

SITE NAME: LECCO RIDGE

WUP

DATE: Feb-17

WINTER NATURAL AIR CHANGE RATE 0.307

HEAT LOSS AT °F. 72

CSA-F280-12

BUILDER: GREENPARK HOMES

TYPE: JUNIPER 12

GFA: 2992

LO# 72389

SUMMER NATURAL AIR CHANGE RATE 0.105

HEAT GAIN AT °F. 14

ENERGYSTAR

ROOM USE	EXP. WALL	CLG. HT.	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	ENS-4				
			36	29	7	26	34	21	12	6				
			10	9	9	10	10	10	9	9				
FACTORS														
GRS.WALL AREA	LOSS	GAIN	360	261	63	260	340	210	108	54				
GLAZING	LOSS	GAIN												
NORTH	17.9	15.8	0	0	0	0	0	0	0	0	0	0	0	0
EAST	17.9	41.4	0	0	0	0	0	0	16	286	663	0	0	0
SOUTH	17.9	24.8	0	0	0	37	661	916	9	161	223	0	0	0
WEST	17.9	41.4	34	607	1408	24	428	994	0	0	0	0	0	0
SKYLT.	30.6	101.2	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
NET EXPOSED WALL	2.6	0.5	326	853	165	200	523	101	54	141	27	240	628	121
NET EXPOSED BSMT WALL ABOVE GR	3.3	0.6	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.4	0.7	306	422	210	162	223	111	70	96	48	195	269	134
NO ATTIC EXPOSED CLG	2.2	1.1	0	0	0	28	63	31	0	0	0	0	0	0
EXPOSED FLOOR	2.2	0.4	0	0	0	0	0	0	195	428	83	0	0	0
BASEMENT/CRAWL HEAT LOSS			0	0	0	0	0	0	0	0	0	0	0	0
SLAB ON GRADE HEAT LOSS			0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS			1882		1898		398		1681		2529		1494	
SUB TOTAL HT GAIN				1783		2154		298		1166		3238		1327
LEVEL FACTOR / MULTIPLIER			0.20	0.27		0.20	0.27		0.20	0.27		0.20	0.27	
AIR CHANGE HEAT LOSS			514		519		109		459		691		408	
AIR CHANGE HEAT GAIN				120		145		20		79		218		89
DUCT LOSS			0		0		0		124		91		0	
DUCT GAIN			0		0		0		0		0		0	
HEAT GAIN PEOPLE	240		2	480	0	0	0	0	1	240	1	240	1	240
HEAT GAIN APPLIANCES/LIGHTS				692	0	0	0	0		692		692		692
TOTAL HT LOSS BTU/H			2396		2417		507		2355		3221		1903	
TOTAL HT GAIN x 1.3 BTU/H			3997		2989		414		3112		5705		3052	

TOWN OF MILTON
PLANNING AND DEVELOPMENT
JUNIPER 12F MODEL

BUILDING: REVIEWED
SCOTT SHERRIFFS APR 11, 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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ROOM USE	EXP. WALL	CLG. HT.	LVDN	OFF	KT/FM	LAUN	WIR	FOY						
			26	48	78	8	28	18						
			10	10	10	9	10	10						
FACTORS														
GRS.WALL AREA	LOSS	GAIN	260	480	780	72	280	180						
GLAZING	LOSS	GAIN												
NORTH	17.9	15.8	0	0	0	17	303	269	11	196	174	10	179	158
EAST	17.9	41.4	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH	17.9	24.8	46	821	1139	30	536	743	47	839	1164	0	0	0
WEST	17.9	41.4	0	0	0	0	0	0	0	0	0	0	0	0
SKYLT.	30.6	101.2	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	20	481	93
NET EXPOSED WALL	2.6	0.5	214	560	108	393	1028	199	640	1675	324	55	144	28
NET EXPOSED BSMT WALL ABOVE GR	3.3	0.6	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.4	0.7	0	0	0	20	28	14	36	50	25	215	296	147
NO ATTIC EXPOSED CLG	2.2	1.1	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
BASEMENT/CRAWL HEAT LOSS			0	0	0	0	0	0	0	0	0	0	0	0
SLAB ON GRADE HEAT LOSS			0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS			1381		2609		4223		744		1329		1296	
SUB TOTAL HT GAIN				1248		2805		5365		444		393		716
LEVEL FACTOR / MULTIPLIER			0.30	0.45		0.30	0.45		0.20	0.27		0.30	0.45	
AIR CHANGE HEAT LOSS			626		1183		1916		203		603		588	
AIR CHANGE HEAT GAIN				84		189		361		30		26		48
DUCT LOSS			0		0		0		0		0		0	
DUCT GAIN			0		0		0		0		0		0	
HEAT GAIN PEOPLE	240		0	0	0	0	0	0	0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS				692	692		692		692		692		692	
TOTAL HT LOSS BTU/H			2008		3792		6139		947		1932		1884	
TOTAL HT GAIN x 1.3 BTU/H			2630		4791		8343		1516		546		993	

TOTAL HEAT GAIN BTU/H: 41350

TONS: 3.45

LOSS DUE TO VENTILATION LOAD BTU/H: 2354

STRUCTURAL HEAT LOSS: 48640

TOTAL COMBINED HEAT LOSS BTU/H: 50994

SITE NAME: LECCO RIDGE
BUILDER: GREENPARK HOMES

WUP
TYPE: JUNIPER 12

DATE: Feb-17

GFA: 2992 LO# 72389

HEATING CFM 1316 COOLING CFM 1316
TOTAL HEAT LOSS 48,640 TOTAL HEAT GAIN 40,895
AIR FLOW RATE CFM 27.06 AIR FLOW RATE CFM 32.18

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
FAN SPEED 80
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	4	3	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	WIC	BED-2	BED-3	BED-4	BATH	ENS	BED-3	MBR	ENS-4	OFF	OFF	KT/FM	KT/FM	KT/FM	LAUN	W/R	FOY	BED-4	LV/DN	BAS	BAS	BAS
RM LOSS MBH.	1.20	1.21	0.51	2.35	1.61	0.95	1.37	1.21	1.61	1.20	0.50	1.90	1.90	2.05	2.05	2.05	0.95	1.93	1.88	0.95	2.01	3.46	3.46	3.46
CFM PER RUN HEAT	32	33	14	64	44	26	37	33	44	32	13	51	51	55	55	55	26	52	51	26	54	93	93	93
RM GAIN MBH.	2.00	1.49	0.41	3.11	2.85	1.53	1.30	1.49	2.85	2.00	0.47	2.40	2.40	2.78	2.78	2.78	1.52	0.55	0.99	1.53	2.63	0.21	0.21	0.21
CFM PER RUN COOLING	64	48	13	100	92	49	42	48	92	64	15	77	77	89	89	89	49	18	32	49	85	7	7	7
ADJUSTED PRESSURE	0.17	0.17	0.17	0.16	0.16	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	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH.	44	54	58	87	84	62	82	42	71	32	44	62	68	21	46	42	32	11	56	49	41	13	50	52
EQUIVALENT LENGTH	110	170	180	140	160	180	150	150	190	180	150	180	150	130	150	170	120	190	130	140	130	140	200	110
TOTAL EFFECTIVE LENGTH	154	224	238	227	244	242	232	192	261	212	194	242	218	151	196	212	152	201	186	189	171	153	250	162
ADJUSTED PRESSURE	0.11	0.08	0.07	0.07	0.07	0.07	0.07	0.09	0.06	0.08	0.09	0.07	0.08	0.11	0.08	0.08	0.11	0.09	0.09	0.09	0.09	0.11	0.06	0.1
ROUND DUCT SIZE	5	4	4	6	6	5	4	4	6	5	4	6	5	5	6	6	4	4	4	4	5	5	6	5
HEATING VELOCITY (ft/min)	235	379	161	326	224	191	424	379	224	235	149	260	374	404	280	280	298	597	585	298	396	683	474	683
COOLING VELOCITY (ft/min)	470	551	149	510	469	360	482	551	469	470	172	393	565	653	454	454	562	207	367	562	624	51	36	51
OUTLET GRILL SIZE	3X10	3X10	3X10	4X10	4X10	3X10	3X10	3X10	4X10	3X10	3X10	4X10	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10
TRUNK	D	C	B	A	A	B	A	D	B	D	C	B	A	D	C	C	D	D	B	C	C	D	C	B

RUN #	25	26
ROOM NAME	BAS	BAS
RM LOSS MBH.	3.46	3.46
CFM PER RUN HEAT	93	93
RM GAIN MBH.	0.21	0.21
CFM PER RUN COOLING	7	7
ADJUSTED PRESSURE	0.16	0.16
ACTUAL DUCT LGH.	69	15
EQUIVALENT LENGTH	140	120
TOTAL EFFECTIVE LENGTH	209	135
ADJUSTED PRESSURE	0.08	0.12
ROUND DUCT SIZE	6	5
HEATING VELOCITY (ft/min)	474	683
COOLING VELOCITY (ft/min)	36	51
OUTLET GRILL SIZE	4X10	3X10
TRUNK	A	D

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SUPPLY AIR TRUNK SIZE																RETURN AIR TRUNK SIZE									
	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT			VELOCITY (ft/min)			TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT			TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT			VELOCITY (ft/min)			
TRUNK A	289	0.07	9.1	10	x	8	520	TRUNK G	0	0.00	0	0	x	8	0	TRUNK O	0	0.05	0	0	x	8	0		
TRUNK B	568	0.06	12.2	18	x	8	568	TRUNK H	0	0.00	0	0	x	8	0	TRUNK P	0	0.05	0	0	x	8	0		
TRUNK C	897	0.06	14.5	24	x	8	673	TRUNK I	0	0.00	0	0	x	8	0	TRUNK Q	0	0.05	0	0	x	8	0		
TRUNK D	1313	0.06	16.7	28	x	10	675	TRUNK J	0	0.00	0	0	x	8	0	TRUNK R	0	0.05	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 S	0	0.05	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	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	1316	0.05	17.5	28	x	10	677		
																TRUNK Y	640	0.05	13.3	20	x	8	576		
																TRUNK Z	920	0.05	15.3	28	x	8	591		
																DROP	1316	0.05	17.5	24	x	12	658		

RETURN AIR #	1	2	3	4	5	6	7	BR									
AIR VOLUME	200	175	125	135	155	175	155	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.	33	53	65	75	38	36	54	1	1	1	1	1	1	1	1	14	
EQUIVALENT LENGTH	135	145	185	230	225	185	185	0	0	0	0	0	0	0	0	185	
TOTAL EFFECTIVE LH	168	198	250	305	263	221	239	1	1	1	1	1	1	1	1	199	
ADJUSTED PRESSURE	0.09	0.07	0.06	0.05	0.06	0.07	0.06	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	0.07	
ROUND DUCT SIZE	7.5	7.5	6.9	7.5	7.5	7.5	7.5	0	0	0	0	0	0	0	0	7.9	
INLET GRILL SIZE	8	8	8	8	8	8	8	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	14	14	0	0	0	0	0	0	0	0	24	

TYPE: JUNIPER 12
SITE NAME: LECCO RIDGE

LO # 72389
WUP

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	3 @ 10.6 cfm	31.8 cfm
Table 9.32.3.A.	TOTAL	159.0 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	159	cfm
Less Principal Ventil. Capacity	86	cfm
Required Supplemental Capacity	73.0	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model:	VANEE 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	<input checked="" type="checkbox"/>	0.3
BATH	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
ENS-4	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
W/R	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model:	VANEE 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:	
Township	
Address	
Roll #	

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MAR 29, 2017
JUNIPER 12F
BUILDING DIVISION**

BUILDER:		TOWN OF MILTON PLANNING AND DEVELOPMENT JUNIPER 12F MODEL	
Name:	SCOTT SHERRIFFS	DATE	APR 11, 2017
Address:		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	
City:			
Telephone #:			

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-17

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: JUNIPER 12	WUP	BUILDER: GREENPARK HOMES
SFQT: 2992	LO# 72389	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):	41260.5	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:	6.5 ft
LENGTH: 38.0 ft	WIDTH: 50.0 ft	EXPOSED PERIMETER:	176.0 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

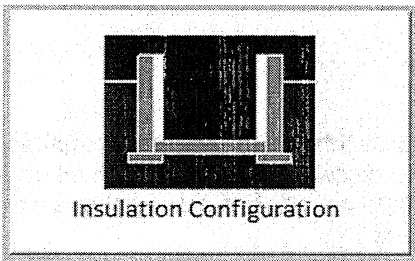
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INDIVIDUAL BCIN: 19669

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):	11.6	 Insulation Configuration
Floor Width (m):	15.2	
Exposed Perimeter (m):	0.0	
Wall Height (m):	2.9	
Depth Below Grade (m):	2.0	
Window Area (m ²):	0.8	
Door Area (m ²):	3.7	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):	1693	

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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):	1168.4			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1557.5 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):	0.307			
Cooling Air Leakage Rate (ACH/H):	0.105			

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LO# 72389

WUP

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TOWN OF MILTON
MAR 29, 2017
JUNIPER 12F
BUILDING DIVISION

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



TOWN OF MILTON
PLANNING AND DEVELOPMENT
JUNIPER 12F MODEL

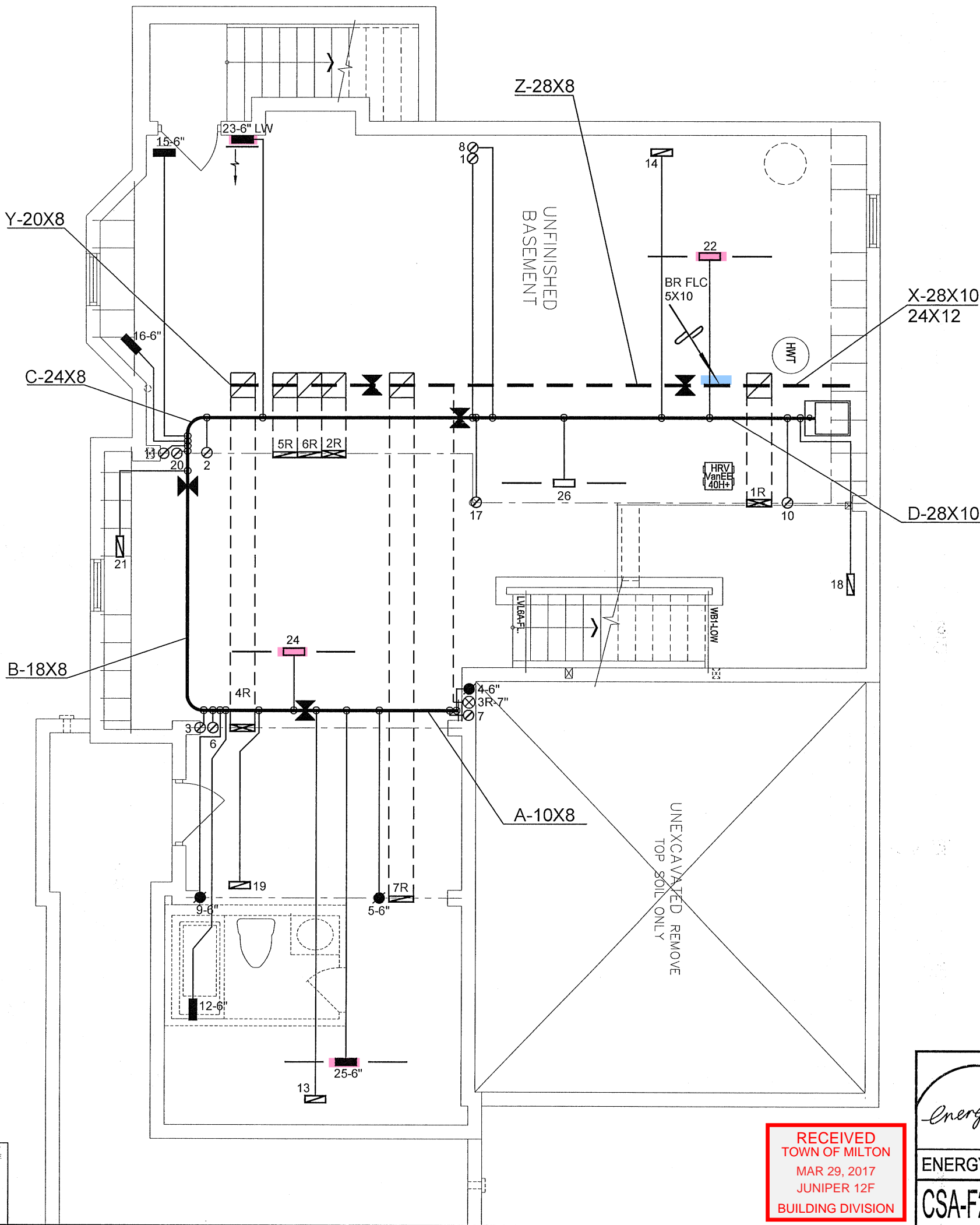
BUILDING: REVIEWED
SCOTT SHERRIFFS

APR 11, 2017

PLANS EXAMINER

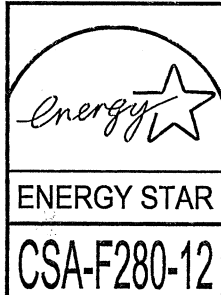
DATE

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



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.

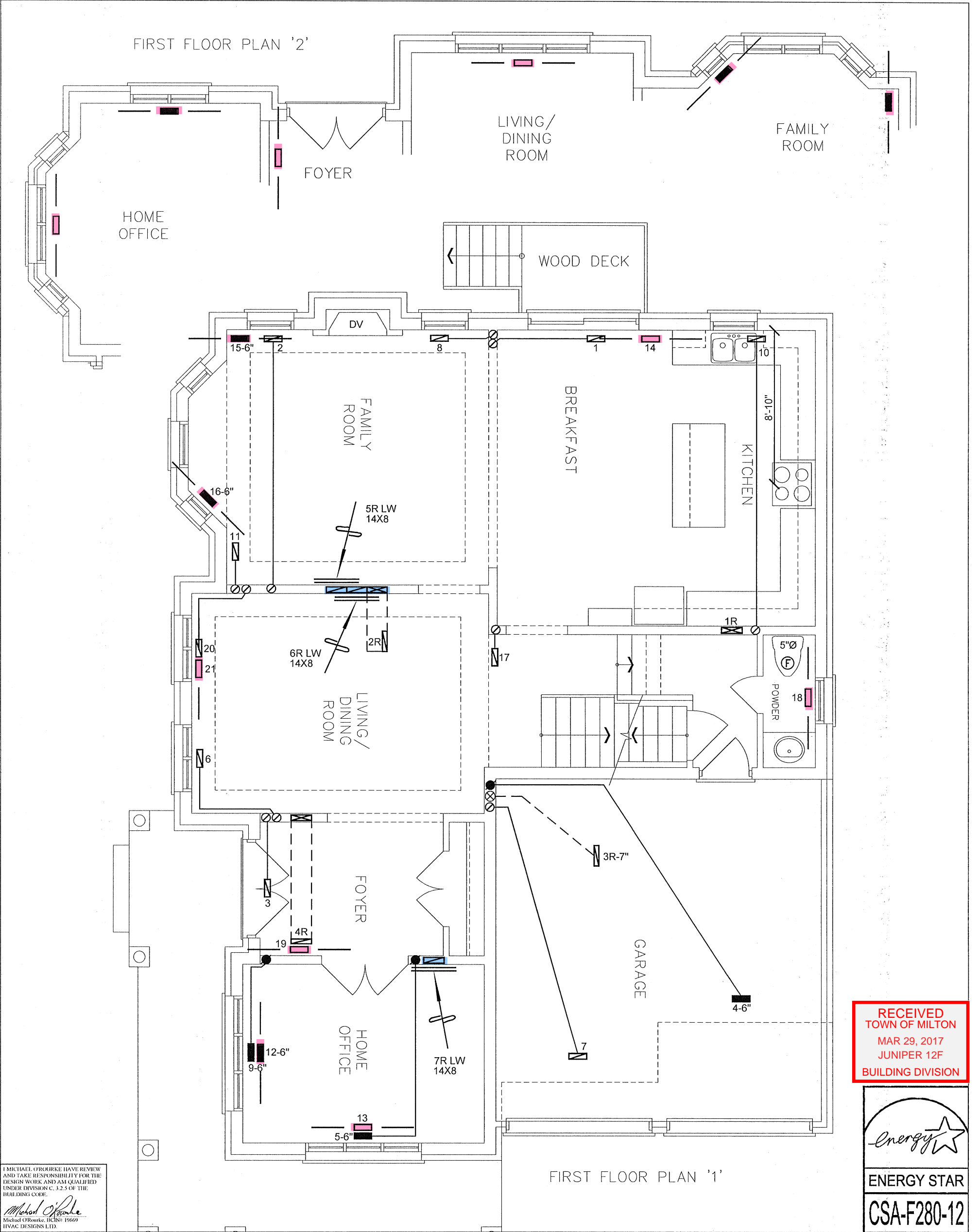
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MAR 29, 2017
JUNIPER 12F
BUILDING DIVISION



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

ALL DRAWINGS, CALCULATIONS AND SPECIFICATIONS ARE THE PROPERTY OF HVAC DESIGNS LTD.© AND MAY NOT BE REPRODUCED, MODIFIED OR ALTERED WITHOUT EXPRESSED WRITTEN CONSENT. THE DRAWINGS ARE DATED AND USE OF THESE DRAWINGS AFTER ONE YEAR FROM THE DATED NOTED IS NOT AUTHORIZED. CONTRACTOR SHALL CHECK ALL CONDITIONS BEFORE PROCEEDING WITH WORK. LATEST MUNICIPAL APPROVED DRAWINGS ONLY TO BE USED DURING INSTALLATION OF HEATING SYSTEM. HVAC DESIGNS LTD. IS NOT LIABLE FOR ANY CLAIMS ARISING FROM UNAUTHORIZED USE OF THE DRAWINGS OR FROM ANY CHANGES TO ACCEPTED STANDARDS AND/OR THE ONTARIO BUILDING CODE.

Client GREENPARK HOMES		<div></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 50994 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS				Sheet Title BASEMENT HEATING LAYOUT	
Project Name LECCO RIDGE MILTON, ONTARIO			MAKE AMANA	3RD FLOOR					Date DEC/2016	
			MODEL AMVC960804CNA	2ND FLOOR		13	4	5		
			INPUT 80 MBTU/H	1ST FLOOR		8	3	2		
			OUTPUT 76.8 MBTU/H	BASEMENT		5	1	0		
JUNIPER 12 WUP 2976 sqft		COOLING 3.5 TONS	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"	
		FAN SPEED 1316 cfm @ 0.5" w.c.							BCIN# 19669	
								LO# 72389		

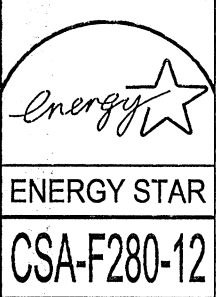


I MICHAEL O'Rourke HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C.32.5 OF THE BUILDING CODE.

Michael O'Rourke

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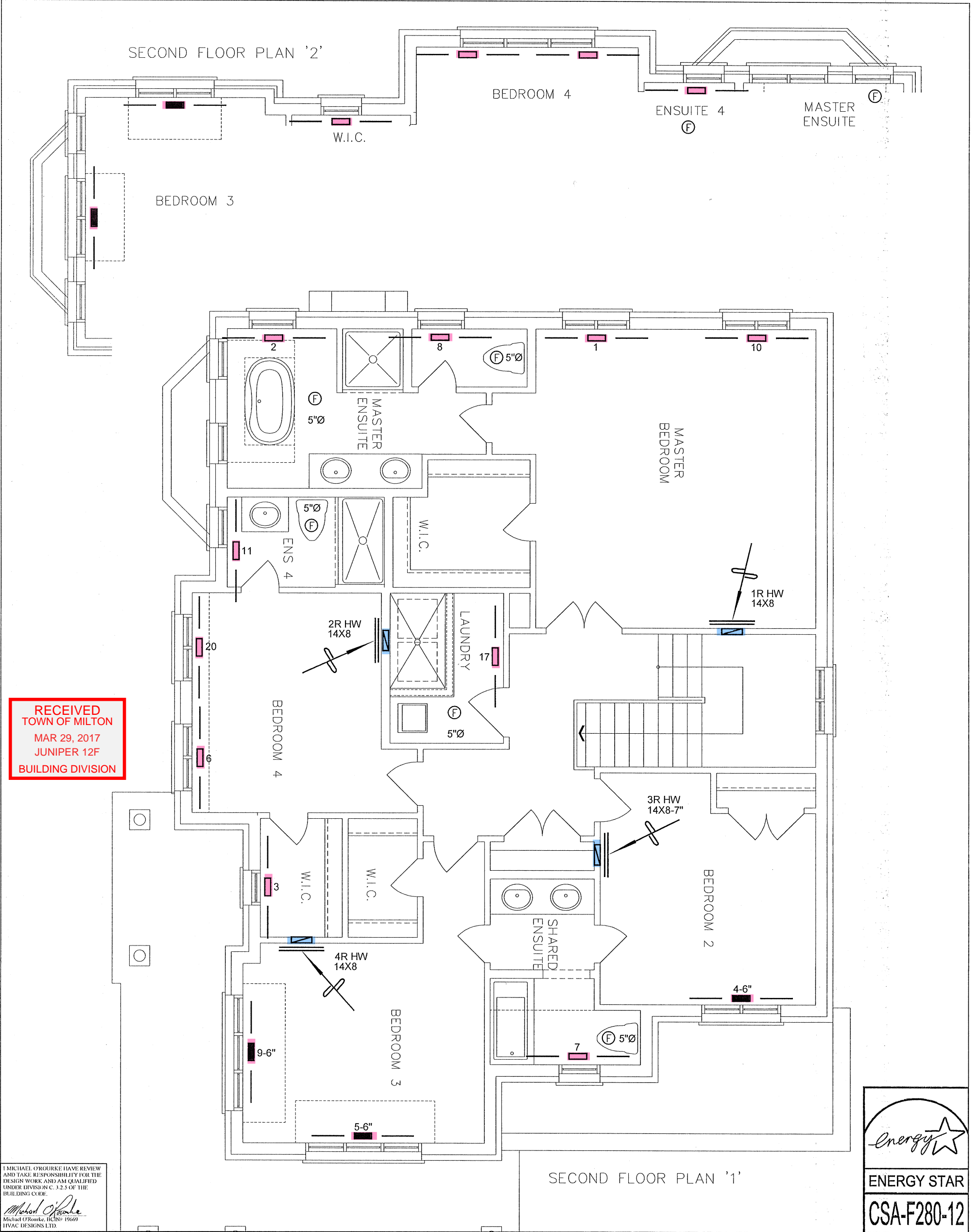
RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 12F
BUILDING DIVISION



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
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER		Date

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Client GREENPARK HOMES		<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 12F MODEL</p><p>BUILDING: REVIEWED SCOTT SHERRIFFS APR 11, 2017 <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 on Ontario, By-laws of the Region of Halton and Town of Milton</p></div>	Sheet Title FIRST FLOOR HEATING LAYOUT	
Project Name LECCO RIDGE MILTON, ONTARIO				Date DEC/2016	
JUNIPER 12 WUP 2976 sqft		Scale 3/16" = 1'-0"		BCIN# 19669	
		LO#		72389	



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Michael O'Rourke
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Client

GREENPARK HOMES

Project Name

LECCO RIDGE
MILTON, ONTARIO

JUNIPER 12 WUP 2976 sqft

HVAC DESIGNS LTD.

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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.

TOWN OF MILTON
PLANNING AND DEVELOPMENT
JUNIPER 12F MODEL

BUILDING: REVIEWED
SCOTT SHERRIFFS APR 11, 2017
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Sheet Title

SECOND FLOOR
HEATING
LAYOUT

Date

DEC/2016

Scale

3/16" = 1'-0"

BCIN# 19669

LO# 72389