

# **2024 Ontario Building Code**

# Part 9 - Code Change Guide and Information Package



Applicable to residential dwellings, additions, renovations and other small buildings

Prepared: May 2025

# 2024 BUILDING CODE CHANGES PART 9- Residential Dwellings, Additions / Renovations

The 2024 Building Code, which has now harmonized with the National Building Code officially was implemented on January 1, 2025.

The preparation of this document is to assist Builders and Designers with the sections of Part 9 that have changed with this new Code issuance. For reference to this document, all code articles noted are from Division B- Part 9.

<u>The following code changes are the more prominent code changes</u> being provided through this document to assist you in the builder and/ or designer role. There are many changes throughout the code that should be reviewed to ensure that you have a good grasp of the new 2024 Building Code. As the Builder and/or Designer, it is your responsibility to design and build to meet the minimum requirements of the Building Code.

It is the responsibility of the contractor, owner and other sub-contractors to ensure all construction meets the minimum requirements of the Ontario Building Code 2024. The Building Code is available online through the Ministry of Municipal Affairs and Housing or through other sources such as Trax. Trax is a great tool to search for code related regulations, also shows you previous codes for comparison of changes and is easy to navigate. It is an on-line service with service fees. It is a handy tool for a contractor to have uploaded to an I-Pad on site to quickly pull the code up when needed. www.trax.co

# **Stairs and Guards**

#### **Treads and Spiral Stairs**

Code articles: 9.8.3.1(2) 9.8.4.3(1) 9.8.4.7(1)

Tapered treads are no longer required to turn in the same direction within a flight of stairs.

Tapered Tread dimensions are to be measured at a point 300mm from the center line of the handrails at the narrow end of the tread.

Spiral stair tread dimensions are to be measured from the center line of handrail at the narrower edge. Spiral stairs have limitations on where and when they can be installed.

#### **Stair Nosing**

Code article 9.8.4.8

The stair nosing is required to be rounded or beveled. The beveled edge shall extend not less than 6mm and not more than 14mm.



Where resilient material is covering the nosing of a stair tread, the rounded / beveled extension can be reduced to 3mm



\*\* Note: Trex decking installed on top of stair treads cannot be modified to meet this new code requirement at this time. Until the manufacturer addresses this issue, stair treads will be required to be constructed from wood products.

#### Guards

Code article 9.8.8.1(5)

Openable windows situated 1.8m or higher above the exterior finished grade in residential units will now need to have a guard, a window limiter or be positioned at least 900 mm (2'-11") above the floor. This will apply to all two-storey dwellings and in some cases where decks are not present, walk-out basement situations will be affected by this new code requirement.

The designer will need to ensure the height of the sill above the floor for these windows, meet this code requirement or specific information provided on the plan to speak to window limiters or guards. (An example of an acceptable guard will be a Juliet railing on the exterior with connection details to withstand outward force)



#### Balusters

must resist opening over 100mm under a 0.1 kN load. Code Article: 9.8.8.2(2)

# Balusters must resist opening over

# 100mm under a 0.1 kN load





#### **Guard Construction related to Stair Construction**

Code article 9.8.8.5(2)

The triangular openings formed by stair risers, stair treads and the bottom element of a required guard shall be of a size that prevents the passage of a 150 mm (6") diameter sphere.



Handrails Code article 9.8.7.2(1) (2) (3)

Required handrails shall be continuously graspable through the length of the stairs. This code change removed the word "One" for locations where more than on handrail is required. Note that stairs and ramps for a single dwelling unit still require at least one handrail to be continuous. If one chooses to install two handrails, this section will apply to both handrails.

At least one handrail <u>must be continuous</u> throughout the entire stair configuration.

9.8.7.2 (1) Except as provided in Sentence (3), required handrails shall be continuously graspable throughout the length of
(a) ramps, and
(b) flights of stairs, from the bottom riser to the top riser

9.8.7.2 (2) Except for stairs or ramps serving a single dwelling unit or a house with a secondary suite including their common spaces, at least one required handrail shall be continuous throughout the length of the stair or ramp, <u>including at the landing</u> except where interrupted by doorways.

(3) For stairs or ramps serving a single dwelling unit or a house with a secondary suite including their common spaces, a handrail is permitted to start from a newel post or volute installed on the bottom tread.



Prior to the 2024 Code, the handrails shown above were acceptable. This is no longer acceptable under the new code as the handrail must be continuous the full length of the stairs, which includes the landing portions of the stairs. The handrail in the above photo to meet code would need to be continuous along the wall the entire length of the stairs or be designed to be continuous handrail without interruption of posts from top to bottom along the guard.

Designers may want to consider wider stairs so that the handrail and the 2-inch space behind the handrail against a wall, does not reduce the width of a stair. As an example, the minimum stair width is 2'-11" (900 mm). The stair width would be reduced to 2'-7" with the handrail on the wall side which might making moving furniture and larger items challenging.

It is imperative that the builder give clear directions to the stair contractor as to how the guard and handrails are to be installed to meet this new code requirement.

#### **Open Risers**

Code article 9.8.4.9

Open risers are only permitted when they serve:

- (a) A single dwelling unit or secondary suite
- (b) Fire escape stairs
- (c) Stairs used mainly for maintenance
- (d) Stairs that serve a service room,
- (e) Stairs that serve industrial occupancies other than storage garages.

## **Smoke Detectors and Carbon Monoxide Alarms**

#### Location

Smoke alarms are no longer required to be installed on or near the ceiling. Even though this was removed from the code, smoke rises, so at or near the ceiling is the logical place to put them and carbon monoxide alarms are still required to be located at or near the ceiling so when a combination unit is used, it must comply with the most restrictive requirement.

#### **Carbon Monoxide Alarms**

Code articles 9.32.3.9, 9.32.3.9.A, and 9.32.3.9.B

Carbon Monoxide Alarms shall be installed for the following occupancies:

Occupancy	Trigger for Requirement
Residential	<ul> <li>fuel burning appliance or a flue in suite</li> <li>served by an external forced air fuel burning appliance</li> <li>attached garage</li> </ul>
All occupancies	<ul> <li>fuel burning appliances</li> <li>fuel burning laundry equipment</li> </ul>

Where to be Installed

Residential occupancies: Code Article 9.32.3.9A



Carbon Monoxide Alarm Location in All Buildings: 9.32.3.9 A

Public corridors serving residential suites if heated by a forced air fuel burning appliance)

Service Rooms or other areas of a building that contain fuel burning appliances or fuel burning clothes dryers (N/A in residential suites)

#### Other Requirements

Code Article 9.32.3.9 C (3)

Visual signaling is now required in addition to battery back up for carbon monoxide alarms.

The current combination smoke alarm and carbon monoxide alarm with visual meets this requirement. In locations were smoke alarms are not required such as service rooms, the required carbon monoxide alarm must contain a visual



#### 9.32.3.9. Application of Carbon Monoxide Alarms (See Note A-9.32.3.9.)

- (1) Article 9.32.3.9A. applies to every building that
- (a) contains a residential occupancy, and contains a fuel-burning appliance or a storage garage, or
- (b) contains a residential occupancy and is served by a forced-air fuel-burning appliance not contained within the building.
- (2) Articles 9.32.3.9B. and 9.32.3.9C. apply to every building.

#### 9.32.3.9A. Location of Carbon Monoxide Alarms

- (1) A carbon monoxide alarm shall be installed in a suite of residential occupancy where
- (a) a fuel-burning appliance or a flue is installed in the suite,
- (b) a forced-air fuel-burning appliance provides heated air directly to the suite,
- (c) a fuel-burning appliance or a flue is located in a room, suite or area that shares a common wall or floor or ceiling assembly with the suite, or
- (d) a storage garage shares a common wall or floor or ceiling assembly with the suite.

(2) Where a *carbon monoxide alarm* is required by Sentence (1) to be installed in a *suite* of *residential occupancy*, other than a *suite* that consists of a combined living and sleeping area, a *carbon monoxide alarm* shall be installed

- (a) adjacent to each sleeping room in the suite, and
- (b) on each storey without a sleeping room in the suite.

(3) Where a *carbon monoxide alarm* is required by Sentence (1) to be installed in a *suite* of *residential occupancy* that consists of a combined living and sleeping area, a *carbon monoxide alarm* shall be installed in the combined living and sleeping area.

(4) In addition to the *carbon monoxide alarms* required to be installed in a *suite* of *residential occupancy* in accordance with Sentence (2), a *carbon monoxide alarm* shall be installed in each sleeping room within the *suite* where the sleeping room

- (a) contains a fuel-burning appliance or a flue, or
- (b) shares a common wall or floor or ceiling assembly
  - (i) with a room, suite or area that is located outside the suite and contains a fuel-burning appliance or a flue,
  - (ii) with a storage garage, or
  - (iii) that is adjacent to an attic or crawl space to which the storage garage is also adjacent.

(5) Carbon monoxide alarms shall be installed in public corridors serving suites of residential occupancy where the corridor is directly heated by a forced-air fuel-burning appliance.

(6) Where *carbon monoxide alarms* are required by Sentence (5) to be installed in a *public corridor*, the *carbon monoxide alarms* shall be installed such that

- (a) there is at least one carbon monoxide alarm in each portion of a divided corridor, and
- (b) each carbon monoxide alarm in an undivided portion of a corridor is spaced not more than 25 m apart.

#### 9.32.3.9B. Location of Carbon Monoxide Alarms in All Buildings

(1) A carbon monoxide alarm shall be installed in service rooms or other areas of a building where the service room or other area

- (a) contains a fuel-burning appliance used for building services or laundry drying equipment, and
- (b) is not located within a suite of residential occupancy.

#### 9.32.3.9C. Installation and Conformance to Standards

- (1) The carbon monoxide alarms required by Articles 9.32.3.9A. and 9.32.3.9B. shall
- (a) except as permitted in Sentence (2), be permanently connected to an electrical circuit and shall have no disconnect switch between the overcurrent device and the *carbon monoxide alarm*,
- (b) in case the regular power supply to the *carbon monoxide alarm* is interrupted, be provided with a battery as an alternative power source that can continue to provide power to the *carbon monoxide alarm* for a period of not less than 8 h in the standby condition, followed by the operation of the *carbon monoxide alarm* for an alarm signal for at least 12 h,
- (c) be wired so that
  - (i) activation of one carbon monoxide alarm within a suite of residential occupancy will activate all carbon monoxide alarms within the suite,
  - (ii) activation of one carbon monoxide alarm within a house with a secondary suite will activate all carbon monoxide alarms within the house with a secondary suite including their common spaces, and
  - activation of one carbon monoxide alarm located in a public corridor serving suites of residential occupancy will activate all carbon monoxide alarms within the corridor,
- (d) be audible within sleeping rooms when the intervening doors are closed, where located adjacent to a sleeping room in a *suite* of *residential occupancy*, and
- (e) conform to
  - (i) CAN/CSA-6.19, "Residential Carbon Monoxide Alarming Devices," or
  - (ii) UL 2034, "Single and Multiple Station Carbon Monoxide Alarms."
- (2) Where the building is not supplied with electrical power, carbon monoxide alarms are
- (a) are permitted to be battery operated, and
- (b) need not have a visual signaling component.

(3) Except as permitted in Sentence (2), the *carbon monoxide alarms* required by Articles 9.32.3.9A. and 9.32.3.9B. shall have a visual signalling component conforming to the requirements in 18.5.3. (Light, Color and Pulse Characteristics) of NFPA 72, "National Fire Alarm and Signaling Code".

(4) The luminous intensity for visual signaling components required by Sentence (3) that are installed in sleeping rooms or combined living and sleeping areas shall be a minimum of 175 cd.

- (5) The visual signaling component required by Sentence (3) need not
- (a) be integrated with the carbon monoxide alarm provided it is interconnected to it,
- (b) be on battery backup, or
- (c) have synchronized flash rates, when installed in a dwelling unit.
- (6) The carbon monoxide alarms required by Articles 9.32.3.9A. and 9.32.3.9B. shall be installed
- (a) at the manufacturer's recommended height, or
- (b) in the absence of specific instructions, on or near the ceiling.

## **Soil Gas Control**

(Protection from Radon) Code article 9.25.3 or SB-9 9.13.4.3

Now applicable to **all** of Ontario, including areas not known to have radon. In areas where radon is not known to occur, a rough-in system is required to be installed beneath the basement slab. Where radon is known to occur, a full depressurization system shall be installed.

\*\*A new mandatory air barrier inspection is required prior to the basement slab being poured. Facts:

- 1. Radon gas is the second leading cause of lung cancer.
- 2. One cannot test the earth before a structure is built to determine if there is radon present unless locations have been identified by the Ontario Building Code. A structure must be constructed and go through a heating season where the radon can be tested over a period of time to determine the readings indicate radon is entering the building. The new code requirement for at a minimum a rough-in depressurization system to be installed allows for easy connection to the outlet pipe if radon readings increase to beyond 200 Bq/m<sup>3</sup> (on average)

<u>All buildings</u> (accept garages and unenclosed areas) are required to provide for the roughin for a subfloor depressurization system where radon **is not** known to be a problem.



Where radon is not known to a problem, the following shall occur:

- 1. Effective depressurization rough in piping shall be installed at the center of the basement.
- 2. A continuous air barrier shall be installed beneath the concrete slab with a 6-mil poly vapour barrier, joints lapped and taped or where rigid insulation installed beneath the slab, all joints are to be taped with the appropriate tape for the product installed.

Note: Concrete slabs and foundation walls are no longer considered an air barrier with the removal of 9.25.3.3 (9) from the code through amendment to code.

3. Where the center of the basement is in a location of a planned future finished room, the piping can be located under the slab at the center of the building and piped to an exterior wall with solid pipe or non-perforated O Pipe.





#### A-9.13.4.3.(2)(b) and (3)(b)(i) Effective Depressurization.

To allow effective depressurization of the space between the air barrier and the ground, the extraction opening (the pipe) should not be blocked and should be arranged such that air can be extracted from the entire space between the air barrier and the ground. This will ensure that the extraction system can maintain negative pressure underneath the entire floor (or in heated crawl spaces underneath the air barrier). The arrangement and location of the extraction system inlet(s) may have design implications where the footing layout separates part of the space underneath the floor.



Acceptable Configurations for the Extraction Opening in a Depressurization System

For areas where Radon **is known** to be located meeting the requirements of Division B-Part 9- 9.13.4.1 (3), the system shall be designed by a qualified designer. This also applies to areas that have been tested and deemed to be detrimental to health as per guidelines.

## **Structural Code Changes**

Connections

Code article: 9.23.2.4

Fasteners and connectors in contact with preservative treated wood are to be:

- Galvanized,
- Stainless steel, or
- Corrosion resistant.

#### ICF Construction

**ICF Limitations** Code article 9.15.1.1 (1) (c)

Flat insulated concrete form foundation walls and concrete footings not subject to surcharge (See note A-9.15.1.1 (1) (c) and 9.20.1.1. (1)(b)

- (i) On stable soils with an allowable bearing pressure of 75 kPa or greater, and
- (ii) For buildings for light-frame or flat insulating concrete form construction that are <u>not more</u> than 2 storey's in building height, with a <u>maximum floor to floor</u> <u>height of 3 m.</u>

This article was previously only applicable to houses but has now been expanded to include all buildings.

Any building that does not meet the above code requirement will be required to be designed by a Professional Engineer under Part 4.

#### Thickness of ICF Concrete

Code article 9.15.4.2 (1) (2)

- (1) Except as required in Sentence (2), the thickness of foundation walls made of unreinforced concrete block, concrete core in flat wall insulating concrete forms or solid concrete and subject to lateral earth pressure shall conform to Table 9.15.4.2.-A for walls not exceeding 3.0 m in unsupported height.
- (2) The concrete core in flat insulating concrete form foundation walls shall be not less than the greater of
  - (a) 150 mm, or
  - (b) The thickness of the concrete in the wall above.

This change affected the minimum thickness of concrete going from 140 mm to 150 mm.

#### **ICF Lateral Support**

Code article: 9.15.4.2 (2.1) 9.15.4.4(1)

2.1 Foundation walls made of flat insulating concrete form units shall be laterally supported at the top and at the bottom.

#### 9.15.4.4(1)

*Flat insulating concrete form foundation walls shall be considered to be laterally supported at the bottom where the foundation wall* 

- (a) Supports backfill not more than 1.2 m in height,
- (b) Is supported at the footing by a shear key and at the top by the ground floor framing, or
- (c) Is dowelled to the footing with not less than
  - (i) 15 M bars spaced not more than 1.2 m o.c., or
  - (ii) 10 M bars spaced not more than 600 mm o.c.

#### 9.15.4.3 (5)

Flat insulating concrete form foundation walls shall be considered to be laterally supported at the top if the floor joists are installed according to Article 9.20.17.54.

Sentence 9.15.4.2 (2.1) makes it clear that areas of ICF walls that cannot be laterally tied at the top such as portions of walls adjacent to stairwells, are beyond Part 9 and are to be designed by a qualified designer.

#### Foundation Walls- Lateral Support

Code article 9.15.4.3(2)(d)

Foundation walls shall be considered to be laterally supported at the top if

(d) They extend from the footing to no more than 300mm above the finished ground level and are backfilled on both sides that the difference in elevation between the finished ground levels on either side of the wall is no more than 150 mm.



#### Lateral Support of ICF Walls at the Bottom

Code article 9.15.4.4 (1)

Flat insulating concrete forms foundation walls shall be considered to be laterally supported at the bottom where the foundation wall

- (a) Supports backfill not more than 1.2 m (3'-11") in height,
- (b) Is supported at the footing by a shear key and at the top by the ground floor framing, or
- (c) Is dowelled to the footing with not less than
  - (i) 15M bars spaced not more than 1.2m (3'-11") o.c., or
  - (ii) 10M bars spaced not more than 600 mm (24") o.c.

This new code provision has provided an additional option with (c)(ii)

#### **Snow Load Calculations**

Code article 9.4.2.2(4) (Applicable where there are two roof levels)

Where the height of the of a roof step at the intersection of an upper-level roof and a lower-level roof is greater than 2m, and the upper-level roof has a slope less than 1 in 6 and an area greater than 600 m<sup>2</sup>, the specified snow load on the lower-level roof shall be

- (a) For distances from the roof step that are less than or equal to the drift length, Xd, calculated in accordance with Sentence (5), not less than 1.5 items the specified snow load, S, calculated using the formula in Sentence (1) with Cb equal to 0.55, and
- (b) For distances from the roof step that are greater than the drift length, Xd, calculated in accordance with Sentence (5), as specified in Sentence (1).



#### **Connections to Preservative-Treated Wood**

Code article 9.23.2.4 (1) Fasteners and connectors in contact with preservative treated wood are to be:

- Galvanized,
- Stainless steel, or
- Corrosion resistant.

# Plumbing

#### Working Pressure

Code article 7.2.1.6 (1)

The working pressure rating of a water service pipe shall not be less than the maximum water main pressure at their point of connection as established by the water supply authority

#### Traps

Code article 7.2.3.1 (3)

- Traps need a cleanout plug but no longer specify minimum size
- Be designed so that part of the trap can be removed



Sump Pumps Code article 7.4.6.3 (3)

Where the sump or tank receives subsurface water from a subsoil drainage pipe, it shall be provided with water and air-tight cover.

Sump pumps are to be provided with water and air-tight cover. Previously they were to be sealed to maintain the continuity of air-barrier. This also is part of the requirement to seal any penetrations through the slab to comply with the soil gas continuous air barrier requirements.

#### **Roof Gutters**

#### Code article 7.4.10.10

New section in its entirety. Hydraulic loads to roof gutters appliable to roofs with a max slope of 1 in 25

#### 7.4.10.10. Hydraulic Loads to Roof Gutters

(1) The hydraulic load that is drained to a *roof gutter* shall conform to Table 7.4.10.10.

Nominal Pipe Size of Gutter, NPS	Area of Gutter,cm <sup>3</sup>	Maximum Hydraulic Load, L			
		Slope			
		1 in 200	1 in 100	1 in 50	1 in 25
3	22.8	406	559	812	1 140
4	40.5	838	1 190	1 700	2 410
5	63.3	1 470	2 080	2 950	4 170
6	91.2	2 260	3 200	4 520	6 530
7	124.1	3 250	4 600	6 500	9 190
8	162.1	4 700	6 600	9 400	13 200
10	253.4	8 480	12 000	17 000	23 600

Table 7.4.10.10. Maximum Permitted Hydraulic Load Drained to a Roof Gutter Forming Part of Article 7.4.10.10.

#### **Venting Systems- Terminals**

Code article 7.5.6.5 (4) (d)

Except for a fresh air inlet, where a vent pipe is terminated in open-air, the terminal shall be located,

(d) not less than 1.8 m from every property line

#### Shut Off Valves

Code article 7.6.1.3 (5)

In buildings of residential occupancy that contain more than one dwelling unit, a shut-off valve shall be installed where the water supply enters each dwelling unit, so that, when the water supply to one suite is shut off, the water supply to the remainder of the building is not interrupted.

## HVAC

#### Garages

Code article 9.32.1.1 (3)

A storage garage for up to 4 motor vehicles that serves a residential occupancy may be considered to be part of that occupancy

The requirement for an HVAC system to be installed in a garage changed from storage for up to 5 motor vehicles, reducing to 4 motor vehicles.



#### Ventilation

Code article 9.32.3.3, 9.32.3.8, 9.32.3.10, 9.32.3.12

New ventilation rates and minor design and installation changes have been introduced for Part 9 residential ventilation systems.

#### Ventilation- Non-heating Season

Code articles 9.32.2.3

Where a habitable room or space is not provided with natural ventilation as described in Article 9.32.2.2 and is mechanically cooled, its non-heating-season mechanical ventilation system shall

- (a) have the capacity to exhaust air from inside the room or space, or to introduce outdoor air into that room or space, at a rate conforming with Table 9.32.2.3, or
- (b) comply with Subsection 9.32.3

The ventilation capacity table listing room-by-room requirements is now used for calculating non-heating season ventilation only.

Table 9.32.2.3.           Air Change Rate           Forming Part of Clause 9.32.2.3.(1)(a)					
Room or Space	Rate, L/s CPm.				
Master bedroom	10 21.18				
Other bedrooms	5 10.59				
Living room	5 10.59				
Dining room	5 10.59				
Family room	5 10.59				
Recreation room	5 10.59				
Basement	10 21-18				
Kitchen	5 to .59				
Bathroom or water closet room	5 10.59				
Laundry room	5 10.59				
Utility room	5 10.59				
Other habitable rooms	5 D.59				

#### **Principal Exhaust Capacity**

Code article 9.32.3.3

#### Principal exhaust capacities ranges have been changed as per table 9.32.3.3

#### 9.32.3.3. Principal Ventilation System (See Note A-9.32.3.3.)

- (1) The principal ventilation system shall incorporate the following components:
- (a) a principal ventilation fan complying with this Article, and
- (b) except as permitted by Article 9.32.3.6., provision for the introduction of outdoor air to the *dwelling unit*, in conformance with Article 9.32.3.4. or 9.32.3.5.

(2) The principal ventilation fan shall be capable of operating at an exhaust capacity complying with Table 9.32.3.3., referred to hereinafter as the "normal operating exhaust capacity." (See Note A-9.32.3.3.(2))

Table 9.32.3.3.

Number of Bedrooms in Dwelling Unit	Normal Operating Exhaust Capacity of Principal Ventilation Fan, L/s		
	Minimum	Maximum	
1	16	24	
2	18	28	
3	22	32	
4	26	38	
5	30	45	
More than 5	System must comply with Clause 9.32.3.1.(1)(a)		

#### Normal Operating Exhaust Capacity of Principal Ventilation Fan Forming Part of Sentence 9.32.3.3.(2)

#### **Exhaust Outlet Locations**

Code article 9.32.3.13

Install exhaust outlets discharging moist air at least 1.8m (5'-11" below vented soffits or block soffits within 1.8 m

#### 9.32.3.13. Outdoor Intake and Exhaust Openings

(1) Intake openings shall be located so as to avoid contamination of the ventilation air from other local sources such as automobile exhaust and exhaust from the *building* or adjacent *buildings*.

(2) The distance from the bottom of an air intake opening to finished ground or to any nearer and lower permanent horizontal surface shall be not less than 450 mm or the depth of expected snow accumulation, whichever is greater.

(3) The distance separating air intakes for mechanical ventilation from exhaust outlets that are potential sources of contaminants, such as *gas vents* or oil fill pipes, shall be not less than 1 800 mm.

(4) Except as provided in Sentences (5) and (6), exhaust outlets that discharge air containing moisture, such as bathroom ventilation and clothes dryer exhaust outlets, shall be located at least 1 800 mm from air intakes and vented soffits.

(5) Where an exhaust outlet referred to in Sentence (4) is located within a soffit, the soffit shall either be unvented, or if vented, the full depth of the soffit shall be blocked for a distance of 1 800 mm on each side of the exhaust outlet.

(6) Where an exhaust outlet referred to in Sentence (4) is located in a side wall less than 1 800 mm from a soffit, a section of the soffit above the exhaust outlet shall be unvented, or if vented, the full depth of the soffit shall be blocked in accordance with the widths stipulated in Table 9.32.3.13.-A, centred over the location of the outlet.



# Protection From Freezing

Code article 9.33.4.5 (1)

Equipment forming part of a heating or air-conditioning system that may be adversely affected by freezing temperatures and that is located in an unheated area shall be protected from freezing.

#### Insulation

Code article 9.25.2.3 (4)

Insulation shall be installed over the full height of foundation walls enclosing a basement or heated crawl space.



#### Energy Efficiency Design

Code articles 12.2.1.2 and 9.1.1.9

Manufactured buildings conforming to CSA Z240 or CSA A277 are no longer exempt from Energy Efficiency Design requirements. All parts of the building including the premanufactured building and onsite works such as foundations must comply with SB-12.