

SITE NAME: BARLASSINA				CODE AND ANY OTHER REFERENCED REQUIREMENTS.										DATE: Aug-22				WINTER NATURAL AIR CHANGE RATE 0.319				HEAT LOSS ΔT °F. 72				CSA-F280-12																	
BUILDER: GREENPARK HOMES				TYPE: CHERRY 12				GFA: 2354				LO# 98652				SUMMER NATURAL AIR CHANGE RATE 0.085				HEAT GAIN ΔT °F. 9				SB-12 PACKAGE A1																			
ROOM USE				MBR				ENS				BED-2				BEO-3				BEO-4				BATH				ENS-3															
EXP. WALL				13				21				11				37				14				11																			
CLG. HT.				9				9				9				9				9				9																			
FACTORS																																											
GRS.WALL AREA				LOSS GAIN				117				189				99				333				126				81				99											
GLAZING				LOSS GAIN				LOSS GAIN				LOSS GAIN				LOSS GAIN				LOSS GAIN				LOSS GAIN				LOSS GAIN															
NORTH				20.3	15.0	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				20.3	40.5	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												
SOUTH				20.3	23.9	0	0	0	12	243	287	0	0	0	24	487	573	12	243	287	12	243	287	24	487	573	0	0	0	0	0	0											
WEST				20.3	40.5	24	487	973	10	203	405	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
SKYLT.				35.5	99.8	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				19.1	2.4	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												
NET EXPOSED WALL				4.3	0.5	93	395	50	167	710	90	69	293	37	284	1207	153	114	485	62	69	293	37	75	319	41	0	0	0	0	0	0											
NET EXPOSED BSMT WALL ABOVE GR				3.4	0.4	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 CLG				1.2	0.5	390	477	205	108	132	57	184	225	97	231	282	122	156	191	82	99	121	52	120	147	63	12	31	14	0	0	0											
NO ATTIC EXPOSED CLG				2.6	1.1	0	0	0	0	0	0	24	63	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0											
EXPOSED FLOOR				2.4	0.3	0	0	0	0	0	0	184	447	57	60	146	19	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							
SLAB ON GRADE HEAT LOSS				0				0				0				0				0				0				0				0				0							
SUBTOTAL HT LOSS				1359				1288				1636				2629				919				658				984				691											
SUB TOTAL HT GAIN								1229				839				1434				1881				430				376															
LEVEL FACTOR / MULTIPLIER				0.20				0.27				0.20				0.27				0.20				0.27				0.20				0.27				0.20				0.27			
AIR CHANGE HEAT LOSS				371				351				446				717				251				179				268				29											
AIR CHANGE HEAT GAIN				51				35				60				79				18				16																			
DUCT LOSS				0				0				208				335				0				0				0				0											
DUCT GAIN				0				0				222				268				0				0				0				0											
HEAT GAIN PEOPLE				240				2				480				0				0				1				240				0				0				0			
HEAT GAIN APPLIANCES/LIGHTS								481				0				481				1				240				0				0				0							
TOTAL HT LOSS BTU/H				1729				1639				2291				3681				1169				837				1252				935											
TOTAL HT GAIN x 1.3 BTU/H				2913				1137				3168				3833				1520				509																			

ROOM USE		LIB		OIN		KT/FM		LAUN		PWO		FOY		BAS	
EXP. WALL		37		27		42		0		6		28		132	
CLG. HT.		10		10		10		9		10		10		9	
FACTORS															
GRS.WALL AREA		370		270		420		0		60		280		792	
LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN	
GLAZING		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN	
NORTH		20.3	15.0	0	0	0	0	0	0	0	0	0	0	0	0
EAST		20.3	40.5	30	608	1216	0	0	0	0	0	0	0	0	0
SOUTH		20.3	23.9	15	304	358	33	669	788	30	608	717	10	203	239
WEST		20.3	40.5	0	0	0	0	0	0	82	1662	3325	0	0	0
SKYLT.		35.5	99.8	0	0	0	0	0	0	0	0	0	0	0	0
DOORS		19.1	2.4	0	0	0	0	0	0	8	153	19	0	0	0
NET EXPOSED WALL		4.3	0.5	325	1382	176	237	1008	128	300	1275	162	48	917	117
NET EXPOSED BSMT WALL ABOVE GR		3.4	0.4	0	0	0	0	0	0	0	0	0	222	944	120
EXPOSED CLG		1.2	0.5	0	0	0	0	0	0	0	0	0	0	0	0
NO ATTIC EXPOSED CLG		2.6	1.1	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR		2.4	0.3	0	0	0	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS															
SLAB ON GRADE HEAT LOSS															
SUBTOTAL HT LOSS				2294		1677		3699		153		495		2063	
SUB TOTAL HT GAIN					1750		916		4223		35		383		475
LEVEL FACTOR / MULTIPLIER		0.30	0.39			0.30	0.39		0.30	0.39		0.30	0.39		
AIR CHANGE HEAT LOSS			883				646		1424		42		191		794
AIR CHANGE HEAT GAIN				73			38		176		1		16		20
DUCT LOSS			0			0		0		20		0		0	
DUCT GAIN			0		0		0		0		52		0		0
HEAT GAIN PEOPLE		240	0		0	0	0	0	0	0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS				481		481		481		481		0		0	
TOTAL HT LOSS BTU/H				3177		2322		5123		215		686		2858	
TOTAL HT GAIN x 1.3 BTU/H				2996		1866		6344		740		518		644	

TOTAL HEAT GAIN BTU/H:

28814

TONS: 2.40

LOSS DUE TO VENTILATION LOAD BTU/H: 1554

STRUCTURAL HEAT LOSS: 39793

TOTAL COMBINED HEAT LOSS BTU/H: 41347

SITE NAME: BARLASSINA
 BUILDER: GREENPARK HOMES

TYPE: CHERRY 12

DATE: Aug-22

GFA: 2354

LO# 98652

HEATING CFM 928 COOLING CFM 928
 TOTAL HEAT LOSS 39,793 TOTAL HEAT GAIN 28,616
 AIR FLOW RATE CFM 23.32 AIR FLOW RATE CFM 32.43

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

#GOODMAN
 GMEC960603BNA 60
 FAN SPEED
 LOW

AFUE = 96 %
 INPUT (BTU/H) = 60,000
 OUTPUT (BTU/H) = 57,600

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	11	8	3
R/A	0	0	5	1	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	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	22	23
ROOM NAME	MBR	ENS	BED-2	BED-2	BED-3	BED-4	BATH	BED-3	LIB	MBR	ENS-3	LIB	DIN	KT/FM	KT/FM	KT/FM	LAUN	PWD	FOY	BAS	BAS	BAS
RM LOSS MBH	0.86	1.64	1.15	1.15	1.84	1.17	0.84	1.84	1.59	0.86	1.25	1.59	2.32	1.71	1.71	1.71	0.21	0.69	2.86	4.27	4.27	4.27
CFM PER RUN HEAT	20	38	27	27	43	27	20	43	37	20	29	37	54	40	40	40	5	16	67	100	100	100
RM GAIN MBH	1.46	1.14	1.58	1.58	1.92	1.52	0.51	1.92	1.50	1.46	0.94	1.50	1.87	2.11	2.11	2.11	0.74	0.52	0.64	0.50	0.50	0.50
CFM PER RUN COOLING	47	37	51	51	62	49	17	62	49	47	30	49	61	69	69	69	24	17	21	16	16	16
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16
ACTUAL DUCT LGH.	35	43	57	60	64	35	42	54	52	36	37	44	27	27	29	21	46	39	26	29	16	39
EQUIVALENT LENGTH	150	200	180	120	180	140	150	160	130	160	150	130	140	80	130	110	130	110	140	130	120	140
TOTAL EFFECTIVE LENGTH	185	243	237	180	244	175	192	214	182	196	187	174	167	107	159	131	176	149	166	159	136	179
ADJUSTED PRESSURE	0.09	0.07	0.07	0.1	0.07	0.1	0.09	0.08	0.09	0.09	0.09	0.1	0.1	0.16	0.11	0.13	0.1	0.12	0.1	0.1	0.12	0.09
ROUND DUCT SIZE	5	4	5	5	6	6	4	6	5	5	4	5	5	5	5	5	4	4	5	6	6	6
HEATING VELOCITY (ft/min)	147	436	198	198	219	138	229	219	272	147	333	272	396	294	294	294	57	184	492	510	510	510
COOLING VELOCITY (ft/min)	345	424	374	374	316	250	195	316	360	345	344	360	448	507	507	507	275	195	154	82	82	82
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	4X10	4X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10
TRUNK	C	D	A	B	A	D	D	A	A	C	B	A	B	D	C	C	B	B	B	C	D	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
1	MBR	0.86	20	1.46	47	0.17	35	150	185	0.09	5	147	345	3X10	C
2	ENS	1.64	38	1.14	37	0.17	43	200	243	0.07	4	436	424	3X10	D
3	BED-2	1.15	27	1.58	51	0.17	57	180	237	0.07	5	198	374	3X10	A
4	BED-2	1.15	27	1.58	51	0.17	60	120	180	0.1	5	198	374	3X10	B
5	BED-3	1.84	43	1.92	62	0.17	64	180	244	0.07	6	219	316	4X10	A
6	BED-4	1.17	27	1.52	49	0.17	35	140	175	0.1	6	138	250	4X10	D
7	BATH	0.84	20	0.51	17	0.17	42	150	192	0.09	4	229	195	3X10	D
8	BED-3	1.84	43	1.92	62	0.17	54	160	214	0.08	6	219	316	4X10	A
9	LIB	1.59	37	1.50	49	0.17	52	130	182	0.09	5	272	360	3X10	A
10	MBR	0.86	20	1.46	47	0.17	36	160	196	0.09	5	147	345	3X10	C
11	ENS-3	1.25	29	0.94	30	0.17	37	150	187	0.09	4	333	344	3X10	B
12	LIB	1.59	37	1.50	49	0.17	44	130	174	0.1	5	272	360	3X10	A
13	DIN	2.32	54	1.87	61	0.17	27	140	167	0.1	5	396	448	3X10	B
14	KT/FM	1.71	40	2.11	69	0.17	27	80	107	0.16	5	294	507	3X10	D
15	KT/FM	1.71	40	2.11	69	0.17	29	130	159	0.11	5	294	507	3X10	C
16	KT/FM	1.71	40	2.11	69	0.17	21	110	131	0.13	5	294	507	3X10	C
17	LAUN	0.21	5	0.74	24	0.17	46	130	176	0.1	4	57	275	3X10	B
18	PWD	0.69	16	0.52	17	0.17	39	110	149	0.12	4	184	195	3X10	B
19	FOY	2.86	67	0.64	21	0.17	26	140	166	0.1	5	492	154	3X10	B
21	BAS	4.27	100	0.50	16	0.16	29	130	159	0.1	6	510	82	4X10	C
22	BAS	4.27	100	0.50	16	0.16	16	120	136	0.12	6	510	82	4X10	D
23	BAS	4.27	100	0.50	16	0.16	39	140	179	0.09	6	510	82	4X10	A

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)	RETURN AIR TRUNK SIZE	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)
TRUNK A	287	0.07	9.1	10	8	517	0	0.00	0	0	TRUNK G	0	0.00	0	0	8
TRUNK B	485	0.07	11.1	14	8	624	0	0.00	0	0	TRUNK H	0	0.00	0	0	8
TRUNK C	220	0.09	7.7	8	8	495	0	0.00	0	0	TRUNK I	0	0.00	0	0	8
TRUNK D	445	0.07	10.7	14	8	572	0	0.00	0	0	TRUNK J	0	0.00	0	0	8
TRUNK E	0	0.00	0	0	8	0	0	0.00	0	0	TRUNK K	0	0.00	0	0	8
TRUNK F	0	0.00	0	0	8	0	0	0.00	0	0	TRUNK L	0	0.00	0	0	8
RETURN AIR #	1	2	3	4	5	6	0	0	0	0	BR	0	0.05	0	0	8
AIR VOLUME	135	95	85	75	75	360	0	0	0	0	TRUNK O	0	0.05	0	0	8
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	TRUNK P	0	0.05	0	0	8
ACTUAL DUCT LGH.	45	36	64	68	69	38	1	1	1	1	TRUNK Q	0	0.05	0	0	8
EQUIVALENT LENGTH	175	140	195	235	240	150	0	0	0	0	TRUNK R	0	0.05	0	0	8
TOTAL EFFECTIVE LH	220	176	259	303	309	188	1	1	1	1	TRUNK S	0	0.05	0	0	8
ADJUSTED PRESSURE	0.07	0.08	0.06	0.05	0.05	0.08	14.80	14.80	14.80	14.80	TRUNK T	0	0.05	0	0	8
ROUND DUCT SIZE	6.8	5.8	6	6	6	9.6	0	0	0	0	TRUNK U	0	0.05	0	0	8
INLET GRILL SIZE	8	8	8	8	8	8	0	0	0	0	TRUNK V	0	0.05	0	0	8
INLET GRILL SIZE	X	X	X	X	X	X	X	X	X	X	TRUNK W	0	0.05	0	0	8
INLET GRILL SIZE	14	14	14	14	14	30	0	0	0	0	TRUNK X	928	0.05	15.3	28	8
											TRUNK Y	615	0.05	13.1	20	8
											TRUNK Z	255	0.05	9.5	10	8
											DROP	928	0.05	15.3	24	10

TYPE: CHERRY 12
SITE NAME: BARLASSINA

LO # 98652

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
TOTAL	79.5	cfm

SUPPLEMENTAL VENTILATION CAPACITY 9.32.3.5.

Total Ventilation Capacity	180.2	cfm
Less Principal Ventil. Capacity	79.5	cfm
Required Supplemental Capacity	100.7	cfm

PRINCIPAL EXHAUST FAN CAPACITY

Model: VANEE V150H Location: BSMT

79.5 cfm ☒ HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION

CFM		$\Delta T ^\circ F$		FACTOR		% LOSS
79.5 CFM	X	72 F	X	1.08	X	0.25

SUPPLEMENTAL FANS BY INSTALLING CONTRACTOR

Location	Model	cfm	HVI	Sones
ENS	BY INSTALLING CONTRACTOR	50	<input checked="" type="checkbox"/>	3.5
BATH	BY INSTALLING CONTRACTOR	50	<input checked="" type="checkbox"/>	3.5
ENS-3	BY INSTALLING CONTRACTOR	50	<input checked="" type="checkbox"/>	3.5
PWD	BY INSTALLING CONTRACTOR	50	<input checked="" type="checkbox"/>	3.5

HEAT RECOVERY VENTILATOR 9.32.3.11.

Model: VANEE V150H

150 cfm high 35 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: *Michael O'Rourke*

HRAI # 001820

Date: August-22

CSA F280-12 Residential Heat Loss and Heat Gain Calculations																																																												
Formula Sheet (For Air Leakage / Ventilation Calculation)																																																												
LO#: 98652		Model: CHERRY 12		Date: 2022-08-30																																																								
Volume Calculation			Air Change & Delta T Data																																																									
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5.2.3.1 Heat Loss due to Air Leakage			6.2.6 Sensible Gain due to Air Leakage																																																									
$HL_{airb} = LR_{airh} \times \frac{V_b}{3.6} \times DTD_h \times 1.2$ <p>0.319 x 249.55 x 40 °C x 1.2 = 3847 W</p> <p>= 13127 Btu/h</p>			$HG_{salb} = LR_{airc} \times \frac{V_b}{3.6} \times DTD_c \times 1.2$ <p>= 0.085 x 249.55 x 5 °C x 1.2 = 129 W</p> <p>= 442 Btu/h</p>																																																									
5.2.3.2 Heat Loss due to Mechanical Ventilation			6.2.7 Sensible heat Gain due to Ventilation																																																									
$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$ <p>80 CFM x 72 °F x 1.08 x 0.25 = 1554 Btu/h</p>			$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$ <p>80 CFM x 9 °F x 1.08 x 0.25 = 197 Btu/h</p>																																																									
5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)																																																												
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<p>*HLairbv = Air leakage heat loss + ventilation heat loss</p> <p>*For a balanced or supply only ventilation system HLairv = 0</p>																																																												

Michael O'Rourke
BCIN# 19669

Michael O'Rourke

HEAT LOSS AND GAIN SUMMARY SHEET**MODEL:** CHERRY 12**BUILDER:** GREENPARK HOMES**SFQT:** 2354**LO#** 98652**SITE:** BARLASSINA**DESIGN ASSUMPTIONS**

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	0	OUTDOOR DESIGN TEMP.	84
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	75
		WINDOW SHGC	0.50

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):	31726.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
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: 57.0 ft	WIDTH: 25.0 ft	EXPOSED PERIMETER:	132.0 ft

2012 OBC - COMPLIANCE PACKAGE**Component**

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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	96%	-
HRV/ERV Minimum Efficiency	75%	-
Domestic Hot Water Heater Minimum EF	0.8	-

INDIVIDUAL BCIN: 19669

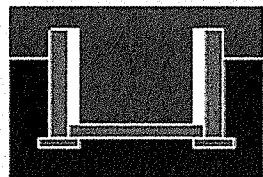
MICHAEL O'ROURKE



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Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Cambridge	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	17.4	 Insulation Configuration
Floor Width (m):	7.6	
Exposed Perimeter (m):	40.2	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.83	
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):	1250	

TYPE: CHERRY 12
LO# 98652

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Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Cambridge			
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):	898.4			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1197.6 cm ²		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	37.5	37.5		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.319			
Cooling Air Leakage Rate (ACH/H):	0.085			

TYPE: CHERRY 12

LO# 98652

OPTIONAL
COLDCELLAR

OPTIONAL
COLDCELLAR

BR-6" C/W DAMPER

BSMT PLAN EL-1

BSMT PLAN EL-2

BSMT PLAN EL-2

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.

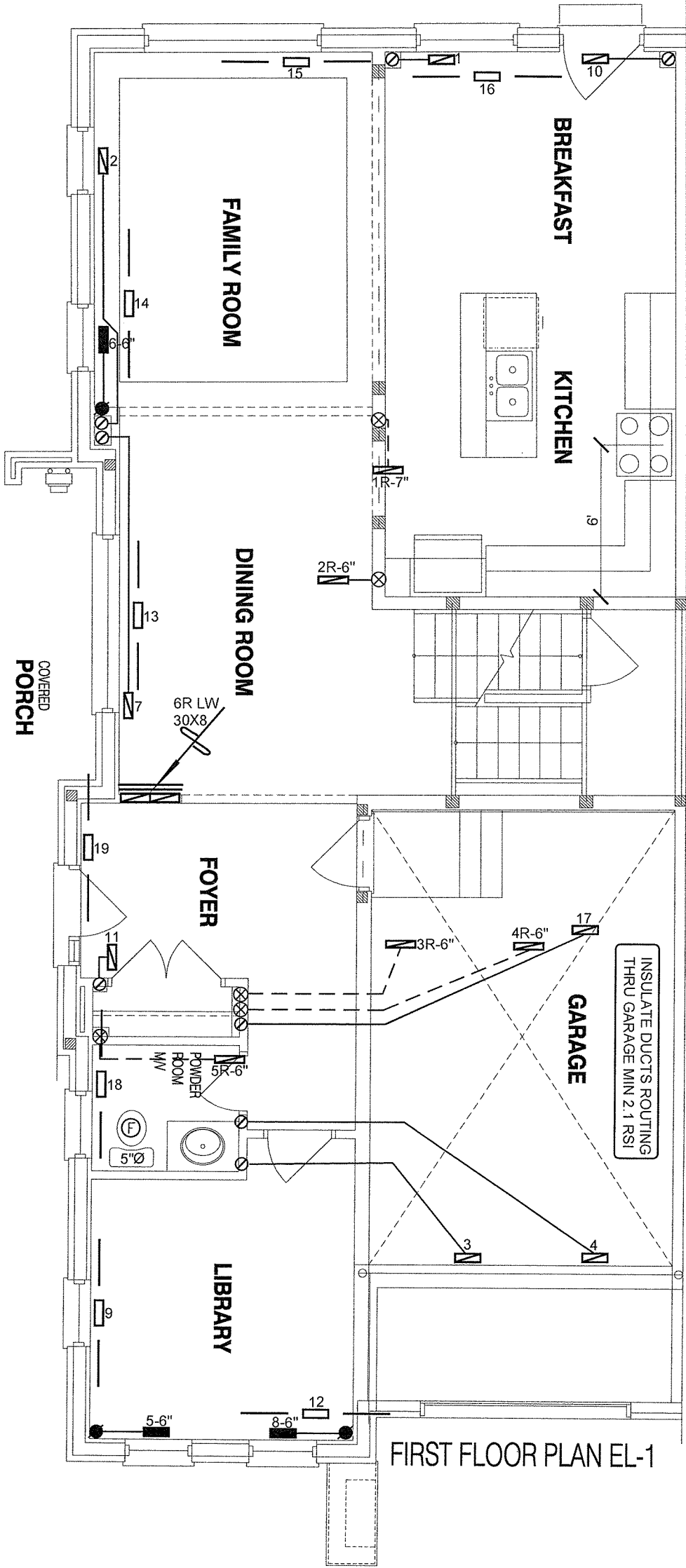
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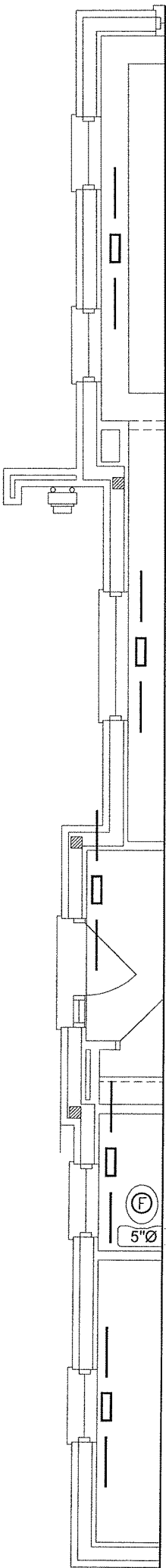
HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
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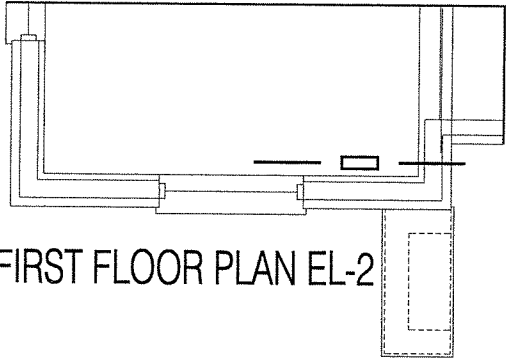
Client		<div><div>HVACDESIGNS LTD.</div><div>375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services</div></div>	HEAT LOSS 41347 BTU/H		# OF RUNS S/A R/A FANS				Sheet Title			
GREENPARK HOMES			UNIT DATA		3RD FLOOR					BASEMENT HEATING LAYOUT		
Project Name		GOODMAN		2ND FLOOR		11	5	4				
BARLASSINA CAMBRIDGE, ONTARIO		MODEL GMEC960603BNA		1ST FLOOR		8	1	2				
Block 119 Units 25 to 30		INPUT 60 MBTU/H		BASEMENT		3	1	0	Date	AUG/2022		
CHERRY 12		OUTPUT 57.6 MBTU/H		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"
2354 sqft		COOLING 2.5 TONS		BCIN# 19669								
		FAN SPEED 928 cfm @ 0.6" w.c.		LO# 98652								



FIRST FLOOR PLAN EL-1



FIRST FLOOR PLAN EL-2



FIRST FLOOR PLAN EL-2

I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.3 OF THE BUILDING CODE.

Michael O'Rourke
Michael O'Rourke, BCIN# 19669
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CSA-F280-12
PACKAGE A1

HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
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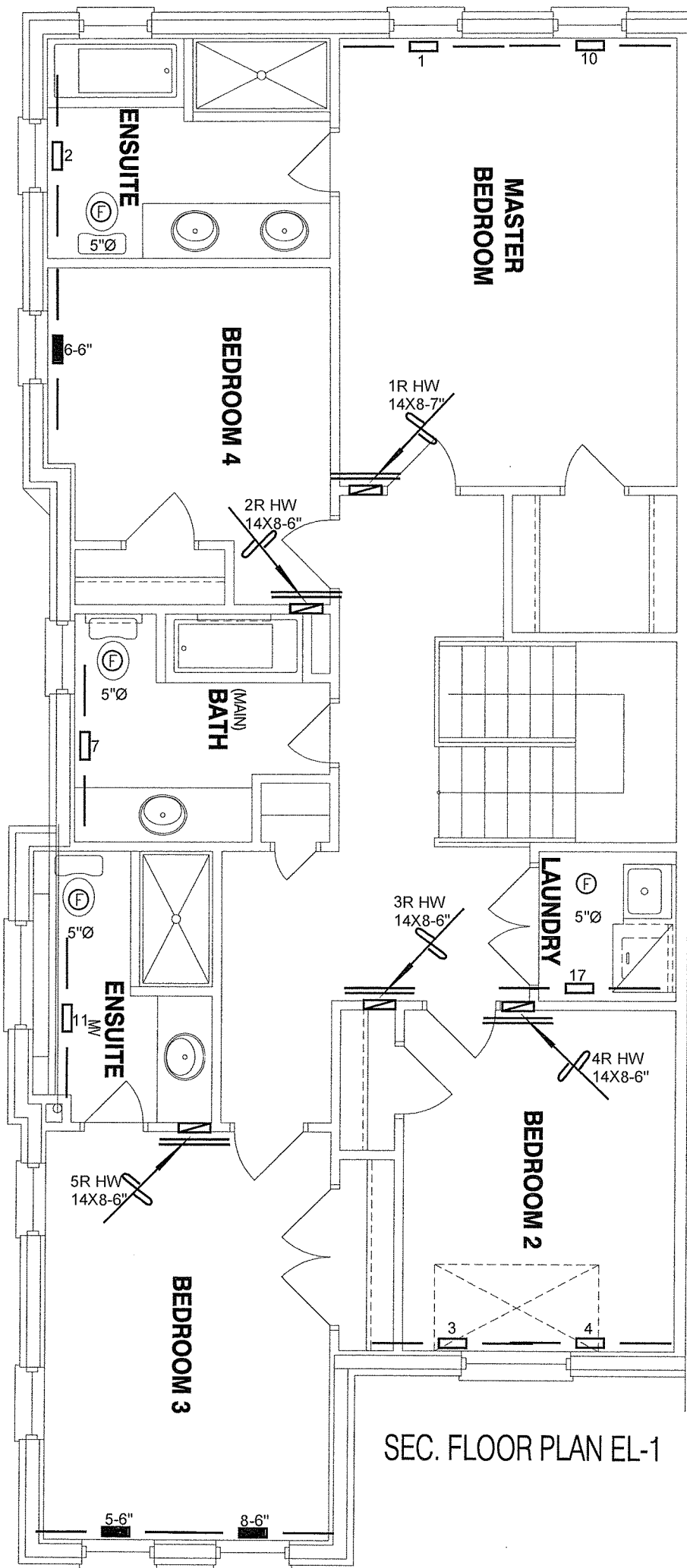
Client
GREENPARK HOMES
Project Name
BARLASSINA
CAMBRIDGE, ONTARIO
Block 119 Units 25 to 30
CHERRY 12 2354 sqft

HVACDESIGNS LTD.

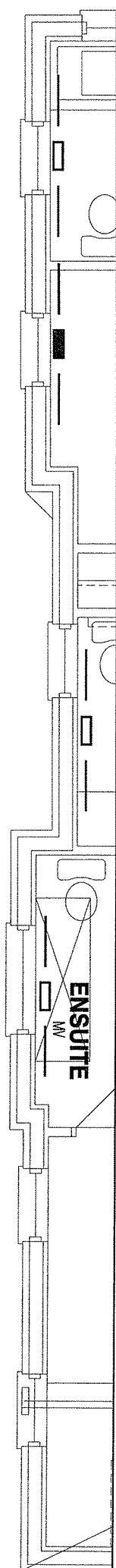
375 Finley Ave. Suite 202 - Ajax, Ontario
L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375
Email: info@hvacdsgns.ca
Web: www.hvacdsgns.ca
Specializing in Residential Mechanical Design Services

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.

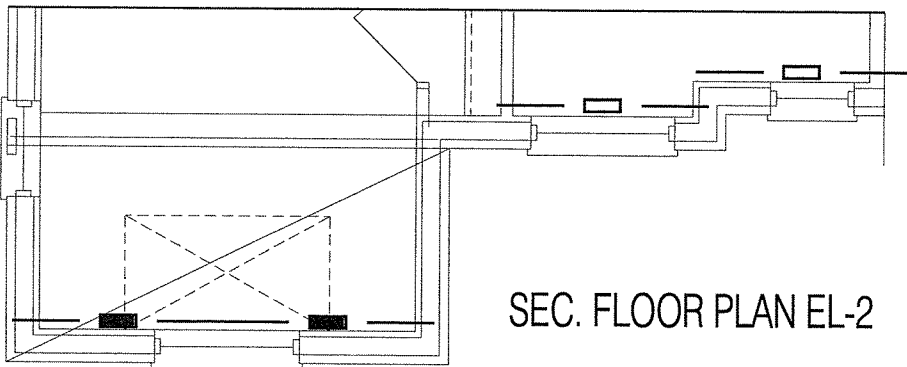
Sheet Title
FIRST FLOOR
HEATING
LAYOUT
Date
AUG/2022
Scale
3/16" = 1'-0"
BCIN# 19669
LO# 98652



SEC. FLOOR PLAN EL-1



SEC. FLOOR PLAN EL-2



SEC. FLOOR PLAN EL-2


CSA-F280-12
PACKAGE A1

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Project Name			Date	AUG/2022
BARLASSINA CAMBRIDGE, ONTARIO			Scale	3/16" = 1'-0"
Block 119 Units 25 to 30			BCIN# 19669	
CHERRY 12			LO#	98652
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