


Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

<b>A. Project Information</b>					
Building number, street name <b>Barossa 17</b>				Lot: <b>S38-17</b>	
Municipality <b>Bradford</b>		Postal code	Plan number/ other description		
<b>B. Individual who reviews and takes responsibility for design activities</b>					
Name <b>David DaCosta</b>			Firm <b>gtaDesigns Inc.</b>		
Street address <b>2985 Drew Road, Suite 202</b>				Unit no.	Lot/con.
Municipality <b>Mississauga</b>		Postal code <b>L4T 0A4</b>	Province <b>Ontario</b>	E-mail <a href="mailto:dave@gtadesigns.ca">dave@gtadesigns.ca</a>	
Telephone number <b>(905) 671-9800</b>		Fax number <b>(647) 494-9643</b>		Cell number <b>(416) 268-6820</b>	
<b>C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1 of Division C]</b>					
<input type="checkbox"/> House <input checked="" type="checkbox"/> HVAC – House <input type="checkbox"/> Building Structural <input type="checkbox"/> Small Buildings <input type="checkbox"/> Building Services <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Large Buildings <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> Complex Buildings <input type="checkbox"/> Fire Protection <input type="checkbox"/> On-site Sewage Systems					
Description of designer's work			Model Certification		Project #:
					Layout #:
Heating and Cooling Load Calculations			Main	X	<b>PJ-00204</b>
Air System Design			Alternate		<b>JB-04488</b>
Residential mechanical ventilation Design Summary			Area Sq ft:	2511	
Residential System Design per CAN/CSA-F280-12			Builder	Bayview Wellington	
Residential New Construction - Forced Air			Project	Green Valley East	
			Model	Barossa 17	
			SB-12	S38-17	
				Package A1	
<b>D. Declaration of Designer</b>					
I, <u>David DaCosta</u> declare that (choose one as appropriate): (print name)					
<input type="checkbox"/> 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: _____					
<input checked="" type="checkbox"/> 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>					
<input type="checkbox"/> 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 12, 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 <b>Bayview Wellington</b>				Layout No.	
and may not be used by any other persons without authorization. Documents for permit and/or construction are signed in red.				<b>JB-04488</b>	
Building Location					
Address (Model): <b>S38-17</b>			Site: <b>Green Valley East</b>		
Model: <b>Barossa 17</b>			Lot:		
City and Province: <b>Bradford</b>			Postal code:		
Calculations based on					
Dimensional information based on:			VA3 Design Jan/2018		
Attachment: <b>Detached</b>			Front facing: <b>East/West</b>		Assumed? <b>Yes</b>
No. of Levels: <b>3</b>		Ventilated? <b>Included</b>	Air tightness: <b>1961-Present (ACH=3.57)</b>		Assumed? <b>Yes</b>
Weather location: <b>Bradford</b>			Wind exposure: <b>Sheltered</b>		
HRV? <b>LifeBreath</b>		<b>RNC155</b>	Internal shading: <b>Light-translucent</b>		Occupants: <b>5</b>
Sensible Eff. at -25C <b>71%</b>		Apparent Effect. at -0C <b>84%</b>	Units: <b>Imperial</b>		Area Sq ft: <b>2511</b>
Sensible Eff. at -0C <b>75%</b>					
Heating design conditions			Cooling design conditions		
Outdoor temp <b>-9.4</b> Indoor temp: <b>72</b> Mean soil temp: <b>48</b>			Outdoor temp <b>86</b> Indoor temp: <b>75</b> Latitude: <b>44</b>		
Above grade walls			Below grade walls		
Style A: <b>As per OBC SB12 Package A1 R 22</b>			Style A: <b>As per OBC SB12 Package A1 R 20ci</b>		
Style B: <b>Existing Walls (When Applicable) R 12</b>			Style B:		
Style C:			Style C:		
Style D:			Style D:		
Floors on soil			Ceilings		
Style A: <b>As per Selected OBC SB12 Package A1</b>			Style A: <b>As per Selected OBC SB12 Package A1 R 60</b>		
Style B:			Style B: <b>As per Selected OBC SB12 Package A1 R 31</b>		
Exposed floors			Style C:		
Style A: <b>As per Selected OBC SB12 Package A1 R 31</b>			Doors		
Style B:			Style A: <b>As per Selected OBC SB12 Package A1 R 4.00</b>		
Windows			Style B:		
Style A: <b>As per Selected OBC SB12 Package A1 R 3.55</b>			Style C:		
Style B: <b>Existing Windows (When Applicable) R 1.99</b>			Skylights		
Style C:			Style A: <b>As per Selected OBC SB12 Package A1 R 2.03</b>		
Style D:			Style B:		
Attached documents: <b>As per Shedule 1</b>		<b>Heat Loss/Gain Caculations based on CSA-F280-12 Effective R-Values</b>			
Notes:		<b>Residential New Construction - Forced Air</b>			
<b>Calculations performed by</b>					
Name: <b>David DaCosta</b>			Postal code: <b>L4T 0A4</b>		
Company: <b>gtaDesigns Inc.</b>			Telephone: <b>(905) 671-9800</b>		
Address: <b>2985 Drew Road, Suite 202</b>			Fax: <b>(416) 268-6820</b>		
City: <b>Mississauga</b>			E-mail <b>dave@gtadesigns.ca</b>		

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Builder: **Bayview Wellington**

Date: **March 12, 2018**

Project: **Green Valley East**

Model: **Barossa 17 S38-17**

**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

Project # **PJ-00204**  
Layout # **JB-04488**

Page 3

DESIGN LOAD SPECIFICATIONS		AIR DISTRIBUTION & PRESSURE		FURNACE/AIR HANDLER DATA:		BOILER/WATER HEATER DATA:		A/C UNIT DATA:	
Level 1 Net Load	14,146 btu/h	Equipment External Static Pressure	0.5 "w.c.	Make	Amana	Make	Type	Amana	2.5 Ton
Level 2 Net Load	16,313 btu/h	Additional Equipment Pressure Drop	0.225 "w.c.	Model	AMEC960603BNA	Model		Cond.-----	2.5
Level 3 Net Load	15,646 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	46,105 btu/h	R/A Plenum Pressure	0.138 "w.c.	E.s.p.	0.50	" W.C.			
Total Heat Gain	24,568 btu/h	S/A Plenum Pressure	0.14 "w.c.	Water Temp		deg. F.			
Combo System HL + 10%	50,716 Btu/h	Heating Air Flow Proportioning Factor	0.0254 cfm/btuh	AFUE	96%				
Building Volume Vb	28974 ft³	Cooling Air Flow Proportioning Factor	0.0392 cfm/btuh	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									5	6	7	8	9	10	11	12				
S/A Outlet No.	BASE	BASE	BASE	BASE									KIT	KIT	DIN	MUD	FOY	PWD	GRT	GRT				
Room Use	3536	3536	3536	3536									2021	2021	2616	1955	3166	910	1812	1812				
Btu/Outlet	90	90	90	90									51	51	66	50	80	23	46	46				
Heating Airflow Rate CFM	11	11	11	11									95	95	83	63	63	15	39	39				
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	30	40	12	31									40	45	13	14	41	34	28	39				
Actual Duct Length	110	130	80	120	70	70	70	70	70	70	70	70	120	140	110	90	120	130	120	140	70	70	70	70
Equivalent Length	140	170	92	151	70	70	70	70	70	70	70	70	160	185	123	104	161	164	148	179	70	70	70	70
Total Effective Length	0.09	0.08	0.14	0.09	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.08	0.07	0.11	0.13	0.08	0.08	0.09	0.07	0.19	0.19	0.19	0.19
Adjusted Pressure	6	6	6	6									6	6	6	5	6	4	5	5				
Duct Size Round	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	4x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10
Outlet Size	B	C	A	D									B	C	A	A	D	D	B	B				
Trunk																								

	Level 3												Level 4											
	13	14	15	16	17	18	19	20	21	22														
S/A Outlet No.	MAST	MAST	ENS 2	BED 2	BED 3	BATH	BED 4	BED 4	LAUN	ENS														
Room Use	1799	1799	558	1322	2869	942	1849	1849	1111	1550														
Btu/Outlet	46	46	14	34	73	24	47	47	28	39														
Heating Airflow Rate CFM	50	50	8	32	70	17	58	58	53	30														
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	55	68	58	65	54	46	50	61	36	59														
Actual Duct Length	95	145	120	135	180	170	120	130	170	155	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Equivalent Length	150	213	178	200	234	216	170	191	206	214	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Total Effective Length	0.09	0.06	0.07	0.07	0.06	0.06	0.08	0.07	0.06	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
Adjusted Pressure	5	5	3	4	6	4	5	5	5	5														
Duct Size Round	3x10	3x10	3x10	3x10	4x10	3x10	3x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Outlet Size	B	C	C	C	D	D	D	D	B	B														
Trunk																								

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	178	480	152	90	90	90	90				
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	8	22	41	41	55	53	45				
Equivalent Length	110	125	195	200	115	215	225	50	50	50	50
Total Effective Length	118	147	236	241	170	268	270	50	50	50	50
Adjusted Pressure	0.10	0.08	0.05	0.05	0.07	0.04	0.04	0.24	0.24	0.24	0.24
Duct Size Round	7.0	11.0	8.0	6.0	6.0	6.0	6.0				
Inlet Size	FLC	8	8	8	8	8	8				
" "	x	x	x	x	x	x	x	x	x	x	x
Inlet Size		30	14	14	14	14	14				
Trunk	Y	Z	Z	Y	Z	Y	Z				

Return Trunk Duct Sizing					
Trunk	CFM	Press.	Round	Rect. Size	
Drop	1170	0.04	18.0	24x12	
Z	1170	0.04	18.0	30x10 24x12	
Y	358	0.04	11.5	14x8 12x10	
X					
W					
V					
U					
T					
S					
R					
Q					

Supply Trunk Duct Sizing					
Trunk	CFM	Press.	Round	Rect. Size	
A	1170	0.06	16.5	32x8 24x10	
B	580	0.06	12.5	18x8 14x10	
C	234	0.06	9.0	8x8 10x7	
D	384	0.06	11.0	14x8 10x10	
E					
F					
G					
H					
I					
J					
K					

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2012 OBC

Builder: Bayview Wellington Date: March 12, 2018

Project: Green Valley East Model: Barossa 17 S38-17

System 1

Weather Data Bradford 44 -9.4 86 22 48.2

Heat Loss ^T 81.4 deg. F Ht gain ^T 11 deg. F GTA: 2511

Project # PJ-00204 Layout # JB-04488

Level 1				BASE																
Run ft. exposed wall A	156	A		A		A		A		A		A		A		A		A		
Run ft. exposed wall B		B		B		B		B		B		B		B		B		B		
Ceiling height	3.8	AG		3.8	AG		3.8	AG		3.8	AG		3.8	AG		3.8	AG		3.8	AG
Floor area	996	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	585																			
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	
North Shaded	3.55	22.93	10.91	3	69	33														
East/West	3.55	22.93	27.35	13	298	356														
South	3.55	22.93	20.89	3	69	63														
WOB Windows	3.15	25.84	28.32																	
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	545		284														
Net exposed walls B	14.49	5.62	0.76																	
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 ( )			6252																
Total Conductive	Heat Loss			7115																
	Heat Gain				793															
Air Leakage	Heat Loss/Gain	0.9521	0.0377	6774	30															
Ventilation	Case 1		0.08	0.08																
	Case 2		14.07	11.88																
	Case 3	x	0.04	0.08	256	62														
Heat Gain People			239																	
Appliances Loads	1 = .25 percent		4128																	
Duct and Pipe loss			10%																	
Level 1 HL Total	14,146	Total HL for per room		14146																
Level 1 HG Total	1,150	Total HG per room x 1.3			1150															

Level 2				KIT		DIN		MUD		FOY		PWD		GRT		A		A		A		A		A																					
Run ft. exposed wall A				37 A		26 A		19 A		25 A		10 A		39 A		A B		A B		A B		A B		A B																					
Run ft. exposed wall B				B		B		B		B		B		B		B		B		B		B		B																					
Ceiling height				10.0		10.0		12.0		11.0		10.0		10.0		10.0		10.0		10.0		10.0		10.0																					
Floor area				239 Area		238 Area		80 Area		75 Area		60 Area		297 Area		Area		Area		Area		Area		Area																					
Exposed Ceilings 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																					
Exposed Floors				Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr																					
Gross Exp Wall A				370		260		228		275		100		390																															
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																																							
East/West				3.55	22.93	27.35	64	1467	1751				24	550	656				42	963	1149																								
South				3.55	22.93	20.89							12	275	251	10	229	209																											
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	21	427	58																														
Net exposed walls A				17.03	4.78	0.65	306	1463	198	224	1071	145	207	989	134	218	1042	141	90	430	58	348	1663	225																					
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						2930						1896			1417			2295			659			2626																	
				Heat Gain									1948			538			191			1106			267			1374																	
Air Leakage				Heat Loss/Gain			0.3438			0.0377			1007			73			652			20			487			789			42			227			10			903			52		
Ventilation				Case 1			0.03			0.08																																			
				Case 2			14.07			11.88																																			
				Case 3			x			0.04			0.08																																
Heat Gain People							239																																						
Appliances Loads				1 = .25 percent			4128			1.5			1548			1.0			1032			1.0			1032																				
Duct and Pipe loss				10%																																									
Level 2 HL Total				16,313			Total HL per per room			4043						2616			1955						3166			910						3624			1993								
Level 2 HG Total				12,565			Total HG per room x 1.3						4839			2122			1619						1604			387																	

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2012 OBC

Builder: Bayview Wellington

Date: March 12, 2018

Project: Green Valley East

Model: Barossa 17 S38-17

System 1

Weather Data Bradford 44 -9.4 86 22 48.2

Heat Loss ^T 81.4 deg. F Ht gain ^T 11 deg. F GTA: 2511

Project # PJ-00204  
Layout # JB-04488

## Level 3

	MAST	ENS 2	BED 2	BED 3	BATH	BED 4	LAUN	ENS					
Run ft. exposed wall A	42 A	6 A	11 A	25 A	7 A	32 A	11 A	22 A	A		A	A	A
Run ft. exposed wall B	B	B	B	B	B	B	B	B	B		B	B	B
Ceiling height	9.0	8.0	8.0	8.0	8.0	10.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Floor area	342 Area	50 Area	189 Area	175 Area	70 Area	202 Area	125 Area	112 Area	Area		Area	Area	Area
Exposed Ceilings A	342 A	50 A	189 A	175 A	70 A	202 A	125 A	112 A	A		A	A	A
Exposed Ceilings B	B	B	B	B	B	B	B	B	B		B	B	B
Exposed Floors	Flr	Flr	29 Flr	163 Flr	70 Flr	15 Flr	Flr	Flr	Flr		Flr	Flr	Flr
Gross Exp Wall A	378	48	88	200	56	320	88	176					
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
North Shaded	3.55	22.93	10.91																
East/West	3.55	22.93	27.35	32	734	875													
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	346	1654	223	40	191	26	72	344	47	176	841	114	49	234	32	260
Net exposed walls B	8.50	9.58	1.29																
Exposed Ceilings A	59.22	1.37	0.64	342	470	219	50	69	32	189	260	121	175	241	112	70	96	45	202
Exposed Ceilings B	22.86	3.56	1.66																
Exposed Floors	29.80	2.73	0.17							29	79	5	163	445	27	70	191	12	15
Foundation Conductive Heatloss																			
Total Conductive																			
Heat Loss				2858				443		1050			2077			682			2937
Heat Gain					1318			145		347			910				280		1825
Air Leakage	Heat Loss/Gain	0.2228	0.0377	637	50			99	5	234	13		463	34		152	11		654
Ventilation	Case 1		0.02																
Case 2			14.07																
Case 3	x		0.04																
Heat Gain People			239	2	103	103		16	11	1	38	27		75	71	25	22		106
Appliances Loads	1 =.25 percent		4128																143
Duct and Pipe loss	10%																		239
Level 3 HL Total	15,546			3597				558		1322			2869			1	83	28	
Level 3 HG Total	10,853				2534				211		815			1780			442		3697
Total HL for per room																			2959
Total HG per room x 1.3																			1111
																			1339
																			1550
																			773

## Level 4

Run ft. exposed wall A	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	B
Ceiling height													
Floor area	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	A
Exposed Ceilings B	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	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
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	0.0377																
Ventilation	Case 1		0.00																
Case 2			14.07																
Case 3	x		0.04																
Heat Gain People			239																
Appliances Loads	1 =.25 percent		4128																
Duct and Pipe loss	10%																		
Level 4 HL Total	0																		
Level 4 HG Total	0																		
Total HL for per room																			
Total HG per room x 1.3																			

**SITE COPY**

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

*Dave DaCosta*

David DaCosta

SB-12 Package

Package A1

Total Heat Loss	46,105	btu/h
Total Heat Gain	24,568	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



David DaCosta

**Package:**
**Package A1**
**Project:**
**Bradford**
**Model:**
**S38-17**

## 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) | <input checked="" type="checkbox"/> | Direct vent (sealed combustion) only               |
| b) | <input type="checkbox"/>            | Positive venting induced draft (except fireplaces) |
| c) | <input type="checkbox"/>            | Natural draft, B-vent or induced draft fireplaces  |
| d) | <input type="checkbox"/>            | Solid fuel (including fireplaces)                  |
| e) | <input type="checkbox"/>            | No combustion Appliances                           |

**Heating System**

- |                                     |  |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | Forced air                                     |
| <input type="checkbox"/>            | Non forced air                                 |
| <input type="checkbox"/>            | Electric space heat (if over 10% of heat load) |

**House Type 9.32.3.1(2)**

- |       |                                     |   |
|-------|-------------------------------------|---|
| I     | <input checked="" type="checkbox"/> | Type a) or b) appliances only, no solid fuel        |
| II    | <input type="checkbox"/>            | Type I except with solid fuel (including fireplace) |
| III   | <input type="checkbox"/>            | Any type c) appliance                               |
| IV    | <input type="checkbox"/>            | Type I or II either electric space heat             |
| Other | <input type="checkbox"/>            | Type I, II or IV no forced air                      |

**System Design Option**

- |               |                                     |   |
|---------------|-------------------------------------|---|
| 1             | <input type="checkbox"/>            | Exhaust only / forced air system                  |
| 2             | <input type="checkbox"/>            | HRV WITH DUCTING / forced air system              |
| 3             | <input checked="" type="checkbox"/> | HRV simplified connection to forced air system    |
| 4             | <input type="checkbox"/>            | 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	5 @ 10.6 cfm	53 cfm
Other rooms	4 @ 10.6 cfm	42.4 cfm
Total		<u>169.6</u>

**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		<u>79.5</u>

**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	169.6
Less principal exhaust capacity	79.5
REQUIRED supplemental vent. Capacity	<u>90.1</u> 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 12, 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-04488

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	<b>Barossa 17 S38-17</b>	Unit number	Lot/Con
Municipality	<b>Bradford</b>	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
<input checked="" type="checkbox"/> Zone 1 (< 5000 degree days) <input type="checkbox"/> Zone 2 (≥ 5000 degree days)	<input checked="" type="checkbox"/> ≥ 92% AFUE <input type="checkbox"/> ≥ 84% < 92% AFUE	<input checked="" type="checkbox"/> Gas <input type="checkbox"/> Propane <input type="checkbox"/> Solid Fuel <input type="checkbox"/> Oil <input type="checkbox"/> Electric <input type="checkbox"/> Earth Energy
Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area	Other Building Characteristics	
Area of Walls = <u>330.91</u> m <sup>2</sup> or <u>3561.9</u> ft <sup>2</sup> Area of W, S & G = <u>35.581</u> m <sup>2</sup> or <u>383.0</u> ft <sup>2</sup>	W,S & G % = <u>11%</u> Utilize Window <input type="checkbox"/> Yes Averaging <input checked="" type="checkbox"/> No	<input type="checkbox"/> Log/Post&Beam <input type="checkbox"/> ICF Above Grade <input type="checkbox"/> ICF Basement <input type="checkbox"/> Slab-on-ground <input type="checkbox"/> Walkout Basement <input checked="" type="checkbox"/> Air Conditioning <input type="checkbox"/> Combo Unit <input type="checkbox"/> Air Sourced Heat Pump (ASHP) <input type="checkbox"/> Ground Source Heat Pump (GSHP)

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

Energy Efficiency Substitutions			
<input type="checkbox"/> ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5)) <input type="checkbox"/> Combined space heating and domestic water heating systems (3.1.1.2(7) / 3.1.1.3.(7))			
<input type="checkbox"/> Airtightness substitution(s) Airtightness test required (Refer to Design Guide Attached)	<input type="checkbox"/> Table 3.1.1.4.B Required: <input type="checkbox"/> Table 3.1.1.4.C Required:	Permitted Substitution: Permitted Substitution: Permitted Substitution:	
Building Component	Minimum RSI/R-Values or Maximum U-Value <sup>1</sup>	Building Component	Efficiency Ratings
<b>Thermal Insulation</b>	Nominal      Effective	<b>Windows &amp; Doors</b> Provide U-Value <sup>(1)</sup> 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	<b>Mechanicals</b>	
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/(m<sup>2</sup>·K) or Btu/(h·ft<sup>2</sup>·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
<b>David DaCosta</b>	<b>32964</b>	

**SITE COPY**

Package: Project: Package A1 Bradford System: Model: System 1 S38-17

## Air Leakage Calculations

Building Air Leakage Heat Loss				
B	LRairh	Vb	HL^T	HLleak
0.018	0.319	28974	81.4	13549

Building Air Leakage Heat Gain				
B	LRairh	Vb	HG^T	HG Leak
0.018	0.079	28974	11	454

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	13549	7115	0.9521
Level 2	0.3		11824	0.3438
Level 3	0.2		12162	0.2228
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	
	454		0.0377
BUILDING CONDUCTIVE HEAT GAIN		12035	

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	7115	0.08
Level 2	0.3		11824	0.03
Level 3	0.2		12162	0.02
Level 4	0		0	0.00

### Case 1

#### Ventilation Heat Gain (Exhaust Only Systems)

Case 1 - Exhaust Only		Multiplier	
HGbvent	944	0.08	
Building	12035		

### 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	0.04

### Case 3

#### Ventilation Heat Gain (Forced Air Systems)

Vent Heat Gain		Multiplier
HGbvent	HG*1.3	0.08
944	1	

Foundation Conductive Heatloss Level 1

1832 Watts 6252 Btu/h

Foundation Conductive Heatloss Level 2

Watts Btu/h

# Envelope Air Leakage Calculator

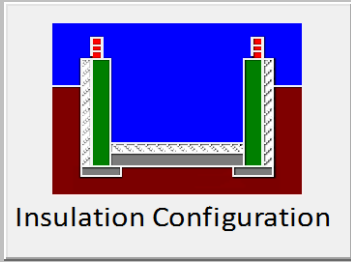
Supplemental tool for CAN/CSA-F280

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):	6.63			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m <sup>3</sup> ):	820.54			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (ACH=3.57)			
Custom BDT Data:	ELA @ 10 Pa. 322.44 cm <sup>2</sup>			
	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):		0.319		
Cooling Air Leakage Rate (ACH/H):		0.079		



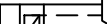



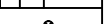



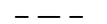





**SITE COPY**

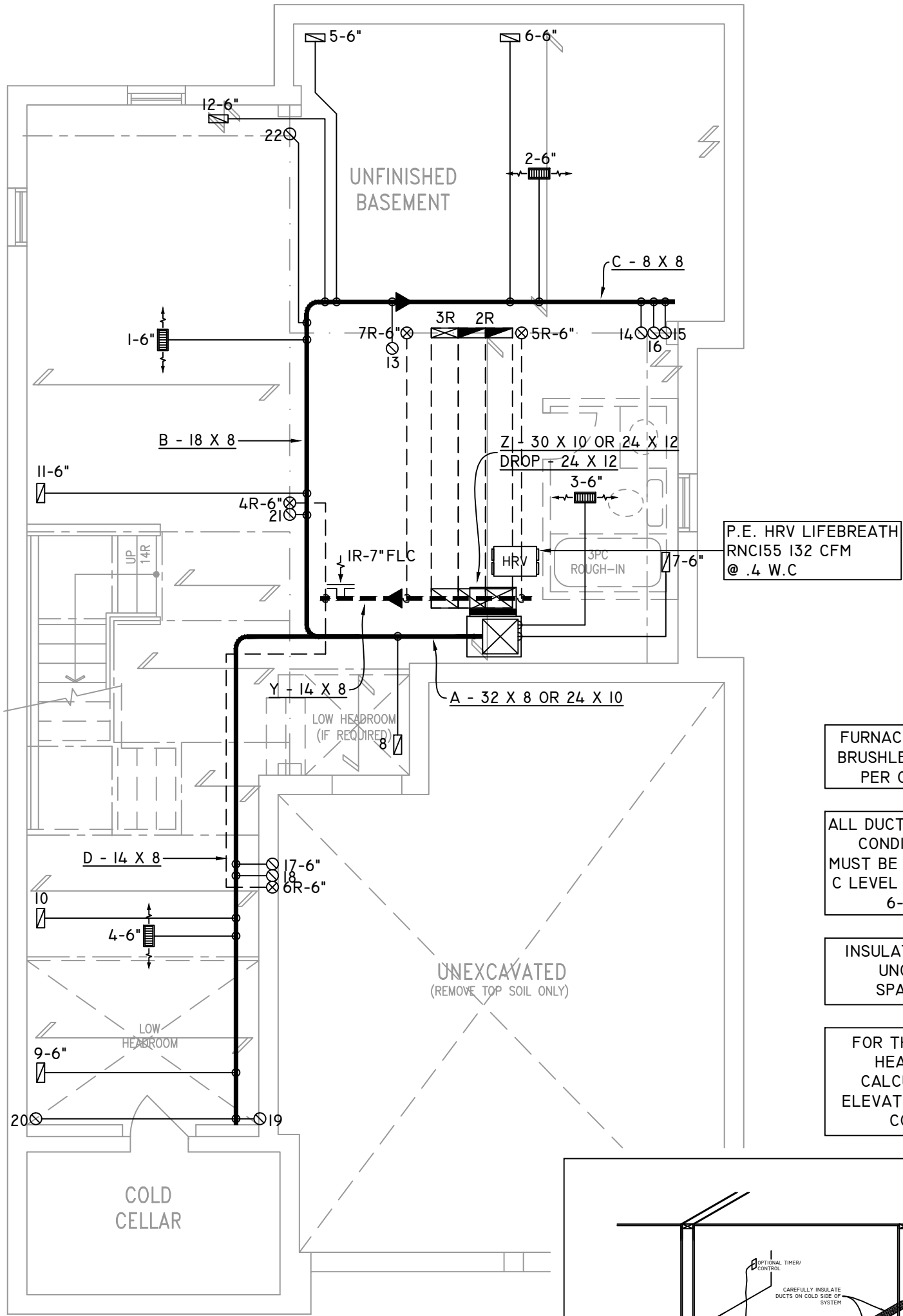
# Residential Foundation Thermal Load Calculator

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):	18.87	 <p>Insulation Configuration</p>
Floor Width (m):	4.90	
Exposed Perimeter (m):	47.55	
Wall Height (m):	2.74	
Depth Below Grade (m):	1.60	
Window Area (m <sup>2</sup> ):	1.77	
Door Area (m <sup>2</sup> ):	1.95	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		1832

**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



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.





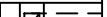













2985 DREW ROAD  
SUITE 202,  
MISSISSAUGA, ONT.  
L4T 0A4 TEL: 905-671-9800  
EMAIL: DAVE@GTADESIGNS.CA  
WEB: WWW.GTADESIGNS.CA

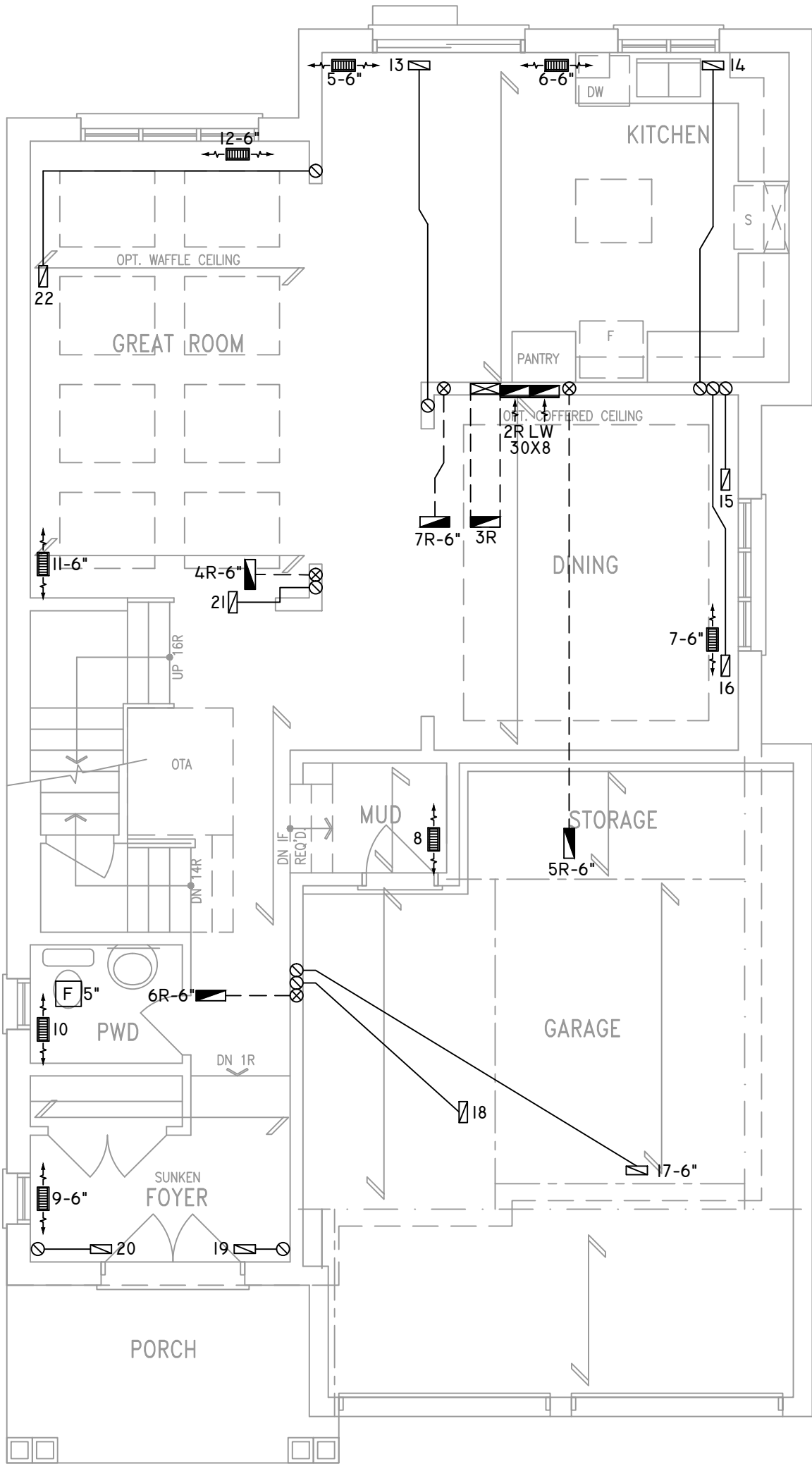
HEAT-LOSS	46,105	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	3
1ST FLOOR	8	1	2
BASEMENT	4	1	

FLOOR PLAN:	BASEMENT
DRAWN BY:	AM
CHECKED:	DD
LAYOUT NO.	JB-04488
sqft	2511
DRAWING NO.	MI

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-17 BAROSSA 17
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.





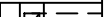













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L4T 0A4 TEL: 905-671-9800  
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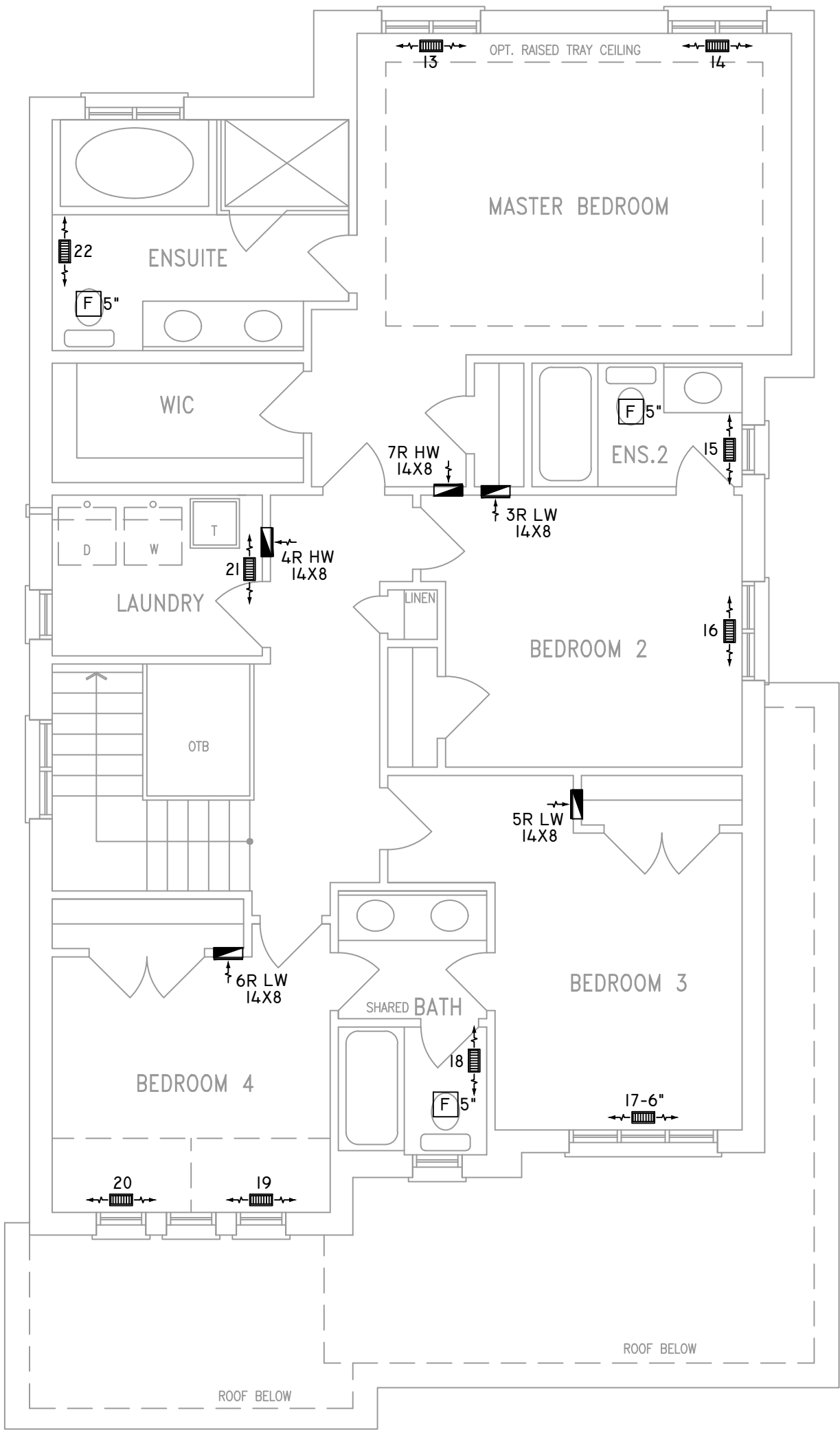
HEAT-LOSS	46,105	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	3
1ST FLOOR	8	1	2
BASEMENT	4	1	

FLOOR PLAN: GROUND FLOOR	
DRAWN BY: AM	CHECKED: DD
LAYOUT NO. JB-04488	DRAWING NO. M2

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-17 BAROSSA 17
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  
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

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.





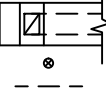













2985 DREW ROAD  
SUITE 202,  
MISSISSAUGA, ONT.  
L4T 0A4 TEL: 905-671-9800  
EMAIL: DAVE@GTADISIGNS.CA  
WEB: WWW.GTADISIGNS.CA

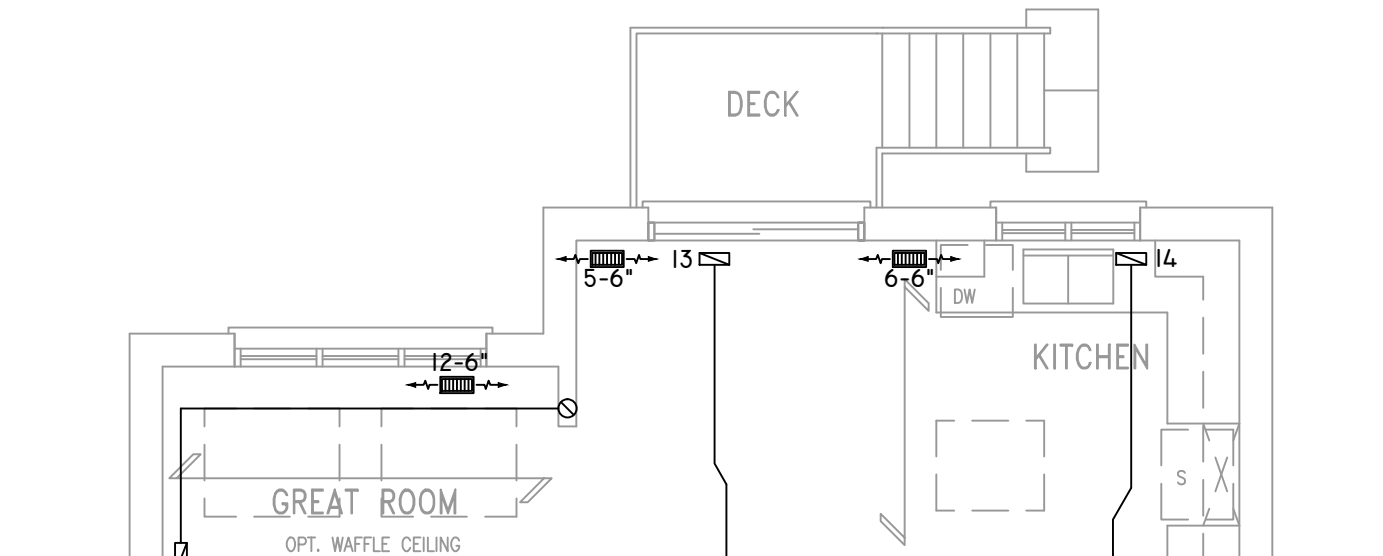
HEAT-LOSS	46,105	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	3
1ST FLOOR	8	1	2
BASEMENT	4	1	

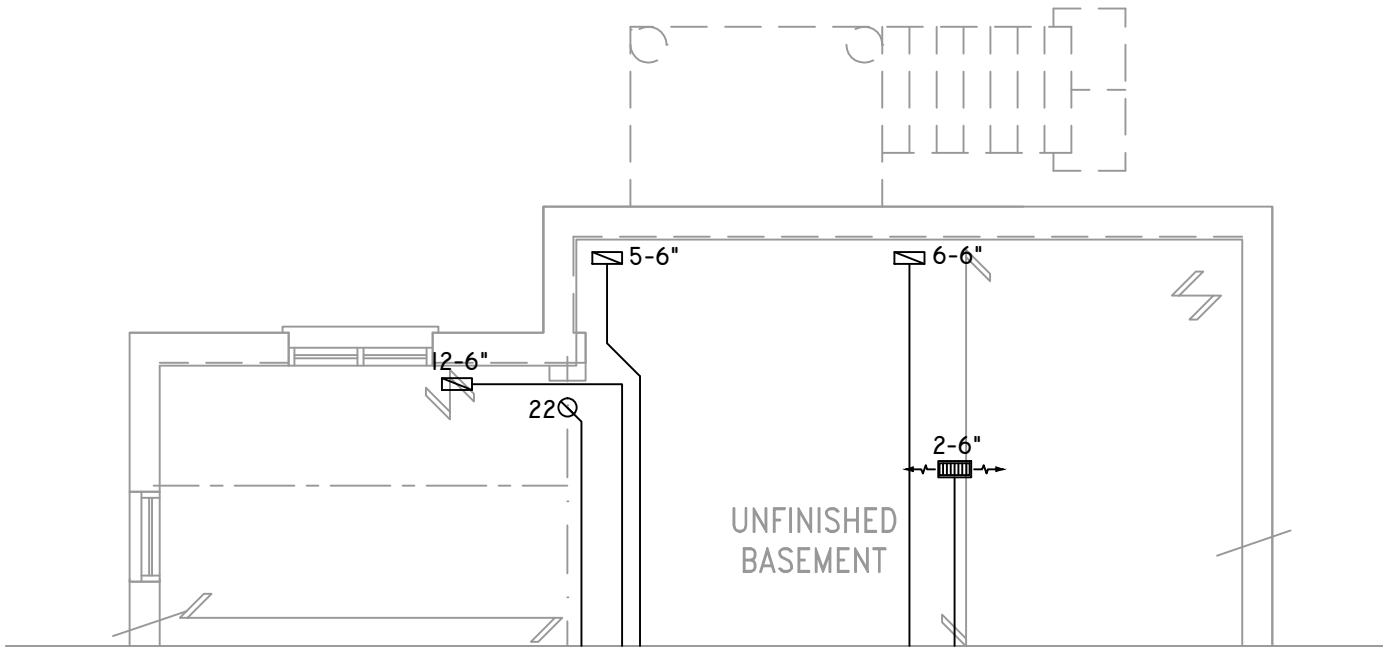
FLOOR PLAN: SECOND FLOOR	
DRAWN BY: AM	CHECKED: DD
LAYOUT NO: JB-04488	DRAWING NO: M3

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-17 BAROSSA 17
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. GROUND FLOOR PLAN EL. 'A', 'B' & 'C'  
W/ 9R OR MORE W.O.D. CONDITION




PART. BASEMENT PLAN EL. 'A', 'B' & 'C'  
W/ 9R OR MORE W.O.D. CONDITION

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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.

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.

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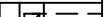













2985 DREW ROAD  
SUITE 202,  
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L4T 0A4 TEL: 905-671-9800  
EMAIL: DAVE@GTADESIGNS.CA  
WEB: WWW.GTADESIGNS.CA

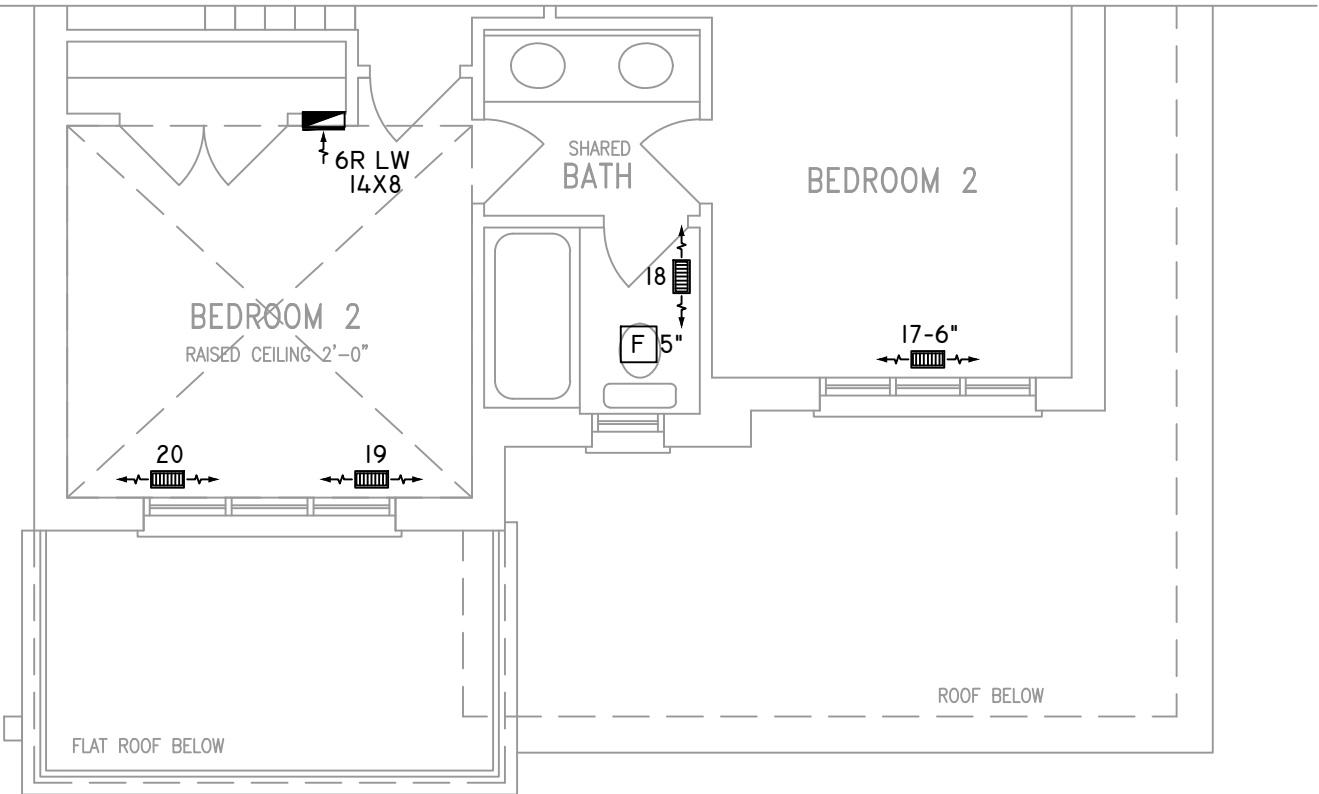
HEAT-LOSS	46,105	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	3
1ST FLOOR	8	1	2
BASEMENT	4	1	

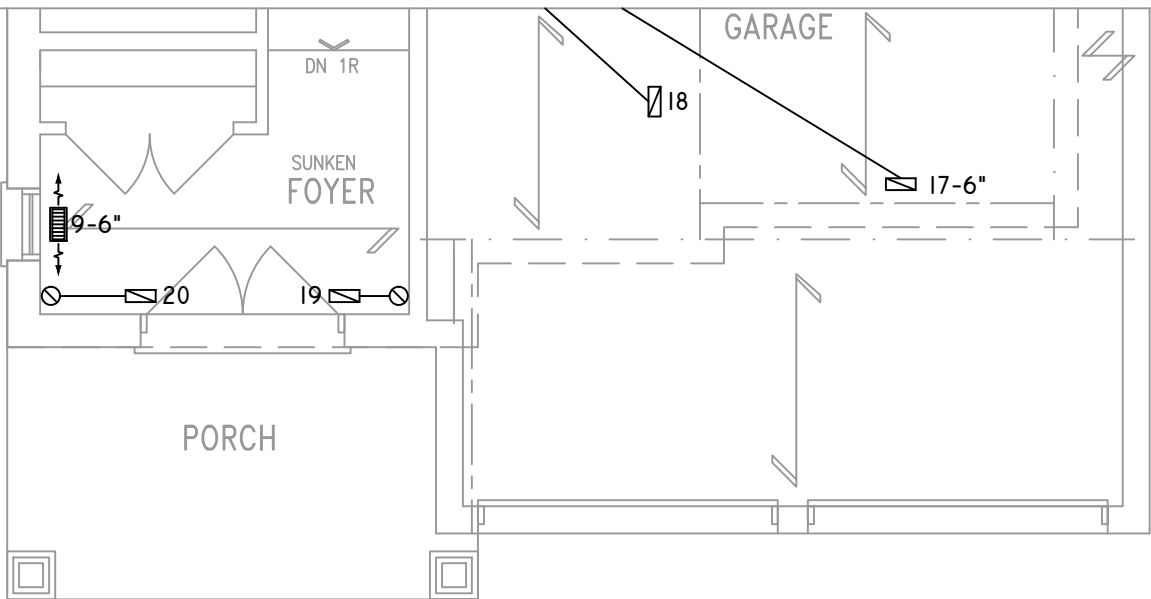
FLOOR PLAN:		
PARTIAL PLAN(S)		
DRAWN BY:	CHECKED:	SQFT
AM	DD	2511
LAYOUT NO.	DRAWING NO.	
JB-04488	M4	

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-17 BAROSSA 17
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

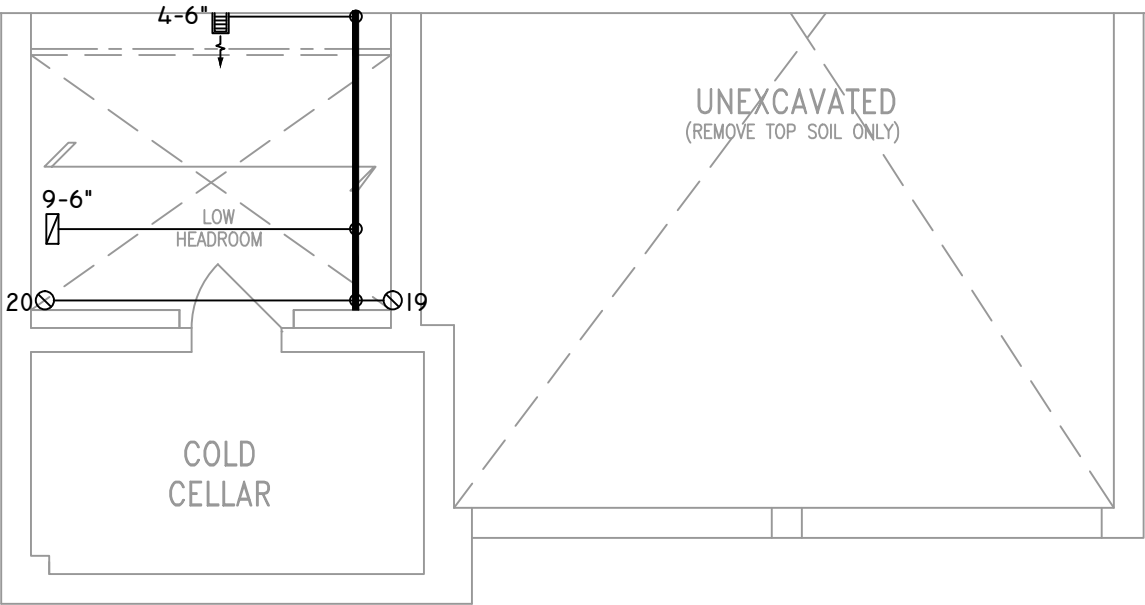
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



PART. SECOND FLOOR PLAN 'B'



PART. GROUND FLOOR PLAN 'B'




PART. BASEMENT PLAN 'B'

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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

**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.

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EMAIL: DAVE@GTADESIGNS.CA  
WEB: WWW.GTADESIGNS.CA

HEAT-LOSS	46,105	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	3
1ST FLOOR	8	1	2
BASEMENT	4	1	



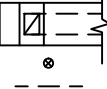













FLOOR PLAN:	PARTIAL PLAN(S)
DRAWN BY:	AM DD
CHECKED:	DD
LAYOUT NO.	JB-04488
sqft	2511
DRAWING NO.	M5

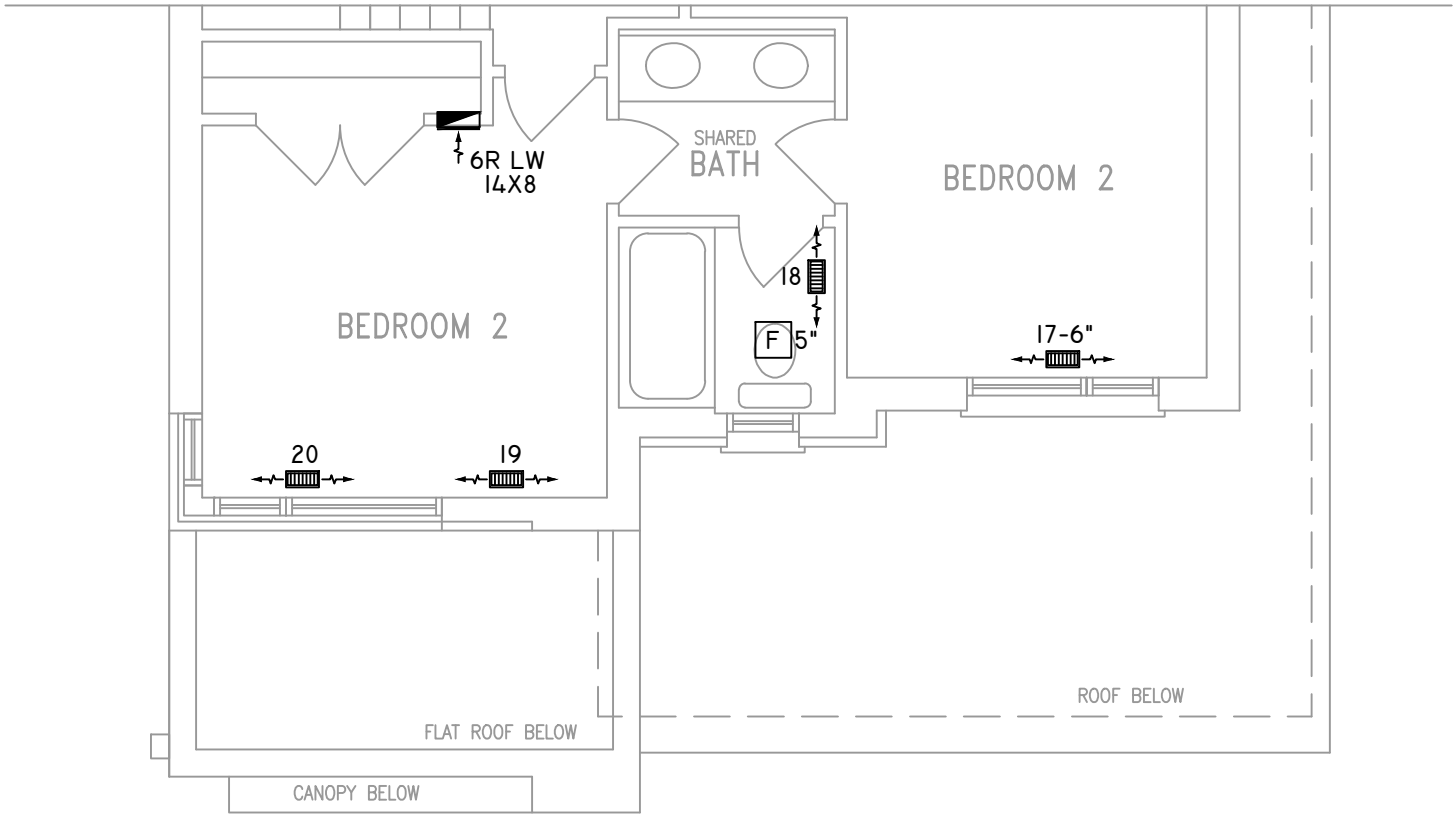
DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-17 BAROSSA 17
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

OBC 2012

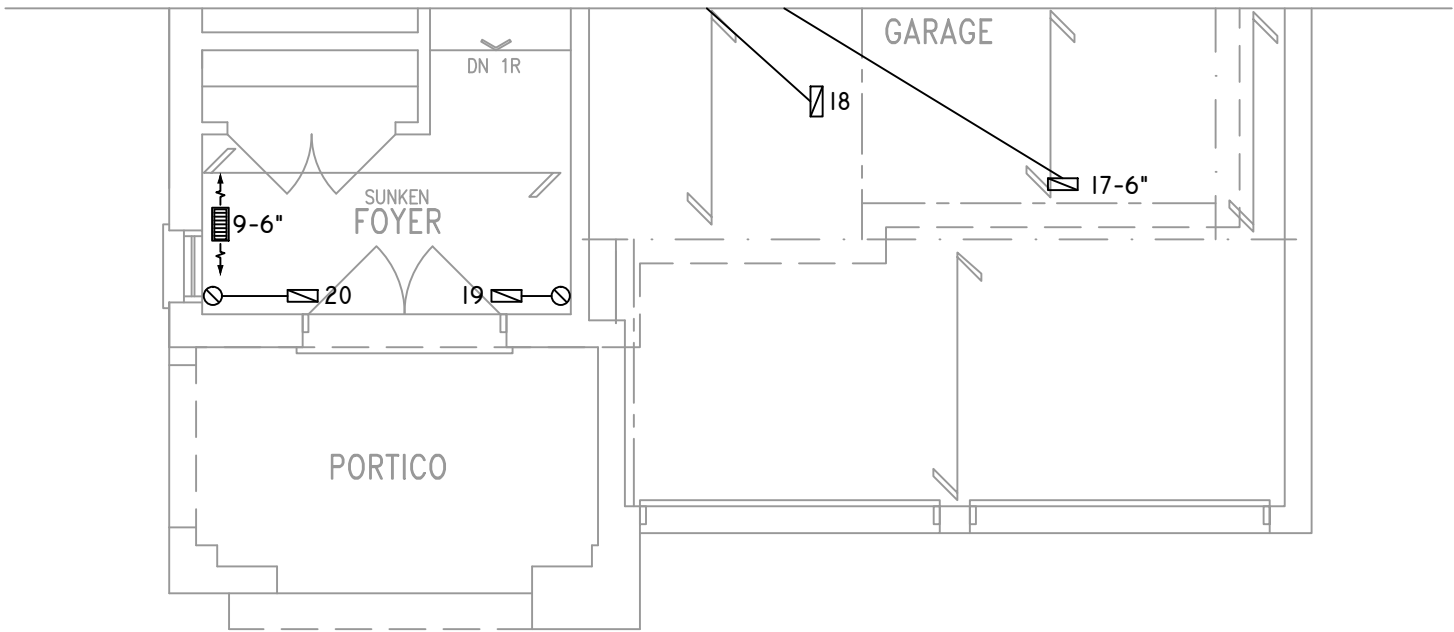
ZONE I COMPLIANCE  
PACKAGE "A1" REF. TABLE 3.1.1.2.A

**SITE COPY**

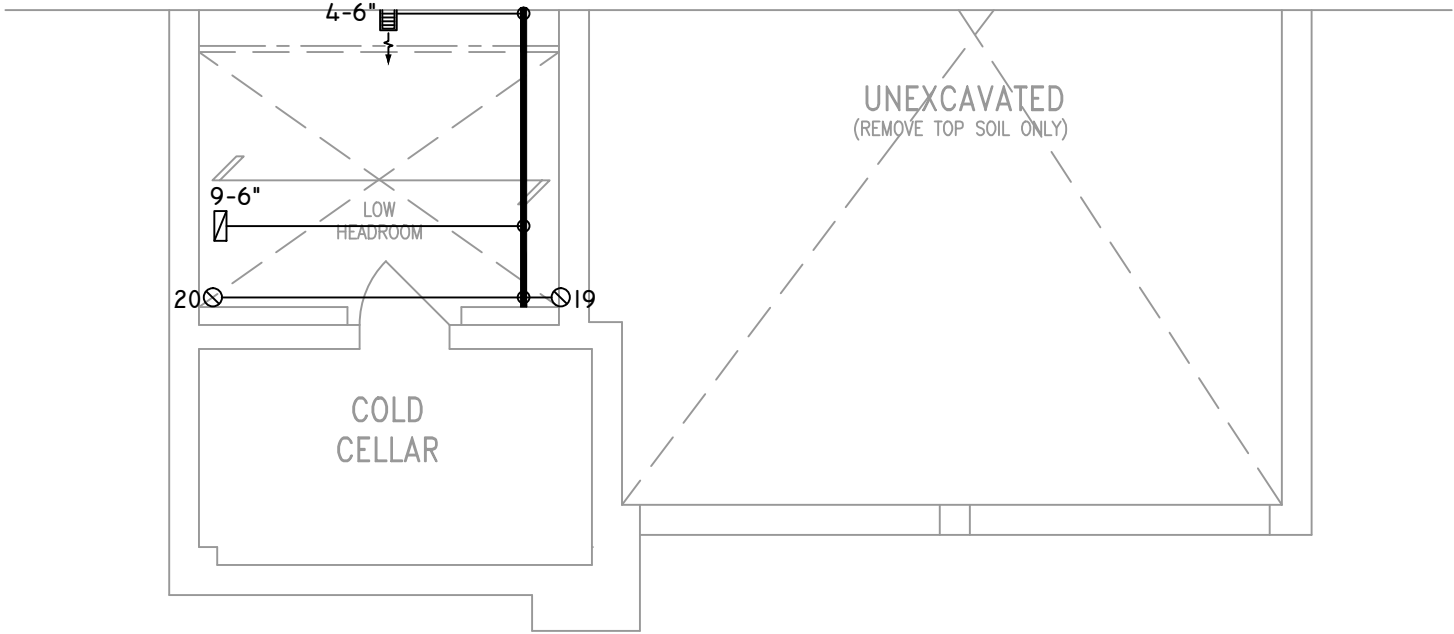
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



PART. SECOND FLOOR PLAN 'C'



PART. GROUND FLOOR PLAN 'C'




PART. BASEMENT PLAN 'C'

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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

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.

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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.

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SUITE 202,  
MISSISSAUGA, ONT.  
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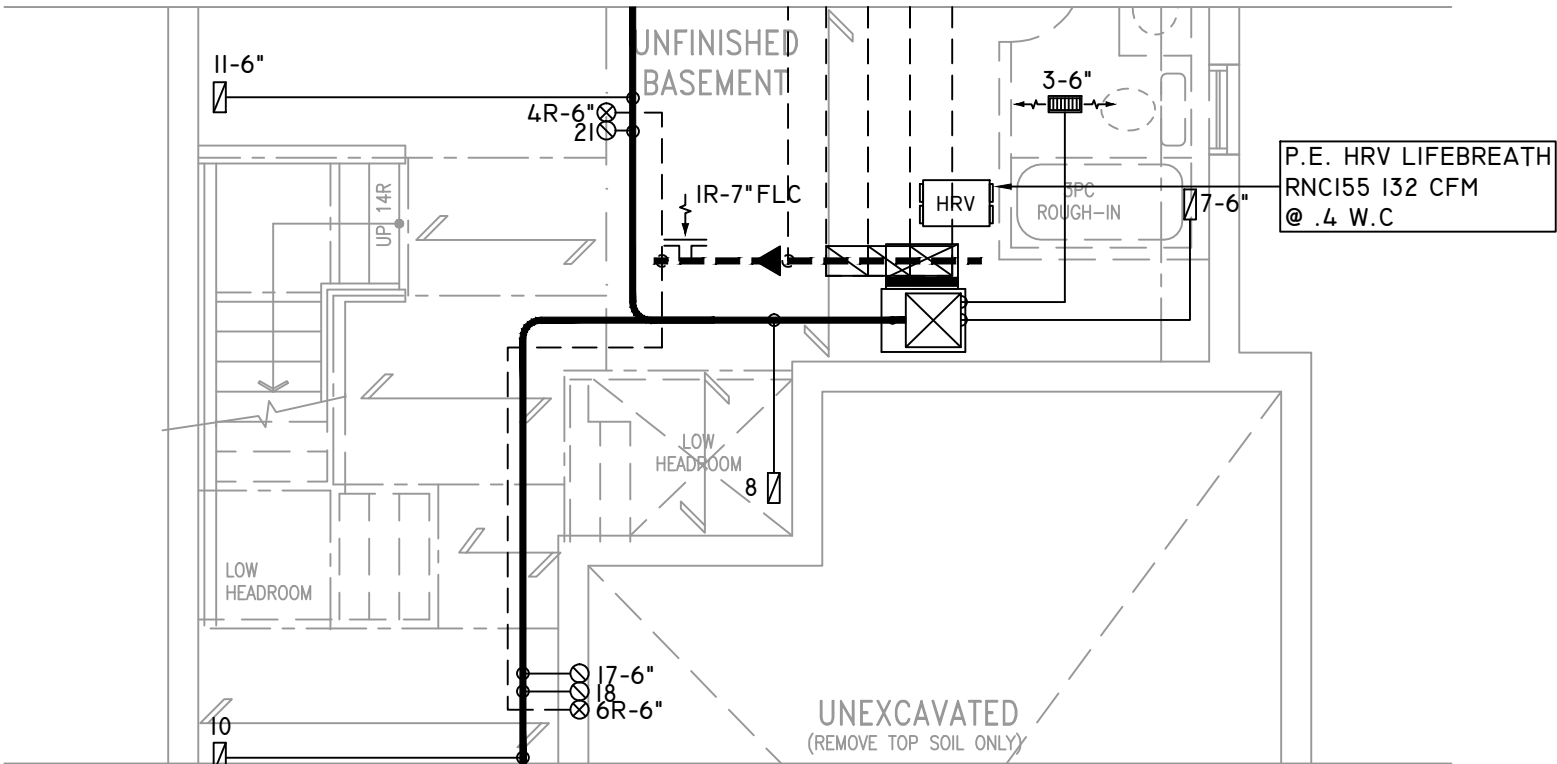
HEAT-LOSS	46,105	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	3
1ST FLOOR	8	1	2
BASEMENT	4	1	

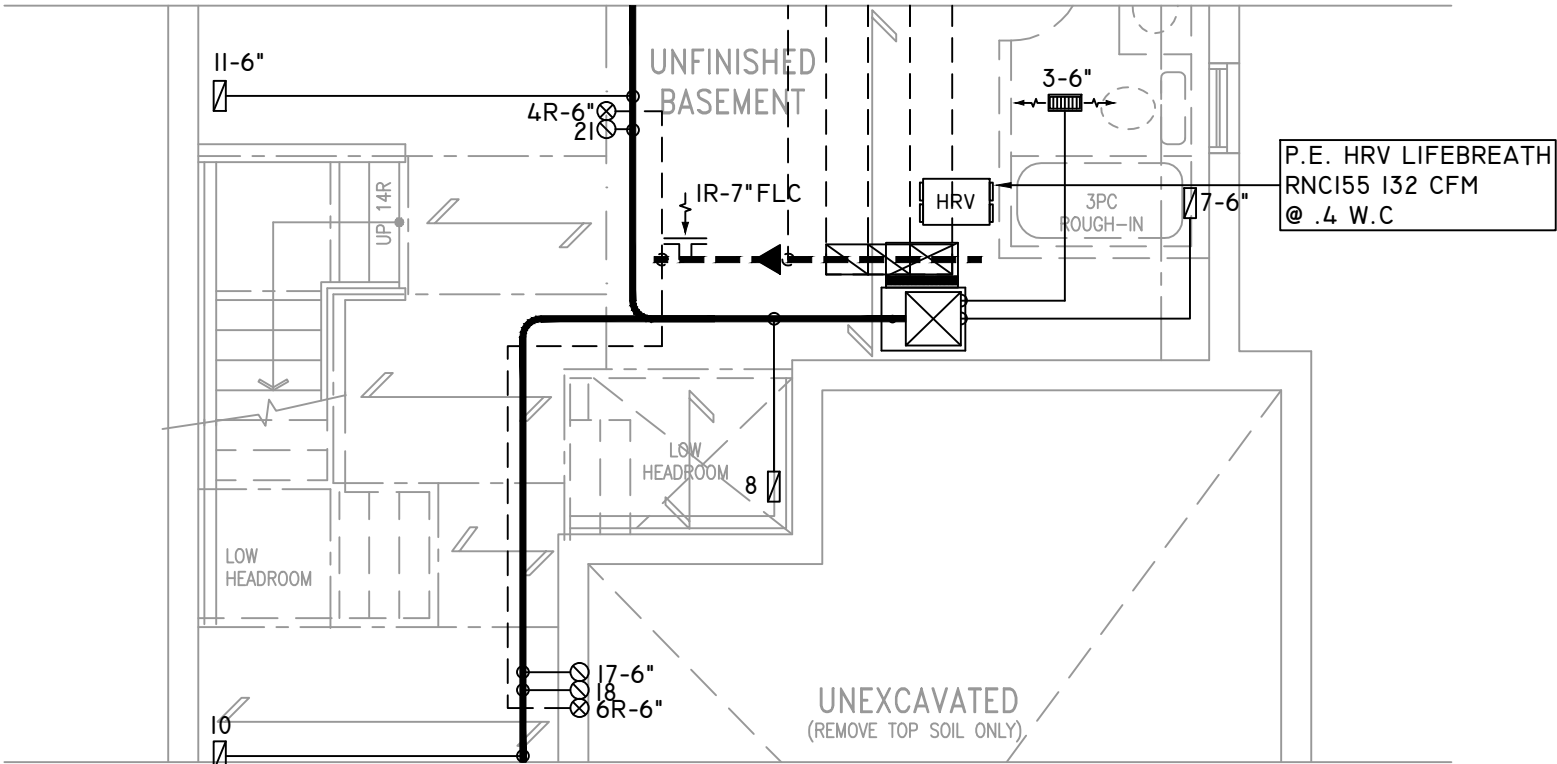
FLOOR PLAN:	
PARTIAL PLAN(S)	
DRAWN BY: AM	CHECKED: DD
LAYOUT NO. JB-04488	SQFT 2511
DRAWING NO. M6	

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-17 BAROSSA 17
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. BASEMENT PLAN FOR SUNKEN MUD COND.



PART. BASEMENT PLAN FOR -2R OR MORE SUNKEN MUD COND.

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

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.

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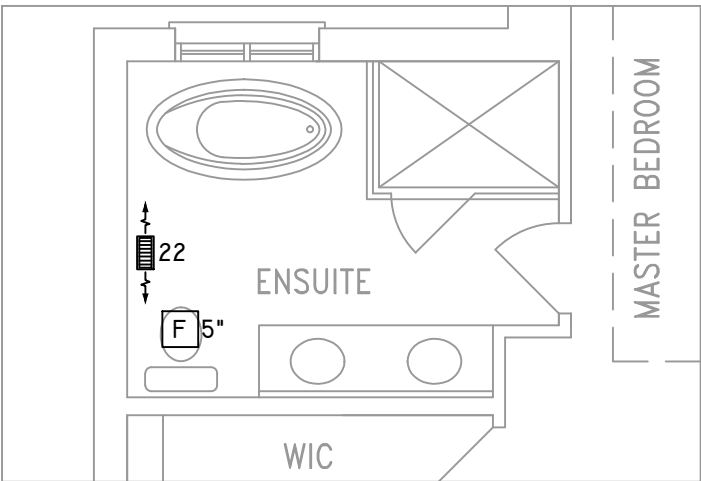
HEAT-LOSS	46,105	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	3
1ST FLOOR	8	1	2
BASEMENT	4	1	

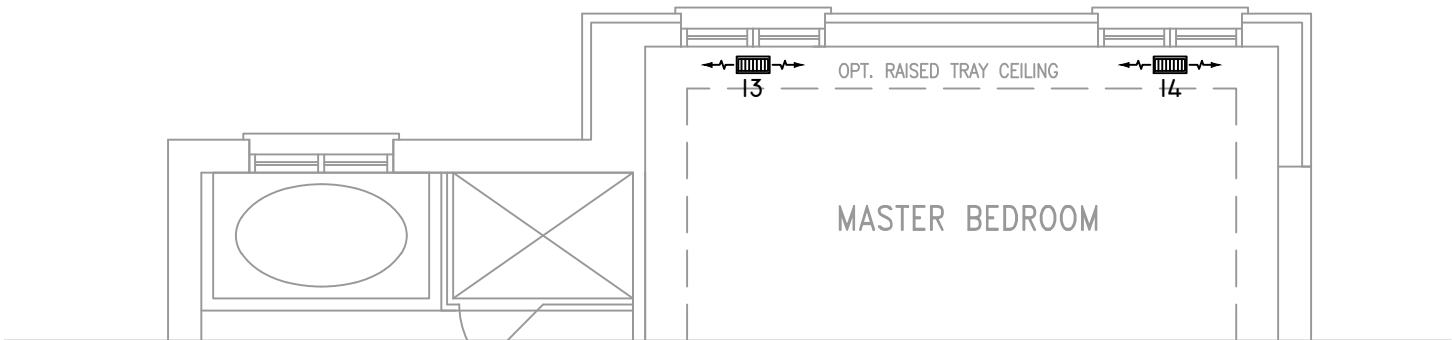
FLOOR PLAN:	
DRAWN BY:	CHECKED:
AM	DD
LAYOUT NO.	DRAWING NO.
JB-04488	M7

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-17 BAROSSA 17
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

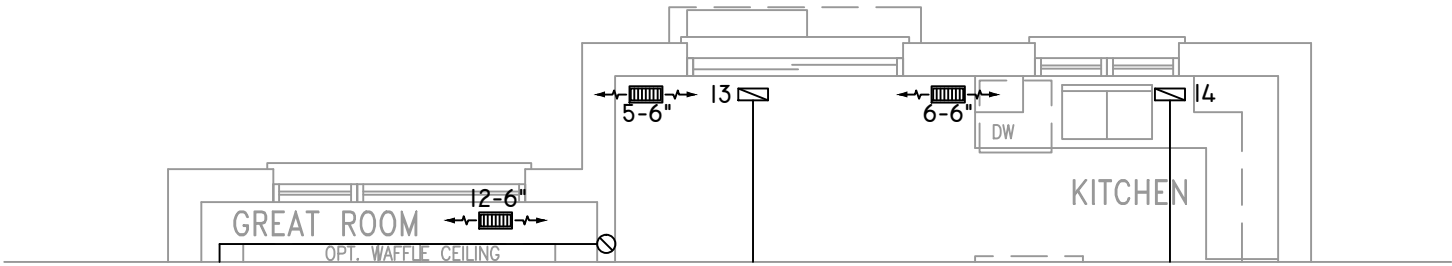
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



OPT. SECOND FLOOR W/  
ALT. ENSUITE LAYOUT



PARTIAL SECOND FLOOR PLAN ELEVATION 'C' REAR UPGRADE



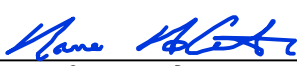
PARTIAL GROUND FLOOR PLAN ELEVATION 'C' REAR UPGRADE

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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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ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)  
INSULATE DUCTS IN UNCONDITIONED SPACES R12 UNDERCUT ALL DOORS 1" MIN.  
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WEB: WWW.GTADESIGNS.CA

HEAT-LOSS	46,105	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	3
1ST FLOOR	8	1	2
BASEMENT	4	1	

FLOOR PLAN: PARTIAL PLAN(S)	
DRAWN BY: AM	CHECKED: DD
LAYOUT NO. JB-04488	SQFT 2511
DRAWING NO. M8	

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-17 BAROSSA 17
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"