



ENGINEERS &
GEOSCIENTISTS
BRITISH COLUMBIA

**IN THE MATTER OF THE *PROFESSIONAL GOVERNANCE ACT*
S.B.C. 2018, CHAPTER 47**

and

**IN THE MATTER OF THEODORE (TED) SORENSEN, P.ENG.
ENGINEERS AND GEOSCIENTISTS BC FILE NO. T22-004**

CONSENT ORDER

Background

1. On February 5, 2021, the *Engineers and Geoscientists Act*, R.S.B.C. 1996, c. 116 (the “*EGA*”) was repealed and replaced by the *Professional Governance Act*, S.B.C. 2018, c. 47 (the “*PGA*”).
2. On May 31, 2022, the Association of Professional Engineers and Geoscientists of the Province of British Columbia, doing business as Engineers and Geoscientists BC, issued a Citation to Theodore (Ted) Sorensen, P.Eng., pursuant to section 66(1) of the *PGA*.
3. Engineers and Geoscientists BC and Mr. Sorensen now wish to resolve this matter by way of a Consent Order.

Admissions

4. Mr. Sorensen admits the allegations as set out in the Citation, namely that in connection with an 11-storey concrete building originally known as the Danbrook One located at 2766 Claude Road, Langford, British Columbia [now known as the RidgeView at 2770 Claude Road, Langford, British Columbia] (the “Building”) for which Mr. Sorensen was the registered professional responsible for the structural design of the Building’s core and seismic elements, Mr. Sorensen acted contrary to the *EGA* as follows:

1. Mr. Sorensen demonstrated unprofessional conduct as certain aspects of the structural design of the Building's core elements (the "Building's Core Design") and of the seismic elements (the "Building's Seismic Design"), as depicted in design drawings dated June 11, 2019 (the "Structural Drawings"), do not comply with the 2012 British Columbia Building Code ("2012 BCBC") and CAN/CSA A23.3-04 Design of Concrete Structures ("CAN/CSA A23.3-04"), which standards Mr. Sorensen was obligated to meet.¹ In particular:
 - a. the flexural resistance of the core in the cantilever (North-South) direction of the Building is too high and therefore offers inadequate protection from failure in shear and the less ductile sections of the Building;
 - b. the coupled wall system in the East-West direction does not comply with the in-plane factored shear and flexural resistance requirements of the 2012 BCBC;
 - c. the embedment length for some of the header diagonal reinforcing in the Building's core is inadequate; and
 - d. the Structural Drawings contain incorrect and incomplete information regarding the seismic force resisting system used for the Building's Seismic Design, including: incorrect force reductions factors, missing header details for critical headers, and missing "typical" tie details for 8 bars.
2. The existence of the defects identified in paragraph 1 demonstrates incompetence on Mr. Sorensen's part.
3. Mr. Sorensen demonstrated unprofessional conduct by failing to undertake an adequate design process, in particular, Mr. Sorensen:
 - a. failed to take the time needed to properly prepare the Building's Core Design and the Building's Seismic Design;
 - b. failed to consider or design certain structural seismic elements located outside of the Building's core;
 - c. failed to integrate the Building's Core Design and the Building's Seismic Design with the overall structural design for the Building that was completed by Brian McClure, including with respect to the following elements of the Building, some of which are structural seismic elements located outside of the Building's core:

¹ Including updates No. 1 (December 2005), No. 2 (July 2007), and No. 3 (August 2009).

- i. the core footing, which is under-designed as its load and shear capacities do not meet the requirements of the 2012 BCBC;
 - ii. the overall foundation design scheme, which is inadequate to resist seismic forces;
 - iii. the long, thin gravity load walls on Level 1, which do not contain required buckling prevention ties or the required curvature capacity; and
 - iv. the gravity load columns on Levels 1, which do not contain required buckling prevention ties;
 - d. failed to integrate his design with, or sufficiently review, the Building's architectural design, including with respect to some of the core header depth and the minimum clear height required between floors; and
 - e. in breach of Bylaw 14(b)(2), Mr. Sorensen failed to obtain or perform regular, documented checks of his own engineering work in respect of the Building's Seismic Design and the Building's Core Design, including by failing to manually check the work he performed using ETABS building analysis and design software.
4. Mr. Sorensen demonstrated unprofessional conduct when he agreed with Mr. McClure that their engineering firm would take on the structural design for the Building with Mr. McClure acting as engineer of record, despite knowing that Mr. McClure lacked the training and ability required to competently complete the structural design for the Building.

Disposition

5. By consent, this Consent Order is made pursuant to section 73 of the *PGA*.
6. Mr. Sorensen's registration in Engineers and Geoscientists BC is cancelled effective December 31, 2022 (the "Cancellation Date").
7. Mr. Sorensen agrees not to apply for reinstatement of practicing status for a period of 18 months after the Cancellation Date.
8. If Mr. Sorensen wishes to apply for reinstatement of practicing status with Engineers and Geoscientists BC, in addition to complying with all requirements mandated by

the Bylaws of Engineers and Geoscientists BC and as deemed required by the Engineers and Geoscientists BC Credentials Committee, he must provide:

- a. a letter of explanation as to why he wishes to reinstate status as a practicing Professional Registrant;
 - b. a declaration that he has read and is familiar with applicable standards, policies, plans, and practices established by the government or by Engineers and Geoscientists BC, including applicable professional practice guidelines and advisories that are relevant to his intended practice;
 - c. a letter of explanation as to how he has maintained practice competency, including through the completion of continuing education;
 - d. professional references, in a number satisfactory to the Credentials Committee and who are able to attest to his good character, good repute, and practice competency;
 - e. a current professional record of his work experience;
 - f. evidence of completion of the Professional Engineering and Geoscience Practice in BC Online Seminar, at his own expense;
 - g. evidence of the successful completion of the Engineers and Geoscientists BC Professional Practice Examination, at his own expense; and
 - h. evidence that he has completed continuing education instruction in the following subject areas:
 - i. structural engineering requirements under the most recent edition of the British Columbia Building Code;
 - ii. Canadian Standard A23.3 for the design of concrete structures, including seismic design; and
 - iii. Canadian Standard S16:19 for the design of steel structures, including design for seismic resistance.
9. If Mr. Sorensen's practicing status is reinstated with Engineers and Geoscientists BC at any time in the future, any structural engineering work by Mr. Sorensen must be peer reviewed pursuant to Engineers and Geoscientists BC's Discipline Committee Ordered Peer Review Policy and the Professional Practice Guidelines

for Peer Review, by a peer reviewer approved by Engineers and Geoscientists BC's Registrar (the "Peer Reviewer") as follows:

- a. The peer review must continue for a minimum of either six months from the date a peer reviewer is approved by the Engineers and Geoscientists BC Registrar, or the completion of six structural engineering projects, whichever comes later (the "Peer Review Period");
 - b. The costs of the peer review, if any, shall be borne by Mr. Sorensen;
 - c. Following the Peer Review Period, Mr. Sorensen must obtain an opinion from the Peer Reviewer that Mr. Sorensen is competent to undertake structural engineering work and provide that opinion to Engineers and Geoscientists BC's Registrar.
 - d. If the opinion of the Peer Reviewer is that Mr. Sorensen requires further peer review, the Peer Review Period must continue for a period of either an additional six months, or completion of three additional structural engineering projects, whichever comes later (the "Extended Peer Review"). Following the Extended Peer Review Period, Mr. Sorensen must obtain a written opinion from the Peer Reviewer and provide that opinion to Engineers and Geoscientists BC's Registrar. Upon receipt by the Registrar of the final report from the Peer Reviewer, this condition will expire.
10. Mr. Sorensen will pay a fine in the amount of \$25,000. This amount will be paid by four equal installments to be paid every three months over the next 12 months following the date of this Consent Order.
 11. Mr. Sorensen will pay \$25,000 to Engineers and Geoscientists BC as a contribution towards the legal and investigative costs incurred in this matter. This amount will be paid by four equal installments to be paid every three months over the next 12 months following the date of this Consent Order.

Consequences of the Consent Order

12. The full text of this Consent Order will be published on the website of Engineers and Geoscientists BC, and a summary will be published in print and electronic publications, including in public communications.
13. This Consent Order has the same force and effect as an Order made under section 75 of the *PGA*.

14. Mr. Sorensen has received independent legal advice regarding the content of this Consent Order.
15. Mr. Sorensen and Engineers and Geoscientists BC 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. Sorensen and the members of the Discipline Resolution Panel this 6 day of January, 2023.

<original signed by>
Theodore (Ted) Sorensen, P.Eng.

Natalie Sorensen
Name of Witness

<original signed by>
Signature of Witness

<original signed by>
Colin E. Smith, FEC, FGC (Hon), P.Eng.
Member, Discipline Resolution Panel

<original signed by>
Neil A. Cumming, FACI, FEC, P.Eng.
Member, Discipline Resolution Panel

<original signed by>
John Wilson
Member, Discipline Resolution Panel