

SITE NAME: KLEINBURG GLEN DATE: Jan-16 WINTER NATURAL AIR CHANGE RATE 0.322 HEAT LOSS AT °F: 76 CSA-F280-12
 BUILDER: GOLD PARK HOMES TYPE: 38-4 GFA: 2762 SUMMER NATURAL AIR CHANGE RATE 0.098 HEAT GAIN AT °F: 16 SB-12 PACKAGE J

ROOM USE	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	LAUN	ENS-2	DEN	BAS
EXP. WALL CLG. HT.	32	26	11	32	21	12	7	12	14	11	
GRS.WALL AREA	288	234	99	288	189	108	63	108	126	110	
GLAZING	0	0	0	0	0	0	0	0	0	0	
NORTH	24.1	17.5	0	8	193	140	0	15	0	22	530
EAST	24.1	43.0	0	20	482	861	0	0	35	843	1506
SOUTH	24.1	26.4	0	0	0	0	6	0	0	0	0
WEST	24.1	43.0	0	0	0	0	145	0	0	0	0
SKYLT.	24.1	88.1	0	0	0	0	0	0	0	0	0
DOORS	25.2	5.3	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	3.5	0.7	264	912	206	712	150	99	342	72	260
NET EXPOSED BSMT WALL ABOVE GR	6.3	1.3	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.5	0.8	255	388	194	165	251	125	99	150	75
NO ATTIC EXPOSED CLG	2.5	1.2	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.5	0.5	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	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
SUBTOTAL HT LOSS	1878	1419	492	2060	1803	1013	557	847	1547	834	448
SUB TOTAL HT GAIN	0.20	0.28	0.20	0.28	0.20	0.28	0.20	0.28	0.20	0.28	0.30
LEVEL FACTOR / MULTIPLIER	517	450	135	567	496	279	153	233	426	386	28
AIR CHANGE HEAT LOSS	0	0	0	0	0	0	0	0	0	0	0
AIR CHANGE HEAT GAIN	87	0	0	87	230	206	71	40	18	104	0
DUCT LOSS	0	0	0	0	0	0	0	0	0	0	0
DUCT GAIN	0	0	0	0	0	0	0	0	0	0	0
HEAT GAIN PEOPLE	240	480	0	234	240	240	599	599	0	0	0
HEAT GAIN APPLIANCES/LIGHTS	599	599	0	599	599	599	599	599	0	0	0
TOTAL HT LOSS BTU/H	2384	2087	628	2889	2529	1292	781	1080	2170	1220	589
TOTAL HT GAIN x 1.3 BTU/H	3361	1796	203	3343	2945	1980	451	1347	2577	1495	1397

ROOM USE	MUD	DIN	KIT/GR	PDR	FOY	BAS
EXP. WALL CLG. HT.	9	26	66	17	34	166
GRS.WALL AREA	99	260	660	187	340	996
GLAZING	0	0	0	0	0	0
NORTH	24.1	17.5	0	8	193	140
EAST	24.1	43.0	0	0	0	0
SOUTH	24.1	26.4	0	0	0	0
WEST	24.1	43.0	0	0	0	0
SKYLT.	24.1	88.1	0	0	0	0
DOORS	25.2	5.3	0	0	0	0
NET EXPOSED WALL	3.5	0.7	79	273	57	232
NET EXPOSED BSMT WALL ABOVE GR	6.3	1.3	0	0	0	0
EXPOSED CLG	1.5	0.8	0	0	0	0
NO ATTIC EXPOSED CLG	2.5	1.2	0	0	0	0
EXPOSED FLOOR	2.5	0.5	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	0	0	0	0	0	0
SLAB ON GRADE HEAT LOSS	0	0	0	0	0	0
SUBTOTAL HT LOSS	778	1476	4571	811	2090	10955
SUB TOTAL HT GAIN	0.30	0.46	0.30	0.46	0.30	0.46
LEVEL FACTOR / MULTIPLIER	360	683	2114	375	967	8139
AIR CHANGE HEAT LOSS	0	0	0	0	0	0
AIR CHANGE HEAT GAIN	10	56	318	17	27	67
DUCT LOSS	0	0	0	0	0	0
DUCT GAIN	0	0	0	0	0	0
HEAT GAIN PEOPLE	240	480	240	240	599	599
HEAT GAIN APPLIANCES/LIGHTS	599	599	599	599	599	599
TOTAL HT LOSS BTU/H	1138	2159	6665	1186	3066	19094
TOTAL HT GAIN x 1.3 BTU/H	1005	2031	8234	372	607	1495

TOTAL HEAT GAIN BTU/H: 33704 TONS: 2.81 LOSS DUE TO VENTILATION LOAD BTU/H: 2651 STRUCTURAL HEAT LOSS: 50388 TOTAL COMBINED HEAT LOSS BTU/H: 53039

MICHAEL O'ROURKE
 INDIVIDUAL BCIN: 19669

Michael O'Rourke

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.

SITE NAME: KLEINBURG GLEN
BUILDER: GOLD PARK HOMES

TYPE: 38-4
furnace pressure 0.6
furnace filler 0.05
alc coil pressure 0.2
available pressure for s/a & r/a 0.35

DATE: Jan-16

GFA: 2762

LO# 67016

HEATING CFM 1100 COOLING CFM 1100
TOTAL HEAT LOSS 50,388 TOTAL HEAT GAIN 33,145
AIR FLOW RATE CFM 21.83 AIR FLOW RATE CFM 33.19

LENNOX
EL195UH070XE38B 70
FAN SPEED LOW 0
MEDIUM 995
HIGH 1100
DESIGN CFM = 1100
CFM @ .6" E.S.P.
AFUE = 95.0 %
INPUT (BTU/H) = 66,000
OUTPUT (BTU/H) = 63,000

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	9	8	4
R/A	0	0	4	3	1

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

TEMPERATURE RISE 53 °F

ROOM #	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
ROOM NAME	ENS	WIC	BED-2	BED-3	BED-4	BATH	LAUN	ENS-2	MBR	DEN	MUD	DIN	KIT/GR	KIT/GR	KIT/GR	PDR	FOY	BAS	BAS	BAS	BAS	BAS	BAS
RM LOSS MBH	2.09	0.63	2.89	2.53	1.29	0.78	1.08	2.17	2.39	1.22	1.14	2.16	2.23	2.23	2.23	1.19	3.06	4.77	4.77	4.77	4.77	4.77	4.77
CFM PER RUN HEAT	46	14	63	55	28	17	24	47	52	27	25	47	49	49	49	26	67	104	104	104	104	104	104
RM GAIN MBH	1.80	0.20	3.34	2.94	1.98	0.45	1.35	2.58	3.36	1.40	1.01	2.03	2.74	2.74	2.74	0.37	0.61	0.37	0.37	0.37	0.37	0.37	0.37
CFM PER RUN COOLING	60	7	111	98	66	15	45	86	112	46	33	67	91	91	91	12	20	12	12	12	12	12	12
ADJUSTED PRESSURE	0.17	0.17	0.15	0.16	0.17	0.17	0.17	0.16	0.15	0.17	0.17	0.17	0.16	0.16	0.16	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH	59	48	61	43	31	31	39	45	48	34	16	9	44	36	44	43	44	31	32	32	32	32	32
EQUIVALENT LENGTH	200	170	130	140	170	190	210	130	130	160	110	140	130	120	120	120	110	110	110	110	110	110	110
TOTAL EFFECTIVE LENGTH	259	218	191	183	201	221	249	175	178	184	126	149	174	156	164	163	154	141	141	142	142	142	145
ADJUSTED PRESSURE	0.07	0.08	0.08	0.09	0.09	0.08	0.07	0.09	0.09	0.09	0.14	0.12	0.09	0.1	0.1	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
ROUND DUCT SIZE	5	4	6	6	5	4	5	5	6	4	4	5	6	5	5	4	5	6	6	6	6	6	6
HEATING VELOCITY (ft/min)	338	161	321	280	206	195	176	345	265	310	287	345	250	360	360	298	492	530	530	530	530	530	530
COOLING VELOCITY (ft/min)	441	80	566	500	485	172	330	631	571	528	379	492	464	668	668	138	147	61	61	61	61	61	61
OUTLET GRILL SIZE	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10	4X10	4X10	4X10

ROOM #	TRUNK	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	245	0.07	8.6	8	551	0	0.00	0	0	8	0	0.00	0	0	0
TRUNK B	495	0.07	11.1	14	636	0	0.00	0	0	8	0	0.00	0	0	0
TRUNK C	415	0.07	10.4	12	623	0	0.00	0	0	8	0	0.00	0	0	0
TRUNK D	606	0.07	12	16	682	0	0.00	0	0	8	0	0.00	0	0	0
TRUNK E	0	0.00	0	0	0	0	0.00	0	0	8	0	0.00	0	0	0
TRUNK F	0	0.00	0	0	0	0	0.00	0	0	8	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)
1	135	0.15	8.5	8	185	0	0.00	0	0	0	0	0.00	0	0	0
2	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
3	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
4	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
5	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
6	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
7	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
8	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
9	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
10	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
11	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
12	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
13	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
14	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
15	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
16	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
17	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
18	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
19	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
20	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
21	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
22	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
23	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0
24	150	0.15	9.5	10	209	0	0.00	0	0	0	0	0.00	0	0	0

TYPE: 38-4
 SITE NAME: KLEINBURG GLEN

LO # 67016

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	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
More than 5 - Part 6	TOTAL	79.5 cfm

SUPPLEMENTAL VENTILATION CAPACITY 9.32.3.5.

Total Ventilation Capacity	180.2	cfm
Less Principal Ventil. Capacity	95	cfm
Required Supplemental Capacity	85.2	cfm

PRINCIPAL EXHAUST FAN CAPACITY

Model: VANEE 50H Location: BSMT

95.0 cfm 3.0 sones HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION

CFM	ΔT °F	FACTOR	% LOSS
95.0 CFM	X 76 F	X 1.08	X 0.34

SUPPLEMENTAL FANS NUTONE

Location	Model	cfm	HVI	Sones
ENS	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
BATH	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
ENS-2	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
PDR	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3

HEAT RECOVERY VENTILATOR 9.32.3.11.

Model: VANEE 50H

95 cfm high 48 cfm low

66 % 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: *Michael O'Rourke*

HRAI # 001820

Date: January-16

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: 38-4	BUILDER: GOLD PARK HOMES
SFQT: 2762	LO# 67016
	SITE: KLEINBURG GLEN

DESIGN ASSUMPTIONS

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-4	OUTDOOR DESIGN TEMP.	88
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	72

BUILDING DATA

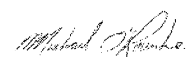
ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	EAST	ASSUMED (Y/N):	Y
AIR CHANGES PER HOUR:	3.57	ASSUMED (Y/N):	Y
AIR TIGHTNESS CATEGORY:	AVERAGE	ASSUMED (Y/N):	Y
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Y
HOUSE VOLUME (ft ³):	37179.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft ²):	1.35	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 54.0 ft	WIDTH: 29.0 ft	EXPOSED PERIMETER:	166.0 ft

2012 OBC - COMPLIANCE PACKAGE

Component	Compliance Package
	J
Ceiling with Attic Space Minimum RSI (R)-Value	50
Ceiling Without Attic Space Minimum RSI (R)-Value	31
Exposed Floor Minimum RSI (R)-Value	31
Walls Above Grade Minimum RSI (R)-Value	22
Basement Walls Minimum RSI (R)-Value	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
Heated Slab or Slab ≤ 600 mm below grade Minimum RSI (R)-Value	10
Windows and Sliding Glass Doors Maximum U-Value	1.8
Skylights Maximum U-Value	2.8
Space Heating Equipment Minimum AFUE	0.94
HRV Minimum Efficiency	60%
Domestic Hot Water Heater Minimum EF	0.67

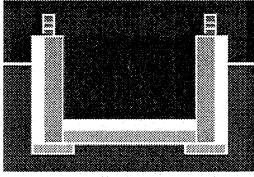
INDIVIDUAL BCIN: 19669

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):	16.5	 <p>Insulation Configuration</p>
Floor Width (m):	8.8	
Exposed Perimeter (m):	0	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.8	
Window Area (m ²):	0.7	
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):	2053	

50.6

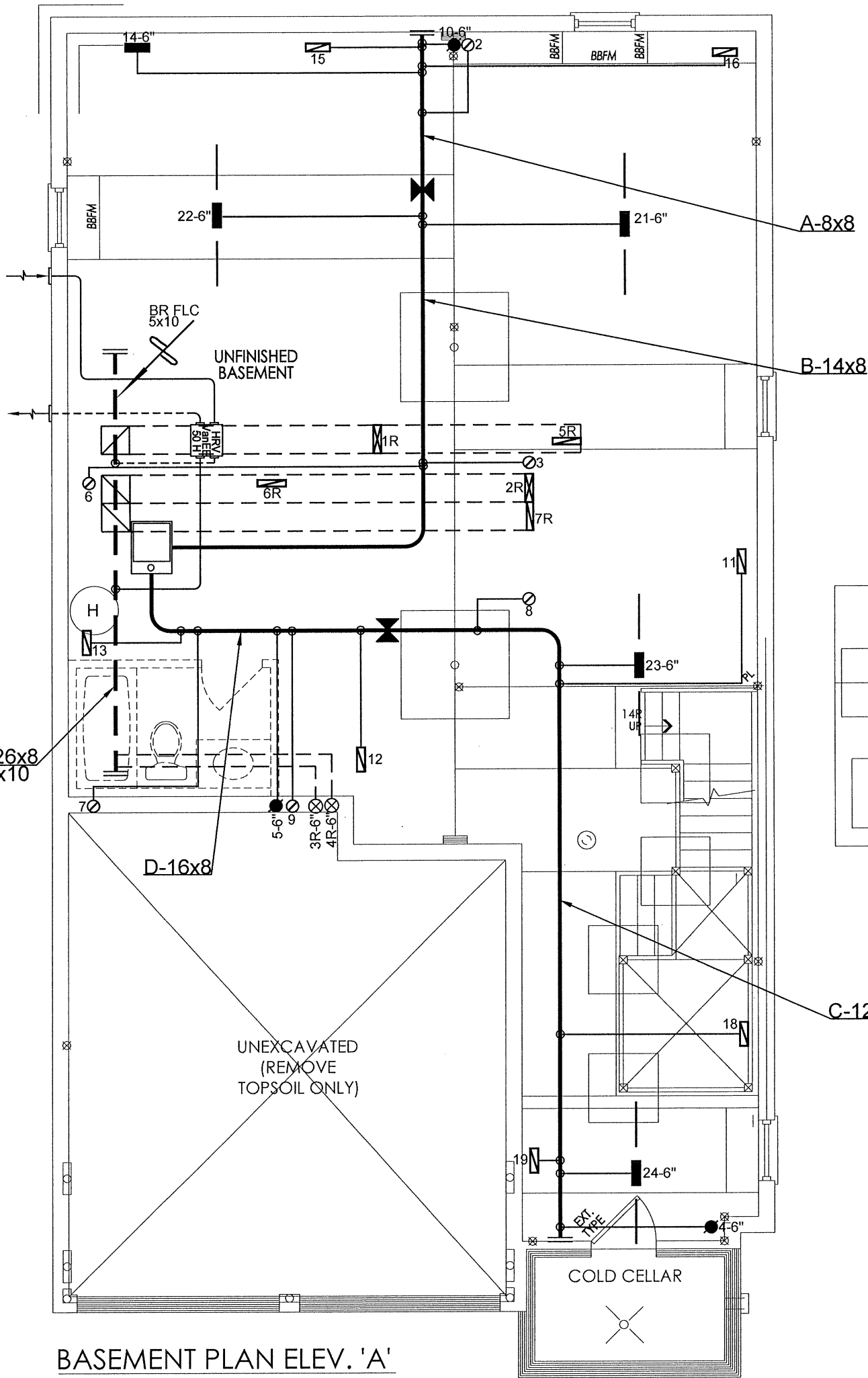
2.6 135.92

134.72

Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description	
Province:	Ontario <input type="text"/>
Region:	Vaughan (Woodbridge) <input type="text"/>
Weather Station Location:	Open flat to 3000 grass <input type="text"/>
Anemometer height (m):	10 <input type="text"/>
Local Shielding	
Building Site:	Suburban, forest <input type="text"/>
Walls:	Heavy <input type="text"/>
Flue:	Heavy <input type="text"/>
Highest Ceiling Height (m):	6.71 <input type="text"/>
Building Configuration	
Type:	Detached <input type="text"/>
Number of Stories:	Two <input type="text"/>
Foundation:	Full <input type="text"/>
House Volume (m ³):	1052.8 <input type="text"/>
Air Leakage/Ventilation	
Air Tightness Type:	Present (1961-) (ACH=3.57) <input type="text"/>
Custom BDT Data:	E.A. W.D.P. <input type="text"/> 716.42 <input type="text"/> cm ² 3.57 <input type="text"/> ACH @ 50 Pa
Mechanical Ventilation (L/s):	Total Supply: <input type="text"/> Total Exhaust: <input type="text"/> 0 <input type="text"/> 0 <input type="text"/>
Flue Size	
Flue #:	#1 #2 #3 #4
Diameter (mm):	<input type="text"/> #1 <input type="text"/> #2 <input type="text"/> #3 <input type="text"/> #4 0 <input type="text"/> 0 <input type="text"/> 0 <input type="text"/> 0
Natural Infiltration Rates	
Heating Air Change Rate (ACH/H):	0.322
Cooling Air Change Rate (ACH/H):	0.098



PART. BASEMENT PLAN W/ SUNK. FLR. COND.

BASEMENT PLAN ELEV. 'A'

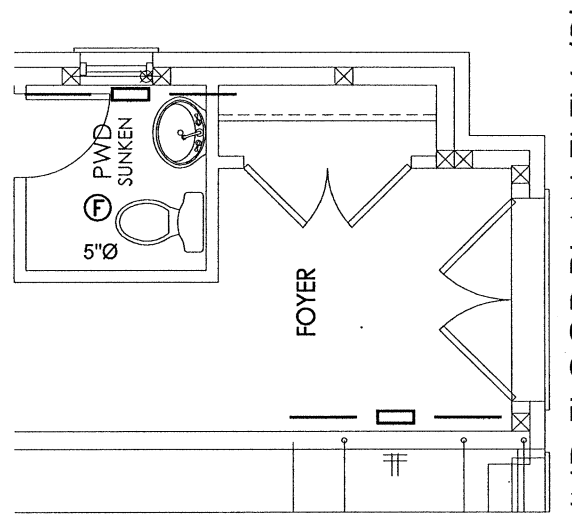
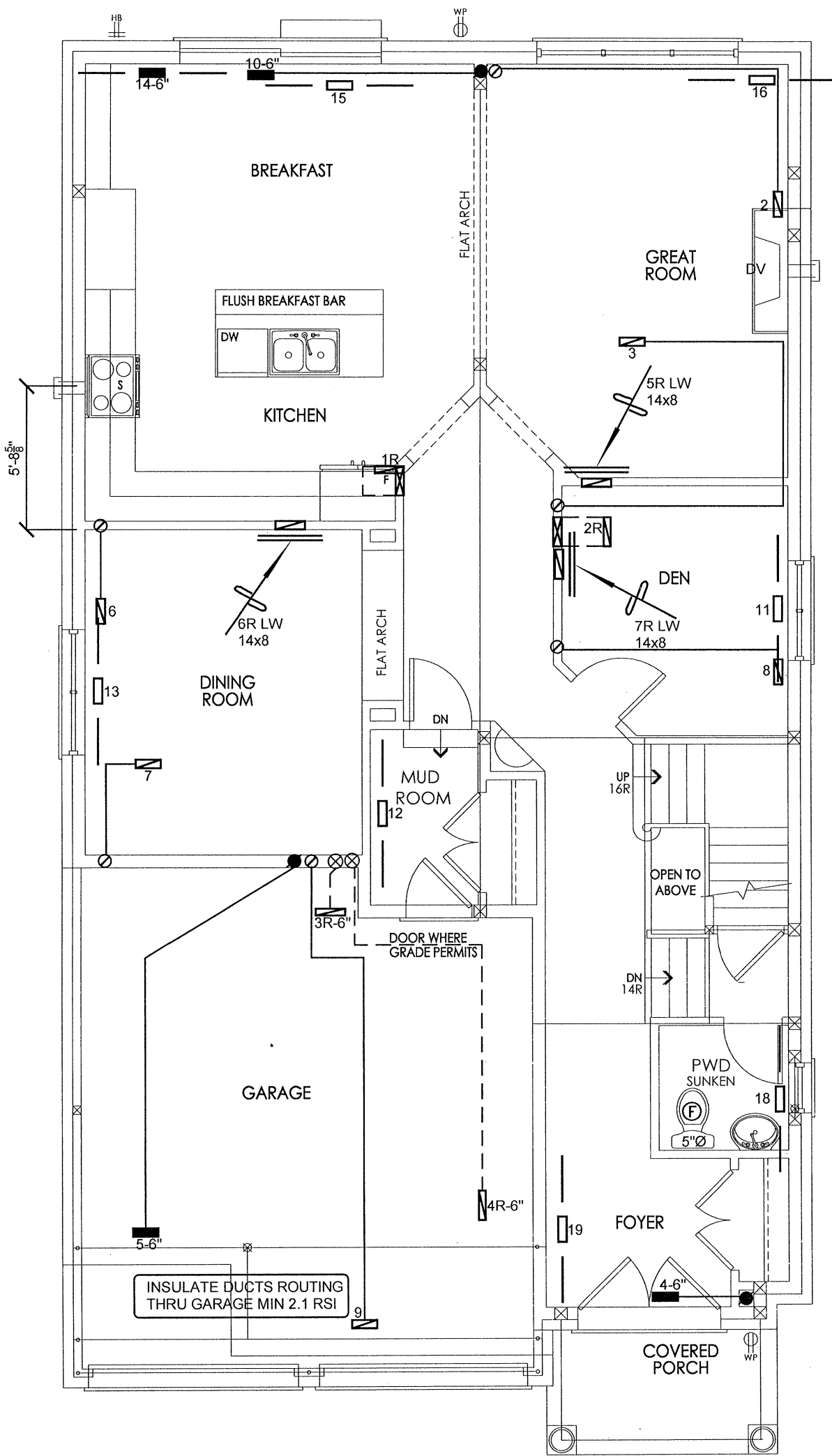
CSA-F280-12
PACKAGE J

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						REVISIONS	
— □ —	FLOOR SUPPLY AIR GRILLE	— ■ —	6" SUPPLY AIR BOOT ABOVE	— ▨ —	14"x8" RETURN AIR GRILLE	— ▩ —	RETURN AIR STACK ABOVE
— ■ —	FLOOR SUPPLY AIR GRILLE 6" BOOT	○	SUPPLY AIR STACK FROM 2nd FLOOR	— ▨ —	30"x8" RETURN AIR GRILLE	— ▩ —	RETURN AIR STACK 2nd FLOOR
— ▨ —	SUPPLY AIR BOOT ABOVE	●	6" SUPPLY AIR STACK 2nd FLOOR	— ▩ —	FRA- FLOOR RETURN AIR GRILLE	— X —	REDUCER
No.	Description	Date					

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Client GOLD PARK HOMES	Project Name KLEINBURG GLEN VAUGHAN, ONTARIO	 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdsgns.ca Web: www.hvacdsgns.ca Specializing in Residential Mechanical Design Services	HEAT LOSS 53039 BTU/H UNIT DATA	# OF RUNS	S/A	R/A	FANS	Sheet Title BASEMENT HEATING LAYOUT
			MAKE LENNOX	3RD FLOOR				
			MODEL EL195UH070XE36B-70	2ND FLOOR	9	4	3	Date JAN/2016
			INPUT 66 MBTU/H	1ST FLOOR	8	3	2	Scale 3/16" = 1'-0"
			OUTPUT 63 MBTU/H	BASEMENT	4	1	0	BCIN# 19669
			COOLING 3.0 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				LO#
			FAN SPEED 1100 cfm @ 0.8" w.c.					67016
38-4	2762 sqft							



PARTIAL GROUND FLOOR PLAN ELEV. 'B'

GROUND FLOOR PLAN ELEV. 'A'

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

CSA-F280-12
 PACKAGE J

HVAC LEGEND							REVISIONS			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	No.	Description	Date
[Symbol]	FLOOR SUPPLY AIR GRILLE	[Symbol]	6" SUPPLY AIR BOOT ABOVE	[Symbol]	14"x8" RETURN AIR GRILLE	[Symbol]	RETURN AIR STACK ABOVE	1.		
[Symbol]	FLOOR SUPPLY AIR GRILLE 6" BOOT	[Symbol]	SUPPLY AIR STACK FROM 2nd FLOOR	[Symbol]	30"x8" RETURN AIR GRILLE	[Symbol]	RETURN AIR STACK 2nd FLOOR	2.		
[Symbol]	SUPPLY AIR BOOT ABOVE	[Symbol]	6" SUPPLY AIR STACK 2nd FLOOR	[Symbol]	FRA- FLOOR RETURN AIR GRILLE	[Symbol]	REDUCER	3.		

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Client
GOLD PARK HOMES

Project Name
KLEINBURG GLEN VAUGHAN, ONTARIO

38-4 2762 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.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.

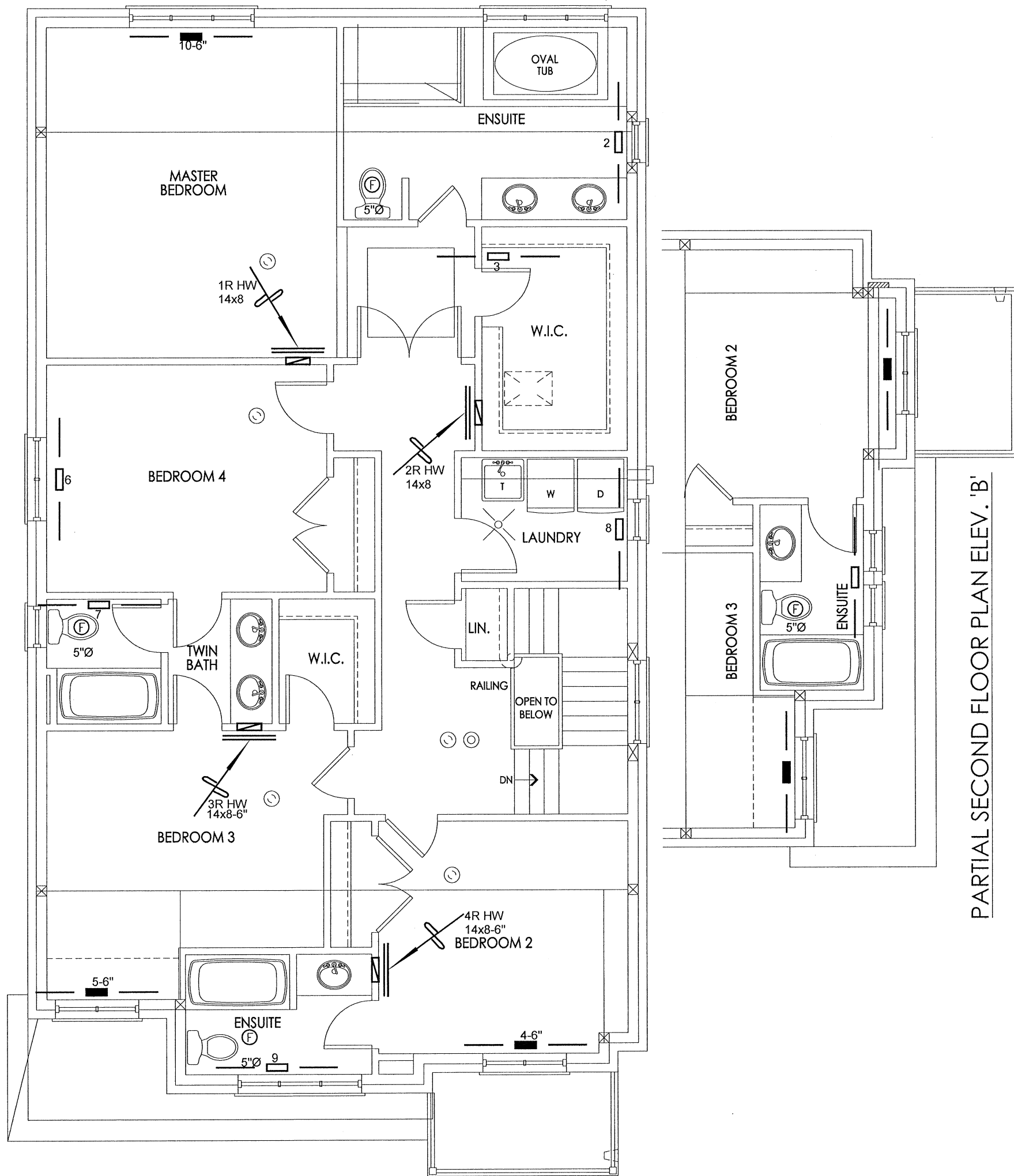
Sheet Title
FIRST FLOOR HEATING LAYOUT

Date JAN/2016

Scale 3/16" = 1'-0"

BCIN# 19669

LO# 67016



SECOND FLOOR PLAN ELEV. 'A'

PARTIAL SECOND FLOOR PLAN ELEV. 'B'

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

CSA-F280-12
 PACKAGE J

HVAC LEGEND							REVISIONS	
— □ —	FLOOR SUPPLY AIR GRILLE	■	6" SUPPLY AIR BOOT ABOVE	— ▨ —	14"x8" RETURN AIR GRILLE	— ▨ —	RETURN AIR STACK ABOVE	3.
— ▨ —	FLOOR SUPPLY AIR GRILLE 6" BOOT	○	SUPPLY AIR STACK FROM 2nd FLOOR	— ▨ —	30"x8" RETURN AIR GRILLE	— ▨ —	RETURN AIR STACK 2nd FLOOR	2.
— ▨ —	SUPPLY AIR BOOT ABOVE	●	6" SUPPLY AIR STACK 2nd FLOOR	— ▨ —	FRA- FLOOR RETURN AIR GRILLE	— ▨ —	REDUCER	1.
								No. Description Date

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Sheet Title
SECOND FLOOR HEATING LAYOUT

Date
 JAN/2016

Scale
 3/16" = 1'-0"

BCIN# 19669

LO# 67016