



ONTARIO BUILDING
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2012 BUILDING CODE OVERVIEW

An Overview of the Changes

This overview of the 2012 Building Code has been prepared for information purposes only. Reference should always be made to the Building Code Act, 1992 and the Building Code (Ontario Regulation 332/12 and as amended) which are the authoritative sources for information on the Building Code's construction requirements. Accordingly, this publication should not be relied upon as a substitute for legal or design advice, and the user is responsible for how the publication is used and applied.

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Introduction

Ontario Regulation (O.Reg.) 332/12

On November 2, 2012, the 2012 Building Code was filed as O.Reg. 332/12 and can be found at e-Laws. The new Building Code, for the most part, will come into force on January 1, 2014 with certain energy efficiency related provisions coming into force on January 1, 2014, 2015 and 2017. Some changes related to on-site sewage systems will come into force December 31, 2016. This timeline gives the industry time to learn about the new changes and prepare for implementation.

The 2012 Building Code changes provide a balanced package that builds on health and safety and environmental protection requirements. It also helps the competitiveness of Ontario's building sector through:

- New and updated standards
- Clarifying Building Code requirements
- Allowing for the use of new products
- Recognition of best practices
- More flexible requirements
- Maintaining Ontario's harmonization with model National Building Code requirements in areas such as structural design.

The new regulation maintains Ontario's leadership in energy and water conservation and has potential for savings of operating costs over time for building owners (e.g. through energy and water savings).

Property Protection and Health

The 2012 Building Code contains enhancements to property protection and health, including:

Removing window screens as an acceptable fall protection device. Window guards or controlled sashes will still be required under the Code

Revising the average annual concentration of radon threshold in the Building Code to reflect the new national threshold (from 250 Bq/m³ to 200 Bq/m³) i.e., less radon is needed to trigger radon protection requirements. This change affects only three areas in Ontario which are currently identified in the Code.

Clarifying that sewage back-water valves are required in residential buildings connected to a public sewage system, if deemed necessary at a local level.

Protecting public water supplies from contamination from “medium hazard” uses (e.g. multi-unit residential buildings, commercial buildings, hotels, manufacturing plants) by requiring backflow preventers.

Fire Safety

The 2012 Building Code contains specific requirements in order to enhance fire protection of large and small buildings, including:

Requiring hard-wired smoke alarms with battery back-up in each sleeping room for houses and large buildings (Part 3 and Part 9)

Requiring integrated sprinkler and fire alarm systems in multi-unit residential buildings

The 2012 Building Code expands the list of Building Code sub-objectives and related functional statements to reference:

- Limiting the extent to which construction strains infrastructure capacity (e.g., electrical grid capacity)
- Protecting atmospheric quality Limiting green house gas emissions
- Limiting the release of pollutants
- Protecting water and soil quality

Energy Conservation Requirements

For Large Buildings, the 2012 Building Code promotes energy conservation through building design and construction by requiring that large buildings for which building permits are applied, on or after January 1, 2017, meet an energy efficiency level that is 13% higher than that required in 2012.

For Houses, the 2012 Building Code promotes energy conservation through building design and construction by requiring that houses for which building permits are applied, on or after January 1, 2017, meet an energy efficiency level that is 15% higher than that required in 2012.

It also provides compliance alternatives on how to achieve that goal over the 5-year Code cycle, requiring a number of other energy-conserving incremental changes.

Water Conservation

The 2012 Building Code promotes the conservation of Ontario's water by requiring newly installed toilets in residential occupancies to be high efficiency. It also requires newly installed urinals and showerheads in residential occupancies to be high efficiency.

Opportunities for innovation are provided by allowing for drainless composting toilets in areas with municipal services as well as expanding the end uses of rainwater and other non-potable water and clarifying the design requirements of non-potable water systems.

Harmonization and Consistency

The 2012 Building Code enhances harmonization with the model National Building and Plumbing Codes, including editorial changes and updated standard references, stemming from changes to the model national codes as well as clarifying technical requirements to ensure consistency and clarity in enforcement. It also allows for more flexible, performance-oriented methods design and installation of some building elements.

These amendments to the Building Code also enhance consistency with the Electrical Safety Code without requiring changes to Electrical Safety Code.

Administrative Changes

The 2012 Building Code requires that copies of Minister's Rulings authorizing the use of innovative building materials be kept at the construction site where a Ruling applies.

It also requires thermal protection for foam plastic insulation as a condition for residential occupancy and removes requirement for final site grading as a condition of occupancy permit issuance for certain residential uses.

Knowledge Maintenance

The 2012 Building Code contains “knowledge maintenance” requirements for qualified practitioners. These replace the requalification requirements set out in the 2006 Code.

Practitioners will have 18 months to successfully complete a knowledge maintenance exam for a given qualification category, following the release of that exam. The ministry will determine the date, no sooner than the date the regulation takes effect, of the release and the qualification categories of Knowledge Maintenance exams. Options for design, maintenance and delivery of online courses are being explored.

New Accessibility Amendments

On December 27, 2013, Ontario Regulation 368/13 was filed to amend the new 2012 Building Code, O.Reg. 332/12. The amended requirements will substantially enhance accessibility in newly constructed buildings and existing buildings that are to be extensively renovated. They maintain Ontario’s leadership role in requirements for barrier-free design. The effective date of the amendment is January 1, 2015. The OBOA will be producing resource material in 2014 covering the new accessibility amendments.

Amendments to Ontario Regulation 332/12

Amendments made to Ontario Regulation 332/12 are denoted in this document by the corresponding amending regulation, for example (O.Reg. 151/15).

Ontario Regulation 151/13 - To Enhance Fire Safety in Retirement Homes

On May 9, 2013, Ontario Regulation 151/13 was filed to amend the new 2012 Building Code, O.Reg. 332/12. The new changes substantially enhance fire safety in retirement homes which are regulated under the *Retirement Homes Act, 2010*. New measures include mandatory sprinklers, signals to fire department and increased voice communication system requirements. The Building Code changes are part of a broader package that includes changes to the Ontario Fire Code. The effective date of the amendment is January 1, 2014.

Ontario Regulation 360/13 - User Fee Changes

Ontario Regulation 360/13 was filed on December 20, 2013 and deals with administrative matters such as:

- Increasing the application fee for a Building Code Commission hearing from \$0 to \$170 and automatic annual increases tied to the Consumer Price Index for Ontario, thereafter
- Increasing the application fee for a Minister's Ruling to authorize the use of a material evaluated by the CCMC from \$0 to \$550 and automatic annual increases tied to the Consumer Price Index for Ontario, thereafter
- Increasing a wide range of fees for holders of BCINs

The effective date of the amendment is January 1, 2014, although a number of requirements come into force at a later date, on January 1, 2015.

Ontario Regulation 360/13 – Clean-up Regulation

Ontario Regulation 361/13 was filed on December 20, 2013 and amends the Building Code (O.Reg. 332/12) and is intended to be a “clean-up regulation”. Historically, every time a new edition of the Building Code is published, it is necessary to follow up with another regulation shortly thereafter to correct the minor technical errors that appear in the new edition. The effective date of the amendment is January 1, 2014.

Division A, Part 1 to 3

Application of Parts 3, 4, 5 and 6: Division A, 1.1.2.2 (O.Reg 151/13)

Subclause 1.1.2.2.(1)(a)(ii) is amended by striking out “*care or detention occupancies*” at the end and substituting “*care, care and treatment or detention occupancies, or*”.

Communication Towers: Division A, 1.1.2.2.(2)(i) & 1.3.1.1.(1)(i)

Communication towers exceeding 16.6m above ground level are:

- no longer designated structures for purposes of the definition of the term “building”
- removed from the list of buildings required to be designed in accordance with Part 4

Designated Structure: Division A, 1.1.2.2.(2)(j) & 1.3.1.1.(1)(k)

Permanent solid nutrient storage facilities with supporting walls exceeding 1000 mm in exposed height are:

- designated structures for purposes of the definition of the term “building”
- required to be designed in accordance with Part 4

Farm Buildings: Division A, 1.3.1.2.

New Sentence (6) added:

A permanent solid nutrient storage facility, that is also a “farm building”, shall comply with the requirements of Part 4 of Division B of this Code.

New definition for “permanent solid nutrient storage facility” added to Article 1.4.1.2. *Permanent solid nutrient storage facility* has the same meaning as in subsection 1 (1) of Ontario Regulation 267/03 (General) made under the *Nutrient Management Act, 2002*.

Application of Part 8: Division A, 1.1.2.3.(1)

Revised to harmonize with the description of the scope of Part 8 (sewage systems) found in Sentence 8.1.1.1.(1) of the 2006 Building Code

Defined Terms: Division A, 1.4.1.2.(1)

New definition for “*carbon dioxide equivalent*”. *Carbon dioxide equivalent* means a measure used to compare the impact of various greenhouse gases based on their global warming potential.

New Definition for “*closed container*”. *Closed container* means a container so sealed by means of a lid or other device that neither liquid nor vapour will escape from it at ordinary temperatures.

New definition for “*flammable liquid*”. *Flammable liquid* means any liquid having a *flash point* below 37.8°C and having a vapour pressure not more than 275.8 kPa (absolute) at 37.8°C as determined by ASTM D323, “Vapor Pressure of Petroleum Products (Reid Method)”.

New definition for “*process plant*”. *Process plant* means an *industrial occupancy* where materials, including *flammable liquids*, *combustible liquids* or gases, are produced or used in a process.

New definition for “*dangerous goods*”. *Dangerous goods* means those products or substances that are regulated by the *Transportation of Dangerous Goods Regulations* made under the *Transportation of Dangerous Goods Act, 1992* (Canada).

New definition for “*unstable liquid*”. *Unstable liquid* means a liquid, including *flammable liquids* and *combustible liquids*, that is chemically reactive to the extent that it will vigorously react or decompose at or near normal temperature and pressure conditions or that is chemically unstable when subjected to impact.

New definition for “*combustible fibres*”. *Combustible fibres* means finely divided combustible vegetable or animal fibres and thin sheets or flakes of such materials which, in a loose, unbaled condition, present a flash fire hazard, and includes cotton, wool, hemp, sisal, jute, kapok, paper and cloth.

New definition of “*compressed gas*”. *Compressed gas* means,

(a) any contained mixture or material having a vapour pressure exceeding one or both of the following,

(i) 275.8 kPa (absolute) at 21°C, or

(ii) 717 kPa (absolute) at 54°C, or

(b) any liquid having a vapour pressure exceeding 275.8 kPa (absolute) at 37.8°C.

New definition of “*Distilled beverage alcohol*”. *Distilled beverage alcohol* means a beverage that is produced by fermentation and contains more than 20% by volume of water miscible alcohol.

New definition of “*Distillery*”. *Distillery* means a process plant where distilled beverage alcohols are produced, concentrated or otherwise processed, and includes facilities on the same site where the concentrated products may be blended, mixed, stored or packaged.

Revised definition of “*dwelling unit*”. *Dwelling unit* no longer makes reference to the term domicile

New definitions for “*fire stop*” and “*fire block*”. *Fire block* means a material, component or system that restricts the spread of fire within a concealed space or from a concealed space to an adjacent space. *Fire stop* means a system consisting of a material, component and means of support, used to fill gaps between fire separations or between fire separations and other assemblies, or used around items that wholly or partially penetrate a fire separation.

Revised definition of “*gaming premises*” as a result of amendments to the Ontario Lottery and Gaming Corporation Act, 1999. *Gaming premises* means premises that are a gaming site as defined in the *Ontario Lottery and Gaming Corporation Act, 1999*.

Major occupancy classifications are now specifically listed under the definition of “*major occupancy*”

New definition for “*private use*” that better defines the difference between plumbing fixtures for public use and private use. *Private use* means, when applied to plumbing *fixtures*, *fixtures* in residences and apartments, in private bathrooms of hotels, and in similar installations in other *buildings* for a single household or an individual.

New definition added for “*rainwater*” which clarifies that it does not include storm sewage runoff from accessible patios or driveways. *Rainwater* means *storm sewage* runoff that is collected from a roof or the ground, but not from accessible patios and driveways.

Definition for “*range*” has been replaced with a definition for “*cooktop*”. *Cooktop* means a cooking surface having one or more burners or heating elements.

Revised definition for “*sanitary sewage*” to include water discharged from a public swimming pool to a drain. *Sanitary sewage* means,

(a) liquid or water borne waste,

(i) of industrial or commercial origin, or

(ii) of domestic origin, including human body waste, toilet or other bathroom waste, and shower, tub, culinary, sink and

laundry waste, or

(b) liquid or water borne waste discharged from a public pool to a drain.

Definition of “*sewer lateral extension*” is revoked and the following substituted: *Sewer lateral extension* means the portion of a storm building sewer or sanitary building sewer that extends from the public sewer up to 1.5 m into the property. (O.Reg. 361/13)

Revised definition for “*storm drainage pipe*” to exclude piping that drains water from public swimming pools. *Storm drainage pipe* means all the connected piping that conveys *storm sewage* to a place of disposal and includes the *storm building drain, storm building sewer, rain water leader, catch basin* and area drain installed to collect water from the property and the piping that drains water from a swimming pool, other than a *public pool*, or from water cooled *air-conditioning* equipment, but does not include,

- (a) a *subsoil drainage pipe*, or
- (b) a private sewage treatment and disposal facility designed for the treatment or retention of *storm sewage* prior to discharge to the natural environment.

New definition added for “*sewer lateral extension*” that relates to the connection between the public sewer and building sewer. *Sewer lateral extension* means an extension of a public sewer that connects to a storm building sewer or sanitary building sewer 1.5 m beyond the property line and that serves not more than one property.

Two new definitions have been added for dispersal beds that receive effluent from a Level IV treatment unit:

“*Type A dispersal bed*” means a leaching bed that receives effluent from a Level IV treatment unit as described in Table 8.6.2.2. of Division B and that is comprised of a stone layer above an unsaturated sand layer as described in Subsection 8.7.7. of Division B.

“*Type B dispersal bed*” means a leaching bed comprised of a pressurized distribution system that uniformly distributes effluent from a Level IV treatment unit as described in Table 8.6.2.2. of Division B to the underlying soil, as defined in Part 8 of Division B, through a set of distribution pipes installed in a bed comprised of septic stone.

Defined Terms: Division A, 1.4.1.2.(1) (O.Reg. 151/13)

The definition of “*care occupancy*” in Clause 1.4.1.2.(1)(c) of Division A of the Regulation is revoked and the following substituted:

Care occupancy (Group B, Division 3) means an *occupancy* in which special care is provided by a facility, directly through its staff or indirectly through another provider, to residents of the facility,

- (a) who require special care because of cognitive or physical limitations, and

(b) who, as a result of those limitations, would be incapable of evacuating the *occupancy*, if necessary, without the assistance of another person.

The definition of “*care or detention occupancy*” in Clause 1.4.1.2.(1)(c) of Division A of the Regulation is revoked.

Clause (e) of the definition of “*private sewer*” in Clause 1.4.1.2.(1)(c) of Division A of the Regulation is amended by striking out “*industrial, commercial or care or detention occupancy*” and substituting “*care, care and treatment, detention, commercial or industrial occupancy*”.

The definition of “*residential occupancy*” in Clause 1.4.1.2.(1)(c) of Division A of the Regulation is revoked and the following substituted:

Residential occupancy means an *occupancy* in which sleeping accommodation is provided to residents who are not harboured for the purpose of receiving special care or treatment and are not involuntarily detained.

Definition of Applicable Law: Division A, 1.4.1.3.(1)

The following have been removed from the list of applicable law:

Charitable Institutions Act
Homes for the Aged and Rest Homes Act
Regulations under the Nursing Homes Act

Subclause (ii) 59 of the *Clean Water Act, 2006* with respect to the issuance of a notice by the risk management official for the construction of a building, was added.

Removed reference to Section 9 of Regulation 469 made under the Funeral Directors and Establishments Act

Subclause 1.4.1.3.(1)(a)(xxii) is revoked and the following substituted:

(xxii) section 2 of Ontario Regulation 239/13 (Activities on Public Lands and Shore Lands — Work Permits and Exemptions), made under the Public Lands Act, with respect to the work permit authorizing the construction or placement of a building on public land,

(xxii.1) section 5 of Ontario Regulation 239/13 with respect to the exemption from the requirement to obtain a work permit authorizing the construction or placement of a building within an unpatented mining claim, (O.Reg. 361/13)

Other definitions for the purposes of the Act: Division A, 1.4.1.4.(1)

New Article added to set out all the words and terms that are defined in the Building Code for the purposes of the Building Code Act:

Architect
As constructed plans

Professional Engineer

Revised symbols and abbreviations: Division A, Table 1.4.2.1.

Modifications	
ASWG	American Steel Wire Gage
Bq	becquerel(s)
CO ₂ e	carbon dioxide equivalent
CFU	colony forming units
L/min	litre(s) per minute
LPF	litres per flush
m ³	cubic metre(s)
µg	microgram(s)
µm	micron

Objectives: Division A, Table 2.2.1.1.

Revisions and additions have been made under Resource Conservation and Environmental Integrity

Category	Number	Objective
Resource Conservation — Water and Energy Conservation	OR1	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a resource will be exposed to an unacceptable risk of depletion.
	OR1.1	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , water resources will be exposed to an unacceptable risk of depletion due to the consumption of water.
	OR1.2	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a resource will be exposed to an unacceptable risk of depletion due to the consumption of energy
Resource Conservation — Infrastructure Capacity	OR2	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , the capacity of the infrastructure supporting the use, treatment or disposal of a resource will be exposed to an unacceptable risk of being exceeded.
	OR2.1	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , the capacity of the infrastructure supporting the use, treatment or disposal of a resource will be exposed to an unacceptable risk of being exceeded due to excessive demand on the infrastructure.
Environmental	OE1	An <i>objective</i> of this Code is to limit the probability that, as a result of the

Integrity — Air Quality		design or <i>construction</i> of a <i>building</i> , the natural environment will be exposed to an unacceptable risk of degradation due to emissions into the air.
	OE1.1	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , the natural environment will be exposed to an unacceptable risk of degradation due to emissions of greenhouse gases into the air.
	OE1.2	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , the natural environment will be exposed to an unacceptable risk of degradation due to the release of contaminants, other than greenhouse gases, into the air.
Environmental Integrity — Water and Soil Quality	OE2	An <i>objective</i> of this Code is to limit the probability that, as a result of the design, <i>construction</i> or operation of a <i>building</i> , the natural environment will be exposed to an unacceptable risk of degradation due to excessive release of contaminants into water or <i>soil</i> .

Functional Statements: Division A, Table 3.2.1.1.

New functional statements added for the release of greenhouse gases and pollutants and demand on infrastructure:

- F132 To limit excessive demand on the infrastructure.
- F133 To limit excessive peak demand on the infrastructure.
- F150 To limit excessive emissions of greenhouse gases into the air.
- F151 To limit excessive release of contaminants, other than greenhouse gases, into the air.

Division B, Part 1

Climatic and Seismic Data: Division B, 1.1.2.1.

Climatic and Seismic Data has been revised in Supplementary Standard SB-1

Documents Referenced in the Building Code: Division B, Table 1.3.1.2 (O.Reg. 361/13)

Item 23 is amended by striking out “9.23.3.1.(2)” in Column 4 and substituting “9.23.3.1.(3)”.

Item 25 is amended by striking out “ASME A112.18.1-2005 / CAN/CSA-B125.1-05” in Column 2 and substituting “ASME A112.18.1-2012 / CSA B125.1-12”.

Table 1.3.1.2. is amended by adding the following Item:

90.1	ASTM	F1667-05	Driven Fasteners: Nails, Spikes and Staples	9.23.3.1.(1)
				9.26.2.2.(1)
				9.29.5.6.(1)

Item 188 is revoked and the following substituted:

188.	CSA	A277-08	Procedure for Factory Certification of Buildings	9.1.1.9.(1)
				3.1.1.1.(2) of Division C
				3.2.4.1.(3) of Division C

Item 197 Regulation is amended by striking out “CAN/CSA-A3001-03” in Column 2 and substituting “CAN/CSA-A3001-08”.

Item 223 is amended by striking out “CAN/CSA-B125.3-05” in Column 2 and substituting “CSA B125.3-12”.

Table 1.3.1.2. is amended by adding the following Item:

249.1	CSA	B415.1-00	Performance Testing of Solid-Fuel-Burning Heating Appliances	6.2.1.4.(7)
				9.33.1.2.(2)

Item 250 is amended by striking out “CAN/CSA-B481.1” in Column 2 and substituting “CAN/CSA-B481.1-07”.

Item 251 is amended by striking out “CAN/CSA-B481.2” in Column 2 and substituting “CAN/CSA-B481.2-07”.

Item 267 is amended by striking out “CAN/CSA-F280-M90” in Column 2 and substituting “F280-12”.

Item 272 is amended by striking out “Structural Quality Steel” in Column 3 and substituting “General Requirements for Rolled or Welded Structural Quality Steel”.

Table 1.3.1.2.is amended by adding the following Item:

303.1	CSA	Z240 MH Series-09	Manufactured Homes	3.1.1.1.(2) of Division C
				3.2.4.1.(3) of Division C

Item 304 is amended by striking out “CAN/CSA-Z240.2.1-09” in Column 2 and substituting “Z240.2.1-09”.

Item 305 is amended by striking out “CSA Z240.10.1-08” in Column 2 and substituting “Z240.10.1-08”.

Item 306 is revoked and the following substituted:

306.	CSA	CAN/CSA-Z241 Series-03	Park Model Trailers	9.38.1.1.(1)
				9.38.2.1.(1)
				3.1.1.1.(2) of Division C
				3.2.4.1.(3) of Division C

Item 323 is revoked and the following substituted:

323.	ISO	8201: 1987(E)	Acoustics - Audible Emergency Evacuation Signal	3.2.4.20.(2)
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Item 324 Regulation is amended by striking out “Supplementary Standard SA-1, September 14, 2012” in Column 2 and substituting “Supplementary Standard SA-1, November 24, 2013”.

Item 329 is amended by striking out “Supplementary Standard SB-5, September 14, 2012” in Column 2 and substituting “Supplementary Standard SB-5, September 1, 2013”.

Item 336 is amended by striking out “Supplementary Standard SB-12, September 14, 2012” in Column 2 and substituting “Supplementary Standard SB-12, September 1, 2013”.

Table 1.3.1.2. is amended by adding the following Items:

409.1	ULC	CAN/ULC-S716.1-12	Exterior Insulation and Finish Systems (EIFS) – Materials and Systems	5.10.3.1.(1)
				9.27.13.1.(1)
				9.27.13.2.(1)
409.2	ULC	CAN/ULC-S716.2-12	Exterior Insulation and Finish Systems (EIFS) – Installation of EIFS Components and Water Resistive Barrier	9.27.13.3.(2)
409.3	ULC	CAN/ULC-S716.3-12	Exterior Insulation and Finish Systems (EIFS) – Design Application	9.27.13.3.(1)

Abbreviations of Proper Names: Division B, Table 1.3.2.1.

Items 25, 26, 27 and 28 are revoked and the following substituted:

25.	HUD	U.S. Department of Housing and Urban Development
26.	HVI	Home Ventilating Institute
27.	IESNA	Illuminating Engineering Society of North America
28.	ISO	International Organization for Standardization

Division B, Part 3

Radon: Division B, 3.1.1.2.(1)

The radon 222 threshold has been reduced from 250 to 200 becquerels per m³ in designated areas

Wires and Cables: Division B, 3.1.4.3.(1)

Revised to align with Subsection 3.1.5. (noncombustible construction) so that protection is provided in combustible construction for:

Optical fibre cables and electrical wires with combustible insulation, jackets or sheathes

Clause 3.1.4.3.(1)(a) is amended by adding “(FT1 Rating)” after “CSA C22.2 No. 0.3, “Test Methods for Electrical Wires and Cables””. (O.Reg. 361/13)

Nonmetallic Raceways: Division B, 3.1.4.4.

Nonmetallic raceways used in a plenum in combustible construction are now required to meet the FT rating requirements of Clause 3.1.5.20.(1)(a)

Minor Combustible Components: Division B, 3.1.5.2.(1)(c)

Reference to “fire stop materials” has been replaced with “fire stop” and “fire block”

New term Fire block introduced

- Fire block: a material, component or system that restricts the spread of fire within a concealed space or from a concealed space to an adjacent space.
- Fire stop: a system consisting of a material, component and means of support, used to fill gaps between fire separations or between fire separations and other assemblies, or used around items that wholly or partially penetrate a fire separation

Combustible Roofing Materials: Division B, 3.1.5.3.(2)(c)

Reference to “fire stops” has been replaced with reference to the newly defined term “fire blocks”

Combustible Components for Exterior Walls: Division B, 3.1.5.5.(1) & (2)

New Sentence (2) now clarifies construction requirements for exterior walls limited to 10% unprotected openings. The previous reference in Sentence (1) has been removed

(2) Except as permitted by Articles 3.2.3.10. and 3.2.3.11., where the area of *unprotected openings* determined in accordance with Tables 3.2.3.1.B. to 3.2.3.1.E. is required to be not more than 10% of the *exposing building face*, the construction requirements of Table 3.2.3.7. shall be met.

Combustible Elements in Partitions: Division B, 3.1.5.13 (O.Reg. 151/13)

Clause 3.1.5.13.(1)(b) is amended by striking out “*care or detention occupancy*” at the end and substituting “*care, care and treatment or detention occupancy*”

Clause 3.1.5.13.(2)(b) is amended by striking out “*care or detention occupancy*” and substituting “*care, care and treatment or detention occupancy*”.

Subclause 3.1.5.13.(3)(b)(i) is amended by striking out “*care or detention occupancy*” at the end and substituting “*care, care and treatment or detention occupancy*”.

Nonmetallic Raceways: Division B, 3.1.5.20.(1)

Revised to reference documents containing fire test requirements:

(1) Except as provided by Subclause 3.6.4.3.(1)(a)(iv) and subject to limits on size for penetrations of *fire separations* as required by Sentence 3.1.9.3.(2), within a *fire compartment* of a *building* required to be of *noncombustible construction*, totally enclosed nonmetallic raceways not more than 175 mm in outside diameter, or an equivalent rectangular area, are permitted to be used to enclose optical fibre cables and electrical wires and cables, provided, where,

(a) the wires and cables in the raceways meet or exceed the requirements of Clause 3.1.5.18.(1)(a), the nonmetallic raceways meet the requirements for at least an FT4 rating in,

(i) CAN/CSA-C22.2 No. 262, “Optical Fiber Cable and Communication Cable Raceway Systems”, or

(ii) CAN/ULC-S143, “Fire Tests for Non-Metallic Electrical and Optical Fibre Cable Raceway Systems”, and

(b) the wires and cables in the raceways do not meet or exceed the requirements of Clause 3.1.5.18.(1)(a), the nonmetallic raceways exhibit a vertical char not more than 1.5 m when tested in conformance with the Vertical Flame Test (FT4) – Conduit or Tubing on Cable Tray in Clause 6.16 of CSA C22.2 No. 211.0, “General Requirements and Methods of Testing for Nonmetallic Conduit”.

Fire Dampers Waived: Division B, 3.1.8.8. (O.Reg. 151/13)

Sentence 3.1.8.8.(5) is amended by striking out “*residential or care or detention occupancy*” and substituting “*care, care and treatment, detention or residential occupancy*”.

Fire Dampers Waived: Division B, 3.1.8.8.(6)

Revised to clarify that a duct serving commercial cooking equipment must be in a vertical or horizontal service space, or be provided with a damper specifically designed for such use, where the duct penetrates a required fire separation

- NFPA 96 exhaust shall be installed for: grills/fryers, donut machines, boiling meat, preparing soups/stews (20 litre pot or more), domestic cooking range in commercial application.
- NFPA 96 exhaust may not be required for: bake ovens, pizza ovens, conveyor pizza ovens, rotisserie chicken.
- Mechanical P.Eng. Letter required, posted sign.
- 3.1.8.12.(1) – Revised to permit all doors in fire separations to use hold-open devices, except for:
- Exit stair doors in buildings more than 3 storeys in building height, or
- Doors in vestibule fire separation described in Article 3.3.5.7. (Storage garage)

Hold-Open Devices: Division B, 3.1.8.12.(1)

Revised to permit all doors in fire separations to use hold-open devices, except for:

- Exit stair doors in buildings more than 3 storeys in building height; or
- Doors in the vestibule fire separation described in Article 3.3.5.7.

Hold-Open Devices: Division B, 3.1.8.12. (O.Reg. 151/13)

Clause 3.1.8.12.(3)(d) is revoked and the following substituted:

- (d) a door serving,
- (i) an *assembly occupancy*,
- (ii) a *care occupancy*,
- (iii) a *care and treatment occupancy*,
- (iv) a *detention occupancy*, or
- (v) a *residential occupancy*, or

Hold-Open Devices: Division B, 3.1.8.12.(2) & (3)

The reference to NFPA 80 has been replaced with a reference to CAN/ULC-S524, "Installation of Fire Alarm Systems"

Sprinkler Protected Glazed Wall Assembly: Division B, 3.1.8.18 (O.Reg. 151/13)

Clause 3.1.8.18.(2)(d) is revoked and the following substituted:

- (d) any part of an *exit* serving,
- (i) a *floor area* subject to the requirements of Subsection 3.2.6.,
- (ii) a *care occupancy*,
- (iii) a *care and treatment occupancy*,
- (iv) a *detention occupancy*, or

- (v) a residential occupancy.

Firestop Substitution: Division B, 3.1.9.1.(1)(a) (O.Reg. 361/13)

Regulation is amended by striking out “CAN/ULC-S115, “Fire Tests of Fire Stop Systems”” and substituting “CAN/ULC-S115, “Fire Tests of Firestop Systems””.

Fire Stops: Division B, 3.1.9. & 3.1.9.1.(1) & (2)

The title headings of this Subsection and Article have been clarified.

Since all penetrations of fire separations must now be sealed by a “fire stop” or be tightly fitted, the list of service penetrations in Sentences 3.1.9.1.(1) and (2) has been replaced with the word “penetration”.

Fire Stops: Division B, 3.1.9.1.(3) to (5)

Three new Sentences have been added to Article 3.1.9.1.

(3) Penetrations of a *fire separation* in conformance with Sentence 3.6.4.2.(2) shall be sealed by a *fire stop* that, when subjected to the fire test method in CAN/ULC-S115, “Fire Tests of Firestop Systems”, has an FT rating not less than the *fireresistance rating* required for the *fire separation* of the assembly.

(4) Sprinklers are permitted to penetrate a *fire separation* or a membrane forming part of an assembly required to have a *fireresistance rating* without having to meet the *fire stop* requirements of Sentence (1), (2) or (3), provided the annular space created by the penetration of a fire sprinkler is covered by a metal escutcheon plate in accordance with NFPA 13, “Installation of Sprinkler Systems”.

(5) Unless specifically designed with a *fire stop*, *fire dampers* are permitted to penetrate a *fire separation* or a membrane forming part of an assembly required to have a *fire-resistance rating* without having to meet the *fire stop* requirements of Sentence (1), (2) or (3), provided the *fire damper* is installed in conformance with NFPA 80, “Fire Doors and Other Opening Protectives”.

Fire Stops: Division B, 3.1.9.3.(6)

Allows noncombustible electrical outlet box penetrations without the need to provide a fire stop in certain circumstances (i.e.: 100 cm² each in area)

(6) *Noncombustible* electrical outlet boxes that penetrate a *fire separation* or a membrane forming part of an assembly required to have a *fire-resistance rating* need not meet the requirements of Article 3.1.9.1. provided,

(a) they do not exceed,

- (i) 100 cm² each in area, and

- (ii) an aggregate area of 650 cm² in any 9.3 m² of surface area, and
- (b) the annular space between the membrane and the box does not exceed 3 mm.

Fire Stops: Division B, 3.1.9.3.(7)

Allows electrical outlet box penetrations on opposite sides of a vertical fire separation to be in the same stud space, or back to back, if a fire stop is provided

(7) Unless provided with a *fire stop* in accordance with CAN/ULC-S115, “Fire Tests of Firestop Systems”, electrical outlet boxes on opposite sides of a vertical *fire separation* required to have a *fire-resistance rating* shall be,

- (a) separated by a horizontal distance of not less than 600 mm, or
- (b) installed in adjacent stud cavities.

Rating of Firewalls: Division B, 3.1.10.2.(4)(e)

Amended to clarify when a non-masonry or non-concrete firewall can be used

(e) the firewall does not separate a *building* regulated by the provisions of Subsection 3.2.6 from another *building* unless the *buildings* on both sides of the *firewall* are *sprinklered*.

Fire Blocks in Concealed Spaces: Division B, 3.1.11.

Reference to firestopping and fire stops have been replaced with *fire blocks*

Fire Blocks in Wall Assemblies: Division B 3.1.11.2.(2)(c)

Wiring, piping and similar services in a concealed wall space are now exempt from flame spread rating requirement (i.e.: FSR 25)

If 10% or less, wall construction shall meet requirements of Table 3.2.3.7.

Corridors: Division B, 3.1.13.6 (O.Reg. 151/13)

Subclause 3.1.13.6.(1)(b)(ii) is revoked and the following substituted:

- (ii) a *care, care and treatment or detention occupancy*,

Clause 3.1.13.6.(1)(d) is amended by striking out “*care or detention occupancy*” at the end and substituting “*care, care and treatment or detention occupancy*”.

Flame-Spread Rating and Smoke Developed Classification in a High Building: Division B, Table 3.1.13.7.

Maximum flame-spread ratings and smoke developed classifications have been amended and are now separately provided for elevator cars and elevator vestibules in high buildings

Elevator Cars: Division B, 3.1.13.11.

A new flame-spread rating and smoke developed classification requirement has been added for elevator cars in non-high buildings

Occupant Load Determination: Division B, 3.1.17.1 (O.Reg. 151/13)

Item 2 of Table 3.1.17.1. is amended by striking out “Care or detention uses” in Column 1 and substituting “Care, care and treatment or detention uses”.

Electrical Conductor Clearances: Division B, 3.1.19.1. – New clearance requirements for above ground electrical conductors have been provided

- Horizontal clearance measured from the maximum conductor swing to the building:
- Not less than 1m for electrical conductors carrying 750 V or less
- Not less than 3m for electrical conductors carrying 750 V – 46kV
- Not less than 3.7m for electrical conductors carrying 46 kV – 69 kV
- Conform to CAN/CSA-C22.3 No.1, “Overhead Systems”, for >69kV

(1) A *building* shall not be located beneath existing above ground electrical conductors.

(2) The horizontal clearance measured from the maximum conductor swing to the *building*, including balconies, fire escapes, flat roofs or other accessible projections beyond the face of the *building*, shall,

(a) be not less than 1 m, for electrical conductors carrying voltages 750 V or less, except where necessary to connect to the electrical wiring of the *building*,

(b) be not less than 3 m, for electrical conductors carrying voltages greater than 750 V but not exceeding 46 kV,

(c) be not less than 3.7 m, for electrical conductors carrying voltages greater than 46 kV but not exceeding 69kV, or

(d) conform to the requirements of CAN/CSA-C22.3 No.1, “Overhead Systems”, for electrical conductors carrying voltages greater than 69kV.

(3) Where the swing of an above ground electrical conductor not owned or operated by an electrical supply authority is not known, a swing of not less than 1.8 m shall be used.

(4) Sentences (1) to (3) do not apply to a *building* containing electrical equipment and electrical installations used exclusively in the generation, transformation or transmission of electrical power or energy intended for sale or distribution to the public.

Storage Garage Considered as a Separate Building: Division B, 3.2.1.2.(1)

A noncombustible construction option has been added for fire separations between basement storage garages and the building

(1) A *basement* used primarily as a *storage garage* is permitted to be considered as a separate *building* for the purposes of Subsection 3.2.2., provided the floor and roof assemblies above the *basement* and, except as permitted by Sentence (2), the exterior walls of the *basement* above the adjoining ground level are constructed as *fire separations* of,

- (a) masonry or concrete having a *fire-resistance rating* not less than 2 h, or
- (b) *noncombustible construction* having a *fire-resistance rating* of not less than 2 h, where the *building* conforms to Clauses 3.1.10.2.(4)(a) and (c) to (e).

Group C, up to 4 Storeys, Noncombustible Construction: Division B, 3.2.2.44 (O.Reg. 151/13)

Article 3.2.2.44. is amended by adding the following Sentence:

- (5) A retirement home regulated under the *Retirement Homes Act, 2010* shall be *sprinklered*.

Group C, up to 3 Storeys, Increased Area: Division B, 3.2.2.46 (O.Reg. 151/13)

Article 3.2.2.46. is amended by adding the following Sentence:

- (5) A retirement home regulated under the *Retirement Homes Act, 2010* shall be *sprinklered*.

Group C, up to 3 Storeys: Division B, 3.2.2.47 (O.Reg. 151/13)

Article 3.2.2.47. is amended by adding the following Sentence:

- (5) A retirement home regulated under the *Retirement Homes Act, 2010* shall be *sprinklered*.

Limiting Distance and Area of Unprotected Openings: Division B, 3.2.3.1.(5) & (6)

New provisions added that limit the size of individual unprotected openings in exposing building faces of unsprinklered buildings that have a limiting distance of 2m or less

Greater of Table 3.2.3.1.A or that calculated formula $0.24[(2 \times LD) - 1.2]$ squared

2m horizontally between openings in the same room or space

2m vertically between openings in the same room or space, and

2m vertically between openings in another room or space that is on the same storey

(5) Except for *buildings* that are *sprinklered*, where the *limiting distance* is 2 m or less, the area of each individual *unprotected opening* in an *exposing building face* shall not be greater than,

- (a) the area in Table 3.2.3.1.A., or

(b) for a *limiting distance* equal to or greater than 1.2 m, the area calculated as follows:

Area = $0.24 [(2 \times LD) - 1.2]^2$ where,

Area = area of the *unprotected opening* in m², and

LD = *limiting distance* in m.

Table 3.2.3.1.A
Maximum Concentrated Area of Unprotected Openings
Forming Part of Sentence 3.2.3.1.(5)

Item	Column 1	Column 2
	Limiting Distance, m	Maximum Area of Individual <i>Unprotected Openings</i> , m ²
1.	1.2	0.35
2.	1.5	0.78
3.	2.0	1.88

(6) The distance between individual *unprotected openings* described in Sentence (5) that serve a single room or space described in Sentence (7) shall not be less than,

(a) 2 m measured horizontally where the *unprotected openings* are on the same *exposing building face*, or

(b) 2 m measured vertically where the *unprotected openings* both serve,

(i) the single room or space, or

(ii) another room or space on the same *storey*.

(7) For the purpose of Sentence (6), “single room or space” means a room or space that,

(a) is not divided by a wall,

(b) is divided by,

(i) a wall that extends less than 1.5 m from the interior face of the exterior wall, or

(ii) a partial height wall, or

(c) consists of two or more stacked spaces that are on the same *storey*.

(8) If a *building* has any *storey* that is not *sprinklered* and firefighting facilities cannot reach it within 10 min of the alarm being received, the required *limiting distance* shall be doubled.

(9) If the surface temperature on the unexposed surface of a wall assembly exceeds the temperature limit of a standard fire test as permitted by Article 3.1.7.2., an allowance shall be made for the radiation from the hot unexposed wall surface by adding an equivalent area of *unprotected opening* to the area of actual openings as follows:

$A_c = A + (A_f \times F_{E0})$ where,

A_c = corrected area of *unprotected openings* including actual and equivalent openings,

A = actual area of *unprotected openings*,

A_F = area of exterior surface of the *exposing building face*, exclusive of openings, on which the temperature limit of the standard test is exceeded, and

F_{EO} = an equivalent opening factor derived from the following expression:

$$F_{EO} = \frac{(T_u + 273)^4}{(T_e + 273)^4}$$

where,

T_u = average temperature in degrees Celsius of the unexposed wall surface at the time the required *fire-resistance rating* is reached under test conditions,

T_e = 892°C for a *fire-resistance rating* not less than 45 min, 927°C for a *fire-resistance rating* not less than 1 h, and 1 010°C for a *fire-resistance rating* not less than 2 h.

(10) Unless a *closure* used to protect an opening in an *exposing building face* has a protective performance equivalent to that required for the wall assembly in which it is located, an equivalent area of *unprotected opening*, determined in accordance with the procedures of Sentence (9) shall be added to the greater of,

- (a) the actual area of *unprotected openings*, or
- (b) the corrected area of *unprotected openings*.

(11) The required *limiting distance* for an *exposing building face* is permitted to be measured to a point beyond the property line that is not the centre line of a *street*, lane or public thoroughfare if,

(a) the owners of the properties on which the *limiting distance* is measured and the *municipality* enter into an agreement in which such owners agree that,

- (i) each owner covenants that, for the benefit of land owned by the other covenantors, the owner will not *construct a building* on his or her property unless the *limiting distance* for *exposing building faces* in respect of the proposed *construction* is measured in accordance with the agreement,
- (ii) the covenants contained in the agreement are intended to run with the lands, and the agreement shall be binding on

the parties and their respective heirs, executors, administrators, successors and assigns,

(iii) the agreement shall not be amended or deleted from title without the consent of the *municipality*, and

(iv) they will comply with such other conditions as the *municipality* considers necessary, including indemnification of the

municipality by the other parties, and

(b) the agreement referred to in Clause (a) is registered against the title of the properties to which it applies.

(12) Where an agreement referred to in Sentence (11) is registered against the title of a property, the *limiting distance* for

exposing building faces shall be measured to the point referred to in the agreement.

Substitution of Notes: Division B, Table 3.2.3.1.B. (O.Reg.361/13)

Amended by striking out the Notes at the end of the Table and substituting the following:

Notes to Table 3.2.3.1.B.:

(1) Apply whichever is greater,

L = Length of exposing building face,

H = Height of exposing building face.

Notes to Table 3.2.3.1.C.:

(1) Apply whichever is greater,

L = Length of exposing building face,

H = Height of exposing building face.

Combustible Projections: Division B, 3.2.3.6.

Four new sentences added:

(2) Where the *exposing building face* has a *limiting distance* of not more than 0.45 m, projecting roof soffits shall not be *constructed* above the *exposing building face*.

(3) Where the *exposing building face* has a *limiting distance* of more than 0.45 m, the face of roof soffits above the *exposing building face* shall not project to less than 0.45 m from the property line.

(4) Where roof soffits project to less than 1.2 m from the centre line of a lane or public thoroughfare or from an imaginary line between two *buildings* or *fire compartments* on the same property, they shall,

(a) have no openings, and

(b) be protected by,

(i) not less than 0.38 mm thick sheet steel,

(ii) unvented aluminum conforming to CAN/CGSB-93.2-M, "Prefinished Aluminum Siding, Soffits and Fascia, for Residential Use",

(iii) not less than 12.7 mm thick gypsum soffit board or gypsum ceiling board installed according to CSA A82.31-M, "Gypsum Board Application",

(iv) not less than 11 mm thick plywood,

(v) not less than 12.5 mm thick OSB or waferboard, or

(vi) not less than 11 mm thick lumber.

(5) For *buildings of combustible construction*, materials installed to provide the required protection of soffits may be covered with a *combustible* or *noncombustible* finish material.

Minimum Construction Requirements for Exposing Building Faces: Division B, 3.2.3.7.

New easy to read table added for former sentences (1) to (6)

Table 3.2.3.7.

Minimum Construction Requirements for Exposing Building Faces

Forming Part of Sentences 3.2.3.7.(1), (5) and (6)

Item	Column 1	Column 2	Column 3	Column 4	Column 5
	Occupancy Classification of Building or Fire Compartment	Maximum Area of Unprotected Openings Permitted, % of Exposing Building Face Area	Minimum Required Fire-Resistance Rating	Type of Construction Required	Type of Cladding Required
1.	Group A, B, C, D, or Group F, Division 3	0 to 10	1h	Noncombustible	Noncombustible
		>10 to 25	1h	Combustible or Noncombustible	Noncombustible
		>25 to 50	45 min	Combustible or Noncombustible	Noncombustible
		>50 to <100	45min	Combustible or Noncombustible	Combustible or Noncombustible
2.	Group E, or Group F, Division 1 or 2	0 to 10	2h	Noncombustible	Noncombustible
		>10 to 25	2h	Combustible or Noncombustible	Noncombustible
		>25 to 50	1h	Combustible or Noncombustible	Noncombustible
		>50 to <100	1h	Combustible or Noncombustible	Combustible or Noncombustible

Construction of Exposing Building Face: Division B, 3.2.3.7.(3)

New sentence providing an alternative to the required noncombustible cladding requirement on an exposing building face with more than 10% unprotected openings.

(3) Except as provided in Sentence (4), cladding for *buildings* or *fire compartments* where the maximum permitted area of *unprotected openings* is more than 10% of the *exposing building face* need not be *noncombustible* where the wall assembly complies with the requirements of Sentences 3.1.5.5.(1), (3) and (4) when tested in conformance with CAN/ULC-S134, "Fire Test of Exterior Wall Assemblies"

Construction of Exposing Building Face: Division B, 3.2.3.7.(4)

New sentence providing an alternative to the required noncombustible cladding requirement on an exposing building face with 25% - 50% unprotected openings.

(4) Cladding for *buildings* or *fire compartments* where the maximum permitted area of *unprotected openings* is more than 25% but not more than 50% of the *exposing building face* need not be *noncombustible* where,

(a) the *limiting distance* is greater than 5 m,

(b) the *building* or *fire compartment* and all *combustible attic or roof spaces* are *sprinklered*,

(c) the cladding,

(i) conforms to Subsection 9.27.6., 9.27.7., 9.27.8., 9.27.9. or 9.27.10.,

(ii) is installed without furring members, or on furring not more than 25 mm thick, over gypsum sheathing at least 12.7 mm thick or over masonry, and

(iii) after conditioning in conformance with ASTM D 2898, "Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing", has a *flame-spread rating* not greater than 25 on the exterior face when tested in accordance with

Sentence 3.1.12.1.(1), or

(d) the cladding,

(i) conforms to Subsection 9.27.12.,

(ii) is installed with or without furring members over gypsum sheathing at least 12.7 mm thick or over masonry,

(iii) has a *flame-spread rating* not greater than 25 when tested in accordance with Sentence 3.1.12.1.(2), and

(iv) does not exceed 2 mm in thickness exclusive of fasteners, joints and local reinforcements.

Construction of Exposing Building Face: Division B, 3.2.3.7.(5)

New sentence providing an alternative to the required noncombustible cladding requirement on an exposing building face with 10% - 25% unprotected openings.

(5) Where Table 3.2.3.7. permits an area of *unprotected openings* of more than 10% but not more than 25% of the *exposing building face*, the requirements for *noncombustible* cladding are waived for wall assemblies that comply with Article 3.1.5.5.

Protection of Exterior Building Face: Division B, 3.2.3.8.(1)

When protected in conformance with the requirements in Article 3.2.3.8., foamed plastic insulation can be used on an exposing building face if the maximum permitted area of unprotected openings is greater than 10%.

(1) Except as permitted by Sentence (3) and in addition to the requirements of Sentence 3.2.3.7.(1) and where the maximum permitted area of *unprotected openings* is greater than 10% of the

exposing building face, foamed plastic insulation used in an exterior wall of a *building* more than 3 storeys in *building height* shall be protected on its exterior surface by,

(a) concrete or masonry not less than 25 mm thick, or

(b) *noncombustible* material that complies with the criteria for testing and conditions of acceptance of Sentence (2) when tested in conformance with CAN/ULC-S101, "Fire Endurance Tests of Building Construction and Materials".

Substitution of Clause: Division B, 3.2.3.16.(1)(a) (O.Reg. 361/13)

Amended by striking out the portion before Subclause (i) and substituting the following:

(a) noncombustible material,

Installation of Service Lines Under Building: Division B, 3.2.3.21.

New Article added to ensure that buried flammable gas mains are encased in gas-tight conduits when a building is constructed over them.

Continuity of Fire Alarm System:

(1) A *building* shall not be constructed over an existing buried flammable gas main unless the gas main is encased in a gastight conduit in conformance with CSA Z662, "Oil and Gas Pipeline Systems".

Continuity of Fire Alarm System: Division B, 3.2.4.2.(6)

New sentence added to clarify that buildings separated by certain walkways and vestibules are to be treated as separate buildings for the purpose of fire alarm installation and continuity.

(6) *Buildings* interconnected by *walkways* permitted in Articles 3.2.3.19. and 3.2.3.20. or by vestibules provided in conformance with Article 3.2.6.3. shall be treated as separate *buildings* for the purpose of fire alarm installation required by this Subsection.

Commissioning of Life Safety and Fire Protection Systems: Division B, 3.2.4.6.

New Article added that requires integrated life safety and fire protection systems to be commissioned to operate as a whole.

(1) Where life safety and fire protection systems are installed to comply with the provisions of this Code or the Fire Code made under the *Fire Protection and Prevention Act, 1997*, the commissioning of these integrated systems must be performed as a whole to ensure the proper operation and inter-relationship between the systems.

Signals to Fire Department: Division B, 3.2.4.8 (O.Reg. 151/13)

Sentence 3.2.4.8.(1) is revoked and the following substituted:

3.2.4.8. Signals to Fire Department

(1) If a fire alarm system is required to be installed and a single stage system is provided, the system shall be designed to notify the fire department in conformance with Sentence (4) that an *alarm signal* has been initiated in,

- (a) a Group A *occupancy* having an *occupant load* more than 300,
- (b) a Group B *occupancy*,
- (c) a Group F, Division 1 *occupancy*,
- (d) a *building* regulated by the provisions of Subsection 3.2.6.,
- (e) a *building* containing *interconnected floor space* required to conform to Articles 3.2.8.3. to 3.2.8.11., or
- (f) a retirement home regulated under the *Retirement Homes Act, 2010* that is a Group C *occupancy*.

Electrical Supervision: Division B, 3.2.4.10.(4) and (5)

Two new Sentences have been added that require electrical supervision by the fire alarm system of:

a fire pump; and

loss of power to heat tracing cables for:

- standpipe risers,
- sprinkler lines,
- exits or means of egress (eliminate ice and snow)

(4) If a fire alarm system is installed in a *building*, a fire pump shall be electrically supervised in accordance with NFPA 20, "Installation of Stationary Pumps for Fire Protection".

(5) If a fire alarm system is required in a *building*, electrical supervision shall be provided to indicate, on the fire alarm system annunciator, a loss of power to a heat tracing cable that is installed to heat,

Smoke and Heat Detectors: Division B, 3.2.4.12.

New sentence and clause added requiring smoke detectors in elevator machine rooms or machinery space if a fire alarm system is required. Requires elevators to be recalled when the smoke detector in the machine room or space is actuated.

(4) *Smoke detectors* required by Clause (1)(g) shall, upon actuation, recall the elevators served by machinery located in the machine room or machinery space in which the *smoke detector* is installed.

(6) *Smoke detectors* installed at the entrance to a *walkway* in conformance with Article 3.1.8.12. are deemed to meet the requirements of Sentence (5).

(7) *Fire detectors* are permitted to be installed in lieu of the *smoke detectors* required by Sentence (5) in Group F *occupancies* where the *smoke detectors* may be subjected to false alarms due to the activities within the *building*.

Smoke and Heat Detectors: Division B, 3.2.4.12. (O.Reg. 151/13)

Sentence 3.2.4.12.(3) is amended by striking out “*care or detention occupancy*” and substituting “*care, care and treatment or detention occupancy*”.

Smoke and Heat Detectors: Division B, 3.2.4.12.(5)

In buildings required to be equipped with a fire alarm system, smoke detectors are now required near the entrance to certain walkways (between buildings) or vestibules (under 3.2.6., high buildings).

(5) Except as permitted by Sentences (6) and (7), where a *building* is required to be equipped with a fire alarm system, a *smoke detector* shall be located near the entrance to,

- (a) a *walkway* described in Articles 3.2.3.19. and 3.2.3.20., or
- (b) a vestibule provided in conformance with Article 3.2.6.3.

Vacuum Cleaning System Shutdown: Division B, 3.2.4.14.(1)

Is revised to require central vacuum cleaning systems serving more than one suite or storey to be designed to shut down upon actuation of the fire alarm system, when a fire alarm system is provided.

Audibility of Alarm Systems: Division B, 3.2.4.20.(1)

Revised to clarify what signals need to be audible throughout a floor area.

(1) Except as permitted by Sentence 3.2.4.19.(5) and except as required by Clause 3.2.4.4.(2)(d), audible signal devices forming part of a fire alarm system shall be installed in a *building* so that,

- (a) *alarm signals* are clearly audible throughout the *floor area*, and
- (b) *alert signals* are clearly audible in continuously staffed locations and, where there are no continuously staffed locations, throughout the *floor area*.

Smoke Alarms: Division B, 3.2.4.22. (O.Reg. 151/13)

Sentence 3.2.4.22.(1) is amended by striking out “*care or detention occupancies*” and substituting “*care, care and treatment or detention occupancies*”.

Smoke Alarms: Division B, 3.2.4.22.(3)(a)

Smoke alarms are now also required within each sleeping room of a dwelling unit

Smoke Alarms: Division B, 3.2.4.22.(5)

Smoke alarms are now required to be provided with a battery as an alternative power supply capable of providing power:

For at least 7 days in normal condition

Followed by 4 minutes of alarm

(5) Except as permitted by Sentence (6), *smoke alarms* required by Sentence (1) shall,
(a) be installed with permanent connections to an electrical circuit,
(b) have no disconnect switch between the overcurrent device and the *smoke alarm*, and
(c) in case the regular power supply to the *smoke alarm* is interrupted, be provided with a battery as an alternative power source that can continue to provide power to the *smoke alarm* for a period of not less than seven days in the normal condition, followed by 4 min of alarm.

Smoke Alarms: Division B, 3.2.4.22.(6) & (7)

Smoke detectors are permitted instead of smoke alarms, if the smoke detectors:

Form part of the fire alarm system, are capable of independently sounding audible signals within individual suites, and installed in conformance with CAN/ULC-S524 and verified as per CAN/ULC-S537.

(6) *Suites of residential occupancy* are permitted to be equipped with *smoke detectors* in lieu of *smoke alarms*, provided the *smoke detectors*,

(a) are capable of independently sounding audible signals within the individual *suites*,

(b) except as provided by Sentence (7), are installed in conformance with CAN/ULC-S524,

“Installation of Fire Alarm

Systems”, and verified in conformance with CAN/ULC-S537, “Verification of Fire Alarm Systems”,

and

(c) form part of the fire alarm system.

(7) *Smoke detectors* permitted to be installed in lieu of *smoke alarms* as provided in Sentence (6) are not required under Clause (6)(b) to sound an alarm throughout the rest of the *building*, provided they sound localized alarms within individual *suites* and otherwise meet the requirements of Clause (6)(b).

Smoke Alarms: Division B, 3.2.4.22.(10) & (11)

A manually operated silencing device must be incorporated within the circuitry of a smoke alarm installed in a dwelling unit (except in suites of residential equipped with smoke detectors).

(10) Except as permitted by Sentence (11), a manually operated silencing device shall be incorporated within the circuitry of a *smoke alarm* installed in a *dwelling unit* so that it will silence the signal emitted by the *smoke alarm* for a period of not more than 10 min, after which the *smoke alarm* will reset and again sound the alarm if the level of smoke in the vicinity is sufficient to reactuate the *smoke alarm*.

(11) *Suites of residential occupancy* equipped with *smoke detectors* installed in conformance with CAN/ULC-S524, "Installation of Fire Alarm Systems", as part of the fire alarm system in lieu of *smoke alarms* as permitted by Sentence (6), need not incorporate the manually operated silencing device required by Sentence (10).

Smoke Alarms: Division B, 3.2.4.22(12)

The sound patterns of smoke alarms are now required to meet the temporal patterns of alarm signals, or be a combination of temporal pattern and voice relay

(12) The sound patterns of *smoke alarms* shall,

- (a) meet the temporal patterns of *alarm signals*, or
- (b) be a combination of temporal pattern and voice relay.

Voice Communication Systems: Division B, 3.2.4.23.(7)

Except in B1 or F1 major occupancies, voice communication systems are now required in buildings when:

- A fire alarm system is required as per 3.2.4.

- A two stage system is installed, and

- The occupant load of the building exceeds 1000 persons

- Must be capable of transmitting pre-recorded, synthesized or live messages;

- Must meet or exceed the equivalent of a Common Intelligibility Scale (CIS) of 0.70;

- Now permits the use of new technology for two-way communication

Sentence Correction: Division B, 3.2.4.23.(10)

Amended by striking out "Sentence (6)" and substituting "Sentence (7)".

Automatic Sprinkler Systems: Division B, 3.2.5.13. (O.Reg. 151/13)

Sentence 3.2.5.13.(1) is amended by striking out “permitted” and substituting “provided”.

Sentence 3.2.5.13.(3) is amended by striking out “NFPA 13D” at the beginning and substituting “Except as required by Sentence (8), NFPA 13D”.

Article 3.2.5.13. is amended by adding the following Sentence:

(8) The sprinkler system described in Sentence (3) shall be provided with a minimum 20 min water supply when installed in a retirement home regulated under the *Retirement Homes Act, 2010*.

Central Alarm and Control Facility: Division B, 3.2.6.7.(2)

The central alarm and control facility must now:

- include a means for two-way communications with every elevator car,
- audibly and visually indicate standpipe system supervisory signals and trouble signals.

Voice Communication System: Division B, 3.2.6.8.(1)

Revised to clarify that only one voice communication system is permitted in a building

(c) a *floor area* or part of a *floor area* located more than 18 m above *grade* is designed or intended for use as a retirement home regulated under the *Retirement Homes Act, 2010* that is a Group C *occupancy*.

Voice Communication System: Division B, 3.2.6.8. (O.Reg. 151/13)

Sentence 3.2.6.8.(1) is revoked and the following substituted:

3.2.6.8. Voice Communication System

(1) A voice communication system conforming to Article 3.2.4.23. shall be provided in a *building* if,

- (a) the floor of the top *storey* is more than 36 m above *grade*,
- (b) a *floor area* or part of a *floor area* located above the third *storey* is designed or intended for use as a Group B, Division 2 or 3 *occupancy*, or
- (c) a *floor area* or part of a *floor area* located more than 18 m above *grade* is designed or intended for use as a retirement home regulated under the *Retirement Homes Act, 2010* that is a Group C *occupancy*.

Minimum Lighting Requirements: Division B, 3.2.7.1.(2)

In addition to the 50 lux average illumination requirement prescribed, the minimum illumination level must not be less than 10 lux.

(2) The minimum value of the illumination required by Sentence (1) shall not be less than 10 lx.

Emergency Power Supply Installation: Division B, 3.2.7.5.(2)

Every emergency power supply must now be equipped with an emergency audible and visual trouble indication

Protection of Electrical Conductors: Division B, 3.2.7.10.

Article amended and clarified:

- Fire alarm, emergency lighting and emergency equipment in high buildings;
- Emergency lighting in all buildings;
- Emergency equipment for special medical facilities regardless of building height
- Fans for contained use areas regardless of building height;
- Fire pumps for all buildings; and
- Fans serving certain interconnected floor spaces

(1) Electrical conductors shall conform to Sentences (2) to (9) if they,

(a) are within *buildings* identified in Article 3.2.6.1. and serve,

(i) fire alarm systems, or

(ii) emergency equipment within the scope of Articles 3.2.6.2. to 3.2.6.8.,

(b) serve fire pumps required to be installed under Article 3.2.5.19.,

(c) serve mechanical systems related to,

(i) compartments referred to in Clause 3.3.3.6.(1)(b),

(ii) *contained use areas* referred to in Clauses 3.3.3.7.(4)(a) and (b), or

(iii) provisions of Articles 3.2.8.4. to 3.2.8.6. and 3.2.8.9., or

(d) serve emergency lighting described in Article 3.2.7.3.

(2) Except as required by Sentence (3) and except as permitted in this Article, electrical conductors referred to in Sentence (1) shall,

(a) conform to ULC-S139, “Fire Test for Evaluation of Integrity of Electrical Cables”, including the hose stream application, to provide a circuit integrity rating of not less than 1 h, or

(b) be located in a *service space* that is separated from the remainder of the *building* by a *fire separation* that has a *fire resistance rating* of not less than 1 h.

(3) Electrical conductors that are used in conjunction with systems referred to in Clause (1)(c) shall,

(a) conform to ULC-S139, “Fire Test for Evaluation of Integrity of Electrical Cables”, including the hose stream application, to provide a circuit integrity rating of not less than 2h, or

(b) be located in a *service space* that is separated from the remainder of the *building* by a *fire separation* that has a *fire resistance rating* of not less than 2 h.

- (4) The *service spaces* referred to in Clause (2)(b) or (3)(b) shall not contain any *combustible* materials other than the electrical conductors being protected.
- (5) Except as permitted by Sentences (7) and (9), the electrical conductors referred to in Sentence (1) are those that extend from the source of emergency power to,
- (a) the equipment served, or
 - (b) the distribution equipment supplying power to the equipment served, if both are in the same room
- (6) If a fire alarm transponder or annunciator located in one *fire compartment* is connected to a central processing unit or another transponder or annunciator located in a different *fire compartment*, the electrical conductors connecting them shall be protected in accordance with Sentence (2).
- (7) Fire alarm system branch circuits within a *storey* that connect transponders and individual devices need not conform to Sentence (2).
- (8) Except as permitted by Sentence (9), if a distribution panel supplies power to emergency lighting, the power supply conductors leading up to the distribution panel shall be protected in accordance with Sentence (2).
- (9) Conductors leading from a distribution panel referred to in Sentence (8) to emergency lighting units in the same *storey* need not conform to Sentence (2).

Standpipe System Design: Division B, 3.2.9.2.(9)

Standpipe risers must be located in an exit stair shaft or vertical service space.

Public Corridor Separations: Division B, 3.3.1.4 (O.Reg. 151/13)

Sentence 3.3.1.4.(3) is amended by striking out "*care or detention occupancy or residential occupancy*" at the end and substituting "*care, care and treatment, detention or residential occupancy*".

Egress Doorways: Division B, 3.3.1.5.(2)

Prescribes minimum distance requirements between two required egress doors:

Must be equal to or greater than $1/3$ times the maximum diagonal dimension of the room or suite served by the egress doors.

(2) Where two egress doorways are required by Sentence (1), they shall be placed at a distance from one another equal to or greater than one-third of the maximum overall diagonal dimension of the room or *suite* to be served, measured as the shortest distance that smoke would have to travel between the nearest required egress doors.

Doors and Door Hardware: Division B, 3.3.1.12.(6)

Any door serving a contained use area or an impeded egress zone can now be equipped with locking devices that can be released either locally or remotely

Storage Rooms: Division B, 3.3.2.14.(1).

New sentence added for flammable and combustible liquid storage rooms in assembly occupancies
These rooms cannot be located above or below the first storey of a building.

(1) A room intended for the storage of *flammable liquids* or *combustible liquids* required by the Fire Code made under the *Fire Protection and Prevention Act, 1997* shall not be located above or below the *first storey* of the *building*.

Care, Care and Treatment or Detention Occupancy: Division B, 3.3.3. (O.Reg. 151/13)

The heading to Subsection 3.3.3. is revoked and the following substituted:

3.3.3. Care, Care and Treatment or Detention Occupancy

Sentence 3.3.3.1.(1) is amended by striking out "*care or detention occupancies*" at the end and substituting "*care occupancies, care and treatment occupancies and detention occupancies*".

Sentence 3.3.3.2.(1) is amended by striking out "*care or detention occupancy*" and substituting "*care, care and treatment or detention occupancy*".

Storage Rooms: Division B, 3.3.4.3.(4).

Same new sentence added as above, for residential occupancies when they are not located within a dwelling unit. Also cannot have storage room above or below the first storey

(4) Except where located within a *dwelling unit*, a room intended for the storage of *flammable liquids* or *combustible liquids* required by the Fire Code made under the *Fire Protection and Prevention Act, 1997* shall not be located above or below the *first storey* of the *building*.

Stairs, Ramps, Landings, Handrails and Guards for Dwelling Units: Division B, 3.3.4.7.

Revised requirements for stairs, ramps, landings, handrails and guards for dwelling units.

(1) Except as required by Article 3.3.4.8., stairs, ramps, landings, handrails and interior *guards* within a *dwelling unit* shall conform to the applicable requirements in Section 9.8.

(2) Except as provided in Sentence (3), exterior stairs, ramps, landings, handrails and *guards* serving a single *dwelling unit* shall conform to the applicable requirements in Section 9.8 and Sentence 3.1.20.1.(1).

(3) Loads on **exterior** *guards* shall comply with Part 4. (O.Reg. 361/13)

Protection of Openable Windows: Division B, 3.3.4.8.

New Article regarding protection of openable windows in suites of residential occupancy. Article 3.7.2.2. of the 2006 Building Code has been revised and incorporated into the new Article 3.3.4.8.

- 1070 mm minimum height above finished floor (previous 1500)
- Heavy duty screen has been removed
- Window located less than 1800mm above floor or ground level on other side (previous 2000mm)

(1) Except as provided by Sentence (2), openable windows in *suites of residential occupancy* shall be protected by,

(a) a *guard* with a minimum height of 1 070 mm constructed in accordance with Article 3.3.1.17., or
(b) a mechanism capable of controlling the free swinging or sliding of the openable part of the window so as to limit any clear unobstructed opening to not more than 100 mm measured either vertically or horizontally, where the other dimension is greater than 380 mm.

(2) Windows need not be protected in accordance with Sentence (1) where,

(a) the only opening having greater dimensions than those allowed by Clause (1)(b) is located higher than 1070 mm above the finished floor, or
(b) the bottom edge of the openable portion of the window is located less than 1800 mm above the floor or ground on the other side of the window.

Resistance to Forced Entry: Division B, 3.3.4.10.

New article regarding resistance to forced entry into dwelling units has been added for Part 3 buildings.

(1) Resistance to forced entry into *dwelling units* shall conform to the applicable requirements in Articles 9.7.5.2. and 9.7.5.3.

Design of Hazardous Areas: Division B, 3.3.6.

A new Subsection regarding the design of hazardous areas has been added for areas in a building that are intended for the storage, handling, use and processing of:

- Dangerous goods

- Materials that involve a risk of explosion or high flammability
- Materials that are highly reactive

New Articles:

3.3.6.2. – Storage of explosives

(1) The design of *buildings* or parts of *buildings* intended for the storage of explosives, blasting agents, detonators, propellant explosives, fireworks, pyrotechnics and ammunition shall conform to the *Explosives Act* (Canada) and the *Explosives Regulations* made under that Act.

3.3.6.3. – Indoor storage of compressed gas

(1) Except as provided by Sentence (3), where required by the Fire Code made under the *Fire Protection and Prevention*

Act, 1997, a room intended for the indoor storage of cylinders containing flammable *compressed gases* shall meet the following requirements,

- (a) it is separated from the remainder of the *building* by a gas-tight *fire separation* having a *fire-resistance rating* of not less than 2 h,
- (b) it is located on an exterior wall of the *building*,
- (c) it can be entered from the exterior,
- (d) it is ventilated in conformance with Sentence (4),
- (e) it is constructed so that an exterior wall provides explosion venting,
 - (i) in the ratio of 0.2 m² for each cubic metre of room volume, or
 - (ii) in the ratio computed in accordance with NFPA 68, “Explosion Protection by Deflagration Venting”, but in no case less than 0.065 m² of vent area for each cubic metre of room volume,
- (f) it is not intended to contain fuel-fired equipment or high temperature heating elements, and
- (g) it is not intended to be used for a purpose other than the storage of *compressed gas*.

(2) Where a *closure* is installed in the *fire separation* separating the room from the remainder of the *building* in accordance with Clause (1)(a), it shall be,

- (a) equipped with a self-closing device that keeps the *closure* closed when not in use, and
- (b) constructed so as to prevent the migration of gases from the room into other parts of the *building*.

(3) Where required by the Fire Code made under the *Fire Protection and Prevention Act, 1997*, a room intended for the storage of not more than three cylinders of flammable *compressed gases* that are heavier than air and that have an aggregate capacity not exceeding 100 kg shall be,

- (a) separated from the remainder of the *building* by a gas-tight *fire separation* having a *fire-resistance rating* of not less than 45 min,

(b) located at or above grade, and

(c) ventilated in conformance with Sentence (4).

(4) A room described in Sentence (1) or (3) shall be,

(a) mechanically vented to the outside so as to ensure at least one air change per hour, or

(b) naturally vented to the outside so as to ensure cross ventilation through non-closable louvered openings with,

(i) at least one opening having an aggregate free opening area of at least 0.2 m² per 100 m² of the *floor area* located not more than 300 mm from the ceiling, and

(ii) at least one opening having an aggregate free opening area of at least 0.2 m² per 100 m² of the *floor area* located not more than 300 mm from the floor.

(5) Except as permitted by Sentences (6) and (7), where required by the Fire Code made under the *Fire Protection and*

Prevention Act, 1997, an area intended for the storage of cylinders containing *compressed gases* that may react with one another shall be divided into separate *fire compartments* having a *fire-resistance rating* of not less than 1 h.

(6) Separate *fire compartments* required by Sentence (5) need not be provided, if the area intended for the storage of cylinders containing *compressed gases* that are lighter than air is separated by a concrete or masonry wall having a height of at least 2.0 m and projecting at least 1.0 m, measured horizontally, beyond the cylinders.

(7) Separate *fire compartments* required by Sentence (5) need not be provided, if the area intended for the storage of cylinders containing *compressed gases* that are heavier than air is separated by a concrete or masonry wall having a height of at least 1.5 m and projecting such that the minimum distance that vapour can travel between two cylinders of gas that may react with each other is not less than 15 m, measured horizontally.

3.3.6.4. – Storage and dispensing rooms for flammable and combustible liquids

1) A room intended for the storage of *flammable liquids* and *combustible liquids* shall be separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* in conformance with the Fire Code made under the *Fire Protection and Prevention Act, 1997*.

(2) Except as provided by Sentences (3) and (4), a room intended for the storage or dispensing of Class IA or Class IB liquids in open containers shall be designed to prevent critical structural and mechanical damage from an internal explosion in accordance with good engineering practice, such as that described in NFPA 68, “Explosion Protection by Deflagration Venting”.

(3) Sentence (2) does not apply to a room intended for the storage of *distilled beverage alcohol*.

(4) A room in an *occupancy* or facility covered by Regulation 851 of the Revised Regulations of Ontario, 1990 (Industrial

Establishments), made under the *Occupational Health and Safety Act*, or Ontario Regulation 67/93 (Health Care and Residential Facilities), made under that Act, where Class IA liquids are intended to be stored in *closed containers* or Class I liquids are intended to be dispensed or stored in open containers, shall be designed to prevent critical structural and mechanical damage from an internal explosion in accordance with good engineering practice, such as that described in NFPA 68, "Explosion Protection by Deflagration Venting".

(5) A dispensing room in an *occupancy* or facility described in Sentence (4) which has an area greater than 15 m² or in which the travel distance from any point to the nearest egress door is more than 4.5 m shall,

(a) be located in a *floor area* that has at least two *exits*, and

(b) have at least two egress doors.

(6) An egress door serving a room described in Sentence (5) shall,

(a) be equipped with a self-closing device, and

(b) swing on a vertical axis in the direction of travel to the *exit*.

(7) The minimum distance between the egress doors described in Clause (5)(b) shall be not less than three-quarters of the maximum diagonal dimension of the room.

(8) The travel distance within the room to the nearest egress door described in Clause (5)(b) shall be not more than 23 m.

3.3.6.5. – Tire Storage

(1) A tire storage area intended for the storage of more than 375 m³ of tires shall be separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* of not less than 2 h.

Exit Width: Division B, 3.4.3.2 (O.Reg. 151/13)

Sentence 3.4.3.2.(2) is amended by striking out "*care or detention occupancy*" and substituting "*care, care and treatment or detention occupancy*".

Headroom Clearance: Division B, 3.4.3.5.

Article revised to improve clarity in application, including the method of measurement for clear height above stairways

(3) The clear height of landings shall be measured vertically, over the clear width of the landing, to the lowest point above.

Exit Signage: Division B, 3.4.5.1.

Green pictogram and white graphic symbol (running man) exit signs conforming to ISO standards are now required. Red exit signs have been eliminated. Photoluminescent and self-luminous exit signs conforming to CAN/ULC-S572 standard are also permitted.

They must be continuously illuminated if reliant on an external energy source to energize. Not to be installed in a building within the scope of 3.2.6. – High Buildings.

(5) Photoluminescent and self-luminous *exit* signs shall,

(a) conform to CAN/ULC-S572, “Photoluminescent and Self-Luminous Signs and Path Marking Systems”,

(b) be continuously illuminated if reliant on an external energy source to energize the reflective coating of the sign, and

(c) not be installed in a *building* within the scope of Subsection 3.2.6.

Handrails: Division B, 3.4.6.5.

Requirements for handrails have been expanded and clarified

Handrails installed in addition to required handrails need not comply with handrail height. Where guards are required, handrails required on landings shall be not more than 1070mm in height.

(4) The height of handrails on stairs and ramps shall be measured vertically from the top of the handrail to,

(a) a straight line drawn tangent to the tread nosings of the stair served by the handrail, or

(b) the surface of the ramp, floor or landing served by the handrail.

(5) Except as provided by Sentences (6) and (7), the height of handrails on stairs and ramps shall be,

(a) not less than 865 mm, and

(b) not more than 965 mm.

(6) Handrails installed in addition to required handrails need not comply with Sentence (5).

(7) Where *guards* are required, handrails required on landings shall be not more than 1 070 mm in height.

Ramp Slope: Division B, 3.4.6.7 (O.Reg. 151/13)

Clause 3.4.6.7.(1)(a) is revoked and the following substituted:

(a) 1 in 10 in any *assembly, care, care and treatment, detention or residential occupancy*”.

Door Release Hardware: Division B, 3.4.6.16. (O.Reg. 151/13)

Subclause 3.4.6.16.(4)(b)(iii) is amended by striking out “*care or detention occupancy*” at the end and substituting “*care, care and treatment or detention occupancy*”.

Scope: Division B, 3.4.7.1 (O.Reg. 151/13)

Clause 3.4.7.1.(2)(b) is amended by striking out “*care or detention occupancies*” and substituting “*care, care and treatment or detention occupancies*”.

Landings: Division B, Sentence 3.4.7.7.(1) (O.Reg. 361/13)

Amended by striking out “Article 3.4.6.3.” at the end and substituting “Articles 3.4.6.3. and 3.4.6.4.”.

Plumbing Fixtures for Assembly Occupancies: Division B, 3.7.4.3.(1) (O.Reg. 361/13)

Amended by striking out “Except as permitted” at the beginning and substituting “Except as provided”.

Plumbing Fixtures for Care, Care and Treatment or Detention Occupancies: Division B, 3.7.4.4. (O.Reg. 151/130)

The heading to Article 3.7.4.4. is amended by striking out “Care or Detention Occupancies” at the end and substituting “Care, Care and Treatment or Detention Occupancies”.

Electrical Equipment Vaults: Division B, 3.6.2.7.

Article has been expanded by including three new sentences that relate to design requirements for the construction of the room, including venting and lighting-related provisions.

(16) Where the electrical equipment vault is located in a hazardous location classified as Class II, Division 1 in accordance with the Electrical Safety Code adopted under Ontario Regulation 164/99 (Electrical Safety Code) made under the *Electricity Act, 1998*, it shall have,

- (a) no vent opening except to the exterior of the *building*, and
- (b) suitable pressure-relief openings communicating only with the air outside the *building*.

(17) Where doors are provided between the vault described in Sentence (16) and the rest of the *building*, they shall have suitable seals such as weatherstripping to minimize the entrance of dust into the vault.

(18) Every electrical equipment vault shall be provided with,

- (a) adequate lighting, controlled by one or more switches located near the entrance,
- (b) luminaires located so that they may be relamped without danger to personnel, and
- (c) a grounded receptacle located in a convenient location inside the vault, near the entrance.

Location of Emergency Power Generators: Division B, 3.6.2.8.

Article has been amended to clarify that emergency power generators are required to be located in a rated fire compartment only when they are located within a building.

Previous Code: "A generator to supply power for lighting, fire safety and life safety systems shall be located in a room that..."

Clearances for water closets: Division B, 3.7.4.15.

Except for dwelling units and barrier free washrooms, a minimum clearance of 380mm is now required in front of all water closets

(1) Except in a *dwelling unit* and except as required by Section 3.8., a minimum clearance of 380 mm shall be provided in front of a water closet.

Privacy: Division B, 3.7.4.16.

(2) Except in a room for *private use*, water closets, urinals, lavatories, showers and bathtubs shall not be visible from the entrance to the room where it contains at least,

- (a) two water closets,
- (b) one water closet and one urinal,
- (c) one shower stall, or
- (d) one bathtub.

Electrical Systems: Division B, 3.14.1.10. & 3.14.2.7.

Articles added prescribing a new set of requirements for the location of electrical items, such as fuses and switches, to help enhance fire safety in tents and air-supported structures

(1) The electrical system and equipment in an *air-supported structure*, including electrical fuses and switches, shall be inaccessible to the public.

(2) Cables on the ground in areas used by the public in an *air-supported structure* shall be placed in trenches or protected by covers to prevent damage from traffic.

Clearance for Exterior Signs: Division B, 3.15.5.2.

New Sentence (4) clarifies that signs are required to meet the requirements of Subsection 3.1.19. with respect to the clearance to existing above ground electrical conductors

(4) A sign shall not be located in proximity to existing above ground electrical conductors, unless the sign meets the clearance requirements of Subsection 3.1.19.

Additional Requirements for Change of Use: Division B, 3.17.1.1 (O.Reg. 151/13)

Sentence 3.17.1.1.(1) is revoked and the following substituted:

3.17.1.1. Application

(1) This Section applies where proposed *construction* in respect of an existing *building* will result in any of the following changes of use of all or part of the *building*:

- (a) a change of the *major occupancy* of all or part of a *building* that is designated with a “Y” in Table 1.3.1.4. of Division C,
- (b) a *suite* of a Group C *major occupancy* is converted into more than one *suite* of a Group C *major occupancy*,
- (c) a *suite* or part of a *suite* of a Group A, Division 2 or a Group A, Division 4 *major occupancy* is converted to a *gaming premises*,
- (d) a *farm building* or part of a *farm building* is changed to a *major occupancy*,
- (e) a *building* or part of a *building* is changed to a *post-disaster building*,
- (f) a *building* or part of a *building* is changed to a retirement home regulated under the *Retirement Homes Act, 2010*, or
- (g) the use of a *building* or part of a *building* is changed and the previous *major occupancy* of the *building* or part of the *building* cannot be determined.

Sentence 3.17.1.1.(2) is amended by striking out “Clauses (1)(b) to (d)” and substituting “Clauses (1)(b) to (d) and (f)”.

Additional Construction: Division B, 3.17.2.1 (O.Reg. 151/13)

Sentence 3.17.2.1.(1) is amended by striking out “Clauses 3.17.1.1.(1)(a) to (d)” and substituting “Clauses 3.17.1.1.(1)(a) to (d) and (f)”.

Division B, Part 4

Design Basis: Division B, 4.1.1.4.(1) (O.Reg. 361/13)

Amended by striking out “Except as provided in Sentence (2) and (3)” at the beginning and substituting “Except as provided in Sentence (2)”.

Categories of Loads, Specified Loads and Effects: Division B, Table 4.1.2.1.A

Crane loads now a separate loading condition:

Symbol	Loads, Specified Loads, or Effects (1)
L_{XC}	live load exclusive of crane loads
C	live load due to crane loads
C_d	self weight of all cranes positioned for maximum effects
C_7	crane bumper impact load

The heading to Column 2 of Table 4.1.2.1.A. of Division B of the Regulation is revoked and the following substituted: Loads, Specified Loads and Effects (1).(O.Reg.361/13)

Strength and Stability: Division B, 4.1.3.2.(3)

New Sentence is added. Load combinations with companion loads taken as zero must also be considered.

(3) Other load combinations that must also be considered are the principal loads acting with the companion loads taken as zero.

Strength and Stability: Division B, 4.1.3.2.(4)(O.Reg.361/13)

Sentence 4.1.3.2.(4) of Division B of the Regulation is revoked and the following substituted:

(4) Where the effects due to lateral earth pressure, H, restraint effects from pre-stress, P, and imposed deformation, T, affect the structural safety, they shall be taken into account in the calculations, with load factors of 1.5, 1.0 and 1.25 assigned to H, P and T respectively.

REVISION to Sentence 5: “case 5” replaced with “case 5 of Table 4.1.3.2.A. and 0.9 D in load combination cases 1 to 5 and 1.0D in load combination case 6 of Table 4.1.3.2.B.”.

REVISION to Sentence 6: “Table 4.1.3.2.” replaced with “Table 4.1.3.2.A. and L_{XC} in Table 4.1.3.2.B”.

REVISION to Sentence 7: “Table 4.1.3.2.” replaced with “Table 4.1.3.2.A. and L_{XC} in Table 4.1.3.2.B”.

REVISION to Sentence 8: “the load factor 1.25 for *dead load*, D, in Table 4.1.3.2. for soil,” replaced with “Except as provided in Sentence (9), the load factor 1.25 for *dead load*, D, for soil,”.

REVISION to Sentence 10: “case 5 of Table 4.1.3.2.” replaced with “case 5 of Table 4.1.3.2.A. and case 6 of Table 4.1.3.2.B.”.

Strength and Stability: Division B, 4.1.3.2.(9)

New Sentence added. When considering the weight of saturated soil, must use a principal load factor of 1.5 (rather than 1.25).

(9) A principal-load factor of 1.5 shall be applied to the weight of saturated *soil* used in load combination case 1 of Table 4.1.3.2.A.

Specified Uniformly Distributed Live Loads on an Area of Floor or Roof: Division B, Table 4.1.5.3.

Increased number of loading conditions for assembly occupancies.

Clarify floor loading for garages.

Specified Uniformly Distributed Live Loads on an Area of Floor or Roof: Division B, Table 4.1.5.3.

Increase in loading for Part 9 bedrooms from 1.4 kPa to 1.9 kPa.

Floor Loads Due to Intended Use: Division B, {2006} 4.1.5.7.

Former Article 4.1.5.7. has been removed because floor loads due to intended use is adequately dealt with in Article 4.1.5.1.

Specified Concentrated Live Loads on an Area of Floor or Roof: Division B, Table 4.1.5.9.

Revised areas over which the specified loads act

Removed load criteria for ‘passenger cars’

This change will have a significant impact on the design of certain floors and roofs

Table 4.1.5.9.
Specified Concentrated Live Loads on an Area of Floor or Roof
Forming Part of Sentence 4.1.5.9.(1)

Item	Column 1	Column 2	Column 3
	Area of Floor or Roof Minimum	Specified Concentrated Load, kN	Loaded Area, mm x mm
1	Roof surfaces	1.3	200 x 200
2	Floors of classrooms	4.5	750 x 750
3	Floors of offices, manufacturing buildings, hospital wards and stages	9.0	750 x 750

4	Floors and areas used by vehicles not exceeding 4000 kg gross weight	18	120 x 120
5	Floors and areas used by vehicles exceeding 4000 kg but not exceeding 9000 kg gross weight	36	120 x 120
6	Floors and areas used by vehicles exceeding 9000 kg gross weight	54	250 x 600
7	Driveways and sidewalks over areaways and <i>basements</i>	54	250 x 600

Crane-Supporting Structures and Impact of Machinery and Equipment: Division B, 4.1.5.11.

New Sentence added. (2) Crane-supporting structures shall be designed for the appropriate load combinations listed in Article 4.1.3.2.

Loads on Guards: Division B, 4.1.5.14.(1)

Revision made to Sentence (1), “Top of every required guard” replaced with “minimum required height of every required guard”.

Loads on Guards: Division B, 4.1.5.14.(1)(a)

Revision made to Clause (a). For open viewing stands without fixed seats and” inserted before “for means of egress.

(a) 3.0 kN/m for open viewing stands without fixed seats and for *means of egress* in grandstands, stadia, bleachers and arenas,

Specified Wind Load: Division B, 4.1.7.1.(5)(b) and (c)

Revised criteria for which a rough terrain factor can be used, to a distance of 20 times the building height; previously 10 times the building height.

Clause 4.1.7.1.(5)(b) of Division B of the Regulation is amended by striking out “building height” and substituting “height of the building”. (O.Reg. 361/13)

Clause 4.1.7.1.(5)(c) of Division B of the Regulation is amended by striking out “building height” and substituting “height of the building”. (O.Reg. 361/13)

Dynamic Effects of Wind: Division B, 4.1.7.2.(1) and (2)

Revised criteria for when a building must be designed using experimental methods or dynamic approach

(1) Except as provided in Sentence (2), *buildings* whose height is greater than 4 times their minimum effective width, which is defined in Sentence (3), or greater than 60 m and *buildings*

whose lowest natural frequency is less than 1 Hz, as determined by rational analysis, shall be designed by,

- (a) experimental methods for the danger of dynamic overloading, vibration and the effects of fatigue, or
- (b) using a dynamic approach to the action of wind gusts.

New Sentence added:

(2) *Buildings* whose lowest natural frequency is less than 1/4 Hz, as determined by rational analysis, shall be designed by experimental methods in accordance with Clause (1) (a).

Site Classification for Seismic Site Response: Division B, Notes to Table 4.1.8.4.A.

Notes (1) and (2) added which provide:

- a restriction on when site classes A and B can be used
- alternative criteria for establishing the value of V_s , which effectively reduces design loads when in site testing is carried out

Site Properties: Division B, Heading to Table 4.1.8.4.C. (O.Reg. 361/13)

The heading to Table 4.1.8.4.C. of Division B of the Regulation is amended by striking out “Sa(0.1)” and substituting “Sa(1.0)”.

Site Properties: Division B, 4.1.8.4.(5)

For Site Class F, dynamic site response analysis is no longer a requirement for all designs

Site Properties: Division B, 4.1.8.4.(6)

Buildings built on liquefiable soils with a fundamental period of vibration equal to or less than 0.5 s can be designed using a less complex method

Structural Irregularities: Division B, Table 4.1.8.6.

Revised definition of what constitutes a Type 4 irregularity.

In-Plane Discontinuity in Vertical Lateral-Force-Resisting Element	Except for braced frames and moment-resisting frames, an in-plane discontinuity shall be considered to exist where there is an offset of a lateral-force-resisting element of the SFRS or a reduction in lateral stiffness of the resisting element in the <i>storey</i> below.
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SFRS Force Reduction Factors, System Overstrength Factors, and General Restrictions: Division B, Sentence 4.1.8.9.(4)

Revised sentence to accommodate design of certain specialized rooftop structures exceeding 2 storeys in height

SFRS Ductility-Related Force Modification Factors, R_d , Overstrength-Related Force Modification Factors, R_o , and General Restrictions: Division B, Table 4.1.8.9.

Revised design criteria for steel structures

Added design criteria for cold formed steel

5.	Cold-Formed Steel Structures Designed and Detailed According to CAN/CSA-S136							
	Shear walls							
	Screw-connected shear walls - wood-based panel	2.5	1.7	20	20	20	20	20
	Screw-connected shear walls - wood-based and gypsum panels in combination	1.5	1.7	20	20	20	20	20
	Diagonal strap concentrically braced walls							
	Limited ductility	1.9	1.3	20	20	20	20	20
	Conventional construction	1.2	1.3	15	15	NP	NP	NP
	Other cold-formed SFRS(s) not listed above	1.0	1.0	15	15	NP	NP	NP

NP = system is not permitted.

Additional System Restrictions: Division B, 4.1.8.10.(2)

New Clause including Additional control for the design of post-disaster buildings.

(d) have no *storey* with a lateral stiffness that is less than that of the *storey* above it.

Equivalent Static Force Procedure for Structures Satisfying the Conditions of Article 4.1.8.7.: Division B, 4.1.8.11.(2)

Revise limits for the minimum lateral earthquake force, V , for various force resisting systems.

Equivalent Static Force Procedure for Structures Satisfying the Conditions of Article 4.1.8.7.: Division B, 4.1.8.11.(3)(d)(iv)

Clause added that assigns a fundamental period T_a for other structures which are not currently addressed.

Higher Mode Factor, M_v , and Base Overturning Reduction Factor, J : Division B, Table 4.1.8.11.

Revised to provide for additional M_v and J factors.

Notes to the table have been revised.

Equivalent Static Force Procedure for Structures Satisfying the Conditions of Article 4.1.8.7.: Division B, 4.1.8.11.(8)

Revised to require that natural and accidental torsional moments be considered to act at the same time.

Equivalent Static Force Procedure for Structures Satisfying the Conditions of Article 4.1.8.7.: Division B, 4.1.8.11.(10)

An additional design condition for torsional effects:

$IE \times F_a \times S_a(0.2) < 0.35$ for a *building* with $B \leq 1.7$.

Dynamic Analysis Procedure: Division B, 4.1.8.12.(4)

Revision to the determination of F_x .

Dynamic Analysis Procedure: Division B, 4.1.8.12.(6) and (7)

Conditions for the selection of design elastic base shear V_{ed} added:

(6) For structures located on sites other than Class F that have an SFRS with R_d equal to or greater than 1.5, the elastic base shear obtained from a Linear Dynamic Analysis may be multiplied by the following factor to obtain the design elastic base shear, V_{ed} :

$$\frac{2S(0.2)}{3S(T_a)} \leq 1.0$$

(7) The design elastic base shear, V_{ed} , shall be multiplied by the importance factor, IE , as determined in Article 4.1.8.5., and shall be divided by $R_d R_o$, as determined in Article 4.1.8.9., to obtain the design base shear, V_d .

Deflections and Drift Limits: Division B, 4.1.8.13.(3)

The term 'schools' has been replaced with 'High Importance Category buildings'

Design Provisions: Division B, 4.1.8.15 (2)

Sentence added to provide requirements for the design and detailing of steel roof deck and timber diaphragm systems.

(2) Steel deck roof diaphragms in *buildings* of less than 4 *storeys* or wood diaphragms that are designed and detailed according to the applicable referenced design standards to exhibit ductile behaviour shall meet the requirements of Sentence (1), except that they may yield and the forces shall be,

(a) for wood diaphragms acting in combination with vertical wood shear walls, equal to the lateral earthquake design force,

(b) for wood diaphragms acting in combination with other SFRS, not less than the force corresponding to $R_dR_o = 2.0$, and

(c) for steel deck roof diaphragms, not less than the force corresponding to $R_dR_o = 2.0$.

(3) Where diaphragms are designed in accordance with Sentence (2), the struts shall be designed in accordance with Clause

(1)(a) and the collectors, chords and connections between the diaphragms and the vertical elements of the SFRS shall be designed for forces corresponding to the capacity of the diaphragms in accordance with the applicable CSA standards.

Design Provisions: Division B, 4.1.8.15.(7)

Sets limits on the design forces associated with the lateral capacity of a seismic force resisting system (SFRS).

(7) Except as provided in Sentence (8), the design forces associated with the lateral capacity of the SFRS need not exceed the forces determined in accordance with Sentence 4.1.8.7.(1) with R_dR_o taken as 1.0, unless otherwise provided by the applicable referenced design standards for elements, in which case the design forces associated with the lateral capacity of the SFRS need not exceed the forces determined in accordance with Sentence 4.1.8.7.(1) with R_dR_o taken as 1.3.

Site Stability: Division B, 4.1.8.17.(1)

New Article added stating designers must take slope stability into account for the seismic design of structures and foundations.

(1) The potential for slope instability and its consequences, such as slope displacement, shall be evaluated based on site specific material properties and ground motion parameters referenced in Subsection 1.1.2. and shall be taken into account in the design of the structure and its *foundations*.

Elements of Structures, Non-structural Components and Equipment: Division B, 4.1.8.18.(8)(e) and (f)
Revised criteria for certain non-structural ductile connections, where the connections are capable of dissipating energy through cyclic inelastic behavior.

Preservation Treatment of Wood: Division B, 4.2.3.2.

Names of standards associated with wood preservation have been revised. They are now national standards

(1) Wood exposed to *soil* or air above the lowest anticipated *groundwater* table shall be treated with preservative in conformance with CAN/CSA-O80 Series, "Wood Preservation", and the requirements of the appropriate commodity standard as follows:

- (a) CAN/CSA-O80.2, "Processing and Treatment",
- (b) CAN/CSA-O80.3, "Preservative Formulations", or
- (c) CSA O80.15, "Preservative Treatment of Wood for Building Foundation Systems, Basements and Crawl Spaces by Pressure Processes".

Anchor Systems on Building Exterior: Division B, 4.4.4.1.(1)

Clarification that this sentence applies to suspended maintenance and suspended window cleaning operations

Division B, Part 5

Structural and Environmental Loads: Division B, 5.1.4.1.(5)

This Sentence now includes a reference to Article 5.2.2.1. where the structural loads are specified.

Pertains to the separation of environmentally dissimilar spaces.

Relates to the transfer of heat, air, moisture & sound.

Control of the radon & other gases is addressed by air leakage requirements.

Resistance to Deterioration: Division B, 5.1.4.2.(1)

Sentence has been amended to clarify that materials must be selected based on:

- the nature & function of materials
- the exposure of the materials, &
- the climate conditions in which the materials will be Installed

Structural Loads & Effects: Division B, 5.2.2.1.(2)(c)

Earthquake effects need now only be taken into consideration for post-disaster buildings.

Sentence 5.2.2.1.(2) of Division B of the Regulation is amended by striking out “The structural loads” in the portion before Clause (a) and substituting “Except as provided in Article 4.1.8.18., the structural loads”. (O.Reg. 361/13)

Determination of Wind Load: Division B, 5.2.2.2.(2)

Sentence 5.2.2.2.(2) now references all loads not just velocity pressure and gust effect. Loads now include external pressure or suction, net specified pressure and exposure factor.

(2) Except as provided in Sentence (3), the wind load referred to in Sentence (1) shall be 100% of the specified wind load determined in accordance with Article 4.1.7.1.

Air Barrier System Properties: Division B, 5.4.1.2.(1)(b)

New reference to CAN/ULC-S741 added for air barrier material specifications.

Wood Shakes and Shingles: Division B, 5.6.1.2.

Prescriptive requirements for wood shakes & shingles have been deleted from Part 5.

Standards Applicable to Environmental Separators and Assemblies Exposed to the Exterior: Division B, Table 5.10.1.1.

Standards applicable to environmental separators & assemblies exposed to the exterior have been amended. Others have been deleted, such as:

- CGSB CAN/CGSB-51.25 Thermal Insulation, Phenolic, Faced
- CGSB CAN/CGSB-34.4-M Siding, Asbestos-Cement, Shingles & Clapboards
- CGSB CAN/CGSB-34-14-M Sheets, Asbestos-Cement, Decorative
- CGSB CAN/CGSB-34.17-m Sheets, Asbestos-Cement, Flat, Semi Compressed

Item 97 of Table 5.10.1.1. of Division B of the Regulation is revoked and the following substituted:

97.	CSA	G40.21	General Requirements for Rolled or Welded Structural Quality Steel
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(O.Reg. 361/13)

Windows, Doors & Skylights Standards: Division B, 5.10.2.2.

The previously referenced CSA A440 standard has been replaced by the harmonized AAMA/WDMA/CSA101/I.S.2/A440 standard & the Canadian CSA Supplement CSA A440S1 for North America Fenestration Standards/Specifications for Windows, Doors, & Skylights

(1) Windows, doors and skylights shall conform to the requirements in,

(a) AAMA/WDMA/CSA 101/I.S.2/A440, “NAFS – North American Fenestration Standard/Specification for Windows, Doors, and Skylights”, and

(b) CSA A440S1, “Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440, NAFS – North American Fenestration Standard/Specification for Windows, Doors, and Skylights”.

(2) Performance grades for windows, doors and skylights shall be selected according to the Canadian Supplement referenced in Clause (1)(b) so as to be appropriate for the conditions and geographic location in which the window, door or skylight will be installed.

(3) Windows, doors and skylights shall conform to the performance grades selected under Sentence (2) when tested in accordance with the standard referenced in Clause (1)(a).

Structural Loads, Air Leakage & Water Penetration: Division B, 5.10.2.3.

Structural loads, air leakage & water penetration of windows, doors & skylights not within the scope of the standards must be designed & constructed in accordance with Articles 5.1.4.1. (Structural & Environmental Loads) and Sections 5.4 (Air leakage) and 5.6 (Precipitation)

- (1) Windows, doors, skylights and their components shall be designed and constructed in accordance with,
- (a) Article 5.10.2.2., where they are covered in the scope of the standards listed in Sentence 5.10.2.2.(1), or
 - (b) Article 5.1.4.1. and Sections 5.4. and 5.6., in other cases.

Exterior Insulation Finishes: Division B, 5.10.3 (O.Reg. 361/13)

Section 5.10. of Division B of the Regulation is amended by adding the following Subsection:

5.10.3. Exterior Insulation Finish Systems

5.10.3.1. Applicable Standards

- (1) Where exterior insulation finish systems are installed, the systems and their components shall conform to,
- (a) Article 5.1.4.1. and Sections 5.3. to 5.6., and
 - (b) CAN/ULC-S716.1, "Exterior Insulation and Finish Systems (EIFS) – Materials and Systems", if the systems are covered in the scope of that standard.

Division B, Part 6

Scope: Division B, 6.1.1.1.(2)

Adjustments to existing heating, ventilating or air-conditioning systems are no longer regulated by the Building Code.

Good Engineering Practice Division B, 6.2.1.1.(1)(b) (O.Reg. 361/13)

Clause 6.2.1.1.(1)(b) of Division B of the Regulation is amended by striking out “the CAN/CSA-F280-M” at the beginning and substituting “CSA F280”.

Good Engineering Practice Division B, 6.2.1.1.(1)(j),(k)&(l)

Revised:

(j) the CCBFC NRCC 38730, Model National Energy Code of Canada for Buildings 1997

Added:

(k) The CCBFC NRCC 54435, National Energy Code of Canada for Buildings 2011, and

(l) EPA/625/R-92/016, Radon Prevention in the Design and Construction of Schools and Other Large Buildings

Installation Standards: Division B, 6.2.1.4 (O.Reg. 361/13)

Article 6.2.1.4. is amended by adding the following Sentence:

(7) Solid fuel-burning stoves, furnaces and hydronic heating systems designed to burn solid fuels, other than coal, shall conform to the particulate emission limits of,

(a) CSA B415.1, “Performance Testing of Solid-Fuel-Burning Heating Appliances”, or

(b) the “Standards of Performance for New Residential Wood Heaters”, set out in Subpart AAA of Part 60 of Title 40 of the Code of Federal Regulations, published by the United States Environmental Protection Agency, as it read on November 1, 2013.

Required Ventilation: Division B, 6.2.2.1.(3) (O.Reg. 361/13)

Sentence 6.2.2.1.(3) is revoked and the following substituted:

(3) Self-contained mechanical ventilation systems serving only one dwelling unit shall conform to,

(a) this Part, or

(b) Subsection 9.32.3.

Ventilation of Storage & Repair Garages: Division B, 6.2.2.3.(1)(a)

Upper limit of placement of carbon monoxide detector increased from 1200mm to 1800mm above the floor.

Ventilation of Storage & Repair Garages Division B, 6.2.2.3.(7)

Decreased exposure level of carbon monoxide to 25 parts per million from 35 parts per million, and nitrogen dioxide limits have been included.

(7) A *repair garage* shall have a mechanical ventilation system designed to limit the exposure of workers to,

(a) carbon monoxide to below the time weighted average concentration of 25 parts per million for a normal 8 hour workday or 40 hour work week, and

(b) nitrogen dioxide from diesel powered vehicles to below 0.72 parts per million for a normal 8 hour workday or 40 hour work week.

Hazardous Gases, Dusts or Liquids: Division B, 6.2.2.5.

New requirements are added for venting trenches that contain piping for Class I flammable liquids.

When indoor piping is installed for Class 1 flammable liquids, the trench shall be:

- provided with positive ventilation to the outdoors, OR
- designed to prevent accumulation of flammable vapours

(2) When indoor piping for Class I *flammable liquids* is installed in a trench, the trench shall be,

(a) provided with positive ventilation to the outdoors, or

(b) designed to prevent the accumulation of flammable vapours.

Exhaust Ducts & Outlets: Division B, 6.2.3.8.(6)

New rules added for venting auxiliary rooms, mechanical rooms & storage rooms through a storage garage, which include:

- these rooms are accessible only from that storage garage
- they have no openings or duct penetrations to adjacent spaces other than that storage garage & other auxiliary mechanical or storage rooms
- exhaust contains no contaminants
- they are provided with CO detection or a light switch interlocked with the operation of the exhaust fan serving the room

Sentence 6.2.3.8.(6) is amended by striking out “ventilated through a storage garage” in the portion before Clause (a) and substituting “ventilated into a storage garage”. (O.Reg. 361/13)

Exhaust Ducts & Outlets: Division B, 6.2.3.8.(15)

Exhaust air requirements for dwelling units have been clarified:

Other than self contained mechanical ventilation serving only one dwelling unit, exhaust air shall be provided in accordance with ANSI/ASHRAE 62.1, “Ventilation for Acceptable Indoor Air Quality”.

Exhaust Ducts & Outlets: Division B, 6.2.3.8.(18) & (19)

Requirements for collective venting of multiple installations of laundry drying equipment have been introduced to include that the ventilation system:

be connected to a common exhaust duct that is vented by one central exhaust fan
incorporate one central lint trap include an interlock to activate the central exhaust fan when
laundry-drying equipment is in use be provided with makeup air, and exhaust ducts or vents
connected to laundry -drying equipment shall discharge directly to the outdoors.

(18) Where collective venting of multiple installations of laundry-drying equipment is used, the ventilation system shall,

(a) be connected to a common *exhaust duct* that is vented by one central exhaust fan,

(b) incorporate one central lint trap,

(c) include an interlock to activate the central exhaust fan when laundry-drying equipment is in use,
and

(d) be provided with make-up air.

(19) *Exhaust ducts* or vents connected to laundry-drying equipment shall discharge directly to the outdoors.

Ducts in Exits: Division B, 6.2.3.10

Clarifies that certain ductwork is permitted to penetrate an exit.

(2) Duct penetration of *fire separations* separating *exits* from the remainder of the *building* is permitted if the duct,

(a) is designed for the purposes of Subsection 3.2.6., or

(b) only serves the *exit* from a dedicated roof top air make-up unit.

Construction & Installation of Ducts & Plenums: Division B, 6.2.4.3.(11)

Supply & return ducts located in an unconditioned space or outdoors shall have all joints sealed to SMACNA Class A seal level in accordance with the SMACNA “HVAC Duct Construction Standards – Metal & Flexible”. Class A seal level requires that transverse seams, longitudinal and all applicable penetrations be sealed. (mastics, liquids, or gaskets)

(11) Where a *supply duct* or *return duct* is located in an unconditioned space or outdoors, all joints of the ductwork shall be sealed to a Class A seal level in accordance with the SMACNA, “HVAC Duct Construction Standards – Metal and Flexible”.

Construction and Installation of Ducts and Plenums: Division B, 6.2.4.3.(12)

Where a supply duct is located in a conditioned space, the ductwork shall be sealed to a Class C seal level in accordance with the SMACNA, “HVAC Duct Construction Standards – Metal and Flexible.” Class C seal level requires that only transverse joints be sealed. (mastics, liquids, or gaskets)

(12) Where a *supply duct* is located in a conditioned space, the ductwork shall be sealed to a Class C seal level in accordance with the SMACNA, “HVAC Duct Construction Standards – Metal and Flexible”.

the Ministry is clarifying if this was intended for Single Detached Dwellings

Concrete Slabs: Division B, 6.2.4.5.(1)

Warm-air supply systems are no longer required to be installed in concrete slabs

Tempering of Make-up Air: Division B, 6.2.4.12 (2) & (3)

Tempering of make-up air with electric resistance heating no longer required

Carbon Monoxide Alarms: Division B, 6.2.12.3.(2)

Installation & conformance to standards now permit battery operated carbon monoxide alarms in buildings without electrical power

(2) Where the *building* is not supplied with electrical power, carbon monoxide alarms are permitted to be battery operated.

Ventilation for Laboratories: Division B, 6.2.13

New subsection added for ventilation design and construction requirements in laboratories.

6.2.13. Ventilation for Laboratories

6.2.13.1. Application

(1) This Subsection applies to laboratories intended as a location where *flammable liquids* and *combustible liquids* are used in normal laboratory operations in quantities or in a manner that create a fire or explosion hazard.

6.2.13.2. General Ventilation

(1) A laboratory shall be provided with continuous mechanical ventilation designed to ensure that flammable vapours,

- (a) do not accumulate in the laboratory,
- (b) are prevented from migrating to other parts of the *building*,
- (c) do not accumulate in the ventilation system,
- (d) are exhausted to the outdoors, and
- (e) are not returned to the *building*.

(2) A ventilation system required in this Subsection shall be provided with monitoring devices that,

- (a) indicate that the ventilation system is in operation, and
- (b) sound an alarm if the ventilation system is malfunctioning.

6.2.13.3. Power-Ventilated Enclosure

(1) A power-ventilated enclosure required by the Fire Code made under the *Fire Protection and Prevention Act, 1997* shall be designed and constructed to conform to Articles 6.2.13.4. and 6.2.13.5.

6.2.13.4. Enclosure Exhaust Ventilation

(1) The ventilation system for a power-ventilated enclosure referred to in Article 6.2.13.3. shall,

- (a) conform to NFPA 91, "Exhaust Systems for Air Conveying of Vapors, Gases, Mists and Noncombustible Particulate Solids",
- (b) provide continuous exhaust ventilation at an air velocity sufficient to prevent the accumulation of *combustible* or reactive deposits in the power-ventilated enclosure and its *exhaust duct* system,

(c) confine flammable vapours and particles to the area where they are generated and exhaust them to the outdoors,

(d) not return the exhausted air to the *building*, and

(e) be provided with well identified control switches that are,

(i) located outside the power-ventilated enclosure, and

(ii) readily accessible in case of an emergency.

(2) *Fire dampers* are permitted to be used within the *exhaust duct* system of the ventilation system for a power-ventilated

enclosure referred to in Article 6.2.13.3.

6.2.13.5. Enclosure Construction

(1) The power-ventilated enclosure referred to in Article 6.2.13.3. and its *exhaust duct* system shall,

(a) except as provided in Sentences (2) and (3), be constructed of *noncombustible* materials compatible with and chemically

resistant to the flammable vapours and particles being exhausted, and

(b) be provided with access doors to permit inspection and maintenance of the fan assembly and *exhaust ducts*.

(2) *Combustible* materials are permitted in the power-ventilated enclosure described in Sentence (1) and its *exhaust duct*

system if,

(a) such materials are required by the corrosive or reactive properties of the chemicals or liquids being used, and

(b) their *flame-spread rating* is not more than 25.

(3) The *flame-spread rating* required in Sentence (2) is permitted to be greater than 25 if an automatic fire suppression system

is provided inside the power-ventilated enclosure and its *exhaust duct* system.

Division B, Part 7

Water Distribution Systems: Division B, 7.1.5.3.(2)

Revised to require storm sewage and greywater that is reused to also be treated to conform to Article 7.7.4.1.

(2) *Storm sewage or greywater* that is free of solids and treated to conform to Article 7.7.4.1. is permitted to be used as a water supply for,

- (a) water closets,
- (b) urinals,
- (c) sub-surface irrigation, or
- (d) the priming of *traps*.

Water Distribution Systems: Division B, 7.1.5.3.(3)

Requirements for rainwater harvesting systems have been introduced to the Building Code.

(3) *Rainwater* that is free of solids and treated to conform to Article 7.7.4.1. is permitted to be used as a water supply for,

- (a) clothes washers,
- (b) laundry trays,
- (c) mop sinks,
- (d) bedpan washers,
- (e) water closets,
- (f) urinals,
- (g) hose bibbs,
- (h) sub-surface irrigation, or
- (i) the priming of *traps*.

Private Sewers and Private Water Supply: Division B, 7.1.5.5.

Revised to update design guidelines for private water supply pipes and private sewers.

(1) *Private water supply* pipes shall be designed and installed according to MOE PIBS 6881e, "Design Guidelines for Drinking-Water Systems".

(2) *Private sewers* shall be designed and installed according to MOE PIBS 6879, "Design Guidelines for Sewage Works".

Traps: Division B, 7.2.3.1.

(3) Except for a floor-mounted service sink, every trap that serves a lavatory, a sink or a laundry tray shall,

- (a) ... cleanout plug,
- (b) ... trap dip can be completely removed, or
- (c) be provided with a cleanout installed above the floor as close as practical downstream of the trap when the trap is,
 - (i) installed below the floor, and
 - (ii) not readily accessible for cleaning as required by Clause (a).

Interceptors: Division B, 7.2.3.2.(3)

New standards have been added for grease interceptors.

(3) Where a grease *interceptor* is required by Sentence 7.4.4.3.(1), the *interceptor* shall conform to,

- (a) CAN/CSA-B481.1, "Testing and Rating of Grease Interceptors Using Lard", or
- (b) CAN/CSA-B481.2, "Testing and Rating of Grease Interceptors Using Oil".

Polyethylene Pipe and Fittings: Division B, 7.2.5.5.(1) & Table 7.2.11.2

Amended to permit polyethylene water pipe, tubing and fittings with series 160 or greater pressure rating.

Copper Tube: Division B, 7.2.7.4.(4)

Type K or L copper tube is required for the potable water side of a heat exchanger in a pre-engineered wastewater heat recovery system.

Linings and Coatings of Domestic Water Tanks: Division B, 7.2.10.7.(1)

Linings and coatings of potable domestic water tanks must now be certified to NSF/ANSI 61 "Drinking Water System Components – Health Effects" standard

(1) Linings and coatings of domestic water tanks that come into contact with *potable* water shall be certified to NSF/ANSI 61, "Drinking Water System Components - Health Effects".

Back-Siphonage Preventers and Backflow Preventers: Division B, 7.2.10.10. (O.Reg. 361/13)

Sentence 7.2.10.10.(2) is amended by striking out "CAN/CSA-B125.3" and substituting "CSA B125.3".

Vent Pipe Flashing: Division B, 7.2.10.14.(1)

Minimum flashing material thickness for vent pipes amended:

- aluminum sheet {0.61} to 0.48 mm
- lead sheet {2.16} to 1.73 mm
- galvanized steel sheet {0.41} to 0.33 mm

Drinking Water Treatment Systems: Division B, 7.2.10.17.

Drinking water treatment systems must be certified to the CAN/CSA-B483.1 "Drinking Water Treatment Systems" standard.

(1) A drinking water treatment system or device shall be certified to CAN/CSA-B483.1, "Drinking Water Treatment Systems".

Tests and Inspection of Drainage or Venting Systems: Division B, 7.3.6.1.(6)

New provision added regarding inspection and testing of a sewer lateral extension.

(6) A *sewer lateral extension* need not be tested and inspected if the *sewer lateral extension* was constructed, tested and inspected at the time of the installation of the public sewer.

Connections to Sanitary Drainage Systems: Division B, 7.4.2.1.(4)

Limits for soil or waste pipe connections in a suds pressure zone have been added.

(4) Where a change in direction of more than 45° occurs in a *soil* or *waste pipe* that serves more than one clothes washer, and

in which pressure zones are created by detergent suds, no other *soil* or *waste pipe* shall be connected to it within a length less than,

- (a) 40 times the *size* of the *soil* or *waste pipe* or 2.44 m maximum vertical, whichever is less, before the change in direction, and
- (b) 10 times the *size* of the *nominally horizontal soil* or *waste pipe* after the change in direction.

Connections to Sanitary Drainage Systems: Division B, 7.4.2.1.(5)

Controls for vent pipe connections in a suds pressure zone have been introduced.

(5) Where a *vent pipe* is connected into a suds pressure zone referred to in Sentence (4), no other *vent pipe* shall be connected to that *vent pipe* within the height of the suds pressure zone.

Connection of Overflows from Rainwater Tanks: Division B, 7.4.2.2.

Overflow from rainwater tanks can now be connected to a storm drainage system.

Drains Serving Elevator Pits: Division B, 7.4.3.6.(1) (O.Reg. 361/13)

Sentence 7.4.3.6.(1) is amended by striking out “Section 2.7.” and substituting “Section 2.2.”.

Protection from Backflow: Division B, 7.4.6.4.(3)

New requirements for backwater valve added if the public sanitary sewer system may be subject to backflow.

(3) Except as provided in Sentences (4) and (5), where a *building drain* or a *branch* may be subject to *backflow*,

(a) a *backwater valve* shall be installed on every *fixture drain* connected to it when the *fixture* is located below the level of the adjoining street, or

(b) a *backwater valve* shall be installed to protect *fixtures* which are below the upstream sanitary manhole cover when a *residential building* is served by a *public sanitary sewer*.

Cleanouts for Drainage Systems: Division B, 7.4.7.1.(10)

Amended requirement for the installation of cleanouts for kitchen sinks.

(10) A *cleanout* shall be installed on a *trap arm* serving a kitchen sink as close as practical to the *trap* outlet and shall be readily *accessible*.

Minimum Slope: Division B, 7.4.8.1.(1)

Clarify application of the minimum 1 in 50 slope to only apply to drainage pipe that is ≤ 3 ”.

Serving Water Closets: Division B, 7.4.9.2.

Added: (5) No vertical leg of the drainage pipe from a water closet or other fixture that has an integral siphonic flushing action shall exceed 1000mm.

Size of Fixture Outlet Pipes: Division B, 7.4.9.3.

(1) ... every fixture outlet pipe shall conform to Table 7.4.9.3.

Item	Column 1	Column 2	Column 3
	Fixture	Minimum Size of Fixture Outlet Pipe, in.	Hydraulic Load, fixture units
9	Cloth Washer		
	(a) Domestic	N/A	1 ½ with 2 in. trap
	(b) Commercial	N/A	2 with 2 in. trap

Item 10 of Table 7.4.9.3. is amended by striking out “2” in Column 3 and substituting “½”. (O.Reg. 361/13)

Item 13 of Table 7.4.9.3. is amended by striking out “2” in Column 3 and substituting “½”. (O.Reg. 361/13)

Hydraulic Loads from Roofs or Paved Surfaces: Division B, 7.4.10.4.(2)

Amended to include additional requirements for roof scuppers.

(c) one or more scuppers are installed not more than 30 m apart along the perimeter of the *building* so that,

- (i) the scuppers are designed to handle at least 200% of the 15-minute rainfall intensity, and
- (ii) the maximum depth of controlled water is limited to 150 mm,

Hydraulic Loads from Roofs or Paved Surfaces: Division B, 7.4.10.4.(3)

Requirements for emergency roof overflow or scuppers have been introduced

(3) Where the height of the parapet is more than 150 mm or exceeds the height of the adjacent wall flashing,

- (a) emergency roof overflows or scuppers described in Clause (2) (c) shall be provided, and
- (b) there shall be a minimum of two roof drains.

Wet Venting: Division B, 7.5.2.1.(1)(g) & (k)

Requirements for wet venting clarified.

(g) the hydraulic load of separately vented *fixtures* that drain into the *wet vent* is not included when sizing the *continuous vent* that serves the *wet vent*,

(k) the highest *fixture* is connected to a vertical portion of the *wet vent*, upstream of any other *fixtures*, in the form of a *continuous vent*, and

Vent Stacks: Division B, 7.5.4.2.(1)

Vent stacks only required where the soil or waste stack drains fixtures from more than 4-storeys

Length of Trap Arm: Division B, Table 7.5.6.3.

Maximum trap arm length modified

Item	Column 1	Column 2	Column 3
	Size of Trap Served, in.	Maximum Trap Arm, m	Minimum Slope
1	1 ¼	1.5	1 in 50
2	1 ½	(1.5) 1.8	1 in 50
3	2	(1.5) 2.4	1 in 50
4	3	(1.8) 3.6	1 in 50
5	4	(3) 4.9	1 in 50
6	(5) 4	(4) 9.8	1 in (50) 100

(*) indicates 2006 OBC values

Branch Vents, Headers, Continuous Vents and Circuit Vents: Division B, 7.5.8.3.(1)

The Sentence has been revised to clarify that Table 7.5.8.3. does not apply to individual or dual vents

Branch Vents, Headers, Continuous Vents and Circuit Vents: Division B, 7.5.8.3. (O.Reg. 361/13)

Table 7.5.8.3. is revoked and the following substituted:

Table 7.5.8.3.

Sizing of Branch Vents, Headers, Continuous Vents and Circuit Vents

Forming Part of Article 7.5.8.3.

Item	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
	Total Hydraulic Load Served by Vent, fixture units	Size of Vent Pipe, in.							
		1 ¼	1 ½	2	3	4	5	6	8
		Maximum Length of Vent Pipe, m(1)(2)							
1.	2	9	NL						
2.	8	9	30	61	NL	NL	NL	NL	NL
3.	20	7.5	15	46	NL	NL	NL	NL	NL

4.	24	4.5	9	30	NL	NL	NL	NL	NL
5.	42	NP	9	30	NL	NL	NL	NL	NL
6.	60	NP	4.5	15	120	NL	NL	NL	NL
7.	100	NP	NP	11	79	305	NL	NL	NL
8.	200	NP	NP	9	76	275	NL	NL	NL
9.	500	NP	NP	6	55	215	NL	NL	NL
10.	1 100	NP	NP	NP	15	61	215	NL	NL
11.	1 900	NP	NP	NP	6	21	61	215	NL
12.	2 200	NP	NP	NP	NP	9	27	105	335
13.	3 600	NP	NP	NP	NP	7.5	18	76	245
14.	5 600	NP	NP	NP	NP	NP	7.5	18	76

Notes to Table 7.5.8.3.:

(1) NL means not limited.

(2) NP means not permitted.

Stack Vents and Vent Stacks: Division B, 7.5.8.. (O.Reg. 361/13)

Table 7.5.8.4. is revoked and the following substituted:

Table 7.5.8.4.

Size and Developed Length of Stack Vents and Vent Stacks

Forming Part of Sentence 7.5.8.4.(1)

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12	Column 13	
Size of Soil or Waste Stack, in.	Total Hydraulic Load Being Vented, fixture units	Water Occupied Area	Size of Stack Vent or Vent Stack, in.										
			1¼	1 ½	2	3	4	5	6	8	10	12	
			Maximum Length of Stack Vent or Vent Stack, m(1)(2)										
1¼	2	0.29	9	NL	NL	NL	NL	NL	NL	NL	NL	NL	

1½	8	0.25	15	46	NL	NL	NL	NL	NL	NL	NL	NL
2	12	0.25	9	23	61	NL	NL	NL	NL	NL	NL	NL
	24	.29	8	15	46	NL	NL	NL	NL	NL	NL	NL
3	10	0.15	NP	13	46	317	NL	NL	NL	NL	NL	NL
	21	.20	NP	10	33.5	247	NL	NL	NL	NL	NL	NL
	53	.25	NP	8	28.5	207	NL	NL	NL	NL	NL	NL
	102	.29	NP	7.5	26	189	NL	NL	NL	NL	NL	NL
4	43	0.15	NP	NP	10.5	76	299	NL	NL	NL	NL	NL
	140	.20	NP	NP	8	61	229	NL	NL	NL	NL	NL
	320	.25	NP	NP	7	52	195	NL	NL	NL	NL	NL
	540	.29	NP	NP	6.5	46	177	NL	NL	NL	NL	NL
5	190	0.15	NP	NP	NP	25	97.5	302	NL	NL	NL	NL
	490	.20	NP	NP	NP	19	76	232	NL	NL	NL	NL
	940	.25	NP	NP	NP	16	64	204	NL	NL	NL	NL
	1 400	.29	NP	NP	NP	15	58	180	NL	NL	NL	NL
6	500	0.15	NP	NP	NP	10	39.5	122	305	NL	NL	NL
	1 100	.20	NP	NP	NP	8	30.5	94.5	238	NL	NL	NL
	2 000	.25	NP	NP	NP	6.5	25.5	79	201	NL	NL	NL
	2 900	.29	NP	NP	NP	6	23.5	73	183	NL	NL	NL
8	1 800	0.15	NP	NP	NP	NP	9.5	29	73	287	NL	NL
	3 400	.20	NP	NP	NP	NP	7	22	58	219.5	NL	NL
	5 600	.25	NP	NP	NP	NP	6	19	49	186	NL	NL
	7 600	.29	NP	NP	NP	NP	5.5	17	43	170.5	NL	NL
10	4 000	0.15	NP	NP	NP	NP	NP	9.5	24	94.5	292.5	NL
	7 200	.20	NP	NP	NP	NP	NP	7	18	73	225.5	NL
	11 000	.25	NP	NP	NP	NP	NP	6	15.5	61	192	NL
	15 000	.29	NP	NP	NP	NP	NP	5.5	14	55	174	NL
12	7 300	0.15	NP	NP	NP	NP	NP	NP	9.5	36.5	116	287
	13 000	.20	NP	NP	NP	NP	NP	NP	7	28.5	91	219.5
	20 000	.25	NP	NP	NP	NP	NP	NP	6	24	76	186
	26 000	.29	NP	NP	NP	NP	NP	NP	5.5	22	70	152

15	15 000	0.15	NP	12	39.5	94.5						
	25 000	.20	NP	9.5	29	73						
	38 000	.25	NP	8	24.5	62						
	50 000	.29	NP	7	22.5	55						

Notes to Table 7.5.8.4.:

(1) NL means not limited.

(2) NP means not permitted.

Size and Developed Length of Stack Vents and Vent Stacks: Division B, Table 7.5.8.4.

Changes to 1 ½ and 2” soil or waste stacks.

Installation Conditions: Division B, 7.5.9.3.(5) (O.Reg. 361/13)

Sentence 7.5.9.3.(5) is amended by striking out “Sentence 7.5.6.2.(1)” at the end and substituting “Sentence 7.5.6.5.(1)”.

Backflow from Buildings with a Solar Domestic Hot Water System: Division B, 7.6.2.5.(3)

Backflow preventer requirements for solar domestic water systems clarified

(3) *A potable water system that is directly connected to the heat transfer loop of a solar domestic hot water system that serves a residential occupancy within the scope of Part 9 shall be provided with a backflow preventer selected*

Showers: Division B, 7.6.5.2. (O.Reg. 361/13)

Sentence 7.6.5.2.(1) is amended by striking out “ASME A112.18.1 / CAN/CSA-B125.1” and substituting “CSA B125.1”.

Sentence 7.6.5.2.(2) is amended by striking out “CAN/CSA-B125.3” and substituting “CSA B125.3”.

Size and Capacity of Pipes: Division B, 7.6.3.

Significant changes with respect to hydraulic loading, types of fixtures and water velocities

Table 7.6.3.2.A.
Sizing of Water Distribution Systems⁽¹⁾⁽²⁾

Forming Part of Sentences 7.6.3.2.(1) to (3) and 7.6.3.4.(2), (3) and (5)

Item	Column 1 <i>Fixture or Device</i>	Column 2 Minimum Size of Supply Pipe, in.	Column 3 <i>Private Use Hydraulic Load, fixture units</i>			Column 6 <i>Public Use Hydraulic Load, fixture units</i>		
			Cold	Hot	Total	Cold	Hot	Total
1.	<i>Bathroom group with 6 LPF flush tank⁽³⁾</i>	N/A	2.7	1.5	3.6	-	-	-
2.	<i>Bathroom group with greater than 6 LPF flush tank⁽³⁾</i>	N/A	4	3	6	-	-	-
3.	<i>Bathroom group with more than 3 fixtures</i>	-	-	-	⁽⁴⁾	-	-	-
4.	Bathtub with or without shower head	1/2	1	1	1.4	3	3	4
5.	Bathtub with ¾ in. spout	3/4	7.5	7.5	10	7.5	7.5	10
6.	Bedpan washer	1	-	-	-	7.5	7.5	10
7.	Bidet	3/8	1.5	1.5	2	-	-	-
8.	Clothes washer, 3.5 kg	1/2	1	1	1.4	2.25	2.25	3
9.	Clothes washer, 6.8 kg	1/2	-	-	-	3	3	4
10.	Clothes washer, commercial ⁽⁵⁾	-	-	-	-	-	-	-
11.	Dental lavatory	3/8	-	-	-	1.5	1.5	2
12.	Dental unit, cuspidor	3/8	-	-	-	1	-	1
13.	Dishwasher, commercial ⁽⁵⁾	-	-	-	-	-	-	-
14.	Dishwasher, domestic	3/8	-	1.4	1.4	-	-	-
15.	Drinking fountain or water cooler	3/8	-	-	-	0.25	-	0.25
16.	Hose bibb	1/2	2.5	-	2.5	2.5	-	2.5
17.	Hose bibb	3/4	3	-	3	6	-	6
18.	Hose bibb, combination hot and cold	1/2	1.9	1.9	2.5	1.9	1.9	2.5
19.	Lavatory, 8.3 L/min or less	3/8	0.5	0.5	0.7	1.5	1.5	2
20.	Lavatory, greater than 8.3 L/min	3/8	0.75	0.75	1	1.5	1.5	2
21.	Shower head, 9.5 L/min or less per head	1/2	1	1	1.4	3	3	4
22.	Shower head, greater than 9.5 L/min per head	1/2	1.5	1.5	2	3	3	4
23.	Shower, spray, multi-head, <i>fixture unit</i> per head	⁽⁵⁾	1	1	1.4	3	3	4
24.	Sink, bar	3/8	0.75	0.75	1	1.5	1.5	2
25.	Sink, clinic service faucet	1/2	-	-	-	2.25	2.25	3
26.	Sink, clinic service with direct	1	-	-	-	6	-	6

	flush valve							
27.	Sink, kitchen, commercial, per faucet	1/2	-	-	-	3	3	4
28.	Sink, kitchen, domestic, 8.3 L/min or less	3/8	1	1	1.4	1	1	1.4
29.	Sink, kitchen, domestic, greater than 8.3 L/min	3/8	1.5	1.5	2	1.5	1.5	2
30.	Sink, laboratory	3/8	-	-	-	1.5	1.5	2
31.	Sink, laundry (1 or 2 compartments)	3/8	1	1	1.4	1	1	1.4
32.	Sink, service or mop basin	1/2	-	-	-	2.25	2.25	3
33.	Sink, washup, per faucet	1/2	-	-	-	1.5	1.5	2
34.	Urinal, with direct flush valve	3/4	(6)	-	(6)	(6)	-	(6)
35.	Urinal, with flush tank	3/8	3	-	3	3	-	3
36.	Urinal, with self-closing metering valve	1/2	2	-	2	4	-	4
37.	Water closet, 6 LPF or less with flush tank	3/8	2.2	-	2.2	2.2	-	2.2
38.	Water closet, greater than 6 LPF with flush tank	3/8	3	-	3	5	-	5
39.	Water closet, with direct flush valve	1	(6)	-	(6)	(6)	-	(6)

Notes to Table 7.6.3.2.A.:

(1)The *fixture unit* values in this Table are not applicable in certain *assembly occupancies* because of surges in use by the occupants. For such *occupancies*, refer to specific design information.

(2)For *fixtures* not indicated in this Table, refer to Table 7.6.3.2.D.

(3)*Bathroom group* is based on a ½ in. size bathtub supply pipe.

(4)Add additional *fixture* to the *fixture* load for *bathroom group*.

(5)Refer to the manufacturer's recommendations.

(6)For *fixture unit* values for *fixtures* with direct flush valves, see Sentence 7.6.3.2.(4) and Tables 7.6.3.2.B. and 7.6.3.2.C.

Table 7.6.3.2.B.
Sizing of Water Distribution Systems for Urinals with Direct Flush Valves

Forming Part of Sentences 7.6.3.2.(4) and 7.6.3.4.(5)

Item	Column 1	Column 2	Column 3
	Number of Valves	Individual <i>Fixture Units</i> Assigned in Decreasing Values	<i>Fixture Units</i> in Accumulative Values ⁽¹⁾
1.	1	20	20
2.	2	15	35
3.	3	10	45
4.	4	8	53
5.	5 or more	5 each	58, plus 5 for each additional <i>fixture</i> in excess of 5

Notes to Table 7.6.3.2.B.:

(1) The accumulative *fixture unit* values are the total values to be used in conjunction with Table 7.6.3.2.A.

Table 7.6.3.2.C.
Sizing of Water Distribution Systems for Water Closets with Direct Flush Valves

Forming Part of Sentences 7.6.3.2.(4) and 7.6.3.4.(5)

Item	Column 1	Column 2	Column 3
	Number of Valves	Individual <i>Fixture Units</i> Assigned in Decreasing Values	<i>Fixture Units</i> in Accumulative Values ⁽¹⁾
1.	1	40	40
2.	2	30	70
3.	3	20	90
4.	4	15	105
5.	5 or more	10 for each <i>public use</i> , and 6 for each <i>private use</i>	115, plus 10 for each <i>public use</i> additional <i>fixture</i> in excess of 5, and 111, plus 6 for each <i>private use</i> additional <i>fixture</i> in excess of 5

Notes to Table 7.6.3.2.C.:

(1) The accumulative *fixture unit* values are the total values to be used in conjunction with Table 7.6.3.2.A.

Table 7.6.3.2.D.
Hydraulic Loads of Fixtures Not Listed in Table 7.6.3.2.A.

Forming Part of Sentences 7.6.3.2.(2) and (3) and 7.6.3.4.(5)

Item	Column 1	Column 2	Column 3
	Size of Supply Pipe, in.	Hydraulic Load, <i>fixture units</i>	
		<i>Private Use</i>	<i>Public Use</i>
1.	$\frac{3}{8}$	1	2
2.	$\frac{1}{2}$	2	4
3.	$\frac{3}{4}$	3	6
4.	1	6	10

Water Supply Fittings Division B, 7.6.4.1.

(1) ... water to a fixture shall not exceed the maximum flow rates at the test pressures listed for that fitting in Table 7.6.4.1. (Shower heads reduced from 9.5 to 7.6 L/min)

Maximum Water Consumption per Flush Cycle for Sanitary Fixtures: Division B, Tables 7.6.4.2.A. & B.

Maximum water consumption per flush cycle for urinals reduced from 3.8 to 1.9 LPF in all buildings

Maximum Water Consumption per Flush Cycle for Sanitary Fixtures in a Group C Occupancy: Division B, Table 7.6.4.2.B.

Maximum water consumption per flush cycle for water closets in residential occupancies:

reduced from 6.0 to 4.8 LPF, or
dual flush option permitted

Plumbing Fixtures: Division B, 7.6.4.2.

(3) In buildings classified as Group C occupancy, the flush cycle for each fixture that is a water closet or urinal shall not exceed the maximum water consumption per flush cycle listed for that fixture in Table 7.6.4.2.B.

Non-Potable Connection: Division B, 7.7.1.1.

Additional requirements for the connection of non-potable water and potable water systems.

(2) Make-up water may be supplied to the non-potable water system by,

- (a) a reduced pressure backflow preventer, or
- (b) an air gap.

(3) Where a clothes washer is supplied by a rainwater system and a potable water system, the potable water system shall be protected by dual check valve backflow preventers conforming to CAN/CSA-B64.6, "Dual Check

Value Backflow Preventers (DuC)" for,

- (a) area isolation, and
- (b) premise isolation.

Markings Required: Division B, 7.7.2.1.(2) & (3)

New prescriptive marking requirements for re-use of non-potable water systems.

Conformance to Standards: Division B, 7.7.4.1.

Non-potable water systems for re-use purposes must be designed, constructed and installed to good engineering practice.

Division B, Part 8

Onsite Sewage Systems

The 2012 Building Code contains new requirements for on-site sewage systems, including reference a new national industry standard (CAN-BNQ 3680-600) for certifying residential wastewater treatment technologies. Manufacturers will have until 2016 to meet the new standard.

It also sets standards for two different types of on-site sewage dispersal beds to manage effluent from certain residential wastewater treatment technologies; one with prescriptive requirements and one with performance requirements.

The 2012 Building Code adopts a number of changes and updates technical, maintenance, and monitoring requirements. Examples include adding detailed specifications for effluent filters and clarifying requirements for filter bed construction.

Discharge: Division B, 8.1.3.1.(8)

Referenced standards for grease interceptors have been introduced:

Lard – CAN/CSA-B481.1

Oil – CAN/CSA-B481.2

- (8) The *interceptor* required in Sentence (4) shall,
- (a) have a minimum flow rate as required by Sentence 7.4.4.3.(8) using a 60 second drain down time, and
 - (b) conform to,
 - (i) CAN/CSA-B481.1, “Testing and Rating of Grease Interceptors Using Lard”, or
 - (ii) CAN/CSA-B481.2, “Testing and Rating of Grease Interceptors Using Oil”.

Site Evaluation: Division B, 8.2.1.2.(2)

Revised to include the use of soil texture classifications as an acceptable way to determine soil percolation time.

- (2) The *percolation time* shall be determined by,
- (a) conducting percolation tests, or
 - (b) classifying the *soil* according to one of the following methods,

- (i) the Unified Soil Classification System as described in MMAH Supplementary Standard SB-6, “Percolation Time and Soil Descriptions”, or
- (ii) the Soil Texture Classification as described in Chapter 3 of USDA, “Soil Survey Manual”.

Sewage System Design Flow: Division B, 8.2.1.3. (O.Reg. 361/13)

Item 24 of Table 8.2.1.3.B. is revoked and the following substituted:

24.	Theatres	
	a) Indoor, auditoriums per seat,	20
	b) Outdoor, drive-ins per space, or	40
	c) Movie theatres per seat	15

Septic Tank Systems: Division B, 8.6.2.1.(2)

Revised to specify the maximum size of particles permitted to pass through the effluent filter and the minimum area of the filter.

- (2) The *septic tank effluent* filter required by Sentence (1) shall,
- (a) conform to the requirements of NSF/ANSI 46, “Evaluation of Components and Devices Used in Wastewater Treatment Systems”,
- (b) be sized to filter particles of 1.6 mm,
- (c) have a minimum area of 550 cm², and
- (d) be installed in accordance with the manufacturer’s recommendations.

Other Treatment Units: Division B, 8.6.2.2.(1) & Table 8.6.2.2.

Amended to re-classify the effluent from treatment units into a three-level system:

- Level II – 30 mg/l suspended solids and 25 mg/l CBOD
- Level III – 15 mg/l suspended solids and 15 mg/l CBOD
- Level IV – 10 mg/l suspended solids and 10 mg/l CBOD

Other Treatment Units: Division B 8.6.2.2.(2)

Amended to include Type A dispersal beds and Type B dispersal beds to the systems that require the use of Level IV effluent treatment unit.

Other Treatment Units: Division B, 8.6.2.2.(5)

Treatment units can now be certified to CAN/BNQ 3680-600

SB-5 will be revoked on January 1, 2017

(5) A *treatment unit* is deemed to comply with Sentences (1) and (2) if it,
(a) is described in MMAH Supplementary Standard SB-5, “Approved Sewage Treatment Units”, or
(b) has been certified to CAN/BNQ 3680-600, “Onsite Residential Wastewater Treatment Technologies” using a temperature condition listed under option a) or b) of Clause 8.2.2. of that standard.

Other Treatment Units: Division B, 8.6.2.2.(6)

Amended to require the operator of the treatment unit to obtain literature pertinent to the treatment unit from the manufacturer or the distributor.

(6) Every operator of a *treatment unit* shall obtain, from the manufacturer or distributor of the *treatment unit*, literature that describes the unit in detail and provides complete instructions regarding the operation, servicing, and maintenance requirements of the unit and its related components necessary to ensure the continued proper operation in accordance with the original design and specifications.

Limitation on Installation: Division B, 8.7.1.2.(1)

Amended to require dispersal beds to be designed and constructed by a person competent in this work.

(1) The design and installation of a *shallow buried trench, Type A dispersal bed* or *Type B dispersal bed* shall be carried out by a person competent in this field of work.

Distribution Pipes within Leaching Beds: Division B, 8.7.2.2.(2)

Leaching beds with distribution pipes must now include a means of detecting the distribution pipe in the leaching bed.

(1) Sentence (2) applies to the design and *construction* of a *leaching bed* with *distribution pipes* used within the *leaching bed*.

(2) The *header line* and *distribution pipes* within a *leaching bed* shall be designed and *constructed* so that they can be detected by,

- (a) magnetic means,
- (b) means of a 14 gauge TW solid copper light coloured plastic coated tracer wire, or
- (c) other means of subsurface detection.

Construction Requirements: Division B, 8.7.4.2.(1).

Amended to clarify the types of absorption trenches that can be constructed in leaching bed fill.

(1) Except for a shallow buried trench, a leaching bed comprised of absorption trenches may be constructed in leaching bed fill, if unsaturated soil or leaching bed fill complying with Subclause 8.7.2.1.(1)(b)(ii) extends,

- a) to a depth of at least 250 mm over the area covered by the leaching bed fill, and
- (b) for at least 15 m beyond the outer distribution pipes in any direction in which the effluent entering the soil or leaching bed fill will move horizontally.

Application and Loading Requirements: Division B, 8.7.5.1.(1) & 8.7.5.2.(5)

Revised to reflect the new classification of treatment units to be used in conjunction with a filter bed.

(1) The total daily design *sanitary sewage* flow shall not exceed,

- (a) 5 000 L where the *treatment unit* is a *septic tank*, or
- (b) 10 000 L where the *treatment unit* is a Level II, Level III or Level IV *treatment unit* as described in Table 8.6.2.2.

Construction Requirements: Division B, 8.7.6.1.(1)

Amended to reflect the new classification of treatment units to be used in conjunction with a shallow buried trench system.

(1) The treatment unit used in conjunction with a leaching bed constructed as a shallow buried trench shall provide an effluent quality that does not exceed the maximum concentrations set out opposite a Level IV treatment unit in Columns 2 and 3 of Table 8.6.2.2.

Type A Dispersal Beds: Division B, 8.7.7.

Construction requirements for Type A dispersal beds have been introduced for:

- Type of effluent
- Sizing of stone and sand layers
- Requirements for extension of the sand layer
- Effluent distribution
- Clearances

8.7.7.1. Construction Requirements

(1) The treatment unit used in conjunction with a leaching bed constructed as a Type A dispersal bed shall provide an effluent quality that does not exceed the maximum concentrations set out opposite a Level IV treatment unit in Columns 2 and 3 of Table 8.6.2.2.

(2) A Type A dispersal bed shall be backfilled with leaching bed fill so as to ensure that, after the leaching bed fill settles, the surface of the leaching bed will not form any depressions.

(3) The combined thickness of the sand layer and the stone layer of a Type A dispersal bed shall not be less than 500 mm.

(4) Except as provided in Sentence (5), the sand layer shall,

(a) be comprised of sand that has,

(i) a percolation time of at least 6 and not more than 10 min, and

(ii) not more than 5% fines passing through a 0.074 mm (No. 200) sieve,

(b) have a minimum thickness of 300 mm, and

(c) have an area that is not less than the lesser of,

(i) the area of the stone layer determined in accordance with Sentence (6), and

(ii) the value determined by the formula,

$$A = \frac{QT}{850}$$

where,

A = the area of contact in square meters between the base of the sand and the underlying soil,

Q = the total daily design sanitary sewage flow in liters, and

T = the lesser of 50 and the percolation time of the underlying soil.

(5) Where the underlying soil has a percolation time of more than 15 min, the sand layer referred to in Sentence (4) shall,

(a) extend to at least 15 m beyond the perimeter of the treatment unit, or distribution pipes if utilized, in any direction that the effluent entering the soil will move horizontally, and

(b) have an area that is not less than the value determined by the formula,

$$A = \frac{QT}{400}$$

where,

A = the area of contact in square meters between the base of the sand and the underlying soil, or leaching bed fill if utilized,

Q = the total daily design sanitary sewage flow in liters, and

T = the lesser of 50 and the percolation time of the underlying soil.

(6) The stone layer shall,

- (a) be rectangular in shape with the long dimension parallel to the site contours,
- (b) have a minimum thickness of 200 mm,
- (c) be protected in the manner described in Sentence 8.7.3.3.(2), and
- (d) be constructed such that the bottom of the stone layer is at least 600 mm above the high ground water table, rock or soil with a percolation time of 1 min or less or greater than 50 min.
- (e) have a minimum area not less than the value determined by the formula,

$$A = Q/B$$

where,

A = the area of the stone layer in square meters,

B = the following amount,

- (i) 50, if the total daily design *sanitary sewage* flow exceeds 3 000 liters, or
 - (ii) 75, if the total daily design *sanitary sewage* flow does not exceed 3 000 liters, and
- Q = the total daily design *sanitary sewage* flow in liters.

(7) *Leaching bed fill* with a *percolation time* not exceeding 15 min may be used to satisfy the vertical separation requirements of Clause (6)(d), provided that the *leaching bed fill* conforms to the requirements specified in Sentence (5) regardless of the *percolation time* of the underlying *soil*.

(8) The *effluent* shall be evenly distributed within the stone layer to within 600 mm of the perimeter of the stone layer.

(9) The stone layer shall not be located closer than the minimum horizontal distances set out in Table 8.2.1.6.B. and these distances shall be increased when required by Sentence 8.7.4.2.(11).

Type B Dispersal Beds: Division B, 8.7.8.

Construction requirements for Type B dispersal beds have been introduced.

8.7.8.1. General Requirements

(1) Except as provided in Sentence (2) and Sentence 8.7.8.2.(2), a *Type B dispersal bed* shall conform to the requirements of Article 8.7.2.1.

(2) A *Type B dispersal bed* shall not be located in an area that has an average slope that exceeds one unit vertically to seven units horizontally.

General Requirements: Division B, 8.7.8.1.

Maximum average slope of the site of the leaching bed not to exceed 1 in 7.

Construction Requirements: Division B, 8.7.8.2.

Sets requirements for:

- Type of effluent
- Maximum depth
- Effluent distribution system
- Bed separation
- Clearances

(1) The treatment unit used in conjunction with a leaching bed constructed as a Type B dispersal bed shall provide an effluent quality that does not exceed the maximum concentrations set out opposite a Level IV treatment unit in Columns 2 and 3 of Table

8.6.2.2.

(2) A Type B dispersal bed shall be,

(a) rectangular in shape with the long dimension parallel to the site contours,

(b) not more than 1 000 mm in depth measured from the bottom of the stone layer to the finished grade when installed in soil with a percolation time that exceeds 15 min, and

(c) backfilled with leaching bed fill so as to ensure that, after the leaching bed fill settles, the surface of the leaching bed will not form any depressions.

(3) The bottom of the stone layer shall be at least 600 mm above the high ground water table, rock or soil with a percolation time greater than 50 min.

(4) The effluent shall be distributed over the Type B dispersal bed through a pressurized distribution system having a pressure head of not less than 600 mm when measured to the most distant point from the pump.

(5) The distribution pipes shall,

(a) be self-draining so as to prevent freezing of their contents, and

(b) have orifices of at least 3 mm in diameter, spaced equally along the length of the pipes.

(6) The stone layer containing the distribution pipes shall,

(a) be comprised of washed septic stone, free of fine material, with gradation conforming to Table 8.7.3.3.,

(b) extend not less than 250 mm below the distribution pipe, and

(c) extend not less than 50 mm above the distribution pipe.

(7) The distribution pipes shall be spaced not more than 1.2 m apart with the outermost pipe spaced not more than 600 mm from the edge of the bed.

(8) The pump chamber shall be sized to provide sufficient storage volume so that the effluent is evenly dosed on an hourly basis over a 24-hour period.

(9) When there is more than one *Type B dispersal bed* in a *leaching bed*, the *Type B dispersal beds* shall be separated by at least 5 m measured from the edge of the stone layers.

(10) A *Type B dispersal bed* shall not be located closer than the minimum horizontal distances set out in Table 8.2.1.6.B. and these distances shall be increased when required by Sentence 8.7.4.2.(11).

Design Requirements: Division B, 8.7.8.3.

Sets requirements for:

- Sizing of the bed
- Linear loading rate
- Maximum width

(1) The area of a *Type B dispersal bed* shall not be less than the minimum area determined in accordance with Clause (2)(a) or (b).

(2) For the purposes of Sentence (1), the minimum area is either of the following,

(a) the area calculated based on the *loading rates* for Type 2 effluent set out in the Column headed “Type 2” found in Table 2-8 of the BCMOH, “Sewerage System Standard Practice Manual”, or

(b) the value determined by the formula,

$$A = \frac{QT}{400}$$

where,

A = the area of contact in square meters between the stone layer and the underlying *soil*,

Q = the total daily design *sanitary sewage* flow in liters, and

T = the *percolation time* of the underlying *soil*.

(3) The linear *loading rates* of the underlying *soil* shall not be greater than,

(a) the linear *loading rates* set out in Table 2-11 of BCMOH, “Sewerage System Standard Practice Manual”, where the area of the *Type B dispersal bed* is determined in accordance with Clause (2)(a),

or

(b) the following linear *loading rate*, where the area of the *Type B dispersal bed* is determined in accordance with Clause (2)(b),

(i) 40 L/m, for *soil* having a *percolation time* equal to or greater than 24 min, or

(ii) 50 L/m, for *soil* having a *percolation time* less than 24 min.

(4) The width of a *Type B dispersal bed* shall not exceed 4 m.

Sampling of Treatment Units: Division B, 8.9.2.4.(1)

Sampling requirements amended to include Type A and B dispersal beds.

(1) Every person operating a *treatment unit* that is used in conjunction with a *leaching bed constructed as a shallow buried trench, Type A dispersal bed or Type B dispersal bed* shall,
(a) take a grab sample of the *effluent* to determine the level of CBOD5 and suspended solids in the *effluent*,

Sampling of Treatment Units: Division B, 8.9.2.4.(3)&(4)

Clarifies the effluent quality requirements that apply to the operation of shallow buried trenches and Type A and Type B dispersal beds.

Effluent from treatment units failing to meet the effluent criteria must be re-sampled within 6 months.

(3) The concentration of CBOD5 and suspended solids in the grab sample described in Sentences (1) and (4) is deemed to comply with the maximum concentration requirements set out in Table 8.6.2.2. when it does not exceed 20 mg/L for each of these parameters.

(4) If the results of the sampling required by Sentence (1) do not comply with Sentence (3), the person operating the *treatment unit* shall,

(a) resample the *effluent* in accordance with Clauses (1)(a) and (b) within 6 months after the previous sampling has been completed, and

(b) promptly submit the results of the resampling required by Clause (a) to the *chief building official*.

Interceptors: Division B, 8.9.3.3.(1)

Amended to require maintenance of grease interceptors in accordance with the CAN/CSA-B481.4 standard

(1) Every grease *interceptor* referred to in Article 8.1.3.1. shall be maintained in accordance with CAN/CSA-B481.4, "Maintenance of Grease Interceptors".

Pressurized Distribution Systems: Division B, 8.9.3.5.(1)

Sets requirements for checking the pressure head in a pressurized distribution system

(1) The pressure head at the furthest point from the pump in all *distribution pipes* shall be checked for compliance with Articles 8.7.6.1. and 8.7.8.2. and the design specification at least every 36 months.

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Radon: Division B, 9.1.1.7.(1)

The Radon 222 threshold has been reduced from 250 to 200 becquerels per m³ in designated areas.

Site Assembled and Factory Built Buildings: Division B, 9.1.1.9.(1)(a) (O.Reg. 361/13)

Clause 9.1.1.9.(1)(a) is amended by striking out “CAN/CSA-Z240.2.1” at the beginning and substituting “CSA Z240.2.1”.

General: Division B, 9.3.1.1.(1)

Concrete construction for housing and small buildings:

CSA A438-00 withdrawn and incorporated in CSA A23.1.

(1) Except as provided in Sentence (2), unreinforced and nominally reinforced concrete shall be designed, mixed, placed, cured and tested in accordance with the requirements for “R” class concrete stated in Clause 8.13 of CSA A23.1, “Concrete Materials and Methods of Concrete Construction”.

Termite and Decay Protection: Division B, 9.3.2.9.(6)

Former Sentence (5) renumbered, revised and expanded to reference Table 2 “Use Categories for Specific Products, Uses, and Exposures” of the CAN/CSA-O80.1 standard.

(6) Where wood is required by this Article to be treated to resist termites or decay, such treatment shall be in accordance with Table 2, “Use Categories for Specific Products, Uses, and Exposures”, of CAN/CSA-O80.1, “Specification of Treated Wood”, as follows:

(a) Use Category 1, where the wood member is used in,

- (i) interior construction,
- (ii) above-ground applications, and
- (iii) applications where the wood member remains dry,

(b) Use Category 2, where the wood member is used in,

- (i) interior construction,
- (ii) above-ground applications, and
- (iii) applications where the wood member may be subjected to occasional sources of moisture,

(c) Use Category 3.2, where the wood member is used in,

- (i) exterior construction,
 - (ii) above-ground applications, and
 - (iii) applications where the wood member is uncoated or is used in a configuration conducive to moisture accumulation,
- (d) Use Category 4.1, where,
- (i) the wood member is used in contact with the ground,
 - (ii) the wood member is used in contact with fresh water, or
 - (iii) the vertical clearance between the wood element and the finished ground level is less than 150 mm and the wood elements are not separated from permeable supporting materials by a moisture barrier, or
- (e) Use Category 4.2, where the wood member is used in critical structural components, including permanent wood *foundations*.

Attics and Roof Spaces: Division B, 9.4.2.4.(1)

Loading requirements for ceiling joists or truss bottom chords in residential attics and roof spaces have been revised.

(1) Ceiling joists or truss bottom chords in residential *attic or roof spaces* having limited accessibility that precludes the storage of equipment or material shall be designed for a total specified load of not less than 0.35 kPa, where the total specified load is the sum of the specified *dead load* plus the specified *live load* of the ceiling.

Standards for Windows, Door and Skylights: Division B, 9.5., 9.6., and 9.7.

New North American fenestration standard for windows, doors and skylights (AAMA/WDMA/CSA 101/I.S.2/A440) have been introduced.

Doors to Rooms Containing Water Closets (Article 9.5.9.2.): Division B, 9.5.9.2.

Requirements for doors to rooms containing water closets in dwelling units.

Entrance Doors (Article 9.7.2.1.): Division B, 9.7.2.1.

Requirements for entrance doors to dwelling units.

9.7.2.1. Entrance Doors

- (1) A door shall be provided at each entrance to a *dwelling unit*.
- (2) Main entrance doors to *dwelling units* shall be provided with,

- (a) a door viewer or transparent glazing in the door, or
- (b) a sidelight.

Doorway Sizes: Division B, 9.5.11.

New Subsection added:

- 9.5.11.1. Doorway Opening Sizes
- 9.5.11.2. Doors to Public Water Closet Rooms
- 9.5.11.3. Doors to Bathrooms

9.5.11.1. Doorway Opening Sizes

(1) Except as provided in Articles 9.5.11.3., 9.9.6.2. and 9.9.6.3., doorway openings within *dwelling units* shall be designed to accommodate at least the door sizes in Table 9.5.11.1. for swing-type doors or folding doors.

Table 9.5.11.1. Minimum Door Sizes
Forming Part of Sentence 9.5.11.1.(1)

Item	Column 1	Column 2	Column 3
	At Entrance to:	Minimum Width, mm	Minimum Height, mm
1.	<i>Dwelling unit</i> (required entrance) Vestibule or entrance hall	810	1 980
2.	Stairs to a floor level that contains a finished space All doors in at least one line of passage from the exterior to the <i>basement</i> Utility rooms	810	1 980
3.	Walk-in closet	610	1 980
4.	Bathroom, water closet room, shower room(1)	610	1 980
5.	Rooms located off hallways that are permitted to be 710 mm wide	610	1 980
6.	Rooms not mentioned above, exterior balconies	760	1 980

Notes to Table 9.5.11.1.:

(1) See Article 9.5.11.3.

Doors to Public Water Closet Rooms: Division B, 9.5.11.2.

(1) Doors to public water closet rooms shall be not less than 810 mm wide and 2 030 mm high.

Doors to Bathrooms: Division B, 9.5.11.3.

(1) Where a *barrier-free* path of travel conforming to Section 3.8. is provided into a *suite* of *residential occupancy* and where a bathroom within the *suite* is at the level of the *suite* entrance door, the doorway to such bathroom and to each bedroom at the same level as such bathroom shall have, when the door is in the open position, a clear width of not less than,

- (a) 760 mm where the door is served by a corridor or space not less than 1 060 mm wide, and
- (b) 810 mm where the door is served by a corridor or space less than 1 060 mm wide.

Glass: Division B, 9.6.

New Section 9.6. consolidates requirements for glass:

- Application
- Material Standards
- Structural Sufficiency
- Types and Protection

Application: Division B, 9.7.1.1.(2) & (3)

For the purpose of Section 9.7., “skylight” and “doors” defined to mean:

“skylight” refers to unit skylights, roof windows and tubular daylighting devices

“doors” includes glazing in doors and sidelights for doors

(2) For the purpose of this Section, the term “skylight” refers to unit skylights, roof windows and tubular daylighting devices.

(3) For the purpose of this Section, the term “doors” includes glazing in doors and sidelights for doors.

Other Requirements for Windows, Doors and Skylights: Division B, 9.7.2.2.

Refers to requirements found elsewhere in Part 9 for windows, doors and skylights, including:

- ventilation
- means of egress
- access to a building

- protection of windows
- flame-spread rating for doors

(1) Windows and skylights installed to provide required non-heating season ventilation shall conform to Article 9.32.2.1.

(2) Windows and doors installed to provide the required *means of egress* from bedrooms shall conform to Subsection 9.9.10.

(3) Windows and doors installed to provide the required access to a *building* for firefighting purposes shall conform to Subsection 9.10.20.

(4) The protection of window and door openings against persons falling through the window or door opening shall conform to Article 9.8.8.1.

(5) Minimum sizes of doorways and doors within a *barrier-free* path of travel shall conform to Section 9.5.

(6) The location and protection of windows, doors and skylights in order to control the spread of fire shall conform to Subsection 9.10.12.

(7) Doors between *dwelling units* and attached garages shall conform to Article 9.10.13.15.

(8) The surface *flame-spread rating* for doors and skylights shall conform to Article 9.10.17.1.

(9) Properties of windows and doors within *exits* shall conform to Section 9.9.

General Performance Criteria: Division B, 9.7.3.1.

Sets criteria for windows, doors and skylights when in the closed position, including:

- Resist rain ingress
- Resist wind loads
- Control air leakage
- Resist ingress of insects and vermin
- Resistance to forced entry
- Easily operable, unless fixed units

(1) Except as provided in Sentences (2) to (4), windows, doors and skylights and their components separating *conditioned space* from unconditioned space or the exterior shall be designed, constructed and installed so that, when in the closed position, they,

(a) resist the ingress of precipitation into interior space,

- (b) resist wind loads,
 - (c) control air leakage,
 - (d) resist the ingress of insects and vermin,
 - (e) where required, resist forced entry, and
 - (f) are easily operable, unless they are fixed units.
- (2) Skylights and their components shall be designed, constructed and installed so that, when in the closed position, they resist snow loads.
- (3) Main entrance doors and their components shall be designed, constructed and installed so that, when in the closed position, they,
- (a) control air leakage,
 - (b) resist the ingress of insects and vermin,
 - (c) resist forced entry, and
 - (d) are easily operable.
- (4) Storm doors, sliding doors and their components shall be designed, constructed and installed so that, when in the closed position, they,
- (a) resist wind loads,
 - (b) control air leakage to a minimum allowable 5 m³h/m and a maximum allowable 8.35 m³h/m,
 - (c) resist the ingress of insects and vermin, and
 - (d) are easily operable.
- (5) Compliance with the performance requirements described in Sentences (1) to (4) shall be demonstrated by,
- (a) compliance with the requirements in,
 - (i) Subsection 9.7.4. or 9.7.5., and
 - (ii) Subsection 9.7.6., or
 - (b) design and construction conforming to Part 5.

Heat Transfer Performance: Division B, 9.7.3.2.

Sets requirements to control condensation on windows, doors and skylights and ensure comfortable conditions for the occupants.

- (1) Windows, doors and skylights described in Clause 9.7.1.1.(1)(a) and their components shall be designed, constructed and installed to,
- (a) minimize surface condensation on the warm side of the component, and
 - (b) ensure comfortable conditions for the occupants.

(2) Compliance with the heat transfer performance requirements described in Sentence (1) shall be demonstrated by,

- (a) compliance with the requirements in Article 9.7.3.3., or
- (b) design and construction conforming to Part 5.

Thermal Characteristics of Windows, Doors and Skylights: Division B, 9.7.3.3. & Table 9.7.3.3

Maximum thermal transmittance (U-value) or minimum temperature index (I) for windows, doors and skylights have been introduced.

(1) Except as permitted in Sentence (2), metal frames and sash of windows, doors and skylights shall incorporate a thermal break.

(2) Windows and doors described in Sentence (1) do not require a thermal break where they are installed as,

- (a) vehicular access doors,
- (b) storm windows and doors, or
- (c) windows and doors that are required to have a *fire-resistance rating*.

(3) Windows, doors and skylights, with or without storm doors or sash, that are installed in *buildings* where the intended use of the interior space will not result in high moisture generation shall have a maximum thermal transmittance (U-value) or minimum temperature index (I) in accordance with Table 9.7.3.3.

(4) Windows, doors and skylights, with or without storm doors or sash, that are installed in portions of *buildings* where the intended use of the interior space will result in high moisture generation shall be designed in conformance with Subsection 5.3.

Table 9.7.3.3.

Maximum U-value or Minimum Temperature Index (I) for Windows, Doors and Skylights (1) (2) (3)
Forming Part of Sentence 9.7.3.3.(3)

Item	Column 1	Column 2	Column 3	Column 4	Column 5
	Component	2.5% January Design Temperature			
		Between -15°C and -30°C		Colder than -30°C	
		max. U-value, W/m ² K	min. I	max. U-value, W/m ² K	min. I
1.	Windows and Doors	2.0	68	1.7	77
2.	Skylights	3.0	(2)	2.7	(2)

Notes to Table 9.7.3.3.:

- (1) U-values for specific products can be determined according to measures referenced in AAMA/WDMA/CSA 101/I.S.2/A440, "NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights". Temperature index (I) is determined according to the physical test procedure given in CSA A440.2/A440.3, "Fenestration Energy Performance/User Guide to CSA A440.2-09, Fenestration Energy Performance".
- (2) There is no appropriate test procedure available for testing the condensation resistance of sloped glazing.
- (3) Where the U-value in this Table differs from the U-value provided in MMAH Supplementary Standard SB-10, "Energy Efficiency Requirements" or MMAH Supplementary Standard SB-12, "Energy Efficiency for Housing", the most restrictive U-value shall apply.

Manufactured and Site-Built Windows, Doors and Skylights: Division B, 9.7.4. & 9.7.5.

New Subsections added with requirements for manufactured and site-built windows, doors and skylights.

9.7.4.1. Application

(1) This Subsection applies to windows, doors and skylights that are within the scope of AAMA/WDMA/CSA 101/I.S.2/A440, "NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights".

9.7.4.2. General

(1) Manufactured and pre-assembled windows, doors and skylights and their installation shall conform to,

- (a) AAMA/WDMA/CSA 101/I.S.2/A440, "NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights",
- (b) CSA A440S1, "Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440, NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights",
- (c) this Subsection, and
- (d) the applicable requirements in Subsection 9.7.6.

9.7.5.1. Application and Compliance

(1) Materials, design, construction and installation of windows, doors and skylights that separate *conditioned space* from unconditioned space or the exterior but that are not within the scope of

AAMA/WDMA/CSA 101/I.S.2/A440, "NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights" shall,

- (a) conform to,
 - (i) this Subsection or Subsection 9.7.4., and
 - (ii) the applicable requirements in Subsection 9.7.6., or
- (b) conform to Part 5.

(2) Glass for site-built windows, doors, sidelights for doors, and skylights shall comply with Section 9.6.

Sealants, Trim and Flashing: Division B, 9.7.6.2.

Sealants, trim and flashing requirements for windows, skylights and doors have been consolidated in this new Article.

(1) The sealing compound used to seal the glass component of an insulating glazing unit to the sash component shall be compatible with the sealing compound used to edge seal the glass component.

(2) Flashing used to protect openings shall conform to Articles 9.27.3.7. and 9.27.3.8.

(3) Sealants shall be applied between window frames or trim and the exterior cladding or masonry in conformance with Subsection 9.27.4.

(4) All unfinished portions of the frame and other components of aluminum windows, doors or skylights in contact with the edges of masonry, concrete, stucco or plaster shall be protected with an alkali-resistant coating.

Stairs, Ramps, Landings, Handrails and Guards in Garages: Division B, 9.8.1.2.

Requirements for stairs, ramps, landings, handrails and guards within dwelling units have been extended to garages serving single dwelling units.

(1) Except as provided in Sentence 9.8.6.2.(3), stairs, ramps, landings, handrails and guards in a garage that serves a single dwelling unit shall conform to the requirements for stairs, ramps, landings, handrails and guards with a dwelling unit.

Stair Width: Division B, 9.8.2.1.(3)

Width requirements for exit stairs and public stairs in non-residential buildings have been added:

- Based on 8mm per person
- But not less than 900mm

Height over Stairs: Division B, 9.8.2.2.

Article amended to clarify how the clear height over stairs is determined.

(1) The clear height over stairs shall be,

(a) measured vertically, over the clear width of the stair, from a straight line tangent to the tread and landing nosings to the

lowest point above, and

(b) not less than,

(i) 1 950 mm for stairs serving a single *dwelling unit*, and

(ii) 2 050 mm for stairs not serving a single *dwelling unit*.

Dimensions for Risers: Division B, 9.8.4.1.

Sentence revised to clarify how the vertical rise is measured.

Rise, Run and Tread Depth for Rectangular Treads: Division B, Table 9.8.4.1.

Maximum rise, run and tread depth for public stairs have been revised - Table notes have also been amended.

Maximum Rise	180 mm (previously 200 mm)
Maximum Run	No limit (previously 355 mm)
Maximum Tread Depth	No limit (previously 355 mm)

Dimensions for Rectangular Runs and Treads: Division B, 9.8.4.2.

Amended to clarify how the run of a step in a stair is measured.

Uniformity and Tolerances for Risers and Treads: Division B, 9.8.4.4.

Tolerances for risers and treads amended.

(1) Except as provided in Sentence (2), risers shall be of uniform height in any one flight with a maximum tolerance of,

(a) 5mm between adjacent treads or landings, and

(b) 10mm between the tallest and shortest riser in a flight

(3) Treads shall have uniform run with a maximum tolerance of,

(a) 5mm between adjacent treads, and

(b) 10mm between the deepest and shallowest treads in a flight

Ramp Widths: Division B, 9.8.5.2.

Ramp widths amended:

	2012	(2006)
Serving more than one dwelling unit	900 mm	(860 mm)
Exit	900 mm, or 8 mm/person	(900 mm)

Ramp serving other than residential occupancy	900 mm, or 8 mm/person	(900 mm)
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Dimensions of Landings: Division B, 9.8.6.3.

Requirements in Table 9.8.6.3. amended and limits for landing slope introduced.

Table 9.8.6.3.

Dimensions of Landings Forming Part of Sentence 9.8.6.3.(1)

Item	Column 1	Column 2	Column 3	Column 4
	Application	Landing Configuration	Minimum Width, mm	Length, mm
1.	Stairs and ramps serving a single <i>dwelling unit</i>	In straight-run stair or ramp, or landing turning through less than 30°, within a <i>dwelling unit</i>	Width of stair or ramp	Not less than 860
		In straight-run exterior stair or ramp, or exterior landing turning through less than 30°	Width of stair or ramp	Not less than 900
		Landing turning through an angle of 30° or more, but less than 90°	Width of stair or ramp measured at right angle to path of travel	(a) Not less than 230 measured at the inside edge of the landing, and (b) Not less than 370 measured 230 from the inside edge of landing or handrail
		Landing turning through not less than 90°	Width of stair or ramp measured at right angle to path of travel	Not less than width of stair or ramp landing
2.	Stairs and ramps serving other than single <i>dwelling units</i>	In straight-run stair or ramp, or landing turning through less than 30°	Width of stair or clear width of ramp	Lesser of required width of stair or clear width of ramp, or 1 100
		Landing turning through 30° or more	Width of stair or clear width of ramp measured at right angle to path of travel	Not less than width of stair or clear width of ramp

(5) The slope of landings shall not exceed 1 in 50.

Required Handrails: Division B, 9.8.7.1.

Handrail requirements summarized in Table 9.8.7.1. and requirements for handrails on ramps amended.

(1) Except as provided in Sentence (2) to (4), a handrail shall be installed on stairs and ramps in conformance with Table 9.8.7.1.

(2) Where a stair or a ramp is required to be at least 2 200 mm wide due to the *occupant load*, a handrail shall be installed

such that no position on the stair or ramp is more than 825 mm from a handrail.

(3) A handrail is not required for stairs and ramps serving a single *dwelling unit*, where,

- (a) interior stairs have not more than two risers,
- (b) exterior stairs have not more than three risers, or
- (c) ramps rise not more than 400 mm.

Table 9.8.7.1. of Division B of the Regulation is revoked and the following substituted: (O.Reg. 361/13)

Table 9.8.7.1.
Handrails for Stairs and Ramps
Forming Part of Sentence 9.8.7.1.(1)

Item	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
	Location of Stair or Ramp	Handrails Serving Stairs			Handrails Serving Ramps	
		Stairs < 1 100 mm Wide		Stairs \geq 1 100 mm Wide	Ramps < 1 100 mm Wide	Ramps \geq 1 100 mm Wide
		Straight	Curved	All	Straight or Curved	All
		Number of Sides Required to have a Handrail				
1.	Within a dwelling unit	1	1	1	1	2
2.	All other locations	1	2	2	2	2

Height of Handrails: Division B, 9.8.7.4.

Amended to clarify how the height of handrails on stairs and ramps is measured and to increase their minimum height.

(2) Except as provided in Sentence (3) and (4), the height of handrails on stairs and ramps shall be,

- (a) not less than 865mm (2'-10"), and
- (b) not more than 965mm (3'-2")

(4) Handrails installed in addition to required handrails need not comply with Sentence (2)

Height of Guards: Division B, 9.8.8.3.

Amended to clarify how the height of guards on stairs and landings is measured and to increase their minimum height.

(5) Except as provided in Sentence (6), the height of guards shall be not less than ,

(a) 920mm (3'-0") for required exit stairs, and

(b) 1070mm (3'-6") for around landings

(6) The height of guards for exterior stairs and landings more than 10m above adjacent ground level shall be not less than 1500mm (4'-11")

(6) The height of *guards* for exterior stairs and landings more than 10 m above adjacent ground level shall be not less than 1500 mm.

(7) The height of *guards* for stairs and landings shall be measured vertically from the top of the *guard* to,

(a) a straight line drawn tangent to the tread nosings of the stair, or

(b) the surface of the landing.

Guards for Floors and Ramps in Garages: Division B, 9.8.8.4.(2)

New Sentence introducing design load requirements for vehicle guardrails.

(2) Vehicle guardrails shall be designed for a concentrated horizontal load of 22 kN applied outward at any point 500 mm above the floor surface.

Climbing of Guards: Division B, 9.8.8.6.

The 2006 Building Code's prescriptive parameters for guards to not facilitate climbing have been removed.

Shared Egress Facilities: Division B, 9.9.9.3.

Shared means of egress for dwelling units amended to include ramps.

(1) A *dwelling unit* shall be provided with a second and separate *means of egress* where an egress door from the *dwelling unit* opens onto,

(a) an *exit* stairway serving more than one *suite*,

(b) a *public corridor*,

(i) serving more than one *suite*, and

- (ii) served by a single *exit*,
- (c) an exterior passageway,
 - (i) serving more than one *suite*,
 - (ii) served by a single *exit* stairway or ramp, and
 - (iii) more than 1.5 m above adjacent ground level, or
- (d) a balcony,
 - (i) serving more than one *suite*,
 - (ii) served by a single *exit* stairway or ramp, and
 - (iii) more than 1.5 m above adjacent ground level.

Egress Windows or Doors for Bedrooms: Division B, 9.9.10.1.

Requirements for windows or doors on floor levels with bedrooms have been relocated from Section 9.7. of the 2006 Building Code.

Signs: Division B, 9.9.11.

Requirements for signs have been relocated from Subsection 9.9.10. of the 2006 Building Code.

Exit Signs: Division B, 9.9.11.3.

New requirements for exit signs:

- ISO 3864-1 green pictogram
- ISO 7010 directional symbols
- CSA 22.2 #141 for internally illuminated
- CAN/ULC-S572 for photoluminescent and self-luminous
- Continuous illumination when externally illuminated
- Only emergency lighting allowed on same circuit

- (3) Internally illuminated *exit* signs shall be continuously illuminated, and,
 - (a) where illumination of the sign is powered by an electrical circuit, be constructed in conformance with CSA 22.2 No. 141, “Emergency Lighting Equipment”, or
 - (b) where illumination of the sign is not powered by an electrical circuit, be constructed in conformance with CAN/ULC-S572, “Photoluminescent and Self-Luminous Signs and Path Marking Systems”.
- (4) Externally illuminated *exit* signs shall be illuminated at all times by a light fixture supplied by an electrical circuit.
- (5) The circuitry serving lighting for externally and internally illuminated *exit* signs shall,

(a) serve no equipment other than emergency lighting in the area where the *exit* signs are installed, and

(b) be connected to an emergency power supply as described in Sentences 9.9.12.3.(2), (3) and (7).

(6) An *exit* sign conforming to Clauses (2)(b) and (c) with an arrow or other indicator pointing at the direction of egress shall be provided where no *exit* is visible from,

(a) a *public corridor*,

(b) a corridor used by the public, or

(c) a principal route serving an open *floor area* having an *occupant load* of more than 150.

(7) Except for *suite* doors opening directly to the exterior, every *exit* serving a *hotel* shall have an *exit* sign placed over it or adjacent to it.

Application: Division B, 9.9.12.1.(1)

Lighting requirements amended to apply to all means of egress, except in dwelling units.

Required Lighting in Egress Facilities and Emergency Lighting: Division B, 9.9.12.2.(2) & 9.9.12.3.(5)

New minimum illumination levels:

	Average Illumination	Minimum Illumination (NEW)
Non-Emergency Lighting	50 lx	10 lx
Emergency Lighting	10 lx	1 lx

Items Under Part 3 Jurisdiction: Division B, 9.10.1.3.

List of items under Part 3 jurisdiction expanded to include fire pumps.

(8) Sprinkler systems shall be designed, constructed and installed in conformance with Sentence 3.2.5.7.(1), Articles 3.2.5.13.to 3.2.5.16.and Article 3.2.5.18.

(9) Standpipe and hose systems shall be designed, constructed and installed in conformance with Article 3.2.5.18.and Subsection 3.2.9.

(10) Fire pumps shall be installed in conformance with Articles 3.2.5.18.and 3.2.5.19.

Fire-Resistance, Combustibility and Sprinklers in Relation to Occupancy, Height and Supported Elements: Division B, 9.10.8 (O.Reg. 151/13)

The heading to Subsection 9.10.8. is revoked and the following substituted:

9.10.8. Fire-Resistance, Combustibility and Sprinklers in Relation to Occupancy, Height and Supported Elements

Subsection 9.10.8. is amended by adding the following Article:

9.10.8.4. Automatic Sprinkler Systems

(1) A retirement home regulated under the *Retirement Homes Act, 2010* shall be *sprinklered* in accordance with Sentence 9.10.1.3.(8).

Penetration of Fire Separations: Division B, 9.10.9.6.

Additional types of penetrations detailed:

- All penetrations in firewalls must have a fire stop with an FT rating
- Single conductor wire penetrations to be spaced at least 300 mm apart
- No size limit for combustible water distribution pipe penetrations when a fire stop is provided
- No fire stop required for sprinkler piping penetrations when an escutcheon plate is provided
- Fire dampers don't need a fire stop if installed as per NFPA 80 or are designed specifically with a fire stop

Combustible Piping: Division B, 9.10.9.7(2) (O.Reg. 361/13)

Sentence 9.10.9.7.(2) is amended by striking out "firestop system" and substituting "fire stop".

Appliances and Equipment to be Located in a Service Room: Division B, 9.10.10.4.(3)

Clarifies that cooking appliances don't need to be located in service rooms.

Portable Extinguishers: Division B, 9.10.20.4. (O.Reg. 361/13)

Article 9.10.20.4. is revoked and the following substituted:

9.10.20.4. Portable Fire Extinguishers.

(1) Portable fire extinguishers shall be installed in all buildings, except within dwelling units, in conformance with the provisions of the Fire Code made under the Fire Protection and Prevention Act, 1997.

Fire Blocks: Division B, 9.10.16.

The references to fire stop(s) have been replaced with fire block(s)

Division A - 1.4.1.2.

Fire Block means a material, component or system that restricts the spread of fire within a concealed space or from a concealed space to an adjacent space.

Fire Stop means a system consisting of a material, component and means of support, used to fill gaps between *fire separations* or between *fire separations* and other assemblies, or used around items that wholly or partially penetrate a *fire separation*.

(2) Penetrations of a *firewall* shall be sealed at the penetration by a *fire stop* that, when subjected to the fire test method in

CAN/ULC-S115, "Fire Tests of Firestop Systems", has an FT rating not less than the *fire-resistance rating* for the *fire separation*.

(5) Single conductor metal-sheathed cables with *combustible* jacketing that are more than 25 mm in overall diameter are

permitted to penetrate a *fire separation* required to have a *fire-resistance rating* without being incorporated in the assembly at the time of testing as required in Sentence (3), provided the cables are not grouped and are spaced a minimum of 300 mm apart.

(11) Sprinklers are permitted to penetrate a *fire separation* or a membrane forming part of an assembly required to have a *fire resistance rating* without having to meet the *fire stop* requirements of Sentence (1), provided the annular space created by the penetration of a fire sprinkler is covered by a metal escutcheon plate in accordance with NFPA 13, "Installation of Sprinklers".

(13) *Fire dampers* are permitted to penetrate a *fire separation* or a membrane forming part of an assembly required to have a *fire-resistance rating* without having to meet the *fire stop* requirements of Sentence (1), provided the *fire damper* is,

(a) installed in conformance with NFPA 80, "Fire Doors and Other Opening Protectives," or

(b) designed specifically with a *fire stop*.

Design and Installation Requirements: Division B, 9.10.18.3.

Clarifies which Part 3 requirements apply to the design and installation of fire alarm, fire detector and smoke detection devices and systems.

(1) Except as provided in Sentence (2), fire alarm, fire detection and smoke detection devices and systems, and their

installation, shall conform to Subsection 3.2.4. and Articles 3.2.7.8. and 3.2.7.10.

(2) Articles 3.2.4.1., 3.2.4.11., 3.2.4.12., 3.2.4.13., 3.2.4.14., 3.2.4.22. and 3.2.4.23. do not apply to Part 9 *buildings*.

Rooms and Spaces Requiring Heat Detectors or Smoke Detectors: Division B, 9.10.18.4.(2)

Clarifies where fire detectors are required.

(2) Except as provided in Sentence (3), if a fire alarm system is required in a *building*, *fire detectors* shall be installed in the following spaces:

- (a) storage rooms not within *dwelling units*,
- (b) *service rooms* not within *dwelling units*,
- (c) janitors' rooms,
- (d) rooms in which hazardous substances are to be used or stored,
- (e) elevator hoistways, chutes and dumbwaiter shafts, and
- (f) laundry rooms in *buildings of residential occupancy*, except those within *dwelling units*.

Central Vacuum Systems: Division B, 9.10.18.7.

Automatic shut down of central vacuum cleaning systems serving more than one suite or storey in a building equipped with a fire alarm system upon activation of the fire alarm system.

(1) A central vacuum cleaning system serving more than one *suite* or *storey* in a *building* equipped with a fire alarm system shall be designed to shut down upon activation of the fire alarm system.

Commissioning of Life Safety and Fire Protection Systems: Division B, 9.10.18.10.

Requirements for commissioning of life safety and fire protection systems have been added.

(1) Where life safety and fire protection systems are installed to comply with the provisions of this Code or the Fire Code made under the *Fire Protection and Prevention Act, 1997*, the commissioning of these integrated systems must be performed as a whole to ensure the proper operation and inter-relationship of the systems.

(2) Sentence (1) does not apply to a *building* that contains only *dwelling units* and has no *dwelling unit* above another *dwelling unit*.

Sound Patterns of Smoke Alarms: Division B, 9.10.19.2.

The sound patterns of smoke alarms are now required to meet the temporal patterns of alarm signals, or be a combination of temporal pattern and voice relay.

- (1) The sound patterns of smoke alarms shall,
- (a) meet the temporal patterns of alarm signals, or
 - (b) be a combination of temporal pattern and voice relay

Location of Smoke Alarms: Division B, 9.10.19.3.

Smoke alarms are now also required within each sleeping room of a dwelling unit.

- (1) Within dwelling units, sufficient smoke alarms shall be installed so that,
- (a) there is at least one smoke alarm installed on each storey , including basements, and
 - (b) on any storey of a dwelling unit containing sleeping rooms, a smoke alarm is installed,
 - (i) in each sleeping room, and
 - (ii) in a location between the sleeping rooms and the remainder of the storey, and if the sleeping rooms are served by a hallway, the smoke alarm shall be located in the hallway

9.15.4.2.

Power Supply: Division B, 9.10.19.4.

(1) Except as provided in Sentences (2) and (3), smoke alarms required in Sentence 9.10.9.1.(1) shall,

(c) in case the regular power supply to a smoke alarm is interrupted, be provided with a battery as an alternative power source that can continue to provide power to the smoke alarm for a period of not less than 7 days in the normal condition, followed by 4 minutes of alarm

Power Supply: Division B, 9.10.19.4.(3) & (4)

Smoke detectors are permitted instead of smoke alarms, if the smoke detectors:

- Form part of the fire alarm system;
- Are capable of independently sounding audible signals within individual suites; and
- Are installed in conformance with CAN/ULC-S524, but need not sound an alarm throughout the building if they sound localized alarms within individual suites

Silencing of Smoke Alarms: Division B, 9.10.19.6.(2)

Manual alarm silencing device not required when smoke detectors installed as part of a fire alarm system.

(2) *Suites of residential occupancy* equipped with *smoke detectors* installed to CAN/ULC-S524, “Installation of Fire Alarm Systems”, which are part of the fire alarm system in lieu of *smoke alarms* as permitted in Sentence 9.10.19.4.(3), need not incorporate the manually operated device required in Sentence (1).

Fire Protection for Gas, Propane and Electric Cooktops: Division B, 9.10.22.

Clarifies that clearances for combustible framing, finishes and cabinetry apply to *cooktops*.

Moisture Protection for Interior Finishes: Division B, 9.13.2.6.

Interior moisture protection requirements for foundation walls have been clarified.

(1) The interior surface of *foundation* walls below ground level shall be protected by means that minimize the ingress of moisture from the *foundation* wall into interior spaces where,

(a) a separate interior finish is applied to a concrete or unit masonry wall that is in contact with the *soil*, or

(b) wood members are placed in contact with such walls for the installation of insulation or finish.

(2) Except as provided in Sentence (3), where the protection of interior finishes required in Sentence (1) consists of membranes or coatings,

(a) the membrane or coating shall extend from the *basement* floor surface up to the highest extent of the interior insulation or finish, but not higher than the exterior finished ground level, and

(b) no membrane or coating with a permeance less than $170 \text{ ng}/(\text{Pa}\cdot\text{s}\cdot\text{m}^2)$ shall be applied to the interior surface of the *foundation* wall above ground level between the insulation and the *foundation* wall.

(3) Where insulation functions as both moisture protection for interior finishes and as a *vapour barrier* in accordance with Subsection 9.25.4., it shall be applied over the entire interior surface of the *foundation* wall.

Sump Pits: Division B, 9.14.5.2.(2)(b)

Sump pit covers must now be sealed to maintain the continuity of the air barrier system.

(2) Covers for sump pits shall be,

(a) designed to resist removal by children, and

(b) sealed in accordance with Sentence 9.25.3.3.(16).

Foundation Walls: Division B, 9.15.4.

Maximum unsupported height of foundation walls in Part 9 tables increased from 2.5 m to 3.0 m.

(1) Except as required in Sentence (2), the thickness of foundation walls made of unreinforced concrete block or solid concrete and subject to lateral earth pressure shall conform to Table

9.15.4.2.A. for walls not exceeding 3.0m (9'-10") in unsupported height.

Fire Protection: Division B, 9.18.7.1. (O.Reg. 361/13)

Article 9.18.7.1. is amended by adding the following Sentence:

- (4) Noncombustible material described in Sentence (3) shall,
- (a) extend not less than 300 mm beyond the projection of a register opening, and
 - (b) have turned-up edges.

Access: Division B, 9.19.2.1.

Access requirements for attics and roof spaces containing a fuel-fired appliance have been introduced.

Standards for Nails and Screws: Division B, 9.23.3.1 (O.Reg. 361/13)

Article 9.23.3.1. is revoked and the following substituted:

9.23.3.1. Standards for Nails and Screws

- (1) Except as provided in Sentence (2) and elsewhere in this Part, nails specified in this Section shall be common steel wire nails or common spiral nails, conforming to,
- (a) ASTM F1667, "Driven Fasteners: Nails, Spikes and Staples", or
 - (b) CSA B111, "Wire Nails, Spikes and Staples".
- (2) Nails used to comply with Table 9.23.3.4. shall have a diameter not less than that required by Table 9.23.3.1.

Table 9.23.3.1.

Diameter of Nails for Framing

Forming Part of Sentence 9.23.3.1.(2)

Item	Column 1 Minimum Length of Nails, mm	Column 2 Minimum Diameter of Nails, mm
1.	57	2.87
2.	62	3.25
3.	76	3.66
4.	82	3.66
5.	101	4.88

- (3) Wood screws specified in this Section shall conform to ANSI/ASME B18.6.1., "Wood Screws (Inch Series)".

Fastening for Sheathing or Subflooring: Division B, 9.23.3.5.(5)

Maximum spacing of fasteners set at 150 mm along edges and intermediate supports when supports are spaced more than 406 mm o.c.

(5) Where roof sheathing supports are spaced at more than 406mm (16") o.c., the maximum spacing of fasteners for roof sheathing shall be 150mm (6") along the edges and intermediate supports

Steel Beams: Division B, 9.23.4.3 (O.Reg. 361/13)

Sentence 9.23.4.3.(2) is amended by striking out "Structural Quality Steel" at the end and substituting "General Requirements for Rolled or Welded Structural Quality Steel".

Anchorage of Smaller Buildings: Division B, 9.23.6.3 (O.Reg. 361/13)

Sentence 9.23.6.3.(1) is amended by striking out "CAN/CSA-Z240.10.1, "Site Preparation, Foundation and Anchorage of Mobile Homes" at the end and substituting "CSA Z240.10.1, "Site Preparation, Foundation and Anchorage of Manufactured Homes".

Screws: Division B, 9.24.1.4.(1)(a)

ASTM C954 standard for steel drill screws has been introduced.

Steel Studs for Non-Loadbearing Interior Walls: Division B, Table 9.24.2.1.

Steel stud table amended and table note added for consistency with the current design standard CAN/CSA-S136.

Scope and Application: Division B, 9.25.1.1.

Section on heat transfer, air leakage and condensation control no longer limited to buildings of residential occupancy.

(1) This Section applies to heat, air and water vapour transfer and measures to control condensation.

(2) All walls, ceilings and floors separating *conditioned space* from unconditioned space, the exterior air or the ground shall be,

(a) provided with,

(i) thermal insulation conforming to Subsection 9.25.2.,

(ii) an *air barrier system* conforming to Subsection 9.25.3., and

(iii) a *vapour barrier* conforming to Subsection 9.25.4., and
(b) constructed in such a way that the properties and relative position of all materials conform to Subsection 9.25.5.

Vapour Barrier Materials: Division B, 9.25.4.2.(6)

Requirements for insulation that functions as the vapour barrier introduced.

(6) Where insulation functions as the *vapour barrier*, it shall be sufficiently thick so as to meet the requirement of Sentence (1).

Installation of Vapour Barriers: Division B, 9.25.4.3.(3)

Clarify location requirements for insulation used as a vapour barrier.

(3) Where the same product is used for the *vapour barrier* and the insulation, the product shall be installed sufficiently close to the warm side of the assembly to prevent condensation at design conditions.

Nails: Division B, 9.26.2.2 (O.Reg. 361/13)

Sentence 9.26.2.2.(1) is revoked and the following substituted:

(1) Nails used for roofing shall be corrosion-resistant roofing or shingle nails conforming to,
(a) ASTM F1667, "Driven Fasteners: Nails, Spikes and Staples", or
(b) CSA B111, "Wire Nails, Spikes and Staples".

Starter Strip: Division B, 9.26.7.2.(2)(c)

Pre-manufactured starter strips permitted under asphalt shingles.

(2) Starter strips shall be,
(a) at least Type M mineral-surfaced roll roofing not less than 300 mm wide,
(b) shingles of the same weight and quality as those used as a roof covering with tabs facing up the roof slope, or
(c) pre-manufactured starter strips installed with sealant at the eaves.

Cladding General: Division B, 9.27.1.1. (O.Reg. 361/13)

Sentence 9.27.1.1.(5) is revoked and the following substituted:

(5) Where an exterior insulation finish system is installed as cladding on wood-frame, masonry, cold-formed steel stud or cast-in-place concrete walls exposed to precipitation, the cladding assembly shall comply with,

- (a) Subsections 9.25.5., 9.27.2. to 9.27.4. and 9.27.13., or
- (b) Part 5.

(6) Where cladding materials or systems other than those described in Sentences (1) to (5) are installed, or where these are installed on substrates other than those identified in Sentences (1) to (5), the cladding materials or systems and their installation shall comply with Part 5.

Second Plane of Protection: Division B, 9.27.3.1. (O.Reg. 361/13)

Sentence 9.27.3.1.(2) is revoked and the following substituted:

(2) The inner boundary of the drainage plane shall comply with,

- (a) Articles 9.27.3.2. to 9.27.3.6., or
- (b) Subsection 9.27.13.

Sealants: Division B, 9.27.4.

CGSB caulking standards replaced with ASTM sealant standards and backer rod requirements introduced.

(3) Backer rod shall conform to ASTM C1330, "Cylindrical Sealant Backing for Use with Cold Liquid-Applied Sealants".

Exterior Insulation Finish Systems: Division B, 9.27.13. (O.Reg. 361/13)

Section 9.27. is amended by adding the following Subsection:

9.27.13. Exterior Insulation Finish Systems

9.27.13.1. Application

(1) Except as provided in Sentence (2), this Subsection applies to exterior insulation finish systems that,

- (a) are covered in the scope of CAN/ULC-S716.1, "Exterior Insulation and Finish Systems (EIFS) – Materials and Systems", and
- (b) have a geometrically defined drainage cavity with a minimum cavity depth of 6 mm and an open area equal to not less than 13% of the area of a full-size exterior insulation finish systems panel.

(2) Exterior insulation finish systems not described in Sentence (1) and their components shall comply with Article 5.10.3.1.

9.27.13.2. Materials

(1) The materials used in exterior insulation finish systems shall conform to CAN/ULC-S716.1, "Exterior Insulation and Finish Systems (EIFS) – Materials and Systems".

(2) The substrate on which an exterior insulation finish system is installed shall,

(a) be compatible with that particular system, and

(b) comply with the structural requirements for sheathing materials set out in Section 9.23.

9.27.13.3. Design and Installation

(1) The design of an exterior insulation finish system shall comply with CAN/ULC-S716.3, "Exterior Insulation and Finish Systems (EIFS) – Design Application".

(2) The installation of an exterior insulation finish system shall comply with CAN/ULC-S716.2, "Exterior Insulation and Finish Systems (EIFS) – Installation of EIFS Components and Water Resistive Barrier".

Nails: Division B, 9.29.5.6. (O.Reg. 361/13)

Article 9.29.5.6. is revoked and the following substituted:

9.29.5.6. Nails

(1) Nails for fastening gypsum board to wood supports shall conform to,

(a) ASTM F1667, "Driven Fasteners: Nails, Spikes and Staples", or

(b) CSA B111, "Wire Nails, Spikes and Staples".

Required Water Supply: Division B, 9.31.3.1.

Dwelling units are required to have a water distribution system when a drinking water system is available.

(1) Every dwelling unit shall be supplied with a water distribution system where a drinking water system is available.

Required Fixtures: Division B, 9.31.4.1.

Drainless composting toilet option introduced for dwelling units

(1) A dwelling unit with a water distribution system shall contain,

(a) a kitchen sink,

- (b) a lavatory,
- (c) a bathtub or shower stall, and
- (d) a water closet or a drainless composting toilet

Protection Against Depressurization: Division B, 9.32.3.8.(3)

Make-up air not required for a subfloor radon depressurization system.

(3) The provision of make-up air is not required for mechanical exhausting devices operating a subfloor depressurization system installed for the purpose of reducing the risk of radon ingress.

Ducts: Division B, 9.32.3.10. (O.Reg. 361/13)

Sentence 9.32.3.10.(4) is revoked and the following substituted:

- (4) Where a duct carrying outdoor air that is not tempered or not mixed with indoor air passes through heated space, it shall be insulated to not less than RSI 0.5 except that, where such a duct is exposed in the heated space for more than 3 m of length in the heated space, it shall be,
- (a) insulated to not less than the values listed in Table 9.32.3.10.A., and
 - (b) provided with a vapour barrier.

Solid Fuel-Burning Appliances: Division B, 9.33.1.2. (O.Reg. 361/13)

Article 9.33.1.2. is amended by adding the following Sentence:

- (2) Solid fuel-burning stoves, furnaces and hydronic heating systems designed to burn solid fuels, other than coal, shall conform to the particulate emission limits of,
- (a) CSA B415.1, "Performance Testing of Solid-Fuel-Burning Heating Appliances", or
 - (b) the "Standards of Performance for New Residential Wood Heaters", set out in Subpart AAA of Part 60 of Title 40 of the Code of Federal Regulations, published by the United States Environmental Protection Agency, as it read on November 1, 2013.

Equipment Sizing: Division B, 9.33.2.2.(3)

The method for determining residential indoor heating and cooling equipment capacity has been amended to require conformance with the CAN/CSA-F280 standard.

(3) The heating and cooling equipment capacities shall be determined in accordance with the requirements of CAN/CSAF280-M, “Determining the Required Capacity of Residential Space Heating and Cooling Appliances”.

Location of Carbon Monoxide Alarms: Division B, 9.33.4.2.

The term “detector” has been replaced with the term “alarm” and the manufacturer’s recommended installation height has been added.

- (5) A carbon monoxide alarm shall be mechanically fixed,
- (a) at the manufacturer’s recommended height, or
 - (b) in the absence of specific instructions, on or near the ceiling.

Wiring and Cables: Division B, 9.34.1.5.(1)

Introduces new fire safety requirements for optical fibre cables, electrical wiring and cables.

- (1) Except for *dwelling units* and except as required in Sentence (2), optical fibre cables and electrical wires and cables installed in *buildings* permitted to be of *combustible construction* shall,
- (a) not convey flame or continue to burn for more than 1 min when tested in conformance with the Vertical Flame Test in Clause 4.11.1. of CSA C22.2 No. 0.3, “Test Methods for Electrical Wires and Cables”, (FT1 rating), or
 - (b) be located in,
 - (i) totally enclosed *noncombustible* raceways,
 - (ii) masonry walls,
 - (iii) concrete slabs, or
 - (iv) totally enclosed non metallic raceways conforming to Clause 3.1.5.20.(1)(b).

Lighting of Entrances: Division B, 9.34.2.1.(2)

Introduces new control requirements for exterior lighting for:

- Entrances serving multiple suites of residential occupancy
- Multiple dwelling unit entrances
- Hotels
- Motels

- (2) The exterior lighting outlet with fixture required by Sentence (1) may be controlled by a wall switch or panel accessible to authorized personnel only, where it serves,
- (a) a *building* entrance serving multiple *suites of residential occupancy*,

- (b) multiple *dwelling unit* entrances,
- (c) *hotels*, or
- (d) motels.

Maximum Spans: Division B Tables A-1 to A-7

Member spacing in Tables changed:

From	To
300 mm	305 mm
400 mm	406 mm
600 mm	610 mm

Public and Service Areas: Division B 9.34.2.7. (O.Reg. 361/13)

Items 7, 8 and 9 of Table 9.34.2.7. are revoked and the following substituted:

7.	Hallways, corridors, stairways and sleeping areas in recreational camps and camps for housing of workers	100	10
8.	Kitchen in recreational camps and camps for housing of workers	500	50
9.	All other rooms in recreational camps and camps for housing of workers	250	25

Additional Requirements for Change of Use: Division B 9.40.1.1. (O.Reg. 151/13)

Sentence 9.40.1.1.(1) is revoked and the following substituted:

9.40.1.1. Application

(1) This Section applies where proposed *construction* in respect of an existing *building* will result in any of the following changes of use of all or part of the *building*:

- (a) a change of the *major occupancy* of all or part of a *building* that is designated with a “Y” in Table 1.3.1.4. of Division C,
- (b) a *suite* of a Group C *major occupancy* is converted into more than one *suite* of a Group C *major occupancy*,
- (c) a *farm building* or part of a *farm building* is changed to a *major occupancy*,
- (d) a *building* or part of a *building* is changed to a *post-disaster building*,
- (e) a *building* or part of a *building* is changed to a retirement home regulated under the *Retirement Homes Act, 2010*, or
- (f) the use of a *building* or part of a *building* is changed and the previous *major occupancy* of the *building* or part of the *building* cannot be determined.

Sentence 9.40.1.1.(2) is amended by striking out “Clauses (1)(b) to (e)” and substituting “Clauses (1)(b) to (f)”.

Additional Construction: Division B 9.40.2.1 (O.Reg. 151/13)

Sentence 9.40.2.1.(1) is amended by striking out “Clauses 9.40.1.1.(1)(a) to (d)” and substituting “Clauses 9.40.1.1.(1)(a) to (e)”.

Division B, Part 10

Change in Major Occupancy: Division B, 10.1.1.2. (O.Reg. 151/13)

Sentence 10.1.1.2.(1) is revoked and the following substituted:

10.1.1.2. Change in Major Occupancy

(1) The following changes of use are also deemed to be a change in *major occupancy* for the purposes of this Part:

- (a) a *suite* of a Group C *major occupancy* is converted into more than one *suite* of a Group C *major occupancy*,
- (b) a *suite* or part of a *suite* of a Group A, Division 2 or Group A, Division 4 *major occupancy* is converted to a *gaming premises*,
- (c) a *farm building* or part of a *farm building* is changed to a *major occupancy*,
- (d) a *building* or part of a *building* is changed to a *post-disaster building*,
- (e) a *building* or part of a *building* is changed to a retirement home regulated under the *Retirement Homes Act, 2010*, or
- (f) the use of a *building* or part of a *building* is changed and the previous *major occupancy* of the *building* or part of the *building* cannot be determined.

General Requirements: Division B, 10.3.1.1.(1)

Scope expanded to include additional referenced provisions including: 6.2.2.1.(2), 6.2.3.9.(1), 6.2.4.7.(1), 9.6.1.4.(3) to (4), and 9.8.8.1.(5) to (9).

Reduction in Performance Level: Division B, 10.3.2.2.

New Sentence (12) addressing reductions in performance levels for changes of use to a retirement home to harmonize with the Retirement Homes Act. (O. Reg. 151/13).

(12) The *performance level* of an existing *building* or part of an existing *building* is reduced where,

(a) the use of the *building* or part of the *building* is changed to a retirement home regulated under the *Retirement Homes Act*,

2010, and

(b) any of the following applies:

- (i) the retirement home is not *sprinklered*,
- (ii) Clause 3.2.6.8.(1)(b) or (c), as applicable, requires that a voice communication system conforming to Article 3.2.4.23. be provided in the *building* and such a system is not provided in the *building*, or

(iii) the retirement home contains one or more doors to *suites* or sleeping rooms not within *suites*, other than doors leading directly to the exterior, that are not equipped with self-closing devices.

Reduction in Performance Level: Division B, 10.3.2.2. (O.Reg. 151/13)

Article 10.3.2.2. is amended by adding the following Sentence:

(12) The *performance level* of an existing *building* or part of an existing *building* is reduced where,

(a) the use of the *building* or part of the *building* is changed to a retirement home regulated under the *Retirement Homes Act, 2010*, and

(b) any of the following applies:

(i) the retirement home is not *sprinklered*,

(ii) Clause 3.2.6.8.(1)(b) or (c), as applicable, requires that a voice communication system conforming to Article 3.2.4.23. be provided in the *building* and such a system is not provided in the *building*, or

(iii) the retirement home contains one or more doors to *suites* or sleeping rooms not within *suites*, other than doors leading directly to the exterior, that are not equipped with self-closing devices.

Division B, Part 11

Hazard Index: Division B, Table 11.2.1.1.

Note (6) to Table 11.2.1.1.G. of Division B of the Regulation is revoked and the following substituted:

(6) Immobile means patients are attached to life support systems and cannot be moved. Non-Ambulatory means patients are confined to bed and require transportation. Ambulatory means patients may walk on their own.

Note (6) to Table 11.2.1.1.H. of Division B of the Regulation is revoked and the following substituted:

(6) Non-Ambulatory means patients are confined to bed and require transportation. Ambulatory means patients may walk on their own.

Basic Renovation: Division B, 11.3.3.1. (O.Reg. 151/13)

Sentence 11.3.3.1.(2) is revoked and the following substituted:

(2) *Construction* in respect of a *hotel*, a Group B, Division 3 *occupancy* or a retirement home regulated under the *Retirement Homes Act, 2010* that is a Group C *occupancy* may be carried out in accordance with Sentence (1) only if the *construction* will be in conformance with the Fire Code made under the *Fire Protection and Prevention Act, 1997*.

Extensive Renovation: Division B, 11.3.3.2. (O.Reg. 151/13)

Article 11.3.3.2. is amended by adding the following Sentence:

(5) Where existing interior walls or ceilings or floor assemblies or roof assemblies are substantially removed and new interior walls, ceilings, floor assemblies or roof assemblies are installed in an existing *building* or part of an existing *building* that is a retirement home regulated under the *Retirement Homes Act, 2010*, the following requirements apply:

- (a) the retirement home shall be *sprinklered*,
- (b) a voice communication system conforming to Article 3.2.4.23. shall be provided in the *building*, if Clause 3.2.6.8.(1)(b) or (c), as applicable, requires that such a voice communication system be provided in the *building*, and

(c) doors to *suites* and sleeping rooms not within *suites* in the retirement home, other than doors leading directly to the exterior, shall be equipped with self-closing devices.

Sewage Systems: Division B, 11.3.5.2. (O.Reg. 361/13)

Subsection 11.3.5. is amended by adding the following Article:

11.3.5.2. Vertical Separations and Existing Sewage Systems

(1) Despite Subsections 11.3.1. to 11.3.3., where an existing sewage system is extended or is subject to material alteration or repair, the requirements respecting the vertical separation to the water table set out in Part 8 apply to the extended, altered or repaired portions of the sewage system as well as to the existing portions of the sewage system.

Change of Major Occupancy: Division B, 11.4.2.3. (O.Reg. 151/13)

Sentence 11.4.2.3.(1) is revoked and the following substituted:

11.4.2.3. Change of Major Occupancy

(1) Except as provided in Sentence 11.4.2.5.(4), the *performance level* of an existing *building* is reduced where proposed *construction* will result in,

- (a) the change of the *major occupancy* of all or part of an existing *building* to another *major occupancy* of a greater *hazard index*,
- (b) the conversion of a *suite* of a Group C *major occupancy* into more than one *suite* of Group C *major occupancy*,
- (c) the conversion of a *suite* or part of a *suite* of a Group A, Division 2 or a Group A, Division 4 *major occupancy* into a *gaming premises*,
- (d) the change of a *farm building* or part of a *farm building* to a *major occupancy*,
- (e) the change of a *building* or part of a *building* to a *post-disaster building*,
- (f) the change of a *building* or part of a *building* to a retirement home regulated under the *Retirement Homes Act, 2010*, or
- (g) the change in use of a *building* or part of a *building* where the previous *major occupancy* of the *building* or part of the *building* cannot be determined.

Sentence 11.4.2.3.(2) of Division B of the Regulation is amended by striking out “Clauses (1)(b) to (f)” and substituting “Clauses (1)(b) to (g)”.

Change of Major Occupancy: Division B, 11.4.3.4. (O.Reg. 151/13)

Sentence 11.4.3.4.(1) is amended by striking out “under Sentence 11.4.2.3.(1)” and substituting “under Clause 11.4.2.3.(1)(a), (b), (c), (d), (e) or (g)”.

Article 11.4.3.4. is amended by adding the following Sentence:

(7) Where the *performance level* of an existing *building* is reduced under Clause 11.4.2.3.(1)(f), the following requirements apply:

- (a) the retirement home shall be *sprinklered*,
- (b) a voice communication system conforming to Article 3.2.4.23. shall be provided in the *building*, if Clause 3.2.6.8.(1)(b) or (c), as applicable, requires that such a voice communication system be provided in the *building*, and
- (c) doors to *suites* and sleeping rooms not within *suites* in the retirement home, other than doors leading directly to the exterior, shall be equipped with self-closing devices.

Compliance Alternatives: Division B, Tables 11.5.1.1.A. to F.

Changes, updates, deletions and new items added

A18	3.2.3.6.(3)	Existing roof soffit projections acceptable.
A20	3.2.4.9.(2)(e)	Does not apply to existing installations in <i>buildings</i> .
A21	3.2.4.10.(5)(c)	Does not apply to existing installations in buildings.
B19	3.2.3.6.(3)	Existing roof soffit projections acceptable.
B21	3.2.4.9.(2)(e)	Does not apply to existing installations in buildings.
B22	3.2.4.10.(5)(c)	Does not apply to existing installations in buildings.
C17	3.2.3.6.(3)	Existing roof soffit projections acceptable.
C19	3.2.4.9.(2)(e)	Does not apply to existing installations in buildings.
C20	3.2.4.10.(5)(c)	Does not apply to existing installations in buildings.
C103	9.5.11.1.	Doors may be lesser heights to suit ceiling heights.
C104	9.5.11.2.	Existing acceptable, provided not less than 600 mm.
C199	12.2.1.1.(3)	(a) Where the framing systems are being altered to match the existing framing, lesser amounts and extent of insulation and vapour barrier is acceptable.
DE17	3.2.3.6.(3)	Existing roof soffit projections acceptable.
DE18	3.2.3.17.	Need not comply for “E” occupancy.
DE20	3.2.4.9.(2)(e)	Does not apply to existing installations in buildings.
DE21	3.2.4.10.(5)(c)	Does not apply to existing installations in buildings.
DE84	6.2.3.8.(18)	Existing acceptable
DE85	6.2.3.12.	Existing openings, grilles and diffusers acceptable, subject to approval of chief building official.

DE90	9.6.1.2.(2) and (3); 9.6.1.4.(1) and (2)	Existing doors and sidelights being reused or relocated need not conform if identified or protected.
DE91	9.6.1.4.(3) and (4); 9.8.8.1.(7) and (9)	Existing acceptable.
DE117	9.9.11.3.	Existing illuminated legible signs are acceptable for exit signs, if approved by chief building official.
F18	3.2.3.6.(3)	Existing roof soffit projections acceptable.
F21	3.2.4.9.(2)(e)	Does not apply to existing installations in buildings.
F22	3.2.4.10.(5)(c)	Does not apply to existing installations in buildings.
F91	9.6.1.2.(2) and (3); 9.6.1.4.(1) and (2)	Existing doors and sidelights being reused or relocated need not conform if identified or protected.

Compliance Alternatives: Division B, Tables 11.5.1.1.B. (O.Reg. 151/13)

The heading to Table 11.5.1.1.B. is amended by striking out “Care or Detention Occupancies” and substituting “Care, Care and Treatment or Detention Occupancies”.

Division B, Part 12

General: Division B, Section 12.1.

(1) This Part applies to resource conservation and environmental integrity in the design and *construction of buildings*.

Energy Efficiency Design: Division B, 12.2.1.

Energy Efficiency Design Before January 1, 2017.

(1) This Article applies to *construction* for which a permit has been applied for before January 1, 2017.

(2) Except as provided in Sentences (3) and (4), the energy efficiency of all *buildings* shall conform to Division 1 and Division 2 or 4 of MMAH Supplementary Standard SB-10, "Energy Efficiency Requirements".

(3) Except as provided in Sentence (4), the energy efficiency of a *building* or part of a *building* of *residential occupancy* that is within the scope of Part 9 and is intended for *occupancy* on a continuing basis during the winter months shall,

(a) meet the performance level that is equal to a rating of 80 or more when evaluated in accordance with NRCan, "EnerGuide for New Houses: Administrative and Technical Procedures", or

(b) conform to Chapters 1 and 2 of MMAH Supplementary Standard SB-12, "Energy Efficiency for Housing".

(4) This Article does not apply to,

(a) a *farm building*,

(b) a *building* that does not use electrical power or fossil fuel,

(c) a manufactured *building* described in Article 9.1.1.9., or

(d) a seasonal recreational *building* described in Section 9.36. or 9.38.

Energy Efficiency Design After December 31, 2016: Division B, 12.2.1.2.(2)

All buildings other than Part 9 residential buildings:

If a building permit is applied for on or after January 1, 2017, the building must meet an energy efficiency level that is 13% higher than that required in 2012.

(1) This Article applies to *construction* for which a permit has been applied for after December 31, 2016.

(2) Except as provided in Sentences (3) and (4), the energy efficiency of all *buildings* shall,

(a) be designed to exceed by not less than 13% the energy efficiency levels required by Sentence 12.2.1.1.(2), or

(b) conform to Division 1 and Division 3 or 5 of MMAH Supplementary Standard SB-10, "Energy Efficiency Requirements".

(3) Except as provided in Sentence (4), the energy efficiency of a *building* or part of a *building* of *residential occupancy* that is within the scope of Part 9 and is intended for *occupancy* on a continuing basis during the winter months shall,

(a) be designed to exceed by not less than 15% the energy efficiency levels required by Sentence 12.2.1.1.(3), or

(b) conform to Chapters 1 and 3 of MMAH Supplementary Standard SB-12, "Energy Efficiency for Housing".

(4) This Article does not apply to,

(a) a *farm building*,

(b) a *building* that does not use electrical power or fossil fuel,

(c) a manufactured *building* described in Article 9.1.1.9., or

(d) a seasonal recreational *building* described in Section 9.36. or 9.38.

Carbon Dioxide Equivalents: Division B, 12.2.2.

12.2.2.1. Carbon Dioxide Equivalents

(1) Except as provided in Sentence (2), all *buildings* shall be designed to conform to the CO₂e emission requirements set out in MMAH Supplementary Standard SB-10, "Energy Efficiency Requirements".

(2) This Article does not apply to,

(a) a *building* or part of a *building* of *residential occupancy* that is within the scope of Part 9 and is intended for *occupancy* on a continuing basis during the winter months,

(b) a *farm building*,

(c) a *building* that does not use electrical power or fossil fuel,

(d) a manufactured *building* described in Article 9.1.1.9., or

(e) a seasonal recreational *building* described in Section 9.36. or 9.38.

Peak Electric Demand: Division B, 12.2.3

12.2.3.1. Peak Electric Demand

(1) Except as provided in Sentence (2), all *buildings* shall be designed to conform to the peak electric demand requirements set out in MMAH Supplementary Standard SB-10, "Energy Efficiency Requirements".

(2) This Article does not apply to,

(a) a *building* or part of a *building* of *residential occupancy* that is within the scope of Part 9 and is intended for *occupancy* on a continuing basis during the winter months,

(b) a *farm building*,

(c) a *building* that does not use electrical power or fossil fuel,

(d) a manufactured *building* described in Article 9.1.1.9., or

(e) a seasonal recreational *building* described in Section 9.36. or 9.38.

Motion Sensors: Division B, 12.2.4.1.

(1) Lighting installed to provide the minimum illumination levels required by this Code may be controlled by motion sensors except where the lighting,

(a) is installed in an *exit*,

(b) is installed in a corridor serving patients or residents in a Group B, Division 2 or Division 3 *occupancy*, or

(c) is required to conform to Sentence 3.2.7.1.(6).

(2) Where motion sensors are used to control minimum lighting in a *public corridor* or corridor providing *access to exit* for the public, the motion sensors shall be installed with switch controllers equipped for fail-safe operation and illumination timers set for a minimum 15-minute duration.

(3) A motion sensor shall not be used to control emergency lighting.

Windows and Sliding Glass Doors: Division B, 12.3.1.2.(1)

Alternative energy performance testing standards for windows and sliding glass doors have been added to Clause (b):

NFRC 100, and NFRC 200

Temperature Control in Dwelling Units: Division B, 12.3.1.3.(1)

Programmable thermostat mandated for most dwelling units

Temperature Control in Dwelling Units: Division B, 12.3.1.3.(2)

The programmable thermostat must:

Allow for the setting of different air temperatures for at least:

four time periods per day; and

two different day types per week

Include manual override

Allow temperature to be set at prescribed levels

Temperature Control in Dwelling Units: Division B, 12.3.1.3.(3)

Manual thermostat permitted if the heating or cooling capacity is not more than 2 kW, or serves an individual room or space

(1) Except as provided in Sentence (3) and except where space heating energy is provided by a solid fuel-burning *appliance* or a ground source heat pump, the indoor air temperature in a *dwelling unit* shall be controlled by at least one programmable thermostatic control device.

(2) The programmable thermostatic control device required in Sentence (1) shall,

(a) allow the setting of different air temperatures for at least,

(i) four time periods per day, and

(ii) two different day-types per week,

(b) include a manual override, and

(c) allow the setting of the air temperature to,

(i) 13°C or lower in heating mode, and

(ii) 29°C or higher in cooling mode, where *air-conditioning* is provided.

(3) A manual thermostatic control device is permitted if it,

(a) controls a heating or cooling system where the heating or cooling capacity is not more than 2 kW, or

(b) serves an individual room or space.

Hot Water Piping Insulation: Division B, 12.3.1.4.(1)

Hot water pipes that are vertically connected to a hot water storage tank are required to have:

- heat traps on both inlet and outlet piping
- \geq RSI 0.62 insulation over the first 2.5 m of the hot water outlet piping
- RSI 0.62 insulation over inlet piping between the heat trap and the tank

(1) Hot water pipes that are vertically connected to a hot water storage tank shall have heat traps on both inlet and outlet piping as close as practical to the tank, except where the tank,

(a) has an integral heat trap, or

(b) serves a recirculating system.

(2) The first 2.5 m of hot water outlet piping of a hot water storage tank serving a non-recirculating system shall be insulated to provide a thermal resistance of not less than RSI 0.62.

(3) The inlet pipe of a hot water storage tank between the heat trap and the tank serving a non-recirculating system shall be insulated to provide a thermal resistance of not less than RSI 0.62.

Residential Furnaces After December 31, 2014: Division B, 12.3.1.5.

When a building permit is applied for on or after January 1, 2015, furnaces installed in Part 9 dwelling units will be required to have electronically commutated motors.

(1) Sentence (2) applies to *construction* for which a permit has been applied for after December 31, 2014.

(2) A furnace serving a *dwelling unit* shall be **equipped with a brushless direct current motor**.
(O.Reg. 361/13)

Energy Supply for Kitchen and Laundry Facilities After December 31, 2014: Division B, 12.3.1.6.(1) and (2)

When a building permit is applied for on or after January 1, 2015, the Code will provide three options for energy supply to kitchen range and clothes dryers:

- an electrical outlet
- a natural gas line
- a propane line

Relocation of Energy Efficiency Requirements: Division B, Subsection 12.3.4.

Energy efficiency requirements for buildings of non-residential occupancy within the scope of Part 9 have been relocated to Supplementary Standard SB-10

Plumbing Systems: Division B, Section 12.4.

Enhanced water savings measures have been introduced in Part 7

Division C, Part 1

Design: Division C, 1.2.1.1.

Provisions related to design by architects or professional engineers have been removed

A 2007 Ontario Divisional Court decision found that the *Building Code Act, 1992* did not provide sufficient authority to allocate responsibility for the design of buildings between professional engineers and architects in the Building Code

The Architects Act and Professional Engineers Act continue to apply

Design requirements apply to:

- foundations
- sprinkler protected glazed wall assemblies
- shelf and rack storage systems
- tents
- signs

Deleted: (3) “The thermal design of a building in accordance with Subsection 12.3.3. of Division B shall be prepared and provided by an architect or professional engineer or a combination of both.”

Replaced: “*professional engineer*” in Sentences (1) to (7) with “*suitably qualified and experienced person*” to reflect court ruling.

General Review by Architect or Professional Engineer: Division C, 1.2.2.1.

New Table 1.2.2.1. allocates responsibility for general review between architects and professional engineers.

Additionally, building components that are required to be designed by a suitably qualified and experienced person by Article 1.2.1.1. are required to be reviewed by architect, professional engineer or both.

General Review by Architect or Professional Engineer: Division C, 1.2.2.1. (O.Reg. 151/13)

Item 3 of Table 1.2.2.1. is amended by striking out “*Care or detention occupancy*” in Column 1 and substituting “*Care, care and treatment or detention occupancy*”.

Item 4 of Table 1.2.2.1. is amended by striking out “*Care or detention occupancy*” in Column 1 and substituting “*Care, care and treatment or detention occupancy*”.

Item 7 of Table 1.2.2.1. is amended by striking out “*industrial, assembly or care or detention occupancy*” in Column 1 and substituting “*assembly, care, care and treatment, detention or industrial occupancy*”.

Item 9 of Table 1.2.2.1. is amended by striking out “*industrial, assembly or care or detention occupancy*” in Column 1 and substituting “*assembly, care, care and treatment, detention or industrial occupancy*”.

Item 11 of Table 1.2.2.1. is amended by striking out “*industrial, assembly or care or detention occupancy*” in Column 1 and substituting “*assembly, care, care and treatment, detention or industrial occupancy*”.

Requirement for Permit: Division C, 1.3.1.1 (O.Reg. 361/13)

Clause 1.3.1.1.(1)(a) is amended by striking out “demolition of a farm building” and substituting “demolition of a building”.

Permits Under Section 10 of the Act: Division C, 1.3.1.4 (O.Reg. 151/13)

Sentence 1.3.1.4.(1) is revoked and the following substituted:

1.3.1.4. Permits Under Section 10 of the Act

(1) Except as provided in Sentence (2), the following changes in use of a *building* or part of a *building* constitute an increase in hazard for the purposes of section 10 of the Act and require a permit under section 10 of the Act:

- (a) a change of the *major occupancy* of all or part of a *building* that is designated with a “Y” in Table 1.3.1.4. takes place,
- (b) a *suite* of a Group C *major occupancy* is converted into more than one *suite* of Group C *major occupancy*,
- (c) a *suite* or part of a *suite* of a Group A, Division 2 or a Group A, Division 4 *major occupancy* is converted to a *gaming premises*,
- (d) a *farm building* or part of a *farm building* is changed to a *major occupancy*,
- (e) a *building* or part of a *building* is changed to a *post-disaster building*,
- (f) a *building* or part of a *building* is changed to a retirement home regulated under the *Retirement Homes Act, 2010*, or
- (g) the use of a *building* or part of a *building* is changed and the previous *major occupancy* of the *building* or part of the *building* cannot be determined.

Documentation on Site: Division C, 1.3.2.2.(1)(c)

Minister’s rulings must be kept and maintained on the construction site.

(1) The person in charge of the *construction* of the *building* shall keep and maintain on the site of the *construction*,

- (a) at least one copy of drawings and specifications certified by the *chief building official* or a person designated by the *chief building official* to be a copy of those submitted with the application for the

permit to *construct* the *building*, together with changes that are authorized by the *chief building official* or a person designated by the *chief building official*,

(b) copies of authorizations of the Building Materials Evaluation Commission on the basis of which the permit was issued,

And

(c) copies of rulings of the *Minister*, made under clause 29 (1) (a) or (c) of the Act, on the basis of which the permit was issued.

Conditions for Residential Occupancy: Division C, 1.3.3.2 (1)

New requirements for thermal protection of foamed plastic insulation have been added.

Subclause 1.3.3.4.(4)(f)(i) is amended by striking out “carbon monoxide detectors” and substituting “carbon monoxide alarms”. (O.Reg. 361/13)

Occupancy Permit – Certain Buildings of Residential Occupancy: Division C, 1.3.3.4.(4)(f)(iv)

New requirements for thermal protection of foamed plastic insulation have been added.

Occupancy Permit – Certain Buildings of Residential Occupancy: Division C, {2006} 1.3.3.4.(5)(d)

The requirement for site grading to be substantially complete has been removed as a condition for issuing an occupancy permit.

Division C, Part 2

Application Fee: Division C, 2.2.1.5 (O.Reg. 360/13)

Subsection 2.2.1. is amended by adding the following Article:

2.2.1.5. Application Fee

(1) The fee on an application to the Building Code Commission under subsection 24 (1.1) of the Act is,

(a) \$170, for 2014, and

(b) the amount determined in accordance with Sentences (2) and (3) rounded to the nearest dollar, for 2015 and subsequent calendar years.

(2) On and after January 1, 2015, the fee for a calendar year is the fee for the previous calendar year adjusted by the percentage change from year to year in the Consumer Price Index for Ontario (All-Items) as reported monthly by Statistics Canada under the authority of the *Statistics Act* (Canada), averaged over the 12-month period that ends on March 31 of the previous calendar year, rounded to the first decimal point.

(3) Despite Sentence (2), if the percentage change results in a negative amount, the fee for a calendar year shall remain at the same level as the previous calendar year.

Designated Materials Evaluation Bodies: Division C, 2.4.1.1 (O.Reg. 360/13)

The heading to Subsection 2.4.1. of Division C of the Regulation is revoked and the following substituted:

2.4.1. Minister's Rulings — Innovative Materials, Systems or Building Designs

(2) The heading to Article 2.4.1.1. of Division C of the Regulation is revoked and the following substituted:

2.4.1.1. Designated Materials Evaluation Bodies

(3) Subsection 2.4.1. of Division C of the Regulation is amended by adding the following Article:

2.4.1.2. Fee

(1) The fee on a request for a ruling under clause 29 (1) (a) of the Act is,

(a) \$560, for 2014, and

(b) the amount determined in accordance with Sentences (2) and (3) rounded to the nearest dollar, for 2015 and subsequent calendar years.

(2) On and after January 1, 2015, the fee for a calendar year is the fee for the previous calendar year adjusted by the percentage change from year to year in the Consumer Price Index for Ontario (All-Items) as reported monthly by Statistics Canada under the authority of the *Statistics Act*

(Canada), averaged over the 12-month period that ends on March 31 of the previous calendar year, rounded to the first decimal point.

(3) Despite Sentence (2), if the percentage change results in a negative amount, the fee for a calendar year shall remain at the same level as the previous calendar year.

Minister's Rulings: Division C, 2.4.2. (O.Reg. 360/13)

The heading to Subsection 2.4.2. is revoked and the following substituted:

2.4.2. Minister's Rulings — Alternative Materials, Systems or Building Designs

Division C, Part 3

Qualifications: Division C, 3.1. (O.Reg. 360/13)

Section 3.1. is revoked and the following substituted:

Section 3.1. Qualifications for Chief Building Officials and Inspectors

3.1.1. Scope and Definition

3.1.1.1. Scope

(1) Except as provided in Sentence (2), this Section prescribes, for the purposes of subsections 15.11 (1), (2) and (3) of the Act,

(a) the qualifications that a person must satisfy to be appointed and to remain appointed as,

(i) a *chief building official* under the Act, or

(ii) an *inspector* who has the same powers and duties as a *chief building official* in relation to *plumbing*,

(b) the qualifications that a person must satisfy to be appointed and to remain appointed as,

(i) an *inspector* who has the same powers and duties as a *chief building official* in relation to *sewage systems*, or

(ii) an *inspector* whose duties include plans review or inspection of *sewage systems* under the Act, and

(c) the qualifications that a person must satisfy to be appointed and to remain appointed as an *inspector* under the Act, other than an *inspector* described in Subclause (a)(ii) or (b)(i) or (ii).

(2) The qualification requirements for *chief building officials* and *inspectors* in Sentence (1) do not apply to plans review and inspection of,

(a) site services including,

(i) surface drainage, and

(ii) *plumbing* located underground either outside a *building* or under a *building*,

(b) *construction* of a factory-built house certified to CSA A277, "Procedure for Factory Certification of Buildings",

(c) *construction* of a mobile home conforming to CSA Z240 MH Series, "Manufactured Homes",

(d) *construction* of a park model trailer conforming to CAN/CSA-Z241 Series, "Park Model Trailers",
or

(e) signs.

3.1.1.2. Definition

(1) In this Section,

“registered” means registered under Sentence 3.1.2.2.(1), 3.1.3.2.(1) or 3.1.4.2.(1), as applicable.

3.1.2. Chief Building Officials

3.1.2.1. Qualifications

(1) The following are prescribed as qualifications for a person to be appointed and to remain appointed under the Act as a *chief building official* or as an *inspector* who has the same powers and duties as a *chief building official* in relation to *sewage systems* or *plumbing*:

(a) the person must be registered with the *director*.

(2) A registration shall be in a form established by the *director*.

(3) A person who was qualified on December 31, 2014 under Sentence 3.1.2.1.(1), as it read on that date, is deemed to have the qualification set out in Sentence (1) until the earlier of,

(a) the day the person is registered under Sentence 3.1.2.2.(1), and

(b) March 31, 2015.

3.1.2.2. Registration and Renewal of a Registration

(1) Subject to Article 3.1.5.7., the *director* may register an applicant, or renew a registration, if,

(a) the applicant or registered person has successfully completed the examination program administered or authorized by the Ministry of Municipal Affairs and Housing relating to the person’s knowledge of the Act and this Code and the powers and duties of *chief building officials*,

(b) the applicant or registered person also has the qualification set out in Sentence 3.1.4.1.(1), in the case of an applicant or registered person who, under subsection 22 (2) of the Act, will also exercise any of the powers or perform any of the duties of an *inspector*,

(c) the application is complete, and

(d) all fees required under Article 3.1.5.3. are paid.

(2) For the purposes of a registration or a renewal of a registration, a person who was qualified on December 31, 2014 under Sentence 3.1.2.1.(1), as it read on that date, is deemed to have the qualifications set out in Clause (1)(a).

(3) If a person is given notice of a knowledge maintenance examination either after December 31, 2014 under Sentence 3.1.5.6.(1) or, on or before December 31, 2014, under Sentence 3.1.5.1.(2), as it read on that date, and does not successfully complete the knowledge maintenance examination referred in the notice by the end of the eighteenth month following the month in which the *director* gives notice of the knowledge maintenance examination to the person, Sentence (2) ceases to apply to the person at the end of that period.

3.1.3. Supervisors and Managers

3.1.3.1. Qualifications

(1) The following are prescribed as qualifications for a person to be appointed and to remain appointed under the Act as an *inspector* whose duties are solely the supervision or management of *inspectors*:

(a) the person must be registered with the *director*.

(2) A registration shall be in a form established by the *director*.

(3) A person who was qualified on December 31, 2014 under Sentence 3.1.3.1.(1), as it read on that date, is deemed to have the qualification set out in Sentence (1) until the earlier of,

(a) the day the person is registered under Sentence 3.1.3.2.(1), and

(b) March 31, 2015.

3.1.3.2. Registration and Renewal of a Registration

(1) Subject to Article 3.1.5.7., the *director* may register an applicant, or renew a registration, if,

(a) the applicant or registered person has successfully completed the examination program administered or authorized by the Ministry of Municipal Affairs and Housing relating to the person's knowledge of the Act and this Code and the powers and duties of *chief building officials*,

(b) the applicant or registered person has successfully completed the examination program administered or authorized by the Ministry of Municipal Affairs and Housing relating to the person's knowledge of the Act and this Code in any one category of qualification set out in Column 2 of Table 3.5.2.1.,

(c) the application is complete, and

(d) all fees required under Article 3.1.5.3. are paid.

(2) For the purposes of a registration or a renewal of a registration, a person who was qualified on December 31, 2014 under Sentence 3.1.3.1.(1), as it read on that date, is deemed to have the qualifications set out in Clauses (1)(a) and (b).

(3) If a person is given notice of a knowledge maintenance examination that relates to the subject matter of an examination program referred to in Clause (1)(a) or (b), as applicable, either after December 31, 2014 under Sentence 3.1.5.6.(1) or, on or before December 31, 2014, under Sentence 3.1.5.1.(2), as it read on that date, and does not successfully complete the knowledge maintenance examination referred in the notice by the end of the eighteenth month following the month in which the *director* gives notice of the knowledge maintenance examination to the person, Sentence (2) ceases to apply to the person at the end of that period with respect to the qualifications set out in Clause (1)(a) or (b), as applicable.

3.1.4. Inspectors

3.1.4.1. Qualifications

(1) Except as provided in Article 3.1.4.3. or 3.1.4.4., the following are prescribed as qualifications for a person to be appointed and to remain appointed under the Act as an *inspector* whose duties include plans review or inspection under the Act:

(a) the person must be registered with the *director*.

(2) A registration shall be in a form established by the *director*.

(3) A person who was qualified on December 31, 2014 under Sentence 3.1.4.1.(1) in a category of qualification set out in Column 2 of Table 3.5.2.1., as they read on that date, is deemed to be registered in the class of registration that corresponds to that category of qualification until the earlier of,

(a) the day the person is registered in that class of registration under Sentence 3.1.4.2.(1), and

(b) March 31, 2015.

3.1.4.2. Registration and Renewal of a Registration

(1) Subject to Article 3.1.5.7., the *director* may register an applicant, or renew a registration, in each class of registration applied for, if,

(a) the applicant or registered person has successfully completed the examination program administered or authorized by the Ministry of Municipal Affairs and Housing relating to the person's knowledge of the Act and this Code in the category of qualification set out in Column 2 of Table 3.5.2.1. that corresponds to each class of registration set out in Column 1 of Table 3.5.2.1. for which application is made,

(b) the application is complete, and

(c) all fees required under Article 3.1.5.3. are paid.

(2) For the purposes of a registration or a renewal of a registration in a class of registration, a person who was qualified on December 31, 2014 under Sentence 3.1.4.1.(1) in a category of qualification set out in Column 2 of Table 3.5.2.1., as they read on that date, is deemed to have the qualifications set out in Clause (1)(a) in that category of qualification.

(3) If a person is given notice of a knowledge maintenance examination that relates to the subject matter of an examination program in the category of qualification either after December 31, 2014 under Sentence 3.1.5.6.(1) or, on or before December 31, 2014, under Sentence 3.1.5.1.(2), as it read on that date, and does not successfully complete the knowledge maintenance examination referred in the notice by the end of the eighteenth month following the month in which the *director* gives notice of the knowledge maintenance examination to the person, Sentence (2) ceases to apply to the person at the end of that period.

3.1.4.3. Qualifications for Intern Inspectors

(1) A person may be appointed or remain appointed under the Act as an intern *inspector* whose duties include supervised plans review or inspection under the Act, even if the person does not have the qualification set out in Article 3.1.4.1., provided the person is enrolled in an internship program approved by the *Minister*.

(2) An intern *inspector* who is exempt under Sentence (1) shall be supervised by an *inspector* or *chief building official* who is registered in the class of registration in respect of which the intern *inspector* will exercise the powers or perform the duties.

(3) An intern *inspector* who is exempt under Sentence (1) shall not,

(a) issue orders under the Act except orders under subsection 12 (2) or 13 (1) of the Act, or

(b) undertake a site inspection of a *building* related to a notice in respect of,

(i) substantial completion of footings and *foundations* prior to commencement of backfilling, or

(ii) completion of *construction* and installation of components required to permit the issuance of an occupancy permit under Sentence 1.3.3.1.(3) or to permit occupancy under Sentence 1.3.3.2.(1), if the *building* or part of the *building* to be occupied is not fully completed.

3.1.4.4. Qualifications for Maintenance Program Inspectors

(1) A person may be appointed or remain appointed under the Act as an *inspector* whose duties include *maintenance inspections of sewage systems*, even if the person does not have the qualification set out in Article 3.1.4.1. in respect of these duties.

(2) An *inspector* who is exempt under Sentence (1) is authorized to conduct *maintenance inspections of sewage systems* only if the following conditions are met:

(a) the person is supervised by an *inspector* or *chief building official* who is registered in the class of registration described in Column 1 of Item 10 of Table 3.5.2.1., and

(b) the person does not issue orders under the Act.

3.1.5. Qualifications — Chief Building Officials, Supervisors and Managers, and Inspectors

3.1.5.1. Application for Registration or Renewal of a Registration

(1) An application for registration or renewal of a registration shall be made to the *director* in a form established by the *director*.

(2) An application for renewal of a registration shall be made at least 60 days before the expiry of the registration to be renewed.

(3) An application for registration or renewal of a registration shall include an undertaking by the applicant or registered person to comply with the conditions set out in Article 3.1.5.5.

(4) An application for registration or renewal of a registration shall,

- (a) set out the applicant's or registered person's name, residence address and residential mailing address, if different from the residence address,
- (b) set out the name and address of every *principal authority* that has appointed the person as a *chief building official* or *inspector* under the Act, and
- (c) contain evidence, provided by the applicant or registered person, that the applicant or registered person has the qualifications set out in Clauses 3.1.2.2.(1)(a) and (b), 3.1.3.2.(1)(a) and (b), or 3.1.4.2.(1)(a), as applicable.

3.1.5.2. Term

- (1) A registration expires one year after it is issued but the *director* may, for the purposes of staggering the renewal dates of the registrations, issue the initial registration for a term of not less than 90 days and not more than 18 months.

3.1.5.3. Fees

- (1) The fee payable for an application to take an examination that is part of an examination program referred to in Clause 3.1.2.2.(1)(a), 3.1.3.2.(1)(a) or (b) or 3.1.4.2.(1)(a) is \$150.
- (2) The fee for a registration or renewal of a registration is,
 - (a) \$105, for 2015, and
 - (b) the amount determined in accordance with Sentences (3) and (4) rounded to the nearest dollar, for 2016 and subsequent calendar years.
- (3) On and after January 1, 2016, the fee for a calendar year is the fee for the previous calendar year adjusted by the percentage change from year to year in the Consumer Price Index for Ontario (All-Items) as reported monthly by Statistics Canada under the authority of the *Statistics Act* (Canada), averaged over the 12-month period that ends on March 31 of the previous calendar year, rounded to the first decimal point.
- (4) Despite Sentence (3), if the percentage change results in a negative amount, the fee for a calendar year shall remain at the same level as the previous calendar year.

3.1.5.4. Not Transferable

- (1) A registration is not transferable.

3.1.5.5. Conditions

- (1) The following are the conditions of a registration:
 - (a) the registered person shall, within 15 days after the event, notify the *director* in writing of any change in the information set out in Clause 3.1.5.1.(4)(a) or (b),

(b) in the case of a registered person who is given notice of a knowledge maintenance examination under Sentence 3.1.5.6.(1), the person shall successfully complete the knowledge maintenance examination referred to in the notice by the end of the eighteenth month following the month in which the *director* gives notice of the knowledge maintenance examination to the person, and

(c) in the case of an *inspector* registered under Sentence 3.1.4.2.(1), the person shall exercise his or her powers and perform his or her duties only in respect of the type of *buildings* described in Column 3 of Table 3.5.2.1. that correspond to the class or classes of registration held by the person.

3.1.5.6. Knowledge Maintenance

- (1) The *director* shall give notice of a knowledge maintenance examination administered or authorized by the Ministry of Municipal Affairs and Housing in respect of changes described in Sentence (2) that relate to the subject matter of an examination program referred to in Clause 3.1.2.2.(1)(a), 3.1.3.2.(1)(a) or (b) or 3.1.4.2.(1)(a), as applicable, to every person who, on December 31, 2013, has the qualifications set out in Sentence 3.1.2.1.(1), 3.1.3.1.(1) or 3.1.4.1.(1), as applicable, of Division C of Ontario Regulation 350/06 (Building Code) made under the Act.
- (2) The changes referred to in Sentence (1) are changes made to the Act and Ontario Regulation 350/06 from December 31, 2006 to December 31, 2013 and changes made at the time that regulation is replaced by this Code on January 1, 2014.
- (3) The *director* may give the notice referred to in Sentence (1) by sending it by regular mail to the last address of the person that has been filed with the *director*.

3.1.5.7. Suspension, Revocation, Refusal to Register or Renew a Registration

- (1) The *director* may, in the circumstances set out in Sentence (2),
- (a) refuse to register an applicant or to renew a registration, or
 - (b) suspend or revoke a registration.
- (2) The circumstances referred to in Sentence (1) are,
- (a) the registered person is in breach of a condition of the registration,
 - (b) the registration was issued on the basis of mistaken, false or incorrect information,
 - (c) an order under subsection 69 (2) of the *Provincial Offences Act* is in effect directing that the registration of the person be suspended and that no registration be issued to that person until a fine is paid,
 - (d) the application is incomplete, or
 - (e) any fees required under Article 3.1.5.3. remain unpaid.

(3) If the *director* proposes to refuse to register or renew a registration or proposes to suspend or revoke a registration, the *director* shall serve a notice of the proposal, together with the reasons for it, on the applicant or registered person.

(4) A notice under Sentence (3) shall state that the applicant or registered person is entitled to a hearing before the *Tribunal* if the applicant or registered person, within 15 days after service of the notice referred to in Sentence (3), serves the *director* and the *Tribunal* with notice in writing requesting a hearing.

(5) If the applicant or registered person does not request a hearing by the *Tribunal* in accordance with Sentence (4), the *director* may carry out the proposal stated in the notice under Sentence (3).

(6) If the applicant or registered person requests a hearing before the *Tribunal* in accordance with Sentence (4), the *Tribunal* shall appoint a time for and hold a hearing and may by order direct the *director* to carry out the *director's* proposal or refrain from carrying it out and to take such other action as the *Tribunal* considers the *director* ought to take in accordance with the Act and this Code, and for those purposes, the *Tribunal* may substitute its opinion for that of the *director*.

(7) The *director*, the applicant or registered person who requested the hearing, and such other persons as the *Tribunal* may specify, are parties to proceedings before the *Tribunal*.

(8) Sentences (3) to (7) do not apply and the *director* may cancel the registration of a registered person upon receipt of a request in writing for cancellation from the registered person in a form established by the *director*.

(9) If, within the time period set out in Sentence 3.1.5.1.(2), the registered person has applied for renewal of a registration and paid the fee required under Article 3.1.5.3., the registration is deemed to continue until the earlier of,

(a) the day the registration is renewed, and

(b) if the registered person is served with notice that the *director* proposes to refuse to renew the registration, the day the time for giving notice requesting a hearing expires or, if a hearing is held, the day the *Tribunal* makes its order.

3.1.6. Public Register

3.1.6.1. Public Register

(1) The *director* shall establish and maintain a register available to the public that lists every person who has the qualifications required by subsections 15.11 (1), (2) and (3) of the Act and has been appointed as a *chief building official* or *inspector* by a *principal authority*.

(2) The register referred to in Sentence (1) shall contain the following information with respect to each registered person:

(a) the name of the registered person,

- (b) any identifying number assigned by the *director* to the registered person,
- (c) the name and address of each *principal authority* that has appointed the registered person as a *chief building official* or *inspector*, and
- (d) the classes of registration of the registered person.

3.1.7. Classes of Registration and Categories of Qualifications

3.1.7.1. Classes and Categories

(1) Table 3.5.2.1. contains the classes of registration and categories of qualifications for the purposes of this Section.

Scope: Division C, 3.1.1.1. (O.Reg. 361/13)

Clause 3.1.1.1.(2)(b) is amended by striking out “CAN/CSA-A277, “Procedure for Certification of Factory-Built Houses” at the end and substituting “CSA A277, “Procedure for Factory Certification of Buildings””.

Clause 3.1.1.1.(2)(c) is amended by striking out “CAN/CSA-Z240 Series, “Mobile Homes”” at the end and substituting “CSA Z240 MH Series, “Manufactured Homes””.

Sentence 3.1.5.1.(3) is revoked and the following substituted:

(3) The changes referred to in Sentence (2) are changes made to the Act and Ontario Regulation 350/06 (Building Code) from December 31, 2006 to December 31, 2013 and changes made at the time that regulation is replaced by this Code on January 1, 2014. (O.Reg. 361/13)

Fees: Division C, 3.1.7.1.(2), 3.2.4.5.(5), 3.2.5.4.(2), 3.3.3.5.(3), 3.4.3.5.(5)

Examination application fees are set in the Code at \$80 for each qualification exam (\$70 for online applications) - this applies to all persons taking exams.

Fees for knowledge maintenance examinations have not yet been set.

Sentences 3.1.7.1.(2) and (3) are revoked and the following substituted:

(2) The fee payable for an application to take an examination that is part of an examination program referred to in Clause 3.1.2.1.(1)(a), 3.1.3.1.(1)(a) or (b) or 3.1.4.1.(1)(a) is \$150. (O.Reg. 360/13)

Other Designers: Division C, 3.2.2.2. (O.Reg. 360/13)

Article 3.2.2.2. is revoked and the following substituted:

3.2.2.2. Other Designers

(1) Every person who carries out *design activities* must have the qualification set out in Sentence 3.2.5.1.(1), if the person is not required to have the qualification set out in Sentence 3.2.4.1.(1).

Definition: Division C, 3.2.3.1. (O.Reg. 360/13)

Subsection 3.2.3. is revoked and the following substituted:

3.2.3. Definition

3.2.3.1. Definition

(1) “Registered” means,

(a) in Subsection 3.2.4., registered under Sentence 3.2.4.2.(1), and

(b) in Subsection 3.2.5., registered under Sentence 3.2.5.2.(1).

Previously qualified designers: Division C, 3.2.4.2.(2) and (3)

The following who were registered/qualified on December 31, 2013, are deemed to be registered/qualified under the 2012 Building Code:

- Designers and design firms meeting registration requirements
- Director, officer, partner or employees
- Other persons engaged by the firm who review and take responsibility for design

Application for Registration or Renewal of a Registration: Division C, 3.2.4.3 (O.Reg. 360/13)

Sentence 3.2.4.3.(7) is revoked and the following substituted:

(7) An application for registration or renewal of a registration shall contain evidence, provided by the applicant or registered person in such form and in such detail as may be required by the *director*, that the applicant or registered person is covered by the insurance required under Subsection 3.6.2. during the term of the registration applied for.

Fees: Division C, 3.2.4.5 (O.Reg. 360/13)

Sentences 3.2.4.5.(4), (5) and (6) are revoked and the following substituted:

(4) The fee payable for an application to take an examination that is part of an examination program referred to in Clause 3.2.4.2.(1)(a) or (b) is \$150.

Fees: Division C, 3.2.4.5 (O.Reg. 360/13)

Article 3.2.4.5. is revoked and the following substituted:

3.2.4.5. Fees

- (1) The fee payable for an application to take an examination that is part of an examination program referred to in Clause 3.2.4.2.(1)(a) or (b) is \$150.
- (2) The fee for a registration is,
 - (a) \$165, for 2015, and
 - (b) the amount determined in accordance with Sentences (5) and (6) rounded to the nearest dollar, for 2016 and subsequent calendar years.
- (3) The fee for the addition of a new class of registration is,
 - (a) \$35, for 2015, and
 - (b) the amount determined in accordance with Sentences (5) and (6) rounded to the nearest dollar, for 2016 and subsequent calendar years.
- (4) The fee for renewal of a registration is,
 - (a) \$125, for 2015, and
 - (b) the amount determined in accordance with Sentences (5) and (6) rounded to the nearest dollar, for 2016 and subsequent calendar years.
- (5) On and after January 1, 2016, the fee for a calendar year is the fee for the previous calendar year adjusted by the percentage change from year to year in the Consumer Price Index for Ontario (All-Items) as reported monthly by Statistics Canada under the authority of the *Statistics Act* (Canada), averaged over the 12-month period that ends on March 31 of the previous calendar year, rounded to the first decimal point.
- (6) Despite Sentence (5), if the percentage change results in a negative amount, the fee for a calendar year shall remain at the same level as the previous calendar year.

Conditions: Division C, 3.2.4.7.(1)

Registered designers and design firms must ensure that the following persons complete knowledge maintenance examinations by the end of the 18th month after the Director gives notice of the examination:

the designer or at least one director, officer, partner or employee of the firm in each class of registration.

all other persons engaged by the firm who review and take responsibility for design activities.

Clause 3.2.4.7.(1)(d) of Division C of the Regulation is amended by striking out “notice of a knowledge maintenance exam” in the portion before Subclause (i) and substituting “notice of a knowledge maintenance examination”. (O.Reg. 360/13)

Knowledge Maintenance: Division C, 3.2.4.8.

The Director shall give notice of knowledge maintenance exams to registered designers and design firms engaged in the business of providing design activities to the public. Knowledge maintenance exams will cover Act and Regulation changes in:

- interim amendments – Dec 31, 2006 to Dec 31, 2013
- 2012 Building Code – as of January 1, 2014

Sentence 3.2.4.8.(2) is revoked and the following substituted:

(2) The changes referred to in Sentence (1) are changes made to the Act and Ontario Regulation 350/06 (Building Code) from December 31, 2006 to December 31, 2013 and changes made at the time that regulation is replaced by this Code on January 1, 2014.

Qualifications – Other Designers: Division C, 3.2.5 (O.Reg. 360/13)

Subsection 3.2.5. is revoked and the following substituted:

3.2.5. Qualifications — Other Designers

3.2.5.1. General

(1) Except as provided in Sentence (3), a person who carries out *design activities* but is not required under Sentence 3.2.4.1.(1) to be registered with the *director* under Sentence 3.2.4.2.(1) must have the following qualification:

(a) the person must be registered with the *director* under Sentence 3.2.5.2.(1).

(2) A registration shall be in a form established by the *director*.

(3) A person is exempt from the requirement to comply with the qualification in Sentence (1), if his or her *design activities* relate only to,

(a) *design activities* in respect of which a person described in Clause 3.2.4.7.(1)(c) or who has the qualification required under Sentence (1) will review and take responsibility,

(b) *construction of,*

(i) a detached house, semi-detached house, townhouse or row house owned by the person and containing not more than two *dwelling units* in each house, or

(ii) an ancillary *building* that serves a *building* described in Subclause (i),

- (c) *construction of a farm building that,*
 - (i) *is of low human occupancy,*
 - (ii) *is 2 storeys or less in building height, and*
 - (iii) *has a building area of less than 600 m²,*
 - (d) *a sewage system to be constructed by that person and,*
 - (i) *the person is registered under Article 3.3.3.2., or*
 - (ii) *the sewage system is owned by the person,*
 - (e) *construction of tents described in Sentence 3.14.1.2.(2) of Division B,*
 - (f) *construction of signs,*
 - (g) *construction of site services including,*
 - (i) *surface drainage, and*
 - (ii) *plumbing located underground, either outside a building or under a building,*
 - (h) *construction of pre-engineered elements of a building, if the design of the elements is carried out by a person competent in the specific discipline appropriate to the circumstances,*
 - (i) *construction of appliances, equipment and similar incidental components of a building,*
 - (j) *construction of an ancillary building,*
 - (i) *that serves a detached house, semi-detached house, townhouse or row house if the house contains not more than two dwelling units, and*
 - (ii) *that has a building area of not more than 55 m², or*
 - (k) *construction of a building for which a permit under section 8 of the Act is applied for or issued before January 1, 2006 and for which construction is commenced within six months after the permit is issued.*
- (4) A person who was qualified on December 31, 2014 under Sentence 3.2.5.1.(1) in a category of qualification set out in Column 2 of Table 3.5.2.1., as they read on that date, is deemed to be registered in the class of registration that corresponds to that category of qualification until the earlier of,
- (a) the day the person is registered in that class of registration under Sentence 3.2.5.2.(1), and
 - (b) March 31, 2015.

3.2.5.2. Registration and Renewal of a Registration

- (1) Subject to Article 3.2.5.8., the *director* may register an applicant, or renew a registration, in each class of registration applied for, if,
- (a) the applicant or registered person has successfully completed the examination program administered or authorized by the Ministry of Municipal Affairs and Housing relating to the person's knowledge of the Act and this Code in the category of qualification set out in Column 2 of

Table 3.5.2.1. that corresponds to each class of registration set out in Column 1 of Table 3.5.2.1. for which application is made.

(b) the application is complete, and

(c) all fees required under Article 3.2.5.5. are paid.

(2) For the purposes of a registration or a renewal of a registration in a class of registration, a person who was qualified on December 31, 2014 under Clauses 3.2.5.1.(1)(a) and (b) in a category of qualification set out in Column 2 of Table 3.5.2.1., as they read on that date, is deemed to have the qualifications set out in Clause (1)(a) in that category of qualification.

(3) If a person is given notice of a knowledge maintenance examination that relates to the subject matter of an examination program in the category of qualification either after December 31, 2014 under Sentence 3.2.5.7.(1) or, on or before December 31, 2014, under Sentence 3.2.5.2.(2), as it read on that date, and does not successfully complete the knowledge maintenance examination referred in the notice by the end of the eighteenth month following the month in which the *director* gives notice of the knowledge maintenance examination to the person, Sentence (2) ceases to apply to the person at the end of that period.

3.2.5.3. Application for Registration or Renewal of a Registration

(1) An application for registration or renewal of a registration shall be made to the *director* in a form established by the *director*.

(2) An application for renewal of a registration shall be made at least 60 days before the expiry of the registration to be renewed.

(3) An application for registration or renewal of a registration shall include an undertaking by the applicant or registered person to comply with the conditions set out in Article 3.2.5.6.

(4) An application for registration or renewal of a registration shall,

(a) set out the applicant's or registered person's name, residence address and residential mailing address, if different from the residence address, and

(b) contain evidence, provided by the applicant or registered person, that the applicant or registered person has the qualifications set out in Clause 3.2.5.2.(1)(a).

3.2.5.4. Term

(1) A registration expires one year after it is issued but the *director* may, for the purposes of staggering the renewal dates of the registrations, issue the initial registration for a term of not less than 90 days and not more than 18 months.

3.2.5.5. Fees

- (1) The fee payable for an application to take an examination that is part of an examination program referred to in Clause 3.2.5.2.(1)(a) is \$150.
- (2) The fee for a registration or renewal of a registration is,
 - (a) \$105, for 2015, and
 - (b) the amount determined in accordance with Sentences (3) and (4) rounded to the nearest dollar, for 2016 and subsequent calendar years.
- (3) On and after January 1, 2016, the fee for a calendar year is the fee for the previous calendar year adjusted by the percentage change from year to year in the Consumer Price Index for Ontario (All-Items) as reported monthly by Statistics Canada under the authority of the *Statistics Act* (Canada), averaged over the 12-month period that ends on March 31 of the previous calendar year, rounded to the first decimal point.
- (4) Despite Sentence (3), if the percentage change results in a negative amount, the fee for a calendar year shall remain at the same level as the previous calendar year.

3.2.5.6. Conditions

- (1) The following are the conditions of a registration:
 - (a) the registered person shall carry out *design activities* only in respect of the type of *buildings* described in Column 3 of Table 3.5.2.1. that correspond to the class or classes of registration held by the registered person,
 - (b) in the case of a registered person who is given notice of a knowledge maintenance examination under Sentence 3.2.5.7.(1), the person shall successfully complete the knowledge maintenance examination referred to in the notice by the end of the eighteenth month following the month in which the *director* gives notice of the knowledge maintenance examination to the person,
 - (c) the registered person shall, within 15 days after the event, notify the *director* in writing of any change in the information set out in Clause 3.2.5.3.(4)(a),
 - (d) the registered person shall include the following information on any document respecting *design activities* that the person has reviewed and taken responsibility for and that is submitted to a *chief building official* or *registered code agency* in the circumstances set out in subsection 15.11 (5) of the Act:
 - (i) the person's name and any identifying number assigned to the person by the *director* in respect of the person's registration,
 - (ii) a statement that the person has reviewed and taken responsibility for the *design activities*, and
 - (iii) the person's signature.

3.2.5.7. Knowledge Maintenance

(1) The *director* shall give notice of a knowledge maintenance examination administered or authorized by the Ministry of Municipal Affairs and Housing in respect of changes described in Sentence (2) that relate to the subject matter of an examination program referred to in Clause 3.2.5.2.(1)(a) to every person who, on December 31, 2013, has the qualifications set out in Clauses 3.2.5.1.(1)(a) and (b) of Division C of Ontario Regulation 350/06 (Building Code) made under the Act.

(2) The changes referred to in Sentence (1) are changes made to the Act and Ontario Regulation 350/06 from December 31, 2006 to December 31, 2013 and changes made at the time that regulation is replaced by this Code on January 1, 2014.

(3) The *director* may give the notice referred to in Sentence (1) by sending it by regular mail to the last address of the person that has been filed with the *director*.

3.2.5.8. Suspension, Revocation, Refusal to Register or Renew a Registration

(1) The *director* may, in the circumstances set out in Sentence (2),

(a) refuse to register an applicant or to renew a registration, or

(b) suspend or revoke a registration.

(2) The circumstances referred to in Sentence (1) are,

(a) the registered person is in breach of a condition of the registration,

(b) the registration was issued on the basis of mistaken, false or incorrect information,

(c) an order under subsection 69 (2) of the *Provincial Offences Act* is in effect directing that the registration of the person be suspended and that no registration be issued to that person until a fine is paid,

(d) the application is incomplete, or

(e) any fees required under Article 3.2.5.5. remain unpaid.

(3) If the *director* proposes to refuse to register or renew a registration or proposes to suspend or revoke a registration, the *director* shall serve a notice of the proposal, together with the reasons for it, on the applicant or registered person.

(4) A notice under Sentence (3) shall state that the applicant or registered person is entitled to a hearing before the *Tribunal* if the applicant or registered person, within 15 days after service of the notice referred to in Sentence (3), serves the *director* and the *Tribunal* with notice in writing requesting a hearing.

(5) If the applicant or registered person does not request a hearing by the *Tribunal* in accordance with Sentence (4), the *director* may carry out the proposal stated in the notice under Sentence (3).

(6) If the applicant or registered person requests a hearing before the *Tribunal* in accordance with Sentence (4), the *Tribunal* shall appoint a time for and hold a hearing and may by order direct the

director to carry out the *director's* proposal or refrain from carrying it out and to take such other action as the *Tribunal* considers the *director* ought to take in accordance with the Act and this Code, and for those purposes, the *Tribunal* may substitute its opinion for that of the *director*.

(7) The *director*, the applicant or registered person who requested the hearing, and such other persons as the *Tribunal* may specify, are parties to proceedings before the *Tribunal*.

(8) Sentences (3) to (7) do not apply and the *director* may cancel the registration of a registered person upon receipt of a request in writing for cancellation from the registered person in a form established by the *director*.

(9) If, within the time period set out in Sentence 3.2.5.3.(2), the registered person has applied for renewal of a registration and paid the fee required under Article 3.2.5.5., the registration is deemed to continue until the earlier of,

(a) the day the registration is renewed, and

(b) if the registered person is served with notice that the *director* proposes to refuse to renew the registration, the day the time for giving notice requesting a hearing expires or, if a hearing is held, the day the *Tribunal* makes its order.

Public Register: Division C, 3.2.6 (O.Reg. 360/13)

Subsection 3.2.6. is revoked and the following substituted:

3.2.6. Public Register

3.2.6.1. Public Register

(1) The *director* shall establish and maintain a register available to the public that lists every person who has the qualifications required by clause 8 (2) (c) and subsection 15.11 (5) of the Act.

(2) The register referred to in Sentence (1) shall contain the following information with respect to every person registered under Sentence 3.2.4.2.(1):

(a) the name of the registered person,

(b) any identifying number assigned by the *director* to the registered person,

(c) the business address of the registered person,

(d) the classes of registration of the registered person,

(e) the names of the person or persons who will review and take responsibility for *design activities* carried out by the registered person in each class of registration, and

(f) any identifying number assigned by the *director* to the person or persons referred to in Clause (e).

(3) The register referred to in Sentence (1) shall contain the following information with respect to every person registered under Sentence 3.2.5.2.(1):

- (a) the name of the registered person,
- (b) any identifying number assigned by the *director* to the registered person, and
- (c) the classes of registration of the registered person.

Previously qualified sewage installers: Division C, 3.3.3.2.(2), (3)

The following who were registered/qualified on December 31, 2013, are deemed to be registered/qualified under the 2012 Building Code:

- Persons and firms meeting registration requirements.
- Persons who supervise the construction, installation, repair, servicing, cleaning or emptying of on-site sewage systems.

Term: Division C, 3.3.3.4 (O.Reg. 360/13)

Article 3.3.3.4. is revoked and the following substituted:

3.3.3.4. Term

- (1) A registration expires one year after the date of its issuance.
- (2) Despite Sentence (1), a registration expires three years after the date of its issuance, if the application for registration or renewal of a registration is made before January 1, 2015.

Fees: Division C, 3.3.3.5 (O.Reg. 360/13)

Sentences 3.3.3.5.(2), (3) and (4) are revoked and the following substituted:

- (2) The fee payable for an application to take an examination that is part of an examination program referred to in Clause 3.3.3.2.(1)(a) is \$150.

Fees: Division C, 3.3.3.5 (O.Reg. 360/13)

Article 3.3.3.5. is revoked and the following substituted:

3.3.3.5. Fees

- (1) The fee payable for an application to take an examination that is part of an examination program referred to in Clause 3.3.3.2.(1)(a) is \$150.
- (2) The fee for a registration or renewal of a registration is,
 - (a) \$105, for 2015, and
 - (b) the amount determined in accordance with Sentences (3) and (4) rounded to the nearest dollar, for 2016 and subsequent calendar years.

(3) On and after January 1, 2016, the fee for a calendar year is the fee for the previous calendar year adjusted by the percentage change from year to year in the Consumer Price Index for Ontario (All-Items) as reported monthly by Statistics Canada under the authority of the *Statistics Act* (Canada), averaged over the 12-month period that ends on March 31 of the previous calendar year, rounded to the first decimal point.

(4) Despite Sentence (3), if the percentage change results in a negative amount, the fee for a calendar year shall remain at the same level as the previous calendar year.

Conditions: Division C, 3.3.3.7.(1)

Registered persons and firms must ensure that the following persons complete the knowledge maintenance examination by the end of the 18th month after the Director gives notice of the examination:

- persons who supervise the construction, installation, repair, servicing, cleaning or emptying of on-site sewage systems

Clause 3.3.3.7.(1)(b) is amended by striking out “notice of a knowledge maintenance exam” and substituting “notice of a knowledge maintenance examination”. (O.Reg. 360/13)

Knowledge Maintenance: Division C, 3.3.3.8.

The Director shall give notice of knowledge maintenance exams to registered persons engaged in the business of constructing on site, installing, repairing, servicing, cleaning or emptying sewage systems. Knowledge maintenance exams will cover Act and Regulation changes in:

- interim amendments – Dec 31, 2006 to Dec 31, 2013
- 2012 Building Code – as of January 1, 2014

Sentence 3.3.3.8.(2) is revoked and the following substituted:

(2) The changes referred to in Sentence (1) are changes made to the Act and Ontario Regulation 350/06 (Building Code) from December 31, 2006 to December 31, 2013 and changes made at the time that regulation is replaced by this Code on January 1, 2014. (O.Reg. 361/13)

Previously qualified registered code agencies: Division C, 3.4.3.2.(2) and (3)

The following who were registered/qualified on December 31, 2013, are deemed to be registered/qualified under the 2012 Building Code:

- Registered code agency (RCA)

- Director, officer, partner or employees with knowledge of the powers and duties of an RCA
- Director, officer, partner or employees with knowledge of the Building Code in the category of qualification
- All persons who will carry out plans review and inspection activities on behalf of the RCA

Application for Registration or Renewal of a Registration: Division C, 3.4.3.3. (O.Reg. 360/13)

Sentence 3.4.3.3.(8) of Division C of the Regulation is revoked and the following substituted:

(8) An application for registration or renewal of a registration shall contain evidence, provided by the applicant or registered person in such form and in such detail as may be required by the *director*, that the applicant or registered person is covered by the insurance required under Subsection 3.6.2. during the term of the registration applied for.

Fees: Division C, 3.4.3.5 (O.Reg. 360/13)

Sentences 3.4.3.5.(4), (5) and (6) are revoked and the following substituted:

(4) The fee payable for an application to take an examination that is part of an examination program referred to in Clause 3.4.3.2.(1)(a), (b) or (c) is \$150.

Fees: Division C, 3.4.3.5 (O.Reg. 360/13)

Article 3.4.3.5. is revoked and the following substituted:

3.4.3.5. Fees

(1) The fee payable for an application to take an examination that is part of an examination program referred to in Clause 3.4.3.2.(1)(a), (b) or (c) is \$150.

(2) The fee for a registration is,

(a) \$395, for 2015, and

(b) the amount determined in accordance with Sentences (5) and (6) rounded to the nearest dollar, for 2016 and subsequent calendar years.

(3) The fee for the addition of a new class of registration is,

(a) \$65, for 2015, and

(b) the amount determined in accordance with Sentences (5) and (6) rounded to the nearest dollar, for 2016 and subsequent calendar years.

(4) The fee for renewal of a registration is,

(a) \$290, for 2015, and

(b) the amount determined in accordance with Sentences (5) and (6) rounded to the nearest dollar, for 2016 and subsequent calendar years.

(5) On and after January 1, 2016, the fee for a calendar year is the fee for the previous calendar year adjusted by the percentage change from year to year in the Consumer Price Index for Ontario (All-Items) as reported monthly by Statistics Canada under the authority of the *Statistics Act* (Canada), averaged over the 12-month period that ends on March 31 of the previous calendar year, rounded to the first decimal point.

(6) Despite Sentence (5), if the percentage change results in a negative amount, the fee for a calendar year shall remain at the same level as the previous calendar year.

Conditions: Division C, 3.4.3.7.

Registered RCAs must ensure that the following persons complete the knowledge maintenance examination by the end of the 18th month after the Director gives notice of the examination:

- The registered person or at least one director, officer, partner or employee with knowledge of the powers and duties of an RCA
- The registered person or at least one director, officer, partner or employee with knowledge of the Building Code in the category of qualification
- All persons who will carry out plans review and inspection activities on behalf of the RCA

Knowledge Maintenance: Division C, 3.4.3.8

The Director shall give notice of knowledge maintenance exams to registered code agencies.

Knowledge maintenance exams will cover Act and Regulation changes in:

interim amendments – Dec 31, 2006 to Dec 31, 2013

2012 Building Code – as of January 1, 2014

Sentence 3.4.3.8.(2) is revoked and the following substituted:

(2) The changes referred to in Sentence (1) are changes made to the Act and Ontario Regulation 350/06 (Building Code) from December 31, 2006 to December 31, 2013 and changes made at the time that regulation is replaced by this Code on January 1, 2014. (O.Reg. 361/13)

Classes of Registration and Categories of Qualification For Inspectors and Persons Who Carry Out

Design Activities: Division C, Part 3 Table 3.5.2.1.

Qualification requirements have been modified to exclude qualifications related to signs not structurally supported by the building

Classes of Registration and Categories of Qualification For Inspectors and Persons Who Carry Out**Design Activities:** Division C, Part 3 Table 3.5.2.1. (O.Reg. 360/13)

Sentence 3.5.2.1.(1) is amended by striking out the portion before the Table and substituting the following:

3.5.2.1. Inspectors and Persons Who Carry out Design Activities

(1) Table 3.5.2.1. sets out the classes of registration and categories of qualifications for *inspectors* and persons who carry out *design activities*.

The heading to Table 3.5.2.1. is revoked and the following substituted:

Classes of Registration and Categories of Qualifications for Inspectors and Persons Who Carry out Design Activities^{(1) (2)}

The heading to Column 1 of Table 3.5.2.1. is revoked and the following substituted:

Classes of Registration for *Inspectors* and Persons
Who Carry out *Design Activities*

The heading to Column 2 of Table 3.5.2.1. is amended by striking out “3.2.5.1.(1)(a)” and substituting “3.2.5.2.(1)(a)”.

The Notes to Table 3.5.2.1. are revoked and the following substituted:

Notes to Table 3.5.2.1.:

(1) An *inspector* registered in one class of registration may carry out plans review and inspection in another class where to do so does not constitute a substantial part of the plans review or inspection on any project.

(2) A person registered in one class of registration may carry out *design activities* in another class where to do so does not constitute a substantial part of the *design activities* on any project.

Plan review and inspection activities: Division C, Part 3 3.7.4.2.(2)

A registered code agency must have an officer, director, partner or employee, or other person responsible for plans review or inspection, who has completed a knowledge maintenance exam in the

appropriate qualification category, by the end of the 18th month after the Director gives notice of the knowledge maintenance exam.

Transition: Division C, 4.1.2. (O.Reg. 361/13)

Section 4.1 is amended by adding the following Subsection:

4.1.2. Transition, January 2015

4.1.2.1. Transition Rule

(1) Subject to Sentence (2), this Regulation, as it read on December 31, 2014, is deemed to continue in force with respect to construction for which a permit has been applied for before January 1, 2015.

(2) Sentence (1) does not apply unless the construction is commenced within six months after the permit is issued.

Section 4.1 is amended by adding the following Subsection:

4.1.3. Transition, January 2017

4.1.3.1. Transition Rule

(1) Subject to Sentence (2), Item 329 of Table 1.3.1.2. and Sentence 8.6.2.2.(5) of Division B of this Regulation, as they read on December 31, 2016, are deemed to continue in force with respect to construction for which a permit has been applied for before January 1, 2017.

(2) Sentence (1) does not apply unless the construction is commenced within six months after the permit is issued.

Revocation: Division C, 4.2.1.1 (O.Reg. 361/13)

Sentence 4.2.1.1.(6), which would add Subsection 4.1.2. of Division C, is revoked.

Commencement: Division C, 4.4.1.1.

The 2012 Building Code comes into force on January 1, 2014. The 2006 Building Code applies until then. Certain provisions come into force on a later date:

Certain energy efficiency related provisions will come into force on January 1, 2014, 2015 and 2017 (see Part 12 of Div. B)

Changes related to on-site sewage systems and the Lake Simcoe watershed will come into force on January 1, 2016 (4.2.1.1.(1), (4) and (5) of Div. C)

Changes related to acceptable treatment units for on-site sewage systems will come into force on January 1, 2017 (4.2.1.1.(2), (3) and (6) of Div. C)

Commencement: Ontario Regulation 151/13

This Regulation comes into force on January 1, 2014.

Commencement: Ontario Regulation 361/13

Subject to subsection (2), this Regulation comes into force on January 1, 2014.

(2) Sections 5, 6, 7, 10, 13, 14, 16 and 20 and subsections 22 (1), (3), (4) and (5) come into force on January 1, 2015.

Commencement: Ontario Regulation 361/13

(1) Subject to subsections (2) and (3), this Regulation comes into force on January 1, 2014.

(2) Subsections 3 (10) and (20), section 34, subsection 35 (1), sections 70, 71, 73 and 82 and subsection 138 (1) come into force on January 1, 2015.

(3) Subsection 138 (2) comes into force on January 1, 2017.

Transition Rule: Division C, 4.1.1.1.

If a building permit was applied for before January 1, 2014, the building to which the permit relates may be constructed in accordance with the 2006 Building Code (O. Reg. 350/06).

However, this transition rule does not apply unless construction is commenced within six months after the permit is issued.

