


## Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

<b>A. Project Information</b>				
Building number, street name			Unit no.	Lot/con.
Municipality VAUGHAN (WOODBIDGE)	Postal code	Plan number/ other description		
<b>B. Individual who reviews and takes responsibility for design activities</b>				
Name <b>MICHAEL O'ROURKE</b>		Firm <b>HVAC DESIGNS LTD.</b>		
Street address <b>375 FINLEY AVE</b>		Unit no. <b>202</b>	Lot/con. <b>N/A</b>	
Municipality <b>AJAX</b>	Postal code <b>L1S 2E2</b>	Province <b>ONTARIO</b>	E-mail <b>info@hvacdesigns.ca</b>	
Telephone number <b>(905) 619-2300</b>	Fax number <b>(905) 619-2375</b>	Cell number (     )		
<b>C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1 OF Division C]</b>				
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> House  <input type="checkbox"/> Small Buildings  <input type="checkbox"/> Large Buildings  <input type="checkbox"/> Complex Buildings </div> <div style="width: 30%;"> <input checked="" type="checkbox"/> HVAC – House  <input type="checkbox"/> Building Services  <input type="checkbox"/> Detection, Lighting and Power  <input type="checkbox"/> Fire Protection </div> <div style="width: 30%;"> <input type="checkbox"/> Building Structural  <input type="checkbox"/> Plumbing – House  <input type="checkbox"/> Plumbing – All Buildings  <input type="checkbox"/> On-site Sewage Systems </div> </div>				
Description of designer's work <b>HEAT LOSS / GAIN CALCULATIONS DUCT SIZING RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY RESIDENTIAL SYSTEM DESIGN per CSA-F280-12</b>		<b>Model:</b> 4203- THE FORESTCREST  <b>Project:</b> PINE VALLEY & TESTON		
<b>D. Declaration of Designer</b>				
I, <u><b>MICHAEL O'ROURKE</b></u> declare that (choose one as appropriate): (print name)				
<input type="checkbox"/> 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: _____				
<input checked="" type="checkbox"/> 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>				
<input type="checkbox"/> 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.				
September 10, 2018				
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.

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

SITE NAME: PINE VALLEY & TESTON  
BUILDER: GOLD PARK HOMES  
TYPE: 4203 - THE FORESTCREST  
DATE: Sep-18  
LO# 77467  
GFA: 3888  
WINTER NATURAL AIR CHANGE RATE 0.340  
SUMMER NATURAL AIR CHANGE RATE 0.124  
HEAT LOSS AT °F. 76  
HEAT GAIN AT °F. 16  
CSA-F800-12  
SB-12 PACKAGE A.1

ROOM USE EXP. WALL CLG. HT.	MBR	ENS	HERS	BED-2	BED-3	BED-4	ENS-2	LOFT	ENS-3	ENS-4	
GRS.WALL AREA GLAZING	342	333	63	144	297	432	54	63	81	72	
NORTH	0	0	0	18	0	0	8	0	8	0	
EAST	0	0	0	0	0	0	0	0	0	0	
SOUTH	0	0	0	0	0	0	0	0	0	0	
WEST	0	0	0	0	0	0	0	0	0	0	
SKYL.T.	0	0	0	0	0	0	0	0	0	0	
DOORS	0	0	0	0	0	0	0	0	0	0	
NET EXPOSED WALL	276	312	281	126	1063	1666	46	46	73	88	
NET EXPOSED BSMT WALL ABOVE GR	0	0	0	0	0	0	0	0	0	0	
EXPOSED CLG	367	488	280	323	282	270	120	100	100	100	
NO ATTIC EXPOSED CLG	0	0	0	0	0	0	0	0	0	0	
EXPOSED FLOOR	0	0	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	2724	2199	398	1269	3133	3306	530	712	762	940	
SUB TOTAL HT GAIN	0.20	0.31	0.20	0.31	0.20	0.31	0.20	0.31	0.20	0.31	
LEVEL FACTOR / MULTIPLIER	864	690	126	396	983	1037	166	223	236	285	
AIR CHANGE HEAT LOSS	0	0	0	0	0	0	0	0	0	0	
AIR CHANGE HEAT GAIN	202	144	12	62	323	330	27	60	31	81	
DUCT LOSS	0	0	0	0	0	0	0	0	0	0	
DUCT GAIN	0	0	0	0	0	0	0	0	0	0	
HEAT GAIN PEOPLE	2	480	0	1	240	240	0	0	0	0	
HEAT GAIN APPLIANCES/LIGHTS	625	0	0	625	625	4342	696	936	1086	1368	
TOTAL HT LOSS BTU/H	3579	2888	523	1667	4528	5591	696	936	1086	1368	
TOTAL HT GAIN x 1.3 BTU/H	4846	1964	168	1667	1960	5082	385	1631	483	1209	

ROOM USE EXP. WALL CLG. HT.	DIN	LIV	KTGT	STUDY	LAUN	PWD	FOY	MUD	LOD	BAS	
GRS.WALL AREA GLAZING	132	420	825	110	0	66	551	312	430	1644	
NORTH	32	681	0	0	0	0	0	0	0	0	
EAST	0	0	0	0	0	0	0	0	0	0	
SOUTH	0	0	0	0	0	0	0	0	0	0	
WEST	0	0	0	0	0	0	0	0	0	0	
SKYL.T.	0	0	0	0	0	0	0	0	0	0	
DOORS	0	0	0	0	0	0	0	0	0	0	
NET EXPOSED WALL	100	346	707	90	0	66	509	20	0	0	
NET EXPOSED BSMT WALL ABOVE GR	0	0	0	0	0	0	0	0	0	0	
EXPOSED CLG	0	0	0	0	0	0	0	0	0	0	
NO ATTIC EXPOSED CLG	0	0	0	0	0	0	0	0	0	0	
EXPOSED FLOOR	0	0	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	1127	3415	5746	827	320	295	3584	1808	1647	8543	
SUB TOTAL HT GAIN	0.30	0.46	0.30	0.46	0.20	0.30	0.46	0.30	0.46	0.60	
LEVEL FACTOR / MULTIPLIER	514	1557	2619	377	100	134	1634	824	1651	12766	
AIR CHANGE HEAT LOSS	0	0	0	0	0	0	0	0	0	0	
AIR CHANGE HEAT GAIN	67	292	822	64	42	7	79	0	0	0	
DUCT LOSS	0	0	0	0	0	0	0	0	0	0	
DUCT GAIN	0	0	0	0	0	0	0	0	0	0	
HEAT GAIN PEOPLE	0	0	0	0	0	0	0	0	0	0	
HEAT GAIN APPLIANCES/LIGHTS	625	625	625	625	625	429	5218	625	0	0	
TOTAL HT LOSS BTU/H	1641	4972	8365	1204	462	429	5218	2632	1547	21309	
TOTAL HT GAIN x 1.3 BTU/H	1720	4226	7892	1673	1076	88	1072	1354	2146	1798	

TOTAL HEAT GAIN BTU/H: 47931 TONS: 3.99 LOSS DUE TO VENTILATION LOAD BTU/H: 3181 STRUCTURAL HEAT LOSS: 69382 TOTAL COMBINED HEAT LOSS BTU/H: 72663

*Michael O'Rourke*

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

TYPE: 4203- THE FORESTCREST      DATE: Sep-18

GFA: 3688 LO# 77467

TYPE: 4203- THE FORESTCREST

	HEATING CFM	1525	COOLING CFM	1525
TOTAL HEAT LOSS	69,382		TOTAL HEAT GAIN	47,270
AIR FLOW RATE CFM	21.98		AIR FLOW RATE CFM	32.26

	1st	2nd	3rd	4th	Bas
RUN COUNT	5	10	0	0	5
S/A	4	5	0	0	1
R/A	1	4	0	0	1

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

All S/A runs 5/2 unless noted otherwise on layout.																										
RUN #		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		M/R	ENS	BED-2	BED-3	BED-4	ENS-2	LOFT	ENS-3	M/R	ENS-4	DIN	LIV	KT/GT	KT/GT	STUDY	LAUN	PWD	FOY	MUD	BAS	BAS	BAS	BAS		
RM LOSS MBH		1.79	1.44	1.67	2.26	2.17	0.70	0.94	1.09	1.79	1.36	1.64	2.49	2.79	2.79	1.20	0.46	0.43	5.22	2.63	4.57	4.57	4.57	4.57		
CFM PER RM HEAT		39	32	37	50	48	15	21	24	39	30	36	55	61	61	26	10	9	115	58	100	100	100	100		
RM GAIN MBH		2.42	0.98	1.96	3.03	2.80	0.36	1.63	0.46	2.42	1.21	1.72	2.11	2.63	2.63	1.87	1.08	0.09	1.07	1.35	0.79	0.79	0.79	0.79		
CFM PER RM COOLING		78	32	63	98	90	12	53	15	78	39	55	68	85	85	54	35	3	35	44	25	25	25	25		
ADJUSTED PRESSURE		0.17	0.17	0.17	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.17	0.17	0.17	0.15	0.17	0.16	0.16	0.16	0.16		
ACTUAL DUCT LGH.		46	62	72	29	47	64	21	53	42	42	8	28	57	49	35	32	43	55	8	48	33	24	46		
EQUIVALENT LENGTH		130	160	160	170	170	140	180	190	130	120	90	150	130	120	140	110	140	120	130	130	90	150	110		
TOTAL EFFECTIVE LENGTH		176	222	212	189	197	234	161	232	171	162	98	178	187	169	175	140	175	175	138	178	123	174	156		
ADJUSTED PRESSURE		0.1	0.08	0.08	0.09	0.08	0.07	0.11	0.07	0.1	0.11	0.18	0.1	0.1	0.09	0.1	0.12	0.09	0.09	0.12	0.09	0.13	0.09	0.1		
ROUND DUCT SIZE		5	4	5	6	6	4	5	4	5	4	4	5	5	5	4	4	4	6	6	6	5	6	6		
HEATING VELOCITY (ft/min)		286	367	272	255	245	172	154	275	286	344	413	404	448	448	298	115	103	586	665	510	734	510	510		
COOLING VELOCITY (ft/min)		573	367	263	500	459	138	389	172	573	447	631	499	624	624	620	402	34	178	505	127	184	127	127		
OUTLET GRILL SIZE		3X10	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	4X10	4X10	4X10	4X10		
THINK		C	A	D	R	D	D	A	C	F	C	D	B	A	A	A	C	B	B	E	A	E	B	B		

RUN #	25	26	27	28	29	30
ROOM NAME	BED-3	BED-4	KT/GT	LIV	HERS	BAS
RM LOSS MBH	2.26	2.17	2.79	2.49	0.52	4.57
CFM PER RUN HEAT	50	48	61	55	11	100
RM GAIN MBH	3.03	2.80	2.63	2.11	0.17	0.79
CFM PER RUN COOLING	98	90	85	68	5	25
ADJUSTED PRESSURE	0.16	0.16	0.16	0.17	0.17	0.16
ACTUAL DUCT LGH.	49	66	41	31	73	12
EQUIVALENT LENGTH	170	130	90	130	180	120
TOTAL EFFECTIVE LENGTH	219	196	131	161	253	132
ADJUSTED PRESSURE	0.07	0.08	0.12	0.11	0.07	0.12
ROUND DUCT SIZE	6	6	5	5	4	5
HEATING VELOCITY (ft/min)	255	245	448	404	126	734
COOLING VELOCITY (ft/min)	500	459	624	499	57	184
OUTLET GRILL SIZE	4X10	4X10	3X10	3X10	3X10	3X10
TRUNK	C	B	C	B	A	D

SUPPLY AIR TRUNK SIZE										RETURN AIR TRUNK SIZE									
TRUNK					VELOCITY					TRUNK					VELOCITY				
CFM	ROUND	DUCT	STATIC PRESS.	RECT	CFM	ROUND	DUCT	RECT	(ft/min)	CFM	ROUND	DUCT	RECT	(ft/min)	RECT	DUCT	VELOCITY (ft/min)		
TRUNK A	344	9.7	0.07	12	TRUNK G	0	0.00	0	8	TRUNK O	0	0.06	0	0	0	0	8		
TRUNK B	530	16	0.07	11.4	TRUNK H	0	0.00	0	8	TRUNK P	0	0.06	0	0	0	0	8		
TRUNK C	1138	26	0.07	14.9	TRUNK I	0	0.00	0	8	TRUNK Q	0	0.06	0	0	0	0	8		
TRUNK D	188	8	0.09	7.3	TRUNK J	0	0.00	0	8	TRUNK R	0	0.06	0	0	0	0	8		
TRUNK E	1335	30	0.07	16.2	TRUNK K	0	0.00	0	8	TRUNK S	0	0.06	0	0	0	0	8		
TRUNK F	0	0	0.00	0	TRUNK L	0	0.00	0	8	TRUNK T	0	0.06	0	0	0	0	8		
										</									

TYPE: 4203- THE FORESTCREST  
SITE NAME: PINE VALLEY & TESTON

LO # 77467

**RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY**

COMBUSTION APPLIANCES		9.32.3.1(1)
a) <input checked="" type="checkbox"/>	Direct vent (sealed combustion) only	
b) <input type="checkbox"/>	Positive venting induced draft (except fireplaces)	
c) <input type="checkbox"/>	Natural draft, B-vent or induced draft gas fireplace	
d) <input type="checkbox"/>	Solid Fuel (including fireplaces)	
e) <input type="checkbox"/>	No Combustion Appliances	

HEATING SYSTEM	
<input checked="" type="checkbox"/>	Forced Air
<input type="checkbox"/>	Non Forced Air
<input type="checkbox"/>	Electric Space Heat

HOUSE TYPE		9.32.1(2)
<input checked="" type="checkbox"/>	I Type a) or b) appliance only, no solid fuel	
<input type="checkbox"/>	II Type I except with solid fuel (including fireplaces)	
<input type="checkbox"/>	III Any Type c) appliance	
<input type="checkbox"/>	IV Type I, or II with electric space heat	
<input type="checkbox"/>	Other: Type I, II or IV no forced air	

SYSTEM DESIGN OPTIONS		O.N.H.W.P.
<input type="checkbox"/>	1 Exhaust only/Forced Air System	
<input type="checkbox"/>	2 HRV with Ducting/Forced Air System	
<input checked="" type="checkbox"/>	3 HRV Simplified/connected to forced air system	
<input type="checkbox"/>	4 HRV with Ducting/non forced air system	
<input type="checkbox"/>	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	6 @ 10.6 cfm	63.6 cfm
Other Rooms	8 @ 10.6 cfm	84.8 cfm
Table 9.32.3.A.	TOTAL	222.6 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		79.5 cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	222.6	cfm
Less Principal Ventil. Capacity	155	cfm
Required Supplemental Capacity	67.6	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model:	VANEE 65H
Location:	BSMT
155.0 cfm	3.0 sones
<input checked="" type="checkbox"/> HVI Approved	

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

SUPPLEMENTAL FANS		NUTONE		
Location	Model	cfm	HVI	Sones
ENS	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
ENS-2	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
ENS-4	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
PWD	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model:	VANEE 65H	
155 cfm high	64 cfm low	
75 % Sensible Efficiency	<input checked="" type="checkbox"/> 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:	September-18

<b>CSA F280-12 Residential Heat Loss and Heat Gain Calculations</b>																																																																					
<b>Formula Sheet (For Air Leakage / Ventilation Calculation)</b>																																																																					
LO#: 77467	Model: 4203- THE FORESTCREST	Builder: GOLD PARK HOMES	Date: 9/10/2018																																																																		
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<b>5.2.3.1 Heat Loss due to Air Leakage</b>																																																																					
$HL_{airb} = LR_{airb} \times \frac{V_b}{3.6} \times DTD_h \times 1.2$																																																																					
0.340	x	434.31	x	42 °C	x	1.2	=	7483 W																																																													
								=	25532 Btu/h																																																												
<b>5.2.3.2 Heat Loss due to Mechanical Ventilation</b>																																																																					
$HL_{airb} = PVC \times DTD_h \times 1.08 \times (1 - E)$																																																																					
155 CFM	x	76 °F	x	1.08	x	0.25	=	3181 Btu/h																																																													
<b>5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)</b>																																																																					
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<p>*HLairbv = Air leakage heat loss + ventilation heat loss</p> <p>*For a balanced or supply only ventilation system HLairve = 0</p>																																																																					

**HEAT LOSS AND GAIN SUMMARY SHEET****MODEL:** 4203- THE FORESTCREST**BUILDER:** GOLD PARK HOMES**SFQT:** 3688**LO#** 77467**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)	72

**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 (ft <sup>3</sup> ):	55215.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft <sup>2</sup> ):	1.35	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	7.0 ft
LENGTH: 66.0 ft	WIDTH: 33.0 ft	EXPOSED PERIMETER:	198.0 ft

2012 OBC - COMPLIANCE PACKAGE		Compliance Package A1	
Component		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	-

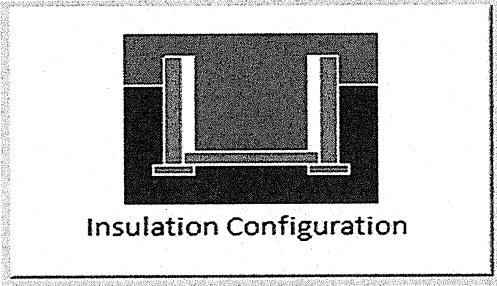
INDIVIDUAL BCIN: 19669

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):	20.1	 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 <sup>2</sup> ):	4.0	
Door Area (m <sup>2</sup> ):	1.9	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):	1951	

TYPE: 4203- THE FORESTCREST  
LO# 77467

# Air Infiltration Residential Load Calculator













Supplemental tool for CAN/CSA-F280

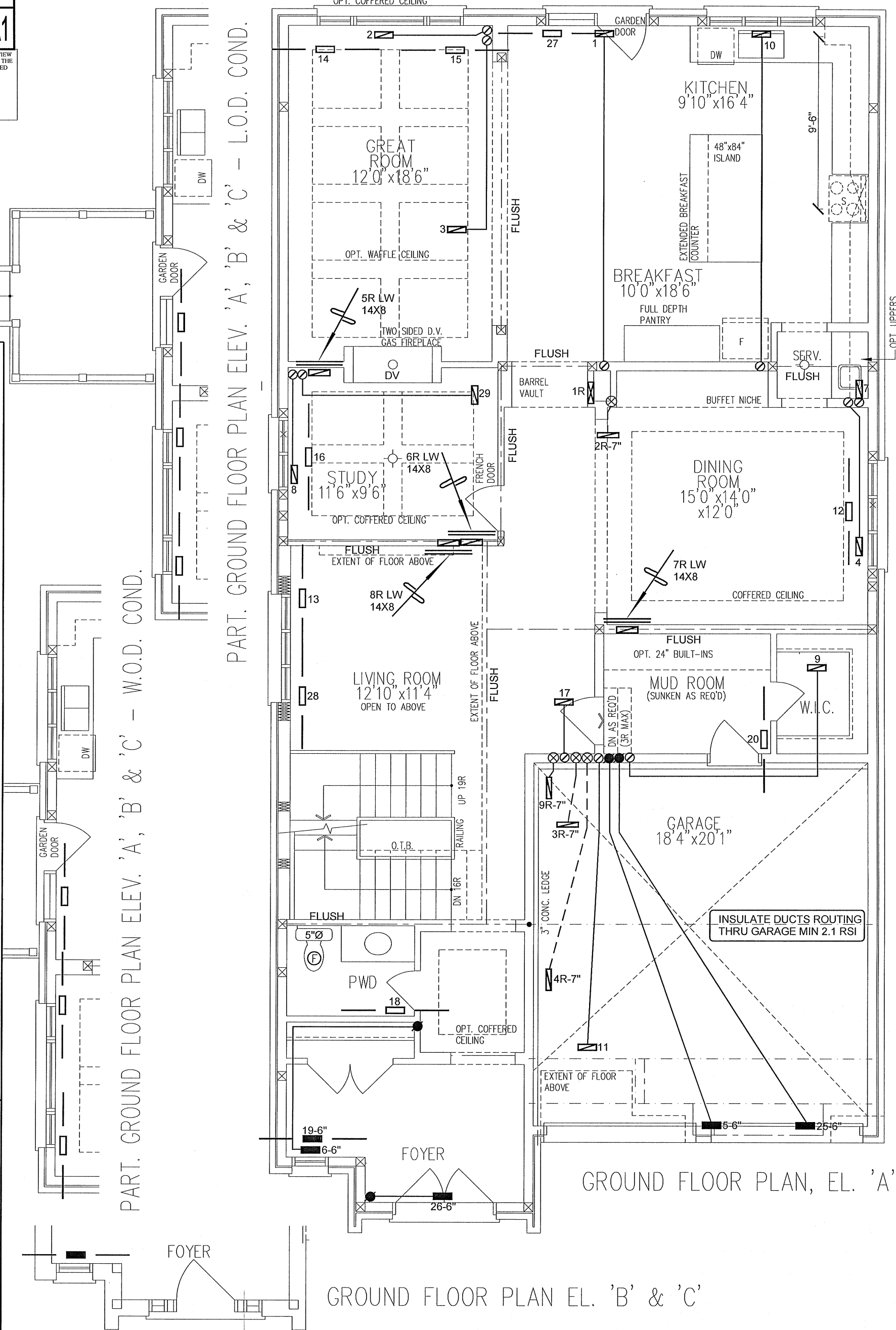
Weather Station Description				
Province:	Ontario			
Region:	Vaughan (Woodbridge)			
Weather Station Location:	Open flat terrain, grass			
Anemometer height (m):	10			
Local Shielding				
Building Site:	Suburban, forest			
Walls:	Heavy			
Flue:	Heavy			
Highest Ceiling Height (m):	7.01			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m <sup>3</sup> ):	1563.5			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	2084.2 cm <sup>2</sup>		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	73.2	73.2		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.340			
Cooling Air Leakage Rate (ACH/H):	0.124			

TYPE: 4203- THE FORESTCREST  
LO# 77467





HVAC LEGEND										3.	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	No.	Description	Date	
	SUPPLY AIR GRILLE		6\" SUPPLY AIR BOOT ABOVE		14\"x8\" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	REVISED AS PER CAD	JULY/2018	
	SUPPLY AIR GRILLE 6\" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30\"x8\" RETURN AIR GRILLE		RETURN AIR STACK 2nd FLOOR		REVISIONS	Date	
	SUPPLY AIR BOOT ABOVE		6\" SUPPLY AIR STACK 2nd FLOOR		FR\"- FLOOR RETURN AIR GRILLE		REDUCER				



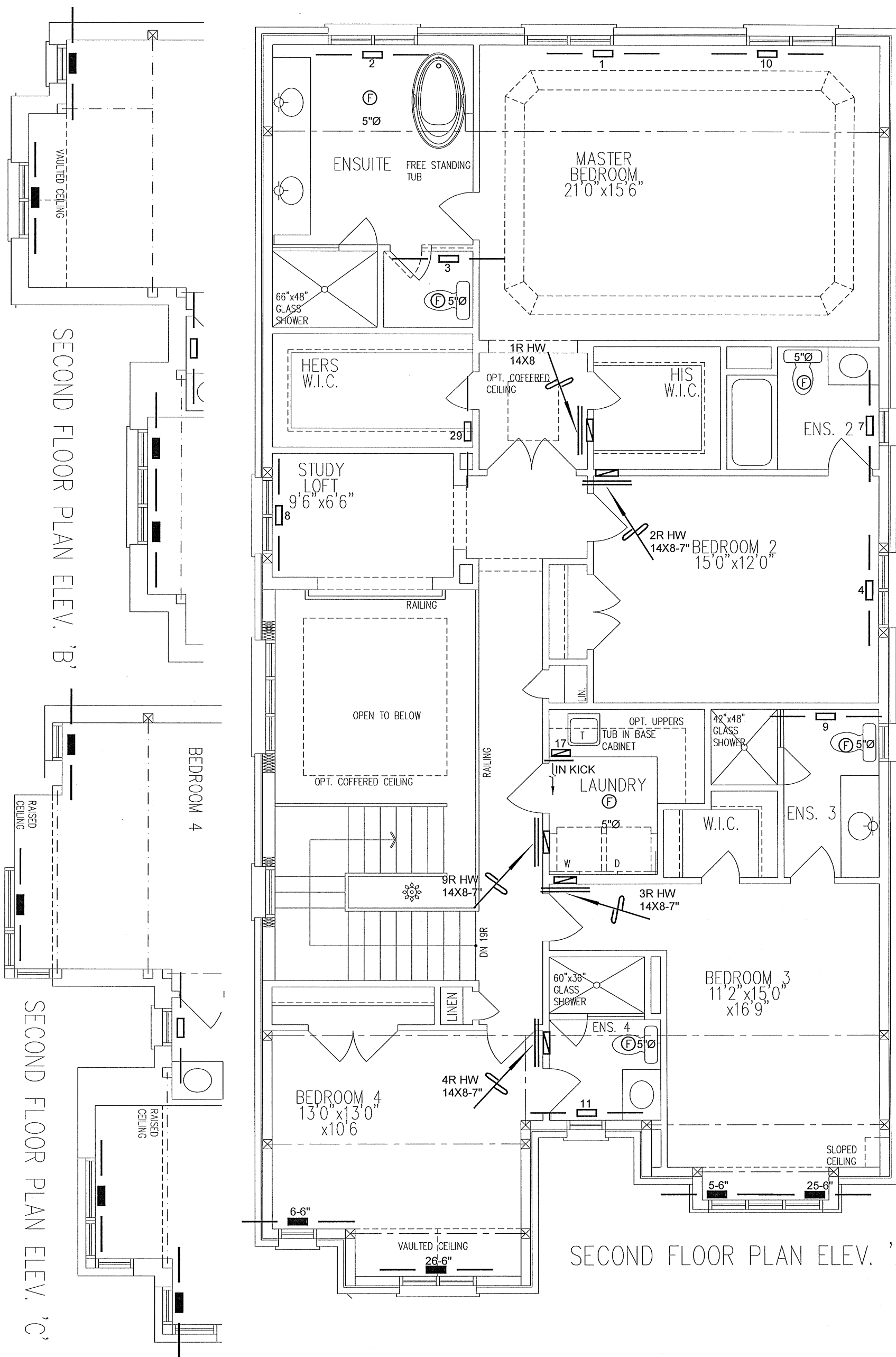
ALL DRAWINGS, CALCULATIONS AND SPECIFICATIONS ARE THE PROPERTY OF HVAC DESIGNS LTD.© AND MAY NOT BE REPRODUCED, MODIFIED OR ALTERED WITHOUT EXPRESSED WRITTEN CONSENT. THE DRAWINGS ARE DATED AND USE OF THESE DRAWINGS AFTER ONE YEAR FROM THE DATED NOTED IS NOT AUTHORIZED. CONTRACTOR SHALL CHECK ALL CONDITIONS BEFORE PROCEEDING WITH WORK. LATEST MUNICIPAL APPROVED DRAWINGS ONLY TO BE USED DURING INSTALLATION OF HEATING SYSTEM. HVAC DESIGNS LTD. IS NOT LIABLE FOR ANY CLAIMS ARISING FROM UNAUTHORIZED USE OF THE DRAWINGS OR FROM ANY CHANGES TO ACCEPTED STANDARDS AND/OR THE ONTARIO BUILDING CODE.

Client		 <p>375 Finley Ave. Suite 202 - Ajax, Ontario          L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375          Email: info@hvacdsgns.ca          Web: www.hvacdesigns.ca          Specializing in Residential Mechanical Design Services</p>	Sheet Title	
GOLD PARK HOMES			FIRST FLOOR HEATING LAYOUT	
Project Name			Date	JAN/2018
PINE VALLEY & TESTON VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
THE FORESTCREST 4203			BCIN# 19669	
3688 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.		LO#	77467

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						
	DESCRIPTION		DESCRIPTION		DESCRIPTION	3.
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE SUPPLY AIR STACK FROM 2ND FLOOR		RETURN AIR STACK ABOVE	2. DECK CONDITIONS ADDED
	SUPPLY AIR GRILLE 6" BOOT				RETURN AIR STACK ABOVE RETURN AIR STACK 2ND FLOOR	REVISED AS PER CAD
	SUPPLY AIR BOOT ABOVE		FRA- FLOOR RETURN AIR GRILLE		REDUCER	Date
<b>REVISIONS</b>						

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GOLD PARK HOMES		SECOND FLOOR
Project Name		HEATING LAYOUT
PINE VALLEY & TESTON VAUGHAN, ONTARIO		Date JAN/2018
THE FORESTCREST 4203	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.	Scale 3/16" = 1'-0"
3688 sqft		BCIN# 19669
		LO# 77467