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## Southeast False Creek - Olympic Village

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### Location

212 W. 1st  
Vancouver, BC

## Content Type

- Building

## Certifications & Awards

### project team

- Architect: Merrick Architecture
- Architects: Nick Milkovich Architects with Arthur Erickson Walter Francl Architecture Ltd.
- LEED Consulting: Recollective Consulting

## Summary

Vancouver's Olympic Village on the Southeast False Creek (SEFC) site is designed to be a model of a sustainable neighbourhood. The site is about seven hectares in size and will consist of over 20 buildings, with approximately 1.5 million square feet of residential development. All SEFC buildings are designed to LEED Gold standard, with the community centre pursuing LEED Platinum. When completed, this will be the largest development project to be certified in Canada.

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SEFC was planned as a model sustainable development based on environmental, social and economic principles, and as a complete community, ensures goods and services within walking distance and housing that is linked by transit and in proximity to local jobs.

The buildings in the Olympic Village housed 2,800 athletes and officials during the 2010 Winter Games and will now become permanent residential housing, with a focus on housing for families. It will be a mixed-use community and will contribute about 1,100 residential units (250 of which will become affordable housing, and another 100 units will become modest market housing).

By 2020, the Southeast False Creek neighbourhood is anticipated to be home to 12,000 to 16,000 people and will have 6,000,000 sq ft of development, and will include:

- more than 5,000 residential units
- a mid-size grocery store and community serving retail/services
- a community centre
- a non-motorized boating facility
- 3 - 5 licensed childcare facilities
- an elementary school

- 5 restored heritage buildings
- 10 hectares of park land, including habitat, playgrounds and opportunities for urban agriculture

"To significantly influence Vancouver's acceptance of sustainable design and green building techniques - that's really the focus the whole design team has embraced." - Roger Bayley, co-founder of Merrick Architecture.

## Size

1,400,000 sq ft of current development

6,000,000 sq ft of development when complete

## Green Features

### Sustainable Site

- island and inter-tidal fish habitat restoration
- Indigenous plants that grow well here
- Trees, plants and flowers that are aesthetically pleasing and provide value for wildlife
- Rain gardens that conserve water and attract birds
- turned a former industrial brownfield site into a mixed use, mixed income neighbourhood
- developed with forward-thinking infrastructure
- On foot, you're first in the transport priority, then bikes, transit, the delivery of goods, and lastly, automobiles.
- high density, mixed use and well connected to transit (streetcar, ferries, bus, Skytrain, subway)
- extends Vancouver's network of bicycle and pedestrian facilities
- buildings have electric vehicle chargers and car-share vehicles
- during construction, services were procured from inner city businesses and 120 inner city residents were trained and placed in construction jobs
- A healthier greenhouse-gas-neutral neighbourhood
- The shared infrastructure of eco-density that reduces our living costs
- Community gardens that encourage healthy eating, add colour, and educate our children

### Water Efficiency

- dual flush toilets, low-flow faucets/showerheads
- drought resistant and/or native indigenous planting species, and landscaped space designed for urban agriculture
- rainwater largely managed through green roofs and on-site infiltration/irrigation
- rainwater from the public spaces is collected and treated in a stormwater wetland before release to the ocean
- over 50% of the roof and courtyard areas are covered with green roofs

### Energy and Atmosphere

- all projects are required to utilize the SEFC Neighbourhood Energy Utility
- the Net-Zero Energy Building will produce as much energy as it uses
- in general, buildings must perform 20% better than ASHRAE 90.1-1999 or 29% better than Model National Energy Code
- energy efficient appliances and lighting including user metering, smart controls, and occupancy sensors for public spaces
- Lower energy costs with radiant capillary ceilings for heating and cooling
- Lower energy costs with day lighting, shading and thermal storage to conserve energy

### Sustainable Building

- Optimum energy -performing homes for greater comfort and livability
- Climate-responsive design that is also architecturally beautiful
- High-quality materials for value and aesthetics
- Floor plans that let you easily adapt your space
- the entire neighbourhood was a pilot project for the LEED for Neighbourhood Development program, and achieved LEED Platinum
- Low-emitting materials that are better for your health

## Waste Management

- composting for on-site gardens and/or landscaping
- provision for 3 streams of waste collection
- management of construction and demolition waste

Read much more about the green architectural, energy, and design aspects of this project at:  
[www.thechallengeseries.ca](http://www.thechallengeseries.ca)

## Olympic Village

The new Athlete's Village will be a mixed-use community that will provide goods and services within walking distance and housing in proximity to public transit and local jobs. It will contribute 1,100 residential units including 250 units of affordable housing. The SEFC Green Building Strategy was created with the intention to incorporate current "best practices" for all building design and construction. Passive design is identified as a key strategy to reduce energy consumption. The Neighbourhood Energy Utility (NEU) that supplies heating to the development will use renewable and high efficiency supplied energy to minimize the use of fossil fuels and optimize energy efficiency.

## Water Consumption

A water use reduction strategy will minimize potable water use across the project by using harvested rainwater for uses such as irrigation and toilet flushing. In order to provide heat island reduction and stormwater management, 50% of the roof areas will be vegetated green roofs or roof gardens. The village will also provide opportunities for urban agriculture in open spaces, plaza areas and roof decks.

## Net-Zero

This project is aiming for net-zero energy consumption using a combined reduction and offset strategy, requiring an in-depth analysis of energy consumption loads and the integration of renewable energy technologies, coupled with applications to incentive and funding programs.

The area will use the City's first environmentally friendly Community Energy System.

- By 2020, SEFC will have six million square feet of development. This will include: more than 5,000 residential units; full-size community centre and nonmotorized boating facility; three to five licensed childcare facilities; two out-of-school care facilities; an elementary school; interfaith spiritual centre; restoration of five heritage buildings; and 10 hectares of park.
- Shoreline works will include a new island and inter-tidal fish habitat, bridge, boardwalk, and seaside bikeway.
- Other unique features will include urban agriculture; rainwater management systems; green roofs; and neighbourhood energy system.
- By 2020, Southeast False Creek will be home to 12,000 to 16,000 people.

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