

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: 4008 THE HILLSDALE 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.			
February 4, 2020		 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.

Application for a Permit Construct or Demolish – Effective January 1, 2015

SITE NAME: PINE VALLEY & TESTON BUILDER: GOLD PARK HOMES										THE HILLSDALE TYPE: 4008		DATE: Feb-20 LO# 85233		WINTER NATURAL AIR CHANGE RATE 0.370 SUMMER NATURAL AIR CHANGE RATE 0.124		HEAT LOSS AT °F. 76 HEAT GAIN AT °F. 13		CSA-F700-12 SB-12 PACKAGE A1	
ROOM USE		EXP. WALL CLG. HT.		HMR		ENS		BED-2		BED-3		BED-4		ENS-2		ENS-2/3			
GRS.WALL AREA		FACTORS		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN			
EXP. WALL		39		10		23		15		15		21		9		22			
CLG. HT.		10		0		9		9		9		9		9		9			
GRS.WALL AREA		390		207		207		135		135		189		81		188			
GLAZING		21.3		16.0		0		0		0		0		0		0			
NORTH		21.3		41.6		0		0		0		0		0		0			
EAST		21.3		41.6		0		0		0		0		0		0			
SOUTH		21.3		24.9		0		0		0		0		0		0			
WEST		21.3		41.6		36		766		1486		16		340		665			
SKYL.T.		37.2		101.5		0		0		0		0		0		0			
DOORS		25.2		4.3		0		0		0		0		0		0			
NET EXPOSED WALL		4.5		0.8		354		1580		266		183		817		138			
NET EXPOSED BSMT WALL ABOVE GR		3.6		0.6		0		0		0		0		0		0			
EXPOSED CLG		1.3		0.6		408		824		240		132		169		78			
NO ATTIC EXPOSED CLG		2.7		1.3		0		0		0		0		0		0			
EXPOSED FLOOR		2.6		0.4		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		2889		2002		1497		1194		492		2542		2819		882		704	
SUB TOTAL HT GAIN		0.20		0.28		0.20		0.28		0.20		0.28		0.20		0.28			
LEVEL FACTOR / MUL TIPLIER		791		413		76		329		701		448		159		405			
AIR CHANGE HEAT LOSS		0		0		0		0		0		0		0		0			
DUCT LOSS		0		0		0		0		0		0		0		0			
HEAT GAIN PEOPLE		240		0		0		0		0		0		0		0			
HEAT GAIN APPLIANCES/LIGHTS		0		0		0		0		0		0		0		0			
TOTAL HT LOSS BTU/H		3661		713		1910		1675		713		2076		736		2064			
TOTAL HT GAIN x 1.3 BTU/H		4337		1502		1502		2116		3568		2877		405		1079			

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

THE HILLSDALE

DATE: Feb-20

GFA: 2716 LO# 85233

HEATING CFM 1100 COOLING CFM 1100
TOTAL HEAT LOSS 57,069 TOTAL HEAT GAIN 36,043
AIR FLOW RATE CFM 19.28 AIR FLOW RATE CFM 30.52

EL296UH070XE36B
FAN SPEED 70

AFUE = 96 %
INPUT (BTU/H) = 66,000
OUTPUT (BTU/H) = 64,000

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	0	2	1
R/A	0	0	4	7	4

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

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

ROOM #	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	BED-2	BED-3	BED-4	ENS-2	ENS-3	BED-3	ENS-2/3	MBR	ENS-2/3	GT/DN	GT/DN	KIT	KIT	LAUN	LAUN	W/R	FOY	MUD	BAS	BAS	BAS	BAS
RM LOSS MBH	1.83	1.91	1.67	1.78	2.08	0.74	0.74	1.78	1.03	1.83	1.03	2.96	2.96	2.39	2.39	1.54	1.54	1.36	4.80	2.73	4.67	4.67	4.67	4.67
CFM PER RUN HEAT	35	37	32	34	40	14	14	34	20	35	20	57	57	46	46	30	30	26	93	53	90	90	90	90
RM GAIN MBH	2.17	1.50	2.12	2.84	2.58	0.41	0.41	2.84	0.54	2.17	0.54	2.53	2.53	2.75	2.75	2.07	2.07	0.52	0.79	0.45	0.47	0.47	0.47	0.47
CFM PER RUN COOLING	66	46	65	87	79	12	12	87	16	66	16	77	77	84	84	63	63	16	24	14	14	14	14	14
ADJUSTED PRESSURE	0.17	0.17	0.17	0.16	0.17	0.17	0.17	0.16	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.17	0.17	0.17	0.16	0.17	0.16	0.16	0.16	0.16
EQUIVALENT LENGTH	160	150	170	160	150	170	170	170	190	160	180	100	90	140	150	180	170	120	120	130	150	160	100	110
TOTAL EFFECTIVE LENGTH	208	193	211	211	186	218	225	242	217	238	126	122	176	193	238	226	147	168	165	172	186	124	155	155
ADJUSTED PRESSURE	0.08	0.08	0.08	0.08	0.09	0.08	0.08	0.07	0.07	0.08	0.14	0.14	0.14	0.09	0.08	0.07	0.08	0.12	0.1	0.1	0.09	0.09	0.13	0.1
ROUND DUCT SIZE	5	4	6	6	6	4	4	6	4	5	4	5	5	6	6	6	5	4	4	5	6	6	6	6
HEATING VELOCITY (ft/min)	257	424	163	173	204	161	173	229	229	257	229	419	419	235	235	153	220	298	474	389	459	459	459	459
COOLING VELOCITY (ft/min)	485	528	331	444	403	138	138	444	184	485	184	565	565	428	428	321	463	184	122	103	71	71	71	71
OUTLET GRILL SIZE	3X10	3X10	4X10	4X10	4X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	3X10	3X10	4X10	4X10	4X10	4X10	4X10	4X10
TRUNK	C	C	B	A	B	B	A	A	A	C	A	C	C	C	C	C	A	B	A	B	C	C	B	A

ROOM #	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	BED-2	BED-3	BED-4	ENS-2	ENS-3	BED-3	ENS-2/3	MBR	ENS-2/3	GT/DN	GT/DN	KIT	KIT	LAUN	LAUN	W/R	FOY	MUD	BAS	BAS	BAS	BAS
RM LOSS MBH	1.83	1.91	1.67	1.78	2.08	0.74	0.74	1.78	1.03	1.83	1.03	2.96	2.96	2.39	2.39	1.54	1.54	1.36	4.80	2.73	4.67	4.67	4.67	4.67
CFM PER RUN HEAT	35	37	32	34	40	14	14	34	20	35	20	57	57	46	46	30	30	26	93	53	90	90	90	90
RM GAIN MBH	2.17	1.50	2.12	2.84	2.58	0.41	0.41	2.84	0.54	2.17	0.54	2.53	2.53	2.75	2.75	2.07	2.07	0.52	0.79	0.45	0.47	0.47	0.47	0.47
CFM PER RUN COOLING	66	46	65	87	79	12	12	87	16	66	16	77	77	84	84	63	63	16	24	14	14	14	14	14
ADJUSTED PRESSURE	0.17	0.17	0.17	0.16	0.17	0.17	0.17	0.16	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.17	0.17	0.17	0.16	0.17	0.16	0.16	0.16	0.16
EQUIVALENT LENGTH	160	150	170	160	150	170	170	170	190	160	180	100	90	140	150	180	170	120	120	130	150	160	100	110
TOTAL EFFECTIVE LENGTH	208	193	211	211	186	218	225	242	217	238	126	122	176	193	238	226	147	168	165	172	186	124	155	155
ADJUSTED PRESSURE	0.08	0.08	0.08	0.08	0.09	0.08	0.08	0.07	0.07	0.08	0.14	0.14	0.14	0.09	0.08	0.07	0.08	0.12	0.1	0.1	0.09	0.09	0.13	0.1
ROUND DUCT SIZE	5	4	6	6	6	4	4	6	4	5	4	5	5	6	6	6	5	4	4	5	6	6	6	6
HEATING VELOCITY (ft/min)	257	424	163	173	204	161	173	229	229	257	229	419	419	235	235	153	220	298	474	389	459	459	459	459
COOLING VELOCITY (ft/min)	485	528	331	444	403	138	138	444	184	485	184	565	565	428	428	321	463	184	122	103	71	71	71	71
OUTLET GRILL SIZE	3X10	3X10	4X10	4X10	4X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	3X10	3X10	4X10	4X10	4X10	4X10	4X10	4X10
TRUNK	C	C	B	A	B	B	A	A	A	C	A	C	C	C	C	C	A	B	A	B	C	C	B	A

SUPPLY 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 A	351	0.07	9.8	12	8	TRUNK G	0	0.00	0	0	0	TRUNK O	0	0.05	0	0	8
TRUNK B	606	0.07	12	16	8	TRUNK H	0	0.00	0	0	0	TRUNK P	0	0.05	0	0	8
TRUNK C	493	0.08	10.8	14	8	TRUNK I	0	0.00	0	0	0	TRUNK Q	0	0.05	0	0	8
TRUNK D	0	0.00	0	0	0	TRUNK J	0	0.00	0	0	0	TRUNK R	0	0.05	0	0	8
TRUNK E	0	0.00	0	0	0	TRUNK K	0	0.00	0	0	0	TRUNK S	0	0.05	0	0	8
TRUNK F	0	0.00	0	0	0	TRUNK L	0	0.00	0	0	0	TRUNK T	0	0.05	0	0	8

RETURN AIR

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	351	0.07	9.8	12	8	TRUNK G	0	0.00	0	0	0	TRUNK O	0	0.05	0	0	8
TRUNK B	606	0.07	12	16	8	TRUNK H	0	0.00	0	0	0	TRUNK P	0	0.05	0	0	8
TRUNK C	493	0.08	10.8	14	8	TRUNK I	0	0.00	0	0	0	TRUNK Q	0	0.05	0	0	8
TRUNK D	0	0.00	0	0	0	TRUNK J	0	0.00	0	0	0	TRUNK R	0	0.05	0	0	8
TRUNK E	0	0.00	0	0	0	TRUNK K	0	0.00	0	0	0	TRUNK S	0	0.05	0	0	8
TRUNK F	0	0.00	0	0	0	TRUNK L	0	0.00	0	0	0	TRUNK T	0	0.05	0	0	8

TYPE: 4008
SITE NAME: PINE VALLEY & TESTON

LO # 85233
THE HILLSDALE

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
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>79.5</u>	cfm
Required Supplemental Capacity	<u>90.1</u>	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANEE 65H	Location: BSMT
<u>79.5</u> cfm	<u>3.0</u> sones
☒ HVI Approved	

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

SUPPLEMENTAL FANS		PANASONIC	
Location	Model	cfm	HVI
ENS	FV-05-11VK1	50	☒
ENS-2	FV-05-11VK1	50	☒
ENS-2/3	FV-05-11VK1	50	☒
W/R	FV-05-11VK1	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:	<i>Michael O'Rourke</i>
HRAI #	001820
Date:	February-20

CSA F280-12 Residential Heat Loss and Heat Gain Calculations																																																																											
Formula Sheet (For Air Leakage / Ventilation Calculation)																																																																											
LO#: 85233	Model: 4008	Builder: GOLD PARK HOMES	Date: 02/04/2020																																																																								
Volume Calculation		Air Change & Delta T Data																																																																									
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5.2.3.1 Heat Loss due to Air Leakage																																																																											
$HL_{airb} = LR_{airh} \times \frac{V_b}{3.6} \times DTD_h \times 1.2$																																																																											
0.370	x	306.34	x																																																																								
		42 °C	x																																																																								
		1.2	x																																																																								
			=																																																																								
			5737 W																																																																								
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			19573 Btu/h																																																																								
5.2.3.2 Heat Loss due to Mechanical Ventilation																																																																											
$HL_{airb} = PVC \times DTD_h \times 1.08 \times (1 - E)$																																																																											
80 CFM	x	76 °F	x																																																																								
		1.08	x																																																																								
		0.25	x																																																																								
			=																																																																								
			1631 Btu/h																																																																								
5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)																																																																											
$HL_{airr} = Level Factor \times HL_{airbv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{agclvl} + HL_{bgclvl})\}$																																																																											
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*HLairbv = Air leakage heat loss + ventilation heat loss *For a balanced or supply only ventilation system HLairrv = 0																																																																											

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: 4008	THE HILLSDALE	BUILDER: GOLD PARK HOMES
SFQT: 2716	LO# 85233	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)	75

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):	38946.0	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:	7.0 ft
LENGTH: 55.0 ft	WIDTH: 33.0 ft	EXPOSED PERIMETER:	176.0 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	-

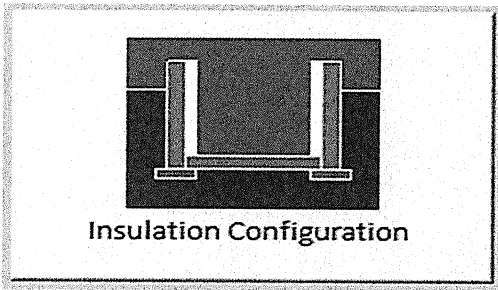
INDIVIDUAL BCIN: 19669

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):	16.8	 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):	2.2	
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):		1723

TYPE: 4008
LO# 85233

THE HILLSDALE

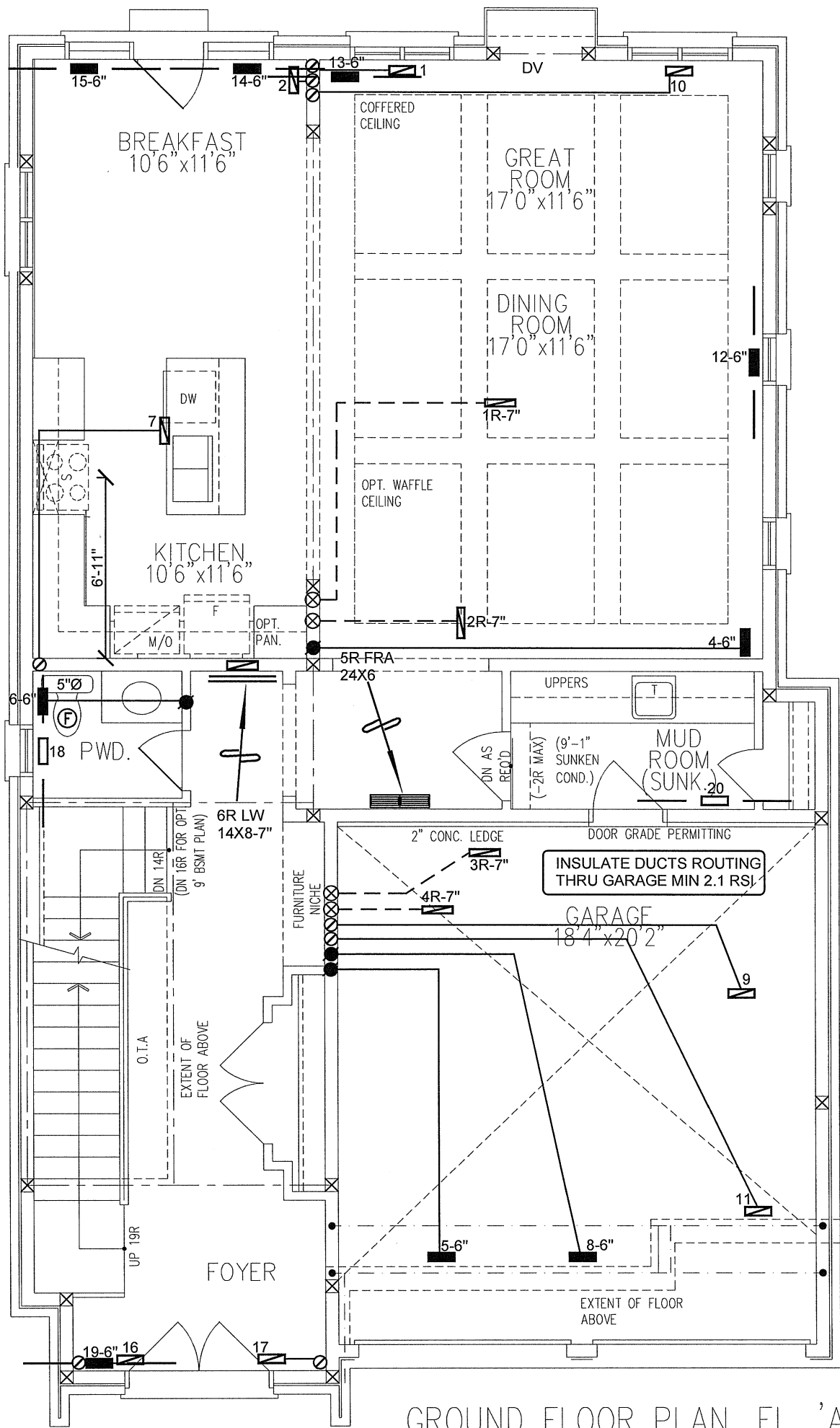
Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

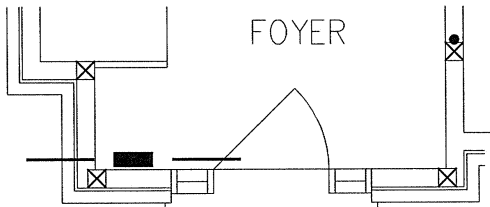
Weather Station Description				
Province:	Ontario			
Region:	Vaughan (Woodbridge)			
Weather Station Location:	Open flat terrain, grass			
Anemometer height (m):	10			
Local Shielding				
Building Site:	Suburban, forest			
Walls:	Heavy			
Flue:	Heavy			
Highest Ceiling Height (m):	7.92			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1102.8			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1470.1 cm ²		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	37.5	37.5		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.370			
Cooling Air Leakage Rate (ACH/H):	0.124			

TYPE: 4008
LO# 85233

THE HILLSDALE



GROUND FLOOR PLAN, EL. 'A'



PARTIAL GROUND FLOOR PLAN, EL. 'B'

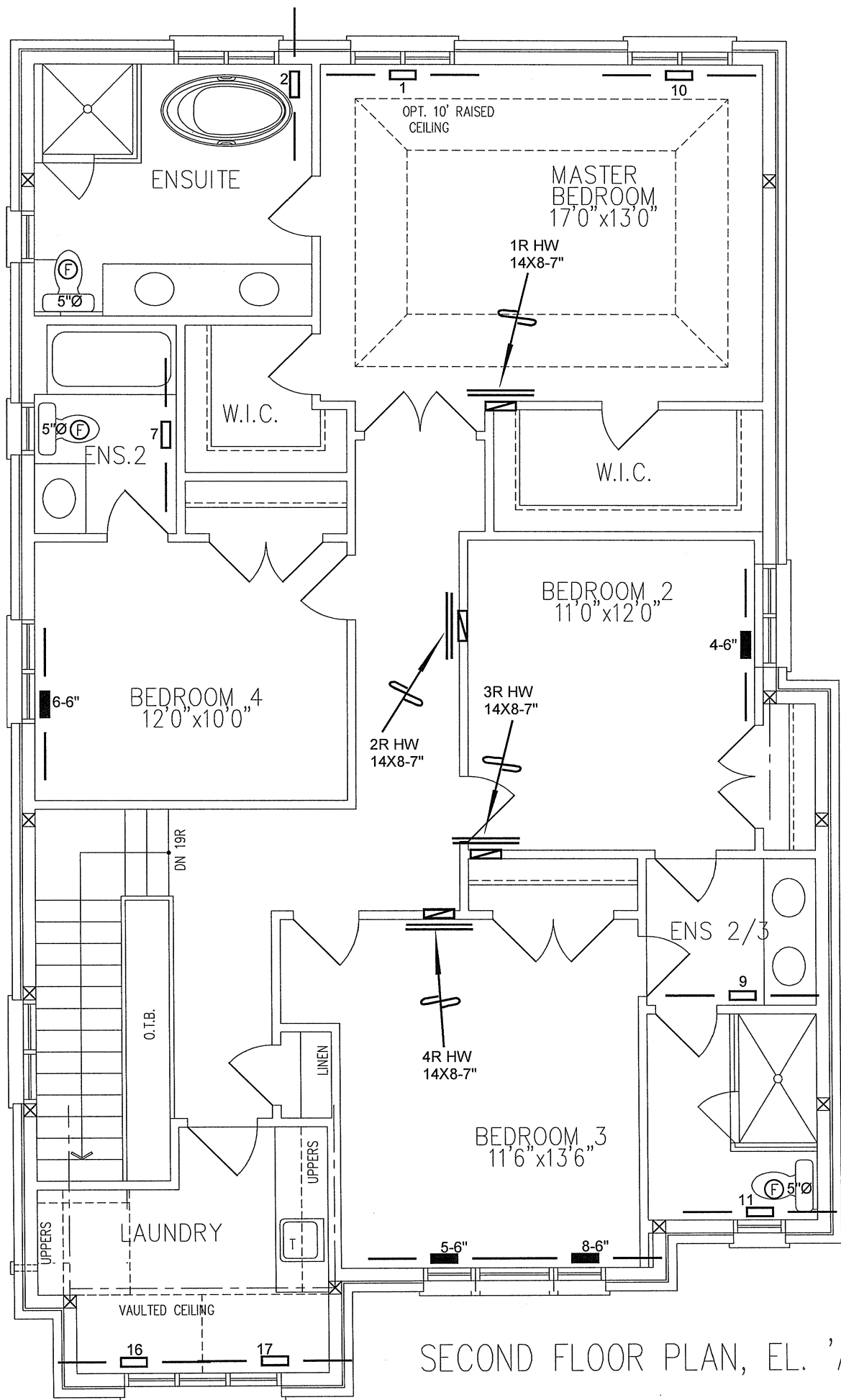
I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C. 3.2.5 OF THE BUILDING CODE.
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

CSA-F280-12
PACKAGE A1

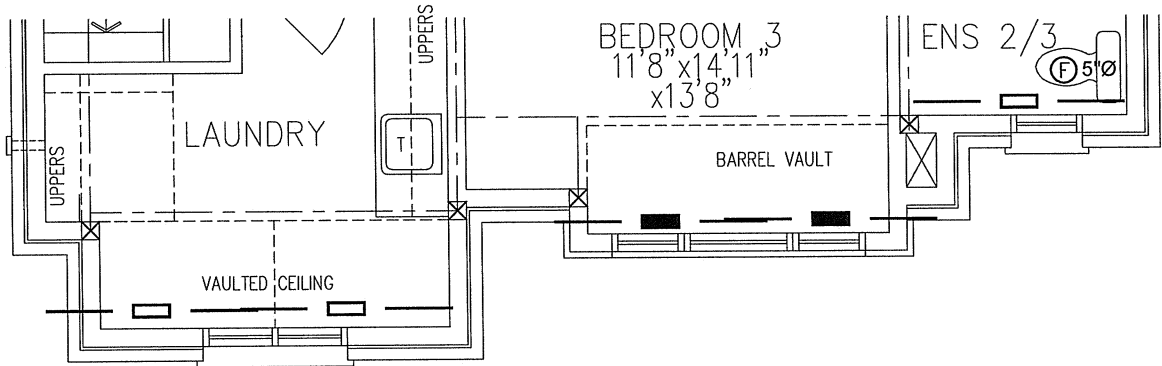
HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR 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	FEB/2020
PINE VALLEY & TESTON VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
THE HILLSDALE 4008			BCIN# 19669	
2716 sqft			LO#	85233



SECOND FLOOR PLAN, EL. 'A'



PARTIAL
SECOND FLOOR PLAN, EL. 'B'

CSA-F280-12
PACKAGE A1

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Client GOLD PARK HOMES		 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 SECOND FLOOR HEATING LAYOUT	
Project Name PINE VALLEY & TESTON VAUGHAN, ONTARIO			Date FEB/2020	
THE HILLSDALE 4008 2716 sqft		Scale 3/16" = 1'-0"		
		BCIN# 19669		
		LO#	85233	