

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]				
☐ 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: 4000 - BRIARWOOD Project: PINE VALLEY PH 2		
D. Declaration of Designer				
I, <u>MICHAEL O'ROURKE</u> 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: <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.				
April 14, 2022		 Signature of Designer		
Date				

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: PINE VALLEY PH 2
BUILDER: GOLD PARK HOMES
TYPE: 4000 - BRIARWOOD
DATE: Apr-22
LO# 96114
GFA: 2827
WINTER NATURAL AIR CHANGE RATE 0.425
SUMMER NATURAL AIR CHANGE RATE 0.142
HEAT LOSS AT °F. 76
HEAT GAIN AT °F. 13
CSA-F280-12
SB-12 PACKAGE A1

ROOM USE	EXP. WALL	CLG. HT.	FACTORS	MBR	ENS	BED-2	BED-3	BED-4	BATH-2	MEDIA	WINTER NATURAL AIR CHANGE RATE	SUMMER NATURAL AIR CHANGE RATE	HEAT LOSS AT °F.	HEAT GAIN AT °F.
GRS.WALL AREA	GLAZING		LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN				
NORTH	21.3	16.0	0	0	22	488	351	18	383	288	0	0	0	0
EAST	21.3	41.6	0	0	0	0	0	0	50	1064	2078	0	0	0
SOUTH	21.3	24.9	0	0	0	0	0	0	0	0	0	0	8	170
WEST	21.3	41.6	42	894	1745	0	0	0	0	0	0	0	0	0
SKYLT.	37.2	101.5	0	0	0	0	0	0	0	0	0	0	16	596
DOORS	20.1	3.4	0	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.5	0.8	343	1531	258	121	540	91	368	1642	277	117	522	88
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.6	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0.6	328	421	193	32	41	19	172	221	101	182	234	107
NO ATTIC EXPOSED CLG	2.7	1.3	0	0	0	0	0	0	100	275	126	0	0	0
EXPOSED FLOOR	2.6	0.4	0	0	0	0	0	0	272	694	117	77	196	33
BASEMENT/CRAWL HEAT LOSS			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
SUBTOTAL HT LOSS			2845		1049	1499	525	461	2698	372	0.20	0.67	0.20	0.67
SUB TOTAL HT GAIN			0.30	0.34	0.30	0.34	0.30	0.67	0.20	0.67	0.20	0.67	0.20	0.67
LEVEL FACTOR / MULTIPLIER			967		357	510	45	40	2610	766	1433	189	32	357
AIR CHANGE HEAT LOSS			188		40				191	405	328	0	0	0
AIR CHANGE HEAT GAIN			0		0				240	881	0	0	0	0
DUCT LOSS			0		0				0	0	0	0	0	0
DUCT GAIN			2		480				0	0	0	0	0	0
HEAT GAIN PEOPLE	240		881		0				0	0	0	0	0	0
HEAT GAIN APPLANCES/LIGHTS			3813		1406				7156	5792	3929	4691	0	0
TOTAL HT LOSS BTU/H														
TOTAL HT GAIN x 1.3 BTU/H														

ROOM USE	EXP. WALL	CLG. HT.	FACTORS	FORM	KT/GT	LAUN	PWD	FOY	LOD	BAS
GRS.WALL AREA	GLAZING		LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN
NORTH	21.3	16.0	0	0	0	0	0	0	0	0
EAST	21.3	41.6	0	0	0	0	0	0	0	0
SOUTH	21.3	24.9	58	1234	1444	0	0	0	0	0
WEST	21.3	41.6	0	0	0	0	0	0	0	0
SKYLT.	37.2	101.5	0	0	0	0	0	0	0	0
DOORS	20.1	3.4	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.5	0.8	422	1883	317	882	3936	663	702	118
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.6	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0.6	168	216	99	432	554	254	0	0
NO ATTIC EXPOSED CLG	2.7	1.3	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.6	0.4	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS			0	0	0	0	0	0	0	0
SLAB ON GRADE HEAT LOSS			0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS			3333		7853	740	406	6491	1437	9304
SUB TOTAL HT GAIN			0.30	0.34	0.30	0.34	0.30	0.34	0.30	0.34
LEVEL FACTOR / MULTIPLIER			1133		2670	252	138	2207	1381	13723
AIR CHANGE HEAT LOSS			160		559	11	6	0	0	0
AIR CHANGE HEAT GAIN			0		0	0	0	0	0	0
DUCT LOSS			0		0	0	0	0	0	0
DUCT GAIN			0		0	0	0	0	0	0
HEAT GAIN PEOPLE	240		881		881	881	0	0	0	0
HEAT GAIN APPLANCES/LIGHTS			4466		10523	992	544	8698	1437	23027
TOTAL HT LOSS BTU/H										
TOTAL HT GAIN x 1.3 BTU/H										

TOTAL HEAT GAIN BTU/H: 42017 TONS: 3.50 LOSS DUE TO VENTILATION LOAD BTU/H: 1631 STRUCTURAL HEAT LOSS: 71796 TOTAL COMBINED HEAT LOSS BTU/H: 73428

SITE NAME: PINE VALLEY PH 2
BUILDER: GOLD PARK HOMES

TYPE: 4000 - BRIARWOOD
DATE: Apr-22
GFA: 2827
LO# 96114

GFA:	2827	LO#	96114
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DATE: Apr-22

HEATING CFM	1340	COOLING CFM	1340
TOTAL HEAT LOSS	71,796	TOTAL HEAT GAIN	41,742
AIR FLOW RATE CFM	18.66	AIR FLOW RATE CFM	32.1

ML196UH090XE48C 90
FAN SPEED LOW 0

AFUE = 96 %
INPUT (BTU/H) = 88,000
OUTPUT (BTU/H) = 85,600

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

parameter	mean	stdev	min	max	95% CI
plenum pressure s/a	0.18	0.02	0.16	0.20	0.17-0.19
max s/a dif press. loss	0.02	0.01	0.01	0.03	0.01-0.03
min adjusted pressure s/a	0.16	0.02	0.14	0.18	0.15-0.17
r/a pressure	0.17	0.02	0.15	0.19	0.16-0.18
r/a grille press. loss	0.02	0.01	0.01	0.03	0.01-0.03
adjusted pressure r/a	0.15	0.02	0.13	0.17	0.14-0.16

LOW
MEDLOW
MEDIUM
MEDIUM HIGH
HIGH

$$\frac{\text{GN CFM} = 1340}{\text{CFM @ 6" E.S.P.}}$$

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

RUN#	ROOM NAME	MBR	ENS	MEDIA	3	4	BED-2	BED-3	6	7	BED-4	BATH-2	8	9	MEDIA	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
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																															

25	RUN #
BAS	ROOM NAME
4.89	RM LOSS MBH
91	CFM PER RUN HEAT
0.53	RM GAIN MBH
17	CFM PER RUN COOLING
0.16	ADJUSTED PRESSURE
58	ACTUAL DUCT LGH
130	EQUIVALENT LENGTH
188	TOTAL EFFECTIVE LENGTH
0.09	ADJUSTED PRESSURE
6	ROUND DUCT SIZE
464	HEATING VELOCITY (ft/min)
87	COOLING VELOCITY (ft/min)
4X10	OUTLET GRILL SIZE
A	TRUNK

SUPPLY AIR TRUNK SIZE										RETURN AIR TRUNK SIZE									
TRUNK					VELOCITY (ft/min)					TRUNK					VELOCITY (ft/min)				
CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT		CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT		CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT		CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	
TRUNK A	253	8.1	8	X	8	569	0	0	0	8	0.00	0	0	0	0	0.05	0	0	0
TRUNK B	423	10.2	12	X	8	635	TRUNK H	0	0	0	0.00	0	0	0	0	0.05	0	0	0
TRUNK C	1025	14.2	24	X	8	769	TRUNK I	0	0	0	0.00	0	0	0	0	0.05	0	0	0
TRUNK D	1340	0.06	32	X	8	754	TRUNK J	0	0	0	0.00	0	0	0	0	0.05	0	0	0
TRUNK E	0	0.00	0	X	8	0	TRUNK K	0	0	0	0.00	0	0	0	0	0.05	0	0	0
TRUNK F	0	0.00	0	X	8	0	TRUNK L	0	0	0	0.00	0	0	0	0	0.05	0	0	0
TRUNK G	0	0.00	0	X	8	0	TRUNK M	0	0	0	0.00	0	0	0	0	0.05	0	0	0
TRUNK I	0	0.00	0	X	8	0	TRUNK N	0	0	0	0.00	0	0	0	0	0.05	0	0	0
TRUNK J	0	0.00	0	X	8	0	TRUNK O	0	0	0	0.00	0	0	0	0	0.05	0	0	0
TRUNK K	0	0.00	0	X	8	0	TRUNK P	0	0	0	0.00	0	0	0	0	0.05	0	0	0
TRUNK L	0	0.00	0	X	8	0	TRUNK Q	0	0	0	0.00	0	0	0	0	0.05	0	0	0
TRUNK M	0	0.00	0	X	8	0	TRUNK R	0	0	0	0.00	0	0	0	0	0.05	0	0	0
TRUNK N	0	0.00	0	X	8	0	TRUNK S	0	0	0	0.00	0	0	0	0	0.05	0	0	0
TRUNK O	0	0.00	0	X	8	0	TRUNK T	0	0	0	0.00	0	0	0	0	0.05	0	0	0

[illegible]

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'Leary

· INDIVIDUAL BCIN: 196669

MICHAEL O'ROURKE

TYPE: 4000 - BRIARWOOD
SITE NAME: PINE VALLEY PH 2

LO # 96114

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 4 @ 10.6 cfm 42.4 cfm	
Table 9.32.3.A. TOTAL 169.6 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	169.6	cfm
Less Principal Ventil. Capacity	79.5	cfm
Required Supplemental Capacity	90.1	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANEE V150H	Location: BSMT
79.5 cfm	☒ HVI Approved

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

SUPPLEMENTAL FANS		BY INSTALLING CONTRACTOR		
Location	Model	cfm	HVI	Sones
ENS	BY INSTALLING CONTRACTOR	50	☒	3.5
BATH-2	BY INSTALLING CONTRACTOR	50	☒	3.5
BATH-1	BY INSTALLING CONTRACTOR	50	☒	3.5
PWD	BY INSTALLING CONTRACTOR	50	☒	3.5

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANEE V150H		
150 cfm high	35 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: 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:	<i>Michael O'Rourke</i>
HRAI #	001820
Date:	April-22

CSA F280-12 Residential Heat Loss and Heat Gain Calculations																																																												
Formula Sheet (For Air Leakage / Ventilation Calculation)																																																												
LO#: 96114		Model: 4000 - BRIARWOOD		Builder: GOLD PARK HOMES		Date: 4/14/2022																																																						
Volume Calculation				Air Change & Delta T Data																																																								
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6.2.6 Sensible Gain due to Air Leakage																																																												
$HG_{satb} = LR_{airc} \times \frac{V_b}{3.6} \times DTD_c \times 1.2$																																																												
$= 0.142 \times 373.78 \times 7 \times 1.2 = 454 \text{ W}$																																																												
$= 27446 \text{ Btu/h}$																																																												
6.2.7 Sensible heat gain due to Ventilation																																																												
$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$																																																												
$80 \text{ CFM} \times 13 \text{ °F} \times 1.08 \times 0.25 = 275 \text{ Btu/h}$																																																												
5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)																																																												
$HL_{airr} = \text{Level Factor} \times HL_{airbv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{agclevel} + HL_{bgclevel})\}$																																																												
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Level	Level Factor (LF)	HL _{airbv} Air Leakage + Ventilation Heat Loss (Btu/h)	Level Conductive Heat Loss: (HL _{clevel})	Air Leakage Heat Loss Multiplier (LF x HL _{airbv} / HL _{clevel})																																																								
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3	0.2		8,194	0.670																																																								
4	0		0	0.000																																																								
5	0		0	0.000																																																								
*HL_{airbv} = Air leakage heat loss + ventilation heat loss *For a balanced or supply only ventilation system HL_{airve} = 0																																																												
Michael O'Rourke BCIN# 19669 																																																												

HEAT LOSS AND GAIN SUMMARY SHEET**MODEL:** 4000 - BRIARWOOD**BUILDER:** GOLD PARK HOMES**SFQT:** 2827**LO#** 96114**SITE:** PINE VALLEY PH 2**DESIGN ASSUMPTIONS**

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-4	OUTDOOR DESIGN TEMP.	88
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	75
		WINDOW SHGC	0.50

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):	47520.0	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: 70.0 ft	WIDTH: 33.0 ft	EXPOSED PERIMETER:	206.0 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	96%	-
HRV/ERV Minimum Efficiency	75%	-
Domestic Hot Water Heater Minimum EF	0.8	-

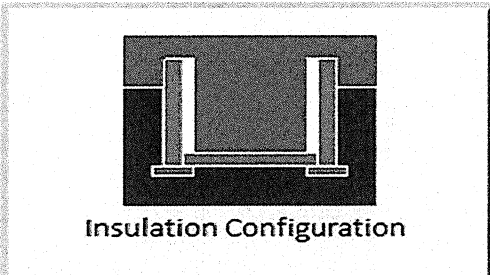
INDIVIDUAL BCIN: 19669

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):	21.3	 Insulation Configuration
Floor Width (m):	10.1	
Exposed Perimeter (m):	0.0	
Wall Height (m):	3.0	
Depth Below Grade (m):	2.13	
Window Area (m ²):	3.3	
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):		2052

TYPE: 4000 - BRIARWOOD
LO# 96114

Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

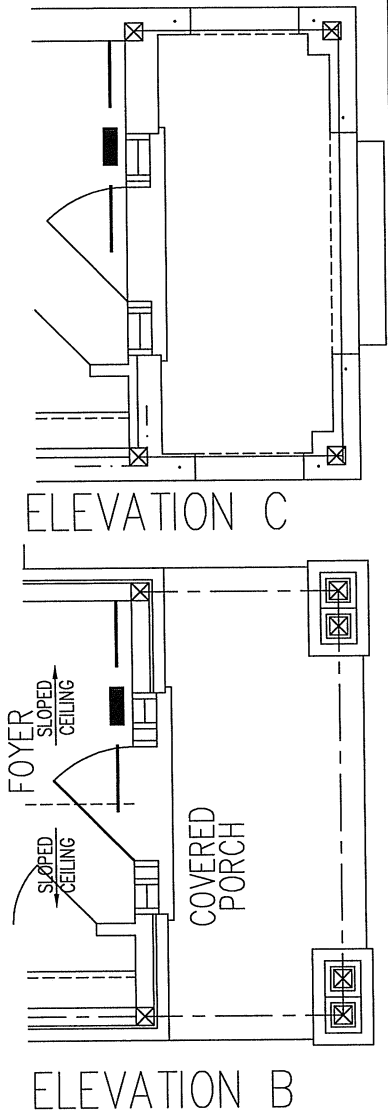
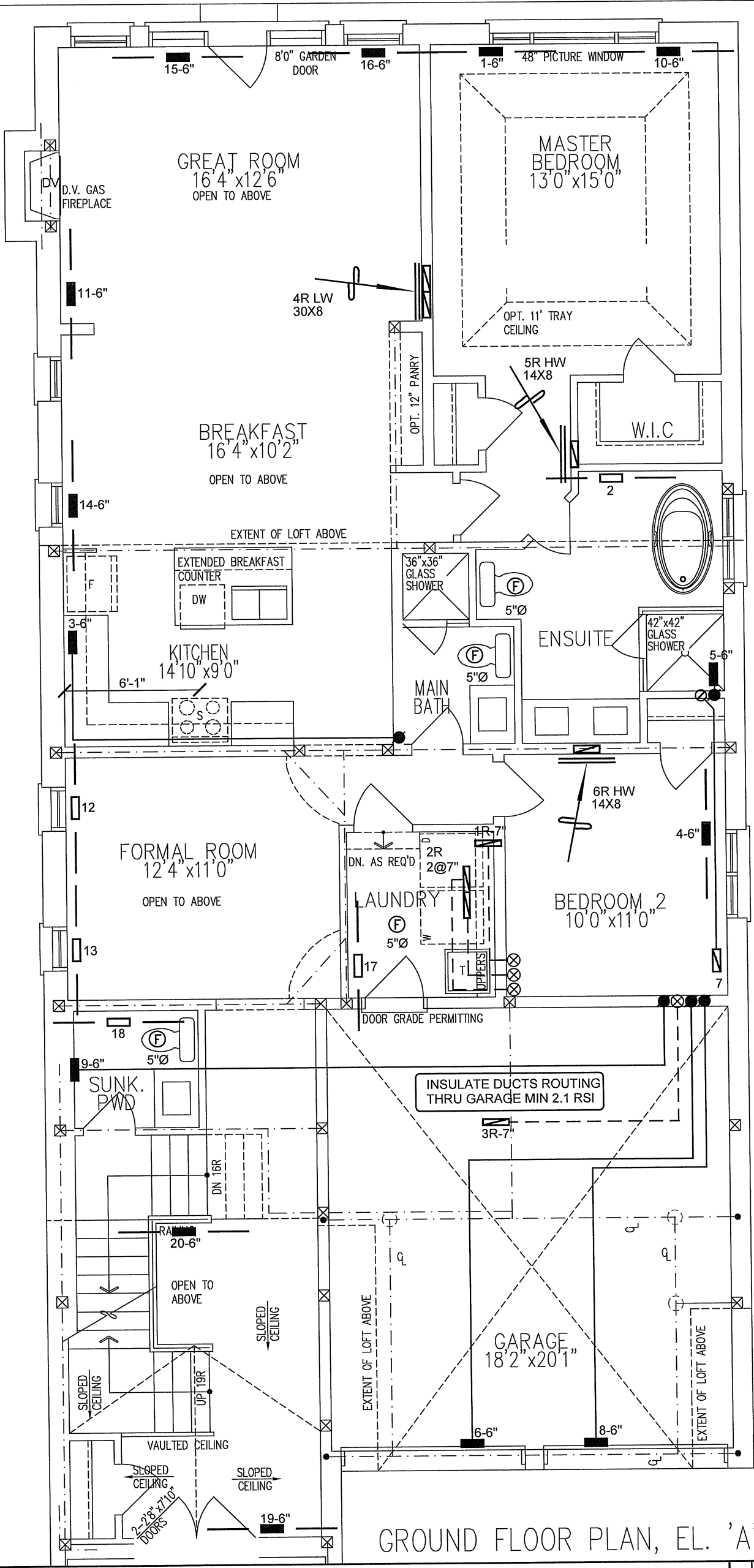
Weather Station Description				
Province:	Ontario			
Region:	Vaughan (Woodbridge)			
Weather Station Location:	Open flat terrain, grass			
Anemometer height (m):	10			
Local Shielding				
Building Site:	Suburban, forest			
Walls:	Heavy			
Flue:	Heavy			
Highest Ceiling Height (m):	9.75			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1345.6			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1793.7 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):	0.425			
Cooling Air Leakage Rate (ACH/H):	0.142			

TYPE: 4000 - BRIARWOOD
LO# 96114



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Client	HVACDESIGNSLTD. 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.	HEAT LOSS 73428 BTU/H	# OF RUNS	S/A	R/A	FANS	BASEMENT HEATING LAYOUT Date APR/2022 Scale 3/16" = 1'-0" BCIN# 19669 LO# 96114
GOLD PARK HOMES		UNIT DATA	3RD FLOOR				
Project Name PINE VALLEY PH 2 VAUGHAN, ONTARIO		MAKE LENNOX	2ND FLOOR	6	3	1	
		MODEL ML196UH090XE48C	1ST FLOOR	14	3	5	
		INPUT 88 MBTU/H	BASEMENT	5	1	0	
BRIARWOOD 4000	2827 sqft	OUTPUT 85.6 MBTU/H	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				
		COOLING 3.5 TONS					
		FAN SPEED 1340 cfm @ 0.6" w.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.

GROUND FLOOR PLAN, EL. 'A'

WOD/LOD
CSA-F280-12
PACKAGE A1

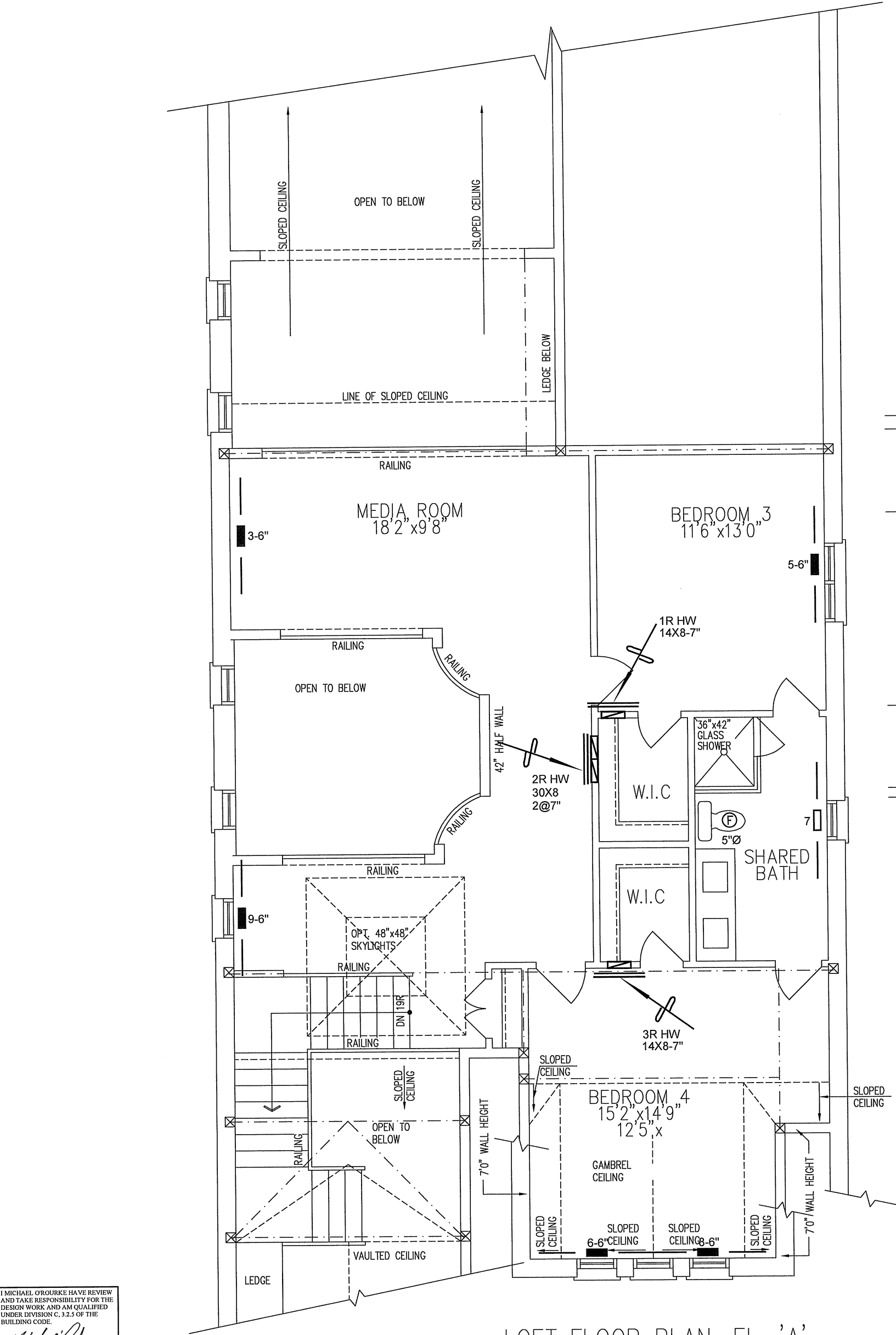
HVAC LEGEND							3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	
	FLOOR SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE	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

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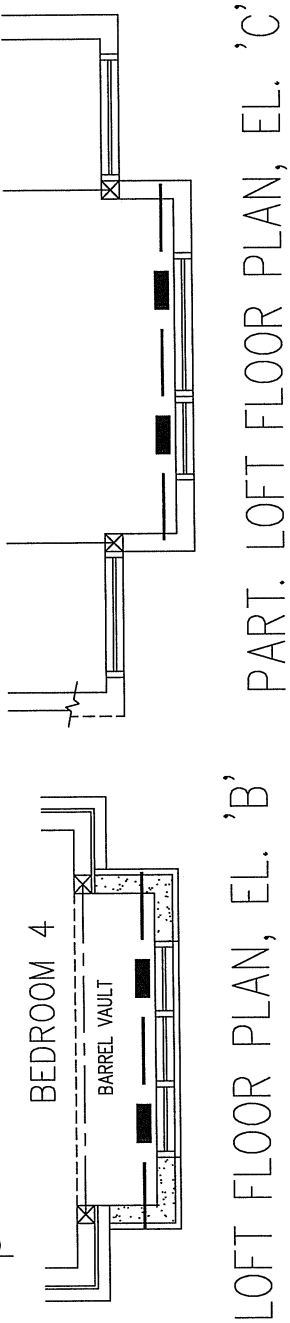
Client		HVACDESIGNS LTD. 375 Finley Ave - Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services	Sheet Title	
GOLD PARK HOMES			FIRST FLOOR HEATING LAYOUT	
Project Name		2827 sqft	Date	APR/2022
PINE VALLEY PH 2 VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
BRIARWOOD 4000			BCIN# 19669	
			LO#	96114

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



LOFT FLOOR PLAN, EL. 'A'



LOFT FLOOR PLAN, EL. 'B'

PART. LOFT FLOOR PLAN, EL. 'C'

WOD/LOD
CSA-F280-12
PACKAGE A1

HVAC LEGEND							3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	
	FLOOR 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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GOLD PARK HOMES			SECOND FLOOR HEATING LAYOUT	
Project Name			Date	APR/2022
PINE VALLEY PH 2 VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
BRIARWOOD 4000			BCIN# 19669	
2827 sqft			LO#	96114