

W.D. Liam Finn (1933-2025)

Based on tributes by Mahdi Taiebat, Thava Thavaraj and colleagues at the University of British Columbia and the Vancouver geotechnical community



W.D. Liam Finn, Emeritus Professor, University of British Columbia, passed away in his 92nd year on December 23, 2025. He was one of Canada's most influential geotechnical professionals and a globally recognized leader. His influence on geotechnical earthquake engineering was both profound and will be enduring. Over a career spanning more than five decades, Finn reshaped the discipline through pioneering research, transformative teaching and a lifelong commitment to advancing seismic resilience of communities around the world.

Finn received his bachelor's degree in civil engineering from the National University of Ireland, in Dublin (1954), and his master's and PhD from the University of Washington, in Seattle (1957 and 1960, respectively). He joined the University of British Columbia's Civil Engineering Department in 1961. In the aftermath of the 1964 Niigata (Japan) and Alaska earthquakes, he turned his professional focus toward earthquake geotechnical engineering at a time when major seismic events were reshaping the understanding of soil behavior and motivating new approaches to liquefaction, site response, and seismic design. This shift defined the remainder of his career.

Finn's contributions touched on nearly every major facet of earthquake geotechnical engineering: advancing understanding of ground motions, site response, liquefaction, constitutive modelling, numerical analysis, soil-structure interaction, laboratory testing and performance-based design. Few individuals have ever contributed so broadly or so impactfully to seismic science that practicing engineers rely on today.

His landmark achievement, the development of an effective stress-based constitutive model for dynamic analysis, revolutionized how engineers simulate pore pressure generation and liquefaction under cyclic loading. This breakthrough provided the first practical framework for effective stress dynamic analysis of earth structures and remains a cornerstone of modern seismic design.

Much of Finn's academic career between 1961 and 1999 was at UBC, where he played a central role in establishing geotechnical earthquake engineering in Canada, including the

creation of the country's first university program in this field. He also held senior leadership roles at UBC, including Head of Civil Engineering and Dean of Applied Science.

Beyond the university, Finn contributed to professional practice and public policy through several decades of service on the Canadian National Committee for Earthquake Engineering, followed by the Standing Committee on Earthquake Design, which together formed the basis of the seismic provisions of the National Building Code of Canada. He also played a major role in the development of the Seismic Retrofit Guidelines for schools in British Columbia, a joint initiative of the provincial government and Engineers and Geoscientists of British Columbia. Finn worked extensively with the Vancouver consulting community as a specialist senior reviewer on high-profile projects.

Finn contributed to the international geotechnical earthquake engineering community through professional service and collaboration, including serving as Chair of the International Society for Soil Mechanics and Geotechnical Engineering's committee on Earthquake Geotechnical Engineering. His involvement supported international dialogue and cooperation during a formative period in the field's development. He also maintained international professional and academic connections in Japan, China and Russia, among others. From 2000 to 2008, Finn served as Editor-in-Chief of the International Journal of Soil Dynamics and Earthquake Engineering.

Throughout his career, Professor Finn was a prolific scholar (more than 400 papers) whose publications spanned a wide range of topics in earthquake geotechnical engineering, and his work was recognized with numerous professional honors and awards.

In Canada, among his Canadian Geotechnical Society honours, Finn was the recipient of the Robert Quigley Award (2001), the G. Geoff Meyerhof Award (2004) and CGS's highest award, the Robert F. Legget Medal (2011). He was selected twice as a CGS Cross Country Lecturer (1991 and 2001). Most recently, the Vancouver Geotechnical Society hosted a Legacy Lecture celebrating his life and contributions. He was awarded a Fellowship of the Engineering Institute of Canada (1999) and the EIC's K.Y. Lo Medal (2011) "for significant contributions at the international level".

Among his many international honours, he received American Society of Civil Engineering's H.B. Seed's Medal (2014), the Lifetime Achievement Award from the Shamsher Prakash Foundation (2016) and the prestigious Earthquake Engineering Research Institute's G.W. Housner Medal (2019). A 2001 symposium was held in his honour as part of the International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics.

Those who knew Liam Finn speak often of his warmth, humility and friendship. He welcomed students from around the world, supported Canadian and international colleagues with kindness and carried himself with a rare blend of brilliance and humanity. He encouraged deeper thinking and reminded others that engineering is ultimately about people. His legacy lives not only in the models we use and the codes we follow, but in the people he taught, mentored and inspired.