


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 Sonoma 4 SD25-4C Lot 154				Lot: 154	
Municipality Bradford				Postal code	Plan number/ other description
B. Individual who reviews and takes responsibility for design activities					
Name David DaCosta			Firm gtaDesigns Inc.		
Street address 2985 Drew Road, Suite 202				Unit no.	Lot/con.
Municipality Mississauga		Postal code L4T 0A4	Province Ontario	E-mail dave@gtadesigns.ca	
Telephone number (905) 671-9800		Fax number (647) 494-9643		Cell number (416) 268-6820	
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1 of Division C]					
<input type="checkbox"/> House		<input checked="" type="checkbox"/> HVAC – House		<input type="checkbox"/> Building Structural	
<input type="checkbox"/> Small Buildings		<input type="checkbox"/> Building Services		<input type="checkbox"/> Plumbing – House	
<input type="checkbox"/> Large Buildings		<input type="checkbox"/> Detection, Lighting and Power		<input type="checkbox"/> Plumbing – All Buildings	
<input type="checkbox"/> Complex Buildings		<input type="checkbox"/> Fire Protection		<input type="checkbox"/> On-site Sewage Systems	
Description of designer's work				Model Certification	Project #: PJ-00204
					Layout #: JB-04399
Heating and Cooling Load Calculations		Main		Builder	Bayview Wellington
Air System Design		Alternate x		Project	Green Valley East
Residential mechanical ventilation Design Summary		Area Sq ft: 2175		Model	Sonoma 4
Residential System Design per CAN/CSA-F280-12					SD25-4C Lot 154
Residential New Construction - Forced Air				SB-12	Package A1
D. Declaration of Designer					
<p>I, <u>David DaCosta</u> declare that (choose one as appropriate):</p> <p>(print name)</p> <p><input type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4 Division C of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.</p> <p>Individual BCIN: _____</p> <p>Firm BCIN: _____</p> <p><input checked="" type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5 of Division C, of the Building Code.</p> <p>Individual BCIN: <u>32964</u></p> <p>Basis for exemption from registration: <u>Division C 3.2.4.1. (4)</u></p> <p><input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code.</p> <p>Basis for exemption from registration and qualification:</p>					
<p>I certify that:</p> <p>1. The information contained in this schedule is true to the best of my knowledge.</p> <p>2. I have submitted this application with the knowledge and consent of the firm.</p>					
<p><u>February 15, 2018</u></p> <p>Date</p>			<p></p> <p>Signature of Designer</p>		

NOTE:

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

Heat loss and gain calculation summary sheet				CSA-F280-M12 Standard Form No. 1	
These documents issued for the use of 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-04399	
Building Location					
Address (Model): SD25-4C Lot 154			Site: Green Valley East		
Model: Sonoma 4			Lot: 154		
City and Province: Bradford			Postal code:		
Calculations based on					
Dimensional information based on:			VA3 Design Sept/2016		
Attachment: Semi			Front facing: East/West		Assumed? Yes
No. of Levels: 3		Ventilated? Included	Air tightness: 1961-Present (ACH=3.57)		Assumed? Yes
Weather location: Bradford			Wind exposure: Sheltered		
HRV? LifeBreath		RNC155	Internal shading: Light-translucent		Occupants: 5
Sensible Eff. at -25C 71%		Apparent Effect. at -0C 84%	Units: Imperial		Area Sq ft: 2175
Sensible Eff. at -0C 75%					
Heating design conditions			Cooling design conditions		
Outdoor temp -9.4 Indoor temp: 72 Mean soil temp: 48			Outdoor temp 86 Indoor temp: 75 Latitude: 44		
Above grade walls			Below grade walls		
Style A: As per OBC SB12 Package A1 R 22			Style A: As per OBC SB12 Package A1 R 20ci		
Style B: Existing Walls (When Applicable) R 12			Style B:		
Style C:			Style C:		
Style D:			Style D:		
Floors on soil			Ceilings		
Style A: As per Selected OBC SB12 Package A1			Style A: As per Selected OBC SB12 Package A1 R 60		
Style B:			Style B: As per Selected OBC SB12 Package A1 R 31		
Exposed floors			Style C:		
Style A: As per Selected OBC SB12 Package A1 R 31			Doors		
Style B:			Style A: As per Selected OBC SB12 Package A1 R 4.00		
Windows			Style B:		
Style A: As per Selected OBC SB12 Package A1 R 3.55			Style C:		
Style B: Existing Windows (When Applicable) R 1.99			Skylights		
Style C:			Style A: As per Selected OBC SB12 Package A1 R 2.03		
Style D:			Style B:		
Attached documents: As per Shedule 1		Heat Loss/Gain Caculations based on CSA-F280-12 Effective R-Values			
Notes: Residential New Construction - Forced Air					
Calculations performed by					
Name: David DaCosta			Postal code: L4T 0A4		
Company: gtaDesigns Inc.			Telephone: (905) 671-9800		
Address: 2985 Drew Road, Suite 202			Fax: (416) 268-6820		
City: Mississauga			E-mail dave@gtadesigns.ca		

Builder: **Bayview Wellington**

Date: **February 15, 2018**

Project: **Green Valley East**

Model: **Sonoma 4
SD25-4C Lot 154**

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

Page 3
Project # **PJ-00204**
Layout # **JB-04399**

DESIGN LOAD SPECIFICATIONS		AIR DISTRIBUTION & PRESSURE		FURNACE/AIR HANDLER DATA:		BOILER/WATER HEATER DATA:		A/C UNIT DATA:	
Level 1 Net Load	12,671 btu/h	Equipment External Static Pressure	0.5 "w.c.	Make	Amana	Make	Type	Amana	2.0 Ton
Level 2 Net Load	12,984 btu/h	Additional Equipment Pressure Drop	0.225 "w.c.	Model	AMEC96-0603BNA	Model		Cond.-----	2.0
Level 3 Net Load	12,434 btu/h	Available Design Pressure	0.275 "w.c.	Input Btu/h	60000	Input Btu/h		Coil -----	2.0
Level 4 Net Load	0 btu/h	Return Branch Longest Effective Length	300 ft	Output Btu/h	57600	Output Btu/h			
Total Heat Loss	38,088 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	23,330 btu/h	S/A Plenum Pressure	0.14 "w.c.	Water Temp	deg. F.	Blower DATA:			
Combo System HL + 10%	41,897 Btu/h	Heating Air Flow Proportioning Factor	0.0307 cfm/btuh	AFUE	96%	Blower Speed Selected:	W2	Blower Type	ECM
Building Volume Vb	25686 ft³	Cooling Air Flow Proportioning Factor	0.0413 cfm/btuh	Aux. Heat				(Brushless DC OBC 12.3.1.5.(2))	
Ventilation Load	1,118 Btu/h.	R/A Temp	70 deg. F.	SB-12 Package	Package A1	Heating Check	1170 cfm	Cooling Check	963 cfm
Ventilation PVC	79.5 cfm	S/A Temp	116 deg. F.			Selected cfm>	1170 cfm	Cooling Air Flow Rate	963 cfm
Supply Branch and Grill Sizing		Diffuser loss	0.01 "w.c.	Temp. Rise>>>	46 deg. F.				

	Level 1													Level 2												
S/A Outlet No.	1	2	3	4										5	6	7	8	9	10							
Room Use	BASE	BASE	BASE	BASE										KIT	KIT	LIV	DIN	PWD	FOY							
Btu/Outlet	3168	3168	3168	3168										2172	2172	1807	2956	740	3135							
Heating Airflow Rate CFM	97	97	97	97										67	67	56	91	23	96							
Cooling Airflow Rate CFM	11	11	11	11										109	109	89	75	17	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
Actual Duct Length	32	26	21	42										35	42	21	39	40	50							
Equivalent Length	120	100	70	120	70	70	70	70	70	70	70	70	70	110	100	80	160	140	110	70	70	70	70	70	70	
Total Effective Length	152	126	91	162	70	70	70	70	70	70	70	70	70	145	142	101	199	180	160	70	70	70	70	70	70	
Adjusted Pressure	0.09	0.10	0.14	0.08	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.09	0.09	0.13	0.07	0.07	0.08	0.19	0.19	0.19	0.19	0.19	0.19	
Duct Size Round	6	6	6	6										6	6	6	6	4	6							
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	
Trunk	D	D	A	C										D	D	B	B	C	C							

	Level 3									Level 4															
S/A Outlet No.	11	12	13	14	15	16	17	18	19																
Room Use	MAST	MAST	ENS	BED 4	BATH	BED 3	BED 2	BED 2	LAUN																
Btu/Outlet	1769	1769	1276	1230	965	2396	1443	1443	141																
Heating Airflow Rate CFM	54	54	39	38	30	74	44	44	4																
Cooling Airflow Rate CFM	68	68	34	47	27	83	50	50	27																
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
Actual Duct Length	42	66	56	39	42	72	59	61	28																
Equivalent Length	155	130	120	100	135	110	160	170	100	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	
Total Effective Length	197	196	176	139	177	182	219	231	128	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	
Adjusted Pressure	0.07	0.07	0.07	0.09	0.07	0.07	0.06	0.06	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	6	6	5	5	4	6	5	5	4																
Outlet Size	4x10	4x10	3x10	3x10	3x10	4x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	
Trunk	D	D	D	B	B	C	C	C	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	202	498	155	105	105	105					
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	13	26	41	61	57	58					
Equivalent Length	190	165	165	240	230	205	50	50	50	50	50
Total Effective Length	203	191	206	301	287	263	50	50	50	50	50
Adjusted Pressure	0.06	0.06	0.06	0.04	0.04	0.04	0.24	0.24	0.24	0.24	0.24
Duct Size Round	8.0	12.0	8.0	6.0	6.0	6.0					
Inlet Size	FLC	6	8	8	8	8					
" "	x	x	x	x	x	x	x	x	x	x	x
Inlet Size	9x6	30	14	14	14	14					
Trunk	Z	Z	Z	Y	Y	Y					

Return Trunk Duct Sizing				
Trunk	CFM	Press.	Round	Rect. Size
Drop	1170	0.04	18.0	24x12
Z	1170	0.04	18.0	30x10 24x12
Y	315	0.04	11.0	14x8 10x10
X				
W				
V				
U				
T				
S				
R				
Q				

Supply Trunk Duct Sizing				
Trunk	CFM	Press.	Round	Rect. Size
A	695	0.06	13.5	20x8 16x10
B	214	0.07	8.5	8x8
C	379	0.06	11.0	14x8 10x10
D	476	0.07	11.5	14x8 12x10
E				
F				
G				
H				
I				
J				
K				

2012 OBC

Builder: Bayview Wellington

Date: February 15, 2018

Project: Green Valley East

Model: Sonoma 4
SD25-4C Lot 154

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: 2175

Project # PJ-00204
Layout # JB-04399

Level 1

Run ft. exposed wall A	109	A	A	A	A	A	A	A	A	A	A	A	A
Run ft. exposed wall B	B	B	B	B	B	B	B	B	B	B	B	B	B
Ceiling height	3.9	AG	3.9	AG	3.9	AG	3.9	AG	3.9	AG	3.9	AG	3.9
Floor area	912	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area
Exposed Ceilings A	A	A	A	A	A	A	A	A	A	A	A	A	A
Exposed Ceilings B	B	B	B	B	B	B	B	B	B	B	B	B	B
Exposed Floors	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr
Gross Exp Wall A	429												
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	10.91														
East/West	3.55	22.93	27.35	13	298	356											
South	3.55	22.93	20.89	6	138	125											
WOB Windows	3.15	25.84	28.32														
Skylight	2.03	40.10	88.23														
Doors	4.00	20.35	2.75	21	427	58											
Net exposed walls A	21.12	3.85	0.52	389		203											
Net exposed walls B	14.49	5.62	0.76														
Exposed Ceilings A	59.22	1.37	0.64														
Exposed Ceilings B	22.86	3.56	1.66														
Exposed Floors	29.80	2.73	0.17														
Foundation Conductive Heatloss	On Grade () or Above ()			5313													
Total Conductive	Heat Loss			6176													
	Heat Gain				742												
Air Leakage	Heat Loss/Gain	1.0055	0.0356	6210		26											
Ventilation	Case 1		0.09														
	Case 2		14.07														
	Case 3	x	0.05														
	Heat Gain People			284		60											
Appliances Loads	1 = .25 percent																
Duct and Pipe loss			10%														
Level 1 HL Total	12,671		Total HL for per room	12671													
Level 1 HG Total	1,077		Total HG per room x 1.3			1077											

Level 2

Run ft. exposed wall A	35	A	15	A	30	A	6	A	22	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	B	B	B
Ceiling height	10.0		10.0		10.0		10.0		11.0		10.0		10.0		10.0	
Floor area	294	Area	250	Area	268	Area	33	Area	62	Area	Area	Area	Area	Area	Area	Area
Exposed Ceilings A	A	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	B	B	B
Exposed Floors	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr
Gross Exp Wall A	350		150		300		60		242							
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	10.91														
East/West	3.55	22.93	27.35	55	1261	1504				24	550	656					
South	3.55	22.93	20.89	16	367	334	28	642	585	32	734	668	12	275	251	12	275
Existing Windows	1.99	40.90	22.15														
Skylight	2.03	40.10	88.23														
Doors	4.00	20.35	2.75														
Net exposed walls A	17.03	4.78	0.65	279	1334	180	122	583	79	268	1281	173	48	229	31	185	884
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	22.86	3.56	1.66														
Exposed Floors	29.80	2.73	0.17														
Foundation Conductive Heatloss	On Grade () or Above ()																
Total Conductive	Heat Loss			2962				1232			2015			505		2137	
	Heat Gain				2019			667			841			282		1084	
Air Leakage	Heat Loss/Gain	0.4210	0.0356	1247		72		519		24	848		30	212		900	
Ventilation	Case 1		0.04														
	Case 2		14.07														
	Case 3	x	0.05														
	Heat Gain People			136		164		57		54	93		69	23		98	
Appliances Loads	1 = .25 percent																
Duct and Pipe loss			10%														
Level 2 HL Total	12,984		Total HL for per room	4345		5301		1807		2153	2956		1814	740		3135	
Level 2 HG Total	11,252		Total HG per room x 1.3											409		1575	

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

Total Heat Loss	38,088	btu/h
Total Heat Gain	23,330	btu/h

2012 OBC	Builder: Bayview Wellington	Date: February 15, 2018	System 1	Weather Data	Bradford	44	-9.4	86	22	48.2		Page 5
	Project: Green Valley East	Model: Sonoma 4 SD25-4C Lot 154		Heat Loss ^T	81.4 deg. F	Ht gain ^T	11 deg. F	GTA:	2175	Project # Layout #	PJ-00204 JB-04399	

Level 3				MAST		ENS		BED 4		BATH		BED 3		BED 2		LAUN											
Run ft. exposed wall A	31	A				10	A	9	A	8	A	24	A	12	A	A	A	A	A	A	A	A	A				
Run ft. exposed wall B	B					B		B		B		B		B		B	B	B	B	B	B	B	B				
Ceiling height	8.0					9.0		9.0		8.0		8.0		10.0		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0				
Floor area	331	Area				103	Area	109	Area	74	Area	136	Area	220	Area	78	Area	Area	Area	Area	Area	Area	Area				
Exposed Ceilings A	331	A				103	A	109	A	74	A	136	A	220	A	78	A	A	A	A	A	A	A				
Exposed Ceilings B	B					B		B		B		B		B		B	B	B	B	B	B	B	B				
Exposed Floors	Flr					Flr		Flr		Flr		4	Flr	147	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr				
Gross Exp Wall A	248					90		81		64		192		120													
Gross Exp Wall B																											
Components				R-Values	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain			
North Shaded				3.55	22.93	10.91																					
East/West				3.55	22.93	27.35	45	1032	1231				26	596	711	40	917	1094									
South				3.55	22.93	20.89	13	298	272	22	504	459	22	504	459	18	413	376									
Existing Windows				1.99	40.90	22.15																					
Skylight				2.03	40.10	88.23																					
Doors				4.00	20.35	2.75																					
Net exposed walls A				17.03	4.78	0.65	190	908	123	68	325	44	59	282	38	46	220	30	153	731	99	80	382	52			
Net exposed walls B				8.50	9.58	1.29																					
Exposed Ceilings A				59.22	1.37	0.64	331	455	212	103	142	66	109	150	70	74	102	47	136	187	87	220	302	141	78	107	50
Exposed Ceilings B				22.86	3.56	1.66																					
Exposed Floors				29.80	2.73	0.17													4	11	1	147	402	25			
Foundation Conductive Heatloss																											
Total Conductive				Heat Loss			2693				971		936		734		1823		2004		107						
				Heat Gain				1838			569		568		453		1169		1312		50						
Air Leakage				Heat Loss/Gain	0.2680	0.0356	722	65			260	20	251	20	197	16	489	42	537	47	29	2					
Ventilation				Case 1		0.02																					
				Case 2		14.07																					
				Case 3	x	0.05																					
Heat Gain People						239	2	124	150		45	46	1	43	46	34	37		84	95		92	107	5	4		
Appliances Loads				1 =.25 percent		3645																					
Duct and Pipe loss						10%															0.5		456				
Level 3 HL Total				12,434		Total HL for per room	3539			1276		1230		965		2396		1	254	155		141					
Level 3 HG Total				11,001		Total HG per room x 1.3		3290		827		1135		658		2009			2417				665				

Level 4				MAST		ENS		BED 4		BATH		BED 3		BED 2		LAUN							
Run ft. exposed wall A	A					A		A		A		A		A		A	A	A	A	A	A	A	A
Run ft. exposed wall B	B					B		B		B		B		B		B	B	B	B	B	B	B	B
Ceiling height																							
Floor area	Area					Area		Area		Area		Area		Area		Area	Area	Area	Area	Area	Area	Area	Area
Exposed Ceilings A	A					A		A		A		A		A		A	A	A	A	A	A	A	A
Exposed Ceilings B	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	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
North Shaded	3.55	22.93	10.91																				
East/West	3.55	22.93	27.35																				
South	3.55	22.93	20.89																				
Existing Windows	1.99	40.90	22.15																				
Skylight	2.03	40.10	88.23																				
Doors	4.00	20.35	2.75																				
Net exposed walls A	17.03	4.78	0.65																				
Net exposed walls B	8.50	9.58	1.29																				
Exposed Ceilings A	59.22	1.37	0.64																				
Exposed Ceilings B	22.86	3.56	1.66																				
Exposed Floors	29.80	2.73	0.17																				
Foundation Conductive Heatloss																							
Total Conductive																							
Heat Loss																							
Heat Gain																							
Air Leakage	Heat Loss/Gain	0.0000	0.0356																				
Ventilation	Case 1		0.00																				
Case 2			14.07																				
Case 3	x		0.05																				
Heat Gain People			239																				
Appliances Loads	1 =.25 percent		3645																				
Duct and Pipe loss			10%																				
Level 4 HL Total	0		Total HL for per room																				
Level 4 HG Total	0		Total HG per room x 1.3																				

Total Heat Loss	38,088	btu/h
Total Heat Gain	23,330	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

David DaCosta

Package: Package A1
Project: Bradford
Model: SD25-4C Lot 154

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

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

Location of Installation

Lot #	Plan #
Township	Bradford
Roll #	Permit #
Address	

Builder

Name	Bayview Wellington
Address	
City	
Tel	Fax

Installing Contractor

Name	
Address	
City	
Tel	Fax

Combustion Appliances 9.32.3.1(1)

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

Heating System

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

House Type 9.32.3.1(2)

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

System Design Option

- | | | |
|---|-------------------------------------|---|
| 1 | <input type="checkbox"/> | Exhaust only / forced air system |
| 2 | <input type="checkbox"/> | HRV WITH DUCTING / forced air system |
| 3 | <input checked="" type="checkbox"/> | HRV simplified connection to forced air system |
| 4 | <input type="checkbox"/> | HRV full ducting/not coupled to forced air system |
| | <input type="checkbox"/> | 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	4 @ 10.6 cfm	42.4 cfm
Other rooms	4 @ 10.6 cfm	42.4 cfm
Total		<u>159</u>

Principal Ventilation Capacity 9.32.3.4(1)

Master bedroom	1 @ 31.8 cfm	31.8 cfm
Other bedrooms	3 @ 15.9 cfm	47.7 cfm
Total		<u>79.5</u>

Principal Exhaust Fan Capacity

Make	Model	Location
LifeBreath	RNC155	Base
132 cfm		Sones or Equiv.

Heat Recovery Ventilator

Make	LifeBreath
Model	RNC155
	132 cfm high
	80 cfm low
Sensible efficiency @ -25 deg C	71%
Sensible efficiency @ 0 deg C	75%

Note: Installer to balance HRV/ERV to within 10 percent of PVC

Supplemental Ventilation Capacity

Total ventilation capacity	159.0
Less principal exhaust capacity	79.5
REQUIRED supplemental vent. Capacity	<u>79.5</u> cfm

Supplemental Fans 9.32.3.5.

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

all fans HVI listed Make Broan or Equiv.

Designer Certification

I hereby certify that this ventilation system has been designed in accordance with the Ontario Building Code.

Name David DaCosta

Signature *David DaCosta*

HRAI # 5190 BCIN # 32964

Date February 15, 2018



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

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

Page 7
 Project # PJ-00204
 Layout # JB-04399

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 Sonoma 4 SD25-4C Lot 154		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): Package A1 Table: 3.1.1.2.A

C. Project Design Conditions

Climatic Zone (SB-1):	Heat. Equip. Efficiency	Space Heating Fuel Source		
<input checked="" type="checkbox"/> Zone 1 (< 5000 degree days) <input type="checkbox"/> Zone 2 (≥ 5000 degree days)	<input checked="" type="checkbox"/> ≥ 92% AFUE <input type="checkbox"/> ≥ 84% < 92% AFUE	<input checked="" type="checkbox"/> Gas <input type="checkbox"/> Oil	<input type="checkbox"/> Propane <input type="checkbox"/> Electric	<input type="checkbox"/> Solid Fuel <input type="checkbox"/> Earth Energy
Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area		Other Building Characteristics		
Area of Walls = <u>311.25</u> m ² or <u>3350.2</u> ft ²	W, S & G % = <u>12%</u>	<input type="checkbox"/> Log/Post&Beam <input type="checkbox"/> Slab-on-ground <input checked="" type="checkbox"/> Air Conditioning <input type="checkbox"/> Air Sourced Heat Pump (ASHP) <input type="checkbox"/> Ground Source Heat Pump (GSHP)		
Area of W, S & G = <u>36.881</u> m ² or <u>397.0</u> ft ²	Utilize Window Averaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> ICF Above Grade <input type="checkbox"/> Walkout Basement <input type="checkbox"/> Combo Unit		

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

Energy Efficiency Substitutions			
<input type="checkbox"/> ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5)) <input type="checkbox"/> Combined space heating and domestic water heating systems (3.1.1.2(7) / 3.1.1.3.(7))			
<input type="checkbox"/> Airtightness substitution(s) Airtightness test required (Refer to Design Guide Attached)	<input type="checkbox"/> Table 3.1.1.4.B Required:		Permitted Substitution:
	<input type="checkbox"/> Table 3.1.1.4.C Required:		Permitted Substitution:
Building Component	Minimum RSI/R-Values or Maximum U-Value ¹		Efficiency Ratings
Thermal Insulation	Nominal	Effective	Windows & Doors Provide U-Value ⁽¹⁾ or ER rating
Ceiling with Attic Space	60		Windows/Sliding Glass Doors 1.6
Ceiling without Attic Space	31		Skylights 2.8
Exposed Floor	31		Mechanicals
Walls Above Grade	22		Heating Equip.(AFUE) 96%
Basement Walls	20.0ci		HRV Efficiency (SRE% at 0°C) 75%
Slab (all >600mm below grade)	x		DHW Heater (EF) 0.80
Slab (edge only ≤600mm below grade)	10		DWHR (CSA B55.1 (min. 42% efficiency)) #Showers 2
Slab (all ≤600mm below grade, or heated)	10		Combined Heating System

(1) U value to be provided in either W/(m²·K) or Btu/(h·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 SD25-4C Lot 154

Air Leakage Calculations

Building Air Leakage Heat Loss				
B	LRairh	Vb	HL^T	HLleak
0.018	0.330	25686	81.4	12421

Building Air Leakage Heat Gain				
B	LRairh	Vb	HG^T	HG Leak
0.018	0.081	25686	11	413

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	12421	6176	1.0055
Level 2	0.3		8850	0.4210
Level 3	0.2		9269	0.2680
Level 4	0		0	0.0000

Levels			
1	2	3	4
(LF)	(LF)	(LF)	(LF)
1.0	0.6	0.5	0.4
	0.4	0.3	0.3
		0.2	0.2
			0.1

HG LEAK		Air Leakage Heat Gain	
	413		0.0356
BUILDING CONDUCTIVE HEAT GAIN		11593	

Levels this Dwelling	
3	

Ventilation Calculations

Ventilation Heat Loss

Ventilation Heat Loss				
C	PVC	HL^T	(1-E) HRV	HLbvent
1.08	79.5	81.4	0.16	1118

Ventilation Heat Gain

Ventilation Heat Gain			
C	PVC	HG^T	HGbvent
1.1	79.5	11	944

Case 1

Ventilation Heat Loss (Exhaust only Systems)

Case 1 - Exhaust Only				
Level	LF	HLbvent	LVL Cond. HL	Multiplier
Level 1	0.5	1118	6176	0.09
Level 2	0.3		8850	0.04
Level 3	0.2		9269	0.02
Level 4	0		0	0.00

Case 1

Ventilation Heat Gain (Exhaust Only Systems)

Case 1 - Exhaust Only		Multiplier	
HGbvent	944	0.08	
Building	11593		

Case 2

Ventilation Heat Loss (Direct Ducted Systems)

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

Case 2

Ventilation Heat Gain (Direct Ducted Systems)

C	HG^T	Multiplier
1.08	11	11.88

Case 3

Ventilation Heat Loss (Forced Air Systems)

HLbvent		Multiplier
Total Ventilation Load	1118	0.05

Case 3

Ventilation Heat Gain (Forced Air Systems)

Vent Heat Gain		Multiplier
HGbvent	HG*1.3	0.08
944	1	

Foundation Conductive Heatloss Level 1

1557 Watts 5313 Btu/h

Foundation Conductive Heatloss Level 2

Watts Btu/h

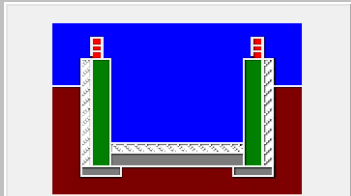
Envelope Air Leakage Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario ▼			
Region:	Bradford ▼			
Weather Station Location:	Open flat terrain, grass ▼			
Anemometer height (m):	10			
Local Shielding				
Building Site:	Suburban, forest ▼			
Walls:	Heavy ▼			
Flue:	Heavy ▼			
Highest Ceiling Height (m):	6.69			
Building Configuration				
Type:	Semi-Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	727.43			
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):		0.330		
Cooling Air Leakage Rate (ACH/H):		0.081		

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):	18.00	 <p>Insulation Configuration</p>
Floor Width (m):	4.71	
Exposed Perimeter (m):	33.22	
Wall Height (m):	2.74	
Depth Below Grade (m):	1.54	
Window Area (m ²):	1.77	
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):		1557

12-6" 6-6" 5-6" 1-6" 2-6" 11-6" 13 2R 3R 11-6" D - 14 X 8 13 2-6" UNFINISHED BASEMENT 1R-8" FLC OR 9X6 A 20 X 8 HRV P.E. HRV LIFE BREATH RNC155 132 CFM @ .4 W.C. Z - 30 X 10 OR 24 X 12 DROP - 24 X 12 7-6" 14 15 8-6" 3-6" Y - 14 X 8 UP 14R LOW HEADROOM C - 14 X 8 9 4R-6" 5R-6" 6R-6" 18 4-6" LOW HEADROOM UNEX. 10-6" 16-6" COLD CELLAR UNEXCAVATED (REMOVE TOP SOIL ONLY)

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

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

INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. R12

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

OPTIONAL TIMER/CONTROL CAREFULLY INSULATE DUCTS ON COLD SIDE OF SYSTEM STALE AIR FROM KITCHEN AND BATHROOM STALE AIR EXHAUST FRESH AIR INLET FURNACE OR AIR HANDLER RETURN AIR FRESH AIR TO LIVING SPACE AND BEDROOMS OPTION 3 HEAT EXCHANGE CORE SIMPLIFIED CONNECTION TO FURNACE AIR SYSTEM HRV DIAGRAM OPTION 3

BASEMENT PLAN 'A' CORNER UPGRADE—LOT 154

OBC 2012

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



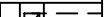













REQUIRED UNLESS DESIGN IS EXEMPT UNDER DIVISION C 3.2.5.1 OF THE ONTARIO BUILDING CODE

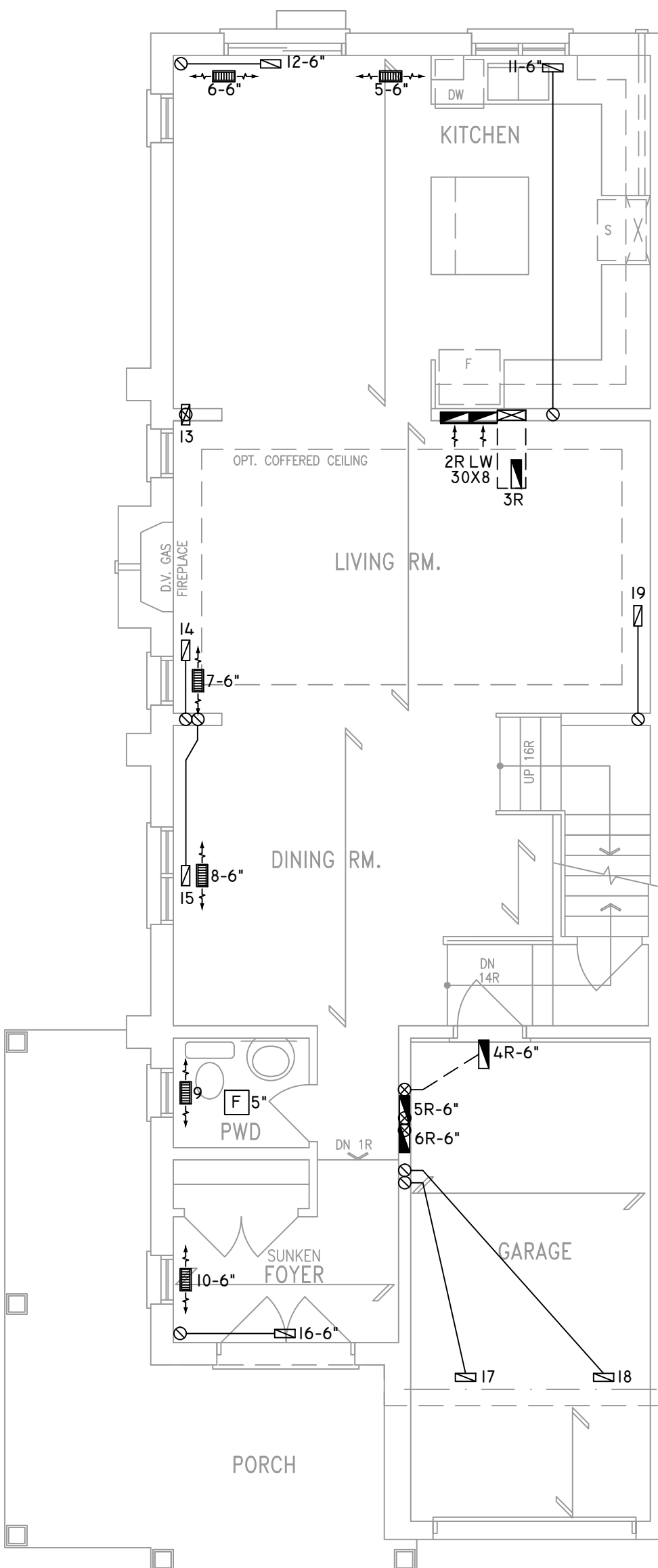
DAVID DA COSTA *David Da Costa* B.C.I.N. 32964

SIGNATURE OF DESIGNER

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

--	--	--	--	--	--

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



KITCHEN EXHAUST
100 CFM MIN. 6"

CIRCULATION PRINCIPAL
FAN SWITCH
TO BE CENTRALLY
LOCATED

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

INSULATE ALL DUCTS IN
UNCONDITIONED
SPACES MIN. R12

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

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

QUALIFICATION INFORMATION

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

DAVID DA COSTA



B.C.I.N. 32964

SIGNATURE OF DESIGNER

GROUND FLOOR PLAN 'A'
CORNER UPGRADE-LOT 154

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.





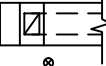













2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

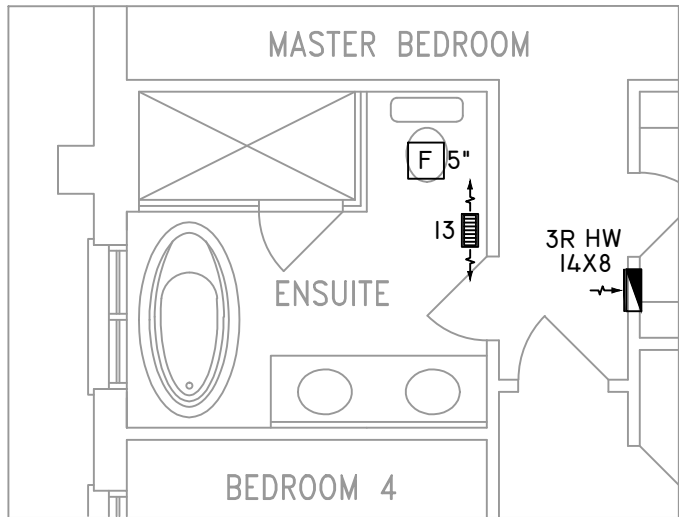
HEAT-LOSS	BTU/HR.
57,600	
UNIT MAKE	OR EQUAL.
AMANA	
UNIT MODEL	OR EQUAL.
AMEC96-0603BNA	
UNIT HEATING INPUT	BTU/HR.
60,000	
UNIT HEATING OUTPUT	BTU/HR.
57,600	
A/C COOLING CAPACITY	TONS.
2.0	
FAN SPEED	CFM
1170	

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	9	4	2
1ST FLOOR	6	1	2
BASEMENT	4	1	

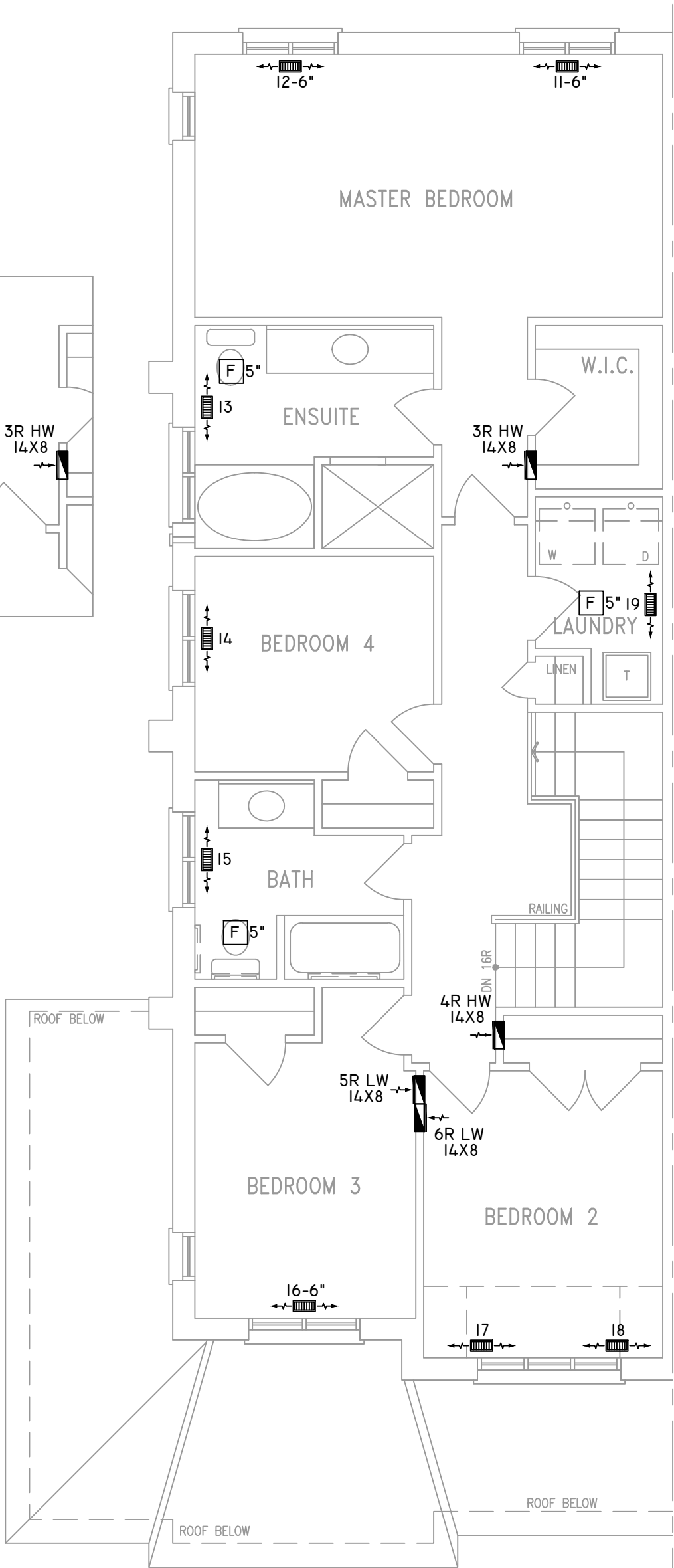
FLOOR PLAN:	
GROUND FLOOR	
DRAWN BY:	CHECKED:
AM	DD
LAYOUT NO.	DRAWING NO.
JB-04399	M2

DATE:	FEBRUARY 14, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	SD25-4C LOT 154 SONOMA 4
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

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



OPT. SECOND FLR. W/
ALT. ENSUITE LAYOUT



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

INSULATE ALL DUCTS IN
UNCONDITIONED
SPACES MIN. R12

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

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

QUALIFICATION INFORMATION

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

DAVID DA COSTA



B.C.I.N. 32964

SIGNATURE OF DESIGNER

SECOND FLOOR PLAN 'A'
CORNER UPGRADE-LOT 154

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.





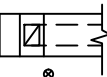













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L4T 0A4 TEL: 905-671-9800
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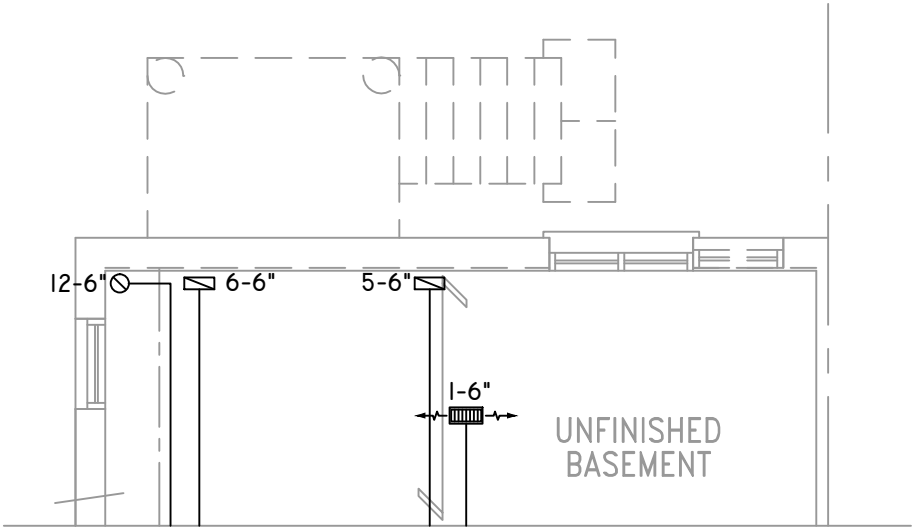
HEAT-LOSS	38,088	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC96-0603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.0	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	9	4	2
1ST FLOOR	6	1	2
BASEMENT	4	1	

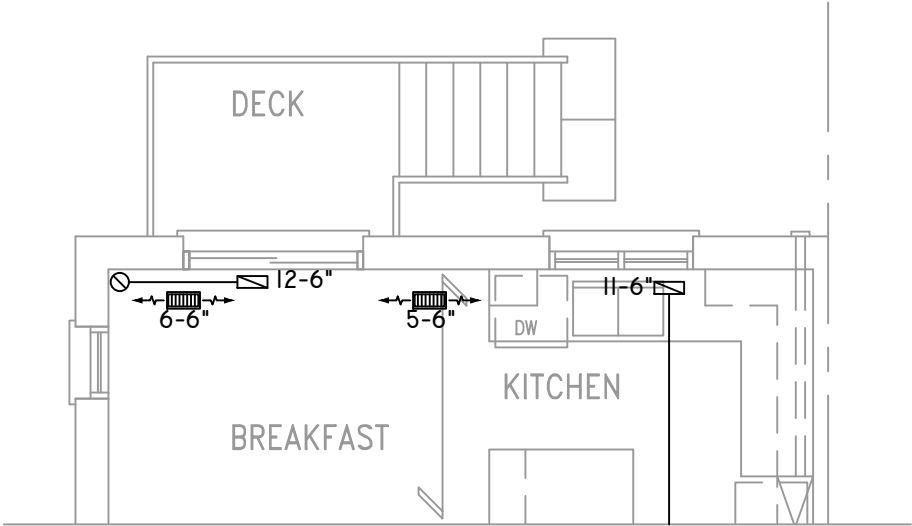
FLOOR PLAN: SECOND FLOOR		
DRAWN BY: AM	CHECKED: DD	SQFT 2175
LAYOUT NO. JB-04399	DRAWING NO. M3	

DATE: FEBRUARY 14, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: SD25-4C LOT 154 SONOMA 4
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 BASEMENT PLAN 'A'
WOD 9R COND




PARTIAL GROUND FLOOR PLAN 'A'
WOD 9R COND

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

QUALIFICATION INFORMATION

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

DAVID DA COSTA



B.C.I.N. 32964

SIGNATURE OF DESIGNER

OBC 2012

ZONE 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.
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WEB: WWW.GTADESIGNS.CA

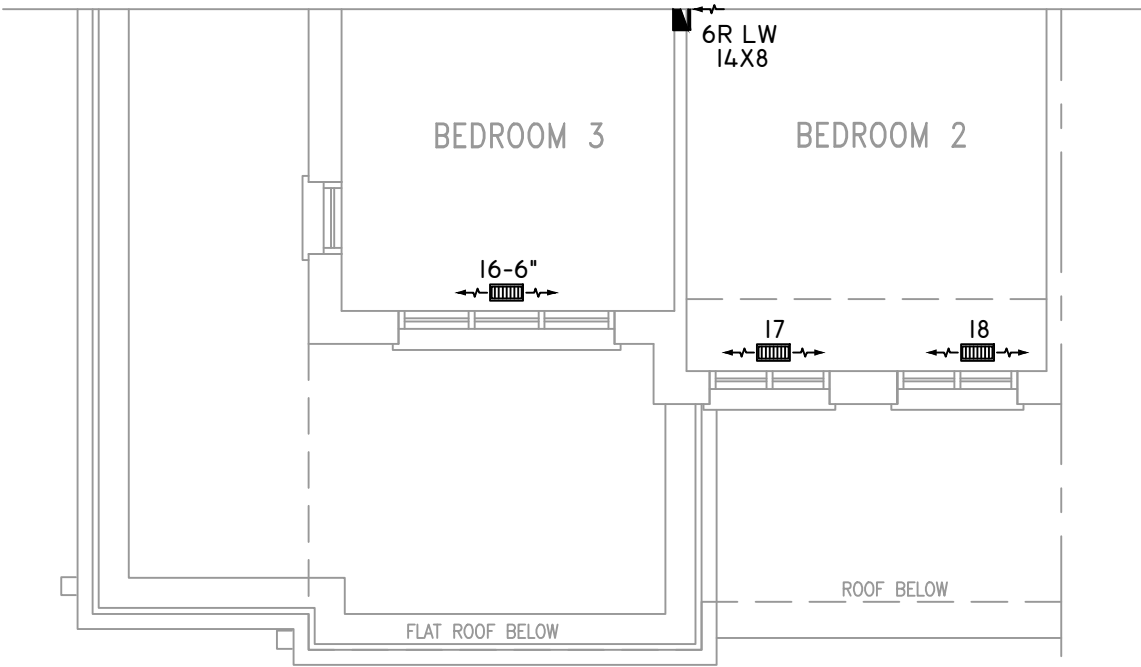
HEAT-LOSS	38,088	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC96-0603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.0	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	9	4	2
1ST FLOOR	6	1	2
BASEMENT	4	1	

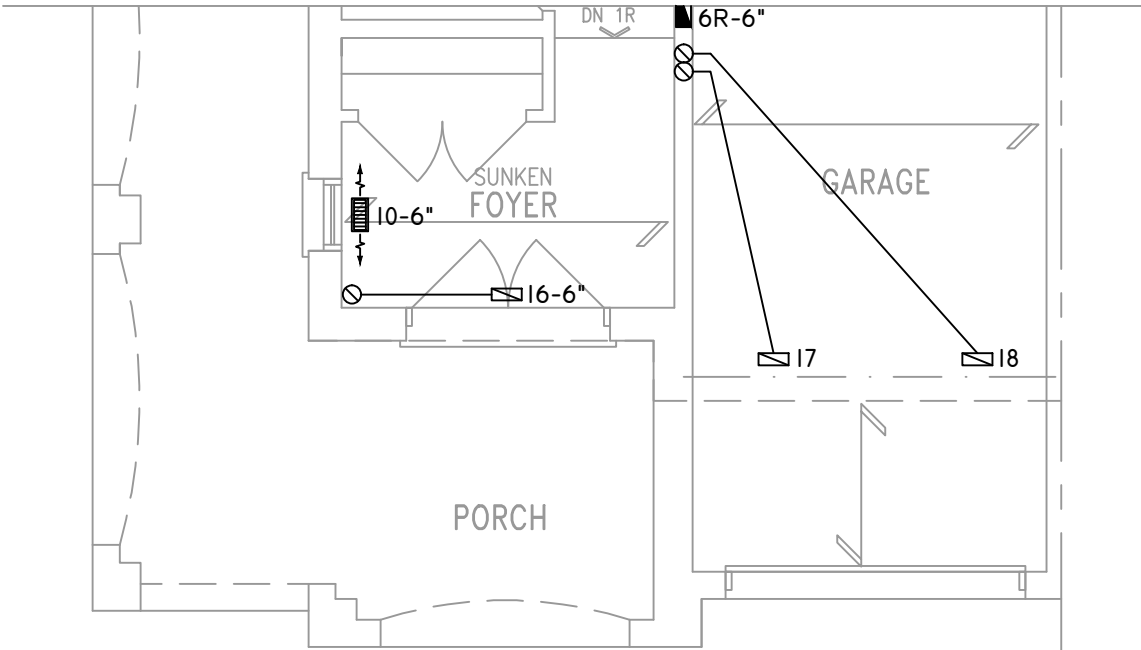
FLOOR PLAN:	
PARTIAL PLAN(S)	
DRAWN BY: AM	CHECKED: DD
LAYOUT NO. JB-04399	SQFT 2175
DRAWING NO. M4	

DATE:	FEBRUARY 14, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	SD25-4C LOT 154 SONOMA 4
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

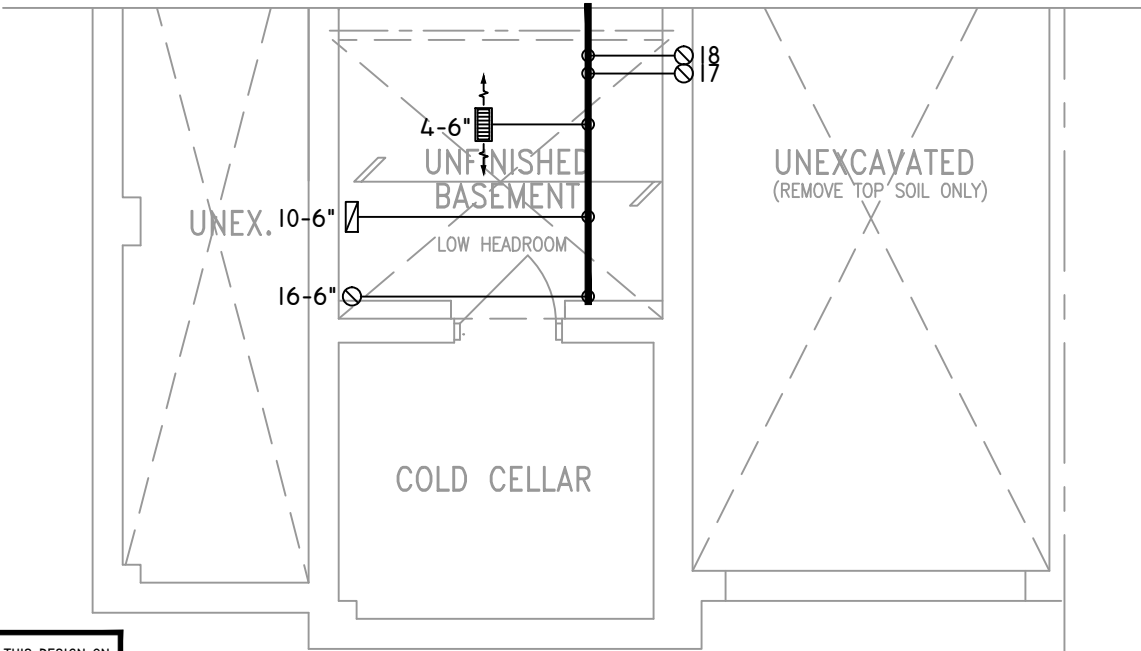
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



SECOND FLOOR PLAN 'B'
CORNER UPGRADE-LOT 154



GROUND FLOOR PLAN 'B'
CORNER UPGRADE-LOT 154




BASEMENT PLAN 'B'
CORNER UPGRADE-LOT 154

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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
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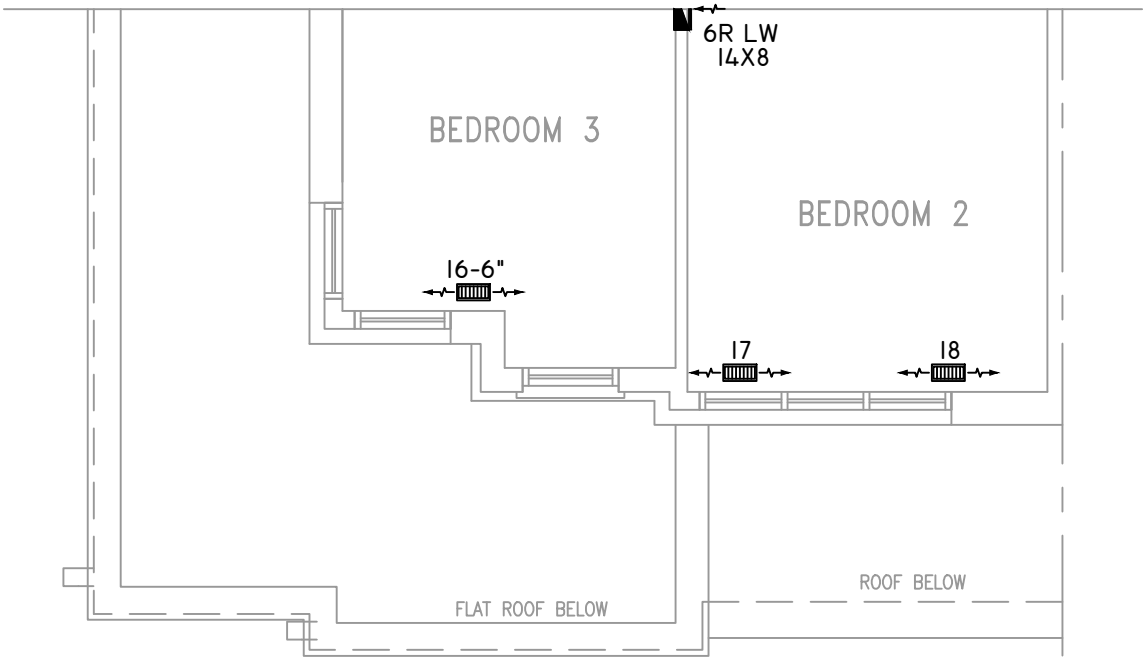
HEAT-LOSS	BTU/HR.
38,088	
UNIT MAKE	OR EQUAL.
AMANA	
UNIT MODEL	OR EQUAL.
AMEC96-0603BNA	
UNIT HEATING INPUT	BTU/HR.
60,000	
UNIT HEATING OUTPUT	BTU/HR.
57,600	
A/C COOLING CAPACITY	TONS.
2.0	
FAN SPEED	CFM
1170	

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	9	4	2
1ST FLOOR	6	1	2
BASEMENT	4	1	

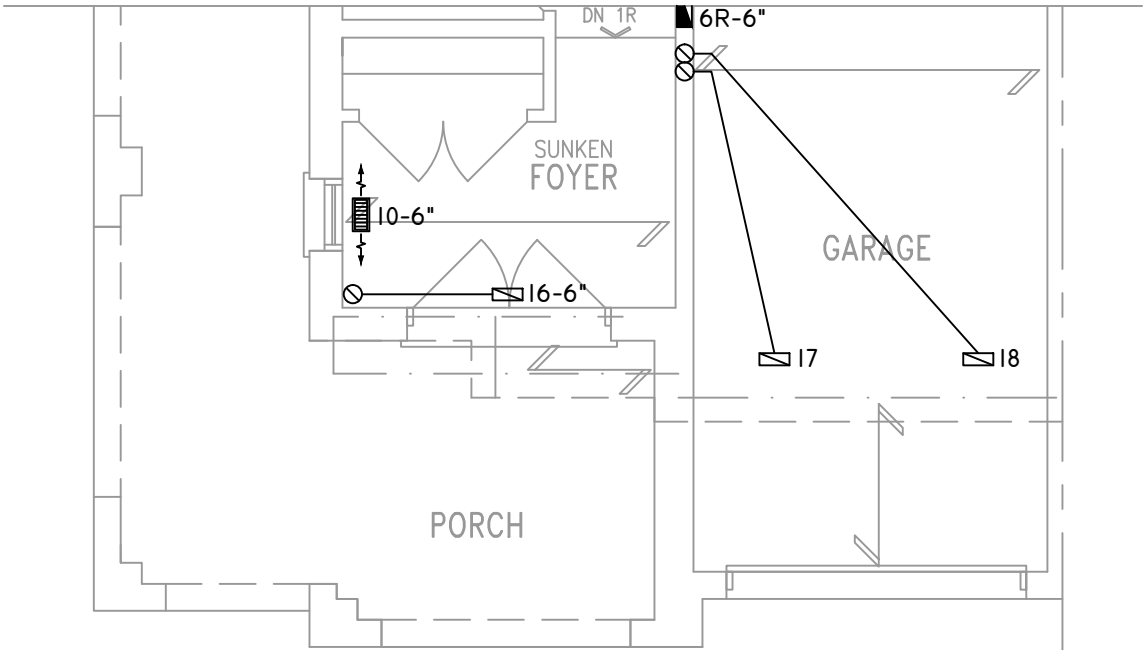
FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AM	CHECKED: DD	SQFT 2175
LAYOUT NO. JB-04399	DRAWING NO. M5	

DATE:	FEBRUARY 14, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	SD25-4C LOT 154 SONOMA 4
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

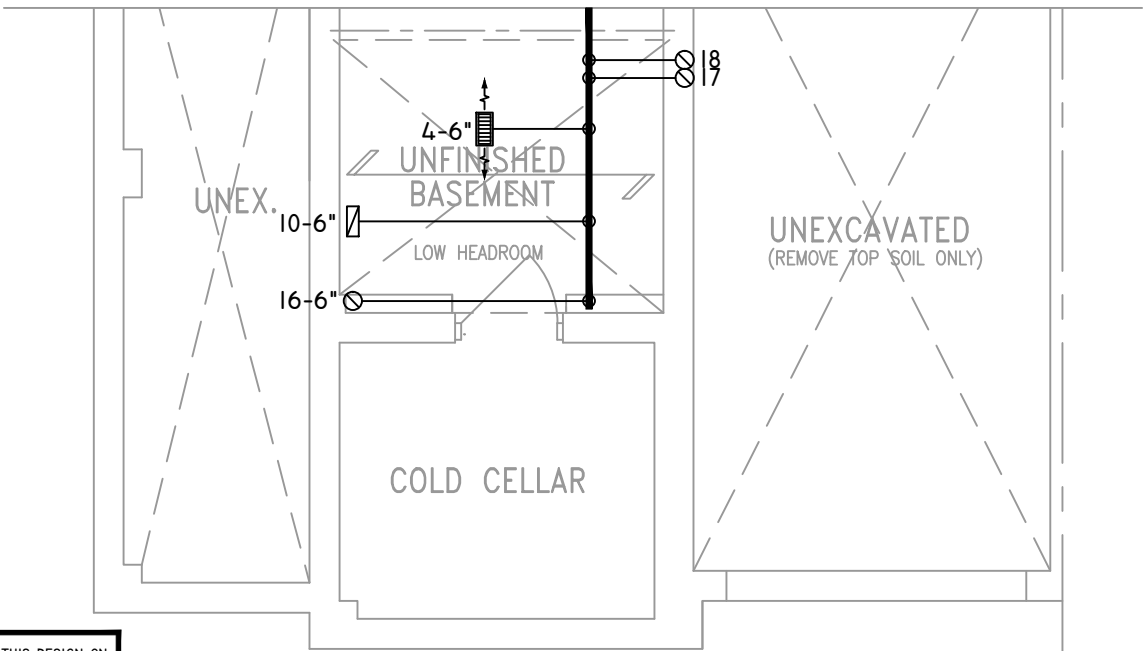
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



SECOND FLOOR PLAN 'C'
CORNER UPGRADE-LOT 154



GROUND FLOOR PLAN 'C'
CORNER UPGRADE-LOT 154



BASEMENT PLAN 'C'
CORNER UPGRADE-LOT 154

OBC 2012

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

SIGNATURE OF DESIGNER

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

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.

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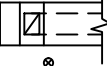







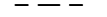

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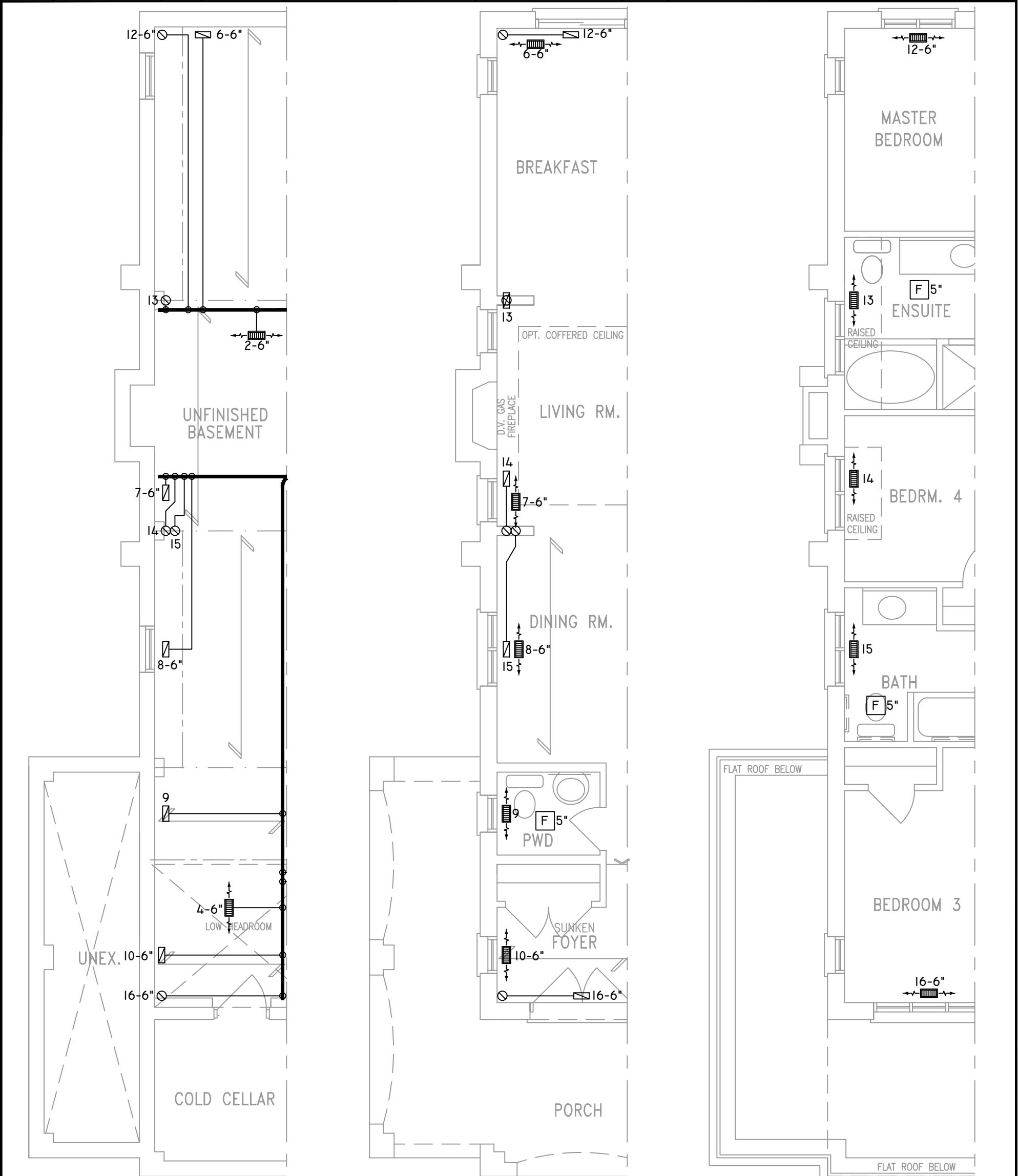
HEAT-LOSS	BTU/HR.
38,088	
UNIT MAKE	OR EQUAL.
AMANA	
UNIT MODEL	OR EQUAL.
AMEC96-0603BNA	
UNIT HEATING INPUT	BTU/HR.
60,000	
UNIT HEATING OUTPUT	BTU/HR.
57,600	
A/C COOLING CAPACITY	TONS.
2.0	
FAN SPEED	CFM
1170	

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	9	4	2
1ST FLOOR	6	1	2
BASEMENT	4	1	

FLOOR PLAN:		
PARTIAL PLAN(S)		
DRAWN BY:	CHECKED:	SQFT
AM	DD	2175
LAYOUT NO.	DRAWING NO.	
JB-04399	M6	

DATE:	FEBRUARY 14, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	SD25-4C LOT 154 SONOMA 4
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. R.A. T \$ F PE	SUPPLY AIR RETURN AIR THERMOSTAT PRINCIPAL EXHAUST FAN SWITCH W/R & PRINCIPAL EXHAUST FAN
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE		
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT SECOND FLOOR		



BASEMENT PLAN 'B' GROUND FLOOR PLAN 'B' SECOND FLOOR PLAN 'B'

CORNER UPGRADE—LOT 154 CORNER UPGRADE—LOT 154 CORNER UPGRADE—LOT 154

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DAVID DA COSTA *David Da Costa* B.C.I.N. 32964

SIGNATURE OF DESIGNER

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

NOTES

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GTADESIGNS



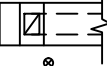













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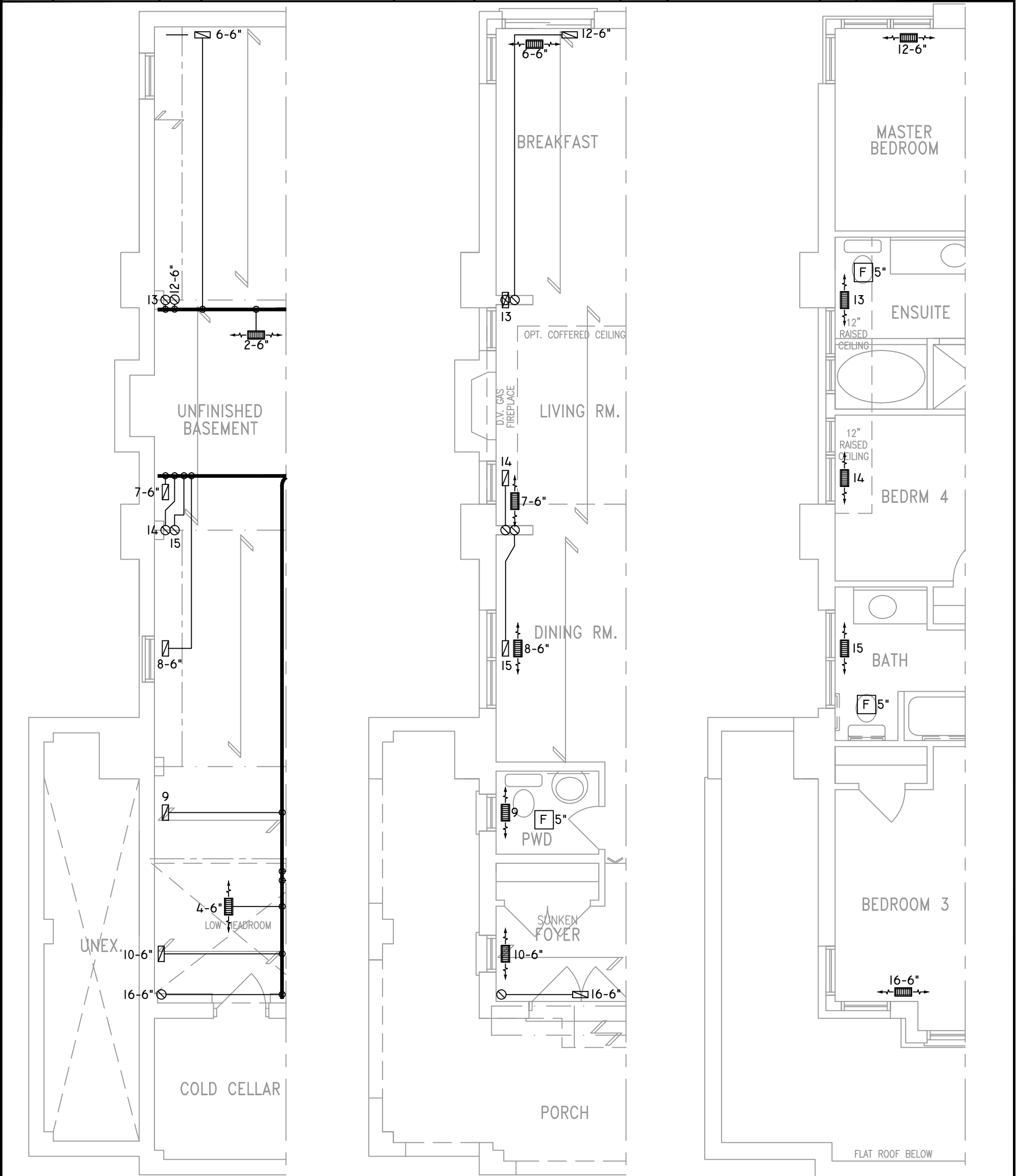
HEAT-LOSS	38,088	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC96-0603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.0	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	9	4	2
1ST FLOOR	6	1	2
BASEMENT	4	1	

FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AM	CHECKED: DD	SQFT 2175
LAYOUT NO. JB-04399	DRAWING NO. M7	

DATE: FEBRUARY 14, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: SD25-4C LOT 154 SONOMA 4
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 'C'

GROUND FLOOR PLAN 'C'

SECOND FLOOR PLAN 'C'

CORNER UPGRADE-LOT 154

CORNER UPGRADE-LOT 154

CORNER UPGRADE-LOT 154

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DAVID DA COSTA



B.C.I.N. 32964

SIGNATURE OF DESIGNER

ZONE I COMPLIANCE

PACKAGE "A1" REF. TABLE 3.1.1.2.A

NOTES

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HEAT-LOSS	38,088	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC96-0603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.0	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	9	4	2
1ST FLOOR	6	1	2
BASEMENT	4	1	

FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AM	CHECKED: DD	SQFT 2175
LAYOUT NO. JB-04399	DRAWING NO. M8	

DATE: FEBRUARY 14, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: SD25-4C LOT 154 SONOMA 4
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"