



Manual S Compliance Report

ah mini

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Cooling Equipment

Design Conditions

Outdoor design DB:	91.0°F	Sensible gain:	3225	Btuh	Entering coil DB:	76.9°F
Outdoor design WB:	74.0°F	Latent gain:	552	Btuh	Entering coil WB:	63.4°F
Indoor design DB:	75.0°F	Total gain:	3777	Btuh		
Indoor RH:	50%	Estimated airflow:	135	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split AC		
Manufacturer:		Model:	
Actual airflow:	135	cfm	
Sensible capacity:	0	Btuh	0% of load
Latent capacity:	0	Btuh	0% of load
Total capacity:	0	Btuh	0% of load SHR: 0%

Heating Equipment

Design Conditions

Outdoor design DB:	17.0°F	Heat loss:	7156	Btuh	Entering coil DB:	68.5°F
Indoor design DB:	70.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Gas furnace		
Manufacturer:		Model:	
Actual airflow:	135	cfm	
Output capacity:	0	Btuh	0% of load
			Temp. rise: 0 °F

Meets all requirements of ACCA Manual S.



Right-Suite® Universal 2023 23.0.03 RSU02245

2023-Nov-06 09:01:18

Page 1

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N



Manual S Compliance Report

AH1

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Cooling Equipment

Design Conditions

Outdoor design DB:	91.0°F	Sensible gain:	21781	Btuh	Entering coil DB:	77.1°F
Outdoor design WB:	74.0°F	Latent gain:	3384	Btuh	Entering coil WB:	63.5°F
Indoor design DB:	75.0°F	Total gain:	25165	Btuh		
Indoor RH:	50%	Estimated airflow:	1140	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Trane	Model:	4TWR5036N1+TEM6A0C36H31
Actual airflow:	1140	cfm	
Sensible capacity:	23940	Btuh	110% of load
Latent capacity:	10260	Btuh	303% of load
Total capacity:	34200	Btuh	136% of load SHR: 70%

Heating Equipment

Design Conditions

Outdoor design DB:	17.0°F	Heat loss:	32432	Btuh	Entering coil DB:	68.2°F
Indoor design DB:	70.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Trane	Model:	4TWR5036N1+TEM6A0C36H31
Actual airflow:	1140	cfm	
Output capacity:	32400	Btuh	100% of load
Supplemental heat required:	32	Btuh	
Capacity balance:	22	°F	
Economic balance:	-99	°F	

Backup equipment type:	Elec strip		
Manufacturer:		Model:	
Actual airflow:	1140	cfm	
Output capacity:	7.6	kW	80% of load Temp. rise: 50 °F

Meets all requirements of ACCA Manual S.



DHW Report

Entire House

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Criteria

Occupants		Not occupied during the day	
Age	Number	Dishwasher	
0-5	0	Clothes washer	
6-13	2	Additional use (gpd)	0
14-59	2	Setpoint (°F)	120
60+	0	Daily use (gpd)	61

Gas conventional (40 gal, 0.60 EF)

Manufacturer	Tank size (gal)	40
Trade name	Energy factor	0.60
Model	Input (MBtuh)	0.0
AHRI ref. number	1st hour (gal)	60
	Recovery eff. (%)	77



DHW Report

ah mini

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Criteria

Occupants		Not occupied during the day	
Age	Number		
0-5	0	Dishwasher	
6-13	2	Clothes washer	
14-59	2	Additional use (gpd)	0
60+	0	Setpoint (°F)	120
		Daily use (gpd)	61

Gas conventional (40 gal, 0.60 EF)

Manufacturer	Tank size (gal)	40
Trade name	Energy factor	0.60
Model	Input (MBtuh)	0.0
AHRI ref. number	1st hour (gal)	60
	Recovery eff. (%)	77



DHW Report

(Rest of House)

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Criteria

Occupants		Not occupied during the day	
Age	Number		
0-5	0	Dishwasher	
6-13	2	Clothes washer	
14-59	2	Additional use (gpd)	0
60+	0	Setpoint (°F)	120
		Daily use (gpd)	61

Gas conventional (40 gal, 0.60 EF)

Manufacturer	Tank size (gal)	40
Trade name	Energy factor	0.60
Model	Input (MBtuh)	0.0
AHRI ref. number	1st hour (gal)	60
	Recovery eff. (%)	77



Residential Plans Examiner Review Form for HVAC System Design (Loads, Equipment, Ducts)

Form
RPER 1
15 Mar 09

Columbia Header Information

Contractor: DL Williams Heating & Cooling LLC
Derrick Williams
Mechanical license:
Building plan #:
Home address (Street or Lot#, Block, Subdivision): , ah mini

REQUIRED ATTACHMENTS
Manual J1 Form (and supporting worksheets):
or MJ1AE Form* (and supporting worksheets):
OEM performance data (heating, cooling, blower):
Manual D Friction Rate Worksheet:
Duct distribution sketch:

ATTACHED
Yes ☐ No ☐
Yes ☐ No ☐
Yes ☐ No ☐
Yes ☐ No ☐
Yes ☐ No ☐

HVAC LOAD CALCULATION (IRC M1401.3)

Design Conditions

Winter Design Conditions

Outdoor temperature: 17 °F
Indoor temperature: 70 °F
Total heat loss: 7156 Btuh

Summer Design Conditions

Outdoor temperature: 91 °F
Indoor temperature: 75 °F
Grains difference: 35 gr/lb @50% RH
Sensible heat gain: 3359 Btuh
Latent heat gain: 575 Btuh
Total heat gain: 3934 Btuh

Building Construction Information

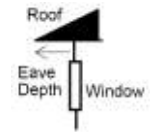
Building

Orientation: Front Door faces North
North, East, West, South, Northeast, Northwest, Southeast, Southwest

Number of bedrooms: 0
Conditioned floor area: 442 ft²
Number of occupants: 0

Windows

Eave overhang depth: 0 ft
Internal shade: none
Blinds, drapes, etc.
Number of skylights: 0



HVAC EQUIPMENT SELECTION (IRC M1401.3)

Heating Equipment Data

Equipment type: Gas furnace
Furnace, Heat pump, Boiler, etc.
Model:
Heating output capacity: 0 Btuh
Heat pumps - capacity at winter design outdoor conditions
Aux. heating output capacity: 0 Btuh

Cooling Equipment Data

Equipment type: Split AC
Air Conditioner, Heat pump, etc.
Model:
Total cooling capacity: 0 Btuh
Sensible cooling capacity: 0 Btuh
Latent cooling capacity: 0 Btuh

Blower Data

Heating cfm: 135
Cooling cfm: 135
Static pressure: 0 in H₂O
Fan's rated external static pressure for design airflow

HVAC DUCT DISTRIBUTION SYSTEM DESIGN (IRC M1601.1)

Design airflow: 135 cfm
Equipment design ESP: 0 in H₂O
Total device pressure losses: 0 in H₂O
Available static pressure (ASP): 0 in H₂O
Longest supply duct: 0 ft
Longest return duct: 0 ft
Total effective length (TEL): 0 ft
Friction rate: 0 in/100ft
Friction Rate = ASP ÷ (TEL x 100)
Duct Materials Used
Trunk duct:
Branch duct: Round flex vinyl

I declare the load calculation, equipment, equipment selection and duct design were rigorously performed based on the building plan listed above. I understand the claims made on these forms will be subject to review and verification.

Contractor's printed name: _____

Contractor's signature: _____ Date: _____

Reserved for County, Town Municipality or Authority having jurisdiction use.

*Home qualifies for MJ1AE Form based on Abridged Edition Checklist



Residential Plans Examiner Review Form for HVAC System Design (Loads, Equipment, Ducts)

Form
RPER 1
15 Mar 09

Columbia Header Information

Contractor: DL Williams Heating & Cooling LLC
Derrick Williams
Mechanical license:
Building plan #:
Home address (Street or Lot#, Block, Subdivision): , AH1

REQUIRED ATTACHMENTS
Manual J1 Form (and supporting worksheets):
or MJ1AE Form* (and supporting worksheets):
OEM performance data (heating, cooling, blower):
Manual D Friction Rate Worksheet:
Duct distribution sketch:

ATTACHED
Yes ☐ No ☐
Yes ☐ No ☐
Yes ☐ No ☐
Yes ☐ No ☐
Yes ☐ No ☐

HVAC LOAD CALCULATION (IRC M1401.3)

Design Conditions

Winter Design Conditions

Outdoor temperature: 17 °F
Indoor temperature: 70 °F
Total heat loss: 32432 Btuh

Summer Design Conditions

Outdoor temperature: 91 °F
Indoor temperature: 75 °F
Grains difference: 35 gr/lb @50% RH
Sensible heat gain: 22688 Btuh
Latent heat gain: 3525 Btuh
Total heat gain: 26213 Btuh

Building Construction Information

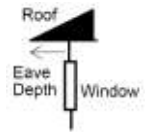
Building

Orientation: Front Door faces North
North, East, West, South, Northeast, Northwest, Southeast, Southwest

Number of bedrooms: 0
Conditioned floor area: 1800 ft²
Number of occupants: 6

Windows

Eave overhang depth: 1.6 ft
Internal shade: blinds
Blinds, drapes, etc.
Number of skylights: 0



HVAC EQUIPMENT SELECTION (IRC M1401.3)

Heating Equipment Data

Equipment type: Split ASHP
Furnace, Heat pump, Boiler, etc.
Model: Trane
4TWR5036N1+TEM6A0C36H31
Heating output capacity: 0 Btuh
Heat pumps - capacity at winter design outdoor conditions
Aux. heating output capacity: 25965 Btuh

Cooling Equipment Data

Equipment type: Split ASHP
Air Conditioner, Heat pump, etc.
Model: Trane
4TWR5036N1+TEM6A0C36H31
Total cooling capacity: 0 Btuh
Sensible cooling capacity: 0 Btuh
Latent cooling capacity: 0 Btuh

Blower Data

Heating cfm: 1140
Cooling cfm: 1140
Static pressure: 0.50 in H₂O
Fan's rated external static pressure for design airflow

HVAC DUCT DISTRIBUTION SYSTEM DESIGN (IRC M1601.1)

Design airflow:	1140 cfm	Longest supply duct:	403 ft	Duct Materials Used	
Equipment design ESP:	0.50 in H ₂ O	Longest return duct:	76 ft	Trunk duct:	Round flex vinyl
Total device pressure losses:	0 in H ₂ O	Total effective length (TEL):	480 ft	Branch duct:	Round flex vinyl
Available static pressure (ASP):	0.50 in H ₂ O	Friction rate:	0.104 in/100ft		

Friction Rate = ASP ÷ (TEL × 100)

I declare the load calculation, equipment, equipment selection and duct design were rigorously performed based on the building plan listed above. I understand the claims made on these forms will be subject to review and verification.

Contractor's printed name: _____

Contractor's signature: _____ Date: _____

Reserved for County, Town Municipality or Authority having jurisdiction use.

*Home qualifies for MJ1AE Form based on Abridged Edition Checklist



Right-Suite® Universal 2023 23.0.03 RSU02245



Load Short Form

Entire House

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Information

	Htg	Clg	Infiltration	Simplified
Outside db (°F)	17	91	Method	Average
Inside db (°F)	70	75	Construction quality	0
Design TD (°F)	53	16	Fireplaces	
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	22	35		

HEATING EQUIPMENT

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

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

COOLING EQUIPMENT

Make n/a
Trade n/a
Cond n/a
Coil n/a
AHRI ref. n/a

Efficiency n/a
Sensible cooling 0 Btuh
Latent cooling 0 Btuh
Total cooling 0 Btuh
Actual air flow 0 cfm
Air flow factor 0 cfm/Btuh
Static pressure 0 in H2O
Load sensible heat ratio 0

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
ah mini	442	7156	3225	135	135
AH1	1800	32432	21781	1140	1140
Entire House	2242	39588	25006	1275	1328
Other equip loads		0	0		
Equip. @ 0.96 RSM			24005		
Latent cooling			3936		
TOTALS	2242	39588	27941	1275	1328

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



Right-Suite® Universal 2023 23.0.03 RSU02245
...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18
Page 1



Load Short Form

ah mini

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Information

	Htg	Clg	Infiltration	Simplified
Outside db (°F)	17	91	Method	Average
Inside db (°F)	70	75	Construction quality	0
Design TD (°F)	53	16	Fireplaces	
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	22	35		

HEATING EQUIPMENT

Make
Trade
Model
AHRI ref
Efficiency 80 AFUE
Heating input 0 Btuh
Heating output 0 Btuh
Temperature rise 0 °F
Actual air flow 135 cfm
Air flow factor 0.019 cfm/Btuh
Static pressure 0 in H2O
Space thermostat

COOLING EQUIPMENT

Make
Trade
Cond
Coil
AHRI ref
Efficiency 0 SEER
Sensible cooling 0 Btuh
Latent cooling 0 Btuh
Total cooling 0 Btuh
Actual air flow 135 cfm
Air flow factor 0.042 cfm/Btuh
Static pressure 0 in H2O
Load sensible heat ratio 0.85

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
garage bonus	232	4362	2565	82	107
storage	70	1204	298	23	12
stair	112	1299	297	25	12
landing storage	28	291	65	5	3
ah mini	442	7156	3225	135	135
Other equip loads		0	0		
Equip. @ 0.96 RSM			3096		
Latent cooling			552		
TOTALS	442	7156	3648	135	135

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



Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 2



Load Short Form

AH1

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Information

	Htg	Clg	Infiltration	Simplified Average
Outside db (°F)	17	91	Method	0
Inside db (°F)	70	75	Construction quality	
Design TD (°F)	53	16	Fireplaces	
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	22	35		

HEATING EQUIPMENT

Make Trane
Trade TRANE
Model 4TWR5036N1
AHRI ref 209323532

Efficiency 7.5 HSPF2
Heating input
Heating output 32400 Btuh @ 47°F
Temperature rise 26 °F
Actual air flow 1140 cfm
Air flow factor 0.035 cfm/Btuh
Static pressure 0.50 in H2O
Space thermostat
Capacity balance point = 22 °F

Backup:
Input = 8 kW, Output = 25965 Btuh, 100 AFUE

COOLING EQUIPMENT

Make Trane
Trade TRANE
Cond 4TWR5036N1
Coil TEM6A0C36H31
AHRI ref 209323532

Efficiency 11.7 EER2, 14.3 SEER2
Sensible cooling 23940 Btuh
Latent cooling 10260 Btuh
Total cooling 34200 Btuh
Actual air flow 1140 cfm
Air flow factor 0.052 cfm/Btuh
Static pressure 0.50 in H2O
Load sensible heat ratio 0.87

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
(Rest of House)	1800	32432	22794	1140	1193
AH1	1800	32432	21781	1140	1140
Other equip loads		0	0		
Equip. @ 0.96 RSM			20909		
Latent cooling			3384		
TOTALS	1800	32432	24294	1140	1140

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



Right-Suite® Universal 2023 23.0.03 RSU02245

2023-Nov-06 09:01:18

Page 3

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N



Load Short Form

(Rest of House)

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Information

	Htg	Clg	Infiltration	
Outside db (°F)	17	91	Method	Simplified
Inside db (°F)	70	75	Construction quality	Average
Design TD (°F)	53	16	Fireplaces	0
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	22	35		

HEATING EQUIPMENT

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

COOLING EQUIPMENT

Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a
AHRI ref	n/a
Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
living	360	3646	5687	128	298
utility	48	648	1152	23	60
bath	36	906	571	32	30
office	180	3562	3822	125	200
hall	96	0	0	0	0
hall2	32	1467	639	52	33
wic1	112	2598	1134	91	59
utility2	81	2998	1852	105	97
lav	30	1203	359	42	19
mbed	360	5306	4333	187	227
wic2	112	2598	994	91	52
hvac	48	1016	239	36	12
sink	60	2755	786	97	41
mbath	245	3729	1227	131	64

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

(Rest of House)	1800	32432	22794	1140	1193
Other equip loads		0	0		
Equip. @ 0.96 RSM			21883		
Latent cooling			3384		
TOTALS	1800	32432	25267	1140	1193

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



Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 5



Load Multizone Summary Report

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Infiltration Summary

ZONE NAME	Heating				Cooling			
	Volume ft³	ACH	AVF cfm	HTM Btuh/ft²	Volume ft³	ACH	AVF cfm	HTM Btuh/ft²
(Rest of House)	18018	0.26	77	3.4	18018	0.13	39	0.5
ah mini	3767	0.62	39	3.4	3767	0.31	20	0.5
Entire House	21785	0.32	116	3.4	21785	0.16	58	0.5

Load and AVF Summary

ROOM NAME	Area ft²	Htg load Btuh	Clg load Btuh	Htg AVF cfm	Clg AVF cfm
living	360	3646	5687	128	298
utility	48	648	1152	23	60
bath	36	906	571	32	30
office	180	3562	3822	125	200
hall	96	0	0	0	0
hall2	32	1467	639	52	33
wic1	112	2598	1134	91	59
utility2	81	2998	1852	105	97
lav	30	1203	359	42	19
mbed	360	5306	4333	187	227
wic2	112	2598	994	91	52
hvac	48	1016	239	36	12
sink	60	2755	786	97	41
mbath	245	3729	1227	131	64
(Rest of House)	1800	32432	22794	1140	1193
garage bonus	232	4362	2565	82	107
storage	70	1204	298	23	12
stair	112	1299	297	25	12
landing storage	28	291	65	5	3
ah mini	442	7156	3225	135	135
Entire House	2242	39588	25006	1275	1328



Building Analysis

Entire House

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:

Washington National AP, DC, US
Elevation: 0 ft
Latitude: 38°N

Outdoor:

Dry bulb (°F)
Daily range (°F)
Wet bulb (°F)
Wind speed (mph)

Heating

17
-
-
15.0

Cooling

91
18 (M)
74
7.5

Indoor:

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

Heating

70
53
30
22.3

Cooling

75
16
50
34.7

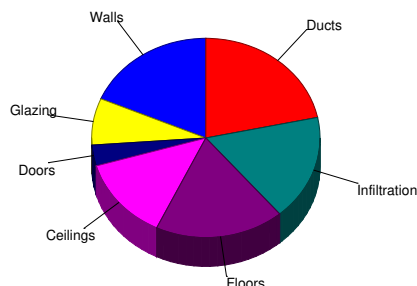
Infiltration:

Method
Construction quality
Fireplaces

Simplified
Average
0

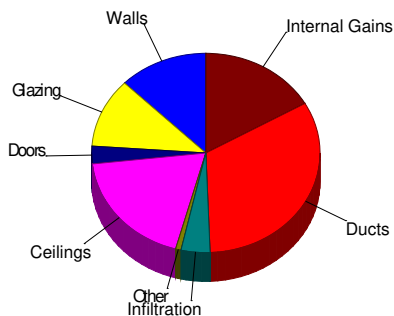
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.5	7353	18.6
Glazing	24.9	2997	7.6
Doors	31.8	1336	3.4
Ceilings	2.2	5302	13.4
Floors	3.2	7241	18.3
Infiltration	3.4	6774	17.1
Ducts		8586	21.7
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
Total		39588	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.5	3155	12.6
Glazing	23.4	2820	11.3
Doors	17.1	718	2.9
Ceilings	2.0	4742	19.0
Floors	0.1	192	0.8
Infiltration	0.5	1022	4.1
Ducts		8175	32.7
Ventilation		0	0
Internal gains		4180	16.7
Blower		0	0
Adjustments		0	0
Total		25006	100.0



Latent Cooling Load = 3936 Btuh

Overall U-value = 0.068 Btuh/ft²-°F, Window / Floor Area = 5.4 %

Data entries checked.



wrightsoft®

Right-Suite® Universal 2023 23.0.03 RSU02245

2023-Nov-06 09:01:18

Page 1

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N



Building Analysis

ah mini
DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:

Washington National AP, DC, US
Elevation: 0 ft
Latitude: 38°N

Outdoor:

Dry bulb (°F)
Daily range (°F)
Wet bulb (°F)
Wind speed (mph)

Heating

17
-
-
15.0

Cooling

91
18 (M)
74
7.5

Indoor:

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

Heating

70
53
30
22.3

Cooling

75
16
50
34.7

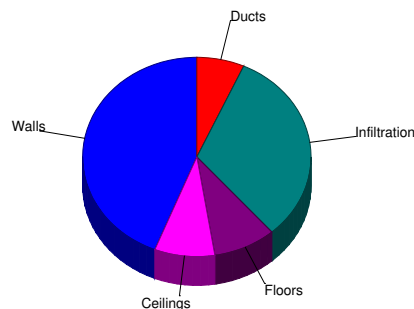
Infiltration:

Method
Construction quality
Fireplaces

Simplified
Average
0

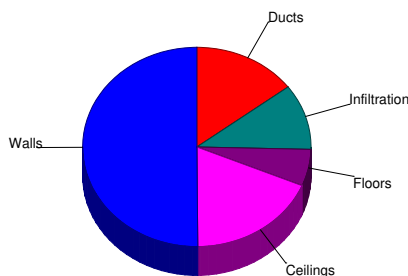
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.3	3149	44.0
Glazing	0	0	0
Doors	0	0	0
Ceilings	1.4	609	8.5
Floors	1.4	636	8.9
Infiltration	3.4	2280	31.9
Ducts		482	6.7
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
Total		7156	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.7	1616	50.1
Glazing	0	0	0
Doors	0	0	0
Ceilings	1.4	598	18.5
Floors	0.4	192	6.0
Infiltration	0.5	344	10.7
Ducts		475	14.7
Ventilation		0	0
Internal gains		0	0
Blower		0	0
Adjustments		0	0
Total		3225	100.0



Latent Cooling Load = 552 Btuh

Overall U-value = 0.051 Btuh/ft²-°F, Window / Floor Area = 0.0 %

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



wrightsoft

Right-Suite® Universal 2023 23.0.03 RSU02245

2023-Nov-06 09:01:18

Page 2

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N



Building Analysis

AH1

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:

Washington National AP, DC, US
Elevation: 0 ft
Latitude: 38°N

Outdoor:

Dry bulb (°F)
Daily range (°F)
Wet bulb (°F)
Wind speed (mph)

Heating

17
-
-
15.0

Cooling

91
18 (M)
74
7.5

Indoor:

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

Heating

70
53
30
22.3

Cooling

75
16
50
34.7

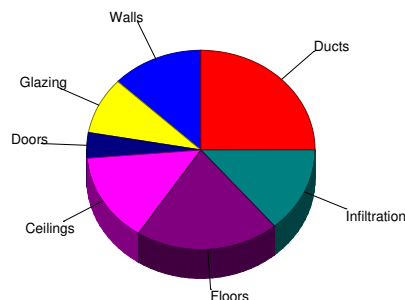
Infiltration:

Method
Construction quality
Fireplaces

Simplified
Average
0

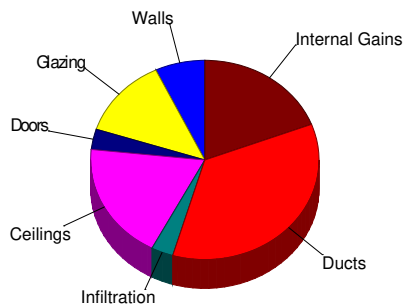
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.6	4203	13.0
Glazing	24.9	2997	9.2
Doors	31.8	1336	4.1
Ceilings	2.4	4693	14.5
Floors	3.7	6605	20.4
Infiltration	3.4	4494	13.9
Ducts		8104	25.0
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
Total		32432	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.3	1539	7.1
Glazing	23.4	2820	12.9
Doors	17.1	718	3.3
Ceilings	2.2	4145	19.0
Floors	0	0	0
Infiltration	0.5	678	3.1
Ducts		7701	35.4
Ventilation		0	0
Internal gains		4180	19.2
Blower		0	0
Adjustments		0	0
Total		21781	100.0



Latent Cooling Load = 3384 Btuh

Overall U-value = 0.074 Btuh/ft²-°F, Window / Floor Area = 6.7 %

Data entries checked.



wrightsoft

Right-Suite® Universal 2023 23.0.03 RSU02245

2023-Nov-06 09:01:18

Page 3

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N



Building Analysis (Rest of House) DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:

Washington National AP, DC, US
Elevation: 0 ft
Latitude: 38°N

Outdoor:

Drybulb (°F)
Daily range (°F)
Wet bulb (°F)
Wind speed (mph)

Heating

17
-
-
15.0

Cooling

91
18 (M)
74
7.5

Indoor:

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

Heating

70
53
30
22.3

Cooling

75
16
50
34.7

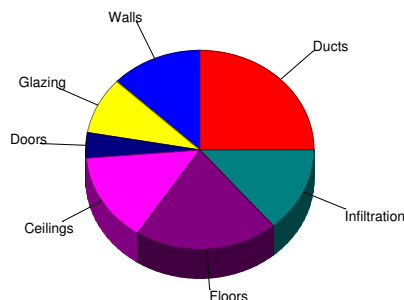
Infiltration:

Method
Construction quality
Fireplaces

Simplified
Average
0

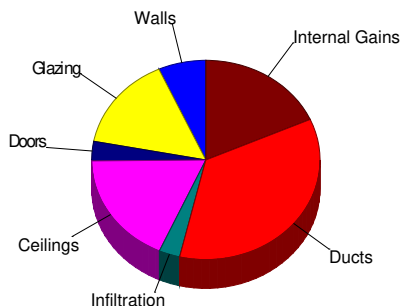
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.6	4203	13.0
Glazing	24.9	2997	9.2
Doors	31.8	1336	4.1
Ceilings	2.4	4693	14.5
Floors	3.7	6605	20.4
Infiltration	3.4	4494	13.9
Ducts		8104	25.0
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
Total		32432	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.3	1539	6.7
Glazing	28.9	3476	15.2
Doors	17.1	718	3.2
Ceilings	2.2	4145	18.2
Floors	0	0	0
Infiltration	0.5	678	3.0
Ducts		8059	35.4
Ventilation		0	0
Internal gains		4180	18.3
Blower		0	0
Adjustments		0	0
Total		22794	100.0



Latent Cooling Load = 3384 Btuh

Overall U-value = 0.074 Btuh/ft²-°F, Window / Floor Area = 6.7 %

Data entries checked.



Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 4



Component Constructions

Entire House

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:		Indoor:		Heating	Cooling
Washington National AP, DC, US		Indoor temperature (°F)		70	75
Elevation: 0 ft		Design TD (°F)		53	16
Latitude: 38°N		Relative humidity (%)		30	50
Outdoor:		Moisture difference (gr/lb)		22.3	34.7
		Infiltration:		Simplified	
Heating		Method		Average	
Cooling		Construction quality		0	
		Fireplaces			
Drybulb (°F)					
Daily range (°F)					
Wet bulb (°F)					
Wind speed (mph)					

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								
12E-0sw: Frm wall, 1/2" gyp.bd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	417	0.068	19.0	3.60	1503	1.32	550
	e	390	0.068	19.0	3.60	1406	1.32	514
	s	155	0.068	19.0	3.60	558	1.32	204
	w	286	0.068	19.0	3.60	1032	1.32	378
	all	1248	0.068	19.0	3.60	4499	1.32	1647
16B-19ad: Knee wall, asphalt shingles roof mat, r-20 roof ins, r-19 kw ins, 1/2" gypsum board int fnsh	n	232	0.049	19.0	2.60	603	2.55	591
	e	64	0.049	19.0	2.60	166	2.55	163
	s	232	0.049	19.0	2.60	603	2.55	591
	w	64	0.049	19.0	2.60	166	2.55	163
	all	592	0.049	19.0	2.60	1537	2.55	1508
Partitions								
12C-0sw: Frm wall, stucco ext, r-13 cav ins, 2"x4" wood frm, 16" o.c. stud		273	0.091	13.0	4.82	1317	0	0
Windows								
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (3 ft window ht, 1 ft sep.); 6.67 ft head ht	n	8	0.470	0	24.9	193	10.7	83
	w	8	0.470	0	24.9	193	26.6	206
	all	16	0.470	0	24.9	386	18.7	289
4B5-2fv: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 1.6 ft overhang (2 ft window ht, 1 ft sep.); 6.67 ft head ht	n	12	0.470	0	24.9	299	13.6	163
	e	6	0.470	0	24.9	149	25.8	155
	w	8	0.470	0	24.9	199	27.1	217
	all	16	0.470	0	24.9	399	27.1	433

4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr e innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (5 ft window ht, 1 ft sep.); 6.67 ft head ht	30	0.470	0	24.9	747	27.3	820
10D-v: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, w 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 1.6 ft overhang (6.8 ft window ht, 1 ft sep.); 6.67 ft head ht	41	0.470	0	24.9	1016	21.5	876

Doors

11J0: Door, mtl fbrgl type	e	21	0.600	6.3	31.8	668	17.1	359
	w	21	0.600	6.3	31.8	668	17.1	359
	all	42	0.600	6.3	31.8	1336	17.1	718

Ceilings

16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh	1882	0.026	38.0	1.38	2593	1.35	2544
17B-6al: Rf/clg ceiling, asphalt shingles roof mat, wd cons, r-6 deck ins, 1" thkns	487	0.105	6.0	5.57	2709	4.51	2198

Floors

19A-19bscp: Part floor, carpet flr fnsh, r-19 ins, frm flr, 6" thkns	210	0.049	19.0	2.04	427	0.61	129
19C-19cscp: Flr floor, frm flr, 6" thkns, carpet flr fnsh, r-2 ext ins, r-19 cav ins, tight crwl ovr, r-11 wall insul	232	0.049	30.0	0.90	209	0.27	63
22A-vpl: Bg floor, light dry soil, on grade depth, vinyl flr fnsh	126	0.989	0	52.4	6605	0	0



Component Constructions

(Rest of House)

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:		Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)		70	75
Elevation: 0 ft			Design TD (°F)		53	16
Latitude: 38°N			Relative humidity (%)		30	50
			Moisture difference (gr/lb)		22.3	34.7
Outdoor:			Infiltration:			
	Heating	Cooling	Method		Simplified	
Drybulb (°F)	17	91	Construction quality		Average	
Daily range (°F)	-	18 (M)	Fireplaces		0	
Wet bulb (°F)	-	74				
Wind speed (mph)	15.0	7.5				

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								
12E-0sw: Frm wall, 1/2" gyp.bd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	399	0.068	19.0	3.60	1437	1.32	526
	e	390	0.068	19.0	3.60	1406	1.32	514
	s	91	0.068	19.0	3.60	328	1.32	120
	w	286	0.068	19.0	3.60	1032	1.32	378
	all	1166	0.068	19.0	3.60	4203	1.32	1539

Partitions

(none)

Windows

4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (3 ft window ht, 1 ft sep.); 6.67 ft head ht	n	8	0.470	0	24.9	193	10.7	83
4B5-2fv: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 1.6 ft overhang (2 ft window ht, 1 ft sep.); 6.67 ft head ht	w	8	0.470	0	24.9	193	26.6	206
	all	16	0.470	0	24.9	386	18.7	289
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (2 ft window ht, 1 ft sep.); 6.67 ft head ht	n	12	0.470	0	24.9	299	13.6	163
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (2 ft window ht, 1 ft sep.); 6.67 ft head ht	e	6	0.470	0	24.9	149	25.8	155
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (4 ft window ht, 1 ft sep.); 6.67 ft head ht	e	8	0.470	0	24.9	199	27.1	217
	w	8	0.470	0	24.9	199	27.1	217
	all	16	0.470	0	24.9	399	27.1	433
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (5 ft window ht, 1 ft sep.); 6.67 ft head ht	e	30	0.470	0	24.9	747	27.3	820
10D-v: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 1.6 ft overhang (6.8 ft window ht, 1 ft sep.); 6.67 ft head ht	w	41	0.470	0	24.9	1016	21.5	876

Doors

11J0: Door, mtl fbrgl type	e	21	0.600	6.3	31.8	668	17.1	359
	w	21	0.600	6.3	31.8	668	17.1	359
	all	42	0.600	6.3	31.8	1336	17.1	718

Ceilings

16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		1440	0.026	38.0	1.38	1984	1.35	1947
17B-6al: Rf/clg ceiling, asphalt shingles roof mat, wd cons, r-6 deck ins, 1" thkns		487	0.105	6.0	5.57	2709	4.51	2198

Floors

22A-vpl: Bg floor, light dry soil, on grade depth, vinyl flr fnsh		126	0.989	0	52.4	6605	0	0
---	--	-----	-------	---	------	------	---	---





Component Constructions

ah mini

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:		Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)		70	75
Elevation: 0 ft			Design TD (°F)		53	16
Latitude: 38°N			Relative humidity (%)		30	50
			Moisture difference (gr/lb)		22.3	34.7
Outdoor:	Heating	Cooling	Infiltration:			
Drybulb (°F)	17	91	Method		Simplified	
Daily range (°F)	-	18 (M)	Construction quality		Average	
Wet bulb (°F)	-	74	Fireplaces		0	
Wind speed (mph)	15.0	7.5				

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								
12E-0sw: Frm wall, 1/2" gyp.bd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	18	0.068	19.0	3.60	66	1.32	24
	s	64	0.068	19.0	3.60	230	1.32	84
	all	82	0.068	19.0	3.60	295	1.32	108
16B-19ad: Knee wall, asphalt shingles roof mat, r-20 roof ins, r-19 kw ins, 1/2" gypsum board int fnsh	n	232	0.049	19.0	2.60	603	2.55	591
	e	64	0.049	19.0	2.60	166	2.55	163
	s	232	0.049	19.0	2.60	603	2.55	591
	w	64	0.049	19.0	2.60	166	2.55	163
	all	592	0.049	19.0	2.60	1537	2.55	1508
Partitions								
12C-0sw: Frm wall, stucco ext, r-13 cav ins, 2"x4" wood frm, 16" o.c. stud		273	0.091	13.0	4.82	1317	0	0
Windows (none)								
Doors (none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		442	0.026	38.0	1.38	609	1.35	598
Floors								
19A-19bscp: Part floor, carpet flr fnsh, r-19 ins, frm flr, 6" thkns		210	0.049	19.0	2.04	427	0.61	129
19C-19cscp: Flr floor, frm flr, 6" thkns, carpet flr fnsh, r-2 ext ins, r-19 cav ins, tight crwl ovr, r-11 wall insul		232	0.049	30.0	0.90	209	0.27	63



Component Constructions

AH1

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:	Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)	70	75
Elevation: 0 ft			Design TD (°F)	53	16
Latitude: 38°N			Relative humidity (%)	30	50
			Moisture difference (gr/lb)	22.3	34.7
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	17	91	Method	Simplified	
Daily range (°F)	-	18 (M)	Construction quality	Average	
Wet bulb (°F)	-	74	Fireplaces	0	
Wind speed (mph)	15.0	7.5			

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 12E-0sw: Frm wall, 1/2" gyp.bd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	399	0.068	19.0	3.60	1437	1.32	526
	e	390	0.068	19.0	3.60	1406	1.32	514
	s	91	0.068	19.0	3.60	328	1.32	120
	w	286	0.068	19.0	3.60	1032	1.32	378
	all	1166	0.068	19.0	3.60	4203	1.32	1539

Partitions

(none)

Windows

4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (3 ft window ht, 1 ft sep.); 6.67 ft head ht	n	8	0.470	0	24.9	193	10.7	83
4B5-2fv: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 1.6 ft overhang (2 ft window ht, 1 ft sep.); 6.67 ft head ht	w	8	0.470	0	24.9	193	26.6	206
	all	16	0.470	0	24.9	386	18.7	289
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (2 ft window ht, 1 ft sep.); 6.67 ft head ht	n	12	0.470	0	24.9	299	13.6	163
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (2 ft window ht, 1 ft sep.); 6.67 ft head ht	e	6	0.470	0	24.9	149	25.8	155
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (4 ft window ht, 1 ft sep.); 6.67 ft head ht	e	8	0.470	0	24.9	199	27.1	217
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (4 ft window ht, 1 ft sep.); 6.67 ft head ht	w	8	0.470	0	24.9	199	27.1	217
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (5 ft window ht, 1 ft sep.); 6.67 ft head ht	all	16	0.470	0	24.9	399	27.1	433
10D-v: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 1.6 ft overhang (6.8 ft window ht, 1 ft sep.); 6.67 ft head ht	e	30	0.470	0	24.9	747	27.3	820
	w	41	0.470	0	24.9	1016	21.5	876

Doors

11J0: Door, mtl fbrgl type	e	21	0.600	6.3	31.8	668	17.1	359
	w	21	0.600	6.3	31.8	668	17.1	359
	all	42	0.600	6.3	31.8	1336	17.1	718

Ceilings

16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		1440	0.026	38.0	1.38	1984	1.35	1947
17B-6al: Rf/clg ceiling, asphalt shingles roof mat, wd cons, r-6 deck ins, 1" thkns		487	0.105	6.0	5.57	2709	4.51	2198

Floors

22A-vpl: Bg floor, light dry soil, on grade depth, vinyl flr fnsh		126	0.989	0	52.4	6605	0	0
---	--	-----	-------	---	------	------	---	---





Component Constructions
living
DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:	Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)	70	75
Elevation: 0 ft			Design TD (°F)	53	16
Latitude: 38°N			Relative humidity (%)	30	50
			Moisture difference (gr/lb)	22.3	34.7
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	17	91	Method	Simplified	
Daily range (°F)	-	18 (M)	Construction quality	Average	
Wet bulb (°F)	-	74	Fireplaces	0	
Wind speed (mph)	15.0	7.5			

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								
12E-0sw: Frm wall, 1/2" gyp.bd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	w	50	0.068	19.0	3.60	181	1.32	66
Partitions (none)								
Windows								
10D-v: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, w 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 1.6 ft overhang (6.8 ft window ht, 1 ft sep.); 6.67 ft head ht	w	41	0.470	0	24.9	1016	21.5	876
Doors (none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		360	0.026	38.0	1.38	496	1.35	487
Floors								
22A-vpl: Bg floor, light dry soil, on grade depth, vinyl flr fnsh		10	0.989	0	52.4	524	0	0



wrightsoft
A M&M/J. Beckwith Heating Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...Wrightsoft HVAC\Trane\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 8



Component Constructions
utility
DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:	Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)	70	75
Elevation: 0 ft			Design TD (°F)	53	16
Latitude: 38°N			Relative humidity (%)	30	50
Outdoor:			Moisture difference (gr/lb)	22.3	34.7
			Infiltration:		
Heating			Method	Simplified	
Cooling			Construction quality	Average	
			Fireplaces	0	
Dry bulb (°F)	17	91			
Daily range (°F)	-	18 (M)			
Wet bulb (°F)	-	74			
Wind speed (mph)	15.0	7.5			

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 (none)								
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		48	0.026	38.0	1.38	66	1.35	65
Floors (none)								



wrightsoft
A M&J® / Berkshire Hathaway Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 9



Component Constructions

bath

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:	Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)	70	75
Elevation: 0 ft			Design TD (°F)	53	16
Latitude: 38°N			Relative humidity (%)	30	50
Outdoor:			Moisture difference (gr/lb)	22.3	34.7
			Infiltration:		
Heating			Method	Simplified	
Cooling			Construction quality	Average	
			Fireplaces	0	
Dry bulb (°F)	17	91			
Daily range (°F)	-	18 (M)			
Wet bulb (°F)	-	74			
Wind speed (mph)	15.0	7.5			

Construction descriptions

Or	Area	U-value	Insul R	Htg HTM	Loss	Clg HTM	Gain
	ft²	Btuh/ft²-°F	ft²-°F/Btuh	Btuh/ft²	Btuh	Btuh/ft²	Btuh

Walls
(none)

Partitions
(none)

Windows
(none)

Doors
(none)

Ceilings
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2"
gypsum board int fnsh

36	0.026	38.0	1.38	50	1.35	49
----	-------	------	------	----	------	----

Floors
(none)



Component Constructions

office

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:	Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)	70	75
Elevation: 0 ft			Design TD (°F)	53	16
Latitude: 38°N			Relative humidity (%)	30	50
Outdoor:			Moisture difference (gr/lb)	22.3	34.7
			Infiltration:		
Heating			Method	Simplified	
Cooling			Construction quality	Average	
			Fireplaces	0	
Drybulb (°F)					
Daily range (°F)					
Wet bulb (°F)					
Wind speed (mph)					

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								
12E-0sw: Frm wall, 1/2" gyp.bd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	e	76	0.068	19.0	3.60	274	1.32	100
Partitions								
(none)								
Windows								
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (5 ft window ht, 1 ft sep.); 6.67 ft head ht	e	15	0.470	0	24.9	374	27.3	410
Doors								
(none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		180	0.026	38.0	1.38	248	1.35	243
Floors								
22A-vpl: Bg floor, light dry soil, on grade depth, vinyl flr fnsh		10	0.989	0	52.4	524	0	0



wrightsoft®
A MGA® / Berkshire Hathaway Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 11



Component Constructions

hall

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:		Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)		70	75
Elevation: 0 ft			Design TD (°F)		53	16
Latitude: 38°N			Relative humidity (%)		30	50
			Moisture difference (gr/lb)		22.3	34.7
Outdoor:	Heating	Cooling	Infiltration:			
Drybulb (°F)	17	91	Method		Simplified	
Daily range (°F)	-	18 (M)	Construction quality		Average	
Wet bulb (°F)	-	74	Fireplaces		0	
Wind speed (mph)	15.0	7.5				

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								
12E-0sw: Frm wall, 1/2" gyp.bd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	e	55	0.068	19.0	3.60	198	1.32	73
Partitions								
(none)								
Windows								
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (5 ft window ht, 1 ft sep.); 6.67 ft head ht	e	15	0.470	0	24.9	374	27.3	410
Doors								
11J0: Door, mtl fbrgl type	e	21	0.600	6.3	31.8	668	17.1	359
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		96	0.026	38.0	1.38	132	1.35	130
Floors								
22A-vpl: Bg floor, light dry soil, on grade depth, vinyl flr fnsh		10	0.989	0	52.4	524	0	0



wrightsoft®
A M&M® / Beckwith Heating Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...Wrightsoft HVAC\Trane\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 12



Component Constructions

hall2

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:	Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)	70	75
Elevation: 0 ft			Design TD (°F)	53	16
Latitude: 38°N			Relative humidity (%)	30	50
Outdoor:			Moisture difference (gr/lb)	22.3	34.7
Heating	Cooling		Infiltration:		
Dry bulb (°F)	17	91	Method	Simplified	
Daily range (°F)	-	18 (M)	Construction quality	Average	
Wet bulb (°F)	-	74	Fireplaces	0	
Wind speed (mph)	15.0	7.5			

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								
12E-0sw: Frm wall, 1/2" gyp.bd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	w	15	0.068	19.0	3.60	56	1.32	20
Partitions								
(none)								
Windows								
(none)								
Doors								
11J0: Door, mtl fbrgl type	w	21	0.600	6.3	31.8	668	17.1	359
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		32	0.026	38.0	1.38	44	1.35	43
Floors								
22A-vpl: Bg floor, light dry soil, on grade depth, vinyl flr fnsh		4	0.989	0	52.4	210	0	0



Component Constructions

wic1

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:	Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)	70	75
Elevation: 0 ft			Design TD (°F)	53	16
Latitude: 38°N			Relative humidity (%)	30	50
			Moisture difference (gr/lb)	22.3	34.7
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	17	91	Method	Simplified	
Daily range (°F)	-	18 (M)	Construction quality	Average	
Wet bulb (°F)	-	74	Fireplaces	0	
Wind speed (mph)	15.0	7.5			

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								
12E-0sw: Frm wall, 1/2" gyp.bd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	w	119	0.068	19.0	3.60	430	1.32	158
Partitions								
(none)								
Windows								
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (4 ft window ht, 1 ft sep.); 6.67 ft head ht	w	8	0.470	0	24.9	199	27.1	217
Doors								
(none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		112	0.026	38.0	1.38	154	1.35	151
Floors								
22A-vpl: Bg floor, light dry soil, on grade depth, vinyl flr fnsh		14	0.989	0	52.4	734	0	0



wrightsoft®
A M&M® / Beckwith Heating Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...Wrightsoft HVAC\Trane\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 14



Component Constructions

utility2

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:	Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)	70	75
Elevation: 0 ft			Design TD (°F)	53	16
Latitude: 38°N			Relative humidity (%)	30	50
Outdoor:	Heating	Cooling	Moisture difference (gr/lb)	22.3	34.7
Drybulb (°F)	17	91	Infiltration:		
Dailyrange (°F)	-	18 (M)	Method	Simplified	
Wet bulb (°F)	-	74	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								
12E-0sw: Frm wall, 1/2" gyp.bd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	46	0.068	19.0	3.60	164	1.32	60
	w	101	0.068	19.0	3.60	366	1.32	134
	all	147	0.068	19.0	3.60	530	1.32	194
Partitions								
(none)								
Windows								
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (3 ft window ht, 1 ft sep.); 6.67 ft head ht	w	8	0.470	0	24.9	193	26.6	206
Doors								
(none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		81	0.026	38.0	1.38	112	1.35	110
Floors								
22A-vpl: Bg floor, light dry soil, on grade depth, vinyl flr fnsh		17	0.989	0	52.4	891	0	0



wrightsoft®
A M&M® / Berkshire Hathaway Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 15



Component Constructions

/av

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:	Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)	70	75
Elevation: 0 ft			Design TD (°F)	53	16
Latitude: 38°N			Relative humidity (%)	30	50
			Moisture difference (gr/lb)	22.3	34.7
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	17	91	Method	Simplified	
Daily range (°F)	-	18 (M)	Construction quality	Average	
Wet bulb (°F)	-	74	Fireplaces	0	
Wind speed (mph)	15.0	7.5			

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								
12E-0sw: Frm wall, 1/2" gyp.bd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	47	0.068	19.0	3.60	169	1.32	62
Partitions								
(none)								
Windows								
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (3 ft window ht, 1 ft sep.); 6.67 ft head ht	n	8	0.470	0	24.9	193	10.7	83
Doors								
(none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		30	0.026	38.0	1.38	41	1.35	41
Floors								
22A-vpl: Bg floor, light dry soil, on grade depth, vinyl flr fnsh		6	0.989	0	52.4	315	0	0



wrightsoft®
A M&M® / Beckwith Heating Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...Wrightsoft HVAC\Trane\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 16



Component Constructions

mbed
DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:	Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)	70	75
Elevation: 0 ft			Design TD (°F)	53	16
Latitude: 38°N			Relative humidity (%)	30	50
Outdoor:			Moisture difference (gr/lb)	22.3	34.7
			Infiltration:		
Heating			Method	Simplified	
Cooling			Construction quality	Average	
			Fireplaces	0	
Dry bulb (°F)					
Daily range (°F)					
Wet bulb (°F)					
Wind speed (mph)					

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 12E-0sw: Frm wall, 1/2" gyp.bd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	91	0.068	19.0	3.60	328	1.32	120
	s	91	0.068	19.0	3.60	328	1.32	120
	all	182	0.068	19.0	3.60	656	1.32	240

Partitions

(none)

Windows

(none)

Doors

(none)

Ceilings 17B-6al: Rf/clg ceiling, asphalt shingles roof mat, wd cons, r-6 deck ins, 1" thkns	487	0.105	6.0	5.57	2709	4.51	2198
--	-----	-------	-----	------	------	------	------

Floors

(none)



wrightsoft®
A M&M Software Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 17



Component Constructions

wic2

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:		Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)		70	75
Elevation: 0 ft			Design TD (°F)		53	16
Latitude: 38°N			Relative humidity (%)		30	50
			Moisture difference (gr/lb)		22.3	34.7
Outdoor:	Heating	Cooling	Infiltration:			
Drybulb (°F)	17	91	Method		Simplified	
Daily range (°F)	-	18 (M)	Construction quality		Average	
Wet bulb (°F)	-	74	Fireplaces		0	
Wind speed (mph)	15.0	7.5				

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								
12E-0sw: Frm wall, 1/2" gyp.bd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	e	119	0.068	19.0	3.60	430	1.32	158
Partitions								
(none)								
Windows								
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (4 ft window ht, 1 ft sep.); 6.67 ft head ht	e	8	0.470	0	24.9	199	27.1	217
Doors								
(none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		112	0.026	38.0	1.38	154	1.35	151
Floors								
22A-vpl: Bg floor, light dry soil, on grade depth, vinyl flr fnsh		14	0.989	0	52.4	734	0	0



wrightsoft®
A M&M® / Beckwith Heating Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...Wrightsoft HVAC\Trane\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 18



Component Constructions

hvac

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:	Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)	70	75
Elevation: 0 ft			Design TD (°F)	53	16
Latitude: 38°N			Relative humidity (%)	30	50
Outdoor:			Moisture difference (gr/lb)	22.3	34.7
			Infiltration:		
Heating			Method	Simplified	
Cooling			Construction quality	Average	
			Fireplaces	0	
Dry bulb (°F)	17	91			
Daily range (°F)	-	18 (M)			
Wet bulb (°F)	-	74			
Wind speed (mph)	15.0	7.5			

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								
12E-0sw: Frm wall, 1/2" gyp.bd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	e	55	0.068	19.0	3.60	197	1.32	72
Partitions								
(none)								
Windows								
(none)								
Doors								
(none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		48	0.026	38.0	1.38	66	1.35	65
Floors								
22A-vpl: Bg floor, light dry soil, on grade depth, vinyl flr fnsh		6	0.989	0	52.4	315	0	0



wrightsoft®
A M&M® / Berkshire Hathaway Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 19



Component Constructions

sink

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:		Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)		70	75
Elevation: 0 ft			Design TD (°F)		53	16
Latitude: 38°N			Relative humidity (%)		30	50
			Moisture difference (gr/lb)		22.3	34.7
Outdoor:	Heating	Cooling	Infiltration:			
Dry bulb (°F)	17	91	Method		Simplified	
Daily range (°F)	-	18 (M)	Construction quality		Average	
Wet bulb (°F)	-	74	Fireplaces		0	
Wind speed (mph)	15.0	7.5				

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								
12E-0sw: Frm wall, 1/2" gyp.bd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	55	0.068	19.0	3.60	197	1.32	72
	e	85	0.068	19.0	3.60	306	1.32	112
	all	140	0.068	19.0	3.60	503	1.32	184
Partitions (none)								
Windows								
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (2 ft window ht, 1 ft sep.); 6.67 ft head ht	e	6	0.470	0	24.9	149	25.8	155
Doors (none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		60	0.026	38.0	1.38	83	1.35	81
Floors								
22A-vpl: Bg floor, light dry soil, on grade depth, vinyl flr fnsh		16	0.989	0	52.4	839	0	0



wrightsoft
A M&M® / Berkshire Hathaway Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...Wrightsoft HVAC\Trane\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 20



Component Constructions

mbath

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:	Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)	70	75
Elevation: 0 ft			Design TD (°F)	53	16
Latitude: 38°N			Relative humidity (%)	30	50
Outdoor:			Moisture difference (gr/lb)	22.3	34.7
			Infiltration:		
Heating			Method	Simplified	
Cooling			Construction quality	Average	
			Fireplaces	0	
Dry bulb (°F)					
Daily range (°F)					
Wet bulb (°F)					
Wind speed (mph)					

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								
12E-0sw: Frm wall, 1/2" gyp.bd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	161	0.068	19.0	3.60	580	1.32	212
Partitions								
(none)								
Windows								
4B5-2fv: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.31); 1.6 ft overhang (2 ft window ht, 1 ft sep.); 6.67 ft head ht	n	12	0.470	0	24.9	299	13.6	163
Doors								
(none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		245	0.026	38.0	1.38	338	1.35	331
Floors								
22A-vpl: Bg floor, light dry soil, on grade depth, vinyl flr fnsh		19	0.989	0	52.4	996	0	0



wrightsoft®
A M&M® / Beckwith Heating Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 21



Component Constructions

garage bonus

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:		Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)		70	75
Elevation: 0 ft			Design TD (°F)		53	16
Latitude: 38°N			Relative humidity (%)		30	50
			Moisture difference (gr/lb)		22.3	34.7
Outdoor:		Heating	Cooling	Infiltration:		
Dry bulb (°F)		17	91	Method		Simplified
Daily range (°F)		-	18 (M)	Construction quality		Average
Wet bulb (°F)		-	74	Fireplaces		0
Wind speed (mph)		15.0	7.5			

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 16B-19ad: Knee wall, asphalt shingles roof mat, r-20 roof ins, r-19 kw ins, 1/2" gypsum board int fnsh	n	232	0.049	19.0	2.60	603	2.55	591
	e	64	0.049	19.0	2.60	166	2.55	163
	s	232	0.049	19.0	2.60	603	2.55	591
	w	64	0.049	19.0	2.60	166	2.55	163
	all	592	0.049	19.0	2.60	1537	2.55	1508

Partitions
(none)

Windows
(none)

Doors
(none)

Ceilings 16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh	232	0.026	38.0	1.38	320	1.35	314
--	-----	-------	------	------	-----	------	-----

Floors 19C-19cscp: Flr floor, frm flr, 6" thkns, carpet flr fnsh, r-2 ext ins, r-19 cav ins, tight cowl ovr, r-11 wall insul	232	0.049	30.0	0.90	209	0.27	63
--	-----	-------	------	------	-----	------	----



wrightsoft®
A M&M® / Berkshire Hathaway Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 22



Component Constructions

storage

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:	Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)	70	75
Elevation: 0 ft			Design TD (°F)	53	16
Latitude: 38°N			Relative humidity (%)	30	50
			Moisture difference (gr/lb)	22.3	34.7
Outdoor:	Heating	Cooling	Infiltration:		
Dry bulb (°F)	17	91	Method	Simplified	
Daily range (°F)	-	18 (M)	Construction quality	Average	
Wet bulb (°F)	-	74	Fireplaces	0	
Wind speed (mph)	15.0	7.5			

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								
12E-0sw: Frm wall, 1/2" gyp.bd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	s	64	0.068	19.0	3.60	230	1.32	84
Partitions								
12C-0sw: Frm wall, stucco ext, r-13 cav ins, 2"x4" wood frm, 16" o.c. stud		91	0.091	13.0	4.82	439	0	0
Windows (none)								
Doors (none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		70	0.026	38.0	1.38	96	1.35	95
Floors								
19A-19bscp: Part floor, carpet flr fnsh, r-19 ins, frm flr, 6" thkns		70	0.049	19.0	2.04	142	0.61	43



wrightsoft®
A M&E® / Berkshire Hathaway Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 23



Component Constructions

stair

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:	Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)	70	75
Elevation: 0 ft			Design TD (°F)	53	16
Latitude: 38°N			Relative humidity (%)	30	50
			Moisture difference (gr/lb)	22.3	34.7
Outdoor:	Heating	Cooling	Infiltration:		
Dry bulb (°F)	17	91	Method	Simplified	
Daily range (°F)	-	18 (M)	Construction quality	Average	
Wet bulb (°F)	-	74	Fireplaces	0	
Wind speed (mph)	15.0	7.5			

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								
12E-0sw: Frm wall, 1/2" gyp.bd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	18	0.068	19.0	3.60	66	1.32	24
Partitions								
12C-0sw: Frm wall, stucco ext, r-13 cav ins, 2"x4" wood frm, 16" o.c. stud		146	0.091	13.0	4.82	702	0	0
Windows (none)								
Doors (none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		112	0.026	38.0	1.38	154	1.35	151
Floors								
19A-19bscp: Part floor, carpet flr fnsh, r-19 ins, frm flr, 6" thkns		112	0.049	19.0	2.04	228	0.61	69



wrightsoft®
A M&M® / Beckwith Heating Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 24



Component Constructions

landing storage

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:			Indoor:		Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)		70	75
Elevation: 0 ft			Design TD (°F)		53	16
Latitude: 38°N			Relative humidity (%)		30	50
			Moisture difference (gr/lb)		22.3	34.7
Outdoor:	Heating	Cooling	Infiltration:			
Dry bulb (°F)	17	91	Method		Simplified	
Daily range (°F)	-	18 (M)	Construction quality		Average	
Wet bulb (°F)	-	74	Fireplaces		0	
Wind speed (mph)	15.0	7.5				

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 (none)								
Partitions 12C-0sw: Frm wall, stucco ext, r-13 cav ins, 2"x4" wood frm, 16" o.c. stud								
		36	0.091	13.0	4.82	176	0	0
Windows (none)								
Doors (none)								
Ceilings 16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh								
		28	0.026	38.0	1.38	39	1.35	38
Floors 19A-19bscp: Part floor, carpet flr fnsh, r-19 ins, frm flr, 6" thkns								
		28	0.049	19.0	2.04	57	0.61	17



Project Summary

Entire House

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Notes:

Design Information

Weather: Washington National AP, DC, US

Winter Design Conditions

Outside db	17 °F
Inside db	70 °F
Design TD	53 °F

Summer Design Conditions

Outside db	91 °F
Inside db	75 °F
Design TD	16 °F
Daily range	M
Relative humidity	50 %
Moisture difference	35 gr/lb

Heating Summary

Structure	31002 Btuh
Ducts	8586 Btuh
Central vent (0 cfm)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	39588 Btuh

Sensible Cooling Equipment Load Sizing

Structure	16830 Btuh
Ducts	8175 Btuh
Central vent (0 cfm)	0 Btuh
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.96
Equipment sensible load	24005 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	2569 Btuh
Ducts	1367 Btuh
Central vent (0 cfm)	0 Btuh
Equipment latent load	3936 Btuh

	Heating	Cooling
Area (ft ²)	2242	2242
Volume (ft ³)	21785	21785
Air changes/hour	0.32	0.16
Equiv. AVF (cfm)	116	58

Equipment Total Load (Sen+Lat)	27941 Btuh
Req. total capacity at 0.70 SHR	2.9 ton

Heating Equipment Summary

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

Cooling Equipment Summary

Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a
AHRI ref	n/a
Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0

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



wrightsoft®
A Wrightsoft® / Wrightsoft® Technology

Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 1



Project Summary

ah mini
DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Notes:

Design Information

Weather: Washington National AP, DC, US

Winter Design Conditions

Outside db	17 °F
Inside db	70 °F
Design TD	53 °F

Summer Design Conditions

Outside db	91 °F
Inside db	75 °F
Design TD	16 °F
Daily range	M
Relative humidity	50 %
Moisture difference	35 gr/lb

Heating Summary

Structure	6674 Btuh
Ducts	482 Btuh
Central vent (0 cfm) (none)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	7156 Btuh

Sensible Cooling Equipment Load Sizing

Structure	2750 Btuh
Ducts	475 Btuh
Central vent (0 cfm) (none)	0 Btuh
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.96
Equipment sensible load	3096 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	461 Btuh
Ducts	91 Btuh
Central vent (0 cfm) (none)	0 Btuh
Equipment latent load	552 Btuh

	Heating	Cooling
Area (ft ²)	442	442
Volume (ft ³)	3767	3767
Air changes/hour	0.62	0.31
Equiv. AVF (cfm)	39	20

Equipment Total Load (Sen+Lat)	3648 Btuh
Req. total capacity at 0.70 SHR	0.4 ton

Heating Equipment Summary

Make	
Trade	
Model	
AHRI ref	
Efficiency	80 AFUE
Heating input	0 Btuh
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	135 cfm
Air flow factor	0.019 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	

Cooling Equipment Summary

Make	
Trade	
Cond	
Coil	
AHRI ref	
Efficiency	0 SEER
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	135 cfm
Air flow factor	0.042 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0.85

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



wrightsoft®
A Microsoft / IntelliSense Technology

Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 2



Project Summary

AH1

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Notes:

Design Information

Weather: Washington National AP, DC, US

Winter Design Conditions

Outside db	17 °F
Inside db	70 °F
Design TD	53 °F

Summer Design Conditions

Outside db	91 °F
Inside db	75 °F
Design TD	16 °F
Daily range	M
Relative humidity	50 %
Moisture difference	35 gr/lb

Heating Summary

Structure	24327 Btuh
Ducts	8104 Btuh
Central vent (0 cfm) (none)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	32432 Btuh

Sensible Cooling Equipment Load Sizing

Structure	14080 Btuh
Ducts	7701 Btuh
Central vent (0 cfm) (none)	0 Btuh
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.96
Equipment sensible load	20909 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	2108 Btuh
Ducts	1276 Btuh
Central vent (0 cfm) (none)	0 Btuh
Equipment latent load	3384 Btuh

	Heating	Cooling
Area (ft ²)	1800	1800
Volume (ft ³)	18018	18018
Air changes/hour	0.26	0.13
Equiv. AVF (cfm)	77	39

Equipment Total Load (Sen+Lat)	24294 Btuh
Req. total capacity at 0.70 SHR	2.5 ton

Heating Equipment Summary

Make	Trane
Trade	TRANE
Model	4TWR5036N1
AHRI ref	209323532
Efficiency	7.5 HSPF2
Heating input	
Heating output	32400 Btuh @ 47°F
Temperature rise	26 °F
Actual air flow	1140 cfm
Air flow factor	0.035 cfm/Btuh
Static pressure	0.50 in H2O
Space thermostat	
Capacity balance point = 22 °F	
Backup:	
Input = 8 kW, Output = 25965 Btuh, 100 AFUE	

Cooling Equipment Summary

Make	Trane
Trade	TRANE
Cond	4TWR5036N1
Coil	TEM6A0C36H31
AHRI ref	209323532
Efficiency	11.7 EER2, 14.3 SEER2
Sensible cooling	23940 Btuh
Latent cooling	10260 Btuh
Total cooling	34200 Btuh
Actual air flow	1140 cfm
Air flow factor	0.052 cfm/Btuh
Static pressure	0.50 in H2O
Load sensible heat ratio	0.87

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



wrightsoft®
A Microsoft / IntelliSense Technology

Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 3



Project Summary

(Rest of House)
DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Notes:

Design Information

Weather: Washington National AP, DC, US

Winter Design Conditions

Outside db	17 °F
Inside db	70 °F
Design TD	53 °F

Summer Design Conditions

Outside db	91 °F
Inside db	75 °F
Design TD	16 °F
Daily range	M
Relative humidity	50 %
Moisture difference	35 gr/lb

Heating Summary

Structure	24327 Btuh
Ducts	8104 Btuh
Central vent (0 cfm)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	32432 Btuh

Sensible Cooling Equipment Load Sizing

Structure	14735 Btuh
Ducts	8059 Btuh
Central vent (0 cfm)	0 Btuh
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.96
Equipment sensible load	21883 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	2108 Btuh
Ducts	1276 Btuh
Central vent (0 cfm)	0 Btuh
Equipment latent load	3384 Btuh

	Heating	Cooling
Area (ft ²)	1800	1800
Volume (ft ³)	18018	18018
Air changes/hour	0.26	0.13
Equiv. AVF (cfm)	77	39

Equipment Total Load (Sen+Lat)	25267 Btuh
Req. total capacity at 0.70 SHR	2.6 ton

Heating Equipment Summary

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

Cooling Equipment Summary

Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a
AHRI ref	n/a
Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0

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



wrightsoft®
A Microsoft / IntelliSense Technology

Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 4



AED Assessment

Entire House

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

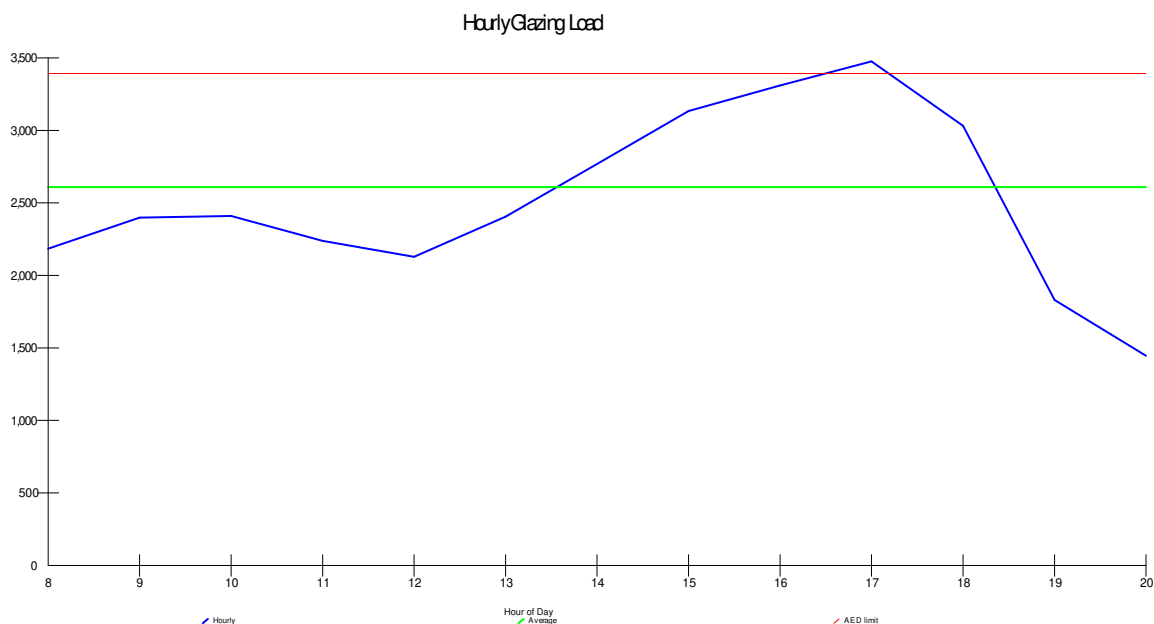
Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:		Indoor:		Heating	Cooling
Washington National AP, DC, US		Indoor temperature (°F)		70	75
Elevation: 0 ft		Design TD (°F)		53	16
Latitude: 38°N		Relative humidity (%)		30	50
Outdoor:		Heating	Cooling	Moisture difference (gr/lb)	
Dry bulb (°F)		17	91	22.3	34.7
Daily range (°F)		-	18 (M)		
Wet bulb (°F)		-	74		
Wind speed (mph)		15.0	7.5		
Infiltration:					

Test for Adequate Exposure Diversity



Maximum hourly glazing load exceeds average by 33.2%.

House does not have adequate exposure diversity (AED), based on AED limit of 30%.

AED excursion: 83 Btuh (PFG - 1.3*AFG)



AED Assessment

ah mini
DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

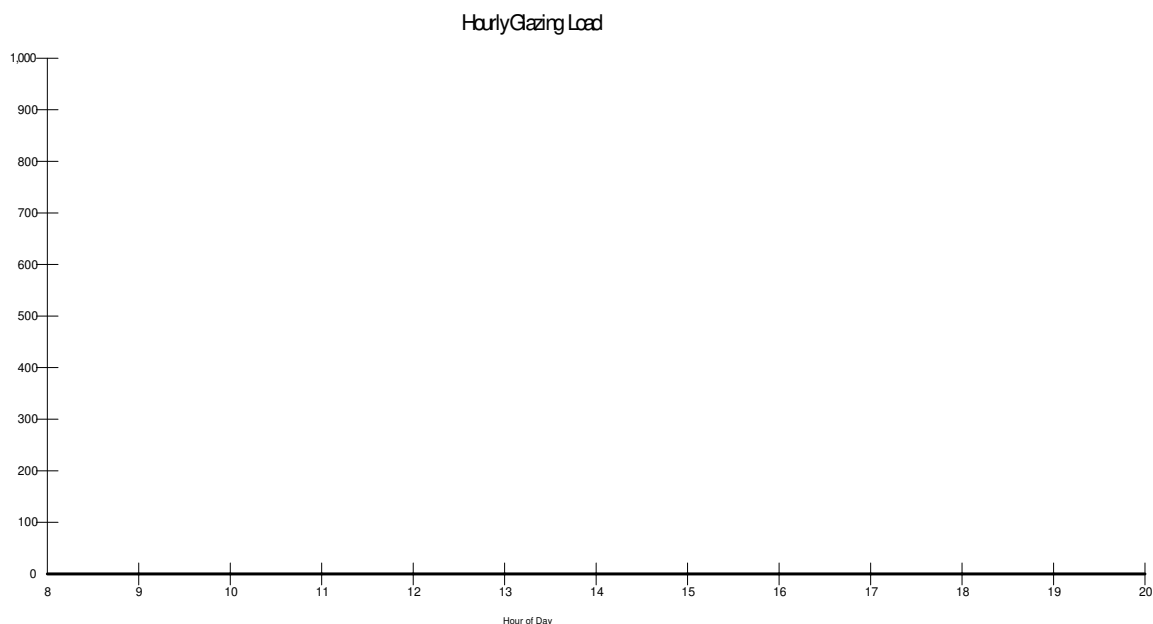
Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:		Indoor:		Heating	Cooling
Washington National AP, DC, US		Indoor temperature (°F)		70	75
Elevation: 0 ft		Design TD (°F)		53	16
Latitude: 38°N		Relative humidity (%)		30	50
Outdoor:	Heating	Cooling	Moisture difference (gr/lb)	22.3	34.7
Drybulb (°F)	17	91	Infiltration:		
Daily range (°F)	-	18 (M)			
Wet bulb (°F)	-	74			
Wind speed (mph)	15.0	7.5			

Test for Adequate Exposure Diversity



Maximum hourly glazing load exceeds average by 0.0%.

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

AED excursion: 0 Btuh



AED Assessment

AH1

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

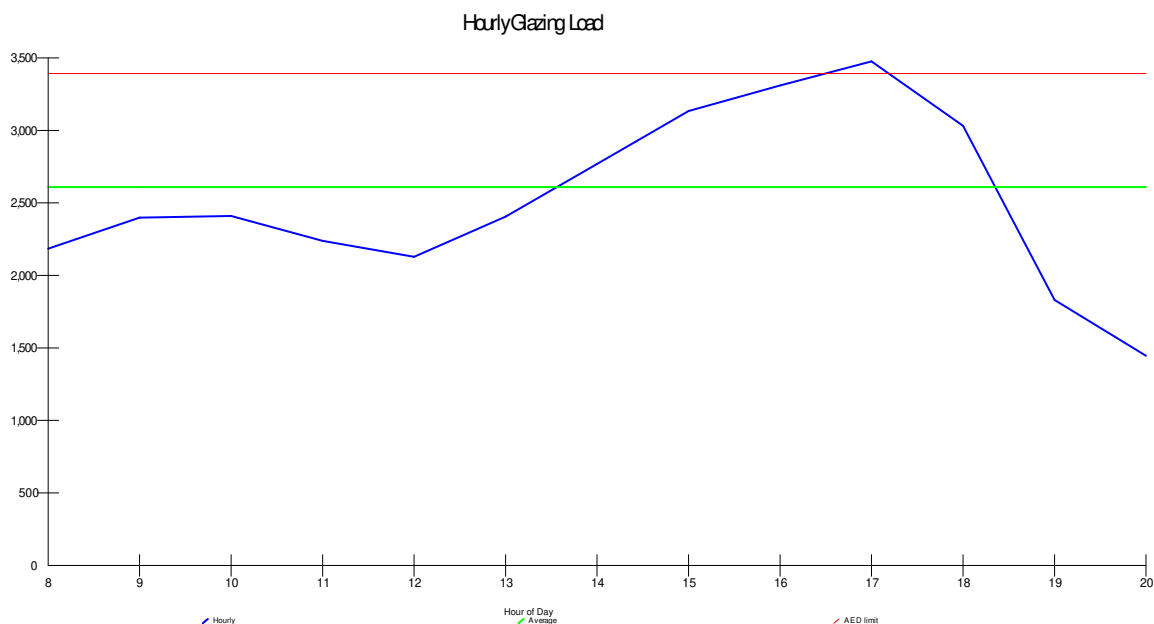
Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:		Indoor:		Heating	Cooling
Washington National AP, DC, US		Indoor temperature (°F)		70	75
Elevation: 0 ft		Design TD (°F)		53	16
Latitude: 38°N		Relative humidity (%)		30	50
Outdoor:		Heating	Cooling	Moisture difference (gr/lb)	
Dry bulb (°F)		17	91	22.3	34.7
Daily range (°F)		-	18 (M)		
Wet bulb (°F)		-	74		
Wind speed (mph)		15.0	7.5		
Infiltration:					

Test for Adequate Exposure Diversity



Maximum hourly glazing load exceeds average by 33.2%.

Zone does not have adequate exposure diversity (AED), based on AED limit of 30%.

AED excursion: 83 Btuh (PFG - 1.3*AFG)



AED Assessment (Rest of House) DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

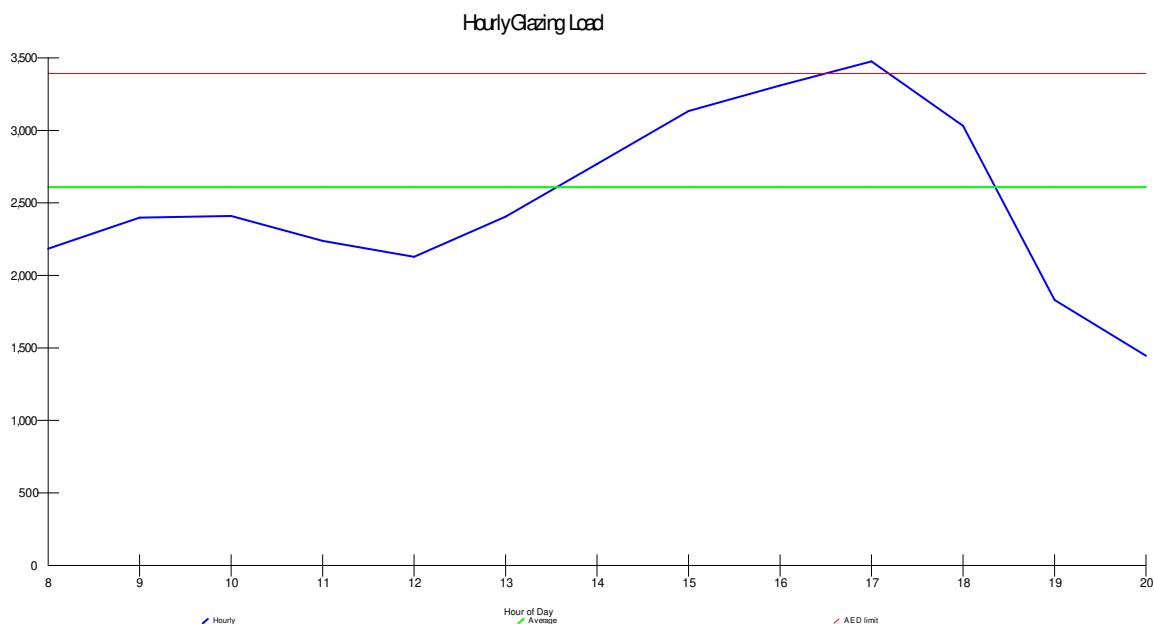
Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:		Indoor:		Heating	Cooling
Washington National AP, DC, US		Indoor temperature (°F)		70	75
Elevation: 0 ft		Design TD (°F)		53	16
Latitude: 38°N		Relative humidity (%)		30	50
Outdoor:		Infiltration:		22.3	34.7
				Moisture difference (gr/lb)	
		Heating	Cooling		
Dry bulb (°F)		17	91		
Daily range (°F)		-	18 (M)		
Wet bulb (°F)		-	74		
Wind speed (mph)		15.0	7.5		

Test for Adequate Exposure Diversity



Maximum hourly glazing load exceeds average by 33.2%.

Zone does not have adequate exposure diversity (AED), based on AED limit of 30%.

AED excursion: 738 Btuh (PFG - ALP)



wrightsoft®
A Mitek® / Berkshire Hathaway Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:18

Page 4



Right-J® Worksheet
Entire House
DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & Cooling LLC

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

1	Room name					Entire House					ah mini			
2	Exposed wall					239.0 ft					113.0 ft			
3	Room height					9.7 ft					8.5 ft			
4	Room dimensions													
5	Room area					2242.0 ft²					442.0 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	12E-0sw	0.068	n	3.60	1.32	437	417	1503	550	18	18	66	24
.	G	4A5-2ov	0.470	n	24.91	10.68	8	0	193	83	0	0	0	0
.	G	4B5-2fv	0.470	n	24.91	13.62	12	0	299	163	0	0	0	0
11	W	16B-19ad	0.049	n	2.60	2.55	232	232	603	591	232	232	603	591
	W	12E-0sw	0.068	e	3.60	1.32	455	390	1406	514	0	0	0	0
	G	4A5-2ov	0.470	e	24.91	25.77	6	2	149	155	0	0	0	0
	G	4A5-2ov	0.470	e	24.91	27.08	8	1	199	217	0	0	0	0
	G	4A5-2ov	0.470	e	24.91	27.34	30	4	747	820	0	0	0	0
	D	11J0	0.600	e	31.80	17.10	21	21	668	359	0	0	0	0
	W	16B-19ad	0.049	e	2.60	2.55	64	64	166	163	64	64	166	163
	W	12E-0sw	0.068	s	3.60	1.32	155	155	558	204	64	64	230	84
	W	16B-19ad	0.049	s	2.60	2.55	232	232	603	591	232	232	603	591
	W	12E-0sw	0.068	w	3.60	1.32	364	286	1032	378	0	0	0	0
	G	10D-v	0.470	w	24.91	21.48	41	4	1016	876	0	0	0	0
	G	4A5-2ov	0.470	w	24.91	26.64	8	2	193	206	0	0	0	0
	G	4A5-2ov	0.470	w	24.91	27.08	8	1	199	217	0	0	0	0
	D	11J0	0.600	w	31.80	17.10	21	21	668	359	0	0	0	0
	W	16B-19ad	0.049	w	2.60	2.55	64	64	166	163	64	64	166	163
	P	12C-0sw	0.091	-	4.82	0.00	273	273	1317	0	273	273	1317	0
	C	16B-38ad	0.026	-	1.38	1.35	1882	1882	2593	2544	442	442	609	598
	C	17B-6al	0.105	-	5.57	4.51	487	487	2709	2198	0	0	0	0
	F	19A-19bscp	0.049	-	2.04	0.61	210	210	427	129	210	210	427	129
	F	19C-19cscp	0.049	-	0.90	0.27	232	232	209	63	232	232	209	63
	F	22A-vpl	0.989	-	52.42	0.00	1800	126	6605	0	0	0	0	0
6	c) AED excursion									83				0
	Envelope loss/gain								24228	11628			4395	2406
12	a) Infiltration								6774	1022			2280	344
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @ 230	Appliances/other		6				1380	0			0
										2800				0
	Subtotal (lines 6 to 13)								31002	16830			6674	2750
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								31002	16830			6674	2750
15	Duct loads						28%	49%	8586	8175	7%	17%	482	475
	Total room load								39588	25006			7156	3225
	Air required (cfm)								1275	1328			135	135

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



Right-Suite® Universal 2023 23.0.03 RSU02245

2023-Nov-06 09:01:19

Page 1

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N



Right-J® Worksheet

Entire House

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & Cooling LLC

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

1	Room name					AH1								
2	Exposed wall					126.0 ft								
3	Room height					10.0 ft								
4	Room dimensions													
5	Room area					1800.0 ft²								
	Ty	Construction number	U-value (Bt uh/ft²·°F)	Or	HTM (Bt uh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area or perimeter		Load	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12E-0sw	0.068	n	3.60	1.32	419	399	1437	526				
.	G	4A5-2ov	0.470	n	24.91	10.68	8	0	193	83				
	G	4B5-2fv	0.470	n	24.91	13.62	12	0	299	163				
	W	16B-19ad	0.049	n	2.60	2.55	0	0	0	0				
11	W	12E-0sw	0.068	e	3.60	1.32	455	390	1406	514				
.	G	4A5-2ov	0.470	e	24.91	25.77	6	2	149	155				
	G	4A5-2ov	0.470	e	24.91	27.08	8	1	199	217				
	G	4A5-2ov	0.470	e	24.91	27.34	30	4	747	820				
.	D	11J0	0.600	e	31.80	17.10	21	21	668	359				
	W	16B-19ad	0.049	e	2.60	2.55	0	0	0	0				
	W	12E-0sw	0.068	s	3.60	1.32	91	91	328	120				
W	16B-19ad	0.049	s	2.60	2.55	0	0	0	0					
W	12E-0sw	0.068	w	3.60	1.32	364	286	1032	378					
.	G	10D-v	0.470	w	24.91	21.48	41	4	1016	876				
	G	4A5-2ov	0.470	w	24.91	26.64	8	2	193	206				
	G	4A5-2ov	0.470	w	24.91	27.08	8	1	199	217				
.	D	11J0	0.600	w	31.80	17.10	21	21	668	359				
	W	16B-19ad	0.049	w	2.60	2.55	0	0	0	0				
	P	12C-0sw	0.091	-	4.82	0.00	0	0	0	0				
C	16B-38ad	0.026	-	1.38	1.35	1440	1440	1984	1947					
C	17B-6al	0.105	-	5.57	4.51	487	487	2709	2198					
F	19A-19bscp	0.049	-	2.04	0.61	0	0	0	0					
F	19C-19cscp	0.049	-	0.90	0.27	0	0	0	0					
F	22A-vpl	0.989	-	52.42	0.00	1800	126	6605	0					

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



Right-Suite® Universal 2023 23.0.03 RSU02245

2023-Nov-06 09:01:19

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

Page 2



Right-J® Worksheet ah mini DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & Cooling LLC

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

1	Room name					ah mini				garage bonus				
2	Exposed wall					113.0 ft				74.0 ft				
3	Room height					8.5 ft				8.0 ft				
4	Room dimensions					442.0 ft²				29.0 x 8.0 ft				
5	Room area					442.0 ft²				232.0 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	12E-0sw	0.068	n	3.60	1.32	18	18	66	24	0	0	0	0
.	G	4A5-2ov	0.470	n	0.00	0.00	0	0	0	0	0	0	0	0
.	G	4B5-2fv	0.470	n	0.00	0.00	0	0	0	0	0	0	0	0
11	W	16B-19ad	0.049	n	2.60	2.55	232	232	603	591	232	232	603	591
	W	12E-0sw	0.068	e	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	0.00	0.00	0	0	0	0	0	0	0	0
	D	11J0	0.600	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	16B-19ad	0.049	e	2.60	2.55	64	64	166	163	64	64	166	163
	W	12E-0sw	0.068	s	3.60	1.32	64	64	230	84	0	0	0	0
	W	16B-19ad	0.049	s	2.60	2.55	232	232	603	591	232	232	603	591
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	10D-v	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0
	D	11J0	0.600	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	16B-19ad	0.049	w	2.60	2.55	64	64	166	163	64	64	166	163
	P	12C-0sw	0.091	-	4.82	0.00	273	273	1317	0	0	0	0	0
	C	16B-38ad	0.026	-	1.38	1.35	442	442	609	598	232	232	320	314
	C	17B-6al	0.105	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19A-19bscp	0.049	-	2.04	0.61	210	210	427	129	0	0	0	0
	F	19C-19cscp	0.049	-	0.90	0.27	232	232	209	63	232	232	209	63
	F	22A-vpl	0.989	-	0.00	0.00	0	0	0	0	0	0	0	0

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



Right-Suite® Universal 2023 23.0.03 RSU02245

2023-Nov-06 09:01:19

Page 3

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N



Right-J® Worksheet ah mini

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & Cooling LLC

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

1	Room name					storage 17.0 ft					stair 18.0 ft				
2	Exposed wall					9.1 ft 7.0 x 10.0 ft					9.1 ft 7.0 x 16.0 ft				
3	Room height					heat/cool					heat/cool				
4	Room dimensions					70.0 ft²					112.0 ft²				
5	Room area														
	Ty	Construction number	U-value (Bt uh/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	12E-0sw	0.068	n	3.60	1.32	0	0	0	0	18	18	66	24	
.	G	4A5-2ov	0.470	n	0.00	0.00	0	0	0	0	0	0	0	0	
.	G	4B5-2fv	0.470	n	0.00	0.00	0	0	0	0	0	0	0	0	
11	W	16B-19ad	0.049	n	2.60	2.55	0	0	0	0	0	0	0	0	
	W	12E-0sw	0.068	e	0.00	0.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	e	0.00	0.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	e	0.00	0.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	e	0.00	0.00	0	0	0	0	0	0	0	0	
	D	11J0	0.600	e	0.00	0.00	0	0	0	0	0	0	0	0	
	W	16B-19ad	0.049	e	2.60	2.55	0	0	0	0	0	0	0	0	
	W	12E-0sw	0.068	s	3.60	1.32	64	64	230	84	0	0	0	0	
	W	16B-19ad	0.049	s	2.60	2.55	0	0	0	0	0	0	0	0	
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0	
	G	10D-v	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	w	0.00	0.00	0	0	0	0	0	0	0	0	
	D	11J0	0.600	w	0.00	0.00	0	0	0	0	0	0	0	0	
	W	16B-19ad	0.049	w	2.60	2.55	0	0	0	0	0	0	0	0	
	P	12C-0sw	0.091	-	4.82	0.00	91	91	439	0	146	146	702	0	
	C	16B-38ad	0.026	-	1.38	1.35	70	70	96	95	112	112	154	151	
	C	17B-6al	0.105	-	0.00	0.00	0	0	0	0	0	0	0	0	
	F	19A-19bscp	0.049	-	2.04	0.61	70	70	142	43	112	112	228	69	
	F	19C-19cscp	0.049	-	0.90	0.27	0	0	0	0	0	0	0	0	
	F	22A-vpl	0.989	-	0.00	0.00	0	0	0	0	0	0	0	0	

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



Right-Suite® Universal 2023 23.0.03 RSU02245

2023-Nov-06 09:01:19

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

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

[illegible]

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



Right-J® Worksheet AH1

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & Cooling LLC

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

1	Room name					AH1 126.0 ft				(Rest of House) 126.0 ft				
2	Exposed wall					10.0 ft				10.0 ft				
3	Room height													
4	Room dimensions													
5	Room area					1800.0 ft²				1800.0 ft²				
	Ty	Construction number	U-value (Bt uh/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	12E-0sw	0.068	n	3.60	1.32	419	399	1437	526	419	399	1437	526
.	G	4A5-2ov	0.470	n	24.91	10.68	8	0	193	83	8	0	193	83
	G	4B5-2fv	0.470	n	24.91	13.62	12	0	299	163	12	0	299	163
11	W	16B-19ad	0.049	n	0.00	0.00	0	0	0	0	0	0	0	0
.	W	12E-0sw	0.068	e	3.60	1.32	455	390	1406	514	455	390	1406	514
	G	4A5-2ov	0.470	e	24.91	25.77	6	2	149	155	6	2	149	155
.	G	4A5-2ov	0.470	e	24.91	27.08	8	1	199	217	8	1	199	217
	G	4A5-2ov	0.470	e	24.91	27.34	30	4	747	820	30	4	747	820
.	D	11J0	0.600	e	31.80	17.10	21	21	668	359	21	21	668	359
	W	16B-19ad	0.049	e	0.00	0.00	0	0	0	0	0	0	0	0
W	12E-0sw	0.068	s	3.60	1.32	91	91	328	120	91	91	328	120	
W	16B-19ad	0.049	s	0.00	0.00	0	0	0	0	0	0	0	0	
W	12E-0sw	0.068	w	3.60	1.32	364	286	1032	378	364	286	1032	378	
.	G	10D-v	0.470	w	24.91	21.48	41	4	1016	876	41	4	1016	876
	G	4A5-2ov	0.470	w	24.91	26.64	8	2	193	206	8	2	193	206
.	G	4A5-2ov	0.470	w	24.91	27.08	8	1	199	217	8	1	199	217
	D	11J0	0.600	w	31.80	17.10	21	21	668	359	21	21	668	359
W	16B-19ad	0.049	w	0.00	0.00	0	0	0	0	0	0	0	0	
P	12C-0sw	0.091	-	0.00	0.00	0	0	0	0	0	0	0	0	
C	16B-38ad	0.026	-	1.38	1.35	1440	1440	1984	1947	1440	1440	1984	1947	
C	17B-6al	0.105	-	5.57	4.51	487	487	2709	2198	487	487	2709	2198	
F	19A-19bscp	0.049	-	0.00	0.00	0	0	0	0	0	0	0	0	
F	19C-19cscp	0.049	-	0.00	0.00	0	0	0	0	0	0	0	0	
F	22A-vpl	0.989	-	52.42	0.00	1800	126	6605	0	1800	126	6605	0	
									</					

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



Wrightsoft®
A Wrightsoft® / Trane® Heating & Cooling Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:19

Page 6



Right-J® Worksheet
(Rest of House)
DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & Cooling...

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

1	Room name					(Rest of House)				living				
2	Exposed wall					126.0 ft				10.0 ft				
3	Room height					10.0 ft				9.1 ft				
4	Room dimensions					1800.0 ft²				18.0 x 20.0 ft				
5	Room area					1800.0 ft²				360.0 ft²				
	Ty	Construction number	U-value (Bt uh/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	12E-0sw	0.068	n	3.60	1.32	419	399	1437	526	0	0	0	0
.	G	4A5-2ov	0.470	n	24.91	10.68	8	0	193	83	0	0	0	0
.	G	4B5-2fv	0.470	n	24.91	13.62	12	0	299	163	0	0	0	0
11	W	16B-19ad	0.049	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	3.60	1.32	455	390	1406	514	0	0	0	0
	G	4A5-2ov	0.470	e	24.91	25.77	6	2	149	155	0	0	0	0
	G	4A5-2ov	0.470	e	24.91	27.08	8	1	199	217	0	0	0	0
	G	4A5-2ov	0.470	e	24.91	27.34	30	4	747	820	0	0	0	0
	D	11J0	0.600	e	31.80	17.10	21	21	668	359	0	0	0	0
	W	16B-19ad	0.049	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	3.60	1.32	91	91	328	120	0	0	0	0
	W	16B-19ad	0.049	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	3.60	1.32	364	286	1032	378	91	50	181	66
	G	10D-v	0.470	w	24.91	21.48	41	4	1016	876	41	2	1016	876
	G	4A5-2ov	0.470	w	24.91	26.64	8	2	193	206	0	0	0	0
	G	4A5-2ov	0.470	w	24.91	27.08	8	1	199	217	0	0	0	0
	D	11J0	0.600	w	31.80	17.10	21	21	668	359	0	0	0	0
	W	16B-19ad	0.049	w	0.00	0.00	0	0	0	0	0	0	0	0
	P	12C-0sw	0.091	-	0.00	0.00	0	0	0	0	0	0	0	0
	C	16B-38ad	0.026	-	1.38	1.35	1440	1440	1984	1947	360	360	496	487
	C	17B-6al	0.105	-	5.57	4.51	487	487	2709	2198	0	0	0	0
	F	19A-19bscp	0.049	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscp	0.049	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	22A-vpl	0.989	-	52.42	0.00	1800	126	6605	0	360	10	524	0
6	c) AED excursion									738				503
	Envelope loss/gain								19833	9877			2217	1932
12	a) Infiltration								4494	678			308	46
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230			6			1380	3			690
			Appliances/other							2800				900
	Subtotal (lines 6 to 13)								24327	14735			2525	3569
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			210	108
14	Subtotal								24327	14735			2735	3676
15	Duct loads						33%	55%	8104	8059	33%	55%	911	2011
	Total room load								32432	22794			3646	5687
	Air required (cfm)								1140	1193			128	298

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



Right-Suite® Universal 2023 23.0.03 RSU02245

2023-Nov-06 09:01:19

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

Page 7



Right-J® Worksheet (Rest of House) DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & Cooling LLC

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

1	Room name					utility				bath				
2	Exposed wall					0 ft				0 ft				
3	Room height					9.1 ft				9.1 ft				
4	Room dimensions					8.0 x 6.0 ft				6.0 x 6.0 ft				
5	Room area					48.0 ft²				36.0 ft²				
	Ty	Construction number	U-value (Bt uh/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	12E-0sw	0.068	n	3.60	1.32	0	0	0	0	0	0	0	0
.	G	4A5-2ov	0.470	n	24.91	10.68	0	0	0	0	0	0	0	0
.	G	4B5-2fv	0.470	n	24.91	13.62	0	0	0	0	0	0	0	0
11	W	16B-19ad	0.049	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	3.60	1.32	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	24.91	25.77	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	24.91	27.08	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	24.91	27.34	0	0	0	0	0	0	0	0
	D	11J0	0.600	e	31.80	17.10	0	0	0	0	0	0	0	0
	W	16B-19ad	0.049	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	3.60	1.32	0	0	0	0	0	0	0	0
	W	16B-19ad	0.049	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	3.60	1.32	0	0	0	0	0	0	0	0
	G	10D-v	0.470	w	24.91	21.48	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	w	24.91	26.64	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	w	24.91	27.08	0	0	0	0	0	0	0	0
	D	11J0	0.600	w	31.80	17.10	0	0	0	0	0	0	0	0
	W	16B-19ad	0.049	w	0.00	0.00	0	0	0	0	0	0	0	0
	P	12C-0sw	0.091	-	0.00	0.00	0	0	0	0	0	0	0	0
	C	16B-38ad	0.026	-	1.38	1.35	48	48	66	65	36	36	50	49
	C	17B-6al	0.105	-	5.57	4.51	0	0	0	0	0	0	0	0
	F	19A-19bscp	0.049	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscp	0.049	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	22A-vpl	0.989	-	52.42	0.00	48	0	0	0	36	0	0	0
										</				

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



Right-Suite® Universal 2023 23.0.03 RSU02245

2023-Nov-06 09:01:19

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

Page 8



Right-J® Worksheet (Rest of House) DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & Cooling LLC

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

1	Room name					office					hall				
2	Exposed wall					10.0 ft					10.0 ft				
3	Room height					9.1 ft					9.1 ft				
4	Room dimensions					18.0 x 10.0 ft					1.0 x 96.0 ft				
5	Room area					180.0 ft²					96.0 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	12E-0sw	0.068	n	3.60	1.32	0	0	0	0	0	0	0	0	
.	G	4A5-2ov	0.470	n	24.91	10.68	0	0	0	0	0	0	0	0	
.	G	4B5-2fv	0.470	n	24.91	13.62	0	0	0	0	0	0	0	0	
11	W	16B-19ad	0.049	n	0.00	0.00	0	0	0	0	0	0	0	0	
	W	12E-0sw	0.068	e	3.60	1.32	91	76	274	100	91	55	198	73	
	G	4A5-2ov	0.470	e	24.91	25.77	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	e	24.91	27.08	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	e	24.91	27.34	15	1	374	410	15	1	374	410	
	D	11J0	0.600	e	31.80	17.10	0	0	0	0	21	21	668	359	
	W	16B-19ad	0.049	e	0.00	0.00	0	0	0	0	0	0	0	0	
	W	12E-0sw	0.068	s	3.60	1.32	0	0	0	0	0	0	0	0	
	W	16B-19ad	0.049	s	0.00	0.00	0	0	0	0	0	0	0	0	
	W	12E-0sw	0.068	w	3.60	1.32	0	0	0	0	0	0	0	0	
	G	10D-v	0.470	w	24.91	21.48	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	w	24.91	26.64	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	w	24.91	27.08	0	0	0	0	0	0	0	0	
	D	11J0	0.600	w	31.80	17.10	0	0	0	0	0	0	0	0	
	W	16B-19ad	0.049	w	0.00	0.00	0	0	0	0	0	0	0	0	
	P	12C-0sw	0.091	-	0.00	0.00	0	0	0	0	0	0	0	0	
	C	16B-38ad	0.026	-	1.38	1.35	180	180	248	243	96	96	132	130	
	C	17B-6al	0.105	-	5.57	4.51	0	0	0	0	0	0	0	0	
	F	19A-19bscp	0.049	-	0.00	0.00	0	0	0	0	0	0	0	0	
	F	19C-19cscp	0.049	-	0.00	0.00	0	0	0	0	0	0	0	0	
	F	22A-vpl	0.989	-	52.42	0.00	180	10	524	0	96	10	524	0	
6	c) AED excursion									56				113	
	Envelope loss/gain								1420	809			1896	1085	
12	a) Infiltration								308	46			308	46	
	b) Room ventilation								0	0			0	0	
13	Internal gains: Occupants @ 230						1			230	0			0	
	Appliances/other									900				0	
	Subtotal (lines 6 to 13)								1728	1986			2204	1131	
	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								945	485			-2204	-1131	
14	Subtotal								2672	2471			0	0	
15	Duct loads						33%	55%	890	1351	33%	55%	0	0	
	Total room load								3562	3822			0	0	
	Air required (cfm)								125	200			0	0	

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



Right-Suite® Universal 2023 23.0.03 RSU02245

2023-Nov-06 09:01:19

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

Page 9



Right-J® Worksheet
(Rest of House)
DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & Cooling LLC

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

1	Room name					hall2				wic1				
2	Exposed wall					4.0 ft				14.0 ft				
3	Room height					9.1 ft				9.1 ft				
4	Room dimensions					8.0 x 4.0 ft				8.0 x 14.0 ft				
5	Room area					32.0 ft²				112.0 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	12E-0sw	0.068	n	3.60	1.32	0	0	0	0	0	0	0	0
.	G	4A5-2ov	0.470	n	24.91	10.68	0	0	0	0	0	0	0	0
.	G	4B5-2fv	0.470	n	24.91	13.62	0	0	0	0	0	0	0	0
11	W	16B-19ad	0.049	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	3.60	1.32	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	24.91	25.77	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	24.91	27.08	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	24.91	27.34	0	0	0	0	0	0	0	0
	D	11J0	0.600	e	31.80	17.10	0	0	0	0	0	0	0	0
	W	16B-19ad	0.049	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	3.60	1.32	0	0	0	0	0	0	0	0
	W	16B-19ad	0.049	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	3.60	1.32	36	15	56	20	127	119	430	158
	G	10D-v	0.470	w	24.91	21.48	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	w	24.91	26.64	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	w	24.91	27.08	0	0	0	0	8	1	199	217
	D	11J0	0.600	w	31.80	17.10	21	21	668	359	0	0	0	0
	W	16B-19ad	0.049	w	0.00	0.00	0	0	0	0	0	0	0	0
	P	12C-0sw	0.091	-	0.00	0.00	0	0	0	0	0	0	0	0
	C	16B-38ad	0.026	-	1.38	1.35	32	32	44	43	112	112	154	151
	C	17B-6al	0.105	-	5.57	4.51	0	0	0	0	0	0	0	0
	F	19A-19bscp	0.049	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscp	0.049	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	22A-vpl	0.989	-	52.42	0.00	32	4	210	0	112	14	734	0
</														

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



Right-Suite® Universal 2023 23.0.03 RSU02245

2023-Nov-06 09:01:19

Page 10

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N



Right-J® Worksheet
(Rest of House)
DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & Cooling LLC

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

1	Room name					utility2				lav				
2	Exposed wall					17.0 ft				6.0 ft				
3	Room height					9.1 ft				9.1 ft				
4	Room dimensions					1.0 x 81.0 ft				6.0 x 5.0 ft				
5	Room area					81.0 ft²				30.0 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	12E-0sw	0.068	n	3.60	1.32	46	46	164	60	55	47	169	62
.	G	4A5-2ov	0.470	n	24.91	10.68	0	0	0	0	8	0	193	83
.	G	4B5-2fv	0.470	n	24.91	13.62	0	0	0	0	0	0	0	0
11	W	16B-19ad	0.049	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	3.60	1.32	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	24.91	25.77	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	24.91	27.08	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	24.91	27.34	0	0	0	0	0	0	0	0
	D	11J0	0.600	e	31.80	17.10	0	0	0	0	0	0	0	0
	W	16B-19ad	0.049	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	3.60	1.32	0	0	0	0	0	0	0	0
	W	16B-19ad	0.049	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	3.60	1.32	109	101	366	134	0	0	0	0
	G	10D-v	0.470	w	24.91	21.48	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	w	24.91	26.64	8	1	193	206	0	0	0	0
	G	4A5-2ov	0.470	w	24.91	27.08	0	0	0	0	0	0	0	0
	D	11J0	0.600	w	31.80	17.10	0	0	0	0	0	0	0	0
	W	16B-19ad	0.049	w	0.00	0.00	0	0	0	0	0	0	0	0
	P	12C-0sw	0.091	-	0.00	0.00	0	0	0	0	0	0	0	0
	C	16B-38ad	0.026	-	1.38	1.35	81	81	112	110	30	30	41	41
	C	17B-6al	0.105	-	5.57	4.51	0	0	0	0	0	0	0	0
	F	19A-19bscp	0.049	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscp	0.049	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	22A-vpl	0.989	-	52.42	0.00	81	17	891	0	30	6	315	0
6	c) AED excursion									108				19
	Envelope loss/gain								1725	618			718	204
12	a) Infiltration								523	79			185	28
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230			0			0	0			0
			Appliances/other							500				0
	Subtotal (lines 6 to 13)								2249	1197			902	232
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								2249	1197			902	232
15	Duct loads						33%	55%	749	655	33%	55%	301	127
	Total room load								2998	1852			1203	359
	Air required (cfm)								105	97			42	19

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



Wrightsoft®
A TRANE® / YORK® Heating and Cooling Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:19

Page 11



Right-J® Worksheet
(Rest of House)
DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & Cooling LLC

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

1	Room name					hvac					sink				
2	Exposed wall					6.0 ft					16.0 ft				
3	Room height					heat/cool					heat/cool				
4	Room dimensions					9.1 ft 8.0 x 6.0 ft					9.1 ft 6.0 x 10.0 ft				
5	Room area					48.0 ft²					60.0 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	12E-0sw	0.068	n	3.60	1.32	0	0	0	0	55	55	197	72	
.	G	4A5-2ov	0.470	n	24.91	10.68	0	0	0	0	0	0	0	0	
.	G	4B5-2fv	0.470	n	24.91	13.62	0	0	0	0	0	0	0	0	
.	W	16B-19ad	0.049	n	0.00	0.00	0	0	0	0	0	0	0	0	
11	W	12E-0sw	0.068	e	3.60	1.32	55	55	197	72	91	85	306	112	
	G	4A5-2ov	0.470	e	24.91	25.77	0	0	0	0	6	1	149	155	
	G	4A5-2ov	0.470	e	24.91	27.08	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	e	24.91	27.34	0	0	0	0	0	0	0	0	
	D	11J0	0.600	e	31.80	17.10	0	0	0	0	0	0	0	0	
	W	16B-19ad	0.049	e	0.00	0.00	0	0	0	0	0	0	0	0	
	W	12E-0sw	0.068	s	3.60	1.32	0	0	0	0	0	0	0	0	
	W	16B-19ad	0.049	s	0.00	0.00	0	0	0	0	0	0	0	0	
	W	12E-0sw	0.068	w	3.60	1.32	0	0	0	0	0	0	0	0	
	G	10D-v	0.470	w	24.91	21.48	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	w	24.91	26.64	0	0	0	0	0	0	0	0	
	G	4A5-2ov	0.470	w	24.91	27.08	0	0	0	0	0	0	0	0	
	D	11J0	0.600	w	31.80	17.10	0	0	0	0	0	0	0	0	
	W	16B-19ad	0.049	w	0.00	0.00	0	0	0	0	0	0	0	0	
	P	12C-0sw	0.091	-	0.00	0.00	0	0	0	0	0	0	0	0	
	C	16B-38ad	0.026	-	1.38	1.35	48	48	66	65	60	60	83	81	
	C	17B-6al	0.105	-	5.57	4.51	0	0	0	0	0	0	0	0	
	F	19A-19bscp	0.049	-	0.00	0.00	0	0	0	0	0	0	0	0	
	F	19C-19cscp	0.049	-	0.00	0.00	0	0	0	0	0	0	0	0	
	F	22A-vpl	0.989	-	52.42	0.00	48	6	315	0	60	16	839	0	
6	c) AED excursion									-10				14	
	Envelope loss/gain								577	126			1574	434	
12	a) Infiltration								185	28			493	74	
	b) Room ventilation								0	0			0	0	
13	Internal gains: Occupants @ 230 Appliances/other						0			0	0	0		0	0
	Subtotal (lines 6 to 13)								762	154			2066	508	
	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								0	0			0	0	
14	Subtotal								762	154			2066	508	
15	Duct loads						33%	55%	254	84	33%	55%	688	278	
	Total room load								1016	239			2755	786	
	Air required (cfm)								36	12			97	41	

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



Wrightsoft®
A BILLY® / International Technology Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:19

Page 13



Right-J® Worksheet
(Rest of House)
DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & Cooling LLC

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

1	Room name					mbath								
2	Exposed wall					19.0 ft								
3	Room height					9.1 ft					heat/cool			
4	Room dimensions					1.0 x 245.0 ft								
5	Room area					245.0 ft²								
	Ty	Construction number	U-value (Bt uh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area or perimeter		Load	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12E-0sw	0.068	n	3.60	1.32	173	161	580	212				
.	G	4A5-2ov	0.470	n	24.91	10.68	0	0	0	0				
.	G	4B5-2fv	0.470	n	24.91	13.62	12	0	299	163				
.	W	16B-19ad	0.049	n	0.00	0.00	0	0	0	0				
11	W	12E-0sw	0.068	e	3.60	1.32	0	0	0	0				
	G	4A5-2ov	0.470	e	24.91	25.77	0	0	0	0				
	G	4A5-2ov	0.470	e	24.91	27.08	0	0	0	0				
	G	4A5-2ov	0.470	e	24.91	27.34	0	0	0	0				
	D	11J0	0.600	e	31.80	17.10	0	0	0	0				
	W	16B-19ad	0.049	e	0.00	0.00	0	0	0	0				
	W	12E-0sw	0.068	s	3.60	1.32	0	0	0	0				
	W	16B-19ad	0.049	s	0.00	0.00	0	0	0	0				
	W	12E-0sw	0.068	w	3.60	1.32	0	0	0	0				
	G	10D-v	0.470	w	24.91	21.48	0	0	0	0				
	G	4A5-2ov	0.470	w	24.91	26.64	0	0	0	0				
	G	4A5-2ov	0.470	w	24.91	27.08	0	0	0	0				
	D	11J0	0.600	w	31.80	17.10	0	0	0	0				
	W	16B-19ad	0.049	w	0.00	0.00	0	0	0	0				
	P	12C-0sw	0.091	-	0.00	0.00	0	0	0	0				
	C	16B-38ad	0.026	-	1.38	1.35	245	245	338	331				
	C	17B-6al	0.105	-	5.57	4.51	0	0	0	0				
	F	19A-19bscp	0.049	-	0.00	0.00	0	0	0	0				
	F	19C-19cscp	0.049	-	0.00	0.00	0	0	0	0				
	F	22A-vpl	0.989	-	52.42	0.00	245	19	996	0				

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



Right-Suite® Universal 2023 23.0.03 RSU02245
...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:19
Page 14

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

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

[illegible]

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: Office@DLWilliamsHeatingandCooling.com

[illegible]

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



Loads for Multiple Orientations

Entire House

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

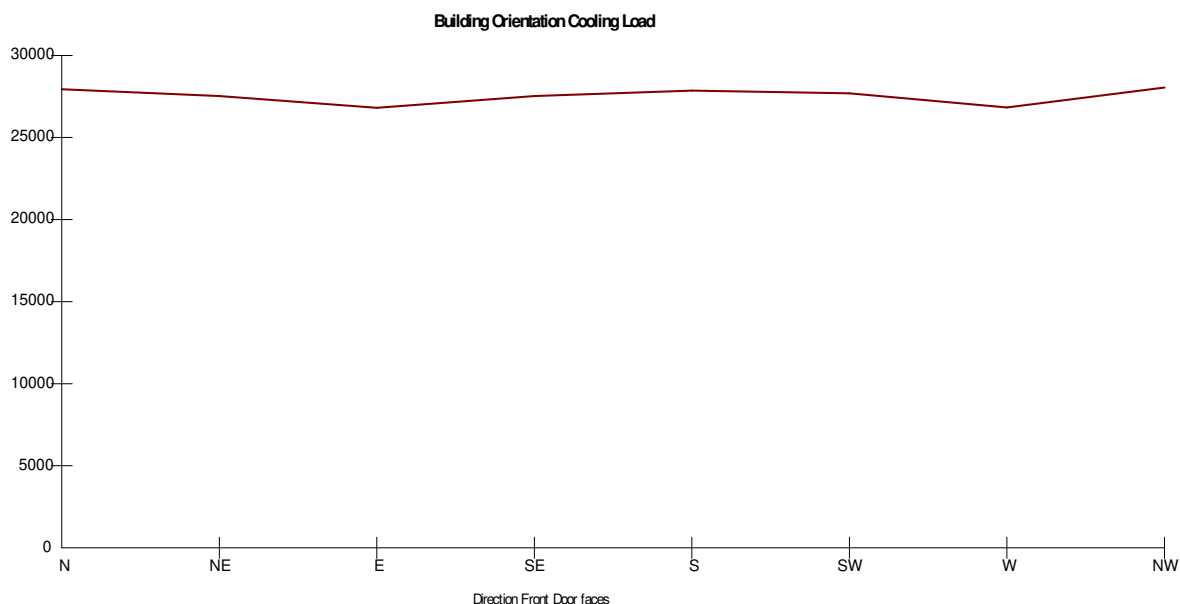
Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:		Indoor:		Heating	Cooling
Washington National AP, DC, US		Indoor temperature (°F)		70	75
Elevation: 0 ft		Design TD (°F)		53	16
Latitude: 38°N		Relative humidity (%)		30	50
Outdoor:		Infiltration:		22.3	34.7
		Heating	Cooling		
Dry bulb (°F)		17	91		
Daily range (°F)		-	18 (M)		
Wet bulb (°F)		-	74		
Wind speed (mph)		15.0	7.5		

Front Door	North	Northeast	East	Southeast	South	Southwest	West	Northwest
Sensible Load (Btuh)	24005	23593	22873	23590	23926	23755	22899	24112
Latent Load (Btuh)	3936	3936	3936	3936	3936	3936	3936	3936
Total Load (Btuh)	27941	27529	26809	27526	27862	27691	26835	28048
Heating AVF (cfm)	1275	1275	1275	1275	1275	1275	1275	1275
Cooling AVF (cfm)	1328	1290	1332	1319	1326	1327	1347	1309



Current Orientation: Front Door faces North
Highest Cooling Load: Front Door faces Northwest

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



Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:23

Page 1



Loads for Multiple Orientations

(Rest of House)

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:

Washington National AP, DC, US
Elevation: 0 ft
Latitude: 38°N

Indoor:

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

Heating

70
53
30
22.3

Cooling

75
16
50
34.7

Outdoor:

Dry bulb (°F) 17
Daily range (°F) -
Wet bulb (°F) -
Wind speed (mph) 15.0

Heating

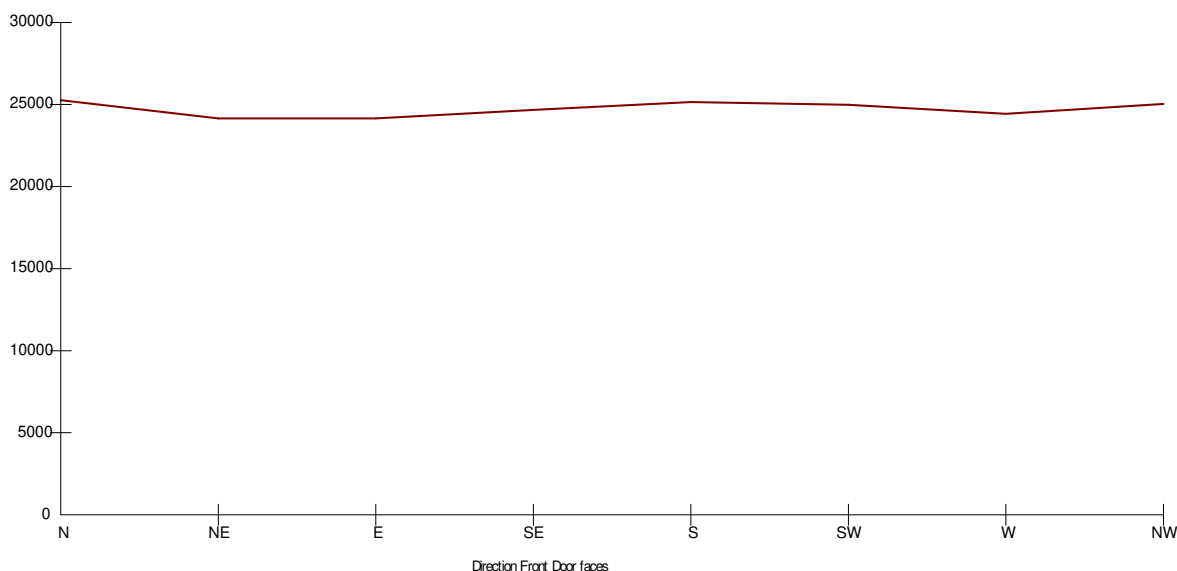
Cooling

91
18 (M)
74
7.5

Infiltration:

Front Door	North	Northeast	East	Southeast	South	Southwest	West	Northwest
Sensible Load (Btuh)	21883	20767	20766	21287	21759	21599	21044	21648
Latent Load (Btuh)	3384	3384	3384	3384	3384	3384	3384	3384
Total Load (Btuh)	25267	24152	24150	24671	25143	24983	24428	25032
Heating AVF (cfm)	1140	1140	1140	1140	1140	1140	1140	1140
Cooling AVF (cfm)	1193	1155	1197	1184	1191	1192	1211	1174

Building Orientation Cooling Load



Current Orientation: Front Door faces North
Highest Cooling Load: Front Door faces North

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



Right-Suite® Universal 2023 23.0.03 RSU02245

2023-Nov-06 09:01:23

Page 2

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N



Loads for Multiple Orientations

ah mini

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

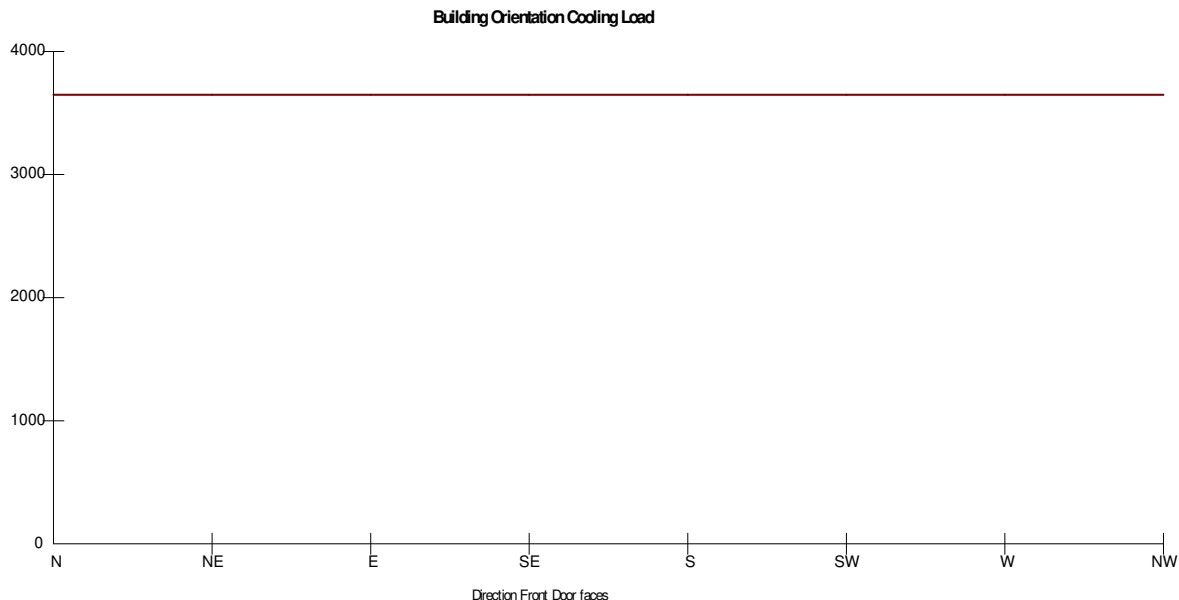
Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:		Indoor:		Heating	Cooling
Washington National AP, DC, US		Indoor temperature (°F)		70	75
Elevation: 0 ft		Design TD (°F)		53	16
Latitude: 38°N		Relative humidity (%)		30	50
Outdoor:		Heating	Cooling	Moisture difference (gr/lb)	
Dry bulb (°F)		17	91	22.3	
Daily range (°F)		-	18 (M)	34.7	
Wet bulb (°F)		-	74		
Wind speed (mph)		15.0	7.5		

Front Door	North	Northeast	East	Southeast	South	Southwest	West	Northwest
Sensible Load (Btuh)	3096	3096	3096	3096	3096	3096	3096	3096
Latent Load (Btuh)	552	552	552	552	552	552	552	552
Total Load (Btuh)	3648	3648	3648	3648	3648	3648	3648	3648
Heating AVF (cfm)	135	135	135	135	135	135	135	135
Cooling AVF (cfm)	135	135	135	135	135	135	135	135



Current Orientation: Front Door faces North
Highest Cooling Load: Front Door faces North

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



Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:23

Page 3



Loads for Multiple Orientations

AH1

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Design Conditions

Location:

Washington National AP, DC, US
Elevation: 0 ft
Latitude: 38°N

Indoor:

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

Heating

70
53
30
22.3

Cooling

75
16
50
34.7

Outdoor:

Dry bulb (°F) 17
Daily range (°F) -
Wet bulb (°F) -
Wind speed (mph) 15.0

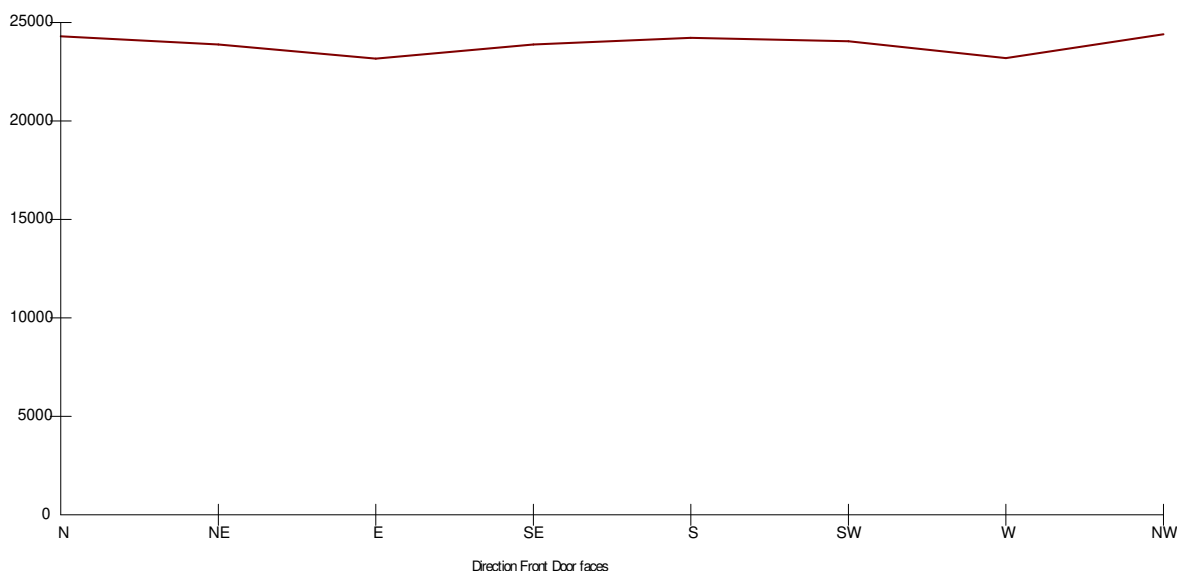
Heating

91
18 (M)
74
7.5

Infiltration:

Front Door	North	Northeast	East	Southeast	South	Southwest	West	Northwest
Sensible Load (Btuh)	20909	20497	19778	20494	20830	20660	19803	21017
Latent Load (Btuh)	3384	3384	3384	3384	3384	3384	3384	3384
Total Load (Btuh)	24294	23881	23162	23879	24214	24044	23187	24401
Heating AVF (cfm)	1140	1140	1140	1140	1140	1140	1140	1140
Cooling AVF (cfm)	1140	1140	1140	1140	1140	1140	1140	1140

Building Orientation Cooling Load



Current Orientation: Front Door faces North
Highest Cooling Load: Front Door faces Northwest

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



Right-Suite® Universal 2023 23.0.03 RSU02245
...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:23
Page 4



J1 Form - Worksheet A

Entire House

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Supporting Detail	
Project Name: Don Wallace Addition	Date: Nov 01, 2023
Address: Ft White, FL	
Phone:	Job ID: 1

Worksheet A	
Location and Design Conditions	
Weather Location: Washington National AP, DC, US	Elevation = 0 Latitude = 38
Indoor Conditions, Heating: DB = 70 °F RH = 30 %	Indoor Conditions, Cooling: DB = 75 °F RH = 50 %
Table 1 Conditions 99% DB = 17 °F 1% DB = 91 °F	Grains Difference = 35 gr/lb Daily Range = M
Design Temperature Differences	HTD = 53 °F CTD = 16 °F

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



Right-Suite® Universal 2023 23.0.03 RSU02245
...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:23
Page 1



J1 Form - Worksheet A

ah mini
DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Supporting Detail	
Project Name: Don Wallace Addition	Date: Nov 01, 2023
Address: Ft White, FL	
Phone:	Job ID: 1

Worksheet A Location and Design Conditions			
Weather Location: Washington National AP, DC, US	Elevation = 0	Latitude = 38	
Indoor Conditions, Heating: DB = 70 °F RH = 30 %	Indoor Conditions, Cooling: DB = 75 °F RH = 50 %		
Table 1 Conditions 99% DB = 17 °F 1% DB = 91 °F	Grains Difference = 35 gr/lb	Daily Range = M	
Design Temperature Differences	HTD = 53 °F	CTD = 16 °F	

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





J1 Form - Worksheet A

AH1

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Supporting Detail	
Project Name: Don Wallace Addition	Date: Nov 01, 2023
Address: Ft White, FL	
Phone:	Job ID: 1

Worksheet A	
Location and Design Conditions	
Weather Location: Washington National AP, DC, US	Elevation = 0 Latitude = 38
Indoor Conditions, Heating: DB = 70 °F RH = 30 %	Indoor Conditions, Cooling: DB = 75 °F RH = 50 %
Table 1 Conditions 99% DB = 17 °F 1% DB = 91 °F	Grains Difference = 35 gr/lb Daily Range = M
Design Temperature Differences	HTD = 53 °F CTD = 16 °F

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



Right-Suite® Universal 2023 23.0.03 RSU02245
...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:23
Page 3



J1 Form - Worksheet A

(Rest of House)

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Supporting Detail	
Project Name: Don Wallace Addition	Date: Nov 01, 2023
Address: Ft White, FL	
Phone:	Job ID: 1

Worksheet A Location and Design Conditions			
Weather Location: Washington National AP, DC, US	Elevation = 0	Latitude = 38	
Indoor Conditions, Heating: DB = 70 °F RH = 30 %	Indoor Conditions, Cooling: DB = 75 °F RH = 50 %		
Table 1 Conditions 99% DB = 17 °F 1% DB = 91 °F	Grains Difference = 35 gr/lb	Daily Range = M	
Design Temperature Differences	HTD = 53 °F	CTD = 16 °F	

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





Duct System Summary

ah mini

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

	Heating	Cooling
External static pressure	0 in H2O	0 in H2O
Pressure losses	0 in H2O	0 in H2O
Available static pressure	0 in H2O	0 in H2O
Supply / return available pressure	0.000 / 0.000 in H2O	0.000 / 0.000 in H2O
Lowest friction rate	0 in/100ft	0 in/100ft
Actual air flow	135 cfm	135 cfm
Total effective length (TEL)		0 ft

Supply Branch Detail Table

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
garage bonus	c 2565	82	107	0	0	0x0	VIFx	0	0	
landing storage	h 65	5	3	0	0	0x0	VIFx	0	0	
stair	h 297	25	12	0	0	0x0	VIFx	0	0	
storage	h 298	23	12	0	0	0x0	VIFx	0	0	

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb3	0x0	135	135	0	0	0	0	0x0		VIFx	



Right-Suite® Universal 2023 23.0.03 RSU02245

...\\Wrightsoft HVAC\\Trane\\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:23

Page 1



Duct System Summary

AH1

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

	Heating	Cooling
External static pressure	0.50 in H ₂ O	0.50 in H ₂ O
Pressure losses	0 in H ₂ O	0 in H ₂ O
Available static pressure	0.50 in H ₂ O	0.50 in H ₂ O
Supply / return available pressure	0.420 / 0.080 in H ₂ O	0.420 / 0.080 in H ₂ O
Lowest friction rate	0.104 in/100ft	0.104 in/100ft
Actual air flow	1140 cfm	1140 cfm
Total effective length (TEL)	480 ft	

Supply Branch Detail Table

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
bath	h 906	32	30	0.237	4.0	0x0	VIFx	22.0	155.0	st1
hall2	h 1467	52	33	0.147	5.0	0x0	VIFx	31.1	255.0	st4
hvac	h 1016	36	12	0.299	4.0	0x0	VIFx	5.4	135.0	st1
lav	h 1203	42	19	0.104	5.0	0x0	VIFx	48.2	355.0	st4B
living	c 2844	64	149	0.158	8.0	0x0	VIFx	31.0	235.0	st1
living-A	c 2844	64	149	0.163	8.0	0x0	VIFx	23.6	235.0	st1
mbath	h 3729	131	64	0.128	8.0	0x0	VIFx	34.0	295.0	st4
mbed	c 2167	93	113	0.152	7.0	0x0	VIFx	21.0	255.0	st4
mbed-A	c 2167	93	113	0.227	6.0	0x0	VIFx	10.0	175.0	st1
office	c 3822	125	200	0	0	0x0	VIFx	0	0	
sink	h 2755	97	41	0.112	7.0	0x0	VIFx	50.0	325.0	st4A
utility	c 1152	23	60	0.189	5.0	0x0	VIFx	27.1	195.0	st1
utility2	h 2998	105	97	0.123	7.0	0x0	VIFx	47.0	295.0	st4
wic1	h 2598	91	59	0.134	7.0	0x0	VIFx	38.0	275.0	st4
wic2	h 2598	91	52	0.345	6.0	0x0	VIFx	7.0	115.0	st1

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st1	Peak AVF	1015	993	0.104	727	16.0	0 x 0	VinIFlx	
st4B	Peak AVF	42	19	0.104	310	5.0	0 x 0	VinIFlx	st4A
st4A	Peak AVF	139	60	0.104	399	8.0	0 x 0	VinIFlx	st4
st4	Peak AVF	612	427	0.104	572	14.0	0 x 0	VinIFlx	st1

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb2	0x 0	1140	1193	76.4	0.104	675	18.0	0x 0		VIFx	



Duct system multi orientation report

ah mini

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Group 1: (N, NE, E, SE, S, SW, W, NW)

Duct Name	(N)			(NE)			(E)			(SE)		
	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size
Supply Branches												
garage bonus	107 c	12x12	0	107 c	12x12	0	107 c	12x12	0	107 c	12x12	0
landing storage	5 h	12x12	0	5 h	12x12	0	5 h	12x12	0	5 h	12x12	0
stair	25 h	12x12	0	25 h	12x12	0	25 h	12x12	0	25 h	12x12	0
storage	23 h	12x12	0	23 h	12x12	0	23 h	12x12	0	23 h	12x12	0
Return Branches												
rb3	135 c	12x12	0	135 c	12x12	0	135 c	12x12	0	135 c	12x12	0
Friction Rates												
Heating FR	0.000			0.000			0.000			0.000		
Cooling FR	0.000			0.000			0.000			0.000		

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Duct Name	(S)			(SW)			(W)			(NW)		
	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size
Supply Branches												
garage bonus	107 c	12x12	0	107 c	12x12	0	107 c	12x12	0	107 c	12x12	0
landing storage	5 h	12x12	0	5 h	12x12	0	5 h	12x12	0	5 h	12x12	0
stair	25 h	12x12	0	25 h	12x12	0	25 h	12x12	0	25 h	12x12	0
storage	23 h	12x12	0	23 h	12x12	0	23 h	12x12	0	23 h	12x12	0
Return Branches												
rb3	135 c	12x12	0	135 c	12x12	0	135 c	12x12	0	135 c	12x12	0
Friction Rates												
Heating FR	0.000			0.000			0.000			0.000		
Cooling FR	0.000			0.000			0.000			0.000		

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Duct Name	Largest			Smallest		
	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size
Supply Branches						
garage bonus	107 c	12x12	0	107 c	12x12	0
landing storage	5 h	12x12	0	5 h	12x12	0
stair	25 h	12x12	0	25 h	12x12	0
storage	23 h	12x12	0	23 h	12x12	0
Return Branches						
rb3	135 c	12x12	0	135 c	12x12	0
Friction Rates						
Heating FR	0.000			0.000		
Cooling FR	0.000			0.000		

Background Color Legend

Yellow background

Duct Size - duct size is smaller than the largest duct size in the row

Reg Size - register size is smaller than the largest register size in the row

Reg CFM - register design cfm is larger than 150 CFM

Friction Rate - friction rate is outside ACCA Manual-D recommended range (0.06 - 0.18)

Pink background column header

Largest cooling load orientation



A MAZDA® / Yorkshire Refrigeration Company

Right-Suite® Universal 2023 23.0.03 RSU02245

...\Wrightsoft HVAC\Trane\Don Wallace Addition.rup Calc = MJ8 Front Door faces: N

2023-Nov-06 09:01:23

Page 4



Duct system multi orientation report

AH1

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Group 1: (N) Group 2: (NE, E, SW) Group 3: (SE, S, NW) Group 4: (W)

Duct Name	(N)			(NE)			(E)			(SE)		
	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size
Supply Branches												
bath	32 h	12x12	4	32 h	12x12	4	32 h	12x12	4	32 h	12x12	4
hall2	52 h	12x12	5	52 h	12x12	5	52 h	12x12	5	52 h	12x12	5
hvac	36 h	12x12	4	36 h	12x12	4	36 h	12x12	4	36 h	12x12	4
lav	42 h	12x12	5	42 h	12x12	5	45 c	12x12	5	42 h	12x12	5
living	149 c	12x12	8	144 c	12x12	7	135 c	12x12	7	137 c	12x12	7
living-A	149 c	12x12	8	144 c	12x12	7	135 c	12x12	7	137 c	12x12	7
mbath	131 h	12x12	8	131 h	12x12	8	131 h	12x12	8	131 h	12x12	8
mbed	113 c	12x12	7	117 c	12x12	7	127 c	12x12	7	114 c	12x12	7
mbed-A	113 c	12x12	6	117 c	12x12	7	127 c	12x12	7	114 c	12x12	6
office	200 c	12x12	0	174 c	12x12	0	179 c	12x12	0	192 c	12x12	0
sink	97 h	12x12	7	97 h	12x12	7	97 h	12x12	7	97 h	12x12	7
utility	60 c	12x12	5	58 c	12x12	5	62 c	12x12	5	59 c	12x12	5
utility2	105 h	12x12	7	105 h	12x12	7	105 h	12x12	7	105 h	12x12	7
wic1	91 h	12x12	7	91 h	12x12	7	91 h	12x12	7	91 h	12x12	7
wic2	91 h	12x12	6	91 h	12x12	6	91 h	12x12	6	91 h	12x12	6
Supply Trunks												
st1	1015 h		16	1015 h		16	1032 c		16	1015 h		16
st4B	42 h		5	42 h		5	45 c		5	42 h		5
st4A	139 h		8	139 h		8	139 h		8	139 h		8
st4	612 h		14	612 h		14	612 h		14	612 h		14
Return Branches												
rb2	1193 c	12x12	18	1174 c	12x12	18	1211 c	12x12	18	1192 c	12x12	18
Friction Rates												
Heating FR	0.104			0.104			0.104			0.104		
Cooling FR	0.104			0.104			0.104			0.104		

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Duct Name	(S)			(SW)			(W)			(NW)		
	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size
Supply Branches												
bath	33 c	12x12	4	32 c	12x12	4	32 h	12x12	4	32 h	12x12	4
hall2	52 h	12x12	5	52 h	12x12	5	52 h	12x12	5	52 h	12x12	5
hvac	36 h	12x12	4	36 h	12x12	4	36 h	12x12	4	36 h	12x12	4
lav	42 h	12x12	5	42 h	12x12	5	42 h	12x12	5	42 h	12x12	5
living	137 c	12x12	7	118 c	12x12	7	120 c	12x12	7	130 c	12x12	7
living-A	137 c	12x12	7	118 c	12x12	7	120 c	12x12	7	130 c	12x12	7
mbath	131 h	12x12	8	131 h	12x12	8	131 h	12x12	8	131 h	12x12	8
mbed	113 c	12x12	7	119 c	12x12	7	130 c	12x12	7	115 c	12x12	7
mbed-A	113 c	12x12	6	119 c	12x12	7	130 c	12x12	7	115 c	12x12	6
office	217 c	12x12	0	215 c	12x12	0	202 c	12x12	0	201 c	12x12	0
sink	97 h	12x12	7	97 h	12x12	7	97 h	12x12	7	97 h	12x12	7
utility	62 c	12x12	5	64 c	12x12	5	66 c	12x12	6	61 c	12x12	5
utility2	105 h	12x12	7	105 h	12x12	7	105 h	12x12	7	105 h	12x12	7
wic1	91 h	12x12	7	91 h	12x12	7	91 h	12x12	7	91 h	12x12	7
wic2	91 h	12x12	6	91 h	12x12	6	91 h	12x12	6	91 h	12x12	6
Supply Trunks												
st1	1015 h		16	1015 h		16	1015 h		16	1015 h		16
st4B	42 h		5	42 h		5	42 h		5	42 h		5
st4A	139 h		8	139 h		8	139 h		8	139 h		8
st4	612 h		14	612 h		14	612 h		14	612 h		14
Return Branches												
rb2	1191 c	12x12	18	1184 c	12x12	18	1197 c	12x12	18	1155 c	12x12	18
Friction Rates												
Heating FR	0.104			0.104			0.104			0.104		
Cooling FR	0.104			0.104			0.104			0.104		

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Duct Name	Largest			Smallest		
	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size
Supply Branches						
bath	33 c	12x12	4	32 h	12x12	4
hall2	52 h	12x12	5	52 h	12x12	5
hvac	36 h	12x12	4	36 h	12x12	4
lav	45 c	12x12	5	42 h	12x12	5
living	149 c	12x12	8	118 c	12x12	7
living-A	149 c	12x12	8	118 c	12x12	7
mbath	131 h	12x12	8	131 h	12x12	8
mbed	130 c	12x12	7	113 c	12x12	7
mbed-A	130 c	12x12	7	113 c	12x12	6
office	217 c	12x12	0	174 c	12x12	0
sink	97 h	12x12	7	97 h	12x12	7
utility	66 c	12x12	6	58 c	12x12	5
utility2	105 h	12x12	7	105 h	12x12	7
wic1	91 h	12x12	7	91 h	12x12	7
wic2	91 h	12x12	6	91 h	12x12	6
Supply Trunks						
st1	1032 c		16	1015 h		16
st4B	45 c		5	42 h		5
st4A	139 h		8	139 h		8
st4	612 h		14	612 h		14
Return Branches						
rb2	1211 c	12x12	18	1155 c	12x12	18
Friction Rates						
Heating FR	0.104			0.104		
Cooling FR	0.104			0.104		

Background Color Legend

Yellow background

Duct Size - duct size is smaller than the largest duct size in the row

Reg Size - register size is smaller than the largest register size in the row

Reg CFM - register design cfm is larger than 150 CFM

Friction Rate - friction rate is outside ACCA Manual-D recommended range (0.06 - 0.18)

Pink background column header

Largest cooling load orientation





Static Pressure and Friction Rate

ah mini

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Available Static Pressure

	Heating (in H2O)	Cooling (in H2O)
External static pressure	0	0
Pressure losses		
Coil	0	0
Heat exchanger	0	0
Supply diffusers	0	0
Return grilles	0	0
Filter	0	0
Humidifier	0	0
Balancing damper	0	0
Other device	0	0
Available static pressure	0	0

Total Effective Length

	Supply (ft)	Return (ft)
Measured length of run-out	0	0
Measured length of trunk	0	0
Equivalent length of fittings	0	0
Total length	0	0
Total effective length	0	0

Friction Rate

	Heating (in/100ft)	Cooling (in/100ft)
Supply Ducts	0 < 0.06	0 < 0.06
Return Ducts	0 < 0.06	0 < 0.06

Fitting Equivalent Length Details

Supply	TotalEL=0
Return	TotalEL=0

Static Pressure and Friction Rate

AH1

DL Williams Heating & Cooling LLC

Job: 1
Date: Nov 01, 2023
By: DL Williams Heating & C...

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

Project Information

For: Don Wallace Residence Addition
Ft White, FL

Available Static Pressure

	Heating (in H ₂ O)	Cooling (in H ₂ O)
External static pressure	0.50	0.50
Pressure losses		
Coil	0	0
Heat exchanger	0	0
Supply diffusers	0	0
Return grilles	0	0
Filter	0	0
Humidifier	0	0
Balancing damper	0	0
Other device	0	0
Available static pressure	0.50	0.50

Total Effective Length

	Supply (ft)	Return (ft)
Measured length of run-out	10	16
Measured length of trunk	38	0
Equivalent length of fittings	355	60
Total length	403	76
Total effective length		480

Friction Rate

	Heating (in/100ft)		Cooling (in/100ft)	
Supply Ducts	0.104	OK	0.104	OK
Return Ducts	0.104	OK	0.104	OK

Fitting Equivalent Length Details

Supply	4AD=60, 11M=20, 11M=20, 12J1=10, 11A=20, 12J1=10, 11M=20, 11A=20, 11M=20, 11M=20, 11M=20, 11M=20, 11M=20,
Return	USR1=95: TotalEL=355 6M=20. 5D=40: TotalEL=60