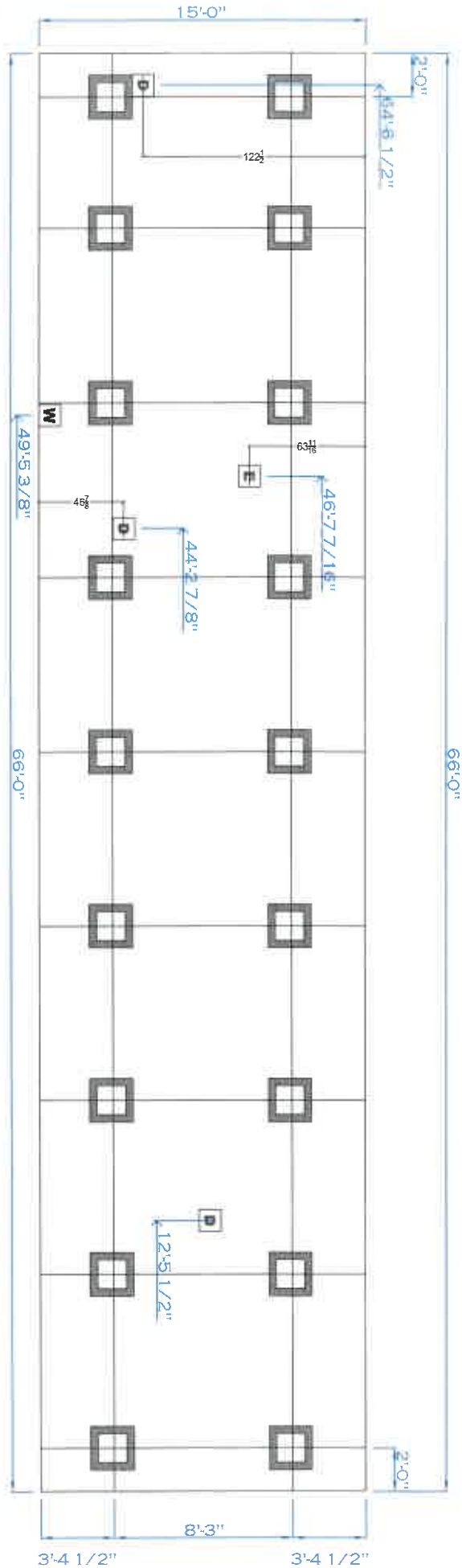








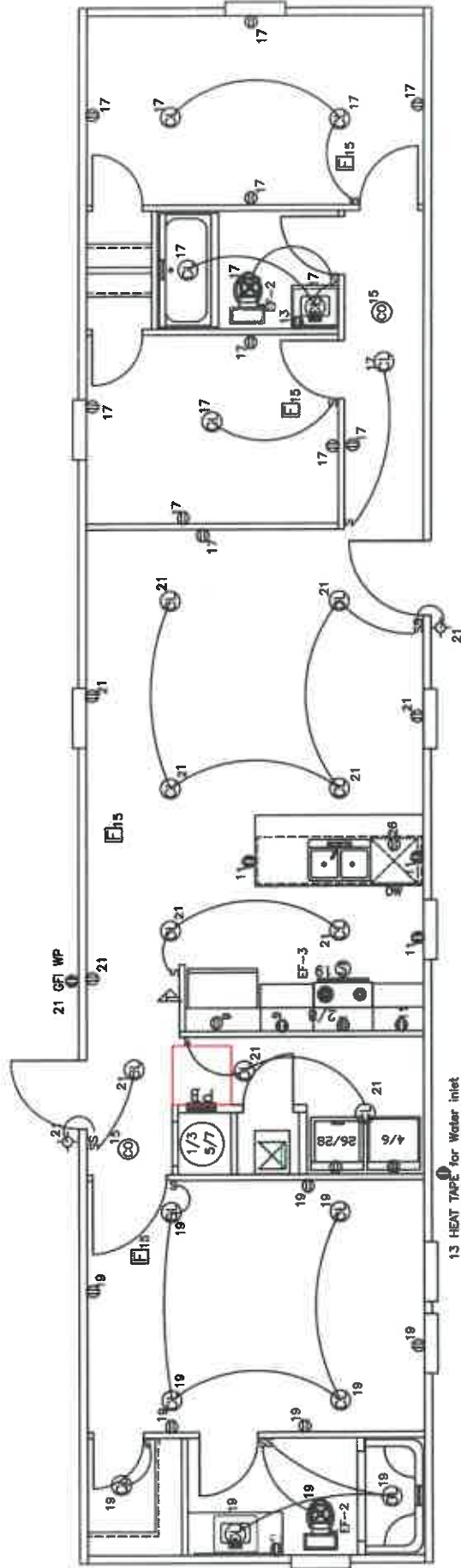
<b>GILES HOMES</b>	Model #	S46056	Drawing #	
	465 S. JORDAN ST. NEW TAZEWELL, TN 37063	Project No.	S46056 DOE	
Product Designer	HARVILLID	PRICEBUSTER	CG	
<b>ELEVATION&amp;LT</b>		S46056		



\*THIS FOOTER DIAGRAM IS FOR STANDARD PRODUCT ONLY  
\*FOR PIER SPACING REFER TO SET UP MANUAL

-  **MARRIAGE WALL PIER**
-  **WATER INLET**
-  **DRAIN**
-  **ELECTRICAL DROP**
-  **DOOR PIER**
-  **REGULAR PIER**





**NOTES:**

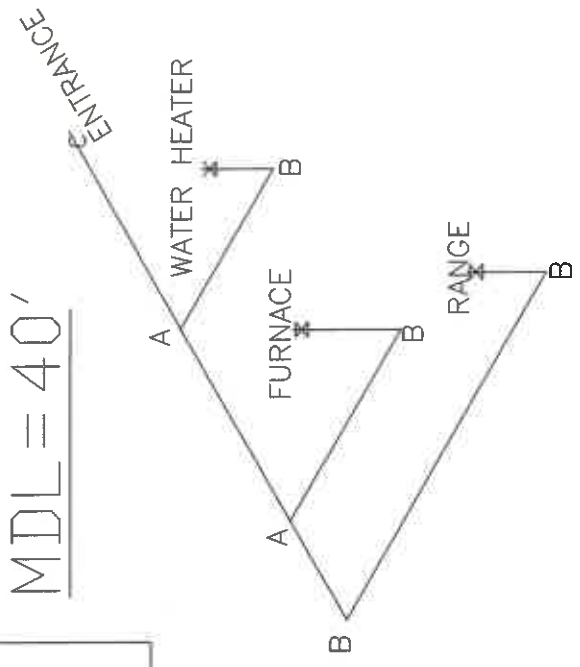
1. ALL CIRCUITS SHOWN ARE FOR REFERENCE AND MAY BE CHANGED BASED ON OPTIONAL COMPONENTS INSTALLED IN THE HOME.
2. REFER TO DAPIA MANUAL FOR SYMBOL CHART.
3. EITHER LIGHT OR RECEPTACLE MUST CONNECT TO SWITCH.
4. EF-1= 50 CFM EXHAUST FAN REQUIRED FOR THERMAL ZONE III THERMAL ZONES I & II MAY USE FAN OR WINDOW W/15 SQ. FT. OPENABLE GLASS.
5. EF-2= 50 CFM EXHAUST FAN REQUIRED THERMAL ZONE I, II, AND III.
6. EF-3= 100 CFM RANGE EXHAUST FAN, SWITCH AT HOOD.
7. EF-4= WHOLE HOUSE VENTILATION REQUIREMENTS PER DAPIA MANUAL.
8. REFER TO DAPIA MANUAL OR THE MFG. INSTALLATION INSTRUCTIONS FOR PROPER WIRE SIZE AND BREAKER SIZE FOR SPECIFIC APPLIANCE AND MODEL BEING INSTALLED.
9. ALL SMOKE ALARMS TO BE LOCATED ON THE CEILING.
10. CARBON MONOXIDE ALARMS ARE ONLY REQUIRED WHEN HOME HAS EITHER FUEL BURNING APPLIANCES, IS GARAGE READY OR IS BASEMENT READY. REFERENCE DAPIA MANUAL FOR ADDITIONAL INFORMATION.
11. DIMENSIONS SHOWN ON PRINT ARE APPROXIMATE AND TO BE USED ONLY AS A GUIDELINE.



<b>GILES HOMES</b>		Model #: 546056	Drawing #:
405 S. BROAD ST., NEW TAZEWELL, TN 37858		Date: 9-13-22	Scale: N/A
Product Designer: HARVILLED	MODEL DESCRIPTION		546056
ELECT SUB		546056	

LEGEND		APPLIANCE	BTU'S RATINGS	MAX. INPUT
SYM	FITTINGS	FURNACE	77,000	BTU'S
A	TEE	W/H	36000	BTU'S
B	90 ELL	RANGE	56,000	BTU'S
X	VALVE			
C	CAP			

MDL = 40'



**NOTES:**

- 1) ALL PIPE IS 3/4" I.D.CAST  
<EXCEPT WHERE NOTED OTHERWISE>
- 2) MDL=MAX. DETERMINED LENGTH OF PIPE
- 3) FITTING MAY BE ADDED OR SUBTRACTED  
TO TRAVERSE VARIATIONS IN AXLE  
QUANTITY, PLACEMENT, AND FRAME TYPE.
- 4) INLET LOCATION MAY VARY TO STAY WITHIN  
MAX. DETERMINED LENGTH



<b>GILES HOMES</b>	Model #: 546056	Drawing #: 546056
405 S. BROAD ST. NEW TAZEWELL, TN 37821	Date: 9-13-22	Scale: N/A
Product Designer: HARVILLE	MODEL DESCRIPTION	
		GAS
		546056

**Model # S46056**

**Giles Homes Light and Vent Chart**

Room	Floor Area SQFT	Window(s)	Glass Area	% of Floor	Artificial Light	Vent Area	% of Floor	Artificial Vent	Min. Door
Living Room	173	3060 x2	19.8	11.45%		10.4	6.01%		32
Kitchen / DR	119	3060	9.9	8.32%	X	5.2	4.37%	X	24
Bedroom M	154	3060 x2	19.8	12.86%		10.4	6.75%		28
Bedroom 2	115	3060	9.9	8.61%		5.2	4.52%		24
Bedroom 3	86	3060	9.9	11.51%		5.2	6.05%		24
Master Bath	51	3040	6.6	12.94%	X	3.3	6.47%	X	24
Bath 2	38	0			X			X	24
Utility	45	0			X			X	24

\* (X) Artificial Light and Vent has been provided for this room

\*\* Note: All window sizes are minimum requirements for rooms. And windows may be added as long as heat loss allows and/or is documented on the floor plan



# Description of Materials

U.S. Department of Housing  
and Urban Development  
Department of Veterans Affairs  
Farmers Home Administration

OMB Control No. 2502-0313  
(exp. 3/31/2024)

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. This agency may not collect this information, and you are not required to complete this form, unless it displays a currently valid OMB control number.

The National Housing Act (12 USC 1703) authorizes insuring financial institutions against default losses on single family mortgages. HUD must evaluate the acceptability and value of properties to be insured. The information collected here will be used to determine if proposed construction meets regulatory requirements and if the property is suitable for mortgage insurance. Response to this information collection is mandatory. No assurance of confidentiality is provided.

Proposed Construction  Under Construction No. \_\_\_\_\_ (To be inserted by HUD, VA or FmHA)  
Property address (Include City and State) \_\_\_\_\_

Name and address of Mortgagor or Sponsor	Name and address of Contractor or Builder Giles Homes 405 South Broad Street New Tazewell TN 37825
--	---

### Instructions

- For additional information on how this form is to be submitted, number of copies, etc., see the instructions applicable to the HUD Application for Mortgage Insurance, VA Request for Determination of Reasonable Value, or FmHA Property Information and Appraisal Report, as the case may be.
- Describe all materials and equipment to be used, whether or not shown on the drawings, by marking an X in each appropriate check-box and entering the information called for each space. If space is inadequate, enter "See misc." and describe under item 27 or on an attached sheet. **The use of paint containing more than the percentage of lead by weight permitted by law is prohibited.**
- Work not specifically described or shown will not be considered unless required, then the minimum acceptable will be assumed. Work exceeding minimum requirements cannot be considered unless specifically described.
- Include no alternates, "or equal" phrases, or contradictory items. (Consideration of a request for acceptance of substitute materials or equipment is not thereby precluded.)
- Include signatures required at the end of this form.
- The construction shall be completed in compliance with the related drawings and specifications, as amended during processing. The specifications include this Description of Materials and the applicable Minimum Property Standards.

### 1. Excavation

Bearing soil, type \_\_\_\_\_

### 2. Foundations

Footings concrete mix \_\_\_\_\_ strength psi \_\_\_\_\_ Reinforcing \_\_\_\_\_

Foundation wall material \_\_\_\_\_ Reinforcing \_\_\_\_\_

Interior foundation wall material \_\_\_\_\_ Party foundation wall \_\_\_\_\_

Columns material and sizes \_\_\_\_\_ Piers material and reinforcing \_\_\_\_\_

Girders material and sizes \_\_\_\_\_ Sills material \_\_\_\_\_

Basement entrance areaway \_\_\_\_\_ Window areaways \_\_\_\_\_

Waterproofing \_\_\_\_\_ Footing drains \_\_\_\_\_

Termite protection \_\_\_\_\_

Basementless space ground cover \_\_\_\_\_ insulation \_\_\_\_\_ foundation vents \_\_\_\_\_

Special foundations \_\_\_\_\_

Additional information \_\_\_\_\_

### 3. Chimneys

Material \_\_\_\_\_ Prefabricated (make and size) \_\_\_\_\_

Flue lining material \_\_\_\_\_ Heater flue size \_\_\_\_\_ Fireplace flue size \_\_\_\_\_

Vents (material and size) gas or oil heater \_\_\_\_\_ water heater \_\_\_\_\_

Additional information \_\_\_\_\_

Chimney Kit 58621

### 4. Fireplaces

Type  solid fuel  gas-burning  circulator (make and size) \_\_\_\_\_ Ash dump and clean-out \_\_\_\_\_

Fireplace facing \_\_\_\_\_ lining \_\_\_\_\_ hearth 103217 \_\_\_\_\_ mantel 1032918 \_\_\_\_\_

Additional information \_\_\_\_\_

Fireplace front 1032921

**5. Exterior Walls**

Wood frame wood grade, and species #3 SPF  Corner bracing Building paper or felt \_\_\_\_\_  
 Sheathing OSB thickness 7/16" width 48"  solid  spaced \_\_\_\_\_ o.c.  diagonal \_\_\_\_\_  
 Siding Horizontal grade Blog type Vinyl size \_\_\_\_\_ exposure \_\_\_\_\_ fastening Stapled  
 Shingles Fiberglass grade #235 type GAP size 36 exposure 5 1/2" fastening Stapled  
 Stucco \_\_\_\_\_ thickness \_\_\_\_\_ Lath \_\_\_\_\_ weight \_\_\_\_\_ lb.  
 Masonry veneer \_\_\_\_\_ Sills \_\_\_\_\_ Lintels \_\_\_\_\_ Base flashing \_\_\_\_\_  
 Masonry  solid  faced  stuccoed total wall thickness \_\_\_\_\_ facing thickness \_\_\_\_\_ facing material \_\_\_\_\_  
 Backup material \_\_\_\_\_ thickness \_\_\_\_\_ bonding \_\_\_\_\_  
 Door sills \_\_\_\_\_ Window sills \_\_\_\_\_ Lintels \_\_\_\_\_ Base flashing \_\_\_\_\_  
 Interior surfaces dampproofing, \_\_\_\_\_ coats of \_\_\_\_\_ furring \_\_\_\_\_  
 Additional information \_\_\_\_\_  
 Exterior painting material \_\_\_\_\_ number of coats \_\_\_\_\_  
 Gable wall construction  same as main walls  other construction \_\_\_\_\_

**6. Floor Framing**

Joists wood, grade, and species #2 SPF other 16" bridging \_\_\_\_\_ anchors \_\_\_\_\_  
 Concrete slab  basement floor  first floor  ground supported  self-supporting mix \_\_\_\_\_ thickness \_\_\_\_\_  
 reinforcing \_\_\_\_\_ insulation \_\_\_\_\_ membrane \_\_\_\_\_  
 Fill under slab material \_\_\_\_\_ thickness \_\_\_\_\_  
 Additional information Double 2x6 @ @shearwalls nailed and glued

**7. Subflooring (Describe underflooring for special floors under item 21)**

Material grade and species 7/16" OSB size \_\_\_\_\_ type \_\_\_\_\_  
 Laid  first floor  second floor  attic \_\_\_\_\_ sq. ft.  diagonal  right angles  
 Additional information T&G OSB glued and nailed, sanded @ seams, water proofing in wet areas

**8. Finish Flooring (Wood only. Describe other finish flooring under item 21)**

Location	Rooms	Grade	Species	Thickness	Width	Bldg. Paper	Finish
First floor							
Second floor							
Attic floor	sq. ft.						

Additional information \_\_\_\_\_

**9. Partition Framing**

Studs wood, grade, and species SPF #2 and #3 size and spacing 2x3 and 2x4 Other \_\_\_\_\_  
 Additional information \_\_\_\_\_

**10. Ceiling Framing**

Joists wood, grade, and species purchased truss Other \_\_\_\_\_ Bridging \_\_\_\_\_  
 Additional information \_\_\_\_\_

**11. Roof Framing**

Rafters wood, grade, and species purchased truss Roof trusses (see detail) grade and species \_\_\_\_\_  
 Additional information \_\_\_\_\_

**12. Roofing**

Sheathing wood, grade, and species OSB 7/16"  solid  spaced \_\_\_\_\_ o.c.  
 Roofing \_\_\_\_\_ grade \_\_\_\_\_ size \_\_\_\_\_ type \_\_\_\_\_  
 Underlay \_\_\_\_\_ weight or thickness \_\_\_\_\_ size \_\_\_\_\_ fastening \_\_\_\_\_  
 Built-up roofing \_\_\_\_\_ number of plies \_\_\_\_\_ surfacing material \_\_\_\_\_  
 Flashing material \_\_\_\_\_ gage or weight \_\_\_\_\_  gravel stops  snow guards  
 Additional information \_\_\_\_\_



**13. Gutters and Downspouts**

Gutters material \_\_\_\_\_ gage or weight 1 1/2" size \_\_\_\_\_ shape \_\_\_\_\_  
 Downspouts material \_\_\_\_\_ gage or weight \_\_\_\_\_ size \_\_\_\_\_ shape \_\_\_\_\_ number \_\_\_\_\_  
 Downspouts connected to  Storm sewer  sanitary sewer  dry-well  Splash blocks material and size \_\_\_\_\_  
 Additional information \_\_\_\_\_

**14. Lath and Plaster**

Lath  walls  ceilings material \_\_\_\_\_ weight or thickness \_\_\_\_\_ Plaster coats \_\_\_\_\_ finish \_\_\_\_\_  
 Dry-wall  walls  ceilings material \_\_\_\_\_ thickness \_\_\_\_\_ finish \_\_\_\_\_  
 Joint treatment \_\_\_\_\_

**15. Decorating (Paint, wallpaper, etc.)**

Rooms	Wall Finish Material and Application	Ceiling Finish Material and Application
Kitchen		
Bath		
Other		

Additional information \_\_\_\_\_

**16. Interior Doors and Trim**

Doors type Hollow core material Masonite board thickness 2"  
 Door trim type \_\_\_\_\_ material \_\_\_\_\_ Base type \_\_\_\_\_ material \_\_\_\_\_ size \_\_\_\_\_  
 Finish doors \_\_\_\_\_ trim \_\_\_\_\_  
 Other trim (item, type and location) \_\_\_\_\_  
 Additional information \_\_\_\_\_

**17. Windows**

Windows type Clayton Supply make \_\_\_\_\_ material \_\_\_\_\_ sash thickness \_\_\_\_\_  
 Glass grade \_\_\_\_\_  sash weights  balances, type \_\_\_\_\_ head flashing \_\_\_\_\_  
 Trim type \_\_\_\_\_ material \_\_\_\_\_ Paint \_\_\_\_\_ number coats \_\_\_\_\_  
 Weatherstripping type \_\_\_\_\_ material \_\_\_\_\_ Storm sash, number \_\_\_\_\_  
 Screens  full  half type \_\_\_\_\_ number \_\_\_\_\_ screen cloth material \_\_\_\_\_  
 Basement windows type \_\_\_\_\_ material \_\_\_\_\_ screens, number \_\_\_\_\_ Storm sash, number \_\_\_\_\_  
 Special windows \_\_\_\_\_  
 Additional information \_\_\_\_\_

**18. Entrances and Exterior Detail**

Main entrance door material Elixir width \_\_\_\_\_ thickness \_\_\_\_\_ Frame material \_\_\_\_\_ thickness \_\_\_\_\_  
 Other entrance doors material \_\_\_\_\_ width \_\_\_\_\_ thickness \_\_\_\_\_ Frame material \_\_\_\_\_ thickness \_\_\_\_\_  
 Head flashing \_\_\_\_\_ Weatherstripping type \_\_\_\_\_ saddles \_\_\_\_\_  
 Screen doors thickness \_\_\_\_\_ number \_\_\_\_\_ screen cloth material \_\_\_\_\_ Storm doors thickness \_\_\_\_\_ number \_\_\_\_\_  
 Combination storm and screen doors thickness \_\_\_\_\_ number \_\_\_\_\_ screen cloth material \_\_\_\_\_  
 Shutters  hinged  fixed Railings \_\_\_\_\_ Attic louvers \_\_\_\_\_  
 Exterior millwork grade and species \_\_\_\_\_ Paint \_\_\_\_\_ number coats \_\_\_\_\_  
 Additional information \_\_\_\_\_

**19. Cabinets and Interior Detail**

Kitchen cabinets, wall units material 1/2" duracraft lineal feet of shelves \_\_\_\_\_ shelf width \_\_\_\_\_  
 Base units material \_\_\_\_\_ counter top \_\_\_\_\_ edging \_\_\_\_\_  
 Back and end splash \_\_\_\_\_ Finish of cabinets \_\_\_\_\_ number coats \_\_\_\_\_  
 Medicine cabinets make \_\_\_\_\_ model \_\_\_\_\_  
 Other cabinets and built-in furniture \_\_\_\_\_  
 Additional information \_\_\_\_\_

20. Stairs

Stair	Treads		Risers		Strings		Handrail		Balusters	
	Material	Thickness	Material	Thickness	Material	Size	Material	Size	Material	Size
Basement										
Main										
Attic										

Disappearing make and model number \_\_\_\_\_  
 Additional information \_\_\_\_\_

21. Special Floors and Wainscot (Describe Carpet as listed in Certified Products Directory)

Floors	Location	Material, Color, Border, Sizes, Gage, Etc.	Threshold Material	Wall Base Material	Underfloor Material
		Kitchen	Congo Liam		
	Bath	Congo Liam			
Wainscot	Location	Material, Color, Border, Cap. Sizes, Gage, Etc.	Height	Height Over Tub	Height in Showers (From Floor)
	Bath				

Additional information \_\_\_\_\_

22. Plumbing

Fixture	Number	Location	Make	MFR's Fixture Identification No.	Size	Color
Sink	1	Kitchen			33"x19"x6"	Steel
Lavatory	2	Bath			22"x14"	Plastic
Water closet	2	Bath			Single Bowl	
Bathtub	2	Bath			60"	Fiberglass
Shower over tub						
Stall shower						
Laundry trays						

Bathroom accessories  Recessed material \_\_\_\_\_ number \_\_\_\_\_  Attached material \_\_\_\_\_ number \_\_\_\_\_  
 Additional information \_\_\_\_\_

Curtain rod  Door  Shower pan material 1 pc fiberglass \* (Show and describe individual system in complete detail in separate drawings and specifications according to requirements.)  
 Water supply  public  community system  individual (private) system\*  
 Sewage disposal  public  community system  individual (private) system\*  
 House drain (inside)  cast iron  tile  other ABS House sewer (outside)  cast iron  tile  other \_\_\_\_\_  
 Water piping  galvanized steel  copper tubing  other PEX Sill cocks, number \_\_\_\_\_  
 Domestic water heater type Heat Pump make and model Rheem heating capacity \_\_\_\_\_ gph. 100° rise.  
 Storage tank material \_\_\_\_\_ capacity 40 or 50 gallons  
 Gas service  utility company  liq. pet. gas  other \_\_\_\_\_  Gas piping  cooking  house heating  
 Footing drains connected to  storm sewer  sanitary sewer  dry well  sump pump make and model \_\_\_\_\_  
 capacity \_\_\_\_\_ discharges into \_\_\_\_\_

Additional information \_\_\_\_\_

23. Heating

Hot water Radiators Radiant panel Circulator Boiler make and model Output Btuh. net rating Btuh.

Additional information Down flow

Warm air Gravity Forced Type of system Duct material supply return Insulation thickness Outside air intake Furnace: make and model Input Btuh. output Btuh.

Additional information

Space heater floor furnace wall heater Input Btuh. output Btuh. number units Make, model

Additional information

Controls make and types

Additional information

Fuel: Coal oil gas liq. pet. gas electric other storage capacity

Additional information:

Firing equipment furnished separately Gas burner, conversion type Stoker hopper feed Oil burner pressure atomizing vaporizing Make and model

Control

Additional information

Electric heating system type Input watts @ volts output Btuh.

Additional information

Ventilating equipment attic fan, make and model capacity cfm. kitchen exhaust fan, make and model

Other heating, ventilating, or cooling equipment

Additional information

24. Electric Wiring

Service overhead underground Panel fuse box circuit-breaker make AMP's No. circuits Wiring conduit armored cable nonmetallic cable knob and tube other

Special outlets range water heater other

Doorbell Chimes Push-button locations

Additional information

25. Lighting Fixtures

Total number of fixtures Total allowance for fixtures, typical installation, \$

Nontypical installation

Additional information

**26. Insulation**

Location	Thickness	Material, Type, and Method of Installation	Vapor Barrier
Roof	38	Blown	
Ceiling			
Wall	13 or 16	Batt	Kraft Back
Floor	22, 27 or 33	Rolled	

**27. Miscellaneous:** (Describe any main dwelling materials, equipment, or construction items not shown elsewhere; or use to provide additional information where the space provided was inadequate. Always reference by item number to correspond to numbering used on this form.)

**Hardware** (make, material, and finish.)

**Special Equipment** (State material or make, model and quantity. Include only equipment and appliances which are acceptable by local law, custom and applicable FHA standards. Do not include items which, by established custom, are supplied by occupant and removed when he vacates premises or chatties prohibited by law from becoming realty.)

**Porches**

**Terraces**

**Garages**

**Walks and Driveways**

Driveway width \_\_\_\_\_ base material \_\_\_\_\_ thickness \_\_\_\_\_ surfacing material \_\_\_\_\_ thickness \_\_\_\_\_  
 Front walk width \_\_\_\_\_ material \_\_\_\_\_ thickness \_\_\_\_\_ Service walk width \_\_\_\_\_ material \_\_\_\_\_ thickness \_\_\_\_\_  
 Steps material \_\_\_\_\_ treads \_\_\_\_\_ risers \_\_\_\_\_ Cheek walls \_\_\_\_\_

**Other Onsite Improvements**

(Specify all exterior onsite improvements not described elsewhere, including items such as unusual grading, drainage structures, retaining walls, fence, railings, and accessory structures.)

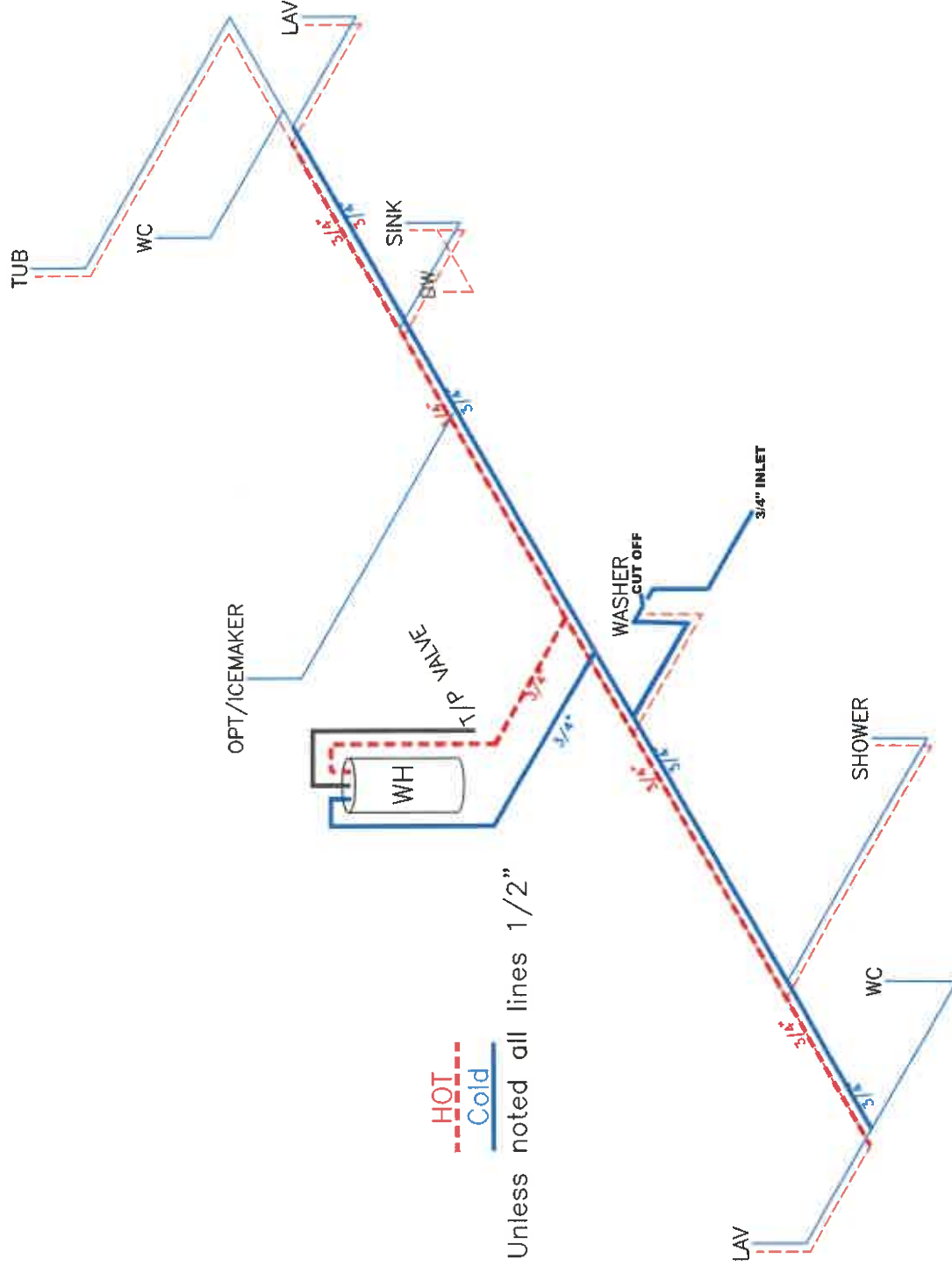
**Landscaping, Planting, and Finish Grading**

Topsoil \_\_\_\_\_ thick  front yard  side yards  rear yard to \_\_\_\_\_ feet behind main building  
 Lawns (seeded, sodded, or sprigged)  front yard \_\_\_\_\_  side yards \_\_\_\_\_  rear yard \_\_\_\_\_  
 Planting  as specified and shown on drawings  as follows:  
 \_\_\_\_\_ Shade trees deciduous \_\_\_\_\_ caliper \_\_\_\_\_ Evergreen trees \_\_\_\_\_ to \_\_\_\_\_ B & B  
 \_\_\_\_\_ Low flowering trees deciduous \_\_\_\_\_ to \_\_\_\_\_ Evergreen shrubs \_\_\_\_\_ to \_\_\_\_\_ B & B  
 \_\_\_\_\_ High-growing shrubs deciduous \_\_\_\_\_ to \_\_\_\_\_ Vines, 2-year \_\_\_\_\_  
 \_\_\_\_\_ Medium-growing shrubs deciduous \_\_\_\_\_ to \_\_\_\_\_ Other \_\_\_\_\_  
 \_\_\_\_\_ Low-growing shrubs deciduous \_\_\_\_\_ to \_\_\_\_\_

**Identification**—This exhibit shall be identified by the signature of the builder, or sponsor, and/or the proposed mortgagor if the latter is known at the time of application.

Date (mm/dd/yyyy) 10/13/2023 \_\_\_\_\_ Signature \_\_\_\_\_

Signature \_\_\_\_\_



--- HOT  
 Solid Cold

Unless noted all lines 1/2"

**APPROVED**  
**BWG**  
 26 SEP 2022  
 FP-16-3047  
 Federal Manufactured  
 Home Construction  
 And Safety Standards

<b>GILES HOMES</b>	Model #: 546056	Drawing #:
405 S. BROAD ST. NEW TAZEWELL TN 37822	Date: 9-13-22	Scale: N/A
Product Designer: MARVILLED	MODEL DESCRIPTION	
PRESSURE LINES		546056

5000 Clayton Road, Maryville, TN 37804 Phone: 865-380-3000

**Project Information**

For: S46056-FDJ-TZII, GILES



**Design Conditions**

**Location:**

Knoxville McGhee Tyson AP, TN, US  
 Elevation: 981 ft  
 Latitude: 36°N

**Indoor:**

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

**Heating**

70  
 55  
 30  
 24.1

**Cooling**

75  
 18  
 50  
 36.2

**Outdoor:**

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

**Heating**

15  
 -  
 -  
 15.0

**Cooling**

93  
 19 ( M )  
 74  
 7.5

**Infiltration:**

Method  
 Construction quality  
 Fireplaces

Simplified  
 Semi-tight  
 0

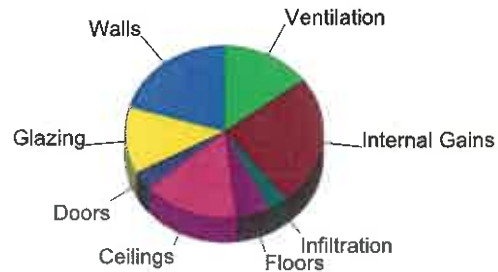
**Heating**

Component	Btuh/ft²	Btuh	% of load
Walls	4.5	5187	26.1
Glazing	19.3	1845	9.3
Doors	17.6	739	3.7
Ceilings	1.9	1842	9.3
Floors	2.8	2684	13.5
Infiltration	1.8	2310	11.6
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		5255	26.5
Adjustments		0	0
<b>Total</b>		<b>19862</b>	<b>100.0</b>



**Cooling**

Component	Btuh/ft²	Btuh	% of load
Walls	2.0	2334	20.3
Glazing	15.0	1436	12.5
Doors	9.5	400	3.5
Ceilings	1.9	1784	15.5
Floors	0.7	647	5.6
Infiltration	0.3	381	3.3
Ducts		0	0
Ventilation		1682	14.6
Internal gains		2820	24.6
Blower		0	0
Adjustments		0	0
<b>Total</b>		<b>11483</b>	<b>100.0</b>



Latent Cooling Load = 3425 Btuh  
 Overall U-value = 0.070 Btuh/ft²-°F

Data entries checked.



**Component Constructions**  
**Entire House**  
**Clayton Homes**

Job: S46056-FDJ-TZII  
 Date: Sep 21, 2022  
 By:

5000 Clayton Road, Maryville, TN 37804 Phone: 865-380-3000

**Project Information**

For: S46056-FDJ-TZII, GILES



**Design Conditions**

<b>Location:</b> Knoxville McGhee Tyson AP, TN, US Elevation: 981 ft Latitude: 36°N	<b>Indoor:</b> Indoor temperature (°F) Design TD (°F) Relative humidity (%) Moisture difference (gr/lb)	<b>Heating</b> 70 55 30 24.1	<b>Cooling</b> 75 18 50 36.2
<b>Outdoor:</b> Dry bulb (°F) Daily range (°F) Wet bulb (°F) Wind speed (mph)	<b>Heating</b> 15 - - 15.0	<b>Cooling</b> 93 19 ( M ) 74 7.5	<b>Infiltration:</b> Method Construction quality Fireplaces
		<b>Simplified Semi-tight</b> 0	

**Construction descriptions**

	Or	Area ft²	U-value Btu/ft²·°F	Insul R ft²·F/Btu	Htg HTM Btu/ft²	Loss Btu/h	Clg HTM Btu/ft²	Gain Btu/h
<b>Walls</b>								
CMH - SW - R-13 Wall - S-TH-20A: Single Wide - R-13 Insulation S-TH-20A	n	482	0.082	13.0	4.51	2174	2.03	978
2x4 Wall Vinyl Siding w/Foam or OSB underlayment	e	104	0.082	13.0	4.51	467	2.03	210
	s	457	0.082	13.0	4.51	2061	2.03	927
	w	108	0.082	13.0	4.51	486	2.03	219
	all	1150	0.082	13.0	4.51	5187	2.03	2334
<b>Partitions</b> (none)								
<b>Windows</b>								
Clayton - Thermopane Low-E: Clayton - Thermopane Low-E; 50% blinds	n	25	0.350	0	19.3	481	9.39	235
45°, medium; 50% outdoor insect screen; 6.67 ft head ht	e	13	0.350	0	19.3	241	26.5	331
	s	50	0.350	0	19.3	963	13.0	650
	w	8	0.350	0	19.3	160	26.5	221
	all	96	0.350	0	19.3	1845	15.0	1436
<b>Doors</b>								
CMH - Standard Door: CMH - Standard Door - Solid no storm	n	21	0.320	0	17.6	370	9.52	200
	s	21	0.320	0	17.6	370	9.52	200
	all	42	0.320	0	17.6	739	9.52	400
<b>Ceilings</b>								
CMH - SW - 185 box R-33 - S-TH-54I; SW - 185 box R-33 Knauf Insulation S-TH-54I Flat Ceiling 24oc		957	0.035	33.0	1.92	1842	1.86	1784
<b>Floors</b>								
CMH - SW - R-22 - S-TH-17A: Single Wide - R-22 Insulation S-TH-17A- HEATED		957	0.051	22.0	2.80	2684	0.68	647



**Project Summary**  
**Entire House**  
**Clayton Homes**

Job: S46056-FDJ-TZII  
 Date: Sep 21, 2022  
 By:

5000 Clayton Road, Maryville, TN 37804 Phone: 865-380-3000

**Project Information**

For: S46056-FDJ-TZII, GILES

Notes:

**APPROVED**

**HWC**

**APPROVED**

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**Design Information**

Weather: Knoxville McGhee Tyson AP, TN, US

**Winter Design Conditions**

Outside db	15 °F
Inside db	70 °F
Design TD	55 °F

**Summer Design Conditions**

Outside db	93 °F
Inside db	75 °F
Design TD	18 °F
Daily range	M
Relative humidity	50 %
Moisture difference	36 gr/lb

**Heating Summary**

Structure	14607 Btuh
Ducts	0 Btuh
Central vent (90 cfm)	5255 Btuh
Outside air	
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	19862 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure	9802 Btuh
Ducts	0 Btuh
Central vent (90 cfm)	1682 Btuh
Outside air	
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.98
Equipment sensible load	11208 Btuh

**Infiltration**

Method	Simplified
Construction quality	Semi-tight
Fireplaces	0

**Latent Cooling Equipment Load Sizing**

Structure	1285 Btuh
Ducts	0 Btuh
Central vent (90 cfm)	2139 Btuh
Outside air	
Equipment latent load	3425 Btuh
<b>Equipment Total Load (Sen+Lat)</b>	<b>14632 Btuh</b>
Req. total capacity at 0.70 SHR	1.3 ton

	Heating	Cooling
Area (ft²)	957	957
Volume (ft³)	7656	7656
Air changes/hour	0.31	0.16
Equiv. AVF (cfm)	40	20

**Heating Equipment Summary**

Make	Smart Comfort
Trade	
Model	
AHRI ref	
Efficiency	100 EFF
Heating input	0 kW
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	593 cfm
Air flow factor	0.041 cfm/Btuh
Static pressure	0.30 in H2O
Space thermostat	

**Cooling Equipment Summary**

Make	Smart Comfort
Trade	SMART COMFORT
Cond	R4A518GKB
Coil	FED002410++NADA43601CK
AHRI ref	203358045
Efficiency	12.2 EER, 14 SEER
Sensible cooling	12460 Btuh
Latent cooling	5340 Btuh
Total cooling	17800 Btuh
Actual air flow	593 cfm
Air flow factor	0.061 cfm/Btuh
Static pressure	0.30 in H2O
Load sensible heat ratio	0.77

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







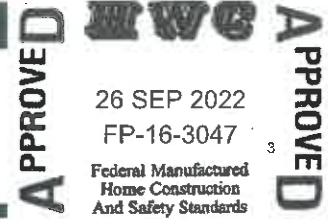
**Duct System Summary**  
**Entire House**  
**Clayton Homes**

Job: S46056-FDJ-TZII  
 Date: Sep 21, 2022  
 By:

5000 Clayton Road, Maryville, TN 37804 Phone: 865-380-3000

**Project Information**

For: S46056-FDJ-TZII, GILES



	Heating	Cooling
External static pressure	0.30 in H2O	0.30 in H2O
Pressure losses	0 in H2O	0 in H2O
Available static pressure	0.30 in H2O	0.30 in H2O
Supply / return available pressure	0.150 / 0.150 in H2O	0.150 / 0.150 in H2O
Lowest friction rate	0.400 in/100ft	0.400 in/100ft
Actual air flow	593 cfm	593 cfm
Total effective length (TEL)	75 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 932	38	24	0.411	5.0	0x0	VIFx	38.0	35.0	st1
BED 2	h 2356	96	90	0.400	5.0	0x0	VIFx	40.0	35.0	st1
BED 3	h 1540	63	53	0.488	5.0	0x0	VIFx	26.5	35.0	st1
KITCHEN	c 2388	125	145	0.674	6.0	0x0	VIFx	9.5	35.0	st1
LIVING ROOM	c 2147	112	130	0.508	6.0	0x0	VIFx	24.0	35.0	st1
P-BATH	h 1786	73	58	0.632	5.0	0x0	VIFx	12.5	35.0	st2
PRIMARY BED	c 1549	87	94	0.667	5.0	0x0	VIFx	10.0	35.0	st2

**Supply Trunk Detail Table**

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st2	PeakAVF	160	152	0.632	329	3.9	5 x 14	ShtMetl	
st1	PeakAVF	434	441	0.400	907	4.3	5 x 14	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	593	593	0	0	0	0	0x0		VIFx	





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Model:   
Serial Number:

**Cooling Equipment Summary**

Duct Capacity:  btuh

Economy Outdoor Temp (°F) =  = (70 - Furnace Output / Estimated Heatloss)  
(Outdoor Certification Temp.)

Furnace Heating Temp (°F) =  = If  $0.3 * \text{Design TD} > 20$  then  
(Operating Econ. Cert. Temp.)  $0.3 * (70 - \text{Cert. Temp.}) + \text{Cert. Temp}$   
else Cert. Temp. + 20

Air Ducts in Floor:  sq ft

Air Ducts Outside of Home:  sq ft

5000 Clayton Road, Maryville, TN 37804 Phone: 865-380-3000

**Project Information**

For: S46056-FDJ-TZIII, GILES

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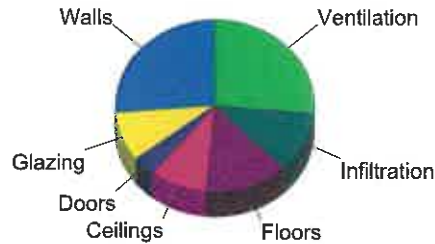
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 And Safety Standards

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Harrison Marion Rgn, WV, US		Indoor temperature (°F)		70	75
Elevation: 1204 ft		Design TD (°F)		58	13
Latitude: 39°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		25.6	29.0
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	12	88	Method	Simplified	
Daily range (°F)	-	19 ( M )	Construction quality	Semi-tight	
Wet bulb (°F)	-	72	Fireplaces	0	
Wind speed (mph)	15.0	7.5			

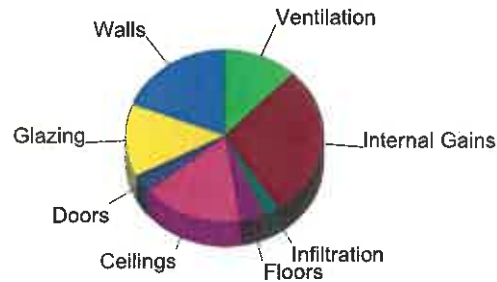
**Heating**

Component	Btuh/ft²	Btuh	% of load
Walls	4.7	5451	26.2
Glazing	20.2	1939	9.3
Doors	18.5	777	3.7
Ceilings	2.0	1936	9.3
Floors	2.9	2821	13.6
Infiltration	1.9	2407	11.6
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		5478	26.3
Adjustments		0	0
<b>Total</b>		<b>20809</b>	<b>100.0</b>



**Cooling**

Component	Btuh/ft²	Btuh	% of load
Walls	1.6	1867	18.9
Glazing	14.1	1352	13.7
Doors	7.9	333	3.4
Ceilings	1.7	1618	16.4
Floors	0.4	405	4.1
Infiltration	0.2	271	2.7
Ducts		0	0
Ventilation		1194	12.1
Internal gains		2820	28.6
Blower		0	0
Adjustments		0	0
<b>Total</b>		<b>9861</b>	<b>100.0</b>



Latent Cooling Load = 2885 Btuh  
 Overall U-value = 0.070 Btuh/ft²·°F

Data entries checked.



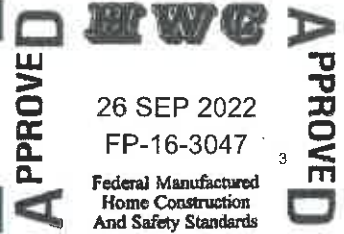
**Component Constructions**  
**Entire House**  
**Clayton Homes**

Job: S46056-FDJ-TZIII  
 Date: Sep 21, 2022  
 By:

5000 Clayton Road, Maryville, TN 37804 Phone: 865-380-3000

**Project Information**

For: S46056-FDJ-TZIII, GILES



**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Harrison Marion Rgn, WV, US		Indoor temperature (°F)		70	75
Elevation: 1204 ft		Design TD (°F)		58	13
Latitude: 39°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		25.6	29.0
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	12	88	Method	Simplified	
Daily range (°F)	-	19 ( M )	Construction quality	Semi-tight	
Wet bulb (°F)	-	72	Fireplaces	0	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btu/ft²·F	Insul R ft²·F/Btu	Htg HTM Btu/ft²	Loss Btu	Clg HTM Btu/ft²	Gain Btu
<b>Walls</b>								
CMH - SW - R-13 Wall - S-TH-20A: Single Wide - R-13 Insulation S-TH-20A	n	482	0.082	13.0	4.74	2284	1.62	783
2x4 Wall Vinyl Siding w/Foam or OSB underlayment	e	104	0.082	13.0	4.74	491	1.62	168
	s	457	0.082	13.0	4.74	2166	1.62	742
	w	108	0.082	13.0	4.74	510	1.62	175
	all	1150	0.082	13.0	4.74	5451	1.62	1867
<b>Partitions</b> (none)								
<b>Windows</b>								
Clayton - Thermopane Low-E: Clayton - Thermopane Low-E; 50% blinds 45°, medium; 50% outdoor insect screen; 6.67 ft head ht	n	25	0.350	0	20.2	506	7.69	192
	e	13	0.350	0	20.2	253	24.7	309
	s	50	0.350	0	20.2	1012	12.4	618
	w	8	0.350	0	20.2	169	24.7	206
	all	96	0.350	0	20.2	1939	13.8	1325
<b>Doors</b>								
CMH - Standard Door: CMH - Standard Door - Solid no storm	n	21	0.320	0	18.5	388	7.94	167
	s	21	0.320	0	18.5	388	7.94	167
	all	42	0.320	0	18.5	777	7.94	333
<b>Ceilings</b>								
CMH - SW - 185 box R-33 - S-TH-54I: SW - 185 box R-33 Knauf Insulation S-TH-54I Flat Ceiling 24oc		957	0.035	33.0	2.02	1936	1.69	1618
<b>Floors</b>								
CMH - SW - R-22 - S-TH-17A: Single Wide - R-22 Insulation S-TH-17A-HEATED		957	0.051	22.0	2.95	2821	0.42	405



**Project Summary**  
**Entire House**  
**Clayton Homes**

Job: S46056-FDJ-TZIII  
 Date: Sep 21, 2022  
 By:

5000 Clayton Road, Maryville, TN 37804 Phone: 865-380-3000

**Project Information**

For: S46056-FDJ-TZIII, GILES

Notes:

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**Design Information**

Weather: Harrison Marion Rgn, WV, US

**Winter Design Conditions**

Outside db	12 °F
Inside db	70 °F
Design TD	58 °F

**Summer Design Conditions**

Outside db	88 °F
Inside db	75 °F
Design TD	13 °F
Daily range	M
Relative humidity	50 %
Moisture difference	29 gr/lb

**Heating Summary**

Structure	15331 Btuh
Ducts	0 Btuh
Central vent (90 cfm)	5478 Btuh
Outside air	
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	20809 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure	8667 Btuh
Ducts	0 Btuh
Central vent (90 cfm)	1194 Btuh
Outside air	
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.93
Equipment sensible load	9131 Btuh

**Infiltration**

Method	Simplified
Construction quality	Semi-tight
Fireplaces	0

**Latent Cooling Equipment Load Sizing**

Structure	1186 Btuh
Ducts	0 Btuh
Central vent (90 cfm)	1700 Btuh
Outside air	
Equipment latent load	2885 Btuh
<b>Equipment Total Load (Sen+Lat)</b>	<b>12016 Btuh</b>
Req. total capacity at 0.70 SHR	1.1 ton

	Heating	Cooling
Area (ft²)	957	957
Volume (ft³)	7656	7656
Air changes/hour	0.31	0.16
Equiv. AVF (cfm)	40	20

**Heating Equipment Summary**

Make	Smart Comfort
Trade	
Model	
AHRI ref	
Efficiency	100 EFF
Heating input	0 kW
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	593 cfm
Air flow factor	0.039 cfm/Btuh
Static pressure	0.30 in H2O
Space thermostat	

**Cooling Equipment Summary**

Make	Smart Comfort
Trade	SMART COMFORT
Cond	R4A518GKB
Coil	FED002410++NADA43601CK
AHRI ref	203358045
Efficiency	12.2 EER, 14 SEER
Sensible cooling	12460 Btuh
Latent cooling	5340 Btuh
Total cooling	17800 Btuh
Actual air flow	593 cfm
Air flow factor	0.068 cfm/Btuh
Static pressure	0.30 in H2O
Load sensible heat ratio	0.77

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





**Duct System Summary**  
**Entire House**  
**Clayton Homes**

Job: S46056-FDJ-TZIII  
 Date: Sep 21, 2022  
 By:

5000 Clayton Road, Maryville, TN 37804 Phone: 865-380-3000

**Project Information**

For: S46056-FDJ-TZIII, GILES



	Heating	Cooling
External static pressure	0.30 in H2O	0.30 in H2O
Pressure losses	0 in H2O	0 in H2O
Available static pressure	0.30 in H2O	0.30 in H2O
Supply / return available pressure	0.150 / 0.150 in H2O	0.150 / 0.150 in H2O
Lowest friction rate	0.400 in/100ft	0.400 in/100ft
Actual air flow	593 cfm	593 cfm
Total effective length (TEL)		75 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 978	38	21	0.411	5.0	0x0	VIFx	38.0	35.0	st1
BED 2	h 2472	96	89	0.400	5.0	0x0	VIFx	40.0	35.0	st1
BED 3	h 1616	63	51	0.488	5.0	0x0	VIFx	26.5	35.0	st1
KITCHEN	c 2144	125	147	0.674	6.0	0x0	VIFx	9.5	35.0	st1
LIVING ROOM	c 1937	112	133	0.508	6.0	0x0	VIFx	24.0	35.0	st1
P-BATH	h 1874	73	56	0.632	5.0	0x0	VIFx	12.5	35.0	st2
PRIMARY BED	c 1413	87	97	0.667	5.0	0x0	VIFx	10.0	35.0	st2

**Supply Trunk Detail Table**

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st2	PeakAVF	160	153	0.632	329	3.9	5 x 14	ShtMetl	
st1	PeakAVF	434	440	0.400	906	4.3	5 x 14	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	593	593	0	0	0	0	0x0		VIFx	



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Model:

S46056

Serial Number:

FDJ-TZ3

### Cooling Equipment Summary

Duct Capacity: 26,000 btuh

Economy Outdoor Temp (°F) = -25 = (70 - Furnace Output / Estimated Heatloss)  
(Outdoor Certification Temp.)

Furnace Heating Temp (°F) = 4 = If  $0.3 * \text{Design TD} > 20$  then  
(Operating Econ. Cert. Temp.)  $0.3 * (70 - \text{Cert. Temp.}) + \text{Cert. Temp}$   
else Cert. Temp. + 20

Air Ducts in Floor: 68 sq ft

Air Ducts Outside of Home: 78.5 sq ft

v-1.29