2020 - AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA

TABLE 402.4.1.1
AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA [a]

				CHECK
Project Name:	619 SW Nebraska Terrace Bathrm Addition	Builder Name:	619 S.W. Nebraska Terrace	
Street:	619 S.W. Nebraska Terrace	Permit Office:	Columbia	
City, State, Zip:	Fort White , FL , 32038	Permit Number:		
Owner:	619 S.W. Nebraska Terrace	Jurisdiction:	221000	
Design Location:	FL, Gainesville			

COMPONENT	AIR BARRIER CRITERIA	INSULATION INSTALLATION CRITERIA	
General requirements	A continuous air barrier shall be installed in the building envelope. The exterior thermal envelope contains a continuous air barrier. Breaks or joints in the air barrier shall be sealed.	Air-permeable insulation shall not be used as a sealing material.	
Ceiling/attic	The air barrier in any dropped ceiling/soffit shall be aligned with the insulation and any gaps in the air barrier shall be sealed. Access openings, drop down stairs or knee wall doors to unconditioned attic spaces shall be sealed.	The insulation in any dropped ceiling/soffit shall be aligned with the air barrier.	
Walls	The junction of the foundation and sill plate shall be sealed. The junction of the top plate and the top of exterior walls shall be sealed. Knee walls shall be sealed.	Cavities within corners and headers of frame walls shall be insulated by completely filling the cavity with a material having a thermal resistance of R-3 per inch minimum. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier.	
Windows, skylights and doors	The space between window/door jambs and framing, and skylights and framing shall be sealed.		
Rim joists	Rim joists shall include the air barrier.	Rim joists shall be insulated.	
Floors (including above-garage and cantilevered floors)	The air barrier shall be installed at any exposed edge of insulation.	Floor framing cavity insulation shall be installed to maintain permanent contact with the underside of subfloor decking, or floor framing cavity insulation shall be permitted to be in contact with the top side of sheathing, or continuous insulation installed on the underside of floor framing and extends from the bottom to the top of all perimeter floor framing members.	
Crawl space walls	Exposed earth in unvented crawl spaces shall be covered with a Class I vapor retarder with overlapping joints taped.	Where provided instead of floor insulation, insulation shall be permanently attached to the crawlspace walls.	
Shafts, penetrations	Duct shafts, utility penetrations, and flue shafts opening to exterior or unconditioned space shall be sealed.		
Narrow cavities		Batts in narrow cavities shall be cut to fit, or narrow cavities shall be filled by insulation that on installation readily conforms to the available cavity spaces.	
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.		
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be sealed to the finished surface.	Recessed light fixtures installed in the building thermal envelope shall be air tight and IC rated.	
Plumbing and wiring		Batt insulation shall be cut neatly to fit around wiring and plumbing in exterior walls, or insulation that on installation readily conforms to available space shall extend behind piping and wiring.	
Shower/tub on exterior wall	The air barrier installed at exterior walls adjacent to showers and tubs shall separate them from the showers and tubs.	Exterior walls adjacent to showers and tubs shall be insulated.	
Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical or communication boxes or air-sealed boxes shall be installed.		
HVAC register boots	HVAC supply and return register boots that penetrate building thermal envelope shall be sealed to the sub-floor, wall covering or ceiling		
Concealed sprinklers	When required to be sealed, concealed fire sprinklers shall only be sealed in a manner that is recommended by the manufacturer. Caulking or other adhesive sealants shall not be used to fill voids between fire sprinkler cover plates and walls or ceilings.		

a. In addition, inspection of log walls shall be in accordance with the provisions of ICC-400.

FORM R405-2020

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 87

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

619 S.W. Nebraska Terrace, Fort White, FL, 32038

1. New construction or existing		New (From Plans)
2. Single family or multiple family		Detached
3. Number of units, if multiple family		1
4. Number of Bedrooms		0
5. Is this a worst case?		No
6. Conditioned floor area (ft²)		192
7. Windows**	Description	Area
a. U-Factor:	Dbl, U=0.47	18.25 ft²
SHGC:	SHGC=0.31	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
d. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		1.333 ft.
Area Weighted Average SHGC:		0.310
8. Skylights	Description	Area
a. U-Factor(AVG):	N/A	ft²
SHGC(AVG):	N/A	

9. Floor Types	Insulation	Area
a. Slab-On-Grade Edge Insulation	R=0.0	192.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

10. Wall Type and Insulation	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	396.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

11. Ceiling Type and insulation level	Insulation	Area
a. Under Attic (Vented)	R=38.0	192.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

12. Ducts, location & insulation level	R	ft²
a. Sup: Attic, Ret: Attic, AH: Attic	6	41

13. Cooling systems	kBtu/hr	Efficiency
a. Central Unit	36.0	SEER:14.00

14. Heating systems	kBtu/hr	Efficiency
a. Electric Heat Pump	36.0	HSPF:8.30

15. Hot water systems	
a.	EF:
b. Conservation features	

Credits (Performance method)	CF, Pstat

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

Builder Signature: _____ Date: 2/8/22

Address of New Home: 619 SW Nebraska Ter City/FL Zip: Ft. White, FL 32038

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

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

Load Short Form
Entire House
ENI, LLC

Job: 619 S.W. Nebraska Terra...
Date: 02/07/2022
By: John Pirkl
Plan: Manual J and D

514 N.W. 39th Road, Gainesville, FL 32607 Phone: (352) 494 - 6420 cell Fax: ((352) 372 - 5182 Ofc Email: john.newage@gmail.com

Project Information

For: ENI, LLC
514 N.W. 39th Road, Gainesville, FL 32607
Phone: (352) 494 - 6420 cell Fax: (352) 372 - 5182 Ofc

Design Information

	Htg	Clg
Outside db (°F)	33	92
Inside db (°F)	68	75
Design TD (°F)	35	17
Daily range	-	M
Inside humidity (%)	50	50
Moisture difference (gr/lb)	29	47

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

HEATING EQUIPMENT

Make	Using Existing
Trade	Existing
Model	Existing
AHRI ref	
Efficiency	0 HSPF
Heating input	
Heating output	0 Btuh @ 47°F
Temperature rise	0 °F
Actual air flow	212 cfm
Air flow factor	0.044 cfm/Btuh
Static pressure	0.51 in H2O
Space thermostat	

Capacity balance point = 0 °F

Backup:
Input = 0 kW, Output = 0 Btuh, 100 AFUE

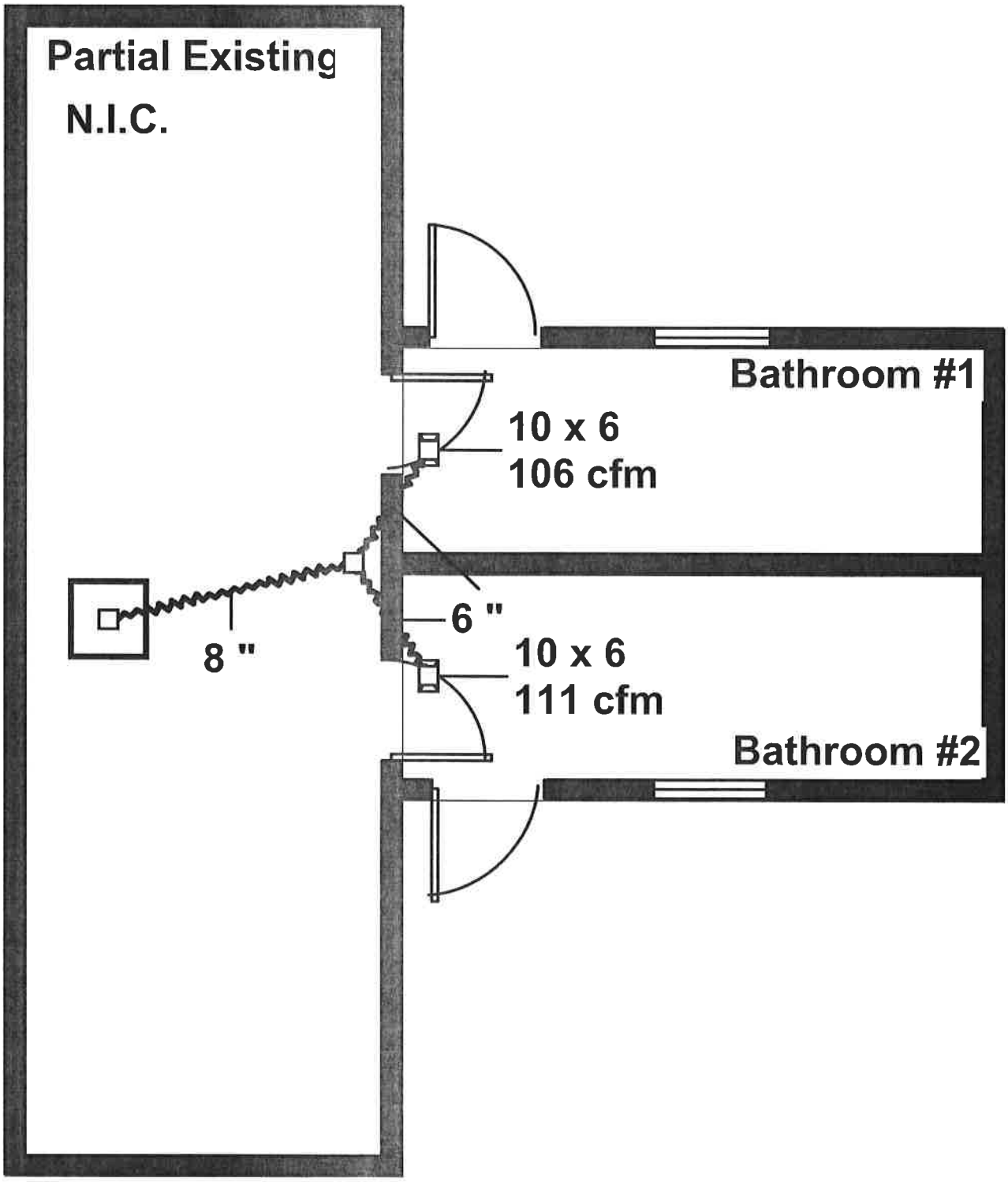
COOLING EQUIPMENT

Make	Using Existing
Trade	Existing
Cond	Existing
Coil	Existing
AHRI ref	
Efficiency	0 SEER
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	212 cfm
Air flow factor	0.081 cfm/Btuh
Static pressure	0.51 in H2O
Load sensible heat ratio	0.91

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Bathroom #1	96	2390	1258	106	101
Bathroom #2	96	2386	1373	106	111
Entire House	192	4777	2631	212	212
Other equip loads		0	1707		
Equip. @ 0.97 RSM			4207		
Latent cooling			416		
TOTALS	192	4777	4623	212	212

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

Sheet 1



Job #: 619 S.W. Nebraska Terrace
Performed by John Pirkl for:
ENI, LLC
514 N.W. 39th Road
Gainesville, FL 32607
Phone: (352) 494 - 6420 cell Fax: (352) 372 - 518

ENI, LLC
514 N.W. 39th Road
Gainesville, FL 32607
Phone: (352) 494 - 6420 cell Fax: ((352) 372 - 518
john.newage@gmail.com

Scale: 1 : 46

Right-Suite® Universal 2022
22.0.01 RSU02050
2022-Feb-07 13:38:33
...aska Terrace Bathrm Addition.

Duct System Summary

Entire House

ENI, LLC

Job: 619 S.W. Nebraska Terra...
Date: 02/07/2022
By: John Pirkl
Plan: Manual J and D

514 N.W. 39th Road, Gainesville, FL 32607 Phone: (352) 494 - 6420 cell Fax: ((352) 372 - 5182 Ofc Email: john.newage@gmail.com

Project Information

For: ENI, LLC
514 N.W. 39th Road, Gainesville, FL 32607
Phone: (352) 494 - 6420 cell Fax: (352) 372 - 5182 Ofc

	Heating	Cooling
External static pressure	0.51 in H2O	0.51 in H2O
Pressure losses	0.18 in H2O	0.18 in H2O
Available static pressure	0.33 in H2O	0.33 in H2O
Supply / return available pressure	0.165 / 0.165 in H2O	0.165 / 0.165 in H2O
Lowest friction rate	0.880 in/100ft	0.880 in/100ft
Actual air flow	212 cfm	212 cfm
Total effective length (TEL)	165 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
Bathroom #2	c 1373	106	111	0.880	6.0	0x 0	VlFx	10.3	155.0	st1
Bathroom #1	h 2390	106	101	0.880	6.0	0x 0	VlFx	10.3	155.0	st1

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st1	Peak AVF	212	212	0.880	607	8.0	0 x 0	VinlFlx	

FORM R405-2020

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	619 SW Nebraska Terrace Bathrm Addition	Builder Name:	619 S.W. Nebraska Terrace
Street:	619 S.W. Nebraska Terrace	Permit Office:	Columbia
City, State, Zip:	Fort White , FL , 32038	Permit Number:	
Owner:	619 S.W. Nebraska Terrace	Jurisdiction:	221000
Design Location:	FL, Gainesville	County:	Columbia (Florida Climate Zone 2)

1. New construction or existing	New (From Plans)			
2. Single family or multiple family	Detached			
3. Number of units, if multiple family	1			
4. Number of Bedrooms	0			
5. Is this a worst case?	No			
6. Conditioned floor area above grade (ft²)	192			
Conditioned floor area below grade (ft²)	0			
7. Windows(18.3 sqft.)	Description		Area	
a. U-Factor:	Dbl, U=0.47		18.25	ft²
SHGC:	SHGC=0.31			
b. U-Factor:	N/A			ft²
SHGC:				
c. U-Factor:	N/A			ft²
SHGC:				
Area Weighted Average Overhang Depth:			1.333	ft.
Area Weighted Average SHGC:			0.310	
8. Skylights			Area	
c. U-Factor:(AVG)	N/A			ft²
SHGC(AVG):	N/A			
9. Floor Types (192.0 sqft.)		Insulation	Area	
a. Slab-On-Grade Edge Insulation		R=0.0	192.00	ft²
b. N/A		R=		ft²
c. N/A		R=		ft²

10. Wall Type(396.0 sqft.)	Insulation	Area	
a. Frame - Wood, Exterior	R=13.0	396.00	ft²
b. N/A	R=		ft²
c. N/A	R=		ft²
d. N/A	R=		ft²
11. Ceiling Types (192.0 sqft.)	Insulation	Area	
a. Under Attic (Vented)	R=38.0	192.00	ft²
b. N/A	R=		ft²
c. N/A	R=		ft²
12. Ducts		R	ft²
a. Sup: Attic, Ret: Attic, AH: Attic		6	41
13. Cooling systems	kBtu/hr	Efficiency	
a. Central Unit	36.0	SEER:14.00	
14. Heating systems	kBtu/hr	Efficiency	
a. Electric Heat Pump	36.0	HSPF:8.30	
15. Hot water systems			
a.		EF: 0.000	
b. Conservation features			
16. Credits		CF, Pstat	

Glass/Floor Area: 0.095

Total Proposed Modified Loads: 9.37

Total Baseline Loads: 10.80

PASS

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

PREPARED BY: John Pirkl
DATE: 02/07/2022

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

OWNER/AGENT:
DATE: 2/8/22

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

BUILDING OFFICIAL:
DATE:

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

- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires an envelope leakage test report with envelope leakage no greater than 5.73 ACH50 (R402.4.1.2).

FORM R405-2020

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	619 SW Nebraska Terrace Ba	Bedrooms:	0	Address Type:	Street Address
Building Type:	User	Conditioned Area:	192	Lot #	
Owner Name:	619 S.W. Nebraska Terrace	Total Stories:	1	Block/Subdivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	619 S.W. Nebraska Terrace	Rotate Angle:	0	Street:	619 S.W. Nebraska Ter
Permit Office:	Columbia	Cross Ventilation:	No	County:	Columbia
Jurisdiction:	221000	Whole House Fan:	No	City, State, Zip:	Fort White , FL , 32038
Family Type:	Detached				
New/Existing:	New (From Plans)				
Comment:					

CLIMATE

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

BLOCKS

Number	Name	Area	Volume
1	Entire House	192	1728

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Bathroom #1	96	864	No	0		1	Yes	Yes	Yes
2	Bathroom #2	96	864	No	0		1	Yes	Yes	Yes

FLOORS

√	#	Floor Type	Space	Perimeter	Perimeter R-Value	Area	Joist R-Value	Tile	Wood	Carpet
	1	Slab-On-Grade Edge Insulatio	Bathroom #1	22 ft	0	96 ft²	---	0	1	0
	2	Slab-On-Grade Edge Insulatio	Bathroom #2	22 ft	0	96 ft²	---	0	1	0

ROOF

√	#	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
	1	Gable or Shed	Composition shingles	202 ft²	32 ft²	Medium	N	0.9	No	0.9	No	0	18.43

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
	1	Full attic	Vented	300	192 ft²	N	N

FORM R405-2020

INPUT SUMMARY CHECKLIST REPORT

CEILING

√	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
____	1	Under Attic (Vented)	Bathroom #1	38	Blown	96 ft²	0.1	Wood
____	2	Under Attic (Vented)	Bathroom #2	38	Blown	96 ft²	0.1	Wood

WALLS

√	#	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
____	1	E	Exterior	Frame - Wood	Bathroom #1	13	16	0	9	0	144.0 ft²	0	0.25	0.23	0
____	2	S	Exterior	Frame - Wood	Bathroom #1	13	6	0	9	0	54.0 ft²	0	0.25	0.23	0
____	3	S	Exterior	Frame - Wood	Bathroom #2	13	6	0	9	0	54.0 ft²	0	0.25	0.23	0
____	4	W	Exterior	Frame - Wood	Bathroom #2	13	16	0	9	0	144.0 ft²	0	0.25	0.23	0

DOORS

√	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
____	1	E	Insulated	Bathroom #1	Metal	.29	3		6	8	20 ft²
____	2	W	Insulated	Bathroom #2	Metal	.29	3		6	8	20 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation.

√	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Overhang Separation	Int Shade	Screening
____	1	E	1	Vinyl	Low-E Double	Yes	0.47	0.31	N	9.3 ft²	1 ft 4 in	0 ft 9 in	Drapes/blinds	Exterior 5
____	2	W	4	Vinyl	Low-E Double	Yes	0.47	0.31	N	9.0 ft²	1 ft 4 in	0 ft 9 in	Drapes/blinds	Exterior 5

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.000327	165	9.05	17	.1177	5.73

HEATING SYSTEM

√	#	System Type	Subtype	Speed	Efficiency	Capacity	Block	Ducts
____	1	Electric Heat Pump/	Split	Singl	HSPF:8.3	36 kBtu/hr	1	sys#1

COOLING SYSTEM

√	#	System Type	Subtype	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
____	1	Central Unit/	Split	Singl	SEER: 14	36 kBtu/hr	1200 cfm	0.7	1	sys#1

SOLAR HOT WATER SYSTEM

√	FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
____					ft²		

FORM R405-2020

INPUT SUMMARY CHECKLIST REPORT

DUCTS

√	#	Supply Location	Supply R-Value	Supply Area	Return Location	Return Area	Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	HVAC # Cool
_____	1	Attic	6	41 ft²	Attic	0 ft²	Default Leakage	Attic	(Default)	(Default)			1	1

TEMPERATURES

Programable Thermostat: Y

Ceiling Fans:

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

Thermostat Schedule: HERS 2006 Reference

Schedule Type		Hours 1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM	78	78	78	78	78	78	78	78	80	80	80	80
	PM	80	80	78	78	78	78	78	78	78	78	78	78
Cooling (WEH)	AM	78	78	78	78	78	78	78	78	78	78	78	78
	PM	78	78	78	78	78	78	78	78	78	78	78	78
Heating (WD)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66
Heating (WEH)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66

MASS

Mass Type	Area	Thickness	Furniture Fraction	Space
Default(8 lbs/sq.ft.	0 ft²	0 ft	0.3	Bathroom #1
Default(8 lbs/sq.ft.	ft²	ft	0.3	Bathroom #2