

OVERVIEW SUMMARY DOCUMENT

POTENTIAL CHANGES TO ONTARIO'S BUILDING CODE:

FALL 2016
CONSULTATION

Ontario.ca/buildingcode

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Introduction

The Ministry of Municipal Affairs (MMA) is now seeking stakeholder and public input through a comprehensive consultation on changes being considered to the Building Code Act, 1992 and the Building Code.

The Building Code Act is the legislative framework governing the construction, renovation, change of use and demolition of buildings in Ontario. The Building Code is a regulation made under the Building Code Act, which sets out detailed administrative and technical requirements. Every five to seven years, a new Building Code is made to implement government priorities and reflect changes to the model national construction codes. It also includes proposed changes submitted by industry stakeholders and the public. Interim amendments to the Building Code are made between new editions to support government priorities and emerging issues.

To support initiatives including the Long-Term Affordable Housing Strategy update, Climate Change Action Plan and the government's on-going commitment to building safety, conservation, environmental protection and accessibility, the consultation will be conducted in two separate phases.

The first phase will consult on proposed interim amendments to the current Building Code that support the Long-Term Affordable Housing Strategy update. This phase will also seek input on proposed changes that would form the next edition of the Building Code. In addition, we are seeking advice on preliminary changes the government should consider to improve energy efficiency and water conservation that could be implemented quickly and over time.

The second phase will seek input on the specific proposed energy efficiency enhancements requirements in the Building Code to support implementation of the government's Climate Change Action Plan. Industrial and residential buildings represent 22 per cent of Ontario's emissions and the sector will require innovative solutions to effectively reduce emissions.

Ontario is already a North American leader in energy efficient Building Code standards. The 2012 Building Code increased energy efficiency requirements for houses and large buildings. As a result, houses constructed after January 1, 2017 will be 15 per cent more energy efficient than a house constructed using the current requirements. Large buildings constructed after January 1, 2017 will be 13 per cent more energy efficient than a large building constructed using the current requirements. As a result of these performance requirements, in 2017, a house will consume 50 per cent of the energy of a 2005 equivalent, and a large building only 65 per cent.

Changes for consideration included in phase two of the consultation will provide Ontario an opportunity to build on its leadership in energy efficiency standards.

Review of Building Regulations

Ontario's Building Code is a regulation made under the Building Code Act. It sets out technical and administrative requirements related to the construction, renovation, change of use and demolition of buildings. The MMA is responsible for the administration of the Building Code Act and Building Code.

The Building Code works in conjunction with other legislation, regulations and standards, such as:

- Electrical Safety Code
- Fire Code
- Occupational Health and Safety Act
- Regulations developed by the Technical Standards and Safety Authority
- Accessibility for Ontarians with Disabilities Act, 2005.

Many of the Building Code changes for consideration discussed in this document would be developed in conjunction with potential changes to the other legislation, regulations and standards. For example, proposed Building Code changes to enhance the carbon monoxide requirements would require collaboration with the Office of the Fire Marshal and Emergency Management on potential complementary changes to the Fire Code. For more information on these regulations and relevant enforcement bodies please see Appendix C.

Context for Consultation

Major Themes for Phase One Consultation

The following provides an overview of the major themes of proposed Building Code changes that are included in phase one of the consultation.

The Long-Term Affordable Housing Strategy Update

Government priorities are supported by the changes being considered to the Building Code. Ontario's [update to the Long-Term Affordable Housing Strategy](#) reflects current realities, new research and best practices to support social and economic inclusion, end chronic homelessness and meet the housing needs of all Ontarians.

Proposed Building Code changes are intended to support these objectives. As part of implementing the Long-Term Affordable Housing Strategy update, MMA is publicly consulting on changes to the Building Code that would establish specific construction standards for retirement homes, as well as promote the creation of new rental housing stock by helping to reduce the cost of building two-unit houses, commonly referred to as secondary suites, in newly constructed houses.

In order to streamline public consultation, MMA is consulting on the Building Code components of the Long-Term Affordable Housing Strategy update along with other next edition Building Code proposed changes included in this consultation document.

Please see Section 1 of this document for details on proposed interim amendments to the Building Code that would support the Long-Term Affordable Housing Strategy update.

Next Edition of the Building Code

The next edition of the Building Code will make necessary technical amendments to support environmental protection and safety, enhance fire safety, increase structural sufficiency, improve public health and safety, clarify barrier-free access requirements, and provide greater consistency with other codes, standards, legislation and regulations. Next edition changes will respond to the needs of the public, the building sector, the enforcement community, and reflect changes in technology and standards.

Moreover, the government uses a new edition of the Building Code as an opportunity to increase harmonization with the model national construction codes and standards. New national construction codes were released by the federal government in January 2016, and a new Building Code is needed to promote consistency between codes. Harmonization with the model national construction codes, which are adopted in some provinces across Canada, boosts the competitiveness of Ontario's construction sector, as it promotes standardization and reduces inter-provincial barriers.

Please see Section 2 of this document for details on changes being considered for the next edition of the Building Code.

Consultation Discussion Items: Potential Future Building Code Amendments

In addition to the items for consultation set out above, the government wants to hear from you about longer-term issues that could inform potential future changes to the Building Code, or other regulations. A consultation of this nature is a departure from typical Building Code consultations, which usually focus on detailed, technical near-term changes to the Building Code, complete with proposed regulatory language. Instead, this portion of the consultation is designed to seek participation and input from the public and building sector in a discussion of how buildings should be constructed and how they will perform in the future.

Phase one of the consultation will focus on the development of community hubs, the protection of ground and surface water quality and energy efficiency. Please see Section 3 of this document for details on these discussion items.

Seeking Your Input

Public consultation is an important part of developing legislation and regulations in Ontario. Consultations have traditionally played a key role in shaping the Building Code Act and Building Code. This consultation is designed to generate input from building sector stakeholders and the public on the current proposed changes to the Building Code.

This Overview Summary sets out proposed in-effect dates for the changes being considered in phase one of the consultation. The government is also seeking your input regarding appropriate time frames to achieve the proposed amendments, taking into consideration issues such as urgency, industry capacity, and requirements for building sector transition. See Appendix B for a timeline of proposed Code change implementation.

In this regard, it is important to note that changes being considered in this document are strictly for discussion purposes and do not represent final government policy. Your feedback is valued, and will be considered before the government makes final decisions on the proposed amendments.

This Consultation Document

This consultation document includes a description of the changes to the Building Code that are being considered, provides a link to the technical descriptions of the proposed changes, and explains how input on the proposed changes can be provided.

The consultation document includes two components: the Overview Summary and the Technical Code Change Proposals.

1. The Overview Summary describes what the Building Code and Act currently require, the need for change and the proposed change.
2. The Technical Code Change Proposals contain approximately 500 proposed changes to the Building Code. The Technical Code Change Proposals include current wording of the Building Code (if applicable), proposed new wording, and a rationale for each change. These proposals are drafted in detailed technical language and are generally intended for review and comment by specialized experts.

Consultation Process – How to Comment and By When

Steps to submit comments:

- Review the materials in this Overview Summary and the Technical Code Change Proposals that are of interest to you
- Provide feedback on a proposed change by completing and submitting the Comment Form found online, or by mail
- Questions about the consultation process, collection of information and access to the consultation document may be directed to buildingcode.consultation@ontario.ca
- All other feedback on the content of the proposed Building Code changes should be included in a Comment Form

For full details on how to submit comments, please see page 21 of this document. The MMA must receive your response to phase one of this consultation by **December 20, 2016**.

1. Interim Amendments to the 2012 Building Code

Implementing the Long-Term Affordable Housing Strategy Update

In 2010, Ontario released its first Long-Term Affordable Housing Strategy, *Building Foundations: Building Futures*, to improve access to adequate, suitable and affordable housing in Ontario. An **update to this strategy** was released on March 14, 2016. It focuses on linking two important and connected issues that result in precarious housing for vulnerable people: the available amount of housing stock, and access to those affordable units.

Long-Term Affordable Housing Strategy

Proposed in-effect date: July 2017

- Retirement homes
- Secondary suites

The updated Long-Term Affordable Housing Strategy proposes a range of initiatives to increase the supply of affordable housing and support greater participation from the private sector. Housing prices and rents are increasing at a rate higher than incomes, which has made it difficult for some Ontarians, especially those in low-income households, to find affordable housing in the private market. The Building Code can help to increase the supply of affordable housing in Ontario. As part of the Long-Term Affordable Housing Strategy update, MMA is considering:

- Amendments pertaining to retirement homes that would establish a specific occupancy classification and construction standards for that use
- Amendments regarding two-unit houses, commonly referred to as secondary suites, that are intended to increase the supply of rental housing stock by helping to reduce the cost of building secondary suites in newly constructed houses

Retirement Homes

Currently, retirement homes are classified under the Building Code as either a residential occupancy or an institutional occupancy (or “care occupancy”), depending on the amount of care provided. Under the Building Code, there are enhanced safety requirements for care occupancies that recognize individuals who require a higher level of care live in those buildings and may need more time to evacuate in the event of an emergency due to cognitive limitations or mobility challenges.

Retirement home operators have indicated that enforcement of construction requirements varies across municipalities as a result of an inconsistent interpretation of the level of care needed by occupants of a retirement home. Inconsistency in enforcement poses challenges for the development and construction of new retirement homes. In addition, complying with the more rigorous set of Building Code standards involved in constructing an institutional retirement home increases the cost of construction, which has potential to result in higher costs passed on to tenants.

As a group, residents of retirement homes have specific needs that must be adequately met in the buildings they live in. While retirement home occupants are mostly ambulatory and can generally provide their own care, they may have some physical limitations associated with aging, such as vision loss and reduced hearing and mobility. The construction of retirement homes must provide for appropriate levels of safety, especially protection in the event of fire, that reflect the needs of an older population. To achieve this, MMA is considering amendments to the Building Code to establish a new occupancy classification with specific construction standards for retirement homes (as defined in the Retirement Homes Act). Under this proposal, retirement homes would be classified as a residential “C” occupancy with specific construction standards.

Under the proposed residential “C” occupancy requirements, specific construction standards for retirement homes would include:

- Establishing construction requirements (i.e., limits of combustible construction) and requiring sprinklering
- Permitting 1 or 2 stage fire alarm systems, depending on size and height of the building
- Allowing for reduced corridor width and suite door sizes
- Permitting non-masonry/concrete firewalls
- Requiring fire separated areas of refuge on floors containing a dwelling unit

Secondary Suites

Currently, the Building Code has residential construction requirements that recognize differences between single-unit houses, buildings containing between two and four units, and multi-unit buildings with greater than four units. Requirements for each of these residential housing types become progressively more stringent the greater the number of residential units in a building. Under current requirements, new homes built with a secondary suite are buildings that contain between 2-4 units, which have higher requirements than a single-unit house.

Current Building Code requirements for newly built houses with secondary suites are generally higher than the requirements that apply when an existing single-unit house is converted into a house with a secondary suite.

When a house that is older than five years is renovated to include a second unit, the Building Code permits alternative construction requirements in areas such as fire protection, heating and mechanical ventilation systems and ceiling height to recognize the difficulties and limitations associated with renovating an existing house. These alternative construction requirements provide for occupant safety, while mitigating costs for the renovation. When converting an attic, for example, ceiling heights are permitted to be lower than would otherwise be required for up to 50 per cent of the floor area.

Builders and renovators have indicated that these differences result in higher costs for adding a secondary suite in newly built houses and as a result, have negative impacts on affordability of new homes. To increase the affordability of newly built houses with secondary suites, MMA is considering amendments to the requirements that would apply when constructing newly built houses with second units. These requirements would include:

- Permitting houses with secondary suites to be built of combustible construction and combustible cladding
- Requiring a 30-minute fire separation between two units
- Requiring interconnected and hard-wired smoke alarms within the units (e.g., common laundry rooms and shared exits)
- Permitting installation of combined or independent HVAC systems

2. The Next Edition of the Building Code

As with every new edition of the Building Code, the proposed next edition would make technical amendments to enhance environmental protection and safety, fire safety, increase structural sufficiency, improve public health and safety, clarify barrier-free accessibility requirements, and provide greater consistency with other codes, standards, legislation and regulations.

Next Edition of the Building Code

**Proposed in-effect date:
January 2019**

- Environmental protection and safety
- Fire safety
- Structural integrity
- Public health and safety
- Accessibility
- Harmonization and consistency

Environmental Protection and Safety

MMA is considering changes in the next edition of the Building Code that would support environmental protection and safety. Unless otherwise noted, the proposed changes outlined below are being considered for implementation in 2019 as part of the proposed new Building Code.

Protection of Ground and Surface Water Quality

Since 1998, the Building Code has regulated small on-site sewage (septic) systems. Those requirements contribute to public health and safety and environmental protection through reducing the release of pathogens into ground water and surface water bodies. These regulations protect Ontario's ground and source water, which protects public safety as well as our lakes and shores. The Building Code addresses the operation and maintenance of existing systems. For further discussion on septic system maintenance requirements please see Section 3.

MMA is considering changes to expand and introduce requirements for on-site sewage systems to protect ground water quality, including:

- Restricting the use of holding tanks in house renovations
- Clarifying requirements for homeowners regarding sampling of septic systems (where applicable)
- Incorporating new effluent distribution technology (e.g. chamber systems)

Radon Mitigation

Radon is reportedly the second leading cause of lung cancer after smoking. Radon gas occurs naturally from the decomposition of radioactive minerals in soil. It is a heavy gas. Therefore, the safety risks are higher in basements of houses with tighter envelopes, which are more commonly being used as living spaces.

In the current Building Code, radon mitigation requirements are mandatory for new houses and large buildings in three areas (the Town of Elliot Lake, the Township of Faraday and the Geographic Township of Hyman) that have historically demonstrated high levels of radon according to Health Canada. The Building Code also currently requires radon mitigation measures to be installed where radon is “known to be a problem.”

Findings in a recent Health Canada study highlighted the potential risks of radon gas being present across Ontario. To promote public safety, MMA is considering broader requirements for radon mitigation in construction of all new houses (e.g., sub-floor pipe “rough-ins” for depressurization, high strength concrete or impermeable vapour barrier) across Ontario.

Fire Safety

Since its inception in 1975, the Building Code has contained comprehensive and rigorous fire safety requirements for buildings. Under the Building Code Act, fire protection is explicitly identified as a purpose of the Building Code. The Building Code addresses fire safety in a number of ways. Specifically, it applies four interconnected principles of fire safety for building design: detection and warning, containment, suppression (e.g., sprinklers), and exiting. To continue supporting these objectives, proposed Building Code changes would enhance fire safety requirements for large and small buildings in a number of ways, including by:

- Enhancing fire blocking requirements to stop the spread of fire, and clarifying requirements for automatic damper closures in ducts to stop the spread of smoke
- Clarifying existing requirements for fire alarm and communication systems, and enhancing requirements for visual signalling devices
- Updating seismic design requirements for protection of sprinkler systems
- Clarifying requirements for sprinkler installation, elevator fire separations and inter-connected floor space design in rapid transit stations
- Requiring a window as a second means of escape from a basement regardless of whether or not the basement contains bedrooms at the time of construction

Structural Integrity

Another objective of the Building Code is structural sufficiency. The Building Code establishes the standards for construction to provide for structural integrity. A number of changes for consideration would promote building safety primarily through enhancing and clarifying existing structural requirements for large and small buildings, including houses. Many proposed changes harmonize with the model National Building Code based on updated climatic data.

Building Code changes for consideration intended to improve structural integrity in large buildings would include:

- Improving and clarifying the calculation of seismic forces and loads;
- Increasing the effectiveness of snow load design
- Installing supports for temporary guards to improve worker safety during maintenance and renovations

Building Code changes for consideration intended to improve structural integrity in small buildings would include:

- Clarifying the design and use of concrete required for new construction and referencing updated waterproofing and damp-proofing standards
- Increasing required concrete strength, clarifying prescriptive structural requirements
- Updating the reference standard regarding strength of structural glass

Public Health and Safety

The Building Code also contains construction requirements that are intended to minimize risks to public health and safety. A number of proposed changes for the next edition of the Building Code would enhance and promote public health and safety.

Stairs, Guards and Handrails

In fall 2014, the Canadian Commission on Building and Fire Codes (CCBFC) Standing Committees on Use and Egress, and on Housing and Small Buildings, examined the issue of step dimensions and the impact on falls and injuries. They established that falls were three times more likely to happen during descent and that longer stair runs with deeper tread depth would provide better foot placement for stability, resulting in fewer falls.

In response to the CCBFC's review, the 2015 model National Building Code introduced a significant number of changes applicable to all buildings, including houses, relating to stairs, guards and handrails. The changes are intended to help prevent people from falling, limit the "climbability" of guards around balconies, atriums, and open spaces within buildings, and align requirements with international codes.

To provide greater safety for occupants during use, and to support harmonization with the 2015 model National Building Code, proposed changes to Ontario's Building Code would enhance requirements for stairs, handrails, guards and ramps for new large and small buildings, including houses.

Temporary Stages

As a result of failures in temporary stages in 2011 and 2012 that were erected for public entertainment events, the government convened an expert advisory panel to develop recommendations regarding the construction of temporary stages and related structures.

Among other things, the expert panel's report recommended the Building Code clearly regulate indoor and outdoor stages, including:

- Regulatory requirements, applicable to large stages only, for both indoors and outdoors
- A new defined term (i.e. "demountable event structures") for these types of stages that would include stage platforms and associated structures supporting lighting/audio equipment
- Specific safety-related and structural provisions for stages, and
- Establishment of a maximum 10-day timeline for permit issuance

MMA has developed proposed Building Code amendments based on the recommendations made by the expert advisory panel.

Carbon Monoxide

Recent incidents have resulted in carbon monoxide poisoning and subsequent coroner recommendations. In response to this, the Office of the Fire Marshal and Emergency Management (OFMEM), submitted a proposal to MMA to amend the Building Code to expand carbon monoxide detection in multi-unit residential, commercial and industrial buildings.

The Building Code currently contains requirements regarding the detection of carbon monoxide in residential buildings.

To address these potential safety risks, MMA, in collaboration with OFMEM, is considering expanding carbon monoxide detection in multi-unit residential, commercial and industrial buildings.

Note: Ontario's Fire Code regulates carbon monoxide detection in existing buildings. The Fire Code is administered by OFMEM. See Appendix C for more details.

Sound-Proofing

Ontario's Building Code contains many requirements to ensure comfort of building occupants. This includes design and construction requirements for buildings that attempt to minimize noise where it would interfere with the enjoyment of one's own property, or impact an individual's physical or mental health.

The Building Code currently contains requirements intended to minimize sound transmission and other noise impacts and increase sound resistance in new buildings, including condominiums. Building developers are required to design and build walls and floors in residential units to minimize sound transmission.

To enhance resident protection from noise, changes for consideration would increase sound proofing requirements between dwelling units in multi-unit residential buildings.

Accessibility

Ontario is a leader in accessibility standards. Effective January 1, 2015, amendments to the Building Code enhanced existing provisions and introduced new requirements to make buildings more accessible. These amendments responded to government's commitment to make the built environment more accessible to people with disabilities under the Accessibility for Ontarians with Disabilities Act, 2005 (AODA).

The changes considered as part of the proposed next edition of the Building Code would be minor technical amendments to clarify existing requirements. They would harmonize where possible with the requirements in the model National Building Code, and they do not represent a shift in government policy.

The changes for consideration include, but are not limited to:

- New requirements for cross-slopes and surface materials on barrier-free ramps
- New requirements for emergency lighting in universal washrooms

- Amendments and clarifications regarding the number of universal washrooms in large buildings, washroom stall privacy, grab bars, washroom accessories, controls, power door operators and door clearances
- Clarifications regarding tactile walking surface indicators at stairs, ramps and edges of pools and platforms

Harmonization and Consistency

Construction is an important driver of Ontario's economy. Ontario's construction sector employs more than 450,000 skilled workers¹.

It is important to seek ways to strengthen Ontario's construction sector by promoting consistency between Ontario's Building Code and other legislation, regulations, and current industry practices and technology. Included among the proposed Building Code amendments are measures that would:

- Help to lower the cost of construction, while ensuring that Building Code objectives such as those related to health and safety are not compromised. For example, referencing a newer combustibility standard widely used in other jurisdictions would provide Ontario sign manufacturers and installers with greater clarity while continuing to protect safety
- Remove technical barriers and increase design flexibility while continuing to promote health and safety
- Recognize industry innovation by referencing up-to-date industry standards
- Decrease uncertainty by clarifying requirements and definitions (e.g. clarifying what is meant by "post-disaster buildings")
- Consolidate and rationalize construction requirements and increase cross-Canada building code harmonization

¹ Statistics Canada, Employment by Major Industry Group, Seasonally Adjusted, By Province (monthly), <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/labr67g-eng.htm>.

3. Consultation Discussion Item: Potential Future Building Code Amendments

In addition to the items for consultation set out above, in this section the government is seeking your input to help inform potential future changes to the Building Code, or other regulatory vehicles. Unlike the proposals in the previous sections of this document, this aspect of the consultation is not based on specific detailed, technical Building Code requirements and language. Rather, this portion of the consultation is designed to begin a dialogue on issues regarding how buildings should be constructed and perform in the future. We are seeking participation and feedback from the public and building sector in this important discussion.

The following discussion items on supporting the creation of community hubs, protecting ground and surface water quality and energy efficiency are government objectives. These initiatives are currently under development, and public consultation would help inform the government about what potential requirements the public and building sector believe should be developed in the future to support the government's goals.

These discussion items are intended to apply to future editions of the Building Code, but it may be possible to include them in the next edition if it is recommended during the consultation.

Other Government Priorities

Community Hubs

Community hubs are gathering places that help communities build, live, and grow together by bringing together a variety of different services, programs and/or social and cultural activities to reflect local community needs. They play a critical role in building economic and social cohesion in the community.

Community hubs provide a central access point for community services, including a range of health and social services, along with cultural, recreational, and green spaces. Facilitating community hubs has been identified as a government priority.

Ministry and Government Initiatives Regarding Community Hubs

On August 10, 2015, the Community Hubs Framework Advisory Group released the report *Community Hubs in Ontario: A Strategic Framework* and

Action Plan, which detailed eight overarching recommendations for advancing community hubs:

- Identify a provincial lead for community hubs
- Foster integrated service delivery
- Develop a provincial strategy for public properties
- Remove barriers and create incentives
- Support integrated and long-term local planning
- Ensure financially sustainable community hubs
- Increase local capacity
- Evaluate and monitor outcomes

In addition to this consultation on proposed amendments to the Building Code, MMA held community hub forums in late 2015. In support of this initiative, MMA is also consulting with municipalities and other relevant stakeholders to identify any potential regulatory barriers within the Building Code to the development of community hubs. This will provide insight on opportunities and challenges with how the Building Code can potentially be amended to facilitate the creation of community hubs. The questions below are intended to guide consultation discussion on this topic.

Questions:

1. Do Building Code requirements create barriers to the construction of new community hubs? If so, how do they create barriers?
2. The Building Code currently has requirements that apply where existing buildings are modified for change of use or change of occupancy. Are there circumstances where:
 - a. These provisions create barriers in converting a building space into a community hub?
 - b. Additional provisions would make it easier to convert building space into a community hub?
3. Are you aware of successful alternative solutions to support the construction of community hubs that have been put in place that could be considered for inclusion as requirements in the Building Code? If so, what successful alternative solutions could be considered for requirements in the Building Code?

Protection of Ground and Surface Water Quality

Currently, the Building Code contains maintenance provisions for septic systems, including a requirement to pump out the septic tanks when they are one-third full of sludge and scum. In addition, the current Building Code

requires maintenance inspections of certain types of existing on-site sewage systems.

As well, mandatory maintenance inspection of existing septic systems is required in certain areas of Ontario. These areas are designated as vulnerable areas under Source Protection Plans, prescribed under Ontario's Clean Water Act. Maintenance inspections are also mandatory in certain areas around the Lake Simcoe shoreline and watershed under the Lake Simcoe Protection Plan.

Proper maintenance of on-site sewage systems is important. Without it contamination of ground water and overloading of nutrients in water bodies is likely to occur. For instance, on-site sewage systems are known to be a contributor of phosphorous in the Lake Erie watershed, which has experienced algae blooms for a number of years.

Questions:

1. Do the requirements in the current Building Code appropriately balance the protection of ground and surface water quality with the responsibilities of the various parties who have an interest to ensure the proper maintenance of septic systems?
2. If not, how do you suggest the next edition of the Building Code be changed?
3. Are there risk-based factors that could be used to identify when and where mandatory on-site sewage system maintenance inspections and pump-out should occur? What are the possible triggers that could indicate when this maintenance would be necessary?
4. What else should government do to educate homeowners on how to maintain their septic systems?

Note: protecting ground water quality is important to the government and is everyone's responsibility. Properly maintained on-site sewage systems help to ensure that ground water is protected. For more information on this, please see the septic system brochure: [On-site Sewage System Brochure](#).

Energy Efficiency

Ontario is a North American leader in energy efficient Building Code standards. The 2006 and 2012 Building Codes increased energy efficiency requirements for houses and large buildings. As a result of these advancements, houses constructed after January 1, 2017, will consume 50

per cent of the energy a 2005 house would consume, and a new large building will consume only 65 per cent of its 2005 equivalent. Despite these significant achievements, the building sector still accounts for 38.2 million tonnes or 22 per cent of greenhouse gases emitted in Ontario. The government is seeking input on more ways to reduce Ontario's GHG emissions from buildings.

The government's Climate Change Action Plan says:

- “The government intends to update the Building Code with long-term energy efficiency targets for new net zero carbon emission small buildings that will come into effect by 2030 at the latest, and consult on initial changes that will be effective by 2020. Ontario will consult on how to best achieve these targets through Building Code improvements.”

The government remains committed to making steady advancements to make buildings more energy efficient in the next edition of the Building Code, and in successive versions of the Code in the future.

Questions:

1. How should government proceed to achieve these energy efficiency goals in new buildings, which would support GHG emission reductions in the building sector?
2. Should areas of houses and large buildings undergoing significant renovation become more energy efficient, thereby helping to reduce its GHG emissions?

This input will help inform a subsequent round of technical consultation on energy efficiency in the next edition of the Building Code.

In addition, we are seeking advice on what preliminary changes the government should consider that could be implemented quickly to support wider use of electric vehicles and to increase the water and energy efficiency of buildings. For example, the government is currently considering:

- Requiring drain water heat recovery units in all new houses
- Clarifying water supply pipe size requirements

Promoting Electric Vehicle Use

Ontario intends to increase access to infrastructure required to charge electric vehicles. We are seeking advice on how to implement the Climate Change Action Plan initiatives related to supporting the wider use of electric vehicles such as:

- Requiring all new homes and townhomes with garages to be constructed with a 50-amp, 240-volt receptacle (plug) in the garage for the purpose of charging an electric vehicle
- Requiring that all newly built commercial office buildings and workplaces provide electric vehicle charging infrastructure

**Proposed in-effect date:
July 2017**

- Drain water heat recovery

**Proposed in-effect date:
January 2018**

- Water pipe sizing
- Electric vehicle requirements for houses and workplaces

See detailed technical Code change proposals

Questions:

1. The Climate Change Action Plan states that 50-amp, 240-volt receptacles will become mandatory in all new homes and townhomes with garages by January 1 2018. How should the Building Code be changed to make it easier to install and use these chargers (e.g., reflect the need for proper placement and adjacent unobstructed space in a garage to ensure convenience of access)?
2. How should government proceed to support wider use of electric vehicles among residents of new multi-unit residential buildings?

The Ministry of Municipal Affairs will continue to work with the Ministry of Government and Consumer Services and the Electrical Safety Authority to find ways to help make it easier for residents in new condominiums and multi-unit residential buildings to install electric vehicle charging stations. This will complement future initiatives to deploy charging infrastructure in existing condominiums and multi-residential buildings.

Adapting to Climate Change

Extreme weather events are happening more frequently as a result of climate change.

Questions:

1. Should government be:
 - Expanding backwater valve requirements to help prevent sewer backflow into houses?
 - Requiring hurricane straps in all new houses to provide greater resilience against high winds?
 - Updating the climatic data in the Building Code to reflect current weather conditions?
2. What other elements should government consider to increase the ability of houses and buildings to better withstand the effects of extreme weather?

4. Consultation Process

Public and Industry Consultation

Public and industry consultation for phase one will launch October 21, 2016 and will end on December 20, 2016. Phase two of the consultation will launch subsequently. The phase one consultation document will be posted on the Regulatory Registry, Environmental Registry, and the ministry website for a period of 60 days. These time frames will provide the public and industry stakeholders with the opportunity to offer input on proposed amendments to the current Building Code and the next edition of the Building Code. During these time frames, MMA intends to host a series of sector-based stakeholder technical briefings to explain the proposals, answer questions and solicit feedback.

Technical Advisory Committees

Building Code Technical Advisory Committees will meet following the public consultation periods. They will review the potential Building Code changes developed by the government and the consultation results. The Technical Advisory Committees will then provide recommendations to MMA. The committees' recommendations will consider factors such as the technical veracity of potential Building Code changes, alignment with Building Code objectives, cost implications, impact on design flexibility, technical feasibility, capacity of industry to implement and the ability to enforce.

Potential Building Code Changes

The approximately 500 potential Building Code changes included in phase one of the consultation are summarized in the tables in Appendix A. Unlike previous Building Code consultations, the details of each potential Code amendment are not included in the printed version of the Overview Summary. This will help to reduce this consultation's "green footprint." A full description of these changes can be seen on the Building Code website: ontario.ca/buildingcode

The potential changes are organized sequentially, based upon the structure of the Building Code (e.g., changes to Division B, Part 3 precede changes to Division B, Part 4).

Comment Submission

We look forward to your feedback on potential changes to the Building Code. Your active involvement helps ensure that potential Code changes are fully informed, technically and economically feasible, and enforceable.

Comments are also appreciated on the timing of the potential changes. As was the case with the 2012 Building Code, it may be possible to phase in certain Code changes over the lifespan of the next Code cycle.

Note: This “hardcopy” or “paper” edition of the Overview Summary is also available on the Building Code website at ontario.ca/buildingcode, where you can provide online feedback.

Steps to Submit Comments:

- Review the Overview Summary and descriptions of the proposed Building Code changes: <http://www.mah.gov.on.ca/Page14999.aspx>
- Provide feedback on a potential change by completing the online Comment Form: <http://www.mah.gov.on.ca/Page14994.aspx>
- An example of this form is reproduced below. Complete a separate form for each potential change for which you want to provide input.
- Submit your forms online or by mail, as described below.

You are encouraged to submit additional material in a manner that best allows you to express your views on the potential Building Code amendments.

The MMA must receive your response to this consultation by:

December 20, 2016

If you do not support the potential changes, or would support the changes with modifications, please include an explanation of the rationale for your concerns to help the ministry and the Technical Advisory Committees understand your views.

For tracking purposes, please submit a separate form for each potential Code amendment on which you are commenting, noting the change number in the appropriate box. Please remember to include the following on each Comment Form:

- Your name
- Your mailing address
- Whether you are responding on behalf of yourself or an organization.

Completed Comment Forms and supporting documents may be submitted to the ministry by submitting the online Comment Form, or by mail.

Mail:

2017 Next Edition Building Code Consultation
c/o Building and Development Branch
Ministry of Municipal Affairs
777 Bay Street –16th Floor
Toronto, ON
M5G 2E5

Any questions on the consultation process, collection of information and access to the consultation document may be directed to:

buildingcode.consultation@ontario.ca

All other feedback regarding content of the proposed Building Code changes should be included in a Comment Form.

Personal information provided in responses to Building Code consultations is collected under the authority of the Ministry of Municipal Affairs and Housing Act for consultative purposes and for contacting you should we need to clarify your response to this consultation. Responses to consultations (minus addresses, where provided) may be shared with provincial and national building and fire code development committees. Questions about the collection of personal information may be submitted to the address noted above.

Comment Form for Potential Changes for the 2017 Building Code

Indicate change number and make additional copies of this form for each change

A. Respondent Information	
Name: _____	
Title: _____	
I am responding on behalf of: <input type="checkbox"/> Myself <input type="checkbox"/> Organization (specify): _____ _____	
Function: <input type="checkbox"/> Building Official <input type="checkbox"/> Builder/Contractor <input type="checkbox"/> Supplier/Manufacturer <input type="checkbox"/> Designer <input type="checkbox"/> Property Owner/Public <input type="checkbox"/> Sewage Hauler/Installer <input type="checkbox"/> Other (specify): _____	
Address: _____	
City: _____ Province: _____ Postal Code: _____	
B. Potential Building Code Change	
Building Code Change Number: _____	
Mark one of the following with an "x":	
<input type="checkbox"/> I support the potential requirements.	
<input type="checkbox"/> I would support the potential requirements with modifications (describe modifications below).	
<input type="checkbox"/> I do not support the potential requirements (provide a reason below).	
COMMENTS <i>(Please attach additional sheets as necessary)</i>	
<p><i>Personal information provided in response to Building Code Consultation is collected under the authority of the Ministry of Municipal Affairs and Housing Act for consultative purposes and for contacting you should we need to clarify your response to this consultation. Responses to the consultation (minus addresses, where provided) may be shared with provincial and national building and fire code development committees. Questions about the collection of personal information may be submitted to the Ministry of Municipal Affairs, 777 Bay Street, 16th Floor, Toronto, Ontario, or buildingcode.consultation@ontario.ca</i></p>	

Appendix A: Building Code Change Proposals

Please use below link to access Building Code change proposals:

<http://www.mah.gov.on.ca/Page14999.aspx>

Appendix B: Proposed Building Code Change Implementation Timelines



<p>Long-Term Affordable Housing Strategy</p> <p>Proposed in-effect date:</p> <p>July 2017</p> <p>LTAHS Proposals include:</p> <ul style="list-style-type: none"> • Establishing a specific occupancy classification and construction standards for retirement homes • Amendments regarding houses with secondary suites that are intended to increase affordability of secondary suites in newly constructed houses <p>Other proposals in-effect:</p> <ul style="list-style-type: none"> • Drain water heat recovery. 	<p>Climate Change</p> <p>Proposed in-effect date:</p> <p>January 2018</p> <p>Climate Change Proposals include:</p> <ul style="list-style-type: none"> • Water pipe size requirements • Electric vehicle charging requirements for homes and workplaces <p>Protection of Ground water Proposals include:</p> <ul style="list-style-type: none"> • Effluent distribution technology 	<p>New Edition of the Building Code</p> <p>Proposed in-effect date:</p> <p>January 2019</p> <p>Proposals include:</p> <ul style="list-style-type: none"> • Environmental protection and safety • Fire safety • Structural integrity • Public health and safety • Accessibility • Requirements to promote harmonization and consistency
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Appendix C: Ontario's Building Code and Code Development Process

Ontario's Building Code

Ontario's Building Code is made under the Building Code Act, 1992. It sets out technical and administrative requirements related to the construction, renovation, change of use and demolition of buildings.

The Act and the Building Code are administered by MMA. Enforcement is the responsibility of local "principal authorities" — mainly municipalities, although conservation authorities and boards of health are responsible for enforcing the on-site sewage system and plumbing provisions of the Building Code in certain parts of the province.

The Building Code also addresses administrative matters, including, the building permit application process, construction inspections, building permit fees, and qualification requirements for certain building practitioners.

Under the Act, the Building Code is a regulation made by the Lieutenant Governor in Council. Amendments to the Building Code must be approved by the Cabinet of Ontario.

The first provincial Building Code came into effect in 1975. The Code superseded local building codes and was part of an effort to harmonize construction standards across the province. New editions of the Code were published in 1983, 1986, 1990, 1997, 2006 and 2012. Interim amendments to the Code are frequently made between publications of new editions. The Code was most recently amended in September 2014, which included requirements for midrise wood construction and accessibility.

Ontario's Building Code is available on-line at: ontario.ca/e-laws.

ServiceOntario Publications publishes the Building Code Compendium, which contains the Act, the Code, Supplementary Standards referenced in the Code, appendix notes and other documentation. The Compendium and other Code products can be ordered through the ServiceOntario website at: ontario.ca/publications.

Other Relevant Regulations

The Building Code Act, 1992 and the Building Code complement other legislation and regulations that:

- Regulate fire safety in existing buildings (the Fire Code)
- Regulate electrical safety in buildings (the Electrical Safety Code)
- Regulate specialized building systems (e.g. elevators and pressure vessels, which are the responsibility of the Technical Standards and Safety Authority)

- Regulate barrier free access of travel in public spaces (Accessibility for Ontarians with Disabilities Act, 2005)
- Regulate the construction process (Occupational Health and Safety Act)

A brief summary of these regulations and their relevant enforcement bodies is provided below. For additional legislative/regulatory tools that the Building Code complements, please consult Division A of the Building Code, Definition of Applicable Law.

Fire Code

The Fire Code is a regulation under the Fire Protection and Prevention Act, 1997, that establishes minimum fire safety requirements for existing buildings and facilities.

Fire safety is an objective of the Building Code. Since 1975, the Building Code has contained comprehensive and rigorous fire safety requirements for the construction of new buildings and the change of use and significant renovation of existing buildings. Fire Code requirements complement the Building Code and apply to existing buildings even where no change of use or renovation is proposed. MMA works with the Ministry of Community Safety and Correctional Services' Office of the Fire Marshal and Emergency Management (OFMEM) to enhance and/or clarify fire safety requirements in both regulations and help ensure consistency between them.

Electrical Safety Code

The Electrical Safety Code (ESC) is a regulation under the Electricity Act, 1998, that establishes the legal requirements for electrical installations, products and equipment. For example, the ESC includes requirements for installing and maintaining electrical equipment in buildings and street lighting. The ESC is used by designers, manufacturers, installers and enforcement officials.

The Electrical Safety Authority (ESA) is the administrative authority with enforcement responsibility for the ESC, and is overseen by the Ministry of Government and Consumer Services.

Technical Standards and Safety Authority

The Technical Standards and Safety Authority (TSSA) is the administrative authority responsible for enforcing technical standards under the Technical Standards and Safety Act, 2000 and Technical Standards and Safety regulations. The TSSA is responsible for enforcing matters such as:

- boilers and pressure vessels, and operating engineers
- elevating devices, amusement devices and ski lifts
- fuels
- upholstered and stuffed articles

Accessibility for Ontarians with Disabilities Act, 2005

The Accessibility for Ontarians with Disabilities Act, 2005 (AODA) aims to improve access for persons with disabilities with respect to goods, services, facilities, accommodation, transportation, employment, buildings, structures and premises by January 1, 2025. The Accessible Built Environment Standard, which addresses the internal built environment (e.g., buildings) and the external built environment (e.g., parking and sidewalks in public spaces), is one of five standards developed under the AODA. The Accessibility Directorate of Ontario at the Ministry of Economic Development and Growth is responsible for the administration of the AODA.

Accessibility requirements have been part of the Building Code since 1975 and have been enhanced over time with each new edition. As part of achieving Ontario's goal of an accessible Ontario by 2025, the Building Code sets a number of requirements related to common access and circulation throughout buildings, including minimum doorway and corridor widths, ramp dimensions, passing and rest spaces, and turning spaces.

Occupational Health and Safety Act

The Occupational Health and Safety Act (OHSA) provides the legal framework for the protection of worker health and safety in Ontario.

The OHSA sets out the rights and duties of all workplace parties including employers, constructors, supervisors and workers. The OHSA establishes offences and penalties and provides for enforcement by Ministry of Labour inspectors. Specific workplace hazards are addressed by the regulations under the OHSA.

Code Development in Ontario

Changes to Ontario's Building Code are made in response to:

- government priorities
- changes in other jurisdictions
- proposals from the public and stakeholders
- changing technology and industry standards

Potential Building Code changes are evaluated based on a number of considerations:

- Effectiveness in meeting stated aims
- Consistency with underlying Code objectives
- Stakeholder impacts, including cost and implications for design choice
- Capacity of the building sector to implement changes in a safe and effective manner
- Workload and liability implications for municipalities
- Enforceability

New editions of the Building Code and significant interim amendments undergo public review, followed by evaluation by one or more Building Code Technical Advisory Committees. The Technical Advisory Committees are comprised of broad, balanced and independent representation of building industry experts. Members of the Committees are selected based on their industry leadership and expertise.

Recommendations submitted by Technical Advisory Committees are considered by the ministry in developing proposed Building Code changes for review by the government. Code changes take effect on a date specified in the regulation. A transition period is typically provided for changes that have significant stakeholder impacts.

National Code Development Process

Ontario participates in a Canadian Federal/Provincial/Territorial code development process coordinated by the Canadian Commission on Building and Fire Codes. This process supports the development of provincial codes and model national codes, including the model National Building Code of Canada.

Involvement in this national process has resulted in a coordinated Building Code review cycle. The 2015 national codes, for example, were published in early 2016, which has now become one of the main driving forces to develop the 2017 edition of Ontario's Building Code.

Ontario is also committed to harmonizing with the technical requirements of the model national code where appropriate. The structural design requirements of Ontario's Building Code, for example, are now virtually identical to those in the model National Building Code.

However, there are some areas where Ontario has chosen to pursue its own policy priorities, which has led to differences with the model national codes. For example, Ontario's Building Code supports the consolidation of construction standards by addressing matters not included in the model national codes, including on-site sewage systems, public pools, spas and rapid transit stations. Ontario also has enhanced Building Code standards in areas such as energy efficiency and barrier-free accessibility and has developed renovation standards that promote the retention and reuse of buildings.

Ministry of Municipal Affairs

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