

Ministry of Municipal Affairs and Housing

Next Edition of the Building Code & Harmonization

Engagement Session on Proposed Changes related to Small Buildings

Building and Development
Branch (MMAH)
November 25, 2021

Background

- Under the Canadian Free Trade Agreement (2017), the Regulatory Reconciliation and Cooperation Table identified harmonization of construction codes as a priority.
- A Reconciliation Agreement was signed by Ontario through the Ministers of Municipal Affairs and Housing and the Solicitor General on August 27, 2020.
- Under the agreement, Ontario (as well as all other provinces and territories) are obligated to:
 - Reduce the number of technical differences (variations) between its Code and the National Codes.
 - Release new (and increasingly harmonized) editions of its Code within specific timeframes following the release of new National Codes.
 - Make the next edition of Ontario's Building Code in-effect 24 months after the release of the next National Codes.

Timing Considerations

- The 2020 National Construction Codes are expected to be released in **February 2022** meaning Ontario will need its **new Code to be in-effect in early 2024.**
- To provide the sector with sufficient time to prepare, contents of a new Code are normally made **publicly available 6-12 months prior** to being in-force.
- Industry capacity to absorb extensive changes is a consideration for the timing of the next edition.
 - The number of changes in the next edition is likely to be significantly higher than previous editions of the Building Code.

Scope of Harmonization

Building Code Act, 1992,
S.O. 1992, c. 23

*Areas circled in red are within the scope of harmonization

Building Code
O. Reg. 332/12

Incorporated via Reference

Other Technical Standards

Ministry Supplementary
Standards

Division A
Compliance, Objectives
and Functional Statements

Division B
Acceptable
Solutions

Division C
Administrative
Provisions

Part 1: Compliance and General

- Organization and application
- Compliance
- Interpretation
- Defined terms, symbols and abbreviations
- List of applicable law for the purposes of obtaining a permit under Sections 8 and 10 of the Act

Part 2: Objectives
Part 3: Functional Statements

Part 1: General
Part 2: Reserved
Part 3: Fire Protection, Occupant Safety and Accessibility
Part 4: Structural Design
Part 5: Environmental Separation
Part 6: Heating, Ventilating and Air-Conditioning
Part 7: Plumbing
Part 8: Sewage Systems
Part 9: Housing and Small Buildings
Part 10: Change of Use
Part 11: Renovation
Part 12: Resource Conservation

Part 1: General
Part 2: Alternative Solutions, Disputes, Rulings and Interpretations
Part 3: Qualifications
Part 4: Transition, Revocation and Commencement

SA-1: Attribution Tables
SB-1: Climatic and Seismic Data
SB-2: Fire Performance Ratings
SB-3: Fire and Sound Resistance of Building Assemblies
SB-4: Measures for Fire Safety in High Buildings
SB-6: Percolation Time and Soil Descriptions
SB-7: Construction Requirements for Guards
SB-8: Design, Construction and Installation of Anchorage Systems for Fixed Access Ladders
SB-9: Requirements for Soil Gas Control
SB-10: Energy Efficiency Supplement
SB-11: Construction of Farm Buildings
SB-12: Energy Efficiency of Housing
SB-13: Glass in Guards
SC-1: Code of Conduct for Registered Code Agencies

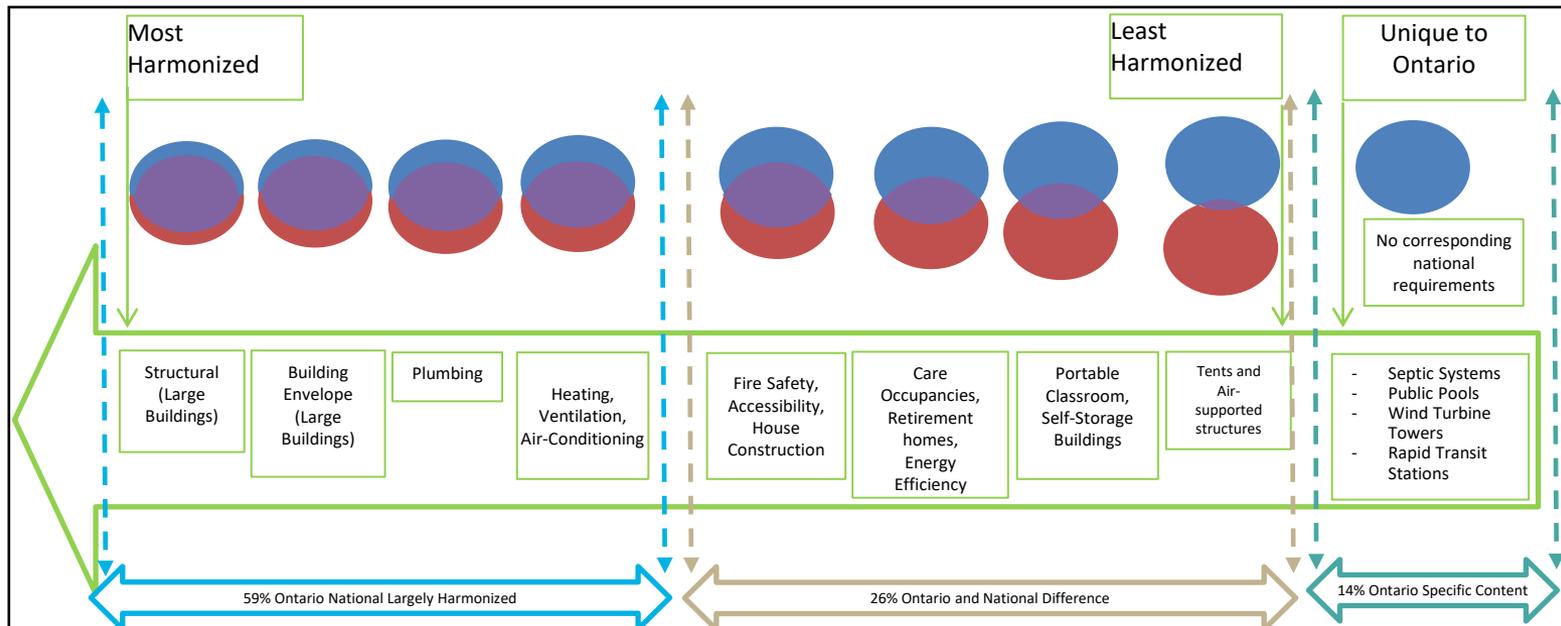
Volume 1 of the Building Code Compendium

Volume 2 of the Building Code Compendium

Sources of Variations

- There are two sources of variations between Ontario's Building Code and the National Construction Codes:
 1. Existing variations with the 2015 National Construction Codes – see graphic.
 - Includes areas addressed by both Ontario and National Codes as well as Ontario-only provisions.
 2. Upcoming variations – the 2020 National Construction Codes will introduce new or updated technical requirements that will need to be considered for adoption into Ontario's Building Code.

Building Code Variations By Part

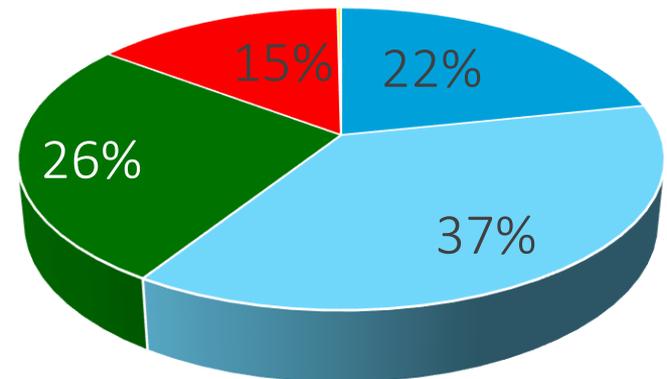


Variation with the 2015 National Construction Codes – Summary of Analysis

- At present, Ontario is approximately 59% harmonized with the 2015 National Construction Codes.
- The remaining 41% are variations representing approximately 3,000 different technical requirements in the Code.
- Of the 3,000 different requirements:
 - Approximately 1,500 are excluded from harmonization* (i.e., are exceptions)
 - The remaining 1,500 are variations that could be harmonized with the National Construction Codes.
 - Out of the 1,500 variations, the intention is to achieve harmonization with at least 50 % of these variations in this Code cycle.

*The majority of these exceptions are either unique to Ontario (e.g., sewage systems) or Ontario's requirements are at a higher/more advanced level than the National Codes (e.g., accessibility).

Building, Plumbing, Energy, Farm Building Codes (Variations)



- Harmonized - Editorial difference
- Harmonized - No difference
- Variation in NBC/OBC Common Areas
- Ontario-Only Variations

Sets of Code Changes for the Next Edition of Ontario's Building Code

FALL
Consultation

2015 National Construction Codes

Low impact existing variations

Harmonization with various minor or low impact variations that do not represent changes in policy.

Medium and high impact existing variations

Harmonization with medium and high impact variations would have impacts on the building sector and may modify current policies.

Ontario-only Requirements

Ontario-only Building Code changes

Changes that may have been requested by stakeholders or are necessary to ensure standards are up-to-date.

Winter
Consultation

2020 National Construction Codes

2020 National Construction Code changes

New changes that the National Research Council will introduce through the 2020 National Construction Codes (expected in early 2022). Failure to adopt these changes will increase the number of variations.

Key Code Change Areas Affecting Small Buildings

Existing Technical Variations (increase harmonization with National Construction Codes) include:

- Secondary Suites
- Soil Gas/ Radon
- House Ventilation
- Plumbing
- Climbable Design of Guards

Ontario-Specific Changes (unique to Ontario – not part of harmonization) include:

- Pre-fabricated Homes
- Underpinning

Secondary Suites

Summary of the Proposed Changes

- To harmonize with National's approach would require Ontario to make broad changes to requirements for secondary suites. These include changes to:
 - Definition of secondary suites
 - Reduction in ceiling heights
 - Setting floor area limits
 - Fire safety protection measures
 - Reduction in sound attenuation
 - Prohibiting sharing a forced-air HVAC System

Potential Impact

- Overall, some of the changes could increase requirements for secondary suites, which may be seen as a barrier to increasing housing supply.
- Aligning with the language used in the National Construction Code may also line up with language typically used in municipal by-laws.
- As these represent significant changes, building code practitioners may require major training.

Soil Gas (Radon)

Summary of the Proposed Changes

- The proposed changes would result in Ontario adopting a proactive approach to address soil gas/radon by requiring new houses to have a rough-in for a subfloor depressurization system.
- Currently, Ontario only requires a full radon extraction system in three municipalities or where radon levels are known to be a problem.

Potential Impact

- Harmonizing would bring further clarity.
- Though this may result in increased associated costs, adopting these changes would facilitate the installation of future radon extraction equipment.
- Consumers would have the option to routinely check radon levels to determine whether an extraction system is required.

House Ventilation

Summary of the Proposed Changes

- House ventilation requirements differ significantly in approach between Ontario's Building Code and the National Construction Codes.
 - For example, Ontario addresses ventilation terminologies in terms of natural and mechanical ventilation; whereas National uses non-heating season and heating-season mechanical ventilation.
- In essence, the proposed changes for the next edition of Ontario's Building Code is to adopt National's approach to house ventilation in its entirety.

Potential Impact

- House ventilation standards would differ in approach, hence, there may be a learning curve for builders to adjust.
- Harmonizing these requirements would result in a substantial change for Ontario practitioners and may require some technical training and support.

Plumbing

Summary of the Proposed Changes

- There are various low to medium impact variations between plumbing requirements of both codes, for example modifying provisions to be more specific for the general application of plumbing facilities referred to in Part 9 (houses and small buildings).
- The proposed changes will better align the language and Code provision numbering with the National Construction Codes.
- Furthermore, harmonizing with the National Construction Codes would simplify requirements or remove some additional details provide by Ontario's Building Code.

Potential Impact

- Updated training for plumbers, apprentice plumbers and inspectors may be required to adjust to these new requirements.

Design of Guards

Summary of the Proposed Changes

- Ontario's Building Code currently limits the design of guards to prevent climbing.
- The proposed changes aligning with National Construction Codes would allow climbable elements in guards located up to 4.2 m from adjacent floor levels.
- This would apply to houses and small buildings, as well as most large buildings.

Potential Impact

- If Ontario were to proceed with this change, it would align with the provisions in the Building Code with National Construction Codes and those in some other provinces.
- Existing restrictions on guard design may require further research to determine whether they protect vulnerable populations.

Pre-fabricated Homes

Summary of the Proposed Changes

- This Ontario-specific change would facilitate the use of current standards in the design and construction of pre-fabricated homes in Ontario by requiring pre-fabricated buildings (including houses) to conform to MMA Supplementary Standard SB-12, “Energy Efficiency Requirements”.

Potential Impact

- This change would ensure pre-fabricated homes meet energy efficiency requirements in Ontario wherever they are built and update standards in the Code.

Underpinning

Summary of the Proposed Changes

- Currently, the Building Code does not require the general review and supervision of a qualified person during underpinning work, though footings must be designed by a professional engineer.
- In September 2014, Ryan Pearce died by suffocation when a house he was performing underpinning work in collapsed.
- After the death of Mr. Pearce from the underpinning collapse, MMAH received a Building Code change proposal from the building industry and coroner's inquest recommendations to require general review of underpinning work by a professional engineer. This is the basis for the proposed change for the next edition of Ontario's Building Code.
 - In practice, this proposal would require a professional engineer to visit the construction site to ensure the underpinning work being undertaken complies with the plans submitted and approved by the principal authority (e.g., municipality).

Potential Impact

- As there has been support for this change from the sector in the past, it is anticipated that this proposal is expected and would be well-received.

Quick Break

Questions/Discussion

1. Do you have any questions or concerns about these or other proposed changes (refer to posting on Regulatory Registry)?
2. Do you foresee any additional potential impacts on your sector?
3. Which Code change areas would benefit from follow-up technical discussions?
4. What supports may be needed as Ontario increases efforts to harmonize with National Construction Codes?
5. Do you have any other questions/concerns?

Closing

- Regulatory Registry posting closes on December 4, 2021.
- Winter 2022 consultation on 2020 National Construction Code changes anticipated to launch in January 2022.
- For follow-up questions, please contact emily.lemarchand2@ontario.ca or josh.bautista@ontario.ca.

Thank you for your participation! We hope this session was informative and we look forward to receiving further input.