City of Fort St. John
10631 100 Street | Fort St. John, BC | V1J 3Z5
(250) 787 8150 City Hall
(250) 787 8181 Facsimile

Standard Building Permit Package

Please review the following prior to submitting documentation for a Standard Building Permit

Civic Address of Standard Building Project: _

- ☐ Home Owner Protection Office paperwork submitted
- ☐ All applications submitted pertaining to your project to be completed in full:
  - ☐ Application for Standard Building Permit
  - ☐ Application for Solar Hot Water Development Permit
  - ☐ Owner's Declaration
  - ☐ Application for Plumbing Permit
  - ☐ Water Turn On/Off Application
- ☐ Plot Plan submitted showing all setbacks and driveway access.
- ☐ Two sets of plans submitted showing all changes, if any (ie -. are all window sizes and locations correct, building dimensions correct?)
- ☐ Erosion Sediment Control Plan

Foundation

- ☐ Standard forms
- ☐ Styrofoam form system;
- ☐ Pile & grade beam
- ☐ Preserved wood foundation
- ☐ Other _____

Garage Foundation

- ☐ Standard forms
- ☐ Styrofoam form system;
- ☐ Pile & grade beam
- ☐ Preserved wood foundation
- ☐ Other _____

Floor System

- ☐ Standard floor joist
- ☐ TJI engineered floor
  - ☐ Engineered layout submitted

Truss Documents

- ☐ Professional Engineered and stamped with seal submitted
- ☐ Truss layout submitted

Plumbing and Heating

- ☐ Heat loss calculations
- ☐ Plumbing isometric drawings submitted showing sizes and locations of drainage pipes, water pipes and fixtures

Deck Foundations

- ☐ Concrete piles
- ☐ Steel screwed piles
  - ☐ If deck is covered, Schedules B_1 & B_2 attached from Professional Engineer

Energy Advisor – Pre-Built Design

- ☐ Energy Step Code Report
- ☐ BC Step Code & Required Information on the Plans

The Building Department has up to 10 business days to process a Standard Building Permit. Incomplete applications may result in your permit(s) being delayed.

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THE CITY OF FORT ST. JOHN
BUILIDNG BY LAW NO. 2589, 2024

FORM A

Application for Standard Building Permit

For Office Use Only:

Receipt No.

Plan Processing Fee:

- ☐ New Construction - $150.00 **OR**
- ☐ Addition/Renovation Up to 50m^2 - $90.00
- ☐ Addition/Renovation 51m^2 or Larger- $120.00

Owner's Information:

Name: (please print): _____ Email Address:_____

Contact Number: _____ Fax:_____

Address:_____

Applicant's Information:

Name: (please print):_____ Email Address:_____

Contact Number:_____ Fax:_____

Address: _____

Required Information:

1. Civic Address of Property: _____
2. Name of Authorized Agent (if applicable):_____
3. Type of Building: ☐ SFD ☐ Duplex ☐ Manufactured Home ☐ Multi-Family (4 or less dwelling units)
4. Type of Work: ☐ New Construction ☐ Addition ☐ Alteration/Renovation ☐ Detached Garage
5. Value of Construction will be $_____

Declaration:

I HEREBY AGREE to indemnify and keep harmless the City of Fort St. John and its employees against all claims, liabilities, judgments, costs and expenses of whatsoever kind which may in any way occur against the said City and its employees in consequence of and incidental to, the granting of this permit, if issued, and I further agree to conform to all requirements of the Building Bylaw and all other statutes and bylaws in force in the City of Fort St. John.

Signature of Owner/ Agent: _____

Printed name of Owner/ Agent:_____Date: _____

Please include two (2) copies of the plan of the proposed building, addition, alteration or renovation.
One (1) copy of the plot plan is to accompany this application

For Office Use Only:

<table>
<tr><td colspan="2">Legal Description:
Lot Bk Plan</td><td colspan="2">Roll Number</td><td>Zoning</td></tr>
<tr><td colspan="2">Building Area: Building Footprint: ft^2</td><td>Second Storey: ft^2</td><td colspan="2">Total ft^2 =</td></tr>
<tr><td colspan="2">Value of Construction: Total ft^{2}x = $
$240.00</td><td colspan="3">Building Permit Fee: ($6 per $1000 value of construction): $</td></tr>
<tr><td colspan="2">Damage Deposit: $</td><td colspan="3">Landscaping and Paving Deposit: $</td></tr>
<tr><td colspan="2">Standard Building Permit Approved by:</td><td>Date Approved:</td><td colspan="2">Building Permit No.:</td></tr>
</table>

City of Fort St. John
10631 100 Street | Fort St. John, BC | V1J 3Z5
(250) 787 8150 City Hall
(250) 787 8181 Facsimile

FORM C

OWNER'S DECLARATION

BUILDING PERMIT No. _____

DATE: _____

Owner's* Information:

Owner Name: (Please print)	Owner's Address:
Owner Phone Number:	**Civic Address of Property to Which Permit(s) is Sought:**
Owner Email Address:	Legal Description: Lot Block: Plan:

Owner's Appointment of an Agent (if applicable):

I declare that I am the Owner to the above referenced property and in accordance with PART ONE to the City's Building Bylaw, I hereby authorize:

Agent Name: (Please print)	Agent's Mailing Address
Agent's Contact Phone Number:	Agent's Contact Email Address:

*** If there is more than one Owner for the subject property described above, the Owner named above acts on behalf of all other Owners.**

Duties and Responsibilities:

As Owner, I HEREBY AGREE to the following duties and responsibilities as set out below, as directed by the City of Fort St. John that include, but are not limited to;

1. Every Owner shall ensure that all construction compiles with the Building Code, the City's Building Bylaw and all other applicable enactments as amended from time to time.
2. Every Owner to whom a permit is issued is responsible for the cost of repair(s) to damage to any municipal property that occurs during construction as authorized by that permit. Upon receipt of written notice from the City of damage or deficiencies to municipal property, the City shall undertake the repair(s) of the said property. The City will then deduct the cost incurred from the damage deposit in accordance with PART FOUR - 88 of the City's Building Bylaw. If the cost of repairs to municipal property is greater than the damage deposit provided, the Owner shall pay the amount of the insufficiency to the City forthwith upon receipt of the City's invoice for that amount as per PART FOUR - 88 of the City's Building Bylaw.
3. Deliver to the Building Inspector, records of the results of any tests of materials, if the tests are made to ensure conformity with the requirements of the Building Code or of the City's Building Bylaw.
4. The Owner shall give at least 24 hours notice to the City when requesting or scheduling an inspection. Requests may be made by calling City Hall at 250-787-8150 between 8:30am to 4:30pm Monday to Friday.

5. The following inspections are required:

	Footings (prior to pouring concrete)
	Foundation (prior to pouring concrete and survey required before inspection)
	Services
	Pilings
	Grade Beam
	Weeping Tile/ Damp Proofing/ Drain Rock
	Underslab Plumbing (with air or water test)
	Slab Seal
	Rough In Plumbing (with air or water test)
	Framing (prior to insulation/ siding and all plumbing/ mechanical and electrical work completed)
	Insulation and Vapour Barrier (prior to all wall finishes)
	Final Inspection for Occupancy Permit

6. When required, a Building Inspector may request the uncovering of previously covered work, at the Owner's expense, to ensure a proper inspection is performed and approval is attained.
7. Shall post the civic address on a property in a visible location at all times.
8. All material and equipment must be stored on your own property at all times.
9. Sidewalks and roadways must be kept clear of all mud and debris, and be cleaned daily.
10. All applicable City of Fort St. John bylaws must be followed and adhered to.

Declaration:

I HEREBY AGREE that neither the granting of a permit, nor the approval of the drawings and specifications, nor inspections made by the Building Inspector, shall in any way relieve the Owner from full responsibility for carrying out or having the work carried out in accordance with the Building Code, the City of Fort St. John Building Bylaw or any bylaws or statutes and regulations relating to any work or undertaking in respect of which this application is made.

I have read and understand the above:

Owner's Declaration is executed by the Owner this_____ day of_____, 20_____.

(day) (month) (year)

Owner's Signature:	Witness's Signature:
Owner's Name (print):	Witness's Name (print):
Authorized Agent Signature: (if applicable)	Witness Signature:
Authorized Agent Name (print):	Witness Name (print):

The City of Fort St. John is committed to protecting your privacy. Any personal information you provide to us is collected pursuant to 26(c) and 26(e) of the *Freedom of Information and Protection of Privacy Act* for the purpose of administering City services. If you have any questions about the collection of this personal information, please contact the Corporate Officer at 250-787-8150.

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THE CITY OF FORT ST. JOHN
BUILDING BYLAW NO. 2589, 2024

FORM D

Application for Plumbing Permit

Owner's Information:

Owner Name: (please print)	Owner's Address:
Owner Phone Number:	Fax:
Owner's Email Address:	

Applicant's Information:

Owner Name: (please print)	Owner's Address:
Owner Phone Number:	Fax:
Owner's Email Address:	

Required Information:

1. Civic Address of Property: _____
2. Name of Contractor: _____ Contractor TQ#_____
3. Contractor Phone: (_____) _____ Contractor E-mail: _____
4. Class of Work: ☐ New ☐ Renovation
5. Plumbing Fixtures to be Installed or Repaired:

1	Toilets		6	Floor Drains		11	G. Traps
2	Bath or Showers		7	Hot Water Tanks		12	Other
3	Lavatories		8	Auto Washers			
4	Sinks		9	Urinals			
5	Laundry Trays		10	Sumps			

Total Number of Fixtures: _____

Declaration:

I HEREBY AGREE to indemnify and keep harmless the City of Fort St. John and its employees against all claims, liabilities, judgments, costs and expenses of whatsoever kind which may in any way occur against the said City and its employees in consequence of and incidental to, the granting of this permit, if issued, and I further agree to conform to all requirements of the building Bylaw and all other statutes and Bylaws in force in the City of Fort St. John.

Signature of Owner/ Authorized Agent: _____

Printed Name: _____ Date: _____

For Office Use Only:

Legal Description: Lot Bk Plan		**Roll Number:**
Plumbing Permit Fee:		
Total Number of Fixtures	**_____ x $6.00 + $60.00 = $ _____**	
Plumbing Permit Approved by:	**Date Approved:**	**Plumbing Permit No.:**

Water Turn On/Off Application

Request 72 hours in advance for service Monday to Friday 8am- 5pm

Date: _____

Owner Information

Owner(s)		Address:			
First and Last Name		Street Address	City	Prov	Postal Code
Home Phone	Cellular	Fax	Email		

Property Information

Civic Address of Subject Property	Legal Description of Subject Property		
Street Address	Lot:	Block:	Plan:
	Roll Number:		

Services Requested

Service Type	"X"
Turn On	
Turn Off	
Off & On	
Emergency	

	New Service	Existing Service	Number of Units	Mainline Isolation Required? *24 hr notice to all residences*
Residential				
Commercial				
Industrial				
Institutional				

Reason for Application: _____

Note: Turn On/Off Requests require a 72 hour notice (excluding weekends and holidays) and Emergency Requests are subject to additional charges.

Declaration

I hereby agree to abide by the Water Regulation Bylaw and to pay the fees set out in Schedule E of the said Bylaw.

Signature of Owner/ Applicant	Printed Name of Owner/ Applicant	Phone: Date:

Picked Up By: Phone #:

Signature: Email:

Office Use Only

Connection Approval: / / (Day / Month / Year)
Meter Installation Approval:
Date On: / / (Day / Month / Year) **Date Off**: / / (Day / Month / Year)
Completed by:
Utility Account No.

Fees	Circle	**Payment Details/ Stamp**
Turn On	**$45**	
Turn Off	**$45**	
Emergency	**$250**	
On Demand	**$250**	
Receipt No.		
Fees pursuant to Schedule E of the Water Regulation Bylaw and its amendments		

Heat Load Worksheet
Square Foot Method

Date _____ Job # _____
Job address _____
_____
Completed by _____

STEP 1: Calculate **Dwelling Heat Load =**

_____sq.ft. (Total heated floor area) X _____ BTUH/sq. ft. (Dwelling Heat Load Factor) = _____BTUH **A**

STEP 2: If home has a heated crawlspace, calculate **Crawlspace Heat Load =**

_____sq.ft. (Total heated area of crawlspace) X _____ BTUH/ sq. ft. (Crawlspace Heat Load Factor) = _____BTUH **B**

STEP 3: **Base Heat Load @ 55°F DTD** (Box A + Box B = Box C) = _____BTUH **C**

STEP 4: Multiply Base Heat Load (Box C) by Regional Temperature Adjustment (RTA) factor from Design Temperature Chart. X _____ **D**

STEP 5: **Regionally Adjusted Base Heat Load** (Box C X Box D = Box E) = _____BTUH **E**

STEP 6: Add thermostat **Setback Pick-up factor of 10%.**

0.10 X _____BTUH in Box E = _____BTUH **F**

STEP 7: If Dwelling heated with hot-water appliance, skip STEP 8; proceed to STEP 9.

STEP 8: Add heat load due to outdoor air brought in for combustion (B149.1 & .2) with 4" Ø duct and directly connected to R.A. Plenum
Add 3000 BTUH times RTA factor (Box D) = 3000 BTUH X _____ = _____ BTUH **G**

STEP 9: Add Box E + F + G =
Total BTUH for Appliance Selection = _____ BTUH **H**

For use with Step 1

DWELLING HEAT LOAD FACTOR
Btuh/sq.ft. @ 55°F DTD

Dwelling Type—Duct location	ACH Rate		
	.5	.75	1
All HEATED areas including basement Ducts in conditioned space	14	16	18
All HEATED areas over heated crawlspace—Ducts in conditioned space	15	17	19
All HEATED areas slab-on-grade construction—Ducts in conditioned space	17	19	21
Ducts or piping in **unconditioned** space or in concrete slab	19	21	23

For use with Step 2

CRAWLSPACE HEAT LOAD FACTOR
Btuh/sq.ft. @ 55°F DTD

Crawlspace Height	ACH Rate		
	.5	.75	1
2'	5	6	7
3'	7	8	9
4'	8	9	10
5'	10	11	12

ACH Rates for standard, new constuction:
Use .5 ACH for dwelling in unexposed site. Use .75 ACH in moderately exposed site. Use 1 ACH in exposed site.

1 Ventilation Checklist 1—Forced Air Systems SENTENCE 9.32.3.4(2)

Use this Checklist where **forced air heating system ducts intake and distribute** ventilation air.

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 living space [ ] ft^2 (B)

Total Interior Volume of Dwelling [ ] ft^3 Total volume includes all heated interior spaces (including crawlspace if heated).

.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 Prinicpal 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

a) Installed Equivalent Length:

Length of duct _____ft **+** Ext. hood **30 ft +** (____# elbows at 10 ft each =_____) = [ ] ft (F)

b) Choose type of duct: Flex duct ☐ or Rigid (smooth) duct ☐

c) Duct size required to flow Box E cfm through Box F equivalent length of duct = [ ] in Ø

Use Table 9.32.3.8 (3) to determine duct size.

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

ROOM	Required Exhaust Rate **Table 9.32.3.6**	EXHAUST EQUIPMENT						
		Spot Exhaust Kitchen & Bath WALL/CEILING FANS						Ex.Fan/CEV
		Fan Make & Model	CFM @ 0.2 ESP Manf. Rated	*Duct Sizing per Table 9.32.3.8.(3)				Principal System CFM
				Duct Dia (in Ø)		Max. Equiv. Length per table	Installed Equiv. Length	
				rigid	flex			

* 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, *Duct Sizing for Larger Fans*.

TOTAL (must = Box E) [ ]

Removed reference to RADON in Make-up Air Requirements

5. Fresh Air must be ducted from outside to Return Air of Forced Air Heating for distribution.

☐ a) Ventilation air duct is connected not more than 15ft, nor less than 10ft upstream of the heating appliance, unless a flow control device is used.

b) Duct Size for Fresh Air intake to RA. Choose one.

☐ Rigid Duct: 4" Ø minimum, must be insulated & vapour barriered for full length, OR

☐ Flex Duct: 5"Ø minimum, must be insulated & vapour barriered for full length.

☐ ***c) Furnace fan continuous operation.***

☐ **6. Forced Air Heating System is ducted to supply air to every bedroom and any level without a bedroom.**

7. If Heated Crawlspace present, (Choose one)

☐ Minimum of one RA grille located in the crawlspace, OR

☐ No RA grille in crawlspace, choose ventilation Option 1, 2, or 3 per sentence 9.32.3.7 (2)

MAKE-UP AIR Requirements

1. NAFFVA (Naturally Aspirated Fuel Fired Vented Appliance) **present in dwelling unit?** (per Sentence 9.32.4.1)

☐ **No**, Omit Steps 2 & 3

☐ **Yes,** Proceed to Step 2

2. Exhaust Appliance present which exceeds Box C 0.5 ACH:

☐ **No such appliance**. Omit Step 3

☐ **Yes,** Commit to Depressurization Test (See CAUTION, TECA Vent Manual pg 24)

☐ **Yes,** Proceed to Step 3

3. Use Active Make-up Air for Exhaust Appliance. (Choose a or b)

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

Fan Make _____ Model _____ **Make-up Air Fan Cfm** _____

Duct diameter _____inches Fan Location _____

☐ ***Fan interconnected with exhaust appliance fan.*** 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 how make-up air will be tempered to at least 34°F (1°C) before entering unoccupied area.

$$\frac{\text{Make-up Fan cfm\_\_\_\_\_ X 1.08 X (}\mathbf{34°\ F}\text{ – \_\_\_\_\_ °F Winter Design Temp your location)}}{\text{3412 BTUH/kw}} = \underset{\text{Duct Heater}}{\text{\_\_\_\_\_ (kw)}}$$

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).

$$\frac{\text{Make-up Fan \_\_\_\_\_cfm x 1.08 x (}\mathbf{54°\ F}\text{ – 34°F)}}{\text{3412 BTUH/kw}} = \underset{\text{required to raise temp by 20°F}}{\text{\_\_\_\_\_(kw) Heat from unoccupied area}}$$

Tempered by: _____

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

$$\frac{\text{Make-up Fan cfm\_\_\_\_\_ x 1.08 x (}\mathbf{54°\ F}\text{ – \_\_\_\_\_°F Winter Design Temp your location)}}{\text{3412 BTUH/kw}} = \underset{\text{Duct Heater}}{\text{\_\_\_\_\_ (kw)}}$$

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.

2012 TECA Ventilation Certification Stamp

Date _____

Print Name_____

Signature_____

Company_____

Phone _____

Checklist 1, page2of2

2 Ventilation Checklist 2—HRV Systems SENTENCE 9.32.3.4 (3) & (4)

Use this checklist when a centrally ducted HRV (heat recovery ventilator) is used alone or in combination with a Forced Air Heating System to meet principal ventilation system 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 living space _____ ft^2 (B)

Total Interior Volume of Dwelling _____ ft^3 Total volume includes all heated interior spaces (including crawlspace if heated).

.5 ACH (air changes/hr) = Volume x 0.5 ÷ 60 = _____ cfm (C) 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

Minimum Required Rate _____ cfm (D)

2. HRV Make _____ Model _____

3. HRV Capacity: CFM @ 0.4 ESP. Box E must meet Box D requirement. _____ cfm (E)

4. List Exhaust Grilles Locations: 1 minimum @ 6 ft 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.

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

* 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, *Duct Sizing for Larger Fans*.

 Checklist 2, pg1of2

Removed reference to RADON in Make-up Air Requirements

6. HRV Fresh Air Distribution (Choose a or b)

a) Supply Air from HRV direct connect to Return Air of a Forced Air Heating System:

☐ FA system fan and HRV fan continuous operation and

☐ FA system ducted to supply air to every bedroom and each floor level without a bedroom

b) Supply Air from HRV distributed independently

☐ Ducted to every bedroom and each floor level without a bedroom and

☐ HRV fan continuous operation

7. If Heated Crawlspace present, (Choose one)

☐ Minimum of one Forced Air System RA grille located in the crawlspace, OR

☐ No RA grille in crawlspace, choose ventilation Option 1, 2, or 3 per sentence 9.32.3.7 (2)

MAKE-UP AIR Requirements

1. NAFFVA (Naturally Aspirated Fuel Fired Vented Appliance) **present in dwelling unit?** (per Sentence 9.32.4.1)

☐ **No**, Omit Steps 2 & 3

☐ **Yes,** Proceed to Step 2

2. Exhaust Appliance present which exceeds Box C 0.5 ACH:

☐ **No such appliance**. Omit Step 3

☐ **Yes,** Commit to Depressurization Test (See CAUTION, TECA Vent Manual pg 24)

☐ **Yes,** Proceed to Step 3

3. Use Active Make-up Air for Exhaust Appliance. (Choose a or b)

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

Fan Make _____ Model _____ **Make-up Air Fan Cfm** _____

Duct diameter _____inches Fan Location _____

☐ ***Fan interconnected with exhaust appliance fan.*** 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 how make-up air will be tempered to at least 34°F (1°C) before entering unoccupied area.

$$\frac{\text{Make-up Fan cfm\_\_\_\_\_ X 1.08 X (34° F – \_\_\_\_\_ °F Winter Design Temp your location)}}{\text{3412 BTUH/kw}} = \text{\_\_\_\_\_ (kw) Duct Heater}$$

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).

$$\frac{\text{Make-up Fan \_\_\_\_\_cfm x 1.08 x (54° F – 34°F)}}{\text{3412 BTUH/kw}} = \text{\_\_\_\_\_(kw) Heat from unoccupied area required to raise temp by 20°F}$$

Tempered by: _____

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

$$\frac{\text{Make-up Fan cfm\_\_\_\_\_ x 1.08 x (54° F – \_\_\_\_\_°F Winter Design Temp your location)}}{\text{3412 BTUH/kw}} = \text{\_\_\_\_\_ (kw) Duct Heater}$$

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.

2012 TECA Ventilation Certification Stamp

Date _____

Print Name_____

Signature_____

Company_____

Phone _____

Checklist 2, pg2of2

3 Ventilation Checklist 3—Distributed CRV Systems SENTENCE 9.32.3.4(5)

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 living space [ ] ft^2 (B)

Total Interior Volume of Dwelling [ ] ft^3 — Total volume includes all heated interior spaces (including crawlspace if heated).

.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 Prinicpal 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

a) Installed Equivalent Length:

Length of duct _____ft **+** Ext. hood **30 ft +** (____# elbows at 10 ft each =_____) = [ ] ft (F)

b) Choose type of duct: Flex duct ☐ or Rigid (smooth) duct ☐

c) Duct size required to flow Box E cfm through Box F equivalent length of duct = [ ] in Ø

Use Table 9.32.3.8 (3) to determine duct size.

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

ROOM	Required Exhaust Rate **Table 9.32.3.6**	EXHAUST EQUIPMENT						
		Spot Exhaust Kitchen & Bath WALL/CEILING FANS						Ex.Fan/CEV
		Fan Make & Model	CFM @ 0.2 ESP Manf. Rated	*Duct Sizing per Table 9.32.3.8.(3)				Principal System CFM
				Duct Dia (in Ø) rigid	Duct Dia (in Ø) flex	Max. Equiv. Length per table	Installed Equiv. Length	

* 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, *Duct Sizing for Larger Fans*.

TOTAL (must = Box E) [ ]

Removed reference to RADON in Make-up Air Requirements

5. CRV Fresh Air Intake & Mixing Fan (Choose a or b)

☐ a) Box G CFM is minimum 2 times Box E cfm for **+5°F and warmer winter design temperature**.

☐ b) Box G CFM is minimum 3 times Box E for **less than +5°F winter design temperature.**

Make_____ Model_____ **Capacity @ 0.4 ESP** _____ cfm (G)

c) Duct Size for Fresh Air intake into return air of CRV:

☐ Min 4"Ø rigid duct, must be insulated & vapour barriered for full length, OR

☐ Min 5"Ø, flex duct, must be insulated & vapour barriered for full length,

6. CRV Fresh Air Circulation (Choose a or b)

☐ a) Draw air from bedrooms and Supply air to common area.

☐ b) Draw air from common area and Supply air to bedrooms.

7. If Heated Crawlspace present

☐ Choose ventilation option 1, 2, or 3 per sentence 9.32.3.7 (2).

MAKE-UP AIR Requirements

1. NAFFVA (Naturally Aspirated Fuel Fired Vented Appliance) **present in dwelling unit?** (per Sentence 9.32.4.1)

☐ **No**, Omit Steps 2 & 3

☐ **Yes,** Proceed to Step 2

2. Exhaust Appliance present which exceeds Box C 0.5 ACH:

☐ **No such appliance**. Omit Step 3

☐ **Yes,** Commit to Depressurization Test (See CAUTION, TECA Vent Manual pg 24)

☐ **Yes,** Proceed to Step 3

3. Use Active Make-up Air for Exhaust Appliance. (Choose a or b)

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

Fan Make _____ Model _____ **Make-up Air Fan Cfm** _____

Duct diameter _____inches Fan Location _____

☐ ***Fan interconnected with exhaust appliance fan***. 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 how make-up air will be tempered to at least 34°F (1°C) before entering unoccupied area.

$$\frac{\text{Make-up Fan cfm} \_\_\_\_ \times 1.08 \times (\mathbf{34°\ F} - \_\_\_\_\ °\text{F Winter Design Temp your location})}{3412\ \text{BTUH/kw}} = \_\_\_\_\ \text{(kw) Duct Heater}$$

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).

$$\frac{\text{Make-up Fan} \_\_\_\_\text{cfm} \times 1.08 \times (\mathbf{54°\ F} - 34°\text{F})}{3412\ \text{BTUH/kw}} = \_\_\_\_\text{(kw) Heat from unoccupied area required to raise temp by 20°F}$$

Tempered by: _____

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

$$\frac{\text{Make-up Fan cfm} \_\_\_\_\ \times 1.08 \times (\mathbf{54°\ F} - \_\_\_\_\ °\text{F Winter Design Temp your location})}{3412\ \text{BTUH/kw}} = \_\_\_\_\ \text{(kw) Duct Heater}$$

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.

2012 TECA Ventilation Certification Stamp

Date _____

Print Name_____

Signature_____

Company_____

Phone _____

Checklist 3, pg2of2

4 Ventilation Checklist 4—Exhaust Fan & Passive Inlets SENTENCE 9.32.3.4(6)

Use this checklist for small (≤ 1800 sqft), single level, **non-forced air** heated dwellings located in ***mild coastal & moderate interior climates where winter design temperature is warmer than –4°F.***

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 living space [ ] ft² (B)

Total Interior Volume of Dwelling [ ] ft³ — Total volume includes all heated interior spaces (including crawlspace if heated).

.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 Prinicpal 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

a) Installed Equivalent Length:
Length of duct _____ft **+** Ext. hood **30 ft +** (____# elbows at 10 ft each =_____) = [ ] ft (F)

b) Choose type of duct: Flex duct ☐ or Rigid (smooth) duct ☐

c) Duct size required to flow Box E cfm through Box F equivalent length of duct = [ ] in Ø
Use Table 9.32.3.8 (3) to determine duct size.

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

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

TOTAL (must = Box E) [ ]

* 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, *Duct Sizing for Larger Fans*.

Removed reference to RADON in Make-up Air Requirements

5. Required Inlets for passive Ventilation Air Supply

☐ a) High wall installation (minimum 6 ft above floor)
☐ b) Located in each bedroom and at least one common area
☐ c) Inlet Free Area greater than or equal to 4 Sq In

6. If Heated Crawlspace present

☐ Choose ventilation option 1, 2, or 3 per sentence 9.32.3.7 (2).

MAKE-UP AIR Requirements

1. NAFFVA (Naturally Aspirated Fuel Fired Vented Appliance) **present in dwelling unit?** (per Sentence 9.32.4.1)

☐ **No**, Omit Steps 2 & 3
☐ **Yes,** Proceed to Step 2

2. Exhaust Appliance present which exceeds Box C 0.5 ACH:

☐ **No such appliance**. Omit Step 3
☐ **Yes,** Commit to Depressurization Test (See CAUTION, TECA Vent Manual pg 24)
☐ **Yes,** Proceed to Step 3

3. Use Active Make-up Air for Exhaust Appliance. (Choose a or b)

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

Fan Make _____ Model _____ **Make-up Air Fan Cfm** _____

Duct diameter _____inches Fan Location _____

☐ ***Fan interconnected with exhaust appliance fan.*** 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 how make-up air will be tempered to at least 34°F (1°C) before entering unoccupied area.

$$\frac{\text{Make-up Fan cfm\_\_\_\_\_ X 1.08 X (\textbf{34° F} – \_\_\_\_\_ °F Winter Design Temp your location)}}{\text{3412 BTUH/kw}} = \text{\_\_\_\_\_ (kw) Duct Heater}$$

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).

$$\frac{\text{Make-up Fan \_\_\_\_\_cfm x 1.08 x (\textbf{54° F} – 34°F)}}{\text{3412 BTUH/kw}} = \text{\_\_\_\_\_(kw) Heat from unoccupied area required to raise temp by 20°F}$$

Tempered by: _____

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

$$\frac{\text{Make-up Fan cfm\_\_\_\_\_ x 1.08 x (\textbf{54° F} – \_\_\_\_\_°F Winter Design Temp your location)}}{\text{3412 BTUH/kw}} = \text{\_\_\_\_\_ (kw) Duct Heater}$$

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.

2012 TECA Ventilation Certification Stamp

Date _____

Print Name_____

Signature_____

Company_____

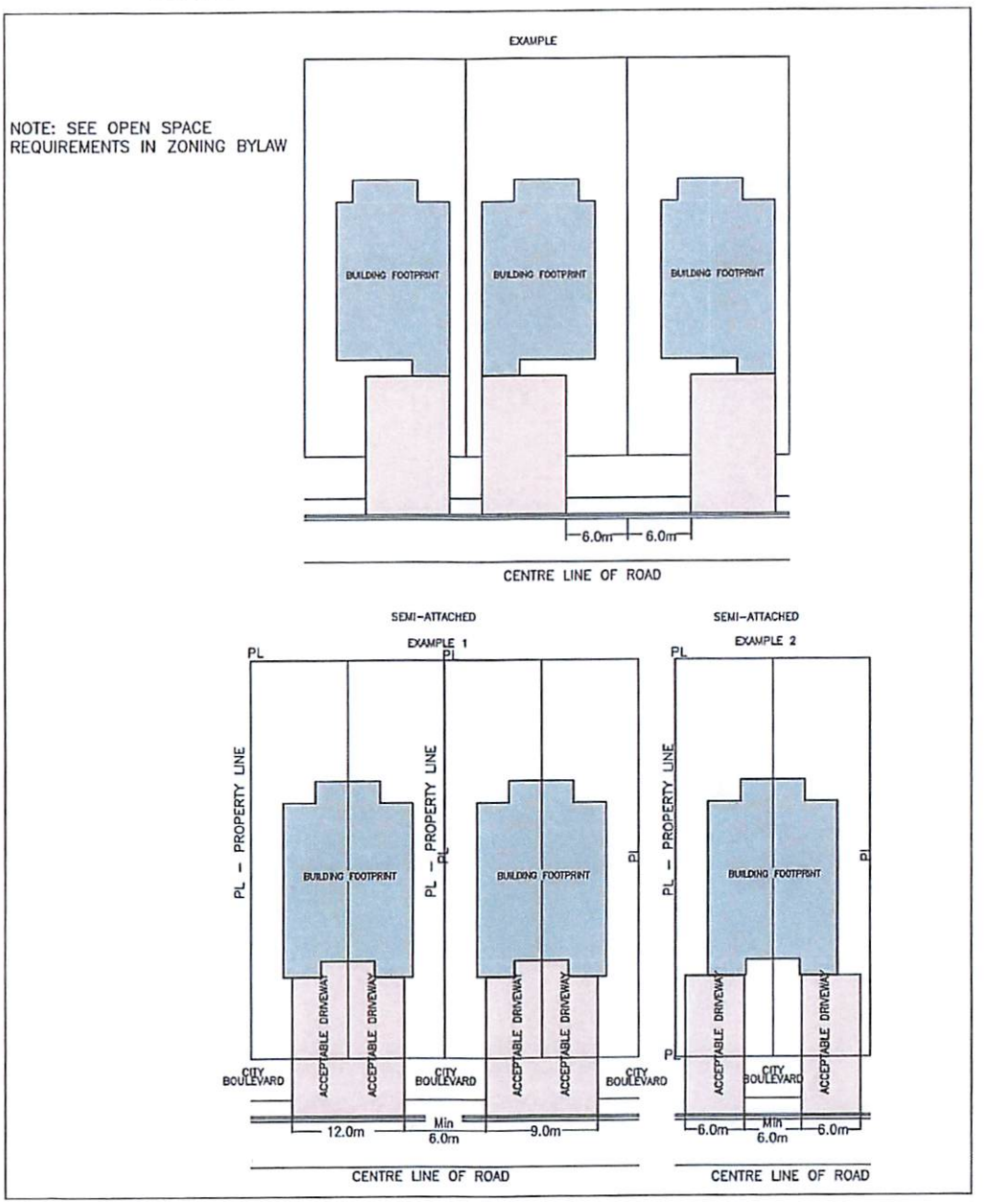
Phone _____

Checklist 4, pg2 of 2

B - 2.0 DESIGN CRITERIA

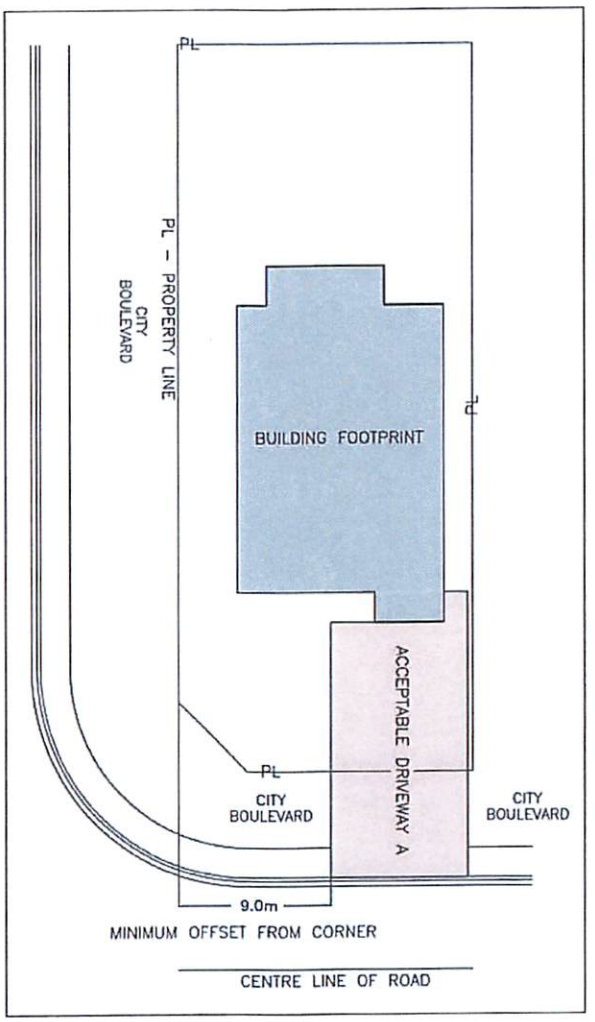
B - 2.07 Driveway Access (continued)

FIGURE B.2
EXAMPLES OF DRIVEWAY SPACING FOR ON STREET PARKING



B - 2.0 DESIGN CRITERIA
B - 2.07 Driveway Access (continued)

FIGURE B.1
DRIVEWAY OFFSET FROM CORNER LOT
ON LOCAL ROAD ONLY



.2 Single Detached, Semi-Attached and Duplex:

.1 Minimum Driveway Access width shall be 3.0 metres;

.2 Maximum Driveway Access width shall be 9.0 metres, except in the case of:

.1 small Parcel zones where maximum Driveway Access width is 6.0m; and