



Trent Crime Scene Lab & Classroom Facility

Peterborough, Ontario

Services Provided:

- ❑ Energy Consulting
- ❑ Mechanical Design
- ❑ Solar PV Engineering
- ❑ Air-Tightness
- ❑ Measurement & Verification

Fast Facts:

Project Type: University
Certification: Zero Carbon (pursuit) – Net Zero Energy
Project Span: 2019 / 2020

Notable Achievements:

Energy Savings: 100%
Water Savings: 30%
Renewable Energy: 45 kW

Reference Contact:

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The Trent Forensics Department lab and classroom facility includes a mixed use of crime scene staging laboratories and classroom instructional space. This project was crafted to expand the award winning Forensics Sciences program at Trent University.

The project is pursuing Net Zero Carbon designation through the Living Futures Institute through demonstrated energy consumption and onsite energy generation through a 45 kW rooftop mounted net metered solar photovoltaic system.

From the project inception, Measurement & Verification was a key objective set out by the team. Zon Engineering Inc. worked with Trent University to integrate a metering system through their standard energy management platform, as well as a solar net metering display.

The project included a wide variety of energy efficiency technologies, including:

- ❑ Cold climate Air Source Heat Pump (ASHP) system for space heating and cooling.
- ❑ Enhanced insulation levels in the wall and roof assemblies & air tightness and infrared imaging verification and testing.
- ❑ A dedicated outdoor air system with an energy recovery ventilator (ERV).
- ❑ An energy efficient lighting design utilizing fluorescent lighting combined with daylight and occupancy sensors.

