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: **S42-19**		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-08346**
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:**	**3130**	Model	**S42-19**	
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: _____

TOWN OF BRADFORD WEST GWILLIMBURY
BUILDING DEPARTMENT
PLANS EXAMINED
ONTARIO BUILDING CODE APPLIES
DATE: 2022-09-01
INSPECTOR: BG

☒ 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 20, 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.

2985 Drew Road, Suite 202, Mississauga, Ontario L4T 0A4 Tel: 905-671-9800
e-mail hvac@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-08346**

Building Location

Address (Model):	**S42-19**	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: **3130**
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 20, 2022

Project: Green Valley East Model: S42-19

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-00041
Layout # JB-08346

DESIGN LOAD SPECIFICATIONS			AIR DISTRIBUTION & PRESSURE			FURNACE/AIR HANDLER DATA:			BOILER/WATER HEATER DATA:			A/C UNIT DATA:		
Level 1 Net Load	23,081	btu/h	Equipment External Static Pressure	0.5	"w.c.	Make	Amana		Make	Type		Amana	3.0	Ton
Level 2 Net Load	22,938	btu/h	Additional Equipment Pressure Drop	0.225	"w.c.	Model	AMEC960803BNA		Model			Cond.----------	3.0	
Level 3 Net Load	20,154	btu/h	Available Design Pressure	0.275	"w.c.	Input Btu/h	80000		Input Btu/h			Coil ----------	3.0	
Level 4 Net Load	0	btu/h	Return Branch Longest Effective Length	300	ft	Output Btu/h	76800		Output Btu/h					
Total Heat Loss	66,173	btu/h	R/A Plenum Pressure	0.138	"w.c.	E.s.p.	0.50	" W.C.	Min.Output Btu/h	AWH				
Total Heat Gain	32,601	btu/h	S/A Plenum Pressure	0.14	"w.c.	Water Temp		deg. F.	**Blower DATA:**					
			Heating Air Flow Proportioning Factor	0.0177	cfm/btuh	AFUE	96%		Blower Speed Selected:	W2		Blower Type	ECM	
Building Volume Vb	40998	ft³	Cooling Air Flow Proportioning Facter	0.0359	cfm/btuh	Aux. Heat						(Brushless DC OBC 12.3.1.5.(2))		
Ventilation Load	1,398	Btuh.	R/A Temp	70	deg. F.	SB-12 Package	Package A1		Heating Check	1172	cfm	Cooling Check	1172	cfm
Ventilation PVC	79.5	cfm	S/A Temp	131	deg. F.									
Supply Branch and Grill Sizing			Diffuser loss	0.01	"w.c.	Temp. Rise>>>	61	deg. F.	Selected cfm>	1172	cfm	Cooling Air Flow Rate	1172	cfm

	Level 1														Level 2														
S/A Outlet No.	1	2	3	4	5										6	7	8	9	10	11	12	13	14						
Room Use	BASE	BASE	BASE	BASE	BASE										KIT/GRT	KIT/GRT	KIT/GRT	MUD	PWD	FOY	STUDY	LIV/DIN	LIV/DIN						
Btu/Outlet	4616	4616	4616	4616	4616										3047	3047	3047	3059	716	2933	3274	1908	1908						
Heating Airflow Rate CFM	82	82	82	82	82										54	54	54	54	13	52	58	34	34						
Cooling Airflow Rate CFM	17	17	17	17	17										99	99	99	19	3	45	117	65	65						
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	0.13
Actual Duct Length	41	31	19	14	20										30	41	35	44	17	39	29	14	5						
Equivalent Length	90	120	100	130	120	70	70	70	70	70	70	70	70	70	130	110	100	150	130	140	100	70	120	70	70	70	70	70	70
Total Effective Length	131	151	119	144	140	70	70	70	70	70	70	70	70	70	160	151	135	194	147	179	129	84	125	70	70	70	70	70	70
Adjusted Pressure	0.10	0.09	0.11	0.09	0.09	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.08	0.09	0.10	0.07	0.09	0.07	0.10	0.15	0.10	0.19	0.19	0.19	0.19	0.19	0.19
Duct Size Round	6	6	6	6	6										6	6	6	5	3	5	6	5	5						
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	3x10	4x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	B	B	A	D	E										B	B	C	C	D	E	E	D	D						

	Level 3														Level 4														
S/A Outlet No.	15	16	17	18	19	20	21	22	23	24	25	26	27	28															
Room Use	P.BED	P.BED	ENS	WC	WIC	ENS 2	BED 2	BED 2	BED 3	BED 3	ENS 3	BED 4	WIC 4	LAUND															
Btu/Outlet	2409	2409	1762	579	605	958	2063	2063	2242	2242	664	1442	604	111															
Heating Airflow Rate CFM	43	43	31	10	11	17	37	37	40	40	12	26	11	2															
Cooling Airflow Rate CFM	54	54	34	7	5	9	51	51	61	61	12	38	4	33															
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	0.13
Actual Duct Length	33	43	53	55	48	44	51	48	48	43	35	20	13	24															
Equivalent Length	140	120	120	140	130	120	110	100	140	130	120	140	130	100	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Total Effective Length	173	163	173	195	178	164	161	148	188	173	155	160	143	124	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Adjusted Pressure	0.08	0.08	0.08	0.07	0.07	0.08	0.08	0.09	0.07	0.08	0.08	0.08	0.09	0.10	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Duct Size Round	5	5	4	3	3	3	5	5	5	5	3	4	3	4															
Outlet Size	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	A	A	B	C	C	D	D	D	E	E	E	A	A	A															

Return Branch And Grill Sizing	Grill Pressure Loss	0.02	"w.c								
R/A Inlet No.	1R	2R	3R	4R	5R	6R	7R	8R	9R	10R	11R
Inlet Air Volume CFM	204	478	105	105	140	140					
Duct Design Pressure	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Actual Duct Length	8	8	19	50	41	32					
Equivalent Length	110	125	180	185	180	150	50	50	50	50	50
Total Effective Length	118	133	199	235	221	182	50	50	50	50	50
Adjusted Pressure	0.10	0.09	0.06	0.05	0.05	0.06	0.24	0.24	0.24	0.24	0.24
Duct Size Round	8.0	11.0	6.0	6.0	7.0	7.0					
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	Z	Z	Z	Z	Z						

Return Trunk Duct Sizing					
Trunk	CFM	Press.	Round	Rect. Size	
Drop	1172	0.05	17.0	24x12	
Z	1032	0.05	16.5	32x8	24x10
Y					
X					
W					
V					
U					
T					
S					
R					
Q					

Supply Trunk Duct Sizing					
Trunk	CFM	Press.	Round	Rect. Size	
A	637	0.07	13.0	18x8	14x10
B	432	0.07	11.0	14x8	10x10
C	129	0.07	7.0	8x8	8x7
D	535	0.07	12.0	16x8	12x10
E	283	0.07	9.5	10x8	127
F					
G					
H					
I					
J					
K					

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 20, 2022 | Project: Green Valley East | Model: S42-19

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: 3130

Project # PJ-00041 | Layout # JB-08346

Level 1

		BASE																											
Run ft. exposed wall A		174	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		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		1293	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		1218																											
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	11.62																										
East/West		3.55	22.93	29.56	29	665	857																							
South		3.55	22.93	22.50	6	138	135																							
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	1162		605																							
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						9391																								
Total Conductive	Heat Loss					10621																								
	Heat Gain						1655																							
Air Leakage	Heat Loss/Gain		1.1383	0.0481		12090	80																							
Ventilation	Case 1		0.07	0.06																										
	Case 2		17.58	11.88																										
	Case 3	x	0.03	0.06		370	94																							
Heat Gain People				239																										
Appliances Loads		1 =.25 percent		5239																										
Duct and Pipe loss				10%																										
Level HL Total	23,081	Total HL for per room				23081																								
Level HG Total	2,377	Total HG per room x 1.3					2377																							

Level 2

		KIT/GRT		MUD		PWD		FOY		STUDY		LIV/DIN																	
Run ft. exposed wall A		74	A	20	A	9	A	20	A	20	A	30	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		11.0		13.0		11.0		12.0		12.0		11.0		11.0		11.0		11.0		11.0		11.0		11.0		11.0			
Floor area		612	Area	103	Area	31	Area	81	Area	94	Area	369	Area		Area		Area		Area		Area		Area		Area		Area		
Exposed Ceilings A		5	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		814		260		99		240		240		330																	
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	11.62	30	688	349	12	275	139																				
East/West		3.55	22.93	29.56	88	2018	2601							23	527	680	41	940	1212											
South		3.55	22.93	22.50													15	344	338	52	1192	1170								
Existing Windows		1.99	40.90	23.66																										
Skylight		2.03	40.10	88.23																										
Doors		4.00	20.35	2.75				36	733	99				24	488	66														
Net exposed walls A		17.03	4.78	0.65	696	3327	450	212	1013	137	99	473	64	193	923	125	184	879	119	278	1329	180								
Net exposed walls B		8.50	9.58	1.29																										
Exposed Ceilings A		59.22	1.37	0.64	5	7	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					6039			2021			473			1938			2164			2521									
	Heat Gain						3403			375			64			871			1668			1350								
Air Leakage	Heat Loss/Gain		0.4786	0.0481		2891	164		967	18		226	3		928	42		1036	80		1207	65								
Ventilation	Case 1		0.03	0.06																										
	Case 2		17.58	11.88																										
	Case 3	x	0.03	0.06		210	192		70	21		16	4		67	49		75	94		88	76								
Heat Gain People				239																										
Appliances Loads		1 =.25 percent		5239	2.0		2619										0.5		655	1.0		1310								
Duct and Pipe loss				10%																										
Level HL Total	22,938	Total HL for per room				9140			3059			716			2933			3274			3816									
Level HG Total	17,061	Total HG per room x 1.3					8292			539			92			1250			3247			3641								

Total Heat Loss	66,173 btu/h
Total Heat Gain	32,601 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

Builder: Bayview Wellington Date: July 20, 2022 Weather Data: Bradford 44 -9.4 86 22 48.2

2012 OBC Project: Green Valley East Model: S42-19 **System 1** Heat Loss ^T 81.4 deg. F Ht gain ^T 11 deg. F GTA: 3130 Project # PJ-00041 Layout # JB-08346

Level 3

	P.BED	ENS	WC	WIC	ENS 2	BED 2	BED 3	ENS 3	BED 4	WIC 4	LAUND
Run ft. exposed wall A	39 A	19 A	6 A	7 A	7 A	26 A	40 A	6 A	13 A	9 A	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	9.0	9.0	9.0	9.0
Floor area	430 Area	129 Area	27 Area	102 Area	66 Area	255 Area	216 Area	72 Area	147 Area	39 Area	59 Area
Exposed Ceilings A	430 A	129 A	27 A	102 A	66 A	255 A	216 A	72 A	147 A	39 A	59 A
Exposed Ceilings B	B	B	B	B	B	B	B	B	B	B	B
Exposed Floors	Flr	Flr	Flr	Flr	43 Flr	180 Flr	33 Flr	Flr	Flr	Flr	Flr
Gross Exp Wall A	429	171	54	63	63	234	360	54	117	81	
Gross Exp Wall B											

Components		R-Values	Loss	Gain	P.BED Loss	P.BED Gain	ENS Loss	ENS Gain	WC Loss	WC Gain	WIC Loss	WIC Gain	ENS 2 Loss	ENS 2 Gain	BED 2 Loss	BED 2 Gain	BED 3 Loss	BED 3 Gain	ENS 3 Loss	ENS 3 Gain	BED 4 Loss	BED 4 Gain	WIC 4 Loss	WIC 4 Gain	LAUND Loss	LAUND Gain
North Shaded		3.55	22.93	11.62	16 367	186			7 161	81			7 161	81												
East/West		3.55	22.93	29.56	32 734	946	16 367	473							43 986	1271	52 1192	1537								
South		3.55	22.93	22.50													12 275	270	7 161	158	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	381 1821	246	155 741	100	47 225	30	63 301	41	56 268	36	191 913	123	296 1415	191	47 225	30	101 483	65	81 387	52		
Net exposed walls B		8.50	9.58	1.29																						
Exposed Ceilings A		59.22	1.37	0.64	430 591	276	129 177	83	27 37	17	102 140	65	66 91	42	255 351	164	216 297	139	72 99	46	147 202	94	39 54	25	59 81	38
Exposed Ceilings B		27.65	2.94	1.37																						
Exposed Floors		29.80	2.73	0.17									43 117	7	180 492	30	33 90	6								
Foundation Conductive Heatloss																										
Total Conductive	Heat Loss				3513		1285		422		441		636		2741		3269		484		1052		441		81	
	Heat Gain					1654		656		129		106		167		1588		2142		234		520		77		38
Air Leakage	Heat Loss/Gain		0.3366	0.0481	1183	80	433	32	142	6	149	5	214	8	923	76	1101	103	163	11	354	25	148	4	27	2
Ventilation	Case 1		0.02	0.06																						
	Case 2		17.58	11.88																						
	Case 3	x	0.03	0.06	122	94	45	37	15	7	15	6	22	9	95	90	114	121	17	13	37	29	15	4	3	2
Heat Gain People				239	2	478									1	239	1	239			1	239				
Appliances Loads		1 =.25 percent		5239																					0.5	655
Duct and Pipe loss				10%									1 85	17	1 366	183										
Level HL Total	20,154	Total HL for per room			4818		1762		579		605		958		4126		4484		664		1442		604		111	
Level HG Total	13,164	Total HG per room x 1.3				2996		942		185		152		262		2829		3387		336		1057		111		906

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	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	0.0481																						
Ventilation	Case 1		0.00	0.06																						
	Case 2		17.58	11.88																						
	Case 3	x	0.03	0.06																						
Heat Gain People				239																						
Appliances Loads		1 =.25 percent		5239																						
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	66,173 btu/h
Total Heat Gain	32,601 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-08346

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:** S42-19

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

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 20, 2022		

REVIEWED

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-08346

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
S42-19			
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 = 448.43 m² or 4826.9 ft²	W,S &G % = 10.4%	☐ Log/Post&Beam ☐ ICF Above Grade ☐ ICF Basement ☐ Slab-on-ground ☐ Walkout Basement
Area of W, S & G = 46.822 m² or 504.0 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-08346

Package: Package A1 **System:** System 1
Project: Bradford **Model:** S42-19

Air Leakage Calculations

Building Air Leakage Heat Loss				
B	LRairh	Vb	HL^T	HLleak
0.018	0.403	40998	81.4	24181

Building Air Leakage Heat Gain				
B	LRairh	Vb	HG^T	HG Leak
0.018	0.099	40998	11	803

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	24181	10621	1.1383
Level 2	0.3		15157	0.4786
Level 3	0.2		14366	0.3366
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	803	0.0481
BUILDING CONDUCTIVE HEAT GAIN	16697	

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	10621	0.07
Level 2	0.3		15157	0.03
Level 3	0.2		14366	0.02
Level 4	0		0	0.00

Ventilation Heat Gain (Exhaust Only Systems)

Case 1 - Exhaust Only		Multiplier
HGbvent	944	0.06
Building	16697	

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	0.03

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	2752	Watts	9391	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):	1161.06

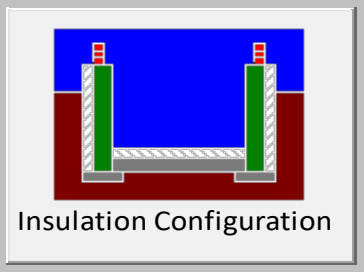
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (ACH=3.57)			
Custom BDT Data:	ELA @ 10 Pa.	322.44	cm^2	
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply:	Total Exhaust:		
	39.75	39.75		
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0

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

REVIEWED

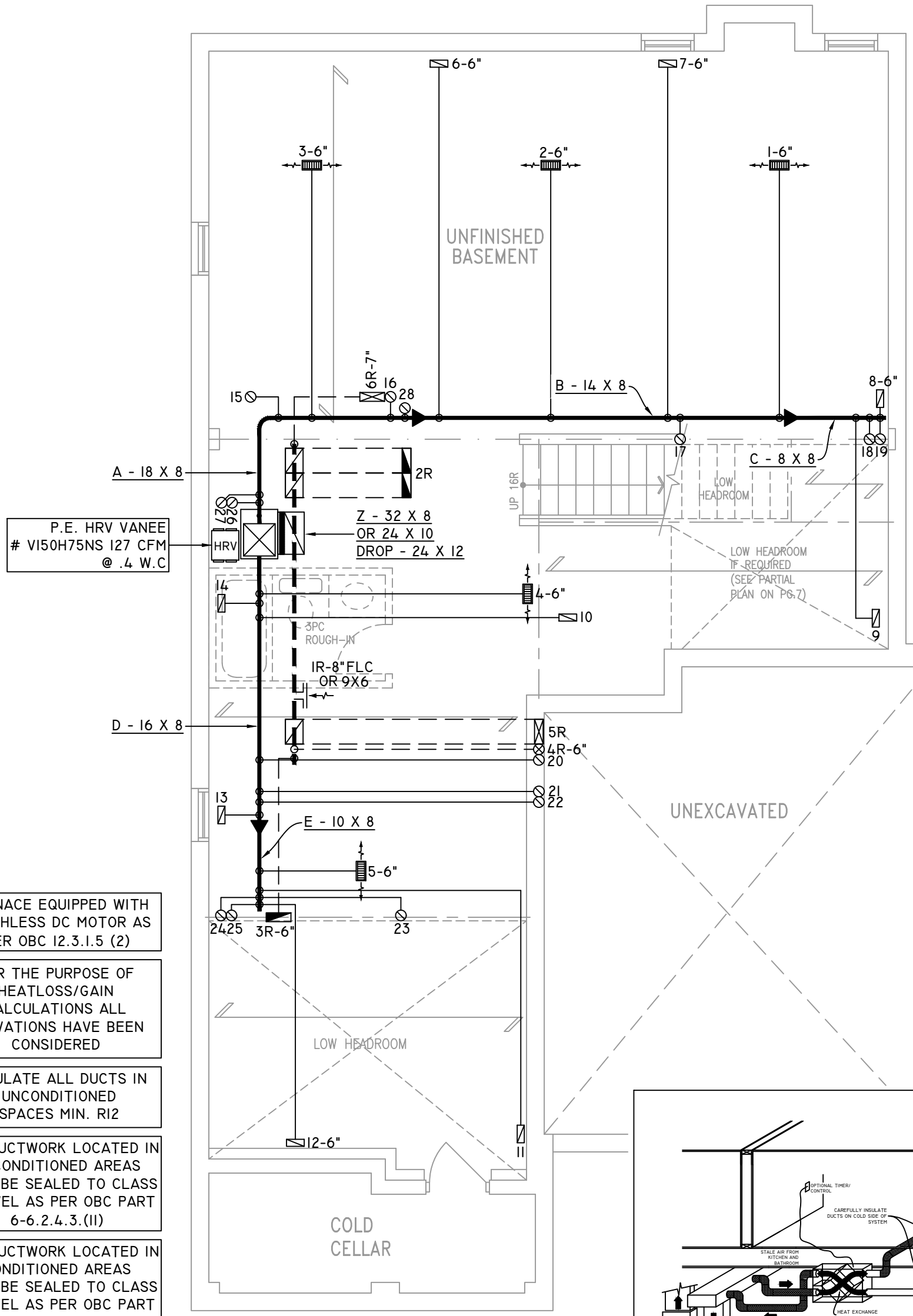
Residential Foundation Thermal Load Calculator

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):	**20.72**	 Insulation Configuration
Floor Width (m):	**5.80**	
Exposed Perimeter (m):	**53.04**	
Wall Height (m):	**3.05**	
Depth Below Grade (m):	**0.91**	
Window Area (m^2):	**3.25**	
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):	**2752**	

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



P.E. HRV VANEE
VI50H75NS 127 CFM
@ .4 W.C

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)

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

REVIEWED

OPT. 9'-0" BASEMENT PLAN 'A'

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.

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

HEAT-LOSS	66,173 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	14	3	5
IST FLOOR	9	2	2
BASEMENT	5	1	

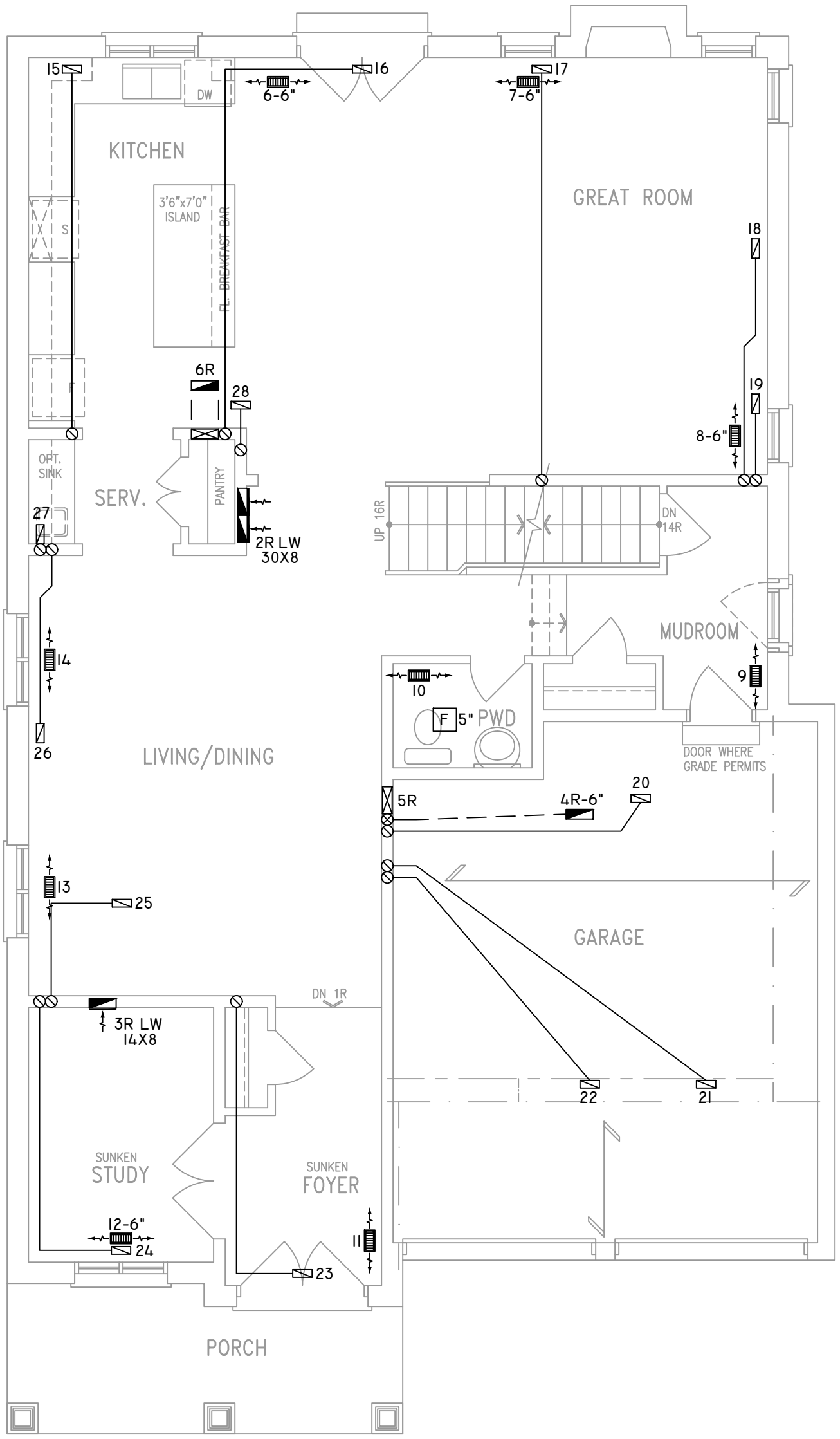
FLOOR PLAN: BASEMENT

DRAWN BY:	CHECKED:	SQFT
JL	DD	3130

LAYOUT NO. JB-08346 DRAWING NO. M1

DATE: JULY 20, 2022
CLIENT: BAYVIEW WELLINGTON
MODEL: S42-19
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.(11)

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

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

REVIEWED OBC 2012

GROUND FLOOR PLAN 'A'

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.

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

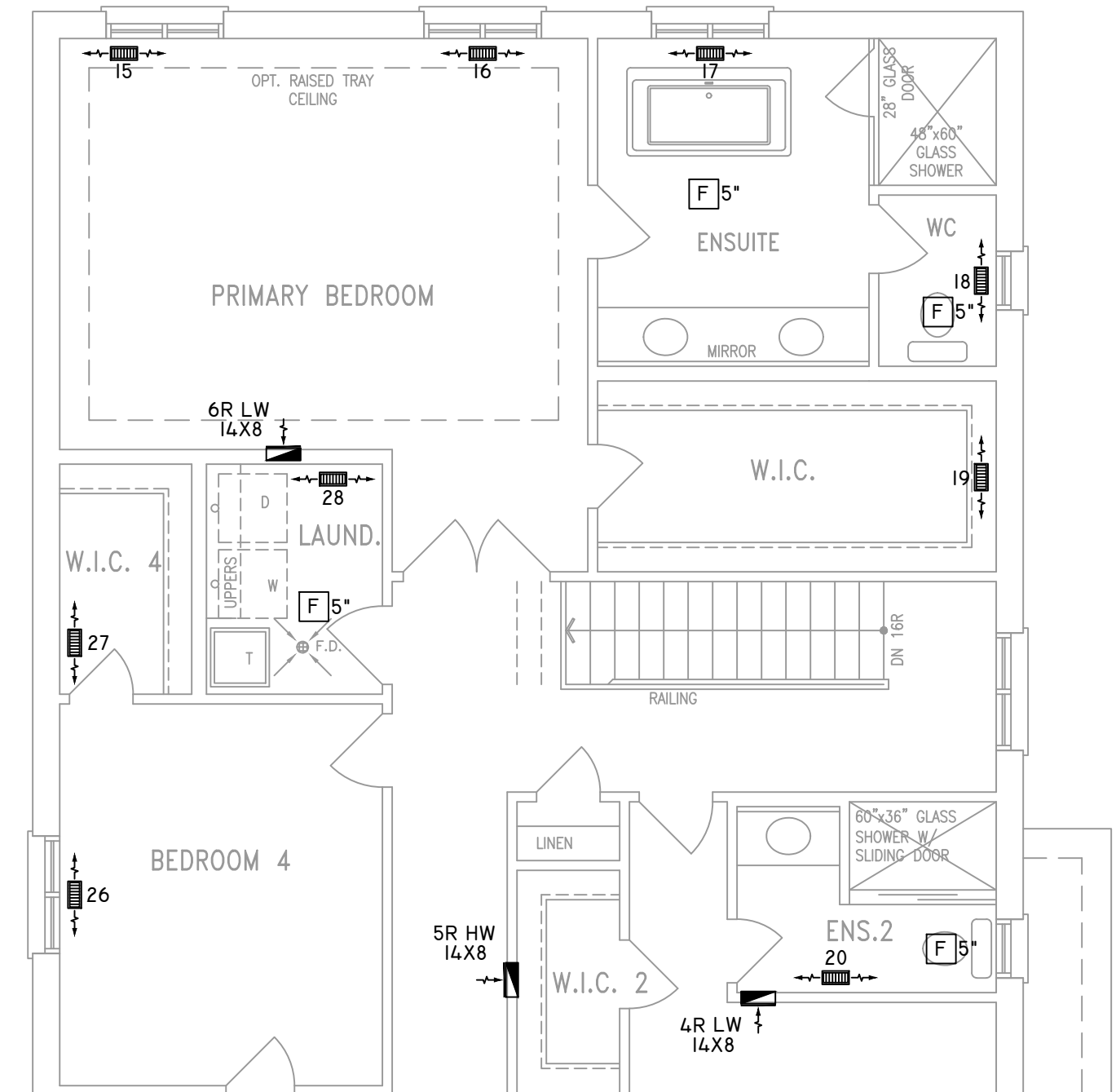
HEAT-LOSS	66,173 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	14	3	5
IST FLOOR	9	2	2
BASEMENT	5	1	

FLOOR PLAN: GROUND FLOOR			
DRAWN BY: JL	CHECKED: DD	SQFT 3130	
LAYOUT NO. JB-08346		DRAWING NO. M2	

DATE: JULY 20, 2022
CLIENT: BAYVIEW WELLINGTON
MODEL: S42-19
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



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.(11)

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

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

REVIEWED OBC 2012

SECOND FLOOR PLAN 'A'

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.

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

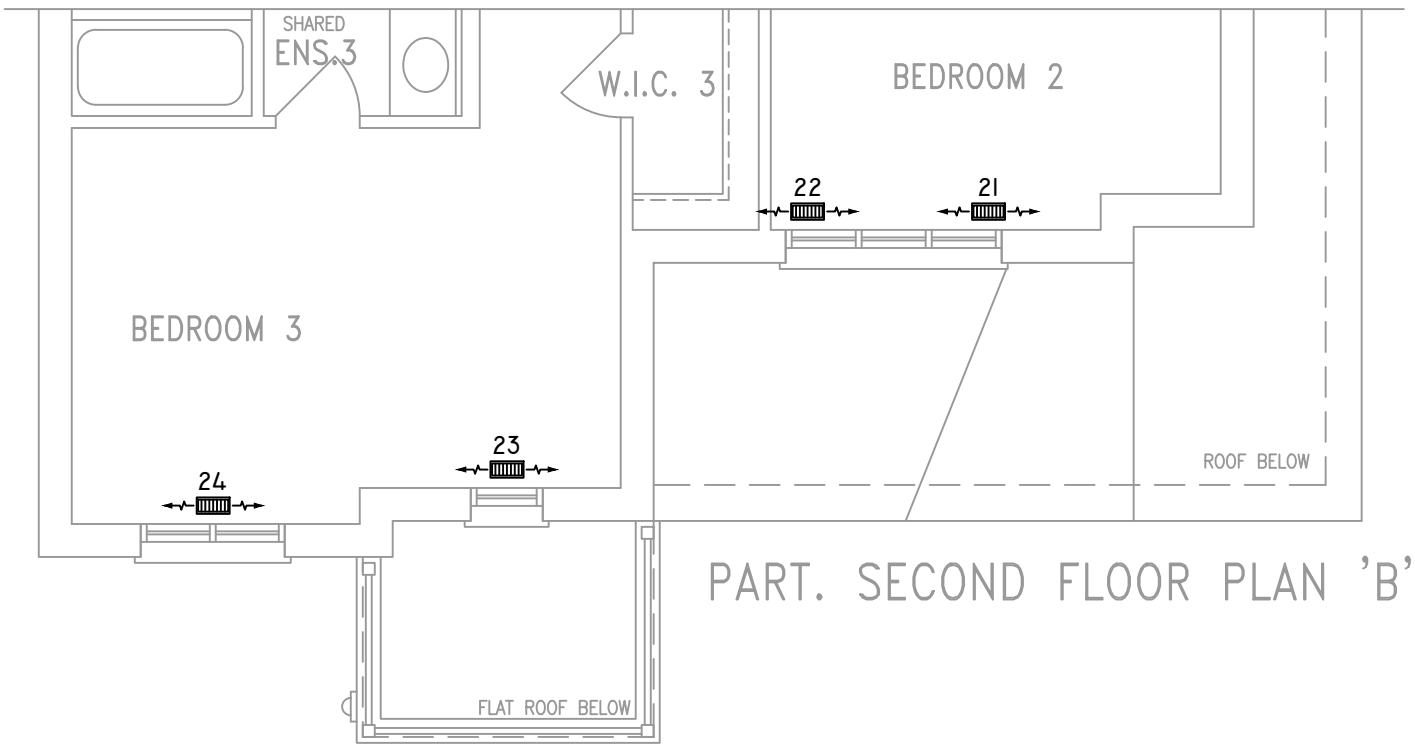
HEAT-LOSS	66,173 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	14	3	5
IST FLOOR	9	2	2
BASEMENT	5	1	

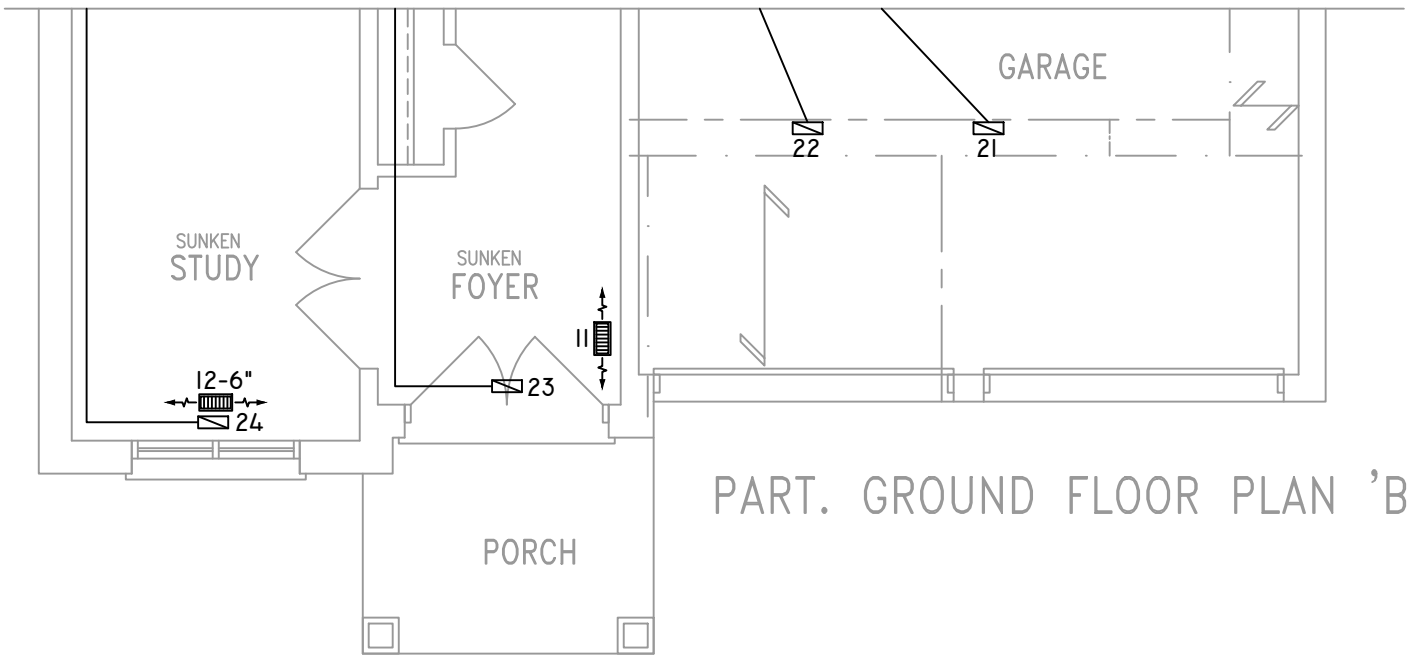
FLOOR PLAN: SECOND FLOOR			
DRAWN BY: JL	CHECKED: DD	SQFT 3130	
LAYOUT NO. JB-08346		DRAWING NO. M3	

DATE:	JULY 20, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-19
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

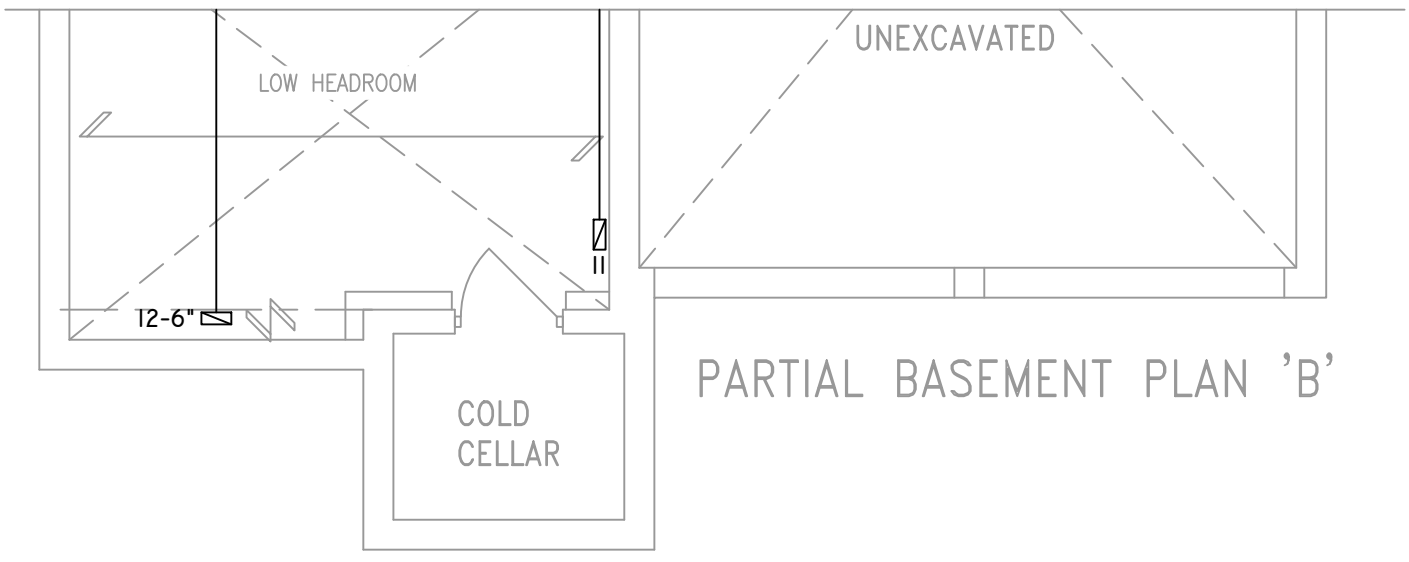
FLEX DUCT RIGID ROUND DUCT SUPPLY DIFFUSER	LOW/HIGH WALL/KICK SUPPLY DIFFUSER HRV EXHAUST GRILLE SUPPLY AIR PIPE RISER VOLUME DAMPER		DUCT CONNECTION TO JOIST LINING RETURN AIR PIPE RISER RETURN ROUND DUCT		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) RETURN AIR RISER UP TO FLOOR ABOVE RETURN AIR FROM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



PART. SECOND FLOOR PLAN 'B'



PART. GROUND FLOOR PLAN 'B'



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

REVIEWED 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.
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INSULATE DUCTS IN UNCONDITIONED SPACES RI2 UNDERCUT ALL DOORS 1" MIN.
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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	14	3	5
IST FLOOR	9	2	2
BASEMENT	5	1	

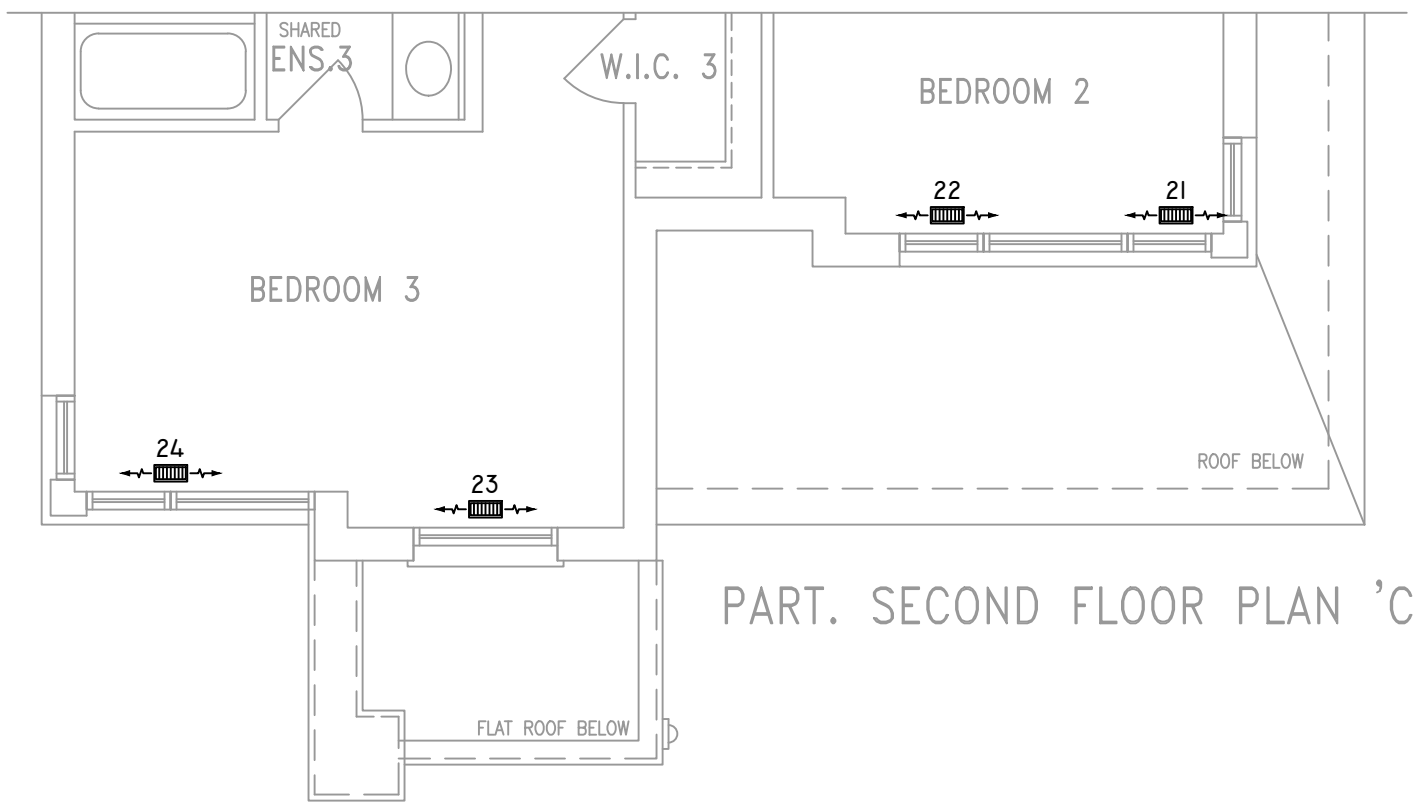
FLOOR PLAN: PARTIAL PLAN(S)

DRAWN BY:	CHECKED:	SQFT
JL	DD	3130

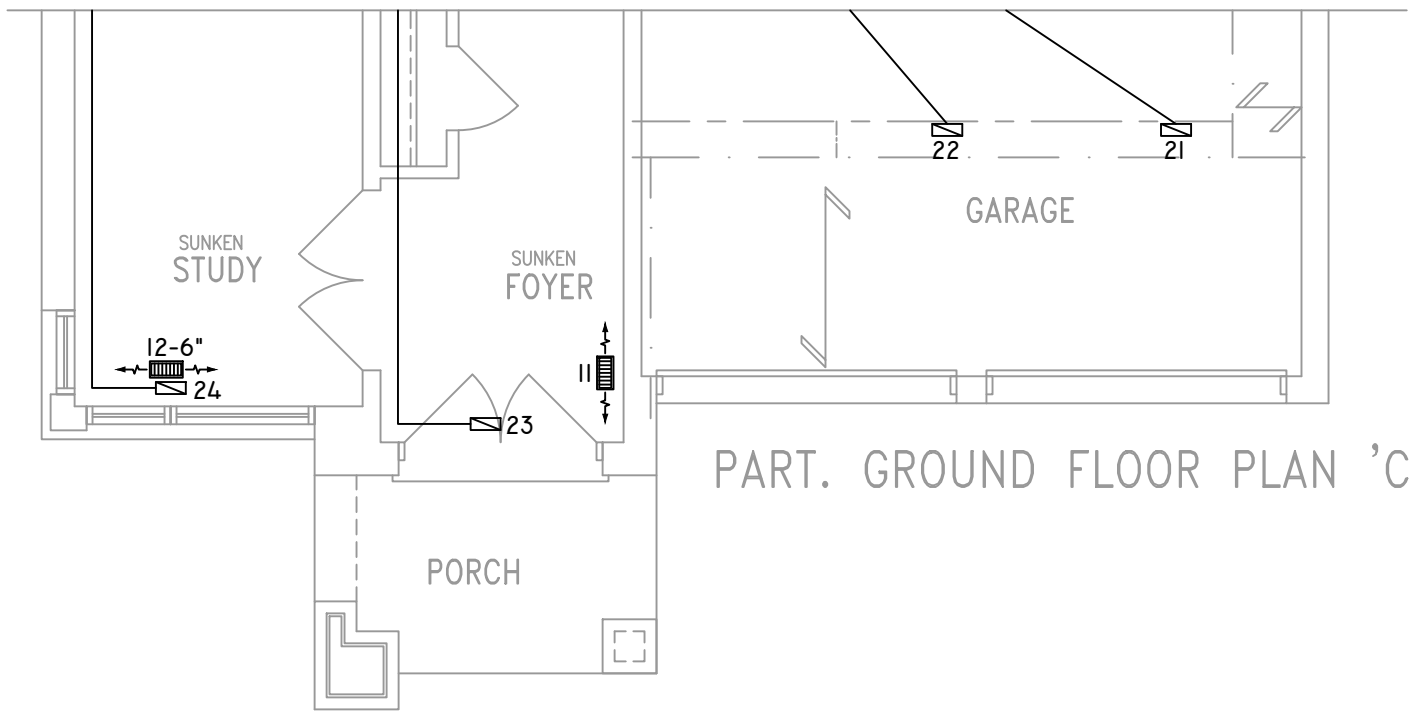
LAYOUT NO. JB-08346 DRAWING NO. M4

DATE: JULY 20, 2022
CLIENT: BAYVIEW WELLINGTON
MODEL: S42-19
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

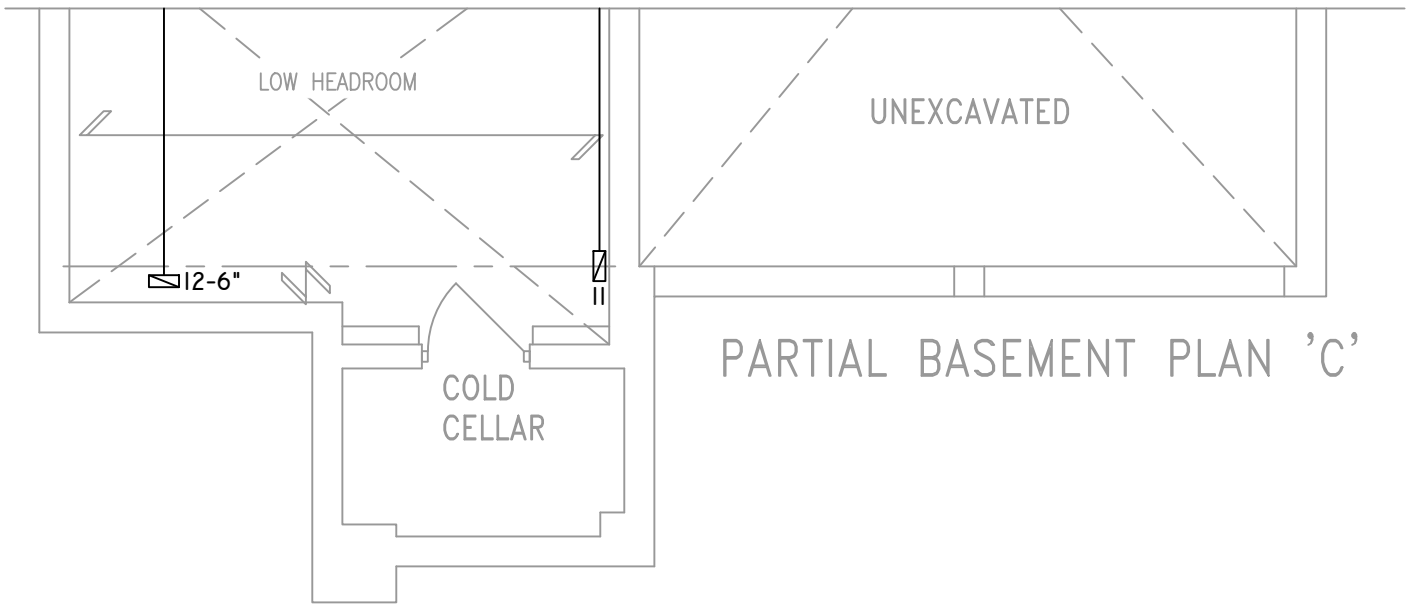
FLEX DUCT RIGID ROUND DUCT SUPPLY DIFFUSER	LOW/HIGH WALL/KICK SUPPLY DIFFUSER HRV EXHAUST GRILLE SUPPLY AIR PIPE RISER VOLUME DAMPER		DUCT CONNECTION TO JOIST LINING RETURN AIR PIPE RISER RETURN ROUND DUCT		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) RETURN AIR RISER UP TO FLOOR ABOVE RETURN AIR FROM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



PART. SECOND FLOOR PLAN 'C'



PART. GROUND FLOOR PLAN 'C'



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

REVIEWED OBC 2012

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

NOTES
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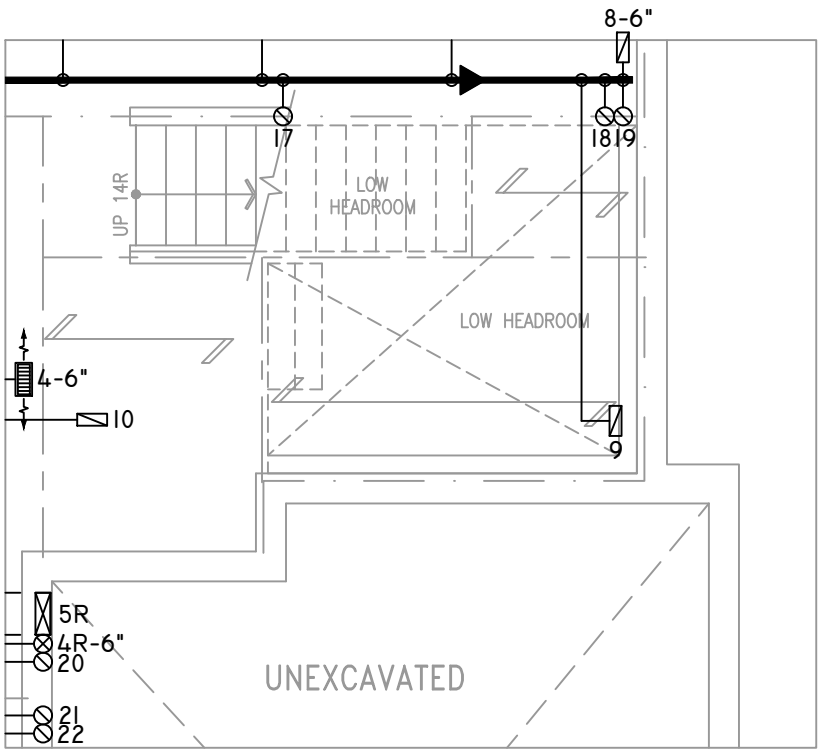
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	14	3	5
IST FLOOR	9	2	2
BASEMENT	5	1	

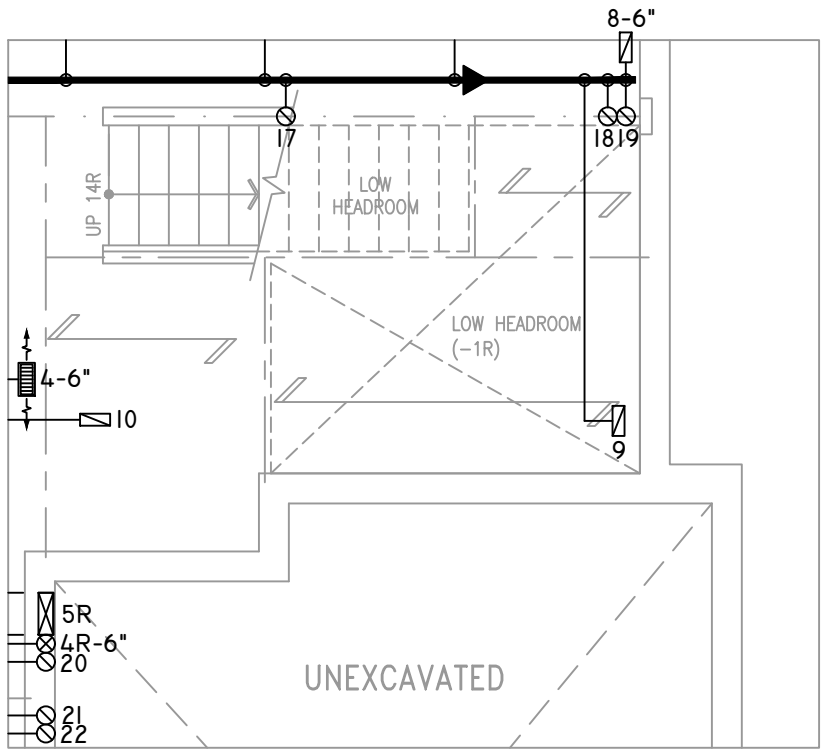
FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: JL	CHECKED: DD	SQFT 3130
LAYOUT NO. JB-08346	DRAWING NO. M5	

DATE:	JULY 20, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-19
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

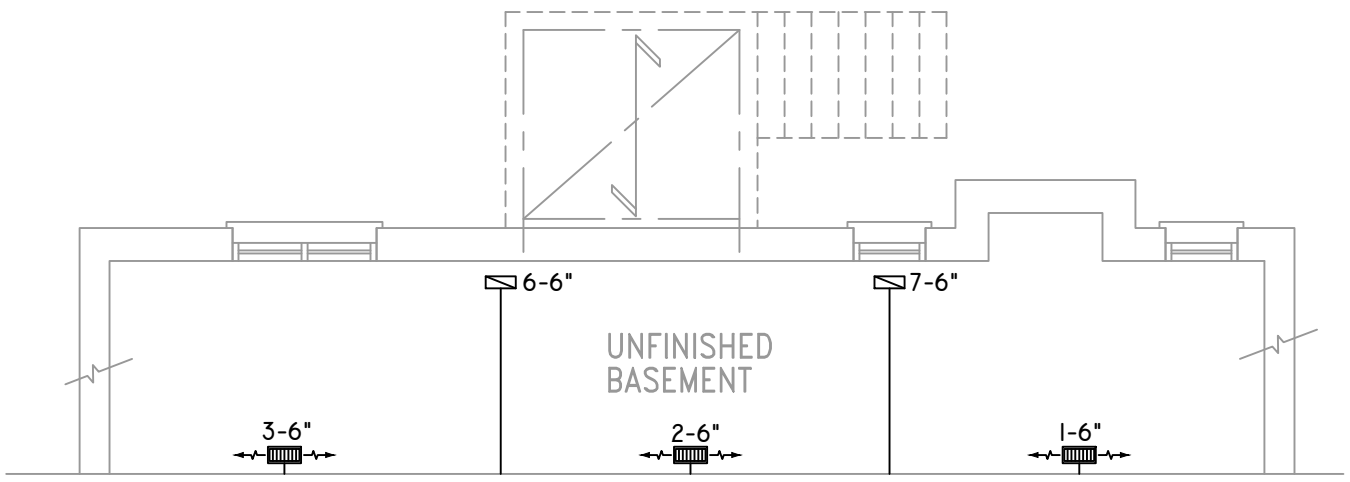
FLEX DUCT RIGID ROUND DUCT SUPPLY DIFFUSER	LOW/HIGH WALL/KICK SUPPLY DIFFUSER HRV EXHAUST GRILLE SUPPLY AIR PIPE RISER VOLUME DAMPER		DUCT CONNECTION TO JOIST LINING RETURN AIR PIPE RISER RETURN ROUND DUCT		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) RETURN AIR RISER UP TO FLOOR ABOVE RETURN AIR FROM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



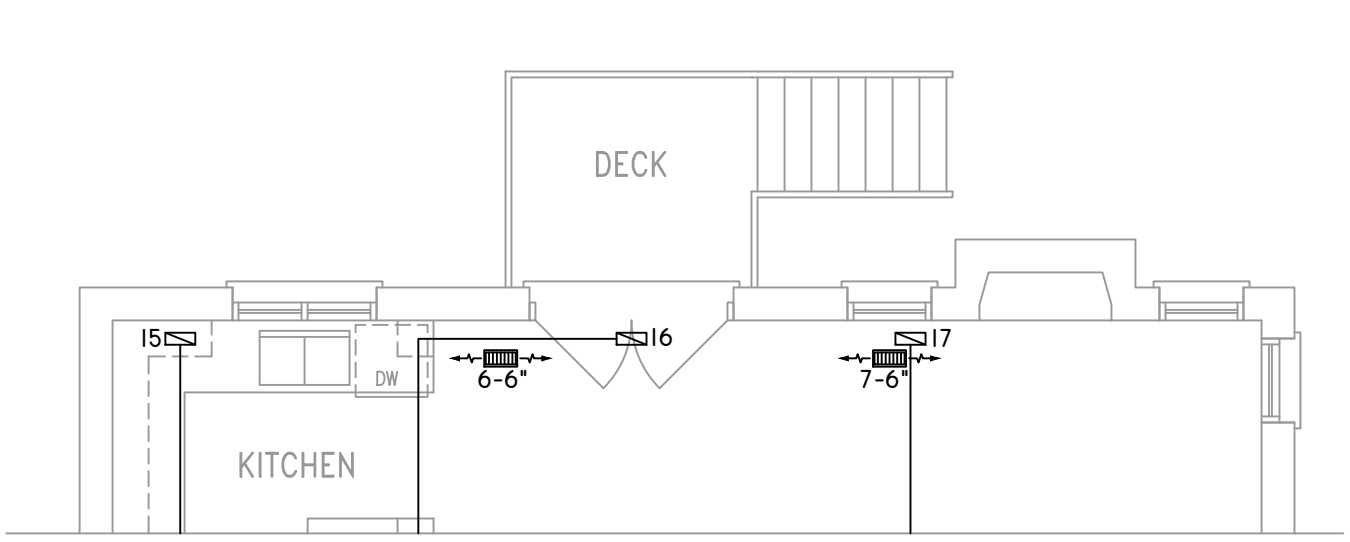
PARTIAL BASEMENT PLAN W/ SUNKEN MUDROOM (-2R TO -3R COND.)



PARTIAL BASEMENT PLAN W/ SUNKEN MUDROOM (-1R COND.)



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



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

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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

REVIEWED OBC 2012

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

NOTES
INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
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FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	14	3	5
IST FLOOR	9	2	2
BASEMENT	5	1	

FLOOR PLAN: PARTIAL PLAN(S)

DRAWN BY:	CHECKED:	SQFT
JL	DD	3130

LAYOUT NO. JB-08346 DRAWING NO. M6

DATE: JULY 20, 2022
CLIENT: BAYVIEW WELLINGTON
MODEL: S42-19
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"