

# Commercial Amenities

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## **Land/Site**

By carefully planning the site placement of a building as it relates to exposure from the sun and wind can affect its reliance on mechanical heating and cooling systems as well as artificial light. The result is significant operating cost savings.

## **Atmosphere**

Buildings are responsible for 30% of greenhouse gas emissions. Green buildings are designed to increase their operational efficiency - and decrease their emissions.

## **Energy**

Green buildings use about one-third less energy than conventional structures.

## **Indoor Air Quality**

Healthier and more pleasant working conditions actually boost productivity and job satisfaction. The impact of poor indoor environmental quality (IEQ) in commercial buildings on the health and productivity of employees can be profound. Various studies have estimated that it costs employers hundreds of billions of dollars each year.

## **Materials & Waste**

By utilizing local renewable and recycled materials, fewer materials end up in landfills and the local economy benefits from reducing the extraction and processing of non-localized virgin resources.

## **Water**

Low-flow fixtures, efficient appliances, rainwater capture and wastewater treatment lessen the use of potable water and related operating costs. Green buildings can reduce water use by 30-50%

## **Social Benefits**

- Greater health and well-being of occupants
- Higher building value
- Higher worker productivity
- Higher return of investment
- Higher retail sales

## **Economic Benefits**

- Reduce operating costs
- Improve employee productivity and satisfaction
- Enhance asset value and profits
- Optimize life-cycle economic performance

## **Durable/Environmental Materials**

- Careful attention to using regionally sourced and manufactured materials with high-recycled content wherever possible
- Significantly decreased pressure on landfills through selection of materials, resource use, and construction waste management measures

## **Other Greenhouse Gas Reducing Strategies**

- Reduction in carbon dioxide emissions from energy efficiency
- 30 to 40% fly ash in concrete mix reduces carbon dioxide emission associated with cement use while strengthening the concrete

## **Site & Environmental Considerations**

- Full cutoff light fixtures to prevent light pollution and save energy
- Rainwater is collected in onsite naturalized creek and pond features
- Non-potable water use for landscaping and water features
- Green roofs

## **Workforce Health and Satisfaction**

- Public plaza to the south east side of the site with direct pedestrian access to the greenway
- A Green roof includes drought resistant native plant materials to create wildlife habitat
- Cutting-edge landscape design incorporates natural water features, hanging gardens, lush landscaping, and numerous green spaces to create a socially and ecologically responsible, open space network
- Underground parking allocation

## **Indoor Environment Quality**

- High levels of interior daylight
- Naturally ventilated office area with operable window and central solar chimney for exhaust
- 100% fresh air ventilation system
- In-floor heating for office areas
- Selection of superior low or no volatile organic compound, eco-friendly paints, sealants and adhesives contribute to superior air quality
- Avoidance of urea-formaldehyde composite wood and agrifibre products
- Opening windows to maximize natural ventilation
- Indoor air construction management practices during construction to minimize air contamination during construction
- Each suite receives 6 month supply of green housekeeping supplies

## **Alternative Transportation**

- Secure bike storage & shower facilities
- Close to public transit and Galloping Goose Trail
- Car share program
- Mini transit system
- Harbour ferry to downtown Victoria

## **Operational Costs Savings**

- Energy efficiency - 100% fresh air system with heat recovery ventilator to pre-warm incoming air saving energy
- Low-E double-glazed, thermally isolated, energy efficient aluminum window system which provides warmth in the winter and cools in the summer
- Superior building envelope to minimize heat loss and gain
- External shading on most south facing windows to minimize heat gain in the summer but allow for daylight
- Power generating wind turbines on the roof
- Spaces individually metered for electricity, heat and water use
- Occupancy sensors or automatic door switches in storage areas and bathrooms
- Enhanced “day lighting” strategies to provide daylight in workspace areas
- An independent commissioning agent will check the building systems to ensure they are working properly and as intended both when construction is completed and after one year of operation

## **Water Efficiency**

- High performance dual flush toilets and waterless urinals in common washrooms
- Low-flow showerheads and faucets are tested for effectiveness
- Sewage will be treated on-site and treated water is used for flushing toilets and irrigation
- Water-saving design and technologies use up to 65% less potable water than traditional buildings — lowering operating costs and contributing to a savings of 265 million litres per year for the overall development

## **Non-Green Buildings Consume:**

- 12% of all potable water
- 39% of all primary energy
- 40% of all raw materials
- 48% of all US carbon emissions
- 70% of all US electricity

## **Green Buildings Save:**

- 30-50% Energy
- 35% Carbon Emission
- 40% Potable Water
- 70% Solid Waste