

June 21, 2021

Planning and Development Services
City of Victoria

Re: 1221 Blanshard Street– Summary of Proposed Sustainability Measures

The applicant and design team are committed to incorporating green building principles into the design and long-term operations of the proposed commercial development at 1221 Blanshard Street. The project will be registered with the Canada Green Building Council's LEED v4 for Core and Shell rating system and will target a minimum designation of Gold. The following list, along with a preliminary LEED Scorecard, highlights prominent sustainable features which will support the target of LEED Gold certification. Beyond these targets, several other strategies are potentially available and will be confirmed as the design is refined.

This 1221 Blanshard development will become a showcase project for energy performance and environmentally responsible building construction through:

Location and Transportation

The project is located on a previously developed infill site, avoiding sensitive habitats and taking advantage of existing infrastructure and surrounding amenities which promote a walkable community. The development's design densifies the existing site to maximize land usage. The site is located within a short walking distance (250 m) of Trans Canada Highway and directly adjacent to Blanshard Street. This location provides optimum connectivity to pedestrian, bicycle and public transit options. The closest transit stop on Yates St offers immediate connection to over 8 different bus lines within immediate walking distance of the site. This encourages building occupants to utilize alternative transportation opportunities, reducing dependence on single occupancy vehicles. The location along these transit corridors combined with secured storage for bicycles and bicycle networks accessible along Yates, Blanshard and Fort St. affords a distinct advantage for carless commuters. Where cars must be used, parking spaces will be considered for electric vehicle charging stations to promote alternatives to conventionally fueled automobiles and to reduce greenhouse gas emissions.

Sustainable Sites

A detailed site assessment will be carried out to observe site conditions before design and evaluate sustainable options to inform major design decisions. The project is a zero-lot line project. The development's hardscapes and green spaces will be considerate of urban heat island effect and support the project's larger irrigation and water use reduction targets. The parking provided will be completely underground which will limit hardscape spaces on the surface limiting heat island effects.

An erosion and sedimentation control plan will be implemented to minimize erosion and sedimentation during demolition, site preparation and throughout construction. Best practices will be implemented during construction to optimize air quality for site workers and the surrounding area and provide a clean and healthy building for future occupants.

Water Use Efficiency

The project will address water management through two design approaches. Firstly, water conservation through low flow plumbing fixtures. The project will be targeting a 40% reduction in the use of potable water through selection of plumbing fixtures. Secondly, reduce water demand for irrigation through water efficient landscape design and water efficient irrigation systems and controllers.

Finally, the project will target increased cooling tower water efficiency as a means of reducing the potable water consumed in the cooling of the building. This will be done by selecting systems which maximize the number of cooling cycles achieved per water cycle while also providing a source of non-potable water where feasible. The combined indoor and outdoor water use strategies support an integrated approach to reduce demand on the City of Victoria's water services, while limiting the waste of potable treated water supplies.

Energy Performance

The target to meet the 35% energy cost savings compared with ASHRAE 90.1-2010 will drive mechanical, electrical, and architectural systems selection. High performance systems will be considered throughout design to ensure the project's energy performance is met in support of 15 Optimize Energy points.

To maximize the envelope efficiency of the building, moderate window to wall ratios will be utilized to manage solar heat gains through the exterior glazing, while retaining energy to maintain thermal comfort. Windows will likely be double-glazed to optimize energy retention, with the option of triple-glazed systems still being explored. The wall systems for the building will be specified to support the window assemblies in their performance and be well insulated to eliminate energy transfer between the interior and exterior spaces.

In addition to high performance system design, the project's mechanical, electrical, and envelope systems will be commissioned, ensuring the ongoing performance and energy management of the entire development through to building operations. Building level energy enduse information will be provided to building operators with valuable insight into the building's ongoing operations.

Building Materials

Construction waste management will be an integral part of the building process, firstly through source minimization, smart product selection, packaging, and transport. Furthermore, waste generated on site during construction will be addressed through a comprehensive waste management plan, detailing recycling facilities and documenting the diversion of standard debris from landfill.

Indoor Environment

Ventilation air will be delivered to each zone within the floor by means of Heat Recovery Ventilators. Outdoor air ventilation will be implemented and adhere to ASHRAE 62.1-2010 to reduce occupant exposure to indoor pollutants by ventilating with outdoor air. Indoor pollutants will be further managed by utilizing building entryway systems and MERV 13 filtration where feasible to minimize the introduction of exterior contaminants into the indoors space. The densely occupied spaces will have CO₂ monitoring sensors to ensure that occupants receive the designed air supply in case of increased CO₂ concentrations.

To further improve the indoor air quality of the building, interior finishes and coatings will be specially selected to limit the quantities of harmful volatile organic compounds (VOCs) which would be off gassed after installation. The selection of low emitting materials will also include the project's insulation in addition of the traditional scope of paints, sealants, flooring and formaldehyde free woods.

Conclusion

The above noted strategies support a holistic approach to addressing the requirements of the LEED Gold-level certification goal. Implementing these strategies through design and construction will produce an intelligently designed project capable of delivering enhanced building performance while also improving indoor environmental quality for tenants. A preliminary LEED scorecard is included with the application for review.

Preliminary LEED – Gold Checklist

1221 Blanshard: Preliminary LEED Scorecard

LEED v4 BD+C: CORE + SHELL

Date Issued: 2020-03-27 - Issued for Owner Review

USGBC Project No.: Not Yet Registered



Integral Project No.: 140007.000

Project Total	62	11	37
Certified 40 to 49 points	Silver 50 to 59 points	Gold 60 to 79 points	Platinum 80 to 110 points

Integrative Process

IP1	Integrative Process	1		
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Location + Transportation

LT1	LEED for Neighborhood Development Location	17	3	
LT2	Sensitive Land Protection	2		
LT3	High Priority Site	3		
LT4	Surrounding Density and Diverse Uses	4	2	
LT5	Access to Quality Transit	6		
LT6	Bicycle Facilities	1		
LT7	Reduced Parking Footprint	1	1	
LT8	Green Vehicles	1		

Sustainable Sites

SS1	Construction Activity Pollution Prevention	2	1	8
SS2	Site Assessment	1		
SS3	Site Development: Protect or Restore Habitat	2		
SS4	Open Space	1		
SS5	Rainwater Management	3		
SS6	Heat Island Reduction	1		
SS7	Light Pollution Reduction	1		
SS8	Tenant Design and Construction Guidelines	1		

Water Efficiency

WE1	Outdoor Water Use Reduction: 30%	8		3
WE2	Indoor Water Use Reduction: 20%	1		
WE3	Building-Level Water Metering	1		
WE4	Outdoor Water Use Reduction	4	1	
WE5	Indoor Water Use Reduction	2	2	
WE6	Cooling Tower Water Use	1		
WE7	Water Metering	1		

Energy + Atmosphere

EAP1	Fundamental Commissioning and Verification	19	4	10
EAP2	Minimum Energy Performance	1		
EAP3	Building-Level Energy Metering	1		
EAP4	Fundamental Refrigerant Management	3	3	
EAP5	Enhanced Commissioning	15		3
EAP6	Optimize Energy Performance	1		
EAP7	Advanced Energy Metering	2		
EAP8	Demand Response	3		
EAP9	Renewable Energy Production	1		
EAP10	Enhanced Refrigerant Management	1		
EAP11	Green Power and Carbon Offsets	2		

Materials + Resources

MR1	Storage & Collection of Recyclables	2	3	9
MR2	Construction and Demolition Waste Management Planning	1		
MR3	Building Life-Cycle Impact Reduction	3		
MR4	Building Product Disclosure & Optimization: Environmental Product Declarations	2		
MR5	Building Product Disclosure & Optimization: Sourcing of Raw Materials	2		
MR6	Building Product Disclosure & Optimization: Material Ingredients	2		
MR7	Construction & Demolition Waste Management	2		

Indoor Environmental Quality

EQ1	Minimum IAQ Performance	5	1	4
EQ2	Environmental Tobacco Smoke (ETS) Control	1		
EQ3	Enhanced Air Quality Strategies	2		
EQ4	Low-Emitting Materials	1		
EQ5	Construction IAQ Management Plan	1		
EQ6	Daylight	3		
EQ7	Quality Views	1		

Innovation + Design Process

ID1	Innovation: Occupant Comfort Survey	6		
ID2	Innovation: Purchasing Plan - Lamps	1		
ID3	Pilot: TBD - Such as "Water Restoration Certification"	1		
ID4	Exemplary Performance: TBD	1		
ID5	Exemplary Performance: TBD	1		
ID6	LEED™ Accredited Professional	1		

Regional Priority Credits

RP1.1	Regional Priority: Indoor Water Use Reduction (4 pts)	2	2	
RP1.2	Regional Priority: Optimize Energy Performance (10 pt)	1		
RP1.3	Regional Priority: Building Life-Cycle Impact Reduction (3 pts)	1		
RP1.4	Regional Priority: Enhanced Commissioning (5 pt)	1		