

Ventilation

**BCBC 9.32 & 9.36.3.9
2014**

9.32 Ventilation - Changes

- Exhaust only ventilation no longer acceptable
- New Principal Fan Sizing Table
- Ventilation air must be distributed to each bedroom and a common area
 - 4 acceptable options
- Principal System –must run continuously
- Crawlspace Ventilation Required
- Credit for very short bath fan exhaust ducts

9.32.3.5 Principal Ventilation System Exhaust Fan

- Principal ventilation rate based on bedroom count & square footage
- Minimum exhaust fan air-flow rate in Table 9.32.3.5 –(actual values are m2 and L/s)

Floor area ft ²	Minimum air flow rate, cfm				
	Number of bedrooms				
	0-1	2-3	4-5	6-7	>7
< 1500	30	45	60	75	90
1500 - 3000	45	60	75	90	105
3000 - 4500	60	75	90	105	120
4500 - 6000	75	90	105	120	135

9.32.3.5 Principal Ventilation System Exhaust Fan

- Designed to run continuously
- Controlled by dedicated switch
 - Clearly marked “principal Ventilation Exhaust Fan”
 - Two settings: on & off
 - Accessible for servicing
 - If capable of running at multiple flow rates, must have a separate switch so low rate is not less than required
- Sound rating not to exceed 1.0 sone

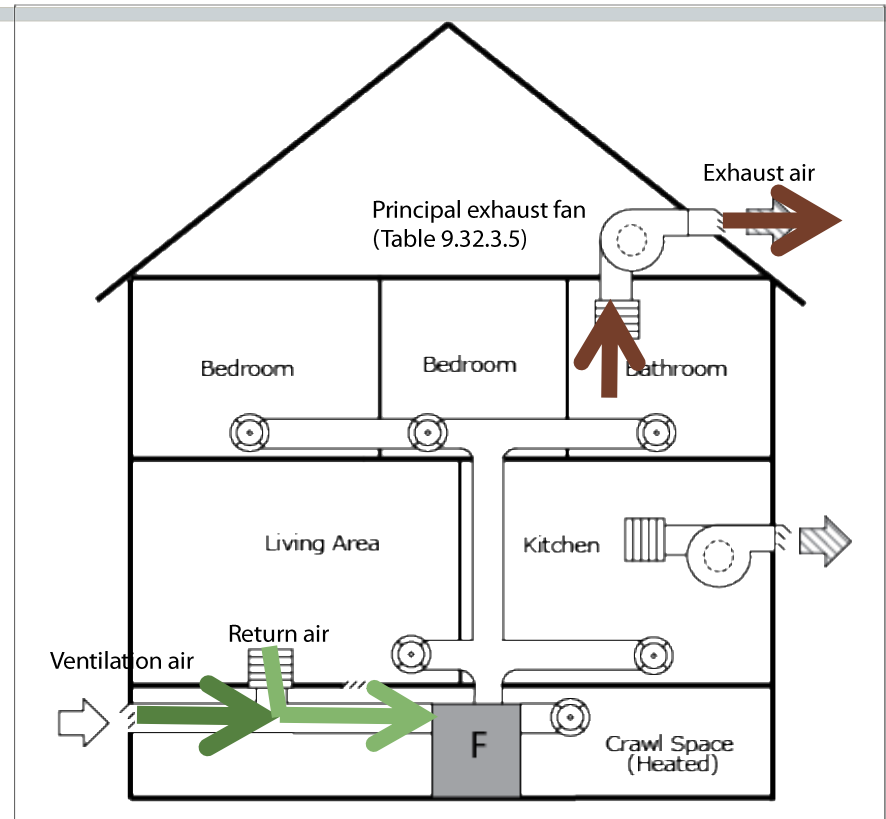
9.32.3.6 Kitchen & Bath Fans

- Exhaust must be installed in every kitchen and bathroom
 - Unless these are served by principal ventilation system, the Minimum flow rate is as per Table 9.32.3.6

Room	Minimum Exhaust Fan Flow Rate CFM	
	Intermittent	Continuous
Kitchen	100	N/A
Bathroom	50	20

9.32.3.4 (2) Supply with Forced Warm Air Heating

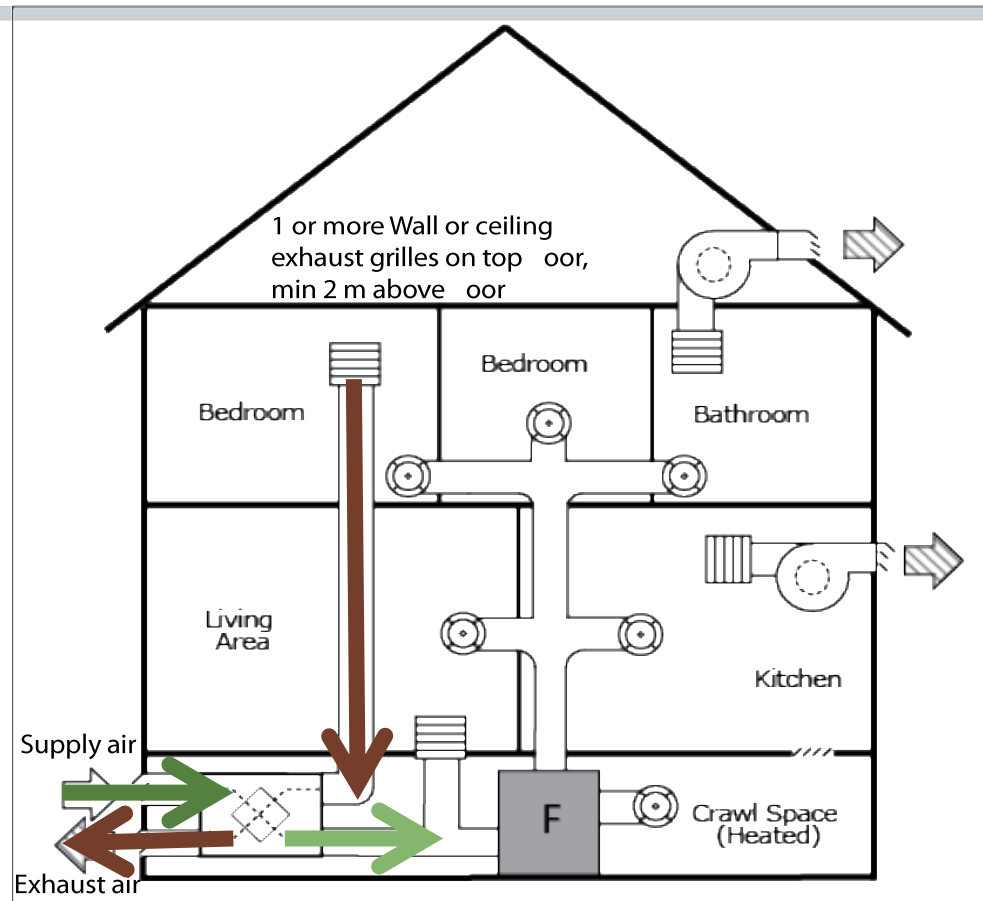
- Principal exhaust fan sized to Table 9.32.3.5; continuous operation
- Furnace fan must run continuously
- Supply air drawn into furnace return; limits on supply duct



Fresh air duct insulated & vapour barriered for full length
4" diameter rigid duct or 5" ex duct
duct length to furnace cabinet :
- minimum 10 ft; max 15 ft

Furnace to run continuously
to distribute supply air

9.32.3.4 (3) HRV Supply with Forced Warm Air Heating

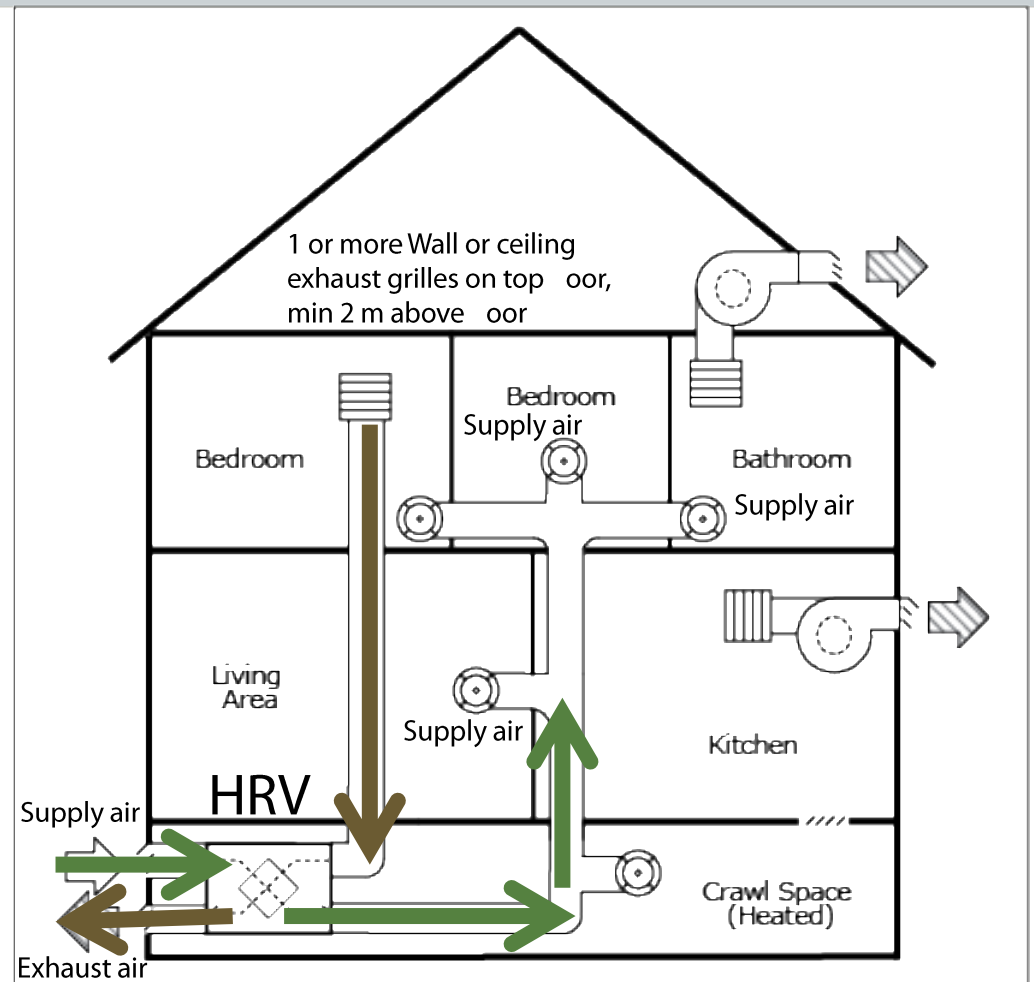


HRV

Furnace ducted to supply
each bedroom & each door
without level without a bedroom

9.32.3.4(4) Independently Distributed HRV System

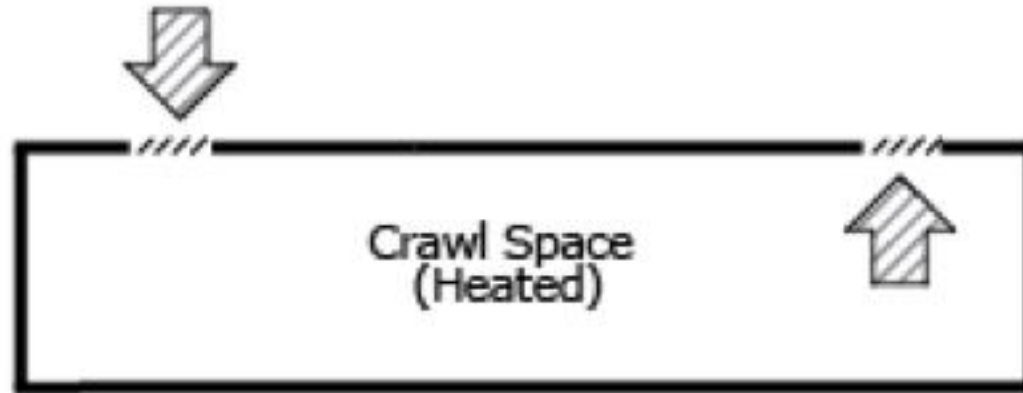
- Dedicated supply ducts to each bedroom and to each floor
- At least one exhaust located 2 m above upper floor



9.32.3.7 Heated crawlspace ventilation

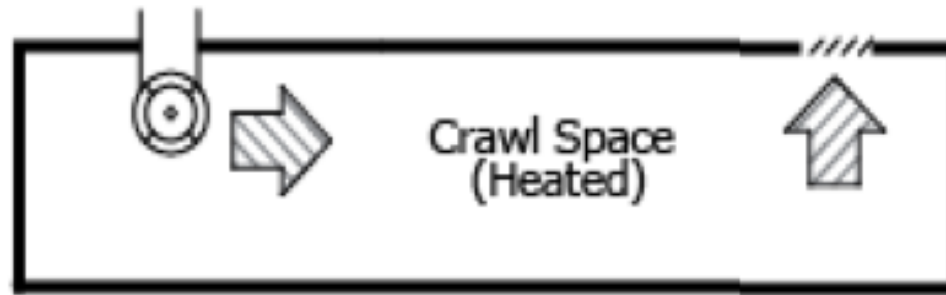
- If crawlspace is heated by ducted forced air heating, it must be connected to floor above by at least one transfer grille for each 30m² of crawlspace area
- *Note: Crawlspace ventilation in this section must not be confused with exterior ventilation of unheated crawlspace*

9.32.3.7 Heated crawl space ventilation



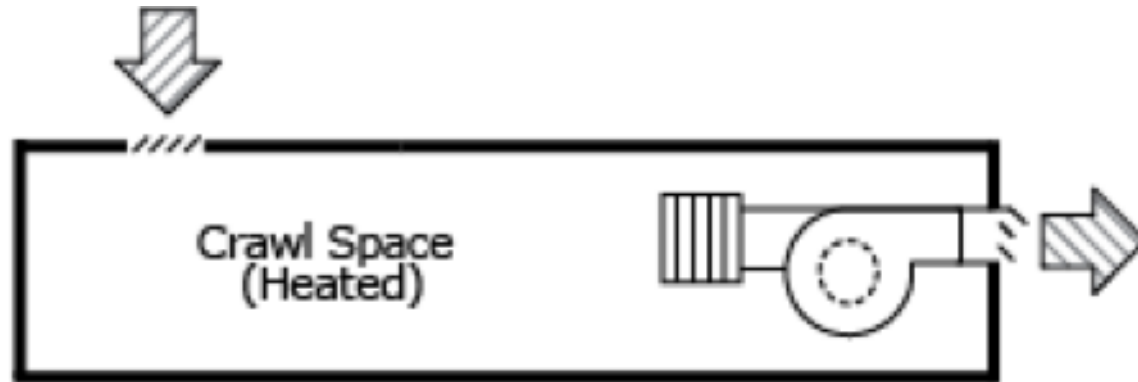
Minimum 2 transfer grilles between crawlspace and remainder of house; each grille with a net area of 25 cm² (4 in²) per 30 m² (325 ft²) of crawlspace floor area

9.32.3.7 Heated crawl space ventilation



Principal exhaust fan to supply or exhaust air with dedicated duct to crawlspace; minimum 1 transfer grille with a net area of 25 cm² (4 in²) per 30 m² (325 ft²) of crawlspace floor area

9.32.3.7 Heated crawl space ventilation



Dedicated crawlspace exhaust fan to outside; controlled with timer set to run 8 hours per 24 or dehumidistat.

Minimum 1 transfer grilles between crawlspace and remainder of house; each grille with a net area of 25 cm² (4 in²) per 30 m² (325 ft²) of crawlspace floor area

9.32.3.8 Ducts

- Exhaust ducts must discharge to outdoors
- Exhaust and supply ducts:
 - Must be sized as required by manufacturer & equivalent diameter as per Table 9.32.3.8 (3)
 - Need to be air-sealed
 - Insulated & provided with vapour barrier
 - Includes HRV ducting

9.32.4 Protection Against Depressurization

- **Make-up air is required for large capacity exhaust equipment (0.5 air changes/hour) when:**
 - House has appliance subject to back drafting or
 - House is located in area classified as Radon area 1 (table C-3 in appendix C)