



Mechanical System Upgrade: 45 Dunfield Avenue, Toronto

Construction Year: 1967
 Number of Units: 575
 Gross Floor Area: 55,896m²
 Number of Floors: 28

Heating Fuel Source: Natural Gas
 DHW Fuel Source: Natural Gas
 Cooling: 25% of suites have window A/C units
 Tenancy: Mix of Family and Single

The Torontonian is a large 575 unit apartment tower located at 45 Dunfield Ave. in the Yonge – Eglinton area of Toronto.

During May to September of 2013, the heating plant was completely renovated, with new boilers, piping and building automation system (BAS). In addition hot water risers were replaced, and an adapted 'campus style' heating distribution system was used to maximize efficiency and control. The fire-tube boilers that were replaced were significantly oversized and inefficient.



The goals were to maximize energy efficiency, increase reliability, improve resident comfort, and increase the asset value while freeing up space for a district heating system to provide energy for possible future construction at this site.



In its first year of operation, gas consumption was reduced by more than 90,000 m³, together with improved comfort for residents and enough space made available in the boiler room to build an energy centre for future buildings currently in the planning stage on site. At a 5% CAP rate, this is equivalent to an increase in asset value of \$540,000.

Shiplake Properties, the owners of 45 Dunfield, had previously installed energy monitoring software and as a result were well positioned to make a business case for the project. By participating in the City of Toronto Tower Renewal Program they were able to further substantiate results through the Tower Benchmark which showed their level of efficiency as compared to 200 similar residential buildings. 45 Dunfield uses close to half the energy of the average building the same size in the GTA, a comparative annual saving of over \$290,000. Using a CAP rate of 5%, typical for central Toronto, a \$1 saving on utility costs translates into a \$20 increase in building capital value. In the case of 45 Dunfield, the \$290,000 utility saving translates to an increase in property value of over \$5 million. On many levels, investment in conservation just makes good sense.