

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: 4202- THE HILLHURST OPT. 5 BED Project: PINE VALLEY & TESTON	
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.			
January 24, 2018		 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.

SITE NAME: PINE VALLEY & TESTON OPT. 5 BED DATE: Jan-18 WINTER NATURAL AIR CHANGE RATE 0.340 HEAT LOSS AT °F. 76 CSA-F280-12
BUILDER: GOLD PARK HOMES TYPE: 4202 - THE HILLHURST LO# 77466 SUMMER NATURAL AIR CHANGE RATE 0.124 HEAT GAIN AT °F. 16 SB-12 PACKAGE A1

ROOM USE			FACTORS		MBR		ENS		BED-2		BED-3		BED-4		ENS-2		BED-5		ENS-3		ENS-4/5		HEAT GAIN BY F. 10				
EXP. WALL			CLG. HT.		10		9		12		36		9		16		13		9		6						
GRS.WALL AREA			LOSS GAIN		340		333		108		324		144		0		117		81		54						
GLAZING					LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN						
NORTH			21.3	16.8	0	0	0	0	18	383	303	0	0	0	0	0	0	0	0	9	192	161	0	0	0		
EAST			21.3	42.4	0	0	0	0	0	0	63	1128	2247	0	0	0	0	0	0	0	0	0	0	0	0		
SOUTH			21.3	25.7	0	0	0	0	0	0	0	0	0	38	809	978	0	0	18	383	463	0	0	0	0		
WEST			21.3	42.4	54	1149	2289	18	383	763	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SKYL.T.			37.2	103.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
DOORS			25.2	5.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
NET EXPOSED WALL			4.5	0.9	286	1276	265	315	1406	292	90	402	83	271	1209	251	106	473	98	0	99	442	92	72	321	67	
NET EXPOSED BSMT WALL ABOVE GR			3.6	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EXPOSED CLG			1.3	0.6	285	366	182	210	270	134	228	293	146	280	359	179	240	308	163	104	133	66	182	234	116	45	
NO A T T I C EXPOSED CLG			2.7	1.4	0	0	0	0	0	0	0	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	144	367	76	280	714	148	0	0	0	104	265	55	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS					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		
SUBTOTAL HT LOSS					2791		2058		1445		3411		1590		399		1068		685		349		104				
SUB TOTAL HT GAIN					2736		1189		608		2825		1230		122		671		271		104						
LEVEL FACTOR / MULTIPLIER			0.20		0.30		0.20		0.30		0.30		0.20		0.20		0.20		0.20		0.20		0.30				
AIR CHANGE HEAT LOSS			841		841		620		435		1028		479		120		319		207		105						
AIR CHANGE HEAT GAIN			317		317		138		70		327		142		14		78		31		12						
DUCT LOSS			0		0		0		188		444		0		52		0		89		0						
DUCT GAIN			240		240		0		189		436		0		14		0		30		0						
HEAT GAIN PEOPLE			2		480		0		1		240		1		0		1		0		0						
HEAT GAIN APPLIANCES/LIGHTS			970		970		0		970		240		970		0		970		0		0						
TOTAL HT LOSS BTU/H			3632		3632		2679		2068		4882		2069		571		1377		981		454		160				
TOTAL HT GAIN x 1.3 BTU/H							1725		2700		6338		3366		194		2647		432		160						

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

TYPE: 4202 - THE HILLHURST
OPT. 5 BED

DATE: Jan-18

GFA: 3785

LO# 77466

HEATING CFM 1525 COOLING CFM 1525
TOTAL HEAT LOSS 68,400 TOTAL HEAT GAIN 47,843
AIR FLOW RATE CFM 22.3 AIR FLOW RATE CFM 31.88

EL298UH090XE48C
FAN SPEED 90

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

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	16	9	6
R/A	0	0	5	2	1

DESIGN CFM = 1525
CFM @ .6" E.S.P.

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

TEMPERATURE RISE 52 °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	24
ROOM NAME	MBR	ENS	ENS	BED-2	BED-3	BED-5	ENS-2	LAUN	ENS-3	MBR	BED-4	DIN	KT/GT	KT/GT	KT/GT	KT/GT	KT/GT	PWD	FOY	MUD	BAS	BAS	BAS	BAS
RM LOSS MBH	1.82	1.34	1.34	2.07	1.63	1.38	0.57	1.66	0.98	1.82	2.07	2.11	2.94	2.94	2.94	2.94	2.94	1.20	3.06	1.83	3.76	3.76	3.76	3.76
CFM PER RUN HEAT	40	30	30	46	36	31	13	37	22	40	46	47	65	65	65	65	65	27	68	41	84	84	84	84
RM GAIN MBH	2.93	0.86	0.86	2.70	2.08	2.55	0.19	2.27	0.43	2.93	3.36	2.74	2.87	2.87	2.87	2.87	2.87	0.24	0.82	1.63	0.43	0.43	0.43	0.43
CFM PER RUN COOLING	93	27	27	86	66	81	6	72	14	93	107	87	91	91	91	91	91	8	20	52	14	14	14	14
ADJUSTED PRESSURE	0.16	0.17	0.17	0.16	0.17	0.16	0.17	0.17	0.17	0.16	0.15	0.16	0.16	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH	69	53	61	60	49	25	48	55	48	73	23	10	43	47	46	57	57	22	42	24	45	50	13	36
EQUIVALENT LENGTH	160	150	130	190	150	140	190	190	160	140	190	150	130	130	130	130	130	160	150	110	120	110	120	130
TOTAL EFFECTIVE LENGTH	229	203	191	250	199	165	238	245	208	213	213	160	173	177	176	187	187	182	192	134	165	160	133	166
ADJUSTED PRESSURE	0.07	0.08	0.09	0.06	0.09	0.1	0.07	0.07	0.08	0.08	0.07	0.1	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.13	0.1	0.12	0.1	0.1
ROUND DUCT SIZE	6	4	4	6	5	5	4	5	4	6	6	5	6	6	6	6	6	4	5	4	5	5	5	5
HEATING VELOCITY (ft/min)	204	344	344	235	264	228	149	272	252	204	235	345	331	331	331	331	331	310	499	470	617	617	617	617
COOLING VELOCITY (ft/min)	474	310	310	438	485	595	69	529	161	474	546	639	464	464	464	464	464	92	147	597	103	103	103	103
OUTLET GRILL SIZE	4X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	3X10	4X10	4X10	4X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	B	A	A	E	E	C	E	D	E	B	E	C	A	A	A	B	B	E	D	C	A	B	C	D

TYPE: 4202- THE HILLHURST
SITE NAME: PINE VALLEY & TESTON

LO # 77466
OPT. 5 BED

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	<u>2</u> @ 21.2 cfm	<u>42.4</u> cfm
Other Bedrooms	<u>4</u> @ 10.6 cfm	<u>42.4</u> cfm
Kitchen & Bathrooms	<u>6</u> @ 10.6 cfm	<u>63.6</u> cfm
Other Rooms	<u>7</u> @ 10.6 cfm	<u>74.2</u> cfm
Table 9.32.3.A.	TOTAL	<u>222.6</u> 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		<u>95.4</u> cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	<u>222.6</u>	cfm
Less Principal Ventil. Capacity	<u>155</u>	cfm
Required Supplemental Capacity	<u>67.6</u>	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model:	VANEE 65H
Location:	BSMT
<u>155.0</u> cfm	<u>3.0</u> sones
☒ HVI Approved	

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

SUPPLEMENTAL FANS		NUTONE	
Location	Model	cfm	HVI
ENS	QTXEN050C	50	☒
ENS-2	QTXEN050C	50	☒
ENS-4/5	QTXEN050C	50	☒
PWD	QTXEN050C	50	☒

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model:	VANEE 65H	
<u>155</u> cfm high	<u>64</u> cfm low	
<u>75</u> % 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:	January-18

CSA F280-12 Residential Heat Loss and Heat Gain Calculations																																									
Formula Sheet (For Air Leakage / Ventilation Calculation)																																									
LO#: 77466		Model: 4202- THE HILLHURST		Builder: GOLD PARK HOMES		Air Change & Delta T Data																																			
						Date: 01/24/2018																																			
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>1733</td> <td>10</td> <td>17330</td> </tr> <tr> <td>First</td> <td>1733</td> <td>11</td> <td>19063</td> </tr> <tr> <td>Second</td> <td>2076</td> <td>9</td> <td>18684</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">Total:</td> <td></td> <td>55,077.0 ft³</td> </tr> <tr> <td colspan="2">Total:</td> <td></td> <td>1559.6 m³</td> </tr> </tbody> </table>										Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)	Bsmt	1733	10	17330	First	1733	11	19063	Second	2076	9	18684	Third	0	9	0	Fourth	0	9	0	Total:			55,077.0 ft³	Total:			1559.6 m³
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5.2.3.1 Heat Loss due to Air Leakage																																									
$HL_{air-b} = LR_{air-b} \times \frac{V_b}{3.6} \times DTD_h \times 1.2$ 0.340 x 433.22 x 42 °C x 1.2 = 7464 W = 25468 Btu/h																																									
5.2.3.2 Heat Loss due to Mechanical Ventilation																																									
$HL_{vair-b} = PVC \times DTD_h \times 1.08 \times (1 - E)$ 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)																																									
$HL_{air-tr} = Level Factor \times HL_{air-bv} \times \{(HL_{lagger} + HL_{bgcr}) \div (HL_{laggerlevel} + HL_{bglevel})\}$ <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Level</th> <th>Level Factor (LF)</th> <th>HLairve Air Leakage + Ventilation Heat Loss (Btu/h)</th> <th>Level Conductive Heat Loss: (HL_{level})</th> <th>Air Leakage Heat Loss Multiplier (LF x HLairbv / HLlevel)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0.5</td> <td rowspan="5">25,468</td> <td>9,832</td> <td>1.295</td> </tr> <tr> <td>2</td> <td>0.3</td> <td>15,351</td> <td>0.498</td> </tr> <tr> <td>3</td> <td>0.2</td> <td>16,904</td> <td>0.301</td> </tr> <tr> <td>4</td> <td>0</td> <td>0</td> <td>0.000</td> </tr> <tr> <td>5</td> <td>0</td> <td>0</td> <td>0.000</td> </tr> </tbody> </table>										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	25,468	9,832	1.295	2	0.3	15,351	0.498	3	0.2	16,904	0.301	4	0	0	0.000	5	0	0	0.000						
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)																																					
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3	0.2		16,904	0.301																																					
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: 4202- THE HILLHURST	OPT. 5 BED	BUILDER: GOLD PARK HOMES
SFQT: 3785	LO# 77466	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):	55077.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	6
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.75	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	7.0 ft
LENGTH: 68.0 ft	WIDTH: 33.0 ft	EXPOSED PERIMETER:	202.0 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	-

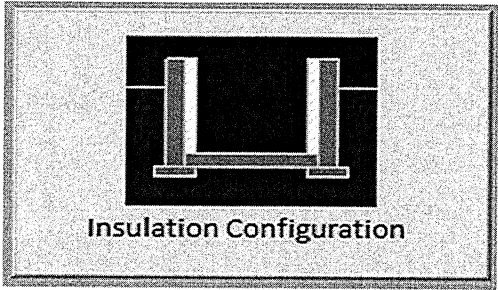
INDIVIDUAL BCIN: 19669

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):	20.7	 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):	0.7	
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):	2044	

TYPE: 4202- THE HILLHURST
LO# 77466

OPT. 5 BED

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):	1559.6			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa. 3.57	2079.0 cm ² ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply 73.2	Total Exhaust 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			

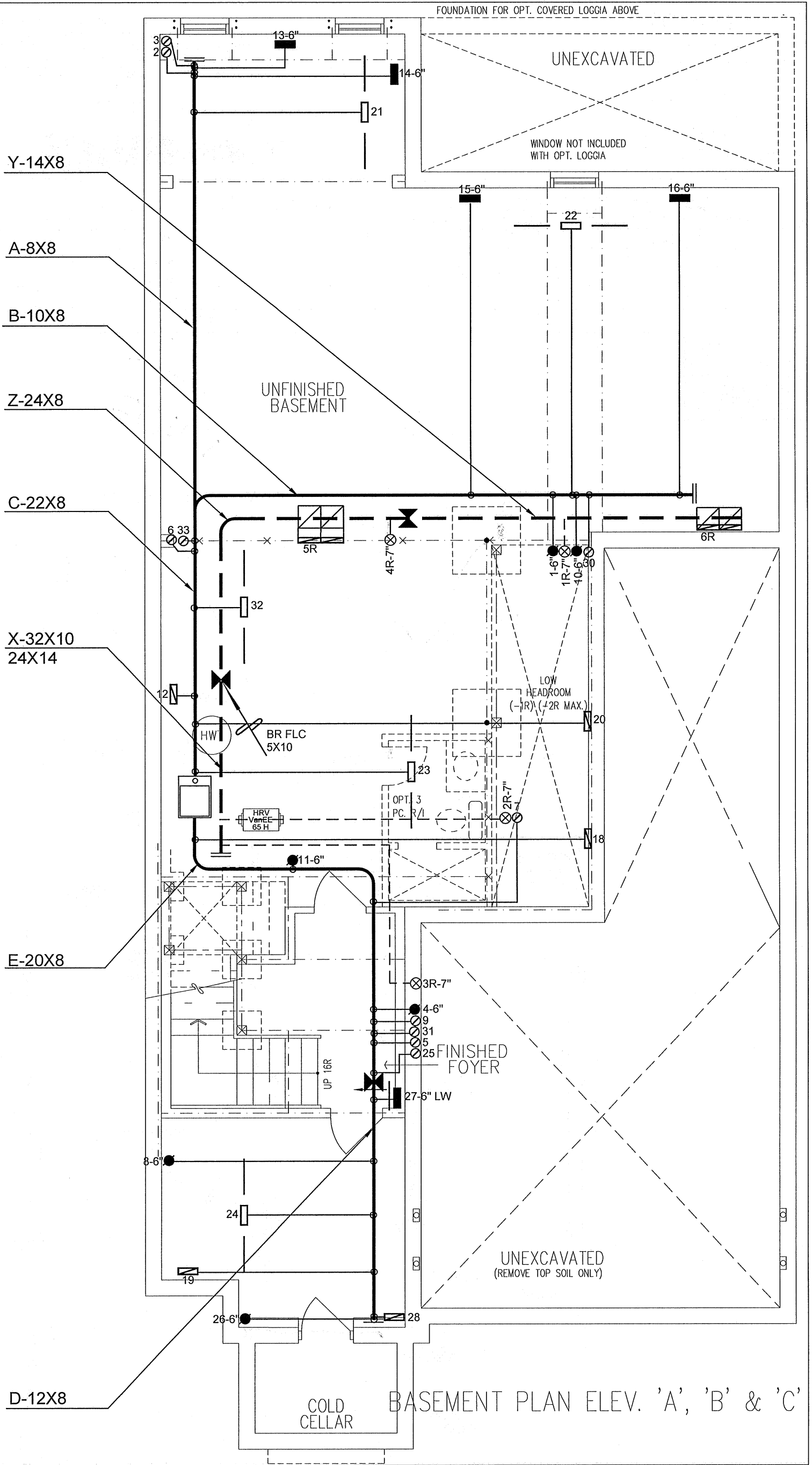
TYPE: 4202- THE HILLHURST
LO# 77466

OPT. 5 BED

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, BCIN# 19669
HVAC DESIGNS LTD.

HVAC LEGEND							
						3.	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		RETURN AIR STACK ABOVE	1.	
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		RETURN AIR STACK 2nd FLOOR	No.	Description
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA - FLOOR RETURN AIR GRILLE		REDUCER
							REVISIONS
							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.	HEAT LOSS 71581 BTU/H		# OF RUNS S/A R/A FANS				Sheet Title	
GOLD PARK HOMES			UNIT DATA		3RD FLOOR				BASEMENT HEATING LAYOUT	
Project Name PINE VALLEY & TESTON VAUGHAN, ONTARIO OPT. 5 BED THE HILLHURST 4202			MAKE LENNOX		2ND FLOOR 16 5 5					
			MODEL EL296UH090XE48C		1ST FLOOR 9 2 2					
3785 sqft			INPUT 88 MBTU/H		BASEMENT 6 1 0				Date	JAN/2018
			OUTPUT 85 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 4.0 TONS						BCIN# 19669	
		FAN SPEED 1525 cfm @ 0.6" w.c.								

Client		 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	Sheet Title	
GOLD PARK HOMES Project Name PINE VALLEY & TESTON VAUGHAN, ONTARIO OPT. 5 BED THE HILLHURST 4202			FIRST FLOOR HEATING LAYOUT Date JAN/2018 Scale 3/16" = 1'-0" BCIN# 19669 LO# 77466	
3785 sqft		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.		

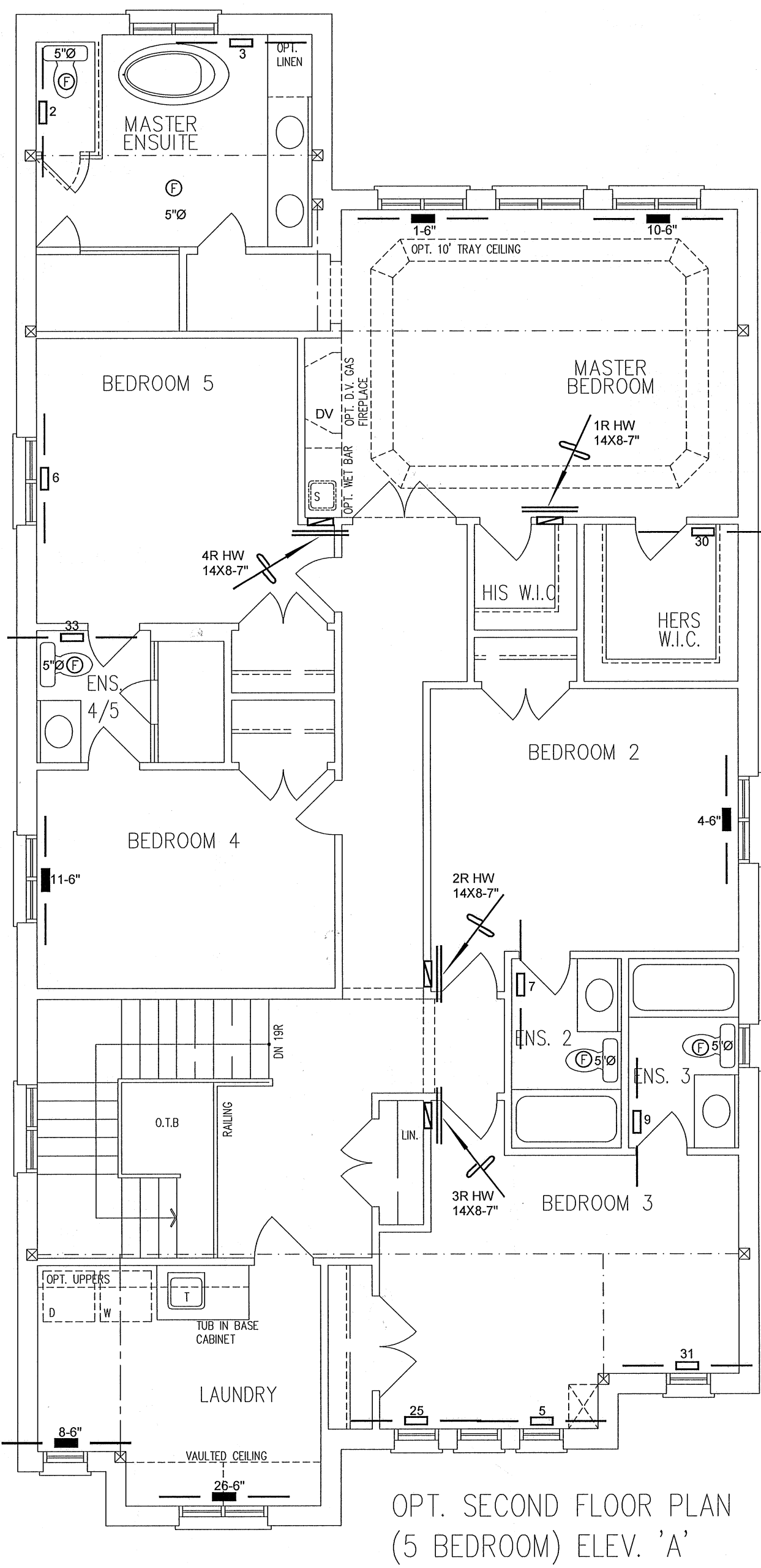
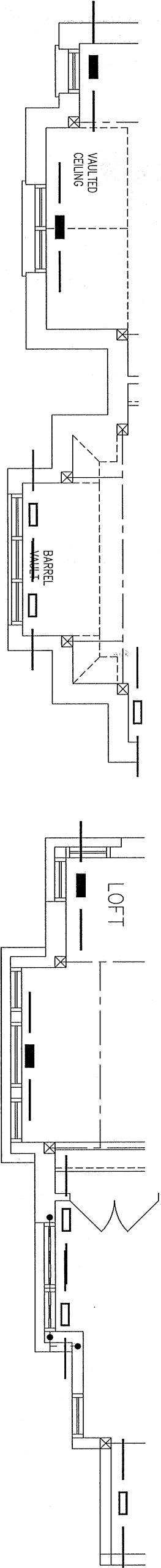
CSA-F280-12
PACKAGE A1

I MICHAEL O'ROURKE HAVE REVIEW
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.

HVAC LEGEND			3.	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE	1.
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR	
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR	
	SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE	
	RETURN AIR STACK ABOVE		REDUCER	
REVISIONS			Description	Date

PARTIAL SECOND FLOOR PLAN – ELEVATION 'B'

PARTIAL SECOND FLOOR PLAN – ELEVATION 'C'



OPT. SECOND FLOOR PLAN
(5 BEDROOM) ELEV. 'A'

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Client
GOLD PARK HOMES

Project Name
**PINE VALLEY & TESTON
VAUGHAN, ONTARIO
OPT. 5 BED
THE HILLHURST
4202**

3785 sqft

375 Finley Ave. Suite 202 - Ajax, Ontario
L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375
Email: info@hvacdsgns.ca
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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	
Date	JAN/2018
Scale	3/16" = 1'-0"
BCIN# 19669	
LO#	77466