## Association of Professional Engineers and Geoscientists

of the

Province of Manitoba

## Merit Award

presented to

## JAMES (JIM) GRAHAM

B.Sc., Ph.D., D.Sc., FEIC, P.Eng.

Dr. Graham obtained a 1st Class honours Bachelor of Science degree in Civil Engineering from Queen's University, Belfast in 1960 and a Ph.D. from the same institution in 1967. His graduate work was followed by a one-year postdoctoral fellowship at the Norwegian Geotechnical Institute in Oslo. After some years on academic staff in Belfast, he moved to the Royal Military College of Canada in Kingston, Ontario in 1972. He came to the University of Manitoba in 1975, where he now holds the rank of professor. In 1988, Dr. Graham's research achievements were recognized by the award of a Doctor of Science degree (by thesis) by Queen's University, Belfast. He is now Keller Visiting Professor of Geotechnics at that university.

Dr. Graham has had a productive tenure at the University of Manitoba, where he teaches and researches in the field of geotechnical engineering. He is recognized as a world leader in the area of constitutive modeling of soil behaviour, unsaturated soil mechanics, and slope instability. Through his pioneering development with his graduate students of advanced testing equipment, he is able to subject soils to unique environmental conditions including high temperature, high pressure, chemical change and unsaturation, that few other laboratories in the world can match. This research and his reputation in the area of constitutive modeling led to his appointment as technical advisor to Atomic Energy of Canada Limited for examining the use of sand-bentonite 'buffer' in the safe underground disposal of nuclear fuel waste, a project of considerable national and international significance. He is also recognized for his research on slope instability, where he has published an innovative review of slope analysis, and on hydraulic conductivity of plastic clays and sand-clay mixtures. This latter work received 'Honourable Mention' at the recent annual conference of the Canadian Geotechnical Conference in Montreal. Dr. Graham has given many invited lectures and addresses in Canada and around the world. He has supervised 25 M.Sc. students, 10 Ph.D. students and three postdoctoral fellows. He has published more than 200 technical papers in refereed journals, conference publications, and engineering reports.

Dr. Graham has a strong commitment to excellence in education at both the undergraduate and postgraduate levels. In 1994, this commitment won him the prestigious H.H. Saunderson Award for Excellence in teaching at the University of Manitoba. Among many other prestigious invitations, he has presented keynote addresses on geotechnical education to Teachers of Geotechnical Subjects in the United Kingdom in 1991, to the Pan-American Soil Mechanics and Foundations Conference in Brazil in 1999 and the Pan-American Conference on Geotechnical Education in Mexico in 2000.

Dr. Graham has a noteworthy list of service to the profession. After serving as President of the Canadian Geotechnical Society in 1998-1999, he is currently its Director General. The Society serves approximately 1250 members and offers more than 100 meetings, conferences, workshops, etc. each year in all regions of Canada. He served as Scientific Editor of the Canadian Geotechnical Journal from 1984 to 1988, and was a member of the Civil Engineering Grant Selection Committee of NSERC from 1991 – 1993. He was appointed a Fellow of the Engineering Institute of Canada in 1988.

Jim Graham recognizes that these achievements have only been possible through the support of his many graduate students and research partners, and through the love and encouragement of his wife Jennifer, his three adult children and their partners, and most recently through the pleasure of welcoming his first grandson.

In awarding the Merit Award to Dr. James Graham, the Association acknowledges his outstanding scholarly achievements, including the direct advancement of the profession of engineering in Manitoba.

March 6, 2001