

Bringing quality
to the
built environment

Advanced Acoustical Assessment Procedures for Open-Plan Offices

Objective

To develop advanced procedures for evaluating acoustical conditions and diagnosing problems in open-plan offices.

Background

Developing better procedures for evaluating the acoustical conditions and diagnosing problems is an important part of efforts to improve acoustical conditions for workers in open-plan offices.

The measurement/diagnostic tool to be employed is based on impulse response measurement techniques that have been used extensively to evaluate meeting rooms and auditoriums. The technique will be adapted to measure speech privacy, in a less intrusive manner than with conventional measurements. Such improved measurements and diagnostics would make the systematic improvement of open-plan office acoustics a practical option. This is particularly important because acceptable conditions in open-plan offices require all of the details to be near optimum.

Statement of Work

- Thoroughly evaluate the viability of using impulse response measurements to assess speech privacy and to diagnose acoustical problems in open-plan offices
- Determine in more detail the requirements of such a measurement/diagnostics evaluation system
- Develop dedicated measurement software to make the required measurements and to provide convenient diagnostics tools
- Evaluate the new measurement/diagnostics software in a representative sample of open-plan office situations and rectify problems and limitations
- Explore ways of making the new measurement/diagnostic system widely available

Expected Outcome

- Measurement/diagnostic software for conveniently evaluating acoustical conditions in open-plan offices and for guiding the diagnosis and effective resolution of acoustical problems

Partner

Public Works and Government Services Canada

Start/Completion Dates

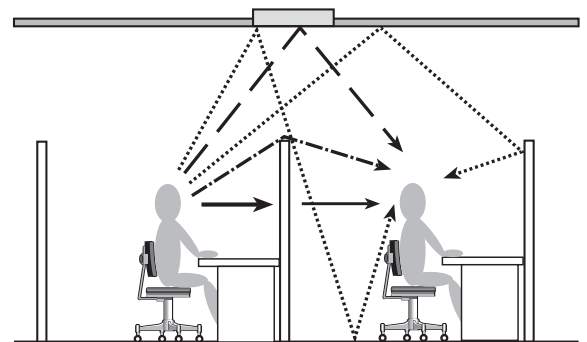
The project began in 2004 and will be completed in 2008.

Project Manager

Dr. J.S. Bradley: 613-993-9747; John.Bradley@nrc-cnrc.gc.ca

For more information, see http://irc.nrc-cnrc.gc.ca/ie/acoustics/assessproc_e.html

Factsheet 52, May 2005



Sound paths between workstations

