

April 1, 2022

Ministry of Municipal Affairs and Housing
Building and Development Branch
777 Bay Street, 2nd Floor
Toronto, ON M5G 2E5

Submitted via email: buildingcode.consultation@ontario.ca

To Whom It May Concern:

RE: ERO #019-4974: Proposed Changes for the Next Edition of Ontario's Building Code (OBC) – Winter Consultation

The Ontario Federation of Agriculture (OFA) is the largest general farm organization in Ontario, proudly representing more than 38,000 farm family members across the province. OFA has a strong voice for our members and the agri-food industry on issues, legislation and regulations governed by all levels of government. We work to ensure the agri-food sector and our rural communities are included, consulted and considered in any new and changing legislation that impacts the sustainability and growth of our farm businesses. OFA is the leading agricultural advocate for Ontario farmers, their businesses and their communities.

OFA appreciates this opportunity to provide input to ERO #019-4974: Proposed Changes for the Next Edition of Ontario's Building Code, as it pertains to farm buildings and stresses the importance of this consultation to a thriving agricultural industry and economy in Ontario.

Diversity in agricultural production leads to differing building forms to house livestock or poultry, store different crops, or the machinery used to grow and raise these various agricultural commodities, each having their distinctive structural requirements. It is understood that these proposed changes to the Ontario Building Code (OBC) are meant to reflect changes to modern farming operations and the diversity among farm buildings and operations, accounting for their unique hazards, differences, and structural changes or fire safety considerations.

OFA also appreciates that the proposed changes aim to harmonize and update the OBC with the National Building Code (NBC) and the 1995 National Farm Building Code (NFBC), thereby directly incorporating *Farm Buildings* into the OBC for the first time. The proposed changes also introduce the category of *Large Farm Buildings*, defined as a building area of more than 600m² or more than 3 storeys in building height, to which most of the proposed changes apply. Generally, as consistent interpretation and application of Building Code requirements across jurisdictions is of primary importance, OFA views the additions to and harmonization of the Codes as positive.

However, OFA understands that the national provisions proposed for inclusion in the OBC are still in draft form at this time. OFA expects additional provincial consultation to take place should further changes appear in the final NBC provisions, thereby impacting the OBC.

Proposed OBC Sections 1.1.2.6. [a] and 1.1.2.6. [b] establish a new occupancy classification (Group G) to classify buildings containing agricultural occupancies and delineate between large and small farm buildings. Introducing these requirements for farm buildings in the NBC allows for more frequent updates (every five years) as agricultural production techniques and technologies progress. The harmonization of codes allows code users to access all relevant provisions in one code, subject to exemptions outlined in the NFBC, and encourage consistent interpretation and implementation of building code requirements across Canada and Ontario. Generally, OFA views the additions to and harmonization of the Codes as positive.

Proposed OBC Section 1.4.1.2. (Defined Terms) include revised definitions for:

- *Agricultural occupancy* - means the *occupancy* of a *building* or part thereof that is located on land that is associated with and devoted to the practice of farming, and is used for the purpose of producing crops, raising farm animals, or the preparation, marketing, storage or processing of agricultural products; and
- *Farm building* - means a *building* or part thereof that contains an *agricultural occupancy*.

It is our interpretation that 'agricultural products' includes the full range of agricultural inputs, such as pesticides, fertilizer, seed, farm equipment, machinery, etc. The above definitions are simplified to limit misinterpretation of provisions applied to agricultural occupancies and farm buildings listed in the NBC and NFBC. This revision is intended to avoid applying farm building requirements to different building types, such as industrial buildings, since they are 'located on farmlands.' For example, the addition of "located on land that is associated with and devoted to the practice of farming" in the *agricultural occupancy* definition clarifies that specific uses, such as a greenhouse in a big box store, would not be an agricultural occupancy. This clause does not appear in the NBC provisions, and may inadvertently promote a lower level of safety in a higher-risk setting. The revised definition of *farm building* explicitly refers to a "*building* or part thereof that contains *agricultural occupancy*," and it speaks to farming activities and not the classification of agricultural land use. OFA views these revisions as important changes and supports the revised definitions.

Proposed Ontario Building Code Section 1.4.1.2. (Defined Terms) also include newly added definitions for *Agricultural occupancy* and *Agricultural occupancy with no human occupants*, *Greenhouse agricultural occupancy*, and *High-hazard agricultural occupancy*. The proposed Ontario Code Provisions also introduces a new occupancy classification (Class G) to categorize these newly added definitions. The categorization of these agricultural occupancies should limit the amount and types of building code requirements for farm buildings to only ones that are practical to implement, that substantially mitigate risk, and are necessary to improve structural or fire safety performance. OFA views these added definitions and occupancy classifications as positive changes and supports the proposed provisions.

Proposed Ontario Building Code Section 1.4.1.2. (Defined Terms) also include further clarifications on the types of activities to qualify for "processing of agricultural products" within the definition of *agricultural occupancy*. The definition includes processing activities in agricultural occupancies that are directly related to maintaining the quality of the agricultural commodity or providing a minimum amount of processing required for their sale, thereby excluding industrial-type processing activities. This clarification delineates between processing hazards and risks consistent with those in agricultural occupancies rather than industrial occupancies. This definition is better aligned with the explanations for 'value-retaining facilities' outlined in the Ontario Ministry of Agriculture, Food and Rural Affairs' *Guidelines on Permitted Uses in Ontario's Prime Agricultural Areas* (2016), encouraging a more consistent interpretation of the concepts across Ontario. OFA supports these revised definitions.

The NFBC (1995) included spatial separation requirements of a minimum 35 feet distance between buildings. The OFA notes that none of the proposed changes to the OBC address the omission of spatial separation requirements between farm buildings and buildings of other occupancy classifications, which was also omitted in the most recent draft of the NBC. This omitted requirement provides opportunities to locate farm buildings minimally adjacent to other occupancies and along property lines.

While omitting spatial separation would help to intensify new development on farmlands within existing building clusters to protect the consumption of arable lands, there are risks to safety in doing so. Spatial separation is a critical component of life safety to protect against the risk of fire, specifically limiting fire spread to farm dwellings and those working in or around them. Farm buildings are conventionally located in rural or more underserved areas, including those that depend on the services of voluntary firefighters, have limited infrastructure to fight fires, and experience longer emergency response times, relative to more urbanized communities. We urge the MMAH to give due consideration to balancing between farm building cluster intensification and mandated minimum spatial separation safety requirements. The OFA requests the MMAH consider whether spatial separation requirements should be addressed within the OBC or at the municipal level through zoning-required setbacks or the site plan process.

The OFA supports updating Fire Protection and Occupancy Safety requirements for farm buildings. However, given the extent of fire protection requirements now applied to farm buildings, OFA flags the need for these requirements to be practical and cater to the specifications of each type of farm building, based on sector-specific production practices, human occupancy and working conditions. The blanket approach of applying fire protection requirements without accounting for the nuances of sector-specific needs could potentially have very significant ramifications across the agricultural industry, such as higher costs for new builds or upgrading/retrofitting existing buildings. More information disseminated to the agricultural industry regarding *how* these fire protection and occupancy safety requirements could be satisfied in barns, prior to the implementation of the OBC, is critical. OFA urges the MMAH to coordinate and facilitate a sector-specific consultation with the agricultural industry to further discuss these new requirements and distinguish between which requirements are absolutely necessary and/or appropriate for types of farm buildings.

Feedback from farm/commodity organizations and industry stakeholders from across the province have identified several minor revisions to the proposed sections of the OBC that may achieve their desired safety-related outcomes while balancing agricultural practices more effectively and efficiently. Specific comments related to these proposed revisions are as follows:

Sections 2.2.1.3. (Exceptions for Major Occupancies) and 2.2.1.4. (Separation of Occupancies) of the proposed changes to the OBC introduce and harmonize provisions between codes to permit mixed occupancy safely and reasonably within farm buildings. These provisions outline that requirements for mixed occupancy be met for individual spaces based on specific classification rather than the entire farm building. While clear implications are unknown, it is anticipated that these provisions will assist in streamlining and consistently applying building code requirements across Ontario. Doing so would simplify development processes and limit costs for farmers wishing to establish agricultural-related or on-farm diversified uses in their farm buildings by installing fire safety mechanisms only where practical, feasible, and necessary. Given that different requirements for mixed occupancies were in different codes, and historically led to

inconsistently implemented mixed occupancy in farm buildings across municipalities, OFA generally views this new streamlined guidance on mixed occupancies as a positive change.

Proposed Ontario Building Code Section 2.2.1.14. [1] (Fabrics and Films) requires that "fabrics and films used in connection with tents and *air-supported structures* shall conform to CAN/ULC-S109, 'Standard Method for Flame Tests of Flame-Resistant Fabrics and Films.'" OFA proposes revising the statement to say: "fabrics and films used in connection with **fabric covered buildings** shall conform to CAN/ULC-S109, 'Standard Method for Flame Tests of Flame-Resistant Fabrics and Films.'" This proposed revision specifies fabric covered buildings to include Cover-all, Brite-span, and others, compared to "tents and structures" which are not *farm buildings* and not covered elsewhere in the NBC.

Proposed Ontario Building Code Section 2.2.6.2. [2] (Egress Doorways) requires "a minimum of 2 egress doorways located so that one doorway could provide egress from the room as required by Article 2.2.6.3 if the other doorway becomes inaccessible to the occupants due to a fire originating in the room, shall be provided for every room [b] in a *floor area* that is not *sprinklered* throughout and contains a Group G, Division 1 *major occupancy* with a below-floor storage area for liquid manure or a Group G, Division 2 or 3 *major occupancy*, where (i) the area of the room is more than 200 m², or (ii) the travel distance within the room to the nearest egress doorway is more than 15 m, or [c] in a *floor area* that is *sprinklered* throughout and contains a Group G, Division 1 *major occupancy* housing livestock with a below-floor storage area for liquid manure or a Group G, Division 2 or 3 *major occupancy*, where (i) the area of the room is more than 300 m², or (ii) the travel distance within the room to the nearest egress doorway is more than 25 m."

OFA recommends that in Section 2.2.6.2. [2] [b] [ii] 15 m be increased to **25 m** and that in Section 2.2.6.2. [c] [ii] that 25 m be changed to **30 m**. These proposed changes accommodate modern barn designs, such as those in the hog sector, constructed in 31.25 m increments and include segmented farrowing rooms amongst other defined spaces. Providing egress doors every 25 m will disrupt ventilation systems and other components of standard building design, therefore OFA recommends increasing the distance to 30 m between egress doors. The necessary penning and equipment standard with standard practices will further impact travel distances. OFA recommends expanding the maximum travel distance to 25 m to reflect the low human occupancy and extraordinary costs associated with retrofitting existing hog barns to meet this requirement.

Proposed Ontario Building Code Section 2.2.6.5. [1] (Access to Exits) states that the "minimum width of an access to exit, including obstructions, shall be 750 mm." Discussions with commodity group stakeholders in the livestock sector noted that many swine barns are constructed 'motel style' with a large central hallway and rooms on each side. Most rooms are equipped with three doorways exiting into the main central hallway – one servicing the central feeding alley – usually 30 – 36 inches wide and two more doors servicing the manure alleys generally to the rear of the pens. The manure alley doors are generally 24 inches wide or the width of the service alley. Other examples include goat parlour loading lanes, sheep parlour loading lanes and similar loading lanes within a farm building. These lanes are generally around 24" to prevent the smaller livestock from turning around and blocking the directional flow. The proposed minimum width could also affect greenhouse operations with rows of trenches, tables or similar areas where access to exits is currently less than 750 mm. Minimum access to exits was not a previous code requirement, and 750 mm may be too restrictive for multiple commodity sectors. OFA

suggests that the minimum width of access to an exit, including obstructions, **shall be 610 mm** to recognize common swine barn design elements and the common existence of access to an exit door that is more than 750 mm to access the central feeding alley. Retrofitting existing hog barns and greenhouse operations may bring about undue hardship and be cost-prohibitive.

Proposed Ontario Building Code Section 2.2.8.3. [3] [e] (Below-Floor Storage Areas for Liquid Manure) specifies that emergency power supply required by Sentence (2) shall be "designed so that, in the event of a failure of the normal power source to the *farm building*, there is an immediate automatic transfer to emergency power." Many farmers provide their farms with portable standby power with on-site farm tractors and PTO- (power take-off) driven generators to provide immediate power to operate ventilation systems. Personnel working in a barn will be immediately aware of a power outage due to a lack of lights and the shutdown of barn equipment. The occupants of farm buildings are typically familiar with the building layout and will leave the building quickly and ensure emergency power is connected to supply livestock with suitable airflow. Vulnerable occupants and members of the public generally are not in farm buildings.

Proposed Ontario Building Code Section 2.4.2.4. (Silos and Grain Storage Bins) specifies that [1] "where an enclosed tower silo, horizontal silo, or grain storage bin is connected to an adjacent feed room, mechanical exhaust ventilation shall be provided to remove air from the lowest floor level of the feed room to the outdoors at a rate not less than 3 air changes per hour," and; [2] "the ventilation system of the *farm building* in which the feed room referred to in Sentence (1) is located shall be designed to prevent airflow from the feed room to any other part of the *floor area* of the *farm building*."

The OFA believes these clauses are to protect personnel from silo gas. Horizontal silos are usually not "connected" to a feed room as they are loaded and unloaded using farm tractor loaders. Typically, only tower silos are connected directly to a feed room in livestock barns. They are generally connected to grain storage bins with enclosed four to six-inch augers. With these enclosed augers, the potential for gas transfer is not an issue. However, dust can accumulate in a feed room while preparing feed. Feed rooms connected to a vertical silo should include a provision for ventilation and OFA notes that natural ventilation, using opening panels or windows, is preferred and may be a more appropriate choice. Sealing a feed room from a barn's livestock area is problematic, and adjoining doors are usually open during feeding operations. When personnel are present during feeding operations, with the feed room doors ordinarily open, the ventilation system in the livestock area will overpower any mechanical ventilation system in a feed room. During feed preparation, adequate ventilation should be provided, although airflow need not be restricted from other rooms.

Lastly, the OFA encourages the MMAH to review whether there are opportunities in the OBC to address the issue of uncontrolled electricity (also referred to as stray voltage), particularly prior to a new build. Uncontrolled electricity delivers unwanted electrical currents throughout farm buildings, such as on barn floors or through metal feeders, water bowls, milking equipment, or stabling structures, and can cause serious harm to livestock. While there are several remedial actions to provide temporary relief to livestock affected by stray voltage, OFA encourages the MMAH to consider whether addressing structural requirements to eliminate stray voltage, or assessing a site for uncontrolled electricity prior to permitting a new structure, would be within the scope of the OBC.



OFA welcomes this opportunity to provide its agricultural perspective on the proposed changes to Ontario's Building Code. We look forward to the Ministry's revisions to the Ontario Building Code reflecting OFA's advice and recommendations.

Sincerely,

A handwritten signature in black ink that reads "Peggy Brekveld". The signature is written in a cursive style with a period at the end.

Peggy Brekveld
President

cc: The Honourable Lisa Thompson, Minister of Agriculture, Food, and Rural Affairs
OFA Board of Directors