

RAMIN BEHBOUDI, M.ENG., P.ENG.

Associate Principal



Summary

Ramin Behboudi has more than 21 years of experience providing consulting in acoustics, noise and vibration control design and analysis for a wide range of projects. In addition to his extensive portfolio of work in the power generation sector, he has been involved in numerous other noise and vibration assessment and mitigation projects. He has appeared in court and hearings to give evidence and to provide litigation support. Ramin has conducted a number of acoustic and vibration training seminars in various Thornton Tomasetti offices, and has directed a thesis related to the acoustics of healthcare facilities at the Ontario College of Art & Design University (OCAD). Ramin joined Thornton Tomasetti in 2017 through its acquisition of Swallow Acoustic Consultants.

Areas of technical expertise

- Mechanical noise and vibration investigation and mitigation
- Structural vibration investigation and mitigation
- Interior acoustics
- Environmental noise and rail vibration
- Litigation support

Education

- Degree, Specialty, Year, Institution
- M. Eng., Mechanical Engineering, 2000, University of Toronto
- B. Eng., Aerospace Engineering, 1996, Ryerson University

Registrations

- Licensed Professional Engineer in Ontario

Professional activities

- Member, Association of Professional Engineers of Ontario

Select project experience

Municipal/Government

Waterloo Regional Consolidated Courthouse, Waterloo, ON. Acoustic and noise control recommendation services for a new 420,000-square-foot facility with 29 courtrooms. Recommendations for the P3 project included control of exterior noise and provision for a quiet indoor environment.

Cultural and Worship/Sports/Performance

Laurier Brantford YMCA Athletics and Recreation Centre, Brantford, ON. Acoustical consulting services, including acoustics, noise and vibration control, for a five-storey, 162,500-square-foot athletics and recreation center, consisting of gyms, a pool, fitness rooms, a cafe and other areas. The building is a partnership between Wilfrid Laurier University's Brantford campus and the YMCA.

Higher Education/Student Life/Residential

University of Toronto, Innovation Centre, Mississauga, ON. Acoustical consulting services for the four-storey addition to the existing two-storey Kaneff Centre that serves the business, commerce and management programs. Scope included acoustics, noise and vibration control for the case-study rooms, behavioural research labs and multipurpose space beneath the rotunda.

Healthcare

Casey House HIV / AIDS Health Care Centre, Toronto, ON. Acoustic consulting services, including acoustic, noise and vibration control design, for a 58,000-square-foot hospital to provide inpatient and day-health care. The project combines new construction and the renovation of a heritage property. Scope includes room acoustics, partition analysis, mechanical noise and vibration isolation and duct-borne noise control.

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Residential/Hospitality

Four Seasons Hotel & Residence, Toronto, ON. Acoustical design services for two towers housing a 257-room hotel, 204 luxury condominiums, and conference center with a ballroom, banquet hall and meeting rooms. Scope included the acoustical separation of condominium and hotel suites and consulting for reduction of general HVAC, electrical and mechanical room noise and vibration. The team provided commissioning testing to verify performance upon completing of construction.

Tuned Mass Damper

T-Mobile Arena, Las Vegas, NV, USA. Tuned mass damper design, testing and commissioning services for a 670,000-square-foot, 18,500-seat multipurpose event center. The facility will host a range of functions, with the potential to house NBA and NHL games, concerts, boxing, mixed martial arts programs and award shows. Thornton Tomasetti also provided structural engineering services.

Commercial

Bremner Tower, 20 York Street, Fitness Area, Toronto, ON. Acoustical consulting services for a fitness area fit-out on the third floor of the new 30-storey commercial tower. Services included a vibration assessment and noise control recommendations.

Power Generation

Vanderweil Engineers, MATEP LLC, Bonston, MA. Acoustical assessment and noise control recommendations for a gas compressor package.

Litigation Support

Hard Luck Bar, Toronto, ON. Noise transfer from a live music venue to the neighboring buildings in a residential neighborhood. Appearance and sworn testimony in court. Noise transfer assessment, litigation support for Tsantis Law.

Toronto Market Street Expansion, Toronto, ON. Environmental noise impact study related to construction of new restaurants in a residential neighborhood. Appearance and sworn testimony in a municipal hearing. Litigation support for Vassos Law LLP.

Exim 25 Bellair Street, Toronto, ON. Construction vibration monitoring, forensic investigation and litigation support for McMillan LLP.

MATEP LLC, Boston, MA. Compressor enclosure noise emission study, compliance assessment, acoustic investigation, mitigation and litigation support for Locke Lord LLP.

Gyukaku Restaurant, Toronto, ON. Restaurant noise and vibration transfer study within a mixed-use building. Investigation, acoustic mitigation and litigation support for Macdonald Sager Manis LLP.

One of a Kind Pasta Restaurant, Toronto, ON. Restaurant noise and vibration transfer to a neighboring building. Acoustic assessment, mitigation and litigation support for Borden Ladner Gervais LLP.

TSCC #1790, 601 Kingston Road, Toronto, ON. Gym noise and vibration transfer in a mixed-use building. Analysis, investigation and litigation support for Fine & Deo Condominium Lawyers.

TSCC #1806, 3650 Kingston Road, Toronto, ON. Transformer noise transfer in a residential building. Investigation and litigation support for Baldwin Sennecke Halman LLP.

MCC #156, 733 Deveron Crescent, London, ON. Noise transfer between residential suites. Investigation and litigation support for Fine & Deo Condominium Lawyers.

TSCC #2172, 35 Hollywood Avenue, Toronto, ON. Chiller noise transfer in a residential building. Investigation and litigation support for Fine & Deo Condominium Lawyers.

CrossFit Bolton, 77 Pillsworth Road, Bolton, ON. Gym noise and vibration transfer in a commercial complex. Assessment, mitigation and litigation support for Fine & Deo Condominium Lawyers.

Select papers, lectures and publications

"Soundscape in Dementia Care Environment," Proceedings of the 177th Meeting of the Acoustical Society of America in Louisville, KY, May 2019.

"Microphone Probe for In-Duct Measurement of Gas Turbine Exhaust Noise," Proceedings of ASME Turbo Show, Munich, Germany, May 2000 (co-author).

"Using Tuned Mass Dampers to Control Imperceptible Motions," Proceedings of the 32st International Modal Analysis Conference, Orlando, FL, February 2014 (co-author).

CONTACT

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