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The Discipline Committee of the Association of Professional Engineers of Ontario

In the matter of a hearing under the *Professional Engineers Act*, R.S.O. 1990,
Chapter P.28;

And in the matter of a complaint regarding the conduct of

Man-Woon Lai, P.Eng.

a Member of the Association of Professional Engineers of Ontario, and

843812 Ontario Inc., operating as A & M Engineering

a holder of a Certificate of Authorization.

BETWEEN:

The Association of Professional Engineers of Ontario and

Man-Woon Lai, P.Eng., and 843812 Ontario Inc., operating as
A & M Engineering

Decision and Reasons

A Panel of the Discipline Committee of the Association of Professional Engineers of Ontario ("PEO") met in the offices of the association on August 26, 2002 to hear allegations of professional misconduct and incompetence against Man-Woon Lai, P. Eng., and 843812 Ontario Inc., operating as A & M Engineering.

Michael Royce, of Lenczner Slaght Royce Smith Griffin, appeared as legal counsel for PEO.

John V. Kranjc, of Leggat Baldwin Keesmaat & Dickson, appeared as legal counsel for Man-Woon Lai, P.Eng., and 843812 Ontario Inc.

Nancy Spies, of Stockwood Spies, appeared as independent legal counsel to the Discipline Panel.

The hearing arose as a result of the involvement of Man-Woon Lai and A & M Engineering in the preparation of structural plans for two new condominium buildings.

The allegations of professional misconduct set out in the Notice of Hearing and filed as an exhibit are as follows:

The allegations

It was alleged that pursuant to the *Professional Engineers Act*, Man-Woon Lai, P.Eng. (hereinafter referred to as the "Lai") was guilty of incompetence, and that Lai and 843812 Ontario Inc., operating as A & M Engineering (hereinafter referred to as "A & M") were guilty of professional misconduct in that plans prepared for the structural aspects of two buildings at 1272 Ontario Street, in the City of Burlington, Ontario, and 1770 Main Street West, in the City of Hamilton, Ontario, did not comply with the Ontario Building Code (OBC), and contained significant errors and deficiencies that resulted in severe overstressing of some building components. A summary of the allegations is as follows:

1. Lai was at all material times a member of the Association of Professional Engineers of Ontario.
2. A & M was at all times the holder of a

Certificate of Authorization to offer and provide to the public services within the practice of professional engineering and was responsible for supervising the conduct of its employees and taking all reasonable steps to ensure that its employees, including Lai, carried on the practice of professional engineering in a proper and lawful manner. Lai was the professional engineer responsible for the services provided by A & M.

Re: 1272 Ontario Street, Burlington

3. Between 1998 and 1999, a 13-storey, reinforced concrete condominium building, known as The Maples (building), was constructed at 1272 Ontario Street in the City of Burlington, Ontario. The structural engineer of record was Lai and his company A & M. The building included two underground parking garage levels and 13 floors including a penthouse level.
4. The structural framing system for the building generally consisted of eight-inch one-way reinforced concrete slabs supported on five reinforced concrete bearing walls. Four of the bearing walls were supported at the ground floor level by reinforced concrete transfer girders, which in turn were supported on reinforced concrete columns. Spread footings supported the reinforced concrete columns, and strip footings supported the reinforced concrete walls.
5. Following a structural review of the building design by Carruthers & Wallace Limited (C & W) in April 2001, C & W advised the city of concerns with respect to shear stresses in the reinforced concrete transfer girders, and the design of the reinforced concrete columns, amongst others. On April 26, 2001, the city issued an Order to Remedy Unsafe Buildings (Order) with respect to the building. The Order indicated the building was structurally inadequate or faulty for the purpose for which it is used. The Order required that shoring be provided under the four transfer girders, and that a design solution be implemented within 90 days to address the structural inadequacy, and remove the unsafe condition.
6. It was alleged that Lai and A & M:
 - a) provided an unsafe structural design of a condominium building;

- b) provided a building design that contained errors, and deficiencies, and that did not comply with the requirements of the OBC, examples of which include the following:
 - ◆ On the basis of the loads specified on the A & M drawings, the transfer girder on line 3 was overstressed in shear by approximately 11.5%, the transfer girders on lines 5 and 7 were overstressed in shear by approximately 85%, and the transfer girder on line 6 was overstressed in shear by approximately 25%.
 - ◆ On the basis of the loads specified on the A & M drawings, the 12 inch x 48 inch concrete columns reinforced with 10-25 vertical reinforcing bars were grossly under-reinforced as a result of the bending moments induced by the loading conditions. Column F6, which was specified to be 12 inch x 36 inch with 8-25 vertical reinforcing bars, was overstressed by approximately 88% in bearing and 154% in combined axial load and bending.
 - ◆ On the basis of the loads specified on the A & M drawings, the footings at columns G3, G5, G6 and G7 were grossly undersized with respect to the depth of the footing. While the average bearing pressure was about 50% of the specified design bearing pressure on the soil, the footings were overstressed in shear by approximately 80% to 140%, and in flexure by approximately 80% to 140%. The strip footing supporting the wall on line 6 from lines C to D was overstressed by approximately 100% in shear and 140% in flexure.
 - ◆ The typical floor utilized an eight-inch one-way concrete slab with spans up to 24 feet, 11 inches between walls. The negative reinforcement was generally deficient at lines 5 and 7 by 24%, at lines 4 and 8 by 29%, and at a 1500-mm-wide edge strip segment along lines C and G, the negative reinforcement at lines 5 and 7 was deficient by approximately 130%. The long-term creep of the slab will result in a deflection of approximately two inches and would exceed the OBC requirements by 100%.
 - ◆ The reinforcing of the penthouse floor slab supporting the roof slab and penthouse wall at grid line 8x was deficient by approximately 40%.

- ◆ The garage roof slab south of line C was overstressed in flexure by approximately 19% when subjected to the specified 12 kPa live load.
 - ◆ The Codes and Standards referenced on drawing S2 were not in accordance with the current OBC, and were corrected by the Building Department on the Permit Issue drawings, but were not corrected on the As-Built drawings.
- c) failed to properly assess the lateral load on the building due to earthquake; and
 - d) demonstrated a standard of care that was less than that reasonably expected of a licensed professional engineer.

Re: 1770 Main Street West, Hamilton

7. Early in 2001, construction began for a nine-storey reinforced concrete condominium building, known as Valley Park (building), at 1770 Main Street West in the city of Hamilton, Ontario. The structural engineer of record was Lai and his company A & M. The building included one basement level with an underground parking garage, and nine floors, with a partial penthouse.
8. The structural framing system for the building consisted of eight-inch, two-way reinforced concrete slabs supported on eight-inch reinforced concrete shear walls in both directions. The building was founded on a 24-inch thick reinforced concrete raft foundation slab, and the parking garage was founded on spread footings.
9. Following a structural review of the building design by Carruthers & Wallace Limited (C & W) in March 2001, C & W advised the city of concerns with respect to the structural design of the raft slab and the garage roof slab of the building. On April 3, 2001, the city placed a Stop Work Order on the building, and issued an Order to Comply to the contractor.
10. It was alleged that Lai and A & M:
 - a) provided a building design that contained errors, and deficiencies, and that did not comply with the requirements of the OBC, examples of which include the following:
 - ◆ The raft slab was under-reinforced in the east-west direction in both positive and negative flexural reinforce-

ment. While the amount of the under-design varied, in the worst case, 80% more positive reinforcement was required, and 38% more negative reinforcement was required.

- ◆ The raft slab was under-reinforced in the north-south direction in negative flexural reinforcement. While the amount of the under-design varied, in the worst case, approximately 300% more negative reinforcement was required.
 - ◆ The garage roof slab in the two-span condition was under-reinforced by up to 72% in negative moment and 29% in positive moment when subjected to the 12 kPa live load specified.
 - ◆ The garage roof slab in the two-span condition was overstressed in shear at the drop panel by up to 22% when subjected to the 12 kPa live load specified.
 - ◆ The garage roof slab in the three-span condition was under-reinforced by up to 15% when subjected to the 12 kPa live load specified.
 - ◆ The formula given on the A & M drawings for assessing the seismic force on the building had been removed from the building code with the issue of the OBC edition in 1990. The A & M drawing S2 indicated the seismic response factor “S” to be 1.0. In order to arrive at an “S” value of 1.0, the period of vibration of the building would have to be less than 0.25 seconds.
- b) failed to properly assess the lateral load on the building due to earthquake; and
- c) demonstrated a standard of care that was less than that reasonably expected of a licensed professional engineer.

11. **By reason of the aforesaid, it is alleged that Lai is guilty of incompetence as defined in Section 28(3) and Lai and A&M are guilty of professional misconduct as defined in section 28(2)(b) of the *Professional Engineers Act*, R.S.O. 1990, Chapter P.28.**

12. **“Incompetence” is defined in Section 28(3)(a) as: “The member or holder has displayed in his or her professional responsibilities a lack of knowledge, skill or judge-**

ment or disregard for the welfare of the public of a nature or to an extent that demonstrates the member or holder is unfit to carry out the responsibilities of a professional engineer”.

13. The sections of Regulation 941 made under the said Act and relevant to this misconduct are:

- ◆ **Section 72(2)(a): negligence as defined at Section 72(1): In this section, “negligence” means an act or an omission in the carrying out of the work of a practitioner that constitutes a failure to maintain the standards that a reasonable and prudent practitioner would maintain in the circumstances;**
- ◆ **Section 72(2)(b): failure to make reasonable provision for the safeguarding of life, health or property of a person who may be affected by the work for which the practitioner is responsible;**
- ◆ **Section 72(2)(d): failure to make responsible provision for complying with applicable statutes, regulations, standards, codes, by-laws and rules in connection with work being undertaken by or under the responsibility of the practitioner;**
- ◆ **Section 72(2)(g): breach of the Act or regulation, other than an action that is solely a breach of the code of ethics;**
- ◆ **Section 72(2)(h): undertaking work the practitioner is not competent to perform by virtue of the practitioner’s training and experience; and**
- ◆ **Section 72(2)(j): conduct or an act relevant to the practice of professional engineering that, having regard to all the circumstances, would reasonably be regarded by the engineering profession as disgraceful, dishonourable or unprofessional.**

Resignation and Undertaking

Counsel for PEO advised the Panel that, prior to the hearing, Lai had asked PEO, through his counsel, whether PEO would accept his resignation in lieu of proceeding with a discipline hearing to consider the

allegations in the Notice of Hearing. Lai is 63 years old. PEO counsel advised that in 2001, Lai and A & M had been found guilty at a Discipline Hearing of professional misconduct and had received a six-month suspension as a result of defects in the structural design of a building in Dundas, Ontario. It was PEO’s position that, if the matter proceeded and a finding of professional misconduct and/or incompetence were made, PEO would seek to revoke Lai’s licence. In that event, however, the Act provides that Lai could apply for reinstatement after two years. The *Professional Engineers Act* provides that a member cannot avoid a discipline hearing by resigning.

Accordingly, the PEO requested that Lai not only resign, but undertake not to engage in the practice of professional engineering again directly or indirectly, which, from PEO’s perspective, provided for a more severe penalty than PEO could otherwise hope to obtain if the allegations were proven. This ensured that PEO’s primary interest of protecting the public was met.

Counsel for PEO then filed the Resignation and Undertaking, dated August 26, 2002, executed by Lai, which provides as follows:

1. I, Man-Woon Lai, P.Eng., hereby resign as a member of the Association of Professional Engineers of Ontario and surrender my licence to engage in the practice of professional engineering issued under the *Professional Engineers Act*, R.S.O. 1990, c. P. 28.
2. I hereby undertake as follows:
 - a) I shall never again participate, directly or indirectly, in the practice of professional engineering nor hold myself out as engaging in the practice of professional engineering anywhere in Canada or the United States of America;
 - b) I shall return immediately to the registrar of the APEO my stamp and certificate as a professional engineer;
 - c) I shall take all steps necessary to terminate and close the Certificate of Authorization (“C of A”) of 843812 Ontario Inc. operating as A & M Engineering, including returning immediately to the registrar my C of A certificate; and
 - d) I shall never again apply for licensing as a professional engineer anywhere

in Canada or the United States of America.

3. I acknowledge that I have been provided with independent legal advice as to the nature and consequences of this Resignation and Undertaking and have signed this Resignation and Undertaking of my own free will and with full knowledge as to its nature and consequences.

Counsel for Lai confirmed the submissions of PEO counsel. Both counsels requested that the Panel accept the Resignation and Undertaking of Lai and authorize PEO to withdraw the allegations in the Notice of Hearing. Counsel for PEO advised that an order of the Discipline Panel was required, because once a matter is referred by the Complaints Committee to the Discipline Committee, the *Professional Engineers Act* provides that the Discipline Committee shall conduct a hearing.

The Panel received advice from its independent legal counsel that pursuant to section 4.1 of the *Statutory Powers Procedure Act*, the Panel had the jurisdiction to authorize the withdrawal of the allegations without a hearing, given the consent of the parties.

Counsel for both parties also advised the Panel that, by agreement, the Panel's decision should be published with names, including a summary of the allegations.

The chair of the Panel questioned Lai and was satisfied that Lai's decision to resign and give the undertaking was voluntary, informed and unequivocal.

Decision

The Panel considered the Resignation and Undertaking submitted by Lai and the submissions by the respective counsel and decided as follows:

- ◆ to accept the written Resignation and Undertaking that Lai has provided this Panel (Exhibit 3) dated August 26, 2002;
- ◆ to grant leave to PEO to withdraw the allegations against Lai and A & M as set out in the Notice of Hearing;
- ◆ to have its decision with reasons, including the Resignation and Undertaking agreement and a summary of the allegations, published with names in PEO's official publications.

Reasons for penalty decision

PEO would have sought a revocation of Lai's licence if the allegations had been proven. However, the Act provided that he could apply to PEO for reinstatement of his licence after two years.

In agreeing to the Resignation and Undertaking, PEO's position is strengthened as the best possible outcome for protecting the public interest, because it exceeds the maximum penalty that could have been given to Lai. Specifically, in addition to licence revocation, Lai is prevented from practising professional engineering directly or indirectly ever again.

The Panel believed that for these reasons, the manner in which both counsel for PEO and Lai propose to deal with this matter is reasonable and in the public interest. Dated at Toronto this 12th day of September, 2002.

Maximus Perera, P.Eng. (Chair)

For and on behalf of the Panel of the Discipline Committee

Gina Cody, P.Eng.
Roydon Fraser, P.Eng.
Santosh Gupta, P.Eng.
William Walker, P.Eng.

Enforcement Activity

The Association of Professional Engineers of Ontario versus Robin Scott Rice

This report chronicles the results of legal proceedings brought under the *Professional Engineers Act* against Robin Scott Rice of Maple, Ontario, for misrepresenting himself as a professional engineer. The Act allows the association to move in two jurisdictions against persons or entities who violate the *Professional Engineers Act*. The association views Robin Rice's misrepresentations to be of a very serious nature, which resulted in the proceedings listed below.

Rice is not, nor has he ever been, licensed as a professional engineer in Ontario.

March 7, 2002: An application under Section 39 of the *Professional Engineers Act* was heard in the Ontario Superior Court of Justice before the Honourable Mr. Justice Gans. PEO brought the application after receiving information that Rice had misrepresented himself as a professional engineer on employment applications and in subsequent interviews with prospective employers in the Vaughan and Pickering areas.

Jennifer M. Chalykoff, of McCarthy Tétrault, represented PEO on the uncontested application.

After reviewing the affidavit evidence, the Honourable Mr. Justice Gans declared that Rice had breached several sections of the *Professional Engineers Act* in his use of the term "professional engineer" and the abbreviated title "P.Eng."

In addition, Rice was ordered to:

- ◆ refrain from engaging in or holding himself out as engaging in the business of providing to the public in Ontario services that are within the practice of professional engineering;
- ◆ refrain from using the terms "professional engineer", "P.Eng." or any abbreviation or variation thereof, as an occupational or business designation in Ontario;
- ◆ refrain from using, by any medium, the term "engineer" or any variation or abbreviation thereof that will lead to the belief that he provides to the public services within the practice of professional engineering; and
- ◆ pay costs in the amount of \$1,500.

April 9, 2002: At a trial in the Richmond Hill Provincial Court before his Worship Julius Dogbe, Robin Scott Rice was convicted of three breaches of the *Professional Engineers Act* and was fined \$56,250 (including a victim's surcharge of \$11,250) for misrepresenting himself as a professional engineer.

The association was represented by Dana M. Peebles and Jennifer M. Chalykoff, of McCarthy Tétrault. The Court heard


from two prospective employers from Concord, Ontario, who specialized in the civil contracting field, each of whom hired Rice on separate occasions after he had misrepresented himself as a professional engineer on employment applications and in subsequent interviews.

He was eventually terminated from each position when errors were found in his work.

April 22, 2002: At a trial in the Whitby Provincial Court before his Worship R.G. Harris, Robin Scott Rice was convicted of three breaches of the *Professional Engineers Act* and was fined \$56,250 (including a victim's surcharge of \$11,250) for misrepresenting himself as a professional engineer.

The association was represented by Jennifer M. Chalykoff, of McCarthy Tétrault. The Court heard from a former employer, a civil contractor from the Pickering area, who hired Rice

after he had misrepresented himself as a professional engineer on an employment application and in subsequent interviews.

He was eventually terminated when errors were found in his work. 

Note from the Department of Legal and Professional Affairs

Mr. Rice was not found to be practising professional engineering in these matters, but misled potential employers into believing that he was licensed as a professional engineer.

Robin Scott Rice is not the same person as Robert James Rice, P.Eng., a fully licensed professional engineer in the province of Ontario.

NOTICE

We, as professional engineers, belong to an association that has as its principal objective under the ***Professional Engineers Act*** "to regulate the practice of professional engineering and to govern its members, holders of certificates of authorization, holders of temporary licences and holders of limited licences in accordance with this Act, the regulations and the by-laws in order that the public interest may be served and protected."

To regulate the profession and to ensure that the public interest may be served and protected, the legislation instructs Council to establish and appoint a Discipline Committee. To fulfill its role, the Discipline Committee hears and determines allegations of professional misconduct or incompetence against a member of the association or a holder of a certificate of authorization, a temporary licence or a limited licence.

In carrying out its duties to protect the public interest, the committee must also be fair and just to any party that comes before it for a hearing. The committee must and does perform its work without any influence from Council or the Executive, much like the judiciary in our civil legal system. To promote fair, just and consistent hearings, the committee has developed and approved ***Rules of Procedure of the Discipline Committee of the Association of Professional Engineers of Ontario***. The Rules became effective on August 1, 2002.

To provide information and to assist any party facing a disciplinary hearing, the committee has also prepared a document titled ***Information Concerning Discipline Hearings at the Association of Professional Engineers of Ontario***.

Both the Rules and the Information document are printed on the following pages. The two publications can also be sourced from the Complaints, Investigations & Hearings section of the PEO website.

L. Brian Ross, P.Eng., Chair, Discipline Committee