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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: **S38-19**		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: hvac@gtadesigns.ca
Telephone number: **(905) 671-9800**	Fax number:	Cell number:	

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-00041**
				Layout #:	**JB-08343**
Heating and Cooling Load Calculations	**Main**	**X**	Builder	**Bayview Wellington**	
Air System Design	**Alternate**		Project	**Green Valley East**	
Residential mechanical ventilation Design Summary	**Area Sq ft:**	**3073**	Model	**S38-19**	
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.

July 15, 2022

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.

GTADESIGNS

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

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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-08343**

Building Location

Address (Model):	**S38-19**	Site:	**Green Valley East**
Model:		Lot:	
City and Province:	**Bradford**	Postal code:	

Calculations based on

Dimensional information based on: **VA3 DesignOct/2021**

Attachment:	**Detached**		Front facing:	**East/West**	Assumed? **Yes**
No. of Levels:	**3**	Ventilated? **Included**	Air tightness:	**1961-Present (ACH=3.57)**	Assumed? **Yes**
Weather location:	**Bradford**		Wind exposure:	**Sheltered**	
HRV?	**VanEE**	**V150H75NS**	Internal shading:	**Light-translucent**	Occupants: **5**
Sensible Eff. at -25C	**60%**	Apparent Effect. at -0C **80%**	Units:	**Imperial**	Area Sq ft: **3073**
Sensible Eff. at -0C	**75%**				

Heating design conditions

Outdoor temp **-9.4** Indoor temp: **72** Mean soil temp: **48**

Cooling design conditions

Outdoor temp **86** Indoor temp: **75** Latitude: **44**

Above grade walls

Style A:	**As per OBC SB12**	**Package A1**	**R**	**22**
Style B:				
Style C:				
Style D:				

Below grade walls

Style A:	**As per OBC SB12**	**Package A1**	**R**	**20ci**
Style B:				
Style C:				
Style D:				

Floors on soil

Style A:	**As per Selected OBC SB12**	**Package A1**		
Style B:				

Ceilings

Style A:	**As per Selected OBC SB12**	**Package A1**	**R**	**60**
Style B:	**As per Selected OBC SB12**	**Package A1**	**R**	**31**
Style C:				

Exposed floors

Style A:	**As per Selected OBC SB12**	**Package A1**	**R**	**31**
Style B:				

Doors

Style A:	**As per Selected OBC SB12**	**Package A1**	**R**	**4.00**
Style B:				
Style C:				

Windows

Style A:	**As per Selected OBC SB12**	**Package A1**	**R**	**3.55**
Style B:				
Style C:				
Style D:				

Skylights

Style A:	**As per Selected OBC SB12**	**Package A1**	**R**	**2.03**
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:	
City:	**Mississauga**	E-mail	**hvac@gtadesigns.ca**

Air System Design

SB-12 Package A1

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

Builder: Bayview Wellington | Date: July 15, 2022 | **System 1**

Project: Green Valley East | Model: S38-19

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-00041
Layout # JB-08343

DESIGN LOAD SPECIFICATIONS

Level 1 Net Load	22,548	btu/h
Level 2 Net Load	21,559	btu/h
Level 3 Net Load	21,059	btu/h
Level 4 Net Load	0	btu/h
Total Heat Loss	65,166	btu/h
Total Heat Gain	32,119	btu/h
Building Volume Vb	40491	ft³
Ventilation Load	1,398	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	0.0180	cfm/btuh
Cooling Air Flow Proportioning Facter	0.0365	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
Heating Check 1172 cfm
Selected cfm> 1172 cfm

A/C UNIT DATA:

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

Blower Type ECM
(Brushless DC OBC 12.3.1.5.(2))
Cooling Check 1172 cfm
Cooling Air Flow Rate 1172 cfm

Level 1

S/A Outlet No.	1	2	3	4	5										6	7	8	9	10	11	12	13	14	15				
Room Use	BASE	BASE	BASE	BASE	BASE										KIT	KIT	GRT	GRT	LIV/DIN	LIV/DIN	PWD	MUD	FOY	STUDY				
Btu/Outlet	4510	4510	4510	4510	4510										2427	2427	1985	1985	2633	2633	1314	1182	3403	1573				
Heating Airflow Rate CFM	81	81	81	81	81										44	44	36	36	47	47	24	21	61	28				
Cooling Airflow Rate CFM	16	16	16	16	16										80	80	73	73	67	67	15	5	53	79				
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	38	20	23	50	29										45	46	45	56	41	11	6	6	30	22				
Equivalent Length	110	100	130	90	110	70	70	70	70	70	70	70	70	70	100	110	150	160	130	80	90	80	100	120	70	70	70	70
Total Effective Length	148	120	153	140	139	70	70	70	70	70	70	70	70	70	145	156	195	216	171	91	96	86	130	142	70	70	70	70
Adjusted Pressure	0.09	0.11	0.08	0.09	0.09	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.09	0.08	0.07	0.06	0.08	0.14	0.14	0.15	0.10	0.09	0.19	0.19	0.19	0.19
Duct Size Round	6	6	6	6	6										6	6	6	6	6	6	3	3	5	6				
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10
Trunk	C	B	E	C	B										C	D	D	D	C	A	A	A	E	B				

Level 3

S/A Outlet No.	16	17	18	19	20	21	22	23	24	25	26	27	28															
Room Use	P.BED	P.BED	ENS	WC	BED 2	ENS 2	BED 3	WIC 4	BED 4	BED 4	ENS 3	LAUND	WIC															
Btu/Outlet	1770	1770	1682	560	1521	726	1533	1177	3304	3304	2125	742	843															
Heating Airflow Rate CFM	32	32	30	10	27	13	28	21	59	59	38	13	15															
Cooling Airflow Rate CFM	47	47	34	11	40	13	40	19	87	87	62	8	6															
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	62	53	60	61	47	30	22	49	47	45	52	23	41															
Equivalent Length	150	120	140	150	100	90	100	140	130	120	140	100	110	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Total Effective Length	212	173	200	211	147	120	122	189	177	165	192	123	151	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Adjusted Pressure	0.06	0.08	0.07	0.06	0.09	0.11	0.11	0.07	0.07	0.08	0.07	0.11	0.09	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Duct Size Round	6	6	4	3	4	3	4	4	6	6	5	3	3															
Outlet Size	4x10	4x10	3x10	3x10	3x10	3x10	3x10	3x10	4x10	4x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	D	D	D	C	B	A	A	E	E	E	E	A	B															

Level 2

S/A Outlet No.	6	7	8	9	10	11	12	13	14	15																		
Room Use	KIT	KIT	GRT	GRT	LIV/DIN	LIV/DIN	PWD	MUD	FOY	STUDY																		
Btu/Outlet	2427	2427	1985	1985	2633	2633	1314	1182	3403	1573																		
Heating Airflow Rate CFM	44	44	36	36	47	47	24	21	61	28																		
Cooling Airflow Rate CFM	80	80	73	73	67	67	15	5	53	79																		
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	45	46	45	56	41	11	6	6	30	22																		
Equivalent Length	100	110	150	160	130	80	90	80	100	120	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Total Effective Length	145	156	195	216	171	91	96	86	130	142	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Adjusted Pressure	0.09	0.08	0.07	0.06	0.08	0.14	0.14	0.15	0.10	0.09	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Duct Size Round	6	6	6	6	6	6	3	3	5	6																		
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	C	D	D	D	C	A	A	A	E	B																		

Level 4

S/A Outlet No.																												
Room Use																												
Btu/Outlet																												
Heating Airflow Rate CFM																												
Cooling Airflow Rate CFM																												
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Actual Duct Length																												
Equivalent Length	70	70	70	70	70	70	70	70	70	70	70	70	70	70	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	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	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	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	203	364	200	105	150	150					
Duct Design Pressure	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Actual Duct Length	19	32	17	49	43	48					
Equivalent Length	155	140	125	115	200	140	50	50	50	50	50
Total Effective Length	174	172	142	164	243	188	50	50	50	50	50
Adjusted Pressure	0.07	0.07	0.08	0.07	0.05	0.06	0.24	0.24	0.24	0.24	0.24
Duct Size Round	8.0	10.5	8.0	6.0	8.0	8.0					
Inlet Size	FLC	8	8	8	8	8					
" "	OR	x	x	x	x	x	x	x	x	x	x
Inlet Size	9x6	30	14	14	14	14					
Trunk	Y	X	Y	Z	Y	X					

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	1067	0.05	16.5	32x8	24x10
X	514	0.06	12.0	16x8	12x10
W					
V					
U					
T					
S					
R					
Q					

Supply Trunk Duct Sizing

Trunk	CFM	Press.	Round	Rect. Size	
A	1172	0.06	16.5	32x8	24x10
B	705	0.06	13.5	20x8	16x10
C	472	0.06	12.0	16x8	12x10
D	209	0.06	9.0	8x8	10x7
E	321	0.07	10.0	12x8	10x10
F					
G					
H					
I					
J					
K					

REVIEWED

GTA DESIGNS

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

e-mail hvac@gtadesigns.ca

Heatloss/Gain Calculations CSA-F280-12

2012 OBC

Builder: Bayview Wellington | Date: July 15, 2022 | **System 1**

Project: Green Valley East | Model: S38-19

Weather Data: Bradford 44 -9.4 86 22 48.2

Heat Loss ^T 81.4 deg. F | Ht gain ^T 11 deg. F | GTA: 3073

Project # PJ-00041 | Layout # JB-08343

Level 1

	BASE										
Run ft. exposed wall A	167 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	7.0 AG	7.0 AG	7.0 AG	7.0 AG	7.0 AG	7.0 AG	7.0 AG	7.0 AG	7.0 AG	7.0 AG	7.0 AG
Floor area	1279 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	1169										
Gross Exp Wall B											

Components	R-Values	Loss	Gain	BASE	Loss	Gain
North Shaded	3.55	22.93	11.62	6	138	70
East/West	3.55	22.93	29.56	26	596	769
South	3.55	22.93	22.50			
WOB Windows	3.55	22.93	27.86			
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	1116		581
Net exposed walls B	17.03	4.78	0.65			
Exposed Ceilings A	59.22	1.37	0.64			
Exposed Ceilings B	27.65	2.94	1.37			
Exposed Floors	29.80	2.73	0.17			
Foundation Conductive Heatloss					9081	
Total Conductive – Heat Loss					10242	
Total Conductive – Heat Gain						1477
Air Leakage – Heat Loss/Gain		1.1658	0.0488		11941	72
Ventilation – Case 1		0.07	0.06			
Ventilation – Case 2		17.58	11.88			
Ventilation – Case 3	x	0.04	0.06		365	86
Heat Gain People			239			
Appliances Loads	1 =.25 percent		5174			
Duct and Pipe loss			10%			
Level HL Total 22,548	Total HL for per room				22548	
Level HG Total 2,126	Total HG per room x 1.3					2126

Level 2

	KIT	GRT	LIV/DIN	PWD	MUD	FOY	STUDY				
Run ft. exposed wall A	35 A	32 A	48 A	11 A	7 A	24 A	11 A	A	A	A	A
Run ft. exposed wall B	B	B	B	B	B	B	B	B	B	B	B
Ceiling height	11.0	11.0	11.0	13.0	13.0	12.0	11.0	11.0	11.0	11.0	11.0
Floor area	270 Area	218 Area	523 Area	28 Area	40 Area	73 Area	121 Area	Area	Area	Area	Area
Exposed Ceilings A	A	4 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	385	352	528	143	91	288	121				
Gross Exp Wall B											

Components	R-Values	Loss	Gain	KIT	Loss	Gain	GRT	Loss	Gain	LIV/DIN	Loss	Gain	PWD	Loss	Gain	MUD	Loss	Gain	FOY	Loss	Gain	STUDY	Loss	Gain
North Shaded	3.55	22.93	11.62	24	550	279																24	550	279
East/West	3.55	22.93	29.56	47	1078	1389	48	1101	1419										27	619	798			
South	3.55	22.93	22.50							48	1101	1080	9	206	203									
Existing Windows	1.99	40.90	23.66																					
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	314	1501	203	304	1453	196	480	2294	310	134	640	87	70	335	45	240	1147	155	97	464	63
Net exposed walls B	8.50	9.58	1.29																					
Exposed Ceilings A	59.22	1.37	0.64				4	5	3															
Exposed Ceilings B	27.65	2.94	1.37																					
Exposed Floors	29.80	2.73	0.17																					
Foundation Conductive Heatloss			x																					
Total Conductive – Heat Loss					3129			2559			3395			847			762			2194			1014	
Total Conductive – Heat Gain						1871			1618			1390			289			103			1011			342
Air Leakage – Heat Loss/Gain		0.5155	0.0488		1613	91		1319	79		1750	68		437	14		393	5		1131	49		523	17
Ventilation – Case 1		0.03	0.06																					
Ventilation – Case 2		17.58	11.88																					
Ventilation – Case 3	x	0.04	0.06		112	109		91	94		121	81		30	17		27	6		78	59		36	20
Heat Gain People			239																					
Appliances Loads	1 =.25 percent		5174	1.0		1293	1.0		1293	1.0		1293										1.0		1293
Duct and Pipe loss			10%																					
Level HL Total 21,559	Total HL for per room				4853			3970			5266			1314			1182			3403			1573	
Level HG Total 16,257	Total HG per room x 1.3					4374			4009			3682			416			148			1455			2173

Total Heat Loss	65,166	btu/h
Total Heat Gain	32,119	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

REVIEWED

GTADESIGNS

Heatloss/Gain Calculations CSA-F280-12

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

e-mail hvac@gtadesigns.ca

2012 OBC

Builder: Bayview Wellington Date: July 15, 2022 **System 1**

Project: Green Valley East Model: S38-19

Weather Data Bradford 44 -9.4 86 22 48.2

Heat Loss ^T 81.4 deg. F Ht gain ^T 11 deg. F GTA: 3073

Project # PJ-00041

Layout # JB-08343

Level 3

	P.BED	ENS	WC	BED 2	ENS 2	BED 3	WIC 4	BED 4	ENS 3	LAUND	WIC
Run ft. exposed wall A	30 A	18 A	6 A	13 A	7 A	10 A	12 A	34 A	19 A	8 A	12 A
Run ft. exposed wall B	B	B	B	B	B	B	B	B	B	B	B
Ceiling height	11.0	9.0	9.0	9.0	9.0	9.0	9.0	11.0	9.0	9.0	9.0
Floor area	333 Area	130 Area	21 Area	200 Area	79 Area	197 Area	32 Area	318 Area	78 Area	56 Area	78 Area
Exposed Ceilings A	333 A	130 A	21 A	200 A	79 A	197 A	32 A	318 A	78 A	56 A	78 A
Exposed Ceilings B	B	B	B	B	B	B	B	B	B	B	B
Exposed Floors	Flr	Flr	Flr	Flr	Flr	52 Flr	32 Flr	164 Flr	4 Flr	Flr	Flr
Gross Exp Wall A	330	162	54	117	63	90	108	374	171	72	108
Gross Exp Wall B											

Components		R-Values	Loss	Gain	P.BED Loss	P.BED Gain	ENS Loss	ENS Gain	WC Loss	WC Gain	BED 2 Loss	BED 2 Gain	ENS 2 Loss	ENS 2 Gain	BED 3 Loss	BED 3 Gain	WIC 4 Loss	WIC 4 Gain	BED 4 Loss	BED 4 Gain	ENS 3 Loss	ENS 3 Gain	LAUND Loss	LAUND Gain	WIC Loss	WIC Gain
North Shaded		3.55	22.93	11.62															20	459	232					
East/West		3.55	22.93	29.56	32	734	946	16	367	473							8	183	236	62	1422	1833	35	803	1035			
South		3.55	22.93	22.50							7	161	158	16	367	360	7	161	158	16	367	360				16	367	360						
Existing Windows		1.99	40.90	23.66																												
Skylight		2.03	40.10	88.23																												
Doors		4.00	20.35	2.75																												
Net exposed walls A		17.03	4.78	0.65	298	1424	192	146	698	94	47	225	30	101	483	65	56	268	36	74	354	48	100	478	65	276	1319	178	136	650	88	65	311	42	108	516	70
Net exposed walls B		8.50	9.58	1.29																																	
Exposed Ceilings A		59.22	1.37	0.64	333	458	214	130	179	83	21	29	13	200	275	128	79	109	51	197	271	126	32	44	21	318	437	204	78	107	50	56	77	36	78	107	50
Exposed Ceilings B		27.65	2.94	1.37																																	
Exposed Floors		29.80	2.73	0.17																52	142	9	32	87	5	164	448	28	4	11	1						
Foundation Conductive Heatloss																																					
Total Conductive	Heat Loss					2616			1243			414			1125			537			1133			793			4451			1571			548			623	
	Heat Gain						1352			651			201			554			244			543			327			2835			1173			159			120
Air Leakage	Heat Loss/Gain		0.3173	0.0488		830	66		394	32		131	10		357	27		170	12		360	26		252	16		1412	138		498	57		174	8		198	6
Ventilation	Case 1		0.02	0.06																																	
	Case 2		17.58	11.88																																	
	Case 3	x	0.04	0.06		93	79		44	38		15	12		40	32		19	14		40	32		28	19		159	165		56	68		20	9		22	7
Heat Gain People				239	2		478				1		239				1		239				1		239											
Appliances Loads		1 =.25 percent		5174																																	
Duct and Pipe loss				10%																																	
Level HL Total	21,059	Total HL for per room				3539			1682			560			1521			726			1533			1177			6609			2125			742			843	
Level HG Total	13,736	Total HG per room x 1.3					2567			936			290			1107			352			1092			513			4790			1688			229			172

Level 4

Run ft. exposed wall A					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																																					
Floor area					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																																					
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	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain
North Shaded		3.55	22.93	11.62																																		
East/West		3.55	22.93	29.56																																		
South		3.55	22.93	22.50																																		
Existing Windows		1.99	40.90	23.66																																		
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		27.65	2.94	1.37																																		
Exposed Floors		29.80	2.73	0.17																																		
Foundation Conductive Heatloss																																						
Total Conductive	Heat Loss																																					
	Heat Gain																																					
Air Leakage	Heat Loss/Gain		0.0000	0.0488																																		
Ventilation	Case 1		0.00	0.06																																		
	Case 2		17.58	11.88																																		
	Case 3	x	0.04	0.06																																		
Heat Gain People				239																																		
Appliances Loads		1 =.25 percent		5174																																		
Duct and Pipe loss				10%																																		
Level HL Total	0	Total HL for per room																																				
Level HG Total	0	Total HG per room x 1.3																																				

Total Heat Loss	65,166	btu/h
Total Heat Gain	32,119	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

REVIEWED

GTADESIGNS

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

Project # PJ-00041
Layout # JB-08343

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:** S38-19

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
VanEE	V150H75NS	Base
127 cfm		Sones or Equiv.

Heat Recovery Ventilator

Make	VanEE	
Model	V150H75NS	
127 cfm high		80 cfm low
Sensible efficiency @ -25 deg C		60%
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
Ens 2	50	XB50	0.3
Ens 3	50	XB50	0.3

REVIEWED

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	July 15, 2022		

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-00041
Layout # JB-08343

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
S38-19			
Municipality Bradford	Postal code	Reg. Plan number / other description	

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

SB-12 Prescriptive (input design package): Package A1 Table: 3.1.1.2.A

C. Project Design Conditions

Climatic Zone (SB-1):	Heat. Equip. Efficiency	Space Heating Fuel Source
☑ Zone 1 (< 5000 degree days)	☑ ≥ 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 = 439.05 m² or 4725.9 ft²	W,S &G % = 10.6%	☐ Log/Post&Beam ☐ ICF Above Grade ☐ ICF Basement ☐ Slab-on-ground ☐ Walkout Basement
Area of W, S & G = 46.543 m² or 501.0 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 (Refer to Design Guide Attached)	☐ Table 3.1.1.4.C	Required:	Permitted Substitution:
		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	59.22	Windows/Sliding Glass Doors	1.6
Ceiling without Attic Space	31	27.65	Skylights	2.8
Exposed Floor	31	29.80	**Mechanicals**	
Walls Above Grade	22	17.03	Heating Equip.(AFUE)	96%
Basement Walls	20.0ci	21.12	HRV Efficiency (SRE% at 0°C)	75%
Slab (all >600mm below grade)	x	x	DHW Heater (EF)	0.80
Slab (edge only ≤600mm below grade)	10	11.13	DWHR (CSA B55.1 (min. 42% efficiency))	#Showers 2
Slab (all ≤600mm below grade, or heated)	10	11.13	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	

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

REVIEWED

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

Project # PJ-00041
Layout # JB-08343

Package: Package A1 **System:** System 1
Project: Bradford **Model:** S38-19

Air Leakage Calculations

Building Air Leakage Heat Loss				
B	LRairh	Vb	HL^T	HLleak
0.018	0.403	40491	81.4	23882

Building Air Leakage Heat Gain				
B	LRairh	Vb	HG^T	HG Leak
0.018	0.099	40491	11	793

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	23882	10242	1.1658
Level 2	0.3		13899	0.5155
Level 3	0.2		15055	0.3173
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	793	0.0488
BUILDING CONDUCTIVE HEAT GAIN	16260	

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	0.20	1398

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	1398	10242	0.07
Level 2	0.3		13899	0.03
Level 3	0.2		15055	0.02
Level 4	0		0	0.00

Ventilation Heat Gain (Exhaust Only Systems)

Case 1 - Exhaust Only		Multiplier
HGbvent	944	0.06
Building	16260	

Case 2

Ventilation Heat Loss (Direct Ducted Systems)

			Multiplier
C	HL^T	(1-E) HRV	17.58
1.08	81.4	0.20	

Ventilation Heat Gain (Direct Ducted Systems)

		Multiplier
C	HG^T	11.88
1.08	11	

Case 3

Ventilation Heat Loss (Forced Air Systems)

	HLbvent	Multiplier
Total Ventilation Load	1398	0.04

Ventilation Heat Gain (Forced Air Systems)

		Vent Heat Gain	Multiplier
HGbvent	HG*1.3	944	0.06
944	1		

Foundation Conductive Heatloss Level 1	Level 1	2662	Watts	9081	Btu/h
Foundation Conductive Heatloss Level 2	Level 2		Watts		Btu/h
Slab on Grade Foundation Conductive Heatloss			Watts		Btu/h
Walk Out Basement Foundation Conductive Heatloss			Watts		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

REVIEWED

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):	8.84

Building Configuration	
Type:	Detached
Number of Stories:	Two
Foundation:	Shallow
House Volume (m^3):	1146.71

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

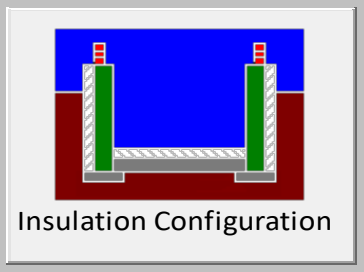
Heating Air Leakage Rate (ACH/H):	**0.403**
Cooling Air Leakage Rate (ACH/H):	**0.099**

REVIEWED

Residential Foundation Thermal Load Calculator

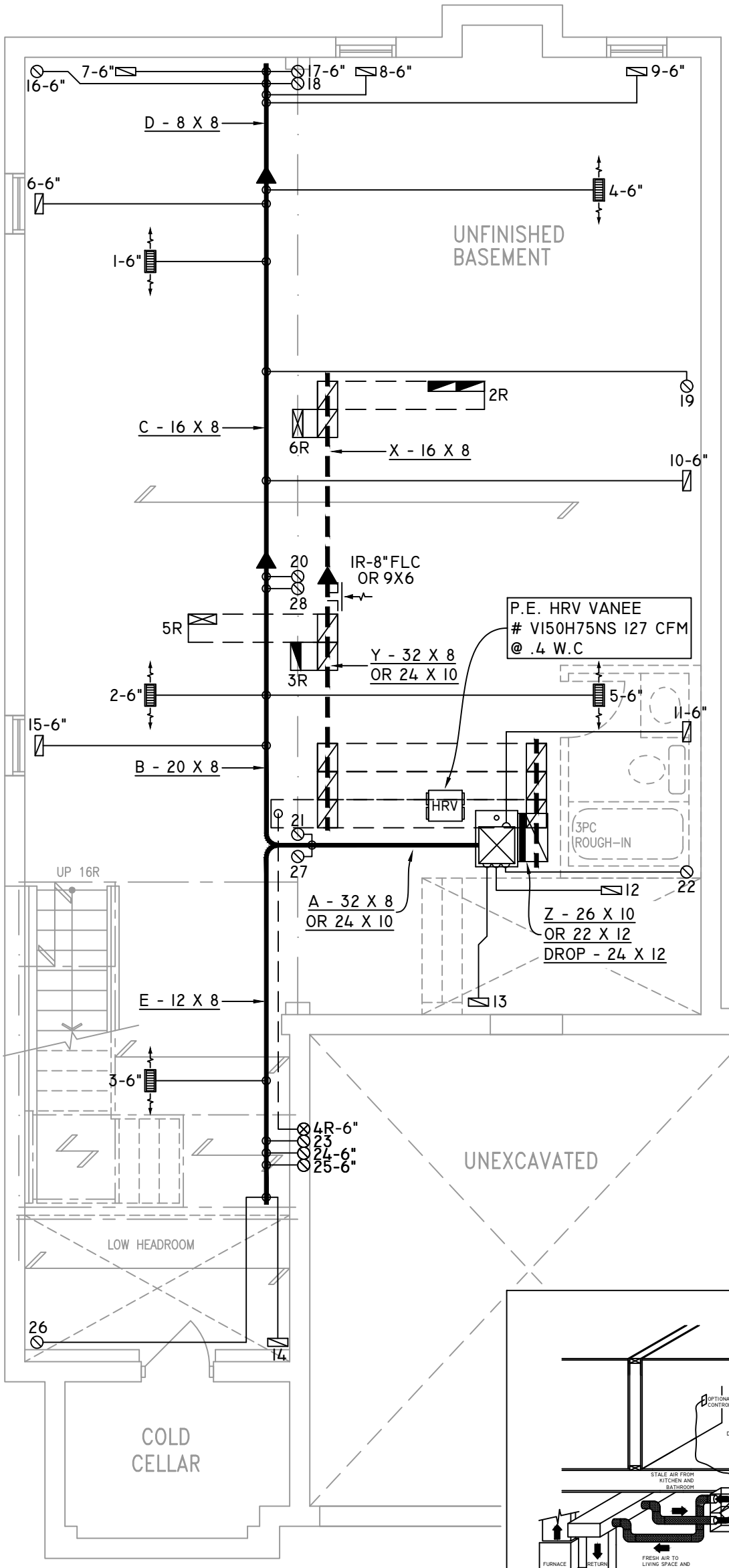
Supplemental tool for CAN/CSA-F280

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):	**19.29**	 Insulation Configuration
Floor Width (m):	**6.16**	
Exposed Perimeter (m):	**50.90**	
Wall Height (m):	**3.05**	
Depth Below Grade (m):	**0.91**	
Window Area (m^2):	**2.97**	
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):	**2662**	

REVIEWED

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



REVIEWED

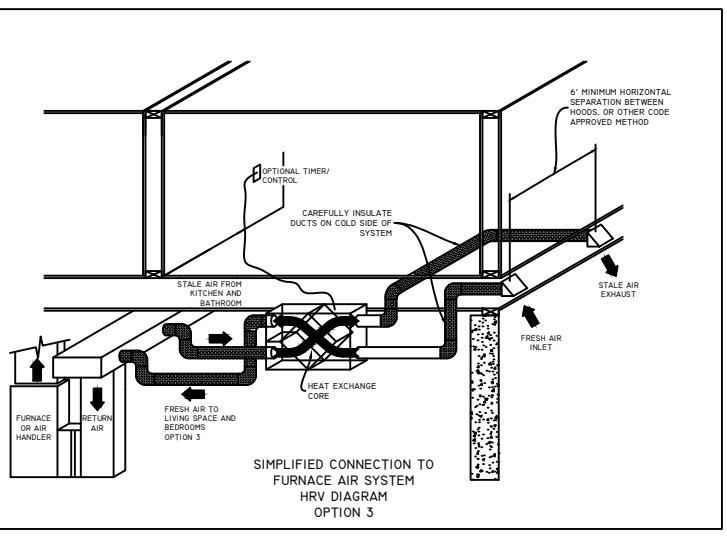
FURNACE EQUIPPED WITH BRUSHLESS DC MOTOR AS PER OBC 12.3.1.5 (2)

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

INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. RI2

ALL DUCTWORK LOCATED IN UNCONDITIONED AREAS MUST BE SEALED TO CLASS A LEVEL AS PER OBC PART 6-6.2.4.3.(II)

ALL DUCTWORK LOCATED IN CONDITIONED AREAS MUST BE SEALED TO CLASS C LEVEL AS PER OBC PART 6-6.2.4.3.(I2)



SIMPLIFIED CONNECTION TO FURNACE AIR SYSTEM HRV DIAGRAM OPTION 3

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' (9'0" BASEMENT)

OBC 2012

ZONE 1 COMPLIANCE
PACKAGE "AI" REF. TABLE 3.1.1.2.A

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.
PROVIDE BALANCING DAMPERS ON ALL BRANCHES.
ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)
INSULATE DUCTS IN UNCONDITIONED SPACES 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.

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

HEAT-LOSS	65,166 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	13	3	4
IST FLOOR	10	2	2
BASEMENT	5	1	

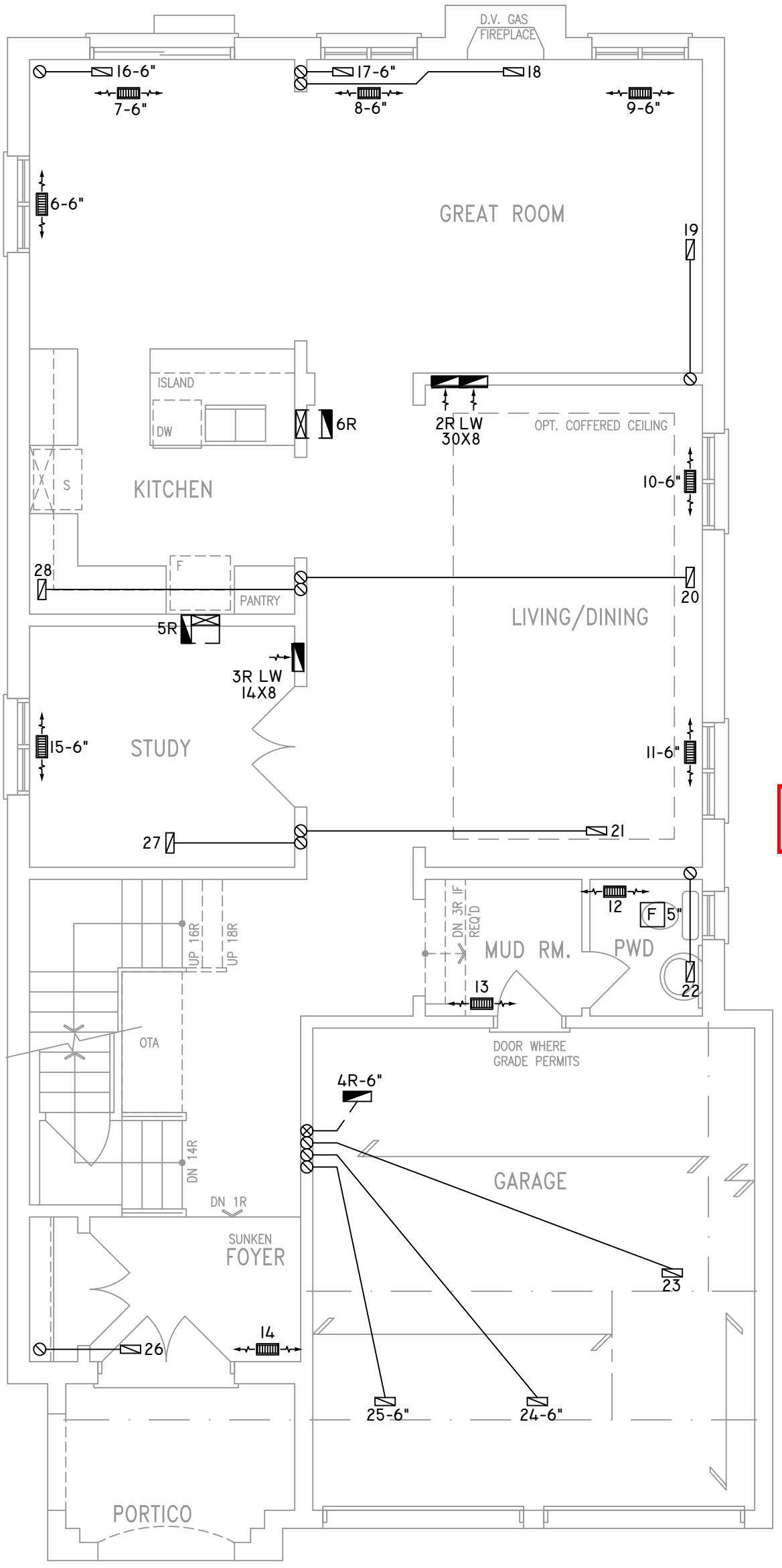
FLOOR PLAN: BASEMENT

DRAWN BY:	CHECKED:	SQFT
JL	DD	3073

LAYOUT NO. JB-08343 DRAWING NO. M1

DATE: JULY 19, 2022
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-19
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 EXHUST
100 CFM MIN. 6"
ALL OTHER FANS SHALL BE A MIN. OF 50 CFM OR OTHERWISE NOTED AS PER 9.32.3.5

CIRCULATION PRINCIPAL FAN SWITCH TO BE CENTRALLY LOCATED

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

INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. RI2

ALL DUCTWORK LOCATED IN UNCONDITIONED AREAS MUST BE SEALED TO CLASS A LEVEL AS PER OBC PART 6-6.2.4.3.(II)

ALL DUCTWORK LOCATED IN CONDITIONED AREAS MUST BE SEALED TO CLASS C LEVEL AS PER OBC PART 6-6.2.4.3.(I2)

REVIEWED

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.I OF THE ONTARIO BUILDING CODE

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

SIGNATURE OF DESIGNER

GROUND FLOOR PLAN 'A'

OBC 2012

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

NOTES
INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.
PROVIDE BALANCING DAMPERS ON ALL BRANCHES.
ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)
INSULATE DUCTS IN UNCONDITIONED SPACES RI2 UNDERCUT ALL DOORS I" MIN.
CONTRACTOR MUST WORK FROM APPROVED PLANS.
ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.
GTA DESIGNS MUST BE CONSULTED IF KITCHEN EXHAUST FAN EXCEEDS 700 CFM DEPRESSURIZATION MAY OCCUR WITH IN THE DWELLING.

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

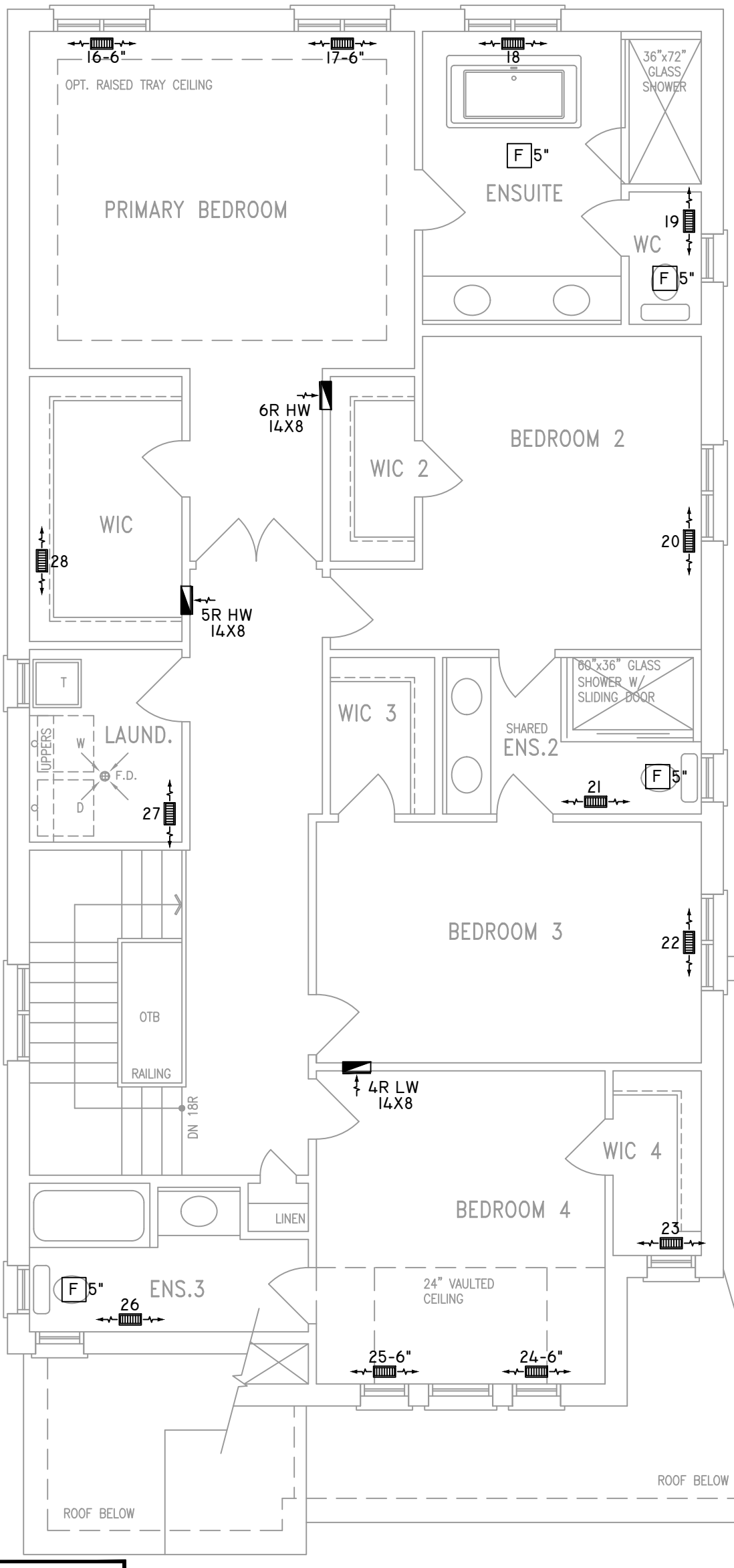
HEAT-LOSS	65,166 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	3	4
IST FLOOR	10	2	2
BASEMENT	5	1	

FLOOR PLAN: GROUND FLOOR		
DRAWN BY: JL	CHECKED: DD	SQFT 3073
LAYOUT NO. JB-08343		DRAWING NO. M2

DATE: JULY 19, 2022
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-19
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

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



REVIEWED

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

INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. RI2

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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

SECOND FLOOR PLAN 'A'

OBC 2012

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

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.
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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	13	3	4
IST FLOOR	10	2	2
BASEMENT	5	1	

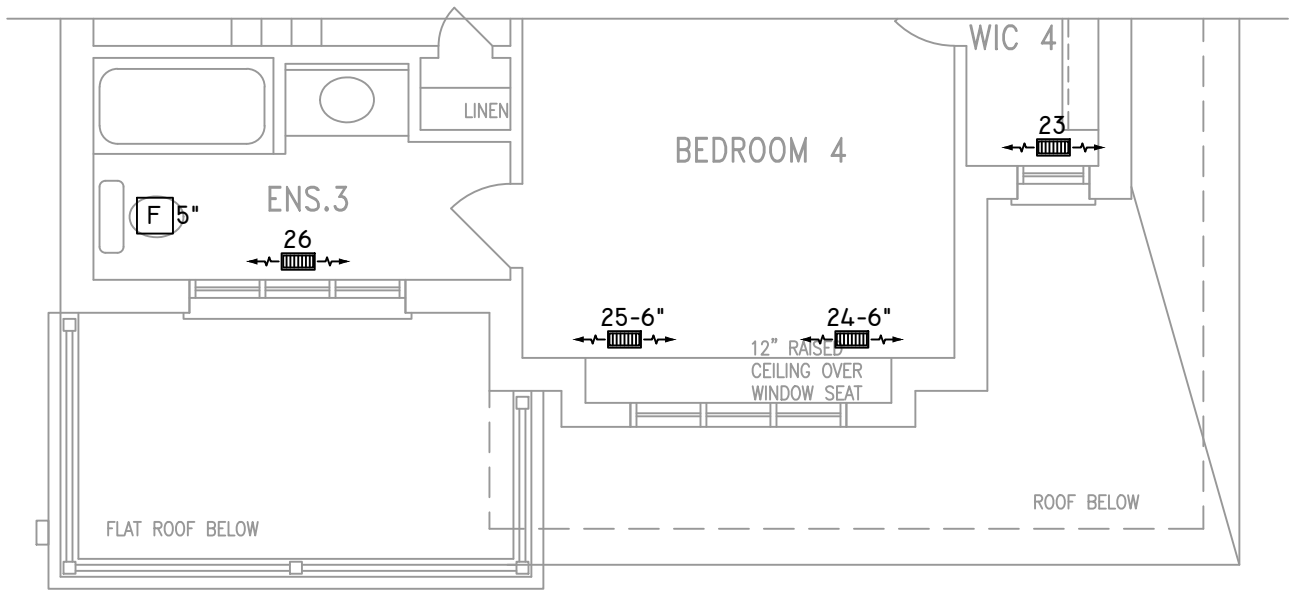
FLOOR PLAN: SECOND FLOOR

DRAWN BY:	CHECKED:	SQFT
JL	DD	3073

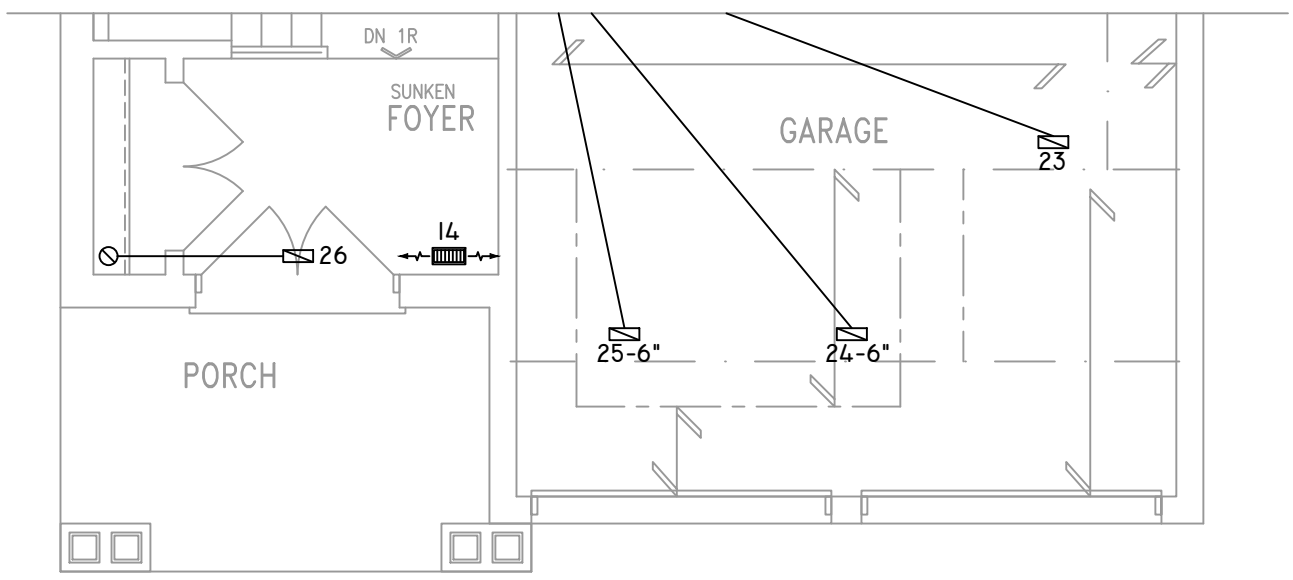
LAYOUT NO. JB-08343 — DRAWING NO. M3

DATE: JULY 19, 2022
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-19
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

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

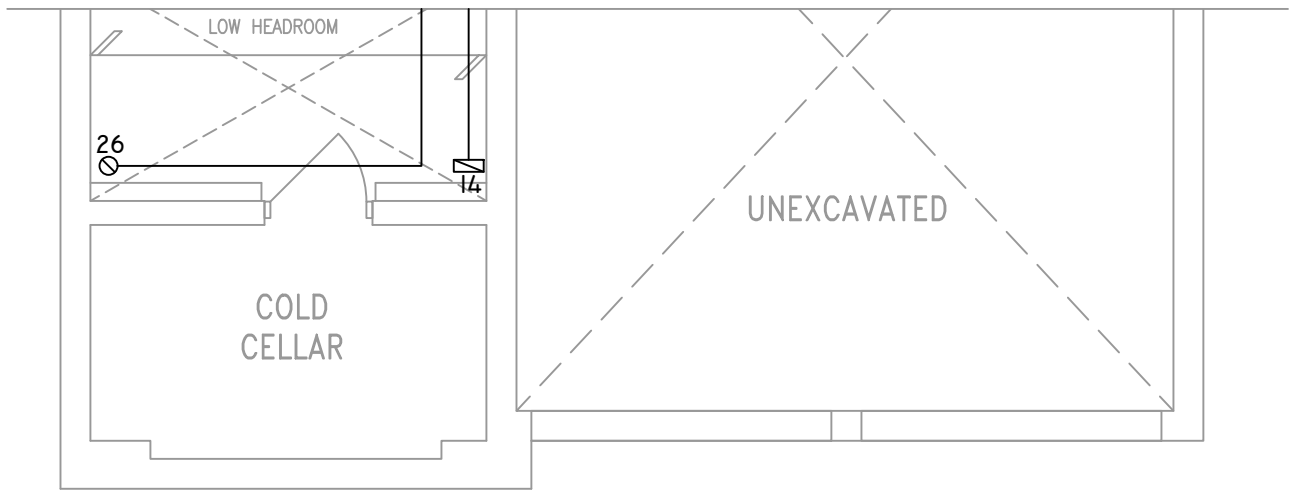


PARTIAL SECOND FLOOR PLAN 'B'



PARTIAL GROUND FLOOR PLAN 'B'

REVIEWED



PARTIAL 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

OBC 2012

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

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.
PROVIDE BALANCING DAMPERS ON ALL BRANCHES.
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INSULATE DUCTS IN UNCONDITIONED SPACES RI2 UNDERCUT ALL DOORS I" MIN.
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WEB: WWW.GTADESIGNS.CA

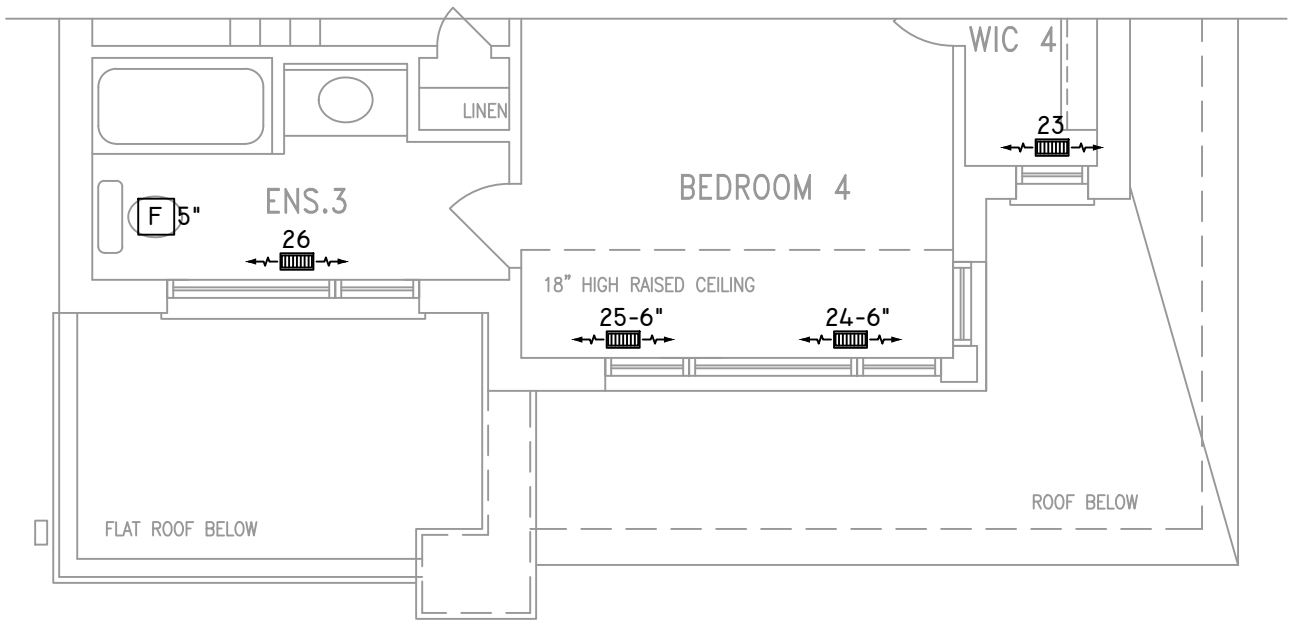
HEAT-LOSS	65,166 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	3	4
IST FLOOR	10	2	2
BASEMENT	5	1	

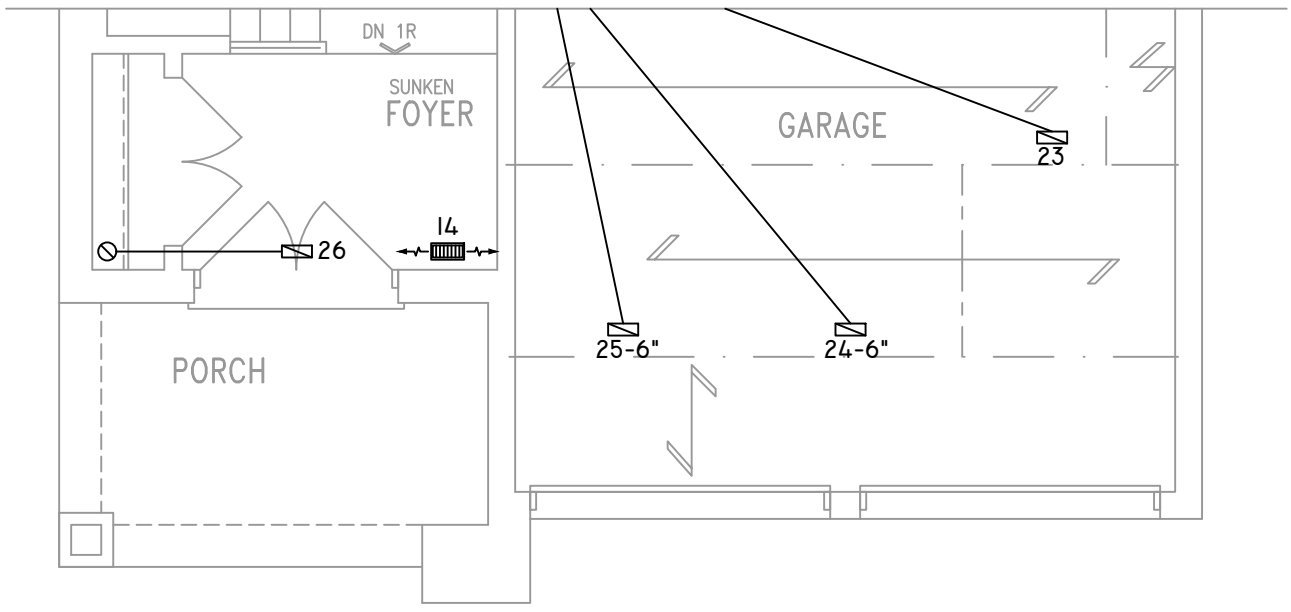
FLOOR PLAN: PARTIAL PLAN(S)			
DRAWN BY: JL	CHECKED: DD	SQFT 3073	
LAYOUT NO. JB-08343		DRAWING NO. M4	

DATE: JULY 19, 2022
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-19
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

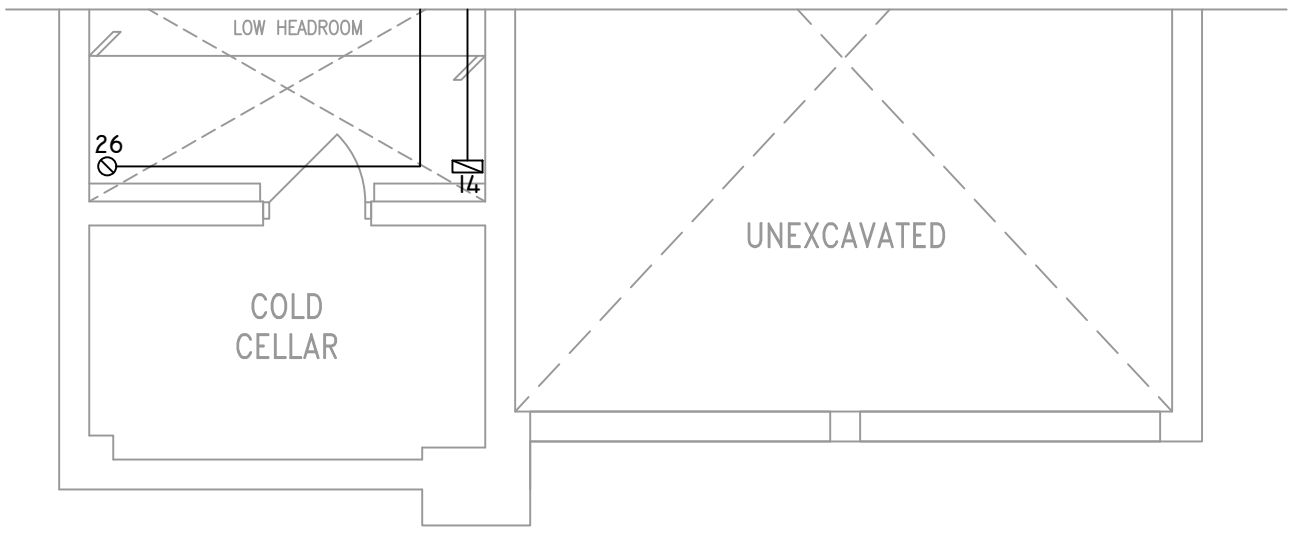


PARTIAL SECOND FLOOR PLAN 'C'



PARTIAL GROUND FLOOR PLAN 'C'

REVIEWED



PARTIAL BASEMENT PLAN 'C'

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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

OBC 2012

ZONE 1 COMPLIANCE
PACKAGE "A1" REF. TABLE 3.1.1.2.A

NOTES

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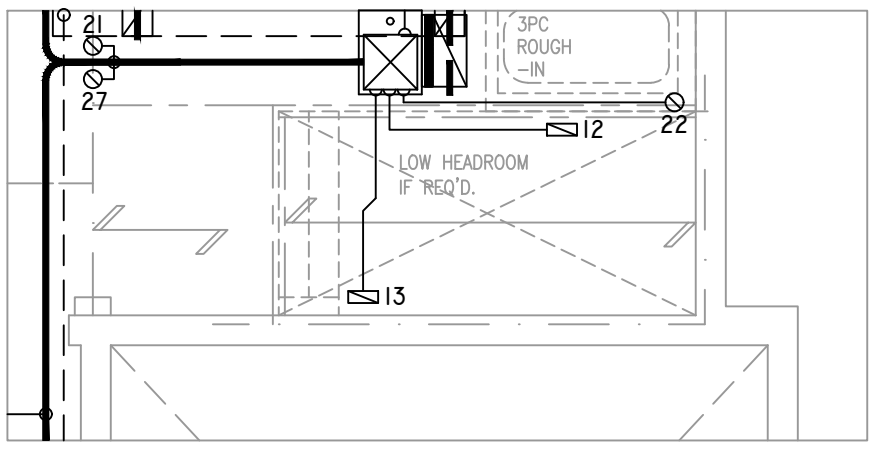
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	3	4
IST FLOOR	10	2	2
BASEMENT	5	1	

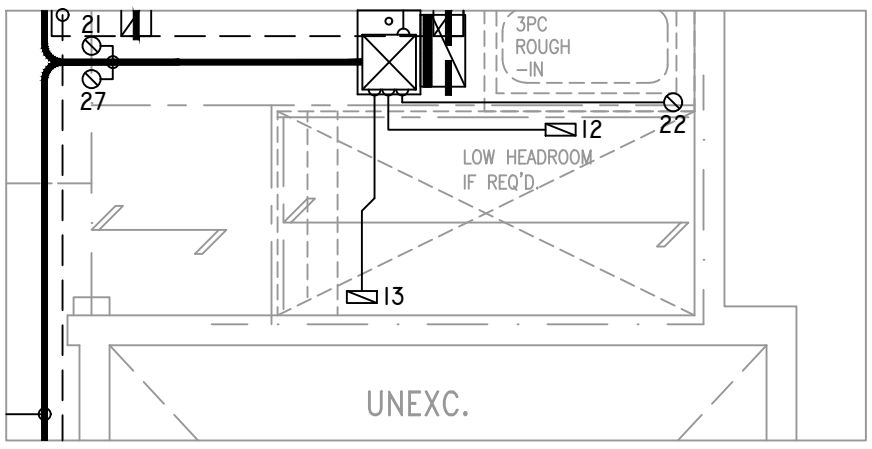
FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: JL	CHECKED: DD	SQFT 3073
LAYOUT NO. JB-08343		DRAWING NO. M5

DATE: JULY 19, 2022
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-19
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

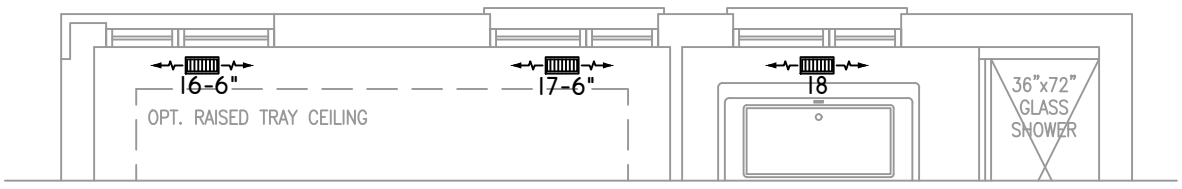
FLEX DUCT RIGID ROUND DUCT SUPPLY DIFFUSER	LOW/HIGH WALL/KICK SUPPLY DIFFUSER HRV EXHAUST GRILLE SUPPLY AIR PIPE RISER VOLUME DAMPER		DUCT CONNECTION TO JOIST LINING RETURN AIR PIPE RISER RETURN ROUND DUCT		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) RETURN AIR RISER UP TO FLOOR ABOVE RETURN AIR FROM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



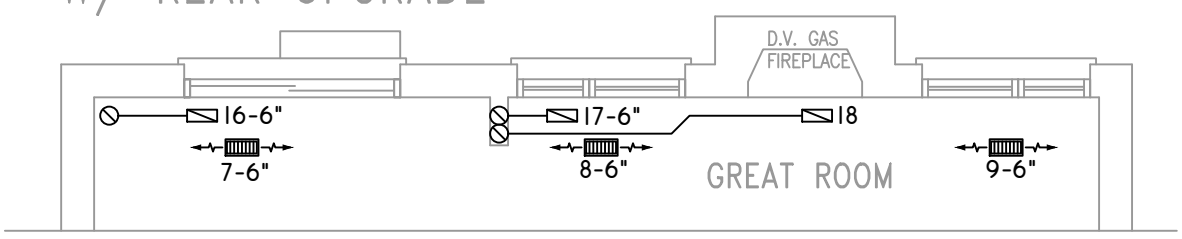
BASEMENT PLAN 'A','B' & 'C'
SUNKEN MUDROOM (-1R)



BASEMENT PLAN 'A','B' & 'C'
SUNKEN MUDROOM (-2R/-3R)

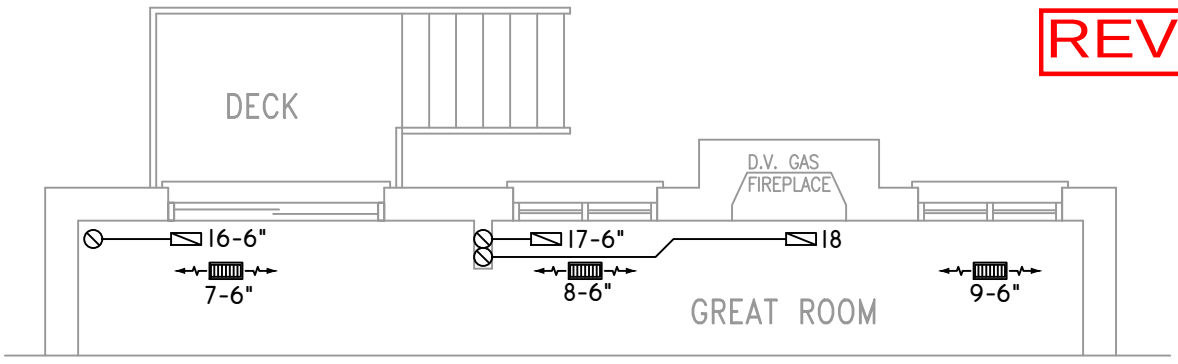


PARTIAL SECOND FLOOR PLAN 'C'
W/ REAR UPGRADE

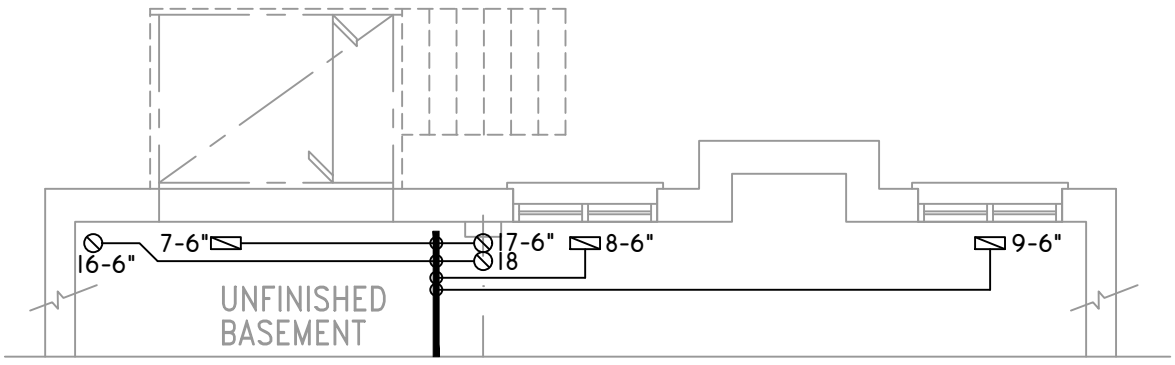


PARTIAL GROUND FLOOR PLAN 'C'
W/ REAR UPGRADE

REVIEWED



GROUND FLOOR PLAN 'A' - W.O.D. CONDITION
ELEV. 'B' & 'C' SIMILAR



BASEMENT PLAN 'A' - W.O.D. CONDITION
ELEV. 'B' & 'C' SIMILAR

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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
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FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	3	4
IST FLOOR	10	2	2
BASEMENT	5	1	

FLOOR PLAN: PARTIAL PLAN(S)

DRAWN BY:	CHECKED:	SQFT
JL	DD	3073

LAYOUT NO. JB-08343 DRAWING NO. M6

DATE: JULY 19, 2022
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-19
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"