

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	Lot:	145		
\$38-3 Lo	ot 145		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 Se	ervices		☐ Plumbing – House	
☐ Large Buildings ☐ Detection,	Lighting and Po	wer	☐ Plumbing – All Buildings	
☐ Complex Buildings ☐ Fire Protect	ction		☐ On-site Sewage Systems	s
Description of designer's work Mod	del Certification		Project #:	PJ-00041
Heating and Cooling Load Calculations Main	X	Builder	Layout #:	JB-07268
Heating and Cooling Load Calculations Main Air System Design Alternate	^	Project	Bayview Wellington Green Valley East	
Residential mechanical ventilation Design Summary Area Sq ft:	2522		Barossa 3	
Residential System Design per CAN/CSA-F280-12		Model	S38-3 Lot 145	
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 a 3.2.4 Division C of the Building Cocclasses/categories.				
Individual BCIN:				
Firm BCIN:				
☑ I review and take responsibility for "other designer" under subsection	•	•	. 0,	
Individual BCIN:	3296	64		
Basis for exemp	tion from registr	ation:	Division C 3.2.4.1. (4)	
☐ The design work is exempt from the	e registration an	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.			
June 25, 2021		Mane So	<u></u>	
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

Page 2

Style B: Style B: Style C: Style C: Style C: Style D: Style A: As per Selected OBC SB12 Package A1 R 66 Style B: Styl	Heat loss and gain calcul	ation summary sheet CSA-F280-M12 Standard
Building Location	These documents issued for the use of Br	
Address (Model) S38-3 Lot 145	and may not be used by any other persons without authorization. Documents	for permit and/or construction are signed in red. JB-07268
Address (Model): S38-3 Lot 145 Site: Green Valley East	Building	Location
City and Province: Bradford		
Calculations Dimensional information based on: VA3 Design11/May/2012 Attachment: Detached Front facing: East/West Assumed? Yes No. of Levels: 3 Ventilated? Included Art tightness: 1961-Present (ACH=3.57) Assumed? Yes No. of Levels: 3 Ventilated? Included Art tightness: 1961-Present (ACH=3.57) Assumed? Yes Weather location: Bradford Wind exposure: Sheltered HRV? VanEE 65H HRV Internal shading: Light-translucent Occupants: 5 Sensible Eff. at -0C 75% Internal shading: Light-translucent Occupants: 5 Sensible Eff. at -0C 75% Internal shading: Light-translucent Occupants: 5 Sensible Eff. at -0C 75% Internal shading: Light-translucent Occupants: 5 Sensible Eff. at -0C 75% Internal shading: Light-translucent Occupants: 5 Sensible Eff. at -0C 75% Internal shading: Light-translucent Occupants: 5 Sensible Eff. at -0C 75% Internal shading: Light-translucent Occupants: 5 Sensible Eff. at -0C 75% Internal shading: Light-translucent Occupants: 5 Sensible Eff. at -0C 75% Internal shading: Light-translucent Occupants: 5 Sensible Eff. at -0C 75% Internal shading: Light-translucent Occupants: 5 Sensible Eff. at -0C Sensib	Model: Barossa 3	Lot: 145
Dimensional information based on: VA3 Design11/May/2012 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 65H HRV Internal shading: Light-translucent Occupants: 5 Sensible Eff. at -25C 60% Apparent Effect. at -0C 83% Units: Imperial Area Sq ft: 2522 Sensible Eff. at -0C 75%	City and Province: Bradford	Postal code:
Attachment: Detached Front facing: East/West Assumed? Yes	Calculation	s based on
No. of Levels: 3 Ventilated? Included Air tightness: 1961-Present (ACH=3.57) Assumed? Yes	Dimensional information based on:	VA3 Design11/May/2012
Wind exposure: Sheltered Wind exposure: Sheltered HRV? VanEE 65H HRV Internal shading: Light-translucent Occupants: 5	Attachment: Detached	Front facing: East/West Assumed? Yes
HRV? VanEE 65H HRV Internal shading: Light-translucent Occupants: 5	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 65H HRV	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: 2522
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 B: Style C: Style C: Style C: Style D: Style A: As per Selected OBC SB12 Package A1 R 66 Style B: Style B: Style B: Style C: Style A: As per Selected OBC SB12 Package A1 R 3.00 Style B:	Above grade walls	Below grade walls
Style C: Style D: Style D: Style D: Style A: As per Selected OBC SB12 Package A1 Style B: Style B: Style B: Style C: Style B: Style B: As per Selected OBC SB12 Package A1 R 31 Style A: As per Selected OBC SB12 Package A1 R 31 Style B: Style B: Style B: Style A: As per Selected OBC SB12 Package A1 R 31 Doors Style B: Style B: Style A: As per Selected OBC SB12 Package A1 R 4.06 Style B: St	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 A: As per Selected OBC SB12 Package A1 R 60 Style B: Style B: As per Selected OBC SB12 Package A1 R 30 Style A: As per Selected OBC SB12 Package A1 R 30 Style B: Style A: As per Selected OBC SB12 Package A1 R 30 Doors Style B: Style A: As per Selected OBC SB12 Package A1 R 4.00 Style B: Style A: As per Selected OBC SB12 Package A1 R 4.00 Style B: Style A: As per Selected OBC SB12 Package A1 R 4.00 Style B: Style A: As per Selected OBC SB12 Package A1 R 2.00 Style B: Style A: As per Selected OBC SB12 Package A1 R 2.00 Style B:	Style B:	Style B:
Floors on soil Style A: As per Selected OBC SB12 Package A1 Style A: As per Selected OBC SB12 Package A1 R 66 Style B: Style B: As per Selected OBC SB12 Package A1 R 33 Exposed floors 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 4.00 Windows Style B: Style B: Skylights Style B: Skylights Style B: Skylights Style C: Style A: As per Selected OBC SB12 Package A1 R 2.00 Style B: Skylights Style C: Style B: Style B: As per Selected OBC SB12 Package A1 R 2.00 Style B: Style B: As per Selected OBC SB12 Package A1 R 2.00 Style D: Style B: As per Selected OBC SB12 Package A1 R 2.00 Style B: Style B: As per Selected OBC SB12 Package A1 R 2.00 Style B: Style B: As per Selected OBC SB12 Package A1 R 2.00 Style B: Style B: As per Selected OBC SB12 Package A1 R 2.00 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:	Style C:	Style C:
Style A: As per Selected OBC SB12 Package A1 Style A: As per Selected OBC SB12 Package A1 R 66 Style B: Style B: As per Selected OBC SB12 Package A1 R 33 Exposed floors 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 4.06 Windows Style B: Style B: Skylights Style B: Skylights Style B: Skylights Style C: Style B: S	Style D:	Style D:
Style B: Style B: As per Selected OBC SB12 Package A1 R 3: 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 3.5 Style B: Style C: Style B: Style C: Style B: Style B: Style C: Style B: Style	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 4.06 Windows Style B: Style B: Style B: Skylights Style A: As per Selected OBC SB12 Package A1 R 3.55 Style C: Style B: Skylights Style C: Style A: As per Selected OBC SB12 Package A1 R 2.03 Style B: Style B: Style B: As per Selected OBC SB12 Package A1 R 2.03 Style B: 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 Address: 2985 Drew Road, Suite 202 Fax:	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 4.00 Windows Style B: Style A: As per Selected OBC SB12 Package A1 R 3.55 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:	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 4.00 Windows Style B: Style A: As per Selected OBC SB12 Package A1 R 3.55 Style C: Style B: Style B: Style A: As per Selected OBC SB12 Package A1 R 3.55 Style C: Style B: Style A: As per Selected OBC SB12 Package A1 R 2.00 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. Address: 2985 Drew Road, Suite 202 Fax:	Exposed floors	Style C:
Windows Style B: Style A: As per Selected OBC SB12 Package A1 R 3.55 Style C: Style B:	Style A: As per Selected OBC SB12 Package A1 R 3	Doors
Style A: As per Selected OBC SB12 Package A1 R 3.55 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:	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. Address: 2985 Drew Road, Suite 202 Fax:	Windows	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. Address: 2985 Drew Road, Suite 202 Fax:	Style A: As per Selected OBC SB12 Package A1 R 3.5	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 Address: 2985 Drew Road, Suite 202 Fax:	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 Address: 2985 Drew Road, Suite 202 Fax:	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 Address: 2985 Drew Road, Suite 202 Fax:	Style D:	Style B:
Calculations performed by Name: David DaCosta Postal code: L4T 0A4 Company: gtaDesigns Inc. Telephone: (905) 671-9800 Address: 2985 Drew Road, Suite 202 Fax:	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 Address: 2985 Drew Road, Suite 202 Fax:	Notes: Residential New	Construction - Forced Air
Company: gtaDesigns Inc. Telephone: (905) 671-9800 Address: 2985 Drew Road, Suite 202 Fax:	Calculations	performed by
Address: 2985 Drew Road, Suite 202 Fax:	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	City: Mississauga	E-mail hvac@gtadesigns.ca



Builder:

Trunk

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Bayview Wellington

Air System Design

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

SB-12 Package A1 June 25, 2021 Date:

System 1

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

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Barossa 3 Project # PJ-00041 **Building Code.** Mane Alex **Green Valley East** S38-3 Lot 145 Individual BCIN: 32964 David DaCosta Lavout # JB-07268 Project: Model: BOILER/WATER HEATER DATA: DESIGN LOAD SPECIFICATIONS AIR DISTRIBUTION & PRESSURE FURNACE/AIR HANDLER DATA: A/C UNIT DATA: Level 1 Net Load 21,843 btu/h **Equipment External Static Pressure** 0.5 "w.c. Make Make 3.0 Ton Amana Туре Amana AMEC960803BNA Level 2 Net Load 18,239 btu/h **Additional Equipment Pressure Drop** 0.225 "w.c. Model Model Cond.-3.0 Level 3 Net Load 18.046 btu/h **Available Design Pressure** 0.275 "w.c. Input Btu/h 80000 Input Btu/h Coil -3.0 Return Branch Longest Effective Length 76800 Level 4 Net Load 0 btu/h 300 ft Output Btu/h Output Btu/h 58.129 btu/h 0.50 " W C ΔWH 0.138 "w.c. Min.Output Btu/h Total Heat Loss R/A Plenum Pressure E.s.p. Blower DATA: **Total Heat Gain** 30,117 btu/h S/A Plenum Pressure 0.14 "w.c. deg. F. W2 Heating Air Flow Proportioning Factor 0.0202 cfm/btuh AFUE Blower Speed Selected: ECM 96% **Blower Type Building Volume Vb** 32090 ft³ Cooling Air Flow Proportioning Factor 0.0389 cfm/btuh (Brushless DC OBC 12.3.1.5.(2)) Aux. Heat Ventilation Load 1.188 Btuh. SB-12 Package Package A1 Heating Check 1172 cfm 1172 cfm R/A Temp 70 dea. F. 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** 1172 cfm 0.01 "w.c. Temp. Rise>>> 61 deg. F. Selected cfm> Level 1 Level 2 S/A Outlet No 2 5 10 11 Room Use BASE BASE BASE BASE KIT KIT GRT LAUND FOY DIN Btu/Outlet 4369 4369 4369 4369 4369 2012 2012 3586 2362 4265 4002 **Heating Airflow Rate CFM** 88 88 88 88 88 41 41 72 48 86 81 32 32 32 32 32 108 108 105 42 103 Cooling Airflow Rate CFM 101 **Duct Design Pressure** 0.13 **Actual Duct Length** 53 40 24 29 20 34 31 46 24 27 Equivalent Length 110 140 90 70 130 70 70 70 70 70 70 70 70 70 80 130 120 170 120 130 70 70 70 70 70 70 70 70 Total Effective Length 163 180 114 99 150 70 70 70 70 70 70 70 70 114 161 166 194 147 136 70 70 70 70 70 70 70 70 70 Adjusted Pressure 0.08 0.07 0.11 0.13 0.09 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.11 0.08 0.08 0.07 0.09 0.10 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19 **Duct Size Round** 5 **Outlet Size** 4x10 4x10 4x10 4x10 4x10 4x10 4x10 3x10 4x10 Trunk С В Level 3 Level 4 S/A Outlet No. 12 13 15 20 21 14 16 17 18 19 Room Use MAST MAST RFD 2 RATH BFD 3 BFD 3 LOFT RFD 4 FNS 2 FNS Btu/Outlet 1709 1709 1757 1681 1759 1759 3874 1375 640 1784 **Heating Airflow Rate CFM** 34 34 35 34 35 35 78 28 13 36 49 49 28 49 Cooling Airflow Rate CFM 34 49 100 40 13 32 **Duct Design Pressure** 0.13 49 42 **Actual Duct Length** 62 41 37 34 30 **Equivalent Length** 150 140 180 160 140 130 120 150 120 140 70 70 70 70 70 70 70 70 70 70 70 70 70 70 70 70 70 70 157 199 202 234 201 182 168 184 170 70 70 70 70 70 70 70 70 70 70 70 70 70 70 70 Total Effective Length 144 70 70 70 Adjusted Pressure 0.07 0.06 0.06 0.06 0.07 0.08 0.08 0.07 0.09 0.08 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 0.19 0.19 **Duct Size Round** 5 5 6 5 Outlet Size 3x10 3x10 3x10 3x10 3x10 3x10 4x10 3x10 3x10 3x10 4x10 Trunk R C C 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 220 387 160 105 150 150 **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 767 14.0 22x8 18x10 Drop 0.06 55 25 21 35 1172 0.05 17.0 R 303 11.0 **Actual Duct Length** 34 41 Z 26v10 22x12 0.06 14v8 10v10 **Equivalent Length** 110 165 150 105 200 140 50 50 50 50 50 Υ 1067 0.05 16.5 32x8 24x10 С 405 0.06 11.0 14x8 10x10 **Total Effective Length** 135 186 184 140 255 181 50 50 50 50 50 х 380 0.06 11.0 10x10 14x8 Adjusted Pressure 0.09 0.06 0.06 0.08 0.05 0.06 0.24 0.24 0.24 0.24 0.24 w **Duct Size Round** 8.0 8.0 6.0 8.0 8.0 11.0 FLC Inlet Size U G т Inlet Size 9X6 30 14 14 14 s

Q



58,129 btu/h

30,117 btu/h

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

	Builder:	Bayview Well	lington	1	Date:		June 25, 2	2021				Wea	ther Data	Bradford	44	-9.4 86 22	2 48.2			Page 4
2012 OBC	Project:	Green Valley	v East		odel:		Barossa S38-3 Lot	1 3 145			System 1	He	at Loss ^T	81.4 deg. F	Ht gain ^T	11 deg. F	GTA:	2522	Project # Layout #	PJ-00041 JB-07268
				_														-		
Level 1			BAS	Ε																
Run ft. exposed wall A			114 A		Α		Α		Α		Α	Α		Α	Α	Α		Α	4	
Run ft. exposed wall B			40 B		В		В		В		В	В		В	В	В		В		3
Ceiling height			7.0 AG		7.0 AG		7.0 AG		7.0 AG		7.0 AG	7.0 AG		7.0 AG	7.0 AG	7.0 A		7.0 AG	7.0	
Floor area			881 Area		Area	1	Area		Area		Area	Area		Area	Area		rea	Area		Area
Exposed Ceilings A			A		A		A		A		A	A		A	A	A		A	4	
Exposed Ceilings B			В.		В		В		В		В	В		В	В	В		В		
Exposed Floors			Fir		Flr		Flr		Fir		Flr	Flr		Fir	Flr	FI	r	Flr		-Ir
Gross Exp Wall A			798																	
Gross Exp Wall B	D Values I	ooo Coin	400	Coin	Lea	Coin	1 000	Cain	1 000	Cain	Lana Cain	Lann	Coin	Laca Cain	1 000	Coin L	ooo Coin	1 000	Cain	ann Cain
Components North Shaded	3.55	oss Gain 22.93 11.62		Gain	Los	s Gain	Loss	Gain	Loss	Gain	Loss Gain	Loss	Gain	Loss Gain	Loss	Gain Lo	oss Gain	Loss	Gain I	oss Gain
East/West	3.55	22.93 29.56																		
South	3.55	22.93 22.50		8 135																
WOB Windows	3.55	22.93 27.86																		
Skylight	2.03	40.10 88.23	70 174	3 2117																
Doors	4.00	20.35 2.75	21 42	7 58																
Net exposed walls A	21.12	3.85 0.52		402																
Net exposed walls B	17.03	4.78 0.65																		
Exposed Ceilings A	59.22	1.37 0.64		203																
Exposed Ceilings B	27.65	2.94 1.37																		
Exposed Floors	29.80	2.73 0.17																		
Foundation Conductive Heatloss			769	1																
Hoat Lose			1154																	
Total Conductive Heat Gain				2921																
Air Leakage Heat Loss/Gain		0.8592 0.0409	992																	
Case 1		0.05 0.06																		
Ventilation Case 2		14.95 11.88																		
Case 3	х	0.03 0.06		4 171																
Heat Gain People		239																		
Appliances Loads	1 =.25 pe	rcent 4056																		
Duct and Pipe loss		10%																		
Level HL Total 21,843	Tot	al HL for per room	2184	3																
Level HG Total 4,175	Total I	HG per room x 1.3		4175											<u> </u>					
·																				
Lavel 2					_				501		5.01									
Level 2			КП			RT	LAUN	ID	FOY		DIN	_								
Run ft. exposed wall A			31 A		33 A		18 A		26 A		44 A	A		Α	Α	A		Α	4	
Run ft. exposed wall B									В			В								
			В		В		В				В			В	В	В		В		3
Ceiling height			10.0		10.0		12.0		11.0		0.0	10.0		10.0	10.0	10.0		10.0	10.0	
Floor area			10.0 226 Area		10.0 225 Area	1	12.0 69 Area		11.0 79 Area).0 24 Area	10.0 Area		10.0 Area	10.0 Area	10.0 Aı	rea	10.0 Area	10.0	Area
Floor area Exposed Ceilings A			10.0 226 Area A		10.0 225 Area A	1	12.0 69 Area A		11.0 79 Area A).0 24 Area A	10.0 Area A		10.0 Area A	10.0 Area A	10.0 Ai A	rea	10.0 Area A	10.0	Area A
Floor area Exposed Ceilings A Exposed Ceilings B			10.0 226 Area A B		10.0 225 Area A B	i	12.0 69 Area A B		11.0 79 Area A B		0.0 24 Area A B	10.0 Area A B		10.0 Area A B	10.0 Area A B	10.0 Ai A B	rea	10.0 Area A B	10.0 , ,	Area A 3
Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors			10.0 226 Area A B Fir		10.0 225 Area A B Fir	1	12.0 69 Area A B FIr		11.0 79 Area A B Fir	4).0 24 Area A B Fir	10.0 Area A		10.0 Area A	10.0 Area A	10.0 Ai A	rea	10.0 Area A	10.0 , ,	Area A
Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall A			10.0 226 Area A B		10.0 225 Area A B	1	12.0 69 Area A B		11.0 79 Area A B	4	0.0 24 Area A B	10.0 Area A B		10.0 Area A B	10.0 Area A B	10.0 Ai A B	rea	10.0 Area A B	10.0 , ,	Area A 3
Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B	D.Vl I	losis l	10.0 226 Area A B Fir 310	Onio	10.0 225 Area A B Fir 330		12.0 69 Area A B Flr 216		11.0 79 Area A B Fir 286	4	0.0 24 Area A B Fir	10.0 Area A B Fir		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components			10.0 226 Area A B Fir 310	Gain	10.0 225 Area A B Fir		12.0 69 Area A B Flr 216	Gain	11.0 79 Area A B Fir 286	4).0 24 Area A B Fir	10.0 Area A B Fir	Gain	10.0 Area A B	10.0 Area A B	10.0 Ar A B Fi	rea	10.0 Area A B	10.0 , , , ,	Area A 3
Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded	3.55	22.93 11.62	10.0 226 Area A B Fir 310		10.0 225 Area A B Fir 330	s Gain	12.0 69 Area A B Flr 216	Gain	11.0 79 Area A B Fir 286	4 Gain	0.0 24 Area A B Fir	10.0 Area A B Fir		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded EastWest	3.55 3.55	22.93 11.62 22.93 29.56	10.0 226 Area A B FIr 310 Loss		10.0 225 Area A B Fir 330		12.0 69 Area A B Flr 216	Gain	11.0 79 Area A B Fir 286 Loss	4 Gain	D.0 24 Area A B Fir 40 Loss Gain	10.0 Area A B Fir		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall B Components North Shaded East/West	3.55 3.55 3.55	22.93 11.62 22.93 29.56 22.93 22.50	10.0 226 Area A B Flr 310 Loss		10.0 225 Area A B Fir 330	s Gain	12.0 69 Area A B Flr 216	Gain	11.0 79 Area A B Fir 286	4 Gain	0.0 24 Area A B Fir	10.0 Area A B Fir		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded EastWest South	3.55 3.55 3.55 1.99	22.93 11.62 22.93 29.56 22.93 22.50 40.90 23.66	10.0 226 Area A B Flr 310 Loss		10.0 225 Area A B Fir 330	s Gain	12.0 69 Area A B Flr 216	Gain	11.0 79 Area A B Fir 286 Loss	4 Gain	D.0 24 Area A B Fir 40 Loss Gain	10.0 Area A B Fir		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded EastWest South Existing Windows Skylight	3.55 3.55 3.55 1.99 2.03	22.93 11.62 22.93 29.56 22.93 22.50 40.90 23.66 40.10 88.23	10.0 226 Area A B Fir 310 Loss		10.0 225 Area A B Fir 330	s Gain	12.0 69 Area A B Fir 216 Loss	Gain 9 116	11.0 79 Area A B Fir 286 Loss 43 986 17 390	Gain 1271 383	D.0 24 Area A B Fir 40 Loss Gain	10.0 Area A B Fir		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area Exposed Cellings A Exposed Cellings B Exposed Floors Gross Exp Wall B Components North Shaded EastWest South Existing Windows Skylight Doors	3.55 3.55 3.55 1.99 2.03 4.00	22.93 11.62 22.93 29.56 22.93 22.50 40.90 23.66 40.10 88.23 20.35 2.75	10.0 226 Area A B Flr 310 Loss	5 1862	10.0 225 Area A B Fir 330 Loss	s Gain 963 1241	12.0 69 Area A B Fir 216 Loss 10 229	Gain 116 116 177 178 178 178 178 178 178 178 178 178	11.0 79 Area A B Fir 286 Loss 43 986 17 390	Gain 1271 383	0.0 24 Area A B Fir 40 Loss Gain 28 642 6	Area A B Fir Loss		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors Net exposed walls A	3.55 3.55 3.55 1.99 2.03 4.00 17.03	22.93 11.62 22.93 29.56 22.93 22.50 40.90 23.66 40.10 88.23 20.35 2.75 4.78 0.65	10.0 226 Area A B Flr 310 Loss 63 144	5 1862	10.0 225 Area A B Fir 330 Loss	s Gain	12.0 69 Area A B Fir 216 Loss 10 229	Gain 116 116 177 178 178 178 178 178 178 178 178 178	11.0 79 Area A B Fir 286 Loss 43 986 17 390	Gain 1271 383	D.0 24 Area A B Fir 40 Loss Gain	Area A B Fir Loss		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded EastWest South Existing Windows Skylight Doors Net exposed walls A Net exposed walls A	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50	22.93 11.62 22.93 29.56 22.93 22.50 40.90 23.66 40.10 28.23 20.35 2.75 4.78 0.65 9.58 1.29	10.0 226 Area A B Fir 310 Loss 63 144	5 1862	10.0 225 Area A B Fir 330 Loss	s Gain 963 1241	12.0 69 Area A B Fir 216 Loss 10 229	Gain 116 116 177 178 178 178 178 178 178 178 178 178	11.0 79 Area A B Fir 286 Loss 43 986 17 390	Gain 1271 383	0.0 24 Area A B Fir 40 Loss Gain 28 642 6	Area A B Fir Loss		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall B Components North Shaded EastWest South Existing Windows Skjiight Doors Net exposed walls A Net exposed walls B Exposed Ceilings A	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22	22.93 11.62 22.93 29.56 22.93 22.50 40.90 23.66 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64	10.0 226 Area A B Fir 310 Loss 63 144	5 1862	10.0 225 Area A B Fir 330 Loss	s Gain 963 1241	12.0 69 Area A B Fir 216 Loss 10 229	Gain 116 116 177 178 178 178 178 178 178 178 178 178	11.0 79 Area A B Fir 286 Loss 43 986 17 390	Gain 1271 383	0.0 24 Area A B Fir 40 Loss Gain 28 642 6	Area A B Fir Loss		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors Net exposed walls A Net exposed ceilings A Exposed Ceilings A Exposed Ceilings A	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65	22.93 11.62 22.93 29.56 22.93 22.50 40.90 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 2.94 1.37	10.0 226 Area A B Fir 310 Loss 63 1444	5 1862	10.0 225 Area A B Fir 330 Loss	s Gain 963 1241	12.0 69 Area A B Fir 216 Loss 10 229	Gain 116 116 177 178 178 178 178 178 178 178 178 178	11.0 79 Area A B Fir 286 Loss 43 986 17 390 21 427	Gain 1271 383	0.0 24 Area A B Fir 40 Loss Gain 28 642 6	Area A B Fir Loss		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall B Components North Shaded EastWest South Existing Windows Skylight Doors Net exposed walls A Net exposed walls A Exposed Ceilings B Exposed Ceilings B Exposed Floors	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22	22.93 11.62 22.93 29.56 40.90 23.66 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 2.94 1.37 2.73 0.17	10.0 226 Area A B Fir 310 Loss 63 1444	5 1862	10.0 225 Area A B Fir 330 Loss	s Gain 963 1241	12.0 69 Area A B Fir 216 Loss 10 229	Gain 116 116 177 178 178 178 178 178 178 178 178 178	11.0 79 Area A B Fir 286 Loss 43 986 17 390 21 427	Gain 1271 383	0.0 24 Area A B Fir 40 Loss Gain 28 642 6	Area A B Fir Loss		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall B Components North Shaded EastWest South Existing Windows Skylight Doors Net exposed Walls A Net exposed walls B Exposed Ceilings A Exposed Ceilings A Exposed Floors Foundation Conductive Heatloss	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65	22.93 11.62 22.93 29.56 22.93 22.50 40.90 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 2.94 1.37	10.0 226 Area A B Fir 310 Loss 63 144 247 118	5 1862 1 160	10.0 225 Area A B Fir 330 Los:	s Gain 1241 377 186	12.0 69 Area A B Fir 216 Loss 10 22: 42: 185 884	Gain 3 116 7 58 4 119	11.0 79 Area A B Flr 286 Loss 43 986 17 390 21 427 205 980	Gain 1271 383	0.0 24 Area A B F F F H 40 Loss Gain 28 642 6 6 12 1969 2	Area A B Fir Loss		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors Net exposed walls A Net exposed walls A Exposed Ceilings A Exposed Toors Foundation Conductive Heat Loss Total Conductive	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65	22.93 11.62 22.93 29.56 40.90 23.66 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 2.94 1.37 2.73 0.17	10.0 226 Area A B Fir 310 Loss 63 1444	5 1862 1 160	10.0 225 Area A B Fir 330 Los:	s Gain 963 1241 377 186	12.0 69 Area A B Fir 216 Loss 10 229	Gain 9 116 7 58 4 119	11.0 79 Area A B Fir 286 Loss 43 986 17 390 21 427	Gain 1271 383 58 132 4	0.0 24 Area A B Fir 40 Loss Gain 28 642 6	10.0 Area A B Fir Loss		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65	22.93 11.62 22.93 29.56 22.93 29.56 40.90 23.66 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 2.94 1.37 2.73 0.17	10.0 226 Area A B Fir 310 Loss 63 144 247 118	5 1862 1 160 5 2022	10.0 225 Area A B Fir 330 Loss 42 5	s Gain 1241 186 1427	12.0 69 Area A B Fir 216 10 228 21 422 185 884	Gain 116 7 58 1 119	11.0 79 Area A B Fir 286 Loss 43 986 17 390 21 427 205 980	Gain 1271 383 58 132 4	0.0 224 Area A B Fir 40 Loss Gain 12 1969 2 2611 8	10.0 Area A B Fir Loss		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors Net exposed walls A Net exposed valls A Exposed Ceilings B Exposed Ceilings B Exposed Floors Foundation Conductive Heat Loss Total Conductive Heat Loss Heat Gain Air Leakage Heat Loss/Gain	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65	22.93 11.62 22.93 29.56 40.90 23.66 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 2.94 1.37 2.73 0.17	10.0 226 Area A B Fir 310 Loss 63 144 247 118	5 1862 1 160 5 2022	10.0 225 Area A B Fir 330 Loss 42 5	s Gain 963 1241 377 186	12.0 69 Area A B Fir 216 Loss 10 22: 42: 185 884	Gain 116 7 58 1 119	11.0 79 Area A B Flr 286 Loss 43 986 17 390 21 427 205 980	Gain 1271 383 58 132 4	0.0 24 Area A B Fir 40 Loss Gain 12 1969 2 2611 8	10.0 Area A B Fir Loss		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall B Components North Shaded EastWest South Existing Windows Skylight Doors Net exposed walls A Net exposed Walls A Exposed Ceilings B Exposed Ceilings B Exposed Ceilings A Total Conductive Heatloss Total Conductive Heat Coss Heat Cain Air Leakage Heat Loss/Gain Air Leakage Leilings A Leakage Heat Loss/Gain Air Leakage Leilings A Leakage Leakag	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65	22.93 11.62 22.93 29.56 40.90 23.66 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 2.94 1.37 2.73 0.17 x 0.5003 0.0409 0.03 0.06	10.0 226 Area A B Fir 310 Loss 63 144 247 118	5 1862 1 160 5 2022	10.0 225 Area A B Fir 330 Loss 42 5	s Gain 1241 186 1427	12.0 69 Area A B Fir 216 10 228 21 422 185 884	Gain 116 7 58 1 119	11.0 79 Area A B Fir 286 Loss 43 986 17 390 21 427 205 980	Gain 1271 383 58 132 4	0.0 224 Area A B Fir 40 Loss Gain 12 1969 2 2611 8	10.0 Area A B Fir Loss		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65 29.80	22.93 11.62 22.93 22.50 40.90 23.66 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 2.94 1.37 2.73 0.17 x 0.5003 0.0409 0.03 0.064 14.95 11.88	10.0 226 Area A B Fir 310 Loss 63 144 247 118	5 1862 1 160 5 2022 3 83	10.0 225 Area A B Fir 330 Loss 42 288 1:	s Gain 1241 377 186 340 1427 170 58	12.0 69 Area A B Fir 216 10 228 21 427 185 884	Gain 3 116 7 58 4 119 1 293 1 12	11.0 79 Area A B Flr 286 Loss 17 390 21 427 205 980 2783 1392	Gain 1271 383 58 132 4	0.0 24 Area A B FIr 40 Loss Gain 28 642 6 6 12 1969 2 2 611 8 1306	10.0 Area A B Fir Loss		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65	22.93 11.62 22.93 29.56 22.93 29.56 40.90 23.66 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 2.94 1.37 2.73 0.17 x 0.5003 0.0409 0.03 0.06 14.95 11.88 0.03 0.06	10.0 226 Area A B Fir 310 Loss 63 144 247 118	5 1862 1 160 5 2022 3 83	10.0 225 Area A B Fir 330 Loss 42 288 1:	s Gain 1241 186 1427	12.0 69 Area A B Fir 216 10 228 21 422 185 884	Gain 3 116 7 58 4 119 1 293 1 12	11.0 79 Area A B Fir 286 Loss 43 986 17 390 21 427 205 980	Gain 1271 383 58 132 4	0.0 24 Area A B FIr 40 Loss Gain 28 642 6 6 12 1969 2 2 611 8 1306	10.0 Area A B Fir Loss		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65 29.80	22.93 11.62 22.93 29.56 40.90 23.66 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 2.94 1.37 2.73 0.17 x 0.5003 0.0409 0.03 0.06 14.95 11.88 0.03 0.06 239	10.0 226 Area A B Fir 310 Loss 63 144 247 118	5 1862 1 160 5 2022 3 83 5 119	10.0 225 Area A B Fir 330 Los: 42 9 288 1:	S Gain 1241 377 186 340 1427 170 58 76 84	12.0 69 Area A B Fir 216 Loss 10 221 421 185 884 154' 774	Gain 116 7 58 4 119 1 293 1 12	11.0 79 Area A B Flr 286 Loss 17 390 21 427 205 980 2783 1392	Gain 1271 383 58 132 4 1844 75	0.0	10.0 Area A B Fir Loss		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65 29.80	22.93 11.62 22.93 29.56 22.93 29.56 40.90 23.66 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 2.94 1.37 2.73 0.17 x 0.5003 0.0409 0.03 0.06 14.95 11.88 0.03 0.06 239 rcent 4056	10.0 226 Area A B Fir 310 Loss 63 144 247 118	5 1862 1 160 5 2022 3 83	10.0 225 Area A B Fir 330 Loss 42 288 1:	s Gain 1241 377 186 340 1427 170 58	12.0 69 Area A B Fir 216 Loss 10 221 421 185 884 154' 774	Gain 3 116 7 58 4 119 1 293 1 12	11.0 79 Area A B Flr 286 Loss 17 390 21 427 205 980 2783 1392	Gain 1271 383 58 132 4 1844 75	0.0 24 Area A B FIr 40 Loss Gain 28 642 6 6 12 1969 2 2 611 8 1306	10.0 Area A B Fir Loss		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area Exposed Ceilings A Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall A Gross Exp Wall A Exposed Ceilings A Exposed Ceilings A Exposed Ceilings A Net exposed walls A Net exposed walls A Net exposed Ceilings A Exposed Heat Loss Total Conductive Heat Cain Air Leakage Heat Loss/Gain Ventilation Case 2 Case 3 Heat Gain People Appliances Loads Duct and Pipe loss Duct and Pipe loss	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65 29.30	22.93 11.62 22.93 29.56 22.93 29.56 40.90 23.66 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 2.94 1.37 2.73 0.17 x 0.5003 0.0409 0.03 0.06 14.95 11.88 0.03 0.06 14.95 12.99 7cent 4056	10.0 226 Area A B Fir 310 Loss 63 144 247 118 262 131 8	5 1862 1 160 5 2022 3 83 5 119 2028	10.0 225 Area A B Fir 330 Loss 42 9 288 1:	S Gain 963 1241 377 186 340 1427 170 58 76 84 507	12.0 69 Area A B Fir 216 Loss 10 22: 427 185 884 1544 777 50	Gain 116 7 58 1 119 1 293 1 12 0 17 507	11.0 79 Area A B Fir 286 Loss 43 986 17 390 21 427 205 980 2783 1392	Gain 1271 383 58 132 4 1844 75	0.0 24 Area A B F F F F 40 Loss Gain 28 642 6 12 1969 2 2 611 8 1306 85 1.0 10	10.0 Area A B Fir Loss		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65 29.80	22.93 11.62 22.93 29.56 22.93 29.56 40.90 23.66 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 2.94 1.37 2.73 0.17 2.73 0.17 2.73 0.17 4.70 0.5003 0.0409 0.03 0.06 14.95 11.88 0.03 0.06 14.95 11.88 0.03 0.06 14.95 11.88 0.03 0.06 14.95 11.88 0.03 0.06 14.95 11.89 0.03 0.06 14.95 11.80 0.03 0.06 14.95 11.80 0.03 0.06 14.95 11.80 0.03 0.06 14.95 11.80 0.03 0.06 14.95 11.80 0.03 0.06 14.95 11.80	10.0 226 Area A B Fir 310 Loss 63 144 247 118 262 131 8 402	5 1862 1 1 160 5 2022 3 83 5 119 2028	10.0 225 Area A B Fir 330 Loss 42 9 288 1:	S Gain 1241 377 186 340 1427 170 58 76 84 507	12.0 69 Area A B Fir 216 Loss 10 221 421 185 884 154' 774	Gain 116 7 58 4 119 1 293 1 12 0 17 507	11.0 79 Area A B Flr 286 Loss 17 390 21 427 205 980 2783 1392	Gain 1271 383 58 132 4 1844 75	.00 24 Area A B Fir 40 Loss Gain 28 642 6 6 12 1969 2 2 1969 2 1306 85 10 4002	10.0 Area A B Fir Loss 300 666 667 675 675 675 675 675 675 676 677 677		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65 29.80	22.93 11.62 22.93 29.56 22.93 29.56 40.90 23.66 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 2.94 1.37 2.73 0.17 x 0.5003 0.0409 0.03 0.06 14.95 11.88 0.03 0.06 14.95 12.99 7cent 4056	10.0 226 Area A B Fir 310 Loss 63 144 247 118 262 131 8 402	5 1862 1 160 5 2022 3 83 5 119 2028	10.0 225 Area A B Fir 330 Loss 42 9 288 1:	S Gain 963 1241 377 186 340 1427 170 58 76 84 507	12.0 69 Area A B Fir 216 Loss 10 22: 427 185 884 1544 777 50	Gain 116 7 58 1 119 1 293 1 12 0 17 507	11.0 79 Area A B Fir 286 Loss 43 986 17 390 21 427 205 980 2783 1392	Gain 1271 383 58 132 4 1844 75	0.0 24 Area A B F F F F 40 Loss Gain 28 642 6 12 1969 2 2 611 8 1306 85 1.0 10	10.0 Area A B Fir Loss 300 666 667 675 675 675 675 675 675 676 677 677		10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A 3 Fir
Floor area	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 27.65 29.80	22.93 11.62 22.93 29.56 22.93 29.56 40.90 23.66 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 2.94 1.37 2.73 0.17 2.73 0.17 2.73 0.17 4.70 0.5003 0.0409 0.03 0.06 14.95 11.88 0.03 0.06 14.95 11.88 0.03 0.06 14.95 11.88 0.03 0.06 14.95 11.88 0.03 0.06 14.95 11.89 0.03 0.06 14.95 11.80 0.03 0.06 14.95 11.80 0.03 0.06 14.95 11.80 0.03 0.06 14.95 11.80 0.03 0.06 14.95 11.80 0.03 0.06 14.95 11.80	10.0 226 Area A B Fir 310 Loss 63 144 247 118 262 131 8 402	5 1862 1 1 160 5 2022 3 83 5 119 2028	10.0 225 Area A B Fir 330 Loss 42 9 288 1:	S Gain 1241 377 186 340 1427 170 58 76 84 507	12.0 69 Area A B Fir 216 Loss 10 22: 185 884 154: 777 50 0.5	Gain 116 7 58 1 119 1 293 1 12 0 17 507 2 1079	11.0 79 Area A B Fir 286 Loss 43 986 17 390 21 427 205 980 2783 1392 90	Gain 1271 383 58 132 4 1844 75 108	0.0 24 Area A B FIr 40 Loss Gain 28 642 6 12 1969 2 2611 8 1306 85 1.0 10 4002 25	10.0 Area A B Fir Loss 30 66 67 68 68 69 69 69 69 69 69 69 69 69 69 69 69 69	Gain	10.0 Area A B Fir	10.0 Area A B Fir	10.0 Ar A B Fi	rea Ir	10.0 Area A B Fir	10.0 , , , ,	Area A B B B B B B B B B B B B B B B B B B

32964

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

Mane Alex

David DaCosta

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 **Bayview Wellington** June 25, 2021 Weather Data Bradford 44 -9.4 86 22 48.2 Page 5 Barossa 3 Project # P.I-00041 System 1 2012 OBC Heat Loss ^T 81.4 deg. F Project: **Green Valley East** Model: S38-3 Lot 145 Ht gain ^T 11 deg. F GTA: 2522 Layout # JB-07268 Level 3 MAST BED 2 BATH BED 3 LOFT BED 4 ENS 2 ENS Run ft. exposed wall A 30 A 18 A 15 A 23 A 30 A 13 A 6 A 22 A Run ft. exposed wall B В В В R В В R В В В Ceiling height 11.0 9.0 11.0 9.0 9.0 9.0 295 Area 74 Area 269 Area 132 Area 69 Area 113 Area Floor area 166 Area 172 Area Area Area Area **Exposed Ceilings A** 295 A 166 A 74 A 172 A 269 A 132 A 69 A 113 A Α Α Exposed Ceilings B В В В Exposed Floors Flr 9 Flr 74 Flr 172 Flr 12 Flr Flr Flr Flr Flr Flr Flr Gross Exp Wall A 330 162 135 207 330 117 54 198 Gross Exp Wall B Components R-Values Loss Gain Gain Loss Loss Loss Loss Loss Gain Loss Loss Gain Loss Loss Loss Loss North Shaded 3.55 22.93 11.62 16 367 186 32 734 11 252 325 39 1153 42 963 1241 13 East/West 3.55 22.93 29.56 South 3.55 22.93 22.50 206 203 16 367 360 161 158 **Existing Windows** 1.99 40.90 23.66 Skylight 2.03 40.10 88.23 Doors 4.00 20.35 2.75 Net exposed walls A 17.03 4.78 0.65 298 1424 192 146 698 94 124 593 80 168 803 109 279 1334 180 101 483 65 47 225 30 185 884 119 Net exposed walls B 8.50 9.58 1.29 **Exposed Ceilings A** 59.22 1.37 0.64 295 405 189 166 228 107 74 102 47 172 236 110 269 370 173 132 181 69 95 44 113 155 Exposed Ceilings B 27.65 2.94 1.37 Exposed Floors 2.73 0.17 202 172 470 29 12 33 29.80 Foundation Conductive Heatloss Heat Loss 2564 1317 1149 2404 2906 1031 480 1338 **Total Conductive** Heat Gain 1328 465 1401 1799 510 232 576 Air Leakage Heat Loss/Gain 0.3009 0.0409 772 54 396 16 346 723 57 874 74 310 21 144 403 Case 1 0.02 0.06 Ventilation Case 2 14.95 11.88 Case 3 0.03 0.06 78 23 37 27 78 106 33 **Heat Gain People** 239 478 239 239 239 4056 Appliances Loads 149 313 164 **Duct and Pipe loss** 10% 47 3418 3874 1784 Level HL Total 18,046 Total HL for per room 1757 1681 3517 1375 Level HG Total 11,402 Total HG per room x 1.3 2519 866 725 2526 2571 1040 332 824 Level 4 Run ft. exposed wall A Run ft. exposed wall B Ceiling height Area Area Area Floor area Area Area Area **Area** Area Area Area Area **Exposed Ceilings A** Exposed Ceilings B В В В В В В В В В Exposed Floors Flr Gross Exp Wall A Gross Exp Wall B Components R-Values Loss Gain Loss Gain Gain Gain Gain Loss Gain Loss Loss Loss Loss Loss Loss Loss North Shaded 3.55 22.93 11.62 East/West 3.55 22.93 29.56 South 3.55 22.93 22.50 **Existing Windows** 1.99 40.90 23.66 2.03 40.10 88.23 Skylight Doors 4 00 20 35 2 75 Net exposed walls A 17.03 4.78 0.65 Net exposed walls B 8.50 9.58 1.29 **Exposed Ceilings A** 59.22 1.37 0.64 Exposed Ceilings B 27.65 2.94 1.37 Exposed Floors 29.80 2.73 0.17 Foundation Conductive Heatloss Heat Loss **Total Conductive** Heat Gain Air Leakage 0.0000 0.0409 Heat Loss/Gain Case 1 0.00 0.06 Ventilation 14.95 11.88 Case 3 0.03 0.06 Heat Gain People 239 **Appliances Loads** 4056 10% **Duct and Pipe loss** Level HL Total Total HL for per room

I review and take responsibility for the design work and am qualified in the appropriate category as an "other designer" under

Total Heat Loss 58,129 btu/h
Total Heat Gain 30,117 btu/h

Level HG Total

Total HG per room x 1.3

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

Mane Alex

David DaCosta

SB-12 Package

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 #

David DaCosta

Page 6 PJ-00041 JB-07268

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

Package:	Package A1			
Project:	Bradford	Model:	S38-3 Lot 14	.5
	RESIDENTIAL MECHANICAL			
	For systems serving one dwelling unit & co	nforming to the Ontario Building	g Code, O.reg 332/12	
	Location of Installation	Total Ve	entilation Capacity 9.32.3.	3(1)
Lot #	Plan #	Total V	Situation Supusity 5.52.5.	×(1)
		Bsmt & Master Bdrm	2 @ 21.2 cfr	
Township	Bradford	Other Bedrooms Bathrooms & Kitchen	3 @ 10.6 cfr 5 @ 10.6 cfr	
Roll #	Permit #	Other rooms	5 @ 10.6 cfr	
			Total	180.2
Address				
		Principal	Ventilation Capacity 9.32.	2 4/4)
	Builder	Frincipal	ventulation Capacity 9.32.	3.4(1)
Name	 	Master bedroom	1 @ 31.8 cfr	n 31.8 cfm
	Bayview Wellington	Other bedrooms	3 @ 15.9 cfr	
Address			Total	<u>79.5</u>
City				
J.1.5		Princ	cipal Exhaust Fan Capacit	у
Tel	Fax	Make	Model	Location
		VanEE	GELL LIDV	Daga
	Installing Contractor	VanEE	65H HRV	Base
Name	motuming contractor	129 cfm		Sones or Equiv.
Address		Make H	eat Recovery Ventilator VanEE	
City		Model	65H HRV	
,			129 cfm high	80 cfm low
Tel	Fax	Sensible efficiency @		<u>60%</u> 75%
		Sensible efficiency @	ance HRV/ERV to within 10	
	Combustion Appliances 9.32.3.1(1)		emental Ventilation Capac	
a) x	Direct vent (sealed combustion) only		-	
p)	Positive venting induced draft (except fireplaces) Natural draft, B-vent or induced draft fireplaces	Total ventilation capac Less principal exhaust	,	180.2 79.5
c) d)	Solid fuel (including fireplaces)	REQUIRED suppleme		100.7 cfm
e)	No combustion Appliances	REGUITED Supplomo	That vont. Supusity	
,	.,			
		·	pplemental Fans 9.32.3.5.	
	Heating System Forced air	Location Ens	cfm Model 50 XB50	Sones
Х	Non forced air	Ens 2	50 XB50 50 XB50	0.3 0.3
	Electric space heat (if over 10% of heat load)	Bath	50 XB50	0.3
1 1 1	House Type 9.32.3.1(2)		Malia Drasa	Fi
I X	Type a) or b) appliances only, no solid fuel Type I except with solid fuel (including fireplace)	all fans HVI listed	Make Broan	or Equiv.
	Any type c) appliance		Designer Certification	
IV	Type I or II either electric space heat		is ventilation system has been	en designed
Other	Type I, II or IV no forced air	, ,	Ontario Building Code.	Č

	Designer (Certification					
I hereby certify t	I hereby certify that this ventilation system has been designed						
in accordance w	vith the Ontario B	uildina Code.	•				
Maria	David D	-0					
Name	David D	aCosta					
	11	16000					
Signature	- cano	6 6					
J							
HRAI#	5190	BCIN#	32964				
THAT	0.00	2011111	02007				
Date June 25, 2021							

♦GTA\DESIGNS

Energy Efficiency Design Summary: Prescriptive Method

(Building Code Part 9, Residential)

Page 7

Project # PJ-00041 Layout # JB-07268

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 us	e by Princip	oal Authori	ty				
Application No:					Model/Certification Number					
A. Project Information									•	
Building number, street name			Baross	sa 3			Unit numb	er	Lot/Con	
			38-3 Lo							
Municipality Bradford	Postal co	de	Reg. Plan	number / oth	ner descript	ion				
B. Prescriptive Compliance [indica	te the bu	ilding cod	e complia	ance packa	ge being e	mployed in	the house	design]		
SB-12 Prescriptive (input design package): Pack					age A1			Table:	3.1.1.2.	<u>A</u>
C. Project Design Conditions										
Climatic Zone (SB-1):		Heat. E	quip. E	fficiency			Space	e Heating F	uel Sourc	e
Zone 1 (< 5000 degree days)		✓ ≥ 92	2% AFUE		~	Gas		Propane		Solid Fuel
☐ Zone 2 (≥ 5000 degree days)		_ ≥8	4% < 92	% AFUE		Oil		Electric		Earth Energy
Ratio of Windows, Skylights & Glas	s (W, S	& G) to \	Nall Are	a			Other E	Building Cha	aracteris	tics
Area of Walls = $\frac{400.68}{1000}$ m ² or $\frac{4312.9}{1000}$	ft²				☐ Log/F	ost&Beam		ICF Above (Grade	☐ ICF Basement
7,110d 01 Wallo = <u>188188</u> 01 <u>187218</u>		W,S &	G % =	<u>10.9%</u>		on-ground	-/	Walkout Ba	sement	
					☑ Air C	onditioning	1.1	Combo Unit		
Area of W, S & G = <u>43.663</u> m ² or <u>470.0</u>	ft²	Utilize V	Vindow	Yes	☐ Air S	ourced Hea	t Pump (A	SHP)		
		Avera	aging	☑ No	Ground Source Heat Pump (GSHP)					
D. Building Specifications [provide	values a	nd ratings	of the e	nergy effici	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				.1.2(7) / 3.	1.1.3.(7))					
Airtightness substitution(s)		Table 3.1	.1.4.B	Required:						
Airtightness test required		Table 3.1	.1.4.C	Required:						
(Refer to Design Guide Attached)				Required:				Permitted S	Substitution	1:
Building Component		mum RS ⁄Iaximun			Building Component				Efficiency Ratings	
Thermal Insulation	Non	ninal	Effe	ective	Windov	s & Doo	rs Provide	: U-Value ⁽¹⁾ o	r ER rating	ı
Ceiling with Attic Space	6	0	59	9.22	Windows	s/Sliding G	lass Door	'S		1.6
Ceiling without Attic Space	3	1	27	7.65	Skylights	;				2.8
Exposed Floor	3	31	29	9.80	Mechar	icals				
Walls Above Grade	22		17	7.03	Heating	Equip.(AFL	JE)			96%
Basement Walls		20.0ci	2′	1.12	HRV Effi	ciency (SR	E% at 0°C	;)		75%
Slab (all >600mm below grade)	2	X		Х	DHW He	ater (EF)				0.80
Slab (edge only ≤600mm below grade)	1	0	11	1.13	DWHR (CSA B55.1 (min. 42% efficiency)) #Show				#Showers 2	
Slab (all ≤600mm below grade, or heated)	1	0	1′	1.13	Combine	d Heating	System			
(1) U value to be provided in either $W/(m^2 \cdot K)$ or Bt	u/(h·ft·F) b	out not bot	h.							
E. Designer(s) [name(s) & BCIN(s), if	applicable	e, of perso	n(s) prov		mation her			t design meet	s building	code]
Name				BCIN		Signature		,1		7 ,
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-07268

Package:Package A1System:System 1Project:BradfordModel:S38-3 Lot 145

Air Leakage Calculations **Building Air Leakage Heat Loss Building Air Leakage Heat Gain** HL^T В LRairh Vb HLleak В LRairh ٧b HG^T **HG** Leak 0.018 0.422 32090 81.4 19844 0.018 0.104 32090 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 11547 0.8592 1.0 0.6 0.5 0.4 Level 2 11900 0.5003 0.3 0.3 0.3 0.4 19844 0.3009 13188 Level 3 0.2 0.2 0.2 Level 4 0 0.0000 Air Leakage Heat Gain Levels this Dwelling **HG LEAK** 658 0.0409 3 **BUILDING CONDUCTIVE HEAT GAIN** 16103 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 11547 0.05 Building 16103 11900 Level 2 0.3 0.03 1188 13188 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 Vent Heat Gain **HLbvent** Multiplier Multiplier HGbvent HG*1.3 Total Ventilation Load 1188 0.03 944 0.06 944 Foundation Conductive Heatloss Level 1 Level 1 2068 Watts 7057 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 186 634 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 Shiel	lding
Building Site:	Suburban, forest ▼
Walls:	Heavy ▼
Flue:	Heavy ▼
Highest Ceiling Height (m):	9.45
Building Confi	guration
Type:	Detached
Number of Stories:	Two
Foundation:	Shallow
House Volume (m³):	908.79
Air Leakage/Ve	entilation
Air Tightness Type:	Present (1961-) (ACH=3.57)
	ELA @ 10 Pa. 322.44 cm ²
Custom BDT Data:	3.57 ACH @ 50 Pa
Mechanical Ventilation (L/s):	Total Supply: Total Exhaust:
	39.75
Flue #:	#1 #2 #3 #4
Diameter (mm):	0 0 0 0
Heating Air Leakage Rate (ACH/H):	0.422
Cooling Air Leakage Rate (ACH/H):	0.104

Residential Foundation Thermal Load Calculator

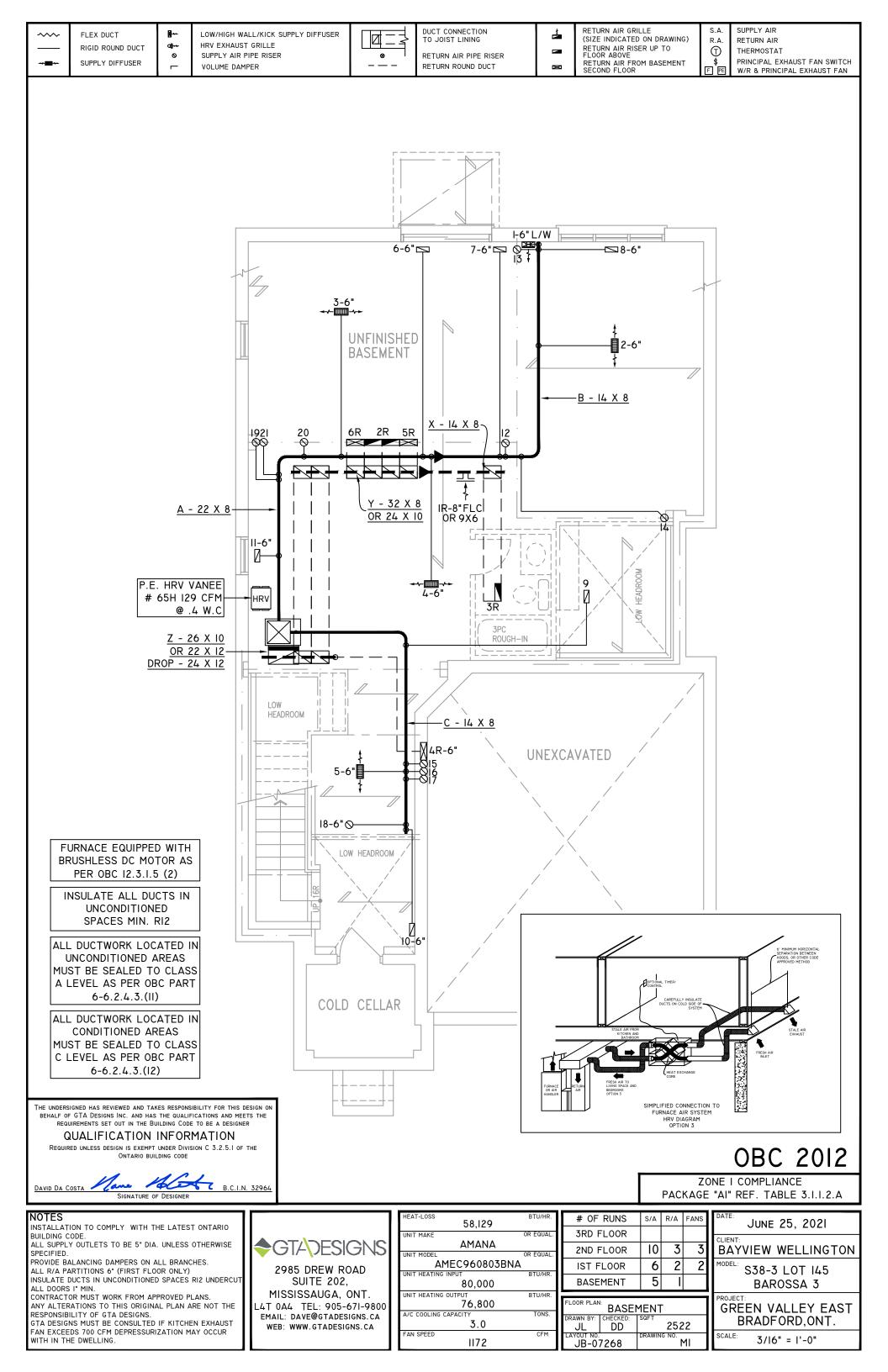
Supplemental tool for CAN/CSA-F280

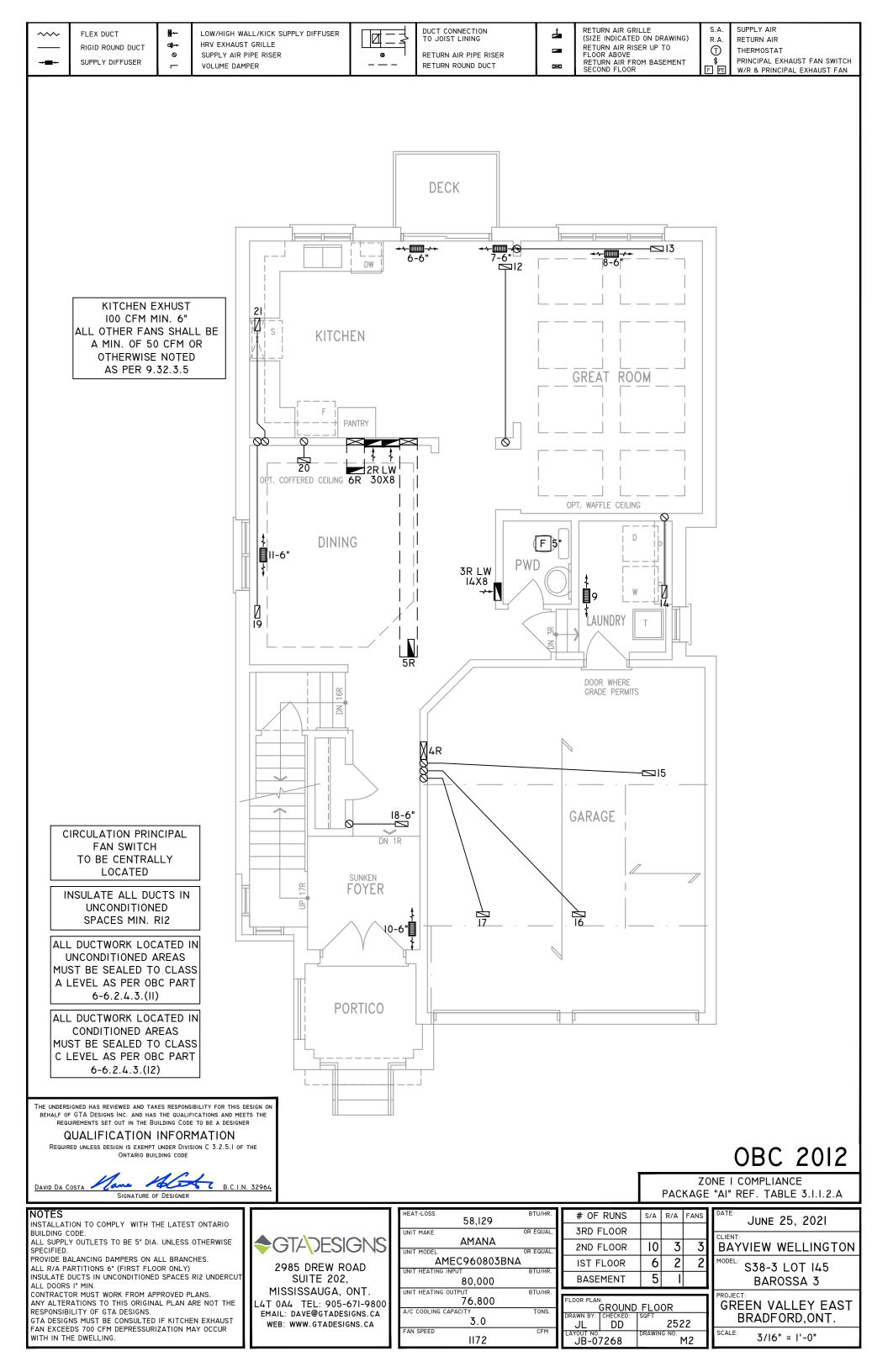
Weat	her Sta	tion Description				
Province:		Ontario				
Region:		Bradford ▼				
Site Description						
Soil Conductivity:		High conductivity: moist soil ▼				
Water Table:		Normal (7-10 m, 23-33 Ft) ▼				
Fou	ındatio	n Dimensions				
Floor Length (m):	17.18					
Floor Width (m):	4.76					
Exposed Perimeter (m):	34.75					
Wall Height (m):	3.05					
Depth Below Grade (m):	0.91	Insulation Configuration				
Window Area (m²):	0.56					
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):		2068				

Residential Slab on Grade 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)					
Floor Dimensions							
Length (m):	9.22						
Width (m):	1.45	- 					
Exposed Perimeter (m):	12.19	Insulation Configuration					
	Radi	iant Slab					
Heated Fraction of the Slab:	0						
Fluid Temperature (°C):	33						
	Desig	n Months					
Heating Month	1						
	Founda	ation Loads					
Heating Load (Watts):		186					





DUCT CONNECTION TO JOIST LINING RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) SUPPLY AIR FLEX DUCT LOW/HIGH WALL/KICK SUPPLY DIFFUSER 占 RETURN AIR R.A HRV EXHAUST GRILLE **a**]⊶ ⊘ RETURN AIR RISER UP TO FLOOR ABOVE RIGID ROUND DUCT 1 THERMOSTAT SUPPLY AIR PIPE RISER RETURN AIR PIPE RISER 8 RETURN AIR FROM BASEMENT SECOND FLOOR PRINCIPAL EXHAUST FAN SWITCH SUPPLY DIFFUSER **VOLUME DAMPER** RETURN ROUND DUCT OPT. RAISED TRAY CEILING SHOWER 6'-0" OVAL TUB MASTER BEDROOM 21 **ENSUITE** F5" <u>20</u> WIC WIC 6R HW } 14X8 BEDROOM 4 BEDROOM 2 19 1 → 5R HW 11. X8 LINEN 14X8 17R K WIC SHARED BATH **MEDIA** (F)5" LOFT 14X8 "6-8l ~**──** BEDROOM 3 OPEN TO BELOW INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. RI2 ALL DUCTWORK LOCATED IN UNCONDITIONED AREAS MUST BE SEALED TO CLASS A LEVEL AS PER OBC PART 6-6.2.4.3.(11) ALL DUCTWORK LOCATED IN ROOF BELOW CONDITIONED AREAS FLAT ROOF BELOW MUST BE SEALED TO CLASS C LEVEL AS PER OBC PART 6-6.2.4.3.(12) 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 OBC 2012 ONTARIO BUILDING CODE Jane 1866 B.C.I.N. 32964 ZONE I COMPLIANCE PACKAGE "AI" REF. TABLE 3.1.1.2.A JUNE 25, 2021 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.

GTADESIGNS

2985 DREW ROAD SUITE 202, MISSISSAUGA, ONT.

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

HEAT-LOSS	BTU/HR.
58,129	
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.
3.0	
FAN SPEED	CFM
1172	

# OF RUNS	S/A	R/A	FANS					
3RD FLOOR								
2ND FLOOR	10	3	3					
IST FLOOR	6	2	2					
BASEMENT	5	-						
FLOOR PLAN: SECOND FLOOR								

DD

JB-07268

JL

2522

M3

CLIENT **BAYVIEW WELLINGTON** S38-3 LOT 145 BAROSSA 3 GREEN VALLEY EAST

BRADFORD, ONT.

3/16" = 1'-0"