

GILES HOMES			
Lot 5, Broad Street Terrace, N. Street	Model # 46057	Sheet # 1	Drawing #
Product Designer: HANNULED	PRICE: BUSTER 60B	Sheet No.	S46057 60B DOE
			S46057

MARRIAGE WALL P

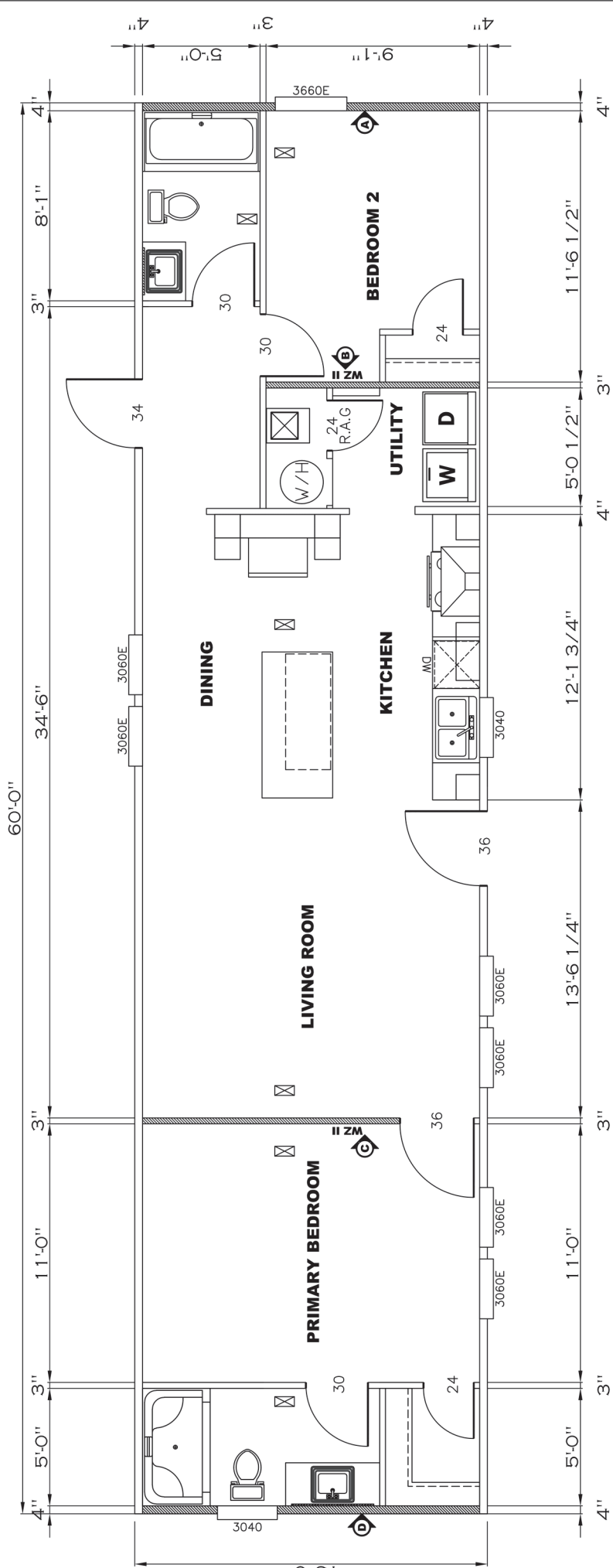
WATER INLET

DRAIN

ELECTRICAL DROP

DOOR PIER

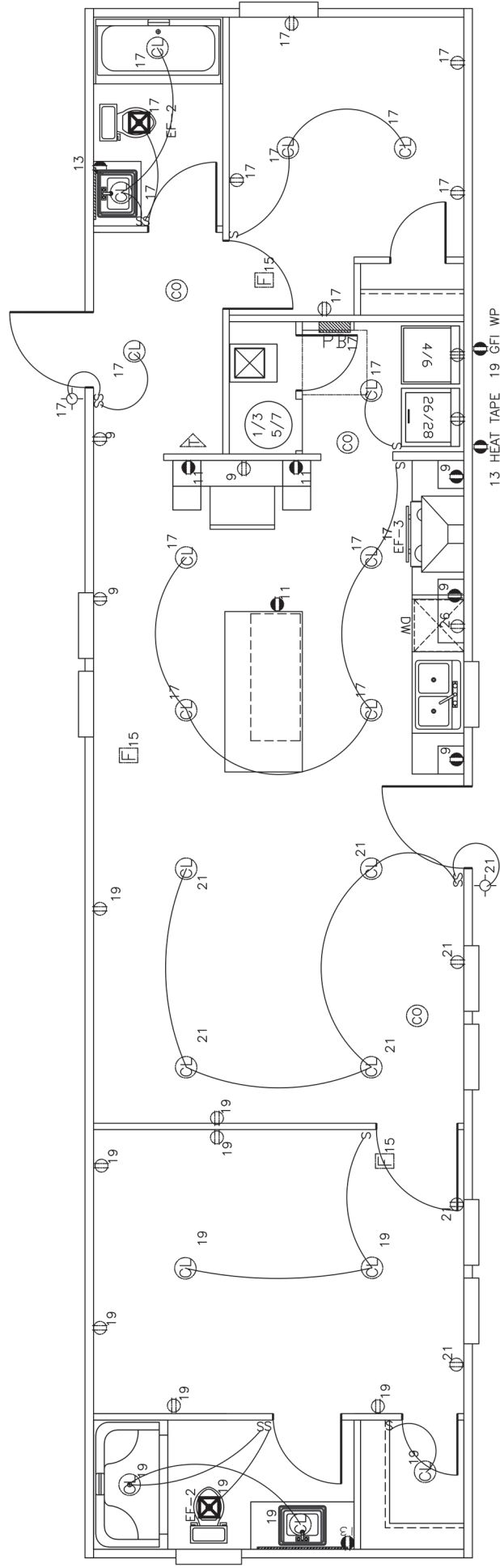
REGULAR PIER



APPROVED
13 FEB 2023
FP-16-3073
Federal Manufactured
Home Construction
And Safety Standards

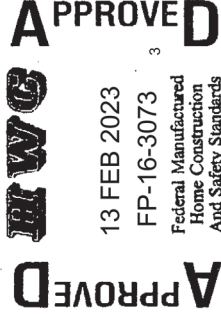
APPROVED
13 FEB 2023
FP-16-3073
Federal Manufactured
Home Construction
And Safety Standards

GILES HOMES		Model #: 46WIN1 GGO	Drawing #:
405 S. BROAD ST. NEW TAZEWELL, TN 37824		Date: 2-9-23	Scale: N/A
Product Designer: HARVILLED		PRICE, BUSTER, GOB	
FLOOR PLAN SUB		S46057	



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/1.5 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.



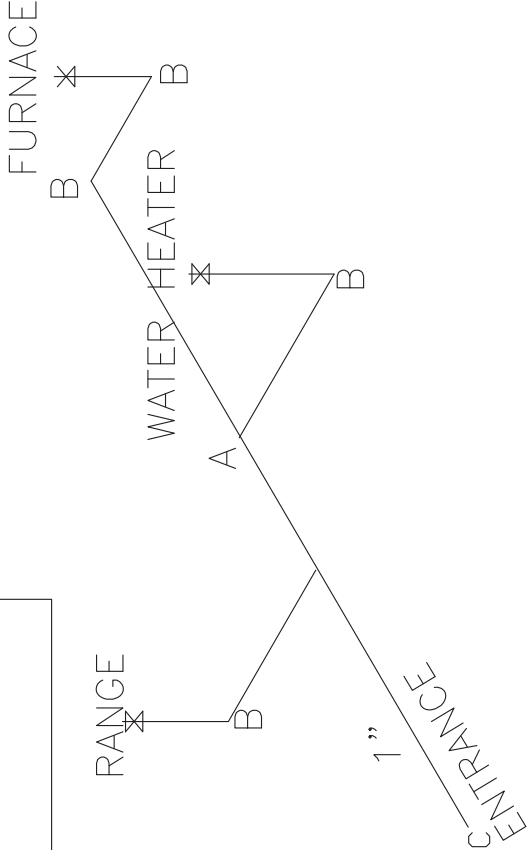
GILES HOMES 405 S. BROAD ST. NEW TAZEWELL, TN 37825	Model #: 46WIN16GO	Drawing #:
	Date: 2.9.23	Scale: N/A
Product Designer: HARVILL	PRICE: BUSTER_60B	
ELEC. SUB	546057	.7

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

MDL = 60'

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



APPROVED

BWG

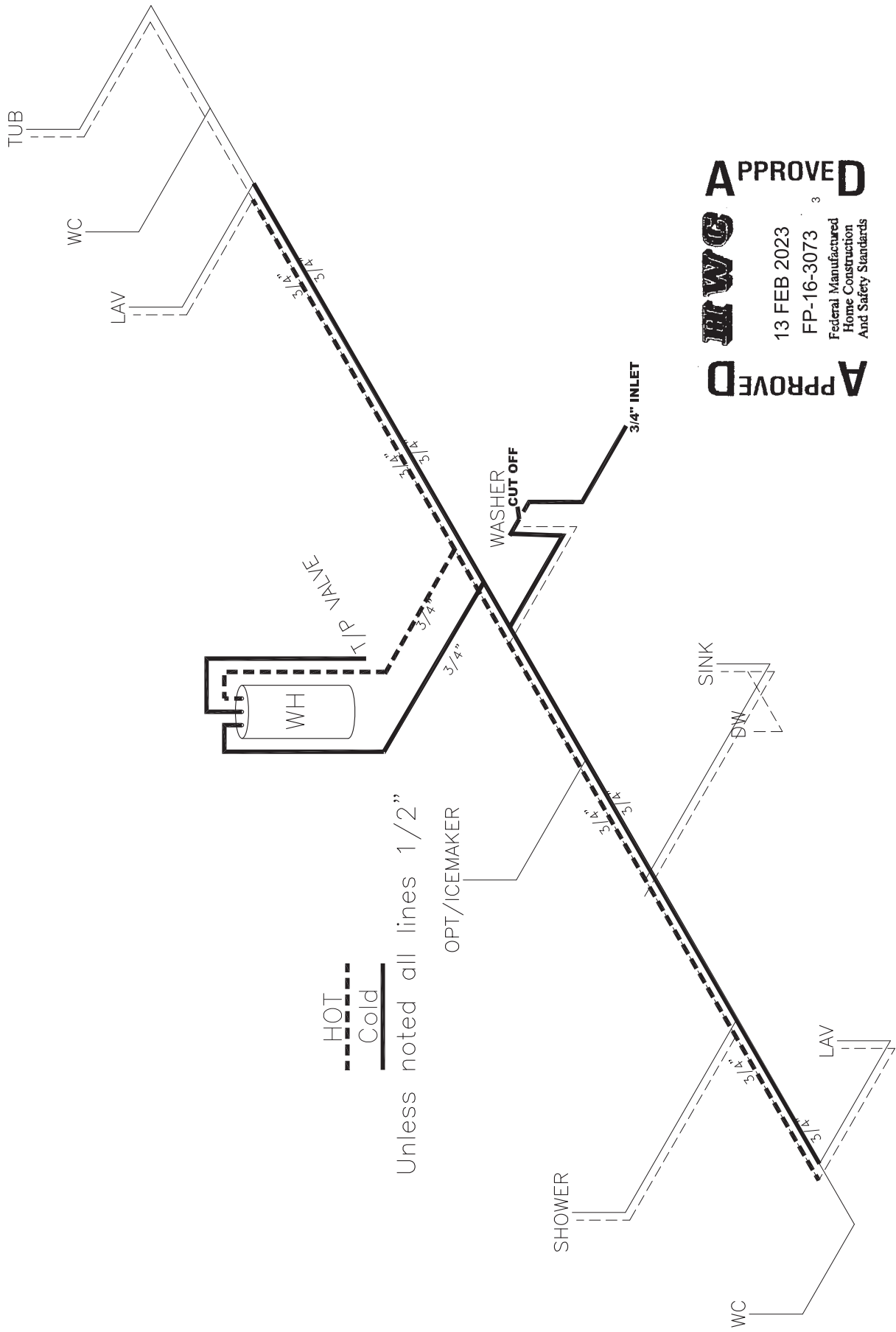
13 FEB 2023

FP-16-3073

Federal Manufactured
Home Construction
And Safety Standards

APPROVED

GILES HOMES		Model #: 46WNI 660	Drawing #:
405 S. BROAD ST. NEW TAEWELL TN 37824		Date: 2-9-23	Scale: N/A
Product Designer: HARVILLED		PRICE: BUSTER_GOB	
GAS		S46057	
		.5	



HOT
Cold

Unless noted all lines 1/2"

APPROVED
FWG
13 FEB 2023
FP-16-3073
Federal Manufactured
Home Construction
And Safety Standards

GILES HOMES		Model #: 46WNI 660	Drawing #:
405 S. BROAD ST., NEW TAZEWELL, TN 37824		Date: 2-9-23	Scale: N/A
Product Designer: HARVILLED		PRICE.BUSTER_GOB	
PRESSURE PLUMB		S46057	
		.5	

APPROVED **HWG** **APPROVED**
13 FEB 2023
FP-16-3073
Federal Manufactured
Home Construction
And Safety Standards

Minimum Joist Spacing 16 "

No Offset Box

No Clerestory

No Origami Dormer

No Sunken Floor

No Parapet Roof

Model #		S46057									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	193	3060 x2	19.8	10.26%		10.4	5.39%		36										
Kitchen / DR	174	3040 3060 X2	26.1	15.00%	X	13.7	7.87%	X	32										
P-BED	158	3060 x2	19.8	12.53%		10.4	6.58%		28										
Bedroom 2	95	3660	12.2	12.84%		6.2	6.53%		24										
P-BATH	50	3040	6.3	12.60%	X	3.3	6.60%	X	24										
Bath 2	40	0			X			X	24										
								X											
Utility	32	0							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 ☐ pump pump make and model _____
 capacity _____ discharges into _____

Additional information _____

23. Heating

☐ Hot water ☐ Steam ☐ Vapor ☐ One-pipe system ☐ Two-pipe system
☐ Radiators ☐ Convectors ☐ Baseboard radiation Make and model Carrier Smart Comfort
☐ Radiant panel ☐ floor ☐ wall ☐ ceiling Panel coil material _____
☐ Circulator ☐ Return pump Make and model _____ capacity _____ gpm.
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 ☐ bin 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 chattles 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 _____



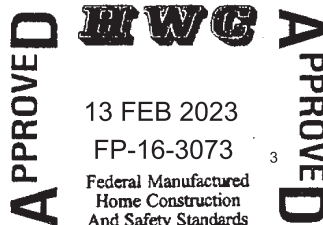
Building Analysis Entire House Clayton Homes

Job: S46057-FDJ-TZII
Date: Feb 09, 2023
By:

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

Project Information

For: S46057-FDJ-TZII, GILES



Design Conditions

Location:

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

Outdoor:

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

Heating

15
-
-
15.0

Cooling

93
19 (M)
74
7.5

Indoor:

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

Heating

68
53
50
43.1

Cooling

75
18
50
36.2

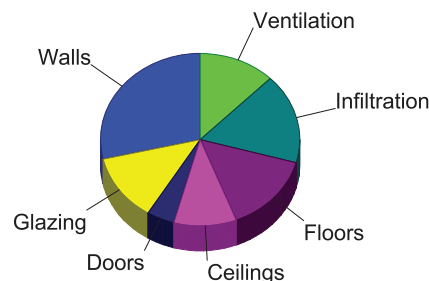
Infiltration:

Method
Construction quality
Fireplaces

Simplified
Semi-tight
0

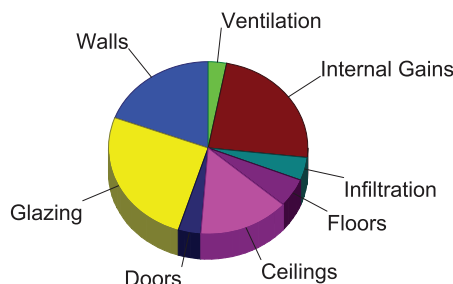
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	4.3	4500	28.6
Glazing	18.5	1979	12.6
Doors	17.0	712	4.5
Ceilings	1.9	1600	10.2
Floors	2.7	2332	14.8
Infiltration	2.2	2654	16.9
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		1952	12.4
Adjustments		0	0
Total		15728	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	2.0	2101	19.3
Glazing	26.4	2815	25.8
Doors	9.5	400	3.7
Ceilings	1.9	1608	14.8
Floors	0.7	583	5.4
Infiltration	0.4	473	4.3
Ducts		0	0
Ventilation		324	3.0
Internal gains		2590	23.8
Blower		0	0
Adjustments		0	0
Total		10894	100.0



Latent Cooling Load = 1614 Btuh
Overall U-value = 0.072 Btuh/ft²·°F

Data entries checked.



wrightsoft®
A Mittek® / Berkshire Hathaway Company

Right-Suite® Universal 2022 22.0.01 RSU28322

...2021-MODELS\PRICEBUSTER 60B-S46057\Project2.rup Calc = MJ8 Front Door faces: N

2023-Feb-13 10:11:29

Page 1



Component Constructions

Entire House

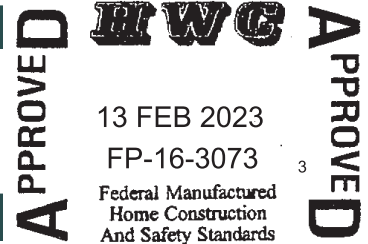
Clayton Homes

Job: S46057-FDJ-TZII
Date: Feb 09, 2023
By:

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

Project Information

For: S46057-FDJ-TZII, GILES



Design Conditions

Location:

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

Outdoor:

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

Heating

15
-
-
15.0

Cooling

93
19 (M)
74
7.5

Indoor:

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

Infiltration:

Method
Construction quality
Fireplaces

Heating

68
53
50
43.1

Cooling

75
18
50
36.2

Simplified
Semi-tight
0

Construction descriptions

Walls

Construction descriptions	Or	Area ft ²	U-value Btu/h/ft ² ·°F	Insul R ft ² ·°F/Btu/h	Htg HTM Btu/h/ft ²	Loss Btu/h	Clg HTM Btu/h/ft ²	Gain Btu/h
CMH - SW - R-13 Wall - S-TH-20A: Single Wide - R-13 Insulation S-TH-20A	n	108	0.082	13.0	4.35	468	2.03	219
2x4 Wall Vinyl Siding w/Foam or OSB underlayment	e	430	0.082	13.0	4.35	1869	2.03	873
	s	101	0.082	13.0	4.35	439	2.03	205
	w	397	0.082	13.0	4.35	1724	2.03	805
	all	1035	0.082	13.0	4.35	4500	2.03	2101

Partitions

(none)

Windows

Clayton - Thermopane Low-E: Clayton - Thermopane Low-E; 50% blinds	n	8	0.350	0	18.5	155	9.39	78
45°, medium; 50% outdoor insect screen; 6.67 ft head ht	e	25	0.350	0	18.5	464	26.5	662
	s	15	0.350	0	18.5	278	13.0	195
	w	58	0.350	0	18.5	1082	26.5	1544
	all	107	0.350	0	18.5	1979	23.2	2479

Doors

CMH - Standard Door: CMH - Standard Door - Solid no storm	e	21	0.320	0	17.0	356	9.52	200
	w	21	0.320	0	17.0	356	9.52	200
	all	42	0.320	0	17.0	712	9.52	400

Ceilings

CMH - SW - 185 box R-33 - S-TH-54I: SW - 185 box R-33 Knauf Insulation S-TH-54I Flat Ceiling 24oc		863	0.035	33.0	1.86	1600	1.86	1608
---	--	-----	-------	------	------	------	------	------

Floors

CMH - SW - R-22 - S-TH-17A: Single Wide - R-22 Insulation S-TH-17A - HEATED		863	0.051	22.0	2.70	2332	0.68	583
---	--	-----	-------	------	------	------	------	-----



wrightsoft®
A Mitel® / Berkshire Hathaway Company

Right-Suite® Universal 2022 22.0.01 RSU28322

...2021-MODELS\PRICEBUSTER 60B-S46057\Project2.rup Calc = MJ8 Front Door faces: N

2023-Feb-13 10:11:29

Page 1



Project Summary

Entire House

Clayton Homes

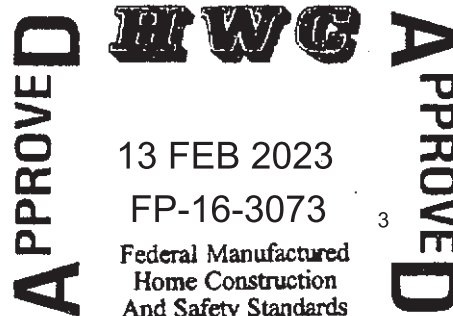
Job: S46057-FDJ-TZII
Date: Feb 09, 2023
By:

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

Project Information

For: S46057-FDJ-TZII, GILES

Notes:



Federal Manufactured
Home Construction
And Safety Standards

Design Information

Weather: Knoxville McGhee Tyson AP, TN, US

Winter Design Conditions

Outside db	15 °F
Inside db	68 °F
Design TD	53 °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	13777 Btuh
Ducts	0 Btuh
Central vent (35 cfm)	1952 Btuh
Outside air	
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	15728 Btuh

Sensible Cooling Equipment Load Sizing

Structure	10570 Btuh
Ducts	0 Btuh
Central vent (SER=50% 35 cfm)	324 Btuh
Energy recovery	
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.98
Equipment sensible load	10632 Btuh

Infiltration

Method	Simplified
Construction quality	Semi-tight
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	1202 Btuh
Ducts	0 Btuh
Central vent (LER=50% 35 cfm)	412 Btuh
Energy recovery	
Equipment latent load	1614 Btuh

	Heating	Cooling
Area (ft²)	863	863
Volume (ft³)	6902	6902
Air changes/hour	0.41	0.22
Equiv. AVF (cfm)	47	25

Equipment Total Load (Sen+Lat)	12246 Btuh
Req. total capacity at 0.70 SHR	1.3 ton

Heating Equipment Summary

Make	Generic
Trade	
Model	AFUE 100
AHRI ref	
Efficiency	100 EFF
Heating input	4.1 kW
Heating output	13977 Btuh
Temperature rise	37 °F
Actual air flow	360 cfm
Air flow factor	0.026 cfm/Btuh
Static pressure	0.30 in H2O
Space thermostat	

Cooling Equipment Summary

Make	Generic
Trade	
Cond	SEER 7.0
Coil	
AHRI ref	
Efficiency	7.9 EER, 7 SEER
Sensible cooling	7559 Btuh
Latent cooling	3239 Btuh
Total cooling	10798 Btuh
Actual air flow	360 cfm
Air flow factor	0.034 cfm/Btuh
Static pressure	0.30 in H2O
Load sensible heat ratio	0.87

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



Wrightsoft®
A Mitak® / Baldwins Hathaway Company

Right-Suite® Universal 2022 22.0.01 RSU28322

...2021-MODELS\PRICEBUSTER 60B-S46057\Project2.rup Calc = MJ8 Front Door faces: N

2023-Feb-13 10:11:29

Page 1



Duct System Summary

Entire House

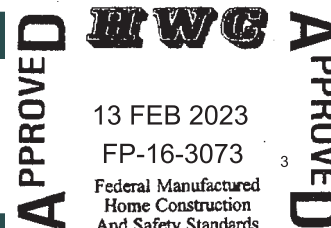
Clayton Homes

Job: S46057-FDJ-TZII
Date: Feb 09, 2023
By:

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

Project Information

For: S46057--FDJ-TZII, GILES



	Heating	Cooling
External static pressure	0.30 in H ₂ O	0.30 in H ₂ O
Pressure losses	0 in H ₂ O	0 in H ₂ O
Available static pressure	0.30 in H ₂ O	0.30 in H ₂ O
Supply / return available pressure	0.150 / 0.150 in H ₂ O	0.150 / 0.150 in H ₂ O
Lowest friction rate	0.273 in/100ft	0.273 in/100ft
Actual air flow	360 cfm	360 cfm
Total effective length (TEL)	110 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 1184	31	16	0.274	5.0	0x0	VIFx	9.5	100.0	st3
BED 2	h 1765	46	36	0.273	5.0	0x0	VIFx	10.0	100.0	st4
KITCHEN	c 3214	100	109	0.706	5.0	0x0	VIFx	7.5	35.0	st2
LIVING ROOM	c 2925	77	100	0.484	5.0	0x0	VIFx	27.0	35.0	st2
P-BATH	h 1740	45	23	0.397	5.0	0x0	VIFx	40.5	35.0	st2
PRIMARY BED	c 2213	61	75	0.462	5.0	0x0	VIFx	30.0	35.0	st2

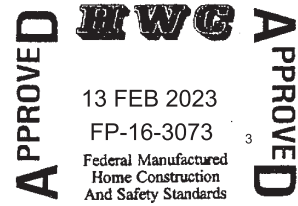
Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st3	PeakAVF	31	16	0.274	53	4.0	14 x 6	ShtMetl	st1
st1	PeakAVF	77	52	0.273	132	4.0	14 x 6	ShtMetl	
st2	PeakAVF	283	308	0.397	633	4.8	5 x 14	ShtMetl	
st4	PeakAVF	46	36	0.273	79	4.0	14 x 6	ShtMetl	st1

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb2	0x0	183	198	0	0	0	0	0x0		VIFx	
rb1	0x0	177	162	0	0	0	0	0x0		VIFx	





Model:

S46057

Serial Number:

FDJ-TZ2

Cooling Equipment Summary

Duct Capacity: **26,000** btuh

Economy Outdoor Temp (°F) = **-31** = (70 - Furnace Output / Estimated Heatloss)
(Outdoor Certification Temp.)

Furnace Heating Temp (°F) = **-1** = 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: **61** sq ft

Air Ducts Outside of Home: **78.5** sq ft

v-1.29



Building Analysis

Entire House

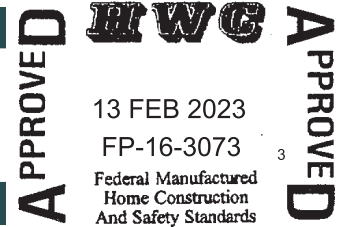
Clayton Homes

Job: S46057-FDJ-TZIII
Date: Feb 09, 2023
By:

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

Project Information

For: S46057-FDJ-TZIII, GILES



Design Conditions

Location:

VA-SG22
Elevation: 2133 ft
Latitude: 37°N

Outdoor:

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

Heating

16
-
-
15.0

Cooling

88
20 (M)
71
7.5

Indoor:

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

Heating

68
52
50
44.6

Cooling

75
13
50
28.1

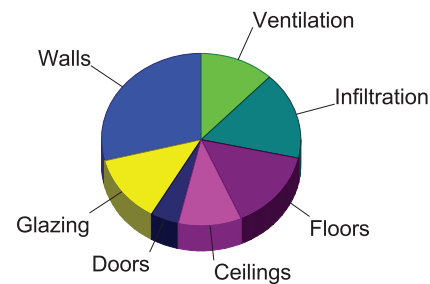
Infiltration:

Method
Construction quality
Fireplaces

Simplified
Semi-tight
0

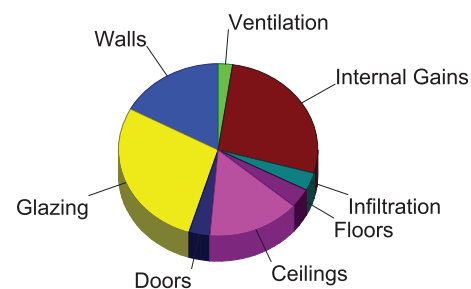
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	4.3	4432	29.0
Glazing	18.3	1949	12.7
Doors	16.7	702	4.6
Ceilings	1.8	1576	10.3
Floors	2.7	2297	15.0
Infiltration	2.1	2506	16.4
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		1843	12.0
Adjustments		0	0
Total		15304	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.6	1639	17.1
Glazing	25.3	2701	28.2
Doors	7.8	327	3.4
Ceilings	1.7	1443	15.1
Floors	0.4	343	3.6
Infiltration	0.3	325	3.4
Ducts		0	0
Ventilation		222	2.3
Internal gains		2590	27.0
Blower		0	0
Adjustments		0	0
Total		9590	100.0



Latent Cooling Load = 1353 Btuh
Overall U-value = 0.072 Btuh/ft²·°F

Data entries checked.





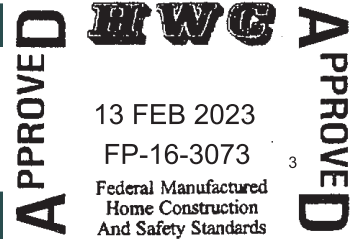
Component Constructions
Entire House
Clayton Homes

Job: S46057-FDJ-TZIII
 Date: Feb 09, 2023
 By:

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

Project Information

For: S46057-FDJ-TZIII, GILES



Design Conditions

Location:			Indoor:		Heating	Cooling
VA-SG22			Indoor temperature (°F)		68	75
Elevation:	2133 ft		Design TD (°F)		52	13
Latitude:	37°N		Relative humidity (%)		50	50
Outdoor:			Moisture difference (gr/lb)		44.6	28.1
			Infiltration:			
			Method		Simplified	
			Construction quality		Semi-tight	
			Fireplaces		0	
Heating		Cooling				
Dry bulb (°F)	16	88				
Daily range (°F)	-	20 (M)				
Wet bulb (°F)	-	71				
Wind speed (mph)	15.0	7.5				

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
CMH - SW - R-13 Wall - S-TH-20A: Single Wide - R-13 Insulation S-TH-20A	n	108	0.082	13.0	4.28	461	1.58	170
2x4 Wall Vinyl Siding w/Foam or OSB underlayment	e	430	0.082	13.0	4.28	1841	1.58	681
	s	101	0.082	13.0	4.28	432	1.58	160
	w	397	0.082	13.0	4.28	1698	1.58	628
	all	1035	0.082	13.0	4.28	4432	1.58	1639

Partitions

(none)

Windows

Clayton - Thermopane Low-E: Clayton - Thermopane Low-E; 50% blinds	n	8	0.350	0	18.3	152	7.76	65
45°, medium; 50% outdoor insect screen; 6.67 ft head ht	e	25	0.350	0	18.3	457	24.8	621
	s	15	0.350	0	18.3	274	11.8	177
	w	58	0.350	0	18.3	1066	24.8	1448
	all	107	0.350	0	18.3	1949	21.7	2311

Doors

CMH - Standard Door: CMH - Standard Door - Solid no storm	e	21	0.320	0	16.7	351	7.78	163
	w	21	0.320	0	16.7	351	7.78	163
	all	42	0.320	0	16.7	702	7.78	327

Ceilings

CMH - SW - 185 box R-33 - S-TH-54I: SW - 185 box R-33 Knauf Insulation S-TH-54I Flat Ceiling 24oc		863	0.035	33.0	1.83	1576	1.67	1443
---	--	-----	-------	------	------	------	------	------

Floors

CMH - SW - R-22 - S-TH-17A: Single Wide - R-22 Insulation S-TH-17A - HEATED		863	0.051	22.0	2.66	2297	0.40	343
---	--	-----	-------	------	------	------	------	-----



Wrightsoft®
 A Mitel® / Berkshire Hathaway Company

Right-Suite® Universal 2022 22.0.01 RSU28322

2023-Feb-13 10:08:39

Page 1

...2021-MODELS\PRICEBUSTER 60B-S46057\Project2.rup Calc = MJ8 Front Door faces: N



Project Summary

Entire House

Clayton Homes

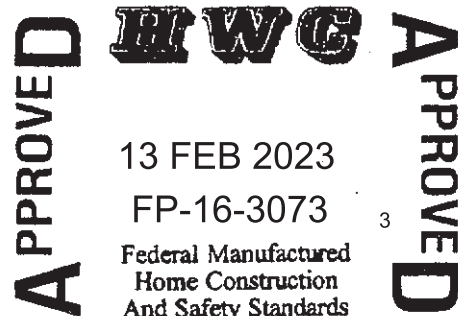
Job: S46057-FDJ-TZIII
Date: Feb 09, 2023
By:

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

Project Information

For: S46057-FDJ-TZIII, GILES

Notes:



Design Information

Weather: VA-SG22

Winter Design Conditions

Outside db	16 °F
Inside db	68 °F
Design TD	52 °F

Summer Design Conditions

Outside db	88 °F
Inside db	75 °F
Design TD	13 °F
Daily range	M
Relative humidity	50 %
Moisture difference	28 gr/lb

Heating Summary

Structure	13461 Btuh
Ducts	0 Btuh
Central vent (35 cfm)	1843 Btuh
Outside air	
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	15304 Btuh

Sensible Cooling Equipment Load Sizing

Structure	9367 Btuh
Ducts	0 Btuh
Central vent (SER=50% 35 cfm)	222 Btuh
Energy recovery	
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.93
Equipment sensible load	8880 Btuh

Infiltration

Method	Simplified
Construction quality	Semi-tight
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	1047 Btuh
Ducts	0 Btuh
Central vent (LER=50% 35 cfm)	306 Btuh
Energy recovery	
Equipment latent load	1353 Btuh

	Heating	Cooling
Area (ft²)	863	863
Volume (ft³)	6902	6902
Air changes/hour	0.41	0.22
Equiv. AVF (cfm)	47	25

Equipment Total Load (Sen+Lat)	10233 Btuh
Req. total capacity at 0.70 SHR	1.1 ton

Heating Equipment Summary

Make	Generic
Trade	
Model	AFUE 100
AHRI ref	
Efficiency	100 EFF
Heating input	4.1 kW
Heating output	13977 Btuh
Temperature rise	38 °F
Actual air flow	360 cfm
Air flow factor	0.027 cfm/Btuh
Static pressure	0.30 in H2O
Space thermostat	

Cooling Equipment Summary

Make	Generic
Trade	
Cond	SEER 7.0
Coil	
AHRI ref	
Efficiency	7.9 EER, 7 SEER
Sensible cooling	7559 Btuh
Latent cooling	3239 Btuh
Total cooling	10798 Btuh
Actual air flow	360 cfm
Air flow factor	0.038 cfm/Btuh
Static pressure	0.30 in H2O
Load sensible heat ratio	0.88

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



Wrightsoft®
A Mitek® / Baldwins Hathaway Company

Right-Suite® Universal 2022 22.0.01 RSU28322

...2021-MODELS\PRICEBUSTER 60B-S46057\Project2.rup Calc = MJ8 Front Door faces: N

2023-Feb-13 10:08:39

Page 1



Duct System Summary

Entire House

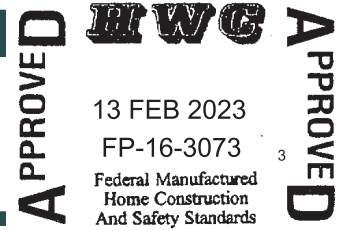
Clayton Homes

Job: S46057-FDJ-TZIII
 Date: Feb 09, 2023
 By:

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

Project Information

For: S46057--FDJ-TZIII, GILES



	Heating	Cooling
External static pressure	0.30 in H ₂ O	0.30 in H ₂ O
Pressure losses	0 in H ₂ O	0 in H ₂ O
Available static pressure	0.30 in H ₂ O	0.30 in H ₂ O
Supply / return available pressure	0.150 / 0.150 in H ₂ O	0.150 / 0.150 in H ₂ O
Lowest friction rate	0.273 in/100ft	0.273 in/100ft
Actual air flow	360 cfm	360 cfm
Total effective length (TEL)	110 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 1154	31	14	0.274	5.0	0x0	VIFx	9.5	100.0	st3
BED 2	h 1724	46	36	0.273	5.0	0x0	VIFx	10.0	100.0	st4
KITCHEN	c 2872	100	110	0.706	5.0	0x0	VIFx	7.5	35.0	st2
LIVING ROOM	c 2662	77	102	0.484	5.0	0x0	VIFx	27.0	35.0	st2
P-BATH	h 1696	45	21	0.397	5.0	0x0	VIFx	40.5	35.0	st2
PRIMARY BED	c 2011	61	77	0.462	5.0	0x0	VIFx	30.0	35.0	st2

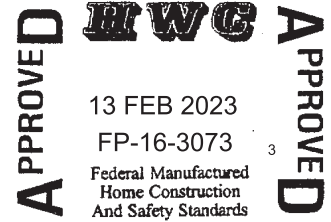
Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st3	PeakAVF	31	14	0.274	53	4.0	14 x 6	ShtMetl	st1
st1	PeakAVF	77	49	0.273	132	4.0	14 x 6	ShtMetl	
st2	PeakAVF	283	311	0.397	639	4.8	5 x 14	ShtMetl	
st4	PeakAVF	46	36	0.273	79	4.0	14 x 6	ShtMetl	st1

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb2	0x0	183	200	0	0	0	0	0x0		VIFx	
rb1	0x0	177	160	0	0	0	0	0x0		VIFx	





Model:

S46057

Serial Number:

FDJ-TZ3

Cooling Equipment Summary

Duct Capacity: 26,000 btuh

Economy Outdoor Temp (°F) = -31 = (70 - Furnace Output / Estimated Heatloss)
(Outdoor Certification Temp.)

Furnace Heating Temp (°F) = -1 = 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: 61 sq ft

Air Ducts Outside of Home: 78.5 sq ft

v-1.29