

# Energy Efficiency Design Summary (Part 9 Residential)

This form is used to summarize the energy efficiency design of the project. Information on completing this form is on the reverse

|                            |  |                                |  |
|----------------------------|--|--------------------------------|--|
| Application No:            |  | For use by Principal Authority |  |
| Model/Certification Number |  |                                |  |

## A. Project Information

|                                                                         |                    |                                                 |         |
|-------------------------------------------------------------------------|--------------------|-------------------------------------------------|---------|
| Building number, street name<br>43-4 WINCHESTER ELEV. B and D 4 Bedroom |                    | Unit number                                     | Lot/Con |
| Municipality<br>319 Bobolink Rd.                                        | Postal code<br>R2G | Reg. Plan number / other description<br>Am-xxxx |         |

## B. Compliance Option

|                                                                         |                                                                     |
|-------------------------------------------------------------------------|---------------------------------------------------------------------|
| <input checked="" type="checkbox"/> SB-12 Prescriptive [SB-12 - 2.1.1.] | Table: 2.1.1.2A Package: A B C D E F G H I J K L M                  |
| <input type="checkbox"/> SB-12 Performance* [SB-12 - 2.1.2.]            | * Attach energy performance calculations using an approved software |
| <input type="checkbox"/> ENERGY STAR® [SB-12 - 2.1.3.]                  | * Attach BOP form                                                   |
| <input type="checkbox"/> EnerGuide 80*                                  | * House must be evaluated by NRCan advisor and meet a rating of 80  |

## C. Project Design Conditions

|                                                                 |                                                |                                         |                                   |                                                                                                                        |  |
|-----------------------------------------------------------------|------------------------------------------------|-----------------------------------------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------|--|
| Climatic Zone (SB-1):                                           |                                                | Heating Equipment Efficiency            |                                   | Space Heating Fuel Source                                                                                              |  |
| <input checked="" type="checkbox"/> Zone 1 (< 5000 degree days) | <input checked="" type="checkbox"/> ≥ 90% AFUE | <input checked="" type="checkbox"/> Gas | <input type="checkbox"/> Propane  | <input type="checkbox"/> Solid Fuel                                                                                    |  |
| <input type="checkbox"/> Zone 2 (≥ 5000 degree days)            | <input type="checkbox"/> ≥ 78% < 90% AFUE      | <input type="checkbox"/> Oil            | <input type="checkbox"/> Electric | <input type="checkbox"/> Earth Energy                                                                                  |  |
| Windows+Skylights+Glass Doors                                   |                                                |                                         |                                   |                                                                                                                        |  |
| Gross Wall Area = 314 m <sup>2</sup>                            |                                                | % Windows+ 11.49 %                      |                                   | <input type="checkbox"/> ICF Basement <input type="checkbox"/> Walkout Basement <input type="checkbox"/> Log/Post&Beam |  |
| Gross Window+ Area = 36.09 m <sup>2</sup>                       |                                                |                                         |                                   | <input type="checkbox"/> ICF Above Grade <input type="checkbox"/> Slab-on-ground                                       |  |

## D. Building Specifications

 [provide values and ratings of the energy efficiency components proposed, or attach Energy Star BOP form]

| Building Component                       | RSI / R values | Building Component                                                  | Efficiency Ratings |
|------------------------------------------|----------------|---------------------------------------------------------------------|--------------------|
| Thermal Insulation                       |                |                                                                     |                    |
| Ceiling with Attic Space                 | 8.81           | Windows & Doors                                                     |                    |
| Ceiling without Attic Space              | 5.46           | Windows/Sliding Glass Doors                                         | 1.8                |
| Exposed Floor                            | 5.46           | Skylights                                                           |                    |
| Walls Above Grade                        | 3.87           | Mechanicals                                                         |                    |
| Basement Walls                           | 3.52           | Space Heating Equip. <sup>2</sup>                                   | 92%                |
| Slab (all >600mm below grade)            | --             | HRV Efficiency (%)                                                  | 60%                |
| Slab (edge only ≤600mm below grade)      | 1.76           | DHW Heater (EF)                                                     | 0.62               |
| Slab (all ≤600mm below grade, or heated) | 1.76           | NOTES                                                               |                    |
|                                          |                | 1. Provide U-Value in W/m2.K, or ER rating                          |                    |
|                                          |                | 2. Provide AFUE or indicate if condensing type combined system used |                    |

## E. Performance Design Verification

 [complete applicable sections if SB-12 Performance, Energy Star or EnerGuide80 options used]

### SB-12 Performance:

The annual energy consumption using Subsection 2.1.1. SB-12 Package is \_\_\_\_\_ GJ (1 GJ =1000MJ)

The annual energy consumption of this house as designed is \_\_\_\_\_ GJ

The software used to simulate the annual energy use of the building is: \_\_\_\_\_

The building is being designed using an air leakage of \_\_\_\_\_ air changes per hour @50Pa.

ENERGY STAR: BOP form attached. The house will be labeled on completion by:

ENERGY STAR and EnerGuide80:

Evaluator/Advisor/Rater Name:

Evaluator/Advisor/Rater Licence #:

## F. Designers

 [names of designers who are responsible for the building code design and whose plans accompany the permit application]

|                                    |            |
|------------------------------------|------------|
| Architectural<br>Santos Dolormente | Mechanical |
| BCIN 21715 Date: February 26, 2013 |            |