



Resume of Kelly Kruger, B.Sc., P.Eng.

EXPERIENCE

Kelly Kruger has over forty years of experience in the field of acoustics, mechanical noise and vibration. Kelly has worked on a wide range of projects including schools, sports facilities, hospitals, office buildings, auditoriums, courthouses and correctional facilities.

Kelly began his career with the Alberta Research Council and worked on the noise and vibration design of the initial leg of the Edmonton LRT system. During this time, Kelly developed a specialized track system used to isolate rail vibration.

In 1980 Kelly joined Alberta Infrastructure's Building Science Division where he was Manager of the Acoustics Section. Kelly was responsible for establishing acoustical design standards for all types of government infrastructure including schools, hospitals and office buildings. Over his tenure, many specialized studies were conducted including topics such as speech intelligibility in classrooms, acoustics in recreational and sports facilities, open plan office acoustics, neonatal acoustics, office privacy, and music room acoustics.

In 2010 Kelly joined the firm, Building Science Engineering Ltd. (BSE) which offers design, investigation, testing and commissioning services primarily related to the building envelope and acoustics.

Kelly's projects have covered a diverse range of acoustic design and commissioning. Notable recent projects include:

PROJECTS

MacEwan University, - New School of Business Building:
Develop comprehensive pre-design acoustic criteria for the facility including reverberation requirements for classrooms, sound isolation and mechanical noise control.

Red Deer College, Gary W Harris Canada Games Centre:
Pre-design services related to acoustic design including classroom and meeting room privacy, speech intelligibility, HVAC noise, arena and gymnasium reverberation control, fitness area impact noise isolation and community noise impact.

MacEwan University, Allard Hall - New Centre for Arts and Communications Building:
Develop preliminary acoustic design criteria for the facility. Perform comprehensive acoustical commissioning in critical rooms related to sound isolation including music rooms, classrooms, recital hall, and recording studios.

School Acoustics (Various Locations):

Acoustic design and commissioning of numerous schools to achieve appropriate acoustic characteristics. Recent school projects include; Alex Janvier (Edmonton), Aleda Patterson (Edmonton), Copperhaven (Spruce Grove), Sister Alphonse Academy (St. Albert), Mary Bergeron (Edson), JM Demko (St. Albert).

EDUCATION

- B.Sc. Mechanical Engineering
University of Alberta, 1975.

MEMBERSHIPS

- The Association of Professional Engineers and Geoscientists of Alberta
- The Canadian Acoustical Association.

PUBLICATIONS

- "Complexities of Curtain Wall Flanking Transmission - A Case Study". Journal of the Canadian Acoustical Association, Vol. 47, No. 3, 2019
- "Acoustical Design Case Study in an NICU Single Room Care Environment: Detailed Analysis of Design and Performance" 23rd Annual Gravens Conference on the Physical and Developmental Environment of the High Risk Infant, 2010.
- "Sound Field Systems Design Guide for Classrooms" Alberta Infrastructure - current on line publication, 2004-2005.
- "A Comparison of Subjective Speech Intelligibility Tests in Reverberant Environments". Journal of the Canadian Acoustical Association, Vol. 19, No. 4, 1991.
- "The Effect of Various Parameters on the Sound Isolation Between Offices with Suspended Ceilings". Journal of the Canadian Acoustical Association, Vol. 16, No. 2, 1988.