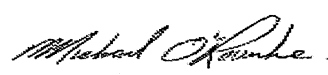


Schedule 1: Designer Information

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@hvacdsgns.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: 3101 CNR Project: PINE VALLEY DRIVE	
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.			
May 6, 2021 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 DRIVE										CNR		DATE: May-21		WINTER NATURAL AIR CHANGE RATE		HEAT LOSS ΔT °F.		CSA-F280-1	
BUILDER: GOLD PARK HOMES										TYPE: 3101		LO# 90617		SUMMER NATURAL AIR CHANGE RATE		HEAT GAIN ΔT °F.		SB-12 PACKAGE A1	
ROOM USE		MBR		ENS		WIC		BED-2		BED-3		BATH		LAUN		WIC-3			
EXP. WALL	CLG. HT.	16	9	29	9	7	9	12	9	32	9	0	9	0	9	0	6		
FACTORS		144		261		63		108		288		0		0		54			
GRS.WALL AREA	LOSS GAIN	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	0	0	0	0	0	0	0	0	0
EAST	21.3	41.6	0	0	0	0	0	18	383	748	44	936	1828	0	0	0	0	0	0
SOUTH	21.3	24.9	0	0	31	660	772	0	0	0	24	511	598	0	0	0	9	192	374
WEST	21.3	41.6	40	861	1662	16	340	665	9	192	374	0	0	0	0	0	0	0	0
SKYL.T.	37.2	101.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DOORS	25.2	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.5	0.8	104	464	78	214	955	161	54	241	41	90	402	68	220	982	165	45	201
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0.6	256	329	150	168	216	99	112	144	66	156	200	92	215	276	126	30	39
NO ATTIC EXPOSED CLG	2.7	1.3	0	0	0	0	0	0	0	32	88	40	0	0	0	0	0	0	0
EXPOSED FLOOR	2.6	0.4	24	61	10	0	0	0	14	36	6	156	398	67	0	0	0	30	77
BASEMENT/CRAWL HEAT LOSS			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
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			1705		2171		612		1383		2793		435		399		507		438
SUB TOTAL HT GAIN			1901		1696		0.20		0.20		0.20		0.20		0.20		0.20		0.23
LEVEL FACTOR / MULTIPLIER		0.20	0.23		0.20	0.23													
AIR CHANGE HEAT LOSS		393		500		141		319		643		100		92		117		22	
AIR CHANGE HEAT GAIN		96		86		25		49		140		53		49		62		70	
DUCT LOSS		210		0		75		170		0		0		0		0		0	
DUCT GAIN		272		0		75		151		0		37		35		0		0	
HEAT GAIN PEOPLE	240	480	0	0	0	0	0	1	1	240	0	0	0	0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS		243		243		243		243		243		243		243		243		243	
TOTAL HT LOSS BTU/H		2308		2671		828		1871		3436		588		540		687		1005	
TOTAL HT GAIN x 1.3 BTU/H			3889		2632		1078		2154		4394		533		506		1005		

ROOM USE		GREAT		KIT		P.W.D		B-BTH		FOY		G-WIC		BAS	
EXP. WALL	CLG. HT.	42	10	38	10	6	10	8	9	12	11	10	728	121	
FACTORS	LOSS GAIN	420		380		60		48		372		110		0	
GRS.WALL AREA	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	0	0	0	0	0
EAST	21.3	41.6	0	0	0	0	0	0	0	0	0	12	255	499	0
SOUTH	21.3	24.9	26	553	647	0	0	0	0	0	0	0	0	0	0
WEST	21.3	41.6	60	1277	2493	61	1298	2535	0	0	0	0	0	0	0
SKYL.T.	37.2	101.5	0	0	0	0	0	0	4	85	166	0	0	0	0
DOORS	25.2	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.5	0.8	334	1491	251	50	223	38	0	0	0	63	1591	258	0
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.6	0	0	0	0	0	0	0	0	0	309	1379	232	98
EXPOSED CLG	1.3	0.6	0	0	0	0	0	0	24	86	15	0	0	0	0
NO ATTIC EXPOSED CLG	2.7	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.6	0.4	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
SLAB ON GRADE HEAT LOSS			0	0	0	0	0	0	260	0	0	0	0	0	0
SUBTOTAL HT LOSS			3321		2722		436		432		2970		693		572
SUB TOTAL HT GAIN			3392		2774		0.30		0.50		0.30		0.30		0.34
LEVEL FACTOR / MULTIPLIER		0.30	0.34		0.30	0.34									
AIR CHANGE HEAT LOSS		1132		928		149		392		1012		236		29	
AIR CHANGE HEAT GAIN		172		140		0		9		25		0		0	
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		0	
HEAT GAIN APPLIANCES/LIGHTS		243		243		0		243		243		243		243	
TOTAL HT LOSS BTU/H		4453		3650		585		824		3982		929		0	
TOTAL HT GAIN x 1.3 BTU/H		4947		4105		391		562		998		1097		0	
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SITE NAME: PINE VALLEY DRIVE
BUILDER: GOLD PARK HOMESCNR
TYPE: 3101

DATE: May-21

GFA: 1890 LO# 90617

HEATING CFM 980
TOTAL HEAT LOSS 38,641
AIR FLOW RATE CFM 25.36COOLING CFM 980
TOTAL HEAT GAIN 29,477
AIR FLOW RATE CFM 33.25ML196UH045XE36B \$LENNOX 45
FAN SPEED
LOW 620
MEDLOW 685
MEDIUM 980
MEDIUM HIGH 1110
HIGH 0AFUE = 96 %
INPUT (BTU/H) = 44,000
OUTPUT (BTU/H) = 42,800

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	12	8	4
R/A	0	0	4	1	1

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 0.15DESIGN CFM = 980
CFM @ .5" E.S.P.

TEMPERATURE RISE 40 °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
ROOM NAME	MBR	ENS	WIC	BED-2	BED-3	BED-3	BATH	LAUN	WIC-3	MBR	ENS	GREAT	GREAT	KIT	KIT	BATH	FOY	B-BTH	FOY	G-WIC	BAS	BAS	BAS
RM LOSS MBH	1.15	1.34	0.83	1.87	1.72	1.72	0.29	0.54	0.69	1.15	1.34	2.23	2.23	1.82	1.82	0.29	1.99	0.82	1.99	0.93	3.76	3.76	3.76
CFM PER RUN HEAT	29	34	21	47	44	44	7	14	17	29	34	56	56	46	46	7	50	21	50	24	95	95	95
RM GAIN MBH	1.94	1.32	1.08	2.15	2.20	2.20	0.27	0.51	1.01	1.94	1.32	2.47	2.47	2.05	2.05	0.27	0.50	0.56	0.50	1.10	0.40	0.40	0.40
CFM PER RUN COOLING	65	44	36	72	73	73	9	17	33	65	44	82	82	68	68	9	17	19	17	36	13	13	13
ADJUSTED PRESSURE	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	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16
EQUIVALENT LENGTH	30	41	48	58	53	50	40	42	49	41	30	13	17	22	32	37	29	12	36	43	20	33	36
TOTAL EFFECTIVE LENGTH	220	231	178	208	173	200	190	162	199	161	250	153	107	162	192	187	189	112	186	153	200	183	166
ADJUSTED PRESSURE	0.08	0.07	0.1	0.08	0.1	0.09	0.09	0.11	0.09	0.11	0.07	0.11	0.11	0.15	0.11	0.09	0.09	0.15	0.09	0.11	0.08	0.09	0.1
ROUND DUCT SIZE	5	5	4	6	5	5	4	4	4	5	5	6	6	5	5	4	5	4	5	4	6	6	6
HEATING VELOCITY (ft/min)	213	250	241	240	323	323	80	161	195	213	250	286	286	338	338	80	367	241	367	275	484	484	484
COOLING VELOCITY (ft/min)	477	323	413	367	536	536	103	195	379	477	323	418	418	499	499	103	125	218	125	413	66	66	66
OUTLET GRILL SIZE	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10
TRUNK	B	C	A	A	C	C	B	A	B	B	C	D	D	B	A	B	C	D	C	C	B	A	C

RUN # 25	PWD
ROOM NAME	PWD
RM LOSS MBH	0.58
CFM PER RUN HEAT	15
RM GAIN MBH	0.39
CFM PER RUN COOLING	13
ADJUSTED PRESSURE	0.17
EQUIVALENT LENGTH	120
TOTAL EFFECTIVE LENGTH	152
ADJUSTED PRESSURE	0.11
ROUND DUCT SIZE	4
HEATING VELOCITY (ft/min)	172
COOLING VELOCITY (ft/min)	149
OUTLET GRILL SIZE	3X10
TRUNK	C

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)
TRUNK A	223	0.08	8	8	502	TRUNK G	0	0.00	0	8
TRUNK B	453	0.08	10.4	14	582	TRUNK H	0	0.00	0	8
TRUNK C	390	0.07	10.2	12	585	TRUNK I	0	0.00	0	8
TRUNK D	976	0.07	14.4	24	732	TRUNK J	0	0.00	0	8
TRUNK E	0	0.00	0	0	0	TRUNK K	0	0.00	0	8
TRUNK F	0	0.00	0	0	0	TRUNK L	0	0.00	0	8

RETURN 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)
TRUNK O	0	0.05	0	0	0	TRUNK O	0	0.05	0	8
TRUNK P	0	0.05	0	0	0	TRUNK P	0	0.05	0	8
TRUNK Q	0	0.05	0	0	0	TRUNK Q	0	0.05	0	8
TRUNK R	0	0.05	0	0	0	TRUNK R	0	0.05	0	8
TRUNK S	0	0.05	0	0	0	TRUNK S	0	0.05	0	8
TRUNK T	0	0.05	0	0	0	TRUNK T	0	0.05	0	8
TRUNK U	0	0.05	0	0	0	TRUNK U	0	0.05	0	8
TRUNK V	0	0.05	0	0	0	TRUNK V	0	0.05	0	8
TRUNK W	0	0.05	0	0	0	TRUNK W	0	0.05	0	8
TRUNK X	980	0.05	15.7	28	150	TRUNK X	980	0.05	15.7	630
TRUNK Y	405	0.05	11.2	14	0.15	TRUNK Y	405	0.05	11.2	521
TRUNK Z	0	0.05	0	0	0	TRUNK Z	0	0.05	0	8
DROP	980	0.05	15.7	24	0.08	DROP	980	0.05	15.7	588

TYPE: 3101
SITE NAME: PINE VALLEY DRIVE

LO # 90617
CNR

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	6 @ 10.6 cfm	63.6 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		63.6 cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	169.6	cfm
Less Principal Ventil. Capacity	63.6	cfm
Required Supplemental Capacity	106.0	cfm

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

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

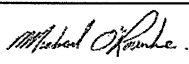
SUPPLEMENTAL FANS		BY INSTALLING CONTRACTOR		
Location	Model	cfm	HVI	Sones
ENS	BY INSTALLING CONTRACTOR	50	☒	3.5
BATH	BY INSTALLING CONTRACTOR	50	☒	3.5
B-BTH	BY INSTALLING CONTRACTOR	50	☒	3.5

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:	
HRAI #	001820
Date:	May-21

CSA F280-12 Residential Heat Loss and Heat Gain Calculations																																																																															
Formula Sheet (For Air Leakage / Ventilation Calculation)																																																																															
LO#: 90617	Model: 3101	Builder: GOLD PARK HOMES	Date: 5/6/2021																																																																												
Volume Calculation		Air Change & Delta T Data																																																																													
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0.342	x	195.14	x																																																																												
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$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$																																																																															
64 CFM	x	76 °F	x																																																																												
		1.08	x																																																																												
		0.25	=																																																																												
			220 Btu/h																																																																												
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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: 3101	CNR	BUILDER: GOLD PARK HOMES
SFQT: 1890	LO# 90617	SITE: PINE VALLEY DRIVE

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

BUILDING DATA

ATTACHMENT:	ATTACHED	# 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):	24809.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	4
INTERIOR LIGHTING LOAD (Btu/h/ft ²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 39.0 ft	WIDTH: 32.0 ft	EXPOSED PERIMETER:	129.0 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 Minimum Efficiency	75%	-
Domestic Hot Water Heater Minimum EF	0.8	-

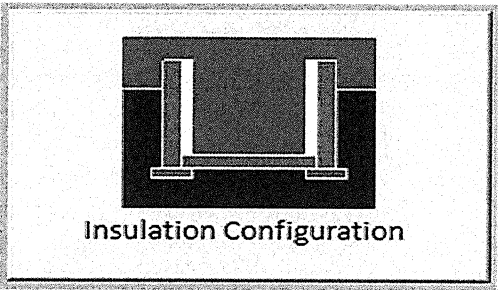
INDIVIDUAL BCIN: 19669

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):	11.9	 Insulation Configuration
Floor Width (m):	9.8	
Exposed Perimeter (m):	39.3	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.83	
Window Area (m ²):	1.1	
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):		1230

TYPE: 3101
LO# 90617

CNR

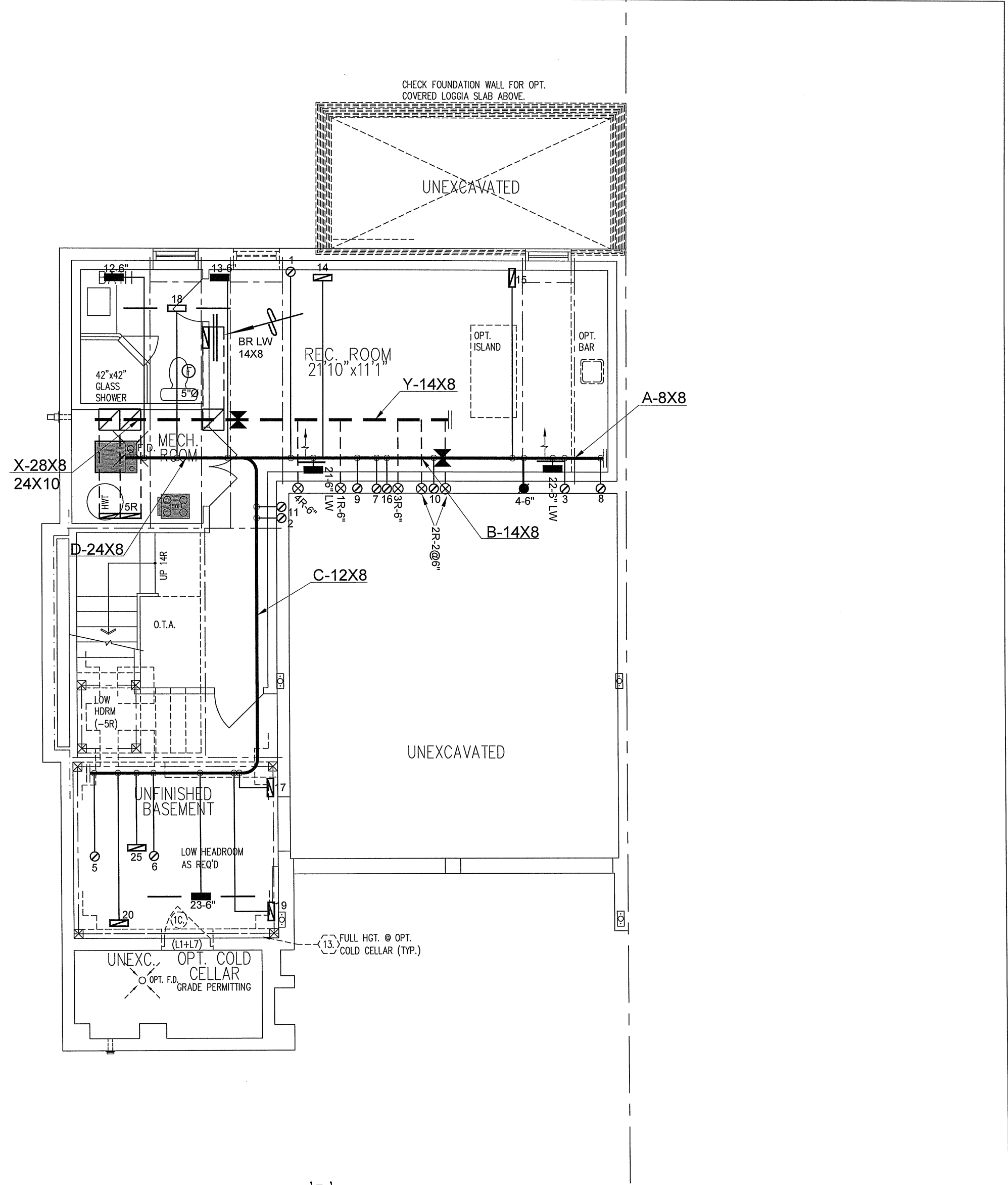
Air Infiltration Residential Load Calculator

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):	6.71			
Building Configuration				
Type:	Semi			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	702.5			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	936.5 cm ²		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	30.0	30.0		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.342			
Cooling Air Leakage Rate (ACH/H):	0.111			

TYPE: 3101
LO# 90617

CNR



BASEMENT PLAN, ELEV. '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

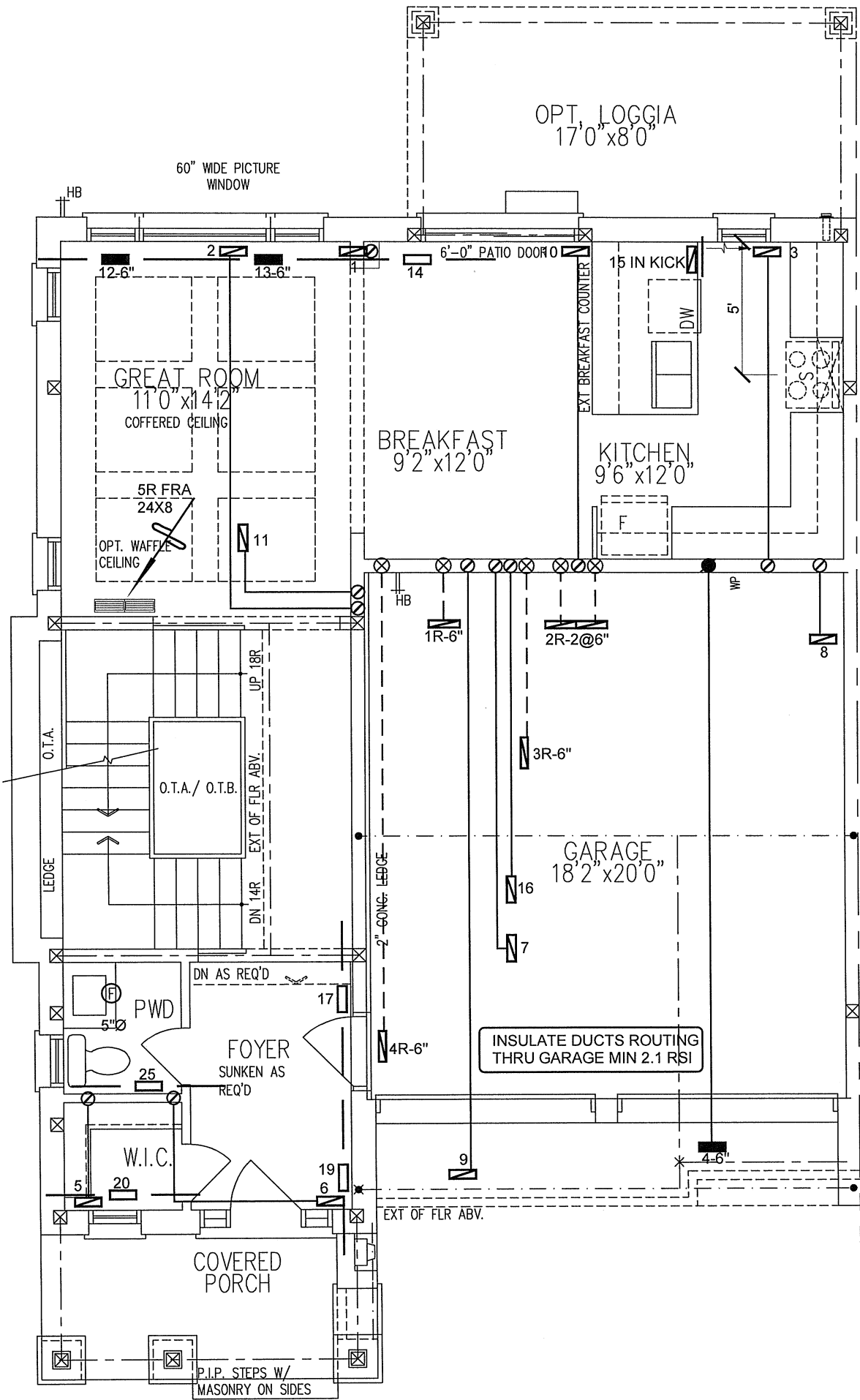
HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR 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 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 39946 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS			Sheet Title BASEMENT HEATING LAYOUT		
GOLD PARK HOMES			MAKE LENNOX		3RD FLOOR					
			MODEL ML196UH045XE24B		2ND FLOOR					
			INPUT		1ST FLOOR					
Project Name PINE VALLEY DRIVE VAUGHAN, ONTARIO			44 MBTU/H		BASEMENT			Date APR/2021		
3101 - CNR 1890 sqft			OUTPUT 42.8 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			Scale 3/16" = 1'-0"		
			COOLING 2.5 TONS					BCIN# 19669		
			FAN SPEED 980 cfm @ 0.6" w.c.					LO# 90617		

3101 - CNR

1890 sqft



GROUND FLOOR PLAN, ELEV. '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.

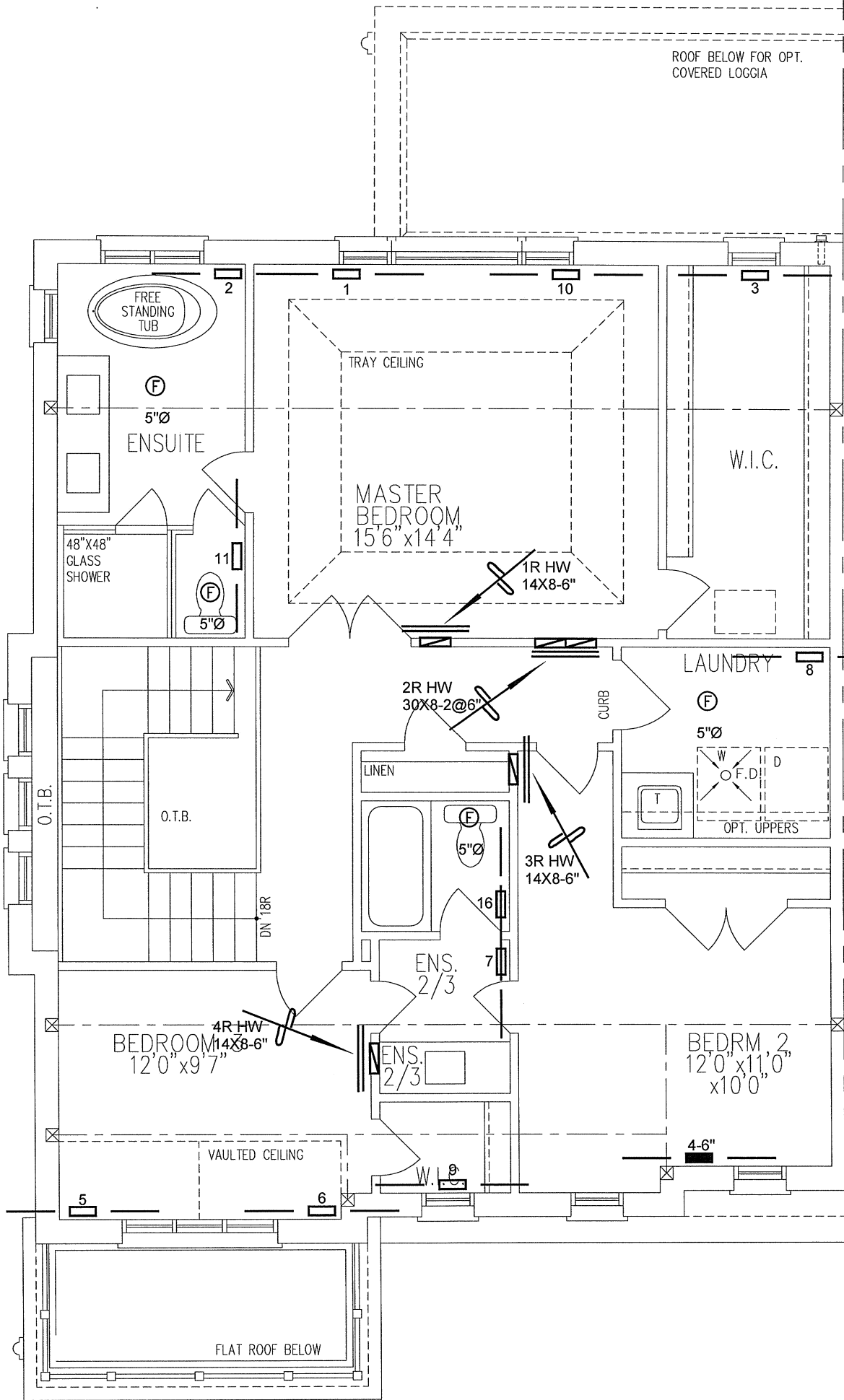
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

CSA-F280-12
PACKAGE A1

HVAC LEGEND							3.		
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	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		 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	
GOLD PARK HOMES			FIRST FLOOR HEATING LAYOUT	
Project Name			Date	APR/2021
PINE VALLEY DRIVE VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
			BCIN# 19669	
3101 - CNR			LO#	90617
1890 sqft				



SECOND FLOOR PLAN, ELEV. 'B'

I MICHAEL O'ROURKE HAVE REVIEW 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.	
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	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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GOLD PARK HOMES			SECOND FLOOR HEATING LAYOUT	
Project Name PINE VALLEY DRIVE VAUGHAN, ONTARIO			Date	APR/2021
3101 - CNR1890 sqft			Scale	3/16" = 1'-0"
		BCIN# 19669		
		LO#	90617	