

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	Postal code	Plan number/ other description	
INNISFIL			
B. Individual who reviews and takes responsibility for design activities			
Name		Firm	
MICHAEL O'ROURKE		HVAC DESIGNS LTD.	
Street address		Unit no.	Lot/con.
375 FINLEY AVE		202	N/A
Municipality	Postal code	Province	E-mail
AJAX	L1S 2E2	ONTARIO	info@hvacdesigns.ca
Telephone number	Fax number	Cell number	
(905) 619-2300	(905) 619-2375	()	
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		Model: 32-7-15	
HEAT LOSS / GAIN CALCULATIONS DUCT SIZING RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY RESIDENTIAL SYSTEM DESIGN per CSA-F280-12		Project: ALCONA	
D. Declaration of Designer			
I MICHAEL O'ROURKE declare that (choose one as appropriate): (print name)			
☐ 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 23, 2017			
Date		Signature of Designer	

NOTE:

1. 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.

2. 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
BUILDUP: BAYVIEW WELLINGTON

DATE: Jun-17				WINTER NATURAL AIR CHANGE RATE		HEAT LOSS AT °F.		CSA-F280-12	
LO# 74586				SUMMER NATURAL AIR CHANGE RATE		HEAT GAIN AT °F.		SB-12 PACKAGE A1	
TYPE: 32-7-15				GFA: 2061		BATH			
ROOM USE	EXP. WALL	CLG. HT.	MBR	ENS	BED-2	BED-3	FOY	MUD	WOD
GRS. WALL AREA	FACTORS	LOSS GAIN	324	216	257	171	536	99	324
GLAZING			LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN
NORTH	23.3 15.9	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
EAST	23.3 41.5	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
SOUTH	23.3 24.9	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
WEST	23.3 41.5	32 745 1329	16 373 654	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
SKYLT.	40.8 101.5	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
DOORS	27.6 4.2	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
NET EXPOSED WALL	4.9 0.7	252 1427 218	200 977 149	219 1067 163	155 757 116	348 1700 260	0 0 0	0 0 0	0 0 0
NET EXPOSED BEAM WALL ABOVE GR	3.9 0.6	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
EXPOSED CLG	1.4 0.6	315 443 185	144 202 84	162 214 89	216 303 127	132 185 77	0 0 0	0 0 0	0 0 0
NO ATTIC EXPOSED CLG	3.0 1.3	0 0 0	0 0 0	40 120 50	0 0 0	88 255 110	0 0 0	0 0 0	0 0 0
EXPOSED FLOOR	2.8 0.4	45 42 6	0 0 0	192 536 82	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
BASEMENT/CRAWL HEAT LOSS				0 0 0	0 0 0	0 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 0	0 0 0	0 0 0
SUBTOTAL HT LOSS			2656	2823	1952	1433	2596	1643	2596
SUB TOTAL HT GAIN			1737	898	0.20 0.23	0.20 0.23	640	0.20 0.23	640
LEVEL FACTOR / MULTIPLIER			0.20 0.23	350	637	324	47	654	122
AIR CHANGE HEAT LOSS			500	66	346	0	0	0	0
AIR CHANGE HEAT GAIN			326	0	309	0	0	0	0
DUCT LOSS			2	480	1	249	0	0	0
HEAT GAIN PEOPLE	240		742	1903	742	742	0	0	0
HEAT GAIN APPLIANCES/LIGHTS			3592	4416	3592	1757	2170	1155	2170
TOTAL HT LOSS BTU/H			4416	1254	4416	1757	2170	1155	2170

ROOM USE	EXP. WALL	CLG. HT.	FACTORS	LOSS GAIN	KILD	LAUN	WIR	FOY	MUD	WOD	BAS
GRS. WALL AREA	FACTORS	LOSS GAIN	690	690	690	63	132	536	99	324	1128
GLAZING			LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN
NORTH	23.3 15.9	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
EAST	23.3 41.5	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
SOUTH	23.3 24.9	28 652 696	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
WEST	23.3 41.5	95 2213 3945	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
SKYLT.	40.8 101.5	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
DOORS	27.6 4.2	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
NET EXPOSED WALL	4.9 0.7	557 2770 423	0 0 0	0 0 0	63 308 47	132 645 98	490 2391 365	20 553 84	79 386 59	0 0 0	0 0 0
NET EXPOSED BEAM WALL ABOVE GR	3.9 0.6	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
EXPOSED CLG	1.4 0.6	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
EXPOSED FLOOR	3.0 1.3	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
NO ATTIC EXPOSED CLG	2.8 0.4	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
BASEMENT/CRAWL HEAT LOSS			0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 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 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
SUBTOTAL HT LOSS			5536	5064	5536	723	645	3637	939	1374	8547
SUB TOTAL HT GAIN			0.30 0.38	2124	0.20 0.23	149	0.30 0.38	0.30 0.38	0.30 0.38	0.50	0.53
LEVEL FACTOR / MULTIPLIER			2124	375	163	243	1371	1371	354	644	6821
AIR CHANGE HEAT LOSS			0	0	89	11	7	0	0	0	0
AIR CHANGE HEAT GAIN			2	480	90	0	0	0	0	0	0
DUCT LOSS			742	742	742	0	0	0	0	0	0
HEAT GAIN PEOPLE	240		742	742	742	0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS			7760	8559	7760	889	137	5008	1293	1374	13668
TOTAL HT LOSS BTU/H			8559	1254	8559	1291	137	5008	1293	1374	1425

SITE NAME: ALCONA
BUILDER: BAYVIEW WELLINGTON

DATE: Jun-17

GFA: 2061

LO# 74586

TYPE: 32-7-15

HEATING CFM 995
TOTAL HEAT LOSS 45,563
AIR FLOW RATE CFM 21.84COOLING CFM 995
TOTAL HEAT GAIN 29,029
AIR FLOW RATE CFM 34.28furnace pressure 0.6
furnace filter 0.05
a/c coil pressure 0.2
available pressure 0.35

for s/a & r/a

plenum pressure s/a 0.18
max s/a diff press. loss 0.03
min adjusted pressure s/a 0.15r/a pressure 0.17
r/a grille press. loss 0.02
adjusted pressure r/a 0.15AFUE = 96 %
INPUT (BTU/H) = 66,000
OUTPUT (BTU/H) = 64,000
FAN SPEED 70
FAN SPEED 70
LOW 0
MEDIUM 995
HIGH 1100
DESIGN CFM = 995
CFM @ 5" E.S.P. = 995

TEMPERATURE RISE 60 °F

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	8	6	4
R/A	0	0	4	1	1

All S/A diffusers 4"x10" unless noted otherwise on layout.
All S/A runs 5'0" 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	BED-2	BED-3	BED-2	BED-3	BATH	BED-2	BED-2	MBR	K/L/D	K/L/D	K/L/D	K/L/D	K/L/D	K/L/D	LAUN	WR	FOY	MUD	BAS	BAS	BAS	BAS
RM LOSS MBH	1.79	1.90	1.90	1.76	1.90	1.76	3.55	1.90	1.76	1.79	2.59	2.59	2.59	2.59	2.59	2.59	0.98	0.89	5.01	1.29	3.76	3.76	3.76	3.76
CFM PER RUN HEAT	39	42	42	38	42	38	78	42	38	39	56	56	56	56	56	56	21	19	109	28	82	82	82	82
RM GAIN MBH	2.21	1.25	2.21	2.17	2.21	2.17	2.29	2.21	2.21	2.21	2.89	2.89	2.89	2.89	2.89	2.89	1.29	0.14	1.09	1.16	0.53	0.53	0.53	0.53
CFM PER RUN COOLING	76	43	76	74	76	74	79	76	76	76	99	99	99	99	99	99	44	5	37	40	18	18	18	18
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	0.15	0.17	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH	29	47	42	37	42	37	54	47	42	37	30	21	23	23	23	23	39	36	36	22	18	20	13	25
EQUIVALENT LENGTH	120	170	120	160	120	160	130	130	130	160	120	110	100	100	100	100	140	110	130	140	140	150	140	120
TOTAL EFFECTIVE LENGTH	149	217	162	197	162	197	184	177	177	197	150	131	123	123	123	123	179	146	166	162	158	170	153	145
ADJUSTED PRESSURE	0.12	0.08	0.11	0.09	0.11	0.09	0.09	0.1	0.1	0.09	0.11	0.12	0.13	0.13	0.13	0.13	0.1	0.12	0.09	0.11	0.1	0.1	0.11	0.11
ROUND DUCT SIZE	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	6	4	5	5	5	5
HEATING VELOCITY (ft/min)	286	482	308	279	308	279	573	308	286	286	411	411	411	411	411	411	241	218	556	321	602	602	602	602
COOLING VELOCITY (ft/min)	558	493	558	543	558	543	580	558	558	558	727	727	727	727	727	727	505	57	189	459	132	132	132	132
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10
TRUNK	A	A	C	C	C	C	B	C	C	A	A	A	A	A	A	A	C	B	B	C	A	A	C	B

ROOM NAME
RM LOSS MBH
CFM PER RUN HEAT
RM GAIN MBH
CFM PER RUN COOLING
ADJUSTED PRESSURE
ACTUAL DUCT LGH
EQUIVALENT LENGTH
TOTAL EFFECTIVE LENGTH
ADJUSTED PRESSURE
ROUND DUCT SIZE
HEATING VELOCITY (ft/min)
COOLING VELOCITY (ft/min)
OUTLET GRILL SIZE
TRUNK

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)	RETURN AIR TRUNK SIZE	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)
TRUNK A	452	0.08	10.4	12	8	TRUNK G	0	0.00	0	0	TRUNK O	0	0.06	0	0	8
TRUNK B	288	0.09	8.5	8	8	TRUNK H	0	0.00	0	0	TRUNK P	0	0.06	0	0	8
TRUNK C	541	0.09	10.8	14	8	TRUNK I	0	0.00	0	0	TRUNK Q	0	0.06	0	0	8
TRUNK D	0	0.00	0	0	8	TRUNK J	0	0.00	0	0	TRUNK R	0	0.06	0	0	8
TRUNK E	0	0.00	0	0	8	TRUNK K	0	0.00	0	0	TRUNK S	0	0.06	0	0	8
TRUNK F	0	0.00	0	0	8	TRUNK L	0	0.00	0	0	TRUNK T	0	0.06	0	0	8
RETURN AIR #	1	2	3	4	5						TRUNK U	0	0.06	0	0	8
AIR VOLUME	85	180	85	360	125						TRUNK V	0	0.06	0	0	8
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15						TRUNK W	0	0.06	0	0	8
ACTUAL DUCT LGH	54	32	45	33	49						TRUNK X	995	0.06	15	26	8
EQUIVALENT LENGTH	145	145	190	185	185						TRUNK Y	0	0.06	0	0	8
TOTAL EFFECTIVE LH	199	177	235	218	234						TRUNK Z	0	0.06	0	0	8
ADJUSTED PRESSURE	0.07	0.08	0.06	0.07	0.06						DROP	995	0.06	15	24	10
ROUND DUCT SIZE	5.8	7.4	6	9.9	6.9											
INLET GRILL SIZE	8	8	8	8	8											
INLET GRILL SIZE	14	14	14	30	14											

I REVIEW AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED IN THE APPROPRIATE CATEGORY AS AN "OTHER DESIGNER" UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

MICHAEL O'ROURKE

TYPE: 32-7-15
SITE NAME: ALCONA

LO # 74586

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	2	@ 10.6 cfm	21.2	cfm
Kitchen & Bathrooms	4	@ 10.6 cfm	42.4	cfm
Other Rooms	5	@ 10.6 cfm	53.0	cfm
Table 9.32.3.A.		TOTAL	159.0	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	63.6	cfm

SUPPLEMENTAL VENTILATION CAPACITY 9.32.3.5.

Total Ventilation Capacity	159	cfm
Less Principal Ventll. Capacity	139	cfm
Required Supplemental Capacity	20.0	cfm

PRINCIPAL EXHAUST FAN CAPACITY

Model: VANE 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	Sones
ENS	QTXEN050C	50	☒	0.3
BATH	QTXEN050C	50	☒	0.3
W/R	QTXEN050C	50	☒	0.3

HEAT RECOVERY VENTILATOR 9.32.3.11.

Model: VANE 60H-V+

139 cfm high 50 cfm low

75 % Sensible Efficiency @ 32 deg F (0 deg C) ☒ HVI Approved

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 # 001620

Date: June-17

I REVIEW AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED IN THE APPROPRIATE CATEGORY AS AN "OTHER DESIGNER" UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

INDIVIDUAL BCIN: 19569

MICHAEL O'ROURKE



375 Finley Ave. Suite 202 Ajax, ON L1S 2E2
Tel: 905.619.2300 Fax: 905.619.2375
Web: www.hvacdesigns.ca E-mail: info@hvacdesigns.ca

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: 32-7-15	BUILDER: BAYVIEW WELLINGTON
SFQT: 2061	SITE: ALCONA

DESIGN ASSUMPTIONS	same as above
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HEATING	same as above	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):	27602.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	4
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: 49.0 ft	WIDTH: 27.0 ft	EXPOSED PERIMETER:	152.0 ft

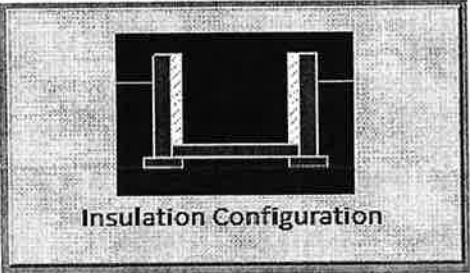
2012 OBC - COMPLIANCE PACKAGE		
Component	Compliance Package A1	
	Nominal	Min. Eff.
Ceiling with Attic Space Minimum RSI (R)-Value	60	59.22
Ceiling Without Attic Space Minimum RSI (R)-Value	31	27.65
Exposed Floor Minimum RSI (R)-Value	31	29.8
Walls Above Grade Minimum RSI (R)-Value	22	17.03
Basement 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

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 dand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	14.9	 Insulation Configuration
Floor Width (m):	8.2	
Exposed Perimeter (m):	0.0	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.83	
Window Area (m ²):	2.9	
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):		1540



HVAC Designs Ltd.
375 Finley Ave, Suite 202
Ajax ON, L1S 2E2
905-619-2300

Air Infiltration Residential Load Calculator

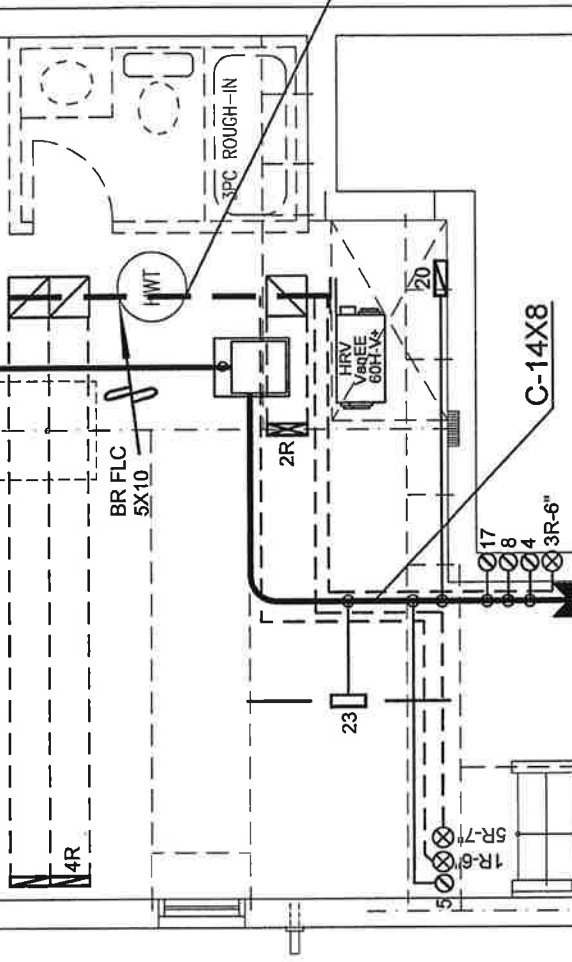
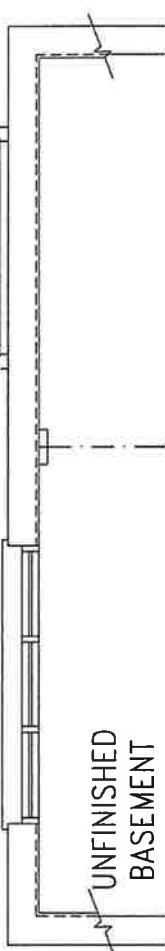
Supplemental tool for CAN/CSA-F280

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):	781.6		
Air Leakage/Ventilation			
Air Tightness Type:	Present (1961-) (3.57 ACH)		
Custom BDT Data:	ELA @ 10 Pa.	1041.9 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):	0.089		

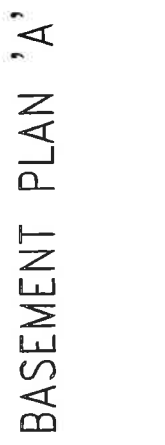
TYPE: 32-7-15
LO# 74586

PLAN 'A' & 'B'

UNFINISHED BASEMENT



UNEXCAVATED
(REMOVE TOP SOIL ONLY)



CSA-F280-12
PACKAGE A1

06/03/2018 2:51:28 PM kgervais

 SIMPSON STRONG-TIE SUPPLY & AIR FOOT ABOVE	 6" SILLIPY AIR STACK 2nd FI COR	 FRA - FLOOR RETURN AIR GRILLE	 REDUCER	REVISIONS
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[illegible]

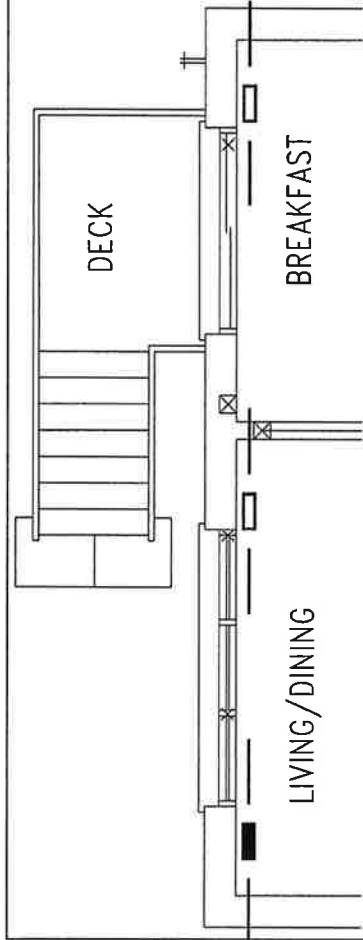
HVAC DESIGNS LTD.

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

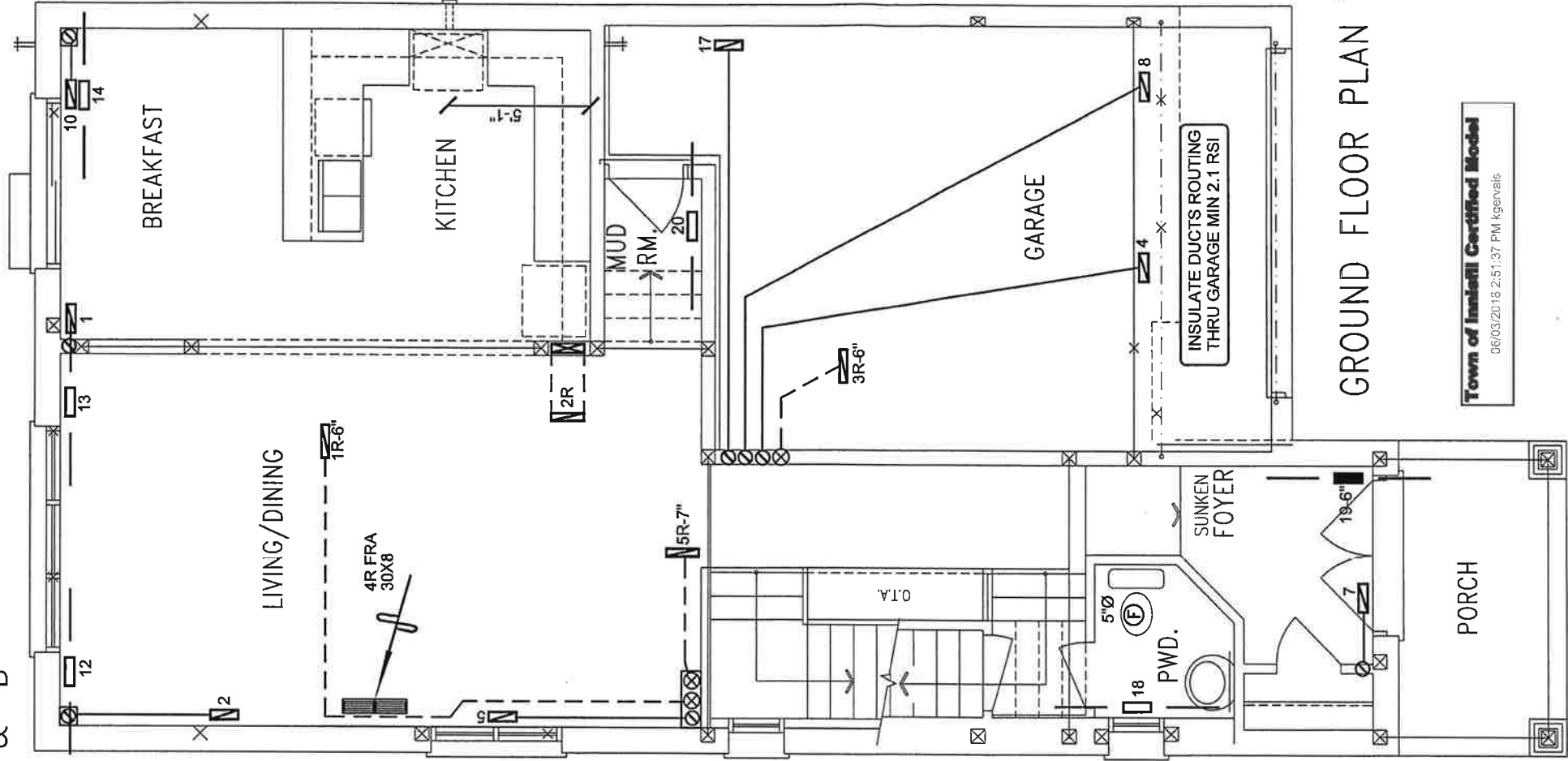
Specializing in Residential Mechanical Design Services
Web: www.hvacdesigns.ca

32-7-15 2061 soft

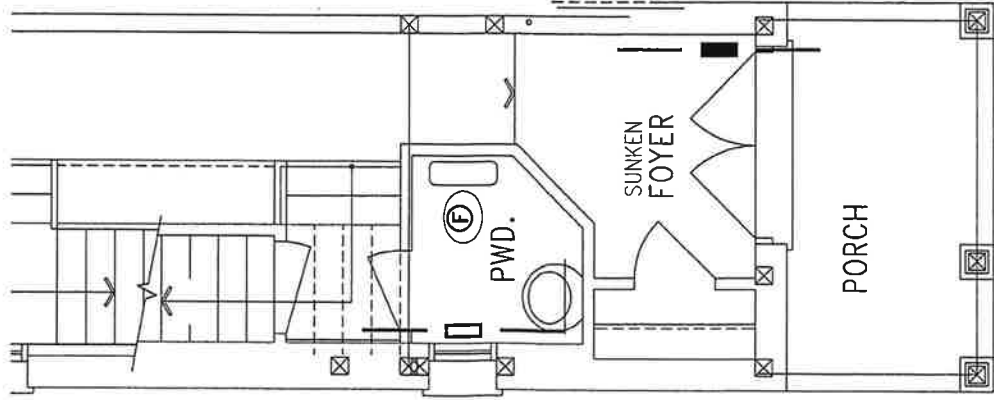
32-7-15



PARTIAL GROUND FLOOR PLAN 'A' & 'B'
W.O.D. 9R AND MORE COND.



GROUND FLOOR PLAN 'A'



GROUND FLOOR PLAN 'B'

TAKING CHARGE OF THE REVIEW
AND TAKE RESPONSIBILITY FOR THE
USE OF THESE DRAWINGS AFTER ONE YEAR FROM THE DATED NOTED IS NOT AUTHORIZED. CONTRACTOR SHALL CHECK ALL CONDITIONS BEFORE PROCEEDING WITH WORK. LATEST MUNICIPAL APPROVED DRAWINGS ONLY TO BE
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ONTARIO BUILDING CODE.

Michael J. O'Connell
HVAC DESIGNS LTD.
19669

CSA-F280-12

PACKAGE A1

Town of Inverell Certified Model
06/03/2018 2:51:37 PM kgervais

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

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Client

BAYVIEW WELLINGTON

Project Name

ALCONA
INNISFIL, ONTARIO

HVAC DESIGNS 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

FIRST FLOOR
HEATING
LAYOUT

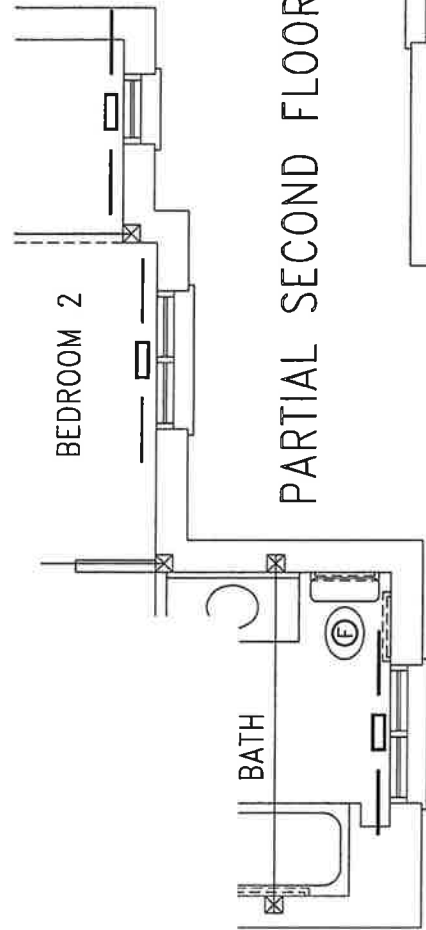
Date JUNE/2017

Scale 3/16" = 1'-0"

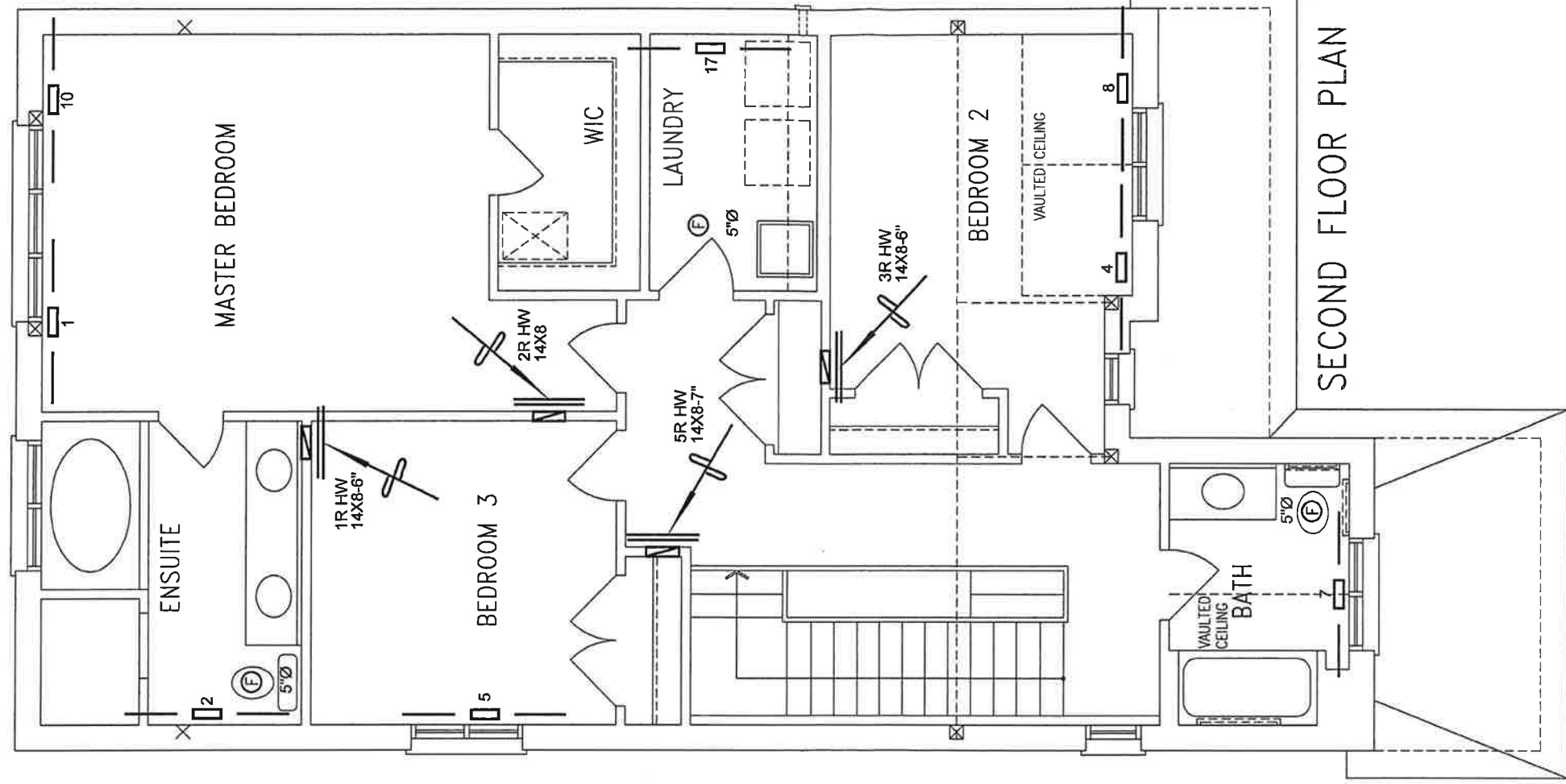
BCIN# 19669

LO# 74586

32-7-15 2061 sqft



PARTIAL SECOND FLOOR PLAN 'B'



SECOND FLOOR PLAN 'A'

Town of Innisfil Certified Model
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CSA-F280-12
PACKAGE A1

HVAC LEGEND					3.	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.
	FLOOR SUPPLY AIR GRILLE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.
	FLOOR SUPPLY AIR GRILLE 6" BOOT		30"x48" RETURN AIR GRILLE		RETURN AIR STACK 2nd FLOOR	No.
	SUPPLY AIR BOOT ABOVE		FRA- FLOOR RETURN AIR GRILLE		REDUCER	REVISIONS

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BAYVIEW WELLINGTON
Client

ALCONA
Project Name

INNISFIL, ONTARIO

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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.

SECOND FLOOR HEATING LAYOUT
Sheet Title

Date JUNE/2017
Scale 3/16" = 1'-0"
BCIN# 19669
LO# 74586

32-7-15

2061 sqft

