

SITE NAME: LECCO RIDGE

BUILDER: GREENPARK HOMES

TYPE: JUNIPER 3

GFA: 2765

DATE: Dec-16

LO# 71348

WINTER NATURAL AIR CHANGE RATE 0.303

SUMMER NATURAL AIR CHANGE RATE 0.104

HEAT LOSS ΔT °F. 72

HEAT GAIN ΔT °F. 14

CSA-F280-12

ENERGYSTAR

ROOM USE	EXP. WALL	CLG. HT.	MBR	ENS	BED-2	BED-3	BED-4	BATH	ENS-2				
			16	31	23	43	32	10	16				
			9	9	10	10	9	9	9				
GRS.WALL AREA	FACTORS		150	279	230	430	288	90	144				
GLAZING	LOSS GAIN		LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN				
NORTH	17.9 15.8	0 0 0	23 411 364		0 0 0	0 0 0	0 0 0	0 0 0	0 0 0				
EAST	17.9 41.4	0 0 0	0 0 0		45 803 1864	45 803 1864	0 0 0	0 0 0	13 232 538				
SOUTH	17.9 24.8	0 0 0	0 0 0		0 0 0	0 0 0	0 0 0	7 125 173	0 0 0				
WEST	17.9 41.4	36 643 1491	16 286 663		0 0 0	0 0 0	16 286 663	0 0 0	0 0 0				
SKYL.T.	30.6 101.2	0 0 0	0 0 0		0 0 0	0 0 0	0 0 0	0 0 0	0 0 0				
DOORS	24.1 4.7	0 0 0	0 0 0		0 0 0	0 0 0	0 0 0	0 0 0	0 0 0				
NET EXPOSED WALL	2.6 0.5	114 299 58	240 628 121		185 484 94	385 1007 195	272 712 138	83 217 42	131 343 66				
NET EXPOSED BSMT WALL ABOVE GR	3.3 0.6	0 0 0	0 0 0		0 0 0	0 0 0	0 0 0	0 0 0	0 0 0				
EXPOSED CLG	1.4 0.7	336 463 230	200 276 137		196 270 134	193 266 132	231 318 158	162 223 111	60 83 41				
NO ATTIC EXPOSED CLG	2.2 1.1	0 0 0	20 45 22		70 157 78	95 213 106	0 0 0	0 0 0	0 0 0				
EXPOSED FLOOR	2.2 0.4	0 0 0	0 0 0		266 583 113	0 0 0	0 0 0	0 0 0	60 132 25				
BASEMENT/CRAWL HEAT LOSS		0	0		0	0	0	0	0				
SLAB ON GRADE HEAT LOSS		0	0		0	0	0	0	0				
SUBTOTAL HT LOSS		1405	1645		2298	2290	1316	565	789				
SUB TOTAL HT GAIN		1779	1308		2283	2297	959	326	671				
LEVEL FACTOR / MULTIPLIER	0.20 0.29	0.20 0.29			0.20 0.29	0.20 0.29	0.20 0.29	0.20 0.29	0.20 0.29				
AIR CHANGE HEAT LOSS		406	475		664	661	380	163	228				
AIR CHANGE HEAT GAIN		137	101		176	177	74	25	52				
DUCT LOSS		0	0		296	0	0	0	102				
DUCT GAIN		0	0		334	0	0	0	72				
HEAT GAIN PEOPLE	240	2	480	0	1	240	1	240	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS			637	637		637		637					
TOTAL HT LOSS BTU/H		1811	2120		3258	2951	1696	729	1119				
TOTAL HT GAIN x 1.3 BTU/H		3943	2659		4770	4356	2482	457	1034				

TOWN OF MILTON
PLANNING AND DEVELOPMENT
JUNIPER 3 MODEL
BUILDING: REVIEWED
SCOTT SHERRIFFS APR 7, 2017
PLANS EXAMINER DATE
Neither the issuance of a permit nor carrying out of inspections by the Town of Milton relieves the owner from full responsibility for compliance with the provisions of the Ontario Building Code Act and the Ontario Building Code, both as amended, as well as other applicable statutes and regulations of the Province of Ontario, By-laws of the Region of Halton and Town of Milton

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MAR 29, 2017
JUNIPER 3
BUILDING DIVISION

ROOM USE	EXP. WALL	CLG. HT.	LVIDN	KT/FM	LAUN	W/R	FOY	PANT	WOD	BAS
			48	51	35	7	18	14	58	168
			10	10	12	10	11	10	10	10
GRS.WALL AREA	FACTORS		480	510	420	70	198	140	551	1310
GLAZING	LOSS GAIN		LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN
NORTH	17.9 15.8	20 357 317		0 0 0	9 161 143	0 0 0	0 0 0	0 0 0	8 143 127	10 179 158
EAST	17.9 41.4	20 357 828		0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
SOUTH	17.9 24.8	48 857 1189		0 0 0	0 0 0	7 125 173	0 0 0	0 0 0	0 0 0	0 0 0
WEST	17.9 41.4	0 0 0		102 1821 4225	0 0 0	0 0 0	0 0 0	7 125 290	0 0 0	0 0 0
SKYL.T.	30.6 101.2	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	24.1 4.7	0 0 0		0 0 0	20 481 93	0 0 0	45 1082 209	0 0 0	0 0 0	20 481 93
NET EXPOSED WALL	2.6 0.5	392 1026 198		408 1068 206	391 1023 198	63 165 32	153 400 77	133 348 67	0 0 0	0 0 0
NET EXPOSED BSMT WALL ABOVE GR	3.3 0.6	0 0 0		0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	340 1135 219	286 955 185
EXPOSED CLG	1.4 0.7	0 0 0		0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
NO ATTIC EXPOSED CLG	2.2 1.1	0 0 0		10 22 11	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
EXPOSED FLOOR	2.2 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
BASEMENT/CRAWL HEAT LOSS		0		0	0	0	0	0	0	5359
SLAB ON GRADE HEAT LOSS		0		0	0	0	0	0	0	
SUBTOTAL HT LOSS		2597		2911	1665	290	1483	473	1278	6973
SUB TOTAL HT GAIN		2532		4442	433	205	287	357	346	436
LEVEL FACTOR / MULTIPLIER	0.30 0.47	0.30 0.47		0.30 0.47	0.30 0.47	0.30 0.47	0.30 0.47	0.30 0.47	0.50 0.90	
AIR CHANGE HEAT LOSS		1231		1380	789	137	703	224		7443
AIR CHANGE HEAT GAIN		196		343	33	16	22	28		60
DUCT LOSS		0		0	0	0	0	0		0
DUCT GAIN		0		0	0	0	0	0		0
HEAT GAIN PEOPLE	240	0	0	0	0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS			637	637		637		637		637
TOTAL HT LOSS BTU/H		3828		4291	2454	427	2186	697	1278	14417
TOTAL HT GAIN x 1.3 BTU/H		4374		7049	1435	287	402	500	450	645

TOTAL HEAT GAIN BTU/H:

35298

TONS: 2.94

LOSS DUE TO VENTILATION LOAD BTU/H: 2354

STRUCTURAL HEAT LOSS: 43261

TOTAL COMBINED HEAT LOSS BTU/H: 45614

SITE NAME: LECCO RIDGE
BUILDER: GREENPARK HOMES

TYPE: JUNIPER 3

DATE: Dec-16

GFA: 2765

LO# 71348

HEATING CFM 1131 COOLING CFM 1131
TOTAL HEAT LOSS 43,261 TOTAL HEAT GAIN 34,843
AIR FLOW RATE CFM 26.14 AIR FLOW RATE CFM 32.46

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

#AMANA
AMEC960603BNA 60
FAN SPEED LOW
MEDLOW
MEDIUM
MEDIUM HIGH
HIGH 1131

AFUE = 96.0 %
INPUT (BTU/H) = 60,000
OUTPUT (BTU/H) = 57,600
DESIGN CFM = 1131
CFM @ .6" E.S.P.

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	10	9	4
R/A	0	0	4	2	1

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

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

plenum pressure s/a 0.18
max s/a dif press. loss 0.03
min adjusted pressure s/a 0.15
r/a pressure 0.17
r/a grille press. Loss 0.02
adjusted pressure r/a 0.15

TEMPERATURE RISE 47 °F

RUN #	1	2	3	4	5	6	7	8	9	11	12	13	14	15	16	17	18	19	20	21	22	23	24
ROOM NAME	MBR	ENS	ENS	BED-2	BED-3	BED-4	BATH	BED-2	BED-3	ENS-2	LV/DN	LV/DN	KT/FM	KT/FM	KT/FM	LAUN	W/R	FOY	PANT	BAS	BAS	BAS	BAS
RM LOSS MBH.	1.81	1.06	1.06	1.63	1.48	1.70	0.73	1.63	1.48	1.12	1.91	1.91	1.43	1.43	1.43	2.45	0.43	2.19	0.70	3.92	3.92	3.92	3.92
CFM PER RUN HEAT	47	28	28	43	39	44	19	43	39	29	50	50	37	37	37	64	11	57	18	103	103	103	103
RM GAIN MBH.	3.94	1.33	1.33	2.38	2.18	2.48	0.46	2.38	2.18	1.03	2.19	2.19	2.35	2.35	2.35	1.43	0.29	0.40	0.50	0.27	0.27	0.27	0.27
CFM PER RUN COOLING	128	43	43	77	71	81	15	77	71	34	71	71	76	76	76	47	9	13	16	9	9	9	9
ADJUSTED PRESSURE	0.15	0.17	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	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH.	39	51	45	48	52	32	26	52	55	54	16	32	21	27	39	36	9	42	44	14	30	19	29
EQUIVALENT LENGTH	140	120	150	130	150	170	150	120	180	110	80	110	160	110	150	170	110	110	130	130	130	90	120
TOTAL EFFECTIVE LENGTH	179	171	195	178	202	202	176	172	235	164	96	142	181	137	189	206	119	152	174	144	160	109	149
ADJUSTED PRESSURE	0.08	0.1	0.09	0.1	0.09	0.08	0.1	0.1	0.07	0.1	0.18	0.12	0.1	0.13	0.09	0.08	0.14	0.11	0.1	0.11	0.1	0.15	0.11
ROUND DUCT SIZE	6	4	4	5	5	5	4	5	5	4	5	5	5	5	5	5	4	4	4	6	6	6	6
HEATING VELOCITY (ft/min)	240	321	321	316	286	323	218	316	286	333	367	367	272	272	272	470	126	654	207	525	525	525	525
COOLING VELOCITY (ft/min)	653	493	493	565	521	595	172	565	521	390	521	521	558	558	558	345	103	149	184	46	46	46	46
OUTLET GRILL SIZE	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10	4X10
TRUNK	B	A	A	B	C	B	D	B	C	B	D	C	B	B	A	A	D	C	A	B	A	D	C

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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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	278	0.08	8.7	10	x	8	500		TRUNK G	0	0.00	0	0	x	8
TRUNK B	661	0.08	12	18	x	8	661		TRUNK H	0	0.00	0	0	x	8
TRUNK C	288	0.07	9.1	10	x	8	518		TRUNK I	0	0.00	0	0	x	8
TRUNK D	471	0.07	10.9	14	x	8	606		TRUNK J	0	0.00	0	0	x	8
TRUNK E	0	0.00	0	0	x	8	0		TRUNK K	0	0.00	0	0	x	8
TRUNK F	0	0.00	0	0	x	8	0		TRUNK L	0	0.00	0	0	x	8

RETURN AIR TRUNK SIZE

	TRUNK	STATIC	ROUND	RECT			VELOCITY
	CFM	PRESS.	DUCT	DUCT			(ft/min)
TRUNK O	0	0.05	0	0	x	8	0
TRUNK P	0	0.05	0	0	x	8	0
TRUNK Q	0	0.05	0	0	x	8	0
TRUNK R	0	0.05	0	0	x	8	0
TRUNK S	0	0.05	0	0	x	8	0
TRUNK T	0	0.05	0	0	x	8	0
TRUNK U	0	0.05	0	0	x	8	0
TRUNK V	0	0.05	0	0	x	8	0
TRUNK W	0	0.05	0	0	x	8	0
TRUNK X	1131	0.05	16.5	32	x	8	636
TRUNK Y	365	0.05	10.8	14	x	8	469
TRUNK Z	270	0.05	9.7	12	x	8	405
DROP	1131	0.05	16.5	24	x	10	679

RETURN AIR #	1	2	3	4	5	6	0	0	0	0	0	0	0	0	0	BR
AIR VOLUME	185	85	75	95	205	290	0	0	0	0	0	0	0	0	0	196
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
ACTUAL DUCT LGH.	53	57	63	46	20	25	1	1	1	1	1	1	1	1	1	16
EQUIVALENT LENGTH	140	175	210	175	135	175	0	0	0	0	0	0	0	0	0	145
TOTAL EFFECTIVE LH	193	232	273	221	155	200	1	1	1	1	1	1	1	1	1	161
ADJUSTED PRESSURE	0.08	0.06	0.05	0.07	0.10	0.07	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	0.09
ROUND DUCT SIZE	7.5	6	6	6	7.3	9.1	0	0	0	0	0	0	0	0	0	7.4
INLET GRILL SIZE	8	8	8	8	8	8	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
INLET GRILL SIZE	14	14	14	14	14	30	0	0	0	0	0	0	0	0	0	14

TYPE: JUNIPER 3
SITE NAME: LECCO RIDGE

LO # 71348

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

COMBUSTION APPLIANCES		9.32.3.1(1)
a) <input checked="" type="checkbox"/>	Direct vent (sealed combustion) only	
b) <input type="checkbox"/>	Positive venting induced draft (except fireplaces)	
c) <input type="checkbox"/>	Natural draft, B-vent or induced draft gas fireplace	
d) <input type="checkbox"/>	Solid Fuel (including fireplaces)	
e) <input type="checkbox"/>	No Combustion Appliances	

HEATING SYSTEM	
<input checked="" type="checkbox"/> Forced Air	<input type="checkbox"/> Non Forced Air
<input type="checkbox"/> Electric Space Heat	

HOUSE TYPE		9.32.1(2)
<input checked="" type="checkbox"/>	I Type a) or b) appliance only, no solid fuel	
<input type="checkbox"/>	II Type I except with solid fuel (including fireplaces)	
<input type="checkbox"/>	III Any Type c) appliance	
<input type="checkbox"/>	IV Type I, or II with electric space heat	
<input type="checkbox"/>	Other: Type I, II or IV no forced air	

SYSTEM DESIGN OPTIONS		O.N.H.W.P.
<input type="checkbox"/>	1 Exhaust only/Forced Air System	
<input type="checkbox"/>	2 HRV with Ducting/Forced Air System	
<input checked="" type="checkbox"/>	3 HRV Simplified/connected to forced air system	
<input type="checkbox"/>	4 HRV with Ducting/non forced air system	
<input type="checkbox"/>	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	4	@ 10.6 cfm	42.4	cfm	
Table 9.32.3.A.	TOTAL			169.6	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	169.6	cfm
Less Principal Ventil. Capacity	86	cfm
Required Supplemental Capacity	83.6	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANE 40H+	Location: BSMT
86.0 cfm	3.0 sones
<input checked="" type="checkbox"/> HVI Approved	

PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	ΔT °F	FACTOR	% LOSS
86.0 CFM	X 72 F	X 1.08	X 0.35

SUPPLEMENTAL FANS		NUTONE		
Location	Model	cfm	HVI	Sones
ENS	QTXEN050C	50	✓	0.3
BATH	QTXEN050C	50	✓	0.3
ENS-2	QTXEN050C	50	✓	0.3
W/R	QTXEN050C	50	✓	0.3

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANE 40H+		
86	cfm high	37 cfm low
65	% Sensible Efficiency	<input checked="" type="checkbox"/> HVI Approved
@ 32 deg F (0 deg C)		

LOCATION OF INSTALLATION	
Lot:	C
Township	P
Address	
Roll #	

**RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 3
BUILDING DIVISION**

BUILDER:		TOWN OF MILTON PLANNING AND DEVELOPMENT JUNIPER 3 MODEL	
Name:	G	BUILDING: REVIEWED SCOTT SHERRIFFS	
Address:		APR 7, 2017	
City:		PLANS EXAMINER	
Telephone #:		DATE	
Neither the issuance of a permit nor carrying out of inspections by the Town of Milton relieves the owner from full responsibility for compliance with the provisions of the Ontario Building Code Act and the Ontario Building Code, both as amended, as well as other applicable statutes and regulations of the Province of Ontario, By-laws of the Region of Halton and Town of Milton			

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:	December-16

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: JUNIPER 3	BUILDER: GREENPARK HOMES
SFQT: 2765	LO# 71348
	SITE: LECCO RIDGE

DESIGN ASSUMPTIONS

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	0	OUTDOOR DESIGN TEMP.	86
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):	37957.5	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft ²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.9 ft
LENGTH: 46.0 ft	WIDTH: 38.0 ft	EXPOSED PERIMETER:	168.0 ft

2012 OBC - COMPLIANCE PACKAGE

Component	Compliance Package ENERGYSTAR
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	20 + 5
Basement Walls Minimum RSI (R)-Value	20
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	ZONE 2
Skylights Maximum U-Value	ZONE 2
Space Heating Equipment Minimum AFUE	0.95
HRV Minimum Efficiency	65%
Domestic Hot Water Heater Minimum EF	90% TE

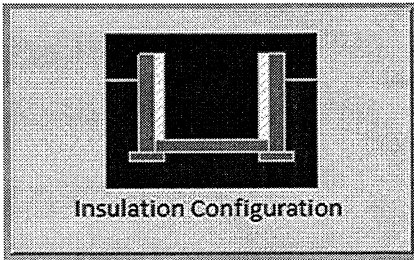
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BUILDING DIVISION

INDIVIDUAL BCIN: 19669
MICHAEL O'ROURKE

Michael O'Rourke

Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Milton	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	14.0	 Insulation Configuration
Floor Width (m):	11.6	
Exposed Perimeter (m):	0.0	
Wall Height (m):	2.9	
Depth Below Grade (m):	2.1	
Window Area (m ²):	1.7	
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):		1570

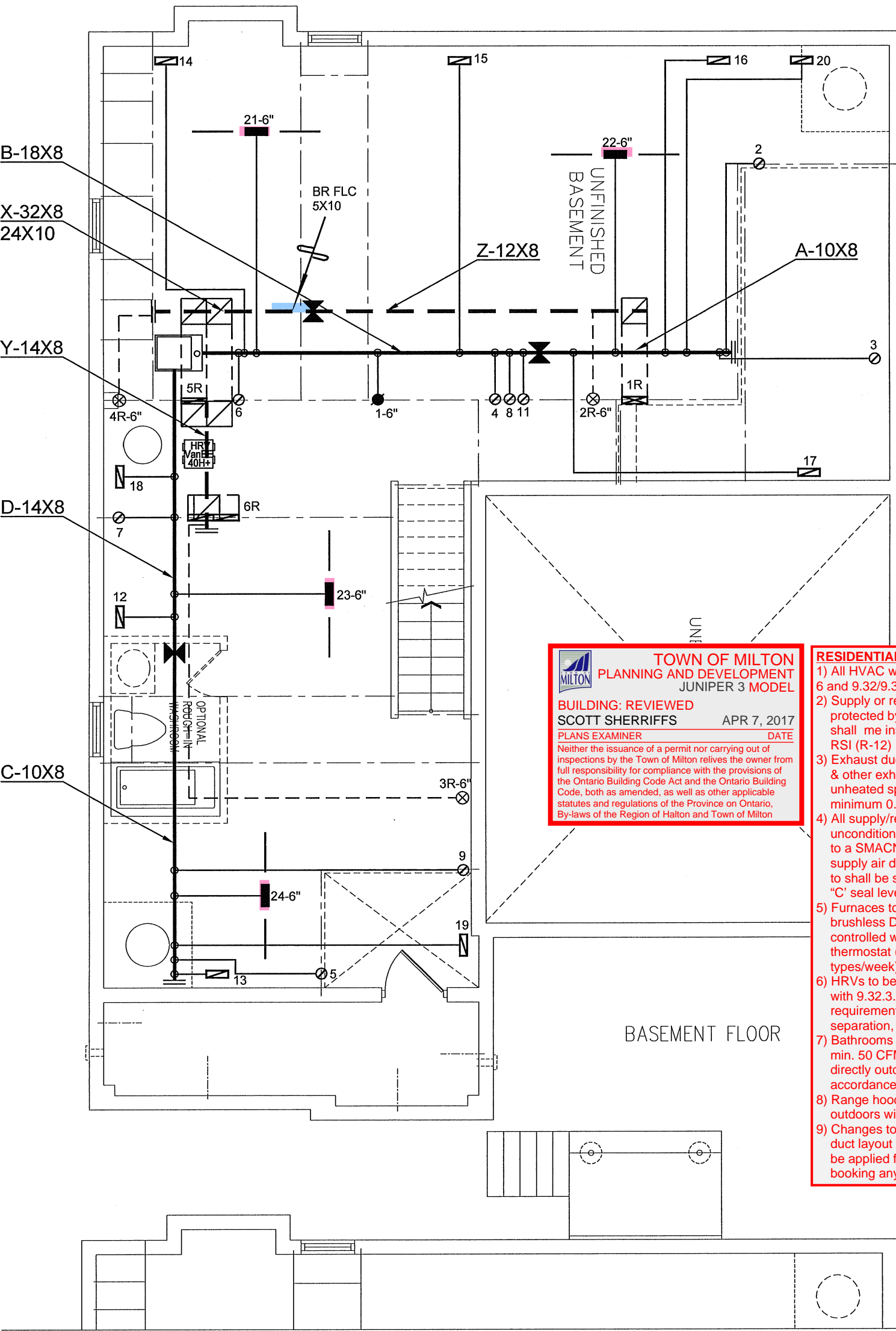
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JUNIPER 3
BUILDING DIVISION

Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Milton			
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):	6.58			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1074.8			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1432.8 cm ²		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	40.6	40.6		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.303			
Cooling Air Leakage Rate (ACH/H):	0.104			

TYPE: JUNIPER 3
LO# 71348RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 3
BUILDING DIVISION



TOWN OF MILTON
PLANNING AND DEVELOPMENT
JUNIPER 3 MODEL
BUILDING: REVIEWED
SCOTT SHERRIFFS **APR 7, 2017**
PLANS EXAMINER **DATE**
Neither the issuance of a permit nor carrying out of inspections by the Town of Milton relieves the owner from full responsibility for compliance with the provisions of the Ontario Building Code Act and the Ontario Building Code, both as amended, as well as other applicable statutes and regulations of the Province of Ontario, By-laws of the Region of Halton and Town of Milton

- RESIDENTIAL HVAC (New Construction)**
- 1) All HVAC work shall comply with Part 6 and 9.32/9.33.
 - 2) Supply or return air ducts not protected by an insulated exterior wall shall be insulated to a minimum 2.1 RSI (R-12)
 - 3) Exhaust ducts (principle, supplemental & other exhaust fans) passing through unheated space shall be insulated to a minimum 0.5 RSI (R-3)
 - 4) All supply/return air ducts located in unconditioned spaces shall be sealed to a SMACNA Class 'A' seal level and supply air ducts in conditioned spaces to shall be sealed to a SMACNA Class 'C' seal level
 - 5) Furnaces to be equipped with brushless DC motor (ECM) and controlled with a programmable thermostat (4 times periods/day, 2 day types/week)
 - 6) HRVs to be installed in accordance with 9.32.3.11. and manufacturers' requirements (intake/exhaust separation, distance from R/A drop)
 - 7) Bathrooms and washrooms to have a min. 50 CFM exhaust fan ducted directly outdoors with ductwork sized in accordance with Table 9.32.3.5.
 - 8) Range hoods to exhaust directly to outdoors with non-combustible ducting
 - 9) Changes to the HVAC equipment or duct layout requires a revision permit to be applied for and approved prior to booking any HVAC inspections

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CSA-F280-12



ENERGY STAR

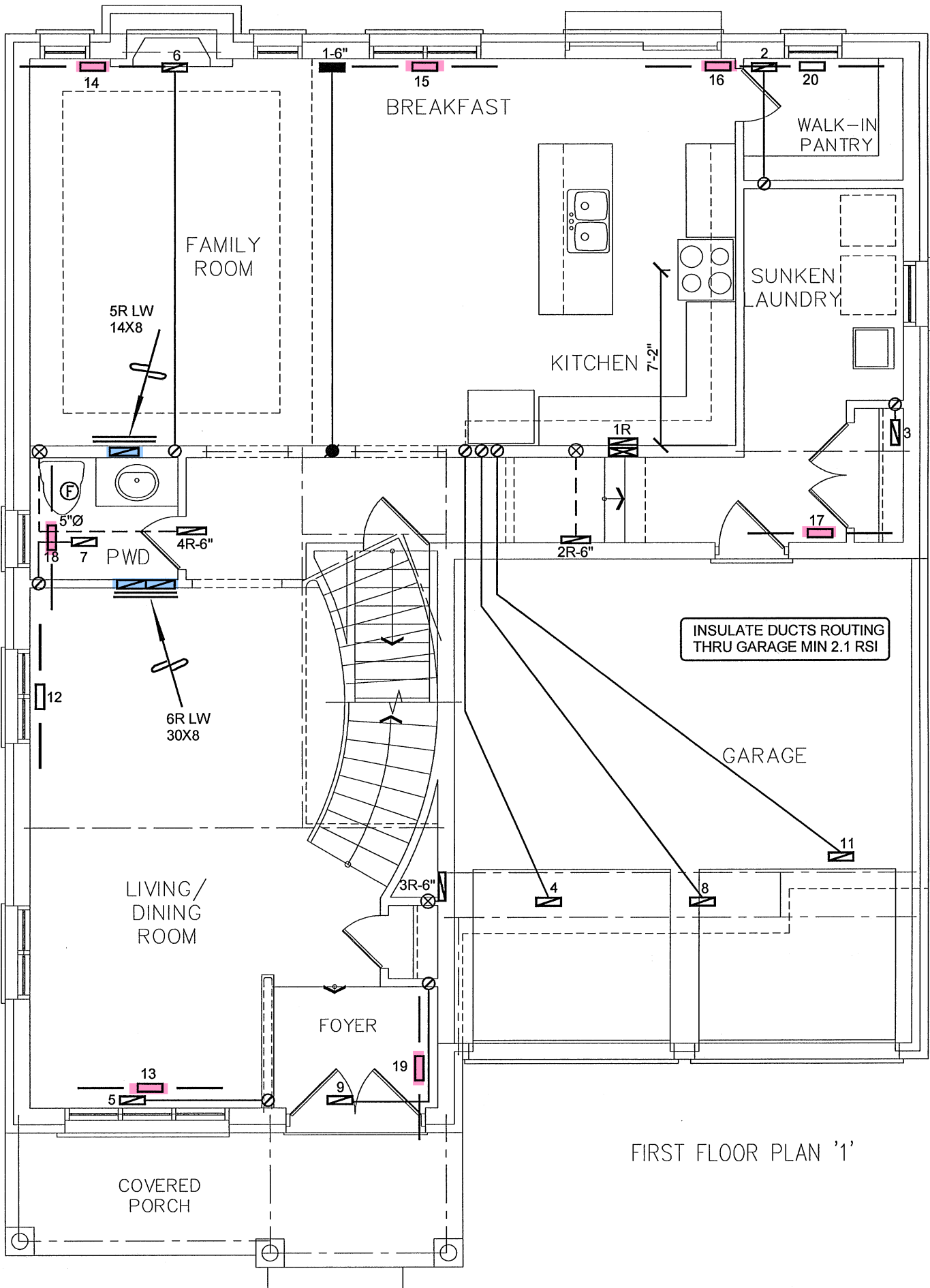
PARTIAL BASEMENT
FLOOR PLAN FOR DECK
CONDITION

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.

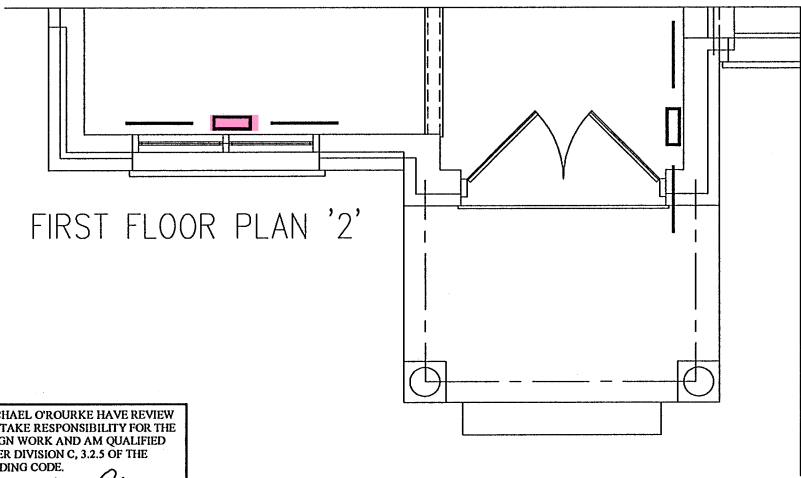
HVAC LEGEND						3.	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE
	FLOOR SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR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

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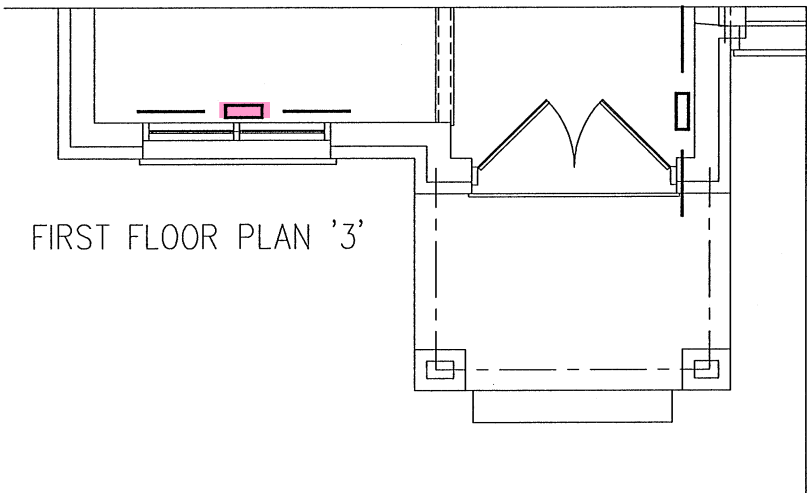
Client		<div>HVACDESIGNS LTD.</div> <div>375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services</div>		HEAT LOSS 45614 BTU/H		# OF RUNS			S/A			R/A			FANS			Sheet Title			
GREENPARK HOMES				UNIT DATA		3RD FLOOR												BASEMENT			
Project Name LECCO RIDGE MILTON, ONTARIO		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.		MAKE		AMANA		2ND FLOOR		10		4		4		HEATING					
				MODEL		AMEC960603BNA		1ST FLOOR		9		2		2		LAYOUT					
				INPUT		60 MBTU/H		BASEMENT		4		1		0		Date		DEC/2016			
				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"	
JUNIPER 3		2765 sqft		COOLING		3.0 TONS												BCIN#		19669	
				FAN SPEED		1131 cfm @ 0.6" w.c.												LO#		71348	



FIRST FLOOR PLAN '1'



FIRST FLOOR PLAN '2'



FIRST FLOOR PLAN '3'

RECEIVED
TOWN OF MILTON
MAR 29, 2017
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ENERGY STAR

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

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

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Client
GREENPARK HOMES

Project Name
**LECCO RIDGE
MILTON, ONTARIO**

JUNIPER 3 **2765 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: 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.

**TOWN OF MILTON
PLANNING AND DEVELOPMENT
JUNIPER 3 MODEL**

**BUILDING: REVIEWED
SCOTT SHERRIFFS APR 7, 2017**

PLANS EXAMINER DATE

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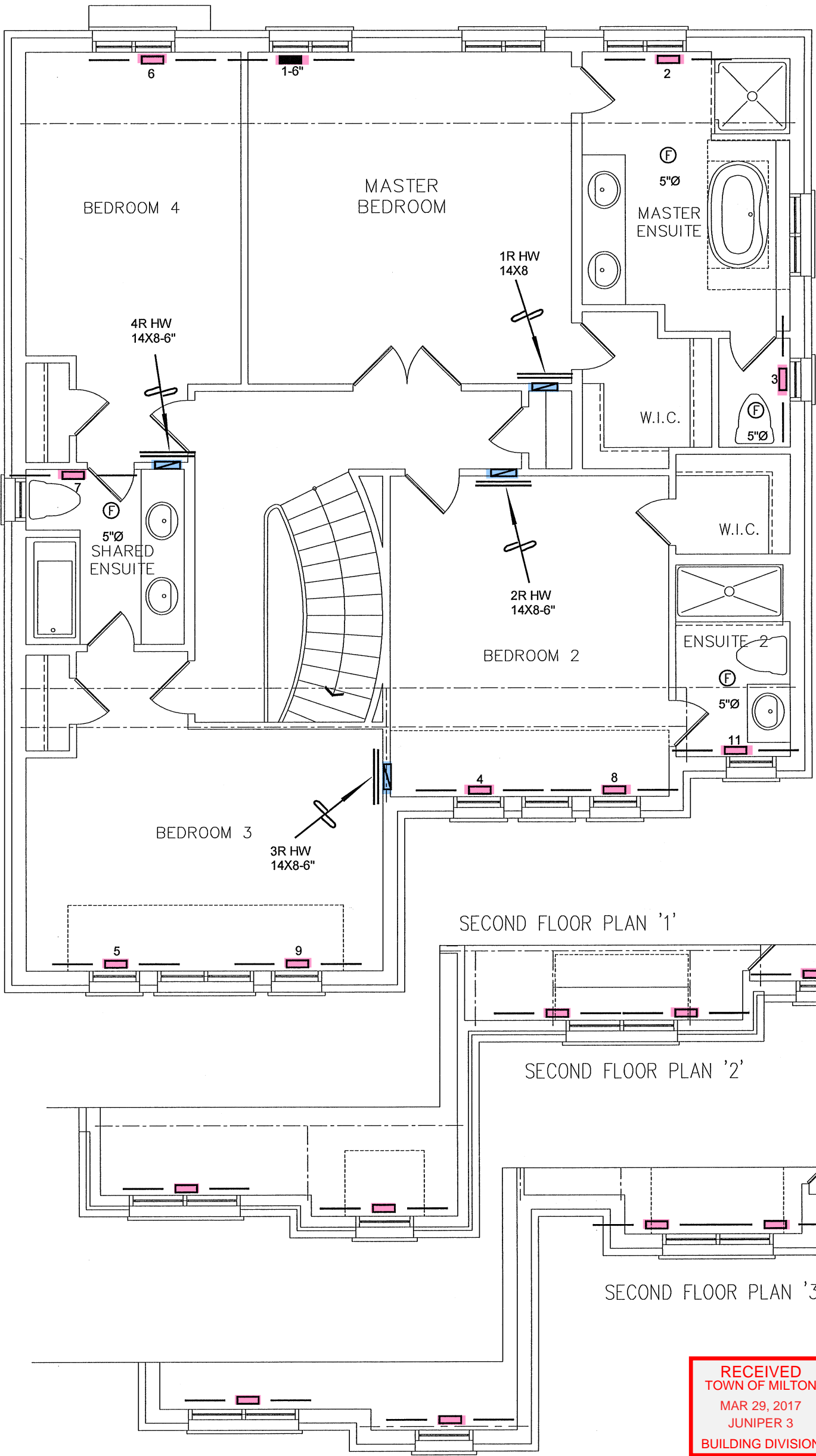
Sheet Title
**FIRST FLOOR
HEATING
LAYOUT**

Date **DEC/2016**

Scale **3/16" = 1'-0"**

BCIN# 19669

LO# **71348**



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

RECEIVED
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ENERGY STAR

HVAC LEGEND						3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	
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								REVISIONS

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Client		<div><p>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</p></div>	<div><p>TOWN OF MILTON PLANNING AND DEVELOPMENT JUNIPER 3 MODEL</p><p>BUILDING: REVIEWED SCOTT SHERRIFFS APR 7, 2017</p><p><u>PLANS EXAMINER</u> <u>DATE</u></p><p>Neither the issuance of a permit nor carrying out of inspections by the Town of Milton relieves the owner from full responsibility for compliance with the provisions of the Ontario Building Code Act and the Ontario Building Code, both as amended, as well as other applicable statutes and regulations of the Province of Ontario, By-laws of the Region of Halton and Town of Milton</p></div>	Sheet Title	
GREENPARK HOMES				SECOND FLOOR	
Project Name				HEATING LAYOUT	
LECCO RIDGE MILTON, ONTARIO		Date	DEC/2016		
		Scale	3/16" = 1'-0"		
		BCIN# 19669			
JUNIPER 3	2765 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.			
		LO#	71348		