

121 Parkway Forest Drive



This 14-storey, 232-unit building is one of many in a cluster of high rises south of Sheppard Avenue in Toronto. It is one of relatively few affordable housing projects built in recent years in Toronto. Developed by Verdiroc under the Canada-Ontario Affordable Housing Program with funding from three levels of government, 121 Parkway is also a green building. It has high efficiency chillers and boilers, energy efficient lighting, extra insulation and better windows.

The owner and team along with Caneta explored a number of energy measures in the early design phase. With a limited budget and little experience with energy efficient design in rental buildings, the owner and design team were understandably cautious and many measures were excluded as being too advanced for the building. The objective was to qualify the design for the CBIP incentive.

Energy Efficiency Measures

- 4 gas-fired boilers heat the building and outside air to corridors with 87% thermal efficiency. The chilled water for cooling is generated by an efficient centrifugal chiller.
- A 94% thermal efficiency furnace heats the common areas on the ground floor.
- The average thermal resistance (RSI) of the walls varies from 2.3 to 4.0 (MNECB RSI-value is 1.7).
- Windows have a USI varying between 1.98 and 2.18 (MNECB USI-value is 3.28 W/m² °C).
- Both fluorescent and compact fluorescent fixtures are used in this building. Most of the fixtures used in the apartment suites are

compact fluorescent type. Some of the public spaces like the multi-purpose room and wash rooms are provided with occupancy sensors to control lighting.

- Low-flow faucets reduce hot water consumption.

Caneta Services

Energy Modelling
Advising design team on energy efficiency measures

Performance

Energy Savings relative to MNECB:
27%
Estimated annual energy savings:
\$53,423

Building Summary

Location: Toronto, Ontario
Completed: 2006
Building Area: 16,625 m²