

**IN THE MATTER OF THE PROFESSIONAL GOVERNANCE ACT
S.B.C. 2018, CHAPTER 47 (the “PGA”)**

and

**IN THE MATTER OF KENNETH PAUL KAPUSNIAK, P.ENG.
ENGINEERS AND GEOSCIENTISTS BC FILE NO. T18-080**

CITATION

**TO: Kenneth Paul Kapusniak, P.Eng.
c/o Guild Yule LLP
Suite 2100-1075 West Georgia Street
Vancouver, BC V6E 3C9
Attn: Russell Bailey**

TAKE NOTICE that a Panel of the Discipline Committee of the Association of Engineers and Geoscientists of the Province of British Columbia, doing business as Engineers and Geoscientists BC (“EGBC”), will meet virtually via Zoom Video Conferencing hosted by Charest Reporting, on a date to be determined for the purposes of conducting a discipline hearing pursuant to the *PGA*. The *Engineers and Geoscientists Act*, R.S.B.C. 1996, c. 116 (the “*EGA*”) was repealed and replaced by the *PGA* on February 5, 2021. While the allegations herein are made under the *EGA*, the procedures established by the *PGA* and the current Bylaws of Engineers and Geoscientists BC will be followed as far as they can be adapted to the proceeding against Kenneth Paul Kapusniak, P. Eng., commenced by this Citation.

AND TAKE NOTICE that the allegations against you are that:

1. You demonstrated unprofessional conduct contrary to the *EGA* in connection with a parking structure located at the [REDACTED] Campbell River, BC (“Project I”) and the precast concrete design for Project I (the “Project I Design”) for which you were the registered professional responsible for the structural design by signing and sealing the 2015 issued for construction drawings (the “Project I Drawings”) which depict a design that did not comply with the 2012 British Columbia Building Code (“2012 BCBC”), including CAN/CSA A23.3-04 Design of

Concrete Structures and its updates as incorporated into the 2012 BCBC, in particular:

- a. The load bearing spandrel beams for Project I as depicted in the Project I Drawings did not meet the strength requirements of the 2012 BCBC as:
 - i. the shear/torsion demand-to-capacity ratios for the spandrel beams exceeded the 100% limit, being as high as 319% at one location in the structure; and,
 - ii. the flexural/normal force demand-to-capacity ratios for the spandrel beams exceeded the 100% limit, being as high as 123% at one location in the structure.
- b. The precast concrete double tees for Project I as depicted in the Project I Drawings did not meeting the strength requirements of the 2012 BCBC as the flexural/normal force demand-to-capacity ratios for the roof double tees exceeded the 100% limit, being as high as 113% at one location in the structure.
- c. The concrete column corbel connections supporting the floor and roof beams for Project I as depicted in the Project I Drawings did not comply with the 2012 BCBC.
- d. The rectangular steel reinforcing bars on load bearing spandrels for Project I as depicted in the Project I Drawings did not comply with the 2012 BCBC with respect to anchorage of torsion reinforcements for concrete spandrel beams subject to torsion as:
 - i. The reinforcing bars were detailed with 90 degree hooks rather than 135 degree hooks as required for anchorage of torsion reinforcement; and,
 - ii. The Project I Drawings do not indicate any other details or reinforcing to prevent the concrete surrounding the bar anchorage from spalling.
- e. The spandrel design at the floor and the roof level spandrels for Project I as depicted in the Project I Drawings did not comply with the 2012 BCBC with respect to flexural crack control for deep beams.

- f. The roof loads on the precast concrete elements for Project I as depicted in the Project I Drawings did not comply with the 2012 BCBC as they did not include superimposed loads, including in particular snow and live loads.
- g. The structural system for Project I as depicted in the Project I Drawings did not provide the required strength to resist seismic forces and was not in compliance with the 2012 BCBC, including in particular inadequate member strength, connection strength and lack of a complete and sufficient load path to transfer required seismic loads to the foundation in the following elements:
 - i. Precast concrete litewall and litewall connections;
 - ii. Precast concrete shear walls and shear wall connections;
 - iii. Precast concrete stair walls and stair wall connections;
 - iv. Connections transferring the lateral diaphragm force to stair walls;
 - v. Connections transferring the lateral diaphragm force to shear walls;
 - vi. Connections transferring the lateral diaphragm force to litewalls; and,
 - vii. Stairwell foundation connections between precast stair walls and the cast in place foundation.
- h. The Project I design as depicted in the Project I Drawings included various precast concrete litewall connections, shear wall connections, diaphragm connections to shear walls, diaphragm connections to litewalls, diaphragm connections to stair walls, stairwell foundation connections to CIP and stairwell panel to panel connections which were not in compliance with the 2012 BCBC due to various factors with the connections, including:
 - i. Insufficient quantity of connections;
 - ii. Insufficient weld size;
 - iii. Insufficient weld length;
 - iv. Insufficient steel element thickness;

- v. Insufficient steel element size; and,
 - vi. Insufficient anchorage of steel connection components in the concrete.
2. You demonstrated unprofessional conduct contrary to the *EGA* in connection with a parking structure located at the [REDACTED] Courtenay BC (“Project II”) and the precast concrete design for Project II (the “Project II Design”) for which you were the registered professional responsible for the structural design by signing and sealing the 2015 issued for construction drawings (the “Project II Drawings”) which depict a design that did not comply with the 2012 British Columbia Building Code (“2012 BCBC”), including CAN/CSA A23.3-04 Design of Concrete Structures and its updates as incorporated into the 2012 BCBC, in particular:
- a. The load bearing spandrel beams for Project II as depicted in the Project II Drawings did not meeting the strength requirements of the 2012 BCBC as:
 - i. the shear/torsion demand-to-capacity ratios for the spandrel beams exceeded the 100% limit, being as high as 296% at one location in the structure; and,
 - ii. the flexural/normal force demand-to-capacity ratios for the spandrel beams exceeded the 100% limit, being as high as 118% at one location in the structure.
 - b. The concrete column corbel connections supporting the floor and roof beams for Project II as depicted in the Project II Drawings did not comply with the 2012 BCBC due to insufficient steel reinforcement.
 - c. The rectangular steel reinforcing bars on load bearing spandrels for Project II as depicted in the Project II Drawings did not comply with the 2012 BCBC with respect to anchorage of torsion reinforcements for concrete spandrel beams subject to torsion as:
 - i. The reinforcing bars were detailed with 90 degree hooks rather than 135 degree hooks as required for anchorage of torsion reinforcement; and,

- ii. The Project II Drawings do not indicate any other details or reinforcing to prevent the concrete surrounding the bar anchorage from spalling.
- d. The spandrel design at the floor and the roof level spandrels for Project II as depicted in the Project II Drawings did not comply with the 2012 BCBC with respect to flexural crack control for deep beams.
- e. The roof loads on the precast concrete elements for Project II as depicted in the Project II Drawings did not comply with the 2012 BCBC as they did not include superimposed loads, including in particular snow and live loads.
- f. The structural system for Project II as depicted in the Project II Drawings did not provide the required strength to resist seismic forces and was not in compliance with the 2012 BCBC, including in particular inadequate member strength, connection strength and lack of a complete and sufficient load path to transfer required seismic loads to the foundation in the following elements:
 - i. Precast concrete litewall and litewall connections;
 - ii. Precast concrete shear walls and shear wall connections;
 - iii. Precast concrete stair walls and stair wall connections;
 - iv. Connections transferring the lateral diaphragm force to stair walls;
 - v. Connections transferring the lateral diaphragm force to shear walls;
 - vi. Connections transferring the lateral diaphragm force to litewalls; and,
 - vii. Stairwell foundation connections between precast stair walls and the cast in place foundation.
- g. The Project II design as depicted in the Project II Drawings included various precast concrete litewall connections, shear wall connections, diaphragm connections to shear walls, diaphragm connections to litewalls, diaphragm connections to stair walls, stairwell foundation connections to

CIP and stairwell panel to panel connections which were not in compliance with the 2012 BCBC due to various factors with the connections, including:

- i. Insufficient quantity of connections;
 - ii. Insufficient weld size;
 - iii. Insufficient weld length;
 - iv. Insufficient steel element thickness;
 - v. Insufficient steel element size; and,
 - vi. Insufficient anchorage of steel connection components in the concrete.
3. You demonstrated unprofessional conduct contrary to the *EGA* in connection with Project I and Project II (collectively, the “Projects”) and the Project I Design and Project II Designs (collectively, the “Project Designs”) for which you are responsible by failing to undertake an adequate design process, in particular:
- a. You failed to properly ensure that the design depicted in the Project I Drawings and Project II Drawings (collectively, the “Project Drawings”) aligned with your design calculations and analysis for the Projects (the “Project Design Analysis”) as demonstrated by the following discrepancies between your Project Design Analysis and the Project Drawings:
 - i. the Project Design Analysis is based on shorter spandrel lengths than those depicted in the Project Drawings;
 - ii. the Project Design Analysis is based on rectangular spandrel cross sections when the Project Drawings depicted “L” shaped spandrels; and,
 - iii. the Project Design Analysis indicate reinforcing bars in the spandrel beams in greater quantities and at different locations than were depicted in the Project Drawings.
 - b. You incorrectly based your Project Design Analysis for bottom-loaded spandrel beams using top loading of the spandrel beam, neglecting the

effects of bottom loading of beams compared to top loading beam and not considering the maximum shear and torsion effects of a bottom-loaded spandrel.

- c. You incorrectly based your Project Design Analysis, including calculating the foundation load, on the precast concrete stair walls designs for the Projects forming an overall box shape and acting as a rigid stair core when the precast stair wall connections did not have sufficient design strength to provide this rigid behaviour.
4. You demonstrated unprofessional conduct by giving assurances that the design of the structural components for the Projects you were responsible for substantially complied with the 2012 BCBC in circumstances where the designs did not so comply, including in particular:
 - a. signing and sealing Schedule S-B Letters of Assurance dated November, 3, 2015 for each of the Projects; and,
 - b. signing and sealing Schedule S-B Letters of Assurance dated November 23, 2015 for each of the Projects.
 5. You demonstrated unprofessional conduct by giving assurances that you had fulfilled your obligations in respect of field reviews for the Projects and that the components of the Projects you were responsible for substantially complied the 2012 BCBC in circumstances where your obligations in respect of field review were not fulfilled and the designs did not comply with the 2012 BCBC, including in particular:
 - a. signing and sealing Schedule S-C Letters of Assurance dated November 4, 2015 for each of the Projects;
 - b. signing and sealing Schedule S-C Letters of Assurance dated November 24, 2015 for each of the Projects; and,
 - c. signing and sealing a further Schedule S-C Letter of Assurance for Project I dated November 24, 2015.
 6. You breached Bylaw 14(b)(2) of the now repealed bylaws of EGBC as amended October 2014 (the “Applicable Bylaws”), and which were in force at the time the

conduct occurred as you failed to ensure for each of the Projects that regular, documented checks of the design for the Projects occurred.

7. You breached Bylaw 14(b)(4) of the Applicable Bylaws as you failed to ensure for each of the Projects that an independent review of the design for the Projects was completed and properly documented prior to construction.

AND FURTHER TAKE NOTICE that you, **Kenneth Paul Kapusniak, P.Eng**, have the right at your own expense to be represented by legal counsel at the inquiry by the Panel of the Discipline Committee pursuant to s. 79 of the *PGA* and you or your legal counsel shall have the right to cross-examine all witnesses called and to call evidence in defence and reply in answer to the allegations.

AND FURTHER TAKE NOTICE that pursuant to s. 78 of the *PGA* in the event you fail to attend or remain in attendance at a discipline hearing under s. 75 of the *PGA*, the Panel of the Discipline Committee may, if satisfied that you have been notified of the hearing, proceed with the hearing in your absence, and make any order that the discipline committee or panel could have made in your presence.

DATED this 28 day of February, 2022.

The Investigation Committee of Engineers and
Geoscientists British Columbia

<original signed by>

Per: Peter Helland, P. Eng.
Chair of the Investigation Committee