

APEGA members and permit holders are required to practise engineering and geoscience skillfully, ethically, and professionally. They must meet all prescribed requirements and follow all applicable legislation and regulations, such as the *Engineering and Geoscience Professions Act, General Regulation,* Code of Ethics, and APEGA bylaws. Investigation and enforcement—followed by, when necessary, judgment based on a fair hearing of the facts—are requirements of ours in service to the public interest. For more information, please visit www.apega.ca/enforcement/discipline-decisions.

Date: May 25, 2021

Discipline Case Number: 21-008

IN THE MATTER OF A RECOMMENDED DISCIPLINE ORDER OF THE ASSOCIATION OF PROFESSIONAL ENGINEERS AND GEOSCIENTISTS OF ALBERTA

Pursuant to the Engineering and Geoscience Professions Act, being Chapter E-11 of the Revised Statutes of Alberta 2000 Regarding the Conduct of [A PROFESSIONAL MEMBER] P.ENG.

The Investigative Committee of the Association of Professional Engineers and Geoscientists of Alberta ("APEGA") has investigated the conduct of a Professional Member (the "Registrant") with respect to an allegation of unprofessional conduct and/or unskilled practice pursuant to Section 44(1) of the *Engineering and Geoscience Professions Act* (the "Act").

A. Complaint

This investigation related to an allegation that the Registrant, through their company (the "Permit Holder"), engaged in unprofessional conduct and/or unskilled practice of the profession with respect to tall wall design for a residential construction project (the "Project").

In 2020, APEGA received a complaint from a professional engineer (the "Complainant") reporting that they had been retained by the home builder for the Project to review the Registrant's tall wall designs.

The Investigative Committee investigated the following allegation (the "Allegation"):

Whether the Registrant's tall wall designs were not in accordance with the required codes and standards.

B. Agreed Statement of Facts

(i) Background:

1. The Registrant holds a Bachelor of Science in geological engineering (University of



Waterloo, 2010).

- 2. The Registrant has been a member of APEGA since 2014.
- 3. The Registrant is a director and responsible member for the Permit Holder, an APEGA permit holder since 2018, which offers services in the areas of civil, structural, and geotechnical engineering.
- 4. The Registrant was retained by a Leduc home builder in 2019 to design nineteen tall walls for the Project.
- 5. Following a concern raised by the Project's contractor, the Complainant was retained to provide a review of the Registrant's tall wall designs.
- 6. The Complainant discovered deficiencies during their review of the Registrant's tall wall design and reported them to APEGA.
 - (ii) Facts Relating to the Allegation:

Whether the tall wall designs prepared and issued by the Registrant were not in accordance with required codes and standards.

- 7. The Registrant stated that they considered wall deflection limits based on L/360; however, the calculations for the walls on the Project did not reflect adherence to this limit but rather to the National Building Code specified upper limit of L/180. The deflection limit of L/180 does not consider the effect that excessive displacements may have on the wall finish, a consideration that the Registrant correctly identified during the interview.
- 8. The Project required a consideration of a deflection limit lower than L/180.
- 9. The Registrant failed to calculate lateral and shear forces, including for tall walls eight and nine.
- 10. The Registrant failed to recognize and apply the slenderness ratio as detailed in CSA O86, "Engineering Design in Wood".
- 11. The Registrant included a reference table in his design package entitled "Engineered Wood Schedule". The table included errors that the Registrant was unable to identify when questioned.
- 12. The Registrant's designs included seven-ply, built-up, compression members contrary to CSA O86 which states these members shall consist of two to five



individual members.

- 13. The Registrant failed to recognize that Simpson Strong Tie connectors, Type A34, cannot be used in a raked or sloped wall application, and misrepresented his investigation into the manufacturer's recommendations for the connectors.
- 14. The Registrant erred in calculating the axial force on all walls, underestimating the loads by a factor of 2.
- 15. The Registrant acknowledges that there were deficiencies in his tall wall designs and that his conduct constitutes unskilled practice.

C. Conduct

- 16. The Registrant freely and voluntarily admits that at all relevant times they were a Professional Member of APEGA and was thus bound by the Act and the *APEGA Code of Ethics.*
- 17. The Registrant acknowledges that the conduct described above constitutes unprofessional conduct and unskilled practice as defined in Section 44(1) of the *Act*:

Section 44(1) Any conduct of a professional member, licensee, permit holder, certificate holder or member-in-training that in the opinion of the Discipline Committee or the Appeal Board

- a) is detrimental to the best interests of the public,
- *b)* contravenes a code of ethics of the profession as established under the regulations,
- c) harms or tends to harm the standing of the profession generally,
- d) displays a lack of knowledge of or lack of skill or judgment in the practice of the profession, or
- e) displays a lack of knowledge of or lack of skill or judgment in the carrying out of any duty or obligation undertaken in the practice of the profession,

whether or not that conduct is disgraceful or dishonorable, constitutes either unskilled practice of the profession or unprofessional conduct, whichever the Discipline Committee or the Appeal Board finds.

- 18. The Registrant acknowledges that the conduct described above is conduct that is detrimental to the best interests of the public and displays a lack of knowledge or lack of skill or judgment in the practice of the profession.
- 19. Further, the conduct described in the Allegation constitutes a breach of Rule #1, #2



and #4 of the APEGA Code of Ethics, which state:

- 1. Professional engineers and geoscientists shall, in their areas of practice, hold paramount the health, safety and welfare of the public and have regard for the environment.
- 2. Professional engineers and geoscientists shall undertake only work that they are competent to perform by virtue of their training and experience.
- 4. Professional engineers and geoscientists shall comply with applicable statutes, regulations and bylaws in their professional practices.

D. Recommended Orders

- 20. On the recommendation of the Investigative Committee, and by agreement of the Registrant with that recommendation, and following a discussion and review with the Discipline Committee Case Manager, the Discipline Committee hereby orders that:
 - a) The Registrant shall receive a letter of reprimand, a copy of which will be maintained for one year in the Registrant's APEGA registration file.
 - b) The Registrant shall provide written confirmation to the Director, Enforcement, within thirty days of being notified that the Recommended Order has been approved, that they have reviewed the following APEGA publications, and that the Registrant will comply with the requirements therein:
 - Practice Standard Authenticating Professional Work Products (July 2019);
 - Practice Standard for Concepts of Professionalism (September 2004);
 - Guideline for Ethical Practice (February 2013);
 - Guideline for Responsibilities for Engineering Services for Building Projects (March 2009).
 - c) The Registrant shall successfully complete a post-secondary course in structural analysis and design that is satisfactory to the Director, Enforcement, such as Residential Wood Framing (George Brown College, BLDG 9215), within one year from the date this RDO has been approved.
 - d) The Registrant may apply to the Director, Enforcement for an extension prior



to the one (1) year deadline. If the above noted course is not successfully completed within one (1) year or after the agreed to extension, the Registrant shall be suspended from the practice of engineering until the above noted course is successfully completed.

- e) The Registrant shall disclose that they were the subject of APEGA disciplinary procedures to all other engineering regulatory bodies to which they hold membership and provide each regulator with a copy of this Order.
- f) While completing the above noted sanctions the Registrant shall be considered to be in good standing.
- g) This matter and its outcome will be published by APEGA as deemed appropriate and such publication will not name the Registrant or the Permit Holder.
- 21. If the Registrant fails to provide proof that they have completed the requirements in paragraph 20 above within the timelines specified, the Registrant shall be suspended from the practice of engineering until the Registrant has provided to the Director, Enforcement proof of successful completion.
- 22. Although there is a presumption that Recommended Orders should be published in a manner that identifies the name of the Registrant who is the subject of the Recommended Order, publication without name is being recommended in this case. Among the considerations that weighed into the recommendation not to publish the name of the Registrant was that the Registrant's actions did not compromise public safety. The publication of the Registrant's name is not required, in this instance, to protect the public interest.

Signed,

[PROFESSIONAL MEMBER], P. Eng.

Kevin Willis, P. Eng. Investigation Panel Chair

Ralph Hildenbrandt, P.Eng. Case Manager, APEGA Discipline Committee

Date: May 25, 2021