

PHILIP (PHIL) J. RIVARD (1926-2017)



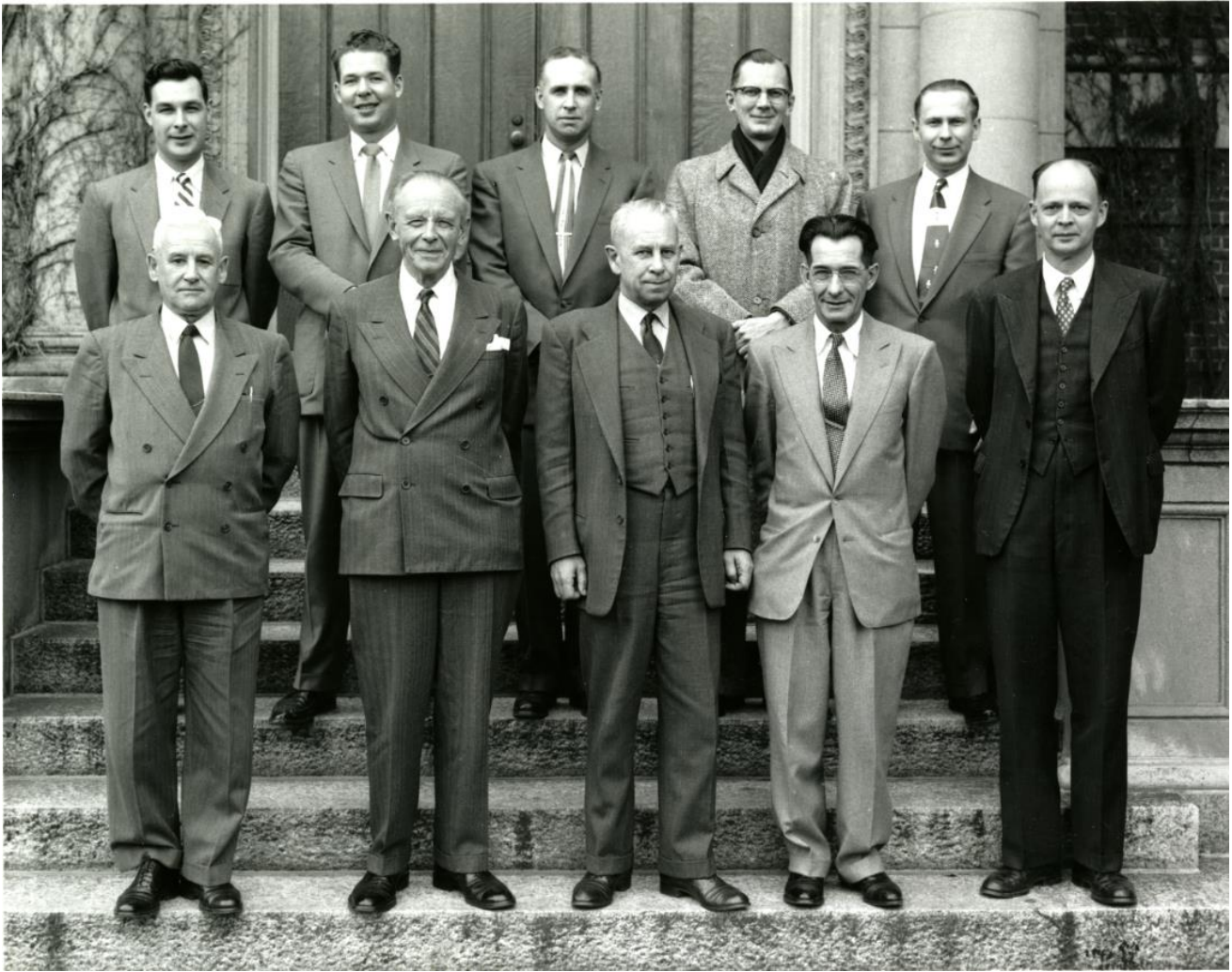
Philip (Phil) J. Rivard passed away on February 20, 2017 at the age of 90 years. He was born in Winnipeg and moved to Edmonton as a child. He graduated with his bachelor's and master's in civil engineering from the University of Alberta in 1948 and 1950, respectively. Phil was one of the first students to graduate from UofA's, then relatively new, geotechnical engineering graduate program.

Soon after graduating, Phil began working with the Geotechnical Division of the Prairie Farm Rehabilitation Administration (PFRA) in Saskatoon. His first project was associated with the early investigation and design phases for the South Saskatchewan River Dam (now known as the Gardiner Dam). Through his work with PFRA, he met Karl Terzaghi and Arthur Casagrande, who were consulting on various PFRA projects (see following photo). He was invited to go to Harvard University for a year to test, in Casagrande's soils laboratory, the Canadian prairie plastic clays from several PFRA projects. While at Harvard, he also acted as a teaching assistant in both Casagrande's and Terzaghi's classes.

Phil continued his geotechnical work with PFRA on many embankment dams across the prairies, until he retired in 1985. After retirement he worked as a consultant on the geotechnical aspects of earth dam design and construction. Phil also returned to university and earned a Bachelor of Fine Arts degree and pursued his love for art.

In 1998, and for several years thereafter, Phil presented a graduate course at the University of Saskatchewan on design philosophy and case histories associated with dams. As a result of compiling the information on dam design, construction and instrumentation from the PFRA files for this course, he started to write a book. He worked steadily on that book until 2014, when it was published as *Case Histories of Embankment Dams on the Prairies* (240 pages; Friesen Press, Victoria, BC).

Phil was a frequent attendee of the Canadian Geotechnical Conferences—attending his first conference, in Lethbridge, AB, as an undergraduate student in 1947 and attending one of his last conferences in Vancouver, BC in 1983. During that conference he spent a field trip-day with Ruth Terzaghi, wife of then the late Karl Terzaghi and herself a geologist.



Taken at Harvard University in 1952 during a Board of Consultants Meeting for the South Saskatchewan River Dam (Gardiner Dam). (photo from Nick Peters, PFRA)

Front Row (L to R): Gordon McKenzie, chief engineer PFRA; Karl Terzaghi, consultant; George Monroe, assistant chief engineer PFRA; Gordon Parkinson, chief design engineer PFRA; Arthur Casagrande, consultant

*Back Row (L to R): **Phil Rivard**, soil mechanics engineer PFRA; Jack Mollard, chief geologist PFRA; Gordon Watson, project engineer PFRA, Wendell Johnson, chief engineer US Army Corp of Engineers and consultant; Bob Peterson, chief soils mechanics and materials engineer PFRA*