision and the following information was used to perform the survey:

- 26 (1) Class of survey: \_\_\_\_\_
- 27 (2) Positional accuracy: \_\_\_\_\_
- 28 (3) Type of GPS field procedure: \_\_\_\_\_
- 29 (4) Dates of survey: \_\_\_\_\_
- 30 (5) Datum/Epoch: \_\_\_\_\_
- 31 (6) Published/Fixed-control use: \_\_\_\_\_
- 32 (7) Geoid model: \_\_\_\_\_
- 33 (8) Combined grid factor(s): \_\_\_\_\_
- 34 (9) Units: \_\_\_\_\_"

35 (c) GPS surveys ~~performed~~ to provide control networks shall be performed in such a manner that it meets a 95 percent  
36 confidence level of the positional accuracy of each point relative to the published positions of the control points used  
37 and shall meet the accuracy standards of a Class AA survey as set out in Rule .1603.

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

5 (e) Fixed station(s) used for the project shall appear on the map, plat, or report. The minimum data shown for each  
6 fixed station shall be station name, horizontal position (northing and easting) or latitude, longitude, elevation (ellipsoid  
7 or orthometric), and datum and epoch.

8

9 *History Note: Authority G.S. 89C-10; 89C-20;*

10 *Eff. November 2, 1992;*

11 *Amended Eff. \_\_\_\_\_; August 1, 2011; May 1, 2009; August 1, 2002; August 1, 2000.*