

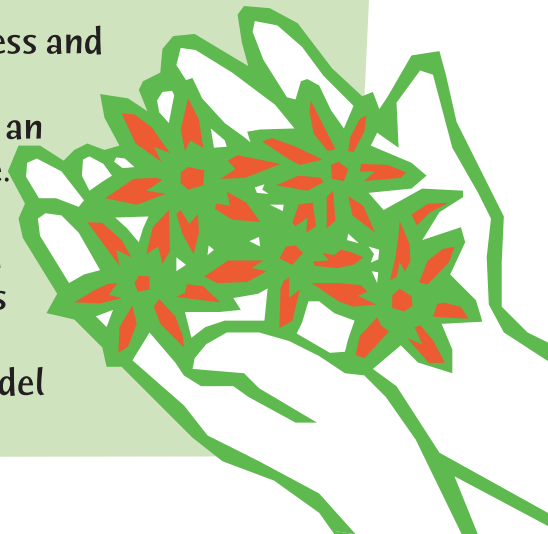
Hugh Garner Housing Co-operative



Green roofs come in two forms. 'Extensive' green roofs house soil and plants which act as the stabilizer in the roofing system, providing a host of environmental benefits over the usual gravel as well as cost savings and health benefits. 'Intensive' green roofs are accessible by residents – the soil and plants are part of a rooftop outdoor social space providing environmental benefits, cost savings, health benefits and a park where there once was just a roof. The Co-op has planned both types, along with innovative energy and water saving systems.

Roof Garden Benefits

- Shade structures, evaporative cooling, solar thermal collectors, photovoltaic, skylights etc. contribute to **energy savings** and reduced **green house gas emissions**
- Varied surfaces provide ideal conditions for **biodiversity**; insects, butterflies, trees, flowers and shrubs will flourish on the roof.
- Lower roof temperature **reduces the heat island effect** common in cities.
- Green roofs **clean the air** and improve local air quality!
- The roof garden will be **attractive** to residents of the neighbouring high-rise apartment buildings.
- **Diverting storm water** for irrigation reduces the load on City of Toronto storm sewers.
- **Barrier free** paths and planters provides outdoor access and gardening for all residents.
- Roof gardens make 'double use' of real estate and are an **untapped resource** for enjoyable outdoor green space.
- The garden will serve as a **learning** environment for residents and the community on issues of energy and resource efficiency, biodiversity, barrier free gardens and gardening, storm water management, renewable energy sources, etc and will serve as an inspiring model for all buildings!



Green Roof Plans

South Roof Features

The 'intensive' **South Roof** (totalling approximately 14,000 square feet) is available for the enjoyment of residents and community groups using the Co-op's facilities

- 'wild garden' with mixture of trees, shrubs, and planting beds
- varying soil depth
- barrier free walkways and covered seating areas
- a 'stream', circulating pool, fountain
- stormwater management irrigation system and a photovoltaic solar electricity display
- butterfly habitat and birdhouses

North Roof Features

The 'extensive' **North Roof** (approximately 8,000 square feet) is reserved for flowers and alternative energy sources

- field of hardy low alpine planting
- 6" soil depth
- energy and water saving systems

Alternative Energy Components

- Evaporative Cooling System
- Solar Hot Water
- Solar Electricity
- Ventilation for Occupancy
- Summer Passive Cooling
- Stormwater Reservoir/Irrigation System

Co-operatives promote individual responsibility, mutual help, democracy, equity, ethical values of honesty, openness and concern for others and for the wider society.

Budget

Roofing	\$284,560.00
Green Roof	399,355.00
Mechanical/Electrical	198,500.00
Other	99,000.00
Less Hugh Garner Co-op Fund	(110,460.00)
Total	\$601,955.00 Plus GST

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