### Passive House Verification

**Building:** Mikkelsen Residence  
**Street:** 1067 Madeley Place  
**Postcode/City:** BC V7M 2L9 North Vancouver  
**Province/Country:** British Columbia CA-Canada

**Energy consultancy:** Econ Group  
**Street:** 402-510 Chesterfield Ave  
**Postcode/City:** BC V7M 2L9 North Vancouver  
**Province/Country:** British Columbia CA-Canada

**Architect:**   
**Mechanical system:**

**Climate data set:** CA0022a-Whistler  
**Climate zone:** 3: Cool-temperate  
**Altitude of location:** 615 m

**Home owner / Client:**  
**Postcode/City:** BC V7M 2L9 North Vancouver  
**Province/Country:**

**Architecture:**   
**Building type:** Detached dwelling

**Certification:**

### Calculation electricity / Internal heat gains

| Calculation electricity / Internal heat gains | Building type | Internal heat gains
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Building</td>
<td>Internal heat gains</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>---------------------</td>
<td></td>
</tr>
<tr>
<td>1-New building</td>
<td>Internal heat gains</td>
<td></td>
</tr>
<tr>
<td>2-PER (renewable)</td>
<td>Internal heat gains</td>
<td></td>
</tr>
</tbody>
</table>

**Internal heat gains**

<table>
<thead>
<tr>
<th>Utilisation pattern</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-Dwelling</td>
<td>2-Standard</td>
</tr>
</tbody>
</table>

**Occupancy**

<table>
<thead>
<tr>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Standard (only for residential buildings)</td>
</tr>
</tbody>
</table>

**Project data imported from designPH 1.1.5**

### Specific building characteristics with reference to the treated floor area

<table>
<thead>
<tr>
<th>Treated floor area m²</th>
<th>Criteria</th>
<th>Alternative criteria</th>
<th>Fullfilled?</th>
</tr>
</thead>
<tbody>
<tr>
<td>265.5</td>
<td>≤ 13.83</td>
<td>≤ 15</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>≤ 12.62</td>
<td>≤ 10</td>
<td></td>
</tr>
<tr>
<td>Space heating</td>
<td>Heating demand kWh/(m²a)</td>
<td>Heating load W/m²</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cooling &amp; dehum. demand kWh/(m²a)</td>
<td>Cooling load W/m²</td>
<td></td>
</tr>
</tbody>
</table>

| Frequency of overheating (> 25 °C) % | ≤ 10 |
| Frequency excessively high humidity (> 12 g/kg) % | ≤ 20 |

**Airtightness**

<table>
<thead>
<tr>
<th>Pressurization test result n₅₀ 1/h</th>
<th>≤ 0.4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>≤ 0.6</td>
</tr>
</tbody>
</table>

**Non-renewable Primary Energy (PE)**

| PE demand kWh/(m²a) | ≤ 76 |

**Primary Energy Renewable (PER)**

| Generation of renewable energy kWh/(m²a) | ≤ 33 |
| Specific capacity [Wh/K per m² TFA] | ≤ 60 |
| Internal heat gains heating case [W/m²] | ≤ 2.5 |
| Internal heat gains cooling case [W/m²] | ≤ 2.5 |

I confirm that the values given herein have been determined following the PHPP methodology and based on the characteristic values of the building. The PHPP calculations are attached to this verification.

Task:  
First name:  
Surname:  
Signature:  
Issued on:  
City:  
Passive House Plus?

### Building energy standard

<table>
<thead>
<tr>
<th>Building</th>
<th>1-Passive House</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Class</th>
<th>1-Plus</th>
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</table>

<table>
<thead>
<tr>
<th>Verification of primary energy</th>
<th>2-PER (renewable)</th>
</tr>
</thead>
</table>

| EnerPHit verification method |  
| New building | 1-New building |

PHPP display code: 788451490_121015_PHIDE_en09

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