



BRITISH
COLUMBIA

Code Changes

Effective date: December 11, 2015

Building and Safety Standards Branch
Office of Housing and Construction Standards

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Background

- 2012 BC Building Code adopted December 2012
- Revision 8 – Windows, Doors, and Skylights
- www.gov.bc.ca/buildingcodes for NAFS webinar
- other minor changes to Part 3 and 9 reviewed herein



Sentence 3.2.1.1.(1) / 9.10.4.4.

- 1) A roof-top enclosure shall not be considered as a *storey* in calculating the *building height* if the roof-top enclosure is
 - a) provided for elevator machinery, a stairway or a *service room*, and
 - b) used for no purpose other than for service to the *building*.



3.4.6.8

11) Stairs shall be provided with tactile warning strips conforming to Article 3.8.3.11. unless the stairs are

- a) stairs within or serving *dwelling units*,
- b) *exit* stairs not normally used for access purposes, or
- c) fire escape stairs.



3.4.6.16.

3) Except as required by Clause 3.3.1.13.(10)(d), every *exit* door shall be designed and installed so that, when the latch is released, the door will open under a force of not more than 90 N, applied at the knob or other latch-releasing device.



9.10.4.4. Roof-Top Enclosures

1) A roof-top enclosure shall not be considered as a *storey* in calculating the *building height* if the roof-top enclosure is

a) provided for elevator machinery, a stairway or a *service room*, and

b) used for no purpose other than for service to the *building*.



9.32.3.4.(2)(b)

b) draw supply air from an outdoor inlet that is connected to the cabinet containing the furnace air circulating fan required by Clause (d) by ducting that measures, from that cabinet to the point at which the ducting intersects the return air plenum,

i) between 3 m and 4.5 m in length, or

ii) if a flow control device is used, not more than 4.5 m in length.

9.32.3.4.(3)(a)

a) the ducted forced-air heating system shall conform to Clauses (2)(a), (c) and (d),



9.32.3.4.

6) A principal ventilation system need not conform to Sentence (1) if the principal ventilation system

a) services a *dwelling unit* that

i) is located where the January design temperature, on a 2.5% basis determined in conformance with Article 1.1.3.1., is greater than -20° C,

ii) has only 1 *storey* and a *floor area* of less than 168 m^2 within the *building* envelope (see Appendix A), and

iii) does not have a ducted forced-air heating system, and

b) provides supply air passively from outdoors through dedicated inlets that

i) are located in each bedroom and at least one common area,

ii) are located at least 1 800 mm above the floor, and

iii) have an unobstructed vent area of not less than 25 cm^2 .



9.32.3.7.

- 1)** Where a crawl space is heated by a ducted forced-air heating system that does not draw air from the crawl space to the furnace through the return air plenum, the crawl space shall be connected to the floor space above the crawl space by at least one air-transfer grille.
- 2)** Where a crawl space is heated other than by a ducted forced-air heating system, the crawl space shall
 - a) be connected to
 - i) the floor space above the crawl space by at least one air-transfer grille, and
 - ii) the principal ventilation system by a supply air outlet or an exhaust air inlet,
 - b) be connected to the floor space above the crawl space by at least 2 air-transfer grilles, or
 - c) be connected to
 - i) the floor space above the crawl space by at least one air-transfer grille, and
 - ii) the outdoors by a dedicated exhaust fan that complies with Sentence (4).
- 3)** An air-transfer grille required by Sentence (1) or (2) shall have an unobstructed vent area of the greater of
 - a) 25 cm², and
 - b) 0.83 cm² for every m² of crawl space area.



9.32.3.8.

7) Except for a supply air system described in Sentence 9.32.3.4.(2) or (3), all joints in *exhaust ducts*, and in *supply ducts* that conduct conditioned air, shall be sealed against air leakage with

- a) sealants or gaskets made from liquids, mastics or heat-applied materials,
- b) mastic with embedded fabric,
- c) foil-faced butyl tape, or
- d) aluminum foil tape.

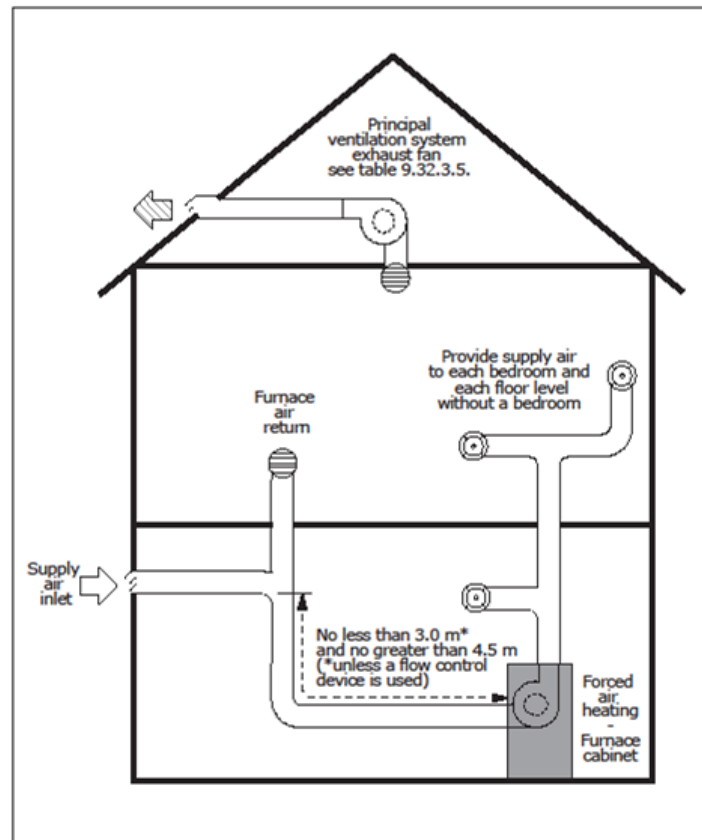


9.32.4.1.

1) Additional make-up air for the actual *appliance* exhaust rate shall be provided for any ~~appliance~~ *appliance* that discharges air to the exterior at an installed rate exceeding 0.5 air change per hour when it is located within a *dwelling unit* that contains a vented *appliance* that is subject to back drafting (Naturally Aspirating Fuel-Fired Vented Appliance). (See Appendix A.)



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**Table A-9.32.4.1.(1)B.
Vent Safety — Oil and Solid Fuel**

| Fuel Type | Oil | | | Solid | | |
|----------------------|--|--|------------------------------|--|---|----------------|
| Vent Type | Thermal Buoyancy Chimney ⁽²⁾ | | Direct Vent | Thermal Buoyancy Chimney ⁽²⁾ | | Any |
| Appliance Type | Boiler HWT ⁽⁴⁾ | F/A Furnace Boiler HWT ^{(3), (4)} | F/A Furnace Boiler HWT | Boiler | F/A Furnace Boiler HWT Fireplace Heat Stove | Outside Boiler |
| Special Conditions | Located in Air-Barriered Room ⁽¹⁾ | | | Located in Air-Barriered Room ⁽¹⁾ | | |
| Classification | Non-NAFFVA | NAFFVA | Non-NAFFVA | Non-NAFFVA | NAFFVA ⁽⁵⁾ | N/A |
| 9.32.4.1.(1) Applies | No | Yes | No | No | Yes ⁽⁵⁾ | No |

Notes to Table A-9.32.4.1.(1)B.:

- ⁽¹⁾ Mechanical room must be air-barriered from remainder of house with no access from within house. Room must be lined with panel products with sealed joints and all pipe and wire penetrations sealed. Effectively, the room must be finished before equipment is installed and holes drilled for pipes and wires. This option is not available for forced air furnaces as it is not possible to effectively seal the ducts.
- ⁽²⁾ Thermal buoyancy chimneys must be within the heated envelope of the house to provide acceptable venting performance.
- ⁽³⁾ Oil-fired HWT, boilers and furnaces equipped with blocked vent switches.
- ⁽⁴⁾ Sealed combustion kits can be added to oil-fired appliances but they switch to interior combustion air if intake is blocked and rely on barometrically dampered thermal buoyancy chimneys so they are considered NAFFVA.
- ⁽⁵⁾ Wood-burning appliances certified for use in mobile homes and installed to mobile home installation standards are considered non-NAFFVA and Sentence 9.32.4.1.(1) does not apply to them.



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Questions?



9.36.2.5.

6) Except as permitted by Article 9.36.2.11., where mechanical, plumbing or electrical system components, such as pipes, ducts, conduits, cabinets, chases, panels or recessed heaters, are placed within and parallel to a wall assembly required to be insulated, the effective thermal resistance of that wall at the projected area of the system component shall be not less than that required by Tables 9.36.2.6.A., 9.36.2.6.B., 9.36.2.8.A. and 9.36.2.8.B. (See Appendix A.)



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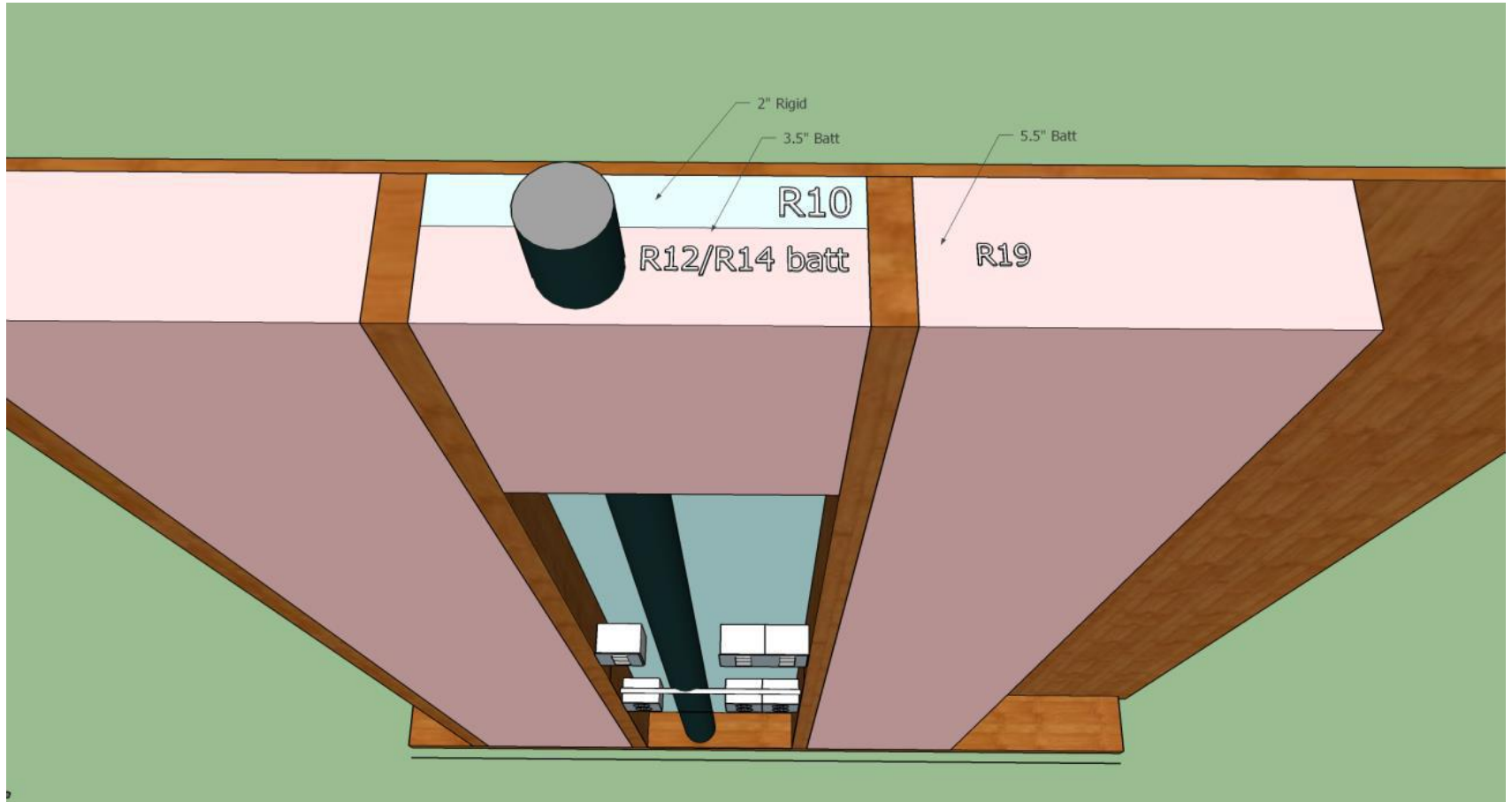




Table 9.36.2.8.A. is amended

(a) in the column headed “Zone 4” by striking out “1.96(7)” in both places and substituting “1.96”, and

(b) in the Notes to the table by repealing Note (7).

Table 9.36.2.8.B. is amended

(a) in the column headed “Zone 4” by striking out “1.96(7)” in both places and substituting “1.96”, and

(b) in the Notes to the table by repealing Note (7).



Table 9.38.1.1. in the Attribution Tables to Division B is amended by adding the following rows:

| 9.36.2.2. Determination of Thermal Characteristics of Materials, Components and Assemblies | |
|---|-------------|
| (1) | [F92-OE1.1] |
| (2) | [F92-OE1.1] |
| (3) | [F92-OE1.1] |
| (4) | [F92-OE1.1] |
| 9.36.2.4. Calculation of Effective Thermal Resistance of Assemblies | |
| (1) | [F92-OE1.1] |
| (3) | [F92-OE1.1] |
| 9.36.2.5. Continuity of Insulation | |



Appendix Note A-9.36.2.4.(1) is amended

(a) in Table A-9.36.2.4.(1)D. by striking out the following row:

| | | | |
|--|-------|---|------|
| Walls (heat flow horizontal) faced with non-reflective material ⁽²⁾ | 13 mm | — | 0.16 |
| | 20 mm | — | 0.18 |
| | 40 mm | — | 0.18 |
| | 90 mm | — | 0.18 |

and substituting the following:

| | | | |
|--|--------|---|------|
| Walls (heat flow horizontal) faced with non-reflective material ⁽²⁾ | 9.5 mm | — | 0.15 |
| | 13 mm | — | 0.16 |
| | 20 mm | — | 0.18 |
| | 40 mm | — | 0.18 |
| | 90 mm | — | 0.18 |



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A-9.36.2.7.(3) Site-built Windows. Site-built windows are often installed in custom-built homes or in unique configurations for which manufactured units are not available. Article 9.7.4.1. requires windows, doors and skylights to conform to either the standards referenced in Article 9.7.4.2. or to Part 5. Regardless of the compliance path chosen, the requirements of Section 9.36. and the remainder of Section 9.7. must also be met. Windows, doors and skylights and other glazed products that comply with Part 5 and are installed in a Part 9 building may use the site-built provisions of Sentence 9.36.2.7.(3) rather than complying with the requirements in Sentence 9.36.2.7.(1).



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9.37.2.19.(3)

a) the *fire separations* required in Articles 9.37.2.15. and 9.37.2.16. have a *fire-resistance rating* of 45 min or greater, or



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Conclusion

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- **Effective date: December 11, 2015**
- **Applies to building permits applied for on or after that date.**



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Additional Questions?

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