

## **TOWNSHIP OF HORTON**

## **ACCESSORY BUILDING**

R.R. #5, 2253 Johnston Road - Renfrew, Ontario K7V 3Z8

Phone: 613-432-6271 Fax: 613-432-7298

### **BUILDING PERMIT APPLICATIONS**

A Building Permit Application and attached forms must be completed prior to obtaining a building permit. Building Permit Application packages are available at the Municipal Office for pickup or mail out.

### **PROCEDURE FOR OBTAINING BUILDING PERMIT:**

1. The Building Permit Application is to be completed and delivered to the Building Inspector or left at the Municipal Office for pickup by the Building Inspector.  
**Building Permit Requirements No. 1 to No. 8 that are outlined below must be met prior to submitting completed building permit application. Note: Some of these steps may not be necessary for an accessory building.**
2. Notification will be given from the Building Inspector that the application has been completed satisfactorily and the applicant will then be given the amount of the Building Permit Fee, Sewage Permit Fee and Lot Development Fee.
3. The Building Inspector will notify the Municipal Office of the amount of the fee(s) owing by applicant and they will accept payment of these.
4. Only after payment is received by the Municipal Office will the Building Inspector be notified.
5. The Building Inspector will contact the applicant when building/construction can commence.

### **REQUIREMENTS FOR SECURING A BUILDING PERMIT**

The following steps are required to be completed prior the issuance of a building permit.

**NOTE: SOME OF THESE STEPS MAY NOT BE NECESSARY FOR AN ACCESSORY BUILDING**

#### **1. DEED FOR YOUR PROPERTY**

This must be shown to the Chief Building Official to establish your ownership of the property.

#### **2. ENTRANCE PERMIT**

Permission must be obtained by the road authorities for you to make an entrance from the road into your property. For residences, even if there is an existing entrance in place, a permit is still required.

**TOWNSHIP ROAD:** Apply at the Township Office

**COUNTY ROAD:** Contact John MacKay at the County of Renfrew  
9 International Dr., Pembroke, ON K8A 6W5 Phone: 732-4353

**PROVINCIAL HIGHWAY:** Contact Ministry of Transportation Phone: 613-332-3220

3. **PROPERTY IDENTIFICATION SIGNS (911):**

If your access is onto a Provincial or County Highway, application for an identification sign will be made when applying for a building permit.

If access is onto a Township Road, application will be made when obtaining your entrance permit from the Road Foreman.

4. **SEPTIC SYSTEM APPROVAL**

Apply to Dennis Fridgen, Building and Sewage Inspector at 432-3290. Sewage Systems must be approved before residential building permits are obtained. The fee for this is \$350.00 for a standard sewage system plus a \$50.00 administration fee.

5. **BLUE PRINT PLANS**

Contact Dennis Fridgen, Chief Building Official and Sewage Inspector for details required - 432-3290 - R.R. #2, Stone Rd., Renfrew, ON K7V 3Z5.

6. **ZONING BY-LAW CONFIRMATION**

The proposed construction must conform to the Township's Zoning By-law where applicable.

7. **LAND SURVEY and/or ELEVATION SURVEY**

Certain circumstances, i.e. small lot, constructing close to setback limits, etc., may require a surveyor to establish the lot lines. Also, all property owners who front onto the Ottawa River, must provide an elevation survey, prepared by a qualified surveyor or engineer.

8. **SITE PLAN - BUILDING FORM "B"**

Building form "B" **MUST** be used for the site plan and **MUST** be dated and signed.

**SOME OF THESE STEPS MAY NOT BE NECESSARY FOR AN ACCESSORY BUILDING.**

# Application for a Permit to Construct or Demolish

This form is authorized under subsection 8(1.1) of the Building Code Act.

For use by Principal Authority			
Application number:	Permit number (if different):		
Date received:	Roll number:		
Application submitted to: _____ (Name of municipality, upper-tier municipality, board of health or conservation authority)			
A. Project information			
Building number, street name	Unit number	Lot/con.	
Municipality	Postal code	Plan number/other description	
Project value est. \$	Area of work (m <sup>2</sup> )		
B. Purpose of application			
<input type="checkbox"/> New construction <input type="checkbox"/> Addition to an existing building <input type="checkbox"/> Alteration/repair <input type="checkbox"/> Demolition <input type="checkbox"/> Conditional Permit			
Proposed use of building	Current use of building		
Description of proposed work			
C. Applicant      Applicant is: <input type="checkbox"/> Owner   or <input type="checkbox"/> Authorized agent of owner			
Last name	First name	Corporation or partnership	
Street address	Unit number	Lot/con.	
Municipality	Postal code	Province	E-mail
Telephone number (    )	Fax (    )	Cell number (    )	
D. Owner (if different from applicant)			
Last name	First name	Corporation or partnership	
Street address	Unit number	Lot/con.	
Municipality	Postal code	Province	E-mail
Telephone number (    )	Fax (    )	Cell number (    )	

<b>E. Builder (optional)</b>				
Last name		First name	Corporation or partnership (if applicable)	
Street address			Unit number	Lot/con.
Municipality		Postal code	Province	E-mail
Telephone number (     )		Fax (     )		Cell number (     )
<b>F. Tarion Warranty Corporation (Ontario New Home Warranty Program)</b>				
i. Is proposed construction for a new home as defined in the <i>Ontario New Home Warranties Plan Act</i> ? If no, go to section G.			<input type="checkbox"/> Yes	<input type="checkbox"/> No
ii. Is registration required under the <i>Ontario New Home Warranties Plan Act</i> ?			<input type="checkbox"/> Yes	<input type="checkbox"/> No
iii. If yes to (ii) provide registration number(s): _____				
<b>G. Required Schedules</b>				
i) Attach Schedule 1 for each individual who reviews and takes responsibility for design activities.				
ii) Attach Schedule 2 where application is to construct on-site, install or repair a sewage system.				
<b>H. Completeness and compliance with applicable law</b>				
i) This application meets all the requirements of clauses 1.3.1.3 (5) (a) to (d) of Division C of the Building Code (the application is made in the correct form and by the owner or authorized agent, all applicable fields have been completed on the application and required schedules, and all required schedules are submitted). Payment has been made of all fees that are required, under the applicable by-law, resolution or regulation made under clause 7(1)(c) of the <i>Building Code Act, 1992</i> , to be paid when the application is made.			<input type="checkbox"/> Yes	<input type="checkbox"/> No
ii) This application is accompanied by the plans and specifications prescribed by the applicable by-law, resolution or regulation made under clause 7(1)(b) of the <i>Building Code Act, 1992</i> .			<input type="checkbox"/> Yes	<input type="checkbox"/> No
iii) This application is accompanied by the information and documents prescribed by the applicable by-law, resolution or regulation made under clause 7(1)(b) of the <i>Building Code Act, 1992</i> which enable the chief building official to determine whether the proposed building, construction or demolition will contravene any applicable law.			<input type="checkbox"/> Yes	<input type="checkbox"/> No
iv) The proposed building, construction or demolition will not contravene any applicable law.			<input type="checkbox"/> Yes	<input type="checkbox"/> No
<b>I. Declaration of applicant</b>				
I _____ declare that:				
(print name)				
1. The information contained in this application, attached schedules, attached plans and specifications, and other attached documentation is true to the best of my knowledge.				
2. If the owner is a corporation or partnership, I have the authority to bind the corporation or partnership.				
_____		_____		
Date		Signature of applicant		

Personal information contained in this form and schedules is collected under the authority of subsection 8(1.1) of the *Building Code Act, 1992*, and will be used in the administration and enforcement of the *Building Code Act, 1992*. Questions about the collection of personal information may be addressed to: a) the Chief Building Official of the municipality or upper-tier municipality to which this application is being made, or, b) the inspector having the powers and duties of a chief building official in relation to sewage systems or plumbing for an upper-tier municipality, board of health or conservation authority to whom this application is made, or, c) Director, Building and Development Branch, Ministry of Municipal Affairs and Housing 777 Bay St., 2nd Floor. Toronto, M5G 2E5 (416) 585-6666.

## Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

<b>A. Project Information</b>			
Building number, street name	Unit no.	Lot/con.	
Municipality	Postal code	Plan number/ other description	
<b>B. Individual who reviews and takes responsibility for design activities</b>			
Name	Firm		
Street address	Unit no.	Lot/con.	
Municipality	Postal code	Province	E-mail
Telephone number (     )	Fax number (     )	Cell number (     )	
<b>C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]</b>			
<input type="checkbox"/> House	<input type="checkbox"/> HVAC – House	<input type="checkbox"/> Building Structural	
<input type="checkbox"/> Small Buildings	<input type="checkbox"/> Building Services	<input type="checkbox"/> Plumbing – House	
<input type="checkbox"/> Large Buildings	<input type="checkbox"/> Detection, Lighting and Power	<input type="checkbox"/> Plumbing – All Buildings	
<input type="checkbox"/> Complex Buildings	<input type="checkbox"/> Fire Protection	<input type="checkbox"/> On-site Sewage Systems	
Description of designer's work			
<b>D. Declaration of Designer</b>			
I _____ declare that (choose one as appropriate):			
(print name)			
<input type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. Individual BCIN: _____ Firm BCIN:        _____			
<input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code. Individual BCIN: _____ Basis for exemption from registration: _____			
<input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification: _____			
I certify that:			
1. The information contained in this schedule is true to the best of my knowledge. 2. I have submitted this application with the knowledge and consent of the firm.			
_____	_____		
Date	Signature of Designer		

**NOTE:**

1. For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d) of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
2. Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of practice, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.



THIS DOCUMENT CONSTITUTES **BUILDING FORM "B"** WHICH IS REQUIRED & **MUST BE COMPLETED PRIOR TO THE ISSUANCE** OF A BUILDING PERMIT IN THE MUNICIPALITY SPECIFIED ON FORM "A".  
*(Refer to the back of this form for instructions & examples)*

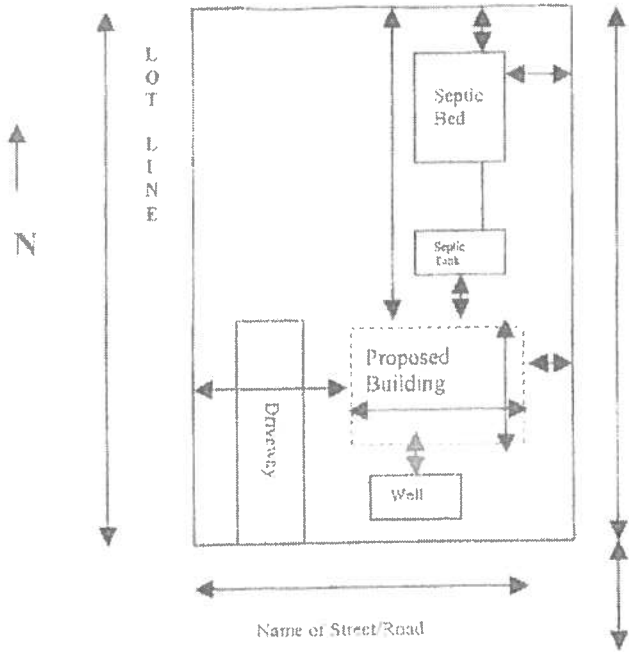
**For Office Use ONLY**  
Permit No. \_\_\_\_\_  
Lot \_\_\_\_\_ Con \_\_\_\_\_

THE ACCURACY OF THE INFORMATION APPEARING ON BUILDING FORM "B" IS THE RESPONSIBILITY OF THE APPLICANT AND IS HEREBY MADE PART OF THIS APPLICATION. **I HEREBY CERTIFY THAT THE INFORMATION APPEARING ON BUILDING FORM "B" IS TRUE AND ACCURATE TO THE BEST OF MY ABILITY.**

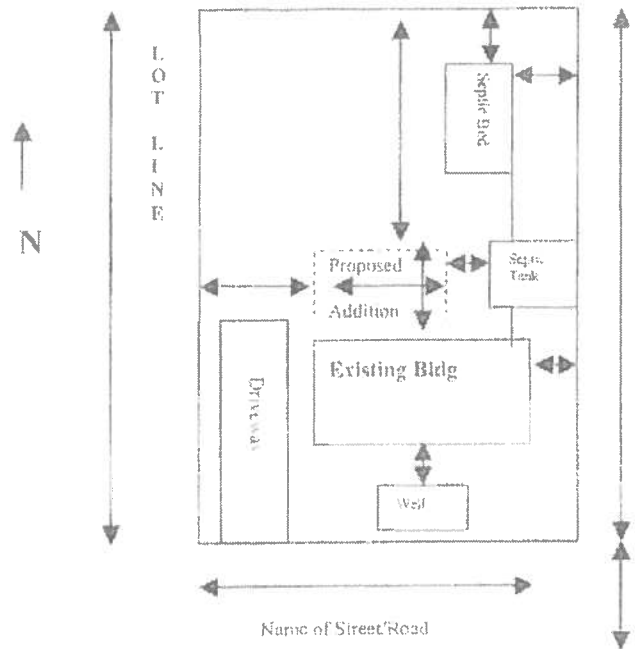
OWNER OR AUTHORIZED AGENT \_\_\_\_\_ DATE \_\_\_\_\_

EXAMPLES ONLY

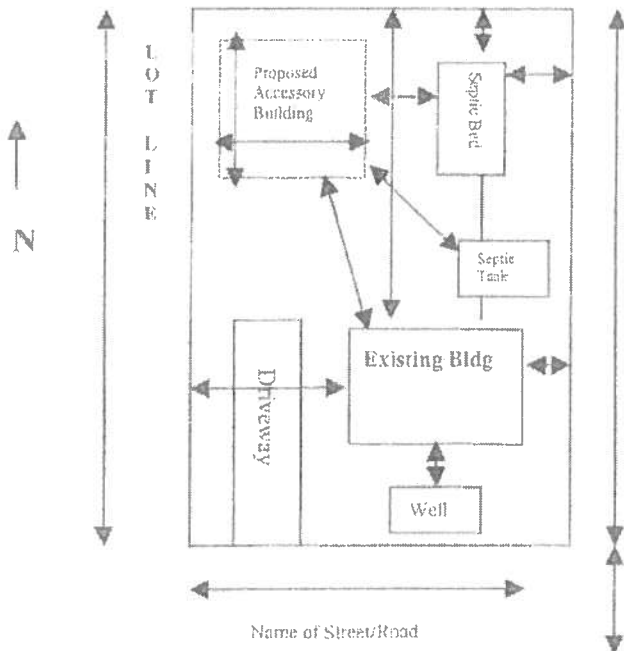
SAMPLE TO USE IF NEW BUILDING



SAMPLE TO USE IF ADDITION TO BUILDING



SAMPLE TO USE IF ACCESSORY BUILDING



ITEMS THAT MUST APPEAR ON SAMPLE USED

- 1 Frontage of Lot
- 2 Depth of Lot
- 3 If irregular shape - all dimensions
- 4 Location of Septic System
- 5 Location of Driveway
- 6 North to be indicated
- 7 Size of Proposed Building or Addition
- 8 Measurement in feet from Proposed or Existing Buildings in Relation to all Lot Lines and any water course (ie. creek, stream, marsh, lake or river)
- 9 Do not forget to sign Building Form "B"



**FOR OFFICE USE ONLY  
INSPECTION REPORT**

INSPECTION	DATE	REMARKS	INSPECTED BY
EXCAVATION			
FTGS & FDNS			
FRAMING			
INSULATION V.B. & A.B.			
FIREPLACES CHIMNEYS			
EXTERIOR FINISHING			
INTERIOR FINISHING			
PLUMBING			
H.V.A.C.			
OCCUPANCY			
FINAL INSPECTION			
FILED	NOTES		
OUTSTANDING ORDERS			

# Energy Efficiency Design Summary: Performance & Other Acceptable Compliance Methods

(Building Code Part 9, Residential)

This form is used by a designer to demonstrate that the energy efficiency design of a house complies with the building code using the Performance or Other Acceptable Compliance Methods described in Subsections 3.1.2. and 3.1.3. of SB-12,

This form must accurately reflect the information contained on the drawings and specifications being submitted. Refer to Supplementary Standard SB-12 for details about building code compliance requirements. Further information about energy efficiency requirements for new buildings is available from the provincial building code website or the municipal building department.

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

## A. Project Information

Building number, street name		Unit number	Lot/Con
Municipality	Postal code	Reg. Plan number / other description	

## B. Compliance Option [indicate the building code compliance option being employed in this house design]

<input type="checkbox"/> <b>SB-12 Performance*</b> [SB-12 - 3.1.2.]	* Attach energy performance results using an approved software (see guide)
<input type="checkbox"/> <b>ENERGY STAR®*</b> [SB-12 - 3.1.3.]	* Attach Builder Option Package [BOP] form
<input type="checkbox"/> <b>R-2000®*</b> [SB-12 - 3.1.3.]	* Attach R-2000 HOT2000 Report

## C. Project Building Design Conditions

Climatic Zone (SB-1):	Heating Equipment Efficiency	Space Heating Fuel Source
<input type="checkbox"/> Zone 1 (< 5000 degree days)	<input type="checkbox"/> ≥ 92% AFUE	<input type="checkbox"/> Gas <input type="checkbox"/> Propane <input type="checkbox"/> Solid Fuel
<input type="checkbox"/> Zone 2 (≥ 5000 degree days)	<input type="checkbox"/> ≥ 84% < 92% AFUE	<input type="checkbox"/> Oil <input type="checkbox"/> Electric <input type="checkbox"/> Earth Energy
Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area		Other Building Characteristics
Area of walls = _____m <sup>2</sup> or _____ft <sup>2</sup>	W, S & G % = _____	<input type="checkbox"/> Log/Post&Beam <input type="checkbox"/> ICF Above Grade <input type="checkbox"/> ICF Basement
Area of W, S & G = _____m <sup>2</sup> or _____ft <sup>2</sup>		<input type="checkbox"/> Slab-on-ground <input type="checkbox"/> Walkout Basement <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Combo Unit <input type="checkbox"/> Air Source Heat Pump (ASHP) <input type="checkbox"/> Ground Source Heat Pump (GSHP)
SB-12 Performance Reference Building Design Package indicating the prescriptive package to be compared for compliance		
SB-12 Referenced Building Package (input design package): Package: _____ Table: _____		

## D. Building Specifications [provide values and ratings of the energy efficiency components proposed, or attach ENERGY STAR BOP form]

Building Component	Minimum RSI / R values or Maximum U-Value <sup>(1)</sup>	Building Component	Efficiency Ratings
<b>Thermal Insulation</b>	Nominal    Effective	<b>Windows &amp; Doors</b> Provide U-Value <sup>(1)</sup> or ER rating	
Ceiling with Attic Space		Windows/Sliding Glass Doors	
Ceiling without Attic Space		Skylights/Glazed Roofs	
Exposed Floor		<b>Mechanicals</b>	
Walls Above Grade		Heating Equip.(AFUE)	
Basement Walls		HRV Efficiency (SRE% at 0° C)	
Slab (all >600mm below grade)		DHW Heater (EF)	
Slab (edge only ≤600mm below grade)		DWHR (CSA B55.1 (min. 42% efficiency))	# Showers_____
Slab (all ≤600mm below grade, or heated)		Combined Space / Dom. Water Heating	

(1) U value to be provided in either W/(m<sup>2</sup>·K) or Btu/(h·ft<sup>2</sup>·F) but not both.

**E. Performance Design Verification** [Subsection 3.1.2. Performance Compliance]

The annual energy consumption using Subsection 3.1.1. SB-12 Reference Building 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 tightness baseline of:

- OBC reference ACH, NLA or NLR default values (no depressurization test required)
- Targeted ACH, NLA or NLR. Depressurization test to meet \_\_\_\_\_ ACH50 or NLR or NLA

- Reduction of overall thermal performance of the proposed building envelope is not more than 25% of the envelope of the compliance package it is compared against (3.1.2.1.(6)).
- Standard Operating Conditions Applied (A-3.1.2.1 - 4.6.2)
- Reduced Operating Conditions for Zero-rated homes Applied (A-3.1.2.1 - 4.6.2.5)

- On Site Renewable(s): Solar: \_\_\_\_\_  
Other Types: \_\_\_\_\_

**F. ENERGY STAR or R-2000 Performance Design Verification** [Subsection 3.1.3. Other Acceptable Compliance Methods]

- The NRCan “ENERGY STAR for New Homes Standard Version 12.6 ” technical requirements, applied to this building design result in the building performance meeting or exceeding the prescriptive performance requirements of the Supplementary Standard SB12 (A-3.1.3.1).
- The NRCan, “2012 R-2000 Standard ” technical requirements, applied to this building design result in the building performance meeting or exceeding the prescriptive performance requirements of the Supplementary Standard SB12 (A-3.1.3.1).

**Performance Energy Modeling Professional**

Energy Evaluator/Advisor/Rater/CEM Name and company:

Accreditation or Evaluator/Advisor/Rater License #

**ENERGY STAR or R-2000**

Energy Evaluator/Advisor/Rater/ Name and company:

Evaluator/Advisor/Rater License #

**G. Designer(s)** [name(s) & BCIN(s), if applicable, of person(s) providing information herein to substantiate that design meets the building code]

**Qualified Designer:** Declaration of designer to have reviewed and take responsibility for the design work.

Name	BCIN	Signature

# Guide to the Energy Efficiency Design Summary Form for Performance & Other Acceptable Compliance Methods

## COMPLETING THE FORM

### B. Compliance Options

Indicate the compliance option being used.

- *SB-12 Performance* refers to the method of compliance in Subsection 3.1.2. of SB-12. Using this approach the designer must use recognized energy simulation software (such as HOT2000 V10.51 or newer), and submit documents which show that the annual energy use of the proposed building is equal to or less than a prescriptive (referenced) building package.
- *ENERGY STAR* houses must be designed to *ENERGY STAR* requirements and verified on completion by a licensed energy evaluator and/or service organization. The *ENERGY STAR* BOP form must be submitted with the permit documents.
- *R-2000* houses must be designed to the *R-2000 Standard* and verified on completion by a licensed energy evaluator and/or service organization. The HOT2000 report must be submitted with the permit documents.

### C. Project Design Conditions

*Climatic Zone:* The number of degree days for Ontario cities is contained in Supplementary Standard SB-1 *Windows, Skylights and Glass Doors:* If the ratio of the total gross area of windows, sidelights, skylights, glazing in doors and sliding glass doors to the total gross area of walls is more than 17%, higher efficiency glazing is required. The total area is the sum of all the structural rough openings. Some exceptions apply. Refer to 3.1.1.1. of SB-12 for further details.

*Fuel Source and Heating Equipment Efficiency:* The fuel source and efficiency of the proposed heating equipment must be specified in order to determine which *SB-12 Prescriptive* compliance package table applies.

*Other Building Conditions:* These construction conditions affect *SB-12 Prescriptive* compliance requirements.

### D. Building Specifications

*Thermal Insulation:* Indicate the RSI or R-value being proposed where they apply to the house design. Refer to SB-12 for further details.

### E. Performance Design Summary

A summary of the performance design applicable only to the *SB-12 Performance* option.

### F. ENERGY STAR or R-2000 Performance Method

Design to ENERGY STAR or R-2000 Standards.

### G. House Designer

The building code requires designers providing information about whether a building complies with the building code to have a BCIN. Exemptions apply to architects, engineers and owners designing their own house.

## BUILDING CODE REQUIREMENTS FOR AIRTIGHTNESS IN NEW HOUSES

All houses must comply with increased air barrier requirements in the building code. Notice of air barrier completion must be provided and an inspection conducted prior to it being covered.

The air leakage rates in Table 3.1.2.1. are not requirements. The Table is not intended to require or suggest that the building meet those airtightness targets. They are provided only as default or reference values for the purpose of annual energy simulations, should the builder/owner decide to perform such simulations. They are given in three different metrics; ACH, NLA, NLR. Any one of them can be used. They can be used as a default values for both a reference and proposed building or, where an air leakage test is conducted and credit for airtightness is claimed, the airtightness values in Table 3.1.2.1. can be used for the reference building and the actual leakage rates obtained from the air leakage test can be used as inputs for the proposed building.

OBC Reference Default Air Leakage Rates (Table 3.1.2.1.)

Detached dwelling	3.0 ACH50	NLA 2.12 cm <sup>2</sup> /m <sup>2</sup>	NLR 1.32 L/s/m <sup>2</sup>
Attached dwelling	3.5 ACH50	NLA 2.27 cm <sup>2</sup> /m <sup>2</sup>	NLR 1.44 L/s/m <sup>2</sup>

The building code requires that a blower door test be conducted to verify the air tightness of the house during construction if the *SB-12 Performance* option is used and an air tightness of less than 3.0 ACH @ 50 Pa (or NLA or NLR equivalent) in the case of detached houses, or 3.5 ACH @ 50 Pa (or NLA or NLR equivalent) in the case of attached houses is necessary to meet the required energy efficiency standard.

## ENERGY EFFICIENCY LABELING FOR NEW HOUSES

*ENERGY STAR* and R-2000 may issue labels for new homes constructed under their energy efficiency programs. The building code does not currently regulate or require new home labeling.

# Energy Efficiency Design Summary: Prescriptive Method

(Building Code Part 9, Residential)

This form is used by a designer to demonstrate that the energy efficiency design of a house complies with the building code using the prescriptive method described in Subsection 3.1.1. of SB-12. This form is applicable where the ratio of gross area of windows/sidelights/skylights/glazing in doors and sliding glass doors to the gross area of peripheral walls is not more than 22%.

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

## A. Project Information

Building number, street name	Unit number	Lot/Con
Municipality	Postal code	Reg. Plan number / other description

## B. Prescriptive Compliance [indicate the building code compliance package being employed in this house design]

*SB-12 Prescriptive (input design package):* Package: \_\_\_\_\_ Table: \_\_\_\_\_

## C. Project Design Conditions

Climatic Zone (SB-1):	Heating Equipment Efficiency	Space Heating Fuel Source
<input type="checkbox"/> Zone 1 (< 5000 degree days)	<input type="checkbox"/> ≥ 92% AFUE	<input type="checkbox"/> Gas <input type="checkbox"/> Propane <input type="checkbox"/> Solid Fuel
<input type="checkbox"/> Zone 2 (≥ 5000 degree days)	<input type="checkbox"/> ≥ 84% < 92% AFUE	<input type="checkbox"/> Oil <input type="checkbox"/> Electric <input type="checkbox"/> Earth Energy
Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area		Other Building Characteristics
Area of walls = _____m <sup>2</sup> or _____ft <sup>2</sup>	W, S & G % = _____	<input type="checkbox"/> Log/Post&Beam <input type="checkbox"/> ICF Above Grade <input type="checkbox"/> ICF Basement <input type="checkbox"/> Slab-on-ground <input type="checkbox"/> Walkout Basement <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Combo Unit <input type="checkbox"/> Air Sourced Heat Pump (ASHP) <input type="checkbox"/> Ground Sourced Heat Pump (GSHP)
Area of W, S & G = _____m <sup>2</sup> or _____ft <sup>2</sup>	Utilize window averaging: <input type="checkbox"/> Yes <input type="checkbox"/> No	

## D. Building Specifications [provide values and ratings of the energy efficiency components proposed]

Energy Efficiency Substitutions				
<input type="checkbox"/> ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5) & (6))				
<input type="checkbox"/> Combined space heating and domestic water heating systems (3.1.1.2.(7) / 3.1.1.3.(7))				
<input type="checkbox"/> Airtightness substitution(s)  Airtightness test required (Refer to Design Guide Attached)	<input type="checkbox"/> Table 3.1.1.4.B Required: _____ Permitted Substitution: _____			
	<input type="checkbox"/> Table 3.1.1.4.C Required: _____ Permitted Substitution: _____			
	Required: _____ Permitted Substitution: _____			
Building Component	Minimum RSI / R values or Maximum U-Value <sup>(1)</sup>		Building Component	Efficiency Ratings
Thermal Insulation	Nominal	Effective	Windows & Doors	Provide U-Value <sup>(1)</sup> or ER rating
Ceiling with Attic Space			Windows/Sliding Glass Doors	
Ceiling without Attic Space			Skylights/Glazed Roofs	
Exposed Floor			Mechanicals	
Walls Above Grade			Heating Equip.(AFUE)	
Basement Walls			HRV Efficiency (SRE% at 0° C)	
Slab (all >600mm below grade)			DHW Heater (EF)	
Slab (edge only ≤600mm below grade)			DWHR (CSA B55.1 (min. 42% efficiency))	# Showers_____
Slab (all ≤600mm below grade, or heated)			Combined Heating System	

(1) U value to be provided in either W/(m<sup>2</sup>•K) or Btu/(h•ft<sup>2</sup>•F) but not both.

## E. Designer(s) [name(s) & BCIN(s), if applicable, of person(s) providing information herein to substantiate that design meets the building code]

Qualified Designer Declaration of designer to have reviewed and take responsibility for the design work.		
Name	BCIN	Signature

# Guide to the Prescriptive Energy Efficiency Design Summary Form

This form must accurately reflect the information contained on the drawings and specifications being submitted. Refer to Supplementary Standard SB-12 for details about building code compliance requirements. Further information about energy efficiency requirements for new buildings is available from the provincial building code website or the municipal building department.

The building code permits a house designer to use one of four energy efficiency compliance options:

1. Comply with the SB-12 Prescriptive design tables (this form is for this option (Option 1)),
2. Use the SB-12 Performance compliance method, and model the design against the prescriptive standards,
3. Design to Energy Star, or
4. Design to R2000 standards.

## COMPLETING THE FORM

### B. Compliance Options

Indicate the compliance option being used.

- SB-12 Prescriptive requires that the building conforms to a package of thermal insulation, window and mechanical system efficiency requirements set out in Subsection 3.1.1. of SB-12. Energy efficiency design modeling and testing of the building is not required under this option. Certain substitutions are permitted. In which case, the applicable airtightness targets in Table 3.1.1.4.A must be met.

### C. Project Design Conditions

*Climatic Zone:* The number of degree days for Ontario cities is contained in Supplementary Standard SB-1 *Windows, Skylights and Glass Doors:* If the ratio of the total gross area of windows, sidelights, skylights, glazing in doors and sliding glass doors to the total gross area of walls is more than 17%, higher efficiency glazing is required. If the ratio is more than 22%, the SB-12 Prescriptive option may not be used. The total area is the sum of all the structural rough openings. Some exceptions apply. Refer to 3.1.1.1. of SB-12 for further details.

*Fuel Source and Heating Equipment Efficiency:* The fuel source and efficiency of the proposed heating equipment must be specified in order to determine which SB-12 Prescriptive compliance package table applies.

*Other Building Conditions:* These construction conditions affect SB-12 Prescriptive compliance requirements.

### D. Building Specifications

*Thermal Insulation:* Indicate the RSI or R-value being proposed where they apply to the house design. Under the SB-12 Prescriptive option, alternative ICF wall insulation is permitted in certain conditions where other design elements meet higher standards. Refer to SB-12 for further details. Where effective insulation values are being used, the Authority Having Jurisdiction may require supporting documentation.

## BUILDING CODE REQUIREMENTS FOR AIRTIGHTNESS IN NEW HOUSES

All houses must comply with increased air barrier requirements in the building code. Notice of air barrier completion must be provided and an inspection conducted prior to it being covered.

The air leakage rates in Table 3.1.1.4.A are not requirements. This provision is a voluntary provision for when credits for airtightness are claimed. Credit for air tightness allows the designer to substitute the requirements of compliance packages as set out in Table 3.1.1.4.B or 3.1.1.4.C. Neither the air leakage test nor compliance with airtightness targets given in Table 3.1.1.4.A are required, unless credit for airtightness is claimed. Table 3.1.1.4.A provides airtightness targets in three different metrics; ACH, NLA, NLR. Any one of them can be used. OBC Reference Default Air Leakage Rates (Table 3.1.1.4.A)

Building Type	Airtightness Targets				
	ACH @ 50 Pa	NLA @ 10 Pa		NLR @ 50 Pa	
Detached dwelling	2.5	1.26 cm <sup>2</sup> /m <sup>2</sup>	1.81 in <sup>2</sup> /100ft <sup>2</sup>	0.93 L/s/m <sup>2</sup>	0.18 cfm50/ft <sup>2</sup>
Attached dwelling	3.0	2.12 cm <sup>2</sup> /m <sup>2</sup>	3.06 in <sup>2</sup> /100ft <sup>2</sup>	1.32 L/s/m <sup>2</sup>	0.26 cfm50/ft <sup>2</sup>

The building code requires that a blower door test be conducted to verify the air tightness of the house during construction if the SB-12 Prescriptive option with airtightness credit being applied. Results of the airtightness test may need to be submitted to the Authority Having Jurisdiction. Airtightness of less than 2.5 ACH @ 50 Pa (or NLA or NLR equivalent) in the case of detached houses, or 3.0 ACH @ 50 Pa (or NLA or NLR equivalent) in the case of attached houses is necessary to meet the required energy efficiency standard.

### E. House Designer

The building code requires designers providing information about whether a building complies with the building code to have a BCIN. Exemptions apply to architects, engineers and owners designing their own house.