



Load Short Form

Entire House

D.L. Williams Heating & Cooling LLC

24

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Information

	Htg	Clg	Infiltration	Simplified
Outside db (°F)	33	92	Method	Average
Inside db (°F)	65	78	Construction quality	0
Design TD (°F)	32	14	Fireplaces	
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	5	40		

HEATING EQUIPMENT

Make	n/a
Trade	n/a
Model	n/a
AHRI ref	n/a
Efficiency	n/a
Heating input	0 Btuh
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	1550 cfm
Air flow factor	0.033 cfm/Btuh
Static pressure	0.50 in H2O
Space thermostat	

COOLING EQUIPMENT

Make	Trane
Trade	TRANE
Cond	5TTR4048A1
Coil	5TEM4D06AC41++TDR
AHRI ref	215440473
Efficiency	11.7 EER2, 14.3 SEER2
Sensible cooling	32550 Btuh
Latent cooling	13950 Btuh
Total cooling	46500 Btuh
Actual air flow	1550 cfm
Air flow factor	0.043 cfm/Btuh
Static pressure	0.50 in H2O
Load sensible heat ratio	0.84

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Room2	200	0	0	0	0
Room3	200	0	0	0	0
Room4	200	3272	2863	108	123
Room5	200	1793	1565	59	67
Room6	200	1793	1565	59	67
Room7	200	1793	1565	59	67
Room8	200	2073	1916	69	83
Room9	200	4134	2299	137	99
Room10	200	1793	1565	59	67
Room11	200	1793	1565	59	67
Room12	200	1793	1565	59	67
Room13	200	2073	1916	69	83
Room14	150	3471	1883	115	81
Room15	150	1716	1333	57	57

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



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HVACTranelLake City Mini Storage Baya Ave.rup Calc = MJ8 Front Door faces N

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Room16	150	1716	1333	57	57
Room17	150	1716	1333	57	57
Room18	150	1716	1333	57	57
Room19	150	1716	1333	57	57
Room20	150	1925	1596	64	69
Room21	150	3471	1883	115	81
Room22	150	1716	1333	57	57
Room23	150	1716	1333	57	57
Room24	150	1716	1333	57	57
Room25	150	1925	1596	64	69
Room26	800	0	0	0	0
Entire House	5000	46827	36005	1550	1550
Other equip loads		0	0		
Equip. @ 0.97 RSM			34924		
Latent cooling			7065		
TOTALS	5000	46827	41989	1550	1550

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



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Project Information

For: Lake City Mini Storage
 Baya Ave, Lake City, FL 32025

Design Conditions

Location:

Gainesville Regional AP, FL, US
 Elevation: 164 ft
 Latitude: 30°N

Outdoor:

Drybulb (°F)
 Dailyrange (°F)
 Wet bulb (°F)
 Wind speed (mph)

Heating

33
 -
 -
 15.0

Cooling

92
 18 (M)
 76
 7.5

Indoor:

Indoor temperature (°F)
 Design TD (°F)
 Relative humidity (%)
 Moisture difference (gr/lb)

Heating

65
 32
 30
 5.0

Cooling

78
 14
 50
 40.4

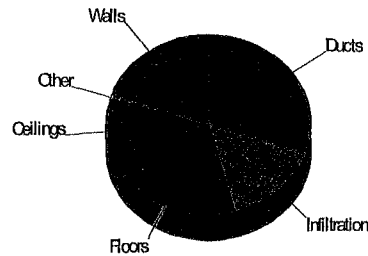
Infiltration:

Method
 Construction quality
 Fireplaces

Simplified
 Average
 0

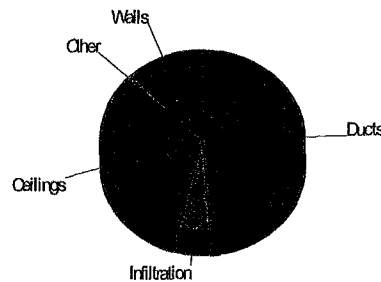
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.1	9160	19.6
Glazing	0	0	0
Doors	11.1	465	1.0
Ceilings	1.1	5372	11.5
Floors	2.1	10313	22.0
Infiltration	2.4	7256	15.5
Ducts		14261	30.5
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
Total		46827	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.5	4392	12.2
Glazing	0	0	0
Doors	9.2	387	1.1
Ceilings	2.4	11875	33.0
Floors	0	0	0
Infiltration	0.6	1722	4.8
Ducts		17629	49.0
Ventilation		0	0
Internal gains		0	0
Blower		0	0
Adjustments		0	0
Total		36005	100.0



Latent Cooling Load = 7065 Btuh

Overall U-value = 0.062 Btuh/ft²·°F, Window / Floor Area = 0.0 %

WARNING: window to floor area ratio = 0.0% - less than 5%.



Component Constructions
Entire House
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method		
Daily range (°F)	-	18 (M)	Construction quality		
Wetbulb (°F)	-	76	Fireplaces		
Wind speed (mph)	15.0	7.5	Simplified Average		
				0	

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12F-0sm Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh,	n	360	0.099	21.0	3.13	1126	1.50	540
2"x6" metal frm, 24" o.c. stud	e	1104	0.099	21.0	3.13	3454	1.50	1656
	s	339	0.099	21.0	3.13	1061	1.50	508
	w	1125	0.099	21.0	3.13	3519	1.50	1687
	all	2928	0.099	21.0	3.13	9160	1.50	4392
Partitions								
(none)								
Windows								
(none)								
Doors								
11N0: Door, mtl eps core type	e	21	0.350	8.7	11.1	232	9.22	194
	s	21	0.350	8.7	11.1	232	9.22	194
	all	42	0.350	8.7	11.1	465	9.22	387
Ceilings								
16A-28md. Attic ceiling, mtl roof mat, r-28 cell ins		5000	0.034	28.0	1.07	5372	2.37	11875
Floors								
22A-tpl. Bg floor, light dry soil, on grade depth		330	0.989	0	31.3	10313	0	0





Component Constructions
Room2
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
Outdoor:		Moisture difference (gr/lb)		5.0	40.4
		Heating	Cooling		
Drybulb (°F)		33	92		
Daily range (°F)		-	18 (M)		
Wet bulb (°F)		-	76		
Wind speed (mph)		15.0	7.5		
		Infiltration:			
		Method		Simplified	
		Construction quality		Average	
		Fireplaces		0	

Construction descriptions

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12F-0sm Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh,	e	90	0.099	21.0	3 13	282	1.50	135
2"x6" metal frm, 24" o.c. stud	s	180	0.099	21.0	3.13	563	1.50	270
	all	270	0.099	21.0	3.13	845	1.50	405
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings								
16A-28md Attic ceiling, mtl roof mat, r-28 cell ins		200	0.034	28.0	1 07	215	2 37	475
Floors								
22A-tpi. Bg floor, light dry soil, on grade depth		30	0.989	0	31.3	938	0	0



AUTHORITY SOFTWARE FOR HVAC CONSULTANTS

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Component Constructions
Room3
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
Outdoor:		Moisture difference (gr/lb)		5.0	40.4
		Infiltration:			
Heating		Method		Simplified	
Cooling		Construction quality		Average	
		Fireplaces		0	
Drybulb (°F)	33	92			
Dailyrange (°F)	-	18 (M)			
Wet bulb (°F)	-	76			
Wind speed (mph)	15.0	7.5			

Construction descriptions

Construction descriptions	Or	Area ft ²	U-value Btuh/ft ² -°F	Insul R ft ² -°F/Btuh	Htg HTM Btuh/ft ²	Loss Btuh	Cig HTM Btuh/ft ²	Gain Btuh
Walls 12F-0sm Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o.c. stud	e	90	0.099	21.0	3.13	282	1.50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16A-28md: Attic ceiling, mtl roof mat, r-28 cell ins		200	0.034	28.0	1.07	215	2.37	475
Floors 22A-tpl Bg floor, light dry soil, on grade depth		10	0.989	0	31.3	313	0	0





Component Constructions
Room4
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
Outdoor:	Heating	Cooling	Moisture difference (gr/lb)	5.0	40.4
Drybulb (°F)	33	92	Infiltration:		
Dailyrange (°F)	-	18 (M)	Method	Simplified	
Wet bulb (°F)	-	76	Construction quality	Average	
Wind speed (mph)	15.0	7.5	Fireplaces	0	

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12F-0sm. Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o c. stud	e	90	0.099	21.0	3.13	282	1.50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings								
16A-28md: Attic ceiling, mtl roof mat, r-28 cell ins		200	0.034	28.0	1.07	215	2.37	475
Floors								
22A-tp1 Bg floor, light dry soil, on grade depth		10	0.989	0	31.3	313	0	0



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PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation:	164 ft	Design TD (°F)		32	14
Latitude:	30°N	Relative humidity (%)		30	50
Outdoor:	Heating	Cooling	Moisture difference (gr/lb)	5.0	40.4
Drybulb (°F)	33	92	Infiltration:		
Daily range (°F)	-	18 (M)	Method	Simplified	
Wet bulb (°F)	-	76	Construction quality	Average	
Wind speed (mph)	15.0	7.5	Fireplaces	0	

Construction descriptions

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12F-0sm. Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o.c. stud	e	90	0.099	21.0	3.13	282	1.50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16A-28md. Attic ceiling, mtl roof mat, r-28 ceil ins		200	0.034	28.0	1.07	215	2.37	475
Floors 22A-tpl Bg floor, light dry soil, on grade depth		10	0.989	0	31.3	313	0	0



Component Constructions
Room6
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method		
Daily range (°F)	-	18 (M)	Construction quality		
Wet bulb (°F)	-	76	Simplified		
Wind speed (mph)	15.0	7.5	Average		
				0	

Construction descriptions

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12F-0sm: Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o.c. stud	e	90	0.099	21.0	3 13	282	1.50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16A-28md. Attic ceiling, mtl roof mat, r-28 cell ins		200	0.034	28.0	1.07	215	2.37	475
Floors 22A-tpl Bg floor, light dry soil, on grade depth		10	0.989	0	31.3	313	0	0





Component Constructions
Room7
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method		
Dailyrange (°F)	-	18 (M)	Construction quality		
Wet bulb (°F)	-	76	Fireplaces		
Wind speed (mph)	15.0	7.5	Simplified		
				Average	
				0	

Construction descriptions

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Ctg HTM Btuh	Gain Btuh
Walls 12F-0sm. Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o.c. stud	e	90	0.099	21.0	3.13	282	135
Partitions (none)							
Windows (none)							
Doors (none)							
Ceilings 16A-28md: Attic ceiling, mtl roof mat, r-28 cell ins		200	0.034	28.0	1.07	215	475
Floors 22A-tpl Bg floor, light dry soil, on grade depth		10	0.989	0	31.3	313	0



RIGHT-SUITE® UNIVERSAL CONSTRUCTION

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Component Constructions
Room8
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method		
Daily range (°F)	-	18 (M)	Construction quality		
Wet bulb (°F)	-	76	Simplified		
Wind speed (mph)	15.0	7.5	Average		
		Fireplaces		0	

Construction descriptions

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12F-0sm: Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o.c. stud	e	90	0.099	21 0	3.13	282	1.50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16A-28md: Attic ceiling, mtl roof mat, r-28 ceil ins		200	0.034	28 0	1.07	215	2 37	475
Floors 22A-tpl Bg floor, light dry soil, on grade depth		10	0.989	0	31.3	313	0	0



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Component Constructions
Room9
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:		Heating	Cooling		
Drybulb (°F)	33		92		
Dailyrange (°F)	-		18 (M)		
Wet bulb (°F)	-		76		
Wind speed (mph)	15.0		7.5		
		Infiltration:			
		Method		Simplified	
		Construction quality		Average	
		Fireplaces		0	

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12F-0sm: Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh,	n	180	0.099	21.0	3.13	563	1.50	270
2"x6" metal frm, 24" o.c. stud	e	90	0.099	21.0	3.13	282	1.50	135
	all	270	0.099	21.0	3.13	845	1.50	405
Partitions								
(none)								
Windows								
(none)								
Doors								
(none)								
Ceilings								
16A-28md Attic ceiling, mtl roof mat, r-28 cell ins		200	0.034	28.0	1.07	215	2.37	475
Floors								
22A-tpl. Bg floor, light dry soil, on grade depth		30	0.989	0	31.3	938	0	0



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Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:		Heating	Cooling		
Drybulb (°F)	33		92		
Daily range (°F)	-		18 (M)		
Wet bulb (°F)	-		76		
Wind speed (mph)	15.0		7.5		
		Infiltration:		Heating	Cooling
		Method		Simplified	
		Construction quality		Average	
		Fireplaces		0	

Construction descriptions

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12F-0sm: Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o.c stud	e	90	0.099	21.0	3.13	282	1.50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16A-28md: Attic ceiling, mtl roof mat, r-28 ceil ins		200	0.034	28.0	1.07	215	2.37	475
Floors 22A-tp1 Bg floor, light dry soil, on grade depth		10	0.989	0	31.3	313	0	0

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:		Heating	Cooling		
Dry bulb (°F)		33	92		
Daily range (°F)		-	18 (M)		
Wet bulb (°F)		-	76		
Wind speed (mph)		15.0	7.5		
		Infiltration:		Heating	Cooling
		Method		Simplified	
		Construction quality		Average	
		Fireplaces		0	

Construction descriptions

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Cig HTM Btuh/ft²	Gain Btuh
Walls 12F-0sm Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o.c. stud	e	90	0.099	21.0	3.13	282	1.50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16A-28md: Attic ceiling, mtl roof mat, r-28 cell ins		200	0.034	28.0	1.07	215	2.37	475
Floors 22A-1pl Bg floor, light dry soil, on grade depth		10	0.989	0	31.3	313	0	0



Component Constructions
Room12
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone. 386-754-1987 Email derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method		
Daily range (°F)	-	18 (M)	Construction quality		
Wet bulb (°F)	-	76	Fireplaces		
Wind speed (mph)	15.0	7.5	Simplified Average		
				0	

Construction descriptions

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12F-0sm Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o.c. stud	e	90	0.099	21.0	3 13	282	1 50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16A-28md: Attic ceiling, mtl roof mat, r-28 cell ins		200	0.034	28.0	1.07	215	2.37	475
Floors 22A-tp1 Bg floor, light dry soil, on grade depth		10	0.989	0	31.3	313	0	0



Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation:	164 ft	Design TD (°F)		32	14
Latitude:	30°N	Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method		
Daily range (°F)	-	18 (M)	Construction quality		
Wet bulb (°F)	-	76	Simplified		
Wind speed (mph)	15.0	7.5	Average		
				0	

Construction descriptions

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12F-0sm. Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o c. stud	e	90	0.099	21.0	3.13	282	1.50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16A-28md. Attic ceiling, mtl roof mat, r-28 ceil ins		200	0.034	28.0	1.07	215	2.37	475
Floors 22A-tpl Bg floor, light dry soil, on grade depth		10	0.989	0	31.3	313	0	0



Component Constructions
Room14
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method		
Daily range (°F)	-	18 (M)	Construction quality		
Wet bulb (°F)	-	76	Simplified		
Wind speed (mph)	15.0	7.5	Average		
				0	

Construction descriptions

Construction descriptions	Or	Area ft²	U-value Btu/h/ft²·°F	Insul R ft²·°F/Btu/h	Htg HTM Btu/h/ft²	Loss Btu/h	Cig HTM Btu/h/ft²	Gain Btu/h
Walls								
12F-0sm. Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh,	s	135	0.099	21.0	3.13	422	1.50	202
2"x6" metal frm, 24" o.c stud	w	90	0.099	21.0	3.13	282	1.50	135
	all	225	0.099	21.0	3.13	704	1.50	337
Partitions								
(none)								
Windows								
(none)								
Doors								
(none)								
Ceilings								
16A-28md Attic ceiling, mtl roof mat, r-28 cell ins		150	0.034	28.0	1.07	161	2.37	356
Floors								
22A-tpl. Bg floor, light dry soil, on grade depth		25	0.989	0	31.3	781	0	0



Air Conditioning Contractors of America

Right-Suite® Universal 2025 25.0.03 RSU02245

HVAC\TranelLake City Mini Storage Baya Ave.rup Calc = MJ8 Front Door faces: N

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Component Constructions
Room15
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone. 386-754-1987 Email derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method		
Daily range (°F)	-	18 (M)	Construction quality		
Wet bulb (°F)	-	76	Simplified		
Wind speed (mph)	15.0	7.5	Average		
				0	

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12F-0sm Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o.c. stud	w	90	0.099	21.0	3.13	282	1.50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings								
16A-28md: Attic ceiling, mtl roof mat, r-28 cell ins		150	0.034	28.0	1.07	161	2.37	356
Floors								
22A-tpl Bg floor, light dry soil, on grade depth		10	0.989	0	31.3	313	0	0



Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation:	164 ft	Design TD (°F)		32	14
Latitude:	30°N	Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method		
Daily range (°F)	-	18 (M)	Construction quality		
Wet bulb (°F)	-	76	Simplified		
Wind speed (mph)	15.0	7.5	Average		
				0	

Construction descriptions

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Cig HTM Btuh/ft²	Gain Btuh
Walls 12F-0sm. Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o.c. stud	w	90	0.099	21.0	3.13	282	1 50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16A-28md: Attic ceiling, mtl roof mat, r-28 cell ins		150	0.034	28 0	1.07	161	2 37	356
Floors 22A-tp1 Bg floor, light dry soil, on grade depth		10	0 989	0	31 3	313	0	0



Component Constructions
Room17
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method		
Daily range (°F)	-	18 (M)	Construction quality		
Wet bulb (°F)	-	76	Simplified		
Wind speed (mph)	15.0	7.5	Average		
				0	

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Ctg HTM Btuh	Ctg HTM Btuh/ft²	Gain Btuh
Walls								
12F-0sm: Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o.c. stud	w	90	0.099	21.0	3.13	282	1.50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings								
16A-28md: Attic ceiling, mtl roof mat, r-28 cell ins		150	0.034	28.0	1.07	161	2.37	356
Floors								
22A-tpl Bg floor, light dry soil, on grade depth		10	0.989	0	31.3	313	0	0



Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation:	164 ft	Design TD (°F)		32	14
Latitude:	30°N	Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method		
Daily range (°F)	-	18 (M)	Construction quality		
Wet bulb (°F)	-	76	Fireplaces		
Wind speed (mph)	15.0	7.5	Simplified Average		
				0	

Construction descriptions

Construction descriptions	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12F-0sm. Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o.c. stud	w	90	0.099	21.0	3 13	282	1.50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings								
16A-28md: Attic ceiling, mtl roof mat, r-28 ceil ins		150	0.034	28.0	1.07	161	2.37	356
Floors								
22A-tpl Bg floor, light dry soil, on grade depth		10	0.989	0	31 3	313	0	0



Component Constructions
Room19
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method		
Daily range (°F)	-	18 (M)	Construction quality		
Wet bulb (°F)	-	76	Fireplaces		
Wind speed (mph)	15.0	7.5	Simplified Average 0		

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12F-0sm: Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o.c. stud	w	90	0.099	21.0	3.13	282	1.50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings								
16A-28md: Attic ceiling, mtl roof mat, r-28 cell ins		150	0.034	28.0	1.07	161	2.37	356
Floors								
22A-tpl Bg floor, light dry soil, on grade depth		10	0.989	0	31.3	313	0	0





Component Constructions
Room20
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method		
Dailyrange (°F)	-	18 (M)	Construction quality		
Wet bulb (°F)	-	76	Simplified		
Wind speed (mph)	15.0	7.5	Average		
		Fireplaces		0	

Construction descriptions

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Cig HTM Btuh/ft²	Gain Btuh
Walls 12F-0sm. Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o.c. stud	w	90	0.099	21.0	3 13	282	1.50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16A-28md' Attic ceiling, mtl roof mat, r-28 cell ins		150	0.034	28.0	1.07	161	2 37	356
Floors 22A-tpl Bg floor, light dry soil, on grade depth		10	0 989	0	31.3	313	0	0





Component Constructions
Room21
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:			Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US			Indoor temperature (°F)		65	78
Elevation: 164 ft			Design TD (°F)		32	14
Latitude: 30°N			Relative humidity (%)		30	50
Outdoor:			Moisture difference (gr/lb)		5.0	40.4
Heating		Cooling	Infiltration:			
Drybulb (°F)	33	92	Method		Simplified	
Daily range (°F)	-	18 (M)	Construction quality		Average	
Wet bulb (°F)	-	76	Fireplaces		0	
Wind speed (mph)	15.0	7.5				

Construction descriptions

	Or	Area ft²	U-value Btu/h/ft²-°F	Insul R ft²-°F/Btu/h	Htg HTM Btu/h/ft²	Loss Btu/h	Cig HTM Btu/h/R²	Gain Btu/h
Walls								
12F-0sm Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh,	n	135	0.099	21.0	3 13	422	1.50	202
2"x6" metal frm, 24" o.c. stud	w	90	0.099	21.0	3.13	282	1.50	135
	all	225	0.099	21.0	3.13	704	1.50	337
Partitions								
(none)								
Windows								
(none)								
Doors								
(none)								
Ceilings								
16A-28md Attic ceiling, mtl roof mat, r-28 cell ins		150	0.034	28.0	1.07	161	2.37	356
Floors								
22A-tpf Bg floor, light dry soil, on grade depth		25	0.989	0	31.3	781	0	0





Component Constructions
Room22
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO.Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
Outdoor:		Moisture difference (gr/lb)		5.0	40.4
		Heating	Cooling		
Drybulb (°F)		33	92		
Daily range (°F)		-	18 (M)		
Wet bulb (°F)		-	76		
Wind speed (mph)		15.0	7.5		
		Infiltration:			
		Method		Simplified	
		Construction quality		Average	
		Fireplaces		0	

Construction descriptions

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12F-0sm Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o.c. stud	w	90	0.099	21.0	3.13	282	1.50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16A-28md. Attic ceiling, mtl roof mat, r-28 cell ins		150	0.034	28.0	1.07	161	2.37	356
Floors 22A-tp1 Bg floor, light dry soil, on grade depth		10	0.989	0	31.3	313	0	0





Component Constructions
Room23
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method	Simplified	
Dailyrange (°F)	-	18 (M)	Construction quality	Average	
Wet bulb (°F)	-	76	Fireplaces	0	
Wind speed (mph)	15.0	7.5			

Construction descriptions

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12F-0sm Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o.c. stud	w	90	0.099	21.0	3 13	282	1.50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16A-28md: Attic ceiling, mtl roof mat, r-28 ceil ins		150	0.034	28.0	1.07	161	2.37	356
Floors 22A-1pl Bg floor, light dry soil, on grade depth		10	0.989	0	31.3	313	0	0





Component Constructions
Room24
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method		
Daily range (°F)	-	18 (M)	Construction quality		
Wet bulb (°F)	-	76	Fireplaces		
Wind speed (mph)	15.0	7.5	Simplified		
				Average	0

Construction descriptions

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12F-0sm Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o.c. stud	w	90	0.099	21.0	3.13	282	1.50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16A-28md: Attic ceiling, mtl roof mat, r-28 cell ins		150	0.034	28.0	1.07	161	2.37	356
Floors 22A-1pl Bg floor, light dry soil, on grade depth		10	0.989	0	31.3	313	0	0





Component Constructions
Room25
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:			Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US			Indoor temperature (°F)		65	78
Elevation: 164 ft			Design TD (°F)		32	14
Latitude: 30°N			Relative humidity (%)		30	50
Outdoor:	Heating	Cooling	Moisture difference (gr/lb)		5.0	40.4
Drybulb (°F)	33	92	Infiltration:			
Dailyrange (°F)	-	18 (M)	Method		Simplified	
Wet bulb (°F)	-	76	Construction quality		Average	
Wind speed (mph)	15.0	7.5	Fireplaces		0	

Construction descriptions

Construction descriptions	Or	Area ft²	U-value Btu/h/ft²-°F	Insul R ft²-°F/Btu/h	Htg HTM Btu/h/ft²	Loss Btu/h	Clg HTM Btu/h/ft²	Gain Btu/h
Walls 12F-0sm Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh, 2"x6" metal frm, 24" o.c. stud	w	90	0.099	21.0	3.13	282	1 50	135
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16A-28md Attic ceiling, mtl roof mat, r-28 cell ins		150	0.034	28.0	1.07	161	2.37	356
Floors 22A-tpl Bg floor, light dry soil, on grade depth		10	0.989	0	31.3	313	0	0



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HVAC(Trane)Lake City Mini Storage Baya Ave.rup Calc = MJ8 Front Door faces. N

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Component Constructions
Room26
D.L. Williams Heating & Cooling LLC

Job: 1
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By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method		
Daily range (°F)	-	18 (M)	Construction quality		
Wet bulb (°F)	-	76	Simplified		
Wind speed (mph)	15.0	7.5	Average		
				0	

Construction descriptions

Walls

12F-0sm Frm wall, mtl ext, r-30 cav ins, 1/2" gypsum board int fnsh,
2"x6" metal frm, 24" o.c. stud

Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
n	45	0.099	21.0	3.13	141	1.50	67
e	24	0.099	21.0	3.13	75	1.50	36
s	24	0.099	21.0	3.13	75	1.50	36
w	45	0.099	21.0	3.13	141	1.50	67
all	138	0.099	21.0	3.13	432	1.50	207

Partitions

(none)

Windows

(none)

Doors

11N0 Door, mtl eps core type

e	21	0.350	8.7	11.1	232	9.22	194
s	21	0.350	8.7	11.1	232	9.22	194
all	42	0.350	8.7	11.1	465	9.22	387

Ceilings

16A-28md Attic ceiling, mtl roof mat, r-28 ceil ins

	800	0.034	28.0	1.07	860	2.37	1900
--	-----	-------	------	------	-----	------	------

Floors

22A-tpl. Bg floor, light dry soil, on grade depth

	20	0.989	0	31.3	625	0	0
--	----	-------	---	------	-----	---	---



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Project Summary
Entire House
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Notes.

Design Information

Weather: Gainesville Regional AP, FL, US

Winter Design Conditions

Outside db 33 °F
Inside db 65 °F
Design TD 32 °F

Ventilation Method MJ8

Heating Summary

Structure 32566 Btuh
Ducts (R-6.0) 14261 Btuh
Central vent (0 cfm) 0 Btuh

Humidification 0 Btuh
Piping 0 Btuh
Equipment load 46827 Btuh

Infiltration

Method Simplified
Construction quality Average
Fireplaces 0

	Heating	Cooling
Area (ft²)	5000	5000
Volume (ft³)	45000	45000
Air changes/hour	0.28	0.15
Equiv. AVF (cfm)	210	113

Heating Equipment Summary

Make n/a
Trade n/a
Model n/a
AHRI ref n/a

Efficiency n/a
Heating input 0 Btuh
Heating output 0 Btuh
Temperature rise 0 °F
Actual air flow 1550 cfm
Air flow factor 0.033 cfm/Btuh
Static pressure 0.50 in H2O
Space thermostat

Summer Design Conditions

Outside db 92 °F
Inside db 78 °F
Design TD 14 °F
Daily range M
Relative humidity 50 %
Moisture difference 40 gr/lb

Sensible Cooling Equipment Load Sizing

Structure 18376 Btuh
Ducts (R-6.0) 17629 Btuh
Central vent (0 cfm) 0 Btuh

Blower 0 Btuh

Use manufacturer's data n
Rate/swing multiplier 0.97
Equipment sensible load 34924 Btuh

Latent Cooling Equipment Load Sizing

Structure 3074 Btuh
Ducts 3991 Btuh
Central vent (0 cfm) 0 Btuh

Equipment latent load 7065 Btuh

Equipment Total Load (Sen+Lat) 41989 Btuh
Req. total capacity at 0.70 SHR 4.2 ton

Cooling Equipment Summary

Make Trane
Trade TRANE
Cond 5TTR4048A1
Coil 5TEM4D06AC41++TDR
AHRI ref 215440473
Efficiency 11.7 EER2, 14.3 SEER2
Sensible cooling 32550 Btuh
Latent cooling 13950 Btuh
Total cooling 46500 Btuh
Actual air flow 1550 cfm
Air flow factor 0.043 cfm/Btuh
Static pressure 0.50 in H2O
Load sensible heat ratio 0.84

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



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AED Assessment

Entire House

D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

Project Information

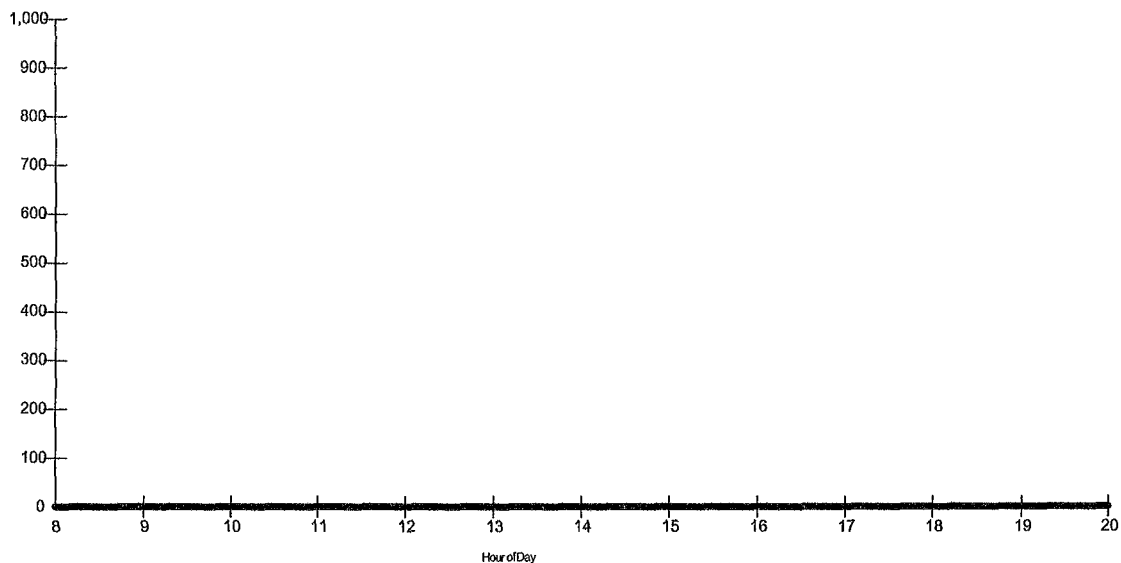
For: Lake City Mini Storage
Baya Ave, Lake City, FL 32025

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		65	78
Elevation: 164 ft		Design TD (°F)		32	14
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		5.0	40.4
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92			
Dailyrange (°F)	-	18 (M)			
Wet bulb (°F)	-	76			
Wind speed (mph)	15.0	7.5			

Test for Adequate Exposure Diversity

Hourly Glazing Load



Maximum hourly glazing load exceeds average by 0.0%.

House has adequate exposure diversity (AED), based on AED limit of 30%.

AED excursion: 0 Btuh



wrightsoft

Air Conditioning & Refrigeration Engineering Company

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Right-J® Worksheet
Entire House
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

1	Room name					Entire House				Room2				
2	Exposed wall					330.0 ft				30.0 ft				
3	Room height					9.0 ft				9.0 ft				
4	Room dimensions									10.0 x 20.0 ft				
5	Room area					5000.0 ft²				200.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12F-0sm	0.099	n	3.13	1.50	360	360	1126	540	0	0	0	0
	W	12F-0sm	0.099	e	3.13	1.50	1125	1104	3454	1656	90	90	282	135
	W	11N0	0.350	e	11.06	9.22	21	21	232	194	0	0	0	0
11	W	12F-0sm	0.099	s	3.13	1.50	360	339	1081	508	180	180	563	270
	W	11N0	0.350	s	11.06	9.22	21	21	232	194	0	0	0	0
	W	12F-0sm	0.099	w	3.13	1.50	1125	1125	3519	1687	0	0	0	0
	C	16A-28md	0.034	-	1.07	2.37	5000	5000	5372	11875	200	200	215	475
	F	22A-1pl	0.989	-	31.25	0.00	5000	330	10313	0	200	30	938	0
6	c) AED excursion									0				0
	Envelope loss/gain								25310	16653			1997	880
12	a) Infiltration								7256	1722			660	157
	b) Room ventilation								0	0			0	0
13	Internal gains		Occupants @ 230				0			0	0			0
	Appliances/other									0				0
	Subtotal (lines 6 to 13)								32566	18376			2657	1037
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
14	Redistribution								0	0			-2657	-1037
	Subtotal								32566	18376			0	0
15	Duct loads						44%	96%	14261	17629	44%	96%	0	0
	Total room load								46827	36005			0	0
	Air required (cfm)								1650	1550			0	0

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





Right-J® Worksheet
Entire House
D.L. Williams Heating & Cooling LLC

Job: 1
Date: 09/22/2025
By: DL Williams
Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

1	Room name					Room3					Room4				
2	Exposed wall					10.0 ft					10.0 ft				
3	Room height					9.0 ft					9.0 ft				
4	Room dimensions					10.0 x 20.0 ft					10.0 x 20.0 ft				
5	Room area					200.0 ft²					200.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12F-0sm	0.099	n	3.13	1.50	0	0	0	0	0	0	0	0	
		12F-0sm	0.099	e	3.13	1.50	90	90	282	135	90	90	282	135	
		11N0	0.350	e	11.06	9.22	0	0	0	0	0	0	0	0	
		12F-0sm	0.099	s	3.13	1.50	0	0	0	0	0	0	0	0	
		11N0	0.350	s	11.06	9.22	0	0	0	0	0	0	0	0	
		12F-0sm	0.099	w	3.13	1.50	0	0	0	0	0	0	0	0	
		16A-28md	0.034	-	1.07	2.37	200	200	215	475	200	200	215	475	
		22A-tpl	0.989	-	31.25	0.00	200	10	313	0	200	10	313	0	
6	c) AED excursion								0				0		
	Envelope loss/gain								809	610			809	610	
12	a) Infiltration								220	52			220	52	
	b) Room ventilation								0	0			0	0	
13	Internal gains.		Occupants @	230		0			0	0		0		0	
			Appliances/other						0					0	
	Subtotal (lines 6 to 13)								1029	662			1029	662	
14	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								-1029	-662			1247	799	
	Subtotal								0	0			2276	1461	
15	Duct loads						44%	96%	0	0		44%	96%	997	1402
	Total room load								0	0			3272	2863	
	Air required (cfm)								0	0			108	123	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

1	Room name					Room5					Room6				
2	Exposed wall					10.0 ft					10.0 ft				
3	Room height					9.0 ft					9.0 ft				
4	Room dimensions					10.0 x 20.0 ft					10.0 x 20.0 ft				
5	Room area					200.0 ft²					200.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12F-0sm	0.099	n	3.13	1.50	0	0	0	0	0	0	0	0	
	W	12F-0sm	0.099	e	3.13	1.50	90	90	282	135	90	90	282	135	
	└─D	11N0	0.350	e	11.06	9.22	0	0	0	0	0	0	0	0	
	W	12F-0sm	0.099	s	3.13	1.50	0	0	0	0	0	0	0	0	
	└─D	11N0	0.350	s	11.06	9.22	0	0	0	0	0	0	0	0	
	W	12F-0sm	0.099	w	3.13	1.50	0	0	0	0	0	0	0	0	
	C	16A-28md	0.034	-	1.07	2.37	200	200	215	475	200	200	215	475	
	F	22A-tpi	0.989	-	31.25	0.00	200	10	313	0	200	10	313	0	
6	c) AED excursion								0				0		
	Envelope loss/gain							809	610			809	610		
12	a) Infiltration								220	52			220	52	
	b) Room ventilation								0	0			0	0	
13	Internal gains. Occupants @ 230 Appliances/other						0			0	0		0	0	
	Subtotal (lines 6 to 13)								1029	662			1029	662	
14	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								218	137			218	137	
	Subtotal								1247	799			1247	799	
15	Duct loads						44%	96%	546	766		44%	96%	546	766
	Total room load								1793	1565			1793	1565	
	Air required (cfm)								59	67			59	67	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

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1	Room name						Room7 10.0 ft				Room8 10.0 ft			
	Exposed wall						9.0 ft				9.0 ft			
	Room height						10.0 x 20.0 ft				10.0 x 20.0 ft			
4	Room dimensions						200.0 ft²				200.0 ft²			
5	Room area													
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12F-0sm	0.099	n	3.13	1.50	0	0	0	0	0	0	0	0
	W	12F-0sm	0.099	e	3.13	1.50	90	90	282	135	90	90	282	135
	W	11N0	0.350	e	11.06	9.22	0	0	0	0	0	0	0	0
	W	12F-0sm	0.099	s	3.13	1.50	0	0	0	0	0	0	0	0
11	W	11N0	0.350	s	11.06	9.22	0	0	0	0	0	0	0	0
	W	12F-0sm	0.099	w	3.13	1.50	0	0	0	0	0	0	0	0
	C	16A-28md	0.034	-	1.07	2.37	200	200	215	475	200	200	215	475
	F	22A-tpl	0.989	-	31.25	0.00	200	10	313	0	200	10	313	0
6	c) AED excursion									0				0
	Envelope loss/gain								809	610			809	610
12	a) Infiltration								220	52			220	52
	b) Room ventilation								0	0			0	0
13	Internal gains. Occupants @ 230						0			0	0			0
	Appliances/other									0				0
	Subtotal (lines 6 to 13)								1029	662			1029	662
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								218	137			413	316
14	Subtotal								1247	799			1441	978
15	Duct loads						44%	96%	546	766	44%	96%	631	938
	Total room load								1793	1565			2073	1916
	Air required (cfm)								59	67			69	83

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

1	Room name					Room9					Room10				
2	Exposed wall					30.0 ft					10.0 ft				
3	Room height					9.0 ft					9.0 ft				
4	Room dimensions					10.0 x 20.0 ft					10.0 x 20.0 ft				
5	Room area					200.0 ft²					200.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12F-0sm	0.099	n	3.13	1.50	180	180	563	270	0	0	0	0	
11	W	12F-0sm	0.099	e	3.13	1.50	90	90	282	135	90	90	282	135	
	W	11N0	0.350	e	11.06	9.22	0	0	0	0	0	0	0	0	
	W	12F-0sm	0.099	s	3.13	1.50	0	0	0	0	0	0	0	0	
	W	11N0	0.350	s	11.06	9.22	0	0	0	0	0	0	0	0	
	W	12F-0sm	0.099	w	3.13	1.50	0	0	0	0	0	0	0	0	
	C	16A-28md	0.034	-	1.07	2.37	200	200	215	475	200	200	215	475	
	F	22A-tpl	0.989	-	31.25	0.00	200	30	938	0	200	10	313	0	
6	c) AED excursion									0				0	
	Envelope loss/gain								1997	880			809	610	
12	a) Infiltration								660	157			220	52	
	b) Room ventilation								0	0			0	0	
13	Internal gains. Occupants @ 230 Appliances/other							0		0	0			0	0
	Subtotal (lines 6 to 13)								2657	1037			1029	662	
14	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								218	137			218	137	
15	Subtotal								2875	1173			1247	799	
	Duct loads							44%	96%	1259	1126	44%	96%	546	766
	Total room load								4134	2299			1793	1565	
	Air required (cfm)								137	99			59	67	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

1	Room name					Room11				Room12					
2	Exposed wall					10 0 ft				10 0 ft					
3	Room height					9 0 ft				9 0 ft					
4	Room dimensions					10.0 x 20 0 ft				10 0 x 20 0 ft					
5	Room area					200 0 ft²				200 0 ft²					
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12F-0sm	0.099	n	3 13	1.50	0	0	0	0	0	0	0	0	
	W	12F-0sm	0.099	e	3.13	1.50	90	90	282	135	90	90	282	135	
	W	11N0	0.350	e	11 06	9 22	0	0	0	0	0	0	0	0	
	W	12F-0sm	0.099	s	3.13	1.50	0	0	0	0	0	0	0	0	
	W	11N0	0.350	s	11.06	9.22	0	0	0	0	0	0	0	0	
	W	12F-0sm	0 099	w	3.13	1.50	0	0	0	0	0	0	0	0	
	C	16A-28rnd	0.034	-	1 07	2.37	200	200	215	475	200	200	215	475	
	F	22A-tpi	0.989	-	31.25	0.00	200	10	313	0	200	10	313	0	
6	c) AED excursion								0				0		
	Envelope loss/gain								809	610			809	610	
12	a) Infiltration								220	52			220	52	
	b) Room ventilation								0	0			0	0	
13	Internal gains					Occupants @ 230	0			0	0	0		0	0
	Appliances/other									0				0	0
	Subtotal (lines 6 to 13)								1029	662			1029	662	
14	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								218	137			218	137	
	Subtotal								1247	799			1247	799	
15	Duct loads						44%	96%	546	766	44%	96%	546	766	
	Total room load								1793	1565			1793	1565	
	Air required (cfm)								59	67			59	67	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Right-J® Worksheet

Entire House

D.L. Williams Heating & Cooling LLC

Job: 1
 Date: 09/22/2025
 By: DL Williams
 Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

1	Room name					Room13					Room14				
2	Exposed wall					10.0 ft					25.0 ft				
3	Room height					9.0 ft					9.0 ft				
4	Room dimensions					10.0 x 20.0 ft					10.0 x 15.0 ft				
5	Room area					200.0 ft²					150.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12F-0sm	0.099	n	3.13	1.50	0	0	0	0	0	0	0	0	
		12F-0sm	0.099	e	3.13	1.50	90	90	282	135	0	0	0	0	
		11N0	0.350	e	11.06	9.22	0	0	0	0	0	0	0	0	
		12F-0sm	0.099	s	3.13	1.50	0	0	0	0	135	135	422	202	
	W	11N0	0.350	s	11.06	9.22	0	0	0	0	0	0	0	0	
		12F-0sm	0.099	w	3.13	1.50	0	0	0	0	90	90	282	135	
		C	16A-28md	0.034	-	1.07	2.37	200	200	215	475	150	150	161	356
		F	22A-1pl	0.989	-	31.25	0.00	200	10	313	0	150	25	781	0
6	c) AED excursion								0				0		
	Envelope loss/gain							809	610			1646	694		
12	a) Infiltration							220	52			550	130		
	b) Room ventilation							0	0			0	0		
13	Internal gains					Occupants @ 230	0			0	0			0	
	Appliances/other									0				0	
	Subtotal (lines 6 to 13)								1029	662			2196	824	
14	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								413	316			218	137	
	Subtotal								1441	978			2414	961	
15	Duct loads						44%	96%	631	938	44%	96%	1057	922	
	Total room load								2073	1916			3471	1883	
	Air required (cfm)								69	83			115	81	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Right-J® Worksheet
Entire House
D.L. Williams Heating & Cooling LLC

Job: 1
 Date: 09/22/2025
 By: DL Williams
 Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

1	Room name					Room15					Room16				
2	Exposed wall					10.0 ft					10.0 ft				
3	Room height					9.0 ft					9.0 ft				
4	Room dimensions					10.0 x 15.0 ft					10.0 x 15.0 ft				
5	Room area					150.0 ft²					150.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12F-0sm	0.099	n	3.13	1.50	0	0	0	0	0	0	0	0	
	W	12F-0sm	0.099	e	3.13	1.50	0	0	0	0	0	0	0	0	
	D	11N0	0.350	e	11.06	9.22	0	0	0	0	0	0	0	0	
		12F-0sm	0.099	s	3.13	1.50	0	0	0	0	0	0	0	0	
	D	11N0	0.350	s	11.06	9.22	0	0	0	0	0	0	0	0	
		12F-0sm	0.099	w	3.13	1.50	90	90	282	135	90	90	282	135	
	C	16A-28md	0.034	-	1.07	2.37	150	150	161	356	150	150	161	356	
	F	22A-tpi	0.989	-	31.25	0.00	150	10	313	0	150	10	313	0	
6 c) AED excursion									0				0		
Envelope loss/gain									755	491			755	491	
12 a) Infiltration									220	52			220	52	
b) Room ventilation									0	0			0	0	
13 Internal gains							Occupants @ 230	0		0	0	0		0	0
							Appliances/other			0				0	0
Subtotal (lines 6 to 13)									975	543			975	543	
Less external load									0	0			0	0	
Less transfer									0	0			0	0	
Redistribution									218	137			218	137	
14 Subtotal									1193	680			1193	680	
15 Duct loads								44% 96%	522	652	44%	96%	522	652	
Total room load									1716	1333			1716	1333	
Air required (cfm)									57	57			57	57	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Right-J® Worksheet

Entire House

D.L. Williams Heating & Cooling LLC

Job: 1
 Date: 09/22/2025
 By: DL Williams
 Plan: 1

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

1	Room name					Room17					Room18				
2	Exposed wall					10.0 ft					10.0 ft				
3	Room height					9.0 ft					9.0 ft				
4	Room dimensions					10.0 x 15.0 ft					10.0 x 15.0 ft				
5	Room area					150.0 ft²					150.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12F-0sm	0.099	n	3.13	1.50	0	0	0	0	0	0	0	0	
11	W	12F-0sm	0.099	e	3.13	1.50	0	0	0	0	0	0	0	0	
	W	11N0	0.350	e	11.06	9.22	0	0	0	0	0	0	0	0	
	W	12F-0sm	0.099	s	3.13	1.50	0	0	0	0	0	0	0	0	
	W	11N0	0.350	s	11.06	9.22	0	0	0	0	0	0	0	0	
	W	12F-0sm	0.099	w	3.13	1.50	90	90	282	135	90	90	282	135	
	C	16A-28md	0.034	-	1.07	2.37	150	150	161	356	150	150	161	356	
	F	22A-4pi	0.989	-	31.25	0.00	150	10	313	0	150	10	313	0	
6	c) AED excursion									0				0	
	Envelope loss/gain									755	491			755	491
12	a) Infiltration									220	52			220	52
	b) Room ventilation									0	0			0	0
13	Internal gains.		Occupants @	230			0			0	0			0	0
			Appliances/other							0	0			0	0
	Subtotal (lines 6 to 13)									975	543			975	543
14	Less external load									0	0			0	0
	Less transfer									0	0			0	0
	Redistribution									218	137			218	137
	Subtotal									1193	680			1193	680
15	Duct loads							44%	96%	522	652			522	652
	Total room load									1716	1333			1716	1333
	Air required (cfm)									57	57			57	57

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: derrick@dlwilliamsheatingandcooling.com

1	Room name						Room19				Room20			
	Exposed wall						10.0 ft				10.0 ft			
	Room height						heat/cool				heat/cool			
4	Room dimensions						9.0 ft 10.0 x 15.0 ft				9.0 ft 10.0 x 15.0 ft			
5	Room area						150.0 ft²				150.0 ft²			
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12F-0sm	0.099	n	3.13	1.50	0	0	0	0	0	0	0	0
	W	12F-0sm	0.099	e	3.13	1.50	0	0	0	0	0	0	0	0
	W	11N0	0.350	e	11.06	9.22	0	0	0	0	0	0	0	0
	W	12F-0sm	0.099	s	3.13	1.50	0	0	0	0	0	0	0	0
	W	11N0	0.350	s	11.06	9.22	0	0	0	0	0	0	0	0
	W	12F-0sm	0.099	w	3.13	1.50	90	90	282	135	90	90	282	135
	C	16A-28md	0.034	-	1.07	2.37	150	150	161	356	150	150	161	356
	F	22A-tpi	0.989	-	31.25	0.00	150	10	313	0	150	10	313	0
6	c) AED excursion									0				0
	Envelope loss/gain								755	491			755	491
12	a) Infiltration								220	52			220	52
	b) Room ventilation								0	0			0	0
13	Internal gains						Occupants @ 230	0		0	0		0	0
							Appliances/other			0			0	0
	Subtotal (lines 6 to 13)								975	543			975	543
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								218	137			364	271
14	Subtotal								1193	680			1339	815
15	Duct loads						44%	96%	522	652	44%	96%	586	781
	Total room load								1716	1333			1925	1596
	Air required (cfm)								57	57			64	69

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.