


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	Postal code	Plan number/ other description			
VAUGHAN (WOODBIDGE)					
B. Individual who reviews and takes responsibility for design activities					
Name		Firm			
MICHAEL O'ROURKE		HVAC DESIGNS LTD.			
Street address		Unit no.	Lot/con.		
375 FINLEY AVE		202	N/A		
Municipality	Postal code	Province	E-mail		
AJAX	L1S 2E2	ONTARIO	info@hvacdsgns.ca		
Telephone number	Fax number	Cell number			
(905) 619-2300	(905) 619-2375	()			
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			Model: 4002 THE VALLEYVIEW		
HEAT LOSS / GAIN CALCULATIONS			Project: PINE VALLEY & TESTON		
DUCT SIZING					
RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY					
RESIDENTIAL SYSTEM DESIGN per CSA-F280-12					
D. Declaration of Designer					
I, <u>MICHAEL O'ROURKE</u> (print name) declare that (choose one as appropriate):					
<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.					
October 5, 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.

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

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

TYPE: 4002 THE VALLEYVIEW										DATE: Oct-18		WINTER NATURAL AIR CHANGE RATE 0.407		HEAT LOSS AT °F. 76		CSA-F280-12	
GFA: 2968										LO# 80231		SUMMER NATURAL AIR CHANGE RATE 0.137		HEAT GAIN AT °F. 13		SB-12 PACKAGE A1	
ROOM USE	EXP. WALL CLG. HT.	MBR	ENS	WIC	BED-2	BED-3	BED-4	ENS-2/3	COMP	ENS-4		ENS-4		ENS-4		ENS-4	
FACTORS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS
GRS.WALL AREA	400	400	225	54	342	330	117	99	126	54	54	54	54	54	54	54	54
GLAZING																	
NORTH	21.3	15.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EAST	21.3	40.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH	21.3	24.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WEST	21.3	40.5	36	766	1457	20	426	809	0	0	0	0	0	0	0	0	0
SKYL.T.	37.2	101.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DOORS	25.2	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.5	364	1624	274	191	852	144	144	41	288	1285	216	280	1250	210	99	442
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0.6	320	411	188	156	200	92	72	92	42	204	262	120	168	216	99
NO ATTIC EXPOSED CLG	2.7	1.3	10	27	13	0	0	0	0	0	0	60	165	76	30	82	38
EXPOSED FLOOR	2.6	0.4	0	0	0	0	0	0	0	0	0	30	77	13	198	505	85
BASEMENT/CRAWL HEAT LOSS																	
SLAB ON GRADE HEAT LOSS																	
SUBTOTAL HT LOSS		2829				1776				333		2938					
SUB TOTAL HT GAIN			1931								3117		2455				
LEVEL FACTOR / MULTIPLIER		0.20	0.31							0.20	0.31		2455				
AIR CHANGE HEAT LOSS		873				548				103		907					
AIR CHANGE HEAT GAIN			155							7		198					
DUCT LOSS		0				0				0		384					
DUCT GAIN			0			0				0		0					
HEAT GAIN PEOPLE	240	2	480	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAT GAIN APPLANCES/LIGHTS		683				0				0		240					
TOTAL HT LOSS BTU/H		3702				2324				436		4229					
TOTAL HT GAIN x 1.3 BTU/H			4224							1516		1914					

TYPE: 4002 THE VALLEYVIEW										DATE: Oct-18		WINTER NATURAL AIR CHANGE RATE 0.407		HEAT LOSS AT °F. 76		CSA-F280-12	
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ROOM USE	EXP. WALL CLG. HT.	DIN	KT/IGT	LAUN	PWD	FOY	WOB	BAS	WOB	ENS-4		ENS-4		ENS-4		ENS-4	
FACTORS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS
GRS.WALL AREA	143	143	990	276	78	485	420	924	420	54	54	54	54	54	54	54	54
GLAZING																	
NORTH	21.3	15.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EAST	21.3	40.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH	21.3	24.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WEST	21.3	40.5	24	511	583	35	745	1416	0	0	0	0	0	0	0	0	0
SKYL.T.	37.2	101.5	107	2277	4330	0	0	0	0	0	0	0	0	0	0	0	0
DOORS	25.2	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.5	0.8	117	522	88	849	3789	638	0	0	0	0	0	0	0	0	0
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NO ATTIC EXPOSED CLG	2.7	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.6	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS																	
SLAB ON GRADE HEAT LOSS																	
SUBTOTAL HT LOSS		1075															
SUB TOTAL HT GAIN																	
LEVEL FACTOR / MULTIPLIER		0.30	0.53														
AIR CHANGE HEAT LOSS		567															
AIR CHANGE HEAT GAIN			40														
DUCT LOSS		0															
DUCT GAIN		0															
HEAT GAIN PEOPLE	240	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAT GAIN APPLANCES/LIGHTS		683															
TOTAL HT LOSS BTU/H		1642															
TOTAL HT GAIN x 1.3 BTU/H			1582														

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

TYPE: 4002 THE VALLEYVIEW

DATE: Oct-18

GFA: 2968 LO# 80231

HEATING CFM 1255
TOTAL HEAT LOSS 62,218
AIR FLOW RATE CFM 20.17

COOLING CFM 1255
TOTAL HEAT GAIN 42,412
AIR FLOW RATE CFM 29.59

AFUE = 96 %

INPUT (BTU/H) = 88,000
OUTPUT (BTU/H) = 85,000

DESIGN CFM = 1255
CFM @ 6" E.S.P.

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	12	8	5
R/A	0	0	5	2	1

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

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

ROOM #	ROOM NAME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	MBR	1.85	2.32	0.44	2.11	2.24	1.52	2.06	1.48	2.11	1.85	0.84	1.64	2.62	2.62	2.62	2.62	2.77	0.74	FOY	BED-3	BAS	BAS	BAS	BAS
2	RM LOSS MBH	37	47	9	43	45	31	42	30	43	37	17	33	53	53	53	53	56	15	99	45	83	83	83	83
3	CFM PER RUN HEAT	2.11	1.94	0.12	2.56	2.56	1.91	1.83	1.85	2.56	2.11	0.37	1.58	2.19	2.19	2.19	2.19	1.49	0.35	2.57	2.56	1.03	1.03	1.03	1.03
4	RM GAIN MBH	62	58	3	76	76	57	54	55	76	62	11	47	65	65	65	65	44	10	76	76	31	31	31	31
5	CFM PER RUN COOLING	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	0.16	0.17	0.16	0.16	0.16	0.16
6	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	0.16	0.17	0.16	0.16	0.16	0.16
7	ACTUAL DUCT LGH.	50	58	58	61	51	38	48	42	67	35	47	10	41	48	40	30	11	48	44	57	35	42	26	28
8	EQUIVALENT LENGTH	210	150	150	180	170	180	140	190	190	120	180	130	130	130	150	130	200	210	140	160	140	220	120	150
9	TOTAL EFFECTIVE LENGTH	260	208	208	241	221	218	188	232	257	155	227	140	171	178	190	160	211	258	184	217	175	262	146	178
10	ADJUSTED PRESSURE	0.07	0.08	0.08	0.07	0.08	0.08	0.09	0.07	0.07	0.11	0.08	0.12	0.1	0.1	0.09	0.11	0.08	0.07	0.09	0.08	0.09	0.06	0.11	0.09
11	ROUND DUCT SIZE	5	5	4	6	5	5	5	5	6	5	4	4	5	5	5	5	5	4	6	5	5	6	5	5
12	HEATING VELOCITY (ft/min)	272	345	103	219	330	228	308	220	219	272	195	379	389	389	389	389	411	172	505	330	609	423	609	609
13	COOLING VELOCITY (ft/min)	455	426	34	388	558	419	396	404	388	455	126	539	477	477	477	477	323	115	388	558	228	158	228	228
14	OUTLET GRILL SIZE	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	4X10	3X10	3X10
15	TRUNK	A	A	A	C	D	B	D	D	C	B	D	B	A	A	A	B	B	C	C	D	A	A	B	B

ROOM #	ROOM NAME	BAS	412	83	1.03	0.16	43	150	193	0.08	6	423	158	4X10	C
25	RM LOSS MBH	4.12	83	1.03	0.16	43	150	193	0.08	6	423	158	4X10	C	
26	CFM PER RUN HEAT	83	1.03	0.16	43	150	193	0.08	6	423	158	4X10	C		
27	RM GAIN MBH	1.03	0.16	43	150	193	0.08	6	423	158	4X10	C			
28	CFM PER RUN COOLING	31	0.16	43	150	193	0.08	6	423	158	4X10	C			
29	ADJUSTED PRESSURE	0.16	43	150	193	0.08	6	423	158	4X10	C				
30	ACTUAL DUCT LGH.	43	150	193	0.08	6	423	158	4X10	C					
31	EQUIVALENT LENGTH	150	193	0.08	6	423	158	4X10	C						
32	TOTAL EFFECTIVE LENGTH	193	0.08	6	423	158	4X10	C							
33	ADJUSTED PRESSURE	0.08	6	423	158	4X10	C								
34	ROUND DUCT SIZE	6	423	158	4X10	C									
35	HEATING VELOCITY (ft/min)	423	158	4X10	C										
36	COOLING VELOCITY (ft/min)	158	4X10	C											
37	OUTLET GRILL SIZE	4X10	C												

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	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)
TRUNK A	418	0.06	10.9	14	537	TRUNK G	0	0.00	0	0	0	TRUNK H	0	0.00	0	0	0	TRUNK I	0	0.00	0	0	0
TRUNK B	794	0.06	13.8	22	650	TRUNK J	0	0.00	0	0	0	TRUNK K	0	0.00	0	0	0	TRUNK L	0	0.00	0	0	0
TRUNK C	283	0.07	9	10	509	TRUNK M	0	0.00	0	0	0	TRUNK N	0	0.00	0	0	0	TRUNK O	0	0.00	0	0	0
TRUNK D	462	0.07	10.9	14	594	TRUNK P	0	0.00	0	0	0	TRUNK Q	0	0.00	0	0	0	TRUNK R	0	0.00	0	0	0
TRUNK E	0	0.00	0	0	0	TRUNK S	0	0.00	0	0	0	TRUNK T	0	0.00	0	0	0	TRUNK U	0	0.00	0	0	0
TRUNK F	0	0.00	0	0	0	TRUNK V	0	0.00	0	0	0	TRUNK W	0	0.00	0	0	0	TRUNK X	0	0.00	0	0	0

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	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)
TRUNK A	418	0.06	10.9	14	537	TRUNK G	0	0.00	0	0	0	TRUNK H	0	0.00	0	0	0	TRUNK I	0	0.00	0	0	0
TRUNK B	794	0.06	13.8	22	650	TRUNK J	0	0.00	0	0	0	TRUNK K	0	0.00	0	0	0	TRUNK L	0	0.00	0	0	0
TRUNK C	283	0.07	9	10	509	TRUNK M	0	0.00	0	0	0	TRUNK N	0	0.00	0	0	0	TRUNK O	0	0.00	0	0	0
TRUNK D	462	0.07	10.9	14	594	TRUNK P	0	0.00	0	0	0	TRUNK Q	0	0.00	0	0	0	TRUNK R	0	0.00	0	0	0
TRUNK E	0	0.00	0	0	0	TRUNK S	0	0.00	0	0	0	TRUNK T	0	0.00	0	0	0	TRUNK U	0	0.00	0	0	0
TRUNK F	0	0.00	0	0	0	TRUNK V	0	0.00	0	0	0	TRUNK W	0	0.00	0	0	0	TRUNK X	0	0.00	0	0	0

TYPE: 4002 THE VALLEYVIEW
SITE NAME: PINE VALLEY & TESTON

LO # 80231

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	5 @ 10.6 cfm	53 cfm
Other Rooms	5 @ 10.6 cfm	53.0 cfm
Table 9.32.3.A. TOTAL		180.2 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	180.2	cfm
Less Principal Ventil. Capacity	155	cfm
Required Supplemental Capacity	25.2	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	$\Delta T \cdot F$	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-2/3	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 @ 32 deg F (0 deg C)	<input checked="" type="checkbox"/> HVI Approved	

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:	October-18

I REVIEW AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED IN THE APPROPRIATE CATEGORY AS AN "OTHER DESIGNER" UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.
INDIVIDUAL BCIN: 19669 MICHAEL O'ROURKE

CSA F280-12 Residential Heat Loss and Heat Gain Calculations																																																																					
Formula Sheet (For Air Leakage / Ventilation Calculation)																																																																					
LO#: 80231	Model: 4002 THE VALLEYVIEW	Builder: GOLD PARK HOMES	Date: 10/5/2018																																																																		
Volume Calculation		Air Change & Delta T Data																																																																			
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6.2.6 Sensible Gain due to Air Leakage																																																																					
$HG_{salb} = LR_{airlc} \times \frac{V_b}{3.6} \times DTD_c \times 1.2$																																																																					
0.407	x	335.67	x																																																																		
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			391 W																																																																		
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			1334 Btu/h																																																																		
6.2.7 Sensible heat Gain due to Ventilation																																																																					
$HL_{vaib} = PVC \times DTD_h \times 1.08 \times (1 - E)$																																																																					
155 CFM	x	13 °F	x																																																																		
		1.08	x																																																																		
		0.25	=																																																																		
			536 Btu/h																																																																		
5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)																																																																					
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<p>*HL_{airbv} = Air leakage heat loss + ventilation heat loss *For a balanced or supply only ventilation system HL_{airrv} = 0</p>																																																																					

HEAT LOSS AND GAIN SUMMARY SHEET**MODEL:** 4002 THE VALLEYVIEW**SFQT:** 2968**LO#** 80231**BUILDER:** GOLD PARK HOMES**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):	42675.0	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: 32.0 ft	EXPOSED PERIMETER:	132.0 ft
WOB INSULATION CONFIGURATION	SCB_9	WOB EXPOSED PERIMETER	42.0 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	-

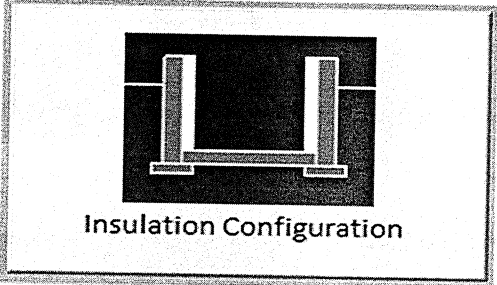
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE

Michael O'Rourke

Residential Foundation Thermal Load Calculator

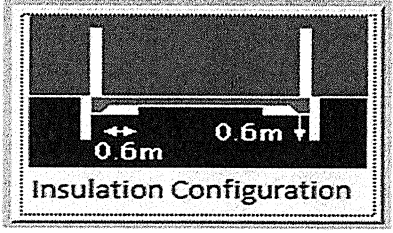
Supplemental tool for CAN/CSA-F280

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):	9.8	
Exposed Perimeter (m):	40.2	
Wall Height (m):	3.0	
Depth Below Grade (m):	1.79	
Window Area (m ²):	0.6	
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):		702

TYPE: 4002 THE VALLEYVIEW
LO# 80231

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	 Insulation Configuration
Width (m):	9.8	
Exposed Perimeter (m):	12.8	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Results		
Heating Load (Watts):		156

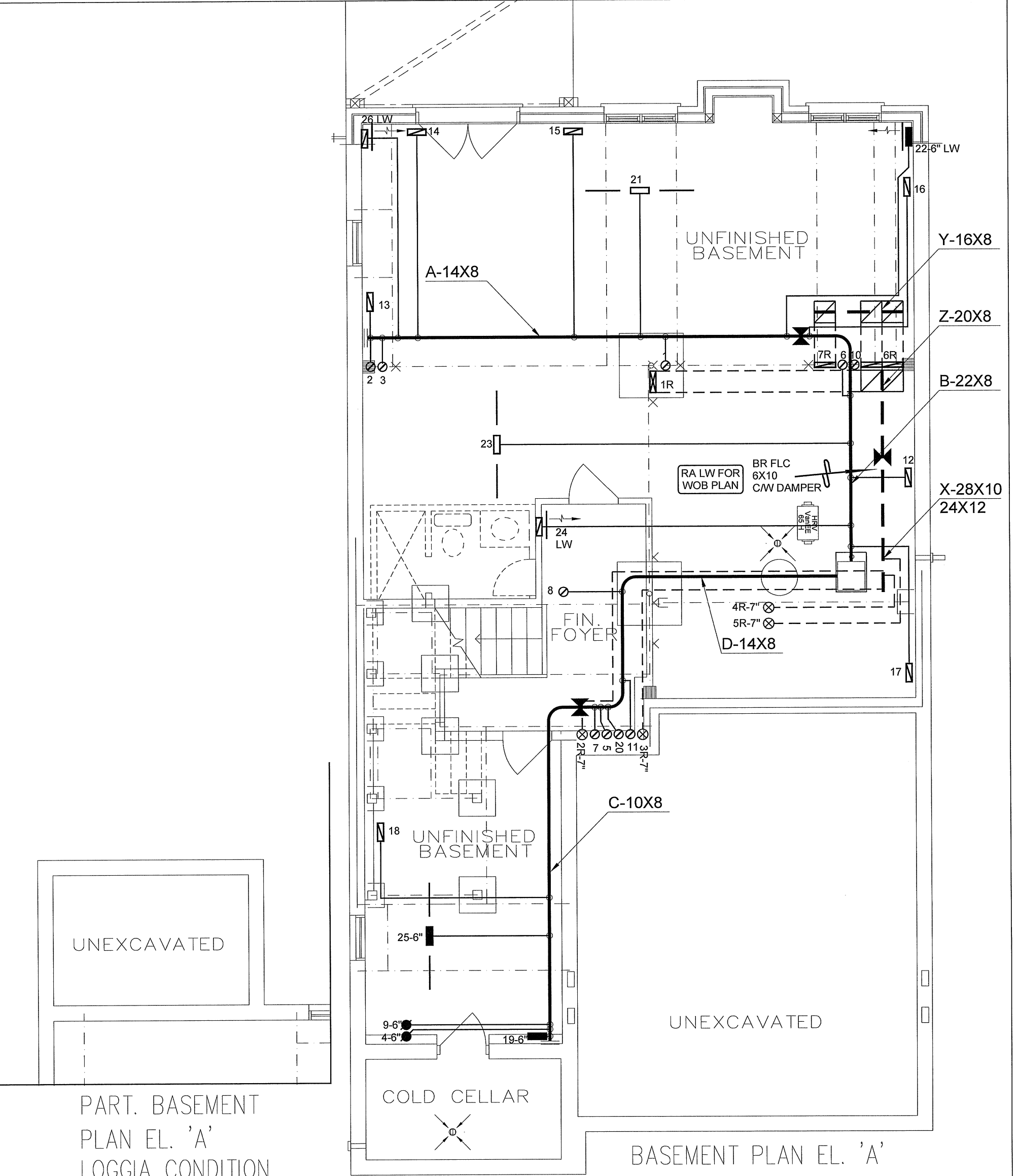
TYPE: 4002 THE VALLEYVIEW
LO# 80231

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):	1208.4			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1610.9 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: 4002 THE VALLEYVIEW
LO# 80231



PART. BASEMENT
PLAN EL. 'A'
LOGGIA CONDITION
(EL. 'B' SIMILAR)

BASEMENT PLAN EL. 'A'

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 VALLEYVIEW - WOB
4002

2968 sqft

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

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 65398 BTU/H
UNIT DATA

MAKE LENNOX

MODEL EL296UH090XE48C

INPUT 88 MBTU/H

OUTPUT 85 MBTU/H

COOLING 3.5 TONS

FAN SPEED 1255 cfm @ 0.6" w.c.

OF RUNS S/A R/A FANS

3RD FLOOR

2ND FLOOR 12 5 3

1ST FLOOR 8 2 2

BASEMENT 5 1 0

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

Sheet Title

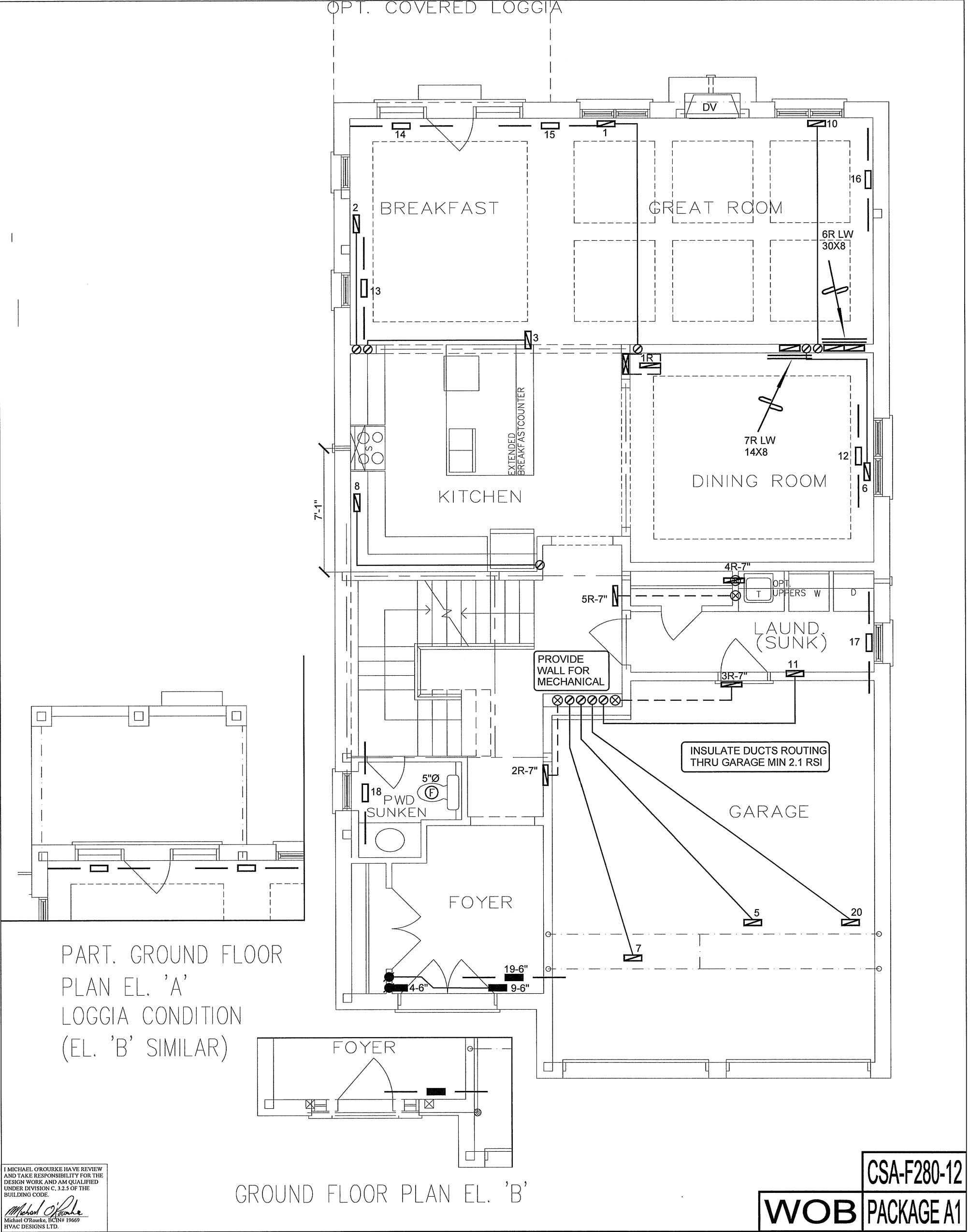
BASEMENT
HEATING
LAYOUT

Date OCT/2018

Scale 3/16" = 1'-0"

BCIN# 19669

LO# 80231



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.

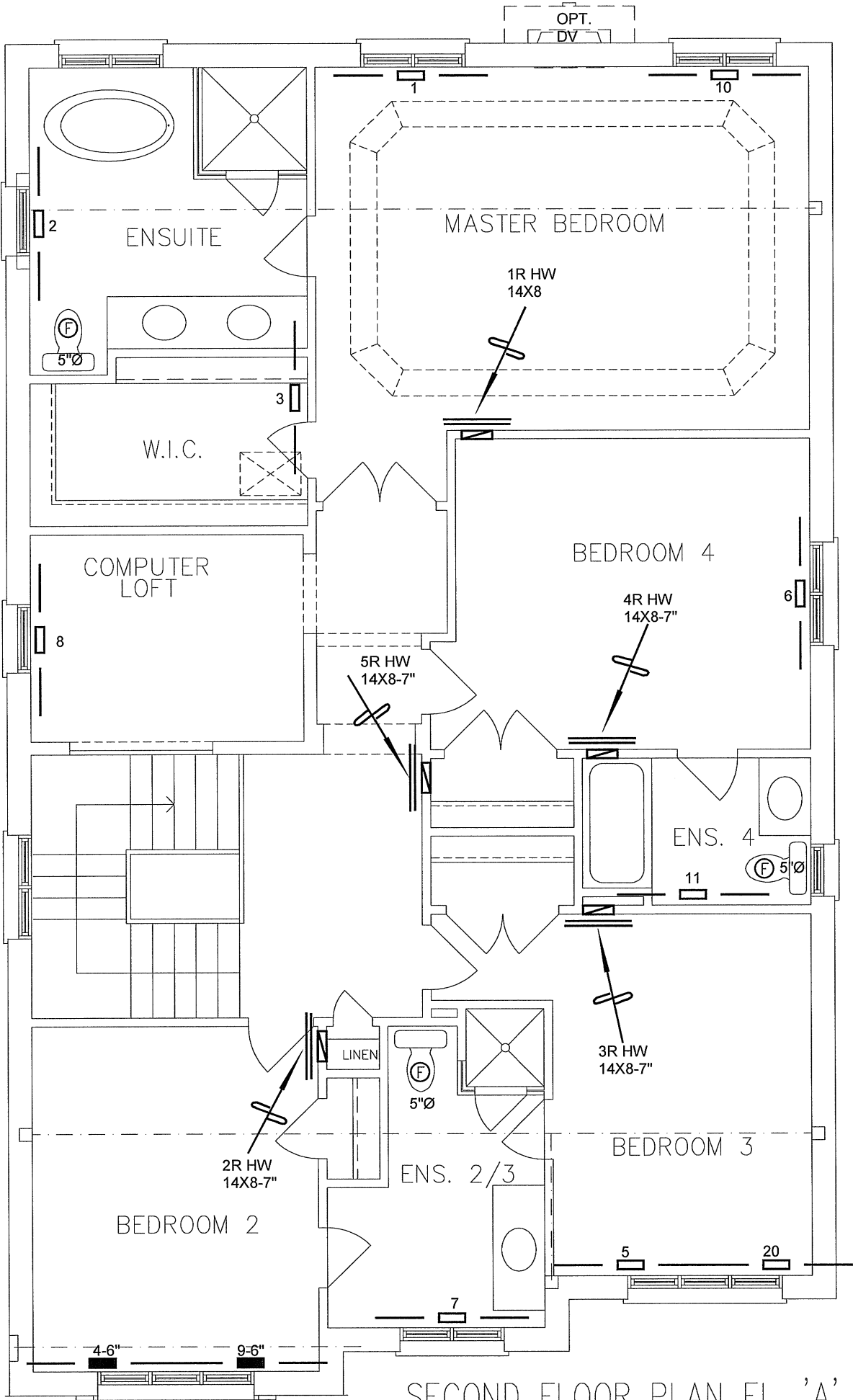
Michael O'Rourke

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

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REVISIONS								

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Client				Sheet Title
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			FIRST FLOOR HEATING LAYOUT
Project Name PINE VALLEY & TESTON VAUGHAN, ONTARIO				Date OCT/2018
THE VALLEYVIEW - WOB 4002 2968 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.			Scale 3/16" = 1'-0"
				BCIN# 19669
				LO# 80231



SECOND FLOOR PLAN EL. 'B'

CSA-F280-12

WOB

PACKAGE A1

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

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								Description	Date
REVISIONS									

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GOLD PARK HOMES			SECOND FLOOR	
Project Name			HEATING	
PINE VALLEY & TESTON			LAYOUT	
VAUGHAN, ONTARIO			Date OCT/2018	
THE VALLEYVIEW - WOB		Scale 3/16" = 1'-0"		
4002		BCIN# 19669		
2968 sqft		LO#	80231	