

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 Baross	sa 5		Lot:	
S38-	5		Lot/con.	
Municipality Bradford	Postal code	Plan number/ other description		
B. Individual who reviews and takes responsibility for design	n activities			
Name David DaCosta		Firm	gtaDesigns Inc.	
Street address 2985 Drew Roa	d, Suite 202			Lot/con.
Municipality Mississauga	Postal code L4T 0A4	Province Ontario	E-mail <u>hvac@gtadesi</u>	gns.ca
Telephone number	Fax number		Cell number	_
(905) 671-9800 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	ouse		☐ Building Structural	
☐ Small Buildings ☐ Building Se	ervices		☐ Plumbing – House	
☐ Large Buildings ☐ Detection,	Lighting and Po	wer	☐ Plumbing – All Buildings	
☐ Complex Buildings ☐ Fire Protect	tion		☐ On-site Sewage System	s
Description of designer's work Mod	del Certification	1	Project #:	PJ-00041
Heating and Onethon Lead Onterlations	v	Duildes	Layout #:	JB-07352
Heating and Cooling Load Calculations Main Air System Design Alternate	X	Builder Project	Bayview Wellingto Green Valley East	
Residential mechanical ventilation Design Summary Area Sq ft:	2780		Barossa 5	
Residential System Design per CAN/CSA-F280-12		Model	S38-5	
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 to 3.2.4 Division C of the Building Code				
classes/categories.				
Individual BCIN:			i	
Firm BCIN:			1	
Individual BCIN:	3296	64		
Basis for exemp	tion from registr	ation: D	Division C 3.2.4.1. (4)	
☐ The design work is exempt from the	e registration and	d qualification requirem	ents 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	of the firm.			
July 27, 2021		Mare Sto	i de	
Date		Signature of Des	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

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These documents issued for the use of and may not be used by any other persons without authorization. Documents for permit and/or construction are signed in red. Building Location	Heat loss and gain calcu	lation summary sheet CSA-F280-M12 Standard						
Building Location	These documents issued for the use of							
Address (Model): 838-5 Site: Green Valley East	and may not be used by any other persons without authorization. Documen	ts for permit and/or construction are signed in red. JB-07352						
Address (Model): 838-5 Site: Green Valley East	Building	Location						
City and Province: Bradford		T						
Calculations based on Calculations Calculation	Model: Barossa 5	Lot:						
Dimensional information based on: VA3 Design13/May/2021 Attachment: Detached Front facing: EastWest Assumed? Yes	City and Province: Bradford	Postal code:						
Attachment: Detached Front facing: EastWest Assumed? Yes	Calculations based on							
No. of Levels: 3 Ventilated? Included Air tightness: 1961-Present (ACH=3.57) Assumed? Yes	Dimensional information based on:	VA3 Design13/May/2021						
Weather location: Bradford Wind exposure: Sheltered	Attachment: Detached	Front facing: East/West Assumed? Yes						
HRV? VanEE	No. of Levels: 3 Ventilated? Included	Air tightness: 1961-Present (ACH=3.57) Assumed? Yes						
Sensible Eff. at -25C	Weather location: Bradford	Wind exposure: Sheltered						
Sensible Eff. at -0C	HRV? VanEE V150H75NS	Internal shading: Light-translucent Occupants: 5						
Heating design conditions Outdoor temp	Sensible Eff. at -25C 60% Apparent Effect. at -0C 83%	Units: Imperial Area Sq ft: 2780						
Outdoor temp	Sensible Eff. at -0C 75%							
Above grade walls	Heating design conditions	Cooling design conditions						
Style A:	Outdoor temp -9.4 Indoor temp: 72 Mean soil temp: 48	Outdoor temp 86 Indoor temp: 75 Latitude: 44						
Style B: Style C: Style C: Style C: Style D: Floors on soil Style A: As per Selected OBC SB12 Package A1 Style B: Style B: Style B: Style B: Style A: As per Selected OBC SB12 Package A1 R 6 Style B: Style B: As per Selected OBC SB12 Package A1 R 3 Exposed floors Style C: Style A: As per Selected OBC SB12 Package A1 R 31 Doors Style B: Skylights Style B: Skylights Style C: Style B: Skylights Style C: Style B: Style C: Style D: Style B: 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	Above grade walls	Below grade walls						
Style C: Style D: Style D: Style D: Style D: Style D: Style A: As per Selected OBC SB12 Package A1 R 6 Style B: Style	Style A: As per OBC SB12 Package A1 R 22	Style A: As per OBC SB12 Package A1 R 20ci						
Style D: Style D: Style D: Style D:	Style B:	Style B:						
Style A: As per Selected OBC SB12 Package A1 Style A: As per Selected OBC SB12 Package A1 R 6	Style C:	Style C:						
Style A: As per Selected OBC SB12 Package A1 Style A: As per Selected OBC SB12 Package A1 R 6 Style B: Style B: As per Selected OBC SB12 Package A1 R 3 Exposed floors Style C: Style A: As per Selected OBC SB12 Package A1 R 31 Doors Style B: Style C: Style B: Styl	Style D:	Style D:						
Style B: Style B: As per Selected OBC SB12 Package A1 R 3 Exposed floors Style C: Style C: Style A: As per Selected OBC SB12 Package A1 R 31 Doors Style B: Style A: As per Selected OBC SB12 Package A1 R 4.0 Windows Style B: Style B: Style B: Skylights Style B: Skylights Style C: Style A: As per Selected OBC SB12 Package A1 R 2.0 Style B: Style A: As per Selected OBC SB12 Package A1 R 2.0 Style D: Style B: Style B: As per Selected OBC SB12 Package A1 R 2.0 Style D: Style B: Style B: As per Selected OBC SB12 Package A1 R 2.0 Style D: Style B: As per Selected OBC SB12 Package A1 R 2.0 Style D: Style B: As per Selected OBC SB12 Package A1 R 2.0 Style B: Style B: As per Selected OBC SB12 Package A1 R 2.0 Style B: Style B: As per Selected OBC SB12 Package A1 R 2.0 Style B: Style B: As per Selected OBC SB12 Package A1 R 2.0 Style B: Style B: As per Selected OBC SB12 Package A1 R 2.0 Style B: Style B: As per Selected OBC SB12 Package A1 R 2.0 Style B: Style B: As per Selected OBC SB12 Package A1 R 2.0 Style B: Style B: As per Selected OBC SB12 Package A1 R 2.0 Style B: Style B: Style B: As per Selected OBC SB12 Package A1 R 2.0 Style B: Style B	Floors on soil	Ceilings						
Exposed floors Style A: As per Selected OBC SB12 Package A1 R 31 Doors Style B: Style A: As per Selected OBC SB12 Package A1 R 4.0 Windows Style B: Style B: Style A: As per Selected OBC SB12 Package A1 R 3.55 Style C: Style B: Skylights Style C: Style B: Skylights Style C: Style B: Style A: As per Selected OBC SB12 Package A1 R 2.0 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	Style A: As per Selected OBC SB12 Package A1	Style A: As per Selected OBC SB12 Package A1 R 60						
Style A: As per Selected OBC SB12 Package A1 R 31 Doors Style B: Style A: As per Selected OBC SB12 Package A1 R 4.0 Windows Style B: Style B: Style B: Skylights Style B: Style A: As per Selected OBC SB12 Package A1 R 3.55 Style C: Style B: Sty	Style B:	Style B: As per Selected OBC SB12 Package A1 R 31						
Style B: Style A: As per Selected OBC SB12 Package A1 R 4.0 Windows Style B: Style A: As per Selected OBC SB12 Package A1 R 3.55 Style C: Style B: Style B: Style C: Style A: As per Selected OBC SB12 Package A1 R 2.0 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	Exposed floors	Style C:						
Windows Style B: Style A: As per Selected OBC SB12 Package A1 R 3.55 Style C: Style B: Style C: Style A: As per Selected OBC SB12 Package A1 R 2.0 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	Style A: As per Selected OBC SB12 Package A1 R	Doors Doors						
Style A: As per Selected OBC SB12 Package A1 R 3.55 Style C: Style B: Style C: Style A: As per Selected OBC SB12 Package A1 R 2.0 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	Style B:	Style A: As per Selected OBC SB12 Package A1 R 4.00						
Style B: Style C: Style D: 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	Windows	Style B:						
Style C: Style D: Style D: 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	Style A: As per Selected OBC SB12 Package A1 R 3.	Style C:						
Style D: 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	Style B:	Skylights						
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	Style C:	Style A: As per Selected OBC SB12 Package A1 R 2.03						
Notes: Residential New Construction - Forced Air Calculations performed by Name: David DaCosta Postal code: L4T 0A4 Company: gtaDesigns Inc. Telephone: (905) 671-9800	Style D:	Style B:						
Calculations performed by Name: David DaCosta Postal code: L4T 0A4 Company: gtaDesigns Inc. Telephone: (905) 671-9800	Attached documents: As per Shedule 1 Heat Loss	/Gain Caculations based on CSA-F280-12 Effective R-Values						
Name: David DaCosta Postal code: L4T 0A4 Company: gtaDesigns Inc. Telephone: (905) 671-9800	Notes: Residential New	Construction - Forced Air						
Company: gtaDesigns Inc. Telephone: (905) 671-9800	Calculations	performed by						
	Name: David DaCosta	Postal code: L4T 0A4						
Address: 2985 Drew Road, Suite 202 Fax:	Company: gtaDesigns Inc.	Telephone: (905) 671-9800						
	Address: 2985 Drew Road, Suite 202	Fax:						
City: Mississauga E-mail hvac@gtadesigns.ca	City: Mississauga	E-mail hvac@gtadesigns.ca						



Trunk

Air System Design

SB-12 Package A1

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

July 27, 2021

I review and take responsibility for the design work and am qualified in the

Bayview Wellington Builder: Date: Page 3 appropriate category as an "other designer" under Division C subsection 3.2.5. of the Barossa 5 Project # PJ-00041 **Building Code.** System 1 Mane Alex **Green Valley East** S38-5 Individual BCIN: 32964 David DaCosta Lavout # JB-07352 Project: Model: BOILER/WATER HEATER DATA: DESIGN LOAD SPECIFICATIONS AIR DISTRIBUTION & PRESSURE FURNACE/AIR HANDLER DATA: A/C UNIT DATA: Level 1 Net Load 19,717 btu/h **Equipment External Static Pressure** 0.5 "w.c. Make Make 2.5 Ton Amana Туре Amana AMEC960803BNA Level 2 Net Load 20,794 btu/h **Additional Equipment Pressure Drop** 0.225 "w.c. Model Model Cond.-2.5 Level 3 Net Load 19.705 btu/h **Available Design Pressure** 0.275 "w.c. Input Btu/h 80000 Input Btu/h Coil -2.5 Return Branch Longest Effective Length 76800 Level 4 Net Load 300 ft Output Btu/h Output Btu/h 0 btu/h " W C ΔWH 60.217 btu/h 0.138 "w.c. 0.50 Min.Output Btu/h Total Heat Loss R/A Plenum Pressure E.s.p. Blower DATA: **Total Heat Gain** 29,497 btu/h S/A Plenum Pressure 0.14 "w.c. deg. F. W2 Heating Air Flow Proportioning Factor AFUE Blower Speed Selected: ECM 0.0195 cfm/btuh 96% **Blower Type** 35770 ft³ **Building Volume Vb** Cooling Air Flow Proportioning Facter 0.0319 cfm/btuh (Brushless DC OBC 12.3.1.5.(2)) Aux. Heat Ventilation Load 1.188 Btuh. Package A1 Heating Check 1172 cfm 941 cfm R/A Temp 70 dea. F. SB-12 Package Cooling Check Ventilation PVC 79.5 cfm S/A Temp 131 deg. F. Supply Branch and Grill Sizing Diffuser loss 1172 cfm **Cooling Air Flow Rate** 941 cfm 0.01 "w.c. Temp. Rise>>> 61 deg. F. Selected cfm> Level 1 Level 2 S/A Outlet No 2 5 10 11 12 Room Use BASE BASE RASE KIT KIT GRT PWD MUD FOY //DIN LIV/DIN Btu/Outlet 4929 4929 4929 4929 3156 3156 3515 1349 1118 3439 2531 2531 **Heating Airflow Rate CFM** 96 96 96 96 61 61 68 26 22 49 49 12 12 12 12 99 97 17 43 70 70 Cooling Airflow Rate CFM 99 5 **Duct Design Pressure** 0.13 **Actual Duct Length** 45 31 15 30 46 41 40 25 18 25 40 Equivalent Length 150 80 130 90 70 70 70 70 70 70 70 70 70 70 110 120 110 140 150 90 140 70 70 70 70 70 70 Total Effective Length 195 111 145 120 70 70 70 70 70 70 70 70 70 156 161 150 165 168 115 86 180 70 70 70 70 70 70 70 Adjusted Pressure 0.07 0.12 0.09 0.11 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.08 0.08 0.09 0.08 0.08 0.11 0.15 0.07 0.19 0.19 0.19 0.19 0.19 0.19 **Duct Size Round Outlet Size** 4x10 4x10 4x10 4x10 4x10 4x10 4x10 3x10 3x10 4x10 3x10 4x10 4x10 4x10 4x10 4x10 4x10 Trunk D C Level 3 Level 4 S/A Outlet No. 13 15 16 17 21 22 23 24 25 14 18 19 20 Room Use MAST MAST FNS RFD 2 VANITY **RATH** WIC 3 BFD 3 BFD 3 LAUND FNS 2 RFD 4 WIC Btu/Outlet 2256 2256 1606 1683 257 790 1005 2493 2493 2387 632 1390 459 **Heating Airflow Rate CFM** 44 44 31 33 15 20 49 46 12 27 9 44 44 17 57 57 Cooling Airflow Rate CFM 26 28 62 11 34 4 2 **Duct Design Pressure** 0.13 67 **Actual Duct Length** 58 40 31 35 41 41 46 34 66 **Equivalent Length** 160 140 160 130 140 160 130 120 110 120 130 150 140 70 70 70 70 70 70 70 70 70 70 70 70 70 70 70 227 198 215 170 171 195 171 161 149 164 216 70 70 70 70 70 70 70 70 70 70 70 70 Total Effective Length 166 198 70 70 70 Adjusted Pressure 0.06 0.07 0.06 0.08 0.08 0.07 0.08 0.08 0.09 0.08 0.08 0.06 0.07 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 2 6 3 Outlet Size 3x10 3x10 3x10 3x10 3x10 3x10 3x10 4x10 4x10 3x10 3x10 3x10 3x10 4x10 Trunk D R D D Return Branch And Grill Sizing **Grill Pressure Loss** 0.02 "w.c **Return Trunk Duct Sizing** Supply Trunk Duct Sizing R/A Inlet No 1R 2R 3R 4R 5R 6R 7R 8R 9R 10R 11R Trunk CFM Press. Round Rect. Size Trunk CFM Press. Round Rect. Size Inlet Air Volume CFM 192 470 105 150 150 105 **Duct Design Pressure** 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 1172 0.05 17.0 24x12 1172 16.5 32x8 24x10 Drop 0.06 33 37 33 1067 0.05 777 14.0 22v8 **Actual Duct Length** 15 41 Z 16.5 32v8 24 y 10 R 0.06 18 10 **Equivalent Length** 195 165 115 140 220 215 50 50 50 50 50 Υ C 492 0.06 12.0 16x8 12x10 257 **Total Effective Length** 203 180 156 173 248 50 50 50 50 50 х 176 0.06 8.5 8x8 107 Adjusted Pressure 0.06 0.07 0.08 0.07 0.05 0.05 0.24 0.24 0.24 0.24 0.24 w 346 0.07 10.0 12x8 10x10 **Duct Size Round** 8.0 6.0 7.5 8.0 6.0 11.5 FLC Inlet Size U Inlet Size 9X6 30 14 14 14 s

Q



Total Heat Loss

Total Heat Gain

60,217 btu/h

29,497 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

Mana Mate

David DaCosta

Package A1

		Builder:	Bayview Wel	ington		Date:		July 27, 2	2021					Weathe	er Data	Bradfo	rd 44	-9.4	86 22	48.2				Page 4
2012 OBC		Project:	Green Valle	East	_ M	odel:		Barossa S38-5	a 5			System 1		Hoat I	l oss ^T	81.4 deg. F	Ht gain ^T	11	deg. F	GTA:	2780	Pi	roject # ayout #	PJ-00041 JB-07352
2012 OBC		Project:	Green valle	East		odei:		330-3			-			пеан	LUSS "I	61.4 deg. F	nt gain "1	- 11	deg. F	GIA.	2760		ayout #	JB-07352
	Level 1			BAS	E																			
	exposed wall A			168 A B		A B		A B		A B		A B		A R		A B	A B		A B		A B		A B	
	exposed wall B Ceiling height			6.0 AG		6.0 AG		6.0 AG		6.0 AG		6.0 AG	6.0	AG		6.0 AG	6.0 AG		6.0 AG		6.0 AG		6.0 AG	<u>.</u>
'	Floor area			1112 Area		Area		Area		0.0 AG		Area	0.0	Area		Area	0.0 AG		Area		0.0 AG		O.U AC	
Expos	osed Ceilings A			Α		A		A		A		A		A		A	A		A		A		A	-
	osed Ceilings B			В		В		В		В		В		В		В	В		В		В		В	
Ex	Exposed Floors			Flr		Flr		Flr		Flr		Flr		Flr		Flr	Flr		Flr		Flr		Fir	
	oss Exp Wall A			1008																				
	oss Exp Wall B		In :																					
	Components F North Shaded	3.55	SS Gain 11.62	Loss 3 6	Gain 35	Loss	Gain	Loss	Gain	Loss	Gain	Loss Gai	n	Loss	Gain	Loss G	ain Loss	Gain	Loss	Gain	Los	s Gain	LO	ss Gain
	East/West	3.55	22.93 29.56	13 29																				
	South	3.55	22.93 22.50	3 6																				
W	WOB Windows	3.55	22.93 27.86																					
	Skylight	2.03	40.10 88.23																					
	Doors	4.00	20.35 2.75																					
	xposed walls A	21.12	3.85 0.52	968	504																			
	xposed walls B	17.03	4.78 0.65																					
	osed Ceilings A	59.22 27.65	1.37 0.64 2.94 1.37																					
	osed Ceilings B Exposed Floors	29.80	2.73 0.17																					
Foundation Conductiv		20.00		827	3																			
Total Conductive	Heat Loss			914																				
	Heat Gain				1049																			
Air Leakage He	Heat Loss/Gain		1.1256 0.0456	1028	48																			
Ventilation	Case 1		0.06 0.06																					
ventilation	Case 2 Case 3	х	14.95 11.88 0.03 0.06	28	7 66																			
		Α		20	00																			
Hea																								
	eat Gain People	1 =.25 perc	239 ent 4580																					
Appl	pliances Loads t and Pipe loss	1 =.25 per																						
Appl Duct	pliances Loads et and Pipe loss 19,717	Total	tent 4580 10% HL for per room	1971	7																			
Appl Duct	pliances Loads et and Pipe loss	Total	ent 4580 10%	1971	1511																			
Appl Duct	pliances Loads et and Pipe loss 19,717	Total	tent 4580 10% HL for per room	1971	1511																			
Appl Duct	pliances Loads et and Pipe loss 19,717 1,511	Total	tent 4580 10% HL for per room		1511	G	T.	PWD		MUD		FOY		I IV/DIA	N.									
Appl Duct Level HL Total Level HG Total	ppliances Loads et and Pipe loss 19,717 1,511	Total	tent 4580 10% HL for per room	КІТ	1511	GF 29 A	т	PWD)	MUD 7 A		FOY 26 A	47	LIV/DIN	N	Α.			A					
Appi Duct Level HL Total Level HG Total Run ft. e:	pliances Loads et and Pipe loss 19,717 1,511	Total	tent 4580 10% HL for per room		1511	GF 29 A B	т	PWD 11 A B	D				47		N	A B	A		A B		A B		A B	
Level HL Total Level HG Total Run ft. e: Run ft. e:	pliances Loads et and Pipe loss 19,717 1,511 Level 2 exposed wall A	Total	tent 4580 10% HL for per room	KIT 48 A	1511	29 A		11 A)	7 A		26 A	47	A B	N									
Level HL Total Level HG Total Run ft. e: Run ft. e:	pliances Loads tt and Pipe loss 19,717 1,511 Level 2 exposed wall A exposed wall B Ceiling height Floor area	Total	tent 4580 10% HL for per room	КП 48 А В	1511	29 A B		11 A B))	7 A B	1	26 A B	11.0	A B	N	В	В		В		В	a	В	ea
Level HL Total Level HG Total Run ft. e: Run ft. e:	pliances Loads tt and Pipe loss 19,717 1,511 Level 2 exposed wall A exposed wall B Ceiling height Floor area osed Ceilings A	Total	tent 4580 10% HL for per room	KIT 48 A B 11.0 268 Area A	1511	29 A B 11.0 217 Area A		11 A B 13.0 30 Area A		7 A B 13.0 34 Area A	1	26 A B 2.0 82 Area A	11.0 471	A B Area A	N	B 11.0 Area A	B 11.0 Area A		B 11.0 Area A		B 11.0 Area A	a	11.0 Ar	ea
Appl Duct Level HL Total Level HG Total Run ft. e: Run ft. e: Expos	pliances Loads t and Pipe loss 19,717 1,511 Level 2 exposed wall A exposed wall B Ceiling height Floor area soed Ceilings A osed Ceilings A	Total	tent 4580 10% HL for per room	KIT 48 A B 11.0 268 Area A B	1511	29 A B 11.0 217 Area A B		11 A B 13.0 30 Area A B)	7 A B 13.0 34 Area A B	1	26 A B 2.0 82 Area A B	11.0 471	A B Area A B	N	B 11.0 Area A B	B 11.0 Area A B		B 11.0 Area A B		B 11.0 Area A B		B 11.0 Ar A B	
Run ft. e: Expos Expos Expos Expos Expos Expos Expos	pliances Loads at and Pipe loss 19,717 1,511 Level 2 exposed wall A exposed wall B Ceiling height Floor area ssed Ceilings A best Ceilings A best Ceyposed Floors	Total	tent 4580 10% HL for per room	48 A B 11.0 268 Area A B Fir	1511	29 A B 11.0 217 Area A B Flr		11 A B 13.0 30 Area A B Fir)	7 A B 13.0 34 Area A B Fir	1	26 A B 2.0 82 Area A B Fir	11.0 471	A B Area A B Fir	N	B 11.0 Area A	B 11.0 Area A		B 11.0 Area A		B 11.0 Area A	3	11.0 Ar	
Run ft. e: Expos	pliances Loads at and Pipe loss 19,717 1,511 Level 2 exposed wall A exposed wall B Celling height Floor area osed Cellings B exposed Floors sexposed Floors oss Exp Wall A	Total	tent 4580 10% HL for per room	KIT 48 A B 11.0 268 Area A B	1511	29 A B 11.0 217 Area A B		11 A B 13.0 30 Area A B)	7 A B 13.0 34 Area A B	1	26 A B 2.0 82 Area A B	11.0 471	A B Area A B Fir	N	B 11.0 Area A B	B 11.0 Area A B		B 11.0 Area A B		B 11.0 Area A B	3	B 11.0 Ar A B	
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Run ft. e: Expos	pliances Loads at and Pipe loss 19,717 1,511 Level 2 exposed wall A exposed wall B Celling height Floor area osed Cellings B exposed Floors sexposed Floors oss Exp Wall A	Total Total H	ent 4580 10% HL for per room 3 per room x 1.3	KIT 48 A B 11.0 268 Area A B Fir 528	1511	29 A B 11.0 217 Area A B Flr		11 A B 13.0 30 Area A B Fir 143	Gain	7 A B 13.0 34 Area A B FIr	1	26 A B 2.0 82 Area A B Fir	11.0 471 517	A B Area A B FIr	Gain	B 11.0 Area A B Fir	B 11.0 Area A B Fir	Gain	B 11.0 Area A B Fir	Gain	B 11.0 Area A B		11.0 Ar A B Fir	
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Expos	pliances Loads at and Pipe loss 19,717 1,511 Level 2 exposed wall A exposed wall B Ceiling height Floor area osed Ceilings A osed Ceilings A osed Ceilings B Exposed Floors oss Exp Wall A osset Wall North Shaded East/West	Total Hi Total Hi R-Values Lo: 3.55 3.55 3.55	est 4580 10% HL for per room 3 per room x 1.3 5 5 6 6 6 6 6 6 6 6	48 A B 11.0 268 Area A B Fir 528 Loss 53	Gain 616	29 A B 11.0 217 Area A B Fir 319	Gain	11 A B 13.0 30 Area A B Fir 143	Gain	7 A B 13.0 34 Area A B FIr	Gain	26 A B 2.0 82 Area A B Fir 312	11.0 471 517	A B Area A B Fir	Gain	B 11.0 Area A B Fir	B 11.0 Area A B Fir	Gain	B 11.0 Area A B Fir	Gain	B 11.0 Area A B Fir		11.0 Ar A B Fir	
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Existi	pliances Loads at and Pipe loss 19,717 1,511 Level 2 exposed wall A exposed wall B Ceiling height Floor area osed Ceilings A	Total Hi Total Hi Revalues Lo: 3.55 3.55 3.55 1.99 2.03 4.00	ent 4580 10% HL for per room 3 per room x 1.3 ss Gain 22.93 11.62 22.93 29.56 22.93 29.56 40.90 23.66 40.10 88.23	KIT 48 A B 11.0 268 Area A B Fir 528 Loss 53 121 45 103	Gain 5 616 2 1330	29 A B 11.0 217 Area A B Fir 319 Loss	Gain 01 1419	11 A B 13.0 30 Area A B Fir 143 Loss	Gain 293	7 A B 13.0 34 Area A B Fir 91 Loss	Gain 58	26 A B B 2.0 82 Area A B Fir 312 Loss Gai	11.0 471 517 n 680 54	A B Area A B Fir Loss	Gain 1215	B 11.0 Area A B Fir	B 11.0 Area A B Fir	Gain	B 11.0 Area A B Fir	Gain	B 11.0 Area A B Fir		11.0 Ar A B Fir	
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Appl Duct Level HL Total Level HG Total Run ft. er Run	pliances Loads et and Pipe loss 19,717 1,511 Level 2 exposed wall A exposed wall B Ceiling height Floor area sosed Ceilings A sosed Ceilings B Exposed Floors sose Exp Wall B Components I North Shaded East/West South isting Windows Skylight boors exposed walls B components if south isting Windows Skylight boors Exposed Ceilings A sosed Ceilings A sosed Ceilings B Exposed Floors ive Heatloss Heat Loss/Gain Case 1 Case 2 Case 3 eat Gain People	Total Hi Total Hi Total Hi R-Values Lo: 3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65 29.80	ent 4580 10% HL for per room x 1.3 Sea Gain 22.93 11.62 22.93 29.56 40.10 88.23 40.90 23.66 40.10 88.23 1.37 0.64 1.37 0.43 1.37 0.44 1.38 0.43 1.48 0.43 1	KIT 48 A B 11.0 268 Area A B Fir 528 Loss 121 45 103 430 205	Gain 5 616 2 1330 5 278	29 A B 11.0 217 Area A B Fir 319 Loss 48 111 271 12:	Gain 11 1419 15 175 16 1594 13 73	11 A B 13.0 30 Area A B Fir 143 Loss 13 298 130 621	Gain 293 1 84 377 0 17	7 A B 13.0 34 Area A B Fir 91 Loss 21 427 70 335	Gain 58 45 103 5	26 A B B 2.0 82 Area A B Fir 312 Loss Gai 23 527 28 570 261 1248 2345 1021	11.0 471 517 680 54 77 169 463	A B B Area A B B Fir Loss 2213 3451 1503 108	Gain 1215 299 1514 69	B 11.0 Area A B Fir	B 11.0 Area A B Fir	Gain	B 11.0 Area A B Fir	Gain	B 11.0 Area A B Fir		11.0 Ar A B Fir	
Appl Duct Level HL Total Level HG Total Run ft. ex Run ft. ex Run ft. ex Expos Ex Grov Grov Grov Exist Net ex Expos E	pliances Loads et and Pipe loss 19,717 1,511 Level 2 exposed wall A exposed wall A exposed wall B collings B Exposed Ceilings B Exposed Ceilings B Exposed Floors et all Selections South string Windows Skylight Doors Exposed walls A exposed walls A exposed Wall B Components I South string Windows Skylight Doors et all Selections Exposed Walls A exposed walls A exposed walls B exp	Total Hi Total Hi R-Values Lo. 3.55 3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65 29.80	ss Gain 22.93 11.62 22.93 22.56 22.93 22.50 22.93 22.50 22.93 22.50 22.93 12.50 22.93 12.50 22.93 12.50 22.93 12.50 22.93 12.50 22.93 12.50 22.93 12.50 22.93 12.50 22.93 12.50 22.93 12.50 22.93 12.50 23.66 40.10 88.23 20.35 2.75 2.73 0.17 2.73 0.17 2.73 0.17 2.73 0.17 2.94 1.37 0.64 0.03 0.0456 0.03 0.06 14.95 11.88 0.03 0.06 14.95 11.88 0.03 239 ent 4580 0.03 10.86	KIT 48 A B 11.0 268 Area A B Fir 528 Loss 53 121 103 430 205 430 187.	Gain 5 616 2 1330 5 278 6 278 7 2224 7 101 7 140 7 2290	29 A B 11.0 217 Area A B Fir 319 Loss 271 12: 231 10.5	Gain 11 1419 15 175 166 1594 13 73 175 100 175 100	11 A B 13.0 30 Area A B Fir 143 Loss 13 298 130 621	Gain 3 293 1 84 9 377 0 17	7 A B 13.0 34 Area A B Fir 91 Loss 21 427 70 335	58 45	26 A B B 2.0 82 Area A B Fir 312 Loss Gai 23 527 28 570 281 1248 2345 1021	11.0 471 517 n 680 54 77 169 463	A B B Area A B B Fir Loss 2213 3451 1503	Gain 1215 299 1514 69 95	B 11.0 Area A B Fir	B 11.0 Area A B Fir	Gain	B 11.0 Area A B Fir	Gain	B 11.0 Area A B Fir		11.0 Ar A B Fir	
Appl Duct Level HL Total Level HG Total Run ft. er Run	pliances Loads et and Pipe loss 19,717 1,511 Level 2 exposed wall A exposed wall B Ceiling height Floor area sosed Ceilings A sosed Ceilings B Exposed Floors sose Exp Wall B Components I North Shaded East/West South isting Windows Skylight boors exposed walls B components if south isting Windows Skylight boors Exposed Ceilings A sosed Ceilings A sosed Ceilings B Exposed Floors ive Heatloss Heat Loss/Gain Case 1 Case 2 Case 3 eat Gain People	Total Hi Total Hi Re-Values Lo: 3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65 29.80 x 1 = .25 perce	ent 4580 10% HL for per room x 1.3 Sea Gain 22.93 11.62 22.93 29.56 40.10 88.23 40.90 23.66 40.10 88.23 1.37 0.64 1.37 0.43 1.37 0.44 1.38 0.44 1.39 0.44 1	KIT 48 A B 11.0 268 Area A B Fir 528 121 103 121 133 131 131	Gain 5 616 2 1330 5 278 6 278 7 2224 7 101 7 140 7 2290	29 A B 11.0 217 Area A B Fir 319 Loss 48 111 271 12:	Gain 11 1419 15 175 166 1594 13 73 175 100 175 100	11 A B 13.0 30 Area A B Fir 143 Loss 13 298 130 621	Gain 3 293 1 84 9 377 0 17	7 A B 13.0 34 Area A B Fir 91 Loss 21 427 70 335	58 45	26 A B B 2.0 82 Area A B Fir 312 Loss Gai 23 527 28 570 2245 1248 2345 1021 74 3439	11.0 471 517 n 680 54 77 169 463	A B B Area A B B Fir Loss 2213 3451 1503 108	Gain 1215 299 1514 69 95	B 11.0 Area A B Fir	B 11.0 Area A B Fir	Gain	B 11.0 Area A B Fir	Gain	B 11.0 Area A B Fir		11.0 Ar A B Fir	

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



60,217

29,497

Total Heat Loss

Total Heat Gain

Heatloss/Gain Calculations CSA-F280-12

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

e-mail hvac@gtadesigns.ca

Name Met

David DaCosta

Package A1

	Dellater	Davidani Walliantan	D-4-	_	lulu 07, 0004				M4h D-4-	D	44 0	4 00 00	40.0		D 5
	Builder:	Bayview Wellington	Date	·	July 27, 2021 Barossa 5				Weather Data	Bradford	44 -9.	4 86 22	48.2	Project #	Page 5 PJ-00041
2012 OBC	Project:	Green Valley East	Mode	:	S38-5		System 1		Heat Loss ^T 8	1.4 deg. F	Ht gain ^T	11 deg. F	GTA: 2780	Layout #	JB-07352
Level 3 Run ft. exposed wall A		45 <i>A</i>	MAST A 1	ENS 9 A	BED 2 16 A	VANITY A	BATH 6 A	10	WIC 3	BED 3 28 A	LAUND 20 A	ENS 6 A	2 BE	D 4	WIC A
Run ft. exposed wall B		E	В	В	В	В	В		В	В	В	В	В		В
Ceiling height Floor area		11.0 352 A	9. Aroa 12	0 2 Area	9.0 157 Area	9.0 50 Area	9.0 35 Area	9.0		1.0 291 Area	10.0 87 Area	9.0 56 Area	9.0 151 Area	9.0	Area
Exposed Ceilings A		352 A		2 Alea 2 A	157 Alea 157 A	50 Area 50 A	35 A ea			291 A Rea	87 A	56 A	151 Alea 151 A	66	
Exposed Ceilings B		E	В	В	В	В	В		В	В	В	В	В		В
Exposed Floors			Flr 	Flr	18 Flr	40 Flr	35 Flr			67 Flr	5 Flr	Flr	Flr		Fir
Gross Exp Wall A Gross Exp Wall B		495	17	1	144		54	90)	808	200	54	117	54	
Components	R-Values Los	ss Gain L	Loss Gain	Loss Gain	Loss Gain	Loss Gai	in Loss Gair	1	Loss Gain	Loss Gain	Loss Ga	in Loss	Gain Loss	Gain	Loss Gain
North Shaded		22.93 11.62			18 413 209		8 183	93							
East/West	3.55	22.93 29.56 32	734 946 1	3 298 384				9		43 986 127 19 436 42		1182 8 18	3 180 16 3	67 360	
South Existing Windows	3.55 1.99	22.93 22.50 40.90 23.66								19 436 42	.0	0 10	3 100 10 3	37 360	
Skylight	2.03	40.10 88.23													
Doors	4.00	20.35 2.75			400 000		40 000					400 40 00			252
Net exposed walls A Net exposed walls B		4.78 0.65 463 9.58 1.29	2213 299 15	755 102	126 602 8		46 220	30 81	387 52 2	246 1176 15	9 160 765	103 46 22	0 30 101 4	83 65 54	258 35
Exposed Ceilings A	59.22	1.37 0.64 352	484 226 12	2 168 78	157 216 10°	50 69	32 35 48	22 25	34 16 2	291 400 18	7 87 120	56 56 7	7 36 151 2	97 66	91 42
Exposed Ceilings B	27.65	2.94 1.37			40 40	40 400	7 05 00			450					
Exposed Floors Foundation Conductive Heatloss	29.80	2.73 0.17			18 49 3	8 40 109	7 35 96	6 25	68 4 1	456 2	8 5 14	1			
Total Conductive Heat Loss			3431	1221	1280	178	547		696	3454	1815	48		157	349
Heat Gain			1471	565				151	339	207		1342	246	522	77
Air Leakage Heat Loss/Gain Case 1		0.2837 0.0456 0.02 0.06	973 67	346 26	363 18	50	2 155	1	197 15	980 9	515	61 13	6 11 3	00 24	99 4
Ventilation Case 2		14.95 11.88													
Case 3		0.03 0.06	108 93	38 36			2 17	10	22 21	108 13		85 1	5 15	33 33	11 5
Heat Gain People Appliances Loads		239 2 cent 4580	478		1 239)				1 23	9		1	239	
Duct and Pipe loss		10%				1 23		15 1	89 34	1 443 23					
Level HL Total 19,705 Level HG Total 12,324		I HL for per room G per room x 1.3	4512 2741	1606	1683	257	61 790	237	1005 532	4985	2387	1934	2 13	1063	459 111
Run ft. exposed wall A Run ft. exposed wall B Ceiling height			В	A B	A B	A B	A B		A B	A B	A B	A B	A B		A B
Floor area Exposed Ceilings A			Area A	Area A	Area A	Area A	Area A		Area A	Area A	Area A	Area A	Area A		Area A
Exposed Ceilings A			В	В	В	В	В		В	В	В	В	В		В
Exposed Floors		F	Flr	Flr	Flr	Fir	Flr		Flr	Fir	Fir	Flr	Flr		Fir
Gross Exp Wall A Gross Exp Wall B															
Components	R-Values Los		Loss Gain	Loss Gain	Loss Gain	Loss Ga	in Loss Gair	1	Loss Gain	Loss Gain	Loss Ga	in Loss	Gain Loss	Gain	Loss Gain
North Shaded East/West	3.55 3.55	22.93 11.62 22.93 29.56													
South	3.55	22.93 22.50													
Existing Windows	1.99	40.90 23.66													
Skylight Doors	2.03 4.00	40.10 88.23 20.35 2.75													
Net exposed walls A	17.03	4.78 0.65													
Net exposed walls B		9.58 1.29													
Exposed Ceilings A Exposed Ceilings B		1.37 0.64 2.94 1.37													
Exposed Floors	29.80	2.73 0.17													
Foundation Conductive Heatless															
Total Conductive Heat Loss Heat Gain															
Air Leakage Heat Loss/Gain		0.0000 0.0456													
Ventilation Case 1		0.00 0.06 14.95 11.88													
Case 2	x	0.03 0.06													
Heat Gain People		239													
Appliances Loads															
Duct and Pipe loss Level HL Total 0		10% I HL for per room													
Level HG Total 0		G per room x 1.3													
F 60 247	T			I review and tak	e responsibility for the	design work and a	m qualified in the approp	oriate cate	egory as an "other d	esigner" under				SB-12	Package

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



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 Х

4

Project # Layout #

Page 6 PJ-00041 JB-07352

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 Mane Africate David DaCosta

Package: Project:	Package A1 Bradford	Model:	S38-5	
Project.				
	RESIDENTIAL MECHANICAL For systems serving one dwelling unit & cor			
	, , ,			
	Location of Installation	Total Ve	ntilation Capacity 9.32.3.3(1)	
Lot #	Plan #	Bsmt & Master Bdrm		fm
Township	Bradford	Other Bedrooms Bathrooms & Kitchen		fm fm
Roll #	Permit #	Other rooms	4 @ 10.6 cfm <u>42.4</u> cf Total <u>169.6</u>	fm
Address				
	Builder	Principal V	/entilation Capacity 9.32.3.4(1)	
Name	Bulluci	Master bedroom	1 @ 31.8 cfm 31.8 c	fm
Address	Bayview Wellington	Other bedrooms	3 @ 15.9 cfm <u>47.7</u> cf Total <u>79.5</u>	fm
City				
	_	Princi	pal Exhaust Fan Capacity	
Tel	Fax	Make	Model Location	
	In stalling Contractor	VanEE	V150H75NS Base	
Name	Installing Contractor	140 cfm	Sones or	r Equiv.
Address		Не	at Recovery Ventilator	
/ tddi coo		Make	VanEE	
City		Model	V150H75NS	
Tel	Fax	Sensible efficiency @ -:	<u>40</u> cfm high <u>80</u> cfr 25 deg C 60%	n low
161	Γαλ	Sensible efficiency @ 0		
			nce HRV/ERV to within 10 percent of PV	0
	Combustion Appliances 9.32.3.1(1)	Supplei	mental Ventilation Capacity	
a) <u>x</u> b)	Direct vent (sealed combustion) only Positive venting induced draft (except fireplaces)	Total ventilation capacit	ty 169.6	
c)	Natural draft, B-vent or induced draft fireplaces	Less principal exhaust	•	
d)	Solid fuel (including fireplaces)	REQUIRED supplemen		fm
e)	No combustion Appliances			
		Sun	plemental Fans 9.32.3.5.	
	Heating System	Location	cfm Model Sones	
х	Forced air	Ens	50 XB50 0.3	
	Non forced air	Ens 2	50 XB50 0.3	
	Electric space heat (if over 10% of heat load)			
	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	Any type c) appliance		Designer Certification	
IV Other	Type I or II either electric space heat Type I, II or IV no forced air	in accordance with the	ventilation system has been designed Ontario Building Code.	

	Designer	Certification					
I hereby certify t	I hereby certify that this ventilation system has been designed						
in accordance w	in accordance with the Ontario Building Code.						
Name	David D	-04-					
Name	David DaCosta						
Signature	Mane	166					
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-07352

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 by P	rincip	al Authori	y					
Application	n No:			<u> </u>		Model/Certification Number						
Α.	Project Information											
Building no	umber, street name			Barossa 5				Unit no	umbe	er	Lot/Con	
				S38-5								
Municipalit	ty Bradford			Postal code		Reg. Plan	number / oth	her des	cripti	on		
B. Prescriptive Compliance [indicate the building code compliance package being employed in the house design]								design]				
	SB-12 Prescriptive (input design pa	ckage):		<u>P</u>	acka	age A1				Table	3.1.1.2./	<u>A</u>
C.	Project Design Conditions											
	Climatic Zone (SB-1):		Heat. E	quip. Efficier	ncy			Sp	ace	Heating F	uel Sourc	e
~	Zone 1 (< 5000 degree days)		√ ≥ 92	2% AFUE		~	Gas			Propane		Solid Fuel
	Zone 2 (≥ 5000 degree days)		_ ≥8	34% < 92% AFL	JE		Oil	[Electric		Earth Energy
F	Ratio of Windows, Skylights & Glas	s (W, S	& G) to \	Wall Area				Oth	er B	uilding Ch	aracterist	ics
Aroa o	$f \text{ Walls} = 427.8 \text{ m}^2 \text{ or } 4604.9$	ft²				☐ Log/P	ost&Beam			ICF Above	Grade	☐ ICF Basement
Alea U	1 Walls = 427.0 111 01 4004.9	11-	W,S &	G % = <u>10.0</u>	0%	☐ Slab-	on-ground			Walkout Ba	sement	
						☑ Air Co	onditioning		1 1	Combo Uni	t	
Area of \	$W, S \& G = \underline{42.827} \text{ m}^2 \text{ or } \underline{461.0}$	ft²	Utilize \		Yes	☐ Air So	ourced Hea	t Pump	(AS	SHP)		
				aging 🔽 N	No	Grou	nd Source I	Heat P	ump	(GSHP)		
D.	Building Specifications [provide	values ar	nd ratings	of the energy	efficie	ency comp	onents prop	posed]				
	Energy Efficiency Substitutions											
	ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5))											
	Combined space heating and domestic	water he	ating syst	tems (3.1.1.2(7)) / 3.1	1.1.3.(7))						
	Airtightness substitution(s)		Table 3.1	- 1								
	Airtightness test required		Table 3.1	Requ	ired:	d: Permitted Substitution:						
(F	Refer to Design Guide Attached)			Requ		ed: Permitted Substitution:						:
	Building Component			SI/R-Values or n U-Value¹	r	Building Component Efficiency					Efficiency Ratings	
Therma	l Insulation	Nom	inal	Effective)	Window	s & Doo	rs Pro	vide	U-Value ⁽¹⁾ o	r ER rating	
Ceiling w	vith Attic Space	60	0	59.22		Windows	/Sliding G	ilass D	oors	S		1.6
Ceiling w	vithout Attic Space	3	1	27.65		Skylights						2.8
Exposed	Floor	3	1	29.80		Mechan	icals					
	oove Grade	22		17.03		,	Equip.(AFL					96%
Basemer	nt Walls		20.0ci	21.12		HRV Effi	ciency (SR	RE% at	0°C)		75%
Slab (all	>600mm below grade)	х	(Х		DHW He	ater (EF)					0.80
	ge only ≤600mm below grade)	10	0	11.13		DWHR (CSA B55.1 (min. 42% efficiency))					#Showers 2	
Slab (all	≤600mm below grade, or heated)	10	0	11.13		Combine	d Heating	Syste	m			
(1) U valu	e to be provided in either W/(m²·K) or Bt	u/(h·ft·F) b	ut not bo	th.								
E.	Designer(s) [name(s) & BCIN(s), if	applicable	, of perso			nation her			that	design mee	ts building	code]
Name	_			BCIN			Signature	;		. 1	.10	,
	David DaCosta			3	329	964			1	Jane	14C=	√√ ₹



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-07352

Package: Package A1 System: System 1 **Bradford** Model:

Project: S38-5 Air Leakage Calculations **Building Air Leakage Heat Loss Building Air Leakage Heat Gain** В LRairh Vb HL^T HLleak В LRairh ٧b HG^T **HG Leak** 0.018 0.393 35770 81.4 20578 0.018 0.097 35770 Levels Air Leakage Heat Loss/Gain Multiplier Table (Section 11) 1 2 3 4 Level Building Level Conductive Air Leakage Heat Loss Level (LF) (LF) (LF) (LF) Multiplier Factor (LF) **Heat Loss** Level 1 0.5 9141 1.1256 1.0 0.6 0.5 0.4 Level 2 0.4355 0.3 14176 0.3 0.3 0.4 20578 0.2837 14508 Level 3 0.2 0.2 0.2 Level 4 0 0.0000 Air Leakage Heat Gain Levels this Dwelling **HG LEAK** 684 0.0456 3 **BUILDING CONDUCTIVE HEAT GAIN** 15003 Ventilation Calculations **Ventilation Heat Loss Ventilation Heat Gain** Vent Vent **Ventilation Heat Loss** Ventilation Heat Gain **PVC** (1-E) HRV HLbvent PVC HG^T **HGbvent** 1.08 81.4 0.17 1188 79.5 944 79.5 11 Case 1 Case 1 **Ventilation Heat Loss (Exhaust only Systems)** Ventilation Heat Gain (Exhaust Only Systems) Case 1 - Exhaust Only Case 1 - Exhaust Only Multiplier Case Case LVL Cond. HL HGbvent 944 Level LF HLbvent Multiplier 0.06 Level 1 0.5 9141 0.06 Building 15003 Level 2 14176 0.3 0.03 1188 14508 Level 3 0.2 0.02 Level 4 0 0 0.00 Case 2 Case 2 **Ventilation Heat Loss (Direct Ducted Systems)** Ventilation Heat Gain (Direct Ducted Systems) Case Multiplier Multiplier C HL^T (1-E) HRV С HG^T 14.95 11.88 1.08 81.4 0.17 1.08 11 Case 3 Case 3 Ventilation Heat Loss (Forced Air Systems) **Ventilation Heat Gain (Forced Air Systems)** Case **HLbvent** Multiplier Vent Heat Gain Multiplier HGbvent HG*1.3 Total Ventilation Load 1188 0.03 944 0.06 944 Foundation Conductive Heatloss Level 1 Level 1 2426 Watts 8278 Btu/h **Foundation Conductive Heatloss Level 2** Level 2 Watts Btu/h Slab on Grade Foundation Conductive Heatloss Watts Btu/h Walk Out Basement Foundation Conductive Heatloss Watts Btu/h

Envelope Air Leakage Calculator

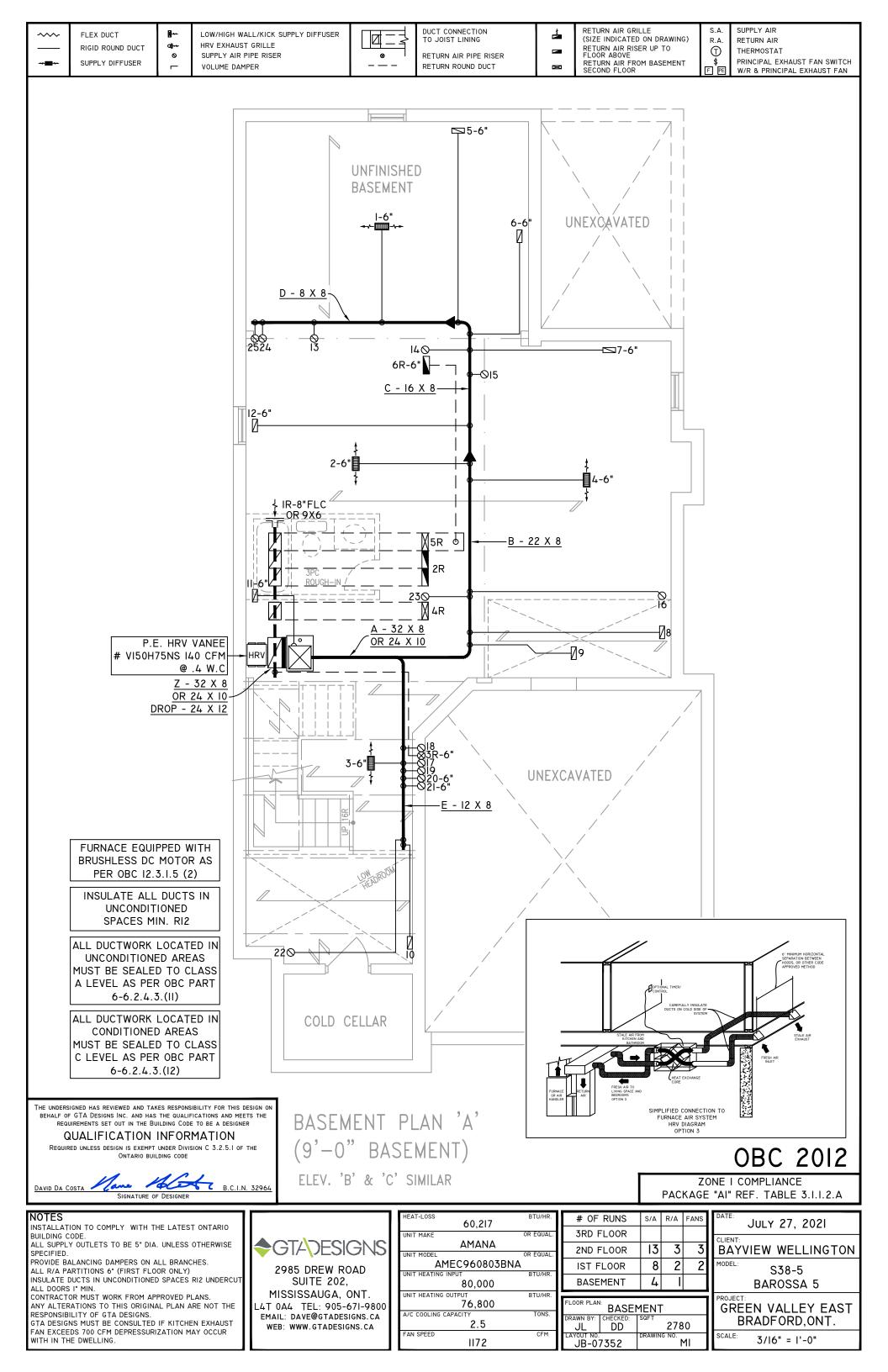
Supplemental tool for CAN/CSA-F280

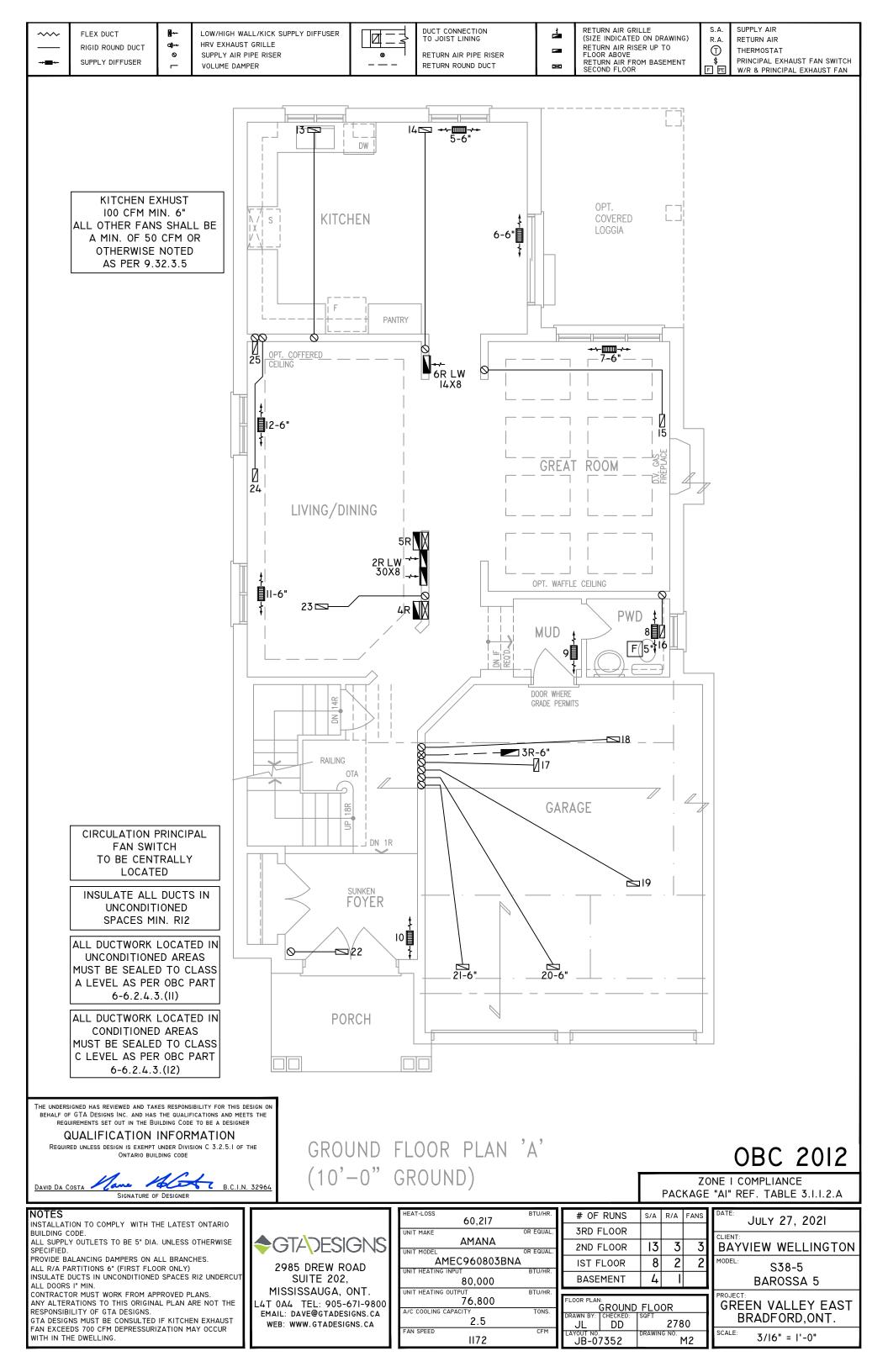
Weather Station	Description
Province:	Ontario
Region:	Bradford ▼
Weather Station Location:	Open flat terrain, grass
Anemometer height (m):	10
Local Shie	lding
Building Site:	Suburban, forest ▼
Walls:	Heavy ▼
Flue:	Heavy ▼
Highest Ceiling Height (m):	8.53
Building Confi	guration
Type:	Detached
Number of Stories:	Two
Foundation:	Shallow
House Volume (m³):	1013.01
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

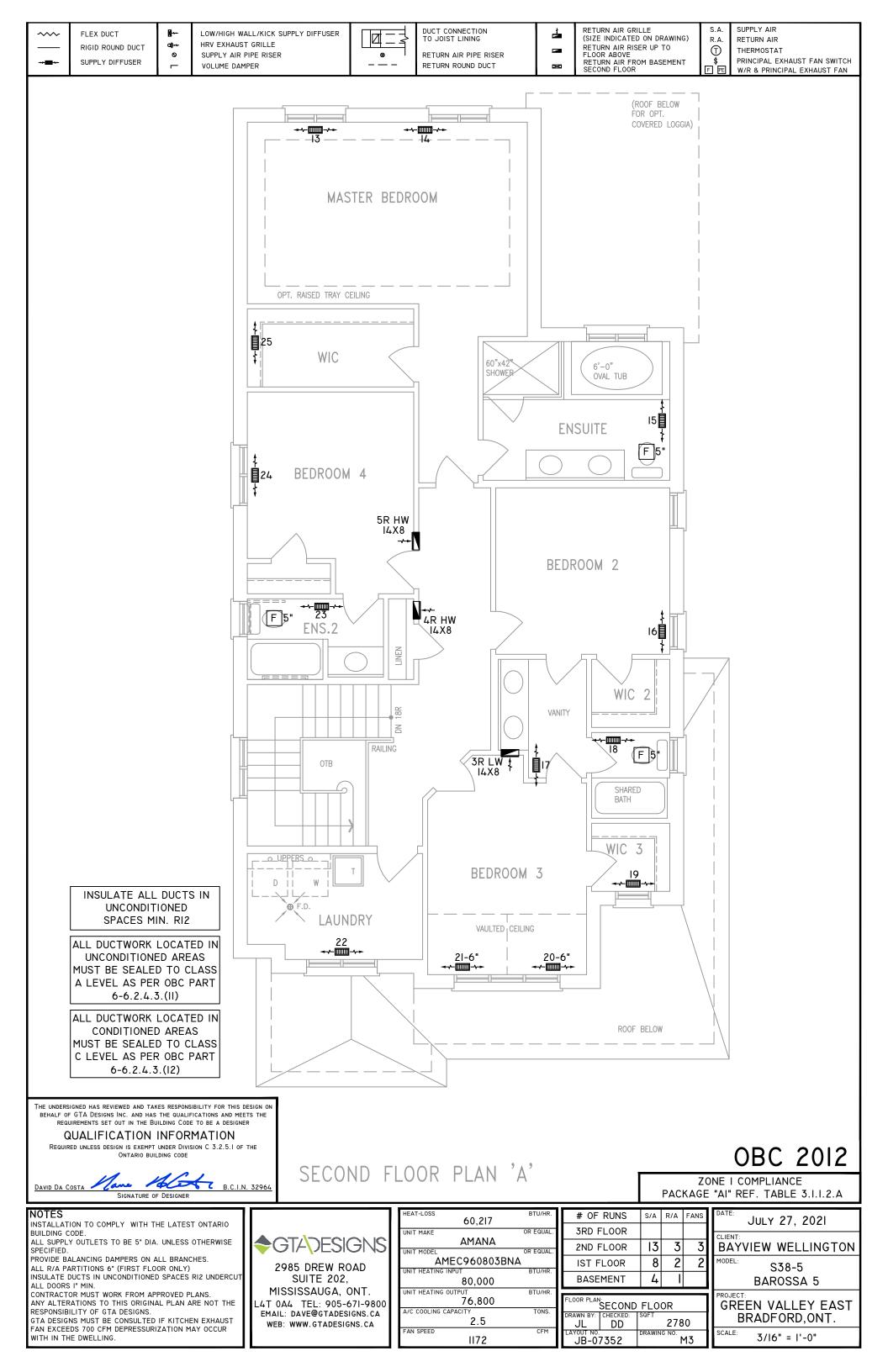
Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description							
Province:		Ontario					
Region:		Bradford ▼					
	Site Description						
Soil Conductivity:		High conductivity: moist soil ▼					
Water Table:		Normal (7-10 m, 23-33 Ft) ▼					
Fou	ındatio	on Dimensions					
Floor Length (m):	20.58						
Floor Width (m):	5.02						
Exposed Perimeter (m):	51.21						
Wall Height (m):	3.05						
Depth Below Grade (m):	1.22	Insulation Configuration					
Window Area (m²):	1.77						
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):		2426					







FLEX DUCT
RIGID ROUND DUCT
SUPPLY DIFFUSER

LOW/HIGH WALL/KICK SUPPLY DIFFUSER

HRV EXHAUST GRILLE
SUPPLY AIR PIPE RISER
VOLUME DAMPER

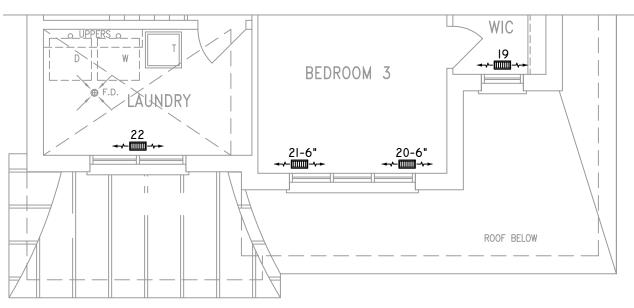


DUCT CONNECTION
TO JOIST LINING

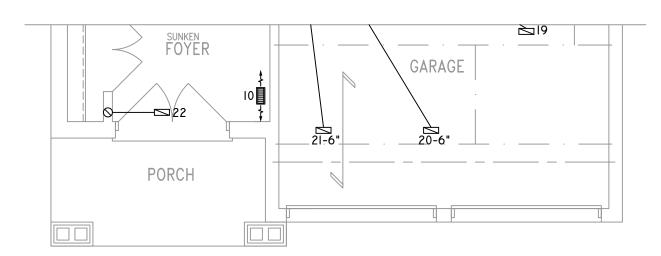
RETURN AIR PIPE RISER
RETURN ROUND DUCT

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

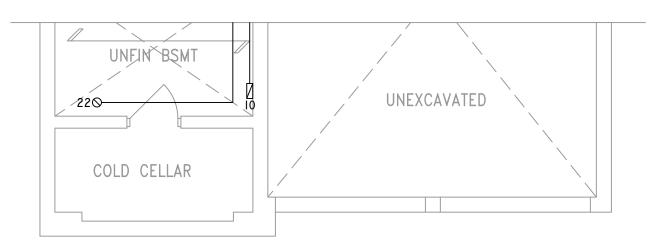
SUPPLY AIR
RETURN AIR
THERMOSTAT
PRINCIPAL EXHAUST FAN SWITCH
W/R & PRINCIPAL EXHAUST FAN



PART. SECOND FLOOR PLAN 'B'



PARTIAL GROUND FLOOR PLAN 'B' (10'-0" GROUND)



PART. BASEMENT PLAN 'B'

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 3.2.5.1 OF THE

ONTARIO BUILDING CODE

DAVID DA COSTA Mare 18.C.I.N. 32964

OBC 2012

JULY 27, 2021

3/16" = 1'-0"

ZONE I COMPLIANCE PACKAGE "AI" REF. TABLE 3.I.I.2.A

NOTES

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

SPECIFIED.

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.

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.



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

WEB: WWW.GTADESIGNS.CA

60 217	BTU/HR.
60,217	
UNIT MAKE	OR EQUAL.
AMANA	
UNIT MODEL	OR EQUAL.
AMEC960803BNA	
UNIT HEATING INPUT	BTU/HR.
80,000	
UNIT HEATING OUTPUT	BTU/HR.
76,800	
A/C COOLING CAPACITY	TONS.
2.5	
FAN SPEED	CFM
1172	

HEAT-LOSS

DATE:	FANS	R/A	S/A	# OF RUNS
OL IENT				3RD FLOOR
CLIENT	_			
BAY	3	3	13	2ND FLOOR
MODEL:	2	2	8	IST FLOOR
			-	
			4	BASEMENT
PROJEC				
FROJEC				FLOOR PLAN:
I GRI		J(S)	ΡΙΔΝ	ΡΔΡΤΙΔΙ Ι

DD

JB-07352

JL

2780

M4

BAYVIEW WELLINGTON
MODEL: S38-5
BAROSSA 5
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

8

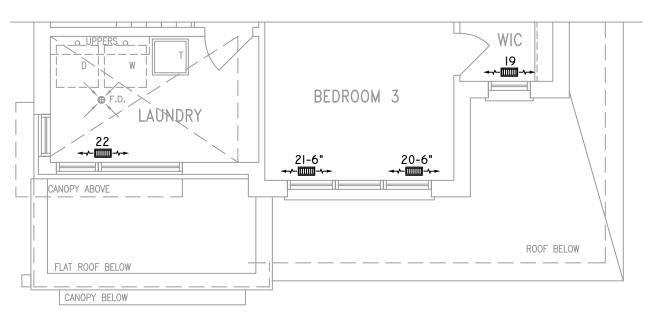
DUCT CONNECTION TO JOIST LINING RETURN AIR PIPE RISER RETURN ROUND DUCT

4

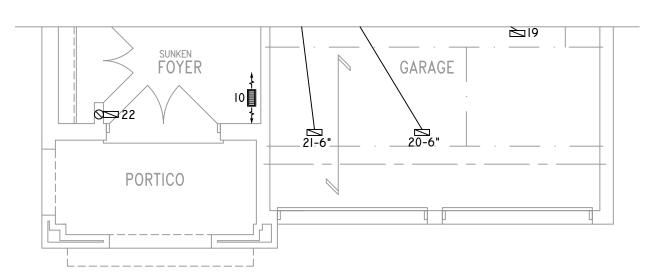
RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) RETURN AIR RISER UP TO FLOOR ABOVE RETURN AIR FROM BASEMENT SECOND FLOOR

R.A 1

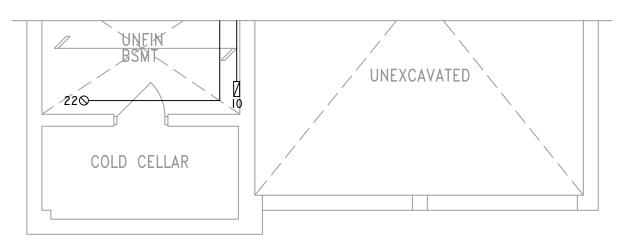
SUPPLY AIR RETURN AIR THERMOSTAT PRINCIPAL EXHAUST FAN SWITCH W/R & PRINCIPAL EXHAUST FAN



PART. SECOND FLOOR PLAN 'C'



PARTIAL GROUND FLOOR PLAN 'C' (10'-0" GROUND)



PART. BASEMENT PLAN 'C'

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

SIGNATURE OF DESIGNER

B.C.I.N. 32964

OBC 2012

ZONE I COMPLIANCE PACKAGE "AI" REF. TABLE 3.I.I.2.A

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 RIZ 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.



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

HEAT-LOSS	BTU/HR.
60,217	
UNIT MAKE	OR EQUAL.
AMANA	
UNIT MODEL	OR EQUAL.
AMEC960803BN	Д
UNIT HEATING INPUT	BTU/HR.
80,000	
UNIT HEATING OUTPUT	BTU/HR.
76,800	
A/C COOLING CAPACITY	TONS.
2.5	
FAN SPEED	CFM
1172	

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	3	3
IST FLOOR	8	2	2
BASEMENT	4		
FLOOR PLAN:			
PARTIAL PLAN(S)			
DBYMN BA: CHECKED: 1	SOFT		

DD

JB-07352

2780

DRAWING NO. M5

DATE:				
	JULY	27,	2021	
CLIENT:				
RAY	VIEW	WEI	LING	NOTE
ואט	V I L VV	**		J O 1
MODEL:				
	5	338-	5	
	_		-	
	BAF	ROSS	SΔ 5	
			,, o	
PROJECT	T:			
GRE	FN V	AL L	FY F	TON

BRADFORD, ONT. 3/16" = 1'-0"

FLEX DUCT RIGID ROUND DUCT SUPPLY DIFFUSER

LOW/HIGH WALL/KICK SUPPLY DIFFUSER HRV EXHAUST GRILLE **aj**↔ 0 SUPPLY AIR PIPE RISER **VOLUME DAMPER**

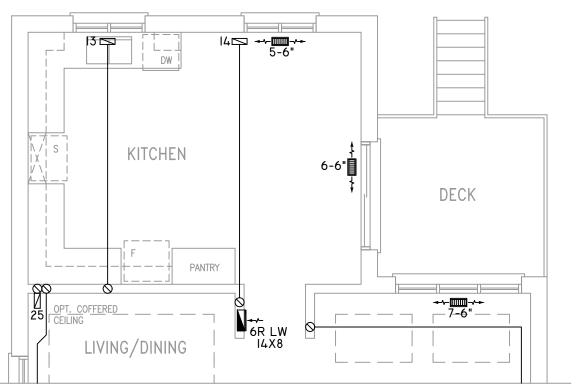


DUCT CONNECTION TO JOIST LINING RETURN AIR PIPE RISER RETURN ROUND DUCT

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

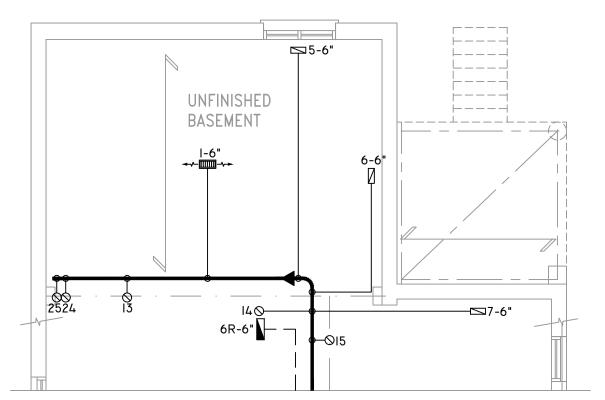
R.A. 1

SUPPLY AIR RETURN AIR THERMOSTAT PRINCIPAL EXHAUST FAN SWITCH



PART GRND FLOOR PLAN 'A' WOD CONDITION

ELEVS 'B' & 'C' SIMILAR



PART BSMT PLAN 'A' WOD 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 3.2.5.1 of the

ONTARIO BUILDING CODE

Ane 1866 B.C.I.N. 32964

OBC 2012

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

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

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HEAT-LOSS	BTU/HR.
60,217	
UNIT MAKE	OR EQUAL.
AMANA	
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UNIT HEATING INPUT	BTU/HR.
80,000	
UNIT HEATING OUTPUT	BTU/HR.
76,800	
A/C COOLING CAPACITY	TONS.
2.5	
FAN SPEED	CFM
1172	
·	

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	3	3
IST FLOOR	8	2	2
BASEMENT	4		
FLOOR PLAN: PARTIAL	ΡΙ ΛΝ	1(5)	
	SQFT	1(0)	

DD

JB-07352

2780

DRAWING NO. M6

CLIENT: BAYVIEW WELLINGTON
S38-5 BAROSSA 5
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.

3/16" = 1'-0"

JULY 27, 2021