

*Milo Residence
HVAC Load Calculations*

for

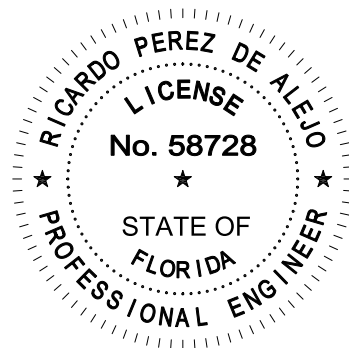
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Pinecrest, Florida



RHVAC RESIDENTIAL
HVAC LOADS

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Date:
2026.05.29
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Prepared By:

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System 1 AC-1 Summary Loads

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
Clear 8: Glazing-Low E, ground reflectance = 0.32, U-value 1.06, SHGC 0.29	352.5	8,594	0	11,469	11,469
13A-4ocs: Wall-Block, board insulation only, R-4 board insulation, open core, siding finish, U-value 0.143	835.5	2,748	0	3,143	3,143
13BB-0ocw: Part-Block, framing with R-11 in 2 x 4 stud cavity, open core, wood studs, U-value 0.088	242	426	0	426	426
22A-pl: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, light dry soil, U-value 0.989	130	2,957	0	0	0
Subtotals for structure:		14,725	0	15,038	15,038
People:	6		1,200	1,380	2,580
Equipment:			500	2,500	3,000
Lighting:	300			1,023	1,023
Ductwork:		757	2,693	207	2,900
Infiltration: Winter CFM: 172, Summer CFM: 88		4,360	4,095	2,132	6,227
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
System 1 AC-1 Load Totals:		19,842	8,488	22,280	30,768

Check Figures

Supply CFM:	1,013	CFM Per Square ft.:	0.573
Square ft. of Room Area:	1,768	Square ft. Per Ton:	690
Volume (ft³):	22,984		

System Loads

Total Heating Required Including Ventilation Air:	19,842 Btuh	19.842 MBH
Total Sensible Gain:	22,280 Btuh	72 %
Total Latent Gain:	8,488 Btuh	28 %
Total Cooling Required Including Ventilation Air:	30,768 Btuh	2.56 Tons (Based On Sensible + Latent)

Notes

Rhvac is an ACCA approved Manual J, D and S computer program.
Calculations are performed per ACCA Manual J 8th Edition, Version 2, and ACCA Manual D.
All computed results are estimates as building use and weather may vary.
Be sure to select a unit that meets both sensible and latent loads according to the manufacturer's performance data at your design conditions.



System 2 AC-2 Summary Loads

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
Clear 8: Glazing-Low E, ground reflectance = 0.32, U-value 1.06, SHGC 0.29	211	5,145	0	7,429	7,429
13A-4ocs: Wall-Block, board insulation only, R-4 board insulation, open core, siding finish, U-value 0.143	944	3,104	0	3,280	3,280
13BB-0ocw: Part-Block, framing with R-11 in 2 x 4 stud cavity, open core, wood studs, U-value 0.088	275	484	0	484	484
22A-pl: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, light dry soil, U-value 0.989	130	2,957	0	0	0
Subtotals for structure:		11,690	0	11,193	11,193
People:	2		400	460	860
Equipment:			200	600	800
Lighting:	400			1,364	1,364
Ductwork:		4,973	1,492	3,038	4,530
Infiltration: Winter CFM: 72, Summer CFM: 0		1,826	0	0	0
Ventilation: Winter CFM: 100, Summer CFM: 100		2,529	4,400	2,199	6,599
AED Excursion:		0	0	1,052	1,052
System 2 AC-2 Load Totals:		21,018	6,492	19,907	26,399

Check Figures

Supply CFM:	753	CFM Per Square ft.:	0.595
Square ft. of Room Area:	1,265	Square ft. Per Ton:	575
Volume (ft ³):	16,445		

System Loads

Total Heating Required Including Ventilation Air:	21,018 Btuh	21.018 MBH
Total Sensible Gain:	19,907 Btuh	75 %
Total Latent Gain:	6,492 Btuh	25 %
Total Cooling Required Including Ventilation Air:	26,399 Btuh	2.20 Tons (Based On Sensible + Latent)

Notes

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System 3 AC-3 Summary Loads

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
Clear 8: Glazing-Low E, ground reflectance = 0.32, U-value 1.06, SHGC 0.29	320	7,802	0	13,692	13,692
13A-4ocs: Wall-Block, board insulation only, R-4 board insulation, open core, siding finish, U-value 0.143	65	214	0	244	244
22A-pl: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, light dry soil, U-value 0.989	35	796	0	0	0
Subtotals for structure:		8,812	0	13,936	13,936
People:	12		2,400	2,760	5,160
Equipment:			400	800	1,200
Lighting:	300			1,023	1,023
Ductwork:		545	1,505	162	1,666
Infiltration: Winter CFM: 172, Summer CFM: 88		4,340	4,410	2,135	6,545
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
AED Excursion:		0	0	665	665
System 3 AC-3 Load Totals:		13,697	8,715	21,481	30,195

Check Figures

Supply CFM:	977	CFM Per Square ft.:	0.730
Square ft. of Room Area:	1,337	Square ft. Per Ton:	531
Volume (ft³):	14,707		

System Loads

Total Heating Required Including Ventilation Air:	13,697 Btuh	13.697 MBH
Total Sensible Gain:	21,481 Btuh	71 %
Total Latent Gain:	8,715 Btuh	29 %
Total Cooling Required Including Ventilation Air:	30,195 Btuh	2.52 Tons (Based On Sensible + Latent)

Notes

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System 4 AC-4 Summary Loads

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
Clear 8: Glazing-Low E, ground reflectance = 0.32, U-value 1.06, SHGC 0.29	245.4	5,986	0	8,310	8,310
13A-4ocs: Wall-Block, board insulation only, R-4 board insulation, open core, siding finish, U-value 0.143	821.6	2,702	0	2,855	2,855
22A-pl: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, light dry soil, U-value 0.989	97	2,206	0	0	0
Subtotals for structure:		10,894	0	11,165	11,165
People:	2		400	460	860
Equipment:			200	300	500
Lighting:	200			682	682
Ductwork:		485	1,276	139	1,415
Infiltration: Winter CFM: 161, Summer CFM: 84		4,068	3,712	1,856	5,568
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
System 4 AC-4 Load Totals:		15,447	5,588	14,602	20,190

Check Figures

Supply CFM:	664	CFM Per Square ft.:	0.588
Square ft. of Room Area:	1,130	Square ft. Per Ton:	672
Volume (ft³):	15,820		

System Loads

Total Heating Required Including Ventilation Air:	15,447 Btuh	15.447 MBH
Total Sensible Gain:	14,602 Btuh	72 %
Total Latent Gain:	5,588 Btuh	28 %
Total Cooling Required Including Ventilation Air:	20,190 Btuh	1.68 Tons (Based On Sensible + Latent)

Notes

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Be sure to select a unit that meets both sensible and latent loads according to the manufacturer's performance data at your design conditions.



System 5 AC-5 Summary Loads

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
Clear 8: Glazing-Low E, ground reflectance = 0.32, U-value 1.06, SHGC 0.29	228.8	5,579	0	9,906	9,906
Clear 8: Glazing-Low E, U-value 1.06, SHGC 0.29	3.8	91	0	171	171
13A-4ocs: Wall-Block, board insulation only, R-4 board insulation, open core, siding finish, U-value 0.143	674.2	2,218	0	2,342	2,342
16A-30: Roof/Ceiling-Under Attic with Insulation on Attic Floor (also use for Knee Walls and Partition Ceilings), Unvented Attic, No Radiant Barrier, Any Roofing Material, Any Roof Color, R-30 insulation, U-value 0.032	1152	848	0	2,912	2,912
Subtotals for structure:		8,736	0	15,331	15,331
People:	3		600	690	1,290
Equipment:			200	700	900
Lighting:	350			1,194	1,194
Ductwork:		6,340	1,945	3,938	5,882
Infiltration: Winter CFM: 176, Summer CFM: 92		4,444	4,055	2,027	6,082
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
AED Excursion:		0	0	1,019	1,019
System 5 AC-5 Load Totals:		19,520	6,800	24,898	31,698

Check Figures

Supply CFM:	1,064	CFM Per Square ft.:	0.924
Square ft. of Room Area:	1,152	Square ft. Per Ton:	436
Volume (ft ³):	17,280		

System Loads

Total Heating Required Including Ventilation Air:	19,520 Btuh	19.520 MBH
Total Sensible Gain:	24,898 Btuh	79 %
Total Latent Gain:	6,800 Btuh	21 %
Total Cooling Required Including Ventilation Air:	31,698 Btuh	2.64 Tons (Based On Sensible + Latent)

Notes

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Be sure to select a unit that meets both sensible and latent loads according to the manufacturer's performance data at your design conditions.



System 6 AC-6 Summary Loads

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
Clear 8: Glazing-Low E, ground reflectance = 0.32, U-value 1.06, SHGC 0.29	85	2,074	0	2,982	2,982
Clear 8: Glazing-Low E, U-value 1.06, SHGC 0.29	95	2,318	0	4,349	4,349
13A-4ocs: Wall-Block, board insulation only, R-4 board insulation, open core, siding finish, U-value 0.143	912	2,999	0	3,169	3,169
16A-30: Roof/Ceiling-Under Attic with Insulation on Attic Floor (also use for Knee Walls and Partition Ceilings), Unvented Attic, No Radiant Barrier, Any Roofing Material, Any Roof Color, R-30 insulation, U-value 0.032	1377	1,013	0	3,481	3,481
Subtotals for structure:		8,404	0	13,981	13,981
People:	4		800	920	1,720
Equipment:			200	700	900
Lighting:	500			1,705	1,705
Ductwork:		5,968	2,026	4,740	6,766
Infiltration: Winter CFM: 155, Summer CFM: 79		3,918	3,484	1,741	5,225
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
System 6 AC-6 Load Totals:		18,290	6,510	23,787	30,297

Check Figures

Supply CFM:	995	CFM Per Square ft.:	0.723
Square ft. of Room Area:	1,377	Square ft. Per Ton:	545
Volume (ft ³):	20,655		

System Loads

Total Heating Required Including Ventilation Air:	18,290 Btuh	18.290 MBH
Total Sensible Gain:	23,787 Btuh	79 %
Total Latent Gain:	6,510 Btuh	21 %
Total Cooling Required Including Ventilation Air:	30,297 Btuh	2.52 Tons (Based On Sensible + Latent)

Notes

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System 7 AC-7 Summary Loads

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
Clear 8: Glazing-Low E, ground reflectance = 0.32, U-value 1.06, SHGC 0.29	50	1,219	0	3,168	3,168
11O: Door-Metal - Polystyrene Core With Storm, U-value 0.21	180	870	0	1,474	1,474
13A-4ocs: Wall-Block, board insulation only, R-4 board insulation, open core, siding finish, U-value 0.143	265	872	0	1,073	1,073
16A-30: Roof/Ceiling-Under Attic with Insulation on Attic Floor (also use for Knee Walls and Partition Ceilings), Unvented Attic, No Radiant Barrier, Any Roofing Material, Any Roof Color, R-30 insulation, U-value 0.032	643.5	474	0	1,709	1,709
22A-pl: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, light dry soil, U-value 0.989	55	1,251	0	0	0
Subtotals for structure:		4,686	0	7,424	7,424
People:	0		0	0	0
Equipment:			0	300	300
Lighting:	0			0	0
Ductwork:		0	0	0	0
Infiltration: Winter CFM: 157, Summer CFM: 83		3,961	4,300	2,180	6,480
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
AED Excursion:		0	0	421	421
System 7 AC-7 Load Totals:		8,647	4,300	10,325	14,625

Check Figures

Supply CFM:	469	CFM Per Square ft.:	0.657
Square ft. of Room Area:	715	Square ft. Per Ton:	587
Volume (ft³):	6,435		

System Loads

Total Heating Required Including Ventilation Air:	8,647 Btuh	8.647 MBH
Total Sensible Gain:	10,325 Btuh	71 %
Total Latent Gain:	4,300 Btuh	29 %
Total Cooling Required Including Ventilation Air:	14,625 Btuh	1.22 Tons (Based On Sensible + Latent)

Notes

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