Charles Farrar Ripley, 1922-2007

Charles F. Ripley, PEng died in Victoria, British Columbia on November 22, 2007, in his eighty-sixth year. Charlie was one of the last remaining of the pioneer practitioners in Canada of soil mechanics and foundation engineering, now known as geotechnical engineering.

Ripley was born on April 7, 1922 and raised in Lethbridge, southern Alberta. At the age of eighteen, he enrolled as a student in the civil engineering department at the University of Alberta, Edmonton. There he was inspired by the lectures and laboratory work in the new discipline of soil mechanics, first advocated in Canada by Professors I.F. Morrison and R.M. Hardy. As a student, Ripley worked on soil investigation for the wartime Alaska Highway. Later he continued post-graduate studies at Harvard University, guided by Drs. Karl Terzaghi and Arthur Casagrande, world leaders in this field.

On graduation in 1944, Ripley joined the Prairie Farm Rehabilitation Administration (PFRA), a federal government agency that was building water storage reservoirs, involving major earth dams, in the arid belt of the Canadian prairies. Under PFRA Chief Soil Mechanics and Materials Engineer Robert Peterson, Ripley was engaged on field investigations for the St. Mary/Milk River irrigation project (coincidentally not far from his home town) and as resident soils engineer on the St. Mary dam. This 200-foot high embankment built of clay was precedent setting in Canada -the first designed, constructed, and instrument-monitored dam based on soil mechanics principles in this country. Ripley also directed the initial geotechnical studies for the massive South Saskatchewan River project, including the site of the James G. Gardiner dam. As the representative for the PFRA, in 1947 he participated in the first Canadian soil mechanics conference, held in Ottawa.

In 1951 at the age of twenty-nine, Charlie founded Ripley and Associates in Vancouver, one of the earliest soil mechanics consulting practices in Canada. Joined by Earle Klohn and Cyril Leonoff in 1952, the firm became Ripley, Klohn & Leonoff Ltd of which Ripley remained president to 1970. The successor of this firm operating today is Klohn Crippen Berger, Engineering & Environmental Services.

Ripley with his firm consulted on many of the major post-war industrial projects in British Columbia, as well as nationally and internationally. Among these: site development for the Alcan Kitimat smelter, hydro-electric power projects, water supply dams and sewage treatment plants in Greater Vancouver, pulp and paper mill foundations, oil refinery and mining plant sites and tailings dams.

Ripley moved to Victoria in 1970 as a private consultant. One of his principal projects was as an advisor to the BC Controller of Water Rights on the safety of dams

and reservoirs in the province. He also authored several case histories on the performance of dams and industrial projects. He was a prominent member of the Engineering Institute of Canada (EIC) Vancouver Island Branch until the time of his death.

An active participant in engineering societies, Ripley won many awards, including the Gzowski medal of the EIC, the Legget medal of the Canadian Geotechnical Society, the Meritorious Achievement award of the BC Professional Engineers, and the initial award of the Vancouver Geotechnical Society of which he was the founder in 1953.

In a career spanning half a century, Charlie Ripley was an outspoken and consummate professional engineer. He was the pioneer geotechnical engineer resident in British Columbia and the mentor in this field to hundreds of engineers, clients, and contractors.

C.E. Leonoff