

SITE NAME: TRINAR HALL HOMES				LOT 18				DATE: Dec-20				WINTER NATURAL AIR CHANGE RATE 0.254				HEAT LOSS ΔT °F. 81				CSA-F280-12																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
BUILDER: GREENPARK HOMES				TYPE: GLENWAY 7A				GFA: 3314				LO# 88660				SUMMER NATURAL AIR CHANGE RATE 0.071				HEAT GAIN ΔT °F. 11				ENERGYSTAR																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
ROOM USE		MBR		ENS		WIC		BED-2		BED-3		BED-4		ENS-2		BED-5		S-ENS		ENS-3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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GRS.WALL AREA		LOSS GAIN		378		198		72		126		144		270		99		99		54		153																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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SITE NAME: TRINAR HALL HOMES  
BUILDER: GREENPARK HOMES

LOT 18  
TYPE: GLENWAY 7A

DATE: Dec-20

GFA: 3314 LO# 88660

HEATING CFM 1131 COOLING CFM 1131  
TOTAL HEAT LOSS 52,102 TOTAL HEAT GAIN 30,958  
AIR FLOW RATE CFM 21.71 AIR FLOW RATE CFM 36.53

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 AFUE = 96 %  
FAN SPEED LOW INPUT (BTU/H) = 60,000  
DESIGN CFM = 1131  
CFM @ .6 "E.S.P.

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	13	8	4
R/A	0	0	5	3	1

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

MEDIUM HIGH  
HIGH 1131 TEMPERATURE RISE 47 °F

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	ENS-2	BED-5	S-ENS	MBR	ENS-3	BED-3	LV/DN	K/D/F	K/D/F	OFF	LAUN	PWD	FOY	K/D/F	BAS	BAS	BAS	BAS
RM LOSS MBH.	1.61	1.50	0.55	1.38	1.47	1.26	1.13	1.24	0.58	1.61	1.51	1.47	2.20	2.51	2.51	1.08	2.54	1.15	2.59	2.51	4.62	4.62	4.62	4.62
CFM PER RUN HEAT	35	33	12	30	32	27	25	27	13	35	33	32	48	54	54	23	55	25	56	54	100	100	100	100
RM GAIN MBH.	1.93	1.07	0.14	1.72	1.85	1.70	0.37	1.91	0.39	1.93	1.30	1.85	1.85	1.82	1.82	1.28	1.28	0.78	0.34	1.82	0.52	0.52	0.52	0.52
CFM PER RUN COOLING	71	39	5	63	68	62	14	70	14	71	48	68	68	67	67	47	47	28	12	67	19	19	19	19
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	0.17	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH.	62	54	42	42	54	50	51	20	46	51	51	54	7	47	42	30	28	27	38	48	46	45	24	18
EQUIVALENT LENGTH	170	160	160	140	120	170	140	190	160	150	130	110	150	130	140	130	170	100	100	150	150	100	140	110
TOTAL EFFECTIVE LENGTH	232	214	202	182	174	220	191	210	206	201	181	164	157	177	182	160	198	127	138	198	196	145	164	128
ADJUSTED PRESSURE	0.07	0.08	0.09	0.09	0.1	0.08	0.09	0.08	0.08	0.09	0.1	0.1	0.11	0.1	0.09	0.11	0.09	0.14	0.12	0.09	0.08	0.11	0.1	0.13
ROUND DUCT SIZE	6	5	4	6	5	5	4	6	4	6	5	5	6	5	5	5	5	4	6	5	6	6	6	6
HEATING VELOCITY (ft/min)	178	242	138	153	235	198	287	138	149	178	242	235	245	396	396	169	404	287	286	396	510	510	510	510
COOLING VELOCITY (ft/min)	362	286	57	321	499	455	161	357	161	362	352	499	347	492	492	345	345	321	61	492	97	97	97	97
OUTLET GRILL SIZE	4X10	3X10	3X10	4X10	3X10	3X10	3X10	4X10	3X10	4X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	4X10	4X10	4X10	4X10
TRUNK	A	B	B	B	D	C	D	B	D	A	D	D	D	A	A	B	D	C	C	A	A	B	B	D

RUN #	25
ROOM NAME	BED-4
RM LOSS MBH.	1.26
CFM PER RUN HEAT	27
RM GAIN MBH.	1.70
CFM PER RUN COOLING	62
ADJUSTED PRESSURE	0.17
ACTUAL DUCT LGH.	44
EQUIVALENT LENGTH	180
TOTAL EFFECTIVE LENGTH	224
ADJUSTED PRESSURE	0.08
ROUND DUCT SIZE	5
HEATING VELOCITY (ft/min)	198
COOLING VELOCITY (ft/min)	455
OUTLET GRILL SIZE	3X10
TRUNK	C



These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amended. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times.

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-03
Sewage System			
Zoning			

**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)	TRUNK	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)
TRUNK A	332	0.07	9.6	12	x 8	498	TRUNK G	0	0.00	0	0	x 8	0	0.05	0	0	x 8
TRUNK B	657	0.07	12.4	18	x 8	657	TRUNK H	0	0.00	0	0	x 8	0	0.05	0	0	x 8
TRUNK C	135	0.08	6.6	8	x 8	304	TRUNK I	0	0.00	0	0	x 8	0	0.05	0	0	x 8
TRUNK D	473	0.08	10.6	14	x 8	608	TRUNK J	0	0.00	0	0	x 8	0	0.05	0	0	x 8
TRUNK E	0	0.00	0	0	x 8	0	TRUNK K	0	0.00	0	0	x 8	0	0.05	0	0	x 8
TRUNK F	0	0.00	0	0	x 8	0	TRUNK L	0	0.00	0	0	x 8	0	0.05	0	0	x 8

RETURN AIR #	1	2	3	4	5	6	7	8	BR	TRUNK W	425	0.05	11.5	16	x 8	478
AIR VOLUME	115	85	115	85	85	155	155	155	0	0	0	0	0	0	0	181
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.	61	48	56	51	54	36	35	33	1	1	1	1	1	1	1	14
EQUIVALENT LENGTH	205	185	225	205	185	210	205	210	0	0	0	0	0	0	0	135
TOTAL EFFECTIVE LH	266	233	281	256	239	246	240	243	1	1	1	1	1	1	1	149
ADJUSTED PRESSURE	0.06	0.06	0.05	0.06	0.06	0.06	0.06	0.06	14.80	14.80	14.80	14.80	14.80	14.80	14.80	0.10
ROUND DUCT SIZE	6.7	6	7	6	6	7.5	7.5	7.5	0	0	0	0	0	0	0	7
INLET GRILL SIZE	8	8	8	8	8	8	8	8	0	0	0	0	0	0	0	8
INLET GRILL SIZE	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	14	0	0	0	0	0	0	0	14

TYPE: GLENWAY 7A  
SITE NAME: TRINAR HALL HOMES

LO # 88660  
LOT 18

**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	6 @ 10.6 cfm	63.6 cfm
Table 9.32.3.A.	TOTAL	212.0 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
TOTAL		95.4 cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	212	cfm
Less Principal Ventil. Capacity	95.4	cfm
Required Supplemental Capacity	116.6	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANEE 65H	Location: BSMT
95.4 cfm	3.0 sones
<input checked="" type="checkbox"/> HVI Approved	

PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	ΔT °F	FACTOR	% LOSS
95.4 CFM	X 81 F	X 1.08	X 0.25

SUPPLEMENTAL FANS		PANASONIC	
Location	Model	cfm	HVI Sones
ENS	FV-05-11VK1	50	✓ 0.3
ENS-2	FV-05-11VK1	50	✓ 0.3
ENS-3	FV-05-11VK1	50	✓ 0.3
PWD	FV-05-11VK1	50	✓ 0.3

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANEE 65H		
155 cfm high	64 cfm low	
75 % Sensible Efficiency	<input checked="" type="checkbox"/> 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 #:

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**INSTALLING CONTRACTOR**

Name:	
Address:	
City:	
Telephone #:	Fax #:

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-03
Sewage System			
Zoning			

**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: December-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*

MICHAEL O'ROURKE

CSA F280-12 Residential Heat Loss and Heat Gain Calculations																																																																
Formula Sheet (For Air Leakage / Ventilation Calculation)																																																																
LO#: 88660	Model: GLENWAY 7A	Builder: GREENPARK HOMES	Date: 14/12/2020																																																													
<b>Volume Calculation</b>			<b>Air Change &amp; Delta T Data</b>																																																													
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<b>5.2.3.1 Heat Loss due to Air Leakage</b>			<b>6.2.6 Sensible Gain due to Air Leakage</b>																																																													
$HL_{airb} = LR_{airh} \times \frac{V_b}{3.6} \times DTD_h \times 1.2$ <p>0.254 x 365.27 x 45 °C x 1.2 = 5037 W</p> <p>= 17187 Btu/h</p>			$HG_{salb} = LR_{airc} \times \frac{V_b}{3.6} \times DTD_c \times 1.2$ <p>= 0.071 x 365.27 x 6 °C x 1.2 = 189 W</p> <p>= 646 Btu/h</p>																																																													
<b>5.2.3.2 Heat Loss due to Mechanical Ventilation</b>			<b>6.2.7 Sensible heat Gain due to Ventilation</b>																																																													
$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$ <p>95 CFM x 81 °F x 1.08 x 0.25 = 2097 Btu/h</p>			$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$ <p>95 CFM x 11 °F x 1.08 x 0.25 = 283 Btu/h</p>																																																													
<b>5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)</b>																																																																
$HL_{airr} = Level\ Factor \times HL_{airbv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{agclevel} + HL_{bgclevel})\}$ <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Level</th> <th>Level Factor (LF)</th> <th>HLairbv Air Leakage + Ventilation Heat Loss (Btu/h)</th> <th>Level Conductive Heat Loss: (HL<sub>clevel</sub>)</th> <th>Air Leakage Heat Loss Multiplier (LF x HLairbv / HLclevel)</th> </tr> </thead> <tbody> <tr><td>1</td><td>0.5</td><td rowspan="5" style="text-align: center; vertical-align: middle;">17,187</td><td>9,868</td><td>0.871</td></tr> <tr><td>2</td><td>0.3</td><td>11,908</td><td>0.433</td></tr> <tr><td>3</td><td>0.2</td><td>12,632</td><td>0.272</td></tr> <tr><td>4</td><td>0</td><td>0</td><td>0.000</td></tr> <tr><td>5</td><td>0</td><td>0</td><td>0.000</td></tr> </tbody> </table> <p>*HLairbv = Air leakage heat loss + ventilation heat loss  *For a balanced or supply only ventilation system HLairve = 0</p>					Level	Level Factor (LF)	HLairbv Air Leakage + Ventilation Heat Loss (Btu/h)	Level Conductive Heat Loss: (HL <sub>clevel</sub> )	Air Leakage Heat Loss Multiplier (LF x HLairbv / HLclevel)	1	0.5	17,187	9,868	0.871	2	0.3	11,908	0.433	3	0.2	12,632	0.272	4	0	0	0.000	5	0	0	0.000																																		
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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-03
Sewage System			
Zoning			

## HEAT LOSS AND GAIN SUMMARY SHEET

<b>MODEL:</b> GLENWAY 7A	<b>LOT 18</b>	<b>BUILDER:</b> GREENPARK HOMES
<b>SFQT:</b> 3314	<b>LO#</b> 88660	<b>SITE:</b> TRINAR HALL HOMES

### DESIGN ASSUMPTIONS

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-9	OUTDOOR DESIGN TEMP.	86
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	75

### BUILDING DATA

ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	EAST	ASSUMED (Y/N):	Y
AIR CHANGES PER HOUR:	2.50	ASSUMED (Y/N):	Y
AIR TIGHTNESS CATEGORY:	TIGHT	ASSUMED (Y/N):	Y
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Y
HOUSE VOLUME (ft³):	46438.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	6
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: 54.0 ft	WIDTH: 35.0 ft	EXPOSED PERIMETER:	178.0 ft



### 2012 OBC - COMPLIANCE PACKAGE

#### Component

Ceiling with Attic Space Minimum RSI (R)-Value

Ceiling Without Attic Space Minimum RSI (R)-Value

Exposed Floor Minimum RSI (R)-Value

Walls Above Grade Minimum RSI (R)-Value

Basement Walls Minimum RSI (R)-Value

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

Heated Slab or Slab ≤ 600 mm below grade Minimum RSI (R)-Value

Windows and Sliding Glass Doors Maximum U-Value

Skylights Maximum U-Value

Space Heating Equipment Minimum AFUE

HRV Minimum Efficiency

Domestic Hot Water Heater Minimum EF

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#### Compliance Package ENERGYSTAR

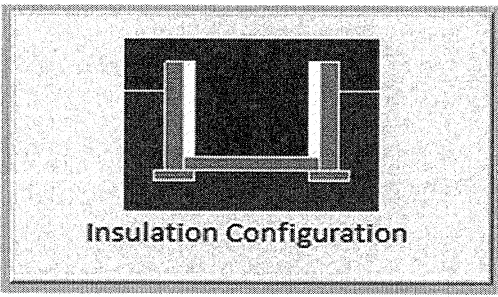
Nominal	Min. Eff.
60	59.20
31	27.70
31	29.80
R22+R5	21.10
20	21.12
-	-
10	10
10	11.13
ZONE 2	-
ZONE 2	-
0.96	-
75%	-
0.9	-

INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE

# Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Bradford	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	16.5	 Insulation Configuration
Floor Width (m):	10.7	
Exposed Perimeter (m):	0.0	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.83	
Window Area (m <sup>2</sup> ):	1.9	
Door Area (m <sup>2</sup> ):	1.9	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):	1864	



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Sewage System			
Zoning			

TYPE: GLENWAY 7A  
LO# 88660

LOT 18



# Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Bradford			
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):	7.92			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m <sup>3</sup> ):	1315.0			
Air Leakage/Ventilation				
Air Tightness Type:	Energy Star Detached (2.5 ACH)			
Custom BDT Data:	ELA @ 10 Pa. 2.50	1227.5 cm <sup>2</sup> ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply 45.0	Total Exhaust 45.0		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.254			
Cooling Air Leakage Rate (ACH/H):	0.071			

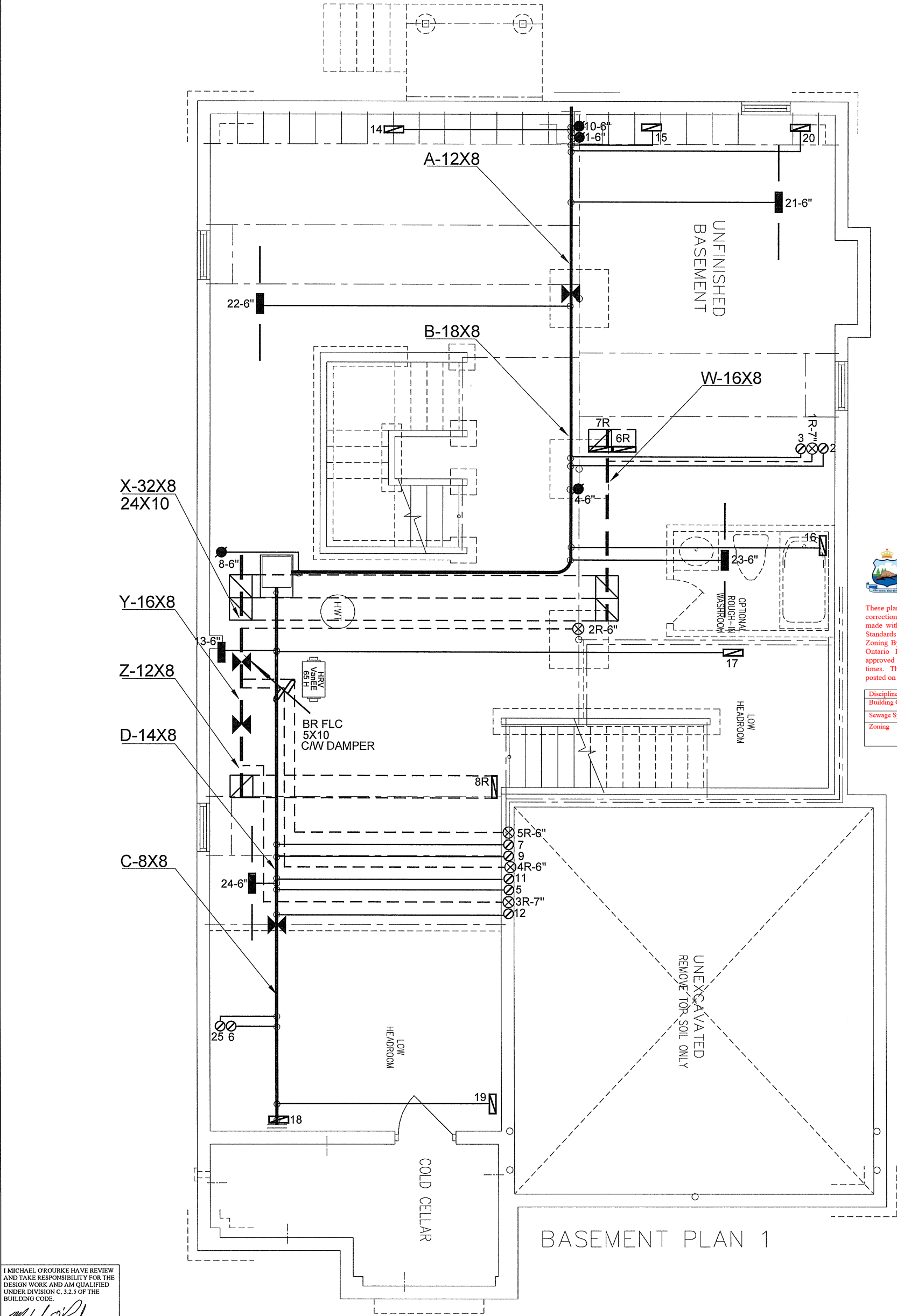
TYPE: GLENWAY 7A  
LO# 88660

LOT 18



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Zoning			

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

LOT 18

WOD

CSA-F280-12

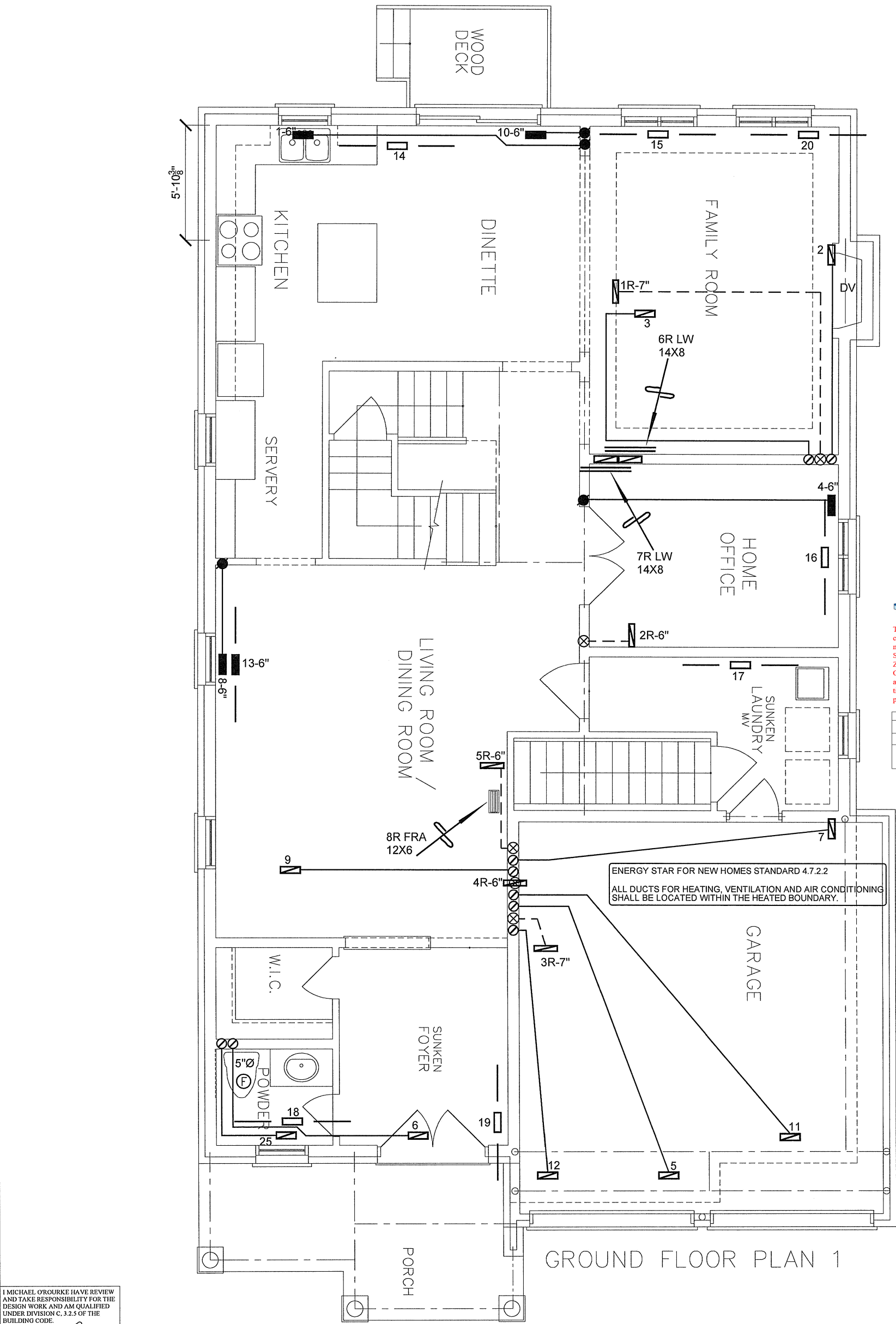
ENERGY STAR

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.		
	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	<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 54199 BTU/H UNIT DATA	# OF RUNS	S/A	R/A	FANS	Sheet Title	
GREENPARK HOMES		MAKE GOODMAN	3RD FLOOR				BASEMENT HEATING LAYOUT	
Project Name		MODEL GMEC960603BNA	2ND FLOOR	13	5	4		
TRINAR HALL HOMES EAST GWILLIMBURY, ONT.		INPUT 60 MBTU/H	1ST FLOOR	8	3	2		
LOT 18		OUTPUT 57.6 MBTU/H	BASEMENT	4	1	0	Date	DEC/2020
GLENWAY 7A 3314 sqft	COOLING 3.0 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 1131 cfm @ 0.6" w.c.					BCIN# 19669		
						LO#	88660	





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Building Code	H. Authier	43236	2021-02-03
Sewage System			
Zoning			

LOT 18

WOD

CSA-F280-12



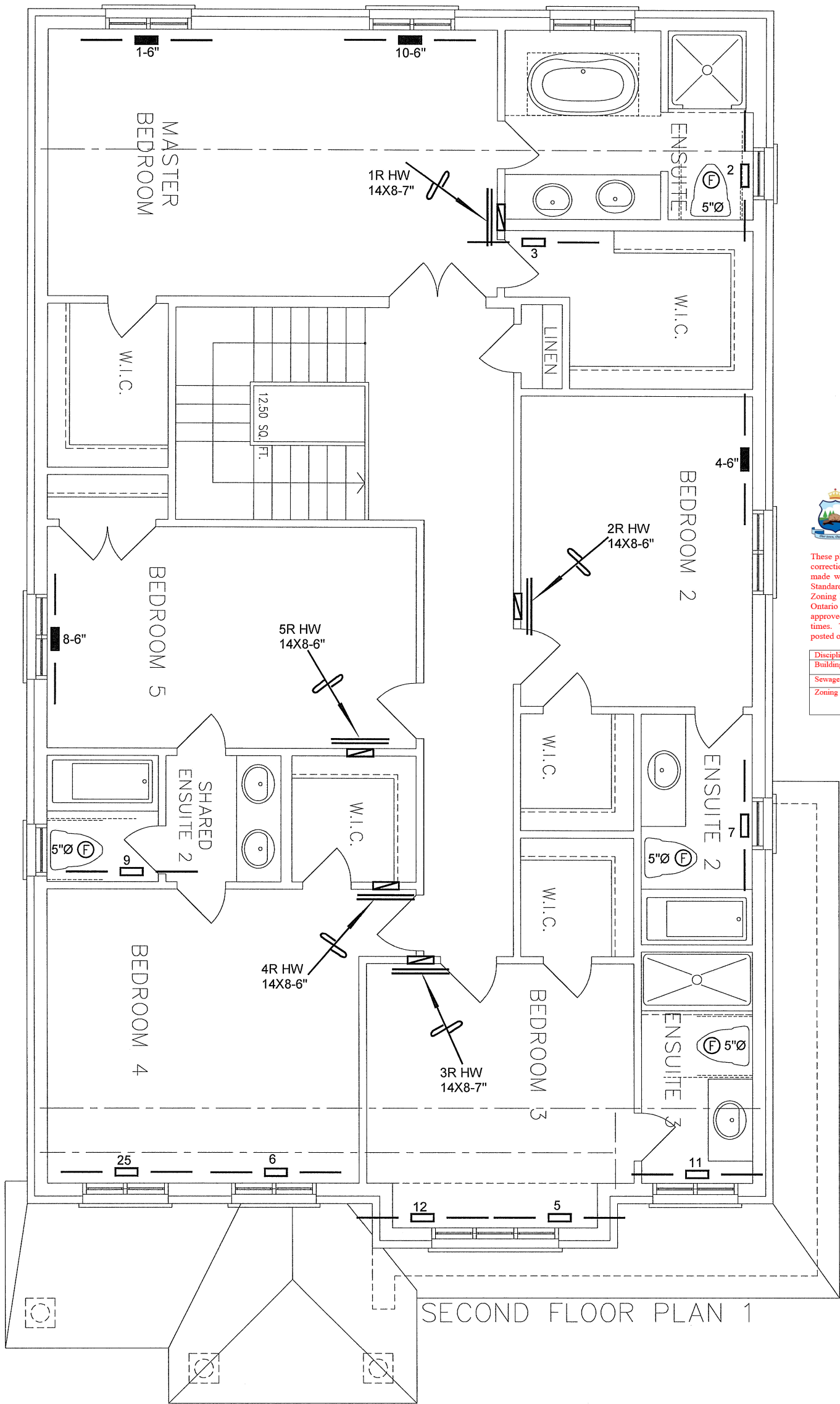
ENERGY STAR

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

HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
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GREENPARK HOMES			FIRST FLOOR HEATING LAYOUT	
Project Name			Date	DEC/2020
TRINAR HALL HOMES EAST GWILLIMBURY, ONT.			Scale	3/16" = 1'-0"
LOT 18			BCIN# 19669	
GLENWAY 7A			LO#	88660
3314 sqft				



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Building Code	H. Authier	43236	2021-02-03
Sewage System			
Zoning			

LOT 18

WOD

CSA-F280-12

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*Michael O'Rourke*

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HVAC DESIGNS LTD.

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Project Name			Date	DEC/2020
TRINAR HALL HOMES EAST GWILLIMBURY, ONT.			Scale	3/16" = 1'-0"
LOT 18			BCIN# 19669	
GLENWAY 7A			LO#	88660
3314 sqft				