

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 OAKVILLE	Postal code	Plan number/ other description		
B. Individual who reviews and takes responsibility for design activities				
Name MICHAEL O'ROURKE		Firm HVAC DESIGNS LTD.		
Street address 375 FINLEY AVE			Unit no. 202	Lot/con. N/A
Municipality AJAX	Postal code L1S 2E2	Province ONTARIO	E-mail info@hvacdsgns.ca	
Telephone number (905) 619-2300	Fax number (905) 619-2375	Cell number ()		
C. Design activities undertaken by individual identified in Section B: [Building Code Table 3.5.2.1 OF Division C]				
☐ House ☐ Small Buildings ☐ Large Buildings ☐ Complex Buildings ☒ HVAC – House ☐ Building Services ☐ Detection, Lighting and Power ☐ Fire Protection ☐ Building Structural ☐ Plumbing – House ☐ Plumbing – All Buildings ☐ On-site Sewage Systems				
Description of designer's work HEAT LOSS / GAIN CALCULATIONS DUCT SIZING RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY RESIDENTIAL SYSTEM DESIGN per CSA-F280-12			Model: GEORGIAN 2 Project: TIBURTINO BUILDING CORP	
D. Declaration of Designer				
I, <u>MICHAEL O'ROURKE</u> (print name) declare that (choose one as appropriate):				
☐ I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. Individual BCIN: _____ Firm BCIN: _____				
☒ I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code. Individual BCIN: <u>19669</u> Basis for exemption from registration and qualification: <u>O.B.C SENTENCE 3.2.4.1 (4)</u>				
☐ The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification: _____				
I certify that:				
1. The information contained in this schedule is true to the best of my knowledge. 2. I have submitted this application with the knowledge and consent of the firm.				
January 16, 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.

SITE NAME: TIBURTINO BUILDING CORP BUILDER: GREENPARK HOMES										DATE: Jan-18 LO# 77394		WINTER NATURAL AIR CHANGE RATE 0.360 SUMMER NATURAL AIR CHANGE RATE 0.107		HEAT LOSS AT °F 72 HEAT GAIN AT °F 12		CSA-F280-12 SB-12 PACKAGE A1	
TYPE: GEORGIAN 2										GFA: 3597							
ROOM/USE	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	HALL	ENS-4	BED-5	B-PWD						
EXP. WALL	33	13	8	32	32	30	7	0	7	30	4						
CLG. HT.	10	9	9	9	9	9	9	9	9	10	10						
FACTORS																	
GRS.WALL AREA	330	118	73	291	291	273	64	0	64	210	28						
GLAZING	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN					
NORTH	20.3	15.8	0	0	0	0	0	0	0	14	284	221	0	0	0		
EAST	20.3	41.3	40	811	1653	24	487	992	0	0	0	0	0	0	0		
SOUTH	20.3	24.7	0	0	0	0	0	0	0	0	0	0	0	0	0		
WEST	20.3	41.3	0	0	0	0	0	6	122	148	0	0	0	0	0		
SKYL.T.	35.5	101.2	0	0	0	26	527	1075	0	0	13	264	537	0	0		
DOORS	24.1	4.0	0	0	0	0	0	0	0	0	0	0	0	0	0		
NET EXPOSED WALL	4.3	0.7	270	1148	190	94	401	66	73	309	51	271	1153	191	265	1127	187
NET EXPOSED BSMT WALL ABOVE GR	3.4	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.2	0.6	256	313	147	169	207	97	126	154	72	292	357	168	231	282	133
NO ATTIC EXPOSED CLG	2.6	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.4	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	2677	2305		1094	464	1915	1937	1851	504	594	1293	632	604	1548	272	169	
SUB TOTAL HT GAIN																	
LEVEL FACTOR / MULTIPLIER	0.20	0.42	0.20	0.42	0.20	0.42	0.20	0.42	0.20	0.42	0.50	1.28	0.50	1.28	0.50	1.28	7
AIR CHANGE HEAT LOSS	1121	458	194	802	811	775	211	249	253	1989	217						
AIR CHANGE HEAT GAIN		184	92	94	111	110	20	103	50	22							1
DUCT LOSS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
DUCT GAIN																	
HEAT GAIN PEOPLE	240		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS		480	0	0	240	1	0	0	0	0	0	1	0	240	579	0	0
TOTAL HT LOSS BTU/H	3798	4612		1552	658	2718	2748	2626	715	843	857	3537	385	1446			
TOTAL HT GAIN x 1.3 BTU/H																	

										DATE: Jan-18 LOW 77394		WINTER NATURAL AIR CHANGE RATE 0.360 SUMMER NATURAL AIR CHANGE RATE 0.407		HEAT LOSS AT °F 72 HEAT GAIN AT °F 12		CSA-F280-12 SB-12 PACKAGE A1	
										GFA: 3597							
ROOM/USE	EXP. WALL	CLG. HT.	DIN	LIV	KTIFM	STDY	LAUN	ENS-5	FOY	MUD	ENS-4	BATH	HALL	ENS-4	BED-5	B-PWD	LOSS
FACTORS	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS
GRS.WALL AREA	377		377	322	921	377	73	70	155	60	273	64	0	64	210	28	28
GLAZING																	
NORTH	20.3	15.8	0	0	0	0	0	0	0	0	0	0	0	0	14	284	221
EAST	20.3	41.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH	20.3	24.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WEST	20.3	41.3	26	527	1075	0	0	0	0	0	0	0	0	0	0	0	0
SKYL.T.	35.5	101.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DOORS	24.1	4.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.3	0.7	351	1494	248	310	1320	219	40	962	159	20	481	80	40	962	159
NET EXPOSED BSMT WALL ABOVE GR	3.4	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.2	0.6	5	7	3	143	175	82	0	0	0	0	0	0	0	0	0
NO ATTIC EXPOSED CLG	2.6	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.4	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	2028	1326		1785	5702	2853	663	421	1453	651	241	108					
SUB TOTAL HT GAIN			0.30	0.53	0.30	0.53	0.20	0.42	0.30	0.53	0.30	0.53					
LEVEL FACTOR / MULTPLIER			1083	953	3046	1824	278	541	776	348	19	9					
AIR CHANGE HEAT LOSS			105		102		52	0	0	0	0	0					
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	240		2	480	0	1	240	1	0	0	0	0					
HEAT GAIN APPLIANCES/LIGHTS			579		0	579	579	579	0	0	0	0					
TOTAL HT LOSS BTU/H	3112	2613		2738	8748	4376	941	963	2229	999	338	579					
TOTAL HT GAIN x 1.3 BTU/H																	

TOTAL HEAT GAIN BTU/H: 42589 TONS: 3.55 LOSS DUE TO VENTILATION LOAD BTU/H: 3030 STRUCTURAL HEAT LOSS: 62566 TOTAL COMBINED HEAT LOSS BTU/H: 65596

Michael O'Rourke

SITE NAME: TIBURTINO BUILDING CORP
BUILDER: GREENPARK HOMES

TYPE: GEORGIAN 2 DATE: Jan-18

GFA: 3597 LO# 77394

HEATING CFM	1316	COOLING CFM	1316		
TOTAL HEAT LOSS	62,566	TOTAL HEAT GAIN	42,087		
AIR FLOW RATE CFM	21.03	AIR FLOW RATE CFM	31.27		
RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	13	9	2
R/A	0	0	4	2	2

GMVC960804CNA 80
FAN SPEED
LOW 1316
MEDIUM 1389
HIGH 1396

~*GOODMAN
AFUE = 96 %
INPUT (BTU/H) = 80,000
OUTPUT (BTU/H) = 76,800

DESIGN CFM = 1316
CFM @ .6" E.S.P.

plenum pressure s/a	0.18
max s/a diff press. loss	0.02
min adjusted pressure s/a	0.16
r/a grille press. loss	0.17
adjusted pressure r/a	0.15

All S/A diffusers 4"x10" unless noted otherwise on layout.
All S/A runs 5"Ø unless noted otherwise on layout.

ROOM #	1	2	3	4	5	6	7	8	9	10	11	12	14	15	16	17	19	20	21	23	24
ROOM NAME	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	BED-3	BED-4	MBR	ENS-4	DIN	KT/FM	KT/FM	KT/FM	LAUN	FOY	MUD	LIV	STDY	STDY
RM LOSS MBH	1.90	1.55	0.66	2.72	1.37	1.31	0.71	1.37	1.31	1.90	0.86	3.11	0.86	2.92	2.92	0.94	2.23	1.00	2.74	2.19	2.19
CFM PER RUN HEAT	40	33	14	57	29	28	15	29	28	40	18	65	61	61	61	20	47	21	58	46	46
RM GAIN MBH	2.31	1.62	0.17	2.73	1.51	1.50	0.36	1.51	1.50	2.31	0.89	2.61	2.58	2.58	0.81	52	11	28	2.55	2.25	2.25
CFM PER RUN COOLING	72	51	5	85	47	47	11	47	47	72	28	82	81	81	81	19	34	13	80	70	70
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	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17
EQUIVALENT LENGTH	120	120	130	190	150	120	190	180	180	120	223	161	154	157	159	208	164	173	169	145	148
ADJUSTED PRESSURE	0.1	0.12	0.1	0.07	0.09	0.08	0.08	0.08	0.07	0.1	0.08	0.1	0.11	0.1	0.1	0.08	0.11	0.1	0.1	0.12	0.12
ROUND DUCT SIZE	5	4	4	6	4	4	4	4	4	5	4	5	5	5	5	5	4	4	5	5	5
HEATING VELOCITY (ft/min)	294	379	161	291	333	321	172	333	206	294	207	477	448	448	448	147	539	241	426	338	338
COOLING VELOCITY (ft/min)	529	585	57	433	539	539	126	539	345	529	321	602	595	595	595	382	126	321	587	514	514
OUTLET GRILL SIZE	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	J	J	J	J	F	F	J	J	F	F	F	A	D	D	H	F	B	H	B	H	H

ROOM #	25	26	27	28	29	30	31	32	33	34
ROOM NAME	BAS	BAS	BAS	BAS	B-PWD	ENS-5	BED-5	BAS	BAS	HALL
RM LOSS MBH	3.00	3.00	3.00	3.00	0.39	0.96	3.54	3.00	3.00	0.84
CFM PER RUN HEAT	63	63	63	63	8	20	74	63	63	18
RM GAIN MBH	0.35	0.35	0.35	0.35	0.01	0.02	1.45	0.35	0.35	1.82
CFM PER RUN COOLING	11	11	11	11	0	1	45	11	11	57
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
EQUIVALENT LENGTH	140	140	120	90	110	120	120	190	120	190
ADJUSTED PRESSURE	0.09	0.1	0.12	0.16	0.14	0.11	0.1	0.07	0.1	0.07
ROUND DUCT SIZE	5	4	4	4	4	4	5	5	5	5
HEATING VELOCITY (ft/min)	463	463	723	723	92	229	543	463	463	132
COOLING VELOCITY (ft/min)	81	81	126	126	0	11	330	81	81	419
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	D	H	D	H	E	A	A	A	B	F

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 A	222	0.07	8.3	8	500	TRUNK G	1015	0.07	14.6	24	761
TRUNK B	168	0.10	6.8	6	504	TRUNK H	300	0.10	8.4	8	675
TRUNK C	390	0.07	10.2	12	585	TRUNK I	0	0.00	0	0	0
TRUNK D	248	0.09	8.1	8	558	TRUNK J	369	0.07	10	12	554
TRUNK E	646	0.07	12.3	18	646	TRUNK K	0	0.00	0	0	0
TRUNK F	141	0.07	7	6	423	TRUNK L	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 A	222	0.07	8.3	8	500	TRUNK G	1015	0.07	14.6	24	761
TRUNK B	168	0.10	6.8	6	504	TRUNK H	300	0.10	8.4	8	675
TRUNK C	390	0.07	10.2	12	585	TRUNK I	0	0.00	0	0	0
TRUNK D	248	0.09	8.1	8	558	TRUNK J	369	0.07	10	12	554
TRUNK E	646	0.07	12.3	18	646	TRUNK K	0	0.00	0	0	0
TRUNK F	141	0.07	7	6	423	TRUNK L	0	0.00	0	0	0

Michael O'Rourke

INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE

TYPE: GEORGIAN 2
SITE NAME: TIBURTINO BUILDING CORP

LO # 77394

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

COMBUSTION APPLIANCES		9.32.3.1(1)
a)	☒ Direct vent (sealed combustion) only	
b)	☐ Positive venting induced draft (except fireplaces)	
c)	☐ Natural draft, B-vent or induced draft gas fireplace	
d)	☐ Solid Fuel (including fireplaces)	
e)	☐ No Combustion Appliances	

HEATING SYSTEM	
☒ Forced Air	☐ Non Forced Air
☐ Electric Space Heat	

HOUSE TYPE		9.32.1(2)
☒ I	Type a) or b) appliance only, no solid fuel	
☐ II	Type I except with solid fuel (including fireplaces)	
☐ III	Any Type c) appliance	
☐ IV	Type I, or II with electric space heat	
☐	Other: Type I, II or IV no forced air	

SYSTEM DESIGN OPTIONS		O.N.H.W.P.
☐ 1	Exhaust only/Forced Air System	
☐ 2	HRV with Ducting/Forced Air System	
☒ 3	HRV Simplified/connected to forced air system	
☐ 4	HRV with Ducting/non forced air system	
☐	Part 6 Design	

TOTAL VENTILATION CAPACITY		9.32.3.3(1)
Basement + Master Bedroom	2 @ 21.2 cfm	42.4 cfm
Other Bedrooms	4 @ 10.6 cfm	42.4 cfm
Kitchen & Bathrooms	7 @ 10.6 cfm	74.2 cfm
Other Rooms	8 @ 10.6 cfm	84.8 cfm
Table 9.32.3.A.	TOTAL	243.8 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	95.4	cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	243.8	cfm
Less Principal Ventil. Capacity	155	cfm
Required Supplemental Capacity	88.8	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANE 65H	Location: BSMT
155.0 cfm	3.0 sones
☒ HVI Approved	

PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	ΔT °F	FACTOR	% LOSS
155.0 CFM	72 F	1.08	0.25

SUPPLEMENTAL FANS		NUTONE	
Location	Model	cfm	HVI
ENS	QTXEN050C	50	✓
BATH	QTXEN050C	50	✓
ENS-4	QTXEN050C	50	✓
ENS-5	QTXEN050C	50	✓

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANE 65H		
155 cfm high	64 cfm low	
75 % Sensible Efficiency	☒ HVI Approved	
@ 32 deg F (0 deg C)		

LOCATION OF INSTALLATION	
Lot:	Concession
Township	Plan:
Address	
Roll #	Building Permit #

BUILDER: GREENPARK 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:	January-18

HEAT LOSS AND GAIN SUMMARY SHEET**MODEL:** GEORGIAN 2**BUILDER:** GREENPARK HOMES**SFQT:** 3597**LO#** 77394**SITE:** TIBURTINO BUILDING CORP**DESIGN ASSUMPTIONS**

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	0	OUTDOOR DESIGN TEMP.	86
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	74

BUILDING DATA

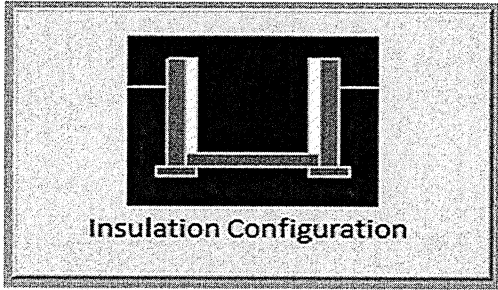
ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	WEST	ASSUMED (Y/N):	Y
AIR CHANGES PER HOUR:	3.57	ASSUMED (Y/N):	Y
AIR TIGHTNESS CATEGORY:	AVERAGE	ASSUMED (Y/N):	Y
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Y
HOUSE VOLUME (ft ³):	55184.7	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	6
INTERIOR LIGHTING LOAD (Btu/h/ft ²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	7.0 ft
LENGTH: 46.0 ft	WIDTH: 50.0 ft	EXPOSED PERIMETER:	192.0 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:	Oakville	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	14.0	 Insulation Configuration
Floor Width (m):	15.2	
Exposed Perimeter (m):	0.0	
Wall Height (m):	3.0	
Depth Below Grade (m):	2.13	
Window Area (m ²):	4.5	
Door Area (m ²):	3.7	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		1792

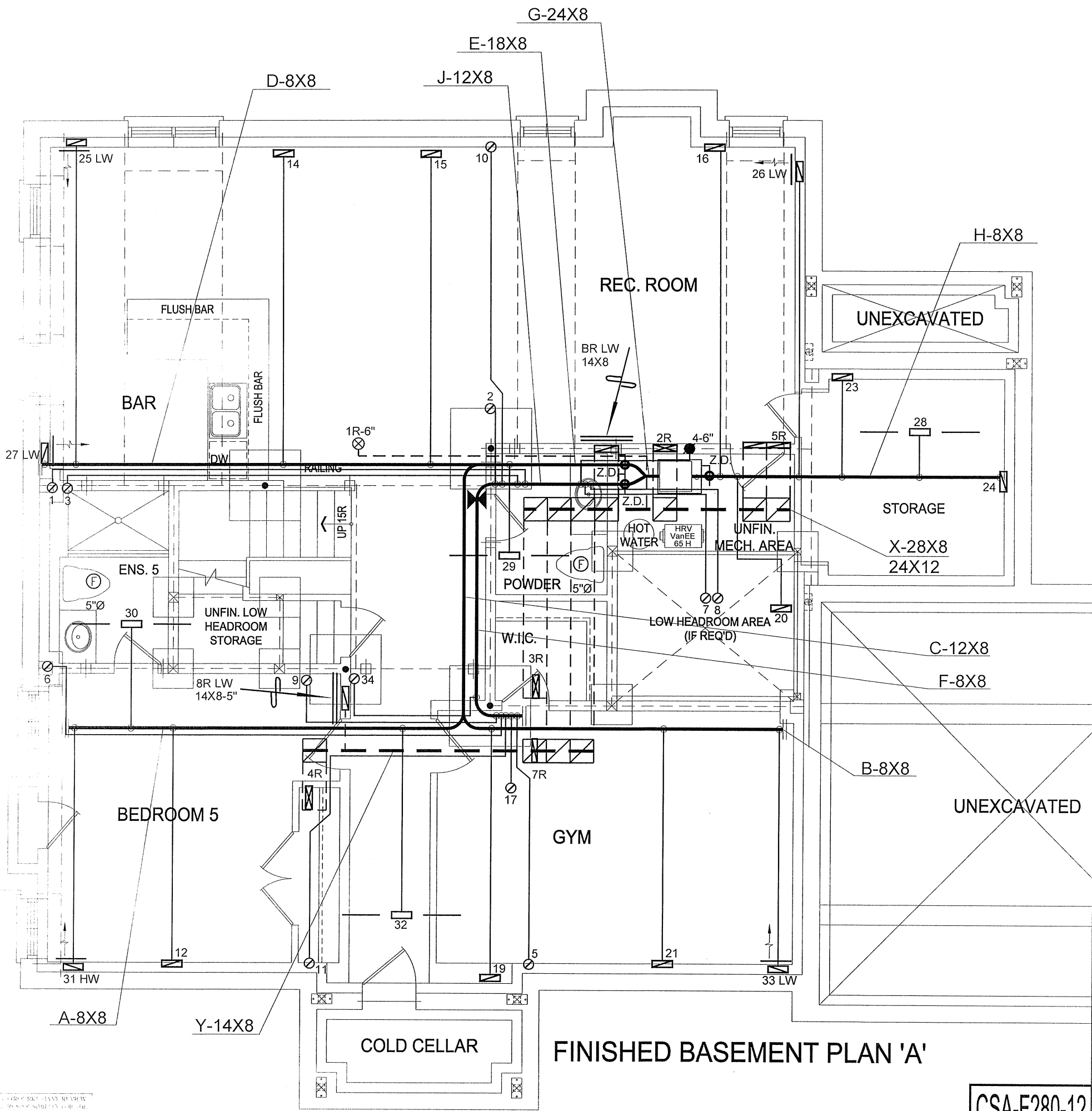
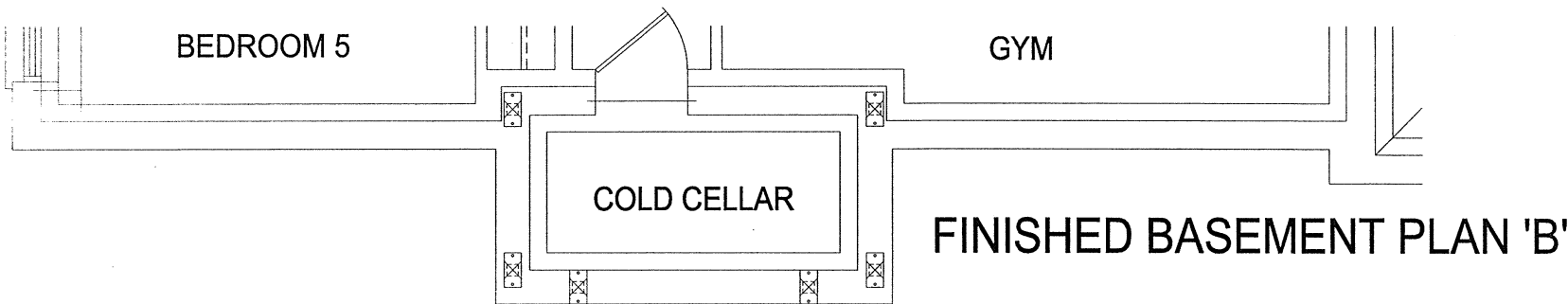
TYPE: GEORGIAN 2
LO# 77394

Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Oakville			
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):	7.07			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1562.7			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	2083.1 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):	0.360			
Cooling Air Leakage Rate (ACH/H):	0.107			

TYPE: GEORGIAN 2
LO# 77394



THIS DRAWING HAS BEEN REVIEWED
FOR CONFORMANCE WITH THE
DESIGN WORK AND AMOUNTED
UNDER DIVISION 3.2.5 OF THE
BUILDING CODE.

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

Z.D. = ZONE DAMPER

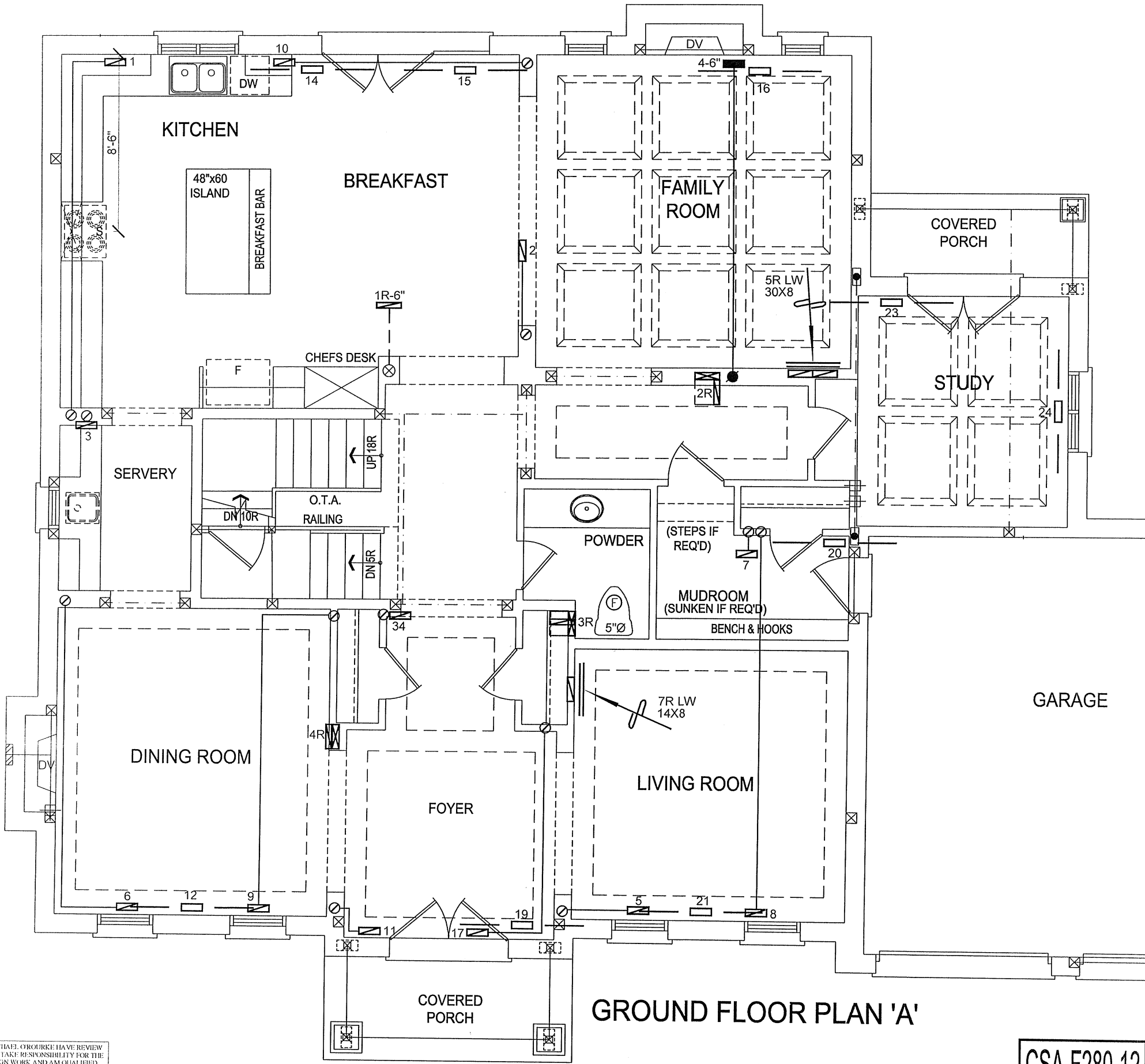
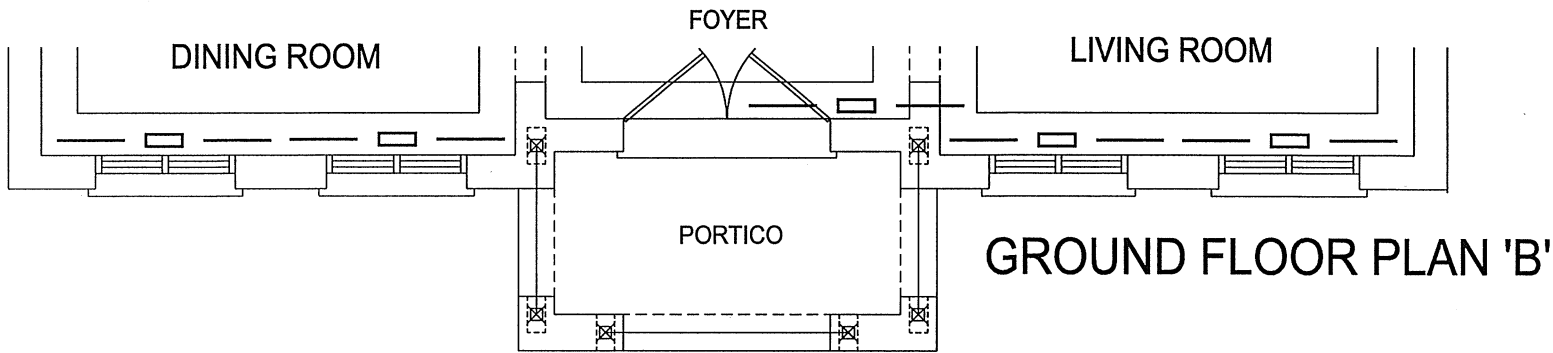
CSA-F280-12

PACKAGE A1

HVAC LEGEND								3.	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	
	FLOOR 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		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.	HEAT LOSS 65596 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS			Sheet Title	
GREENPARK HOMES			MAKE GOODMAN		3RD FLOOR			BASEMENT HEATING LAYOUT	
Project Name			MODEL GMVC960804CNA		2ND FLOOR 13 4 3			Date JAN/2018	
TIBURTINO BUILDING CORP OAKVILLE, ONTARIO			INPUT 80 MBTU/H		1ST FLOOR 9 2 2			Scale 3/16" = 1'-0"	
			OUTPUT 76.8 MBTU/H		BASEMENT 9 2 2			BCIN# 19669	
		COOLING 3.5 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					
GEORGIAN 2 3597 sqft		FAN SPEED 1316 cfm @ 0.6" w.c.		LO# 77394					



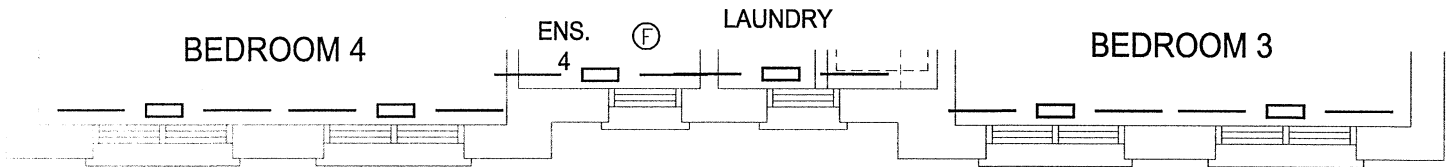
I MICHAEL O'Rourke HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED ENGINEER DESIGNING C. 22 OF THE BUILDING CODE
Michael O'Rourke
HVAC DESIGNS LTD.

CSA-F280-12
PACKAGE A1

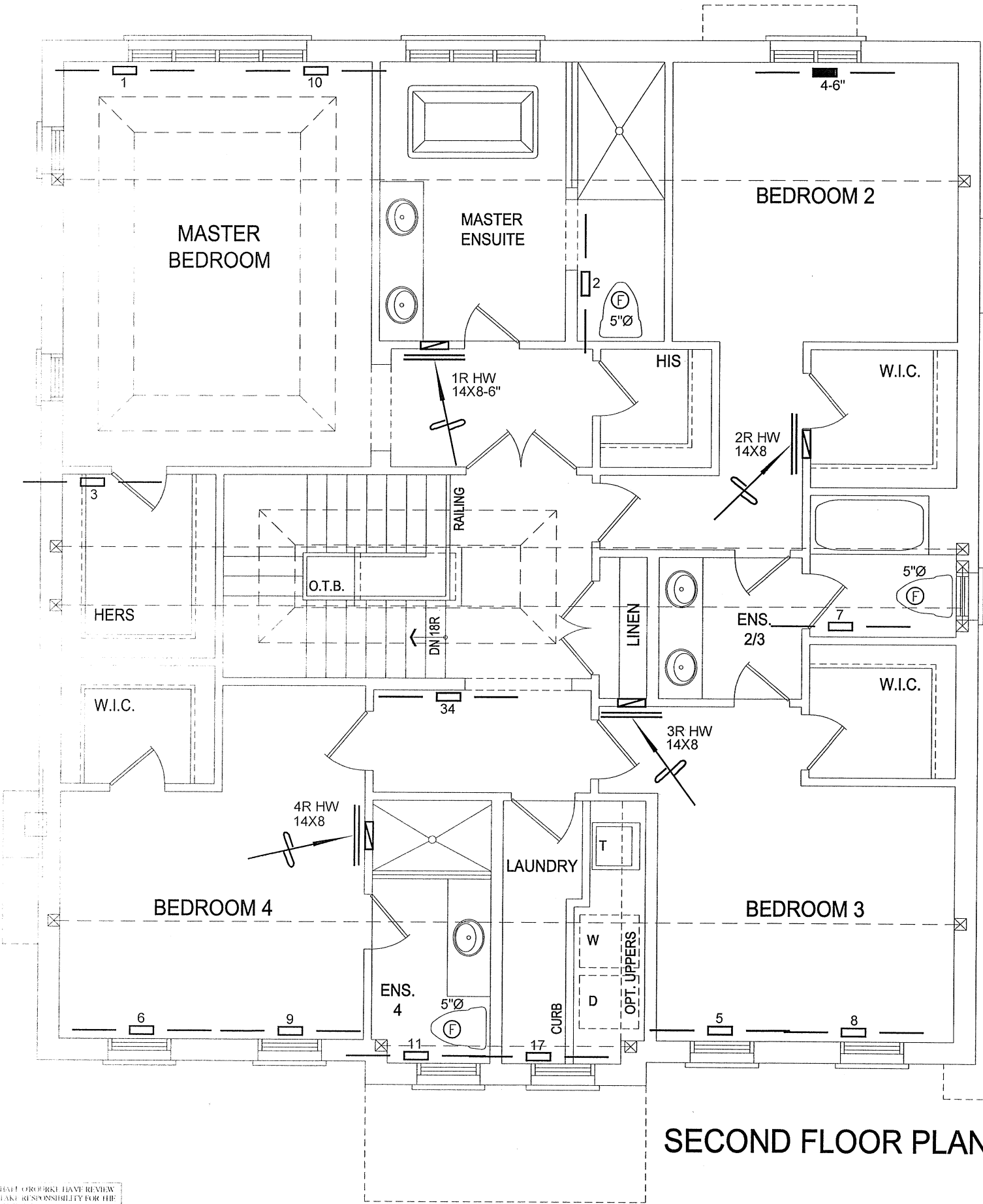
HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
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	FLOOR SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	REVISIONS		

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GREENPARK HOMES			FIRST FLOOR HEATING LAYOUT	
Project Name			Date	JAN/2018
TIBURTINO BUILDING CORP OAKVILLE, ONTARIO			Scale	3/16" = 1'-0"
			BCIN# 19669	
GEORGIAN 2	3597 sqft		LO#	77394



SECOND FLOOR PLAN 'B'



SECOND FLOOR PLAN 'A'

I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C 32.5 OF THE BUILDING CODE.
Michael O'Rourke
Michael O'Rourke BCIN: 19669
HVAC DESIGNS LTD.

CSA-F280-12
PACKAGE A1

HVAC LEGEND								3.		
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GREENPARK HOMES			SECOND FLOOR HEATING LAYOUT	
Project Name			Date	JAN/2018
TIBURTINO BUILDING CORP OAKVILLE, ONTARIO			Scale	3/16" = 1'-0"
			BCIN# 19669	
GEORGIAN 2 3597 sqft		LO#	77394	