



A. Project Information										
Building number, street name							Lot:			
S38-19 - WOB							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-08591
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 - WOB			
Residential System Design per CAN/CSA-F280-12					SB-12		Package A1			
Residential New Construction - Forced Air										
D. Declaration of Designer										
I, <u>David DaCosta</u> declare that (choose one as appropriate): (print name) ☐ I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4 Division C of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. Individual BCIN: _____ Firm BCIN: _____ ☒ I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5 of Division C, of the Building Code. Individual BCIN: <u>32964</u> Basis for exemption from registration: <u>Division C 3.2.4.1. (4)</u> ☐ The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification:										
I certify that: 1. The information contained in this schedule is true to the best of my knowledge. 2. I have submitted this application with the knowledge and consent of the firm.										
<u>November 18, 2022</u> Date					<u></u> Signature of Designer					

Page 1

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

Heat loss and gain calculation summary sheet				CSA-F280-M12 Standard Form No. 1	
These documents issued for the use of Bayview Wellington				Layout No.	
and may not be used by any other persons without authorization. Documents for permit and/or construction are signed in red.				JB-08591	
Building Location					
Address (Model): S38-19 - WOB			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			Cooling design conditions		
Outdoor temp -9.4 Indoor temp: 72 Mean soil temp: 48			Outdoor temp 86 Indoor temp: 75 Latitude: 44		
Above grade walls			Below grade walls		
Style A: As per OBC SB12 Package A1 R 22			Style A: As per OBC SB12 Package A1 R 20ci		
Style B:			Style B:		
Style C:			Style C:		
Style D:			Style D:		
Floors on soil			Ceilings		
Style A: As per Selected OBC SB12 Package A1			Style A: As per Selected OBC SB12 Package A1 R 60		
Style B:			Style B: As per Selected OBC SB12 Package A1 R 31		
Exposed floors			Style C:		
Style A: As per Selected OBC SB12 Package A1 R 31			Doors		
Style B:			Style A: As per Selected OBC SB12 Package A1 R 4.00		
Windows			Style B:		
Style A: As per Selected OBC SB12 Package A1 R 3.55			Style C:		
Style B:			Skylights		
Style C:			Style A: As per Selected OBC SB12 Package A1 R 2.03		
Style D:			Style B:		
Attached documents: As per Shedule 1		Heat Loss/Gain Caculations based on CSA-F280-12 Effective R-Values			
Notes:		Residential New Construction - Forced Air			
Calculations performed by					
Name: David DaCosta			Postal code: L4T 0A4		
Company: gtaDesigns Inc.			Telephone: (905) 671-9800		
Address: 2985 Drew Road, Suite 202			Fax:		
City: Mississauga			E-mail hvac@gtadesigns.ca		



Air System Design

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

Builder: Bayview Wellington

Date: November 18, 2022

Project: Green Valley East

Model: S38-19 - WOB

System 1

I review and take responsibility for the design work and am qualified in the appropriate category as an "other designer" under Division C subsection 3.2.5. of the Building Code.
Individual BCIN: 32964 *David DaCosta* David DaCosta

Project # PJ-00041

Layout # JB-08591

DESIGN LOAD SPECIFICATIONS		AIR DISTRIBUTION & PRESSURE				FURNACE/AIR HANDLER DATA:				BOILER/WATER HEATER DATA:				A/C UNIT DATA:			
Level 1 Net Load	26,040 btu/h	Equipment External Static Pressure		0.5 "w.c.		Make		Amana		Make		Type		Amana		3.0 Ton	
Level 2 Net Load	22,043 btu/h	Additional Equipment Pressure Drop		0.225 "w.c.		Model		AMEC960803BNA		Model				Cond.-----		3.0	
Level 3 Net Load	21,380 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	69,463 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	34,137 btu/h	S/A Plenum Pressure		0.14 "w.c.		Water Temp		deg. F.									
		Heating Air Flow Proportioning Factor		0.0169 cfm/btuh		AFUE		96%				Blower Speed Selected:		W2		Blower Type	
Building Volume Vb		Cooling Air Flow Proportioning Factor		0.0343 cfm/btuh		Aux. Heat								(Brushless DC OBC 12.3.1.5.(2))		ECM	
Ventilation Load		R/A Temp		70 deg. F.		SB-12 Package		Package A1		Heating Check		1172 cfm		Cooling Check		1172 cfm	
Ventilation PVC		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	15				
Room Use	BASE	BASE	BASE	BASE	BASE										KIT	KIT	GRT	GRT	LIV/DIN	LIV/DIN	PWD	MUD	FOY	STUDY				
Btu/Outlet	5208	5208	5208	5208	5208										2481	2481	2029	2029	2692	2692	1343	1208	3479	1608				
Heating Airflow Rate CFM	88	88	88	88	88										42	42	34	34	45	45	23	20	59	27				
Cooling Airflow Rate CFM	30	30	30	30	30										74	74	68	68	63	63	14	5	50	74				
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	
Actual Duct Length	50	20	23	50	29										45	46	45	56	41	11	6	6	30	22				
Equivalent Length	140	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	190	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	0.07	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	D	C	E	C	B										C	D	D	D	B	A	A	A	E	B				

	Level 3														Level 4													
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	1796	1796	1708	569	1545	737	1557	1195	3355	3355	2157	753	856															
Heating Airflow Rate CFM	30	30	29	10	26	12	26	20	57	57	36	13	14															
Cooling Airflow Rate CFM	44	44	32	10	38	12	37	18	82	82	58	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	
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	
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	
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	
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	
Trunk	D	D	D	C	B	A	A	E	E	E	E	A	B															

Return Branch And Grill Sizing						Grill Pressure Loss						0.02 "w.c						Return Trunk Duct Sizing						Supply Trunk Duct Sizing					
R/A Inlet No.	1R	2R	3R	4R	5R	6R	7R	8R	9R	10R	11R							Trunk	CFM	Press.	Round	Rect. Size		Trunk	CFM	Press.	Round	Rect. Size	
Inlet Air Volume CFM	220	347	200	105	150	150												Drop	1172	0.05	17.0	24x12		A	1172	0.06	16.5	32x8	24x10
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							Z	1172	0.05	17.0	26x10	22x12	B	716	0.06	14.0	22x8	18x10
Actual Duct Length	19	32	17	49	43	48												Y	1067	0.05	16.5	32x8	24x10	C	515	0.06	12.0	16x8	12x10
Equivalent Length	155	140	125	115	200	140	50	50	50	50	50							X	497	0.06	12.0	16x8	12x10	D	288	0.06	10.0	12x8	10x10
Total Effective Length	174	172	142	164	243	188	50	50	50	50	50							W						E	316	0.07	10.0	12x8	10x10
Adjusted Pressure	0.07	0.07	0.08	0.07	0.05	0.06	0.24	0.24	0.24	0.24	0.24							V						F					
Duct Size Round	8.0	10.0	8.0	6.0	8.0	8.0												U						G					
Inlet Size	FLC	8	8	8	8	8												T						H					
" "	OR	x	x	x	x	x	x	x	x	x	x							S						I					
Inlet Size	9x6	30	14	14	14	14												R						J					
Trunk	Y	X	Y	Z	Y	X												Q						K					



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: November 18, 2022

Weather Data Bradford 44 -9.4 86 22 48.2

Page 4

2012 OBC

Project: Green Valley East

Model: S38-19 - WOB

System 1

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

Project # PJ-00041
Layout # JB-08591

Level 1				BASE																							
Run ft. exposed wall A				132 A		A		A		A		A		A		A		A		A		A		A			
Run ft. exposed wall B				35 B		B		B		B		B		B		B		B		B		B		B			
Ceiling height				7.5 AG		7.5 AG		7.5 AG		7.5 AG		7.5 AG		7.5 AG		7.5 AG		7.5 AG		7.5 AG		7.5 AG		7.5 AG			
Floor area				1212 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				990																							
Gross Exp Wall B				350																							
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	6	138	70																		
East/West				3.55	22.93	29.56																					
South				3.55	22.93	22.50																					
WOB Windows				3.55	22.93	27.86	81	1857	2257																		
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	963		502																		
Net exposed walls B				17.03	4.78	0.65	269	1286	174																		
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								9105																			
Total Conductive	Heat Loss							12813																			
	Heat Gain								3060																		
Air Leakage	Heat Loss/Gain				0.9988	0.0476		12798	146																		
Ventilation	Case 1				0.05	0.05																					
	Case 2				17.58	11.88																					
	Case 3			x	0.03	0.05		429	162																		
Heat Gain People						239																					
Appliances Loads				1 =.25 percent		5089																					
Duct and Pipe loss						10%																					
Level HL Total	26,040			Total HL for per room				26040																			
Level HG Total	4,377			Total HG per room x 1.3					4377																		

Level 2				KIT		GRT		LIV/DIN		PWD		MUD		FOY		STUDY		A		A		A		A			
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	Loss		Gain	Loss		Gain	Loss		Gain	Loss		Gain	Loss		Gain	Loss		Gain	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															
South				3.55	22.93	22.50																					
Existing Windows				1.99	40.90	23.66					48	1101	1080	9	206	203											
Skylight				2.03	40.10	88.23																					
Doors				4.00	20.35	2.75																					
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	
	Heat Gain								1871			1618			1390			289			103			1011			342
Air Leakage	Heat Loss/Gain				0.5525	0.0476		1729	89		1414	77		1876	66		468	14		421	5		1212	48		560	16
Ventilation	Case 1				0.03	0.05																					
	Case 2				17.58	11.88																					
	Case 3			x	0.03	0.05		105	99		86	86		114	74		28	15		25	5		73	54		34	18
Heat Gain People						239																					
Appliances Loads				1 =.25 percent		5089	1.0		1272	1.0		1272	1.0		1272								1.0		1272		
Duct and Pipe loss						10%																					
Level HL Total	22,043			Total HL for per room				4962			4059			5384			1343			1208			3479			1608	
Level HG Total	16,091			Total HG per room x 1.3					4331			3968			3643			414			147			1446			2143



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: November 18, 2022

Weather Data Bradford 44 -9.4 86 22 48.2

Page 5

2012 OBC

Project: Green Valley East

Model: S38-19 - WOB

System 1

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

Project # PJ-00041
Layout # JB-08591

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	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															20	459	232			7	161	81																
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																																						
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		0.3400	0.0476	889	64		423	31	141	10		382	26		183	12		385	26		270	16		1514	135		534	56		186	8		212	6						
Ventilation	Case 1		0.02	0.05																																					
	Case 2		17.58	11.88																																					
	Case 3	x	0.03	0.05																																					
Heat Gain People				239	2	88	72		42	34			14	11			38	29		18	13			38	29		27	17			149	150		53	62		18	8		21	6
Appliances Loads		1 =.25 percent		5089																																					
Duct and Pipe loss				10%																																					
Level HL Total	21,380		Total HL for per room		3593			1708		569			1545		737		350		1557		1195		510		4766		1678			753		228		856		171					
Level HG Total	13,669		Total HG per room x 1.3			2556			931		288			1103			350					510		4766		1678					228				171						

Level 4				A		A		A		A		A		A		A		A		A		A		A	
Run ft. exposed wall A				A		A		A		A		A		A		A		A		A		A		A	
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																						
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	0.0476																					
Ventilation	Case 1		0.00	0.05																					
	Case 2		17.58	11.88																					
	Case 3	x	0.03	0.05																					
Heat Gain People				239																					
Appliances Loads	1 =.25 percent			5089																					
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	69,463	btu/h
Total Heat Gain	34,137	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

David DaCosta

SB-12 Package

Package A1

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

Individual BCIN: 32964



David DaCosta

Package: Package A1
Project: Bradford
Model: S38-19 - WOB

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

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

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

Builder	
Name	Bayview Wellington
Address	
City	
Tel	Fax

Installing Contractor	
Name	
Address	
City	
Tel	Fax

Combustion Appliances 9.32.3.1(1)		
a)	☒	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		
	☒	Forced air
	☐	Non forced air
	☐	Electric space heat (if over 10% of heat load)

House Type 9.32.3.1(2)		
I	☒	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	☒	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	November 18, 2022		



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

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

Page 7
Project # PJ-00041
Layout # JB-08591

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 S38-19 - WOB	Unit number	Lot/Con
Municipality Bradford	Postal code	Reg. Plan number / other description

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

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

C. Project Design Conditions

Climatic Zone (SB-1):	Heat. Equip. Efficiency	Space Heating Fuel Source
☒ Zone 1 (< 5000 degree days) ☐ Zone 2 (≥ 5000 degree days)	☒ ≥ 92% AFUE ☐ ≥ 84% < 92% AFUE	☒ Gas ☐ Propane ☐ Solid Fuel ☐ Oil ☐ Electric ☐ Earth Energy
Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area		Other Building Characteristics
Area of Walls = <u>454.93</u> m ² or <u>4896.9</u> ft ²	W, S & G % = <u>11.4%</u>	☐ Log/Post&Beam ☐ ICF Above Grade ☐ ICF Basement ☐ Slab-on-ground ☒ Walkout Basement ☒ Air Conditioning ☐ Combo Unit ☐ Air Sourced Heat Pump (ASHP) ☐ Ground Source Heat Pump (GSHP)
Area of W, S & G = <u>51.652</u> m ² or <u>556.0</u> ft ²	Utilize Window Averaging ☐ Yes ☒ No	

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

Energy Efficiency Substitutions				
☐ ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5)) ☐ Combined space heating and domestic water heating systems (3.1.1.2(7) / 3.1.1.3.(7))				
☐ Airtightness substitution(s) Airtightness test required (Refer to Design Guide Attached)	☐ Table 3.1.1.4.B	Required:	Permitted Substitution:	
	☐ Table 3.1.1.4.C	Required:	Permitted Substitution:	
		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·ft²·F) but not both.

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

Name David DaCosta	BCIN 32964	Signature
------------------------------	----------------------	---------------

Package:
Project:

Package A1
Bradford

System:
Model:

System 1
S38-19 - WOB

Air Leakage Calculations

Building Air Leakage Heat Loss					Building Air Leakage Heat Gain				
B	LRairh	Vb	HL ^Δ T	HLleak	B	LRairh	Vb	HG ^Δ T	HG Leak
0.018	0.432	40471	81.4	25596	0.018	0.106	40471	11	849

Air Leakage Heat Loss/Gain Multiplier Table (Section 11)					Levels			
Level	Level Factor (LF)	Building Air	Level Conductive Heat Loss (HL _{clevel})	Air Leakage Heat Loss Multiplier	1	2	3	4
					(LF)	(LF)	(LF)	(LF)
Level 1	0.5	25596	12813	0.9988	1.0	0.6	0.5	0.4
Level 2	0.3		13899	0.5525		0.4	0.3	0.3
Level 3	0.2		15055	0.3400			0.2	0.2
Level 4	0		0	0.0000				0.1

HG LEAK		849	Air Leakage Heat Gain	
BUILDING CONDUCTIVE HEAT GAIN		17842	0.0476	

Levels this Dwelling			
3			

Ventilation Calculations

Ventilation Heat Loss					Ventilation Heat Gain			
C	PVC	HL ^Δ T	(1-E) HRV	HL _{bvent}	C	PVC	HG ^Δ T	HG _{bvent}
1.08	79.5	81.4	0.20	1398	1.1	79.5	11	944

Case 1					Case 1			
Ventilation Heat Loss (Exhaust only Systems)					Ventilation Heat Gain (Exhaust Only Systems)			
Case 1 - Exhaust Only					Case 1 - Exhaust Only		Multiplier	
Level	LF	HL _{bvent}	LVL Cond. HL	Multiplier	HG _{bvent}	944	0.05	
Level 1	0.5	1398	12813	0.05	Building	17842		
Level 2	0.3		13899	0.03				
Level 3	0.2		15055	0.02				
Level 4	0		0	0.00				

Case 2					Case 2			
Ventilation Heat Loss (Direct Ducted Systems)					Ventilation Heat Gain (Direct Ducted Systems)			
C	HL ^Δ T	(1-E) HRV	Multiplier		C	HG ^Δ T	Multiplier	
1.08	81.4	0.20	17.58		1.08	11	11.88	

Case 3					Case 3			
Ventilation Heat Loss (Forced Air Systems)					Ventilation Heat Gain (Forced Air Systems)			
Total Ventilation Load		HL _{bvent}	Multiplier		HG _{bvent}	HG*1.3	Vent Heat Gain	Multiplier
		1398	0.03		944	1	944	0.05

Foundation Conductive Heatloss Level 1	Level 1	2507	Watts	8553	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		162	Watts	551	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

David DaCosta

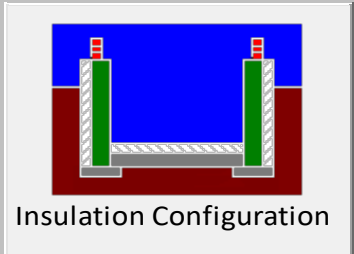
Envelope Air Leakage Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario ▼			
Region:	Bradford ▼			
Weather Station Location:	Open flat terrain, grass ▼			
Anemometer height (m):	10			
Local Shielding				
Building Site:	Suburban, forest ▼			
Walls:	Heavy ▼			
Flue:	Heavy ▼			
Highest Ceiling Height (m):	9.75			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Shallow			
House Volume (m ³):	1146.14			
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):		0.432		
Cooling Air Leakage Rate (ACH/H):		0.106		

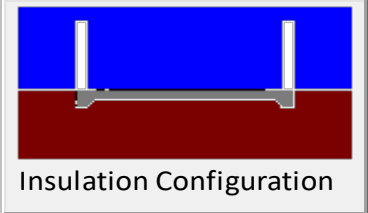
Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	▼
Region:	Bradford	▼
Site Description		
Soil Conductivity:	High conductivity: moist soil	▼
Water Table:	Normal (7-10 m, 23-33 Ft)	▼
Foundation Dimensions		
Floor Length (m):	18.20	 Insulation Configuration
Floor Width (m):	6.19	
Exposed Perimeter (m):	40.23	
Wall Height (m):	3.05	
Depth Below Grade (m):	0.76	
Window Area (m ²):	0.56	
Door Area (m ²):	1.95	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		2507

Residential Slab on Grade Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	▼
Region:	Bradford	▼
Site Description		
Soil Conductivity:	High conductivity: moist soil	▼
Water Table:	Normal (7-10 m, 23-33 Ft)	▼
Floor Dimensions		
Length (m):	8.92	 Insulation Configuration
Width (m):	0.68	
Exposed Perimeter (m):	10.67	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		162

NOTES

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

GTADESIGNS

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

HEAT-LOSS	69,463	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
1ST FLOOR	10	2	2
BASEMENT	5	1	

FLOOR PLAN:
BASEMENT

DRAWN BY:
JL

CHECKED:
DD

SOFT
3073

LAYOUT NO.
JB-08591

DRAWING NO.
MI

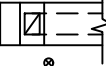
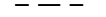
DATE:
NOVEMBER 18, 2022

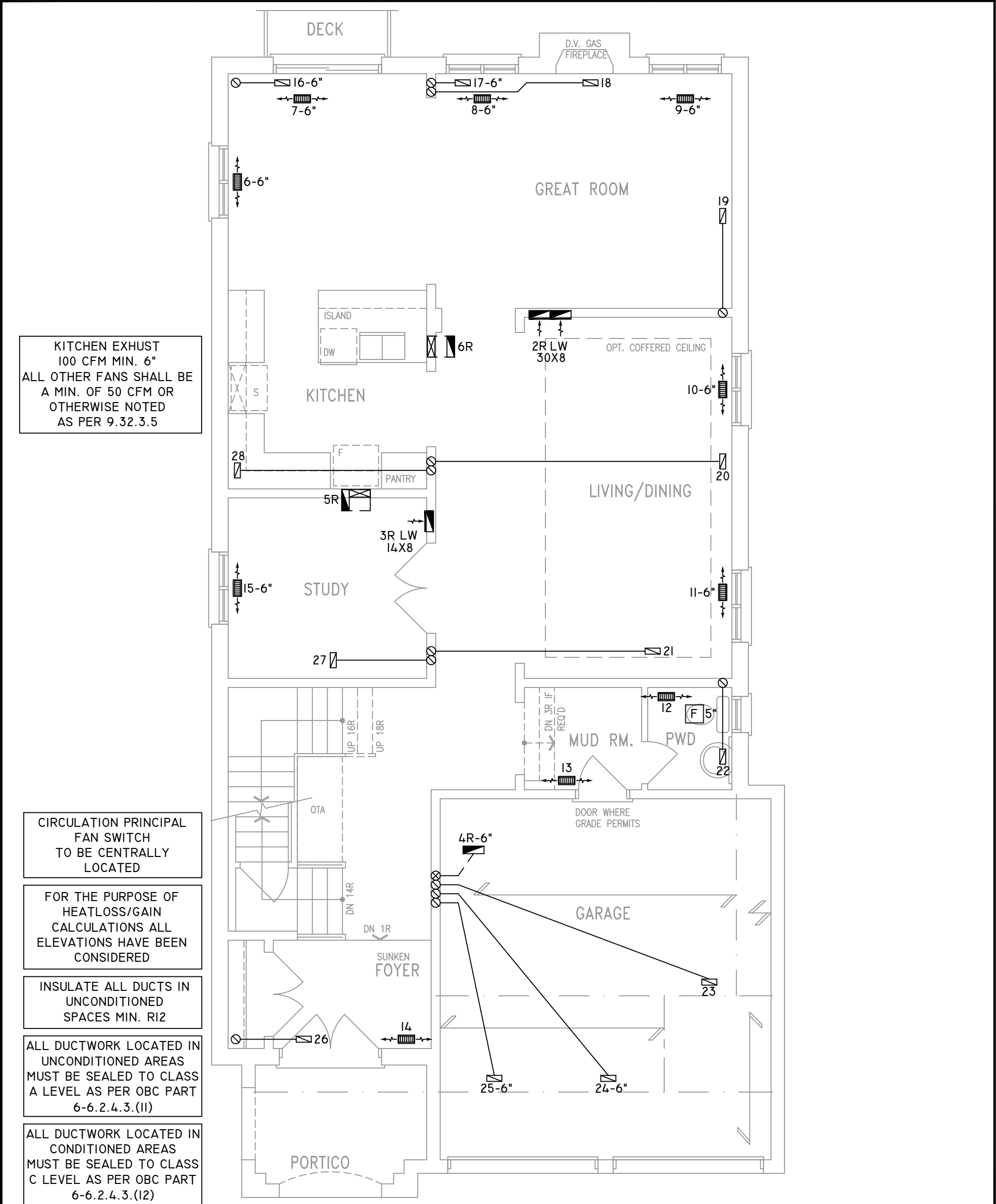
CLIENT:
BAYVIEW WELLINGTON

MODEL:
S38-I9 - WOB

PROJECT:
GREEN VALLEY EAST
BRADFORD,ONT.

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

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



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

QUALIFICATION INFORMATION

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

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

SIGNATURE OF DESIGNER

GROUND FLOOR PLAN 'A'

OBC 2012

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

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



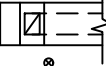
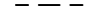
2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADDESIGNS.CA
WEB: WWW.GTADDESIGNS.CA

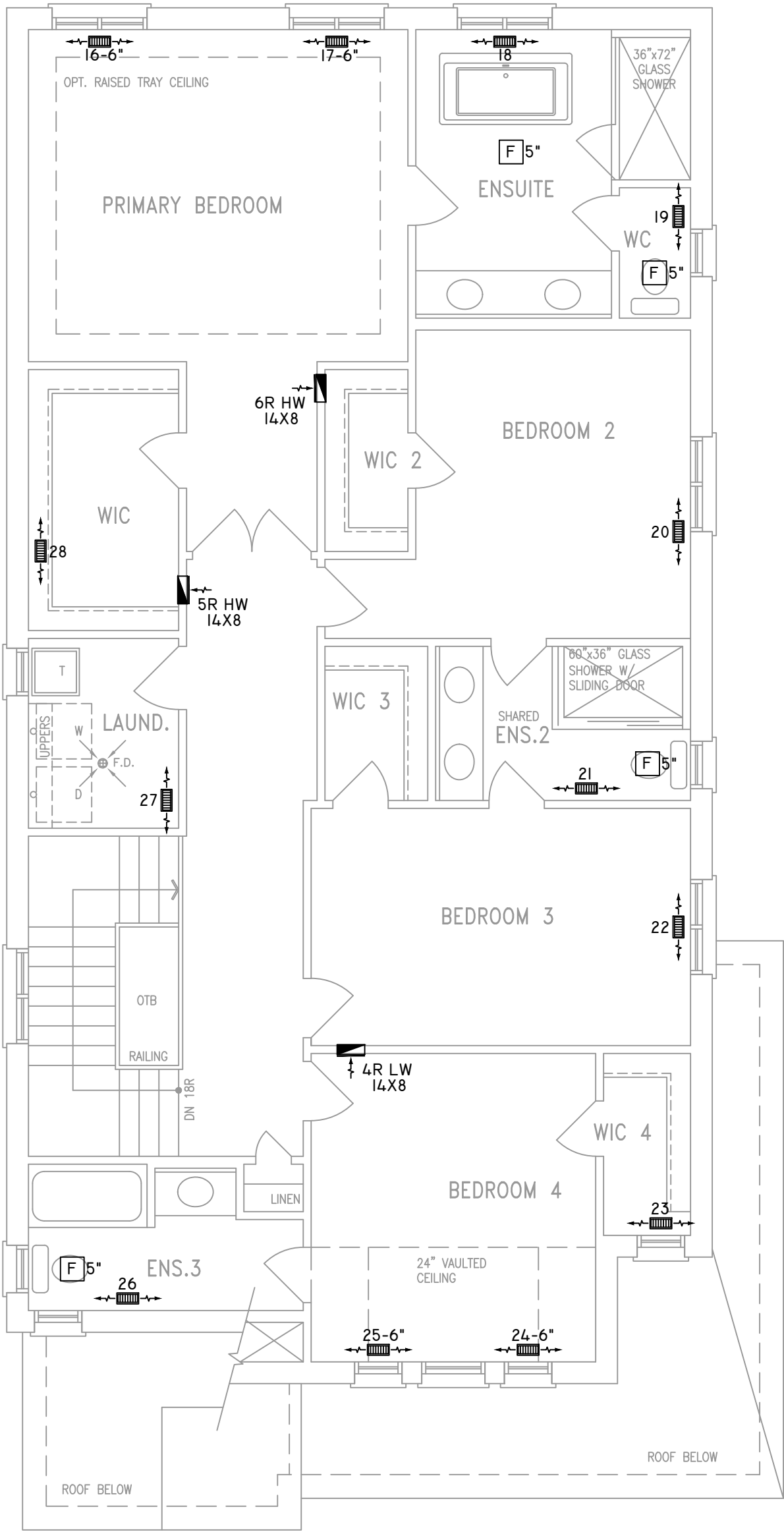
HEAT-LOSS	69,463	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

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

FLOOR PLAN: GROUND FLOOR	
DRAWN BY: JL	CHECKED: DD
LAYOUT NO. JB-08591	DRAWING NO. M2

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-19 - WOB
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		THERMOSTAT
			VOLUME DAMPER				SECOND FLOOR		PRINCIPAL EXHAUST FAN SWITCH
									W/R & PRINCIPAL EXHAUST FAN



- FOR THE PURPOSE OF HEATLOSS/GAIN CALCULATIONS ALL ELEVATIONS HAVE BEEN CONSIDERED
- INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. R12
- 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

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



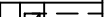
2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

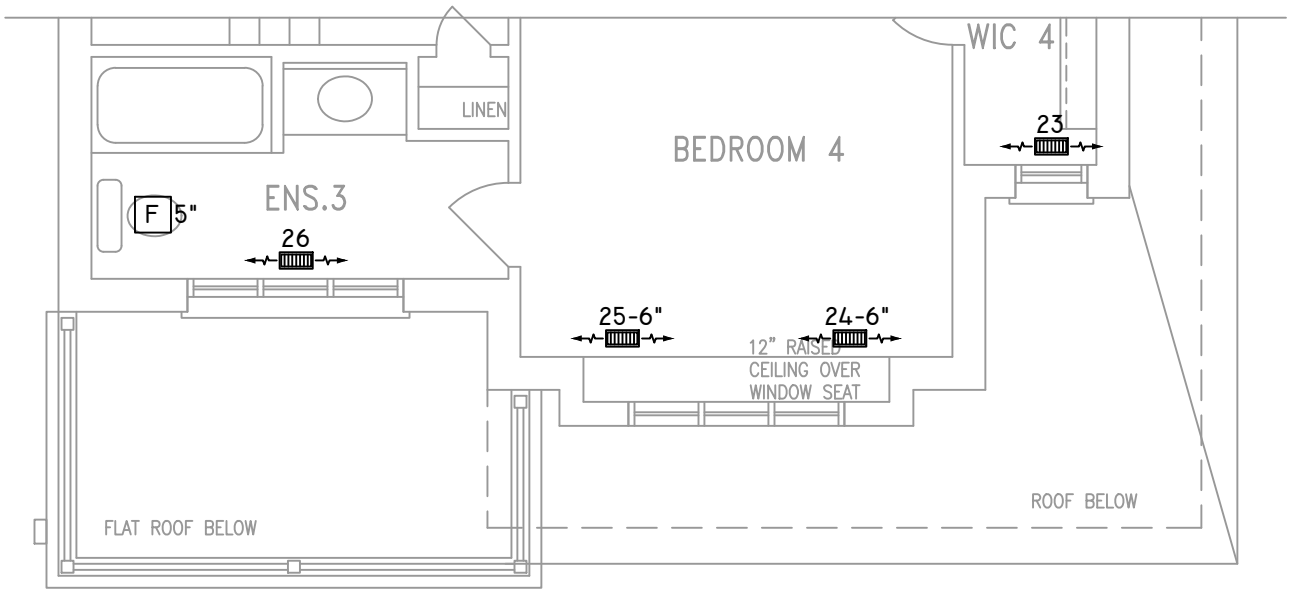
HEAT-LOSS	69,463	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

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

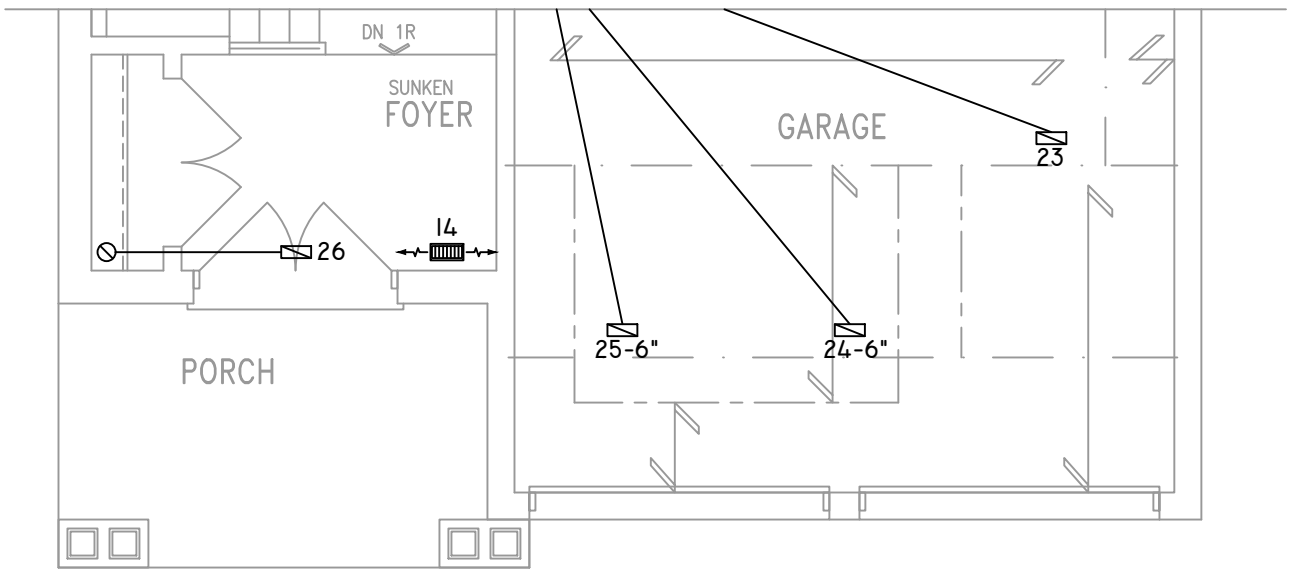
FLOOR PLAN: SECOND FLOOR		
DRAWN BY: JL	CHECKED: DD	SQFT 3073
LAYOUT NO. JB-08591	DRAWING NO. M3	

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-19 - WOB
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

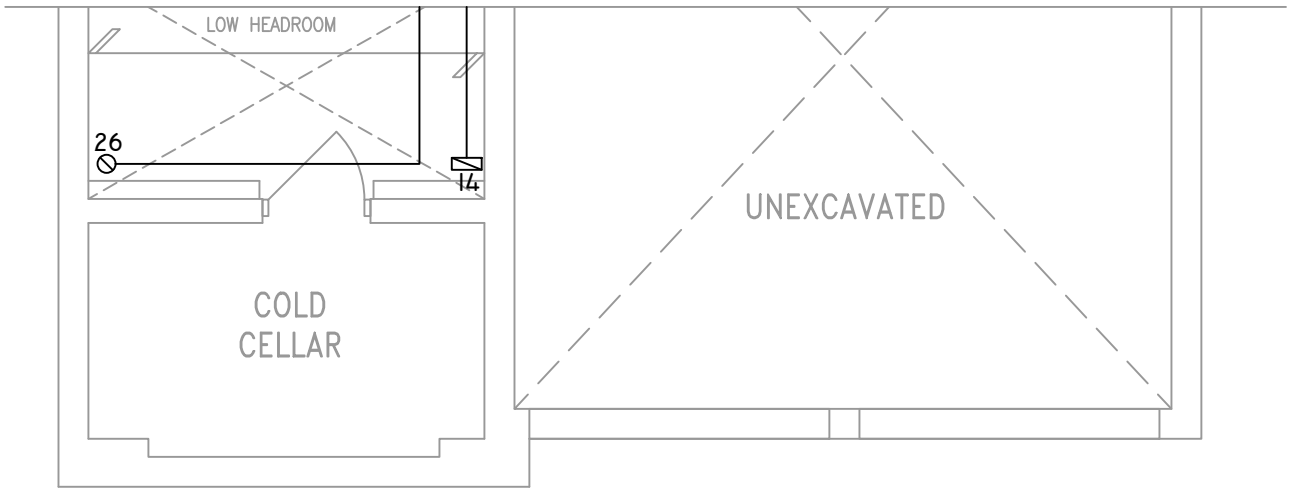
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



PARTIAL SECOND FLOOR PLAN 'B'



PARTIAL GROUND FLOOR PLAN 'B'



PARTIAL BASEMENT PLAN 'B'

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

QUALIFICATION INFORMATION

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

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

SIGNATURE OF DESIGNER

OBC 2012

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

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



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

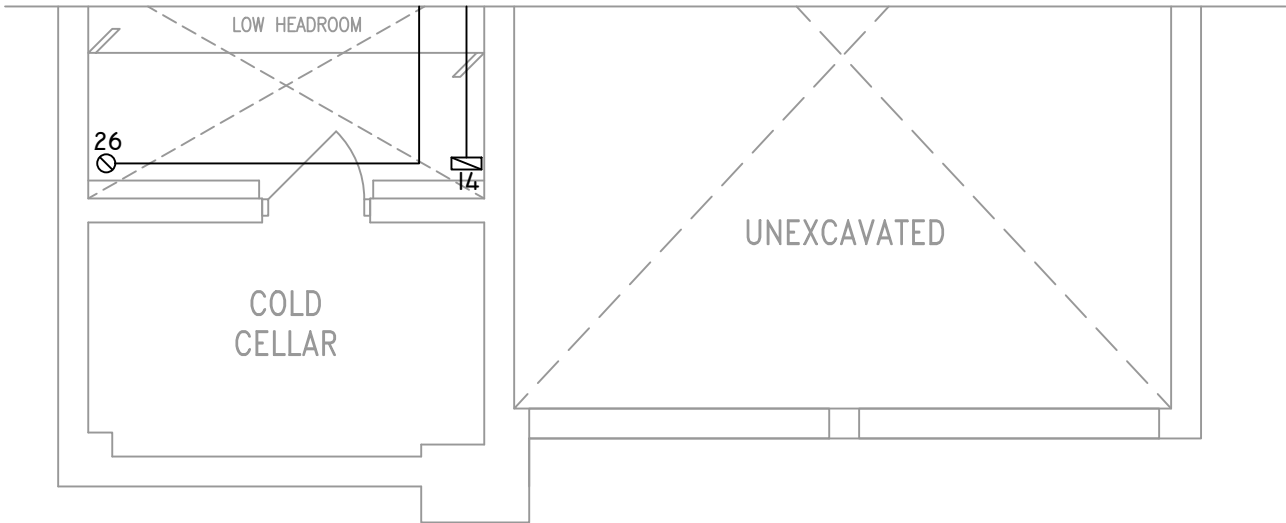
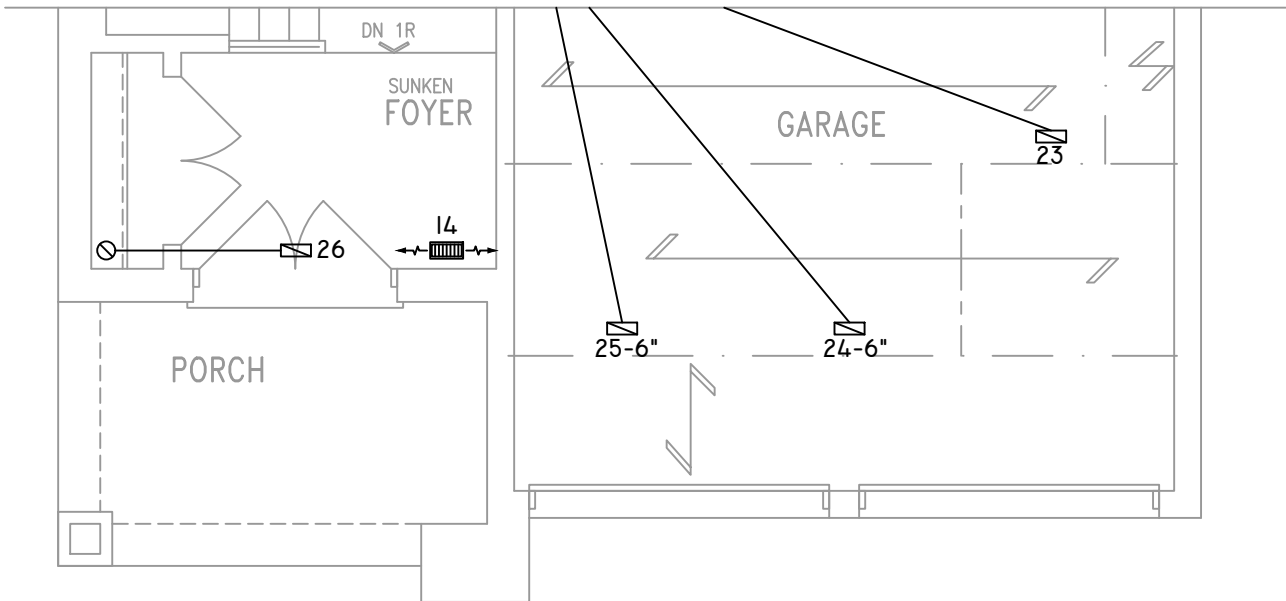
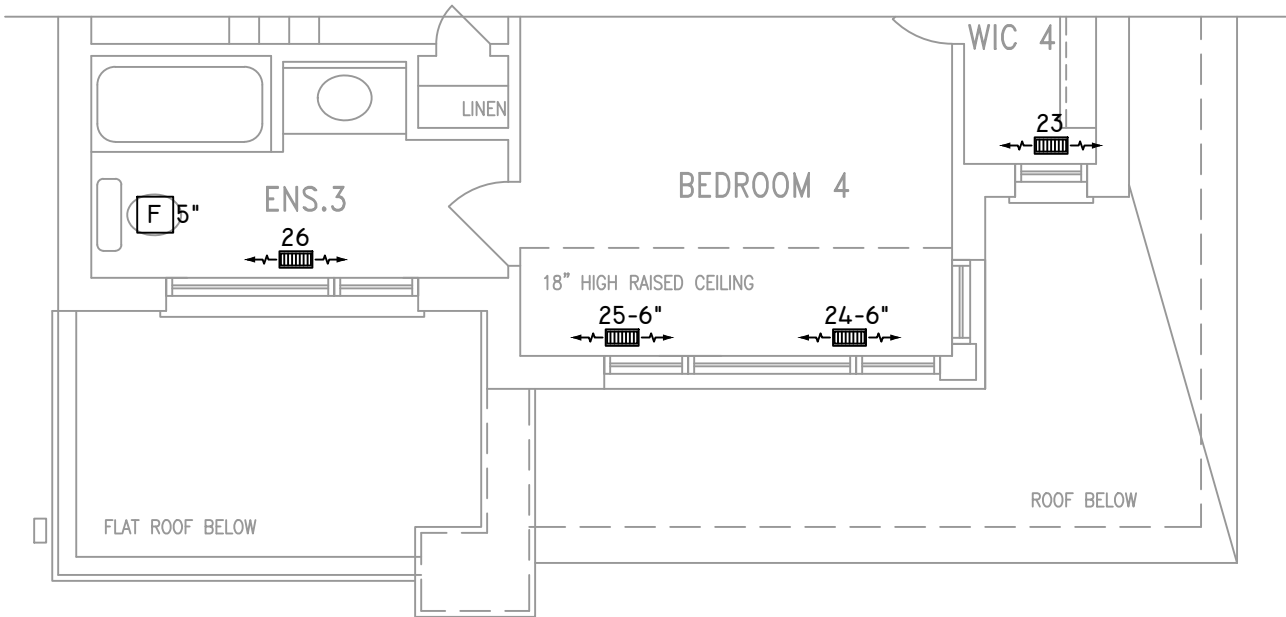
HEAT-LOSS	69,463	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

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

FLOOR PLAN: PARTIAL PLAN(S)	
DRAWN BY: JL	CHECKED: DD
LAYOUT NO. JB-08591	SQFT 3073
DRAWING NO. M4	

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-19 - WOB
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

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



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

QUALIFICATION INFORMATION

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

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

SIGNATURE OF DESIGNER

OBC 2012

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

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

**GTADESIGNS**

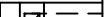
2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

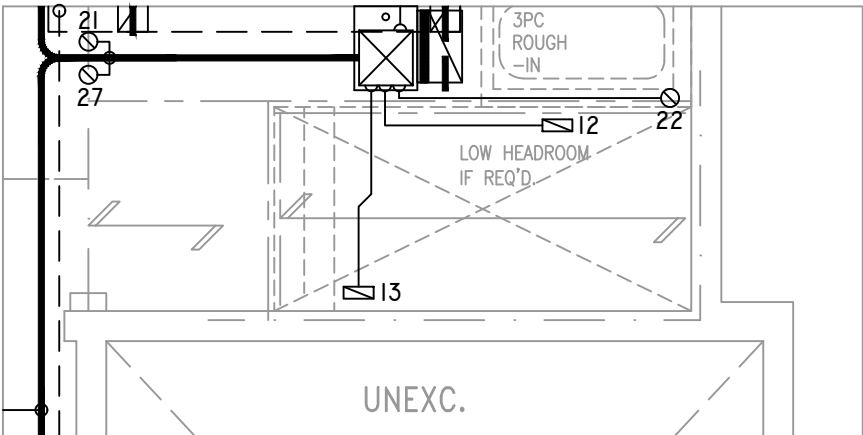
HEAT-LOSS	69,463	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

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

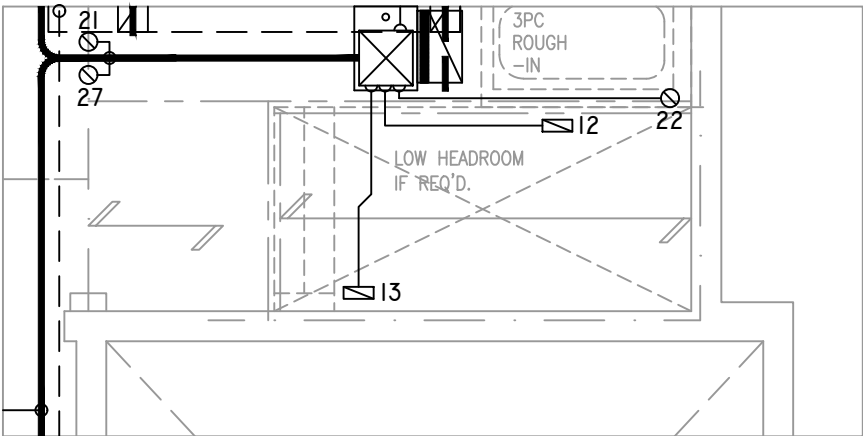
FLOOR PLAN: PARTIAL PLAN(S)	
DRAWN BY: JL	CHECKED: DD
LAYOUT NO. JB-08591	SQFT 3073
DRAWING NO. M5	

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-19 - WOB
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

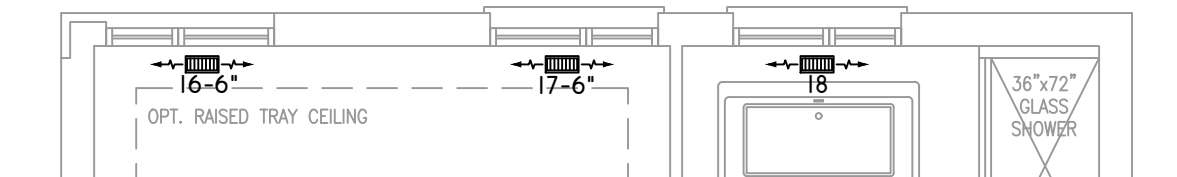
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



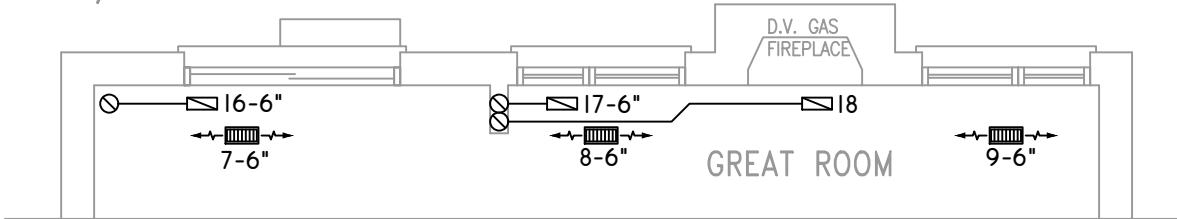
BASEMENT PLAN 'A','B' & 'C'
SUNKEN MUDROOM (-2R/-3R)



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



PARTIAL SECOND FLOOR PLAN 'C'
W/ REAR UPGRADE



PARTIAL GROUND FLOOR PLAN 'C'
W/ REAR UPGRADE

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

QUALIFICATION INFORMATION

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

DAVID DA COSTA



B.C.I.N. 32964

SIGNATURE OF DESIGNER

OBC 2012

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

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



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

HEAT-LOSS	69,463	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
1ST FLOOR	10	2	2
BASEMENT	5	1	

FLOOR PLAN: PARTIAL PLAN(S)	
DRAWN BY: JL	CHECKED: DD
LAYOUT NO. JB-08591	SQFT 3073
DRAWING NO. M6	

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-19 - WOB
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"