Schedule 1: Designer Information

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

A. Pro	ject Information							
Building	number, street name					Unit no.	Lot/con.	
Municipa	ality	Postal code	Plan numbe	r/ other des	cription		I	
VAUGHA	N (WOODBRIDGE)							
B. Indi	vidual who reviews and	takes responsibility	for design ac	tivities				
Name			Firm					
	L O'ROURKE		HVAC DES	IGNS LTD.	It lait as		II atlaan	
Street a	LEY AVE				Unit no. 202		Lot/con. N/A	
Municipa		Postal code	Province		E-mail		TW/ C	
AJAX	,	L1S 2E2	ONTARIO		info@hvacd	esigns.ca		
Telepho	ne number	Fax number			Cell number			
(905) 6	19-2300	(905) 619-237	5		()			
C. Des	ign activities undertaker	n by individual ident	ified in Section	n B. [Buile	ding Code T	able 3.5.2.1 O	F Division C]	
□ Но	uica		.C – House			Building Str	uctural	
	nall Buildings		ing Services			Plumbing –		
	rge Buildings		ction, Lightin	g and Pov		Plumbing –		
	mplex Buildings ion of designer's work	☐ Fire I	Protection	T	5004 THE BE		vage Systems	
DUCT S RESIDE RESIDE	OSS / GAIN CALCULATION IZING INTIAL MECHANICAL VENT INTIAL SYSTEM DESIGN po Elaration of Designer	ILATION DESIGN SUN	MARY	Project:	PINE VALLEY	& TESTON		
. Dec								
I	MICHAEL O'ROUF	(print name)			declare	that (choose one	e as appropriate):	
	I review and take respons Division C, of the Building classes/categories.	Code. I am qualified, a				section 3.2.4.of appropr	iate	
	Firm BCIN:	· ·						
×	I review and take respons designer" under subsec		d am qualified in sion C, of the B			as an "other		
	Individual BCI	N: <u>19669</u>						
	Basis for exen	nption from registration	and qualification	n:	O.B.C SE	NTENCE 3.2	.4.1 (4)	
	The design work is exemple Basis for exemption from			ication requi	irements of the	e Building Code.		
I certify	that:							
	 The information conta I have submitted this 	ained in this scho application with the kno	edule is true to to welledge and cor				2.	
	June 4, 2020				Mich	al Okoun	Le.	
	Date						of Designer	
								—

NOTE

^{1.} For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d).of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.

^{2.} 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.



SUBTOTAL HT LOSS SUBTOT	SITE NAME:	PINE V	ALLEY	& TES	TON															Jun-20				WINTER	RNATU	JRAL A	AIR CH	ANGE RATE 0.340		HEAT	LOSS	ΔT°F.	76			CSA-F280	0-12
ESP. WALL CHARLE ALSO SAME GREAT STATE ALSO SAME GREAT STATE ALSO SAME GREAT STATE STATE SAME GREAT STATE SAME GRE		GOLD	PARK H	HOMES	S				TYPE:	5004 T	HE BEA	AUMON	Т		GFA:	4184			LO#	77477					RNATU	JRAL A	AIR CH	ANGE RATE 0.124				ΔT°F.	16	1	SB-12	PACKAGE	A1
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Column C	EXP. WALL				19			38		l	12			11		l	18			43			0			13				18							
Column C	CLG. HT.				10			9			9			9			9			10			9			9				9							
Column C		FACTO	ORS																																		
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SOUTH 121 213 152 80 0 0 0 0 191 225 80 191 20 191	NORTH	21.3	16.4	0	0	0	0	0	0	0	0	0	18	383	295	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0						
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SECULT 12 1936 8 284 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SOUTH	21.3	25.0	0	0	0	9	192	225	4	85	100	0	0	0	0	0	0	9	192	225	0	0	0	0	0	0		0	0	0						
DOOMS 12 23 34 8 80 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	WEST	21.3	41.1	42	894	1727	28	596	1152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0						
Metal part Met	SKYLT.	37.2	103.0	8	298	824	0	0	0	0	0	0	4	149	412	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0						
EMPLIAN SECONO 1.0	DOORS	25.2	5.2	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						
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MATCHEMPORIE CLAG 27 14 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NET EXPOSED BSMT WALL ABOVE GR	3.6	0.7	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						
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SUB TOTAL HT GAIN HE LEVEL FARTOR MATURILLER FAR	SLAB ON GRADE HEAT LOSS				0			0			0			0			0			0			0			0				0							
LEVELE FORTOWN LITHURS STUMP 1	SUBTOTAL HT LOSS				2443			2549			842			1605			2622			3885			223			821				1237							
LEVELE FORTOWN LITHURS STUMP 1	SUB TOTAL HT GAIN					2982			1859			342			998			2956			3414			77			200				763						
ARCHANGE HEAT CAMP 1966 1976 19	LEVEL FACTOR / MULTIPLIER			0.20	0.34		0.20	0.34	RESERVE	0.20	0.34		0.20	0.34		0.20	0.34		0.20	0.34		0.20	0.34	(0.35)	0.20	0.34	1,755		0.20	0.34	Meeti						
Color Colo							10000			100000			120000			2000			0.0000000			estima)															
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SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS	EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMT WALL ABOVE CR EXPOSED CLG NO ATTIC EXPOSED CLG	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.4 41.1 25.0 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0	27 11 297 LOSS 0 872 255 0 0 1089 0	GAIN 0 1686 300 0 0 0 226 0	0 24 0 0 0 163 0	17 11 187 LOSS 0 0 511 0 0 727 0 0	GAIN 0 0 601 0 0 151 0	0 10 111 0 0 1061 0 192	111 11 1221 LOSS 830 0 213 2362 0 0 4735 0 246 0	GAIN 640 0 250 4565 0 984 0 123	0 26 57 0 0 787 0 0 342	56 16 896 LOSS 553 0 553 1213 0 0 3512 0 940	GAIN 426 0 651 2344 0 0 730 0 0 468	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 149 0 0 178	GAIN 0 0 0 412 0 0 89	0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 170 0 0 205 0 77	GAIN 0 0 200 0 0 43 0 38 0	35 0 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 505 1571 0	GAIN 0 1439 0 0 105 327 0 0	0 0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 505 955 0 0	GAIN 0 0 0 0 105 199 0				1186	0 0 0 25 0 0 0 281	51 10 510 LOSS 0 0 0 532 0	0 0 1028 0 0 0 210 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS GA 64 4 0 192 2 0 0 1 505 11 0 1382 2: 0 0	49 0 225 0 0 0 05 0 0 87 0
SUBTOTAL HT LOSS SUB TOTAL HT GAIN 2217 1238 8886 6672 519 4619 519 453 2811 1871 304 1538 667 EVEL FACTOR / MULTIPLIER 0.30 0.38 0.30 0.30	EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.4 41.1 25.0 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0	27 11 297 LOSS 0 872 255 0 0 1089 0	GAIN 0 1686 300 0 0 0 226 0	0 24 0 0 0 163 0	17 11 187 LOSS 0 0 511 0 0 727 0 0 0	GAIN 0 0 601 0 0 151 0	0 10 111 0 0 1061 0 192	111 11 1221 LOSS 830 0 213 2362 0 0 4735 0 246 0	GAIN 640 0 250 4565 0 984 0 123	0 26 57 0 0 787 0 0 342	56 16 896 LOSS 553 0 553 1213 0 0 3512 0 940	GAIN 426 0 651 2344 0 0 730 0 0 468	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 149 0 0 178	GAIN 0 0 0 412 0 0 89	0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 170 0 0 205 0 77	GAIN 0 0 200 0 0 43 0 38 0	35 0 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 505 1571 0	GAIN 0 1439 0 0 105 327 0 0	0 0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 0 505 955 0 0	GAIN 0 0 0 0 105 199 0				1186	0 0 0 25 0 0 0 281	51 10 510 LOSS 0 0 0 532 0	0 0 1028 0 0 0 210 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS GA 64 4 0 192 2: 0 0 1 505 11 1382 2: 0 0	49 0 225 0 0 0 05 0 0 87 0
SUB TOTAL HT GAIN	EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMT WALL ABOVE GR EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.4 41.1 25.0 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0	27 11 297 LOSS 0 872 255 0 0 1089 0	GAIN 0 1686 300 0 0 0 226 0	0 24 0 0 0 163 0	17 11 187 LOSS 0 0 511 0 0 0 727 0 0 0	GAIN 0 0 601 0 0 151 0	0 10 111 0 0 1061 0 192	111 11 1221 LOSS 830 0 213 2362 0 0 4735 0 246 0 0	GAIN 640 0 250 4565 0 984 0 123	0 26 57 0 0 787 0 0 342	56 16 896 LOSS 553 0 553 1213 0 0 3512 0 940	GAIN 426 0 651 2344 0 0 730 0 0 468	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 149 0 0 0 178 0	GAIN 0 0 0 412 0 0 89	0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 170 0 0 205 0 77 0	GAIN 0 0 200 0 0 43 0 38 0	35 0 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 505 1571 0	GAIN 0 1439 0 0 105 327 0 0	0 0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 505 955 0 0 0	GAIN 0 0 0 0 105 199 0				1186	0 0 0 25 0 0 0 281	51 10 510 LOSS 0 0 0 532 0	0 0 1028 0 0 0 210 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS GA 64 4 0 192 2: 0 0 1 505 11 1382 2: 0 0	49 0 225 0 0 0 05 0 0 87 0
LEVEL FACTOR / MULTIPLIER 0.30 0.38 0.	EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL MET EXPOSED WALL MET EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED CLG EXPOSED CLG BASEMENT/CRAWL HEAT LOSS SLAB ON CRADE HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.4 41.1 25.0 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0	27 11 297 LOSS 0 872 255 0 0 1089 0 0 0	GAIN 0 1686 300 0 0 0 226 0	0 24 0 0 0 163 0	17 11 187 LOSS 0 0 511 0 0 0 727 0 0 0	GAIN 0 0 601 0 0 151 0	0 10 111 0 0 1061 0 192	111 11 1221 LOSS 830 0 213 2362 0 0 4735 0 246 0 0	GAIN 640 0 250 4565 0 984 0 123	0 26 57 0 0 787 0 0 342	56 16 896 LOSS 553 0 553 1213 0 0 3512 0 940 0	GAIN 426 0 651 2344 0 0 730 0 0 468	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 149 0 0 0 178 0	GAIN 0 0 0 412 0 0 89	0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 170 0 0 205 0 77 0 0	GAIN 0 0 200 0 0 43 0 38 0	35 0 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 505 1571 0 0 0	GAIN 0 1439 0 0 105 327 0 0	0 0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 505 955 0 0 0	GAIN 0 0 0 0 105 199 0				1186	0 0 0 25 0 0 0 281 0	510 510 510 0 0 532 0 0 10111 0 0	0 0 1028 0 0 0 210 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS GA 64 4 0 192 2: 0 1 505 11 0 1 1382 2: 0 0 0 8030	49 0 225 0 0 0 05 0 0 87 0
AIR CHANGE HEAT LOSS 840 469 3176 2565 174 152 1068 553 14451 AIR CHANGE HEAT GAIN 193 666 574 404 47 25 164 27 DUCT LOSS 0 0 0 0 0 69 0 0 0 0 0 0 DUCT GAIN 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL MET EXPOSED BMT WALL ABOVE OR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.4 41.1 25.0 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0	27 11 297 LOSS 0 872 255 0 0 1089 0 0 0	GAIN 0 1686 300 0 0 0 226 0 0 0 0	0 24 0 0 0 163 0	17 11 187 LOSS 0 0 511 0 0 0 727 0 0 0	GAIN 0 0 0 601 0 0 0 1511 0 0 0 0 0	0 10 111 0 0 1061 0 192	111 11 1221 LOSS 830 0 213 2362 0 0 4735 0 246 0 0	GAIN 640 0 250 4565 0 984 0 123 0	0 26 57 0 0 787 0 0 342	56 16 896 LOSS 553 0 553 1213 0 0 3512 0 940 0	GAIN 426 0 651 2344 0 0 730 0 0 468	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 149 0 0 0 178 0	GAIN 0 0 0 0 412 0 0 89 0 40	0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 170 0 0 205 0 77 0 0	GAIN 0 0 2000 0 0 43 0 38 0 0	35 0 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 505 1571 0 0 0	GAIN 0 1439 0 0 105 327 0 0 0 0	0 0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 505 955 0 0 0	GAIN 0 0 0 0 1055 1999 0 0				1186	0 0 0 25 0 0 0 281 0	510 510 510 0 0 532 0 0 10111 0 0	0 0 1028 0 0 0 210 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS GA 64 4 0 1 192 2: 0 0 1 505 11 0 0 1 1382 2: 0 0 1 8030	49 0 225 0 0 05 0 887 0 0
AIR CHANGE HEAT GAIN	EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON CRADE HEAT LOSS SUBTOTAL HT LOSS SUB TOTAL HT GAIN	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.4 41.1 25.0 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0 0	27 11 297 LOSS 0 872 255 0 0 0 1089 0 0 0 0	GAIN 0 1686 300 0 0 0 226 0 0 0 0	0 24 0 0 0 163 0 0	17 11 187 LOSS 0 0 511 0 0 727 0 0 0 0 1238	GAIN 0 0 0 601 0 0 0 1511 0 0 0 0 0	0 10 1111 0 0 1061 0 192 0	111 11 1221 LOSS 830 0 213 2362 0 0 4735 0 246 0 0 0 8386	GAIN 640 0 250 4565 0 984 0 123 0	0 26 57 0 0 787 0 0 342 0	56 16 896 LOSS 553 0 553 1213 0 0 3512 0 940 0 0 67772	GAIN 426 0 651 2344 0 0 730 0 0 468	0 0 0 4 0 0 0 139 0 75	0 9 0 LOSS 0 0 0 149 0 0 178 0 191 0 519	GAIN 0 0 0 0 412 0 0 89 0 40	0 8 0 0 0 46 0 60 0	6 9 54 LOSS 0 0 170 0 0 205 0 77 0 0 0 453	GAIN 0 0 2000 0 0 43 0 38 0 0	35 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 0 505 1571 0 0 0 0	GAIN 0 1439 0 0 105 327 0 0 0 0	0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 505 955 0 0 0 0 1460	GAIN 0 0 0 0 1055 1999 0 0				1186	0 0 0 25 0 0 0 281 0	510 510 510 0 0 532 0 0 10111 0 0	0 0 1028 0 0 0 210 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS GA 64 4 0 1 192 2: 0 1 1382 2: 0 1 1382 2: 0 1 10172 66	49 0 225 0 0 05 0 887 0 0
DUCT LOSS DUCT GAIN 0 0 0 69 0	EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOOONS NET EXPOSED WALL NET EXPOSED BMT WALL ABOVE GR EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBT OTAL HT GAIN LEVEL FACTOR / MULTIPLIER	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.4 41.1 25.0 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0 0	27 11 297 LOSS 0 872 255 0 0 1089 0 0 0 0 0 2217	GAIN 0 1686 300 0 0 0 226 0 0 0 0	0 24 0 0 0 163 0 0	17 11 187 LOSS 0 0 511 0 0 727 0 0 0 0 1238	GAIN 0 0 0 601 0 0 0 1511 0 0 0 0 0	0 10 1111 0 0 1061 0 192 0	111 11 1221 LOSS 830 0 213 2362 0 0 4735 0 246 0 0 0 8386	GAIN 640 0 250 4565 0 984 0 123 0	0 26 57 0 0 787 0 0 342 0	56 16 896 LOSS 553 1213 0 0 3512 0 940 0 0 6772	GAIN 426 0 651 2344 0 0 730 0 0 468	0 0 0 4 0 0 0 139 0 75	0 9 0 LOSS 0 0 0 149 0 0 178 0 191 0 519	GAIN 0 0 0 0 412 0 0 89 0 40	0 8 0 0 0 46 0 60 0	6 9 54 LOSS 0 0 0 170 0 0 0 205 0 77 0 0 0 453 0 .34	GAIN 0 0 2000 0 0 43 0 38 0 0	35 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 505 1571 0 0 0 0 2821	GAIN 0 1439 0 0 105 327 0 0 0 0	0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 505 955 0 0 0 0 0 1460	GAIN 0 0 0 0 1055 1999 0 0				1186	0 0 0 25 0 0 0 281 0	510 510 510 0 0 532 0 0 10111 0 0	0 0 1028 0 0 0 210 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS GA 64 4 0 1 192 2: 0 0 1 505 11 0 0 1 1382 2: 0 0 1 0 1 0 1 0 1 0 1 1382 2: 0 0 1 0 0 0 0	49 0 225 0 0 05 0 887 0 0
DUCT GAIN 0 0 0 0 136 0 <th< td=""><td>EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED EMM WALL ABOVE OR EXPOSED CLG EXPOSED CLG EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS</td><td>21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7</td><td>GAIN 16.4 41.1 25.0 41.1 103.0 5.2 0.9 0.7 0.6 1.4</td><td>41 12 0 0 0 244 0 0 0</td><td>27 11 297 LOSS 0 872 255 0 0 1089 0 0 0 0 0 2217</td><td>GAIN 0 1686 300 0 0 226 0 0 0 0 2213</td><td>0 24 0 0 0 163 0 0</td><td>17 11 187 LOSS 0 0 511 0 0 727 0 0 0 0 1238</td><td>GAIN 0 0 601 0 0 151 0 0 0</td><td>0 10 1111 0 0 1061 0 192 0</td><td>111 11 1221 LOSS 830 0 213 2362 0 0 4735 0 246 0 0 0 8386</td><td>GAIN 640 0 250 4565 0 984 0 123 0</td><td>0 26 57 0 0 787 0 0 342 0</td><td>56 16 896 LOSS 553 1213 0 0 3512 0 940 0 0 6772</td><td>GAIN 426 0 651 2344 0 0 730 0 468 0</td><td>0 0 0 4 0 0 0 139 0 75</td><td>0 9 0 LOSS 0 0 0 149 0 0 178 0 191 0 519</td><td>GAIN 0 0 0 412 0 0 0 89 0 40</td><td>0 8 0 0 0 46 0 60 0</td><td>6 9 54 LOSS 0 0 0 170 0 0 0 205 0 77 0 0 0 453 0 .34</td><td>GAIN 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td><td>35 0 0 20 352 0 0</td><td>37 11 407 LOSS 0 745 0 0 505 1571 0 0 0 0 2821</td><td>GAIN 0 1439 0 0 105 327 0 0 0 0 1871</td><td>0 0 0 20 214 0 0</td><td>18 13 234 LOSS 0 0 0 0 505 955 0 0 0 0 0 1460</td><td>GAIN 0 0 0 0 105 199 0 0 0</td><td></td><td></td><td></td><td>1186</td><td>0 0 0 25 0 0 0 281 0</td><td>510 510 510 0 0 532 0 0 10111 0 0</td><td>0 0 1028 0 0 0 210 0</td><td>0 9 0 0 20 0 384 0</td><td>230 10 1916 LOSS GA 64 4 0 1 192 2: 0 0 1 505 11 0 0 1 1382 2: 0 0 1 0 0 1 1382 2: 0 0 1 1382 2: 10 0 1 10 0 0 1 10 0 0 0</td><td>49 0 225 0 0 05 0 0 887 0 0 0</td></th<>	EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED EMM WALL ABOVE OR EXPOSED CLG EXPOSED CLG EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.4 41.1 25.0 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0 0	27 11 297 LOSS 0 872 255 0 0 1089 0 0 0 0 0 2217	GAIN 0 1686 300 0 0 226 0 0 0 0 2213	0 24 0 0 0 163 0 0	17 11 187 LOSS 0 0 511 0 0 727 0 0 0 0 1238	GAIN 0 0 601 0 0 151 0 0 0	0 10 1111 0 0 1061 0 192 0	111 11 1221 LOSS 830 0 213 2362 0 0 4735 0 246 0 0 0 8386	GAIN 640 0 250 4565 0 984 0 123 0	0 26 57 0 0 787 0 0 342 0	56 16 896 LOSS 553 1213 0 0 3512 0 940 0 0 6772	GAIN 426 0 651 2344 0 0 730 0 468 0	0 0 0 4 0 0 0 139 0 75	0 9 0 LOSS 0 0 0 149 0 0 178 0 191 0 519	GAIN 0 0 0 412 0 0 0 89 0 40	0 8 0 0 0 46 0 60 0	6 9 54 LOSS 0 0 0 170 0 0 0 205 0 77 0 0 0 453 0 .34	GAIN 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	35 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 505 1571 0 0 0 0 2821	GAIN 0 1439 0 0 105 327 0 0 0 0 1871	0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 505 955 0 0 0 0 0 1460	GAIN 0 0 0 0 105 199 0 0 0				1186	0 0 0 25 0 0 0 281 0	510 510 510 0 0 532 0 0 10111 0 0	0 0 1028 0 0 0 210 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS GA 64 4 0 1 192 2: 0 0 1 505 11 0 0 1 1382 2: 0 0 1 0 0 1 1382 2: 0 0 1 1382 2: 10 0 1 10 0 0 1 10 0 0 0	49 0 225 0 0 05 0 0 887 0 0 0
HEAT GAIN PEOPLE 240 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL MET EXPOSED BMT WALL ABOVE OR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.4 41.1 25.0 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0 0	27 11 297 LOSS 0 872 255 0 0 1089 0 0 0 0 0 2217	GAIN 0 1686 300 0 0 226 0 0 0 0 2213	0 24 0 0 0 163 0 0	17 11 187 LOSS 0 0 511 0 0 727 0 0 0 0 1238	GAIN 0 0 601 0 0 151 0 0 0	0 10 1111 0 0 1061 0 192 0	1111 11221 LOSS 830 0 213 2362 0 0 4735 0 0 0 8386 0 0.38 3176	GAIN 640 0 250 4565 0 984 0 123 0	0 26 57 0 0 787 0 0 342 0	56 16 896 LOSS 553 0 553 1213 0 0 0 3512 0 0 0 6772	GAIN 426 0 651 2344 0 0 730 0 468 0	0 0 0 4 0 0 0 139 0 75	0 9 0 LOSS 0 0 0 149 0 0 0 178 0 0 519 0 0.34 174	GAIN 0 0 0 412 0 0 0 89 0 40	0 8 0 0 0 46 0 60 0	6 9 54 LOSS 0 0 170 0 0 205 0 0 0 0 0 0 0 453	GAIN 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	35 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 505 1571 0 0 0 2821	GAIN 0 1439 0 0 105 327 0 0 0 0 1871	0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 0 505 955 0 0 0 0 0 0 0 0 0 0 0	GAIN 0 0 0 0 105 199 0 0 0				1186	0 0 0 25 0 0 0 281 0	510 510 510 0 0 532 0 0 10111 0 0	0 0 1028 0 0 0 210 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS GA 64 4 0 1 192 2: 0 0 1 505 11 0 0 1 1382 2: 0 0 1 0 0 1 1382 2: 10 0 1 10 0 0 1 10 0 0 0	49 0 225 0 0 05 0 0 887 0 0 0
HEAT GAIN APPLIANCES/LIGHTS 770 770 770 770 770 0 0 0 770 0	EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG EXPOSED FLOOR BASEMENTICRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT GAIN DUCT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.4 41.1 25.0 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0 0	27 11 297 LOSS 0 872 255 0 0 1089 0 0 0 0 0 2217	GAIN 0 1686 300 0 0 226 0 0 0 0 2213	0 24 0 0 0 163 0 0	17 11 187 LOSS 0 0 511 0 0 727 0 0 0 0 1238	GAIN 0 0 601 0 0 151 0 0 0	0 10 1111 0 0 1061 0 192 0	1111 11221 LOSS 830 0 213 2362 0 0 4735 0 0 0 8386 0 0.38 3176	GAIN 640 0 250 4565 0 984 0 123 0	0 26 57 0 0 787 0 0 342 0	56 16 896 LOSS 553 0 553 1213 0 0 0 3512 0 0 0 6772	GAIN 426 0 651 2344 0 0 730 0 468 0	0 0 0 4 0 0 0 139 0 75	0 9 0 LOSS 0 0 0 149 0 0 0 178 0 0 519 0 0.34 174	GAIN 0 0 0 412 0 0 0 89 0 40	0 8 0 0 0 46 0 60 0	6 9 54 LOSS 0 0 170 0 0 205 0 0 0 0 0 0 0 453	GAIN 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	35 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 505 1571 0 0 0 2821	GAIN 0 1439 0 0 105 327 0 0 0 0 1871	0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 0 505 955 0 0 0 0 0 0 0 0 0 0 0	GAIN 0 0 0 0 105 199 0 0 0				1186	0 0 0 25 0 0 0 281 0	510 510 510 0 0 532 0 0 10111 0 0	0 0 1028 0 0 0 210 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS GA 64 4 0 1 192 2: 0 0 1 505 11 0 0 1 1382 2: 0 0 1 0 0 1 1382 2: 10 0 1 10 0 0 1 10 0 0 0	49 0 225 0 0 05 0 0 887 0 0 0
TOTAL HT LOSS BTU/H 3056 1707 11562 9336 762 605 3889 2013 1543 24624	EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED FLOOR EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS OUCT GAIN	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	GAIN 16.4 41.1 25.0 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0 0	27 11 297 LOSS 0 872 255 0 0 1089 0 0 0 0 0 2217	GAIN 0 1686 300 0 0 226 0 0 0 0 2213	0 24 0 0 0 163 0 0 0	17 11 187 LOSS 0 0 511 0 0 727 0 0 0 0 1238	GAIN 0 0 0 0 0 151 0 0 0 0	0 10 1111 0 0 1061 0 192 0 0	1111 11221 LOSS 830 0 213 2362 0 0 4735 0 0 0 8386 0 0.38 3176	GAIN 640 0 250 4565 0 0 984 0 123 0 0	0 26 57 0 0 787 0 0 342 0	56 16 896 LOSS 553 0 553 1213 0 0 0 3512 0 0 0 6772	GAIN 426 0 651 2344 0 0 730 0 468 0 4619	0 0 0 4 0 0 0 139 0 75	0 9 0 LOSS 0 0 0 149 0 0 0 178 0 0 519 0 0.34 174	GAIN 0 0 0 0 412 0 0 0 440 40 40 47 47	0 8 0 0 0 46 0 60 0	6 9 54 LOSS 0 0 170 0 0 205 0 0 0 0 0 0 0 453	GAIN 0 0 200 0 0 43 0 0 388 0 0	35 0 0 20 352 0 0 0	37 11 407 LOSS 0 745 0 0 505 1571 0 0 0 2821	GAIN 0 1439 0 0 105 327 0 0 0 1871 164	0 0 0 20 214 0 0 0	18 13 234 LOSS 0 0 0 0 0 505 955 0 0 0 0 0 0 0 0 0 0 0	GAIN 0 0 0 0 0 105 199 0 0 0 0 304 27 0				1186	0 0 0 25 0 0 0 281 0 0	510 510 510 0 0 532 0 0 10111 0 0	0 0 0 1028 0 0 0 210 0 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS GA 64 4 0 1 192 2: 0 0 1 505 11 0 0 1 1382 2: 0 0 1 0 0 1 1382 2: 10 0 1 10 0 0 1 10 0 0 0	49 0 225 0 0 05 0 0 887 0 0 0
	EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL MET EXPOSED EMM WALL ABOVE OR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON CRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT GOSS AIR CHANGE HEAT GAIN DUCT LOSS DUCT GAIN HEAT GAIN PEOPLE	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	GAIN 16.4 41.1 25.0 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0 0	27 11 297 LOSS 0 872 255 0 0 1089 0 0 0 0 0 2217	GAIN 0 1686 300 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 24 0 0 0 163 0 0 0	17 11 187 LOSS 0 0 511 0 0 727 0 0 0 0 1238	GAIN 0 0 0 601 0 0 0 151 0 0 0 0 7552 666 0 0 0	0 10 1111 0 0 1061 0 192 0 0	1111 11221 LOSS 830 0 213 2362 0 0 4735 0 0 0 8386 0 0 8386	GAIN 640 0 250 0 0 984 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 26 57 0 0 787 0 0 342 0	56 16 896 LOSS 553 0 553 1213 0 0 0 3512 0 0 0 6772	GAIN 426 0 651 2344 0 0 730 0 468 0 4619	0 0 0 4 0 0 0 139 0 75	0 9 0 LOSS 0 0 0 149 0 0 0 178 0 0 519 0 0.34 174	GAIN 0 0 0 0 412 0 0 0 89 0 40	0 8 0 0 0 46 0 60 0	6 9 54 LOSS 0 0 170 0 0 205 0 0 0 0 0 0 0 453	GAIN 0 0 2000 0 0 0 433 0 0 388 0 0 0 2881	35 0 0 20 352 0 0 0	37 11 407 LOSS 0 745 0 0 505 1571 0 0 0 2821	GAIN 0 1439 0 0 105 327 0 0 0 1871 164	0 0 0 20 214 0 0 0	18 13 234 LOSS 0 0 0 0 0 505 955 0 0 0 0 0 0 0 0 0 0 0	GAIN 0 0 0 0 105 105 109 0 0 0				1186	0 0 0 25 0 0 0 281 0 0	510 510 510 0 0 532 0 0 10111 0 0	0 0 1028 0 0 0 0 0 0 0 0 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS GA 64 4 0 1 192 2: 0 0 1 505 11 0 0 1 1382 2: 0 0 1 0 0 1 1382 2: 10 0 1 10 0 0 1 10 0 0 0	49 0 225 0 0 05 0 0 887 0 0 0
TOTAL HT GAIN x 1.3 BTU/HI 4130 2064 10277 7531 1942 398 2645 1430 1 1610 1083	EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL MET EXPOSED BMT WALL ABOVE OR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT LOSS DUCT GAIN HEAT GAIN PEOPLE HEAT GAIN PEOPLE	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	GAIN 16.4 41.1 25.0 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0 0	27 11 297 LOSS 0 872 2255 0 0 0 0 0 0 0 0 2217 0.38 840	GAIN 0 1686 300 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 24 0 0 0 163 0 0 0	17 11 187 LOSS 0 0 5111 0 0 0 0 0 0 0 0 1238 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	GAIN 0 0 0 601 0 0 0 151 0 0 0 0 7552 666 0 0 0	0 10 1111 0 0 1061 0 192 0 0	1111 11221 LOSS 830 0 243 2362 0 0 4735 0 0 246 0 0 0 8386 0.38 3176	GAIN 640 0 250 0 0 984 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 26 57 0 0 787 0 0 342 0	56 16 896 LOSS 553 0 0 351213 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	GAIN 426 0 651 2344 0 0 730 0 468 0 4619	0 0 0 4 0 0 0 139 0 75	0 9 0 LOSS 0 0 0 149 0 0 178 0 0 519 0 0.34 174 69	GAIN 0 0 0 0 412 0 0 0 89 0 40	0 8 0 0 0 46 0 60 0	6 9 54 LOSS 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	GAIN 0 0 2000 0 0 0 433 0 0 388 0 0 0 2881	35 0 0 20 352 0 0 0	37 11 407 LOSS 0 745 0 0 0 505 1571 0 0 0 2821 0.38 1068	GAIN 0 1439 0 0 105 327 0 0 0 1871 164	0 0 0 20 214 0 0 0	18 13 234 LOSS 0 0 0 0 505 955 0 0 0 0 0 0 0 0 0 0 0 0	GAIN 0 0 0 0 105 105 109 0 0 0				1186	0 0 0 25 0 0 0 281 0 0	51 10 510 LOSS 0 0 0 0 0 10111 0 0 0 1543	0 0 1028 0 0 0 0 0 0 0 0 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS GA 64 4 0 1 192 2: 0 1 1382 2: 0 1 0 1 8030 10172 61 1.23 14451	49 0 225 0 0 05 0 0 887 0 0 0
1010 1000	EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE OR EXPOSED CLG EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS DUCT LOSS DUCT GAIN HEAT GAIN PEOPLE HEAT GAN APPLIANCES/LIGHTS TOTAL HT LOSS BTU/H	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	GAIN 16.4 41.1 25.0 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0 0	27 11 297 LOSS 0 872 2255 0 0 0 0 0 0 0 0 2217 0.38 840	GAIN 0 1686 300 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 24 0 0 0 163 0 0 0	17 11 187 LOSS 0 0 5111 0 0 0 0 0 0 0 0 1238 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	GAIN 0 0 0 601 0 0 0 151 0 0 0 0 752 66 0 0 7770	0 10 1111 0 0 1061 0 192 0 0	1111 11221 LOSS 830 0 243 2362 0 0 4735 0 0 246 0 0 0 8386 0.38 3176	GAIN 640 0 250 4565 0 0 123 0 0 1574 0 0 7770	0 26 57 0 0 787 0 0 342 0	56 16 896 LOSS 553 0 0 351213 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	GAIN 426 0 651 2344 0 0 0 468 0 4619 404 0 0 770	0 0 0 4 0 0 0 139 0 75	0 9 0 LOSS 0 0 0 149 0 0 178 0 0 519 0 0.34 174 69	GAIN 0 0 0 0 412 0 0 0 442 40 40 40 47 136 0 7770	0 8 0 0 0 46 0 60 0	6 9 54 LOSS 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	GAIN 0 0 0 2000 0 0 0 433 0 0 0 2811 255 0 0 0 0	35 0 0 20 352 0 0 0	37 11 407 LOSS 0 745 0 0 0 505 1571 0 0 0 2821 0.38 1068	GAIN 0 1439 0 0 1055 327 0 0 0 0 1871 1644 0 0 0 0	0 0 0 20 214 0 0 0	18 13 234 LOSS 0 0 0 0 505 955 0 0 0 0 0 0 0 0 0 0 0 0	GAIN 0 0 0 0 1055 199 0 0 0 0 304 27 0 0 770				1186	0 0 0 25 0 0 0 281 0 0	51 10 510 LOSS 0 0 0 0 0 10111 0 0 0 1543	0 0 0 1028 0 0 0 0 210 0 0 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS GA 64 4 0 1 192 2: 0 0 1 505 10 0 0 1382 2: 0 0 8030 10172 61 1.23 14451 0	49 0 0 225 0 0 0 05 0 0 0 0 0 0 0 0 0 0 0

TOTAL HEAT GAIN BTU/H:

61133

TONS: 5.09

LOSS DUE TO VENTILATION LOAD BTU/H: 3181

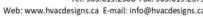
STRUCTURAL HEAT LOSS: 82166

TOTAL COMBINED HEAT LOSS BTU/H: 85347

Michael Oxounde.



SITE NAME: PINE VALLEY & TESTON BUILDER: GOLD PARK HOMES TYPE: 5004 THE BEAUMONT DATE: Jun-20 GFA: 4184 LO# 77477 furnace pressure 0.6 ^LENNOX HEATING CFM 1955 COOLING CFM 1955 furnace filter 0.05 AFUF = 96 % EL296UH110XE60C TOTAL HEAT LOSS 82,166 TOTAL HEAT GAIN 60,472 a/c coil pressure 0.2 110 INPUT (BTU/H) = 110,000 AIR FLOW RATE CFM 23.79 AIR FLOW RATE CFM 32.33 available pressure FAN SPEED OUTPUT (BTU/H) = 106,000 for s/a & r/a 0.35 LOW 0 **RUN COUNT** MEDLOW 1380 DESIGN CFM = 1955 4th 3rd 2nd 1st Bas plenum pressure s/a 0.18 r/a pressure 0.17 MEDIUM 1505 CFM @ .6 " E.S.P. S/A 0 0 12 8 R/A MEDIUM HIGH 1685 0 0 5 max s/a dif press. loss 0.02 r/a grille press. Loss 0.02 TEMPERATURE RISE 50 All S/A diffusers 4"x10" unless noted otherwise on layout min adjusted pressure s/a adjusted pressure r/a HIGH 1955 °F All S/A runs 5"Ø unless noted otherwise on layout. 16 17 22 23 24 10 11 12 13 14 15 18 19 20 21 RUN# ENS DRESS BED-2 BED-3 BED-4 ENS-2 WIC-2 ENS-4 MBR ENS-3 LIBR KIT KIT GREAT LAUN FOY MUD BAS ROOM NAME MBR DIN KIT BAS BAS BAS 2.20 1.12 0.60 1.53 2.01 3 27 3 27 3 27 3.27 RM LOSS MRH 1.63 2 36 1 28 1.90 0.33 1 21 163 1.82 1.71 2 89 2 89 3 11 0.76 2 89 3 89 39 45 39 36 CFM PER RUN HEAT 52 27 56 31 29 14 43 41 69 69 74 18 69 93 48 78 78 78 78 RM GAIN MBH 2.92 1.31 1.48 3.00 2.01 2.25 0.12 0.31 0.40 2.92 1.19 2.06 2.06 2.57 2.57 2.51 1.94 2.57 2.64 1.43 0.34 0.34 0.34 0.34 CFM PER RUN COOLING 94 42 48 97 65 73 10 13 94 38 67 67 83 83 81 63 83 86 46 11 11 11 11 ADJUSTED PRESSURE 0.16 0.17 0.17 0.16 0.17 0.17 0.17 0.17 0.17 0.16 0.17 0.17 0.17 0.16 0.16 0.16 0.17 0.16 0.16 0.17 0.17 0.17 0.17 0.17 62 34 38 50 28 31 43 54 32 50 39 30 ACTUAL DUCT LGH 46 29 41 41 27 40 49 26 36 24 16 50 EQUIVALENT LENGTH 190 140 180 180 120 150 160 150 190 180 160 180 80 140 150 130 150 140 150 130 130 140 100 102 TOTAL EFFECTIVE LENGTH 236 202 209 214 158 200 188 181 233 234 201 221 107 180 182 179 176 176 174 146 180 190 139 132 ADJUSTED PRESSURE 0.07 0.09 0.08 0.08 0.11 0.09 0.09 0.1 0.07 0.07 0.09 0.08 0.16 0.09 0.09 0.09 0.1 0.09 0.09 0.12 0.1 0.09 0.12 0.13 6 ROUND DUCT SIZE 5 5 6 5 5 5 5 5 5 5 5 5 5 5 199 597 310 286 228 330 92 333 161 199 493 264 301 507 507 543 132 507 474 551 573 573 573 573 HEATING VELOCITY (ft/min) 479 482 551 495 477 536 46 115 149 479 436 492 492 609 609 595 463 609 438 528 81 81 81 81 COOLING VELOCITY (ft/min 4X10 3X10 3X10 4X10 3X10 3X10 3X10 3X10 3X10 4X10 3X10 3X10 3X10 3X10 3X10 3X10 3X10 4X10 3X10 3X10 3X10 3X10 3X10 OUTLET GRILL SIZE 3X10 B C D E D E В E C C D В E D C C TRUNK A A A 26 27 28 30 31 32 33 34 35 36 37 38 RUN # 25 ROOM NAME BAS BAS BAS BAS ENS BED-3 BED-3 BED-4 BED-4 LIBR KIT GREAT GREAT 3.27 3.27 3.27 1.90 1.90 1.53 RM LOSS MBH 3.27 1.70 1.28 1.28 2.89 3.11 3.11 78 78 78 31 45 45 36 69 74 74 CFM PER RUN HEAT 78 41 31 0.34 0.34 0.34 2.25 2.25 2.06 2.57 RM GAIN MBH. 0.34 1.31 2.01 2.01 2.51 2.51 CFM PER RUN COOLING 11 11 11 11 42 65 65 73 73 67 83 81 81 ADJUSTED PRESSURE 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 LIGH 37 23 17 31 33 42 46 47 40 35 28 39 64 EQUIVALENT LENGTH 120 80 120 150 140 130 140 150 130 140 150 150 150 157 103 137 181 173 172 186 197 170 175 178 189 214 TOTAL EFFECTIVE LENGTH ADJUSTED PRESSURE 0.11 0.17 0.13 0.1 0.1 0.1 0.09 0.09 0.1 0.1 0.09 0.09 0.08 ROUND DUCT SIZE 5 5 5 5 5 5 5 5 5 5 5 HEATING VELOCITY (ft/min) 573 573 573 573 470 228 228 330 330 264 507 543 543 COOLING VELOCITY (ft/min) 81 81 81 81 482 477 477 536 536 492 609 595 595 OUTLET GRILL SIZE 3X10 TRUNK B D D В A SUPPLY AIR TRUNK SIZE RETURN AIR TRUNK SIZE STATIC TRUNK ROUND RECT VELOCITY TRUNK STATIC ROUND RECT VELOCIT TRUNK STATIC ROUND RECT VELOCITY CFM PRESS. DUCT DUCT CFM PRESS DUCT DUCT CFM PRESS. DUCT DUCT (ft/min) (ft/min) (ft/min) TRUNK A 378 0.08 9.7 12 8 567 TRUNK G 0 0.00 0 0 TRUNK O 0 0.06 0 0 8 0 0 TRUNK B 672 0.07 12.5 672 TRUNK H 0.00 TRUNK P 0.06 18 8 0 0 0 X 8 0 0 0 0 8 0 TRUNK I TRUNK Q TRUNK C 346 0.09 9.1 10 8 623 0 0.00 0 0 0.06 0 0 8 0 X 1259 0 TRUNK R TRUNK D 0.07 15.8 28 8 809 TRUNK J 0 0.00 0 8 0 0 0.06 0 0 8 0 8 TRUNK S TRUNK E 392 0.07 10.2 12 8 588 TRUNK K 0 0.00 0 0 0 0 0.06 0 0 8 0 X X X TRUNK F 711 0.07 12.8 20 640 TRUNK L 0 0.00 TRUNK T 0 0.06 0 0 8 0 TRUNK U 0 0.06 0 0 8 0 X TRUNK V 0 0.06 0 0 0 RETURN AIR # BR TRUNK W 0 0 2 3 4 5 6 8 9 0.06 0 8 0 0 0 0 0 0 0 0 0 RUNK X 1465 0.06 17.4 32 10 659 X AIR VOLUME 120 120 120 120 305 85 300 300 185 0 0 0 0 0 0 300 TRUNK Y 685 0.06 13.1 20 X 8 617 0.15 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 0.15 TRUNKZ 490 0.06 11.5 16 8 551 X ACTUAL DUCT LGH 38 37 37 45 43 59 27 25 34 18 DROP 1955 0.06 19.4 24 18 652 205 175 185 EQUIVALENT LENGTH 195 185 165 145 190 150 0 0 0 0 0 0 195 233 222 202 250 188 234 217 210 213 TOTAL EFFECTIVE LH 184 ADJUSTED PRESSURE 0.06 0.07 0.07 0.06 0.08 0.06 0.07 0.07 0.08 14.80 14.80 14.80 14.80 14.80 14.80 0.07 9.2 ROUND DUCT SIZE 6.8 6.6 6.6 6.8 9 6 9.2 9.2 7.5 0 0 0 0 0 INLET GRILL SIZE 8 8 8 8 8 8 0 0 0 0 0 0 8 8 8 X X X X X X X X X X X X X X X X 30 30 INLET GRILL SIZE 30





TYPE: 5004 THE BEAUMONT SITE NAME: PINE VALLEY & TESTON

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

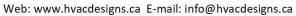
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77477

COMBUSTION APPLIANCES	9.32.3.1(1)	SUPPLEMENTAL V	ENTILATION CAPACITY			9.32.3.5.
a) Direct vent (sealed combustion) only		Total Ventilation Ca	pacity	201.4	_	cfm
b) Positive venting induced draft (except fireplaces)		Less Principal Venti	I. Capacity	155	-	cfm
c) Natural draft, B-vent or induced draft gas fireplace		Required Suppleme	ntal Capacity	46.4	-	cfm
d) Solid Fuel (including fireplaces)		DDINGIDAL EVILAL	ICT CAN CARACITY			
e) No Combustion Appliances		Model:	VANEE 65H	Location:	B	SMT
HEATING SYSTEM		155.0		ones		-WI Approved
			IST HEAT LOSS CALCULATION	MM (1994)	· — ·	
Forced Air Non Forced Air		CFM	ΔT *F	FACTOR		% LOSS
C Florida Social Mark		155.0 CFM	X 76 F	X 1.08	Х	0.25
Electric Space Heat		SUPPLEMENTAL F	ANS	NUTONE		
		Location	Model	cfm	HVI	Sones
HOUSE TYPE	9.32.1(2)	ENS ENS-2	QTXEN050C QTXEN050C	50 50	1	0.3
✓ I Type a) or b) appliance only, no solid fuel		ENS-3	QTXEN050C	50	1	0.3
		ENS-4	QTXEN050C	50	1	0.3
II Type I except with solid fuel (including fireplaces)					
III Any Type c) appliance		HEAT RECOVERY Model:	VANEE 65H			9.32.3.11.
III		155	cfm high	64		cfm low
IV Type I, or II with electric space heat		828			_	
Other: Type I, II or IV no forced air		75	% Sensible Efficiency @ 32 deg F (0 deg C)		H	IVI Approved
Curer. Type 1, if of 14 no forced an			@ 52 deg 1 (0 deg 0)			
		LOCATION OF INS	TALLATION			
SYSTEM DESIGN OPTIONS	O.N.H.W.P.	Lot:		Concession		
1 Exhaust only/Forced Air System		Lot.		Concession		
		Township		Plan:		
2 HRV with Ducting/Forced Air System		Address				
3 HRV Simplified/connected to forced air system		Roll #		Building Pern	nit#	
4 HRV with Ducting/non forced air system		BUILDER:	GOLD PARK HOMES	;		
Part 6 Design		Name:	700 89 00 00 00 00 00 00 00 00 00 00 00 00 00			
TOTAL VENTILATION CAPACITY	9.32.3.3(1)	Address:				
Basement + Master Bedroom 2 @ 21.2 cfm 42.4	cfm	City:				
Other Bedrooms <u>3</u> @ 10.6 cfm <u>31.8</u>	cfm	Telephone #:		Fax #:		
Kitchen & Bathrooms	cfm	INSTALLING CONT	TRACTOR			
Other Rooms6 @ 10.6 cfm63.6	cfm	Name:				
Table 9.32.3.A. TOTAL <u>201.4</u>	cfm	Address:				-
)		City:				
PRINCIPAL VENTILATION CAPACITY REQUIRED	9.32.3.4.(1)	Telephone #:		Fax #:		
1 Bedroom 31.8	cfm		TO A TION			
2 Bedroom 47.7	cfm		this ventilation system has bee	en designed		
3 Bedroom 63.6	cfm	Name:	he Ontario Building Code. HVAC Designs Ltd.			
4 Bedroom 79.5	cfm	Signature:	Mhe	had Offmhe		
5 Bedroom 95.4	cfm	HRAI#		001820		
TOTAL 79.5 cfm		Date:		June-20		
I REVIEW AND TAKE RESPONIBILITY FOR THE DESIGN WORK AND AM QUAL	IFIED IN THE API	PROPRIATE CATEGORY AS AN	"OTHER DESIGNER" UNDER DIVISIO	N C, 3.2.5 OF THE BU	ILDING CO	DE.



			Forn	nula Sheet (For Air Lea	ikage / Ventiliation C	aiculation)				
LO#:	77477	Model: 5004 THE BE	AUMONT	Builde	r: GOLD PARK HOMES				Date	: 6/4/2020
		Volume Calculation	n			,	Air Change & Delt	a T Data		201 100
				1						-
ise Volume	F1 A (5+2)	T ====================================	1 1/1 /6/3)	-			TURAL AIR CHANG		0.340	4
Level	Floor Area (ft²) 2007	Floor Height (ft)	Volume (ft³) 20070			SUMMER NA	TURAL AIR CHANG	JE RATE	0.124	
Bsmt First	2007	11	22077	-						
Second	2262	9	20358				Design To	mperature Diffe	erence	
Third	0	9	0	-			Tin °C	Tout °C	ΔT°C	ΔT °F
Fourth	0	9	0	-		Winter DTDh	22	-20	42	76
100,111	Ж	Total:	62,505.0 ft ³			Summer DTDc	22	31	9	16
		Total:	1769.9 m³			Summer STSC	22	51		10
	5.2.3	3.1 Heat Loss due to A	r Leakage			6.2.6 \$	ensible Gain due	to Air Leakage		
	$HL_{airb} =$	$LR_{airh} \times \frac{V_b}{3.6} \times I$	$OTD_h \times 1.2$		Н	$HG_{salb} = LR_{airc} \times$	$\frac{V_b}{3.6} \times DTD_c$	× 1.2		
0.340		_ x <u>42 °C</u>		= 8471 W	=0.124	x 491.65	5.0		=	642 W
				20002 0. //	1					2404 8:
				= 28902 Btu/h					(, =)	2191 Btu/
	5.2.3.2 He	at Loss due to Mechar	nical Ventilation			6.2.7 Ser	sible heat Gain d	ue to Ventilatio	n	
	$HL_{vairb} =$	$PVC \times DTD_h \times 1$	$1.08 \times (1-E)$		HL	$_{vairb} = PVC \times DT$	$TD_h \times 1.08 \times$	(1-E)		
155 CFM	x76 °F	x <u>1.08</u>	x0.25	= 3181 Btu/h	155 CFM	x <u>16 °F</u>	x1.08	x <u>0.25</u>	=	661 Btu/
			5.2.3.3 Calcula	tion of Air Change Heat	Loss for Each Room (Flo	or Multiplier Section)				
		HL_a		$cor \times HL_{airbv} \times \{(H_{airbv}) \times $			ogclevel)}	a a		
		Level	Level Factor (LF)	HLairve Air Leakage + Ventilation Heat Loss (Btu/h)	Level Conductive Heat Loss: (HL _{clevel})	Air Leakage Heat Los HLairbv / H				
		1	0.5		11,716	1.23	4			
		2	0.3		22,893	0.37	9			
		3	0.2	28,902	17,197	0.33	6			
		4	0	D-0454-07-444	0	0.00	0			
			0		0	0.00				





HEAT LOSS AND GAIN SUMMARY SHEET

		IILAI	LOSS AND GA	AIN SOMMAN SHEET	
MODEL:	5004 THE BEAUMONT		1779-19	BUILDER: GOLD PARK HOMES	
SFQT:	4184	LO#	77477	SITE: PINE VALLEY & TEST	ΓΟΝ
DESIGN A	ASSUMPTIONS				
HEATING			°F	COOLING	°F
OUTDOO	R DESIGN TEMP.		-4	OUTDOOR DESIGN TEMP.	88
INDOOR I	DESIGN TEMP.		72	INDOOR DESIGN TEMP. (MAX 75°F)	72
BUILDING	G DATA				
ATTACHM	ΛΕΝΤ:		DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FA	ACES:		EAST	ASSUMED (Y/N):	Υ
AIR CHAN	IGES PER HOUR:		3.57	ASSUMED (Y/N):	Υ
AIR TIGHT	TNESS CATEGORY:		AVERAGE	ASSUMED (Y/N):	Υ
WIND EXI	POSURE:		SHELTERED	ASSUMED (Y/N):	Υ
HOUSE V	OLUME (ft³):		62505.0	ASSUMED (Y/N):	Υ
INTERNAL	L SHADING:	BLIND	S/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR	LIGHTING LOAD (Btu/h/	'ft²):	1.35	DC BRUSHLESS MOTOR (Y/N):	Υ
FOUNDAT	TION CONFIGURATION		BCIN_1	DEPTH BELOW GRADE:	7.0 ft
LENGTH:	74.0 ft	WIDTH:	41.0 ft	EXPOSED PERIMETER:	230.0 ft

2012 OBC - COMPLIANCE PACKAGE		
	Complian	e Package
Component		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

We	eather Sta	tion Description
Province:	Ontario	-
Region:	Vaughan	(Woodbridge)
	Site D	escription
Soil Conductivity:	Normal	conductivity: dry sand, loam, clay
Water Table:	Normal (7-10 m, 23-33 ft)
	Foundatio	n Dimensions
Floor Length (m):	22.6	
Floor Width (m):	12.5	
Exposed Perimeter (m):	0.0	
Wall Height (m):	3.0	
Depth Below Grade (m):	2.13	Insulation Configuration
Window Area (m²):	3.4	
Door Area (m²):	1.9	
	Radi	ant Slab
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
	Desig	n Months
Heating Month	1	
	Founda	ntion Loads
Heating Load (Watts):		2353

TYPE: 5004 THE BEAUMONT

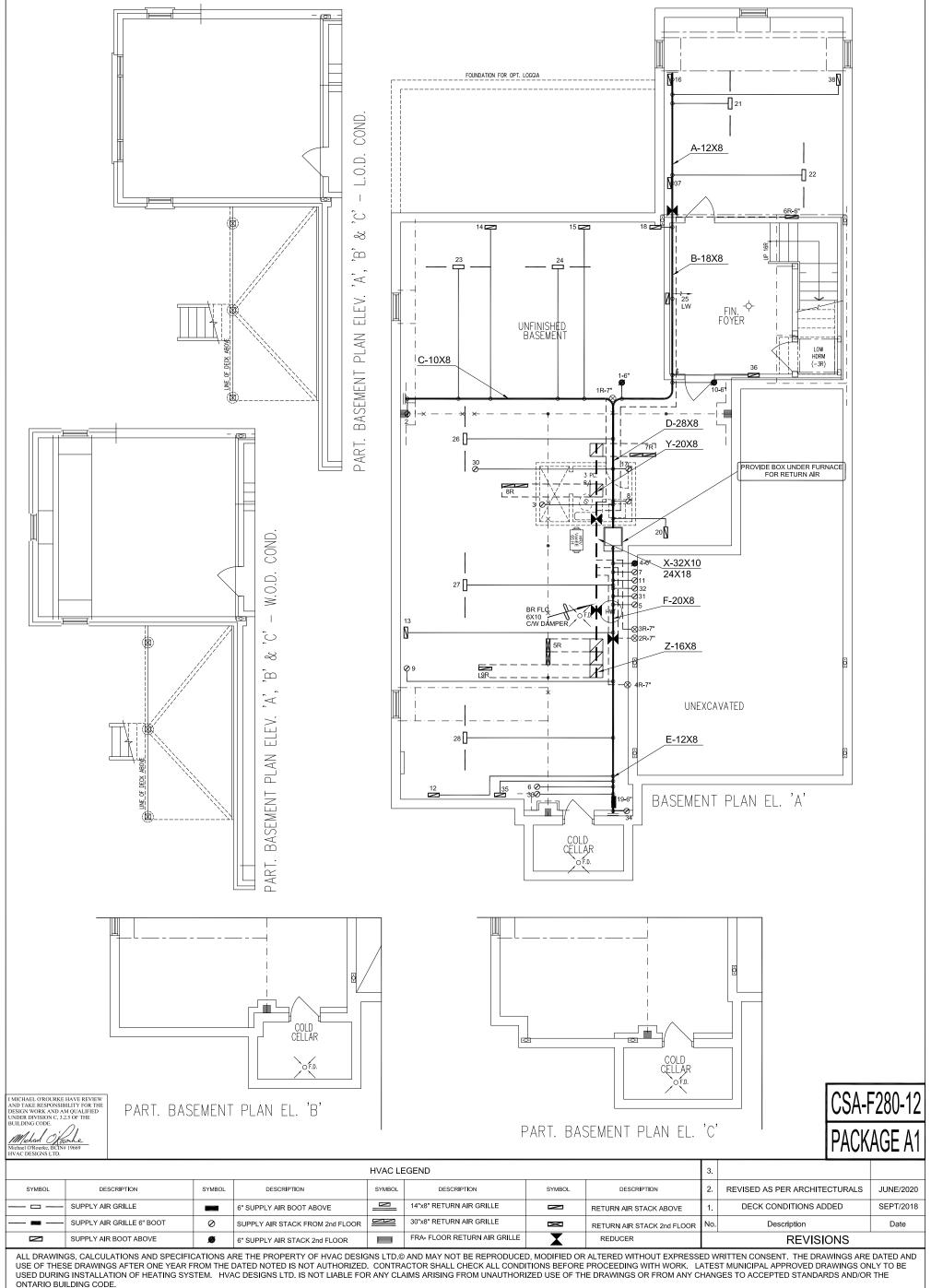


Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Stati	on Des	cript	ion		
Province:	Ontar	io			
Region:	Vaugl	nan (W	oodbr	idge)	
Weather Station Location:	Open	flat te	rrain, g	grass	
Anemometer height (m):	10				
Local S	hieldin	g			
Building Site:	Subui	ban, f	orest		
Walls:	Heavy	/			
Flue:	Heavy	/			
Highest Ceiling Height (m):	7.01				
Building Co	onfigura	ation			
Type:	Detac	hed			
Number of Stories:	Two				
Foundation:	Full				
House Volume (m³):	1769.	9			
Air Leakage	/Venti	latior	1		
Air Tightness Type:	Prese	nt (196	61-) (3.	57 ACH	⊣)
Custom BDT Data:	ELA @	9 10 Pa	Э.		2359.4 cm ²
	3.57				ACH @ 50 Pa
Mechanical Ventilation (L/s):	To	tal Sup	ply		Total Exhaust
		73.2			73.2
Flue	Size				
Flue #:	#1	#2	#3	#4	
Diameter (mm):	0	0	0	0	
Natural Infil	tration	Rate	:S		
Heating Air Leakage Rate (ACH/H)):	C	.34	0	
Cooling Air Leakage Rate (ACH/H)	:	C).12	4	

TYPE: 5004 THE BEAUMONT



GOLD PARK HOMES

Project Name

PINE VALLEY & TESTON VAUGHAN, ONTARIO

THE BEAUMONT 5004

4184 sqft

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 accounted. adequately insulated and be gas-proofed.

	HEAT L	OSS 85347	BTU/H	# OF RUNS	S/A	R/A	FANS	Sh
		UN I T DATA		3RD FLOOR				
	MAKE	LENNOX		2ND FLOOR	17	5	6	
	MODEL EL2	296110XE60C		1ST FLOOR	12	4	2	
	INPUT	110	MBTU/H	BASEMENT	8	1	0	Da
_	OUTPUT	100	MBTU/H	ALL S/A DIFFU:	SERS	4 "x10)"	Sc
	COOLING	106		UNLESS NOTE				
e		5.0	TONS	ON LAYOUT. A UNLESS NOTE				<u>-</u>

ON LAYOUT. UNDERCUT

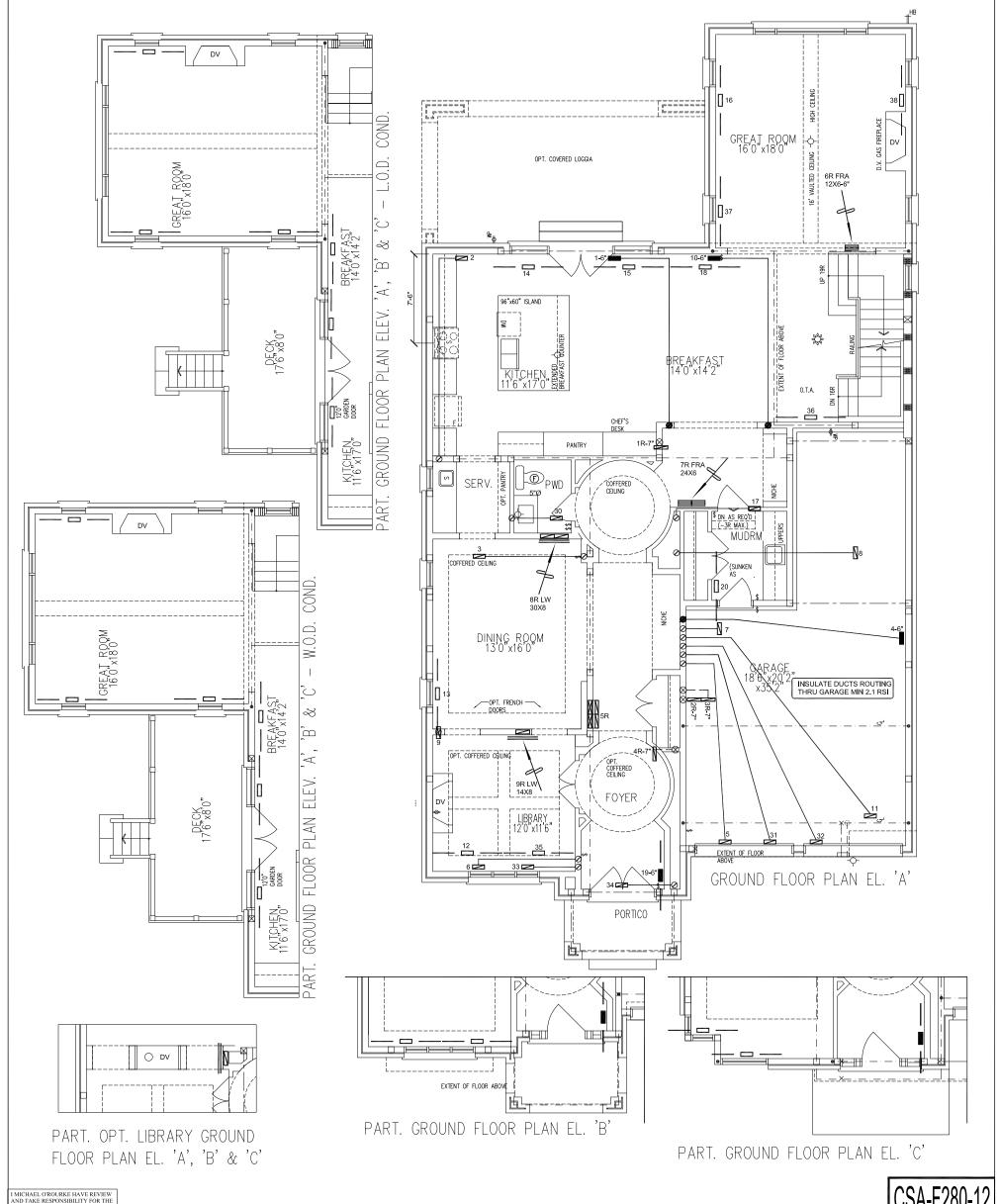
DOORS 1" min. FOR R/A

cfm @ 0.6" w.c

1955

FAN SPEED

;	Sheet Title								
	BASEMENT								
	HEATING								
	LAYOUT								
	Date JAN/2018								
	Scale 1/8" = 1'-0"								
	BCIN# 19669								
	LO# 77477								



		3.								
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	REVISED AS PER ARCHITECTURALS	JUNE/2020
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE	N	RETURN AIR STACK ABOVE	1.	DECK CONDITIONS ADDED	SEPT/2018
	SUPPLY AIR GRILLE 6" BOOT	0	SUPPLY AIR STACK FROM 2nd FLOOR	<u></u>	30"x8" RETURN AIR GRILLE	×	RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE	Ø	6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE	X	REDUCER		REVISIONS	

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GOLD PARK HOMES

Project Name

PINE VALLEY & TESTON VAUGHAN, ONTARIO

THE BEAUMONT

5004 4184 sqft

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

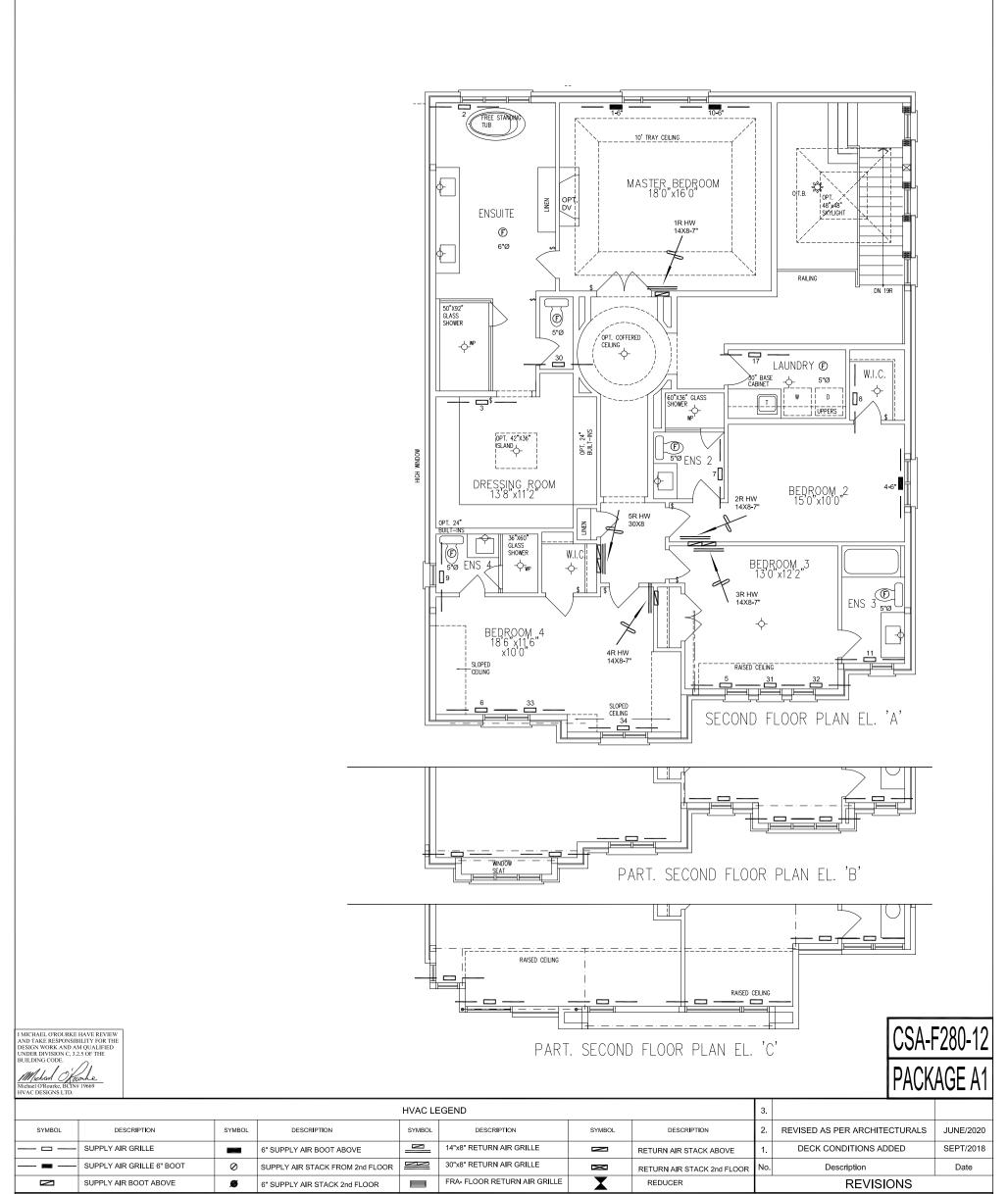
Specializing in Residential Mechanical Design Services

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.

FIRST FLOOR **HEATING LAYOUT**

JAN/2018 Date 1/8" = 1'-0"

BCIN# 19669 77477 LO#



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Cllent

GOLD PARK HOMES

Project Name

PINE VALLEY & TESTON VAUGHAN, ONTARIO

THE BEAUMONT 5004

4184 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 JAN/2018

Scale 1/8" = 1'-0"

BCIN# 19669

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					
	er, street name			L	Jnit no.	Lot/con.
		In	To:			
Municipality		Postal code	Plan number/ other des	scription		
VAUGHAN (WO	ODBRIDGE)					
B. Individua	al who reviews and takes	responsibility 1	or design activities			
Name			Firm			
MICHAEL O'F			HVAC DESIGNS LTD.	Trans.		I
Street address 375 FINLEY A				Unit no. 202		Lot/con. N/A
	AVE	Postal code	Province	E-mail		IN/A
Municipality AJAX		L1S 2E2	ONTARIO	info@hvacdesig	ine ca	
Telephone nu	mhor	Fax number	ONTANIO	Cell number	J113.00	
(905) 619-230		(905) 619-2375		()		
` ,		` '		,		
C. Design a	ctivities undertaken by i	ndividual identii	fied in Section B. [Bui	lding Code Tabl	e 3.5.2.1 OF Div	ision C]
☐ House		⊠ HVA0	C – House	□в	uilding Structur	al
☐ Small B	•	Buildi	ng Services	□ P	lumbing – Hous	se
Large E	•		tion, Lighting and Po		lumbing – All B	
•	ex Buildings	☐ Fire P	rotection		n-site Sewage	Systems
	designer's work		Model:	5004 THE BEAUN	//ONT	
DUCT SIZING	GAIN CALCULATIONS			OPT. 5 BEDROOM	Л	
	, L MECHANICAL VENTILATI	ON DESIGN SUM	MARY			
	L SYSTEM DESIGN per CSA		Project:	: PINE VALLEY & T	ESTON	
	ion of Designer					
1	-			-ll 4l4	. / -	
·	MICHAEL O'ROURKE	orint name)		_ declare that	(choose one as a	ppropriate):
	· ·	•				
	eview and take responsibility vision C, of the Building Code				tion 3.2.4.of appropriate	
	asses/categories.	. I alli qualilleu, all	ia tile ilitti is registerea, ili	uic	арргорпасе	
	Individual BCIN:					
	Firm BCIN:					
	eview and take responsibility signer" under subsection 3		am qualified in the appropion C, of the Building Cod		n "other	
	Individual BCIN:	19669				
			nd qualification:	O.B.C SENTE	ENCE 3.2.4.1	(4)
	·	-	•			
	e design work is exempt isis for exemption from registi		ation and qualification requ	irements of the Bu	ilding Code.	
Ба	isis ioi exemplion nom registi	alion and qualifica	IUOII.			
I certify that:						
1.	The information contained	in this sche	dule is true to the best of r	my knowledge.		
2.	I have submitted this applic	ation with the know	vledge and consent of the	firm.		
					1 1/11	
	June 4, 2020			Muchael	Ofounde	
	Date	_			Signature of De	signer
-					6 200	<u> </u>

NOTE

^{1.} For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d).of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.

^{2.} 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: PI							2		OPT. 5			20		11-21-0-6				DATE:							RAL AIR C					HEAT LO				0220	CSA-F280-12
BUILDER: GO	OLD P	ARK H	OMES					TYPE:	5004 TI		UMON	т		GFA:	4184		_	LO#					JMMER		RAL AIR C	HANGE		0.124		HEAT G	ΑΙΝ ΔΤ	°F.	16	SB-1	2 PACKAGE A1
ROOM USE				MBR	- 1		ENS	- 1		WIC			BED-2	4		BED-3			BED-4			ENS-2	1	1	WIC-2		BED-5		1	ENS-3	- 1				
EXP. WALL				19			31			7			11			18			43			0			13		10		l	18					
CLG. HT.		545.00		10			9			9			9			9			10			9			9		9			9					
Security Community Community (COM	ACTO	Million Corner																																	
	OSS	GAIN		190			279	or on one		63			99	STATE OF THE STATE		162			430	escateur 1		0			117		90	000000000000000000000000000000000000000		162					
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	21.3	25.4	0	0	0	8		203	8	170	203	0	0	0	0	0	0	9	192	228	0	0	0	0	0 0	18	383	457	0	200	0				
		41.1	42	894	1727	18	383	740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0	0	0	0	550	0				
		103.0	8	298	824	0	0	0	0	0	0	4	149	412	0	0	0	0	0	0	0	0	0	0	0 0	0	0	0	0	- 9:	0				
	25.2	5.2	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				
	4.5	0.9	148	660	137		1129	235	55	245	51	81	361	75	99	442	92	361	1611	335	0	0	0	117	522 109	1.0.0	321	67	149		138				
	3.6	0.7	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	100	0				
	1.3	0.6	460	590	294	220	282	140	91	117	58	183	235	117	136	175	87	267	343	170	84	108	54	78	100 50	180	231	115	77		49				
	2.7	1.4	0	0	0	0	0	0	0	0	0	0	0	0	60	165	82	150	412	205	0	0	0	0	0 0	0	0	0	0	5.0	0				
	2.6	0.5	0	0	0	0	0	0	0	0	0	187	477	99	196	500	104	20	51	11	45	115	24	78	199 41	0	0	0	77	196	41				
BASEMENT/CRAWL HEAT LOSS				0			0			0			0			0			0			0			0		0			0					
SLAB ON GRADE HEAT LOSS				0			0	_		0			0			0			0			0			0		0			0					
SUBTOTAL HT LOSS				2443	2002		1965	4240		532	242		1605	4000		2622	20.55		3885	2447		223	77		821		935	620		1237	700				
SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER			0.00	004	2982	0.00		1318	0.00		312			1002			2956	0.00		3417	0.00		77	0.00	200		0.34	639	0.00		763				
AIR CHANGE HEAT LOSS			0.20	0.34 819		0.20	659		0.20	179		0.20	0.34 538		0.20	0.34 879		0.20	1303		0.20	0.34 75		0.20	275	0.20	314		0.20	0.34 415					
				019	259		059	445		1/9	27		536	87		919	257		1303	297		15	7		17		314	56			66				
AIR CHANGE HEAT GAIN DUCT LOSS				•	259		0	115		0	27		214	01		350	231		519	291		30			110			30		165	66				
DUCT GAIN				0	0		U	۰		U	0		214	213		350	425		219	475		30	8		22		U	0			83				
	240		2		480	0		0	0		0			240	4		240	1		240	0		0	0	0	١.		240	0		0				
HEAT GAIN APPLIANCES/LIGHTS	240		2		797			ő	0		0	3		797	3		797	-10		797	U		0	U	0	1		797	,		0				
TOTAL HT LOSS BTU/H				3262	101		2623	١		711			2358	151		3851	101		5707	101		327	١		1206		1249	101		1817	١				
TOTAL HT GAIN x 1.3 BTU/H				3202	5874			1863		711	441		2330	3041		3031	6077		3707	6794		321	120		310		1240	2251			186				
TOTAL ITT CAME A 10 D TOTAL					0014			1000						5541			0011			0104			120		010			LLUI			100				
ROOM USE EXP. WALL				LIBR			DIN 17			KIT			GREAT			LAUN			ENS-4/5			FOY			MUD 18								LOD		BAS 230
CLG. HT.				27						111			56 16			9			9			37			13								10		10
100	ACTO	200		311			11			11			16			9			9			:11			13								10		10
	oss			297			187			1221			896			0			54			407			234								510		1916
GLAZING	033	GAIN			GAIN		LOSS	CAIN			GAIN		LOSS	CAIN		LOSS	GAIN		72.3	GAIN			GAIN		LOSS GAII								OSS GAI		LOSS GAIN
	21.3	16.6	0	0	0	0	0	0			1555 2717				805-07	LUGG	GAIR						GAIR		LUGG GAI	1							0 0	6	
		41.1	41	872	1686		•		30				553		0	0	0	0			0	0	0	0	0 0						- 1 (0			
7,435,430,435	21.3	200000				0	0	4.036	39	830	648	26	553	432	0	0	0	0	0	0	0	0 745	0	0	0 0						- 1 3	0	- T	125	128 100
		25.4	12		1000000	0	0 511	0	0	0	0	0	0	0	0	0	0	0	0	0	35	745	1439	0	0 0							0 0 0	0 0	0 9	0 0
	21.3	25.4 41.1	12	255	305	0 24 0	0 511 0	4.036	0 10		0 254	0 26	0 553	200	R157	31	1000	1000	0	0	0.000		1439	10000	355 V.53							0	0 0	0	
		41.1		255	305	24	511	0 609 0	0 10 111	0 213	0	0	0	0 660 2344	0	0	0 0	0 8	0 0 170	0 0 203	35 0	745 0	1439	0 0	0 0						2	0	0 0 0 0 532 102	0	0 0 192 228
SKYLT. 3	37.2	41.1 103.0	0	255 0 0	305 0	24 0 0	511 0	0 609 0	0 10 111 0	0 213 2362 0	0 254	0 26 57	0 553 1213	0 660 2344 0	0	0	0 0 0 412	0 8 0	0 0 170 0	0 0 203 0	35 0 0 0	745 0 0	1439 0 0 0	0 0	0 0 0 0 0 0 0 0						2	0 0 25 0	0 0 0 0 532 102 0 0	8 0 0	0 0 192 228 0 0 0 0
SKYLT. 3 DOORS 2		41.1	0	255 0	305 0 0	24 0 0 0	511 0 0 0	0 609 0	0 10 111 0 0	0 213 2362	0 254 4565 0	0 26 57 0	0 553 1213 0	0 660 2344	0 0 0 4	0	0 0	0 8 0	0 0 170 0 0	0 0 203 0	35 0 0 0 20	745 0 0 0 505	1439 0 0 0 0	0 0	0 0 0 0 0 0						2	0 0 25	0 0 0 0 532 102	8 0	0 0 192 228 0 0
SKYLT. 3 DOORS 2 NET EXPOSED WALL	37.2 25.2	41.1 103.0 5.2	0 0	255 0 0 0	305 0 0 0	24 0 0	511 0 0	0 609 0 0	0 10 111 0	0 213 2362 0 0	0 254 4565 0	0 26 57 0	0 553 1213 0 0	0 660 2344 0 0	0 0 0 4	0 0 0 149	0 0 0 412 0	0 8 0 0	0 0 170 0	0 0 203 0 0	35 0 0 0	745 0 0	1439 0 0 0	0 0 0 0	0 0 0 0 0 0 0 0 505 105						2	0 0 25 0 0	0 0 0 0 532 102 0 0	0 9 0 0 20 0	0 0 192 228 0 0 0 0 505 105
SKYLT. 3 DOORS 2 NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR	37.2 25.2 4.5	41.1 103.0 5.2 0.9	0 0	255 0 0 0 1089	305 0 0 0	24 0 0 0 163	511 0 0 0 727	0 609 0 0 0 151	0 10 111 0 0 1061	0 213 2362 0 0 4735	0 254 4565 0 0 984	0 26 57 0 0 787	0 553 1213 0 0 3512	0 660 2344 0 0 730	0 0 0 4 0	0 0 0 149 0	0 0 0 412 0	0 8 0 0 0 46	0 0 170 0 0 0 205	0 0 203 0 0 0 43	35 0 0 0 20 352	745 0 0 0 505 1571	1439 0 0 0 105 327	0 0 0 0 20 214	0 0 0 0 0 0 0 0 505 105 199						21	0 0 25 0 0	0 0 0 0 532 102 0 0 0 0 0 0	0 9 0 0 20 0	0 0 192 228 0 0 0 0 505 105 0 0
SKYLT. 3 DOORS 2 NET EXPOSED WALL NET EXPOSED BSMTWALL ABOVE GR EXPOSED CLG	37.2 25.2 4.5 3.6	41.1 103.0 5.2 0.9 0.7	0 0 0 244 0	255 0 0 0 1089 0	305 0 0 0 226 0	24 0 0 0 163 0	511 0 0 0 727 0	0 609 0 0 0 151	0 10 111 0 0 1061	0 213 2362 0 0 4735	0 254 4565 0 0 984	0 26 57 0 0 787	0 553 1213 0 0 3512	0 660 2344 0 0 730	0 0 0 4 0 0	0 0 0 149 0 0	0 0 0 412 0 0	0 8 0 0 0 46	0 0 170 0 0 0 205	0 0 203 0 0 0 43	35 0 0 0 20 352 0	745 0 0 0 505 1571	1439 0 0 0 105 327 0	0 0 0 0 20 214	0 0 0 0 0 0 0 0 505 105 199 0 0						21	0 0 225 0 0	0 0 0 0 532 102 0 0 0 0 0 0 1011 210	0 9 8 0 0 20 0 384	0 0 192 228 0 0 0 0 505 105 0 0 1382 287
SKYLT. 3 DOORS 2 NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG	37.2 25.2 4.5 3.6 1.3	41.1 103.0 5.2 0.9 0.7 0.6	0 0 0 244 0	255 0 0 0 1089 0	305 0 0 0 226 0	24 0 0 0 163 0	511 0 0 0 727 0	0 609 0 0 0 151 0	0 10 111 0 0 1061 0	0 213 2362 0 0 4735 0 246	0 254 4565 0 0 984 0	0 26 57 0 0 787 0	0 553 1213 0 0 3512 0	0 660 2344 0 0 730 0	0 0 0 4 0 0 0	0 0 0 149 0 0 0	0 0 0 412 0 0 0	0 8 0 0 0 46 0	0 0 170 0 0 0 205 0 77	0 0 203 0 0 0 43 0	35 0 0 0 20 352 0	745 0 0 0 505 1571 0	1439 0 0 0 105 327 0	0 0 0 0 20 214 0	0 0 0 0 0 0 0 0 505 105 199 0 0 0 0						21	0 0 25 0 0 0	0 0 0 0 532 102 0 0 0 0 0 0 0 1011 211 0 0	0 9 8 0 20 0 384 0	0 0 192 228 0 0 0 0 505 105 0 0 1382 287 0 0
SKYLT. 3 DOORS 2 NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG	37.2 25.2 4.5 3.6 1.3 2.7	41.1 103.0 5.2 0.9 0.7 0.6 1.4	0 0 244 0 0	255 0 0 0 1089 0 0	305 0 0 0 226 0 0	24 0 0 0 163 0 0	511 0 0 0 727 0 0	0 609 0 0 0 151 0	0 10 111 0 0 1061 0 192	0 213 2362 0 0 4735 0 246	0 254 4565 0 0 984 0 123	0 26 57 0 0 787 0 0 342	0 553 1213 0 0 3512 0 0 940	0 660 2344 0 0 730 0 0 468	0 0 0 4 0 0 0 139	0 0 149 0 0 0 178	0 0 0 412 0 0 0 89	0 8 0 0 0 46 0 60	0 0 170 0 0 0 205 0 77	0 0 203 0 0 0 43 0 38	35 0 0 0 20 352 0 0	745 0 0 0 505 1571 0	1439 0 0 0 105 327 0 0	0 0 0 0 20 214 0 0	0 0 0 0 0 0 0 0 505 199 0 0 0 0 0 0 0						21	0 0 25 0 0 0 81	0 0 0 0 532 102 0 0 0 0 0 0 1011 211 0 0 0 0	0 9 8 0 20 0 384 0	0 0 192 228 0 0 0 0 505 105 0 0 1382 287 0 0
SKYLT. 3 DOORS 2 NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE OR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR	37.2 25.2 4.5 3.6 1.3 2.7	41.1 103.0 5.2 0.9 0.7 0.6 1.4	0 0 244 0 0	255 0 0 0 1089 0 0	305 0 0 0 226 0 0	24 0 0 0 163 0 0	511 0 0 0 727 0 0 0	0 609 0 0 0 151 0	0 10 111 0 0 1061 0 192	0 213 2362 0 0 4735 0 246 0	0 254 4565 0 0 984 0 123	0 26 57 0 0 787 0 0 342	0 553 1213 0 0 3512 0 0 940	0 660 2344 0 0 730 0 0 468	0 0 0 4 0 0 0 139	0 0 149 0 0 0 178	0 0 0 412 0 0 0 89	0 8 0 0 0 46 0 60	0 0 170 0 0 0 205 0 77	0 0 203 0 0 0 43 0 38	35 0 0 0 20 352 0 0	745 0 0 0 505 1571 0	1439 0 0 0 105 327 0 0	0 0 0 0 20 214 0 0	0 0 0 0 0 0 505 105 199 0 0 0 0 0 0 0 0 0						21	0 0 25 0 0 0 81	0 0 0 0 532 102 0 0 0 0 0 0 1011 211 0 0 0 0	0 9 8 0 20 0 384 0	0 0 192 228 0 0 0 0 505 105 0 0 1382 287 0 0 0 0
SKYLT. 3 DOORS 2 NET EXPOSED WALL NET EXPOSED BMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS	37.2 25.2 4.5 3.6 1.3 2.7	41.1 103.0 5.2 0.9 0.7 0.6 1.4	0 0 244 0 0	255 0 0 0 1089 0 0	305 0 0 0 226 0 0	24 0 0 0 163 0 0	511 0 0 0 727 0 0 0	0 609 0 0 0 151 0	0 10 111 0 0 1061 0 192 0	0 213 2362 0 0 4735 0 246 0	0 254 4565 0 0 984 0 123	0 26 57 0 0 787 0 0 342	0 553 1213 0 0 3512 0 0 940	0 660 2344 0 0 730 0 0 468	0 0 0 4 0 0 0 139	0 0 0 149 0 0 0 178 0	0 0 0 412 0 0 0 89	0 8 0 0 0 46 0 60	0 0 170 0 0 0 205 0 77 0	0 0 203 0 0 0 43 0 38	35 0 0 0 20 352 0 0	745 0 0 0 505 1571 0	1439 0 0 0 105 327 0 0	0 0 0 20 214 0 0	0 0 0 0 0 0 0 505 105 199 0 0 0 0 0 0 0 0 0 0 0 0						21	0 0 25 0 0 0 81 0	0 0 0 0 532 102 0 0 0 0 0 0 1011 211 0 0 0 0	0 9 8 0 20 0 384 0	0 0 192 228 0 0 0 0 505 105 0 0 1382 287 0 0 0 0
SKYLT. 3 DOORS 2 NET EXPOSED WALL NET EXPOSED BMTWALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS	37.2 25.2 4.5 3.6 1.3 2.7	41.1 103.0 5.2 0.9 0.7 0.6 1.4	0 0 244 0 0	255 0 0 0 1089 0 0 0 0	305 0 0 0 226 0 0	24 0 0 0 163 0 0	511 0 0 0 727 0 0 0 0 0	0 609 0 0 0 151 0	0 10 111 0 0 1061 0 192 0	0 213 2362 0 0 4735 0 246 0 0	0 254 4565 0 0 984 0 123	0 26 57 0 0 787 0 0 342	0 553 1213 0 0 3512 0 0 940 0	0 660 2344 0 0 730 0 0 468	0 0 0 4 0 0 0 139	0 0 0 149 0 0 0 178 0 191 0	0 0 0 412 0 0 0 89	0 8 0 0 0 46 0 60	0 0 170 0 0 0 205 0 77 0 0	0 0 203 0 0 0 43 0 38	35 0 0 0 20 352 0 0	745 0 0 0 505 1571 0 0 0 0	1439 0 0 0 105 327 0 0	0 0 0 20 214 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0						21	0 0 25 0 0 0 81 0	0 0 0 0 0 532 102 0 0 0 0 0 0 1011 211 0 0 0 0 0 0	0 9 0 0 20 0 0 384 0 0	0 0 192 228 0 0 0 0 505 105 0 0 1382 287 0 0 0 0 8016
SKYLT. 3 DOORS 2 NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS	37.2 25.2 4.5 3.6 1.3 2.7	41.1 103.0 5.2 0.9 0.7 0.6 1.4	0 0 244 0 0	255 0 0 0 1089 0 0 0 0	305 0 0 0 226 0 0 0	24 0 0 0 163 0 0 0	511 0 0 0 727 0 0 0 0 0	0 609 0 0 0 151 0 0	0 10 111 0 0 1061 0 192 0	0 213 2362 0 0 4735 0 246 0 0	0 254 4565 0 0 984 0 123 0	0 26 57 0 0 787 0 0 342	0 553 1213 0 0 3512 0 0 940 0	0 660 2344 0 0 730 0 0 468 0	0 0 0 4 0 0 0 139	0 0 0 149 0 0 0 178 0 191 0	0 0 412 0 0 0 89 0	0 8 0 0 0 46 0 60	0 0 170 0 0 0 205 0 77 0 0	0 0 203 0 0 0 43 0 38 0	35 0 0 0 20 352 0 0	745 0 0 0 505 1571 0 0 0 0	1439 0 0 0 105 327 0 0	0 0 0 20 214 0 0	0 0 0 0 0 0 0 505 105 1995 0 0 0 0 0 0 0 0 0 0 0 0 0 1460						21	0 0 25 0 0 0 81 0	0 0 0 0 532 102 0 0 0 0 0 0 1011 211 0 0 0 0 0 1543	0 9 0 0 20 0 0 384 0 0	0 0 192 228 0 0 0 0 505 105 0 0 1382 287 0 0 0 0 8016
SKYLT. 3 DOORS 2 NET EXPOSED WALL NET EXPOSED BAMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS	37.2 25.2 4.5 3.6 1.3 2.7	41.1 103.0 5.2 0.9 0.7 0.6 1.4	0 0 244 0 0 0	255 0 0 1089 0 0 0 0 0 2217	305 0 0 0 226 0 0 0	24 0 0 0 163 0 0 0	511 0 0 0 727 0 0 0 0 0 0	0 609 0 0 0 151 0 0	0 10 111 0 0 1061 0 192 0	0 213 2362 0 0 4735 0 246 0 0 0 8386	0 254 4565 0 0 984 0 123 0	0 26 57 0 0 787 0 0 342 0	0 553 1213 0 0 3512 0 940 0 0 0 6772	0 660 2344 0 0 730 0 0 468 0	0 0 0 4 0 0 0 139 0 75	0 0 149 0 0 0 178 0 191 0 0 519	0 0 412 0 0 0 89 0	0 8 0 0 0 46 0 60 0	0 0 170 0 0 0 205 0 77 0 0 0 0	0 0 203 0 0 0 43 0 38 0	35 0 0 20 352 0 0	745 0 0 0 505 1571 0 0 0 0 0	1439 0 0 0 105 327 0 0	0 0 0 20 214 0 0	0 0 0 0 0 0 0 505 105 105 0 0 0 0 0 0 0						21	0 0 25 0 0 0 81 0	0 0 0 0 532 102 0 0 0 0 0 0 1011 211 0 0 0 0 0 1543	0 9 0 0 20 0 0 384 0 0	0 0 192 228 0 0 0 0 505 105 0 0 1382 287 0 0 0 0 8016
SKYLT. 3 DOORS 2 NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HIT LOSS SUBTOTAL HIT GAIN LEVEL FACTOR / MULTIPLIER	37.2 25.2 4.5 3.6 1.3 2.7	41.1 103.0 5.2 0.9 0.7 0.6 1.4	0 0 244 0 0 0	255 0 0 0 1089 0 0 0 0 0 0 2217	305 0 0 0 226 0 0 0	24 0 0 0 163 0 0 0	511 0 0 0 727 0 0 0 0 0 0 1238	0 609 0 0 0 151 0 0	0 10 111 0 0 1061 0 192 0	0 213 2362 0 0 4735 0 246 0 0 0 8386	0 254 4565 0 0 984 0 123 0	0 26 57 0 0 787 0 0 342 0	0 553 1213 0 0 3512 0 940 0 0 6772	0 660 2344 0 0 730 0 0 468 0	0 0 0 4 0 0 0 139 0 75	0 0 149 0 0 0 178 0 191 0 519	0 0 412 0 0 0 89 0	0 8 0 0 0 46 0 60 0	0 0 170 0 0 0 205 0 77 0 0 0 453	0 0 203 0 0 0 43 0 38 0	35 0 0 20 352 0 0	745 0 0 0 505 1571 0 0 0 0 2821	1439 0 0 0 105 327 0 0	0 0 0 20 214 0 0	0 0 0 0 0 0 0 505 105 199 0 0 0 0 0 0 0 0 0 1460 3044 0.38						21	0 0 25 0 0 0 81 0	0 0 0 0 532 102 0 0 0 0 0 0 1011 211 0 0 0 0 0 1543	0 9 0 0 20 0 0 384 0 0	0 0 192 228 0 0 0 0 505 105 0 0 1382 287 0 0 0 0 0 0 8016
SKYLT. 3 DOORS 2 NET EXPOSED WALL NET EXPOSED BAMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS	37.2 25.2 4.5 3.6 1.3 2.7	41.1 103.0 5.2 0.9 0.7 0.6 1.4	0 0 244 0 0 0	255 0 0 0 1089 0 0 0 0 0 0 2217	305 0 0 226 0 0 0 0	24 0 0 0 163 0 0 0	511 0 0 0 727 0 0 0 0 0 0 1238	0 609 0 0 0 151 0 0 0	0 10 111 0 0 1061 0 192 0	0 213 2362 0 0 4735 0 246 0 0 0 8386	0 254 4565 0 0 984 0 123 0	0 26 57 0 0 787 0 0 342 0	0 553 1213 0 0 3512 0 940 0 0 6772	0 660 2344 0 0 730 0 468 0	0 0 0 4 0 0 0 139 0 75	0 0 149 0 0 0 178 0 191 0 519	0 0 412 0 0 0 89 0 40	0 8 0 0 0 46 0 60 0	0 0 170 0 0 0 205 0 77 0 0 0 453	0 0 203 0 0 0 43 0 38 0 0	35 0 0 20 352 0 0	745 0 0 0 505 1571 0 0 0 0 2821	1439 0 0 0 105 327 0 0 0	0 0 0 20 214 0 0	0 0 0 0 0 0 0 505 105 199 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0						21	0 0 25 0 0 0 81 0	0 0 0 0 532 102 0 0 0 0 0 0 1011 211 0 0 0 0 0 1543	0 9 0 0 20 0 0 384 0 0	0 0 192 228 0 0 0 0 505 105 0 0 1382 287 0 0 0 0 8016 10222 720 1.23 14451
SKYLT. 3 DOORS 2 NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT LOSS DUCT GAIN	37.2 25.2 4.5 3.6 1.3 2.7	41.1 103.0 5.2 0.9 0.7 0.6 1.4	0 0 244 0 0 0	255 0 0 0 1089 0 0 0 0 0 0 2217	305 0 0 226 0 0 0 0	24 0 0 0 163 0 0 0	511 0 0 0 727 0 0 0 0 0 0 1238	0 609 0 0 0 151 0 0 0	0 10 111 0 0 1061 0 192 0	0 213 2362 0 0 4735 0 246 0 0 0 8386	0 254 4565 0 0 984 0 123 0	0 26 57 0 0 787 0 0 342 0	0 553 1213 0 0 3512 0 940 0 0 6772	0 660 2344 0 0 730 0 468 0	0 0 0 4 0 0 0 139 0 75	0 0 149 0 0 0 178 0 191 0 519 0.34	0 0 412 0 0 0 89 0 40	0 8 0 0 0 46 0 60 0	0 0 170 0 0 0 205 0 77 0 0 0 453	0 0 203 0 0 0 43 0 38 0 0	35 0 0 20 352 0 0	745 0 0 0 505 1571 0 0 0 0 2821	1439 0 0 0 105 327 0 0 0	0 0 0 20 214 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0						21	0 0 25 0 0 0 81 0	0 0 0 0 532 102 0 0 0 0 0 0 1011 211 0 0 0 0 0 1543	0 9 0 0 20 0 0 384 0 0	0 0 192 228 0 0 0 0 505 105 0 0 1382 287 0 0 0 0 8016 10222 720 1.23 14451
SKYLT. 3 DOORS 2 NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT GAIN DUCT GAIN HEAT GAIN PEOPLE	37.2 25.2 4.5 3.6 1.3 2.7	41.1 103.0 5.2 0.9 0.7 0.6 1.4	0 0 244 0 0 0	255 0 0 0 1089 0 0 0 0 0 0 2217	305 0 0 226 0 0 0 0	24 0 0 0 163 0 0 0	511 0 0 0 727 0 0 0 0 0 1238 0.38 469	0 609 0 0 0 151 0 0 0 760	0 10 111 0 0 1061 0 192 0	0 213 2362 0 0 4735 0 246 0 0 0 8386	0 254 4565 0 984 0 123 0 0	0 26 57 0 0 787 0 0 342 0	0 553 1213 0 0 3512 0 940 0 0 6772	0 660 2344 0 0 730 0 0 468 0	0 0 0 4 0 0 0 139 0 75	0 0 149 0 0 0 178 0 191 0 519 0.34	0 0 412 0 0 0 89 0 40	0 8 0 0 0 46 0 60 0	0 0 170 0 0 0 205 0 77 0 0 0 453	0 0 203 0 0 0 43 0 38 0 0	35 0 0 20 352 0 0	745 0 0 0 505 1571 0 0 0 0 2821	1439 0 0 0 105 327 0 0 0 0	0 0 0 20 214 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0						21	0 0 25 0 0 0 81 0	0 0 0 0 532 102 0 0 0 0 0 0 1011 211 0 0 0 0 0 1543	0 9 0 0 20 0 0 384 0 0	0 0 192 228 0 0 0 0 505 105 0 0 1382 287 0 0 0 0 8016 10222 720 1.23 14451
SKYLT. 3 DOORS 2 NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED CLG SEASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT LOSS DUCT GAIN HEAT GAIN PEOPLE HEAT GAIN APPLIANCES/LIGHTS	37.2 25.2 4.5 3.6 1.3 2.7 2.6	41.1 103.0 5.2 0.9 0.7 0.6 1.4	0 0 244 0 0 0	255 0 0 0 1089 0 0 0 0 0 0 2217 0.38 840	305 0 0 0 226 0 0 0 0 2217	24 0 0 0 163 0 0 0	511 0 0 0 727 0 0 0 0 0 0 1238 0.38 469	0 609 0 0 0 151 0 0 0 760	0 10 1111 0 0 1061 0 192 0 0	0 213 2362 0 0 4735 0 246 0 0 0 0 8386 0.38 3176	0 254 4565 0 984 0 123 0 0	0 26 57 0 0 787 0 0 342 0	0 553 1213 0 0 3512 0 940 0 0 6772 0.38 2565	0 660 2344 0 0 730 0 468 0	0 0 0 4 0 0 0 139 0 75	0 0 0 149 0 0 0 178 0 191 0 0 519 0.34 174	0 0 0 412 0 0 0 0 89 0 40	0 8 0 0 0 46 0 60 0	0 0 170 0 0 0 205 0 77 0 0 0 453	0 0 203 0 0 0 43 0 38 0 0	35 0 0 0 20 352 0 0 0	745 0 0 0 505 1571 0 0 0 0 2821 0.38 1068	1439 0 0 0 105 327 0 0 0 1871	0 0 0 20 214 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0						21	0 0 0 225 0 0 0 0 0 0 881 0 0 0	0 0 0 0 532 1020 0 0 0 0 0 0 1011 211 0 0 0 0 0 1543 123	0 9 0 0 20 0 0 384 0 0	0 0 192 228 0 0 0 505 105 0 0 1382 287 0 0 0 8016 10222 720 1.23 14451 170 0 0 0
SKYLT. 3 DOORS 2 NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT GAIN HEAT GAIN PEOPLE	37.2 25.2 4.5 3.6 1.3 2.7 2.6	41.1 103.0 5.2 0.9 0.7 0.6 1.4	0 0 244 0 0 0	255 0 0 0 1089 0 0 0 0 0 0 2217	305 0 0 226 0 0 0 0 2217	24 0 0 0 163 0 0 0	511 0 0 727 0 0 0 0 0 0 1238 0.38 469	0 609 0 0 0 151 0 0 0 760	0 10 1111 0 0 1061 0 192 0 0	0 213 2362 0 0 0 4735 0 246 0 0 0 8386 0.38 3176	0 254 4565 0 0 984 0 123 0 0	0 26 57 0 0 787 0 0 342 0	0 553 1213 0 0 3512 0 940 0 0 6772	0 660 2344 0 0 730 0 0 468 0	0 0 0 4 0 0 0 139 0 75	0 0 149 0 0 0 178 0 191 0 519 0.34	0 0 0 412 0 0 0 89 0 40 541 47	0 8 0 0 0 46 0 60 0	0 0 170 0 0 0 205 0 77 0 0 0 453	0 0 203 0 0 0 43 0 38 0 0	35 0 0 0 20 352 0 0 0	745 0 0 0 505 1571 0 0 0 0 0 2821 0.38 1068	1439 0 0 0 105 327 0 0 0 0 1871	0 0 0 20 214 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0						21	0 0 0 225 0 0 0 0 0 0 881 0 0 0	0 0 0 0 532 1020 0 0 0 0 0 1011 211 0 0 0 0 0 0 1543 123	0 9 9 0 200 0 0 384 0 0 0 0	0 0 192 228 0 0 0 0 505 105 0 0 1382 287 0 0 0 0 8016 10222 720 1.23 14451

STRUCTURAL HEAT LOSS: 82258 TOTAL HEAT GAIN BTU/H: 61029 TONS: 5.09 LOSS DUE TO VENTILATION LOAD BTU/H: 3181 TOTAL COMBINED HEAT LOSS BTU/H: 85438

Michael Oxombe.



		: PINE VA								E BEAU			DATE:	Jun-20			GFA:	4184	LO#	77478				
HEATING CFM TOTAL HEAT LOSS AIR FLOW RATE CFM		A	TOTAL H	OLING CFM HEAT GAIN RATE CFM	60,367		a	fun a/c coil vailable	pressure nace filter pressure pressure r s/a & r/a	0.6 0.05 0.2 0.35						EL	. 296UH11 FAN		110	x		AFUE = (BTU/H) = (BTU/H) =	110,000	
RUN COUNT S/A	4th	3rd 0	2nd 18	1st 12	Bas 8		nle		ssure s/a	0.18		r/a	pressure	0.17				EDLOW	1380 1505		DESI	GN CFM = .		ež.
R/A	0	0	6	4	1		max	s/a dif p	ress. loss	0.02		grille pr	ess. Loss	0.02				M HIGH	1685					(122)
All S/A diffusers 4"x10" unle All S/A runs 5"Ø unless not				out.			min adju	isted pre	ssure s/a	0.16	adj	usted pre	essure r/a	0.15				HIGH	1955	1	EMPERAT	URE RISE	50	°F
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 RM LOSS MBH.	MBR 1.63	ENS 1.31	BED-5 1.25	BED-2 2.36	BED-3 1.28	BED-4 1.90	ENS-2 0.33	WIC-2 1.21	ENS-4/5 0.60	MBR 1.63	ENS-3 1.82	LIBR 1.53	DIN 1.71	KIT 2.89	KIT 2.89	GREAT 3.11	LAUN 0.76	KIT 2.89	FOY 3.89	MUD 2.01	BAS 3.28	BAS 3.28	BAS 3.28	BAS 3.28
CFM PER RUN HEAT	39	31	30	56	31	45	8	29	14	39	43	36	41	69	69	74	18	69	92	48	78	78	78	78
RM GAIN MBH.	2.94	0.93	2.25	3.04	2.03	2.26	0.12	0.31	0.40	2.94	1.19	2.08	2.11	2.58	2.58	2.53	1.98	2.58	2.64	0.43	0.35	0.35	0.35	0.35
CFM PER RUN COOLING	95	30	73	98	66	73	4	10	13	95	38	68	68	84	84	82	64	84	86	14	11	11	11	11
ADJUSTED PRESSURE	0.16	0.17	0.17	0.16	0.17	0.17	0.17	0.17	0.17	0.16	0.17	0.17	0.17	0.16	0.16	0.16	0.17	0.16	0.16	0.17	0.17	0.17	0.17	0.17
ACTUAL DUCT LGH.	46	62	39	34	38	50	28	31	43	54	41	41	27	40	32	49	26	36	24	16	50	50	39	30
EQUIVALENT LENGTH	190	140	210	180	120	150	160	150	190	180	160	180	80	140	150	130	150	140	150	130	130	140	100	102
TOTAL EFFECTIVE LENGTH ADJUSTED PRESSURE	236 0.07	0.09	249 0.07	214 0.08	158 0.11	0.09	188	181 0.1	233 0.07	234 0.07	0.09	0.08	107 0.16	180	182	179	176 0.1	176 0.09	174 0.09	146 0.12	180	190 0.09	139 0.12	132 0.13
ROUND DUCT SIZE	6	4	5	6	5	5	4	4	4	6	4	5	5	5	5	5	5	5	6	4	5	5	5	5
HEATING VELOCITY (ft/min)	199	356	220	286	228	330	92	333	161	199	493	264	301	507	507	543	132	507	469	551	573	573	573	573
COOLING VELOCITY (ft/min)	484	344	536	500	485	536	46	115	149	484	436	499	499	617	617	602	470	617	438	161	81	81	81	81
OUTLET GRILL SIZE	4X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10
TRUNK	В	С	D	F	F	E	F	D	E	В	F	E	F	С	С	A	D	В	E	D	A	A	С	С
RUN#	25	26	27	28	29	30	31	32	33	34	35	36	37	38										
ROOM NAME	BAS	BAS	BAS	BAS	WIC	ENS	BED-3	BED-3		BED-4	LIBR	KIT	GREAT	GREAT										
RM LOSS MBH.	3.28	3.28	3.28	3.28	0.71	1.31	1.28	1.28	1.90	1.90	1.53	2.89	3.11	3.11										
CFM PER RUN HEAT	78	78	78	78	17	31	31	31	45	45	36	69	74	74										
RM GAIN MBH. CFM PER RUN COOLING	0.35	0.35	0.35	0.35	0.44	0.93	2.03	2.03	2.26 73	2.26 73	2.08	2.58 84	2.53 82	2.53										
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16										
ACTUAL DUCT LGH.	37	23	17	31	34	33	42	46	47	40	35	28	39	64										
EQUIVALENT LENGTH	120	80	120	150	140	140	130	140	150	130	140	150	150	150										
TOTAL EFFECTIVE LENGTH	157	103	137	181	174	173	172	186	197	170	175	178	189	214										
ADJUSTED PRESSURE	0.11	0.17	0.13	0.1	0.1	0.1	0.1	0.09	0.09	0.1	0.1	0.09	0.09	0.08										
ROUND DUCT SIZE	5	5	5	5	4	4	5	5	5	5	5	5	5	5										
HEATING VELOCITY (ft/min)	573 81	573 81	573 81	573 81	195 161	356 344	228 485	228 485	330 536	330 536	264 499	507 617	543 602	543 602										
COOLING VELOCITY (ft/min) OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10										
TRUNK	В	D	F	E	D	D	F	F	E	E	E	В	A	A										
SUPPLY AIR TRUNK SIZE																	DETLIEN /	AIR TRUNK	(SIZE					
OUT ET AIR TROUR OLL	TRUNK	STATIC	ROUND	RECT			VELOCITY			TRUNK	STATIC	ROUND	RECT			VELOCITY	ILL TOTAL	TRUNK	STATIC	ROUND	RECT			VELOCITY
W100412330014644A	CFM	PRESS.	DUCT	DUCT		gen	(ft/min)			CFM	PRESS.	DUCT	DUCT		080	(ft/min)		CFM	PRESS.	DUCT	DUCT		200	(ft/min)
TRUNK A	378	0.08	9.7	12	×	8	567		TRUNK G	0	0.00	0	0	×	8	0	TRUNK O	0	0.05	0	0	×	8	0
TRUNK B	672	0.07	12.5	18	×	8	672		TRUNK H	0	0.00	0	0	×	8	0	TRUNK P	0	0.05	0	0	×	8	0
TRUNK D	325 1248	0.09	8.9 15.8	10 28	×	8	585 802		TRUNK I	0	0.00	0	0	×	8	0	TRUNK Q TRUNK R	0	0.05	0	0	×	8	0
TRUNK E	391	0.07	10.2	12	x	8	587		TRUNK K	Ö	0.00	0	0	x	8	0	TRUNK S	Ö	0.05	o	0	x	8	o
TRUNK F	710	0.07	12.8	20	x	8	639		TRUNK L	0	0.00	0	0	x	8	0	TRUNKT	0	0.05	0	0	×	8	0
																	TRUNK U	0	0.05	0	0	×	8	0
RETURN AIR #	1	2	3	4	5	6	7	8	9	10	-					BR	TRUNK W	0	0.05	0	ō	×	8	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	TRUNK X	1465	0.05	18.2	32	X	10	659
AIR VOLUME	110	110	110	110	305	85	300	300	185	40	0 15	0	0	0	0	300	TRUNK Y TRUNK Z	685	0.05	13.7	22	X	8	560
PLENUM PRESSURE ACTUAL DUCT LGH.	0.15 38	0.15	0.15 37	0.15	0.15 43	0.15	0.15	0.15 25	0.15 34	0.15 43	0.15	0.15	0.15	0.15	0.15	0.15 18	DROP	490 1955	0.05	12.1	18 24	×	8 18	490 652
EQUIVALENT LENGTH	195	185	165	205	145	175	190	185	150	285	ò	o	ò	ò	ó	195	20	1000	0.00	20.0		^	,0	UUL
TOTAL EFFECTIVE LH	233	222	202	250	188	234	217	210	184	328	1	1	1	1	1	213								
ADJUSTED PRESSURE	0.06	0.07	0.07	0.06	0.08	0.06	0.07	0.07	0.08	0.05	14.80	14.80	14.80	14.80	14.80	0.07								
ROUND DUCT SIZE	6.6	6.3	6.3	6.6	9	6	9.2	9.2	7.5	4.7	0	0	0	0	0	9.2								
INLET GRILL SIZE	8	8	8	8	8	8	8	8	8	8	0	0	0	0	0	8								
INLET GRILL SIZE	14	X 14	X 14	X 14	X 30	14	X 30	X 30	X 14	X 14	0	X	×	X 0	0	X 30								
INLL I GRILL SIZE	14	14	14	14	30	14	30	30	14	14	0	0	0	U	U	30								

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



SITE NAME: PINE VALLEY & TESTON OPT. 5 BEDROOM	
RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY [COMBUSTION APPLIANCES 9.32.3.1(1)] [SUPPLEMENTAL VENTILATION CAPACITY]	9.32.3.5.
SUPPLEMENTAL VENTILATION CAPACITY	5.52.5.5.
a) V Direct vent (sealed combustion) only Total Ventilation Capacity 201.4	efm
b) Positive venting induced draft (except fireplaces) Less Principal Ventil. Capacity 155	ofm
c) Natural draft, B-vent or induced draft gas fireplace Required Supplemental Capacity 46.4	ofm
d) Solid Fuel (including fireplaces) PRINCIPAL EXHAUST FAN CAPACITY	=
e) No Combustion Appliances Model: VANEE 65H Location: BSMT	9
WOODER, VANCE 65H LOCATION, BOWL	-
HEATING SYSTEM	pproved
Forced Air Non Forced Air PRINCIPAL EXHAUST HEAT LOSS CALCULATION	
CFM △T °F FACTOR %	LOSS
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1).25
Electric Space Heat SUPPLEMENTAL FANS NUTONE	
	ones
	0.3
	0.3
	0.3
	0.3
II Type I except with solid fuel (including fireplaces)	
	.32.3.11.
III Any Type c) appliance Model: VANEE 65H	
	n low
IV Type I, or II with electric space heat	
	pproved
Other: Type I, II or IV no forced air @ 32 deg F (0 deg C)	
LOCATION OF INSTALLATION	
SYSTEM DESIGN OPTIONS O.N.H.W.P.	
Lot: Concession	
1 Exhaust only/Forced Air System	
2 HRV with Ducting/Forced Air System	-
Address Address	\neg
Roll # Building Permit #	
BUILDER: GOLD PARK HOMES Part 6 Design	
Name:	
TOTAL VENTILATION CAPACITY 9.32.3.3(1) Address:	
Basement + Master Bedroom 2 @ 21.2 cfm 42.4 cfm City:	
Other Bedrooms <u>4</u> @ 10.6 cfm <u>42.4</u> cfm Telephone #: Fax #:	
Kitchen & Bathrooms 6 @ 10.6 cfm 63.6 cfm INSTALLING CONTRACTOR	

PRINCIPA	AL VENTILATION CAPACITY REC	QUIRED			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
		220	12.21.01	000000	

5 @ 10.6 cfm 53.0

TOTAL

cfm

cfm

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

Fax #:

TOTAL 95.4 cfm Date: June-20

I REVIEW AND TAKE RESPONIBILITY FOR THE DESIGN WORK AND AM QUALIFIED IN THE APPROPRIATE CATEGORY AS AN "OTHER DESIGNER" UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

Name:

Address

Telephone #:

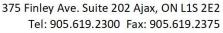
Other Rooms

Table 9.32.3.A.

201.4



			NA CONTRACTOR	80-12 Residential Hea nula Sheet (For Air Lea						
LO#:	77478	Model: 5004 THE BE	AUMONT	Builde	er: GOLD PARK HOMES	31 (m) 44-10-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-			Date:	6/4/2020
		Volume Calculatio	n			4	Air Change & Delta	a T Data		0.0
				1		L WATER MAT	TIDAL AID CHANG	- DATE	0.240	1
ouse Volume	F1 A (6+2)	T	1/-1(643)	-			URAL AIR CHANGE		0.340	
Level	Floor Area (ft²) 2007	Floor Height (ft) 10	Volume (ft ³) 20070	-		SUMINER NA	TURAL AIR CHANG	EKAIE	0.124	
Bsmt First	2007	11	22077	-						
Second	2262	9	20358	-			Design Ter	mperature Diffe	oronco	
Third	0	9	0	-			Tin °C	Tout °C	ΔT°C	ΔT °F
Fourth	0	9	0	-		Winter DTDh	22	-20	42	76
Tourth		Total:	62,505.0 ft ³			Summer DTDc	22	31	9	16
		Total:	1769.9 m³			Sammer Broc		- 51		10
								A		
	5.2.3	3.1 Heat Loss due to Ai	r Leakage		4	6.2.6 \$	ensible Gain due t	to Air Leakage		
0.340		$LR_{airh} \times \frac{V_b}{3.6} \times L$ $\times \qquad 42 ^{\circ}\text{C}$		= 8471 W = 28902 Btu/h		$HG_{salb} = LR_{airc} \times $ $\times \qquad 491.65$. =	642 W
	5.2.3.2 He	at Loss due to Mechar	ical Ventilation			6.2.7 Sen	sible heat Gain du	ie to Ventilatio	n	
155 CFM	$HL_{vairb} =$ x $\frac{76 ^{\circ} \mathrm{F}}{}$	$PVC \times DTD_h \times 1$	$0.08 \times (1 - E)$	= 3181 Btu/h	H <i>L</i>	$vairb = PVC \times DT$	$CD_h \times 1.08 \times ($	100	. =	661 Btu/h
			5 2 3 3 Calcula	ition of Air Change Heat	Loss for Each Room (Flo	or Multiplier Section)				
		HL_a		$vor \times HL_{airbv} \times \{(H_{airbv}) \times $			gclevel)}			
		Level	Level Factor (LF)	HLairve Air Leakage + Ventilation Heat Loss (Btu/h)	Level Conductive Heat Loss: (HL _{clevel})	Air Leakage Heat Los HLairbv / H	STATE OF THE PARTY			
		1	0.5		11,766	1.228	3			
		2	0.3		22,893	0.379	9			
		3	0.2	28,902	17,239	0.335	5			
		5749	0		0	0.000)			
		4	0							



230.0 ft





web. www.iivacuesigiis.ca L-iiiaii. iiiio@iivacuesigii

MODEL: 5004 THE BEAUMONT OPT. 5 BEDROOM BUILDER: GOLD PARK HOMES

SFQT: 4184 LO# 77478 SITE: PINE VALLEY & TESTON

DESIGN ASSUMPTIONS

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-4	OUTDOOR DESIGN TEMP.	88
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	72

INDOON DESIGN TENT.	, _	THE CONTRESSION TERM : (WINK 75 1)	, _
BUILDING DATA			
ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	EAST	ASSUMED (Y/N):	Υ
AIR CHANGES PER HOUR:	3.57	ASSUMED (Y/N):	Υ
AIR TIGHTNESS CATEGORY:	AVERAGE	ASSUMED (Y/N):	Υ
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Υ
HOUSE VOLUME (ft³):	62505.0	ASSUMED (Y/N):	Υ
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	6
INTERIOR LIGHTING LOAD (Btu/h/	(ft²): 1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	7.0 ft

2012 OBC - COMPLIANCE PACKAGE		
	Complian	e Package
Component		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	-

EXPOSED PERIMETER:

INDIVIDUAL BCIN: 19669 MICHAEL O'ROURKE

LENGTH:

74.0 ft

WIDTH:

41.0 ft





Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

We	eather Sta	tion Description
Province:	Ontario	-
Region:	Vaughan	(Woodbridge)
	Site D	escription
Soil Conductivity:	Normal	conductivity: dry sand, loam, clay
Water Table:	Normal (7-10 m, 23-33 ft)
	Foundatio	n Dimensions
Floor Length (m):	22.6	
Floor Width (m):	12.5	
Exposed Perimeter (m):	0.0	
Wall Height (m):	3.0	
Depth Below Grade (m):	2.13	Insulation Configuration
Window Area (m²):	3.7	
Door Area (m²):	1.9	
	Radi	ant Slab
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
	Desig	n Months
Heating Month	1	
	Founda	tion Loads
Heating Load (Watts):		2349

TYPE: 5004 THE BEAUMONT

LO# 77478

OPT. 5 BEDROOM



Air Infiltration Residential Load Calculator

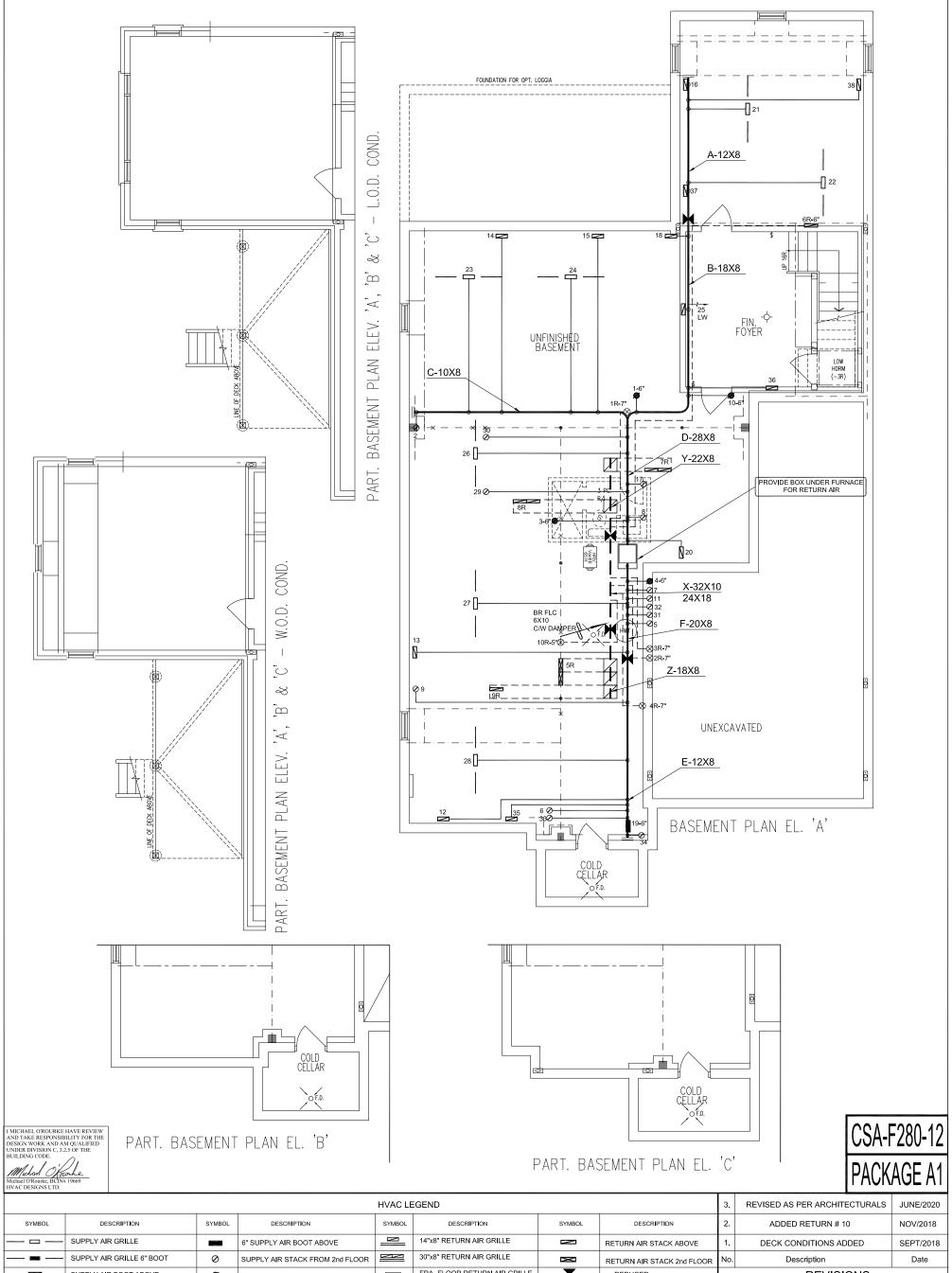
Supplemental tool for CAN/CSA-F280

Weather Stati	on Des	cript	ion		
Province:	Ontar	io			
Region:	Vaugl	nan (W	oodbr	idge)	
Weather Station Location:	Open	flat te	rrain, g	grass	
Anemometer height (m):	10				
Local S	hieldin	g			
Building Site:	Subui	ban, f	orest		
Walls:	Heavy	/			
Flue:	Heavy	/			
Highest Ceiling Height (m):	7.01				
Building Co	onfigura	ation			
Type:	Detac	hed			
Number of Stories:	Two				
Foundation:	Full				
House Volume (m³):	1769.	9			
Air Leakage	/Venti	latior	1		
Air Tightness Type:	Prese	nt (196	61-) (3.	57 ACH	⊣)
Custom BDT Data:	ELA @	9 10 Pa	Э.		2359.4 cm ²
	3.57				ACH @ 50 Pa
Mechanical Ventilation (L/s):	To	tal Sup	ply		Total Exhaust
		73.2			73.2
Flue	Size				
Flue #:	#1	#2	#3	#4	
Diameter (mm):	0	0	0	0	
Natural Infil	tration	Rate	:S		
Heating Air Leakage Rate (ACH/H)):	C	.34	0	
Cooling Air Leakage Rate (ACH/H)	:	C).12	4	

TYPE: 5004 THE BEAUMONT

LO# 77478

OPT. 5 BEDROOM



			3.	REVISED AS PER ARCHITECTURALS	JUNE/2020					
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	ADDED RETURN # 10	NOV/2018
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	DECK CONDITIONS ADDED	SEPT/2018
	SUPPLY AIR GRILLE 6" BOOT	0	SUPPLY AIR STACK FROM 2nd FLOOR	<u> </u>	30"x8" RETURN AIR GRILLE	×	RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE	Ø	6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE	X	REDUCER		REVISIONS	

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FAN SPEED

1955

GOLD PARK HOMES

Project Name

PINE VALLEY & TESTON VAUGHAN, ONTARIO OPT. 5 BEDROOM THE BEAUMONT 5004 4184 sqft

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

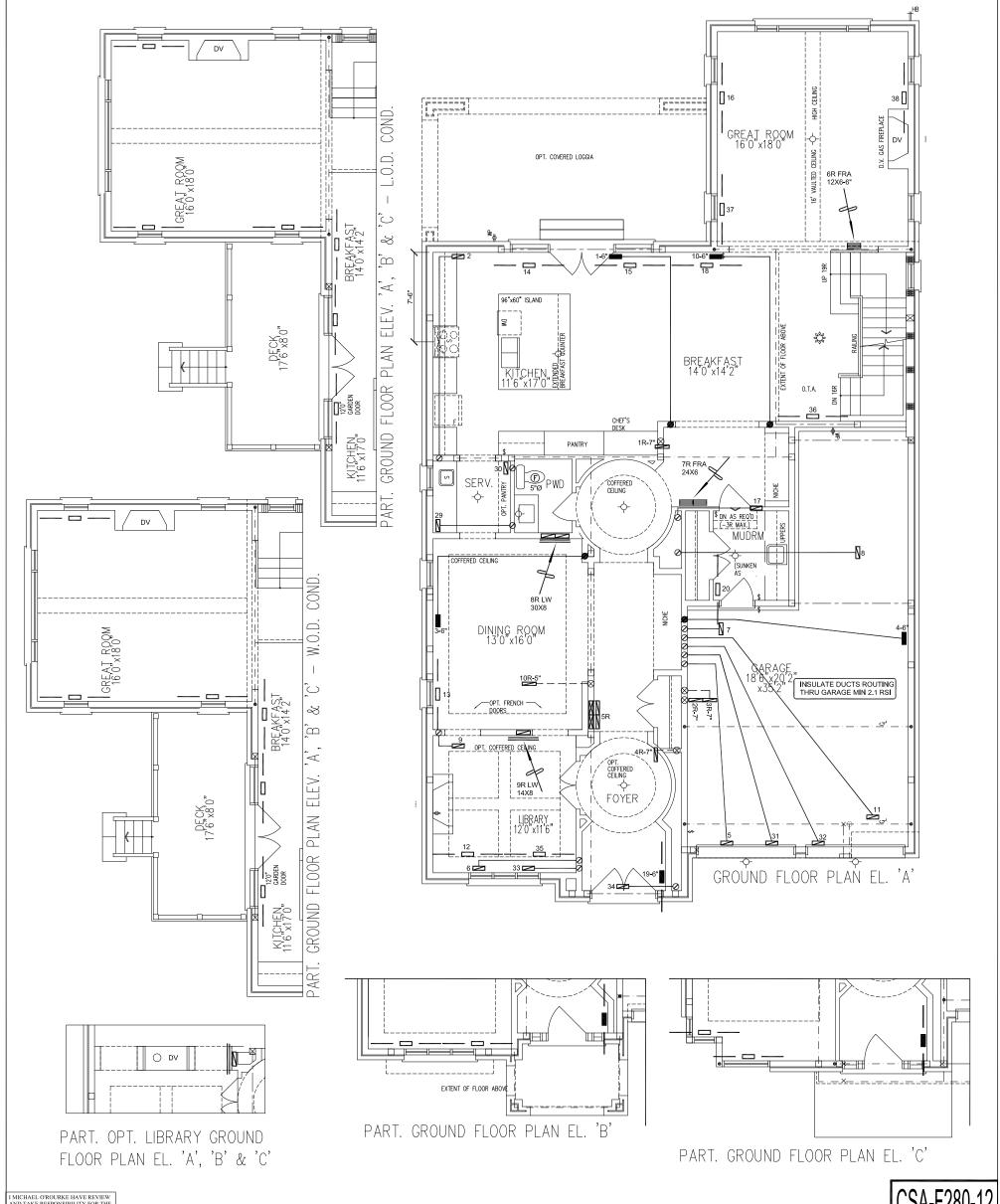
Installation to comply with the latest Ontario Building Code. All supply branch outlets shall be equipped with a manual balancing damper. Ductwork which passes through the garage or unheated spaces shall be adequately insulated and be gas-proofed.

		OSS 85438	BTU/H	# OF RUNS	S/A	R/A	FANS	She
		UN I T DATA		3RD FLOOR				
	MAKE	LENNOX		2ND FLOOR	18	6	6	
	MODEL EL2	96110XE60C	;	1ST FLOOR	12	4	2	
	INPUT	110	MBTU/H	BASEMENT	8	1	0	Dat
_	-OUTPUT		MBTU/H	ALL S/A DIFFU	SERS	4 "x10)"	Sca
		106		UNLESS NOTE	D OTH	IERW	ISE	
эе	COOLING	5.0	TONS	ON LAYOUT. A UNLESS NOTE				

ON LAYOUT. UNDERCUT

DOORS 1" min. FOR R/A

Sheet Title											
BASEMENT											
HEATING											
LAYOUT											
Date JAN/2018											
Scale 1/8" = 1'-0"											
BCIN# 19669											
LO# 77478											



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.

		3.	REVISED AS PER ARCHITECTURALS	JUNE/2020						
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	ADDED RETURN # 10	NOV/2018
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	DECK CONDITIONS ADDED	SEPT/2018
	SUPPLY AIR GRILLE 6" BOOT	0	SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE	\bowtie	RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE	REDUCER		REVISIONS						

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GOLD PARK HOMES

Project Name

PINE VALLEY & TESTON VAUGHAN, ONTARIO OPT. 5 BEDROOM THE BEAUMONT 5004

4184 sqft

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

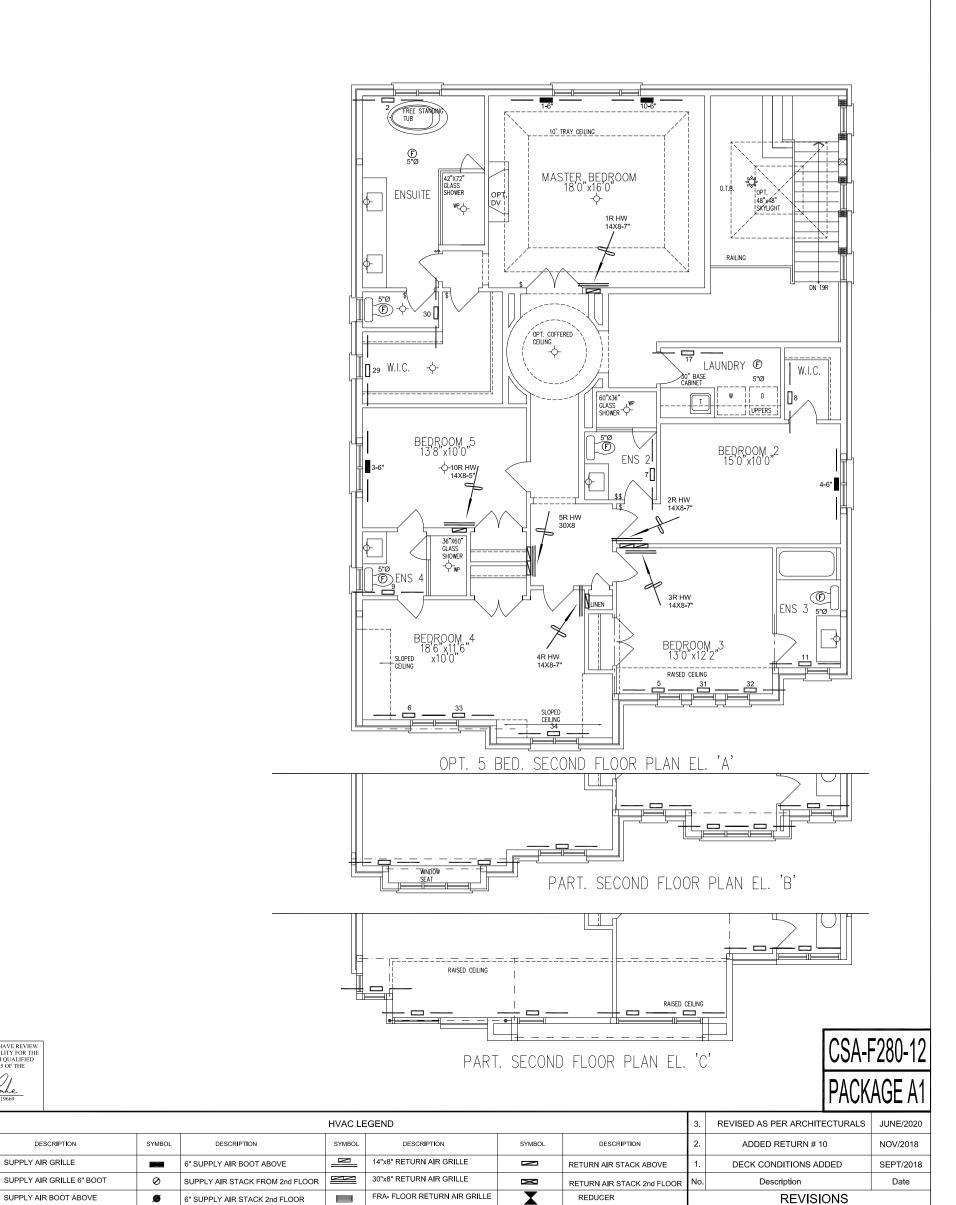
Installation to comply with the latest Ontario Building Code. All supply branch outlets shall be equipped with a manual balancing damper. Ductwork which passes through the garage or unheated spaces shall be adequately insulated and be gas-proofed.

FIRST FLOOR **HEATING LAYOUT**

Date JAN/2018 1/8" = 1'-0"

LO#

BCIN# 19669 77478



SUPPLY AIR BOOT ABOVE ALL DRAWINGS, CALCULATIONS AND SPECIFICATIONS ARE THE PROPERTY OF HVAC DESIGNS LTD.© 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.

GOLD PARK HOMES

Project Name

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.

SYMBOL

_

PINE VALLEY & TESTON VAUGHAN, ONTARIO OPT. 5 BEDROOM THE BEAUMONT 5004

4184 sqft

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.

SECOND FLOOR **HEATING LAYOUT**

Date JAN/2018 1/8" = 1'-0"

BCIN# 19669

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 desc	cription		
VAUGHAN (WOODBRIDGE)			•		
B. Individual who reviews and takes	responsibility fo	or design activities			
Name	•	Firm			
MICHAEL O'ROURKE		HVAC DESIGNS LTD.	li i i i		Ti
Street address 375 FINLEY AVE			Unit no. 202		Lot/con. N/A
Municipality	Postal code	Province	E-mail		N/A
AJAX	L1S 2E2	ONTARIO	info@hvacdesi	gns.ca	
Telephone number	Fax number	1	Cell number		
(905) 619-2300	(905) 619-2375		()		
C. Design activities undertaken by in	dividual identifi	ed in Section B. [Build	ding Code Tab	le 3.5.2.1 OF Divi	sion C]
☐ House	⊠ HVAC	– House	ПЕ	Building Structura	
☐ Small Buildings		g Services	□ F	Plumbing – Hous	е
☐ Large Buildings		on, Lighting and Pov		Plumbing – All Bu	
☐ Complex Buildings	☐ Fire Pr			On-site Sewage	Systems
Description of designer's work HEAT LOSS / GAIN CALCULATIONS		Model:	5004 THE BEAU	MONT	
DUCT SIZING			OPT. ELEVATOR		
RESIDENTIAL MECHANICAL VENTILATION	ON DESIGN SUMM	IARY Project:	PINE VALLEY &	TESTON	
RESIDENTIAL SYSTEM DESIGN per CSA	-F280-12	i roject.	THE VALLET &	1231014	
D. Declaration of Designer					
MICHAEL O'ROURKE			declare tha	it (choose one as ap	propriate):
(pi	rint name)				
☐ I review and take responsibility for Division C, of the Building Code. classes/categories.				otion 3.2.4.of appropriate	
Individual BCIN:					
Firm BCIN:			·····		
☐ I review and take responsibility for designer" under subsection 3.		m qualified in the appropron C, of the Building Code		an "other	
Individual BCIN:	19669				
		d qualification:	O.B.C SENT	ENCE 3.2.4.1	<u>[4]</u>
☐ The design work is exempt	from the registrat	ion and qualification requi	romanta of the P	uilding Codo	
Basis for exemption from registra			rements of the B	uliding Code.	
I certify that:					
The information contained I have submitted this applications		ule is true to the best of m edge and consent of the t			
			met 1	1001	
June 4, 2020	_		Michael		•
Date				Signature of Des	igner

NOTE

^{1.} For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d).of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.

^{2.} 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.



	PINE V									LEVATO				12421104	******			DATE:								CHANGE RATE 0.340			LOSS				1120120	CSA-F28
BUILDER:	GOLD	PARK	OMES					TYPE:	_	THE BE		т .		GFA:	4330			LO#		_	_		JMMER	NATI		CHANGE RATE 0.124	_		GAIN	ΔT°F.	16		SB-12	PACKAGE
ROOM USE				MBR			ENS			DRESS			BED-2			BED-3			BED-4			ENS-2			HALL			ENS-3						
EXP. WALL				19			38		l	12			11			18			43			0			13			18						
CLG. HT.	200-03-18-0			10			9			9			9			9			10			9			9			9						
Security Commission Commission (Commission Commission C	FACTO								l																									
GRS.WALL AREA	LOSS	GAIN		190			342		I .	108			99			162			430	e S. C. Carrier		0			117			162						
GLAZING				LOSS	GAIN	. 1	LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		Loss	GAIN		LOSS	GAIN		LOSS GA	N		LOSS	GAIN					
NORTH	21.3	16.6	0	0	0	0	0	0	0	0	0	18	383	299	0	0	0	0	0	0	0	0	0	0	0 (0	0	0					
EAST	21.3	41.1	0	0	0	0	0	0	0	0	0	0	0	0	63	1341	2591	60	1277	2468	0	0	0	0	0 (8	13	277	535					
SOUTH	21.3	25.4	0	0	0	9	192	228	4	85	102	0	0	0	0	0	0	9	192	228	0	0	0	0	0 (ĝ 📗	0	0	0					
WEST	21.3	41.1	42	894	1727	28	596	1152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0		0	0	0					
SKYLT.	37.2	103.0	8	298	824	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	149 41	2	0	0	0					
DOORS	25.2	5.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	ř I	0	0	0					
NET EXPOSED WALL	4.5	0.9	148	660	137	305	1361	283	104	464	96	81	361	75	99	442	92	361	1611	335	0	0	0	117	522 10	9	149	665	138					
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 (š	0	0	0					
EXPOSED CLG	1.3	0.6	460	590	294	312	400	199	228	293	146	187	240	119	136	175	87	267	343	170	84	108	54	74	95 4	2.	77	99	49					
NO ATTIC EXPOSED CLG	72.77	1.4	0	0	0	0	0	0	0	0	0	0	0	0	60	165	82	150	412	205	0	0	0	0	0 (2. I	0	0	0					
	37770		177.0	36	0	- 3	88.60		-		0	32500	1.75	25.0	23955		11001				0.225		7833	0.00	1986 19									
EXPOSED FLOOR	2.6	0.5	0	0	U	0	0	0	0	0	U	150	383	80	196	500	104	20	51	11	30	77	16	0	0 (28	77	196	41					
BASEMENT/CRAWL HEAT LOSS				0			0		l	0			0			0			0			0			0		1	0						
SLAB ON GRADE HEAT LOSS				0			0			0			0			0			0			0			0		1	0						
SUBTOTAL HT LOSS				2443			2549		l	842	***		1367			2622			3885			184			766	. [1237						
SUB TOTAL HT GAIN					2982			1862			344			573			2956			3417			70		56	8			763					
LEVEL FACTOR / MULTIPLIER			0.20	0.36		0.20	0.36		0.20	0.36		0.20	0.36		0.20	0.36		0.20	0.36		0.20	0.36		0.20			0.20	0.36						
AIR CHANGE HEAT LOSS				888			927		l	306			497			953			1413			67			279			450						
AIR CHANGE HEAT GAIN					269			168	l		31			52			267			308			6		5	0			69					
DUCTLOSS				0			0		l	0			186			358			530			25			0			169						
DUCT GAIN					0			0	l		0			162			422			472			8		(6			83					
HEAT GAIN PEOPLE	240		2		480	0		0	0		0	1		240	1		240	1		240	0		0	0		Œ I	0		0					
HEAT GAIN APPLIANCES/LIGHTS					758	1		0			758			758			758			758	1000		0			6			0					
TOTAL HT LOSS BTU/H				3331			3476			1148			2051			3933			5828			276	2.1		1045	31		1855						
TOTAL HT GAIN x 1.3 BTU/H					5837			2639			1473			2321			6035			6755			108		80	5			1189					
																										1000								
ROOM USE												$\overline{}$		_				$\overline{}$					-											
				LIBR			DIN			KIT			GREAT	i i		LAUN			ENS-4			FOY			MUD						LOD			BAS
EXP. WALL				27			17			97			56			0			6			37			36						51			230
CLG. HT.		nation in																																
CLG. HT.	FACTO			27 11			17 11			97 11			56 16			9			6			37 11			36 13						51 10			230 10
CLG. HT. GRS.WALL AREA				27 11 297			17 11 187			97 11 1067			56 16 896			0 9 0	2.000		6 9 54			37 11 407			36 13 468						51 10 510			230 10 1916
CLG. HT.			50-713	27 11	GAIN		17 11	GAIN	- Service	97 11	GAIN	0.772	56 16 896 LOSS		97-7	9	GAIN	200	6 9 54	GAIN	260.0	37 11 407	GAIN		36 13	IN					51 10 510		200	230 10
CLG. HT. GRS.WALL AREA			0	27 11 297	GAIN 0	0	17 11 187	GAIN 0	39	97 11 1067	GAIN 648	26	56 16 896		0	0 9 0	GAIN 0	0	6 9 54	GAIN 0	0	37 11 407	GAIN 0	0	36 13 468	C.				0	51 10 510		6	230 10 1916
CLG. HT. I GRS.WALL AREA GLAZING	LOSS	GAIN	0 41	27 11 297 LOSS		0 0	17 11 187 LOSS		39 0	97 11 1067 LOSS		26 0	56 16 896 LOSS	GAIN	0	0 9 0 LOSS		200	6 9 54 LOSS	7.5	0 35	37 11 407 LOSS	300,000	0	36 13 468 LOSS GA	6					51 10 510 LOSS	S GAIN	6	230 10 1916 LOSS G
CLG. HT. GRS.WALL AREA GLAZING NORTH	LOSS 21.3	GAIN 16.6	1200	27 11 297 LOSS 0	0	183	17 11 187 LOSS 0	0		97 11 1067 LOSS 830	648	83330	56 16 896 LOSS 553	GAIN 432	0 0	0 9 0 LOSS	0	0	6 9 54 LOSS 0	0	9500	37 11 407 LOSS 0	0		36 13 468 LOSS GA					0	51 10 510 LOSS	S GAIN	123	230 10 1916 LOSS G 128 1
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST	21.3 21.3	16.6 41.1	41	27 11 297 LOSS 0 872	0 1686	0	17 11 187 LOSS 0	0	0	97 11 1067 LOSS 830 0	648 0	0	56 16 896 LOSS 553 0	GAIN 432 0	0	0 9 0 LOSS	0	0	6 9 54 LOSS 0	0	35	37 11 407 LOSS 0 745	0 1439	0	36 13 468 LOSS GA 0 (0					0	51 10 510 LOSS	S GAIN 0 0	0	230 10 1916 LOSS G 128 1
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH	21.3 21.3 21.3 21.3	16.6 41.1 25.4	41 12	27 11 297 LOSS 0 872 255	0 1686	0 24	17 11 187 LOSS 0 0 511	0 0 609	0 10	97 11 1067 LOSS 830 0 213	648 0 254	0 26	56 16 896 LOSS 553 0 553	GAIN 432 0 660	0	0 9 0 LOSS	0 0	0 0 8	6 9 54 LOSS 0 0	0 0 203	35 0	37 11 407 LOSS 0 745	0 1439 0	0	36 13 468 LOSS GA 0 0					0 0 0	51 10 510 LOSS 0 0	S GAIN 0 0	0	230 10 1916 LOSS G 128 1 0 192 2
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST	21.3 21.3 21.3 21.3 21.3	16.6 41.1 25.4 41.1	41 12 0	27 11 297 LOSS 0 872 255 0	0 1686 305 0	0 24 0	17 11 187 LOSS 0 0 511	0 0 609 0	0 10 111	97 11 1067 LOSS 830 0 213 2362	648 0 254 4565	0 26 57	56 16 896 LOSS 553 0 553 1213	GAIN 432 0 660 2344	0	0 9 0 LOSS 0 0	0 0 0	0 0 8 0	6 9 54 LOSS 0 0 170	0 0 203 0	35 0 0	37 11 407 LOSS 0 745 0	0 1439 0 0	0	36 13 468 LOSS GA 0 0 0 0					0 0 0 25	51 10 510 LOSS 0 0 0 532	6 GAIN 0 0 0 1028	9	230 10 1916 LOSS G 128 1 0 192 2
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT.	21.3 21.3 21.3 21.3 21.3 37.2	16.6 41.1 25.4 41.1 103.0	41 12 0 0	27 11 297 LOSS 0 872 255 0	0 1686 305 0	0 24 0 0	17 11 187 LOSS 0 0 511 0	0 0 609 0	0 10 111 0	97 11 1067 LOSS 830 0 213 2362 0	648 0 254 4565 0	0 26 57 0	56 16 896 LOSS 553 0 553 1213	GAIN 432 0 660 2344 0	0 0 0 4	0 9 0 LOSS 0 0	0 0 0 0 412	0 0 8 0	54 LOSS 0 0 170 0	0 0 203 0	35 0 0 0	37 11 407 LOSS 0 745 0	0 1439 0 0	0 0 0	36 13 468 LOSS GA 0 0 0 0 0 0	0				0 0 0 25 0	510 510 LOSS 0 0 0 532	6 GAIN 0 0 0 1028	0 9 0	230 10 1916 LOSS G 128 1 0 192 2 0
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS	21.3 21.3 21.3 21.3 21.3 37.2 25.2 4.5	16.6 41.1 25.4 41.1 103.0 5.2	41 12 0 0	27 11 297 LOSS 0 872 255 0 0	0 1686 305 0 0	0 24 0 0	17 11 187 LOSS 0 0 511 0 0	0 609 0 0	0 10 111 0	97 11 1067 LOSS 830 0 213 2362 0	648 0 254 4565 0	0 26 57 0	56 16 896 LOSS 553 0 553 1213 0	GAIN 432 0 660 2344 0	0 0 0 4	0 9 0 LOSS 0 0	0 0 0 0 412 0	0 0 8 0 0	54 LOSS 0 0 170 0	0 0 203 0 0	35 0 0 0 20	37 11 407 LOSS 0 745 0 0 0 505	0 1439 0 0 0 105	0 0 0 0 40	36 13 468 LOSS GA 0 0 0 0 0 0 1010 21	0 7				0 0 0 25 0	51 10 510 LOSS 0 0 0 532 0	0 0 0 1028 0	0 9 0 0 20	230 10 1916 LOSS G 128 1 0 192 2 0 0 505 1
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMT WALL ABOVE GR	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6	GAIN 16.6 41.1 25.4 41.1 103.0 5.2 0.9 0.7	41 12 0 0 0 244	27 11 297 LOSS 0 872 255 0 0 0	0 1686 305 0 0 0 226	0 24 0 0 0 163	17 11 187 LOSS 0 0 511 0 0 727	0 609 0 0 0	0 10 111 0 0 907	97 11 1067 LOSS 830 0 213 2362 0 0 4048	648 0 254 4565 0 0 841	0 26 57 0 0 787	56 16 896 LOSS 553 0 553 1213 0 0 3512	GAIN 432 0 660 2344 0 0 730	0 0 0 4 0 0	0 9 0 LOSS 0 0 0 0 149 0	0 0 0 412 0 0	0 0 8 0 0 0 46	6 9 54 LOSS 0 0 170 0 0 205 0	0 0 203 0 0 0 43	35 0 0 0 20 352	37 11 407 LOSS 0 745 0 0 0 505	0 1439 0 0 0 105 327	0 0 0 0 40 428	36 13 468 LOSS GA 0 0 0 0 0 0 1010 21 1910 38	0 7				0 0 0 25 0 0	51 10 510 LOSS 0 0 0 532 0 0	6 GAIN 0 0 0 1028 0 0	0 9 0 0 20	230 10 1916 LOSS G 128 1 0 192 2 0 0 505 1
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMTWALL ABOVE GR	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3	GAIN 16.6 41.1 25.4 41.1 103.0 5.2 0.9 0.7 0.6	41 12 0 0 0 244 0	27 11 297 LOSS 0 872 255 0 0 0 1089 0	0 1686 305 0 0 0 226 0	0 24 0 0 0 163 0	17 11 187 LOSS 0 0 511 0 0 727 0	0 609 0 0 0 151	0 10 111 0 0 907 0 192	97 11 1067 LOSS 830 0 213 2362 0 0 4048 0 246	648 0 254 4565 0 0 841 0	0 26 57 0 0 787 0	56 16 896 LOSS 553 0 553 1213 0 0 3512 0	GAIN 432 0 660 2344 0 0 730 0	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 0 149 0	0 0 0 0 412 0 0 0	0 0 8 0 0 0 46 0	6 9 54 LOSS 0 0 170 0 0 0 205 0 77	0 0 203 0 0 0 43 0 38	35 0 0 0 20 352 0	37 11 407 LOSS 0 745 0 0 505 1571 0	0 1439 0 0 0 105 327 0	0 0 0 40 428 0	36 13 468 LOSS GA 0 0 0 0 0 0 1010 21 1910 35 0 0	0 7				0 0 0 25 0 0 0 281	51 10 510 LOSS 0 0 0 532 0 0	6 GAIN 0 0 0 1028 0 0 0 210	0 9 0 0 20 0 384	230 10 1916 LOSS G 128 1 0 192 2 0 0 505 1 0 1382 2
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED SEM EXPOSED CLG NO ATTIC EXPOSED CLG	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6	GAIN 16.6 41.1 25.4 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0	27 11 297 LOSS 0 872 255 0 0 0 1089	0 1686 305 0 0 0 226	0 24 0 0 0 163	17 11 187 LOSS 0 0 511 0 0 727	0 609 0 0 0 151	0 10 111 0 0 907 0 192 0	97 11 1067 LOSS 830 0 213 2362 0 0 4048	648 0 254 4565 0 0 841	0 26 57 0 0 787	56 16 896 LOSS 553 0 553 1213 0 0 3512 0 940	GAIN 432 0 660 2344 0 730	0 0 0 4 0 0	0 9 0 LOSS 0 0 0 0 149 0	0 0 0 412 0 0	0 0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 170 0 0 205 0	0 0 203 0 0 0 43	35 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 0 505 1571 0	0 1439 0 0 0 105 327 0	0 0 0 0 40 428 0	36 13 468 LOSS GA 0 0 0 0 0 0 0 1010 21 1910 35 0 0 0	0 7 7				0 0 25 0 0 0 281	51 10 510 LOSS 0 0 0 532 0 0	0 0 0 1028 0 0 0	0 9 0 0 20 0 384	230 10 1916 LOSS G 128 1 0 192 2 0 0 505 1 0
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.6 41.1 25.4 41.1 103.0 5.2 0.9 0.7 0.6	41 12 0 0 0 244 0 0	27 11 297 LOSS 0 872 255 0 0 1089 0 0	0 1686 305 0 0 0 226 0 0	0 24 0 0 0 163 0	17 11 187 LOSS 0 0 511 0 0 727 0 0 0	0 0 609 0 0 0 151 0	0 10 111 0 0 907 0 192	97 11 1067 LOSS 830 0 213 2362 0 0 4048 0 246	648 0 254 4565 0 0 841 0 123	0 26 57 0 0 787 0 0 342	56 16 896 LOSS 553 0 553 1213 0 0 3512 0	GAIN 432 0 660 2344 0 0 730 0 0	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 149 0 0 178	0 0 0 0 412 0 0 0 89	0 0 8 0 0 0 46 0	6 9 54 LOSS 0 0 170 0 0 0 205 0 77 0	0 0 203 0 0 0 43 0 38	35 0 0 0 20 352 0	37 11 407 LOSS 0 745 0 0 505 1571 0	0 1439 0 0 0 105 327 0 0	0 0 0 40 428 0 0	36 13 468 LOSS GA 0 0 0 0 0 0 1010 21 1910 33 0 0 0 0	0 7 7				0 0 25 0 0 0 281 0	510 510 LOSS 0 0 532 0 0 1011 0	6 GAIN 0 0 0 1028 0 0 210	0 9 0 0 20 0 384 0	230 10 1916 LOSS G 128 1 0 192 2 0 0 505 1 0 1382 2 0 0
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED SED NO ATTIC EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.6 41.1 25.4 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0	27 11 297 LOSS 0 872 255 0 0 1089 0 0 0	0 1686 305 0 0 0 226 0 0	0 24 0 0 0 163 0	17 11 187 LOSS 0 0 511 0 0 727 0 0 0	0 0 609 0 0 0 151 0	0 10 111 0 0 907 0 192 0	97 11 1067 LOSS 830 0 213 2362 0 0 4048 0 246 0	648 0 254 4565 0 0 841 0 123	0 26 57 0 0 787 0 0 342	56 16 896 LOSS 553 0 553 1213 0 0 3512 0 940 0	GAIN 432 0 660 2344 0 0 730 0 0	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 149 0 0 0 178 0	0 0 0 0 412 0 0 0 89	0 0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 170 0 0 0 205 0 77 0	0 0 203 0 0 0 43 0 38	35 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 0 505 1571 0 0	0 1439 0 0 0 105 327 0 0	0 0 0 40 428 0 0	36 13 468 LOSS GA 0 0 0 0 0 0 1010 21 1910 35 0 0 0 0	0 7 7				0 0 25 0 0 0 281 0	51 10 510 LOSS 0 0 0 532 0 0 1011 0	6 GAIN 0 0 0 1028 0 0 210	0 9 0 0 20 0 384 0	230 10 1916 LOSS G 128 1 0 192 2 0 0 505 1 0 1382 2 0
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG NO ATTIC EXPOSED CLG BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.6 41.1 25.4 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0	27 11 297 LOSS 0 872 255 0 0 1089 0 0 0	0 1686 305 0 0 0 226 0 0	0 24 0 0 0 163 0	17 11 187 LOSS 0 0 511 0 0 0 727 0 0 0	0 0 609 0 0 0 151 0	0 10 111 0 0 907 0 192 0	97 11 1067 LOSS 830 0 213 2362 0 0 4048 0 246 0 0	648 0 254 4565 0 0 841 0 123	0 26 57 0 0 787 0 0 342	56 16 896 LOSS 553 0 553 1213 0 0 3512 0 0 940 0	GAIN 432 0 660 2344 0 0 730 0 0	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 0 149 0 0 178 0	0 0 0 0 412 0 0 0 89	0 0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 170 0 0 205 0 77 0 0	0 0 203 0 0 0 43 0 38	35 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 505 1571 0 0 0	0 1439 0 0 0 105 327 0 0	0 0 0 40 428 0 0	36 13 468 LOSS GA 0 0 0 0 0 0 1010 21 1910 39 0 0 0 0 0 0	0 7 7				0 0 25 0 0 0 281 0	510 510 510 0 0 0 532 0 0 1011 0	6 GAIN 0 0 1028 0 0 210 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS G 128 1 0 192 2 0 0 0 1382 2 0 0 0 8016
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED SMI WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.6 41.1 25.4 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0	27 11 297 LOSS 0 872 255 0 0 1089 0 0 0	0 1686 305 0 0 0 226 0 0 0	0 24 0 0 0 163 0	17 11 187 LOSS 0 0 511 0 0 727 0 0 0	0 0 609 0 0 0 151 0 0	0 10 111 0 0 907 0 192 0	97 11 1067 LOSS 830 0 213 2362 0 0 4048 0 246 0	648 0 254 4565 0 841 0 123 0	0 26 57 0 0 787 0 0 342	56 16 896 LOSS 553 0 553 1213 0 0 3512 0 940 0	GAIN 432 0 660 2344 0 0 730 0 0 468 0	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 149 0 0 0 178 0	0 0 0 412 0 0 0 89	0 0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 170 0 0 0 205 0 77 0	0 0 203 0 0 0 43 0 38 0	35 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 0 505 1571 0 0	0 1439 0 0 0 105 327 0 0	0 0 0 40 428 0 0	36 13 468 LOSS GA 0 0 0 0 0 0 1010 21 1910 35 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 7 7				0 0 25 0 0 0 281 0	51 10 510 LOSS 0 0 0 532 0 0 1011 0	6 GAIN 0 0 1028 0 0 210 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS G 128 1 0 192 2 0 0 0 1382 2 0 0 0 8016
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT GAIN	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.6 41.1 25.4 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0 0	27 11 297 LOSS 0 872 255 0 0 0 1089 0 0 0 0	0 1686 305 0 0 0 226 0 0	0 24 0 0 0 163 0 0 0	17 11 187 LOSS 0 0 511 0 0 727 0 0 0 0 1238	0 0 609 0 0 0 151 0	0 10 111 0 0 907 0 192 0	97 11 1067 LOSS 830 0 213 2362 0 0 4048 0 246 0 0 0 7699	648 0 254 4565 0 0 841 0 123	0 26 57 0 0 787 0 0 342 0	56 16 896 LOSS 553 0 553 1213 0 0 3512 0 940 0 0 6772	GAIN 432 0 660 2344 0 0 730 0 0	0 0 0 4 0 0 0 139 0	0 9 0 LOSS 0 0 0 149 0 0 178 0 0 0 327	0 0 0 0 412 0 0 0 89	0 0 8 0 0 0 46 0 0 60 0	6 9 54 LOSS 0 0 170 0 0 0 205 0 77 0 0 0 453	0 0 203 0 0 0 43 0 38	35 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 0 505 1571 0 0 0 0	0 1439 0 0 0 105 327 0 0	0 0 0 40 428 0 0 0	36 13 468 LOSS GA 0 0 0 0 0 0 0 1010 21 1910 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 7 7				0 0 25 0 0 0 281 0	510 510 510 0 0 0 532 0 0 1011 0	6 GAIN 0 0 1028 0 0 210 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS G 128 1 0 192 2 0 0 0 505 1 0 1382 2 0 0 0 8016
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED CLG FOR DESTRUCT OF THE STATE OF THE STAT	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.6 41.1 25.4 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0 0	27 11 297 LOSS 0 872 255 0 0 1089 0 0 0 0 0 2217	0 1686 305 0 0 0 226 0 0	0 24 0 0 0 163 0 0 0	17 11 187 LOSS 0 0 511 0 0 727 0 0 0 0 1238	0 0 609 0 0 0 151 0 0	0 10 111 0 0 907 0 192 0	97 11 1067 LOSS 830 0 213 2362 0 0 4048 0 246 0 0 0 7699	648 0 254 4565 0 841 0 123 0	0 26 57 0 0 787 0 0 342	56 16 896 LOSS 553 0 553 1213 0 0 3512 0 940 0 0 6772	GAIN 432 0 660 2344 0 0 730 0 0 468 0	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 149 0 0 178 0 0 0 327	0 0 0 412 0 0 0 89	0 0 8 0 0 0 46 0 0 60 0	6 9 54 LOSS 0 0 170 0 0 205 0 77 0 0 0 453	0 0 203 0 0 0 43 0 38 0	35 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 505 1571 0 0 0 0 2821	0 1439 0 0 0 105 327 0 0	0 0 0 40 428 0 0 0	36 13 468 LOSS GA 0 0 0 0 0 0 1010 21 1910 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 7 7				0 0 25 0 0 0 281 0	510 510 510 0 0 0 532 0 0 1011 0	6 GAIN 0 0 1028 0 0 210 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS G 128 1 0 0 0 0 1382 2 0 0 0 0 1382 2 0 0 0 0 1382 2 0 0 0 0 1382 2 0 7
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BAMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG NO ATTIC EXPOSED CLG SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.6 41.1 25.4 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0 0	27 11 297 LOSS 0 872 255 0 0 0 1089 0 0 0 0	0 1686 305 0 0 226 0 0 0	0 24 0 0 0 163 0 0 0	17 11 187 LOSS 0 0 511 0 0 727 0 0 0 0 1238	0 0 609 0 0 0 151 0 0 0	0 10 111 0 0 907 0 192 0	97 11 1067 LOSS 830 0 213 2362 0 0 4048 0 246 0 0 0 7699	648 0 254 4565 0 0 841 0 123 0 0	0 26 57 0 0 787 0 0 342 0	56 16 896 LOSS 553 0 553 1213 0 0 3512 0 940 0 0 6772	GAIN 432 0 660 2344 0 0 730 0 0 468 0	0 0 0 4 0 0 0 139 0	0 9 0 LOSS 0 0 0 149 0 0 178 0 0 0 327	0 0 0 412 0 0 0 89 0	0 0 8 0 0 0 46 0 0 60 0	6 9 54 LOSS 0 0 170 0 0 0 205 0 77 0 0 0 453	0 0 203 0 0 0 43 0 38 0	35 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 0 505 1571 0 0 0 0	0 1439 0 0 0 105 327 0 0 0	0 0 0 40 428 0 0 0	36 13 468 LOSS GA 0 0 0 0 0 0 1010 21 1910 35 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7				0 0 25 0 0 0 281 0	510 510 510 0 0 0 532 0 0 1011 0	6 GAIN 0 0 1028 0 0 210 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS G 128 1 0 0 0 505 1 0 0 1382 2 0 0 0 8016
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED SEM WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.6 41.1 25.4 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0 0	27 11 297 LOSS 0 872 255 0 0 0 1089 0 0 0 0 2217	0 1686 305 0 0 0 226 0 0	0 24 0 0 0 163 0 0 0	17 11 187 LOSS 0 0 511 0 0 0 727 0 0 0 0 1238	0 0 609 0 0 0 151 0 0	0 10 111 0 0 907 0 192 0	97 11 1067 LOSS 830 0 213 2362 0 0 4048 0 0 0 0 7699	648 0 254 4565 0 841 0 123 0	0 26 57 0 0 787 0 0 342 0	56 16 896 LOSS 553 0 553 1213 0 0 3512 0 0 0 6772	GAIN 432 0 660 2344 0 0 730 0 0 468 0	0 0 0 4 0 0 0 139 0	0 9 0 LOSS 0 0 0 149 0 0 178 0 0 0 327	0 0 0 412 0 0 0 89	0 0 8 0 0 0 46 0 0 60 0	6 9 54 LOSS 0 0 1770 0 0 205 0 777 0 0 0 453 0.36 165	0 0 203 0 0 0 43 0 38 0	35 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 0 505 1571 0 0 0 0 2821	0 1439 0 0 0 105 327 0 0	0 0 0 40 428 0 0 0	36 13 468 LOSS GA 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7				0 0 25 0 0 0 281 0	510 510 510 0 0 0 532 0 0 1011 0	6 GAIN 0 0 1028 0 0 210 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS G 128 1 0 0 0 192 2 0 0 1382 2 0 0 8016 10222 7 1.29 15160
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT LOSS SUB TOTAL HT GAIN LEVEL FACTOR MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.6 41.1 25.4 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0 0	27 11 297 LOSS 0 872 255 0 0 1089 0 0 0 0 0 2217	0 1686 305 0 0 226 0 0 0 0	0 24 0 0 0 163 0 0 0	17 11 187 LOSS 0 0 511 0 0 727 0 0 0 0 1238	0 0 609 0 0 0 151 0 0 0	0 10 111 0 0 907 0 192 0	97 11 1067 LOSS 830 0 213 2362 0 0 4048 0 246 0 0 0 7699	648 0 254 4565 0 0 841 0 123 0 0	0 26 57 0 0 787 0 0 342 0	56 16 896 LOSS 553 0 553 1213 0 0 3512 0 940 0 0 6772	GAIN 432 0 660 2344 0 0 730 0 468 0	0 0 0 4 0 0 0 139 0	0 9 0 LOSS 0 0 0 149 0 0 178 0 0 0 327	0 0 0 0 412 0 0 0 89 0 0	0 0 8 0 0 0 46 0 0 60 0	6 9 54 LOSS 0 0 170 0 0 205 0 77 0 0 0 453	0 0 203 0 0 0 43 0 38 0 0	35 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 505 1571 0 0 0 0 2821	0 1439 0 0 0 105 327 0 0 0	0 0 0 40 428 0 0 0	36 13 468 LOSS GA 0 0 0 0 0 0 0 0 1010 21 1910 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 7 5 5				0 0 25 0 0 0 281 0	510 510 510 0 0 0 532 0 0 1011 0	6 GAIN 0 0 1028 0 0 210 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS G 128 1 0 0 0 192 2 0 0 0 1382 2 0 0 0 8016 10222 7 1.29 15160
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED CLG NO ATTIC EXPOSED CLG SUBTOTAL HT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS DUCT GAIN	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	GAIN 16.6 41.1 25.4 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0 0	27 11 297 LOSS 0 872 255 0 0 0 1089 0 0 0 0 2217	0 1686 305 0 0 0 226 0 0 0 0	0 24 0 0 0 163 0 0 0	17 11 187 LOSS 0 0 511 0 0 0 727 0 0 0 0 1238	0 0 609 0 0 0 151 0 0 0	0 10 111 0 0 907 0 192 0	97 11 1067 LOSS 830 0 213 2362 0 0 4048 0 0 0 0 7699	648 0 254 4565 0 841 0 123 0 0	0 26 57 0 0 787 0 0 342 0	56 16 896 LOSS 553 0 553 1213 0 0 3512 0 0 0 6772	GAIN 432 0 660 2344 0 0 730 0 468 0 4634 418	0 0 0 4 0 0 0 139 0 0	0 9 0 LOSS 0 0 0 149 0 0 178 0 0 0 327	0 0 0 0 412 0 0 0 89 0 0	0 0 8 0 0 0 0 46 0 60 0	6 9 54 LOSS 0 0 1770 0 0 205 0 777 0 0 0 453 0.36 165	0 0 203 0 0 0 43 0 38 0 0	35 0 0 20 352 0 0 0	37 11 407 LOSS 0 745 0 0 0 505 1571 0 0 0 0 2821	0 1439 0 0 105 327 0 0 0 1871	0 0 0 40 428 0 0 0 0	36 13 468 LOSS GA 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 7 5 5				0 0 0 25 0 0 281 0 0	510 510 510 0 0 0 532 0 0 1011 0	G GAIN 0 0 0 1028 0 0 0 210 0 0 0 1238	0 9 0 0 20 0 384 0	230 10 1916 LOSS G 128 1 0 0 192 2 0 0 0 1382 2 0 0 0 8016 10222 7 1.29 15160
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BAMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG NO ATTIC EXPOSED CLG SEXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SUBTOTAL HT LOSS SUBTOTAL HT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT GAIN HEAT GAIN PEOPLE	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	GAIN 16.6 41.1 25.4 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0 0	27 11 297 LOSS 0 872 255 0 0 0 1089 0 0 0 0 2217	0 1686 305 0 0 0 226 0 0 0 0	0 24 0 0 0 163 0 0 0	17 11 187 LOSS 0 0 511 0 0 0 727 0 0 0 0 1238	0 0 609 0 0 0 151 0 0 0 0	0 10 111 0 0 907 0 192 0	97 11 1067 LOSS 830 0 213 2362 0 0 4048 0 0 0 0 7699	648 0 254 4565 0 0 841 0 123 0 0	0 26 57 0 0 787 0 0 342 0	56 16 896 LOSS 553 0 553 1213 0 0 0 3512 0 0 0 6772	GAIN 432 0 6600 0 23444 0 0 0 4684 0 4484 418	0 0 0 4 0 0 0 139 0	0 9 0 LOSS 0 0 0 149 0 0 178 0 0 0 327	0 0 0 0 412 0 0 0 89 0 0	0 0 8 0 0 0 46 0 0 60 0	6 9 54 LOSS 0 0 1770 0 0 205 0 777 0 0 0 453 0.36 165	0 0 203 0 0 0 43 0 38 0 0	35 0 0 20 352 0 0	37 11 407 LOSS 0 745 0 0 0 505 1571 0 0 0 0 2821	0 1439 0 0 105 327 0 0 0 0	0 0 0 40 428 0 0 0	36 13 468 LOSS GA 0 0 0 0 0 0 1010 21 1910 30 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7				0 0 25 0 0 0 281 0	510 510 510 0 0 0 532 0 0 1011 0	S GAIN 0 0 0 1028 0 0 0 210 0 0 0 1238 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 9 0 0 20 0 384 0	230 10 1916 LOSS G 128 1 0 0 0 192 2 0 0 0 1382 2 0 0 0 8016 10222 7 1.29 15160
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL MET EXPOSED WALL MET EXPOSED CLG EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SUB TOTAL HT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS DUCT GAIN HEAT GAIN PEOPLE HEAT GAIN APPLIANCES/LIGHTS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	GAIN 16.6 41.1 25.4 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0 0	27 11 297 LOSS 0 872 255 0 0 0 0 0 0 0 0 2217 0.38 852	0 1686 305 0 0 0 226 0 0 0 0	0 24 0 0 0 163 0 0 0	17 11 187 LOSS 0 0 5111 0 0 0 727 0 0 0 0 1238 0.38 476	0 0 609 0 0 0 151 0 0 0	0 10 1111 0 907 0 192 0 0	97 11 1067 LOSS 830 0 213 22362 0 0 4048 0 0 0 0 7699 0.38 2959	648 0 254 4565 0 841 0 123 0 0	0 26 57 0 0 787 0 0 342 0	56 16 896 LOSS 553 0 0 351213 0 0 0 940 0 0 67772 0.38 2603	GAIN 432 0 660 2344 0 0 730 0 468 0 4634 418	0 0 0 4 0 0 0 139 0 0	0 9 0 LOSS 0 0 0 0 149 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 412 0 0 0 89 0 0	0 0 8 0 0 0 0 46 0 60 0	6 9 54 LOSS 0 0 1770 0 0 0 205 0 777 0 0 0 453 0.366 165 0	0 0 203 0 0 0 43 0 38 0 0	35 0 0 20 352 0 0 0	37 11 407 LOSS 0 0 745 0 0 0 0 505 1571 0 0 0 0 2821	0 1439 0 0 105 327 0 0 0 1871	0 0 0 40 428 0 0 0 0	36 13 468 LOSS GA 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7				0 0 25 0 0 281 0 0	51 10 510 0 0 0 532 0 0 0 1011 0 0 1543	GAIN 0 0 0 1028 0 0 0 0 1028 0 0 0 0 1210 0 0 0 0 1238	0 9 0 0 20 0 384 0 0	230 10 1916 LOSS G 128 1 0 0 192 2 0 0 1382 2 0 0 0 8016 10222 7 1.29 15160
CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BAMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG NO ATTIC EXPOSED CLG SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUBTOTAL HT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS DUCT GAIN HEAT GAIN PEOPLE	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	GAIN 16.6 41.1 25.4 41.1 103.0 5.2 0.9 0.7 0.6 1.4	41 12 0 0 0 244 0 0 0	27 11 297 LOSS 0 872 255 0 0 0 1089 0 0 0 0 2217	0 1686 305 0 0 0 226 0 0 0 0	0 24 0 0 0 163 0 0 0	17 11 187 LOSS 0 0 511 0 0 0 727 0 0 0 0 1238	0 0 609 0 0 0 151 0 0 0 0	0 10 1111 0 907 0 192 0 0	97 11 1067 LOSS 830 0 213 2362 0 0 4048 0 0 0 0 7699	648 0 254 4565 0 0 841 0 123 0 0	0 26 57 0 0 787 0 0 342 0	56 16 896 LOSS 553 0 553 1213 0 0 0 3512 0 0 0 6772	GAIN 432 0 660 0 7304 0 0 4684 0 418	0 0 0 4 0 0 0 139 0 0	0 9 0 LOSS 0 0 0 149 0 0 178 0 0 0 327	0 0 0 0 412 0 0 0 89 0 0	0 0 8 0 0 0 0 46 0 60 0	6 9 54 LOSS 0 0 1770 0 0 205 0 777 0 0 0 453 0.36 165	0 0 203 0 0 0 43 0 38 0 0	35 0 0 20 352 0 0 0	37 11 407 LOSS 0 745 0 0 0 0 0 0 0 0 0 2821 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1439 0 0 105 327 0 0 0 0	0 0 0 40 428 0 0 0 0	36 13 468 LOSS GA 0 0 0 0 0 0 1010 21 1910 30 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 7 5 5 8 8				0 0 25 0 0 281 0 0	510 510 510 0 0 0 532 0 0 1011 0	GAIN 0 0 0 1028 0 0 0 0 1028 0 0 0 0 1210 0 0 0 1238	0 9 0 0 20 0 384 0 0	230 10 1916 LOSS G 128 1 0 0 192 2 0 0 0 1382 2 0 0 0 8016 10222 7 1.29 15160

TOTAL HEAT GAIN BTU/H:

61041

TONS: 5.09

LOSS DUE TO VENTILATION LOAD BTU/H: 3181

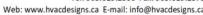
STRUCTURAL HEAT LOSS: 83694

TOTAL COMBINED HEAT LOSS BTU/H: 86875

Michael Oxombe.



			ALLEY & T							E BEAU			DATE:	Jun-20			GFA:	4330	LO#	77479				
HEATING CFM TOTAL HEAT LOSS AIR FLOW RATE CFM		A		LING CFM EAT GAIN RATE CFM	60,380		а	furi a/c coil vailable	pressure pressure pressure r s/a & r/a	0.6 0.05 0.2 0.35						EL	. 296UH11 FAN		110	x		AFUE = (BTU/H) = (BTU/H) =	110,000	
RUN COUNT S/A	4th 0	3rd 0	2nd 18	1st 13	Bas 8		ple		ssure s/a	0.18		r/a	pressure	0.17				EDLOW	1380 1505		DESI	GN CFM = CFM @ .6		e.
R/A All S/A diffusers 4"x10" unle	0 ess note	0 d otherwi	5 se on lav	4 out.	1		max	s/a dif p	ress. loss	0.02			ess. Loss essure r/a	0.02 0.15				M HIGH	1685 1955	т	EMPERAT	URE RISE	50	°F
All S/A runs 5"Ø unless not		rwise on I	ayout.					188														-		23
RUN#	1	2	3	4	5 BED-3	6	7	8	9	10	11	12	13 DIN	14	15 KIT	16	17	18	19 FOY	20 MUD	21 BAS	22	23	24
ROOM NAME RM LOSS MBH.	MBR 1.67	ENS 1.66	DRESS 1.15	BED-2 2.05	1.31	BED-4 1.94	ENS-2 0.28	HALL 1.04	ENS-4 0.62	MBR 1.67	ENS-3 1.86	LIBR 1.53	1.71	KIT 2.66	2.66	GREAT 3.12	LAUN 0.45	KIT 2.66	3.90	2.02	3.37	BAS 3.37	BAS 3.37	BAS 3.37
CFM PER RUN HEAT	39	39	27	48	31	45	6	24	14	39	43	36	40	62	62	73	10	62	91	47	79	79	79	79
RM GAIN MBH.	2.92	1.28	1.47	2.32	2.01	2.25	0.11	0.80	0.40	2.92	1.19	2.06	2.06	2.53	2.53	2.52	1.70	2.53	2.65	0.92	0.35	0.35	0.35	0.35
CFM PER RUN COOLING	94	41	48	75	65	73	4	26	13	94	39	67	67	82	82	82	55	82	86	30	11	11	11	11
ADJUSTED PRESSURE	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.17	0.17	0.17	0.16	0.16	0.16	0.17	0.16	0.16	0.17	0.17	0.17	0.17	0.17
ACTUAL DUCT LGH.	46	62	29	34	38	50	28	31	43	54	41	41	27	40	32	49	26	36	24	16	50	50	39	30
EQUIVALENT LENGTH	190	140	180	180	120	150	160	180	190	180	160	180	80	140	150	130	150	140	150	130	130	140	100	102
TOTAL EFFECTIVE LENGTH ADJUSTED PRESSURE	236 0.07	0.09	209	214 0.08	158 0.11	0.09	188	211	233	234 0.07	0.09	0.08	107 0.16	180	182	179	176 0.1	176 0.09	174 0.09	146 0.12	180	190 0.09	139 0.12	132
ROUND DUCT SIZE	6	4	4	5	5	5	4	4	4	6	4	5	5	5	5	5	4	5	6	4	5	5	5	5
HEATING VELOCITY (ft/min)	199	447	310	352	228	330	69	275	161	199	493	264	294	455	455	536	115	455	464	539	580	580	580	580
COOLING VELOCITY (ft/min)	479	470	551	551	477	536	46	298	149	479	447	492	492	602	602	602	631	602	438	344	81	81	81	81
OUTLET GRILL SIZE	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10
TRUNK	В	С	D	F	F	E	F	D	E	В	F	E	F	С	С	Α	D	В	E	D	Α	Α	С	С
RUN#	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39									
ROOM NAME	BAS	BAS	BAS	BAS	ENS	ENS	BED-3	BED-3	BED-4	BED-4	LIBR	KIT	GREAT	GREAT	MUD									
RM LOSS MBH.	3.37	3.37	3.37	3.37	1.66	0.16	1.31	1.31	1.94	1.94	1.53	2.66	3.12	3.12	2.02									
CFM PER RUN HEAT	79	79	79	79	39	4	31	31	45	45	36	62	73	73	47									
RM GAIN MBH.	0.35	0.35	0.35	0.35	1.28	0.08	2.01	2.01	2.25	2.25	2.06	2.53	2.52	2.52	0.92									
CFM PER RUN COOLING	11	11	11	11	41	3	65	65	73	73	67	82	82	82	30									
ADJUSTED PRESSURE	0.17 37	0.17	0.17 17	0.17 31	0.17 34	0.17	0.17	0.17	0.17	0.17	0.17 35	0.16 28	0.16 39	0.16	0.17									
ACTUAL DUCT LGH. EQUIVALENT LENGTH	120	80	120	150	140	140	130	140	150	130	140	150	150	150	90									
TOTAL EFFECTIVE LENGTH	157	103	137	181	174	173	172	186	197	170	175	178	189	214	125									
ADJUSTED PRESSURE	0.11	0.17	0.13	0.1	0.1	0.1	0.1	0.09	0.09	0.1	0.1	0.09	0.09	0.08	0.14									
ROUND DUCT SIZE	5	5	5	5	4	4	5	5	5	5	5	5	5	5	4									
HEATING VELOCITY (ft/min)	580	580	580	580	447	46	228	228	330	330	264	455	536	536	539									
COOLING VELOCITY (ft/min)	81	81	81	81	470	34	477	477	536	536	492	602	602	602	344									
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10									
TRUNK	В	D		E	D	D	-	г	E	E	E	В	Α	Α	D									
SUPPLY AIR TRUNK SIZE	t-order trace	WCND647500	Macayana cas	1945200000			UNLAUSY OF THE SAME			JOSEPH SOUTH	Incomeasor:	Nacional Constitution of the Constitution of t	ANNESSEE			19024-100-10	RETURN A			20000000	200-22002			300 0000000000
	TRUNK	STATIC	ROUND	RECT			VELOCITY			TRUNK	STATIC	ROUND	RECT			VELOCITY		TRUNK	STATIC	ROUND	RECT			VELOCITY
The same of the	CFM	PRESS.	DUCT	DUCT	22		(ft/min)		TDUIS -	CFM	PRESS.	DUCT	DUCT	5228	•	(ft/min)	TDURES	CFM	PRESS.	DUCT	DUCT	2		(ft/min)
TRUNK A TRUNK B	377 658	0.08	9.7 12.4	12 18	×	8	566 658		TRUNK G TRUNK H	0	0.00	0	0	×	8	0	TRUNK O	0	0.06	0	0	×	8	0
TRUNK C	321	0.07	8.9	10	×	8	578		TRUNK I	0	0.00	0	0	×	8	0	TRUNK Q	0	0.06	0	0	×	8	0
TRUNK D	1256	0.07	15.8	28	×	8	807		TRUNK J	o	0.00	o	Ö	x	8	o	TRUNK R	o	0.06	Ö	ŏ	x	8	Ö
TRUNK E	391	0.07	10.2	12	×	8	587		TRUNK K	0	0.00	0	0	×	8	0	TRUNK S	0	0.06	0	0	×	8	0
TRUNK F	700	0.07	12.7	18	x	8	700		TRUNK L	0	0.00	0	0	х	8	0	TRUNKT	0	0.06	0	0	×	8	0
																	TRUNK U	0	0.06	0	0	×	8	0
RETURN AIR #	1	2	3	4	5	6	7	8	9							BR	TRUNK W	0	0.06	0	o	×	8	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		TRUNK X	1465	0.06	17.4	32	×	10	659
AIR VOLUME	120	120	120	120	305	85	300	300	185	0	0	0	0	0	0	300	TRUNK Y	685	0.06	13.1	20	×	8	617
PLENUM PRESSURE	0.15 38	0.15	0.15 37	0.15 45	0.15	0.15	0.15	0.15 25	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	TRUNK Z DROP	490	0.06	11.5	16 24	×	8	551
ACTUAL DUCT LGH. EQUIVALENT LENGTH	195	37 185	165	205	43 145	175	190	185	34 150	0	0	0	0	0	0	18 195	DROP	1955	0.06	19.4	24	×	18	652
TOTAL EFFECTIVE LH	233	222	202	250	188	234	217	210	184	1	1	1	1	1	1	213								
ADJUSTED PRESSURE	0.06	0.07	0.07	0.06	0.08	0.06	0.07	0.07	0.08	14.80	14.80	14.80	14.80	14.80	14.80	0.07								
ROUND DUCT SIZE	6.8	6.6	6.6	6.8	9	6	9.2	9.2	7.5	0	0	0	0	0	0	9.2								
INLET GRILL SIZE	8	8	8	8	8	8	8	8	8	0	0	0	0	0	0	8								
	×	×	×	X	X	×	×	×	×	×	×	×	×	×	×	×								
INLET GRILL SIZE	14	14	14	14	30	14	30	30	14	0	0	0	0	0	0	30								





 TYPE:
 5004 THE BEAUMONT
 LO #
 77479

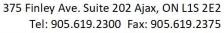
 SITE NAME:
 PINE VALLEY & TESTON
 OPT. ELEVATOR

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

COMBUSTION APPLIANCES	9.32.3.1(1)	SUPPLEMENTAL V	ENTILATION CAPACITY			9.32.3.5.
a) Direct vent (sealed combustion) only		Total Ventilation Ca	pacity	201.4	_	cfm
b) Positive venting induced draft (except fireplaces)		Less Principal Venti	I. Capacity	155	-	cfm
c) Natural draft, B-vent or induced draft gas fireplace		Required Suppleme	ntal Capacity	46.4	-	cfm
d) Solid Fuel (including fireplaces)		DDINGIDAL EVILAL	ICT CAN CARACITY			
e) No Combustion Appliances		Model:	VANEE 65H	Location:	B	SMT
HEATING SYSTEM		155.0		ones		-WI Approved
			IST HEAT LOSS CALCULATION	MM (1994)	· — ·	
Forced Air Non Forced Air		CFM	ΔT *F	FACTOR		% LOSS
C Florida Social Mark		155.0 CFM	X 76 F	X 1.08	Х	0.25
Electric Space Heat		SUPPLEMENTAL F	ANS	NUTONE		
		Location	Model	cfm	HVI	Sones
HOUSE TYPE	9.32.1(2)	ENS ENS-2	QTXEN050C QTXEN050C	50 50	1	0.3
✓ I Type a) or b) appliance only, no solid fuel		ENS-3	QTXEN050C	50	1	0.3
		ENS-4	QTXEN050C	50	1	0.3
II Type I except with solid fuel (including fireplaces)					
III Any Type c) appliance		HEAT RECOVERY Model:	VANEE 65H			9.32.3.11.
III		155	cfm high	64		cfm low
IV Type I, or II with electric space heat		828			_	
Other: Type I, II or IV no forced air		75	% Sensible Efficiency @ 32 deg F (0 deg C)		H	IVI Approved
Curer. Type 1, if of 14 no forced an			@ 52 deg 1 (0 deg 0)			
		LOCATION OF INS	TALLATION			
SYSTEM DESIGN OPTIONS	O.N.H.W.P.	Lot:		Concession		
1 Exhaust only/Forced Air System		Lot.		Concession		
		Township		Plan:		
2 HRV with Ducting/Forced Air System		Address				
3 HRV Simplified/connected to forced air system		Roll #		Building Pern	nit#	
4 HRV with Ducting/non forced air system		BUILDER:	GOLD PARK HOMES	;		
Part 6 Design		Name:	700 89 00 00 00 00 00 00 00 00 00 00 00 00 00			
TOTAL VENTILATION CAPACITY	9.32.3.3(1)	Address:				
Basement + Master Bedroom 2 @ 21.2 cfm 42.4	cfm	City:				
Other Bedrooms <u>3</u> @ 10.6 cfm <u>31.8</u>	cfm	Telephone #:		Fax #:		
Kitchen & Bathrooms	cfm	INSTALLING CONT	TRACTOR			
Other Rooms6 @ 10.6 cfm63.6	cfm	Name:				
Table 9.32.3.A. TOTAL <u>201.4</u>	cfm	Address:				-
)		City:				
PRINCIPAL VENTILATION CAPACITY REQUIRED	9.32.3.4.(1)	Telephone #:		Fax #:		
1 Bedroom 31.8	cfm		TO A TION			
2 Bedroom 47.7	cfm		this ventilation system has bee	en designed		
3 Bedroom 63.6	cfm	Name:	he Ontario Building Code. HVAC Designs Ltd.			
4 Bedroom 79.5	cfm	Signature:	Mhe	had Offmhe		
5 Bedroom 95.4	cfm	HRAI#		001820		
TOTAL 79.5 cfm		Date:		June-20		
I REVIEW AND TAKE RESPONIBILITY FOR THE DESIGN WORK AND AM QUAL	IFIED IN THE API	PROPRIATE CATEGORY AS AN	"OTHER DESIGNER" UNDER DIVISIO	N C, 3.2.5 OF THE BU	ILDING CO	DE.



			10.75.05.05.05.05.05	80-12 Residential Hea nula Sheet (For Air Lea											
10#	77479	Model: 5004 THE BE	######################################	Marrie de la companya del companya de la companya del companya de la companya de	er: GOLD PARK HOMES	arcaracion			Doto	: 6/4/2020					
LO#:	77479			builde	T. GOLD PARK HOIVIES		Vis Change & Dolt	a T Data	Date	. 6/4/2020					
		Volume Calculation	on		-		Air Change & Delt	a i Data							
ouse Volume				1		WINTER NAT	URAL AIR CHANG	FRATE	0.340	1					
Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)				TURAL AIR CHANG		0.124	8					
Bsmt	2153	10	21530	1						-					
First	2153	11	23683	1											
Second	2262	9	20358				Design Te	mperature Diff	erence						
Third	0	9	0]			Tin °C	Tout °C	ΔT°C	ΔT °F					
Fourth	0	9	0			Winter DTDh	22	-20	42	76					
		Total:	65,571.0 ft ³			Summer DTDc	22	31	9	16					
		Total:	1856.8 m³]											
	E 2 2	3.1 Heat Loss due to A	ir Lookago			6366	ancible Cain due	to Air Lookaga							
	5.2.3	.1 Heat Loss due to A	г сеакаде		6.2.6 Sensible Gain due to Air Leakage										
	$HL_{airb} =$	$LR_{airh} \times \frac{V_b}{3.6} \times I$	$DTD_h \times 1.2$		Н	$HG_{salb} = LR_{airc} \times$	$\frac{V_b}{2.6} \times DTD_c$	× 1.2							
0.340		x 42 °C		= 8886 W		x515.77			=	674 W					
0.340	X	- A <u>42 C</u>	- ^ <u>1.2</u>	- 0000 W	0.124	_ ^	^ <u> </u>	^		074 W					
				= 30320 Btu/h]				=	2299 Btu/l					
	5.2.3.2 Hea	at Loss due to Mechar	nical Ventilation	50.		6.2.7 Sen	sible heat Gain d	ue to Ventilatio	n						
									27.						
	$HL_{vairb} =$	$PVC \times DTD_h \times 1$	$1.08 \times (1-E)$		HL	$_{vairb} = PVC \times D7$	$CD_h \times 1.08 \times$	(1-E)							
155 CFM	x <u>76 °F</u>	x <u>1.08</u>	x0.25	= 3181 Btu/h	155 CFM	x <u>16°F</u>	x1.08	x0.25	. =	661 Btu/h					
			5.2.3.3 Calcula	tion of Air Change Heat	Loss for Each Room (Flo	or Multiplier Section)									
		HL_a	_{irr} = Level Fact	$or \times HL_{airbv} \times \{(H_{airbv}) \times \{$	$IL_{agcr} + HL_{bgcr}$) ÷	$(HL_{agclevel} + HL_{b}$	gclevel)}	12							
		Level	Level Factor (LF)	HLairve Air Leakage + Ventilation Heat Loss (Btu/h)	Level Conductive Heat Loss: (HL _{clevel})	Air Leakage Heat Los HLairbv / H	March Control of the								
		1	0.5		11,766	1.289)								
		2	0.3	y successions	23,666	0.384	1::								
		3	0.2	30,320	16,674	0.364	10								
		4	0		0	0.000)								
		5	0		0										







HEAT LOSS AND GAIN SUMMARY SHEET

MODE	FOO 4 THE DEALIS AGAIN			BUILDED COLD DADIVIOLATE	
MODEL:	5004 THE BEAUMONT		OPT. ELEVATOR	BUILDER: GOLD PARK HOMES	
SFQT:	4330	LO#	77479	SITE: PINE VALLEY & TESTON	
DESIGN A	SSUMPTIONS				
HEATING			°F	COOLING	°F
	R DESIGN TEMP.		-4	OUTDOOR DESIGN TEMP.	88
INDOOR I	DESIGN TEMP.		72	INDOOR DESIGN TEMP. (MAX 75°F)	72
BUILDING	G DATA				
ATTACHM	1ENT:		DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FA	ACES:		EAST	ASSUMED (Y/N):	Υ
AIR CHAN	IGES PER HOUR:		3.57	ASSUMED (Y/N):	Υ
AIR TIGHT	TNESS CATEGORY:		AVERAGE	ASSUMED (Y/N):	Υ
WIND EXI	POSURE:		SHELTERED	ASSUMED (Y/N):	Υ
HOUSE V	OLUME (ft³):		65571.0	ASSUMED (Y/N):	Υ
INTERNAL	L SHADING:	BLIND	S/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR	LIGHTING LOAD (Btu/h,	/ft²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Υ
FOUNDAT	TION CONFIGURATION		BCIN_1	DEPTH BELOW GRADE:	7.0 ft
LENGTH:	74.0 ft	WIDTH:	41.0 ft	EXPOSED PERIMETER:	230.0 ft

2012 OBC - COMPLIANCE PACKAGE		
	Compliance	Package
Component	А	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	-

INDIVIDUAL BCIN: 19669 MICHAEL O'ROURKE





Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

We	ather Sta	tion Description
Province:	Ontario	·
Region:	Vaughan	(Woodbridge)
	Site D	escription
Soil Conductivity:	Normal	conductivity: dry sand, loam, clay
Water Table:	Normal	(7-10 m, 23-33 ft)
F	oundatio	n Dimensions
Floor Length (m):	22.6	
Floor Width (m):	12.5	
Exposed Perimeter (m):	0.0	
Wall Height (m):	3.0	
Depth Below Grade (m):	2.13	Insulation Configuration
Window Area (m²):	3.7	
Door Area (m²):	1.9	
	Radi	ant Slab
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
	Desig	n Months
Heating Month	1	
	Founda	ation Loads
Heating Load (Watts):		2349

TYPE: 5004 THE BEAUMONT OPT. ELEVATOR



Air Infiltration Residential Load Calculator

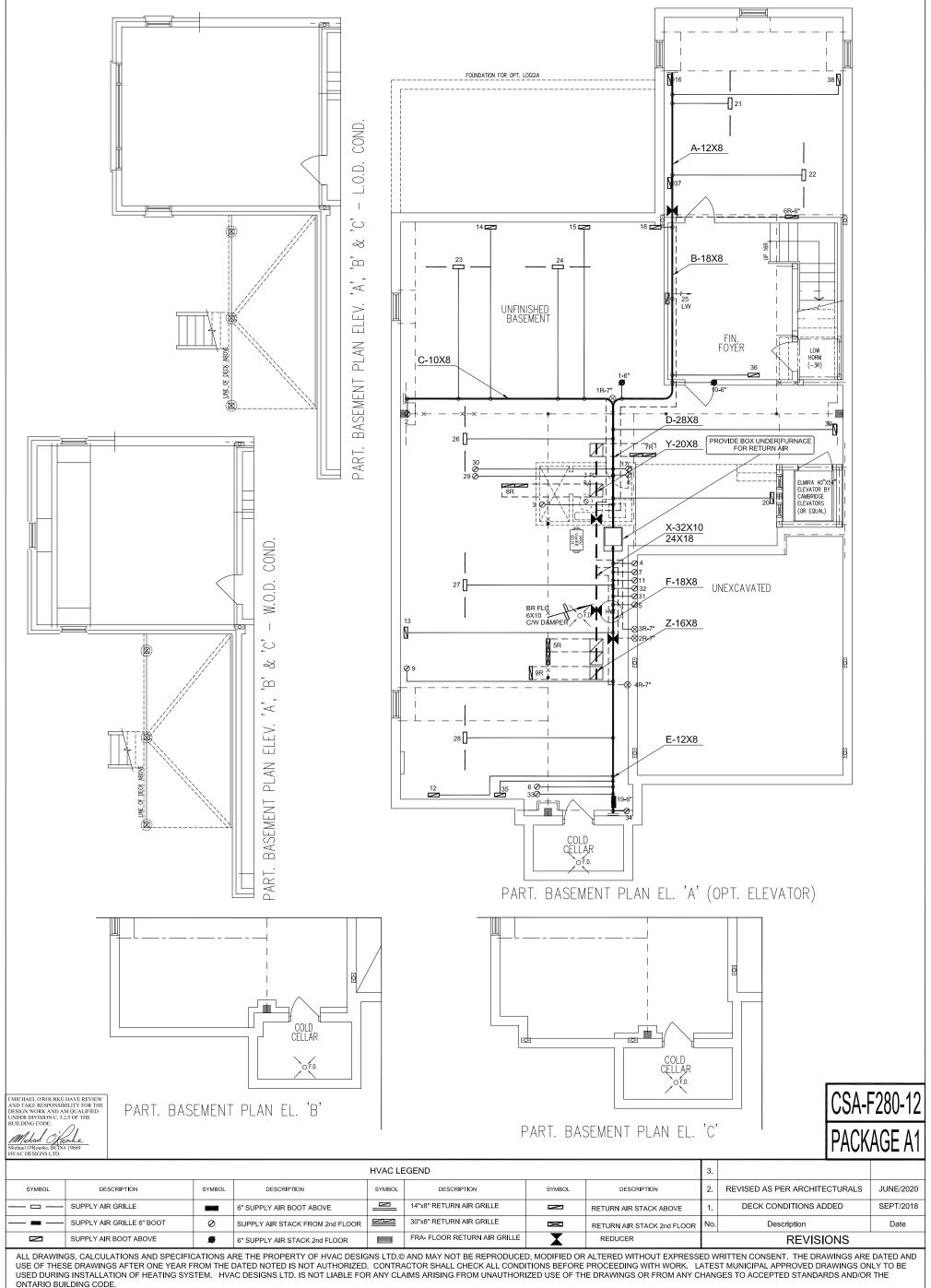
Supplemental tool for CAN/CSA-F280

Weather	Station Description
Province:	Ontario
Region:	Vaughan (Woodbridge)
Weather Station Location:	Open flat terrain, grass
Anemometer height (m):	10
	ocal Shielding
Building Site:	Suburban, forest
Walls:	Heavy
Flue:	Heavy
Highest Ceiling Height (m):	7.01
Buildi	ing Configuration
Туре:	Detached
Number of Stories:	Two
Foundation:	Full
House Volume (m³):	1856.8
Air Lea	akage/Ventilation
Air Tightness Type:	Present (1961-) (3.57 ACH)
Custom BDT Data:	ELA @ 10 Pa. 2475.1 cm ²
	3.57 ACH @ 50 Pa
Mechanical Ventilation (L/s):	Total Supply Total Exhaust
	73.2 73.2
	Flue Size
Flue #:	#1 #2 #3 #4
Diameter (mm):	0 0 0 0
Natural	l Infiltration Rates
Heating Air Leakage Rate (AC	H/H): 0.340
Cooling Air Leakage Rate (ACI	H/H): 0.124

TYPE: 5004 THE BEAUMONT

LO# 77479

OPT. ELEVATOR



GOLD PARK HOMES

Project Name

PINE VALLEY & TESTON VAUGHAN, ONTARIO OPT. ELEVATOR THE BEAUMONT 5004

4330 sqft

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 accounted. adequately insulated and be gas-proofed.

		OSS 86875	BTU/H	# OF RUNS	S/A	R/A	FANS	SI				
		UN I T DATA		3RD FLOOR								
	MAKE	LENNOX		2ND FLOOR	18	5	6	•				
	MODEL EL2	96110XE600		1ST FLOOR	13	4	2					
	INPUT	110	MBTU/H	BASEMENT	8	1	0	Di				
_	-OUTPUT	100	MBTU/H	ALL S/A DIFFU	SERS	4 "x10)"	Sc				
	00011110	106		UNLESS NOTE								
e	COOLING	5.0	TONS	TONS ON LAYOUT. ALL S/A RUNS 5' UNLESS NOTED OTHERWISE								

ON LAYOUT. UNDERCUT

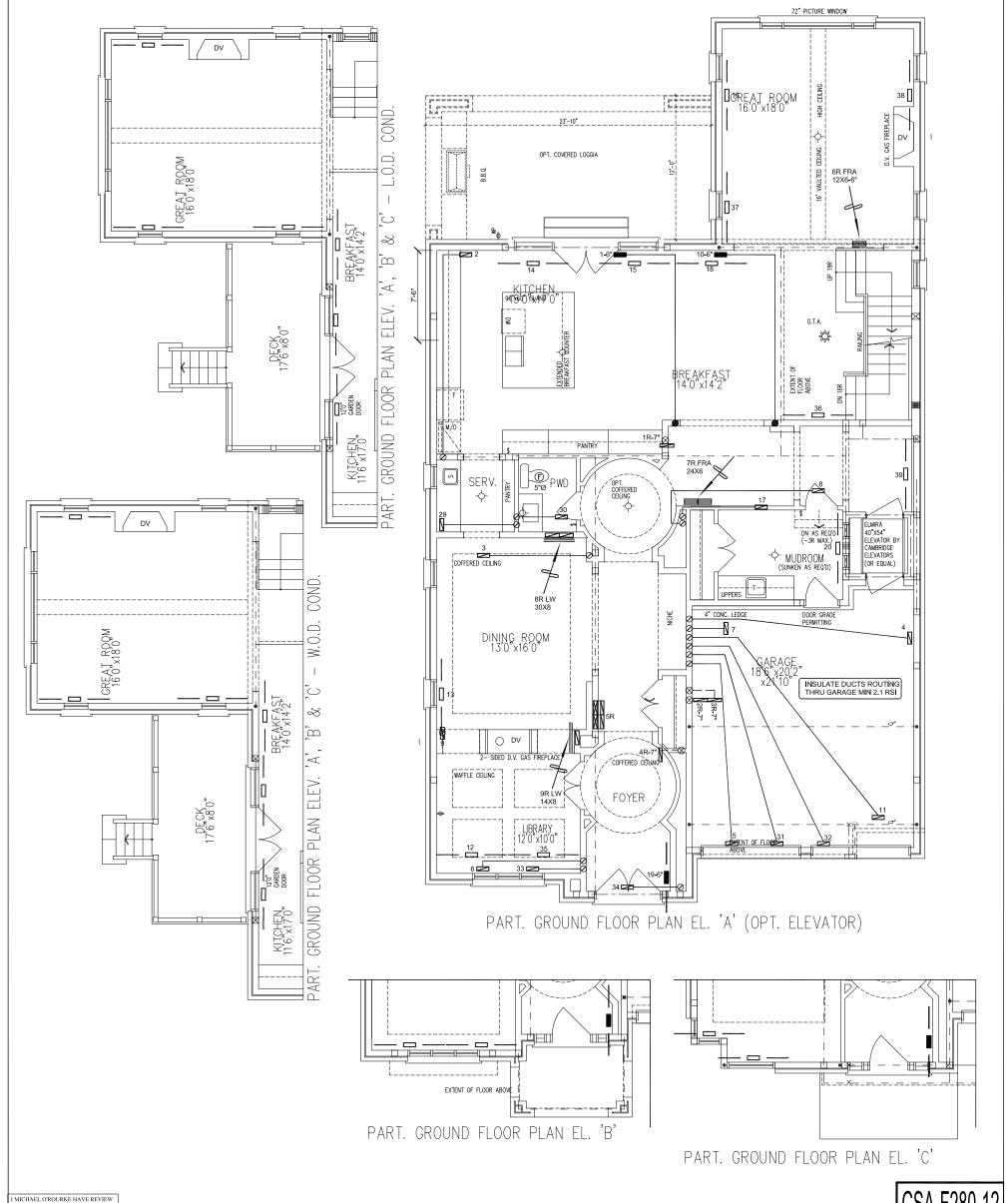
DOORS 1" min. FOR R/A

cfm @ 0.6" w.c

1955

FAN SPEED

;	Sheet Title									
1	BASEMENT									
	LIFATING									
	HEATING									
	LAYOUT									
	Date JAN/2018									
	Scale 1/8" = 1'-0"									
	BCIN# 19669									
	LO# 77479									



	·		3.							
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	REVISED AS PER ARCHITECTURALS	JUNE/2020
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	DECK CONDITIONS ADDED	SEPT/2018
	SUPPLY AIR GRILLE 6" BOOT	0	SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE	\bowtie	RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE	Ø	6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE	X	REDUCER		REVISIONS	

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GOLD PARK HOMES

Project Name

PINE VALLEY & TESTON VAUGHAN, ONTARIO OPT. ELEVATOR THE BEAUMONT 5004 4330 sqft

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

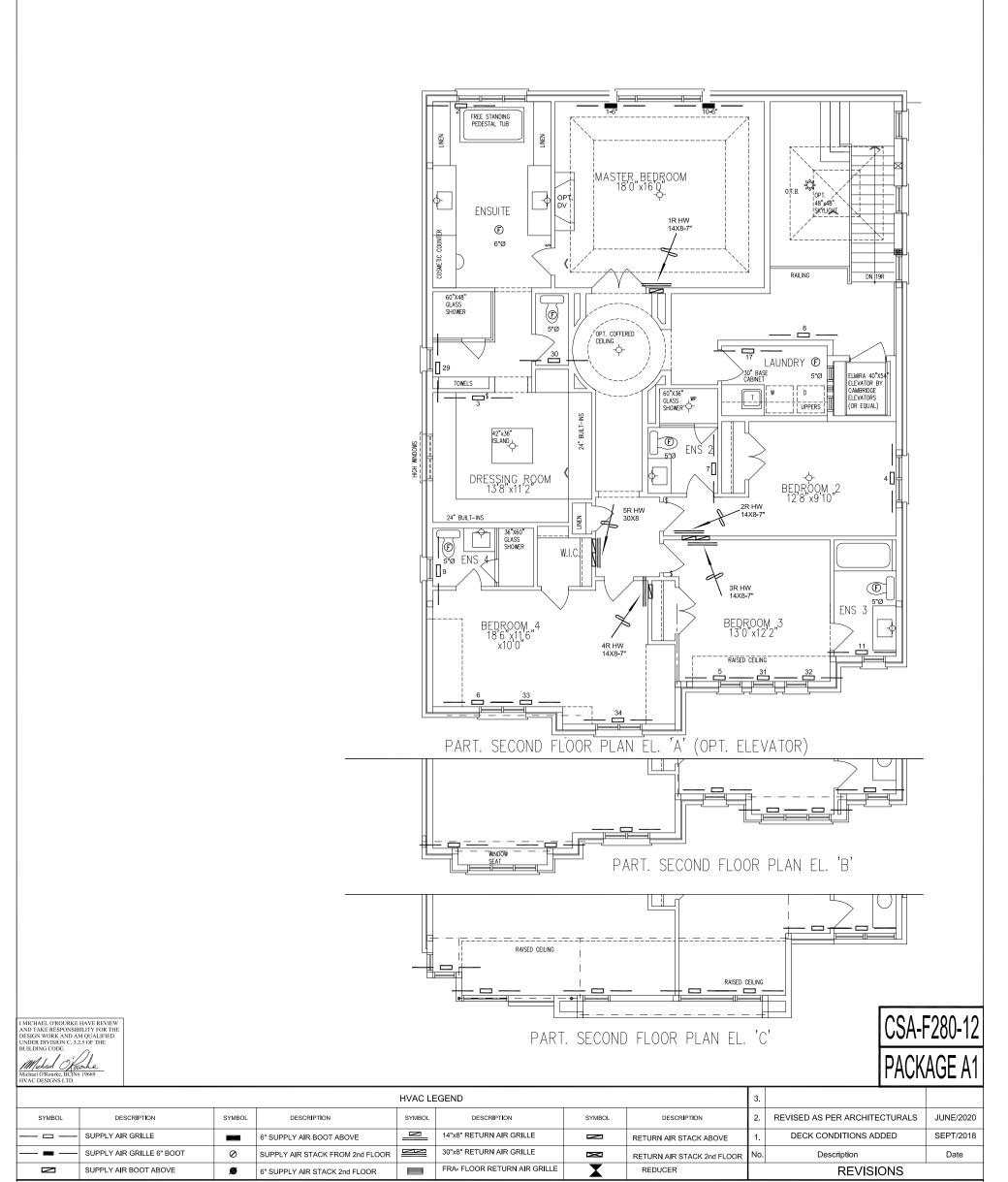
Specializing in Residential Mechanical Design Services

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.

FIRST FLOOR **HEATING LAYOUT**

Date JAN/2018 1/8" = 1'-0"

BCIN# 19669



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GOLD PARK HOMES

Project Name

PINE VALLEY & TESTON VAUGHAN, ONTARIO OPT. ELEVATOR THE BEAUMONT 5004

4330 sqft

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SECOND FLOOR **HEATING LAYOUT**

Date JAN/2018 1/8" = 1'-0"

BCIN# 19669

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/ oth	or dosc	crintion			
VAUGHAN (WOODBRIDGE)		r Ostar Code	r iaii iiuiiibei/ otii	ici ucst	лриоп			
,	and takes			!				
B. Individual who reviews Name	and takes i	responsibility t	Firm	ies				
MICHAEL O'ROURKE			HVAC DESIGNS	I TD				
Street address			invite been site		Unit no.		Lot/con.	
375 FINLEY AVE					202		N/A	
Municipality		Postal code	Province		E-mail			
AJAX		L1S 2E2	ONTARIO		info@hvac	designs.ca		
Telephone number		Fax number			Cell number	er		
(905) 619-2300		(905) 619-2375			()			
C. Design activities under	taken by in	dividual identif	ied in Section B.	. [Build	ding Code	Table 3.5.2.1 O	F Division C]	
☐ House		⊠ HVAC	C – House			☐ Building Str	uctural	
☐ Small Buildings			ng Services			☐ Plumbing —		
☐ Large Buildings			tion, Lighting an	d Pow		☐ Plumbing –		
☐ Complex Buildings		☐ Fire P	rotection			☐ On-site Sew	vage Systems	
Description of designer's work			Mo	odel:	5004 THE E	BEAUMONT		
HEAT LOSS / GAIN CALCULA	ATIONS				CORNER			
DUCT SIZING RESIDENTIAL MECHANICAL	VENTII ATIO	N DESIGN SIIMI	MADV					
RESIDENTIAL SYSTEM DESI			Pro	oject:	PINE VALLE	Y & TESTON		
D. Declaration of Designe								
	ROURKE				doolo	re that (choose one	a ac appropriato):	
MICHAEL O		int name)			ueciai	re triat (Crioose orie	e as appropriate).	
□ I review and take re	ononoihility fo	r the decign work	on bobolf of a firm	rogioto	rad undar a	ubaastian 2 2 4 of		
I review and take re Division C, of the B			on behalf of a firm d the firm is register			appropr	iate	
classes/categories.	3 -	,	3	,				
Long although a control of the contr	- L DOIN!							
Individua Firm BC								
_	_					_		
	esponsibility for subsection 3.2		am qualified in the a ion C, of the Buildin			ry as an "other		
Individu	al BCIN:	19669						
			nd qualification:		O.B.C	SENTENCE 3.2	.4.1 (4)	
☐ The design work is	evemnt	from the registra	ation and qualificatio	n requi	rements of t	the Building Code		
Basis for exemption				iii requi	rements or i	ine building Code.		
	Ü	•						
I certify that:								
The information I have submitte			dule is true to the be			e.		
	sppou		.g 55.1.55110	1		, ,	7.	
					mil	had Offour	Le	
June 4, 2020					, in files			
Date						Signature	of Designer	

NOTE

^{1.} For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d).of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.

^{2.} 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.



	PINE VA								CORNE									DATE:									NGE RATE 0.340		HEATL						CSA-F280
BUILDER: 0	GOLD P	PARK	OMES					TYPE:	5004 T	HE BE	AUMON	Т		GFA:	4294			LO#	80139			SI	UMMER	NATI	URAL A	IR CHA	NGE RATE 0.118		HEAT	GAIN A	ΔT°F.	14		SB-12	PACKAGE
ROOM USE				MBR			ENS		0	DRESS			BED-2	i i		BED-3			BED-4			ENS-2			WIC-2				ENS-3	3					
EXP. WALL				19			41		l	14			11			18			43			0			13				18	- 1					
CLG. HT.				10			9		l	9			9			9			10			9			9				9	- 1					
, F	FACTOR	RS							l																					- 1					
GRS.WALL AREA	LOSS	GAIN		190			369		l	126			99			162			430			0			117				162	- 1					
GLAZING				LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN			LOSS	GAIN					
NORTH	21.3	15.8	0	0	0	0	0	0	0	0	0	19	404	301	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0					
1 TO A CONTROL OF THE PARTY OF		39.9	0	0	0	0	0	0	0	0	0	0	0	0	42	894	1677	50	1064	1997	0	0	0	0	0	0		10		399					
	21.3	24.5	0	0	0	29	617	710	18	383	440	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0					
		39.9	35	745	1398	28	596	1118	0	0	0	0	0	0	0	0	0	0	0	0	0	o	0	0	0	0		0	0	0					
		102.0	8	298	816	0	0	0	0	0	0	4	149	408	ő	0	0	0	0	0	0	0	0	0	0	0		0	0	0					
DOORS	25.2	4.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ň	0	0	ő	0	0	ŏ		0	0	0					
NET EXPOSED WALL		0.8	155	692	126	312		253	108	482	88	80	357	65	120	536	97	380	1696	308	0	0	0	117	522	95			678	123					
	4.5	23.03.00			- 100	1000000		2000	110001111		0.000	5350		Y3875	9189	536	100	97.57			8,355	- 8	735271		7.55	1000		152	0.000	-35/					
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.7	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					
EXPOSED CLG	1.3	0.6	460	590	278	312	400	189	228	293	138	183	235	111	136	175	82	267	343	161	84	108	51	78	100	47		77	99	47					
NO ATTIC EXPOSED CLG	2.7	1.3	0	0	0	0	0	0	0	0	0	0	0	0	60	165	78	150	412	194	0	0	0	0	0	0		0	0	0					
EXPOSED FLOOR	2.6	0.5	0	0	0	0	0	0	0	0	0	187	477	87	196	500	91	20	51	9	45	115	21	78	199	36		77	196	36					
BASEMENT/CRAWL HEAT LOSS				0			0			0			0			0			0			0			0				0						
SLAB ON GRADE HEAT LOSS				0			0			0			0			0			0			0			0				0						
SUBTOTAL HT LOSS				2325			3006			1158			1622			2269			3566			223			821				1186						
SUB TOTAL HT GAIN					2618			2269			666			971			2025			2669			72			178				605					
LEVEL FACTOR / MULTIPLIER			0.20	0.35		0.20	0.35	S Court Const	0.20	0.35		0.20	0.35	0.0000000	0.20	0.35		0.20	0.35	erecens.	0.20	0.35	33.77	0.20	0.35	Selection .		0.20	0.35	30,000					
AIR CHANGE HEAT LOSS				807		2.2520	1043	1	10.5000	402		100000	563		200	787			1238			77			285			5545555	412	- 1					
AIR CHANGE HEAT GAIN					220			191	l		56			82			170			224			6			15				51					
DUCTLOSS				0			0		l	0			219	2,50		306			480	SEV394		30	370		111	(05			160	955					
DUCT GAIN					0		ैं	0	l	8	0			244			358			428			8		1000	19				66					
HEAT GAIN PEOPLE	240		2		480	0		0	0		0	-		240	4		240	11		240	0		0	0		0		0		0					
HEAT GAIN APPLIANCES/LIGHTS	240		•		1145	ı .		0	ľ		1145	"		1145			1145			1145			0			0				0					
TOTAL HT LOSS BTU/H				3132	1145		4049		l	1559	1145		2404	1145		3362	1145		5284	1145		330	١		1217	۰۱			1758	١					
TOTAL HT GAIN x 1.3 BTU/H				0102	5801		4040	3198	l	1000	2426		2404	3486		0002	5119		0204	6118		000	111			276			1100	937					
TOTAL IT SAIR X 1.5 B TOTAL		_			3001	_		3130			2420			3400			0110			0110						210				001					
ROOM USE		-		LIBR			DIN			KIT			GREAT			LAUN	T T		ENS-4			FOY			MUD							LOD			BAS
EXP. WALL				27			20		l	113			56			0			6			37			18					- 1		71			240
CLG. HT.				11			11		l	11			16			9			9			11			13					- 1		10			10
F	FACTOR	RS							l			ı																		- 1					
GRS.WALL AREA L	1000											ı																							
GLAZING	LUSS	100000		297			220			1243			896			0			54			407			234					- 1		710			2106
	LUSS	100000		297 LOSS	GAIN			GAIN		1243 LOSS	GAIN		896 LOSS	GAIN		0 LOSS	GAIN		54	GAIN			GAIN		234 LOSS	GAIN							S GAIN		2106 LOSS G
**************************************		100000	0		GAIN 0	0		GAIN 0	39		GAIN 618	28		GAIN 444	0	J 05000	GAIN 0	0	54	GAIN 0	0		GAIN 0	0		GAIN 0					4			12	
**************************************	21.3	GAIN	0 38	LOSS		0	LOSS		39	LOSS		28	LOSS	7 1000	0	J 05000		0	54 LOSS	7	0	LOSS	20,000	0	LOSS	3,220					4 25	LOSS	S GAIN 63	12 0	LOSS G
NORTH EAST	21.3 21.3	GAIN 15.8	200	LOSS 0	0	0	LOSS 0 0	0	0	LOSS 830	618	8,47,2	LOSS 596	444	0 0	J 05000	0	1000	54 LOSS 0	0		LOSS	0		LOSS	0					4	LOSS 85	S GAIN 63	123	LOSS G/ 255 1
NORTH EAST SOUTH	21.3 21.3 21.3	15.8 39.9 24.5	38	0 809	0 1517	183	LOSS	0	0 20	830 0 426	618 0 489	0 28	596 0 596	444 0 685	0	J 05000	0	1000	54 LOSS 0	0	6	0 128	0 240	0	LOSS (0					4 25	LOSS 85	63 998	0	LOSS G/ 255 1 0
NORTH EAST SOUTH WEST	21.3 21.3 21.3 21.3	15.8 39.9 24.5 39.9	38	0 809 0	0 1517 0	0 22	0 0 468	0 0 538	0	830 0	618 0	0	596 0	444 0	0	J 05000	0 0	0 8	54 LOSS 0 0 170	0 0 196	6	0 128 0	0 240 0	0 0 0	0 0 0	0 0					4 25 0	LOSS 85	63 998 0	0	LOSS G/ 255 1 0 0
NORTH EAST SOUTH WEST SKYLT.	21.3 21.3 21.3 21.3 37.2	15.8 39.9 24.5 39.9 102.0	38 0 0	0 809 0 0	0 1517 0 0	0 22 0 0	0 0 468 0	0 0 538 0	0 20 110 0	830 0 426 2341 0	618 0 489 4393 0	0 28 58 0	596 0 596 1234 0	444 0 685 2316 0	0 0 0 4	0 0 0 0	0 0 0 0 408	0 8 0	54 LOSS 0 0 170 0	0 0 196 0	6 0 0	0 128 0 0	0 240 0 0	0 0 0	0 0 0 0	0 0 0 0					4 25 0 0	85 532 0	63 998 0 0	0 0 0	LOSS G/ 255 1 0 0 0 0
NORTH EAST SOUTH WEST SKYLT. DOORS	21.3 21.3 21.3 21.3 37.2 25.2	15.8 39.9 24.5 39.9 102.0 4.6	38 0 0 0	0 809 0 0 0	0 1517 0 0 0	0 22 0 0	0 0 468 0 0	0 0 538 0 0	0 20 110 0	830 0 426 2341 0	618 0 489 4393 0	0 28 58 0	596 0 596 1234 0	444 0 685 2316 0 0	0 0 0 4	0 0 0 0	0 0 0 0 408	0 8 0 0	54 LOSS 0 0 170 0	0 0 196 0 0	6 0 0 0 40	0 128 0 0 0 1010	0 240 0 0 0 183	0 0 0 0 20	0 0 0 0 0 0 0 505	0 0 0 0 0					4 25 0 0 0	85 532 0 0 0	63 998 0 0 0	0 0 0 0 20	LOSS G/ 255 1 0 0 0 0 505 9
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL	21.3 21.3 21.3 21.3 37.2 25.2 4.5	15.8 39.9 24.5 39.9 102.0 4.6 0.8	38 0 0 0 0 0 259	0 809 0 0 0 0 1156	0 1517 0 0 0 0 210	0 22 0 0 0 0	0 0 468 0 0 0 884	0 0 538 0 0 0	0 20 110 0 0 1074	0 426 2341 0 0 4793	618 0 489 4393 0 0 870	0 28 58 0 0 782	LOSS 596 0 596 1234 0 0 3490	444 0 685 2316 0 0 634	0 0 0 4 0	0 0 0 0 149 0	0 0 0 0 408 0	0 8 0 0 0 46	54 LOSS 0 0 170 0 0 205	0 0 196 0 0 0 37	6 0 0 40 361	0 128 0 0 0 1010 1611	0 240 0 0 0 183 293	0 0 0 0 20 214	0 0 0 0 0 0 0 505 955	0 0 0 0 0 92					4 25 0 0 0 0	85 532 0 0 0 0	63 998 0 0 0	0 0 0 0 20	LOSS G/ 255 1 0 0 0 0 505 9
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMT WALL ABOVE GR	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6	15.8 39.9 24.5 39.9 102.0 4.6 0.8 0.7	38 0 0 0 0 259	USS 0 809 0 0 0 0 1156 0	0 1517 0 0 0 0 210	0 22 0 0 0 198	0 0 468 0 0 0 884	0 0 538 0 0 0 160	0 20 110 0 0 1074	LOSS 830 0 426 2341 0 0 4793	618 0 489 4393 0 0 870	0 28 58 0 0 782	LOSS 596 0 596 1234 0 0 3490 0	444 0 685 2316 0 0 634 0	0 0 0 4 0 0	LOSS 0 0 0 0 149 0	0 0 0 408 0 0	0 8 0 0 0 46	54 LOSS 0 0 170 0 0 0 205	0 0 196 0 0 0 37	6 0 0 40 361 0	LOSS 0 128 0 0 0 1010 1611	0 240 0 0 0 183 293	0 0 0 0 20 214 0	0 0 0 0 0 0 505 955	0 0 0 0 0 92 173					4 25 0 0 0 0 0 397	85 532 0 0 0	63 998 0 0 0 0 0 0 259	0 0 0 0 20 0 294	LOSS G/ 255 1 0 0 0 0 505 9 0 1058 1
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3	15.8 39.9 24.5 39.9 102.0 4.6 0.8 0.7 0.6	38 0 0 0 0 0 259 0	LOSS 0 809 0 0 0 1156 0	0 1517 0 0 0 0 210 0	0 22 0 0 0 198 0	LOSS 0 0 468 0 0 0 884 0	0 0 538 0 0 0 0 160 0	0 20 110 0 0 1074 0	LOSS 830 0 426 2341 0 0 4793 0 246	618 0 489 4393 0 0 870 0	0 28 58 0 0 782 0	LOSS 596 0 596 1234 0 0 3490 0	444 0 685 2316 0 0 634 0	0 0 4 0 0 0 139	LOSS 0 0 0 0 149 0 0 0	0 0 0 0 408 0 0 0	0 8 0 0 0 46 0	54 LOSS 0 0 170 0 0 205 0 77	0 0 196 0 0 0 37 0 36	6 0 0 40 361 0	LOSS 0 128 0 0 0 1010 1611 0	0 240 0 0 0 183 293 0	0 0 0 20 214 0	0 0 0 0 0 0 505 955 0	0 0 0 0 0 92 173 0					4 25 0 0 0 0 0 0 397	85 532 0 0 0 0	63 998 0 0 0 0 0 0 259	0 0 0 0 20 0 294 0	LOSS G/ 255 1 0 0 0 0 505 9 0 1058 1
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMTWALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 39.9 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0	LOSS 0 809 0 0 0 1156 0 0	0 1517 0 0 0 0 210 0 0	0 22 0 0 0 198 0	LOSS 0 0 468 0 0 0 884 0	0 0 538 0 0 0 160 0	0 20 110 0 0 1074 0 192	LOSS 830 0 426 2341 0 0 4793 0 246 0	618 0 489 4393 0 0 870 0 116	0 28 58 0 0 782 0 0 342	LOSS 596 0 596 1234 0 0 3490 0 0	444 0 685 2316 0 0 634 0 0	0 0 0 4 0 0 0 139	LOSS 0 0 0 0 149 0 0 178 0	0 0 0 408 0 0 0 84	0 8 0 0 0 46 0 60	54 LOSS 0 0 170 0 0 0 205 0 77	0 0 196 0 0 0 37 0 36	6 0 0 40 361 0	LOSS 0 128 0 0 1010 1611 0 0	0 240 0 0 0 183 293 0 0	0 0 0 20 214 0 0	0 0 0 0 0 505 955 0	0 0 0 0 0 92 173 0					4 25 0 0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 0 1429 0	63 998 0 0 0 0 0 259 0	0 0 0 0 20 0 294 0	LOSS G/ 255 1 0 0 0 505 9 0 1058 1 0
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3	15.8 39.9 24.5 39.9 102.0 4.6 0.8 0.7 0.6	38 0 0 0 0 0 259 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1517 0 0 0 0 210 0	0 22 0 0 0 198 0	LOSS 0 0 468 0 0 0 884 0 0	0 0 538 0 0 0 0 160 0	0 20 110 0 0 1074 0	LOSS 830 0 426 2341 0 0 4793 0 246	618 0 489 4393 0 0 870 0	0 28 58 0 0 782 0	LOSS 596 0 596 1234 0 0 3490 0	444 0 685 2316 0 0 634 0	0 0 4 0 0 0 139	LOSS 0 0 0 0 149 0 0 0	0 0 0 0 408 0 0 0	0 8 0 0 0 46 0	54 LOSS 0 0 170 0 0 0 205 0 77 0	0 0 196 0 0 0 37 0 36	6 0 0 40 361 0	LOSS 0 128 0 0 0 1010 1611 0	0 240 0 0 0 183 293 0	0 0 0 20 214 0	0 0 0 0 0 0 505 955 0	0 0 0 0 0 92 173 0					4 25 0 0 0 0 0 0 397	85 532 0 0 0 0	63 998 0 0 0 0 0 0 259	0 0 0 0 20 0 294 0	LOSS GA 255 1 0 0 0 0 505 5 0 1058 1
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED ELG NO ATTIC EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 39.9 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1517 0 0 0 0 210 0 0	0 22 0 0 0 198 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 538 0 0 0 160 0	0 20 110 0 0 1074 0 192	LOSS 830 0 426 2341 0 0 4793 0 246 0 0	618 0 489 4393 0 0 870 0 116	0 28 58 0 0 782 0 0 342	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0	444 0 685 2316 0 0 634 0 0	0 0 0 4 0 0 0 139	LOSS 0 0 0 0 149 0 0 0 178 0 191 0	0 0 0 408 0 0 0 84	0 8 0 0 0 46 0 60	54 LOSS 0 0 170 0 0 0 205 0 77 0	0 0 196 0 0 0 37 0 36	6 0 0 40 361 0	LOSS 0 128 0 0 0 1010 1611 0 0 0 0 0 0	0 240 0 0 0 183 293 0 0	0 0 0 20 214 0 0	LOSS (0 0 0 0 0 505 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 92 173 0					4 25 0 0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0	63 998 0 0 0 0 0 259 0	0 0 0 0 20 0 294 0	LOSS G/ 255 1 0 0 0 505 9 0 1058 1 0
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED SMITWALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENTICRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 39.9 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1517 0 0 0 0 210 0 0	0 22 0 0 0 198 0	LOSS 0 0 468 0 0 0 0 884 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 538 0 0 0 160 0	0 20 110 0 0 1074 0 192	LOSS 830 0 426 2341 0 0 4793 0 246 0 0	618 0 489 4393 0 0 870 0 116	0 28 58 0 0 782 0 0 342	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 0	444 0 685 2316 0 0 634 0 0	0 0 0 4 0 0 0 139	LOSS 0 0 0 0 149 0 0 178 0 191 0 0	0 0 0 408 0 0 0 84	0 8 0 0 0 46 0 60	54 LOSS 0 0 170 0 0 0 205 0 77 0 0	0 0 196 0 0 0 37 0 36	6 0 0 40 361 0	LOSS 0 128 0 0 0 1010 1611 0 0 0 0 0 0 0 0 0 0	0 240 0 0 0 183 293 0 0	0 0 0 20 214 0 0	LOSS (0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 92 173 0					4 25 0 0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 0 259 0	0 0 0 0 20 0 294 0	LOSS G/ 255 1 0 0 0 0 505 5 0 1058 1 0 0 0 8413
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMTWALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 39.9 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1517 0 0 0 0 210 0 0	0 22 0 0 0 198 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 538 0 0 0 160 0 0	0 20 110 0 0 1074 0 192	LOSS 830 0 426 2341 0 0 4793 0 246 0 0	618 0 489 4393 0 870 0 116 0	0 28 58 0 0 782 0 0 342	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0	444 0 685 2316 0 0 634 0 0 443	0 0 0 4 0 0 0 139	LOSS 0 0 0 0 149 0 0 0 178 0 191 0	0 0 0 408 0 0 0 84 0 35	0 8 0 0 0 46 0 60	54 LOSS 0 0 170 0 0 0 205 0 77 0	0 0 196 0 0 0 37 0 36 0	6 0 0 40 361 0	LOSS 0 128 0 0 0 1010 1611 0 0 0 0 0 0	0 240 0 0 0 183 293 0 0	0 0 0 20 214 0 0	LOSS (0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 92 173 0 0					4 25 0 0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0	S GAIN 63 998 0 0 0 0 0 259 0	0 0 0 0 20 0 294 0	LOSS G/ 255 1 0 0 0 505 5 0 1058 1 0 0 0 8413
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED TLOOR NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSI	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 39.9 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964	0 1517 0 0 0 0 210 0 0	0 22 0 0 0 198 0 0 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 0 0 1352	0 0 538 0 0 0 160 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	618 0 489 4393 0 0 870 0 116	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 6856	444 0 685 2316 0 0 634 0 0	0 0 0 4 0 0 0 139 0 75	LOSS 0 0 0 149 0 0 178 0 191 0 0 519	0 0 0 408 0 0 0 84	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 205 0 77 0 0 0 0 453	0 0 196 0 0 0 37 0 36	6 0 0 40 361 0 0	LOSS 0 128 0 0 0 1010 1611 0 0 0 0 2749	0 240 0 0 0 183 293 0 0	0 0 0 20 214 0 0	LOSS (0 0 0 0 0 0 505 955 0 0 0 0 0 1460	0 0 0 0 0 92 173 0					4 25 0 0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 0 259 0	0 0 0 20 0 294 0 0	LOSS G/ 255 1 0 0 0 505 5 0 1058 1 0 0 8413
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG NO ATTIC EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON CRADE HEAT LOSS SUB TOTAL HT CAIN LEVEL FACTOR / MULTIPLIER	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 39.9 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1517 0 0 0 0 210 0 0	0 22 0 0 0 198 0 0 0	LOSS 0 0 468 0 0 0 0 884 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 538 0 0 0 160 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	618 0 489 4393 0 870 0 116 0	0 28 58 0 0 782 0 0 342	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 6856	444 0 685 2316 0 0 634 0 0 443	0 0 0 4 0 0 0 139	LOSS 0 0 0 149 0 0 178 0 191 0 0 519	0 0 0 408 0 0 0 84 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 0 205 0 77 0 0	0 0 196 0 0 0 37 0 36 0	6 0 0 40 361 0 0	LOSS 0 128 0 0 0 1010 1611 0 0 0 0 0 0 0 0 0 0	0 240 0 0 0 183 293 0 0	0 0 0 20 214 0 0	LOSS (0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 92 173 0 0					4 25 0 0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 0 259 0	0 0 0 20 0 294 0 0	LOSS G/ 255 1 0 0 0 505 5 0 1058 1 0 0 0 8413
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG EXPOSED FLOOR BASEMENTICRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT LOSIN	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 39.9 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964	0 1517 0 0 0 0 210 0 0	0 22 0 0 0 198 0 0 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 0 0 1352	0 0 538 0 0 0 160 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	618 0 489 4393 0 870 0 116 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 6856	444 0 685 2316 0 0 634 0 0 443	0 0 0 4 0 0 0 139 0 75	LOSS 0 0 0 149 0 0 178 0 191 0 0 519	0 0 0 408 0 0 0 84 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 205 0 77 0 0 0 0 453	0 0 196 0 0 0 37 0 36 0	6 0 0 40 361 0 0	LOSS 0 128 0 0 0 1010 1611 0 0 0 0 2749	0 240 0 0 0 183 293 0 0	0 0 0 20 214 0 0 0	LOSS (0 0 0 0 0 0 505 955 0 0 0 0 0 1460	0 0 0 0 0 92 173 0 0					4 25 0 0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 0 259 0	0 0 0 20 0 294 0 0	LOSS G/ 255 1 0 0 0 505 5 0 1058 1 0 0 8413
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON CRADE HEAT LOSS SUBTOTAL HT CAIN LEVEL FACTOR / MULTIPLIER	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 39.9 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.39	0 1517 0 0 0 0 210 0 0	0 22 0 0 0 198 0 0 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 0 1352 0.39	0 0 538 0 0 0 160 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	618 0 489 4393 0 870 0 116 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 0 0 6856 0.39	444 0 685 2316 0 0 634 0 0 443	0 0 0 4 0 0 0 139 0 75	LOSS 0 0 0 149 0 0 178 0 191 0 0 519 0 0 35	0 0 0 408 0 0 0 84 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 205 0 77 0 0 0 453	0 0 196 0 0 0 37 0 36 0	6 0 0 40 361 0 0	LOSS 0 128 0 0 1010 1010 1611 0 0 0 2749	0 240 0 0 0 183 293 0 0	0 0 0 20 214 0 0 0	LOSS (0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 92 173 0 0					4 25 0 0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 0 259 0	0 0 0 20 0 294 0 0	LOSS GJ 255 1 0 0 0 0 505 5 0 1058 1 0 0 8413
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BANTWALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SUBTOTAL HT LOSS SUB TOTAL HT LOSI LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 39.9 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.39	0 1517 0 0 0 210 0 0 0	0 22 0 0 0 198 0 0 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 0 1352 0.39	0 0 538 0 0 0 160 0 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	618 0 489 4393 0 0 870 0 116 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 0 0 6856 0.39	444 0 685 2316 0 0 634 0 443 0	0 0 0 4 0 0 0 139 0 75	LOSS 0 0 0 149 0 0 178 0 191 0 0 519 0 0 35	0 0 0 408 0 0 0 84 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 205 0 77 0 0 0 453	0 0 196 0 0 0 37 0 36 0	6 0 0 40 361 0 0	LOSS 0 128 0 0 1010 1010 1611 0 0 0 2749	0 240 0 0 0 183 293 0 0 0	0 0 0 20 214 0 0 0	LOSS (0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 92 173 0 0 0					4 25 0 0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 0 259 0	0 0 0 20 0 294 0 0	LOSS GJ 255 1 0 0 0 0 505 5 0 1058 1 0 0 8413 10232 4 1.21 14877
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMITWALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENTICRAWL HEAT LOSS SLAB ON CRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 39.9 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.39 762	0 1517 0 0 0 210 0 0 0	0 22 0 0 0 198 0 0 0	LOSS 0 0 468 0 0 0 0 0 0 0 0 1352 0.39 524	0 0 538 0 0 0 160 0 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	618 0 489 4393 0 0 870 0 116 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 6856 0.39 2659	444 0 685 2316 0 0 634 0 443 0	0 0 0 4 0 0 0 139 0 75	LOSS 0 0 0 0 149 0 0 0 178 0 191 0 0 519 0 .35	0 0 0 408 0 0 0 84 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 0 205 0 77 0 0 0 0 453	0 0 196 0 0 0 37 0 36 0	6 0 0 40 361 0 0	LOSS 0 128 0 0 1010 1611 0 0 0 0 2749 0.39 1066	0 240 0 0 0 183 293 0 0 0	0 0 0 20 214 0 0 0	LOSS (0 0 0 0 0 505 955 0 0 0 0 1460	0 0 0 0 0 92 173 0 0 0					4 25 0 0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 0 259 0	0 0 0 20 0 294 0 0	LOSS G/ 255 1 0 0 0 0 505 5 0 11058 1 0 0 8413 10232 4 1.21 14877
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG EXPOSED FLOOR BASEMENTICRAWL HEAT LOSS SLAB ON CRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MUL TIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 39.9 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.39 762	0 1517 0 0 0 210 0 0 0 0	0 22 0 0 0 198 0 0 0	LOSS 0 0 468 0 0 0 0 0 0 0 0 1352 0.39 524	0 0 538 0 0 0 160 0 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	618 0 489 4393 0 0 870 0 116 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 6856 0.39 2659	444 0 685 2316 0 0 634 0 0 443 0 4521	0 0 0 4 0 0 0 139 0 75	LOSS 0 0 0 0 149 0 0 0 178 0 191 0 0 519 0 .35	0 0 0 0 408 0 0 0 84 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 0 205 0 77 0 0 0 0 453	0 0 196 0 0 0 37 0 36 0 0	6 0 0 40 361 0 0	LOSS 0 128 0 0 1010 1611 0 0 0 0 2749 0.39 1066	0 240 0 0 0 183 293 0 0 0	0 0 0 20 214 0 0 0	LOSS (0 0 0 0 0 505 955 0 0 0 0 1460	0 0 0 0 0 92 173 0 0 0					4 25 0 0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 0 259 0	0 0 0 20 0 294 0 0	LOSS G/ 255 1 0 0 0 0 505 5 0 1 1058 1 0 0 8413 10232 4 1.21 14877 1
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED ESMIT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LGAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS OUCT GAIN	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	15.8 39.9 24.5 39.9 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.39 762	0 1517 0 0 0 0 210 0 0 0 0	0 22 0 0 0 198 0 0 0	LOSS 0 0 468 0 0 0 0 0 0 0 0 1352 0.39 524	0 0 538 0 0 0 160 0 0 0	0 20 110 0 0 1074 0 192 0 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	618 0 489 4393 0 0 870 0 116 0 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 6856 0.39 2659	444 0 685 2316 0 0 634 0 0 443 0	0 0 0 4 0 0 0 139 0 75	LOSS 0 0 0 0 149 0 0 0 178 0 191 0 0 519 0 .35	0 0 0 0 408 0 0 0 84 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 0 205 0 77 0 0 0 0 453	0 0 196 0 0 0 37 0 36 0 0	6 0 0 40 361 0 0 0	LOSS 0 128 0 0 1010 1611 0 0 0 0 2749 0.39 1066	0 240 0 0 183 293 0 0 0 716	0 0 0 20 214 0 0 0	LOSS (0 0 0 0 0 505 955 0 0 0 0 1460	0 0 0 0 92 173 0 0 0 0					4 25 0 0 0 0 0 397 0 0	LOSS 85 532 0 0 0 0 1429 0 0	63 998 0 0 0 0 259 0 0	0 0 0 20 0 294 0 0	LOSS G/ 255 1 0 0 0 0 505 5 0 1 1058 1 0 0 8413 10232 4 1.21 14877 1
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG NO ATTIC EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUB TOTAL HT LOSS AIR CHANGE HEAT GAIN DUCT LOSS DUCT GAIN HEAT GAIN PEOPLE	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	15.8 39.9 24.5 39.9 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.39 762	0 1517 0 0 0 0 210 0 0 0 0 1727	0 22 0 0 0 198 0 0 0	LOSS 0 0 468 0 0 0 0 0 0 0 0 1352 0.39 524	0 0 538 0 0 0 0 0 0 0 0 0 0	0 20 110 0 0 1074 0 192 0 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	618 0 489 4393 0 0 870 0 116 0 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 6856 0.39 2659	4444 0 685 2316 0 0 634 0 0 443 0 0 4521	0 0 0 4 0 0 0 139 0 75	LOSS 0 0 0 0 149 0 0 0 178 0 191 0 0 519 0 .35	0 0 0 0 408 0 0 0 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 0 205 0 77 0 0 0 0 453	0 0 196 0 0 0 37 0 36 0 0 0	6 0 0 40 361 0 0 0	LOSS 0 128 0 0 1010 1611 0 0 0 0 2749 0.39 1066	0 240 0 0 183 293 0 0 0 0	0 0 0 20 214 0 0 0	LOSS (0 0 0 0 0 505 955 0 0 0 0 1460	0 0 0 0 0 92 173 0 0 0 0 0					4 25 0 0 0 0 0 397 0 0	LOSS 85 532 0 0 0 0 1429 0 0	GAIN 63 998 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 20 0 294 0 0 0	LOSS G/ 255 1 0 0 0 0 505 5 0 1 1058 1 0 0 8413 10232 4 1.21 14877 1

TOTAL HEAT GAIN BTU/H:

61169

TONS: 5.10

LOSS DUE TO VENTILATION LOAD BTU/H: 3181

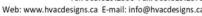
STRUCTURAL HEAT LOSS: 83568

TOTAL COMBINED HEAT LOSS BTU/H: 86749

Michael Oxombe.



ADJETEDPRESSURE 0.07 0.09 0.08 0.07 0.11 0.09 0.09 0.1 0.07 0.07 0.09 0.08 0.16 0.09 0.09 0.09 0.10 0.09 0.12 0.13 ROMODUTESIZE 6 4 5 6 6 4 88 301 38 301				ALLEY & T					TYPE:	CORNER 5004 TH		MONT		DATE:	Jun-20			GFA:	4294	LO#	80139				
Property	HEATING CFM TOTAL HEAT LOSS	1955 83,568		COO TOTAL H	LING CFM	60,591		а	furnace furn a/c coil vailable	pressure nace filter pressure pressure	0.6 0.05 0.2						EL	.296UH11	0XE60C SPEED	LENNO	en e		(BTU/H) =	110,000	
Right March Marc								nle					r/a	nressure	0.17				EDLOW	1380		DESI			- 2
SEA FLOW STOP MINES STOP MINES STOP MINES SEA	R/A	0	0	5	4			max	s/a dif p	ress. loss	0.03		grille pr	ess. Loss	0.02				M HIGH	1685					722
SAM 1 2 3 4 5 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 32 24					out.			min adju	isted pre	ssure s/a	0.15	adj	usted pre	ssure r/a	0.15				HIGH	1955	1	EMPERAT	URE RISE	50	· °F
SHILDS MBH 157 1.85 1.56 2.40 1.12 1.75 0.30 1.21 1.75 0.30 1.21 1.75 0.30 1.21 1.75 0.30 1.81 2.00 3.00 3.00 3.17 0.77 3.00 3.81 2.00 3.39					4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		20	21	22	23	24
CEPHER RIAN HEAT 37 43 36 56 28 41 8 28 14 37 41 32 44 70 70 70 74 18 70 89 47 79 79 79 79 79 79 7																									
SING GAILANIEN 28 0																									
CEMBER RIAN COCUING ALBERTED PRESSURE 1.6 1.7 0.7 0.17 0.17 0.17 0.17 0.17 0.17 0																									
ADJUSTED PRESSURE 0.16 0.17 0.17 0.15 0.17 0.1																									
ACTIVAL DUTITION 46 62 29 34 38 50 28 31 43 54 41 41 27 40 32 49 26 36 24 16 50 50 39 30 FOLKMANDET INTERNAL 100 140 180		-0.000						0.17	and the second		100000000000000000000000000000000000000							10.000		100000000000000000000000000000000000000	a man to the state of		11.100.000.000	and the state of the state of	and the second
TOTALE PRETERITY LEINCHY 238 262 209 214 158 200 188 181 233 234 201 221 107 180 182 179 176 176 176 174 146 180 190 139 132																									
ADJETEDPRESSURE 0.07 0.09 0.08 0.07 0.11 0.09 0.09 0.1 0.07 0.07 0.09 0.08 0.16 0.09 0.09 0.09 0.09 0.10 0.09 0.12 0.13 ROMODUCT SIZE 6 4 2 5 6 4 5 5 5 5 4 4 4 5 4 5 4 5 5 6 5 5 5 5 5 5 5 5 ROMODUCT SIZE 6 4 5 5 2 7 2 8 2 9 3 1 3 1 4 1 1 1 1 1 ROMODUCT SIZE 6 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 ROMODUCT SIZE 6 1 5 1 5 1 5 1 5 1 5 1 5 1 ROMODUCT SIZE 6 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 ROMODUCT SIZE 6 1 7	EQUIVALENT LENGTH																							100	
ROUND DUCT SIZE 6	TOTAL EFFECTIVE LENGTH																								
HEATMO VELCOTIT (MINING) 489 493 284 286 288 291 292 314 161 199 470 225 323 314 514 543 132 514 454 539 580 580 580 580																									
COCAINO SELECITY (thimmi) APT9 539 573 571 631 485 46 103 138 479 344 463 587 631 631 624 580 631 188 688 73 73 73 73 73 CUTLET GRIDNE C.		_			-	-	-		1.0		-					-	_		-		100	_	~	_	-
OUTLET GRILL SIZE AX10 XX10 XX1																									
TRIME B C D F F E F D E B F E F C C A D B E D A A C C																									
ROOM MANE 8AS																									
ROOM MANE 8AS														1221			2000				5100	1,011			
RM LOSS MISH 3.39 3																									
CEMPER RIN HEATT 79 79 79 79 79 79 43 8 26 26 41 41 32 70 74 74 RIN GAINMENH COLONIAG REST TRUNK SIZE TRUNK A 38 0.08 0.08 12 X 8 573 TRUNK B 673 0.07 12.5 18 X 8 673 TRUNK B 673 0.0																									
RINGAIN MEMIN 0.32 0.32 0.32 0.32 0.32 0.32 1.47 0.27 1.71 1.71 2.04 2.04 1.96 2.68 2.62 2.62 COMPEREN RINGAIN MEMIN 0.32 0.37 0.37 0.37 0.37 0.37 0.37 0.37 0.37																									
CAMPERRUN COCULING ADJUSTED PRESSURE ACTUAL DUCT LGH A														100000											
ACTUAL DUCT LENT 37 23 17 31 34 33 42 46 47 40 35 28 39 64																									
EQUIVALENT LENSTH 120 80 120 150 140 140 130 140 150 130 140 150 150 150 150 150 150 150 150 150 15	ADJUSTED PRESSURE																								
TOTAL EFFECTIVE LENGTH 157 103 137 181 174 173 172 186 197 170 175 178 189 214 ADJUSTED PRESSURE 11 0.17 0.13 0.1 0.1 0.1 0.1 0.1 0.09																									
ADJUSTED PRESSURE 0.11 0.17 0.13 0.1 0.1 0.1 0.1 0.10 0.09 0.09 0.1 0.1 0.09 0.09 0.09 0.08 ROUND DUCT SIZE 5 5 5 5 5 4 4 4 5 5		Contract of						177																	
ROUND DUCT SIZE HETRING ROUND SIZE HETRING SIZE HETRING ROUND SIZE HETRING ROU																									
HEATING VELOCITY (timin) 580 580 580 580 580 493 92 288 191 301 301 301 225 514 543 377 COOLING VELOCITY (timin) OUTLET GRILL SIZE 3/10 3X10 3X10 3X10 3X10 3X10 3X10 3X10 3X																									
COOLING VELOCITY (Immin) 73 73 73 73 73 73 539 103 631 404 485 485 483 631 624 433 OUTLET GRILL SIZE 3X10 3X10 3X10 3X10 3X10 3X10 3X10 3X10							2000																		
OUTLET GRILL SIZE 3X10 3X1																									
SUPPLY AIR TRUNK SIZE TRUNK STATIC ROUND RECT VELOCITY TRUNK STATIC ROUND RECT VELOCITY TRUNK STATIC ROUND RECT TRUNK STATIC			3X10	3X10	3X10	3X10		3X10	3X10				3X10												
TRUNK STATIC ROUND RECT VELOCITY CFM PRESS DUCT DUCT DUCT CFM PRESS DUCT	TRUNK	В	D	F	E	D	D	F	F	E	E	E	В	A	Α										
TRUNK STATIC ROUND RECT VELOCITY CFM PRESS DUCT DUCT DUCT CFM PRESS DUCT	SLIDDI Y AID TOLINK SIZE																	DETUDN /	AID TOUNK	K SIZE					
TRUNK A 380 0.08 9.8 12 X 8 570 TRUNK G 0 0.00 0 0 X 8 0 TRUNK O 0.06 0 TRUN	SOFFET AIR TROTTE SIZE	TRUNK	STATIC	ROUND	RECT			VELOCITY			TRUNK	STATIC	ROUND	RECT			VELOCITY	KETOKITA			ROUND	RECT			VELOCITY
TRUNK B 673 0.07 12.5 18 X 8 673 TRUNK H 0 0.00 0 0 X 8 0 TRUNK Q 0 0.06 0 0 X 8 0 TRUNK Q 1.09 9.1 10 X 8 614 TRUNK I 0 0.00 0 0 X 8 0 TRUNK Q 0 0.06 0 0 X 8 0 TRUNK Q 1.273 0.07 15.9 30 X 8 764 TRUNK I 0 0.00 0 0 X 8 0 TRUNK Q 1.273 0.07 15.9 30 X 8 764 TRUNK I 0 0.00 0 0 X 8 0 TRUNK Q 0 0.06 0 0 X 8 0 TRUNK Q 1.273 0.07 15.9 30 X 8 764 TRUNK I 0 0.00 0 0 X 8 0 TRUNK Q 0 0.06 0 0 X 8 0 TRUNK Q 1.274 0.00 0 X 8 0 TRUNK Q		CFM	PRESS.								CFM	PRESS.		DUCT					CFM	PRESS.					
TRUNK C 341 0.09 9.1 10 X 8 614 TRUNK I 0 0.00 0 0 X 8 0 TRUNK C 0 0.06 0 0 X 8 0 TRUNK C 1273 0.07 15.9 30 X 8 764 TRUNK J 0 0.00 0 0 0 X 8 0 TRUNK R 0 0.06 0 X 8 0 TRUNK R 0 0 X 8 0 TRUNK R 0 0 X 8 0 TRUNK R 0 0 X 8 0							4.7				(4.70)				x								×		
TRUNK D 1273 0.07 15.9 30 X 8 764 TRUNK J 0 0.00 0 0 X 8 0 TRUNK R 0 0.06 0 TRUNK R 0 0.06 0 X 8 0 TRUNK R 0 X 8 0						200					10.750		70	2.73	×		1500				0.000	10.75	x	and the second	7.5
TRUNK F 369 0.07 10 12 X 8 554 TRUNK O 0.00 0 0 X 8 0 TRUNK O 0.00							_						-	-								2000		-	
TRUNK F 675 0.07 12.5 20 X 8 608 TRUNK L 0 0.00 0 X 8 0 TRUNK L 0 0.00 0 0 X 8 0 TRUNK L 0 0.00 0 0 X 8 0 TRUNK L 0 0.00 0 0 X 8 0 TRUNK L 0 0.00 0 0 0 X 8 0 TRUNK L 0 0.00 0 0 X 8 0 TRUNK L 0 0.00 0 0 X 8 0 TRUNK L 0 0.00 0 0 X 8 0 TRUNK L 0 0.00 0 0 X 8 0 TRUNK L 0 0.00 0 0 X 8 0 TRUNK L 0 0.00 0 0 X 8 0 TRUNK L 0 0.00 0 X 8 0 0 X 8 0 TRUNK L 0 0.00 0 X 8 0 TRUNK							1					700000000000000000000000000000000000000		0.000			100							1.5	
RETURN AIR # 1 2 3 4 5 6 7 8 9		1571370070					7.5				200000				×			100 M S 100 M S 100 M S			1000	-		10.00	
RETURN AIR # 1 2 3 4 5 6 7 8 9	HAN SOMEON OF																		0	0.06	0	0	×	2000	0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DETLIDN AID #	- 4		•		F	-	7		•									77			0.75			67.0
NR VOLUME 120 120 120 120 305 85 300 300 185 0 0 0 0 0 0 0 300 TRUNKY 805 0.06 13.9 22 x 8 659 PLENUM PRESSURE 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15	NE I ORN AIR #	9.5						*	1000		0	0	0	0	0	0	BK	F-03/15/14/16/05/19/16			0.000				
LENUM PRESSURE 0.15	AIR VOLUME				100	1000	•	-	•		1000		-	-	2000		300								
ACTUAL DUCT LGH. 38 37 37 45 43 59 27 25 34 1 1 1 1 1 1 1 1 1 1 1 1 8 G52 GUIVALENT LENGTH 195 185 165 205 145 175 190 185 150 0 0 0 0 0 0 0 195 OTAL EFFECTIVE LH 233 222 202 250 188 234 217 210 184 1 1 1 1 1 1 1 1 213 ADJUSTED PRESSURE 0.06 0.07 0.07 0.06 0.08 0.06 0.07 0.07 0.08 14.80 14.80 14.80 14.80 14.80 14.80 0.07 OTAL EFFECTIVE LH 233 222 202 250 188 234 217 210 184 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	PLENUM PRESSURE																	L							
OTAL EFFECTIVE LH 233 222 202 250 188 234 217 210 184 1 1 1 1 1 1 1 213 ADJUSTED PRESSURE 0.06 0.07 0.07 0.06 0.08 0.06 0.07 0.07 0.08 14.80 14.80 14.80 14.80 14.80 14.80 0.07 ROUND DUCT SIZE 6.8 6.6 6.6 6.8 9 6 9.2 9.2 7.5 0 0 0 0 0 0 9.2 NLET GRILL SIZE 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	ACTUAL DUCT LGH.	38	37	37	45	43	59	27	25	34	1	1	1	1	1	1	18	259900000000000000000000000000000000000							
ADJUSTED PRESSURE 0.06 0.07 0.07 0.06 0.08 0.06 0.07 0.07 0.08 14.80 14.80 14.80 14.80 14.80 0.07 COUND DUCT SIZE 6.8 6.6 6.6 6.8 9 6 9.2 9.2 7.5 0 0 0 0 0 0 9.2 NLET GRILL SIZE 8 8 8 8 8 8 8 8 8 8 0 0 0 0 0 0 8 X X X X X X X X X X X X X X X X X X	EQUIVALENT LENGTH									0.00.000		0	0	0	0		1								
ROUND DUCT SIZE 6.8 6.6 6.6 6.8 9 6 9.2 9.2 7.5 0 0 0 0 0 0 9.2 NLET GRILL SIZE 8 8 8 8 8 8 8 8 8 8 0 0 0 0 0 8 X X X X X X X X X X X X X X X X X X	TOTAL EFFECTIVE LH										7-7-11/C	1	. 1	1	1	100									
NLET GRILL SIZE	ADJUSTED PRESSURE																								
x x x x x x x x x x x x x x x x x x x						5.5	-					-	-	-											
	INLE I GRILL SIZE											0.700	-		1.00										
	INLET GRILL SIZE	14	14	14	14	30	14	30	30	14							30								





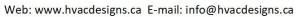
80139 CORNER TYPE: 5004 THE BEAUMONT LO# SITE NAME: PINE VALLEY & TESTON

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

COMBUSTION APPLIANCES	9.32.3.1(1)	SUPPLEMENTAL VENTILATION CAPACITY 9.32.	3.5.
a) V Direct vent (sealed combustion) only		Total Ventilation Capacity cfm	
b) Positive venting induced draft (except fireplaces)		Less Principal Ventil. Capacity	
c) Natural draft, B-vent or induced draft gas fireplace		Required Supplemental Capacity 46.4 cfm	
d) Solid Fuel (including fireplaces)		DDINOIDAL EVHALICT FAN CADACITY	\equiv
e) No Combustion Appliances		PRINCIPAL EXHAUST FAN CAPACITY Model: VANEE 65H Location: BSMT	
		Model: VANEE 65H Location: BSMT	ᅥ
HEATING SYSTEM			/ed
Forced Air Non Forced Air		PRINCIPAL EXHAUST HEAT LOSS CALCULATION CFM ΔT *F FACTOR % LOSS	
Electric Space Heat		155.0 CFM X 76 F X 1.08 X 0.25	
		SUPPLEMENTAL FANS NUTONE	
HOUSE TYPE	9.32.1(2)	Location Model cfm HVI Sones ENS QTXEN050C 50 ✓ 0.3	-
110002 1112	0.02.1(2)	ENS-2 QTXEN050C 50 ✓ 0.3	
✓ I Type a) or b) appliance only, no solid fuel		ENS-3 QTXEN050C 50 ✓ 0.3	
II Type I except with solid fuel (including fireplaces	.	ENS-4 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: VANEE 65H	
IV Type I, or II with electric space heat			20
		75 % Sensible Efficiency Y HVI Approx	/ed
Other: Type I, II or IV no forced air		@ 32 deg F (0 deg C)	_
		LOCATION OF INSTALLATION	
SYSTEM DESIGN OPTIONS	O.N.H.W.P.	Lot: Concession	
1 Exhaust only/Forced Air System		Lot: Concession	\dashv
		Township Plan:	
2 HRV with Ducting/Forced Air System		Address	
HRV Simplified/connected to forced air system		Roll # Building Permit #	
4 HRV with Ducting/non forced air system		BUILDER: GOLD PARK HOMES	
Part 6 Design		Name:	
TOTAL VENTILATION CAPACITY	9.32.3.3(1)	Address:	
Basement + Master Bedroom 2 @ 21.2 cfm 42.4	cfm	City:	
Other Bedrooms <u>3</u> @ 10.6 cfm <u>31.8</u>	cfm	Telephone #: Fax #:	
Kitchen & Bathrooms 6 @ 10.6 cfm 63.6	cfm	INSTALLING CONTRACTOR	$\overline{}$
Other Rooms 6 @ 10.6 cfm 63.6	cfm	Name:	
Table 9.32.3.A. TOTAL 201.4	cfm	Address:	П
PRINCIPAL VENTILATION CAPACITY REQUIRED	9.32.3.4.(1)	City:	\dashv
6. 195. 0111	85	Telephone #: Fax #:	
1 Bedroom 31.8	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: Maked Offmhe.	
5 Bedroom 95.4	cfm	HRAI # 001820	
TOTAL 79.5 cfm		Date: June-20	
	IFIED IN THE AF	PPROPRIATE CATEGORY AS AN "OTHER DESIGNER" UNDER DIVISION C. 3.2.5 OF THE BUILDING CODE.	_



			10.70 (ST.10) (10.70)	80-12 Residential Hea						
10#. 5	20120	Model, FOOA THE BE	J1947 V 0753-670-6764	PERSONAL PROPERTY.	er: GOLD PARK HOMES	arculation			Data	6/4/2020
LO#: 8	30139	Model: 5004 THE BE		Builde	FI: GOLD PARK HOWES		'. cl	70.	Date	6/4/2020
		Volume Calculation	n				Air Change & Delta	a T Data		
ouse Volume				1		WINTER NAT	URAL AIR CHANG	EDATE	0.340	1
Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)	-			TURAL AIR CHANG		0.118	-
Bsmt	2078	10	20780				TOTAL AIR CHAIRC	LIMIL	0.110	1
First	2078	11	22858	1						
Second	2301	9	20709				Design Te	mperature Diff	erence	
Third	0	9	0				Tin °C	Tout °C	ΔT°C	ΔT °F
Fourth	0	9	0			Winter DTDh	22	-20	42	76
		Total:	64,347.0 ft ³			Summer DTDc	23	31	8	14
		Total:	1822.1 m³							
		4.11			-		this Caladaa	- 1-1		
	5.2.3	.1 Heat Loss due to A	r Leakage			6.2.6 5	ensible Gain due t	o Air Leakage		
0.340	x506.14	$LR_{airh} \times \frac{V_b}{3.6} \times I_b$ $\times \frac{42 \text{ °C}}{42 \text{ °C}}$ at Loss due to Mechan	× 1.2	= 8720 W = 29754 Btu/h		$AG_{salb} = LR_{airc} \times $ $\times 506.14$		x <u>1.2</u>	. = =	547 W
	5.Z.3.Z nea	at Loss due to Mechar	ical ventilation			6.2.7 Sen	sible neat Gain of	ie to ventilatio	n	
155 CFM	$HL_{vairb} =$ x 76 °F	$PVC \times DTD_h \times 1.08$	$1.08 \times (1 - E)$	= 3181 Btu/h	HL 155 CFM	$vairb = PVC \times DT$	x1.08 ×		. =	578 Btu/h
			5.2.3.3 Calcula	tion of Air Change Heat	Loss for Each Room (Flo	or Multiplier Section)				
		HL _a	Level Factor (LF)	or × HL _{airbv} × {(H HLairve Air Leakage + Ventilation Heat Loss	$L_{agcr} + HL_{bgcr}$) \div Level Conductive Heat Loss: (HL _{devel})	1	s Multiplier (LF x			
		1	0.5	(Btu/h)	12,277	1.212)			
		2	0.3		23,016	0.388				
		3	0.2	29,754	17,146	0.347				
		4	0		0	0.000				
		10000	0	→	0	0.000				





HEAT LOSS AND GAIN SUMMARY SHEET

n		IILAII	LOSS AND GF	AIN SOMMAN SHEET	
MODEL:	5004 THE BEAUMONT		CORNER	BUILDER: GOLD PARK HOMES	5
SFQT:	4294	LO#	80139	SITE: PINE VALLEY & TES	TON
DESIGN A	ASSUMPTIONS				
HEATING			°F	COOLING	°F
OUTDOO	R DESIGN TEMP.		-4	OUTDOOR DESIGN TEMP.	88
INDOOR I	DESIGN TEMP.		72	INDOOR DESIGN TEMP. (MAX 75°F)	74
BUILDING	G DATA				
ATTACHN	ΛΕΝΤ:		DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FA	ACES:		EAST	ASSUMED (Y/N):	Υ
AIR CHAN	IGES PER HOUR:		3.57	ASSUMED (Y/N):	Υ
AIR TIGH	TNESS CATEGORY:		AVERAGE	ASSUMED (Y/N):	Υ
WIND EXI	POSURE:	9	SHELTERED	ASSUMED (Y/N):	Υ
HOUSE V	OLUME (ft³):		64347.0	ASSUMED (Y/N):	Υ
INTERNA	L SHADING:	BLINDS	CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR	LIGHTING LOAD (Btu/h/	/ft²):	1.95	DC BRUSHLESS MOTOR (Y/N):	Υ
FOUNDA	TION CONFIGURATION		BCIN_1	DEPTH BELOW GRADE:	7.0 ft
LENGTH:	74.0 ft	WIDTH:	46.0 ft	EXPOSED PERIMETER:	240.0 ft

2012 OBC - COMPLIANCE PACKAGE		
	Compliance	e Package
Component	Δ	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	-

INDIVIDUAL BCIN: 19669 MICHAEL O'ROURKE





Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

We	eather Sta	tion Description
Province:	Ontario	•
Region:	Vaughan	(Woodbridge)
	Site D	escription
Soil Conductivity:	Normal	conductivity: dry sand, loam, clay
Water Table:	Normal ((7-10 m, 23-33 ft)
ı	Foundatio	n Dimensions
Floor Length (m):	22.6	
Floor Width (m):	14.0	
Exposed Perimeter (m):	0.0	
Wall Height (m):	3.0	
Depth Below Grade (m):	2.13	Insulation Configuration
Window Area (m²):	3.8	
Door Area (m²):	1.9	
	Radi	ant Slab
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
	Desig	n Months
Heating Month	1	
	Founda	ation Loads
Heating Load (Watts):		2465

TYPE: 5004 THE BEAUMONT

LO# 80139

CORNER



Air Infiltration Residential Load Calculator

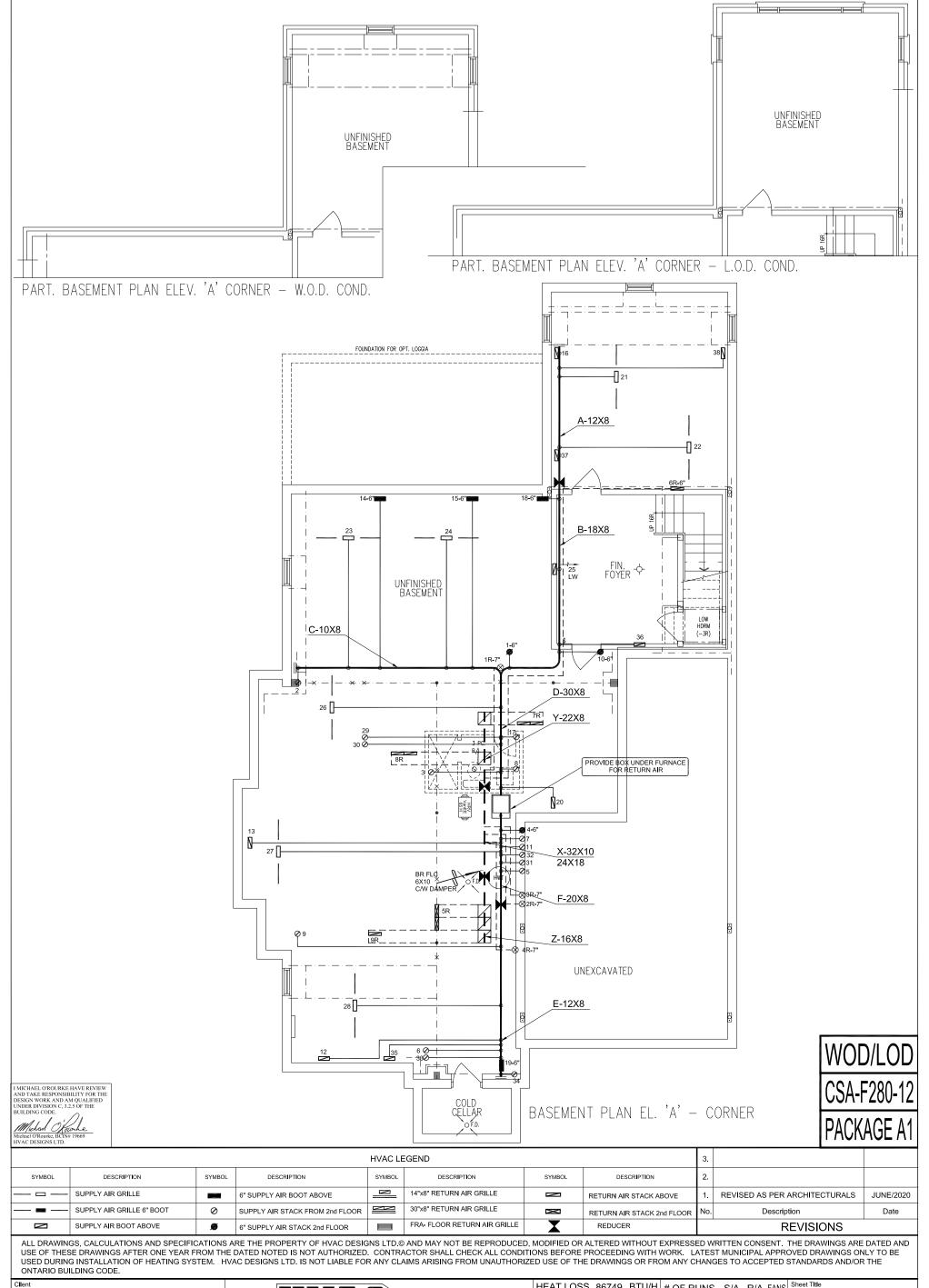
Supplemental tool for CAN/CSA-F280

Weather Stat	on Des	cript	ion		
Province:	Onta	rio			
Region:	Vaug	han (W	oodbr/	idge)	
Weather Station Location:	Open	flat te	rrain, į	grass	
Anemometer height (m):	10				
Local S	hieldin	g			
Building Site:	Subu	rban, f	orest		
Walls:	Heav	У			
Flue:	Heav	У			
Highest Ceiling Height (m):	7.01				
Building Co	nfigur	ation			
Туре:	Deta	ched			
Number of Stories:	Two				
Foundation:	Full				
House Volume (m³):	1822	.1			
Air Leakage	/Venti	latior	1		
Air Tightness Type:	Prese	nt (19	61-) (3	.57 ACI	Н)
Custom BDT Data:	ELA @	2 10 Pa	a.		2428.9 cm ²
	3.57				ACH @ 50 Pa
Mechanical Ventilation (L/s):	To	otal Sup	ply		Total Exhaust
, , ,		73.2			73.2
Flue	Size				
Flue #:	#1	#2	#3	#4	
Diameter (mm):	0	0	0	0	
Natural Infil	tration	Rate	es .		
Heating Air Leakage Rate (ACH/H)):	C	.34	0	
Cooling Air Leakage Rate (ACH/H)	:	C).11	8	

TYPE: 5004 THE BEAUMONT

LO# 80139

CORNER



GOLD PARK HOMES

Project Name

PINE VALLEY & TESTON VAUGHAN, ONTARIO

THE BEAUMONT 5004 - CORNER

4294 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

adequately insulated and be gas-proofed.

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

	055 86749	B10/H	# OF RUNS	S/A	R/A	FANS	One
_	JN I T DATA		3RD FLOOR				
MAKE							
	LENNOX		2ND FLOOR	18	5	6	
MODEL							
EL29	96110XE600		1ST FLOOR	12	4	2	
INPUT		MOTURE		_		_	Dat
	110	MBTU/H	BASEMENT	8	1	0	
-OUTPUT		MBTU/H	ALL S/A DIFFU	SEDS	/ "v10	· ·"	Sca
	106	INID TO/TT	UNLESS NOTE				
COOLING			ON LAYOUT. A				
	5.0	TONS	UNLESS NOTE				_
	0.0		UNLESS NOTE	DOIL	ILL KVV	ISE	

ON LAYOUT. UNDERCUT

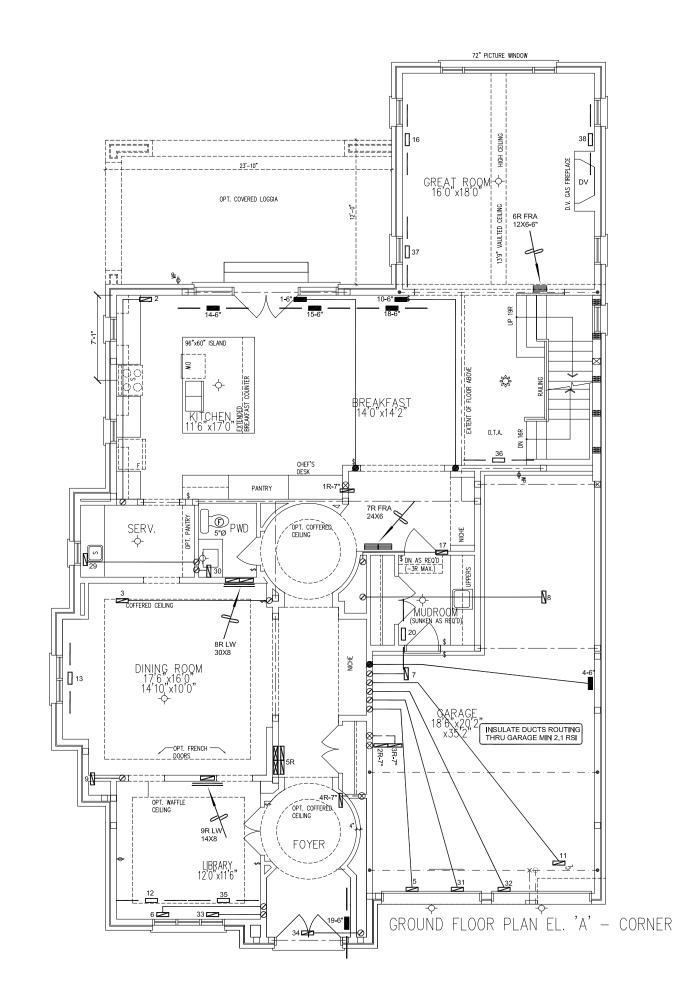
DOORS 1" min. FOR R/A

cfm @ 0.6" w.c.

FAN SPEED

1955

S	Sheet Title	
	BA	SEMENT
	Н	EATING
	L	.AYOUT
	Date (SEPT/2018
	Scale	1/8" = 1'-0"
3	В	CIN# 19669
	LO#	80139



WOD/LOD CSA-F280-12 PACKAGE A1

				HVAC LE	GEND			3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE	N	RETURN AIR STACK ABOVE	1.	REVISED AS PER ARCHITECTURALS	JUNE/2020
	SUPPLY AIR GRILLE 6" BOOT	0	SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE	×	RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE	Ø	6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE	X	REDUCER		REVISIONS	

ALL DRAWINGS, CALCULATIONS AND SPECIFICATIONS ARE THE PROPERTY OF HVAC DESIGNS LTD. 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.

Cllent

GOLD PARK HOMES

Project Name

PINE VALLEY & TESTON VAUGHAN, ONTARIO

THE BEAUMONT 5004 - CORNER

R 4294 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

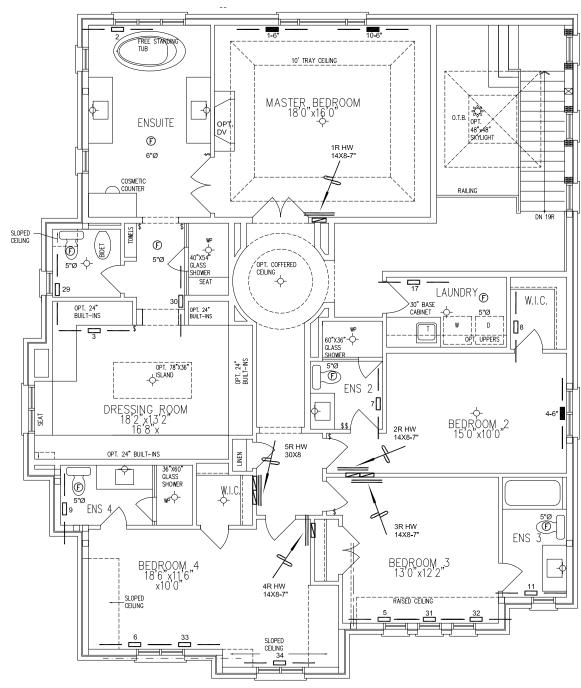
Specializing in Residential Mechanical Design Services

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.

FIRST FLOOR HEATING LAYOUT

Date SEPT/2018
Scale 1/8" = 1'-0"

BCIN# 19669



WOD/LOD CSA-F280-12

SECOND FLOOR PLAN EL. 'A' — CORNER

HAVE DESIGNS ETD.										
				HVAC LE	EGEND			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.	REVISED AS PER ARCHITECTURALS	JUNE/2020
	SUPPLY AIR GRILLE 6" BOOT	0	SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE	\bowtie	RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE	Ø	6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE	X	REDUCER		REVISIONS	

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Cllent

GOLD PARK HOMES

Project Name

PINE VALLEY & TESTON VAUGHAN, ONTARIO

THE BEAUMONT 5004 - CORNER

4294 sqft

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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 SEPT/2018

Scale 1/8" = 1'-0"

BCIN# 19669

Schedule 1: Designer Information

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

A. Pro	ject Information						
Building	number, street name					Unit no.	Lot/con.
Municipa	lity	Postal code	Plan numbe	r/ other des	cription		I
VAUGHAN	(WOODBRIDGE)						
B. Indiv	vidual who reviews and t	akes responsibility	for design ac	tivities			
Name			Firm				
	L O'ROURKE		HVAC DESI	GNS LTD.	It to it on		II at/aan
Street ad 375 FINL					Unit no. 202		Lot/con. N/A
Municipa		Postal code	Province		E-mail		1471
AJAX	,	L1S 2E2	ONTARIO		info@hvacde	esigns.ca	
Telephor	ne number	Fax number			Cell number		
(905) 61	9-2300	(905) 619-2375	5		()		
C. Desi	gn activities undertaken	by individual ident	ified in Sectio	n B. [Build	ding Code T	able 3.5.2.1 OI	F Division C]
☐ Hot	ISO.	□ □ □ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	C – House			Building Stru	uctural
	all Buildings		ing Services			l Plumbing –	
	ge Buildings		ction, Lighting	g and Pov		Plumbing –	
	mplex Buildings	☐ Fire F	Protection	T		l On-site Sew	age Systems
•	on of designer's work DSS / GAIN CALCULATION:	•		Model:	5004 THE BEA	TNOMUA	
DUCT SI		•			OPT 5 BED CO	ORNER	
	NTIAL MECHANICAL VENT	LATION DESIGN SUM	IMARY	Droinet	DINE VALLEY	O TECTON	
RESIDE	NTIAL SYSTEM DESIGN pe	r CSA-F280-12		Project.	PINE VALLEY	& TESTON	
D. Decl	aration of Designer						
1	MICHAEL O'ROUR	KE			declare	that (choose one	as appropriate):
		(print name)					
	I review and take responsi Division C, of the Building classes/categories.					section 3.2.4.of appropri	ate
	Individual BCIN Firm BCIN:	l:					
X	I review and take responsi designer" under subsec		l am qualified in sion C, of the Bu			as an "other	
	Individual BCIN	I: <u>19669</u>					
	Basis for exem	ption from registration a	and qualification	:	O.B.C SE	NTENCE 3.2.	4.1 (4)
	The design work is exemp Basis for exemption from r			cation requi	irements of the	Building Code.	
I certify t	hat:						
	 The information conta I have submitted this a 	ined in this sche application with the kno	edule is true to tl wledge and con				
	June 4, 2020				Mah	ul Oxfoun	Le.
	Date					Signature of	of Designer

NOTE

^{1.} For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d).of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.

^{2.} 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.



BUILDER: 0	PINE VA							TYPE:		BED CO	RNER AUMON	т		GFA:	4294			DATE:							URAL AII URAL AII						EAT LOSS EAT GAIN				SB-12	CSA-F280 PACKAGE
ROOM USE		- 0		MBR			ENS			WIC			BED-2	ļ.		BED-3			BED-4	1		ENS-2			WIC-2		E	BED-5	\neg	E	NS-3					
EXP. WALL				19			41		l	7			11			18			43			0			13			21			18					
CLG. HT.				10			9		l	9			9			9			10			9			9			9			9					
	FACTO	RS							l																											
GRS.WALL AREA	LOSS	GAIN		190			369		l	63		l	99			162			430			0			117			189			162					
GLAZING				LOSS	GAIN		LOSS	GAIN		LOSS	GAIN	l	LOSS	GAIN			GAIN		LOSS	GAIN		LOSS	GAIN		LOSS G	MIAS	- 1	LOSS	MIAS		OSS GAIN					
	21.3	15.8		0	0	0	0	0	0	0	OAIII	19	404	301		0	0	0	0	0	0	0	0	0	0	0	0	0	0		0 0	00				
1 TO THE RESERVE OF T	11.000	1322000	0		- 5	100	0	2.50	7.7	255	0	20.00	0		40	14000000	100000	20,000		- a (15-5)	0350	-	200	10000	222	200	N.533	1000	100	40	-31	0.00				
	21.3	39.9	0	0	0	0		0	0	0	0	0	10.00	0	42	894	1677	50	1064	1997	0	0	0	0	0	0	0	0	0		213 399	2.5				
	21.3	24.5	0	0	0	20	426	489	10	213	245	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.200	18		440	0	0 0					
	21.3	40.6	35	745	1420	28	596	1136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0					
	37.2	102.0	8	298	816	0	0	0	0	0	0	4	149	408	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0					
DOORS	25.2	4.6	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					
NET EXPOSED WALL	4.5	8.0	155	692	126	321	1433	260	53	237	43	80	357	65	120	536	97	380	1696	308	0	0	0	117	522	95	171	763	139	152	678 123	3				
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.7	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					
EXPOSED CLG	1.3	0.6	460	590	278	312	400	189	147	189	89	183	235	111	136	175	82	267	343	161	84	108	51	78	100	47 3	254	326	154	77	99 47					
NO ATTIC EXPOSED CLG	2.7	1.3	0	0	0	0	0	0	0	0	0	0	0	0	60	165	78	150	412	194	0	0	0	0	0	0	0	0	0	0	0 0					
EXPOSED FLOOR	2.6	0.5	0	0	0	0	0	0	0	0	0	187	477	87	196	500	91	20	51	9	45	115	21	78	199	36	0	0	0	77	196 36					
BASEMENT/CRAWL HEAT LOSS	(2)	15000	37597	0	67	- T	0	5,53	- 2	0	570	57.65	0	570	37.0	0	881	(604)	0	100	5450%	0	37/52	6.570	0	10072	1000	0	1273	100	0	1				
SLAB ON GRADE HEAT LOSS				0			0		l	0			0			0			0			0			0			0			0					
SUBTOTAL HT LOSS	į.			2325			2854		l	638			1622			2269			3566			223			821			1472			186	1				
SUB TOTAL HT GAIN				2323	2640		2004	2074	l	000	376		1022	971		2200	2025		2000	2669		220	72			178			733		605					
			0.00	0.00	2040	0.00	0.22	2014	0.00	0.22	3/6	0.00	0.00	9/1		0.00	2025	0.00	0.22	2009	0.00	0.00	12	0.00		0.00	200		133	0.20		1				
LEVEL FACTOR / MULTIPLIER	l		0.20			0.20			0.20	0.33		0.20			0.20	0.33		0.20	0.33		0.20	0.33		0.20		10	0.20				0.33					
AIR CHANGE HEAT LOSS				771			946		l	212			538			752			1182			74			272			488		3	393					
AIR CHANGE HEAT GAIN					219			172	l		31			81			168			222			6			15			61		50					
DUCTLOSS	į.			0			0		l	0		l	216			302			475			30			109			0			158					
DUCT GAIN					0			0	l		0			241			355			425			8			19			0		65					
HEAT GAIN PEOPLE	240		2		480	0		0	0		0	1		240	1		240	1		240	0		0	0		0	0		0	0	0					
HEAT GAIN APPLIANCES/LIGHTS			=0		1115	1		0	100		0			1115			1115	400		1115			0			0			1115		0					
TOTAL HT LOSS BTU/H				3096			3801		l	850			2376			3323	11000		5223			326	- 1		1203	020		1960	= 723	1	738					
TOTAL HT GAIN x 1.3 BTU/H					5791			2920	l		530			3442			5074			6072			111			276		- 33	2481		937					
						_																														
ROOM USE				LIBR			DIN			KIT			GREAT			LAUN			ENS-4			FOY			MUD				\neg				LOD)		BAS
EXP. WALL				27			20		l	113			56			0			6			37			18								71			240
CLG. HT.				11			11		l	11			16			9						11			13								10			10
r	FACTO	RS							l			ı							9										- 1							
GRS.WALL AREA L	1000											ı							9																	
		0.000		297		l	220		l	1243			896			0			54			407			234								710			2106
GLAZING	LUSS	0.000			GAIN		LOSS	GAIN			GAIN			GAIN			GAIN		54	GAIN			GAIN			SAIN										
GLAZING	to constant	GAIN	0	LOSS		0	LOSS	GAIN	39	LOSS		28	LOSS		0	0 LOSS	GAIN	0	54 LOSS	GAIN	0	LOSS	GAIN	0	LOSS C	3.75.50						4	LOSS	S GAIN	12	LOSS GA
NORTH	21.3	GAIN 15.8	0	LOSS 0	0	0	LOSS	0	39	LOSS 830	618	28	LOSS 596	444	0		0	0	54 LOSS 0	0	0	LOSS	0	0	LOSS C	0						4 25	LOSS 85	S GAIN 63	12	LOSS GA 255 19
NORTH EAST	21.3 21.3	15.8 39.9	38	0 809	0 1517	0	LOSS 0 0	0	0	830 0	618 0	0	LOSS 596 0	444 0	0		0	0	54 LOSS 0	0	6	0 128	0 240	0	LOSS C	0						4 25	LOSS	63 998	0	LOSS GA 255 19
NORTH EAST SOUTH	21.3 21.3 21.3	15.8 39.9 24.5	38 0	0 809 0	0 1517 0	0 22	0 0 468	0 0 538	0 20	830 0 426	618 0 489	0 28	LOSS 596 0 596	444 0 685	0		0 0	0 8	54 LOSS 0 0	0 0 196	6	0 128 0	0 240 0	0	0 0 0	0 0						0	LOSS 85	63 998 0	0	LOSS GA 255 19 0 0
NORTH EAST SOUTH WEST	21.3 21.3 21.3 21.3	15.8 39.9 24.5 40.6	38 0 0	0 809 0	0 1517 0 0	0 22 0	0 0 468 0	0 0 538 0	0 20 110	830 0 426 2341	618 0 489 4462	0 28 58	596 0 596 1234	444 0 685 2353	0	0 0 0 0	0 0 0	0 8 0	54 LOSS 0 0 170	0 0 196 0	6 0 0	0 128 0 0	0 240 0 0	0	0 0 0 0	0 0 0						0	85 532 0	63 998 0 0	0 0 0	LOSS GA 255 19 0 0 0 0
NORTH EAST SOUTH WEST SKYLT.	21.3 21.3 21.3 21.3 37.2	15.8 39.9 24.5 40.6 102.0	38 0 0	0 809 0 0	0 1517 0 0	0 22 0 0	0 0 468 0	0 0 538 0	0 20 110 0	830 0 426 2341 0	618 0 489 4462 0	0 28 58 0	596 0 596 1234 0	444 0 685 2353 0	0 0 0 4		0 0 0 0 408	0 8 0	54 LOSS 0 0 170 0	0 0 196 0	6 0 0	0 128 0 0	0 240 0 0	0 0 0	0 0 0 0	0 0 0 0						0	LOSS 85	63 998 0 0	0 0 0	LOSS GA 255 19 0 0 0 0
NORTH EAST SOUTH WEST SKYLT. DOORS	21.3 21.3 21.3 21.3 37.2 25.2	15.8 39.9 24.5 40.6 102.0 4.6	38 0 0 0	0 809 0 0 0	0 1517 0 0 0	0 22 0 0	0 0 468 0 0	0 0 538 0 0	0 20 110 0	830 0 426 2341 0	618 0 489 4462 0 0	0 28 58 0	596 0 596 1234 0	0 685 2353 0 0	0 0 0 4	0 0 0 0	0 0 0 0 408	0 8 0 0	54 LOSS 0 0 170 0 0	0 0 196 0 0	6 0 0 0 40	0 128 0 0 0 1010	0 240 0 0 0 183	0 0 0 0 20	0 0 0 0 0 0 0 505	0 0 0 0 0 0						0 0	85 532 0 0 0	63 998 0 0 0	0 0 0 0 20	LOSS GA 255 19 0 0 0 0 0 0 505 9
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL	21.3 21.3 21.3 21.3 37.2 25.2 4.5	15.8 39.9 24.5 40.6 102.0 4.6 0.8	38 0 0 0 0 0 259	0 809 0 0 0 0 1156	0 1517 0 0	0 22 0 0 0 0	0 0 468 0 0 0 884	0 0 538 0 0 0	0 20 110 0 0 1074	USS 830 0 426 2341 0 0 4793	618 0 489 4462 0 0 870	0 28 58 0	LOSS 596 0 596 1234 0 0 3490	444 0 685 2353 0 0 634	0 0 0 4 0	LOSS 0 0 0 0 149 0	0 0 0 0 408 0	0 8 0 0 0 46	54 LOSS 0 0 170 0 0 205	0 0 196 0 0 0 37	6 0 0 0 40 361	0 128 0 0 0 1010 1611	0 240 0 0 0 183 293	0 0 0 0 20 214	0 0 0 0 0 0 0 505 955	0 0 0 0 0 0 92						0 0 0	85 532 0 0 0 0	63 998 0 0 0 0	0 0 0 0 20	LOSS GA 255 19 0 0 0 0 0 0 505 9
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMT WALL ABOVE GR	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6	15.8 39.9 24.5 40.6 102.0 4.6 0.8 0.7	38 0 0 0	0 809 0 0 0	0 1517 0 0 0	0 22 0 0 0 0 198	0 0 468 0 0 0 884	0 0 538 0 0 0 160	0 20 110 0 0 1074	830 0 426 2341 0 0 4793	618 0 489 4462 0 0 870	0 28 58 0 0 782	LOSS 596 0 596 1234 0 0 3490 0	444 0 685 2353 0 0 634 0	0 0 0 4 0 0	LOSS 0 0 0 0 149 0 0	0 0 0 408 0 0	0 8 0 0 0 46	54 LOSS 0 0 170 0 0 0 205	0 0 196 0 0 0 37	6 0 0 40 361 0	0 128 0 0 0 1010	0 240 0 0 0 183 293	0 0 0 0 20 214	0 0 0 0 0 0 0 505	0 0 0 0 0 92 173						0 0 0 0 0 397	85 532 0 0 0	63 998 0 0 0 0 0 0	0 0 0 0 20	LOSS GA 255 19 0 0 0 0 0 0 505 9
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL	21.3 21.3 21.3 21.3 37.2 25.2 4.5	15.8 39.9 24.5 40.6 102.0 4.6 0.8	38 0 0 0 0 0 259	0 809 0 0 0 0 1156	0 1517 0 0 0 0 210	0 22 0 0 0 0	0 0 468 0 0 0 884	0 0 538 0 0 0	0 20 110 0 0 1074	USS 830 0 426 2341 0 0 4793	618 0 489 4462 0 0 870	0 28 58 0 0 782	LOSS 596 0 596 1234 0 0 3490	444 0 685 2353 0 0 634	0 0 0 4 0	LOSS 0 0 0 0 149 0	0 0 0 0 408 0	0 8 0 0 0 46	54 LOSS 0 0 170 0 0 205	0 0 196 0 0 0 37	6 0 0 0 40 361	0 128 0 0 0 1010 1611	0 240 0 0 0 183 293	0 0 0 0 20 214	0 0 0 0 0 0 0 505 955	0 0 0 0 0 0 92						0 0 0	85 532 0 0 0 0	63 998 0 0 0 0	0 0 0 0 20	LOSS GA 255 19 0 0 0 0 0 0 505 9
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMT WALL ABOVE GR	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6	15.8 39.9 24.5 40.6 102.0 4.6 0.8 0.7	38 0 0 0 0 0 259	0 809 0 0 0 0 1156	0 1517 0 0 0 0 210	0 22 0 0 0 0 198	0 0 468 0 0 0 884	0 0 538 0 0 0 160	0 20 110 0 0 1074	830 0 426 2341 0 0 4793	618 0 489 4462 0 0 870	0 28 58 0 0 782	LOSS 596 0 596 1234 0 0 3490 0	444 0 685 2353 0 0 634 0	0 0 0 4 0 0	LOSS 0 0 0 0 149 0 0	0 0 0 408 0 0	0 8 0 0 0 46	54 LOSS 0 0 170 0 0 0 205	0 0 196 0 0 0 37	6 0 0 40 361 0	0 128 0 0 0 1010 1611 0	0 240 0 0 0 183 293	0 0 0 0 20 214	0 0 0 0 0 0 505 955	0 0 0 0 0 92 173						0 0 0 0 0 397	85 532 0 0 0 0	63 998 0 0 0 0 0 0	0 0 0 0 20 0 294	LOSS GA 255 19 0 0 0 0 0 0 505 9 0 0 1058 19
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3	15.8 39.9 24.5 40.6 102.0 4.6 0.8 0.7 0.6	38 0 0 0 0 259 0	0 809 0 0 0 0 1156 0	0 1517 0 0 0 0 210 0	0 22 0 0 0 198 0	0 0 468 0 0 0 884 0	0 0 538 0 0 0 160 0	0 20 110 0 0 1074 0 192	LOSS 830 0 426 2341 0 0 4793 0 246	618 0 489 4462 0 0 870 0	0 28 58 0 0 782 0	LOSS 596 0 596 1234 0 0 3490 0	444 0 685 2353 0 0 634 0	0 0 0 4 0 0 0 139	LOSS 0 0 0 0 149 0 0 0	0 0 0 408 0 0 0	0 8 0 0 0 46 0	54 LOSS 0 0 170 0 0 205 0 77	0 0 196 0 0 0 37 0 36	6 0 0 40 361 0	LOSS 0 128 0 0 0 1010 1611 0	0 240 0 0 0 183 293 0	0 0 0 20 214 0	0 0 0 0 0 0 505 955 0	0 0 0 0 0 92 173 0						0 0 0 0 0 397	85 532 0 0 0 0	S GAIN 63 998 0 0 0 0 0 0 259	0 0 0 0 20 0 294	LOSS GA 255 19 0 0 0 0 0 0 505 9 0 0 1058 19
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED USMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 40.6 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 1156 0 0	0 1517 0 0 0 0 210 0	0 22 0 0 0 198 0 0	LOSS 0 0 468 0 0 0 884 0 0 0 0	0 0 538 0 0 0 160 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0	618 0 489 4462 0 0 870 0 116	0 28 58 0 0 782 0 0 342	LOSS 596 0 596 1234 0 0 3490 0 0	444 0 685 2353 0 0 634 0 0 443	0 0 0 4 0 0 0 139	LOSS 0 0 0 0 149 0 0 178 0	0 0 0 408 0 0 0 84	0 8 0 0 0 46 0 60	54 LOSS 0 0 170 0 0 0 205 0 77	0 0 196 0 0 0 37 0 36	6 0 0 40 361 0	LOSS 0 128 0 0 0 1010 1611 0 0	0 240 0 0 0 183 293 0 0	0 0 0 20 214 0 0	USS 0 0 0 0 0 0 505 955 0 0	0 0 0 0 0 92 173 0						0 0 0 0 0 397 0	85 532 0 0 0 0 0 1429 0	S GAIN 63 998 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 20 0 294 0	LOSS GA 255 19 0 0 0 0 0 0 505 9 0 0 1058 19 0 0
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED SMTWALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 40.6 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1517 0 0 0 0 210 0	0 22 0 0 0 198 0 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 538 0 0 0 160 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0	618 0 489 4462 0 0 870 0 116	0 28 58 0 0 782 0 0 342	LOSS 596 0 596 1234 0 0 3490 0 0	444 0 685 2353 0 0 634 0 0 443	0 0 0 4 0 0 0 139	LOSS 0 0 0 0 149 0 0 178 0	0 0 0 408 0 0 0 84	0 8 0 0 0 46 0 60	54 LOSS 0 0 170 0 0 0 205 0 77 0	0 0 196 0 0 0 37 0 36	6 0 0 40 361 0	LOSS 0 128 0 0 0 1010 1611 0 0	0 240 0 0 0 183 293 0 0	0 0 0 20 214 0 0	USS 0 0 0 0 0 0 505 955 0 0	0 0 0 0 0 92 173 0						0 0 0 0 0 397 0	85 532 0 0 0 0 0 1429 0	S GAIN 63 998 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 20 0 294 0	LOSS GA 255 18 0 0 0 0 0 0 505 9 0 0 1058 18 0 0
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMTWALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENTICRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 40.6 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1517 0 0 0 0 210 0	0 22 0 0 0 198 0 0	LOSS 0 0 468 0 0 0 0 884 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 538 0 0 0 160 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0	618 0 489 4462 0 0 870 0 116	0 28 58 0 0 782 0 0 342	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0	444 0 685 2353 0 0 634 0 0 443	0 0 0 4 0 0 0 139	LOSS 0 0 0 0 149 0 0 0 178 0 191 0 0	0 0 0 408 0 0 0 84	0 8 0 0 0 46 0 60	54 LOSS 0 0 170 0 0 205 0 77 0 0	0 0 196 0 0 0 37 0 36	6 0 0 40 361 0	LOSS 0 128 0 0 1010 1611 0 0 0 0 0 0 0 0 0 0 0 0 0	0 240 0 0 0 183 293 0 0	0 0 0 20 214 0 0	LOSS 0 0 0 0 0 0 505 955 0 0 0	0 0 0 0 0 92 173 0						0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 259 0 0	0 0 0 0 20 0 294 0	LOSS GA 255 18 0 0 0 0 0 0 505 9 0 0 1058 18 0 0 0 0 8413
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMTWALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 40.6 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1517 0 0 0 0 210 0 0	0 22 0 0 0 198 0 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 538 0 0 0 160 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0	618 0 489 4462 0 870 0 116 0	0 28 58 0 0 782 0 0 342	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 0	444 0 685 2353 0 0 634 0 0 443	0 0 0 4 0 0 0 139	LOSS 0 0 0 0 149 0 0 0 178 0 191 0	0 0 0 408 0 0 0 84 0 35	0 8 0 0 0 46 0 60	54 LOSS 0 0 170 0 0 205 0 77 0 0	0 0 196 0 0 0 37 0 36 0	6 0 0 40 361 0	LOSS 0 128 0 0 1010 1611 0 0 0 0 0	0 240 0 0 0 183 293 0 0	0 0 0 20 214 0 0	LOSS 0 0 0 0 0 0 505 955 0 0 0 0	0 0 0 0 0 92 173 0 0						0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 20 0 294 0	LOSS GA 255 18 0 0 0 0 0 0 505 9 0 0 1058 18 0 0 0 0 8413
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUB TOTAL HT GAIN	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 40.6 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964	0 1517 0 0 0 0 210 0	0 22 0 0 0 198 0 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 0 1352	0 0 538 0 0 0 160 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	618 0 489 4462 0 0 870 0 116	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 6856	444 0 685 2353 0 0 634 0 0 443	0 0 0 4 0 0 0 139 0 75	LOSS 0 0 0 149 0 0 178 0 191 0 519	0 0 0 408 0 0 0 84	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 205 0 77 0 0 0 0 453	0 0 196 0 0 0 37 0 36	6 0 0 40 361 0 0	LOSS 0 128 0 0 1010 1611 0 0 0 2749	0 240 0 0 0 183 293 0 0	0 0 0 20 214 0 0	LOSS 0 0 0 0 0 0 505 955 0 0 0 0	0 0 0 0 0 92 173 0						0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 259 0 0	0 0 0 20 0 294 0 0	LOSS GA 255 18 0 0 0 0 0 0 0 0 0 0 1058 18 0 0 0 0 8413 10232
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED GLG EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON CRADE HEAT LOSS SUBTOTAL HT CAIN LEVEL FACTOR / MULTIPLIER	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 40.6 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.39	0 1517 0 0 0 0 210 0 0	0 22 0 0 0 198 0 0	LOSS 0 468 0 0 884 0 0 0 1352	0 0 538 0 0 0 160 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	618 0 489 4462 0 870 0 116 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 0 0 6856 0.39	444 0 685 2353 0 0 634 0 0 443	0 0 0 4 0 0 0 139	LOSS 0 0 0 0 149 0 0 178 0 191 0 0 519 0 0 33	0 0 0 408 0 0 0 84 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 205 0 77 0 0 0 453	0 0 196 0 0 0 37 0 36 0	6 0 0 40 361 0 0	LOSS 0 128 0 0 0 1010 1611 0 0 0 0 2749 0.39	0 240 0 0 0 183 293 0 0	0 0 0 20 214 0 0	LOSS 0 0 0 0 0 505 955 0 0 0 1460	0 0 0 0 0 92 173 0 0						0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 20 0 294 0	LOSS GA 255 18 0 0 0 0 0 0 505 9 0 0 1058 18 0 0 0 0 8413 10232
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMTWALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SUBTOTAL HT LOSS SUBTOTAL HT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 40.6 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964	0 1517 0 0 0 210 0 0 0	0 22 0 0 0 198 0 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 0 1352	0 0 538 0 0 0 160 0 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	618 0 489 4462 0 0 870 0 116 0 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 6856	444 0 685 2353 0 0 634 0 443 0	0 0 0 4 0 0 0 139 0 75	LOSS 0 0 0 149 0 0 178 0 191 0 519	0 0 0 408 0 0 0 84 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 205 0 77 0 0 0 0 453	0 0 196 0 0 0 37 0 36 0 0	6 0 0 40 361 0 0	LOSS 0 128 0 0 1010 1611 0 0 0 2749	0 240 0 0 0 183 293 0 0 0	0 0 0 20 214 0 0	LOSS 0 0 0 0 0 0 505 955 0 0 0 0	0 0 0 0 92 173 0 0 0						0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 20 0 294 0 0	LOSS GA 255 15 0 0 0 0 0 0 505 9 0 0 1058 15 0 0 0 0 8413 10232 47 1.21 14877
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL MET EXPOSED BSMITWALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENTICRAWL HEAT LOSS SLAB ON CRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 40.6 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.39 762	0 1517 0 0 0 0 210 0 0	0 22 0 0 0 198 0 0	LOSS 0 468 0 0 0 884 0 0 0 0 1352 0.39 524	0 0 538 0 0 0 160 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	618 0 489 4462 0 870 0 116 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 6856 0.39 2659	444 0 685 2353 0 0 634 0 0 443	0 0 0 4 0 0 0 139 0 75	LOSS 0 0 0 0 149 0 0 178 0 191 0 0 519 0.33 172	0 0 0 408 0 0 0 84 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 0 205 0 77 0 0 0 453	0 0 196 0 0 0 37 0 36 0	6 0 0 40 361 0 0	LOSS 0 128 0 0 1010 10110 0 0 0 0 2749 0.39 1066	0 240 0 0 0 183 293 0 0	0 0 0 20 214 0 0	LOSS 0 0 0 0 0 0 505 955 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 92 173 0 0						0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 20 0 294 0 0	LOSS GA 255 15 0 0 0 0 0 0 0 0 1058 15 0 0 0 0 1058 15 0 0 1058 15 10232 47 1.21 14877
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG EXPOSED FLOOR BASEMENTICRAWL HEAT LOSS SLAB ON CRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT GAIN DUCT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.8 39.9 24.5 40.6 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.39	0 1517 0 0 0 210 0 0 0 0	0 22 0 0 0 198 0 0	LOSS 0 468 0 0 884 0 0 0 1352	0 0 538 0 0 0 160 0 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	618 0 489 4462 0 870 0 116 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 0 0 6856 0.39	444 0 685 2353 0 0 634 0 0 443 0	0 0 0 4 0 0 0 139 0 75	LOSS 0 0 0 0 149 0 0 178 0 191 0 0 519 0 0 33	0 0 0 0 408 0 0 0 84 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 205 0 77 0 0 0 453	0 0 196 0 0 0 37 0 36 0 0	6 0 0 40 361 0 0	LOSS 0 128 0 0 0 1010 1611 0 0 0 0 2749 0.39	0 240 0 0 0 183 293 0 0 0 716	0 0 0 20 214 0 0	LOSS 0 0 0 0 0 505 955 0 0 0 1460	0 0 0 0 0 92 173 0 0 0						0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 20 0 294 0 0	LOSS GA 255 18 0 0 0 0 0 0 0 0 0 0 1058 18 0 0 0 0 0 0 1058 18 0 0 0 0 1058 18 1058 18
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMIT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS DUCT GAIN	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	15.8 39.9 24.5 40.6 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.39 762	0 1517 0 0 0 210 0 0 0	0 22 0 0 0 198 0 0	LOSS 0 468 0 0 0 884 0 0 0 0 1352 0.39 524	0 0 538 0 0 0 160 0 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	618 0 489 4462 0 870 0 116 0 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 6856 0.39 2659	444 0 685 2353 0 0 634 0 0 443 0 4558	0 0 0 4 0 0 0 139 0 75	LOSS 0 0 0 0 149 0 0 178 0 191 0 0 519 0.33 172	0 0 0 0 408 0 0 0 84 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 0 205 0 77 0 0 0 453	0 0 196 0 0 0 37 0 36 0 0	6 0 0 40 361 0 0	LOSS 0 128 0 0 1010 10110 0 0 0 0 2749 0.39 1066	0 240 0 0 0 183 293 0 0 0	0 0 0 20 214 0 0	LOSS 0 0 0 0 0 0 505 955 0 0 0 0 0 0 0 0 0 0	0 0 0 0 92 173 0 0 0						0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 0 259 0 0 0	0 0 0 20 0 294 0 0	LOSS GA 255 15 0 0 0 0 0 0 0 0 1058 15 0 0 0 0 1058 15 0 0 1058 15 10232 47 1.21 14877
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON CRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MUL TIPLIER AIR CHANGE HEAT GAIN DUCT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	15.8 39.9 24.5 40.6 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.39 762	0 1517 0 0 0 210 0 0 0 0	0 22 0 0 0 198 0 0	LOSS 0 468 0 0 0 884 0 0 0 0 1352 0.39 524	0 0 538 0 0 0 160 0 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	618 0 489 4462 0 870 0 116 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 6856 0.39 2659	444 0 685 2353 0 0 634 0 0 443 0	0 0 0 4 0 0 0 139 0 75	LOSS 0 0 0 0 149 0 0 178 0 191 0 0 519 0.33 172	0 0 0 0 408 0 0 0 84 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 0 205 0 77 0 0 0 453	0 0 196 0 0 0 37 0 36 0 0	6 0 0 40 361 0 0	LOSS 0 128 0 0 1010 10110 0 0 0 0 2749 0.39 1066	0 240 0 0 0 183 293 0 0 0 716	0 0 0 20 214 0 0 0	LOSS 0 0 0 0 0 0 505 955 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 92 173 0 0 0						0 0 0 0 0 397 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 20 0 294 0 0	LOSS GA 255 18 0 0 0 0 0 0 0 0 0 0 1058 18 0 0 0 0 0 0 1058 18 0 0 0 0 1058 18 1058 18
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED SMIT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS DUCT GAIN	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	15.8 39.9 24.5 40.6 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.39 762	0 1517 0 0 0 210 0 0 0 0 1727	0 22 0 0 0 198 0 0 0	LOSS 0 468 0 0 0 884 0 0 0 0 1352 0.39 524	0 0 538 0 0 0 160 0 0 0	0 20 110 0 0 1074 0 192 0 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	618 0 489 4462 0 870 0 116 0 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 6856 0.39 2659	444 0 685 2353 0 0 634 0 0 443 0 4558	0 0 0 4 0 0 0 139 0 75	LOSS 0 0 0 0 149 0 0 178 0 191 0 0 519 0.33 172	0 0 0 0 408 0 0 0 84 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 0 205 0 77 0 0 0 453	0 0 196 0 0 0 37 0 36 0 0	6 0 0 40 361 0 0 0	LOSS 0 128 0 0 1010 10110 0 0 0 0 2749 0.39 1066	0 240 0 0 183 293 0 0 0 716	0 0 0 20 214 0 0 0	LOSS 6 0 0 0 0 505 955 0 0 0 1460 0.39 566	0 0 0 0 0 0 92 173 0 0 0 0						0 0 0 0 397 0 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 0 259 0 0 0	0 0 0 20 0 294 0 0	LOSS GA 255 18 0 0 0 0 0 0 505 9 0 0 1058 18 0 0 0 0 8413 10232 47 1.21 14877
NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMTWALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG NO ATTIC EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUB TOTAL HT LOSS AIR CHANGE HEAT GAIN DUCT LOSS DUCT GAIN HEAT GAIN PEOPLE	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	15.8 39.9 24.5 40.6 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.39 762	0 1517 0 0 0 0 210 0 0 0 0 1727	0 22 0 0 0 198 0 0 0	LOSS 0 468 0 0 0 884 0 0 0 0 1352 0.39 524	0 0 538 0 0 0 0 0 0 0 0 0 0	0 20 110 0 0 1074 0 192 0 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	618 0 489 4462 0 870 0 116 0 6556	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 6856 0.39 2659	4444 0 685 2353 0 0 634 0 0 443 0 0 4558	0 0 0 4 0 0 0 139 0 75	LOSS 0 0 0 0 149 0 0 178 0 191 0 0 519 0.33 172	0 0 0 0 408 0 0 0 0 84 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 0 205 0 77 0 0 0 453	0 0 196 0 0 0 37 0 36 0 0	6 0 0 40 361 0 0 0	LOSS 0 128 0 0 1010 10110 0 0 0 0 2749 0.39 1066	0 240 0 0 183 293 0 0 0 0 716	0 0 0 20 214 0 0 0	LOSS 6 0 0 0 0 505 955 0 0 0 1460 0.39 566	0 0 0 0 0 0 92 1773 0 0 0 0						0 0 0 0 397 0 0	LOSS 85 532 0 0 0 0 1429 0 0	S GAIN 63 998 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 20 0 294 0 0 0	LOSS GA 255 18 0 0 0 0 0 0 505 9 0 0 1058 18 0 0 0 0 8413 10232 47 1.21 14877

TOTAL HEAT GAIN BTU/H:

61222

TONS: 5.10

LOSS DUE TO VENTILATION LOAD BTU/H: 3181

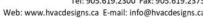
STRUCTURAL HEAT LOSS: 84354

TOTAL COMBINED HEAT LOSS BTU/H: 87534

Michael Oxounde.



		: PINE VA							OPT 5 B 5004 TH	E BEAU			DATE:	Jun-20			GFA:	4294	LO#	80141				
HEATING CFM TOTAL HEAT LOSS AIR FLOW RATE CFM	84,354	A	TOTAL H	OLING CFM HEAT GAIN RATE CFM	60,645		a	furr a/c coil vailable	pressure pressure pressure s/a & r/a							EL	. 296UH11 FAN		LENNOX 110			AFUE = (BTU/H) = (BTU/H) =	110,000	
RUN COUNT S/A	4th 0	3rd 0	2nd 18	1st 12	Bas 8	1	nle		ssure s/a			r/0	pressure	0.17				EDLOW	1380 1505		DESIG	GN CFM = CFM @ .6		
R/A	0	0	6	4	1				ess. loss	0.03	r/a		ess. Loss					M HIGH	1685			CFW W.	D E.O.F.	
All S/A diffusers 4"x10" unl				out.			min adj	usted pre	ssure s/a	0.15	adj	usted pre	ssure r/a	0.15				HIGH	1955	Т	EMPERATI	URE RISE	50	_ °F
All S/A runs 5"Ø unless not RUN#	tea otne	rwise on i	ayout.	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	BED-5	BED-2	BED-3	BED-4	ENS-2	WIC-2	ENS-4	MBR	ENS-3	LIBR	DIN	KIT	KIT	GREAT	LAUN	KIT	FOY	MUD	BAS	BAS	BAS	BAS
RM LOSS MBH.	1.55	2.40	1.96	2.38	1.11	1.74	0.33	1.20	0.60	1.55	1.74	1.36	1.88	3.00	3.00	3.17	0.76	3.00	3.81	2.03	3.39	3.39	3.39	3.39
CFM PER RUN HEAT RM GAIN MBH.	36 2.90	56 1.86	45 2.48	55 3.44	26 1.69	40 2.02	0.11	28 0.28	14 0.38	36 2.90	40 0.94	32 1.94	2.43	69 2.67	69 2.67	74 2.62	18 2.41	69 2.67	1.01	1.82	79 0.32	79 0.32	79 0.32	79 0.32
CFM PER RUN COOLING	93	60	80	111	55	65	4	9	12	93	30	63	78	86	86	85	78	86	32	59	10	10	10	10
ADJUSTED PRESSURE	0.16	0.17	0.17	0.15	0.17	0.17	0.17	0.17	0.17	0.16	0.17	0.17	0.17	0.16	0.16	0.16	0.17	0.16	0.16	0.17	0.17	0.17	0.17	0.17
ACTUAL DUCT LGH.	46	62	29	34	38	50	28	31	43	54	41	41	27	40	32	49	26	36	24	16	50	50	39	35
EQUIVALENT LENGTH	190	140	180	180	120	150	160	150	190	180	160	180	80	140	150	130	150	140	150	130	130	140	100	102
TOTAL EFFECTIVE LENGTH ADJUSTED PRESSURE	236 0.07	0.09	209	214 0.07	158 0.11	0.09	188	181 0.1	233	234 0.07	0.09	221 0.08	107 0.16	180	182	179	176 0.1	176 0.09	174	146 0.12	180	190	139 0.12	137 0.13
ROUND DUCT SIZE	6	5	5	6	4	5	4	4	4	6	4	5	5	5	5	5	5	5	5	4	5	5	5	5
HEATING VELOCITY (ft/min)	184	411	330	280	298	294	92	321	161	184	459	235	316	507	507	543	132	507	646	539	580	580	580	580
COOLING VELOCITY (ft/min)	474	441	587	566	631	477	46	103	138	474	344	463	573	631	631	624	573	631	235	677	73	73	73	73
OUTLET GRILL SIZE	4X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	В	С	D	F	F	E	F	D	E	В	F	E	F	С	С	A	D	В	E	D	Α	A	С	С
RUN#	25	26	27	28	29	30	31	32	33	34	35	36	37	38										
ROOM NAME	BAS	BAS	BAS	BAS	WIC	ENS	BED-3	BED-3	BED-4	BED-4	LIBR	KIT	GREAT	GREAT										
RM LOSS MBH.	3.39	3.39	3.39	3.39	1.35	0.90	1.11	1.11	1.74	1.74	1.36	3.00	3.17	3.17										
CFM PER RUN HEAT	79 0.32	79 0.32	79 0.32	79 0.32	31 0.93	21 0.66	26 1.69	26 1.69	40 2.02	40 2.02	32 1.94	69 2.67	74 2.62	74 2.62										
RM GAIN MBH. CFM PER RUN COOLING	10	10	10	10	30	21	55	55	65	65	63	86	85	85										
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16										
ACTUAL DUCT LGH.	37	23	17	31	34	33	42	46	47	40	35	28	39	64										
EQUIVALENT LENGTH	120	80	120	150	140	140	130	140	150	130	140	150	150	150										
TOTAL EFFECTIVE LENGTH	157	0.17	137 0.13	181	174 0.1	173 0.1	172 0.1	186	197 0.09	170 0.1	175 0.1	178 0.09	189	214 0.08										
ADJUSTED PRESSURE ROUND DUCT SIZE	0.11	5	5	0.1 5	4	4	4	5	5	5	5	5	5	6										
HEATING VELOCITY (ft/min)	580	580	580	580	356	241	298	191	294	294	235	507	543	377										
COOLING VELOCITY (ft/min)	73	73	73	73	344	241	631	404	477	477	463	631	624	433										
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10										
TRUNK	В	D		E	D	D		- г	E		E	В	Α	Α										
SUPPLY AIR TRUNK SIZE	Section (Section	VISIONATORIO	10000000000	(2000)			10121070971-0110			CABANOSS	Joseph Howard	5000000000	A104/21/23			1904 territoria	RETURN A			50000300	20543.2483			to Charles
	TRUNK	STATIC	ROUND	RECT			VELOCITY			TRUNK	STATIC	ROUND	RECT			VELOCITY		TRUNK	STATIC	ROUND	RECT			VELOCITY
TRUNK A	380	PRESS. 0.08	9.8	DUCT 12	×	8	(ft/min) 570		TRUNK G	CFM O	0.00	DUCT	DUCT	×	8	(ft/min)	TRUNK O	CFM O	0.05	DUCT	DUCT	×	8	(ft/min)
TRUNK B	669	0.07	12.5	18	x	8	669		TRUNK H	0	0.00	0	0	×	8	0	TRUNK P	0	0.05	0	0	×	8	Ö
TRUNK C	352	0.09	9.2	10	×	8	634		TRUNK I	Ö	0.00	O	o	×	8	o	TRUNK Q	ō	0.05	o	o	×	8	o
TRUNK D	1290	0.07	15.9	30	x	8	774		TRUNK J	0	0.00	0	0	x	8	0	TRUNK R	0	0.05	0	0	×	8	0
TRUNK E TRUNK F	365 668	0.07	9.9 12.5	12 20	×	8	548 601		TRUNK K	0	0.00	0	0	×	8	0	TRUNK S	0	0.05	0	0	×	8	0
INONK F	000	0.07	12.3	20	^	0	001		L	U	0.00	0	U	Х	U	U	TRUNKU	ŏ	0.05	0	ŏ	×	8	ő
DETURN AID #				S-417						- 10							TRUNK V	0	0.05	0	0	×	8	0
RETURN AIR #	1	2	3	4	5	6	7	8	9	10	0	0	0	0	0	BR	TRUNK W	0 1465	0.05	0 18.2	0 32	×	8 10	0 659
AIR VOLUME	110	110	110	110	305	85	300	300	185	40	0	0	0	0	0	300	TRUNK Y	795	0.05	14.5	24	×	8	596
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	0.15	0.15	TRUNK Z	490	0.05	12.1	18	x	8	490
ACTUAL DUCT LGH.	38	37	37	45	43	59	27	25	34	43	1	1	1	1	1	18	DROP	1955	0.05	20.3	24	x	18	652
EQUIVALENT LENGTH	195	185	165	205	145	175	190	185	150	285	0	0	0	0	0	195								
	233	222	202	250	188	234	217 0.07	210 0.07	184 0.08	328 0.05	1 1 00	14.80	1	1 1 00	1 1 00	213 0.07								
TOTAL EFFECTIVE LH		0.07	0.07	0.00																				
TOTAL EFFECTIVE LH ADJUSTED PRESSURE	0.06	0.07	6.3	0.06	0.08	0.06					14.80		14.80	14.80	14.80									
TOTAL EFFECTIVE LH		0.07 6.3 8	0.07 6.3 8	0.06 6.6 8	0.08 9 8	6 8	9.2	9.2	7.5 8	4.7 8	0	0	0	0	0	9.2								
TOTAL EFFECTIVE LH ADJUSTED PRESSURE ROUND DUCT SIZE	0.06 6.6	6.3	6.3	6.6	9	6	9.2	9.2	7.5	4.7	0	0	0	0	0	9.2								



HVA DESIGNS LTD.

TYPE: 5004 THE BEAUMONT SITE NAME: PINE VALLEY & TESTON

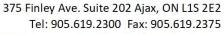
LO# 80141 OPT 5 BED CORNER

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

COMBUSTION APPLIANCES	9.32.3.1(1)	SUPPLEMENTAL V	ENTILATION CAPACITY			9.32.3.5.
a) Direct vent (sealed combustion) only		Total Ventilation Ca	pacity	201.4	_	cfm
b) Positive venting induced draft (except fireplaces)		Less Principal Venti	I. Capacity	155	-	cfm
c) Natural draft, B-vent or induced draft gas fireplace		Required Suppleme	ntal Capacity	46.4	-	cfm
d) Solid Fuel (including fireplaces)		DDINGIDAL EVILAL	ICT CAN CARACITY			
e) No Combustion Appliances		Model:	VANEE 65H	Location:	B	SMT
HEATING SYSTEM		155.0		ones		-WI Approved
			IST HEAT LOSS CALCULATION	MARKET II.	· — ·	
Forced Air Non Forced Air		CFM	ΔT °F	FACTOR		% LOSS
C Florida Social Mark		155.0 CFM	X 76 F	X 1.08	Х	0.25
Electric Space Heat		SUPPLEMENTAL F	ANS	NUTONE		
		Location	Model	cfm	HVI	Sones
HOUSE TYPE	9.32.1(2)	ENS ENS-2	QTXEN050C QTXEN050C	50 50	1	0.3
✓ I Type a) or b) appliance only, no solid fuel		ENS-3	QTXEN050C	50	1	0.3
		ENS-4	QTXEN050C	50	1	0.3
II Type I except with solid fuel (including fireplaces)					
III Any Type c) appliance		HEAT RECOVERY Model:	VANEE 65H			9.32.3.11.
III		155	cfm high	64		cfm low
IV Type I, or II with electric space heat		828			_	
Other: Type I, II or IV no forced air		75	% Sensible Efficiency @ 32 deg F (0 deg C)		H	IVI Approved
Curer. Type 1, if of 14 no forced an			@ 52 deg 1 (0 deg 0)			
		LOCATION OF INS	TALLATION			
SYSTEM DESIGN OPTIONS	O.N.H.W.P.	Lot:		Concession		
1 Exhaust only/Forced Air System		Lot.		Concession		
		Township		Plan:		
2 HRV with Ducting/Forced Air System		Address				
3 HRV Simplified/connected to forced air system		Roll #		Building Pern	nit#	
4 HRV with Ducting/non forced air system		BUILDER:	GOLD PARK HOMES	;		
Part 6 Design		Name:	700 89 00 00 00 00 00 00 00 00 00 00 00 00 00			
TOTAL VENTILATION CAPACITY	9.32.3.3(1)	Address:				
Basement + Master Bedroom 2 @ 21.2 cfm 42.4	cfm	City:				
Other Bedrooms <u>3</u> @ 10.6 cfm <u>31.8</u>	cfm	Telephone #:		Fax #:		
Kitchen & Bathrooms	cfm	INSTALLING CONT	TRACTOR			
Other Rooms6 @ 10.6 cfm63.6	cfm	Name:				
Table 9.32.3.A. TOTAL <u>201.4</u>	cfm	Address:				-
		City:				
PRINCIPAL VENTILATION CAPACITY REQUIRED	9.32.3.4.(1)	Telephone #:		Fax #:		
1 Bedroom 31.8	cfm		TO A TION			
2 Bedroom 47.7	cfm		this ventilation system has bee	en designed		
3 Bedroom 63.6	cfm	Name:	he Ontario Building Code. HVAC Designs Ltd.			
4 Bedroom 79.5	cfm	Signature:	Mhe	had Offmhe		
5 Bedroom 95.4	cfm	HRAI#		001820		
TOTAL 79.5 cfm		Date:		June-20		
I REVIEW AND TAKE RESPONIBILITY FOR THE DESIGN WORK AND AM QUAL	IFIED IN THE API	PROPRIATE CATEGORY AS AN	"OTHER DESIGNER" UNDER DIVISIO	N C, 3.2.5 OF THE BU	ILDING CO	DE.



			Forn	nula Sheet (For Air Lea	ikage / Ventiliation C	aiculation)				
LO#: 80	0141	Model: 5004 THE BE	AUMONT	Builde	r: GOLD PARK HOMES				Date	: 6/4/2020
		Volume Calculatio	n			1	Air Change & Delt	a T Data		726 726
				•					1 2 2 2 2	-
se Volume	E1 4 (6.2)	T et	1 1/1 /5:31	1			TURAL AIR CHANG		0.340	4,
Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)	-		SUMMER NA	TURAL AIR CHANG	SE RATE	0.118	_
Bsmt	2078	10	20780	-						
First	2078	11	22858				Design To	managatura Diff		
Second Third	2301	9	20709	+			Tin °C	mperature Diffe Tout °C	ΔT°C	ΔT°F
Fourth	0	9	0	-		Winter DTDh	22	-20	42	76
routti		Total:	64,347.0 ft ³	-		Summer DTDc	23	31	8	14
		Total:	1822.1 m ³	1		Summer DTDC	23	31	0	14
		1		1	78					
	5.2.3	3.1 Heat Loss due to Ai	r Leakage			6.2.6 5	ensible Gain due	to Air Leakage		
	HI	$LR_{airh} \times \frac{V_b}{3.6} \times I$	OTD ₅ × 1.2		, .	$IG_{salb} = LR_{airc} \times$	$\frac{V_b}{V_b} \times DTD$	× 1 2		
		5.0			(* I		0.0			
0.340	x 506.14	x 42 °C	x1.2	= 8720 W	= 0.118	x 506.14	x8°C	x1.2	. =	547 W
				20774 0. //	ř					4050 Bt
				= 29754 Btu/h					=	1868 Btu,
	5.2.3.2 He	at Loss due to Mechan	ical Ventilation			6.2.7 Ser	sible heat Gain d	ue to Ventilatio	n	
	700000000000000000000000000000000000000				1			22-1-2-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	73.	
	$HL_{vairb} =$	$PVC \times DTD_h \times 1$	$1.08 \times (1 - E)$		HL	$_{vairb} = PVC \times DT$	$TD_h \times 1.08 \times$	(1 - E)		
			S 5							
155 CFM	x 76 °F	x 1.08	x 0.25	= 3181 Btu/h	155 CFM	x 14 °F	x 1.08	x 0.25	=	578 Btu/
		-2.17				Z		5 4		70
			5.2.3.3 Calcula	tion of Air Change Heat	Loss for Each Room (Flo	or Multiplier Section)				
		HL_a	irr = Level Fact	$vor \times HL_{airbv} \times \{(H_{airbv}) \times $	$L_{agcr} + HL_{bgcr}$ \div	$(HL_{agclevel} + HL_{l}$	ngclevel)}			
		Level	Level Factor (LF)	HLairve Air Leakage + Ventilation Heat Loss	Level Conductive Heat Loss: (HL _{devel})	Air Leakage Heat Los HLairby / H				
		1	0.5	(Btu/h)	12,277	1.21	2			
		2	0.3	1	23,016	0.38	T ₁			
		3	0.2	29,754	17,947	0.33				
		4	0.2	25,754	0	0.00				
		5	0	-	0	0.00				
			0	I.	U	0.00	U			







HEAT LOSS AND GAIN SUMMARY SHEET

		HEA	LOSS AND GAIN	SUIVIIVIARY SHEET	
MODEL:	5004 THE BEAUMONT	1	OPT 5 BED CORNER	BUILDER: GOLD PARK HOMES	
SFQT:	4294	LO#	80141	SITE: PINE VALLEY & TESTON	
DESIGN A	ASSUMPTIONS				
HEATING			°F	COOLING	°F
OUTDOO	R DESIGN TEMP.		-4	OUTDOOR DESIGN TEMP.	88
INDOOR I	DESIGN TEMP.		72	INDOOR DESIGN TEMP. (MAX 75°F)	74
BUILDING	G DATA				
ATTACHM	ΛΕΝΤ:		DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FA	ACES:		EAST	ASSUMED (Y/N):	Υ
AIR CHAN	IGES PER HOUR:		3.57	ASSUMED (Y/N):	Υ
AIR TIGH	TNESS CATEGORY:		AVERAGE	ASSUMED (Y/N):	Υ
WIND EXI	POSURE:		SHELTERED	ASSUMED (Y/N):	Υ
HOUSE V	OLUME (ft³):		64347.0	ASSUMED (Y/N):	Υ
INTERNA	L SHADING:	BLIND	S/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR	LIGHTING LOAD (Btu/h	/ft²):	1.90	DC BRUSHLESS MOTOR (Y/N):	Υ
FOUNDA	TION CONFIGURATION		BCIN_1	DEPTH BELOW GRADE:	7.0 ft
LENGTH:	74.0 ft	WIDTH:	46.0 ft	EXPOSED PERIMETER:	240.0 ft

2012 OBC - COMPLIANCE PACKAGE		
	Complian	e Package
Component		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

We	eather Sta	tion Description
Province:	Ontario	·
Region:	Vaughan	(Woodbridge)
	Site D	escription
Soil Conductivity:	Normal	conductivity: dry sand, loam, clay
Water Table:	Normal ((7-10 m, 23-33 ft)
F	Foundatio	n Dimensions
Floor Length (m):	22.6	
Floor Width (m):	14.0	
Exposed Perimeter (m):	0.0	
Wall Height (m):	3.0	
Depth Below Grade (m):	2.13	Insulation Configuration
Window Area (m²):	3.8	
Door Area (m²):	1.9	
	Radi	ant Slab
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
	Desig	n Months
Heating Month	1	
	Founda	ntion Loads
Heating Load (Watts):		2465

TYPE: 5004 THE BEAUMONT

LO# 80141

OPT 5 BED CORNER



Air Infiltration Residential Load Calculator

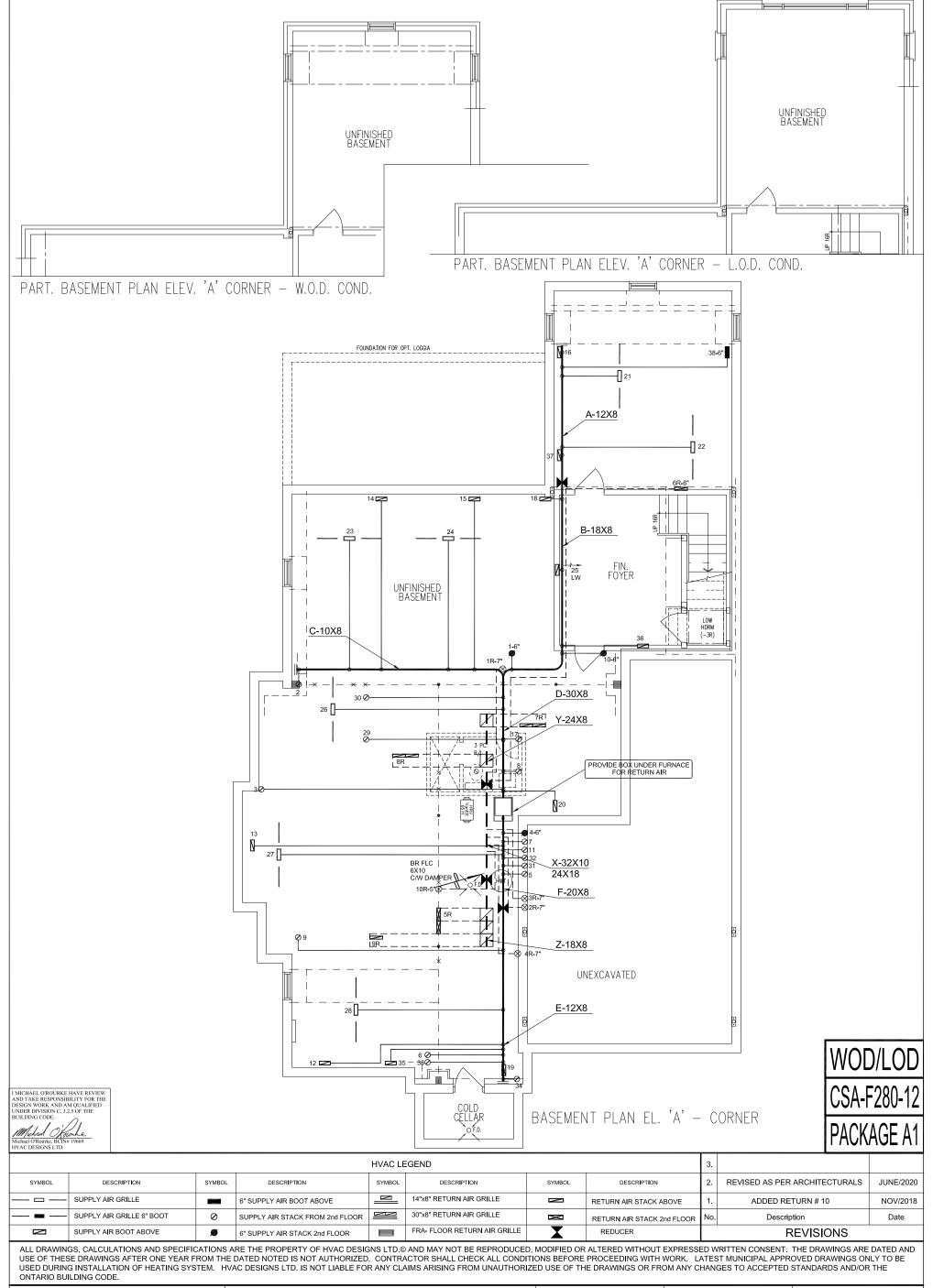
Supplemental tool for CAN/CSA-F280

Weather Sta	ation Desc	ripti	on		
Province:	Ontario	0			
Region:	Vaugha	an (W	oodbri	idge)	
Weather Station Location:	Open f	lat tei	rrain, g	rass	
Anemometer height (m):	10				
	Shielding	•			
Building Site:	Suburb	an, fo	rest		
Walls:	Heavy				
Flue:	Heavy				
Highest Ceiling Height (m):	7.01				
Building	Configura	tion			
Type:	Detach	ied			
Number of Stories:	Two				
Foundation:	Full				
House Volume (m³):	1822.1				
Air Leaka	ge/Ventila	ation	l		
Air Tightness Type:	Presen	t (196	51-) (3.	57 ACH	H)
Custom BDT Data:	ELA @	10 Pa			2428.9 cm ²
	3.57				ACH @ 50 Pa
Mechanical Ventilation (L/s):	Tot	al Sup _l	ply		Total Exhaust
		73.2			73.2
FI	ue Size				
Flue #:	#1	#2	#3	#4	
Diameter (mm):	0	0	0	0	
Natural In	filtration I	Rate	S		
Heating Air Leakage Rate (ACH/	н):	0	.34	0	
Cooling Air Leakage Rate (ACH/I	H):	0	.11	8	

TYPE: 5004 THE BEAUMONT

LO# 80141

OPT 5 BED CORNER



GOLD PARK HOMES

Project Name

PINE VALLEY & TESTON VAUGHAN, ONTARIO THE BEAUMONT OPT 5 BED

5004 - CORNER

4294 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.

			BTU/H	# OF RUNS	S/A	R/A	FANS	Sh
		N I T DATA		3RD FLOOR				
	MAKE L	ENNOX		2ND FLOOR	18	6	6	
	MODEL EL29	6110XE60C		1ST FLOOR	12	4	2	
	INPUT	110	мвти/н	BASEMENT	8	1	0	Dat
_	OUTPUT	400	MBTU/H	ALL S/A DIFFU:	SERS	4 "x10)"	Sca
	COOLING	106		UNLESS NOTE				
е	COCLING	5.0	TONS	ON LAYOUT. A UNLESS NOTE				-

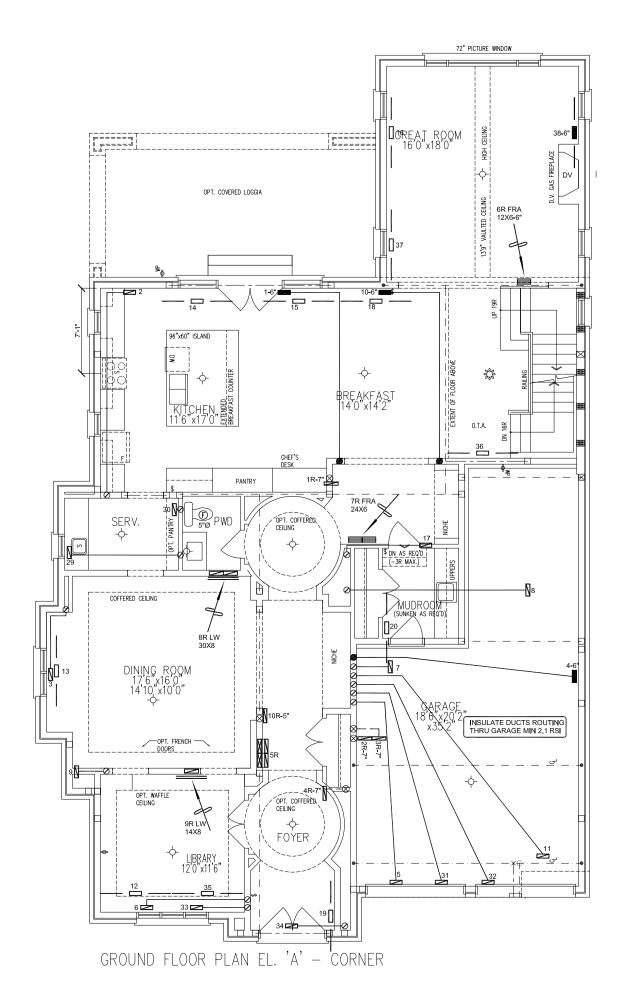
cfm @ 0.6" w.c.

FAN SPEED

1955

ON LAYOUT. UNDERCUT DOORS 1" min. FOR R/A

S	Sheet Title	
_	BA	SEMENT
	Н	IEATING
	L	.AYOUT
	Date	SEPT/2018
	Scale	1/8" = 1'-0"
ð	В	CIN# 19669
	LO#	80141



WOD/LOD

								_		
		3.								
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	REVISED AS PER ARCHITECTURALS	JUNE/2020
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	ADDED RETURN # 10	NOV/2018
	SUPPLY AIR GRILLE 6" BOOT	0	SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE	×	RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE	Ø	6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE	X	REDUCER		REVISIONS	

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GOLD PARK HOMES

Project Name

PINE VALLEY & TESTON VAUGHAN, ONTARIO THE BEAUMONT **OPT 5 BED 5004 - CORNER**

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.

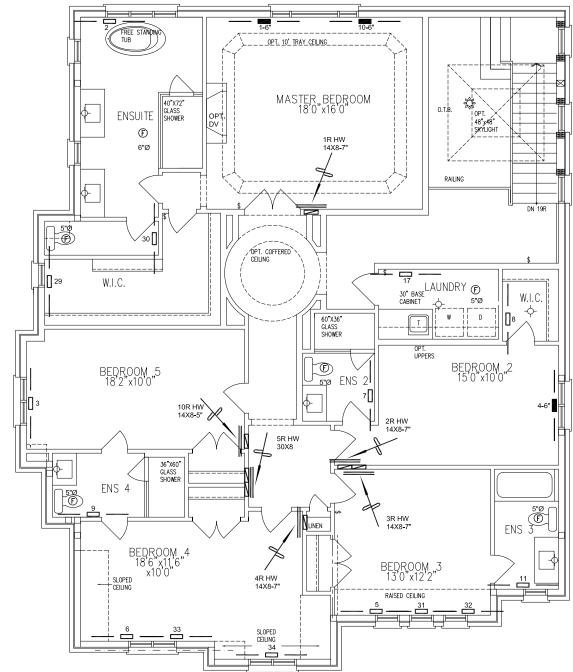
FIRST FLOOR **HEATING LAYOUT**

SEPT/2018 Date 1/8" = 1'-0"

BCIN# 19669

80141 LO#

4294 sqft



WOD/LOD

OPT. 5 BED. SECOND FLOOR PLAN EL. 'A' - CORNER

HVAC DESIGNS ETD:										
		3.								
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	REVISED AS PER ARCHITECTURALS	JUNE/2020
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	ADDED RETURN # 10	NOV/2018
	SUPPLY AIR GRILLE 6" BOOT	0	SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE	×	RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE	Ø	6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE	X	REDUCER		REVISIONS	

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GOLD PARK HOMES

Project Name

PINE VALLEY & TESTON VAUGHAN, ONTARIO THE BEAUMONT **OPT 5 BED** 4294 sqft **5004 - CORNER**

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.

SECOND FLOOR **HEATING LAYOUT**

SEPT/2018 1/8" = 1'-0"

BCIN# 19669

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.
NA: minimality	Destal and	Dian number/ other deco	- viation		
Municipality	Postal code	Plan number/ other desc	cription		
VAUGHAN (WOODBRIDGE)					
B. Individual who reviews and takes	responsibility fo	, 			
Name MICHAEL O'ROURKE		Firm HVAC DESIGNS LTD.			
Street address		ITVAO DEGIGINO ETD.	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 in	ndividual identifi	ed in Section B. [Build	ding Code Table 3	3.5.2.1 OF Divis	sion C]
☐ House	⊠ HVAC	– House	□ Buile	ding Structura	al
☐ Small Buildings	Buildin	g Services	Plur	nbing – House	е
☐ Large Buildings		ion, Lighting and Pov		nbing – All Bu	
☐ Complex Buildings	☐ Fire Pr			site Sewage S	Systems
Description of designer's work HEAT LOSS / GAIN CALCULATIONS		Model:	5004 THE BEAUMO	NT	
DUCT SIZING			OPT 5 BED CORNER	WOB	
RESIDENTIAL MECHANICAL VENTILATION	ON DESIGN SUMM	IARY Project:	PINE VALLEY & TEST	ron.	
RESIDENTIAL SYSTEM DESIGN per CSA	-F280-12	i roject.	FINE VALLET & TEST	ION	
D. Declaration of Designer					
I MICHAEL O'ROURKE			declare that (c	hoose one as ap	propriate):
(p	rint name)		,	•	,
☐ I review and take responsibility f Division C, of the Building Code classes/categories.				n 3.2.4.of appropriate	
Individual BCIN:					
Firm BCIN:					
☐ I review and take responsibility f designer" under subsection 3.		nm qualified in the appropron on C, of the Building Code		other	
Individual BCIN:	19669				
Basis for exemption	rom registration an	d qualification:	O.B.C SENTEN	CE 3.2.4.1 (<u>4)</u>
☐ The design work is exempt Basis for exemption from registr		ion and qualification requi	rements of the Buildi	ng Code.	
I certify that:					
The information contained	in this sched	ule is true to the best of m	ıy knowledge.		
I have submitted this application					
			med 1 1	0:01	
June 4, 2020			Michael C	Kounte	-
Date			S	Signature of Desi	gner

NOTE

^{1.} For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d).of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.

^{2.} 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.



BUILDER:	GOLD							TYPE:		BED CO				GFA:	4294			DATE:							JRAL A JRAL A						AT LOS	IN AT °					CSA-F280 ACKAGE
ROOM USE				MBR			ENS			WIC			BED-2	ğ 1		BED-3			BED-4	1		ENS-2			WIC-2		В	ED-5		EN	NS-3						
EXP. WALL				19			41		l	7			11			18			43			0			13			21		1	18						
CLG. HT.				10			9		l	9			9			9			10			9			9			9			9						
	FACTO	ORS							l																												
GRS.WALL AREA	LOSS	GAIN		190			369		l	63			99			162			430			0			117			189		1	62						
GLAZING				LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN			GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN	L	oss G	AIN	LC	OSS GA	IIN					
NORTH	21.3	15.4	0	0	0	0	0	0	0	0	0	19	404	293	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0					
EAST	21.3	38.7	0	0	0	0	0	0	0	0	0	0	0	0	42	894	1624	50	1064	1933	0	0	0	0	0	0	0	0	0	033	13 38	33					
SOUTH	21.3	23.8	0	0	0	20	426	475	10	213	238	0	0	0	0	094	0	0	0	0	0	0	0	0	0	0		2052	428			0					
		2000	52.03		000000				0.1	0	0	0	0	35/9	0	0	100	2000	7		3050	- T	1000	12000	0	0.700			1000	500	(D) 3	88					
WEST	21.3	38.7	35	745	1353	28	596	1083	0			100	5.155	0	3000	0	0	0	0	0	0	0	0	0	30733	0	0	0	0	1 D	0 0	53					
SKYLT.	37.2	102.0	8	298	816	0	0	0	0	0	0	4	149	408	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	- 52	535	0					
DOORS	25.2	4.6	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		- Table 1 - 1 - 1	0					
NET EXPOSED WALL	4.5	0.8	155	692	126	321	1433	260	53	237	43	80	357	65	120	536	97	380	1696	308	0	0	0	117	522	1000			139		78 12	35770					
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.7	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	70	0 (0					
EXPOSED CLG	1.3	0.6	460	590	278	312	400	189	147	189	89	183	235	111	136	175	82	267	343	161	84	108	51	78	100	47	254	326	154	77 9	99 4	7					
NO ATTIC EXPOSED CLG	2.7	1.3	0	0	0	0	0	0	0	0	0	0	0	0	60	165	78	150	412	194	0	0	0	0	0	0	0	0	0	0	0 (0					
EXPOSED FLOOR	2.6	0.5	0	0	0	0	0	0	0	0	0	187	477	87	196	500	91	20	51	9	45	115	21	78	199	36	0	0	0	77 1	96 3	6			- 1		
BASEMENT/CRAWL HEAT LOSS			77.577	0		100	0		- 20	0		5-7553	0	2276	0.000	0	611	90000	0	1.4000	0400	0	0000		0	6072		0		- N	0	~					
SLAB ON GRADE HEAT LOSS				0			0		l	0			0			0			0			0			0			0		1	0						
SUBTOTAL HT LOSS				2325			2854		l	638			1622			2269			3566			223			821		- 3	1472		11	186						
SUB TOTAL HT GAIN					2573		1.5.1	2007	l	151575	369			963		NAVAGE	1972		15.03-01	2606		2.1676	72		0000	178			720	55	59	92					
LEVEL FACTOR / MULTIPLIER			0.20	0.40	20,0	0.20	0.40		0.20	0.40	555	0.20	0.40		0.20	0.40		0.20	0.40	2000	0.20	0.40	9.77	0.20	0.40	2.00	0.20			0.20 0.	.40	3.5					
AIR CHANGE HEAT LOSS			0.20	922		0.20	1132		0.20	253		0.20	644		0.20	900		0.20	1415		0.20	88		0.20	326	- 1		584			71						
AIR CHANGE HEAT GAIN				322	220		1132	470	l	233	22		044	0.5		900	476		1413	224		00			320	40		304		*		3					
					228			178	l		33			85			175			231			6			16			64			3					
DUCTLOSS				0			0		l	0	_		227			317			498			31			115			0		1	66						
DUCT GAIN					0			0	l		0			217			327			396			8			19			0			4					
HEAT GAIN PEOPLE	240		2		480	0		0	0		0	1		240	1		240	1		240	0		0	0		0	0		0	0	(0					
HEAT GAIN APPLIANCES/LIGHTS					881			0			0			881			881			881			0			0			881		(0					
TOTAL HT LOSS BTU/H				3247			3987		l	891			2492	5.00		3486			5479			342	555		1262		- 2	2056	- 133	18	823	-57.0					
TOTAL HT GAIN x 1.3 BTU/H					5411			2840			523			3102			4672			5660			112			277		- 2	2163		92	22					
				-		_			_			_										5517							_				-711		_		
ROOM USE				LIBR			DIN			KIT	_		GREAT	r		LAUN			ENS-4			FOY			MUD									VOB			BAS
EXP. WALL				27			20			113			56			0			6			37			18							Î		72			168
EXP. WALL CLG. HT.		resident																																			
EXP. WALL CLG. HT.	FACTO			27 11			20 11			113 11			56 16			0			6 9			37 11			18									72 10			168 10
EXP. WALL CLG. HT. GRS.WALL AREA				27			20			113			56	i.		0			6			37			18									72			168
EXP. WALL CLG. HT.				27 11	GAIN		20 11	GAIN		113 11	GAIN		56 16	024075000		9	GAIN		6 9 54	GAIN		37 11 407	GAIN		18	GAIN							7	72 10	GAIN		168 10
EXP. WALL CLG. HT. GRS.WALL AREA			0	27 11 297	GAIN 0	0	20 11 220	GAIN 0	39	113 11 1243	GAIN 602	28	56 16 896	024075000	0	0 9 0	GAIN 0	0	6 9 54		0	37 11 407	GAIN 0	0	18 13 234	GAIN 0						4	7 L0	72 10 720 OSS 0	GAIN 62		168 10 1176
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING	LOSS	GAIN	0 38	27 11 297 LOSS		0	20 11 220 LOSS		39 0	113 11 1243 LOSS		28	56 16 896 LOSS	GAIN	0	0 9 0		200	6 9 54 LOSS	GAIN	0	37 11 407 LOSS	300,000		18 13 234 LOSS	X2550						4 92	7 LC	72 10 720 OSS 0	1000		168 10 1176 LOSS G
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH	21.3	GAIN 15.4	20.00	27 11 297 LOSS 0	0	183	20 11 220 LOSS 0	0		113 11 1243 LOSS 830	602	8.47.0	56 16 896 LOSS 596	GAIN 432	0 0 0	0 9 0	0	0	6 9 54 LOSS 0	GAIN 0	197552	37 11 407 LOSS 0	0	0	18 13 234 LOSS 0	0						4 92 0	7 LC	72 10 720 OSS 0	62	12	168 10 1176 LOSS GA 255 1
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH	21.3 21.3 21.3 21.3	15.4 38.7 23.8	38	27 11 297 LOSS 0 809 0	0 1469	0 22	20 11 220 LOSS 0 0 468	0 0 523	0 20	113 11 1243 LOSS 830 0 426	602 0 475	0 28	56 16 896 LOSS 596 0 596	GAIN 432 0 665	0	0 9 0	0	0 0 8	6 9 54 LOSS 0 0	GAIN 0 0	6 0	37 11 407 LOSS 0 128	0 232 0	0 0 0	18 13 234 LOSS 0 0	0 0 0						0	7 LC	72 10 720 OSS 0	62 3557 0	12 0 0	168 10 1176 LOSS G/ 255 1
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST	21.3 21.3 21.3 21.3 21.3	15.4 38.7 23.8 38.7	38	27 11 297 LOSS 0 809 0	0 1469 0	0 22 0	20 11 220 LOSS 0 0 468 0	0 0 523 0	0 20 110	113 11 1243 LOSS 830 0 426 2341	602 0	0 28 58	56 16 896 LOSS 596 0 596 1234	GAIN 432 0 665 2243	0	0 9 0	0 0 0	0 0 8 0	6 9 54 LOSS 0 0 170	GAIN 0 0 190	6 0 0	37 11 407 LOSS 0 128	0 232 0 0	0 0 0	18 13 234 LOSS 0	0 0 0						0	7 LC	72 10 720 OSS 0	62 3557 0 0	12 0 0	168 10 1176 LOSS G/ 255 1 0
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT.	21.3 21.3 21.3 21.3 21.3 37.2	15.4 38.7 23.8 38.7 102.0	38 0 0 0	27 11 297 LOSS 0 809 0 0	0 1469 0 0	0 22 0 0	20 11 220 LOSS 0 0 468 0	0 0 523 0	0 20 110 0	113 11 1243 LOSS 830 0 426 2341	602 0 475 4253 0	0 28 58 0	56 16 896 LOSS 596 0 596 1234	GAIN 432 0 665 2243	0 0 0 4	0 9 0 LOSS 0 0	0 0 0 0 408	0 0 8 0	54 LOSS 0 0 170 0	GAIN 0 0 190 0	6 0 0	37 11 407 LOSS 0 128 0 0	0 232 0 0	0 0 0 0	18 13 234 LOSS 0 0 0	0 0 0 0						0	7 LG 1	72 10 720 OSS 6 85 1958 3 0	62 3557 0 0	12 0 0 0	168 10 1176 LOSS G/ 255 1 0 0 0
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS	21.3 21.3 21.3 21.3 21.3 37.2 25.2	15.4 38.7 23.8 38.7 102.0 4.6	38 0 0 0	27 11 297 LOSS 0 809 0 0	0 1469 0 0 0	0 22 0 0 0	20 11 220 LOSS 0 0 468 0 0	0 0 523 0 0	0 20 110 0	113 11 1243 LOSS 830 0 426 2341 0	602 0 475 4253 0 0	0 28 58 0	56 16 896 LOSS 596 0 596 1234 0	GAIN 432 0 665 2243 0	0 0 0 4	0 9 0 LOSS 0 0	0 0 0 0 408	0 0 8 0 0	54 LOSS 0 0 170 0	GAIN 0 0 190 0	6 0 0 0 40	37 11 407 LOSS 0 128 0 0	0 232 0 0 0 183	0 0 0 0 0	18 13 234 LOSS 0 0 0 0 0 0	0 0 0 0 0						0 0	7 LC	72 10 720 OSS 6 85 1958 3 0 0	62 3557 0 0 0	12 0 0 0 0	168 10 1176 LOSS GA 255 1 0 0 0 0 505 9
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL	21.3 21.3 21.3 21.3 21.3 37.2 25.2 4.5	15.4 38.7 23.8 38.7 102.0 4.6 0.8	38 0 0 0 0 0 259	27 11 297 LOSS 0 809 0 0 0 0	0 1469 0 0 0 0 210	0 22 0 0 0 0	20 11 220 LOSS 0 0 468 0 0 0	0 0 523 0 0 0	0 20 110 0 0 1074	113 11 1243 LOSS 830 0 426 2341 0 0 4793	602 0 475 4253 0 0 870	0 28 58 0 0 782	56 16 896 LOSS 596 0 596 1234 0 0 3490	GAIN 432 0 665 2243 0 0	0 0 0 4 0	0 9 0 LOSS 0 0 0 0 149 0	0 0 0 0 408 0	0 0 8 0 0 0	54 LOSS 0 0 170 0 0 205	GAIN 0 0 190 0 0 0 37	6 0 0 0 40 361	37 11 407 LOSS 0 128 0 0 0 1010	0 232 0 0 0 183 293	0 0 0 0 0 20 214	18 13 234 LOSS 0 0 0 0 0 505 955	0 0 0 0 0 92						0 0 0 0 624	7 LC 2 11	72 10 720 OSS 6 85 1958 3 0 0 0	62 3557 0 0 0 0 506	12 0 0 0 0 0 20	168 10 1176 LOSS G/ 255 1 0 0 0 0 0 505 6
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR	21.3 21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6	15.4 38.7 23.8 38.7 102.0 4.6 0.8 0.7	38 0 0 0 0 0 259	27 11 297 LOSS 0 809 0 0 0 0 1156	0 1469 0 0 0 0 210	0 22 0 0 0 198 0	20 11 220 LOSS 0 0 468 0 0 0 884	0 0 523 0 0 0 160	0 20 110 0 0 1074	113 11 1243 LOSS 830 0 426 2341 0 0 4793 0	602 0 475 4253 0 0 870	0 28 58 0 0 782	56 16 896 LOSS 596 0 596 1234 0 0 3490 0	GAIN 432 0 665 2243 0 0 634	0 0 0 4 0 0	0 9 0 LOSS 0 0 0 0 149 0	0 0 0 408 0 0	0 0 8 0 0 0 46	54 LOSS 0 0 170 0 0 205	GAIN 0 0 190 0 0 0 37	6 0 0 0 40 361 0	37 11 407 LOSS 0 128 0 0 0 1010 1611	0 232 0 0 0 183 293	0 0 0 0 0 20 214	18 13 234 LOSS 0 0 0 0 0 505 955	0 0 0 0 0 92 173						0 0 0 0 624	7 LC 2 11	72 10 720 OSS 6 85 1958 3 0 0	62 3557 0 0 0 0 506	12 0 0 0 0 0 20 0 504	168 10 1176 LOSS G/ 255 1 0 0 0 0 505 8 0
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3	15.4 38.7 23.8 38.7 102.0 4.6 0.8 0.7 0.6	38 0 0 0 0 259 0	27 11 297 LOSS 0 809 0 0 0 0 1156 0	0 1469 0 0 0 0 210 0	0 22 0 0 0 198 0	20 11 220 LOSS 0 0 468 0 0 0 884 0	0 0 523 0 0 0 160 0	0 20 110 0 0 1074 0 192	113 11 1243 LOSS 830 0 426 2341 0 0 4793 0 246	602 0 475 4253 0 0 870 0	0 28 58 0 0 782 0	56 16 896 LOSS 596 0 596 1234 0 0 3490 0	GAIN 432 0 665 2243 0 0 634 0 0	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 149 0 0	0 0 0 408 0 0 0	0 0 8 0 0 0 46 0	6 9 54 LOSS 0 170 0 0 205 0 77	GAIN 0 190 0 0 0 37 0 36	6 0 0 40 361 0	37 11 407 LOSS 0 128 0 0 1010 1611 0	0 232 0 0 0 183 293 0	0 0 0 0 0 20 214 0	18 13 234 LOSS 0 0 0 0 0 505 955 0	0 0 0 0 0 92 173 0						0 0 0 624 0	7 LC 2 11	72 10 720 OSS 6 85 1958 3 0 0 0	62 3557 0 0 0 0 506 0	12 0 0 0 0 0 20 0 504	168 10 1176 LOSS G/ 255 1 0 0 0 0 505 9 0 1814 3
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED CLG NO ATTIC EXPOSED CLG	21.3 21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.4 38.7 23.8 38.7 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	27 11 297 LOSS 0 809 0 0 0 0 1156 0	0 1469 0 0 0 0 210 0	0 22 0 0 0 198 0 0	20 11 220 LOSS 0 468 0 0 884 0	0 0 523 0 0 0 160 0	0 20 110 0 0 1074 0 192	113 11 1243 LOSS 830 0 426 2341 0 0 4793 0 246 0	602 0 475 4253 0 0 870 0 116	0 28 58 0 0 782 0 0 342	56 16 896 LOSS 596 0 596 1234 0 0 3490 0 940	GAIN 432 0 665 2243 0 0 634 0 0	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 149 0 0 178	0 0 0 408 0 0 0 84	0 0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 170 0 0 205 0 77 0	GAIN 0 0 190 0 0 0 37 0 36	6 0 0 40 361 0	37 11 407 LOSS 0 128 0 0 0 1010 1611 0 0	0 232 0 0 0 183 293 0 0	0 0 0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 0 505 955 0 0	0 0 0 0 0 92 173 0 0						0 0 0 624 0 0	7 LC 2 1	72 10 720 OSS 6 85 1958 3 0 0 0 0 2785 0	62 3557 0 0 0 0 506 0	12 0 0 0 0 20 0 504 0	168 10 1176 LOSS G, 255 1 0 0 0 505 9 0 1814 3
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3	15.4 38.7 23.8 38.7 102.0 4.6 0.8 0.7 0.6	38 0 0 0 0 259 0	27 11 297 LOSS 0 809 0 0 0 1156 0 0	0 1469 0 0 0 0 210 0	0 22 0 0 0 198 0	20 11 220 LOSS 0 468 0 0 0 884 0 0	0 0 523 0 0 0 160 0	0 20 110 0 0 1074 0 192	113 11 1243 LOSS 830 0 426 2341 0 0 4793 0 246	602 0 475 4253 0 0 870 0	0 28 58 0 0 782 0	56 16 896 LOSS 596 0 596 1234 0 0 3490 0	GAIN 432 0 665 2243 0 0 634 0 0	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 149 0 0	0 0 0 408 0 0 0	0 0 8 0 0 0 46 0	6 9 54 LOSS 0 0 170 0 0 0 205 0 77 0	GAIN 0 190 0 0 0 37 0 36	6 0 0 40 361 0	37 11 407 LOSS 0 128 0 0 1010 1611 0	0 232 0 0 0 183 293 0	0 0 0 0 0 20 214 0	18 13 234 LOSS 0 0 0 0 0 505 955 0	0 0 0 0 0 92 173 0						0 0 0 624 0	7 LC 2 1	72 10 720 OSS 6 85 1958 3 0 0 0	62 3557 0 0 0 0 506 0	12 0 0 0 0 20 0 504 0	168 10 1176 LOSS G/ 255 1 0 0 0 0 505 5 0 1814 3 0
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED CLG NO ATTIC EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS	21.3 21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.4 38.7 23.8 38.7 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	27 11 297 LOSS 0 809 0 0 0 0 1156 0	0 1469 0 0 0 0 210 0	0 22 0 0 0 198 0 0	20 11 220 LOSS 0 468 0 0 884 0	0 0 523 0 0 0 160 0	0 20 110 0 0 1074 0 192	113 11 1243 LOSS 830 0 426 2341 0 0 4793 0 246 0	602 0 475 4253 0 0 870 0 116	0 28 58 0 0 782 0 0 342	56 16 896 LOSS 596 0 596 1234 0 0 3490 0 940	GAIN 432 0 665 2243 0 0 634 0 0	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 149 0 0 178	0 0 0 408 0 0 0 84	0 0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 170 0 0 205 0 77 0	GAIN 0 0 190 0 0 0 37 0 36	6 0 0 40 361 0	37 11 407 LOSS 0 128 0 0 0 1010 1611 0 0	0 232 0 0 0 183 293 0 0	0 0 0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 0 505 955 0 0	0 0 0 0 0 92 173 0 0						0 0 0 624 0 0	7 LC 2 1	72 10 720 OSS 6 85 1958 3 0 0 0 0 2785 0	62 3557 0 0 0 0 506 0	12 0 0 0 0 20 0 504 0	168 10 1176 LOSS G, 255 1 0 0 0 505 9 0 1814 3
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED CLG SEXPOSED CLG SEXPOSED CLG NO ATTIC EXPOSED CLG BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS	21.3 21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.4 38.7 23.8 38.7 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	27 11 297 LOSS 0 809 0 0 0 1156 0 0	0 1469 0 0 0 0 210 0	0 22 0 0 0 198 0 0	20 11 220 LOSS 0 468 0 0 0 884 0 0 0	0 0 523 0 0 0 160 0	0 20 110 0 0 1074 0 192	113 11 1243 LOSS 830 0 426 2341 0 0 4793 0 246 0 0	602 0 475 4253 0 0 870 0 116	0 28 58 0 0 782 0 0 342	56 16 896 LOSS 596 0 596 1234 0 0 3490 0 0 940 0	GAIN 432 0 665 2243 0 0 634 0 0	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 149 0 0 178 0	0 0 0 408 0 0 0 84	0 0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 170 0 0 205 0 77 0 0 0 0 0	GAIN 0 0 190 0 0 0 37 0 36	6 0 0 40 361 0	37 11 407 LOSS 0 128 0 0 1010 1611 0 0 0	0 232 0 0 0 183 293 0 0	0 0 0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 505 955 0 0 0	0 0 0 0 0 92 173 0 0						0 0 0 624 0 0	7 LC 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	72 10 720 OSS 6 85 1958 3 0 0 0 0 2785 0 0	62 3557 0 0 0 0 506 0	12 0 0 0 0 20 0 504 0	168 10 1176 LOSS G/ 255 1: 0 0 0 0 505 0 1814 3 0 0 0 3419
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMIT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS	21.3 21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.4 38.7 23.8 38.7 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	27 11 297 LOSS 0 809 0 0 0 1156 0 0	0 1469 0 0 0 0 210 0 0	0 22 0 0 0 198 0 0	20 11 220 LOSS 0 468 0 0 884 0 0	0 0 523 0 0 0 160 0 0	0 20 110 0 0 1074 0 192	113 11 1243 LOSS 830 0 426 2341 0 0 4793 0 246 0 0	602 0 475 4253 0 870 0 116 0	0 28 58 0 0 782 0 0 342	56 16 896 LOSS 596 0 596 1234 0 0 3490 0 940 0	GAIN 432 0 665 2243 0 0 634 0 0	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 149 0 0 0 178 0	0 0 0 408 0 0 0 84	0 0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 170 0 0 205 0 77 0	GAIN 0 0 190 0 0 0 37 0 36	6 0 0 40 361 0	37 11 407 LOSS 0 128 0 0 1010 1611 0 0 0	0 232 0 0 0 183 293 0 0	0 0 0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 0 505 955 0 0 0	0 0 0 0 0 92 173 0 0						0 0 0 624 0 0	7 LC 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	72 10 720 OSS 6 85 9958 3 0 0 0 0 0 2785 0 0 0	62 3557 0 0 0 0 506 0 0	12 0 0 0 0 20 0 504 0	168 10 1176 LOSS G/ 255 1 0 0 0 0 505 5 0 1814 3 0
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BAST WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED CLO BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS	21.3 21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.4 38.7 23.8 38.7 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	27 11 297 LOSS 0 809 0 0 0 1156 0 0	0 1469 0 0 0 0 210 0	0 22 0 0 0 198 0 0	20 11 220 LOSS 0 468 0 0 0 884 0 0 0	0 0 523 0 0 0 160 0	0 20 110 0 0 1074 0 192	113 11 1243 LOSS 830 0 426 2341 0 0 4793 0 246 0 0	602 0 475 4253 0 0 870 0 116	0 28 58 0 0 782 0 0 342	56 16 896 LOSS 596 0 596 1234 0 0 3490 0 0 940 0	GAIN 432 0 665 2243 0 0 634 0 0	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 149 0 0 178 0	0 0 0 408 0 0 0 84	0 0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 170 0 0 205 0 77 0 0 0 0 0	GAIN 0 0 190 0 0 0 37 0 36	6 0 0 40 361 0	37 11 407 LOSS 0 128 0 0 1010 1611 0 0 0	0 232 0 0 0 183 293 0 0	0 0 0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 505 955 0 0 0	0 0 0 0 0 92 173 0 0						0 0 0 624 0 0	7 LC 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	72 10 720 OSS 6 85 9958 3 0 0 0 0 0 2785 0 0 0	62 3557 0 0 0 0 506 0	12 0 0 0 0 20 0 504 0	168 10 1176 LOSS G/ 255 1: 0 0 0 0 505 0 1814 3 0 0 0 3419
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BAMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON CRADE HEAT LOSS SUBTOTAL HT LOSS	21.3 21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.4 38.7 23.8 38.7 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	27 11 297 LOSS 0 809 0 0 0 1156 0 0	0 1469 0 0 0 0 210 0 0	0 22 0 0 0 198 0 0	20 11 220 LOSS 0 468 0 0 0 884 0 0 0	0 0 523 0 0 0 160 0 0	0 20 110 0 0 1074 0 192 0	113 11 1243 LOSS 830 0 426 2341 0 0 4793 0 246 0 0	602 0 475 4253 0 870 0 116 0	0 28 58 0 0 782 0 0 342	56 16 896 LOSS 596 0 596 1234 0 0 3490 0 940 0 0 940 0	GAIN 432 0 665 2243 0 0 634 0 0 443 0	0 0 0 4 0 0 0 139	0 9 0 LOSS 0 0 0 149 0 0 178 0 191 0	0 0 0 408 0 0 0 84 0 35	0 0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 170 0 0 0 205 0 77 0 0 0 453	GAIN 0 0 1990 0 0 377 0 36 0 0	6 0 0 40 361 0	37 11 407 LOSS 0 128 0 0 0 1010 1611 0 0 0 0 2749	0 232 0 0 0 183 293 0 0	0 0 0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 0 505 955 0 0 0 0	0 0 0 0 0 92 173 0 0						0 0 0 624 0 0	7 LC 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	72 10 720 OSS 6 85 9958 3 0 0 0 0 0 2785 0 0 0	62 3557 0 0 0 0 506 0 0	12 0 0 0 0 20 0 504 0	168 10 1176 LOSS G/ 255 1 0 0 0 0 1814 3 0 0 3419
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG EXPOSED CLG EXPOSED LG EXPO	21.3 21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.4 38.7 23.8 38.7 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	27 11 297 LOSS 0 809 0 0 0 1156 0 0 0	0 1469 0 0 0 0 210 0 0	0 22 0 0 0 198 0 0	20 11 220 LOSS 0 0 468 0 0 0 884 0 0 0 0 1352	0 0 523 0 0 0 160 0 0	0 20 110 0 0 1074 0 192 0	113 11 1243 LOSS 830 426 2341 0 4793 0 246 0 0 0 8636	602 0 475 4253 0 870 0 116 0	0 28 58 0 0 782 0 0 342 0	56 16 896 LOSS 596 0 596 1234 0 0 3490 0 940 0 0 940 0	GAIN 432 0 665 2243 0 0 634 0 0 443 0	0 0 0 4 0 0 0 139 0 75	0 9 0 LOSS 0 0 0 149 0 0 178 0 191 0	0 0 0 408 0 0 0 84 0 35	0 0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 170 0 0 0 205 0 77 0 0 0 453	GAIN 0 0 1990 0 0 377 0 36 0 0	6 0 0 40 361 0 0	37 11 407 LOSS 0 128 0 0 0 1010 1611 0 0 0 0 2749	0 232 0 0 0 183 293 0 0	0 0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 0 505 955 0 0 0 0	0 0 0 0 0 92 173 0 0						0 0 0 624 0 0	7 LC 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	72 10 720 OSS 6 85 9958 3 0 0 0 0 0 2785 0 0 0	62 3557 0 0 0 0 506 0 0	12 0 0 0 0 20 0 504 0 0	168 10 1176 LOSS G/ 255 1 0 0 0 0 505 5 0 1814 3 0 0 0 3419
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED ELG NO ATTIC EXPOSED CLG EXPOSED CLG NO ATTIC EXPOSED CLG SASEMENT/CRAWL HEAT LOSS SUBTOTAL HT LOSS SUB TOTAL HT LOSS LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS	21.3 21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.4 38.7 23.8 38.7 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	27 11 297 LOSS 0 809 0 0 0 1156 0 0 0 0 1464	0 1469 0 0 0 210 0 0 0	0 22 0 0 0 198 0 0	20 11 220 LOSS 0 468 0 0 884 0 0 0 0 1352	0 0 523 0 0 0 160 0 0	0 20 110 0 0 1074 0 192 0	113 11 1243 LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	602 0 475 4253 0 0 870 0 116 0	0 28 58 0 0 782 0 0 342 0	56 16 896 LOSS 596 0 596 1234 0 0 3490 0 940 0 0 6856	GAIN 432 0 665 2243 0 0 634 0 0 443 0	0 0 0 4 0 0 0 139 0 75	0 9 0 LOSS 0 0 0 149 0 0 0 178 0 191 0 519	0 0 0 408 0 0 0 84 0 35	0 0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 170 0 0 205 0 77 0 0 0 453	GAIN 0 0 1990 0 0 0 37 0 36 0 0	6 0 0 40 361 0 0	37 11 407 LOSS 0 128 0 0 1010 1611 0 0 0 0 2749	0 232 0 0 0 183 293 0 0 0	0 0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 0 505 955 0 0 0 0 0 1460	0 0 0 0 92 173 0 0 0						0 0 0 624 0 0	7 LC 1	72 10 720 OSS 6 85 9958 3 0 0 0 0 0 2785 0 0 0	62 3557 0 0 0 0 506 0 0	12 0 0 0 0 20 0 504 0 0	168 10 1176 LOSS G/ 255 1 0 0 0 0 1814 3 0 0 3419 5993 6 1.49
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BANT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR GASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSI	21.3 21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.4 38.7 23.8 38.7 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	27 11 297 LOSS 0 809 0 0 0 1156 0 0 0 0 1464	0 1469 0 0 0 0 210 0 0	0 22 0 0 0 198 0 0	20 11 220 LOSS 0 468 0 0 884 0 0 0 0 1352	0 0 523 0 0 0 160 0 0	0 20 110 0 0 1074 0 192 0	113 11 1243 LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	602 0 475 4253 0 870 0 116 0	0 28 58 0 0 782 0 0 342 0	56 16 896 LOSS 596 0 596 1234 0 0 3490 0 940 0 0 6856	GAIN 432 0 665 2243 0 0 634 0 0 443 0	0 0 0 4 0 0 0 139 0 75	0 9 0 LOSS 0 0 0 149 0 0 178 0 191 0 0 519	0 0 0 408 0 0 0 84 0 35	0 0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 170 0 0 205 0 77 0 0 0 453	GAIN 0 0 1990 0 0 377 0 36 0 0	6 0 0 40 361 0 0	37 11 407 LOSS 0 128 0 0 1010 1611 0 0 0 0 2749	0 232 0 0 0 183 293 0 0	0 0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 0 505 955 0 0 0 0 0 1460	0 0 0 0 0 92 173 0 0						0 0 0 624 0 0	7 LC 1	72 10 720 OSS 6 85 9958 3 0 0 0 0 0 2785 0 0 0	62 3557 0 0 0 0 506 0 0	12 0 0 0 0 20 0 504 0 0	168 10 1176 LOSS G./ 255 1: 0 0 0 505 6 0 1814 3 0 0 3419 5993 6
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT LOSS	21.3 21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.4 38.7 23.8 38.7 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	27 11 297 LOSS 0 809 0 0 0 1156 0 0 0 0 1964	0 1469 0 0 0 210 0 0 0 0	0 22 0 0 0 198 0 0	20 11 220 LOSS 0 0 468 0 0 0 0 0 0 1352 0.46 627	0 0 523 0 0 0 160 0 0 0	0 20 110 0 0 1074 0 192 0	113 11 1243 LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	602 0 475 4253 0 0 870 0 116 0 0	0 28 58 0 0 782 0 0 342 0	56 16 896 LOSS 596 0 596 0 0 3490 0 0 0 0 6856	GAIN 432 0 665 2243 0 0 634 0 0 443 0 4416	0 0 0 4 0 0 0 139 0 75	0 9 0 LOSS 0 0 0 149 0 0 0 178 0 191 0 519	0 0 0 0 408 0 0 0 84 0 35	0 0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 1770 0 0 205 0 777 0 0 453 0 .440 180	GAIN 0 0 1990 0 0 0 377 0 366 0 0 2644	6 0 0 40 361 0 0	37 11 407 LOSS 0 128 0 0 0 1010 1611 0 0 0 2749	0 232 0 0 183 293 0 0 0	0 0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 505 955 0 0 0 0 0 0 1460	0 0 0 0 0 92 173 0 0 0						0 0 0 624 0 0	7 LC 1	72 10 720 OSS 6 85 9958 3 0 0 0 0 0 2785 0 0 0	62 3557 0 0 0 0 506 0 0	12 0 0 0 0 20 0 504 0 0	168 10 1176 LOSS G/ 255 1 0 0 0 0 1814 3 0 0 3419 5993 6 1.49 17801
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS DUCT GAIN	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	15.4 38.7 23.8 38.7 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	27 11 297 LOSS 0 809 0 0 0 1156 0 0 0 0 1964	0 1469 0 0 0 0 210 0 0 0 0	0 22 0 0 0 198 0 0 0	20 11 220 LOSS 0 0 468 0 0 0 0 0 0 1352 0.46 627	0 0 523 0 0 0 160 0 0 0	0 20 110 0 0 1074 0 192 0 0	113 11 1243 LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	602 0 475 4253 0 0 870 0 116 0 0	0 28 58 0 0 782 0 0 342 0	56 16 896 LOSS 596 0 596 0 0 3490 0 0 0 0 6856	GAIN 432 0 665 2243 0 0 634 0 0 443 0 4416	0 0 0 4 0 0 0 139 0 75	0 9 0 LOSS 0 0 0 149 0 0 178 0 191 0 0 519	0 0 0 0 408 0 0 0 84 0 35	0 0 8 0 0 0 46 0 60 0	6 9 54 LOSS 0 0 1770 0 0 205 0 777 0 0 453 0 .440 180	GAIN 0 0 1990 0 0 0 37 0 36 0 0 0 264 23 0	6 0 0 40 361 0 0 0	37 11 407 LOSS 0 128 0 0 0 1010 1611 0 0 0 2749	0 232 0 0 183 293 0 0 0 708	0 0 0 0 20 214 0 0 0	18 13 234 LOSS 0 0 0 0 505 955 0 0 0 0 0 0 1460	0 0 0 0 0 92 173 0 0 0 0						0 0 0 0 624 0 0 0	7 LC 1	72 10 720 OSS 6 85 9958 3 0 0 0 0 0 2785 0 0 0	62 3557 0 0 0 0 506 0 0 0 0	12 0 0 0 0 20 0 504 0 0	168 10 1176 LOSS G/ 255 1 0 0 0 0 1814 3 0 0 3419 5993 6 1.49
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMIT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT LOSS DUCT GAIN HEAT GAIN PEOPLE	21.3 21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	15.4 38.7 23.8 38.7 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	27 11 297 LOSS 0 809 0 0 0 1156 0 0 0 0 1964	0 1469 0 0 0 0 0 0 0 0 0 0 0 0 0	0 22 0 0 0 198 0 0	20 11 220 LOSS 0 0 468 0 0 0 0 0 0 1352 0.46 627	0 0 523 0 0 0 0 0 0 0 0 0 0	0 20 110 0 0 1074 0 192 0	113 11 1243 LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	602 0 475 4253 0 0 870 0 0 116 0 0	0 28 58 0 0 782 0 0 342 0	56 16 896 LOSS 596 0 596 0 0 3490 0 0 0 0 6856	GAIN 432 0 665 2243 0 0 634 0 0 4416 392 0 0	0 0 0 4 0 0 0 139 0 75	0 9 0 LOSS 0 0 0 149 0 0 178 0 191 0 0 519	0 0 0 0 408 0 0 0 0 35 527	0 0 8 0 0 0 46 0 60	6 9 54 LOSS 0 0 1770 0 0 205 0 777 0 0 453 0 .440 180	GAIN 0 0 1990 0 0 0 377 0 366 0 0 2644	6 0 0 40 361 0 0	37 11 407 LOSS 0 128 0 0 0 1010 1611 0 0 0 2749	0 232 0 0 183 293 0 0 0 0 708	0 0 0 0 20 214 0 0	18 13 234 LOSS 0 0 0 0 505 955 0 0 0 0 0 0 1460	0 0 0 0 0 92 173 0 0 0 0 0						0 0 0 624 0 0	7 LC 1	72 10 720 OSS 6 85 9958 3 0 0 0 0 0 2785 0 0 0	62 3557 0 0 0 0 506 0 0 0 0 4125	12 0 0 0 0 20 0 504 0 0	168 10 1176 LOSS G/ 255 1 0 0 0 0 1814 3 0 0 3419 5993 6 1.49 17801
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SCHILL NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT LOSS DUCT GAIN HEAT GAIN PEOPLE HEAT GAIN APPLIANCES/LIGHTS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	15.4 38.7 23.8 38.7 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	27 11 297 LOSS 0 809 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1469 0 0 0 0 210 0 0 0 0	0 22 0 0 0 198 0 0 0	20 11 220 0 0 468 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 523 0 0 0 160 0 0 0	0 20 110 0 0 1074 0 192 0 0	113 11 1243 LOSS 830 0 426 2341 0 0 246 0 0 0 8636 0.46 4007	602 0 475 4253 0 0 870 0 116 0 0	0 28 58 0 0 782 0 0 342 0	56 16 896 LOSS 596 0 3490 0 0 0 6856 0.46 3181 0	GAIN 432 0 665 2243 0 0 634 0 0 443 0 4416	0 0 0 4 0 0 0 139 0 75	0 9 0 LOSS 0 0 0 0 149 0 0 0 191 0 0 0 5519	0 0 0 0 408 0 0 0 84 0 35	0 0 8 0 0 0 46 0 60 0	6 9 54 LOSS 0 0 1770 0 0 205 0 777 0 0 0 453 0.40 180 0	GAIN 0 0 1990 0 0 0 37 0 36 0 0 0 264 23 0	6 0 0 40 361 0 0 0	37 11 407 LOSS 0 0 0 128 0 0 0 1010 1611 0 0 0 0 2749 0 0.46 1275	0 232 0 0 183 293 0 0 0 708	0 0 0 0 20 214 0 0 0 0	18 13 234 LOSS 0 0 0 0 505 955 0 0 0 0 0 0 1460	0 0 0 0 0 92 173 0 0 0 0						0 0 0 0 624 0 0 0	7 LC 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	72 10 720 OSS 6 85 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	62 3557 0 0 0 0 506 0 0 0 0	12 0 0 0 0 20 0 504 0 0 0	168 10 1176 LOSS GJ 255 1 0 0 0 0 0 1814 3 0 0 3419 5993 6 1.49
EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED ELG NO ATTIC EXPOSED CLG EXPOSED FLOOR SASEMENT/CRAWL HEAT LOSS SLAB ON CRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT LOSS DUCT GAIN HEAT GAIN PEOPLE	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	15.4 38.7 23.8 38.7 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	27 11 297 LOSS 0 809 0 0 0 1156 0 0 0 0 1964	0 1469 0 0 0 0 0 0 0 0 0 0 0 0 0	0 22 0 0 0 198 0 0 0	20 11 220 LOSS 0 0 468 0 0 0 0 0 0 1352 0.46 627	0 0 523 0 0 0 0 0 0 0 0 0 0	0 20 110 0 0 1074 0 192 0 0	113 11 1243 LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	602 0 475 4253 0 0 870 0 0 116 0 0	0 28 58 0 0 782 0 0 342 0	56 16 896 LOSS 596 0 596 0 0 3490 0 0 0 0 6856	GAIN 432 0 665 2243 0 0 634 0 0 4416 392 0 0	0 0 0 4 0 0 0 139 0 75	0 9 0 LOSS 0 0 0 149 0 0 178 0 191 0 0 519	0 0 0 0 408 0 0 0 0 35 527	0 0 8 0 0 0 46 0 60 0	6 9 54 LOSS 0 0 1770 0 0 205 0 777 0 0 453 0 .440 180	GAIN 0 0 1990 0 0 0 37 0 36 0 0 0 264 23 0	6 0 0 40 361 0 0 0	37 11 407 LOSS 0 128 0 0 0 1010 1611 0 0 0 2749	0 232 0 0 183 293 0 0 0 0 708	0 0 0 0 20 214 0 0 0 0	18 13 234 LOSS 0 0 0 0 0 505 505 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 92 173 0 0 0 0 0						0 0 0 0 624 0 0 0	7 LC 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	72 10 720 OSS 6 85 1958 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	62 3557 0 0 0 0 506 0 0 0 0 4125	12 0 0 0 0 20 0 504 0 0 0	168 10 1176 LOSS G/ 255 1 0 0 0 0 1814 3 0 0 3419 5993 6 1.49

TOTAL HEAT GAIN BTU/H:

61044

TONS: 5.09

LOSS DUE TO VENTILATION LOAD BTU/H: 3181

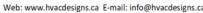
STRUCTURAL HEAT LOSS: 91103

TOTAL COMBINED HEAT LOSS BTU/H: 94284

Michael Oxounde.



		: PINE VA							OPT 5 BI 5004 THI	E BEAU		В	DATE:	Jun-20			GFA:	4294	LO#	80142				
HEATING CFM TOTAL HEAT LOSS AIR FLOW RATE CFM	91,103	A	TOTAL H	OLING CFM HEAT GAIN RATE CFM	60,467		а	furr a/c coil vailable p	pressure ace filter pressure pressure s/a & r/a							EL	.296UH11 FAN		110	(AFUE = (BTU/H) = (BTU/H) =	110,000	
RUN COUNT S/A	4th 0	3rd 0	2nd 18	1st 12	Bas 8		ple		ssure s/a			r/a	pressure	0.17				EDLOW	1380 1505		DESIG	GN CFM = CFM @ .6		ež.
R/A All S/A diffusers 4"x10" unle	0 ess note	0 od otherwi	6 se on lav	4	1	l			ess. loss ssure s/a	0.02			ess. Loss essure r/a	0.02			MEDIU	M HIGH	1685 1955	т	EMPERATI	IDE DISE	50	°F
All S/A runs 5"Ø unless not				out.			min day	iotou pro	35410 574		uuj	doted pre	700410 174	0.10								-		13
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 RM LOSS MBH.	MBR 1.62	ENS 2.49	BED-5 2.06	BED-2 2.49	BED-3 1.16	BED-4 1.83	ENS-2 0.34	WIC-2 1.26	ENS-4 0.63	MBR 1.62	ENS-3 1.82	LIBR 1.44	DIN 1.98	KIT 3.16	KIT 3.16	GREAT 3.35	LAUN 0.80	KIT 3.16	FOY 4.02	MUD 2.14	BAS 3.86	BAS 3.86	BAS 3.86	BAS 3.86
CFM PER RUN HEAT	35	54	44	53	25	39	7	27	14	35	39	31	42	68	68	72	17	68	86	46	83	83	83	83
RM GAIN MBH.	2.71	1.82	2.16	3.10	1.56	1.89	0.11	0.28	0.37	2.71	0.92	1.76	2.11	2.52	2.52	2.47	2.08	2.52	1.00	1.52	0.84	0.84	0.84	0.84
CFM PER RUN COOLING	87	59	70	100	50	61	4	9	12	87	30	57	68	82	82	80	67	82	32	49	27	27	27	27
ADJUSTED PRESSURE	0.16	0.17	0.17	0.16	0.17	0.17	0.17	0.17	0.17	0.16	0.17	0.17	0.17	0.16	0.16	0.17	0.17	0.16	0.16	0.17	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH.	46	62	29	34	38	50	28	31	43	54	41	41	27	40	32	49	26	36	24	16	75	50	47	42
EQUIVALENT LENGTH TOTAL EFFECTIVE LENGTH	190 236	140 202	180 209	180 214	120 158	150 200	160 188	150 181	190 233	180 234	160 201	180 221	80 107	140 180	150 182	130 179	150 176	140 176	150 174	130 146	140 215	140 190	100 147	102 144
ADJUSTED PRESSURE	0.07	0.09	0.08	0.08	0.11	0.09	0.09	0.1	0.07	0.07	0.09	0.08	0.16	0.09	0.09	0.1	0.1	0.09	0.09	0.12	0.08	0.09	0.11	0.11
ROUND DUCT SIZE	6	5	5	6	4	5	4	4	4	6	4	5	5	5	5	5	5	5	5	4	6	5	5	5
HEATING VELOCITY (ft/min)	178	396	323	270	287	286	80	310	161	178	447	228	308	499	499	529	125	499	631	528	423	609	609	609
COOLING VELOCITY (ft/min)	444	433	514	510	574	448	46	103	138	444	344	419	499	602	602	587	492	602	235	562	138	198	198	198
OUTLET GRILL SIZE	4X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10
TRUNK	В	С	D	F	F	E	F	D	E	В	F	E	F	С	С	Α	D	В	E	D	Α	Α	С	С
RUN#	25	26	27	28	29	30	31	32	33	34	35	36	37	38										
ROOM NAME	BAS	BAS	BAS	BAS	WIC	ENS	BED-3	BED-3	BED-4	BED-4	LIBR	KIT	GREAT	GREAT										
RM LOSS MBH.	3.86	3.86	3.86	3.86	1.39	0.99	1.16	1.16	1.83	1.83	1.44	3.16	3.35	3.35										
CFM PER RUN HEAT	83	83 0.84	83	83	30 0.92	21	25	25	39	39	31	68	72	72										
RM GAIN MBH. CFM PER RUN COOLING	0.84 27	27	0.84	0.84	30	0.62	1.56 50	1.56 50	1.89	1.89	1.76 57	2.52 82	2.47	2.47										
ADJUSTED PRESSURE	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.17	0.17										
ACTUAL DUCT LGH.	37	23	17	31	34	33	42	46	47	40	35	28	39	64										
EQUIVALENT LENGTH	120	80	120	150	140	140	130	140	150	130	140	150	150	150										
TOTAL EFFECTIVE LENGTH	157	103	137	181	174	173	172	186	197	170	175	178	189	214										
ADJUSTED PRESSURE	0.1	0.16	0.12	0.09	0.1	0.1	0.1	0.09	0.09	0.1	0.1	0.09	0.09	0.08										
ROUND DUCT SIZE HEATING VELOCITY (ft/min)	5 609	5 609	5 609	5 609	344	4 241	287	4 287	5 286	5 286	5 228	5 499	5 529	5 529										
COOLING VELOCITY (ft/min)	198	198	198	198	344	229	574	574	448	448	419	602	587	587										
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10										
TRUNK	В	D	F	E	D	D	F	F	E	E	E	В	Α	Α										
SUPPLY AIR TRUNK SIZE																	RETURN A	AIR TRUNK	SIZE					
OUT ET AIR TROUT OILL	TRUNK	STATIC	ROUND	RECT			VELOCITY			TRUNK	STATIC	ROUND	RECT			VELOCITY	TAL TOTAL ?	TRUNK	STATIC	ROUND	RECT			VELOCITY
	CFM	PRESS.	DUCT	DUCT			(ft/min)			CFM	PRESS.	DUCT	DUCT			(ft/min)		CFM	PRESS.	DUCT	DUCT			(ft/min)
TRUNK A	382	0.08	9.8	12	×	8	573		TRUNK G	0	0.00	0	0	×	8	0	TRUNK O	0	0.05	0	0	×	8	0
TRUNK B	671	0.07	12.5	18	×	8	671		TRUNK H	0	0.00	0	0	×	8	0	TRUNK P	0	0.05	0	0	×	8	0
TRUNK C	356 1295	0.09	9.2	10 30	×	8	641 777		TRUNK J	0	0.00	0	0	X X	8	0	TRUNK Q	0	0.05	0	0	×	8	0
TRUNK E	362	0.07	9.9	12	x	8	543		TRUNK K	o	0.00	0	Ö	x	8	o	TRUNK S	Ö	0.05	o	0	x	8	0
TRUNK F	661	0.07	12.4	20	x	8	595		TRUNK L	0	0.00	0	0	x	8	0	TRUNKT	0	0.05	0	0	×	8	0
																	TRUNK U	0	0.05	0	0	×	8	0
RETURN AIR #	1	2	3	4	5	6	7	8	9	10						BR	TRUNK W	0	0.05	0	0	×	8	0
200 CT - 524 CD GO 32 SW	O	0	0	0	0	0	0	0	0	0	0	0	0	0	0		TRUNK X	1465	0.05	18.2	32	×	10	659
AIR VOLUME	110	110	110	110	305	85	300	300	185	40	0	0	0	0	0	300	TRUNK Y	795	0.05	14.5	24	×	8	596
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	0.15	0.15	TRUNK Z	490	0.05	12.1	18	×	8	490
ACTUAL DUCT LGH.	38 195	37 185	37 165	45 205	43 145	59 175	27 190	25 185	34 150	43 285	1	0	1	1	1	18 195	DROP	1955	0.05	20.3	24	x	18	652
TOTAL EFFECTIVE LH	233	222	202	250	188	234	217	210	184	328	1	1	1	1	1	213								
ADJUSTED PRESSURE	0.06	0.07	0.07	0.06	0.08	0.06	0.07	0.07	0.08	0.05	14.80	14.80	14.80	14.80	14.80	0.07								
ROUND DUCT SIZE	6.6	6.3	6.3	6.6	9	6	9.2	9.2	7.5	4.7	0	0	0	0	0	9.2								
INLET GRILL SIZE	8	8	8	8	8	8	8	8	8	8	0	0	0	0	0	8								
INILET COUL COTE	X	X	X	X	X	X	X	X	X	X	X 0	X 0	0	×	×	X								
INLET GRILL SIZE	14	14	14	14	30	14	30	30	14	14	U	U	0	0	0	30	L							





TYPE:

5004 THE BEAUMONT

SITE NAME: PINE VALLEY & TESTON OPT 5 BED CORNER WOB

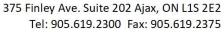
RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

80142

COMBUSTION APPLIANCES	9.32.3.1(1)	SUPPLEMENTAL V	ENTILATION CAPACITY			9.32.3.5.
a) Direct vent (sealed combustion) only		Total Ventilation Ca	pacity	201.4	_	cfm
b) Positive venting induced draft (except fireplaces)		Less Principal Venti	I. Capacity	155	-	cfm
c) Natural draft, B-vent or induced draft gas fireplace		Required Suppleme	ntal Capacity	46.4	-	cfm
d) Solid Fuel (including fireplaces)		DDINGIDAL EVILAL	ICT CAN CARACITY			
e) No Combustion Appliances		Model:	VANEE 65H	Location:	B	SMT
HEATING SYSTEM		155.0		ones		-WI Approved
			IST HEAT LOSS CALCULATION	MARKET II.	· — ·	
Forced Air Non Forced Air		CFM	ΔT °F	FACTOR		% LOSS
C Florida Social Mark		155.0 CFM	X 76 F	X 1.08	Х	0.25
Electric Space Heat		SUPPLEMENTAL F	ANS	NUTONE		
		Location	Model	cfm	HVI	Sones
HOUSE TYPE	9.32.1(2)	ENS ENS-2	QTXEN050C QTXEN050C	50 50	1	0.3
✓ I Type a) or b) appliance only, no solid fuel		ENS-3	QTXEN050C	50	1	0.3
		ENS-4	QTXEN050C	50	1	0.3
II Type I except with solid fuel (including fireplaces)					
III Any Type c) appliance		HEAT RECOVERY Model:	VANEE 65H			9.32.3.11.
III		155	cfm high	64		cfm low
IV Type I, or II with electric space heat		828			_	
Other: Type I, II or IV no forced air		75	% Sensible Efficiency @ 32 deg F (0 deg C)		H	IVI Approved
Curer. Type 1, if of 14 no forced an			@ 52 deg 1 (0 deg 0)			
		LOCATION OF INS	TALLATION			
SYSTEM DESIGN OPTIONS	O.N.H.W.P.	Lot:		Concession		
1 Exhaust only/Forced Air System		Lot.		Concession		
		Township		Plan:		
2 HRV with Ducting/Forced Air System		Address				
3 HRV Simplified/connected to forced air system		Roll #		Building Pern	nit#	
4 HRV with Ducting/non forced air system		BUILDER:	GOLD PARK HOMES	;		
Part 6 Design		Name:	700 89 00 00 00 00 00 00 00 00 00 00 00 00 00			
TOTAL VENTILATION CAPACITY	9.32.3.3(1)	Address:				
Basement + Master Bedroom 2 @ 21.2 cfm 42.4	cfm	City:				
Other Bedrooms <u>3</u> @ 10.6 cfm <u>31.8</u>	cfm	Telephone #:		Fax #:		
Kitchen & Bathrooms	cfm	INSTALLING CONT	TRACTOR			
Other Rooms6 @ 10.6 cfm63.6	cfm	Name:				
Table 9.32.3.A. TOTAL <u>201.4</u>	cfm	Address:				-
		City:				
PRINCIPAL VENTILATION CAPACITY REQUIRED	9.32.3.4.(1)	Telephone #:		Fax #:		
1 Bedroom 31.8	cfm		TO A TION			
2 Bedroom 47.7	cfm		this ventilation system has bee	en designed		
3 Bedroom 63.6	cfm	Name:	he Ontario Building Code. HVAC Designs Ltd.			
4 Bedroom 79.5	cfm	Signature:	Mhe	had Offmhe		
5 Bedroom 95.4	cfm	HRAI#		001820		
TOTAL 79.5 cfm		Date:		June-20		
I REVIEW AND TAKE RESPONIBILITY FOR THE DESIGN WORK AND AM QUAL	IFIED IN THE API	PROPRIATE CATEGORY AS AN	"OTHER DESIGNER" UNDER DIVISIO	N C, 3.2.5 OF THE BU	ILDING CO	DE.



			Forn	nula Sheet (For Air Lea	akage / Ventiliation C	aiculation)				
LO#:	80142	Model: 5004 THE BE	AUMONT	Builde	er: GOLD PARK HOMES				Date	: 6/4/2020
		Volume Calculation	n			i	Air Change & Delt	a T Data		100 TW
				7						7
ise Volume	F1 A (5+2)	T ====================================	1 1/1 /6/3)	-			TURAL AIR CHANG	T / 3 / 3 / 3 / 3 / 3 / 3 / 3 / 3 / 3 /	0.407	-
Level	Floor Area (ft²) 2078	Floor Height (ft)	Volume (ft³) 20780			SUMMER NA	TURAL AIR CHANG	DE RATE	0.140	_
Bsmt First	2078	11	22858	-						
Second	2301	9	20709				Design To	mperature Diffe	erence	
Third	0	9	0	- -			Tin °C	Tout °C	ΔT°C	ΔT °F
Fourth	0	9	0	-		Winter DTDh	22	-20	42	76
100,111	, , , , , , , , , , , , , , , , , , ,	Total:	64,347.0 ft ³			Summer DTDc	23	31	8	14
		Total:	1822.1 m³			Summer 5150	23	31		14
	5.2.3	3.1 Heat Loss due to A	r Leakage		4	6.2.6 5	Sensible Gain due	to Air Leakage		
	$HL_{airb} =$	$LR_{airh} \times \frac{V_b}{3.6} \times I$	$OTD_h \times 1.2$		H	$HG_{salb} = LR_{airc} \times$	$\frac{V_b}{3.6} \times DTD_c$	× 1.2		
0.407	x 506.14	_ x <u>42 °C</u>	x <u>1.2</u>	= 10434 W	=0.140	x506.14	x 8°C	x1.2	=	654 W
				25504 Pt/b	1					2224 Dt.
				= 35601 Btu/h]				=	2231 Btu/
	5.2.3.2 He	at Loss due to Mechar	nical Ventilation			6.2.7 Ser	sible heat Gain d	ue to Ventilatio	n	
	$HL_{vairb} =$	$PVC \times DTD_h \times 1$	$1.08 \times (1-E)$		HL	$_{vairb} = PVC \times D'$	$ID_h \times 1.08 \times$	(1-E)		
155 CFM	x76 °F	_ x <u>1.08</u>	x0.25	= 3181 Btu/h	155 CFM	x14 °F	x1.08	x0.25	=	578 Btu/
			5.2.3.3 Calcula	ation of Air Change Heat	Loss for Each Room (Flo	or Multiplier Section)				
		HL_a	$_{irr} = Level Fact$	$tor \times HL_{airbv} \times \{(H_{airbv}) \times $	$HL_{agcr} + HL_{bgcr}$ \div	$(HL_{agclevel} + HL_{l})$	ogclevel)}	is		
		Level	Level Factor (LF)	HLairve Air Leakage + Ventilation Heat Loss (Btu/h)	Level Conductive Heat Loss: (HL _{clevel})	Air Leakage Heat Los HLairbv / H				
		1	0.5		11,967	1.48	7			
		2	0.3		23,016	0.46	4			
		3	0.2	35,601	17,947	0.39	7			
		4	0	The special state.	0	0.00	0			
					0	0.00				







HEAT LOSS AND GAIN SUMMARY SHEET

		HEAT	LOSS AND GAIN	I SUMMARY SHEET	
MODEL:	5004 THE BEAUMONT		OPT 5 BED CORNER	R WOB BUILDER : GOLD PARK HOMES	
SFQT:	4294	LO#	80142	SITE: PINE VALLEY & TESTON	
DESIGN A	SSUMPTIONS				
*					*
HEATING			°F	COOLING	°F
	R DESIGN TEMP.		-4	OUTDOOR DESIGN TEMP.	88
INDOOR [DESIGN TEMP.		72	INDOOR DESIGN TEMP. (MAX 75°F)	74
BUILDING	G DATA				
ATTACHM	1ENT:		DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FA	ACES:		EAST	ASSUMED (Y/N):	Υ
AIR CHAN	IGES PER HOUR:		3.57	ASSUMED (Y/N):	Υ
AIR TIGHT	TNESS CATEGORY:		AVERAGE	ASSUMED (Y/N):	Υ
WIND EXF	POSURE:		SHELTERED	ASSUMED (Y/N):	Υ
HOUSE V	OLUME (ft³):		64347.0	ASSUMED (Y/N):	Υ
INTERNAL	SHADING:	BLIND	S/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR	LIGHTING LOAD (Btu/h/	ft²):	1.50	DC BRUSHLESS MOTOR (Y/N):	Υ
FOUNDAT	TION CONFIGURATION		BCIN_1	DEPTH BELOW GRADE:	7.0 ft
LENGTH: 74.0 ft WIDTH: 46.0			46.0 ft	EXPOSED PERIMETER:	168.0 ft
WOB INSULATION CONFIGURATION			SCB_9	WOB EXPOSED PERIMETER	72.0 ft

2012 OBC - COMPLIANCE PACKAGE		
	Complian	e Package
Component		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

We	ather Sta	tion Description
Province:	Ontario	•
Region:	Vaughan	(Woodbridge)
	Site D	escription
Soil Conductivity:	Normal	conductivity: dry sand, loam, clay
Water Table:	Normal	(7-10 m, 23-33 ft)
F	oundatio	n Dimensions
Floor Length (m):	7.6	
Floor Width (m):	14.0	
Exposed Perimeter (m):	51.2	
Wall Height (m):	3.0	
Depth Below Grade (m):	1.90	Insulation Configuration
Window Area (m²):	1.1	
Door Area (m²):	1.9	
	Radi	ant Slab
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
	Desig	n Months
Heating Month	1	
	Founda	ation Loads
Heating Load (Watts):		1002

TYPE: 5004 THE BEAUMONT

LO# 80142

OPT 5 BED CORNER WOB



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Wea	ther Sta	tion Description				
Province:	Ontario	·				
Region:	Vaughan	(Woodbridge)				
	Site D	escription				
Soil Conductivity:	Normal co	onductivity: dry sand, loam, clay				
Water Table: Normal (7-10 m, 23-33 ft)						
Fo	oundatio	n Dimensions				
Length (m):	4.6					
Width (m):	12.8	0.6m				
Exposed Perimeter (m):	21.9	0.6m Insulation Configuration				
	Radi	ant Slab				
Heated Fraction of the Slab:	0					
Fluid Temperature (°C):	33					
	Design	n Months				
Heating Month	1					
	Re	esults				
Heating Load (Watts):		336				

TYPE: 5004 THE BEAUMONT

LO# 80142

OPT 5 BED CORNER WOB



Air Infiltration Residential Load Calculator

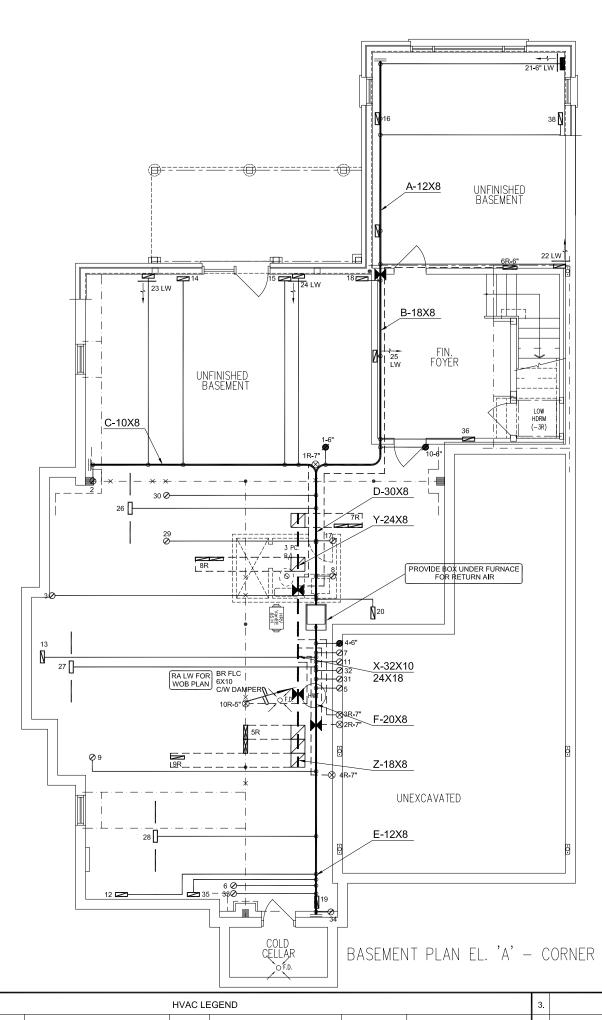
Supplemental tool for CAN/CSA-F280

Weather Statio	n Des	cript	ion		
Province:	Ontar	io			
Region:	Vaugl	nan (W	oodbr/	idge)	
Weather Station Location:	Open	flat te	rrain, g	grass	
Anemometer height (m):	10				
Local Sh	ieldin	g			
Building Site:	Subur	ban, f	orest		
Walls:	Heavy	/			
Flue:	Heavy	/			
Highest Ceiling Height (m):	9.14				
Building Cor	figura	ation			
Type:	Detac	hed			
Number of Stories:	Two				
Foundation:	Full				
House Volume (m³):	1822.	1			
Air Leakage/	Ventil	atior	1		
Air Tightness Type:	Prese	nt (19	61-) (3.	57 ACH	⊣)
Custom BDT Data:	ELA @	9 10 Pa	Э.		2428.9 cm ²
	3.57				ACH @ 50 Pa
Mechanical Ventilation (L/s):	To	tal Sup	ply		Total Exhaust
		73.2			73.2
Flue S	Size				
Flue #:	#1	#2	#3	#4	
Diameter (mm):	0	0	0	0	
Natural Infilt	ation	Rate	es.		
Heating Air Leakage Rate (ACH/H):		C	.40	7	
Cooling Air Leakage Rate (ACH/H):		C).14	0	

TYPE: 5004 THE BEAUMONT

LO# 80142

OPT 5 BED CORNER WOB



WOB

								_		
			3.							
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	REVISED AS PER ARCHITECTURALS	JUNE/2020
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	ADDED RETURN # 10	NOV/2018
	SUPPLY AIR GRILLE 6" BOOT	0	SUPPLY AIR STACK FROM 2nd FLOOR	<u></u>	30"x8" RETURN AIR GRILLE	×	RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE	Ø	6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE	X	REDUCER		REVISIONS	

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GOLD PARK HOMES

Project Name

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.

PINE VALLEY & TESTON VAUGHAN, ONTARIO THE BEAUMONT **OPT 5 BED WOB** 4294 sqft **5004 - CORNER**

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

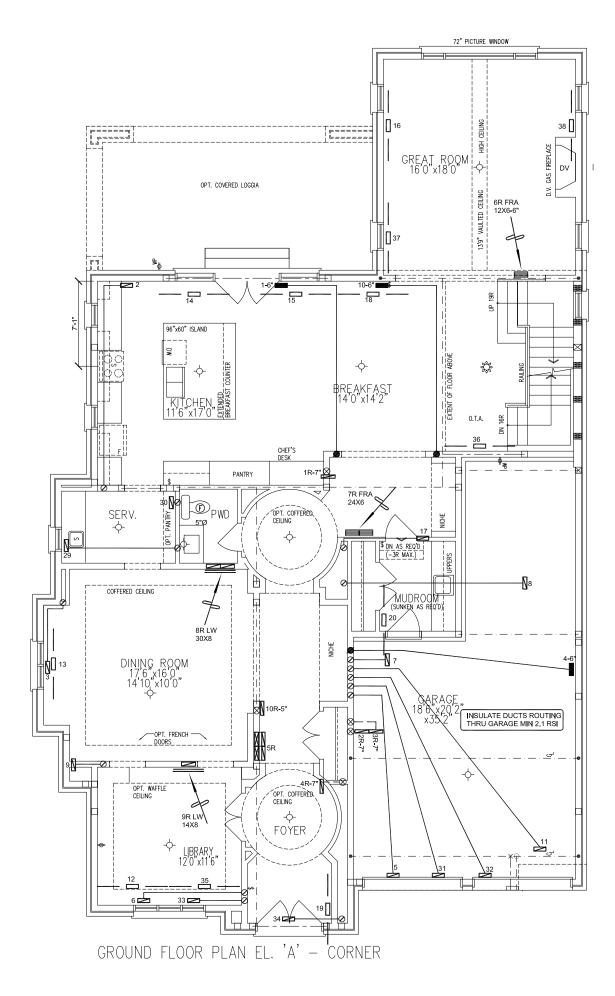
Specializing in Residential Mechanical Design Services

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 LO	SS 94284	BTU/H	# OF RUNS	S/A	R/A	FANS	She
U	IN I T DATA		3RD FLOOR				
MAKE I	.ENNOX		2ND FLOOR	40			
MODEL	LINIOX		ZIND I LOOK	18	6	6	
	6110XE600		1ST FLOOR	12	4	2	
INPUT	110	MBTU/H	BASEMENT	8	1	0	Dat
OUTPUT	400	MBTU/H	ALL S/A DIFFU	SERS	4 "x10)"	Sca
	106		UNLESS NOTE	D OTH	IERW	ISE	
COOLING		TONS	ON LAYOUT. A	LL S/A	RUN	S 5"Ø	
	5.0	10110	UNLESS NOTE	D OTH	HERW	ISE	
FAN SPEED		cfm @	ON LAYOUT. U				
	1955	0.6" w.c.	DOORS 1" min.	FOR	R/A		

3	Sheet Title										
	BA	BASEMENT									
	Н	HEATING									
	L	LAYOUT									
	Date (SEPT/2018									
	Scale '	1/8" = 1'-0"									
í	BCIN# 19669										
	LO#	80142									



WOB

								_		
				HVAC LE	EGEND			3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	REVISED AS PER ARCHITECTURALS	JUNE/2020
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	ADDED RETURN # 10	NOV/2018
	SUPPLY AIR GRILLE 6" BOOT	0	SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE	×	RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE	Ø	6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE	X	REDUCER		REVISIONS	

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GOLD PARK HOMES

Project Name

PINE VALLEY & TESTON VAUGHAN, ONTARIO THE BEAUMONT **OPT 5 BED WOB** 4294 sqft **5004 - CORNER**

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

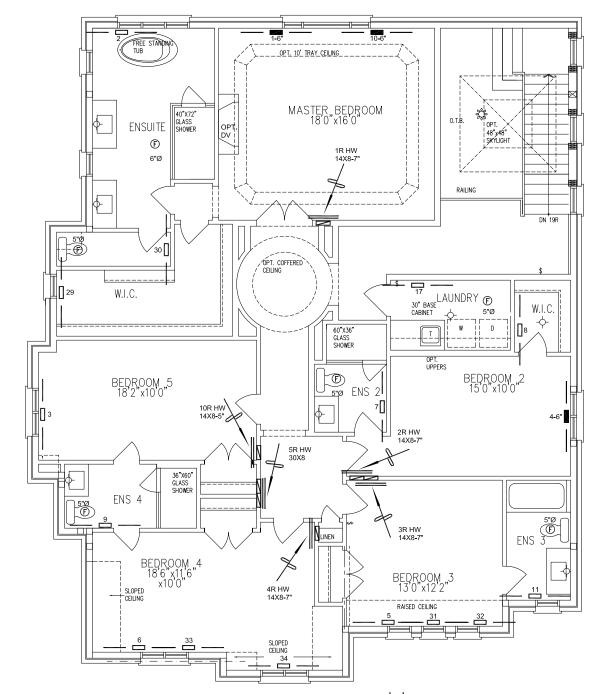
Specializing in Residential Mechanical Design Services

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.

FIRST FLOOR **HEATING LAYOUT**

SEPT/2018 Date 1/8" = 1'-0"

BCIN# 19669



WOB

OPT.	5	BED.	SECOND	FLOOR	PLAN	EL.	Ά,	_	CORNER

HVAC DESIGNS LTD.										
				HVAC LE	EGEND			3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	REVISED AS PER ARCHITECTURALS	JUNE/2020
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	ADDED RETURN # 10	NOV/2018
	SUPPLY AIR GRILLE 6" BOOT	0	SUPPLY AIR STACK FROM 2nd FLOOR	<u></u>	30"x8" RETURN AIR GRILLE	×	RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE	Ø	6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE	X	REDUCER		REVISIONS	

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GOLD PARK HOMES

Project Name

PINE VALLEY & TESTON VAUGHAN, ONTARIO THE BEAUMONT **OPT 5 BED WOB 5004 - CORNER** 4294 sqft

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.

SECOND FLOOR **HEATING LAYOUT**

SEPT/2018 1/8" = 1'-0"

BCIN# 19669

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.
NA: minimality	Destal sade	Diam mumban/ athan dage	- wine tie w		
Municipality	Postal code	Plan number/ other desc	cription		
VAUGHAN (WOODBRIDGE)	" " "				
B. Individual who reviews and takes	responsibility fo	, 			
Name MICHAEL O'ROURKE		Firm HVAC DESIGNS LTD.			
Street address		ITVAO DEGIGINO ETD.	Unit no.		Lot/con.
375 FINLEY AVE			202		N/A
Municipality	Postal code	Province	E-mail		1
AJAX	L1S 2E2	ONTARIO	info@hvacdes	igns.ca	
Telephone number	Fax number		Cell number		
(905) 619-2300	(905) 619-2375		()		
C. Design activities undertaken by in	dividual identific	ed in Section B. [Build	ding Code Tak	ole 3.5.2.1 OF Divi	sion C]
☐ House	⊠ HVAC	– House		Building Structura	al
☐ Small Buildings	Building	g Services	□ F	Plumbing – Hous	se
☐ Large Buildings		ion, Lighting and Pov		Plumbing – All B	
☐ Complex Buildings	☐ Fire Pr			On-site Sewage	Systems
Description of designer's work HEAT LOSS / GAIN CALCULATIONS		Model:	5004 THE BEAU	IMONT	
DUCT SIZING			CORNER WOB		
RESIDENTIAL MECHANICAL VENTILATION	N DESIGN SUMM	IARY Drainet	DINE MALLEY O	TECTON	
RESIDENTIAL SYSTEM DESIGN per CSA		Project:	PINE VALLEY &	TESTON	
D. Declaration of Designer					
I MICHAEL O'ROURKE			declare that	at (choose one as ap	opropriate).
	int name)	· · · · · · · · · · · · · · · · · · ·	400.4.0	at (00000 00 do dp	, p. sp. (a.t.).
☐ I review and take responsibility for Division C, of the Building Code. classes/categories.				ction 3.2.4.of appropriate	
Individual BCIN: Firm BCIN:					
☑ I review and take responsibility for designer under subsection 3.3		m qualified in the appropr on C, of the Building Code		an "other	
Individual BCIN:	19669				
		d qualification:	O.B.C SENT	TENCE 3.2.4.1	(4)_
☐ The design work is exempt Basis for exemption from registra		ion and qualification requi on:	rements of the B	Building Code.	
I certify that:					
1 oortily that.					
 The information contained I have submitted this application 		ule is true to the best of medge and consent of the t			
June 4, 2020			Michan	Ofounde	-
Date				Signature of Des	igner
				6	

NOTE

^{1.} For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d).of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.

^{2.} 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.



	PINE VA									ER WOE								DATE:									ANGE RATE 0.407		HEAT L						CSA-F280-
BUILDER: (GOLD F	PARK	OMES					TYPE:	_		AUMON	т		GFA:	4294			LO#					UMMER	RNAT		IR CH	ANGE RATE 0.140		HEAT	GAIN A	ΔT°F.	14		SB-12	PACKAGE
ROOM USE	i			MBR			ENS		1	DRESS			BED-2			BED-3			BED-4			ENS-2			WIC-2			1	ENS-3						
EXP. WALL	į.			19			41		l	14			11			18			43			0			13				18	- 1					
CLG. HT.				10			9		l	9			9			9			10			9			9				9	- 1					
, Ir	FACTO	RS							l																					- 1					
GRS.WALL AREA	LOSS	GAIN		190			369		l	126			99			162			430			0			117				162						
GLAZING				LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN			LOSS	GAIN					
NORTH	21.3	16.3	0	0	0	0	0	0	0	0	0	19	404	309	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0					
EAST	21.3	41.8	0	0	0	0	0	0	0	0	0	0	0	0	42	894	1757	50	1064	2092	0	0	0	0	0	0		10	213	418					
SOUTH	21.3	25.2	0	0	0	29	617	730	18	383	453	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0					
WEST	21.3	41.8	35	745	1464	28	596	1171	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0					
SKYLT.	37.2	102.0	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					
DOORS	25.2	4.6	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					
NET EXPOSED WALL	4.5	0.8	155	692	126	312	1392	253	108	482	88	80	357	65	120	536	97	380	1696	308	0	0	0	117	522	95		152	678	123					
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.7	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					
EXPOSED CLG	1.3	0.6	468	601	283	312	400	189	228	293	138	187	240	113	136	175	82	267	343	161	84	108	51	78	100	47		77	99	47					
NO ATTIC EXPOSED CLG	72.77	1.3	0	0	0	0	0	0	0	0	0	0	0	0	60	165	78	150	412	194	0	0	0	0	0	0		0	0	0					
EXPOSED FLOOR	2.6	0.5	0	0	0	0	0	0	0	0	0	187	477	87	196	500	91	20	51	9	45	115	21	78	199	36		77	196	36					
BASEMENT/CRAWL HEAT LOSS	2.0	0.5		0		"	0		"	0	ŏ.	107	0	0,	100	0		20	0		45	0	-	10	0	30			0	30					
SLAB ON GRADE HEAT LOSS	į .			0			0			0			0			0			0			0			0				0						
	į.			100			3006		l	1158			1478			2269			3566			223			821				1186						
SUBTOTAL HT LOSS SUB TOTAL HT GAIN	į.			2037	1873		3000	2343	l	1130	679		14/0	573		2209	2105		3300	2764		223	72		021	178			5777	624					
	į.		0.00	0.40	18/3	0.00	0 40	2343	0.00	0.40	619	0.00	0.40	5/3	0.00	0.40	2105	0.00	0.40	2/04	0.00	0.40	12	0.00	0.40	1/8		0.00		624					
LEVEL FACTOR / MULTIPLIER	l .		0.20			0.20			0.20	0.43		0.20			0.20	0.43		0.20	0.43		0.20	0.43		0.20				0.20		- 1					
AIR CHANGE HEAT LOSS	į.			875			1292		l	497			635			975			1532			96			353				510						
AIR CHANGE HEAT GAIN	l .				167			209	l		60			51			187			246			6			16				56					
DUCTLOSS	į.			0			0		l	0			211			324			510			32			117				170						
DUCT GAIN	į .				0			0	l		0			174			341			413			8			19				68					
HEAT GAIN PEOPLE	240		2		480	0		0	0		0	1		240	1		240	1		240	0		0	0		0		0		0					
HEAT GAIN APPLIANCES/LIGHTS	1				881			0	100		881			881			881			881			0			0		10.0		0					
TOTAL HT LOSS BTU/H	į.			2912			4297		l	1655			2325			3568			5608			350	201		1291	200			1866						
TOTAL HT GAIN x 1.3 BTU/H	1				4420			3317			2105			2495			4880			5908			112			277				971					
						_			_			_			_																				
ROOM USE	l .			LIBR			DIN			KIT			GREAT	is i		LAUN		1	ENS-4			FOY			MUD							WOE	3		BAS
EXP. WALL	l .			27			20		l	113			56			0			6			37			18					- 1		71			168
CLG. HT.		-000-0		11			11		l	11			16			9						11			13							10			10
TREAD ROOM AND ADDRESS OF	FACTO	pe				l			ı										9							- 1				- 1					
		1000000										l							5267.0															ı	
GRS.WALL AREA	LOSS	1000000		297			220			1243			896			0			54	W707 to 10		407			234							710			1176
GRS.WALL AREA	LOSS	1000000	54.731	297 LOSS	GAIN		220 LOSS	GAIN	.terur	1243 LOSS	GAIN		896 LOSS	GAIN	98.77	0 LOSS	GAIN		54	GAIN			GAIN	CHTW	234 LOSS	GAIN							S GAIN		1176 LOSS GA
	LOSS 21.3	1000000	0		GAIN 0	0		GAIN 0	39		GAIN 634	28		GAIN 455	0		GAIN 0	0	54	GAIN 0	0		GAIN 0	0		GAIN 0					4			12	
GLAZING		GAIN	0 38	LOSS		0	LOSS		39 0	LOSS		28 0	LOSS		0	LOSS		0	54 LOSS	1	0	LOSS		0	LOSS	1,500					4 92	LOSS	S GAIN 65	12 0	LOSS GA
GLAZING NORTH EAST	21.3	GAIN 16.3	2550	LOSS 0	0	183	LOSS	0		LOSS 830	634	800	LOSS 596	455	0 0 0	LOSS	0	1000	54 LOSS 0	0	197552	LOSS	0	100000	LOSS	0					4	LOSS 85	S GAIN 65	525	LOSS GA 255 19
GLAZING NORTH EAST	21.3 21.3	16.3 41.8	38	0 809	0 1590	0	LOSS 0 0	0	0	830 0	634 0	0	596 0	455 0	0	LOSS	0	0	54 LOSS 0	0	6	0 128	0 251	0	LOSS 0 0	0					4 92	LOSS 85	65 3849	0	LOSS GA 255 19 0 0
GLAZING NORTH EAST SOUTH	21.3 21.3 21.3 21.3	16.3 41.8 25.2	38 0	0 809 0	0 1590 0	0 22	0 0 468	0 0 554	0 20	830 0 426	634 0 504	0 28	596 0 596	455 0 705	0	LOSS	0 0	0 8	54 LOSS 0 0 170	0	6 0	0 128 0	0 251 0	0	0 0 0	0 0 0					4 92 0	LOSS 85	65 8 3849 0	0	LOSS GA 255 19 0 0
GLAZING NORTH EAST SOUTH WEST	21.3 21.3 21.3	16.3 41.8 25.2 41.8	38 0 0	0 809 0	0 1590 0 0	0 22 0	0 0 468 0	0 0 554 0	0 20 110	830 0 426 2341	634 0 504 4602	0 28 58	596 0 596 1234	455 0 705 2426	0	LOSS	0 0 0	0 8 0	54 LOSS 0 0 170	0 0 201 0	6 0 0	0 128 0 0	0 251 0 0	0 0 0	0 0 0 0	0 0 0					92 0 0	85 1958 0	65 8 3849 0	0 0 0	LOSS GA 255 19 0 0 0 0
GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS	21.3 21.3 21.3 21.3 37.2	16.3 41.8 25.2 41.8 102.0 4.6	38 0 0 0	0 809 0 0 0	0 1590 0 0	0 22 0 0	0 0 468 0 0	0 0 554 0 0	0 20 110 0	830 0 426 2341 0	634 0 504 4602 0	0 28 58 0	596 0 596 1234 0	455 0 705 2426 0 0	0 0 0	LOSS	0 0 0 0	0 8 0 0	54 LOSS 0 0 170 0	0 0 201 0 0	6 0 0 0 40	0 128 0 0 0 1010	0 251 0 0 0 183	0 0 0 0 20	0 0 0 0 0 0 505	0 0 0 0 0					4 92 0 0 0	85 1958 0 0 0	65 65 8 3849 0 0 0	0 0 0	LOSS GA 255 19 0 0 0 0 0 0
GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL	21.3 21.3 21.3 21.3 37.2 25.2 4.5	16.3 41.8 25.2 41.8 102.0 4.6 0.8	38 0 0	0 809 0 0	0 1590 0 0 0	0 22 0 0	0 0 468 0 0	0 0 554 0	0 20 110 0	830 0 426 2341 0	634 0 504 4602 0	0 28 58 0	596 0 596 1234 0	455 0 705 2426 0	0 0 0 0 0	LOSS	0 0 0 0	0 8 0	54 LOSS 0 0 170 0 0 205	0 0 201 0	6 0 0	0 128 0 0	0 251 0 0	0 0 0	0 0 0 0	0 0 0 0					4 92 0 0	85 1958 0 0	65 65 8 3849 0 0 0	0 0 0 0 20	LOSS GA 255 19 0 0 0 0 0 0 505 90 0 0
GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6	16.3 41.8 25.2 41.8 102.0 4.6 0.8 0.7	38 0 0 0 0 0 259	0 809 0 0 0 0 1156	0 1590 0 0 0 0 210	0 22 0 0 0 0 198	0 0 468 0 0 0 884	0 0 554 0 0 0 160	0 20 110 0 0 1074	830 0 426 2341 0 0 4793	634 0 504 4602 0 0 870	0 28 58 0 0 782	LOSS 596 0 596 1234 0 0 3490 0	455 0 705 2426 0 0 634 0	0 0 0 0 0 0 0	LOSS 0 0 0 0 0 0	0 0 0 0 0 0	0 8 0 0 0 46	54 LOSS 0 0 170 0 0 0 205	0 0 201 0 0 0 37	6 0 0 0 40 361 0	0 128 0 0 0 1010 1611 0	0 251 0 0 0 183 293	0 0 0 20 214 0	0 0 0 0 0 0 505 955	0 0 0 0 0 92 173					4 92 0 0 0 0 614	85 1958 0 0 0 0 2740	S GAIN 65 8 3849 0 0 0 0 0 498	0 0 0 0 20 0 504	LOSS GA 255 19 0 0 0 0 0 0 505 9: 0 0 1814 32
GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3	GAIN 16.3 41.8 25.2 41.8 102.0 4.6 0.8 0.7 0.6	38 0 0 0 0 259 0	0 809 0 0 0 0 1156 0	0 1590 0 0 0 0 210 0	0 22 0 0 0 198 0	0 0 468 0 0 0 884 0	0 0 554 0 0 0 160 0	0 20 110 0 0 1074 0 192	LOSS 830 0 426 2341 0 0 4793 0 246	634 0 504 4602 0 0 870 0	0 28 58 0 0 782 0	LOSS 596 0 596 1234 0 0 3490 0	455 0 705 2426 0 0 634 0	0 0 0 0 0 0 0	LOSS 0 0 0 0 0 0 0 0 0 184	0 0 0 0 0 0 0	0 8 0 0 0 46 0	54 LOSS 0 0 170 0 0 205 0 77	0 201 0 0 0 37 0	6 0 0 40 361 0	LOSS 0 128 0 0 0 1010 1611 0	0 251 0 0 0 183 293 0	0 0 0 20 214 0	0 0 0 0 0 0 505 955 0	0 0 0 0 0 92 173 0					4 92 0 0 0 0 614 0	85 1958 0 0 0 0 2740	S GAIN 65 3 3849 0 0 0 0 0 498 0	0 0 0 0 20 0 504	LOSS GA 255 19 0 0 0 0 0 0 505 9: 0 0 1814 32 0 0
GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL MET EXPOSED BSMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.3 41.8 25.2 41.8 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 1156 0 0	0 1590 0 0 0 0 210 0	0 22 0 0 0 198 0 0	UCSS 0 0 468 0 0 0 884 0 0 0 0	0 0 554 0 0 0 160 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0	634 0 504 4602 0 0 870 0 116	0 28 58 0 0 782 0 0 342	LOSS 596 0 596 1234 0 0 3490 0 0	455 0 705 2426 0 0 634 0 0 443	0 0 0 0 0 0 0 143	LOSS 0 0 0 0 0 0 0 0 0 184 0	0 0 0 0 0 0 0	0 8 0 0 0 46 0 60	54 LOSS 0 0 170 0 0 0 205 0 77	0 0 201 0 0 0 37 0 36	6 0 0 40 361 0	LOSS 0 128 0 0 0 1010 1611 0 0	0 251 0 0 0 183 293 0 0	0 0 0 20 214 0 0	0 0 0 0 0 505 955 0 0	0 0 0 0 0 92 173 0					4 92 0 0 0 0 614 0	0 0 0 0 2740 0 0	S GAIN 65 3 3849 0 0 0 0 0 498 0 0	0 0 0 0 20 0 504 0	LOSS GA 255 19 0 0 0 0 0 0 505 9: 0 0 1814 32 0 0
GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMIT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3	GAIN 16.3 41.8 25.2 41.8 102.0 4.6 0.8 0.7 0.6	38 0 0 0 0 259 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1590 0 0 0 0 210 0	0 22 0 0 0 198 0	LOSS 0 0 468 0 0 0 884 0 0	0 0 554 0 0 0 160 0	0 20 110 0 0 1074 0 192	LOSS 830 0 426 2341 0 0 4793 0 246	634 0 504 4602 0 0 870 0	0 28 58 0 0 782 0	LOSS 596 0 596 1234 0 0 3490 0	455 0 705 2426 0 0 634 0	0 0 0 0 0 0 0	LOSS 0 0 0 0 0 0 0 0 0 184	0 0 0 0 0 0 0	0 8 0 0 0 46 0	54 LOSS 0 0 170 0 0 0 205 0 77 0	0 0 201 0 0 0 37 0 36	6 0 0 40 361 0	LOSS 0 128 0 0 0 1010 1611 0	0 251 0 0 0 183 293 0	0 0 0 20 214 0	0 0 0 0 0 0 505 955 0	0 0 0 0 0 92 173 0					4 92 0 0 0 0 614 0	85 1958 0 0 0 0 2740	S GAIN 65 3 3849 0 0 0 0 0 498 0	0 0 0 0 20 0 504	LOSS GA 255 19 0 0 0 0 0 0 0 0 505 93 0 1814 32 0 0 0 0
GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.3 41.8 25.2 41.8 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1590 0 0 0 0 210 0	0 22 0 0 0 198 0 0	LOSS 0 0 468 0 0 0 0 884 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 554 0 0 0 160 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0	634 0 504 4602 0 0 870 0 116	0 28 58 0 0 782 0 0 342	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0	455 0 705 2426 0 0 634 0 0 443	0 0 0 0 0 0 0 143	LOSS 0 0 0 0 0 0 0 0 0 0 184 0 191 0	0 0 0 0 0 0 0	0 8 0 0 0 46 0 60	54 LOSS 0 0 170 0 0 0 205 0 77 0	0 0 201 0 0 0 37 0 36	6 0 0 40 361 0	LOSS 0 128 0 0 1010 1611 0 0 0 0 0	0 251 0 0 0 183 293 0 0	0 0 0 20 214 0 0	LOSS 0 0 0 0 505 955 0 0 0	0 0 0 0 0 92 173 0					4 92 0 0 0 0 614 0	LOSS 85 1958 0 0 0 2740 0 0	S GAIN 65 3 3849 0 0 0 0 498 0 0	0 0 0 0 20 0 504 0	LOSS GA 255 19 0 0 0 0 0 0 505 9: 0 0 1814 32 0 0
GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED SHIT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG NO ATTIC EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.3 41.8 25.2 41.8 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1590 0 0 0 0 210 0	0 22 0 0 0 198 0 0	LOSS 0 0 468 0 0 0 0 884 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 554 0 0 0 160 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0	634 0 504 4602 0 0 870 0 116	0 28 58 0 0 782 0 0 342	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 0	455 0 705 2426 0 0 634 0 0 443	0 0 0 0 0 0 0 143	LOSS 0 0 0 0 0 0 0 0 0 0 184 0 191 0 0 0	0 0 0 0 0 0 0	0 8 0 0 0 46 0 60	54 LOSS 0 0 170 0 0 0 205 0 77 0 0	0 0 201 0 0 0 37 0 36	6 0 0 40 361 0	LOSS 0 128 0 0 1010 1611 0 0 0 0 0 0 0 0 0 0 0 0 0	0 251 0 0 0 183 293 0 0	0 0 0 20 214 0 0	LOSS 0 0 0 0 505 955 0 0 0	0 0 0 0 0 92 173 0					4 92 0 0 0 0 614 0	LOSS 85 1958 0 0 0 0 2740 0 0 0	S GAIN 65 3 3849 0 0 0 0 498 0 0	0 0 0 0 20 0 504 0	LOSS GA 255 19 0 0 0 0 0 0 0 0 505 90 0 0 1814 32 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED ESMIT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.3 41.8 25.2 41.8 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1590 0 0 0 0 210 0 0	0 22 0 0 0 198 0 0	LOSS 0 0 468 0 0 0 0 884 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 554 0 0 0 160 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0	634 0 504 4602 0 870 0 116 0	0 28 58 0 0 782 0 0 342	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0	455 0 705 2426 0 0 634 0 0 443	0 0 0 0 0 0 0 143	LOSS 0 0 0 0 0 0 0 0 0 0 184 0 191 0	0 0 0 0 0 0 0 86 0 35	0 8 0 0 0 46 0 60	54 LOSS 0 0 170 0 0 0 205 0 77 0	0 0 201 0 0 0 37 0 36 0	6 0 0 40 361 0	LOSS 0 128 0 0 1010 1611 0 0 0 0 0	0 251 0 0 0 183 293 0 0	0 0 0 20 214 0 0	LOSS 0 0 0 0 505 955 0 0 0	0 0 0 0 92 173 0 0					4 92 0 0 0 0 614 0	LOSS 85 1958 0 0 0 2740 0 0	S GAIN 65 3 3849 0 0 0 0 498 0 0 0	0 0 0 0 20 0 504 0	LOSS GA 255 19 0 0 0 0 0 0 505 99 0 0 1814 32 0 0 0 0 3419
GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUB TOTAL HT LOSIN	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.3 41.8 25.2 41.8 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964	0 1590 0 0 0 0 210 0	0 22 0 0 0 198 0 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 0 1352	0 0 554 0 0 0 160 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	634 0 504 4602 0 0 870 0 116	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 6856	455 0 705 2426 0 0 634 0 0 443	0 0 0 0 0 0 0 143 0 75	LOSS 0 0 0 0 0 0 0 0 1844 0 191 0 0 375	0 0 0 0 0 0 0	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 205 0 77 0 0 0 0 453	0 0 201 0 0 0 37 0 36	6 0 0 40 361 0 0	LOSS 0 128 0 0 1010 1611 0 0 0 2749	0 251 0 0 0 183 293 0 0	0 0 0 20 214 0 0 0	LOSS 0 0 0 0 505 955 0 0 0 0 0 1460	0 0 0 0 0 92 173 0					4 92 0 0 0 0 614 0	LOSS 85 1958 0 0 0 0 2740 0 0 0	S GAIN 65 3 3849 0 0 0 0 498 0 0	0 0 0 20 0 504 0	LOSS GA 255 19 0 0 0 0 0 0 0 0 0 0 0 0 1814 32 0 0 0 0 3419 5993
GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.3 41.8 25.2 41.8 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.46	0 1590 0 0 0 0 210 0 0	0 22 0 0 0 198 0 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 0 1352 0.46	0 0 554 0 0 0 160 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	634 0 504 4602 0 870 0 116 0	0 28 58 0 0 782 0 0 342	LOSS 596 0 596 1234 0 0 3490 0 0 0 6856 0.46	455 0 705 2426 0 0 634 0 0 443	0 0 0 0 0 0 0 143	LOSS 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 86 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 205 0 77 0 0 0 453	0 0 201 0 0 0 37 0 36 0	6 0 0 40 361 0	LOSS 0 128 0 0 0 1010 1611 0 0 0 0 2749 0.46	0 251 0 0 0 183 293 0 0	0 0 0 20 214 0 0 0	LOSS 0 0 0 0 0 505 955 0 0 0 0 0 1460 0.46	0 0 0 0 92 173 0 0					4 92 0 0 0 0 614 0	LOSS 85 1958 0 0 0 0 2740 0 0 0	S GAIN 65 3 3849 0 0 0 0 498 0 0 0	0 0 0 20 0 504 0	LOSS GA 255 19 0 0 0 0 0 0 0 0 505 9; 0 0 1814 32 0 0 0 0 3419 5993 61
GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED ESMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SUBTOTAL HT LOSS SUBTOTAL HT LOSS LEVEL FACTOR / MUL TIPLIER AIR CHANGE HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.3 41.8 25.2 41.8 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964	0 1590 0 0 0 210 0 0 0	0 22 0 0 0 198 0 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 0 1352	0 0 554 0 0 0 160 0 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	634 0 504 4602 0 0 870 0 116 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 940 0 0 6856	455 0 705 2426 0 0 634 0 443 0	0 0 0 0 0 0 0 143 0 75	LOSS 0 0 0 0 0 0 0 0 1844 0 191 0 0 375	0 0 0 0 0 0 0 0 86 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 205 0 77 0 0 0 0 453	0 0 201 0 0 0 37 0 36 0 0	6 0 0 40 361 0 0	LOSS 0 128 0 0 1010 1611 0 0 0 2749	0 251 0 0 183 293 0 0 0	0 0 0 20 214 0 0 0	LOSS 0 0 0 0 505 955 0 0 0 0 0 1460	0 0 0 0 92 173 0 0 0					4 92 0 0 0 0 614 0	LOSS 85 1958 0 0 0 0 2740 0 0 0	S GAIN 65 3 3849 0 0 0 0 498 0 0 0	0 0 0 20 0 504 0	LOSS GA 255 19 0 0 0 0 0 0 0 0 505 9: 0 0 1814 32 0 0 0 0 3419 5993 61 1.49 17801
GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.3 41.8 25.2 41.8 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.46	0 1590 0 0 0 0 210 0 0	0 22 0 0 0 198 0 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 0 1352 0.46	0 0 554 0 0 0 160 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	634 0 504 4602 0 870 0 116 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 0 3490 0 0 0 6856 0.46 3181	455 0 705 2426 0 0 634 0 0 443	0 0 0 0 0 0 0 143 0 75	LOSS 0 0 0 0 0 0 0 0 0 0 1844 0 1911 0 0 375 0.43 161	0 0 0 0 0 0 0 86 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 205 0 77 0 0 0 453	0 0 201 0 0 0 37 0 36 0	6 0 0 40 361 0 0	LOSS 0 128 0 0 0 1010 1611 0 0 0 0 2749 0.46	0 251 0 0 0 183 293 0 0	0 0 0 20 214 0 0 0	LOSS 0 0 0 0 0 505 955 0 0 0 0 0 1460 0.46	0 0 0 0 92 173 0 0					4 92 0 0 0 0 614 0	LOSS 85 1958 0 0 0 0 2740 0 0 0	S GAIN 65 3 3849 0 0 0 0 498 0 0 0	0 0 0 20 0 504 0	LOSS GA 255 19 0 0 0 0 0 0 0 0 505 9; 0 0 1814 32 0 0 0 0 3419 5993 61
GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED ESMIT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SUBTOTAL HT LOSS SUBTOTAL HT LOSS LEVEL FACTOR / MUL TIPLIER AIR CHANGE HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.3 41.8 25.2 41.8 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.46	0 1590 0 0 0 210 0 0 0	0 22 0 0 0 198 0 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 0 1352 0.46	0 0 554 0 0 0 160 0 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 0 4793 0 246 0 0 0 8636	634 0 504 4602 0 0 870 0 116 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 3490 0 0 0 6856 0.46	455 0 705 2426 0 0 634 0 443 0	0 0 0 0 0 0 0 143 0 75	LOSS 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 86 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 205 0 77 0 0 0 453	0 0 201 0 0 0 37 0 36 0 0	6 0 0 40 361 0 0	LOSS 0 128 0 0 0 1010 1611 0 0 0 0 2749 0.46	0 251 0 0 183 293 0 0 0	0 0 0 20 214 0 0 0	LOSS 0 0 0 0 0 505 955 0 0 0 0 0 1460 0.46	0 0 0 0 92 173 0 0 0					4 92 0 0 0 0 614 0	LOSS 85 1958 0 0 0 0 2740 0 0 0	S GAIN 65 3 3849 0 0 0 0 498 0 0 0	0 0 0 20 0 504 0	LOSS GA 255 19 0 0 0 0 0 0 0 0 505 9: 0 0 1814 32 0 0 0 0 3419 5993 61 1.49 17801
GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7	GAIN 16.3 41.8 25.2 41.8 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.46 912	0 1590 0 0 0 210 0 0 0	0 22 0 0 0 198 0 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 1352 0.46 627	0 0 554 0 0 0 160 0 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 4793 0 246 0 0 0 8636	634 0 504 4602 0 0 870 0 116 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 0 3490 0 0 0 6856 0.46 3181	455 0 705 2426 0 0 634 0 443 0	0 0 0 0 0 0 0 143 0 75	LOSS 0 0 0 0 0 0 0 0 0 0 1844 0 1911 0 0 375 0.43 161	0 0 0 0 0 0 0 0 86 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 0 205 0 77 0 0 0 0 453	0 0 201 0 0 0 37 0 36 0 0	6 0 0 40 361 0 0	LOSS 0 128 0 0 1010 1611 0 0 0 0 2749 0.46 1275	0 251 0 0 183 293 0 0 0	0 0 0 20 214 0 0 0	LOSS 0 0 0 0 0 505 955 0 0 0 0 0 1460 0.46 677	0 0 0 0 92 173 0 0 0					4 92 0 0 0 0 614 0	LOSS 85 1958 0 0 0 0 2740 0 0 0	S GAIN 65 3 3849 0 0 0 0 498 0 0 0	0 0 0 20 0 504 0	LOSS GA 255 19 0 0 0 0 0 0 0 0 0 0 1814 32 0 0 0 0 1814 32 17801 1.49
GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED ECG EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT LOSS	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	GAIN 16.3 41.8 25.2 41.8 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.46 912	0 1590 0 0 0 210 0 0 0 0	0 22 0 0 0 198 0 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 1352 0.46 627	0 0 554 0 0 0 160 0 0 0	0 20 110 0 0 1074 0 192 0	LOSS 830 0 426 2341 0 4793 0 246 0 0 0 8636	634 0 504 4602 0 870 0 116 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 0 3490 0 0 0 6856 0.46 3181	455 0 705 2426 0 0 634 0 0 443 0	0 0 0 0 0 0 0 143 0 75	LOSS 0 0 0 0 0 0 0 0 0 0 1844 0 1911 0 0 375 0.43 161	0 0 0 0 0 0 0 0 0 0 0 0 35 121	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 0 205 0 77 0 0 0 0 453	0 0 201 0 0 0 37 0 36 0 0	6 0 0 40 361 0 0	LOSS 0 128 0 0 1010 1611 0 0 0 0 2749 0.46 1275	0 251 0 0 183 293 0 0 0	0 0 0 20 214 0 0 0	LOSS 0 0 0 0 0 505 955 0 0 0 0 0 1460 0.46 677	0 0 0 0 0 92 173 0 0 0					4 92 0 0 0 0 614 0	LOSS 85 1958 0 0 0 0 2740 0 0 0	S GAIN 65 3 3849 0 0 0 0 498 0 0 0	0 0 0 20 0 504 0	LOSS GA 255 19 0 0 0 0 0 0 0 0 505 9: 0 0 1814 32 0 0 0 0 3419 5993 61 1.49 17801
GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS DUCT GAIN	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	GAIN 16.3 41.8 25.2 41.8 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.46 912	0 1590 0 0 0 210 0 0 0 1799	0 22 0 0 0 198 0 0 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 1352 0.46 627	0 0 554 0 0 0 160 0 0 714	0 20 110 0 0 1074 0 192 0 0	LOSS 830 0 426 2341 0 4793 0 246 0 0 0 8636	634 0 504 4602 0 0 870 0 116 0 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 0 3490 0 0 0 6856 0.46 3181	455 0 705 2426 0 0 634 0 0 443 0	0 0 0 0 0 0 0 143 0 75	LOSS 0 0 0 0 0 0 0 0 0 0 1844 0 1911 0 0 375 0.43 161	0 0 0 0 0 0 0 0 0 0 86 0 35	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 0 205 0 77 0 0 0 0 453	0 0 201 0 0 0 37 0 36 0 0	6 0 0 40 361 0 0 0	LOSS 0 128 0 0 1010 1611 0 0 0 0 2749 0.46 1275	0 251 0 0 183 293 0 0 0 727	0 0 0 20 214 0 0 0	LOSS 0 0 0 0 0 505 955 0 0 0 0 0 1460 0.46 677	0 0 0 0 92 173 0 0 0 0					4 92 0 0 0 614 0 0	LOSS 85 1958 0 0 0 0 2740 0 0 0	S GAIN 65 3 3849 0 0 0 0 498 0 0 0 0 0 4411	0 0 0 20 0 504 0	LOSS GA 255 19 0 0 0 0 0 0 0 0 0 0 0 0 1814 32 0 0 0 0 3419 5993 61 1.49 17801
GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED ESMIT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SUBTOTAL HT LOSS SUBTOTAL HT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MUL TIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT GAIN HEAT GAIN PEOPLE	21.3 21.3 21.3 21.3 37.2 25.2 4.5 3.6 1.3 2.7 2.6	GAIN 16.3 41.8 25.2 41.8 102.0 4.6 0.8 0.7 0.6 1.3	38 0 0 0 0 259 0 0 0	LOSS 0 809 0 0 0 0 1156 0 0 0 0 1964 0.46 912	0 1590 0 0 0 0 0 0 0 0 0 0 0 0	0 22 0 0 0 198 0 0 0	LOSS 0 0 468 0 0 0 884 0 0 0 0 1352 0.46 627	0 0 554 0 0 0 0 0 0 0 0 714	0 20 110 0 0 1074 0 192 0 0	LOSS 830 0 426 2341 0 4793 0 246 0 0 0 8636	634 0 504 4602 0 0 870 0 116 0 0	0 28 58 0 0 782 0 0 342 0	LOSS 596 0 596 1234 0 0 0 3490 0 0 0 6856 0.46 3181	455 0 705 2426 0 0 634 0 0 443 0	0 0 0 0 0 0 0 143 0 75	LOSS 0 0 0 0 0 0 0 0 0 0 1844 0 1911 0 0 375 0.43 161	0 0 0 0 0 0 0 0 0 0 0 0 35 121	0 8 0 0 0 46 0 60 0	54 LOSS 0 0 170 0 0 0 205 0 77 0 0 0 0 453	0 0 201 0 0 0 37 0 36 0 0	6 0 0 40 361 0 0 0	LOSS 0 128 0 0 1010 1611 0 0 0 0 2749 0.46 1275	0 251 0 0 183 293 0 0 0 0	0 0 0 20 214 0 0 0	LOSS 0 0 0 0 0 505 955 0 0 0 0 0 1460 0.46 677	0 0 0 0 0 92 173 0 0 0 0					4 92 0 0 0 614 0 0	LOSS 85 1958 0 0 0 0 2740 0 0 0	S GAIN 65 65 8 3849 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 20 0 504 0 0	LOSS GA 255 19 0 0 0 0 0 0 0 0 0 0 0 0 1814 32 0 0 0 0 3419 5993 61 1.49 17801

TOTAL HEAT GAIN BTU/H:

60828

TONS: 5.07

LOSS DUE TO VENTILATION LOAD BTU/H: 3181

STRUCTURAL HEAT LOSS: 89675

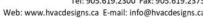
TOTAL COMBINED HEAT LOSS BTU/H: 92855

Michael Oxounde.



			ALLEY &						CORNER 5004 TH	E BEAU	MONT		DATE:	Jun-20			GFA:	4294	LO#	80140				
HEATING CFM TOTAL HEAT LOSS AIR FLOW RATE CFM				LING CFM EAT GAIN RATE CFM	60,251		а	fun a/c coil vailable	pressure nace filter pressure pressure r s/a & r/a	0.6 0.05 0.2 0.35						EL	. 296UH11 FAN		110	×		AFUE = (BTU/H) = (BTU/H) =	110,000	
RUN COUNT S/A	4th	3rd 0	2nd 18	1st 12	Bas 8		nle		ssure s/a	0.18		r/a	pressure	0.17				EDLOW	1380 1505		DESI	GN CFM = .		- 2
R/A All S/A diffusers 4"x10" unle	0	0	5	4	1	j	max	s/a dif p	ress. loss	0.02		grille pr	ess. Loss essure r/a	0.02				M HIGH HIGH	1685 1955	-	EMPERAT	URE RISE		°F
All S/A runs 5"Ø unless note				out.			min auju	isted pre	33ule 3/a	0.10	auj	usteu pre	essure i/a	0.13				HIGH	1933		LIVIPERAT	ORE RISE	30	- J
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 RM LOSS MBH.	MBR 1.46	ENS 1.93	DRESS 1.66	BED-2 2.32	BED-3 1.19	BED-4 1.87	ENS-2 0.35	WIC-2 1.29	ENS-4 0.65	MBR 1.46	ENS-3 1.87	LIBR 1.44	DIN 1.98	KIT 3.16	KIT 3.16	GREAT 3.35	0.59	KIT 3.16	FOY 4.02	MUD 2.14	BAS 3.86	BAS 3.86	BAS 3.86	BAS 3.86
CFM PER RUN HEAT	32	42	36	51	26	41	8	28	14	32	41	31	43	69	69	73	13	69	88	47	84	84	84	84
RM GAIN MBH.	2.21	1.51	2.11	2.50	1.63	1.97	0.11	0.28	0.39	2.21	0.97	1.85	2.16	2.67	2.67	2.58	1.45	2.67	1.03	1.52	0.89	0.89	0.89	0.89
CFM PER RUN COOLING	72	49	68	81	53	64	4	9	13	72	32	60	70	87	87	84	47	87	33	49	29	29	29	29
ADJUSTED PRESSURE	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	0.16	0.16	0.16	0.17	0.16	0.16	0.17	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH.	46	62	29	34	38	50	28	31	43	54	41	41	27	40	32	49	26	36	24	16	50	50	48	35
EQUIVALENT LENGTH TOTAL EFFECTIVE LENGTH	190 236	140 202	180 209	180 214	120 158	150 200	160 188	150 181	190 233	180 234	160 201	180 221	80 107	140 180	150 182	130 179	150 176	140 176	150 174	130 146	130 180	140 190	100 148	102 137
ADJUSTED PRESSURE	0.07	0.09	0.08	0.08	0.11	0.09	0.09	0.1	0.07	0.07	0.09	0.08	0.16	0.09	0.09	0.09	0.1	0.09	0.09	0.12	0.09	0.09	0.11	0.12
ROUND DUCT SIZE	5	4	5	6	4	5	4	4	4	5	4	5	5	5	5	5	4	5	5	4	5	5	5	5
HEATING VELOCITY (ft/min)	235	482	264	260	298	301	92	321	161	235	470	228	316	507	507	536	149	507	646	539	617	617	617	617
COOLING VELOCITY (ft/min)	529	562	499	413	608	470	46	103	149	529	367	441	514	639	639	617	539	639	242	562	213	213	213	213
OUTLET GRILL SIZE	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	В	С	D	F	F	E	F	D	E	В	F	E	F	С	С	A	D	В	E	D	Α	Α	С	С
RUN#	25	26	27	28	29	30	31	32	33	34	35	36	37	38										
ROOM NAME	BAS	BAS	BAS	BAS	ENS	ENS	BED-3	BED-3	BED-4	BED-4	LIBR	KIT	GREAT	GREAT										
RM LOSS MBH.	3.86	3.86	3.86	3.86	1.93	0.43	1.19	1.19	1.87	1.87	1.44	3.16	3.35	3.35										
CFM PER RUN HEAT	84	84	84	84	42	9	26	26	41	41	31	69	73	73										
RM GAIN MBH.	0.89	0.89	0.89	0.89	1.51	0.31	1.63	1.63	1.97	1.97	1.85	2.67	2.58	2.58										
CFM PER RUN COOLING	29	0.16	29	29	49 0.17	10	53	53 0.17	64	64	60 0.17	87	84	84										
ADJUSTED PRESSURE ACTUAL DUCT LGH.	0.16 37	23	0.16 17	0.16 31	34	0.17	0.17 42	46	0.17	0.17	35	0.16 28	0.16 39	0.16										
EQUIVALENT LENGTH	120	80	120	150	140	140	130	140	150	130	140	150	150	150										
TOTAL EFFECTIVE LENGTH	157	103	137	181	174	173	172	186	197	170	175	178	189	214										
ADJUSTED PRESSURE	0.1	0.16	0.12	0.09	0.1	0.1	0.1	0.09	0.09	0.1	0.1	0.09	0.09	0.08										
ROUND DUCT SIZE	5	5	5	5	4	4	4	5	5	5	5	5	5	6										
HEATING VELOCITY (ft/min)	617	617	617	617	482	103	298	191	301	301	228	507	536	372										
COOLING VELOCITY (ft/min)	213	213	213	213	562	115	608	389	470	470	441	639	617	428										
OUTLET GRILL SIZE TRUNK	3X10 B	3X10	3X10	3X10 E	3X10 D	3X10 D	3X10	3X10	3X10 E	3X10 E	3X10 E	3X10 B	3X10 A	4X10 A										

SUPPLY AIR TRUNK SIZE	TRUNK	STATIC	ROUND	RECT			VELOCITY			TRUNK	STATIC	ROUND	RECT			VELOCITY	RETURN A	TRUNK	STATIC	ROUND	RECT			VELOCITY
	CFM	PRESS.	DUCT	DUCT			(ft/min)			CFM	PRESS.	DUCT	DUCT			(ft/min)		CFM	PRESS.	DUCT	DUCT			(ft/min)
TRUNK A	387	0.08	9.8	12	×	8	581		TRUNK G	0	0.00	0	0	x	8	0	TRUNK O	0	0.06	0	0	×	8	0
TRUNK B	673	0.07	12.5	18	x	8	673		TRUNK H	0	0.00	0	0	x	8	0	TRUNK P	0	0.06	0	0	x	8	0
TRUNK C	348	0.09	9.2	10	×	8	626		TRUNK I	0	0.00	0	0	×	8	0	TRUNK Q	0	0.06	0	0	×	8	0
TRUNK D	1280	0.07	15.9	30	x	8	768		TRUNK J	0	0.00	0	0	x	8	0	TRUNK R	0	0.06	0	0	x	8	0
TRUNK E	371 676	0.07	10 12.5	12 20	×	8	557 608		TRUNK K	0	0.00	0	0	×	8	0	TRUNK S	0	0.06	0	0	×	8	0
	010	0.01	.2.0	20	_^	-	550				0.00		-	A			TRUNK U	0	0.06	ō	ŏ	×	8	0
RETURN AIR #	1	2	3	4	5	6	7	8	9							BR	TRUNK V TRUNK W	0	0.06	0	0	×	8	0
NE I ONN AIR #	0	2	0	0	0	0	Ó	o	0	0	0	0	0	0	0	DK	TRUNK X	1465	0.06	17.4	32	x	10	659
	120	120	120	120	305	85	300	300	185	o	o	0	Ö	Ö	o	300	TRUNK Y	805	0.06	13.9	22	x	8	659
AIR VOLUME	-	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	0.15	TRUNK Z	490	0.06	11.5	16	×	8	551
PLENUM PRESSURE	0.15				43	59	27	25	34	1	1	1	1	1	1	18	DROP	1955	0.06	19.4	24	x	18	652
PLENUM PRESSURE ACTUAL DUCT LGH.	38	37	37	45			17.2															^	10	
PLENUM PRESSURE ACTUAL DUCT LGH. EQUIVALENT LENGTH	38 195	37 185	165	205	145	175	190	185	150	0	0	0	0	0	0	195						•	10	
PLENUM PRESSURE ACTUAL DUCT LGH. EQUIVALENT LENGTH TOTAL EFFECTIVE LH	38 195 233	37 185 222	165 202	205 250	145 188	175 234	217	210	184	1	1	1	1	1	1	213						^	10	
PLENUM PRESSURE ACTUAL DUCT LGH. EQUIVALENT LENGTH TOTAL EFFECTIVE LH ADJUSTED PRESSURE	38 195 233 0.06	37 185 222 0.07	165 202 0.07	205 250 0.06	145 188 0.08	175 234 0.06	217 0.07	210 0.07	184 0.08	1 14.80	1 14.80	1 14.80	1 14.80	1 14.80	1 14.80	213 0.07						î	10	
PLENUM PRESSURE ACTUAL DUCT LGH. EQUIVALENT LENGTH TOTAL EFFECTIVE LH ADJUSTED PRESSURE ROUND DUCT SIZE	38 195 233 0.06 6.8	37 185 222	165 202 0.07 6.6	205 250 0.06 6.8	145 188	175 234 0.06 6	217 0.07 9.2	210	184 0.08 7.5	1 14.80 0	1	1	1	1	1 14.80 0	213 0.07 9.2						î	16	
PLENUM PRESSURE ACTUAL DUCT LGH. EQUIVALENT LENGTH TOTAL EFFECTIVE LH ADJUSTED PRESSURE	38 195 233 0.06	37 185 222 0.07 6.6	165 202 0.07	205 250 0.06	145 188 0.08 9	175 234 0.06	217 0.07	210 0.07 9.2	184 0.08	1 14.80	1 14.80 0	1 14.80 0	1 14.80 0	1 14.80 0	1 14.80	213 0.07						2	16	





TYPE: 5004 THE BEAUMONT SITE NAME: PINE VALLEY & TESTON

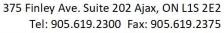
CORNER WOB RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

80140

COMBUSTION APPLIANCES	9.32.3.1(1)	SUPPLEMENTAL V	ENTILATION CAPACITY			9.32.3.5.
a) Direct vent (sealed combustion) only		Total Ventilation Ca	pacity	201.4	_	cfm
b) Positive venting induced draft (except fireplaces)		Less Principal Venti	I. Capacity	155	-	cfm
c) Natural draft, B-vent or induced draft gas fireplace		Required Suppleme	ntal Capacity	46.4	-	cfm
d) Solid Fuel (including fireplaces)		DDINGIDAL EVILAL	ICT CAN CARACITY			
e) No Combustion Appliances		Model:	VANEE 65H	Location:	B	SMT
HEATING SYSTEM		155.0		ones		-WI Approved
			IST HEAT LOSS CALCULATION	MARKET II.	· — ·	
Forced Air Non Forced Air		CFM	ΔT °F	FACTOR		% LOSS
C Florida Social Mark		155.0 CFM	X 76 F	X 1.08	Х	0.25
Electric Space Heat		SUPPLEMENTAL F	ANS	NUTONE		
		Location	Model	cfm	HVI	Sones
HOUSE TYPE	9.32.1(2)	ENS ENS-2	QTXEN050C QTXEN050C	50 50	1	0.3
✓ I Type a) or b) appliance only, no solid fuel		ENS-3	QTXEN050C	50	1	0.3
		ENS-4	QTXEN050C	50	1	0.3
II Type I except with solid fuel (including fireplaces)					
III Any Type c) appliance		HEAT RECOVERY Model:	VANEE 65H			9.32.3.11.
III		155	cfm high	64		cfm low
IV Type I, or II with electric space heat		828			_	
Other: Type I, II or IV no forced air		75	% Sensible Efficiency @ 32 deg F (0 deg C)		H	IVI Approved
Curer. Type 1, if of 14 no forced an			@ 52 deg 1 (0 deg 0)			
		LOCATION OF INS	TALLATION			
SYSTEM DESIGN OPTIONS	O.N.H.W.P.	Lot:		Concession		
1 Exhaust only/Forced Air System		Lot.		Concession		
		Township		Plan:		
2 HRV with Ducting/Forced Air System		Address				
3 HRV Simplified/connected to forced air system		Roll #		Building Pern	nit#	
4 HRV with Ducting/non forced air system		BUILDER:	GOLD PARK HOMES	;		
Part 6 Design		Name:	700 89 00 00 00 00 00 00 00 00 00 00 00 00 00			
TOTAL VENTILATION CAPACITY	9.32.3.3(1)	Address:				
Basement + Master Bedroom 2 @ 21.2 cfm 42.4	cfm	City:				
Other Bedrooms <u>3</u> @ 10.6 cfm <u>31.8</u>	cfm	Telephone #:		Fax #:		
Kitchen & Bathrooms6 @ 10.6 cfm63.6	cfm	INSTALLING CONT	TRACTOR			
Other Rooms6 @ 10.6 cfm63.6	cfm	Name:				
Table 9.32.3.A. TOTAL <u>201.4</u>	cfm	Address:				-
		City:				
PRINCIPAL VENTILATION CAPACITY REQUIRED	9.32.3.4.(1)	Telephone #:		Fax #:		
1 Bedroom 31.8	cfm		TO A TION			
2 Bedroom 47.7	cfm		this ventilation system has bee	en designed		
3 Bedroom 63.6	cfm	Name:	he Ontario Building Code. HVAC Designs Ltd.			
4 Bedroom 79.5	cfm	Signature:	Mhe	had Offmhe		
5 Bedroom 95.4	cfm	HRAI#		001820		
TOTAL 79.5 cfm		Date:		June-20		
I REVIEW AND TAKE RESPONIBILITY FOR THE DESIGN WORK AND AM QUAL	IFIED IN THE API	PROPRIATE CATEGORY AS AN	"OTHER DESIGNER" UNDER DIVISIO	N C, 3.2.5 OF THE BU	ILDING CO	DE.



			10 70 70 10 10 10 10 10 10 10 10 10 10 10 10 10	80-12 Residential Hea						
10#	80140	Model: 5004 THE BE	J1947 (1000) 470 6064	72.00.00.25.00	er: GOLD PARK HOMES	arculation			Data	: 6/4/2020
LO#:	00140			Builde	T. GOLD PARK HOIVIES		in Change & Delte	a T Data	Date	. 6/4/2020
		Volume Calculation	п		-		Air Change & Delta	d I Data		
ouse Volume				1		WINTER NAT	URAL AIR CHANG	FRATE	0.407	1
Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)				TURAL AIR CHANG	E/200100.00	0.140	2
Bsmt	2078	10	20780						0.2.10	1
First	2078	11	22858							
Second	2301	9	20709				Design Te	mperature Diff	erence	
Third	0	9	0				Tin °C	Tout °C	ΔT°C	ΔT°F
Fourth	0	9	0			Winter DTDh	22	-20	42	76
		Total:	64,347.0 ft ³			Summer DTDc	23	31	8	14
		Total:	1822.1 m ³							
	E 2 2	1 Heat Less due to A	* Lookaga			6366	ansible Cain due	to Air Lookaga		
	5.2.3	3.1 Heat Loss due to A	г сеакаде			0.2.0 3	ensible Gain due t	to Air Leakage		
0.407		$LR_{airh} \times \frac{V_b}{3.6} \times I_b$ x 42 °C		= 10434 W		$HG_{salb} = LR_{airc} \times $ x 506.14			=	654 W
		-u ~ g		= 35601 Btu/h					=	2231 Btu/h
	5.2.3.2 He	at Loss due to Mechar	ical Ventilation			6.2.7 Sen	sible heat Gain du	ue to Ventilatio	n	
	$HL_{vairb} =$	$PVC \times DTD_h \times 1$	$1.08\times(1-E)$		HL	$_{vairb} = PVC \times DT$	$CD_h \times 1.08 \times 10^{-3}$	(1 - E)		
155 CFM	x76 °F	x <u>1.08</u>	x 0.25	= 3181 Btu/h	155 CFM	x <u>14 °F</u>	x1.08	x <u>0.25</u>	=	578 Btu/h
			5.2.3.3 Calcula	tion of Air Change Heat	Loss for Each Room (Flo	or Multiplier Section)				
		HL_a	_{irr} = Level Fact	$vor \times HL_{airbv} \times \{(H_{airbv}) \times $	$IL_{agcr} + HL_{bgcr}$) ÷	$(HL_{agclevel} + HL_{b})$	gclevel)}	=		
		Level	Level Factor (LF)	HLairve Air Leakage + Ventilation Heat Loss (Btu/h)	Level Conductive Heat Loss: (HL _{clevel})	Air Leakage Heat Los HLairbv / H	STATE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.			
		1	0.5		11,922	1.493	1			
		2	0.3	1.65 (\$10 (\$10 (\$10 (\$10 (\$10 (\$10 (\$10 (\$10	23,016	0.464	8			
		3	0.2	35,601	16,570	0.430)			
		4	0		0	0.000)			
		5	0							







HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: SFQT:	5004 THE BEAUMONT 4294	CORNER WOB	BUILDER: GOLD PARK HOMES SITE: PINE VALLEY & TESTON	ı
DESIGN A	SSUMPTIONS			
	R DESIGN TEMP. DESIGN TEMP. B DATA	°F -4 72	COOLING OUTDOOR DESIGN TEMP. INDOOR DESIGN TEMP. (MAX 75°F)	°F 88 74
ATTACHM	IENT:	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FA	.CES:	EAST	ASSUMED (Y/N):	Υ
AIR CHAN	GES PER HOUR:	3.57	ASSUMED (Y/N):	Υ
AIR TIGHT	NESS CATEGORY:	AVERAGE	ASSUMED (Y/N):	Υ
WIND EXF	POSURE:	SHELTERED	ASSUMED (Y/N):	Υ
HOUSE VO	DLUME (ft³):	64347.0	ASSUMED (Y/N):	Υ
INTERNAL	SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR	LIGHTING LOAD (Btu/h/f	t²): 1.50	DC BRUSHLESS MOTOR (Y/N):	Υ
FOUNDAT	TION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	7.0 ft
LENGTH:	74.0 ft \	VIDTH: 46.0 ft	EXPOSED PERIMETER:	168.0 ft
WOB INSU	JLATION CONFIGURATION	SCB_9	WOB EXPOSED PERIMETER	72.0 ft

2012 OBC - COMPLIANCE PACKAGE		
	Compliance	e Package
Component	Δ	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	-

INDIVIDUAL BCIN: 19669 MICHAEL O'ROURKE





Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

We	ather Sta	tion Description
Province:	Ontario	•
Region:	Vaughan	(Woodbridge)
	Site D	escription
Soil Conductivity:	Normal	conductivity: dry sand, loam, clay
Water Table:	Normal	(7-10 m, 23-33 ft)
F	oundatio	n Dimensions
Floor Length (m):	7.6	
Floor Width (m):	14.0	
Exposed Perimeter (m):	51.2	
Wall Height (m):	3.0	
Depth Below Grade (m):	1.90	Insulation Configuration
Window Area (m²):	1.1	
Door Area (m²):	1.9	
	Radi	ant Slab
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
	Desig	n Months
Heating Month	1	
	Founda	ation Loads
Heating Load (Watts):		1002

TYPE: 5004 THE BEAUMONT

LO# 80140

CORNER WOB



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

W	eather Sta	tion Description
Province:	Ontario	
Region:		(Woodbridge)
	Site D	escription
Soil Conductivity:	Normal co	onductivity: dry sand, loam, clay
Water Table:	Normal (7	7-10 m, 23-33 ft)
	Foundatio	n Dimensions
Length (m):	4.6	
Width (m):	12.8	0.6m +
Exposed Perimeter (m):	21.9	0.6m Insulation Configuration
	Radia	ant Slab
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
	Desigr	n Months
Heating Month	1	
	Re	esults
Heating Load (Watts):		336

TYPE: 5004 THE BEAUMONT CORNER WOB



Air Infiltration Residential Load Calculator

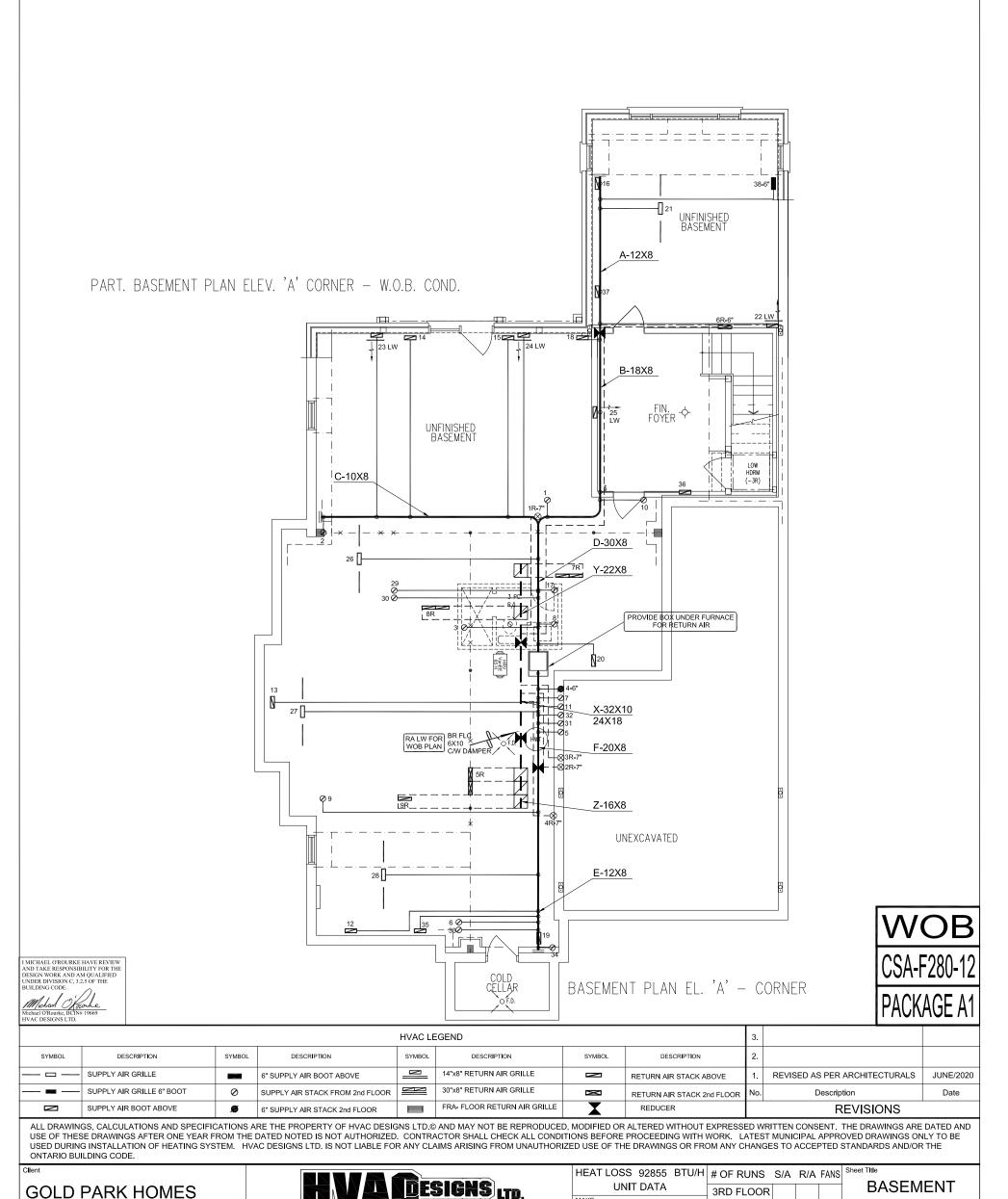
Supplemental tool for CAN/CSA-F280

Weather Statio	n Des	cript	ion						
Province:	Onta	rio							
Region:	Vaug	Vaughan (Woodbridge)							
Weather Station Location:	Open	flat te	rrain,	grass					
Anemometer height (m):	10								
Local Sh	ieldin	g							
Building Site: Suburban, forest									
Walls:	Heav	У							
Flue:	Heav	У							
Highest Ceiling Height (m):	9.14								
Building Co	nfigur	ation							
Type: Detached									
Number of Stories:	Two								
Foundation:	Full								
House Volume (m³):	House Volume (m ³): 1822.1								
Air Leakage,	Venti	latior	า						
Air Tightness Type: Present (1961-) (3.57 ACH)									
Custom BDT Data:	ELA (2 10 Pa	a.	2428.9 cm ²					
	3.57			ACH @ 50 Pa					
Mechanical Ventilation (L/s):	To	otal Supply			Total Exhaust				
\		73.2			73.2				
Flue	Size								
Flue #:	#1	#2	#3	#4					
Diameter (mm):	0	0	0	0					
Natural Infilt	ration	Rate	es						
Heating Air Leakage Rate (ACH/H):		().40						
Cooling Air Leakage Rate (ACH/H):		C).14						

TYPE: 5004 THE BEAUMONT

LO# 80140

CORNER WOB



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

Ductwork which passes through the garage or unheated spaces shall be

branch outlets shall be equipped with a manual balancing damper.

adequately insulated and be gas-proofed.

Project Name

PINE VALLEY & TESTON

VAUGHAN, ONTARIO

THE BEAUMONT WOB

4294 sqft

5004 - CORNER

LENNOX

EL296110XE60C

110

106

5.0

1955

MODEL

INPUT

-OUTPUT

COOLING

FAN SPEED

2ND FLOOR

1ST FLOOR

BASEMENT

MBTU/H

18 | 5 | 6

12 | 4 | 2

8 | 1 | 0

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

HEATING

LAYOUT

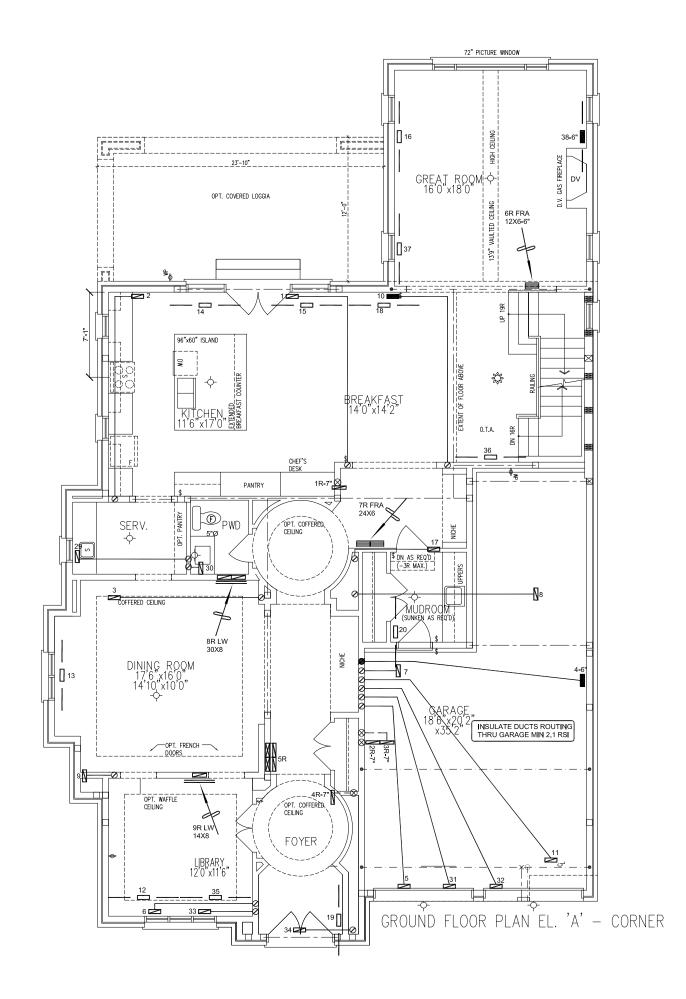
SEPT/2018

1/8" = 1'-0"

BCIN# 19669

LO#

80140



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.	REVISED AS PER ARCHITECTURALS	JUNE/2020
	SUPPLY AIR GRILLE 6" BOOT	0	SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE	×	RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE	Ø	6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE	X	REDUCER	REVISIONS		

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Cllent

GOLD PARK HOMES

Project Name

PINE VALLEY & TESTON VAUGHAN, ONTARIO

THE BEAUMONT WOB 5004 - CORNER 4294 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.

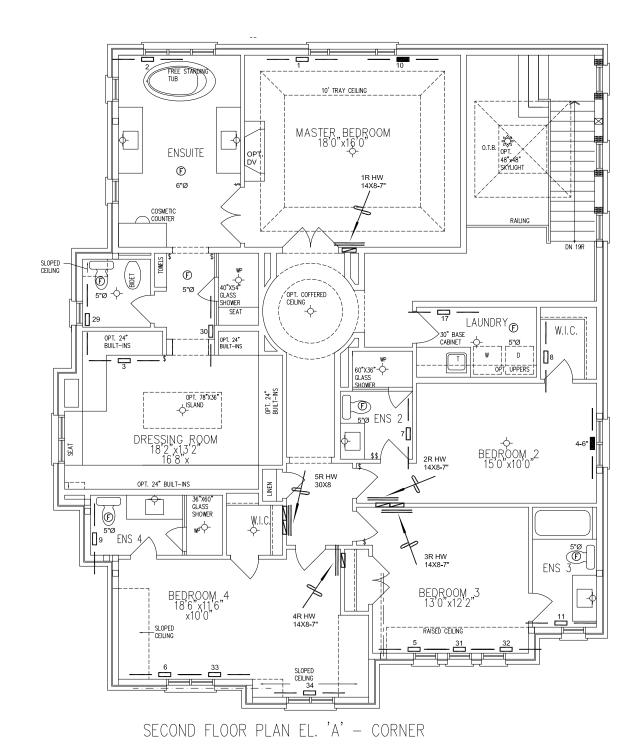
FIRST FLOOR HEATING LAYOUT

Date SEPT/2018

Scale 1/8" = 1'-0"

BCIN# 19669

O#| 80140



WOB
CSA-F280-12
PACKAGE A1

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

Mehan Office And Amount

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.	REVISED AS PER ARCHITECTURALS	JUNE/2020
	SUPPLY AIR GRILLE 6" BOOT	0	SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE	×	RETURN AIR STACK 2nd FLOOR	No.	Description	Date

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FRA- FLOOR RETURN AIR GRILLE

Cllent

GOLD PARK HOMES

Project Name

PINE VALLEY & TESTON VAUGHAN, ONTARIO

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6" SUPPLY AIR STACK 2nd FLOOR

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SECOND FLOOR

REVISIONS

HEATING LAYOUT

Date SEPT/2018

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