

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			
Description of designer's work HEAT LOSS / GAIN CALCULATIONS DUCT SIZING RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY RESIDENTIAL SYSTEM DESIGN per CSA-F280-12		Model: 25-6 – OPT 1ST 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.			
<u>January 19, 2016</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: KLEINBURG GLEN BUILDING: GOLD PARK HOMES DATE: Jan-16 WINTER NATURAL AIR CHANGE RATE 0.370 CSA-F280-12
OPT. 1ST TYPE: 25-6 LO# 66897 SUMMER NATURAL AIR CHANGE RATE 0.117 SB-12 PACKAGE J

ROOM USE EXP. WALL CLG. HT.	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	ENS-2	WIR-2	HALL
34	23	7	24	29	47	5	45	81	13	86
10	9	9	9	9	9	9	9	9	10	10
FACTORS										
GRS.WALL AREA	340	207	63	216	261	423	45	0	124	817
GLAZING	0	0	0	0	0	0	0	0	0	0
NORTH	25	18	0	0	0	0	0	0	0	0
EAST	24.1	43.0	0	0	0	0	0	0	0	0
SOUTH	24.1	26.4	0	0	0	0	0	0	0	0
WEST	24.1	43.0	0	0	0	0	0	0	0	0
SKYLT.	24.1	88.1	0	0	0	0	0	0	0	0
DOORS	25.2	5.3	0	0	0	0	0	0	0	0
NET EXPOSED WALL	315	1088	229	189	653	137	63	218	46	200
NET EXPOSED BSMT WALL ABOVE GR	6.3	1.3	0	0	0	0	0	0	0	0
EXPOSED CLG	1.5	0.8	264	401	201	120	182	91	56	85
NO ATTIC EXPOSED CLG	2.5	1.2	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.5	0.5	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	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
SUBTOTAL HT LOSS	2092	1506	303	1365	1657	2679	254	520	427	3258
SUB TOTAL HT GAIN	0.10	0.16	0.10	0.16	0.16	0.10	0.16	0.10	0.30	0.69
LEVEL FACTOR / MULTIPLIER	342	208	50	223	271	439	42	85	295	2251
AIR CHANGE HEAT LOSS	90	60	5	43	49	135	0	17	5	41
AIR CHANGE HEAT GAIN	0	0	0	0	0	0	0	0	0	0
DUCT LOSS	0	0	0	0	0	0	0	0	0	0
DUCT GAIN	2	480	0	1	240	1	0	0	0	0
HEAT GAIN PEOPLE	469	0	0	469	469	469	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS	2434	1477	352	1589	1929	3118	286	605	721	5509
TOTAL HT LOSS BTU/H	3309	1382	122	1903	2043	4036	113	395	124	1555
TOTAL HT GAIN x 1.3 BTU/H										

ROOM USE EXP. WALL CLG. HT.	DEN	DIN	KTRM	LAUN	WR	FOY	GRT	BAS
26	28	241	679	69	0	485	637	1066
9	9	9	9	8	9	15	10	164
FACTORS								
GRS.WALL AREA	224	241	679	69	0	485	637	1066
GLAZING	0	0	0	0	0	0	0	0
NORTH	0	0	0	0	0	0	0	0
EAST	0	0	0	0	0	0	0	0
SOUTH	0	0	0	0	0	0	0	0
WEST	0	0	0	0	0	0	0	0
SKYLT.	0	0	0	0	0	0	0	0
DOORS	0	0	0	0	0	0	0	0
NET EXPOSED WALL	3.5	0.7	184	634	134	204	704	148
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	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	1956	1838	4870	392	132	3097	3522	8786
SUB TOTAL HT GAIN	0.20	0.27	0.20	0.20	0.20	0.20	0.30	0.40
LEVEL FACTOR / MULTIPLIER	1940	1176	1316	106	36	837	2433	6639
AIR CHANGE HEAT LOSS	528	497	70	5	17	0	0	0
AIR CHANGE HEAT GAIN	248	233	619	56	3	0	0	0
DUCT LOSS	0	0	0	0	0	0	0	0
DUCT GAIN	253	172	456	469	469	0	469	0
HEAT GAIN PEOPLE	240	0	0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS	2733	2568	6804	548	185	3934	5955	15424
TOTAL HT LOSS BTU/H	3812	2453	6524	796	42	1086	3881	952
TOTAL HT GAIN x 1.3 BTU/H								

TOTAL HEAT GAIN BTU/H: 34887 TONS: 2.91 LOSS DUE TO VENTILATION LOAD BTU/H: 2651 STRUCTURAL HEAT LOSS: 56182 TOTAL COMBINED HEAT LOSS BTU/H: 58833

Michael O'Rourke

SITE NAME: KLEINBURG GLEN
BUILDER: GOLD PARK HOMESTYPE: 25-6
OPT. 1ST

DATE: Jan-16

GFA: 3019 LO# 66897

HEATING CFM 1100 COOLING CFM 1100
TOTAL HEAT LOSS 56,182 TOTAL HEAT GAIN 34,328
AIR FLOW RATE CFM 19.58 AIR FLOW RATE CFM 32.04

EL195UH070XE36B

.LENNOX

70

FAN SPEED

LOW

MEDLOW

MEDIUM

HIGH

AFUE = 95.0 %

INPUT (BTU/H) = 66,000

OUTPUT (BTU/H) = 63,000

DESIGN CFM = 1100

CFM @ 6" E.S.P.

TEMPERATURE RISE 53 °F

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	9	8	5	3
R/A	0	4	3	1	1

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

All S/A fans 5"Ø unless noted otherwise on layout.

RUN #	1	2	3	4	5	6	7	8	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	BED-4	ENS-2	DEN	DIN	KT/FM	KT/FM	KT/FM	LAUN	WIR	FOY	GRT	BAS	BAS	BAS	GRT
RM LOSS MBH	2.43	1.48	0.35	1.59	1.93	1.56	0.30	1.56	0.61	2.73	2.57	2.27	2.27	2.27	0.55	0.18	3.93	2.98	5.14	5.14	5.14	2.98
CFM PER RUN HEAT	48	29	7	31	38	31	6	31	12	54	50	44	44	44	11	4	77	58	101	101	101	58
RM GAIN MBH	3.31	1.38	0.12	1.90	2.04	2.02	0.11	2.02	0.39	3.61	2.45	2.17	2.17	2.17	0.80	0.04	1.09	1.94	0.32	0.32	0.32	1.94
CFM PER RUN COOLING	106	44	4	61	65	65	4	65	13	116	79	70	70	70	26	1	35	62	10	10	10	62
ADJUSTED PRESSURE	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.15	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.17
ACTUAL DUCT LGH	53	51	64	53	73	86	62	86	71	70	45	40	41	52	59	47	68	17	13	21	44	27
EQUIVALENT LENGTH	160	180	200	230	210	220	180	240	230	120	170	170	150	160	200	190	170	90	100	130	110	100
TOTAL EFFECTIVE LENGTH	213	231	264	283	283	306	242	326	301	190	215	210	191	212	259	237	238	107	113	151	154	127
ADJUSTED PRESSURE	0.08	0.07	0.07	0.06	0.06	0.06	0.07	0.05	0.06	0.08	0.08	0.08	0.09	0.08	0.07	0.07	0.07	0.16	0.14	0.11	0.11	0.14
ROUND DUCT SIZE	6	5	4	5	5	5	4	6	4	6	5	5	5	5	4	4	6	5	5	5	5	4
HEATING VELOCITY (ft/min)	245	213	80	228	279	228	69	158	138	275	367	323	323	323	126	46	393	665	742	742	742	665
COOLING VELOCITY (ft/min)	540	323	46	448	477	477	46	331	149	591	580	514	514	514	298	11	178	711	73	73	73	711
OUTLET GRILL SIZE	4X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10
TRUNK	C	C	C	B	B	A	B	A	A	A	B	C	C	C	A	B	A	E	E	F	F	E

RUN #	25	26	27
ROOM NAME	WIR-2	HALL	HALL
RM LOSS MBH	0.72	2.75	2.75
CFM PER RUN HEAT	14	54	54
RM GAIN MBH	0.12	0.78	0.78
CFM PER RUN COOLING	4	25	25
ADJUSTED PRESSURE	0.17	0.17	0.17
ACTUAL DUCT LGH	14	21	38
EQUIVALENT LENGTH	140	130	110
TOTAL EFFECTIVE LENGTH	154	151	148
ADJUSTED PRESSURE	0.11	0.11	0.12
ROUND DUCT SIZE	4	4	4
HEATING VELOCITY (ft/min)	161	620	620
COOLING VELOCITY (ft/min)	46	287	287
OUTLET GRILL SIZE	3X10	3X10	3X10
TRUNK	F	F	F

TRUNK	CFM	RECT	ROUND	STATIC PRESS.	VELOCITY (ft/min)	TRUNK	CFM	RECT	ROUND	STATIC PRESS.	VELOCITY (ft/min)	TRUNK	CFM	RECT	ROUND	STATIC PRESS.	VELOCITY (ft/min)
TRUNK A	216	0.05	8.9	10.6	8	TRUNK G	0	0.00	0	0.00	0	TRUNK O	0	0.05	0	0.05	8
TRUNK B	345	0.05	10.6	14	8	TRUNK H	0	0.00	0	0.00	0	TRUNK P	0	0.05	0	0.05	8
TRUNK C	216	0.07	8.2	8	8	TRUNK I	0	0.00	0	0.00	0	TRUNK Q	0	0.05	0	0.05	8
TRUNK D	561	0.05	12.7	16	10	TRUNK J	0	0.00	0	0.00	0	TRUNK R	0	0.05	0	0.05	8
TRUNK E	217	0.14	6.9	6	505	TRUNK K	0	0.00	0	0.00	0	TRUNK S	0	0.05	0	0.05	8
TRUNK F	324	0.11	8.5	8	729	TRUNK L	0	0.00	0	0.00	0	TRUNK T	0	0.05	0	0.05	8

RETURN AIR #	1	2	3	4	5	6	7	8
AIR VOLUME	85	75	75	75	115	155	105	275
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
ACTUAL DUCT LGH	67	69	72	75	46	41	65	24
EQUIVALENT LENGTH	185	215	225	240	185	185	235	145
TOTAL EFFECTIVE LENGTH	252	284	297	315	231	226	300	169
ADJUSTED PRESSURE	0.06	0.05	0.05	0.05	0.06	0.07	0.05	0.09
ROUND DUCT SIZE	6	6	6	6	6.7	7.2	6.8	8.4
INLET GRILL SIZE	8	8	8	8	8	8	8	8
INLET GRILL SIZE	X	X	X	X	X	X	X	X
INLET GRILL SIZE	14	14	14	14	14	14	14	30

TYPE: 25-6
SITE NAME: KLEINBURG GLEN

LO # 66897
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>3</u> @ 10.6 cfm	<u>31.8</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>212.0</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>212</u>	cfm
Less Principal Ventil. Capacity	<u>95</u>	cfm
Required Supplemental Capacity	<u>117.0</u>	cfm

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

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

SUPPLEMENTAL FANS		NUTONE	
Location	Model	cfm	HVI
ENS	QTXEN050C	50	☒
BATH	QTXEN050C	50	☒
ENS-2	QTXEN050C	50	☒
W/R	QTXEN050C	50	☒

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANE 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:	<i>Michael O'Rourke</i>
HRAI #	001820
Date:	January-16

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: 25-6	OPT. 1ST	BUILDER: GOLD PARK HOMES
SFQT: 3019	LO# 66897	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):	4
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):	32986.4	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:	6.5 ft
LENGTH: 63.0 ft	WIDTH: 19.0 ft	EXPOSED PERIMETER:	164.0 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

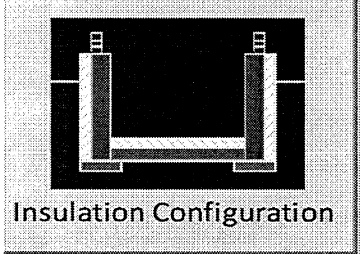
INDIVIDUAL BCIN: 19669

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):	19.2	 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):	0	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):	1820	

50

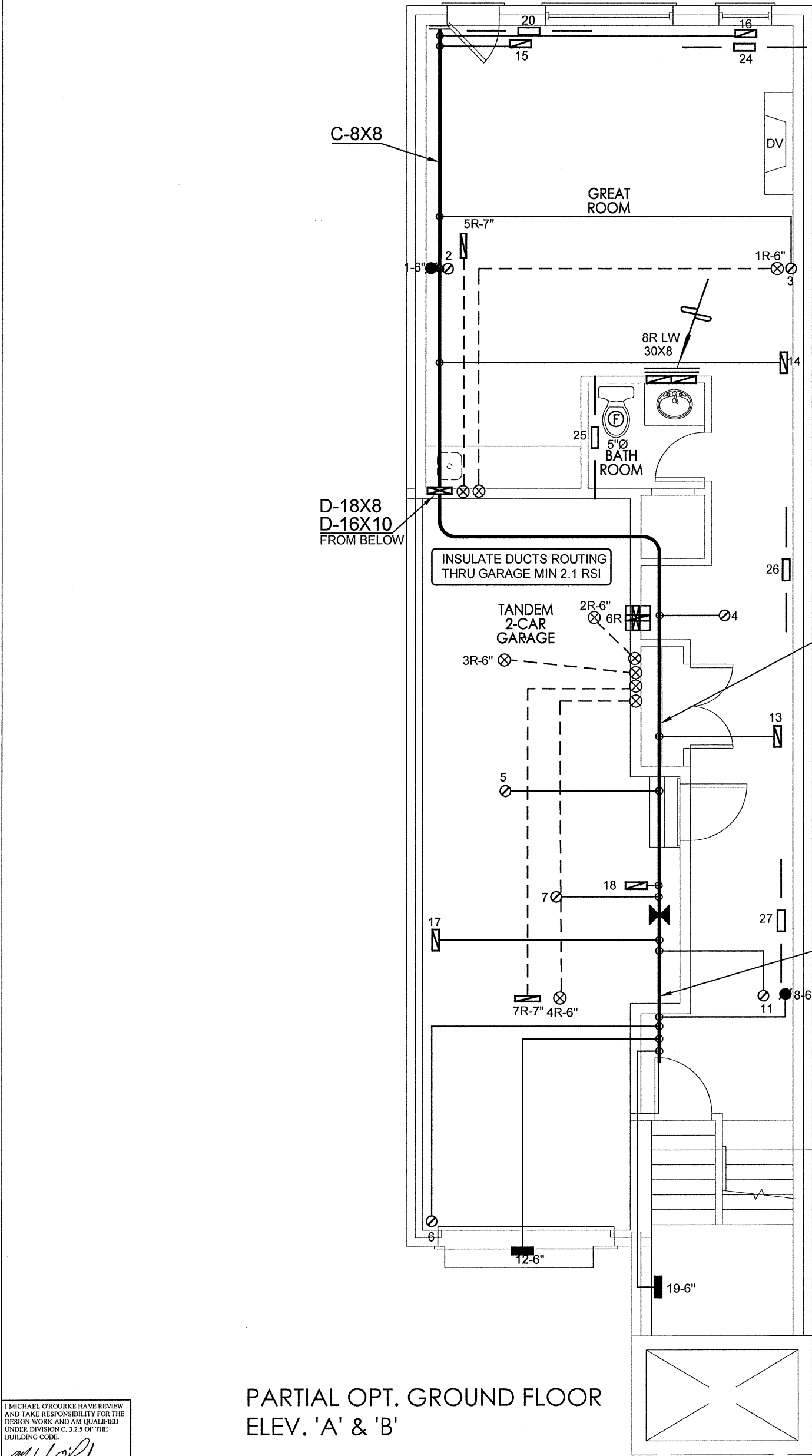
2.6 133.9

135

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):	8.93			
Building Configuration				
Type:	Detached			
Number of Stories:	Three			
Foundation:	Full			
House Volume (m ³):	934.1			
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):			0.370	
Cooling Air Change Rate (ACH/H):			0.117	



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.

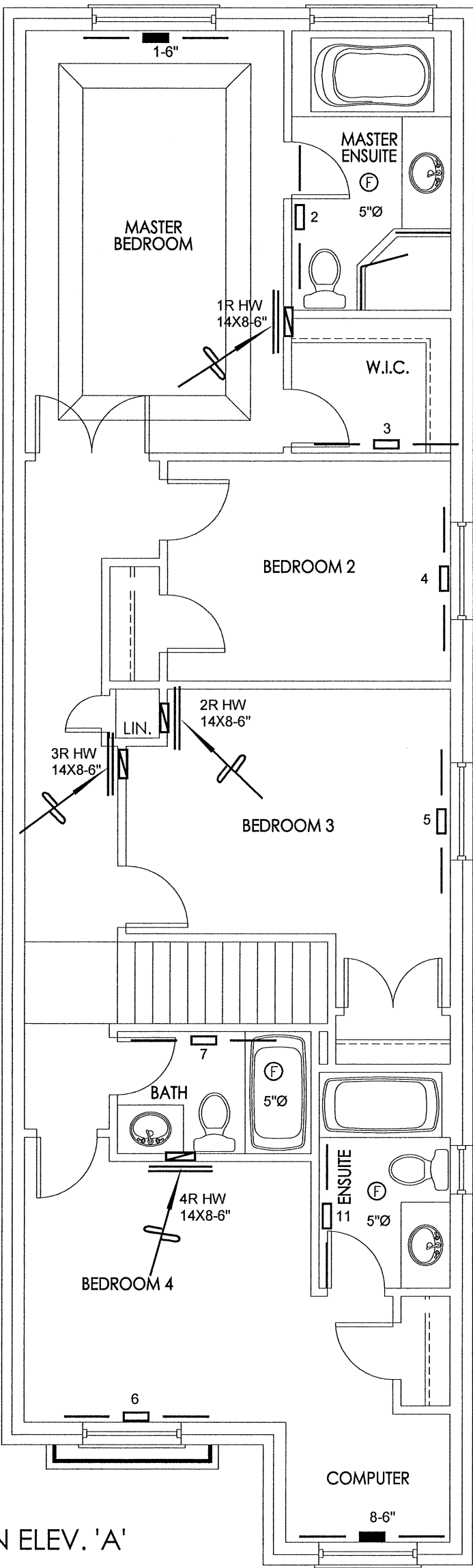
PARTIAL OPT. GROUND FLOOR
ELEV. 'A' & 'B'

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		Date
							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	JAN/2016
KLEINBURG GLEN VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
			BCIN# 19669	
25-6 OPT. 1ST	3019 sqft		LO#	66897



SECOND FLOOR PLAN ELEV. '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.

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			THIRD FLOOR HEATING LAYOUT	
Project Name			Date	JAN/2016
KLEINBURG GLEN VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
			BCIN# 19669	
25-6 OPT. 1ST	3019 sqft		LO#	66897