

Schedule 1: Designer Information

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 Baros	sa 8		Lot:	
S38-	ВС		Lot/con.	
Municipality Bradford	Postal code	Plan number/ other description		
B. Individual who reviews and takes responsibility for design	gn activities			
Name David DaCosta		Firm	gtaDesigns Inc.	
Street address 2985 Drew Roa				Lot/con.
Municipality Mississauga	Postal code L4T 0A4	Province Ontario	E-mail <u>hvac@gtadesi</u>	gns.ca
Telephone number (905) 671-9800	Fax number		Cell number	
C. Design activities undertaken by individual identified in S	ection B. [Bu	ilding Code Table 3	3.5.2.1 of Division C]	
☐ House ☒ HVAC – H	louse		☐ Building Structural	
☐ Small Buildings ☐ Building S	ervices		☐ Plumbing – House	
☐ Large Buildings ☐ Detection,	Lighting and Po	wer	☐ Plumbing – All Buildings	
☐ Complex Buildings ☐ Fire Protect	ction		☐ On-site Sewage System	s
Description of designer's work Mo	del Certification	1	Project #:	PJ-00041
Heating and Cooling Load Calculations Main	X	Duilden	Layout #:	JB-07355
Heating and Cooling Load Calculations Main Air System Design Alternate		Builder Project	Bayview Wellingto Green Valley East	
Residential mechanical ventilation Design Summary Area Sq ft:			Barossa 8	
Residential System Design per CAN/CSA-F280-12		Model	S38-8C	
Residential New Construction - Forced Air		SB-12	Package A1	
D. Declaration of Designer				
David DaCosta	declare that (d	choose one as appro	priate):	
(print name)				
☐ I review and take responsibility for 3.2.4 Division C of the Building Co				
classes/categories.	aor i aini quaimot	., aaee .eg.e	orea, in the appropriate	
Individual BCIN			•	
Firm BCIN:				
☑ I review and take responsibility for "other designer" under subsection				
Individual BCIN	3290	64		
Basis for exemp	tion from registr	ation: <u>E</u>	Division C 3.2.4.1. (4)	
☐ The design work is exempt from th	e registration an	d qualification requirem	nents of the Building Code.	
Basis for exemp	tion from registr	ation and qualification:		
I certify that:				
The information contained in this schedule is true to the best of n	ny knowledge.			
I have submitted this application with the knowledge and consent	t of the firm.			
July 27, 2021		Mare So		
Date		Signature of De	signer	

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 qualifications under Subsections 3.2.4. and 3.2.5.of Division C.

2. Schedule 1 does not require to be completed a holder of a license, temporay license, or a certificate of authorization, issed by the Ontario Associstion of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited licence to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.



2985 Drew Road, Suite 202, Mississauga, Ontario L4T 0A4 Tel: 905-671-9800 e-mail hvac@gtadesigns.ca

Page 2

and may not be used by any other persons without authorization. Documents	Asyview Wellington Layout No.
Building	· · · · · · · · · · · · · · · · · · ·
	for permit and/or construction are signed in red. JB-07355
	Location
Address (Model): S38-8C	Site: Green Valley East
Model: Barossa 8	Lot:
City and Province: Bradford	Postal code:
Calculation	s based on
Dimensional information based on:	VA3 Design13/May/2021
Attachment: Detached	Front facing: East/West Assumed? Yes
No. of Levels: 3 Ventilated? Included	Air tightness: 1961-Present (ACH=3.57) Assumed? Yes
Weather location: Bradford	Wind exposure: Sheltered
HRV? VanEE V150H75NS	Internal shading: Light-translucent Occupants: 5
Sensible Eff. at -25C 60% Apparent Effect. at -0C 83%	Units: Imperial Area Sq ft: 3168
Sensible Eff. at -0C 75%	
Heating design conditions	Cooling design conditions
Outdoor temp -9.4 Indoor temp: 72 Mean soil temp: 48	Outdoor temp 86 Indoor temp: 75 Latitude: 44
Above grade walls	Below grade walls
Style A: As per OBC SB12 Package A1 R 22	Style A: As per OBC SB12 Package A1 R 20ci
Style B:	Style B:
Style C:	Style C:
Style D:	Style D:
Floors on soil	Ceilings
Style A: As per Selected OBC SB12 Package A1	Style A: As per Selected OBC SB12 Package A1 R 60
Style B:	Style B: As per Selected OBC SB12 Package A1 R 31
Exposed floors	Style C:
Style A: As per Selected OBC SB12 Package A1 R 3	Doors
Style B:	Style A: As per Selected OBC SB12 Package A1 R 4.00
Windows	Style B:
Style A: As per Selected OBC SB12 Package A1 R 3.5	5 Style C:
Style B:	Skylights
Style C:	Style A: As per Selected OBC SB12 Package A1 R 2.03
Style D:	Style B:
Attached documents: As per Shedule 1 Heat Loss/	Gain Caculations based on CSA-F280-12 Effective R-Values
Notes: Residential New	Construction - Forced Air
Calculations	performed by
Name: David DaCosta	Postal code: L4T 0A4
Company: gtaDesigns Inc.	Telephone: (905) 671-9800
Address: 2985 Drew Road, Suite 202	Fax:
City: Mississauga	E-mail hvac@gtadesigns.ca



Builder: Bayview Wellington

Air System Design

Package A1 SB-12

2985 Drew Road, Suite 202, Mississauga, Ontario L4T 0A4 Tel: 905-671-9800 e-mail hvac@gtadesigns.ca

Date: July 27, 2021

I review and take responsibility for the design work and am qualified in the appropriate category as an "other designer" under Division C subsection 3.2.5. of the

Page 3

Project: Green V	alley Eas			Model:			Baros S38-			-		Sy	stem 1			appropriate Building C Individual	ode.	ry as an "ot		ner" unde 4			ction 3.2.5. David DaC			ject # /out #		-00041 -07355
DESIGN LOAD SPECIFICATIONS	s		7	AIR DISTR	RIBUTION	& PRESSU	JRE				F	URNACE/	AIR HAND	DLER DAT	A:			BOILER/W	ATER HEA	ATER DAT	A:			A	/C UNIT D	ATA:		
Level 1 Net Load Level 2 Net Load Level 3 Net Load Level 4 Net Load Total Heat Loss	22,453 k 26,609 k 22,364 k	otu/h otu/h otu/h	, ,	Additional Available l Return Bra	t External I Equipment Design Presanch Long m Pressur	nt Pressu essure est Effect	re Drop	h	0.5 " 0.225 " 0.275 " 300 f 0.138 "	w.c. w.c. t	! ! !	Make Model nput Btu/h Dutput Btu/ E.s.p.	ı	Amai AMEC9608 8000 7680 0.50	na 804CNA 0	' W.C.	!	Make Model Input Btu/h Output Btu Min.Output	/h		т	уре			mana ond oil		3.5 T 3.5 3.5	on
Total Heat Gain	38,249 b	otu/h	5	S/A Plenu	m Pressur	е			0.14 "	w.c.	١	Vater Temp	•			deg. F.						Blo	wer DATA					
Building Volume Vb Ventilation Load Ventilation PVC Supply Branch and Grill Sizing	41748 f 1,188 E 79.5 d	Btuh.	(_	ir Flow Pro ir Flow Pro oss	oportionin F	g Facter R/A Temp S/A Temp				\$	AFUE Aux. Heat SB-12 Pack Temp. Rise:	_	96% Packag <u>46</u> d				Blower Spe Heating Ch Selected cf	eck	ed: 1545 c 1545 c			c	C	lower Type (Brushle ooling Che	ss DC OE	CM 3C 12.3.1.9 1545 c 1545 c	fm
							Leve	el 1													Level	12						
S/A Outlet No. Room Use Btu/Outlet	1 BASE 4491	2 BASE 4491	3 BASE 4491	4 BASE 4491	5 BASE 4491									•	6 KIT 2643	7 KIT 2643	8 LAUND 2865	9 LIV 3315	10 LIV 3315	11 PWD 444	12 FOY 3265	13 DIN 1692	14 DIN 1692	15 GRT 2368	16 GRT 2368			
Heating Airflow Rate CFM Cooling Airflow Rate CFM	97 12	97 12	97 12	97 12	97 12										57 107	57 107	62 69	72 94	72 94	10 2	71 83	37 109	37 109	51 87	51 87			
Duct Design 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	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	27	32	23	24	50										30	30	42	59	58	43	36	30	25	30	36			
Equivalent Length	110	130	130	90	140	70	70	70	70	70	70	70	70	70	80	120	100	130	150	160	180	110	130	90	140	70	70	70
Total Effective Length	137	162	153	114	190	70	70	70	70	70	70	70	70	70	110	150	142	189	208	203	216	140	155	120	176	70	70	70
Adjusted Pressure	0.09	0.08	0.08	0.11	0.07	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.12	0.09	0.09	0.07	0.06	0.06	0.06	0.09	0.08	0.11	0.07	0.19	0.19	0.19
Duct Size Round Outlet Size	6 4x10	6 4x10	6 4x10	6 4x10	6 4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	6 4x10	6 4x10	5 3x10	6 4x10	6 4x10	3 3x10	6 4x10	6 4x10	6 4x10	6 4x10	6 4x10	4x10	4x10	4x10
Trunk	4x10	4X10 D	4X10	4X10 E	4X10	4210	4210	47.10	4210	44.10	4210	44.10	4210	4210	4x10	4x10	3X10	4x10 G	4X10 G	3X10 F	4X10	4X10	4X10	4x10 D	4x10 D	4210	47.10	4210
Tunk							Leve	el 3													Level	14						
S/A Outlet No.	17	18	19	20	21	22	23	24	25	26	27	28	29															
Room Use	MAST	MAST	wc	ENS	BED 2	BED 2	BATH	BED 3	BED 3	BED 4	BED 4	ENS 2	WIC															
Btu/Outlet	1942	1942	569	1447	2419	2419	1182	2680	2680	1400	1400	935	1349															
Heating Airflow Rate CFM	42	42	12	31	52	52	26	58	58	30	30	20	29															
Cooling Airflow Rate CFM	50	50	16	42	36	36	14	69	69	51	51	24	26															
Duct Design 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	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	39	45	37	22	71	68	64	79	66	44	46	41	51															
Equivalent Length	110	130	140	100	170	160	150	160	160	140	150	130	150	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Total Effective Length	149	175	177	122	241	228	214	239	226	184	196	171	201	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Adjusted Pressure	0.09	0.07	0.07	0.11	0.05	0.06	0.06	0.05	0.06	0.07	0.07	0.08	0.06	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Duct Size Round	5	5	3	4	6	6	4	6	6	5	5	4	4															
Outlet Size Trunk	3x10 C	3x10 C	3x10 F	3x10 A	4x10 F	4x10 F	3x10 F	4x10 G	4x10 F	3x10 E	3x10 D	3x10	3x10 D	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
									-																			
Return Branch And Grill Sizing																				•	upply Tru	mlr Dunas C	Sizing					
			Grill Press	ure Loss		0.02 '	w.c					R	eturn Tru	nk Duct S	izing					<u> </u>	uppiy i u	nk Duct S				_		_
R/A Inlet No.	1R	2R	Grill Press 3R	ure Loss 4R	5R	0.02 ' 6R	'w.c 7R	8R	9R	10R	11R	_	eturn Tru runk			Press. R	ound	Rect. S	ize	_	runk			ress. F	ound	Rect. S	Size	
R/A Inlet No. Inlet Air Volume CFM	1R 243				5R 155			8R	9R	10R	11R	_				Press. F	ound	Rect. S	iize	_				ress. F	ound	Rect. S	Size	
Inlet Air Volume CFM Duct Design Pressure	243 0.12	2R 485 0.12	3R 247 0.12	4R 105 0.12	155 0.12	6R 155 0.12	7R 155 0.12	8R 0.12	9R 0.12	10R 0.12	11R 0.12	Tr Di	runk		FM I	0.05	19.0	24x14		T	runk		1544	0.05	19.0	34x10	26x12	
Inlet Air Volume CFM Duct Design Pressure Actual Duct Length	243 0.12 6	2R 485 0.12 15	3R 247 0.12 16	4R 105 0.12 75	155 0.12 41	6R 155 0.12 39	7R 155 0.12 38	0.12	0.12	0.12	0.12	Tr Di Z	runk		FM I				ize 20x10	Ŧ	runk		1544 574	0.05 0.06	19.0 12.5	34x10 18x8	26x12 14x10	
Inlet Air Volume CFM Duct Design Pressure Actual Duct Length Equivalent Length	243 0.12 6 195	2R 485 0.12 15 205	3R 247 0.12 16 205	4R 105 0.12 75 165	155 0.12 41 145	6R 155 0.12 39 180	7R 155 0.12 38 140	0.12 50	0.12 50	0.12 50	0.12 50	Tr Di Z Y	runk rop		FM I	0.05	19.0	24x14		T A B C	runk		1544 574 295	0.05 0.06 0.07	19.0 12.5 9.5	34x10 18x8 10x8	26x12 14x10 127	
Inlet Air Volume CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length	243 0.12 6 195 201	2R 485 0.12 15 205 220	3R 247 0.12 16 205 221	4R 105 0.12 75 165 240	155 0.12 41 145 186	6R 155 0.12 39 180 219	7R 155 0.12 38 140 178	0.12 50 50	0.12 50 50	0.12 50 50	0.12 50 50	Tr Di Z Y X	runk		FM I	0.05	19.0	24x14		T A B C	runk		1544 574 295 279	0.05 0.06 0.07 0.06	19.0 12.5 9.5 10.0	34x10 18x8 10x8 12x8	26x12 14x10 127 10x10	
Inlet Air Volume CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure	243 0.12 6 195 201 0.06	2R 485 0.12 15 205 220 0.05	3R 247 0.12 16 205 221 0.05	4R 105 0.12 75 165 240 0.05	155 0.12 41 145 186 0.06	6R 155 0.12 39 180 219 0.05	7R 155 0.12 38 140 178 0.07	0.12 50	0.12 50	0.12 50	0.12 50	Tr Di Z Y X W	runk		FM I	0.05	19.0	24x14		T A B C D	runk		1544 574 295 279 939	0.05 0.06 0.07 0.06 0.05	19.0 12.5 9.5 10.0 16.0	34x10 18x8 10x8 12x8 30x8	26x12 14x10 127 10x10 22x10	
Inlet Air Volume CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round	243 0.12 6 195 201 0.06 8.0	2R 485 0.12 15 205 220 0.05 12.5	3R 247 0.12 16 205 221 0.05 9.5	4R 105 0.12 75 165 240 0.05 6.0	155 0.12 41 145 186 0.06 8.0	6R 155 0.12 39 180 219 0.05	7R 155 0.12 38 140 178 0.07	0.12 50 50	0.12 50 50	0.12 50 50	0.12 50 50	Tr Di Z Y X W	runk		FM I	0.05	19.0	24x14		T A B C D E F	runk		1544 574 295 279 939 567	0.05 0.06 0.07 0.06 0.05	19.0 12.5 9.5 10.0 16.0 13.0	34x10 18x8 10x8 12x8 30x8 18x8	26x12 14x10 127 10x10 22x10 14x10	
Inlet Air Volume CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Inlet Size	243 0.12 6 195 201 0.06 8.0 FLC	2R 485 0.12 15 205 220 0.05 12.5	3R 247 0.12 16 205 221 0.05 9.5	4R 105 0.12 75 165 240 0.05 6.0	155 0.12 41 145 186 0.06 8.0	6R 155 0.12 39 180 219 0.05 8.0	7R 155 0.12 38 140 178 0.07 7.5	0.12 50 50 0.24	0.12 50 50 0.24	0.12 50 50 0.24	0.12 50 50 0.24	Tr Di Z Y X W V	runk		FM I	0.05	19.0	24x14		A B C D E F	runk		1544 574 295 279 939	0.05 0.06 0.07 0.06 0.05	19.0 12.5 9.5 10.0 16.0	34x10 18x8 10x8 12x8 30x8	26x12 14x10 127 10x10 22x10	
Inlet Air Volume CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Inlet Size " "	243 0.12 6 195 201 0.06 8.0 FLC	2R 485 0.12 15 205 220 0.05 12.5 8	3R 247 0.12 16 205 221 0.05 9.5 8	4R 105 0.12 75 165 240 0.05 6.0 8	155 0.12 41 145 186 0.06 8.0 8	6R 155 0.12 39 180 219 0.05 8.0	7R 155 0.12 38 140 178 0.07 7.5 8	0.12 50 50	0.12 50 50	0.12 50 50	0.12 50 50	Tr Di Z Y X W V U T	runk		FM I	0.05	19.0	24x14		T A B C D E F	runk		1544 574 295 279 939 567	0.05 0.06 0.07 0.06 0.05	19.0 12.5 9.5 10.0 16.0 13.0	34x10 18x8 10x8 12x8 30x8 18x8	26x12 14x10 127 10x10 22x10 14x10	
Inlet Air Volume CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Inlet Size	243 0.12 6 195 201 0.06 8.0 FLC	2R 485 0.12 15 205 220 0.05 12.5	3R 247 0.12 16 205 221 0.05 9.5	4R 105 0.12 75 165 240 0.05 6.0	155 0.12 41 145 186 0.06 8.0	6R 155 0.12 39 180 219 0.05 8.0	7R 155 0.12 38 140 178 0.07 7.5	0.12 50 50 0.24	0.12 50 50 0.24	0.12 50 50 0.24	0.12 50 50 0.24	Tr Di Z Y X W V	runk		FM I	0.05	19.0	24x14		A B C D E F	runk		1544 574 295 279 939 567	0.05 0.06 0.07 0.06 0.05	19.0 12.5 9.5 10.0 16.0 13.0	34x10 18x8 10x8 12x8 30x8 18x8	26x12 14x10 127 10x10 22x10 14x10	



Total Heat Loss

Total Heat Gain

71,425 btu/h

38,249 btu/h

Heatloss/Gain Calculations CSA-F280-12

2985 Drew Road, Suite 202, Mississauga, Ontario L4T 0A4 Tel: 905-671-9800

e-mail hvac@gtadesigns.ca

		Builder:	Bayvi	w Wellin	gton		Da	te:		July 2	7, 2021					V	Weather Da	ata	Bradf	ord	44	-9.4 8	6 22	48.2					Page 4
2012 OBC		Project:	Gree	Valley E	ast		Mod	el:			ssa 8 3-8C			Syste	m 1		Heat Loss	s ^T 81.4	deg. F	Ht ga	n ^T	11 d	leg. F	GTA:	: 3168	3	Proje Layo		PJ-00041 JB-07355
	Level 1				E	BASE																							
Runf	ft. exposed wall A				186 A			Α		Α		Α		Α		Α			Α		Α		Α			Α		Α	
	ft. exposed wall B				В			В		В		В		В		В			В		В		В			В		В	
	Ceiling height				6.0 AG			6.0 AG		6.0 AG		6.0 A		6.0 AG		6.0 AC		6.0		6.0	AG		6.0 AG) AG		6.0 AG	
	Floor area				328 Are		,			Are	_		rea			Ar			Area	0.0	Area		Area					Area	_
E.,	xposed Ceilings A				320 AIE A	ed.		Area A		A	d	A		Area A		A			Area		A		Area			Area A		Area	d
																					В								
	xposed Ceilings B				В			В		В		В		В		В			В				В			В		В	
	Exposed Floors				Flr			Flr		Flr		FI	Ir	Flr		Fli	r		Flr		Flr		Flr			Flr		Flr	
	Gross Exp Wall A			1	116																								
	Gross Exp Wall B																												
	Components				Los			Loss	Gain	Los	s Gain	Lo	oss Gain	Loss	Gain	Lo	oss Gair	n	Loss C	ain	Loss	Gain	Loss	s Gain	1	Loss	Gain	Loss	s Gain
	North Shaded	3.55	22.93	11.62	3	69	35																						
	East/West	3.55	22.93	29.56	15	344	443																						
	South	3.55	22.93	22.50																									
	WOB Windows	3.55	22.93	27.86																									
	Skylight	2.03	40.10	88.23																									
	Doors	4.00	20.35		21	427	58																						
Net	et exposed walls A	21.12	3.85		077		561																						
	et exposed walls B	17.03	4.78	0.65																									
	xposed Ceilings A	59.22	1.37	0.64																									
	xposed Ceilings B	27.65	2.94	1.37																									
	Exposed Floors	29.80	2.73	0.17																									
Foundation Conduc		25.00	2.73	0.17		9339																							
	Heat Loss					0179																							
Total Conductive	Heat Gain						1097																						
Ala I autonia			4 4-0-																										
Air Leakage	Heat Loss/Gain			.0380	14	2008	42																						
M	Case 1		0.06	0.04																									
Ventilation	Case 2		14.95	11.88	_																								
E.	Case 3	x	0.03	0.04		265	49																						
	Heat Gain People			239																				/ /					
Α	Appliances Loads	1 =.25 pe	rcent	5331																									
A Du	Appliances Loads Duct and Pipe loss			5331 10%																									
Α	Appliances Loads	Tot	al HL for pe	5331 10% room	22	2453	1544																						
Level HL Total Level HG Total Run fi	Appliances Loads Duct and Pipe loss 22,453 1,544 Level 2 ft. exposed wall A	Tot	al HL for pe	5331 10% room	39 A			LAUN 24 A	D	52 A	LIV	6 A		FO'	Y	24 A		32	GRT A		A		A			A		A	
Level HL Total Level HG Total Run fi	Appliances Loads Duct and Pipe loss 22,453 1,544 Level 2 ft. exposed wall A ft. exposed wall B	Tot	al HL for pe	5331 10% room x 1.3	39 A B			24 A B	D	52 A B	LIV	6 A B		11 A B	Y	В			A B		В		В			В		В	
Level HL Total Level HG Total Run fi	Appliances Loads Duct and Pipe loss 22,453 1,544 Level 2 ft. exposed wall A	Tot	al HL for pe	5331 10% room x 1.3	39 A			24 A	D	52 A	LIV	6 A		11 A	Y				A B	11.0	В					В			
Level HL Total Level HG Total Run fi	Appliances Loads Duct and Pipe loss 22,453 1,544 Level 2 ft. exposed wall A ft. exposed wall B	Tot	al HL for pe	5331 10% room x 1.3	39 A B	KIT	13	24 A B	D	52 A B		6 A B	.	11 A B	Y	В		11.0	A B	11.0	В		В			В		В	a
A D D Level HL Total Level HG Total Run ft	Appliances Loads Duct and Pipe loss 22,453 1,544 Level 2 ft. exposed wall A ft. exposed wall B Ceiling height	Tot	al HL for pe	5331 10% room x 1.3	39 A B	KIT	13	24 A B 3.0 38 Area A	D	52 A B 11.0		6 A B 11.0	rea	11 A B 21.0	Y	11.0 324 Ar A	rea	11.0	A B Area	11.0	В		B 11.0 Area A			B)		B 11.0 Area A	a
A DE Level HL Total Level HG Total Run ft Ex	Appliances Loads Duct and Pipe loss 22,453 1,544 Level 2 ft. exposed wall A ft. exposed wall B Ceiling height Floor area	Tot	al HL for pe	5331 10% room x 1.3	39 A B 11.0 329 Are	KIT	13	24 A B 3.0 38 Area	D	52 A B 11.0 212 Are		6 A B 11.0 33 A	rea	11 A B 21.0 63 Area	Y	11.0 324 Ar	rea	11.0 220 10	A B Area	11.0	B Area		B 11.0 Area		11.0	B) Area		B 11.0 Area A B	a
A D DU Level HL Total Level HG Total Run ft Run ft Exx	Appliances Loads Duct and Pipe loss 22,453 1,544 Level 2 ft. exposed wall A ft. exposed wall B Ceiling height Floor area xposed Ceilings A	Tot	al HL for pe	5331 10% room x 1.3	39 A B 11.0 329 Are	KIT ea	13	24 A B 3.0 38 Area A	D	52 A B 11.0 212 Are		6 A B 11.0 33 Ai A	rea	11 A B 21.0 63 Area A	Y	11.0 324 Ar A	rea	11.0 220 10	A B Area A	11.0	B Area A		B 11.0 Area A		11.0	B) Area A		B 11.0 Area A	a
AUD DO	Appliances Loads Duct and Pipe loss 22,453 1,544 Level 2 ft. exposed wall A ft. exposed wall B Ceiling height Floor area xposed Ceilings A xposed Ceilings B	Tot	al HL for pe	5331 10% room x 1.3	39 A B 11.0 329 Are	KIT ea	13	24 A B 3.0 38 Area A B	D	52 A B 11.0 212 Are A B		6 A B 11.0 33 Ai A B	rea	11 A B 21.0 63 Area A B	Y	B 11.0 324 Ar A B	rea	11.0 220 10	A B Area A B Fir	11.0	B Area A B		B 11.0 Area A B		11.0	B) Area A B		B 11.0 Area A B	a
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I review and take responsibility for the design work and am qualified in the appropriate category as an "other designer" under 32964

Division C subsection 3.2.5. of the Building Code. Individual BCIN:

Name Alexa

David DaCosta

SB-12 Package Package A1



Heatloss/Gain Calculations CSA-F280-12

2985 Drew Road, Suite 202, Mississauga, Ontario L4T 0A4 Tel: 905-671-9800

e-mail hvac@gtadesigns.ca

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		Builder: _	Bayview	Wellington			Date:			y 27, 202						Wea	ther Data		Brauloru		44	9.4	86 22	48	.2		_		
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	let exposed walls A let exposed walls B	17.03 8.50		0.65 315 1.29	1506	203	46	220 30	89	425	57 274	1310	177	52 249	34	376 179	7 243	174	832 11	79	378	51	142	679	92				
E	Exposed Ceilings A	59.22	1.37	0.64 435	598	279	21	29 13	174	239	112 307	422	197	88 121	56	222 30	5 142	176	242 11	59	81	38	69	95	44				
Е	Exposed Ceilings B Exposed Floors	27.65 29.80		1.37 0.17							206	5 563	35	72 197	12														
Foundation Cond		25.00	2.70	0.17							200	303	33	12 137	'-														
Total Conductive	Heat Loss Heat Gain				2952	1315		132		1100	731	3349	943	818	230	407	2210		2128 158		711	414		1026	461				
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Level HL Total Level HG Total Run Run	Appliances Loads Duct and Pipe loss 22,364 13,238 Level 4 n ft. exposed wall A n ft. exposed wall B Celling height Fioor area Exposed Cellings A	To	ercent :	5331 10% 00m x 1.3	rea		A B Area A	394	1	A B Area A	1029	A B Area A	118	A B Area A		A B Area A	0	A B Are A	2800 254		A B Area A	583	A B Are A		649	B Area A		B Are A	ea
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Level HL Total Level HG Total Run Run	Appliances Loads Duct and Pipe loss 22,364 13,238 Level 4 1 ft. exposed wall A Celling height Floor area Exposed Cellings B Exposed Cellings B Exposed Floor Gross Exp Wall B Components I North Shaded	Total Total	tal HL for per r HG per room oss Gain 22.93	5331 10% 000m x 1.3 A B A A A B Fi	rea	2473	A B Area A B Fir	394	,	A B Area A B Fir		A B Area A B Fir	118	A B Area A B Fir	354	A B Area A B Fir	3422	A B Are A B Fir	254 254		A B Area A B Fir		A B Are A B Fir	ea		B Area A B Fir	Gain	B Are A B Fir	,
Level HL Total Level HG Total Run Run	Appliances Loads Duct and Pipe loss 22,364 13,238 Level 4 In ft. exposed wall A In ft. exposed wall B Ceiling height Floor area Exposed Ceilings B Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components I	Total Total	Loss Gain 22.93 1 22.93 2 22.93 2	5331 10% 000m x 1.3 A B A A B FI	rea	2473	A B Area A B Fir	394	,	A B Area A B Fir		A B Area A B Fir	118	A B Area A B Fir	354	A B Area A B Fir	3422	A B Are A B Fir	254 254		A B Area A B Fir		A B Are A B Fir	ea		B Area A B Fir	Gain	B Are A B Fir	,
Level HL Total Level HG Total Run Run E	Appliances Loads Duct and Pipe loss 22,364 13,238 Level 4 1 ft. exposed wall A ft. exposed wall B Ceiling height Floor area Exposed Ceilings B Exposed Floors Gross Exp Wall B Components I North Shaded East/West South Existing Windows	R-Values I 3.55 3.55 3.55 1.99	.oss Gain 22.93 1 22.93 2 24.99 2	3331 10% 000m x 1.3 A B B Fi 1.62 9.56 2.250 3.366	rea	2473	A B Area A B Fir	394	,	A B Area A B Fir		A B Area A B Fir	118	A B Area A B Fir	354	A B Area A B Fir	3422	A B Are A B Fir	254 254		A B Area A B Fir		A B Are A B Fir	ea		B Area A B Fir	Gain	B Are A B Fir	,
Level HL Total Level HG Total Run Run E	Appliances Loads Duct and Pipe loss 22,364 13,238 Level 4 In ft. exposed wall A In ft. exposed wall B Ceiling height Floor area Exposed Ceilings B Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South	R-Values 3.55 3.55 1.99 2.03 4.00	oss Gain 22.93 2 22.93 2 40.90 2 40.10 8	5331 10% 000m x 1.3 A B A A B FI	rea	2473	A B Area A B Fir	394	,	A B Area A B Fir		A B Area A B Fir	118	A B Area A B Fir	354	A B Area A B Fir	3422	A B Are A B Fir	254 254		A B Area A B Fir		A B Are A B Fir	ea		B Area A B Fir	Gain	B Are A B Fir	,
Level HL Total Level HG Total Run Run E	Appliances Loads Duct and Pipe loss 22,364 13,238 Level 4 In ft. exposed wall A In ft. exposed wall B Ceiling height Floor area Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors let exposed walls A	R-Values 3.55 3.55 3.55 3.55 1.99 2.03 4.00 17.03	Loss Gain 22.93 1 22.93 2 22.93 2 40.90 8 20.35 4.78	5331 10% 000m x 1.3 A B B Fi 1.62 9.56 2.50 3.366 8.23 2.75 0.65	rea	2473	A B Area A B Fir	394	,	A B Area A B Fir		A B Area A B Fir	118	A B Area A B Fir	354	A B Area A B Fir	3422	A B Are A B Fir	254 254		A B Area A B Fir		A B Are A B Fir	ea		B Area A B Fir	Gain	B Are A B Fir	,
Level HL Total Level HG Total Run Run Run Ni	Appliances Loads Duct and Pipe loss 22,364 13,238 Level 4 In ft. exposed wall A In ft. exposed wall B Ceiling height Floor area Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors Let exposed walls B	R-Values 3.55 3.55 1.99 2.03 4.00	oss Gain 22.93 1 22.93 2 240.90 2 20.95 4.78 9.58	5331 100% 000m x 1.3 A B A A B FI 1.62 9.250 3.66 9.250 3.66 8.23 2.275	rea	2473	A B Area A B Fir	394	,	A B Area A B Fir		A B Area A B Fir	118	A B Area A B Fir	354	A B Area A B Fir	3422	A B Are A B Fir	254 254		A B Area A B Fir		A B Are A B Fir	ea		B Area A B Fir	Gain	B Are A B Fir	,
Level HL Total Level HG Total Run Run Run Ni Ni E	Appliances Loads 22,364 13,238 Level 4 11,238 Celling height Floor area Exposed Ceilings B Exposed Floors Exposed Floors Exposed Floors Gross Exp Wall A Gross Exp Wall B Components II North Shaded East/West South Existing Windows Skylight Doors Let exposed walls A Let exposed cellings A Exposed Cellings B	R-Values 3.55 3.55 3.55 3.99 2.03 4.00 17.03 8.50 59.22 27.65	coss Gain 22.93 1 22.93 2 22.93 2 40.90 8 20.35 4.78 9.58 1.37 2.94	3331	rea	2473	A B Area A B Fir	394	,	A B Area A B Fir		A B Area A B Fir	118	A B Area A B Fir	354	A B Area A B Fir	3422	A B Are A B Fir	254 254		A B Area A B Fir		A B Are A B Fir	ea		B Area A B Fir	Gain	B Are A B Fir	,
Level HL Total Level HG Total Run Run Run Ni Ni E	Appliances Loads Duct and Pipe loss 22,364 13,238 Level 4 11,238 In ft. exposed wall A In ft. exposed wall B Ceiling height Floor area Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors let exposed walls B Exposed Walls B Exposed Ceilings A let exposed walls B Exposed Ceilings B Exposed Ceilings B Exposed Ceilings B Exposed Ceilings B Exposed Floors	R-Values I 3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22	coss Gain 22.93 1 22.93 2 22.93 2 40.90 8 20.35 4.78 9.58 1.37 2.94	5331 100% 000m x 1.3 A B A B FI 1.62 9.250 3.66 9.250 3.66 8.23 2.275 0.65	rea	2473	A B Area A B Fir	394	,	A B Area A B Fir		A B Area A B Fir	118	A B Area A B Fir	354	A B Area A B Fir	3422	A B Are A B Fir	254 254		A B Area A B Fir		A B Are A B Fir	ea		B Area A B Fir	Gain	B Are A B Fir	,
Level HL Total Level HG Total Run Run Run Ni Ni E E Foundation Cond	Appliances Loads Duct and Pipe loss 22,364 13,238 Level 4 In ft. exposed wall A In ft. exposed wall B Ceiling height Floor area Exposed Ceilings B Exposed Floors Gross Exp Wall B Components I North Shaded EastWest South Existing Windows Skylight Doors Let exposed walls A Let exposed walls B Exposed Ceilings B Exposed Floors ductive Heatloss Heat Loss	R-Values 3.55 3.55 3.55 3.99 2.03 4.00 17.03 8.50 59.22 27.65	coss Gain 22.93 1 22.93 2 22.93 2 40.90 8 20.35 4.78 9.58 1.37 2.94	3331	rea	2473	A B Area A B Fir	394	,	A B Area A B Fir		A B Area A B Fir	118	A B Area A B Fir	354	A B Area A B Fir	3422	A B Are A B Fir	254 254		A B Area A B Fir		A B Are A B Fir	ea		B Area A B Fir	Gain	B Are A B Fir	,
Level HL Total Level HG Total Run Run Run Ni Ni E E Foundation Condotal Conductive	Appliances Loads Duct and Pipe loss 22,364 13,238 Level 4 11,238 In ft. exposed wall A 1 ft. exposed wall B Celling height Floor area Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components I North Shaded East/West South Existing Windows Skylight Doors Let exposed walls A let exposed walls B Exposed Ceilings B Exposed Ceilings B Exposed Ceilings B Exposed Floors ductive Heatloss Heat Loss Heat Loss Heat Loss Heat Loss	R-Values 3.55 3.55 3.55 3.99 2.03 4.00 17.03 8.50 59.22 27.65	coss Gain 22.93 1 22.93 2 22.93 2 22.93 2 20.90 2 40.10 2 40.10 2 40.10 3 20.35 4.78 9.58 1.37 2.94 2.73	5331 10% 000m x 1.3 A B B FI L(1.62 9.956 2.50 3.868 8.23 2.275 0.65 1.29 0.64	rea	2473	A B Area A B Fir	394	,	A B Area A B Fir		A B Area A B Fir	118	A B Area A B Fir	354	A B Area A B Fir	3422	A B Are A B Fir	254 254		A B Area A B Fir		A B Are A B Fir	ea		B Area A B Fir	Gain	B Are A B Fir	,
Level HL Total Level HG Total Run Run Ni Ni E E Foundation Cond otal Conductive Air Leakage	Appliances Loads Duct and Pipe loss 22,364 13,238 Level 4 In ft. exposed wall A In ft. exposed wall B Ceiling height Floor area Exposed Ceilings B Exposed Floors Gross Exp Wall B Components I North Shaded East/West South Existing Windows Skylight Doors Let exposed walls B Exposed Ceilings B Exposed Floors det exposed walls A let exposed walls B Exposed Ceilings B Exposed Floors ductive Heatloss Heat Gain Heat Loss/Gain Heat Loss/Gain	R-Values 3.55 3.55 3.55 3.99 2.03 4.00 17.03 8.50 59.22 27.65	COSS Gain 22.93 2 22.93 2 40.90 2 20.35 4.78 9.58 1.37 2.94 2.73 0.0000 0.00	3331 100% 000m x 1.3 A B B Fi 1.62 9.56 2.50 3.66 8.23 2.75 0.65 1.29 0.64	rea	2473	A B Area A B Fir	394	,	A B Area A B Fir		A B Area A B Fir	118	A B Area A B Fir	354	A B Area A B Fir	3422	A B Are A B Fir	254 254		A B Area A B Fir		A B Are A B Fir	ea		B Area A B Fir	Gain	B Are A B Fir	,
Level HL Total Level HG Total Run Run Ni Ni E E Foundation Cond	Appliances Loads Duct and Pipe loss 22,364 13,238 Level 4 In ft. exposed wall A In ft. exposed wall B Ceiling height Floor area Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors let exposed walls B Exposed Ceilings A let exposed Ceilings A Exposed Ceilings A Exposed Ceilings A Exposed Floors ductive Heatloss Heat Loss/Gain Heat Loss/Gain Heat Loss/Gain Case 2	R-Values 1 3.55 3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65 29.80	LOSS Gain 22.93 1 22.93 2 22.93 2 22.93 2 20.90 2 40.10 8 20.35 4.78 9.58 1.37 2.94 2.73 0.0000 0.00014.95 1	3331 Local Mark 1.33 A A B B FI Local Mark 1.33 A B B FI Local Mark 1.35 A B B FI Local Mark 1.35 A B B B FI Local Mark 1.35 A B B B FI Local Mark 1.35 A B B B B B B B B B B B B B B B B B B	rea	2473	A B Area A B Fir	394	,	A B Area A B Fir		A B Area A B Fir	118	A B Area A B Fir	354	A B Area A B Fir	3422	A B Are A B Fir	254 254		A B Area A B Fir		A B Are A B Fir	ea		B Area A B Fir	Gain	B Are A B Fir	,
Level HL Total Level HG Total Run Run Ni Ni E E Foundation Cond otal Conductive Air Leakage	Appliances Loads Duct and Pipe loss 22,364 13,238 Level 4 In ft. exposed wall A In ft. exposed wall B Ceiling height Floor area Exposed Ceilings B Exposed Floors Gross Exp Wall B Components I North Shaded East/West South Existing Windows Skylight Doors Let exposed walls B Exposed Ceilings B Exposed Floors det exposed walls A let exposed walls B Exposed Ceilings B Exposed Floors ductive Heatloss Heat Gain Heat Loss/Gain Heat Loss/Gain	R-Values 3.55 3.55 3.55 3.99 2.03 4.00 17.03 8.50 59.22 27.65	LOSS Gain 22.93 1 22.93 2 22.93 2 40.90 8 20.35 4.78 9.58 1.37 2.94 2.73 0.000 0.00 14.95 1 0.03	3331 100% 000m x 1.3 A B B Fi 1.62 9.56 2.50 3.66 8.23 2.75 0.65 1.29 0.64	rea	2473	A B Area A B Fir	394	,	A B Area A B Fir		A B Area A B Fir	118	A B Area A B Fir	354	A B Area A B Fir	3422	A B Are A B Fir	254 254		A B Area A B Fir		A B Are A B Fir	ea		B Area A B Fir	Gain	B Are A B Fir	,
Level HL Total Level HG Total Run Run Ni Ni E E Foundation Cond Total Conductive Air Leakage Ventilation	Appliances Loads Duct and Pipe loss 22,364 13,238 Level 4 1 ft. exposed wall A ft. exposed wall A Ceiling height Floor area Exposed Ceilings B Exposed Floors Gross Exp Wall B Components I North Shaded East/West Swijlight Existing Windows Skylight Existing Windows Skylight Exposed Ceilings A Expos	R-Values 1 3.55 3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65 29.80	LOSS Gain 22.93 1 22.93 2 22.93 2 22.93 2 240.90 2 40.10 8 9.58 1.37 2.94 2.73	3331 100%	rea	2473	A B Area A B Fir	394	,	A B Area A B Fir		A B Area A B Fir	118	A B Area A B Fir	354	A B Area A B Fir	3422	A B Are A B Fir	254 254		A B Area A B Fir		A B Are A B Fir	ea		B Area A B Fir	Gain	B Are A B Fir	,
Level HL Total Level HG Total Run Run Ni Ni E E Foundation Cond Total Conductive Air Leakage Ventilation	Appliances Loads Duct and Pipe loss 22,364 13,238 Level 4 11,238 It exposed wall A 1 ft. exposed wall B Ceiling height Floor area Exposed Ceilings A Exposed Floors Gross Exp Wall B Components I North Shaded East/West South Existing Windows Skylight Doors Let exposed walls B Exposed Floors Gross Exp Wall B Components I North Shaded East/West South Existing Windows Skylight Doors Let exposed walls A Let exposed Walls B Exposed Floors ductive Heatloss Heat Loss Heat Case I Case 1 Case 2 Case 2 Case 2 Case 2 Case 3 Heat Gain People	R-Values 3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65 29.80 x x 1 = .25 p	LOSS Gain 22.93 1 22.93 2 22.93 2 22.93 2 240.90 2 40.10 8 9.58 1.37 2.94 2.73	3331 10% 000m x 1.3 A B B Fi	rea	2473	A B Area A B Fir	394	,	A B Area A B Fir		A B Area A B Fir	118	A B Area A B Fir	354	A B Area A B Fir	3422	A B Are A B Fir	254 254		A B Area A B Fir		A B Are A B Fir	ea		B Area A B Fir	Gain	B Are A B Fir	

32964

Division C subsection 3.2.5. of the Building Code. Individual BCIN:

Name Met

David DaCosta

Package A1



2985 Drew Road, Suite 202, Mississauga, Ontario L4T 0A4 Tel: 905-671-9800 e-mail hvac@gtadesigns.ca

System Design Option
Exhaust only / forced air system

HRV WITH DUCTING / forced air system

Part 6 design

HRV simplified connection to forced air system

HRV full ducting/not coupled to forced air system

2

3 x

4

Project # Layout # Page 6 PJ-00041 JB-07355

I review and take responsibility for the design work and am qualified in the appropriate category as an "other designer" under Division C subsection 3.2.5. of the Building Code.

Individual BCIN: 32964

David DaCosta

Package: Project:	Package A1 Bradford	Model:	S38-8C	
	RESIDENTIAL MECHANICAL			
	For systems serving one dwelling unit & con	forming to the Untario Building	g Code, U.reg 332/12	
	Location of Installation	Total Ve	entilation Capacity 9.32.3.3	(1)
Lot #	Plan #	Bsmt & Master Bdrm	2 @ 21.2 cfm	
Township	Bradford	Other Bedrooms Bathrooms & Kitchen	3 @ 10.6 cfm 5 @ 10.6 cfm	1 31.8 cfm
Roll #	Permit #	Other rooms	5 @ 10.6 cfm Total	53 cfm 180.2
Address				
		Principal	Ventilation Capacity 9.32.3	3.4(1)
NI a a a a	Builder	Martar hadraam	4 @ 24.0 ofm	04.0 of m
Name	Bayview Wellington	Master bedroom Other bedrooms	1 @ 31.8 cfm 3 @ 15.9 cfm	1 <u>47.7</u> cfm
Address			Total	<u>79.5</u>
City		Princ	in al Exhaust Fon Conceity	
Tel	Fax	Make	ipal Exhaust Fan Capacity Model	Location
		VanEE	V150H75NS	Base
	Installing Contractor			
Name		140 cfm		Sones or Equiv.
Address		He	eat Recovery Ventilator	
		Make	VanEE	
City		Model	V150H75NS	
Tel	Fax	Sensible efficiency @	140 cfm high -25 dea C	80 cfm low 60%
161	ı ax	Sensible efficiency @		75%
			ance HRV/ERV to within 10 p	
	Combustion Appliances 9.32.3.1(1)	Supple	emental Ventilation Capaci	ty
a) x b) c) d) e)	Direct vent (sealed combustion) only Positive venting induced draft (except fireplaces) Natural draft, B-vent or induced draft fireplaces Solid fuel (including fireplaces) No combustion Appliances	Total ventilation capac Less principal exhaust REQUIRED suppleme	capacity	180.2 79.5 100.7 cfm
		•	oplemental Fans 9.32.3.5.	
	Heating System	Location	cfm Model	Sones
X	Forced air Non forced air	Ens Ens 2	50 XB50 50 XB50	0.3 0.3
	Electric space heat (if over 10% of heat load)	Bath	50 XB50	0.3
	House Type 9.32.3.1(2)			
l x	Type a) or b) appliances only, no solid fuel	all fans HVI listed	Make Broan	or Equiv.
II	Type I except with solid fuel (including fireplace)			
III L	Any type c) appliance		Designer Certification	n dociono d
IV Other	Type I or II either electric space heat Type I, II or IV no forced air		s ventilation system has bee Ontario Building Code.	n designed

	Designer (Certification	
, ,	hat this ventilatio rith the Ontario B	n system has been	designed
in accordance w	itir trie Oritano B	uliding Code.	
N.	55	0 /	
Name	David D	aCosta	
Signature	Hans	146H	:
HRAI#	5190	BCIN#	32964
Date	July 27	, 2021	

♦GTA\DESIGNS

Energy Efficiency Design Summary: Prescriptive Method

(Building Code Part 9, Residential)

Page 7

Project # PJ-00041 Layout # JB-07355

2985 Drew Road, Suite 202, Mississauga, Ontario L4T 0A4 Tel: 905-671-9800 Fax: 647-494-9643 e-mail dave@gtadesigns.ca

This form is used by a designer to demonstrate that the energy efficiency design of a house complies with the building code using the prescriptive method described in Subsection 3.1.1. of SB-12. This form is applicable where the ratio of gross area of windows/sidelights/skylights/glazing in doors and sliding glass doors to the gross area of peripheral walls is not more than 22%.

				For use b	v Princir	oal Authori	tv				
Application	n No:				,		tification Nu	mber			
Α.	Project Information										
	umber, street name			Barossa	8			Unit numl	ber	Lot/Con	
				S38-8C							
Municipali	ty Bradford			Postal code		Reg. Plan	number / otl	her descrip	otion		
	Bradiord										
В.	Prescriptive Compliance [indica	te the bu	ilding cod	le compliand	e packa	ge being e	mployed in	the house	e design]		
										0.4.4.0	^
	SB-12 Prescriptive (input design pa	ckage):			Раск	age A1			i abie	: <u>3.1.1.2.</u> /	<u>A</u>
C.	Project Design Conditions										
	Climatic Zone (SB-1):		Heat. E	quip. Effic	ciency			Spac	ce Heating F	uel Sourc	e
✓	Zone 1 (< 5000 degree days)		√ ≥ 92	2% AFUE		V	Gas		Propane		Solid Fuel
	Zone 2 (≥ 5000 degree days)		_ ≥ 8	34% < 92% .	AFUE		Oil		Electric		Earth Energy
F	Ratio of Windows, Skylights & Glas	s (W, S	& G) to	Wall Area				Other	Building Ch	naracterist	ics
Aroa o	f Walls = 479.74 m ² or 5163.9	ft²				☐ Log/P	ost&Beam		ICF Above	Grade	☐ ICF Basement
Alea U	1 Walls = 473.74 III 01 5105.3		W,S &	G % = <u></u>	13.7%	☐ Slab-	on-ground	1 1	Walkout B	asement	
						☑ Air Co	onditioning		Combo Un	it	
Area of \	W, S & G = $\underline{65.587}$ m ² or $\underline{706.0}$	ft²	Utilize \	Window [Yes	☐ Air S	ourced Hea	it Pump (A	ASHP)		
			Avera	aging [☑ No	☐ Grou	nd Source I	Heat Pum	p (GSHP)		
D.	Building Specifications [provide	values a	nd ratings	s of the ener	gy effici	ency comp	onents pro	posed]			
	Energy Efficiency Substitutions										
	ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5))										
	Combined space heating and domestic	water he	ating sys	tems (3.1.1.	2(7) / 3.	1.1.3.(7))					
	Airtightness substitution(s)		Table 3.	1.1.4.B R	equired:					Substitution	
	Airtightness test required		Table 3.	1.1.4.C	equired:					Substitution	
(F	Refer to Design Guide Attached)			R	equired:				Permitted	Substitution	:
	Building Component			SI/R-Values n U-Value¹			Buil	ding Coı	mponent		Efficiency Ratings
Therma	l Insulation	Non	ninal	Effect	ive	Window	/s & Doo	rs Provid	le U-Value ⁽¹⁾	or ER rating	
Ceiling w	vith Attic Space	6	0	59.2	2	Windows	/Sliding G	lass Doc	ors		1.6
Ceiling w	vithout Attic Space	3	1	27.6	5	Skylights	i				2.8
Exposed	Floor	3	1	29.8	0	Mechan	icals				
Walls Ab	oove Grade	22		17.0	3	Heating I	Equip.(AFl	JE)			96%
Basemei	nt Walls		20.0ci	21.1	2	HRV Effi	ciency (SR	RE% at 0°	C)		75%
Slab (all	>600mm below grade)	2	X	х		DHW He	ater (EF)				0.80
Slab (ed	ge only ≤600mm below grade)	1	0	11.1	3	DWHR (CSA B55.1	(min. 42%	efficiency))		#Showers 2
Slab (all	≤600mm below grade, or heated)	1	0	11.1	3	Combine	d Heating	System			
(1) U valu	ie to be provided in either W/(m²·K) or Bt	u/(h·ft·F) b	out not bo	th.							
E.	Designer(s) [name(s) & BCIN(s), if	applicable	e, of perso			mation her			at design mee	ets building o	code]
Name				B	CIN		Signature		,1	.11	,
	David DaCosta				329	964			Mane	14C=	₹ 7



2985 Drew Road, Suite 202, Mississauga, Ontario L4T 0A4 Tel: 905-671-9800 e-mail hvac@gtadesigns.ca

Page 8
Project # PJ-00041
Layout # JB-07355

Package: Package A1 System: System 1
Project: Bradford Model: S38-8C

Project: Bradford Model: S38-8C Air Leakage Calculations	
Building Air Leakage Heat Loss Building Air Leakage Heat Gai B LRairh Vb HL^T HLleak B LRairh Vb HG^T 0.018 0.393 41748 81.4 24017 0.018 0.097 41748 11	in HG Leak 798
Level Level Building Level Conductive Air Leakage Heat Loss Multiplier	(LF) 0.4 0.3 0.2 0.1
HG LEAK 798 BUILDING CONDUCTIVE HEAT GAIN 21012 3	
Ventilation Calculations	
Ventilation Heat Loss Ventilation Heat Gain	
C PVC HL^T (1-E) HRV HLbvent 1.08 79.5 81.4 0.17 1188 Ventilation Heat Gain C PVC HG^T HGbvent 1.1 79.5 11 944	Vent
Case 1 Case 1	
Ventilation Heat Loss (Exhaust only Systems) Ventilation Heat Gain (Exhaust Only Systems)	ms)
Case 1 - Exhaust Only Level LF HLbvent LVL Cond. HL Multiplier Level 1 0.5 Level 2 0.3 Level 3 0.2 Level 4 0 Case 1 - Exhaust Only Case 1 - Exhaust Only Multiplier HGbvent 944 Building 21012 0.04 Building 21012	Case 1
Case 2 Case 2	
Ventilation Heat Loss (Direct Ducted Systems) Ventilation Heat Gain (Direct Ducted Systems)	C a se C c c c c c c c c c c c c c c c c c c
Case 3 Case 3	
Ventilation Heat Loss (Forced Air Systems) Ventilation Heat Gain (Forced Air Systems)	(C)
Total Ventilation Load 1188 0.03 Went Heat Gain 944 1 944	Multiplier 0.04
Foundation Conductive Heatloss Level 1 Level 1 2737 Watts 9339	Btu/h
Foundation Conductive Heatloss Level 2 Level 2 Watts	Btu/h
Slab on Grade Foundation Conductive Heatloss Watts	Btu/h

Envelope Air Leakage Calculator

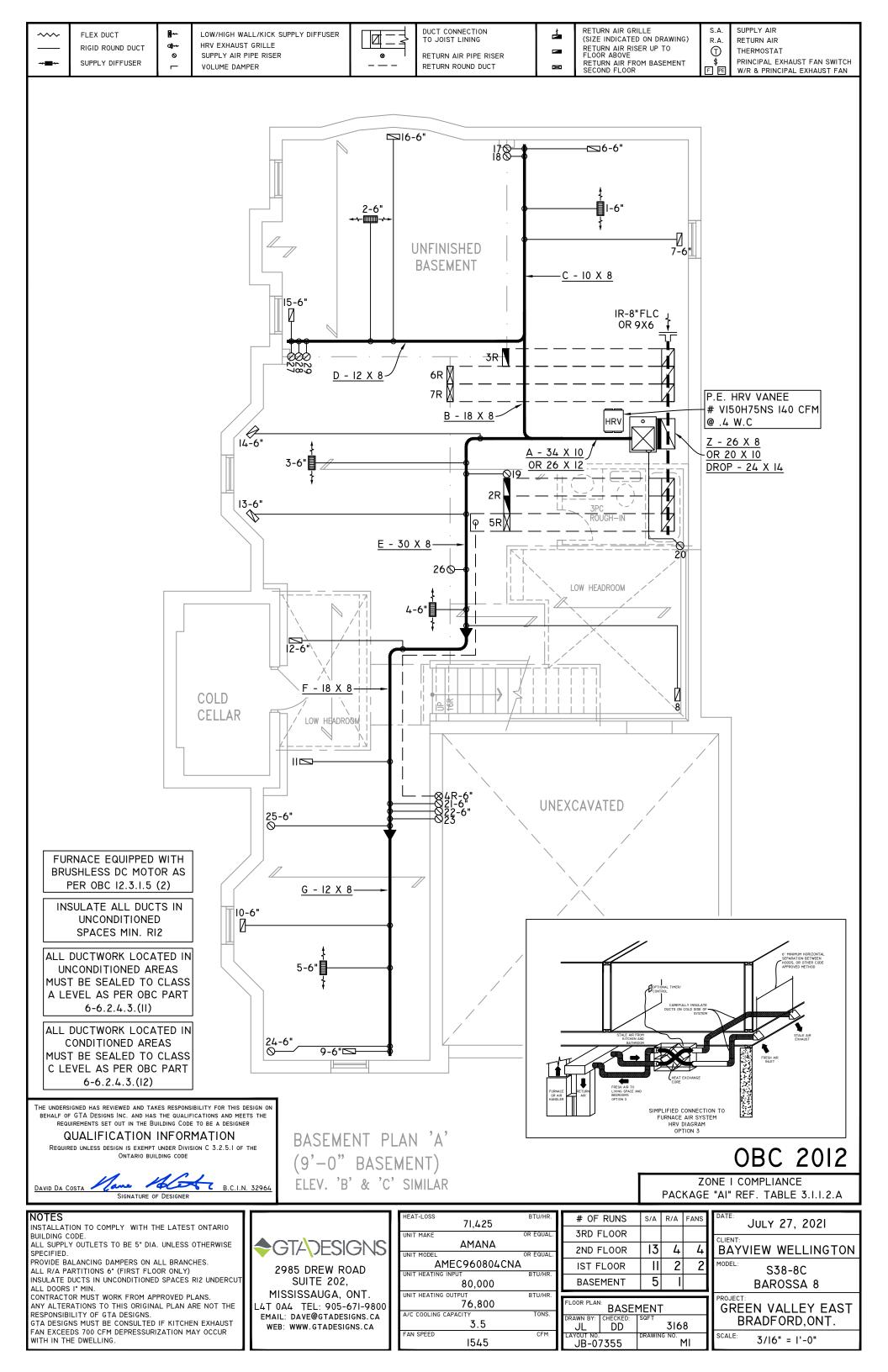
Supplemental tool for CAN/CSA-F280

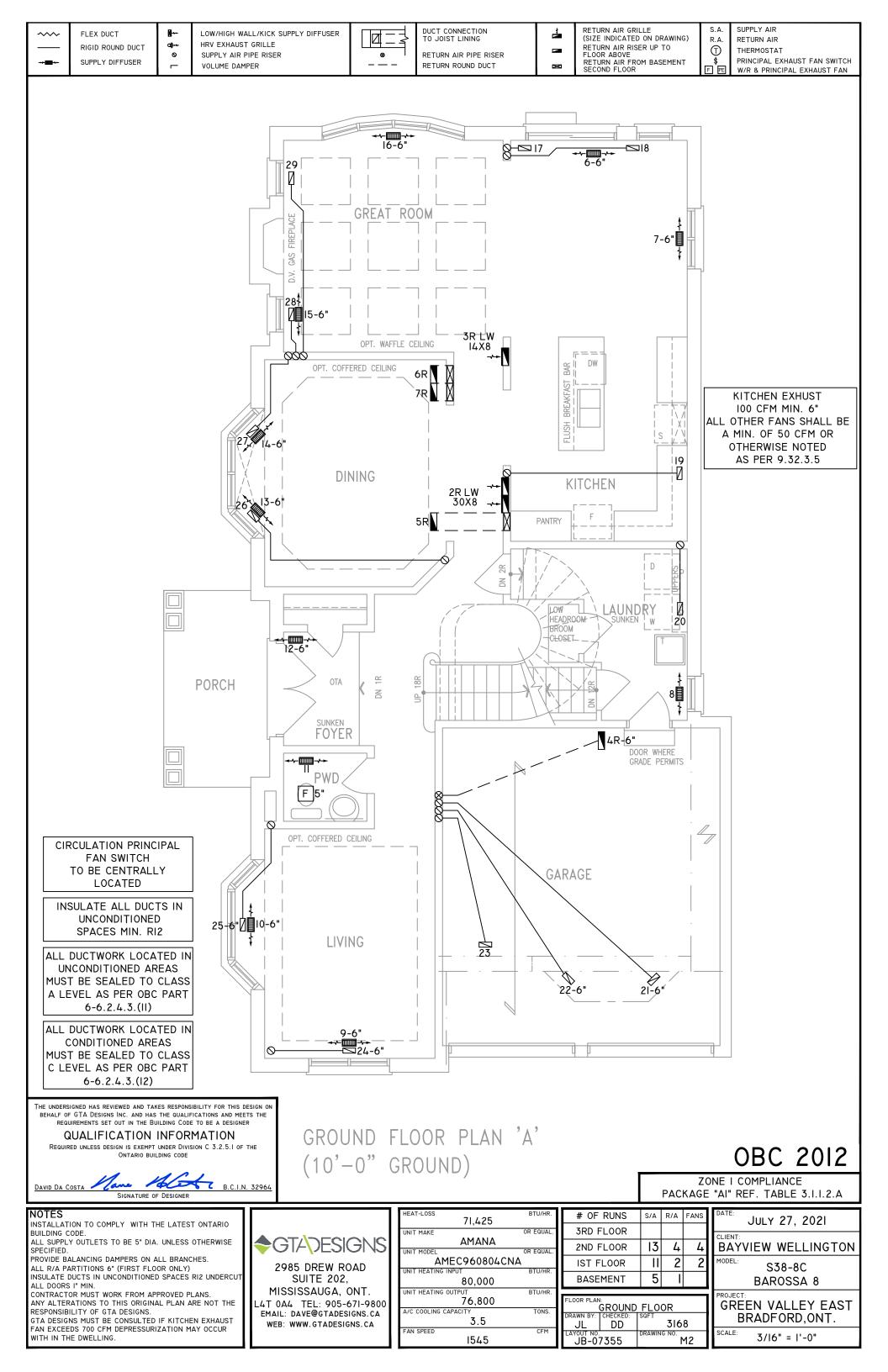
Weather Station	Description
Province:	Ontario
Region:	Bradford ▼
Weather Station Location:	Open flat terrain, grass
Anemometer height (m):	10
Local Shie	lding
Building Site:	Suburban, forest ▼
Walls:	Heavy ▼
Flue:	Heavy ▼
Highest Ceiling Height (m):	8.53
Building Confi	guration
Type:	Detached
Number of Stories:	Two
Foundation:	Shallow
House Volume (m ³):	1182.30
Air Leakage/Ve	entilation
Air Tightness Type:	Present (1961-) (ACH=3.57)
Custom BDT Data:	3.57 ACH @ 50 Pa
Mechanical Ventilation (L/s):	Total Supply: Total Exhaust: 39.75 39.75
Flue #:	#1 #2 #3 #4
Diameter (mm):	0 0 0 0
Heating Air Leakage Rate (ACH/H):	0.393
Cooling Air Leakage Rate (ACH/H):	0.097

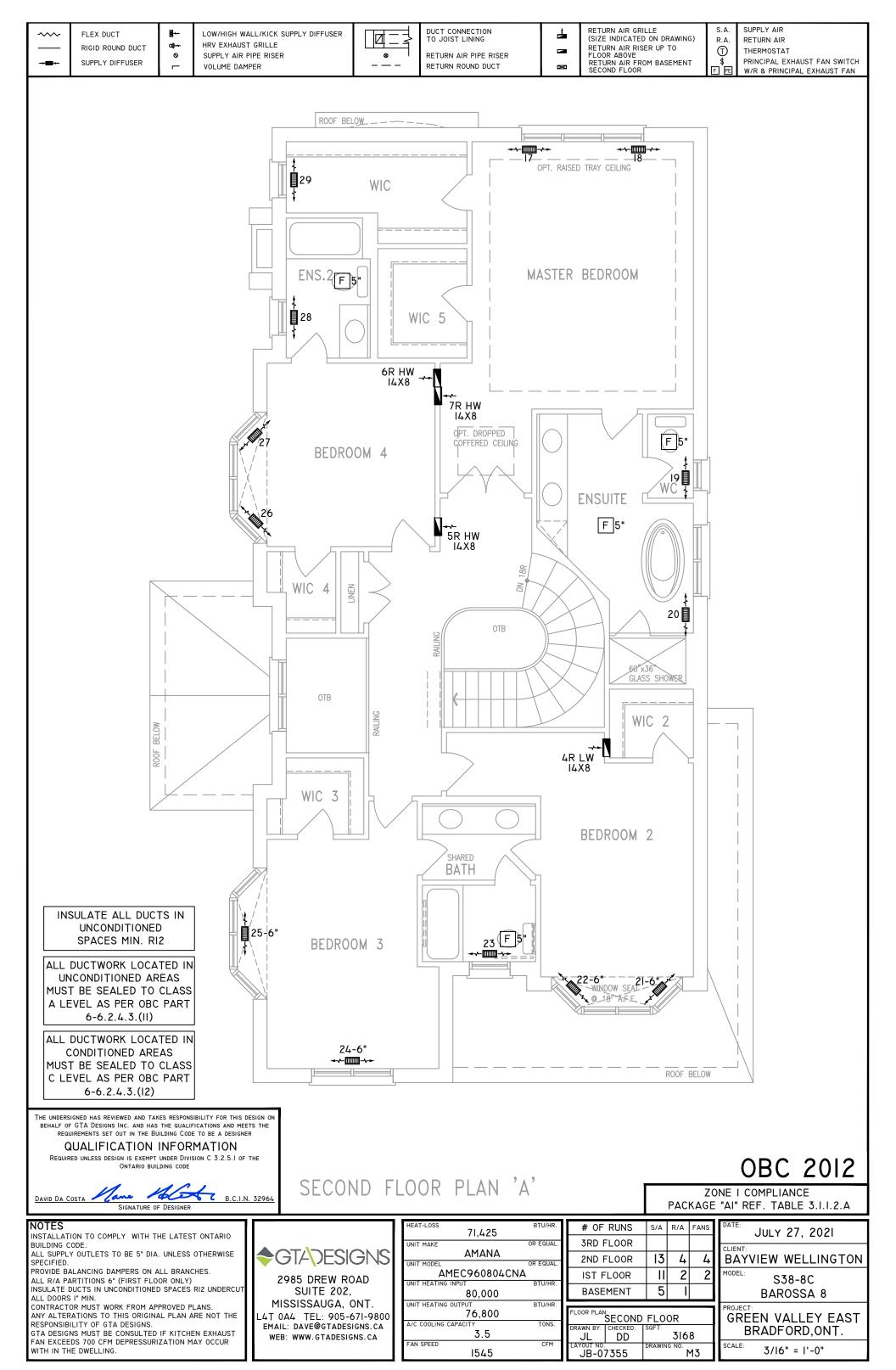
Residential Foundation Thermal Load Calculator

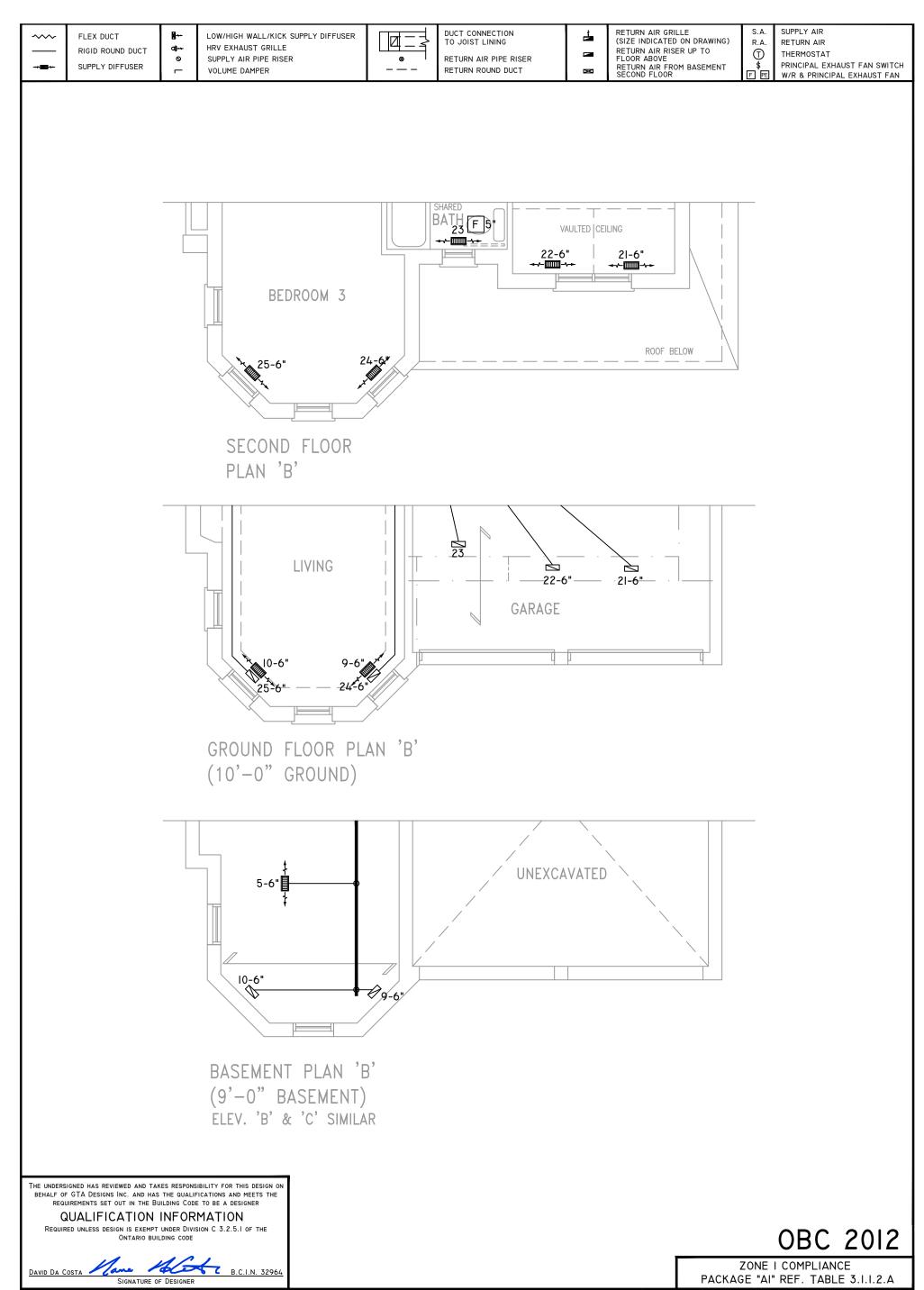
Supplemental tool for CAN/CSA-F280

Weat	her Sta	tion Description
Province:		Ontario
Region:		Bradford ▼
	Site D	escription
Soil Conductivity:		High conductivity: moist soil ▼
Water Table:		Normal (7-10 m, 23-33 Ft) ▼
Fou	ındatio	n Dimensions
Floor Length (m):	22.98	
Floor Width (m):	5.37	
Exposed Perimeter (m):	56.69	
Wall Height (m):	3.05	annun
Depth Below Grade (m):	1.22	Insulation Configuration
Window Area (m²):	1.67	
Door Area (m²):	1.95	
	Radi	ant Slab
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
	Desig	n Months
Heating Month	1	
	Founda	ation Loads
Heating Load (Watts):		2737









NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO

BUILDING CODE.
ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE

PROVIDE BALANCING DAMPERS ON ALL BRANCHES.
ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)
INSULATE DUCTS IN UNCONDITIONED SPACES RI2 UNDERCUT
ALL DOORS I" MIN.

CONTRACTOR MUST WORK FROM APPROVED PLANS.
ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE
RESPONSIBILITY OF GTA DESIGNS.

GTA DESIGNS MUST BE CONSULTED IF KITCHEN EXHAUST FAN EXCEEDS 700 CFM DEPRESSURIZATION MAY OCCUR WITH IN THE DWELLING. ♦GTADESIGNS

2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

	HEAT-LUSS	BIU/HR.
	71,425	
	UNIT MAKE	OR EQUAL.
	AMANA	
ш	UNIT MODEL	OR EQUAL.
	AMEC960804CNA	
ш	UNIT HEATING INPUT	BTU/HR.
	80,000	
ш	UNIT HEATING OUTPUT	BTU/HR.
	76,800	
ш	A/C COOLING CAPACITY	TONS.
	3.5	
ш	FAN SPEED	CFM
	1545	

						_
IR.	# OF	# OF RUNS			FANS	
AL.	3RD F	3RD FLOOR				╟
AL.	2ND I	LOOR	13	4	4	
IR.	IST F	LOOR	Ш	2	2	П
ir.	BASE	BASEMENT		- 1		
IR.						: ተ
	FLOOR PLAN	FLOOR PLAN: PARTIAL PLAN(S)				
S.	DRAWN BY:		SQFT	. (- /		11
	JL	DD		316	8	╟
4	JB-07355		DRAWIN	G NO.	٧4	

DATE: JULY 27, 2021

CLIENT: BAYVIEW WELLINGTON

MODEL: S38-8C
BAROSSA 8

PROJECT: FACT

GREEN VALLEY EAST BRADFORD,ONT.

FLEX DUCT **a}**→ ⊗ RIGID ROUND DUCT SUPPLY DIFFUSER

LOW/HIGH WALL/KICK SUPPLY DIFFUSER HRV EXHAUST GRILLE SUPPLY AIR PIPE RISER VOLUME DAMPER



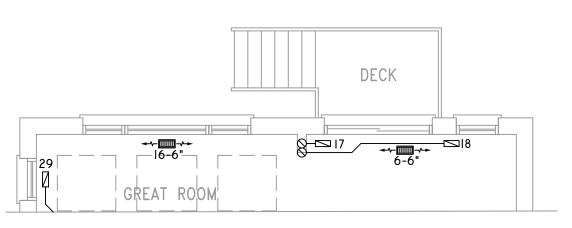
DUCT CONNECTION TO JOIST LINING RETURN AIR PIPE RISER RETURN ROUND DUCT

≟

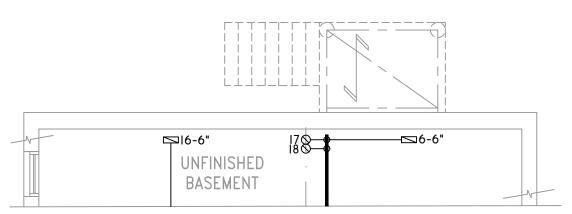
RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) RETURN AIR RISER UP TO FLOOR ABOVE RETURN AIR FROM BASEMENT SECOND FLOOR

R.A. 1

SUPPLY AIR RETURN AIR THERMOSTAT PRINCIPAL EXHAUST FAN SWITCH



PART. GROUND FLOOR PLAN 'A', 'B'&'C' - W.O.D. CONDITION



PART. BASEMENT PLAN 'A', 'B'&'C' - W.O.D. CONDITION

THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN ON BEHALF OF GTA DESIGNS INC. AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE BUILDING CODE TO BE A DESIGNER

QUALIFICATION INFORMATION

Required unless design is exempt under Division C 3.2.5.I of the ONTARIO BUILDING CODE

B.C.I.N. 32964

OBC 2012

JULY 27, 2021

ZONE I COMPLIANCE PACKAGE "AI" REF. TABLE 3.1.1.2.A

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE. ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE

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HEAT-LUSS	BIU/HR.
71,425	
UNIT MAKE	OR EQUAL.
AMANA	
UNIT MODEL	OR EQUAL.
AMEC960804CNA	
UNIT HEATING INPUT	BTU/HR.
80,000	
UNIT HEATING OUTPUT	BTU/HR.
76,800	
A/C COOLING CAPACITY	TONS.
3.5	
FAN SPEED	CFM
1545	

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	4
IST FLOOR	П	2	2
BASEMENT	5	- 1	
FLOOR PLAN: PARTIAL PLAN(S)			

DD

JB-07355

3168

DRAWING NO. M5

BAYVI	EW WELLINGTON
MODEL:	S38-8C BAROSSA 8
PROJECT: GREE BR	N VALLEY EAST ADFORD,ONT.

3/16" = 1'-0"