



Provenance Lane

14 Provenance Lane



Project Summary

Located in the heart of Toronto, Provenance Lane is a 31-unit laneway housing development providing an alternative to condominium development. The project offers significantly reduced energy usage and meets the requirements of the Department of Energy's Net Zero Ready Homes Program.



Relevance of Project to the Goals of the Competition

Provenance Lane is designed as a livable, sustainable project. The result is an affordable, highly efficient home that uses 75% less energy than the average Canadian home. This is achieved through the combination of a high performance building envelope with efficient mechanical systems. The project is a prototype for both laneway and net zero development, while meeting current market trends.

Design Strategy and Key Points

By investing in a high quality envelope, heating and cooling loads are minimized. SIP panel construction reduces construction time while also providing structure, insulation, and airtightness. A ground source heat pump drives radiant floors for heating, and a fan coil for summer cooling. Efficient use of space results in a highly livable space, even with the building's small footprint.

Project Data

- Toronto, Ontario, Canada
- Climate Zone 6
- 960 sq. ft.
- 2 bed, 1.5 bath, 2 storeys
- HERS Score 43
- \$60 estimated average monthly utility cost (\$0 with solar panels)

Technical Specifications

- Wall insulation = R38
- Foundation Insulation = R40
- Roof Insulation = R48
- Window Performance = U 0.17, 0.37 SHGC
- HVAC specifications = GSHP, Hydronic Radiant Floor Heating, ERV, Fan-Coil