

Schedule 1: Designer Information

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

A. Project Information			
Building number, street name		Unit no.	Lot/con.
Municipality BRAMPTON	Postal code	Plan number/ other description	
B. Individual who reviews and takes responsibility for design activities			
Name MICHAEL O'ROURKE		Firm HVAC DESIGNS LTD.	
Street address 375 FINLEY AVE		Unit no. 202	Lot/con. N/A
Municipality AJAX	Postal code L1S 2E2	Province ONTARIO	E-mail info@hvacdsgns.ca
Telephone number (905) 619-2300	Fax number (905) 619-2375	Cell number ()	
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1 OF Division C]			
☐ House ☐ Small Buildings ☐ Large Buildings ☐ Complex Buildings ☒ HVAC – House ☐ Building Services ☐ Detection, Lighting and Power ☐ Fire Protection ☐ Building Structural ☐ Plumbing – House ☐ Plumbing – All Buildings ☐ On-site Sewage Systems			
Description of designer's work HEAT LOSS / GAIN CALCULATIONS DUCT SIZING RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY RESIDENTIAL SYSTEM DESIGN per CSA-F280-12		Model: AMELIA 12 Project: GRANELLI HOME CORP	
D. Declaration of Designer			
I, <u>MICHAEL O'ROURKE</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. of 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>19669</u> Basis for exemption from registration and qualification: <u>O.B.C SENTENCE 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.			
June 19, 2018		 Signature of Designer	
Date			

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 qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by 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 license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

SITE NAME: GRANELLI HOME CORP BUILDER: GREENYORK HOMES				TYPE: AMELIA 12		GFA: 2838		DATE: Jun-18 LOW# 78991		WINTER NATURAL AIR CHANGE RATE 0.335 SUMMER NATURAL AIR CHANGE RATE 0.119		HEAT LOSS AT °F. 74 HEAT GAIN AT °F. 14		CSA-F280-12 SB-12 PACKAGE A1	
ROOM USE		MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	ENS-4						
EXP. WALL	CLG. HT.	33 9	6 9	10 9	27 9	38 9	33 9	7 9	10 9						
FACTORS															
GRS.WALL AREA	GLAZING	297	64	90	243	342	297	63	90						
LOSS	GAIN	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS						
NORTH	20.8	0	0	0	0	0	0	0	0						
EAST	20.8	0	0	0	38	26	0	0	0						
SOUTH	20.8	0	0	0	0	36	48	0	0						
WEST	20.8	0	0	0	0	0	19	0	0						
SKYL.T.	36.4	0	0	0	0	0	0	0	0						
DOORS	24.7	0	0	0	0	0	0	0	0						
NET EXPOSED WALL	4.4	267	1163	34	208	281	232	83	80						
NET EXPOSED BSMY WALL ABOVE GR	3.6	0	0	0	0	0	0	0	0						
EXPOSED CLG	1.3	276	348	188	210	181	217	132	99						
NO ATTIC EXPOSED CLG	2.7	0	0	0	26	25	26	0	0						
EXPOSED FLOOR	2.8	0	0	0	183	0	0	138	0						
BASEMENT/CRAWL HEAT LOSS		0	0	0	0	0	0	0	0						
SLAB ON GRADE HEAT LOSS		0	0	0	0	0	0	0	0						
SUBTOTAL HT LOSS		2132	820	727	2392	2798	2700	969	880						
SUB TOTAL HT GAIN															
LEVEL FACTOR / MULTIPLIER	0.20	0.24	0.20	0.24	0.20	0.24	0.20	0.24	0.20						
AIR CHANGE HEAT LOSS	508		148	173	570	687	644	229	162						
AIR CHANGE HEAT GAIN		112		13	127		169	42	26						
DUCT LOSS		0	0	90	288	0	0	119	0						
DUCT GAIN															
HEAT GAIN PEOPLE	240	2	0	20	281	0	0	65	0						
HEAT GAIN APPLIANCES/LIGHTS		577	0	0	240	577	240	0	0						
TOTAL HT LOSS BTU/H		2841	768	990	3268	3465	3344	1306	843						
TOTAL HT GAIN x 1.3 BTU/H		3856		282	4012	4304	4272	935	525						

ROOM USE		LVDN	KIBIF	LAUN	WIR	FOY	WUUB		BAS
EXP. WALL	CLG. HT.	55 11	69 11	25 11	8 11	14 11	18 9	168 9	168
FACTORS									
GRS.WALL AREA	GLAZING	605	769	286	88	154	162	936	
LOSS	GAIN	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	
NORTH	20.8	0	0	0	0	0	0	0	
EAST	20.8	39	810	0	0	0	0	0	
SOUTH	20.8	35	727	0	0	0	0	0	
WEST	20.8	0	0	0	13	8	0	0	
SKYL.T.	36.4	0	73	0	0	0	0	0	
DOORS	24.7	0	1617	0	0	0	0	0	
NET EXPOSED WALL	4.4	531	2819	266	76	108	142	20	
NET EXPOSED BSMY WALL ABOVE GR	3.6	0	0	0	0	0	0	483	
EXPOSED CLG	1.3	0	0	0	0	0	0	93	
NO ATTIC EXPOSED CLG	2.7	15	40	0	0	0	0	0	
EXPOSED FLOOR	2.8	0	0	0	0	0	0	0	
BASEMENT/CRAWL HEAT LOSS		0	0	0	0	0	0	0	
SLAB ON GRADE HEAT LOSS		0	0	0	0	0	0	0	
SUBTOTAL HT LOSS		3891	5213	1682	587	1681	119	8388	
SUB TOTAL HT GAIN									
LEVEL FACTOR / MULTIPLIER	0.30	0.36	0.30	0.36	0.30	0.36	0.30	0.80	
AIR CHANGE HEAT LOSS	1400		1875	594	215	669	210	7764	
AIR CHANGE HEAT GAIN		202	313	21	26	29	0	55	
DUCT LOSS		0	0	0	0	0	0	0	
DUCT GAIN								0	
HEAT GAIN PEOPLE	240	0	0	0	0	0	0	0	
HEAT GAIN APPLIANCES/LIGHTS		577	7088	577	812	2160	0	577	
TOTAL HT LOSS BTU/H		5291	7145	2248	812	2160	1231	15384	
TOTAL HT GAIN x 1.3 BTU/H		4877		1183	541	592	273	1608	

SITE NAME: GRANELLI HOME CORP
BUILDER: GREENYORK HOMES

TYPE: AMELIA 12

DATE: Jun-18

GFA: 2538 LO# 78991

HEATING CFM 1030 COOLING CFM 1030
TOTAL HEAT LOSS 50,816 TOTAL HEAT GAIN 35,123
AIR FLOW RATE CFM 20.27 AIR FLOW RATE CFM 29.33#CARRIER 59SP5A-60-12 60
FAN SPEED 0
LOW MEDIUM HIGH
785 845 970
DESIGN CFM = 1030
CFM @ 8" E.S.P.AFUE = 96 %
INPUT (BTU/H) = 80,000
OUTPUT (BTU/H) = 59,000
TEMPERATURE RISE 52 °F

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	13	8	4
R/A	0	0	5	2	1

All S/A diffusers 4"x10" unless noted otherwise on layout.

All S/A runs 5'x2 unless noted otherwise on layout.

RUN #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	23	24
ROOM NAME	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	BED-2	BED-3	MBR	ENS-4	BED-4	LVDN	KB/F	KB/F	LVDN	LAUN	W/R	FOY	BAS	BAS	BAS	BAS
RM LOSS MBH	1.32	0.77	0.99	1.63	1.73	1.67	0.65	1.63	1.73	1.32	0.84	1.67	2.65	2.36	2.36	2.65	2.25	0.81	2.15	2.36	4.15	4.15	4.15
CFM PER RUN HEAT	27	16	20	33	35	34	13	33	35	27	17	34	54	48	48	54	46	16	44	48	84	84	84
RM GAIN MBH	1.83	0.92	0.28	2.01	2.15	2.14	0.47	2.01	2.15	1.83	0.53	2.14	2.44	2.38	2.38	2.44	1.18	0.54	0.59	2.38	0.47	0.47	0.47
CFM PER RUN COOLING	54	27	8	59	63	63	14	59	63	54	15	63	72	70	70	72	35	16	17	70	14	14	14
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16
ACTUAL DUCT LGH.	50	46	45	68	65	46	49	62	56	54	44	48	56	39	32	55	12	32	34	28	12	12	38
EQUIVALENT LENGTH	130	150	170	150	220	150	130	140	160	150	180	150	120	130	120	130	150	150	150	120	110	160	150
TOTAL EFFECTIVE LENGTH	180	196	215	218	285	196	179	202	216	204	224	198	176	169	152	185	162	182	184	148	142	172	188
ADJUSTED PRESSURE	0.1	0.09	0.08	0.08	0.06	0.09	0.1	0.09	0.08	0.08	0.08	0.09	0.1	0.1	0.11	0.09	0.11	0.09	0.09	0.12	0.11	0.09	0.09
ROUND DUCT SIZE	5	4	4	5	6	5	4	5	6	5	4	5	5	5	5	5	4	4	4	5	6	6	6
HEATING VELOCITY (ft/min)	198	184	229	242	178	250	149	242	178	198	195	250	396	352	352	396	528	184	505	352	428	428	428
COOLING VELOCITY (ft/min)	396	310	92	433	321	463	161	433	321	396	172	463	529	514	514	529	402	184	195	514	71	71	71
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10
TRUNK	D	D	D	B	A	C	B	B	A	D	B	C	A	C	C	A	D	B	B	D	C	D	A

RUN #	25	26
ROOM NAME	BAS	BATH
RM LOSS MBH	4.15	0.85
CFM PER RUN HEAT	84	13
RM GAIN MBH	0.47	0.47
CFM PER RUN COOLING	14	14
ADJUSTED PRESSURE	0.16	0.17
ACTUAL DUCT LGH.	55	58
EQUIVALENT LENGTH	110	160
TOTAL EFFECTIVE LENGTH	165	218
ADJUSTED PRESSURE	0.1	0.08
ROUND DUCT SIZE	6	4
HEATING VELOCITY (ft/min)	428	149
COOLING VELOCITY (ft/min)	71	161
OUTLET GRILL SIZE	4X10	3X10
TRUNK	A	B

SUPPLY AIR TRUNK SIZE													RETURN AIR TRUNK SIZE												
	TRUNK	STATIC	ROUND	RECT	VELOCITY	TRUNK	STATIC	ROUND	RECT	VELOCITY		TRUNK	STATIC	ROUND	RECT	VELOCITY									
	CFM	PRESS.	DUCT	DUCT	(f/min)	CFM	PRESS.	DUCT	DUCT	(f/min)		CFM	PRESS.	DUCT	DUCT	(f/min)									
TRUNK A	346	0.06	10.1	12	8	0	0.00	0	0	8	TRUNK O	0	0.06	0	0	8									
TRUNK B	515	0.06	11.8	16	x	0	0.00	0	0	x	TRUNK P	0	0.06	0	0	x									
TRUNK C	248	0.09	8.1	8	x	0	0.00	0	0	x	TRUNK Q	0	0.06	0	0	x									
TRUNK D	1031	0.06	15.2	26	x	0	0.00	0	0	x	TRUNK R	0	0.06	0	0	x									
TRUNK E	0	0.00	0	0	x	0	0.00	0	0	x	TRUNK S	0	0.06	0	0	x									
TRUNK F	0	0.00	0	0	x	0	0.00	0	0	x	TRUNK T	0	0.06	0	0	x									
						0	0.00	0	0	x	TRUNK U	0	0.06	0	0	x									
											TRUNK V	0	0.06	0	0	x									
											TRUNK W	0	0.06	0	0	x									
											TRUNK X	1030	0.06	15.2	28	x									
											TRUNK Y	615	0.06	12.6	18	x									
											TRUNK Z	0	0.06	0	0	x									
											DROP	1030	0.06	15.2	24	x									
																10									
RETURN AIR #																									
AIR VOLUME	85	85	85	85	0	0	0	0	0	0	BR	0	0	0	0	0									
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15		0.15	0.15	0.15	0.15	862									
ACTUAL DUCT LGH.	46	70	58	43	32	46	1	1	1	1		1	1	1	1	8									
EQUIVALENT LENGTH	175	180	165	175	220	175	0	0	0	0		0	0	0	0	615									
TOTAL EFFECTIVE LH	221	250	223	215	258	252	221	1	1	1		1	1	1	1	8									
ADJUSTED PRESSURE	0.07	0.06	0.07	0.07	0.06	0.06	0.07	14.80	14.80	14.80		14.80	14.80	14.80	14.80	0									
ROUND DUCT SIZE	5.8	6	5.8	5.8	6	10.3	5.8	0	0	0		0	0	0	0	8									
INLET GRILL SIZE	8	x	8	8	8	8	8	8	8	8		8	8	8	8	618									
INLET GRILL SIZE	14	14	14	14	14	30	14	14	14	14		14	14	14	14										

TYPE: AMELIA 12
SITE NAME: GRANELLI HOME CORP

LO # 78991

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

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 gas fireplace	
d) ☐	Solid Fuel (including fireplaces)	
e) ☐	No Combustion Appliances	

HEATING SYSTEM	
☒	Forced Air
☐	Non Forced Air
☐	Electric Space Heat

HOUSE TYPE		9.32.1(2)
☒	I Type a) or b) appliance only, no solid fuel	
☐	II Type I except with solid fuel (including fireplaces)	
☐	III Any Type c) appliance	
☐	IV Type I, or II with electric space heat	
☐	Other: Type I, II or IV no forced air	

SYSTEM DESIGN OPTIONS		O.N.H.W.P.
☐	1 Exhaust only/Forced Air System	
☐	2 HRV with Ducting/Forced Air System	
☒	3 HRV Simplified/connected to forced air system	
☐	4 HRV with Ducting/non forced air system	
☐	Part 6 Design	

TOTAL VENTILATION CAPACITY		9.32.3.3(1)
Basement + Master Bedroom	2 @ 21.2 cfm	42.4 cfm
Other Bedrooms	3 @ 10.6 cfm	31.8 cfm
Kitchen & Bathrooms	5 @ 10.6 cfm	53 cfm
Other Rooms	5 @ 10.6 cfm	53.0 cfm
Table 9.32.3.A.	TOTAL	180.2 cfm

PRINCIPAL VENTILATION CAPACITY REQUIRED		9.32.3.4.(1)
1 Bedroom	31.8	cfm
2 Bedroom	47.7	cfm
3 Bedroom	63.6	cfm
4 Bedroom	79.5	cfm
5 Bedroom	95.4	cfm
TOTAL	79.5	cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	180.2	cfm
Less Principal Ventil. Capacity	79.5	cfm
Required Supplemental Capacity	100.7	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model:	LIFEBREATH RNC5-HEX
Location:	BSMT
79.5 cfm	3.0 sones
☒	HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION	
CFM	ΔT °F
79.5 CFM	74 F
X	X
FACTOR	% LOSS
1.08	0.24
X	X

SUPPLEMENTAL FANS		NUTONE	
Location	Model	cfm	HVI
ENS	QTXEN050C	50	✓
BATH	QTXEN050C	50	✓
ENS-4	QTXEN050C	50	✓
W/R	QTXEN050C	50	✓

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model:	LIFEBREATH RNC5-HEX	
108	cfm high	
59	cfm low	
76	% Sensible Efficiency	
@ 32 deg F (0 deg C)	☒	
	HVI Approved	

LOCATION OF INSTALLATION	
Lot:	Concession
Township	Plan:
Address	
Roll #	Building Permit #

BUILDER:	
GREENYORK HOMES	
Name:	
Address:	
City:	
Telephone #:	Fax #:

INSTALLING CONTRACTOR	
Name:	
Address:	
City:	
Telephone #:	Fax #:

DESIGNER CERTIFICATION	
I hereby certify that this ventilation system has been designed in accordance with the Ontario Building Code.	
Name:	HVAC Designs Ltd.
Signature:	<i>Michael O'Rourke</i>
HRAI #	001820
Date:	June-18

HEAT LOSS AND GAIN SUMMARY SHEET**MODEL:** AMELIA 12**BUILDER:** GREENYORK HOMES**SFQT:** 2538**LO#** 78991**SITE:** GRANELLI HOME CORP**DESIGN ASSUMPTIONS**

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-2	OUTDOOR DESIGN TEMP.	86
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	72

BUILDING DATA

ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	SOUTH	ASSUMED (Y/N):	Y
AIR CHANGES PER HOUR:	3.57	ASSUMED (Y/N):	Y
AIR TIGHTNESS CATEGORY:	AVERAGE	ASSUMED (Y/N):	Y
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Y
HOUSE VOLUME (ft³):	34898.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 54.0 ft	WIDTH: 33.0 ft	EXPOSED PERIMETER:	156.0 ft

2012 OBC - COMPLIANCE PACKAGE

Component	Compliance Package A1	
	Nominal	Min. Eff.
Ceiling with Attic Space Minimum RSI (R)-Value	60	59.22
Ceiling Without Attic Space Minimum RSI (R)-Value	31	27.65
Exposed Floor Minimum RSI (R)-Value	31	29.80
Walls Above Grade Minimum RSI (R)-Value	22	17.03
Basement Walls Minimum RSI (R)-Value	20 ci	21.12
Below Grade Slab Entire surface > 600 mm below grade Minimum RSI (R)-Value	-	-
Edge of Below Grade Slab ≤ 600 mm Below Grade Minimum RSI (R)-Value	10	10
Heated Slab or Slab ≤ 600 mm below grade Minimum RSI (R)-Value	10	11.13
Windows and Sliding Glass Doors Maximum U-Value	0.28	-
Skylights Maximum U-Value	0.49	-
Space Heating Equipment Minimum AFUE	0.96	-
HRV Minimum Efficiency	75%	-
Domestic Hot Water Heater Minimum EF	0.8	-

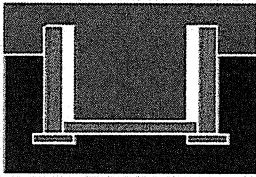
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

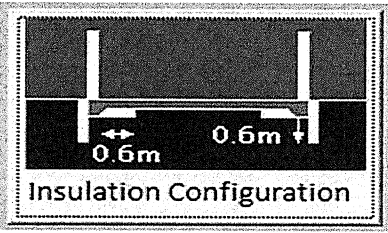
Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Brampton	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	16.5	 Insulation Configuration
Floor Width (m):	10.1	
Exposed Perimeter (m):	47.5	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.83	
Window Area (m ²):	0.6	
Door Area (m ²):	3.7	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):	1573	

TYPE: AMELIA 12
LO# 78991

Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Brampton	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Length (m):	4.6	 Insulation Configuration
Width (m):	0.9	
Exposed Perimeter (m):	5.5	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Results		
Heating Load (Watts):		35

TYPE: AMELIA 12

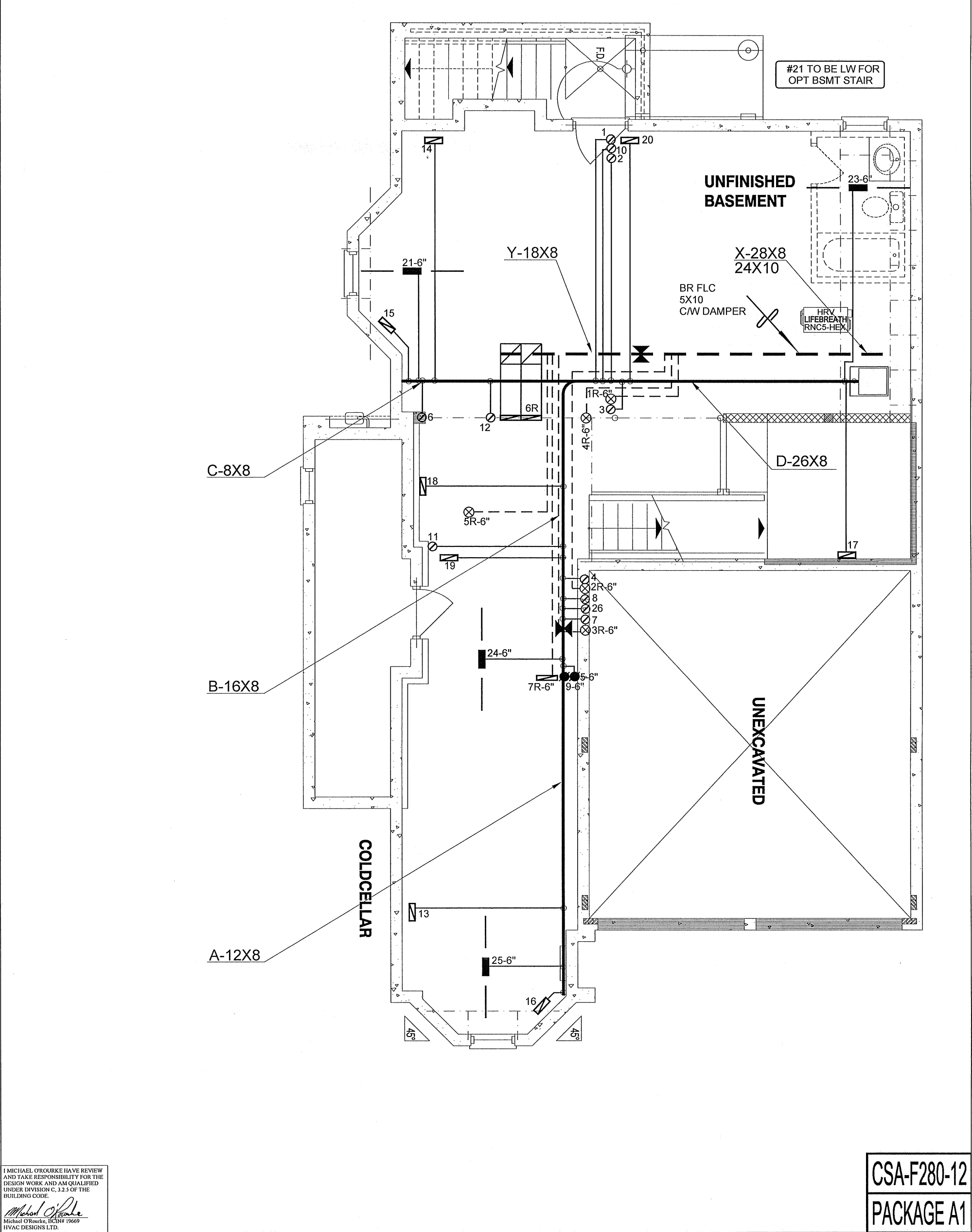
LO# 78991

Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Brampton			
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):	7.01			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	988.2			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1317.3 cm ²		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	37.5	37.5		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.335			
Cooling Air Leakage Rate (ACH/H):	0.119			

TYPE: AMELIA 12
LO# 78991



I MICHAEL O'ROURKE HAVE REVIEW AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C.3.2.3 OF THE BUILDING CODE.

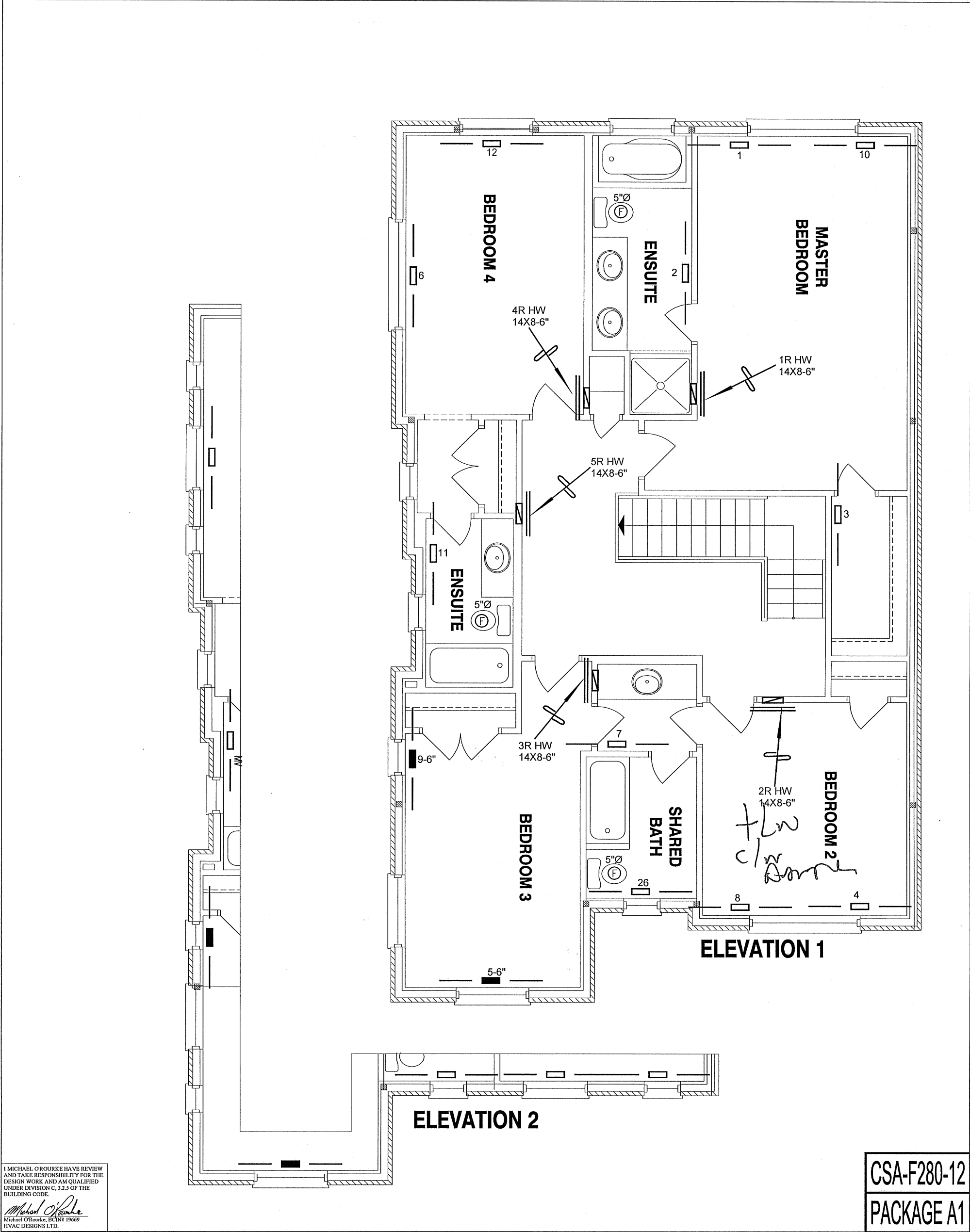
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

CSA-F280-12
PACKAGE A1

HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	REVISIONS		

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Client		HVACDESIGNS LTD. 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services Installation to comply with the latest Ontario Building Code. All supply branch outlets shall be equipped with a manual balancing damper. Ductwork which passes through the garage or unheated spaces shall be adequately insulated and be gas-proofed.	HEAT LOSS 52345 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS			Sheet Title	
GREENYORK HOMES			MAKE CARRIER	3RD FLOOR			BASEMENT HEATING LAYOUT		
Project Name GRANELLI HOMES CORP BRAMPTON, ONTARIO			MODEL 59SP5A-60-12	2ND FLOOR 13 5 3					
			INPUT 60 MBTU/H	1ST FLOOR 8 2 3					
			OUTPUT 58 MBTU/H	BASEMENT 4 1 0			Date JUNE/2018		
		COOLING 3.0 TONS	ALL S/A DIFFUSERS 4 "x10" UNLESS NOTED OTHERWISE ON LAYOUT. ALL S/A RUNS 5"Ø UNLESS NOTED OTHERWISE ON LAYOUT. UNDERCUT DOORS 1" min. FOR R/A			Scale 3/16" = 1'-0"			
		FAN SPEED 1030 cfm @ 0.6" w.c.				BCIN# 19669			
AMELIA 12 2538 sqft					LO# 78991				



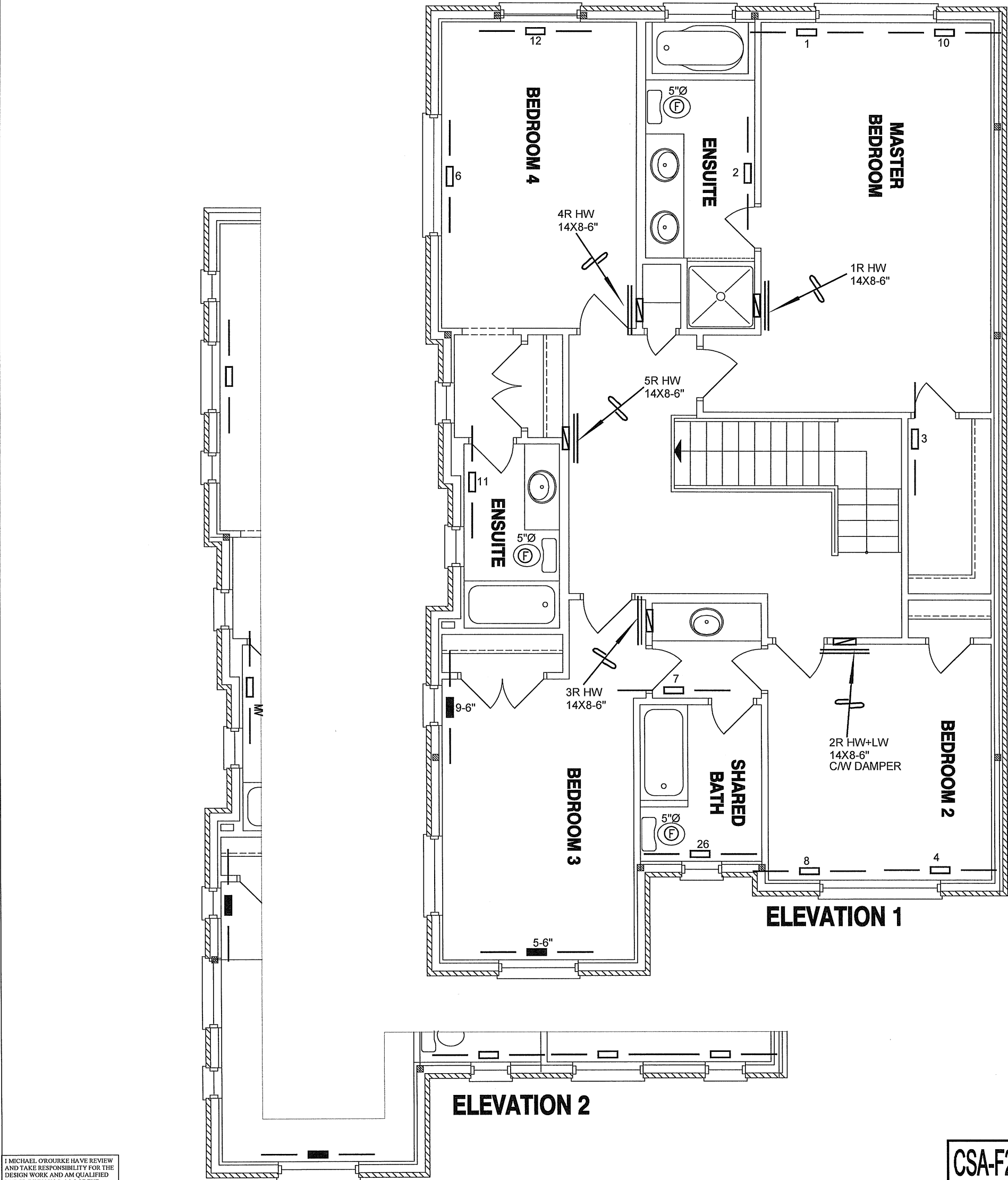
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HVAC LEGEND								3.		
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GREENYORK HOMES			SECOND FLOOR HEATING LAYOUT	
Project Name			Date	JUNE/2018
GRANELLI HOMES CORP BRAMPTON, ONTARIO			Scale	3/16" = 1'-0"
AMELIA 12			BCIN# 19669	
2538 sqft	LO# 78991			



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HVAC LEGEND								3.		
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2538 sqft	LO#		78991	