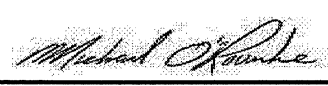


Schedule 1: Designer Information

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@hvacdesigns.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: 39-2C 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: <u>19669</u> Basis for exemption from registration and qualification: <u>O.B.C SENTENCE 3.2.4.1 (4)</u>			
☐ 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 23, 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.

Application for a Permit Construct or Demolish – Effective January 1, 2015

SITE NAME: ALCONA
BUILDER: BAYVIEW WELLINGTON
TYPE: 39-2C
DATE: Jun-17
LO# 74591
GFA: 2553
WINTER NATURAL AIR CHANGE RATE 0.332
SUMMER NATURAL AIR CHANGE RATE 0.087
HEAT LOSS AT °F. 83
HEAT GAIN AT °F. 12
CSA-F280-12
SB-12 PACKAGE A1

ROOM USE	EXP. WALL	CLG. HT.	MBR	ENS	WIC	BED-2	BED-3	BED-4	ENS-2	ENS-3	HEAT LOSS AT °F. 83	HEAT GAIN AT °F. 12
GRS.WALL AREA	310		310	198	72	90	234	330	54	0		
GLAZING												
NORTH	23.3	15.8	0	0	0	0	0	0	0	0	0	0
EAST	23.3	41.4	0	0	0	0	22	513	0	0	0	0
SOUTH	23.3	24.7	0	8	186	0	0	22	513	544	0	0
WEST	23.3	41.4	32	745	1324	0	0	0	0	0	0	0
SKYLT.	40.8	101.3	0	0	0	0	0	0	0	0	0	0
DOORS	27.6	4.1	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.9	0.7	278	1358	199	182	889	130	72	352	52	286
NET EXPOSED BSMT WALL ABOVE GR	3.9	0.6	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.4	0.6	250	365	150	130	183	75	48	67	28	114
NO ATTIC EXPOSED CLG	3.0	1.2	20	60	25	0	0	0	40	120	49	20
EXPOSED FLOOR	2.8	0.4	0	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS			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
SUBTOTAL HT LOSS			2529	1445	419	1257	2304	2753	574	252	59	252
SUB TOTAL HT GAIN			1698	734	79	844	1240	1782	347	0.20	0.23	59
LEVEL FACTOR / MULTIPLIER			0.20	0.23	0.20	0.23	0.20	0.23	0.20	0.20	0.23	59
AIR CHANGE HEAT LOSS			581	332	96	289	529	632	132	56	4	4
AIR CHANGE HEAT GAIN			102	44	5	51	75	107	21	31	6	6
DUCT LOSS			0	0	0	0	283	339	0	0	0	0
DUCT GAIN			0	0	0	0	216	274	0	0	0	0
HEAT GAIN PEOPLE	240		2	480	0	1	240	1	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS			607	0	0	607	607	607	0	0	0	0
TOTAL HT LOSS BTU/H			3110	1776	515	1545	3116	3724	706	341	0	0
TOTAL HT GAIN x 1.3 BTU/H			3754	1012	109	2265	3092	3914	479	90		

ROOM USE	EXP. WALL	CLG. HT.	WIC-2	HALL	KTGR	LAUN	PWD	FOY	MUD	LIB	WOD	BAS
GRS.WALL AREA	63		63	135	720	99	77	350	77	492	360	1284
GLAZING												
NORTH	23.3	15.8	0	0	0	0	0	0	0	0	0	0
EAST	23.3	41.4	11	256	455	0	0	0	0	0	0	0
SOUTH	23.3	24.7	0	33	769	816	0	6	140	148	0	0
WEST	23.3	41.4	0	0	0	0	0	0	0	0	0	0
SKYLT.	40.8	101.3	0	0	0	0	0	0	0	0	0	0
DOORS	27.6	4.1	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.9	0.7	52	254	37	102	498	73	559	2731	400	20
NET EXPOSED BSMT WALL ABOVE GR	3.9	0.6	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.4	0.6	35	49	20	165	232	95	0	0	0	0
NO ATTIC EXPOSED CLG	3.0	1.2	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.8	0.4	35	98	14	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS			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
SUBTOTAL HT LOSS			857	1499	6512	893	376	2731	831	3471	1178	8076
SUB TOTAL HT GAIN			527	984	6076	184	55	528	122	2228	321	442
LEVEL FACTOR / MULTIPLIER			0.20	0.23	0.30	0.20	0.30	0.30	0.30	0.30	0.30	0.50
AIR CHANGE HEAT LOSS			151	344	2350	205	136	986	300	1253	1178	8374
AIR CHANGE HEAT GAIN			32	59	366	11	3	32	7	134	46	46
DUCT LOSS			81	0	0	110	0	0	0	0	0	0
DUCT GAIN			56	0	0	80	0	0	0	0	0	0
HEAT GAIN PEOPLE	240		0	0	0	607	0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS			889	0	607	607	512	3716	1131	4724	1178	16449
TOTAL HT LOSS BTU/H			799	1843	8862	1207	76	728	958	3861	418	1424
TOTAL HT GAIN x 1.3 BTU/H			799	1843	9165	1447	76	479	958	3861	418	1424

SITE NAME: ALCONA

BUILDER: BAYVIEW WELLINGTON

TYPE: 39-2C

DATE: Jun-17

GFA: 2553 LO# 74591

 HEATING CFM 1100 COOLING CFM 1100
 TOTAL HEAT LOSS 55,347 TOTAL HEAT GAIN 34,647
 AIR FLOW RATE CFM 19,87 AIR FLOW RATE CFM 31,75

EL296UH070XE36B

FAN SPEED 70

AFUE = 96 %

INPUT (BTU/H) = 66,000

OUTPUT (BTU/H) = 64,000

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	14	8	4
R/A	0	0	4	2	1

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

All S/A runs 5/2" unless noted otherwise on layout.

 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 diff press. loss 0.02
 min adjusted pressure s/a 0.16

 r/a pressure 0.17
 r/a grille press. loss 0.02
 adjusted pressure r/a 0.15

LENNOX

FAN SPEED 70

LOW 0

MEDIUM 995

HIGH 1100

AFUE = 96 %

INPUT (BTU/H) = 66,000

OUTPUT (BTU/H) = 64,000

DESIGN CFM = 1100

CFM @ .8" E.S.P.

TEMPERATURE RISE 54 °F

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	ENS-3	WIC-2	HALL	KT/GR	KT/GR	KT/GR	KT/GR	KT/GR	KT/GR	LAUN	PWD	FOY	MUD	BAS	BAS	BAS	BAS
RM LOSS MBH	1.56	1.78	0.52	1.55	1.56	1.86	0.71	0.71	0.89	1.84	2.95	2.95	2.95	2.95	2.95	2.95	1.21	0.51	3.72	1.13	4.41	4.41	4.41	4.41
CFM PER RUN HEAT	31	35	10	31	31	37	14	14	18	37	59	59	59	59	59	59	24	10	74	22	88	88	88	88
RM GAIN MBH	1.88	1.01	0.11	2.27	1.55	1.96	0.48	0.09	0.80	1.36	3.06	3.06	3.06	3.06	3.06	3.06	1.15	0.08	0.73	0.96	0.46	0.46	0.46	0.46
CFM PER RUN COOLING	60	32	3	72	49	62	15	3	25	43	97	97	97	97	97	97	36	2	23	30	15	15	15	15
ADJUSTED PRESSURE	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	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16
EQUIVALENT LENGTH	38	41	60	40	75	74	42	79	63	71	70	70	70	70	70	70	48	56	45	47	13	23	34	55
EQUIVALENT LENGTH	180	140	180	180	180	140	180	190	210	160	210	170	150	100	120	160	220	140	100	130	130	150	140	120
TOTAL EFFECTIVE LENGTH	218	181	240	220	255	214	222	269	273	191	281	240	197	116	145	187	268	196	145	177	143	173	174	175
ADJUSTED PRESSURE	0.08	0.1	0.07	0.08	0.07	0.08	0.08	0.06	0.07	0.09	0.14	0.14	0.14	0.14	0.11	0.09	0.06	0.09	0.12	0.1	0.11	0.09	0.09	0.09
ROUND DUCT SIZE	5	4	4	5	5	5	4	5	4	4	4	4	4	4	5	6	4	4	5	4	5	5	5	5
HEATING VELOCITY (ft/min)	228	402	115	228	228	272	161	228	207	424	433	433	433	433	433	301	275	115	543	252	646	646	646	646
COOLING VELOCITY (ft/min)	441	367	34	529	360	455	172	360	455	441	712	712	712	712	495	495	413	23	169	344	110	110	110	110
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	A	A	C	C	B	B	A	B	B	A	A	A	A	A	A	A	C	C	C	C	A	A	C	B

RUN #	25	26	LIB	LIB	2.36	2.36	47	47	1.93	1.93	0.17	0.17	54	56	130	130	186	0.09	5	345	448	448	3X10	B
ROOM NAME	TRUNK A	TRUNK B	TRUNK C	TRUNK D	TRUNK E	TRUNK F	TRUNK G	TRUNK H	TRUNK I	TRUNK J	TRUNK K	TRUNK L	TRUNK M	TRUNK N	TRUNK O	TRUNK P	TRUNK Q	TRUNK R	TRUNK S	TRUNK T	TRUNK U	TRUNK V	TRUNK W	TRUNK X
RM LOSS MBH	464	464	464	464	464	464	464	464	464	464	464	464	464	464	464	464	464	464	464	464	464	464	464	464
CFM PER RUN HEAT	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
RM GAIN MBH	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
CFM PER RUN COOLING	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
ADJUSTED PRESSURE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACTUAL DUCT LGH	54	56	54	56	54	56	54	56	54	56	54	56	54	56	54	56	54	56	54	56	54	56	54	56
EQUIVALENT LENGTH	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
TOTAL EFFECTIVE LENGTH	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186
ADJUSTED PRESSURE	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
ROUND DUCT SIZE	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
HEATING VELOCITY (ft/min)	345	345	345	345	345	345	345	345	345	345	345	345	345	345	345	345	345	345	345	345	345	345	345	345
COOLING VELOCITY (ft/min)	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448	448
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

SUPPLY AIR TRUNK SIZE	TRUNK	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	464	0.08	10.5	14	597	0	0.00	0	0	0	0	0.00	0	0	0
TRUNK B	464	0.06	10.1	12	515	0	0.00	0	0	0	0	0.00	0	0	0
TRUNK C	639	0.06	12.7	18	639	0	0.00	0	0	0	0	0.00	0	0	0
TRUNK D	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0
TRUNK E	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0
TRUNK F	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	0	0	0
RETURN AIR #	1	2	3	4	6	0	0	0	0	0	0	0	0	0	0
AIR VOLUME	180	175	75	75	155	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
ACTUAL DUCT LGH	38	39	75	76	57	1	1	1	1	1	1	1	1	1	1
EQUIVALENT LENGTH	155	160	195	200	195	0	0	0	0	0	0	0	0	0	0
TOTAL EFFECTIVE LENGTH	193	199	270	276	252	1	1	1	1	1	1	1	1	1	1
ADJUSTED PRESSURE	0.08	0.07	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
ROUND DUCT SIZE	7.4	7.5	6	6	7.5	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
INLET GRILL SIZE	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14

TYPE: 39-2C
SITE NAME: ALCONA

LO # 74591

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	5 @ 10.6 cfm	53.0 cfm
Table 9.32.3.A.	TOTAL	180.2 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	180.2 cfm	
Less Principal Ventil. Capacity	139 cfm	
Required Supplemental Capacity	41.2 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	83 F	1.08	X	0.25

SUPPLEMENTAL FANS		NUTONE		
Location	Model	cfm	HVI	Sones
ENS	QTXEN050C	50	☒	0.3
ENS-2	QTXEN050C	50	☒	0.3
ENS-3	QTXEN050C	50	☒	0.3
PWD	QTXEN050C	50	☒	0.3

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:** 39-2C**BUILDER:** BAYVIEW WELLINGTON**SFQT:** 2553**LO#** 74591**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 (ft ³):	33887.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft ²):	1.50	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 54.0 ft	WIDTH: 33.0 ft	EXPOSED PERIMETER:	174.0 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	-

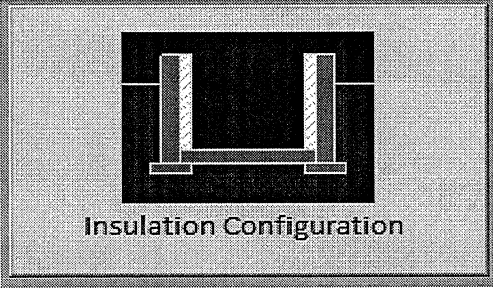
INDIVIDUAL BCIN: 19669

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):	16.5	 Insulation Configuration
Floor Width (m):	10.1	
Exposed Perimeter (m):	0.0	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.83	
Window Area (m ²):	1.9	
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):		1824

TYPE: 39-2C

LO# 74591

Air Infiltration Residential Load Calculator

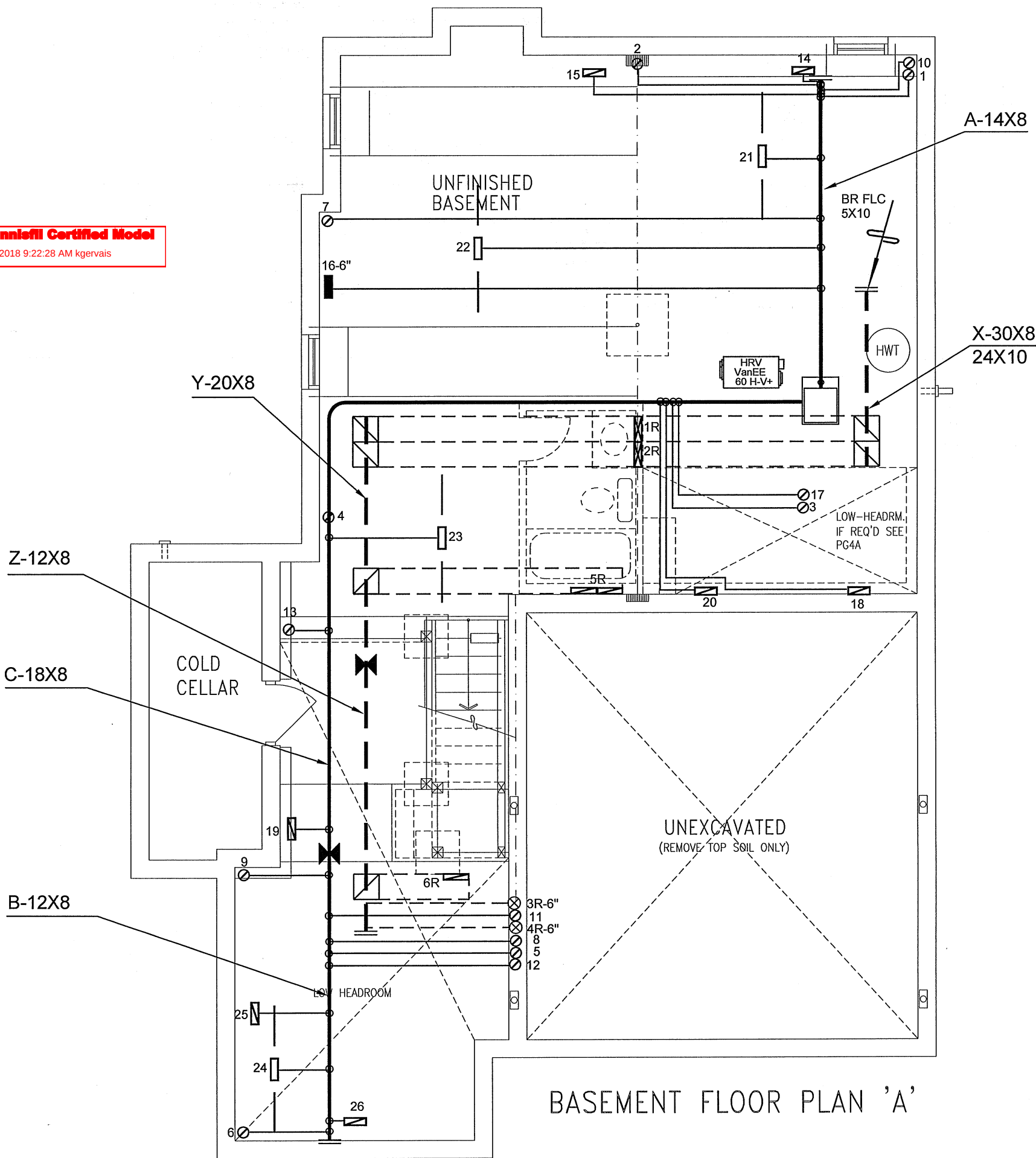
Supplemental tool for CAN/CSA-F280

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):	959.6			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1279.1 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: 39-2C

LO# 74591

Town of Innisfil Certified Model
09/03/2018 9:22:28 AM kgervais



BASEMENT FLOOR PLAN 'A'

PART. BSMNT FLOOR PLAN EL 'A & B'

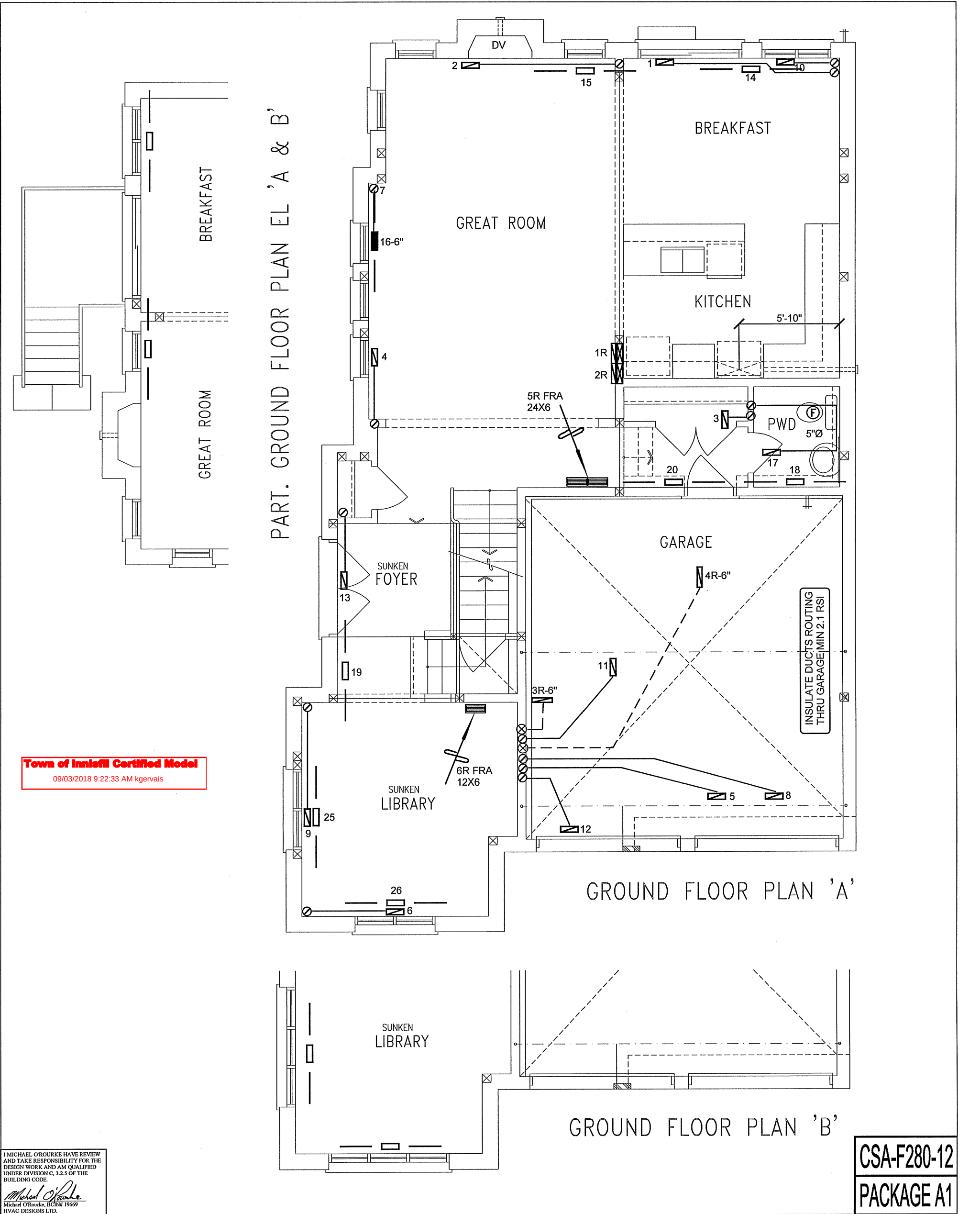
CSA-F280-12
PACKAGE A1

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		HVACDESIGNS LTD. 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		HEAT LOSS 58469 BTU/H		# OF RUNS		S/A		R/A		FANS		Sheet Title	
BAYVIEW WELLINGTON				UNIT DATA		3RD FLOOR								BASEMENT	
Project Name		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.		MAKE		2ND FLOOR		14		4		4		Date JUNE/2017	
ALCONA				LENNOX		1ST FLOOR		8		2		1		Scale 3/16" = 1'-0"	
INNISFIL, ONTARIO				MODEL		BASEMENT		4		1		0		BCIN# 19669	
39-2C				EL296UH070XE36B-70		66		MBTU/H						LO# 74591	
2553 sqft				INPUT		64		MBTU/H							
				COOLING		3.0		TONS							
				FAN SPEED		1100		cfm @ 0.6" w.c.							



I MICHAEL O'ROURKE HAVE REVIEW
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, TCE# 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
	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

39-2C

2553 sqft

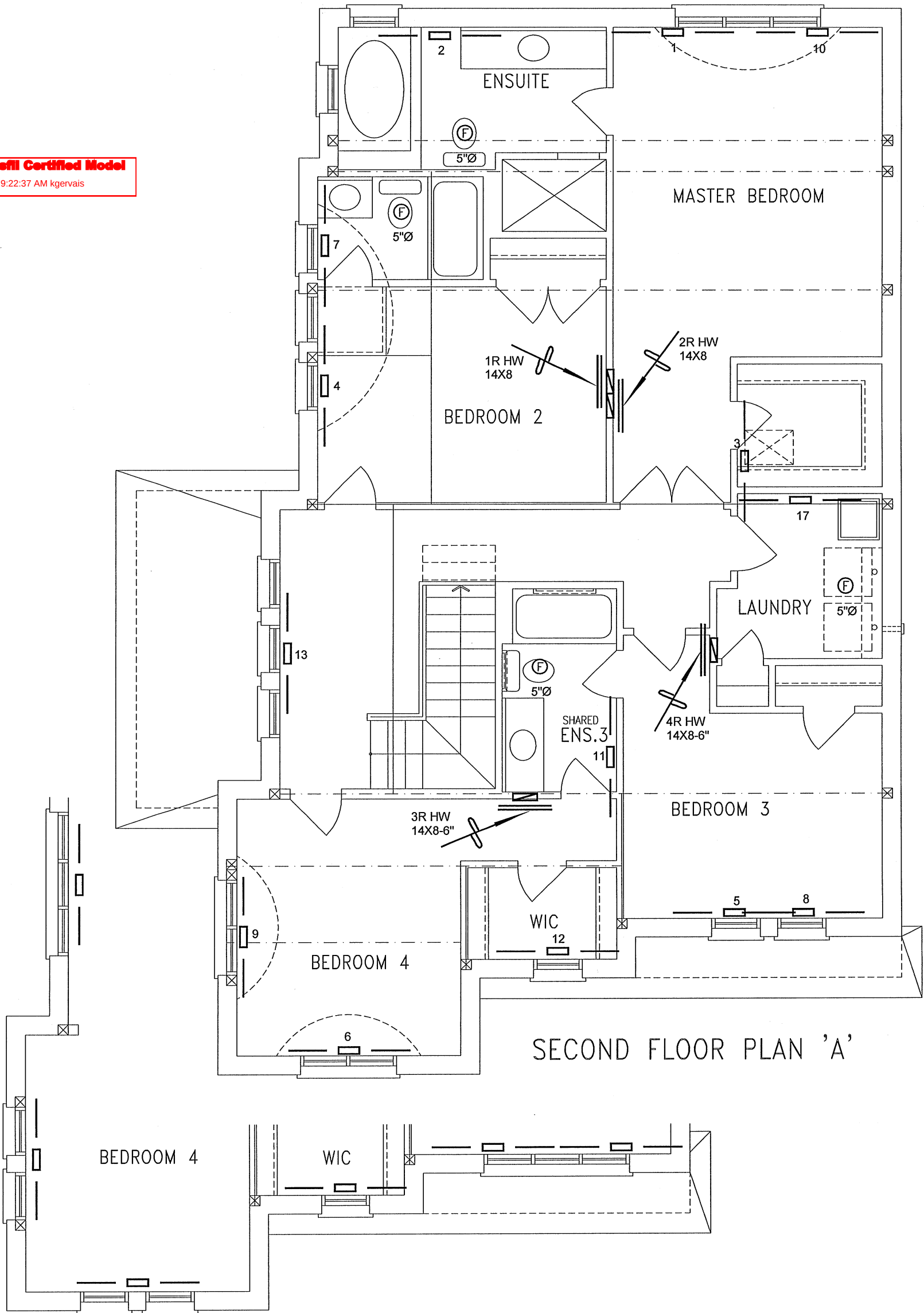
HVACDESIGNS LTD.

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.

Sheet Title	
FIRST FLOOR HEATING LAYOUT	
Date	JUNE/2017
Scale	3/16" = 1'-0"
BCIN# 19669	
LO#	74591

Town of Innisfil Certified Model
09/03/2018 9:22:37 AM kgervais



SECOND FLOOR PLAN 'B'

I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.3 OF THE BUILDING CODE.
Michael O'Rourke
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		HVACDESIGNS LTD. 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 SECOND FLOOR HEATING LAYOUT	
Project Name ALCONA INNISFIL, ONTARIO			Date JUNE/2017	
39-2C			Scale 3/16" = 1'-0"	
2553 sqft			BCIN# 19669	
			LO# 74591	