31

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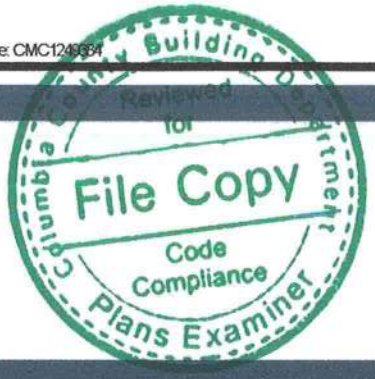
Project Summary
Entire House
Crystal Air & Water, Inc

Job:
Date: Aug 27, 2024
By:

6424 NW 18th Drive, Gainesville, FL 32653 Phone: 352-333-0460 Fax: 352-378-7867 Email: info@crystalairwater.com Web: www.acpenguin.com License: CMC1249384



Project Information

For: Joyce Collins & William Braun, Owner Builder
471 SW Stewart Loop, Lake City, Fl 32024

Notes:

Design Information

Weather: Gainesville Rgnl, FL, US

Winter Design Conditions

Outside db	33	°F
Inside db	68	°F
Design TD	35	°F

Summer Design Conditions

Outside db	92	°F
Inside db	75	°F
Design TD	17	°F
Daily range	M	
Relative humidity	50	%
Moisture difference	47	gr/lb

Heating Summary

Structure	18336	Btuh
Ducts (R-6.0)	7470	Btuh
Central vent (0 cfm) (none)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	25805	Btuh

Sensible Cooling Equipment Load Sizing

Structure	13852	Btuh
Ducts (R-6.0)	9744	Btuh
Central vent (0 cfm) (none)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.97	
Equipment sensible load	22864	Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

	Heating	Cooling
Area (ft²)	1860	1860
Volume (ft³)	16758	16758
Air changes/hour	0.38	0.20
Equiv. AVF (cfm)	106	56

Latent Cooling Equipment Load Sizing

Structure	3572	Btuh
Ducts	2052	Btuh
Central vent (0 cfm) (none)	0	Btuh
Equipment latent load	5624	Btuh
Equipment Total Load (Sen+Lat)	28488	Btuh
Req. total capacity at 0.75 SHR	2.5	ton

Heating Equipment Summary

Make	Trane
Trade	TRANE
Model	4TWR6036N1
AHRI ref	209068075

Efficiency	7.5 HSPF2	
Heating input		
Heating output	35200	Btuh @ 47°F
Temperature rise	28	°F
Actual air flow	1153	cfm
Air flow factor	0.045	cfm/Btuh
Static pressure	0	in H2O

Space thermostat
Capacity balance point = 26 °F

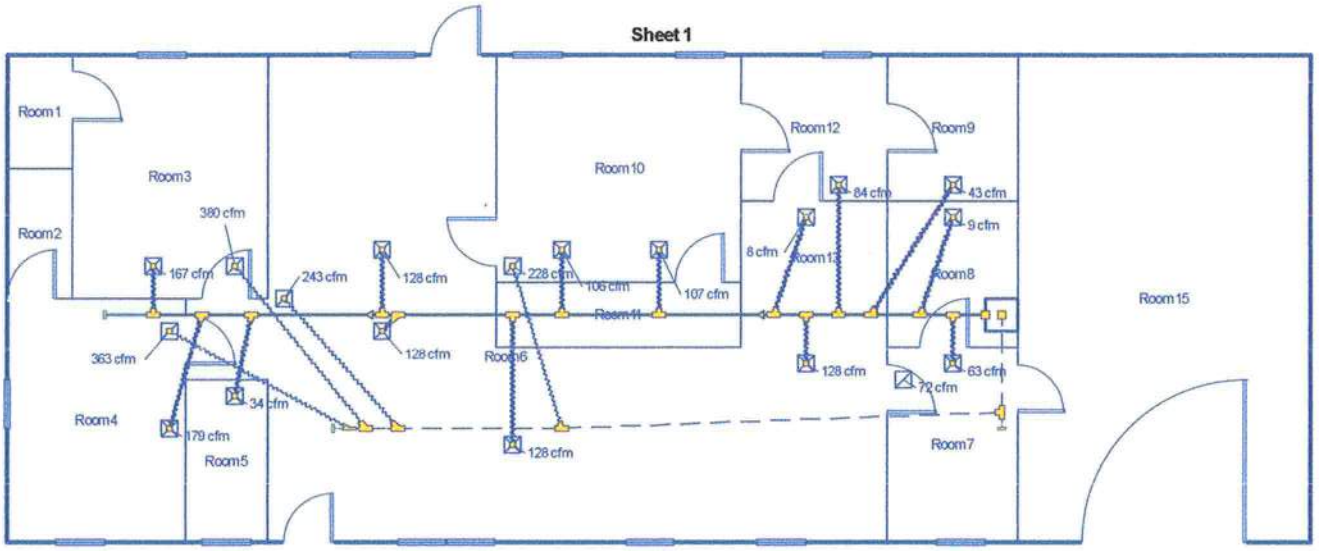
Backup:
Input = 7 kW, Output = 24328 Btuh, 100 AFUE

Cooling Equipment Summary

Make	Trane
Trade	TRANE
Cond	4TWR6036N1
Coil	TEM6A0B30H21++TDR
AHRI ref	209068075

Efficiency	12.0 EER2, 16 SEER2	
Sensible cooling	25950	Btuh
Latent cooling	8650	Btuh
Total cooling	34600	Btuh
Actual air flow	1153	cfm
Air flow factor	0.049	cfm/Btuh
Static pressure	0	in H2O
Load sensible heat ratio	0.81	

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



Job #: **Performed for:** Joyce Collins & William Braun 471 SW Stewart Loop Lake City, Fl 32024	**Crystal Air & Water, Inc** 6424 NW 18th Drive Gainesville, FL 32653 Phone: 352-333-0460 Fax: 352-378-7867 License: CMC1... www.acpenguin.com info@crystalairwater.com	Scale: 1 : 138 Page 1 Right-Suite® Universal 2023 23.0.05 RSU65034 2024-Sep-16 08:56:28 R:\Wrightsoft\tackleboxpaul.rup

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Manual S Compliance Report
Entire House
Crystal Air & Water, Inc

Job:
Date: Aug 27, 2024
By:

6424 NW 18th Drive, Gainesville, FL 32653 Phone: 352-333-0460 Fax: 352-378-7867 Email: info@crystalairwater.com Web: www.acpenguin.com License: CMC1249384

Project Information

For: Joyce Collins & William Braun, Owner Builder
471 SW Stewart Loop, Lake City, Fl 32024

Cooling Equipment

Design Conditions

Outdoor design DB:	91.9°F	Sensible gain:	23596	Btuh	Entering coil DB:	78.0°F
Outdoor design WB:	76.2°F	Latent gain:	5624	Btuh	Entering coil WB:	64.0°F
Indoor design DB:	75.0°F	Total gain:	29220	Btuh		
Indoor RH:	50%	Estimated airflow:	1153	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP				
Manufacturer:	Trane		Model:	4TWR6036N1+TEM6A0B30H21++TDR	
Actual airflow:	1153	cfm			
Sensible capacity:	25950	Btuh	110% of load		
Latent capacity:	8650	Btuh	154% of load		
Total capacity:	34600	Btuh	118% of load	SHR:	75%

Heating Equipment

Design Conditions

Outdoor design DB:	33.4°F	Heat loss:	25805	Btuh	Entering coil DB:	66.6°F
Indoor design DB:	68.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP					
Manufacturer:	Trane		Model:	4TWR6036N1+TEM6A0B30H21++TDR		
Actual airflow:	1153	cfm				
Output capacity:	35200	Btuh	136% of load		Capacity balance:	26 °F
Supplemental heat required:	0	Btuh			Economic balance:	-99 °F

Backup equipment type:	Elec strip					
Manufacturer:			Model:			
Actual airflow:	1153	cfm				
Output capacity:	7.1	kW	94% of load	Temp. rise:	50	°F

Meets all requirements of ACCA Manual S.

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Duct System Summary
Entire House
Crystal Air & Water, Inc

Job:
Date: Aug 27, 2024
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Project Information

For: Joyce Collins & William Braun, Owner Builder
471 SW Stewart Loop, Lake City, Fl 32024

	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	1153 cfm	1153 cfm
Total effective length (TEL)	1413 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
Room10	c	2179	64	107	0	0	0x 0	VlFx	24.0	570.0	st1A
Room10-A	c	2179	64	106	0	0	0x 0	VlFx	30.0	635.0	st1A
Room12	c	1721	55	84	0	0	0x 0	VlFx	17.0	355.0	st1
Room13	c	167	8	8	0	0	0x 0	VlFx	19.3	485.0	st1
Room3	h	1817	167	89	0	0	0x 0	VlFx	54.0	1045	st1B
Room4	h	3377	179	165	0	0	0x 0	VlFx	55.3	980.0	st1B
Room5	h	362	34	18	0	0	0x 0	VlFx	50.1	915.0	st1B
Room6	c	2628	117	128	0	0	0x 0	VlFx	37.4	765.0	st1A
Room6-A	c	2628	117	128	0	0	0x 0	VlFx	41.0	830.0	st1A
Room6-B	c	2628	117	128	0	0	0x 0	VlFx	37.0	700.0	st1A
Room6-C	c	2628	117	128	0	0	0x 0	VlFx	14.0	420.0	st1
Room7	h	783	63	38	0	0	0x 0	VlFx	5.0	160.0	st1
Room8	c	182	9	9	0	0	0x 0	VlFx	10.3	225.0	st1
Room9	h	317	43	15	0	0	0x 0	VlFx	16.4	290.0	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
st1B	Peak AVF	380	272	0	0	0	12 x 0	RectFbg	st1A
st1A	Peak AVF	858	870	0	0	0	12 x 0	RectFbg	st1
st1	Peak AVF	1153	1153	0	0	0	12 x 0	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
rb4	0x 0	297	363	313.5	0	0	0	0x 0		VlFx	rt2
rb6	0x 0	188	243	218.6	0	0	0	0x 0		VlFx	rt2
rb1	0x 0	380	272	247.8	0	0	0	0x 0		VlFx	rt2
rb8	0x 0	215	228	198.5	0	0	0	0x 0		VlFx	rt2
rb7	0x 0	72	47	0	0	0	0	0x 0		VlFx	

Return Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
rt2	Peak AVF	1081	1106	0	0	0	12 x 0	RectFbg	rt1
rt1	Peak AVF	1081	1106	0	0	0	12 x 0	RectFbg	

ENERGY STAR Single-Family New Homes
National HVAC Design Report, Version 3 / 3.1 /3.2 (Rev. 12)

HVAC Designer Responsibilities:
- Complete one National HVAC Design Report for each system design for a house plan, created for either the specific plan configuration (i.e., elevation, option, orientation, & county) of the home to be certified or for a plan that is intended to be built with different configurations (i.e., different elevations, options, and/or orientations). Visit www.energystar.gov/newhomeshvacdesign and see Footnote 2 for more information.
- Obtain efficiency features (e.g., window performance, insulation levels, and infiltration rate) from the builder or Rater.[3]
- Provide the completed National HVAC Design Report to the builder or credentialed HVAC contractor and to the Rater.

1. Design Overview

1.1 Designer name: Designer company: Crystal Air & Water, Inc Date: Aug 27, 2024
1.2 Select which party you are providing these design services to: ■ Builder or ☐ Credentialed HVAC contractor
1.3 Name of company you are providing these design services to (if different than Item 1.1): Owner Builder
1.4 Area that system serves: ■ Whole-house ☐ Upper-level ☐ Lower-level ☐ Other
1.5 Is cooling system for a temporary occupant load? ☐ Yes ■ No
1.6 House plan: Check box to indicate whether the system design is site-specific or part of a group:
■ Site-specific design. Option(s) & elevation(s) modeled:
☐ Group design. Group #: 0 out of 0 total groups for this house plan. Configuration modeled:

2. Dwelling Unit Mechanical Ventilation System Design ("Vent System") & Inlets in Return Duct		Designer Verified
Airflow:		
2.1 Ventilation airflow design rate & run-time meet the requirements of ASHRAE 62.2-2010 or later		☐
2.2 Ventilation airflow rate required by 62.2 for a continuous system:	0 CFM	-
2.3 Design for this system: Vent. airflow rate: CFM	Run-time per cycle: 0 minutes Cycle time: 0 minutes	-
System Type & Controls:		
2.4 Specified system type: ☐ Supply ☐ Exhaust ■ Balanced		-
2.5 Specified control location:	(e.g., Master bath, utility room)	-
2.6 Specified controls allow the system to operate automatically, without occupant intervention.		☐
2.7 Specified controls include a readily-accessible ventilation override and a label has also been specified if its function is not obvious (e.g., a label is required for a toggle wall switch, but not for a switch that's on the ventilation equipment).		☐
2.8 For any outdoor air inlet designed to connect to a ducted return of the HVAC system, specified controls automatically restrict airflow using a motorized damper during ventilation off-cycle and occupant override.		☐
Sound: 2.9 The fan of the specified system is rated ≤ 3 sones if intermittent and ≤ 1 sone if continuous, or exempted		☐
Efficiency:		
2.10 If Vent System controller operates the HVAC fan, then HVAC fan operation is intermittent and either the fan type in Item 4.7 is ECM / ICM or the controls will reduce the run-time by accounting for HVAC system heating or cooling hours.		☐
2.11 If bathroom fans are specified as part of the system, then they are ENERGY STAR certified		☐
Air Inlet Location: (Complete this section if system has a specified air inlet location; otherwise check "N/A")		☐ N/A
2.12 Inlet pulls ventilation air directly from outdoors and not from attic, crawlspace, garage, or adjacent dwelling unit		☐
2.13 Inlet is ≥ 2 ft. above grade or roof deck; ≥ 10 ft. of stretched-string distance from known contamination sources (e.g., stack, vent, exhaust, vehicles) not exiting the roof, and ≥ 3 ft. from known sources exiting the roof		☐

3. Room-by-Room Heating & Cooling Loads

3.1 Room-by-room loads calculated using: ■ Unabridged ACCA Manual J v8 ☐ 2013 ASHRAE Fundamentals ☐ Other per AHJ	-
3.2 Indoor design temperatures used in loads are 70°F for heating and 75°F for cooling	☐
3.3 Outdoor design temperatures used in loads: (See Footnote 17 and energystar.gov/hvacdesigntemps) County & State, or US Territory, selected: Alachua, FL Cooling season: 92 °F Heating season: 33 °F	-
3.4 Number of occupants used in loads: 9	-
3.5 Conditioned floor area used in loads: 1860 Sq. Ft.	-
3.6 Window area used in loads: 172 Sq. Ft.	-
3.7 Predominant window SHGC used in loads: 0.57	-
3.8 Infiltration rate used in loads: Summer: 0.20 Winter: 0.38	-
3.9 Mechanical ventilation rate used in loads: 0 CFM	-

Loads At Design Conditions (kBtuh)		N	NE	E	SE	S	SW	W	NW	
Cooling	3.10 Sensible heat gain (By orientation)	22.9	25.9	26.7	25.7	22.9	25.2	26.0	25.4	-
	3.11 Latent heat gain (Not by orientation)	5.6								-
	3.12 Total heat gain (By orientation)	28.5	31.6	32.4	31.4	28.5	30.8	31.6	31.1	-
	3.13 Maximum – minimum total heat gain (Item 3.12) across orientations =				3.9 kBtuh		Variation is ≤ 6 kBtuh			■
Heating	3.14 Total heat loss (Not by orientation)	25.8								-

ENERGY STAR Single-Family New Homes
National HVAC Design Report, Version 3 / 3.1 / 3.2 (Rev. 12)

4. Heating & Cooling Equipment Selection							Designer Verified
4.1 Equipment selected per ACCA Manual S (see Footnote 25 & 26).							☐
Air Conditioner / Heat Pump (Complete if air conditioner or heat pump will be installed; otherwise check "N/A")							☐ N/A
4.2 Equipment type:	☐ Cooling-only air conditioner or	■ Cooling & heating heat pump					-
4.3 Condenser manufacturer & model:	Trane 4TWR6036N1						-
4.4 Evaporator / fan coil manufacturer & model:	Trane TEM6A0B30H21++TDR						-
4.5 AHRI reference #:	209068075						-
4.6 AHRI listed efficiency:	12 / 16	EER / SEER	Air-source heat pump:	7.5	HSPF	Ground-source heat pump: COP	-
4.7 Evaporator fan type:	☐ PSC	☐ ECM / ICM	■ Other:				-
4.8 Compressor type:	■ Single-speed	☐ Two-speed	☐ Variable-speed				-
4.9 Latent capacity at design conditions, from OEM expanded performance data:						0 kBtuh	-
4.10 Sensible capacity at design conditions, from OEM expanded performance data:						0 kBtuh	-
4.11 Total capacity at design conditions, from OEM expanded performance data:						0 kBtuh	-
4.12 Air-source heat pump capacity:	At 17°F:	22.2 kBtuh	At 47°F:	35.2 kBtuh		☐ N/A	-
4.13 Cooling sizing % = Total capacity (Item 4.11) divided by maximum total heat gain (Item 3.12):				0 %			-
4.14 Complete this Item if Condition B Climate will be used to select sizing limit in Item 4.15. Otherwise, check "N/A":						■ N/A	-
4.14.1 Load sensible heat ratio = Max. sensible heat gain (Item 3.10) / Max. total heat gain (Item 3.12)					=	83%	-
4.14.2 HDD / CDD ratio (Visit energystar.gov/hvacdesigntemps to determine this value for the design location)					=	0.2	-
4.15 Check box of applicable cooling sizing limit from chart below:							-

Equipment Type (Per Item 4.2) & Climate Condition (Per Item 4.14)	Compressor Type (Per Item 4.8)		
	Single-Speed	Two-Speed	Variable-Speed
For Cooling-Only Equipment or For Cooling Mode of Heat Pump in Condition A Climate	☐ Recommended: 90 – 115% Allowed: 90 – 130%	☐ Recommended: 90 – 120% Allowed: 90 – 140%	☐ Recommended: 90 – 130% Allowed: 90 – 160%
For Cooling Mode of Heat Pump in Condition B Climate	☐ 90% - 100%, plus 15 kBtuh	☐ 90% - 100%, plus 15 kBtuh	☐ 90% - 100%, plus 15 kBtuh

4.16 Cooling sizing % (4.13) is within cooling sizing limit (4.15)		☐
Furnace (Complete if furnace will be installed; otherwise check "N/A")		■ N/A
4.17 Furnace manufacturer & model:		-
4.18 Listed efficiency:	AFUE	-
4.19 Total capacity:	kBtuh	-
4.20 Heating sizing % = Total capacity (Item 4.19) divided by total heat loss (Item 3.14):	0%	-
4.21 Check box of applicable heating sizing limit from chart below:		-

When Used for Heating Only	When Paired With Cooling
☐ 100 - 140%	☐ Recommended: 100 – 140% Allowed: 100 – 400%
4.22 Heating sizing % (4.20) is within heating sizing limit (4.21)	☐

5. Duct Design (Complete if heating or cooling equipment will be installed with ducts; otherwise check "N/A")				☐ N/A
5.1 Duct system designed for the equipment selected in Section 4, per ACCA Manual D				■
5.2 Design HVAC fan airflow:	Cooling mode 1153 CFM	Heating mode 1153 CFM		-
5.3 Design HVAC fan speed setting (e.g., low, medium, high):	Cooling mode Medium	Heating mode Medium		-
5.4 Design total external static pressure (corresponding to the mode with the higher airflow in Item 5.2):		0 IWC		-
5.5 Room-by-room design airflows documented below (which must sum to the mode with the higher airflow in Item 5.2)				-

	Room Name	Design Airflow (CFM)		Room Name	Design Airflow (CFM)		Room Name	Design Airflow (CFM)
1	Room1	0	12	Room8	9	23		
2	Room10	213	13	Room9	15	24		
3	Room11	0	14			25		
4	Room12	84	15			26		
5	Room13	8	16			27		
6	Room2	0	17			28		
7	Room3	89	18			29		
8	Room4	165	19			30		
9	Room5	18	20			31		
10	Room6	514	21			32		
11	Room7	38	22				Total for all rooms	1153

ENERGY STAR Single-Family New Homes National HVAC Design Report, Version 3 / 3.1 /3.2 (Rev. 12)

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1.3 Name of company you are providing these design services to (if different than Item 1.1): Owner Builder
1.4 Area that system serves: ■ Whole-house ☐ Upper-level ☐ Lower-level ☐ Other
1.5 Is cooling system for a temporary occupant load? ☐ Yes ■ No
1.6 House plan: Check box to indicate whether the system design is site-specific or part of a group:
■ Site-specific design. Option(s) & elevation(s) modeled:
☐ Group design. Group #: 0 out of 0 total groups for this house plan. Configuration modeled:

2. Dwelling Unit Mechanical Ventilation System Design ("Vent System") & Inlets in Return Duct		Designer Verified
Airflow:		
2.1 Ventilation airflow design rate & run-time meet the requirements of ASHRAE 62.2-2010 or later		☐
2.2 Ventilation airflow rate required by 62.2 for a continuous system:	0 CFM	-
2.3 Design for this system: Vent. airflow rate: CFM	Run-time per cycle: 0 minutes Cycle time: 0 minutes	-
System Type & Controls:		
2.4 Specified system type: ☐ Supply ☐ Exhaust ■ Balanced		-
2.5 Specified control location:	(e.g., Master bath, utility room)	-
2.6 Specified controls allow the system to operate automatically, without occupant intervention.		☐
2.7 Specified controls include a readily-accessible ventilation override and a label has also been specified if its function is not obvious (e.g., a label is required for a toggle wall switch, but not for a switch that's on the ventilation equipment).		☐
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Sound: 2.9 The fan of the specified system is rated ≤ 3 sones if intermittent and ≤ 1 sone if continuous, or exempted		☐
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Air Inlet Location: (Complete this section if system has a specified air inlet location; otherwise check "N/A")		☐ N/A
2.12 Inlet pulls ventilation air directly from outdoors and not from attic, crawlspace, garage, or adjacent dwelling unit		☐
2.13 Inlet is ≥ 2 ft. above grade or roof deck; ≥ 10 ft. of stretched-string distance from known contamination sources (e.g., stack, vent, exhaust, vehicles) not exiting the roof, and ≥ 3 ft. from known sources exiting the roof		☐

3. Room-by-Room Heating & Cooling Loads

3.1 Room-by-room loads calculated using: ■ Unabridged ACCA Manual J v8 ☐ 2013 ASHRAE Fundamentals ☐ Other per AHJ									-
3.2 Indoor design temperatures used in loads are 70°F for heating and 75°F for cooling									☐
3.3 Outdoor design temperatures used in loads: (See Footnote 17 and energystar.gov/hvacdesigntemps) County & State, or US Territory, selected: Alachua, FL Cooling season: 92 °F Heating season: 33 °F									-
3.4 Number of occupants used in loads: 9									-
3.5 Conditioned floor area used in loads: 1860 Sq. Ft.									-
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3.7 Predominant window SHGC used in loads: 0.57									-
3.8 Infiltration rate used in loads: Summer: 0.20 Winter: 0.38									-
3.9 Mechanical ventilation rate used in loads: 0 CFM									-
Loads At Design Conditions (kBtuh)		**N**	**NE**	**E**	**SE**	**S**	**SW**	**W**	**NW**	-
Cooling	3.10 Sensible heat gain (By orientation)	22.9	25.9	26.7	25.7	22.9	25.2	26.0	25.4	-
	3.11 Latent heat gain (Not by orientation)	5.6								-
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Heating	3.14 Total heat loss (Not by orientation)	25.8								-

ENERGY STAR Single-Family New Homes
National HVAC Design Report, Version 3 / 3.1 / 3.2 (Rev. 12)

4. Heating & Cooling Equipment Selection								Designer Verified
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4.2 Equipment type:	☐ Cooling-only air conditioner or	■ Cooling & heating heat pump						-
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4.4 Evaporator / fan coil manufacturer & model:	Trane TEM6A0B30H21++TDR							-
4.5 AHRI reference #:	209068075							-
4.6 AHRI listed efficiency:	12 / 16	EER / SEER	Air-source heat pump:	7.5	HSPF	Ground-source heat pump:	COP	-
4.7 Evaporator fan type:	☐ PSC	☐ ECM / ICM	■ Other:					-
4.8 Compressor type:	■ Single-speed	☐ Two-speed	☐ Variable-speed					-
4.9 Latent capacity at design conditions, from OEM expanded performance data:						0 kBtuh		-
4.10 Sensible capacity at design conditions, from OEM expanded performance data:						0 kBtuh		-
4.11 Total capacity at design conditions, from OEM expanded performance data:						0 kBtuh		-
4.12 Air-source heat pump capacity:	At 17°F:	22.2 kBtuh	At 47°F:	35.2 kBtuh		☐ N/A		-
4.13 Cooling sizing % = Total capacity (Item 4.11) divided by maximum total heat gain (Item 3.12):				0 %				-
4.14 Complete this Item if Condition B Climate will be used to select sizing limit in Item 4.15. Otherwise, check "N/A":						■ N/A		-
4.14.1 Load sensible heat ratio = Max. sensible heat gain (Item 3.10) / Max. total heat gain (Item 3.12)					=	83%		-
4.14.2 HDD / CDD ratio (Visit energystar.gov/hvacdesigntemps to determine this value for the design location)					=	0.2		-
4.15 Check box of applicable cooling sizing limit from chart below:								-

Equipment Type (Per Item 4.2) & Climate Condition (Per Item 4.14)	Compressor Type (Per Item 4.8)		
	Single-Speed	Two-Speed	Variable-Speed
For Cooling-Only Equipment or For Cooling Mode of Heat Pump in Condition A Climate	☐ Recommended: 90 – 115% Allowed: 90 – 130%	☐ Recommended: 90 – 120% Allowed: 90 – 140%	☐ Recommended: 90 – 130% Allowed: 90 – 160%
For Cooling Mode of Heat Pump in Condition B Climate	☐ 90% - 100%, plus 15 kBtuh	☐ 90% - 100%, plus 15 kBtuh	☐ 90% - 100%, plus 15 kBtuh

4.16 Cooling sizing % (4.13) is within cooling sizing limit (4.15)	☐

Furnace (Complete if furnace will be installed; otherwise check "N/A")	■ N/A
4.17 Furnace manufacturer & model:	-
4.18 Listed efficiency: AFUE	-
4.19 Total capacity: kBtuh	-
4.20 Heating sizing % = Total capacity (Item 4.19) divided by total heat loss (Item 3.14): 0%	-
4.21 Check box of applicable heating sizing limit from chart below:	-

When Used for Heating Only	When Paired With Cooling
☐ 100 - 140%	☐ Recommended: 100 – 140% Allowed: 100 – 400%

4.22 Heating sizing % (4.20) is within heating sizing limit (4.21)	☐

5. Duct Design (Complete if heating or cooling equipment will be installed with ducts; otherwise check "N/A")				☐ N/A
5.1 Duct system designed for the equipment selected in Section 4, per ACCA Manual D				■
5.2 Design HVAC fan airflow:	Cooling mode 1153 CFM	Heating mode 1153 CFM		-
5.3 Design HVAC fan speed setting (e.g., low, medium, high):	Cooling mode Medium	Heating mode Medium		-
5.4 Design total external static pressure (corresponding to the mode with the higher airflow in Item 5.2):		0 IWC		-
5.5 Room-by-room design airflows documented below (which must sum to the mode with the higher airflow in Item 5.2)				-

	Room Name	Design Airflow (CFM)		Room Name	Design Airflow (CFM)		Room Name	Design Airflow (CFM)
1	Room1	0	12	Room8	9	23		
2	Room10	213	13	Room9	15	24		
3	Room11	0	14			25		
4	Room12	84	15			26		
5	Room13	8	16			27		
6	Room2	0	17			28		
7	Room3	89	18			29		
8	Room4	165	19			30		
9	Room5	18	20			31		
10	Room6	514	21			32		
11	Room7	38	22				Total for all rooms	1153