

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 BRAMPTON	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
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Description of designer's work
HEAT LOSS / GAIN CALCULATIONS
DUCT SIZING
RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY
RESIDENTIAL SYSTEM DESIGN per CSA-F280-12

Model: 38-6 – CNR
Project: ENCORE

D. Declaration of Designer

I MICHAEL O'ROURKE declare that (choose one as appropriate):

(print name)

☐ 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: 19669

Basis for exemption from registration and qualification: O.B.C SENTENCE 3.2.4.1 (4)

☐ 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:

- The information contained in this schedule is true to the best of my knowledge.
- I have submitted this application with the knowledge and consent of the firm.

March 7, 2017 _____

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: ENCORE CRN TYPE: 38-6 DATE: Mar-17 GFA: 3753 LO# 69802 WINTER NATURAL AIR CHANGE RATE 0.409 HEAT LOSS AT °F. 74 CSA-F280-12
BUILDER: GOLD PARK HOMES SB-12 PACKAGE A1

ROOM USE EXP. WALL CLG. HT.	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	ENS-2	REC
GRS.WALL AREA	330	89	81	350	250	297	72	108	639
GLAZING	0	0	0	0	0	0	0	0	0
NORTH	20.7	16.0	0	0	0	0	0	0	0
EAST	20.7	41.6	0	0	0	0	0	0	0
SOUTH	20.7	25.0	0	0	0	0	0	0	0
WEST	20.7	41.6	0	0	0	0	0	0	0
SKYLT.	20.7	86.6	0	0	0	0	0	0	0
DOORS	24.6	4.3	0	0	0	0	0	0	0
NET EXPOSED WALL	4.3	0.8	270	1173	206	69	300	53	58
NET EXPOSED BSMT WALL ABOVE GR	3.5	0.6	0	0	0	0	0	0	0
NO ATTIC EXPOSED CLG	1.2	0.6	236	295	139	146	182	86	122
EXPOSED FLOOR	2.7	1.3	30	80	38	30	80	38	44
BASEMENT/CRAWL HEAT LOSS	2.5	0.4	0	0	0	0	0	0	0
SLAB ON GRADE HEAT LOSS	2792	1184	926	2514	1418	1867	594	821	4430
SUBTOTAL HT LOSS	0.10	0.19	0.10	0.19	0.10	0.19	0.10	0.19	0.30
SUB TOTAL HT GAIN	528	224	182	473	339	353	112	155	4559
LEVEL FACTOR / MULTIPLIER	332	141	114	297	213	222	71	98	230
AIR CHANGE HEAT LOSS	2	480	0	1	240	1	240	0	0
DUCT LOSS	364	149	77	283	225	184	77	133	0
HEAT GAIN PEOPLE	509	509	0	509	509	509	509	509	509
HEAT GAIN APPLIANCES/LIGHTS	3651	1549	1257	3270	2344	2443	777	1074	8990
TOTAL HT LOSS BTU/H	5212	2126	1257	4049	3214	2626	1102	1904	6243
TOTAL HT GAIN x 1.3 BTU/H									

ROOM USE EXP. WALL CLG. HT.	LIV	DIN	KTFM	LAUN	FOY	MUD	BAS
GRS.WALL AREA	320	200	690	70	592	390	948
GLAZING	0	0	0	0	0	0	0
NORTH	20.7	16.0	0	0	0	0	0
EAST	20.7	41.6	0	0	0	0	0
SOUTH	20.7	25.0	0	0	0	0	0
WEST	20.7	41.6	0	0	0	0	0
SKYLT.	20.7	86.6	0	0	0	0	0
DOORS	24.6	4.3	0	0	0	0	0
NET EXPOSED WALL	4.3	0.8	263	1143	201	170	739
NET EXPOSED BSMT WALL ABOVE GR	3.5	0.6	0	0	0	0	0
NO ATTIC EXPOSED CLG	1.2	0.6	0	0	0	0	0
EXPOSED FLOOR	2.7	1.3	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	2.5	0.4	0	0	0	0	0
SLAB ON GRADE HEAT LOSS	3062	1360	4796	587	4433	2466	7816
SUBTOTAL HT LOSS	0.20	0.33	0.20	0.33	0.20	0.33	0.40
SUB TOTAL HT GAIN	1017	452	1584	195	1473	2537	9462
LEVEL FACTOR / MULTIPLIER	408	0	639	78	0	0	0
AIR CHANGE HEAT LOSS	0	0	0	0	0	0	0
DUCT LOSS	256	0	515	62	0	0	0
HEAT GAIN PEOPLE	509	509	0	509	0	0	0
HEAT GAIN APPLIANCES/LIGHTS	4487	1812	7028	861	5906	5003	17278
TOTAL HT LOSS BTU/H	3663	1868	7363	883	3886	1549	1726
TOTAL HT GAIN x 1.3 BTU/H							

SITE NAME: ENCORE				CRN				DATE: Mar-17				GFA: 3753 LO# 69802			
BUILDER: GOLD PARK HOMES				TYPE: 38-6											
HEATING CFM	1525	COOLING CFM	1525	furnace pressure				0.6							
TOTAL HEAT LOSS	67,729	TOTAL HEAT GAIN	48,516	furnace filter				0.05							
AIR FLOW RATE CFM	22.52	AIR FLOW RATE CFM	31.43	a/c coil pressure				0.2							
				available pressure				for s/a & r/a				0.35			
				plenum pressure s/a				0.18							
				max s/a diff. press. loss				0.03							
				min adjusted pressure s/a				0.15							
				r/a grille press. loss				0.02							
				adjusted pressure r/a				0.15							

All S/A runs 5'Ø unless noted otherwise on layout.																								
RUN #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	20	21	22	23	24
ROOM NAME		MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	BED-2	BED-3	MBR	ENS-2	LIV	DIN	KT/FM	KT/FM	KT/FM	LAUN	FOY	FOY	LIV	REC	REC	REC
RM LOSS MBH.		1.83	1.55	1.26	1.63	1.17	2.44	0.78	1.63	1.17	1.83	1.07	2.24	1.81	2.34	2.34	2.34	0.86	2.95	2.95	2.24	3.00	3.00	3.00
CFM PER RUN HEAT		41	35	28	37	26	55	17	37	26	41	24	51	41	53	53	53	19	66	66	51	67	67	67
RM GAIN MBH.		2.61	2.13	1.10	2.02	1.61	2.63	1.10	2.02	1.61	2.61	1.90	1.83	1.87	2.45	2.45	2.45	0.88	1.94	1.94	1.83	2.08	2.08	2.08
CFM PER RUN COOLING		82	67	35	64	51	83	35	64	51	82	60	58	59	77	77	77	28	61	61	58	65	65	65
ADJUSTED PRESSURE		0.16	0.17	0.17	0.17	0.17	0.16	0.17	0.17	0.17	0.16	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.		67	40	36	54	62	76	65	50	68	76	73	46	19	62	48	40	47	18	19	35	51	36	41
EQUIVALENT LENGTH		190	200	200	190	200	160	100	180	200	180	200	150	110	130	160	170	130	180	80	140	100	130	100
TOTAL EFFECTIVE LENGTH		257	230	236	244	262	236	75	230	268	256	273	196	129	192	208	210	177	198	99	175	151	166	141
ADJUSTED PRESSURE		0.06	0.07	0.07	0.07	0.07	0.07	0.23	0.07	0.06	0.06	0.06	0.09	0.13	0.09	0.08	0.08	0.1	0.09	0.17	0.1	0.11	0.1	0.12
ROUND DUCT SIZE		6	5	4	5	5	6	4	5	5	6	5	5	4	5	5	5	4	5	5	5	5	5	5
HEATING VELOCITY (ft/min)		209	257	321	272	191	280	195	272	191	209	176	374	470	389	389	389	218	485	485	374	492	492	482
COOLING VELOCITY (ft/min)		418	492	402	470	374	423	402	470	374	418	441	426	677	565	565	565	321	448	448	426	477	477	477
OUTLET GRILL SIZE		4X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK		A	E	A	E	E	A	E	G	E	A	G	E	A	A	A	A	E	E	G	E	B	B	C

RUN #				25	26	27	28	29	30				
ROOM NAME	MUD	BAS	BAS	BAS	BAS	BAS	BAS	BAS	BAS				
RM LOSS MBH	5.00	3.46	3.46	3.46	3.46	3.46	3.46	3.46	3.46				
CFM PER RUN HEAT	113	78	78	78	78	78	78	78	78				
RM GAIN MBH	1.55	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35				
CFM PER RUN COOLING	49	11	11	11	11	11	11	11	11				
ADJUSTED PRESSURE	0.15	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17				
ACTUAL DUCT LGH.	6	30	35	44	20	20	20	20	20				
EQUIVALENT LENGTH	160	120	110	110	110	110	110	110	110				
TOTAL EFFECTIVE LENGTH	166	150	145	154	130	120	120	120	120				
ADJUSTED PRESSURE	0.09	0.11	0.12	0.11	0.13	0.14	0.14	0.14	0.14				
ROUND DUCT SIZE	6	5	5	5	5	5	5	5	5				
HEATING VELOCITY (ft/min)	576	573	573	573	573	573	573	573	573				
COOLING VELOCITY (ft/min)	250	81	81	81	81	81	81	81	81				
OUTLET GRILL SIZE	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10				

SUPPLY AIR TRUNK SIZE				TRUNK	STATIC	ROUND	RECT	VELOCITY	TRUNK	STATIC	ROUND	RECT	VELOCITY
CFM	365	0.06	10.3	12	8	548	8	461	TRUNK O	0	0.05	0	0
TRUNK A	365	0.06	10.3	12	8	548	8	461	TRUNK P	0	0.05	0	0
TRUNK B	290	0.10	8.3	8	8	653	0	0	TRUNK Q	0	0.05	0	0
TRUNK C	145	0.12	6.1	4	8	653	0	0	TRUNK R	0	0.05	0	0
TRUNK D	626	0.09	11.4	16	8	704	0	0	TRUNK S	0	0.05	0	0
TRUNK E	533	0.06	11.9	16	8	600	0	0	TRUNK T	0	0.05	0	0
TRUNK F	0	0.00	0	0	8	0	0	0	TRUNK U	0	0.05	0	0
TRUNK G	0	0.00	0	0	8	0	0	0	TRUNK V	0	0.05	0	0
TRUNK H	0	0.00	0	0	8	0	0	0	TRUNK W	0	0.05	0	0
TRUNK I	0	0.00	0	0	8	0	0	0	TRUNK X	0	0.05	0	0
TRUNK J	0	0.00	0	0	8	0	0	0	TRUNK Y	0	0.05	0	0
TRUNK K	0	0.00	0	0	8	0	0	0	TRUNK Z	0	0.05	0	0
TRUNK L	0	0.00	0	0	8	0	0	0	DROP	1525	0.05	18.5	14

RETURN AIR #															BR																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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TYPE: 38-6
SITE NAME: ENCORE

LO # 69802
CRN

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	3 @ 10.6 cfm	31.8 cfm
Kitchen & Bathrooms	5 @ 10.6 cfm	53 cfm
Other Rooms	6 @ 10.6 cfm	63.6 cfm
Table 9.32.3.A.	TOTAL	190.8 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
More than 5 - Part 6	TOTAL	79.5 cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	190.8	cfm
Less Principal Ventil. Capacity	139	cfm
Required Supplemental Capacity	51.8	cfm

PRINCIPAL EXHAUST FAN CAPACITY			
Model: VANEE 60H-V+	Location: BSMT		
139.0 cfm	3.0 sones		
☒ HVI Approved			
PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	ΔT °F	FACTOR	% LOSS
139.0 CFM	74 F	1.08	0.25

SUPPLEMENTAL FANS		NUTONE		
Location	Model	cfm	HVI	Sones
ENS	QTXEN050C	50	☒	0.3
BATH	QTXEN050C	50	☒	0.3
ENS-2	QTXEN050C	50	☒	0.3

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANEE 60H-V+		
139	cfm high	50 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:		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:	
HRAI #	001820
Date:	March-17

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: 38-6	CRN	BUILDER: GOLD PARK HOMES
SFQT: 3753	LO# 69802	SITE: ENCORE

DESIGN ASSUMPTIONS

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-2	OUTDOOR DESIGN TEMP.	86
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	73

BUILDING DATA

ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	4
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 (ft³):	43727.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.50	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 49.0 ft	WIDTH: 30.0 ft	EXPOSED PERIMETER:	158.0 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	29.8
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	-

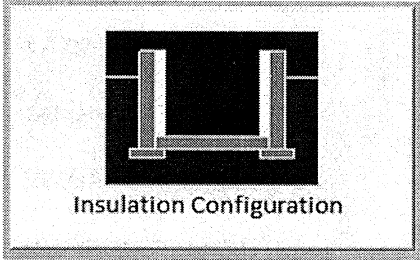
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Brampton	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	14.9	 Insulation Configuration
Floor Width (m):	9.1	
Exposed Perimeter (m):	0.0	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.8	
Window Area (m ²):	1.1	
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):		1587

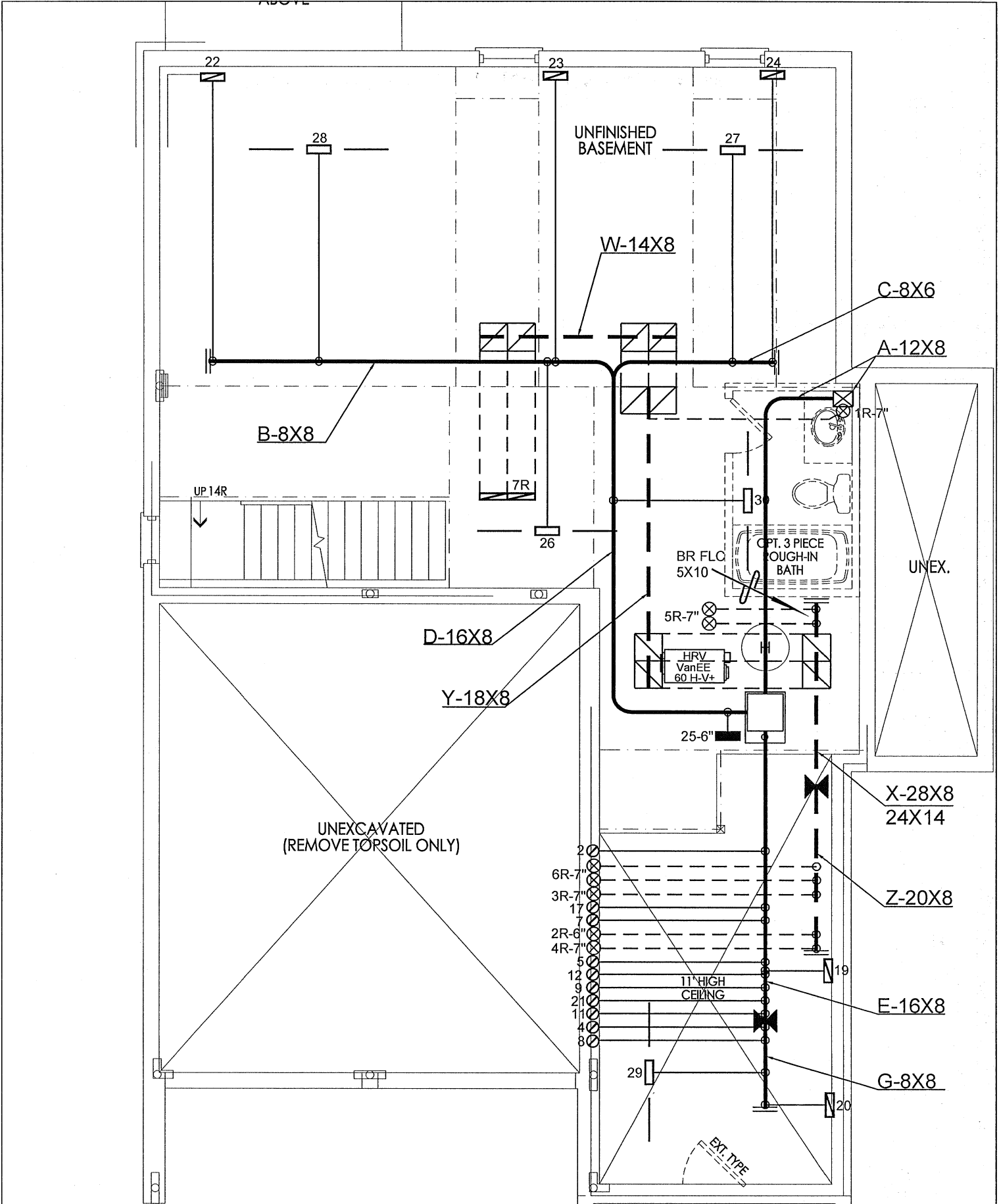
TYPE: 38-6
LO# 69802

CRN

Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Brampton			
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):	9.45			
Building Configuration				
Type:	Detached			
Number of Stories:	Three			
Foundation:	Full			
House Volume (m ³):	1238.2			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1650.6 cm ²		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	65.6	65.6		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.409			
Cooling Air Leakage Rate (ACH/H):	0.141			



BASEMENT FLOOR PLAN
CORNER UPGRADE

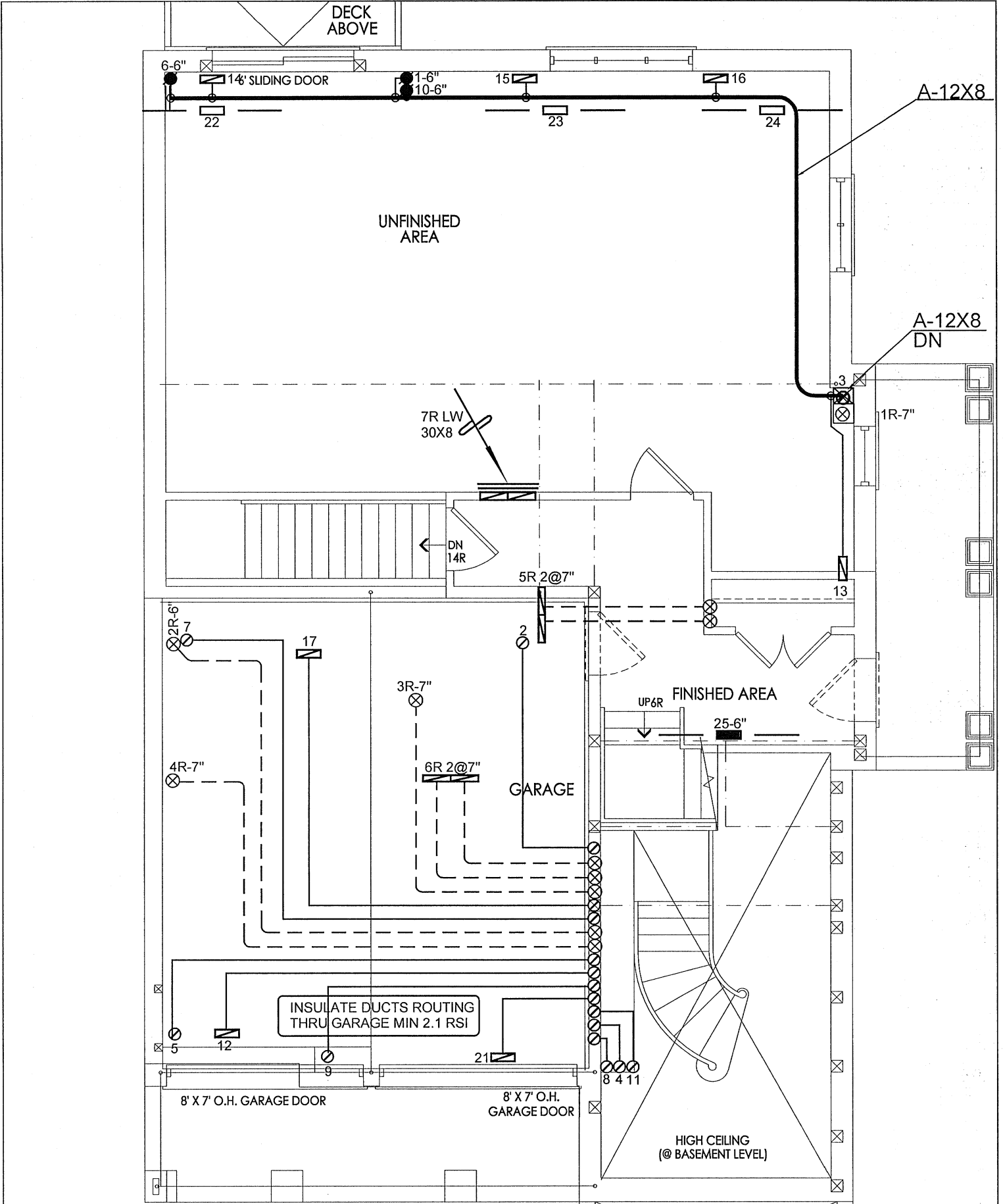
1. MICHAEL O'Rourke HAVE REVIEW AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C. 3.2.5 OF THE BUILDING CODE.
Michael O'Rourke
Michael O'Rourke, BSCS 19669
HVAC DESIGNS LTD.

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
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	Date	

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Client GOLD PARK HOMES		HVACDESIGNSLTD. 375 Finley Ave, Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: mike@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services	HEAT LOSS 70506 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS				Sheet Title	
Project Name ENCORE BRAMPTON, ONTARIO CNR 38-6 3753 sqft			MAKE LENNOX		3RD FLOOR 11 4 3				BASEMENT HEATING LAYOUT	
			MODEL EL296UH090XE48C		2ND FLOOR 9 2 2					
			INPUT 88 MBTU/H		1ST FLOOR 4 1 0					
			OUTPUT 85 MBTU/H		BASEMENT 5 1 0				Date MAR/2017	
			COOLING 4.0 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				Scale 3/16" = 1'-0"	
FAN SPEED 1525 cfm @ 0.5" w.c.						BCIN# 19669				
						LO#		72705		



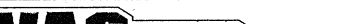
GROUND FLOOR
CORNER UPGRADE

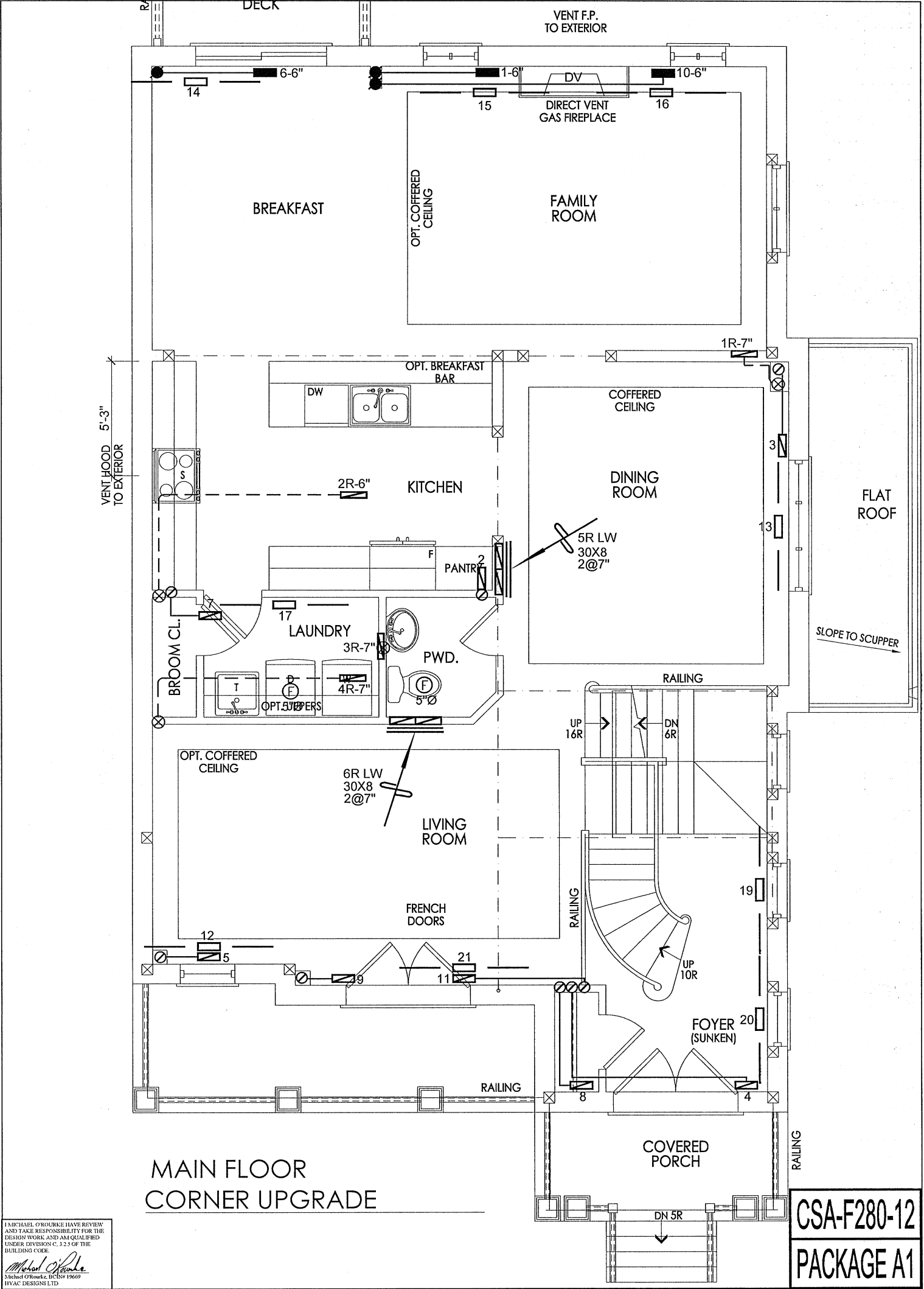
I MICHAEL O'BROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.
Michael O'Brourke
Michael O'Brourke, BCIN# 19669
HVAC DESIGNS LTD.

CSA-F280-12
PACKAGE A1

HVAC LEGEND								3.	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
	FLOOR SUPPLY AIR GRILLE		6\"/>		14\"/>		RETURN AIR STACK ABOVE	1.	
	FLOOR SUPPLY AIR GRILLE 6\"/>		SUPPLY AIR STACK FROM 2nd FLOOR		30\"/>		RETURN AIR STACK 2nd FLOOR	No.	Description
	SUPPLY AIR BOOT ABOVE		6\"/>		FRA - FLOOR RETURN AIR GRILLE		REDUCER	Date	

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GOLD PARK HOMES			GROUND FLOOR HEATING LAYOUT	
Project Name			Date	MAR/2017
ENCORE BRAMPTON, ONTARIO			Scale	3/16" = 1'-0"
CNR 38-6		BCIN# 19669		
3753 sqft		LO# 72705		



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

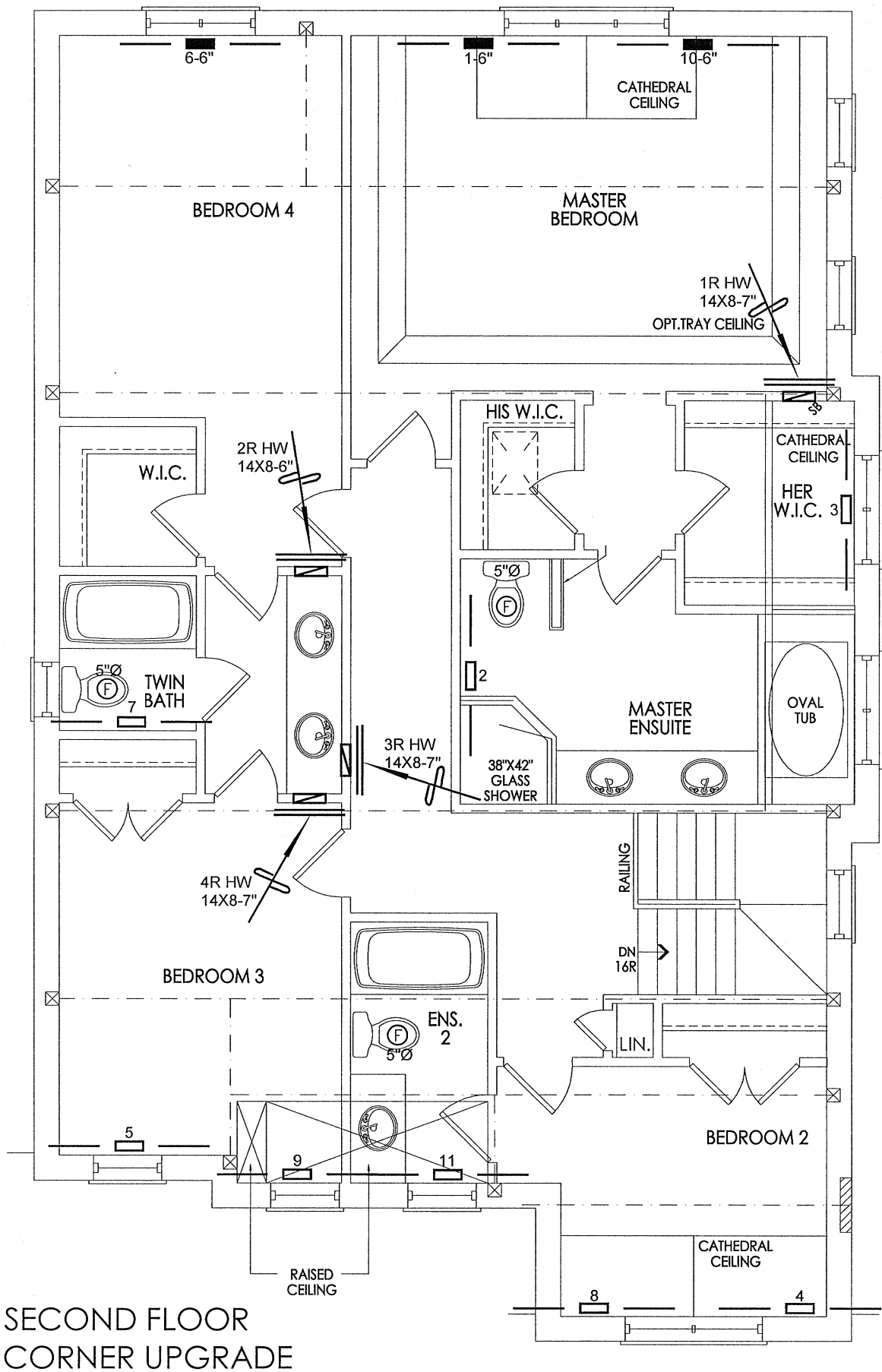
HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	FLOOR SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		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
GOLD PARK HOMES
Project Name
**ENCORE
BRAMPTON, ONTARIO**
CNR
38-6
3753 sqft

HVAC DESIGNS LTD.
375 Finley Ave, Suite 202 - Ajax, Ontario
L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375
Email: mike@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.

Sheet Title
**MAIN FLOOR
HEATING
LAYOUT**
Date
MAR/2017
Scale
3/16" = 1'-0"
BCIN# 19669
LO# 72705



SECOND FLOOR
CORNER UPGRADE

I MICHAEL O'BROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.
Michael O'Brourke
Michael O'Brourke, P.Eng. 19669
HVAC DESIGNS LTD.

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
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	Date	

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Project Name ENCORE BRAMPTON, ONTARIO			Date MAR/2017	
CNR 38-6		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"	
3753 sqft			BCIN# 19669	
				LO# 72705