

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 Bar	rossa 5		Lot:	
S	338-5		Lot/con.	
Municipality Bradford	Postal code	Plan number/ other description		
B. Individual who reviews and takes responsibility for de	esign activities	I		
Name David DaCosta		Firm	gtaDesigns Inc.	
Street address 2985 Drew F	Road, Suite 202		Unit no.	Lot/con.
Municipality	Postal code	Province	E-mail	igno oo
Mississauga Telephone number	L4T 0A4 Fax number	Ontario	dave@gtadesi Cell number	<u>gris.ca</u>
(905) 671-9800		7) 494-9643	(416) 268-6	820
C. Design activities undertaken by individual identified in	n Section B. [Bu	ilding Code Table	3.5.2.1 of Division C]	
☐ House ☒ HVAC	– House		☐ Building Structural	
	g Services		☐ Plumbing – House	
☐ Large Buildings ☐ Detecti	on, Lighting and Po	wer	☐ Plumbing – All Buildings	3
☐ Complex Buildings ☐ Fire Pro	otection		On-site Sewage System	s
Description of designer's work	Model Certification	n	Project #:	PJ-00204
		1 5 31 1	Layout #:	JB-04482
Heating and Cooling Load Calculations M Air System Design Altern	ain X	Builder Project	Bayview Wellingto Green Valley East	
Residential mechanical ventilation Design Summary Area Sc			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			· ·	
I David DaCosta (print name)	declare that (choose one as appr	. ,	
☐ I review and take responsibility 3.2.4 Division C of the Building classes/categories. Individual BC	Code. I am qualifie	BUILDING D on behalf அஞ்ஞ்ஞ்கு d, and நேர்ந்துஞ்ஞ் DATE: 201	HIGHNO CORPORIPOLIES 8-10-25	MBURY
Firm BCIN:		INSPECTOR	: BG	
☑ I review and take responsibility "other designer" under subsect	-	•		
Individual BC	CIN: 329	64		
Basis for exe	emption from regist	ration:	Division C 3.2.4.1. (4)	
☐ The design work is exempt from	n the registration an	d qualification require	ments of the Building Code.	
Basis for exe	emption from regist	ration and qualification	:	
I certify that:	af man demonstrate			
The information contained in this schedule is true to the best I have submitted this application with the knowledge and constained.				
I have submitted this application with the knowledge and cons	SCIIL OI LIIE IIIIII.			
March 12, 2018		Mana 14	a contraction of the contraction	
Date		Signature of D	esigner	

NOTE:

Page 1

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 Association 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 Fax: 647-494-9643 e-mail dave@gtadesigns.ca

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Heat loss and gain calcul	ation summary sheet CSA-F280-M12 Standard Form No. 1
These documents issued for the use of Ba	ayview Wellington Layout No.
and may not be used by any other persons without authorization. Document	s for permit and/or construction are signed in red. JB-04482
Building I	Location
Address (Model): \$38-5	Site: Green Valley East
Model: Barossa 5	Lot:
City and Province: Bradford	Postal code:
Calculations	s based on
Dimensional information based on:	VA3 Design Jan/2018
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? LifeBreath RNC155	Internal shading: Light-translucent Occupants: 5
Sensible Eff. at -25C 71% Apparent Effect. at -0C 84%	Units: Imperial Area Sq ft: 2780
Sensible Eff. at -0C 75%	
Heating design conditions	Cooling design conditions
Outdoor temp -9.4 Indoor temp: 72 Mean soil tem; 48	Outdoor temp 86 Indoor temp: 75 Latitude: 44
Above grade walls	Below grade walls
Style A: As per OBC SB12 Package A1 R 22	Style A: As per OBC SB12 Package A1 R 20ci
Style B: Existing Walls (When Applicable) R 12	Style B:
Style C:	Style C:
Style D:	Style D:
Floors on soil	Ceilings
Style A: As per Selected OBC SB12 Package A1	Style A: As per Selected OBC SB12 Package A1 R 60
Style B:	Style B: As per Selected OBC SB12 Package A1 R 31
Exposed floors	Style C:
Style A: As per Selected OBC SB12 Package A1 R 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 B: Style C:
Style A: As per Selected OBC SB12 Package A1 R 3.55 Style B: Existing Windows (When Applicable) R 1.99	Style C:
F ' d' NAI' I (NAII A II II) F (NAII	Style C: Skylights
Style B: Existing Windows (When Applicable) R 1.99	Style C: Skylights
Style B: Existing Windows (When Applicable) R 1.99 Style C: Style D:	Style C: Skylights Style A: As per Selected OBC SB12 Package A1 R 2.03
Style B: Existing Windows (When Applicable) R 1.99 Style C: Style D: Attached documents: As per Shedule 1 Heat Loss/Ga	Style C: Skylights Style A: As per Selected OBC SB12 Package A1 R 2.03 Style B:
Style B: Existing Windows (When Applicable) R 1.99 Style C: Style D: Attached documents: As per Shedule 1 Heat Loss/Ga	Style C: Skylights Style A: As per Selected OBC SB12 Package A1 R 2.03 Style B: in Caculations based on CSA-F280-12 Effective R-Values construction - Forced Air
Style B: Existing Windows (When Applicable) R 1.99 Style C: Style D: Attached documents: As per Shedule 1 Heat Loss/Ga Notes: Residential New C	Style C: Skylights Style A: As per Selected OBC SB12 Package A1 R 2.03 Style B: in Caculations based on CSA-F280-12 Effective R-Values construction - Forced Air
Style B: Existing Windows (When Applicable) R 1.99 Style C: Style D: Attached documents: As per Shedule 1 Heat Loss/Ga Notes: Residential New C Calculations p	Style C: Skylights Style A: As per Selected OBC SB12 Package A1 R 2.03 Style B: In Caculations based on CSA-F280-12 Effective R-Values Construction - Forced Air Derformed by
Style B: Existing Windows (When Applicable) R 1.99 Style C: Style D: Attached documents: As per Shedule 1 Heat Loss/Ga Notes: Residential New C Calculations p	Style C: Skylights Style A: As per Selected OBC SB12 Package A1 R 2.03 Style B: in Caculations based on CSA-F280-12 Effective R-Values construction - Forced Air performed by Postal code: L4T 0A4



Builder:

Inlet Size

Trunk

Air System Design

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

SB-12 Package A1

Bayview Wellington Date: March 12, 2018

Barossa 5 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.

Project #

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Project: Green V	/alley Ea	ıst		Model:			Baros S38					S	ystem	1		of the Bui Individual	-	de. 32964	Ma	ine to	h Ex	٦ ر	David DaC	osta		oject # yout #		-00204 -04482
DESIGN LOAD SPECIFICATION	IS		Ī	AIR DIST	RIBUTIO	N & PRES	SURE					FURNAC	E/AIR HAI	NDLER D	ATA:			BOILER/V	WATER HE	EATER D	ATA:			Α	/C UNIT I	DATA:		
											4						•							-				
Level 1 Net Load	15,216	btu/h		Equipme	nt Extern	al Static I	Pressure		0.5	"w.c.		Make		Ama	na			Make			1	уре		A	mana		2.5	ſon
Level 2 Net Load	17,964	btu/h		Addition	al Equipm	ent Pres	sure Drop)	0.225	"w.c.	1	Model		AMEC960	603BNA			Model						C	ond		2.5	
Level 3 Net Load	17,713	btu/h		Available	Design F	ressure			0.275	"w.c.	1	Input Btu	/h	600	00			Input Btu	/h					C	oil		2.5	
Level 4 Net Load	0	btu/h		Return B	ranch Lo	ngest Effe	ective Le	ngth	300	ft		Output B	tu/h	576	00			Output B	tu/h									
Total Heat Loss	50,893	btu/h		R/A Plen	um Press	ure			0.138	"w.c.	1	E.s.p.		0.5	0	" W.C.	_	Min.Outp	ut Btu/h		ı	WH						
Total Heat Gain	27,421	btu/h		S/A Pleni	um Press	ure			0.14	"w.c.	,	Water Te	mp			deg. F.						Blo	wer DATA	١:				
Combo System HL + 10%	55,983	Btuh.		Heating A	Air Flow F	roportio	ning Fact	or	0.0230	cfm/btuh	,	AFUE		96	<mark>%</mark>		_	Blower S	peed Selec	cted:	W2	2		В	lower Ty	pe F	ECM	
Building Volume Vb	32202	ft³		Cooling	Air Flow F	roportio	ning Fact	er	0.0351	cfm/btuh		Aux. Hea	t												(Brushle	ss DC O	BC 12.3.1	.5.(2))
Ventilation Load	1,118	Btuh.					R/A Temp)	70	deg. F.	<u>;</u>	SB-12 Pa	ckage	Packag	ge A1			Heating C	heck _	1170 c	cfm			C	ooling C	neck _	963	:fm
Ventilation PVC	79.5	cfm					S/A Temp)	116	deg. F.																_		
Supply Branch and Grill Sizing				Diffuser I	loss	0.01	"w.c.				•	Temp. Ri	se>>>	46	deg. F.			Selected	cfm>	1170 c	cfm		c	ooling A	ir Flow Ra	ate =	963	;fm
							Leve	el 1													Leve	12						
S/A Outlet No.	1	2	3	4											5	6	7	8	9	10	11	12						
Room Use	BASE	BASE	BASE	BASE											KIT	KIT	GRT	PWD	MUD	FOY	LIV/DIN	LIV/DIN						
Btu/Outlet	3804	3804	3804	3804											2689	2689	3015	1246	1002	3511	1906	1906						
Heating Airflow Rate CFM	87	87	87	87											62	62	69	29	23	81	44	44						
Cooling Airflow Rate CFM	10	10	10	10											88	88	95	11	5	50	71	71						
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	50	37	19	30											52	45	46	30	22	29	9	47						
Equivalent Length	140	90	120	100	70	70	70	70	70	70	70	70	70	70	110	150	140	150	160	80	90	80	70	70	70	70	70	70
Total Effective Length	190	127	139	130	70	70	70	70	70	70	70	70	70	70	162	195	186	180	182	109	99	127	70	70	70	70	70	70
Adjusted Pressure	0.07	0.10	0.09	0.10	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.08	0.07	0.07	0.07	0.07	0.12	0.13	0.10	0.19	0.19	0.19	0.19	0.19	0.19
Duct Size Round	6	6	6	6	00	00	00	00	00	00	00	00	00	00	6	6	6	4	4	6	5	5	00	00	00	00	00	0
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	4x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	E	С	С	В											D	D	D	С	С	В	Α	С						
							Leve	el 3													Leve	14						
S/A Outlet No.	13	14	15	16	17	18	19	20	21	22	23																	
Room Use	MAST	MAST	ENS	BED 2	BATH	WIC	BED 3	BED 3	LAUN	ENS 4	BED 4																	
Btu/Outlet	2027	2027	1406	1547	927	901	2184	2184	2377	773	1359																	
Heating Airflow Rate CFM	47	47	32	36	21	21	50	50	55	18	31																	
Cooling Airflow Rate CFM	46	46	26	31	10	17	58	58	102	14	37																	
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	77	73	66	47	44	47	46	44	56	44	75																	
Equivalent Length	150	160	160	130	160	150	140	130	125	135	160	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Total Effective Length	227	233	226	177	204	197	186	174	181	179	235	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Adjusted Pressure	0.06	0.06	0.06	0.07	0.06	0.07	0.07	0.07	0.07	0.07	0.06	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Duct Size Round	5	5	4	4	4	4	5	5	6	3	5																	
Outlet Size	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	4x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	Е	D	D	С	В	В	В	В	В	С	Е																	
Return Branch And Grill Sizing			Grill Pres	sure Los	s	0.02	"w.c						Return Tr	unk Duct	Sizina					9	Supply Tr	unk Duct	Sizina					
R/A Inlet No.	1R	2R	3R	4R	5R	6R	7R	8R	9R	10R	11R	-	Trunk			Press. F	Round	Rect.	Size	_	Frunk			ress. R	ound	Rect.	Size	
Inlet Air Volume CFM	176	480	102	155	155	102																						
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		Drop		1170	0.04	18.0	24x12		,	Δ		1170	0.06	16.5	32x8	24x10	
Actual Duct Length	12	24	42	46	47	58	J	···-	···-		J		Z		1170	0.04	18.0	30x10	24x12		В		365	0.06	11.0	14x8	10x10	
Equivalent Length	115	125	135	195	235	160	50	50	50	50	50		Y		278	0.05	10.0	12x8	10x10				761	0.06	14.0	22x8	18x10	
Total Effective Length	127	149	177	241	282	218	50	50	50	50	50		X		2.0	0.00	10.0	12.0	10210		D		437	0.06	11.5	14x8	12x10	
Adjusted Pressure	0.09	0.08	0.07	0.05	0.04	0.05	0.24	0.24	0.24	0.24	0.24		v W							-	5 E		165	0.06	8.0	8x8	12X10 8x7	
Duct Size Round	7.0	11.0	6.0	8.0	8.5	6.0	0.24	0.24	0.24	0.24	0.24		V								-		103	0.00	0.0	0.0	0.7	
Inlet Size Round	7.0 FLC	11.0	6.0	8.0 8	8.5 8	6.0							V U								~							
miet oize		8	-	-	8	-	_	_	_	_			U T								, ,							
-	x	х	x	х	х	x	x	х	x	x	х		1							'	1							

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Heatloss/Gain Calculations CSA-F280-12

2985 Drew Road, Suite 202, Mississauga, Ontario L4T 0A4 Tel: 905-671-9800 Fax: 647-494-9643

e-mail dave@gtadesigns.ca

		Builder:	Bayvie	v Welling	ton		Date:		Mar	ch 12, 20°	18		_			_	Weathe	r Data	Bradford	44	-9.4	86 22	48.2				Page 4
2012 OBC		Project:	Green	Valley Ea	ast	_	Model:			Barossa 5 S38-5				Sys	stem 1		Heat L	.oss ^T 8	1.4 deg. F	Ht gain ^T	11	deg. F	GTA:	2780	Proje Layo		PJ-00204 JB-04482
_	Level 1				BAS	E													_	_		_		_			
	un ft. exposed wall A un ft. exposed wall B			10	68 A B			A B		A R		A R		A B			A R		A R	A R		A B		A B		A B	
, in	Ceiling height			3	3.5 AG		3.5		3.5	_		3.5 AG		3.5 AG	i	3.5	_		3.5 AG	3.5 AG		3.5 AG		3.5 AG		3.5 AG	
	Floor area			11	12 Area			Area		Area		Area		Are			Area		Area	Area		Area		Area		Area	
	Exposed Ceilings A				Α			A		A		Α		Α			Α		Α	Α		Α		Α		Α	
	Exposed Ceilings B				В			В		В		В		В			В		В	В		В		В		В	
	Exposed Floors				Flr			Flr		Flr		Flr		Fir			Flr		Flr	Flr		Fir		Flr		Flr	
	Gross Exp Wall A Gross Exp Wall B			5	86																						
	Components		ss Gain		Loss	Gain		Loss Gain		Loss G	Gain	Loss	Gain	10	ss Gain		Loss	Gain	Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain
	North Shaded			10.91	3 6			LU33 Gairi		L033 C	Jam	2033	Cam		JJ Guill	7 [L033	Ouiii	LU33 Cuiii		Julii		Ouiii	7	Juni	2033	Julii
	East/West				13 29																						
	South				3 6	9 63																					
	WOB Windows			28.32																					4		
	Skylight			38.23 2.75	21 42	7 58																					
	Doors Net exposed walls A				21 42 46	285																					
	Net exposed walls B			0.76		203																					
	Exposed Ceilings A			0.64																							
	Exposed Ceilings B		3.56	1.66																							
	Exposed Floors			0.17																				\bot			
	Heat Leas	On Grade ()	or Abo		664 750																				4		
Total Conductiv	e Heat Coss				750	793																					
Air Leakage	Heat Loss/Gain		0.9944 0	0367	746																						
	Case 1			0.07																							
Ventilation	Case 2			11.88																							
	Case 3		0.03	0.07	24	5 55																			4		
	Heat Gain People			239 4585																							
	Appliances Loads Duct and Pipe loss		cent	10%																							
Level 1 HL Tota			al HL for per		1521	6																					
Level 1 HG Tota			IG per room			1141																		1 L			
		1																									
	Level 2				KIT			GRT		PWD		MUD			FOY		LIV/DIN										
R	un ft. exposed wall A				48 A		29	A	12	Α		7 A		33 A		39	Α		Α	Α		Α		Α		Α	
R	un ft. exposed wall B				В		!	В		В		В		В			В		В	В		В		В		В	
	Ceiling height			10			10.0		12.0			12.0		11.0		10.0		1	0.0 Area	10.0		10.0 Area		10.0		10.0	
	Floor area Exposed Ceilings A			2	68 Area A		276 <i>i</i>			Area A		60 Area A		121 Ar	ea .	347	Area A		Area A	Area A		Area A		Area A		Area A	
	Exposed Ceilings B				B		1			В		В		B			В		В	В		В		B		B	
	Exposed Floors				Flr			Flr		Flr		Flr		Fir			Flr		Flr	Flr		Fir		Flr		Flr	
	Gross Exp Wall A			4	80		290		144			84		363		390											
	Gross Exp Wall B																										
	Components North Shaded	R-Values Lo																									Gain
	North Shaded				Loss	Gain		Loss Gain			ain	Loss	Gain	Lo	ss Gain	- r	Loss	Gain	Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
	Fast/West	3.55	22.93	10.91	47 107	8 513			12	275	Sain 131	Loss	Gain				Loss	Gain	Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
	East/West South	3.55 3.55	22.93 22.93	10.91 27.35		8 513		1009 12	12			Loss	Gain		ss Gain 619 739	9			Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
	East/West South Existing Windows	3.55 3.55 3.55	22.93 22.93 22.93	10.91	47 107	8 513			12			Loss	Gain				1146	Gain 1044	Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
	South Existing Windows Skylight	3.55 3.55 3.55 1.99 2.03	22.93 22.93 22.93 40.90 40.10	10.91 27.35 20.89 22.15 38.23	47 107	8 513			12					27	619 739	50			Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
	South Existing Windows Skylight Doors	3.55 3.55 3.55 1.99 2.03 4.00	22.93 22.93 22.93 40.90 40.10 20.35	10.91 27.35 20.89 22.15 38.23 2.75	47 107 42 96	8 513 3 1149	44	1009 12	12 04	275	131	21 427	58	27	619 739 427 58	9 50 8	1146	1044	Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
	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 22.93 22.93 40.90 40.10 20.35 4.78	10.91 27.35 20.89 22.15 38.23 2.75 0.65	47 107 42 96	8 513 3 1149	44	1009 12	12				58	27	619 739	9 50 8	1146		Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
	South Existing Windows Skylight Doors Net exposed walls A Net exposed walls B	3.55 3.55 3.55 1.99 2.03 4.00 17.03	22.93 22.93 22.93 40.90 40.10 20.35 4.78 9.58	10.91 27.35 20.89 22.15 38.23 2.75 0.65 39 1.29	47 107 42 96	8 513 3 1149	44	1009 12	12 04	275	131	21 427	58	27	619 739 427 58	9 50 8	1146	1044	Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
	South Existing Windows Skylight Doors Net exposed walls A	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22	22.93 22.93 22.93 40.90 40.10 20.35 4.78	10.91 27.35 20.89 22.15 38.23 2.75 0.65	47 107 42 96	8 513 3 1149	44	1009 12	12 04	275	131	21 427	58	27	619 739 427 58	9 50 8	1146	1044	Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
	South Existing Windows Skylight Doors Net exposed walls A Net exposed Ceilings A Exposed Ceilings B Exposed Floors	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86 29.80	22.93 22.93 40.90 40.10 20.35 4.78 9.58 1.37 3.56 2.73	10.91 27.35 20.89 22.15 38.23 2.75 0.65 1.29 0.64 1.66 0.17	47 107 42 96	8 513 3 1149	44	1009 12	12 04	275	131	21 427	58	27	619 739 427 58	9 50 8	1146	1044	Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
	South Existing Windows Skylight Doors Net exposed walls A Net exposed Ceilings A Exposed Ceilings B Exposed Floors Inductive Heatloss	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86 29.80 o On Grade ()	22.93 22.93 40.90 40.10 20.35 4.78 9.58 1.37 3.56 2.73	27.35 20.89 22.15 38.23 2.75 0.65 1.29 0.64 1.66	47 107 42 96 91 186	8 513 3 1149 9 253	44	1009 12 1176 1	12 04	631	131	21 427 63 301	58	27 21 315	619 738 427 56 1506 203	9 50 8	1146	1044	Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
	Existing Windows Skylight Doors Net exposed walls A Net exposed Ceilings A Exposed Ceilings B Exposed Floors onductive Heatloss B Heat Loss	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86 29.80 On Grade ()	22.93 22.93 40.90 40.10 20.35 4.78 9.58 1.37 3.56 2.73	10.91 27.35 20.89 22.15 38.23 2.75 0.65 1.29 0.64 1.66 0.17	47 107 42 96	8 513 3 1149 9 253	246	1009 12 1176 1 7	12 04 59 132 3	275	85	21 427	58 41	27 21 315	619 739 427 59 1506 203	9 50 8 3 340	1146	1044	Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
Foundation Co	Existing Windows Skylight Doors Net exposed walls A Exposed Cellings A Exposed Cellings A Exposed Floors Inductive Heatloss Heat Loss Heat Gain	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86 29.80 O On Grade ()	22.93 22.93 22.93 40.90 40.10 20.35 4.78 9.58 1.37 3.56 2.73	27.35 20.89 22.15 38.23 2.75 0.65 3.29 0.64 1.66 0.17	47 107: 42 96 91 186 391	8 513 3 1149 9 253 0 1914	246	1009 12 1176 1 7 2192	12 04 59 132 3	275 631	131 85	21 427 63 301	58 41	27 21 315	619 739 427 54 1506 203 2552	9 50 8 8 3 340	1146 1625 2772	220	Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
Foundation Co	Existing Windows Skylight Doors Net exposed walls A Net exposed Ceilings A Exposed Ceilings B Exposed Floors onductive Heatloss B Heat Loss	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86 29.80 O On Grade ()	22.93 22.93 22.93 40.90 40.10 20.35 4.78 9.58 1.37 3.56 2.73 or Abo	10.91 27.35 20.89 22.15 38.23 2.75 0.65 1.29 0.64 1.66 0.17	47 107 42 96 91 186	8 513 3 1149 9 253 0 1914	246	1009 12 1176 1 7 2192	12 04 59 132 3	631	85	21 427 63 301	58 41	27 21 315	619 739 427 59 1506 203	9 50 8 8 3 340	1146	1044	Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
Foundation Co	South Existing Windows Skylight Doors Net exposed walls A Exposed Ceilings A Exposed Ceilings A Exposed Floors Inductive Heatloss Heat Loss Heat Loss/Gain	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86 29.80 On Grade ()	22.93 22.93 22.93 40.90 40.10 20.35 4.78 9.58 1.37 3.56 2.73 or Abo	10.91 27.35 20.89 22.15 38.23 2.75 0.65 3.129 0.64 1.66 0.17 X	47 107: 42 96 91 186 391	8 513 3 1149 9 253 0 1914	246	1009 12 1176 1 7 2192	12 04 59 132 3	275 631	131 85	21 427 63 301	58 41	27 21 315	619 73! 427 51 1506 20: 2552 1000 875 3:	9 50 8 8 3 340	1146 1625 2772	220	Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
Foundation Co Total Conductiv Air Leakage	South Existing Windows Skylight Doors Net exposed walls A Exposed Ceilings A Exposed Ceilings A Exposed Ceilings A Exposed Ceilings A Heat Loss Heat Casin Heat Loss/Gain Case 1 Case 2 Case 3	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86 29.80 On Grade ()	22.93 22.93 22.93 40.90 40.10 20.35 4.78 9.58 1.37 3.56 2.73 or Abo	10.91 27.35 20.89 22.15 38.23 2.75 0.65 1.29 0.64 1.66 1.66 1.66 1.66 1.66 1.66	47 107: 42 96 91 186 391	9 253 0 1914 1 70	246	1009 12 1176 1 7 2192 13 752	12 04 59 132 3	275 631	131 85	21 427 63 301	58 41	27 21 315	619 739 427 54 1506 203 2552	9 50 BB 33 340	1146 1625 2772	220	Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
Foundation Co Total Conductiv Air Leakage	Existing Windows Skylight Doors Net exposed walls A Net exposed Ceilings A Exposed Ceilings A Exposed Floors Inductive Heatloss e Heat Loss Heat Loss Case 1 Case 2 Case 3 Heat Gain People	3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86 29.80) On Grade ()	22.93 22.93 22.93 40.90 40.10 22.93 40.90 40.10 3.56 2.73 3.56 2.73 0 or Abo 0.3430 0.03 14.07 0.03	10.91 177.35 10.89 10.89 10.89 10.84 1.66 1.66 1.66 1.70 1.80	47 107: 42 96 91 186 391 134	8 513 3 1149 9 253 0 1914 1 70 7 133	246	1009 12 1176 1 7 2192 13 752	12 04 59 132 3 3 666 50	906 311	131 85 216 8	21 427 63 301 728 250	58 41 98 4	27 21 315	619 73! 427 51 1506 20: 2552 1000 875 3:	9 50 50 8 8 3 3 3 4 0 0 7 7 9 9	1146 1625 2772 951	1044 220 1264 46	Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
Foundation Co Total Conductiv Air Leakage	Existing Windows Skylight Doors Net exposed walls A Exposed Cellings A Exposed Cellings A Exposed Cellings A Exposed Floors Inductive Heatloss Heat Cain Heat Loss/Gain Case 1 Case 2 Lase 3 Heat Gain People Appliances Loads	3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86 29.80 On Grade ()	22.93 22.93 22.93 40.90 40.10 22.93 40.90 40.10 3.56 2.73 3.56 2.73 0 or Abo 0.3430 0.03 14.07 0.03	10.91 177.35 20.89 22.15 38.23 2.75 0.65 3.2 1.29 0.64 1.66 0.17 x 0.367 0.07 11.88 0.07 239 4585	47 107: 42 96 91 186 391 134	9 253 0 1914 1 70	246	1009 12 1176 1 7 2192 13 752	12 04 559 132 3 3 666 550	906 311	131 85 216 8	21 427 63 301 728 250	58 41 98 4	27 21 315	619 73! 427 51 1506 20: 2552 1000 875 3:	9 50 BB 33 340	1146 1625 2772 951	1044 220 1264 46	Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
Foundation Co Total Conductiv Air Leakage Ventilation	South Existing Windows Skylight Doors Net exposed walls A Exposed Ceilings A Exposed Ceilings A Exposed Ceilings A Exposed Ceilings A Heat Loss Heat Casin Heat Loss/Gain Loss Gain Heat Loss/Gain Loss Gain L	3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86 20 on Grade ()	22.93 22.93 22.93 40.90 40.10 40.10 20.35 4.78 9.58 1.37 3.56 2.73 3.56 0.03 14.07 0.03	10.91 177.35 20.89 22.15 38.23 2.75 0.65 1.29 0.64 1.66 0.17 × 0.07 11.88 0.07 2.39 4585 10%	47 107. 42 96 91 186 391 134 12	0 1914 70 7 133 1719	246	1009 12 1176 1 7 2192 13 752 5	12 04 59 132 3 3 666 50	906 311 30	131 85 216 8	21 427 63 301 728 250	58 41 98 4	21 315	619 73: 427 5: 1506 20: 2552 100: 875 3: 83 6:	9 50 50 8 8 3 3 3 4 0 0 7 7 9 9	1146 1625 2772 951	1044 220 1264 46	Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	
Foundation Co Total Conductiv Air Leakage	Existing Windows Skylight Doors Net exposed walls A Net exposed valls A Exposed Ceilings A Exposed Ceilings B Exposed Floors Inductive Heatloss Heat Loss/Gain Heat Loss/Gain Heat Loss/Gain Heat Gain People Appliances Loads Duct and Pipe loss II 17,964	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86 29.80 9 On Grade ()	22.93 22.93 22.93 40.90 40.10 22.93 40.90 40.10 3.56 2.73 3.56 2.73 0 or Abo 0.3430 0.03 14.07 0.03	10.91 177.35 20.89 20.89 22.15 38.23 2.75 0.65 33 1.29 0.64 1.66 0.17 0.07 11.88 0.07 239 4585 10% 0.00m	47 107: 42 96 91 186 391 134	0 1914 70 7 133 1719	246 5	1009 12 1176 1 7 2192 13 752	12 04 132 3 3 666 550 95	906 311	131 85 216 8	21 427 63 301 728 250	58 41 98 4	21 315	619 73! 427 51 1506 20: 2552 1000 875 3:	9 50 B 3 340	1146 1625 2772 951	1044 220 1264 46	Loss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	

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

Total Heat Loss 50,893 btu/h Division C subsection 3.2.5. of the Building Code. Individual BCIN: Total Heat Gain 27,421 btu/h

Man 16Cot 2

David DaCosta

SB-12 Package Package A1



50,893

27,421

btu/h

Total Heat Loss

Total Heat Gain

Heatloss/Gain Calculations CSA-F280-12

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e-mail dave@gtadesigns.ca

														c man d	ave@gtadesigns.ca	-					
		Builder:	Ва	yview Welli	ington	Da	te:		March 12, 20		_ ,			Weather Da	ata Bradford	d 44	-9.4 86 22	48.2			Page 5
2012 OBC		Project:	G	reen Valley	East	Mod	lel:		Barossa 5 S38-5	i	_	Systen	1 1	Heat Loss	s ^T 81.4 deg. F	Ht gain ^T	11 deg. F	GTA: 278	80 L	roject# I ayout# .	PJ-00204 JB-04482
	Level 3				MAST		ENS		BED 2	ВА	тн	wic		BED 3	LAUN	ENS 4	BEI	D 4			
	ft. exposed wall A				51 A		19 A		16 A	6 A		10 A		26 A	19 A	8 A	14 A		A	A	
Run	ft. exposed wall B				В		В		В	В		В		В	В	В	B 8.0		В	В	
	Ceiling height Floor area				9.0 341 Area		8.0 18 Area		3.0 84 Area	8.0 80 Area		8.0 27 Area		10.0 266 Area	9.0 81 Area	8.0 106 Area	8.0 190 Area	8	.0 Area	8.0 Area	
Ex	xposed Ceilings A				341 A		18 A		84 A	80 A		27 A		266 A	81 A	106 A	190 A		A	A	
	xposed Ceilings B				В		В		В	В		В		В	В	В	В		В	В	
	Exposed Floors				Flr		Flr		17 Flr	70 Flr		27 Flr		165 Flr	4 Flr	8 Flr	Flr		Flr	Flr	
	Gross Exp Wall A				459	1	52	1	28	48		80		260	171	64	112				
	Gross Exp Wall B Components	R-Values	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain Loss	Gain	Loss	Gain	Loss Gair	n Loss Gai	n Loss	Gain Loss	Gain	Loss Gain	Loss	Gain
	North Shaded								18 413		83 87									T [
	East/West				32 734	875	13 298	356				9 206	246			094					
	South													19 436	397 13 298	272 8 183	167 16 30	67 334			
	Existing Windows		40.90 40.10	22.15 88.23																	
	Skylight Doors	4.00	20.35	2.75																	
Ne	et exposed walls A		4.78	0.65	427 2041	276	39 664	90 1	10 526	71 40 1	91 26	71 339	46	198 946	128 118 564	76 56 268	36 96 4	59 62			
	t exposed walls B		9.58	1.29																	
	xposed Ceilings A		1.37	0.64	341 469	219 1	18 162	76 1	84 253	118 80 1	10 51	27 37	17	266 366	171 81 111	52 106 146	68 190 20	61 122			
E	xposed Ceilings B Exposed Floors		3.56 2.73	1.66 0.17					17 46	3 70 1	91 12	27 74	5	165 451	28 4 11	1 8 22	1				
Foundation Condu		25.00	2.73	0.17					17 40	3 70 1	31 12	21 14	J	103 431	20 4 11	1 0 22					
Total Conductive	Heat Loss				3243		1125		1238		76	657		3184	1902	619	108				
	Heat Gain					1370		521		388	176		314			495	273	518			
Air Leakage	Heat Loss/Gain Case 1		0.2175 0.02	0.0367	705	50	245	19	269	14 1	47 6	143	12	693	70 414	55 135	10 23	36 19			
Ventilation	Case 1		14.07	11.88																	
	Case 3		0.03	0.07	106	95	37	36	40	27	22 12	21	22	104	132 62	104 20	19	35 36			
	Heat Gain People			239	2	478			1	239				1	239		1	239			
	Appliances Loads Ouct and Pipe loss		percent	4585 10%							82 18	1 80	31	1 388	0.5 214	573					
Level 3 HL Total	17,713		otal HL for		4055		1406		1547		27	901	31	4368	2377	773	139	59			
Level 3 HG Total	12,640		I HG per ro			2591		749		869	276		492			894	392	1056			
	Level 4																				
Run	ft. exposed wall A	<u>l</u>			Α		Α		Α	А		Α		Α	Α	Α	Α		A	Α	
	ft. exposed wall B				В		В		В	B		В		В	В	В	В		В	В	
	Ceiling height																				
_	Floor area				Area		Area		Area	Area		Area		Area	Area	Area	Area		Area	Area	
	xposed Ceilings A xposed Ceilings B				A B		A B		A B	A B		A B		A B	A B	A B	A B		A B	A B	
E)	Exposed Floors				Flr		Flr		Fir	Flr		Fir		Flr	Fir	Flr	Fir		Fir	Fir	
	Gross Exp Wall A																				
	Gross Exp Wall B																				
	Components			Gain	Loss	Gain	Loss	Gain	Loss	Gain Loss	Gain	Loss	Gain	Loss Gair	n Loss Gai	n Loss	Gain Loss	Gain	Loss Gain	Loss	Gain
	North Shaded East/West	3.55 3.55		10.91 27.35																	
	South	3.55		20.89																	
	Existing Windows	1.99	40.90	22.15																	
	Skylight	2.03		88.23																	
No	Doors et exposed walls A		20.35 4.78	2.75 0.65																	
	et exposed walls B		9.58	1.29																	
E	xposed Ceilings A	59.22	1.37	0.64																	
	xposed Ceilings B	22.86	3.56	1.66																	
Foundation Condu	Exposed Floors	29.80	2.73	0.17																	
	Heat Loss																				
Total Conductive	Heat Gain																				
Air Leakage	Heat Loss/Gain		0.0000	0.0367																	
Ventilation	Case 1		0.00	0.07																	
Vendiduon	Case 2		14.07 0.03	11.88 0.07																	
	Heat Gain People		0.03	239																	
	Appliances Loads	1 =.25 p	percent	4585											_						
	Ouct and Pipe loss			10%												- •					
Level 4 HL Total Level 4 HG Total	0		otal HL for I HG per ro																		
Level 4 no lotal	U	ıota	i no per ro	JUHI X 1.3	<u> </u>																1 1
																				SR-12 Packa	

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:

Mane Maleta

David DaCosta

SB-12 Package Package A1



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

Project # Layout #

David DaCosta

Page 6 PJ-00204 JB-04482

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 Mana Aleta

System Design Option

HRV WITH DUCTING / forced air system

HRV simplified connection to forced air system

HRV full ducting/not coupled to forced air system

Exhaust only / forced air system

Part 6 design

1 2

3

4

Χ

Package: Project:	Package A1 Bradford	Model:	S38-5	
rioject.				
	RESIDENTIAL MECHANICAL			
	For systems serving one dwelling unit & co	ntorming to the Untario Buildii	ng Code, O.reg 332/12	
	Location of Installation	Total \	Ventilation Capacity 9.32.3	3.3(1)
Lot #	Plan #			
Tourshin		Bsmt & Master Bdrm		ofm 42.4 cfm
Township	Bradford	Other Bedrooms Bathrooms & Kitcher	· -	ofm 31.8 cfm ofm 53 cfm
Roll #	Permit #	Other rooms	5 @ 10.6 c	
			Total	180.2
Address				
		Princina	I Ventilation Capacity 9.3	2 3 4(1)
	Builder	Типогра	ii ventilation Capacity 5.52	L.J. T (1)
Name		Master bedroom	1 @ 31.8 d	rfm 31.8 cfm
A .1.1	Bayview Wellington	Other bedrooms		ofm 47.7 cfm
Address			Total	79.5
City				
J.,		Prir	ncipal Exhaust Fan Capac	ity
Tel	Fax	Make	Model	Location
		LifeBreath	RNC155	Paga
	Installing Contractor	Lilebreath	KINC 155	Base
Name	motaling contractor	132 cfm		Sones or Equiv.
Address		Make	Heat Recovery Ventilator LifeBreath	
City		Model	RNC155	
			132 cfm high	80 cfm low
Tel	Fax	Sensible efficiency		<u>71%</u> 75%
		Sensible efficiency @	alance HRV/ERV to within 1	
	Combustion Appliances 9.32.3.1(1)		lemental Ventilation Capa	·
a) x	Direct vent (sealed combustion) only			
b)	Positive venting induced draft (except fireplaces) Natural draft, B-vent or induced draft fireplaces	Total ventilation capa Less principal exhau	•	180.2 79.5
c) d)	Solid fuel (including fireplaces)	REQUIRED supplem		100.7 cfm
e)	No combustion Appliances		,	
, 🗀	**			
			upplemental Fans 9.32.3.5	
x	Heating System Forced air	Location Ens	cfm Model 50 XB50	Sones 0.3
	Non forced air	Bath	50 XB50	0.3
	Electric space heat (if over 10% of heat load)	Ens 4	50 XB50	0.3
	House Type 9.32.3.1(2)	ı İ		
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		nis ventilation system has b ne Ontario Building Code.	een designed



♦GTA\DESIGNS

Energy Efficiency Design Summary: Prescriptive Method

(Building Code Part 9, Residential)

Page 7

Project # PJ-00204 Layout # JB-04482

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	e by Princip	oal Author	ty							
Application No:					Model/Certification Number								
A. Project Information													
Building number, street name			Baross	sa 5			Unit nu	nber	Lot/Con				
			S38-	5									
Municipality Bradford			Postal co	de	Reg. Plan	number / oth	her desc	ription	1				
Bradiora													
B. Prescriptive Compliance [indica	ate the bu	ilding cod	e complia	ance packa	ge being e	employed in	the hou	se design]					
SB-12 Prescriptive (input design pa	ckage):			<u>Pack</u>	kage A1 Table: <u>3.1.1.2.A</u>								
C. Project Design Conditions													
Climatic Zone (SB-1):		Heat. E	auip. Ef	fficiency	Space Heating Fuel Source								
✓ Zone 1 (< 5000 degree days)			% AFUE		✓	Gas				Solid Fuel			
Zone 2 (≥ 5000 degree days)		—	4% < 92			Oil			Earth Energy				
Ratio of Windows, Skylights & Glas	s (W. S				Oil Electric Earth Energy Other Building Characteristics								
ratio of minabile, englighte a black	,		7411	· 4	☐ Log/F	Post&Beam		ICF Above		☐ ICF Basement			
Area of Walls = 354.07 m ² or 3811.2	ft²	W,S &	G % =	12%		on-ground	-	☐ Walkout Ba					
		11,00	O 70			onditionina	Γ	☐ Combo Uni					
Area of W, S & G = 42.734 m ² or 460.0	ft²	Utilize V	Vindow	☐ Yes		ourced Hea			•				
<u> </u>		Avera		☑ No		nd Source I	•	` ,					
D. Building Specifications [provide	values a												
Energy Efficiency Substitutions	values a	ina ratings	or tile ci	icigy cilici	cricy corri	onenta prop	poscuj						
☐ ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5))													
☐ Combined space heating and domestic	water he	ating syst	ems (3.1	.1.2(7) / 3.	1.1.3.(7))								
☐ Airtightness substitution(s)		Table 3.1	.1.4.B	Required:				Permitted :	Substitution	:			
Airtightness test required				Required:	•								
(Refer to Design Guide Attached)	Ш	Table 3.1	.1.4.C	Required:				Permitted :	Substitution	:			
	Minii	mum RS	I/R-Valu	es or									
Building Component	N	/laximun	า U-Valu	ıe¹		Build	ding Co	omponent		Efficiency Ratings			
Thermal Insulation	Non	ninal	Effe	ective	Windov	vs & Doo	rs Prov	ide U-Value ⁽¹⁾ d	or ER rating				
Ceiling with Attic Space	6	0			Window	s/Sliding G	lass Do	ors		1.6			
Ceiling without Attic Space	3	1			Skylights	3				2.8			
Exposed Floor	3	1			Mechar	nicals							
Walls Above Grade	22				Heating	Equip.(AFL	JE)			96%			
Basement Walls		20.0ci			HRV Eff	iciency (SR	RE% at 0	°C)		75%			
Slab (all >600mm below grade)	2	x			DHW He	eater (EF)				0.80			
Slab (edge only ≤600mm below grade)	0			DWHR (CSA B55.1	(min. 42	% efficiency))		#Showers 2				
Slab (all ≤600mm below grade, or heated)	1	0			Combine	ed Heating	Systen	1					
(1) U value to be provided in either $W/(m^2 \cdot K)$ or Bt	u/(h·ft·F) k	out not bot	h.										
E. Designer(s) [name(s) & BCIN(s), if	applicable	e, of perso	n(s) prov	iding infor	mation her	ein to subst	antiate	hat design mee	ts building	code]			
Name				BCIN		Signature	!	. 1	1 1	· ,			
David DaCosta				329	964			Mane	14C=	₹ 7			

Form authorized by OHBA, OBOA, LMCBO. Revised December 1, 2016.





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

Page PJ-00204 Project # JB-04482 Layout #

System 1 Package: Package A1 System: Project: **Bradford** Model: S38-5

Air Leakage Calculations

Building Air Leakage Heat Loss												
В	LRairh	Vb	HL^T	HLleak								
0.018	0.316	32202	81.4	14929								

	Building Air Leakage Heat Gain												
В	LRairh	Vb	HG^T	HG Leak									
0.018													

	Air Leakage Heat Loss/Gain Multiplier Table (Section 11)										
Level	Level	Building	Level Conductive	Air Leakage Heat Loss							
Level	Factor (LF)	Air	Heat Loss	Multiplier							
Level 1	0.5		7507	0.9944							
Level 2	0.3	14929	13060	0.3430							
Level 3	0.2	14929	13730	0.2175							
Level 4	0		0	0.0000							

		Air Leakage Heat Gain
HG LEAK	500	0.0367
BUILDING CONDUCTIVE HEAT GAIN	13606	0.0307

Levels													
1	2	3	4										
(LF)	(LF)	(LF)	(LF)										
1.0	0.6	0.5	0.4										
	0.4	0.3	0.3										
·		0.2	0.2										
·	0.2 0.2												

Levels this Dwelling	
3	

Ventilation Calculations

Ventilation Heat Loss					
Ventilation Heat Loss					
С	PVC	HL^T	(1-E) HRV	HLbvent	
1.08	79.5	81.4	0.16	1118	

Case 1

ent

	V	entilation I	Heat Gain
С	PVC	HG^T	HGbvent
1.1	79.5	11	944

Ventilation Heat Loss (Exhaust only Systems)

Case 1 - Exhaust Only				
LF	HLbvent	LVL Cond. HL	Multiplier	
0.5		7507	0.07	
0.0		12060	0.00	

Ventilation Heat Gain (Exhaust Only Systems)		
Case 1 - Exhaust Only	Multiplier	

Case 1

Case 2

Ventilation Heat Gain (Direct Ducted Systems)

Ventilation Heat Gain

Case 1 - Exhaust Only					
Level	LF	HLbvent	LVL Cond. HL	Multiplier	
Level 1	0.5	1118	7507	0.07	
Level 2	0.3		13060	0.03	
Level 3	0.2		13730	0.02	
Level 4	0		0	0.00	

Case 2

	377	0.07
Building	13606	0.07

Ventilation Heat Loss (Direct Ducted	Systems)

			Multiplier
C	HL^T	(1-E) HRV	14.07
08	81.4	0.16	14.07

		Multiplier
С	HG^T	11.88
4.00	44	11.00

Case 3

entilation Heat Loss	(Forced Air System	5

Ventilation Heat Gain	(Forced Air Systems)
Ventuation ricat Gain	i orccu Air Systems,

Case 3

	HLbvent	Multiplier
Total Ventilation Load	1118	0.03

		Vent Heat Gain	Multiplier
HGbvent	HG*1.3	944	0.07
944	1	344	0.07

Foundation Conductive Heatloss Level 1

1947

HGbvent

Watts

6644

Btu/h

Foundation Conductive Heatloss Level 2

Watts

Btu/h

32964



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	ding		
Building Site:	Suburban, forest ▼		
Walls:	Heavy ▼		
Flue:	Heavy ▼		
Highest Ceiling Height (m):	6.55		
Building Config	guration		
Type:	Detached		
Number of Stories:	Two		
Foundation:	Full		
House Volume (m³):	911.96		
Air Leakage/Ve	entilation		
Air Tightness Type:	Present (1961-) (ACH=3.57)		
	ELA @ 10 Pa. 322.44 cm²		
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):	0.316		
Cooling Air Leakage Rate (ACH/H):	0.078		

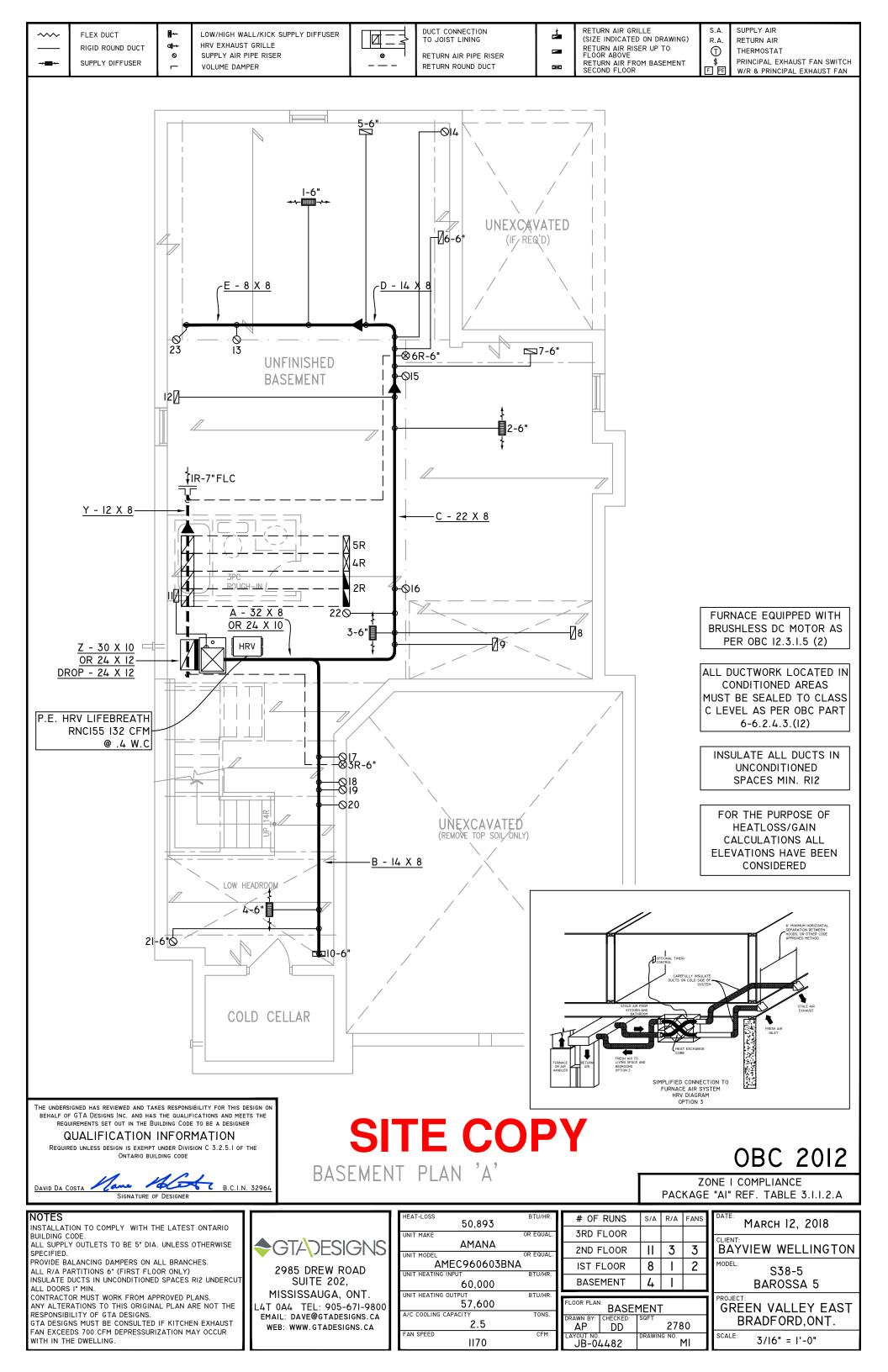
SITE COPY

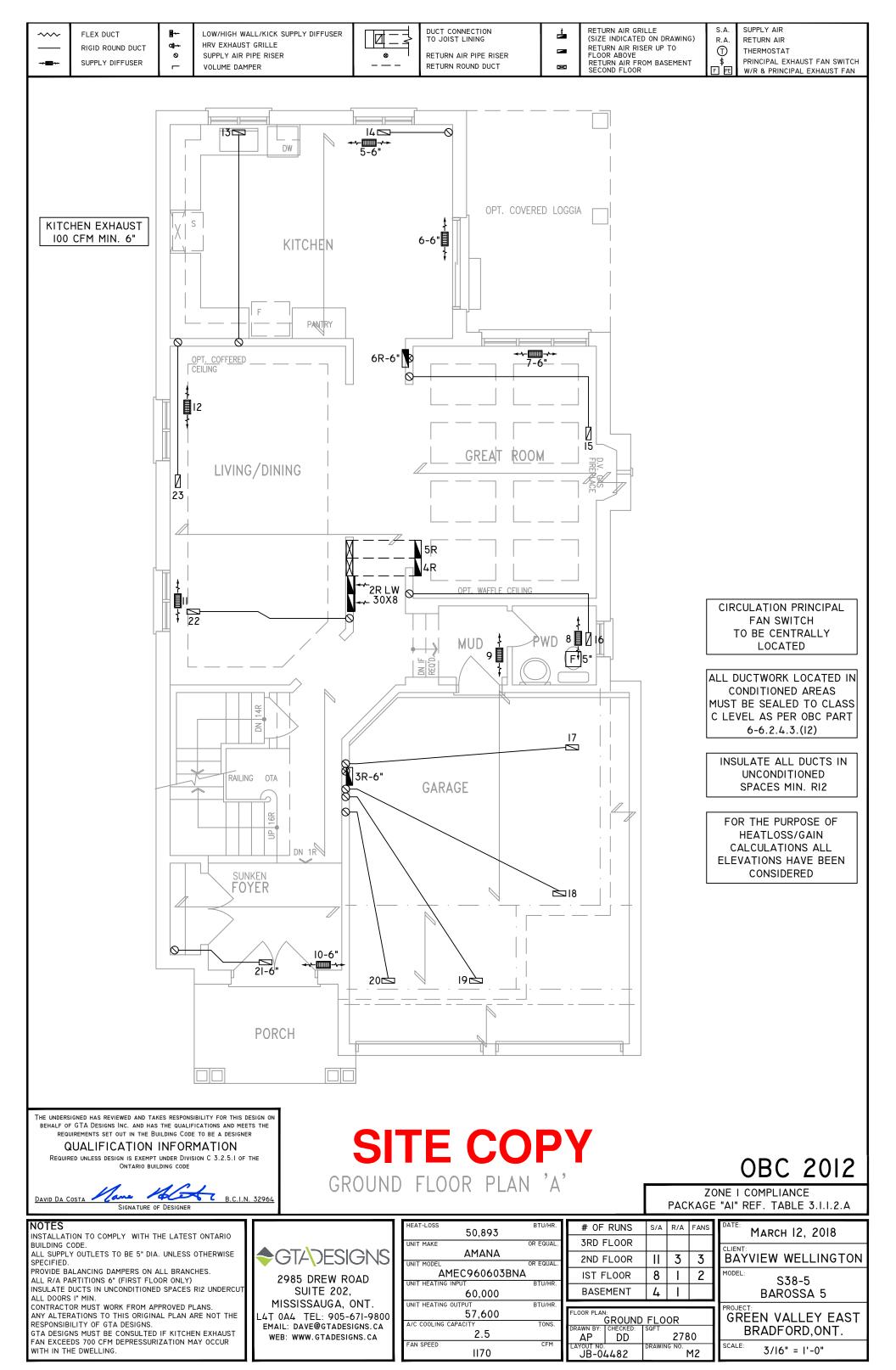
Residential Foundation Thermal Load Calculator

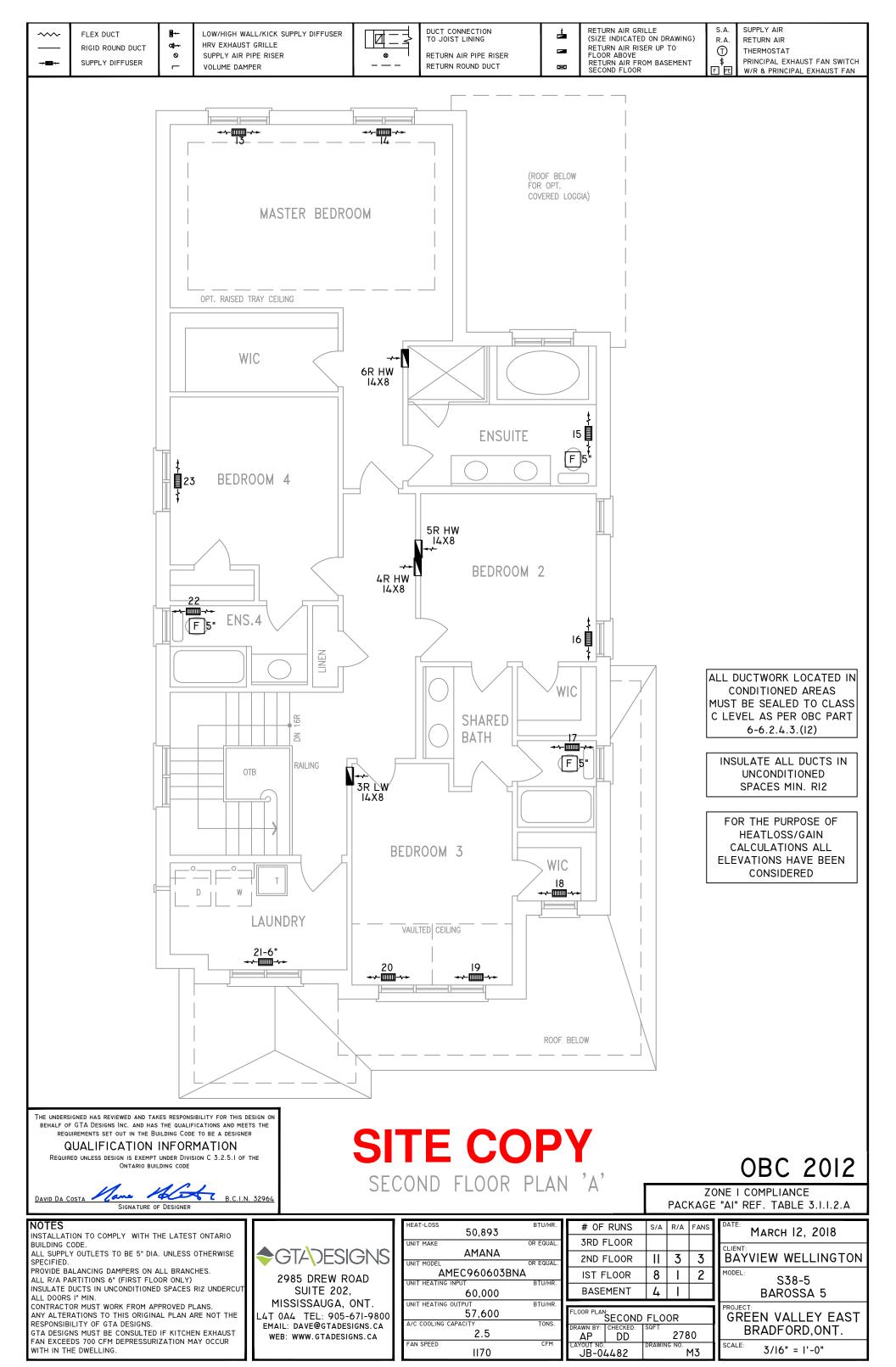
Supplemental tool for CAN/CSA-F280

Weather Station Description					
Province:		Ontario			
Region:		Bradford ▼			
	Site D	escription			
Soil Conductivity: High conductivity: moist soil		High conductivity: moist soil ▼			
Water Table:		Normal (7-10 m, 23-33 Ft) ▼			
Fou	ındatio	n Dimensions			
Floor Length (m):	20.58				
Floor Width (m):	5.02				
Exposed Perimeter (m):	51.21				
Wall Height (m):	2.74				
Depth Below Grade (m):	1.68	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				
Design Months					
Heating Month	1				
Foundation Loads					
Heating Load (Watts): 1947					

SITE COPY







FLEX DUCT RIGID ROUND DUCT SUPPLY DIFFUSER

LOW/HIGH WALL/KICK SUPPLY DIFFUSER HRV EXHAUST GRILLE **a**|⊶ SUPPLY AIR PIPE RISER VOLUME DAMPER

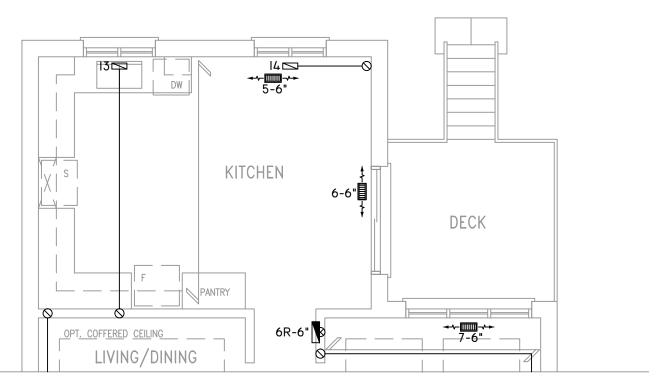


DUCT CONNECTION TO JOIST LINING RETURN AIR PIPE RISER RETURN ROUND DUCT

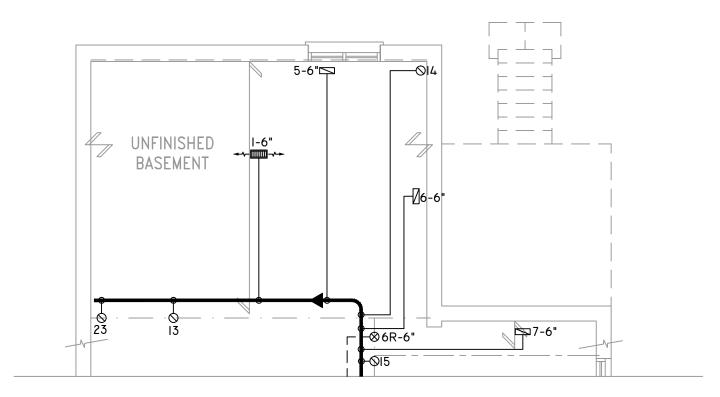
RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) RETURN AIR RISER UP TO FLOOR ABOVE RETURN AIR FROM BASEMENT SECOND FLOOR

R.A. ➀

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 ELEVS 'B' & 'C' SIMILAR

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

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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 RI2 UNDERCUT ALL DOORS I" MIN.

CONTRACTOR MUST WORK FROM APPROVED PLANS.
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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.
50,893	
UNIT MAKE	OR EQUAL.
AMANA	
UNIT MODEL	OR EQUAL.
AMEC960603BNA	
UNIT HEATING INPUT	BTU/HR.
60,000	
UNIT HEATING OUTPUT	BTU/HR.
57,600	
A/C COOLING CAPACITY	TONS.
2.5	
FAN SPEED	CFM
1170	

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	Ш	3	3
IST FLOOR	8	_	2
BASEMENT	4	_	
FLOOR PLAN: PARTIAL PLAN(S)			

2780

DRAWING NO. M4

AP DD

JB-04482

DATE:	MARCH 12, 2018
BAY	VIEW WELLINGTON
MODEL:	S38-5 BAROSSA 5
PROJEC	TE FN VALLEY FAST

BRADFORD, ONT.

3/16" = 1'-0"

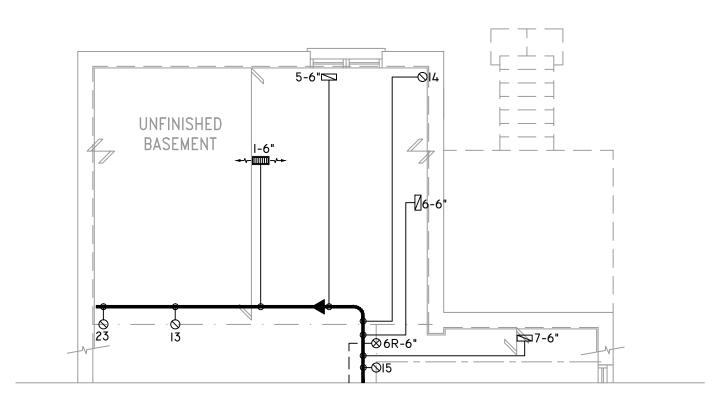
DUCT CONNECTION TO JOIST LINING RETURN AIR PIPE RISER

RETURN ROUND DUCT

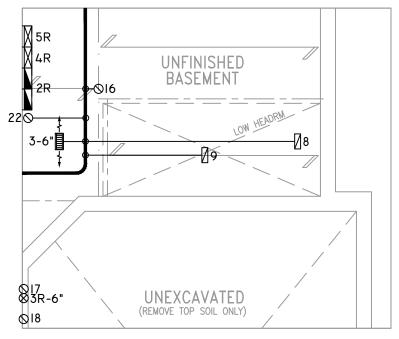
RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) RETURN AIR RISER UP TO FLOOR ABOVE RETURN AIR FROM BASEMENT SECOND FLOOR

R.A. ➀

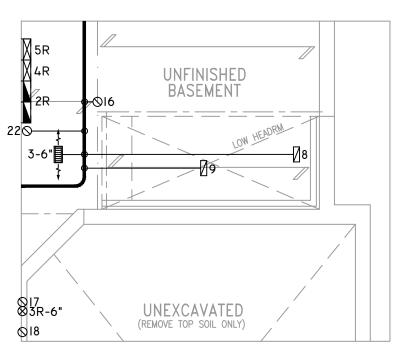
SUPPLY AIR RETURN AIR THERMOSTAT PRINCIPAL EXHAUST FAN SWITCH



PART BSMT PLAN 'C' WOD UPG CONDITION ONLY



PART BSMT PLAN MUDROOM & PWD SUNKEN 1R



PART BSMT PLAN MUDROOM & PWD SUNKEN 2-3R

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QUALIFICATION INFORMATION

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SITE COPY

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 RI2 UNDERCUT ALL DOORS I" MIN. CONTRACTOR MUST WORK FROM APPROVED PLANS. ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE

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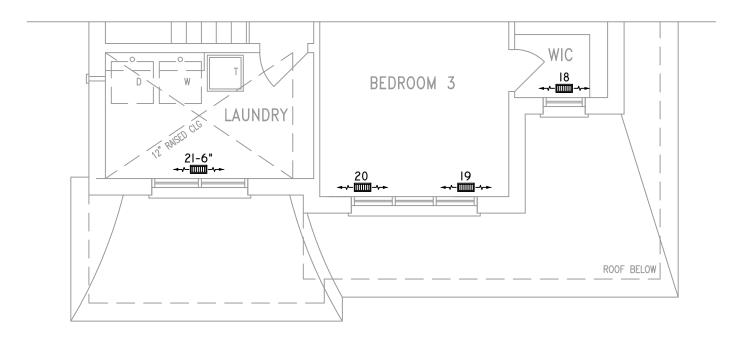
50,893	510/1111
UNIT MAKE	OR EQUAL.
AMANA	
UNIT MODEL	OR EQUAL.
AMEC960603BN	-
UNIT HEATING INPUT	BTU/HR.
60,000	
UNIT HEATING OUTPUT	BTU/HR.
57,600	
A/C COOLING CAPACITY	TONS.
2.5	
FAN SPEED	CFM
1170	

# 0F	RUNS	S/A	R/A	FANS
3RD F	FLOOR			
			_	_
2ND F	FLOOR	H	3	3
LOT F	1.000		-	
151 F	LOOR	8		2
BASEMENT		4	1	
BASEMENT		4	- 1	
FLOOR PLAN			1/01	
PARTIAL PLAN(S)				
DRAWN BY:	OTTE OTTE D.	SQFT		
AP	DD	2780		
LAYOUT NO.		DRAWING NO.		
JB-04482			I	M 5

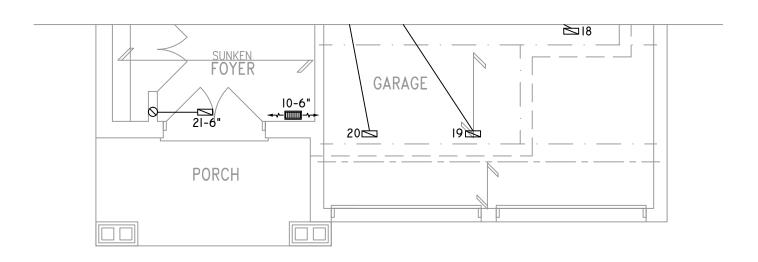
MARCH 12, 2018
BAYVIEW WELLINGTON
S38-5 BAROSSA 5
PROJECT: GREEN VALLEY EAST

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

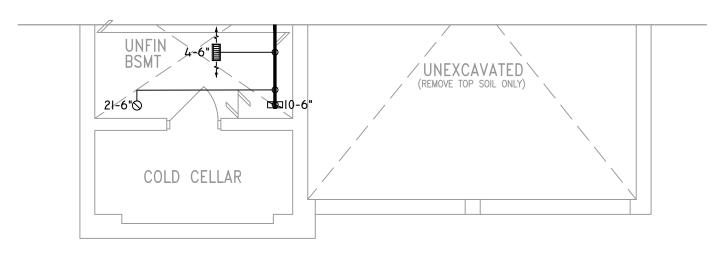
RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) DUCT CONNECTION FLEX DUCT LOW/HIGH WALL/KICK SUPPLY DIFFUSER À TO JOIST LINING R.A. HRV EXHAUST GRILLE **aj**↔ 0 RETURN AIR RISER UP TO FLOOR ABOVE RIGID ROUND DUCT 1 RETURN AIR PIPE RISER SUPPLY AIR PIPE RISER 8 RETURN AIR FROM BASEMENT SECOND FLOOR SUPPLY DIFFUSER RETURN ROUND DUCT VOLUME DAMPER



PART. SECOND FLOOR PLAN 'B'



PART. GROUND FLOOR PLAN 'B'



PART. BASEMENT PLAN 'B'

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OBC 2012

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

SUPPLY AIR

RETURN AIR

THERMOSTAT

PRINCIPAL EXHAUST FAN SWITCH

W/R & PRINCIPAL EXHAUST FAN

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SUITE 202, MISSISSAUGA, ONT.

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50,695	
UNIT MAKE	OR EQUAL.
AMANA	
UNIT MODEL	OR EQUAL.
AMEC960603BNA	
UNIT HEATING INPUT	BTU/HR.
60,000	
UNIT HEATING OUTPUT	BTU/HR.
57,600	
A/C COOLING CAPACITY	TONS.
2.5	
FAN SPEED	CFM
1170	

50 803

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	П	3	3
IST FLOOR	8	1	2
BASEMENT	4	1	
FLOOR PLAN: PARTIAL PLAN(S)			

DD

JB-04482

2780

DRAWING NO. M6

DATE:	MARCH 12, 2018
CLIENT: BAY	VIEW WELLINGTON
MODEL:	S38-5 BAROSSA 5
PROJEC	T: FRN VΔI I FY FΔST

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

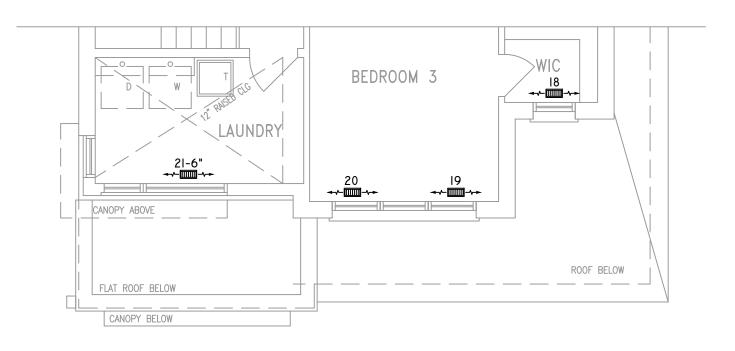
DUCT CONNECTION TO JOIST LINING FLEX DUCT LOW/HIGH WALL/KICK SUPPLY DIFFUSER HRV EXHAUST GRILLE RIGID ROUND DUCT 0 RETURN AIR PIPE RISER SUPPLY AIR PIPE RISER 8 SUPPLY DIFFUSER RETURN ROUND DUCT **VOLUME DAMPER**

4

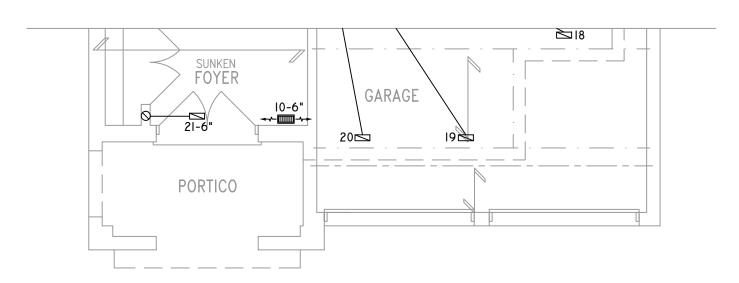
RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) RETURN AIR RISER UP TO FLOOR ABOVE RETURN AIR FROM BASEMENT SECOND FLOOR

R.A 1

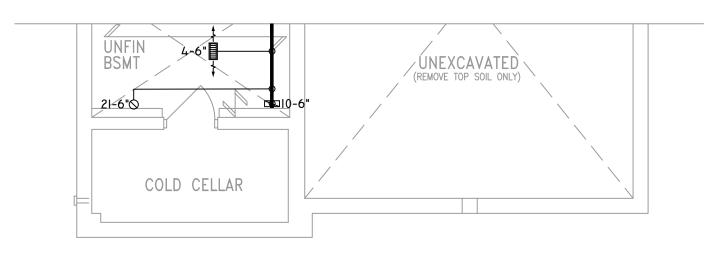
SUPPLY AIR RETURN AIR THERMOSTAT PRINCIPAL EXHAUST FAN SWITCH



PART. SECOND FLOOR PLAN 'C'



PART. GROUND FLOOR PLAN 'C'



PART. BASEMENT PLAN 'C'

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HEAT-LUSS	BIU/HK.
50,893	
UNIT MAKE	OR EQUAL.
AMANA	
UNIT MODEL	OR EQUAL.
AMEC960603BNA	
UNIT HEATING INPUT	BTU/HR.
60,000	
UNIT HEATING OUTPUT	BTU/HR.
57,600	
A/C COOLING CAPACITY	TONS.
2.5	
FAN SPEED	CFM
1170	

# OF RUNS	S/A	R/A	FANS	
3RD FLOOR				
2ND FLOOR	П	3	3	
IST FLOOR	8		2	
BASEMENT	4	-		
FLOOR PLAN: PARTIAL PLAN(S)				
DDAWN DV. CHECKED, SOFT				

AP DD

JB-04482

2780

DRAWING NO. M7

MARCH 12, 2018
BAYVIEW WELLINGTON
S38-5 BAROSSA 5
GREEN VALLEY EAST BRADFORD,ONT.

3/16" = 1'-0"

