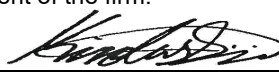


**Schedule 1: Designer Information**

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: 209345 HWY 26		Unit no.:	Lot/con.:
Municipality : BLUE MOUNTAINS	Postal code :	Other description: ALLIANCE HOMES LTD.	
<b>B. Individual who reviews and takes responsibility for design activities</b>			
Name: <b>KIROLUS SIVIN</b>		Firm: <b>MARTINO CONTRACTORS LTD.</b>	
Street address: <b>150 CONNIE CRESCENT</b>		Unit no.: <b>16</b>	Lot/con.:
Municipality : <b>YORK REGION</b>	Postal code : <b>L4K 1L8</b>	Province : <b>ON</b>	E-mail : <b>kiroluss@martinohvac.com</b>
Telephone number <b>( 905 ) 760-9894</b>	Fax number <b>( 905 ) 660-5967</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"/> HVAC – House	<input type="checkbox"/> Building Structural	
<input type="checkbox"/> Small Buildings	<input checked="" type="checkbox"/> Building Services	<input type="checkbox"/> Plumbing – House	
<input type="checkbox"/> Large Buildings	<input type="checkbox"/> Detection, Lighting and Power	<input type="checkbox"/> Plumbing – All Buildings	
<input type="checkbox"/> Complex Buildings	<input type="checkbox"/> Fire Protection	<input type="checkbox"/> On-site Sewage Systems	
Description of designer's work: <b>HEAT LOSS/GAIN CALCULATIONS CAN/CSA-F280-12      MODEL:      CUSTOM HOME</b> <b>DUCT SIZING      COMPLIANCE PACKAGE:      TBL. 3.1.1.2(A) A1</b> <b>RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY</b> <b>RESIDENTIAL SYSTEM DESIGN</b>			
<b>D. Declaration of Designer</b>			
I _____ <b>KIROLUS SIVIN</b> _____ declare that (choose one as appropriate): (print name)			
<input checked="" type="checkbox"/> I 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: _____ 104813 _____ Firm BCIN: _____ 112010 _____			
<input 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: _____ Basis for exemption from registration: _____			
<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.			
_____ <b>JULY, 2023</b> _____ Date		_____  _____ Signature of Designer	

**NOTE:**

1. 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.

2. Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of practice, 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.



RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY																																																							
COMBUSTION APPLIANCES 9.32.3.1 (1)						HOUSE TYPE 9.32.1 (2)																																																	
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 checked="" type="checkbox"/> SOLID FUEL (INCLUDING FIREPLACES) E) <input type="checkbox"/> NO COMBUSTION APPLIANCES						I <input type="checkbox"/> TYPE A OR B APPLIANCE ONLY, NO SOLID FUEL II <input checked="" type="checkbox"/> TYPE I EXCEPT WITH SOLID FUEL (INCLUDING FIREPLACES) III <input type="checkbox"/> ANY TYPE "C" APPLIANCE IV <input type="checkbox"/> TYPE I, OR II WITH ELECTRIC SPACE HEAT OTHER: TYPE I, II OR IV NO FORCED AIR																																																	
SYSTEM DESIGN OPTIONS						HEATING SYSTEM																																																	
1 <input type="checkbox"/> EXHAUST ONLY/FORCED AIR SYSTEM 2 <input type="checkbox"/> HRV FULLY DUCTED/FORCED AIR SYSTEM 3 <input checked="" type="checkbox"/> HRV SIMPLIFIED/HYBRID; CONNECTED TO FORCED AIR SYSTEM 4 <input type="checkbox"/> HRV DUCTING/NON FORCED AIR SYSTEM PART 6 DESIGN/CSA-F326						<input checked="" type="checkbox"/> FORCED AIR <input type="checkbox"/> ELECTRIC SPACE HEAT <input type="checkbox"/> NON FORCED AIR																																																	
PRINCIPLE VENTILATION CAPACITY 9.32.3.4 (1)						SUPPLEMENTAL VENTILATION CAPACITY 9.32.3.5																																																	
THREE BEDROOMS = <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">63.6</td> <td style="padding: 2px;">30.0</td> </tr> <tr> <td style="padding: 2px; font-size: 8px;">CFM</td> <td style="padding: 2px; font-size: 8px;">L/S</td> </tr> </table>						63.6	30.0	CFM	L/S	REQUIRED SUPPLEMENTAL CAPACITY (TVC-PVC) 95 CFM																																													
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A1						HEATING AIR LEAKAGE RATE: 0.355 COOLING AIR LEAKAGE RATE: 0.092																																																	
LOCATION OF INSTALLATION						TOTAL VENTILATION CAPACITY 9.32.3.3 (1) (ROOM COUNT)																																																	
PRINTED: 20-Jul-2023 CITY: BLUE MOUNTAINS SITE NAME: 209345 HWY 26 TYPE: CUSTOM HOME <span style="background-color: yellow;">WOB COND.?:</span> NO L/O#: X23097 GFA: 2892						<table border="1" style="width:100%; border-collapse: collapse; font-size: 8px;"> <tbody> <tr> <td>BASEMENT &amp; PRIMARY BDRMS</td> <td>2</td> <td>@</td> <td>21.2</td> <td>CFM</td> <td>42.4</td> </tr> <tr> <td>OTHER BEDROOMS</td> <td>2</td> <td>@</td> <td>10.6</td> <td>CFM</td> <td>21.2</td> </tr> <tr> <td>BATHROOMS</td> <td>2</td> <td>@</td> <td>10.6</td> <td>CFM</td> <td>21.2</td> </tr> <tr> <td>KITCHEN &amp; OTHER HABITABLE ROOMS</td> <td>7</td> <td>@</td> <td>10.6</td> <td>CFM</td> <td>74.2</td> </tr> <tr> <td colspan="5" style="text-align: right;">TOTAL CFM:</td> <td>159</td> </tr> </tbody> </table>						BASEMENT & PRIMARY BDRMS	2	@	21.2	CFM	42.4	OTHER BEDROOMS	2	@	10.6	CFM	21.2	BATHROOMS	2	@	10.6	CFM	21.2	KITCHEN & OTHER HABITABLE ROOMS	7	@	10.6	CFM	74.2	TOTAL CFM:					159														
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NAME: ALLIANCE HOMES LTD.																																																							
ADDRESS: 6048 HIGHWAY NO. 9 UNIT 7																																																							
CITY: SCHOMBERG POSTAL: LOG 1T0																																																							
TELEPHONE: 905-761-7086						KIRIOLUS SIVINI																																																	
FAX: 905-761-7201																																																							



**BUILDING CHARACTERISTICS AND R-VALUES**

**COMPLIANCE PACKAGE CHOSEN:**

**SB-12 ENERGY EFFICIENCY COMPLIANCE:**

COMPLIANCE PACKAGE: **A1**


	NOMINAL:	EFFECTIVE/ACTUAL:
CEILING WITH ATTIC SPACE MINIMUM R-VALUE	60	N/A
CEILING WITHOUT ATTIC SPACE MINIMUM R-VALUE	31	34.11
EXPOSED FLOOR MINIMUM R-VALUE	31	N/A
WALLS ABOVE GRADE MINIMUM R-VALUE	22	30.13
HEADER AREA MINIMUM R-VALUE	22	30.13
BASEMENT WALLS MINIMUM R-VALUE	20ci	24.46
BELOW GRADE SLAB ENTIRE SURFACE > 600mm BELOW GRADE MINIMUM R-VALUE	N/A	17.32
EDGE OF BELOW GRADE SLAB ≤ 600mm BELOW GRADE MINIMUM R-VALUE	10	17.32
HEATED SLAB OR SLAB ≤ 600mm BELOW GRADE MINIMUM R-VALUE	10	17.32
WINDOWS & SLIDING GLASS DOORS MAXIMUM U-VALUE	U1.6	1.60
SKYLIGHTS MAXIMUM U-VALUE	U2.8	2.80
SPACE HEATING EQUIPMENT MINIMUM AFUE C/W ECM MOTOR	96%	96%
HRV MINIMUM EFFICIENCY @ 0°C	75%	75%
DOMESTIC HOT WATER HEATER MINIMUM EF	0.80	0.80

**BUILDING INFORMATION**

ABOVE GRADE WALLS:		BELOW GRADE WALLS:	
STYLE A:	Studs @ 16"OC, R22 Dense Blow-In Insulation, 2.5" R10 c.i. (Rockwool Comfortboard 80)	STYLE A:	2x3 Studs @ 16"OC, R10 Rockwool Comfortboard 80 (2.5"), R8 c.i. (2") Inside, R10 c.i. (2.5") Outside
HEADER:	Header Plate, R22 Dense Blow-In Insulation, 2.5" R10 c.i. (Rockwool Comfortboard 80), Joists 16"OC	STYLE B:	
		STYLE C:	
EXPOSED FLOORS:		FLOORS ON SOIL:	
STYLE A:	N/A	STYLE A:	> 600mm = Uninsulated; ≤ 600mm R16 Insulation (4" Expanded Styrofoam, EPS)
STYLE B:			
CEILINGS: ATTIC & CATHEDRAL		DOORS:	
STYLE A:	Eng. Truss @ 16"OC, R38 Dense Cellulose Blow-In Insulation	STYLE A:	Steel Polyurethane Insulated Door
STYLE B:		STYLE B:	
STYLE C:		STYLE C:	
WINDOWS & GLASS DOORS:		SKYLIGHTS:	
STYLE A:	Dbl, Low-E, Argon, Insul. Spacer, 13mm, Vinyl	STYLE A:	Aluminum, Double Low-E
STYLE B:		STYLE B:	

**EXTRA NOTES:**

--

INSTALLATION DETAILS:	THE UNDERSIGNED HAS REVIEWED & TAKES RESPONSIBILITY FOR THIS DESIGN, & HAS THE QUALIFICATIONS & MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE AN "OTHER DESIGNER" WHOM IS EXEMPT UNDER 3.2.5.1 OF DIVISION "C" OF THE ONTARIO BUILDING CODE.   BCIN: 104813 HRAI: 13322 KIROLUS SIVINI
SITE: <u>209345 HWY 26</u> TYPE: <u>CUSTOM HOME</u>	
BUILDER: <u>ALLIANCE HOMES LTD.</u> LO#: <u>X23097</u>	
PRINTED: <u>20-Jul-2023</u>	

**\*NOTE: EFFECTIVE R-VALUE CALCULATIONS ARE BASED ON CAN/CSA F280-12; HRAI RESIDENTIAL HLHG APPENDIX B, AND ARCHITECTURAL NOTES\***



**RESIDENTIAL HEAT LOSS & HEAT GAIN FORMULA SHEET**

BUILDING AIR LEAKAGE HEAT LOSS					BUILDING AIR LEAKAGE HEAT GAIN				
B	LR <sub>airh</sub>	V <sub>b</sub>	HLΔT	H <sub>leak</sub>	B	LR <sub>airh</sub>	V <sub>b</sub>	HGΔT	H <sub>leak</sub>
0.018	0.355	35229	78	17559	0.018	0.092	35229	9	525

# OF LEVELS:	AIR LEAKAGE MULTIPLIER TABLE			
LEVEL	LEVEL FACTOR	BUILDING AIR LEAKAGE HEAT LOSS	LEVEL CONDUCTIVE HEAT LOSS	AIR LEAKAGE HEAT LOSS MULTIPLIER
1	0.5	17559	3798	2.3116
2	0.3		15699	0.3355
3	0.2		16074	0.2185
4				
AIR LEAKAGE HEAT GAIN MULTIPLIER		525	=	0.0220
		23896		

VENTILATION HEAT LOSS				VENTILATION HEAT GAIN				
C x PVC x HLΔT x (1-E) =				C x PVC x HLΔT x (1-E) =				
1.08	63.6	78	0.36	1929	1.08	63.6	9	618

EXHAUST ONLY SYSTEM (HL)					EXHAUST ONLY SYSTEM (HG)		
LEVEL	LF	HL <sub>bvent</sub>	LVL COND. HL	MULTIPLIER			
1					618		=
2							
3							
4							

DIRECT DUCTED HRV (HL)					DIRECT DUCTED HRV (HG)			
C x HLΔT x (1-E) =					C x HLΔT =			
1.08	x	78	x	0.36	1.08	x	9	

✓	SIMPLIFIED HRV (HL)			✓	SIMPLIFIED HRV (HG)		
	1929		CFM		804		CFM

CRAWL SPACE CALCULATIONS					SLAB ON GRADE CALCULATIONS					
P =	180	ft	54.86	m	P =	136	ft	41.45	m	
P <sub>exposed</sub> =	180	ft	54.86	m	P <sub>exposed</sub> =	74	ft	22.56	m	
A =	908	ft <sup>2</sup>			A =	444	ft <sup>2</sup>			
L =	78.42	ft	23.90	m	L =	60.68	ft	18.50	m	
W =	11.58	ft	3.53	m	W =	7.32	ft	2.23	m	
Wall Ht	4.3	ft	1.31	m						
Below Grade Dpth	2.8	ft	0.84	m						
Window Σ		ft <sup>2</sup>		m <sup>2</sup>	Window Σ		ft <sup>2</sup>		m <sup>2</sup>	
Door Σ		ft <sup>2</sup>		m <sup>2</sup>	Door Σ		ft <sup>2</sup>		m <sup>2</sup>	
HEATING LOAD (WATTS):					840	HEATING LOAD (WATTS):				
						267				

TGHM CALCULATION TABLE					INSTALLATION DETAILS:			
	NORTH	SOUTH	EAST/WEST	SKYLIGHT				
NORTH LAT.	44				SITE:	209345 HWY 26	TYPE:	CUSTOM HOME
HGΔT	9				BUILDER:	ALLIANCE HOMES LTD.	LO#:	X23097
R-VALUE	3.55	3.55	3.55	2.03	PRINTED:	20-Jul-2023		
HGΔT/R	2.536	2.536	2.536	4.433				
SHGC	0.44	0.44	0.44	0.64				
SOLAR	29	58	90	169				
ISF	1	1	1	1				
THGM	15.30	28.06	42.14	112.59				

THE UNDERSIGNED HAS REVIEWED & TAKES RESPONSIBILITY FOR THIS DESIGN, & HAS THE QUALIFICATIONS & MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE AN "OTHER DESIGNER" WHOM IS EXEMPT UNDER 3.2.5.1 OF DIVISION "C" OF THE ONTARIO BUILDING CODE.

BCIN: 104813  
 HRAI: 13322  
 KIROLUS SIVIN



MARTINO HVAC DESIGN

HEAT LOSS/GAIN CALCULATION LEVELS 3 AND 4

150 CONNIE CRESCENT CONCORD UNIT 16, ON L4K 1L9 T 905-760-9884 F: 905-660-5987 web: www.martinohvac.com email: matthews@martinohvac.com

PRINTED: 20-JUL-2023 SITE NAME: 209345 HWY 26 HEAT LOSS AT: °F 78 ODT: 84 HOUSE VOLUME: 35229 FT³  
TYPE: CUSTOM HOME BUILDER: ALLIANCE HOMES LTD. HEAT GAIN AT: °F 9 GFA: 2892 COMPLIANCE PACKAGE: A1  
L/OH: X23087 CITY: BLUE MOUNTAINS BASEMENT AT: °F 26 PVC: 63.6

Table for LEVEL 4 showing heat loss/gain calculations for various components like linear feet exp., wall area, doors, windows, etc. Columns include LOSS, GAIN, and Z values.

Table for LEVEL 3 showing heat loss/gain calculations for various components like linear feet exp., wall area, doors, windows, etc. Columns include PRI, LOSS, GAIN, and Z values.

Summary section including 'TOTAL ROOM H/G', 'TOTAL H/L BTU/H', and 'TOTAL ROOM H/G'. Includes a signature and contact information for Martino HVAC Design.

**HEAT LOSS/GAIN CALCULATION**  
**LEVELS 1 AND 2**

150 CONNIE CRESCENT CONCORD UNIT 16, ON LAK 110 T, 905-760-9894 F, 905-660-5967  
web: www.martinohvacc.com email: matthews@martinohvacc.com

PRINTED: 20-Jul-2023 SITE NAME: 208945 HWY 26 HOUSE VOLUME: 35229 FT<sup>3</sup>  
TYPE: CUSTOM HOME BUILDER: ALLIANCE HOMES LTD. MECH: 7 84  
L/OH: X23097 CITY: BLUE MOUNTAINS MECH: 7 84  
MECH: 7 84  
MECH: 7 84  
MECH: 7 84

LINEAR FEET EXP. CLG. HT. WALL AREA COLD CLG NON ATTIC CLG	LEVEL 2												TOTAL								
	LIV/MUS		DIN/KIT		MECH		BED-2		LAUN		BATH-2		S-ENT		MUD		Z		Z		
	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	
NORTH GL.	21.98	15.30	58	1275	887	0	0	36	791	551	20	440	306	0	0	0	0	0	0	0	0
EAST/WEST GL.	21.98	42.14	24	528	1011	0	0	31	681	1306	0	0	0	0	0	7	154	295	0	0	0
SOUTH GL.	21.98	28.06	30	659	842	19	418	533	0	0	0	0	0	16	352	449	0	0	0	0	0
SKYLIGHT GL.	38.42	112.59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DOORS	13	162	19	0	0	0	0	0	0	0	0	0	0	0	0	21	262	30	0	0	0
GLASS DOORS	21.98	42.14	20	440	843	0	0	20	440	843	58	150	6	114	295	11	17	43	2	112	290
NET EXP WALL	2.59	0.10	518	1340	52	371	960	4	225	583	22	9	23	1	15	39	1	4	10	0	18
HEADER	2.59	0.10	74	192	7	58	150	6	7	18	1	0	0	0	0	0	0	0	0	0	0
EXP CEILING	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NON ATTIC CLG	2.29	1.06	38	87	40	0	0	0	130	297	137	34	78	36	82	38	16	37	17	34	0
EXP FLR	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SLAB ON GRADE	911	0.00	35	431	0	39	480	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUB TOT H/G			4651	4492	3626	544	538	2885	2863	691	768	348	463	664	1026	649	1182	1093	1033	0	0
H/L AIR Lkg FCTR	0.3355		1561	1507	80	182	12	968	63	232	258	8	11	17	163	397	823	18	0	0	0
H/G AIR Lkg FCTR	0.0220		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/L EXH Lkg FCTR	0.0000		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/G EXH Lkg FCTR	0.0000		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10% UNCOND.			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/G PPL	239		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/G APPLIANCE	3673		1469	969	6077	726	715	3854	1235	923	463	6212	6009	1579	1033	1579	1093	0	0	0	0
TOTAL H/L BTU/H			6212	6009	5999	6077	726	715	3854	923	463	6212	6009	1579	1033	1579	1093	0	0	0	0
TOTAL ROOM H/G	1.3																				

LINEAR FEET EXP. CLG. HT. BSMINT FLR HTG LOAD (BTU)	LEVEL 1												TOTAL			
	ABOVE GRADE				BELOW GRADE				CRAWL				TOTAL		TOTAL	
	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN
NORTH GL.	21.98	15.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EAST/WEST GL.	21.98	42.14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH GL.	21.98	28.06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DOORS	19.60	2.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GLASS DOORS	21.98	42.14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET BAS Adv. GRD	2.59	0.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET BAS Bel. GRD			0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUB TOT H/L			0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUB TOT H/G			0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/L AIR Lkg FCTR	2.3116		0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/G AIR Lkg FCTR	0.0220		0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/L EXH Lkg FCTR	0.0000		0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/G EXH Lkg FCTR	0.0000		0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/G PPL	239		0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/G APPLIANCE	3673		0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT H/L BTU/H	1.3		0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROOM H/G			0	0	0	0	0	0	0	0	0	0	0	0	0	0

VENTILATION HEAT LOSS: 1929 TOTAL STRUCTURAL HEAT LOSS BTU/H: 53130 TONS: 3.21  
 VENTILATION HEAT GAIN: 804 TOTAL COMBINED HEAT LOSS BTU/H: 55058 TONS: 3.21

THE UNDERSIGNED HAS REVIEWED & TAKES RESPONSIBILITY FOR THIS DESIGN, & HAS THE QUALIFICATIONS & MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE AN "OTHER DESIGNER" WHOSE NAME IS EXEMPT UNDER 3.2.5.1 OF DIVISION "C" OF THE ONTARIO BUILDING CODE. HRAI-13322  
 KIRILLUS SWIN

**DUCT CALCULATION**  
**SYSTEM 1 - 1ST FLR AND CRAWL SPACE**

150 CONNIE CRESCENT CONCORD UNIT 16, ON L4K 1L9 T; 905-760-9894 F; 905-660-5967  
web: www.martinohvacc.com email: matthews@martinohvacc.com

**AIR HANDLER DATA:**

MANUFACTURER:	MITSUBISHI
ELEC. AH MODEL:	PVA-A42AA7
INPUT W:	3850
OUTPUT MBH:	48
HEAT CFM:	1262
COOL CFM:	1262

**AVAIL. HEAT FAN SPEED**

LOW <sub>dm</sub>	1040
MED <sub>dm</sub>	1262
HIGH <sub>dm</sub>	1485

**AVAIL COOL FAN SPEED**

LOW <sub>dm</sub>	1040
MED <sub>dm</sub>	1262
HIGH <sub>dm</sub>	1485

**SUPPLY AIR:**

AH PRESS:	0.5
AH FILTER:	0.0225
COIL PRESSURE:	0.20
DESIGN PRESS:	0.2775
PLENUM PRESS S/A:	0.14
DIFFUSER PRESS. LOSS:	0.01
ADJUSTED PRESSURE:	0.13

**RETURN AIR:**

R/A PRESSURE:	0.14
GRILLE LOSS:	0.02
ADJ. PRESS.:	0.12

**HEATING:**

TOTAL HEAT LOSS:	33544
AIR FLOW RATE CFM:	3762

**COOLING:**

TOTAL HEAT GAIN:	21820
AIR FLOW RATE CFM:	5784

PRINTED: 20-Jul-2023

L/O#: X23097

BUILDER: ALLIANCE HOMES LTD.

SITE NAME: 209345 HWY 26

TYPE: CUSTOM HOME

CITY: BLUE MOUNTAINS

GFA: 2892

ROOM#	ROOM NAME	LIV/MUS	LIV/MUS	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	ROOM LOSS MBH	1.55	1.55																						
	CFM PER RUN HEAT	58	58																						
	ROOM GAIN MBH	1.50	1.50																						
	CFM PER RUN COOLING	87	87																						
	ADJUSTED PRESSURE	0.13	0.13																						
	ACTUAL DUCT LENGTH	28	23																						
	EQUIVALENT LENGTH	90	110																						
	TOTAL EFFECTIVE LENGTH	118	133																						
	ADJUSTED PRESSURE	0.11	0.10																						
	ROUND DUCT SIZE	5	6																						
	OUTLET GRILL SIZE	4x10	4x10																						
	TRUNK	B	B																						

ROOM#	ROOM NAME	LIV/MUS	LIV/MUS	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	ROOM LOSS MBH	1.55	1.55																						
	CFM PER RUN HEAT	58	58																						
	ROOM GAIN MBH	1.50	1.50																						
	CFM PER RUN COOLING	87	87																						
	ADJUSTED PRESSURE	0.13	0.13																						
	ACTUAL DUCT LENGTH	28	23																						
	EQUIVALENT LENGTH	90	110																						
	TOTAL EFFECTIVE LENGTH	118	133																						
	ADJUSTED PRESSURE	0.11	0.10																						
	ROUND DUCT SIZE	5	6																						
	OUTLET GRILL SIZE	4x10	4x10																						
	TRUNK	B	B																						

**SUPPLY AIR TRUNK**

SECTION	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	SECTION	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT
TRUNK "A"	1262	0.06	17.3	10	TRUNK "K"	8	8	8	8
TRUNK "B"	390	0.06	11.2	8	TRUNK "L"	8	8	8	8
TRUNK "C"	872	0.06	15.1	8	TRUNK "M"	8	8	8	8
TRUNK "D"	520	0.06	12.4	8	TRUNK "N"	8	8	8	8
TRUNK "E"	370	0.06	11	8	TRUNK "O"	8	8	8	8

**RETURN AIR TRUNK**

SECTION	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	SECTION	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT
TRUNK "A"	1262	0.06	17.3	10	TRUNK "K"	8	8	8	8
TRUNK "B"	390	0.06	11.2	8	TRUNK "L"	8	8	8	8
TRUNK "C"	872	0.06	15.1	8	TRUNK "M"	8	8	8	8
TRUNK "D"	520	0.06	12.4	8	TRUNK "N"	8	8	8	8
TRUNK "E"	370	0.06	11	8	TRUNK "O"	8	8	8	8

**RETURN AIR TRUNK**

SECTION	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	SECTION	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT
TRUNK "A"	1262	0.06	17.3	10	TRUNK "K"	8	8	8	8
TRUNK "B"	390	0.06	11.2	8	TRUNK "L"	8	8	8	8
TRUNK "C"	872	0.06	15.1	8	TRUNK "M"	8	8	8	8
TRUNK "D"	520	0.06	12.4	8	TRUNK "N"	8	8	8	8
TRUNK "E"	370	0.06	11	8	TRUNK "O"	8	8	8	8

THE UNDERSIGNED HAS REVIEWED & TAKES RESPONSIBILITY FOR THIS DESIGN, & HAS THE QUALIFICATIONS & MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE AN "OTHER DESIGNER" WHOM IS EXEMPT UNDER 3.2.5.1 OF DIVISION "C" OF THE ONTARIO BUILDING CODE.

BCIN: 104813  
HRAI: 13322  
KIRIOLUS SWIN

*[Signature]*

\*NOTE: IF APPLICABLE: HRV INTAKE & EXHAUST CONNECTIONS HAVE BEEN TAKEN INTO ACCOUNT FOR SIZING OF R/A TRUNK\*

\*ALL S/A RUNS 5" dia. UNLESS OTHERWISE NOTED\*



**DUCT CALCULATION  
SYSTEM 2 - 2ND FLR**

150 CONNIE CRESCENT CONCORD UNIT 16, ON L4K 1L9 T; 905-760-9894 F; 905-660-5967  
web: www.martinohvac.com email: matthews@martinohvac.com

**AIR HANDLER DATA:**

MANUFACTURER:	mitsubishi
ELEC. AH MODEL:	PVA-A30AA7
INPUT W:	2460
OUTPUT MBH:	32
HEAT CFM:	744
COOL CFM:	744

**AVAIL. HEAT FAN SPEED**

LOW <sub>dm</sub>	613
MED <sub>dm</sub>	744
HIGH <sub>dm</sub>	875

**AVAIL COOL FAN SPEED**

LOW <sub>dm</sub>	613
MED <sub>dm</sub>	744
HIGH <sub>dm</sub>	875

**SUPPLY AIR:**

AH PRESS:	0.5
AH FILTER:	0.0225
COIL PRESSURE:	0.20
PLENUM PRESS S/A:	0.14
DIFFUSER PRESS. LOSS:	0.01
ADJUSTED PRESSURE:	0.13

**RETURN AIR:**

R/A PRESSURE:	0.14
GRILLE LOSS:	0.02
ADJ. PRESS.:	0.12

**HEATING:**

TOTAL HEAT LOSS:	19585
AIR FLOW RATE CFM:	3799

**COOLING:**

TOTAL HEAT GAIN:	15945
AIR FLOW RATE CFM:	4666

\*FURNACE SHALL BE EQUIPPED WITH BRUSHLESS DC MOTOR AS PER OBC 12.3.1.5(2)\*

PRINTED: 20-Jul-2023  
L/O#: X23097  
BUILDER: ALLIANCE HOMES LTD.  
SITE NAME: 209345 HWY 26  
TYPE: CUSTOM HOME  
CITY: BLUE MOUNTAINS  
GFA: 2892

ROOM#	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
	ROOM LOSS MBH	1.17	1.17	1.17	1.17	1.11	0.88	0.88	1.69	1.69	1.69	1.69	1.29	1.29	0.97	1.28	1.28	1.29	1.28	1.28	1.28	1.28	1.28	1.28
	CFM PER RUN HEAT	44	44	44	44	42	34	34	64	64	64	64	49	49	37	49	49	49	49	49	49	49	49	49
	ROOM GAIN MBH	1.13	1.13	1.13	1.13	1.38	0.90	0.90	1.44	1.44	1.44	1.44	0.84	0.84	0.39	0.73	0.73	0.84	0.73	0.73	0.73	0.73	0.73	0.73
	CFM PER RUN COOLING	53	53	53	53	65	42	42	67	67	67	67	39	39	18	34	34	39	34	34	34	34	34	34
	ADJUSTED PRESSURE	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	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
	EQUIVALENT LENGTH	73	70	56	51	37	46	26	27	32	31	48	11	15	15	16	20	72	15	16	20	72	15	16
	TOTAL EFFECTIVE LENGTH	130	150	120	110	100	130	120	150	130	120	130	100	100	110	100	140	100	110	100	110	100	110	100
	ADJUSTED PRESSURE	0.06	0.06	0.07	0.08	0.09	0.07	0.09	0.07	0.08	0.09	0.07	0.12	0.11	0.10	0.11	0.12	0.11	0.12	0.11	0.12	0.11	0.12	0.11
	ROUND DUCT SIZE	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	OUTLET GRILL SIZE	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
	TRUNK	D	D	D	D	C	C	C	C	B	B	B	A	E	E	E	D	D	E	E	E	D	D	D

ROOM#	ROOM NAME	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	
	ROOM LOSS MBH																								
	CFM PER RUN HEAT																								
	ROOM GAIN MBH																								
	ADJUSTED PRESSURE	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	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	
	EQUIVALENT LENGTH																								
	TOTAL EFFECTIVE LENGTH	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	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	
	ADJUSTED PRESSURE	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	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	
	ROUND DUCT SIZE	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	
	OUTLET GRILL SIZE																								
	TRUNK	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	

**SUPPLY AIR TRUNK**

SECTION	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	SECTION	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	SECTION	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT
TRUNK "A"	658	0.06	13.4		TRUNK "F"					TRUNK "K"				
TRUNK "B"	202	0.06	8.6		TRUNK "G"					TRUNK "L"				
TRUNK "C"	416	0.06	11.3		TRUNK "H"					TRUNK "M"				
TRUNK "D"	197	0.06	8.6		TRUNK "I"					TRUNK "N"				
TRUNK "E"	86	0.06	6.3		TRUNK "J"					TRUNK "O"				

**RETURN AIR TRUNK**

SECTION	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	SECTION	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	SECTION	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT
TRUNK "A"					TRUNK "K"					TRUNK "T"				
TRUNK "B"					TRUNK "L"					TRUNK "U"				
TRUNK "C"					TRUNK "M"					TRUNK "V"				
TRUNK "D"					TRUNK "N"					TRUNK "W"				
TRUNK "E"					TRUNK "O"					TRUNK "X"				
										TRUNK "Y"				
										TRUNK "Z"				
										DROP				

THE UNDERSIGNED HAS REVIEWED & TAKES RESPONSIBILITY FOR THIS DESIGN, & HAS THE QUALIFICATIONS & MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE AN "OTHER DESIGNER" WHOSE IS EXEMPT UNDER 3.2.5.1 OF DIVISION "C" OF THE ONTARIO BUILDING CODE.  
 BCIN: 104813  
 HRAI: 13322  
 KIRILLUS SWIN  
 \*NOTE: IF APPLICABLE: HRV INTAKE & EXHAUST CONNECTIONS HAVE BEEN TAKEN INTO ACCOUNT FOR SIZING OF R/A TRUNK\*



\*ALL S/A RUNS 5" dia. UNLESS OTHERWISE NOTED\*



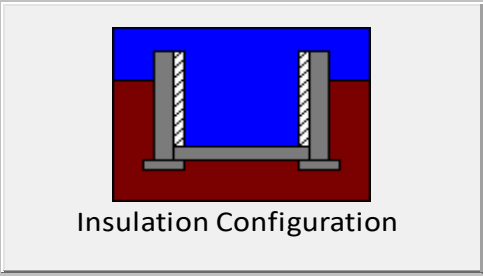
# Envelope Air Leakage Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description	
Province:	Ontario
? Region:	Collingwood
Weather Station Location:	Open flat terrain, grass
Anemometer height (m):	10
Local Shielding	
Building Site:	Suburban, forest
? Walls:	Light local shielding
Flue:	Light local shielding
Highest Ceiling Height (m):	7.09
Building Configuration	
Type:	Detached
? Number of Stories:	Two
Foundation:	Crawl Space
House Volume (m <sup>3</sup> ):	997.57
Air Leakage / Ventilation	
Air Tightness Type:	Present (1961-) (ACH=3.57)
? Custom BDT Data:	ELA @ 10 Pa. 2617.15 m <sup>2</sup>
	3.57 ACH @ 50 Pa
Mechanical Ventilation (L/s):	Total Supply: 30 Total Exhaust: 30
Flue Size	
Flue #:	#1 #2 #3 #4
Diameter (mm):	0 0 0 0
Envelope Air Leakage Rate	
? Heating Air Leakage Rate (ACH):	0.355
Cooling Air Leakage Rate (ACH):	0.092

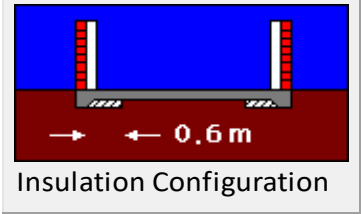
# Residential Foundation Thermal Load Calculator

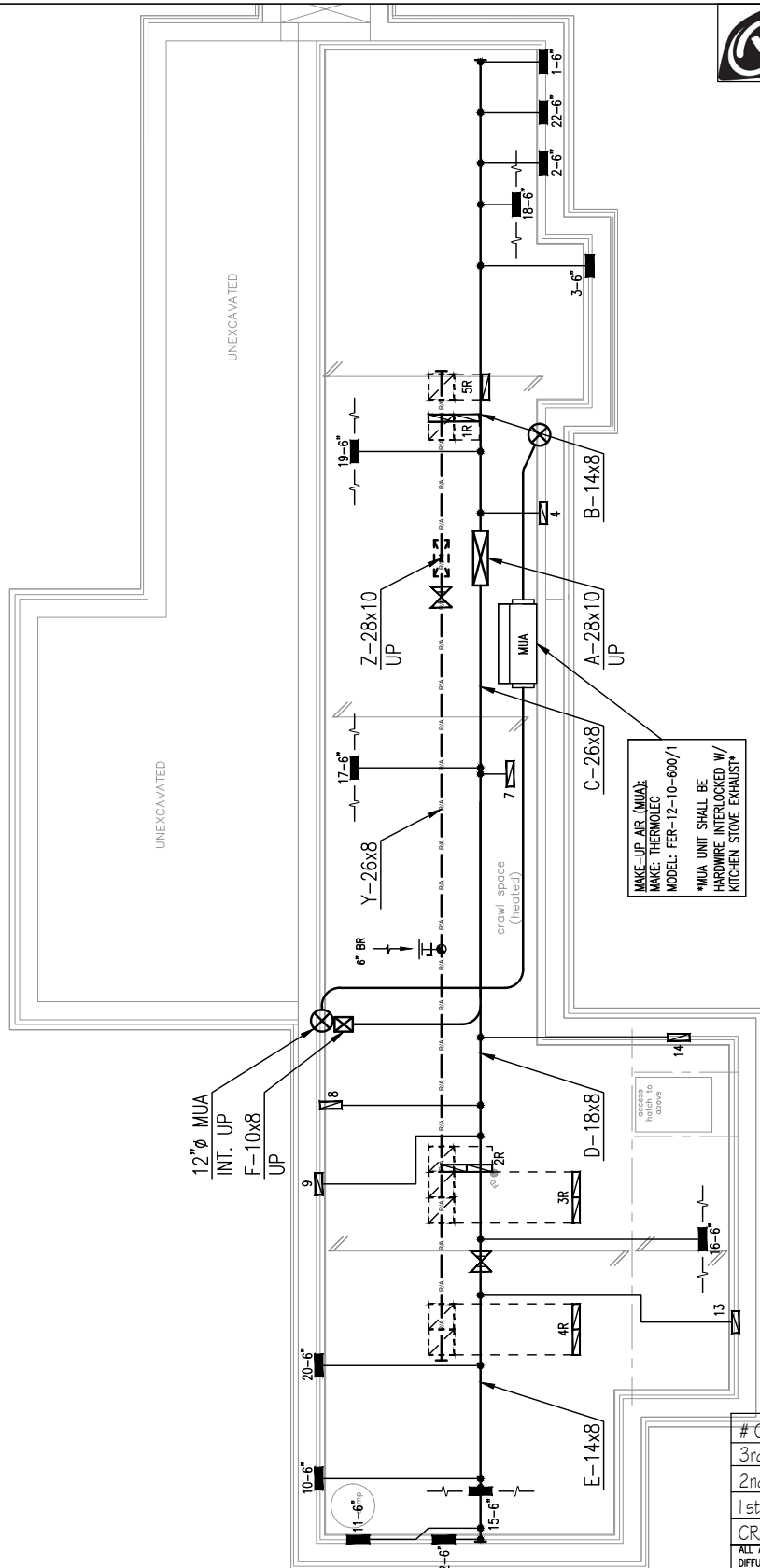
Supplemental tool for CAN/CSA-F280

Weather Station Description		
?	Province:	Ontario ▼
	Region:	Collingwood ▼
Site Description		
?	Soil Conductivity:	Normal conductivity: dry sand, loam, clay ▼
	Water Table:	Normal (7-10 m, 23-33 Ft) ▼
Foundation Dimensions		
	Floor Length (m):	23.9
	Floor Width (m):	3.53
	Exposed Perimeter (m):	54.86
?	Wall Height (m):	1.31
	Depth Below Grade (m):	0.84
	Window Area (m <sup>2</sup> ):	0
	Door Area (m <sup>2</sup> ):	0
 <p>Insulation Configuration</p>		
Radiant Slab		
?	Heated Fraction of the Slab:	0
	Fluid Temperature (°C):	33
Design Months		
	Heating Month	1
Foundation Loads		
?	Heating Load (Watts):	840

# Residential Slab on Grade Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
?	Province:	Ontario ▼
	Region:	Collingwood ▼
Site Description		
?	Soil Conductivity:	Normal conductivity: dry sand, loam, clay ▼
	Water Table:	Normal (7-10 m, 23-33 Ft) ▼
Floor Dimensions		
?	Length (m):	18.5
	Width (m):	2.23
	Exposed Perimeter (m):	22.56
		 <p>Insulation Configuration</p>
Radiant Slab		
?	Heated Fraction of the Slab:	0
	Fluid Temperature (°C):	33
Design Month		
	Heating Month	1
Results		
?	Heating Load (Watts):	267



MAKE-UP AIR (MUA):  
MAKE: THERMOLEC  
MODEL: FER-12-10-600/1  
\*MUA UNIT SHALL BE  
HARDWARE INTERLOCKED W/  
KITCHEN STOVE EXHAUST\*

# OF RUNS	S/A	R/A	FANS
3rd FLR			
2nd FLR	16	4	1
1st FLR	17	5	3
CRAWL	5	1	0

ALL APPLICABLE UNLESS OTHERWISE NOTED: S/A DIFFUSERS = 4" X 10", S/A RUNS = 5" #, DOOR UNDERCUT = 1" MIN. FOR R/A

REVISIONS (MM/DD/YY):	BY:
1 INSUL. & MUA-07/20/23	KS
2	
3	
4	

\*RECOMMENDED 6 WIRES SHALL BE SUPPLIED TO THERMOSTAT LOCATION BY ELECTRICIAN. PROGRAMMABLE THERMOSTAT SHALL BE INSTALLED AS PER OBC 12.3.1.3; FURNACE SHALL BE EQUIPPED WITH A BRUSHLESS DIRECT CURRENT MOTOR AS PER OBC 12.3.1.5; ERV CONTROLLER TO BE INSTALLED ON MAIN FLOOR AS PRINCIPLE VENTILATION CONTROL IN ACCORDANCE WITH OBC DIV. B 9.32.3.4\*

I Kirulus Siviv declare that: I review and take responsibility for the design work and am qualified as an "other designer" under subsection 3.2.5 of Division C of the Ontario Building Code.

Qualification Information:  
KIRULUS SIVIV 104813 13322

NAME: KIRULUS SIVIV BCIN: HRAI SIGNATURE: *[Signature]*

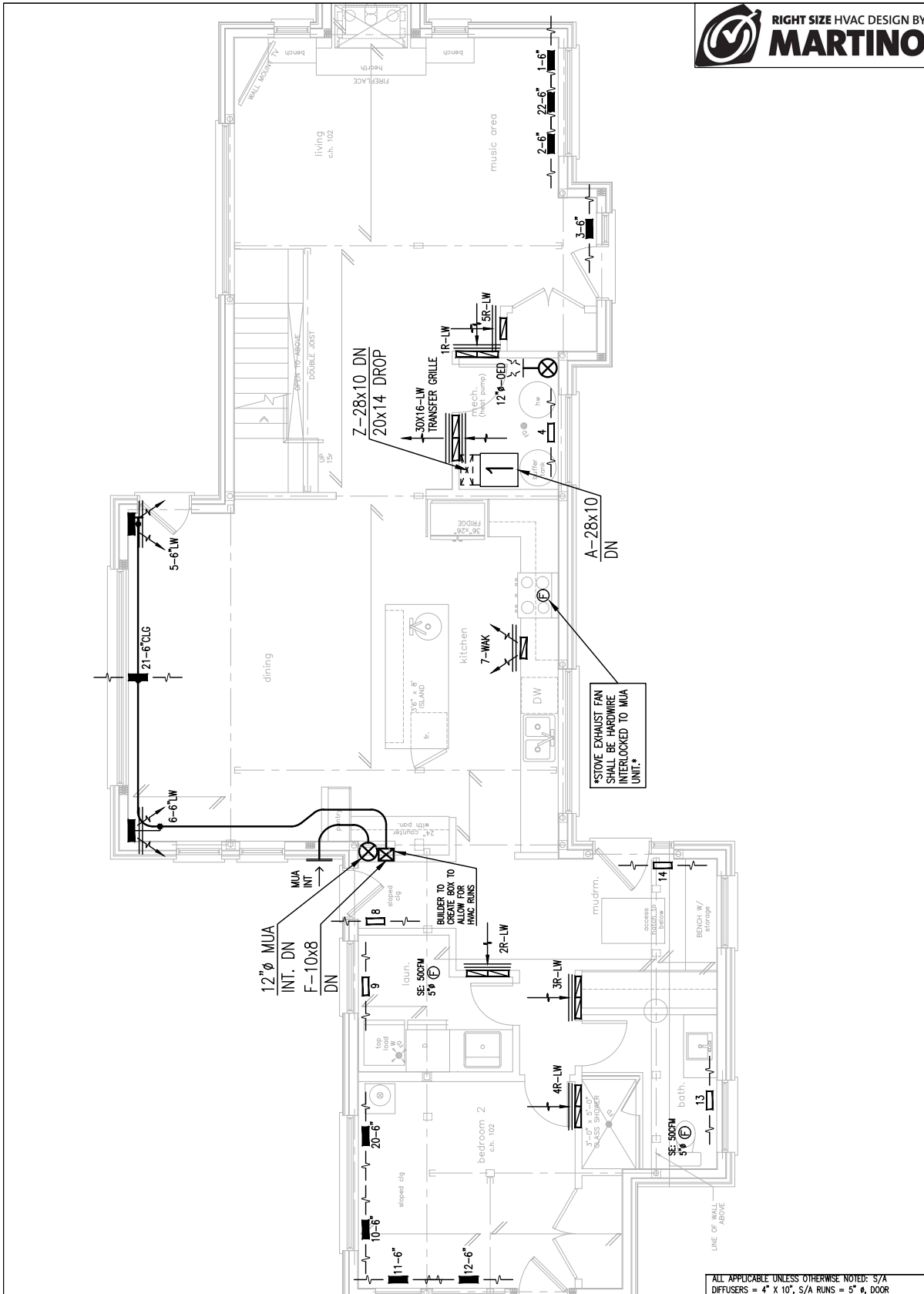
SB-12 2017 TABLE 3.1.1.2(A):  
**Compliance "A1"**

**MARTINO HVAC DESIGN**  
Managing your environment™  
TEL: 1-800-465-5700  
EMAIL: INFO@MARTINOHVAC.COM  
WEB: WWW.MARTINOHVAC.COM

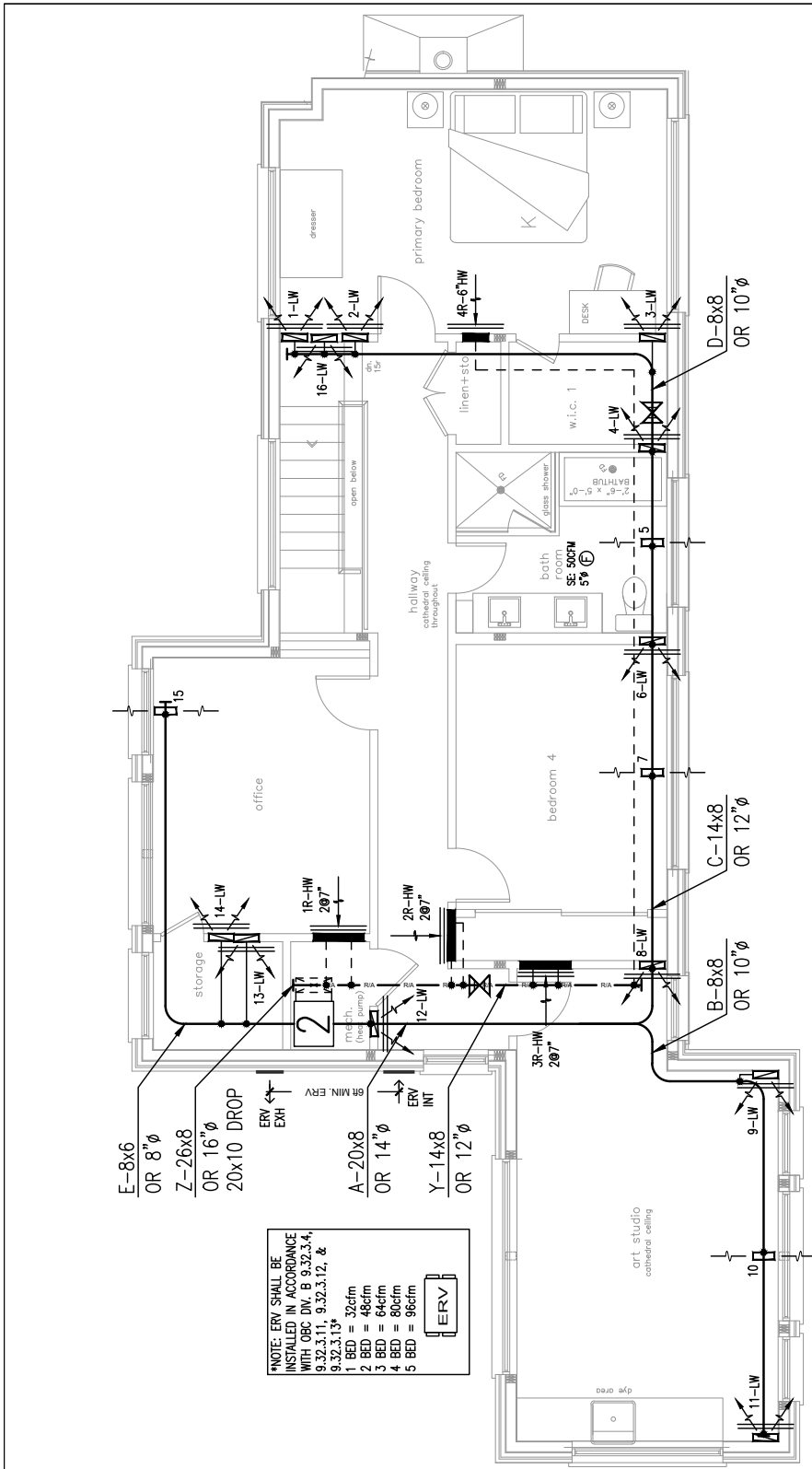
SYSTEM 1:		SYSTEM 2:	
HEAT LOSS BTU/H: 33,544	HEAT GAIN BTU/H: 21,820	HEAT LOSS BTU/H: 19,585	HEAT GAIN BTU/H: 15,945
MANUFACTURER: MITSUBISHI ELECTRIC	MANUFACTURER: MITSUBISHI ELECTRIC	MANUFACTURER: MITSUBISHI ELECTRIC	MANUFACTURER: MITSUBISHI ELECTRIC
MODEL: PVA-A42AA7 W/ EH15-MPA5-LB (15kW HTR)	MODEL: PUZ-HA42NKA1	MODEL: PVA-A30AA7 W/ EH08-MPA-MB (8kW HTR)	MODEL: PUZ-HA30NKA
INPUT W: 3,850	TONS: 2.0	INPUT W: 2,460	TONS: 1.5
OUTPUT MBTU/H: 48	ERV MANUFACTURER: (SYSTEM 1) N/A	OUTPUT MBTU/H: 32	ERV MANUFACTURER: LIFE BREATH
FAN SPEED: HEAT 1262 cfm	FAN SPEED: COOL 1262 cfm	FAN SPEED: HEAT 744 cfm	FAN SPEED: COOL 744 cfm
ERV MODEL: (OR EQUIVALENT) N/A	75% EFF.	ERV MODEL: (OR EQUIVALENT) 130ERVD	75% EFF.

ALLIANCE HOMES LTD.	
SITE: 209345 HWY 26, BLUE MOUNTAINS	
TITLE: BASEMENT HEATING LAYOUT	
HOUSE TYPE: CUSTOM HOME	AREA: 2892 ft²
DATE: JULY, 2023	SCALE: 3/16" = 1'0"
LO#	<b>X23097</b>

\*ALL DRAWINGS AND RELATED DOCUMENTS ARE PROPERTY OF MARTINO HVAC DESIGN. REPRODUCTION IN WHOLE OR PART IS PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF MARTINO HVAC DESIGN. SHOULD A NON STANDARD KITCHEN EXHAUST FAN BE INSTALLED, MARTINO HVAC DESIGN SHALL BE CONSULTED IN REGARDS TO POSSIBLE DEPRESSURIZATION ISSUES OF THE DWELLING, INCLUDES STANDARD INSTALLATION OF PATENTED "MARTINO AIRGUARD" FOR ENHANCED INDOOR AIR QUALITY OPPORTUNITIES.\*




<p>REVISIONS (MM/DD/YY):</p> <p>1 INSUL. &amp; MUA-07/20/23</p> <p>2</p> <p>3</p> <p>4</p>	<p>BY: KS</p> <p>RECOMMENDED 6 WIRES SHALL BE SUPPLIED TO THERMOSTAT LOCATION BY ELECTRICIAN. PROGRAMMABLE THERMOSTAT SHALL BE INSTALLED AS PER OBC 12.3.1.3; FURNACE SHALL BE EQUIPPED WITH A BRUSHLESS DIRECT CURRENT MOTOR AS PER OBC 12.3.1.5; ERV CONTROLLER TO BE INSTALLED ON MAIN FLOOR AS PRINCIPLE VENTILATION CONTROL IN ACCORDANCE WITH OBC DIV. B 9.32.3.4*</p>	<p>Kiroulus Sivini declare that: I review and take responsibility for the design work and am qualified as an "other designer" under subsection 3.2.5 of Division C of the Ontario Building Code.</p> <p>Qualification Information: KIROULUS SIVINI 104813 13322</p> <p>NAME: KIROULUS SIVINI BCIN: 104813 HRAI: 13322 SIGNATURE: <i>[Signature]</i></p>	<p>SB-12 2017 TABLE 3.1.1.2(A):</p> <p><b>Compliance "A1"</b></p>		
<p><b>MARTINO HVAC DESIGN</b> Managing your environment™</p> <p>TEL: 1-800-465-5700 EMAIL: INFO@MARTINOHVAC.COM WEB: WWW.MARTINOHVAC.COM</p>	<p>SYSTEM 1:</p> <p>HEAT LOSS BTU/H: 33,544    HEAT GAIN BTU/H: 21,820</p> <p>MANUFACTURER: MITSUBISHI ELECTRIC    MANUFACTURER: MITSUBISHI ELECTRIC</p> <p>MODEL: PVA-A42AA7 W/ EH15-MPA5-LB (15kW HTR)    MODEL: PUZ-HA42NKA1</p> <p>INPUT W: 3,850    TONS: 2.0</p> <p>OUTPUT MBTU/H: 48    ERV MANUFACTURER: (SYSTEM 1)</p> <p>FAN SPEED: HEAT 1262 cfm    FAN SPEED: COOL 1262 cfm    ERV MODEL: (OR EQUIVALENT) N/A    75% EFF.</p>		<p>SYSTEM 2:</p> <p>HEAT LOSS BTU/H: 19,585    HEAT GAIN BTU/H: 15,945</p> <p>MANUFACTURER: MITSUBISHI ELECTRIC    MANUFACTURER: MITSUBISHI ELECTRIC</p> <p>MODEL: PVA-A30AA7 W/ EH08-MPA-MB (8kW HTR)    MODEL: PUZ-HA30NKA</p> <p>INPUT W: 2,460    TONS: 1.5</p> <p>OUTPUT MBTU/H: 32    ERV MANUFACTURER: LIFE BREATH</p> <p>FAN SPEED: HEAT 744 cfm    FAN SPEED: COOL 744 cfm    ERV MODEL: (OR EQUIVALENT) 130ERV    75% EFF.</p>		<p>ALLIANCE HOMES LTD.</p> <p>SITE: 209345 HWY 26, BLUE MOUNTAINS</p> <p>TITLE: 1st FLOOR HEATING LAYOUT</p> <p>HOUSE TYPE: CUSTOM HOME    AREA: 2892 ft<sup>2</sup></p> <p>DATE: JULY, 2023    SCALE: 3/16" = 1'0"</p> <p>LO#    <b>X23097</b></p>
	<p>*ALL DRAWINGS AND RELATED DOCUMENTS ARE PROPERTY OF MARTINO HVAC DESIGN. REPRODUCTION IN WHOLE OR PART IS PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF MARTINO HVAC DESIGN. SHOULD A NON STANDARD KITCHEN EXHAUST FAN BE INSTALLED, MARTINO HVAC DESIGN SHALL BE CONSULTED IN REGARDS TO POSSIBLE DEPRESSURIZATION ISSUES OF THE DWELLING, INCLUDES STANDARD INSTALLATION OF PATENTED "MARTINO AIRGUARD" FOR ENHANCED INDOOR AIR QUALITY OPPORTUNITIES.*</p>				



**\*NOTE: ERV SHALL BE INSTALLED IN ACCORDANCE WITH OBC DIV. B 9.32.3.4, 9.32.3.11, 9.32.3.12, & 9.32.3.13\***

1 BED	= 32cfm
2 BED	= 46cfm
3 BED	= 64cfm
4 BED	= 80cfm
5 BED	= 96cfm

ALL APPLICABLE UNLESS OTHERWISE NOTED: S/A DIFFUSERS = 4" X 10", S/A RUNS = 5" #, DOOR UNDERCUT = 1" MIN. FOR R/A

<b>REVISIONS (MM/DD/YY):</b> 1 INSUL. & MUA-07/20/23 2 3 4	<b>BY:</b> KS *RECOMMENDED 6 WIRES SHALL BE SUPPLIED TO THERMOSTAT LOCATION BY ELECTRICIAN. PROGRAMMABLE THERMOSTAT SHALL BE INSTALLED AS PER OBC 12.3.1.3. FURNACE SHALL BE EQUIPPED WITH A BRUSHLESS DIRECT CURRENT MOTOR AS PER OBC 12.3.1.5. ERV CONTROLLER TO BE INSTALLED ON MAIN FLOOR AS PRINCIPLE VENTILATION CONTROL IN ACCORDANCE WITH OBC DIV. B 9.32.3.4*	I Kirolus Sivin declare that: I review and take responsibility for the design work and am qualified as an "other designer" under subsection 3.2.5 of Division C of the Ontario Building Code. <b>Qualification Information:</b> KIROLOUS SIVIN 104813 13322 NAME BCIN HRAI SIGNATURE	SB-12 2017 TABLE 3.1.1.2(A): <h2 style="text-align: center;">Compliance "A1"</h2>		
 <p><b>MARTINO HVAC DESIGN</b> Managing your environment™ TEL: 1-800-465-5700 EMAIL: INFO@MARTINOHVAC.COM WEB: WWW.MARTINOHVAC.COM</p>	<b>SYSTEM 1 :</b>		<b>SYSTEM 2:</b>		<b>ALLIANCE HOMES LTD.</b> 209345 HWY 26, BLUE MOUNTAINS TITLE: <b>2nd FLOOR HEATING LAYOUT</b> HOUSE TYPE: <b>CUSTOM HOME</b> AREA: 2892 <sub>ft</sub> <sup>2</sup> DATE: JULY, 2023 SCALE: 3/16" = 1'0" <b>LO# X23097</b>
	HEAT LOSS BTU/H: 33,544	HEAT GAIN BTU/H: 21,820	HEAT LOSS BTU/H: 19,585	HEAT GAIN BTU/H: 15,945	
	MANUFACTURER: MITSUBISHI ELECTRIC	MANUFACTURER: MITSUBISHI ELECTRIC	MANUFACTURER: MITSUBISHI ELECTRIC	MANUFACTURER: MITSUBISHI ELECTRIC	
	MODEL: PVA-A42AA7 W/ EH15-MPA5-LB (15kW HTR)	MODEL: PUZ-HA42NKA1	MODEL: PVA-A30AA7 W/ EH08-MPA-MB (8kW HTR)	MODEL: PUZ-HA3ONKA	
INPUT W: 3,850	TONS: 2.0	INPUT W: 2,460	TONS: 1.5		
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