**REAR ELEVATION** 

Scale: 1/8" = 1'0"

PLAN: Sarah

ELEVATIONS

HEET TITLE:

PROJECT ADDRESS: 38 Sam Adams Dr. Liberty Meadows Lot 67

DESIGNED BY:
Precision Custom Homes
Raeford, NC
n@PrecisionCustomHomesNC.cor

DATE:

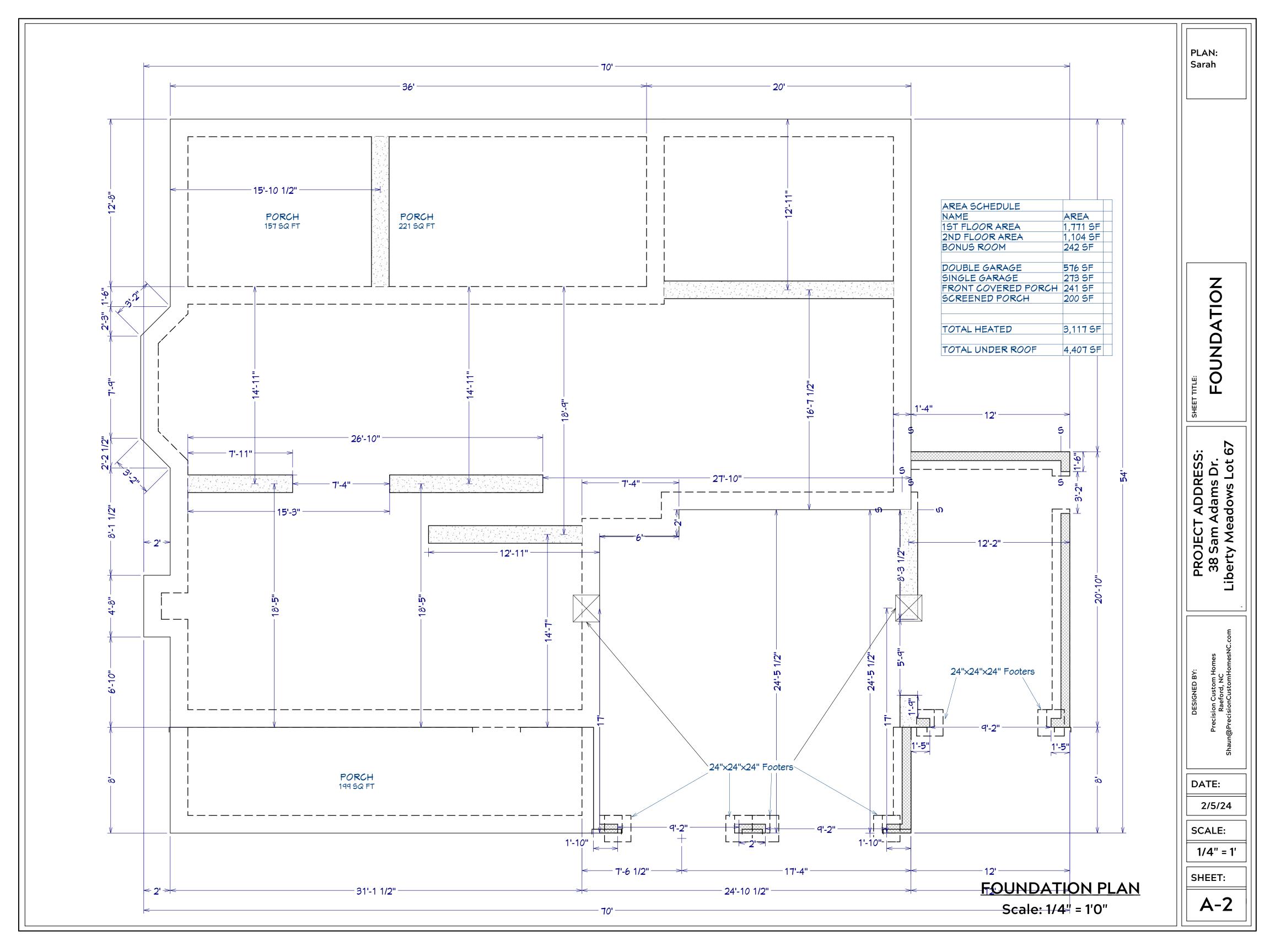
2/5/24

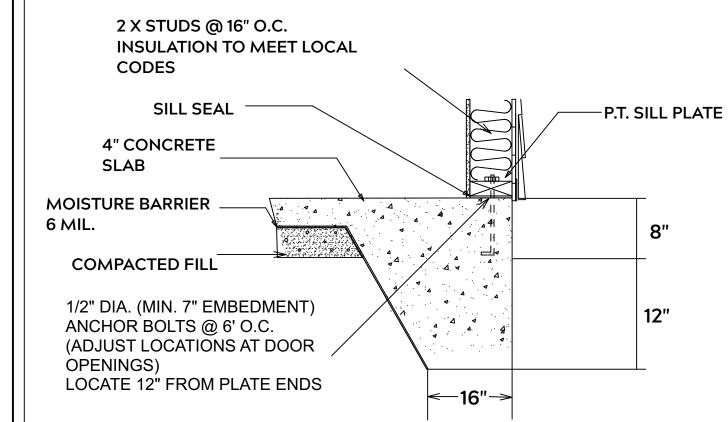
SCALE: 1/4" = 1'

...**...** 

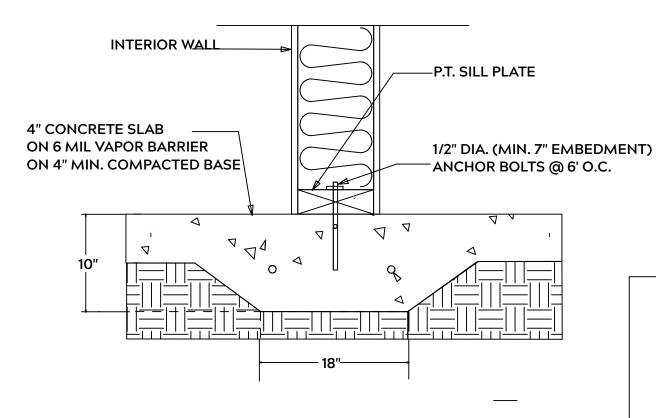
SHEET:

**A-1** 

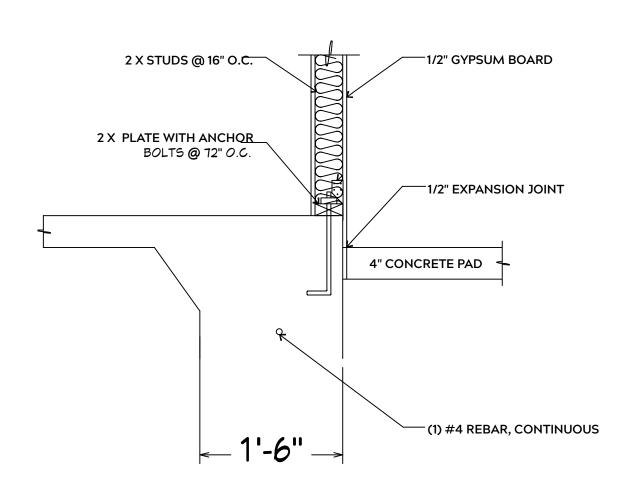




# **MONOLITHIC SLAB**



# **LUG FOOTING**



#### **FOUNDATION NOTES:**

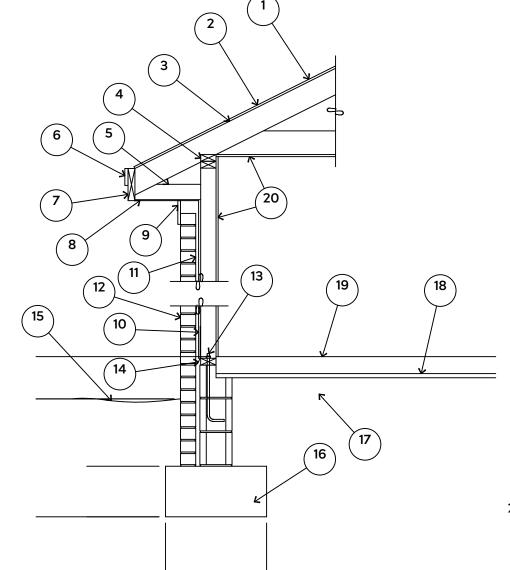
ALL FOOTINGS SHALL BEAR ON ORIGINAL UNDISTURBED SOIL THE 28 DAY COMPRESSIVE STRENGTH OF ALL **FOOTINGS IS 3000 PSI** 

PROVIDE WATER PROOFING AND PERIMTER **DRAINS AS REQUIRED** 

FOOTING WIDTHS ARE BASED ON A LOAD BEARING SOIL CAPACITY OF 2000 PSI

PROVIDE 6 MIL POLY VAPOR BARRIER TO COVER GROUND IN CRAWL SPACE AND **GROUND UNDER POURED CONCRETE** 

ALL ANCHOR BOLTS TO BE 1/2" X 12" LONG. ANCHOR BOLTS SHALL BE SPACED AT A MAXIMUM OF 6' ON CENTER AND NO MORE THEN 1' FROM EACH CORNER



15# FELT UNDERLAYMENT UNDER COMPOSITION SHINGLES.

2. ROOF DECKING.

3. 2 X RAFTERS / ENGINEERED TRUSSES

DOUBLE TOP PLATE.

5. 2 X 4 RETURN. 6. 3/4" FASCIA OR PVC TRIM COIL

7. 2 X FASCIA

1/4" PLYWOOD OR VINYL SOFFIT

9. 1X FREIZE BOARD (TO BE USED WITH **BRICK VENEERS)** 

10. INSULATION BOARD OR HOUSE WRAP

11. AIR SPACE.

12 BRICK WITH BRICK TIES PER MANUFACTURER'S SPECIFICATIONS.

13. 1/2" X 12" ANCHOR BOLTS, 6'-0" O.C., 12" FROM CORNERS.

4. FLASHING WITH WEEP HOLES @ 48" O.C.

15. FINISHED GRADE.

16. FOOTING

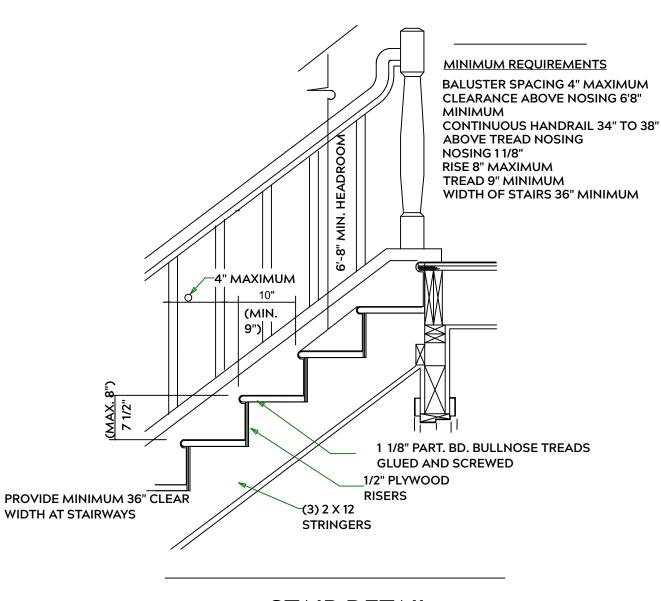
17. COMPACTED EARTH FILL

18. 6 MIL. VAPOR BARRIER

19. 4" CONCRETE SLAB, 3,000 P.S.I. WITH 6" X 6" 10 GA. X 10 GA. WELDED WIRE FABRIC.

20. 1/2" GYPSUM BOARD.

# **EXTERIOR WALL SECTION**



**STAIR DETAIL** 

**GENERAL FRAMING NOTES:** 

ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY SHALLE BE PRESSURE TREATED

FRAMING LUMBER SHALL BE SYP #2 GRADE AND / OR SPRUCE PINE FIR #1 AND / OR KILN DRIED

WHERE PRE-ENGINEERED JOISTS AND TRUSSES ARE USED, MANUFACTURER SHALL PROVIDE DRAWINGS / SCHEMATICS, WHICH SHALL BEAR OF A N.C. **ENGINEER** 

STUDS AND JOISTS SHALL NOT BE CUT TO INSTALL PLUMBING OR WIRING WITHOUT ADDING METAL OR WOOD SIDE PANELS TO STRENGTHEN MEMBER TO ITS ORIGINAL CAPACITY

NAIL MULTIPLE MEMBERS WITH 2 ROWS OF 16d NAILS STAGGERED 32" O.C. AND USE 3 X 16d NAILS 2" IN AT EACH END.

NAIL FLOOR JOISTS TO SILL PLATE WITH WITH 8d TOE NAILS

ALL EXPOSED FRAMING ON PORCHES OR DECKS SHALL BE PRESSURE **TREATED** 

PROVIDE WATERPROOFING AND DRAINS AS REQUIRED

ALL FRAMING TO BE 16" O.C. WALL FRAMING DIMENSIONS ARE BASED ON 2X4 OR 2X6 EXTERIOR WALLS AND 2X4 INTERIOR WALLS. DOULBE / TRIPLE JACK STUDS AS NECESSARY UNDER HEADERS AS REQUIRED

LVL'S TO BE SIZED BY OTHERS (TRUSS MANUFACTURER)

INTERIOR WALL @ GARAGE STEP DOWN

PLAN: Sarah

SHEETS

AIL ET 

**67 ADDRESS:** Liberty Meadows Lot dams Dr. **PROJECT** Sam 38

Precision Custom Hor Raeford, NC @PrecisionCustomHor

DATE:

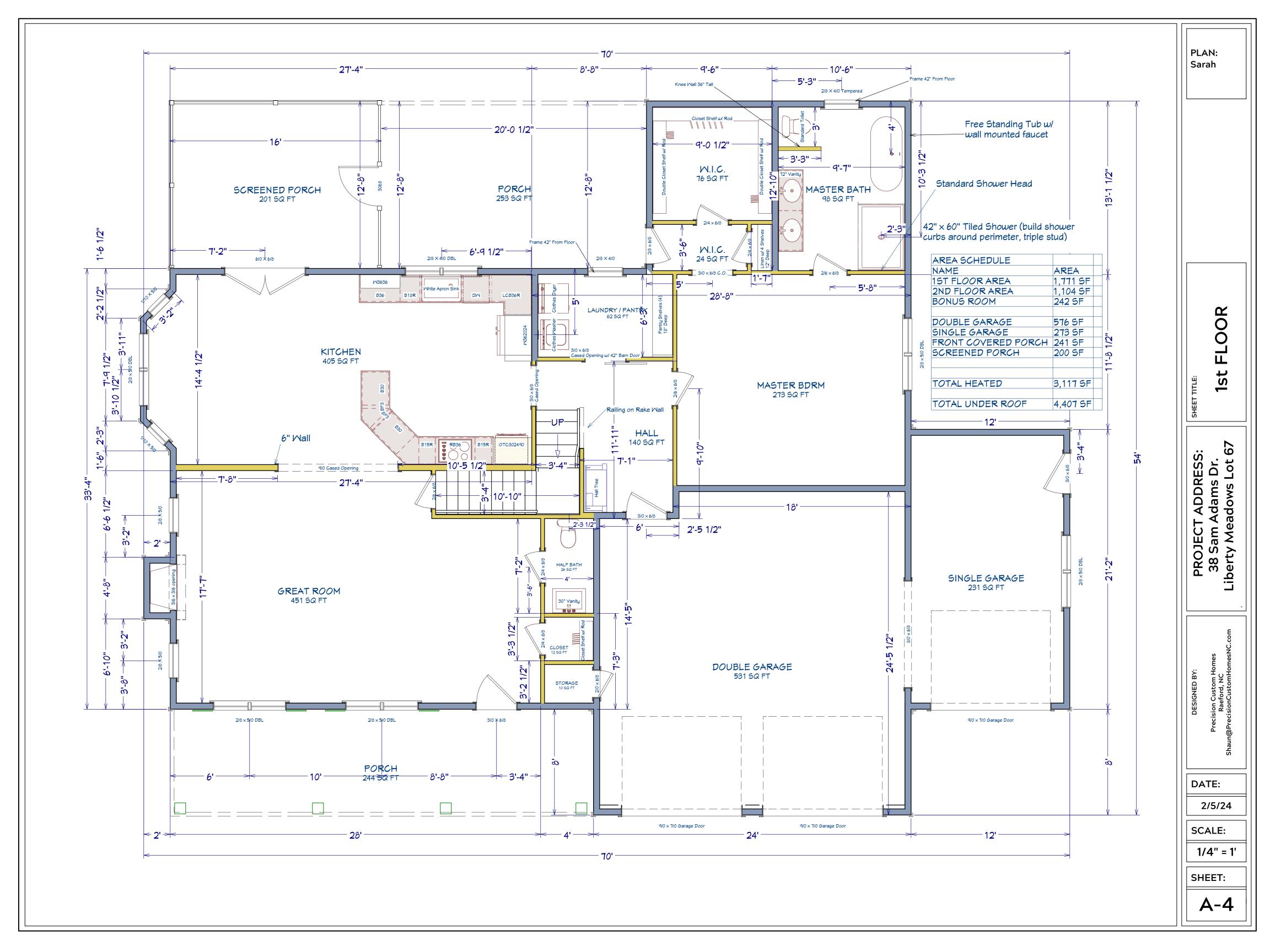
2/5/24

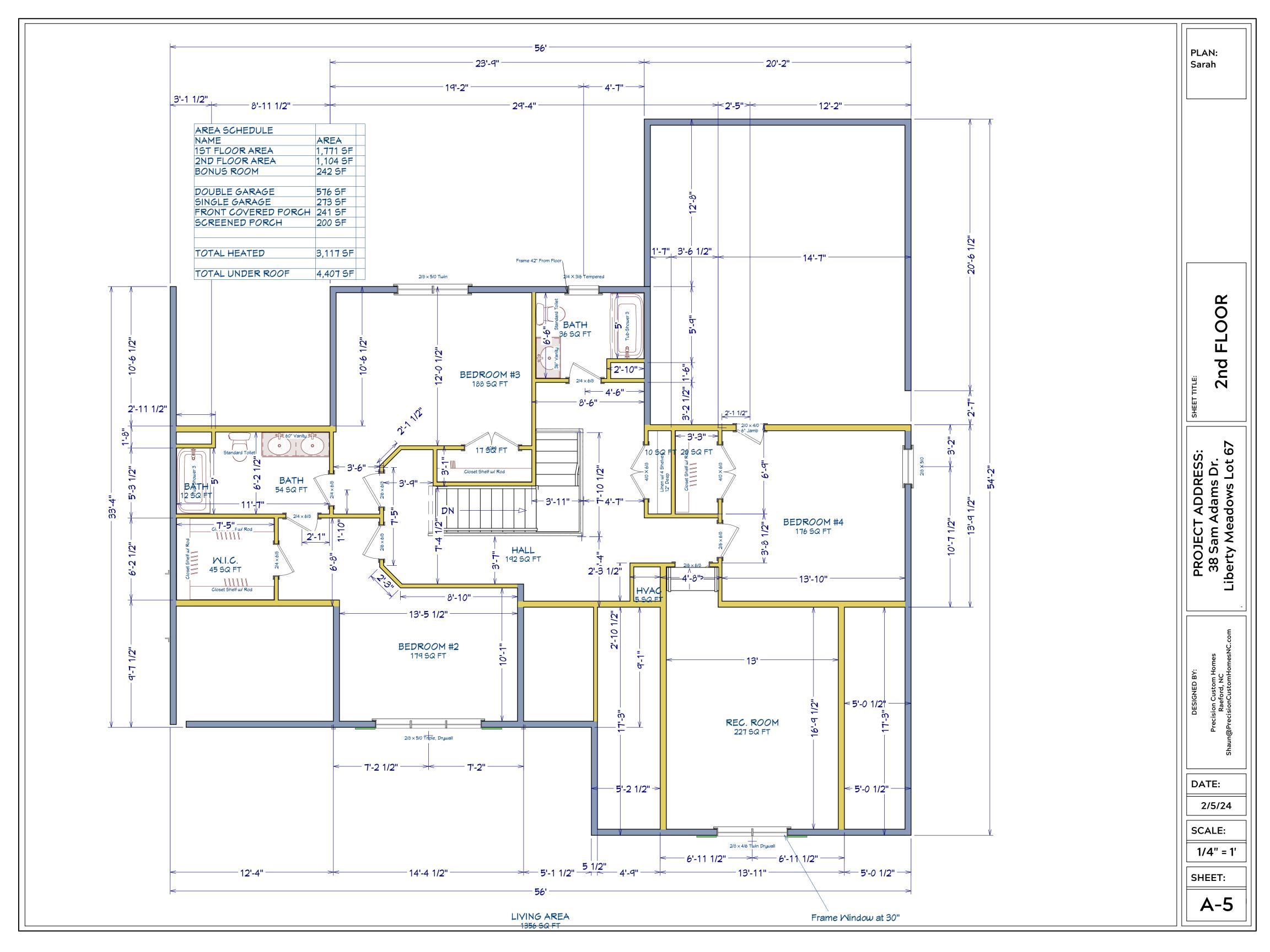
SCALE:

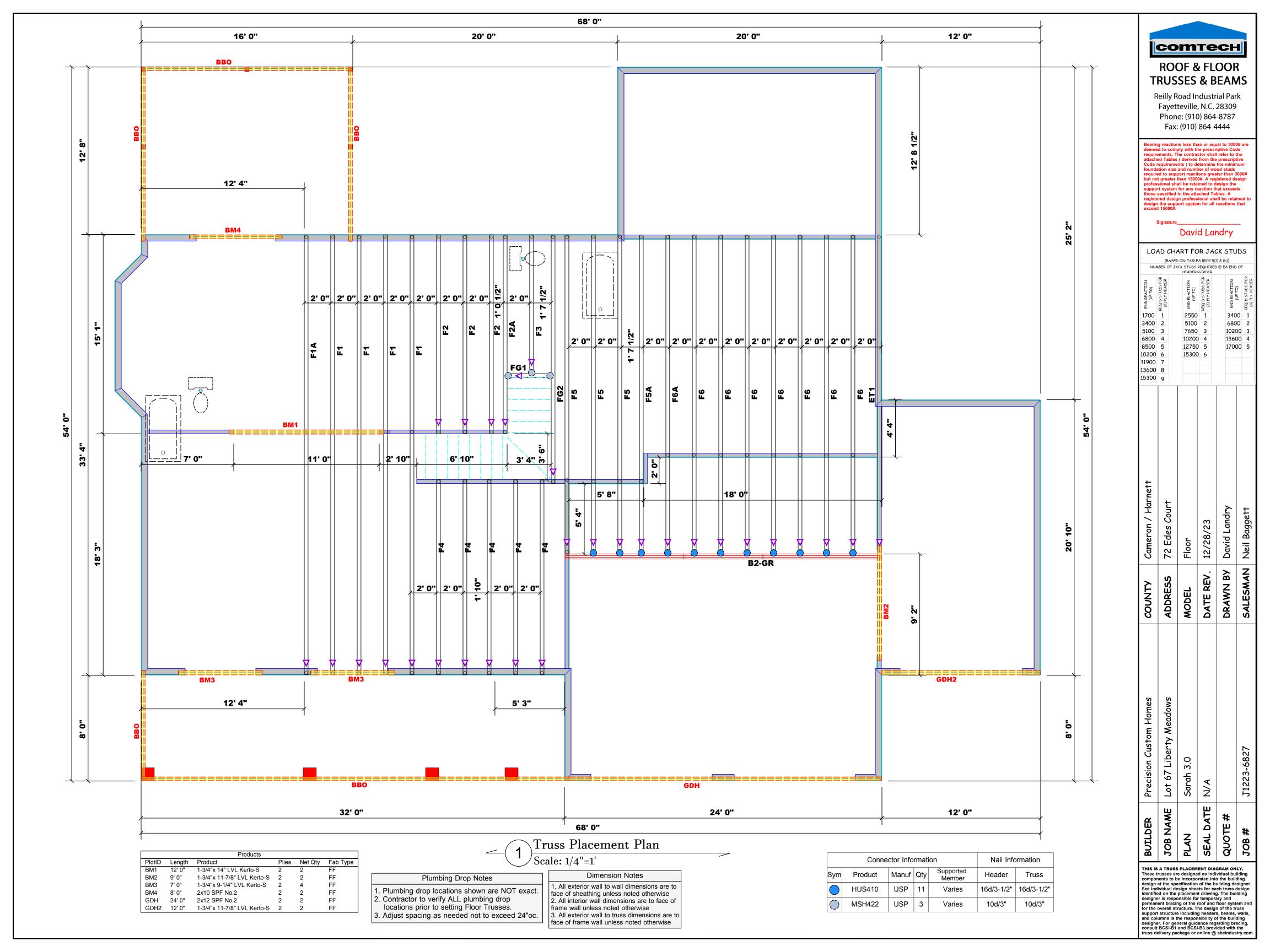
1/4" = 1'

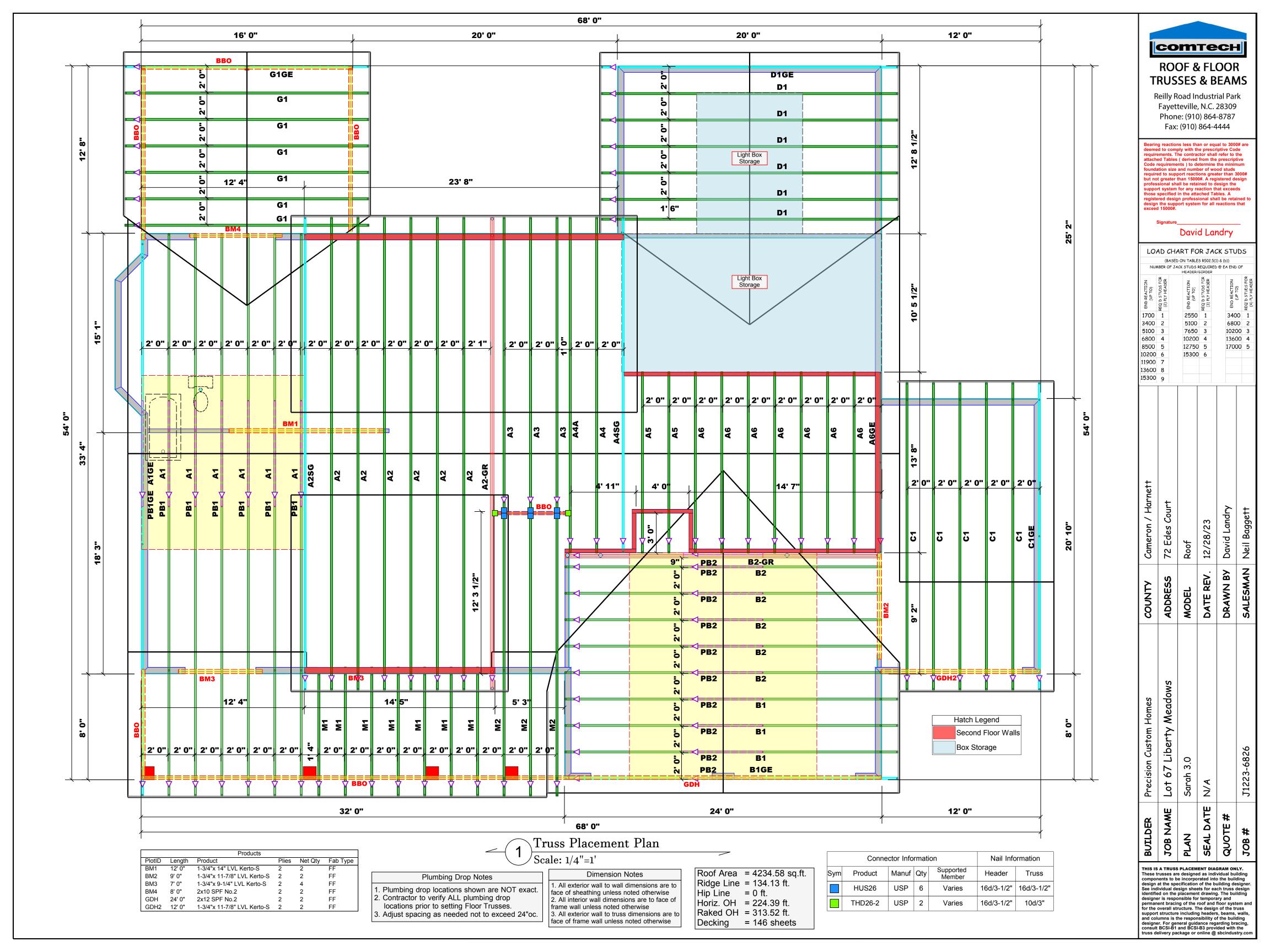
SHEET:

A-3









### North Carolina 2018 - R402.1.5 Total UA

**Property** 

Cameron, NC 28326 Model: Taggart

Community: Liberty Meadows

Organization

Southern Energy Manager Justin Smith

Inspection Status
Results are projected



Builder

**SMG Precision Properties** 

Template - SMG Precision - Liberty Meadows lot 15 - CZ 3 slab -Liberty Meadows lot 15

This report is based on a proposed design and does not confirm field enforcement of design elements.

#### **Building UA**

Elements	NC Reference	As Designed
Ceilings	48.2	45.8
Above-Grade Walls	195.8	145.4
Windows, Doors and Skylights	122.8	110.6
Slab Floor:	76.0	99.0
Framed Floors	17.5	19.1
Foundation Walls	0.0	0.0
Rim Joists	8.8	7.1
Overall UA (Design must be equal or lower):	469.1	427.0

#### Requirements

	402.1.5	Total UA alternative compliance passes by 9.0%.	
$\bigcirc$	402.3.2	Average SHGC: 0.28 Max SHGC: 0.30	
	R402.4.2.2	Air Leakage Testing	Air sealing is 4.80 ACH at 50 Pa. It must not exceed 5.00 ACH at 50 Pa.
	R402.5	Area-weighted average fenestration SHGC	
	R402.5	Area-weighted average fenestration U-Factor	
	R404.1	Lighting Equipment Efficiency	
	Mandatory Checklist	Mandatory code requirements that are not checked by Ekotrope must be met.	
	R403.3.1	Duct Insulation	
	403.3.3	Duct Testing	

### Design exceeds requirements for North Carolina 2018 Prescriptive compliance by 9%.

Name:	Justin Smith	Signature:	Justin Smith
Organization:	Southern Energy Management	Digitally signed:	8/9/22 at 11:22 AM

Property Cameron, NC 28326 Model: Taggart Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows lot 15 - CZ 3 slab - ecoSelect Liberty Meadows lot 15

Organization Southern Energy Management

Justin Smith

Builder

SMG Precision Properties

Inspection Status Results are projected



General Building Informati	ion
Number Of Bedrooms	3
Number Of Floors	2
Conditioned Floor Area [sq. ft.]	2,776
Has Electric Vehicle Ready Space	No
Unconditioned, attached garage?	Yes
Conditioned Volume [cu. ft.]	24,676
Total Units in Building	1
Residence Type	Single family detached
Number of Floors in Building	-
Floor Number	-
Model	Taggart
Community	Liberty Meadows
RESNET/IECC 2006 Climate Zone	4A
IECC 2021 Climate Zone	3A

_		4.8	100	-
	ID ALA	TION	3 \M/	211
Fou	III U a	шог	IVV	411

None Present

### Foundation Wall Library List

None Present

Slab								
Name	e Library Type	e Perimeter	Floor Grade	Carpet R	Exposed Masonry Area	Surface Area	Location	Enclosing
slab	Uninsulated	158	On Grade	1	0	1,234.0 ft²	Exposed Exterior	Conditioned Space

Slab Library	List						
Name	Wall Construction Type	Slab Completely Insulated?			Perimeter Insulation R Value	Thermal Break	Effective R-value
Uninsulated	Wood Frame / Other	No	0	0	0	No	0.00

Property Cameron, NC 28326 Model: Taggart Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows lot 15 - CZ 3 slab - ecoSelect Liberty Meadows lot 15

Organization Southern Energy Management Justin Smith

Builder

SMG Precision Properties

Inspection Status Results are projected



	Framed Floo	r				
ı	Name	Library Type	Carpet R	Floor Grade	Surface Area	Location
ı	over ambiant	R 19, 16"OC G1 Carpet	0	Above Grade	242.0 ft²	Exposed Exterior
	over garage	R 19, 16"OC G1 Carpet	0	Above Grade	131.0 ft²	Unconditioned, attached garage

# Framed Floor Library List

Effective R-value R 19, 16"OC G1 Carpet 19.566

Rim Joist			
Name	Library Type	Surface Area	Location
1st floor ambient	R 19 G1, 16"OC	131.0 ft²	Exposed Exterior
1st floor garage	R 19 G1, 16"OC	27.0 ft²	Unconditioned, attached garage

### **Rim Joist Library List** Effective Insulation R-value R 19 G1, 16"OC 17.30

Nall				
Name	Library Type	Surface Color	Surface Area	Locatio
1st floor ambient	R 19 Adv. Framing G1 16" O.C	Medium	1,179.0 ft²	Exposed Exterio
1st floor garage	R 19 Adv. Framing G1 16" O.C	Medium	243.0 ft²	Unconditioned, attached garage
2nd floor ambient	R 19 Adv. Framing G1 16" O.C	Medium	1,472.0 ft²	Exposed Exterio

Property Cameron, NC 28326 Model: Taggart Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows lot 15 - CZ 3 slab - ecoSelect Liberty Meadows lot 15

Organization Southern Energy Management Justin Smith

Builder SMG Precision Properties Inspection Status Results are projected



#### **Wall Library List**

Effective R-value R 19 Adv. Framing G1 16" O.C 17.492

Glazing									
Name	Library Type	Wall Assignment	Foundation Wall Assignment	ls Operable	Overhang Depth	Overhang Ft To O Top	verhang Ft To Bottom	Orientation	Surface Area
front 2nd unshaded	33/28	2nd floor ambient		Yes	0	0	0	West	50.7 ft²
front shaded	33/28	1st floor ambient		Yes	6	2	6	West	10.5 ft²
front unshaded	33/28	1st floor ambient		Yes	0	0	0	West	26.7 ft²
left 2nd unshaded	33/28	2nd floor ambient		Yes	0	0	0	North	26.7 ft²
left unshaded	33/28	1st floor ambient		Yes	0	0	0	North	13.4 ft²
rear 2nd unshaded	33/28	2nd floor ambient		Yes	0	0	0	East	63.9 ft²
rear unshaded	33/28	1st floor ambient		Yes	0	0	0	East	72.1 ft²
right shaded	33/28	1st floor ambient		Yes	13.5	2	9	South	33.4 ft²
right unshaded	33/28	2nd floor ambient		Yes	0	0	0	South	13.4 ft²

Glazing Library List						
Name	Shgc	U-factor				
33/28	0.28	0.330				

	Skylight	
ı	None Present	

### **Skylight Library List**

None Present

Property Cameron, NC 28326 Model: Taggart Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows lot 15 - CZ 3 slab - ecoSelect Liberty Meadows lot 15

Organization Southern Energy Management Justin Smith

Builder

SMG Precision Properties

Inspection Status Results are projected



Opaque Doo	r							
Name	Library Type	Wall Assignment	Foundation Wall Assignment		Solar Absorptance		Surface Area	Location
front entry	Fiberglass R-5	1st floor ambient		0.9	0.75	Medium	20.0 ft²	Exposed Exterior
garage entry	Fiberglass R-5	1st floor garage		0.9	0.75	Medium	20.0 ft²	Unconditioned, attached garage

Opaque Door Library List		
Nam	ne Effective U-factor	
Fiberglass R-5	5 0.200	

Roof Insulati	on					
Name	Library Type	Attic Exterior Area [ft²]	Clay or Concrete Roof Tiles		Surface Area	Location
attic	R 38 Attic BLOWN FG G1 2x10 24"OC NO Radiant Barrier	2,362.29	No	Dark	1,607.0 ft²	Attic

Roof Insulation	Library List	
Name	Has Radiant Barrier	Effective R-value
R 38 Attic BLOWN FG G1 2x10 24"OC NO	No	35.115

Whole House	Infiltration		
Infiltration	Measurement Type	Shelter Class	ss
1974 CFM at 50 Pa	Blower-door tested	4	4

#### **Mechanical Ventilation**

None Present

Property Cameron, NC 28326 Model: Taggart Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows lot 15 - CZ 3 slab - ecoSelect Liberty Meadows lot 15

Organization Southern Energy Management Justin Smith

Builder

None Present

SMG Precision Properties

Inspection Status Results are projected



ı	Lighting						
•	% Interior Fluorescent Lighting		ighting % Exte	erior Fluorescent % Lighting	Exterior LED Lighting	% Garage Fluorescent Lighting	% Garage LED Lighting
	0		90	0	0	0	0
	L						
ı	Onsite Gener	ration					
ľ			None Prese	ent			
i	Onsite Gener	ration Library					
			None Prese	ent			
ı	Solar Genera	ation					
ĺ			None Prese	ent			
ı	Dehumidifier						
			None Prese	ent			
ı	Dehumidifier	Library List					
			None Prese	ent			
ı	Whole House	e Fan					

Property Cameron, NC 28326 Model: Taggart Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows lot 15 - CZ 3 slab - ecoSelect Liberty Meadows lot 15

Organization Southern Energy Management Justin Smith



#### Builder

SMG Precision Properties

### Whole House Fan Library List

None Present

Conditioning	Equipment					
Name	Library Type	Serial Number	Heating Percent Load	Cooling Percent Load	i Hot Water Percent Load	Location
1st floor heat pump	z 24k 14 SEER 8.2hspf		44%	44%	0%	Attic
2nd floor heat pump	z 24k 14 SEER 8.2hspf		56%	56%	0%	Attic
Water Heating	z 50 gal. 0.95 EF Elec		0%	0%	100%	Unconditioned Garage

Inspection Status

Results are projected

Equipment Type: z 24k 14	Equipment Type: z 24k 14 SEER 8.2hspf				
Equipment Type	Air Source Heat Pump				
Fuel Type	Electric				
Distribution Type	Forced Air				
Motor Type	PSC (Single Speed)				
Heating Efficiency	8.2 HSPF				
Heating Capacity [kBtu/h]	24				
Backup Fuel Type	Electric				
Switchover Temperature [°F]	0				
Backup Heating Efficiency	1 COP				
Use default Supplemental Heat	Yes				
Cooling Efficiency	14 SEER				
Cooling Capacity [kBtu/h]	24				

Equipment Type: z 50 g	al. 0.95 EF Elec
Equipment Type	Residential Water Heater
Fuel Type	Electric
Distribution Type	Hydronic Delivery (Radiant)
Hot Water Efficiency	0.95 Energy Factor
Tank Capacity (gal.)	50
Hot Water Capacity [kBtu/h]	40
Recovery Efficiency	0.98

Property Cameron, NC 28326 Model: Taggart Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows lot 15 - CZ 3 slab - ecoSelect Liberty Meadows lot 15

Organization Southern Energy Management Justin Smith

Builder

SMG Precision Properties

Inspection Status Results are projected



Distribution System	
Distribution Type	Forced Air
Heating Equipment	1st floor heat pump
Cooling Equipment	1st floor heat pump
Sq. Feet Served	1,234
# Return Grilles	2
Supply Duct R Value	8
Return Duct R Value	8
Supply Duct Area [ft²]	333.18
Return Duct Area [ft²]	123.4
Leakage to Outdoors	49 CFM @ 25Pa (3.97 / 100 ft²)
Total Leakage	49 CFM25
Total Leakage Duct Test Conditions	Post-Construction
Use Default Flow Rate	Yes
Duct 1	
Duct Location	Attic (well vented)
Percent Supply Area	70
Percent Return Area	70
Duct 2	
Duct Location	Conditioned Space
Percent Supply Area	30
Percent Return Area	30
Duct 3	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 4	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 5	0 10 10
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 6	Conditioned Conse
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0

Property Cameron, NC 28326 Model: Taggart Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows lot 15 - CZ 3 slab - ecoSelect Liberty Meadows lot 15

Organization

Southern Energy Management Justin Smith

Inspection Status

Results are projected

Builder

SMG Precision Properties



Distribution System	
Distribution Type	Forced Air
Heating Equipment	2nd floor heat pump
Cooling Equipment	2nd floor heat pump
Sq. Feet Served	1,542
# Return Grilles	2
Supply Duct R Value	8
Return Duct R Value	8
Supply Duct Area [ft²]	416.34
Return Duct Area [ft²]	154.2
Leakage to Outdoors	61 CFM @ 25Pa (3.96 / 100 ft <sup>2</sup> )
Total Leakage	61 CFM25
Total Leakage Duct Test Conditions	Post-Construction
Use Default Flow Rate	Yes
Duct 1	
Duct Location	Attic (well vented)
Percent Supply Area	100
Percent Return Area	100
Duct 2	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 3	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 4	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 5	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0
Duct 6	
Duct Location	Conditioned Space
Percent Supply Area	0
Percent Return Area	0

### **HVAC Grading**

HVAC Grading Not Conducted

Ceiling Fan		
Has Ceiling Fan	No	
Cfm Per Watt	100	

Property Cameron, NC 28326 Model: Taggart Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows lot 15 - CZ 3 slab - ecoSelect Liberty Meadows lot 15

Organization Southern Energy Management Justin Smith

Builder

SMG Precision Properties





Water Distribution	
Water Fixture Type	Low-flow
Use Default Hot Water Pipe Length	No
Hot Water Pipe Length [ft]	92
At Least R3 Pipe Insulation?	No
Hot Water Recirculation System?	No
Recirculation System Pipe Loop Length [ft]	20
Drain Water Heat Recovery?	No

Clothes Dryer	
Cef	3.01
Fuel Type	Electric
Field Utilization	Timer Controls
Is Outside Conditioned Space	No
Clothes Dryer Available	Yes
Defaults Type	HERS Reference

Clothes Washer		
Label Energy Rating	153 kWh/Year	
Annual Gas Cost	\$12.00	
Electric Rate	\$0.11/kWh	
Gas Rate	\$1.22/Therm	
Capacity	3.31	
Imef	2.1547	
Defaults Type	Custom	
Load Type	Front-load	
Loads Per Week	6	
Is Outside Conditioned Space	No	
Clothes Washer Available	Yes	

Dishwasher	
Dishwasher Efficiency	270 kWh
Dishwasher Size	Standard
Annual Gas Cost	\$22.23
Electric Rate	\$0.12/kWh
Gas Rate	\$1.09/Therm
Is Outside Conditioned Space	No

Property Cameron, NC 28326 Model: Taggart Community: Liberty Meadows

Template - SMG Precision - Liberty Meadows lot 15 - CZ 3 slab - ecoSelect Liberty Meadows lot 15

Organization Southern Energy Management Justin Smith

Builder

SMG Precision Properties





Appliances and Controls	
Thermostat Cooling Setpoint	* * * * 75.0
Thermostat Heating Setpoint	* * * * 70.0
Range/Oven Fuel	Electric
Convection Oven?	No
Induction Range?	No
Range/Oven Outside Conditioned Space?	No
Refrigerator Consumption	538 kWh/Year
Refrigerator Outside Conditioned Space?	No

#### **Notes**

Initial Inputs \_\_\_\_\_MS 07/05/22\_

- -confirm HVAC specs
- -confirm water heater specs
- -confirm ventilation entry, modeled as air cycler
- -modeled to worst case orientation
- -confirm cfl lighting %