

A

Mechanical Ventilation Checklist A—Non-Distributed

Use this checklist with **Non-Distributed Systems** such as those usually found in dwellings with **electric or hot water radiant or baseboard heating systems** or where duct systems do not distribute ventilation air.

Civic Address _____		Permit No. _____	
Number of Bedrooms	<input style="width: 80px; height: 30px;" type="text"/>	(A)	A bedroom is a room with an openable window (minimum dimensions apply), a closet and a closing interior door.
Total Interior Volume of Dwelling	<input style="width: 80px; height: 30px;" type="text"/> ft ³		Total volume includes heated interior joist spaces and heated crawlspaces.
.5 ACH (air changes/hr) = Volume x 0.5 ÷ 60 =	<input style="width: 80px; height: 30px;" type="text"/> cfm	(B)	Exhaust appliances exceeding .5 ACH may require make-up air.

1. Principal Fan

a) Exhaust Rate: Use the bedroom count from Box (A) above and Table 9.32.3.3.A. to determine Minimum Rate. Maximum Rate of 110 cfm if NAFFVA/Radon present.

The Principal Exhaust Fan will be controlled automatically with an interval timer OR run continuously.

Minimum required rate: **Interval Timer**

cfm (C)

Continuous

cfm (D)

b) Principal Fan CFM & Sone Rating:

Make _____ Model _____

cfm (E)

Sones: Interval _____ Continuous _____
 Maximum rating: Interval Timer 1.5 Sones Continuous 1 Sone

Box E Maximum allowed is **110 cfm** if Make-up Air Required in Step 4.

Fan Location: _____

c) Principal Fan Duct Size:

Use actual fan cfm in Box E above and Table 9.32.3.9.

Fan Duct size: _____ inches. Duct type: ___Smooth ___Flex

2. Required Kitchen and Bathroom Exhaust Fans:

Room	Fan Make & Model	Fan CFM		Duct Diameter (in)	
		Code Req'd Min. @ .2"W.C. per Table 9.32.3.3.B	actual Fan CFM @ .2"W.C. per Manf. Rating	Table 9.32.3.9*	
				Smooth	Flex

* For fan capacities **exceeding** Table 9.32.3.9, follow manufacturer's installation instructions or use good engineering practice to size duct. See *Ventilation Guidelines* Appendix page 24-A.

3. NAFFVA (Naturally Aspirated Fuel Fired Vented Appliance) **and/or Radon Gas present in dwelling unit?**

Yes, Proceed to Step 4 & 5

No, Omit Steps 4 to 7.

4. Passive Make-Up Air Duct for Principal Fan: Use the Box E installed cfm and Table 9.32.3.8.

Make-up air duct diameter _____ inches. Location _____

5. Exhaust Appliance present which exceeds Box B 0.5 ACH:

Yes, Proceed to Step 6.

No such appliance. Omit Steps 6 to 7.

6. Use Passive Make-up Air for Exhaust Appliance with actual installed exhaust rate of 126 cfm or less:

Appliance Cfm _____ **Passive Make-up Air Duct** Sized to Table 9.32.3.8: _____ inches

7. Use Active Make-up Air for Exhaust Appliance with actual installed exhaust rate of more than 126 cfm.

Make-up Air Fan required:

***Exhaust Appliance Cfm** _____

Fan Make _____ Model _____

Fan Cfm _____

Duct diameter _____ inches

*Must equal actual installed exhaust rate of appliance.

Fan Location _____ Fan ducted to _____

A) Active Make-up Air delivered to an Unoccupied Area (not directly to room containing the appliance).

Tempering Required per 9.32.4.1.(4)(a):

Show calculation & describe how make-up air will be tempered to at least 34°F (1°C) before entering unoccupied area.

Transfer Grill Required: Size to Table 9.32.3.8 (or 1 sq in of gross area per 2 cfm):

Transfer grill size _____ sq. in. Location _____

Additional Tempering Required per 9.32.4.1.(4)(b) before transfer to occupied area: Show calculation and describe how make-up air will be further tempered to at least 54°F (12°C).

B) Active Make-up Air delivered to an Occupied Area: Tempering Required. Show calculation and describe how make-up air will be tempered to at least 54°F (12°C).

Installer Certification:

Date _____

I hereby certify that the design and installation of the ventilation system complies with the 2006 B.C. Building Code.

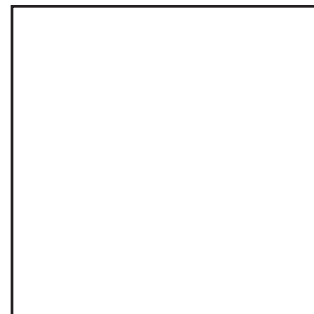
Print Name _____

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Signature _____

Company _____

Phone _____



Checklist A2

B

Mechanical Ventilation Checklist B—Distributed

Previously Checklist C (per former 1998 BCBC)

This Checklist is for use with **forced air heating systems** where the heating duct system distributes ventilation air.

Civic Address _____		Permit No. _____	
Number of Bedrooms	<input style="width: 50px; height: 20px;" type="text"/>	(A)	A bedroom is a room with an openable window (minimum dimensions apply), a closet and a closing interior door.
Total Interior Volume of Dwelling	<input style="width: 50px; height: 20px;" type="text"/> ft ³		Total volume includes heated interior joist spaces and heated crawlspaces.
.5 ACH (air changes/hr) = Volume x 0.5 ÷ 60 =	<input style="width: 50px; height: 20px;" type="text"/> cfm	(B)	Exhaust appliances exceeding .5 ACH may require make-up air.

1. Principal Fan

a) Exhaust Rate: Use the bedroom count from Box (A) above and Table 9.32.3.3.A. to determine Minimum Rate. (Maximum Rate of 110 cfm if NAFFVA/Radon present.)

Minimum required rate: **Interval Timer**

cfm (C)

Continuous

cfm (D)

b) Principal Fan CFM & Sone Rating:

Make _____ Model _____

cfm (E)

Sones: Interval _____ Continuous _____
 Maximum allowed: Interval timer 1.5 sonos Continuous 1 sone

Box E Maximum allowed is **110 cfm** if Make-up Air Required in Step 4.

Fan Location: _____

c) Principal Fan Duct Size: Use actual fan cfm in Box E above and Table 9.32.3.9 for Duct.

Fan Duct size: _____ inches. Duct type: ___Smooth___ Flex

2. Required Kitchen and Bathroom Exhaust Fans:

Room	Fan Make & Model	Fan CFM		Duct Diameter (in)	
		Code Req'd Min @.2"W.C. per Table 9.32.3.3.B	actual Fan CFM @.2"W.C. per Manf. Rating	Table 9.32.3.9*	
				Smooth	Flex

* For fan capacities **exceeding** Table 9.32.3.9, follow manufacturer's installation instructions or use good engineering practice to size duct. See *Ventilation Guidelines* Appendix page 24-A.

3. NAFFVA (Naturally Aspirated Fuel Fired Vented Appliance) **and/or Radon Gas present in dwelling unit?**

Yes, Proceed to Step 4 & 5

No, Omit Steps 4 to 7.

4. Active Make-Up Air Duct for Principal Fan: Per Sec 9.32.3.8. (2) (b) (ii & iii) Install a 4"Ø outdoor air duct into the furnace return air plenum not more than 15ft (unless a flow control device is used) or less than 10ft from the furnace cabinet. In locations with winter design temperature less than -10° C, this duct must have a motorized damper interconnected with principal ventilation air fan. **Interconnect in place:** Principal Fan & Furnace Blower Yes

Damper make _____ Voltage _____

& Damper (if present) Yes

5. Exhaust Appliance present which exceeds Box B 0.5 ACH:

Yes, Proceed to Step 6.

No such appliance. Omit Steps 6 to 7.

6. Use Passive Make-up Air for Exhaust Appliance with actual installed exhaust rate of 126 cfm or less:

Appliance Cfm _____ Passive Make-up Air Duct Sized to Table 9.32.3.8: _____ inches

7. Use Active Make-up Air for Exhaust Appliance with actual installed exhaust rate of more than 126 cfm.

Make-up Air Fan required:

***Exhaust Appliance Cfm** _____

Fan Make _____ Model _____

Fan Cfm _____

Duct diameter _____ inches

*must equal actual installed exhaust rate of appliance.

Fan Location _____ Fan ducted to _____

a) Active Make-up Air delivered to an Unoccupied Area (not directly to room containing the appliance).

i) Tempering Required per 9.32.4.1.(4)(a):

Show calculation & describe how make-up air will be tempered to at least 34°F (1°C) before entering unoccupied area.

ii) Transfer Grill Required: Size to Table 9.32.3.8 (or 1 sq in of gross area per 2 cfm):

Transfer grill size _____ sq. in. Location _____

iii) Additional Tempering Required per 9.32.4.1.(4)(b) before transfer to occupied area: Show calculation and describe how make-up air will be further tempered to at least 54°F (12°C).

OR b) Active Make-up Air delivered to an Occupied Area: Tempering Required. Show calculation and describe how make-up air will be tempered to at least 54°F (12°C).

Installer Certification:

Date _____

I hereby certify that the design and installation of the ventilation system complies with the 2006 B.C. Building Code.

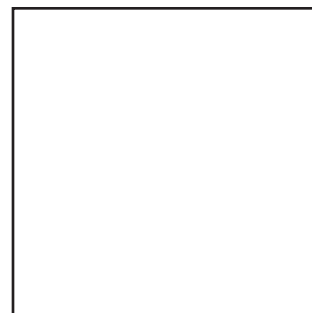
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Checklist B2

5. NAFFVA (Naturally Aspirated Fuel Fired Vented Appliance) **and/or Radon Gas present in dwelling unit?**

Yes, Proceed to Step 6 if CEV or Step 7 if HRV. **No, Omit Steps 6 to 9.**

6. CEV only—Make-Up Air Duct for Principal Fan: Choose (a) or (b) and proceed to Step 7.

a) Non-Distributed system—Passive make-up air duct: Use Box E or F installed cfm and Table 9.32.3.8.

Make-up air duct diameter _____ inches. Location _____

b) Distributed system—Active Make-Up Air Duct for Principal Fan: Per Sec 9.32.3.8. (2) (b) (ii & iii)

Install a 4"Ø outdoor air duct into the furnace return air plenum not more than 15ft (unless a flow control device is used) or less than 10ft from the furnace cabinet. In locations with winter design temperature less than -10° C, this duct must have a motorized damper interconnected with principal ventilation air fan.

Interconnect in place: Principal Fan & Furnace Blower Yes
Damper make _____ Voltage _____ & Damper (if present) Yes

7. Exhaust Appliance present which exceeds Box B —0.5 ACH:

Yes, Proceed to Step 8. **No such appliance. Omit Steps 8 to 9.**

8. Use Passive Make-up Air for Exhaust Appliance with actual installed exhaust rate of 126 cfm or less:

Appliance Cfm _____ Passive Make-up Air Duct Sized to Table 9.32.3.8: _____ inches

9. Use Active Make-up Air for Exhaust Appliance with actual installed exhaust rate of more than 126 cfm.

Make-up Air Fan required: ***Exhaust Appliance Cfm** _____

Fan Make _____ Model _____ **Fan Cfm** _____

Duct diameter _____ inches *must equal actual installed exhaust rate of appliance.

Fan Location _____ Fan ducted to _____

a) Active Make-up Air delivered to an Unoccupied Area (not directly to room containing the appliance).

i) Tempering Required per 9.32.4.1.(4)(a):

Show calculation & describe how make-up air will be tempered to at least 34°F (1°C) before entering unoccupied area.

ii) Transfer Grill Required: Size to Table 9.32.3.8 (or 1 sq in of gross area per 2 cfm):

Transfer grill size _____ sq. in. Location _____

iii) Additional Tempering Required per 9.32.4.1.(4)(b) before transfer to occupied area: Show calculation and describe how make-up air will be further tempered to at least 54°F (12°C).

OR b) Active Make-up Air delivered to an Occupied Area: Tempering Required. Show calculation and describe how make-up air will be tempered to at least 54°F (12°C).

Installer Certification:

Date _____

I hereby certify that the design and installation of the ventilation system complies with the 2006 B.C. Building Code.

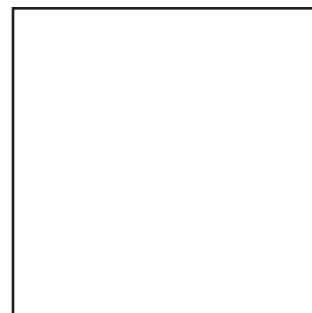
Print Name _____

2006 TECA Ventilation Certification Stamp

Signature _____

Company _____

Phone _____



Checklist C2

WINTER DESIGN TEMPERATURES FOR SELECTED B.C. LOCATIONS

Coastal Climate locations ($\geq -10^{\circ}\text{C}$) appear in **bold** type. Cold Climate locations ($\leq -10^{\circ}\text{C}$) appear in normal type.
Use the Fahrenheit ($^{\circ}\text{F}$) winter design temperature for calculating Duct Heater Sizes—see *Appendix*

Location	Winter Design Temp		Location	Winter Design Temp	
	$^{\circ}\text{C}$	$^{\circ}\text{F}$		$^{\circ}\text{C}$	$^{\circ}\text{F}$
Abbotsford	-10	13	McLeod Lake	-35	-31
Agassiz	-13	7	Masset	-7	18
Alberni	-5	22	Merritt	-26	-15
Ashcroft	-25	-14	Mission	-9	15
Beaton River	-37	-35	Montrose	-17	1
Burns Lake	-30	-24	Nakusp	-24	-11
Cache Creek	-25	-14	Nanaimo	-7	20
Campbell River	-7	18	Nelson	-20	-5
Carmi	-24	-11	New Westminister	-8	18
Castlegar	-19	-2	North Vancouver	-7	19
Chetwynd	-35	-33	Ocean Falls	-12	9
Chilliwack	-12	10	Osoyoos	-16	3
Cloverdale	-8	17	Penticton	-16	3
Comox	-7	19	Port Alberni	-5	22
Courtenay	-7	19	Port Hardy	-5	22
Cranbrook	-27	-17	Port McNeill	-5	22
Crescent Valley	-20	-5	Powell River	-9	15
Crofton	-6	21	Prince George	-33	-31
Dawson Creek	-36	-34	Prince Rupert	-14	8
Dog Creek	-28	-19	Princeton	-27	-16
Duncan	-6	21	Qualicum Beach	-7	19
Elko	-28	-18	Quesnel	-33	-29
Fernie	-29	-21	Revelstoke	-26	-16
Fort Nelson	-40	-41	Richmond	-7	19
Fort St. John	-36	-34	Salmon Arm	-23	-10
Glacier	-27	-17	Sandspit	-6	20
Golden	-28	-19	Sidney	-6	20
Grand Forks	-20	-4	Smithers	-29	-21
Greenwood	-20	-4	Smith River	-46	-51
Haney	-9	16	Squamish	-11	12
Hope	-16	2	Stewart	-23	-10
Hundred Mile House	-28	-20	Taylor	-36	-34
Kamloops	-25	-12	Terrace	-20	-5
Kaslo	-23	-9	Tofino	-2	27
Kelowna	-17	0	Trail	-17	1
Kimberley	-26	-16	Ucluelet	-2	27
Kitimat Townsite	-16	2	Vancouver	-7	19
Langley	-8	17	Vernon	-20	-5
Lillooet	-23	-10	Victoria	-5	23
Lytton	-19	-3	Williams Lake	-31	-23
Mackenzie	-35	-32	Youbou	-5	22
McBride	-34	-29			