

SITE NAME: LECCO RIDGE
BUILDER: GREENPARK HOMES

LOT 322
TYPE: JUNIPER 9

GFA: 3463

DATE: May-17
LO# 74048

WINTER NATURAL AIR CHANGE RATE 0.307
SUMMER NATURAL AIR CHANGE RATE 0.105

HEAT LOSS ΔT °F. 72
HEAT GAIN ΔT °F. 14

CSA-F280-12
ENERGYSTAR

ROOM USE	EXP. WALL	CLG. HT.	FACTORS	MBR	ENS	BED-2	BED-3	BED-4	BATH	BED-6	ENS-4	ENS-2
GRS.WALL AREA	LOSS GAIN			360	252	135	330	360	63	126	144	61
GLAZING	LOSS GAIN			LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN
NORTH	17.9 16.8	0 0 0	9 161 143			16 288 238	0 0 0	0 0 0	7 125 111	0 0 0	0 0 0	0 0 0
EAST	17.9 41.4	0 0 0	0 0 0			0 0 0	48 657 1988	36 643 1491	0 0 0	0 0 0	11 196 466	0 0 0
SOUTH	17.9 24.8	0 0 0	0 0 0			0 0 0	0 0 0	17 303 421	0 0 0	13 232 322	0 0 0	7 125 173
WEST	17.9 41.4	34 607 1408	18 321 748			0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	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	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	0 0 0	0 0 0
NET EXPOSED WALL	2.6 0.6	326 653 165	226 589 114			120 314 61	262 738 143	327 856 165	66 147 26	113 296 67	133 348 67	74 194 37
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	0 0 0	0 0 0
EXPOSED CLG	1.4 0.7	316 434 216	169 219 109			265 366 182	233 321 160	261 360 179	147 203 101	216 296 148	114 157 78	160 246 123
NO ATTIC EXPOSED CLG	2.2 1.1	0 0 0	28 63 31			0 0 0	18 40 20	30 67 33	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	251 550 108	0 0 0	111 243 47	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		1894	1353			947	2507	2229	717	825	701	567
SUB TOTAL HT GAIN			1769			480	2417	2290	267	627	601	334
LEVEL FACTOR / MULTIPLIER	0.20 0.32		0.20 0.32			0.20 0.32	0.20 0.32	0.20 0.32	0.20 0.32	0.20 0.32	0.20 0.32	0.20 0.32
AIR CHANGE HEAT LOSS		611	437			308	609	719	232	268	228	183
AIR CHANGE HEAT GAIN		160	102			43	216	204	26	47	64	30
DUCT LOSS		0	0			0	332	0	96	0	0	0
DUCT GAIN		0	0			0	371	0	31	0	0	0
HEAT GAIN PEOPLE	240	2	480	0	0	1	240	1	240	0	0	0
HEAT GAIN APPLIANCES/LIGHTS			840	0	0		840		840	0	0	0
TOTAL HT LOSS BTU/H		2505	1789			1262	3847	2948	1044	1092	928	749
TOTAL HT GAIN x 1.3 BTU/H		4249	1617			2064	6309	4647	447	2151	661	473

ROOM USE	EXP. WALL	CLG. HT.	FACTORS	LVDN	OFF	KT/FM	LAUN	W/R	FOY	WOO	BAS
GRS.WALL AREA	LOSS GAIN			210	370	750	231	100	330	361	1388
GLAZING	LOSS GAIN			LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN
NORTH	17.9 15.8	0 0 0	0 0 0			0 0 0	9 161 143	0 0 0	0 0 0	0 0 0	15 268 238
EAST	17.9 41.4	0 0 0	39 696 1616			0 0 0	0 0 0	0 0 0	20 367 828	0 0 0	0 0 0
SOUTH	17.9 24.8	36 678 941	0 0 0			0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
WEST	17.9 41.4	0 0 0	0 0 0			106 1674 4349	0 0 0	0 0 0	0 0 0	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			0 0 0	20 481 93	0 0 0	20 481 93	0 0 0	20 481 93
NET EXPOSED WALL	2.6 0.6	172 450 67	331 886 167	645 1666 326		202 629 102	100 262 51	290 769 147		228 761 147	474 1582 306
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	0 0 0	0 0 0
EXPOSED CLG	1.4 0.7	0 0 0	0 0 0	10 14 7		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	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	2.2 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	0 0 0
BASEMENT/CRAWL HEAT LOSS		0	0	0		0	0	0	0	0	6762
SLAB ON GRADE HEAT LOSS		0	0	0		0	0	0	0	0	0
SUBTOTAL HT LOSS		1128	1662	3676		1170	262	1697		761	9083
SUB TOTAL HT GAIN			1028	1783	4682		338	51	1068	147	637
LEVEL FACTOR / MULTIPLIER	0.30 0.61		0.30 0.61	0.30 0.61		0.30 0.61	0.30 0.61	0.30 0.61			0.50 0.96
AIR CHANGE HEAT LOSS		690	955	2187		716	160	976			9473
AIR CHANGE HEAT GAIN		92	169	418		30	5	95			70
DUCT LOSS		0	0	0		0	0	0			0
DUCT GAIN		0	0	0		0	0	0			0
HEAT GAIN PEOPLE	240	0	0	1	240	1	240	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS			840	840	640		840	0	0	0	0
TOTAL HT LOSS BTU/H		1816	2616	5762		1686	422	2673		761	16556
TOTAL HT GAIN x 1.3 BTU/H		2548	3617	8034		1883	72	1512		191	916

TOWN OF MILTON
PLANNING AND DEVELOPMENT
BUILDING PERMIT: 17-7104

BUILDING: REVIEWED
SCOTT SHERRIFFS **JUN 13, 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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MAY 30, 2017
17-7104
BUILDING DIVISION

TOTAL HEAT GAIN BTU/H: 41097 TONS: 3.42 LOSS DUE TO VENTILATION LOAD BTU/H: 2562 STRUCTURAL HEAT LOSS: 50262 TOTAL COMBINED HEAT LOSS BTU/H: 52804

SITE NAME: LECCO RIDGE
BUILDER: GREENPARK HOMES

LOT 322
TYPE: JUNIPER 9

DATE: May-17

GFA: 3483 LO# 74048

HEATING CFM 1316 COOLING CFM 1316
TOTAL HEAT LOSS 50,252 TOTAL HEAT GAIN 40,603
AIR FLOW RATE CFM 26.19 AIR FLOW RATE CFM 32.41

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

~*AMANA
AMVC960804CNA 80
FAN SPEED LOW 1316
MEDLOW 0
MEDIUM 1389
MEDIUM HIGH 0
HIGH 1396

AFUE = 96.0 %
INPUT (BTU/H) = 80,000
OUTPUT (BTU/H) = 76,800

DESIGN CFM = 1316
CFM @ .6" E.S.P.

TEMPERATURE RISE 54 °F

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	13	8	5
R/A	0	0	5	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	3	4	5	6	7	8	9	10	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-3	BED-4	MBR	ENS-2	LV/DN	OFF	KT/FM	KT/FM	KT/FM	LAUN	W/R	FOY	ENS-4	BED-5	BAS	BAS	BAS
RM LOSS MBH.	1.25	0.89	0.89	1.25	1.82	1.47	1.04	1.82	1.47	1.25	0.75	1.82	2.52	1.92	1.92	1.92	1.89	0.42	2.57	0.93	1.09	3.86	3.86	3.86
CFM PER RUN HEAT	33	23	23	33	48	39	27	48	39	33	20	48	66	50	50	50	49	11	67	24	29	101	101	101
RM GAIN MBH.	2.12	0.81	0.81	2.08	2.65	2.32	0.45	2.65	2.32	2.12	0.47	2.55	3.62	2.68	2.68	2.68	1.88	0.07	1.51	0.85	2.15	0.22	0.22	0.22
CFM PER RUN COOLING	89	26	26	68	86	75	14	86	75	69	15	83	117	87	87	87	61	2	49	28	70	7	7	7
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.16	0.17	0.17	0.16	0.17	0.17	0.17	0.16	0.15	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16
ACTUAL OUCT LGH.	27	59	43	47	47	75	51	50	66	41	21	39	59	22	31	39	44	19	45	65	50	38	18	13
EQUIVALENT LENGTH	160	150	120	160	120	160	160	130	130	130	170	140	140	150	140	110	110	140	130	140	150	100	110	150
TOTAL EFFECTIVE LENGTH	187	209	163	207	167	235	211	180	196	171	191	179	199	172	171	149	154	159	175	205	200	138	128	163
ADJUSTED PRESSURE	0.09	0.08	0.11	0.08	0.1	0.07	0.08	0.09	0.09	0.1	0.09	0.09	0.08	0.09	0.09	0.11	0.11	0.11	0.1	0.08	0.09	0.12	0.13	0.1
ROUND OUCT SIZE	5	4	4	5	5	5	4	5	5	5	4	5	6	5	5	5	5	4	5	4	5	5	5	6
HEATING VELOCITY (ft/min)	242	264	264	242	352	286	310	352	286	242	229	352	337	367	367	367	360	126	492	275	213	742	742	515
COOLING VELOCITY (ft/min)	507	298	298	499	631	551	161	631	551	507	172	609	597	639	639	639	448	23	360	321	514	51	51	36
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10
TRUNK	B	A	B	A	D	C	D	D	C	B	B	D	C	B	A	A	A	D	C	C	D	A	B	D

RUN #	25	26
ROOM NAME	BAS	BAS
RM LOSS MBH.	3.86	3.86
CFM PER RUN HEAT	101	101
RM GAIN MBH.	0.22	0.22
CFM PER RUN COOLING	7	7
ADJUSTED PRESSURE	0.16	0.16
ACTUAL OUCT LGH.	37	49
EQUIVALENT LENGTH	120	140
TOTAL EFFECTIVE LENGTH	157	189
ADJUSTED PRESSURE	0.1	0.09
ROUND OUCT SIZE	6	6
HEATING VELOCITY (ft/min)	515	515
COOLING VELOCITY (ft/min)	36	36
OUTLET GRILL SIZE	4X10	4X10
TRUNK	D	C

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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	306	0.08	9	10	x	8	551	TRUNK G	0	0.00	0	0	x	8	0
TRUNK B	566	0.08	11.3	14	x	8	728	TRUNK H	0	0.00	0	0	x	8	0
TRUNK C	336	0.07	9.6	10	x	8	605	TRUNK I	0	0.00	0	0	x	8	0
TRUNK D	749	0.07	13	20	x	8	674	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 TRUNK SIZE

Y	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	886	0.05	15.1	26	x	8	613
5	TRUNK Y	655	0.05	13.5	22	x	8	536
	TRUNK Z	430	0.05	11.5	16	x	8	484
	DROP	1316	0.05	17.5	24	x	12	658

RUN AIR #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
AIR VOLUME	135	85	175	85	175	345	85	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
ACTUAL OUCT LGH.	42	58	57	59	22	24	54	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EQUIVALENT LENGTH	230	185	160	195	185	225	205	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL EFFECTIVE LH	272	243	217	254	207	249	259	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ADJUSTED PRESSURE	0.05	0.06	0.07	0.06	0.07	0.06	0.06	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
ROUND OUCT SIZE	7.5	6	7.5	6	7.5	10.1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INLET GRILL SIZE	8	8	8	8	8	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INLET GRILL SIZE	X	X	X	X	X	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	14	30	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TYPE: JUNIPER 9
SITE NAME: LECCO RIDGE

LO # 74048
LOT 322

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	4 @ 10.6 cfm	42.4 cfm
Kitchen & Bathrooms	6 @ 10.6 cfm	63.6 cfm
Other Rooms	5 @ 10.6 cfm	53.0 cfm
Table 9.32.3.A.	TOTAL	201.4 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	79.5	cfm
5 Bedroom	95.4	cfm
More than 5 - Part 6	TOTAL	95.4 cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	201.4	cfm
Less Principal Ventil. Capacity	96	cfm
Required Supplemental Capacity	105.4	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANE 50H	Location: BSMT
96.0 cfm	3.0 sones
<input checked="" type="checkbox"/> HVI Approved	

PRINCIPAL EXHAUST HEAT LOSS CALCULATION	
CFM	ΔT °F
96.0 CFM	72 F
X	X
FACTOR	% LOSS
1.08	0.34

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

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANE 50H		
96	cfm high	47 cfm low
66	% Sensible Efficiency	
@ 32 deg F (0 deg C)		<input checked="" type="checkbox"/> HVI Approved

LOCATION OF INSTALLATION	
Lot:	C
Township	P
Address	
Roll #	

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TOWN OF MILTON
MAY 30, 2017
17-7104
BUILDING DIVISION

BUILDER:	GR
Name:	
Address:	
City:	
Telephone #:	

TOWN OF MILTON
PLANNING AND DEVELOPMENT
BUILDING PERMIT: 17-7104
BUILDING: REVIEWED
SCOTT SHERRIFFS JUN 13, 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

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:	May-17

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: JUNIPER 9	LOT 322	BUILDER: GREENPARK HOMES
SFQT: 3483	LO# 74048	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 (ft³):	47706.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	6
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.50	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.5 ft
LENGTH: 59.0 ft	WIDTH: 39.0 ft	EXPOSED PERIMETER:	196.0 ft

2012 OBC - COMPLIANCE PACKAGE**Component**

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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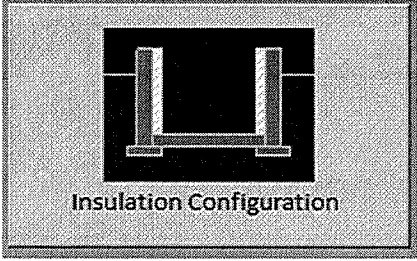
**Compliance Package
ENERGYSTAR**

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):	18.0	 Insulation Configuration
Floor Width (m):	11.9	
Exposed Perimeter (m):	0.0	
Wall Height (m):	2.9	
Depth Below Grade (m):	2.0	
Window Area (m ²):	1.4	
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):		1978

TYPE: JUNIPER 9
LO# 74048

LOT 322

RECEIVED
TOWN OF MILTON
MAY 30, 2017
17-7104
BUILDING DIVISION

Air Infiltration Residential Load Calculator

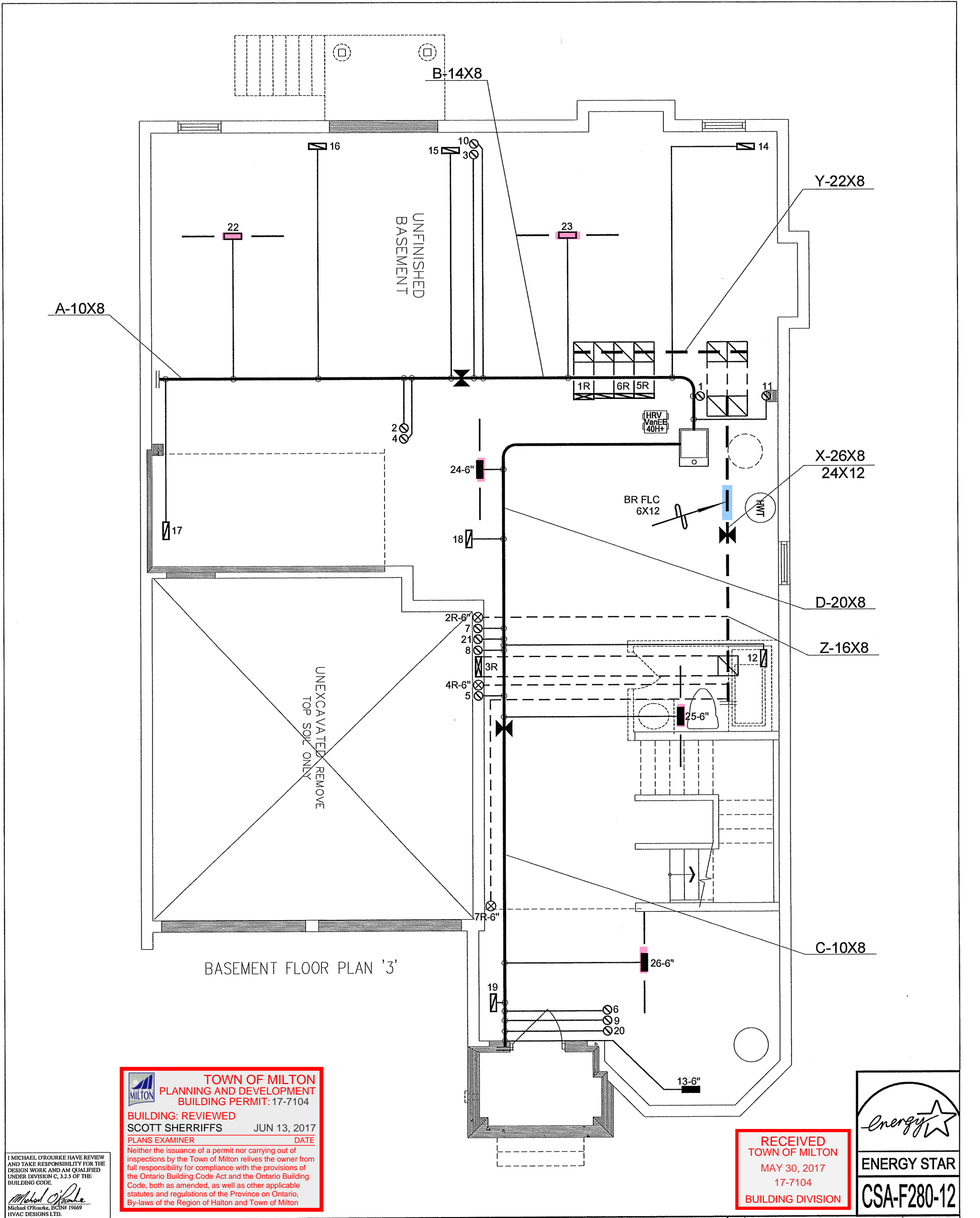
Supplemental tool for CAN/CSA-F280

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):	6.71		
Building Configuration			
Type:	Detached		
Number of Stories:	Two		
Foundation:	Full		
House Volume (m ³):	1350.9		
Air Leakage/Ventilation			
Air Tightness Type:	Present (1961-) (3.57 ACH)		
Custom BDT Data:	ELA @ 10 Pa.	1800.8 cm ²	
	3.57	ACH @ 50 Pa	
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust	
	45.3	45.3	
Flue Size			
Flue #:	#1	#2	#3 #4
Diameter (mm):	0	0	0 0
Natural Infiltration Rates			
Heating Air Leakage Rate (ACH/H):	0.307		
Cooling Air Leakage Rate (ACH/H):	0.105		

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TOWN OF MILTON
PLANNING AND DEVELOPMENT
BUILDING PERMIT: 17-7104
BUILDING: REVIEWED
SCOTT SHERRIFFS JUN 13, 2017
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RECEIVED
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MAY 30, 2017
17-7104
BUILDING DIVISION

ENERGY STAR
CSA-F280-12

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

Project Name

LECCO RIDGE
MILTON, ONTARIO

LOT 322
JUNIPER 9

3483 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.

HEAT LOSS 52804 BTU/H
UNIT DATA

MAKE
AMANA

MODEL
AMVC960804CNA

INPUT
80 MBTU/H

OUTPUT
76.8 MBTU/H

COOLING
3.5 TONS

FAN SPEED
1316 cfm @ 0.5" w.c.

OF RUNS S/A R/A FANS

3RD FLOOR

2ND FLOOR 13 5 5

1ST FLOOR 8 2 2

BASEMENT 5 1 0

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

Sheet Title

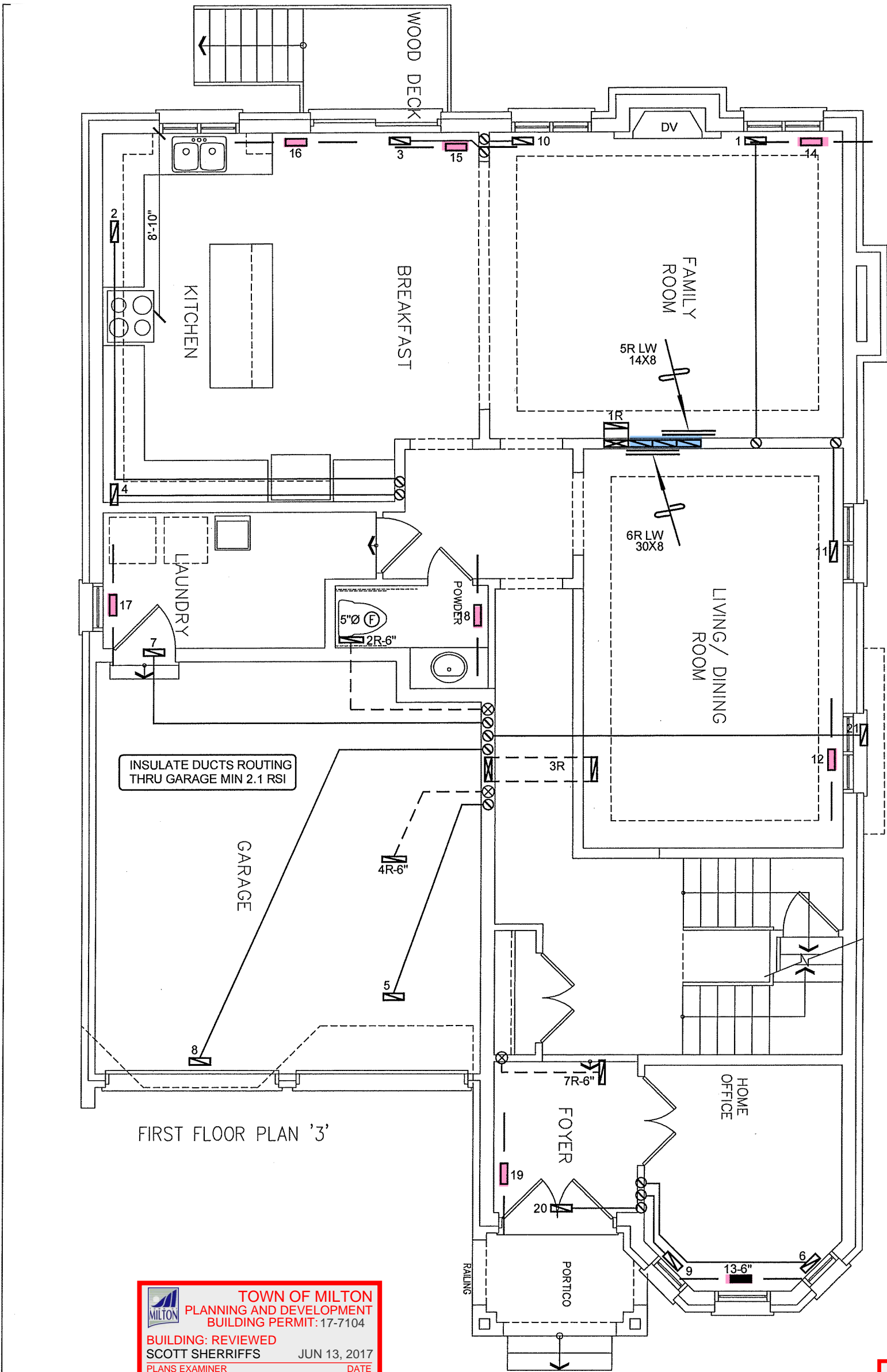
BASEMENT
HEATING
LAYOUT

Date
MAY/2017

Scale
3/16" = 1'-0"

BCIN# 19669

LO# 74048



FIRST FLOOR PLAN '3'

- 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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I MICHAEL O'ROURKE HAVE REVIEW 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
HVAC DESIGNS LTD.

RECEIVED
TOWN OF MILTON
MAY 30, 2017
17-7104
BUILDING DIVISION



ENERGY STAR

CSA-F280-12

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Client

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Project Name

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LOT 322
JUNIPER 9



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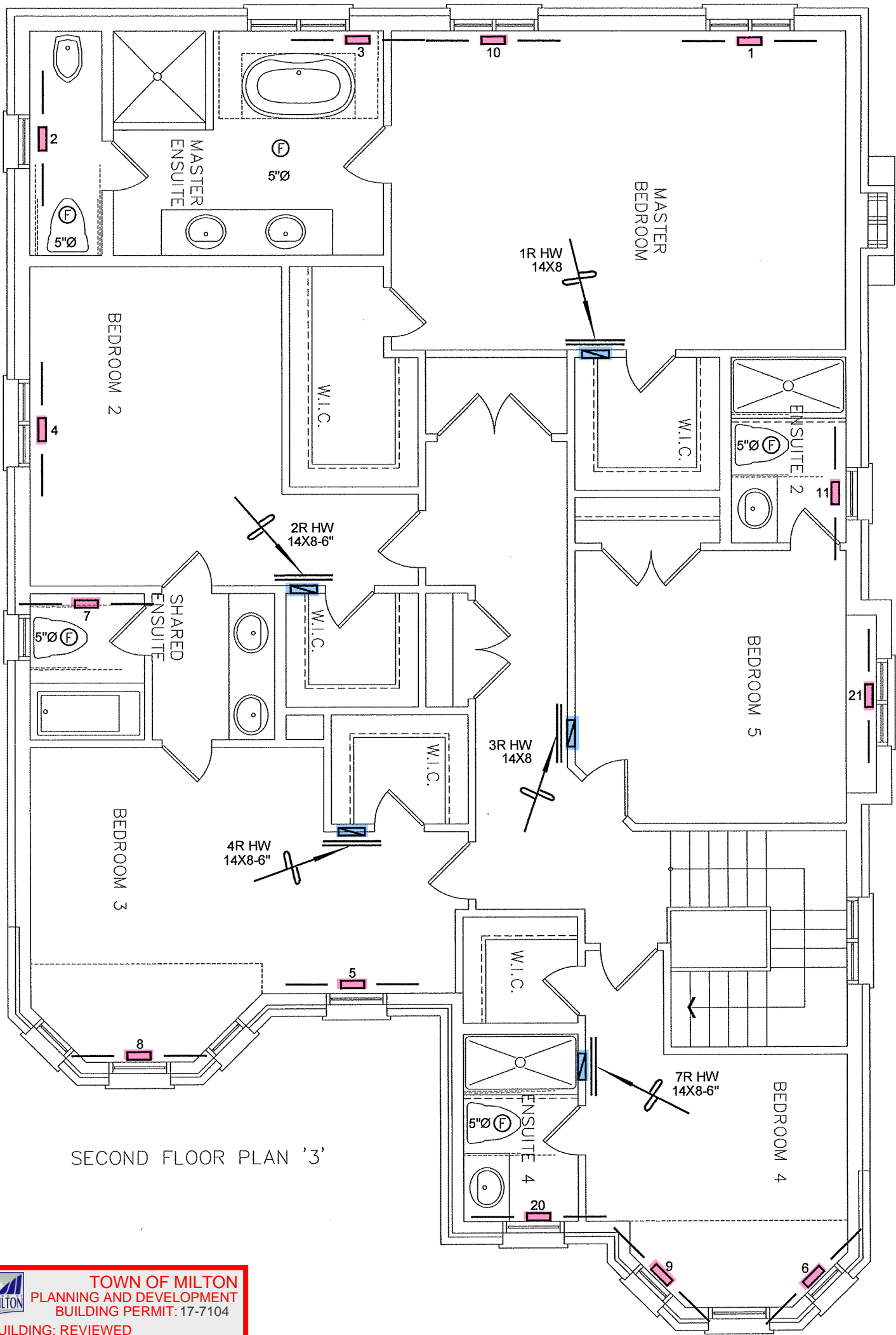
FIRST FLOOR
HEATING
LAYOUT

Date **MAY/2017**

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

BCIN# 19669

LO# **74048**




SECOND FLOOR PLAN '3'



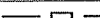











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Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

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