
THE 2024 ONTARIO BUILDING CODE UPDATE



**Home
Construction
Regulatory
Authority**

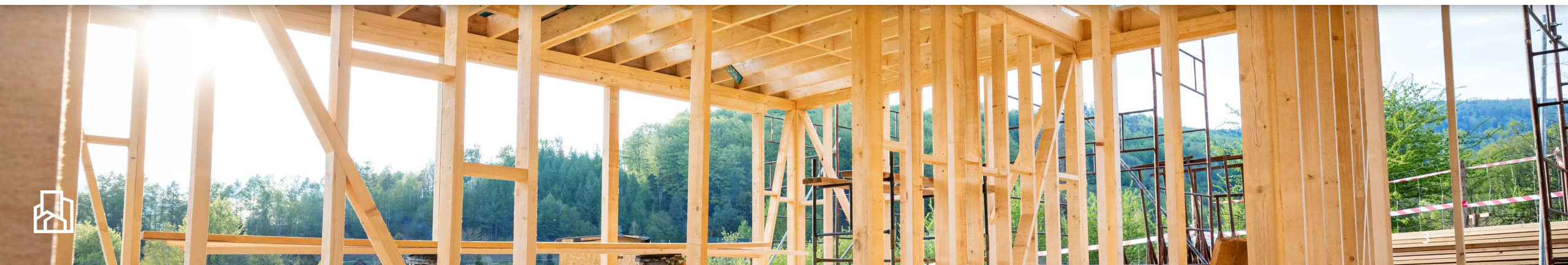
Siloni Waraich

Chief Research Officer,
Home Construction Regulatory Authority (HCRA)



Who We Are

- The HCRA launched in February 2021 as the independent regulator licensing the people and companies that build and sell new homes in Ontario.
- Designated by the Government of Ontario to administer and enforce the *New Home Construction Licensing Act, 2017* (NHCLA) and associated regulations.
- Ministry of Public and Business Service Delivery responsible for legislation and oversight of HCRA.



Our legislative mandate

NEW HOME CONSTRUCTION LICENSING ACT, 2017

Research and public education

(1) The regulatory authority shall participate, in accordance with the administrative agreement and the regulations, if any, in,

- (a) doing research into cost-effective building techniques, processes and materials; and
- (b) identifying, in co-operation with other organizations, best practices for new home construction.

Education and Support for the Industry

- The HCRA is working closely with industry experts and partners, **especially municipal building officials**, to prepare builders for upcoming Building Code changes coming into effect.
- The HCRA launched its **Research & Education Program**:
 - Preparing builders for technical trends and shifts in Building Code.
 - Supporting builder and homeowner education.
 - Promoting best practices in new home construction.



BUILDER EDUCATION



CONSUMER PROTECTION

Research & Education

- Increasing access to educational resources for all licensees
- Promoting consistent Code education and application with joint building official/builder initiatives



**Supporting builder and
homeowner education**



**Promoting best practices and
cost-effective techniques**



**Collaborating with partners to
facilitate licensee education**



**Launching a Resource Hub as
a one-stop-shop for builders**

Educational Partnerships & Technical Trends:

Working with Building Officials

- **First Two Pilot Educational Seminars:**
 - Panel Discussion on Building Envelope & Mechanicals in Niagara
 - Partnering at Regional Level with Municipalities on 2024 OBC Updates
- **First Two Pilot Projects – Industry & Consumer:**
 - What Every Licensed Builder Needs to Know about Radon;
 - Maintenance and Renewal of a Condominium’s Building Envelope
- **Frontline Observations/Practical Construction Tips:**
 - Best Practices in Secondary Suites
 - Fire Stopping
 - Top 10 Things your Municipality wants you to Know
 - Vapour Barriers
 - Framing 101

Thank You

The HCRA's Research & Education team is committed to ongoing collaboration with industry professionals to support technical research and education to promote best practices in home construction.

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THE 2024 ONTARIO BUILDING CODE UPDATE



The Building Departments Of Perth County



In partnership with the Home Construction Regulatory Authority



The 2024 Ontario Building Code



- The 2024 OBC comes into effect on January 1, 2025
- Most changes to the OBC since 1975
- You can use the 2012 OBC for drawings in progress (Jan. 1 – Mar. 31)
- April 1, 2025 all submission must use the 2024 OBC

The 2024 Ontario Building Code

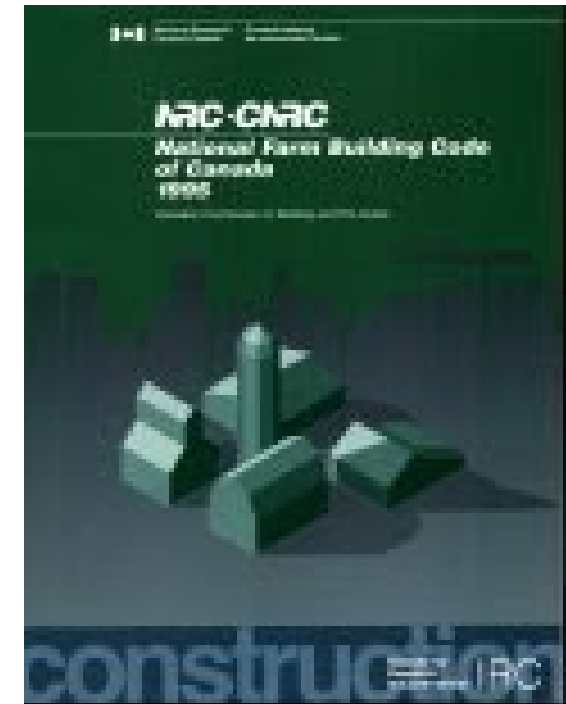
The Ontario Building Code was first released in 1975.

- Revisions completed in 1986, 1990, 1997, 2006 & 2012
- Division B –Part 2 was reserved in 2006 OBC for future revisions
- Division B Part 2 in the new 2024 Code is for Farm Buildings
- Part 2 has been adopted (almost) in full from the 2020 National Building Code of Canada



BACKGROUND

- Farm buildings in Ontario have been regulated by the National Farm Building Code since 1995
- There have been no substantial updates in 29 years
- Farm builders started lobbying for an update in 2006
- Issues with NFBC 1995:
 - The Code not keeping up with the requirements of the farming industry
 - Buildings increasing in size and complexity, but standard is old
 - Not objective based-No pathway for Alternative Solutions
 - Limitations to the prescribed floor area





Farm Building

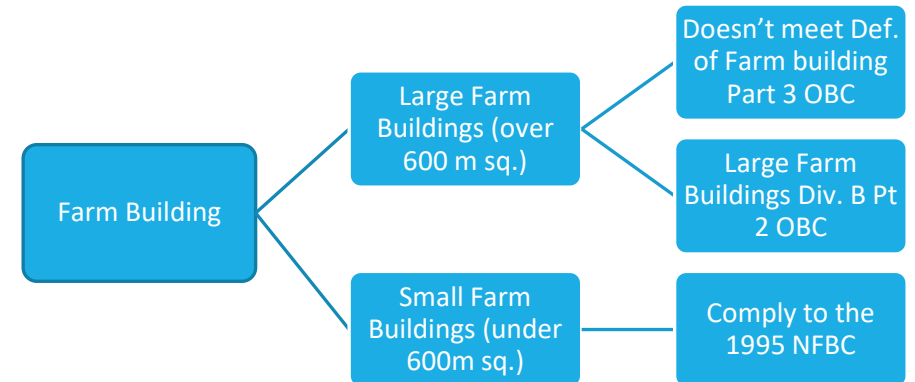
TRADITIONAL BARNS



- The barns we are seeing today are much larger and more complex.

Application

- The definition of a Farm Building refers to Agricultural occupancy.
- The 2024 OBC separates these types of occupancies into groups.
- The 1995 NFBC would still regulate a Farm Building under 600 m sq. & less than 3 storeys.
- A Farm Building over 600 m sq. is now regulated by the 2024 OBC.
- Regardless of the size they must meet the definition of a Farm Building.



Classification of Agricultural Major Occupancy

Table 2.1.4.1.
Classification of Agricultural Major Occupancies
Forming Part of Sentence 2.1.4.1.(1)

| Group | Division | Description of <i>Agricultural Occupancies</i> |
|-------|----------|---|
| G | 1 | <i>High-hazard agricultural occupancies</i> |
| G | 2 | <i>Agricultural occupancies not elsewhere classified in Group G</i> |
| G | 3 | <i>Greenhouse agricultural occupancies</i> |
| G | 4 | <i>Agricultural occupancies with no human occupants</i> |

Classification of Agricultural Major Occupancy

What is a G1 Occupancy?

- Contains a sufficient quantity of highly combustible and flammable or explosive materials to constitute a special fire hazard.

Examples:

- Livestock with below-floor storage area for liquid manure (explosive gas exposure)
- Feed mills (flammable dust), Grain elevators
- Bulk storage of flammable or compressed gases, flammable liquids, or reactive materials



Classification of Agricultural Major Occupancy

What is a G2 Occupancy?

- Agricultural occupancies not elsewhere classified in Group G.

Examples:

- Animal housing, training, or exercise facilities
- Farm workshops
- Feed storage or fruit and vegetable storage
- Storage for farm equipment, implements, and machinery



Classification of Agricultural Major Occupancy

What is a G3 Occupancy?

- G3 occupancies deal with greenhouses



Classification of Agricultural Major Occupancy

What is a G4 Occupancy

- Agricultural occupancies with no human occupancy.

Examples:

- Biomass facilities, By-product facilities, Digesters, Grain Bins, Bunker silos, Vertical silos.



Multiple Occupancies

Multiple occupancies within farm buildings are permitted except for an A,B or C Major Occupancy.

- Fire separations are required between occupancies
- Non-agricultural occupancies are designed as per Part 3
- **Exceptions:** if the non-agricultural occupancies are less than 10% of the floor area in any given storey, they don't need to be considered a major occupancy (except for F1)

Table 2.2.1.4.
Major Occupancy Fire Separations⁽¹⁾
Forming Part of Sentences 2.2.1.4.(1) and (3)

| Major Occupancy | Minimum Fire-Resistance Rating of Fire Separation, h | | | |
|-----------------|--|-----|-----|-----|
| | Adjoining Major Occupancy | | | |
| | G-1 | G-2 | G-3 | G-4 |
| A-1 | 0 | 0 | 0 | 0 |
| A-2 | 0 | 1 | 1 | 0 |
| A-3 | 0 | 0 | 0 | 0 |
| A-4 | 0 | 1 | 1 | 0 |
| B | 0 | 0 | 0 | 0 |
| C | 0 | 1 | 1 | 0 |
| D | 1 | - | - | - |
| E | 1 | - | - | - |
| F-1 | - | 2 | 2 | - |
| F-2 | - | - | - | - |
| F-3 | - | - | - | - |
| G-1 | - | 2 | 2 | - |
| G-2 | 2 | - | - | - |
| G-3 | 2 | - | - | - |
| G-4 | - | - | - | - |

Fire and Occupant Safety

- The NFBC required a 1-hour fire separation based on the number of storeys and building size.

| Maximum Number of <i>Storeys</i> | Maximum <i>Floor Area</i> , <i>m²/Storey</i> |
|----------------------------------|--|
| 1 | 4 800 |
| 2 | 2 400 |
| 3 | 1 600 |

- OBC 2024 has no specific limit on fire compartment size.
- Fire separations are still required for certain areas, such as around rooms with fuel-fired appliances and incinerators.

Fire and Occupant Safety

Sprinkler System

- G1 (High Hazard) A sprinkler system is required for over 1 Storey and over 2400 m² in building area
- A farm building housing livestock with below-floor storage for liquid manure is permitted to have a building area of any size
- G2 A sprinkler system is required if over 3 Storeys, but there is no limit on building area
- G3 No Sprinkler system required, no limits to building area
- G4 No Sprinkler system required, no limits to building area

Fire and Occupant Safety

Fire Alarm and Detection Systems

- A fire alarm is required in a building not sprinkled throughout and that
 - Contains a G1 with an occupancy load greater than 25
 - Contains a G2 or 3 with an occupancy load greater than 150 in a building greater than 1 storey
 - Not required in a G4



Exiting

- Floor areas need to be served by a minimum of 2 exits
- Exit doors are required to swing on their vertical axis in the direction of travel, but Group G Division 2 is exempt from this clause
- Location of exits
 - 30m for G1, other than G1 housing Livestock with below-floor manure storage
 - 60m for G1 with livestock with below-floor manure storage
 - 60m for G2 or 3 that is not sprinklered throughout
 - 90m for G2 or 3 that is sprinklered
- Provisions still exist that allow a window or panel to be used as an exit

Fire Protection Provisions

- Fire department access required
- Emergency lighting with backup power is required if lighting is provided
- Exit signage is required if more than 2 storeys or the occupancy load is greater than 150
- Spacing of attic fire blocks to be based on 900m sq.
- Portable fire extinguishers are required as per OFC



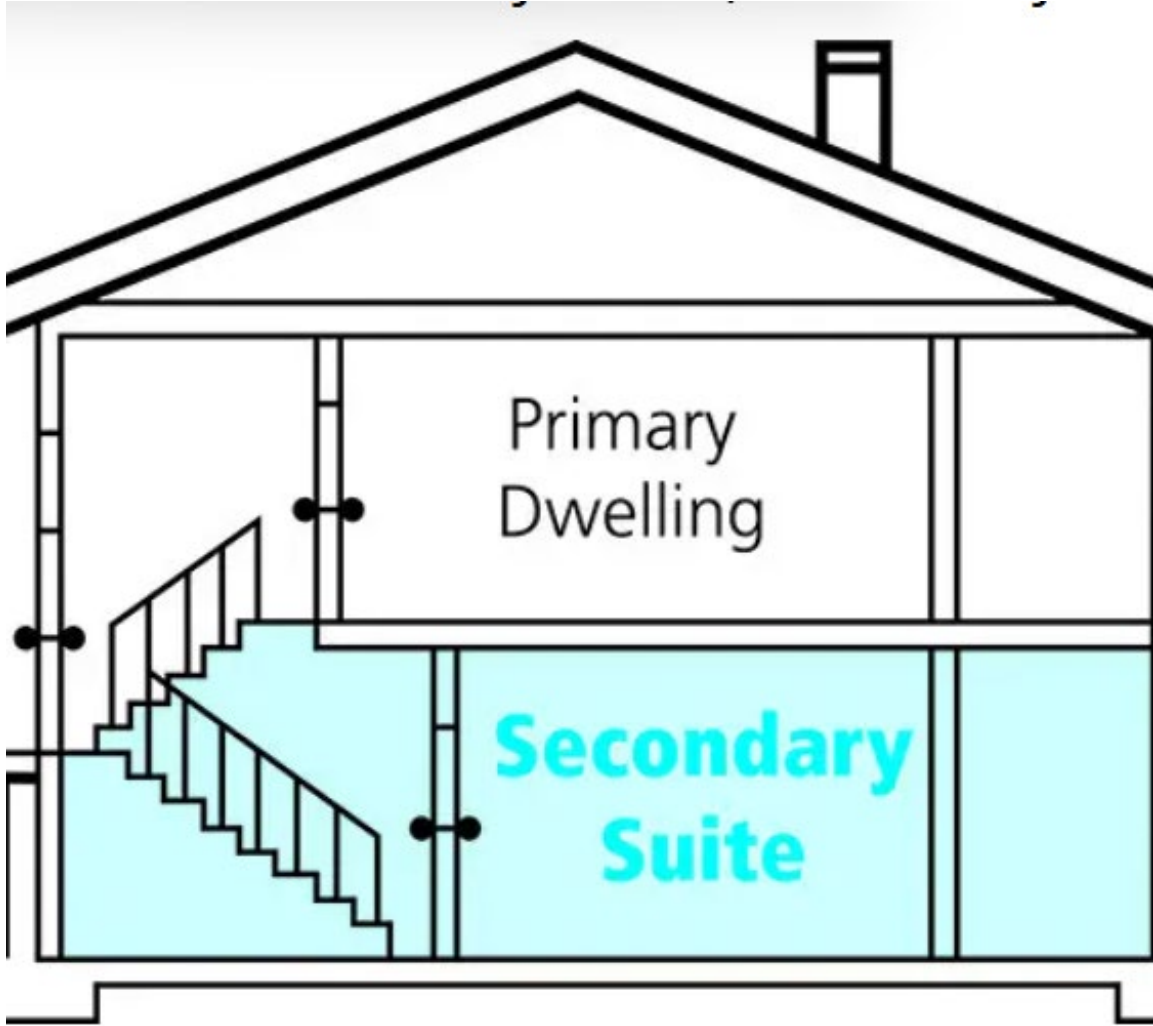
Heating and Ventilation

- Heating and Ventilation shall be designed under part 6 OBC with a few exceptions
- Provisions for silo gasses
- Fuel-fired appliances to be separated from the rest of the barn
- Below-floor storage of liquid manure shall have no less than 2 air changes per hour



Structural Design

- Snow loads updated to OBC SB-1
- Minimum roof snow loads for greenhouses increased
- Current CSA O86 wood standards apply and do not allow system factor with 4' truss spacing
- Seismic design is now required for farm buildings
- Wind loads increasing 25%-35% depending on location



Secondary Suites

Secondary Suites

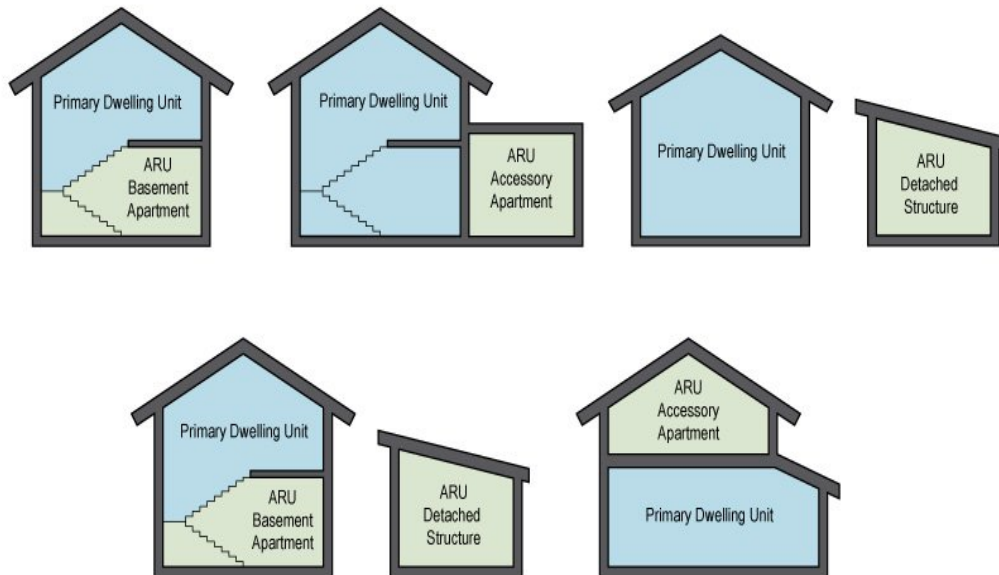
Definitions – Div. A 1.4.1.2.

The Definition of ~~HOUSE~~ has been removed from the 2024 OBC

New definition of SECONDARY SUITE has been added

Secondary Suite – Means a self-contained *dwelling unit* located in a *building* or portion of a *building* of only *residential occupancy* that contains only one other *dwelling unit* and common spaces, and where both *dwelling units* constitute a single real estate entity.

Secondary Suites



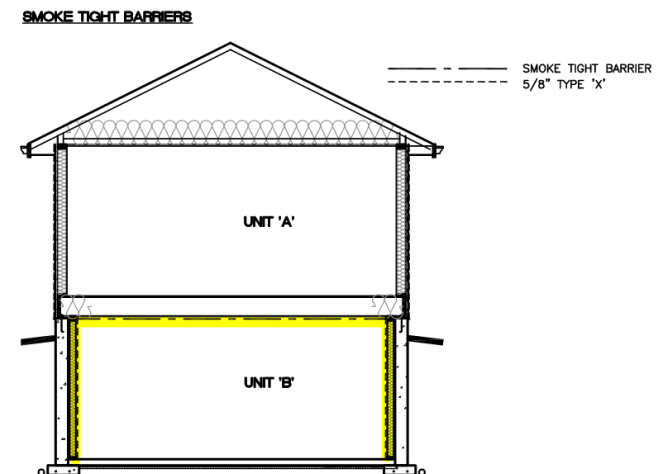
Designer Qualifications: Designers with **HOUSE** qualifications may design a house with a secondary suite (maximum two dwelling units) for all buildings with greater than two dwelling units **SMALL BUILDING** qualifications are required.

Secondary Suite

Fire Protection – Separation of secondary suites – 9.10.9.16.(4)

Walls floor / ceiling assemblies that separate dwelling units from each other or dwelling units for ancillary spaces and common spaces are to be protected by a continuous smoke-tight barrier of not less than 15.9mm (5/8”) thick Type X gypsum board installed on;

- (a) both sides of the walls, and
- (b) the underside of floor-ceiling faming



Secondary Suite

- “Continuous Smoke Tight Barrier is not a defined term in the OBC however 9.10.9.2.(2) clarifies that the smoke tight barrier shall be constructed as a continuous barrier against the spread of smoke.
- 9.10.8.3.(2) Loadbearing elements shall be protected by not less than 15.9mm (5/8”) Type X gypsum board.
- Closures in Smoke-tight barriers is proposed to have a new sentence 9.10.9.3.(2) added to state.
 - (2) Doors in smoke-tight barriers shall
 - (a) be a solid-core, wood door at least 45mm thick, and
 - (b) have a self-closing device

Secondary Suites

Interconnection of Smoke and Carbon Monoxide Alarms

Smoke alarms shall be interconnected between both suites, smoke alarms are permitted to be interconnected wirelessly or hard wired. 9.10.19.5.

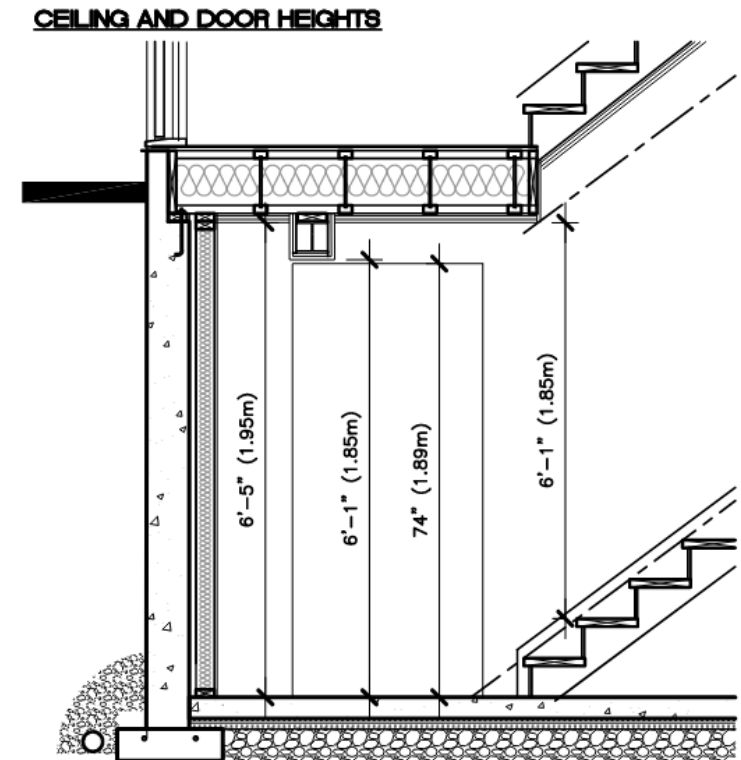
Carbon Monoxide alarms shall be interconnected between both suites, carbon monoxide alarms are **NOT** allowed to be wirelessly connected



Secondary Suites

Secondary Suites - Ceiling Heights

These heights are reduced only for the construction of secondary suites. There are no reductions in basements or basement finishes if the unit is not a Secondary Suite



Secondary Suites

Heating and Air-Conditioning

9.33.1.1. – Air Duct distribution systems serving one of the dwelling units of the dwelling units in a house with a secondary suite shall not be directly interconnected with other parts of the house. All secondary suites must have separate furnaces, this applies to all homes less than 5 years old.

9.33.4.3.(1) – Each dwelling unit shall be provided with a temperature control

Fire Protection – Penetrations of Fire Separations

General Requirements for Penetrations of Fire Separations 9.10.9.6

(1) Penetrations of required fire separations or a membrane forming part of an assembly required to be a fire separation shall be

- (a) Sealed by a firestop that conforming to the testing of CAN/ULC – S115,
- (b) Tightly fitted or cast in place, provided the penetration item is steel, ferrous copper, concrete or masonry, or
- (c) Sealed to maintain the integrity of the fire separation

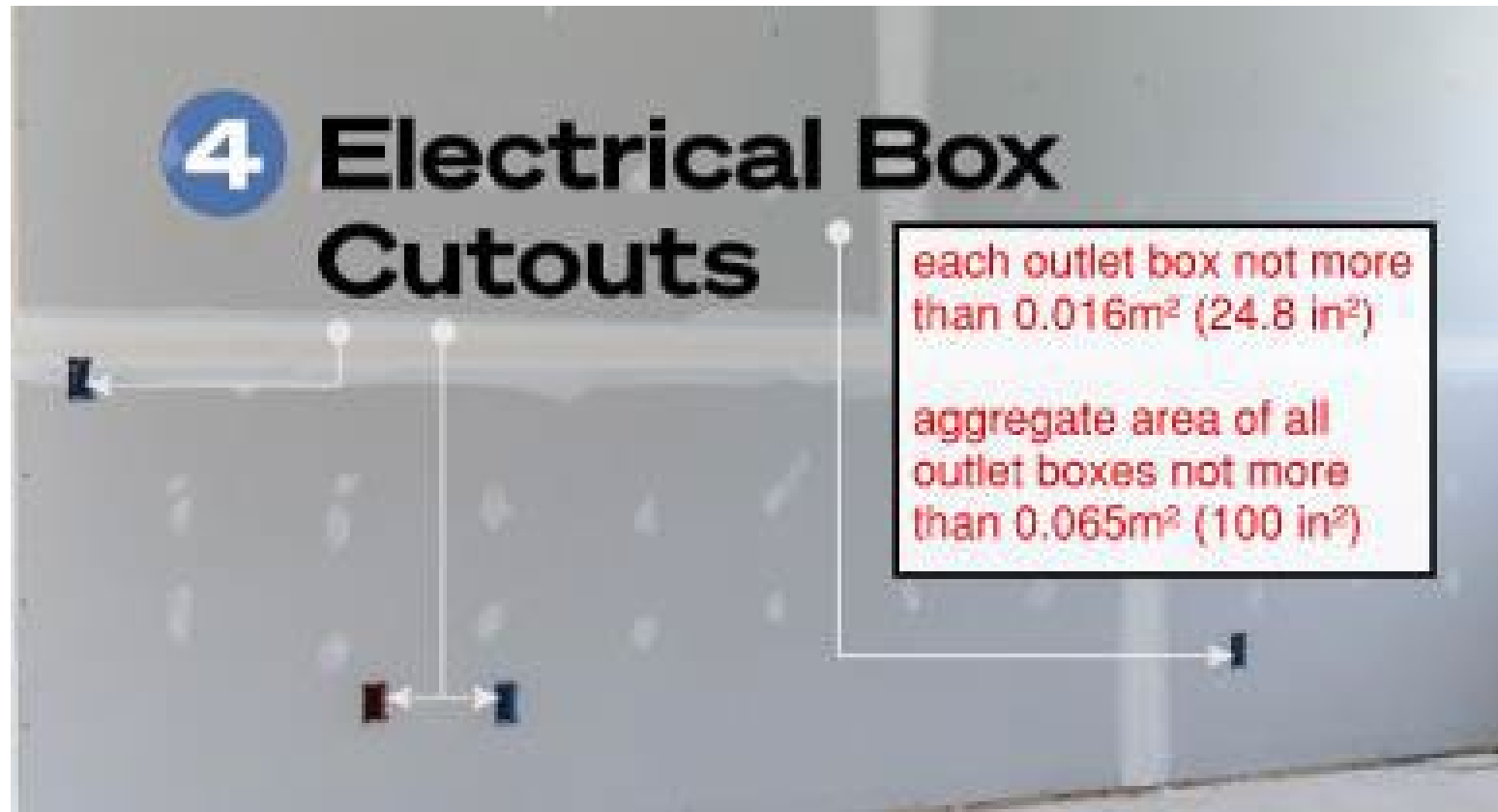


Fire Protection – Penetrations of Fire Separations

- 9.10.9.8(2) Except as provided in Sentence 9.10.9.6.(2), Noncombustible outlet boxes that penetrate a fire separation or a membrane forming part of an assembly required to have a fire-resistance rating need not conform to Sentence (1), provided,
- (a) they do not exceed
 - I. 0.016 m² (24.8 in²) in area, and
 - II. an aggregate area of 0.065 m² (100 in²) in any 9.3 m² (100 ft²) of surface area, and
 - (b) the annular space between the membrane and the noncombustible outlet boxes does not exceed 3 mm



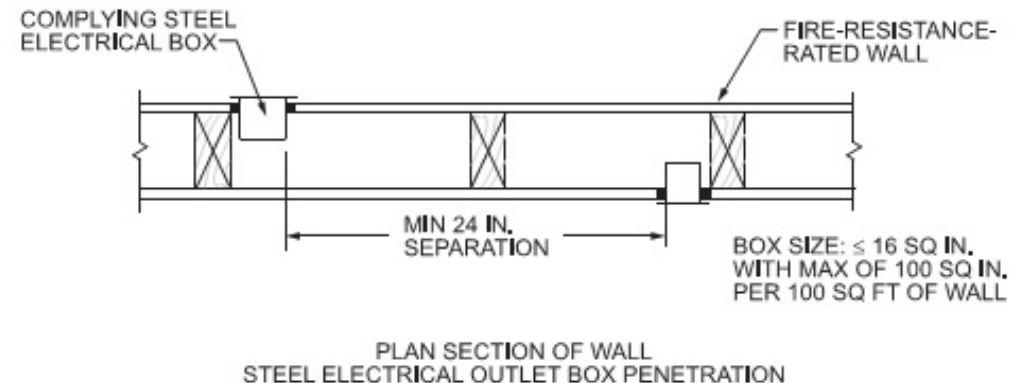
Fire Protection – Penetrations of Fire Separations



Fire Protection – Penetrations of Fire Separations

9.10.9.8.(4) Noncombustible outlet boxes conforming to Sentence (2) are permitted to be located on opposite sides of a vertical fire separation having a fire-resistance rating and need not conform to Sentence (1), provided they are

- (a) separated from each other by a horizontal distance of not less than 600 mm,
- (a) separated from each other and the remainder of the wall space by an enclosure conforming to Subclause (3)(a)(i), or
- (c) located in an insulated wall space in accordance with Subclause (3)(a)(ii).



Fire Protection – Penetrations of Fire Separations

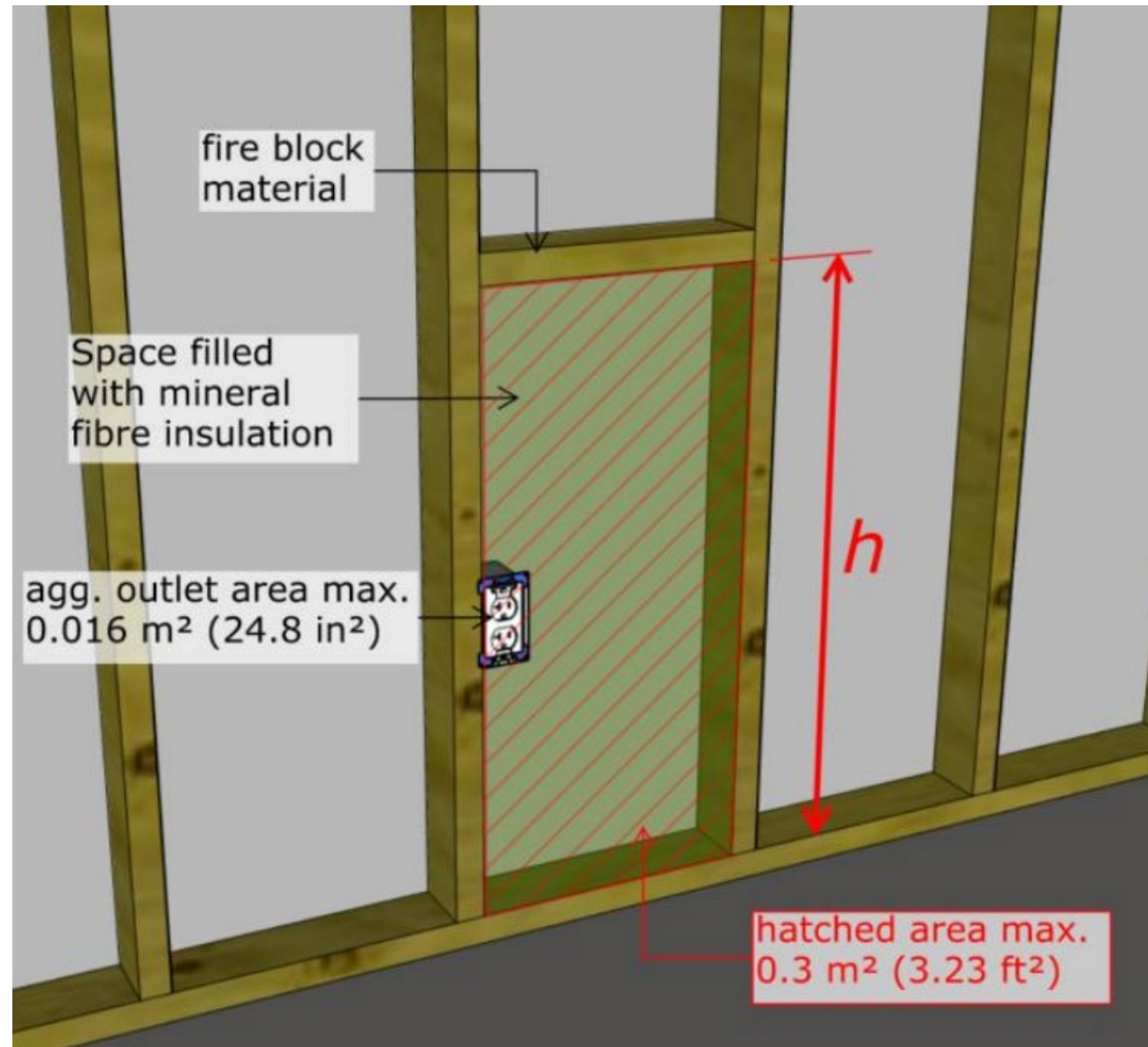
9.10.9.8.(3) Except as provided in Sentence 9.10.9.6.(2), Combustible outlet boxes that penetrate a fire separation or a membrane forming part of an assembly required to have a fire-resistance rating need not conform to Sentence (1), provided

(a) the outlet boxes are

(i) separated from the remainder of the space within the assembly by an enclosure of not more than 0.3 m² (3.23 ft²) in area made of fire block material conforming to Article 9.10.16.3., or (See Note A-9.10.9.8.(3)(a)(i))

(ii) located in a space within the assembly that is filled with preformed fibre insulation processed from rock or slag conforming to CAN/ULC-S702.1, “Standard for Mineral Fibre Thermal Insulation for Buildings, Part 1: Material Specification,” and having a mass per unit area of not less than 1.22 kg/m² of wall surface such that the exposed sides and back of the outlet box are encapsulated by the noncombustible insulation, **and**

(b) the outlet boxes do not exceed an aggregate area of 0.016 m² (24.8 in²) in any individual enclosure as described in Subclause (a)(i) or any individual insulated space as described in Subclause (a)(ii).





Carbon Monoxide Detectors, Smoke Alarms and Accessibility

9.32.3.9



RESIDENTIAL

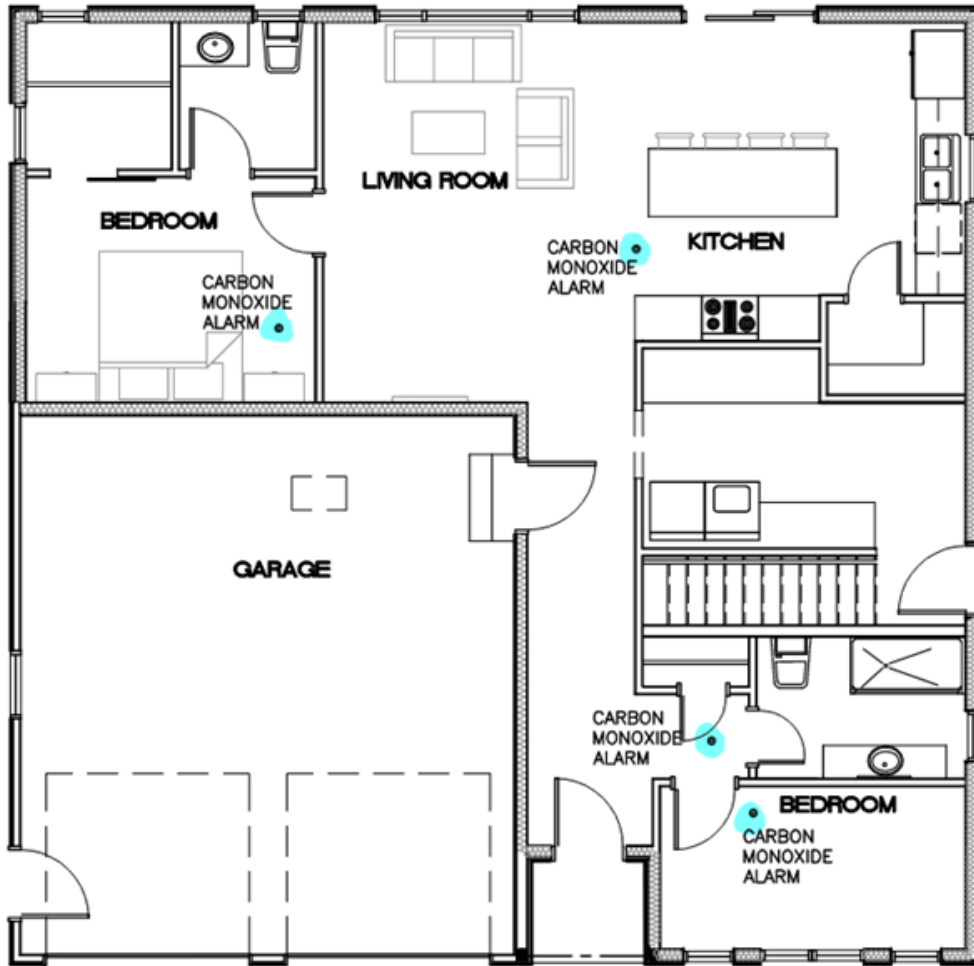
- Fuel Burning Appliance in the suite
- Forced Air Fuel Burning Appliance external to the suite
- Attached Garage



OTHER SMALL BUILDINGS

- Fuel Burning Appliances
- Fuel Burning Laundry Equipment

9.32.3.9



Residential

- Sleeping rooms adjacent to a garage
- Sleeping rooms adjacent to an attic or crawl space for a garage
- Adjacent to each sleeping room
- On each storey without a sleeping room
- In the main area of a bachelor's suite
- Sleeping rooms containing or adjacent to a suite/area that contains a fuel-burning appliance or flue.

Other Small Buildings

- Public corridors serving residential suites when the suite is heated by a forced air fuel burning appliance.
- Service rooms or other areas that contain fuel burning appliances/laundry.

Installation and Conformance to Standards 9.32.3.9C.

- Be permanently connected to an electrical circuit
- Have battery backup
- Have visual signaling
- Be interconnected
 - Within the suite
 - Between a primary and secondary suite
 - Throughout the public corridor serving residential suites
- Be audible in sleeping rooms when doors are closed
- Conform to CAN/CSA-6.19 and UL 2034



Outdoor Intake & Exhaust Openings

9.32.3.13

Separation of exhaust and air intakes

- 1.8 m from air intakes and vented soffits
- If outlet is inside the soffit then
 - The soffit shall be unvented, or
 - The soffit shall be blocked for 1.8m
- If outlet closer to soffit, blocked section centered above

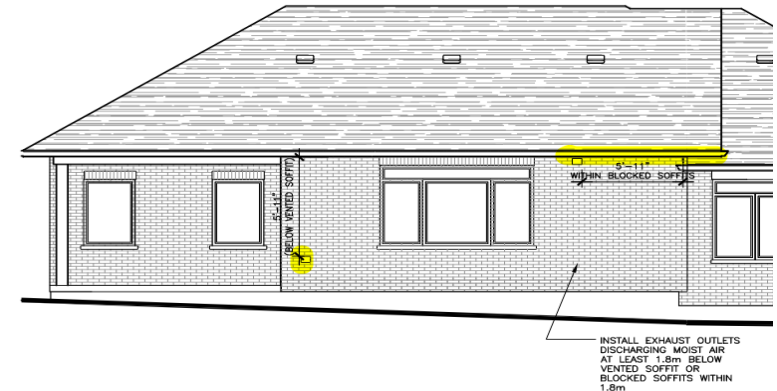


Table 9.32.3.13.-A
Widths of Unvented or Blocked Soffits Where Exhaust Outlets Are Less Than 1 800 mm from a Soffit
Forming Part of Sentence 9.32.3.13.(6)

| Distance Between Exhaust Outlet and Soffit, mm | Total Width of Unvented or Blocked Soffit Centred Over Location of Exhaust Outlet, mm |
|--|---|
| 1 to 300 | 3 600 |
| 301 to 600 | 3 400 |
| 601 to 900 | 3 100 |
| 901 to 1 200 | 2 700 |
| 1 201 to 1 500 | 2 000 |
| 1 501 to 1 799 | 1 000 |

Smoke Alarms

9.10.19.5

- Main change is in house with a Secondary Suite
- Smoke Alarm must be interconnected wirelessly or through hard wiring



Accessibility

- Barrier Free Path of Travel 3.8.1.2.
- A direct, barrier free path must connect a barrier free entrance to a public thoroughfare, as well a barrier free parking area and loading zone.
- All pedestrian entrances must be barrier free. (previously a portion of entrances were required).

3.8.2.1 (3)

Accessibility

- Not required for parking levels without accessible spaces, as well as floors above and below the first storey where the building has the max. height of 2 storeys.





Accessibility

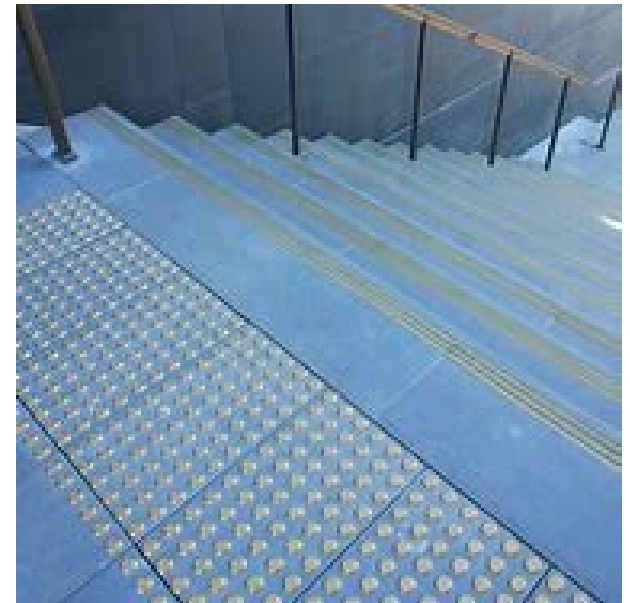
3.8.3.1

- Signs will be required to provide visual information for:
 - B/F washrooms, B/F showers, elevators
 - B/F parking spaces, assistive listening systems or adaptive technologies
 - All above areas will require directional signs with visual information throughout the building

3.3.1.9

Safety With Floor Areas

- Tactile attention indicators shall be installed at the top of flights of stairs that are unenclosed, as well drop edges that are greater than 300mm(12inches) that are not protected by a guard.

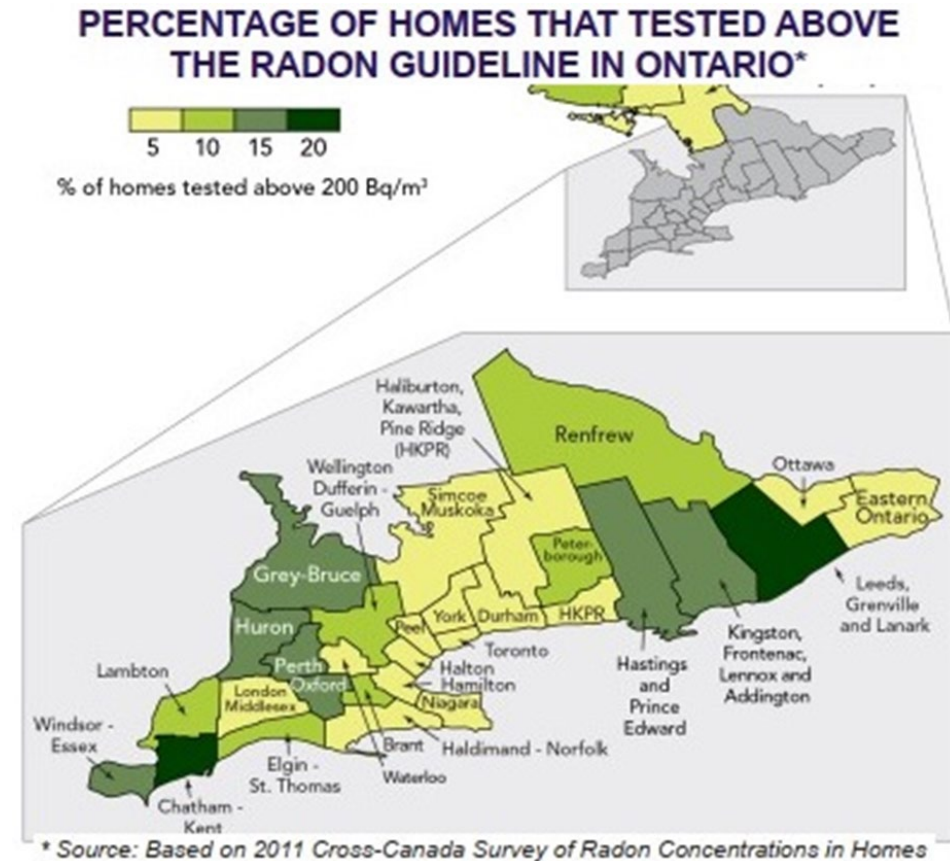




Radon, HVAC

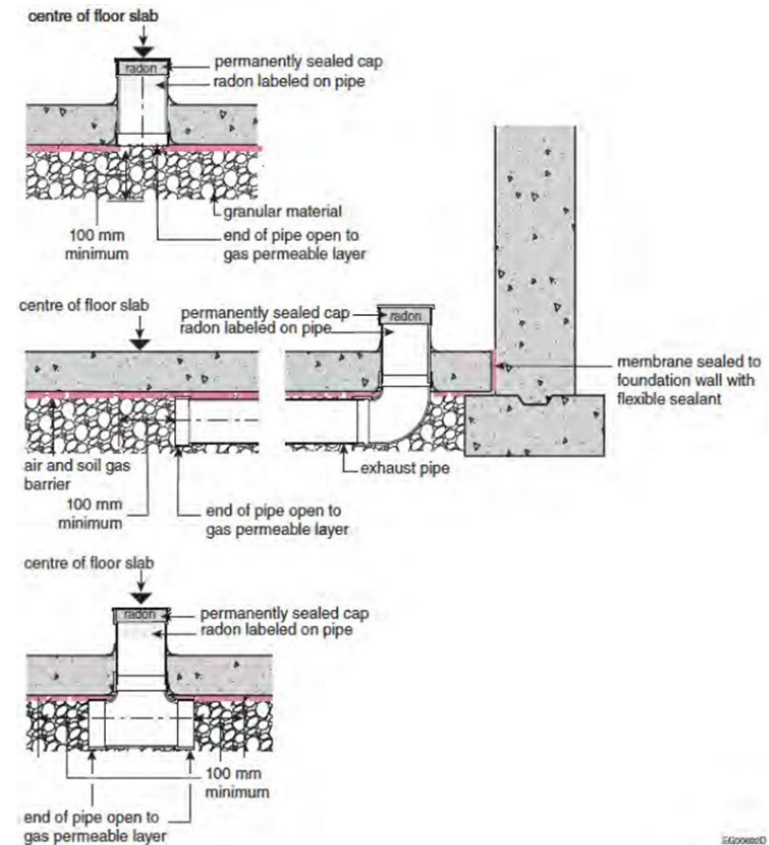
What is Radon?

- Radon is a radioactive gas that comes from the breakdown of uranium in soil and rock.
- It is invisible, odourless and tasteless.
- In enclosed spaces, like homes, it can accumulate to high levels and become a risk to you and your family.



Where & How do we mitigate Radon?

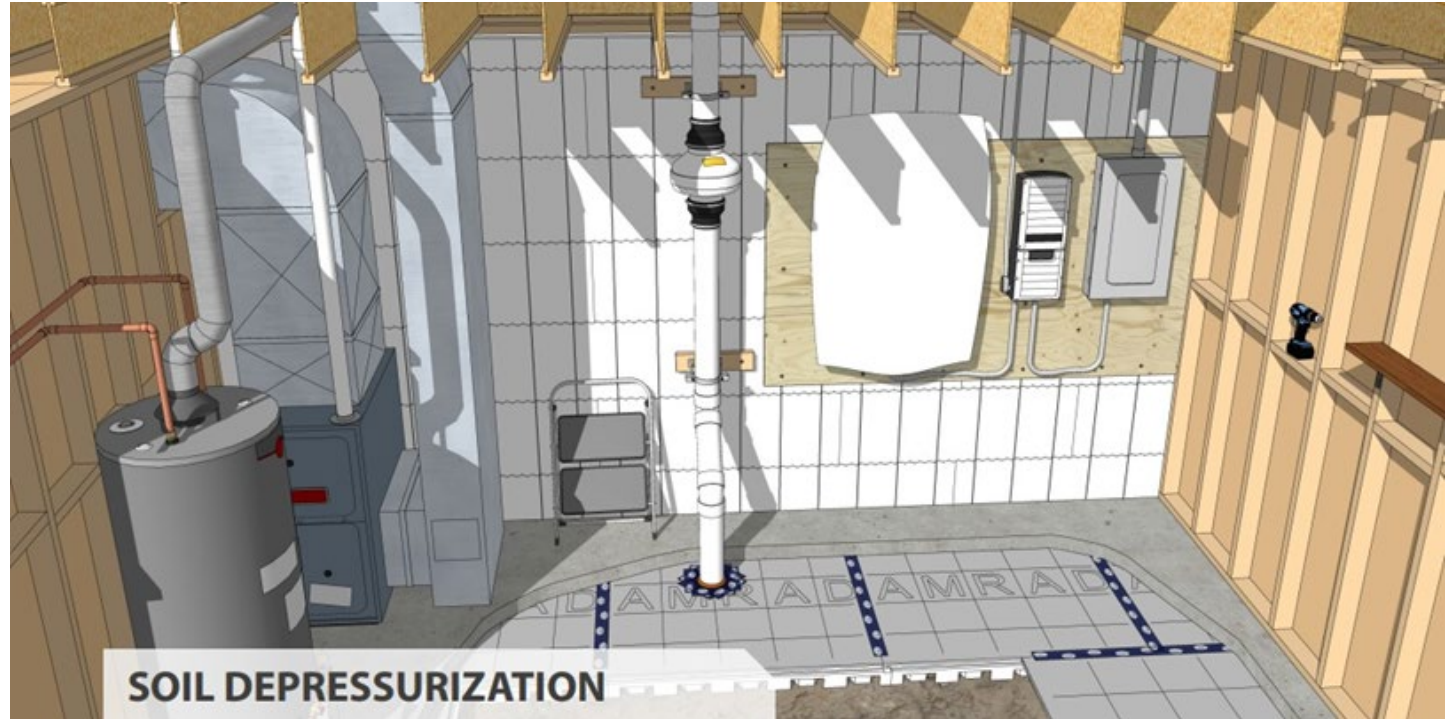
- All Buildings except garages and unenclosed areas require soil gas control consisting of:
- Air barrier
- Subfloor depressurization rough-in (see examples below):



INSTALLATION – WHERE?

Installation

Location: Ideally located in the mechanical room, near an exterior wall



HVAC-Garages

- For the purposes of ventilation design, a *storage garage* for up to 4 motor vehicles (was 5) that serves a residential occupancy may be considered part of that *occupancy*.



Ventilation Changes

Principal Exhaust Changes

Table 9.32.3.4.A.
Principal Exhaust Fan Capacity
Forming Part of Sentence 9.32.3.4.(1)

| Number of Bedrooms in <i>Dwelling Unit</i> | Capacity, L/s |
|--|--|
| 1 | 15 |
| 2 | 22.5 |
| 3 | 30 |
| 4 | 37.5 |
| 5 | 45 |
| More than 5 | System must comply with Sentence 6.2.1.1.(1) |
| Column 1 | 2 |

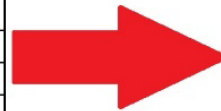


Table 9.32.3.3.
Normal Operating Exhaust Capacity of Principal Ventilation Fan
Forming Part of Sentence 9.32.3.3.(2)

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

Ventilation Changes

Furnace airflow combined with tempering outdoor air temperature introduced:

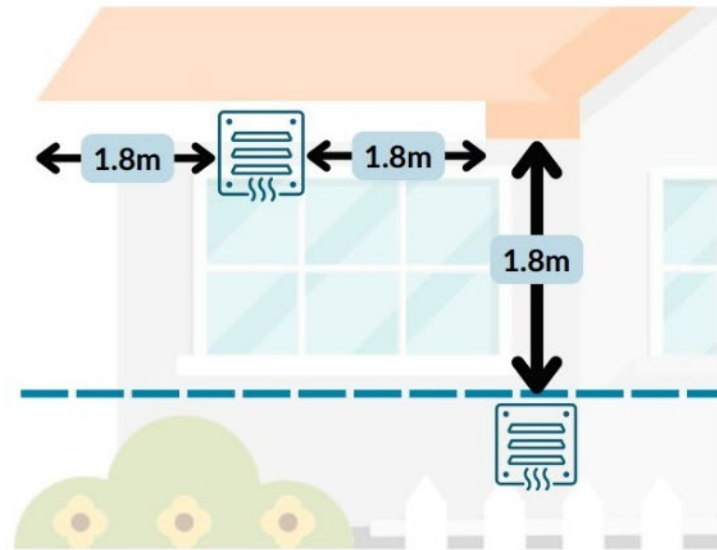


Table 9.32.3.4.
Maximum Outdoor Airflow
 Forming Part of Sentence 9.32.3.4.(2)

| January 2.5% Temperature as per Supplementary Standard SB-1, °C | Maximum Outdoor Airflow for Indicated Mixed Temperature, L/s | | | | | | | | | | | | | | | | | |
|--|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 0 | 0 | 0 | -10 | -10 | -10 | -20 | -20 | -20 | -30 | -30 | -30 | -40 | -40 | -40 | -50 | -50 | -50 |
| Minimum Mixed Air Temperature, °C | 15 | 10 | 5 | 15 | 10 | 5 | 15 | 10 | 5 | 15 | 10 | 5 | 15 | 10 | 5 | 15 | 10 | 5 |
| Furnace Airflow, L/s | | | | | | | | | | | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100 | 32 | 55 | 77 | 22 | 38 | 53 | 17 | 29 | 40 | 13 | 23 | 33 | 11 | 19 | 27 | 10 | 17 | 24 |
| 200 | 64 | 109 | 155 | 44 | 75 | 106 | 33 | 57 | 81 | 27 | 46 | 65 | 23 | 39 | 55 | 19 | 33 | 47 |
| 300 | — | — | — | 66 | 113 | 159 | 50 | 86 | 121 | 40 | 69 | 98 | 34 | 58 | 82 | 29 | 50 | 71 |
| 400 | — | — | — | — | — | — | — | — | — | 54 | 92 | 131 | 45 | 77 | 110 | 39 | 67 | 94 |
| 500 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 49 | 83 | 118 |

Exhaust Outlet Locations:

Examples: Bathroom
Ventilation or Clothes Dryer
Exhaust Outlets



Install **exhaust outlets** discharging moist air at least **1.8m below vented soffits** or **block soffits** within 1.8m (5'-11")
Unvented (solid soffit) also acceptable

2024 OBC

Code article

9.32.3.13.

2012 OBC

Code article

9.32.3.1.12

Residential Heating Design Consolidation into Part 9

Part 9, Section 9.33 – Heating and Air-Conditioning has been expanded to include referencing of standards and many of the design requirements previously found in Part 6.

2012 OBC

Part 9

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Indoor Design Temperature

- Requirements for certain areas within houses with a *secondary suite* have been added.
- Design temperatures for unfinished basements have been reduced.

| <i>Room</i> | <i>2012 OBC</i> | <i>2024 OBC</i> |
|--|-----------------|-----------------|
| All living spaces | 22 °C | 22 °C |
| Unfinished basements | 22 °C | 18 °C |
| Common Service rooms, ancillary spaces & exits in house with a secondary suite | N/A | 18 °C |
| Heated crawl spaces | 15 °C | 15 °C |



Guards & Structural

Guards Windows-

9.8.8.1. 2024 OBC

Openable windows situated 1.8m or higher above the exterior grade in residential units now require a permanent guard or device to restrict the opening of the window (limiter), if windows are installed closer than 900mm to the floor surface beneath the window.



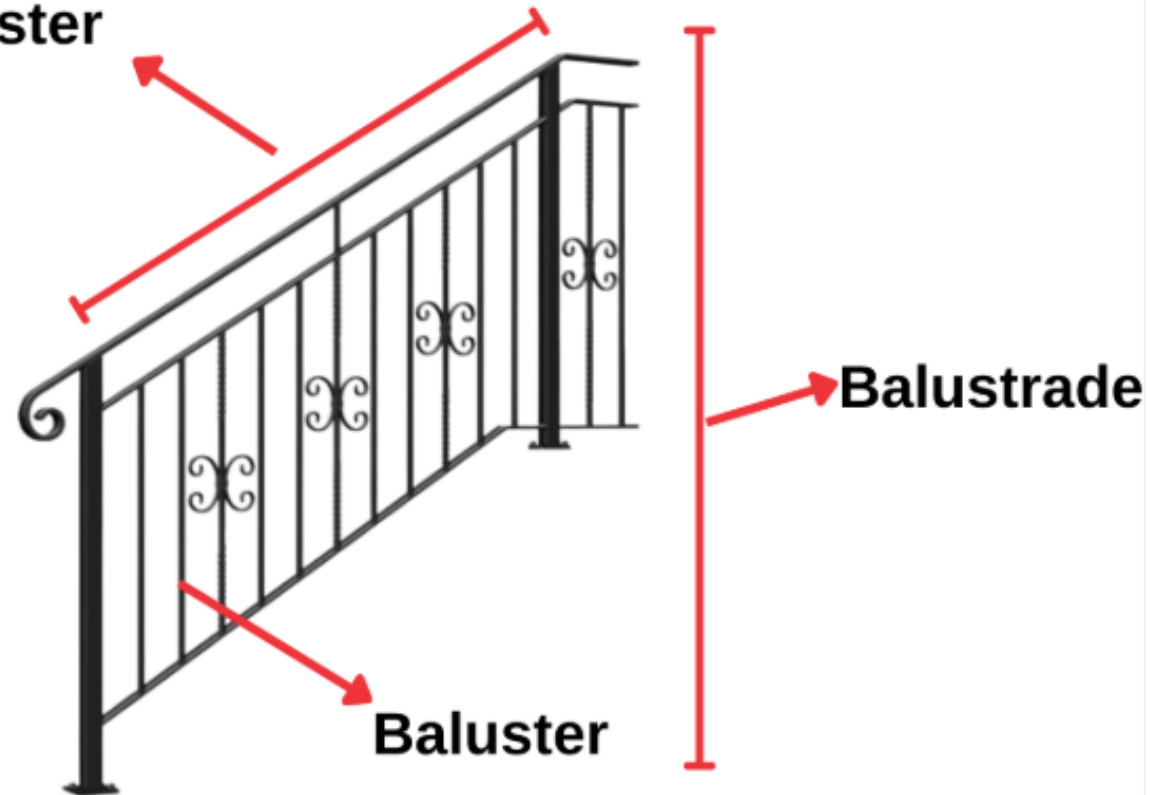
Guards Serving Stairs – 9.8.8.2.

Balusters must resist opening over 100mm (4") under a 0.1 kN load

A kilonewton (kN) is a unit of force measurement in the International System of Units (SI).

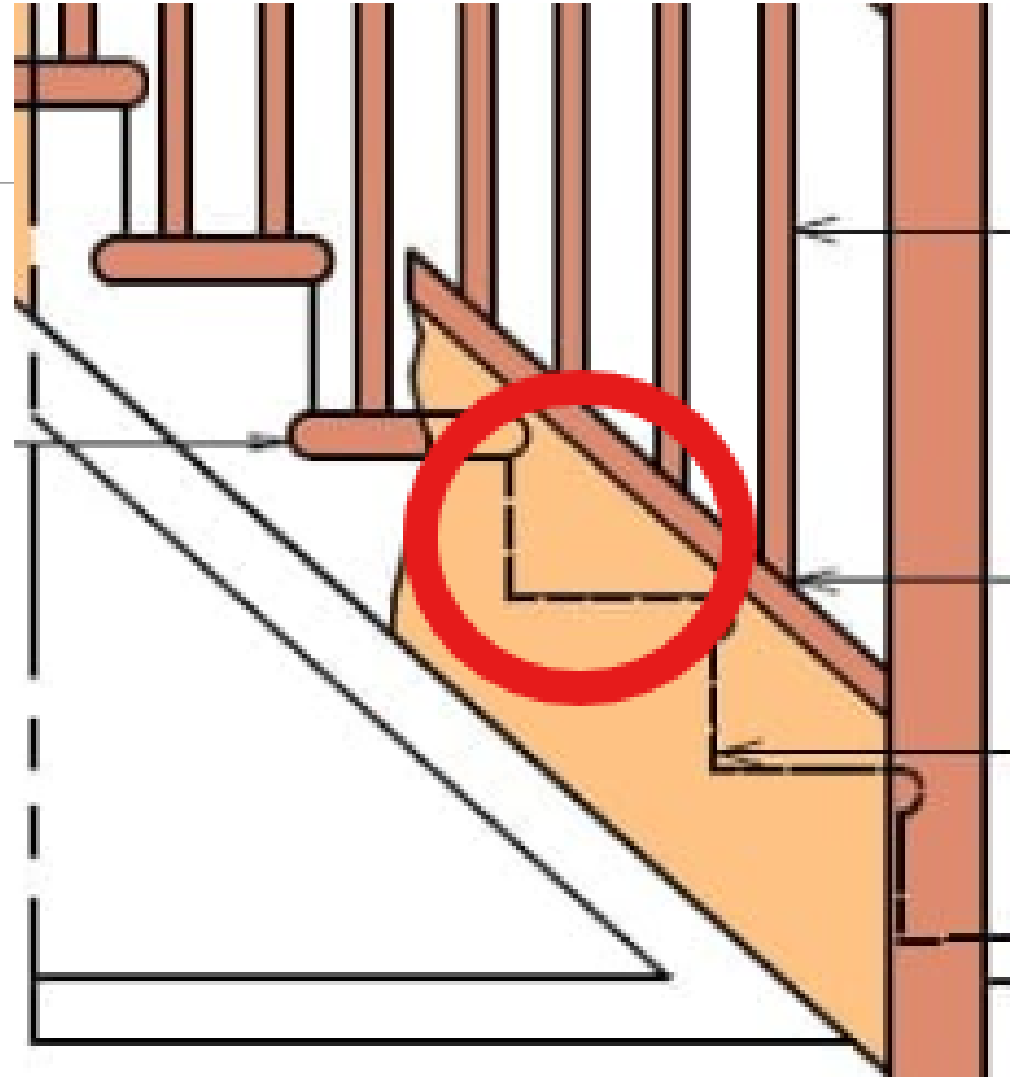
A kilonewton (kN) is equal to approximately 224.8 pounds of force (lbf).

Banister



Guards Serving Stairs – 9.8.8.5.(2) 2024 OBC

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 150mm (6") diam sphere.



Snow Loading – 9.4.2.2.

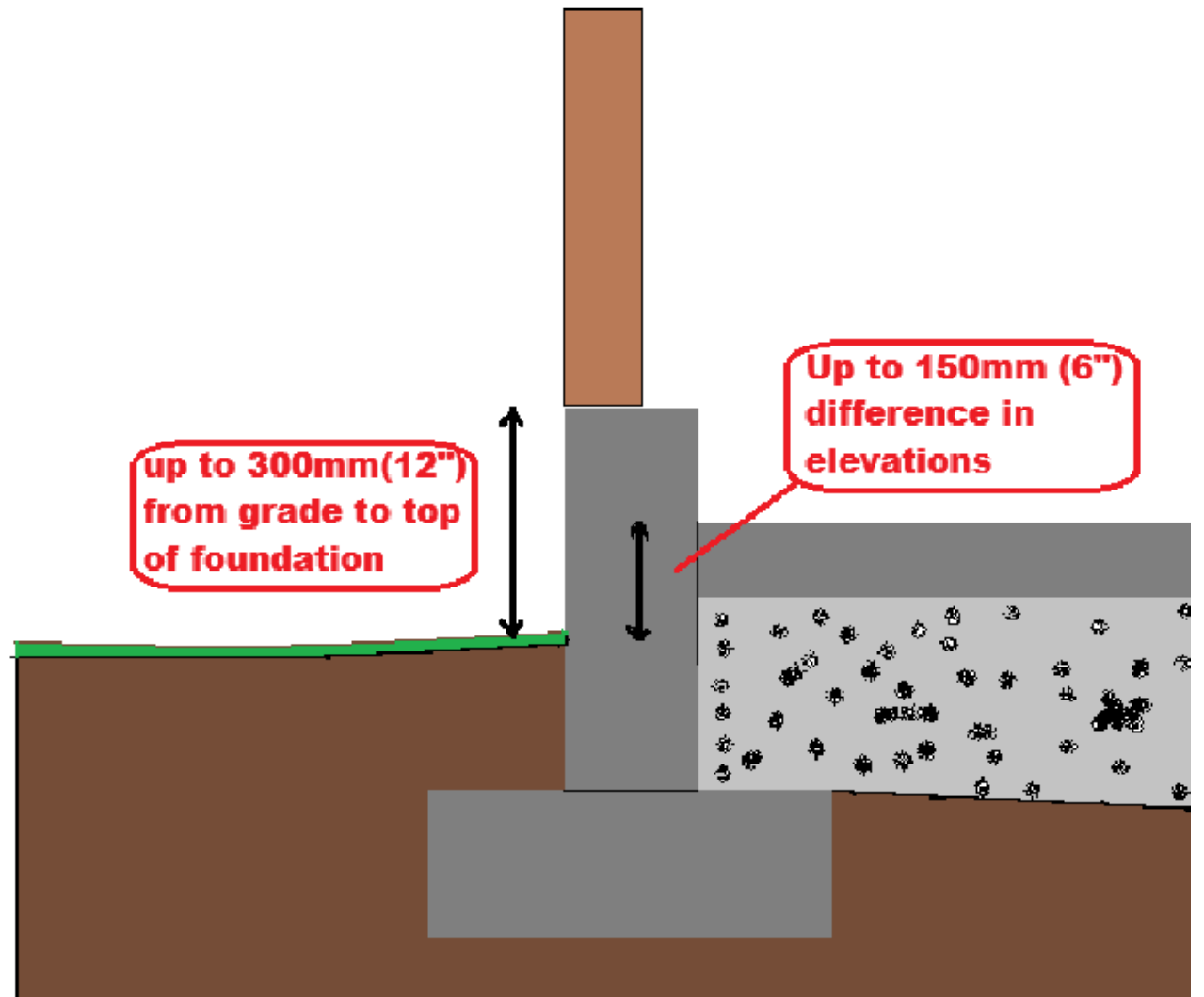
Roof steps over 2m (6'-6") where the upper roof is 1 in 6 or less and over 600 sq m shall be calculated for additional snow loading.



Lateral Support of Foundation Walls

9.15.4.3.(2)(d) ..they extend from the footing to no more than 300mm (12") above the finished ground level and are backfilled on both sides such that the difference in elevation between the finished ground levels on either side of the wall is no more than 150mm (6").

Dimensions required for lateral Support





Footings and Foundations - ICF

9.15.1.1.(1)(c)

Part 9 ICF design has been expanded to include all buildings:

Light-frame or flat ICF construction

Not more than 2 storeys in height,

and

Max floor-to-floor height of 3m



| 2012 | 2024 |
|------------|----------------|
| 305mm(12") | 300mm(11 3/4") |
| 406mm(16") | 400mm(15 3/4") |
| 610mm(24") | 600mm(23 5/8") |

Lumber Dimensions

Stud spacing dimensions have been changed throughout section 9.23. of the 2024 OBC

Pressure Treated Wood Fasteners and Connectors

(NEW) Connectors and fasteners in contact with preservative-treated wood must be corrosion resistant:

Galvanized

Stainless

Equivalent corrosion resistant

9.23.2.4. (2024 OBC) - N/A (2012 OBC)





Table 9.27.5.4.-A
Attachment of Cladding to Wood Framing, Furring Members or Blocking
Forming Part of Sentence 9.27.5.4.(1)

| Type of Cladding | Minimum Nail or Staple Length, mm ⁽¹⁾ | Minimum Number of Nails or Staples | Maximum Nail or Staple Spacing, mm o.c. |
|--|--|------------------------------------|---|
| Wood trim | 51 | — | 600 |
| Lumber siding or horizontal siding made from sheet metal | 51 | — | 600 |
| Metal cladding | 38 | — | 600 (nailed to framing) 400 (nailed to sheathing only) |
| Wood shakes | | | |
| up to 200 mm in width | 51 | 2 | — |
| over 200 mm in width | 51 | 3 | — |
| Wood shingles | | | |
| up to 200 mm in width | 32 | 2 | — |
| over 200 mm in width | 32 | 3 | — |
| Vinyl and insulated vinyl siding | | | |
| horizontally applied | 38 | — | 400 ⁽²⁾ |
| vertically applied | 38 | — | 300 |
| Polypropylene siding | 38 | — | 400 ⁽²⁾ |
| Panel- or sheet-type cladding | | | |
| up to 7 mm thick | 38 | — | 150 (along edges) |
| over 7 mm thick | 51 | — | 300 (along intermediate supports) |

Notes to Table 9.27.5.4.-A:

(1) The minimum fastener length need not exceed the minimum fastener penetration depth required by Article 9.27.5.7.

(2) The maximum spacing of 400 mm o.c. applies to nails and staples used to attach horizontally applied vinyl, insulated vinyl and

Siding Installation

2024 - 9.27.5.

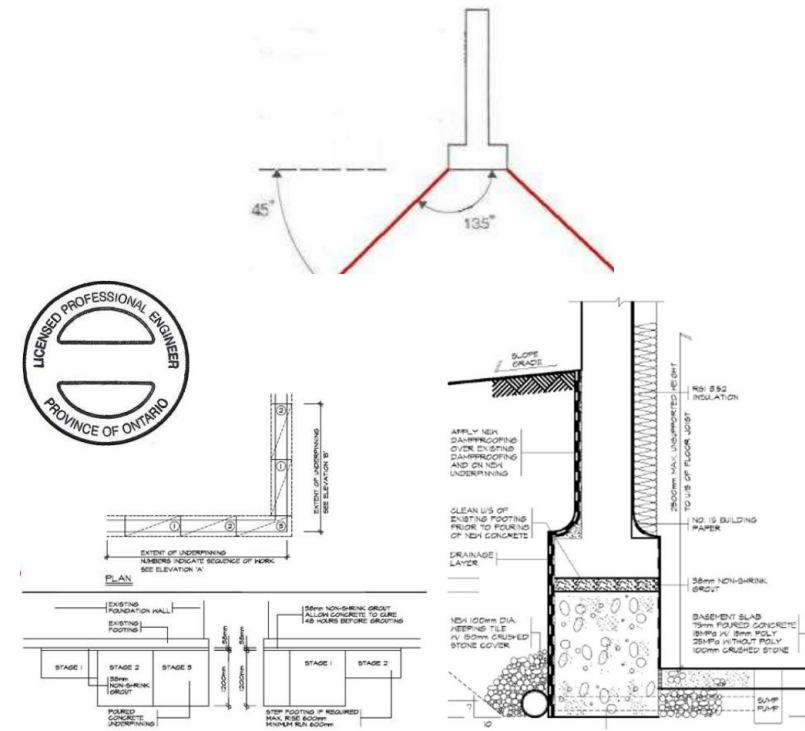
Installation requirements have been added to the 2024 code related to various siding materials along with new nailing tables.

Design Parameters and Part 3

UNDERPINNING

Clarification has been given that any type of structural work that falls within the parameters of greater than 45 degrees from the horizontal requires a Structural Engineer to create the design for the work to be completed.

ENGINEER DESIGN REQUIRED



Fire Protection

Major changes to required sprinklers in buildings. More occupancies require a sprinkler system

Fire alarms are required for all sprinklered buildings
3.2.4.1

Pull stations are required at every principal entrance and every exit
3.2.4.16



Standpipes

Standpipe water pressure at the top connection has increase from 450 kPa to 690 kPa.

Hose connections must be installed in exits.



Part 7 Plumbing

- The distance between a *building* and the first manhole has increased from 30m (98') to 75m (246').
- Stack termination on the roof needs to be a minimum 1.8m (6') from the property line.
- Air Admittance valves now can be 100mm(4") above the fixture drain.



“Just one
more thing”



Thank you,



In partnership with the Home Construction Regulatory Authority

