

20.130096.000.00.CM

Issue Date: 02/10/21

LAMPONE INVESTMENT INC

ALL CONSTRUCTION SHALL COMPLY WITH THE
ONTARIO BUILDING CODE.

CITY OF MARKHAM

HEAT LOSS/HEAT GAIN CALCULATIONS

MODEL NAME : PEYTON 2

ELEV 1, 2A, 2B & 3

SITE NAME: LAMPONE INVESTMENTS										DATE: Jul-20		WINTER NATURAL AIR CHANGE RATE 0.363		HEAT LOSS ΔT °F. 78		CSA-F280-12						
BUILDER: GREENPARK HOMES										TYPE: PEYTON 2		GFA: 1935		LO# 86807		SUMMER NATURAL AIR CHANGE RATE 0.110		HEAT GAIN ΔT °F. 13		SB-12 PACKAGE A1		
ROOM USE			MBR			ENS			BED-2			BED-3			BATH							
EXP. WALL			15			25			10			22			30							
CLG. HT.			9			9			9			9			9							
FACTORS																						
GRS.WALL AREA	LOSS	GAIN	135			225			90			198			270							
GLAZING			LOSS	GAIN	LOSS			GAIN	LOSS			GAIN	LOSS			GAIN	LOSS			GAIN		
NORTH	21.8	16.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
EAST	21.8	41.6	0	0	0	0	0	0	24	523	997	0	0	0	45	980	1870	0	0	0		
SOUTH	21.8	24.9	0	0	0	8	174	199	0	0	0	34	741	847	0	0	0	0	0	0		
WEST	21.8	41.6	21	457	873	11	240	457	0	0	0	0	0	0	0	0	0	0	0	0		
SKYLT.	38.1	101.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
DOORS	25.8	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
NET EXPOSED WALL	4.6	0.8	114	521	86	206	941	155	66	302	50	164	749	123	225	1028	169	0	0	0		
NET EXPOSED BSMT WALL ABOVE GR	3.7	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
EXPOSED CLG	1.3	0.6	255	335	150	150	197	88	158	208	93	308	405	181	91	120	53	0	0	0		
NO ATTIC EXPOSED CLG	2.8	1.3	0	0	0	0	0	0	19	53	24	0	0	0	9	25	11	0	0	0		
EXPOSED FLOOR	2.6	0.4	0	0	0	0	0	0	177	462	76	0	0	0	0	0	0	0	0	0		
BASEMENT/CRAWL HEAT LOSS			0			0			0			0			0							
SLAB ON GRADE HEAT LOSS			0			0			0			0			0							
SUBTOTAL HT LOSS			1313			1552			1547			1895			2153							
SUB TOTAL HT GAIN			1108			899			1240			1151			2104							
LEVEL FACTOR / MULTIPLIER	0.20	0.30				0.20	0.30		0.20	0.30		0.20	0.30		0.20	0.30						
AIR CHANGE HEAT LOSS			395			466			465			569			647							
AIR CHANGE HEAT GAIN			77			63			86			80			147							
DUCT LOSS			0			0			201			0			0							
DUCT GAIN			0			0			201			0			0							
HEAT GAIN PEOPLE	240	2	480			0			1			240			0							
HEAT GAIN APPLIANCES/LIGHTS			445			0			445			445			0							
TOTAL HT LOSS BTU/H			1708			2018			2214			2464			2800							
TOTAL HT GAIN x 1.3 BTU/H			2744			1251			2876			2491			2926							

ROOM USE			BRK			KIT			LIV/DIN			LAUN			W/R			FOY			MUD									WOD			BAS		
EXP. WALL			24			11			45			0			13			19			11									29			121		
CLG. HT.			10			10			10			9			11			11			11									9			9		
FACTORS																																			
GRS.WALL AREA	LOSS	GAIN	230			106			432			0			138			201			117							261			951				
GLAZING			LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN						LOSS	GAIN		LOSS	GAIN			
NORTH	21.8	16.0	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	0	0	0	0				
EAST	21.8	41.6	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	0	0	0				
SOUTH	21.8	24.9	0	0	0	0	0	0	26	566	647	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	131	149					
WEST	21.8	41.6	21	457	873	64	1394	2659	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	131	249	0	0	0			
SKYLT.	38.1	101.5	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	0	0	0				
DOORS	25.8	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	1034	170	20	517	85			0	0	0	20	517	85					
NET EXPOSED WALL	4.6	0.8	209	957	157	42	190	31	406	1855	305	0	0	0	138	630	104	161	737	121	97	441	73			0	0	0	0	0	0	0			
NET EXPOSED BSMT WALL ABOVE GR	3.7	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			168	619	102	138	508	84				
EXPOSED CLG	1.3	0.6	0	0	0	0	0	0	0	0	0	76	100	45	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0				
NO ATTIC EXPOSED CLG	2.8	1.3	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	0				
EXPOSED FLOOR	2.6	0.4	0	0	0	0	0	0	0	0	0	39	102	17	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							3297							
SLAB ON GRADE HEAT LOSS			0			0			0			0			0			0			0							0							
SUBTOTAL HT LOSS			1414			1584			2421			202			630			1771			958							750			4453				
SUB TOTAL HT GAIN			1030			2691			953			61			104			291			158							351			318				
LEVEL FACTOR / MULTIPLIER	0.30	0.44				0.30	0.44		0.30	0.44		0.20	0.30		0.30	0.44		0.30	0.44		0.30	0.44								0.50	1.25				
AIR CHANGE HEAT LOSS			629			705			1077			61			280			788			426							6507							
AIR CHANGE HEAT GAIN			72			188			66			4			7			20			11							47							
DUCT LOSS			0			0			0			26			0			0			0							0							
DUCT GAIN			0			0			0			51			0			0			0							0							
HEAT GAIN PEOPLE	240		0			0			0			0			0			0			0							0			0				
HEAT GAIN APPLIANCES/LIGHTS			445			445			445			445			0			0			0							0			445				
TOTAL HT LOSS BTU/H			2043			2289			3498			288			910			2559			1384							750			10960				
TOTAL HT GAIN x 1.3 BTU/H			2011			4320			1903			730			144			405			219							456			1052				



SITE NAME: LAMPONE INVESTMENTS
BUILDER: GREENPARK HOMES

TYPE: PEYTON 2

DATE: Jul-20

GFA: 1935 LO# 86807

HEATING CFM 890 COOLING CFM 890
TOTAL HEAT LOSS 35,884 TOTAL HEAT GAIN 23,530
AIR FLOW RATE CFM 24.8 AIR FLOW RATE CFM 37.82

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

#GOODMAN
GMEC960402BNA 40
FAN SPEED
LOW

AFUE = 96 %
INPUT (BTU/H) = 40,000
OUTPUT (BTU/H) = 38,400

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	9	7	4
R/A	0	0	4	1	1

plenium pressure s/a 0.18
max s/a dif press. loss 0.02
min adjusted pressure s/a 0.16

r/a pressure 0.17
r/a grille press. Loss 0.02
adjusted pressure r/a 0.15

MEDLOW
MEDIUM 695
MEDIUM HIGH
HIGH 890

DESIGN CFM = 890
CFM @ .6" E.S.P.

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	3	4	5	6	7	10	13	14	15	16	17	18	19	20	21	22	23	24
ROOM NAME	MBR	ENS	BED-2	BED-2	BED-3	BATH	BATH	MBR	BRK	KIT	KIT	LIV/DIN	LAUN	W/R	FOY	MUD	BAS	BAS	BAS	BAS
RM LOSS MBH.	0.85	2.02	1.11	1.11	2.46	1.40	1.40	0.85	2.04	1.14	1.14	3.50	0.29	0.91	2.56	1.38	2.93	2.93	2.93	2.93
CFM PER RUN HEAT	21	50	27	27	61	35	35	21	51	28	28	87	7	23	63	34	73	73	73	73
RM GAIN MBH.	1.37	1.25	1.44	1.44	2.49	1.46	1.46	1.37	2.01	2.16	2.16	1.90	0.73	0.14	0.41	0.22	0.38	0.38	0.38	0.38
CFM PER RUN COOLING	52	47	54	54	94	55	55	52	76	82	82	72	28	5	15	8	14	14	14	14
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.16	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
ACTUAL DUCT LGH.	30	31	42	41	42	52	50	40	24	13	18	16	48	42	33	11	18	9	21	27
EQUIVALENT LENGTH	150	180	150	140	140	180	190	180	100	80	110	150	180	130	160	160	140	160	110	140
TOTAL EFFECTIVE LENGTH	180	211	192	181	182	232	240	220	124	93	128	166	228	172	193	171	158	169	131	167
ADJUSTED PRESSURE	0.1	0.08	0.09	0.1	0.09	0.07	0.07	0.08	0.14	0.17	0.13	0.1	0.08	0.1	0.09	0.1	0.11	0.1	0.13	0.1
ROUND DUCT SIZE	5	5	5	5	6	5	5	5	5	6	6	6	4	4	5	4	5	5	5	5
HEATING VELOCITY (ft/min)	154	367	198	198	311	257	257	154	374	143	143	444	80	264	463	390	536	536	536	536
COOLING VELOCITY (ft/min)	382	345	396	396	479	404	404	382	558	418	418	367	321	57	110	92	103	103	103	103
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	C	C	B	B	B	A	A	C	C	C	C	B	C	A	A	B	C	C	B	A

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	

SUPPLY AIR TRUNK SIZE								RETURN 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	229	0.07	8.3	8	x	8	515	TRUNK G	0	0.00	0	0	x	8	0
TRUNK B	538	0.07	11.5	16	x	8	605	TRUNK H	0	0.00	0	0	x	8	0
TRUNK C	352	0.08	9.5	10	x	8	634	TRUNK I	0	0.00	0	0	x	8	0
TRUNK D	0	0.00	0	0	x	8	0	TRUNK J	0	0.00	0	0	x	8	0
TRUNK E	0	0.00	0	0	x	8	0	TRUNK K	0	0.00	0	0	x	8	0
TRUNK F	0	0.00	0	0	x	8	0	TRUNK L	0	0.00	0	0	x	8	0

RETURN AIR #	1	2	3	4	5																BR	TRUNK W	0	0.05	0	0	x	8	0
AIR VOLUME	105	75	85	75	420	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	130	TRUNK X	890	0.05	15.1	26	x	8	616
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	TRUNK Y	235	0.05	9.2	10	x	8	423	
ACTUAL DUCT LGH.	35	72	51	55	30	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16	TRUNK Z	0	0.05	0	0	x	8	0	
EQUIVALENT LENGTH	130	230	215	255	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160	DROP	890	0.05	15.1	24	x	10	534	
TOTAL EFFECTIVE LH	165	302	266	310	185	1	1	1	1	1	1	1	1	1	1	1	1	1	1	176									
ADJUSTED PRESSURE	0.09	0.05	0.06	0.05	0.08	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	0.08										
ROUND DUCT SIZE	5.9	6	6	6	10.1	0	0	0	0	0	0	0	0	0	0	0	0	0	6.5										
INLET GRILL SIZE	8	8	8	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8										
	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
INLET GRILL SIZE	14	14	14	14	30	0	0	0	0	0	0	0	0	0	0	0	0	0	14										

TYPE: PEYTON 2
SITE NAME: LAMPONE INVESTMENTS

LO # 86807

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	<u>2</u> @ 21.2 cfm <u>42.4</u> cfm	
Other Bedrooms	<u>2</u> @ 10.6 cfm <u>21.2</u> cfm	
Kitchen & Bathrooms	<u>4</u> @ 10.6 cfm <u>42.4</u> cfm	
Other Rooms	<u>4</u> @ 10.6 cfm <u>42.4</u> cfm	
Table 9.32.3.A.	TOTAL <u>148.4</u> 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	63.6 cfm	

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

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANEE 65H	Location: BSMT
<u>63.6</u> cfm	☒ HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION				
CFM	ΔT °F	FACTOR	% LOSS	
63.6 CFM	X 78 F	X 1.08	X	0.25

SUPPLEMENTAL FANS		PANASONIC		
Location	Model	cfm	HVI	Sones
ENS	FV-05-11VK1	50	☒	0.3
BATH	FV-05-11VK1	50	☒	0.3
W/R	FV-05-11VK1	50	☒	0.3

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

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:	July-20

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#: 86807	Model: PEYTON 2	Builder: GREENPARK HOMES	Date: 29/07/2020																																																									
Volume Calculation			Air Change & Delta T Data																																																									
House Volume <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Level</th> <th>Floor Area (ft²)</th> <th>Floor Height (ft)</th> <th>Volume (ft³)</th> </tr> </thead> <tbody> <tr> <td>Bsmt</td> <td>869</td> <td>9</td> <td>7821</td> </tr> <tr> <td>First</td> <td>869</td> <td>10</td> <td>8342.4</td> </tr> <tr> <td>Second</td> <td>1066</td> <td>9</td> <td>9594</td> </tr> <tr> <td>Third</td> <td>0</td> <td>9</td> <td>0</td> </tr> <tr> <td>Fourth</td> <td>0</td> <td>9</td> <td>0</td> </tr> <tr> <td colspan="2" style="text-align: right;">Total:</td> <td></td> <td>25,757.4 ft³</td> </tr> <tr> <td colspan="2" style="text-align: right;">Total:</td> <td></td> <td>729.4 m³</td> </tr> </tbody> </table>			Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)	Bsmt	869	9	7821	First	869	10	8342.4	Second	1066	9	9594	Third	0	9	0	Fourth	0	9	0	Total:			25,757.4 ft³	Total:			729.4 m³	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">WINTER NATURAL AIR CHANGE RATE</td> <td style="width: 20%; text-align: center;">0.363</td> </tr> <tr> <td>SUMMER NATURAL AIR CHANGE RATE</td> <td style="text-align: center;">0.110</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="5" style="text-align: center;">Design Temperature Difference</th> </tr> <tr> <th></th> <th>Tin °C</th> <th>Tout °C</th> <th>ΔT °C</th> <th>ΔT °F</th> </tr> <tr> <td>Winter DTDh</td> <td style="text-align: center;">22</td> <td style="text-align: center;">-21</td> <td style="text-align: center;">43</td> <td style="text-align: center;">78</td> </tr> <tr> <td>Summer DTDc</td> <td style="text-align: center;">24</td> <td style="text-align: center;">31</td> <td style="text-align: center;">7</td> <td style="text-align: center;">13</td> </tr> </table>		WINTER NATURAL AIR CHANGE RATE	0.363	SUMMER NATURAL AIR CHANGE RATE	0.110	Design Temperature Difference						Tin °C	Tout °C	ΔT °C	ΔT °F	Winter DTDh	22	-21	43	78	Summer DTDc	24	31	7	13
Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)																																																									
Bsmt	869	9	7821																																																									
First	869	10	8342.4																																																									
Second	1066	9	9594																																																									
Third	0	9	0																																																									
Fourth	0	9	0																																																									
Total:			25,757.4 ft³																																																									
Total:			729.4 m³																																																									
WINTER NATURAL AIR CHANGE RATE	0.363																																																											
SUMMER NATURAL AIR CHANGE RATE	0.110																																																											
Design Temperature Difference																																																												
	Tin °C	Tout °C	ΔT °C	ΔT °F																																																								
Winter DTDh	22	-21	43	78																																																								
Summer DTDc	24	31	7	13																																																								
5.2.3.1 Heat Loss due to Air Leakage			6.2.6 Sensible Gain due to Air Leakage																																																									
$HL_{airb} = LR_{airh} \times \frac{V_b}{3.6} \times DTD_h \times 1.2$ 0.363 x 202.60 x 43 °C x 1.2 = 3814 W = 13014 Btu/h			$HG_{salb} = LR_{airc} \times \frac{V_b}{3.6} \times DTD_c \times 1.2$ = 0.110 x 202.60 x 7 °C x 1.2 = 190 W = 649 Btu/h																																																									
5.2.3.2 Heat Loss due to Mechanical Ventilation			6.2.7 Sensible heat Gain due to Ventilation																																																									
$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$ 64 CFM x 78 °F x 1.08 x 0.25 = 1336 Btu/h			$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$ 64 CFM x 13 °F x 1.08 x 0.25 = 220 Btu/h																																																									
5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)																																																												
$HL_{airr} = Level\ Factor \times HL_{airbv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{agclevel} + HL_{bgclevel})\}$																																																												
Level	Level Factor (LF)	HLairve Air Leakage + Ventilation Heat Loss (Btu/h)	Level Conductive Heat Loss: (HL _{clevel})	Air Leakage Heat Loss Multiplier (LF x HLairbv / HLlevel)																																																								
1	0.5	13,014	5,202	1.251																																																								
2	0.3		8,778	0.445																																																								
3	0.2		8,662	0.300																																																								
4	0		0	0.000																																																								
5	0		0	0.000																																																								
*HLairbv = Air leakage heat loss + ventilation heat loss *For a balanced or supply only ventilation system HLairve = 0																																																												

HEAT LOSS AND GAIN SUMMARY SHEET**MODEL:** PEYTON 2**BUILDER:** GREENPARK HOMES**SFQT:** 1935**LO#** 86807**SITE:** LAMPONE INVESTMENTS**DESIGN ASSUMPTIONS**

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-6	OUTDOOR DESIGN TEMP.	88
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:	3.57	ASSUMED (Y/N):	Y
AIR TIGHTNESS CATEGORY:	AVERAGE	ASSUMED (Y/N):	Y
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Y
HOUSE VOLUME (ft³):	25757.4	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:	7.5 ft
LENGTH: 47.0 ft	WIDTH: 24.0 ft	EXPOSED PERIMETER:	121.0 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	-

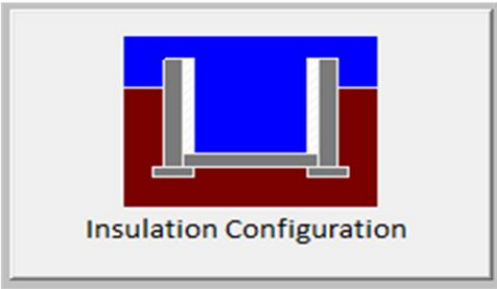
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Markham	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	14.3	 Insulation Configuration
Floor Width (m):	7.3	
Exposed Perimeter (m):	36.9	
Wall Height (m):	2.7	
Depth Below Grade (m):	2.29	
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):		966

TYPE: PEYTON 2

LO# 86807

Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Markham			
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):	7.50			
Building Configuration				
Type:	Semi			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	729.4			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	972.3 cm ²		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	30.0	30.0		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.363			
Cooling Air Leakage Rate (ACH/H):	0.110			

TYPE: PEYTON 2
LO# 86807