

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	Postal code	Plan number/ other description	
BRAMPTON			
B. Individual who reviews and takes responsibility for design activities			
Name		Firm	
MICHAEL O'ROURKE		HVAC DESIGNS LTD.	
Street address		Unit no.	Lot/con.
375 FINLEY AVE		202	N/A
Municipality	Postal code	Province	E-mail
AJAX	L1S 2E2	ONTARIO	info@hvacdesigns.ca
Telephone number	Fax number	Cell number	
(905) 619-2300	(905) 619-2375	()	
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		Model: AMELIA 2	
HEAT LOSS / GAIN CALCULATIONS			
DUCT SIZING			
RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY		Project: GRANELLI HOME CORP	
RESIDENTIAL SYSTEM DESIGN per CSA-F280-12			
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			
Date		Signature of Designer	

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 2		GFA: 2818		DATE: JUN-18 LO# 78988		WINTER NATURAL AIR CHANGE RATE 0.336 SUMMER NATURAL AIR CHANGE RATE 0.112		HEAT LOSS AT °F. 74 HEAT GAIN AT °F. 12		GSA-P280-A1 SB-12 PACKAGE A1			
ROOM USE EXP. WALL CLG. HT.		MBR 33 9		ENS 24 9		WIC 12 9		BED-2 37 9		BED-3 30 9		BED-4 13 9		ENS-2 10 9		ENS-3/4 7 9	
GRS.WALL AREA GLAZING		297		216		108		333		270		117		90		63	
FACTORS		LOSS		GAIN		LOSS		GAIN		LOSS		GAIN		LOSS		GAIN	
NORTH		0		0		0		0		0		0		0		0	
EAST		20.8		15.8		0		46		26		0		0		0	
SOUTH		20.8		0		0		0		26		15		0		7	
WEST		20.8		13		0		0		0		312		0		145	
SKYL.T.		36.4		270		537		0		0		0		0		173	
DOORS		36.4		0		0		0		0		0		0		0	
NET EXPOSED WALL		4.4		0		0		0		0		0		0		0	
NET EXPOSED BSMT WALL ABOVE GR		24.7		0		0		0		0		0		0		0	
DOORS		4.0		0		0		0		0		0		0		0	
NO ATTIC EXPOSED CLG		2.7		0		0		0		0		0		0		0	
EXPOSED CLG		1.3		0		0		0		0		0		0		0	
NO ATTIC EXPOSED CLG		2.7		0		0		0		0		0		0		0	
EXPOSED FLOOR		2.5		0		0		0		0		0		0		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		2101		1331		682		3313		1865		944		588		518	
SUB TOTAL HT GAIN		1439		761		127		2356		1366		628		166		271	
LEVEL FACTOR / MULTIPLIER		0.20		0.31		0.20		0.20		0.20		0.20		0.20		0.20	
AIR CHANGE HEAT LOSS		648		411		180		1022		576		291		184		0.31	
AIR CHANGE HEAT GAIN		116		61		10		169		109		42		13		160	
DUCT LOSS		0		0		0		433		0		0		0		22	
DUCT GAIN		0		0		0		336		0		0		0		0	
HEAT GAIN PEOPLE		2		0		0		1		1		240		0		0	
HEAT GAIN APPLANCES/LIGHTS		480		0		0		673		673		673		0		0	
TOTAL HT LOSS BTU/H		873		1742		782		4768		2440		1235		782		678	
TOTAL HT GAIN x 1.3 BTU/H		2748		3390		1069		4801		2978		1769		221		381	

ROOM USE EXP. WALL CLG. HT.		FAM 31 11		LVDN 29 11		KT/BR 42 11		LAUN 19 12		PWD 8 11		FOY 29 11		WUB 16 9		BAS 147 9	
GRS.WALL AREA GLAZING		341		319		462		228		88		319		135		882	
FACTORS		LOSS		GAIN		LOSS		GAIN		LOSS		LOSS		LOSS		LOSS	
NORTH		0		0		0		0		0		0		0		0	
EAST		20.8		0		0		0		0		0		0		0	
SOUTH		20.8		39		810		0		0		7		0		0	
WEST		20.8		0		0		0		7		145		0		0	
SKYL.T.		20.8		46		956		0		145		0		0		187	
DOORS		36.4		1901		0		0		173		0		3		222	
NET EXPOSED WALL		4.4		0		0		0		0		0		62		0	
NET EXPOSED BSMT WALL ABOVE GR		24.7		0		0		0		0		0		124		0	
DOORS		4.0		0		0		0		0		0		0		0	
NO ATTIC EXPOSED CLG		2.7		0		0		0		0		0		20		493	
EXPOSED CLG		1.3		0		0		0		0		0		488		80	
NO ATTIC EXPOSED CLG		2.7		0		0		0		0		0		112		251	
EXPOSED FLOOR		2.5		0		0		0		0		0		0		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		2241		2030		2932		1467		498		2317		93		4981	
SUB TOTAL HT GAIN		2109		1160		2600		237		230		640		1136		7210	
LEVEL FACTOR / MULTIPLIER		0.30		0.45		0.30		0.30		0.30		0.30		283		552	
AIR CHANGE HEAT LOSS		1016		920		1329		665		226		1050		0.00		1.04	
AIR CHANGE HEAT GAIN		169		93		208		19		18		51		8876		87	
DUCT LOSS		0		0		0		213		0		0		0		0	
DUCT GAIN		0		0		0		83		0		0		0		0	
HEAT GAIN PEOPLE		0		0		0		0		0		0		0		0	
HEAT GAIN APPLANCES/LIGHTS		873		573		673		573		0		0		0		0	
TOTAL HT LOSS BTU/H		3267		2660		4261		2344		724		3386		1136		673	
TOTAL HT GAIN x 1.3 BTU/H		3706		2373		4397		1186		323		893		367		1650	

SITE NAME: GRANELLI HOME CORP
BUILDER: GREENYORK HOMES

TYPE: AMELIA 2
DATE: Jun-18
LO# 78988

HEATING CFM 970 COOLING CFM 970
TOTAL HEAT LOSS 49,080 TOTAL HEAT GAIN 29,618
AIR FLOW RATE CFM 19,76 AIR FLOW RATE CFM 32,75

#CARRIER 60
FAN SPEED 0
MEDLOW 785
MEDIUM 845
HIGH 970
DESIGN CFM = 970
CFM @ 8" E.S.P. = 55

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	10	8	4
R/A	0	0	5	2	1

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

All S/A runs 5'0" 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	22	23	24
ROOM NAME	MBR	ENS	WIC	BED-2	BED-3	BED-4	ENS-2	BED-2	BED-2	MBR	ENS-3/4	FAM	LV/DN	KT/BR	KT/BR	FAM	LAUN	PWD	FOY	BAS	BAS	BAS	BAS	BAS
RM LOSS MBH	1.37	1.74	0.76	2.38	2.44	1.24	0.78	2.38	2.38	1.37	0.68	1.63	2.95	2.13	2.13	1.63	2.34	0.72	3.37	4.26	4.26	4.26	4.26	4.26
CFM PER RUN HEAT	27	34	15	47	48	24	15	47	47	27	13	32	58	42	42	32	46	14	67	84	84	84	84	84
RM GAIN MBH	1.70	1.07	0.18	2.40	2.98	1.80	0.22	2.40	2.40	1.70	0.38	1.85	2.37	2.20	2.20	1.85	1.19	0.32	0.90	0.48	0.48	0.48	0.48	0.48
CFM PER RUN COOLING	56	35	6	79	97	59	7	79	79	56	12	61	78	72	72	61	39	11	29	16	16	16	16	16
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.16	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	0.16	0.16
ACTUAL DUCT LGH	48	38	32	67	70	45	35	64	64	41	65	40	33	26	18	30	29	47	48	36	13	13	13	13
EQUIVALENT LENGTH	180	160	160	180	170	150	130	170	170	180	210	160	110	120	120	150	140	130	100	90	100	100	100	100
TOTAL EFFECTIVE LENGTH	228	198	192	247	240	195	165	234	234	221	275	200	143	148	138	180	169	177	148	126	113	113	113	113
ADJUSTED PRESSURE	0.08	0.09	0.09	0.07	0.07	0.09	0.1	0.07	0.07	0.08	0.06	0.09	0.12	0.12	0.12	0.1	0.1	0.1	0.12	0.13	0.14	0.14	0.14	0.12
ROUND DUCT SIZE	5	4	4	6	6	6	4	6	6	5	4	5	5	5	5	5	4	4	5	6	6	6	6	6
HEATING VELOCITY (ft/min)	188	390	172	240	245	122	172	240	240	198	149	235	426	308	308	235	528	161	492	428	428	428	428	428
COOLING VELOCITY (ft/min)	411	402	69	403	495	301	80	403	403	411	138	448	573	529	529	448	447	126	213	82	82	82	82	82
OUTLET GRILL SIZE	3X10	3X10	3X10	4X10	4X10	4X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10	4X10	4X10
TRUNK	A	A	B	C	C	B	D	C	C	A	C	A	D	A	A	A	D	C	C	B	B	B	B	D

RUN #	25
ROOM NAME	BAS
RM LOSS MBH	4.26
CFM PER RUN HEAT	84
RM GAIN MBH	0.48
CFM PER RUN COOLING	16
ADJUSTED PRESSURE	0.16
ACTUAL DUCT LGH	52
EQUIVALENT LENGTH	110
TOTAL EFFECTIVE LENGTH	162
ADJUSTED PRESSURE	0.1
ROUND DUCT SIZE	6
HEATING VELOCITY (ft/min)	428
COOLING VELOCITY (ft/min)	82
OUTLET GRILL SIZE	4X10
TRUNK	C

TYPE: AMELIA 2
SITE NAME: GRANELLI HOME CORP

LO # 78988

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	$\Delta T^{\circ}F$	FACTOR	% LOSS
79.5 CFM	X 74 F	X 1.08	X 0.24

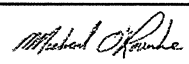
SUPPLEMENTAL FANS		NUTONE		
Location	Model	cfm	HVI	Sones
ENS	QTXEN050C	50	☒	0.3
ENS-2	QTXEN050C	50	☒	0.3
ENS-3/4	QTXEN050C	50	☒	0.3
PWD	QTXEN050C	50	☒	0.3

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

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:	
HRAI #	001820
Date:	June-18

HEAT LOSS AND GAIN SUMMARY SHEET**MODEL:** AMELIA 2**BUILDER:** GREENYORK HOMES**SFQT:** 2818**LO#** 78988**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)	74

BUILDING DATA

ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	EAST	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):	39046.0	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: 51.0 ft	WIDTH: 30.0 ft	EXPOSED PERIMETER:	147.0 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	-

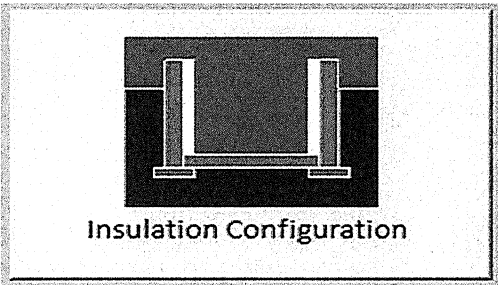
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

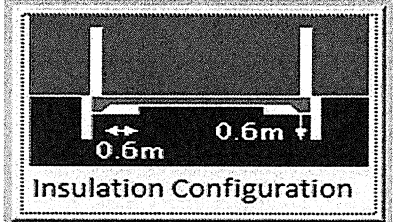
Supplemental tool for CAN/CSA-F280

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):	15.5	 Insulation Configuration
Floor Width (m):	9.1	
Exposed Perimeter (m):	44.8	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.83	
Window Area (m ²):	1.1	
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):		1459

TYPE: AMELIA 2
LO# 78988

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):	4.0	 Insulation Configuration
Width (m):	0.6	
Exposed Perimeter (m):	4.6	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Results		
Heating Load (Watts):		27

TYPE: AMELIA 2

LO# 78988



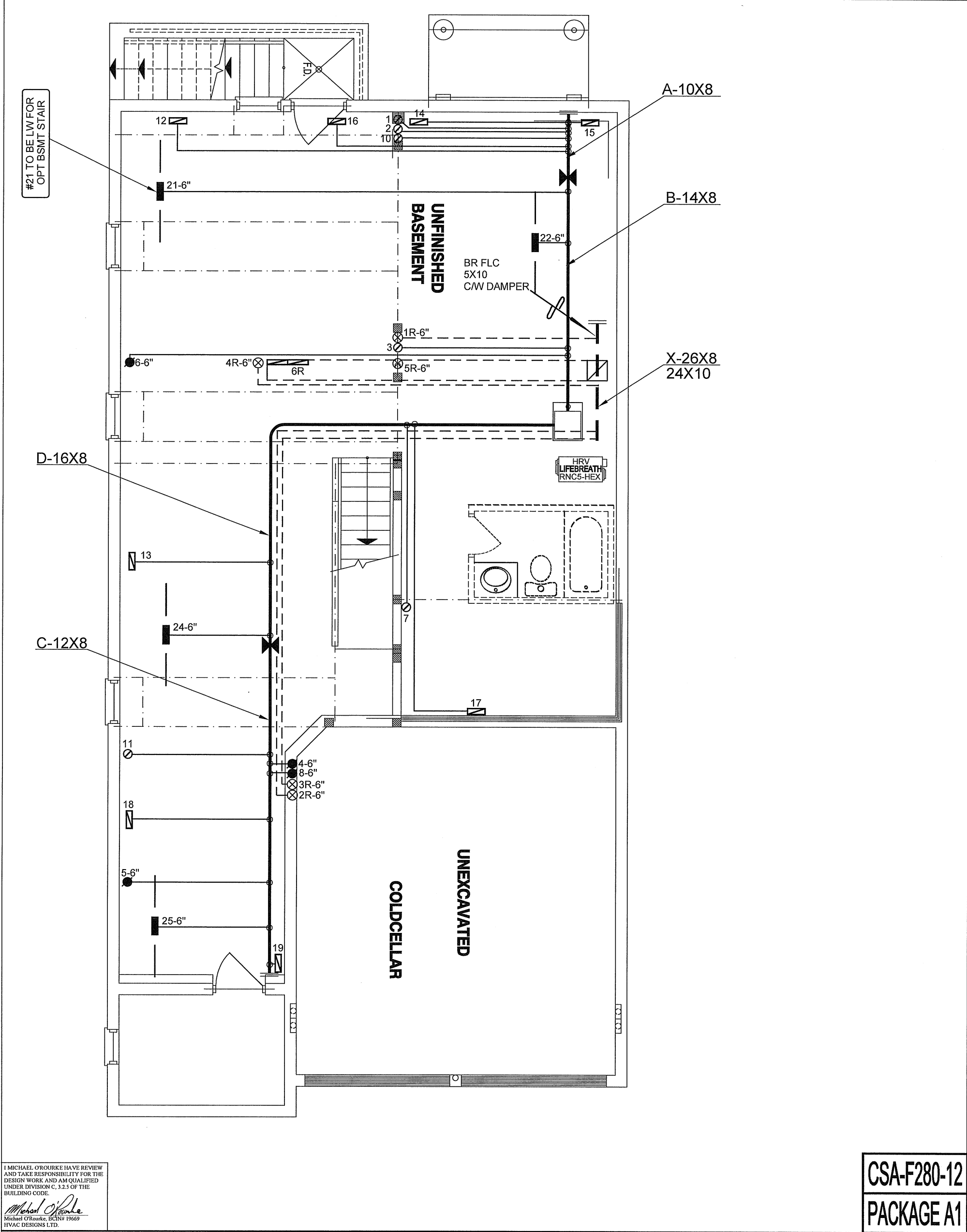
HVAC Designs Ltd.
375 Finley Ave, Suite 202
Ajax ON, L1S 2E2
905-619-2300

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):	1105.7			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1473.9 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):	0.112			

TYPE: AMELIA 2
LO# 78988



I MICHAEL O'ROURKE HAVE REVIEW AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

Michael O'Rourke

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

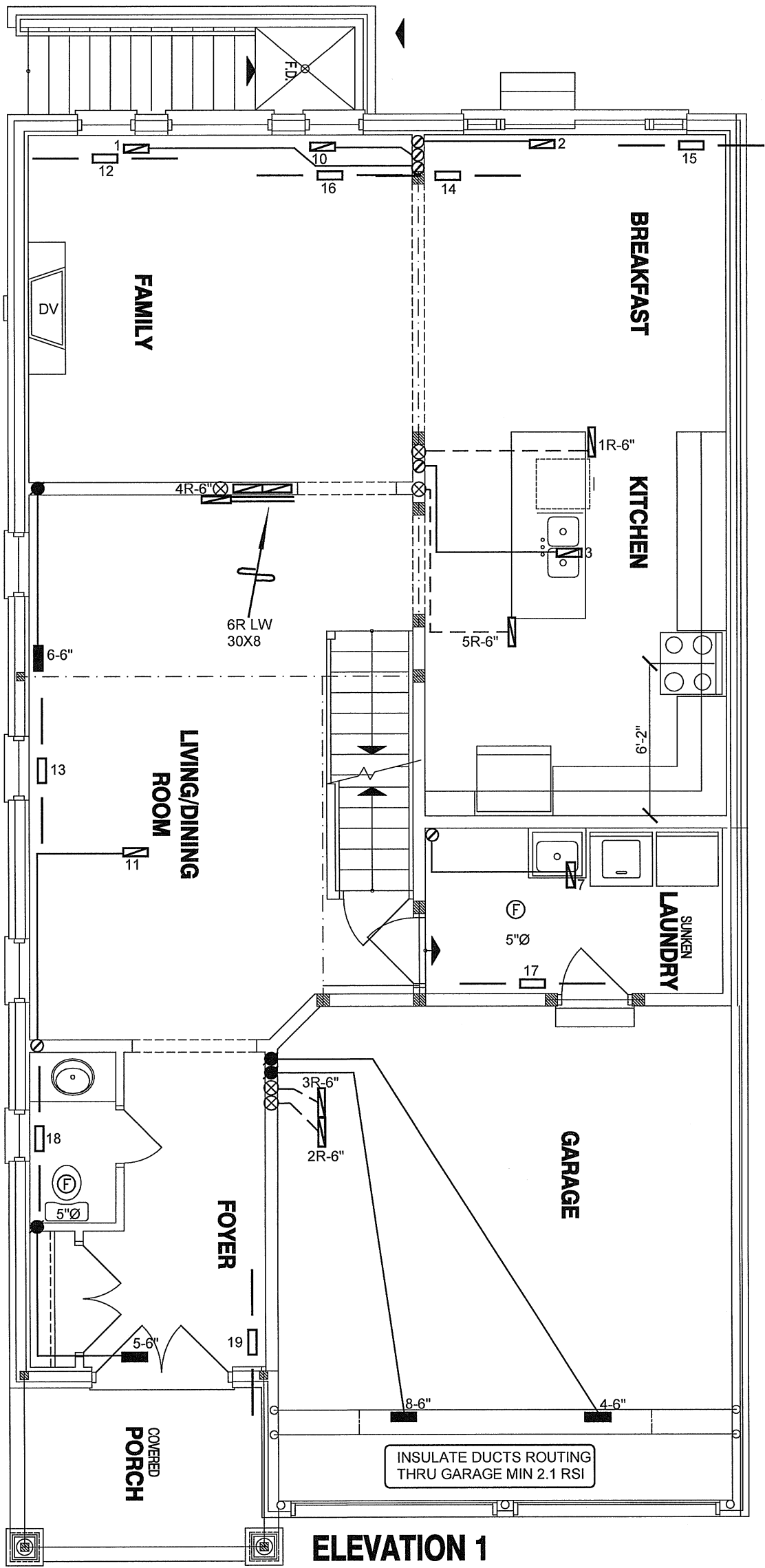
CSA-F280-12

PACKAGE A1

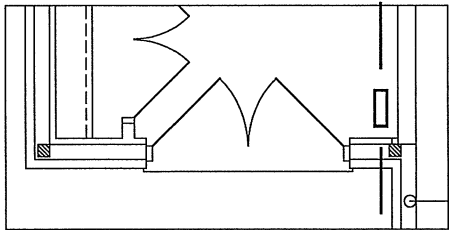
HVAC LEGEND							3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR STACK 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 GREENYORK HOMES		 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	HEAT LOSS 50609 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS				Sheet Title BASEMENT HEATING LAYOUT	
Project Name GRANELLI HOMES CORP BRAMPTON, ONTARIO			MAKE CARRIER	3RD FLOOR						
			MODEL 59SP5A-60-12	2ND FLOOR	10	5	3			
			INPUT 60 MBTU/H	1ST FLOOR	8	2	3			
AMELIA 2 2818 sqft		OUTPUT 58 MBTU/H		BASEMENT 4 1 0				Date	JUNE/2018	
		COOLING 2.5 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 970 cfm @ 0.6" w.c.						BCIN# 19669		
										LO#



ELEVATION 1



ELEVATION 2

I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

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

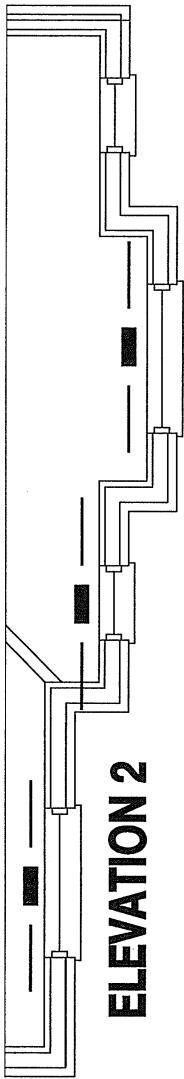
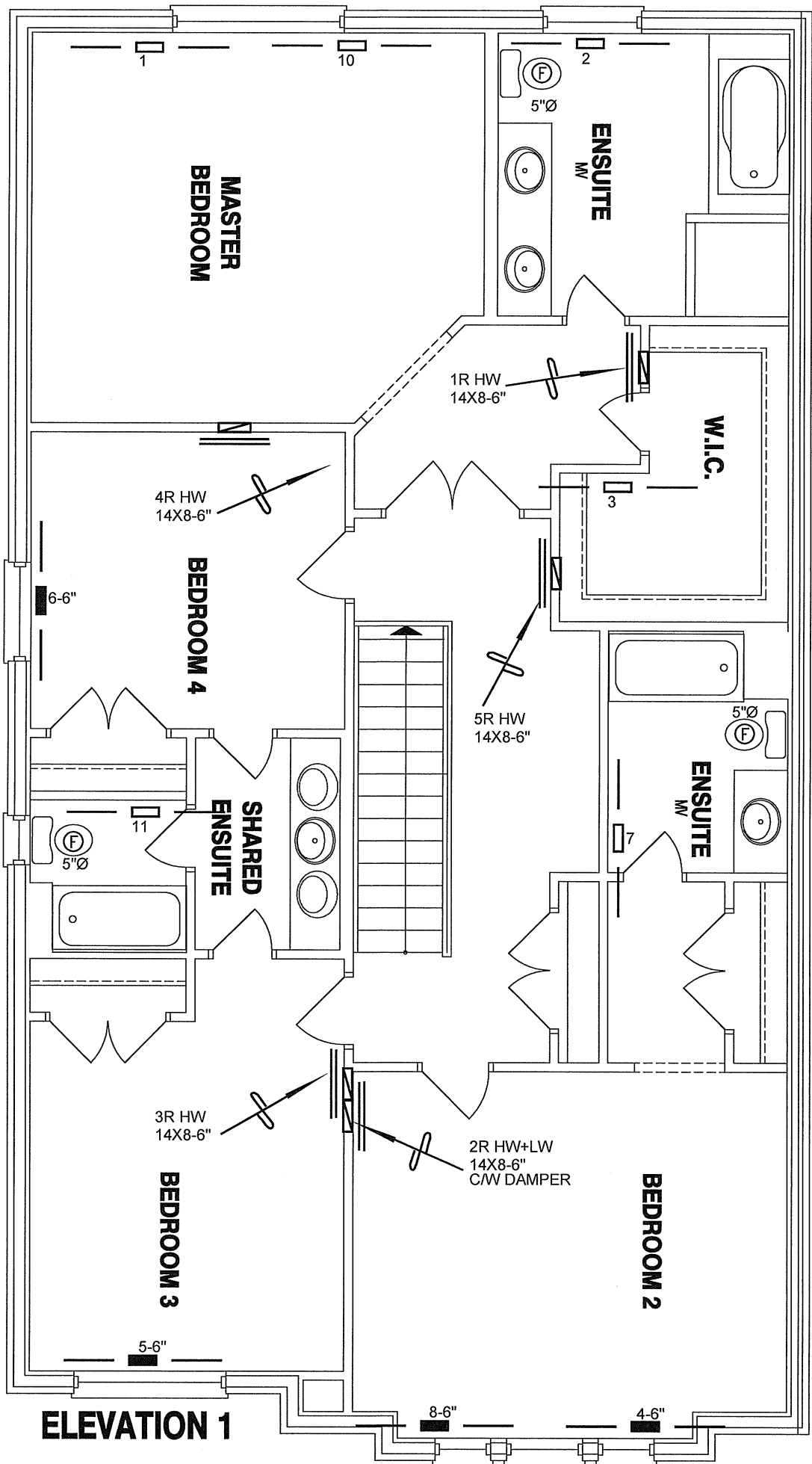
CSA-F280-12

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
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER		Date
							REVISIONS		

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Client		 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	Sheet Title	
GREENYORK HOMES			FIRST FLOOR HEATING LAYOUT	
Project Name GRANELLI HOMES CORP BRAMPTON, ONTARIO			Date	JUNE/2018
AMELIA 22818 sqft		Scale	3/16" = 1'-0"	
		BCIN# 19669		
		LO#	78988	



I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C.3.2.5 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		 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.	Sheet Title	
GREENYORK HOMES			SECOND FLOOR HEATING LAYOUT	
Project Name			Date	JUNE/2018
GRANELLI HOMES CORP BRAMPTON, ONTARIO			Scale	3/16" = 1'-0"
AMELIA 2			BCIN# 19669	
2818 sqft			LO#	78988