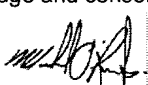


Schedule 1: Designer Information

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@hvacdsgns.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: OPT MASTER RETREAT 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.			
<u>JANUARY 30, 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.

2012 OBC - REV JAN 2014													
ENERGYSTAR 12.1	ROOM USE	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	ENS-3	RTIT	ENS-2	R1	R2
	EXP. WALL	39	41	9	18	33	39	6	10	18	7	0	0
	RM AREA	285	285	153	267	239	320	174	108	401	144	0	0
	CLG. HT.	11	11	10	10	10	10	8	10	11	9	0	0
	COLD FLOOR	0	0	0	0	0	320	84	0	161	0	0	0
	COLD CEILING	373	285	153	267	195	264	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	198	70	0	0
	GLAZING	0	0	0	0	33	51	0	8	0	0	0	0
	NORTH	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50
	EAST/WEST	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50
	SOUTH	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50
	SKYLT.	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50
	DOORS	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91
	NET EXPOSED WALL	329	401	90	180	330	390	60	100	198	70	0	0
	WALL BAS ABOVE GR	0	0	0	0	0	0	0	0	0	0	0	0
	EXPOSED CLG	373	285	153	267	195	264	174	108	401	144	0	0
	NO ATTIC EXPOSED CLG	0	0	0	0	44	56	0	0	0	0	0	0
	EXPOSED FLOOR	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
	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	3466	2571	490	1403	2322	3269	765	585	2102	418	0	0
	SUB TOTAL HT GAIN	2842	1665	154	440	728	1025	240	184	659	131	0	0
	HT LOSS AIR LEAKAGE FACTOR	1087	806	17	132	174	139	49	26	165	15	0	0
	HT GAIN AIR LEAKAGE FACTOR	305	178	240	240	240	240	240	240	240	240	0	0
	HT GAIN PEOPLE/APPLANCES	2	3377	644	1843	3051	4294	1005	769	2760	550	0	0
	TOTAL HT LOSS BTU/H	4552	2709	540	2082	2653	4294	1005	769	2760	550	0	0
	TOTAL HT GAIN x 1.3 BTU/H	4714	2709	540	2082	2653	4294	1005	769	2760	550	0	0
INDIVIDUAL 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.													
MICHAEL O'ROURKE													
	ROOM USE	DEN	DIN	KT/FM	PREP	LAUN	WIR	FOY	LIB	R3	R4	WOB	BAS
	EXP. WALL	35	21	110	60	276	160	240	0	0	0	0	224
	RM AREA	0	0	0	0	10	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	10	0	0	0	0	0	0	0
	NORTH	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50
	EAST/WEST	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50
	SOUTH	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50
	SKYLT.	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50
	DOORS	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91	25.91
	NET EXPOSED WALL	277	162	877	51	246	160	167	0	0	0	0	652
	WALL BAS ABOVE GR	0	0	0	0	0	0	0	0	0	0	0	2345
	EXPOSED CLG	1.48	0.70	1.48	0	0	0	0	0	0	0	0	221
	NO ATTIC EXPOSED CLG	14	12	0	0	0	0	132	0	0	0	0	4862
	EXPOSED FLOOR	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2257
	EXPOSED WALL BAS BELOW GRADE	0	0	0	0	0	0	0	0	0	0	0	2094
	BELOW GRADE HT LOSS	0	0	0	0	0	0	0	0	0	0	0	10372
	SUBTOTAL HT LOSS	2267	1439	6913	325	1433	468	2360	0	0	0	0	995
	SUB TOTAL HT GAIN	1762	1689	5630	102	449	147	740	0	0	0	0	3552
	HT LOSS AIR LEAKAGE FACTOR	711	451	2168	35	41	10	225	0	0	0	0	107
	HT GAIN AIR LEAKAGE FACTOR	189	181	604	240	1440	1	3098	0	0	0	0	0
	HT GAIN PEOPLE/APPLANCES	240	1890	9081	1	1882	615	3098	0	0	0	0	13524
	TOTAL HT LOSS BTU/H	2978	1890	9975	426	1882	442	3014	0	0	0	0	1433
	TOTAL HT GAIN x 1.3 BTU/H	2848	2743	9975	781	2416	2416	3014	0	0	0	0	1433

TOTAL HEAT GAIN BTU/H	47435	3.95 TONS	LOSS DUE TO VENTILATION LOAD BTU/H	16986	TOTAL STRUCTURE HEAT LOSS BTU/H	56441	TOTAL COMBINED HEAT LOSS BTU/H	73407
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Specializing in Residential Mechanical Design Services

OPT MASTER RETREAT

DATE: Jan-14 GFA: 4549 LOW 53774 CALCULATIONS per HRAI PAGE 2 of 3

SITE NAME: CASTLES OF KING
BUILDER: ZANCOR HOMES

FURNACE CFM 1460 FURNACE CFM 1460
TOTAL HEAT LOSS 56441 TOTAL HEAT GAIN 43193
AIR FLOW RATE CFM 25.87 AIR FLOW RATE CFM 33.8

*LENNOX
ML195UH090XP48C 90 HI-BOY HI-EFFICIENCY
FAN SPEED 1285 OUTPUT 85000 BTUH
CFM @ 5" E.S.P.

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.

DESIGN CFM = 1460

LOW	1285	0.14	r/a pressure	0.14
MEDIUM	1460	0.02	r/a grille press. loss	0.02
HIGH	1830	0.12	adjusted pressure r/a	0.12

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	1.00	1.33	2.76	2.28	0.55	1.49	1.89	2.27	2.27	2.27	1.88	0.61	3.10	0.77	2.15	1.69	2.27	1.49
CFM PER RUN HEAT	59	44	17	48	39	56	26	39	71	59	14	39	49	59	59	59	49	16	80	20	56	44	59	39
RM GAIN MBH.	2.36	1.35	0.54	2.08	1.33	1.09	0.97	1.33	2.52	2.36	0.51	1.42	2.74	2.49	2.49	2.49	2.42	0.44	3.01	0.68	1.09	1.35	2.49	1.42
CFM PER RUN COOLING	80	46	18	70	45	37	33	45	85	80	17	48	93	84	84	84	82	15	102	22	37	46	84	48
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.	49	26	21	76	85	93	87	84	68	56	48	71	47	43	36	31	68	59	64	81	87	30	45	72
EQUIVALENT LENGTH	140	140	150	190	150	160	150	160	200	130	140	140	110	120	120	100	130	160	100	160	140	160	100	130
TOTAL EFFECTIVE LH	189	166	171	266	275	243	247	234	268	186	188	211	157	163	156	131	198	219	164	241	227	190	145	202
ADJUSTED PRESSURE	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
ROUND DUCT SIZE	6	5	5	6	5	5	5	5	6	6	5	5	6	6	6	5	6	5	6	5	5	5	5	5
OUTLET GRILL SIZE	4X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	4X10	4X10	3X10	3X10	4X10	4X10	4X10	4X10	4X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10
TRUNK	E	G	E	B	A	B	B	A	B	E	D	A	C	F	F	E	A	B	B	A	B	G	D	A

ROOM NAME	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
RM LOSS MBH.	2.27	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
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	26	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	G	A	E	D	A	C	F	F	E	A	B	B	A	B	G	D	A

SUPPLY AIR TRUNK SIZE

TRUNK	STATIC PRESS.	ROUND DUCT	RECT DUCT
TRUNK A 284	0.05	9.8	11
TRUNK B 866	0.05	13.8	22
TRUNK C 863	0.05	14.9	25
TRUNK D 132	0.05	7.4	6
TRUNK E 1189	0.05	16.8	32

RETURN AIR TRUNK SIZE

TRUNK	STATIC PRESS.	ROUND DUCT	RECT DUCT
TRUNK O 0	0.04	0	0
TRUNK P 0	0.04	0	0
TRUNK Q 0	0.04	0	0
TRUNK R 0	0.04	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 250	0.04	9.9	11
TRUNK W 625	0.04	14	22
TRUNK X 1460	0.04	19.2	33
TRUNK Y 1285	0.04	18.3	30
TRUNK Z 860	0.04	15.8	28
DROP 1460	0.04	19.2	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

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

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

TYPE: 50-11

LO# 53774

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

SUPPLEMENTAL FANS

Location	Model	NUTONE cfm	HVI	Sones
ENS	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
W/R	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
ENS-2	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 <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:

Michael O'Rourke

HRAI #

001820

Date:

January-14

MODEL: 50-11

LO# 53774

BUILDER: ZANCOR HOMES

SFQT: 4549

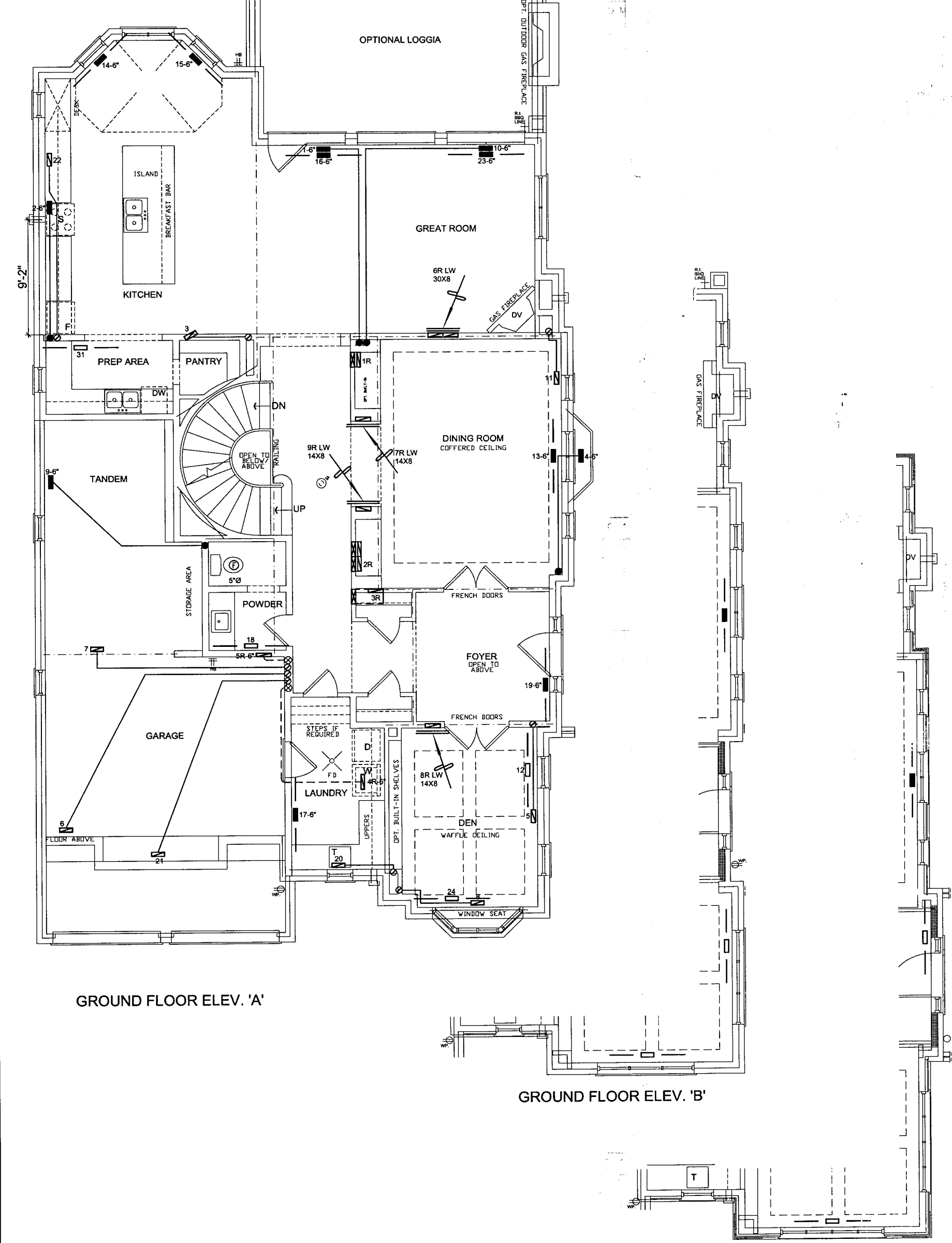
ENERGYSTAR 12.1

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

Michael O'Rourke

INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



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	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		

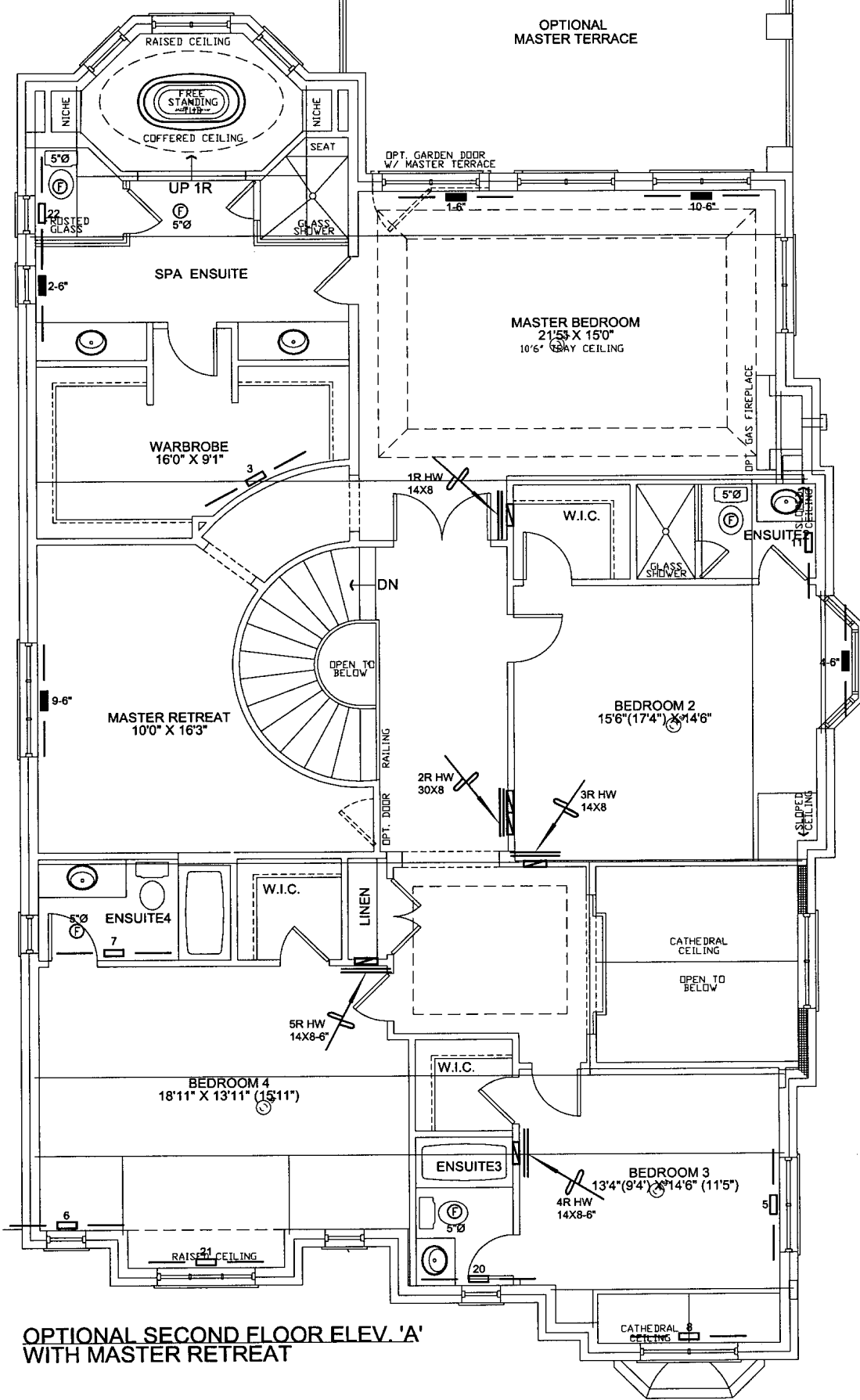
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Client	<div></div> <p>65 Church Street South - Ajax, Ontario L1S 6A7 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdsgns.ca Web: www.hvacdsgns.ca Specializing in Residential Mechanical Design Services</p> <p>Installation to comply 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>	Sheet Title
Project Name		FIRST FLOOR HEATING LAYOUT
		Date JAN/2014
		Scale 3/16" = 1'-0"
		BCIN# 19669
		LO# 53774

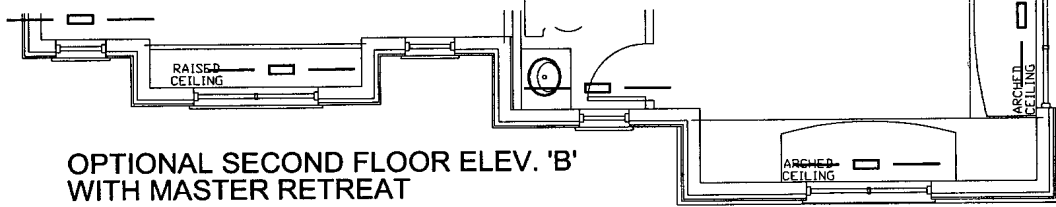
ZANCOR HOMES

THE CASTLES OF KING CITY
KING CITY, ONTARIO

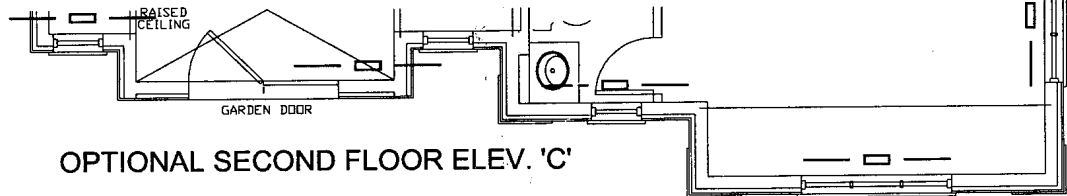
OPT MASTER RETREAT
50-11 4549 sqft



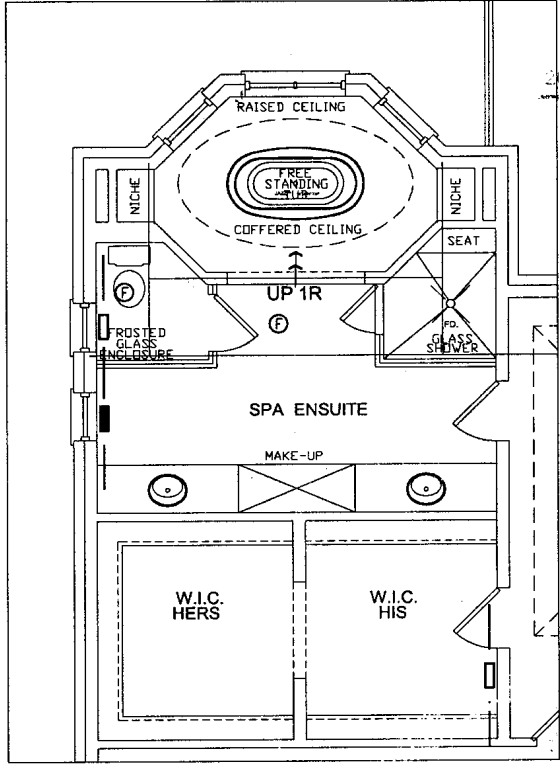
OPTIONAL SECOND FLOOR ELEV. 'A'
WITH MASTER RETREAT



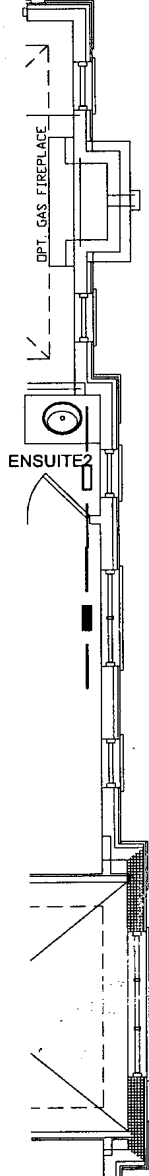
OPTIONAL SECOND FLOOR ELEV. 'B'
WITH MASTER RETREAT



OPTIONAL SECOND FLOOR ELEV. 'C'



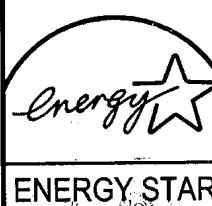
OPTIONAL MASTER CLOSET LAYOUT



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Michael O'Rourke
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HVAC DESIGNS LTD.

OBC 2012-Rev. 2014



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

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Client ZANCOR HOMES		<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>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>	Sheet Title SECOND FLOOR HEATING LAYOUT	
Project Name THE CASTLES OF KING CITY KING CITY, ONTARIO			Date JAN/2014	
OPT MASTER RETREAT 50-11 4549 sqft			Scale 3/16" = 1'-0"	
			BCIN# 19669	
			L.O#	53774