19-444457 000 00 RR

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

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 A			
Application No:			Model	Certification Number	MELIA 2-04,	EL-2
A. Project Information						
Building number, street name					Unit number	4
City of Brampton	Posta	code	Reg. P	ran number / other descri	43M-2057	•
B. Prescriptive Complia				package being em	ployed in this house	design]
SB-12 Prescriptive (input design		Package: A	1	Tab	ole:	
C. Project Design Condition						
Climatic Zone (SB-1):		quipment Eff	ficiency	Space Heating		
☐ Zone 1 (< 5000 degree days) ☐ Zone 2 (≥ 5000 degree days)	□ ≥ 92% A	92% AFUE		□ Gas	□ Propane □ Electric	 □ Solid Fuel □ Earth Energy
Ratio of Windows, Skylights & Gla				77 STATE OF THE REAL PROPERTY.	Characteristics	D Cartif Chergy
Area of walls = 354.67 m ² or	-2	3 % = <u>9.03%</u>		□ Log/Post&Be □ Slab-on-grou	am □ ICF Above nd □ Walkout Ba	asement
Area of W, S & G = 32.04 m² or	_ffe Utilize window	v averaging:	Yes □No		leat Pump (ASHF ced Heat Pump (C	SSHP)AMPTON
D. Building Specifications	[provide values ar	nd ratings of the	e energy eff	iciency components	proposed]_W	BY: S DESAL
Energy Efficiency Substitution	ıs				MAD	2 C 2040
ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5)	& (6))	ALTO SAN EXCENSION OF THE PARTY			MAK	2 6 2019
Combined space heating and dom		iting systems	(3.1.1.2.(7) / 3.1.1.3.(7))	ATTACHED N	OTEO ADE DADE
Airtightness substitution(s)						OTES ARE PART ED DRAWINGS
	e 3.1.1.4.B Re	quired:		Perm		COMPLY WITH OBC
Airtightness test required	e 3.1.1.4.C Re				itted Substitution:	CALL WILLIAM TO SEE WAS AS A PROPERTY OF THE PARTY OF THE
	Re	quired:		Perm	itted Substitution:	
Building Component	Minimum R or Maximu	SI / R values m U-Value ⁽¹⁾		Building Comp		Efficiency Ratings
Thermal Insulation	Nominal	Effective	Windo	ws & Doors Pro	vide U-Value ⁽¹⁾ or ER	rating
Ceiling with Attic Space	10.57	10.43	Windov	vs/Sliding Glass	Doors	1.6
Ceiling without Attic Space	5.46	4.87	Skyligh	ts/Glazed Roofs		2.8
Exposed Floor	5.46	5.25	Mechai	nicals		
Valls Above Grade	4.22	3.00	Heating	Equip.(AFUE)	4	96%
Basement Walls	3.52	3.72	HRV Ef	ficiency (SRE% a	t 0°C)	75%
Slab (all >600mm below grade)	-	-	DHW H	eater (EF)		0.83
Slab (edge only ≤600mm below grade)	1.76	1.76	DWHR	(CSA B55.1 (min. 4	2% efficiency))	42 # Showers 2
Slab (all ≤600mm below grade, or heated	1.76	1.96	Combin	ed Heating Syste	em	N/A
(1) U value to be provided in either W/(m² E. Designer(s) [name(s) & BCIN(viding infor	nation herein to sub	stantiate that design	meets the building code
Qualified Designer Declaration of des	igner to have revi	ewed and take	responsibil	ity for the design wo	ork.	

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205
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507
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BUILDER:	GRANE			P			TYPE	AMELIA 2			GF/	A: 2818			DATE:						R NATURAL AIR CHANGE RATE 0.33 R NATURAL AIR CHANGE RATE 0.11		ΔT °F. 74			CSA-F280-
ROOMUSE				MBR	T	ENS		W	:	BE		T	BED-3		_	BED-4			ENS-2		I I I I I I I I I I I I I I I I I I I	ENS-3/4	1		T	HOIMOL
EXP. WALL			1	33	- 1	24		12		3			30			13			10			7				
CLG. HT.		- 1	1	9		9		9				1	9			9			9			9				
	FACTO	RS										1														
GRS.WALL AREA	LOSS	GAIN		297		216		10	1	33	13		270			117			90			63				
GLAZING	4	- 1	L	OSS GA	AIN	LOSS	GAIN	1	GAIN		S GAII	N	LOSS	GAIN			GAIN		LOSS	GAIN		LOSS GAIN			1	
NORTH	20.8	15.8	0	0	0	0 0	0	0 0	0	0 0	0	0	0	0	0	0	0	0	0	0		0 0 0				
EAST		41.3	0	0	0	0 0	0	0 0	0	45 93		1 -	540	1075	0	0	0	0	0	0		0 0 0				
SOUTH	2000000	24.7	0	0	0	0 0	0	0 0	0	0 0		0	0	0	15	312	370	0	0	0		7 145 173				
WEST	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	41.3	(888)	military and		13 270	537	0 0	0	ا أ	100	0	0	0	0	0	0	0	0	0		0 0 0			1	
SKYLT.		101.2	0			0 0	0	0 0	0	0 0		0	0	0	0	0	0	0	0	0		0 0 0			1	
DOORS		4.0	0	0	0	0 0	0	0 0	0	0 0		0	0	0	0	0	0	0	0	0		0 0 0				
NET EXPOSED WALL		0.7	/			203 884	143	108 - 47		288 12			1063	172	102	444	72	90	392	63						
NET EXPOSED BSMT WALL ABOVE GR		0.6	0			0 0	0	0 0	0	0 0		0	0	0	0	0	0	0	0	0		56 244 39				
EXPOSED CLG	2000	0.6	100000			141 177	81	89 • 11		300 37			262	120	150	188	- 1					0 0 0			1	
NO ATTIC EXPOSED CLG		1.2	0			0 0	0	0 0	0	0 0		0	202	0	0	0	86	164	205	94		103 129 59			1	
EXPOSED FLOOR	1000	0.4	0		350	0 0	0	0 0	0	- S			0	7.0	1.00		~	17.90	0	0		0 0 0				
BA SEMENT/CRAWL HEAT LOSS		v.•		0	-	0	U	"	U	300 74	7 121	' "	0	0	0	0	0	0	0	0		0 0 0			1	
SLAB ON GRADE HEAT LOSS				0		0		0					0			0			0			0				
SUBTOTAL HT LOSS	1		0			-							0			0			0			0			1	
	.1			2101		1331		58		33			1865			944			598			518			1	
SUB TOTAL HT GAIN	1				439		761		127		235		0.000	1366			528			158		271	1		1	
LEVEL FACTOR / MULTIPLIER	1			0.31	0	0.20 0.31		0.20 0.3		0.20 0.3		0.20			0.20	0.31		0.20	0.31			0.20 0.31	1		1	
AIR CHANGE HEAT LOSS	1	- 1		648		411		18	1	10:	22	1	575			291			184			160			1	
AIR CHANGE HEAT GAIN		- 1		1	115		61		10		189	9		109			42			13		22				
DUCTLOSS	1	- 1		0		0	7	0		43	3		0			0			0			0	1			
DUCT GAIN					0		0		0		336	5		0			0			0		0				
HEAT GAIN PEOPLE	240	- 1	2	4	180	0	0	0	0	1	240	1		240	1		240	0		0		0 0				
HEAT GAIN APPLIANCE SALIGHTS		- 1			573		0		0		673	3		573			573			0	1	0				
TOTAL HT LOSS BTU/H				2748		1742	1573/9/77	76:		470			2440			1235			782			678				
TOTAL HT GAIN x 1.3 BTU/H				33	390		1069		179		480	1		2976			1799			221		381				
DOOM HEE	_											_														
ROOM USE EXP. WALL				FAM		LV/DN		KT/E	R				LAUN			PWD			FOY				WU	В	,	BAS
		- 1		31		29	7	42				1	19	- 1		8			29				15		1 12	147
CLG, HT.	EACTO	ne		11		11	- 7	11				1	12	- 1		11			11				9			9
GRS.WALL AREA	LOSS			341		240						1				1212	- 1		12000							
GLAZING	LUSS	GAIN				319		463					228			88			319				135			882
NORTH	20.0	45.0	, -	.OSS G/		LOSS	- Charles	LOS	S GAIN				LOSS	GAIN								THE RESERVE THE PERSON NAMED IN	A COLUMN TWO IS NOT THE OWNER.		L	OSS GAI
EAST	1000000	15.8	0	0													GAIN			GAIN	TOLEN OF D	TCINACA	A COLUMN TWO IS NOT THE OWNER.	S GAIN		
SOUTH						0 0	0	0 0	0			0	0	0	0	0	0	0	0	0		RAMPTO	A COLUMN TWO IS NOT THE OWNER.	S GAIN 0	0	0 0
300111		2000	0		0	0 0	0	0 0	0			0			0	0							Los		0	0 0
WEAT		24.7	0	0	0 3	0 0 39 810	0 962	0 0	0			0	0	0	0	0	0	0	0	0	BUILDING	DIVISIO	ON Los	0		0 0
WEST	20.8	24.7 41.3	0 46 /	0 956 19	0 0 3	0 0 39 810 0 0	0	0 0 0 0 56 116	0 0 3 2314			0 0	0	0	0 0 7	0	0	0 7 0	0 145 0 0	0 289		DIVISIO	0 0 0	0		0 0
SKYLT.	20.8 36.4	24.7 41.3 101.2	0 46 /	0 956 19 0	0 0 3 901 0	0 0 39 810 0 0 0 0	0 962	0 0 0 0 56 116 0 0	0 0 3 2314 0			0 0 0	0 0 0	0 0 0	0 0 7 0	0 0 146 0	0	0 7 0 0	0 145 0 0	0 289 0 0	BU LDING REVIEWED B	DIVISIO Y: S. DES	0 0 0 0 0	0	9	0 0 187 222
SKYLT. DOORS	20.8 36.4 24.7	24.7 41.3 101.2 4.0	0 46 0	0 0 956 19 0 0	0 0 0 801 0 0	0 0 39 810 0 0 0 0	0 962 0 0	0 0 0 0 56 116 0 0	0 0 3 2314 0 0			0 0 0 0 20	0 0 0 0 0 493	0 0 0 0 0	0 0 7 - 0 0	0 0 146 0 0	0 0 173 0 0	0 7 0 0 0	0 145 0 0 0 986	0 289 0 0 0 159	BU LDING REVIEWED B	DIVISIO Y: S. DES	OS 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 124 0	9 0	0 0 187 22: 0 0
SKYLT. DOORS NET EXPOSED WALL	20.8 36.4 24.7 4.4	24.7 41.3 101.2 4.0 0.7	0 46 0 0 295	0 956 19 0 0 0 1285 20	0 0 901 0 0	0 0 39 810 0 0 0 0 0 0 280 1220	0 962	0 0 0 0 56 116 0 0 0 0 406 176	0 0 3 2314 0 0 286			0 0 0	0 0 0	0 0 0	0 0 7 0	0 0 146 0	0 0 173 0	0 7 0 0 0 40	0 145 0 0	0 289 0 0	BUILDING	DIVISIO Y: S. DES	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 124 0 80	9 0	0 0 187 22: 0 0 0 0
SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR	20.8 36.4 24.7 4.4 3.5	24.7 41.3 101.2 4.0 0.7 0.6	0 46 0 0 295	0 0 956 19 0 0 1285 20	0 0 0 0 0 0 0 0 0 0 0	0 0 39 810 0 0 0 0 0 0 280 1220 0 0	0 962 0 0 0 197	0 0 0 0 56 116 0 0 0 0 406 176	0 0 3 2314 0 0 286			0 0 0 0 20 208	0 0 0 0 0 493	0 0 0 0 0	0 0 7 0 0 0 81	0 0 146 0 0	0 0 173 0 0	0 7 0 0 0	0 145 0 0 0 986	0 289 0 0 0 159	BU LDING REVIEWED B	DIVISIO Y: S. DES	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 124 0 80	9 0 0 20 0	0 0 187 222 0 0 0 0 0 493 80 0 0
SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG	20.8 36.4 24.7 4.4 3.5 1.3	24.7 41.3 101.2 4.0 0.7 0.6 0.6	0 46 0 0 295 1	0 1 956 19 0 0 0 1 1285 20 0 0	0 0 3 901 0 0 08 2	0 0 39 810 0 0 0 0 0 0 280 1220 0 0	0 962 0 0 0 197 0	0 0 0 0 56 116 0 0 0 0 406 176 0 0 0	0 0 3 2314 0 0 0 286 0			0 0 0 0 20 208 0	0 0 0 0 0 493 906	0 0 0 0 0 80 147 0	0 0 7 0 0 0 81 0	0 0 146 0 0 0 353 0	0 0 173 0 0	0 7 0 0 0 40 272 0	0 145 0 0 0 986 1185 0	0 289 0 0 0 159 192 0	BU LDING REVIEWED B	DIVISIO Y: S. DES	OS O 0 O 0 O 0 O 0 O 0 O 0 O 0 O 0	0 0 0 124 0 80 79	9 0 0 20 0	0 0 187 22 0 0 0 0 493 80 0 0
SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG	20.8 36.4 24.7 4.4 3.5 1.3 2.7	24.7 41.3 101.2 4.0 0.7 0.6 0.6 1.2	0 46 0 0 295 1	0 1956 19 0 0 0 0 1285 20 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 39 810 0 0 0 0 0 0 0 0 280 1220 0 0	0 962 0 0 0 197	0 0 0 0 56 116 0 0 0 406 176 0 0 0 0 0 0 0 0	0 0 0 3 2314 0 0 0 286 0			0 0 0 0 20 208 0 0	0 0 0 0 493 906 0	0 0 0 0 0 80 147 0	0 7 0 0 0 81 0	0 0 146 0 0 0 353 0	0 0 173 0 0	0 7 0 0 0 40 272 0	0 145 0 0 0 986 1185 0	0 289 0 0 0 159 192 0 0	BULDING REVIEWED B MAR 2	DIVISIO Y: S. DES 2019 \9 ES ARE PA	OS 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 124 0 80 79 0	9 0 0 20 0 441 1 0	0 0 187 223 0 0 0 0 0 493 80 0 0 1549 25
SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR	20.8 36.4 24.7 4.4 3.5 1.3 2.7	24.7 41.3 101.2 4.0 0.7 0.6 0.6	0 46 0 0 295 1	0 1 956 19 0 0 0 1 1285 20 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 962 0 0 0 197 0	0 0 0 0 56 116 0 0 0 0 406 176 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 3 2314 0 0 0 286 0			0 0 0 0 20 208 0	0 0 0 0 0 493 906	0 0 0 0 0 80 147 0	0 0 7 0 0 0 81 0	0 0 146 0 0 0 353 0	0 0 173 0 0	0 7 0 0 0 40 272 0	0 145 0 0 0 986 1185 0 0	0 289 0 0 0 159 192 0	BULDING REVIEWED E MAR 2	DIVISIO Y: S. DES 2019 S ES ARE PA DRAWING	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 124 0 80 79 0	9 0 0 20 0 441 1 0	0 0 187 222 0 0 0 0 493 80 0 0 1549 251 0 0 0 0 0 0 0 0 0 0 0 0 0
SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR IA SEMENTICRAWL HEAT LOSS	20.8 36.4 24.7 4.4 3.5 1.3 2.7	24.7 41.3 101.2 4.0 0.7 0.6 0.6 1.2	0 46 0 0 295 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 39 810 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 962 0 0 0 197 0	0 0 0 0 56 116 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 3 2314 0 0 0 286 0			0 0 0 0 20 208 0 0	0 0 0 0 493 906 0	0 0 0 0 0 80 147 0	0 7 0 0 0 81 0	0 0 146 0 0 0 353 0 0	0 0 173 0 0	0 7 0 0 0 40 272 0	0 145 0 0 0 986 1185 0 0	0 289 0 0 0 159 192 0 0	BULDING REVIEWED B MAR 2	DIVISIO Y: S. DES 2019 S ES ARE PA DRAWING	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 124 0 80 79 0	9 0 0 20 0 441 1 0	0 0 187 22 0 0 0 0 493 80 0 0 1549 25 0 0 0
SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR SA SEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS	20.8 36.4 24.7 4.4 3.5 1.3 2.7 2.5	24.7 41.3 101.2 4.0 0.7 0.6 0.6 1.2	0 46 0 0 295 1	0 1956 19956 19956 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 39 810 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 962 0 0 0 197 0	0 0 0 0 56 116 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 2314 0 0 286 0 0			0 0 0 0 20 208 0 0	0 0 0 0 0 493 906 0 0 0 67	0 0 0 0 0 80 147 0	0 7 0 0 0 81 0	0 0 146 0 0 0 353 0 0	0 0 173 0 0	0 7 0 0 0 40 272 0 0	0 145 0 0 0 986 1185 0 0	0 289 0 0 0 159 192 0 0	BULDING REVIEWED E MAR 2	DIVISIO Y: S. DES 2019 S ES ARE PA DRAWING	OS 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 124 0 80 79 0 0	9 0 0 20 0 441 1 0 0	0 0 187 22: 0 0 0 0 493 80 0 0 0 1549 25: 0 0 0 0 0 4981
SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR A SEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS	20.8 36.4 24.7 4.4 3.5 1.3 2.7 2.6	24.7 41.3 101.2 4.0 0.7 0.6 0.6 1.2	0 46 0 0 295 1	0 1956 19956 19956 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 801 0 0 0 0 0 0 0	0 0 0 39 810 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 962 0 0 0 197 0 0	0 0 0 0 56 116 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 2314 0 0 286 0 0			0 0 0 0 20 208 0 0	0 0 0 0 493 906 0	0 0 0 0 0 80 147 0 0	0 7 0 0 0 81 0	0 0 146 0 0 0 353 0 0	0 0 173 0 0 57 0	0 7 0 0 0 40 272 0 0	0 145 0 0 0 986 1185 0 0	0 289 0 0 0 159 192 0 0	BULDING REVIEWED E MAR 2	DIVISIO Y: S. DES 2019 S ES ARE PA DRAWING	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 124 0 80 79 0 0	9 0 0 20 0 441 1 0 0	0 0 0 187 22 0 0 0 0 493 80 0 0 0 1549 25 0 0 0 0 4981
SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR A SEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUB TOTAL HT GAIN	20.8 36.4 24.7 4.4 3.5 1.3 2.7 2.5	24.7 41.3 101.2 4.0 0.7 0.6 0.6 1.2 0.4	0 46 0 0 295 1	0 1956 19956 19956 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 901 0 0 0 0 0 0 0	0 0 0 39 810 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 962 0 0 0 197 0	0 0 0 0 56 116 0 0 0 0 406 176 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 3 2314 0 0 286 0 0 0			0 0 0 20 208 0 0 0 27	0 0 0 0 0 493 906 0 0 67 0	0 0 0 0 0 80 147 0 0 11	0 0 0 0 0 0 0 0 0	0 0 146 0 0 0 353 0 0 0 0 498	0 0 173 0 0 0 57 0 0	0 7 0 0 40 272 0 0	0 145 0 0 986 1185 0 0 0 0 2317	0 289 0 0 0 159 192 0 0	BULDING REVIEWED E MAR 2	DIVISIO Y: S. DES 2019 S ES ARE PA DRAWING	OS 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 124 0 80 79 0 0	9 0 0 20 0 441 1 0 0	0 0 0 187 22 0 0 0 0 493 84 0 0 0 1549 25 0 0 0 0 0 4981 7210 55
SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG EXPOSED CLG EXPOSED FLOOR A SEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER	20.8 36.4 24.7 4.4 3.5 1.3 2.7 2.6	24.7 41.3 101.2 4.0 0.7 0.6 0.6 1.2 0.4	0 46 0 0 295 1 0 0	0 1956 1996 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 901 0 0 0 0 0 0 0	0 0 0 39 810 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 962 0 0 0 197 0 0	0 0 0 0 0 56 116 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 3 2314 0 0 286 0 0 0 0			0 0 0 0 20 208 0 0	0 0 0 0 0 493 906 0 0 67 0 0	0 0 0 0 0 80 147 0 0 11	0 0 0 0 0 0 0 0 0 0	0 0 146 0 0 0 353 0 0 0 0 498	0 0 173 0 0 0 57 0 0	0 7 0 0 0 40 272 0 0	0 145 0 0 0 986 1185 0 0 0 0 2317	0 289 0 0 0 159 192 0 0	BULDING REVIEWED E MAR 2	DIVISIO Y: S. DES 2019 S ES ARE PA DRAWING	OS 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 124 0 80 79 0 0	9 0 0 20 0 441 1 0 0 0 4 7	0 0 0 187 22 0 0 0 0 493 86 0 0 1549 25 0 0 0 0 4981 7210 55
SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED FLOOR A SEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUB TOTAL HT LOSS A SEMENT/CRAWL HEAT LOSS SUBTOTAL HT LOSS AIR CHANGE HEAT LOSS	20.8 36.4 24.7 4.4 3.5 1.3 2.7 2.5	24.7 41.3 101.2 4.0 0.7 0.6 0.6 1.2 0.4	0 46 0 0 295 1 0 0	0 1956 18 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 39 810 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 962 0 0 197 0 0 0	0 0 0 0 56 116 0 0 0 0 406 176 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 2314 0 0 286 0 0 0			0 0 0 20 208 0 0 0 27	0 0 0 0 0 493 906 0 0 67 0	0 0 0 0 80 147 0 0 11	0 0 0 0 0 0 0 0 0	0 0 146 0 0 0 353 0 0 0 0 498	0 0 173 0 0 0 57 0 0 0	0 7 0 0 40 272 0 0	0 145 0 0 986 1185 0 0 0 0 2317	0 289 0 0 0 159 192 0 0 0	BULDING REVIEWED E MAR 2	DIVISIO Y: S. DES 2019 S ES ARE PA DRAWING	OS 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 124 0 80 79 0 0	9 0 0 20 0 441 1 0 0 0 4 7	0 0 0 187 22 0 0 0 0 493 86 0 0 0 1549 25 0 0 0 0 0 4981 55 1.04 8675
SKYLT. DOORS NET EXPOSED WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR A SEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT COSS	20.8 36.4 24.7 4.4 3.5 1.3 2.7 2.5	24.7 41.3 101.2 4.0 0.7 0.6 0.6 1.2 0.4	0 46 0 0 295 1 0 0	0 1956 1990 0 100 1285 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 901 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 962 0 0 0 197 0 0	0 0 0 0 56 116 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 3 2314 0 0 286 0 0 0 0			0 0 0 20 208 0 0 0 27	0 0 0 0 493 906 0 0 67 0 1467	0 0 0 0 0 80 147 0 0 11	0 0 0 0 0 0 0 0 0	0 0 146 0 0 0 353 0 0 0 0 498	0 0 173 0 0 0 57 0 0	0 7 0 0 40 272 0 0	0 145 0 0 986 1185 0 0 0 0 2317	0 289 0 0 0 159 192 0 0	BULDING REVIEWED E MAR 2	DIVISIO Y: S. DES 2019 S ES ARE PA DRAWING	OS 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 124 0 80 79 0 0	9 0 0 20 0 441 1 0 0 0 4 7	0 0 0 187 22 0 0 0 0 493 81 0 0 0 1549 25 0 0 0 0 0 4981 7210 55 1.04 8675
SKYLT. DOORS NET EXPOSED WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR A SEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS DOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT LOSS	20.8 36.4 24.7 4.4 3.5 1.3 2.7 2.6	24.7 41.3 101.2 4.0 0.7 0.6 0.6 1.2 0.4	0 46 0 0 295 1 0 0	0 1956 189 0 10 1285 20 10 10 10 10 10 10 10 10 10 10 10 10 10	0 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 39 810 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 962 0 0 197 0 0 0	0 0 0 0 0 56 116 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 2314 0 0 286 0 0 0 0			0 0 0 20 208 0 0 0 27	0 0 0 0 0 493 906 0 0 67 0 0	0 0 0 0 0 0 80 147 0 0 0 111	0 0 0 0 0 0 0 0 0	0 0 146 0 0 0 353 0 0 0 0 498	0 0 173 0 0 57 0 0 0 230	0 7 0 0 40 272 0 0	0 145 0 0 0 986 1185 0 0 0 0 2317	0 289 0 0 0 159 192 0 0 0	BULDING REVIEWED E MAR 2	DIVISIO Y: S. DES 2019 S ES ARE PA DRAWING	OS 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 124 0 80 79 0 0	9 0 0 20 0 441 1 0 0 0 4 7	0 0 0 187 22: 0 0 0 0 0 493 80 0 0 1549 25: 0 0 0 0 0 4981 7210 55: 1.04 8875
SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALLABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR AS SEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT LOSS DUCT GAIN	20.8 36.4 24.7 4.4 3.5 1.3 2.7 2.6	24.7 41.3 101.2 4.0 0.7 0.6 0.6 1.2 0.4	0 46 0 0 295 1 0 0 0	0 10 10 10 10 10 10 10 10 10 10 10 10 10	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 962 0 0 197 0 0 0 1160	0 0 0 0 0 56 116 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 2314 0 0 286 0 0 0 0 2600			0 0 0 0 20 208 0 0 0 27	0 0 0 0 493 906 0 0 67 0 1467	0 0 0 0 0 0 80 147 0 0 0 111	0 0 7 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 146 0 0 0 353 0 0 0 0 498	0 0 173 0 0 0 57 0 0 0 230	0 7 0 0 0 40 272 0 0 0	0 145 0 0 986 1185 0 0 0 0 2317	0 289 0 0 0 159 192 0 0 0 0	BULDING REVIEWED E MAR 2	DIVISIO Y: S. DES 2019 S ES ARE PA DRAWING	ON 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 124 0 80 79 0 0 0 0	9 0 0 20 0 441 1 0 0 0 4.50 1	0 0 0 187 22: 0 0 0 0 0 493 80 0 0 0 0 0 4981 7210 55: 1.04 8875 67 0 0 0 0
SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR IA SEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT GAIN HEAT GAIN PEOPLE	20.8 36.4 24.7 4.4 3.5 1.3 2.7 2.5	24.7 41.3 101.2 4.0 0.7 0.6 0.6 1.2 0.4	0 46 0 0 295 1 0 0	0 1956 19956	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 962 0 0 197 0 0 0 1160	0 0 0 0 56 116 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 2314 0 0 286 0 0 0 0			0 0 0 20 208 0 0 0 27	0 0 0 0 493 906 0 0 67 0 1467	0 0 0 0 0 0 80 147 0 0 0 111	0 0 0 0 0 0 0 0 0	0 0 146 0 0 0 353 0 0 0 0 498	0 0 173 0 0 57 0 0 0 0 0	0 7 0 0 40 272 0 0	0 145 0 0 986 1185 0 0 0 0 2317	0 289 0 0 0 159 192 0 0 0 0	BULDING REVIEWED E MAR 2	DIVISIO Y: S. DES 2019 S ES ARE PA DRAWING	OS 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 124 0 80 79 0 0 0 0	9 0 0 20 0 441 1 0 0 0 4 7	0 0 0 187 222 0 0 0 0 0 493 80 0 0 0 0 4981 7210 552 1.04 8675 67 0 0 0 0
SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALLABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR AS SEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT LOSS DUCT GAIN	20.8 36.4 24.7 4.4 3.5 1.3 2.7 2.5	24.7 41.3 101.2 4.0 0.7 0.6 0.6 1.2 0.4	0 46 0 0 0 295 1 0 0 0 0 0 0 1	0 1956 1995 1995 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 962 0 0 197 0 0 0 1160	0 0 0 0 0 56 116 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 2314 0 0 286 0 0 0 0 2600			0 0 0 0 20 208 0 0 0 27	0 0 0 0 0 493 906 0 0 67 0 0 1467	0 0 0 0 0 0 80 147 0 0 0 111	0 0 7 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 145 0 0 0 353 0 0 0 498 0.45 226	0 0 173 0 0 0 57 0 0 0 230	0 7 0 0 40 272 0 0 0	0 145 0 0 0 986 1185 0 0 0 0 0 2317 0.45 1050	0 289 0 0 0 159 192 0 0 0 51	BULDING REVIEWED E MAR 2	DIVISIO Y: S. DES 2019 S ES ARE PA DRAWING	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 124 0 80 79 0 0 0 0	9 0 0 20 0 441 1 0 0 0 0 4 7	0 0 0 187 222 0 0 0 0 0 493 80 0 0 0 0 1549 251 0 0 0 0 0 4981 7210 552 1.04 8675 67 0 0 0 673
SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALLABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR A SEMENT/CRAWL HEAT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT GAIN DUCT LOSS DUCT GAIN HEAT GAIN PEOPLE HEAT GAIN PEOPLE HEAT GAIN APPLIANCE SALGHTS	20.8 36.4 24.7 4.4 3.5 1.3 2.7 2.5	24.7 41.3 101.2 4.0 0.7 0.6 0.6 1.2 0.4	0 46 0 0 0 295 1 0 0 0 0 0 0 1	0 10 956 19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 962 0 0 197 0 0 0 1160	0 0 0 0 0 56 116 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 2314 0 0 286 0 0 0 0 2600			0 0 0 0 20 208 0 0 0 27	0 0 0 0 493 906 0 0 67 0 1467	0 0 0 0 0 0 80 147 0 0 0 111	0 0 7 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 146 0 0 0 353 0 0 0 0 498	0 0 173 0 0 57 0 0 0 0 0	0 7 0 0 40 272 0 0 0	0 145 0 0 986 1185 0 0 0 0 2317	0 289 0 0 0 159 192 0 0 0 51	BULDING REVIEWED E MAR 2	DIVISIO Y: S. DES 2019 S ES ARE PA DRAWING	ON 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 124 0 80 79 0 0 0 0	9 0 0 20 0 441 1 0 0 0 0 4 7	0 0 0 187 22 0 0 0 0 493 8 0 0 0 0 0 4981 77210 55 1.04 8875 67 0 0 0 0 0 0

TOTAL HEAT GAIN BTU/H:

29865

LOSS DUE TO VENTILATION LOAD BTU/H: 1529

STRUCTURAL HEAT LOSS: 49080

TOTAL COMBINED HEAT LOSS BTU/H: 80609

Mohal Offmhe.



		GREENY	LI HOME ORK HO						AMELIA 2				DATE:	Jun-18			GFA:	2818	LO#	78988				
HEATING CFM TOTAL HEAT LOSS AIR FLOW RATE CFM	970 49.080 19.76	A	TOTAL H	LING CFM EAT GAIN RATE CFM	29,618		а	fuma a/c coil i vailable p		0.6 0.05 0.2								# A-60-12 SPEED LOW	CARRIE 60	R		AFUE = ((BTU/H) = ((BTU/H) = {	000,00	
RUN COUNT	4th	3rd	2nd	1st	Bas	in a series		101	s/a & r/a	0.35							ME	DLOW	785		DESI	GN CFM =	970	
S/A	0	0	10	8	4			num pres		0.18			pressure					MEDIUM	845			CFM @ .6	"E.S.P.	
R/A	0	0	5	2	1			s/a dif pr		0.02			ss. Loss	0.02			MEDIU	MHIGH	970	-	ENDEDAT	TIDE DICE		01
S/A diffusers 4"x10" unles S/A runs 5"Ø unless note				ut.			min adju	isted pres	ssure s/a	0.16	adju	isted pre	ssure r/a	0.15				HIGH	1030	1	EMPERAI	URE RISE _	55	. "
RUN#	1	2	3	4	5	6	7	8		10	11	12	13	14	15	16	17	18	19	***************************************	21	22		2
ROOM NAME RM LOSS MBH. CFM PER RUN HEAT	MBR 1.37 27	ENS 1.74 34	WIC 0.76 15	BED-2 2.38 47	BED-3 2.44 48	BED-4 1.24 24	ENS-2 0.78 15	BED-2 2.38 47		MBR 1.37 27	ENS-3/4 0.68 13	FAM 1.63 32	LV/DN 2.95 58	KT/BR 2.13 42	2.13 • 42	FAM 1.63 32	2.34 46	PWD 0.72 14	FOY 3.37 67		BAS 4.26 84	BAS 4.26 84		8.2 8.2
RM GAIN MBH. CFM PER RUN COOLING ADJUSTED PRESSURE	1.70 56 0.17	1.07 35 0.17	0.18 6 0.17	2.40 79 0.17	2.98 97 0.16	1.80 59 0.17	0.22 7 0.17	2.40 79 0.17		1.70 56 0.17	0.38 12 0.17	1.85 61 0.17	2.37 78 0.17	2.20 72 0.17	2.20 72 0.17	1.85 61 0.17	1.19 39 0.17	0.32 11 0.17	0.90 29 0.17		0.48 16 0.16	0.48 16 0.16		0.4
ACTUAL DUCT LGH.	48	38	32	67	70	45	35	64		41	65	40	33	26	18	30	29	47	48		36	13		3
EQUIVALENT LENGTH	180	160	160	180	170	150	130	170		180	210	160	110	120	120	150	140	130	100		90	100		10
OTAL EFFECTIVE LENGTH ADJUSTED PRESSURE	228 0.08	198	192 0.09	247 0.07	240 0.07	195 0.09	165	234 0.07		221 0.08	275 0.06	200 0.09	143 0.12	146 0.12	138 0.12	180	169	177 0.1	148 0.12		126 0.13	113 0.14		0.
ROUND DUCT SIZE	5	4	4	6	6	6	4	6		5	4	5	5	5	5	5	4	4	5		6	6		6
HEATING VELOCITY (ff/min)	198	390	172	240	245	122	172	240		198	149	235	426	308	308	235	528	161	492		428	428		42
OOLING VELOCITY (ff/min)	411	402	69	403	495	301	80	403		411	138	448	573	529	529	448	447	126	213		82	82		8
OUTLET GRILL SIZE TRUNK	3X10 A	3X10 A	3X10 B	4X10 C	4X10 C	4X10 B	3X10 D	4X10 C		3X10 A	3X10 C	3X10 A	3X10 D	3X10 A	3X10 A	3X10 A	3X10	3X10 C	3X10 C		4X10 B	4X10 B		4X
RUN#	25																-		described to the	t a zar verus		- Comments		_
ROOM NAME	BAS																CIT	YO	FB	RAN	IPTO	INC		
RM LOSS MBH.	4.26 84																BL	JILD	ING	DIVI	SIOI	V		
RM GAIN MBH.	0.48																RE	VIEW	ED E	Y: S.	DES	AL		
CFM PER RUN COOLING	16																							
ADJUSTED PRESSURE ACTUAL DUCT LGH.	0.16																1	MA	AR 7 1	6 2019) 59			
EQUIVALENT LENGTH	52 110																1	1-17	AN Z	2010	, ,,			
OTAL EFFECTIVE LENGTH	162																							
ADJUSTED PRESSURE	0.1																				RE PAP			
																	OF	BEVI	EWED	DRAL	NINGS			
ROUND DUCT SIZE	6																	I bleen V		Red A R.A. b. C	211200			
EAT ING VELOCITY (ft/min)	6 428																				WITH O	6C		
EATING VELOCITY (ft/min)	6																					6C		
EAT ING VELOCITY (ff/min) OOLING VELOCITY (ff/min) OUTLET GRILL SIZE TRUNK	6 428 82	1 -															ALL W	ORK M	UST C			6C		
EAT ING VELOCITY (ff/min) DOLING VELOCITY (ff/min) OUTLET GRILL SIZE TRUNK	6 428 82 4X10 C	STATIC	ROUND	RECT			VELOCITY			TRUNK	STATIC	ROUND	RECT			VELOCITY		IR TRUNK	(SIZE STATIC	ROUND	WITH O	5C		
EATING VELOCITY (ft/min) DOLING VELOCITY (ft/min) OUTLET GRILL SIZE TRUNK PPLY AIR TRUNK SIZE	6 428 82 4X10 C	PRESS	DUCT	DUCT		0	(ft/min)		TRIINV G	CFM	PRESS	DUCT	DUCT			(ft/min)	ALL W	IR TRUNK TRUNK CFM	(SIZE STATIC PRESS.	ROUND	RECT DUCT			(ft
EATING VELOCITY (ff/min) DOLING VELOCITY (ff/min) OUTLET GRILL SIZE TRUNK	6 428 82 4X10 C				x x	8 8			TRUNK G TRUNK H					x x	8 8		ALL W	IR TRUNK	(SIZE STATIC	ROUND	WITH O	x x	8 8	(ft
EATING VELOCITY (ft/min) DOLING VELOCITY (ft/min) OUTLET GRILL SIZE TRUNK PPLY AIR TRUNK SIZE TRUNK A TRUNK B TRUNK C	6 428 82 4X10 C TRUNK CFM 236 443 320	0.08 0.08 0.06	8.2 10.3 9.8	10 14 12	×	8	(ft/min) 425 570 480		TRUNK H	0 0 0	0.00 0.00 0.00	0 0 0	0 0 0	x x x	8	(ft/min) 0 0 0	RETURN A	TRUNK TRUNK CFM 0 0	SIZE STATIC PRESS 0.06 0.06 0.06	ROUND DUCT 0 0	RECT DUCT 0 0	X X X	8	(ft)
EATING VELOCITY (ft/min) OOLING VELOCITY (ft/min) OUTLET GRILL SIZE TRUNK PPLY AIR TRUNK SIZE TRUNK A TRUNK A TRUNK C TRUNK D	6 428 82 4X10 C TRUNK CFM 236 443 320 523	0.08 0.08 0.06 0.06	8.2 10.3 9.8 11.8	10 14 12 16	X X	8 8 8	(ft/min) 425 570 480 588		TRUNK H TRUNK I TRUNK J	0 0 0 0	0.00 0.00 0.00 0.00 0.00	0 0 0 0	0 0 0 0	x	8 8 8	(ft/min) 0 0 0 0	RETURN A TRUNK O TRUNK P TRUNK Q TRUNK R	TRUNK TRUNK CFM 0 0 0	SIZE STATIC PRESS. 0.06 0.06 0.06 0.06	ROUND DUCT 0 0 0	RECT DUCT 0 0 0	x x x x	8 8	(ft)
ATING VELOCITY (ft/min) OLING VELOCITY (ft/min) OUTLET GRILL SIZE TRUNK PLY AIR TRUNK SIZE TRUNK A TRUNK B TRUNK C	6 428 82 4X10 C TRUNK CFM 236 443 320	0.08 0.08 0.06	8.2 10.3 9.8	10 14 12	×	8	(ft/min) 425 570 480		TRUNK H	0 0 0	0.00 0.00 0.00	0 0 0	0 0 0	x x x x x	8	(ft/min) 0 0 0	RETURN A TRUNK O TRUNK P TRUNK Q TRUNK R TRUNK S TRUNK S TRUNK T	TRUNK TRUNK CFM 0 0 0 0	C SIZE STATIC PRESS. 0.06 0.06 0.06 0.06 0.06 0.06	ROUND DUCT 0 0 0 0 0 0 0 0	RECT DUCT 0 0 0 0	x x x x x	8 8 8	(ft
EAT ING VELOCITY (ft/min) OOLING VELOCITY (ft/min) OUTLET GRILL SIZE TRUNK PPLY AIR TRUNK SIZE TRUNK A TRUNK A TRUNK C TRUNK D TRUNK D TRUNK F	6 428 82 4X10 C TRUNK CFM 236 443 320 523 0	0.08 0.08 0.06 0.06 0.00 0.00	8.2 10.3 9.8 11.8 0	10 14 12 16 0	x x x x	8 8 8 8	(ft/min) 425 570 480 588 0		TRUNK H TRUNK I TRUNK J TRUNK K	0 0 0 0 0	0.00 0.00 0.00 0.00 0.00 0.00	0 0 0 0 0	0 0 0 0 0	x	8 8 8	(ft/min) 0 0 0 0 0 0	RETURN A TRUNK O TRUNK P TRUNK Q TRUNK R TRUNK S TRUNK S TRUNK T TRUNK U TRUNK V	TRUNK CFM 0 0 0 0 0 0	SIZE STATIC PRESS 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.	ROUND DUCT 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RECT DUCT 0 0 0 0 0	x x x x x x x	8 8 8 8 8	(ftu
EAT ING VELOCITY (ft/min) OOLING VELOCITY (ft/min) OUTLET GRILL SIZE TRUNK PPLY AIR TRUNK SIZE TRUNK A TRUNK B TRUNK C TRUNK C TRUNK C TRUNK C TRUNK C TRUNK F	6 428 82 4X10 C TRUNK CFM 236 443 320 523 0 0	0.08 0.08 0.06 0.06 0.00 0.00	8.2 10.3 9.8 11.8 0 0	10 14 12 16 0 0	x x x x x	8 8 8 8 8	(ft/min) 425 570 480 588 0 0	0	TRUNK H TRUNK I TRUNK J TRUNK K TRUNK L	O O O O	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0 0 0 0 0 0 0	0 0 0 0 0 0 0	x x x x	8 8 8 8 8	(ft/min) 0 0 0 0 0 0 0	TRUNK O TRUNK O TRUNK P TRUNK G TRUNK G TRUNK S TRUNK T TRUNK V TRUNK V TRUNK V TRUNK X	JORK MAIR TRUNK TRUNK CFM 0 0 0 0 0 0 0 970	SIZE STATIC PRESS 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.	ROUND DUCT 0 0 0 0 0 0 0 0 0 0 0 14.9	RECT DUCT 0 0 0 0 0 0 0 0 0 0 0 0 26	x x x x x x x x	8 8 8 8 8 8 8 8	(ft)
EATING VELOCITY (ft/min) OOLING VELOCITY (ft/min) OUTLET GRILL SIZE TRUNK PPLY AIR TRUNK SIZE TRUNK A TRUNK B TRUNK C TRUNK C TRUNK D TRUNK E TRUNK E TRUNK E TRUNK E TRUNK E TRUNK E TRUNK F	6 428 82 4X10 C TRUNK CFM 236 443 320 523 0 0	0.08 0.08 0.06 0.06 0.00 0.00 0.00	8.2 10.3 9.8 11.8 0 0	10 14 12 16 0 0	x x x x x	8 8 8 8 8 6 0 350	(ft/min) 425 570 480 588 0 0	0	TRUNK H TRUNK J TRUNK K TRUNK L 0 0	0 0 0 0 0 0 0	0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0	x x x x	8 8 8 8 8	(ft/min) 0 0 0 0 0 0 0 0	RETURN A TRUNK O TRUNK O TRUNK R TRUNK R TRUNK I TRUNK I TRUNK V TRUNK W TRUNK W TRUNK W TRUNK Y TRUNK Y	TRUNK TRUNK CFM 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SIZE STATIC PRESS 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.	ROUND DUCT 0 0 0 0 0 0 0 0 0 0 0 14.9 0 0	RECT DUCT 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	x x x x x x x x x	888888888	(ft.
EAT ING VELOCITY (ft/min) OOLING VELOCITY (ft/min) OUTLET GRILL SIZE TRUNK PPLY AIR TRUNK SIZE TRUNK A TRUNK B TRUNK C TRUNK D TRUNK C TRUNK C TRUNK E TRUNK F	6 428 82 4X10 C TRUNK CFM 236 443 320 523 0 0	0.08 0.08 0.06 0.06 0.00 0.00 0.00	8.2 10.3 9.8 11.8 0 0	10 14 12 16 0 0	x x x x x x	8 8 8 8 8 8 0 350 0.15	(ft/min) 425 570 480 588 0 0	100	TRUNK H TRUNK I TRUNK J TRUNK K TRUNK L	O O O O	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0 0 0 0 0 0 0	0 0 0 0 0 0 0	x x x x	8 8 8 8 8	(ft/min) 0 0 0 0 0 0 0 0 8R 165 0.15	TRUNK O TRUNK O TRUNK P TRUNK G TRUNK G TRUNK S TRUNK T TRUNK V TRUNK V TRUNK V TRUNK X	ORK M TRUNK CFM 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C SIZE STATIC PRESS 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.	ROUND DUCT 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RECT DUCT 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	x x x x x x x x x x x x x x x x x x x	8888888888	(ft)
EAT ING VELOCITY (ft/min) OOLING VELOCITY (ft/min) OUTLET GRILL SIZE TRUNK PPLY AIR TRUNK SIZE TRUNK B TRUNK C TRUNK C TRUNK C TRUNK C TRUNK F TRUNK F TRUNK F TURN AIR # VOLUME ENUM PRESSURE TUAL DUCT LGH. UVALENT LENGTH	6 428 82 4X10 C TRUNK CFM 236 443 320 523 0 0	0.08 0.08 0.06 0.06 0.00 0.00 0.00	8.2 10.3 9.8 11.8 0 0 95 0.15 62 140	10 14 12 16 0 0 0 95 0.15 50 175	x x x x x x 5 0 85 0.15 46 215	8 8 8 8 8 8 6 0 350 0.15 29 175	(ft/min) 425 570 480 588 0 0	0 0.15	TRUNK H TRUNK J TRUNK K TRUNK L 0 0	0 0 0 0 0 0 0 0	0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	x x x x	8 8 8 8 8	(ft/min) 0 0 0 0 0 0 0 0 0 0 165 0.15 14 135	RETURN A TRUNK O TRUNK O TRUNK O TRUNK R TRUNK S TRUNK S TRUNK S TRUNK V TRUNK V TRUNK V TRUNK X TRUNK Z	TRUNK TRUNK CFM 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SIZE STATIC PRESS 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.	ROUND DUCT 0 0 0 0 0 0 0 0 0 0 0 14.9 0 0	RECT DUCT 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	x x x x x x x x x	888888888	6
IEAT ING VELOCITY (filmin) OOLING VELOCITY (filmin) OUTLET GRILL SIZE TRUNK PPLY AIR TRUNK SIZE TRUNK A TRUNK B TRUNK C TRUNK D TRUNK E TRUNK F TURN AIR # VOLUME ENUM PRESSURE TUAL DUCT LGH. UNVALENT LENGTH TAL EFFECTIVE LH	6 428 82 4X10 C TRUNK CFM 236 443 320 523 0 0 85 0.15 46 220 266	0.08 0.08 0.06 0.06 0.00 0.00 0.00	8.2 10.3 9.8 11.8 0 0 0 3 0 95 0.15 62 140 202	10 14 12 16 0 0 0 4 0 95 0.15 50 175 225	x x x x x x x x 5 0 85 0.15 46 215 261	8 8 8 8 8 8 0 0.15 29 175 204	(ft/min) 425 570 480 588 0 0	0 0.15 1 0	TRUNK H TRUNK J TRUNK K TRUNK L 0 0 0.15 1 0 1	O O O O O O O O O O O O O O O O O O O	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.15 1	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0.15 1 0	8 8 8 8 8 0 0.15 1	(ft/min) 0 0 0 0 0 0 0 0 0 0 165 0.15 14 135 149	RETURN A TRUNK O TRUNK O TRUNK O TRUNK R TRUNK S TRUNK S TRUNK S TRUNK V TRUNK V TRUNK V TRUNK X TRUNK Z	ORK M TRUNK CFM 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C SIZE STATIC PRESS 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.	ROUND DUCT 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RECT DUCT 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	x x x x x x x x x x x x x x x x x x x	8888888888	6
JEATING VELOCITY (filmin) OOLING VELOCITY (filmin) OUTLET GRILL SIZE TRUNK PPLY AIR TRUNK SIZE TRUNK A TRUNK B TRUNK C TRUNK B TRUNK C TRUNK E TRUNK F TURN AIR # EVOLUME ENUM PRESSURE TUAL DUCT LGH. UVALENT LENGTH TAL EFFECTIVE LH JUSTED PRESSURE	6 428 82 4X10 C TRUNK CFM 236 443 320 523 0 0	0.08 0.08 0.06 0.06 0.00 0.00 0.00 0.15 63 135 198 0.07	8.2 10.3 9.8 11.8 0 0 95 0.15 62 140	10 14 12 16 0 0 0 95 0.15 50 175 225 0.07	x x x x x x 5 0 85 0.15 46 215	8 8 8 8 8 8 8 0 350 0.15 29 175 204 0.07	(ft/min) 425 570 480 588 0 0	0 0.15 1	TRUNK H TRUNK J TRUNK K TRUNK L 0 0 0.15 1	0 0 0 0 0 0 0 0 0	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0.15	8 8 8 8 8 0 0 0.15	(Rt/min) 0 0 0 0 0 0 0 0 0 0 165 0.15 14 135 149 0.10	RETURN A TRUNK O TRUNK O TRUNK O TRUNK R TRUNK S TRUNK S TRUNK S TRUNK V TRUNK V TRUNK V TRUNK X TRUNK Z	ORK M TRUNK CFM 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C SIZE STATIC PRESS 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.	ROUND DUCT 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RECT DUCT 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	x x x x x x x x x x x x x x x x x x x	8888888888	(tu)
IEATING VELOCITY (filmin) OOLING VELOCITY (filmin) OUTLET GRILL SIZE TRUNK PPLY AIR TRUNK SIZE TRUNK A TRUNK B TRUNK B TRUNK C TRUNK D TRUNK C TRUNK D TRUNK E	6 428 82 4X10 C TRUNK CFM 236 443 320 523 0 0 85 0.15 46 220 266	0.08 0.08 0.06 0.06 0.00 0.00 0.00	8.2 10.3 9.8 11.8 0 0 95 0.15 62 140 202 0.07	10 14 12 16 0 0 0 4 0 95 0.15 50 175 225	x x x x x x x x x x x x x x x 20 85 0.15 46 215 261 0.06	8 8 8 8 8 8 0 0.15 29 175 204	(ft/min) 425 570 480 588 0 0 0 0.15 1 0 1 14.80	0 0.15 1 0 1 14.80	TRUNK H TRUNK I TRUNK K TRUNK K TRUNK L 0 0 0.15 1 0 1 14.80	OFM O O O O O O O O O O O O O O O O O O O	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1	0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1	0 0 0.15 1 0 1 14.80	8 8 8 8 8 0 0.15 1	(ft/min) 0 0 0 0 0 0 0 0 0 0 165 0.15 14 135 149	RETURN A TRUNK O TRUNK O TRUNK O TRUNK R TRUNK S TRUNK S TRUNK S TRUNK V TRUNK V TRUNK V TRUNK X TRUNK Z	ORK M TRUNK CFM 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C SIZE STATIC PRESS 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.	ROUND DUCT 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RECT DUCT 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	x x x x x x x x x x x x x x x x x x x	8888888888	VELCC (8//) (1) (1) (1) (1) (1) (1) (1) (1) (1) (



TYPE: SITE NAME: AMELIA 2

GRANELU HOME CORP

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

COMBUSTION APPLIANCES	9.32.3.1(1)	SUPPLEMENTAL VENTILATION CAPACITY 9.32.	.3.5.
a) Direct vent (sealed combustion) only		Total Ventilation Capacity 180.2 cfm	
b) Positive venting induced draft (except fireplaces)		Less Principal Ventil. Capacity 79.5 cfm	
c) Natural draft, B-vent or induced draft gas fireplace		Required Supplemental Capacity cfm	
d) Solid Fuel (including fireplaces)			
e) No Combustion Appliances		PRINCIPAL EXHAUST FAN CAPACITY	
		Model: LIFEBREATH RNC5-HEX Location: BSMT	
HEATING SYSTEM		79.5 cfm 3.0 sones	ved
✓ Forced Air Non Forced Air		PRINCIPAL EXHAUST HEAT LOSS CALCULATION	
		CFM AT F FACTOR % LOSS	
Electric Space Heat		79.5 CFM X 74 F X 1.08 X 0.24	_
		SUPPLEMENTAL FANS NUTONE	
HOUSE TYPE	0.20.4/01	Location Model cfm HVI Sones	
HOUSE TIPE	9.32.1(2)	ENS QTXEN050C 50 \(\sqrt{0.3} \) ENS-2 QTXEN050C 50 \(\sqrt{0.3} \)	-
✓ I Type a) or b) appliance only, no solid fuel		ENS-3/4 QTXEN050C 50 V 0.3	\dashv
		PWD QTXEN050C 50 ✓ 0.3	
II Type I except with solid fuel (including fireplaces))	HEAT RECOVERY VENTILATOR 9.32.3.	.11.
III Any Type c) appliance		Model: LIFEBREATH RNC5-HEX 108 cfm high 59 cfm low	,
IV Type I, or II with electric space heat			
Other: Type I, II or IV no forced air		76 % Sensible Efficiency ✓ HVI Approv @ 32 deg F (0 deg C)	vea
		LOCATION OF INSTALLATION	
SYSTEM DESIGN OPTIONS	O.N.H.W.P.	LOCATION OF INSTALLATION	
Service Annual Control of Strategies in Annual Control of Service Are Service		Lot: Concession	
1 Exhaust only/Forced Air System		Township Plan:	
2 HRV with Ducting/Forced Air System		Address	
3 HRV Simplified/connected to forced air system		Address	\dashv
4 HRV with Ducting/non forced air system		Roll # Building Permit #	
Part 6 Design		BUILDER: GREENYORK HOMES	
		Name:	
TOTAL VENTILATION CAPACITY	9.32.3.3(1)	Address:	
Basement + Master Bedroom 2 @ 21.2 cfm 42.4	cfm	City: 4	
Other Bedrooms3 @ 10.6 cfm31.8	cfm	Telephone # Z Fax#	
Kitchen & Bathrooms5 @ 10.6 cfm53	cfm	INSTALLING CONTRACTOR	
Other Rooms 5 @ 10.6 cfm 53.0	cfm	Name:	
Table 9.32.3.A. TOTAL 180.2	cfm	Address:	
PRINCIPAL VENTILATION CAPACITY REQUIRED	9.32.3.4.(1)	City:	-
1 Bedroom 31.8		Telephone #: Fax #:	
	cfm	DESIGNER CERTIFICATION	\neg
2 Bedroom 47.7	cfm	I hereby certify that this ventilation system has been designed	
3 Bedroom 63.6	cfm	In accordance with the Ontario Building Code. Name: HVAC Designs Ltd.	
4 Bedroom 79.5	cfm	Signature: Machael Office.	
5 Bedroom 95.4	cfm	HRAI# 001820	
TOTAL 79.5 cfm		Date: June-18	
	LIFIED IN THE API	PPROPRIATE CATEGORY AS AN "OTHER DESIGNER" UNDER DIVISION C, 325 OF THE BUILDING CODE.	_



375 Finley Ave. Suite 202 Ajax, ON L1S 2E2 Tel: 905.619.2300 Fax: 905.619.2375

147.0 ft

Web: www.hvacdesigns.ca E-mail: info@hvacdesigns.ca

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): AIR CHANGES PER HOUR: 3.57 ASSUMED (Y/N): AIR TIGHTNESS CATEGORY: **AVERAGE** ASSUMED (Y/N): WIND EXPOSURE: SHELTERED ASSUMED (Y/N): HOUSE VOLUME (ft3): 39046.0 ASSUMED (Y/N): ASSUMED OCCUPANTS: INTERNAL SHADING: **BLINDS/CURTAINS** 5 INTERIOR LIGHTING LOAD (Btu/h/ft2): 1.27 DC BRUSHLESS MOTOR (Y/N): FOUNDATION CONFIGURATION BCIN_1 **DEPTH BELOW GRADE:** 6.0 ft

2012 OBC - COMPLIANCE PACKAGE		
	Compliance	Package
Component	Α	1
	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	-

EXPOSED PERIMETER:

INDIVIDUAL BCIN: 19669 MICHAEL O'ROURKE

LENGTH:

51.0 ft

WIDTH:

30.0 ft





Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

We	eather Station	Description	SAI
Province:	Ontario	FP	
Region:	Brampton	25	S. ARE
	Site Descr	ription	37: S. DE 6 2019
Soil Conductivity:	Normal condu	uctivity: dry sand, loam, clay	R 2
Water Table:	Normal (7-10	m, 23-33 ft)	MA
	Foundation Di	imensions E	ATTACH OF RE
Floor Length (m):	15.5	Out	ALL
Floor Width (m):	9.1		HE COST TOLK TO STANDARD
Exposed Perimeter (m):	44.8		
Wall Height (m):	2.7		
Depth Below Grade (m):	1.83	Insulation Configuration	
Window Area (m²):	1.1	The section of the se	No. of the Control of
Door Area (m²):	3.7		
	Radiant	Slab	
Heated Fraction of the Slab:	0		
Fluid Temperature (°C):	33		
	Design M	onths	
Heating Month	1		
	Foundation	1 Loads	
Heating Load (Watts):		1459	

TYPE: AMELIA 2 LO# 78988



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

		Z = 3	
V	Veather Stati	on Description	PARI
Province:	Ontario	M S S	5
Region:	Brampton	A SON	20 A B B B B B B B B B B B B B B B B B B
	Site Des	scription	7 P
Soil Conductivity:	Normal con	ductivity: dry sand, loam, clay	AAK VIEW
Water Table:	Normal (7-1	LO m, 23-33 ft)	RE
	Foundation	Dimensions O O O O O O O O O O O O O O O O O O O	ATTACH OF RE
Length (m):	4.0		
Width (m):	0.6	↔ 0.6m †	
Exposed Perimeter (m):	4.6	0.6m Insulation Configuration	
	Radiar	nt Slab	
Heated Fraction of the Slab:	0		
Fluid Temperature (°C):	33		
	Design	Months	
Heating Month	1		
	Res	ults	
Heating Load (Watts)	:	27	

TYPE: AMELIA 2 LO# 78988

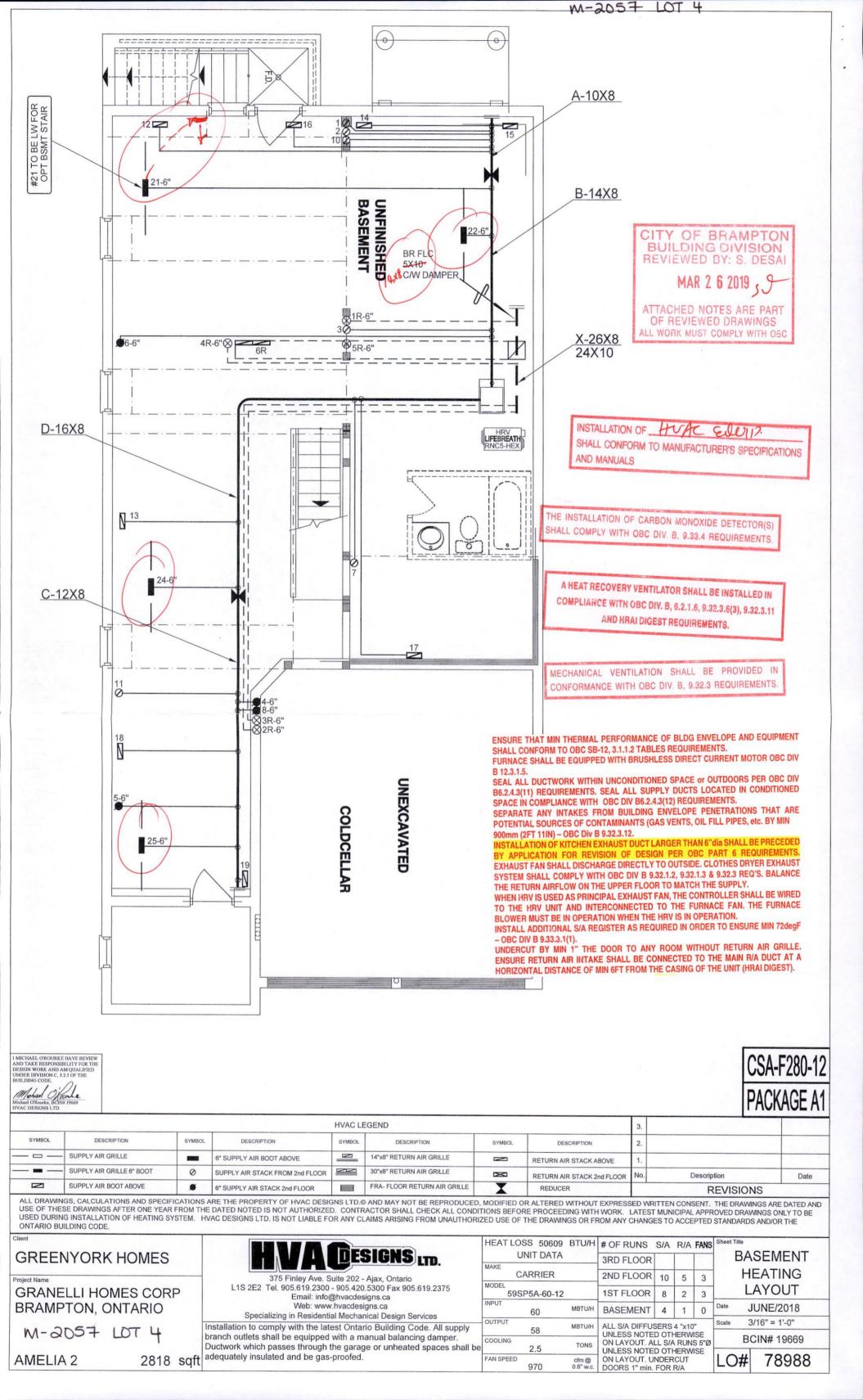


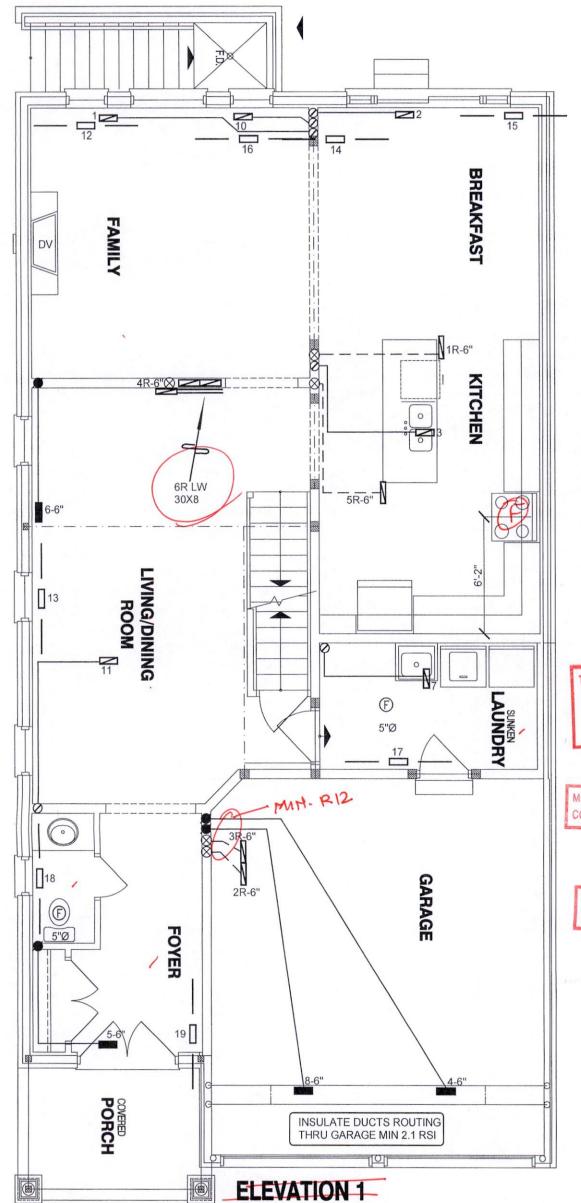
Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Statio	n Des	cript	ion		
Province:	Ontai	rio			SZZ =
Region:	Bram	pton			PAR PAR
Weather Station Location:	Open	flat te	errain, g	grass	NA N
Anemometer height (m):	10				20 YES
Local Sh	ieldin	g			2 2 E
Building Site:	Subu	rban, f	orest		A SUO
Walls:	Heav	У			CHE NEVEL N
Flue:	Heav	У			F S A
Highest Ceiling Height (m):	7.01				O-E A
Building Co	nfigur	ation			
Type:	Detac	ched			
Number of Stories:	Two				
Foundation:	Full				
House Volume (m³):	1105	.7			
Air Leakage/	Venti	latio	n		
Air Tightness Type:	Prese	nt (19	61-) (3	.57 ACI	н)
Custom BDT Data:	ELA @	2 10 Pa	a.		1473.9 cm ²
	3.57				ACH @ 50 Pa
Mechanical Ventilation (L/s):	To	otal Sup	ply		Total Exhaust
		37.5			37.5
Flue	Size				
Flue #:	#1	#2	#3	#4	
Diameter (mm):	0	0	0	0	
Natural Infilt	ration	Rate	es		
Heating Air Leakage Rate (ACH/H):		C).33	5	
Cooling Air Leakage Rate (ACH/H):		C).11	2	

TYPE: AMELIA 2 **LO#** 78988





CITY OF BRAMPTON BUILDING DIVISION REVIEWED BY: S. DESAI

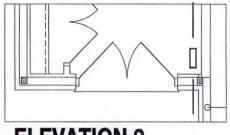
MAR 2 6 2019 19

ATTACHED NOTES ARE PART OF REVIEWED DRAWINGS ALL WORK MUST COMPLY WITH OBC

THIS INSTALLATION OF A GAS FIREPLACE IS REGULATED UNDER
THE T.S.S.A. BY C.S.A. B149.1 NATURAL GAS AND PROPANE
INSTALLATION CODE CALL ENBRIDGE FOR INSPECTION AT
1-800-785-1314

MECHANICAL VENTILATION SHALL BE PROVIDED IN CONFORMANCE WITH OBC DIV. B, 9.32.3 REQUIREMENTS.

THE INSTALLATION OF CARBON MONOXIDE DETECTOR(S) SHALL COMPLY WITH OBC DIV. B, 9.33.4 REQUIREMENTS.



ELEVATION 2

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'Rourk, BCNW 19669
HVAC DESIGNS LTD.

CSA-F280-12 PACKAGE A1

				HVAC LE	EGEND			3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	SUPPLY AIR GRILLE	1994	6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	SUPPLY AIR GRILLE 6" BOOT	0	SUPPLY AIR STACK FROM 2nd FLOOR	WW	30"x8" RETURN AIR GRILLE	\boxtimes	RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR	Personal	FRA- FLOOR RETURN AIR GRILLE	X	REDUCER		REVISIONS	

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AND MAY NOT BE REPRODUCED, MODIFIED OR ALTERED WITHOUT EXPRESSED WRITTEN CONSENT. THE DRAWINGS ARE DATED AND USE OF THESE DRAWINGS AFTER ONE YEAR FROM THE DATED NOTED IS NOT AUTHORIZED. CONTRACTOR SHALL CHECK ALL CONDITIONS BEFORE PROCEEDING WITH WORK. LATEST MUNICIPAL APPROVED DRAWINGS ONLY TO BE USED DURING INSTALLATION OF HEATING SYSTEM. HVAC DESIGNS LTD. IS NOT LIABLE FOR ANY CLAIMS ARISING FROM UNAUTHORIZED USE OF THE DRAWINGS OR FROM ANY CHANGES TO ACCEPTED STANDARDS AND/OR THE ONTARIO BUILDING CODE.

Client

GREENYORK HOMES

Project Name

GRANELLI HOMES CORP BRAMPTON, ONTARIO

M-2057 LOT 4

AMELIA 2

2818 sqft

HVA DESIGNS 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.

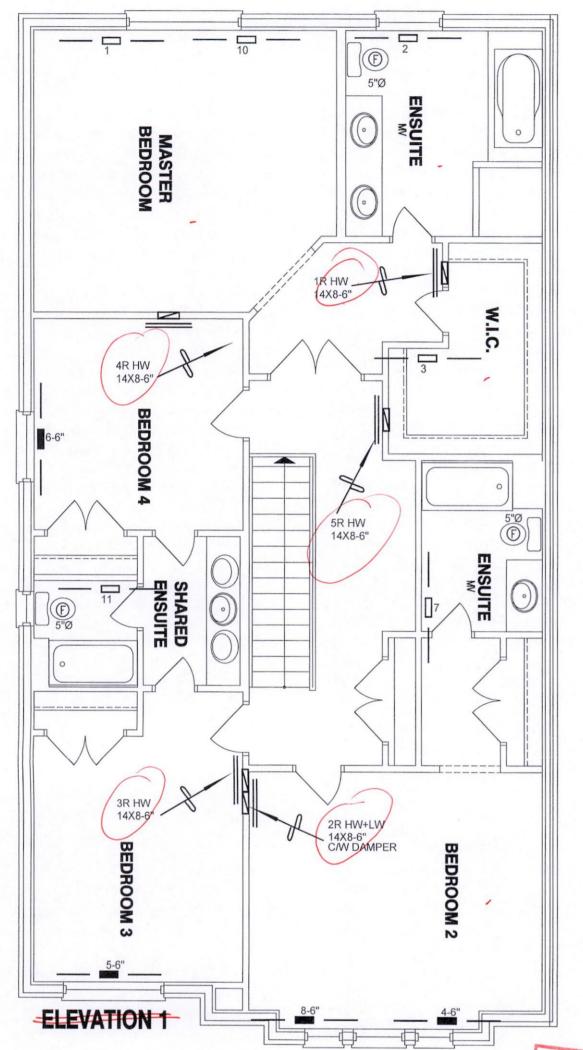
Sheet Title

FIRST FLOOR HEATING LAYOUT

Date JUNE/2018

e 3/16" = 1'-0" BCIN# 19669

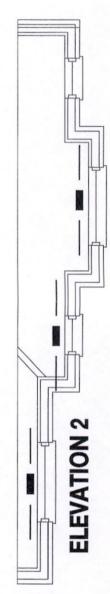
LO# 78988



CITY OF BRAMPTON BUILDING DIVISION REVIEWED BY: S. DESAI

MAR 2 6 2019 5

ATTACHED NOTES ARE PART OF REVIEWED DRAWINGS ALL WORK MUST COMPLY WITH OBC



THE INSTALLATION OF CARBON MONOXIDE DETECTOR(S) SHALL COMPLY WITH OBC DIV. B, 9.33.4 REQUIREMENTS.

MECHANICAL VENTILATION SHALL BE PROVIDED IN CONFORMANCE WITH OBC DIV. B, 9.32.3 REQUIREMENTS.

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, BCINs 19669

CSA-F280-12 PACKAGE A1

				HVAC LE	EGEND			3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	SUPPLY AIR GRILLE	NAME .	6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	SUPPLY AIR GRILLE 6" BOOT	0	SUPPLY AIR STACK FROM 2nd FLOOR	<u></u>	30"x8" RETURN AIR GRILLE	1350	RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE	.66	6" SUPPLY AIR STACK 2nd FLOOR	les de la constant de	FRA- FLOOR RETURN AIR GRILLE	X	REDUCER		REVISIONS	

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Client

GREENYORK HOMES

Project Nam

GRANELLI HOMES CORP BRAMPTON, ONTARIO

M-2057 LOT 4

AMELIA 2

2818 sqft

HVA DESIGNS 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.

Sheet Title

SECOND FLOOR HEATING LAYOUT

Date JUNE/2018
Scale 3/16" = 1'-0"

BCIN# 19669

O# 78988

Schedule 1: Designer Information

A. Project Information				
	OSECO WAY		Unit no.	Lot/con. 4
Municipality BRAMPTON	ostal code	lan number/ other descri	ption 43M-	2057
3. Individual who reviews and		The state of the s	on obtained the	
Name SANDY WHITE, P.Eng		Firm ANDA ENGINI	EERING LTD).
Street address 5125 ARDOCH	ROAD		Unit no.	Lot/con.
Municipality ARDOCH	KOH-1CO	Province ONTARIO	E-mail design@and	laengineering.co
Telephone number 613) 479-0161	Fax number	I/A	Cell number (416) 476	-1105
C. Design activities undertaker Division C]	by individual ide	ntified in Section B. [Bi	ullding Code T	able 3.5.2.1. of
House Small Buildings Large Buildings Complex Buildings Description of designer's work	☐ Buildin ☐ Detecti	– House g Services on, Lighting and ower otection	lumbin	Structural g – House g – Il Buildings Sewage Systems
AMELIA 2 EL. 2 WALK-UP & DECK CONDITION Declaration of Designer	N	GRA	ANELLI HOM	IES CORP.
SANDY WHITE,			International Assertation	
	name)	d	eclare that (choo	se one as appropriate
C, of the Building Code. Individual BCIN:	am qualified, and th		propriate classes	s/categories.
under subsection 3.2.5.0 Individual BCIN:	f Division C, of the Bu	and am qualified in the appr uilding Code.	opriate category	as an "other designer"
Basis for exemption	from registration:			
The state of the s	pt from the registration	on and qualification requirem	ents of the Buildi xempt, note	ng Code.
Basis for exemption	from registration and	qualification: P.Eng. e	Actipi, note	2
Basis for exemption certify that:	from registration and	qualification: P.Eng. e		2
Basis for exemption certify that: 1. The information contained in the certify that in the certify that in the certify that in the certification is a second and the certification in the certification in the certification is a second and the cer	from registration and his schedule is true t	qualification: P.ENG. e		2
Basis for exemption certify that:	from registration and his schedule is true t	o the best of my knowledge. e and consent of the firm.		2
Basis for exemption certify that: 1. The information contained in the contained in the certify that it is a second contained.	from registration and his schedule is true t	o the best of my knowledge. e and consent of the firm.	SANDY Parks of the first first for the first fir	Z SE
Basis for exemption certify that: 1. The information contained in t	from registration and his schedule is true t	o the best of my knowledge. e and consent of the firm.		Z SE

NOTE:

- 1. For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) (c).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 practice, issued by the Ontario Association o
 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.



Planning and Development Services

Building Division 8850 McLaughlin Road, Unit 1 Brampton, ON L6Y 5T1

Swhite

THE REVIEW

WATER PIPE SIZING AND PLUMBING DATA SHEET CERTIFIED MODEL WITH ONE DWELLING UNIT

THIS TABLE IS APPLICABLE FOR A HOUSE AFTER DECEMBER 31, 2017

Builder Name:

Greenyork Homes

Certified Model Name:

AMELIA 2 (LO#78988-P)

Optional Floor Layout:

Application No.:

The Ontario Building Code Div. B, 7.6.3 regulates size and capacity of pipes for a new house. Please enter the number of individual fixtures as listed and bathroom groups⁽⁶⁾ or powder room groups⁽⁷⁾ per floor. The fixture units and required minimum size of water service will automatically be calculated.

Description	Basement Floor Qty.	First Floor Qty.	Second Floor Qty.	Third Floor Qty.
Bidet				
Extra Shower			1	
Lav			1	
Bar Sink				
Powder room ⁽⁷⁾		1		
Kitchen Sink		1		
Dishwasher		1		
Laundry Tub		1		
Washing Machine		1		
Hose Bib		2		

Total Fixture Units

30

Minimum Diametre of Water Service Pipe Required from the Property Line to the

1

House (Inch)

Notes:

- (1) A potable water system shall be designed, constructed and installed to conform to good engineering practice appropriate to the circumstances, such as that described in the ASHRAE Handbooks and ASPE Data Books.
- (2) No water system between the point of connection with the water service pipe or the water meter and the first branch that supplies a water heater that serves more than one fixture shall be less than ¾ in. in size.
- (3) The minimum water pressure at the entry to the building is 200 kPa, and the total maximum length of the water system is 90 m.
- (4) In a hot water distribution system of a developed length of more than 30 m from the HWT to the farthest fixture or supplying more than 4 storeys, the water temperature shall be maintained by, (a) recirculation, or (b) a self-regulating heat tracing system.
- (5)

Where piping may be exposed to freezing conditions, it shall be protected from the effects of freezing.

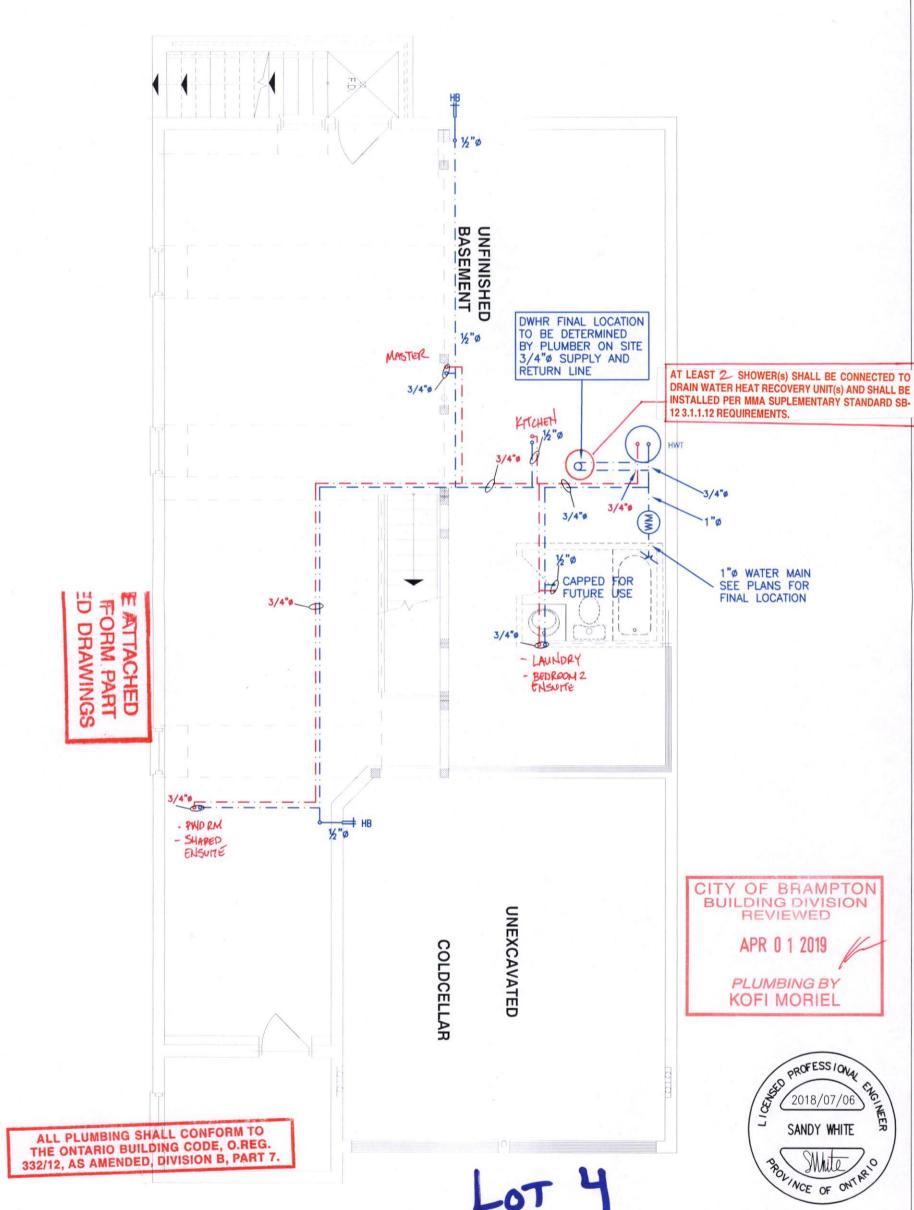
- (6) A bathroom group consists of 1 water closet, 1 lavatory, and 1 bathtub (with or without showerhead)
- (7) A powder room group consists of 1 water closet and 1 lavatory.

NOTES

- DRAWINGS ARE TO BE PRINTED IN COLOUR
 WHERE A 3/4"ø TUB SPOUT/ SPIGOT CONNECTION IS USED ON THE BATHTUB FAUCET THE WATER SUPPLY PIPE SHALL BE 3/4"ø TO THE BRANCH FOR THE BATHTUB
 BASEMENT BATHROOM ROUGH-IN SHALL BE USED IN SIZING
- 4. EXACT LOCATION OF ALL PLUMBING PIPING TO BE DETERMINED ON SITE

LEGEND

SYMBOL	DESCRIPTION (SEE PLAN FOR PIPE SIZING)
WM)	WATER METER, PROVIDE SUPPLY PIPE SIZE/ Ø
нв⊨	HOSE BIB
	PROPOSED COLD WATER LINE & RISER
	PROPOSED HOT WATER LINE & RISER
⊕ FD	FLOOR DRAIN



Client

GREENYORK HOMES

GRANELLI HOMES CORP BRAMPTON, ONTARIO

DESIGNS LTD.

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BASEMENT PLUMBING LAYOUT

JULY 2018 3/16" = 1'-0"

78988-P LO#

AMELIA 2

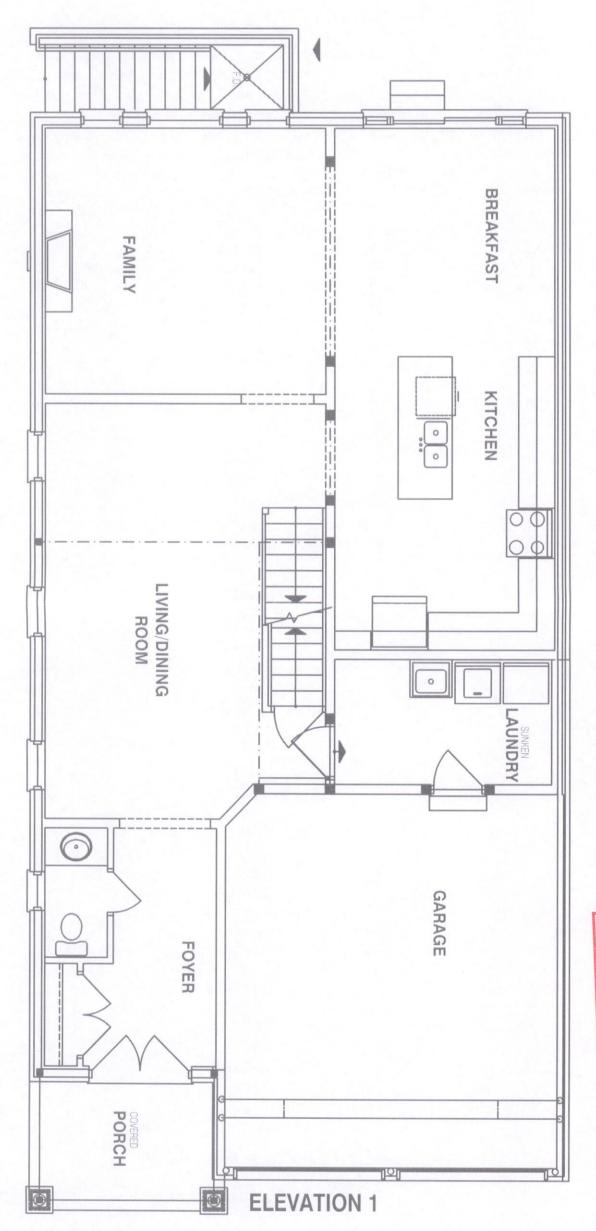
2818 sqft

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SYMBOL	DESCRIPTION (SEE PLAN FOR PIPE SIZING)
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	PROPOSED COLD WATER LINE & RISER
	PROPOSED HOT WATER LINE & RISER
⊕ FD	FLOOR DRAIN



CITY OF BRAMPTON BUILDING DIVISION REVIEWED APR 0 1 2019

> PLUMBING BY KOFI MORIEL



GREENYORK HOMES

GRANELLI HOMES CORP BRAMPTON, ONTARIO

M-2057 LOTY

AMELIA 2 2818 sqft

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FIRST FLOOR **PLUMBING** LAYOUT

JULY 2018 3/16" = 1'-0"

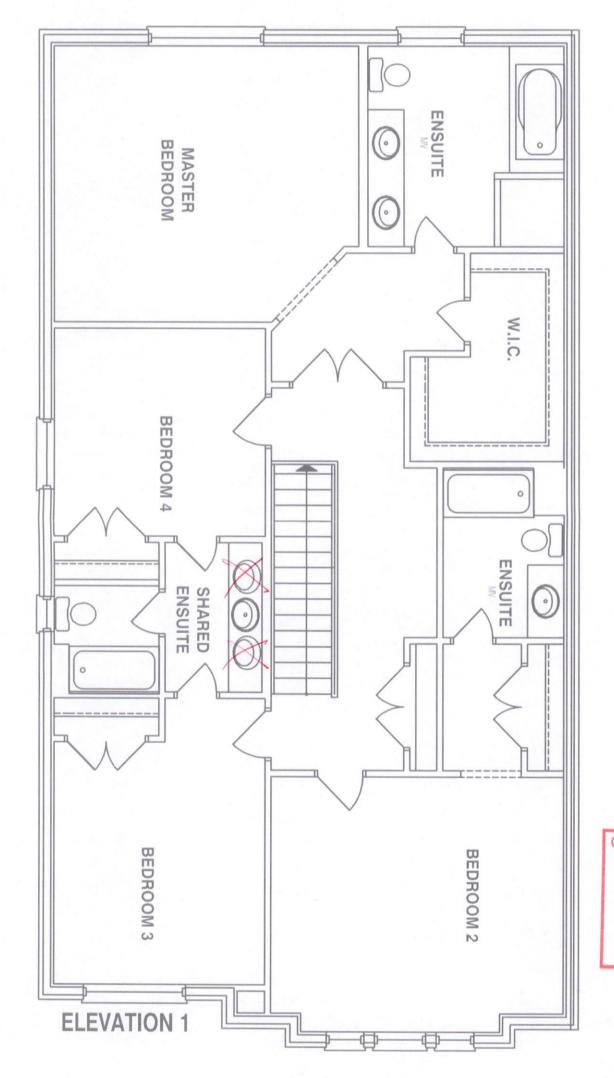
LO# 78988-P

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- OF WATER PIPE
- 4. EXACT LOCATION OF ALL PLUMBING PIPING TO BE DETERMINED ON SITE

LEGEND

SYMBOL	DESCRIPTION (SEE PLAN FOR PIPE SIZING)
WM	WATER METER, PROVIDE SUPPLY PIPE SIZE/ Ø
нв⊨	HOSE BIB
	PROPOSED COLD WATER LINE & RISER
	PROPOSED HOT WATER LINE & RISER
⊕ FD	FLOOR DRAIN



CITY OF BRAMPTON BUILDING DIVISION REVIEWED APR 0 1 2019

> PLUMBING BY KOFI MORIEL



GREENYORK HOMES

AMELIA 2

GRANELLI HOMES CORP BRAMPTON, ONTARIO

M-2057 LOT4

2818 sqft



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Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services

SECOND FLOOR **PLUMBING** LAYOUT

JULY 2018 3/16" = 1'-0"

LO# 78988-P