

SITE NAME: LAMBERT'S LANE PH.2

BUILDER: GREENPARK HOMES

TYPE: HORIZON 1

GFA: 1826

DATE: Feb-18

LO# 81374

WINTER NATURAL AIR CHANGE RATE 0.282

SUMMER NATURAL AIR CHANGE RATE 0.088

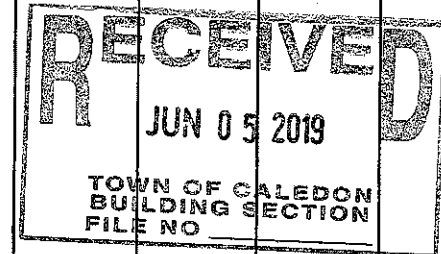
HEAT LOSS AT T. 74

HEAT GAIN AT T. 11

CSA-F280-12

ENERGYSTAR

ROOM USE	EXP. WALL	CLG. HT.	FACTORS	MBR	ENS	BED-3	BED-2	BATH	HEAT LOSS AT T.	HEAT GAIN AT T.	ENERGYSTAR
EXP. WALL				16	7	12	11	0			
CLG. HT.				9	8	9	9	9			
GRS.WALL AREA	LOSS	GAIN		144	63	108	99	0			
GLAZING	LOSS	GAIN				LOSS	GAIN	LOSS	GAIN		
NORTH	18.6	15.1	0	0	0	0	0	0	0	0	0
EAST	18.6	40.7	0	0	0	22	408	896	27	501	1099
SOUTH	18.6	24.1	0	0	0	0	0	0	0	0	0
WEST	18.6	40.7	30	557	1222	11	294	448	0	0	0
SKYL.T.	31.2	99.9	0	0	0	0	0	0	0	0	0
DOORS	24.7	3.7	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	3.5	0.5	114	401	59	56	302	45	72	253	38
NET EXPOSED BSMT WALL ABOVE GR	3.5	0.5	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0.5	310	389	178	192	241	107	137	172	76
NO ATTIC EXPOSED CLG	2.7	1.2	0	0	0	0	0	0	23	62	27
EXPOSED FLOOR	2.5	0.4	0	0	0	0	15	2	0	0	0
BASEMENT/CRAWL HEAT LOSS				0	0	0	0	0	0	0	0
SLAB ON GRADE HEAT LOSS				0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS				1348	527	966	987	192			
SUB TOTAL HT GAIN				1454	537	1050	1241	85			
LEVEL FACTOR / MULTIPLIER	0.29	0.48				0.20	0.48	0.20	0.48		
AIR CHANGE HEAT LOSS				641	251	460	470	91			
AIR CHANGE HEAT GAIN				105	39	76	90	6			
DUCT LOSS				0	0	143	0	0			
DUCT GAIN				0	0	194	0	0			
HEAT GAIN PEOPLE	240	2		480	0	1	240	1	240		
HEAT GAIN APPLIANCES/LIGHTS				579	0	579	579	0			
TOTAL HT LOSS BTU/H				1987	779	1589	1458	283			
TOTAL HT GAIN x 1.3 BTU/H				2403	749	2781	2784	119			



ROOM USE			LVIDN			KTRFM			FOY			BAS
EXP. WALL			17			22			5			47
CLG. HT.			10			10			10			9
FACTORS												
GRS.WALL AREA	LOSS	GAIN	170			220			60			282
GLAZING	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN
NORTH	18.6	15.1	0	0	0	0	0	0	0	0	0	0
EAST	18.6	40.7	43	798	1781	0	0	0	0	0	0	0
SOUTH	18.6	24.1	0	0	0	0	0	0	7	130	285	3
WEST	18.6	40.7	0	0	0	0	0	0	0	0	0	56
SKYL.T.	31.2	99.9	0	0	0	41	781	1669	0	0	0	122
DOORS	24.7	3.7	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	3.5	0.5	127	447	56	20	493	73	0	0	0	3
NET EXPOSED BSMT WALL ABOVE GR	3.5	0.5	0	0	0	159	559	83	20	493	73	56
EXPOSED CLG	1.3	0.5	0	0	0	33	116	17	0	0	0	122
NO ATTIC EXPOSED CLG	2.7	1.2	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.5	0.4	0	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS			0			0			0			0
SLAB ON GRADE HEAT LOSS			0			0			0			0
SUBTOTAL HT LOSS			1244			1813			0			1540
SUB TOTAL HT GAIN				1817			1825		739			2639
LEVEL FACTOR / MULTIPLIER	0.30	0.76			0.30	0.76			375			381
AIR CHANGE HEAT LOSS				941		1372			0.30	0.76		1.81
AIR CHANGE HEAT GAIN							132		559			4787
DUCT LOSS			0			0			27			28
DUCT GAIN			0			0			0			0
HEAT GAIN PEOPLE	240		0			0			0			0
HEAT GAIN APPLIANCES/LIGHTS				579			579		0			0
TOTAL HT LOSS BTU/H			2186			3184			0			579
TOTAL HT GAIN x 1.3 BTU/H			3285			3297			1298			7426
									523			1298

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TOTAL HEAT GAIN BTU/H:

18439

TONS: 1.54

LOSS DUE TO VENTILATION LOAD BTU/H: 1274

STRUCTURAL HEAT LOSS: 20170

TOTAL COMBINED HEAT LOSS BTU/H: 21444

SITE NAME: LAMBERT'S LANE PH.2
 BUILDER: GREENPARK HOMES

TYPE: HORIZON 1

DATE: Feb-19

GFA: 1826 LO# 81374

 HEATING CFM 557 COOLING CFM 557
 TOTAL HEAT LOSS 20,170 TOTAL HEAT GAIN 18,250
 AIR FLOW RATE CFM 27.62 AIR FLOW RATE CFM 30.52

 furnace pressure 0.6
 furnace filter 0.05
 a/c coil pressure 0.2
 available pressure for s/a & r/a 0.35

 #GOODMAN
 GMEC960302BNA 30
 FAN SPEED LOW
 MEDLOW
 MEDIUM
 MEDIUM HIGH 557
 HIGH 895

 AFUE = 96 %
 INPUT (BTU/H) = 30,000
 OUTPUT (BTU/H) = 28,800
 DESIGN CFM = 557
 CFM @ 5" E.S.P.

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	6	5	3
R/A	0	0	2	2	1

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

RUN #	1	2	4	5	7	10	12	13	15	16	19	21	22	24
ROOM NAME	MBR	ENS	BED-3	BED-2	BATH	MBR	LV/DN	LV/DN	KT/FM	KT/FM	FOY	BAS	BAS	BAS
RM LOSS MBH.	0.99	0.78	1.57	1.46	0.28	0.99	1.09	1.09	1.59	1.59	1.30	2.48	2.48	2.48
CFM PER RUN HEAT	27	22	43	40	8	27	30	30	44	44	36	68	68	68
RM GAIN MBH.	1.70	0.75	2.78	2.79	0.12	1.70	1.64	1.64	1.65	1.65	0.52	0.43	0.43	0.43
CFM PER RUN COOLING	52	23	85	85	4	52	50	50	50	50	16	13	13	13
ADJUSTED PRESSURE	0.17	0.17	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
ACTUAL DUCT LGH.	52	39	54	50	33	45	32	40	11	22	46	13	15	35
EQUIVALENT LENGTH	120	140	160	130	190	130	90	130	130	110	120	120	160	130
TOTAL EFFECTIVE LENGTH	172	179	214	180	223	175	122	170	141	132	168	133	175	165
ADJUSTED PRESSURE	0.1	0.1	0.08	0.09	0.08	0.1	0.14	0.1	0.12	0.13	0.1	0.13	0.1	0.1
ROUND DUCT SIZE	5	4	6	6	4	5	4	5	4	4	4	5	5	5
HEATING VELOCITY (ft/min)	198	252	219	204	92	198	344	220	505	505	413	499	499	499
COOLING VELOCITY (ft/min)	382	284	433	433	46	382	574	367	574	574	184	95	95	95
OUTLET GRILL SIZE	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	A	A	B	B	B	A	B	B	A	A	B	A	A	B

 RUN #
 ROOM NAME
 RM LOSS MBH.
 CFM PER RUN HEAT
 RM GAIN MBH.
 CFM PER RUN COOLING
 ADJUSTED PRESSURE
 ACTUAL DUCT LGH.
 EQUIVALENT LENGTH
 TOTAL EFFECTIVE LENGTH
 ADJUSTED PRESSURE
 ROUND DUCT SIZE
 HEATING VELOCITY (ft/min)
 COOLING VELOCITY (ft/min)
 OUTLET GRILL SIZE
 TRUNK

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 RECEIVED
 JUN 05 2019
 TOWN OF CALEDON
 BUILDING SECTION
 FILE NO

SUPPLY AIR TRUNK SIZE

TRUNK	STATIC	ROUND	RECT	VELOCITY	TRUNK	STATIC	ROUND	RECT	VELOCITY
CFM	PRESS.	DUCT	DUCT	(ft/min)	CFM	PRESS.	DUCT	DUCT	(ft/min)
TRUNK A 300	0.10	8.4	8	675	TRUNK G 0	0.00	0	0	0
TRUNK B 255	0.08	8.4	8	574	TRUNK H 0	0.00	0	0	0
TRUNK C 0	0.00	0	0	0	TRUNK I 0	0.00	0	0	0
TRUNK D 0	0.00	0	0	0	TRUNK J 0	0.00	0	0	0
TRUNK E 0	0.00	0	0	0	TRUNK K 0	0.00	0	0	0
TRUNK F 0	0.00	0	0	0	TRUNK L 0	0.00	0	0	0

RETURN AIR TRUNK SIZE

TRUNK	STATIC	ROUND	RECT	VELOCITY
CFM	PRESS.	DUCT	DUCT	(ft/min)
TRUNK O 0	0.05	0	0	8
TRUNK P 0	0.05	0	0	8
TRUNK Q 0	0.05	0	0	8
TRUNK R 0	0.05	0	0	8
TRUNK S 0	0.05	0	0	8
TRUNK T 0	0.05	0	0	8
TRUNK U 0	0.05	0	0	8
TRUNK V 0	0.05	0	0	8
TRUNK W 0	0.05	0	0	8
TRUNK X 557	0.05	12.7	18	8
TRUNK Y 265	0.05	9.6	10	8
TRUNK Z 0	0.05	0	0	8
DROP 557	0.05	12.7	24	10

RETURN AIR

	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	BR
AIR VOLUME	115	0	0	150	115	85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	92
ACTUAL DUCT LGH.	56	1	1	29	47	25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.15
EQUIVALENT LENGTH	215	0	0	230	245	185	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
TOTAL EFFECTIVE LH	271	1	1	259	292	210	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	135
ADJUSTED PRESSURE	0.05	14.80	14.80	0.06	0.05	0.07	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	149
ROUND DUCT SIZE	7	0	0	7.4	7	5.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.10
INLET GRILL SIZE	8	0	0	8	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.4
	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	8
INLET GRILL SIZE	14	0	0	14	14	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	X

TYPE: HORIZON 1
 SITE NAME: LAMBERT'S LANE PH.2

LO # 81374

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	2 @ 10.6 cfm	21.2 cfm
Kitchen & Bathrooms	4 @ 10.6 cfm	42.4 cfm
Other Rooms	4 @ 10.6 cfm	42.4 cfm
Table 9.32.3.A. TOTAL		148.4 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	79.6	cfm
5 Bedroom	95.4	cfm
TOTAL		63.6 cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	148.4	cfm
Less Principal Ventil. Capacity	63.6	cfm
Required Supplemental Capacity	84.8	cfm

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

PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	ΔT °F	FACTOR	% LOSS
63.6 CFM	74 F	1.08	0.25

SUPPLEMENTAL FANS		PANASONIC	
Location	Model	cfm	HVI
ENS	FV-05-11VK1	50	☒
BATH	FV-05-11VK1	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	Plant
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:	February-19

 I REVIEW AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED IN THE APPROPRIATE CATEGORY AS AN "OTHER DESIGNER" UNDER DIVISION C, 32.5 OF THE BUILDING CODE.
 INDIVIDUAL BCIN: 19669 *Michael O'Rourke* MICHAEL O'ROURKE

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CSA F280-12 Residential Heat Loss and Heat Gain Calculations
Formula Sheet (For Air Leakage / Ventilation Calculation)

LO#: 81374

Model: HORIZON 1

Builder: GREENPARK HOMES

Date: 2019-02-04

Volume Calculation
Air Change & Delta T Data
House Volume

Level	Floor Area (ft ²)	Floor Height (ft)	Volume (ft ³)
Bsmt	910	9	8190
First	910	10	9100
Second	916	9	8244
Third	0	9	0
Fourth	0	9	0
Total:			25,534.0 ft ³
Total:			723.0 m ³

WINTER NATURAL AIR CHANGE RATE	0.282
SUMMER NATURAL AIR CHANGE RATE	0.088

Design Temperature Difference				
	T _{in} °C	T _{out} °C	ΔT °C	ΔT °F
Winter DTD _h	22	-19	41	74
Summer DTD _c	24	30	6	11

5.2.3.1 Heat Loss due to Air Leakage
6.2.6 Sensible Gain due to Air Leakage

$$HL_{airb} = LR_{airh} \times \frac{V_b}{3.6} \times DTD_h \times 1.2$$

0.282 x 200.85 x 41 °C x 1.2 = 2806 W

= 9574 Btu/h

$$HG_{salb} = LR_{airc} \times \frac{V_b}{3.6} \times DTD_c \times 1.2$$

0.088 x 200.85 x 6 °C x 1.2 = 130 W

= 444 Btu/h

5.2.3.2 Heat Loss due to Mechanical Ventilation
6.2.7 Sensible heat Gain due to Ventilation

$$HL_{vaib} = PVC \times DTD_h \times 1.08 \times (1 - E)$$

64 CFM x 74 °F x 1.08 x 0.25 = 1274 Btu/h

$$HL_{vaib} = PVC \times DTD_h \times 1.08 \times (1 - E)$$

64 CFM x 11 °F x 1.08 x 0.25 = 189 Btu/h

5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)

$$HL_{airr} = \text{Level Factor} \times HL_{airbv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{agclevel} + HL_{bgclevel})\}$$

Level	Level Factor (LF)	HL _{airv} Air Leakage + Ventilation Heat Loss (Btu/h)	Level Conductive Heat Loss: (HL _{clevel})	Air Leakage Heat Loss Multiplier (LF x HL _{airbv} / HL _{level})
1	0.5	9,574	2,639	1.814
2	0.3		3,796	0.757
3	0.2		4,018	0.476
4	0		0	0.000
5	0		0	0.000

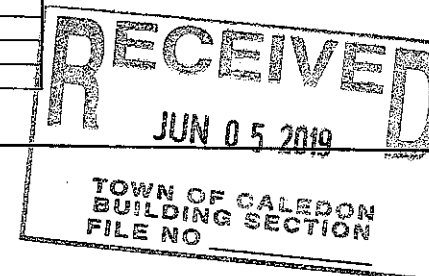
 *HL_{airbv} = Air leakage heat loss + ventilation heat loss

 *For a balanced or supply only ventilation system HL_{airv} = 0

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Specializing in Residential Mechanical Design Services



HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: HORIZON 1

BUILDER: GREENPARK HOMES

SFQT: 1826

LO# 81374

SITE: LAMBERT'S LANE PH.2

DESIGN ASSUMPTIONS

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

BUILDING DATA

ATTACHMENT:	ATTACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	EAST	ASSUMED (Y/N):	Y
AIR CHANGES PER HOUR:	3.00	ASSUMED (Y/N):	Y
AIR TIGHTNESS CATEGORY:	TIGHT	ASSUMED (Y/N):	Y
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Y
HOUSE VOLUME (ft³):	25534.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	4
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 42.0 ft	WIDTH: 22.0 ft	EXPOSED PERIMETER:	47.0 ft

2012 OBC - COMPLIANCE PACKAGE

Component	Compliance Package ENERGYSTAR	
	Nominal	Min. Eff.
Ceiling with Attic Space Minimum RSI (R)-Value	60	59.20
Ceiling Without Attic Space Minimum RSI (R)-Value	31	27.70
Exposed Floor Minimum RSI (R)-Value	31	29.80
Walls Above Grade Minimum RSI (R)-Value	R22+R5	21.10
Basement Walls Minimum RSI (R)-Value	20	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	ZONE 2	-
Skylights Maximum U-Value	ZONE 2	-
Space Heating Equipment Minimum AFUE	0.96	-
HRV Minimum Efficiency	75%	-
Domestic Hot Water Heater Minimum EF	0.9	-

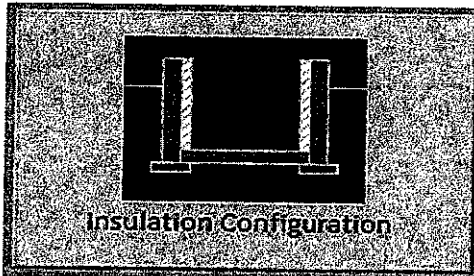
INDIVIDUAL BCIN: 19669

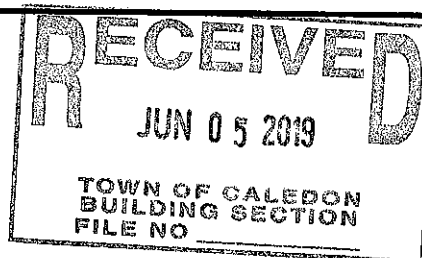
MICHAEL O'ROURKE

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Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

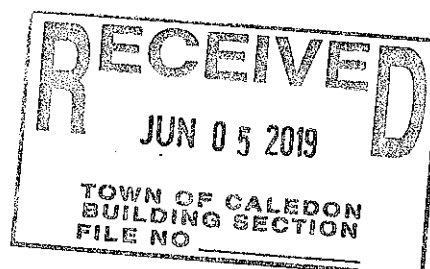
Weather Station Description		
Province:	Ontario	
Region:	Brampton	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	12.8	 Insulation Configuration
Floor Width (m):	6.7	
Exposed Perimeter (m):	14.3	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.83	
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):	451	

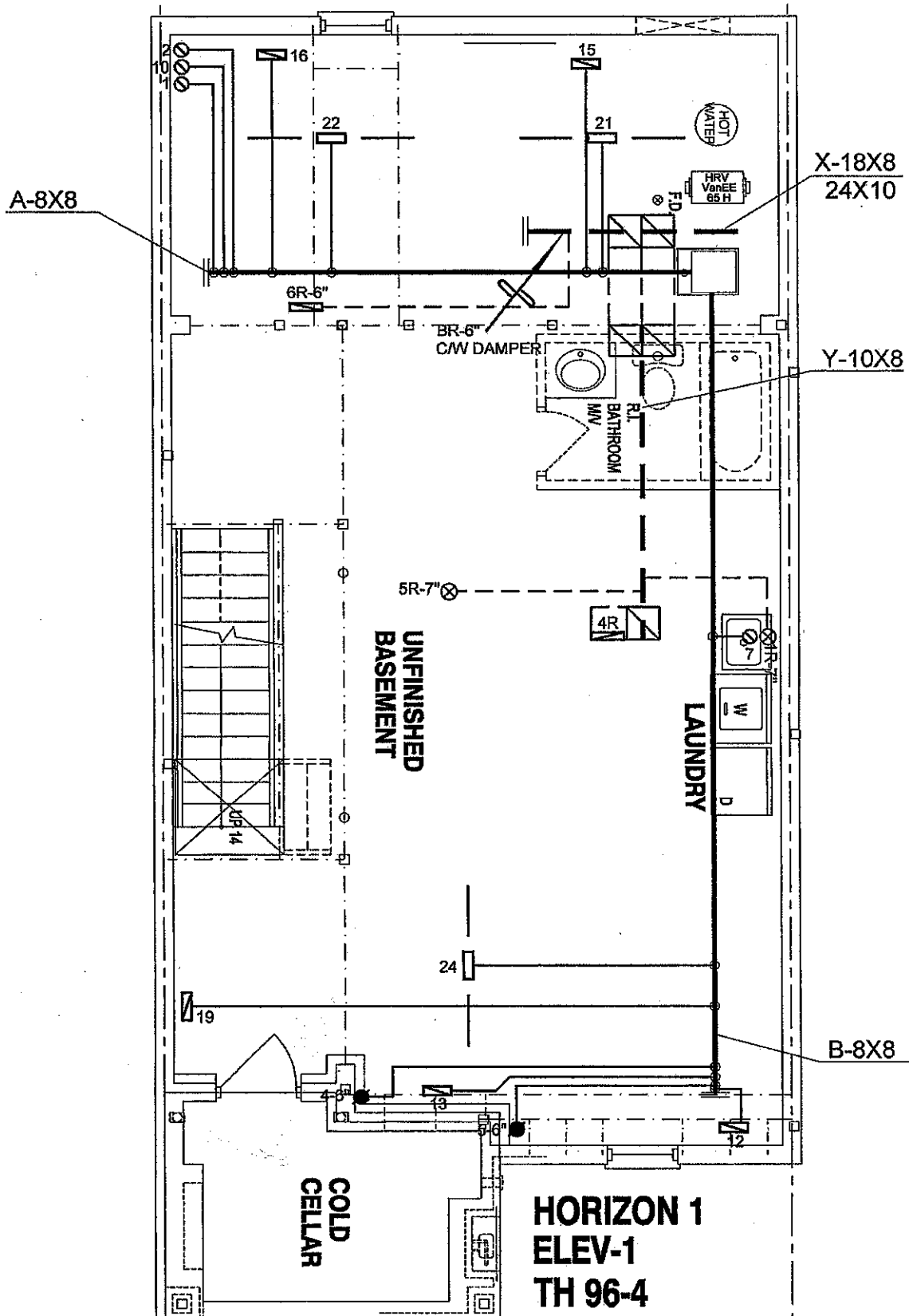
TYPE: HORIZON 1
LO# 81374THIS STRUCTURE MUST BE
CONSTRUCTED TO MEET OR
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THE ONTARIO BUILDING CODE

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):	6.71		
Building Configuration			
Type:	Semi		
Number of Stories:	Two		
Foundation:	Full		
House Volume (m ³):	723.0		
Air Leakage/Ventilation			
Air Tightness Type:	Energy Star Attached (3.0 ACH)		
Custom BDT Data:	ELA @ 10 Pa.	809.9 cm ²	
	3.00	ACH @ 50 Pa	
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust	
	30.0	30.0	
Flue Size			
Flue #:	#1	#2	#3
Diameter (mm):	0	0	0
Natural Infiltration Rates			
Heating Air Leakage Rate (ACH/H):	0.282		
Cooling Air Leakage Rate (ACH/H):	0.088		

TYPE: HORIZON 1
LO# 81374THIS STRUCTURE MUST BE
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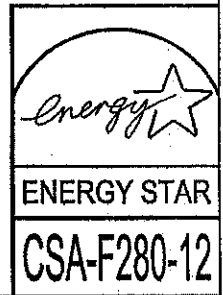


RECEIVED
JUN 05 2019
TOWN OF CALEDON
BUILDING SECTION
FILE NO

APPROVED
For construction as per the
Ontario Building Code
Town of Caledon Building Department
Initial *(SA)*
Date June 11, 2019
File # CMOD-HORIZON 1
(ELEVATION 122)

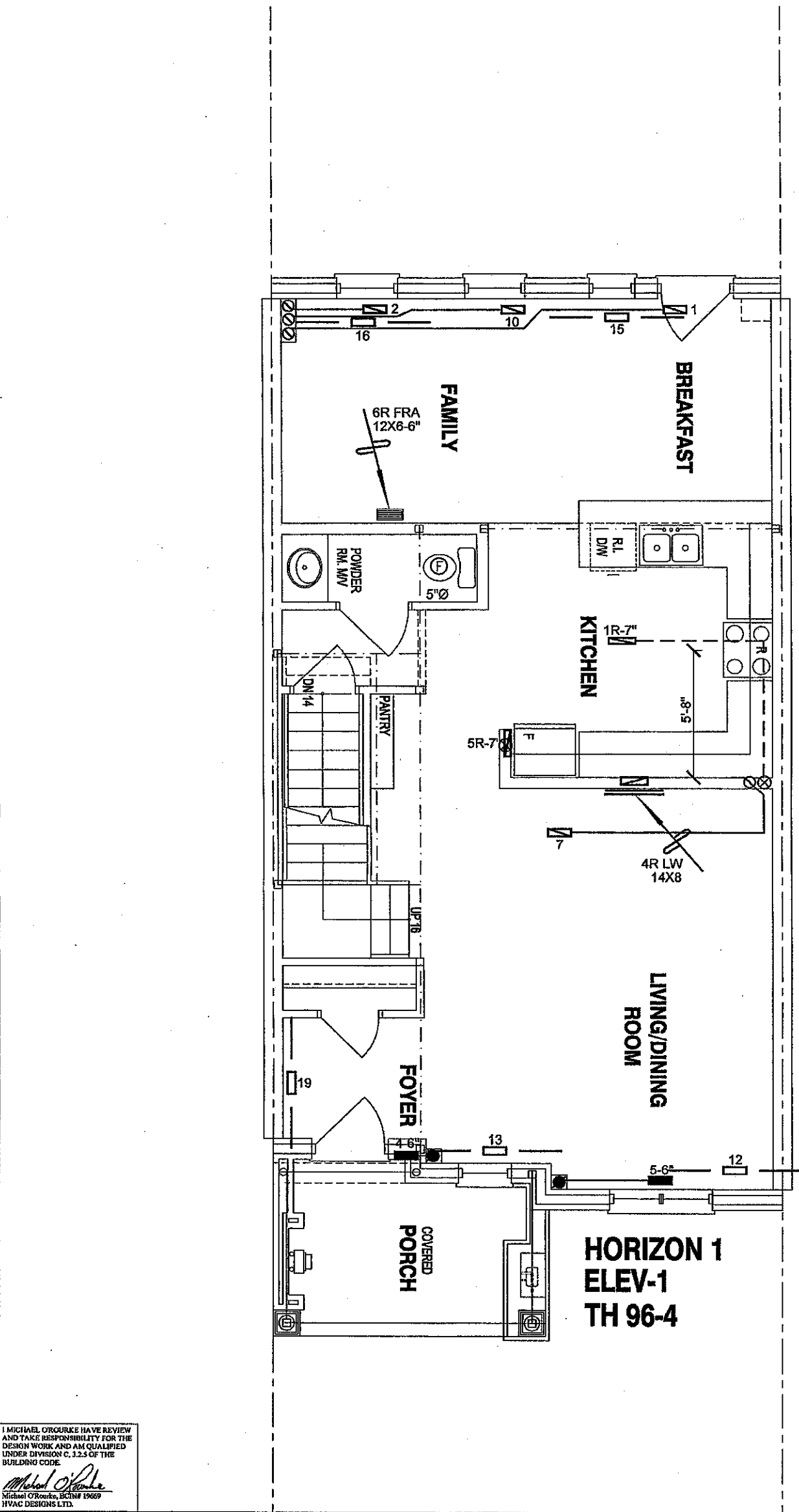
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TOWN COPY



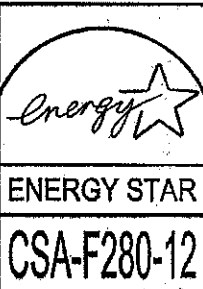
I MICHAEL OROURKE HAVE REVIEWED
AND TAKE RESPONSIBILITY FOR THE
DESIGN WORK AND AM QUALIFIED
UNDER DIVISION C.3.2.5 OF THE
BUILDING CODE.
Michael O'Rourke
Michael O'Rourke, BCIN 19669
HVAC DESIGNS LTD.

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 GREENPARK 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 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 21444 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS		Sheet Title BASEMENT HEATING LAYOUT	
Project Name LAMBERTS LANE HOME CORP PH 2 CALEDON, ONTARIO						MAKE GOODMAN	3RD FLOOR				
HORIZON 1 1826 sqft						MODEL GMEC960302BNA	2ND FLOOR	6	2	2	
						INPUT 30 MBTU/H	1ST FLOOR	5	2	2	
						OUTPUT 28 MBTU/H	BASEMENT	3	1	0	
						COOLING 1.5 TONS	ALL S/A DIFFUSERS 4 "x10" UNLESS NOTED OTHERWISE ON LAYOUT. ALL S/A RUNS 5"x2 UNLESS NOTED OTHERWISE ON LAYOUT. UNDERCUT DOORS 1" min. FOR R/A				
						FAN SPEED 557 cfm @ 0.8" w.c.					



I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C.12.5 OF THE BUILDING CODE.

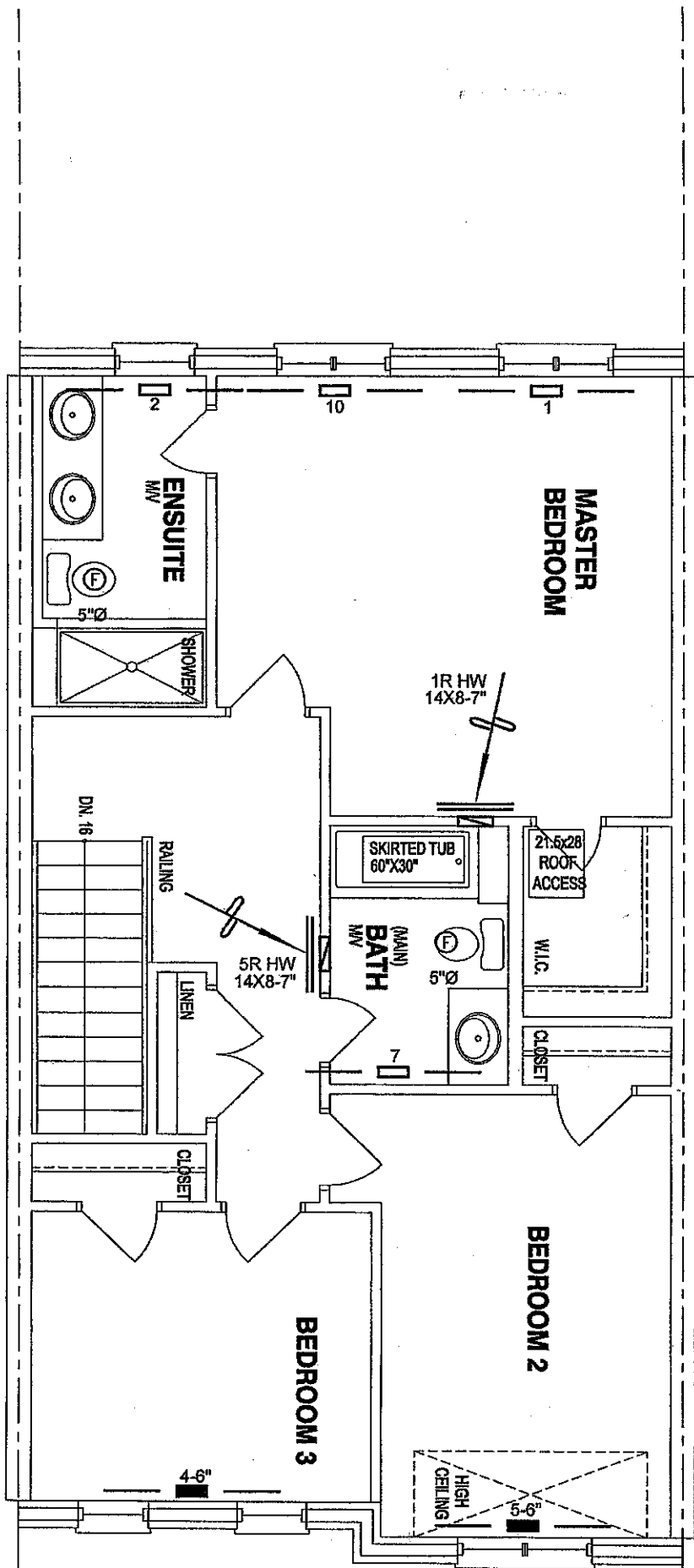
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.



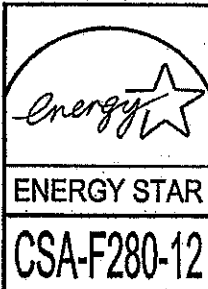
HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x6" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	FLOOR SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x6" RETURN AIR GRILLE		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 GREENPARK 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	THIS STRUCTURE MUST BE CONSTRUCTED TO MEET OR EXCEED THE PROVISIONS OF THE ONTARIO BUILDING CODE	Sheet Title FIRST FLOOR HEATING LAYOUT	
Project Name LAMBERTS LANE HOME CORP PH 2 CALEDON, ONTARIO				Date FEB/2019	
HORIZON 1 1826 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#	81374



HORIZON 1
ELEV-1
TH 96-4



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	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	No.	Description
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	3.	
	FLOOR SUPPLY AIR GRILLE 8" 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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Client

GREENPARK HOMES

Project Name

**LAMBERTS LANE HOME CORP PH 2
CALEDON, ONTARIO**

HORIZON 1 1826 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@hvacdsgns.ca
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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.

**THIS STRUCTURE MUST BE
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Sheet Title

**SECOND FLOOR
HEATING
LAYOUT**

Date FEB/2019

Scale 3/16" = 1'-0"

BCIN# 19669

LO# 81374