



# Energy Efficiency Design Summary (Part 9 Residential) Supplementary Standard SB-12

This form is to be completed and signed by the person who reviews and takes responsibility for the energy efficiency design of the project. Information on completing this form is contained on the reverse.

Application No. \_\_\_\_\_ For use by Principal Authority  
Model/Certification Number: \_\_\_\_\_

**A. Project Information** Phoenix Homes Model S1 2007 A (06087)

Building Number, Street Name 6525 Waterdown Unit Number 56. Lot / Con. 59

Municipality Ottawa Postal Code \_\_\_\_\_ Reg. Plan Number / Other Description \_\_\_\_\_

## B. Compliance Option

|                                                                         |                                                                       |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <input checked="" type="checkbox"/> SB-12 Prescriptive [SB-12 - 2.1.1.] | Table: 2.1.1.2A Package: 1                                            |
| <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. House must be labeled on completion by Energy Star |
| <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                               |                                                | Other Building Conditions                                                                                                    |
| Gross Wall Area = 237.10 m <sup>2</sup>                         | % Windows+ 13.02 %                             | <input type="checkbox"/> ICF Basement <input type="checkbox"/> Walkout Basement <input type="checkbox"/> Log / Post and Beam |
| Gross Window+ Area = 30.88 m <sup>2</sup>                       |                                                | <input type="checkbox"/> ICF Above Grade <input type="checkbox"/> Slab on Grade                                              |

## D. Building Specifications

| Building Component                                                  | RSI / R values | Building Component                                      | Efficiency Ratings |
|---------------------------------------------------------------------|----------------|---------------------------------------------------------|--------------------|
| <b>Thermal Insulation</b>                                           |                |                                                         |                    |
| Ceiling with Attic Space                                            | 8.81           | Windows/Sliding Glass Doors                             | 1.8                |
| Ceiling without Attic Space                                         | 5.46           | Skylights                                               |                    |
| Exposed Floor                                                       | 5.46           | Mechanicals                                             |                    |
| Walls Above Grade                                                   | 3.87           | Space Heating Equip. <sup>2</sup>                       | 92%                |
| Basement Walls                                                      | 3.52           | HRV Efficiency (%)                                      | 60%                |
| Slab (all >600mm below grade)                                       | —              | DHW Heater (EF)                                         | 0.62               |
| Slab (edge only ≤600mm below grade)                                 | 1.76           | NOTES                                                   |                    |
| Slab (all ≤600mm below grade, or heated)                            | 1.76           | 1. Provide U-Value in W/m <sup>2</sup> .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 License #: \_\_\_\_\_

## F. Declaration [by the person who reviews and takes responsibility for the energy efficiency design]

I certify that I have reviewed the design documents submitted with the permit application, that the information contained on this form is consistent with the design documents, and that information used in any annual energy use calculations, if applicable, is a true representation of the design documents.

Name: Ken Viljoen Viljoen Analytic Inc  
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Signature: K. Viljoen Date: APRIL 18-2012