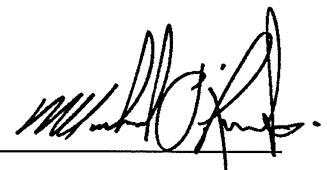


Schedule 1: Designer Information

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 BRAMPTON	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: SD-4 OPT 2ND Project: ENCORE	
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.			
<u>March 7, 2017</u> 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: ENCORE BUILDER: GOLD PARK HOMES				OPT. 2ND TYPE: SD-4	DATE: Mar-17 LO# 72732				WINTER NATURAL AIR CHANGE RATE 0.336 SUMMER NATURAL AIR CHANGE RATE 0.116		HEAT LOSS AT °F. 74 HEAT GAIN AT °F. 14		CSA-F280-12 SB-12 PACKAGE A1
ROOM USE EXP. WALL CLG. HT.	MBR	ENS	FACTORS		BED-2	BED-3	BED-4	BATH					
	13 10	0 9			34 9	30 10	13 9	9					
GRS.WALL AREA	130	0	LOSS GAIN		306	300	117	81					
GLAZING		LOSS GAIN			LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN					
NORTH	20.8 16.3	0 0 0			0 0 0	0 0 0	0 0 0	0 0 0					
EAST	20.8 41.9	0 0 0			14 291 588	44 914 1843	32 665 1340	0 0 0					
SOUTH	20.8 25.2	0 0 0			8 166 202	0 0 0	0 0 0	8 166 202					
WEST	20.8 41.9	24 499 1005			0 0 0	0 0 0	0 0 0	0 0 0					
SKYLT.	36.4 102.1	0 0 0			0 0 0	0 0 0	0 0 0	0 0 0					
DOORS	24.7 4.7	0 0 0			0 0 0	0 0 0	0 0 0	0 0 0					
NET EXPOSED WALL	4.4 0.8	106 462 87	0 0 0		284 1237 233	256 1116 210	85 370 70	73 318 60					
NET EXPOSED BSMT WALL ABOVE GR	3.5 0.7	0 0 0	0 0 0		0 0 0	0 0 0	0 0 0	0 0 0					
EXPOSED CLG	1.3 0.6	234 293 142	110 138 67		253 317 164	70 88 43	121 152 74	117 147 71					
NO A TIC EXPOSED CLG	2.7 1.3	0 0 0	0 0 0		0 0 0	98 263 128	33 89 43	0 0 0					
EXPOSED FLOOR	2.5 0.5	0 0 0	30 75 14		0 0 0	0 0 0	154 383 72	33 82 16					
BASEMENT/CRAWL HEAT LOSS		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					
SUB TOTAL HT LOSS		1254	213		2011	2380	1659	713					
SUB TOTAL HT GAIN		1235	81		1176	2224	1599	349					
LEVEL FACTOR / MUL TIPLIER	0.20 0.28	0.20 0.28	0.20 0.28		0.20 0.28	0.20 0.28	0.20 0.28	0.20 0.28					
AIR CHANGE HEAT LOSS		366	60		571	676	471	202					
AIR CHANGE HEAT GAIN		133	9		127	240	173	38					
DUCT LOSS		0	27		0	0	213	92					
DUCT GAIN		0	49		0	0	241	78					
HEAT GAIN PEOPLE	240	2	0		1	240	1	240					
HEAT GAIN APPLIANCES/LIGHTS		397	397		397	397	397	397					
TOTAL HT LOSS BTU/H		1610	300		2582	3056	2343	1007					
TOTAL HT GAIN x 1.3 BTU/H		2918	696		2521	4031	3444	1119					

ROOM USE EXP. WALL CLG. HT.	LIV	K/TIFM	WIR	FOY	EAS
GRS.WALL AREA	380	440	110	240	882
GLAZING	0	0	0	0	12
NORTH	20.8 16.3	0	0	0	249
EAST	20.8 41.9	0	0	0	0
SOUTH	20.8 25.2	0	0	0	0
WEST	20.8 41.9	0	0	0	0
SKYLT.	36.4 102.1	0	0	0	0
DOORS	24.7 4.7	0	0	0	0
NET EXPOSED WALL	4.4 0.8	339 1477 279	20 493 93	44 1085 205	20 493 93
NET EXPOSED BSMT WALL ABOVE GR	3.5 0.7	0	0	0	0
EXPOSED CLG	1.3 0.6	0	0	0	0
NO A TIC EXPOSED CLG	2.7 1.3	0	0	0	0
EXPOSED FLOOR	2.5 0.5	0	0	0	0
BASEMENT/CRAWL HEAT LOSS		0	0	0	0
SLAB ON GRADE HEAT LOSS		0	0	0	0
SUBTOTAL HT LOSS		2406	885	1939	3793
SUB TOTAL HT GAIN		902	167	356	5737
LEVEL FACTOR / MUL TIPLIER	0.30 0.42	0.30 0.42	0.30 0.42	0.30 0.42	0.50
AIR CHANGE HEAT LOSS		1014	373	817	1.02
AIR CHANGE HEAT GAIN		97	18	40	5840
DUCT LOSS		0	0	0	0
DUCT GAIN		0	0	0	0
HEAT GAIN PEOPLE	240		0	0	0
HEAT GAIN APPLIANCES/LIGHTS			0	0	0
TOTAL HT LOSS BTU/H		3421	1258	2756	11577
TOTAL HT GAIN x 1.3 BTU/H		1814	756	527	742

GFA: 1932 IO# 72732

LENNOX 45 EL298UH045XE368 FAN SPEED LOW MEDIUM MEDIUM HIGH HIGH	AFUE = 96 % INPUT (BTU/H) = 44,000 OUTPUT (BTU/H) = 43,000 DESIGN CFM = 950 CFM @ 5" E.S.P. TEMPERATURE RISE 42
---	---

adjusted pressure r/a 0.15

RUN#	1	2	3	4	5	7	8	12	14	15	16	17	18	19	21	22	23	24
ROOM NAME	BED-2	MBR	BED-3	BED-4	BED-3	BATH	BED-4	LIV	KT/FM	KT/FM	ENS	W/R	FOY	BAS	BAS	BAS	BAS	BAS
RM LOSS MBH.	2.58	1.61	1.53	1.17	1.53	1.01	1.17	3.42	1.46	1.46	1.46	0.30	1.26	2.76	2.89	2.89	2.89	2.89
CFM PER RUN HEAT	72	45	42	32	42	28	32	95	40	40	40	8	35	76	80	80	80	80
RM GAIN MBH.	2.52	2.92	2.02	1.72	2.02	1.12	1.72	1.81	1.75	1.75	0.70	0.70	0.76	0.53	0.19	0.19	0.19	0.19
CFM PER RUN COOLING	101	116	80	69	80	45	69	72	70	70	70	28	30	21	7	7	7	7
ADJUSTED PRESSURE	0.16	0.15	0.17	0.17	0.17	0.17	0.17	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
ACTUAL DUCT LGH.	59	61	28	38	33	26	45	9	40	37	39	33	21	21	36	33	147	21
EQUIVALENT LENGTH	190	160	120	170	150	190	170	120	100	120	130	140	140	110	160	110	110	110
TOTAL EFFECTIVE LENGTH	249	221	148	208	183	216	215	129	140	157	169	173	161	131	196	143	131	131
ADJUSTED PRESSURE	0.07	0.07	0.12	0.08	0.09	0.08	0.08	0.13	0.12	0.11	0.1	0.1	0.11	0.13	0.09	0.12	0.07	0.13
ROUND DUCT SIZE	6	6	5	5	5	4	5	5	5	5	4	4	5	5	5	5	6	5
HEATING VELOCITY (ft/min)	367	229	308	235	308	321	235	698	294	294	92	402	558	587	587	587	408	587
COOLING VELOCITY (ft/min)	515	591	587	507	587	516	507	529	514	514	321	344	154	154	51	36	51	36
OUTLET GRILL SIZE	4X10	4X10	3X10	3X10	3X10	3X10	3X10	C	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	3X10
TRUNK	A	A	C	B	C	B	B	C	B	A	B	B	C	C	A	B	C	R

RUN #
ROOM NAME
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 (#/min)
COOLING VELOCITY (#/min)
OUTLET GRILL SIZE
TRUNK

SUPPLY AIR TRUNK SIZE						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 A	277	0.07	9	8	x	TRUNK G	0	0.00	0	0	x
TRUNK B	612	0.07	12.1	8	x	TRUNK H	0	0.00	0	0	x
TRUNK C	335	0.07	9.6	8	x	TRUNK I	0	0.00	0	0	x
TRUNK D	0	0.00	0	8	x	TRUNK J	0	0.00	0	0	x
TRUNK E	0	0.00	0	8	x	TRUNK K	0	0.00	0	0	x
TRUNK F	0	0.00	0	8	x	TRUNK L	0	0.00	0	0	x
						TRUNK M	0	0.00	0	0	x
						TRUNK N	0	0.00	0	0	x
						TRUNK O	0	0.06	0	0	x
						TRUNK P	0	0.06	0	0	x
						TRUNK Q	0	0.08	0	0	x
						TRUNK R	0	0.08	0	0	x
						TRUNK S	0	0.06	0	0	x
						TRUNK T	0	0.06	0	0	x

	1	2	3	4	5		BR
RETURN AIR #	0	0	0	0	0		
AIR VOLUME	155	120	120	135	270		
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15		
ACTUAL DUCT LGH.	56	54	42	42	32		
EQUIVALENT LENGTH	210	205	185	210	150		
TOTAL EFFECTIVE LH	286	259	227	252	182		
ADJUSTED PRESSURE	0.06	0.06	0.07	0.06	0.08		
ROUND DUCT SIZE	7.5	6.8	6.6	7.1	8.6		
INLET GRILL SIZE	8	8	8	8	8		
OUTLET GRILL SIZE	14	14	14	14	30		

TYPE: SD-4
SITE NAME: ENCORE

LO # 72732
OPT. 2ND

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	4 @ 10.6 cfm	42.4 cfm
Other Rooms	3 @ 10.6 cfm	31.8 cfm
Table 9.32.3.A.	TOTAL	148.4 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
More than 5 - Part 6	TOTAL	79.5 cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	148.4	cfm
Less Principal Ventil. Capacity	139	cfm
Required Supplemental Capacity	9.4	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANE 60H-V+	Location: BSMT
139.0 cfm	3.0 sones
☒	HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	ΔT °F	FACTOR	% LOSS
139.0 CFM	X 74 F	X 1.08	X 0.25

SUPPLEMENTAL FANS		NUTONE
Location	Model	cfm
ENS	QTXEN050C	50
BATH	QTXEN050C	50
W/R	QTXEN050C	50

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANE 60H-V+		
139 cfm high	50 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:	March-17

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: SD-4	OPT. 2ND	BUILDER: GOLD PARK HOMES
SFQT: 1932	LO# 72732	SITE: ENCORE

DESIGN ASSUMPTIONS

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-2	OUTDOOR DESIGN TEMP.	86
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	72

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 (ft³):	26178.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 43.0 ft	WIDTH: 25.0 ft	EXPOSED PERIMETER:	114.0 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	29.8
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	-

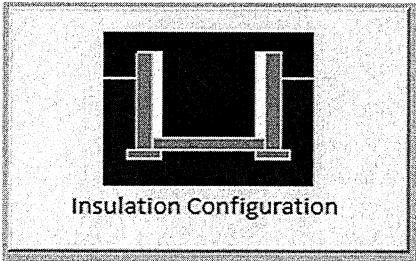
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Brampton	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	13.1	 Insulation Configuration
Floor Width (m):	7.6	
Exposed Perimeter (m):	34.7	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.8	
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):		1111

TYPE: SD-4
LO# 72732

OPT. 2ND

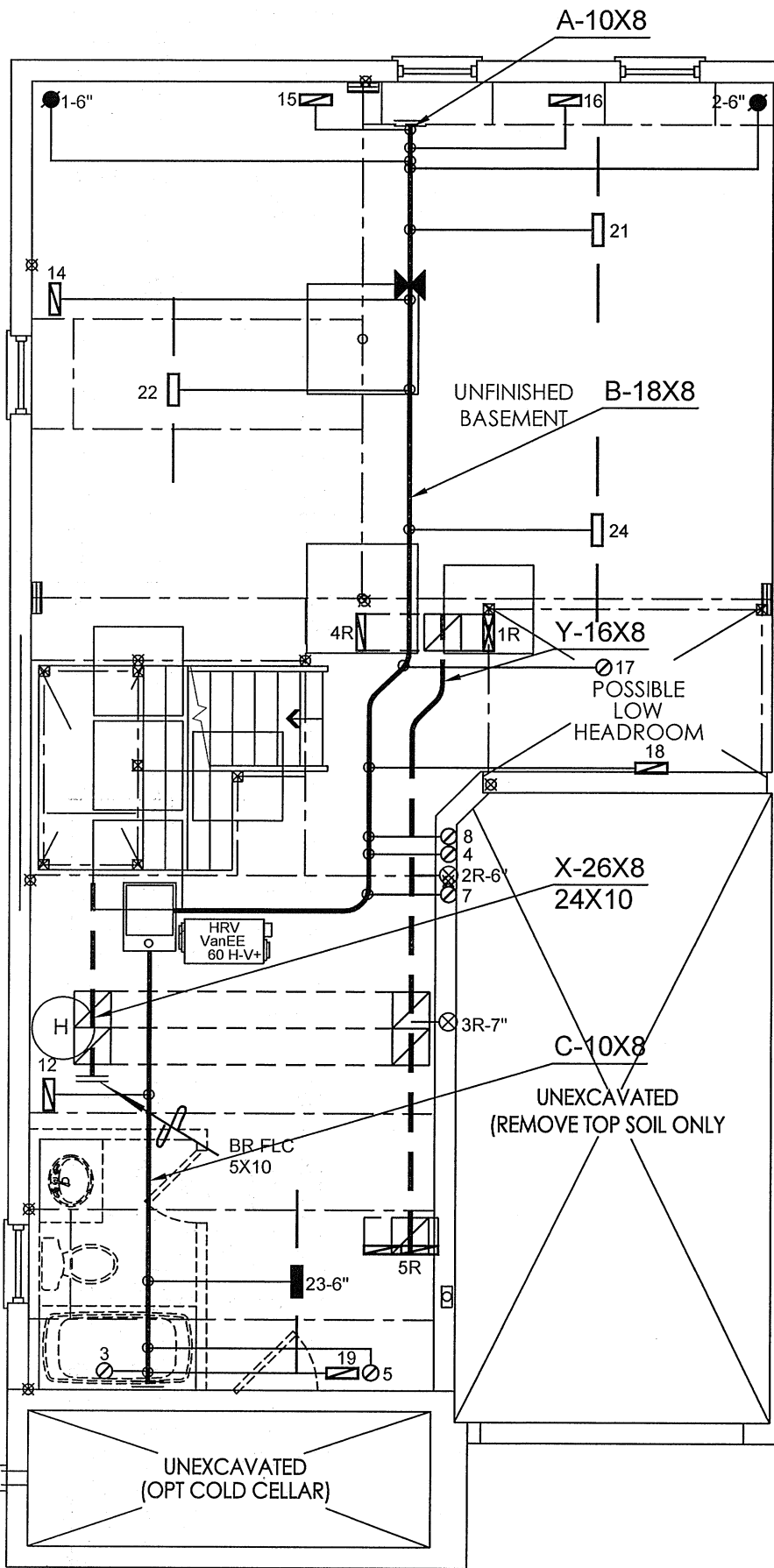
Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

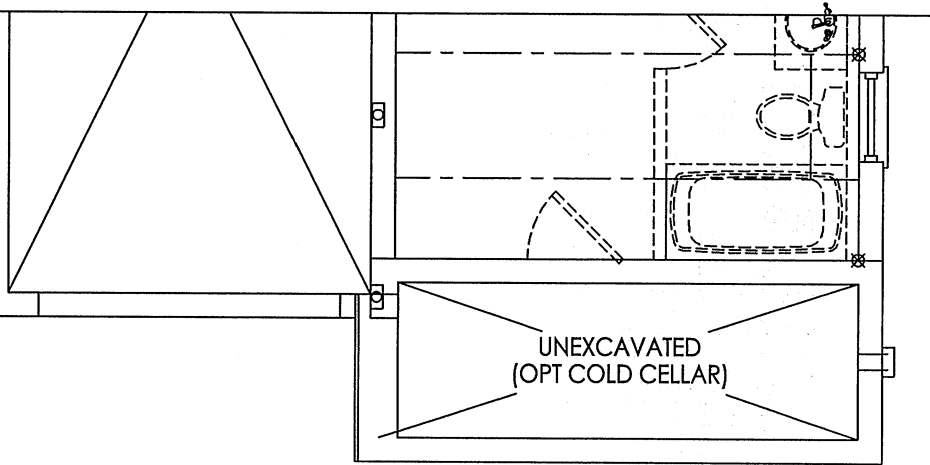
Weather Station Description				
Province:	Ontario			
Region:	Brampton			
Weather Station Location:	Open flat terrain, grass			
Anemometer height (m):	10			
Local Shielding				
Building Site:	Suburban, forest			
Walls:	Heavy			
Flue:	Heavy			
Highest Ceiling Height (m):	6.71			
Building Configuration				
Type:	Semi			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	741.3			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	988.1 cm ²		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	65.6	65.6		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.336			
Cooling Air Leakage Rate (ACH/H):	0.116			

TYPE: SD-4
LO# 72732

OPT. 2ND



BASEMENT FLOOR PLAN,ELEV. 'A'



PARTIAL BASEMENT 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.		
	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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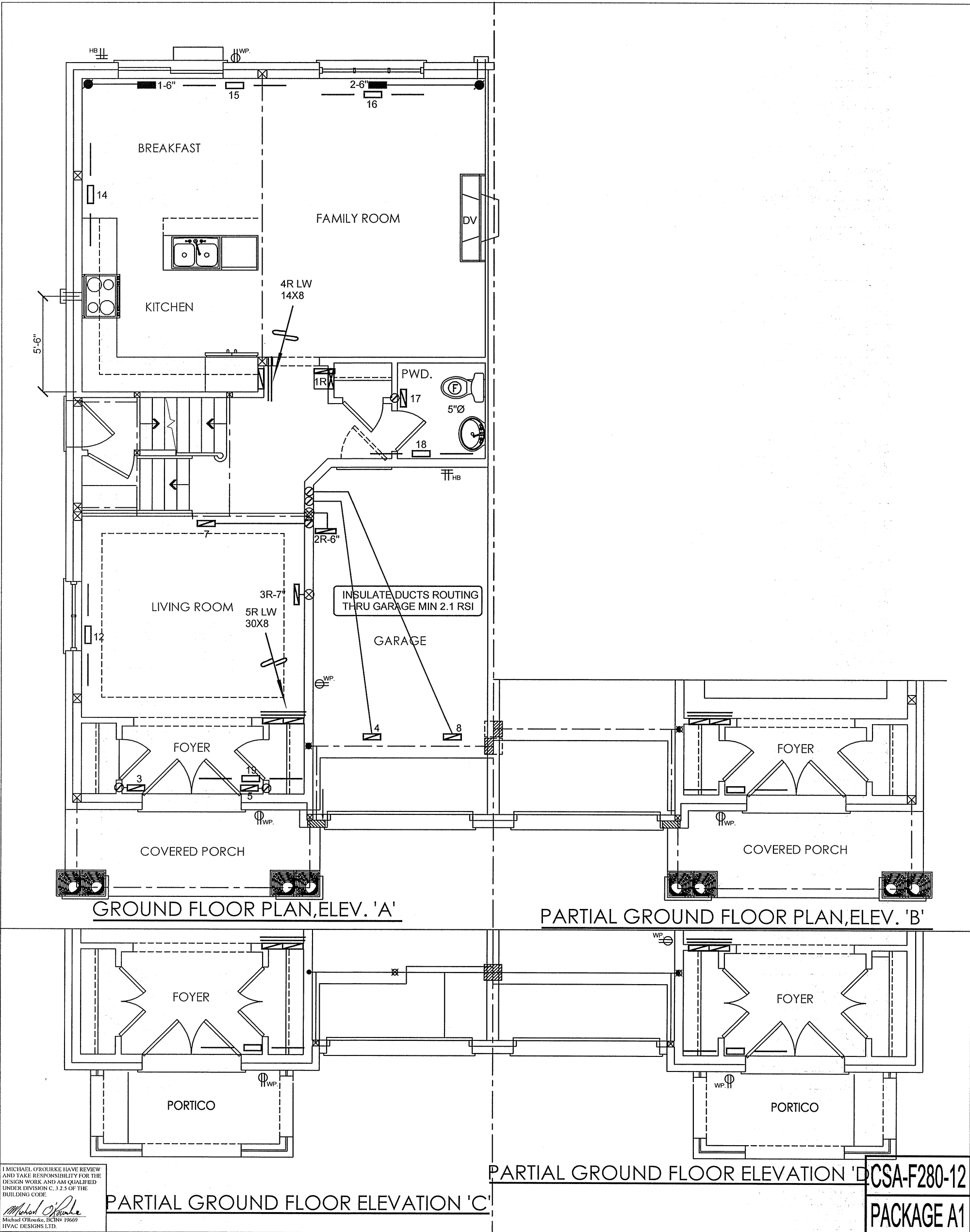
Client	GOLD PARK HOMES
Project Name	ENCORE BRAMPTON, ONTARIO
OPT. 2ND SD-4	1932 sqft

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.

HEAT LOSS 37076 BTU/H UNIT DATA		# OF RUNS	S/A	R/A	FANS
MAKE	LENNOX	3RD FLOOR			
MODEL	EL296UH045XE36B	2ND FLOOR	8	3	2
INPUT	44 MBTU/H	1ST FLOOR	6	2	2
OUTPUT	43 MBTU/H	BASEMENT	4	1	0
COOLING	2.0 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			
FAN SPEED	950 cfm @ 0.6" w.c.				

Sheet Title	BASEMENT HEATING LAYOUT
Date	MAR/2017
Scale	3/16" = 1'-0"
	BCIN# 19669
LO#	72732



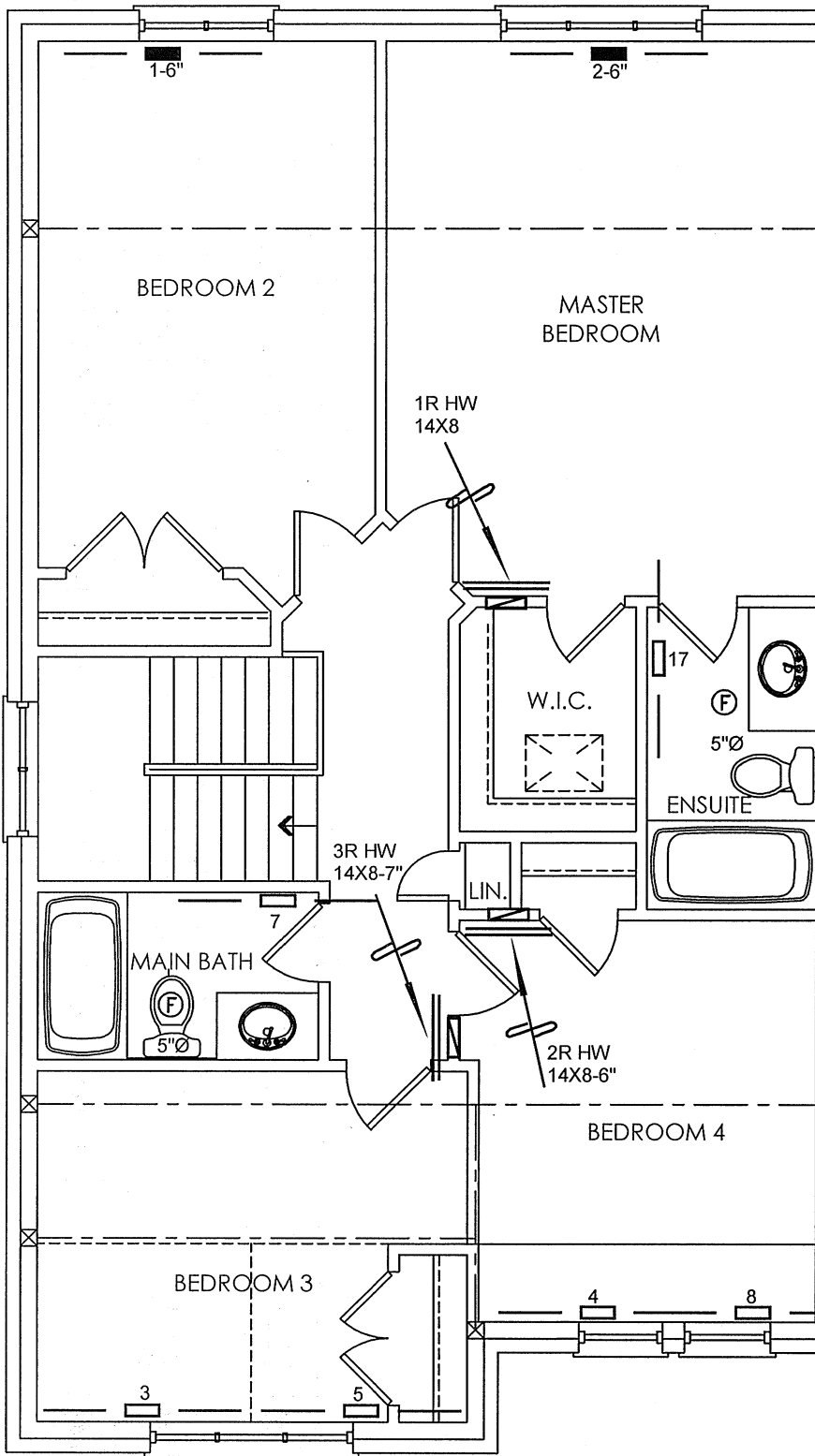
I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C.3.2.5 OF THE BUILDING CODE.

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

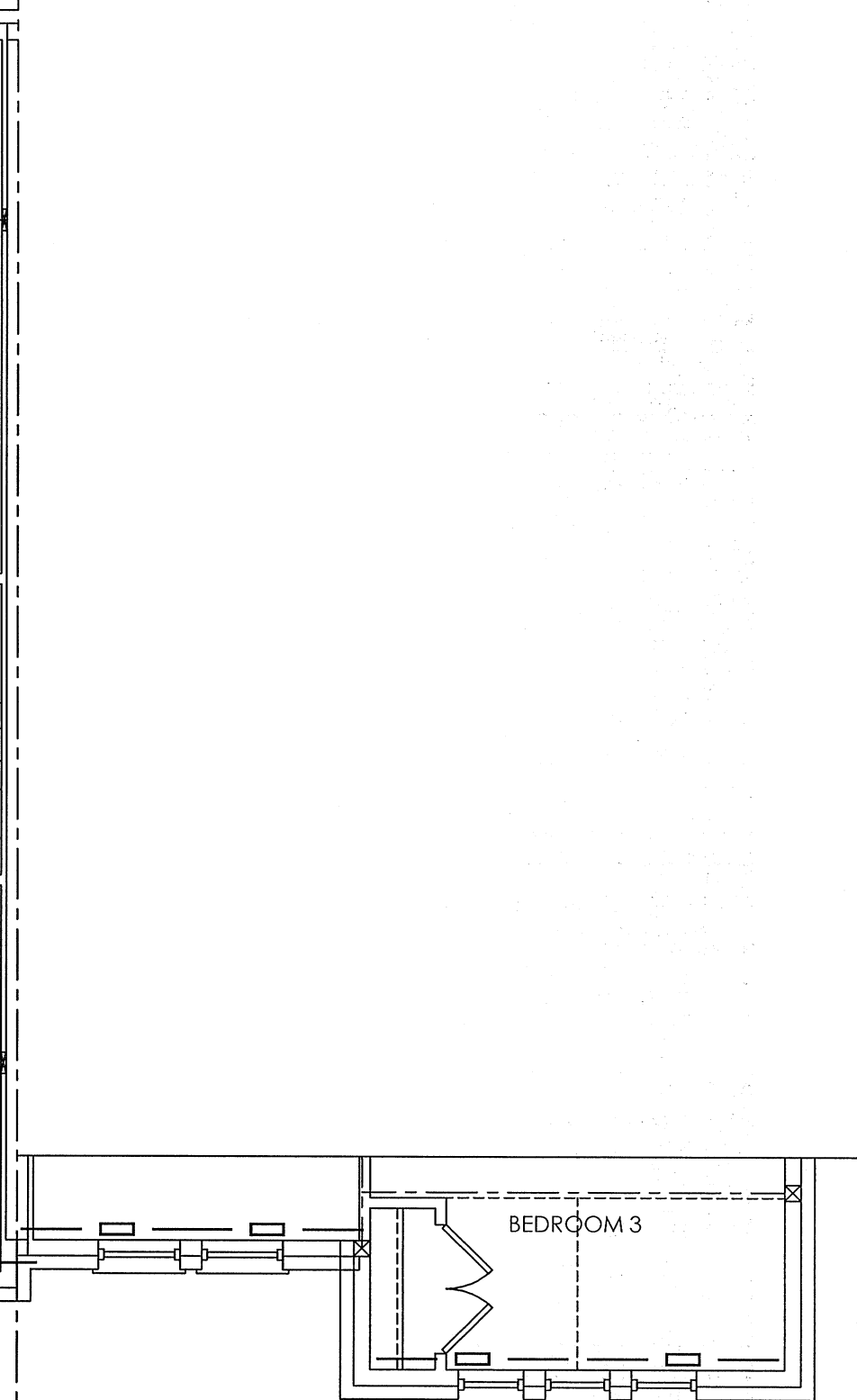
HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	FLOOR SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		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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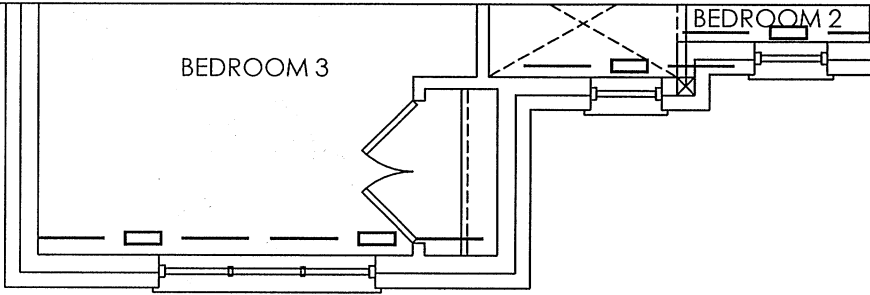
Client		 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services Installation to comply with the latest Ontario Building Code. All supply branch outlets 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	MAR/2017
ENCORE BRAMPTON, ONTARIO			Scale	3/16" = 1'-0"
OPT. 2ND			BCIN# 19669	
SD-4			LO#	72732
1932 sqft				



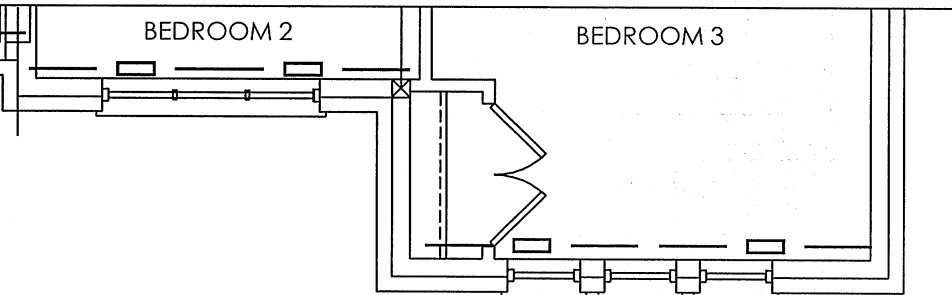
OPT. SECOND FLOOR PLAN,ELEV. 'A'



PARTIAL OPT. SECOND FLOOR PLAN,ELEV. 'B'



PARTIAL SECOND FLOOR ELEVATION 'C'



PARTIAL SECOND FLOOR ELEVATION 'D'

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.		
	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 ENCORE BRAMPTON, ONTARIO			Date	MAR/2017
OPT. 2ND SD-4			Scale	3/16" = 1'-0"
1932 sqft			BCIN# 19669	
		LO#	72732	