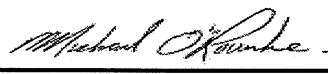


Schedule 1: Designer Information

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 VAUGHAN (WOODBIDGE)	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]				
<input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings <input checked="" type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection <input type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> 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: 4004 THE DALERIDGE Project: PINE VALLEY & TESTON		
D. Declaration of Designer				
I, <u>MICHAEL O'ROURKE</u> (print name)		declare that (choose one as appropriate):		
<input type="checkbox"/> 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: _____				
<input checked="" type="checkbox"/> 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>				
<input type="checkbox"/> 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.				
January 23, 2018 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: PINE VALLEY & TESTON				TYPE: 4004 THE DALERIDGE				GFA: 3341		DATE: Jan-18		WINTER NATURAL AIR CHANGE RATE 0.340		HEAT LOSS ΔT °F. 76		CSA-F280-12	
BUILDER: GOLD PARK HOMES				ENS		WIC		BED-2		BED-3		BED-4		ENS-2		SB-12 PACKAGE A1	
ROOM USE	MBR	EXP. WALL	CLG. HT.	ENS	WIC	BED-2	BED-3	BED-4	ENS-2	LOFT	ENS-3	ENS-3	ENS-3	ENS-3	ENS-3	ENS-3	ENS-3
EXP. WALL	33	10	9	29	10	12	38	13	6	40	6	6	6	6	6	6	6
CLG. HT.	10	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
FACTORS																	
GRS.WALL AREA	330			261	90	108	342	117	54	360	54	54	54	54	54	54	54
GLAZING	LOSS	GAIN	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS
NORTH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EAST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SKYLT.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DOORS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	290	1294	269	1053	219	90	402	83	282	1258	262	99	442	92	46	205	43
NET EXPOSED BMT WALL ABOVE GR	3.6	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0.6	270	347	172	210	270	134	160	205	102	192	246	123	84	108	54
NO ATTIC EXPOSED CLG	2.7	1.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.6	0.5	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
SLAB ON GRADE HEAT LOSS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	2492	2137	1855	1855	607	1031	3575	1092	560	3476	863	863	863	863	863	863	863
SUB TOTAL HT GAIN	0.20	0.27	0.20	0.27	0.20	0.27	0.20	0.27	0.20	0.27	0.20	0.27	0.20	0.27	0.20	0.27	0.20
LEVEL FACTOR / MULTIPLIER	684	509	509	509	167	283	981	300	154	954	237	237	237	237	237	237	237
AIR CHANGE HEAT LOSS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AIR CHANGE HEAT GAIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DUCT LOSS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAT GAIN PEOPLE	2	480	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS	733	733	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL HT LOSS BTU/H	3176	4616	2364	2364	774	1314	5012	1392	785	4431	1210	1210	1210	1210	1210	1210	1210
TOTAL HT GAIN x 1.3 BTU/H	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ROOM USE	DIN	KT/GT	LN/MD	ENS-4	FOY	STUDY	BAS
EXP. WALL	24	76	21	11	50	10	180
CLG. HT.	11	11	13	9	11	11	10
FACTORS							
GRS.WALL AREA	264	836	273	99	550	110	1260
GLAZING	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS
NORTH	0	0	8	0	0	23	489
EAST	0	0	170	0	0	489	387
SOUTH	0	0	0	0	45	958	1908
WEST	26	0	0	8	0	0	0
SKYLT.	553	669	0	170	0	0	0
DOORS	669	3192	0	206	0	0	0
NET EXPOSED WALL	0	0	0	0	0	0	0
NET EXPOSED BMT WALL ABOVE GR	0	0	0	0	0	0	0
EXPOSED CLG	0	0	0	0	0	0	0
NO ATTIC EXPOSED CLG	0	0	0	176	0	0	0
EXPOSED FLOOR	0	0	0	226	0	0	0
BASEMENT/CRAWL HEAT LOSS	0	0	0	0	0	0	0
SLAB ON GRADE HEAT LOSS	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	1615	6253	1769	802	3627	878	8838
SUB TOTAL HT GAIN	890	6995	487	403	2463	467	744
LEVEL FACTOR / MULTIPLIER	0.30	0.48	0.30	0.20	0.30	0.30	0.50
AIR CHANGE HEAT LOSS	769	2978	842	220	1727	418	11224
AIR CHANGE HEAT GAIN	84	657	44	38	231	44	70
DUCT LOSS	0	0	0	0	0	0	0
DUCT GAIN	0	0	0	0	0	0	0
HEAT GAIN PEOPLE	240	0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS	733	733	733	0	0	733	733
TOTAL HT LOSS BTU/H	2385	9231	2611	1022	5354	1296	20062
TOTAL HT GAIN x 1.3 BTU/H	2219	10902	1617	573	3502	1618	2012

SITE NAME: PINE VALLEY & TESTON
BUILDER: GOLD PARK HOMES

TYPE: 4004 THE DALERIDGE

DATE: Jan-18

GFA: 3341 LO# 77459

HEATING CFM 1525 COOLING CFM 1525
TOTAL HEAT LOSS 62,417 TOTAL HEAT GAIN 47,583
AIR FLOW RATE CFM 24.43 AIR FLOW RATE CFM 32.05ALLENNOX
EL296UH090XE48C 90AFUE = 96 %
INPUT (BTU/H) = 88,000
OUTPUT (BTU/H) = 85,000

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	14	9	6
R/A	0	0	5	3	1

FAN SPEED
LOW 0
MEDIUM 1105
HIGH 1255DESIGN CFM = 1525
CFM @ 6" E.S.P.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

TEMPERATURE RISE 52 °F

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	ENS-3	LOFT	MBR	ENS-3	DIN	KT/GT	KT/GT	KT/GT	KT/GT	LN/MD	ENS	FOY	STUDY	BAS	BAS	BAS	BAS
RM LOSS MBH	1.59	1.18	0.77	1.31	2.51	1.39	0.78	1.02	2.22	1.59	1.21	2.38	2.31	2.31	2.31	2.31	56	29	65	1.30	3.34	3.34	3.34	3.34
CFM PER RUN HEAT	39	29	19	32	61	34	19	25	54	39	30	58	56	56	56	56	64	29	65	32	82	82	82	82
RM GAIN MBH	2.31	1.00	0.26	1.99	3.15	2.24	0.39	0.57	3.02	2.31	1.29	2.22	2.73	2.73	2.73	2.73	1.62	1.00	1.75	1.62	0.34	0.34	0.34	0.34
CFM PER RUN COOLING	74	32	8	64	101	72	12	18	97	74	41	71	87	87	87	87	52	32	56	52	11	11	11	11
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.16	0.17	0.17	0.17	0.16	0.17	0.17	0.17	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	71	58	51	49	42	40	37	33	44	63	35	18	45	37	39	46	11	55	16	27	36	39	28	21
TOTAL EFFECTIVE LENGTH	200	150	150	180	190	150	220	200	140	210	180	130	140	150	160	150	160	140	100	80	100	90	110	110
ADJUSTED PRESSURE	0.06	0.08	0.09	0.08	0.07	0.09	0.07	0.07	0.09	0.06	0.08	0.12	0.09	0.09	0.08	0.08	0.1	0.09	0.11	0.16	0.12	0.13	0.12	0.12
ROUND DUCT SIZE	6	4	4	5	6	6	4	4	6	6	4	5	5	5	6	6	5	4	5	4	5	5	5	5
HEATING VELOCITY (ft/min)	199	333	218	235	311	250	218	287	275	199	344	426	411	411	286	286	470	333	477	602	602	602	602	602
COOLING VELOCITY (ft/min)	377	367	92	470	515	529	138	207	495	377	470	521	639	639	444	444	382	367	411	597	81	81	81	81
OUTLET GRILL SIZE	4X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	A	A	B	B	D	C	D	C	D	A	D	C	A	A	A	A	C	C	D	C	B	B	B	C

RUN #	25	26	27	28	29
ROOM NAME	BAS	BAS	BED-3	LOFT	FOY
RM LOSS MBH	3.34	3.34	2.51	2.22	2.68
CFM PER RUN HEAT	82	82	61	54	65
RM GAIN MBH	0.34	0.34	3.15	3.02	1.75
CFM PER RUN COOLING	11	11	101	97	56
ADJUSTED PRESSURE	0.16	0.16	0.16	0.16	0.17
EQUIVALENT LENGTH	120	120	200	200	120
ADJUSTED PRESSURE	0.12	0.11	0.07	0.06	0.12
ROUND DUCT SIZE	5	5	6	6	5
HEATING VELOCITY (ft/min)	602	602	311	275	477
COOLING VELOCITY (ft/min)	81	81	515	495	411
OUTLET GRILL SIZE	3X10	3X10	4X10	4X10	3X10
TRUNK	C	D	D	D	D

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	0.06	10	12	497	0	0.00	0	0	8	0	0.06	0	0	8
TRUNK B	0.06	12.7	18	628	0	0.00	0	0	8	0	0.06	0	0	8
TRUNK C	0.06	15.3	28	665	0	0.00	0	0	8	0	0.06	0	0	8
TRUNK D	0.06	11.5	16	552	0	0.00	0	0	8	0	0.06	0	0	8
TRUNK E	0.00	0	0	0	0	0.00	0	0	8	0	0.06	0	0	8
TRUNK F	0.00	0	0	0	0	0.00	0	0	8	0	0.06	0	0	8

RETURN AIR #	1	2	3	4	5	6	7	8	BR
AIR VOLUME	155	185	85	95	170	145	305	145	0
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
ACTUAL DUCT LGH.	51	36	44	37	45	28	31	23	1
EQUIVALENT LENGTH	190	155	205	165	165	185	145	195	0
TOTAL EFFECTIVE LH	241	191	249	202	213	213	176	218	1
ADJUSTED PRESSURE	0.06	0.08	0.06	0.07	0.07	0.07	0.08	0.07	0.06
ROUND DUCT SIZE	7.5	7.5	6	6	7.5	7	9	7	0
INLET GRILL SIZE	8	8	8	8	8	8	8	8	0
INLET GRILL SIZE	X	X	X	X	X	X	X	X	X
INLET GRILL SIZE	14	14	14	14	14	14	30	14	0

TYPE: 4004 THE DALERIDGE
SITE NAME: PINE VALLEY & TESTON

LO # 77459

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

COMBUSTION APPLIANCES		9.32.3.1(1)
a)	<input checked="" type="checkbox"/> Direct vent (sealed combustion) only	
b)	<input type="checkbox"/> Positive venting induced draft (except fireplaces)	
c)	<input type="checkbox"/> Natural draft, B-vent or induced draft gas fireplace	
d)	<input type="checkbox"/> Solid Fuel (including fireplaces)	
e)	<input type="checkbox"/> No Combustion Appliances	

HEATING SYSTEM	
<input checked="" type="checkbox"/> Forced Air	<input type="checkbox"/> Non Forced Air
<input type="checkbox"/> Electric Space Heat	

HOUSE TYPE		9.32.1(2)
<input checked="" type="checkbox"/> I	Type a) or b) appliance only, no solid fuel	
<input type="checkbox"/> II	Type I except with solid fuel (including fireplaces)	
<input type="checkbox"/> III	Any Type c) appliance	
<input type="checkbox"/> IV	Type I, or II with electric space heat	
<input type="checkbox"/> Other:	Type I, II or IV no forced air	

SYSTEM DESIGN OPTIONS		O.N.H.W.P.
<input type="checkbox"/> 1	Exhaust only/Forced Air System	
<input type="checkbox"/> 2	HRV with Ducting/Forced Air System	
<input checked="" type="checkbox"/> 3	HRV Simplified/connected to forced air system	
<input type="checkbox"/> 4	HRV with Ducting/non forced air system	
<input type="checkbox"/>	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	6 @ 10.6 cfm	63.6 cfm
Other Rooms	6 @ 10.6 cfm	63.6 cfm
Table 9.32.3.A.	TOTAL	201.4 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	201.4	cfm
Less Principal Ventil. Capacity	155	cfm
Required Supplemental Capacity	46.4	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANEE 65H	Location: BSMT
155.0 cfm	3.0 sones
<input checked="" type="checkbox"/> HVI Approved	

PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	ΔT °F	FACTOR	% LOSS
155.0 CFM	76 F	1.08	0.25


SUPPLEMENTAL FANS		NUTONE	
Location	Model	cfm	HVI
ENS	QTXEN050C	50	✓
ENS-2	QTXEN050C	50	✓
ENS-3	QTXEN050C	50	✓
ENS-4	QTXEN050C	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)	<input checked="" type="checkbox"/> HVI Approved

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

BUILDER:		GOLD PARK 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:	
HRAI #	001820
Date:	January-18

CSA F280-12 Residential Heat Loss and Heat Gain Calculations																																			
Formula Sheet (For Air Leakage / Ventilation Calculation)																																			
LO#: 77459	Model: 4004 THE DALERIDGE	Builder: GOLD PARK HOMES	Date: 1/23/2018																																
Volume Calculation																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Level</th> <th>Floor Area (ft²)</th> <th>Floor Height (ft)</th> <th>Volume (ft³)</th> </tr> </thead> <tbody> <tr> <td>Bsmt</td> <td>1518</td> <td>10</td> <td>15180</td> </tr> <tr> <td>First</td> <td>1518</td> <td>11</td> <td>16698</td> </tr> <tr> <td>Second</td> <td>1852</td> <td>9</td> <td>16668</td> </tr> <tr> <td>Third</td> <td>0</td> <td>9</td> <td>0</td> </tr> <tr> <td>Fourth</td> <td>0</td> <td>9</td> <td>0</td> </tr> <tr> <td colspan="2" style="text-align: right;">Total:</td> <td></td> <td>48,546.0 ft³</td> </tr> <tr> <td colspan="2" style="text-align: right;">Total:</td> <td></td> <td>1374.7 m³</td> </tr> </tbody> </table>				Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)	Bsmt	1518	10	15180	First	1518	11	16698	Second	1852	9	16668	Third	0	9	0	Fourth	0	9	0	Total:			48,546.0 ft³	Total:			1374.7 m³
Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)																																
Bsmt	1518	10	15180																																
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Total:			48,546.0 ft³																																
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Air Change & Delta T Data																																			
		WINTER NATURAL AIR CHANGE RATE	0.340																																
		SUMMER NATURAL AIR CHANGE RATE	0.124																																
Design Temperature Difference																																			
	Tin °C	Tout °C	ΔT °C																																
Winter DTDh	22	-20	42																																
Summer DTDc	22	31	9																																
			ΔT °F																																
			76																																
			16																																
5.2.3.1 Heat Loss due to Air Leakage																																			
$HL_{airb} = LR_{airb} \times \frac{V_b}{3.6} \times DTD_h \times 1.2$																																			
0.340	x	381.85	x																																
		42 °C	x																																
		1.2	=																																
			6579 W																																
			=																																
			22448 Btu/h																																
5.2.3.2 Heat Loss due to Mechanical Ventilation																																			
$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$																																			
155 CFM	x	76 °F	x																																
		1.08	x																																
		0.25	=																																
			3181 Btu/h																																
5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)																																			
$HL_{airr} = Level Factor \times HL_{airbv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{agclevel} + HL_{bgclevel})\}$																																			
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*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:** 4004 THE DALERIDGE**BUILDER:** GOLD PARK HOMES**SFQT:** 3341**LO#** 77459**SITE:** PINE VALLEY & TESTON**DESIGN ASSUMPTIONS**

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-4	OUTDOOR DESIGN TEMP.	88
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	72

BUILDING DATA

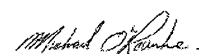
ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	EAST	ASSUMED (Y/N):	Y
AIR CHANGES PER HOUR:	3.57	ASSUMED (Y/N):	Y
AIR TIGHTNESS CATEGORY:	AVERAGE	ASSUMED (Y/N):	Y
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Y
HOUSE VOLUME (ft³):	48546.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.50	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	7.0 ft
LENGTH: 58.0 ft	WIDTH: 32.0 ft	EXPOSED PERIMETER:	180.0 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	-

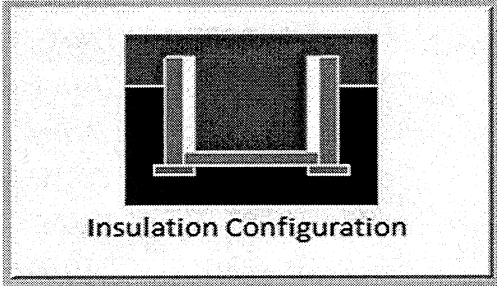
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Vaughan (Woodbridge)	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	17.7	 Insulation Configuration
Floor Width (m):	9.8	
Exposed Perimeter (m):	0.0	
Wall Height (m):	3.0	
Depth Below Grade (m):	2.13	
Window Area (m ²):	1.3	
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):	1785	

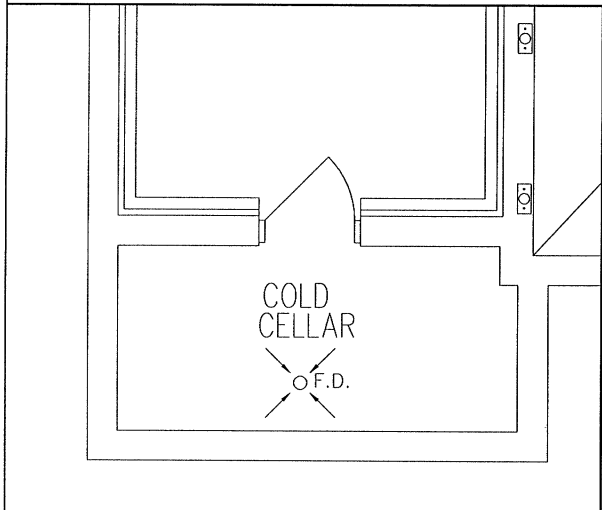
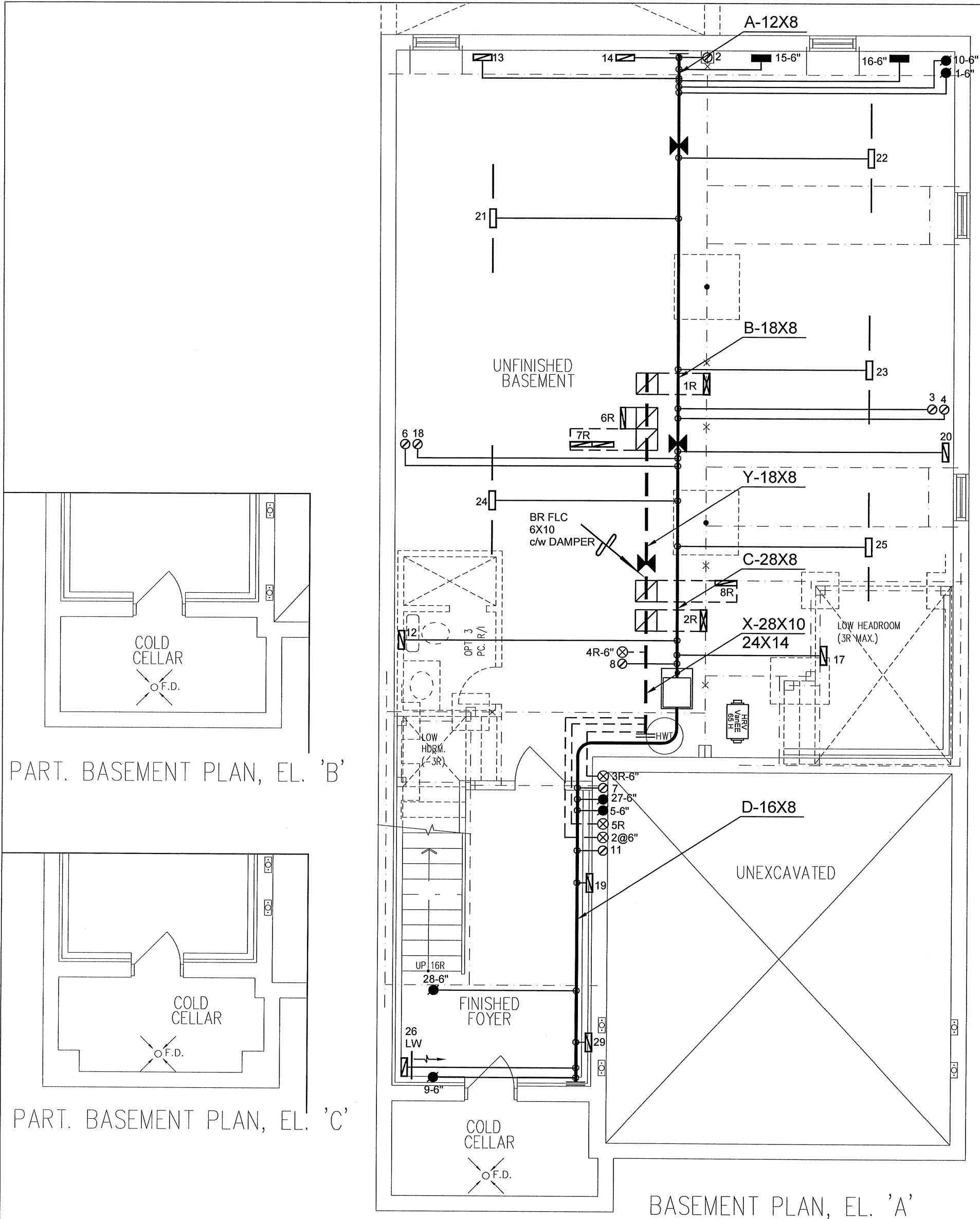
TYPE: 4004 THE DALERIDGE
LO# 77459

Air Infiltration Residential Load Calculator

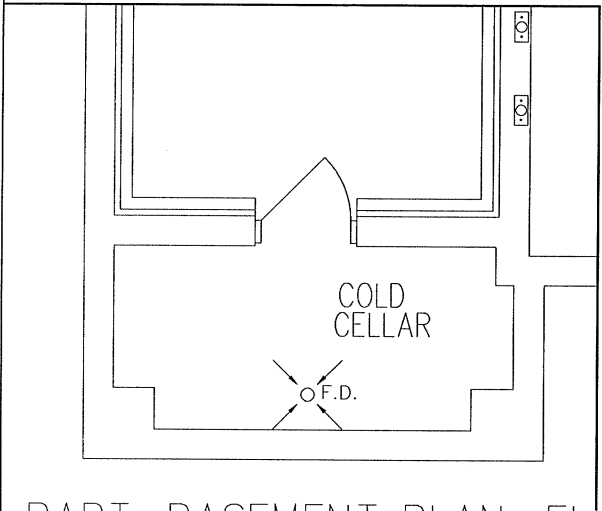
Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Vaughan (Woodbridge)			
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):	7.01			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1374.7			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1832.5 cm ²		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	73.2	73.2		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.340			
Cooling Air Leakage Rate (ACH/H):	0.124			

TYPE: 4004 THE DALERIDGE
LO# 77459



PART. BASEMENT PLAN, EL. 'B'



PART. BASEMENT PLAN, EL. 'C'

BASEMENT PLAN, EL. 'A'

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.

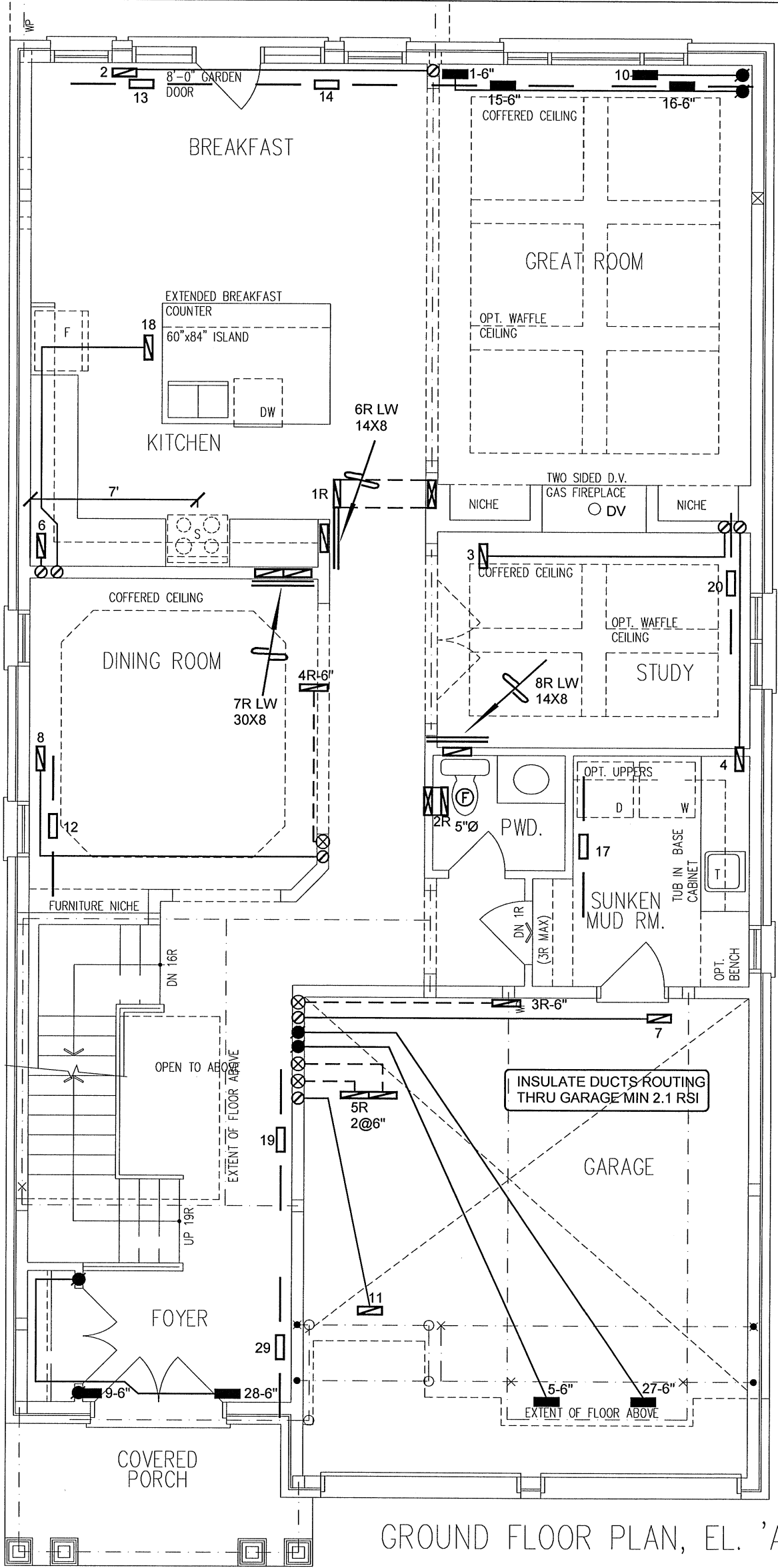
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

CSA-F280-12
PACKAGE A1

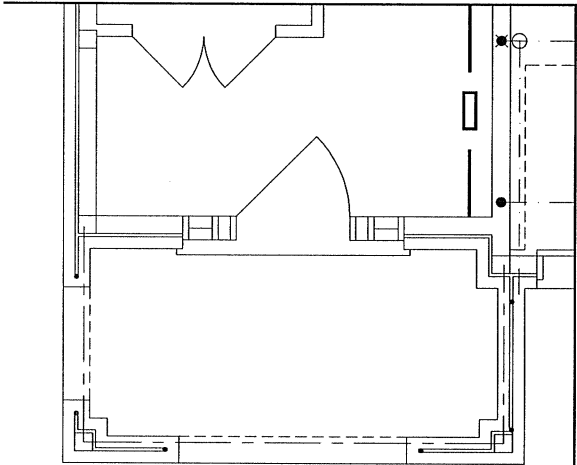
HVAC LEGEND							3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR STACK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

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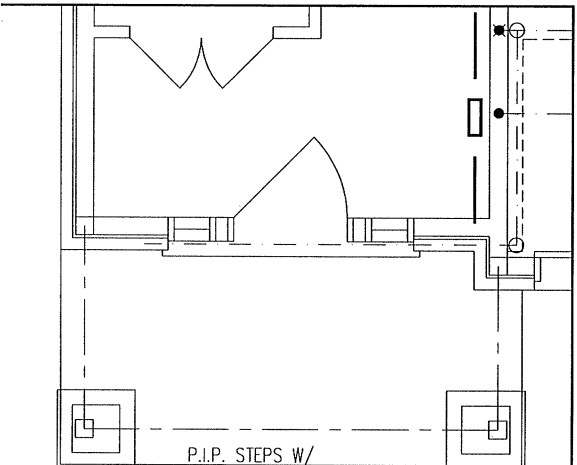
Client GOLD PARK HOMES		<div><p>375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services</p><p>Installation to comply with the latest Ontario Building Code. 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.</p></div>	HEAT LOSS 65598 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS				Sheet Title BASEMENT HEATING LAYOUT		
Project Name PINE VALLEY & TESTON VAUGHAN, ONTARIO			MAKE LENNOX		3RD FLOOR					Date JAN/2018	
			MODEL EL296UH090XE48C		2ND FLOOR		14	5	5		Scale 3/16" = 1'-0"
			INPUT 88 MBTU/H		1ST FLOOR		9	3	2		
			OUTPUT 85 MBTU/H		BASEMENT 6 1 0						LO# 77459
THE DALERIDGE 4004		COOLING 4.0 TONS		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							
3341 sqft		FAN SPEED 1525 cfm @ 0.6" w.c.									



GROUND FLOOR PLAN, EL. 'A'



GROUND FLOOR PLAN, EL. 'B'



GROUND FLOOR PLAN, EL. 'C'

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.

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
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	Date	

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Client
GOLD PARK HOMES

Project Name
**PINE VALLEY & TESTON
VAUGHAN, ONTARIO**

**THE DALERIDGE
4004**

3341 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@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**

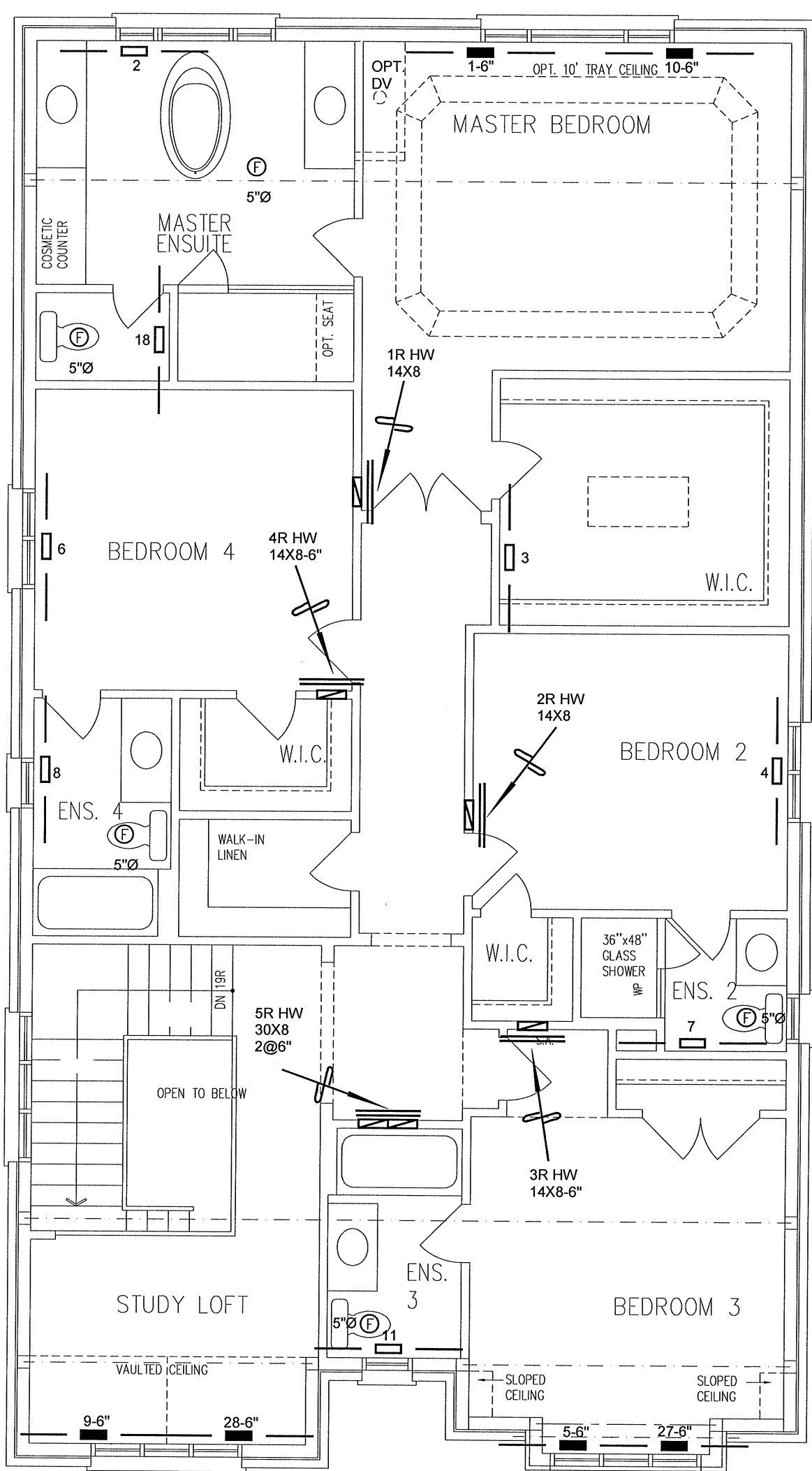
Date
JAN/2018

Scale
3/16" = 1'-0"

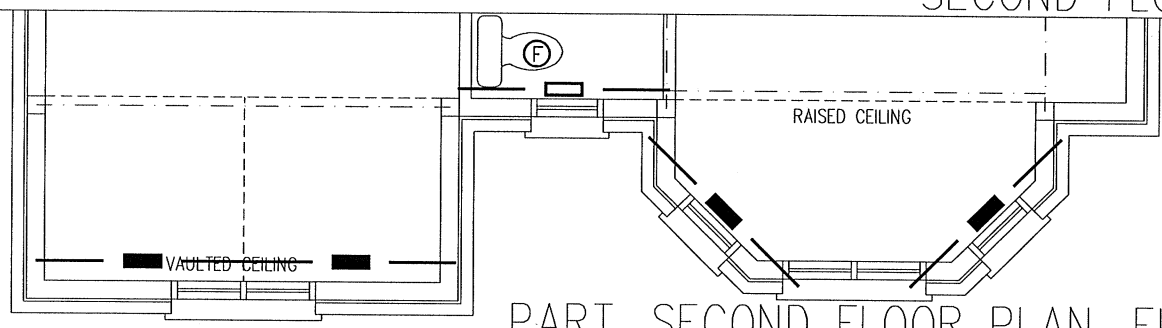
BCIN# 19669

LO# **77459**

PART. SECOND FLOOR PLAN, EL. 'C'



SECOND FLOOR PLAN, EL. 'A'



PART. SECOND FLOOR PLAN, EL. 'B'

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.

CSA-F280-12
PACKAGE A1

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

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GOLD PARK HOMES			SECOND FLOOR	
Project Name			HEATING LAYOUT	
PINE VALLEY & TESTON VAUGHAN, ONTARIO			Date	JAN/2018
THE DALERIDGE			Scale	3/16" = 1'-0"
4004	3341 sqft	BCIN# 19669		
		LO#	77459	