Schedule 1: Designer Information

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

A. Project Information

Building number, street name	**Barossa 8** **S38-8C Elev. C**	Lot: Lot/con.	
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-04552**
Heating and Cooling Load Calculations	**Main**		Builder	**Bayview Wellington**
Air System Design	**Alternate**	**x**	Project	**Green Valley East**
Residential mechanical ventilation Design Summary	**Area Sq ft:**	**3235**	Model	**Barossa 8** **S38-8C Elev. C**
Residential System Design per CAN/CSA-F280-12				
Residential New Construction - Forced Air			SB-12	**Package A1**

D. Declaration of Designer

I David DaCosta 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: **32964**

Basis for exemption from registration: **Division C 3.2.4.1. (4)**

❑ 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.

March 13, 2018

Date

Signature of Designer

NOTE:

1. For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d), of Division C, Article 3.2.5.1. of Division C and all other persons who are exempt from qualifications under Subsections 3.2.4 . and 3.2.5.of Division C.
2. Schedule 1 does not require to be completed a holder of a license, temporay license, or a certificate of authorization, issed by the Ontario Associstion of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited licence to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

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

Heat loss and gain calculation summary sheet

CSA-F280-M12
Standard Form No. 1

These documents issued for the use of **Bayview Wellington**
and may not be used by any other persons without authorization. Documents for permit and/or construction are signed in red.

Layout No. **JB-04552**

Building Location

Address (Model):	**S38-8C Elev. C**	Site:	**Green Valley East**
Model:	**Barossa 8**	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: **3235**
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**

Air System Design

SB-12 Package A1

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

Builder: Bayview Wellington
Date: March 13, 2018
Project: Green Valley East
Model: Barossa 8 S38-8C Elev. C

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-04552

DESIGN LOAD SPECIFICATIONS

Level 1 Net Load	17,279	btu/h
Level 2 Net Load	21,507	btu/h
Level 3 Net Load	20,067	btu/h
Level 4 Net Load	0	btu/h
Total Heat Loss	58,853	btu/h
Total Heat Gain	33,413	btu/h
Combo System HL + 10%	64,738	Btuh.
Building Volume Vb	37373	ft³
Ventilation Load	1,118	Btuh.
Ventilation PVC	79.5	cfm
Supply Branch and Grill Sizing		

AIR DISTRIBUTION & PRESSURE

Equipment External Static Pressure	0.5	"w.c.
Additional Equipment Pressure Drop	0.225	"w.c.
Available Design Pressure	0.275	"w.c.
Return Branch Longest Effective Length	300	ft
R/A Plenum Pressure	0.138	"w.c.
S/A Plenum Pressure	0.14	"w.c.
Heating Air Flow Proportioning Factor	0.0199	cfm/btuh
Cooling Air Flow Proportioning Facter	0.0351	cfm/btuh
R/A Temp	70	deg. F.
S/A Temp	131	deg. F.
Diffuser loss	0.01	"w.c.

FURNACE/AIR HANDLER DATA:

Make	Amana	
Model	AMEC960803BNA	
Input Btu/h	80000	
Output Btu/h	76800	
E.s.p.	0.50	" W.C.
Water Temp		deg. F.
AFUE	96%	
Aux. Heat		
SB-12 Package	Package A1	
Temp. Rise>>>	61	deg. F.

BOILER/WATER HEATER DATA:

Make	Type	
Model		
Input Btu/h		
Output Btu/h		
Min.Output Btu/h	AWH	

Blower DATA:

Blower Speed Selected:	W2	Blower Type	ECM (Brushless DC OBC 12.3.1.5.(2))
Heating Check	1172 cfm	Cooling Check	1172 cfm
Selected cfm>	1172 cfm	Cooling Air Flow Rate	1172 cfm

A/C UNIT DATA:

Amana	3.0	Ton
Cond.----------	3.0	
Coil ----------	3.0	

Level 1

S/A Outlet No.	1	2	3	4										
Room Use	BASE	BASE	BASE	BASE										
Btu/Outlet	4320	4320	4320	4320										
Heating Airflow Rate CFM	86	86	86	86										
Cooling Airflow Rate CFM	8	8	8	8										
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	36	32	29	57										
Equivalent Length	120	100	110	140	70	70	70	70	70	70	70	70	70	70
Total Effective Length	156	132	139	197	70	70	70	70	70	70	70	70	70	70
Adjusted Pressure	0.08	0.10	0.09	0.07	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Duct Size Round	6	6	6	6										
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	G	F	B	D										

Level 2

S/A Outlet No.	5	6	7	8	9	10	11	12	13	14	15			
Room Use	GRT	GRT	KIT	KIT	LAUN	LIV	LIV	PWD	FOY	DIN	DIN			
Btu/Outlet	1979	1979	2304	2304	3003	2467	2467	845	1953	1103	1103			
Heating Airflow Rate CFM	39	39	46	46	60	49	49	17	39	22	22			
Cooling Airflow Rate CFM	86	86	82	82	80	56	56	4	27	54	54			
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	37	39	36	35	53	61	66	47	40	34	31			
Equivalent Length	130	130	110	110	120	140	120	120	120	140	75	70	70	70
Total Effective Length	167	169	146	145	173	201	186	167	160	174	106	70	70	70
Adjusted Pressure	0.08	0.08	0.09	0.09	0.08	0.06	0.07	0.08	0.08	0.07	0.12	0.19	0.19	0.19
Duct Size Round	6	6	6	6	6	6	6	3	5	5	5			
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	3x10	3x10	4x10	4x10	4x10
Trunk	G	G	F	F	B	D	D	C	B	B	E			

Level 3

S/A Outlet No.	16	17	18	19	20	21	22	23	24	25	26	27		
Room Use	MAST	WC	ENS	BED 2	BED 2	BATH	BED 3	BED 3	BED 4	ENS 2	WIC	HALL		
Btu/Outlet	3102	505	1246	1791	1791	990	2356	2356	2337	829	1178	1588		
Heating Airflow Rate CFM	62	10	25	36	36	20	47	47	47	17	23	32		
Cooling Airflow Rate CFM	86	6	17	37	37	18	65	65	63	15	18	45		
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	51	53	62	72	70	72	84	76	63	47	61	65		
Equivalent Length	110	180	150	180	170	160	160	150	160	140	150	190	70	70
Total Effective Length	161	233	212	252	240	232	244	226	223	187	211	255	70	70
Adjusted Pressure	0.08	0.06	0.06	0.05	0.05	0.06	0.05	0.06	0.06	0.07	0.06	0.05	0.19	0.19
Duct Size Round	6	3	4	5	5	4	6	6	6	3	4	5		
Outlet Size	4x10	3x10	3x10	3x10	3x10	3x10	4x10	4x10	4x10	3x10	3x10	3x10	4x10	4x10
Trunk	F	B	B	C	C	C	D	C	B	G	G	C		

Level 4

Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Actual Duct Length														
Equivalent Length	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Total Effective Length	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Adjusted Pressure	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Duct Size Round														
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
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	170	490	155	155	101	101					
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	7	28	41	42	55	75					
Equivalent Length	115	125	155	195	185	175	50	50	50	50	50
Total Effective Length	122	153	196	237	240	250	50	50	50	50	50
Adjusted Pressure	0.10	0.08	0.06	0.05	0.05	0.05	0.24	0.24	0.24	0.24	0.24
Duct Size Round	7.0	11.5	8.0	8.0	6.0	6.0					
Inlet Size	FLC	8	8	8	8	8					
" "	x	x	x	x	x	x	x	x	x	x	x
Inlet Size		30	14	14	14	14					
Trunk	Z	Z	Z	Z	Y	Y					

Return Trunk Duct Sizing

Trunk	CFM	Press.	Round	Rect. Size	
Drop	1172	0.05	17.0	24x12	
Z	1172	0.05	17.0	26x10	22x12
Y	202	0.05	9.0	8x8	10x7
X					
W					
V					
U					
T					
S					
R					
Q					

Supply Trunk Duct Sizing

Trunk	CFM	Press.	Round	Rect. Size	
A	1172	0.05	17.0	26x10	22x12
B	705	0.05	14.0	22x8	18x10
C	417	0.05	11.5	14x8	12x10
D	231	0.05	9.5	10x8	
E	467	0.06	11.5	14x8	12x10
F	240	0.08	8.5	8x8	
G	205	0.06	8.5	8x8	
H					
I					
J					
K					

Heatloss/Gain Calculations CSA-F280-12

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

e-mail dave@gtadesigns.ca

2012 OBC

Builder: Bayview Wellington | Date: March 13, 2018

Project: Green Valley East | Model: Barossa 8 S38-8C Elev. C

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: 3235

Project # PJ-00204

Layout # JB-04552

Level 1

				BASE																									
Run ft. exposed wall A				182	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				3.8	AG	3.8	AG	3.8	AG	3.8	AG	3.8	AG	3.8	AG	3.8	AG	3.8	AG	3.8	AG	3.8	AG	3.8	AG	3.8	AG	3.8	AG
Floor area				1305	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				688																									
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
North Shaded	3.55	22.93	10.91	3	69	33																							
East/West	3.55	22.93	27.35	3	69	82																							
South	3.55	22.93	20.89	6	138	125																							
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	655		341																							
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 Abo				7597																								
Total Conductive: Heat Loss					8299																								
Total Conductive: Heat Gain						639																							
Air Leakage: Heat Loss/Gain		1.0539	0.0335		8747	21																							
Ventilation: Case 1		0.07	0.05																										
Ventilation: Case 2		14.07	11.88																										
Ventilation: Case 3	x	0.03	0.05		233	34																							
Heat Gain People			239																										
Appliances Loads	1 =.25 percent		5314																										
Duct and Pipe loss			10%																										
Level 1 HL Total	17,279	Total HL for per room			17279																								
Level 1 HG Total	903	Total HG per room	x 1.3			903																							

Level 2

				GRT			KIT			LAUN			LIV			PWD			FOY			DIN											
Run ft. exposed wall A				29	A		39	A		29	A		44	A		13	A		13	A		18	A		A		A		A		A	
Run ft. exposed wall B					B			B			B			B			B			B			B		B		B		B		B	
Ceiling height				10.0			10.0			12.0			10.0			10.0			11.0			10.0		10.0		10.0		10.0		10.0	
Floor area				210	Area		322	Area		184	Area		183	Area		58	Area		105	Area		236	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				290			390			348			440			130			143			180										
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				24	550	262	12	275	131																				
East/West	3.55	22.93	27.35	56	1284	1532	60	1376	1641				42	963	1149																	
South	3.55	22.93	20.89	28	642	585							42	963	877				20	459	418	42	963	877								
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							25	509	69											
Net exposed walls A	17.03	4.78	0.65	206	985	133	306	1463	198	315	1506	203	356	1702	230	130	621	84	98	468	63	138	660	89								
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 Abo		x																													
Total Conductive: Heat Loss					2911			3389			2208			3628			621			1436			1623									
Total Conductive: Heat Gain						2250			2101			392			2256			84			550			966								
Air Leakage: Heat Loss/Gain		0.3318	0.0335		966	75		1125	70		733	13		1204	76		206	3		476	18		538	32								
Ventilation: Case 1		0.02	0.05																													
Ventilation: Case 2		14.07	11.88																													
Ventilation: Case 3	x	0.03	0.05		82	121		95	113		62	21		102	122		17	5		40	30		46	52								
Heat Gain People			239																													
Appliances Loads	1 =.25 percent		5314	1.0		1328	1.0		1328	1.0		1328										1.0		1328								
Duct and Pipe loss			10%																													
Level 2 HL Total	21,507	Total HL for per room			3958			4608			3003			4933			845			1953			2207									
Level 2 HG Total	19,064	Total HG per room	x 1.3			4907			4697			2281			3189			119			777			3093								

Total Heat Loss	58,853	btu/h
Total Heat Gain	33,413	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

SB-12 Package

Package A1

GTADESIGNS

Heatloss/Gain Calculations CSA-F280-12

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

e-mail dave@gtadesigns.ca

Weather Data: Bradford 44 -9.4 86 22 48.2

2012 OBC

Builder: Bayview Wellington | Date: March 13, 2018

Project: Green Valley East | Model: Barossa 8 S38-8C Elev. C

System 1

Heat Loss ^T 81.4 deg. F | Ht gain ^T 11 deg. F | GTA: 3235

Project # PJ-00204

Layout # JB-04552

Level 3

	MAST	WC	ENS	BED 2	BATH	BED 3	BED 4	ENS 2	WIC	HALL	
Run ft. exposed wall A	32 A	6 A	12 A	31 A	6 A	40 A	21 A	10 A	17 A	8 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	9.0	9.0	8.0	8.0	8.0	8.0
Floor area	367 Area	21 Area	140 Area	226 Area	91 Area	210 Area	174 Area	59 Area	67 Area	226 Area	Area
Exposed Ceilings A	367 A	21 A	140 A	226 A	81 A	70 A	174 A	59 A	67 A	226 A	A
Exposed Ceilings B	B	B	B	B	10 B	140 B	B	B	B	B	B
Exposed Floors	Flr	Flr	Flr	208 Flr	73 Flr	Flr	Flr	Flr	Flr	Flr	Flr
Gross Exp Wall A	288	48	96	248	48	360	189	80	136	64	
Gross Exp Wall B											

Components		R-Values	Loss	Gain	MAST Loss	MAST Gain	WC Loss	WC Gain	ENS Loss	ENS Gain	BED 2 Loss	BED 2 Gain	BATH Loss	BATH Gain	BED 3 Loss	BED 3 Gain	BED 4 Loss	BED 4 Gain	ENS 2 Loss	ENS 2 Gain	WIC Loss	WIC Gain	HALL Loss	HALL Gain	Loss	Gain
North Shaded		3.55	22.93	10.91			8	183	19	436																
East/West		3.55	22.93	27.35	33	757					30	688	8	183	40	917										
South		3.55	22.93	20.89											40	917	40	917	11	252	11	252	36	825		
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	255	1219	40	191	77	368	218	1042	40	191	280	1338	149	712	69	330	125	597	28	134		
Net exposed walls B		8.50	9.58	1.29																						
Exposed Ceilings A		59.22	1.37	0.64	367	504	21	29	140	192	226	311	81	111	70	96	174	239	59	81	67	92	226	311		
Exposed Ceilings B		22.86	3.56	1.66									10	36	140	499										
Exposed Floors		29.80	2.73	0.17							208	568	73	199												
Foundation Conductive Heatloss																										
Total Conductive	Heat Loss					2480		403		996		2609		721		3767		1869		663		942		1270		
	Heat Gain						1303		127		347		1141		326		2388		1043		312		353		915	
Air Leakage	Heat Loss/Gain		0.2226	0.0335		552	44	90	4	222	12	581	38	160	11	838	80	416	35	148	10	210	12	283	31	
Ventilation	Case 1		0.01	0.05																						
	Case 2		14.07	11.88																						
	Case 3	x	0.03	0.05		70	70	11	7	28	19	73	62	20	18	106	129	52	56	19	17	26	19	36	49	
Heat Gain People				239	2		478					1	239			1	239	1	239							
Appliances Loads		1 =.25 percent		5314																						
Duct and Pipe loss				10%								1	319	138	1	88	33									
Level 3 HL Total	20,067	Total HL for per room				3102		505		1246		3581		990		4712		2337		829		1178		1588		
Level 3 HG Total	13,446	Total HG per room x 1.3					2463		179		490		2104		503		3687		1786		441		500		1294	

Level 4

Run ft. exposed wall 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	
Ceiling height																										
Floor 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	
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																										
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	0.0335																						
Ventilation	Case 1		0.00	0.05																						
	Case 2		14.07	11.88																						
	Case 3	x	0.03	0.05																						
Heat Gain People				239																						
Appliances Loads		1 =.25 percent		5314																						
Duct and Pipe loss				10%																						
Level 4 HL Total	0	Total HL for per room																								
Level 4 HG Total	0	Total HG per room x 1.3																								

Total Heat Loss	58,853	btu/h
Total Heat Gain	33,413	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

SB-12 Package

Package A1

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

Project # PJ-00204
Layout # JB-04552

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:** S38-8C Elev. C

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		Exhaust only / forced air system
2		HRV WITH DUCTING / forced air system
3	x	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	5	@	10.6	cfm	53	cfm
Other rooms	5	@	10.6	cfm	53	cfm
			Total		180.2	

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	180.2	
Less principal exhaust capacity	79.5	
REQUIRED supplemental vent. Capacity	100.7	cfm

Supplemental Fans 9.32.3.5.

Location	cfm	Model	Sones
Ens	50	XB50	0.3
Bath	50	XB50	0.3
Ens 4	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		

GTADESIGNS
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)

Project # PJ-00204
Layout # JB-04552

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	Unit number	Lot/Con
Barossa 8 **S38-8C Elev. C**		

Municipality	Postal code	Reg. Plan number / other description
Bradford		

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)	☑ ≥ 92% AFUE	☑ Gas	☐ Propane	☐ Solid Fuel
☐ Zone 2 (≥ 5000 degree days)	☐ ≥ 84% < 92% AFUE	☐ Oil	☐ Electric	☐ Earth Energy

Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area		Other Building Characteristics		
Area of Walls = 387.02 m² or 4165.9 ft²	W,S &G % = 15%	☐ Log/Post&Beam	☐ ICF Above Grade	☐ ICF Basement
		☐ Slab-on-ground	☐ Walkout Basement	
Area of W, S & G = 57.041 m² or 614.0 ft²	Utilize Window Averaging ☐ Yes ☑ No	☑ Air Conditioning	☐ Combo Unit	
		☐ 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)	☐ Table 3.1.1.4.B	Required:	Permitted Substitution:
Airtightness test required	☐ Table 3.1.1.4.C	Required:	Permitted Substitution:
(Refer to Design Guide Attached)		Required:	Permitted Substitution:

Building Component	Minimum RSI/R-Values or Maximum U-Value[1]		Building Component	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·ft·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	

GTADESIGNS

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

Project # PJ-00204
Layout # JB-04552

Package: Package A1 **System:** System 1
Project: Bradford **Model:** S38-8C Elev. C

Air Leakage Calculations

Building Air Leakage Heat Loss				
B	LRairh	Vb	HL^T	HLleak
0.018	0.319	37373	81.4	17494

Building Air Leakage Heat Gain				
B	LRairh	Vb	HG^T	HG Leak
0.018	0.079	37373	11	586

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	17494	8299	1.0539
Level 2	0.3		15815	0.3318
Level 3	0.2		15720	0.2226
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

		Air Leakage Heat Gain
HG LEAK	586	0.0335
BUILDING CONDUCTIVE HEAT GAIN	17493	

Levels this Dwelling
3

Ventilation Calculations

Vent

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

Case 1

Ventilation Heat Loss (Exhaust only Systems)

Case 1 - Exhaust Only				
Level	LF	HLbvent	LVL Cond. HL	Multiplier
Level 1	0.5	1118	8299	0.07
Level 2	0.3		15815	0.02
Level 3	0.2		15720	0.01
Level 4	0		0	0.00

Ventilation Heat Gain (Exhaust Only Systems)

Case 1 - Exhaust Only		Multiplier
HGbvent	944	0.05
Building	17493	

Case 2

Case 2

Ventilation Heat Loss (Direct Ducted Systems)

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

Ventilation Heat Gain (Direct Ducted Systems)

		Multiplier
C	HG^T	11.88
1.08	11	

Case 3

Case 3

Ventilation Heat Loss (Forced Air Systems)

	HLbvent	Multiplier
Total Ventilation Load	1118	0.03

Ventilation Heat Gain (Forced Air Systems)

		Vent Heat Gain	Multiplier
HGbvent	HG*1.3	944	0.05
944	1		

Foundation Conductive Heatloss Level 1	2226	Watts	7597	Btu/h
Foundation Conductive Heatloss Level 2		Watts		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

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):	6.64

Building Configuration	
Type:	Detached
Number of Stories:	Two
Foundation:	Full
House Volume (m^3):	1058.40

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

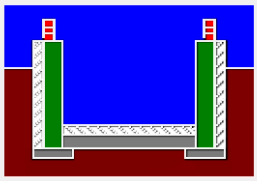
Heating Air Leakage Rate (ACH/H):	**0.319**
Cooling Air Leakage Rate (ACH/H):	**0.079**

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)

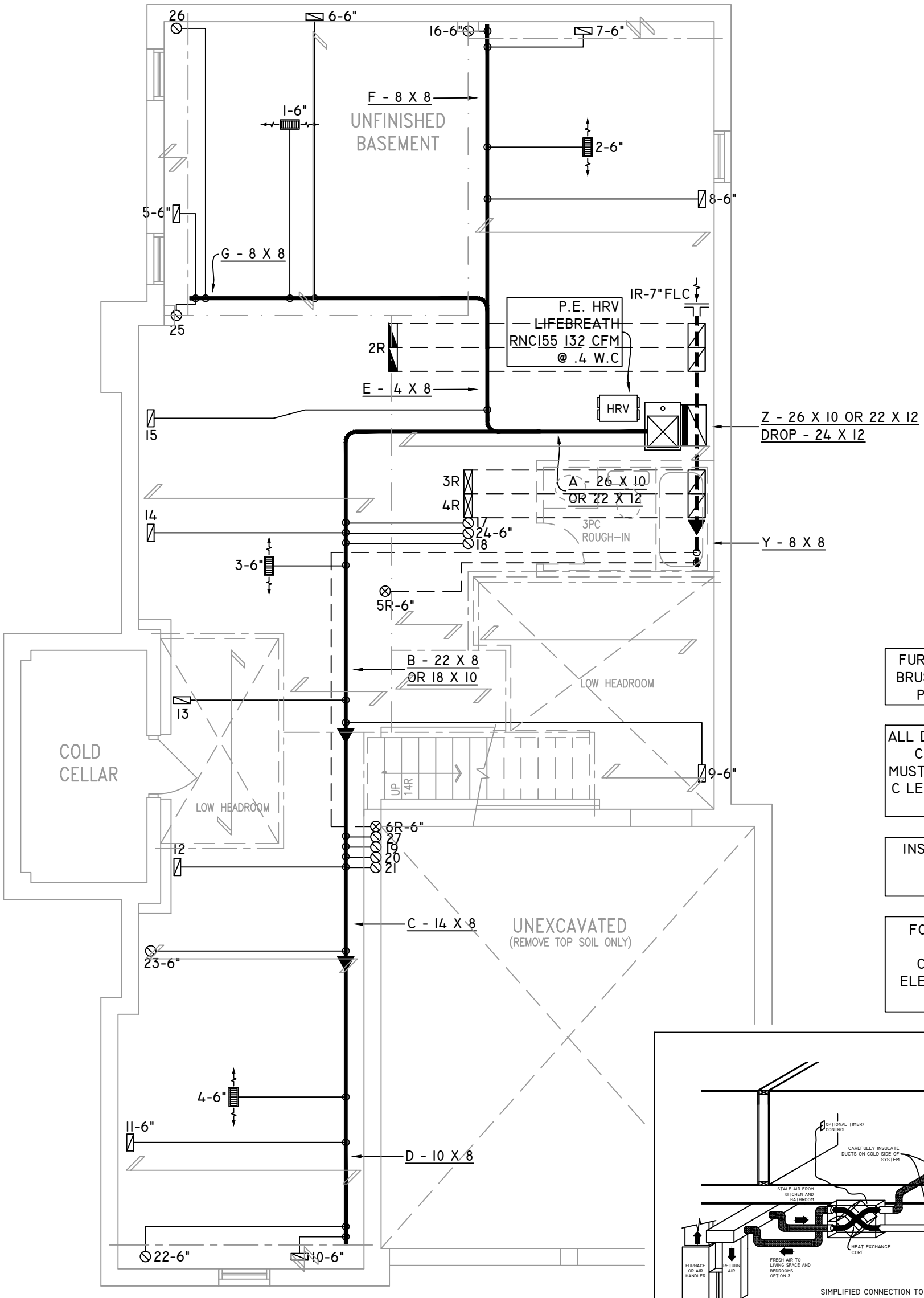
Foundation Dimensions		
Floor Length (m):	22.30	 Insulation Configuration
Floor Width (m):	5.44	
Exposed Perimeter (m):	55.47	
Wall Height (m):	2.74	
Depth Below Grade (m):	1.59	
Window Area (m^2):	1.11	
Door Area (m^2):	1.95	

Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	

Design Months		
Heating Month	1	

Foundation Loads	
Heating Load (Watts):	**2226**

	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	T	THERMOSTAT
			VOLUME DAMPER					$	PRINCIPAL EXHAUST FAN SWITCH
								F PE	W/R & PRINCIPAL EXHAUST FAN

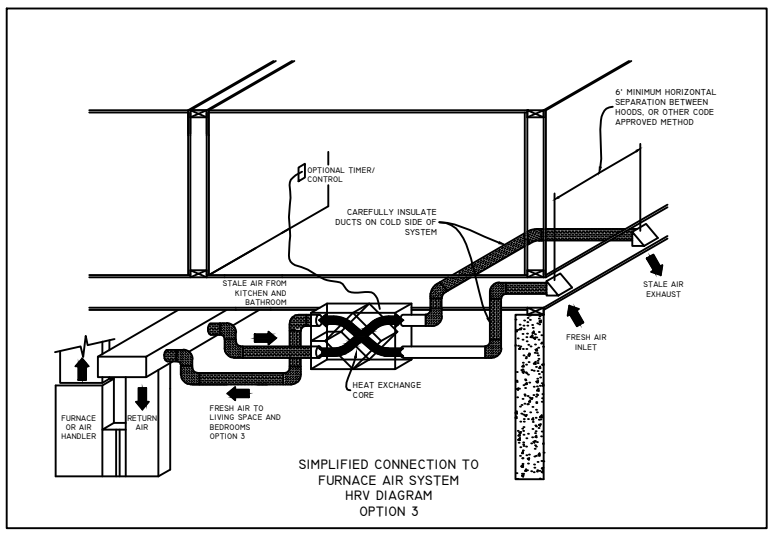


FURNACE EQUIPPED WITH BRUSHLESS DC MOTOR AS PER OBC 12.3.1.5 (2)

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



SIMPLIFIED CONNECTION TO FURNACE AIR SYSTEM HRV DIAGRAM OPTION 3

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

OBC 2012

ZONE 1 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.

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

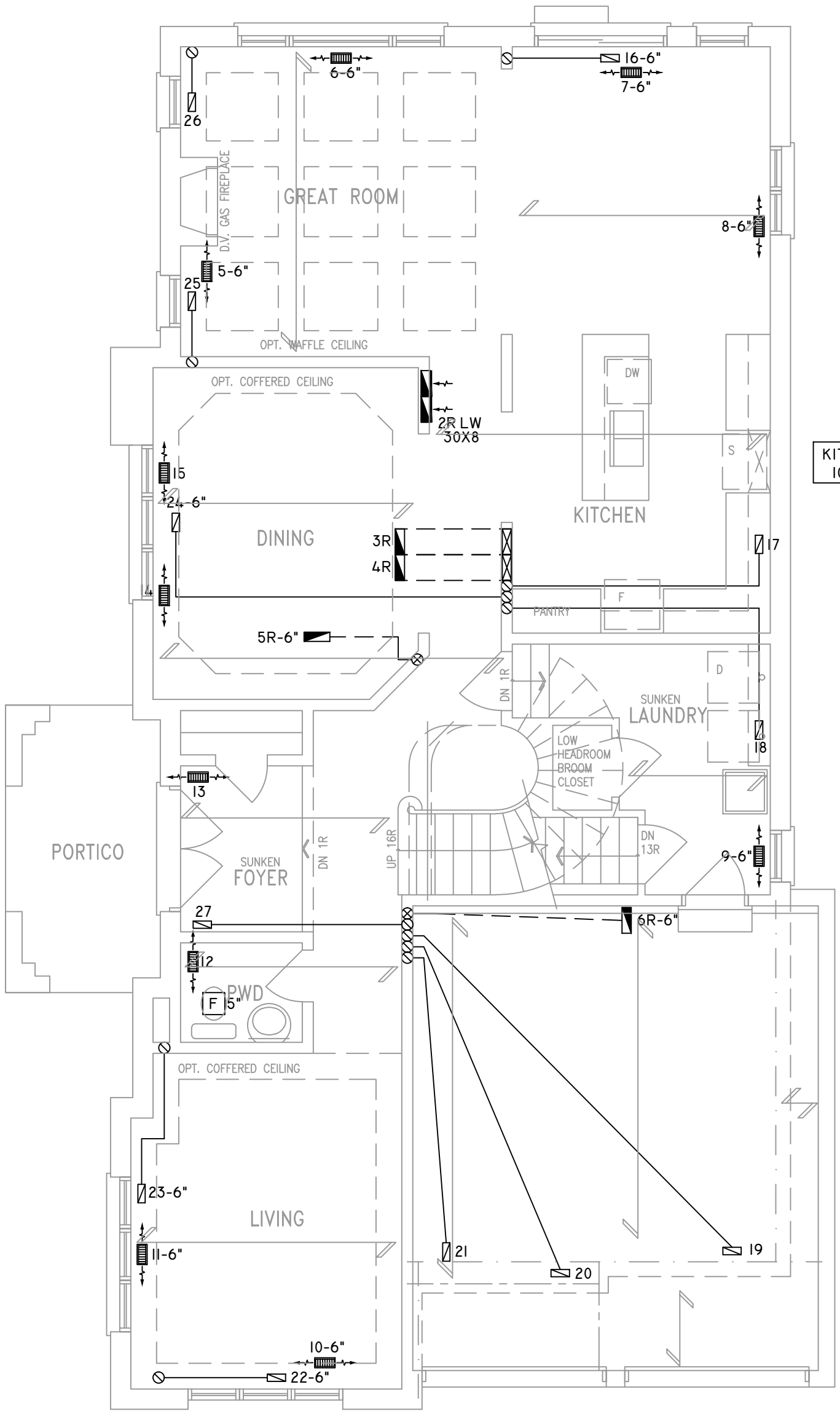
HEAT-LOSS	58,853 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	12	4	4
1ST FLOOR	11	1	2
BASEMENT	4	1	

FLOOR PLAN: BASEMENT		
DRAWN BY: AM	CHECKED: DD	SQFT 3180
LAYOUT NO. JB-04552		DRAWING NO. M1

DATE: MARCH 13, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-8C ELEV. C BAROSSA 8
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	T	THERMOSTAT
			VOLUME DAMPER					$	PRINCIPAL EXHAUST FAN SWITCH
								F PE	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

GROUND FLOOR 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

OBC 2012

ZONE 1 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.

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

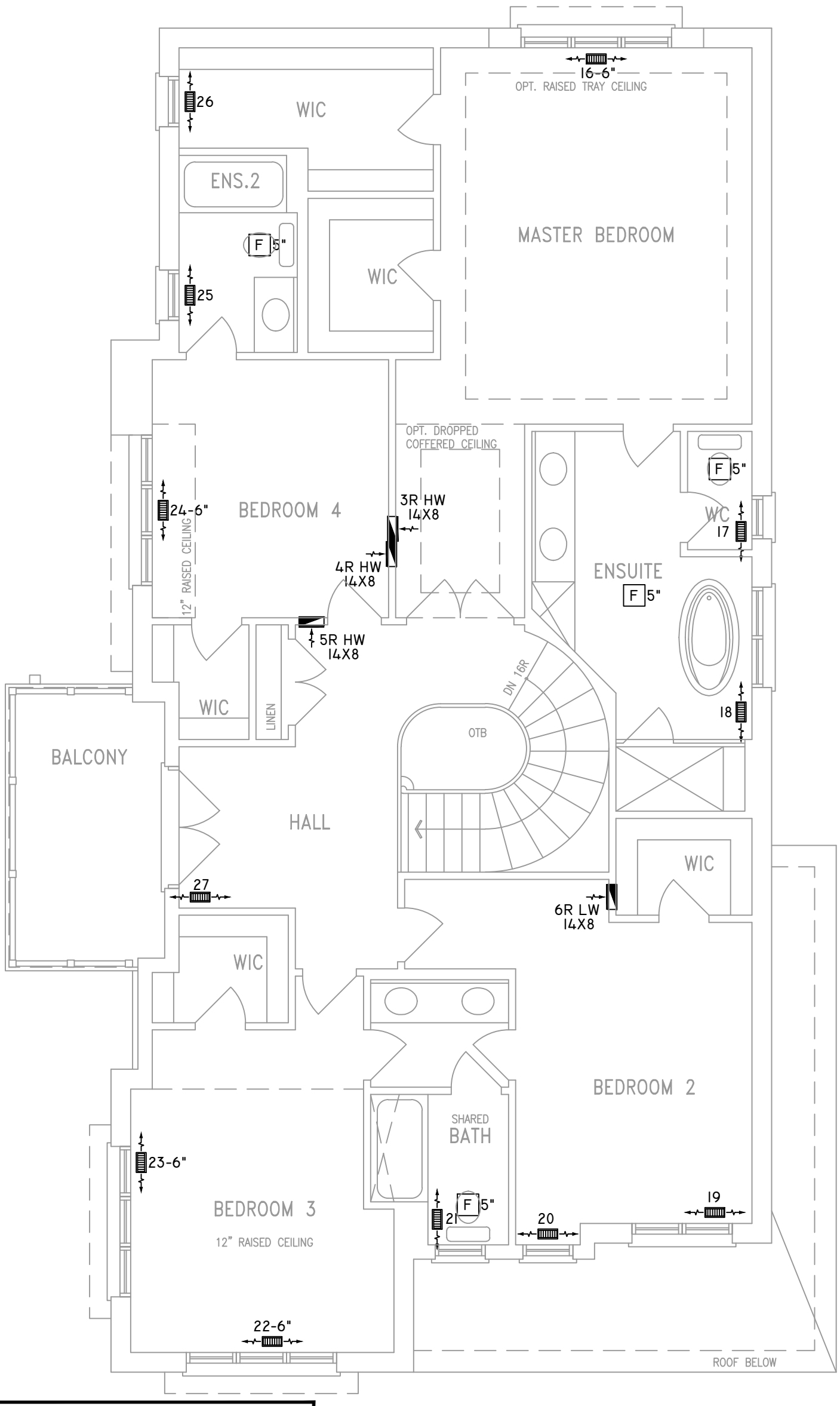
HEAT-LOSS	58,853 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	12	4	4
1ST FLOOR	11	1	2
BASEMENT	4	1	

FLOOR PLAN: GROUND FLOOR		
DRAWN BY: AM	CHECKED: DD	SQFT 3180
LAYOUT NO. JB-04552		DRAWING NO. M2

DATE:	MARCH 13, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-8C ELEV. C BAROSSA 8
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	T	THERMOSTAT
			VOLUME DAMPER					$	PRINCIPAL EXHAUST FAN SWITCH
								F PE	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. RI2

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 'C'

OBC 2012

ZONE 1 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 RI2 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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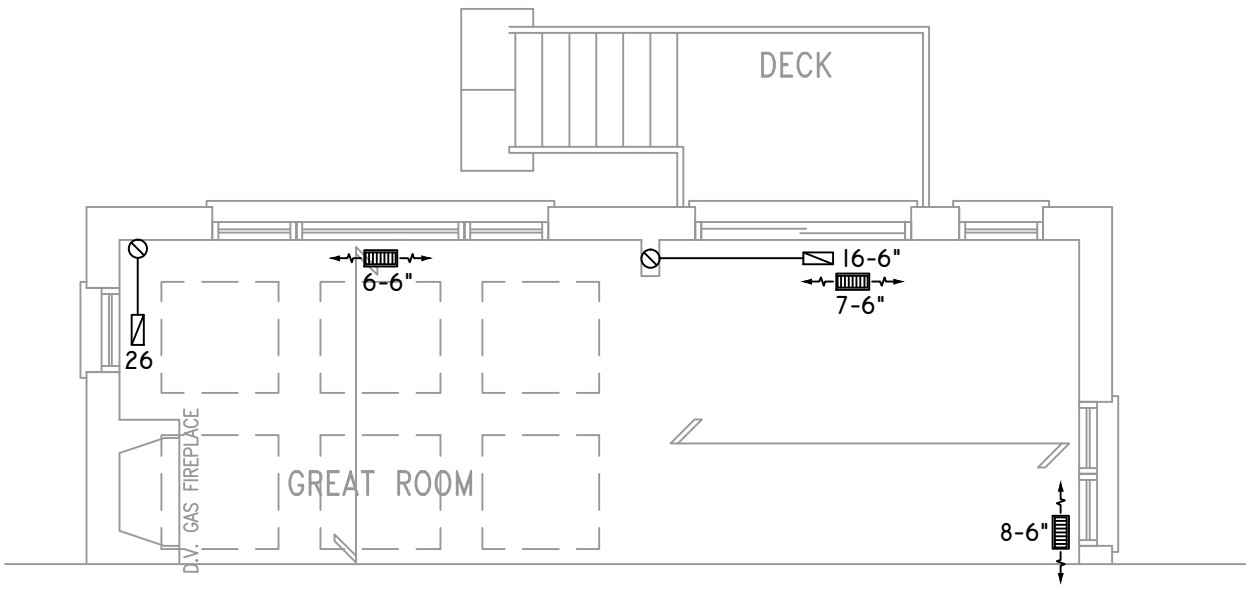
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	12	4	4
1ST FLOOR	11	1	2
BASEMENT	4	1	

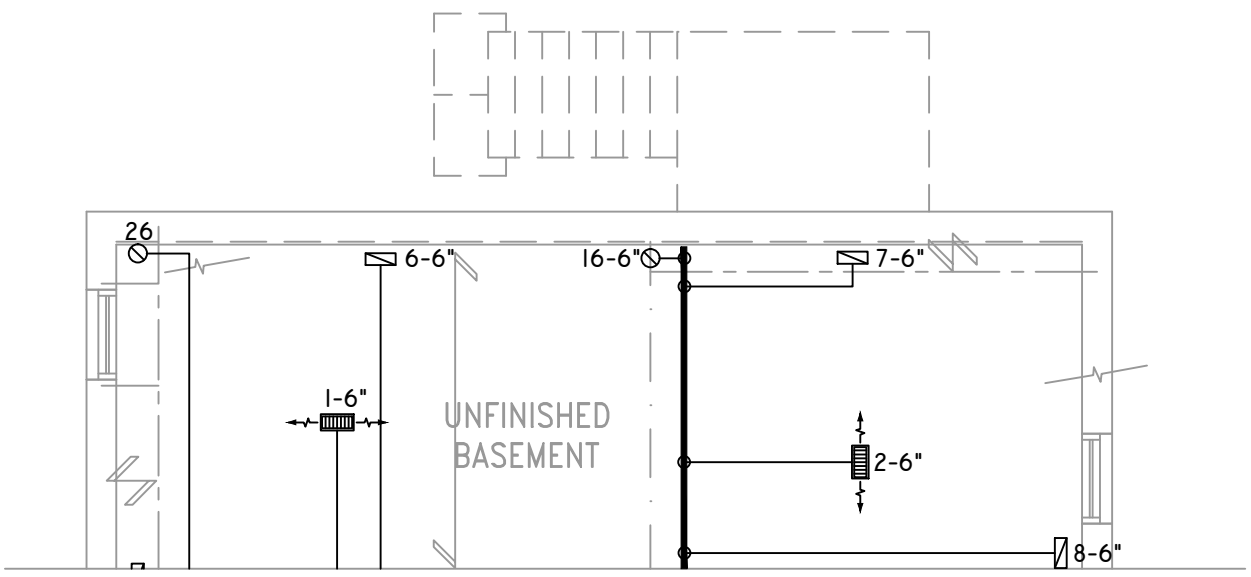
FLOOR PLAN: SECOND FLOOR		
DRAWN BY: AM	CHECKED: DD	SQFT 3180
LAYOUT NO. JB-04552		DRAWING NO. M3

DATE: MARCH 13, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-8C ELEV. C BAROSSA 8
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

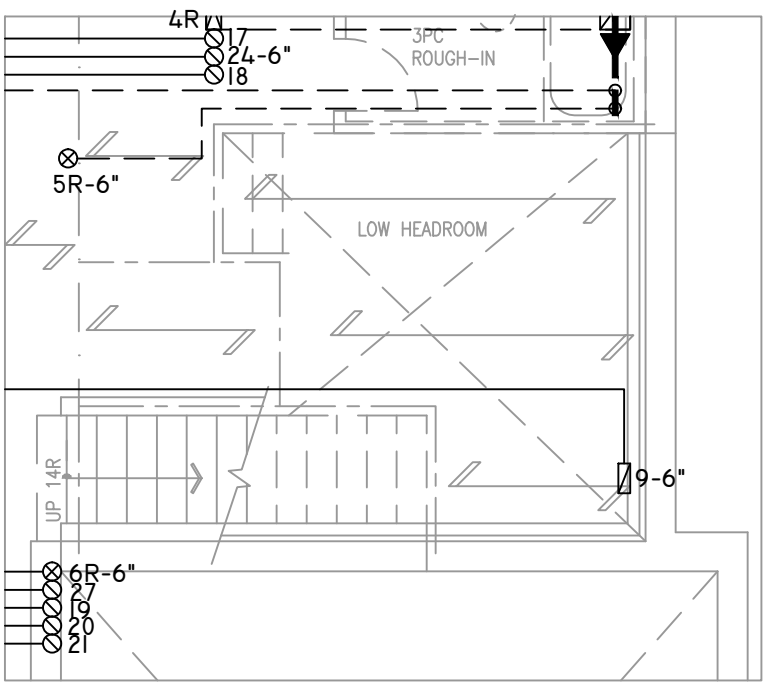
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



PART. GROUND FLOOR PLAN 'C' – W.O.D. CONDITION



PART. BASEMENT PLAN 'C' – W.O.D. CONDITION



PART. BASEMENT PLAN W/ SUNKEN LAUNDRY (–2R TO –3R 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

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

OBC 2012

ZONE 1 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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FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	12	4	4
1ST FLOOR	11	1	2
BASEMENT	4	1	

FLOOR PLAN: PARTIAL PLAN(S)			
DRAWN BY: AM	CHECKED: DD	SQFT 3180	
LAYOUT NO. JB-04552		DRAWING NO. M4	

DATE:	MARCH 13, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-8C ELEV. C BAROSSA 8
PROJECT:	GREEN VALLEY EAST BRADFORD, ONT.
SCALE:	3/16" = 1'-0"