

*Milo Residence
HVAC Load Calculations*

for

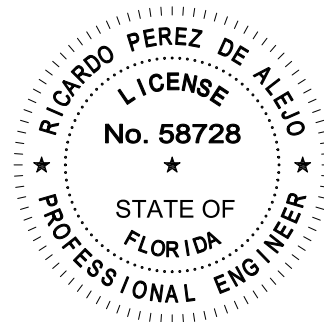
11901 SW 63 Rd Ave
Pinecrest, Florida



RHVAC RESIDENTIAL
HVAC LOADS

Ricardo
Perez
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by Ricardo
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Date:
2025.04.29
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Prepared By:

Tuesday, April 29, 2025



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	193.5	4,718	0	6,538	6,538
13A-4ocs: Wall-Block, board insulation only, R-4 board insulation, open core, siding finish, U-value 0.143	620.5	2,040	0	1,980	1,980
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	99	2,252	0	0	0
Subtotals for structure:		9,494	0	9,002	9,002
People:	2		400	460	860
Equipment:			200	600	800
Lighting:	200			682	682
Ductwork:		362	892	103	995
Infiltration: Winter CFM: 82, Summer CFM: 42		2,086	1,744	835	2,579
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
AED Excursion:		0	0	1,291	1,291
System 2 AC-2 Load Totals:		11,942	3,236	12,973	16,209

Check Figures

Supply CFM:	590	CFM Per Square ft.:	0.697
Square ft. of Room Area:	846	Square ft. Per Ton:	626
Volume (ft ³):	10,998		

System Loads

Total Heating Required Including Ventilation Air:	11,942 Btuh	11.942 MBH
Total Sensible Gain:	12,973 Btuh	80 %
Total Latent Gain:	3,236 Btuh	20 %
Total Cooling Required Including Ventilation Air:	16,209 Btuh	1.35 Tons (Based On Sensible + Latent)

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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:		544	1,508	162	1,670
Infiltration: Winter CFM: 167, Summer CFM: 86		4,230	4,298	2,081	6,379
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
AED Excursion:		0	0	665	665
System 3 AC-3 Load Totals:		13,586	8,606	21,427	30,033

Check Figures

Supply CFM:	974	CFM Per Square ft.:	0.748
Square ft. of Room Area:	1,303	Square ft. Per Ton:	521
Volume (ft³):	14,333		

System Loads

Total Heating Required Including Ventilation Air:	13,586 Btuh	13.586 MBH
Total Sensible Gain:	21,427 Btuh	71 %
Total Latent Gain:	8,606 Btuh	29 %
Total Cooling Required Including Ventilation Air:	30,033 Btuh	2.50 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:		500	1,320	144	1,464
Infiltration: Winter CFM: 167, Summer CFM: 88		4,219	3,850	1,925	5,775
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
System 4 AC-4 Load Totals:		15,613	5,770	14,676	20,446

Check Figures

Supply CFM:	667	CFM Per Square ft.:	0.569
Square ft. of Room Area:	1,172	Square ft. Per Ton:	688
Volume (ft³):	16,408		

System Loads

Total Heating Required Including Ventilation Air:	15,613 Btuh	15.613 MBH
Total Sensible Gain:	14,676 Btuh	72 %
Total Latent Gain:	5,770 Btuh	28 %
Total Cooling Required Including Ventilation Air:	20,446 Btuh	1.70 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	207.8	5,066	0	10,089	10,089
13A-4ocs: Wall-Block, board insulation only, R-4 board insulation, open core, siding finish, U-value 0.143	1020.8	3,358	0	3,547	3,547
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	2089	1,538	0	5,281	5,281
Subtotals for structure:		9,962	0	18,917	18,917
People:	3		600	690	1,290
Equipment:			200	600	800
Lighting:	300			1,023	1,023
Ductwork:		9,119	3,632	7,600	11,232
Infiltration: Winter CFM: 235, Summer CFM: 120		5,944	5,285	2,642	7,927
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
System 5 AC-5 Load Totals:		25,025	9,717	31,472	41,189

Check Figures

Supply CFM:	1,267	CFM Per Square ft.:	0.607
Square ft. of Room Area:	2,089	Square ft. Per Ton:	609
Volume (ft ³):	31,335		

System Loads

Total Heating Required Including Ventilation Air:	25,025 Btuh	25.025 MBH
Total Sensible Gain:	31,472 Btuh	76 %
Total Latent Gain:	9,717 Btuh	24 %
Total Cooling Required Including Ventilation Air:	41,189 Btuh	3.43 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	257.5	6,280	0	12,471	12,471
13A-4ocs: Wall-Block, board insulation only, R-4 board insulation, open core, siding finish, U-value 0.143	1214.8	3,995	0	4,568	4,568
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	1908	1,404	0	4,946	4,946
Subtotals for structure:		11,679	0	21,985	21,985
People:	3		600	690	1,290
Equipment:			200	600	800
Lighting:	300			1,023	1,023
Ductwork:		7,952	2,216	5,701	7,917
Infiltration: Winter CFM: 181, Summer CFM: 95		4,585	4,434	2,308	6,742
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
AED Excursion:		0	0	1,724	1,724
System 6 AC-6 Load Totals:		24,216	7,450	34,032	41,482

Check Figures

Supply CFM:	1,462	CFM Per Square ft.:	0.766
Square ft. of Room Area:	1,908	Square ft. Per Ton:	552
Volume (ft ³):	28,620		

System Loads

Total Heating Required Including Ventilation Air:	24,216 Btuh	24.216 MBH
Total Sensible Gain:	34,032 Btuh	82 %
Total Latent Gain:	7,450 Btuh	18 %
Total Cooling Required Including Ventilation Air:	41,482 Btuh	3.46 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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