



OLD GRACE HOUSING CO-OP

200 ARLINGTON ST.,
WINNIPEG, MB

^ View of the central courtyard space.

Old Grace Housing Co-op is an inter-generational, mixed-income, architecturally distinctive and environmentally sustainable co-operative housing project located in the heart of Winnipeg's Wolseley Community.

Located at Arlington and Preston on the site of the original Grace Hospital in the heart of Wolseley, the co-operative will provide 60 units of mixed-income housing. Construction began in August 2016 and occupancy started in 2018.

In keeping with the tradition and spirit of the neighbourhood, the Old Grace Housing Co-operative membership is committed to the principles of co-operation, sustainability, and affordability. The development will feature: a range of one, two, three, and four-bedroom units; multiple sunlit commons and lounge areas; an exterior plaza and courtyard. All indoor and outdoor common areas are fully wheelchair accessible.

The building features articulated and varied facades which reference current Wolseley housing scale, forms, and materials in order to better fit within and enhance the existing community. Many ground floor units include porches and entrances which face the street or courtyard to engage the public and promote openness and community interaction. Second and third-floor units either include balconies or expanded interior spaces. Additionally, professionally designed landscape features, yards, and gardens beautify the site and the community.

This development also features a full sprinkler system, secure lobby, laundry facilities, rentable guest suites, bike storage, individual unit heat controls, car co-op vehicles, and several accessible suites.



▲ View of the Arlington Street elevation with the main entrance path and arch at the right.



▲ View of the Arlington Street elevation, looking north towards existing homes that represent the residential character of the neighbourhood.



▲ Evening view from the corner of Arlington Street and Preston Avenue. A careful lighting strategy accents the entrance and building signage, but minimizes light pollution.



▲ View of the covered Arlington St. entrance and Commons from the courtyard.



▲ Rain gardens, porches, and narrow yards along the sidewalk enliven the street.



▲ View of the Chimney Swift habitat within the courtyard. Commons to the right.

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▲ The full Arlington Street elevation.

Following is a summary of the health, performance and environmental features of the building based on LEED® (Leadership in Energy and Environmental Design) criteria:

quick facts

LEED®:	Targeting LEED® Silver
client:	Old Grace Housing Coop
location:	200 Arlington St., Winnipeg, MB
contractor:	Concord Projects
consultants:	S/ Crosier Kilgour M/ Epp Siepman Eng. E/ Epp Siepman Eng. L/ HTFC
area:	67,030 SF
status:	Opened 2019

Sustainable Sites

The Old Grace Housing Co-operative is built within the Wolseley neighbourhood, within one of Winnipeg's oldest neighbourhoods. Situated on the cusp of downtown, this residential building is within walking distance of several amenities in any direction, with multiple transit stops to make the Co-op accessible to and from all parts of the city.

More open space than required by zoning has been provided for the children to enjoy the natural environment, occupying over 42% of the site area. Exceeding minimum requirements, the space will remain open and vegetated for the life of the Co-op.

Careful thought and planning were put into the interior and exterior lighting design, so as to reduce light pollution into the night sky and adjacent land.

Prior to the construction of Old Grace Housing Cooperative, stood Old Grace Hospital. The hospital had a chimney stack that was inhabited by Chimney Swifts. As part of the design of Old Grace Housing Cooperative a chimney swift habitat was designed to provide a new home for the swifts. The chimney swift's active season is mid-May to end of August. Birds typically nest within or next to heated part of a building (several metres from chimney top/ well below roof level). The habitat was designed to be 11.8m tall and has a clear dimension of 2500mm by 460mm. The inside of the habitat is a continuous rough surface of concrete block and mortar for the swifts to latch their feet to. There is a lockable clean-out at the base of the chimney. Prairie consulted with Manitoba Conservation and Water Stewardship who will provide seasonal examination of the contents of the habitat.

Regional Priority

Regional priority focuses on giving extra weighting to existing credits that are important to a particular region. Site Selection, Development Density and Community Connectivity, and Water Use reduction are all identified as important for urban Manitoba sites.

Innovation & Design Process

A large part of the design process involved several design charettes, community meetings, outreach, feedback, support from various levels of government, local business, local community members and more. Additionally, 50% of suites are available for affordable shares and affordable rent costs for lower-moderate income households.

Materials & Resources

Together, the contractor and sustainability team have diverted over 95% of construction waste from the landfill for reuse, recycle, or repurposing. Currently, over 19% of new materials, including rebar, concrete, and millwork, contain recycled content and many new building materials used were extracted and manufactured within an 800km radius of the project site (or transported by rail within a 2400km radius).



▲ The library is well-lit with natural daylight.



▲ Evanson Street entrance.



▲ The lounge area of the interior Commons.



▲ View from the dining area of the Commons, looking towards the outdoor courtyard. Kitchen to the right.



▲ *The Kitchen within the Commons space.*

Integrated Design Process

The Old Grace Housing Co-operative has been designed using an Integrated Design Process, whereby team members are able to advocate how system/design decisions impact their specific discipline. This results in decisions that have been critically evaluated and that aren't made without full understanding of their impact. During the design process, the project team reviewed several options for HVAC systems and compared them among many criteria, such as: energy savings, capital cost, life-cycle cost, and Greenhouse Gas emissions.

Water Efficiency

The Coop maximizes water efficiency with the use of low flow fixtures and aerated faucets, with over a 46% reduction in potable water use. The fixtures alone contribute to these exemplary water savings.

There is no permanent irrigation equipment needed for the Co-op's green spaces, as landscape design includes native, drought-tolerant species that will not require irrigation once established.

Indoor Environmental Quality

The Old Grace Housing Cooperative is a non-smoking building, and grounds. The building has been designed with optimal ventilation to provide excellent indoor air quality for residents and their guests. All carpet, paints and coatings used in the building were specifically chosen to have a low level of Volatile Organic Compounds (VOC). VOCs can cause irritating effects or health issues for the installers as well as the building occupants. All composite wood used, including plywood, MDF and particleboard, contains no added urea-formaldehyde.

An Indoor Air Quality Management Plan was in effect during construction and included measures such as covering openings in ductwork, keeping a clean worksite and scheduling to protect the indoor air quality of the building.

With occupant comfort of the utmost importance, outdoor air and humidity monitoring is integrated into the mechanical system controls. Rooms in the Co-op are designed with a high degree of controllability for users (accessible lighting and thermal comfort controls).

The Co-op was designed so that 96% of regularly occupied spaces have views to the outdoors and that all regularly occupied spaces receive natural light.

Energy & Atmosphere

Elements of the building design were selected to maximize occupant comfort and minimize energy consumption. The HVAC system will contribute to an energy cost savings of an 29% compared to a baseline building designed with the ASHRAE 90.1-2007 standards, with most of the savings found in space heating and interior lighting. Energy conservation design features include:

- Increased insulation
- Reduced lighting power densities
- Exhaust air heat recovery (air to air)
- Triple glazed windows
- Reduced interior & exterior lighting power densities
- Interior lighting controls
- Low flow service hot water fixtures
- High efficiency service water heating system

To ensure the mechanical system is functioning as the design team intended, a commissioning agent has been a part of the design process, acting as a third-party reviewer of the system design for the Owner.

To minimize the impact of the building on the depletion of the ozone layer, all systems are CFC and HCFC free, and the fire suppression system contains no halons.



eco-facts


Housing Cooperative Ltd.

Old Grace Housing Cooperative
200 Arlington St., Winnipeg, MB
www.oldgracehousingcoop.ca



This project is targeting
LEED® Silver Certification.

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