



Laurier Avenue Geothermal Project Feasibility Study

Presentation to City of Toronto Environmental Executive
November 22, 2010

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Overview of Presentation

- Purpose of the study
- Overview of Laurier Avenue
- Highlights of the study
 - Opportunities
 - Obstacles
- Next steps



Purpose of the Study

- To assess opportunities and obstacles of energy efficient retrofits of heritage homes
- To compare energy-efficient technologies
- Identify financing possibilities
- To assess potential of permeable road re-surfacing
- Develop a plan for implementation



Overview of Laurier Ave



Green & LAURIER

Overview of Laurier Ave

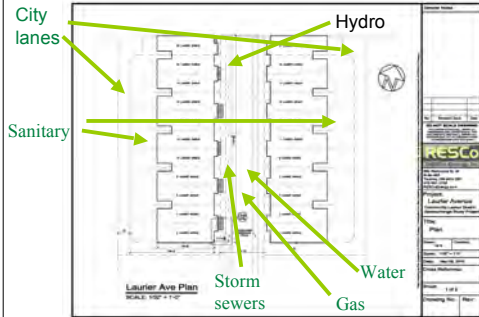
3 & 5
Laurier Ave.



- 22 rowhouses
- 1888
- ~ 1500 sq ft
- heritage homes
- natural gas & oil

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Overview of Laurier Ave



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Overview of Laurier Ave

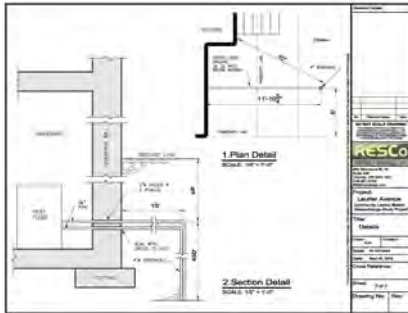
2 & 4
Laurier



- overhead hydro
- small yards

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Overview of Laurier Ave



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Overview of Laurier Ave

20 & 22
Laurier



some
obstacles
- trees
- fences

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Overview of Laurier Ave

Public Lane (west) - 10'



Many Obstacles
- trees
- fences



Overview of Laurier Ave

Public Lane (east) - 10'



Difficult to access lane for drilling
- trees
- fences



Highlights of the Study - 1

Opportunities for Geothermal Systems

- best efficiency - 1 unit energy input => 3+ thermal units
- technology is reliable and well tested
- provides long-term energy/service strategies
- will help preserve neighbourhood heritage architecture
- low GHG emissions - limited only by electricity supply
- geothermal 'utility' could have bigger impact than EnWave
- addresses critical aspect of city's *Power to Live Green* plan



Highlights of the Study - 2

Obstacles

- high capital costs
- lack of awareness of geothermal technologies
- lack of accessible private property
- no streamlined approval system for geothermal
- high fees for implementation (one-time & ongoing)
- need interior retrofits to maximize geothermal benefits
- time constraint for Eco-Energy Rebates



Next Steps...

Short-term (what we need)

- geothermal permitting process that is streamlined
- plan for existing homeowners with EcoEnergy audits
- relief from fees to enable piloting individual systems
- consider plan for prototype of 'utility-approach' on Laurier
- *Green Laurier* wants to help support public education

Longer-Term

- explore notion of city-wide, utility-approach to geothermal
- test impacts of *Green Laurier* strategies on Cabbagetown



Thank You!

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