



FOOTHILLS COUNTY
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RESIDENTIAL MECHANICAL VENTILATION

National Building Code – Alberta Edition 2019 Ventilation 9.32 Requirements

Name of Owner/General Contractor: _____

Municipal Address of Project: _____

Mechanical Contractor: _____ Phone No. _____

Building Permit Number: _____

NON-HEATING-SEASON VENTILATION

1. Natural Ventilation – in accordance with table 9.32.2.2. (Openable windows in all habitable rooms)

2. Mechanical Ventilation 9.32.2.3.

Option 1. mechanical cooling A/C, with no natural ventilation; air change rate designed as per table 9.32.2.3.

Option 2. comply with subsection 9.32.3. Heating Season Mechanical Ventilation (Basic forced air system)

Option 3. no mechanical cooling and no natural ventilation; mechanical system shall have the capacity to change the air at a rate of 1 air change per hour (e.g. HRV or Fan Coil)

HEATING-SEASON MECHANICAL VENTILATION

1. Heat Recovery Ventilators (HRV)

Number of Furnaces _____ Number of HRVs _____

Each Furnace shall be served by a dedicated HRV if used to achieve the energy efficiency requirements of Table 9.36.2.6.B. or if required by performance energy model.

CAN/CSA-F326-M form is required if ventilation design includes more than one HRV.

Principal ventilation switch must be interlocked to activate all HRV's and furnace fans 9.32.3.3.(2)

2. Principal Ventilation System 9.32.3.3.

Option 1. introduce outside air into the ventilation system in conjunction with a forced air heating system 9.32.3.4.

Option 2. introduce outside air into the ventilation system not in conjunction with a forced air

heating system (9.32.3.5.) A detailed ventilation plan must be submitted with this system.

Principal Ventilation Fan (PVF) - # of bedrooms _____ CFM _____ 9.32.3.3. (See table for minimum)

Location of principal ventilation fan _____ Actual CFM _____

Table 9.32.3.3. – Normal Operating Exhaust Capacity of Principal Ventilation Fan Forming Part of Sentence 9.32.3.3. (2)

Number of Bedrooms in Dwelling Unit	Normal Operating Exhaust Capacity of Principal Ventilation Fan, CFM	
	Minimum	Maximum
1	34	51
2	38	60
3	47	68
4	55	81
5	64	95
More than 5	System must comply with clause 9.32.3.1.(1)(a)	

Outdoor air supply/intake air flow shall be balanced to be within $\pm 10\%$ of the principal ventilation fan at normal operating capacity. The flow regulating damper on the fresh air intake shall be permanent fix at the balanced flow rate. **Principal ventilation fan must be interconnected with all furnace fans.**

3. Supplemental Exhaust 9.32.3.7.

- Option 1.** () Supplemental exhaust required – 100 cfm kitchen, 50 cfm per bathroom (minimums)
A supplemental exhaust fan is NOT required in a kitchen IF:
- Option 2.** () The Principal Ventilation fan draws only from the kitchen (must be 2m above the floor)
- Option 3.** () The principal ventilation fan draws from that kitchen and other rooms, provided the principal ventilation fan, on high exhaust rate, is 2.5 times the minimum operating exhaust capacity specified in Table 9.32.3.3., and the switch is labelled “KITCHEN EXHAUST”

4. Protection Against Depressurization 9.32.3.8.

- Option 1.** () All fuel – Fired appliances are direct – vented or mechanically vented (makeup air not required)
- Option 2.** () Outdoor makeup air is supplied at a rate, not less than the capacity of any exhaust device, and not greater than 10% over the exhaust device capacity and makeup air must be tempered to at least 12 degrees Celsius – details must be submitted.

9.32.3.11. (8) Joints in all Ventilation system ducting shall be sealed with mastic, metal foil, duct tape, or the manufactures specified sealant.

An Air balancing report must be provided at final inspection