

STATE OF MINNESOTA
BOARD OF ARCHITECTURE, ENGINEERING,
LAND SURVEYING AND LANDSCAPE ARCHITECTURE

In the Matter of the Proposed
Adoption of Rules of the State
Board of Architecture, Engineering,
Land Surveying and Landscape Architecture
Amending Rules Parts 1800.1000 -
1800.1200 Governing the Examination of
Architect Applicants

STATEMENT OF NEED AND
REASONABLENESS OF
PROPOSED RULES

STATEMENT OF NEED AND AUTHORITY

Minnesota Statutes, Sections 326.02 to 326.15 (1988) provide for the regulation of architects, engineers, land surveyors and landscape architects. This statute was originally enacted as Minnesota Laws 1921, Chapter 523. Chapter 523, Section 9, permitted the Board of Architecture, Engineering and Land Surveying to subject applicants to an examination which would test qualifications and to fix standards for determining qualifications of applicants for registration. Subsequent to the original enactment in 1921 granting the Board authority over architects, engineers and land surveyors, the Legislature added to that responsibility the regulation of landscape architects in Minnesota Laws 1975, Chapter 329. Presently, the Board exercises regulatory authority through its rulemaking power given in Minnesota Statutes, Section 326.06 and 326.10, Subdivision 1, Clause 1 (1988).

Minnesota Rules, Parts 1800.1000 to 1800.1300 - Examination of Architect Applicants, were last revised effective December 29, 1981. The current rules do not adequately explain the procedures of the Board as required by Minnesota Statutes, Section 14.06 (1988). Further, the Board believes many of the standards in the rules may be made more specific and may be presented in a more understandable format. The revised rule includes procedures for applying for admission to examination as well as specific and current education and experience requirements.

FACTS ESTABLISHING NEED AND REASONABLENESS

The proposed changes to Minnesota Rules, Part 1800.1000, Subpart 1, include the addition of the "Written examination requirement." headnote to identify the content of the subpart. Also included is the deletion of the provision that an architect applicant for admission to examination may be required to appear before the Board for an oral examination for the purpose of verifying personal experience qualifications. This procedure is no longer used to verify experience qualifications. The Board obtains experience verification directly from employers for whom the applicant has performed architectural work. The added language merely clarifies that all unlicensed applicants must pass written examinations. It further provides that applicants licensed in other states, by examination, need not be further examined. Since applicants licensed in other licensing jurisdictions must have been licensed under requirements equal

to, or greater than, Minnesota requirements in effect at the time of original licensure, the interests of the Minnesota public are adequately protected.

The addition of Subpart 1a includes the addition of the headnote "Admission to written examination." to identify the content of the subpart. The remaining changes clarify education and experience requirements and refer the reader to Subparts 5 and 6 for specific guidelines for granting education and experience credits. Stricken language in this subpart was confusing and required the reader to refer to several different sections of the existing rule to determine whether he or she would be eligible for admission to the licensing examination. The Board chose to set forth requirements in narrative rather than tabular form. The new format of Subpart 1a more clearly sets forth requirements for admission to examination.

Subparts 2 to 4 are repealed because of the need to clarify language concerning credits for education. This has been done by adding Subparts 5 and 6.

Proposed language in Subpart 5 sets forth the number of credits given for various kinds of education. These credits are significant, because they determine the amount of experience necessary to meet the requirements of 13 qualifying credits. In some cases, the change is only of format. In other cases, the substantive standards have been changed.

Proposed language in Subpart 5 clearly sets forth the method used by the Board to determine credit for education. Item A states that a graduate from an architectural curriculum accredited by the National Architectural Accreditation Board (NAAB) will receive 10 qualifying credits for education. Item B explains the method of determining education credits for persons holding four-year pre-professional degrees in Environmental Design or Architectural Studies. Item C explains the method of determining education credits for persons holding four-year baccalaureate degrees in architectural, chemical, civil, electrical, mechanical or structural engineering; or landscape architecture or interior design. Item D explains that applicants holding two-year associate degrees in architectural technology or drafting will receive two qualifying credits for education. Item E explains the basis for awarding credits for education based on semester or quarter credit hours. The credits awarded for education in Item B, C and D are based on architectural education courses contained in those curricula. This aspect is determined by accreditation criteria published by the National Architectural Accreditation Board. These criteria are available for review in the Board office. Item F explains the basis for awarding education credits for foreign education. Table II, along with its explanatory notes, has been stricken in favor of the new language contained in Items A through F in order to clarify the educational requirements for admission to examination. This subpart specifies the methods of determining the adequacy of formal education experienced by the applicant.

Proposed language in Subpart 6 clarifies experience requirements that must be met by each applicant to gain eligibility for admission to the licensing examination. Item A directs the attention of the reader to Subpart 7 for specific experience requirements. Item B provides that experience must be gained following graduation. Experience gained on a full or part-time basis will receive credit if that experience was gained under circumstances specified in Subpart 7. It also provides that no experience gained prior to graduation from high school will be credited. Item C explains that experience gained under the direct supervision and control of a licensed architect shall receive full credit. Item D explains that architecturally related experience gained not under the direct supervision and control of a licensed architect shall receive one-half credit. The reason for this differential is that architect applicants who have gained experience while employed by a licensed professional engineer, licensed landscape architect or an interior designer will not have gained the broad scope of architectural experience available in the office of a licensed architect. In addition, supervision by a licensee gives greater assurance of the qualify and relevance of the experience.

Subpart 7 sets forth specific experience requirements for all applicants for admission to the architect licensing examinations. These three major criteria and fourteen sub-criteria were developed by the National Council of Architectural Registration Boards (NCARB) as a result of a Task Analysis study made by that body. The hours required for each

sub-criterion represents that percentage of time devoted to that area of practice by the average architect. The Board has conducted a review of examination results over the past three years and has learned that applicants with the broad scope of experience represented in this subpart have an examination pass rate of from 20 to 30 percentage points higher than those applicants that do not. The Board believes that an applicant with a broad experience record also is better prepared to enter practice as a licensed architect upon passing the licensing examination. The total number of hours required does not total three years based on an annual 2,088 hours of work. The 5,600 hours, or three years, provides for holidays and other non-work days. Additional experience required to achieve a total of 13 education and experience credits must be gained at the rate of 1,867 hours per year. No specification is made as to the sub-criteria in which additional experience must be distributed.

Subpart 8 restates the degree requirement in the current rule. See Part 1800.1000, Subp. 1, item C. This subpart permits non-graduates in the examination process as of January 1, 1991 to continue that process until licensed. This provision is necessary to specify how the 1991 cutoff will apply to pending applications.

Table III has been stricken because of the confusing nature of its contents. The Board has chosen to explain experience requirements in narrative form in the belief that the narrative more clearly depicts experience required by the Board. Experience

requirements contained in Table III are vague, lacking the specificity needed by potential applicants to gain experience appropriate for admission to the licensing examination. The notes following Table III were stricken because they did little to clarify experience requirements.

Proposed changes to Part 1800.1100 includes deletion of the title APPLICATION and making the title PROCEDURES. The use of this part for APPLICATION is considered redundant since education and experience requirements are set forth in Part 1800.1000. The current rule contains no explanation of the application process. The addition of the headnote "Completion date." is included to identify the content of the subpart. Subpart 2 adds a headnote "Preliminary application request." and requires that a preliminary request be submitted to the Board for review by February 1. Applicants are not obligated to pay any fee at this stage of the application process. The preliminary request form contains biographical and educational data on the applicant and requires the applicant to document his or her experience. The Board then evaluates the education and experience claimed by the applicant. The Board requires an official college or university transcript showing the date of award of the degree claimed or in the case of non-graduates, a transcript showing coursework completed toward a professional degree. The Board verifies experience by sending an experience reference letter to each employer for whom the applicant has worked. The employer verifies the time of employment and comments on the proficiency of the applicant as an intern architect.

Upon approval of the preliminary request by the Board, the applicant is furnished a packet of formal application materials. This procedure allows the applicant to have his or her pre-application qualifications reviewed without incurring the expense of the application fee. Subpart 3 adds a headnote "Formal admission application." and provides that the applicant must submit his or her formal application with one signed copy of Board Rules of Professional Conduct and the required fee by April 1 for the June examination. This is necessary because of the requirement that the Board order examinations from the National Council of Architectural Registration Boards shortly after April 1.

Subpart 4 adds a headnote "Obtaining application." and merely indicates that applicants may obtain application materials by calling or writing the Board office.

Proposed changes to Part 1800.1200 Written Examination are necessary because of a change in the format of the national licensing examination. The Qualifying Test; Section A, Professional Examination; and Section B, Professional Examination explained in the current Subparts 1 through 3 have been combined into the eight division, four-day Architect Registration Examination (ARE) as explained in the new Subpart 1. This examination was restructured to comply with data revealed in the NCARB Task Analysis Study. This subpart provides that a person failing one or more parts of the ARE must retake the failed parts.

The current Subparts 2 to 4 have been stricken as being redundant.

The current Subpart 5 provides information concerning equipment authorized to be used during an examination. Hand-held battery operated electronic calculators must be silent so as not to bother nearby examinees. Reference material is normally provided by the National Council of Architectural Registration Boards (NCARB) in a serially numbered information manual to be used during certain divisions of the ARE. This manual provides standard information to be used during the ARE administration by candidates taking the examination in each of the 50 states and five territories comprising NCARB membership. NCARB prepares the ARE to be sold to its member jurisdictions.

The Board has considered the impact that these proposed rule changes will have on small business as required in Minnesota Statutes, Section 14.115, Subdivision 2, Clauses (a) through (e) (1988), as follows:

Clause (a) The establishment of less stringent compliance or reporting requirements for small businesses. The Board believes that this Clause is not applicable for changes proposed for Minnesota Rules, Parts 1800.1000 to 1800.1200 in that the rule lists requirements for architect applicants seeking licensure by examination. The Board licenses individuals and not corporations, partnerships or other firms. This rule does not require any compliance or reporting by small businesses.

Clause (b) The establishment of less stringent schedules for deadlines for compliance or reporting requirements for small businesses. The rule changes proposed do not impose schedules or deadlines for compliance on small businesses.

Clauses (c) The consolidation or simplification of compliance or reporting requirements for small businesses. This method is not applicable to small businesses for the reasons stated in Clauses (a) and (b).

Clause (d) The establishment of performance standards for small businesses to replace design or operational standards required in the rule. The proposed changes to Minnesota Rules, Parts 1800.1000 to 1800.1200 do not impose performance standards on small businesses nor does the rule contain design or operational standards.

Clause (e) The exemption of small business from any or all requirements in the rule. As stated in Clause (a), the proposed changes effect individuals rather than firms. Those small businesses engaged in the practice of architecture are required by law to have a properly licensed person in responsible charge of the professional services offered. Individuals seek licensure, firms do not.

It is the opinion of the Board that the requested rule changes will have no impact on small business doing business

in the State of Minnesota. The Board has received no criticism of its proposal to revise its rule governing the examination of architect applicants.

A handwritten signature in cursive script, reading "Lowell E. Torseth". The signature is written in black ink and is positioned above a horizontal line.

Lowell E. Torseth
Executive Secretary

Dated: February 1, 1990

STATE OF MINNESOTA
BOARD OF ARCHITECTURE, ENGINEERING,
LAND SURVEYING AND LANDSCAPE ARCHITECTURE

In the Matter of the Proposed
Adoption of Rules of the State
Board of Architecture, Engineering,
Land Surveying and Landscape Architecture
Amending Minnesota Rules 1800.2500 to
1800.3000 Governing the Examination of
Engineer Applicants

STATEMENT OF NEED AND
REASONABLENESS OF
PROPOSED RULES

STATEMENT OF NEED AND AUTHORITY

Minnesota Statutes, Sections 326.02 to 326.15 (1988) provide for the regulation of architects, engineers, land surveyors and landscape architects. This statute was originally enacted as Minnesota Laws 1921, Chapter 523. Chapter 523, Section 9, permitted the Board of Architecture, Engineering and Land Surveying to subject applicants to an examination which would test qualifications and to fix standards for determining qualifications of applicants for registration. Subsequent to the original enactment in 1921 granting the Board authority over architects, engineers and land surveyors, the Legislature added to that responsibility the regulation of landscape architects in Minnesota Laws 1975, Chapter 329. Presently, the Board exercises regulatory authority through its rulemaking power given in Minnesota Statutes, Sections 326.06 and 326.10, Subdivision 1, Clause (1) (1988).

Minnesota Rules, Parts 1800.2500 to 1800.3000 - Examination of Engineer Applicants were last revised effective December 29, 1981. The current rules may not adequately explain the procedures of the Board as required by Minnesota Statutes, Section

14.06 (1988). Further, the Board believes many of the standards in the rules may be made more specific and may be presented in a more understandable format. The revised rule includes procedures for applying for admission to examination as well as specific and updated education and experience requirements.

FACTS ESTABLISHING NEED AND REASONABLENESS

The proposed changes to Minnesota Rules, Part 1800.2500, Subpart 1 include the addition of the "Written examination requirement." headnote to identify the content of the subpart. The word "registration" was changed to licensure to compare with terminology used in Minnesota Statutes, Section 326.02 to 326.15 (1988). The words "an oral and" are stricken because the Board believes that it is unnecessary to require obviously qualified applicants to appear for an oral examination. Removing this requirement will save applicants, as well as the Board, time and money. The only applicants who will be required to appear before the Board for the purpose of an oral examination will be those specified in Part 1800.2600 - Oral Examination. The word "hereinafter" has been modified to "herein". The sentence requiring the submission of one exhibit of engineering work with a written critique of that exhibit in lieu of an oral examination is stricken for the same reason that the oral examination requirement is proposed for repeal. The word "registered" was changed to "licensed" to compare with terminology used in Minnesota Statutes, Section 326.02 to 326.15 (1988). Item "F" was changed to G because item G applies to professional

engineers, while item F applies to landscape architects. The word "registered" was changed to "licensed" because of the reason stated previously. The sentence beginning "In these cases..." was stricken and replaced with the new sentence "An applicant for..." for reasons of clarity. The word "may" was changed to "shall" because if the applicant meets the specific requirements, he or she will be granted a waiver of the EIT examination. The deletion of item D is a housekeeping change because "item D" was identified as Minnesota Rules, Part 1800.2800 when rules were renumbered from the MCAR system.

The proposed changes to Subpart 2 include the addition of the headnote "Admission to written examination." to identify the content of the subpart. The words "such oral and" are removed because of the reason explained in the preceding paragraph. The word "the" is added for grammatical reasons. The word "satisfactory" is stricken because the current rule did not explain what was meant by the word "satisfactory". The word "of" is added and the words "that he/she has" stricken to clarify the sentence. The word "graduated" in item A has been changed to "graduation" for grammatical reasons. The proper name "Engineers' Council for Professional Development (ECPD)" has been changed to the Engineering Accrediting Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET) because of an official name change by that body. The phrase "and appearing on the list of Accredited Programs Leading to Degrees in Engineering current" and the phrase "as published by the ECPD or the educational equivalent thereof." are stricken

because the publication is not readily available to the public unless they come to the Board office. The word "his" is stricken because it is an unnecessary gender identification. Changes proposed in item B are housekeeping in nature for reasons of clarity. The phrase "satisfactory to the Board" is stricken because "satisfactory" is not explained in the current rule. The phrase "after graduation" is stricken because it is inappropriate in this instance. The word "diversified" is stricken because the word is not defined. The phrase "may be granted by the board when evaluated on an individual basis" is stricken because the phrase is unnecessary. New language is added to clarify the content of Item B.

The proposed changes to Subpart 3 include the addition of the headnote "Exemption for non-accredited education." to identify the content of the subpart. The remaining changes proposed are made to clarify confusing and misleading language. The table has been stricken in favor of the narrative in Items A and B. The new language in Item B is necessary to explain experience requirements for graduates of non-accredited engineering curricula. Such curricula include foreign education. These requirements are not new but must be explained briefly because the table is being stricken.

The changes to Part 1800.2600 are proposed to clarify the requirement for oral examination. The narrative is divided into three clauses in order to make the content more easily understandable. The phrase "the event that the experience does

not clearly indicate four years of qualifying experience" is stricken because it is redundant.

The changes to Part 1800.2700 include a new sentence to explain that the written examination is in two parts. This sentence was taken from Subpart 1 where it was not appropriate. Changes to Subpart 1 include the addition of the headnote "Fundamentals examination." to identify the content of the subpart. The remaining changes are proposed to clarify requirements. Similarly, changes have been made to Subpart 2 to provide current information and to add the headnote "Professional examination." to identify the content of the subpart. The fire protection engineering examination has been added because it is a new national examination recently made available. The last sentence has been stricken because it is redundant and unnecessary to single out architectural engineering for mention. Changes made to Subpart 3 are for reasons of clarity only, as are the changes proposed for Subpart 4.

Changes proposed for Part 1800.2800 are made to clarify the provisions to grant waivers of the requirement to take and pass the Fundamentals of Engineering (EIT) Examination. The Board believes that a person who is a graduate of an accredited engineering curriculum, is 40 years of age or older and has 20 years of more of qualifying engineering experience, has clearly demonstrated a thorough knowledge of mathematics and basic and applied engineering sciences. We have added two other categories to the EIT examination waiver authority. If the candidate holds

a membership in a British Institute of Engineering as a Chartered Engineer by examination, that person has clearly demonstrated a thorough knowledge of mathematics and basic and applied engineering science subjects. If other foreign engineering institutes have similar requirements, the Board reserves the authority to recognize those qualifications. Similarly, a candidate holding a doctorate in engineering, from a college or university whose undergraduate engineering curriculum is accredited by the Accreditation Board for Engineering and Technology (ABET), has clearly demonstrated a thorough knowledge of mathematics and basic and applied engineering sciences. Applicants who are either chartered by a British Institute of Engineering or hold a doctorate in engineering have had to demonstrate these knowledges in the conduct of research for examination or for research projects required by their curriculum.

Part 1800.2805 - Experience, is a new part defining the elements required by the Board to qualify an applicant for admission to examination. Also explained is the fact that knowledge and experience in each element is necessary to develop the ability to apply the theoretical knowledge gained during their engineering education in making sound judgments in solving engineering problems encountered.

Part 1800.2900 - Engineer-in-Training was stricken as being redundant since this material is covered in Part 1800.2500. The stricken material has been replaced by "procedures" for making application for admission to examination. Subpart 1

explains the method of applying for admission to the Fundamentals of Engineering Examination and includes the addition of the headnote "Application deadline." to identify the content of the subpart. Subpart 2 explains the procedure necessary to make an initial or preliminary request for admission to the Principles and Practice of Engineering Examination to include submission deadline dates. It also explains that the Board will verify all experience claimed by sending listed engineering supervisors an employer reference form. The form will list the experience claimed and request that the supervisor verify the experience. Also included is the headnote "Preliminary request for professional examination." to identify the content of the subpart. Subpart 3 explains the requirement for submitting a formal application and makes reference to the fee required. A headnote "Formal application for professional examination." has been added to identify the content of the subpart. Subpart 4 merely states that the appropriate form may be obtained by calling or writing the Board office and has the added headnote "Obtaining application materials." to identify the content of the subpart.

Part 1800.3000 is proposed for repeal because its content is unnecessary.

The Board has considered the impact that these proposed rule changes will have on small businesses as required in Minnesota Statutes, Section 14.115, Subdivision 2, Clauses (a) through (e)(1984), as follows:

Clause (a) The establishment of less stringent compliance or reporting requirements for small businesses. The Board believes that this Clause is not applicable for changes proposed for Minnesota Rules, Parts 1800.2500 to 1800.2900 in that the rule lists requirements for engineer applicants seeking licensure by examination. The Board licenses individuals and not corporations, partnerships or other firms. This rule does not require any compliance or reporting by small businesses.

Clause (b) The establishment of less stringent schedules or deadlines for compliance or reporting requirements for small businesses. The rule changes proposed do not impose schedules or deadlines for compliance on small businesses.

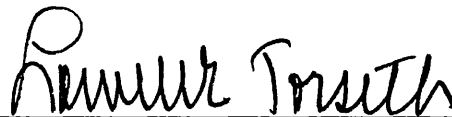
Clause (c) The consolidation or simplification of compliance or reporting requirements for small businesses. This method is not applicable to small businesses for the reasons stated in Clauses (a) and (b).

Clause (d) The establishment of performance standards for small businesses to replace design or operational standards required in the rule. The proposed changes to Minnesota, Parts 1800.2500 to 1800.2900 do not impose performance standards on small businesses nor does the rule contain design or operational standards.

Clause (e) The exemption of small businesses from any or all requirements in the rule. As stated in Clause (a), the

proposed changes effect individuals rather than firms. Those small businesses engaged in the practice of engineering are required by law to have a properly licensed person in responsible charge of the professional services offered. Individuals seek licensure, firms do not.

It is the opinion of the Board that the requested rule changes will have no impact on small businesses doing business in the State of Minnesota. The Board has received no criticism of its proposal to revise its rule governing the examination of engineer applicants.

A handwritten signature in cursive script, reading "Lowell E. Torseth". The signature is written in dark ink and is positioned above a horizontal line.

Lowell E. Torseth
Executive Secretary

Dated: February 1, 1990