E3 ECO GROUP

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14 – October – 2020

City of Vancouver
453 West 12th Ave
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Attn: To Whom This May Concern

RE: 57 Lakewood Drive project to meet the Rezoning requirements for the Low Emission Green Buildings path of the Green Buildings Policy for Rezoning

Winter Blossum Holdings Ltd. has retained E3 Eco Group as the sustainability consultant to review the energy, resource, and environmental efficiency of its 57 Lakewood Drive mixed use residential development in the City of Vancouver. The intention is to ensure that the building will achieve all requirements for residential buildings under the May 1st, 2018 Low Emission Green Buildings path of the Green Building Policy for Rezoning.

E3 Eco Group has been retained to consult on the following rezoning requirements:

B.2 – Performance Limits
E3 Eco Group has been retained to complete the energy model for the rezoning phase of this project. The energy model is in progress and will be submitted, along with the ZEBP Energy Checklist as soon as possible. The project will meet the building performance limits below.

The building performance limits from Section 5.1 of the City of Vancouver's Green Buildings Policy for Rezonings are presented in the following Table 1.

Table 1 Performance Limits

City of Vancouver Performance Limits Residential Low-Rise <7 storeys Not connected to city recognized low-carbon energy source		
	Residential	
TEDI limit	15	kWh/m^2.year
TEUI limit	100	kWh/m^2.year
GHGI limit	5	kgCO_{2e}/m^2.year
Modelled Floor Area	6,422	m^2

B6.1-Refrigerant Emissions: E3 Eco Group has been retained to calculate and report the life-cycle equivalent annual CO2 emissions of the building in kgCO2e/m^2.

B6.2-Embodied Emissions: E3 Eco Group has been retained to report the life-cycle equivalent CO2 emissions of the building in $kgCO2e/m^2$ as calculated by a whole-building life cycle assessment (LCA). The LCA report will follow the guidelines stated in the 'Green Building Policy for Rezoning – Process and Requirements' document. The LCA will be used to help the design team identify which assembly groups present the greatest contribution to the global warming potential of the building, and work towards reducing the embodied emissions. The following components will be explored during the design with the objective of reducing embodied emissions, with consideration for other LCA measures as well:

- Exterior cladding types
- Insulation materials in the floors, walls, and roof
- Concrete mixtures and slab type
- Fenestration, frame materials, and gas layer
- Roofing materials

Metrics other than the GWP will also be monitored when comparing design decisions, to review how the reduction in GWP impacts environmental risks in other categories.

B.10 – Integrated Rainwater Management and Green Infrastructure:
E3 Eco Group has been retained to ensure that integrated rainwater management strategies are incorporated for this project.

The rainwater management plan will utilize some soft landscaping throughout the site, in the form of absorbent landscaping and closed bottom on-slab planter boxes. Along with this, an infiltration trench will be located on the northern side of the site and sized to capture pprox.. 46.8m3 of rainfall runoff from all impervious surfaces across the site.

B.3 – Airtightness
E3 Eco Group has been retained to conduct the whole-building and suite airtightness testing for this project. E3 will incorporate the following strategies to ensure the project meets the requirements stated in the rezoning policy:

- Trades training with relevant consultants and trades to review airtightness details.
- Pre-drywall inspections on every level to ensure airtightness details are properly installed.
- Mock-up suite airtightness test to ensure suites meet the air-leakage target of 0.23 cfm/ft^2 @ 0.2"w.c.
- Final testing of 10% of 1^{st} 100 units and 5% of all units above that with a target leakage rate of 0.23 cfm/ft^2 @ 0.2"w.c.
- Final whole-building airtightness test

E3 has been conducting blower door testing and whole building airtightness testing of single-family homes and multi-family low-rise and mid-rise buildings for approximately 10 years. Staff is highly trained to conduct testing according to ASTM

E779 standard and the USACE Air Leakage Test Protocol for Building Envelopes. The modifications listed in the 'Green Building Policy for Rezoning – Process and Requirements' document will be included in E3's testing procedure.

B.4 – Enhanced Commissioning

Enhanced commissioning will be completed for this project. Enhanced commissioning will be completed in accordance with ASHRAE Guideline 0-2005 and 1.1-2007.

B.5 – Energy system Sub-Metering and Reporting

B5.1-Energy System Sub-Metering: Energy metering and sub-metering will be installed.

B5.2-Energy Reporting: E3 Eco Group has been retained to oversee the setup of an Energy Star Portfolio Manager Account. E3 will also assist the building owner in collecting and submitting energy use data to the City for three years after building occupancy.

B.7 – Verified Direct Ventilation

The project will design and build a ventilation system that provides outdoor air directly to all occupiable spaces in the quantities defined by code and ASHRAE 62.1.

B.8 – Low Emitting Materials

E3 Eco Group has been retained to ensure the project meets the requirements for low emitting materials as listed in the 'Green Building Policy for Rezoning – Process and Requirements' document. E3 will create a final report to be submitted with the project's Occupancy Permit application.

B.9 – Indoor Air Quality Testing

E3 Eco Group has been retained to oversee the coordination of Indoor Air Quality Testing. This testing and reporting will be completed by others and will follow the guidelines stated in the 'Green Building Policy for Rezoning – Process and Requirements' document.

B.11 – Resilient Water Access

E3 Eco Group has been retained to ensure a resilient drinking water access point is designed and built for this project.

If you have any questions, please contact the undersigned.
Kind Regards,



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By signing this letter Winter Blossum Holdings Ltd. % Nexst Properties states its commitment to comply with all the requirements mentioned above.



Harrison Han
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