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Equilibrium™
Communities
HEALTHY COMMUNITIES FOR
A HEALTHY ENVIRONMENT

Ty-Histanis Neighbourhood Development, 10 km from Tofino, BC (Tla-o-qui-aht First Nations)



Ty-Histanis Neighbourhood Development is one of six selected projects in the Equilibrium™ Communities Initiative, a \$4.2M collaborative sustainable community demonstration initiative of Natural Resources Canada (NRCan) and Canada Mortgage and Housing Corporation (CMHC) under the Government of Canada's ecoACTION initiatives.

The Equilibrium™ Communities Initiative provides financial assistance for technical activities and showcasing the performance of selected neighbourhood development projects which, through their planning, design, implementation and operation, will provide measurable improvements over current approaches in the areas of energy and water consumption, environmental protection, land use planning, sustainable transportation and other features. Capital construction costs are not funded through the Initiative.

Research Objectives

Natural Resources Canada

- NRCan's CanmetENERGY works with communities to reduce their energy consumption by understanding the synergies between building design, urban form, transportation and land use, and assisting with the development of integrated community energy system concepts.

Canada Mortgage and Housing Corporation

- Improved environmental performance of residential, mixed use neighbourhoods;
- Integration of housing and community infrastructure such as energy, transportation, water and waste water; natural environment;
- Built examples, technical analysis and supporting information that is of use to developers and municipalities.

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Natural Resources
Canada

Ressources naturelles
Canada

Canada



Tla-o-qui-aht First Nations (TFN) is developing a new community on 84 hectares of land transferred from the Pacific Rim National Park Reserve. Consistent with the TFN concept of Hishuk nish tsawaak (all is one), a commitment was made to explore and apply practical, sustainable community development principles. The new community is planned to include 171 single-detached units, 32 units of duplexes and a 12-unit elders' complex. A central community core is to include the multi-family buildings, a school, health clinic, pharmacy, recreation centre and centres for youth and elders.

Occupant involvement is a central theme in this Project. Extensive stakeholder consultation has been, and will continue to be, integrated into the process. The analysis and design modifications will go hand in hand with review and feedback from future users, as one process informs the other. Whatever gets built must be practical in terms of long-term operation by the future occupants. It also must be affordable; therefore, analysis of costs and financing are being undertaken to ensure the financial viability and affordability of the community.

The Project targets 50 per cent reduction in greenhouse gases (GHGs) through energy reductions arising from building envelope improvements and efficient heating, electrical and mechanical systems, plus efficient supply from a district energy system using renewable energy sources and ground source heat pumps.

At least 40 per cent of the development site is planned to be maintained as undisturbed, natural, protected habitat through site planning that is sensitive to the contours and other natural features.

Bogs are expected to be used for natural water retention, and site permeability is to be maximized, including porous pavements. Nature is to be further celebrated through access to traditional food sources such as fish and native plants and berries, as well as places to celebrate traditional, spiritual and cultural practices at a central community longhouse, a canoe shed and neighbourhood smoke houses. Proposed water-efficient features will reduce potable water consumption.

The design aims to encourage social interaction, health and fitness through the creation of low-impact footpaths through the natural habitat. Car-dependence is expected to be reduced by the mixed-use concept.

The road network and other site servicing are currently under construction. Because of the stage of construction, initiative funding includes all categories, from visioning/alignment to monitoring and showcasing. TFN is using initiative support primarily for analysis aimed at performance improvements at the building and lot level including: optimizing energy efficiency in the building performance and community energy system as well as options for water-use reduction and sustainable landscape design. Visioning and alignment with future occupants and technical experts is also a key area of initiative support. Funding will also be used for monitoring e.g. energy consumption, housing affordability, potable water consumption and occupant satisfaction.



Credit: David Nairne & Associates Ltd.

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For more information about the EQuilibrium™ Communities Initiative, and winning projects, visit: www.ecoaction.gc.ca/equilibrium-eng.cfm