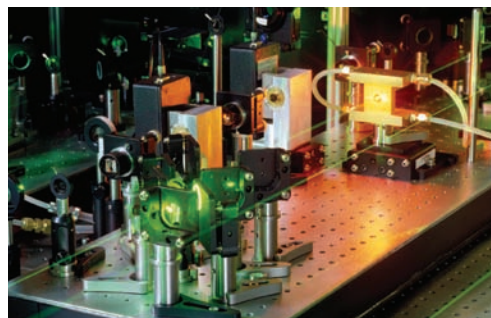


Integrated Services for Laboratory Design

Novus understands laboratory design. Our experts help you achieve balance between competing requirements for air quality, acoustics, vibration and the microclimate. The services we provide contribute to the overall indoor and outdoor environmental quality of the building. The Novus team has experience with guiding the design, re-use and renovation of hundreds of laboratories across the world. These include research, teaching and production facilities found in universities, private industry (pharmaceutical, biotechnology, microelectronics, petrochemical), governments, national laboratories and healthcare.

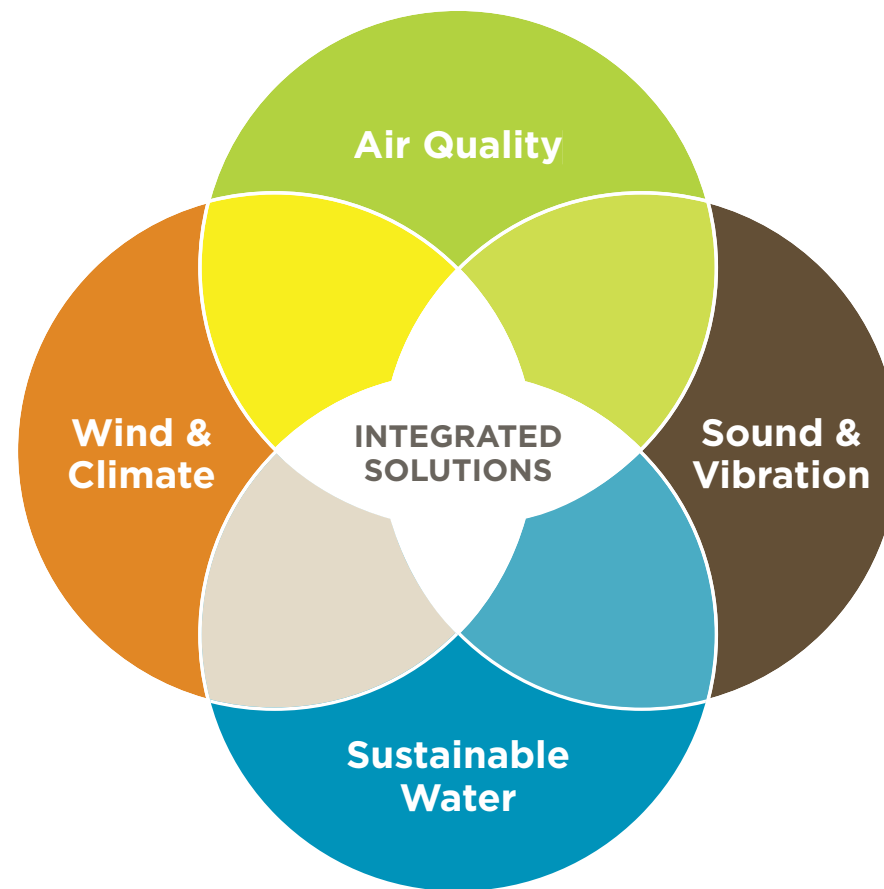


SERVICES

- Room Acoustics
- Sound Isolation
- Vibration Control
- Exhaust Re-Entrainment
- Ventilation Modeling
- Wind Studies
- Site Specific Climate Data

WHY NOVUS:

- Extensive experience with laboratory facility design throughout the world
- Direct access to senior consultants
- State-of-the-art tools and modeling for technical assessments
- Field testing, forensic investigations and site assessment capabilities
- Seasoned experience with design development and building re-use projects



AIR QUALITY

- Exhaust source characterization and dispersion modeling (e.g., central energy plants, standby generators, kitchens, helipads, vehicles, etc.)
- Optimization of exhaust and air intake designs
- Computational fluid dynamics (CFD) modeling
- Criteria development
- Wind tunnel tracer gas testing
- Environmental approval

WIND & CLIMATE

- Enhances comfort in outdoor amenity spaces and healing gardens
- Snow impacts on building access and function (e.g., HVAC)
- Effects of climate change on the environmental performance of the building
- Wind tunnel testing
- Developing site specific climate data

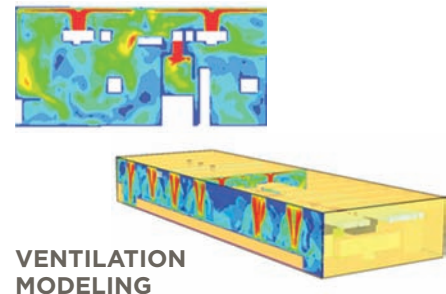
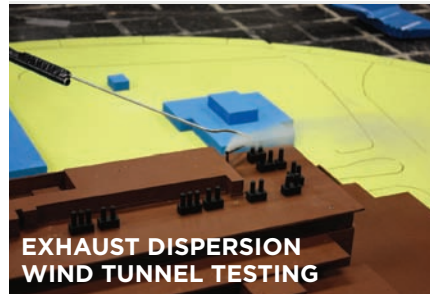
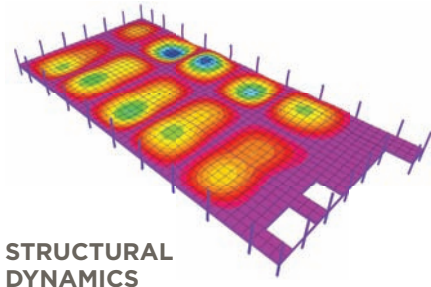
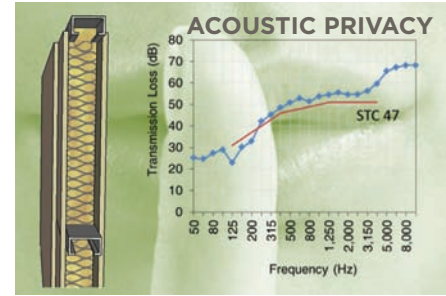
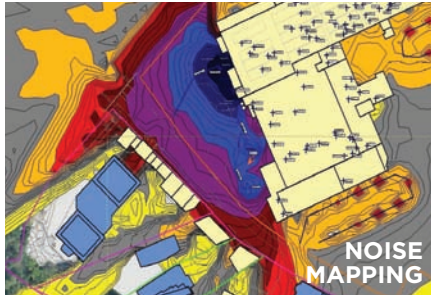
SOUND

- Architectural acoustics to promote occupant comfort, staff productivity, and retention
- Building systems noise control
- Sound isolation and speech privacy
- Noise impacts on the building and environmental permitting

VIBRATION

- Environmental vibration impacts (e.g., road, rail, industrial)
- Building systems vibration control (e.g., physical plant, loading dock and helipad)
- Floor dynamics vibration
- Construction Vibration
- Assessment and control of vibration for vibration-sensitive equipment

State-of-the-art tools



Our experts have contributed to the design of hundreds of facilities, including: Columbia University Graduate and Medical Education Center, New York, NY • Columbia U. Manhattanville Campus Master Plan Environmental Assessment – New York, NY • Cornell University Animal Health Diagnostic Center – Ithaca, NY • Dartmouth College Life Sciences Building – Hanover, NH • Emory University Whitehead Research Building – Atlanta, GA • Forensics Services and Corner's Complex – Toronto, ON • King Abdullah University of Science & Technology – Jeddah, KSA • Medical College of Wisconsin, Children's Research Institute – Wausau, WI • Middle Tennessee State University – Murfreesboro, TN • MIT Building 2, 4, 6 Infill – Cambridge, MA • Penn State Millennium Science Complex – University Park, PA • Rutgers University Wright – Riemann Chemistry Building – New Brunswick, NJ • The Broad Institute of MIT and Harvard – Cambridge, MA • The Center of Excellence in Nano Mechanical

Qualified and experienced Consultants that **listen** and provide **practical solutions.**

Science and Engineering – Ann Arbor, MI • University of Arizona Biosciences Partnership Building – Phoenix, AZ • University of California San Diego Powell-Focht Research Bldg – San Diego, CA • University of Illinois NMTL – Urbana, IL • University of Michigan N. Campus Chiller Plant – Ann Arbor, MI • University of Michigan Solid State Electronics Lab – Ann Arbor, MI • University of North Florida Science & Humanities Building – Jacksonville, FL • University of Texas Dell Medical School – Austin, TX • University of Victoria Telescope Observatory – Victoria, B.C. • University of Washington Bio Engineering & Genomics Research Building – Seattle, WA • UPITT Nuclear Physics Laboratory – Pittsburgh, PA • US Naval Academy Chauvenet Hall – Annapolis, MD • Vanderbilt University TEAM Building – Nashville, TN • Yale University Kline Chemistry Laboratory – New Haven, CT • Yale University, Anlyan Center for Medical Research – New Haven, CT



EMAIL info@novusenv.com
novusenv.com

Novus Environmental Inc.
 Research Park Centre
 150 Research Lane, Suite 105
 Guelph, Ontario, Canada N1G 4T2
PHONE 226.706.8080

Harmonizing the built and natural environments