E3 Eco Group Inc.
"Building Blocks of Sustainability"

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Surfside Development
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Re: 1926 Mahon Project, North Vancouver
EnerGuide for New Houses Energy Evaluation

Plans for the above mentioned house have been reviewed using EnerGuide for New Houses evaluation procedures.

The construction characteristics assumed as the base case are as noted on the plans and in the specs you submitted, as follows:

As Built	
Location (weather file)	Vancouver
Ceiling	Flat ceiling R40 insulation
Exterior walls above grade	2x6 @16"OC, R22 insulation plus 2" type II rigid on exterior
Windows	Double glazed, vinyl frame, softcoat low-e, argon gas, vinyl spacer
Exterior doors	Fiberglass polyurethane core doors, front is solid wood
Exposed Floors	R-28 batt
Foundation walls	ICF with R12 insulation interior and exterior
Crawlspace walls	n/a
Basement floor	R12 full underslab insulation
Slab-on-grade	n/a
Airtightness	House tested to be at 2.73 air changes @ 50 Pa
Space Heating	3 tonne Unichiller air-to-water heat pump with electric tank backup
Domestic water heating	Electric tank, no blanket, 60" long drain water heat recovery system serving one shower
Ventilation	HRV installed as per F326
Fireplace	One gas fireplace with spark ignition

Predicted EnerGuide for New Houses Rating: 84

The Design Heat Loss for the house is 27,500 BTU/hr. Energy Consumption for space heating & domestic hot water is 9,700 kWh/year equivalent [under default assumptions for occupancy and lights & appliance use].

Potential Upgrades:	
Air Tightness	Reduce air leakage to 1.5 ACH@50Pa
Domestic water heating	Add R10 external blanket

Predicted EnerGuide for New Houses Rating: 85

If you have any questions, please call Einar Halbig at 604-727-4322.

Notes:

1. Design Heat loss calculation is based on design conditions assumed. This figure can be used to size the heating system, although unit size will have to take into account system efficiency, operating conditions and provide a margin for quick recovery.

2. The calculated energy consumption estimates are based on data entered and assumptions made within the computer program based on standard user profiles. The estimates may not reflect actual energy requirements of this house due to variations in weather, actual construction details used, performance of equipment, lifestyle and number of occupants.