

The Municipality of West Elgin Application for a Permit to Construct or Demolish This form is authorized under subsection 8(1.1) of the Building Code Act, 1992

For use by Principal Authority								
Application number:			Permit r	Permit number (if different):				
Date received: R			Roll nur	nber:				
Application submitted to: _	(Name of municipal	lity, upper-ti	er municipality, bo	ard of health or c	onservatio	n authority)		
A. Project information								
Building number, street na	me					Unit number	Lot/con.	
Municipality		Postal o	code	Plan number/	other des	cription		
Project value est. \$				Area of work (m ²)				
B. Purpose of applica	ition							
☐ New construction	☐ Addition to existing t		☐ Alterati	·	□ De	emolition	☐ Conditional Permit	
Proposed use of building	Proposed use of building Current us			building				
Description of proposed wo								
C. Applicant	Applicant is:	1 Owner		☐ Authorized a				
Last name		First na	me	Corporation o	r partners	ship		
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 na	me	Corporation o	r partners	ship		
Street address		1		<u> </u>		Unit number	Lot/con.	
Municipality		Postal o	code	Province		E-mail		
Telephone number ()		Fax ()				Cell number		

E. Builder (optional)								
Last name	First name	Corporation or partnersh	ip (if applicable)					
Street address	Unit number	Lot/con.						
Municipality	Postal code	Province	E-mail					
Telephone number ()	Fax ()	Fax Cell number ()						
F. Tarion Warranty Corporation (Ontario	New Home Warran	ty Program)						
 i. Is proposed construction for a new hom Plan Act? If no, go to section G. 			☐ Ye	s 🗆 No				
ii. Is registration required under the Ontar	io New Home Warrantie	s Plan Act?	□ Ye	s □ No				
iii. If yes to (ii) provide registration number	(s):							
G. Required Schedules	· · ·							
i) Attach Schedule 1 for each individual who rev	riews and takes respons	ibility for design activities.						
ii) Attach Schedule 2 where application is to con	struct on-site, install or re	epair a sewage system.						
H. Completeness and compliance with	applicable law							
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</i> , 1992, to be paid when the application is made.								
ii) This application is accompanied by the plans resolution or regulation made under clause 7			law, □ Ye	s 🗆 No				
iii) This application is accompanied by the information and documents prescribed by the applicable bylaw, 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.								
iv) The proposed building, construction or demol	ition will not contravene	any applicable law.	□ Ye	s 🗆 No				
I. Declaration of applicant								
Ideclare that:declare that:								
 The information contained in this application, attached schedules, attached plans and specifications, and other attached documentation is true to the best of my knowledge. 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. A. Project Information Building number, street name Unit no. Lot/con. Municipality Postal code Plan number/ other description B. Individual who reviews and takes responsibility for design activities Name Firm Street address Unit no. Lot/con. Municipality Postal code Province E-mail Telephone number Cell number Fax number C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C1 ☐ House ☐ HVAC – House ☐ Building Structural ☐ Plumbing – House ☐ Small Buildings ☐ Building Services ☐ Large Buildings ☐ Detection, Lighting and Power ☐ Plumbing – All Buildings ☐ Complex Buildings ☐ Fire Protection ☐ On-site Sewage Systems Description of designer's work D. Declaration of Designer declare that (choose one as appropriate): (print name) ☐ 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: ☐ 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: ☐ The design work is exempt from the registration and qualification requirements of the Building Code.

NOTE:

Date

I certify that:

- 1. For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) (c).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.

Signature of Designer

Basis for exemption from registration and qualification:

The information contained in this schedule is true to the best of my knowledge.
 I have submitted this application with the knowledge and consent of the firm.

Schedule 2: Sewage System Installer Information

A. Project Information								
Building number, street name			Unit number	Lot/con.				
Municipality	ality Postal code Plan number/ other desc							
B. Sewage system installer								
Is the installer of the sewage system engaged in the business of constructing on-site, installing, repairing, servicing, cleaning or emptying sewage systems, in accordance with Building Code Article 3.3.1.1, Division C?								
☐ Yes (Continue to Section C) ☐ No (Continue to Section E) ☐ Installer unknown at time of application (Continue to Section E)								
C. Registered installer information	n (where answ	ver to B is "Yes")						
Name			BCIN					
Street address			Unit number	Lot/con.				
Municipality	Postal code	Province	E-mail					
Telephone number ()	Fax ()		Cell number ()					
D. Qualified supervisor information	on (where ansv	wer to section B is "Yes	")					
Name of qualified supervisor(s)		Building Code Identification	n Number (BCIN)					
E. Declaration of Applicant:								
I								
(print name)								
☐ I am the applicant for the permit to submit a new Schedule 2 prior to			r is unknown at time	of application, I shall				
<u>OR</u>								
☐ I am the holder of the permit to construct the sewage system, and am submitting a new Schedule 2, now that the installer is known.								
I certify that:								
The information contained in this schedule 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						

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/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/0	Certification Number			
A. Project Information								
Building number, street name		Unit number	Lot/	(Con				
Municipality		Postal	code	Reg. Pl	an number / other descrip	tion	L	
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 Con	ditions							
Climatic Zone (SB-1):	He		quipment Effic	ciency	Space Heating F			
□ Zone 1 (< 5000 degree days)		≥ 92% AF				□ Propane		olid Fuel
□ Zone 2 (≥ 5000 degree days)			92% AFUE			□ Electric	□ Ea	arth Energy
Ratio of Windows, Skylights	& Glass (W,	S & G) to	o Wall Area		Other Building		•	105.5
Aron of wolls	4 2				_	Log/Post&Beam □ ICF Above Grade □ ICF Basement		
Area of walls =m ² or	ıτ	W, S & G	6 % =		_	ground □ Walkout Basement ditioning □ Combo Unit		
	+:1:-	ze window	averaging: □Y	⁄es ⊓No	☐ Air Sourced He	•		
Area of W, S & G = $\underline{}$ m ² or	ft²	∠G WIIIUUW	averaging.	CO LINU	☐ Ground Source			
D. Building Specificati	<u> </u>	values an	d ratings of the	enerav eff			-	
Energy Efficiency Substi			395 3. 1.10			ı - FJ		
□ ICF (3.1.1.2.(5) & (6) / 3.1.1.	.3.(5) & (6))							
□ Combined space heating an		ater hea	ting systems (3.1127	7) / 3.1 1 3 (7))			
	a domicotic W	ator rica	9 0,0001113 (J. 1. 1.Z.(.,,, 0.1.1.0.(1))			
□ Airtightness substitution(s)	□ Table 3.1.1	4 B - Do-	auirad:		Dormit	ted Substitution:		
Airtightness test required						_		
(Refer to Design Guide Attached)	□ Table 3.1.1	.4.C Re	quired:		Permit	ted Substitution:		
			quired:	Permitted Substitution:				
Building Component			SI / R values m U-Value ⁽¹⁾		Building Component Efficiency Ratin			ency Ratings
Thermal Insulation		ominal	Effective	Windo	ws & Doors Prov	vide U-Value ⁽¹⁾ or ER	R rating	
Ceiling with Attic Space					Vindows/Sliding Glass Doors			
Ceiling without Attic Space				Skylights/Glazed Roofs				
Exposed Floor				Mecha				
Walls Above Grade								
Basement Walls				Heating Equip.(AFUE) HRV Efficiency (SRE% at 0°C)				
Slab (all >600mm below grade)					HW Heater (EF)			
3 44 4			` '			# Showers		
`				ned Heating Syste	• • • • • • • • • • • • • • • • • • • •			
<u>-</u>	(1) U value to be provided in either W/(m²•K) or Btu/(h•ft²•F) but not both.							
E. Designer(s) [name(s) 8				iding infor	mation herein to subs	stantiate that design	n meets the	e building code]
Qualified Designer Declaration								01
Name				BCIN	, 300.g.1 W	Signature		
						- 19.12.12		

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.

• <u>SB-12 Prescriptive</u> 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 <u>SB-12 Prescriptive</u> 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)

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

The building code requires that a blower door test be conducted to verify the air tightness of the house during construction if the <u>SB-12 Prescriptive</u> 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.

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 A	uthority						
Application No:	Mod	del/Certification Number						
A. Project Information								
Building number, street name			Unit number	Lot/Con				
Municipality	Postal code Reg	. Plan number / other descr	ption					
B. Compliance Option [indicate the	ne building code compliance option b	eing employed in this l	nouse design]					
☐ SB-12 Performance* [SB-12 - 3.1	.2.] * Attach energy perform	ance results using an approved software (see guide)						
☐ ENERGY STAR®* [SB-12 - 3.1.3.	* Attach Builder Option	* Attach Builder Option Package [BOP] form						
☐ <i>R-2000</i> ® *[SB-12 - 3.1.3.]	* Attach R-2000 HOT20	000 Report						
C. Project Building Design Co	anditions							
Climatic Zone (SB-1):	Heating Equipment Efficiency	Space Heating F	uel Source					
□ Zone 1 (< 5000 degree days)	□ ≥ 92% AFUE	□ Gas	□ Propane	□ Solid Fuel				
□ Zone 2 (≥ 5000 degree days)	□ ≥ 84% < 92% AFUE	□ Oil	□ Electric	□ Earth Energy				
Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area	Other Building C	haracteristics					
		•		le ICF Basement				
Area of walls =ft ²		•	□ Walkout Basem	ent				
	W, S & G % =	□ Air Conditioning						
Area of W, S & G =m ² or ft ²	☐ Air Source Heat Pump (ASHP)							
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 ⁽¹⁾ Building Component		Efficiency Ratings	
Thermal Insulation	Nominal Effective Windows & Doors Provide U-Value ⁽¹⁾ or ER rating		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 Space / Dom. Water Heating	•

⁽¹⁾ U value to be provided in either W/(m²•K) or Btu/(h•ft²•F) but not both.

E. Performance Design Verification [Subsection 3.1.2. Per	formance Compliance]							
The annual energy consumption using Subsection 3.1.1. SB	-12 Reference Building	Package isGJ (1 GJ =1000MJ)						
The annual energy consumption of this house as designed is	sGJ							
The software used to simulate the annual energy use of the	building is:							
The building is being designed using an air tightness baselir	ne of:							
☐ OBC reference ACH, NLA or NLR default values (no	depressurization test r	equired)						
☐ Targeted ACH, NLA or NLR. Depressurization test to	meetAC	CH50 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:	□ 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	r/Advisor/Rater License #						
ENERGY STAR or R-2000								
Energy Evaluator/Advisor/Rater/ Name and company:	Evaluator/Advisor/Rater I	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						

Form authorized by OHBA, OBOA, LMCBO. Revised December 1, 2016

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.

- <u>SB-12 Performance</u> 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.
- <u>ENERGY STAR</u> houses must be designed to <u>ENERGY STAR</u> requirements and verified on completion by a licensed energy evaluator and/or service organization. The <u>ENERGY STAR</u> 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 <u>SB-12 Prescriptive</u> 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 ² /m ²	NLR 1.32 L/s/m ²
Attached dwelling	3.5 ACH50	NLA 2.27 cm ² /m ²	NLR 1.44 L/s/m ²

The building code requires that a blower door test be conducted to verify the air tightness of the house during construction if the <u>SB-12 Performance</u> 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.