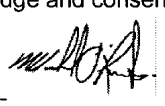


Schedule 1: Designer Information

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.

A. Project Information			
Building number, street name MODEL CERTIFICATION		Unit no. N/A	Lot/con. N/A
Municipality KING CITY	Postal code N/A	Plan number/ other description N/A	
B. Individual who reviews and takes responsibility for design activities			
Name MICHAEL O'ROURKE		Firm HVAC DESIGNS LTD.	
Street address 65 CHURCH STREET SOUTH		Unit no.	Lot/con.
Municipality AJAX	Postal code L1S 6A7	Province ONTARIO	E-mail info@hvacdesigns.ca
Telephone number (905) 619-2300	Fax number (905) 619-2375	Cell number ()	
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]			
<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 Heat Loss/Gain Calculations Duct Sizing Residential Mechanical Ventilation Design Summary Residential System Design per Can/CSA-F280-M90		Model: 50-11 Project: CASTLES OF KING CITY	
D. Declaration of Designer			
I <u>MICHAEL O'ROURKE</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.			
JANUARY 30, 2014 _____ 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 CBC - REV JAN 2014

ROOM USE	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	ENS-3	LOFT	ENS-2	R1	R2
EXP. WALL	39	41	9	18	33	39	6	10	17	7	0	0
RM AREA	373	285	153	267	239	320	174	108	401	144	0	0
CLG. HT.	11	11	10	10	10	10	10	10	11	9	9	9
COLD FLOOR	0	0	0	0	0	0	84	0	161	0	0	0
COLD CEILING	373	285	153	267	195	284	174	108	401	144	0	0
NO ATTIC EXPOSED CLG	0	0	0	0	44	56	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
FACTORS												
GRS WALL AREA	429	451	90	180	330	390	60	100	187	70	0	0
GLAZING	0	0	0	0	0	0	0	0	0	0	0	0
NORTH	19.50	13.96	0	0	33	51	0	8	0	0	0	0
EAST/WEST	19.50	33.00	0	0	25	488	0	156	0	0	0	0
SOUTH	19.50	20.92	0	0	0	0	0	0	27	0	0	0
SKYLT.	19.50	136.72	0	0	0	0	0	0	527	0	0	0
DOORS	25.91	4.98	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL BAS ABOVE GR	329	962	90	442	85	272	52	92	0	0	0	0
EXPOSED CLG	0	0	0	0	0	0	0	0	0	0	0	0
NO ATTIC EXPOSED CLG	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.36	0.45	0	0	0	0	0	0	0	0	0	0
EXPOSED WALL BAS ABOVE GRADE	0	0	0	0	0	0	0	0	0	0	0	0
BELOW GRADE HT LOSS FLOOR	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	3466	2571	490	1403	2322	3269	765	585	1970	418	0	0
HT LOSS AIR LEAKAGE FACTOR	0.314	1665	154	441	730	1028	241	184	620	132	0	0
HT GAIN AIR LEAKAGE FACTOR	0.108	808	17	133	176	140	49	26	145	15	0	0
HT GAIN PEOPLE/APPLANCES	240	240	1	240	240	240	240	240	240	240	0	0
TOTAL HT LOSS BTU/H	4556	3379	645	1845	3053	4297	1005	769	2589	550	0	0
TOTAL HT GAIN x 1.3 BTU/H	4718	2711	540	2084	2855	2182	966	657	2337	515	0	0

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: 19869

Michael O'Rourke

ROOM USE	DEN	DIN	KT/FM	PREP	LAUN	WIR	FOY	LIB	R3	R4	WOB BAS	BAS
EXP. WALL	35	21	110	6	23	16	12	0	0	0	0	224
RM AREA	0	0	0	0	0	0	0	0	0	0	0	0
CLG. HT.	10	10	10	10	12	10	20	10	9	9	9	9
COLD FLOOR	0	0	0	0	0	0	0	0	0	0	0	0
COLD CEILING	0	0	0	0	0	0	0	0	0	0	0	0
NO ATTIC EXPOSED CLG	14	12	0	0	0	0	132	0	0	0	0	0
GROSS WALL BAS ABOVE GRADE	0	0	0	0	0	0	0	0	0	0	0	672
GROSS WALL BAS BELOW GRADE	0	0	0	0	0	0	0	0	0	0	0	1344
FACTORS												
GRS WALL AREA	350	210	1100	60	276	160	240	0	0	0	0	0
GLAZING	0	0	0	0	0	0	0	0	0	0	0	0
NORTH	19.50	13.96	0	0	10	0	0	0	0	0	0	0
EAST/WEST	19.50	33.00	39	176	195	0	53	0	0	0	0	15
SOUTH	19.50	20.92	0	0	0	0	0	0	0	0	0	5
SKYLT.	19.50	136.72	0	0	0	0	0	0	0	0	0	0
DOORS	25.91	4.98	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL BAS ABOVE GR	277	810	877	149	246	160	167	0	0	0	0	20
EXPOSED CLG	0	0	0	0	0	0	0	0	0	0	0	0
NO ATTIC EXPOSED CLG	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.36	0.45	0	0	0	0	132	0	0	0	0	0
EXPOSED WALL BAS ABOVE GRADE	0	0	0	0	0	0	0	0	0	0	0	0
BELOW GRADE HT LOSS FLOOR	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	2287	1439	6913	325	1433	468	2360	0	0	0	0	852
HT LOSS AIR LEAKAGE FACTOR	0.314	1762	2174	102	451	147	742	0	0	0	0	2345
HT GAIN AIR LEAKAGE FACTOR	0.108	713	609	35	41	10	225	0	0	0	0	20
HT GAIN PEOPLE/APPLANCES	240	240	6	240	1883	615	3102	0	0	0	0	518
TOTAL HT LOSS BTU/H	2981	1891	9088	427	1883	515	3017	0	0	0	0	2345
TOTAL HT GAIN x 1.3 BTU/H	2851	2745	9882	781	2416	442	3017	0	0	0	0	206

TOTAL HEAT GAIN BTU/H

47174

3.93 TONS

LOSS DUE TO VENTILATION LOAD BTU/H

16966

TOTAL STRUCTURE HEAT LOSS BTU/H

55309

TOTAL COMBINED HEAT LOSS BTU/H

73275

FURNACE CFM 1460
TOTAL HEAT LOSS 56309
AIR FLOW RATE CFM 25.93

Run Count	3rd	2nd	1st	Bas
S/A	0	14	11	6
R/A	0	5	4	1

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

ROOM NAME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MBR	2.28	1.69	0.64	1.84	1.53	2.15	1.01	1.53	2.59	2.28	0.55	1.49	1.89	2.27	2.27	2.27	1.88	0.62	3.10	0.77	2.15	1.69	2.27	1.49
RM LOSS MBH.	59	44	17	48	40	56	26	40	67	59	14	39	49	59	59	59	49	16	80	20	56	44	59	39
CFM PER RUN HEAT	2.36	1.36	0.54	2.08	1.33	1.09	0.97	1.33	2.24	2.36	0.51	1.43	2.75	2.50	2.50	2.50	2.42	0.44	3.02	0.66	1.09	1.36	2.50	1.43
RM GAIN MBH.	80	46	18	71	45	37	33	45	76	80	18	48	93	85	85	85	82	15	103	22	37	46	85	48
CFM PER RUN COOLING	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	0.13
ADJUSTED PRESSURE	49	26	21	76	85	93	87	84	68	56	48	71	47	43	36	31	68	59	64	81	87	30	45	72
ACTUAL DUCT LGH.	140	140	150	190	190	150	160	150	200	130	140	140	110	120	120	100	130	160	100	160	140	160	100	130
EQUIVALENT LENGTH	189	166	171	266	275	243	247	234	268	186	188	211	157	163	156	131	198	219	164	241	227	190	145	202
TOTAL EFFECTIVE LH	0.07	0.08	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.07	0.07	0.06	0.08	0.08	0.08	0.1	0.06	0.06	0.08	0.05	0.06	0.07	0.09	0.06
ADJUSTED PRESSURE	6	5	5	6	5	5	5	5	6	6	5	5	6	6	6	5	6	5	6	5	5	5	5	5
ROUND DUCT SIZE	4X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	4X10	4X10	3X10	3X10	4X10	4X10	4X10	3X10	4X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10
OUTLET GRILL SIZE	E	G	E	B	A	B	B	A	B	E	D	A	C	F	F	E	A	B	A	B	G	D	A	A

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	BAS	BAS	BAS	BAS	PREP																	
RM LOSS MBH	2.27	2.27	2.27	2.27	2.27	2.27	0.43	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	59	59	59	59	59	59	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RM GAIN MBH	0.24	0.24	0.24	0.24	0.24	0.24	0.78	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	8	8	8	8	8	8	27	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	0.13
ACTUAL DUCT LGH.	35	41	42	54	70	44	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EQUIVALENT LENGTH	110	90	120	150	120	100	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL EFFECTIVE LH	145	131	162	204	190	144	128	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ADJUSTED PRESSURE	0.09	0.1	0.08	0.06	0.07	0.09	0.1	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	5	5	5	5	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	F	D	C	B	A	C	G																	

SUPPLY AIR TRUNK SIZE										RETURN AIR TRUNK SIZE									
		TRUNK	STATIC	ROUND	RECT	TRUNK		STATIC	ROUND	RECT	TRUNK		STATIC	ROUND	RECT				
		CFM	PRESS.	DUCT	DUCT	CFM	PRESS.	DUCT	DUCT	DUCT	CFM	PRESS.	DUCT	DUCT	DUCT	DUCT			
AIR VOLUME PLENUM PRESSURE ACTUAL DUCT LGH. EQUIVALENT LENGTH TOTAL EFFECTIVE LH ADJUSTED PRESSURE ROUND DUCT SIZE INLET GRILL SIZE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	135	255	120	65	65	290	120	120	115	0	0	0	0	0	0	0	175		
	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12		
	54	82	87	109	94	45	52	76	58	1	1	1	1	1	1	1	14		
	185	245	255	225	215	190	235	250	275	0	0	0	0	0	0	0	145		
	239	327	342	334	309	235	287	326	333	1	1	1	1	1	1	1	159		
	0.05	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.04	12	12	12	12	12	12	0.08		
	7.5	10	7.5	6	6	9.9	7.5	7.5	7.4	0	0	0	0	0	0	0	7.3		
	8	8	8	8	8	8	8	8	8	0	0	0	0	0	0	0	8		
X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
14		30	14	14	14	30	14	14	14	0	0	0	0	0	0	0	14		

SUPPLY AIR TRUNK SIZE										RETURN AIR TRUNK SIZE									
		TRUNK	STATIC	ROUND	RECT	TRUNK		STATIC	ROUND	RECT	TRUNK		STATIC	ROUND	RECT				
		CFM	PRESS.	DUCT	DUCT	CFM	PRESS.	DUCT	DUCT	DUCT	CFM	PRESS.	DUCT	DUCT	DUCT	DUCT			
AIR VOLUME PLENUM PRESSURE ACTUAL DUCT LGH. EQUIVALENT LENGTH TOTAL EFFECTIVE LH ADJUSTED PRESSURE ROUND DUCT SIZE INLET GRILL SIZE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	135	255	120	65	65	290	120	120	115	0	0	0	0	0	0	0	175		
	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12		
	54	82	87	109	94	45	52	76	58	1	1	1	1	1	1	1	14		
	185	245	255	225	215	190	235	250	275	0	0	0	0	0	0	0	145		
	239	327	342	334	309	235	287	326	333	1	1	1	1	1	1	1	159		
	0.05	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.04	12	12	12	12	12	12	0.08		
	7.5	10	7.5	6	6	9.9	7.5	7.5	7.4	0	0	0	0	0	0	0	7.3		
	8	8	8	8	8	8	8	8	8	0	0	0	0	0	0	0	8		
X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
14		30	14	14	14	30	14	14	14	0	0	0	0	0	0	0	14		

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

MICHAEL O'ROURKE
BCIN: 19869

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
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

I REVIEW

TYPE: 50-11

LO # 53770

MICHAEL O'ROURKE

PAGE 3 of 3

SITE NAME: CASTLES OF KING

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	6 @ 10.6 cfm	63.6 cfm
Other Rooms	6 @ 10.6 cfm	63.6 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: VANE 90H-V ECM	Location: BSMT
120 cfm	<input checked="" type="checkbox"/> HVI Approved
0.6	sones

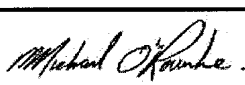
SUPPLEMENTAL FANS		NUTONE		HVI	Sones
Location	Model	cfm			
ENS	QTXEN050C	50		<input checked="" type="checkbox"/>	0.3
W/R	QTXEN050C	50		<input checked="" type="checkbox"/>	0.3

HEAT RECOVERY VENTILATOR		9.32.3.11
Model: VANE 90H-V ECM		
159 cfm high	65 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	
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:	
HRAI #	001820
Date:	January-14

MODEL: 50-11

LO# 53770

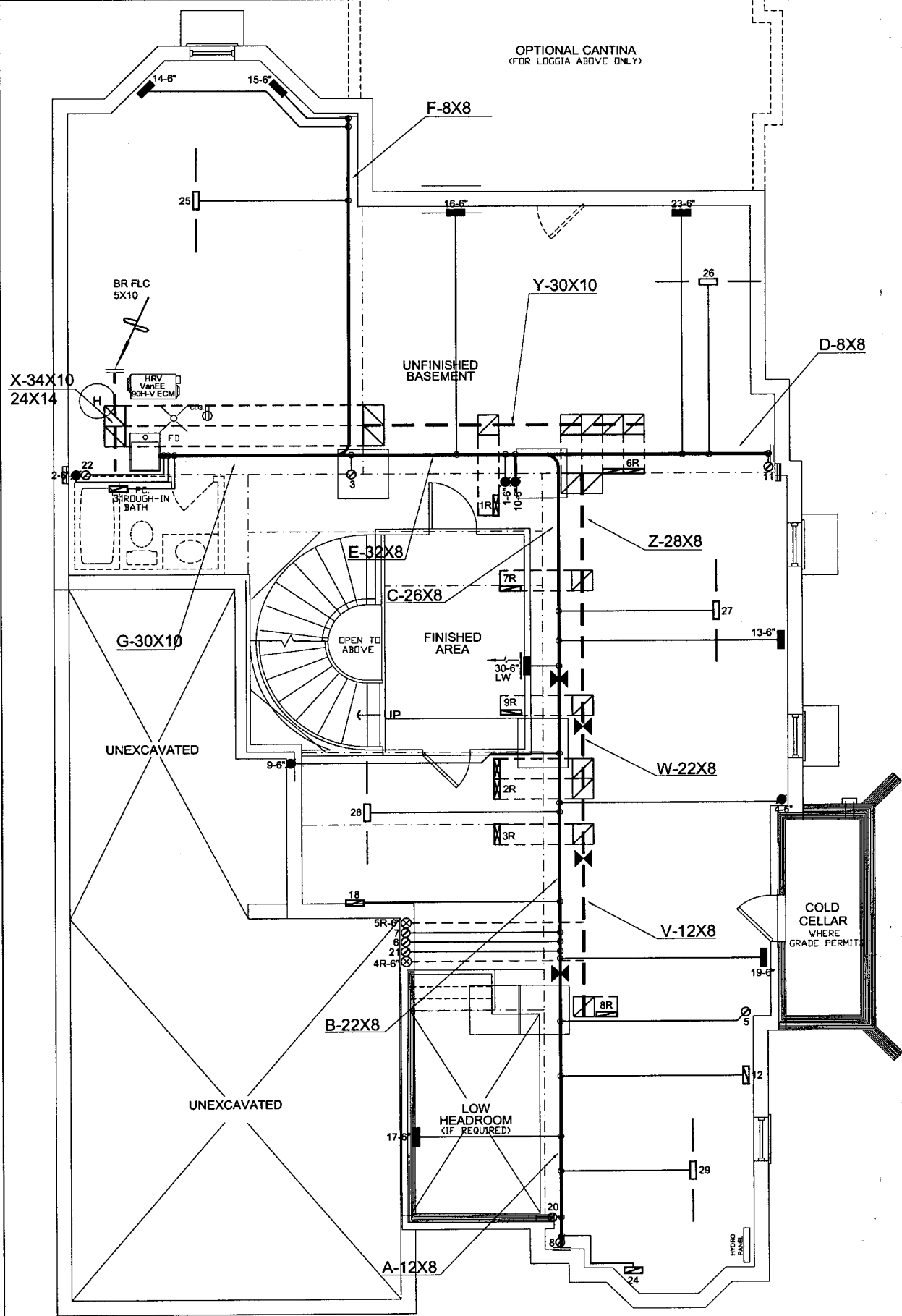
BUILDER: ZANCOR HOMES

SFQT: 4549

ENERGYSTAR 12.1**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

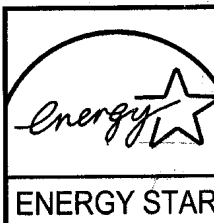
INDIVIDUAL BCIN: 19669
MICHAEL O'ROURKE



1 MICHAEL O'ROURKE HAVE REVIEW 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.

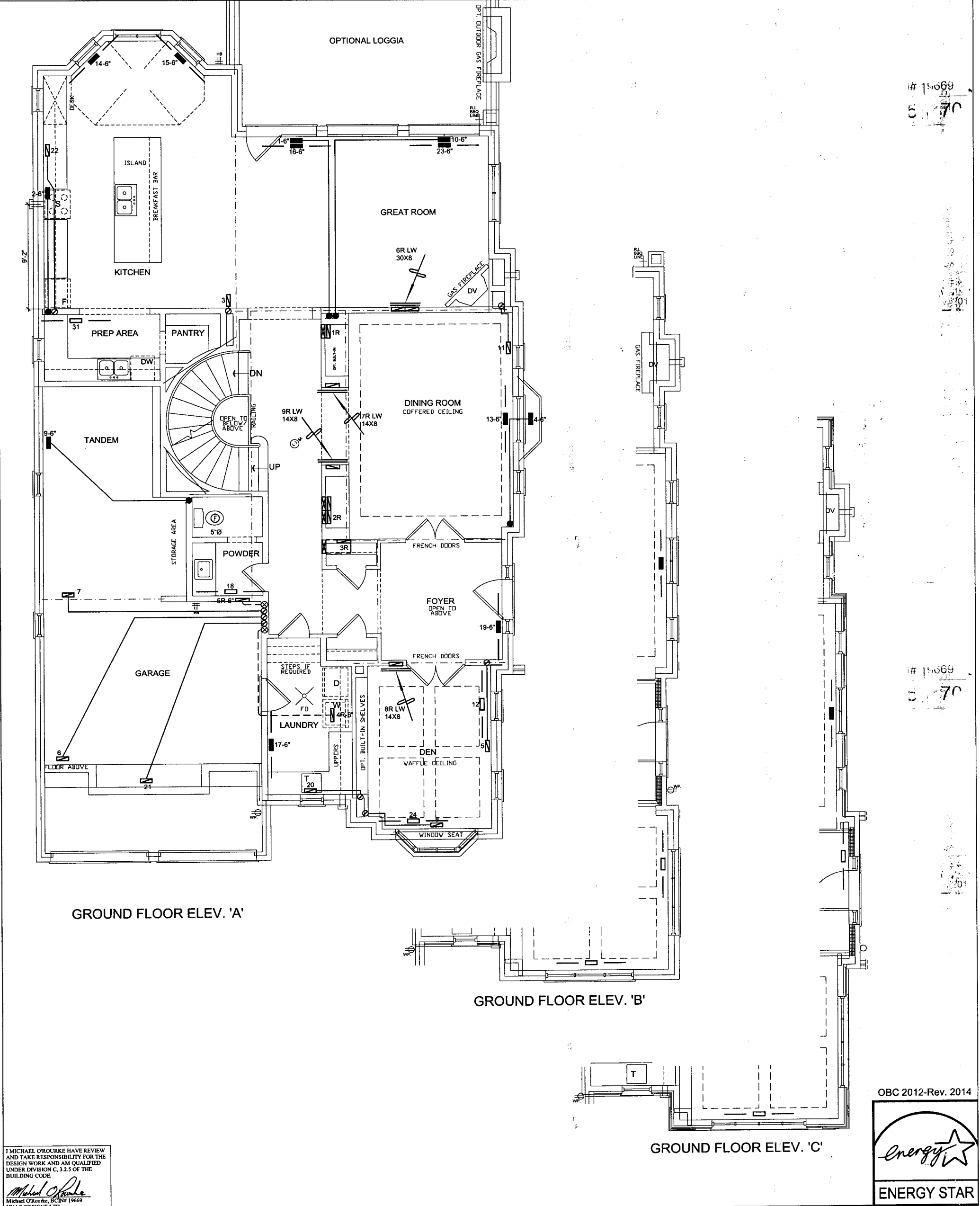
OBC 2012-Rev. 2014



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 ZANCOR HOMES		<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></div>	HEAT LOSS 73725 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS				Sheet Title BASEMENT HEATING LAYOUT	
Project Name THE CASTLES OF KING CITY KING CITY, ONTARIO			MAKE LENNOX		3RD FLOOR				Date JAN/2014	
		MODEL ML195UH090XP48C-90		2ND FLOOR	14	5	5	Scale 3/16" = 1'-0"	BCIN# 19669	
		INPUT 88 MBTU/H		1ST FLOOR	11	4	2	LO# 53770		
50-11		OUTPUT 85 MBTU/H		BASEMENT	6	1	0			
4549 sqft		COOLING 4.0 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. FOF R/A						
		FAN SPEED 1465 cfm @ 0.5" w.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.

OBC 2012-Rev. 2014

ENERGY STAR

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
							REVISIONS
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							Description
							Date

Client
ZANCOR HOMES

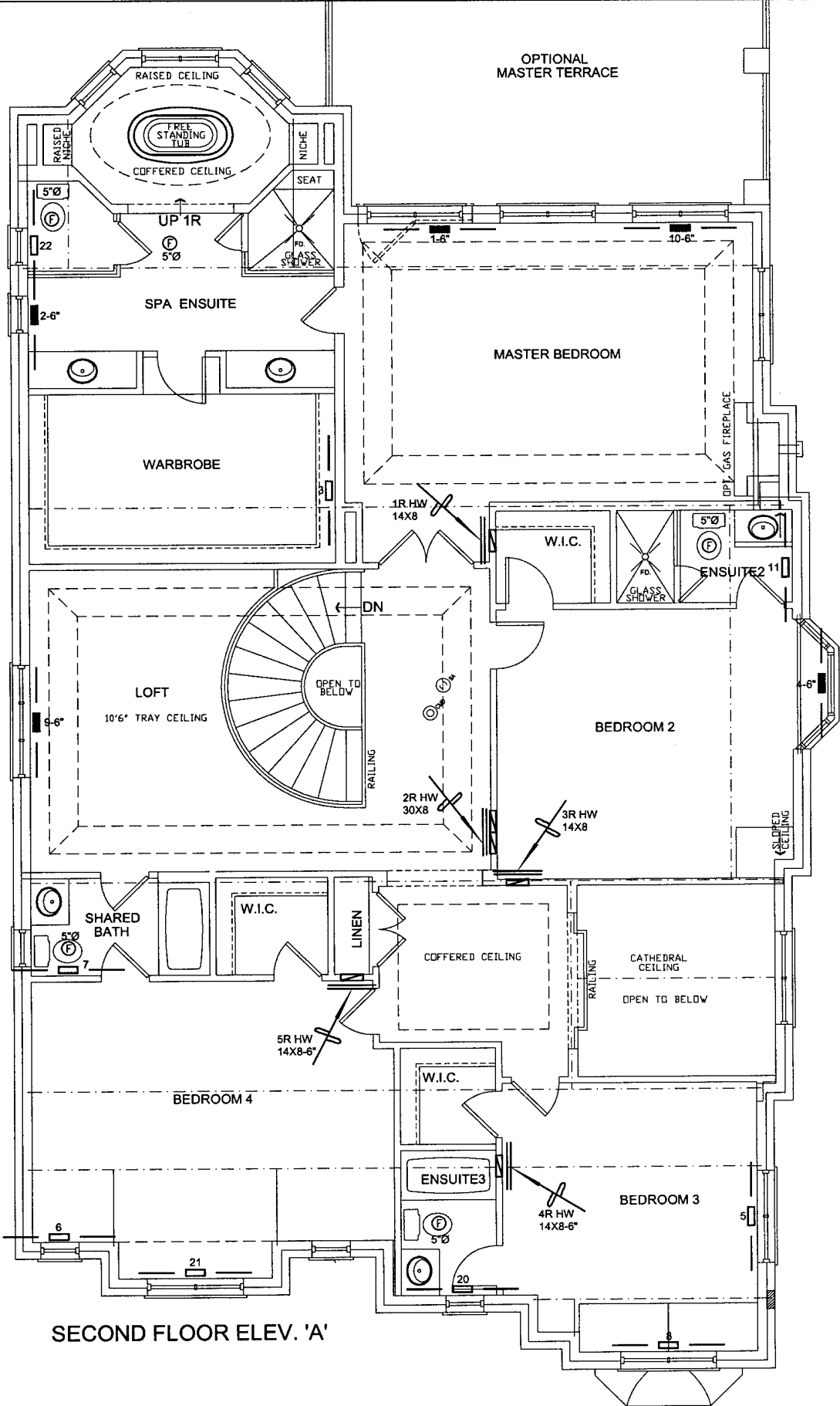
Project Name
**THE CASTLES OF KING CITY
KING CITY, ONTARIO**

50-11 4549 sqft

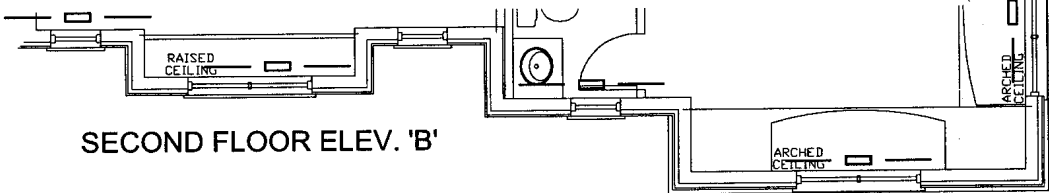
65 Church Street South - Ajax, Ontario
L1S 6A7 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375
Email: info@hvacdsgns.ca
Web: www.hvacdsgns.ca
Specializing in Residential Mechanical Design Services

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.

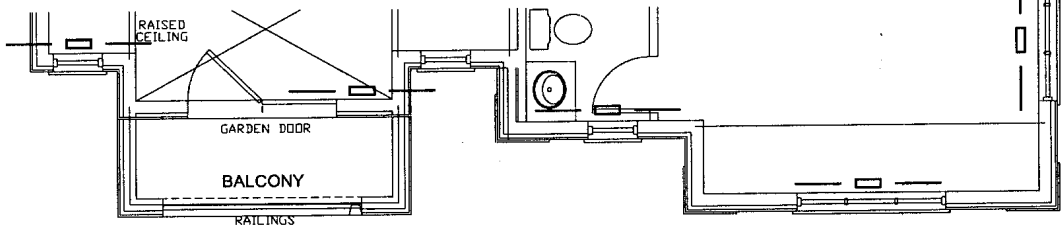
Sheet Title	
FIRST FLOOR HEATING LAYOUT	
Date	JAN/2014
Scale	3/16" = 1'-0"
BCIN# 19669	
LO#	53770



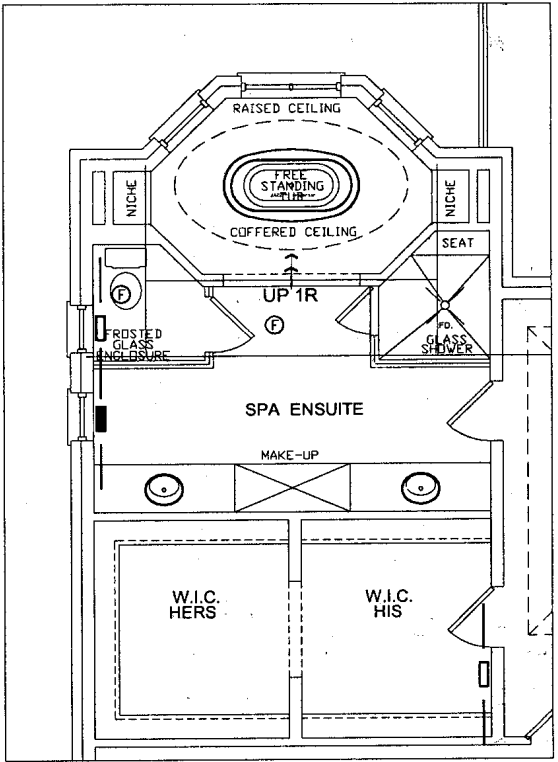
SECOND FLOOR ELEV. 'A'



SECOND FLOOR ELEV. 'B'



SECOND FLOOR ELEV. 'C'



OPTIONAL MASTER CLOSET LAYOUT

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

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Client

ZANCOR HOMES

Project Name

THE CASTLES OF KING CITY
KING CITY, ONTARIO

HVAC DESIGNS LTD.

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L1S 6A7 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375
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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.

Sheet Title

SECOND FLOOR HEATING LAYOUT

Date

JAN/2014

Scale

3/16" = 1'-0"

BCIN# 19669

LO#

53770