



## **2019 National Codes Public Review**

### **Key Proposed Changes**

<https://nrc.canada.ca/en/certifications-evaluations-standards/codes-canada/codes-development-process/public-review-proposed-changes-codes-canada-publications-fall-2019>

Deadline for submission of comments - December 23, 2019 (4p.m. EST).

# Contents

- What is this document? ..... 4**
  - Members Call to Action ..... 4
  - BILD Alberta and CHBA National Advocacy ..... 4
- What is the 2019 National Codes Public Review? ..... 5**
- How do I participate? ..... 6**
  - Details ..... 6
  - How to submit comments..... 6
  - What Happens to the comments? ..... 6
- National Building Code (NBC) - Part 9 Proposed Changes ..... 7**
  - Grab Bars in Bathtubs and Showers..... 7
  - Location of Exhaust Outlets Relative to Soffits and Air Intakes..... 7
  - Insulated Concrete Forms (ICF) ..... 8
  - Safety Glazing in Shower and Bathtub Enclosures (Part 9)..... 8
  - Building Fire Safety - Updates to Table 9.10.3.1.-A, Fire and Sound Resistance of Walls..... 8
  - Spatial Separation Between Buildings - Application of Subsection 9.10.14. to Detached Carports ..... 9
  - Spatial Separation Between Houses - Limiting Distance and Fire Department Response ..... 9
  - Protection around Cooktops..... 9
  - Installation of Thermal Insulation on Foundation Walls..... 9
  - Protection of Vapour Barriers ..... 10
  - Vapour Barrier Materials ..... 10
  - Exterior Insulation Finish Systems - Geometrically Defined Drainage Cavity ..... 10
  - Snow Loads for Roofs with Solar Panels ..... 10
- National Building Code (NBC) – Non-Part 9 Proposed Changes ..... 11**
  - Grab Bars in Bathtubs and Showers..... 11
  - Encapsulated Mass Timber Construction (EMTC)..... 11
  - Information Required on Structural Drawings..... 11
  - Foamed Plastic Insulation in Exterior Walls..... 12
  - Emergency Power for Pumped Water Supplies for Sprinkler Systems ..... 12
  - Safety Glazing in Shower and Bathtub Enclosures (Part 3) ..... 12
  - Dead Loads - Partition Weight ..... 12
  - Snow Loads in High Roof Steps and on Canopies..... 13

Snow Loads for Roofs with Solar Panels .....	13
Structural Provisions for Storage Garages.....	13
Wind Data in Table C-2.....	13
<b>National Fire Code (NFC) – Proposed Changes.....</b>	<b>14</b>
Portable Extinguishers and Operation of Disconnect Switches for HVAC Systems in Home- Type Care Occupancies.....	14
New Standard for Sumps.....	14
<b>National Plumbing Code (NPC) – Proposed Changes.....</b>	<b>15</b>
Maximum Discharge Water Temperature .....	15
Water-Use Efficiency - Update to Exceptions in Sentences 2.1.2.1.(1), 2.1.2.2.(1) and 2.1.2.3.(1) .....	15
Protection of Drinking Water from Chemical Contamination .....	15
Cellular Core PVC Pipe.....	16
Fibrocement Pipe and Fittings .....	16
Flexible Water Connectors .....	16
Connection of Floor or Wall Outlet Fixtures .....	16
Location of Drain Pipes .....	17
Minimization of the Ingress of Soil Gases .....	17
Protection from Backflow .....	17
Size of Drainage Pipes Serving Water Closets .....	17
<b>National Energy Code for Buildings (NECB) – Proposed Changes.....</b>	<b>18</b>
Climatic Loads - Update of Wind Pressure Data.....	18

## What is this document?

To assist members, BILD Alberta is providing a **summary of key proposed changes** included in the fall 2019 public consultation that would impact the industry. This document provides short summaries of the most impactful proposed changes to the National Building Code (NBC), the National Fire Code (NFC), the National Plumbing Code (NPC) and the National Energy Code for Buildings (NECB) provided by the National Research Council (NRC).

## Members Call to Action

BILD Alberta members are encouraged to review the [proposed changes](#) and to provide formal comments to National Research Council before December 23, 2019.

Your feedback is critical to ensuring that the full impact of any proposed change is fully considered prior to their inclusion in the National Codes. We are asking members to providing specific examples of how the proposed changes would impact your business and its customers and for comments related to the accuracy of cost implications that are given as part of the proposed changes.

Members are also encouraged to forward feedback on the proposed changes to [Matthew Armstrong](#) to help inform the comments and advocacy that the association will provide on the proposed changes.

## BILD Alberta and CHBA National Advocacy

Both CHBA National and BILD Alberta are involved in continuously monitoring the National Codes development process. BILD Alberta has been working with CHBA National's Technical Research Committee (TRC) to draft comments on key proposed changes that will impact industry. BILD Alberta will also be submitting comments based on feedback from the members of our Provincial Residential Technical Committee (PRTC) and its review of the proposed changes. We are also trying to make it easier for members to provide their feedback through this summary document.

# What is the 2019 National Codes Public Review?

This national public review will run from October 22, 2019 to December 23, 2019.

The Canadian Commission on Building and Fire Codes (CCBFC) invites Code users and stakeholders to participate in the fall 2019 public review of proposed changes to Codes Canada publications:

- National Building Code of Canada 2015 (NBC)
- National Fire Code of Canada 2015 (NFC)
- National Plumbing Code of Canada 2015 (NPC)
- National Energy Code for Buildings 2017 (NECB)

A final national public review will take place from January 13th – March 13th , 2020 which will include changes being proposed to the **National Building Code Section 9.36 and the National Energy Code for Buildings (Tiered Energy Efficiency requirements, or STEP Codes)**, as well as changes related to accessibility, large farm buildings and updates to referenced standards.

The purpose of this public review is to:

- provide Code users and stakeholders with a detailed look at proposed technical changes and;
- seek comment on each proposed technical change as to whether it should be approved, altered, or rejected.

The public review closes at 4:00 p.m. PST on December 23, 2019, after which comments will no longer be accepted. The relevant committees of the CCBFC will review every comment that was received up to that date. The committees will then either withdraw the proposed change; recommend that it be reviewed further for possible re-submission in revised form in a future public review; or recommend that it be approved by the CCBFC, with or without modification. If approved by the CCBFC, the technical changes will be published in the 2020 editions of Codes Canada publications.

# How do I participate?

## Details

The Canadian Commission on Building and Fire Codes (CCBFC) has invited Code users and stakeholders to review the following publications:

- National Building Code of Canada 2015
  - [Proposed changes by Subject](#)
  - [Proposed changes by Code Provision](#)
- National Fire Code of Canada 2015
  - [Proposed changes by Subject](#)
  - [Proposed changes by Code Provision](#)
- National Plumbing Code of Canada 2015
  - [Proposed changes by Subject](#)
  - [Proposed changes by Code Provision](#)
- National Energy Code for Buildings of Canada 2017
  - [Proposed changes by Subject](#)
  - [Proposed changes by Code Provision](#)

[Click here](#) for the combined document of all changes.

## How to submit comments

Before submitting comments please read:

- [Guidelines](#) for writing comments
- [Instructions](#) for submitting comments
- [Proposed changes](#)

Providing feedback:

- To comment on a proposed change click the 'Submit Comment' link located at the beginning of each proposed change to access the [online comment form](#).
- You must use a separate Comment Form for each proposed change.
- **Only online comment forms will be accepted.**

## What Happens to the comments?

A committee will review all comments on the proposed changes and take one of the following actions:

- recommend that the CCBFC approve the change as originally proposed
- make editorial changes that do not alter the technical content and then recommend approval by the CCBFC
- revise the change and recommend it for approval, if, in the view of the Standing Committee, the action would not result in substantial adverse reaction from the public
- withdraw the change but consider it for possible re-submission in revised form in a future public review, or
- withdraw the change

# National Building Code (NBC) - Part 9 Proposed Changes

## Grab Bars in Bathtubs and Showers

PCFs [1581](#) (part 3), [1582](#) (Part 9)

These proposed changes introduce a requirement for the installation of grab bars in all bathtubs and showers.

**Impact:** These proposed changes add performance requirements to Part 3, but prescriptive requirements which would help ensure safe and long-lasting grab bar installations have not been developed. Water ingress is also not addressed, which could result in moisture damage and health issues related to the development of mould.

The impact analysis estimates carried out by the Joint Task Group has suggested an initial cost to install 2 grab bars for each bathtub/shower combo = \$233.32 (incl. profit and overhead). The actual impact on cost is believed to be significantly more. It's important to note that the standard five-foot bathtub with tiled walls on three sides used by the JTG for the impact analysis is not consistent with the manufactured bathtubs, bathtub/shower combinations and showers that are used in most new homes.

Most manufactured units are not designed for grab bar installations and installing grab bars would void the manufacturer's warranty. These proposed changes will eliminate most of the bathtubs, bathtub/shower combinations and showers in the marketplace, drastically reducing consumer choice or forcing the use of accessible units at a significant increase in cost.

## Location of Exhaust Outlets Relative to Soffits and Air Intakes

PCF [1468](#)

This proposed change introduces requirements to prevent the infiltration of exhaust air into roofs through soffits and back into the building through air intakes.

**Impact:** There is no difference between the cost of a vented soffit and an unvented one. Installing a vertical roof vent instead of a side wall or soffit vent would impose an estimated additional cost of \$55. Installing unvented soffits or blocking will prevent the infiltration of warm, moist air from the exhaust vents into the attic space, which can cause mould, mildew, rot, loss of the insulation's R-value, ice damming, and water infiltration.

## Insulated Concrete Forms (ICF)

PCFs [1598](#), [1599](#), [1600](#), [1601](#), [1602](#), [1603](#), [1604](#), [1612](#), [1613](#)

These proposed changes remove the limitation on the use of flat ICF walls in buildings with a single dwelling unit only and expand part 9 requirements beyond single dwelling units to include semi-detached houses and townhouses. Enforcement in the field and interpretation of what constitutes an acceptable ICF unit can be inconsistent and require engineering support, which results in increased costs. The intent is to better inform building officials and reduce limitations placed on ICF through the enforcement of standards that may not be applicable.

**Impact:** These changes will bring requirements for ICFs more inline with traditional forming construction for foundation walls supporting wood-frame construction. This should provide builders with more options and result in cost savings for the design and construction of ICFs.

## Safety Glazing in Shower and Bathtub Enclosures (Part 9)

PCF [1447](#)

Glass used in shower and bathtub enclosures is required to be safety glass, however there is no standard referenced in the NBC that establishes what types of glass are considered as safety glazing. This proposed change adds a reference to CAN/CGSB-12.1-2017, "Safety Glazing," for glazing used in shower and bathtub enclosures regulated by Part 9.

**Impact:** This proposed change should help standardize requirements for safety glazing. It is not expected to have any cost impact as safety glazing is already required in shower and bathtub enclosures.

## Building Fire Safety - Updates to Table 9.10.3.1.-A, Fire and Sound Resistance of Walls

PCF [1496](#)

Some of the assemblies for exterior wood-frame walls failed to achieve the fire-resistance ratings listed in existing Table 9.10.3.1.-A. This proposed change updates the descriptions, fire-resistance ratings and sound transmission classes of some existing wall assemblies in Table 9.10.3.1.-A, while also introduces new types of wall assemblies.

**Impact:** Impacted wall assemblies would have increased costs by requiring specific materials that have proven fire-resistance ratings where generic materials were previously permitted. This eliminates the option of using fibreglass insulation and increases the thickness of gypsum board required for some options currently described in the 2015 NBC.

## Spatial Separation Between Buildings - Application of Subsection 9.10.14. to Detached Carports

PCF [1140](#)

This proposed change clarifies that detached carports are exempted from the spatial separation requirements of Subsection 9.10.14.

**Impact:** The cost of building a carport would be reduced as building officials would no longer require them to be enclosed and have a fire-resistance rating and soffit protection.

## Spatial Separation Between Houses - Limiting Distance and Fire Department Response

PCF [1440](#)

This proposed change clarifies that the locations exempted from having to be sprinklered according to the standards referenced in Article 3.2.5.12. (which including some bathrooms, closets, pantries, garages, open porches and carports) are not actually exempted in the context of the application of Article 9.10.15.3. when they are located adjacent to the exposing building face.

**Impact:** This proposed change clarifies that the exemptions in the standards do not apply. The PCF suggests that there will not be any increases in costs due to this proposed change, but this is problematic given that the exemptions allowed for under NFPA 13D have been permitted by AHJs.

## Protection around Cooktops

PCF [1247](#)

This proposed change provides performance requirements for materials other than gypsum board to be installed to protect walls and cabinets around cooktops.

**Impact:** This proposed change may result in cost savings as it allows for alternate materials to be used.

## Installation of Thermal Insulation on Foundation Walls

PCF [1555](#)

This proposed change requires that insulation be installed over the full height of foundation walls enclosing a basement or heated crawl space.

**Impact:** Continuity of insulation across the entire building envelope is a requirement in Section 9.36. and therefore, a cost increase will only occur where full-height insulation is not required for other reasons. CHBA National's recommendation to insert clauses or address the use of foam plastic insulation have not been included in the PCF.

## Protection of Vapour Barriers

PCF [1350](#)

This proposed change introduces protection for non-polyethylene membrane-type vapour barriers that are susceptible to deterioration under prolonged exposure to direct ultraviolet radiation.

**Impact:** Non-polyethylene membrane-type vapour barriers are primarily left uncovered in basements and are exposed to direct UV radiation when installed near windows. The proposed change would affect approximately 5% of the houses built in Canada and protection with gypsum board would result in a cost of approximately \$120 per affected house.

## Vapour Barrier Materials

PCF [1352](#)

This proposed change introduces a provision to allow the installation of variable-permeance membrane-type (smart) vapour barriers.

**Impact:** This proposed change could help reduce the risk of moisture and mould problems caused by condensation in foundation wall assemblies.

## Exterior Insulation Finish Systems - Geometrically Defined Drainage Cavity

PCF [1461](#)

This proposed change deletes Figure A-9.27.13.1.(1) as it causes confusion among Code users and imposes limitations on innovation in the design of geometrically defined drainage cavities.

**Impact:** This change will allow more design flexibility for manufacturers and make it easier for builders to use EIFS products that employ a different drainage strategy than the two options currently shown in the diagram.

## Snow Loads for Roofs with Solar Panels

PCF [1199](#)

This proposed change introduces requirements to Part 4 for the determination of design snow loads for roofs with solar panels.

**Impact:** The impact of this proposed change on Part 9 construction is not clear. An Authority Having Jurisdiction may assume that they should require compliance with this section for Part 9 residential buildings which would have a significant cost burden. Work on future codes cycles is expected to include Part 9 content relating to solar collector installations.

# National Building Code (NBC) – Non-Part 9 Proposed Changes

## Grab Bars in Bathtubs and Showers

PCFs [1581](#)

This proposed change introduces a requirement for the installation of grab bars in all bathtubs and showers.

**Impact:** These proposed changes add performance requirements to Part 3, but prescriptive requirements which would help ensure safe and long-lasting grab bar installations have not been developed. Water ingress is also not addressed, which could result in moisture damage and health issues related to the development of mould.

The impact analysis estimates carried out by the Joint Task Group has suggested an initial cost to install 2 grab bars for each bathtub/shower combo = \$233.32 (incl. profit and overhead). The actual impact on cost is believed to be significantly more. It's important to note that the standard five-foot bathtub with tiled walls on three sides used by the JTG for the impact analysis is not consistent with the manufactured bathtubs, bathtub/shower combinations and showers that are used in most new homes.

Most manufactured units are not designed for grab bar installations and installing grab bars would void the manufacturer's warranty. These proposed changes will eliminate most of the bathtubs, bathtub/shower combinations and showers in the marketplace, drastically reducing consumer choice or forcing the use of accessible units at a significant increase in cost.

## Encapsulated Mass Timber Construction (EMTC)

PCFs [1024](#), [1027](#), [1525](#)

These proposed changes add a new method of calculating fire-resistance ratings for mass timber elements to Appendix D. Adds a reference to a test for the evaluation of encapsulation materials and assemblies of materials for the protection of structural mass timber elements.

**Impact:** These proposed changes will help enable the construction of buildings up to 12 storeys in building height using EMTC.

## Information Required on Structural Drawings

PCF [741](#)

This proposed change deletes the reference to cladding in Sentence (1) and adds a new Sentence dealing with structural drawings of secondary structural elements.

**Impact:** This proposed change clarifies that loading information must be added to the drawings for the primary building structure as well as to those for the secondary structural elements.

## Foamed Plastic Insulation in Exterior Walls

PCF [1312](#)

This proposed change clarifies the application of Sentences 3.1.5.6.(1) and 3.1.5.15.(2) with respect to foamed plastic insulation in exterior walls.

**Impact:** The application of Subsection 3.1.5. is particularly confusing regarding factory-assembled panels containing foamed plastic insulation. By clarifying the applicable test standard for factory-assembled panels it will make it clear that a CAN/ULC-S134 fire test is not required, the cost of which can reach as high as \$80,000 per test.

## Emergency Power for Pumped Water Supplies for Sprinkler Systems

PCF [1493](#)

This proposed change exempts pumped water supplies provided for sprinkler systems conforming to NFPA 13D, "Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes," from the requirement for an emergency power supply.

**Impact:** By removing the requirement to provide an emergency power supply for electric pumps, this proposed change is expected to decrease the cost of installing sprinkler systems conforming to NFPA 13D in one- or two-unit residential buildings.

## Safety Glazing in Shower and Bathtub Enclosures (Part 3)

PCF [1446](#)

This proposed change adds a reference to CAN/CGSB-12.1-2017, "Safety Glazing," for glazing used in shower and bathtub enclosures regulated by Part 3. Glass used in shower and bathtub enclosures is required to be safety glass, however there is no standard referenced in the NBC that establishes what types of glass are considered as safety glazing.

**Impact:** This proposed change should help standardize requirements for safety glazing. It is not expected to have any cost impact as safety glazing is already required in shower and bathtub enclosures.

## Dead Loads - Partition Weight

PCF [1448](#)

This proposed change clarifies the weight of partitions for the design of structural members. The misinterpretation of partition weight requirements could result in inappropriate design partition weights, particularly for residential building structures. Accurately determining the magnitude and distribution of partition weight is particularly important for the design of wood-frame floors.

**Impact:** This proposed change should help ensure that design accounts for both permanent fixed partitions and future temporary partitions.

## Snow Loads in High Roof Steps and on Canopies

PCF [1385](#)

This proposed change addresses snow drift loads in high roof steps and on canopies where the difference in elevation between the lower roof surface and the top of the parapet on the upper roof is large. Using the current calculation can result in an overestimation of the snow drift loads in the roof step.

**Impact:** The formula in proposed new Sentence 4.1.6.5.(4)-2020 tends to reduce the snow drift loads on roof steps where the difference in elevation between the lower roof surface and the top of the parapet on the upper roof is more than 5 m. The reduced loads will reduce construction costs.

## Snow Loads for Roofs with Solar Panels

PCF [1199](#)

This proposed change introduces requirements for the determination of design snow loads for roofs with solar panels.

**Impact:** The proposed requirements may result in increased cost but will help designers account for the effects of the installation of solar panels in the design of roofs and will help ensure that solar panels are installed safely.

## Structural Provisions for Storage Garages

PCF [184](#)

This proposed change replaces the phrase "parking structure" with the defined term "storage garage" and clarifies the application of Article 4.4.2.1.

**Impact:** This proposed change will clarify for AHJs and Code users that storage garages constructed of materials outside the scope of CSA S413, including wood, must achieve the same level of performance as storage garages constructed of materials within the scope of the standard.

## Wind Data in Table C-2

PCF [1498](#)

This proposed change updates the wind data in Table C-2 of Appendix C.

**Impact:** This proposed change ensures the wind data in the NBC are based on the most up-to-date observed data and reflect recent climate trends. The few locations that show an increase in reference wind velocity pressure will likely increase the cost of the building structure.

# National Fire Code (NFC) – Proposed Changes

## Portable Extinguishers and Operation of Disconnect Switches for HVAC Systems in Home-Type Care Occupancies

PCF [1529](#)

This proposed change clarifies that portable extinguishers and the operation of disconnect switches for HVAC systems are required in home-type care occupancies.

**Impact:** The proposed change was developed as part of a series of requirements that allow home-type care occupancies to be built under strict conditions that offer affordable lodging in a safe environment. Home-type care buildings will have increased costs relative to standard residential but will not require sprinklers which should result in overall cost savings.

## New Standard for Sumps

PCF [1562](#)

This proposed change replaces references to two superseded other recognized documents (ORDs) with a reference to CAN/ULC-S664-2017, "Containment Sumps, Sump Fittings, and Accessories for Flammable and Combustible Liquids."

**Impact:** There are no additional costs expected with this proposed change. The benefit of the proposed change is that it provides appropriate guidance on the construction of all four types of sumps listed in the NFC to reduce the risk of spills and leaks during operation.

# National Plumbing Code (NPC) – Proposed Changes

## Maximum Discharge Water Temperature

PCF [1366](#)

This proposed change introduces a reduced maximum temperature for water discharging from a shower head or into a bathtub in health care facilities and seniors' residences. It also revises Article 2.2.10.7. to address all types of shower heads, as well as bathtubs.

**Impact:** The existing provision limits the temperature of water discharging into a bathtub or from a fixed-location shower head to 49°C. However, it does not limit the temperature of water discharging from other types of shower heads, which could expose users to excessively high water temperatures, which could lead to scalding. As this change will simply necessitate that a valve (already required) be set at a lower temperature after installation, there will be no associated cost increase.

## Water-Use Efficiency - Update to Exceptions in Sentences 2.1.2.1.(1), 2.1.2.2.(1) and 2.1.2.3.(1)

PCF [946](#)

This proposed change updates the exceptions in Sentences 2.1.2.1.(1), 2.1.2.2.(1) and 2.1.2.3.(1) which are incorrect and need to be adjusted to allow for waste water and rainwater to be diverted to non-potable water systems.

**Impact:** This proposed change clarifies the connection requirements where greywater systems are used. No cost increase is associated with the proposed change.

## Protection of Drinking Water from Chemical Contamination

PCF [1415](#)

This proposed change introduces a new Sentence with a reference to a new standard entitled NSF/ANSI/CAN 61-2018, "Drinking Water System Components - Health Effects," which deals with the protection of drinking water from contamination by chemicals or impurities.

**Impact:** Most plumbing products used in the assembly and construction of potable water distribution systems are sold in both the U.S. and Canada and therefore, are already required to conform to older editions of NSF 61. This proposed change is not expected to have any cost implications.

## Cellular Core PVC Pipe

PCF [1439](#)

This proposed change introduces a new plumbing material into the NPC: cellular core PVC pipe.

**Impact:** The proposed change will allow cellular core PVC pipe to be used for drainage service in residential projects. The change will provide Code users with an additional option, the cost of which is 15% to 20% lower than that of other materials, such as solid core PVC pipe.

## Fibrocement Pipe and Fittings

PCF [1471](#)

The marketplace identified the need to replace asbestos-cement pipe and fittings with fibrocement products. However, the lack of performance requirements in the NPC for fibrocement pipe and fittings. This proposed change introduces a new Article on fibrocement pipe and fittings with a reference to CAN/CSA-B127.3-18, "Fibrocement Drain, Waste, and Vent Pipe and Pipe Fittings."

**Impact:** The proposed change would allow a new product (fibrocement DWV pipe and fittings) to be used to replace a product that is no longer allowed (asbestos-cement DWV pipe and fittings).

## Flexible Water Connectors

PCF [1495](#)

The NPC does not currently address flexible water connectors. This proposed change introduces a new Article with a reference to ASME A112.18.6-2017/CSA B125.6-17, "Flexible Water Connectors," to set minimum performance requirements for flexible water connectors and to address the health hazard of exposure to lead from such connectors.

**Impact:** This proposed change will provide stakeholders with performance requirements for flexible water connectors for use in water supply systems under continuous pressure.

## Connection of Floor or Wall Outlet Fixtures

PCF [1387](#)

This proposed change clarifies that floor-mounted water closets can be attached to either the floor or floor flange. It also clarifies the method of attachment of wall-mounted water closets.

**Impact:** This proposed change should help Code users to better understand the three options permitted by the Code for the connection of water-closet bowls in a building.

## Location of Drain Pipes

PCF [1389](#)

This proposed change requires that a drain pipe that is directly connected to multiple fixture outlet pipes or a fixture drain be located within a single room or suite.

**Impact:** Adding an indirect connection to the drainage piping serving each room or suite will not have a significant cost impact on the installation of the plumbing system. Furthermore, the proposed change will help to reduce heat loss through the roof if the vent pipe is not extended through it.

## Minimization of the Ingress of Soil Gases

PCF [1388](#)

This proposed change introduces a new Sentence requiring that a sump or tank receiving subsurface water from a subsoil drainage pipe be provided with a water- and air-tight cover to minimize the ingress of soil gases, such as radon, into the building.

**Impact:** The proposed change is not expected to have any cost implications as it is aligning the NPC with the NBC and to ensure that acceptable indoor air quality is maintained.

## Protection from Backflow

PCF [1412](#)

This proposed change revises Article 2.4.6.4. to remove gate valves and screw caps as options for backflow protection. It also removes Note A-2.4.6.4.(1) and revises Note A-2.4.6.4.(6).

**Impact:** In new construction, backflow protection is required for all fixtures below the level of the adjoining street. Removing gate valves and screw caps, which require manual intervention, as options for backflow protection will reduce the risk of basement flooding and may result in a cost reduction when backwater valves are used instead.

## Size of Drainage Pipes Serving Water Closets

PCF [1390](#)

This proposed change deletes Sentence 2.4.9.2.(2), which sets a minimum size for branch and building drains serving 3 or more water closets, and Sentence 2.4.9.2.(3), which sets a minimum size for soil-or-waste stacks serving more than 6 water closets.

**Impact:** The proposed change will reduce plumbing installation costs while ensuring that the Code objectives and functional statements continue to be met.

# National Energy Code for Buildings (NECB) – Proposed Changes

## Climatic Loads - Update of Wind Pressure Data

PCF [1623](#)

This proposed change updates the hourly wind pressure data in Table C-1.

**Impact:** This proposed change ensures the wind data in the NECB are based on the most up-to-date observed data and reflect recent climate trends. The few locations that show an increase in reference to wind velocity pressure will likely increase the cost of the building structure.