FORM R405-2020

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	Rodney Wade- Wright 2022	Builder Name:	Spann's Heating and Air INC.
Street:	Rodney Wade- Wright	Permit Office:	
City, State, Zip:	Ft. White, FL,	Permit Number:	
Owner:	Rodney Wade- Wright	Jurisdiction:	
Design Location:	FL, Gainesville	County:	Columbia(Florida Climate Zone 2)

1. New construction or existing			New (From Plans)
2. Single family or multiple family			Detached
3. Number of units, if multiple family			1
4. Number of Bedrooms			3
5. Is this a worst case?			No
6. Conditioned floor area above grade (ft²)			1794
Conditioned floor area below grade (ft²)			0
7. Windows(150.0 sqft.)	Description		Area
a. U-Factor:	Dbl, U=0.40		150.00 ft²
SHGC:	SHGC=0.20		
b. U-Factor:	N/A		ft²
SHGC:			
c. U-Factor:	N/A		ft²
SHGC:			
Area Weighted Average Overhang Depth:			1.000 ft
Area Weighted Average SHGC:			0.200
8. Skylights	Description		Area
U-Factor:(AVG)	N/A		N/A ft²
SHGC(AVG):	N/A		
9. Floor Types		Insulation	Area
a. Slab-On-Grade Edge Insulation		R= 0.0	1793.20 ft²
b. N/A		R=	ft²
c. N/A		R=	ft²

10. Wall Types(1710.0 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	1710.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
d. N/A	R=	ft²
11. Ceiling Types(1794.0 sqft.)	Insulation	Area
a. Flat ceiling under att (Vented)	R=38.0	1794.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
12. Ducts, location & insulation level	R	ft²
a. Sup: Attic, Ret: Attic, AH: Great Roo	6	102
b.		
c.		
13. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	48.0	SEER:14.00
14. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	48.0	HSPF:8.20
15. Hot Water Systems		
a. ElectricTankless		Cap: 1 gallons
		EF: 0.960
b. Conservation features		None
16. Credits		None

Glass/Floor Area: 0.084

Total Proposed Modified Loads: 48.96

Total Baseline Loads: 48.87

PASS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: _____

DATE: 5-26-2022

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: _____

DATE: 5-26-22

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.

BUILDING OFFICIAL: _____

DATE: _____

- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.

- Default duct leakage does not require a Duct Leakage Test Report.

- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires a PERFORMANCE envelope leakage test report with envelope leakage no greater than 7.00 ACH50 (R402.4.1.2).

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ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 100

The lower the EnergyPerformance Index, the more efficient the home.

Rodney Wade- Wright,Ft. White,FL,

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4. Number of Bedrooms		3
5. Is this a worst case?		No
6. Conditioned floor area above grade (ft²)		1794
Conditioned floor area below grade (ft²)		0

7. Windows**	Description	Area
a. U-Factor:	Dbl, U=0.40	150.00 ft²
SHGC:	SHGC=0.20	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		1.000 ft
Area Weighted Average SHGC:		0.200

8. Skylights	Description	Area
U-Factor:(AVG)	N/A	N/A ft²
SHGC(AVG):	N/A	

9. Floor Types	Insulation	Area
a. Slab-On-Grade Edge Insulation	R= 0.0	1793.20 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

10. Wall Types(1710.0 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	1710.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

11. Ceiling Types(1794.0 sqft.)	Insulation	Area
a. Flat ceiling under att (Vented)	R=38.0	1794.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

12. Ducts, location & insulation level	R	ft²
a. Sup: Attic, Ret: Attic, AH: Great Roo	6	102
b.		
c.		

13. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	48.0	SEER:14.00

14. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	48.0	HSPF:8.20

15. Hot Water Systems	
a. ElectricTankless	Cap: 1 gallons
	EF: 0.960
b. Conservation features	None
16. Credits	None

I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: _____ Date: 05-26-22

Address of New Home: Rodney Wade- Wright City/FL Zip: Ft. White,FL,

*Note: This is not a Building Energy Rating. If your Index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida Energy Rating. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

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INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Rodney Wade- Wright 2022			Address type:	Street Address
Building Type:	User	Bedrooms:	3	Lot #:	---
Owner:	Rodney Wade- Wright	Conditioned Area:	1794	Block/SubDivision:	---
		Total Stories:	1	PlatBook:	---
Builder Name:	Spann's Heating and Air INC.	Worst Case:	No	Street:	Rodney Wade- Wright
Permit Office:		Rotate Angle:	0	County:	Columbia
Jurisdiction:		Cross Ventilation:	No	City, State, Zip:	Ft. White,
Family Type:	Detached	Whole House Fan:	No		FL,
New/Existing:	New (From Plans)	Terrain:	Suburban		
Year Construct:		Shielding:	Suburban		
Comment:					

CLIMATE

√	Design Location	Tmy Site	Design Temp 97.5%	Design Temp 2.5%	Int Design Temp Winter	Int Design Temp Summer	Heating Degree Days	Design Moisture	Daily temp Range
___	FL, Gainesville	FL_GAINESVILLE_REGIONA	32	92	70	75	1305.5	51	Medium

BLOCKS

√	Number	Name	Area	Volume
___	1	Entire House	1794	18357 cu ft

SPACES

√	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated
___	1	Flex Space	132	1188	No	0		No	Yes	Yes
___	2	Closet	66	594	No	0		No	Yes	Yes
___	3	Toilet	15	135	No	0		No	Yes	Yes
___	4	Master Bath	132	1188	No	0		No	Yes	Yes
___	5	Laundry	115	1035	No	0		No	Yes	Yes
___	6	Pantry	42	378	No	0		No	Yes	Yes
___	7	Master Bedroom	186	1674	No	2	1	No	Yes	Yes
___	8	Great Room	437	5244	No	0		No	Yes	Yes
___	9	Kitchen	300	3600	No	0		No	Yes	Yes
___	10	Bedroom 2	157	1413	No	2	1	No	Yes	Yes
___	11	Bath 2	47	423	No	0		No	Yes	Yes
___	12	Bedroom 3	165	1485	No	2	1	No	Yes	Yes

FLOORS (Total Exposed Area = 1793 sq.ft.)

√	#	Floor Type	Space	Exposed Perim	Perimeter R-Value	Area	U-Factor	Joist R-Value	Tile	Wood	Carpet
___	1	Slab-On-Grade Edge Ins	Flex Space	23		132 ft	0.473	---	0.00	1.00	0.00
___	2	Slab-On-Grade Edge Ins	Closet	5.5		66 ft	0.473	---	0.00	1.00	0.00
___	3	Slab-On-Grade Edge Ins	Toilet	5		15 ft	0.473	---	0.00	1.00	0.00
___	4	Slab-On-Grade Edge Ins	Master Bath	20		132.3 ft	0.473	---	0.00	1.00	0.00
___	5	Slab-On-Grade Edge Ins	Laundry	9.5		114.5 ft	0.473	---	0.00	1.00	0.00
___	6	Slab-On-Grade Edge Ins	Pantry	1		42.3 ft	0.473	---	0.00	1.00	0.00
___	7	Slab-On-Grade Edge Ins	Master Bedroom	12		186 ft	0.473	---	0.00	1.00	0.00
___	8	Slab-On-Grade Edge Ins	Great Room	20		436.5 ft	0.473	---	0.00	1.00	0.00
___	9	Slab-On-Grade Edge Ins	Kitchen	22		300 ft	0.473	---	0.00	1.00	0.00
___	10	Slab-On-Grade Edge Ins	Bedroom 2	27		156.8 ft	0.473	---	0.00	1.00	0.00
___	11	Slab-On-Grade Edge Ins	Bath 2	5.5		46.8 ft	0.473	---	0.00	1.00	0.00
___	12	Slab-On-Grade Edge Ins	Bedroom 3	26.5		165 ft	0.473	---	0.00	1.00	0.00

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INPUT SUMMARY CHECKLIST REPORT

ROOF

√ #	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
___ 1	Gable or Shed	Metal	1890 ft²	298 ft²	Unfinished, Galvalum	N	0.35	No	0.6	No	0	18.43

ATTIC

√ #	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
___ 1	Full attic	Vented	300	1793 ft²	N	N

CEILING (Total Exposed Area = 1794 sq.ft.)

√ #	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.	Truss Type
___ 1	Flat ceiling under attic(Vented)	Flex Space	38.0	Blown	132.0ft²	0.049	0.10	Wood
___ 2	Flat ceiling under attic(Vented)	Closet	38.0	Blown	66.0ft²	0.049	0.10	Wood
___ 3	Flat ceiling under attic(Vented)	Toilet	38.0	Blown	15.0ft²	0.049	0.10	Wood
___ 4	Flat ceiling under attic(Vented)	Master Bath	38.0	Blown	132.0ft²	0.049	0.10	Wood
___ 5	Flat ceiling under attic(Vented)	Laundry	38.0	Blown	115.0ft²	0.049	0.10	Wood
___ 6	Flat ceiling under attic(Vented)	Pantry	38.0	Blown	42.0ft²	0.049	0.10	Wood
___ 7	Flat ceiling under attic(Vented)	Master Bedroom	38.0	Blown	186.0ft²	0.049	0.10	Wood
___ 8	Flat ceiling under attic(Vented)	Great Room	38.0	Blown	437.0ft²	0.049	0.10	Wood
___ 9	Flat ceiling under attic(Vented)	Kitchen	38.0	Blown	300.0ft²	0.049	0.10	Wood
___ 10	Flat ceiling under attic(Vented)	Bedroom 2	38.0	Blown	157.0ft²	0.049	0.10	Wood
___ 11	Flat ceiling under attic(Vented)	Bath 2	38.0	Blown	47.0ft²	0.049	0.10	Wood
___ 12	Flat ceiling under attic(Vented)	Bedroom 3	38.0	Blown	165.0ft²	0.049	0.10	Wood

WALLS (Total Exposed Area = 1710 sq.ft.)

√ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area sq.ft.	U-Factor	Sheath R-Value	Frm. Frac.	Solar Absor.	Below Grade
___ 1	N	Exterior	Frame - Wood	Flex Space	13.0	12.0	0	9.0	0	108.0	0.095	0	0.25	0.80	0 %
___ 2	W	Exterior	Frame - Wood	Flex Space	13.0	11.0	0	9.0	0	99.0	0.095	0	0.25	0.80	0 %
___ 3	W	Exterior	Frame - Wood	Closet	13.0	5.0	6	9.0	0	49.5	0.095	0	0.25	0.80	0 %
___ 4	W	Exterior	Frame - Wood	Toilet	13.0	5.0	0	9.0	0	45.0	0.095	0	0.25	0.80	0 %
___ 5	S	Exterior	Frame - Wood	Master Bath	13.0	9.0	6	9.0	0	85.5	0.095	0	0.25	0.80	0 %
___ 6	W	Exterior	Frame - Wood	Master Bath	13.0	10.0	6	9.0	0	94.5	0.095	0	0.25	0.80	0 %
___ 7	N	Exterior	Frame - Wood	Laundry	13.0	9.0	6	9.0	0	85.5	0.095	0	0.25	0.80	0 %
___ 8	S	Exterior	Frame - Wood	Master Bedroom	13.0	12.0	0	9.0	0	108.0	0.095	0	0.25	0.80	0 %
___ 9	S	Exterior	Frame - Wood	Great Room	13.0	20.0	0	12.0	0	240.0	0.095	0	0.25	0.80	0 %
___ 10	N	Exterior	Frame - Wood	Kitchen	13.0	20.0	0	12.0	0	240.0	0.095	0	0.25	0.80	0 %
___ 11	W	Exterior	Frame - Wood	Kitchen	13.0	2.0	0	12.0	0	24.0	0.095	0	0.25	0.80	0 %
___ 12	N	Exterior	Frame - Wood	Bedroom 2	13.0	12.0	6	9.0	0	112.5	0.095	0	0.25	0.80	0 %
___ 13	E	Exterior	Frame - Wood	Bedroom 2	13.0	14.0	6	9.0	0	130.5	0.095	0	0.25	0.80	0 %
___ 14	E	Exterior	Frame - Wood	Bath 2	13.0	5.0	6	9.0	0	49.5	0.095	0	0.25	0.80	0 %
___ 15	E	Exterior	Frame - Wood	Bedroom 3	13.0	14.0	0	9.0	0	126.0	0.095	0	0.25	0.80	0 %
___ 16	S	Exterior	Frame - Wood	Bedroom 3	13.0	12.0	6	9.0	0	112.5	0.095	0	0.25	0.80	0 %

DOORS (Total Exposed Area = 84 sq.ft.)

√ #	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
___ 1	N	Exterior	Insulated	Laundry	None	0.40	3.00	0	7.00	0	21.0ft²
___ 2	S	Exterior	Insulated	Great Room	None	0.40	3.00	0	7.00	0	21.0ft²
___ 3	N	Exterior	Insulated	Kitchen	None	0.40	6.00	0	7.00	0	42.0ft²

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INPUT SUMMARY CHECKLIST REPORT

WINDOWS (Total Exposed Area = 150 sq.ft.)

√	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Storm	Total Area (ft²)	Same Units	Width (ft)	Height (ft)	--Overhang-- Depth (ft)	Sep. (ft)	Interior Shade	Screen
___	1	N	1	Vinyl	Double (Clear)	Y	0.40	0.20	N	N	15.0	1	3.00	5.00	1.0	1.0	None	None
___	2	W	2	Vinyl	Double (Clear)	Y	0.40	0.20	N	N	15.0	1	3.00	5.00	1.0	1.0	None	None
___	3	S	5	Vinyl	Double (Clear)	Y	0.40	0.20	N	N	15.0	1	3.00	5.00	1.0	1.0	None	None
___	4	S	8	Vinyl	Double (Clear)	Y	0.40	0.20	N	N	30.0	1	6.00	5.00	1.0	1.0	None	None
___	5	S	9	Vinyl	Double (Clear)	Y	0.40	0.20	N	N	30.0	1	6.00	5.00	1.0	1.0	None	None
___	6	N	10	Vinyl	Double (Clear)	Y	0.40	0.20	N	N	15.0	1	3.00	5.00	1.0	1.0	None	None
___	7	E	13	Vinyl	Double (Clear)	Y	0.40	0.20	N	N	15.0	1	3.00	5.00	1.0	1.0	None	None
___	8	S	16	Vinyl	Double (Clear)	Y	0.40	0.20	N	N	15.0	1	3.00	5.00	1.0	1.0	None	None

INFILTRATION

√	#	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)	Infiltration Test Volume
___	1	Wholehouse	Proposed ACH(50)	0.00045	2142	117.50	220.59	0.1514	7.0	All	18357 cu ft

MASS

√	#	Mass Type	Area	Thickness	Furniture Fraction	Space
___	1	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	Flex Space
___	2	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	Closet
___	3	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	Toilet
___	4	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	Master Bath
___	5	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	Laundry
___	6	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	Pantry
___	7	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	Master Bedroom
___	8	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	Great Room
___	9	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	Kitchen
___	10	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	Bedroom 2
___	11	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	Bath 2
___	12	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	Bedroom 3

HEATING SYSTEM

√	#	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	----Geothermal HeatPump---- Entry	Power	Volt	Current	Ducts	Block
___	1	Electric Heat Pump	Split/Single		HSPF: 8.20	48.0		0.00	0.00	0.00	sys#1	1

COOLING SYSTEM

√	#	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	Air Flow cfm	SHR	Duct	Block
___	1	Central Unit	Split/Single		SEER:14.0	48.0	1440	0.80	sys#1	1

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INPUT SUMMARY CHECKLIST REPORT

HOT WATER SYSTEM

√ #	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixture Flow	Pipe Ins.	Pipe length
___ 1	Electric	Tankless	Exterior	0.96 (0.96)	1.00 gal	60 gal	120 deg	Standard	=>R-3	99

	Recirculation System	Recirc Control Type	Loop length	Branch length	Pump power	DWHR	Facilities Connected	Equal Flow	DWHR Eff	Other Credits
___ 1	No		NA	NA	NA	No	NA	NA	NA	None

DUCTS

√ Duct #	Supply Location	Supply R-Value	Supply Area	Return Location	Return R-Value	Return Area	Leakage Type	Air Handler	CFM 25 TOT	CFM 25 OUT	QN	RLF	HVAC # Heat	HVAC # Cool
___ 1	Attic	6.0	102 ft²	Attic	6.0	102 ft²	Default Leakage	Great Room (Default) (Default)					1	1

TEMPERATURES

Programable Thermostat: N Ceiling Fans: N

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cooling	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[X]	[X]	[ ]	[ ]	[ ]
Heating	[X]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]
Venting	[ ]	[ ]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[ ]

√ Thermostat Schedule: HERS 2006 Reference Schedule Type		Hours 1	2	3	4	5	6	7	8	9	10	11	12
___ Cooling (WD)	AM	78	78	78	78	78	78	78	78	80	80	80	80
	PM	80	80	80	80	78	78	78	78	78	78	78	78
___ Cooling (WEH)	AM	78	78	78	78	78	78	78	78	80	80	80	80
	PM	80	80	80	80	78	78	78	78	78	78	78	78
___ Heating (WD)	AM	65	65	65	65	65	65	65	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	68	68
___ Heating (WEH)	AM	65	65	65	65	65	65	65	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	68	68

wrightsoft

Load Short Form
Entire House
Spann's Heating and Air INC.

Job: Rodney Wade- Wright
Date: May 26, 2022
By:

16051 NW 30th Ave, Trenton, Fl 32693 Phone: 3524636440 Email: spann21@bellsouth.net

Project Information

For: Rodney Wade- Wright

Design Information

	Htg	Clg
Outside db (°F)	33	92
Inside db (°F)	70	75
Design TD (°F)	37	17
Daily range	-	M
Inside humidity (%)	65	85
Moisture difference (gr/lb)	49	0

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

HEATING EQUIPMENT

Make	Comfortmaker
Trade	14 SEER N SERIES R410A HP
Model	N4H448GKG10
AHRI ref	

Efficiency	8.2 HSPF	
Heating input		
Heating output	28200	Btuh @ 47°F
Temperature rise	27	°F
Actual air flow	953	cfm
Air flow factor	0.035	cfm/Btuh
Static pressure	0.70	in H2O

Space thermostat
Capacity balance point = 33 °F

Backup: n/a n/a
Input = 8 kW. Output = 25610 Btuh. 100 AFUE

COOLING EQUIPMENT

Make	Comfortmaker
Trade	14 SEER N SERIES R410A HP
Cond	N4H448GKG10
Coil	FEM4X4800BL
AHRI ref	

Efficiency	11.5 EER, 14 SEER	
Sensible cooling	20020	Btuh
Latent cooling	8580	Btuh
Total cooling	28600	Btuh
Actual air flow	953	cfm
Air flow factor	0.049	cfm/Btuh
Static pressure	0.70	in H2O
Load sensible heat ratio	0.87	

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Flex Space	132	3195	2095	112	103
Closet	66	703	350	25	17
Toilet	15	586	225	21	11
Master Bath	132	2642	1563	93	77
Laundry	115	1706	1840	60	90
Pantry	42	50	87	2	4
Master Bedroom	186	2010	1966	70	96
Great Room	437	4162	2847	146	140
Kitchen	300	4549	2924	160	143
Bedroom 2	157	3466	2645	122	130
Bath 2	47	680	610	24	30
Bedroom 3	165	3419	2273	120	112

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

Entire House d Other equip loads Equip. @ 0.97 RSM Latent cooling	1793	27167 0	19424 0 18822 2931	953	953
TOTALS	1793	27167	21753	953	953

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

wrightsoft

Project Summary
Entire House
Spann's Heating and Air INC.

Job: Rodney Wade- Wright
Date: May 26, 2022
By:

16051 NW 30th Ave, Trenton, Fl 32693 Phone: 3524636440 Email: spann21@bellsouth.net

Project Information

For: Rodney Wade- Wright

Notes:

Design Information

Weather: Gainesville Rgnl, FL, US

Winter Design Conditions

Outside db	33	°F
Inside db	70	°F
Design TD	37	°F

Summer Design Conditions

Outside db	92	°F
Inside db	75	°F
Design TD	17	°F
Daily range	M	
Relative humidity	85	%
Moisture difference	0	gr/lb

Heating Summary

Structure	21684	Btuh
Ducts	5483	Btuh
Central vent (0 cfm) (none)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	27167	Btuh

Sensible Cooling Equipment Load Sizing

Structure	12727	Btuh
Ducts	6697	Btuh
Central vent (0 cfm) (none)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.97	
Equipment sensible load	18822	Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

	Heating	Cooling
Area (ft²)	1793	1793
Volume (ft³)	18347	18347
Air changes/hour	0.38	0.20
Equiv. AVF (cfm)	116	61

Latent Cooling Equipment Load Sizing

Structure	1200	Btuh
Ducts	1731	Btuh
Central vent (0 cfm) (none)	0	Btuh
Equipment latent load	2931	Btuh
Equipment Total Load (Sen+Lat)	21753	Btuh
Req. total capacity at 0.70 SHR	2.2	ton

Heating Equipment Summary

Make	Comfortmaker
Trade	14 SEER N SERIES R410A HP
Model	N4H448GKG10
AHRI ref	

Efficiency	8.2 HSPF	
Heating input		
Heating output	28200	Btuh @ 47°F
Temperature rise	27	°F
Actual air flow	953	cfm
Air flow factor	0.035	cfm/Btuh
Static pressure	0.70	in H2O

Space thermostat
Capacity balance point = 33 °F

Backup: n/a n/a
Input = 8 kW, Output = 25610 Btuh, 100 AFUE

Cooling Equipment Summary

Make	Comfortmaker
Trade	14 SEER N SERIES R410A HP
Cond	N4H448GKG10
Coil	FEM4X4800BL
AHRI ref	

Efficiency	11.5 EER, 14 SEER	
Sensible cooling	20020	Btuh
Latent cooling	8580	Btuh
Total cooling	28600	Btuh
Actual air flow	953	cfm
Air flow factor	0.049	cfm/Btuh
Static pressure	0.70	in H2O
Load sensible heat ratio	0.87	

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

wrightsoft®

Right-J® Worksheet
Entire House
Spann's Heating and Air INC.

Job: Rodney Wade- Wright
Date: May 26, 2022
By:

16051 NW 30th Ave, Trenton, Fl 32693 Phone: 3524636440 Email: spann21@bellsouth.net

							Entire House 176.0 ft				Flex Space 23.0 ft			
1	Room name													
2	Exposed wall						10.2 ft		d		9.0 ft		heat/cool	
3	Room height													
4	Room dimensions										12.0 x 11.0 ft			
5	Room area						1793.0 ft²				132.0 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	12C-0sw	0.091	n	3.33	2.22	546	453	1509	1004	108	93	310	206
.	G	1D-c2ov	0.400	n	14.64	10.92	30	0	439	328	15	0	220	164
.	D	11J0	0.600	n	21.96	17.61	63	63	1383	1109	0	0	0	0
.	W	12C-0sw	0.091	e	3.33	2.22	306	291	969	645	0	0	0	0
11	G	1D-c2ov	0.400	e	14.64	25.95	15	0	220	389	0	0	0	0
	W	12C-0sw	0.091	s	3.33	2.22	546	435	1449	964	0	0	0	0
	G	1D-c2ov	0.400	s	14.64	11.08	30	26	439	332	0	0	0	0
	G	1D-c2ov	0.400	s	14.64	11.08	60	53	878	665	0	0	0	0
	D	11J0	0.600	s	21.96	17.61	21	21	461	370	0	0	0	0
	W	12C-0sw	0.091	w	3.33	2.22	312	297	989	658	99	84	280	186
	G	1D-c2ov	0.400	w	14.64	25.95	15	0	220	389	15	0	220	389
	C	16B-38md	0.026	-	0.95	1.37	1793	1793	1706	2464	132	132	126	181
	F	22A-tpl	0.989	-	36.20	0.00	1793	176	6371	0	132	23	833	0
6	c) AED excursion									0				109
	Envelope loss/gain								17034	9317			1987	1236
12	a) Infiltration								4650	1130			563	137
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @ 230					6			1380	0			0
		Appliances/other								900				0
	Subtotal (lines 6 to 13)								21684	12727			2550	1373
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								21684	12727			2550	1373
15	Duct loads						25%	53%	5483	6697	25%	53%	645	722
	Total room load								27167	19424			3195	2095
	Air required (cfm)								953	953			112	103

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

wrightsoft

Right-J® Worksheet
Entire House
Spann's Heating and Air INC.

Job: Rodney Wade- Wright
Date: May 26, 2022
By:

16051 NW 30th Ave, Trenton, Fl 32693 Phone: 3524636440 Email: spann21@bellsouth.net

1	Room name						Closet						Toilet			
2	Exposed wall						5.5 ft						5.0 ft			
3	Room height						9.0 ft			heat/cool			9.0 ft			heat/cool
4	Room dimensions						12.0	x	5.5 ft				3.0	x	5.0 ft	
5	Room area						66.0 ft²						15.0 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	12C-0sw	0.091	n	3.33	2.22	0	0	0	0	0	0	0	0
.	G	1D-c2ov	0.400	n	14.64	10.92	0	0	0	0	0	0	0	0
.	D	11J0	0.600	n	21.96	17.61	0	0	0	0	0	0	0	0
.	W	12C-0sw	0.091	e	3.33	2.22	0	0	0	0	0	0	0	0
11	G	1D-c2ov	0.400	e	14.64	25.95	0	0	0	0	0	0	0	0
	W	12C-0sw	0.091	s	3.33	2.22	0	0	0	0	0	0	0	0
	G	1D-c2ov	0.400	s	14.64	11.08	0	0	0	0	0	0	0	0
	G	1D-c2ov	0.400	s	14.64	11.08	0	0	0	0	0	0	0	0
	D	11J0	0.600	s	21.96	17.61	0	0	0	0	0	0	0	0
	W	12C-0sw	0.091	w	3.33	2.22	50	50	165	110	45	45	150	100
	G	1D-c2ov	0.400	w	14.64	25.95	0	0	0	0	0	0	0	0
	C	16B-38md	0.026	-	0.95	1.37	66	66	63	91	15	15	14	21
	F	22A-tpl	0.989	-	36.20	0.00	66	6	199	0	15	5	181	0
6	c) AED excursion									-4				-3
	Envelope loss/gain								427	196			345	118
12	a) Infiltration								135	33			122	30
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @	230				0			0	0			0
		Appliances/other								0				0
	Subtotal (lines 6 to 13)								561	229			468	148
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								561	229			468	148
15	Duct loads						25%	53%	142	121	25%	53%	118	78
	Total room load								703	350			586	225
	Air required (cfm)								25	17			21	11

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

wrightsoft

Right-J® Worksheet
Entire House
Spann's Heating and Air INC.

Job: Rodney Wade- Wright
Date: May 26, 2022
By:

16051 NW 30th Ave, Trenton, Fl 32693 Phone: 3524636440 Email: spann21@bellsouth.net

1	Room name						Master Bath				Laundry			
2	Exposed wall						20.0 ft				9.5 ft			
3	Room height						9.0 ft		heat/cool		9.0 ft		heat/cool	
4	Room dimensions						1.0 x 132.3 ft				1.0 x 114.5 ft			
5	Room area						132.3 ft²				114.5 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	12C-0sw	0.091	n	3.33	2.22	0	0	0	0	86	65	215	143
.	G	1D-c2ov	0.400	n	14.64	10.92	0	0	0	0	0	0	0	0
.	D	11J0	0.600	n	21.96	17.61	0	0	0	0	21	21	461	370
.	W	12C-0sw	0.091	e	3.33	2.22	0	0	0	0	0	0	0	0
11	G	1D-c2ov	0.400	e	14.64	25.95	0	0	0	0	0	0	0	0
	W	12C-0sw	0.091	s	3.33	2.22	86	71	235	156	0	0	0	0
	G	1D-c2ov	0.400	s	14.64	11.08	15	13	220	166	0	0	0	0
	G	1D-c2ov	0.400	s	14.64	11.08	0	0	0	0	0	0	0	0
	D	11J0	0.600	s	21.96	17.61	0	0	0	0	0	0	0	0
	W	12C-0sw	0.091	w	3.33	2.22	95	95	315	209	0	0	0	0
	G	1D-c2ov	0.400	w	14.64	25.95	0	0	0	0	0	0	0	0
	C	16B-38md	0.026	-	0.95	1.37	132	132	126	182	115	115	109	157
	F	22A-tpl	0.989	-	36.20	0.00	132	20	724	0	115	10	344	0
6	c) AED excursion									-9				-21
	Envelope loss/gain								1619	705			1129	649
12	a) Infiltration								490	119			233	57
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @ 230					0			0	0			0
		Appliances/other								200				500
	Subtotal (lines 6 to 13)								2108	1024			1361	1206
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								2108	1024			1361	1206
15	Duct loads						25%	53%	533	539	25%	53%	344	634
	Total room load								2642	1563			1706	1840
	Air required (cfm)								93	77			60	90

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

wrightsoft

Right-J® Worksheet
Entire House
Spann's Heating and Air INC.

Job: Rodney Wade- Wright
Date: May 26, 2022
By:

16051 NW 30th Ave, Trenton, Fl 32693 Phone: 3524636440 Email: spann21@bellsouth.net

1	Room name						Pantry				Master Bedroom			
2	Exposed wall						0 ft				12.0 ft			
3	Room height						9.0 ft		heat/cool		9.0 ft		heat/cool	
4	Room dimensions						6.5 x 6.5 ft				12.0 x 15.5 ft			
5	Room area						42.3 ft²				186.0 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	12C-0sw	0.091	n	3.33	2.22	0	0	0	0	0	0	0	0
.	G	1D-c2ov	0.400	n	14.64	10.92	0	0	0	0	0	0	0	0
.	D	11J0	0.600	n	21.96	17.61	0	0	0	0	0	0	0	0
.	W	12C-0sw	0.091	e	3.33	2.22	0	0	0	0	0	0	0	0
11	G	1D-c2ov	0.400	e	14.64	25.95	0	0	0	0	0	0	0	0
	W	12C-0sw	0.091	s	3.33	2.22	0	0	0	0	108	78	260	173
	G	1D-c2ov	0.400	s	14.64	11.08	0	0	0	0	0	0	0	0
	G	1D-c2ov	0.400	s	14.64	11.08	0	0	0	0	30	26	439	332
	D	11J0	0.600	s	21.96	17.61	0	0	0	0	0	0	0	0
	W	12C-0sw	0.091	w	3.33	2.22	0	0	0	0	0	0	0	0
	G	1D-c2ov	0.400	w	14.64	25.95	0	0	0	0	0	0	0	0
	C	16B-38md	0.026	-	0.95	1.37	42	42	40	58	186	186	177	256
	F	22A-tpl	0.989	-	36.20	0.00	42	0	0	0	186	12	434	0
6	c) AED excursion									-1				-4
	Envelope loss/gain								40	57			1310	757
12	a) Infiltration								0	0			294	71
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @ 230					0			0	2			460
		Appliances/other								0				0
	Subtotal (lines 6 to 13)								40	57			1604	1288
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								40	57			1604	1288
15	Duct loads						25%	53%	10	30	25%	53%	406	678
	Total room load								50	87			2010	1966
	Air required (cfm)								2	4			70	96

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

wrightsoft

Right-J® Worksheet
Entire House
Spann's Heating and Air INC.

Job: Rodney Wade- Wright
Date: May 26, 2022
By:

16051 NW 30th Ave, Trenton, Fl 32693 Phone: 3524636440 Email: spann21@bellsouth.net

							Great Room 20.0 ft				Kitchen 22.0 ft			
1	Room name													
2	Exposed wall						12.0 ft		heat/cool		12.0 ft		heat/cool	
3	Room height							1.0	x 436.5 ft			20.0	x 15.0 ft	
4	Room dimensions						436.5 ft²				300.0 ft²			
5	Room area													
	Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.091	n	3.33	2.22	0	0	0	0	240	183	609	406
.	G	1D-c2ov	0.400	n	14.64	10.92	0	0	0	0	15	0	220	164
.	D	11J0	0.600	n	21.96	17.61	0	0	0	0	42	42	922	740
.	W	12C-0sw	0.091	e	3.33	2.22	0	0	0	0	0	0	0	0
11	G	1D-c2ov	0.400	e	14.64	25.95	0	0	0	0	0	0	0	0
	W	12C-0sw	0.091	s	3.33	2.22	240	189	629	419	0	0	0	0
	G	1D-c2ov	0.400	s	14.64	11.08	0	0	0	0	0	0	0	0
	G	1D-c2ov	0.400	s	14.64	11.08	30	26	439	332	0	0	0	0
	D	11J0	0.600	s	21.96	17.61	21	21	461	370	0	0	0	0
	W	12C-0sw	0.091	w	3.33	2.22	0	0	0	0	24	24	80	53
	G	1D-c2ov	0.400	w	14.64	25.95	0	0	0	0	0	0	0	0
	C	16B-38md	0.026	-	0.95	1.37	437	437	415	600	300	300	285	412
	F	22A-tpl	0.989	-	36.20	0.00	437	20	724	0	300	22	796	0
6	c) AED excursion									-14				-33
	Envelope loss/gain								2669	1707			2913	1741
12	a) Infiltration								653	159			718	174
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @ 230					0			0	0			0
		Appliances/other								0				0
	Subtotal (lines 6 to 13)								3322	1865			3631	1916
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								3322	1865			3631	1916
15	Duct loads						25%	53%	840	982	25%	53%	918	1008
	Total room load								4162	2847			4549	2924
	Air required (cfm)								146	140			160	143

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wrightsoft

Right-J® Worksheet
Entire House
Spann's Heating and Air INC.

Job: Rodney Wade- Wright
Date: May 26, 2022
By:

16051 NW 30th Ave, Trenton, Fl 32693 Phone: 3524636440 Email: spann21@bellsouth.net

1	Room name						Bedroom 2				Bath 2				
2	Exposed wall						27.0 ft				5.5 ft				
3	Room height						9.0 ft		heat/cool		9.0 ft		heat/cool		
4	Room dimensions						1.0	x	156.8 ft		8.5	x	5.5 ft		
5	Room area						156.8 ft²				46.8 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	12C-0sw	0.091	n	3.33	2.22	113	113	375	249	0	0	0	0	
.	G	1D-c2ov	0.400	n	14.64	10.92	0	0	0	0	0	0	0	0	
.	D	11J0	0.600	n	21.96	17.61	0	0	0	0	0	0	0	0	
.	W	12C-0sw	0.091	e	3.33	2.22	131	116	385	256	50	50	165	110	
11	G	1D-c2ov	0.400	e	14.64	25.95	15	0	220	389	0	0	0	0	
	W	12C-0sw	0.091	s	3.33	2.22	0	0	0	0	0	0	0	0	
	G	1D-c2ov	0.400	s	14.64	11.08	0	0	0	0	0	0	0	0	
	G	1D-c2ov	0.400	s	14.64	11.08	0	0	0	0	0	0	0	0	
	D	11J0	0.600	s	21.96	17.61	0	0	0	0	0	0	0	0	
	W	12C-0sw	0.091	w	3.33	2.22	0	0	0	0	0	0	0	0	
	G	1D-c2ov	0.400	w	14.64	25.95	0	0	0	0	0	0	0	0	
	C	16B-38md	0.026	-	0.95	1.37	157	157	149	215	47	47	44	64	
	F	22A-tpl	0.989	-	36.20	0.00	157	27	977	0	47	6	199	0	
6	c) AED excursion									3				-7	
	Envelope loss/gain								2105	1112			408	167	
12	a) Infiltration								661	161			135	33	
	b) Room ventilation								0	0			0	0	
13	Internal gains:	Occupants @	230				2			460	0			0	
		Appliances/other								0				200	
	Subtotal (lines 6 to 13)								2766	1733			543	400	
	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								0	0			0	0	
14	Subtotal								2766	1733			543	400	
15	Duct loads						25%	53%	699	912	25%	53%	137	210	
	Total room load								3466	2645			680	610	
	Air required (cfm)								122	130			24	30	

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

wrightsoft

Right-J® Worksheet
Entire House
Spann's Heating and Air INC.

Job: Rodney Wade- Wright
Date: May 26, 2022
By:

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1	Room name					Bedroom 3									
2	Exposed wall					26.5 ft									
3	Room height					9.0 ft			heat/cool						
4	Room dimensions					1.0	x	165.0 ft							
5	Room area					165.0 ft²									
	Ty	Construction number	U-value (Btuh/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	12C-0sw	0.091	n	3.33	2.22	0	0	0	0				
.	G	1D-c2ov	0.400	n	14.64	10.92	0	0	0	0				
.	D	11J0	0.600	n	21.96	17.61	0	0	0	0				
.	W	12C-0sw	0.091	e	3.33	2.22	126	126	420	279				
11	G	1D-c2ov	0.400	e	14.64	25.95	0	0	0	0				
	W	12C-0sw	0.091	s	3.33	2.22	113	98	325	216				
	G	1D-c2ov	0.400	s	14.64	11.08	15	13	220	166				
	G	1D-c2ov	0.400	s	14.64	11.08	0	0	0	0				
	D	11J0	0.600	s	21.96	17.61	0	0	0	0				
	W	12C-0sw	0.091	w	3.33	2.22	0	0	0	0				
	G	1D-c2ov	0.400	w	14.64	25.95	0	0	0	0				
	C	16B-38md	0.026	-	0.95	1.37	165	165	157	227				
	F	22A-tpl	0.989	-	36.20	0.00	165	27	959	0				
6	c) AED excursion									-17				
	Envelope loss/gain								2080	872				
12	a) Infiltration								649	158				
	b) Room ventilation								0	0				
13	Internal gains:	Occupants @ 230					2			460				
		Appliances/other								0				
	Subtotal (lines 6 to 13)								2729	1489				
	Less external load								0	0				
	Less transfer								0	0				
	Redistribution								0	0				
14	Subtotal								2729	1489				
15	Duct loads						25%	53%	690	784				
	Total room load								3419	2273				
	Air required (cfm)								120	112				

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

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

Form RPER 1 15 Mar 09

Air Conditioning Contractors of America

Header Information

Contractor: Spann's Heating and Air INC.
Jack Spann

Mechanical license:

Building plan #:

Home address (Street or Lot#, Block, Subdivision): , Entire House

REQUIRED ATTACHMENTS	ATTACHED
Manual J1 Form (and supporting worksheets):	Yes ☐ No ☐
or MJ1AE Form* (and supporting worksheets):	Yes ☐ No ☐
OEM performance data (heating, cooling, blower):	Yes ☐ No ☐
Manual D Friction Rate Worksheet:	Yes ☐ No ☐
Duct distribution sketch:	Yes ☐ No ☐

HVAC LOAD CALCULATION (IRC M1401.3)

Design Conditions

Winter Design Conditions

Outdoor temperature:	33	°F
Indoor temperature:	70	°F
Total heat loss:	27167	Btuh

Summer Design Conditions

Outdoor temperature:	92	°F
Indoor temperature:	75	°F
Grains difference:	0 gr/lb @	85% RH
Sensible heat gain:	20046	Btuh
Latent heat gain:	3025	Btuh
Total heat gain:	23071	Btuh

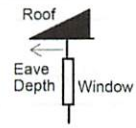
Building Construction Information

Building

Orientation: (North, East, West, South, Northeast, Northwest, Southeast, Southwest)	Front Door faces West	
Number of bedrooms:	0	
Conditioned floor area:	1793	ft²
Number of occupants:	6	

Windows

Eave overhang depth:	1.0	ft
Internal shade: (Blinds, drapes, etc.)	none	
Number of skylights:	0	



HVAC EQUIPMENT SELECTION (IRC M1401.3)

Heating Equipment Data

Equipment type: (Furnace, Heat pump, Boiler, etc.)	Split ASHP
Model:	Comfortmaker N4H448GKG10+FEM4X4800BL
Heating output capacity: (Heat pumps - capacity at winter design outdoor conditions)	0 Btuh
Aux. heating output capacity:	25610 Btuh

Cooling Equipment Data

Equipment type: (Air Conditioner, Heat pump, etc.)	Split ASHP
Model:	Comfortmaker N4H448GKG10+FEM4X4800BL
Total cooling capacity:	0 Btuh
Sensible cooling capacity:	0 Btuh
Latent cooling capacity:	0 Btuh

Blower Data

Heating cfm:	953
Cooling cfm:	953
Static pressure: (Fan's rated external static pressure for design airflow)	0.70 in H2O

HVAC DUCT DISTRIBUTION SYSTEM DESIGN (IRC M1601.1)

Design airflow:	953	cfm	Longest supply duct:	337	ft	Duct Materials Used	
Equipment design ESP:	0.70	in H2O	Longest return duct:	0	ft	Trunk duct:	Fiberglass board
Total device pressure losses:	0	in H2O	**Total effective length (TEL):**	337	ft		
Available static pressure (ASP):	0.70	in H2O	**Friction rate:** (Friction Rate = ASP ÷ (TEL x 100))	0.208	in/100ft	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: Allen Strickland

Contractor's signature: _____ Date: 05-26-22

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

*Home qualifies for MJ1AE Form based on Abridged Edition Checklist

wrightsoft

Duct System Summary
Entire House
Spann's Heating and Air INC.

Job: Rodney Wade- Wright
Date: May 26, 2022
By:

16051 NW 30th Ave, Trenton, Fl 32693 Phone: 3524636440 Email: spann21@bellsouth.net

Project Information

For: Rodney Wade- Wright

	Heating	Cooling
External static pressure	0.70 in H2O	0.70 in H2O
Pressure losses	0 in H2O	0 in H2O
Available static pressure	0.70 in H2O	0.70 in H2O
Supply / return available pressure	0.350 / 0.350 in H2O	0.350 / 0.350 in H2O
Lowest friction rate	0.208 in/100ft	0.208 in/100ft
Actual air flow	953 cfm	953 cfm
Total effective length (TEL)	337 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 2	c	610	24	30	0.333	***5.0***	***0*** x ***0***	VlFx	5.5	205.0	st1
Bedroom 2	c	2645	122	130	0.336	***7.0***	***0*** x ***0***	VlFx	3.2	205.0	st1
Bedroom 3	h	3419	120	112	0.323	***7.0***	***0*** x ***0***	VlFx	11.6	205.0	st1
Closet	h	703	25	17	0.219	***5.0***	***0*** x ***0***	VlFx	39.0	280.0	st1
Flex Space	h	3195	112	103	0.225	***6.0***	***0*** x ***0***	VlFx	41.2	270.0	st1
Great Room	h	4162	146	140	0.209	***7.0***	***0*** x ***0***	VlFx	19.5	315.0	st1
Kitchen	h	4549	160	143	0.211	***7.0***	***0*** x ***0***	VlFx	17.0	315.0	st1
Laundry	c	1840	60	90	0.211	***6.0***	***0*** x ***0***	VlFx	31.5	300.0	st1
Master Bath	h	2642	93	77	0.221	***6.0***	***0*** x ***0***	VlFx	46.6	270.0	st1
Master Bedroom	c	1966	70	96	0.213	***7.0***	***0*** x ***0***	VlFx	38.5	290.0	st1
Pantry	c	87	2	4	0.208	***5.0***	***0*** x ***0***	VlFx	32.0	305.0	st1
Toilet	h	586	21	11	0.220	***5.0***	***0*** x ***0***	VlFx	48.6	270.0	st1

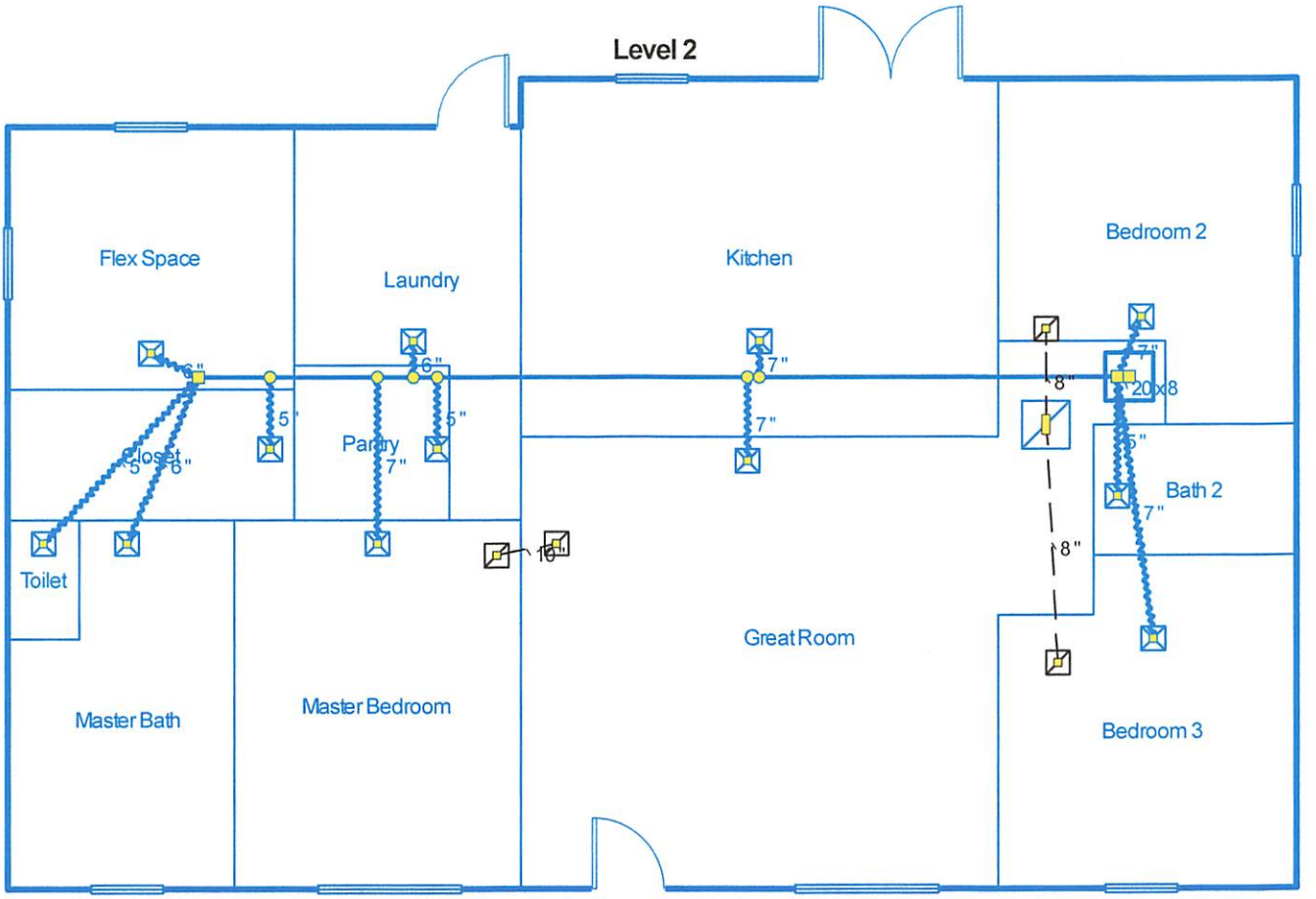
Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st1	Peak AVF	953	953	0.208	858	12.3	8 x 20	RectFbg	

Bold/italic values have been manually overridden

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
rb1	0x0	953	953	0	0	0	0	0x 0		MFx	



A/C Register locations to be determined. Registers may be moved due to trusses, dead wood, lights, fire alarms, and etc..

Job #: Rodney Wade- Wright **Performed for:** Rodney Wade- Wright	**Spann's Heating and Air INC.** 16051 NW 30th Ave Trenton, Fl 32693 Phone: 3524636440 spann21@bellsouth.met	Scale: 1 : 95 Page 1 Right-Suite® Universal 2022 22.0.03 RSU08917 2022-May-26 09:24:58 ...\AC\Rodney Wade- Wright 2022.rup