



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

Job: Rodney Wade- Caldwell
Date: Nov 24, 2020
By:

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

Project Information

For: Rodney Wade- Caldwell

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	15785 Btuh
Ducts	5774 Btuh
Central vent (0 cfm) (none)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	21559 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

	Heating	Cooling
Area (ft ²)	1591	1591
Volume (ft ³)	12724	12724
Air changes/hour	0.38	0.20
Equiv. AVF (cfm)	81	42

Heating Equipment Summary

Make	Comfortmaker
Trade	14 SEER N SERIES R410A HP
Model	N4H436GKG21
AHRI ref	9661635

Efficiency	8.2 HSPF
Heating input	33800 Btuh @ 47°F
Heating output	28 °F
Temperature rise	1100 cfm
Actual air flow	0.051 cfm/Btuh
Air flow factor	0.70 in H2O
Static pressure	
Space thermostat	
Capacity balance point = 23 °F	

Backup: n/a n/a
Input = 6 kW, Output = 21551 Btuh, 100 AFUE

Sensible Cooling Equipment Load Sizing

Structure	18622 Btuh
Ducts	7254 Btuh
Central vent (0 cfm) (none)	0 Btuh
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	25074 Btuh

Latent Cooling Equipment Load Sizing

Structure	1200 Btuh
Ducts	1787 Btuh
Central vent (0 cfm) (none)	0 Btuh
Equipment latent load	2987 Btuh

Equipment Total Load (Sen+Lat)	28060 Btuh
Req. total capacity at 0.70 SHR	3.0 ton

Cooling Equipment Summary

Make	Comfortmaker
Trade	14 SEER N SERIES R410A HP
Cond	N4H436GKG21
Coil	FEM4X3600BL
AHRI ref	9661635
Efficiency	11.5 EER, 14 SEER
Sensible cooling	23100 Btuh
Latent cooling	9900 Btuh
Total cooling	33000 Btuh
Actual air flow	1100 cfm
Air flow factor	0.043 cfm/Btuh
Static pressure	0.70 in H2O
Load sensible heat ratio	0.90

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



Right-Suite® Universal 2019 19.0.15 RSU08917

...ments\Wrightsoft HVAC\Rodney Wade- Caldwell.rup Calc = MJ8 Front Door faces: SW

2020-Nov-24 15:26:54

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Right-J® Worksheet

Entire House

Spann's Heating and Air INC.

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By:

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

1 2 3 4 5	Room name Exposed wall Room height Room dimensions Room area				Entire House 173.0 ft 8.0 ft 1590.5 ft²				Bedroom 3 24.0 ft 8.0 ft 162.5 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)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S
6	W	12C-0sw	0.091	n	3.33	2.22	348	282	939	625	112	82
	G	1D-c2ov	0.570	n	20.86	21.29	15	0	313	319	0	0
	G	1D-c2ov	0.570	n	20.86	21.29	30	0	626	639	30	0
	D	11J0	0.600	n	21.96	17.61	21	21	461	370	0	0
11	W	12C-0sw	0.091	e	3.33	2.22	344	338	1126	749	0	0
	G	1D-c2ov	0.570	e	20.86	63.38	6	0	125	380	0	0
	W	12C-0sw	0.091	s	3.33	2.22	348	237	789	525	0	0
	G	1D-c2ov	0.570	s	20.86	21.73	90	79	1878	1956	0	0
	D	11J0	0.600	s	21.96	17.61	21	21	461	370	0	0
	W	12C-0sw	0.091	w	3.33	2.22	344	290	966	643	80	80
	G	1D-c2ov	0.570	w	20.86	63.38	9	0	188	570	0	0
	G	1D-c2ov	0.570	w	20.86	63.38	15	0	313	951	0	0
	G	1D-c2ov	0.570	w	20.86	63.38	30	0	626	1901	0	0
	C	16B-38md	0.026	-	0.95	1.37	1591	1591	1514	2186	163	163
	F	19A-19bstp	0.049	-	1.41	0.65	1591	1591	2235	1032	163	163
6	c) AED excursion								543			
	Envelope loss/gain								12559	13758		
12	a) Infiltration								3225	784		
	b) Room ventilation								0	0		
13	Internal gains: Occupants @ 230						6			1380	2	
	Appliances/other									2700		
	Subtotal (lines 6 to 13)								15785	18622		
14	Less external load								0	0		
	Less transfer								0	0		
	Redistribution								0	0		
15	Subtotal								15785	18622		
	Duct loads						37%	39%	5774	7254	37%	39%
	Total room load								21559	25876		
	Air required (cfm)								1100	1100		

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



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1 2 3 4 5	Room name Exposed wall Room height Room dimensions Room area					Mechanical 21.0 ft 8.0 ft 1.0 x 88.0 ft 89.0 ft ²					Bedroom 2 12.5 ft 8.0 ft 1.0 x 152.5 ft 152.5 ft ²				
	Ty	Construction number	U-value (Btuh/ft ² ·°F)	Or	HTM (Btuh/ft ²)		Area (ft ²) or perimeter (ft)		Load (Btuh)		Area (ft ²) 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	76	76	253	168	0	0	0	0	
11	G	1D-c2ov	0.570	n	20.86	21.29	0	0	0	0	0	0	0	0	
		1D-c2ov	0.570	n	20.86	21.29	0	0	0	0	0	0	0	0	
		11J0	0.600	n	21.96	17.61	0	0	0	0	0	0	0	0	
		12C-0sw	0.091	e	3.33	2.22	92	92	306	204	0	0	0	0	
	W	1D-c2ov	0.570	e	20.86	63.38	0	0	0	0	0	0	0	0	
		12C-0sw	0.091	s	3.33	2.22	0	0	0	0	0	0	0	0	
	G	1D-c2ov	0.570	s	20.86	21.73	0	0	0	0	0	0	0	0	
		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	100	85	283	188	
		1D-c2ov	0.570	w	20.86	63.38	0	0	0	0	0	0	0	0	
		1D-c2ov	0.570	w	20.86	63.38	0	0	0	0	15	0	313	951	
1D-c2ov		0.570	w	20.86	63.38	0	0	0	0	0	0	0	0		
C	16B-38m ^d	0.026	-	0.95	1.37	89	89	85	122	153	153	145	210		
F	19A-19bst ^p	0.049	-	1.41	0.65	89	89	125	58	153	153	214	99		
6	c) AED excursion ⁿ								-66					335	
	Envelope loss/gain ⁿ								769	486			955	1782	
12	a) Infiltration								391	95			233	57	
	b) Room ventilation								0	0			0	0	
13	Internal gains: Occupants @ Appliances/other					230	0			0	500	2			460
	Subtotal (lines 6 to 13)								1161	1081			1189	2299	
14	Less external load ^d								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								0	0			0	0	
	Subtotal								1161	1081			1189	2299	
15	Duct loads						37%	39%	425	421	37%	39%	435	895	
	Total room load								1585	1502			1623	3194	
	Air required (cfm)								81	64			83	136	

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1	Room name					Bath 2					Kitchen				
2	Exposed wall					2.5 ft					34.5 ft				
3	Room height					8.0 ft					8.0 ft				
4	Room dimensions					5.0 x 10.0 ft					14.0 x 20.5 ft				
5	Room area					50.0 ft²					287.0 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	
11	G	1D-c2ov	0.570	n	20.86	21.29	0	0	0	0	0	0	0	0	
	G	1D-c2ov	0.570	n	20.86	21.29	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	20	20	67	44	0	0	0	0	
	G	1D-c2ov	0.570	e	20.86	63.38	0	0	0	0	0	0	0	0	
	W	12C-0sw	0.091	s	3.33	2.22	0	0	0	0	112	82	273	182	
	G	1D-c2ov	0.570	s	20.86	21.73	0	0	0	0	30	26	626	652	
	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	164	125	416	277	
	G	1D-c2ov	0.570	w	20.86	63.38	0	0	0	0	9	0	188	570	
	G	1D-c2ov	0.570	w	20.86	63.38	0	0	0	0	0	0	0	0	
	G	1D-c2ov	0.570	w	20.86	63.38	0	0	0	0	30	0	626	1901	
	C	16B-38md	0.026	-	0.95	1.37	50	50	48	69	287	287	273	394	
	F	19A-19bstp	0.049	-	1.41	0.65	50	50	70	32	287	287	403	186	
	6	c) AED excursion									-9				621
	Envelope loss/gain								184	136			2805	4784	
12	a) Infiltration								47	11			643	156	
	b) Room ventilation								0	0			0	0	
13	Internal gains:		Occupants @	230			0			0	0			0	
			Appliances/other							0				1200	
	Subtotal (lines 6 to 13)								231	148			3449	6140	
14	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								0	0			0	0	
	Subtotal								231	148			3449	6140	
15	Duct loads						37%	39%	85	58	37%	39%	1262	2392	
	Total room load								316	205			4710	8532	
	Air required (cfm)								16	9			240	363	

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1	Room name					Great Room 20.5 ft				Master Bedroom 29.5 ft				
2	Exposed wall					8.0 ft				8.0 ft				
3	Room height					1.0				16.5				
4	Room dimensions					x 401.0 ft				x 13.0 ft				
5	Room area					401.0 ft²				214.5 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	60	39	130	86	0	0	0	0
11	G	1D-c2ov	0.570	n	20.86	21.29	0	0	0	0	0	0	0	0
	G	1D-c2ov	0.570	n	20.86	21.29	0	0	0	0	0	0	0	0
	D	11J0	0.600	n	21.96	17.61	21	21	461	370	0	0	0	0
	W	12C-0sw	0.091	e	3.33	2.22	0	0	0	0	104	104	346	230
	G	1D-c2ov	0.570	e	20.86	63.38	0	0	0	0	0	0	0	0
	W	12C-0sw	0.091	s	3.33	2.22	104	53	177	117	132	102	340	226
	G	1D-c2ov	0.570	s	20.86	21.73	30	26	626	652	30	26	626	652
	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	0	0	0	0
	G	1D-c2ov	0.570	w	20.86	63.38	0	0	0	0	0	0	0	0
	G	1D-c2ov	0.570	w	20.86	63.38	0	0	0	0	0	0	0	0
	G	1D-c2ov	0.570	w	20.86	63.38	0	0	0	0	0	0	0	0
	C	16B-38md	0.026	-	0.95	1.37	401	401	382	551	215	215	204	295
	F	19A-19bstp	0.049	-	1.41	0.65	401	401	564	260	215	215	301	139
	6	c) AED excursion								-101				-51
		Envelope loss/gain							2800	2305			1818	1491
12	a) Infiltration							382	93			550	134	
	b) Room ventilation							0	0			0	0	
13	Internal gains: Occupants @ 230 Appliances/other					0			0	2			460	
	Subtotal (lines 6 to 13)							3182	2898			2368	2085	
14	Less external load							0	0			0	0	
	Less transfer							0	0			0	0	
	Redistribution							0	0			0	0	
	Subtotal							3182	2898			2368	2085	
15	Duct loads					37%	39%	1164	1129	37%	39%	866	812	
	Total room load							4346	4027			3234	2897	
	Air required (cfm)							222	171			165	123	

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1	Room name					Master Bath				Closet					
2	Exposed wall					8.5 ft				0 ft					
3	Room height					8.0 ft				8.0 ft					
4	Room dimensions					10.0 x 8.5 ft				6.5 x 8.5 ft					
5	Room area					85.0 ft²				55.3 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	0.570	n	20.86	21.29	0	0	0	0	0	0	0	0	
.	G	1D-c2ov	0.570	n	20.86	21.29	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	
11	W	12C-0sw	0.091	e	3.33	2.22	68	62	206	137	0	0	0	0	
	G	1D-c2ov	0.570	e	20.86	63.38	6	0	125	380	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	0.570	s	20.86	21.73	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	0.570	w	20.86	63.38	0	0	0	0	0	0	0	0	
	G	1D-c2ov	0.570	w	20.86	63.38	0	0	0	0	0	0	0	0	
	G	1D-c2ov	0.570	w	20.86	63.38	0	0	0	0	0	0	0	0	
	C	16B-38md	0.026	-	0.95	1.37	85	85	81	117	55	55	53	76	
	F	19A-19bstp	0.049	-	1.41	0.65	85	85	119	55	55	55	78	36	
6	c) AED excursion									14				-6	
	Envelope loss/gain								532	703			130	105	
12	a) Infiltration								158	39			0	0	
	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)								690	742			130	105	
	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								0	0			0	0	
14	Subtotal								690	742			130	105	
15	Duct loads						37%	39%	253	289	37%	39%	48	41	
	Total room load								943	1031			178	146	
	Air required (cfm)								48	44			9	6	

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1	Room name					Laundry								
2	Exposed wall					20.0 ft								
3	Room height					8.0 ft								
4	Room dimensions					12.5 x 7.5 ft								
5	Room area					93.8 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	100	85	283	188				
.	G	1D-c2ov	0.570	n	20.86	21.29	15	0	313	319				
.	G	1D-c2ov	0.570	n	20.86	21.29	0	0	0	0				
.	D	11J0	0.600	n	21.96	17.61	0	0	0	0				
11	W	12C-0sw	0.091	e	3.33	2.22	60	60	200	133				
	G	1D-c2ov	0.570	e	20.86	63.38	0	0	0	0				
	W	12C-0sw	0.091	s	3.33	2.22	0	0	0	0				
	G	1D-c2ov	0.570	s	20.86	21.73	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	0.570	w	20.86	63.38	0	0	0	0				
	G	1D-c2ov	0.570	w	20.86	63.38	0	0	0	0				
	G	1D-c2ov	0.570	w	20.86	63.38	0	0	0	0				
	C	16B-38md	0.026	-	0.95	1.37	94	94	89	129				
	F	19A-19bstp	0.049	-	1.41	0.65	94	94	132	61				
6	c) AED excursion									-82				
	Envelope loss/gain								1017	748				
12	a) Infiltration								373	91				
	b) Room ventilation								0	0				
13	Internal gains:		Occupants @	230			0			0				
			Appliances/other							500				
	Subtotal (lines 6 to 13)								1390	1339				
	Less external load								0	0				
	Less transfer								0	0				
	Redistribution								0	0				
14	Subtotal								1390	1339				
15	Duct loads						37%	39%	508	521				
	Total room load								1898	1860				
	Air required (cfm)								97	79				

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



Manual S Compliance Report

Entire House

Spann's Heating and Air INC.

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Date: Nov 24, 2020
By:

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Project Information

For: Rodney Wade- Caldwell

Cooling Equipment

Design Conditions

Outdoor design DB: 91.9°F	Sensible gain: 25876 Btuh	Entering coil DB: 77.1°F
Outdoor design WB: 76.2°F	Latent gain: 2987 Btuh	Entering coil WB: 72.2°F
Indoor design DB: 75.0°F	Total gain: 28863 Btuh	
Indoor RH: 85%	Estimated airflow: 1100 cfm	

Manufacturer's Performance Data at Actual Design Conditions

Equipment type: Split ASHP	Model: N4H436GKG21+FEM4X3600BL
Manufacturer: Comfortmaker	
Actual airflow: 1100 cfm	
Sensible capacity: 23100 Btuh	89% of load
Latent capacity: 9900 Btuh	331% of load
Total capacity: 33000 Btuh	114% of load SHR: 70%

Heating Equipment

Design Conditions

Outdoor design DB: 33.4°F	Heat loss: 21559 Btuh	Entering coil DB: 69.0°F
Indoor design DB: 70.0°F		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type: Split ASHP	Model: N4H436GKG21+FEM4X3600BL	
Manufacturer: Comfortmaker		
Actual airflow: 1100 cfm		
Output capacity: 27331 Btuh	127% of load	Capacity balance: 23 °F
Supplemental heat required: 0 Btuh		Economic balance: -99 °F

Backup equipment type: Elec strip	
Manufacturer: n/a	Model: n/a+n/a
Actual airflow: 1100 cfm	
Output capacity: 6.3 kW	100% of load Temp. rise: 24 °F

Meets all requirements of ACCA Manual S.



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

Form
RPER 1
15 Mar 09

Header Information

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

Building plan #:

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

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: 33 °F
Indoor temperature: 70 °F
Total heat loss: 21559 Btuh

Summer Design Conditions

Outdoor temperature: 92 °F
Indoor temperature: 75 °F
Grains difference: 0 gr/lb @ 85% RH
Sensible heat gain: 26704 Btuh
Latent heat gain: 3082 Btuh
Total heat gain: 29786 Btuh

Building Construction Information

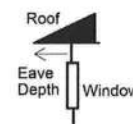
Building

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

Number of bedrooms: 0
Conditioned floor area: 1591 ft²
Number of occupants: 6

Windows

Eave overhang depth: 1.0 ft
Internal shade: none
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: Comfortmaker
N4H436GKG21+FEM4X3600BL
Heating output capacity: 27331 Btuh
Heat pumps - capacity at winter design outdoor conditions
Aux. heating output capacity: 21551 Btuh

Cooling Equipment Data

Equipment type: Split ASHP
Air Conditioner, Heat pump, etc.
Model: Comfortmaker
N4H436GKG21+FEM4X3600BL
Total cooling capacity: 0 Btuh
Sensible cooling capacity: 0 Btuh
Latent cooling capacity: 0 Btuh

Blower Data

Heating cfm: 1100
Cooling cfm: 1100
Static pressure: 0.70 in H₂O
Fan's rated external static pressure for design airflow

HVAC DUCT DISTRIBUTION SYSTEM DESIGN (IRC M1601.1)

Design airflow: 1100 cfm	Longest supply duct: 234 ft	Duct Materials Used
Equipment design ESP: 0.70 in H ₂ O	Longest return duct: 0 ft	Trunk duct: Sheet metal
Total device pressure losses: 0 in H ₂ O	Total effective length (TEL): 234 ft	Branch duct: Round flex vinyl, Sheet metal
Available static pressure (ASP): 0.70 in H ₂ O	Friction rate: 0.300 in/100ft	

Friction Rate = ASP ÷ (TEL x 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



Duct System Summary

Entire House

Spann's Heating and Air INC.

Job: Rodney Wade- Caldwell

Date: Nov 24, 2020

By:

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

Project Information

For: Rodney Wade- Caldwell

	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	0.300 in/100ft	0.300 in/100ft
Actual air flow	1100 cfm	1100 cfm
Total effective length (TEL)	234 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	h 316	16	9	0.326	5.0	0x0	VIFx	20.0	195.0	st1
Bedroom 2	c 3194	83	136	0.318	7.0	0x0	VIFx	15.0	205.0	st1
Bedroom 3	h 2726	139	105	0.321	7.0	0x0	VIFx	13.0	205.0	st1
Closet	h 178	9	6	0.360	5.0	0x0	VIFx	34.5	160.0	st1
Great Room	h 4346	222	171	0.330	8.0	0x0	VIFx	22.0	190.0	st1
Kitchen-A	c 8532	240	363	0.350	8.0	0x0	VIFx	30.0	170.0	st1
Laundry	h 1898	97	79	0.300	6.0	0x0	VIFx	28.5	205.0	st1
Master Bath	h 943	48	44	0.320	6.0	0x0	VIFx	38.5	180.0	st1
Master Bedroom	h 3234	165	123	0.348	8.0	0x0	VIFx	41.4	160.0	st1
Mechanical	h 1585	81	64	0.328	5.0	0x0	VIFx	8.5	205.0	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	1100	1100	0.300	900	11.4	8 x 22	ShtMetl	

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	1100	1100	0	0	0	0	0x 0		ShMt	

Bold/italic values have been manually overridden



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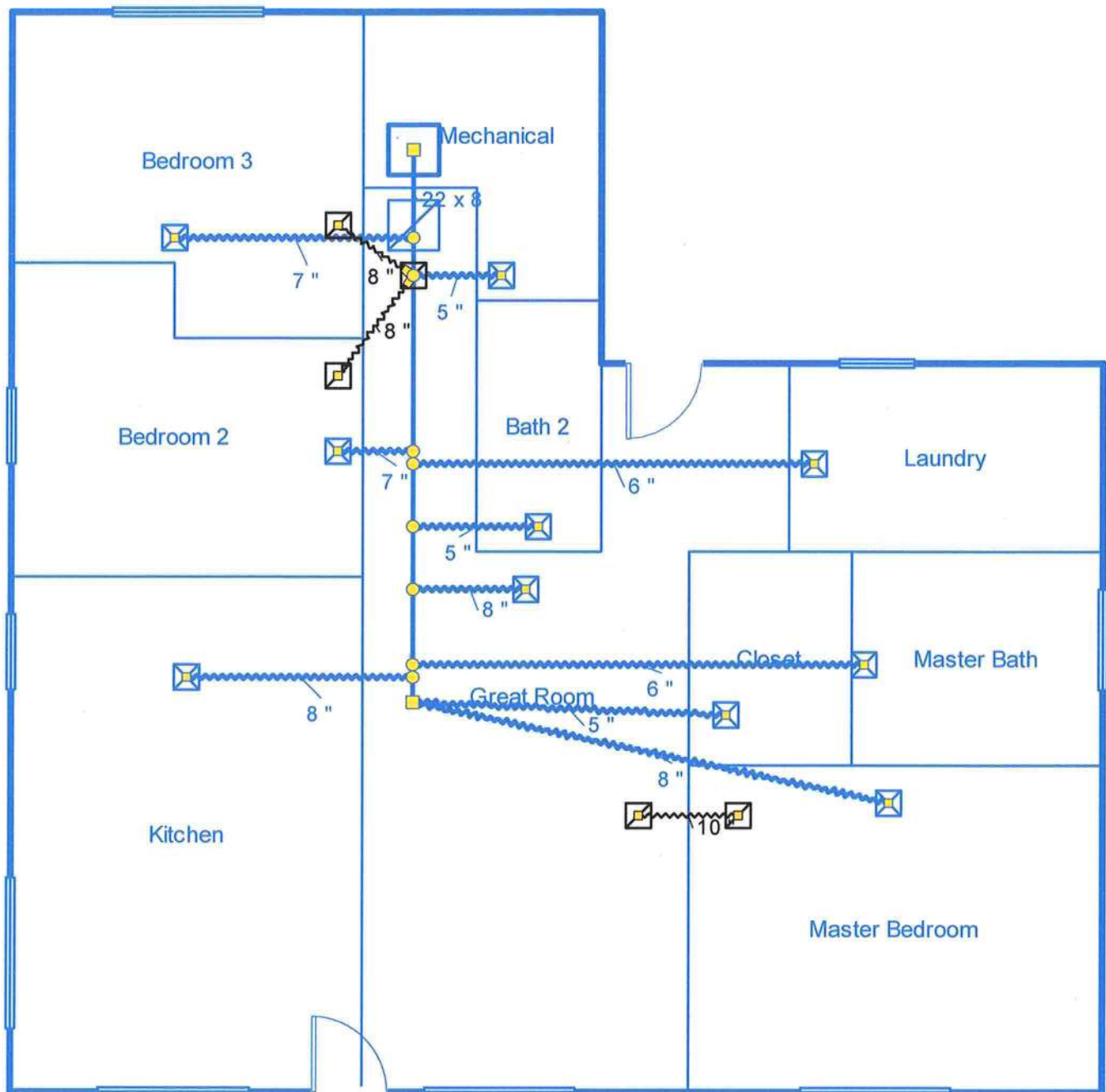
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Level 2



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

Job #: Rodney Wade- Caldwell
Performed for:
Rodney Wade- Caldwell

Spann's Heating and Air INC.

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

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