

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information			
Building number, street name		Unit no.	Lot/con.
Municipality INNISFIL	Postal code	Plan number/ other description	
B. Individual who reviews and takes responsibility for design activities			
Name MICHAEL O'ROURKE		Firm HVAC DESIGNS LTD.	
Street address 375 FINLEY AVE		Unit no. 202	Lot/con. N/A
Municipality AJAX	Postal code L1S 2E2	Province ONTARIO	E-mail info@hvacdsgns.ca
Telephone number (905) 619-2300	Fax number (905) 619-2375	Cell number ()	
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1 OF Division C]			
☐ House ☐ Small Buildings ☐ Large Buildings ☐ Complex Buildings ☒ HVAC – House ☐ Building Services ☐ Detection, Lighting and Power ☐ Fire Protection ☐ Building Structural ☐ Plumbing – House ☐ Plumbing – All Buildings ☐ On-site Sewage Systems			
Description of designer's work HEAT LOSS / GAIN CALCULATIONS DUCT SIZING RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY RESIDENTIAL SYSTEM DESIGN per CSA-F280-12		Model: 39-1 Project: ALCONA	
D. Declaration of Designer			
I <u>MICHAEL O'ROURKE</u> (print name)		declare that (choose one as appropriate):	
☐ I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. Individual BCIN: _____ Firm BCIN: _____			
☒ I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code. Individual BCIN: 19669 Basis for exemption from registration and qualification: O.B.C. SENTENCE 3.2.4.1 (4)			
☐ The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification: _____			
I certify that:			
1. The information contained in this schedule is true to the best of my knowledge. 2. I have submitted this application with the knowledge and consent of the firm.			
June 22, 2017 Date		 Signature of Designer	

NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d). of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

SITE NAME: ALCONA			BUILDER: BAYVIEW WELLINGTON			TYPE: 39-1			GFA: 2768			DATE: Jun-17			WINTER NATURAL AIR CHANGE RATE 0.332			HEAT LOSS AT °F. 83			CSA-F280-12														
ROOM USE			EXP. WALL			CLG. HT.			MBR			ENS			WIC			BED-2			BED-3			BED-4			ENS-2			ENS-3					
GRS.WALL AREA			LOSS GAIN			FACTORS			LOSS GAIN			LOSS GAIN			LOSS GAIN			LOSS GAIN			LOSS GAIN			LOSS GAIN			LOSS GAIN			LOSS GAIN					
NORTH			23.3			15.8			0			0			0			0			0			0			0			0			0		
EAST			23.3			41.4			0			0			0			0			0			0			0			0			0		
SOUTH			23.3			24.7			0			0			0			0			0			0			0			0			0		
WEST			23.3			41.4			32			745			1324			18			419			745			0			0			0		
SKYL.T.			40.8			101.3			0			0			0			0			0			0			0			0			0		
DOORS			27.6			4.1			0			0			0			0			0			0			0			0			0		
NET EXPOSED WALL			4.9			0.7			265			1295			190			216			1055			155			63			308			45		
NET EXPOSED BSMT WALL ABOVE GR			3.9			0.6			0			0			0			0			0			0			0			0			0		
EXPOSED CLG			1.4			0.6			260			365			150			169			237			98			119			167			69		
NO ATTIC EXPOSED CLG			3.0			1.2			0			0			0			0			0			0			0			0			0		
EXPOSED FLOOR			2.8			0.4			0			0			0			0			0			0			0			0			0		
BASEMENT/CRAWL HEAT LOSS			0			0			0			0			0			0			0			0			0			0			0		
SLAB ON GRADE HEAT LOSS			0			0			0			0			0			0			0			0			0			0			0		
SUBTOTAL HT LOSS			2405			1712			475			1204			2650			3055			524			732			436			0.20			0.26		
SUB TOTAL HT GAIN			1664			997			114			441			1648			2207			113			436			0.20			0.26					
LEVEL FACTOR / MULTIPLIER			0.20			0.26			0.20			0.26			0.20			0.26			0.20			0.26			0.20			0.26					
AIR CHANGE HEAT LOSS			616			439			122			309			679			783			134			188			0.20			0.26					
AIR CHANGE HEAT GAIN			114			69			8			30			113			152			8			30			0.20			0.26					
DUCT LOSS			0			0			0			0			0			0			0			0			0			0			0		
DUCT GAIN			0			0			0			0			0			0			0			0			0			0			0		
HEAT GAIN PEOPLE			240			0			0			1			240			1			240			0			0			0			0		
HEAT GAIN APPLIANCES/LIGHTS			768			0			0			768			768			768			0			0			0			0			0		
TOTAL HT LOSS BTU/H			3022			2151			597			1664			3662			4222			725			1012			0			0			0		
TOTAL HT GAIN x 1.3 BTU/H			3934			1386			158			2115			3960			4815			172			666			0			0			0		

ROOM USE			EXP. WALL			CLG. HT.			LIB			K/L/D			LAUN			PWD			FOY			MUD			WOD			BAS					
GRS.WALL AREA			LOSS GAIN			FACTORS			LOSS GAIN			LOSS GAIN			LOSS GAIN			LOSS GAIN			LOSS GAIN			LOSS GAIN			LOSS GAIN			LOSS GAIN			LOSS GAIN		
NORTH			23.3			15.8			0			0			0			0			0			0			0			0			0		
EAST			23.3			41.4			0			0			0			0			0			0			0			0			0		
SOUTH			23.3			24.7			24			599			594			9			210			223			0			0			0		
WEST			23.3			41.4			0			0			0			0			0			0			0			0			0		
SKYL.T.			40.8			101.3			0			0			0			0			0			0			0			0			0		
DOORS			27.6			4.1			0			0			0			0			0			0			0			0			0		
NET EXPOSED WALL			4.9			0.7			346			1690			248			721			3522			517			102			498			73		
NET EXPOSED BSMT WALL ABOVE GR			3.9			0.6			0			0			0			0			0			0			0			0			0		
EXPOSED CLG			1.4			0.6			0			0			0			0			0			0			0			0			0		
NO ATTIC EXPOSED CLG			3.0			1.2			0			0			0			15			45			19			252			354			146		
EXPOSED FLOOR			2.8			0.4			0			0			0			0			0			0			0			0			0		
BASEMENT/CRAWL HEAT LOSS			0			0			0			0			0			0			0			0			0			0			0		
SLAB ON GRADE HEAT LOSS			0			0			0			0			0			0			0			0			0			0			0		
SUBTOTAL HT LOSS			2249			1712			6573			5474			812			342			2354			573			196			595			7565		
SUB TOTAL HT GAIN			841			997			1411			812			242			573			196			595			7565			0.50			1.00		
LEVEL FACTOR / MULTIPLIER			0.30			0.42			0.30			0.42			0.30			0.42			0.30			0.42			0.30			0.42			0.50		
AIR CHANGE HEAT LOSS			953			58			2785			376			56			145			998			565			13			71			9077		
AIR CHANGE HEAT GAIN			58			376			0			0			0			0			0			0			0			0			0		
DUCT LOSS			0			0			0			0			0			0			0			0			0			0			0		
DUCT GAIN			0			0			0			0			0			0			0			0			0			0			0		
HEAT GAIN PEOPLE			240			0			0			0			0			0			0			0			0			0			0		
HEAT GAIN APPLIANCES/LIGHTS			768			0			768			768			768			768			768			768			768			768			768		
TOTAL HT LOSS BTU/H			3203			2167			9358			8603			2127			486			3352			796			1270			774			16642		
TOTAL HT GAIN x 1.3 BTU/H			3934			1386			158			2115			3960			4815			172			666			0			0			0		

SITE NAME: ALCONA

BUILDER: BAYVIEW WELLINGTON

DATE: Jun-17

GFA: 2758 LO# 74590

TYPE: 39-1

furnace pressure 0.6
furnace filter 0.05
a/c coil pressure 0.2
available pressure for s/a & r/a 0.35
plenum pressure s/a 0.18
max s/a dif press. loss 0.02
min adjusted pressure s/a 0.16

HEATING CFM 1100 COOLING CFM 1100
TOTAL HEAT GAIN 34,942
AIR FLOW RATE CFM 31.48

EL296UH070XE36B
FAN SPEED
LOW 0
MEDIUM 995
HIGH 1100

LENNOX 70

INPUT (BTU/H) = 66,000
OUTPUT (BTU/H) = 64,000
DESIGN CFM = 1100
CH-M @ 8" E.S.P.

ARUE = 96 %

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	14	7	4
R/A	0	0	4	2	1

All S/A diffusers 4"x10" unless noted otherwise on layout.

All S/A runs 5'Ø unless noted otherwise on layout.

RUN #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
ROOM NAME	MBR	ENS	WIC	BED-2	BED-3	BED-4	ENS-2	BED-3	BED-4	MBR	ENS-3	ENS-3	LIB	K/L/D	K/L/D	K/L/D	LAUN	PWD	FOY	MUD	BAS	BAS	BAS	BAS
RM LOSS MBH	1.51	1.08	0.60	1.66	1.83	2.11	0.72	1.83	2.11	1.51	0.51	0.51	3.20	3.12	3.12	3.12	1.77	0.49	3.35	1.90	4.54	4.54	4.54	4.54
CFM PER RUN HEAT	30	21	12	33	36	42	14	36	42	30	10	10	64	62	62	62	35	10	67	38	90	90	90	90
RM GAIN MBH	1.97	0.69	0.16	2.11	1.98	2.41	0.17	1.98	2.41	1.97	0.33	0.33	2.17	2.87	2.87	2.87	2.13	0.34	0.80	1.27	0.61	0.61	0.61	0.61
CFM PER RUN COOLING	62	22	5	67	62	76	5	62	76	62	10	10	68	90	90	90	67	11	25	40	19	19	19	19
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH	48	51	40	41	40	52	28	44	57	32	32	36	32	27	24	34	25	14	32	12	23	25	13	29
EQUIVALENT LENGTH	150	180	170	190	150	150	150	160	170	130	130	160	140	110	140	140	200	180	120	170	100	110	0	130
TOTAL EFFECTIVE LENGTH	198	231	210	231	190	202	178	204	227	162	162	196	172	137	164	174	225	194	152	182	123	135	13	159
ADJUSTED PRESSURE	0.09	0.07	0.08	0.07	0.09	0.09	0.1	0.08	0.08	0.11	0.11	0.09	0.1	0.12	0.1	0.09	0.08	0.09	0.11	0.09	0.13	0.12	1.25	0.1
ROUND DUCT SIZE	5	4	4	5	5	5	4	5	5	5	4	4	5	5	5	6	5	4	5	4	5	5	5	5
HEATING VELOCITY (ft/min)	220	241	138	242	264	308	161	264	308	220	115	115	470	455	455	316	257	115	492	436	661	661	661	661
COOLING VELOCITY (ft/min)	455	252	57	492	455	558	57	455	558	455	115	115	499	661	661	459	492	126	184	459	140	140	140	140
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	C	C	D	B	B	A	B	B	A	C	B	B	A	D	C	C	B	B	A	B	D	D	D	A

RUN #	25
ROOM NAME	ENS
RM LOSS MBH	1.08
CFM PER RUN HEAT	21
RM GAIN MBH	0.69
CFM PER RUN COOLING	22
ADJUSTED PRESSURE	0.17
ACTUAL DUCT LGH	51
EQUIVALENT LENGTH	180
TOTAL EFFECTIVE LENGTH	231
ADJUSTED PRESSURE	0.07
ROUND DUCT SIZE	4
HEATING VELOCITY (ft/min)	241
COOLING VELOCITY (ft/min)	252
OUTLET GRILL SIZE	3X10
TRUNK	C

SUPPLY AIR TRUNK SIZE	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)
TRUNK A	305	0.08	9	10	8	549	0.00	0	0	0	0	0.00	0	0	0	0	0.05	0	0	8
TRUNK B	527	0.07	11.4	16	8	593	0.00	0	0	0	0	0.00	0	0	0	0	0.05	0	0	8
TRUNK C	226	0.07	8.3	8	8	509	0.00	0	0	0	0	0.00	0	0	0	0	0.05	0	0	8
TRUNK D	570	0.07	11.7	16	8	641	0.00	0	0	0	0	0.00	0	0	0	0	0.05	0	0	8
TRUNK E	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.05	0	0	8
TRUNK F	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.05	0	0	8

RETURN AIR #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
AIR VOLUME	120	85	155	120	300	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
ACTUAL DUCT LGH	54	38	48	40	24	36	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EQUIVALENT LENGTH	185	225	195	265	135	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL EFFECTIVE LH	239	263	243	305	159	236	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ADJUSTED PRESSURE	0.06	0.06	0.06	0.05	0.09	0.06	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80
ROUND DUCT SIZE	6.8	6	7.5	8	8.7	7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INLET GRILL SIZE	8	8	8	8	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INLET GRILL SIZE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
INLET GRILL SIZE	14	14	14	14	30	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TYPE: 39-1
SITE NAME: ALCONA

LO # 74590

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

COMBUSTION APPLIANCES		9.32.3.1(1)
a)	☒ Direct vent (sealed combustion) only	
b)	☐ Positive venting induced draft (except fireplaces)	
c)	☐ Natural draft, B-vent or induced draft gas fireplace	
d)	☐ Solid Fuel (including fireplaces)	
e)	☐ No Combustion Appliances	

HEATING SYSTEM	
☒ Forced Air	☐ Non Forced Air
☐ Electric Space Heat	

HOUSE TYPE		9.32.1(2)
☒ I	Type a) or b) appliance only, no solid fuel	
☐ II	Type I except with solid fuel (including fireplaces)	
☐ III	Any Type c) appliance	
☐ IV	Type I, or II with electric space heat	
☐ Other:	Type I, II or IV no forced air	

SYSTEM DESIGN OPTIONS		O.N.H.W.P.
☐ 1	Exhaust only/Forced Air System	
☐ 2	HRV with Ducting/Forced Air System	
☒ 3	HRV Simplified/connected to forced air system	
☐ 4	HRV with Ducting/non forced air system	
☐	Part 6 Design	

TOTAL VENTILATION CAPACITY		9.32.3.3(1)
Basement + Master Bedroom	2 @ 21.2 cfm	42.4 cfm
Other Bedrooms	3 @ 10.6 cfm	31.8 cfm
Kitchen & Bathrooms	5 @ 10.6 cfm	53 cfm
Other Rooms	6 @ 10.6 cfm	63.6 cfm
Table 9.32.3.A.	TOTAL	190.8 cfm

PRINCIPAL VENTILATION CAPACITY REQUIRED		9.32.3.4.(1)
1 Bedroom	31.8	cfm
2 Bedroom	47.7	cfm
3 Bedroom	63.6	cfm
4 Bedroom	79.5	cfm
5 Bedroom	95.4	cfm
TOTAL	79.5	cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	190.8	cfm
Less Principal Ventil. Capacity	139	cfm
Required Supplemental Capacity	51.8	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANEE 60H-V+	Location: BSMT
139.0 cfm	3.0 sones
☒	HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	ΔT °F	FACTOR	% LOSS
139.0 CFM	X 83 F	X 1.08	X 0.25

SUPPLEMENTAL FANS		NUTONE	
Location	Model	cfm	HVI
ENS	QTXEN050C	50	☒
ENS-2	QTXEN050C	50	☒
ENS-3	QTXEN050C	50	☒
PWD	QTXEN050C	50	☒

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANEE 60H-V+		
139 cfm high	50 cfm low	
75 % Sensible Efficiency	☒	HVI Approved
@ 32 deg F (0 deg C)		

LOCATION OF INSTALLATION	
Lot:	Concession
Township	Plan:
Address	
Roll #	Building Permit #

BUILDER:		BAYVIEW WELLINGTON
Name:		
Address:		
City:		
Telephone #:	Fax #:	

INSTALLING CONTRACTOR	
Name:	
Address:	
City:	
Telephone #:	Fax #:

DESIGNER CERTIFICATION	
I hereby certify that this ventilation system has been designed in accordance with the Ontario Building Code.	
Name:	HVAC Designs Ltd.
Signature:	
HRAI #	001820
Date:	June-17

HEAT LOSS AND GAIN SUMMARY SHEET**MODEL:** 39-1**BUILDER:** BAYVIEW WELLINGTON**SFQT:** 2758**LO#** 74590**SITE:** ALCONA**DESIGN ASSUMPTIONS**

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-11	OUTDOOR DESIGN TEMP.	84
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	72

BUILDING DATA

ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	EAST	ASSUMED (Y/N):	Y
AIR CHANGES PER HOUR:	3.57	ASSUMED (Y/N):	Y
AIR TIGHTNESS CATEGORY:	AVERAGE	ASSUMED (Y/N):	Y
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Y
HOUSE VOLUME (ft³):	36732.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.75	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 48.0 ft	WIDTH: 34.0 ft	EXPOSED PERIMETER:	173.0 ft

2012 OBC - COMPLIANCE PACKAGE

Component	Compliance Package A1	
	Nominal	Min. Eff.
Ceiling with Attic Space Minimum RSI (R)-Value	60	59.22
Ceiling Without Attic Space Minimum RSI (R)-Value	31	27.65
Exposed Floor Minimum RSI (R)-Value	31	29.8
Walls Above Grade Minimum RSI (R)-Value	22	17.03
Basement Walls Minimum RSI (R)-Value	20 ci	21.12
Below Grade Slab Entire surface > 600 mm below grade Minimum RSI (R)-Value	-	-
Edge of Below Grade Slab ≤ 600 mm Below Grade Minimum RSI (R)-Value	10	10
Heated Slab or Slab ≤ 600 mm below grade Minimum RSI (R)-Value	10	11.13
Windows and Sliding Glass Doors Maximum U-Value	0.28	-
Skylights Maximum U-Value	0.49	-
Space Heating Equipment Minimum AFUE	0.96	-
HRV Minimum Efficiency	75%	-
Domestic Hot Water Heater Minimum EF	0.8	-

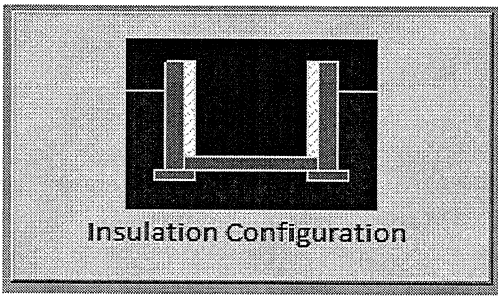
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Barrie	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	14.6	 Insulation Configuration
Floor Width (m):	10.4	
Exposed Perimeter (m):	52.7	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.83	
Window Area (m ²):	1.5	
Door Area (m ²):	1.9	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		1710

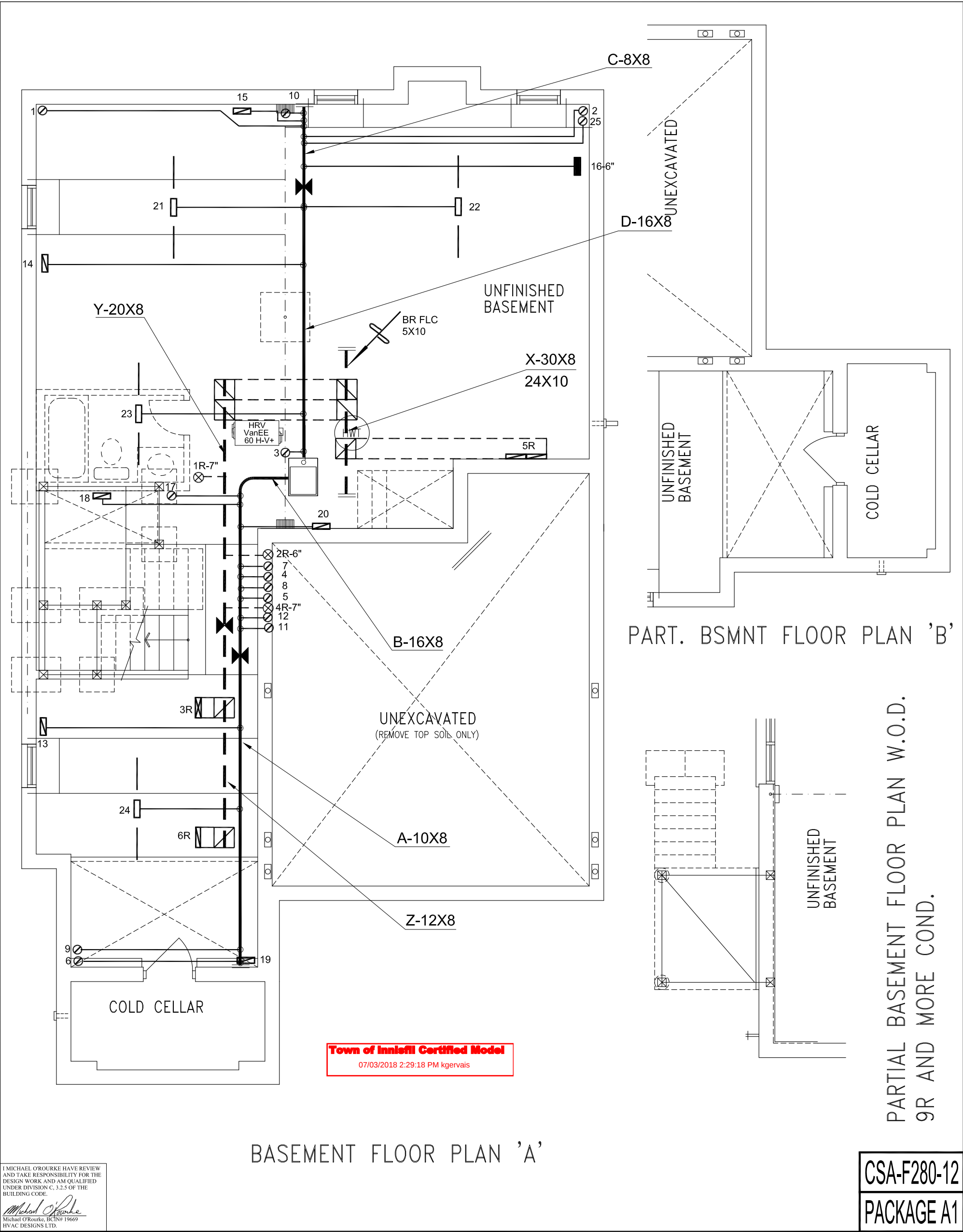
TYPE: 39-1
LO# 74590

Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Barrie			
Weather Station Location:	Open flat terrain, grass			
Anemometer height (m):	10			
Local Shielding				
Building Site:	Suburban, forest			
Walls:	Heavy			
Flue:	Heavy			
Highest Ceiling Height (m):	6.71			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1040.1			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1386.5 cm ²		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	65.6	65.6		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.332			
Cooling Air Leakage Rate (ACH/H):	0.087			

TYPE: 39-1
LO# 74590



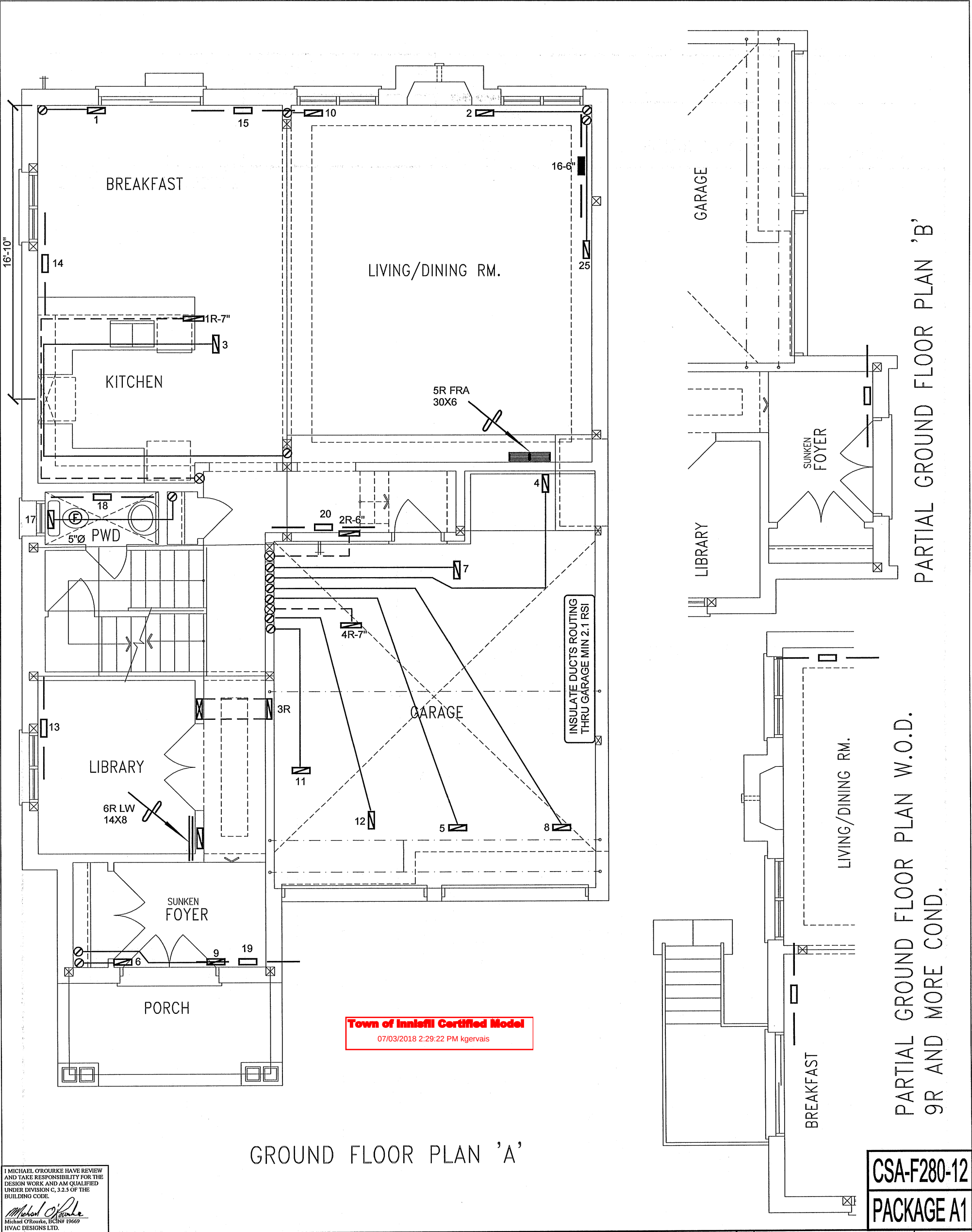
I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

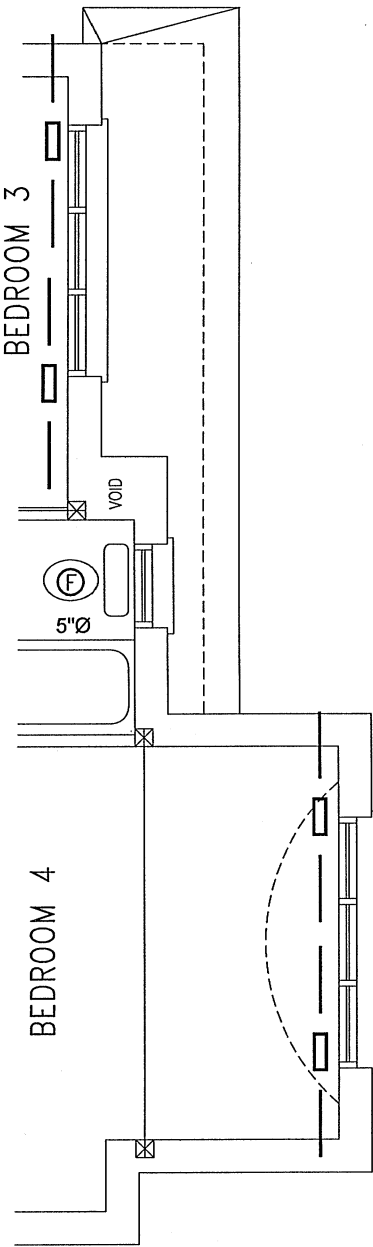
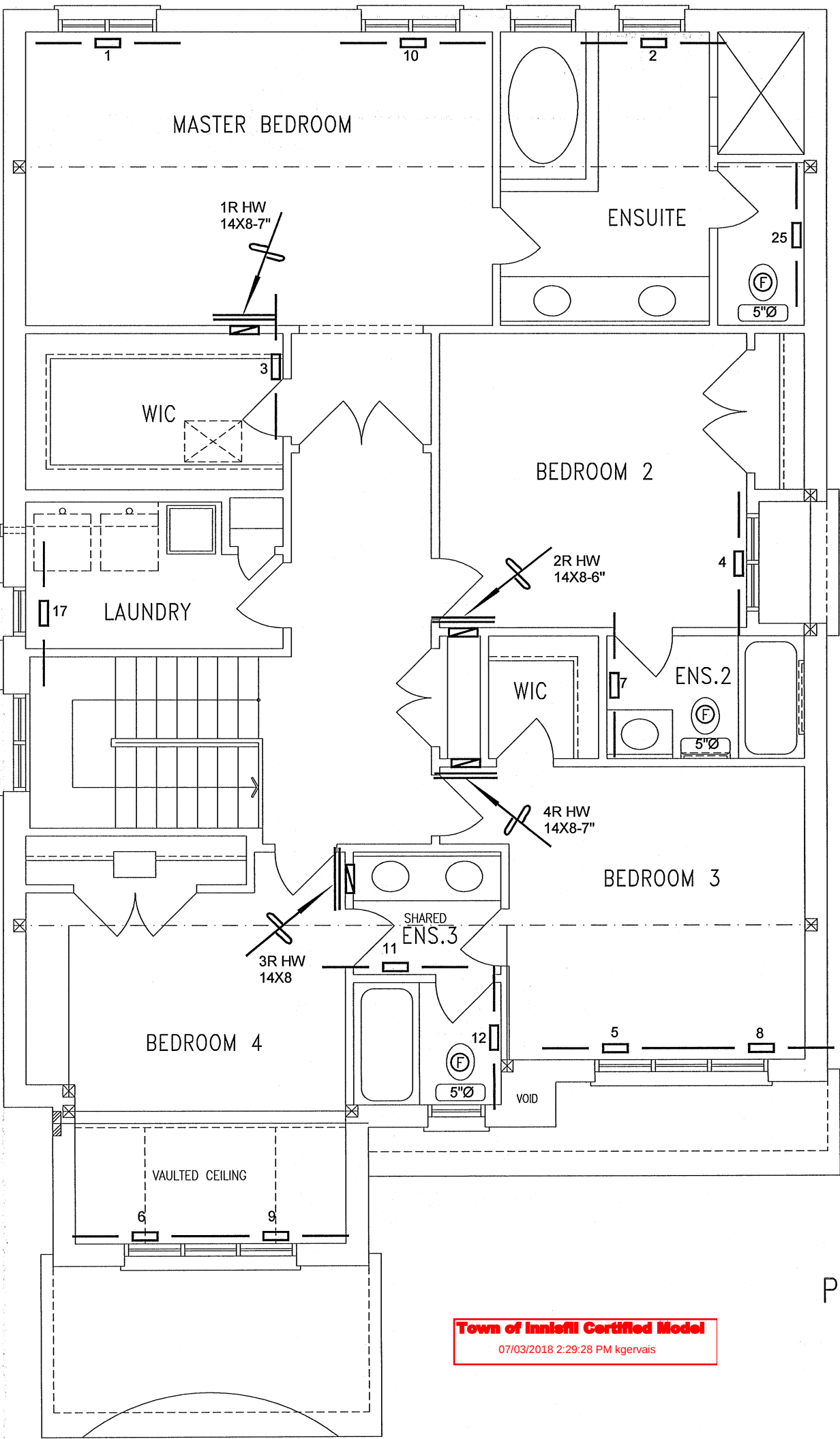
HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	REVISIONS		

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Client BAYVIEW WELLINGTON	Project Name ALCONA INNISFIL, ONTARIO	HVACDESIGNS LTD. 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdsgns.ca Web: www.hvacdsgns.ca Specializing in Residential Mechanical Design Services Installation to comply with the latest Ontario Building Code. All supply branch outlets shall be equipped with a manual balancing damper. Ductwork which passes through the garage or unheated spaces shall be adequately insulated and be gas-proofed.	HEAT LOSS 58415 BTU/H UNIT DATA MAKE LENNOX MODEL EL296UH070XE36B-70 INPUT 66 MBTU/H OUTPUT 64 MBTU/H COOLING 3.0 TONS FAN SPEED 1100 cfm @ 0.6" w.c.	# OF RUNS S/A R/A FANS 3RD FLOOR 2ND FLOOR 14 4 3 1ST FLOOR 7 2 1 BASEMENT 4 1 0	Sheet Title BASEMENT HEATING LAYOUT Date JUNE/2017 Scale 3/16" = 1'-0" BCIN# 19669
39-1	2758 sqft			ALL S/A DIFFUSERS 4 "x10" UNLESS NOTED OTHERWISE ON LAYOUT. ALL S/A RUNS 5"Ø UNLESS NOTED OTHERWISE ON LAYOUT. UNDERCUT DOORS 1" min. FOR R/A	LO# 74590



HVAC LEGEND								3.			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.			
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.			
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR STACK 2nd FLOOR	No.	Description	Date	
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	REVISIONS			
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Client BAYVIEW WELLINGTON		 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services Installation to comply with the latest Ontario Building Code. All supply branch outlets shall be equipped with a manual balancing damper. Ductwork which passes through the garage or unheated spaces shall be adequately insulated and be gas-proofed.								Sheet Title FIRST FLOOR HEATING LAYOUT	
Project Name ALCONA INNISFIL, ONTARIO										Date JUNE/2017	
39-1 2758 sqft		Scale 3/16" = 1'-0"									
		BCIN# 19669									
						LO# 74590					



PARTIAL SECOND FLOOR PLAN 'B'

SECOND FLOOR PLAN 'A'

I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

CSA-F280-12
PACKAGE A1

HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	REVISIONS		

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Client BAYVIEW WELLINGTON		 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services	Sheet Title SECOND FLOOR HEATING LAYOUT	
Project Name ALCONA INNISFIL, ONTARIO			Date JUNE/2017	Scale 3/16" = 1'-0"
39-1 				