

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@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
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Description of designer's work HEAT LOSS / GAIN CALCULATIONS DUCT SIZING RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY RESIDENTIAL SYSTEM DESIGN per CSA-F280-12	Model: 25-1 – OPT 1ST Project: KLEINBURG GLEN
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D. Declaration of Designer

I **MICHAEL O'ROURKE** 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: 19669

Basis for exemption from registration and qualification: O.B.C SENTENCE 3.2.4.1 (4)

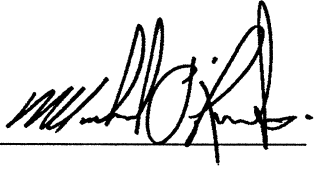
☐ The design work is exempt from the registration and qualification requirements of the Building Code.

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 15, 2016
Date


Signature of Designer

NOTE:

1. 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.
2. 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 BUILDER: GOLD PARK HOMES OPT. 1ST TYPE: 25-1 DATE: Jan-16 LO# 66854 WINTER NATURAL AIR CHANGE RATE 0.322 SUMMER NATURAL AIR CHANGE RATE 0.098 HEAT LOSS ΔT °F. 76 HEAT GAIN ΔT °F. 16 CSA-F280-12 SB-12 PACKAGE J

ROOM USE	EXP. WALL CLG. HT.	FACTORS	LOSS GAIN	MBR	ENS	WIC	BED-2	BED-3	BATH			
GRS.WALL AREA			310	216	216	99	315	252	144			
GLAZING			LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN			
NORTH	24.1	17.5	0	0	0	0	0	0	0			
EAST	24.1	43.0	24	337	603	0	0	0	0			
SOUTH	24.1	26.4	0	0	0	0	0	0	0			
WEST	24.1	43.0	0	0	0	0	7	169	185			
SKYL.T.	24.1	88.1	0	0	0	0	35	843	1506			
DOORS	25.2	5.3	0	0	0	0	0	0	0			
NET EXPOSED WALL	3.5	0.7	286	988	208	99	342	72	273			
NET EXPOSED BSMT WALL ABOVE GR	6.3	1.3	0	0	0	0	0	0	0			
EXPOSED CLG	1.5	0.8	244	371	185	88	134	67	216			
NO ATTIC EXPOSED CLG	2.5	1.2	0	0	0	0	0	0	0			
EXPOSED FLOOR	2.5	0.5	0	0	0	0	52	127	27			
BASEMENT/CRAWL HEAT LOSS			0	0	0	0	0	0	0			
SLAB ON GRADE HEAT LOSS			0	0	0	0	0	0	0			
SUBTOTAL HT LOSS			1937	1230	847	476	2411	1758	1086			
SUB TOTAL HT GAIN			0.20	0.25	0.20	0.20	0.25	0.20	0.25			
LEVEL FACTOR / MULTIPLIER			475	302	48	117	592	431	247			
AIR CHANGE HEAT LOSS			0	0	0	0	300	219	0			
DUCT LOSS			0	0	0	0	286	179	0			
DUCT GAIN			0	0	0	0	1	240	420			
HEAT GAIN PEOPLE	240		2	480	0	0	0	0	0			
HEAT GAIN APPLANCES/LIGHTS			2412	1531	1709	592	3303	2408	1252			
TOTAL HT LOSS BTU/H			3130	1709	1709	592	3303	2408	1252			
TOTAL HT GAIN x 1.3 BTU/H												

ROOM USE	EXP. WALL CLG. HT.	FACTORS	LOSS GAIN	KT/IFM	LAUN	WIR	FOY	BAS
GRS.WALL AREA			670	253	253	160	380	936
GLAZING			LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN
NORTH	24.1	17.5	0	0	0	0	0	0
EAST	24.1	43.0	63	1518	2712	0	0	6
SOUTH	24.1	26.4	30	723	792	0	0	0
WEST	24.1	43.0	0	0	0	9	217	6
SKYL.T.	24.1	88.1	0	0	0	0	0	6
DOORS	25.2	5.3	0	0	0	0	0	0
NET EXPOSED WALL	3.5	0.7	577	1993	420	151	522	20
NET EXPOSED BSMT WALL ABOVE GR	6.3	1.3	0	0	0	0	0	0
EXPOSED CLG	1.5	0.8	0	0	0	0	0	360
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
SLAB ON GRADE HEAT LOSS			0	0	0	0	0	0
SUBTOTAL HT LOSS			4234	1310	738	347	2272	8351
SUB TOTAL HT GAIN			0.30	0.38	0.30	0.38	0.30	0.50
LEVEL FACTOR / MULTIPLIER			1606	497	280	20	862	5408
AIR CHANGE HEAT LOSS			0	0	0	0	0	0
DUCT LOSS			0	0	0	0	0	0
DUCT GAIN			0	0	0	0	0	0
HEAT GAIN PEOPLE	240		0	0	0	0	0	0
HEAT GAIN APPLANCES/LIGHTS			5840	1807	1019	420	3133	13759
TOTAL HT LOSS BTU/H			5934	1807	1019	420	3133	13759
TOTAL HT GAIN x 1.3 BTU/H								

TOTAL HEAT GAIN BTU/H: 23514 TONS: 1.96 LOSS DUE TO VENTILATION LOAD BTU/H: 2149 STRUCTURAL HEAT LOSS: 37057 TOTAL COMBINED HEAT LOSS BTU/H: 39205

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'Rourke INDIVIDUAL BCIN: 19669 MICHAEL O'ROURKE

SITE NAME: KLEINBURG GLEN
BUILDER: GOLD PARK HOMES
DATE: Jan-16
GFA: 1813
LO# 66854
OPT. 1ST
TYPE: 25-1

HEATING CFM	700	COOLING CFM	700	AFUE = 95.0 %
TOTAL HEAT LOSS	37,057	TOTAL HEAT GAIN	23,062	INPUT (BTU/H) = 44,000
AIR FLOW RATE CFM	18.89	AIR FLOW RATE CFM	30.35	OUTPUT (BTU/H) = 42,000
FAN SPEED				
LOW 0				
MEDIUM 0				
HIGH 700				
DESIGN CFM = 700				
CFM @ 8" E.S.P.				
TEMPERATURE RISE 56 °F				

All S/A runs 5'x2' unless noted otherwise on layout.																													
RUN #		2																											
1		3		4		5		7		14		15		16		17		18		19		21		23		24			
MBR		ENS		WIC		BED-2		BED-3		BATH		KT/FM		KT/FM		KT/FM		LAUN		W/R		FOY		BAS		BAS		BAS	
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 (ft/min)		COOLING VELOCITY (ft/min)		OUTLET GRILL SIZE		TRUNK	
2.41	1.53	0.59	3.30	2.41	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
46	29	11	62	45	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
3.13	1.71	0.19	4.09	2.56	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
95	52	6	124	78	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
0.16	0.17	0.17	0.15	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
48	28	29	56	47	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
180	180	150	140	160	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
228	208	179	196	207	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141
0.07	0.08	0.1	0.08	0.08	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
6	5	4	6	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
235	213	126	316	330	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275
484	382	69	632	573	459	459	459	459	459	459	459	459	459	459	459	459	459	459	459	459	459	459	459	459	459	459	459	459	459
4X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
C	C	B	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	C	C	B	B	B	B	A

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 (ft/min)	COOLING VELOCITY (ft/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 CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)					
TRUNK A	253	0.08	8.4	8	569	TRUNK G	0	0.00	0	8	TRUNK O	0	0.06	0	8	TRUNK P	0	0.06	0	8					
TRUNK B	465	0.08	10.5	14	8	TRUNK H	0	0.00	0	8	TRUNK Q	0	0.06	0	8	TRUNK R	0	0.06	0	8					
TRUNK C	236	0.07	8.4	8	531	TRUNK I	0	0.00	0	8	TRUNK S	0	0.06	0	8	TRUNK T	0	0.06	0	8					
TRUNK D	0	0.00	0	0	0	TRUNK J	0	0.00	0	8	TRUNK U	0	0.06	0	8	TRUNK V	0	0.06	0	8					
TRUNK E	0	0.00	0	0	8	TRUNK K	0	0.00	0	8	TRUNK W	0	0.06	0	8	TRUNK X	0	0.06	0	8					
TRUNK F	0	0.00	0	0	8	TRUNK L	0	0.00	0	8	TRUNK Y	0	0.06	0	8	TRUNK Z	0	0.06	0	8					
													BR												
AIR VOLUME	1	2	3	4	0	0	0	0	0	0	0	0	0	0	0	700	0	0.06	13.2	20					
PLENUM PRESSURE	135	85	85	270	0	0	0	0	0	0	0	0	0	0	0	TRUNK X	0	0.06	0	0					
ACTUAL DUCT LGH.	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	TRUNK Y	0	0.06	0	0					
EQUIVALENT LENGTH	35	45	49	31	1	1	1	1	1	1	1	1	1	1	1	TRUNK Z	0	0.06	0	0					
TOTAL EFFECTIVE LH	135	185	185	140	0	0	0	0	0	0	0	0	0	0	0	DROP	700	0.06	13.2	24					
ADJUSTED PRESSURE	170	230	234	171	1	1	1	1	1	1	1	1	1	1	1										
ROUND DUCT SIZE	0.09	0.06	0.06	0.09	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80										
INLET GRILL SIZE	6.4	6	6	8.3	0	0	0	0	0	0	0	0	0	0	0										
	8	8	8	8	0	0	0	0	0	0	0	0	0	0	0										
	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
	14	14	14	24	0	0	0	0	0	0	0	0	0	0	0										

TYPE: 25-1
SITE NAME: KLEINBURG GLEN

LO # 66854
OPT. 1ST

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>2</u> @ 10.6 cfm	<u>21.2</u> cfm
Kitchen & Bathrooms	<u>4</u> @ 10.6 cfm	<u>42.4</u> cfm
Other Rooms	<u>3</u> @ 10.6 cfm	<u>31.8</u> cfm
Table 9.32.3.A.	TOTAL	<u>137.8</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	63.6 cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	<u>137.8</u>	cfm
Less Principal Ventil. Capacity	<u>77</u>	cfm
Required Supplemental Capacity	<u>60.8</u>	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANEE 40H+	Location: BSMT
<u>77.0</u> cfm	<u>3.0</u> sones ☒ HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	$\Delta T \cdot F$	FACTOR	% LOSS
77.0 CFM	X 76 F	X 1.08	X 0.34

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

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANEE 40H+		
<u>77</u> cfm high	<u>42</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:	<i>Michael O'Rourke</i>
HRAI #	001820
Date:	January-16

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: 25-1	OPT. 1ST	BUILDER: GOLD PARK HOMES
SFQT: 1813	LO# 66854	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):	24703.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	4
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.5 ft
LENGTH: 53.0 ft	WIDTH: 19.0 ft	EXPOSED PERIMETER:	144.0 ft

2012 OBC - COMPLIANCE PACKAGE

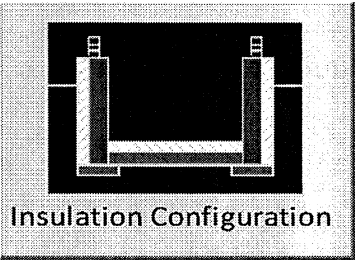
Component	Compliance Package
	J
Ceiling with Attic Space Minimum RSI (R)-Value	50
Ceiling Without Attic Space Minimum RSI (R)-Value	31
Exposed Floor Minimum RSI (R)-Value	31
Walls Above Grade Minimum RSI (R)-Value	22
Basement Walls Minimum RSI (R)-Value	12
Below Grade Slab Entire surface > 600 mm below 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):	16.2	 Insulation Configuration
Floor Width (m):	5.8	
Exposed Perimeter (m):	0	
Wall Height (m):	2.7	
Depth Below Grade (m):	2	
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):	1546	

44

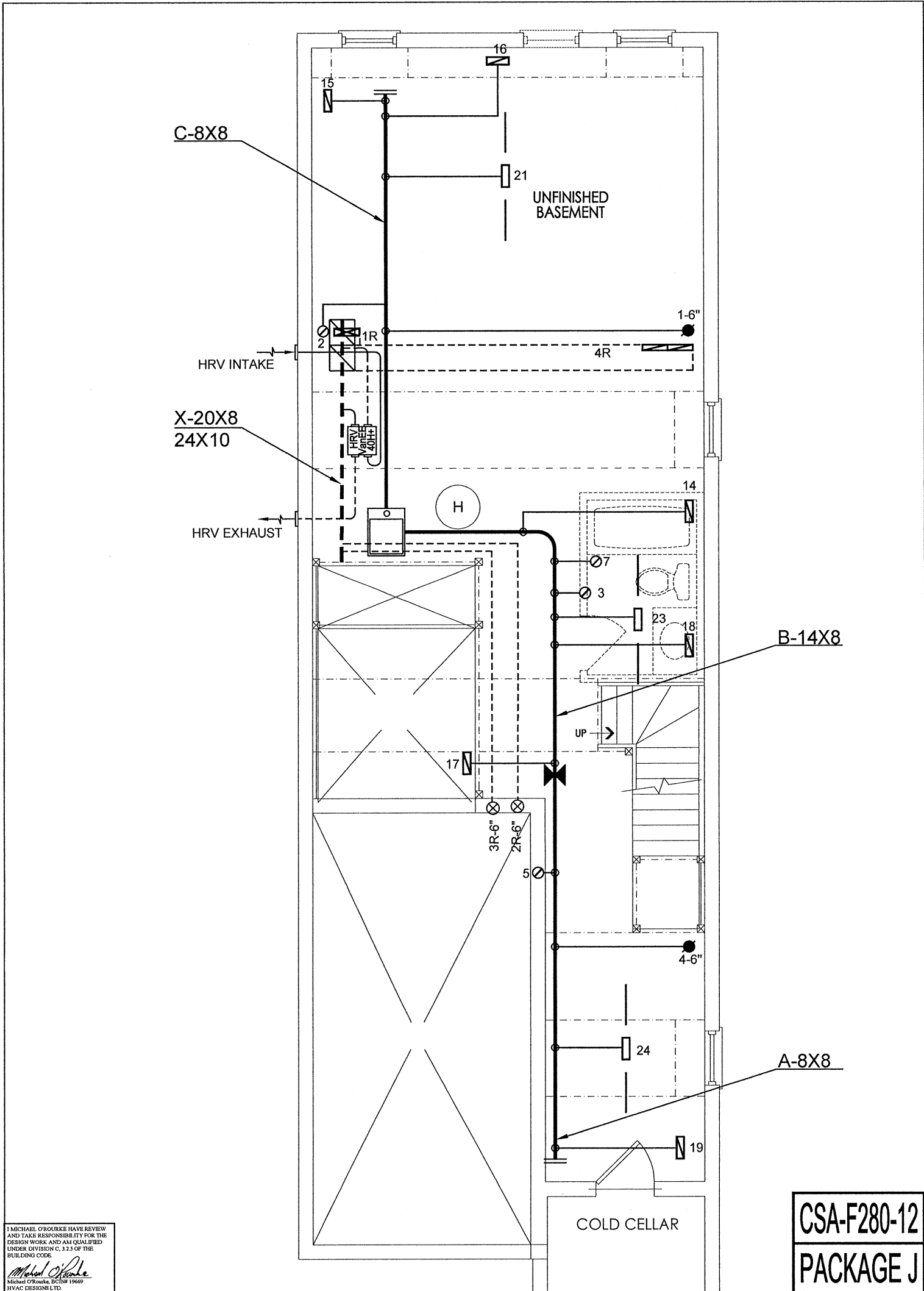
2.6 117.7

116.9

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:	Detached ▼			
Number of Stories:	Two ▼			
Foundation:	Full ▼			
House Volume (m ³):	699.5			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (ACH=3.57) ▼			
Custom BDT Data:	ELA @ 10 Pa. ▼ 716.42 cm ²			
	3.57 ACH @ 50 Pa			
Mechanical Ventilation (L/s):	Total Supply:		Total Exhaust:	
	0		0	
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Change Rate (ACH/H):			0.322	
Cooling Air Change Rate (ACH/H):			0.098	



I MICHAEL O'Rourke HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 32.1 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		

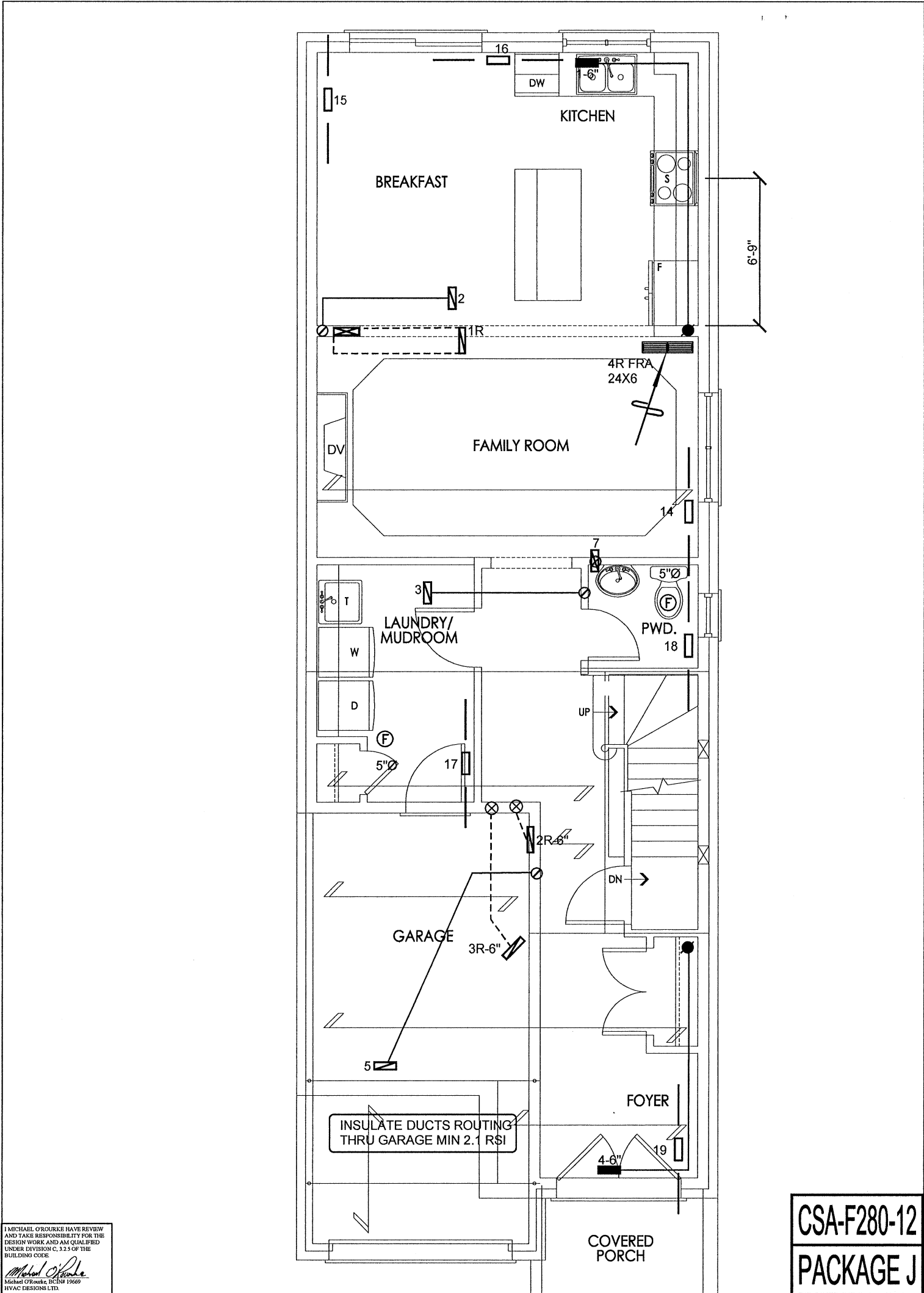
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Client		HVAC DESIGNS LTD. 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacadesigns.ca Web: www.hvacadesigns.ca Specializing in Residential Mechanical Design Services	HEAT LOSS 39205 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS			Sheet Title		
GOLD PARK HOMES			MAKE	LENNOX	3RD FLOOR				BASEMENT HEATING LAYOUT	
Project Name			MODEL	EL195UH045XE24B-45	2ND FLOOR		6	3		2
KLEINBURG GLEN VAUGHAN, ONTARIO			INPUT	44 MBTUH	1ST FLOOR		6	1		2
25-1 OPT. 1ST 1813 sqft			OUTPUT	42 MBTUH	BASEMENT		3	1		0
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.			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				Date	JAN/2016
			FAN SPEED	700 cfm @ 0.6" w.c.					Scale	3/16" = 1'-0"
							BCIN# 19669			
							LO#	66854		

25-1 OPT. 1ST 1813 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.

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



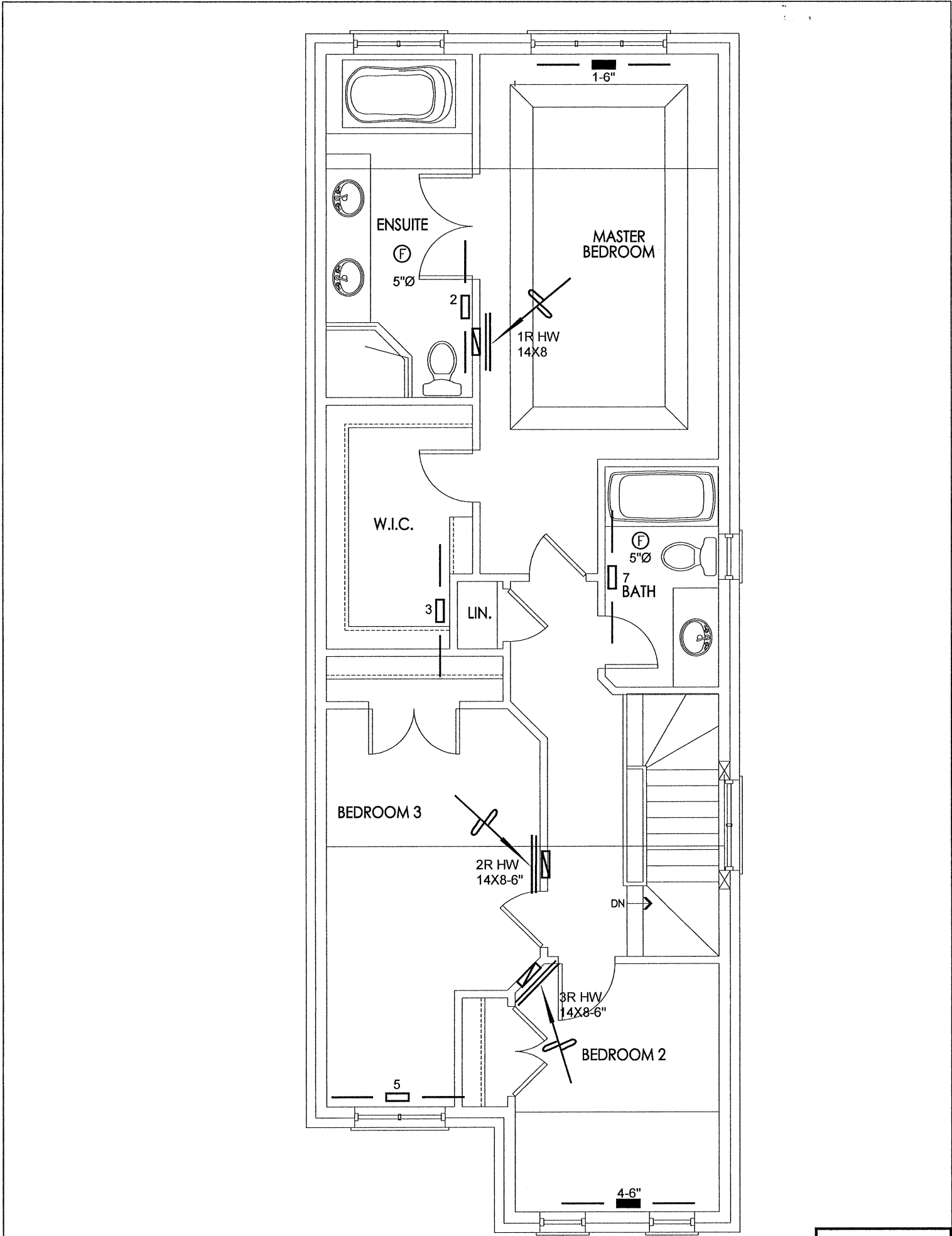
I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 32.5 OF THE BUILDING CODE.

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		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		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.	Date	
KLEINBURG GLEN VAUGHAN, ONTARIO			JAN/2016	
25-1 OPT. 1ST			Scale	
1813 sqft			3/16" = 1'-0"	
			BCIN# 19669	
			LO#	66854



I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C.32.5 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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GOLD PARK HOMES			SECOND FLOOR HEATING LAYOUT	
Project Name KLEINBURG GLEN VAUGHAN, ONTARIO			Date	JAN/2016
		Scale	3/16" = 1'-0"	
		BCIN# 19669		
25-1 OPT. 1ST 1813 sqft		LO# 66854		