Section 11.5. Alternative Compliance Measures for Heritage Buildings

11.5.1. Application

11.5.1.1. Alternative Compliance Measures

- **1)** This Subsection provides alternative compliance measures for the restoration and rehabilitation of *heritage buildings*.
- **2)** The alternative compliance measures provided in Table 11.5.1.1. apply to existing conditions only and do not apply to new work which must conform to the requirements for new *construction* in other Parts of this By-law.
- **3)** Notwithstanding Article 11.2.1.6, relocation of a *heritage building* may conform to the upgrade requirements for spatial separation outlined in Table 11.5.1.1.
- **4)** Site-built and custom-built replica wood doors, wood framed windows and wood framed skylights, intended to preserve the *heritage* look of a *building* that separated conditioned space and unconditioned space from the exterior, are exempt from the provisions of Subsection 9.7.4. and Article 5.9.2.2. provided the replica
 - a) complies with Clause 9.7.5.1.(3)(a) or (b) as applicable,
 - b) does not create an unsafe condition, and
 - c) is acceptable to the Chief Building Official.

Table 11.5.1.1. Alternate Compliance Measures for Heritage Buildings Forming part of Sentence 11.5.1.1.(2)

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No.	By-law Requirement	Alternate Compliance Method	
1	Fire Separations Sentence 3.1.3.1.(1) and Table 3.1.3.1.; Subsection 9.10.9. 2 h fire separation required between some major occupancies.	Except for F1 occupancies, 1 h fire separation is acceptable, if the building is sprinklered.	
2	Fire Separations Sentence 3.1.3.1.(1) and 3.1.3.1.; Subsection 9.10.9. 1 h fire separation required between some major occupancies.	1/2 h fire separation is acceptable, if the building is sprinklered.	
3	Noncombustible Construction Subsection 3.1.5. and Article 9.10.6.1. All materials used in noncombustible construction must be noncombustible unless otherwise permitted.	 Roofs may be of <i>combustible construction</i> provided the <i>building</i> is <i>sprinklered</i>. Up to 10% gross <i>floor area</i> to a maximum of 10% of any one <i>floor area</i> may be of <i>combustible construction</i> provided the <i>building</i> is <i>sprinklered</i>. 	
4	Fire-resistance Rating Sentence 3.1.7.1.(1); Article 9.10.3.1. Where a material, assembly of materials or structural member is required to have a fire-resistance rating it shall be tested in accordance with CAN/ULC-S101.	A fire-resistance rating may also be used based on: 1. HUD No. 8 Guideline on Fire Ratings of Archaic Materials and Assemblies. 2. Fire Endurance of Protected Steel Columns and Beams, DBR Technical Paper No. 194. 3. Fire Endurance of Unit Masonry Walls, DBR Technical Paper No. 207. 4. Fire Endurance of Light-Framed and Miscellaneous Assemblies, DBR Technical Paper No. 222.	
5	Rating of Supporting Construction Article 3.1.7.5.; Article 9.10.8.3. Supporting assemblies to have fire resistance rating at least equivalent to that of the supported floor.	Heavy timber construction is permitted to have a <i>fire resistance rating</i> less than would be required by the By-law provided the <i>building</i> : (a) is <i>sprinklered</i> , and (b) does not exceed 6 <i>storeys</i> in <i>building height</i> .	

Forming part	of Sentence	11.5.1.1.(2)
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No.	By-law Requirement	Alternate Compliance Method
6	Continuity of Fire Separations Sentence 3.1.8.3.(1) and 3.1.8.3.(2); Article 9.10.9.2. Fire separations are required to be continuous above the ceiling space.	Fire separations are not required to be continuous above the ceiling space where: (a) the ceiling space is non-combustible construction, (b) both fire compartments are sprinklered, or (c) the ceiling has a minimum rating of 30 minutes.
7	Wired Glass Sentences 3.1.8.5.(1) and 3.1.8.16; Articles 9.10.13.1. and 9.10.13.5. 6 mm wired glass in steel frame required in <i>fire separations</i> .	For fixed transoms or sidelights, 6 mm wired glass fixed to a wood frame of at least 50 mm thickness with steel stops is permitted in a required <i>fire separation</i> .
8	Mezzanines Sentences 3.2.1.1.(3) to 3.2.1.1.(6); Article 9.10.4.1. Mezzanines enclosing more than 10% above the horizontal plane are considered as storey in building height.	Enclosed mezzanines may be up to 40% of the storey in which they occur and not be considered a storey in building height if the building is sprinklered.
9	Building Height Articles 3.2.2.20. to 3.2.2.90. Noncombustible construction required for buildings over 3 storeys in building height.	Buildings may be of combustible construction up to 6 storeys provided: (a) the building is sprinklered (b) the building contains Group C, D, E, F2 or F3 occupancies, and (c) floor assemblies not required to exceed 1 h fire separation requirements may be of heavy timber construction.
10	Spatial Separation Subsection 3.2.3.; Subsection 9.10.14. The area of <i>unprotected opening</i> shall not exceed the limits in Tables 3.2.3.1.A to 3.2.3.1.E	The area of existing <i>unprotected opening</i> is not limited provided: (a) the <i>limiting distance</i> is a minimum 1 m, (b) the <i>building</i> has a supervised <i>sprinkler system</i> in conformance with Article 3.2.4.9, c) the existing <i>unprotected openings</i> are protected with close spaced sprinklers per clause 11.3.3.4.(b), and (d) the <i>sprinkler system</i> is designed to notify the fire department in conformance with Article 3.2.4.7.
11	Construction of Exposing Building Face Article 3.2.3.7.; Article 9.10.14.5. The exposing building face is required to have a fire-resistance rating and/or be of noncombustible construction.	Exposing building face is not required to have a fire resistance rating if the building is sprinklered. Also, the exposing building face is not required to be of noncombustible construction if it is protected by an exterior sprinkler system conforming to NFPA 13.
12	Roof Covering Rating Sentence 3.1.15.2.(1) Class A, B or C roof covering in conformance with CAN/ULC-S107 required.	For existing roofs not covered by a Class A, B or C roofing, a manually operated deluge system in accordance with NFPA 13 is permitted.
13	Smoke Alarms Sentences 3.2.4.20.(7) and 3.2.4.20.(9); Sentence 9.10.19.1.(2) Smoke alarms are required to be connected to an electric circuit.	Smoke alarms may be battery operated in a residential building containing not more than one principal dwelling unit.

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No.	By-law Requirement	Alternate Compliance Method	
14	Interconnected Floor Space Subsection 3.2.8.; Sentence 9.10.1.3.(6)	 Open stairs in buildings of maximum 4 storeys in building height need not comply with Subsection 3.2.8. provided: (a) the building contains a Group C or D occupancy, (b) the building is sprinklered with fast-response sprinklers, (c) corridors opening into the interconnected floor space are separated from the interconnected floor space by a fire separation with the rating required for the corridor, and (d) smoke detectors are installed in the rooms opening into the interconnected floor space and the smoke detectors are connected to the fire alarm system. Open stairs in buildings of maximum 3 storeys in building height, or the first 2 storeys and basement, need not comply with Subsection 3.2.8. provided: (a) the building contains a Group C or D occupancy, (b) the building is sprinklered with fast-response sprinklers, 	
		(c) smoke detectors are installed in the rooms opening into the interconnected floor space and the smoke detectors are connected to the fire alarm system, and (d) at least one means of egress is not through the interconnected floor space.	
15	Separation of Suites Article 3.3.1.1.; Article 9.10.9.13., Article 9.10.9.14. Suites are required to be separated from adjoining suites by 3/4 h or 1 h rated fire separations.	Existing <i>fire separations</i> of 30 min, such as wood lath and plaster in good condition, are <i>acceptable</i> in <i>sprinklered buildings</i> not exceeding 6 <i>storeys</i> in <i>building height</i> .	
16	Corridor Fire Separation Article 3.3.1.4.; Article 9.10.9.15. Public corridors are required to be separated from the remainder of the building by a fire separation having a fire resistance rating of at least 3/4 h.	Existing corridors with 30 min <i>fire-resistance ratings</i> , such as wood lath and plaster in good condition, are <i>acceptable</i> in <i>residential occupancies</i> provided the <i>building</i> : (a) does not exceed 6 <i>storeys</i> in <i>building height</i> , and (b) is fully <i>sprinklered</i> with fast-response sprinklers.	
17	Corridor Width Articles 3.3.1.9. and Subsection 3.4.3.; Article 9.9.3.3. Public corridors and exit corridors are required to have a minimum width of 1100 mm.	Public corridors and exit corridors are required with a minimum width of 800 mm provided: (a) the occupant load of the building is maximum 20 people, and (b) the building does not exceed 3 storeys in building height.	
18	Door Swing Articles 3.3.1.11. and 3.4.6.12. Doors required to swing in the direction of <i>exit</i> travel.	Second egress door from a room is not required to swing in the direction of <i>exit</i> travel provided: (a) the <i>building</i> is <i>sprinklered</i> and the system is supervised in conformance with Sentence 3.2.4.9.(3), and (b) the <i>occupant load</i> of the <i>building</i> is a maximum of 100 people.	
19	Stairs, Ramps, Handrails and Guards Article 3.3.1.14., Article 3.3.1.16., Article 3.3.1.18., Article 3.4.6.4., Article 3.4.6.6., Article 3.4.6.2. through Article 3.4.6.9.; Section 9.8.	Existing conditions that do not comply fully with the requirements are permitted if they are acceptable to the Chief Building Official.	
20	Transparent Doors and Panels Article 3.3.1.19.; Article 9.6.1.4. Glass in doors and sidelights are required to be protected by <i>guards</i> and to be safety glass.	Existing glass or transparent panels that do not comply fully with the requirements are permitted if sufficiently discernible or <i>guards</i> are provided in <i>unsafe conditions</i> .	

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No.	By-law Requirement	Alternate Compliance Method
21	Dead-end Corridors Sentence 3.3.1.9.(7); Article 9.9.7.3. Dead-end corridors are permitted to a maximum length of 6 m.	1. Dead-end corridors are permitted to a maximum length of 10 m in Group C occupancies provided: (a) the <i>building</i> is <i>sprinklered</i> with fast-response sprinklers, and (b) <i>smoke detectors</i> are installed in the corridor system. 2. Dead-end corridors are permitted to a maximum of 15 m in length in Group D, E, F2 and F3 <i>occupancies</i> provided: (a) the <i>building</i> is <i>sprinklered</i> with fast-response sprinklers, and (b) <i>smoke detectors</i> are installed in the corridor system.
22	Exits Article 3.4.2.1.; Article 9.9.8.2. Floor areas shall be served by not fewer than 2 exits except as permitted by Sentence 3.4.2.1.(2)	Floor areas may be served by a single exit within the limits of Sentence 3.4.2.1.(2).(b) provided: (a) the building does not exceed 3 storeys in building height, (b) the building is sprinklered with fast-response sprinklers, and (c) all floor areas are protected by a system of smoke detectors connected to a fire alarm system.
23	Reduction of <i>Exit</i> Width Sentence 3.4.3.3.(2); Article 9.9.6.1. Swinging doors in their swing shall not reduce the effective width of exit stairs and landings to less than 750 mm.	Existing swinging doors in their swing are permitted to reduce the effective width of <i>exit</i> stairs and landings to a minimum of 550 mm provided: (a) they serve Group C or D <i>occupancies</i> , (b) the <i>building</i> does not exceed 4 <i>storeys</i> in <i>building height</i> , and (c) the <i>building</i> is <i>sprinklered</i> .
24	Fire Separation of Exits Article 3.4.4.1.; Subsection 9.9.4. Article 3.4.4.1.; Subsection 9.9.4. Exits are required to be separated from the remainder of the floor area by a fire separation having a fire-resistance rating of not less than 3/4 h.	1. Buildings of 3 storeys or less may have exits that are separated by a fire separation that does not have a fire-resistance rating provided: (a) the building is sprinklered with fast-response sprinklers, and (b) the sprinkler system is supervised in accordance with Sentence 3.2.4.9.(2). 2. Buildings not exceeding 6 storeys in building height may have exits that are separated by a 45 min fire separation provided the building is sprinklered.
25	Exits Through Lobbies Article 3.4.4.2.; Article 9.9.8.5. Rooms adjacent to the lobby are required to be separated by a fire separation.	Rooms adjacent to the lobby are not required to be separated by a <i>fire separation</i> provided: (a) the <i>floor</i> area is <i>sprinklered</i> with fast-response sprinklers, and (b) <i>smoke detectors</i> are installed in the adjacent rooms.
26	Rooms Opening into an <i>Exit</i> Sentence 3.4.4.4.(7); Article 9.9.5.9. Service rooms and ancillary rooms are not permitted to open directly into an <i>exit</i> .	Service rooms and ancillary rooms may open directly into an exit provided: (a) the rooms are sprinklered with fast-response sprinklers, and (b) weather stripping is installed on the doors to prevent the passage of smoke.
27	Illumination of <i>Exit</i> Signs Sentences 3.4.5.1.(2) and 3.4.5.1.(4); Sentences 9.9.11.3.(3) to 9.9.11.3.(4) <i>Exit</i> signs are required to be illuminated continuously while the <i>building</i> is occupied.	Where <i>exit</i> signage may compromise historic appearances, or authenticity of displays, <i>exit</i> signs may be installed to light only on an emergency condition, such as by the fire alarm system or due to power failure.
28	Clearance from Exit Doors Sentence 3.4.6.11.(1); Article 9.9.6.6. Stair risers shall not be closer than 300 mm from an exit door.	Except as permitted in Sentences 3.4.6.11.(3) or 9.9.6.6.(2), existing <i>exit</i> doors shall not extend beyond the first riser.

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No.	By-law Requirement	Alternate Compliance Method
29	Fire Escapes Subsection 3.4.7.; Sentence 9.9.2.1.(2) Fire escapes are required to conform to Subsection 3.4.7.	Existing fire escapes that do not completely conform to Subsection 3.4.7. are <i>acceptable</i> provided: (a) the fire escapes are <i>acceptable</i> , and (b) the building is <i>sprinklered</i> .
30	Fire Escape Construction 3.4.7.2.; Sentence 9.9.2.1.(2)	Existing combustible fire escapes are permitted if the <i>building</i> is permitted to be of <i>combustible construction</i> by Part 3, Part 9 or by this table.
31	Protection of Fire Escapes Article 3.4.7.4.; Sentence 9.9.2.1.(2) Openings in the exterior wall adjacent to the fire escape are required to be protected by closures.	Existing openings in the exterior wall adjacent to the fire escape are not required to be protected by closures provided: (a) the <i>building</i> is <i>sprinklered</i> , and (b) a sprinkler head is located within 1.5 m of the opening required to be protected by Article 3.4.7.4.
32	Vertical Service Space Article 3.6.3.1. Vertical service spaces are required to be separated from the adjacent floor area by a rated fire separation.	Existing vertical service spaces that do not completely conform to the rated fire separation requirements are acceptable provided the vertical service spaces are sprinklered.
33	Height and Area of Rooms Subsection 3.7.1.; Section 9.5. The height and area of rooms are required to comply to minimum dimension requirements.	Existing rooms are not required to comply to the minimum dimension requirements of Subsection 3.7.1. or Subsection 9.5.3. provided it is acceptable to the Chief Building Official.
34	Washroom Requirements Subsection 3.7.2.; Section 9.31. Buildings are required to be provided with a minimum number of washroom fixtures.	Existing facilities are not required to completely comply to the requirements of Subsection 3.7.2. or Section 9.31. provided it is <i>acceptable</i> to the <i>Chief Building Official</i> .
35	Seismic Anchorage of Exterior Decoration Subsection 4.1.8.	Existing exterior decorations are not required to fully comply to the anchorage requirements of Subsection 4.1.8. provided: (a) acceptable means of protection is provided, or (b) there is no exposure to the public.
36	Mechanical Systems Part 6 and Part 7	Existing mechanical systems in buildings are not required to fully comply to the requirements of Parts 6 or 7 provided: (a) it is not an <i>unsafe condition</i> , and (b) it is <i>acceptable</i> to the <i>Chief Building Official</i> .
37	Mechanical and Plumbing Systems Parts 9, 10 and 11	Existing mechanical systems in buildings are not required to fully comply to the requirements of Parts 6 or 7 provided: (a) it is not an unsafe condition, and (b) it is acceptable to the Chief Building Official.
38	Energy and Water Efficiency Parts 9, 10 and 11	The existing level of energy and water efficiency in a <i>building</i> is not required to comply with the requirements of Parts 9, 10 or 11 provided the level of energy efficiency is <i>acceptable</i> to the <i>Chief Building Official</i> .

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