

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 Barossa 16				Lot: S38-16 WOB	
Municipality Bradford				Postal code	Plan number/ other description
B. Individual who reviews and takes responsibility for design activities					
Name David DaCosta			Firm gtaDesigns Inc.		
Street address 2985 Drew Road, Suite 202				Unit no.	Lot/con.
Municipality Mississauga		Postal code L4T 0A4	Province Ontario	E-mail dave@gtadesigns.ca	
Telephone number (905) 671-9800		Fax number (647) 494-9643		Cell number (416) 268-6820	
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1 of Division C]					
☐ House ☒ HVAC – House ☐ Building Structural ☐ Small Buildings ☐ Building Services ☐ Plumbing – House ☐ Large Buildings ☐ Detection, Lighting and Power ☐ Plumbing – All Buildings ☐ Complex Buildings ☐ Fire Protection ☐ On-site Sewage Systems					
Description of designer's work Model Certification				Project #:	PJ-00204
				Layout #:	JB-04548
Heating and Cooling Load Calculations		Main	Builder	Bayview Wellington	
Air System Design		Alternate	Project	Green Valley East	
Residential mechanical ventilation Design Summary		Area Sq ft: 2386	Model	Barossa 16	
Residential System Design per CAN/CSA-F280-12				S38-16 WOB	
Residential New Construction - Forced Air			SB-12	Package A1	
D. Declaration of Designer					
I, <u>David DaCosta</u> declare that (choose one as appropriate): (print name)					
☐ I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4 Division C of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. Individual BCIN: _____ Firm BCIN: _____					
☒ I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5 of Division C, of the Building Code. Individual BCIN: <u>32964</u> Basis for exemption from registration: <u>Division C 3.2.4.1. (4)</u>					
☐ The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification: _____					
I certify that:					
1. The information contained in this schedule is true to the best of my knowledge.					
2. I have submitted this application with the knowledge and consent of the firm.					
<u>March 13, 2018</u>					
Date			Signature of Designer		

NOTE:

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

Heat loss and gain calculation summary sheet				CSA-F280-M12 Standard Form No. 1	
These documents issued for the use of Bayview Wellington				Layout No.	
and may not be used by any other persons without authorization. Documents for permit and/or construction are signed in red.				JB-04548	
Building Location					
Address (Model): S38-16 WOB			Site: Green Valley East		
Model: Barossa 16			Lot:		
City and Province: Bradford			Postal code:		
Calculations 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: 2386
Sensible Eff. at -0C 75%					
Heating design conditions			Cooling design conditions		
Outdoor temp -9.4 Indoor temp: 72 Mean soil temp: 48			Outdoor temp 86 Indoor temp: 75 Latitude: 44		
Above grade walls			Below grade walls		
Style A: As per OBC SB12 Package A1 R 22			Style A: As per OBC SB12 Package A1 R 20ci		
Style B: 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 C:		
Style B: Existing Windows (When Applicable) R 1.99			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: (416) 268-6820		
City: Mississauga			E-mail dave@gtadesigns.ca		

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Builder: **Bayview Wellington**

Date: **March 13, 2018**

Project: **Green Valley East**

Model: **Barossa 16
S38-16 WOB**

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 Building Code.

Individual BCIN: 32964 *David DaCosta* David DaCosta

Project # **PJ-00204**
Layout # **JB-04548**

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DESIGN LOAD SPECIFICATIONS		AIR DISTRIBUTION & PRESSURE		FURNACE/AIR HANDLER DATA:		BOILER/WATER HEATER DATA:		A/C UNIT DATA:	
Level 1 Net Load	16,255 btu/h	Equipment External Static Pressure	0.5 "w.c.	Make	Amana	Make	Type	Amana	2.5 Ton
Level 2 Net Load	19,096 btu/h	Additional Equipment Pressure Drop	0.225 "w.c.	Model	AMEC960603BNA	Model		Cond.-----	2.5
Level 3 Net Load	13,951 btu/h	Available Design Pressure	0.275 "w.c.	Input Btu/h	60000	Input Btu/h		Coil -----	2.5
Level 4 Net Load	0 btu/h	Return Branch Longest Effective Length	300 ft	Output Btu/h	57600	Output Btu/h			
Total Heat Loss	49,302 btu/h	R/A Plenum Pressure	0.138 "w.c.	E.s.p.	0.50	" W.C.			
Total Heat Gain	26,075 btu/h	S/A Plenum Pressure	0.14 "w.c.	Water Temp		deg. F.			
Combo System HL + 10%	54,232 Btu/h	Heating Air Flow Proportioning Factor	0.0237 cfm/btu/h	AFUE	96%				
Building Volume Vb	27268 ft³	Cooling Air Flow Proportioning Factor	0.0369 cfm/btu/h	Aux. Heat					
Ventilation Load	1,118 Btu/h.	R/A Temp	70 deg. F.	SB-12 Package	Package A1				
Ventilation PVC	79.5 cfm	S/A Temp	116 deg. F.						
Supply Branch and Grill Sizing		Diffuser loss	0.01 "w.c.	Temp. Rise>>>	46 deg. F.				

	Level 1														Level 2									
	1	2	3	4	24										5	6	7	8	9	10	11	12	13	
S/A Outlet No.	BASE	BASE	BASE	BASE	BASE										KIT	KIT	LIV	LIV	MUD	FOY	FOY	PWD	DIN	
Room Use	3251	3251	3251	3251	3251										2599	2599	1360	1360	1835	3419	3419	792	1713	
Btu/Outlet	77	77	77	77	77										62	62	32	32	44	81	81	19	41	
Heating Airflow Rate CFM	20	20	20	20	20										90	90	54	54	10	74	74	14	64	
Cooling Airflow Rate CFM	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
Duct Design Pressure	31	32	22	29	57										44	47	42	32	35	30	33	6	14	
Actual Duct Length	125	80	100	100	140	70	70	70	70	70	70	70	70	70	90	130	120	120	190	80	90	100	170	70
Equivalent Length	156	112	122	129	197	70	70	70	70	70	70	70	70	70	134	177	162	152	225	110	123	106	184	70
Total Effective Length	0.08	0.12	0.11	0.10	0.07	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.10	0.07	0.08	0.09	0.06	0.12	0.11	0.12	0.07	0.19
Adjusted Pressure	6	6	6	6	6										6	6	5	5	5	6	6	3	6	
Duct Size Round	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	3x10	4x10	4x10	3x10	4x10	4x10
Outlet Size	Trunk	B	B	B	A	C									B	C	C	C	C	A	A	A	B	

	Level 3												Level 4											
	14	15	16	17	18	19	20	21	22	23														
S/A Outlet No.	MAST	MAST	ENS	BED 2	BATH	WIC	BED 3	BED 3	LAUN	BED 4														
Room Use	1910	1910	1247	1440	966	772	1762	1762	937	1245														
Btu/Outlet	45	45	30	34	23	18	42	42	22	30														
Heating Airflow Rate CFM	46	46	27	32	10	10	48	48	37	37														
Cooling Airflow Rate CFM	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
Duct Design Pressure	44	56	65	46	46	50	50	49	19	30														
Actual Duct Length	155	150	150	130	170	160	150	140	105	110	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Equivalent Length	199	206	215	176	216	210	200	189	124	140	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Total Effective Length	0.07	0.06	0.06	0.07	0.06	0.06	0.07	0.07	0.10	0.09	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
Adjusted Pressure	5	5	4	4	4	4	5	5	4	4														
Duct Size Round	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Outlet Size	Trunk	B	B	C	C	A	A	A	A	A														

Return Branch and Grill Sizing		Grill Pressure Loss										0.02 "w.c.	
R/A Inlet No.	1R	2R	3R	4R	5R	6R	7R	8R	9R	10R	11R		
Inlet Air Volume CFM	193	480	104	97	148	148							
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		
Actual Duct Length	13	32	44	48	55	52							
Equivalent Length	75	125	165	205	205	155	50	50	50	50	50		
Total Effective Length	88	157	209	253	260	207	50	50	50	50	50		
Adjusted Pressure	0.13	0.07	0.06	0.05	0.05	0.06	0.24	0.24	0.24	0.24	0.24		
Duct Size Round	8.0	11.5	6.0	6.0	8.0	8.0							
Inlet Size	FLC	8	8	8	8	8							
" "	x	x	x	x	x	x	x	x	x	x	x		
Inlet Size	9x6	30	14	14	14	14							
Trunk	Z	Z	Z	Y	Y	Y							

Return Trunk Duct Sizing					Supply Trunk Duct Sizing				
Trunk	CFM	Press.	Round	Rect. Size	Trunk	CFM	Press.	Round	Rect. Size
Drop	1170	0.05	17.0	24x12	A	435	0.06	11.5	14x8 12x10
Z	1170	0.05	17.0	26x10 22x12	B	735	0.06	14.0	22x8 18x10
Y	393	0.05	11.5	14x8 12x10	C	311	0.06	10.0	12x8
X					D				
W					E				
V					F				
U					G				
T					H				
S					I				
R					J				
Q					K				

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2012 OBC	Builder: Bayview Wellington	Date: March 13, 2018	System 1	Weather Data		Bradford	44	-9.4	86	22	48.2		Page 4
	Project: Green Valley East	Model: Barossa 16 S38-16 WOB		Heat Loss ^T	81.4 deg. F	Ht gain ^T		11 deg. F	GTA:	2386	Project #	PJ-00204	
										Layout #	JB-04548		

Level 1				BASE																
Run ft. exposed wall A	98	A		A		A		A		A		A		A		A		A		
Run ft. exposed wall B	53	B		B		B		B		B		B		B		B		B		
Ceiling height	4.2	AG		4.2	AG		4.2	AG		4.2	AG		4.2	AG		4.2	AG		4.2	AG
Floor area	695	Area		Area		Area		Area		Area		Area		Area		Area		Area		
Exposed Ceilings A	A			A		A		A		A		A		A		A		A		
Exposed Ceilings B	B			B		B		B		B		B		B		B		B		
Exposed Floors	Flr			Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		
Gross Exp Wall A	407																			
Gross Exp Wall B	477																			
Components	R-Values	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	
North Shaded	3.55	22.93	10.91	3	69	33														
East/West	3.55	22.93	27.35																	
South	3.55	22.93	20.89	3	69	63														
WOB Windows	3.55	22.93	27.35	44	1009	1204														
Skylight	2.03	40.10	88.23																	
Doors	4.00	20.35	2.75	21	427	58														
Net exposed walls A	21.12	3.85	0.52	380		198														
Net exposed walls B	14.49	5.62	0.76	433	2432	329														
Exposed Ceilings A	59.22	1.37	0.64																	
Exposed Ceilings B	22.86	3.56	1.66																	
Exposed Floors	29.80	2.73	0.17																	
Foundation Conductive Heatloss	On Grade () or Above ()			5483																
Total Conductive	Heat Loss			9490																
	Heat Gain				1883															
Air Leakage	Heat Loss/Gain	0.6806	0.0316	6459		59														
Ventilation	Case 1		0.06																	
	Case 2		14.07																	
	Case 3	x	0.03																	
	Heat Gain People			306		130														
Appliances Loads	1 = .25 percent																			
Duct and Pipe loss			10%																	
Level 1 HL Total	16,255	Total HL for per room		16255																
Level 1 HG Total	2,694	Total HG per room x 1.3			2694															

Level 2				KIT		LIV		MUD		FOY		PWD		DIN		A		A		A		A																			
Run ft. exposed wall A				46		28		19		35		9		14		A		A		A		A																			
Run ft. exposed wall B				B		B		B		B		B		B		B		B		B		B																			
Ceiling height				10.0		10.0		12.0		19.0		10.0		10.0		10.0		10.0		10.0		10.0																			
Floor area				264 Area		188 Area		103 Area		127 Area		83 Area		202 Area		Area		Area		Area		Area																			
Exposed Ceilings A				A		A		A		127 A		A		A		A		A		A		A																			
Exposed Ceilings B				B		B		B		B		B		B		B		B		B		B																			
Exposed Floors				Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr																			
Gross Exp Wall A				460		280		228		665		90		140																											
Gross Exp Wall B																																									
Components				R-Values		Loss		Gain		Loss		Gain		Loss		Gain		Loss		Gain		Loss		Gain																	
North Shaded				3.55		22.93		10.91		47		1078		513				28		642		306																			
East/West				3.55		22.93		27.35		53		1215		1450				14		321		383																			
South				3.55		22.93		20.89																																	
Existing Windows				1.99		40.90		22.15																																	
Skylight				2.03		40.10		88.23																																	
Doors				4.00		20.35		2.75										21		427		58		20		407		55													
Net exposed walls A				17.03		4.78		0.65		360		1721		233		238		1138		154		207		989		134		556		2658		359									
Net exposed walls B				8.50		9.58		1.29																																	
Exposed Ceilings A				59.22		1.37		0.64																																	
Exposed Ceilings B				22.86		3.56		1.66																																	
Exposed Floors				29.80		2.73		0.17																																	
Foundation Conductive Heatloss				On Grade () or Above ()		x																																			
Total Conductive				Heat Loss						4014								2195				842		1417				5280				612				1323					
				Heat Gain								2195		69		552		27		372		191		6		1388		88				161		261		8		348		26	
Air Leakage				Heat Loss/Gain		0.2628		0.0316		1055																															
Ventilation				Case 1		0.02		0.07																																	
				Case 2		14.07		11.88																																	
				Case 3		x		0.03		0.07																															
Heat Gain People								239		1.5		129		151		68		58		46		13		193		20		18				43		56							
Appliances Loads				1 = .25 percent		3513				1.5		1317		1.5				1317										0.5				439									
Duct and Pipe loss						10%																																			
Level 2 HL Total				19,096		Total HL per per room				5198				2720		1835		6838				4007				792		373		1713		1743									
Level 2 HG Total				14,166		Total HG per room x 1.3				4853				2917		274																									

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Total Heat Loss	49,302	btu/h
Total Heat Gain	26,075	btu/h

2012 OBC	Builder: Bayview Wellington	Date: March 13, 2018	System 1	Weather Data		Bradford	44	-9.4	86	22	48.2	Page 5
	Project: Green Valley East	Model: Barossa 16 S38-16 WOB		Heat Loss ^T	81.4 deg. F	Ht gain ^T	11 deg. F	GTA:	2386	Project #	PJ-00204 JB-04548	

Level 3		MAST		ENS		BED 2		BATH		WIC		BED 3		LAUN		BED 4		A		A		A					
Run ft. exposed wall A		46	A	15		10		6		10		20		11		13		A		A		A					
Run ft. exposed wall B		B		B		B		B		B		B		B		B		B		B		B					
Ceiling height		9.0		8.0		8.0		8.0		8.0		11.0		8.0		8.0		8.0		8.0		8.0					
Floor area		309	Area	120		171		100		23		125		121		135		Area		Area		Area					
Exposed Ceilings A		309	A	120		171		100		23		125		121		135		A		A		A					
Exposed Ceilings B		B		B		B		B		B		B		B		B		B		B		B					
Exposed Floors		Flr		Flr		43		71		23		125		Flr		Flr		Flr		Flr		Flr					
Gross Exp Wall A		414		120		80		48		80		220		88		104											
Gross Exp Wall B																											
Components	R-Values	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain				
North Shaded	3.55	22.93	10.91					16	367	175	76			12	275	131											
East/West	3.55	22.93	27.35	32	734	875	13	298	356			4	92	109	40	917	1094	8	183	167	16	367	334				
South	3.55	22.93	20.89																								
Existing Windows	1.99	40.90	22.15																								
Skylight	2.03	40.10	88.23																								
Doors	4.00	20.35	2.75																								
Net exposed walls A	17.03	4.78	0.65	382	1826	247	107	511	69	64	306	41	41	196	26	76	363	49	168	803	109	80	382	52	88	421	57
Net exposed walls B	8.50	9.58	1.29																								
Exposed Ceilings A	59.22	1.37	0.64	309	425	198	120	165	77	171	235	110	100	137	64	23	32	15	125	172	80	121	166	78	135	186	87
Exposed Ceilings B	22.86	3.56	1.66																								
Exposed Floors	29.80	2.73	0.17							43	117	7	71	194	12	23	63	4	125	341	21						
Foundation Conductive Heatloss																											
Total Conductive	Heat Loss			2984			974		1025		688		549		2509		732		973								
	Heat Gain				1320		502		333		179		177		1435		296		478								
Air Leakage	Heat Loss/Gain	0.2476	0.0316	739	42		241	16	254	11	170	6	136	6	621	45	181	9	241	15							
Ventilation	Case 1		0.02																								
	Case 2		14.07																								
	Case 3	x	0.03																								
Heat Gain People			239	2	96	91		31	35	1	33	23		18	12	1	81	99		24	20	1	31	33			
Appliances Loads		1 = .25 percent	3513																								
Duct and Pipe loss			10%							1	128	57	1	86	18	1	69	18	1	313	167	0.5		439			
Level 3 HL Total	13,951	Total HL for per room		3820			1247		1440		966		772		3524		937		1245								
Level 3 HG Total	9,215	Total HG per room x 1.3			2510		718		861		279		276		2581		995		994								

Level 4				A		A		A		A		A		A		A		A		A		A		A	
Run ft. exposed wall A	A			A		A		A		A		A		A		A		A		A		A		A	
Run ft. exposed wall B	B			B		B		B		B		B		B		B		B		B		B		B	
Ceiling height																									
Floor area	Area			Area		Area		Area		Area		Area		Area		Area		Area		Area		Area		Area	
Exposed Ceilings A	A			A		A		A		A		A		A		A		A		A		A		A	
Exposed Ceilings B	B			B		B		B		B		B		B		B		B		B		B		B	
Exposed Floors	Flr			Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr	
Gross Exp Wall A																									
Gross Exp Wall B																									
Components	R-Values	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain
North Shaded	3.55	22.93	10.91																						
East/West	3.55	22.93	27.35																						
South	3.55	22.93	20.89																						
Existing Windows	1.99	40.90	22.15																						
Skylight	2.03	40.10	88.23																						
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	22.86	3.56	1.66																						
Exposed Floors	29.80	2.73	0.17																						
Foundation Conductive Heatloss																									
Total Conductive	Heat Loss																								
	Heat Gain																								
Air Leakage	Heat Loss/Gain	0.0000	0.0316																						
Ventilation	Case 1		0.00																						
	Case 2		14.07																						
	Case 3	x	0.03																						
Heat Gain People			239																						
Appliances Loads	1 = .25 percent		3513																						
Duct and Pipe loss			10%																						
Level 4 HL Total	0																								
Level 4 HG Total	0																								

SITE COPY

Total Heat Loss	49,302	btu/h
Total Heat Gain	26,075	btu/h

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

[Signature]

David DaCosta

SB-12 Package

Package A1

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

Individual BCIN: 32964



David DaCosta

Package: Package A1
Project: Bradford
Model: S38-16 WOB

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

For systems serving one dwelling unit & conforming to the Ontario Building Code, O.reg 332/12

Location of Installation	
Lot #	Plan #
Township	Bradford
Roll #	Permit #
Address	

Builder	
Name	Bayview Wellington
Address	
City	
Tel	Fax

Installing Contractor	
Name	
Address	
City	
Tel	Fax

Combustion Appliances 9.32.3.1(1)		
a)	x	Direct vent (sealed combustion) only
b)		Positive venting induced draft (except fireplaces)
c)		Natural draft, B-vent or induced draft fireplaces
d)		Solid fuel (including fireplaces)
e)		No combustion Appliances

Heating System		
x	Forced air	Non forced air
		Electric space heat (if over 10% of heat load)

House Type 9.32.3.1(2)		
I	x	Type a) or b) appliances only, no solid fuel
II		Type I except with solid fuel (including fireplace)
III		Any type c) appliance
IV		Type I or II either electric space heat
Other		Type I, II or IV no forced air

System Design Option		
1	x	Exhaust only / forced air system
2		HRV WITH DUCTING / forced air system
3		HRV simplified connection to forced air system
4		HRV full ducting/not coupled to forced air system
		Part 6 design

Total Ventilation Capacity 9.32.3.3(1)			
Bsmt & Master Bdrm	2 @ 21.2 cfm	42.4 cfm	
Other Bedrooms	3 @ 10.6 cfm	31.8 cfm	
Bathrooms & Kitchen	4 @ 10.6 cfm	42.4 cfm	
Other rooms	4 @ 10.6 cfm	42.4 cfm	
Total		159	

Principal Ventilation Capacity 9.32.3.4(1)			
Master bedroom	1 @ 31.8 cfm	31.8 cfm	
Other bedrooms	3 @ 15.9 cfm	47.7 cfm	
Total		79.5	

Principal Exhaust Fan Capacity			
Make	Model	Location	
LifeBreath	RNC155	Base	
132 cfm		Sones	or Equiv.

Heat Recovery Ventilator			
Make	LifeBreath		
Model	RNC155		
	132 cfm high	80 cfm low	
Sensible efficiency @ -25 deg C		71%	
Sensible efficiency @ 0 deg C		75%	

Note: Installer to balance HRV/ERV to within 10 percent of PVC

Supplemental Ventilation Capacity	
Total ventilation capacity	159.0
Less principal exhaust capacity	79.5
REQUIRED supplemental vent. Capacity	79.5 cfm

Supplemental Fans 9.32.3.5.			
Location	cfm	Model	Sones
Ens	50	XB50	0.3
Bath	50	XB50	0.3
all fans HVI listed		Make	Broan or Equiv.

Designer Certification			
I hereby certify that this ventilation system has been designed in accordance with the Ontario Building Code.			
Name	David DaCosta		
Signature			
HRAI #	5190	BCIN #	32964
Date	March 13, 2018		

SITE COPY



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

Energy Efficiency Design Summary: Prescriptive Method (Building Code Part 9, Residential)

Page 7
 Project # PJ-00204
 Layout # JB-04548

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

For use by Principal Authority

Application No:

Model/Certification Number

A. Project Information

Building number, street name	Barossa 16 S38-16 WOB	Unit number	Lot/Con
Municipality	Bradford	Postal code	Reg. Plan number / other description

B. Prescriptive Compliance [indicate the building code compliance package being employed in the house design]

SB-12 Prescriptive (input design package):

Package A1

Table: 3.1.1.2.A

C. Project Design Conditions

Climatic Zone (SB-1):	Heat. Equip. Efficiency	Space Heating Fuel Source
☒ Zone 1 (< 5000 degree days) ☐ Zone 2 (≥ 5000 degree days)	☒ ≥ 92% AFUE ☐ ≥ 84% < 92% AFUE	☒ Gas ☐ Propane ☐ Solid Fuel ☐ Oil ☐ Electric ☐ Earth Energy
Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area	Other Building Characteristics	
Area of Walls = <u>362.38</u> m ² or <u>3900.6</u> ft ²	W, S & G % = <u>12%</u>	☐ Log/Post&Beam ☐ ICF Above Grade ☐ ICF Basement ☐ Slab-on-ground ☒ Walkout Basement ☒ Air Conditioning ☐ Combo Unit
Area of W, S & G = <u>44.128</u> m ² or <u>475.0</u> ft ²	Utilize Window ☐ Yes Averaging ☒ No	☐ Air Sourced Heat Pump (ASHP) ☐ Ground Source Heat Pump (GSHP)

D. Building Specifications [provide values and ratings of the energy efficiency components proposed]

Energy Efficiency Substitutions			
☐ ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5)) ☐ Combined space heating and domestic water heating systems (3.1.1.2(7) / 3.1.1.3.(7))			
☐ Airtightness substitution(s) Airtightness test required (Refer to Design Guide Attached)	☐ Table 3.1.1.4.B Required:		Permitted Substitution:
	☐ Table 3.1.1.4.C Required:		Permitted Substitution:
Building Component	Minimum RSI/R-Values or Maximum U-Value ¹		Efficiency Ratings
Thermal Insulation	Nominal	Effective	Windows & Doors Provide U-Value ⁽¹⁾ or ER rating
Ceiling with Attic Space	60		Windows/Sliding Glass Doors 1.6
Ceiling without Attic Space	31		Skylights 2.8
Exposed Floor	31		Mechanicals
Walls Above Grade	22		Heating Equip.(AFUE) 96%
Basement Walls	20.0ci		HRV Efficiency (SRE% at 0°C) 75%
Slab (all >600mm below grade)	x		DHW Heater (EF) 0.80
Slab (edge only ≤600mm below grade)	10		DWHR (CSA B55.1 (min. 42% efficiency)) #Showers 2
Slab (all ≤600mm below grade, or heated)	10		Combined Heating System

(1) U value to be provided in either W/(m²·K) or Btu/(h·ft²·F) but not both.

E. Designer(s) [name(s) & BCIN(s), if applicable, of person(s) providing information herein to substantiate that design meets building code]

Name	BCIN	Signature
David DaCosta	32964	

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

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Package: Package A1 System: System 1
Project: Bradford Model: S38-16 WOB

Air Leakage Calculations

Building Air Leakage Heat Loss				
B	LRairh	Vb	HL^T	HLleak
0.018	0.323	27268	81.4	12918

Building Air Leakage Heat Gain				
B	LRairh	Vb	HG^T	HG Leak
0.018	0.080	27268	11	433

Air Leakage Heat Loss/Gain Multiplier Table (Section 11)				
Level	Level Factor (LF)	Building Air	Level Conductive Heat Loss	Air Leakage Heat Loss Multiplier
Level 1	0.5	12918	9490	0.6806
Level 2	0.3		14745	0.2628
Level 3	0.2		10435	0.2476
Level 4	0		0	0.0000

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
			0.1

HG LEAK		Air Leakage Heat Gain	
	433		0.0316
BUILDING CONDUCTIVE HEAT GAIN		13712	

Levels this Dwelling	
3	

Ventilation Calculations

Ventilation Heat Loss

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

Ventilation Heat Gain

Ventilation Heat Gain			
C	PVC	HG^T	HGbvent
1.1	79.5	11	944

Case 1

Ventilation Heat Loss (Exhaust only Systems)

Case 1 - Exhaust Only				
Level	LF	HLbvent	LVL Cond. HL	Multiplier
Level 1	0.5	1118	9490	0.06
Level 2	0.3		14745	0.02
Level 3	0.2		10435	0.02
Level 4	0		0	0.00

Case 1

Ventilation Heat Gain (Exhaust Only Systems)

Case 1 - Exhaust Only		Multiplier	
HGbvent	944	0.07	
Building	13712		

Case 2

Ventilation Heat Loss (Direct Ducted Systems)

C	HL^T	(1-E) HRV	Multiplier
1.08	81.4	0.16	14.07

Case 2

Ventilation Heat Gain (Direct Ducted Systems)

C	HG^T	Multiplier
1.08	11	11.88

Case 3

Ventilation Heat Loss (Forced Air Systems)

HLbvent		Multiplier
Total Ventilation Load		1118
		0.03

Case 3

Ventilation Heat Gain (Forced Air Systems)

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

Foundation Conductive Heatloss Level 1

1607 Watts 5483 Btu/h

Foundation Conductive Heatloss Level 2

Watts Btu/h

Envelope Air Leakage Calculator

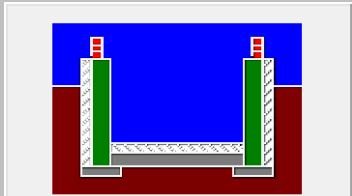
Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Bradford			
Weather Station Location:	Open flat terrain, grass			
Anemometer height (m):	10			
Local Shielding				
Building Site:	Suburban, forest			
Walls:	Heavy			
Flue:	Heavy			
Highest Ceiling Height (m):	6.75			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	772.23			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (ACH=3.57)			
Custom BDT Data:	ELA @ 10 Pa. 322.44 cm ²			
	3.57 ACH @ 50 Pa			
Mechanical Ventilation (L/s):	Total Supply:		Total Exhaust:	
	39.75		39.75	
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Heating Air Leakage Rate (ACH/H):		0.323		
Cooling Air Leakage Rate (ACH/H):		0.080		

SITE COPY

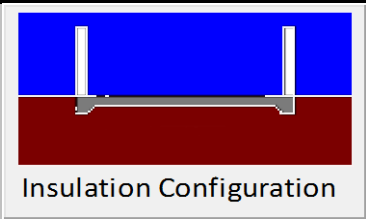
Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

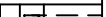
Weather Station Description		
Province:	Ontario ▼	
Region:	Bradford ▼	
Site Description		
Soil Conductivity:	High conductivity: moist soil ▼	
Water Table:	Normal (7-10 m, 23-33 Ft) ▼	
Foundation Dimensions		
Floor Length (m):	14.86	 Insulation Configuration
Floor Width (m):	4.35	
Exposed Perimeter (m):	29.87	
Wall Height (m):	2.74	
Depth Below Grade (m):	1.48	
Window Area (m ²):	0.56	
Door Area (m ²):	1.95	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		1356

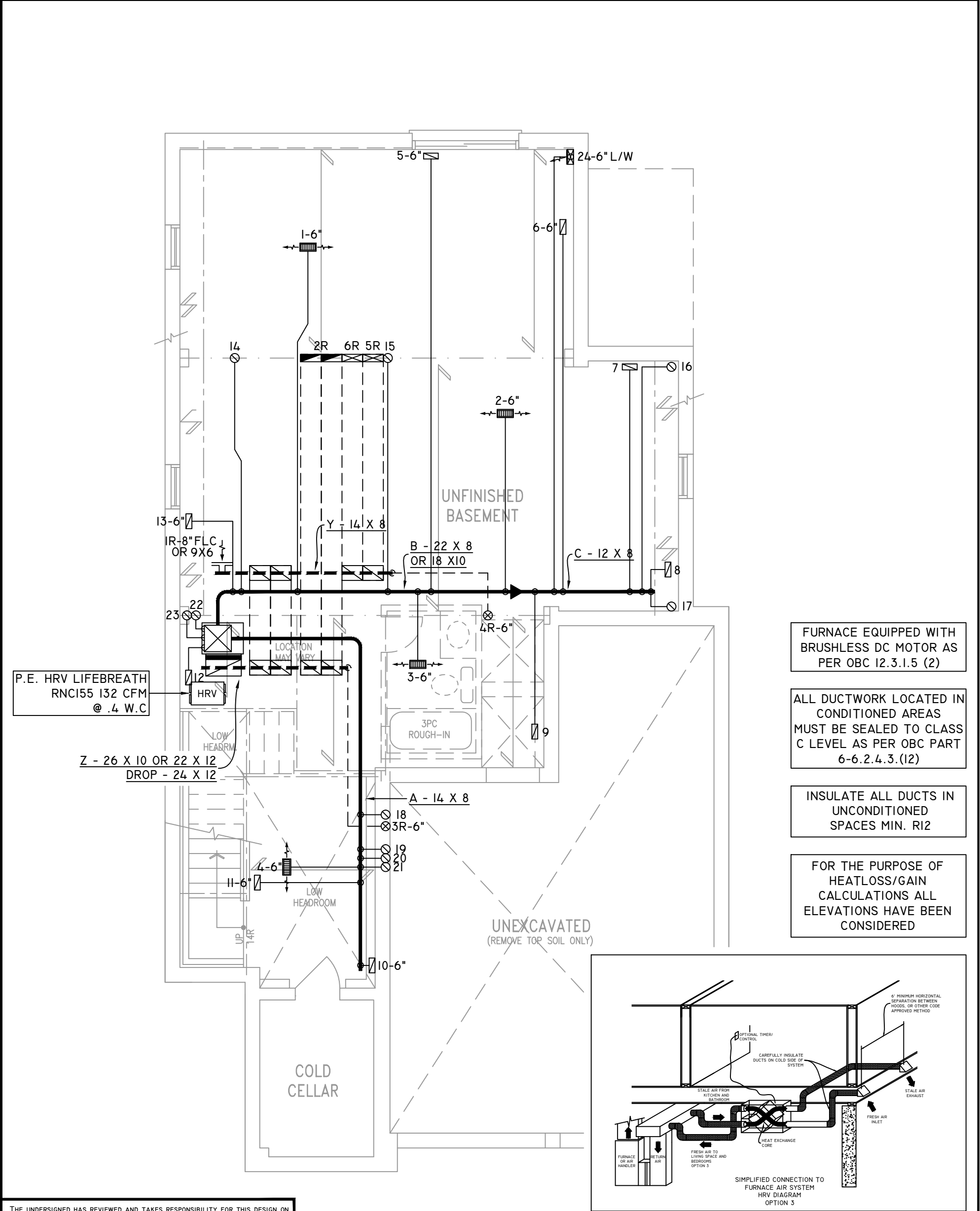
Residential Slab on Grade Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Bradford	
Site Description		
Soil Conductivity:	High conductivity: moist soil	
Water Table:	Normal (7-10 m, 23-33 Ft)	
Floor Dimensions		
Length (m):	9.66	 Insulation Configuration
Width (m):	2.68	
Exposed Perimeter (m):	16.15	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		251

SITE COPY

	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT SECOND FLOOR		THERMOSTAT
			VOLUME DAMPER						PRINCIPAL EXHAUST FAN SWITCH
									W/R & PRINCIPAL EXHAUST FAN



FURNACE EQUIPPED WITH
BRUSHLESS DC MOTOR AS
PER OBC 12.3.1.5 (2)

ALL DUCTWORK LOCATED IN
CONDITIONED AREAS
MUST BE SEALED TO CLASS
C LEVEL AS PER OBC PART
6-6.2.4.3.(12)

INSULATE ALL DUCTS IN
UNCONDITIONED
SPACES MIN. R12

FOR THE PURPOSE OF
HEATLOSS/GAIN
CALCULATIONS ALL
ELEVATIONS HAVE BEEN
CONSIDERED

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

QUALIFICATION INFORMATION

REQUIRED UNLESS DESIGN IS EXEMPT UNDER DIVISION C 3.2.5.1 OF THE ONTARIO BUILDING CODE

DAVID DA COSTA  B.C.I.N. 32964
SIGNATURE OF DESIGNER

BASEMENT PLAN 'A'

SITE COPY

OBC 2012

ZONE I COMPLIANCE
PACKAGE "A1" REF. TABLE 3.1.1.2.A

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.

ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.

PROVIDE BALANCING DAMPERS ON ALL BRANCHES.

ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)

INSULATE DUCTS IN UNCONDITIONED SPACES R12 UNDERCUT ALL DOORS 1" MIN.

CONTRACTOR MUST WORK FROM APPROVED PLANS.

ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.

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



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

HEAT-LOSS	49,302	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	2
1ST FLOOR	9	1	2
BASEMENT	5	1	

FLOOR PLAN:	BASEMENT
DRAWN BY:	AM
CHECKED:	DD
LAYOUT NO.	JB-04548
SQFT	2386
DRAWING NO.	MI

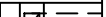
DATE: MARCH 12, 2018

CLIENT: BAYVIEW WELLINGTON

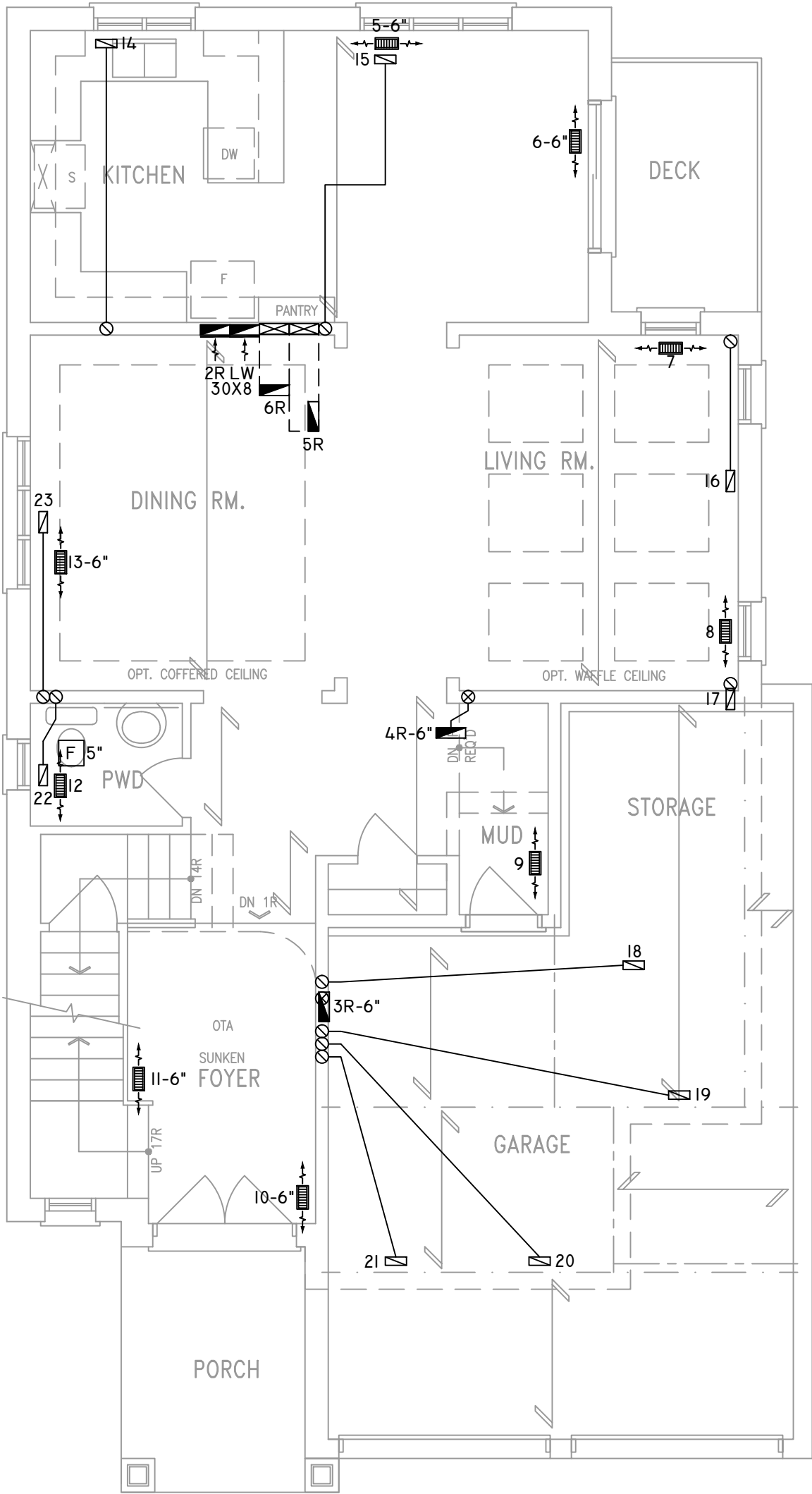
MODEL: S38-16 WOB BAROSSA 16

PROJECT: GREEN VALLEY EAST BRADFORD, ONT.

SCALE: 3/16" = 1'-0"

	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT SECOND FLOOR		THERMOSTAT
			VOLUME DAMPER						PRINCIPAL EXHAUST FAN SWITCH
									W/R & PRINCIPAL EXHAUST FAN

KITCHEN EXHAUST
100 CFM MIN. 6"



CIRCULATION PRINCIPAL
FAN SWITCH
TO BE CENTRALLY
LOCATED

ALL DUCTWORK LOCATED IN
CONDITIONED AREAS
MUST BE SEALED TO CLASS
C LEVEL AS PER OBC PART
6-6.2.4.3.(12)

INSULATE ALL DUCTS IN
UNCONDITIONED
SPACES MIN. R12

FOR THE PURPOSE OF
HEATLOSS/GAIN
CALCULATIONS ALL
ELEVATIONS HAVE BEEN
CONSIDERED

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

QUALIFICATION INFORMATION

REQUIRED UNLESS DESIGN IS EXEMPT UNDER DIVISION C 3.2.5.1 OF THE ONTARIO BUILDING CODE

DAVID DA COSTA  B.C.I.N. 32964
SIGNATURE OF DESIGNER

GROUND FLOOR PLAN 'A'
SITE COPY

OBC 2012

ZONE I COMPLIANCE
PACKAGE "A1" REF. TABLE 3.1.1.2.A

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.

ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.

PROVIDE BALANCING DAMPERS ON ALL BRANCHES.

ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)

INSULATE DUCTS IN UNCONDITIONED SPACES R12 UNDERCUT ALL DOORS 1" MIN.

CONTRACTOR MUST WORK FROM APPROVED PLANS.

ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.

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

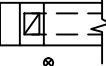
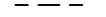

**2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA**

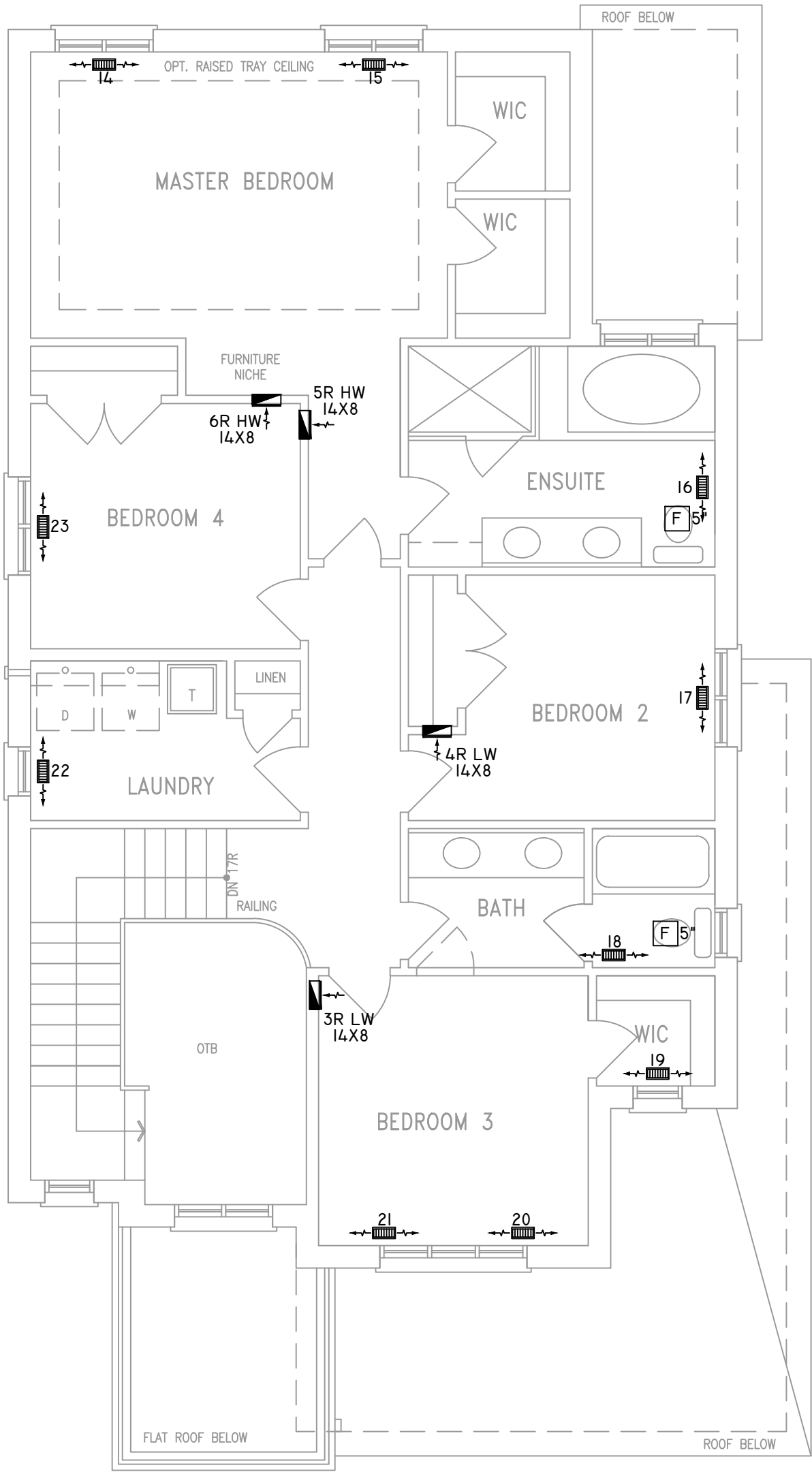
HEAT-LOSS	49,302	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	2
1ST FLOOR	9	1	2
BASEMENT	5	1	

FLOOR PLAN: GROUND FLOOR		
DRAWN BY: AM	CHECKED: DD	SQFT 2386
LAYOUT NO. JB-04548	DRAWING NO. M2	

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-16 WOB BAROSSA 16
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT SECOND FLOOR		THERMOSTAT
			VOLUME DAMPER						PRINCIPAL EXHAUST FAN SWITCH W/R & PRINCIPAL EXHAUST FAN



ALL DUCTWORK LOCATED IN
CONDITIONED AREAS
MUST BE SEALED TO CLASS
C LEVEL AS PER OBC PART
6-6.2.4.3.(12)

INSULATE ALL DUCTS IN
UNCONDITIONED
SPACES MIN. R12

FOR THE PURPOSE OF
HEATLOSS/GAIN
CALCULATIONS ALL
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CONSIDERED

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

QUALIFICATION INFORMATION

REQUIRED UNLESS DESIGN IS EXEMPT UNDER DIVISION C 3.2.5.1 OF THE ONTARIO BUILDING CODE

DAVID DA COSTA



B.C.I.N. 32964

SIGNATURE OF DESIGNER

SECOND FLOOR PLAN 'A'

SITE COPY

OBC 2012

ZONE I COMPLIANCE
PACKAGE "A1" REF. TABLE 3.1.1.2.A

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.

ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.

PROVIDE BALANCING DAMPERS ON ALL BRANCHES.

ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)

INSULATE DUCTS IN UNCONDITIONED SPACES R12 UNDERCUT ALL DOORS 1" MIN.

CONTRACTOR MUST WORK FROM APPROVED PLANS.

ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.

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



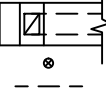
2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

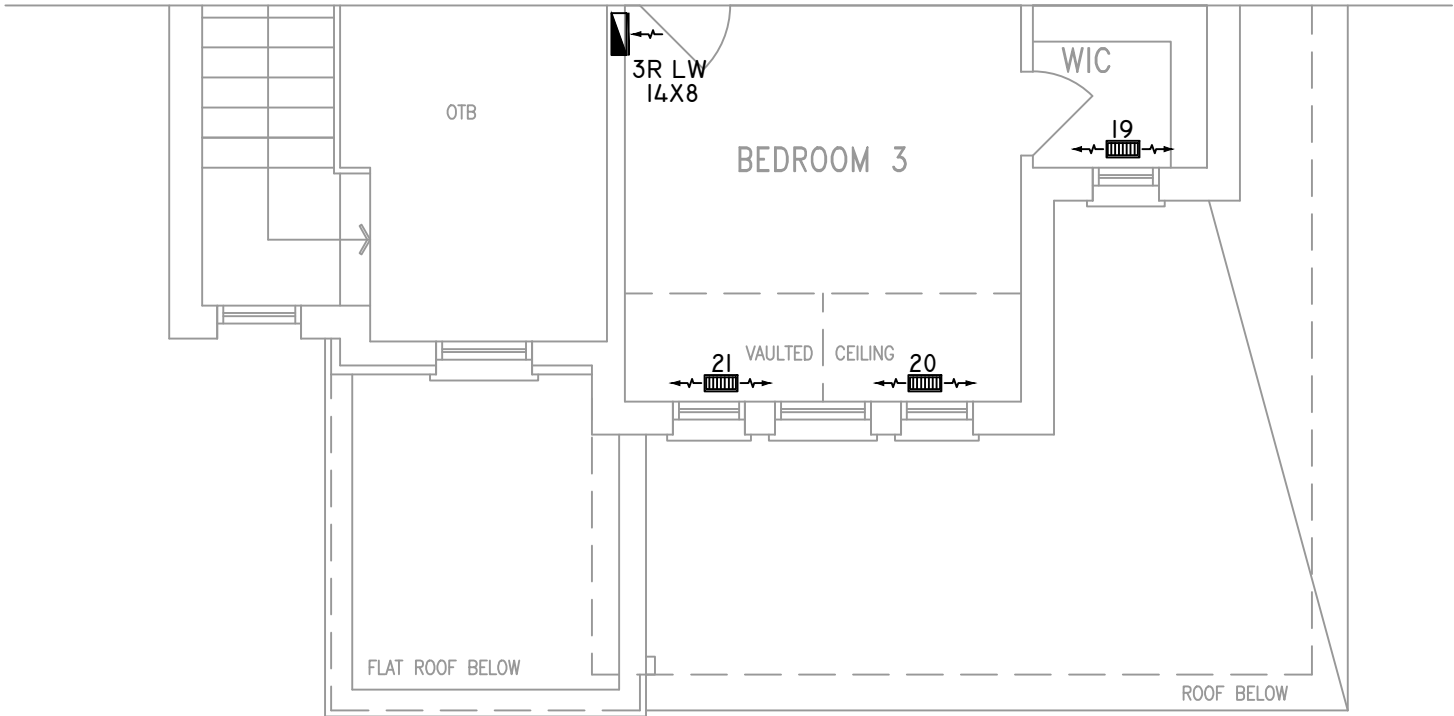
HEAT-LOSS	49,302	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	2
1ST FLOOR	9	1	2
BASEMENT	5	1	

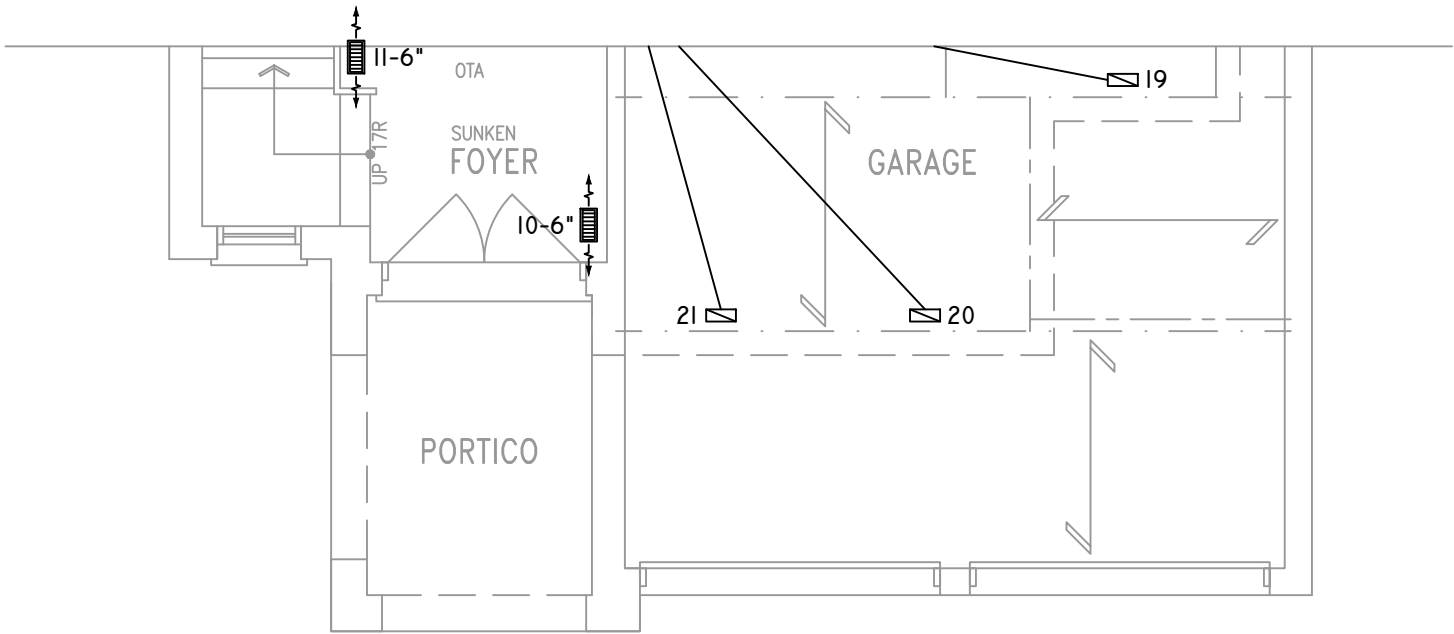
FLOOR PLAN: SECOND FLOOR		
DRAWN BY: AM	CHECKED: DD	SQFT 2386
LAYOUT NO. JB-04548	DRAWING NO. M3	

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-I6 WOB BAROSSA I6
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

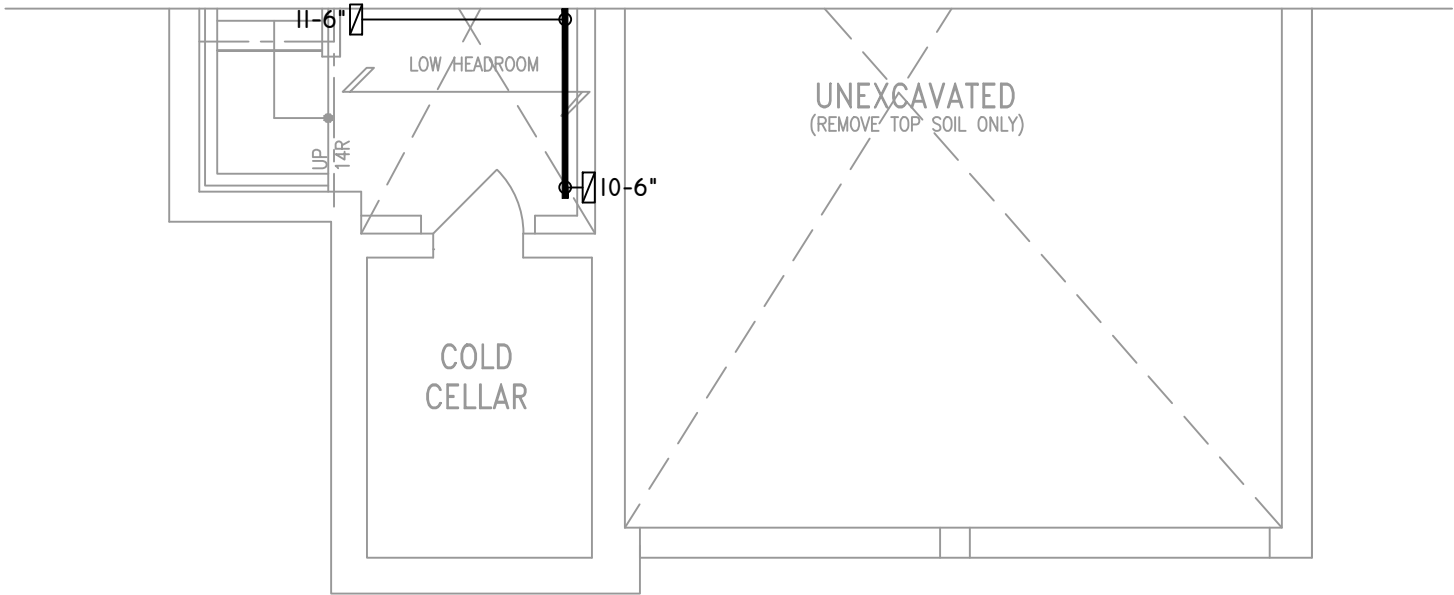
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT SECOND FLOOR		THERMOSTAT
			VOLUME DAMPER						PRINCIPAL EXHAUST FAN SWITCH
									W/R & PRINCIPAL EXHAUST FAN



PARTIAL SECOND FLOOR PLAN 'B'



PARTIAL GROUND FLOOR PLAN 'B'



PARTIAL BASEMENT PLAN 'B'

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

QUALIFICATION INFORMATION

REQUIRED UNLESS DESIGN IS EXEMPT UNDER DIVISION C 3.2.5.1 OF THE ONTARIO BUILDING CODE

DAVID DA COSTA  B.C.I.N. 32964

SIGNATURE OF DESIGNER

SITE COPY

OBC 2012

ZONE I COMPLIANCE
PACKAGE "A1" REF. TABLE 3.1.1.2.A

NOTES
INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.
PROVIDE BALANCING DAMPERS ON ALL BRANCHES.
ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)
INSULATE DUCTS IN UNCONDITIONED SPACES R12 UNDERCUT ALL DOORS 1" MIN.
CONTRACTOR MUST WORK FROM APPROVED PLANS.
ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.
GTA DESIGNS MUST BE CONSULTED IF KITCHEN EXHAUST FAN EXCEEDS 700 CFM DEPRESSURIZATION MAY OCCUR WITH IN THE DWELLING.



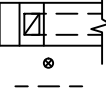
2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

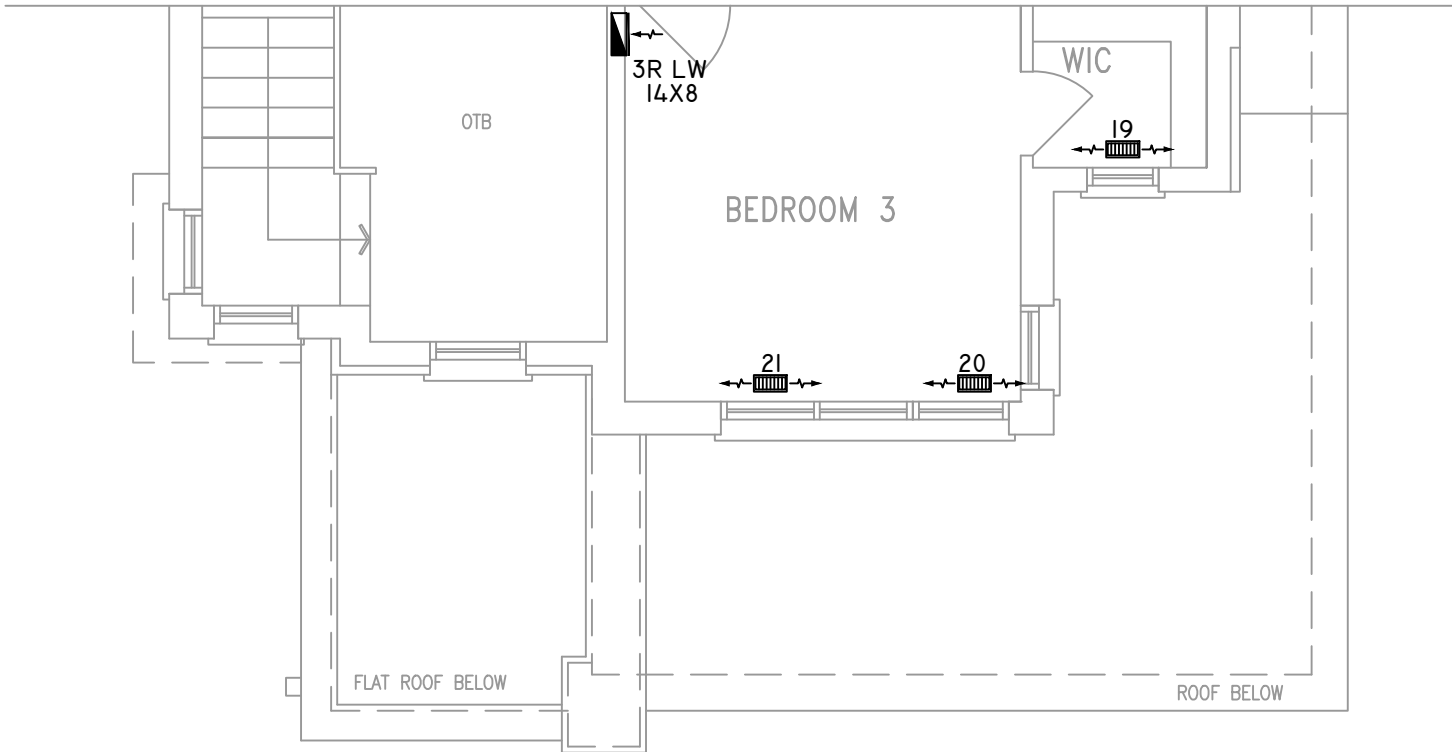
HEAT-LOSS	49,302	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	2
1ST FLOOR	9	1	2
BASEMENT	5	1	

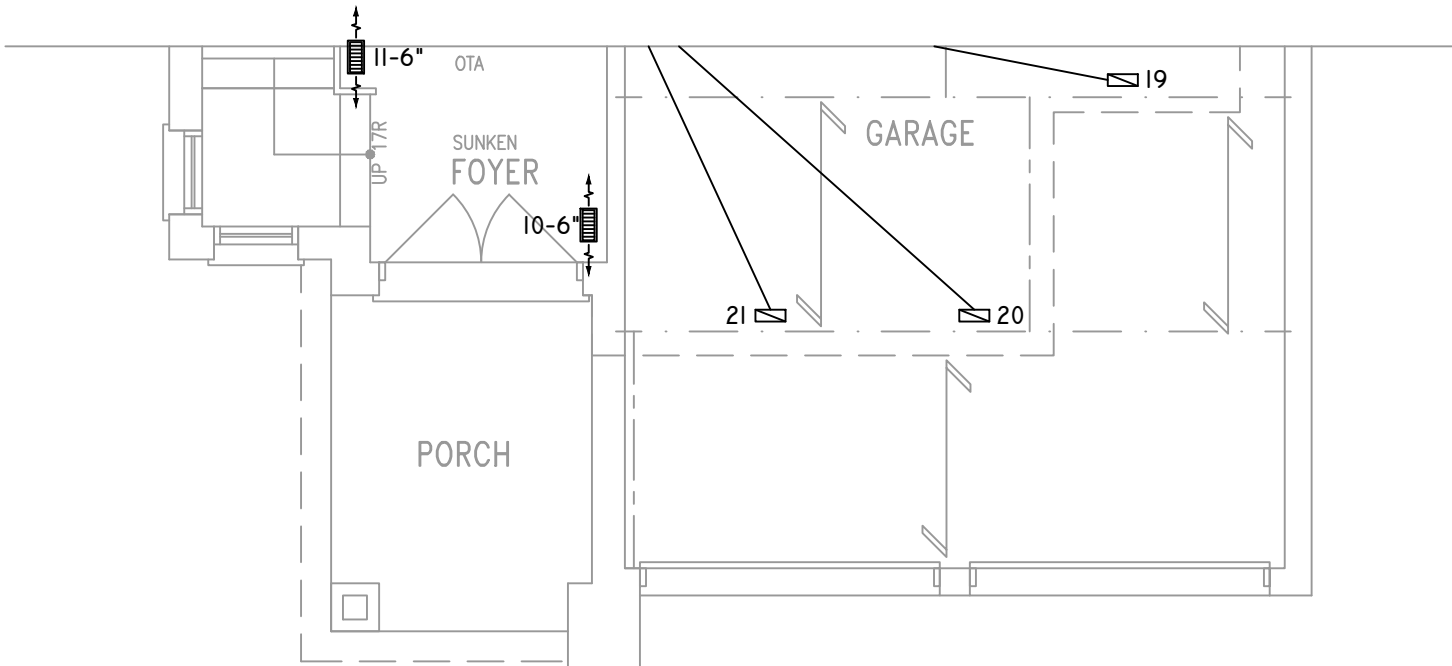
FLOOR PLAN: PARTIAL PLAN(S)	
DRAWN BY: AM	CHECKED: DD
LAYOUT NO. JB-04548	SQFT 2386
DRAWING NO. M4	

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-16 WOB BAROSSA 16
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

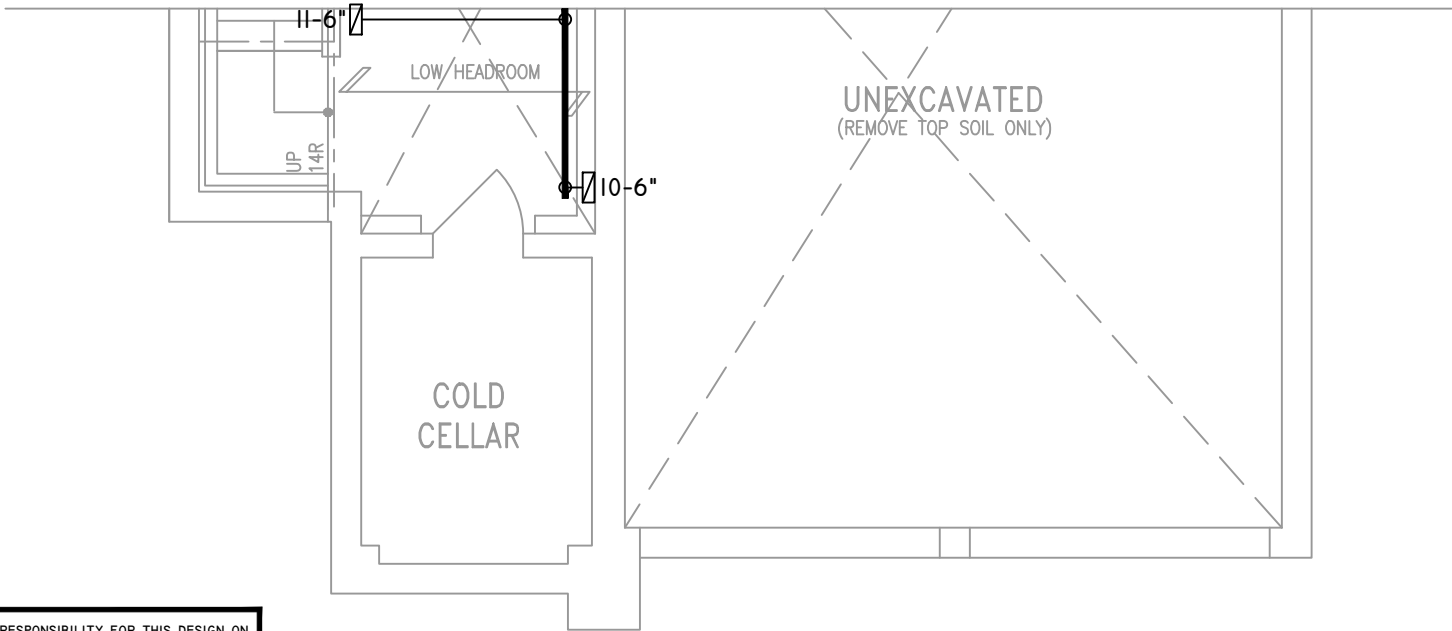
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT SECOND FLOOR		THERMOSTAT
			VOLUME DAMPER						PRINCIPAL EXHAUST FAN SWITCH
									W/R & PRINCIPAL EXHAUST FAN



PART. SECOND FLOOR PLAN 'C'



PART. GROUND FLOOR PLAN 'C'



PART. BASEMENT PLAN 'C'

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

QUALIFICATION INFORMATION

REQUIRED UNLESS DESIGN IS EXEMPT UNDER DIVISION C 3.2.5.1 OF THE ONTARIO BUILDING CODE

DAVID DA COSTA



B.C.I.N. 32964

SIGNATURE OF DESIGNER

SITE COPY

OBC 2012

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

NOTES
INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.
PROVIDE BALANCING DAMPERS ON ALL BRANCHES.
ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)
INSULATE DUCTS IN UNCONDITIONED SPACES R12 UNDERCUT ALL DOORS 1" MIN.
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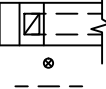
2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

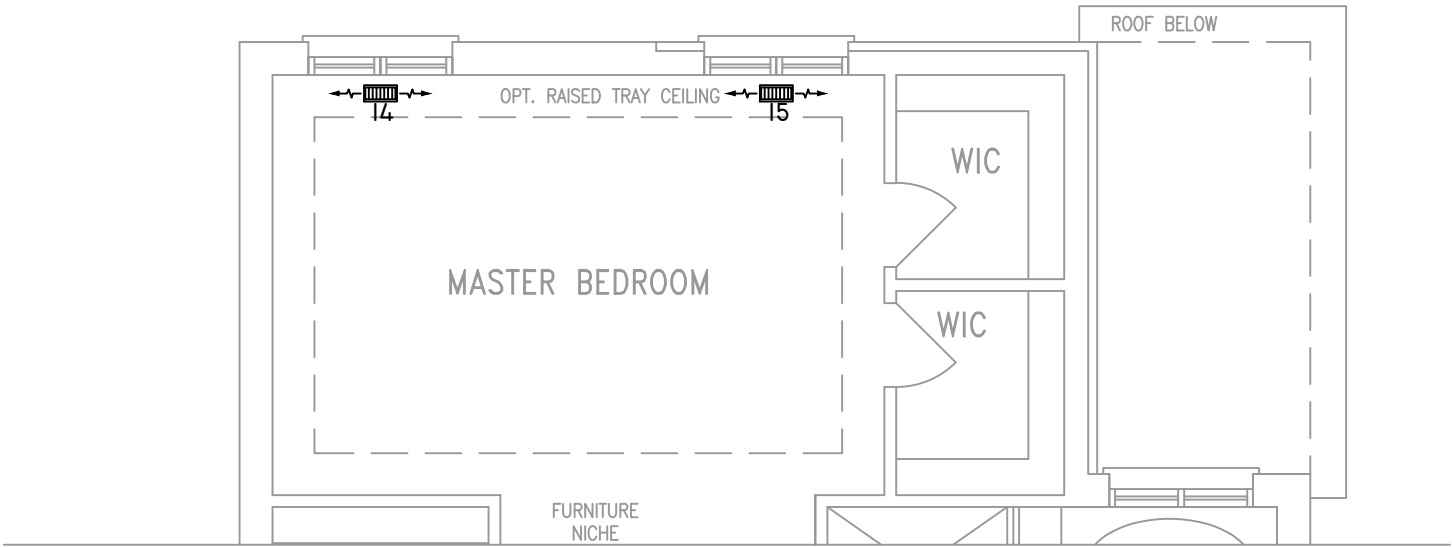
HEAT-LOSS	49,302	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	2
1ST FLOOR	9	1	2
BASEMENT	5	1	

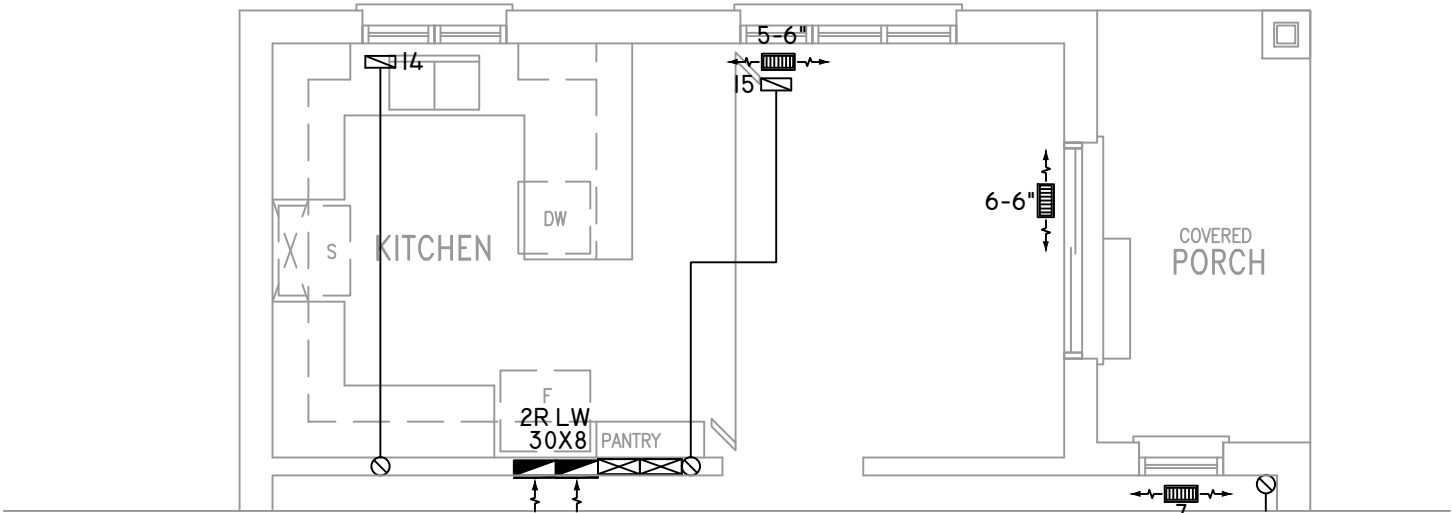
FLOOR PLAN:		
PARTIAL PLAN(S)		
DRAWN BY:	CHECKED:	SQFT
AM	DD	2386
LAYOUT NO.	DRAWING NO.	
JB-04548	M5	

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-16 WOB BAROSSA 16
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

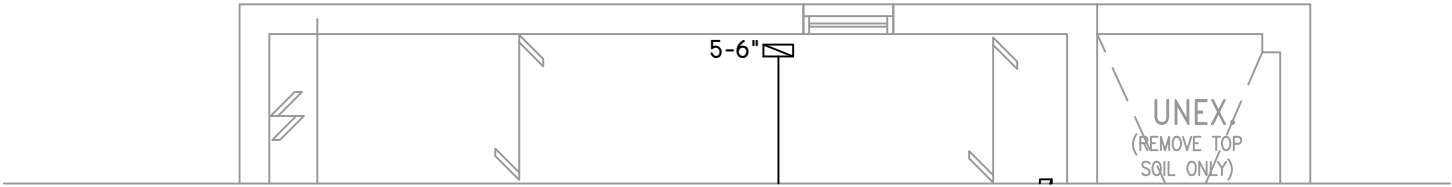
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT SECOND FLOOR		THERMOSTAT
			VOLUME DAMPER				PRINCIPAL EXHAUST FAN SWITCH		W/R & PRINCIPAL EXHAUST FAN



PARTIAL SECOND FLOOR PLAN ELEVATION 'C' REAR UPGRADE



PARTIAL GROUND FLOOR PLAN ELEVATION 'C' REAR UPGRADE



PARTIAL BASEMENT PLAN ELEVATION 'C' REAR UPGRADE

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QUALIFICATION INFORMATION

REQUIRED UNLESS DESIGN IS EXEMPT UNDER DIVISION C 3.2.5.1 OF THE ONTARIO BUILDING CODE

DAVID DA COSTA  B.C.I.N. 32964

SIGNATURE OF DESIGNER

SITE COPY

OBC 2012

ZONE I COMPLIANCE
PACKAGE "A1" REF. TABLE 3.1.1.2.A

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.

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

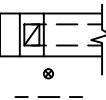
HEAT-LOSS	49,302	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

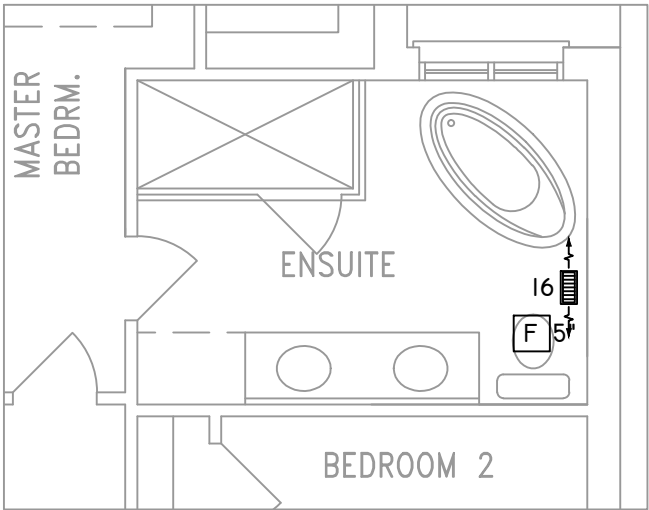
# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	2
1ST FLOOR	9	1	2
BASEMENT	5	1	

FLOOR PLAN: PARTIAL PLAN(S)	
DRAWN BY: AM	CHECKED: DD
LAYOUT NO. JB-04548	DRAWING NO. M6

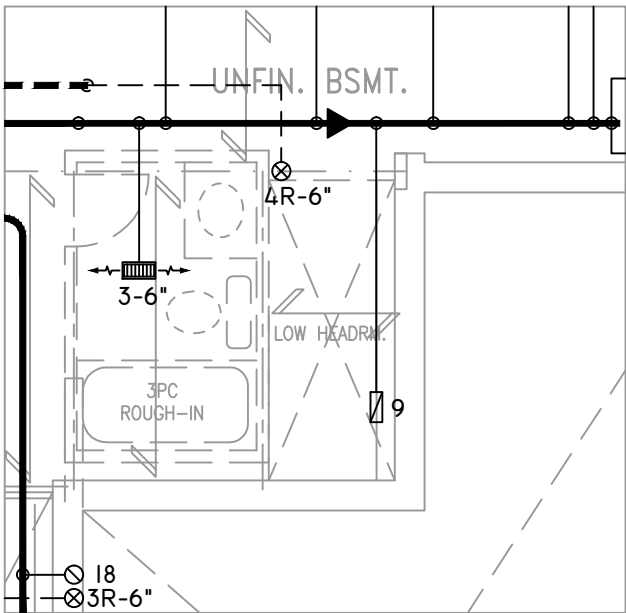
2386

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-I6 WOB BAROSSA I6
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

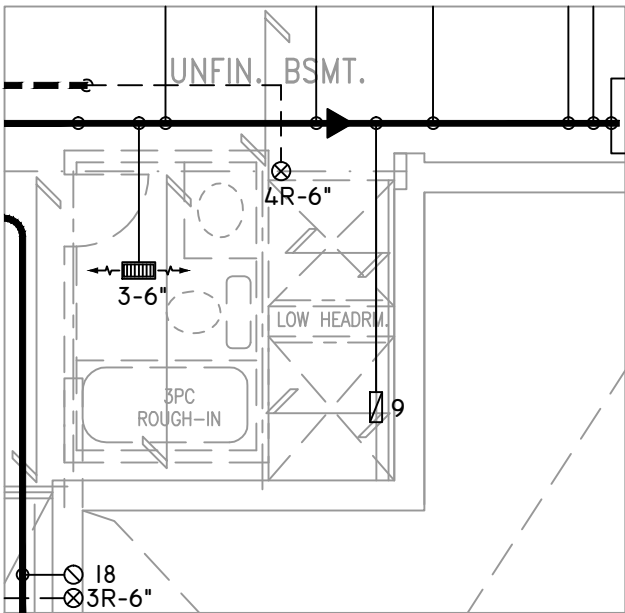
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT SECOND FLOOR		THERMOSTAT
			VOLUME DAMPER						PRINCIPAL EXHAUST FAN SWITCH W/R & PRINCIPAL EXHAUST FAN



PART. OPT. SECOND FLOOR
W/ ALT. ENSUITE LAYOUT



PART. SUNKEN LANDING TO
GARAGE FOR -1R
CONDITION



PART. SUNKEN LANDING TO
GARAGE FOR -2R TO -3R
CONDITION

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

QUALIFICATION INFORMATION

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DAVID DA COSTA



B.C.I.N. 32964

SIGNATURE OF DESIGNER

SITE COPY

OBC 2012

ZONE I COMPLIANCE
PACKAGE "A1" REF. TABLE 3.1.1.2.A

NOTES
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L4T 0A4 TEL: 905-671-9800
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HEAT-LOSS	49,302	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	2
1ST FLOOR	9	1	2
BASEMENT	5	1	

FLOOR PLAN:	
PARTIAL PLAN(S)	
DRAWN BY: AM	CHECKED: DD
LAYOUT NO: JB-04548	DRAWING NO: M7
SQFT 2386	

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-16 WOB BAROSSA 16
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"