1. Principal Ventilation System Exhaust Fan Minimum Air-flow Rate
   Use the bedroom count from Box (A) and Total square footage from Box (B) above and Table 9.32.3.5. to determine

   Minimum Required Principal Exhaust System Capacity

   Experienced Capacity

2. Principal System Fan Choice
   a) Exhaust Fan continuous running
      Make_________________Model______________ Sone Rating ____

      Location: __________________________________

      at 0.2 ESP cfm

      If CEV, capacity @0.4ESP

3. Fan Duct Size and Equivalent Length
   Use actual fan cfm in Box (E) above and Table 9.32.3.8 (3) [See note at bottom of page for larger fan duct sizing].
   a) Length of duct_____ft + Exterior hood 30ft + number of 90° elbows ____ X 10 ft = ____Equivalent Length

      Maximum Equivalent Length allowed in Table 9.32.3.8(3) = ______

   b) Fan Duct size: ______inches Ø  Duct type: ___Rigid ___Flex

4. Required Kitchen and Bathroom Exhaust Fans: Re-list below if Principal Exhaust Fan meets all or part of Kitchen/Bathroom spot Exhaust requirements.

<table>
<thead>
<tr>
<th>ROOM</th>
<th>REQUIRED EXHAUST RATE Table 9.32.3.6</th>
<th>EXHAUST EQUIPMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spot Exhaust Kitchen &amp; Bath WALL/CEILING FANS</td>
<td>Ex.Fan/CEV</td>
</tr>
<tr>
<td></td>
<td>Fan Make &amp; Model</td>
<td>CFM @ 0.2 ESP Manf. Rated</td>
</tr>
<tr>
<td>Civic Address___________________________________________________ Permit No.__________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Climate Zone: _____ Number of Bedrooms (A)</td>
<td>Total Floor area of conditioned space ft(^2) (B)</td>
<td>Total Interior Volume of Dwelling ft(^3)</td>
</tr>
<tr>
<td>.5 ACH (air changes/hr) = Volume x 0.5 ÷ 60 = cfm (C)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A bedroom is a room with an openable window (minimum dimensions apply), a closet and a closing interior door.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total volume includes all heated interior spaces</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exhaust appliances exceeding .5 ACH may require make-up air.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. Fresh Air must be ducted from outside to Return Air of furnace for distribution.
   a) Duct length from this connection to furnace cabinet must be 15 ft maximum and 10 ft minimum
      unless a flow control device is used. Duct length confirmed at _____ feet.
   b) Duct Size for Fresh Air intake to RA:
      4" Ø minimum for Rigid Duct. Must be insulated & vapour barriered for full length. ___ confirmed.
      5"Ø minimum for insulated, vapour barriered Flex Duct ___ confirmed.

6. Forced Air Furnace system ducted to supply air to every bedroom and any level without a
   bedroom__ confirmed.

7. If Heated Crawlspace present, state method of ventilating ________________________________

MAKE-UP AIR Requirements

1. NAFFVA (Naturally Aspirated Fuel Fired Vented Appliance) or radon present in dwelling unit? Sentence 9.32.4.1
   ☐ Yes, Proceed to Step 2  ☐ No, Omit Steps 2 & 3

2. Exhaust Appliance present which exceeds Box C 0.5 ACH:
   ☐ Yes, Proceed to Step 3  ☐ Yes, Commit to Depressurization Test  ☐ No such appliance. Omit Step 3

3. Use Active Make-up Air for Exhaust Appliance
   Make-up Air Fan required:  Exhaust Appliance Actual Installed Cfm ______
   Fan Make ___________________ Model ________________ Make-up Air Fan Cfm ______
   Duct diameter ________ inches
   Fan Location ___________________________ Fan ducted to ________________________________
   a) Active Make-up Air delivered to an Unoccupied Area first (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 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:
I hereby certify that the design and installation of the ventilation system complies with the 2012 B.C. Building Code, 2014
Section 9.32 Amendment.

Print Name______________________________________________
Signature_________________________________________________
Company______________________________________________
Phone __________________________
Ventilation Checklist 2—HRV Systems

Use this checklist when a centrally ducted HRV (heat recovery ventilator) is used alone or in combination with a Forced Air furnace to meet principal ventilation system requirements.

<table>
<thead>
<tr>
<th>Civic Address</th>
<th>Permit No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate Zone:</td>
<td>Number of Bedrooms (A)</td>
</tr>
<tr>
<td></td>
<td>Total Floor area of conditioned space (B)</td>
</tr>
<tr>
<td></td>
<td>Total Interior Volume of Dwelling (C)</td>
</tr>
</tbody>
</table>

A bedroom is a room with an openable window (minimum dimensions apply), a closet and a closing interior door.

Total volume includes all heated interior spaces

Exhaust appliances exceeding .5 ACH may require make-up air.

1. Use the bedroom count (Box A above) and total square footage (Box B above) to determine the minimum principal Air Flow rate required by Table 9.32.3.5

2. HRV Make ___________________________ Model _____________

3. HRV Capacity: CFM @ 0.4 ESP. Box E must meet Box D requirement.

4. List Exhaust Grilles Locations: 1 minimum @ 6ft or higher from floor of uppermost level.

5. Required Kitchen and Bathroom Exhaust
If HRV used to meet all or part of Kitchen/Bathroom spot exhaust requirements list below.

<table>
<thead>
<tr>
<th>ROOM</th>
<th>REQUIRED EXHAUST RATE</th>
<th>EXHAUST EQUIPMENT</th>
<th>HRV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Table 9.32.3.6</td>
<td>Spot Exhaust Kitchen &amp; Bath WALL/CEILING FANS</td>
<td>Principal System CFM</td>
</tr>
<tr>
<td></td>
<td>Fan Make &amp; Model CFM @ 0.2 ESP Manf. Rated</td>
<td>*Duct Sizing per Table 9.32.3.8.(3)</td>
<td>Installed Equiv. Length</td>
</tr>
<tr>
<td></td>
<td>Duct Dia (in Ø) rigid flex</td>
<td>Max. Equiv. Length per table</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL (must = Box E)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* For fan capacities exceeding 175cfm in Table 9.32.3.8(3), follow manufacturer's installation instructions or use good engineering practice to size duct.

See Ventilation Guidelines Appendix page 16-A
6. HRV Fresh Air Distribution (choose A or B option)
   A) Supply Air from HRV direct connect to Return Air of a Forced Air Furnace system:
      Furnace Fan continuous operation: yes ☐ and Forced Air system ducted to supply air to every
      bedroom and any level without a bedroom: yes ☐ and heated crawlspace: yes ☐
   B) Supply Air from HRV distributed independently to every bedroom and any level without a
      bedroom and to a heated crawlspace. List distribution grille locations: __________________________
      ____________________________________________________
      ____________________________________________________

MAKE-UP AIR Requirements
1. NAFFVA (Naturally Aspirated Fuel Fired Vented Appliance) or radon present in dwelling unit? Sentence 9.32.4.1
   ☐ Yes, Proceed to Step 2  ☐ No, Omit Steps 2 & 3

2. Exhaust Appliance present which exceeds Box C 0.5 ACH:
   ☐ Yes, Proceed to Step 3  ☐ Yes, Commit to Depression Test  ☐ No such appliance. Omit Step 3

3. Use Active Make-up Air for Exhaust Appliance.
   Make-up Air Fan required: Exhaust Appliance Actual Installed Cfm ________
   Fan Make __________________ Model __________________ Make-up Air Fan Cfm ________
   Duct diameter ________ inches
   Fan Location __________________ Fan ducted to ____________________________
   a) Active Make-up Air delivered to an Unoccupied Area first (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 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:
I hereby certify that the design and installation of the ventilation system complies with the 2012 B.C. Building Code, 2014
Section 9.32 Amendment.

Print Name______________________________________________
Signature_________________________________________________
Company__________________________________________________
Phone __________________________

Date __________________________

2014 TECA Ventilation Certification Stamp
3 Ventilation Checklist 3—Distributed CRV Systems

Use this Checklist when a ducted Central Recirculating Ventilator (CRV) is used to meet the fresh air intake and distribution requirements and a Principal Exhaust fan meets the exhaust requirements.

Civic Address_______________________________ Permit No._________

Climate Zone: ____ Number of Bedrooms (A) A bedroom is a room with an openable window (minimum dimensions apply), a closet and a closing interior door.

Total Floor area of conditioned space ft² (B)

Total Interior Volume of Dwelling ft³ Total volume includes all heated interior spaces

.5 ACH (air changes/hr) = Volume x 0.5 ÷ 60 = cfm (C) Exhaust appliances exceeding .5 ACH may require make-up air.

1. Principal Ventilation System Exhaust Fan Minimum Air-flow Rate

Use the bedroom count from Box (A) and Total square footage from Box (B) above and Table 9.32.3.5. to determine

Minimum Required Principal Exhaust System Capacity cfm (D)

2. Principal System Fan Choice

a) Exhaust Fan continuous running Make__________Model__________ Sone Rating ___

Location: __________________________________

Capacity at 0.2 ESP cfm (E) Must be ≥ than Box (D)

If CEV, capacity @0.4ESP

3. Fan Duct Size and Equivalent Length

Use actual fan cfm in Box(E) above and Table 9.32.3.8 (3) [See note at bottom of page for larger fan duct sizing].

a) Length of duct_____ft + Exterior hood 30ft + number of 90° elbows ____ X 10 ft = _____Equivalent Length

Maximum Equivalent Length allowed in Table 9.32.3.8(3) = _____

b) Fan Duct size: _______inches Ø Duct type:___Smooth___Flex

4. Required Kitchen and Bathroom Exhaust Fans: Re-list below if Principal Exhaust Fan meets all or part of Kitchen/Bathroom spot Exhaust requirements.

<table>
<thead>
<tr>
<th>ROOM</th>
<th>REQUIRED EXHAUST RATE Table 9.32.3.6</th>
<th>EXHAUST EQUIPMENT</th>
<th>Spot Exhaust Kitchen &amp; Bath WALL/CEILING FANS</th>
<th>Ex.Fan/CEV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fan Make &amp; Model CFM @ 0.2 ESP Manf. Rated</td>
<td>Duct Dia (in Ø) rigid flex</td>
<td>Duct Sizing per Table 9.32.3.8.(3) Max. Equiv. Length per table Installed Equiv. Length</td>
<td>Principal System CFM</td>
</tr>
</tbody>
</table>

* For fan capacities exceeding 175cfm in Table 9.32.3.8(3), follow manufacturer's installation instructions or use good engineering practice to size duct.

See Ventilation Guidelines Appendix page 16-A

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Checklist 3, pg 102
5. CRV Recirculation and Fresh Air Intake Fan

Make________________ Model________________
Capacity @ 0.4 ESP ______________ cfm (F)

Box F CFM: minimum 2 times Box D cfm for +5°F and warmer winter design temperature. Confirmed __________
minimum 3 times Box D for less than +5°F winter design temperature. Confirmed __________
Duct Size for Fresh Air intake into return air of CRV: Min 4"Ø rigid duct___, or 5", flex duct_____.

6. CRV Fresh Air circulation (Choose option a or b)

a) Draw air from bedrooms and Supply air to common area.
List location of supply grille ______________________ and location of each bedroom return grille ______________________

b) Draw air from common area and Supply air to bedrooms.
List location of return grille ______________________ and location of each bedroom supply grille ______________________

7. If Heated Crawlspace present, state method of ventilating __________________________

MAKE-UP AIR Requirements

1. NAFFVA (Naturally Aspirated Fuel Fired Vented Appliance) or radon present in dwelling unit? Sentence 9.32.4.1
   □ Yes, Proceed to Step 2
   □ No, Omit Steps 2 & 3

2. Exhaust Appliance present which exceeds Box C 0.5 ACH:
   □ Yes, Proceed to Step 3
   □ No such appliance. Omit Step 3
   □ Yes, Commit to Depressurization Test (See CAUTION, TECA Vent Manual pg 24)

3. Use Active Make-up Air for Exhaust Appliance.

   Make-up Air Fan required:
   Fan Make __________________ Model __________________
   Make-up Air Fan Cfm __________

   Duct diameter __________ inches
   Fan Location ________________________ Fan ducted to ________________________

   a) Active Make-up Air delivered to an Unoccupied Area first (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 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:
I hereby certify that the design and installation of the ventilation system complies with the 2012 B.C. Building Code, 2014 Section 9.32 Amendment.

Print Name__________________________________________
Signature ___________________________________________
Company_____________________________________________
Phone __________________________

Date

2014 TECA Ventilation Certification Stamp

Checklist 3, pg2of2
Ventilation Checklist 4 — Exhaust Fan & Passive Inlets

Use this checklist for small (≤ 1800 sqft), single level, non-forced air heated dwellings located in coastal climate areas where winter design temperature is warmer than -13°F.

<table>
<thead>
<tr>
<th>Civic Address</th>
<th>Permit No.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Climate Zone:</th>
<th>Number of Bedrooms</th>
<th>(A)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Floor area of conditioned space</td>
<td>ft²</td>
</tr>
<tr>
<td></td>
<td>Total Interior Volume of Dwelling</td>
<td>ft³</td>
</tr>
</tbody>
</table>

\[0.5 \text{ ACH (air changes/hr)} = \text{Volume} \times 0.5 \div 60\]

1. Principal Ventilation System Exhaust Fan Minimum Air-flow Rate
   Use the bedroom count from Box (A) and Total square footage from Box (B) above and Table 9.32.3.5. to determine
   Minimum Required Principal Exhaust System Capacity | cfm | (D) |

2. Principal System Fan Choice
   a) Exhaust Fan continuous running
      Make__________  Model__________  Sone Rating ___
      Location: __________________________________

   Capacity at 0.2 ESP:  cfm | (E) Must be ≥ than Box (D)
   If CEV, capacity @0.4ESP

3. Fan Duct Size and Equivalent Length
   Use actual fan cfm in Box(E) above and Table 9.32.3.8(3) [See note at bottom of page for larger fan duct sizing].
   a) Length of duct_____ft + Exterior hood 30ft + number of 90° elbows ____X 10 ft = ____ Equivalent Length
      Maximum Equivalent Length allowed in Table 9.32.3.8(3) = ______
   b) Fan Duct size: ______inches Ø  Duct type:___Smooth___Flex

4. Required Kitchen and Bathroom Exhaust Fans: Re-list below if Principal Exhaust Fan meets all or part of Kitchen/Bathroom spot Exhaust requirements.

<table>
<thead>
<tr>
<th>ROOM</th>
<th>REQUIRED EXHAUST RATE</th>
<th>EXHAUST EQUIPMENT</th>
<th>Spot Exhaust Kitchen &amp; Bath WALL/CEILING FANS</th>
<th>Ex.Fan/CEV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Table 9.32.3.6</td>
<td>Fan Make &amp; Model</td>
<td>CFM @ 0.2 ESP Manf. Rated</td>
<td>*Duct Sizing per Table 9.32.3.8(3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Duct Dia (in Ø) rigid</td>
<td>Max. Equiv. Length per table</td>
</tr>
</tbody>
</table>

* For fan capacities exceeding 175cfm in Table 9.32.3.8(3), follow manufacturer's installation instructions or use good engineering practice to size duct.
See Ventilation Guidelines Appendix page 16-A

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5. Required Inlets for passive Ventilation Air Supply
   a) Location: High wall (minimum 6 ft above floor) _____
   List all rooms with inlets: Required in each bedroom, and at least one common area

b) Inlet Size: Free Area must be greater than or equal to 4 Sq In

6. If Heated Crawlspace present, state method of ventilating______________________________

MAKE-UP AIR Requirements
1. NAFFVA (Naturally Aspirated Fuel Fired Vented Appliance) or radon present in dwelling unit? Sentence 9.32.4.1
   ☐ Yes, Proceed to Step 2 ☐ No, Omit Steps 2 & 3

2. Exhaust Appliance present which exceeds Box C 0.5 ACH:
   ☐ Yes, Proceed to Step 3 ☐ Yes, Commit to Depressurization Test ☐ No such appliance. Omit Step 3

3. Use Active Make-up Air for Exhaust Appliance.
   Make-up Air Fan required: Exhaust Appliance Actual Installed Cfm ______
   Fan Make __________ Model __________ Make-up Air Fan Cfm ______
   Duct diameter _______ inches
   Fan Location __________ Fan ducted to __________
   a) Active Make-up Air delivered to an Unoccupied Area first (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 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 2012 B.C. Building Code, 2014 Section 9.32 Amendment.

Print Name____________________________________________
Signature_________________________________________________
Company_________________________________________________
Phone __________________________

Checklist 4, pg 2 of 2