

ROOM USE	EXP. WALL		CLG. HT.		FAM		K/B		L/H		LND		FOY		MUD		WUB		BAS	
	50		10		35		44		10		7		28		24		25		157	
					10		10				9		11		11		6		8	
GRS.WALL AREA	LOSS GAIN		500		350		440		100		63		308		264		200		785	
GLAZING	LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN	
NORTH	19.8	16.0	0	0	0	0	0	0	8	158	128	18	356	285	7	138	112	0	0	0
EAST	19.8	41.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH	19.8	24.9	36	712	896	0	0	0	16	316	398	0	0	0	0	0	0	0	6	119
WEST	19.8	41.6	0	0	0	46	909	1911	33	652	1371	0	0	0	0	0	0	0	3	59
SKYLT.	34.6	101.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DOORS	23.5	4.3	0	0	0	0	0	0	20	469	85	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.1	0.8	484	1924	349	384	1260	228	363	1505	273	82	340	62	56	232	42	180	746	135
NET EXPOSED BSMT WALL ABOVE GR	3.3	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.2	0.6	0	0	0	0	0	0	29	35	17	0	0	0	126	150	74	0	0	0
NO ATTIC EXPOSED CLG	2.6	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.4	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS																				
SLAB ON GRADE HEAT LOSS																				
SUBTOTAL HT LOSS			2635			2170			3135			696			521			217		7482
SUB TOTAL HT GAIN				1245		2140		2272		349		228		2013		258		220		692
LEVEL FACTOR / MULTIPLIER	0.30	0.40			0.30	0.40		0.30	0.40		0.30	0.20	0.23		0.30	0.40		0.50	0.96	
AIR CHANGE HEAT LOSS			1042			856		1239		275		121		1113		585			8519	
AIR CHANGE HEAT GAIN				83		142		151		23		15			134		18			61
DUCT LOSS			0			0		0		0		0		0		0			0	
DUCT GAIN			0			0		0		0		0		0		0			0	
HEAT GAIN PEOPLE	240		0		0	0		0	0	0		0		0		0		0	0	
HEAT GAIN APPLIANCES/LIGHTS				427		427		427		427		427				427		0	0	427
TOTAL HT LOSS BTU/H			3577			3027		4375		971		642		3927		2066		1433		16001
TOTAL HT GAIN x 1.3 BTU/H				2262		3522		3706		1039		871			2791		927		296	1534

CITY OF HAMILTON
Building Division

Permit No. 21-107192

THESE STAMPED DRAWINGS SHALL BE AVAILABLE TO THE OWNER AND/OR CONTRACTOR FOR SHAL COMPLIANCE WITH THE ONTARIO BUILDING CODE AND ALL OTHER APPLICABLE LAW

These drawings and/or specifications have been reviewed by CW 04/09/21

FOR CHIEF BUILDING OFFICIAL 220

TOTAL HEAT GAIN BTU/H: 41298	TONS: 3.44	LOSS DUE TO VENTILATION LOAD BTU/H: 1515	STRUCTURAL HEAT LOSS: 5449	TOTAL COMBINED HEAT LOSS BTU/H: 55964
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SITE NAME: RUSSEL GARDENS PHASE 3
BUILDER: GREENPARK HOMES

LOT 280
TYPE: MOUNTAINASH 6

DATE: Aug-20

GFA: 3360 LO# 87377

HEATING CFM 1504 COOLING CFM 1504
TOTAL HEAT LOSS 54,449 TOTAL HEAT GAIN 41,023
AIR FLOW RATE CFM 27.62 AIR FLOW RATE CFM 36.66

furnace pressure 0.6
furnace filter 0.05
a/c coil pressure 0.2
available pressure for s/a & r/a 0.35

#*GOODMAN
GMEC960804CNA 80
FAN SPEED LOW 868
MEDLOW 978
MEDIUM 1112
MEDIUM HIGH 1504
HIGH 1615

AFUE = 96 %
INPUT (BTU/h) = 80,000
OUTPUT (BTU/h) = 76,800

DESIGN CFM = 1504
CFM @ .8" E.S.P.

TEMPERATURE RISE 47 °F

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	17	10	5
R/A	0	0	6	3	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	S-ENS	BED-5	WIC-3	MBR	ENS-3	L/D	FAM	K/B	K/B	L/H	LND	FOY	FOY	MUD	BAS	BAS	BAS	BAS
RM LOSS MBH	1.28	1.02	0.56	2.03	1.30	1.67	0.30	1.02	1.37	1.28	0.56	1.84	1.51	2.19	2.19	0.97	0.64	1.96	1.96	2.07	3.49	3.49	3.49	3.49
CFM PER RUN HEAT	35	28	15	56	36	46	8	23	38	35	15	51	42	60	60	27	18	54	54	57	96	96	96	96
RM GAIN MBH	1.77	1.01	0.74	2.28	1.96	1.63	0.40	1.20	2.78	1.77	0.93	1.14	1.76	1.85	1.85	1.04	0.87	1.40	1.40	0.93	0.36	0.36	0.36	0.36
CFM PER RUN COOLING	65	37	27	83	72	60	15	44	102	65	34	42	65	68	68	38	32	51	51	34	13	13	13	13
ADJUSTED PRESSURE	0.17	0.17	0.17	0.16	0.17	0.17	0.17	0.17	0.16	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	0.16
ACTUAL DUCT LGH	36	48	22	65	67	49	44	34	56	28	45	35	26	31	24	19	49	53	46	23	36	22	33	33
EQUIVALENT LENGTH	110	170	170	150	200	190	170	150	160	170	180	120	120	140	130	100	180	140	130	130	100	120	120	180
TOTAL EFFECTIVE LENGTH	146	218	192	215	267	239	214	184	216	196	225	155	146	171	154	119	229	193	176	153	136	142	153	213
ADJUSTED PRESSURE	0.12	0.08	0.09	0.08	0.06	0.07	0.08	0.09	0.08	0.09	0.08	0.11	0.12	0.1	0.11	0.14	0.08	0.09	0.1	0.11	0.12	0.11	0.11	0.08
ROUND DUCT SIZE	5	4	4	6	5	4	6	5	6	5	4	4	5	5	5	4	4	5	5	5	6	6	6	6
HEATING VELOCITY (ft/min)	257	321	172	286	184	338	92	143	194	257	172	585	308	441	441	310	207	396	396	419	489	489	489	489
COOLING VELOCITY (ft/min)	477	424	310	423	367	441	172	224	520	477	390	482	477	499	499	436	367	374	374	250	66	66	66	66
OUTLET GRILL SIZE	3X10	3X10	3X10	4X10	4X10	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10	4X10
TRUNK	F	C	F	C	A	C	B	C	B	F	C	B	F	D	D	F	C	A	A	F	F	D	C	A

RUN #	25	26	27	28	29	30	31	32
ROOM NAME	BED-2	BED-3	ENS	S-ENS	FAM	L/D	BAS	BED-3
RM LOSS MBH	2.03	1.30	1.02	0.30	1.51	1.84	3.49	1.30
CFM PER RUN HEAT	56	36	28	8	42	51	96	36
RM GAIN MBH	2.28	1.96	1.01	0.40	1.76	1.14	0.36	1.96
CFM PER RUN COOLING	83	72	37	15	65	42	13	72
ADJUSTED PRESSURE	0.16	0.17	0.17	0.17	0.17	0.17	0.16	0.17
ACTUAL DUCT LGH	60	74	44	40	14	49	46	70
EQUIVALENT LENGTH	180	200	180	180	150	170	160	200
TOTAL EFFECTIVE LENGTH	240	274	224	220	164	219	206	270
ADJUSTED PRESSURE	0.07	0.06	0.08	0.08	0.1	0.08	0.08	0.06
ROUND DUCT SIZE	6	6	4	4	5	6	6	6
HEATING VELOCITY (ft/min)	286	184	321	92	308	374	489	184
COOLING VELOCITY (ft/min)	423	367	424	172	477	308	66	367
OUTLET GRILL SIZE	4X10	4X10	3X10	3X10	3X10	4X10	4X10	4X10
TRUNK	B	A	C	B	F	A	A	A

SUPPLY AIR TRUNK SIZE										RETURN AIR TRUNK SIZE									
TRUNK	STATIC	ROUND	RECT	VELOCITY						TRUNK	STATIC	ROUND	RECT	VELOCITY					
CFM	PRESS.	DUCT	DUCT							CFM	PRESS.	DUCT	DUCT						
TRUNK A	459	0.06	11.3	14	X	8	590			TRUNK G	0	0.00	0	0	X	8	0		
TRUNK B	620	0.06	12.6	18	X	8	620			TRUNK H	0	0.00	0	0	X	8	0		
TRUNK C	935	0.06	14.7	26	X	8	647			TRUNK I	0	0.00	0	0	X	8	0		
TRUNK D	216	0.10	7.5	8	X	8	486			TRUNK J	0	0.00	0	0	X	8	0		
TRUNK E	1151	0.06	15.9	30	X	8	691			TRUNK K	0	0.00	0	0	X	8	0		
TRUNK F	349	0.09	9.2	10	X	8	628			TRUNK L	0	0.00	0	0	X	8	0		

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	75	75	135	115	75	75	185	400	135	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	71	68	57	74	67	69	21	23	38	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EQUIVALENT LENGTH	245	235	215	235	220	215	155	160	285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL EFFECTIVE LH	316	303	272	309	287	284	176	183	323	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ADJUSTED PRESSURE	0.05	0.05	0.05	0.05	0.05	0.05	0.08	0.08	0.05	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	6	7.5	7	6	6	7.5	9.9	7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INLET GRILL SIZE	8	8	8	8	8	8	8	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INLET GRILL SIZE	14	14	14	14	14	14	14	30	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TYPE: MOUNTAINASH 6
 SITE NAME: RUSSEL GARDENS PHASE 3

 LO # 87377
 LOT 280

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	9 @ 10.6 cfm	95.4 cfm
Table 9.32.3.A. TOTAL		222.6 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	222.6	cfm
Less Principal Ventil. Capacity	79.5	cfm
Required Supplemental Capacity	143.1	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANEE 65H	Location: BSMT
79.5 cfm	3.0 sones
☒ HVI Approved	

PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	ΔT °F	FACTOR	% LOSS
79.5 CFM	71 F	1.08	0.25

SUPPLEMENTAL FANS		PANASONIC	
Location	Model	cfm	HVI
ENS	FV-05-11VK1	50	☒
S-ENS	FV-05-11VK1	50	☒
ENS-3	FV-05-11VK1	50	☒

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANEE 65H		
155	cfm high	64 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: GREENPARK HOMES	
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:	<i>Michael O'Rourke</i>
HRAI #	001820
Date:	August-20

CSA F280-12 Residential Heat Loss and Heat Gain Calculations
Formula Sheet (For Air Leakage / Ventilation Calculation)

LO#: 87377

Model: MOUNTAINASH 6

Builder: GREENPARK HOMES

Date: 28/08/2020

Volume Calculation

House Volume			
Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)
Bsmt	1480	8	11840
First	1480	10	14800
Second	1880	9	16920
Third	0	9	0
Fourth	0	9	0
Total:			43,560.0 ft³
Total:			1233.5 m³

Air Change & Delta T Data

WINTER NATURAL AIR CHANGE RATE	0.310
SUMMER NATURAL AIR CHANGE RATE	0.111

Design Temperature Difference				
	Tin °C	Tout °C	ΔT °C	ΔT °F
Winter DTDh	22	-17	39	71
Summer DTDc	24	31	7	13

5.2.3.1 Heat Loss due to Air Leakage

$$HL_{airb} = LR_{airh} \times \frac{V_b}{3.6} \times DTD_h \times 1.2$$

$$0.310 \times 342.63 \times 39^\circ\text{C} \times 1.2 = 4993 \text{ W}$$

$$= 17037 \text{ Btu/h}$$

6.2.6 Sensible Gain due to Air Leakage

$$HG_{salb} = LR_{airc} \times \frac{V_b}{3.6} \times DTD_c \times 1.2$$

$$0.111 \times 342.63 \times 7^\circ\text{C} \times 1.2 = 324 \text{ W}$$

$$= 1106 \text{ Btu/h}$$

5.2.3.2 Heat Loss due to Mechanical Ventilation

$$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$$

$$80 \text{ CFM} \times 71^\circ\text{F} \times 1.08 \times 0.25 = 1515 \text{ Btu/h}$$

6.2.7 Sensible heat Gain due to Ventilation

$$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$$

$$80 \text{ CFM} \times 13^\circ\text{F} \times 1.08 \times 0.25 = 275 \text{ Btu/h}$$

5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)

$$HL_{airr} = \text{Level Factor} \times HL_{airbv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{agclevel} + HL_{bgclevel})\}$$

Level	Level Factor (LF)	HLairve Air Leakage + Ventilation Heat Loss (Btu/h)	Level Conductive Heat Loss: (HL _{level})	Air Leakage Heat Loss Multiplier (LF x HLairbv / HLlevel)
1	0.5	17,037	8,915	0.956
2	0.3		12,931	0.395
3	0.2		14,663	0.232
4	0		0	0.000
5	0		0	0.000

*HLairbv = Air leakage heat loss + ventilation heat loss

*For a balanced or supply only ventilation system HLairve = 0

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: MOUNTAINASH 6	LOT 280	BUILDER: GREENPARK HOMES
SFQT: 3360	LO# 87377	SITE: RUSSEL GARDENS PHASE 3

DESIGN ASSUMPTIONS

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	1	OUTDOOR DESIGN TEMP.	88
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	75

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):	43560.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.50	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	5.0 ft
LENGTH: 55.0 ft	WIDTH: 36.0 ft	EXPOSED PERIMETER:	157.0 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	29.80
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	-

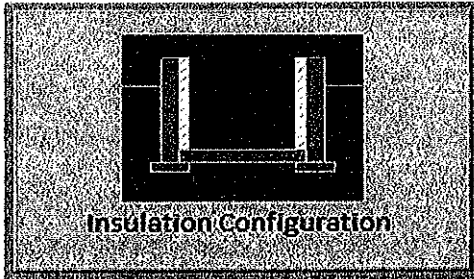
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

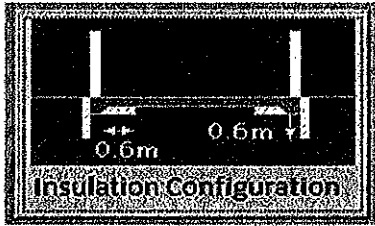
Weather Station Description		
Province:	Ontario	
Region:	Hamilton	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	16.8	 Insulation Configuration
Floor Width (m):	11.0	
Exposed Perimeter (m):	47.9	
Wall Height (m):	2.4	
Depth Below Grade (m):	1.52	
Window Area (m ²):	1.1	
Door Area (m ²):	3.7	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):	1524	

TYPE: MOUNTAINASH 6
LO# 87377

LOT 280

Residential Slab on Grade Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Hamilton	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Length (m):	1.5	
Width (m):	4.6	
Exposed Perimeter (m):	7.6	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Results		
Heating Load (Watts):		64

TYPE: MOUNTAINASH 6
LO# 87377

LOT 280

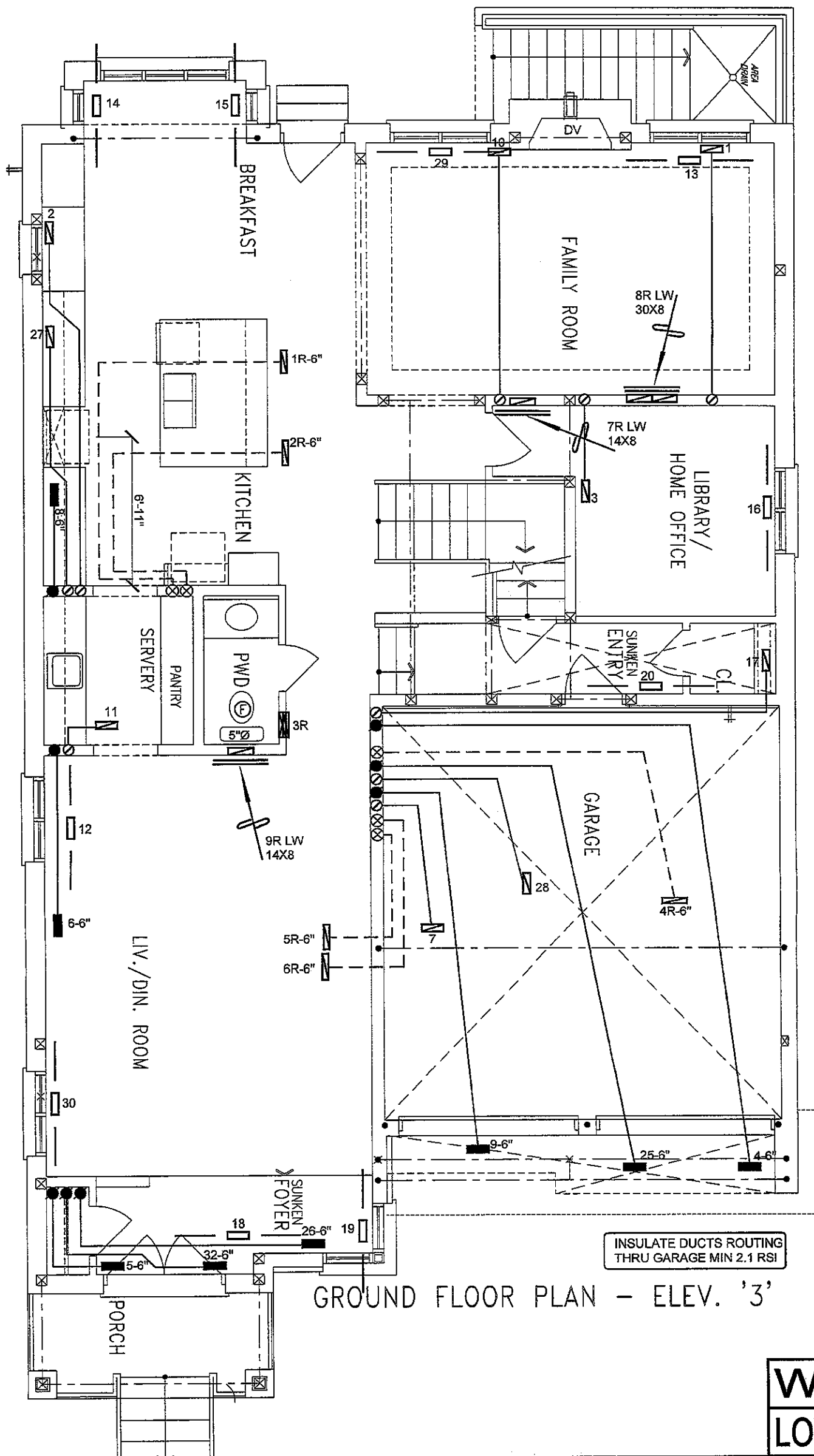
Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description			
Province:	Ontario		
Region:	Hamilton		
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):	1233.5		
Air Leakage/Ventilation			
Air Tightness Type:	Present (1961-) (3.57 ACH)		
Custom BDT Data:	ELA @ 10 Pa.	1644.3 cm ²	
	3.57	ACH @ 50 Pa	
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust	
	37.5	37.5	
Flue Size			
Flue #:	#1	#2	#3 #4
Diameter (mm):	0	0	0 0
Natural Infiltration Rates			
Heating Air Leakage Rate (ACH/H):	0.310		
Cooling Air Leakage Rate (ACH/H):	0.111		

TYPE: MOUNTAINASH 6
LO# 87377

LOT 280



GROUND FLOOR PLAN - ELEV. '3'

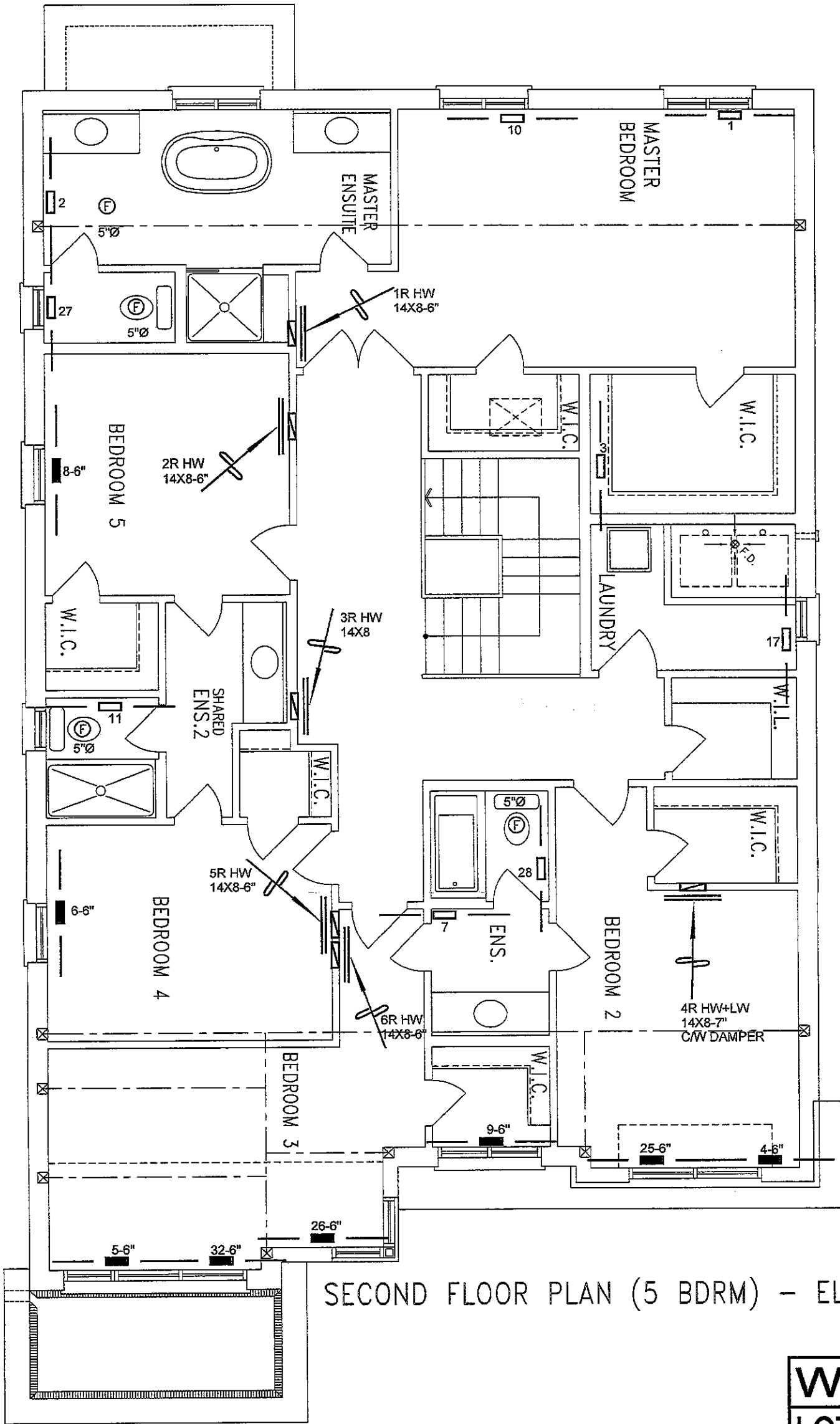
I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C.3.2.5 OF THE BUILDING CODE.
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

WUB CSA-F280-12
LOT 280 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.
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	
REVISIONS								Date

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Client GREENPARK HOMES		 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 RUSSEL GARDENS PHASE 3 HAMILTON, ONTARIO			Date AUG/2020	
LOT 280			Scale 3/16" = 1'-0"	
MOUNTAINASH 6 3360 sqft			BCIN# 19669	
			LO# 87377	



SECOND FLOOR PLAN (5 BDRM) - ELEV. '3'

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.

WUB CSA-F280-12
LOT 280 PACKAGE A1

HVAC LEGEND							3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION		
	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.	Date
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	REVISIONS	

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Client GREENPARK HOMES		 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 RUSSEL GARDENS PHASE 3 HAMILTON, ONTARIO			Date AUG/2020	
LOT 280			Scale 3/16" = 1'-0"	
MOUNTAINASH 6 3360 sqft			BCIN# 19669	
			LO# 87377	