

Village at Griesbach Stage 8 - LEED®-ND

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Canada Lands Company

- Federal Crown Corporation
- Mandate – The orderly disposal of strategic surplus Federal lands
- Redevelopment of Army Bases across Canada:
 - CFB Calgary – Garrison Woods, Garrison Green, Currie Barracks
 - Griesbach (Edmonton) – Village At Griesbach
 - Kapyong (Winnipeg)
 - Chilliwack - Garrison Crossing
- Other Redevelopment Properties:
 - Moncton Railway Yards
 - Montreal Waterfront
 - Glen Lyon Business Park, Burnaby
 - Etc.
- Own and Operate the CN Tower

Village at Griesbach

- 618 Acres
- North Edmonton – 15 minutes to downtown
- Transit centre nearby
- Neighbourhood Area Structure Plan approved 2002
- Proposed population of 4,136 housing units – 12,695 people
- Transfer to Canada Lands Company February 2003



LEED®-ND

❖ Leadership in Energy and Environmental Design – Neighborhood Development

- Smart Location and Linkage
- Neighborhood Pattern and Design
- Green Construction and Technology
- Innovation and Design Process

❖ Stages

- Stage 1 – Pre-Review
- Stage 2 – Certification of Approved Plan
- Stage 3 – Certification of Completed Neighbourhood Development

❖ Levels of Certification

- Certified 40-49 Points
- Silver 50-59 Points
- Gold 60-79 Points
- Platinum 80-106 Points

LEED®-ND

- ❖ LEED for Neighborhood Development is a collaboration among USGBC, the Congress for the New Urbanism and the Natural Resources Defense Council.
- ❖ LEED acknowledges projects that integrate the principles of smart growth, new urbanism and green building into their neighborhood design. The outcome is a more livable, sustainable community for people of all income levels.
- ❖ LEED certification provides independent, third-party verification that a development's location and design meet accepted high levels of environmentally responsible, sustainable development.
- ❖ LEED encourages developers to:
 - Revitalize existing urban areas
 - Reduce land consumption
 - Reduce automobile dependence
 - Promote pedestrian activity
 - Decrease polluted storm water runoff

Griesbach Stage 8

LEED®-ND Pilot Project

- CLC Awarded 61 Points
- Gold Certification
- Tree Retention
- Walkable Community
- Re-use of Housing
- Traffic Calming
- Linear Park
- Innovative Layout



Griesbach Stage 8

Smart Location and Linkage

✓ **Prerequisite 1: Smart Location**

- Encourage development within and near existing communities or public transportation infrastructure.

✓ **Prerequisite 2: Proximity to Water and Wastewater Infrastructure**

- Conserve natural and financial resources required for construction and maintenance of infrastructure.

✓ **Prerequisite 3: Imperiled Species and Ecological Communities**

- Protect imperiled species and ecological communities.

Smart Location and Linkage

✓ **Prerequisite 4: Wetland and Water Body Conservation**

- Conserve water quality and preserve biodiversity through conservation of water bodies or wetland.

✓ **Prerequisite 5: Agricultural Land Conservation**

- Preserve agricultural resources by protecting prime and unique farmland and forest lands from development.

✓ **Prerequisite 6: Floodplain Avoidance**

- Protect life and property, promote open space and habitat conservation and enhance water quality and natural hydrological systems.

Smart Location and Linkage

✓ **Credit 1: Brownfield Redevelopment (2 Points)**

- Encourage the reuse of land by developing sites where development is complicated by environmental contamination.

Credit 2: High Priority Brownfield Redevelopment (1 Point)

- Encourage the cleanup of contaminated sites in areas targeted for redevelopment.

✓ **Credit 3: Preferred Location (8 out of 10 Points)**

- Encourage development within existing communities and developed places.

Smart Location and Linkage

✓ **Credit 4: Reduce Automobile Dependence (7 out of 8 Points)**

- Encourage development in locations that provide superior transportation choices or otherwise reduce motor vehicle use.

Credit 5: Bicycle Network (1 Point)

- Promote bicycling and transportation efficiency.

✓ **Credit 6: Housing and Job Proximity (3 Points)**

- Encourage balanced communities with a diversity of uses and employment opportunities to reduce energy consumption and pollution.

Smart Location and Linkage

✓ **Credit 7: School Proximity (1 Point)**

- Promote public health through physical activity by facilitating walking to school.

✓ **Credit 8: Steep Slope Protection (1 Point)**

- Minimize erosion to protect habitat and reduce stress on natural water systems by preserving steep slopes in a natural vegetated state.

✓ **Credit 9: Site Design for Habitat or Wetland Conservation (1 Point)**

- Conserve native wildlife habitat, wetlands and water bodies.

Smart Location and Linkage

Credit 10: Restoration of Habitat or Wetlands (1 Point)

- Restore wildlife habitat and wetlands that have been harmed by previous human activities.

Credit 11: Conservation Management of Habitat or Wetlands (1 Point)

- Conserve native wildlife habitat, wetlands and water bodies.

Neighborhood Pattern & Design

- ✓ **Prerequisite 1: Open Community (Required)**
 - Promote communities that are physically connected to each other.

- ✓ **Prerequisite 2: Compact Development (Required)**
 - Build any residential components at an average density of 7 or more dwelling units per acre and any non-residential components at an average density of 0.50 FAR or greater.

Neighborhood Pattern & Design

✓ **Credit 1: Compact Development (1 of 7 Points)**

- Points are available for residential densities between 10 and 70 dwelling units per acre and non-residential densities between 0.75 and 3.5 FAR.

✓ **Credit 2: Diversity of Uses (4 Points)**

- Include a residential component in the project that constitutes 25% of the project's total building square footage; and design or locate the project such that at least 50% of the dwelling units are within ½ mile walk distance of between 2 and 10 of a wide variety of uses.

✓ **Credit 3: Diversity of Housing Types (3 Points)**

- To enable citizens from a wide range of economic levels and age groups to live within a community.

Neighborhood Pattern & Design

Credit 4: Affordable Rental Housing (2 Points)

- Include a proportion of rental units priced for households earning below area median income.

Credit 5: Affordable For-Sale Housing (2 Points)

- Include a proportion of for-sale housing affordable to households at or slightly above the area median income.

✓ Credit 6: Reduced Parking Footprint (2 Points)

- Design parking to increase the pedestrian orientation of projects and to minimize the adverse environmental effects of parking facilities.

Neighborhood Pattern & Design

✓ **Credit 7: Walkable Streets (6 of 8 Points)**

- Provide appealing and comfortable pedestrian street environments.

✓ **Credit 8: Street Network (2 Points)**

- Encourage the design of projects that incorporate high levels of internal connectivity and the location of projects in existing communities in order to conserve land, promote multimodal transportation and promote public health.

x **Credit 9: Transit Facilities (1 Point)**

- Encourage transit use and reduce driving by creating safe transit facilities.

Neighborhood Pattern & Design

Credit 10: Transportation Demand Management (2 Points)

- Reduce energy consumption and pollution from motor vehicles by encouraging use of public transit.

✓ Credit 11: Access to Surrounding Vicinity (1 Point)

- Provide direct and safe connections for pedestrians and cyclists as well as drivers to neighborhood centres.

x Credit 12: Access to Public Spaces (1 Point)

- Provide a variety of open spaces close to work and home.

Neighborhood Pattern & Design

✓ **Credit 13: Access to Active Spaces (1 Point)**

- Provide a variety of open spaces for the purposes of recreation.

Credit 14: Universal Accessibility (1 Point)

- Enable the widest spectrum of people, regardless of age or ability, to participate in community life.

✓ **Credit 15: Community Outreach and Involvement (1 Point)**

- Encourage community participation in the project design and planning.

Credit 16: Local Food Production (1 Point)

- Promote community-based and local food production.

Green Construction & Technology

✓ **Prerequisite 1: Construction Activity Pollution Prevention (Required)**

- Reduce pollution from construction activities by controlling soil erosion and water sedimentation.

x **Credit 1: LEED Certified Green Buildings (3 Points)**

- Encourage the design and construction of buildings to utilize green building practices.

x **Credit 2: Energy Efficiency in Buildings (3 Points)**

- Encourage the design and construction of energy efficient buildings to reduce air, water and land pollution and environmental impacts from energy production and consumption.

Green Construction & Technology

✓ **Credit 3: Reduced Water Use (2 of 3 Points)**

- Minimize water use in buildings and for landscape irrigation to reduce the impact to natural water resources and reduce the burden on municipal water supply and wastewater systems.

✓ **Credit 4: Building Reuse and Adaptive Reuse (2 Points)**

- Extend the life cycle of existing building stock, conserve resources, reduce waste, and reduce environmental impacts of new buildings as they relate to materials manufacturing and transport.

Credit 5: Reuse of Historic Buildings (1 Point)

- Encourage the use of historic buildings in a manner that preserves their historic materials and character.

Green Construction & Technology

✓ **Credit 6: Minimize Site Disturbance Through Site Design (1 Point)**

- Preserve existing tree canopy, native vegetation and pervious surfaces while encouraging high density smart growth communities.

✓ **Credit 7: Minimize Site Disturbance During Construction (1 Point)**

- Conserve existing natural areas and protect trees to provide habitat and promote biodiversity.

Credit 8: Contaminant Reduction in Brownfield Remediation (1 Point)

- Encourage brownfield cleanup methods that reduce contaminant volume or toxicity and thereby minimize long-term remediation or monitoring burdens.

Green Construction & Technology

✓ **Credit 9: Stormwater Management (5 Points)**

- Reduce adverse impacts on water resources by mimicking natural hydrology.

Credit 10: Heat Island Reduction (1 Point)

- Reduce heat islands to minimize impact on microclimate and human and wildlife habitat.

Credit 11: Solar Orientation (1 Point)

- Achieve enhanced energy efficiency by creating optimum conditions for the use of passive and active solar strategies.

Green Construction & Technology

Credit 12: On-Site Energy Generation (1 Point)

- Reduce air, water and land pollution from energy consumption by increasing efficiency of the power delivery system. Also increase the reliability of power.

Credit 13: On-Site Renewable Energy Sources (1 Point)

- Encourage on-site renewable energy self-supply to reduce environmental and economic impacts.

Credit 14: District Heating and Cooling (1 Point)

- Reduce air, water and land pollution resulting from energy consumption in buildings by employing energy efficient district technologies.

Green Construction & Technology

Credit 15: Infrastructure Energy Efficiency (1 Point)

- Design or purchase traffic lights, street lights, water and wastewater pumps and treatment systems.

Credit 16: Wastewater Management (1 Point)

- Design and construct the project to divert at least 50% of the wastewater generated by the project and reuse wastewater. Provide for on-site wastewater treatment.

✓ Credit 17: Recycled Content in Infrastructure (1 Point)

- Use recycled materials to reduce environmental impacts of extraction and processing virgin materials.

Green Construction & Technology

✓ **Credit 18: Construction Waste Management (1 Point)**

- Divert construction and demolition debris from disposal in landfills and incinerators.

✓ **Credit 19: Comprehensive Waste Management (1 Point)**

- Reduce the waste hauled to and disposed of in landfills. Promote proper disposal of office and household hazardous waste streams.

Credit 20: Light Pollution Reduction (1 Point)

- Minimize light trespass from site, reduce sky-glow to increase night sky access, improve nighttime visibility through glare reduction, and reduce development impact on nocturnal environment.

Innovation and Design Process

✓ **Credit 1: Innovation and Exemplary Performance (2 of 5 Points)**

- To provide projects the opportunity to be awarded points for exceptional performance above the requirements set by the LEED for Neighborhood Development Rating System and/or innovative performance in green building.
 - ✓ Community Education (1 Point)
 - ✓ Pest Management Practices (1 Point)
 - x Tree-Lined Streets (1 Point)
 - x Legacy and Historic Features (1 Point)
 - x No Idling Policy (1 Point)

✓ **Credit 2: LEED Accredited Professional (1 Point)**

- To support and encourage the planning and design integration required by a LEED for Neighborhood Development green neighborhood project and to streamline the application and certification process.

Questions?

Innovation

Value

Legacy

