

# RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

for design and performance of residential ventilation systems to NBC 2010 - 9.32

<b>1. Location</b> Municipality: _____ Civic Address: _____	<b>9. Principal Ventilation Fan</b> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%; text-align: center;">HRV/ERV</td> <td style="width: 33%; text-align: center;">Central Inline Fan</td> <td style="width: 33%; text-align: center;">Bathroom Fan</td> </tr> <tr> <td colspan="3">Location: _____</td> </tr> <tr> <td colspan="3">Manufacturer: _____</td> </tr> <tr> <td colspan="3">Model: _____ HVI Rated</td> </tr> <tr> <td colspan="2">Design Airflow: Low: _____ CFM</td> <td>High: _____ CFM</td> </tr> <tr> <td colspan="2">Sones: _____</td> <td>E.S.P: _____ "w.c.</td> </tr> <tr> <td colspan="3">_____ % Sensible Efficiency @ 0 °C @ _____ CFM</td> </tr> <tr> <td colspan="3">_____ % Sensible Efficiency @ -25 °C @ _____ CFM</td> </tr> </table>	HRV/ERV	Central Inline Fan	Bathroom Fan	Location: _____			Manufacturer: _____			Model: _____ HVI Rated			Design Airflow: Low: _____ CFM		High: _____ CFM	Sones: _____		E.S.P: _____ "w.c.	_____ % Sensible Efficiency @ 0 °C @ _____ CFM			_____ % Sensible Efficiency @ -25 °C @ _____ CFM		
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<b>2. Builder</b> Name: _____ Address: _____ City: _____ Postal Code: _____ Ph: _____ Fax: _____	(If HRV/ERV is used, the system must also comply with 9.36.3.9)																								
<b>3. Designer</b> Name: _____ Address: _____ City: _____ Postal Code: _____ Ph: _____ Fax: _____ HRAI #: _____ E-mail: _____	<b>10. Other Ventilation Fans</b> Location: _____ Sones: _____ Manufacturer: _____ Model: _____ HVI Rated Design Airflow: _____ CFM ESP: _____ "w.c. <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Supplemental Fan</td> <td style="width: 50%;">Supply Fan for Principal Exhaust</td> </tr> <tr> <td>Circulation Fan</td> <td>Make-up Air Fan for _____</td> </tr> </table>	Supplemental Fan	Supply Fan for Principal Exhaust	Circulation Fan	Make-up Air Fan for _____																				
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<b>4. Combustion Appliances</b> a) Direct Vent                      b) Induced Draft c) Natural Draft                      d) Solid Fuel Appliances e) No Combustion Appliances      CO Alarm Required	Location: _____ Sones: _____ Manufacturer: _____ Model: _____ HVI Rated Design Airflow: _____ CFM ESP: _____ "w.c. <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Supplemental Fan</td> <td style="width: 50%;">Supply Fan for Principal Exhaust</td> </tr> <tr> <td>Circulation Fan</td> <td>Make-up Air Fan for _____</td> </tr> </table>	Supplemental Fan	Supply Fan for Principal Exhaust	Circulation Fan	Make-up Air Fan for _____																				
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<b>5. Heating System</b> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; text-align: center;">Forced Air</td> <td style="width: 50%; text-align: center;">Non-Forced Air</td> </tr> <tr> <td>Gas                      Propane                      Other</td> <td></td> </tr> <tr> <td>Oil                      Electricity</td> <td></td> </tr> </table>	Forced Air	Non-Forced Air	Gas                      Propane                      Other		Oil                      Electricity		Location: _____ Sones: _____ Manufacturer: _____ Model: _____ HVI Rated Design Airflow: _____ CFM ESP: _____ "w.c. <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Supplemental Fan</td> <td style="width: 50%;">Supply Fan for Principal Exhaust</td> </tr> <tr> <td>Circulation Fan</td> <td>Make-up Air Fan for _____</td> </tr> </table>	Supplemental Fan	Supply Fan for Principal Exhaust	Circulation Fan	Make-up Air Fan for _____														
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<b>6. Distribution System</b> Furnace                      Inline fan                      HRV/ERV	Location: _____ Sones: _____ Manufacturer: _____ Model: _____ HVI Rated Design Airflow: _____ CFM ESP: _____ "w.c. <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Supplemental Fan</td> <td style="width: 50%;">Supply Fan for Principal Exhaust</td> </tr> <tr> <td>Circulation Fan</td> <td>Make-up Air Fan for _____</td> </tr> </table>	Supplemental Fan	Supply Fan for Principal Exhaust	Circulation Fan	Make-up Air Fan for _____																				
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<b>7. Principal Ventilation System Design Option</b> Exhaust only forced air distribution system (Circ. fan at least 5 times the capacity of the principal exhaust) Balanced no heat recovery HRV/ERV with extended exhaust HRV/ERV with simplified exhaust HRV/ERV with full ducting/not coupled to forced air HRV/ERV with no supplemental fans (High speed must be at least 2.5 times the principal exhaust) Supplemental fans	Location: _____ Sones: _____ Manufacturer: _____ Model: _____ HVI Rated Design Airflow: _____ CFM ESP: _____ "w.c. <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Supplemental Fan</td> <td style="width: 50%;">Supply Fan for Principal Exhaust</td> </tr> <tr> <td>Circulation Fan</td> <td>Make-up Air Fan for _____</td> </tr> </table>	Supplemental Fan	Supply Fan for Principal Exhaust	Circulation Fan	Make-up Air Fan for _____																				
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<b>8. Principal Ventilation Capacity (PVC)</b> # of Bedrooms: _____ Required Exh Airflow: _____ CFM Supply Air Required:      Yes      No Mixed Air Temperature Calculation Required: Yes      No For a System coupled with a Forced Air Furnace: Furnace Blower Rate: _____ CFM Max Allowable Outdoor Airflow as per NBC 9.32.3.4.(2): _____ CFM	<b>11. Designer Consent</b> I _____ certify this ventilation system is designed to be in accordance with NBC-2010 9.32 Date: _____ Signature: _____																								

Conversion note: 1 L/s = 2 CFM (For hard conversion, use 1 L/s = 2.118 CFM)

**Note: Secondary suite ventilation system requires a separate design**

