IN THE MATTER OF THE ENGINEERS AND GEOSCIENTISTS ACT R.S.B.C. 1996, CHAPTER 116

and

IN THE MATTER OF FRANK HUP MUI, P.Eng.

Engineers and Geoscientists BC File No. T15-052

CONSENT ORDER

Background

- 1. On May 20, 2003, Frank Hup Mui, P.Eng. ("Mr. Mui") and the Association of Professional Engineers and Geoscientists of the Province of British Columbia (the "Association"), now doing business as Engineers and Geoscientists BC, entered into a Stipulated Order (the "Stipulated Order") by which Mr. Mui accepted that he demonstrated unprofessional conduct when he:
 - (a) signed, sealed and submitted Schedules C-B on June 4 and June 19, 2002 to the chief building official for a single family residence (first project) when the construction of the structural elements of the residence was not in accordance with the plans and supporting document submitted by Mr. Mui in support of the building permit;
 - (b) signed, sealed and submitted Schedules C-B on May 28 and June 19, 2002 to the chief building officer for a single family residence (second project) when the construction of the structural elements of the residence was not in accordance with the plans and supporting documents submitted by Mr. Mui in support of the building permit; and
 - (c) signed, sealed and submitted Schedules C-B on August 29, 2002 to the chief building official for a single family residence (third project) when the construction of the structural elements of the residence were not in accordance with the plans and supporting documents submitted by Mr. Mui in support of the building permit.
- 2. Pursuant to the terms of the Stipulated Order, a number of conditions were imposed upon Mr. Mui, including:
 - (a) Mr. Mui was required to pass the Association's Professional Practice Examination; and

(b) Mr. Mui was required to practice under the direct supervision of a Professional Engineer, approved in advance by the Registrar of the Association, for a period of six months and in the event that he did not pass the Professional Practice Examination within the six month period, he was required to continue to practice under the direct supervision of the approved Professional Engineer until he passed the Professional Practice Examination.

Current Disciplinary Issue

- 3. A Notice of Inquiry dated October 23, 2017 was issued to Mr. Mui, containing the following allegations:
 - (a) You demonstrated unprofessional conduct, incompetence, or negligence in connection with the engineering services you provided to the owner of [a commercial property] in Delta, British Columbia (the "Property"), particulars of which are as follows:
 - A. your structural design of the lateral force resisting system for an extension of the mezzanine level within the Property was deficient, insofar as it:
 - i. used ductility and overstrength factors incorrectly;
 - ii. was based on an incorrect application of the principles of force resolution;
 - iii. relied on critical knee brace connections that were inadequate to resist the required seismic loads;
 - iv. did not include a positive connection between the column and beam resulting in an unstable solution; and
 - v. did not present sufficient information on the drawings for a reviewer or contractor or other professional to ascertain with certainty the load resisting system and the critical components of such a system like the knee brace connection and the foundation connection;

all of which resulted in a design that could not be safely implemented;

B. after the adequacy of your structural design was questioned by the Corporation of Delta, you stated to the Association that you reviewed the design and found it to be satisfactory and in accordance with the British Columbia Building Code (the "Code") when in fact it was not satisfactory and was not in accordance with the Code for the reasons given in paragraph 3(a)(A) above; and

- C. after the adequacy of your structural design was further questioned in an interview conducted pursuant to section 30(4) of the *Engineers and Geoscientists Act* (the "**Act**"), you delivered to the Association a new set of calculations and free body diagrams of the design on or about March 8, 2017 (the "**2017 Submission**"). The 2017 Submission reflected that you had corrected the calculation of the applicable forces, but you failed to translate the revised calculations into connection designs that could resist the calculated forces. Further, the revised design in the 2017 Submission failed to correct the problem identified above at paragraph 3(a)(A)(iii).
- (b) The conduct set out above at paragraph 3(a) is contrary to Principles 1, 2 and 3 of the Association's Code of Ethics.
- (c) You failed to comply with section 14(b) of the Association Bylaws, and in particular failed to establish and maintain documented quality management processes for your practice, including by:
 - A. failing to ensure regular, documented checks of your engineering work using a written quality control process.

Admissions

4. Mr. Mui admits the allegations in the Notice of Inquiry as set out paragraphs 3(a) to 3(c) above.

Disposition

- 5. This Consent Order is made pursuant to section 32.1 of the Act.
- 6. Mr. Mui's membership in the Association is cancelled effective June 1, 2018 (the "Date of Cancellation").
- 7. During the period from the date of execution of this Consent Order to the Date of Cancellation, Mr. Mui must:
 - A. make reasonable arrangements for the orderly transfer of his ongoing professional engineering project files to other professional engineers;
 - B. limit his practice to those project files that he is currently engaged on and not take on any new project files or other engineering work;

- C. be subject to direct supervision by a "Supervising Engineering Professional" (the "Supervising Professional") as described in the Quality Management Guidelines Direct Supervision, v. 1.3 (the "Direct Supervision Guideline"). The Supervising Professional must be approved in writing and in advance by the Registrar of the Association. The Supervising Professional shall provide "direct supervision", as defined in the Act and as set out in the Direct Supervision Guideline, in respect of all engineering work performed by Mr. Mui (the "Direct Supervision"); and
- D. The costs of the Supervising Professional providing the Direct Supervision shall be borne by Mr. Mui.
- 8. Mr. Mui shall pay \$4,000 towards the Association's legal costs within 30 days of the date of this Consent Order.
- 9. In the event that Mr. Mui fails to comply with any of the terms of this Consent Order during the period from the date of the of execution of this Consent Order to the Date of Cancellation, his membership in the Association will be suspended until every default has been remedied in accordance with the terms of this Consent Order, and in any event Mr. Mui's membership in the Association will be cancelled on the Date of Cancellation.

Consequences of the Consent Order

- 10. The full text or a summary of this Consent Order will be published by the Association in print and electronic publications including on the Association's website.
- 11. This Consent Order has the same force and effect as an Order made under section 33(2) of the Act and may be dealt with under section 34 of the Act if conditions in the Consent Order are not met.
- 12. Mr. Mui agrees that he has had the benefit of independent legal advice regarding this Consent Order.

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13. The Association and Mr. Mui agree that this Consent Order may be executed in counterparts and delivered as an electronic document.

This Consent Order is approved and accepted by Mr. Mui and the members of the Discipline Committee Review Panel this 13 day of March, 2018.

Frank Hup Mui, P.Eng.

STEPHEN. K.W. Works.
Name of Witness MICE.

Signature of Witness

Colin Smith, P.Eng., FEC, FGC (Hon.) Member, Discipline Committee

Oliver Bonham, P. Geo., FGC, FEC (Hon.) Member, Discipline Committee

Chris Arthur, P.Eng. Member, Discipline Committee 13. The Association and Mr. Mui agree that this Consent Order may be executed in counterparts and delivered as an electronic document.

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Name of Witness

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