Building Division
Residential Model Certification Application Guide

Description

An application for a Certified Model must be completed for each model.

General Information

The Town of King Building Division considers a certified model as a unique building design for a detached dwelling, semi-detached unit, townhouse unit, or apartment unit that has been reviewed by the Chief Building Official for compliance with the Ontario Building Code and is intended for construction pursuant to a permit issued under the Building Code Act, 1992. A certified model is not itself a building permit. The Model Certification does not contemplate a review of Applicable Law such as compliance with Zoning By-Laws. Should revisions to the approved model be required as a result of the Zoning review during permit application, additional review times and fees may be applicable.

Required Drawings

Floor Plans – Architectural & Structural
Floor plans fully dimensioned for each level showing architectural and structural details including foundation; slab, footings, exterior walls, joists, rafters, lintels and beams. Plans to show the use of all spaces including the location and type of all plumbing fixtures and floor drains. Floor plans shall include all variations of the plan including those to address grade changes such as walk-out basements.

Elevations
Elevations illustrating all window and door openings as well as denoting exterior cladding/siding type. Indicate roof pitch and dimension overall building height measured from established average grade. Elevations shall include all variations of the plan including those to address grade changes such as walk-out basements.

Sections & Details
Cross section(s) to show building construction specifications of all floor, wall and roof assemblies. Show overall building height calculated to the midpoint of the roof or as per zoning by-law standards. Detail stairs, landings, headroom, guards, handrails heights and connection specifications if required.

Block Plans and Elevations
For multi-family dwellings such as townhouses and semi – detached units, Block Plans and Block Elevations will be required with model type and lot numbers indicated.

Engineered Floor Joists
If the proposed dwelling considers the use of Engineered Floor joist, the Floor layout from the manufacturer will be required as well as the individual member profiles sealed by the Engineer.

Engineered Roof Trusses
If the proposed dwelling considers the use of Engineered Floor joist, the Floor layout from the manufacturer will be required as well as the individual member profiles sealed by the Engineer. For multi-family dwellings such as townhouses and semi-detached units, the unit drawings must be coordinated with the Block Trusses. Block Truss layouts must be submitted.

HVAC and mechanical
Proposed HVAC layouts and design Calculations are to be submitted for each model type and variation, including those where grade changes may affect the building envelope.

Additional Documents
A list of the proposed units and configurations with the corresponding lot numbers shall be provided.
A site plan of the overall community shall be provided

Note: Drawings prepared by a qualified Designer as defined by the Ontario Building Code, must include designer's name, Building Code Identification Number (BCIN), signature, and statement that the designer has reviewed and takes responsibility for the design and meets the qualifications set out in the Ontario Building Code as a Designer or other/independent Designer.

Note: If Architectural Control is applicable, required AC stamps must be included on the above noted documents.

Required Forms

- **Application for a Certified Model**
- **Schedule 1 Designer Information**
- **EEDS**

Exemptions - Schedule 1

If drawings are prepared, stamped and signed by a qualified Engineer or Architect, they are exempt from submitting a Schedule 1. Property owners may prepare and submit drawings for a residential accessory structure however must fill-in the form to specify the reason for exemption.

Required Fees – Residential

Fees associated to Model Certification are noted in the Building Fees By-Law available on the Township's website.

Permit Fee	$ per By-Law

Should you have any questions or require clarification please contact the Building Division, King Township, 2585 King Road, King City, L7B 1A1 (905) 833-5321

Building Division
Application for a Certified Model

Note: This application for a Certified Model is a form prescribed by the Chief Building Office and must be completed for each model. The Town of King Building Division considers a certified model as a unique building design for a detached dwelling, semi-detached unit, townhouse unit, or apartment unit that has been reviewed by the Chief Building Official for compliance with the Ontario Building Code and is intended for construction pursuant to a permit issued under the *Building Code Act, 1992.* A certified model is not itself a building permit.

Project Information		
Name of Subdivision	Register Plan Number or Draft Plan Number	
Builder	Tarion Number	
Project Street Address	Unit Number	Lot / Con.
Municipality	Postal Code	Province
Applicant is: ☐ **Owner** **or** ☐ **Authorized agent of owner** (Letter of authorization required)		
Last Name	First Name	Corporation
Street Address	Unit Number	Lot / Con.
Municipality	Postal Code	Province
Phone	Email	
Owner (if different from applicant)		
Last Name	First Name	Corporation
Street Address	Unit Number	Lot / Con.
Municipality	Postal Code	Province
Phone	Email	
Project and Model Information		
Model Type: ☐ Apartment ☐ Townhouse ☐ Semi-Detached ☐ Detached		Lot Upgrades: ☐ Front ☐ Rear ☐ Side
Model Name:	Model Elevation: ☐ A / 1 ☐ B / 2 ☐ C / 3 ☐ D / 4	
GFA (incl garage):	Finished Basement: ☐ Yes, area:	Project Value:
Mechanical Ventilation: ☐ Type 1 ☐ Type 2 ☐ Type 3 ☐ Type 4	Fireplace: ☐ Gas ☐ Elect ☐ Woodburning	
Grading: ☐ Walkout Deck ☐ Walk-out Basement ☐ Walk-up Basement		
Fees: Per By-Law		

All personal information in this form is collected pursuant to the *Municipal Freedom of Information and Protection of Privacy Act* and the *Building Code Act, 1992*, S.O. 1992, c. 23 and will ne used for the purpose of the administration and enforcement of the *Building Code Act, 1992*. Questions regarding this collection may be directed to the Chief Building Office, Township of King, 5858 King Road, King City, On L7B 1A1, Telephone 905-833-4102

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	Fax number		Cell number	

C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]

☐ House	☐ HVAC – House	☐ Building Structural
☐ Small Buildings	☐ Building Services	☐ Plumbing – House
☐ 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

I _____ 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.

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) (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 Professional Engineers Ontario.

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

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

☐ *SB-12 Prescriptive* [SB-12 - 2.1.1.]	Table: Package: A B C D E F G H I J K L M (circle one)
☐ *SB-12 Performance** [SB-12 - 2.1.2.]	* Attach energy performance calculations using an approved software
☐ *Energy Star*®* [SB-12 - 2.1.3.]	* Attach Builder Option Package form
☐ *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		
□ Zone 1 (< 5000 degree days)	□ ≥ 90% AFUE	□ Gas	□ Propane	□ Solid Fuel
□ Zone 2 (≥ 5000 degree days)	□ ≥ 78% < 90% AFUE	□ Oil	□ Electric	□ Earth Energy

Windows+Skylights &Glass Doors			Other Building Conditions		
Gross Wall Area =	m^2	% Windows+ _____	□ ICF Basement	□ Walkout Basement	□ Log/Post&Beam
Gross Window+ Area =	m^2		□ ICF Above Grade	□ 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		**Windows & Doors**[1]	
Ceiling with Attic Space		Windows/Sliding Glass Doors	
Ceiling without Attic Space		Skylights	
Exposed Floor		**Mechanicals**	
Walls Above Grade		Space Heating Equip.[2]	
Basement Walls		HRV Efficiency (SRE% at 0°C)	
Slab (all >600mm below grade)		DHW Heater (EF)	
Slab (edge only ≤600mm below grade)		NOTES	
Slab (all ≤600mm below grade, or heated)		1. Provide U-Value in $W/m^2.K$, 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: Submit the BOP form with Energy Advisor's certification on completion.

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	Mechanical

Guide to the Energy Efficiency Design Summary Form

The *Energy Efficiency Design Summary* form summarizes the compliance path used by a house designer to comply with energy efficiency requirements of the Ontario Building Code. This form must accompany the building permit application. The information on this form MUST reflect the drawings and specifications being submitted, or the building permit may be refused. 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 at www.mah.gov.on.ca, or the municipal building department.

Beginning January 1, 2012, a house designer must use one of four energy efficiency compliance options in the building code:

1. Comply with the *SB-12 Prescriptive* design tables,
2. Use the *SB-12 Performance* compliance method, and model the design against the prescriptive standards,
3. Design to *Energy Star* standards, or
4. Evaluate the design according to *EnerGuide* technical procedures and achieve a rating of 80 or more.

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 2.1.1. of SB-12. Energy efficiency design modeling and testing of the building is not required under this option.
- *SB-12 Performance* refers to the alternative method of compliance set out in Subsection 2.1.2. of SB-12. Using this approach the designer must use recognized energy simulation software (such as HOT2000 V9.34c1.2 or newer), and submit documents which show that the annual energy use of the building is equal to a prescriptive package.
- *Energy Star* houses must be designed to *Energy Star* requirements and be labelled on completion by Enerquality or other agency. The *Energy Star* BOP form must be submitted with the permit documents.
- *EnerGuide80* houses are validated by NRCan authorized energy advisors and must achieve a rating of 80 or more when evaluated in accordance with EnerGuide administrative and technical procedures.

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 and 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 2.1.1.1. 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, RSI 3.52 wall insulation is permitted in certain conditions where other design elements meet higher standards. Refer to SB-12 for further details.

E. Performance Design Summary

This section is not required to be completed if the *SB-12 Prescriptive* option is being used.

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 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 2.5 ACH @ 50 Pa in the case of detached houses, or 3.0 ACH @ 50 Pa in the case of attached houses is necessary to meet the required energy efficiency standard. A blower door test must also be conducted if the *EnerGuide 80* option is used.

ENERGY EFFICIENCY LABELING FOR NEW HOUSES

Energy Star and *EnerGuide* issue labels for new homes constructed under their energy efficiency programs. The building code does not regulate new home labelling.