A22 unit P FC	:U livina roo	m 1						Checks VSP USA II							
122 dille 1 1 0			OIL PEAK			CLG SPACE	PEAK			HEATING C	OIL PEAK	3	TEMP	ERATURES	s
Pe	eaked at Time: Outside Air:			Hr: 7/15 IR: 93/70/9	94	Mo/Hr: OADB:				Mo/Hr: OADB:	Heating Design -7		SADB	Cooling 56.9	Heating 93.7
	Spa Sens. + L Btu	at.	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Of Total	Space Sensible Btu/h	Percent Of Total			Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Of Total	Ra Plenum Return Ret/OA Fn MtrTD	74.0 74.7 77.4 0.0	70.0 70.0 67.9 0.0
Envelope Loads Skylite Solar		0	0	0	(%) 0	0	(%) 0	Envelope Lo Skylite So		0	0	0.00	Fn BldTD Fn Frict	0.0	0.0
Skylite Cond Roof Cond		0	0	0	0	0 0	0	Skylite Co Roof Con	ond d	0	0	0.00			\$200E
Glass Solar Glass/Door Cor Wall Cond			0 0 0	1,286 1,169 983	14 13 11	1,328 1,175 1,007	21 18 16	Glass So Glass/Do Wall Con	or Cond	-5,652 -2,754	0 -5,652 -2,754		All	RFLOWS Cooling	Heating
Partition/Door	9	0	Ü	0	0	0.00	0	Partition/I		-2,754 0 0	-2,754 0 0	0.00	Diffuser Terminal	398 398	39 39
Adjacent Floor Infiltration	2	00 20	0.00	0.00 220	0.00		0.00	Adjacent Infiltration		0.00 -533	0.00 -533	0.00 4.08	Main Fan Sec Fan	398 0	39
Sub Total ==>	3,6	58	0	3,658	40	3,636	56	Sub Total		-8,938	-8,938	68.30	Nom Vent AHU Vent	57 57	5
nternal Loads Lights	1,1	10	277	1,387	15	1,110	17	Lights	us	0	0	0.00	Infil MinStop/Rh	7 0	
People Misc	1,8 6	00 94	0	1,800 694	20 8	1,000 694	16 11	People Misc		0	0	0.00	Return Exhaust	405 64	40 6
Sub Total ==>	3,6	04	277	3,881	42		44	Sub Total		0	0	0.00	Rm Exh Auxiliary Leakage Dwn	0	
Ventilation Load Adi Air Trans He		0	0	0 1,709 0	0 19 0	0	0	Ventilation	_oad	0	-808 0	6.17	Leakage Ups	0	
Dehumid. Ov Siz Dv/Undr Sizing		0		0	0		0	Ov/Undr Siz Exhaust He	ing	0	0	0.00	ENGIN	EERING CH	KS
Exhaust Heat Sup. Fan Heat Ret. Fan Heat			-44 0	-44 0 0	0 0 0			OA Preheat RA Preheat Additional F	Diff.		-3,340 0 0	0.00	% OA	Cooling 14.3	Heating 14.3
Duct Heat Pkup Underfir Sup Ht	Pkup		ő	0	0			System Plea	num Heat		0	0.00	cfm/ft²	0.49 450.98	0.49
Supply Air Leak			0	0	0			Supply Air			0		ft²/ton Btu/hr·ft²	921.75 13.02	-22.84
Grand Total ==>	7,2	62	233	9,204	100.00	6,440	100.00	Grand Total	==>	-8,938	-13,086	100.00	No. People	4	
	Total Capac ton M		COOLING Sens Cap. O	COIL SELI Coil Airflow cfm		DB/WB/HR °F gr/lb	Leav e	DB/WB/HR °F gr/lb		AREAS Gross Total	Glass ft² (%)	HI	Capacity MBh	SELECTIOI Coil Airflow cfm	N Ent Ly
Main Clg Aux Clg		0.6	7.6 0.0	398 0		2.7 76.7 0.0 0.0	56.9 5 0.0	3.1 64.8 0.0 0.0	Floor Part	813 0		Main Htg Aux Htg	-15.2 0.0		61.4 93 0.0 0
Opt Vent	0.0	0.0	0.0	57	83.3 6	5.4 82.1	83.3 6	5.4 82.1	Int Door ExFir	1	1.1	Preheat	0.0	0	0.0
Total	0.9 10	0.6							Roof Wall	0 732		Humidif Opt Vent	0.0 -3.3	0 57	0.0 0 -7.0 55
									Ext Door	0	0 0	Total	-18.6		

TRACE® 700 v6.3.5 calculated at 10:20 AM on 05/19/2022 Alternative - 1 System Checksums Report Page 42 of 768

Project Name: SOMMET220519.TRC

	С	OOLING C	OIL PEAK			С	LG SPACE	PEAK	à			HEATING C	OIL F	PEAK		TEM	PERATURE	s
Pe		it Time: side Air:	Mo/F OADB/WB/H	lr: 7/18	6		Mo/Hr: OADB:					Mo/Hr: I		Design		SADB	Cooling 59.0	Hea
	Outs	ade Air.	OADB/WB/H	K: 8//65//	О		OADB:	83				OADB:	-/			Ra Plenum	74.0	7
	s	Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Perce Of To		Space Sensible	Percent Of Total				Space Peak Space Sens		Coil Peak Tot Sens	Percent Of Total	Return Ret/OA	74.5 75.7	6
		Btu/h	Btu/h	Btu/h		%)	Btu/h	(%)				Btu/h		Btu/h	(%)	Fn MtrTD	0.0	
Envelope Loads										nvelope Lo						Fn BldTD	0.0	
Skylite Solar		0	0	0		0	0	0		Skylite Sol		0		0		Fn Frict	0.0	
Skylite Cond		0	0	0		0	0	0		Skylite Co		0		0				
Roof Cond		0	0	0		0	0	0		Roof Cond		0		0			IDEL OWG	
Glass Solar		1,309	0	1,309		31	1,504	44		Glass Sola		0		0		A	IRFLOWS	
Glass/Door Co	na	432	0	432		10	332	10		Glass/Doo		-2,610		-2,610			Cooling	He
Wall Cond		304	U	304		0	298	0		Wall Cond Partition/D		-375		-375 0		Diffuser	241	
Partition/Door		0		0		0		0			oor	0		0		Terminal	241	
Floor Adjacent Floor		0.00	0.00	0.00	0	.00	0.00	0.00		Floor Adjacent F	loor	0.00		0.00		Main Fan	241	
Infiltration		40	0.00	40	U	1	25	0.00		Infiltration	1001	-223		-223		Sec Fan	0	
Sub Total ==>		2,086	0	2,086		50	2,159	63		Sub Total	>	-3,207		-3,207			24	
Sub Total ==>		2,000	U	2,000		50	2,159	03	,	Sub Total		-3,207		-5,207	04.50	Nom Vent		
Internal Loads									Int	ternal Load	is					AHU Vent	24	
		101		500			404									Infil	0	
Lights		464	116	580		14	464	14		Lights		0		0		MinStop/Rh		
People		900	0	900		22 7	500	15 9		People		0		0		Return	244 27	
Misc		290		290			290			Misc		(E)				Exhaust Rm Exh	0	
Sub Total ==>		1,654	116	1,770		43	1,254	37	4	Sub Total	==>	0		0	0.00	Auxiliary	0	
Calling Load										eiling Load		0		0	0.00	Leakage Dwn	0	
Ceiling Load Ventilation Load		0	0	0		0	0	0		ening Load		0		-338			0	
		0	U	313		8	0	0				0		-330		Leakage Ups	0	
Adj Air Trans He		0		0		0	0	0		dj Air Trans								
Dehumid. Ov Siz	zıng			0		0				v/Undr Sizi	-	0		0				
Ov/Undr Sizing		0	10	0		0	0	0		xhaust Hea				100000000000000000000000000000000000000		ENGIN	NEERING CI	(S
Exhaust Heat			-13	-13 0		0				A Preheat I				-1,397 0			Cooling	Hea
Sup. Fan Heat Ret. Fan Heat			0	0		0				A Preheat D				0		% OA	9.9	1100
Duct Heat Pkup			0	0		0				ystem Plen				0		cfm/ft²	0.71	0
Underfir Sup Ht	Pkun		U	0		0				nderfir Sup				0		cfm/ton	601.03	,
Supply Air Leak	C 45 C		0	0		0				upply Air L				0	0.0000000000000000000000000000000000000	ft²/ton	848.68	
oupply All Leak	age			J						apply All L	canage				0.00	Btu/hr-ft²	14.14	-20
Grand Total ==>		3,740	103	4,157	100	00	3,413	100.00	Gı	rand Total	==>	-3,207		-4,942	100.00	No. People	2	
			COOLING	COIL SELI	ECTIC	N						AREAS			Н	EATING COIL	SELECTIO	N
	Tota	al Capacity		oil Airflow		ter DB/	WB/HR	Leav	e DE	B/WB/HR	(Gross Total	Glass	s			Coil Airflow	Ent
	ton	MBh	MBh	cfm	°F	°F	gr/lb	°F	°F				ft ²	(%)		MBh	cfm	°F
Main Clg	0.4	4.8	3.7	241	75.7	61.6	74.1	59.0	54 5	67.4	Floor	340		22 25	Main Htg	-5.5	241	64.6
Aux Clg	0.0	0.0	0.0	241	0.0	0.0	0.0		0.0	100000000000000000000000000000000000000	Part	0			Aux Htg	0.0	0	0.0
	139/33		\$1.00 pt 1											11		50.00	1679	
Opt Vent	0.0	0.0	0.0	24	93.2	70.2	93.8	92.0	9.9	93.8	Int Door	1			Preheat	0.0	0	0.0
Total	0.4	4.8									ExFlr	0	0	0	Humidif	0.0	0	0.0
Total	0.4	4.0									Roof Wall	156	80		Opt Vent	-1.4	24	
															8		24	-1.0
											Ext Door	0	0	0	Total	-6.9		

	COOLING	OIL PEAK			CLG SPACE	PEAK			HEATING	COIL PEAK		TEM	PERATURES	s
	ed at Time: Outside Air:		/Hr: 7 / 17 HR: 90 / 68 / 8	35	Mo/Hr: OADB:				Mo/Hr: OADB:	Heating Desig	ın	SADB Ra Plenum	Cooling 57.1 74.0	Heating 94.4 70.0
	Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total	Space Sensible	Percent Of Total			Space Peak Space Sens		eak Perce	nt Return	74.5 76.1	70.0 68.5
	Btu/h	Btu/h	Btu/h	(%)	Btu/h	(%)			Btu/h		u/h ('	%) Fn MtrTD	0.0	0.0
Envelope Loads							Envelope Lo					Fn BldTD	0.0	0.0
Skylite Solar	0	0	0	0	0	0	Skylite So		0			00 Fn Frict	0.0	0.0
Skylite Cond	0	0	0	0	0	0	Skylite Co		0			00		
Roof Cond	0	0	0	0	0	0	Roof Cond		0		0 0.			
Glass Solar	694	0	694	14	909	25	Glass Sol		0		0 0.		IRFLOWS	
Glass/Door Cond	759	0	759	16	646	17	Glass/Doo		-3,915	-3,9			Cooling	Heating
Wall Cond	581	0	581	12	609	16	Wall Cond		-1,198	-1,1			231	23
Partition/Door	0		0	0	0	0	Partition/D	oor	0		0 0.	00	231	23
Floor	0		0	0	0.00	0	Floor		0		0 0.		231	23
Adjacent Floor	0.00	0.00	0.00	0.00	0.00	0.00	Adjacent I	-loor	0.00		.00 0.	533		
Infiltration	67		67	1	36	1	Infiltration		-223			15 Sec Fan	0	
Sub Total ==>	2,101	0	2,101	44	2,201	59	Sub Total	==>	-5,335	-5,3	335 75.	Nom Vent	24	24
							·					AHU Vent	24	24
Internal Loads							Internal Loa	ds				Infil	3	
Lights	464	116	580	12	464	13	Lights		0		0 0.	00 MinStop/Rh	0	
People	1,350	0	1,350	28	750	20	People		0		0 0.	00 Return	234	234
Misc	290	0	290	6	290	8	Misc		0		0 0.	00 Exhaust	27	2
Sub Total ==>	2,104	116	2,220	46	1,504	41	Sub Total	==>	0		0 0.	00 Rm Exh Auxiliary	0	
Ceiling Load	0	0	0	0	0	0	Ceiling Load		0			00 Leakage Dwn	0	
Ventilation Load	0	0	518	11	0	0	Ventilation L	.oad	0	-3		78 Leakage Ups	0	
Adj Air Trans Heat	0		0	0	0	0	Adj Air Trans	s Heat	0		0	0		
Dehumid. Ov Sizin	g		0	0			Ov/Undr Siz	ing	0		0 0.	00		
Ov/Undr Sizing	0		0	0	0	0	Exhaust Hea	ıt				00 ENGIN	NEERING CH	(S
Exhaust Heat		-13	-13	0			OA Preheat	Diff.		-1,3	397 19.	76		
Sup. Fan Heat			0	0			RA Preheat	Diff.				00	Cooling	Heating
Ret. Fan Heat		0	0	0			Additional R					00 % OA	10.3	10.3
Duct Heat Pkup		0	0	0			System Plen					00 cfm/ft²	0.68	0.68
Underfir Sup Ht Pk			0	0			Underfir Sup					00 cfm/ton	497.61	
Supply Air Leakag	e	0	0	0			Supply Air L	eakage			0 0.	00 ft²/ton	731.72	
Grand Total ==>	4,205	103	4,825	100.00	3,705	100.00	Grand Total	==>	-5,335	-7,0	70 100.	00 Btu/hr·ft² No. People	16.40 3	-30.18
		COOLING	COIL SEL	ECTION			1		AREAS		7	HEATING COIL	SEI ECTIO	NI
	Total Capacity		Coil Airflow		B/WB/HR	Leave	DB/WB/HR	3	Gross Total	Glass			Coil Airflow	Ent L
	ton MBh	MBh	cfm		°F gr/lb		°F gr/lb)	GIUSS IUIAI	ft² (%)		MBh	cfm	°F
Main Clg	0.5 5.6	4.1	231	76.1 61	.9 75.0	57.1 5	3.2 65.1	Floor	340		Main H	t q -8.9	231 (62.0 94
	0.0 0.0	0.0	0		0.0	0.0		Part	0		Aux Ht	•		0.0
	0.0 0.0	0.0	24	93.2 70		92.0 6	(1966)	Int Door	1		Prehea			0.0
		0.0	24	33.2 /(.2 33.0	92.U 0	0.0 90.0	ExFlr	0					
Total	0.5 5.6							Roof	0	0 0	Humidi			0.0
								Wall	363	120 33	Opt Ver	nt -1.4	24	-7.0 55
								Ext Doo	r 0	0 0	Total	-10.3		

	COO	LING (COIL PEA	K		CL	G SPACI	E PEAK	(HEATING (COIL	PEAK		TEMPI	ERATUR	ES	
Pea	ked at T Outside			lo/Hr: 7 / 17 B/HR: 90 / 68 /	85		Mo/Hr: OADB:					Mo/Hr: OADB:		ng Desigr	1	SADB Ra Plenum	55.0 74.0		90.0
	Sens	Space s. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Total	Percen Of Tota	ıl	Space Sensible Btu/h					Space Peak Space Sens Btu/h	100		Percent Of Total	Return	74.5 76.3 0.0		70.0 68.3
Envelope Loa	de	Dlu/II	blu/n	Blu/II	(%)	Dtu/fi	(%)	F.	nvelope L	nade	Blu/II		Dlu/I	1 (%)	Fn BldTD	0.0		0.
Skylite Solar	us	0	0	0	ĵ.	0	0	0		Skylite Sc		0		0	0.00		0.0		0.
Skylite Cond		Ō	Ö			Ö	Ō	0		Skylite Co		Ō		Č			5/5		00000
Roof Cond		0	0	0	3	0	0	0		Roof Con		0		C					
Glass Solar		822	0	822	1	2	1.030	19		Glass Sol		0		C		AIR	FLOWS		
Glass/Door C	ond	275	0			4	234	4		Glass/Do		-1,435		-1,435				-	- 4.
Wall Cond		1,224	0		1	8	1,343	25		Wall Cond		-3,095		-3,095			Cooling		
Partition/Doo	r	0		0		0	0	0		Partition/I		0		C			297		2
Floor		-14		-14)	0	-3.90	0		Floor		-774		-774			297		2
Adjacent Floo	or	0.00	0.00	0.00	0.0	0	0.00	0.00		Adjacent	Floor	0.00		0.00	0.00	Main Fan	297		2
Infiltration	150	106	0.50	106		2	42	1		Infiltration		-315		-315			0)	
Sub Total ==	>	2,412	0		3		2.645	50		Sub Total		-5,618		-5,618		Nom Vent	34		
Jub Total		2,712	Ü	2,712	3	~	2,040	50				0,0.0		-,0 10	30.01	AHU Vent	34		
Internal Load									In	ternal Lo	ads					Infil	34		
	•	504	220	701	341	0	504	44			no.07070	(4)				100000	(
Lights		561	140		1		561	11		Lights		0		C					2
People		1,800	0		2		1,000	19		People		0		C			301		3
Misc		351	0			5	351	7		Misc		0		C			38		
Sub Total ==:	>	2,712	140	2,852	4	2	1,912	36		Sub Total	==>	0		C	0.00	Rm Exh Auxiliary	0		
Ceiling Load		0	0	0	9	0	0	0	C	eiling Loa	ad	0		C			Č		
Ventilation Lo	ad	0	0		1		0	0	Ve	entilation	Load	0		-477	5.91	Leakage Ups	C	1	
Adj Air Trans		0		0		0	0	0		dj Air Trai		0		C					
Dehumid. Ov		•		0		0		•		v/Undr Si		0		C	0.00				
Ov/Undr Sizir		781		781	1		781	15		xhaust He				Č			ERING (rks	8
Exhaust Heat		701	-18			ó	701	10		A Preheat				-1.970			EKING	JNO	
Sup. Fan Hea			10	0		ŏ				A Preheat				1,070			Cooling	Hea	tin
Ret. Fan Heat			0			ŏ				dditional				Č			11.3		11.
Duct Heat Pki			ő			Ö					num Heat			č	0.00		0.72		0.7
Underfir Sup				ő		ŏ					up Ht Pkur			C	0.00	cfm/ton	456.72		
Supply Air Le			0			0				upply Air				Č			632.49		
oupply All Lo	unuge			9		•			٠.	арріў Ап	Leakage				0.00	Btu/hr·ft²	18.97	-2	7.9
Grand Total =	=>	5,905	123	6,849	100.0	0	5,337	100.00	G	rand Tota	/ ==>	-5,618		-8,065	100.00		4	-2	.7.5
			COOLING	2 0011 051	FOTI							ADEAC	6		ш	ATING COIL	SEL FOT	ON.	
	Total C	anacity		G COIL SEL Coil Airflow			B/HR	Leave	DB/	/WB/HR	G	AREAS	Glas		HE	ATING COIL S		Ent	t L
	ton	MBh	MBh	cfm	°F	°F	gr/lb	°F	°F			000 10141	ft ²	(%)		MBh	cfm	°F	
Main Clg	0.7	7.8	5.7	297	76.3	61.2	71.1	55.0 5	1.5	61.0	Floor	411		10 10	Main Htg	-9.5	297	62.9	9
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	Part	0			Aux Htg	0.0	0	0.0	
Opt Vent	0.0	0.0	0.0	34	93.2		93.8	92.0 6			Int Door	1			Preheat	0.0	0	0.0	
Opt Tont	0.0	0.0	0.0	34	00.2	. 0.2	00.0	02.0 0	5.0	00.0	ExFlr	197			. Toricat	0.0	0	0.0	
Total	0.7	7.8									Roof	0	0	0	Humidif	0.0	0	0.0	
	~··	7.5									Wall	672	44	7	Opt Ven		0.75	-7.0	5
											Ext Doo		0	o l	Total	-11.5	J-1		
										- 11	EXT DOO	r U	(1)	U	rorai	-11.5			

Zone Checksums



Pool Consultant
Cloward H20
2696 N University Ave, Suite 290
Provo, UT 84604

Reserved for permit stamp

Kundig

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2.2	ру
checked b	Y Checker
job no	О.
dat	e 5/17/2024
revisions:	
no. date	by

principal architect_____ project manager____

> IFC Set 2 of 3 5/17/2024

HVAC LOAD CALCULATION

MO.14