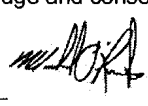


**Schedule 1: Designer Information**

Type in the text you want to insert

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

<b>A. Project Information</b>			
Building number, street name <b>MODEL CERTIFICATION</b>		Unit no. <b>N/A</b>	Lot/con. <b>N/A</b>
Municipality <b>KING CITY</b>	Postal code <b>N/A</b>	Plan number/ other description <b>N/A</b>	
<b>B. Individual who reviews and takes responsibility for design activities</b>			
Name <b>MICHAEL O'ROURKE</b>		Firm <b>HVAC DESIGNS LTD.</b>	
Street address <b>65 CHURCH STREET SOUTH</b>		Unit no.	Lot/con.
Municipality <b>AJAX</b>	Postal code <b>L1S 6A7</b>	Province <b>ONTARIO</b>	E-mail <b>info@hvacdesigns.ca</b>
Telephone number <b>(905) 619-2300</b>	Fax number <b>(905) 619-2375</b>	Cell number ( )	
<b>C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]</b>			
<input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings <input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection <input type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems			
Description of designer's work <b>Heat Loss/Gain Calculations</b> <b>Duct Sizing</b> <b>Residential Mechanical Ventilation Design Summary</b> <b>Residential System Design per Can/CSA-F280-M90</b>		<b>Model: 50-2</b>  <b>Project: CASTLES OF KING CITY</b>	
<b>D. Declaration of Designer</b>			
I, <u><b>MICHAEL O'ROURKE</b></u> declare that (choose one as appropriate): (print name)			
<input type="checkbox"/> review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. Individual BCIN: _____ Firm BCIN: _____			
<input checked="" type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code. Individual BCIN: <u>19669</u> Basis for exemption from registration: <u>O.B.C. SENTENCE 3.2.4.1. (4)</u>			
<input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification: _____			
I certify that:			
1. The information contained in this schedule is true to the best of my knowledge.			
2. I have submitted this application with the knowledge and consent of the firm.			
<u>JANUARY 24, 2014</u>			
Date		Signature of Designer	

**NOTE:**

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d) of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

ENERGYSTAR 12.1 2012 OBC - REV JAN 2014 BUILDER: ZANCOR HOMES TYPE: 50-2

ROOM USE	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	BED-5	LOFT	ENS-2	R1	R2
EXP. WALL	40	13	0	12	52	28	15	0	47	16	0	0
RM AREA	280	130	117	36	331	204	136	0	329	27	0	0
CLG. HT.	11	10	10	10	10	9	0	10	0	10	9	9
COLD FLOOR	0	0	0	0	331	0	0	0	0	0	0	0
COLD CEILING	280	130	117	36	331	204	136	0	329	27	0	0
NO ATTIC EXPOSED CLG	0	0	0	0	0	0	0	0	0	0	0	0
GROSS WALL BAS ABOVE GRADE	0	0	0	0	0	0	0	0	0	0	0	0
GROSS WALL BAS BELOW GRADE	0	0	0	0	0	0	0	0	0	0	0	0
<b>FACTORS</b>												
GRS WALL AREA	440	130	0	120	520	252	135	0	470	160	0	0
GLAZING	10	0	0	0	0	0	0	0	0	0	0	0
NORTH	195	0	0	0	0	0	0	0	0	0	0	0
EASTWEST	72	1404	2376	0	25	488	825	0	0	0	0	0
SOUTH	0	30	585	0	0	14	273	263	0	0	0	0
SKYLT.	0	0	0	0	0	0	0	0	0	0	0	0
DOORS	10	259	56	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	348	1018	222	100	495	696	128	374	82	470	1375	300
WALL BAS ABOVE GR	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	280	416	208	130	193	96	117	174	87	329	544	325
EXPOSED CLG	0	0	0	0	331	491	136	202	101	27	40	20
EXPOSED FLOOR	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED WALL BAS BELOW GRADE	0	0	0	0	331	782	170	0	0	0	0	0
BELOW GRADE HT LOSS	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	3292	1070	174	719	3208	1557	713	329	1863	674	0	0
SUB TOTAL HT GAIN	1112	362	59	243	1084	430	241	0	629	228	0	0
HT LOSS AIR LEAKAGE FACTOR	450	118	13	73	233	89	49	0	82	49	0	0
HT GAIN AIR LEAKAGE FACTOR	480	240	240	240	240	1	240	0	2	240	0	0
HT GAIN PEOPLE/APPLIANCES	240	1	232	962	4292	1701	953	0	2492	901	0	0
TOTAL HT LOSS BTU/H	5111	1432	442	1042	2639	1203	804	0	1437	798	0	0
TOTAL HT GAIN x 1.3 BTU/H												

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

ROOM USE	LIV	DIN	KIT/FM	FAM	LAUN	WIR	FOY	DEN	R3	R4	WOB	BAS
EXP. WALL	0	200	990	0	154	60	220	350	0	0	0	0
RM AREA	0	468	335	0	0	10	195	140	0	0	0	0
CLG. HT.	10	10	10	10	11	84	99	164	0	0	0	0
COLD FLOOR	0	0	0	0	0	0	0	0	0	0	0	0
COLD CEILING	0	280	302	0	0	84	99	164	0	0	0	0
NO ATTIC EXPOSED CLG	0	0	234	0	0	0	0	0	0	0	0	0
GROSS WALL BAS ABOVE GRADE	0	0	0	0	0	0	0	0	0	0	0	0
GROSS WALL BAS BELOW GRADE	0	0	0	0	0	0	0	0	0	0	0	0
<b>FACTORS</b>												
GRS WALL AREA	0	200	990	0	154	60	220	350	0	0	0	0
GLAZING	0	0	0	0	0	0	0	0	0	0	0	0
NORTH	1950	1396	19	371	265	10	35	878	1485	0	0	10
EASTWEST	0	0	115	2243	3795	0	0	45	0	0	0	10
SOUTH	0	0	0	0	0	0	0	0	0	0	0	10
SKYLT.	0	0	0	0	0	0	0	0	0	0	0	5
DOORS	0	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	0	0	20	518	113	0	20	518	113	0	0	40
WALL BAS ABOVE GR	0	176	515	112	836	2445	533	165	483	105	305	194
EXPOSED CLG	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	0	280	416	208	302	448	224	164	243	122	0	659
EXPOSED CLG	0	0	0	0	0	84	125	62	99	147	73	184
EXPOSED FLOOR	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED WALL BAS BELOW GRADE	0	0	0	0	0	0	0	0	0	0	0	0
BELOW GRADE HT LOSS	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	0	1398	6591	5213	198	234	1830	2013	1801	0	0	222
SUB TOTAL HT GAIN	0	472	2226	782	30	157	618	680	270	0	0	4884
HT LOSS AIR LEAKAGE FACTOR	0	98	480	240	1	623	2448	2693	2693	0	0	2334
HT GAIN AIR LEAKAGE FACTOR	0	2	5	8817	6	1	1	1	1	0	0	2516
HT GAIN PEOPLE/APPLIANCES	240	1871	9353	0	1218	623	2448	2693	2693	0	0	11294
TOTAL HT LOSS BTU/H	0	1603	9353	0	0	2169	2475	2693	2693	0	0	15108
TOTAL HT GAIN x 1.3 BTU/H												1703

TOTAL HEAT GAIN BTU/H

3.37 TONS

LOSS DUE TO VENTILATION LOAD BTU/H

16966

TOTAL STRUCTURE HEAT LOSS BTU/H

50147

TOTAL COMBINED HEAT LOSS BTU/H

67113

SITE NAME: CASTLES OF KING  
BUILDER: ZANCOR HOMES

DATE: Jan-14 LO# 53711 CALCULATIONS per HRAI PAGE 2 of 3

FURNACE CFM 1285 FURNACE CFM 1285  
TOTAL HEAT LOSS 50147 TOTAL HEAT GAIN 35623  
AIR FLOW RATE CFM 25.62 AIR FLOW RATE CFM 36.07

\*LENNOX  
ML195JH090XP48C 90 OUTPUT 85000 BTUH  
FAN SPEED CFM @ .5" E.S.P.  
LOW 1285  
MEDLOW 1460  
MEDIUM 1675  
HIGH 1830

RUN COUNT	3rd	2nd	1st	Bas
S/A	0	5	14	6
R/A	0	2	4	1

All S/A diffusers 4"x10" unless noted otherwise on layout.  
All R/A diffusers 5"x10" 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	BED-3	LOFT	MBR	ENS-2	DIN	KT/FM	KT/FM	KT/FM	LAUN	W/R	FOY	DEN	BAS	BAS	BAS	BAS	BAS
RM LOSS MBH	2.20	1.43	0.23	0.96	2.15	1.70	0.95	2.15	2.49	2.20	0.90	0.00	1.87	2.94	2.94	2.94	1.22	2.45	2.69	2.52	2.52	2.52	2.52	2.52
CFM PER RUN HEAT	56	37	6	25	55	44	24	55	64	56	23	0	48	75	75	75	31	63	69	65	65	65	65	65
RM GAIN MBH	2.56	1.49	0.44	1.04	1.32	1.20	0.80	1.32	1.44	2.56	0.80	0.00	1.60	3.12	3.12	3.12	2.17	2.47	2.69	0.28	0.28	0.28	0.28	0.28
CFM PER RUN COOLING	92	54	16	38	48	43	29	48	52	92	29	0	58	112	112	112	78	89	97	10	10	10	10	10
ADJUSTED PRESSURE	0.125	0.13	0.125	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.125	0.13	0.13	0.13	0.13	0.13	0.13
ACTUAL DUCT LGH.	71	67	51	76	55	83	93	62	31	62	87	1	26	52	43	51	77	31	32	49	63	45	29	38
EQUIVALENT LENGTH	130	140	150	130	160	140	170	150	130	150	140	0	150	110	120	130	140	130	110	110	130	100	100	100
TOTAL EFFECTIVE LH	201	207	201	206	215	223	263	212	161	212	227	1	176	162	163	181	217	171	162	159	173	175	129	138
ADJUSTED PRESSURE	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.06	0.08	0.06	0.06	12.5	0.07	0.08	0.08	0.08	0.07	0.07	0.08	0.08	0.07	0.07	0.07	0.09
ROUND DUCT SIZE	6	5	5	5	5	5	5	5	5	6	5	0	5	6	6	6	6	5	6	6	5	5	5	5
OUTLET GRILL SIZE	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	4X10	4X10	4X10	4X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10
TRUNK	A	A	B	A	E	B	A	E	D	B	A	E	E	C	C	C	B	E	E	B	C	D	E	E

RUN #	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
ROOM NAME	BAS	BAS																						
RM LOSS MBH.	2.52	2.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
CFM PER RUN HEAT	65	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RM GAIN MBH.	0.28	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
CFM PER RUN COOLING	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ADJUSTED PRESSURE	0.125	0.13	0.125	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.125	0.13	0.13	0.13	0.13	
ACTUAL DUCT LGH.	71	26	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
EQUIVALENT LENGTH	160	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL EFFECTIVE LH	231	146	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
ADJUSTED PRESSURE	0.05	0.09	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	
ROUND DUCT SIZE	6	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OUTLET GRILL SIZE	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	
TRUNK	A	D																						

## SUPPLY AIR TRUNK SIZE

TRUNK	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	TRUNK	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	TRUNK	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT
TRUNK A	230	0.05	9.1	9	TRUNK F	1287	0.05	17.3	27	TRUNK O	0	0.04	0	0
TRUNK B	432	0.05	11.5	15	TRUNK G	0	0.05	0	0	TRUNK P	0	0.04	0	0
TRUNK C	290	0.05	9.9	11	TRUNK H	0	0.05	0	0	TRUNK Q	0	0.04	0	0
TRUNK D	916	0.05	15.3	27	TRUNK I	0	0.05	0	0	TRUNK R	0	0.04	0	0
TRUNK E	371	0.05	10.9	13	TRUNK J	0	0.05	0	0	TRUNK S	0	0.04	0	0
										TRUNK T	0	0.04	0	0
										TRUNK U	0	0.04	0	0
										TRUNK V	0	0.04	0	0
										TRUNK W	0	0.04	0	0
										TRUNK X	1015	0.04	16.8	32
										TRUNK Y	270	0.04	10.2	12
										TRUNK Z	825	0.04	15.3	27
										DROP	1285	0.04	18.3	24

## RETURN AIR TRUNK SIZE

TRUNK	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	TRUNK	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	TRUNK	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT
TRUNK A	230	0.05	9.1	9	TRUNK F	1287	0.05	17.3	27	TRUNK O	0	0.04	0	0
TRUNK B	432	0.05	11.5	15	TRUNK G	0	0.05	0	0	TRUNK P	0	0.04	0	0
TRUNK C	290	0.05	9.9	11	TRUNK H	0	0.05	0	0	TRUNK Q	0	0.04	0	0
TRUNK D	916	0.05	15.3	27	TRUNK I	0	0.05	0	0	TRUNK R	0	0.04	0	0
TRUNK E	371	0.05	10.9	13	TRUNK J	0	0.05	0	0	TRUNK S	0	0.04	0	0
										TRUNK T	0	0.04	0	0
										TRUNK U	0	0.04	0	0
										TRUNK V	0	0.04	0	0
										TRUNK W	0	0.04	0	0
										TRUNK X	1015	0.04	16.8	32
										TRUNK Y	270	0.04	10.2	12
										TRUNK Z	825	0.04	15.3	27
										DROP	1285	0.04	18.3	24

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.

MICHAEL O'ROURKE  
BCIN: 19669

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

TYPE: 50-2

LO # 53711

PAGE 3 of 3

SITE NAME: CASTLES OF KING

## 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	7	@ 10.6 cfm	74.2	cfm
Table 9.32.3.A.	TOTAL		201.4	cfm

### PRINCIPAL VENTILATION CAPACITY REQUIRED 9.32.3.4.(1)

Master Bedroom	31.8 cfm
Two Bedrooms	47.7 cfm
Three Bedrooms	63.6 cfm
Four Bedrooms	79.5 cfm
Table 9.32.3.B.	TOTAL 79.5 cfm

More than 5 - Part 6

### SUPPLEMENTAL VENTILATION CAPACITY 9.32.3.5.

Total Ventilation Capacity	201.4	cfm
Less Principal Ventil. Capacity	120	cfm
Required Supplemental Capacity	81.4	cfm

### PRINCIPAL EXHAUST FAN CAPACITY

Model:	VANEE 90H-V ECM	Location:	BSMT
120	cfm	<input checked="" type="checkbox"/>	HVI Approved
	0.6		sones

SUPPLEMENTAL FANS		NUTONE		HVI	Sones
Location	Model	cfm			
ENS	QTXEN050C	50		<input checked="" type="checkbox"/>	0.3
W/R	QTXEN050C	50		<input checked="" type="checkbox"/>	0.3
BATH	QTXEN050C	50		<input checked="" type="checkbox"/>	0.3
LAUN	QTXEN050C	50		<input checked="" type="checkbox"/>	0.3

### HEAT RECOVERY VENTILATOR 9.32.3.11.

Model:	VANEE 90H-V ECM
159	cfm high 65 cfm low
75	% Sensible Efficiency
@ 32 deg F ( 0 deg C)	<input checked="" type="checkbox"/> HVI Approved

### LOCATION OF INSTALLATION

Lot: Concession

Township: Plan:

Address:

Roll # Building Permit #

### BUILDER

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: January-14

MODEL: 50-2  
SFQT: 3463

LO# 53711

BUILDER: ZANCOR HOMES

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**ENERGYSTAR 12.1**

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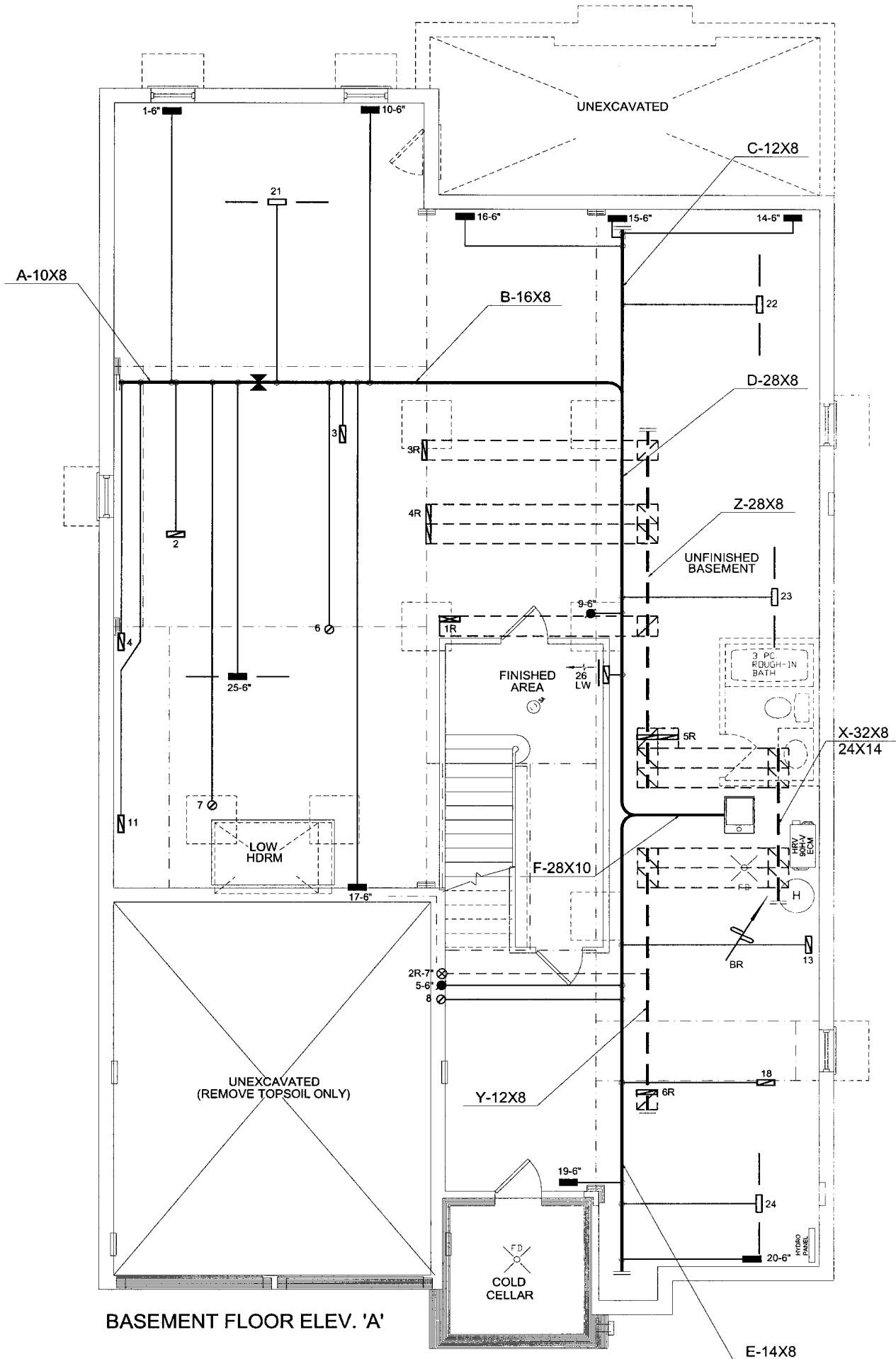
Component	Compliance Package
	ZONE 1
Ceiling with Attic Space Minimum RSI (R)-Value	50
Ceiling Without Attic Space Minimum RSI (R)-Value	31
Exposed Floor Minimum RSI (R)-Value	31
Walls Above Grade Minimum RSI (R)-Value	24
Basement Walls Minimum RSI (R)-Value	20
Below Grade Slab Entire surface > 600 mm 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 C
Skylights Maximum U-Value	2.8
Space Heating Equipment Minimum AFUE	95%
HRV Minimum Efficiency	75%
Domestic Hot Water Heater Minimum EF	0.9



INDIVIDUAL BCIN: 19669  
MICHAEL O'ROURKE

PARTIAL BASEMENT FLOOR ELEV. 'B'

PARTIAL BASEMENT FLOOR ELEV. 'C'



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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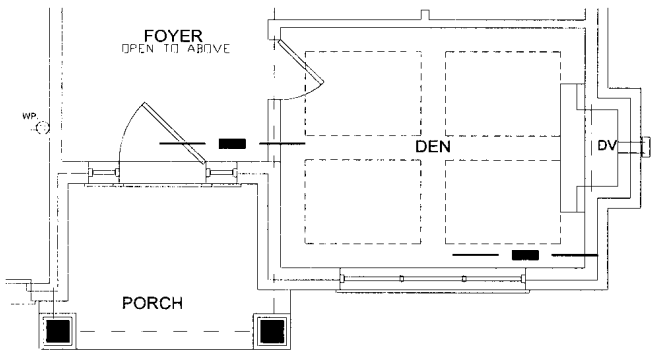


ENERGY STAR

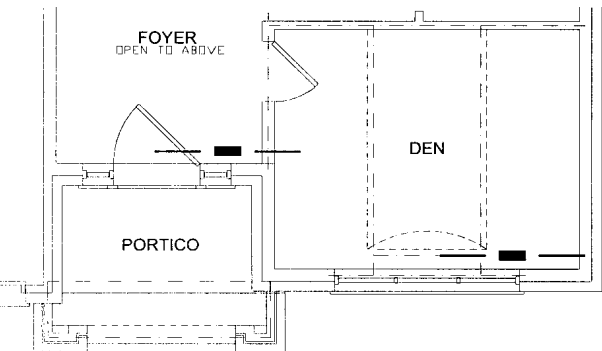
HVAC LEGEND										
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	FLOOR SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		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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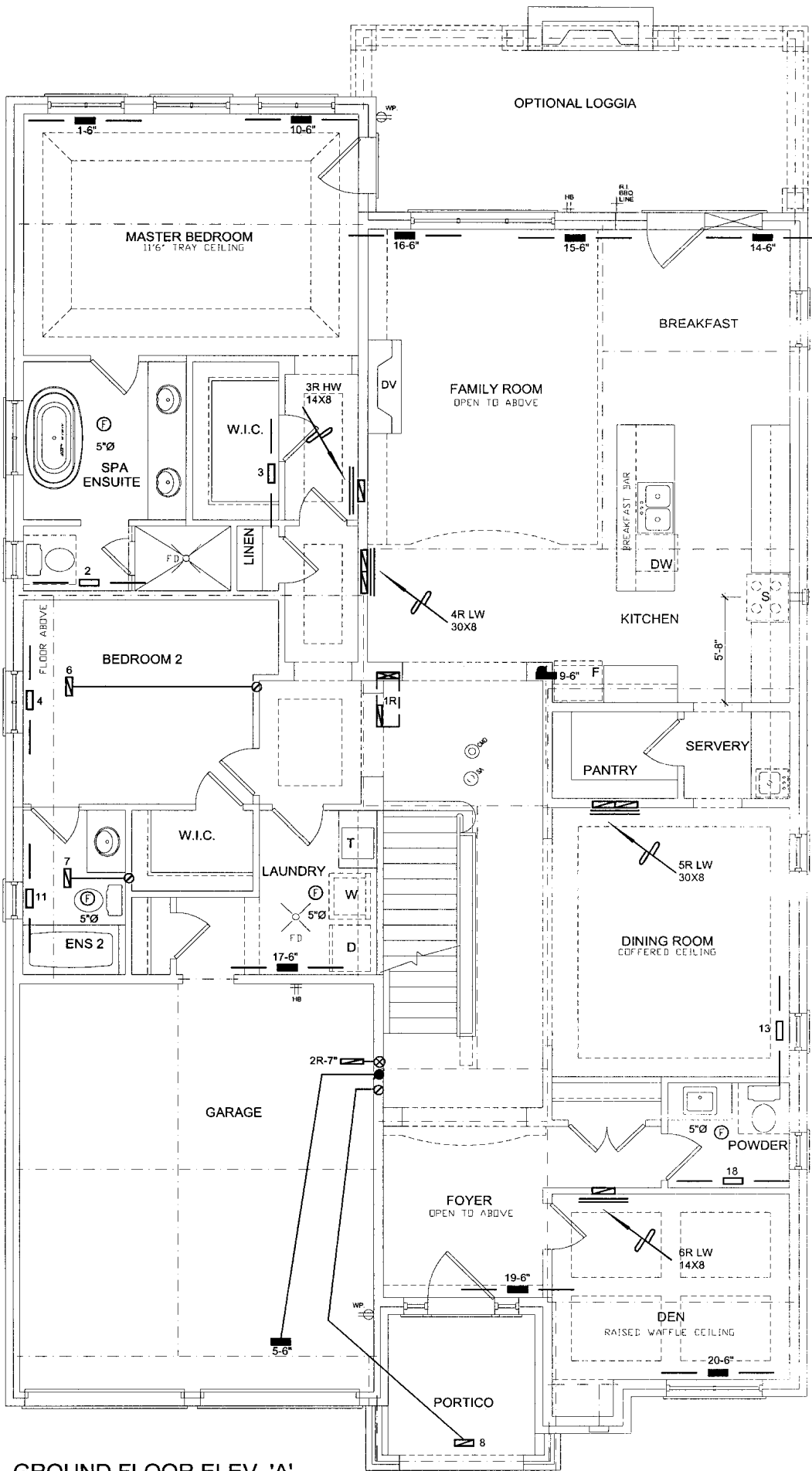
Client	<div><div><div>HVACDESIGNS LTD.</div><div>65 Church Street South - Ajax, Ontario L1S 6A7 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services</div></div><div>Installation to comply with the latest 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.</div></div>	HEAT LOSS 67113 BTU/H		# OF RUNS S/A R/A FANS				Sheet Title		
ZANCOR HOMES		UNIT DATA	3RD FLOOR				BASEMENT HEATING LAYOUT	Date JAN/2014		
Project Name		MAKE LENNOX	2ND FLOOR	5	2	1			Scale 1/8" = 1'-0"	
CASTLES OF KING CITY KING CITY, ONTARIO		MODEL ML195UH090XP48C-90	1ST FLOOR	14	4	5				BCIN# 19669
		INPUT 88 MBTU/H	BASEMENT	6	1	0				
	50-2	3463 sqft	OUTPUT 85 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						
		COOLING 3.5 TONS								
		FAN SPEED 1285 cfm @ 0.5" w.c.								



PARTIAL GROUND FLOOR ELEV. 'B'



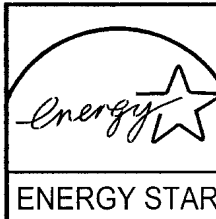
PARTIAL GROUND FLOOR ELEV. 'C'



GROUND FLOOR ELEV. 'A'

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*Michael O'Rourke*  
Michael O'Rourke, BCTNP 19669  
HVAC DESIGNS LTD.

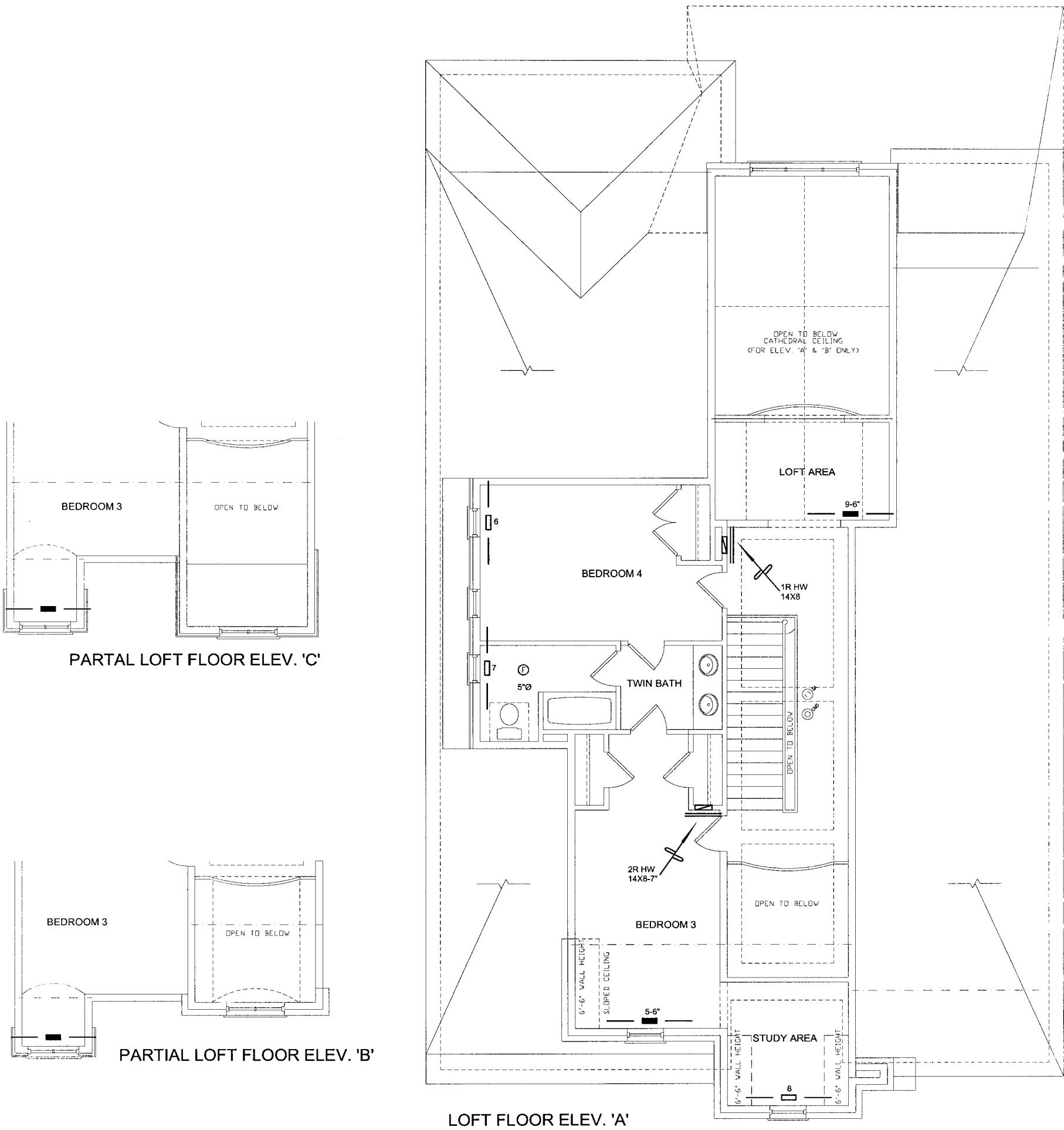
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HVAC LEGEND										
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Client		<div><p>65 Church Street South - Ajax, Ontario L1S 6A7 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services</p><p>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.</p></div>	Sheet Title	
ZANCOR HOMES			FIRST FLOOR HEATING LAYOUT	
Project Name			Date	JAN/2014
CASTLES OF KING CITY KING CITY, ONTARIO			Scale	1/8" = 1'-0"
50-2		BCIN# 19669		
3463 sqft		LO#	53711	



OBC 2012-Rev. 2014



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Michael O'Rourke, BCIN# 19669  
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Client <b>ZANCOR HOMES</b>		 65 Church Street South - Ajax, Ontario L1S 6A7 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	Sheet Title <b>SECOND FLOOR HEATING LAYOUT</b>	
Project Name <b>CASTLES OF KING CITY KING CITY, ONTARIO</b>			Date <b>JAN/2014</b>	Scale <b>1/8" = 1'-0"</b>
50-2	3463 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.	BCIN# 19669	LO# 53711