

CCMC 13355-R

CCMC Canadian code compliance evaluation

CCMC number:	13355-R
Status:	Active
Issue date:	2012-07-27
Modified date:	2023-11-08
Evaluation holder:	<p>Ecopan Corporation 1420 101 Street S.W. Calgary AB T3H 3Z4 Canada Telephone: 403-277-4000</p>
Product name:	Ecopan Panels
Compliance:	NBC 2015, OBC
Criteria:	CCMC-TG-061216.01-15B, "CCMC Technical Guide for Stressed Skin Panels (with structural ribs) for Walls and Roofs"

In most jurisdictions this document is sufficient evidence for approval by Canadian authorities.

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Compliance opinion

It is the opinion of the Canadian Construction Materials Centre that the evaluated product, when used as insulated exterior wall panels in accordance with the conditions and limitations stated in this evaluation, complies with the following code:

National Building Code of Canada 2015

Code provision	Solution type
4.3.1.1. Design Basis for Wood	<u>Acceptable</u>
9.23.10.1.(1) The size and spacing of studs shall conf ...	<u>Alternative</u>
9.25.2.2.(1)(c) Insulation Materials	<u>Acceptable</u>

Ontario Building Code

Ruling No. 14-11-307 (13355-R) authorizing the use of this product in Ontario, subject to the terms and conditions contained in the Ruling, was made by the Minister of Municipal Affairs and Housing on 2014-10-27 pursuant to s.29 of the Building Code Act, 1992 (see Ruling for terms and conditions). This Ruling is subject to periodic revisions and updates.

The above opinion(s) is/are based on the evaluation by the CCMC of technical evidence provided by the evaluation holder, and is bound by the stated conditions and limitations. For the benefit of the user, a summary of the technical information that forms the basis of this evaluation has been included.

Product information

Product name

Ecopan Panels

Product description

The product is currently manufactured by three licensee plants: EnerSIP, EnerSmart and InGreen Systems.

The product is an insulated wall panel system that is installed with an alternate stud spacing to the NBC-specified 38 mm × 140 mm (2 × 6) framing at 600 mm (24 in.) on centre (o.c.). The product's panels are installed with 2 – 2 × 6 lumber studs spaced at 1.2 m o.c. located at the panel edges with top and bottom plates. The insulated wall panel foam core is an expanded polystyrene (EPS) insulation board that is bonded with an adhesive to 11-mm (7/16 in.) oriented strandboard (OSB) sheathings. The panels and studs form a unit stiffened by stressed-skin action, allowing for a wider stud spacing to 1.2 m beyond the Code-specified 600 mm o.c.

Typical details of the system are shown in [Figure 1](#) and [Figure 2](#).

The two field-installed studs, spaced at 1 220 mm o.c., must be 2 – 38 mm × 140 mm, S-dry Spruce-Pine-Fir (S-P-F) No. 1/2 or better. The panels that have been evaluated as equivalent to the requirements in Table 9.23.10.1., Size and Spacing of Studs, of Division B of the NBC 2015, for 38 mm × 140 mm (2 × 6) at 600 mm (24 in.) o.c., are 162 mm thick with standard heights of 2.4 m (8 ft) and 3.0 m (10 ft) and a standard width of 1 220 mm. The studs, continuous bottom plate and two top plates shall be installed in the field as per the licensee's specific installation manual and drawings for the CCMC-evaluated panel system. The qualified panels had no electrical chases within the foam core.

Alternative panel configurations that may be offered by the manufacturer do not form part of this evaluation and shall not bear the CCMC number.

EPS core

The panel core is a Type 1 EPS that is 140 mm thick. The EPS insulation is certified by Intertek Testing Services (ITS) NA Ltd. (see CCMC 13393-L) to confirm compliance to CAN/ULC-S701-05, "Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering."

OSB specification

The OSB is 11.1 mm thick, certified to CSA O325-07, "Construction Sheathing," to a span rating of 1R24/2F16/W24. The OSB panels are certified by APA to CSA O325 and APA Product Report PR-N610, "Qualified OSB Facing Materials for Structural Insulated Panels," revised August 22, 2011. The OSB is installed with the strong axis oriented vertically on both the interior and exterior surfaces of the panels.

Adhesive – EPS to OSB

The adhesive used to bond the EPS boards to the OSB panels is a moisture-cured urethane laminating adhesive. The adhesive is a designated MOR-AD™ M-600 series adhesive, manufactured by the Dow Chemical Co. (formerly Rohm and Haas Chemicals LLC).

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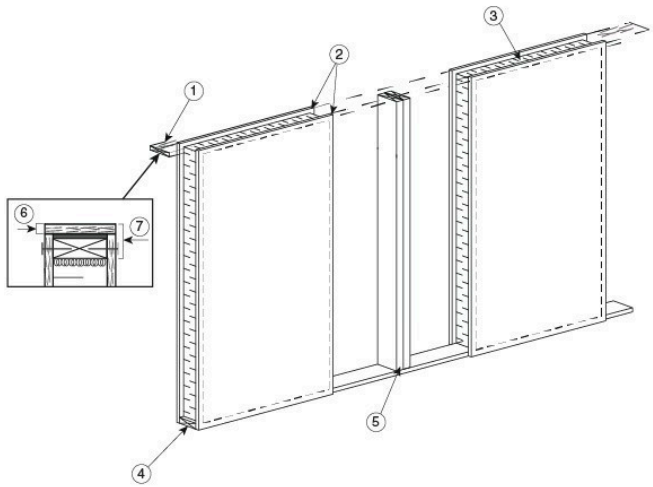


Figure 1. Isometric view

1. top plate and 1-1/8 in. cap
2. 7/16 in. OSB
3. EPS core
4. continuous bottom plate (material and anchors supplied and installed by others)
5. double wood stud spline (site supplied)
6. 1-1/8 in. cap
7. top plate (site supplied)

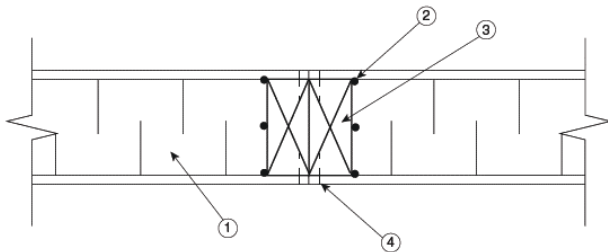


Figure 2. Horizontal cross-section view

1. Ecopan wall panel
2. sealing details as per manufacturer when designated as an air barrier system
3. double wood stud spline
4. 2 in. screws or nails at 6 in. o.c.

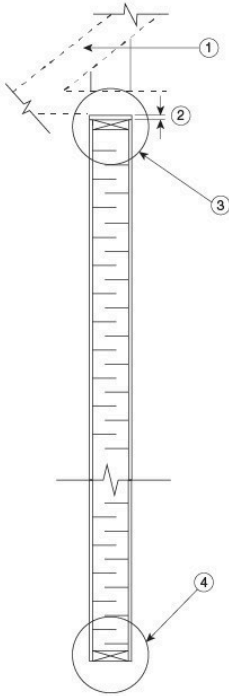


Figure 3. Vertical cross-section view

1. truss
2. 1-1/8 in. minimum cap
3. Detail A
4. Detail B

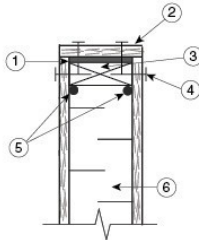


Figure 4. Detail A of vertical cross-section view

1. caulk
2. 1-1/8 in. minimum cap
3. 2 × 6 top plate (site-supplied)
4. 2 in. screws or nails at 6 in. o.c.
5. expandable foam sealant
6. Ecopan wall panel

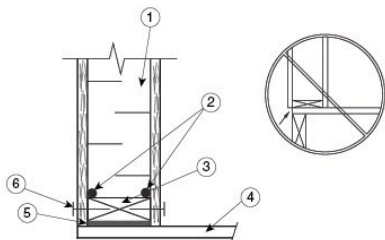


Figure 5. Detail B of vertical cross-section view

1. Ecopan wall panel
2. 2 × 6 bottom plate (site-supplied)

- 3. expandable foam sealant
- 4. subfloor
- 5. caulk
- 6. 2 in. screws or nails at 6 in. o.c

Manufacturing plants

This evaluation is limited to products produced at the following plants:

Product name	Manufacturing plants		
	Penhold, AB, CA	Claresholm, AB, CA	Greenridge, MB, CA
Ecopan Panels	☑	☑	☑

☑ Indicates that the product from this manufacturing facility has been evaluated by the CCMC

Conditions and limitations

The CCMC's compliance opinion is bound by this product being used in accordance with the conditions and limitations set out below.

- The wall panel system is intended for dry service applications only. ⁽¹⁾
- The wall panel system is limited to buildings that fall within the scope of Part 9 of Division B of the NBC 2015. These panels are intended for buildings where combustible construction is permitted.
- The wall panel system has not been evaluated to replace braced walls when required by Subsection 9.23.13., Bracing to Resist Lateral Loads Due to Wind and Earthquake, of Division B of the NBC 2015.
- The number of storeys must be in accordance with Table 9.23.10.1., Size and Spacing of Studs, of Division B of the NBC 2015 for 38 mm × 140 mm studs at 600 mm o.c. for the respective thickness and alternate stud spacing of the proposed panels with 2 – 38 mm × 140 mm studs at 1.2 m o.c. spacing, specifically:

Alternative solution – equivalent maximum storey height

Conventional stud frame size at 600 mm o.c. spacing	Ecopan double wood stud spline at 1.2 m o.c.	Building height (max. storey height)
38 mm × 140 mm	2 – 38 mm × 140 mm studs	Two-storey (3.0 m max. storey height)

- The framing of window and door openings must be as per conventional construction for lintel spans and supports as per the NBC 2015.
- The panels are to be mechanically fastened to studs and plates in accordance with the specified instructions, but not less than the NBC 2015 nailing schedule contained in Tables 9.23.3.4, Nailing for Framing, and 9.23.3.5.-A, of Division B of the NBC 2015.
- The junction between the panels and the junction between the panel and the top and bottom plates must be caulked or sealed as per the installation details.
- Air leakage and vapour diffusion control must be accomplished by installing a 6-mil polyethylene air and vapour barrier conforming to the NBC 2015.
- The installation of the CCMC-evaluated wall panels must be in accordance with the Ecopan Corporation licensee's installation manual entitled:
 - "Installation Manual - Wall Panels - EnerSIP - Structural Insulated Panels," dated September 21, 2018
 - "Installation Manual - Wall Panels - EnerSmart - Structural Insulated Panels," dated September 21, 2018
 - "Installation Manual - Wall Panels – InGreen Systems - Structural Insulated Panels," dated September 21, 2018
- Only the wall panels that have the specified recesses to accept 2 – 38 mm × 140 mm studs at 1.2 m o.c. must be used and bear the CCMC 13355-R mark.

Note:

- ¹ All lumber, wood-based panels and proprietary engineered wood products are intended for dry service conditions. "Dry service" is defined as the in-service environment under which the equilibrium moisture content (MC) of lumber is 15% or less over a year and does not exceed 19% at any time. Wood contained within the interior of dry, heated or unheated buildings has generally been found to have a MC between 6% and 14% according to season and location. During construction, all wood-based products should be protected from the weather to ensure that the 19% MC is not exceeded in accordance with Article 9.3.2.5., Moisture Content, of Division B of the NBC 2015.

Technical information

This evaluation is based on demonstrated conformance with the following criteria:

Criteria number	Criteria name
CCMC-TG-061216.01-15B	CCMC Technical Guide for Stressed Skin Panels (with structural ribs) for Walls and Roofs

The evaluation holder has submitted technical documentation for the CCMC's evaluation. Testing was conducted at laboratories recognized by the CCMC in accordance with the CCMC Technical Guide, MasterFormat 06 12 16.01, "Stressed Skin Panels (with lumber 1 200 mm o.c. and EPS core) for Walls and Roofs." The corresponding technical evidence for this product's equivalency is summarized below.

Performance requirements

Table 1. Performance tests – empirical method for equivalency as an alternative solution for EnerSIP-manufactured Ecopan Panels

Requirement alternative solution \geq acceptable solution (1)	Tested specimens as per ASTM E 72	Strength (total load uniform load)	Result
Axial capacity (ultimate load)	1.2 m (2) \times 3.0 m wood-frame walls w/ 38 mm \times 140 mm at 600 m o.c.	155.86 kN	305.0 > 155.86 kN
	1.2 m (2) \times 3.0 m Ecopan w/2 – 38 mm \times 140 mm at 1.2 m o.c.	305.0 kN	Pass
Axial capacity at 3 mm axial deformation	1.2 m (2) \times 3.0 m wood-frame walls w/ 38 mm \times 140 mm at 600 m o.c.	40.9 kN	61.2 > 40.9 kN
	1.2 m (2) \times 3.0 m Ecopan w/2 – 38 mm \times 140 mm at 1.2 m o.c.	61.2 kN	Pass
Transverse (bending) capacity (ultimate load)	1.2 m (2) \times 3.0 m wood-frame walls w/ 38 mm \times 140 mm at 600 m o.c.	32.3 kN	37.3 > 32.3 kN
	1.2 m (2) \times 3.0 m Ecopan w/2 – 38 mm \times 140 mm at 1.2 m o.c.	37.3 kN	Pass
Transverse (bending) capacity at lateral deflection limits	1.2 m (2) \times 3.0 m wood-frame walls w/ 38 mm \times 140 mm at 600 m o.c.	<ul style="list-style-type: none"> • 4.3 kN at L/360 • 9.6 kN at L/180 	Alternative solution load > acceptable solution load at equivalent deflection
	1.2 m (2) \times 3.0 m Ecopan w/2 – 38 mm \times 140 mm at 1.2 m o.c.	<ul style="list-style-type: none"> • 7.3 kN at L/360 • 12.0 kN at L/180 	Pass

Requirement alternative solution \geq acceptable solution ⁽¹⁾	Tested specimens as per ASTM E 72	Strength (total load uniform load)	Result
Racking load capacity (ultimate lateral load)	2.4 m \times 3.0 m wood-frame walls w/38 mm \times 140 mm at 600 m o.c.	20.6 kN	29.0 > 20.6 kN Pass
	2.4 m \times 3.0 m Ecopan w/2 – 38 mm \times 140 mm at 1.2 m o.c.	29.0 kN	
Lateral load at lateral displacement	2.4 m \times 3.0 m wood-frame walls w/38 mm \times 140 mm at 600 m o.c.	<ul style="list-style-type: none"> • 51.5 mm at ultimate load • 9.2 mm at 5 kN load 	4.7 mm < 9.2mm Pass
	2.4 m \times 3.0 m Ecopan w/2 – 38 mm \times 140 mm at 1.2 m o.c.	<ul style="list-style-type: none"> • 54.2 mm at ultimate load • 4.77 mm at 5 kN load 	

Notes:

- Equivalency to conventional lumber wall construction: insulated panels with 2 studs at 1.2 m o.c. shall be equal to or better than one (1) stud every 600 mm (24 in.) o.c., for ultimate strength and lower deformation/deflection results.
- The Ecopan Panels were tested as single panels instead of pairs of panels due to laboratory equipment limitations. This deviation from the CCMC Technical Guide does not affect the comparative evaluation of the results.

Table 2. Performance tests – empirical method for equivalency as an alternative solution for InGreen Systems-manufactured Ecopan Panels

Requirement alternative solution \geq acceptable solution ⁽¹⁾	Tested specimens as per ASTM E 72	Strength (total load uniform load)	Result
Axial capacity (ultimate load)	1.2 m ⁽²⁾ \times 3.0 m wood-frame walls w/ 38 mm \times 140 mm at 600 m o.c.	155.8 kN	290.2 > 155.8 kN Pass
	1.2 m ⁽²⁾ \times 3.0 m Ecopan w/2 – 38 mm \times 140 mm at 1.2 m o.c.	290.2 kN	
Axial capacity at 3 mm axial deformation	1.2 m ⁽²⁾ \times 3.0 m wood-frame walls w/ 38 mm \times 140 mm at 600 m o.c.	40.9 kN	74.9 > 40.9 kN Pass

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Requirement alternative solution \geq acceptable solution ⁽¹⁾	Tested specimens as per ASTM E 72	Strength (total load uniform load)	Result
	1.2 m ⁽²⁾ \times 3.0 m Ecopan w/2 – 38 mm \times 140 mm at 1.2 m o.c.	74.9 kN	
Transverse (bending) capacity (ultimate load)	1.2 m ⁽²⁾ \times 3.0 m wood-frame walls w/ 38 mm \times 140 mm at 600 m o.c.	32.3 kN	44.8 > 32.3 kN Pass
	1.2 m ⁽²⁾ \times 3.0 m Ecopan w/2 – 38 mm \times 140 mm at 1.2 m o.c.	44.8 kN	
Transverse (bending) capacity at lateral deflection limits	1.2 m ⁽²⁾ \times 3.0 m wood-frame walls w/ 38 mm \times 140 mm at 600 m o.c.	<ul style="list-style-type: none"> 4.3 kN at L/360 9.6 kN at L/180 	Alternative solution load > acceptable solution load at equivalent deflection Pass
	1.2 m ⁽²⁾ \times 3.0 m Ecopan w/2 – 38 mm \times 140 mm at 1.2 m o.c.	<ul style="list-style-type: none"> 8.2 kN at L/360 15.8 kN at L/180 	
Racking load capacity (ultimate lateral load)	2.4 m \times 3.0 m wood-frame walls w/38 mm \times 140 mm at 600 m o.c.	20.6 kN	51.7 > 20.6 kN Pass
	2.4 m \times 3.0 m Ecopan w/2 – 38 mm \times 140 mm at 1.2 m o.c.	51.7 kN	
Lateral load at lateral displacement	2.4 m \times 3.0 m wood-frame walls w/38 mm \times 140 mm at 600 m o.c.	<ul style="list-style-type: none"> 51.5 mm at ultimate load 9.2 mm at 5 kN load 	7.74 mm < 9.2 mm Pass
	2.4 m \times 3.0 m Ecopan w/2 – 38 mm \times 140 mm at 1.2 m o.c.	<ul style="list-style-type: none"> 67.7 mm at ultimate load 7.74 mm at 5 kN load 	

Notes:

- ¹ Equivalency to conventional lumber wall construction: insulated panels with 2 studs at 1.2 m o.c. shall be equal to or better than one (1) stud every 600 mm (24 in.) o.c., for ultimate strength and lower deformation/deflection results.

2 The Ecopan Panels were tested as single panels instead of pairs of panels due to laboratory equipment limitations. This deviation from the CCMC Technical Guide does not affect the comparative evaluation of the results.

Table 3. Performance tests – empirical method for equivalency as an alternative solution for EnerSmart-manufactured Ecopan Panels

Requirement alternative solution \geq acceptable solution ⁽¹⁾	Tested specimens as per ASTM E 72	Strength (total load uniform load)	Result
Axial capacity (ultimate load)	1.2 m ⁽²⁾ \times 3.0 m wood-frame walls w/ 38 mm \times 140 mm at 600 m o.c.	155.8 kN	313.42 > 155.8 kN Pass
	1.2 m ⁽²⁾ \times 3.0 m Ecopan w/2 – 38 mm \times 140 mm at 1.2 m o.c.	313.42 kN	
Axial capacity at 3 mm axial deformation	1.2 m ⁽²⁾ \times 3.0 m wood-frame walls w/ 38 mm \times 140 mm at 600 m o.c.	40.9 kN	86.6 > 40.9 kN Pass
	1.2 m ⁽²⁾ \times 3.0 m Ecopan w/2 – 38 mm \times 140 mm at 1.2 m o.c.	86.6 kN	
Transverse (bending) capacity (ultimate load)	1.2 m ⁽²⁾ \times 3.0 m wood-frame walls w/ 38 mm \times 140 mm at 600 m o.c.	32.3 kN	52.9 > 32.3 kN Pass
	1.2 m ⁽²⁾ \times 3.0 m Ecopan w/2 – 38 mm \times 140 mm at 1.2 m o.c.	52.9 kN	
Transverse (bending) capacity at lateral deflection limits	1.2 m ⁽²⁾ \times 3.0 m wood-frame walls w/ 38 mm \times 140 mm at 600 m o.c.	<ul style="list-style-type: none"> • 4.3 kN at L/360 • 9.6 kN at L/180 	Alternative solution load > acceptable solution load at equivalent deflection Pass
	1.2 m ⁽²⁾ \times 3.0 m Ecopan w/2 – 38 mm \times 140 mm at 1.2 m o.c.	<ul style="list-style-type: none"> • 10.6 kN at L/360 • 20.1 kN at L/180 	
Racking load capacity (ultimate lateral load)	2.4 m \times 3.0 m wood-frame walls w/38 mm \times 140 mm at 600 m o.c.	20.6 kN	64.5 > 20.6 kN Pass
	2.4 m \times 3.0 m Ecopan w/2 – 38 mm \times 140 mm at 1.2 m o.c.	64.5 kN	
Lateral load at lateral displacement	2.4 m \times 3.0 m wood-frame walls w/38 mm \times 140 mm at 600 m o.c.	<ul style="list-style-type: none"> • 51.5 mm at ultimate load • 9.2 mm at 5 kN load 	5.3 mm < 9.2 mm Pass

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Requirement alternative solution \geq acceptable solution (1)	Tested specimens as per ASTM E 72	Strength (total load uniform load)	Result
	2.4 m \times 3.0 m Ecopan w/2 – 38 mm \times 140 mm at 1.2 m o.c.	<ul style="list-style-type: none"> • 68.3 mm at ultimate load • 5.3 mm at 5 kN load 	

Notes:

- 1 Equivalency to conventional lumber wall construction: insulated panels with 2 studs at 1.2 m o.c. shall be equal to or better than one (1) stud every 600 mm (24 in.) o.c., for ultimate strength and lower deformation/deflection results.
- 2 The Ecopan Panels were tested as single panels instead of pairs of panels due to laboratory equipment limitations. This deviation from the CCMC Technical Guide does not affect the comparative evaluation of the results.

Material and component qualification

CCMC Technical Guide requirement	Tested specimen	Result
Adhesive qualification – ICC-ES AC05 Type 2, Class II	MOR-AD™ M-642 and M-650 (roller coat) manufactured by Dow Chemical Co. (formerly Rohm and Haas Chemicals LLC) (see ICC-ES Report ESR-1023)	ICC-ES confirmed compliance of MOR-AD™ M-642/650, as a Type 2, Class II of ICC-ES AC05. This applies to OSB and EPS foam core applications only.
Expanded polystyrene	Meets CAN/ULC-S701 via ITS certification program	See CCMC 13393-L
OSB panels	Meet CSA O325 via APA certification program	Certified by APA to CSA O325 and/or PR-N610. span rating of 1R24/2F16/W24.

Administrative information

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The National Research Council of Canada (NRC) has evaluated only the characteristics of the specific product described herein. The information and opinions in this evaluation are directed to those who have the appropriate degree of experience to use and apply its contents (such as authorities having jurisdiction, design professionals and specifiers). This evaluation is valid when the product is used as part of permitted construction, respecting all conditions and limitations stated in the evaluation, and in accordance with applicable building codes and by-laws.

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CCMC recognition

The Canadian Construction Materials Centre (CCMC) assesses compliance with Canadian building, energy and safety codes. We are the only construction code compliance service supported and operated by the Government of Canada. Trusted by over 6,000 regulators across Canada.

Most Canadian authorities having jurisdiction (AHJs) consider CCMC product assessments acceptable as evidence for product approval.

CCMC assessments are recognized by construction authorities across Canada:

Alliance of Canadian Building Official Associations (ACBOA)



(Alliance of Canadian Building Official Associations (ACBOA))

First Nations National Building Officers Association (FNNBOA)



(First Nations National Building Officers Association (FNNBOA))

Canadian Home Builders' Association (CHBA)



(Canadian Home Builders' Association (CHBA))

Alberta Building Officials Association (ABOA)



(Alberta Building Officials Associations (ABOA))

Saskatchewan Building Officials Association (SBOA)



(Saskatchewan Building Officials Association (SBOA))

Manitoba Building Officials Association (MBOA)



(Manitoba Building Officials Association (MBOA))

Ontario Building Officials Association (OBOA)



(Ontario Building Officials Association (OBOA))

New Brunswick Building Officials Association (NBBOA)



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(Nova Scotia Building Officials Association (NSBOA))

The CCMC provides code compliance assessments to Canadian code requirements, consulting nationwide with construction regulators to elicit regional variations in code requirements as well as provincial and local interpretations. Users are advised to review the technical information presented in CCMC assessments when making approval decisions. [Learn more about how the CCMC provides a unique service for Canada.](#)

For more information, contact the CCMC by phone at (613) 993-6189 or by email at ccmc@nrc-cnrc.gc.ca

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Code compliance as an acceptable solution

Code Compliance via Acceptable Solutions

If a building design (e.g. material, component, assembly or system) can be shown to meet all provisions of the applicable **acceptable solutions** in Division B (e.g. it complies with the applicable provisions of a referenced standard), it is deemed to have satisfied the objectives and functional statements linked to those provisions and thus to have complied with that part of the Code.

— National Building Code of Canada, Sentence A-1.2.1.1.(1)(a)

The CCMC has determined that compliance with this provision of the Code has been demonstrated as an **Acceptable Solution**. The evaluation report provides a summary of the basis of CCMC's compliance opinion.

CCMC's code compliance opinions

All CCMC evaluation reports are opinions of code compliance established in accordance with the National Building Code of Canada, Subsection 1.2.1. "Compliance with this Code," which requires compliance to be achieved by:

- complying with the applicable acceptable solutions in Division B, or
- using an alternative solution that will achieve at least the minimum level of performance required by Division B in the areas defined by the objective and functional statements attributed to the applicable acceptable solutions.

The CCMC assesses compliance with Canadian building, energy and safety codes, and is trusted by over 6,000 regulators across Canada.

Code compliance as an alternative solution

Code Compliance via Alternative Solutions

Where a design differs from the acceptable solutions in Division B, then it should be treated as an **"alternative solution."** A proponent of an alternative solution must demonstrate that the alternative solution addresses the same issues as the applicable acceptable solutions in Division B and their attributed objectives and functional statements. However, because the objectives and functional statements are entirely qualitative, demonstrating compliance with them in isolation is not possible. Therefore, Clause 1.2.1.1.(1)(b) identifies the principle that Division B establishes the quantitative performance targets that alternative solutions must meet. In many cases, these targets are not defined very precisely by the acceptable solutions [...] Nevertheless, Clause 1.2.1.1.(1)(b) makes it clear that an effort must be made to demonstrate that an alternative solution will perform as well as a design that would satisfy the applicable acceptable solutions in Division B—not “well enough” but “as well as.”

— National Building Code of Canada, Sentence A-1.2.1.1.(1)(b)

The CCMC has determined that compliance with this provision of the Code has been demonstrated as an **Alternative Solution**. The evaluation report provides a summary of the basis of CCMC's compliance opinion.

CCMC's code compliance opinions

All CCMC evaluation reports are opinions of code compliance established in accordance with the National Building Code of Canada, Subsection 1.2.1. "Compliance with this Code," which requires compliance to be achieved by:

- complying with the applicable acceptable solutions in Division B, or
- using an alternative solution that will achieve at least the minimum level of performance required by Division B in the areas defined by the objective and functional statements attributed to the applicable acceptable solutions.

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