


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@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]				
<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 HEAT LOSS / GAIN CALCULATIONS DUCT SIZING RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY RESIDENTIAL SYSTEM DESIGN per CSA-F280-12		Model: 5004 THE BEAUMONT WOB Project: PINE VALLEY & TESTON		
D. Declaration of Designer				
I, <u>MICHAEL O'ROURKE</u> declare that (choose one as appropriate): <div style="text-align: center;">(print name)</div>				
<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 12, 2018		 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.

SITE NAME: PINE VALLEY & TESTON BUILDERS: GOLD PARK HOMES WOB TYPE: 5004 THE BEAUMONT DATE: Sep-18 LO# 78978 GFA: 4184 WINTER NATURAL AIR CHANGE RATE 0.407 SUMMER NATURAL AIR CHANGE RATE 0.137 HEAT LOSS AT °F. 76 HEAT GAIN AT °F. 13 CSA-F280-12 SB-12 PACKAGE A1

ROOM USE	MBR	ENS	DRESS	BED-2	BED-3	BED-4	ENS-2	WIC-2	ENS-3	
EXP. WALL	19	38	12	11	18	43	9	13	18	
CLG. HT.	10	9	9	9	9	10	9	9	9	
FACTORS										
GRS.WALL AREA	180	342	108	99	162	430	0	117	162	
GLAZING										
NORTH	21.3	16.0	0	0	0	0	0	0	0	
EAST	21.3	41.6	0	0	0	0	0	0	0	
SOUTH	21.3	24.9	0	0	0	0	0	0	0	
WEST	21.3	41.6	42	894	1745	28	596	1163	0	
SKYL.T.	37.2	101.5	0	0	0	0	0	0	0	
DOORS	25.2	4.3	0	0	0	0	0	0	0	
NET EXPOSED WALL	4.6	0.8	148	660	111	305	1351	229	104	
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.6	0	0	0	0	0	0	0	
EXPOSED CLG	1.3	0.6	468	601	276	312	400	183	228	
EXPOSED FLOOR	2.7	1.3	0	0	0	0	0	0	0	
BASEMENT/CRAWL HEAT LOSS	2.6	0.4	0	0	0	0	0	0	0	
SLAB ON GRADE HEAT LOSS										
SUBTOTAL HT LOSS	2165	2131	842	1481	539	2932	223	821	1237	
SUB TOTAL HT GAIN	0.20	0.42	0.20	0.42	0.20	0.42	0.20	0.42	0.20	
LEVEL FACTOR / MULTIPLE	897	1051	350	608	1091	1617	93	342	516	
AIR CHANGE HEAT LOSS	160	135	23	40	220	251	5	116	176	
DUCT LOSS	0	0	0	207	371	560	32	7	79	
DUCT GAIN	2	480	1	154	412	456	0	0	0	
HEAT GAIN PEOPLE	726	0	726	240	240	240	0	0	0	
HEAT GAIN APPLANCES/LIGHTS	3051	3609	1192	2276	4084	6052	347	1279	1927	
TOTAL HT LOSS BTU/H	4544	2516	1878	2207	8886	8518	106	267	1123	

ROOM USE	LIBR	DIN	KIT	GREAT	LAUN	ENS-4	FOY	MUD	WOB	BAS
EXP. WALL	27	17	111	86	0	8	37	18	61	179
CLG. HT.	11	11	11	16	9	9	11	13	10	10
FACTORS										
GRS.WALL AREA	297	187	1221	886	0	54	407	234	510	1253
GLAZING										
NORTH	21.3	16.0	0	0	0	0	0	0	0	0
EAST	21.3	41.6	0	0	0	0	0	0	0	0
SOUTH	21.3	24.9	12	265	299	12	265	299	12	128
WEST	21.3	41.6	0	0	0	0	0	0	0	0
SKYL.T.	37.2	101.5	0	0	0	0	0	0	0	0
DOORS	25.2	4.3	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.6	0.8	244	1089	183	163	727	123	1061	4736
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.6	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0.6	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.7	1.3	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	2.6	0.4	0	0	0	0	0	0	0	0
SLAB ON GRADE HEAT LOSS										
SUBTOTAL HT LOSS	2217	1238	8386	6772	375	453	2821	1460	719	2925
SUB TOTAL HT GAIN	0.30	0.45	0.30	0.45	0.20	0.42	0.30	0.30	0.50	0.50
LEVEL FACTOR / MULTIPLE	1005	561	3800	3069	156	186	1278	662	4403	17291
AIR CHANGE HEAT LOSS	164	54	479	334	9	20	135	18	0	375
DUCT LOSS	0	0	0	0	63	0	0	0	0	0
DUCT GAIN	0	0	0	0	85	0	0	0	0	0
HEAT GAIN PEOPLE	240	0	0	0	0	0	0	0	0	0
HEAT GAIN APPLANCES/LIGHTS	725	725	725	725	725	725	0	725	0	0
TOTAL HT LOSS BTU/H	3221	1799	12186	9540	584	641	4099	2122	5447	22845
TOTAL HT GAIN x1.3 BTU/H	3986	1948	9878	7165	1215	376	2521	1286	5723	1278

TOTAL HEAT GAIN BTU/H: 60457 TONS: 6.04 LOSS DUE TO VENTILATION LOAD BTU/H: 3181 STRUCTURAL HEAT LOSS: 86603 TOTAL COMBINED HEAT LOSS BTU/H: 89783

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

WOB
TYPE: 5004 THE BEAUMONT

DATE: Sep-18

GFA: 4184 LO# 79978

HEATING CFM	1955	COOLING CFM	1955
TOTAL HEAT LOSS	86,603	TOTAL HEAT GAIN	59,921
AIR FLOW RATE CFM	22.57	AIR FLOW RATE CFM	32.63

AFUE = 96 %
INPUT (BTU/H) = 110,000
OUTPUT (BTU/H) = 106,000

DESIGN CFM = 1955
CFM @ 8" E.S.P.

RUN COUNT	4th	3rd	2nd	1st	Bas
SIA	0	0	18	12	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.

All Systems 3000 Units, 1000 Units, 1500 Units, 2000 Units, 2500 Units, 3000 Units, 3500 Units, 4000 Units, 4500 Units, 5000 Units, 5500 Units, 6000 Units, 6500 Units, 7000 Units, 7500 Units, 8000 Units, 8500 Units, 9000 Units, 9500 Units, 10000 Units, 10500 Units, 11000 Units, 11500 Units, 12000 Units, 12500 Units, 13000 Units, 13500 Units, 14000 Units, 14500 Units, 15000 Units, 15500 Units, 16000 Units, 16500 Units, 17000 Units, 17500 Units, 18000 Units, 18500 Units, 19000 Units, 19500 Units, 20000 Units, 20500 Units, 21000 Units, 21500 Units, 22000 Units, 22500 Units, 23000 Units, 23500 Units, 24000 Units, 24500 Units, 25000 Units, 25500 Units, 26000 Units, 26500 Units, 27000 Units, 27500 Units, 28000 Units, 28500 Units, 29000 Units, 29500 Units, 30000 Units, 30500 Units, 31000 Units, 31500 Units, 32000 Units, 32500 Units, 33000 Units, 33500 Units, 34000 Units, 34500 Units, 35000 Units, 35500 Units, 36000 Units, 36500 Units, 37000 Units, 37500 Units, 38000 Units, 38500 Units, 39000 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RUN #	25	26	27	28	29	30	31	32	33	34	35	36	37	38
ROOM NAME	BAS	BAS	BAS	BAS	ENS	ENS	BED-3	BED-3	BED-4	BED-4	LIBR	KIT	GREAT	GREAT
RM LOSS MBH	3.54	3.54	3.54	3.54	1.70	1.36	1.36	1.36	2.02	2.02	1.61	3.05	3.28	3.28
CFM PER RUN HEAT	80	80	80	80	38	5	31	31	46	46	36	69	74	74
RM GAIN MBH	0.88	0.88	0.88	0.88	1.24	0.04	1.96	1.96	2.17	2.17	2.00	2.47	2.39	2.39
CFM PER RUN COOLING	29	29	29	29	40	1	64	64	71	71	65	81	78	78
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.17	0.17
EQUIVALENT LENGTH	120	120	120	120	140	140	130	140	150	130	140	150	150	150
TOTAL EFFECTIVE LENGTH	157	103	137	181	174	173	172	186	197	170	175	178	189	214
ADJUSTED PRESSURE	0.11	0.17	0.13	0.1	0.1	0.1	0.1	0.09	0.09	0.1	0.1	0.09	0.09	0.08
ROUND DUCT SIZE	5	5	5	5	4	4	5	5	5	5	5	5	5	5
HEATING VELOCITY (ft/min)	587	587	587	587	436	57	228	228	338	338	264	507	543	543
COOLING VELOCITY (ft/min)	213	213	213	213	459	11	470	470	521	521	477	595	573	573
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	B	D	F	E	D	D	F	F	E	E	E	B	A	A

SUPPLY AIR TRUNK SIZE				RETURN AIR TRUNK SIZE			
TRUNK	STATIC PRESS.	ROUND DUCT	RECT DUCT	TRUNK	STATIC PRESS.	ROUND DUCT	RECT DUCT
TRUNK A	382	0.07	10.1	12	0	0	0
TRUNK B	668	0.07	12.5	18	0	0	0
TRUNK C	336	0.08	9.3	10	0	0	0
TRUNK D	1244	0.07	15.7	28	0	0	0
TRUNK E	387	0.07	10.3	12	0	0	0
TRUNK F	713	0.07	12.8	20	0	0	0

RETURN AIR			
AIR VOLUME	PLENUM PRESSURE	ACTUAL DUCT LGH	EQUIVALENT LENGTH
120	0.15	38	233
0.15	0.15	37	202
0.06	0.07	6.6	6.8
8	8	8	8
14	14	14	14

TYPE: 5004 THE BEAUMONT
SITE NAME: PINE VALLEY & TESTON

LO # 79978
WOB

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	<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>6</u> @ 10.6 cfm	<u>63.6</u> cfm
Table 9.32.3.A.	TOTAL	<u>201.4</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>201.4</u>	cfm
Less Principal Ventil. Capacity	<u>155</u>	cfm
Required Supplemental Capacity	<u>46.4</u>	cfm

PRINCIPAL EXHAUST FAN CAPACITY			
Model:	VANEE 65H		
Location:	BSMT		
<u>155.0</u> cfm	<u>3.0</u> 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	
<u>155</u> cfm high	<u>64</u> cfm low	
<u>75</u> % 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

CSA F280-12 Residential Heat Loss and Heat Gain Calculations									
Formula Sheet (For Air Leakage / Ventilation Calculation)									
LO#: 79978		Model: 5004 THE BEAUMONT		Builder: GOLD PARK HOMES		Date: 9/12/2018			
Volume Calculation									
House Volume									
Level	Floor Area (ft ²)	Floor Height (ft)	Volume (ft ³)						
Bsmt	2007	10	20070						
First	2007	11	22077						
Second	2262	9	20358						
Third	0	9	0						
Fourth	0	9	0						
Total:		62,505.0 ft ³							
Total:		1769.9 m ³							
5.2.3.1 Heat Loss due to Air Leakage									
$HL_{airb} = LR_{airb} \times \frac{V_b}{3.6} \times DTD_h \times 1.2$									
0.407	x	491.65	x	42 °C	x	1.2	=	10135 W	
								=	34582 Btu/h
5.2.3.2 Heat Loss due to Mechanical Ventilation									
$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$									
155 CFM	x	76 °F	x	1.08	x	0.25	=	3181 Btu/h	
5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)									
$HL_{airr} = Level Factor \times HL_{airbv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{aglevel} + HL_{bglevel})\}$									
Level		Level Factor (LF)		HLairbv Air Leakage + Ventilation Heat Loss (Btu/h)		Level Conductive Heat Loss: (HLlevel)		Air Leakage Heat Loss Multiplier (LF x HLairbv / HLlevel)	
1	0.5					10,282		1.682	
2	0.3					22,893		0.453	
3	0.2			34,582		16,622		0.416	
4	0					0		0.000	
5	0					0		0.000	
<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: 5004 THE BEAUMONT	WOB	BUILDER: GOLD PARK HOMES
SFQT: 4184	LO# 79978	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):	62505.0	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:	179.0 ft
WOB INSULATION CONFIGURATION	SCB_9	WOB EXPOSED PERIMETER	51.0 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	-

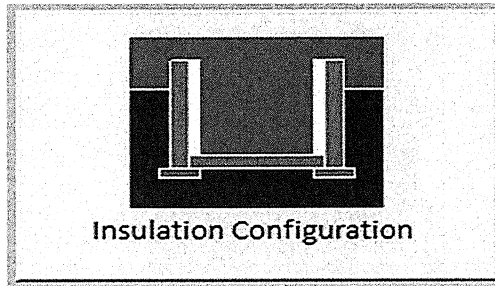
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

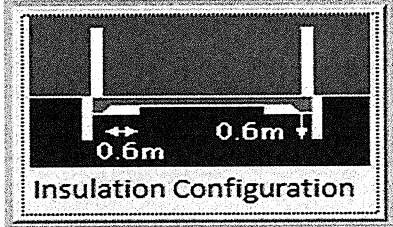
Weather Station Description		
Province:	Ontario	
Region:	Vaughan (Woodbridge)	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	4.6	 Insulation Configuration
Floor Width (m):	12.5	
Exposed Perimeter (m):	54.6	
Wall Height (m):	3.0	
Depth Below Grade (m):	1.83	
Window Area (m ²):	0.8	
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):		857

TYPE: 5004 THE BEAUMONT
LO# 79978

WOB

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		
Length (m):	1.5	
Width (m):	12.5	
Exposed Perimeter (m):	15.5	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Results		
Heating Load (Watts):		211

TYPE: 5004 THE BEAUMONT
LO# 79978

WOB

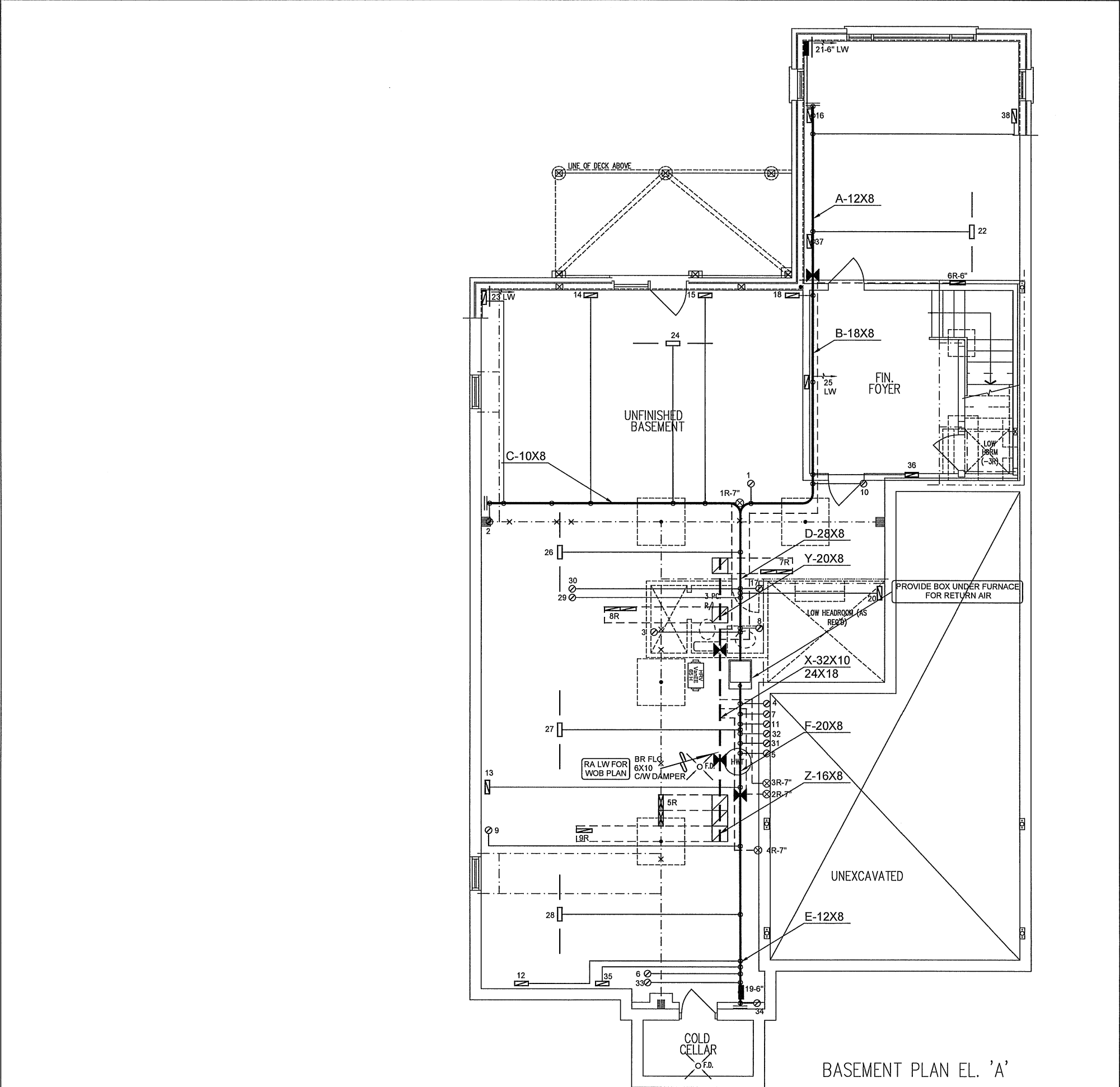
Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

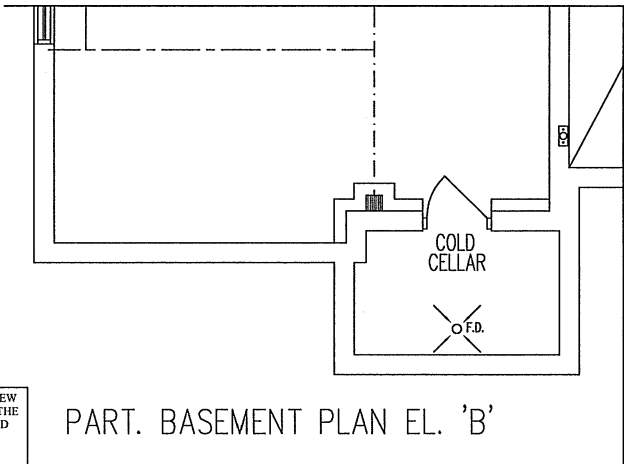
Weather Station Description				
Province:	Ontario			
Region:	Vaughan (Woodbridge)			
Weather Station Location:	Open flat terrain, grass			
Anemometer height (m):	10			
Local Shielding				
Building Site:	Suburban, forest			
Walls:	Heavy			
Flue:	Heavy			
Highest Ceiling Height (m):	9.14			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1769.9			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	2359.4 cm ²		
	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):	0.407			
Cooling Air Leakage Rate (ACH/H):	0.137			

TYPE: 5004 THE BEAUMONT
LO# 79978

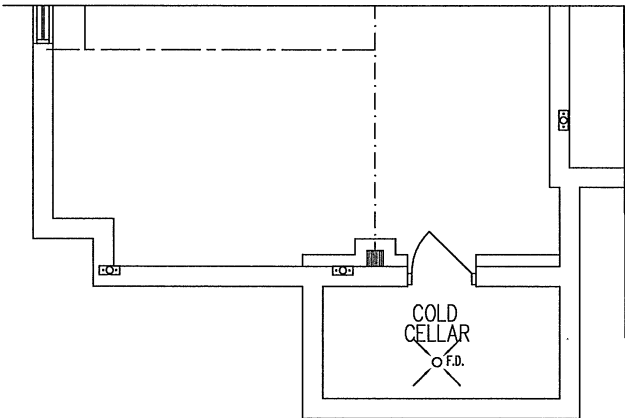
WOB



BASEMENT PLAN EL. 'A'



PART. BASEMENT PLAN EL. 'B'



PART. BASEMENT PLAN EL. 'C'

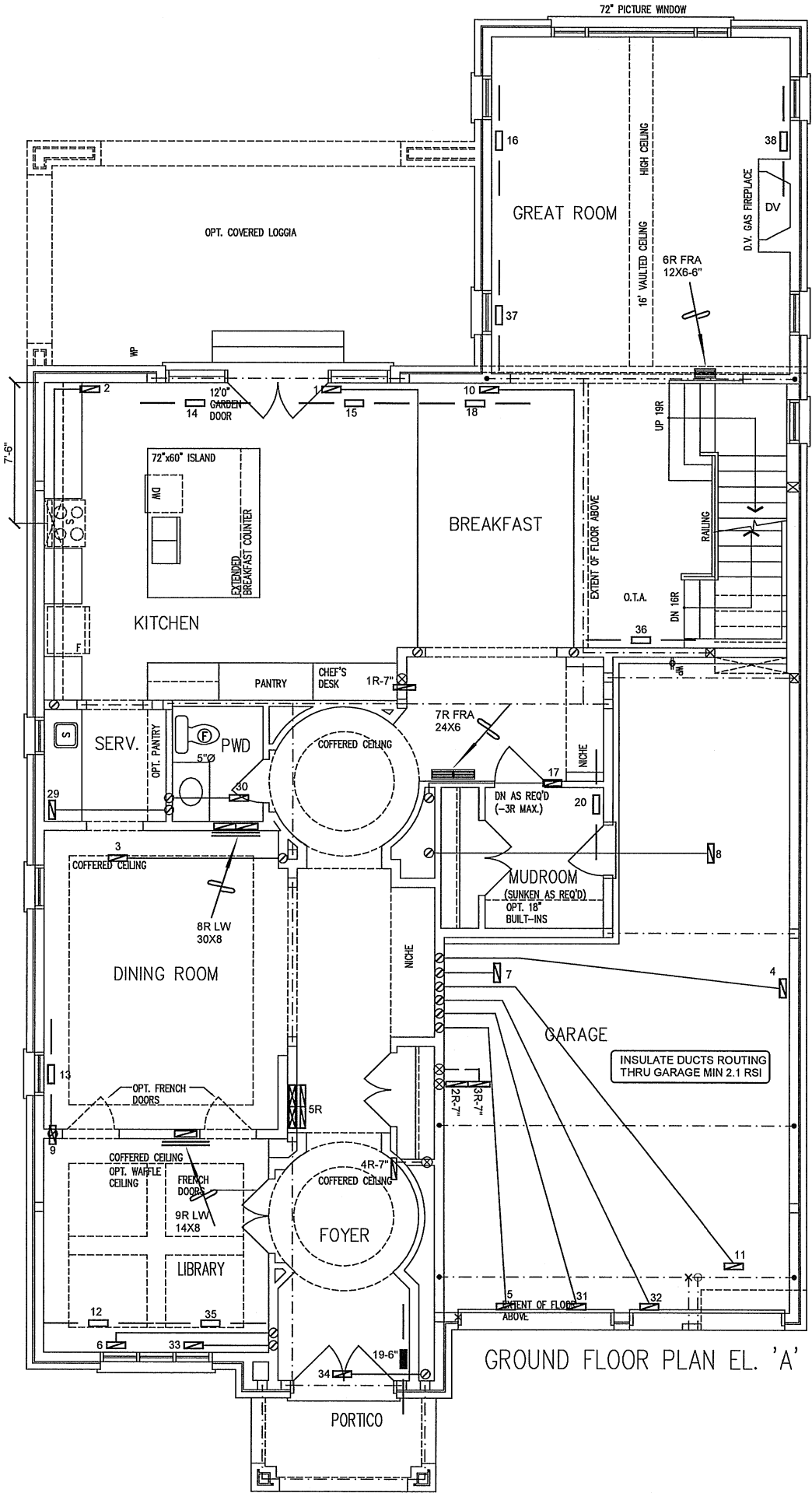
I MICHAEL O'ROURKE HAVE REVIEW
AND TAKE RESPONSIBILITY FOR THE
DESIGN WORK AND AM QUALIFIED
UNDER DIVISION C, 3.2.5 OF THE
BUILDING CODE.
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

CSA-F280-12
WOB
PACKAGE A1

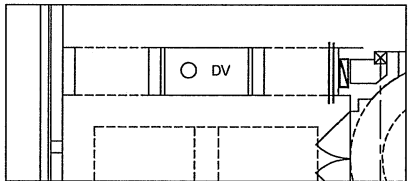
HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR 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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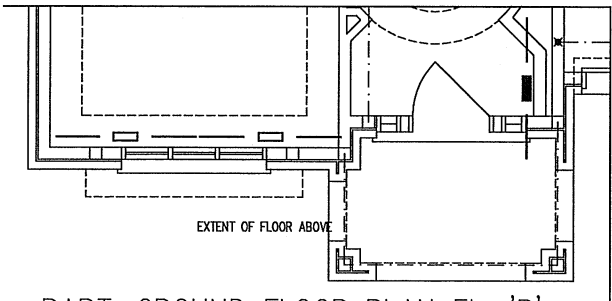
Client		<div><p>375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services</p><p>Installation to comply with the latest Ontario Building Code. All supply 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.</p></div>	HEAT LOSS 89783 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 PINE VALLEY & TESTON VAUGHAN, ONTARIO			MODEL EL296110XE60C	2ND FLOOR		18	5	6	
			INPUT 110 MBTU/H	1ST FLOOR		12	4	2	Date SEPT/2018
			OUTPUT 106 MBTU/H	BASEMENT		8	1	0	Scale 1/8" = 1'-0"
		COOLING 5.0 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						BCIN# 19669
THE BEAUMONT - WOB 5004 4184 sqft		FAN SPEED 1955 cfm @ 0.6" w.c.							LO# 79978



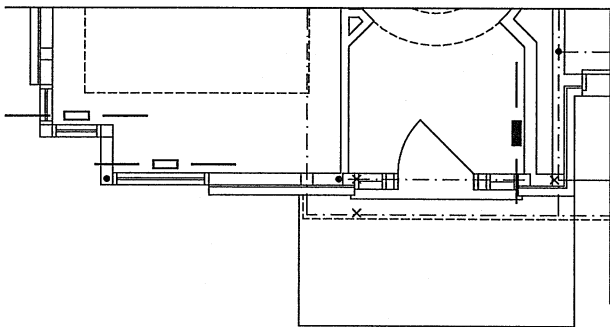
GROUND FLOOR PLAN EL. 'A'



PART. OPT. LIBRARY GROUND FLOOR PLAN EL. 'A', 'B' & 'C'



PART. GROUND FLOOR PLAN EL. 'B'



PART. GROUND FLOOR PLAN EL. 'C'

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

WOB

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
GOLD PARK HOMES

Project Name
**PINE VALLEY & TESTON
VAUGHAN, ONTARIO**

**THE BEAUMONT - WOB
5004**

4184 sqft

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

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
**FIRST FLOOR
HEATING
LAYOUT**

Date
SEPT/2018

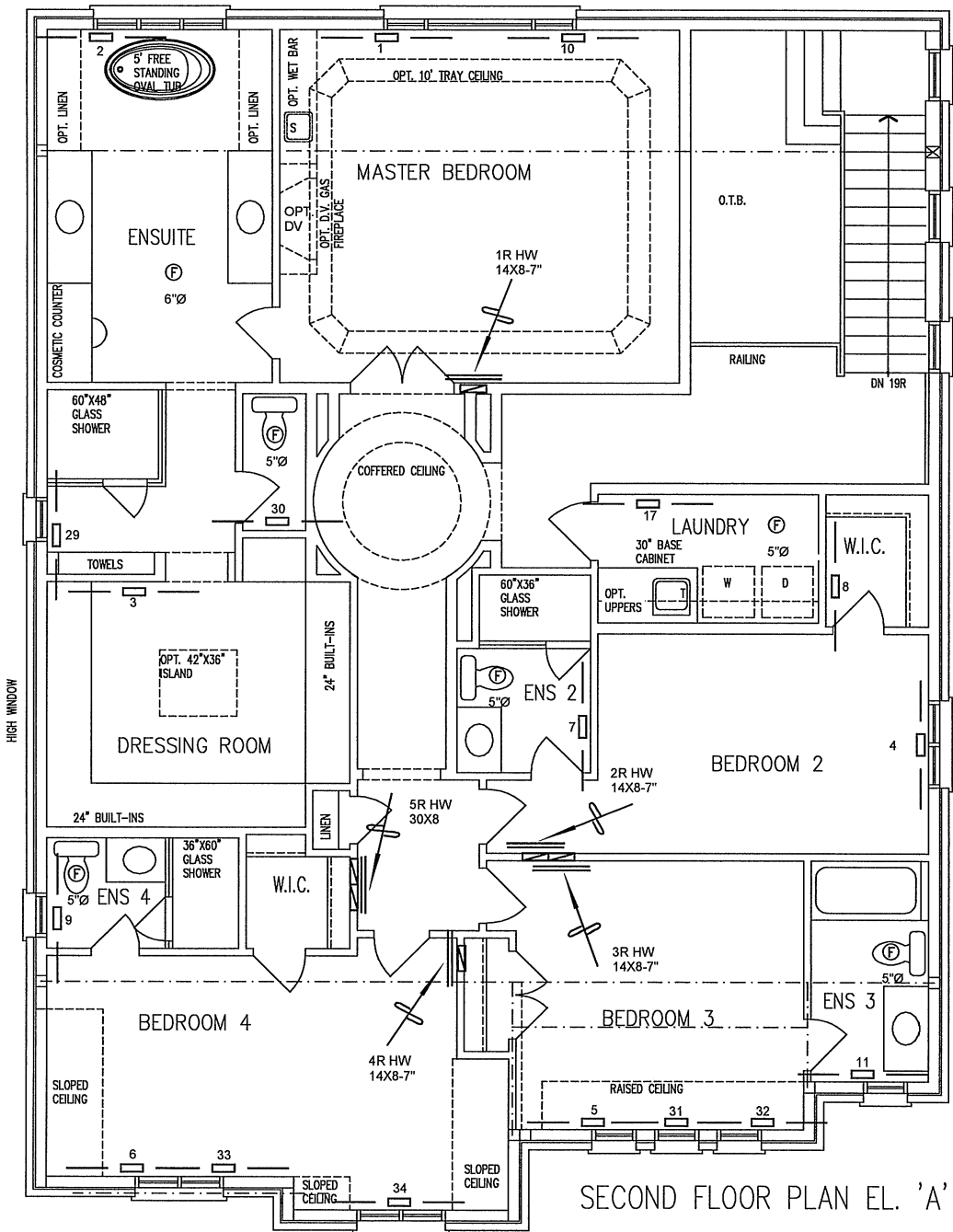
Scale
1/8" = 1'-0"

BCIN# 19669

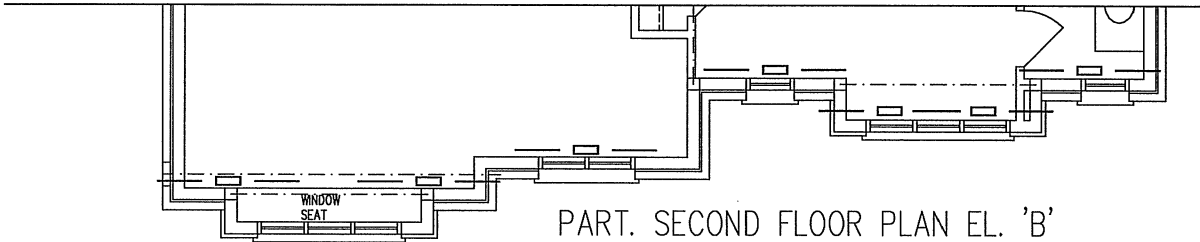
LO# 79978

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.

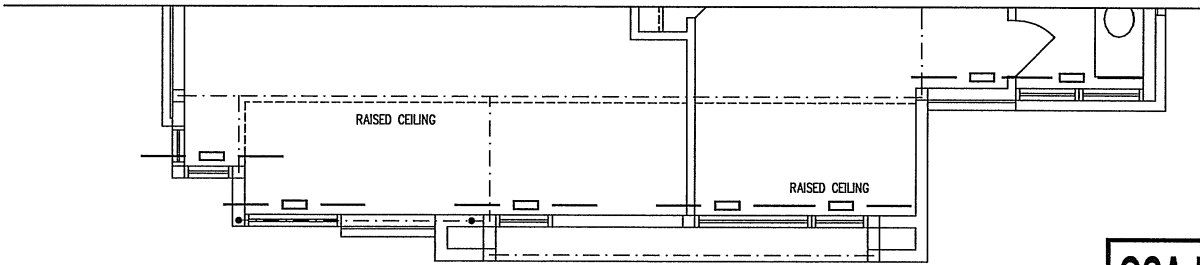
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.



SECOND FLOOR PLAN EL. 'A'



PART. SECOND FLOOR PLAN EL. 'B'



PART. SECOND FLOOR PLAN EL. 'C'

CSA-F280-12

WOB

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		<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	SEPT/2018
PINE VALLEY & TESTON VAUGHAN, ONTARIO			Scale	1/8" = 1'-0"
THE BEAUMONT - WOB 5004			BCIN# 19669	
4184 sqft			LO#	79978