\22 unit P FCU	l living room	1	,	,			Checks VSP USA IN							
		COIL PEAK			CLG SPACE	PEAK			HEATING CO	OIL PEAK	TEM	PERATURES	 S	
	ked at Time: Outside Air:	Mo/ł OADB/WB/H	Hr: 7/15 R: 93/70/9	94	Mo/Hr: OADB:				Mo/Hr: H OADB: -7	eating Design		SADB	Cooling 56.9	Heating 93.7
	Space Sens. + Lat.	Plenum Sens. + Lat	Net Total	Percent Of Total	Space Sensible	Percent Of Total			Space Peak Space Sens	Coil Peak Tot Sens		Ra Plenum Return Ret/OA	74.0 74.7 77.4	70.0 70.0 67.9
	Btu/h	Btu/h	Btu/h	(%)	Btu/h	(%)			Btu/h	Btu/h	(%)	Fn MtrTD	0.0	0.0
Envelope Loads				` ´;		` '	Envelope Lo	ads			` ′	Fn BldTD	0.0	0.0
Skylite Solar	0	0	0	0	0	0	Skylite So		0	0	0.00	Fn Frict	0.0	0.0
Skylite Cond	0	0	0	0	0	0	Skylite Co	nd	0	0	0.00			
Roof Cond	0	0	0	0	0	0	Roof Cond	b	0	0	0.00			
Glass Solar	1,286	0	1,286	14	1,328	21	Glass Sola	ar	0	0	0.00	Α	IRFLOWS	
Glass/Door Cond	1,169	0	1,169	13	1,175	18	Glass/Doo	or Cond	-5,652	-5,652	43.19		0 11	11 41
Wall Cond	983	0	983	11	1,007	16	Wall Cond	1	-2,754	-2,754	21.04		Cooling	Heating
Partition/Door	0		0	0	0	0	Partition/D)oor	0	0	0.00	Diffuser	398	398
Floor	0		0	0	0.00	0	Floor		0	0	0.00	Terminal	398	398
Adjacent Floor	0.00	0.00	0.00	0.00	0.00	0.00	Adjacent I	Floor	0.00	0.00	0.00	Main Fan	398	398
Infiltration	220	0.00	220	2	126	2	Infiltration	1001	-533	-533	4.08	Sec Fan	0	C
Sub Total ==>	3,658	0	3.658	40		56	Sub Total	>	-8,938	-8,938	68.30		57	57
Sub Total>	3,030	U	3,030	40	3,636	36	Sub Total		-0,330	-0,330	00.50	Nom Vent		
							Internal Load	do				AHU Vent	57	57
Internal Loads							internal Load	us				Infil	7	7
Lights	1,110	277	1,387	15	1,110	17	Lights		0	0	0.00	MinStop/Rh	0	C
People	1,800	0	1,800	20	1,000	16	People		0	0	0.00	Return	405	405
Misc	694	0	694	8	694	11	Misc		0	0	0.00	Exhaust	64	64
Sub Total ==>	3,604	277	3,881	42	2,804	44	Sub Total	==>	0	0	0.00	Rm Exh	0	C
oub rotar -	0,001	211	0,001		2,004		Gub rotar	-	Ü	v	0.00	Auxiliary	0	C
Ceiling Load	0	0	0	0 ;	0	0	Ceiling Load	ı	0	0	0.00	Leakage Dwn	0	
Ventilation Load	0	0	1.709	19	0	0	_		0	-808	6.17	Leakage Ups	0	_
Adi Air Trans Heat	-	U	1,709	0	0	•	Adj Air Trans		0	0	0.17	Leakage Ups	U	·
			•	•	0	0					- 1			
Dehumid. Ov Sizir	•		0	0			Ov/Undr Sizi	-	0	0	0.00			
Ov/Undr Sizing	0		0	0 ;	0	0	Exhaust Hea			0	0.00	ENGIN	NEERING CH	(S
Exhaust Heat		-44	-44	0 ;			OA Preheat			-3,340	25.52		Caalina	Usatina
Sup. Fan Heat			0	0 ;			RA Preheat I			0	0.00		Cooling	Heating
Ret. Fan Heat		0	0	0 1			Additional R			0	0.00	% OA	14.3	14.3
Duct Heat Pkup		0	0	0			System Plen			0	0.00	cfm/ft²	0.49	0.49
Underfir Sup Ht Pi	kup		0	0			Underfir Su	Ht Pkup		0	0.00	cfm/ton	450.98	
Supply Air Leakag	je	0	0	0			Supply Air L	.eakage		0	0.00	ft²/ton Btu/hr·ft²	921.75 13.02	-22.84
Grand Total ==>	7,262	233	9,204	100.00	6,440	100.00	Grand Total	==>	-8,938	-13,086	100.00	No. People	4	22.04
		COOLING COIL SELECTION						AREAS			HE	EATING COIL	SELECTIO	 N
	Total Capacity		Coil Airflow		B/WB/HR	Leave	DB/WB/HR		Gross Total	Glass			Coil Airflow	Ent Lv
	ton MBh	MBh	cfm	°F °I		°F	°F gr/lb			ft ² (%)		MBh	cfm	°F °
					3		3	l <u>_</u> .	6.15	(**,				
Main Clg	0.9 10.6	7.6	398	77.4 62.7		56.9 5		Floor	813		Main Htg	-15.2		61.4 93.
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 0.
Opt Vent	0.0	0.0	57	83.3 65.4	4 82.1	83.3 6	5.4 82.1	Int Door ExFir	1 0		Preheat	0.0	0	0.0 0.

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

RESIDENTIAL FAN COIL UNITS HVAC LOADS (CONT)

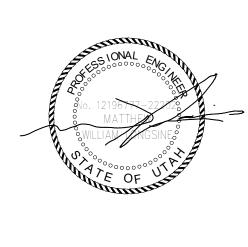
Project Name: SOMMET220519.TRC

	COOL	ING C	OIL PEAK			CLG SPACE	PEAK			HEATING C	OIL PEAK		TEMP	ERATURE	S
Pea	ked at Tim Outside A		Mo/Hi OADB/WB/HF	r: 7 / 18 R: 87 / 65 / 7	76	Mo/Hr: OADB:				Mo/Hr: I OADB: -	Heating Design -7		SADB	Cooling 59.0	Heating 84.1
	9	Space	Plenum	Net	Percent	Space	Percent			Space Peak	Coil Peak	Percent	Ra Plenum Return	74.0 74.5	70.0 70.0
	Sens.	•	Sens. + Lat	Total	Of Total	Sensible	Of Total			Space Sens		Of Total	Ret/OA	75.7	68.5
		Btu/h	Btu/h	Btu/h	(%)	Btu/h	(%)			Btu/h	Btu/h		Fn MtrTD	0.0	0.0
nvelope Loads							(,	Envelope Lo	oads			(,	Fn BldTD	0.0	0.0
Skylite Solar		0	0	0	0	0	0	Skylite So	olar	0	C	0.00	Fn Frict	0.0	0.0
Skylite Cond		0	0	0	0	0	0	Skylite Co		0	C				
Roof Cond		0	0	0	0	0	0	Roof Con		0	C				
Glass Solar		1,309	0	1,309	31	1,504	44	Glass So		0	C		A IF	RFLOWS	
Glass/Door Cond	t	432	0	432	10	332	10	Glass/Do		-2,610	-2,610			Cooling	Heating
Wall Cond		304	0	304	7	298	9	Wall Cond		-375	-375		Diffuser	241	241
Partition/Door		0		0	0	0	0	Partition/I	Joor	0	(Terminal	241	
Floor		0	0.00	0	0	0.00	0	Floor	-	0	0		Main Fan	241	
Adjacent Floor		0.00	0.00	0.00	0.00	0.00	0.00	Adjacent		0.00	0.00			0	
Infiltration		40	0	40	1	25	1	Infiltration Sub Total		-223 3 207	-223 -3,207		Sec Fan		
Sub Total ==>		2,086	0	2,086	50	2,159	63	Sub Total		-3,207	-3,207	04.90	Nom Vent	24	
								Internal Loa	de				AHU Vent	24	
Internal Loads									ius				Infil	3	
Lights		464	116	580	14	464	14	Lights		0	C		MinStop/Rh	0	
People		900	0	900	22	500	15	People		0	C		Return	244	
Misc		290	0	290	7	290	9	Misc		0	C		Exhaust	27	
Sub Total ==>		1,654	116	1,770	43	1,254	37	Sub Total	! ==>	0	C	0.00	Rm Exh	0	
		_	_	_			_		_	0		0.00	Auxiliary	0	_
Ceiling Load		0	0	0	0 ;	0				0)		Leakage Dwn	0	-
Ventilation Load		0	0	313	8	0				-	-338		Leakage Ups	0	(
Adj Air Trans Hea		0		0	0	0	0	Adj Air Tran		0	C				
Dehumid. Ov Sizii	ng			0	0		_	Ov/Undr Siz	•	0	C				
Ov/Undr Sizing		0	40	0	0	0	0	Exhaust He			4 202		ENGINE	ERING C	KS
Exhaust Heat			-13	-13 0	0 ;			OA Preheat			-1,397			Cooling	Heating
Sup. Fan Heat			0	0	0			RA Preheat Additional F			(% OA	9.9	9.9
Ret. Fan Heat Duct Heat Pkup			0	0	0			System Plei			C		cfm/ft²	0.71	0.71
Underfir Sup Ht P	kun		O	0	0			Underfir Su			C		cfm/ton	601.03	· · · ·
Supply Air Leakag	-		0	0	0			Supply Air I			(ft²/ton	848.68	
oupply All Leakat	Je.		· ·	O	J			Supply All I	Leakage			0.00	Btu/hr·ft²	14.14	-20.40
Grand Total ==>		3,740	103	4,157	100.00	3,413	100.00	Grand Total	/ ==>	-3,207	-4,942	100.00	No. People	2	20.10
			COOLING C							AREAS		Н	EATING COIL S		
	Total Cap ton	pacity MBh	Sens Cap. Co MBh	oil Airflow cfm)B/WB/HR °F gr/lb	Leave °F	* DB/WB/HR *F gr/lb	G	ross Total	Glass ft² (%)		Capacity C MBh	cfm	Ent Lv °F °
Main Clg	0.4	4.8	3.7	241	75.7 61	.6 74.1	59.0 5	4.5 67.4	Floor	340		Main Htg	-5.5	241	64.6 84.
Aux Clg	0.0	0.0	0.0	0		0.0 0.0		0.0 0.0	Part	0		Aux Htg	0.0		0.0 0.
-										4		_			
Opt Vent	0.0	0.0	0.0	24	93.2 70	0.2 93.8	92.0 69	9.9 93.8	Int Door ExFlr	0		Preheat	0.0		0.0
Total	0.4	4.8							Roof	0	0 0	Humidif	0.0	0	0.0
									Wall	156	80 51	Opt Vent	-1.4	24	-7.0 55.
									Ext Door	0	0 0	Total	-6.9		

Zone Checksums

	COOLING O	OIL PEAK		(CLG SPACE	E PEAK			HEATING	COIL PEAK		TEM	PERATURES	s S
Pea	aked at Time:		o/Hr: 7 / 17		Mo/Hr: 7 / 18					Heating Design			Cooling	He
	Outside Air:	OADB/WB	/HR: 90 / 68 / 8	35	OADB:	87			OADB:	-7		SADB Ra Plenum	57.1 74.0	
	Space	Plenum	Net	Percent	Space				Space Peak		Percent	Return	74.5	
	Sens. + Lat.	Sens. + Lat	Total	Of Total	Sensible				Space Sens		of Total	Ret/OA	76.1 0.0	
Envolono I codo	Btu/h	Btu/h	Btu/h	(%)	Btu/h	(%)	Envelope	aada	Btu/h	Btu/h	n (%)	Fn MtrTD	0.0	
Envelope Loads Skylite Solar	0	0	0	0	0	0	Envelope Le Skylite Sc		0	(0.00	Fn Frict	0.0	
Skylite Cond	0	0	0	0	0		Skylite Co		0	(ITHICK		
Roof Cond	0	0	0	0	0		Roof Con		0	(
Glass Solar	694	0	694	14	909		Glass So		0	Č		i 🛕	IRFLOWS	
Glass/Door Con		0	759	16	646		Glass/Do		-3,915	-3,915		1		
Wall Cond	581	0	581	12	609				-1,198	-1,198			Cooling	H
Partition/Door	0	· ·	0	0	0		Partition/I		0	.,		Diffuser	231	
Floor	0		0	0	0.00		Floor		0	Ċ		Terminal	231	
Adjacent Floor	0.00	0.00	0.00	0.00	0.00	0.00	Adjacent	Floor	0.00	0.00		Main Fan	231	
Infiltration	67		67	1	36		Infiltration		-223	-223		Sec Fan	0	
Sub Total ==>	2,101	0	2,101	44	2,201	59	Sub Total	! ==>	-5,335	-5,335		Nom Vent	24	
out rotal	_,		_,		_,				•	•		AHU Vent	24	
Internal Loads							Internal Loa	ıds				Infil	3	
	464	116	580	10	464	10	Lighto		0	(0.00	MinStop/Rh	0	
Lights People	464 1,350	0	1,350	12 28	750	13 20	Lights People		0	(Return	234	
Misc	290	0	290	6	290		Misc		0	(Exhaust	27	
									_			Rm Exh	0	
Sub Total ==>	2,104	116	2,220	46	1,504	41	Sub Total	==>	0	(0.00	Auxiliary	0	
Ceiling Load	0	0	0	0	0	0	Ceiling Loa	4	0	(0.00	Leakage Dwn	ŭ	
Ventilation Load	0	0	0 518	0 11	0		Ventilation		0	-338		11	0	
Adj Air Trans Hea	-	U				-	Adj Air Tran		0	-550		Leakage Ups	U	
•	_		0	0	0	U			0					
Dehumid. Ov Sizi	-		0	0		0	Ov/Undr Siz	-	U	(
Ov/Undr Sizing	0	-13	0 -13	0	0	0	Exhaust He OA Preheat			-1,397		ENGIN	NEERING CH	ΚS
Exhaust Heat		-13	-13	0			RA Preheat			-1,397			Cooling	Не
Sup. Fan Heat Ret. Fan Heat		0	0	0			Additional F			(10.3	
Duct Heat Pkup		0	0	0			System Ple			(cfm/ft²	0.68	
Underfir Sup Ht F	Pkun	O	0	0			Underfir Su			(cfm/ton	497.61	
Supply Air Leaka	-	0	0	0			Supply Air			Ò		ft²/ton	731.72	
Cuppiy All Leaka	igc	· ·	· ·				Cupply All	Lounage		`	0.00	Btu/hr·ft²	16.40	-
Grand Total ==>	4,205	103	4,825	100.00	3,705	100.00	Grand Total	/ ==>	-5,335	-7,070	100.00	No. People	3	
		COOLING	G COIL SELI	ECTION					AREAS		н	EATING COIL	SELECTIO	N
	Total Capacity	Sens Cap.	Coil Airflow	Enter DB	/WB/HR	Leave	DB/WB/HR		Gross Total	Glass			Coil Airflow	 En
	ton MBh	MBh	cfm	°F °F			°F gr/lb			ft² (%)		MBh		۰
Main Clg	0.5 5.6	11	231	76.1 61.9		57.1 5		Elear	340	`	Main Uta	-8.9	231 6	62 A
Aux Clg	0.5 5.6	4.1 0.0	0	76.1 61.9 0.0 0.0			0.0 0.0	Floor Part	0		Main Htg Aux Htg	0.0		0.0
-			_								1			
Opt Vent	0.0 0.0	0.0	24	93.2 70.2	93.8	92.0 6	9.9 93.8	Int Door ExFir	1 0		Preheat	0.0	0	0.0
Total	0.5 5.6							Roof	0	0 0	Humidif	0.0	0	0.0
. 3.44	5.0 0.0							Wall	363		Opt Vent	-1.4	24	
										0 0	Total			
								Ext Door	U	U U	าบเลา	-10.3		

	COOL	ING (COIL PEAK	(CLG SPAC	E PEAK	(HEATING (COIL PEA	λK	TEMP	ERATURE	ES
Pe	aked at Tim Outside A			/Hr: 7 / 17 HR: 90 / 68 /	85	Mo/Hr OADB	: 7 / 18 : 87			Mo/Hr: OADB:	Heating Dea	sign	SADB Ra Plenum	Cooling 55.0 74.0	Hea
			Plenum Sens. + Lat	Total	Percent Of Total	Sensible	Percent Of Total			Space Peak Space Sens	Tot S	eak Percent ens Of Total		74.5 74.5 76.3 0.0	
Envelope Loa	ads	Btu/h	Btu/h	Btu/h	(%)	Btu/h	(%)	Envelope	Loads	Btu/h	В	tu/h (%)	Fn BldTD	0.0	
Skylite Solar		0	0	0	0	0		Skylite	Solar	0		0 0.00	Fn Frict	0.0	
Skylite Cond		0	0	0	0	0	-			0		0 0.00			
Roof Cond Glass Solar		0 822	0	0 822	0 12	0 1,030	0 19			0		0 0.00 0 0.00	AIE	RFLOWS	
Glass/Door (Cond	275	0	275	4	234			oor Cond	-1,435	-1	435 17.80			
Wall Cond		1,224	Ö	1,224	18	1,343				-3,095		095 38.38		Cooling	He
Partition/Doc		0	· ·	0	0	0	0	Partitio		0	·	0.00	Diffuser	297	
Floor		-14		-14	0	-3.90				-774		774 9.59	Terminal	297	
Adjacent Flo	or	0.00	0.00	0.00	0.00	0.00				0.00		0.00	Main Fan	297 0	
Infiltration Sub Total ==		106 2,412	0	106 2,412	2 35	42 2,645		Infiltrati Sub Tot		-315 -5,618		315 3.90 618 69.67	Sec Fan Nom Vent	34	
Sub Total ==		2,412	U	2,412	33	2,043	30	Oub 100	.ur	-0,010	-0,	010 03.07	AHU Vent	34	
Internal Load	ls							Internal L	oads.				Infil	4	
Lights		561	140	701	10	561	11	Lights		0		0 0.00	11	0	
People		1,800	0	1,800	26	1,000		People		0		0 0.00		301	
Misc		351	0	351	5	351				0		0 0.00	Exhaust	38	
Sub Total ==	:>	2,712	140	2,852	42	1,912	36	Sub Tot	'al ==>	0		0 0.00	Rm Exh	0	
Ceiling Load		0	0	0	0	0	0	Ceiling L	had	0		0 0.00	Auxiliary Leakage Dwn	0	
Ventilation Le		0	0	822	12	0	-			0	-	477 5.91	Leakage Ups	0	
Adj Air Trans		0		0	0	0	-	Adj Air Tr		0		0 0		· ·	
Dehumid. Ov				0	0			Ov/Undr	Sizing	0		0 0.00			
Ov/Undr Sizii		781	40	781	11	781	15	Exhaust I				0 0.00	ENGINE	EERING C	KS
Exhaust Heat			-18	-18 0	0			OA Prehe RA Prehe			-1,	970 24.42 0 0.00		Cooling	Hea
Sup. Fan Hea			0	0	0			Additiona				0 0.00	% OA	11.3	
Duct Heat Pk			Ö	ő	Ő				lenum Heat	t		0 0.00	cfm/ft²	0.72	
Underflr Sup				0	0				Sup Ht Pku _l	p		0 0.00	cfm/ton	456.72	
Supply Air Le	eakage		0	0	0			Supply A	ir Leakage			0.00	ft²/ton	632.49	_
Grand Total =		5,905	123	6.849	100.00	5.337	100.00	Grand To	401>	-5.618	0	065 100.00	Btu/hr·ft²	18.97 4	-2
Grand Total -	/	5,905	123	0,049	100.00	5,337	100.00	Granu 10	lai/	-5,016	-0,	065 100.00	No. People	4	
	T. (.) O	•	COOLING					DD 04/2 " / =		AREAS		HE	ATING COIL		
	ton		Sens Cap. MBh	Coil Airflow cfm	Enter D °F	B/WB/HR °F gr/lb		DB/WB/HR °F gr/lb	G	ross Total	Glass ft² (%)		CapacityCo MBh	oil Airflow cfm	ent °F
Main Clg	0.7	7.8	5.7		76.3 6	1.2 71.1	55.0 5	1.5 61.0	Floor	411		Main Htg		297 6	
Aux Clg	0.0	0.0	0.0	0		0.0 0.0	0.0		Part	0		Aux Htg	0.0		0.0
Opt Vent	0.0	0.0	0.0	34	93.2 7	0.2 93.8	92.0 6	9.9 93.8	Int Door			Preheat	0.0	0	0.0
Total	0.7	7.8							ExFlr Roof	197 0	0 0	Humidif	0.0	0	0.0
IUlai	0.7	1.0							Wall	672	44 7			34	
										J1 Z		TOPL TOTAL			



Reserved for permit stamp

Kundig

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WSP USA 1001 Fourth Ave., Suite 3100 Seattle, WA 98154

project manager_____ drawn by_____ checked by <u>Checker</u> job no. date 11/18/2022 revisions: no. date

principal architect_____

ISSUE FOR CONSTRUCTION 11/18/2022

HVAC LOAD CALCULATION