


## 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@hvacdsgns.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>					
<input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings		<input checked="" type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection		<input type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems	
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> 5004 THE BEAUMONT  OPT. ELEVATOR  <b>Project:</b> PINE VALLEY & TESTON		
<b>D. Declaration of Designer</b>					
I, <u>MICHAEL O'ROURKE</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 BUILDING: GOLD PARK HOMES TYPE: 5004 THE BEAUMONT DATE: Sep-18 DATE: 77479 WINTER NATURAL AIR CHANGE RATE 0.340 HEAT LOSS AT °F. 76 CSA-F280-12  
HEAT GAIN AT °F. 16 SUMMER NATURAL AIR CHANGE RATE 0.124 HEAT GAIN AT °F. 16 SB-12 PACKAGE A1

ROOM USE	MBR	ENS	DRESS	BED-2	BED-3	BED-4	ENS-2	HALL	ENS-3	
EXP. WALL CLG. HT.	19 10	35 9	12 9	11 9	18 9	43 10	0 9	13 9	18 9	
GRS.WALL AREA	190	342	108	99	162	430	0	117	182	
GLAZING		LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	
NORTH	0	0	0	18	383	303	0	0	0	0
EAST	0	0	0	0	0	63	1341	2671	60	1277
SOUTH	0	0	0	0	0	0	0	0	0	0
WEST	0	0	0	0	0	0	0	0	0	0
SKYLT.	42	384	1780	28	598	1187	0	0	0	0
DOORS	37.2	103.0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.5	148	680	137	308	1381	283	104	464	96
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.7	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0.6	468	601	299	312	400	199	228	233
NO ATTIC EXPOSED CLG	2.7	1.4	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.6	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	2155	2549	842	1367	2622	3885	184	622	1237	779
SUB TOTAL HT GAIN	2216	1901	345	577	3035	3496	70	168	0.20	0.38
LEVEL FACTOR / MUL TIPLIER	0.20	0.38	0.20	0.38	0.20	0.38	0.20	0.38	0.20	0.38
AIR CHANGE HEAT LOSS	812	960	317	516	988	1463	69	234	486	72
AIR CHANGE HEAT GAIN	0	0	0	188	361	535	25	0	170	86
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	768	0	0	768	768	768	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS	2967	3509	1169	2070	3970	5884	279	857	1873	1218
TOTAL HT LOSS BTU/H	4768	2701	1476	2329	6172	8892	109	225	1873	1218
TOTAL HT GAIN x 1.3 BTU/H										

ROOM USE	LIBR	DIN	KIT	GREAT	LAUN	ENS-4	FOY	MUD	LOD	BAS
EXP. WALL CLG. HT.	27 11	17 11	97 11	56 16	0 9	6 9	37 11	38 13	51 10	230 10
GRS.WALL AREA	297	187	1067	896	0	54	407	468	810	1916
GLAZING		LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN
NORTH	0	0	0	26	663	437	0	0	0	6
EAST	0	0	0	0	0	0	0	0	0	128
SOUTH	0	0	0	0	0	0	35	745	1484	101
WEST	0	0	0	0	0	0	0	0	0	0
SKYLT.	42	384	1780	28	598	1187	0	0	0	0
DOORS	37.2	103.0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.5	148	680	137	308	1381	283	104	464	96
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.7	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0.6	468	601	299	312	400	199	228	233
NO ATTIC EXPOSED CLG	2.7	1.4	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.6	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	2217	1238	7699	6772	184	463	2821	2920	1543	10222
SUB TOTAL HT GAIN	2273	769	6583	4720	91	287	1915	607	1270	725
LEVEL FACTOR / MUL TIPLIER	0.30	0.38	0.30	0.38	0.20	0.38	0.30	0.38	0.30	0.38
AIR CHANGE HEAT LOSS	852	476	2959	2603	69	170	1084	1122	0	16160
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	0	0	0	0	0	0	0	0	0	0
HEAT GAIN PEOPLE	768	0	768	768	768	768	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS	3069	1714	10658	9374	253	623	3905	4042	1543	25383
TOTAL HT LOSS BTU/H	4216	2078	10339	7653	1115	408	2721	1848	1543	1163
TOTAL HT GAIN x 1.3 BTU/H										

TOTAL HEAT GAIN BTU/H: 59797 TONS: 4.98 LOSS DUE TO VENTILATION LOAD BTU/H: 3181 STRUCTURAL HEAT LOSS: 83131 TOTAL COMBINED HEAT LOSS BTU/H: 86311

*Michael O'Rourke*

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

## OPT. ELEVATOR

TYPE: 5004 THE BEAUMONT

GFA: 4330

LO# 77479

DATE: Sep-18

HEATING CFM	1955	COOLING CFM	1955		
TOTAL HEAT LOSS	83,131	TOTAL HEAT GAIN	59,136		
AIR FLOW RATE CFM	23.52	AIR FLOW RATE CFM	33.06		
RUN COUNT	4th	3rd	2nd	1st	Bas
SIA	0	0	18	13	8
R/A	0	0	5	4	1

All SIA diffusers 4"x10" unless noted otherwise on layout.

All SIA runs 5"Ø unless noted otherwise on layout.

EL296UH110XE60C	110	LENNOX	AFUE = 96 %
FAN SPEED	LOW	FOY	INPUT (BTU/H) = 110,000
MEDIUM	1380	FOY	OUTPUT (BTU/H) = 106,000
HIGH	1505	FOY	DESIGN CFM = 1955
1685	1505	FOY	CFM @ 8" E.S.P.
1955	1505	FOY	TEMPERATURE RISE 50 °F

furnace pressure	0.6	furnace pressure	0.18
a/c coil pressure	0.2	r/a grille press. Loss	0.02
available pressure	0.35	adjusted pressure r/a	0.15
plenum pressure s/a	0.18		
max s/a diff press. loss	0.02		
min adjusted pressure s/a	0.16		

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	MBR	ENS	DRESS	BED-2	BED-3	BED-4	ENS-2	HALL	ENS-4	MBR	ENS-3	LIBR	DIN	KIT	KIT	GREAT	LAUN	KIT	FOY	MUD	BAS	BAS	BAS	BAS
RM LOSS MBH	1.48	1.67	1.16	2.07	1.32	1.96	0.28	0.86	0.62	1.48	1.87	1.53	1.71	2.66	2.86	3.12	0.25	2.66	3.90	2.02	3.37	3.37	3.37	3.37
CFM PER RUN HEAT	35	39	27	49	31	46	7	20	15	35	44	36	40	63	63	73	6	63	92	48	79	79	79	79
RM GAIN MBH	2.38	1.30	1.48	2.33	2.06	2.30	0.11	0.22	0.41	2.38	1.22	2.11	2.08	2.58	2.58	2.56	1.12	2.58	2.72	0.92	0.35	0.35	0.35	0.35
CFM PER RUN COOLING	79	43	49	77	68	76	4	7	13	79	40	70	69	85	85	85	37	85	90	31	12	12	12	12
ADJUSTED PRESSURE	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
ACTUAL DUCT LGH	46	62	29	34	38	50	28	31	43	54	41	41	27	40	32	49	26	36	24	16	50	50	39	30
EQUIVALENT LENGTH	190	140	180	180	120	150	160	180	190	180	180	180	80	140	150	130	150	140	150	130	140	100	100	102
TOTAL EFFECTIVE LENGTH	236	202	209	214	158	200	188	211	233	234	201	221	107	180	182	179	176	176	174	146	180	190	139	132
ADJUSTED PRESSURE	0.07	0.09	0.08	0.08	0.11	0.09	0.09	0.08	0.07	0.07	0.09	0.08	0.16	0.09	0.09	0.09	0.09	0.09	0.09	0.12	0.1	0.09	0.12	0.13
ROUND DUCT SIZE	6	4	5	5	5	5	4	4	4	6	4	5	5	5	5	5	4	5	6	4	5	5	5	5
HEATING VELOCITY (ft/min)	178	447	198	360	228	338	80	229	172	178	505	264	284	463	463	536	69	463	469	551	580	580	580	580
COOLING VELOCITY (ft/min)	403	493	360	565	499	558	46	80	149	403	459	514	507	624	624	624	424	424	459	356	88	88	88	88
OUTLET GRILL SIZE	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10
TRUNK	B	C	D	F	F	E	F	D	E	B	F	E	F	C	C	A	D	B	E	D	A	A	C	C

RUN #	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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TYPE: 5004 THE BEAUMONT  
SITE NAME: PINE VALLEY & TESTON

LO # 77479  
OPT. ELEVATOR

**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	6 @ 10.6 cfm	63.6 cfm
Table 9.32.3.A.	TOTAL	201.4 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	201.4	cfm
Less Principal Ventil. Capacity	155	cfm
Required Supplemental Capacity	46.4	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-3	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
ENS-4	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#: 77479	Model: 5004 THE BEAUMONT	Builder: GOLD PARK HOMES	Date: 9/10/2018																																																																												
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$HG_{satb} = LR_{aire} \times \frac{V_b}{3.6} \times DTD_c \times 1.2$																																																																															
0.340	x	515.77	x																																																																												
		9 °C	x																																																																												
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			674 W																																																																												
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			2299 Btu/h																																																																												
<b>6.2.7 Sensible heat Gain due to Ventilation</b>																																																																															
$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$																																																																															
155 CFM	x	16 °F	x																																																																												
		1.08	x																																																																												
		0.25	=																																																																												
			661 Btu/h																																																																												
<b>5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)</b>																																																																															
$HL_{airr} = Level Factor \times HL_{airbv} \times \{(HL_{qgcr} + HL_{bgcr}) \div (HL_{qglevel} + HL_{bglevel})\}$																																																																															
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<p>*HLairbv = Air leakage heat loss + ventilation heat loss</p> <p>*For a balanced or supply only ventilation system HLairv = 0</p>																																																																															

**HEAT LOSS AND GAIN SUMMARY SHEET**

<b>MODEL:</b> 5004 THE BEAUMONT	<b>OPT. ELEVATOR</b>	<b>BUILDER:</b> GOLD PARK HOMES
<b>SFQT:</b> 4330	<b>LO#</b> 77479	<b>SITE:</b> 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 (ft³):	65571.0	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: 74.0 ft	WIDTH: 41.0 ft	EXPOSED PERIMETER:	230.0 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	-

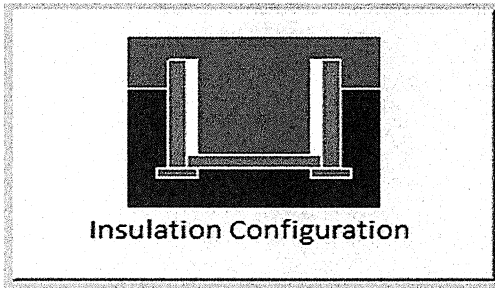
INDIVIDUAL BCIN: 19669

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):	22.6	 Insulation Configuration
Floor Width (m):	12.5	
Exposed Perimeter (m):	0.0	
Wall Height (m):	3.0	
Depth Below Grade (m):	2.13	
Window Area (m <sup>2</sup> ):	3.7	
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):	2349	

TYPE: 5004 THE BEAUMONT  
LO# 77479

OPT. ELEVATOR

# Air Infiltration Residential Load Calculator

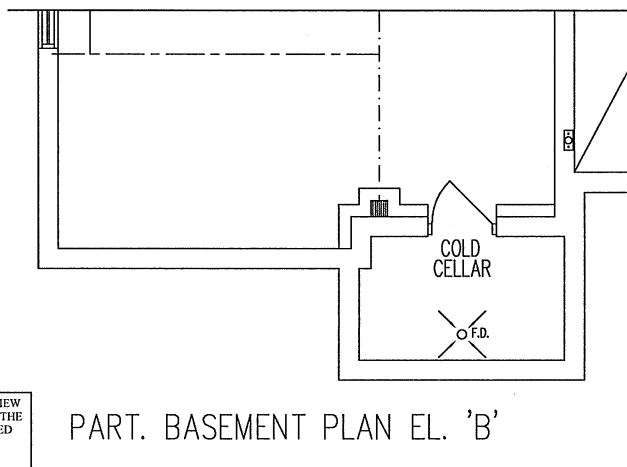
Supplemental tool for CAN/CSA-F280

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> ):	1856.8			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	2475.1 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			

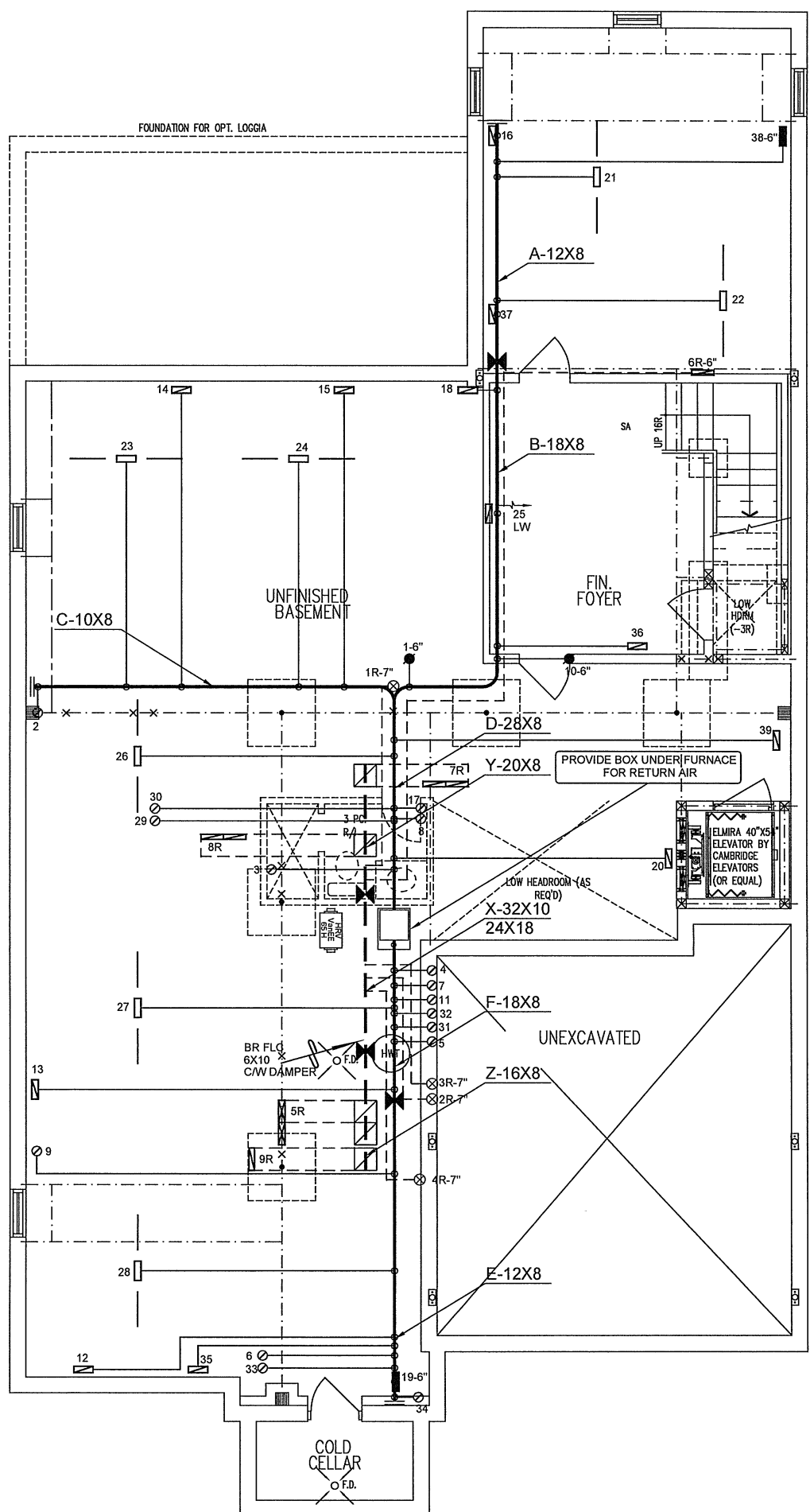
TYPE: 5004 THE BEAUMONT  
LO# 77479

OPT. ELEVATOR

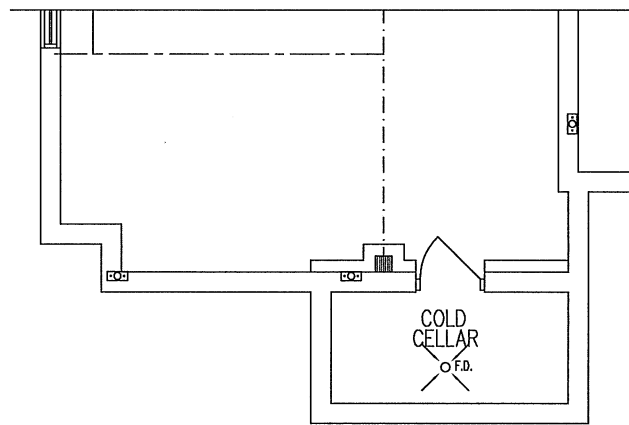




PART. BASEMENT PLAN ELEV. 'A', 'B' &amp; 'C' - W.O.D. COND.



PART. BASEMENT PLAN EL. 'A' (OPT. ELEVATOR)



PART. BASEMENT PLAN EL. 'C'

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

PART. BASEMENT PLAN EL. 'B'

## PACKAGE A1

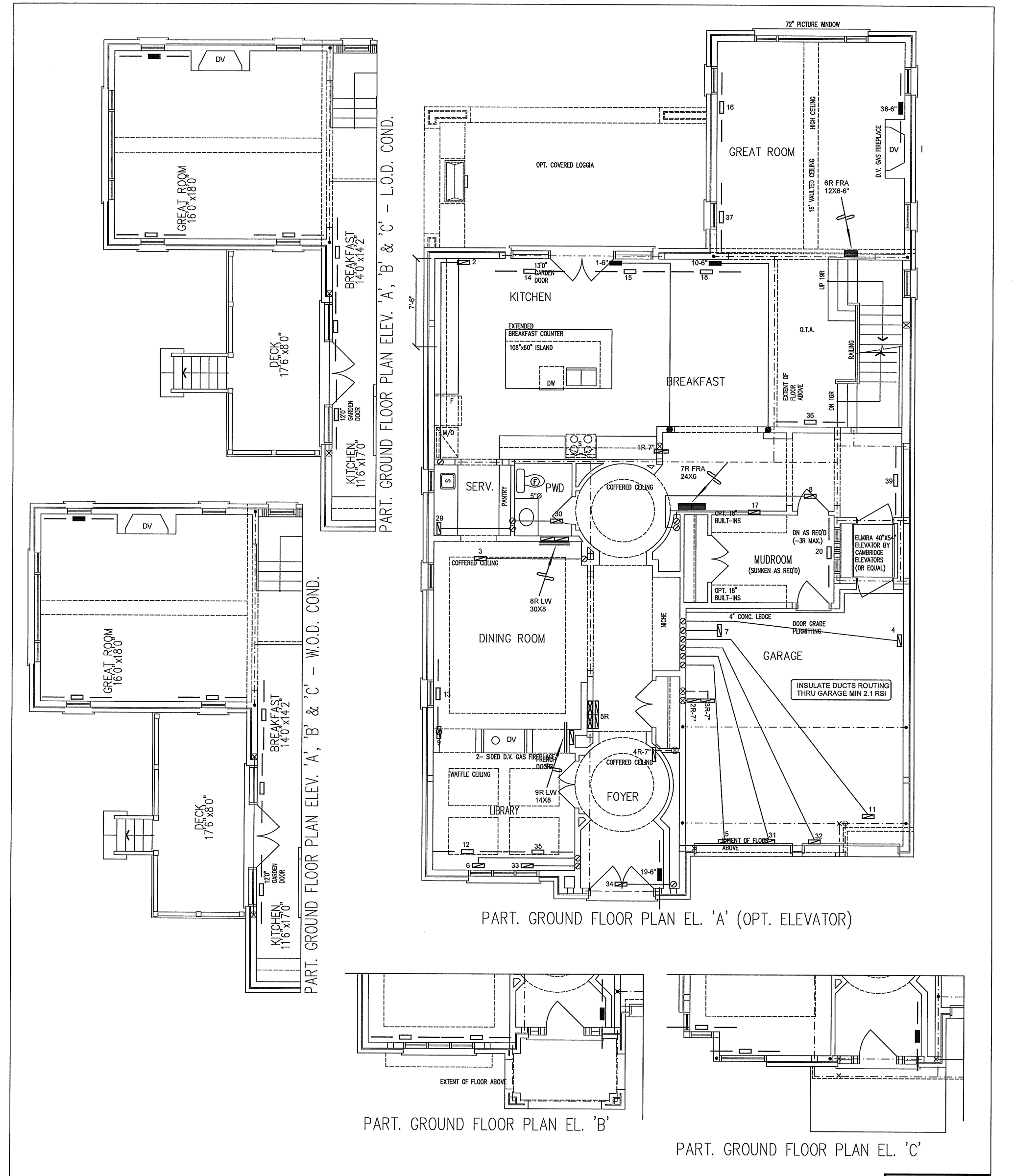
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4330 sqft

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.

HEAT LOSS 86311 BTU/H		# OF RUNS S/A R/A FANS			
UNIT DATA		3RD FLOOR			
MAKE	LENNOX	2ND FLOOR	18	5	6
MODEL		1ST FLOOR	13	4	2
INPUT	110 MBTU/H	BASEMENT	8	1	0
OUTPUT	106 MBTU/H	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			
COOLING	5.0 TONS				
FAN SPEED	1955 cfm @ 0.6" w.c.				

LO#	77479
-----	-------



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.

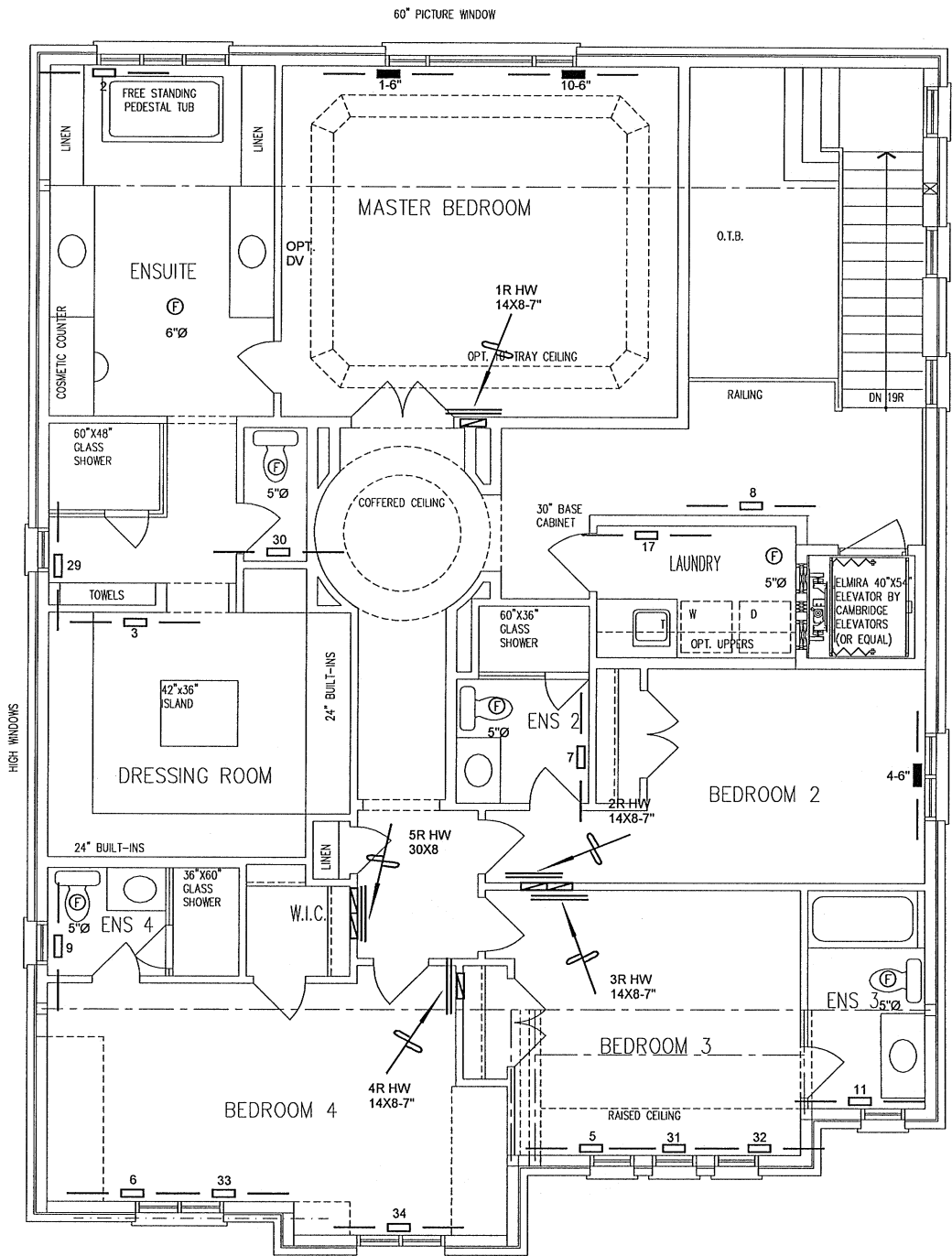
CSA-F280-12

PACKAGE A1

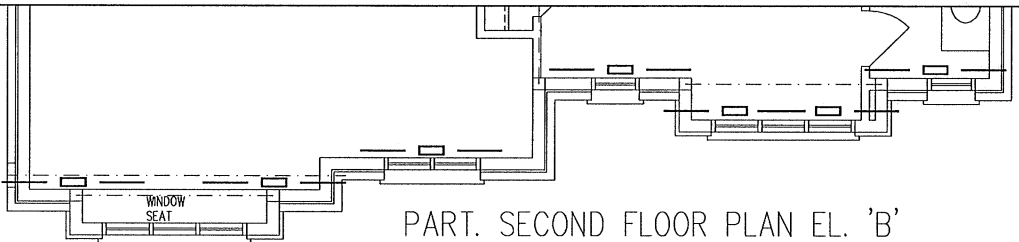
HVAC LEGEND							3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	DECK CONDITIONS ADDED
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR 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

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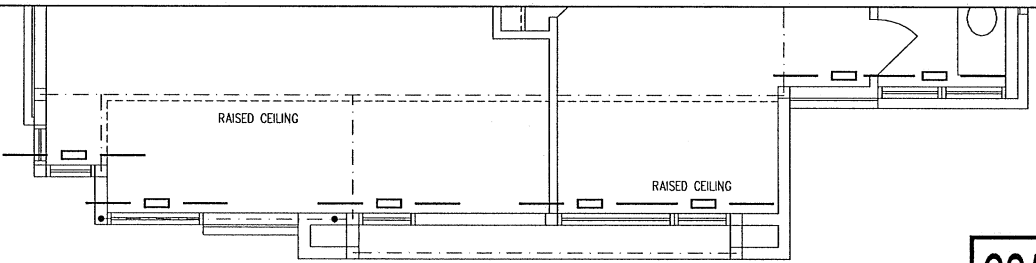
Client <b>GOLD PARK HOMES</b>  Project Name <b>PINE VALLEY &amp; TESTON VAUGHAN, ONTARIO OPT. ELEVATOR THE BEAUMONT 5004</b>  4330 sqft	<div><div><b>HVACDESIGNS LTD.</b></div><div>375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdsgns.ca Web: www.hvacdsgns.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.</div></div>	Sheet Title <b>FIRST FLOOR HEATING LAYOUT</b>
		Date <b>JAN/2018</b>
		Scale <b>1/8" = 1'-0"</b>
		BCIN# 19669
		<b>LO# 77479</b>



PART. SECOND FLOOR PLAN EL. 'A' (OPT. ELEVATOR)



PART. SECOND FLOOR PLAN EL. 'B'



PART. SECOND FLOOR PLAN EL. 'C'

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.	
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	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		<div></div> <div>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</div> <div>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.</div>	Sheet Title	
GOLD PARK HOMES			SECOND FLOOR HEATING LAYOUT	
Project Name			Date	JAN/2018
PINE VALLEY & TESTON VAUGHAN, ONTARIO			Scale	1/8" = 1'-0"
OPT. ELEVATOR			BCIN# 19669	
THE BEAUMONT			LO#	77479
5004				
4330 sqft				