

PLACE & HISTORY

Skwxwú7mesh NATION TERRITORY

North Vancouver and the Skwxwú7mesh (Squamish) area is the traditional territory of the Coast Salish people of the Skwxwú7mesh Nation. The area around this building was a seasonal campground where the Skwxwú7mesh people would stay and fish while the salmon were running in the Capilano River. Skwxwú7mesh means “Water People” in the Coast Salish language.

HISTORY OF PLACE

2121 Lonsdale was built on the site of the former Lonsdale Elementary School. The old stone and brick school was built in 1910 by the architects, Hope and Barker, who built many of the schools and other institutions in the Lower Mainland at the time. The elementary school closed its doors in 2005 to make way for this building and adjacent residential buildings.

ENCOURAGING SUSTAINABLE TRAVEL

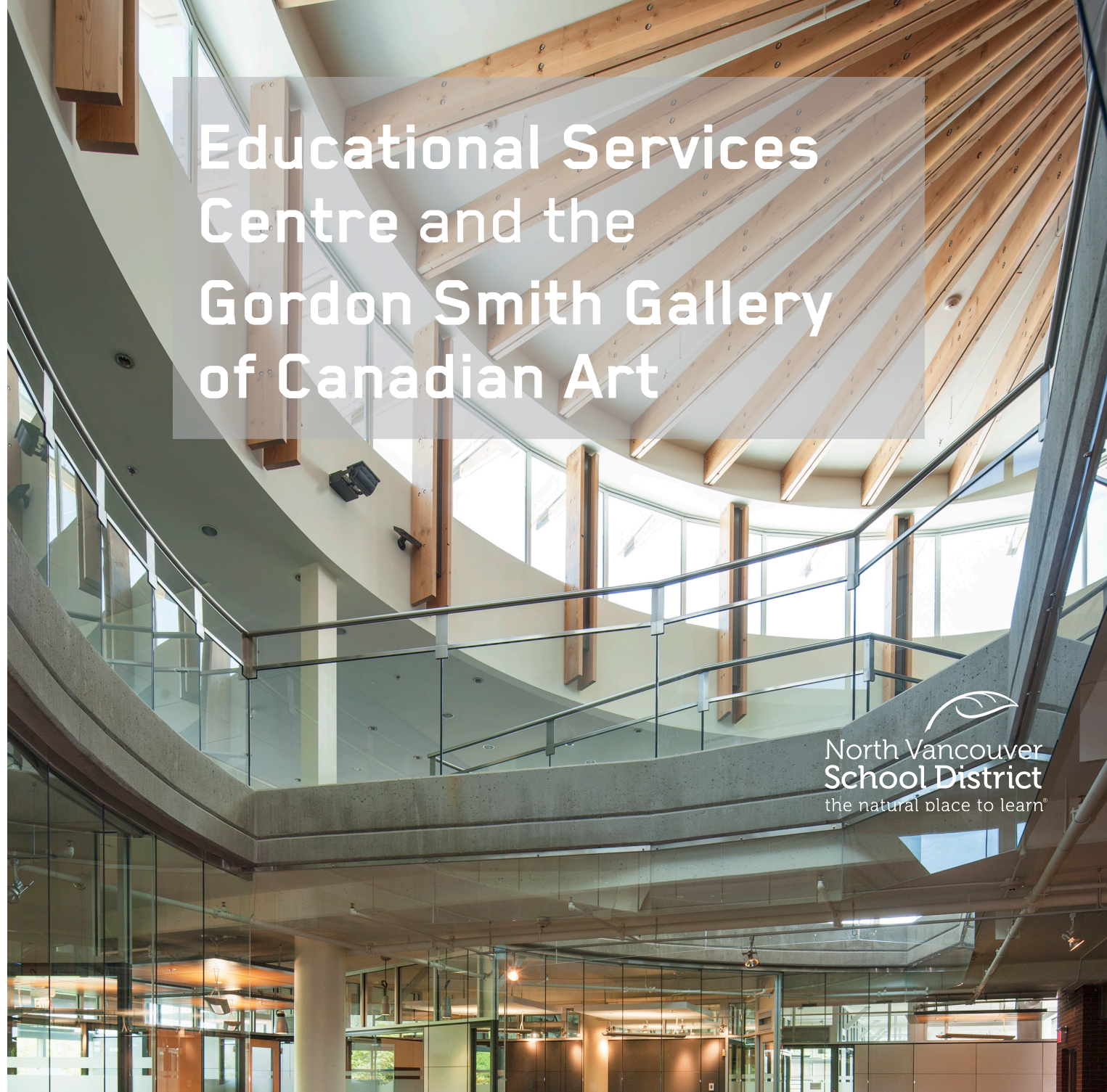
We help our staff to bus, bike, walk and carpool to work. We are located on Lonsdale Avenue, a main road with six bus routes. Downstairs, the building features a secure bike room with lockers and shower facilities, three electric charging parking stalls, and eight stalls reserved for carpooling staff. We are also within walking distance to residences and commercial areas.

COMMUNITY CONNECTIONS

You're invited to explore the space. The building façade was carefully designed to integrate with the surrounding residential buildings. A path that connects the adjacent Rey Sargent park, exterior plaza, and the “Artist’s Walk” on the east side of the building invites visitors to explore the space and enjoy the art on display inside and outside the building.

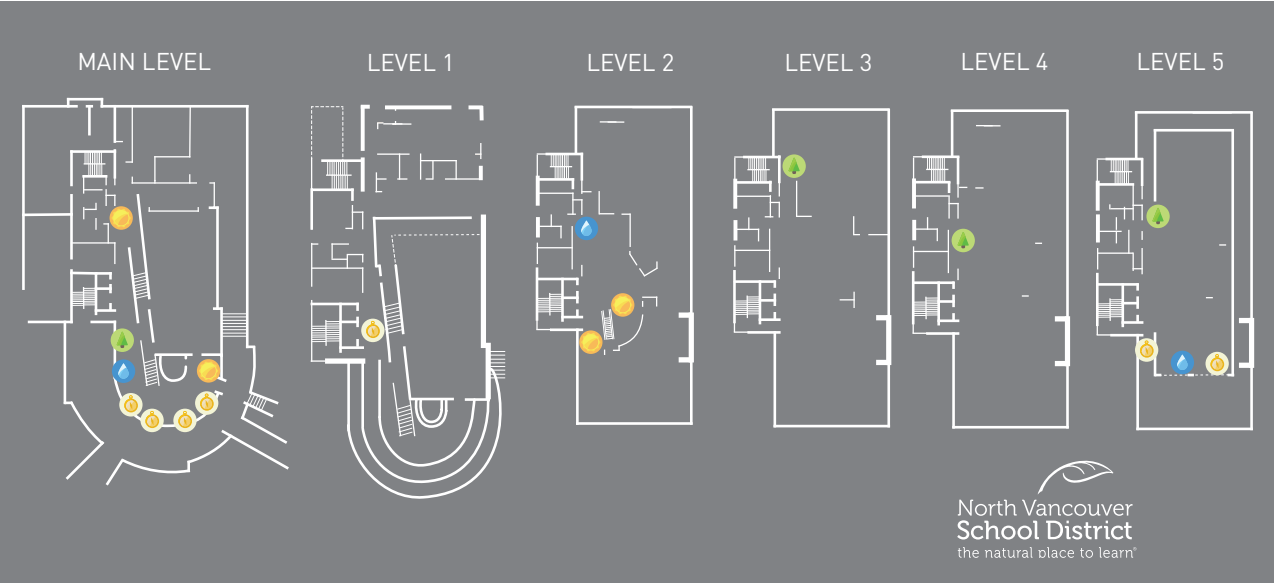


Educational Services Centre and the Gordon Smith Gallery of Canadian Art




North Vancouver
School District
the natural place to learn®

Green Building Tour



Green Building Tour

Welcome to 2121 Lonsdale, the home of the North Vancouver School District’s Educational Services Centre (ESC) and the Gordon Smith Gallery of Canadian Art.

Built in 2012, the ESC features a number of design innovations that save energy and water, reflect the natural character and history of the area and reduce the impact the building has on the environment. These green features demonstrate the North Vancouver School District’s commitment to being the “natural place to learn.”

Look for the Signs

The icons on the map above are positioned throughout the ESC to highlight the building’s green features.

We’re Here

2121 Lonsdale Avenue
North Vancouver BC V7M 2K6
604.903.3444

BUILDING MATERIALS

RECYCLING CONSTRUCTION WASTE

We recycled more than 80% of our construction waste. Building construction can generate significant amounts of waste. During construction, the contractor used an on-site recycling process to separate and recycle specific types of waste. Some of the wood waste was composted to make garden mulch. By the time the building was completed, an impressive 80% of waste was diverted from the landfill.

FLEXIBILITY FOR THE FUTURE

Inside, the focus is on flexibility. The size and shape of the rooms are designed to be adaptable to future uses. The modular furniture allows the space to be arranged in a variety of formats. The data and mechanical services have been built into the raised floors to allow the space to be redesigned as needed.



PRESERVING HERITAGE

The rafters in the lobby were recycled from Lonsdale Elementary School. A number of the heritage elements from the original school were incorporated into the new building design, including the reclaimed fir timber rafters featured in the lobby and fifth floor atrium. The granite archway, carefully rebuilt as the parkway entrance, and the granite stone wall in the exterior plaza, were part of the original school yard.

REGIONAL MATERIALS & RECYCLED CONTENT

The modular walls of the ESC are made from recycled plastics. A third of the materials in the building are regionally sourced and manufactured, including the concrete and steel structural system and the aluminum window framing and glass. 20% of materials in the building contain recycled content, including the modular walls, furniture, carpeting and the raised floor system.

HEALTHY INDOOR ENVIRONMENT

Visitors can breathe easy - the carpets, paint and sealants are non-toxic. Only low VOC (Volatile Organic Compounds) materials were used in the carpet, laminates, sealants, and paints, contributing to better indoor air quality.

SAVING ENERGY HEATING AND COOLING FROM THE EARTH

During construction, a geo-exchange system was installed under the building and the neighbouring park. The system takes advantage of the constant temperatures in the ground to generate heat energy. Long pipes pump water deep into the ground, where it absorbs heat from the earth. This heat energy is then transferred up to supplement a set of boilers in the basement of the building. In the summer, the geo-exchange system cools the building, as excess heat from the building is transferred back into the ground.

THE POWER OF SHARING

Heat generated on site is shared with other buildings in the neighbourhood. We are connected to the Lonsdale Energy Corporation’s municipal energy system. Owned by the City of North Vancouver, this neighbourhood energy system generates heat in a series of mini-plants within the Lower Lonsdale area. The heat is distributed to buildings connected to the energy grid through an underground hot water piping system.

REUSING HEAT

Heat generated by people and equipment is captured and recycled for other uses. The ventilation system in the building circulates fresh air through offices and meeting rooms. Cool air is blown in at floor level and rises as it absorbs heat produced by people, computers and appliances. This warmed air is then drawn out at the top of the room and rises to the top of the building. A heat pump, installed on the roof as a part of the ventilation system, captures heat from air leaving the building. This recovered heat is cycled back into the system through a set of heat exchangers in the basement of the building.

SHAPING & REFLECTING LIGHT

Light shelves bounce light further into the building. The building is designed to respond to the seasonal and daily movements of the sun. Outside, sunshades and overhangs deflect sunlight. A reflective white coating on the roof reduces heat gain in the summer months. Light shelves on the inside of windows bounce light further into the building and the glass etching on west-facing windows filters bright light. The lightwell, through the core of the building, provides abundant natural light for interior meeting rooms. The lights in rooms and corridors are controlled by daylight and occupancy sensors to keep lights off when they’re not needed.

WARM AIR, COOL AIR

The geo-exchange system, installed under the building, can simultaneously provide heating and cooling energy. The system provides warm fresh air to rooms and offices while heating water for the building and keeping the computer server room cool. This heating energy is also used in the radiant floor heating in the lobby and art gallery.

SAVING WATER

VEGETATED WATER MANAGEMENT

Outside, a vegetated ‘bio-swale’ filters water from the roof and surrounding area. A landscaped gully made of rocks, soil and plants, called a ‘bio-swale’, follows the natural slope of the site and runs the length of the building and Rey Sargent Park. It is planted with native plants and features stones and boulders found during on-site excavation. The bio-swale helps to manage storm water flow and filter water from the roof and site. It also reduces the amount of pollutants that flow into storm water drains.

HIGH EFFICIENCY FAUCETS

Wash your hands with 30% less water. High-efficiency water faucets, installed throughout the building, save water and energy. The faucets restrict water flow by 30% and save energy by reducing the need to heat as much hot water.

WATER-EFFICIENT LOCAL LANDSCAPING

We don’t need to water the plants. The native plants selected for the outdoor landscaping do not require irrigation and are well adapted to the local climate. As a result we have been able to save a significant amount of water by not installing and running a permanent irrigation system.

