

Boiler Load Summary

Scenario 1: -15°F Design Condition, No Snowmelt

Load Category	Load (BTUH)	Selected Load Basis
Terminal Units	626,800	
VAV Heating Loads	2,767,500	
RTU Heating Coils	2,702,808	
Snowmelt Loads	0	Excluded
Scenario Total	6,097,108	Selected

Scenario 2: 10°F Design Condition, With Snowmelt

Load Category	Load (BTUH)	Selected Load Basis
Terminal Units	442,447	
VAV Heating Loads	1,953,529	
RTU Heating Coils	1,907,864	
Snowmelt Loads	1,357,750	Included
Scenario Total	5,661,591	

Boiler Load Basis **6,097,108 Scenario 1**

PCC1 Itemized
Loads

Load Category	Equipment / Description	Basis	Scenario 1: -15°F No Snowmelt (BTUH)	Scenario 2: 10°F With Snowmelt (BTUH)	Notes
Terminal Units					
Terminal Units	Baseboard 01	20°F ΔT	22,000	15,529 Existing	
Terminal Units	Baseboard 02	20°F ΔT	9,000	6,353 Existing	
Terminal Units	Baseboard 03	20°F ΔT	5,000	3,529 Existing	
Terminal Units	Baseboard 04	20°F ΔT	5,000	3,529 Existing	
Terminal Units	Baseboard 05	20°F ΔT	5,000	3,529 Existing	
Terminal Units	Baseboard 06	20°F ΔT	5,000	3,529 Existing	
Terminal Units	Baseboard 07	20°F ΔT	14,000	9,882 Existing	
Terminal Units	Baseboard 08	20°F ΔT	7,000	4,941 Existing	
Terminal Units	Baseboard 09	20°F ΔT	13,000	9,176 Existing	
Terminal Units	Baseboard 10	20°F ΔT	5,000	3,529 Existing	
Terminal Units	Cabinet Unit Heater 01	20°F ΔT	13,000	9,176 Existing	
Terminal Units Subtotal			103,000	72,706	
VAV Heating Loads					
VAV Heating Loads	First Floor VAV Heating Load 01	30°F ΔT	7,500	5,294 Existing	
VAV Heating Loads	First Floor VAV Heating Load 02	30°F ΔT	24,000	16,941 Existing	
VAV Heating Loads	First Floor VAV Heating Load 03	30°F ΔT	7,500	5,294 Existing	
VAV Heating Loads	First Floor VAV Heating Load 04	30°F ΔT	7,500	5,294 Existing	
VAV Heating Loads	First Floor VAV Heating Load 05	30°F ΔT	9,000	6,353 Existing	
VAV Heating Loads	First Floor VAV Heating Load 06	30°F ΔT	7,500	5,294 Existing	
VAV Heating Loads	First Floor VAV Heating Load 07	30°F ΔT	7,500	5,294 Existing	
VAV Heating Loads	First Floor VAV Heating Load 08	30°F ΔT	7,500	5,294 Existing	
VAV Heating Loads	First Floor VAV Heating Load 09	30°F ΔT	18,000	12,706 Existing	
VAV Heating Loads	First Floor VAV Heating Load 10	30°F ΔT	7,500	5,294 Existing	
VAV Heating Loads	First Floor VAV Heating Load 11	30°F ΔT	7,500	5,294 Existing	
VAV Heating Loads	First Floor VAV Heating Load 12	30°F ΔT	18,000	12,706 Existing	
VAV Heating Loads	First Floor VAV Heating Load 13	30°F ΔT	7,500	5,294 Existing	
VAV Heating Loads	First Floor VAV Heating Load 14	30°F ΔT	4,500	3,176 Existing	
VAV Heating Loads	First Floor VAV Heating Load 15	30°F ΔT	7,500	5,294 Existing	
VAV Heating Loads	First Floor VAV Heating Load 16	30°F ΔT	33,000	23,294 Existing	
VAV Heating Loads	First Floor VAV Heating Load 17	30°F ΔT	7,500	5,294 Existing	
VAV Heating Loads	First Floor VAV Heating Load 18	30°F ΔT	33,000	23,294 Existing	
VAV Heating Loads	First Floor VAV Heating Load 19	30°F ΔT	3,000	2,118 Existing	
VAV Heating Loads	First Floor VAV Heating Load 20	30°F ΔT	33,000	23,294 Existing	
VAV Heating Loads	First Floor VAV Heating Load 21	30°F ΔT	7,500	5,294 Existing	
VAV Heating Loads	First Floor VAV Heating Load 22	30°F ΔT	27,000	19,059 Existing	
VAV Heating Loads	First Floor VAV Heating Load 23	30°F ΔT	7,500	5,294 Existing	
VAV Heating Loads	First Floor VAV Heating Load 24	30°F ΔT	22,500	15,882 Existing	
VAV Heating Loads	First Floor VAV Heating Load 25	30°F ΔT	7,500	5,294 Existing	
VAV Heating Loads	First Floor VAV Heating Load 26	30°F ΔT	114,000	80,471 Existing	
VAV Heating Loads	First Floor VAV Heating Load 27	30°F ΔT	27,000	19,059 Existing	
VAV Heating Loads	First Floor VAV Heating Load 28	30°F ΔT	36,000	25,412 Existing	
VAV Heating Loads	First Floor VAV Heating Load 29	30°F ΔT	60,000	42,353 Existing	
VAV Heating Loads	First Floor VAV Heating Load 30	30°F ΔT	12,000	8,471 Existing	
VAV Heating Loads	First Floor VAV Heating Load 31	30°F ΔT	13,500	9,529 Existing	
VAV Heating Loads	First Floor VAV Heating Load 32	30°F ΔT	24,000	16,941 Existing	
VAV Heating Loads	First Floor VAV Heating Load 33	30°F ΔT	12,000	8,471 Existing	
VAV Heating Loads	First Floor VAV Heating Load 34	30°F ΔT	13,500	9,529 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 01	30°F ΔT	19,500	13,765 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 02	30°F ΔT	13,500	9,529 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 03	30°F ΔT	22,500	15,882 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 04	30°F ΔT	22,500	15,882 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 05	30°F ΔT	22,500	15,882 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 06	30°F ΔT	7,500	5,294 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 07	30°F ΔT	22,500	15,882 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 08	30°F ΔT	22,500	15,882 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 09	30°F ΔT	15,000	10,588 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 10	30°F ΔT	22,500	15,882 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 11	30°F ΔT	15,000	10,588 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 12	30°F ΔT	22,500	15,882 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 13	30°F ΔT	15,000	10,588 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 14	30°F ΔT	22,500	15,882 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 15	30°F ΔT	15,000	10,588 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 16	30°F ΔT	15,000	10,588 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 17	30°F ΔT	7,500	5,294 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 18	30°F ΔT	7,500	5,294 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 19	30°F ΔT	15,000	10,588 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 20	30°F ΔT	22,500	15,882 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 21	30°F ΔT	22,500	15,882 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 22	30°F ΔT	22,500	15,882 Existing	
VAV Heating Loads	Second Floor VAV Heating Load 23	30°F ΔT	22,500	15,882 Existing	

VAV Heating Loads	Second Floor VAV Heating Load 24	30°F ΔT	7,500	5,294 Existing
VAV Heating Loads	Second Floor VAV Heating Load 25	30°F ΔT	15,000	10,588 Existing
VAV Heating Loads Subtotal			1,080,000	762,353
RTU Heating Coils				
RTU Heating Coils	RTU-1.3 Existing Coil	30°F ΔT	56,700	40,024 Existing
RTU Heating Coils	Future RTU-1.1 Coil	30°F ΔT	656,208	463,206 Future
RTU Heating Coils Subtotal			712,908	503,229
Snowmelt Loads				
Snowmelt Loads	Zone D Snowmelt	Snowmelt	0	273,000 Excluded from Scenario 1
Snowmelt Loads	Zone 4 Snowmelt	Snowmelt	0	40,000 Excluded from Scenario 1
Snowmelt Loads Subtotal			0	313,000
Total Load Basis			1,895,908	1,651,288

**PCC3 Itemized
Loads**

Load Category	Equipment / Description	Basis	Scenario 1: -15°F No Snowmelt (BTUH)	Scenario 2: 10°F With Snowmelt (BTUH)	Notes
Terminal Units					
Terminal Units	First Floor Baseboard 01	20°F ΔT	16,200	11,435 Existing	
Terminal Units	First Floor Baseboard 02	20°F ΔT	16,200	11,435 Existing	
Terminal Units	First Floor Baseboard 03	20°F ΔT	6,300	4,447 Existing	
Terminal Units	First Floor Baseboard 04	20°F ΔT	6,300	4,447 Existing	
Terminal Units	First Floor Baseboard 05	20°F ΔT	1,800	1,271 Existing	
Terminal Units	First Floor Baseboard 06	20°F ΔT	2,700	1,906 Existing	
Terminal Units	First Floor Baseboard 07	20°F ΔT	5,400	3,812 Existing	
Terminal Units	First Floor Baseboard 08	20°F ΔT	10,800	7,624 Existing	
Terminal Units	First Floor Baseboard 09	20°F ΔT	10,800	7,624 Existing	
Terminal Units	First Floor Baseboard 10	20°F ΔT	1,800	1,271 Existing	
Terminal Units	First Floor Baseboard 11	20°F ΔT	1,800	1,271 Existing	
Terminal Units	First Floor Baseboard 12	20°F ΔT	1,800	1,271 Existing	
Terminal Units	First Floor Baseboard 13	20°F ΔT	2,700	1,906 Existing	
Terminal Units	First Floor Baseboard 14	20°F ΔT	2,700	1,906 Existing	
Terminal Units	First Floor Baseboard 15	20°F ΔT	1,800	1,271 Existing	
Terminal Units	First Floor Baseboard 16	20°F ΔT	6,300	4,447 Existing	
Terminal Units	First Floor Baseboard 17	20°F ΔT	6,300	4,447 Existing	
Terminal Units	First Floor Baseboard 18	20°F ΔT	16,200	11,435 Existing	
Terminal Units	First Floor Baseboard 19	20°F ΔT	16,200	11,435 Existing	
Terminal Units	First Floor Baseboard 20	20°F ΔT	16,200	11,435 Existing	
Terminal Units	First Floor Baseboard 21	20°F ΔT	16,200	11,435 Existing	
Terminal Units	First Floor Baseboard 22	20°F ΔT	6,300	4,447 Existing	
Terminal Units	First Floor Baseboard 23	20°F ΔT	6,300	4,447 Existing	
Terminal Units	First Floor Baseboard 24	20°F ΔT	1,800	1,271 Existing	
Terminal Units	First Floor Baseboard 25	20°F ΔT	2,700	1,906 Existing	
Terminal Units	First Floor Baseboard 26	20°F ΔT	5,400	3,812 Existing	
Terminal Units	First Floor Baseboard 27	20°F ΔT	10,800	7,624 Existing	
Terminal Units	First Floor Baseboard 28	20°F ΔT	10,800	7,624 Existing	
Terminal Units	First Floor Baseboard 29	20°F ΔT	1,800	1,271 Existing	
Terminal Units	First Floor Baseboard 30	20°F ΔT	1,800	1,271 Existing	
Terminal Units	First Floor Baseboard 31	20°F ΔT	1,800	1,271 Existing	
Terminal Units	First Floor Baseboard 32	20°F ΔT	2,700	1,906 Existing	
Terminal Units	First Floor Baseboard 33	20°F ΔT	2,700	1,906 Existing	
Terminal Units	First Floor Baseboard 34	20°F ΔT	1,800	1,271 Existing	
Terminal Units	First Floor Baseboard 35	20°F ΔT	6,300	4,447 Existing	
Terminal Units	Second Floor Baseboard 01	20°F ΔT	6,300	4,447 Existing	
Terminal Units	Second Floor Baseboard 02	20°F ΔT	16,200	11,435 Existing	
Terminal Units	Second Floor Baseboard 03	20°F ΔT	16,200	11,435 Existing	
Terminal Units	Second Floor Baseboard 04	20°F ΔT	16,200	11,435 Existing	
Terminal Units	Second Floor Baseboard 05	20°F ΔT	16,200	11,435 Existing	
Terminal Units	Second Floor Baseboard 06	20°F ΔT	6,300	4,447 Existing	
Terminal Units	Second Floor Baseboard 07	20°F ΔT	6,300	4,447 Existing	
Terminal Units	Second Floor Baseboard 08	20°F ΔT	1,800	1,271 Existing	
Terminal Units	Second Floor Baseboard 09	20°F ΔT	2,700	1,906 Existing	
Terminal Units	Second Floor Baseboard 10	20°F ΔT	5,400	3,812 Existing	
Terminal Units	Second Floor Baseboard 11	20°F ΔT	10,800	7,624 Existing	
Terminal Units	Second Floor Baseboard 12	20°F ΔT	10,800	7,624 Existing	
Terminal Units	Second Floor Baseboard 13	20°F ΔT	1,800	1,271 Existing	
Terminal Units	Second Floor Baseboard 14	20°F ΔT	1,800	1,271 Existing	
Terminal Units	Second Floor Baseboard 15	20°F ΔT	1,800	1,271 Existing	
Terminal Units	Second Floor Baseboard 16	20°F ΔT	2,700	1,906 Existing	
Terminal Units	Second Floor Baseboard 17	20°F ΔT	2,700	1,906 Existing	
Terminal Units	Second Floor Baseboard 18	20°F ΔT	1,800	1,271 Existing	
Terminal Units	Second Floor Baseboard 19	20°F ΔT	6,300	4,447 Existing	
Terminal Units	Second Floor Baseboard 20	20°F ΔT	6,300	4,447 Existing	
Terminal Units	Second Floor Baseboard 21	20°F ΔT	16,200	11,435 Existing	
Terminal Units	Second Floor Baseboard 22	20°F ΔT	16,200	11,435 Existing	
Terminal Units	Second Floor Baseboard 23	20°F ΔT	17,100	12,071 Existing	
Terminal Units	Unit Heater 01	20°F ΔT	17,100	12,071 Existing	
Terminal Units	Unit Heater 02	20°F ΔT	18,000	12,706 Existing	
Terminal Units	Cabinet Unit Heater 01	20°F ΔT	17,100	12,071 Existing	
Terminal Units	Cabinet Unit Heater 02	20°F ΔT	34,200	24,141 Existing	
Terminal Units	Cabinet Unit Heater 03	20°F ΔT	18,000	12,706 Existing	
Terminal Units Subtotal			523,800	369,741	
VAV Heating Loads					
VAV Heating Loads	First Floor VAV Heating Load 01	20°F ΔT	24,300	17,153 Existing	
VAV Heating Loads	First Floor VAV Heating Load 02	20°F ΔT	24,300	17,153 Existing	
VAV Heating Loads	First Floor VAV Heating Load 03	20°F ΔT	14,400	10,165 Existing	
VAV Heating Loads	First Floor VAV Heating Load 04	20°F ΔT	14,400	10,165 Existing	
VAV Heating Loads	First Floor VAV Heating Load 05	20°F ΔT	9,000	6,353 Existing	

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VAV Heating Loads	Third Floor VAV Heating Load 17	20°F ΔT	20,700	14,612 Existing
VAV Heating Loads	Third Floor VAV Heating Load 18	20°F ΔT	8,100	5,718 Existing
VAV Heating Loads	Third Floor VAV Heating Load 19	20°F ΔT	9,000	6,353 Existing
VAV Heating Loads	Third Floor VAV Heating Load 20	20°F ΔT	10,800	7,624 Existing
VAV Heating Loads	Third Floor VAV Heating Load 21	20°F ΔT	12,600	8,894 Existing
VAV Heating Loads	Third Floor VAV Heating Load 22	20°F ΔT	16,200	11,435 Existing
VAV Heating Loads	Third Floor VAV Heating Load 23	20°F ΔT	6,300	4,447 Existing
VAV Heating Loads	Third Floor VAV Heating Load 24	20°F ΔT	60,300	42,565 Existing
VAV Heating Loads	Third Floor VAV Heating Load 25	20°F ΔT	32,400	22,871 Existing
VAV Heating Loads	Floor Varies VAV Heating Load 01	20°F ΔT	45,900	32,400 Existing
VAV Heating Loads	Floor Varies VAV Heating Load 02	20°F ΔT	16,200	11,435 Existing
VAV Heating Loads	Floor Varies VAV Heating Load 03	20°F ΔT	16,200	11,435 Existing
VAV Heating Loads	Floor Varies VAV Heating Load 04	20°F ΔT	36,000	25,412 Existing
VAV Heating Loads	Floor Varies VAV Heating Load 05	20°F ΔT	38,700	27,318 Existing
VAV Heating Loads	Floor Varies VAV Heating Load 06	20°F ΔT	97,200	68,612 Existing
VAV Heating Loads	Floor Varies VAV Heating Load 07	20°F ΔT	36,000	25,412 Existing
VAV Heating Loads	Floor Varies VAV Heating Load 08	20°F ΔT	37,800	26,682 Existing
VAV Heating Loads	Floor Varies VAV Heating Load 09	20°F ΔT	16,200	11,435 Existing
VAV Heating Loads	Floor Varies VAV Heating Load 10	20°F ΔT	19,800	13,976 Existing
VAV Heating Loads Subtotal			1,687,500	1,191,176
RTU Heating Coils				
RTU Heating Coils	RTU-3.1 Existing Coil	30°F ΔT	723,600	510,776 Existing
RTU Heating Coils	RTU-3.2 Existing Coil	30°F ΔT	723,600	510,776 Existing
RTU Heating Coils	AHU-3.3 Existing Coil	30°F ΔT	542,700	383,082 Existing
RTU Heating Coils Subtotal			1,989,900	1,404,635
Snowmelt Loads				
Snowmelt Loads	Zone 1 Snowmelt	Snowmelt	0	165,000 Excluded from Scenario 1
Snowmelt Loads	Zone 2 Snowmelt	Snowmelt	0	272,250 Excluded from Scenario 1
Snowmelt Loads	ADA Snowmelt	Snowmelt	0	607,500 Excluded from Scenario 1
Snowmelt Loads Subtotal			0	1,044,750
Total Load Basis			4,201,200	4,010,303