

## Single exit stair

Guidelines for Alternative Solution for a single exit stair building, greater than 2 storeys in building heights



### Background

The single exit issue, although adopted by the Province of BC and The City of Vancouver, represents a significant change to standard and accepted life safety provision. This precedent provides a 'benchmark' for comparisons as does the NBC Code Change Request for this issue. While not imbedded with the acceptable solutions in BCBC Subsection 3.2.10., special attention shall be given to the appendix notes that reinforces the role of the fire department / fire prevention what may be considered beyond the current practice / legislation / capabilities. The appendix also speaks in redundancies in water supply and building owners / managers diligence with fire planning and maintenance.

Other ongoing or developed reports on the single exit stair include but are not limited to:

- Task Group reviewing proposed inclusion of single exit buildings > 2 storeys for introduction into the NBCC (2030 NBCC review currently ongoing)
- LMDG, *Single Exit Stair / Ontario Building Code Feasibility Study*, Prepared for: City of Toronto, Toronto Building, Final Report Issued June 25, 2024

- *Supporting Documentation and Recommendations for Single Exit Stair Building Design*, GHL Consultants prepared for LGA Architectural Partners, March 13, 2025
- NRC, *Evaluating travel distance provisions in the National Building Code of Canada: history, assumptions, current practices, and recommendations for future directions*
- NRC, *Consultation on single egress in residential buildings*
- IAFF *Position Statement on Single-Exit Residential Buildings*

## Conditions

As determined by the [Winnipeg Building Commission](#) (WBC) the City of Winnipeg should consider the use of **Alternative Solutions** for Single Exit buildings greater than 2 storeys but limited to the MBC maximum height above grade before the building is considered a high building (February 2026).

## Approval process

### Limiting factors

The WBC does not recommend that the requirements of the British Columbia Building Code (BCBC) Regulation, Ministerial Order No. BA2023 10, Subsection 3.2.10, be adopted or applied at this time for these projects.

This may include:

- Not applying BCBC prescriptive provisions verbatim as an alternative solution to the Manitoba Building Code (MBC).
- Not using modified or partial BCBC-based solutions (e.g., Group D scope, narrower stair widths, or differing water supply provisions) as a primary benchmark in lieu of a project-specific MBC Alternative Solution analysis and justification.

### Content

The WBC *does not* recommend other benchmarks (such as external jurisdictional standards, emerging research, or NRC work in progress) be used as standalone determinants of compliance, in place of a complete Alternative Solution under the MBC.

When preparing a formal Alternative Solution submission under the MBC, the proposal must clearly demonstrate that the alternative provides at least the same level of performance as the prescriptive requirement of the code. Elements that should be addressed include, but are not limited to:

- building classification and use, height, area,
- occupant load,
- sprinkler and standpipe design,
- high-rise measures, if provided,
- exit stair design,
- exit stair location and exit to grade with respect to adjacencies (such as parking lots, adjacent buildings or garbage storage for example),
- exit stair ventilation requirements, either passive or mechanical,
- travel distance,
- fire alarm features, firefighting operations, fire planning,

- and special maintenance or commissioning requirements.
- water supply
- fire fighter elevator
- emergency power for building services, capable of operating under a full load for not less than 2 h shall be provided by an emergency generator (e.g. Fire Fighter Elevator / Fans) including protected electrical conductors
- Fire Department Connection location
- firefighting operations, as per Div. B Section 2.2.4, including Fire Safety Plan (note: there are currently no defined Fire Safety Inspection requirements for this type of building occupancy in the Fire Safety Inspections (2014) Regulation, M.R. 208/2014)
- the approval process will involve Winnipeg Fire Paramedic Service review and approval of content related to firefighting operations and shall be acceptable to WFPS Senior Administration

## Manitoba Building Code and Winnipeg Building Bylaw requirements

Refer to the MBC criteria for Alternative Solutions in Div. A 1.2.1.1.(1).(b) and Div. C Section 2.3.

Note that 2.3.1.1.(4) concerns consultant qualifications. If the proposal is not deemed cogent and substantive, a Code Consultant may be requested by the City, as per Building Bylaw article 9.13.

## Alternative Solution submission

- The subject of the Alternative Solution (description of the building in question, legal address, use/occupancy, building area, number of storeys of building height, any applicable building systems like fire alarm and sprinkler systems, etc.)
- Provide the full Alternative Solution draft with Architectural, Structural, Mechanical, Electrical and Sprinkler drawings for review in sufficient detail to support the proposal.
- The specific code reference(s)/requirement(s) (i.e. sentence or article number) for which the Alternative Solution is being applied for.
- The prescribed wording of the code article or sentence (i.e. the acceptable solution), including the associated objective, functional and intent statements attributed to the acceptable solution. This may include any assumptions, limiting or restricting factors, testing procedures, engineering studies, or building performance parameters that will support a Code compliance assessment.
- A description of the Alternative Solution, complete with references (such as NRC publications, NFPA publications, etc.) and appropriate justification, including how the Alternative Solution meets the particular objective(s), functional statements and intent of the Code.
- A statement by the design professional submitting the proposal that they believe that the proposed Alternative Solution meets the intent of the Code.
- A statement indicating that the Alternative Solution is specific only to this project/location and that it is not to be seen as setting any precedence for future developments.
- A statement requesting that the City concur that the proposed Alternative Solution is acceptable where the design of a building includes proposed alternative solutions that involve more than one person taking responsibility for different aspects of the design, the

permit applicant shall identify a single person to coordinate preparation of the design and Code analysis documentation.

Single exit approach is precedent-setting and the City notes that if a proposal is not accepted it may be best adjudicated by an expert third party that is in place for this level of deliberation, namely the Winnipeg Building Commission. If this is necessary, the costs would be borne by the Applicant.