



Heating & Ventilation - Details for Basement Development Application

[Heating & Ventilation - Details for Furnace Replacement Application](#)

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| Project Address: |
| 1. Provide room-by-room heat loss values. |
| Identify rooms as shown on the building permit application drawings (eg. utility, bedroom 1, bedroom 2). Identify total heat loss of each room or space on the drawing. Detailed calculations must be available upon request. |
| 2. Provide a line drawing of the HVAC system (example), showing: |
| <p>Location of heating equipment; Supply air and return air trunk duct size, starting at equipment and ending at trunk line terminations; Trunk duct size reductions, using a diagonal stroke through the single line trunk drawing; Supply air run-out sizing and termination distance from the exterior wall, with design capacity for each defined in <i>cfm</i> or <i>l/s</i>. Assign an identifying number to each run-out; this number will provide the Safety Codes Officer (inspector) with clear indication as to which run-out is being viewed during inspection;</p> <ul style="list-style-type: none"> - <i>If relocating existing supply air runs ONLY, then run-outs serving only the basement need to be identified.</i> - <i>If adding new or additional supply air runs, ALL runs located on the section of trunk duct that you are connecting to must be depicted, complete with sizing. Termination for runs serving areas other than the basement do not need to be shown.</i> <p>Return air locations defined as either low wall or ceiling, with design capacity for each defined in <i>cfm</i> or <i>l/s</i>. As with supply air, assign an identifying number to each to provide the inspector with clear indication as to which return air is being viewed during inspection.</p> |
| <p>Notes:</p> <ul style="list-style-type: none"> - Return air capacity must not exceed supply air capacity. - Dimensions of each opening along the path from the return air grille opening to the trunk duct will be viewed during inspection, with attention paid to wall plates. - Flue gas vents and gas lines must not be located in the return air system. <p>Worksheets included in the document links are for assistance only and are not to be submitted.</p> |

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| GAS FURNACE | | |
| Make and Model: | CFM heating speed: | |
| <i>Heating equipment must be sized to maintain a design temperature of 22°C in finished spaces while covering 100% of heat losses, but not exceeding 130% of heat losses.</i> | | |
| EXHAUST FAN(S) <i>and exhaust volume</i> | | |
| Fan or HRV Make/Model/Capacity: | Inlet duct size: | Exhaust Volume: |
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| 3. DEPRESSURIZATION check must show TOTAL exhaust capacity of dwelling does not exceed inlet capacity. | | | |
| Make-up air: | Required | Not required | The following may be useful: CAN/CGSB-51.71-2005 https://www.hrai.ca/worksheets |
| Determined by: | Calculation | On-site depressurization test | |

Note: Inspection begins with a walk around building perimeter to view all exhaust terminations, including flue gas vents, in relation to fresh air and combustion air inlets. Have a tape measure and flashlight available for RVI. Inside, the return air inspection will include evidence of measurement of each opening along the path from the trunk duct to the grille opening, with attention to opening sizing through wall plates.

- Return air capacity **must not** exceed supply air capacity.
- **No** flue gas vents or gas lines may be located in the return air system.

Worksheets included in the document links are for assistance only and are not to be submitted.

I hereby declare that:
 I am the **Contractor** **Homeowner** responsible for the premises in which the work will be conducted; I assume responsibility for compliance with all applicable Acts, Codes & Regulations; information provided on and with this form is, to the best of my knowledge, true and complete; new equipment **commissioning reports** will be provided for review at me of Final Inspection; and **depressurization check** calculations or test results will be provided for review at time of Final Inspection.

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| <i>Type name to sign OR print form and sign</i> | Date: |
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FLOOR PLAN