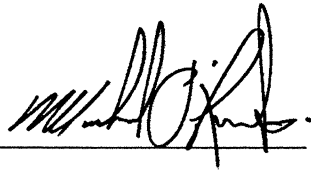


Schedule 1: Designer Information

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		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: 38-5 Project: KLEINBURG GLEN	
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 28, 2016					
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: KLEINBURG GLEN BUILDERS GOLD PARK HOMES TYPE: 38-5 DATE: Jan-16 WINTER NATURAL AIR CHANGE RATE 0.322 CSA-F280-12
BUILDERS GOLD PARK HOMES GFA: 2804 LO# 67036 SUMMER NATURAL AIR CHANGE RATE 0.098 SB-12 PACKAGE J

ROOM USE	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	ENS-2	HEAT LOSS AT °F. 76	HEAT GAIN AT °F. 16
EXP. WALL	33	26	10	17	14	13	22	6		
CLG. HT.	9	9	9	9	9	9	9	9		
FACTORS										
GRS.WALL AREA	297	234	90	153	126	117	198	54		
GLAZING	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN		
NORTH	0	0	0	0	0	0	0	0		
EAST	32	7	0	0	0	0	0	0		
SOUTH	0	0	0	0	0	0	0	0		
WEST	0	0	0	0	0	0	0	0		
SKYL.T.	0	0	0	0	0	0	0	0		
DOORS	0	0	0	0	0	0	0	0		
NET EXPOSED WALL	255	193	213	138	99	117	189	47		
NET EXPOSED BSMT WALL ABOVE GR	6.3	1.3	0	0	0	0	0	0		
EXPOSED CLG	1.5	0.8	270	410	205	168	255	72		
NO ATTIC EXPOSED CLG	2.5	1.2	0	0	0	0	0	0		
EXPOSED FLOOR	2.5	0.5	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	2097	1497	524	1148	1831	826	1287	440		
SUB TOTAL HT GAIN	1775	1007	172	651	1508	266	659	274		
LEVEL FACTOR / MULTIPLIER	0.20	0.33	0.20	0.33	0.20	0.33	0.20	0.33		
AIR CHANGE HEAT LOSS	692	494	173	379	604	273	425	145		
AIR CHANGE HEAT GAIN	112	63	11	41	95	17	41	17		
DUCT LOSS	558	0	0	0	243	110	171	0		
DUCT GAIN	153	0	0	0	254	122	70	0		
HEAT GAIN PEOPLE	2	480	0	1	240	1	240	0		
HEAT GAIN APPLIANCES/LIGHTS	700	0	0	700	700	700	700	0		
TOTAL HT LOSS BTU/H	3347	1991	697	1527	2678	1209	1883	586		
TOTAL HT GAIN x 1.3 BTU/H	4186	1392	237	2122	3637	1749	1001	378		

ROOM USE	HALL	DIN	KIT/GR	LAUN.	PWDR	FOY	DEN	BAS
EXP. WALL	12	12	82	7	12	44	11	180
CLG. HT.	9	10	10	10	10	10	10	9
FACTORS								
GRS.WALL AREA	108	120	820	70	120	440	110	1080
GLAZING	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN
NORTH	0	0	0	0	0	0	0	4
EAST	0	0	0	0	0	0	0	96
SOUTH	7	22	113	0	8	0	0	8
WEST	169	530	2723	0	193	0	22	193
SKYL.T.	0	0	0	0	0	0	0	8
DOORS	0	0	0	0	0	0	0	183
NET EXPOSED WALL	35	98	707	205	0	42	0	20
NET EXPOSED BSMT WALL ABOVE GR	3.5	0.7	6.3	1.3	0	364	88	540
EXPOSED CLG	1.5	0.8	132	0	0	0	0	0
NO ATTIC EXPOSED CLG	2.5	1.2	0	0	0	0	0	0
EXPOSED FLOOR	2.5	0.5	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	718	869	5165	843	580	3338	834	7570
SUB TOTAL HT GAIN	358	652	5378	277	293	2052	645	11977
LEVEL FACTOR / MULTIPLIER	0.20	0.33	0.30	0.44	0.30	0.44	0.30	0.50
AIR CHANGE HEAT LOSS	237	383	2280	372	256	1474	368	8556
AIR CHANGE HEAT GAIN	23	41	339	17	18	129	41	91
DUCT LOSS	0	0	0	0	0	0	0	0
DUCT GAIN	0	0	0	0	0	0	0	0
HEAT GAIN PEOPLE	0	0	0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS	700	700	700	700	700	700	700	0
TOTAL HT LOSS BTU/H	955	1252	7445	1215	836	4811	1202	20533
TOTAL HT GAIN x 1.3 BTU/H	1405	1810	8341	1292	404	2835	1800	2006

SITE NAME: KLEINBURG GLEN
BUILDER: GOLD PARK HOMES

TYPE: 38-5

DATE: Jan-16

GFA: 2804

IQ# 67036

	RUN COUNT	4th	3rd	2nd	1st	Bas
HEATING CFM	S/A	0	0	11	8	5
TOTAL HEAT LOSS	S/A	0	0	11	8	5
AIR FLOW RATE CFM	R/A	0	0	4	3	1

0.05	furnace filter	0.18	plenum pressure s/a
0.2	a/c coil pressure	0.03	max s/a dif press. loss
0.35	available pressure for s/a & r/a	0.15	min adjusted pressure s/a

r/a pressure	0.17
r/a grille press. Loss	0.02
adjusted pressure r/a	0.15

EL195UH070XE3
FAN SPEED
LCD
MEDLO
MEDIUM
MEDIUM HIGH
HIGH

LENNOX
70
0
0
995
1100
1200

AFUE = 95.0 %
INPUT (BTU/H) = 66,000
OUTPUT (BTU/H) = 63,000
DESIGN CFM = 1100
CFM @ .6" E.S.P.

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	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	BATH	ENS	MBR	ENS-2	HALL	DIN	KIT	KIT/GRT	KIT/GRT	LAUN	PWDR	FOY	DEN	BAS	BAS	BAS	BAS
RM LOSS MBH	1.67	1.00	0.70	1.53	1.21	1.21	1.88	1.00	1.67	0.59	0.96	1.25	2.48	2.48	2.48	1.21	0.84	4.81	1.20	4.11	4.11	4.11	4.11
CFM PER RUN HEAT	35	21	15	32	56	25	40	21	35	12	20	26	52	52	52	26	18	101	25	87	87	87	87
RM GAIN MBH	2.09	0.70	0.24	2.12	3.64	1.75	1.00	0.70	2.09	0.38	1.41	1.81	2.78	2.78	2.78	1.29	0.40	2.84	1.80	0.40	0.40	0.40	0.40
CFM PER RUN COOLING	67	22	8	67	116	56	32	22	67	12	45	58	88	88	88	41	13	90	57	13	13	13	13
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.15	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.17	0.17	0.16	0.17	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH	57	67	29	37	43	43	45	44	42	29	35	31	38	30	45	11	24	35	21	39	32	16	16
EQUIVALENT LENGTH	120	150	140	170	130	200	190	130	170	230	140	100	130	110	140	140	110	90	110	100	120	120	130
TOTAL EFFECTIVE LENGTH	177	217	169	207	173	243	235	174	212	259	175	131	168	140	155	151	134	125	131	139	152	136	146
ADJUSTED PRESSURE	0.1	0.08	0.1	0.08	0.09	0.07	0.07	0.1	0.08	0.07	0.1	0.13	0.1	0.12	0.1	0.11	0.13	0.13	0.13	0.12	0.11	0.12	0.11
ROUND DUCT SIZE	5	4	4	5	6	5	4	4	5	4	4	4	5	5	5	4	4	5	4	5	5	5	5
HEATING VELOCITY (ft/min)	257	241	172	235	286	184	459	241	257	138	229	298	382	382	382	298	207	742	287	639	639	639	639
COOLING VELOCITY (ft/min)	492	252	92	492	591	411	367	252	492	138	516	665	646	646	646	470	149	661	654	95	95	95	95
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	A	B	C	C	E	E	E	C	B	E	E	C	B	B	A	C	D	D	F	A	R	C	C

25	ROOM NAME	25
BAS	ROOM LOSS MBH	4.11
87	CFM PER RUN HEAT	0.40
0.40	RM GAIN MBH	13
13	CFM PER RUN COOLING	0.16
0.16	ADJUSTED PRESSURE	36
36	ACTUAL DUCT LGH	100
100	EQUIVALENT LENGTH	136
136	TOTAL EFFECTIVE LENGTH	0.12
0.12	ADJUSTED PRESSURE	5
5	ROUND DUCT SIZE	639
639	HEATING VELOCITY (ft/min)	95
95	COOLING VELOCITY (ft/min)	3X10
3X10	OUTLET GRILL SIZE	D
D	TRUNK	

SUPPLY AIR TRUNK SIZE										RETURN AIR TRUNK SIZE										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 CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)	RECT DUCT	VELOCITY (ft/min)				
				8												8				
TRUNK A	0.10	6.9	6	x					8	TRUNK P	0.06	0	0		x	8				
TRUNK B	0.08	8.3	8	x	TRUNK G	0.00	0	0	8	TRUNK Q	0.06	0	0		x	8				
TRUNK C	0.08	11.8	16	x	TRUNK H	0.00	0	0	8	TRUNK R	0.06	0	0		x	8				
TRUNK D	0.12	7	6	x	TRUNK I	0.00	0	0	8	TRUNK S	0.06	0	0		x	8				
TRUNK E	0.07	10.9	14	x	TRUNK J	0.00	0	0	8	TRUNK T	0.06	0	0		x	8				
TRUNK F	0.00	0	0	x	TRUNK K	0.00	0	0	8											
				8	TRUNK L	0.00	0	0	8											

[illegible]

TYPE: 38-5
SITE NAME: KLEINBURG GLEN

LO # 67036

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>3</u> @ 10.6 cfm	<u>31.8</u> cfm
Kitchen & Bathrooms	<u>5</u> @ 10.6 cfm	<u>53</u> cfm
Other Rooms	<u>4</u> @ 10.6 cfm	<u>42.4</u> cfm
Table 9.32.3.A.	TOTAL	<u>169.6</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
More than 5 - Part 6	TOTAL	<u>79.5</u> cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	<u>169.6</u>	cfm
Less Principal Ventil. Capacity	<u>95</u>	cfm
Required Supplemental Capacity	<u>74.6</u>	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANEE 50H	Location: BSMT
<u>95.0</u> cfm	<u>3.0</u> sones
☒ HVI Approved	

PRINCIPAL EXHAUST HEAT LOSS CALCULATION	
CFM	ΔT °F
95.0 CFM	76 F
X	X
FACTOR	% LOSS
1.08	0.34
X	X

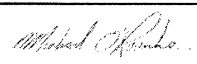
SUPPLEMENTAL FANS		NUTONE		
Location	Model	cfm	HVI	Sones
ENS	QTXEN050C	50	☒	0.3
BATH	QTXEN050C	50	☒	0.3
ENS-2	QTXEN050C	50	☒	0.3
PWDR	QTXEN050C	50	☒	0.3

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANEE 50H		
<u>95</u>	cfm high	<u>48</u> cfm low
<u>66</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-16

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: 38-5	BUILDER: GOLD PARK HOMES
SFQT: 2804	LO# 67036
	SITE: KLEINBURG GLEN

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

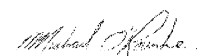
ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	WEST	ASSUMED (Y/N):	Y
AIR CHANGES PER HOUR:	3.57	ASSUMED (Y/N):	Y
AIR TIGHTNESS CATEGORY:	AVERAGE	ASSUMED (Y/N):	Y
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Y
HOUSE VOLUME (ft³):	39080.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.50	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 60.0 ft	WIDTH: 30.0 ft	EXPOSED PERIMETER:	180.0 ft

2012 OBC - COMPLIANCE PACKAGE

Component	Compliance Package
	J
Ceiling with Attic Space Minimum RSI (R)-Value	50
Ceiling Without Attic Space Minimum RSI (R)-Value	31
Exposed Floor Minimum RSI (R)-Value	31
Walls Above Grade Minimum RSI (R)-Value	22
Basement Walls Minimum RSI (R)-Value	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
Heated Slab or Slab ≤ 600 mm below grade Minimum RSI (R)-Value	10
Windows and Sliding Glass Doors Maximum U-Value	1.8
Skylights Maximum U-Value	2.8
Space Heating Equipment Minimum AFUE	0.94
HRV Minimum Efficiency	60%
Domestic Hot Water Heater Minimum EF	0.67

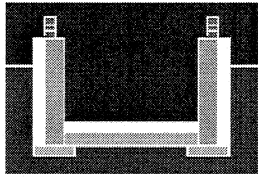
INDIVIDUAL BCIN: 19669

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):	18.3	 Insulation Configuration
Floor Width (m):	9.1	
Exposed Perimeter (m):	0	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.8	
Window Area (m ²):	1.9	
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):	2218	

54.8

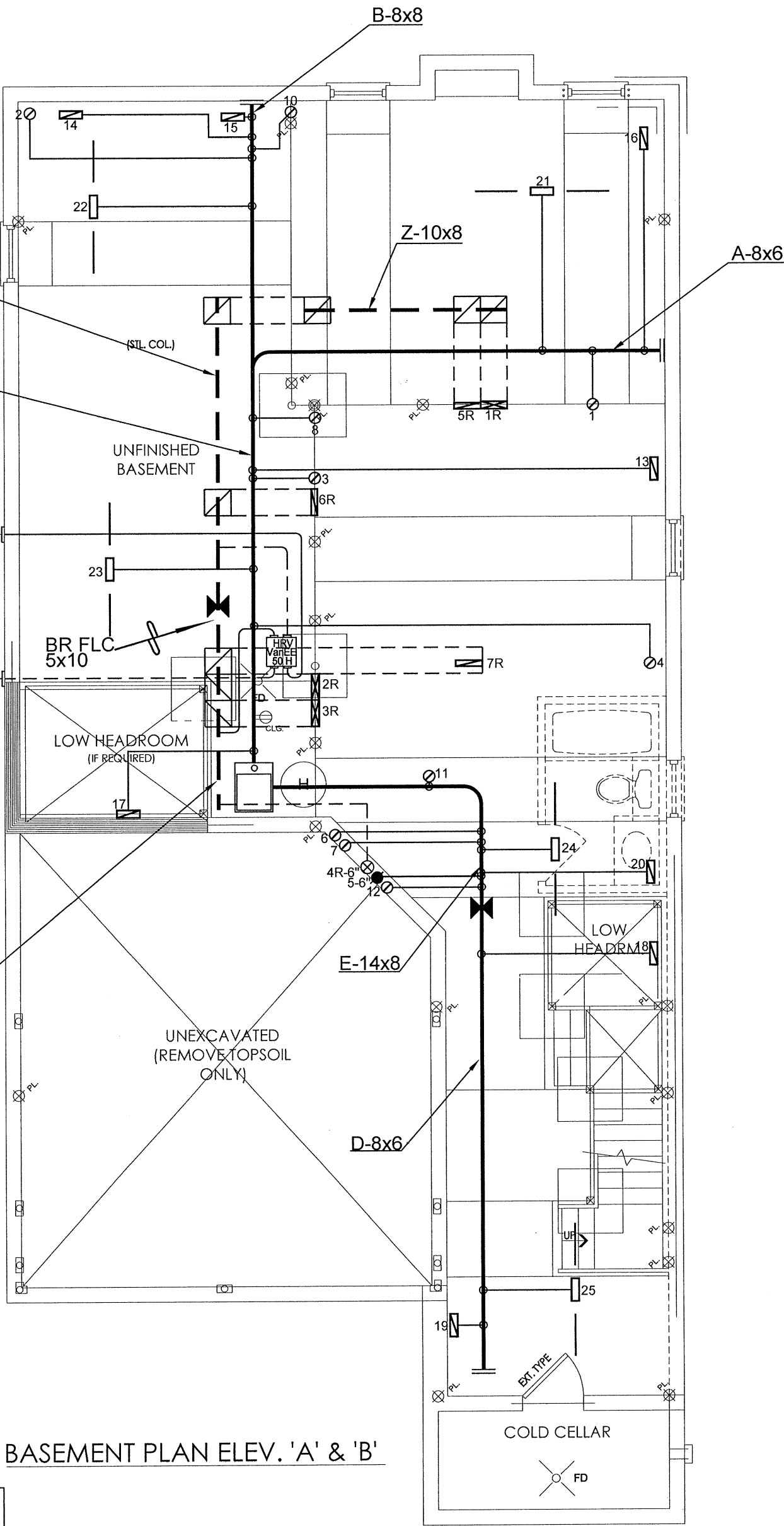
2.6 146.06

146.06

Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description			
Province:	Ontario		
Region:	Vaughan (Woodbridge)		
Weather Station Location:	Open flat to water, grass		
Anemometer height (m):	10		
Local Shielding			
Building Site:	Suburban, forest		
Walls:	Heavy		
Flue:	Heavy		
Highest Ceiling Height (m):	6.71		
Building Configuration			
Type:	Detached		
Number of Stories:	Two		
Foundation:	Full		
House Volume (m ³):	1106.6		
Air Leakage/Ventilation			
Air Tightness Type:	Present (1961-) (ACH=3.57)		
Custom BDT Data:	ELA @ 10 Pa: 716.42 cm ² ACH @ 50 Pa: 3.57		
Mechanical Ventilation (L/s):	Total Supply:	Total Exhaust:	
	0	0	
Flue Size			
Flue #:	#1	#2	#3
Diameter (mm):	0	0	0
Natural Infiltration Rates			
Heating Air Change Rate (ACH/H):		0.322	
Cooling Air Change Rate (ACH/H):		0.098	



BASEMENT PLAN ELEV. 'A' & 'B'

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.

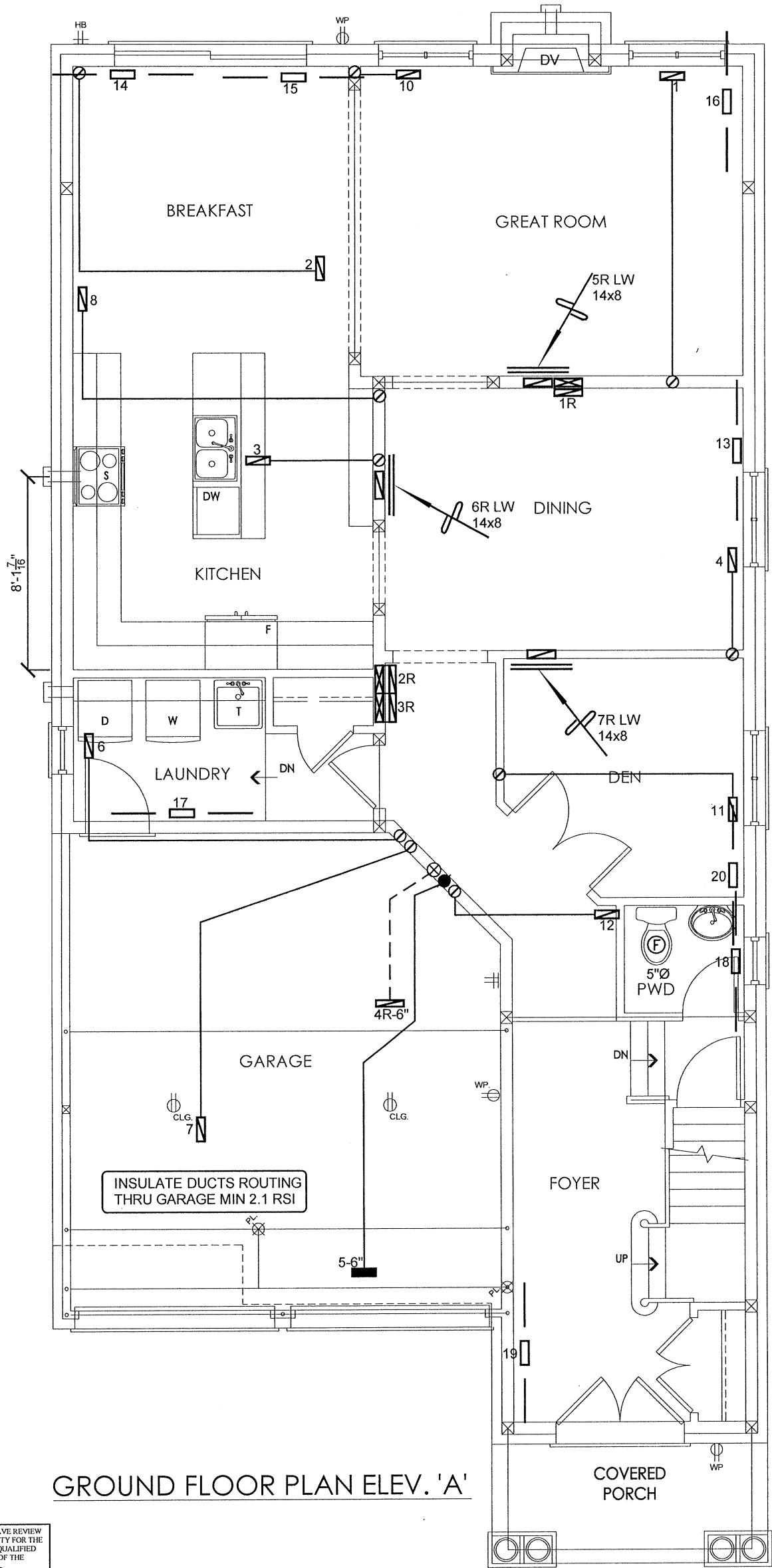
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

CSA-F280-12
PACKAGE J

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

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Client		HVAC DESIGNS 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		HEAT LOSS 54818 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS			Sheet Title BASEMENT HEATING LAYOUT	
GOLD PARK HOMES				MAKE LENNOX	3RD FLOOR					
Project Name KLEINBURG GLEN VAUGHAN, ONTARIO		MODEL EL195UH070XE36B-70	2ND FLOOR			11	4	4		
38-5 2805 sqft		INPUT 66 MBTU/H	1ST FLOOR			8	3	2	Date JAN/2016	
		OUTPUT 63 MBTU/H	BASEMENT			5	1	0	Scale 3/16" = 1'-0"	
		COOLING 3.0 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							BCIN# 19669
		FAN SPEED 1100 cfm @ 0.6" w.c.								LO# 67036



GROUND FLOOR PLAN ELEV. 'A'

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.

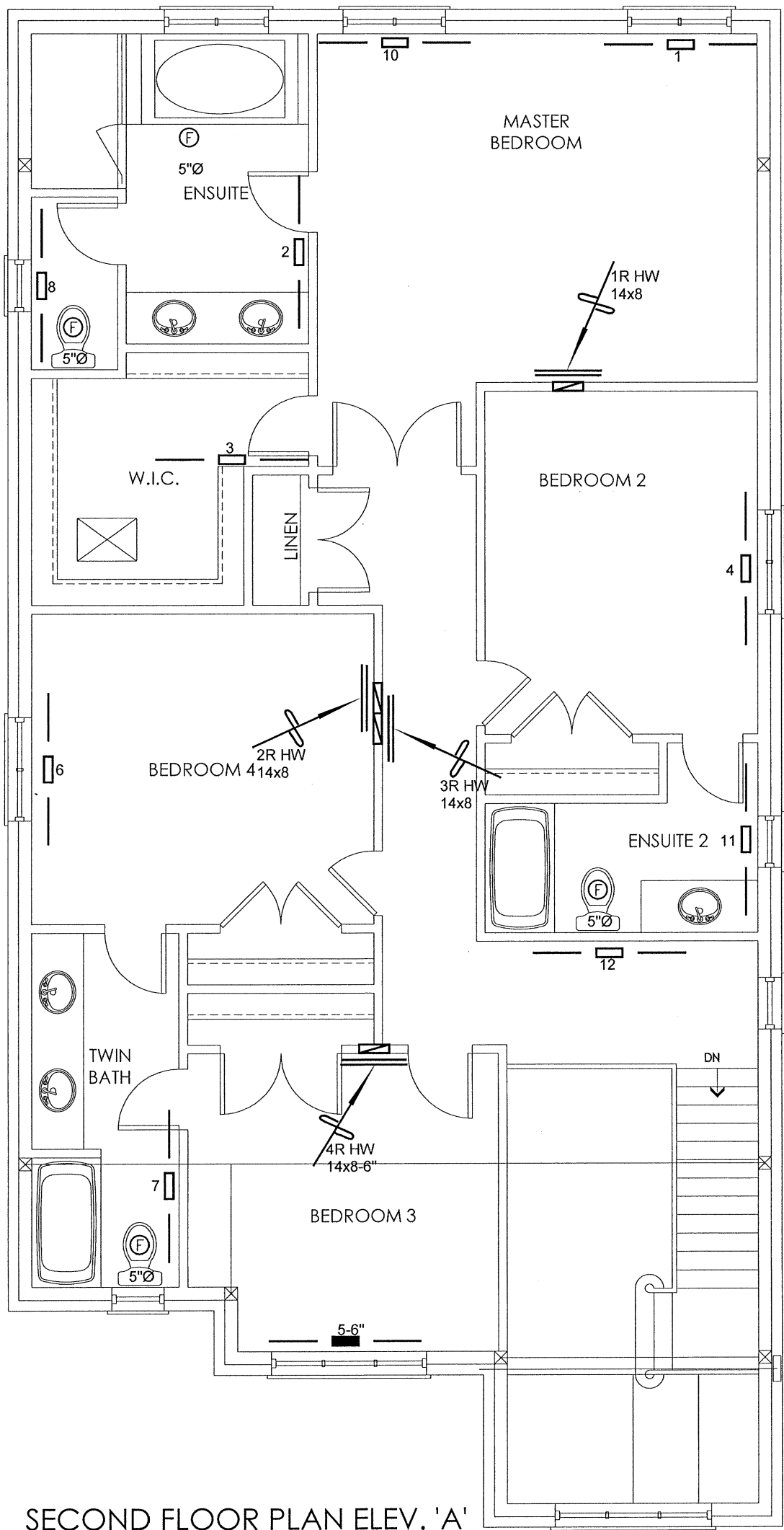
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

CSA-F280-12
PACKAGE J

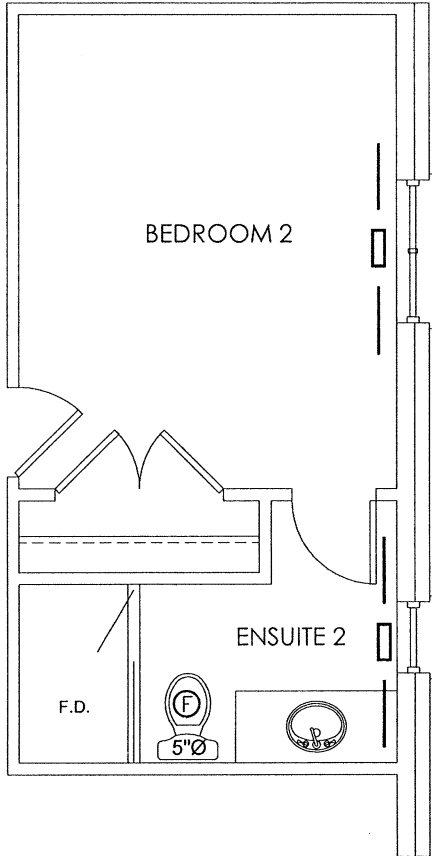
HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	FLOOR SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		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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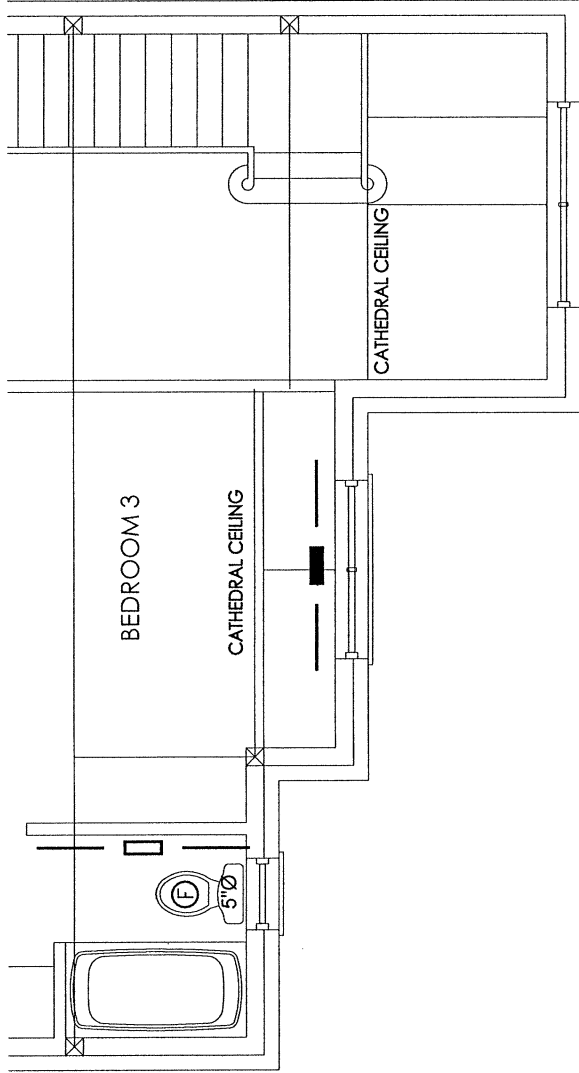
Client GOLD PARK HOMES		HVACDESIGNS LTD. 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services Installation to comply with the latest Ontario Building 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	
Project Name KLEINBURG GLEN VAUGHAN, ONTARIO			Date JAN/2016	
38-5			Scale 3/16" = 1'-0"	
2805 sqft			BCIN# 19669	
			LO#	67036



SECOND FLOOR PLAN ELEV. 'A'



PARTIAL OPT. ENSUITE PLAN
EL. 'A' & 'B'



PART. STD. & OPT. SECOND 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 J

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			SECOND FLOOR HEATING LAYOUT	
Project Name			Date	JAN/2016
KLEINBURG GLEN VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
			BCIN# 19669	
38-5	2805 sqft	LO#	67036	