

PLAN:  
Hazlitt



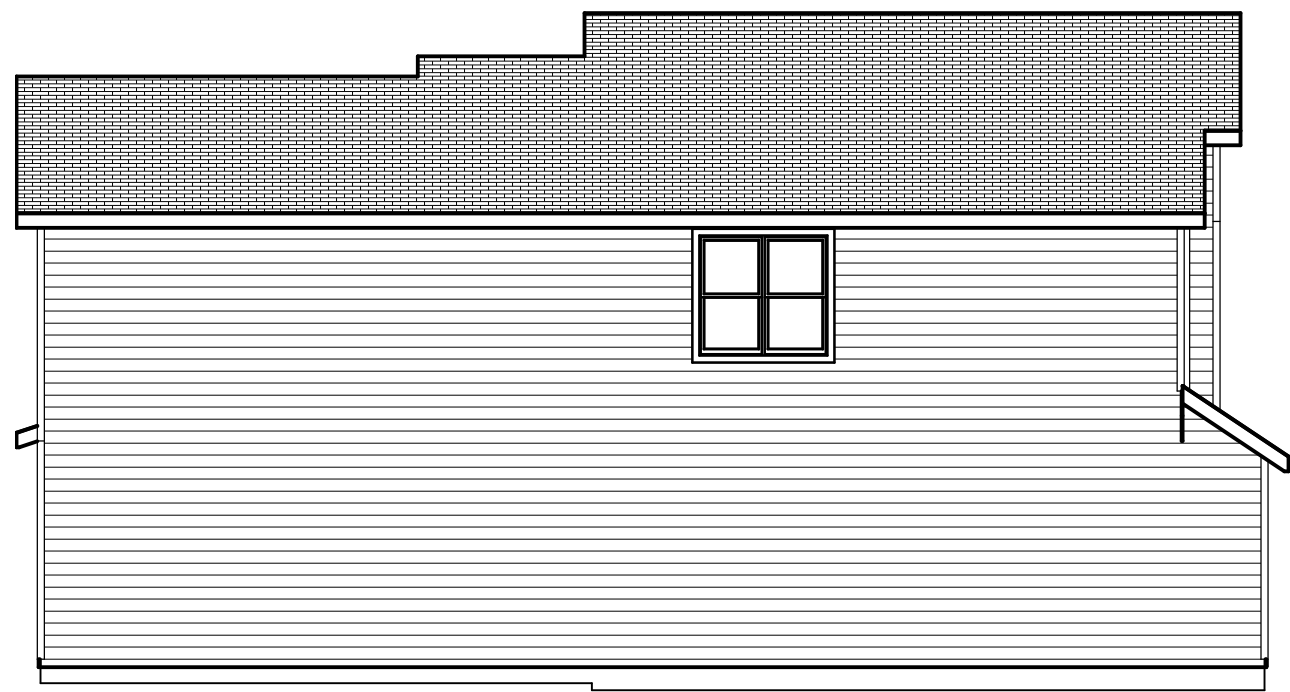
No slab insulation. See attached energy report

**FRONT ELEVATION**

Scale: 1/4" = 1'0"

9'0" CEILING HEIGHT FIRST FLOOR  
(HEADER HEIGHT 7'6")  
8'0" CEILING HEIGHT SECOND FLOOR  
(HEADER HEIGHT 7')

FRAME WINDOWS TO HEADER HEIGHT



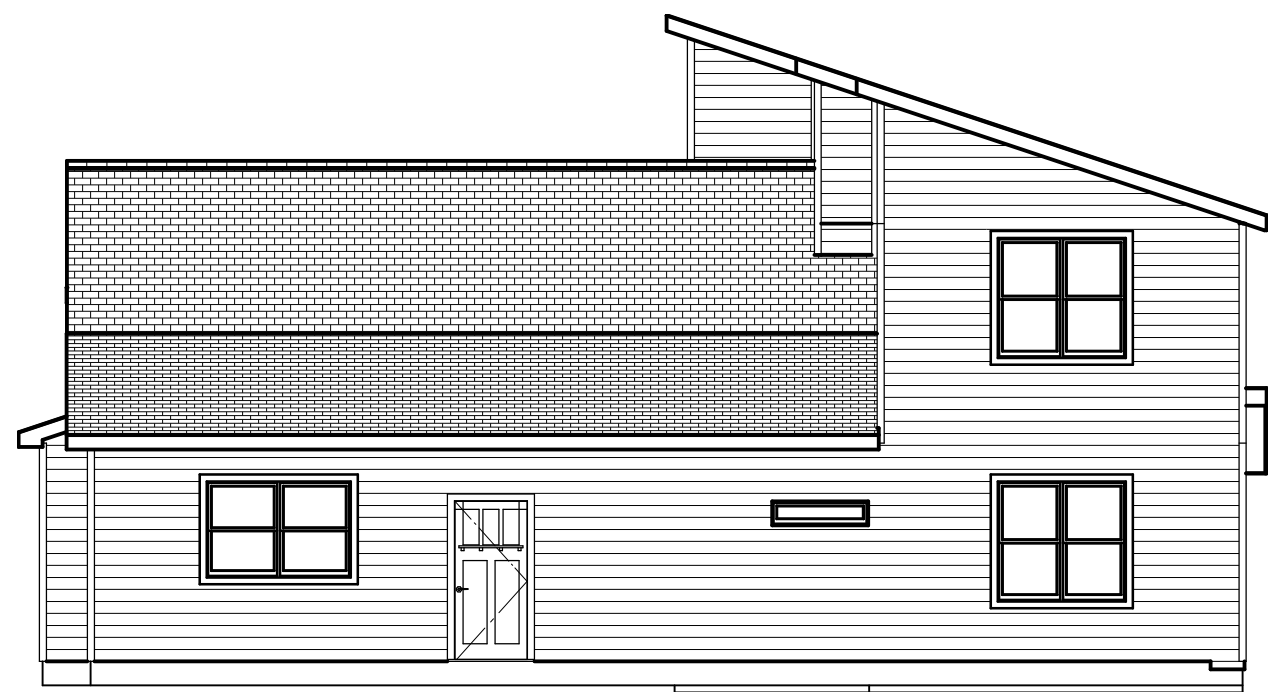
**LEFT ELEVATION**

Scale: 1/8" = 1'0"



**RIGHT ELEVATION**

Scale: 1/8" = 1'0"



**REAR ELEVATION**

Scale: 1/8" = 1'0"

SHEET TITLE:  
**ELEVATIONS**

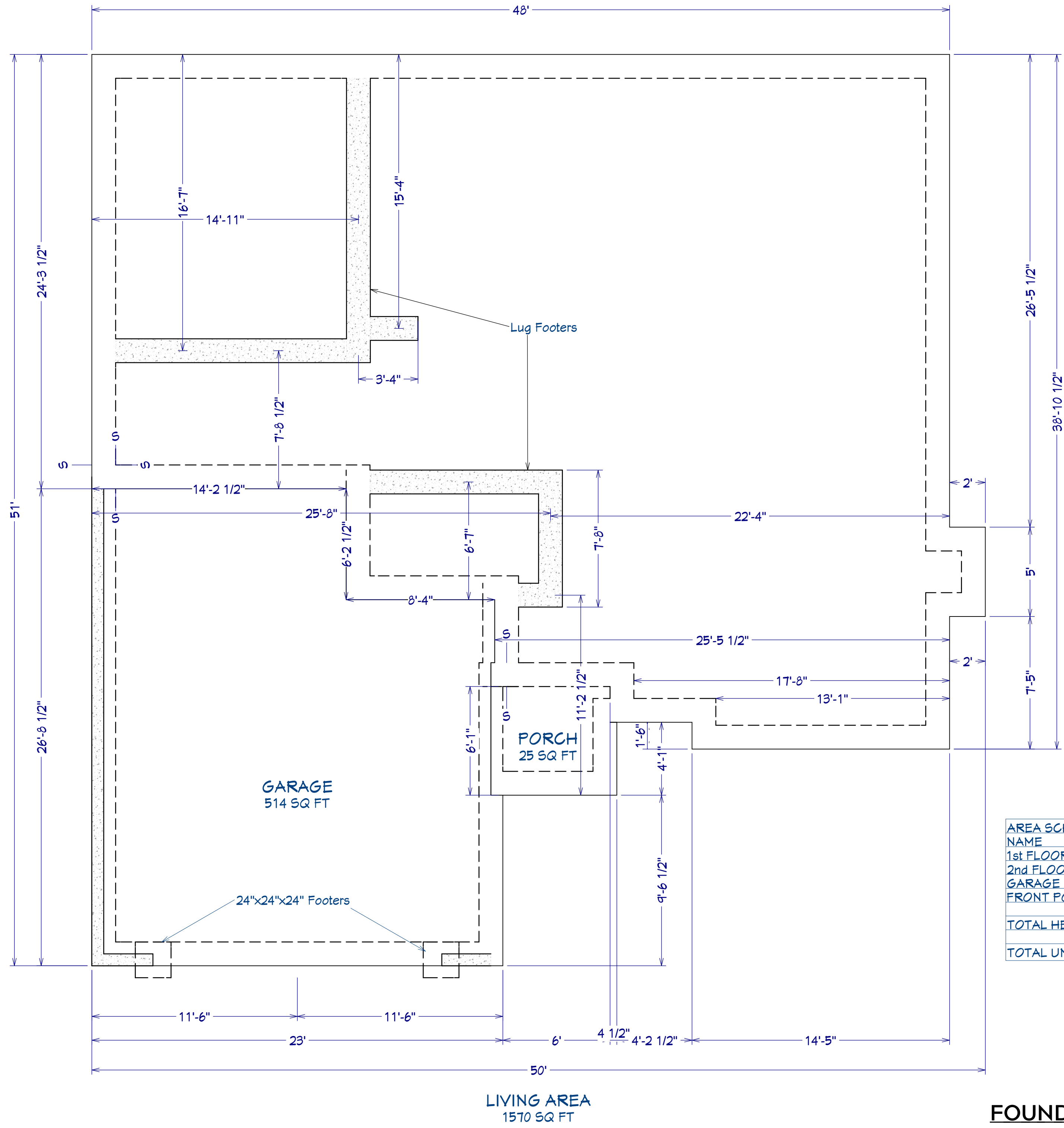
PROJECT ADDRESS:  
286 Solomon Dr.  
Liberty Meadows Lot 11

DESIGNED BY:  
Precision Custom Homes  
Raeford, NC  
Shaun@PrecisionCustomHomesNC.com

DATE:  
8/4/22

SCALE:  
1/4" = 1'

SHEET:  
**A-1**



| AREA SCHEDULE           |                 |
|-------------------------|-----------------|
| NAME                    | AREA            |
| 1st FLOOR               | 1,564 SF        |
| 2nd FLOOR               | 866 SF          |
| GARAGE                  | 560 SF          |
| FRONT PORCH             | 39 SF           |
| <b>TOTAL HEATED</b>     | <b>2,430 SF</b> |
| <b>TOTAL UNDER ROOF</b> | <b>3,029 SF</b> |

**FOUNDATION PLAN**  
Scale: 1/4" = 1'0"

PLAN:  
Hazlitt

SHEET TITLE:  
**FOUNDATION**

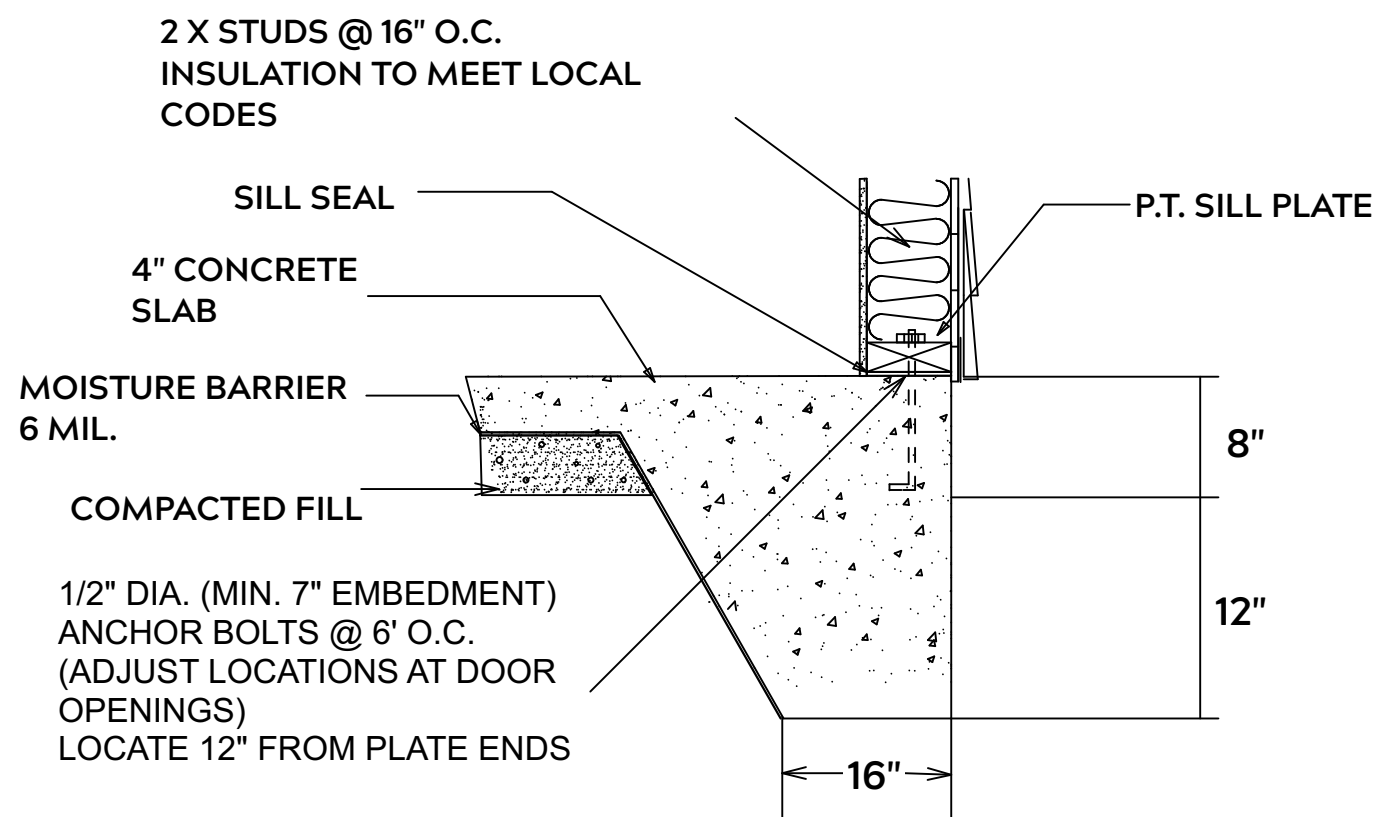
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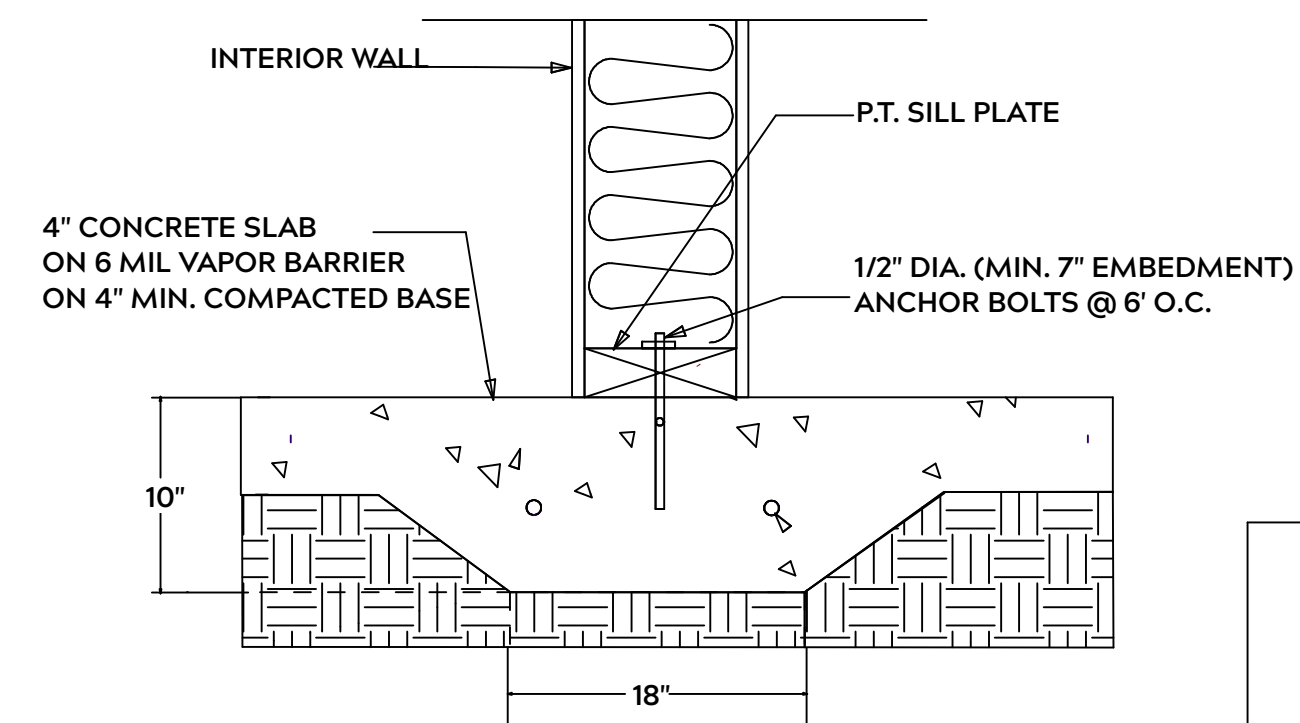
DATE:  
8/4/22

SCALE:  
1/4" = 1'

SHEET:  
**A-2**



**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

**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.

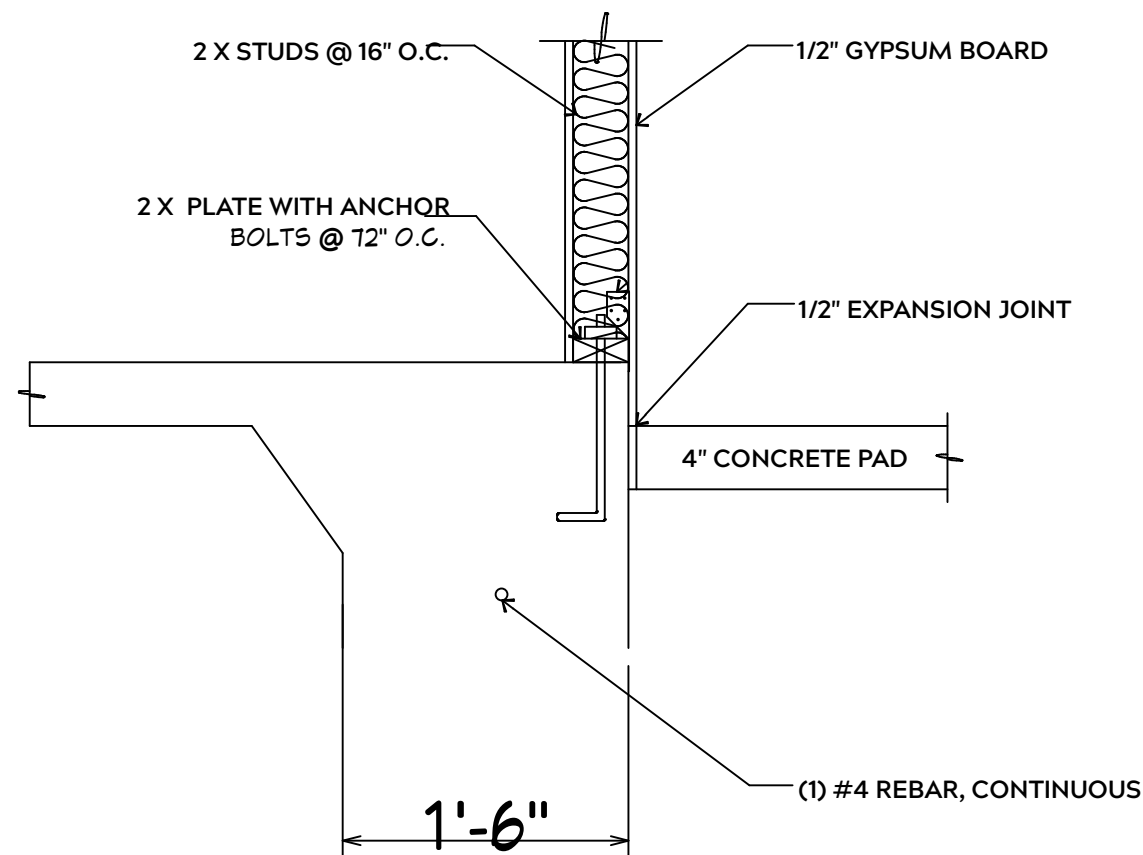
NAIL FLOOR JOISTS TO SILL PLATE WITH WITH 8d TOE NAILS

ALL EXPOSED FRAMING ON PORCHES OR DECKS SHALL BE PRESSURE TREATED

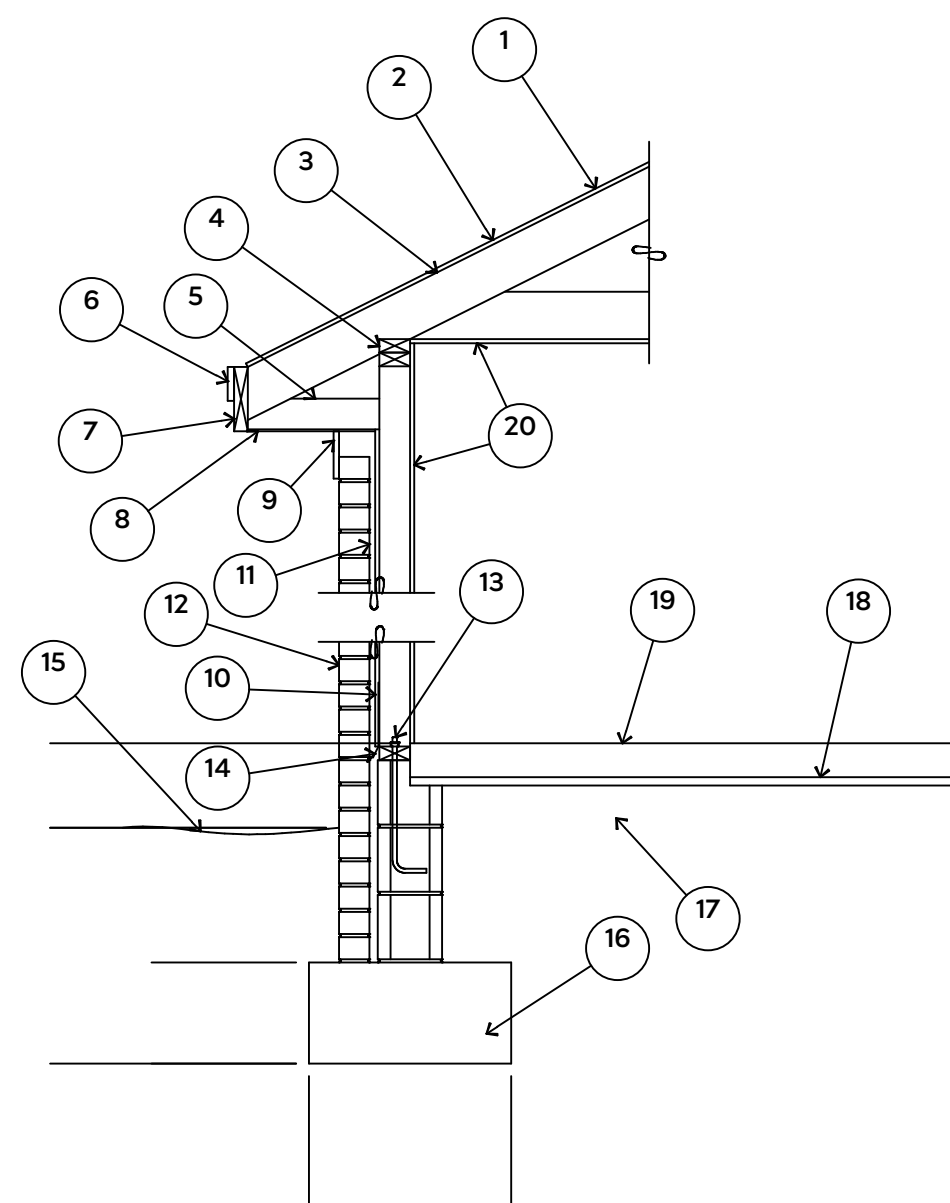
PROVIDE WATERPROOFING AND DRAINS AS REQUIRED

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)

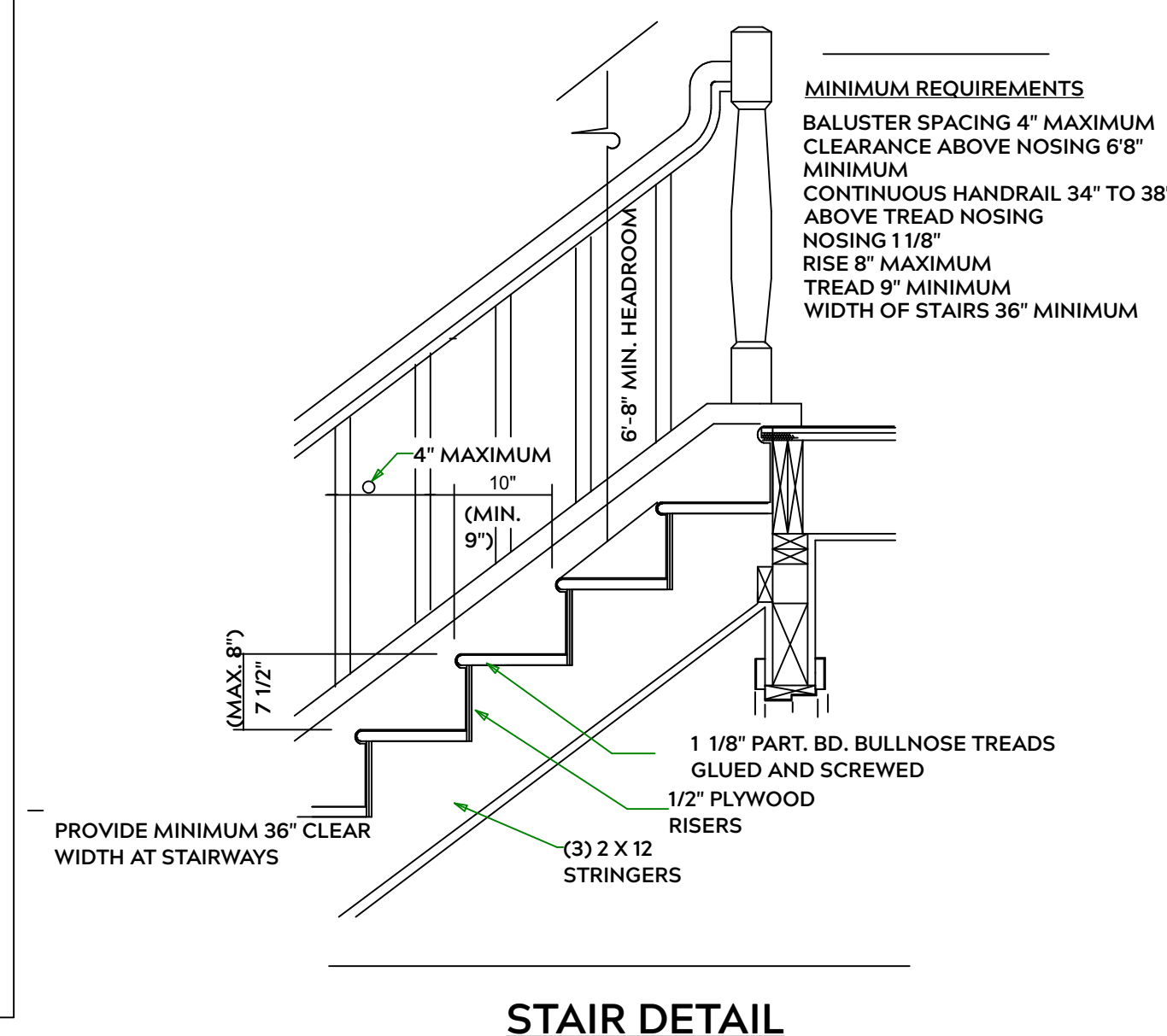


**INTERIOR WALL @ GARAGE STEP DOWN**

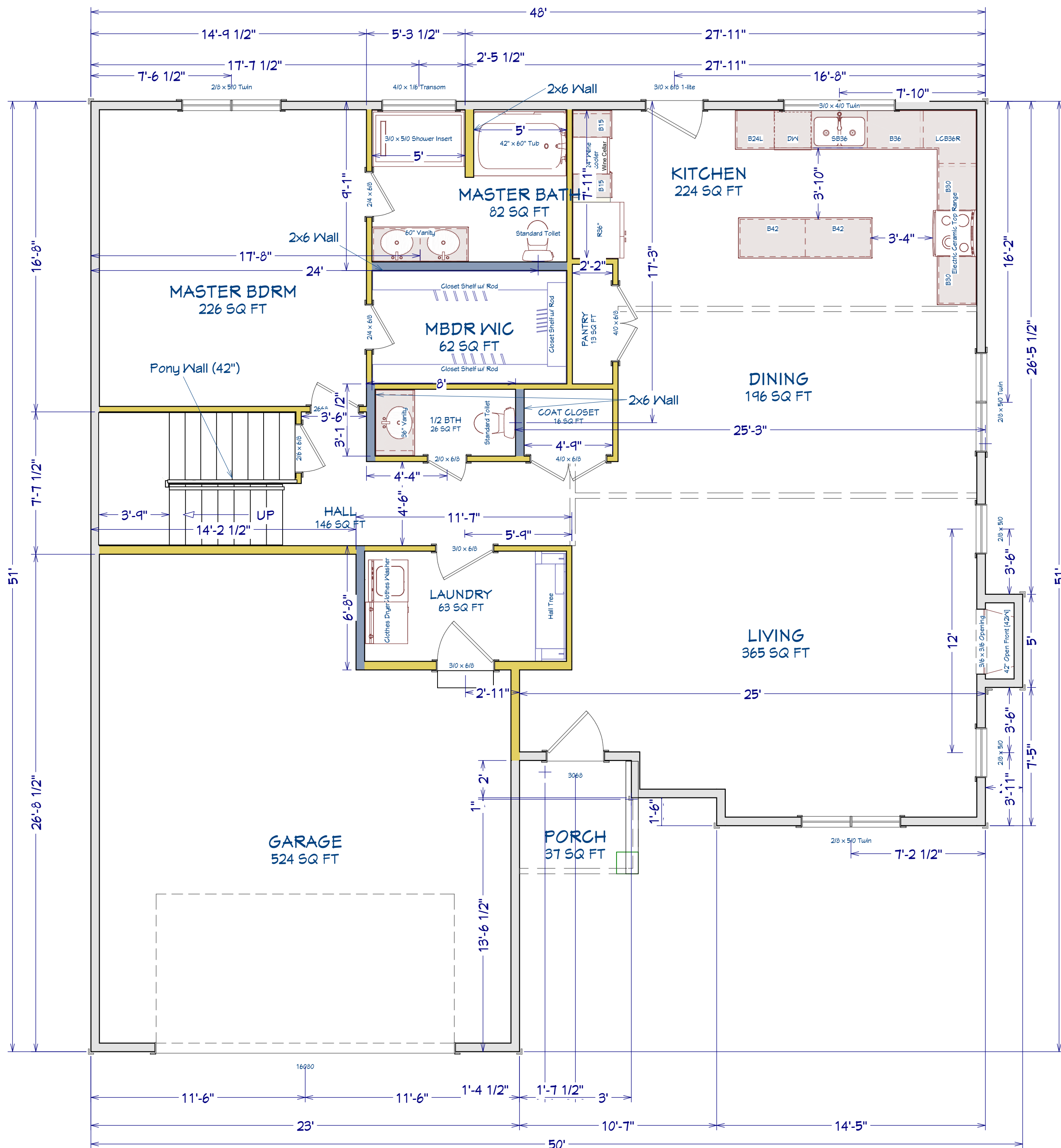


1. 15# FELT UNDERLAYMENT UNDER COMPOSITION SHINGLES.
2. ROOF DECKING.
3. 2 X RAFTERS / ENGINEERED TRUSSES
4. DOUBLE TOP PLATE.
5. 2 X 4 RETURN.
6. 3/4" FASCIA OR PVC TRIM COIL
7. 2 X FASCIA
8. 1/4" PLYWOOD OR VINYL SOFFIT
9. 1 X FREIZE BOARD (TO BE USED WITH BRICK VENEERS)
10. INSULATION BOARD OR HOUSE 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.
14. 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**



| AREA SCHEDULE           |                 |
|-------------------------|-----------------|
| NAME                    | AREA            |
| 1st FLOOR               | 1,564 SF        |
| 2nd FLOOR               | 866 SF          |
| GARAGE                  | 560 SF          |
| FRONT PORCH             | 39 SF           |
| <b>TOTAL HEATED</b>     | <b>2,430 SF</b> |
| <b>TOTAL UNDER ROOF</b> | <b>3,029 SF</b> |

SHEET TITLE:

**1st FLOOR**

**PROJECT ADDRESS:**  
286 Solomon Dr.  
Liberty Meadows Lot 11

DESIGNED BY:  
Precision Custom Homes  
Raeferd, NC  
Shaun@PrecisionCustomHomesNC.com

DATE:

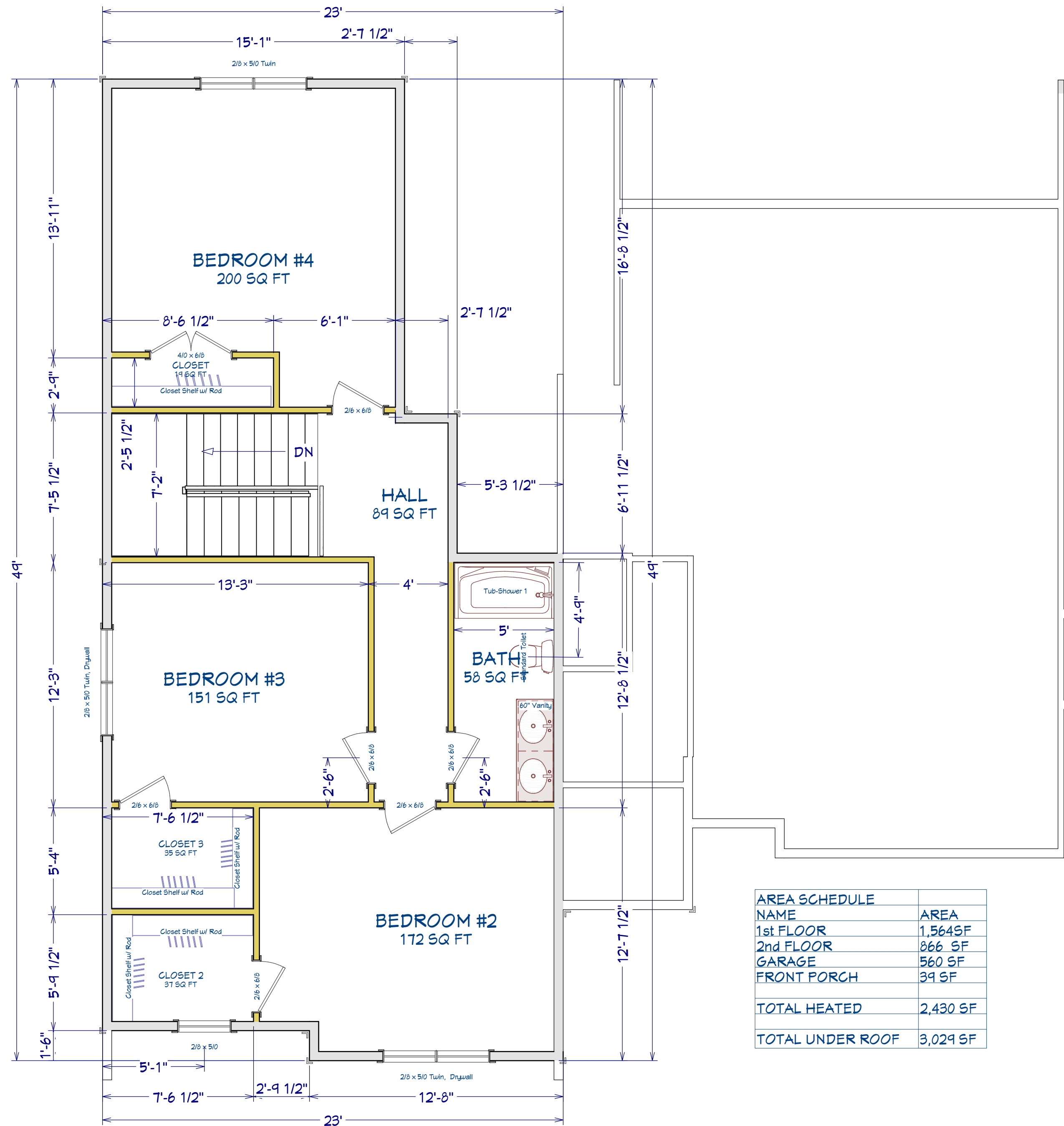
8/4/22

SCALE:

1/4" = 1'

SHEET:

**A-4**



| AREA SCHEDULE    |          |
|------------------|----------|
| NAME             | AREA     |
| 1st FLOOR        | 1,564 SF |
| 2nd FLOOR        | 866 SF   |
| GARAGE           | 560 SF   |
| FRONT PORCH      | 39 SF    |
| TOTAL HEATED     | 2,430 SF |
| TOTAL UNDER ROOF | 3,029 SF |



# ROOF & FLOOR TRUSSES & BEAMS

Reilly Road Industrial Park  
Fayetteville, N.C. 28309  
Phone: (910) 864-8787  
Fax: (910) 864-4444

Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables ( derived from the prescriptive Code requirements ) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature  
**Neil Baggett**

### LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (b))  
NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

| END REACTION (UP TO) | REQ'D STUDS FOR (1)PLY HEADER | END REACTION (UP TO) | REQ'D STUDS FOR (1)PLY HEADER | END REACTION (UP TO) | REQ'D STUDS FOR (1)PLY HEADER |
|----------------------|-------------------------------|----------------------|-------------------------------|----------------------|-------------------------------|
| 1700                 | 1                             | 2550                 | 1                             | 3400                 | 1                             |
| 3400                 | 2                             | 5100                 | 2                             | 6800                 | 2                             |
| 5100                 | 3                             | 7650                 | 3                             | 10200                | 3                             |
| 6800                 | 4                             | 10200                | 4                             | 13600                | 4                             |
| 8500                 | 5                             | 12750                | 5                             | 17000                | 5                             |
| 10200                | 6                             | 15300                | 6                             |                      |                               |
| 11900                | 7                             |                      |                               |                      |                               |
| 13600                | 8                             |                      |                               |                      |                               |
| 15300                | 9                             |                      |                               |                      |                               |

**Plumbing Drop Notes**

1. Plumbing drop locations shown are NOT exact.
2. Contractor to verify ALL plumbing drop locations prior to setting Floor Trusses.
3. Adjust spacing as needed not to exceed 24"oc.

**Dimension Notes**

1. All exterior wall to wall dimensions are to face of stud unless noted otherwise
2. All interior wall dimensions are to face of stud unless noted otherwise
3. All exterior wall to truss dimensions are to face of stud unless noted otherwise

Roof Area = 2756.26 sq.ft.  
Ridge Line = 31.62 ft.  
Hip Line = 0 ft.  
Horiz. OH = 221.25 ft.  
Raked OH = 150.32 ft.  
Decking = 95 sheets

All Walls Shown Are Considered Load Bearing

▲ = Indicates Left End of Truss  
(Reference Engineered Truss Drawing)  
Do Not Erect Trusses Backwards

① Truss Placement Plan  
Scale: 1/4"=1'

**Hatch Legend**

- Padded HVAC
- 2nd Floor Walls @ 8' 1 1/2" UNO
- Wall @ 13' 1 1/2"
- Flush Beam
- Drop Beam

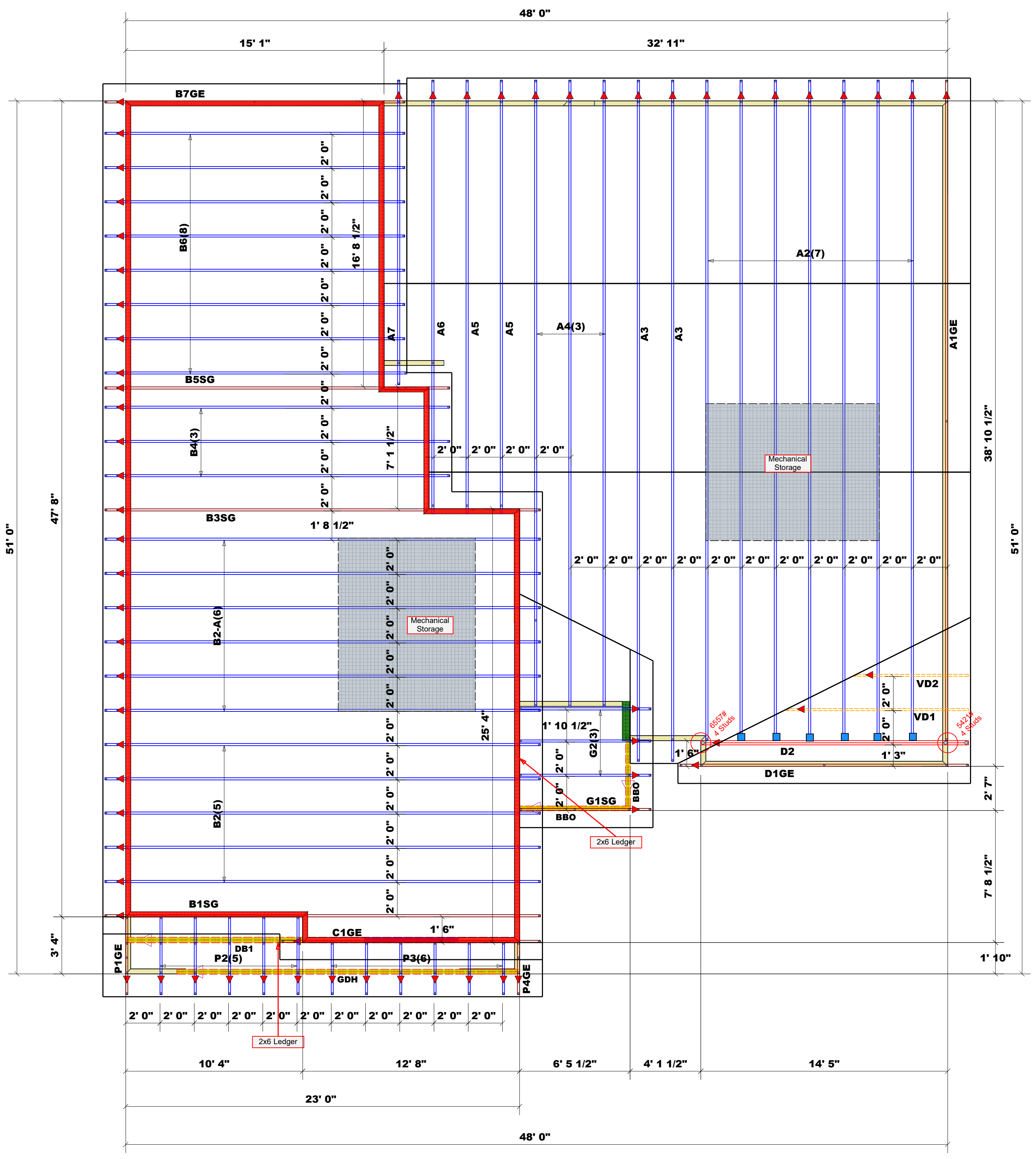
**Products**

| PlotID | Length | Product                 | Plies | Net Qty |
|--------|--------|-------------------------|-------|---------|
| FB1    | 9' 0"  | 1-3/4"x 16" LVL Kerto-S | 2     | 2       |
| FB2    | 7' 0"  | 1-3/4"x 16" LVL Kerto-S | 2     | 2       |
| DB1    | 23' 0" | 1-3/4"x 18" LVL Kerto-S | 2     | 2       |
| GDH    | 20' 0" | 2x12 SP No.2            | 2     | 2       |

All Truss Reactions are Less than 3,000 lbs. Unless Noted Otherwise.

○ -- Denotes Reaction Greater than 3,000 lbs. Reaction / # of Studs

| Connector Information |         |       |     | Nail Information |            |            |
|-----------------------|---------|-------|-----|------------------|------------|------------|
| Sym                   | Product | Manuf | Qty | Supported Member | Header     | Truss      |
| ●                     | HUS410  | USP   | 8   | Varies           | 16d/3-1/2" | 16d/3-1/2" |
| ■                     | HUS26   | USP   | 7   | Varies           | 16d/3-1/2" | 16d/3-1/2" |



| BUILDER                | JOB NAME               | PLAN    | SEAL DATE | QUOTE #      | JOB #        |
|------------------------|------------------------|---------|-----------|--------------|--------------|
| Precision Custom Homes | Lot 11 Liberty Meadows | Hazlitt | 7/20/2022 | N/A          | J1021-6178   |
| Harnett                | Lot 11 Liberty Meadows | Roof    | 7/22/2022 | Neil Baggett | Neil Baggett |

**THIS IS A TRUSS PLACEMENT DIAGRAM ONLY.**  
These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbciindustry.com



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1 Truss Placement Plan Scale: 1/4"=1'

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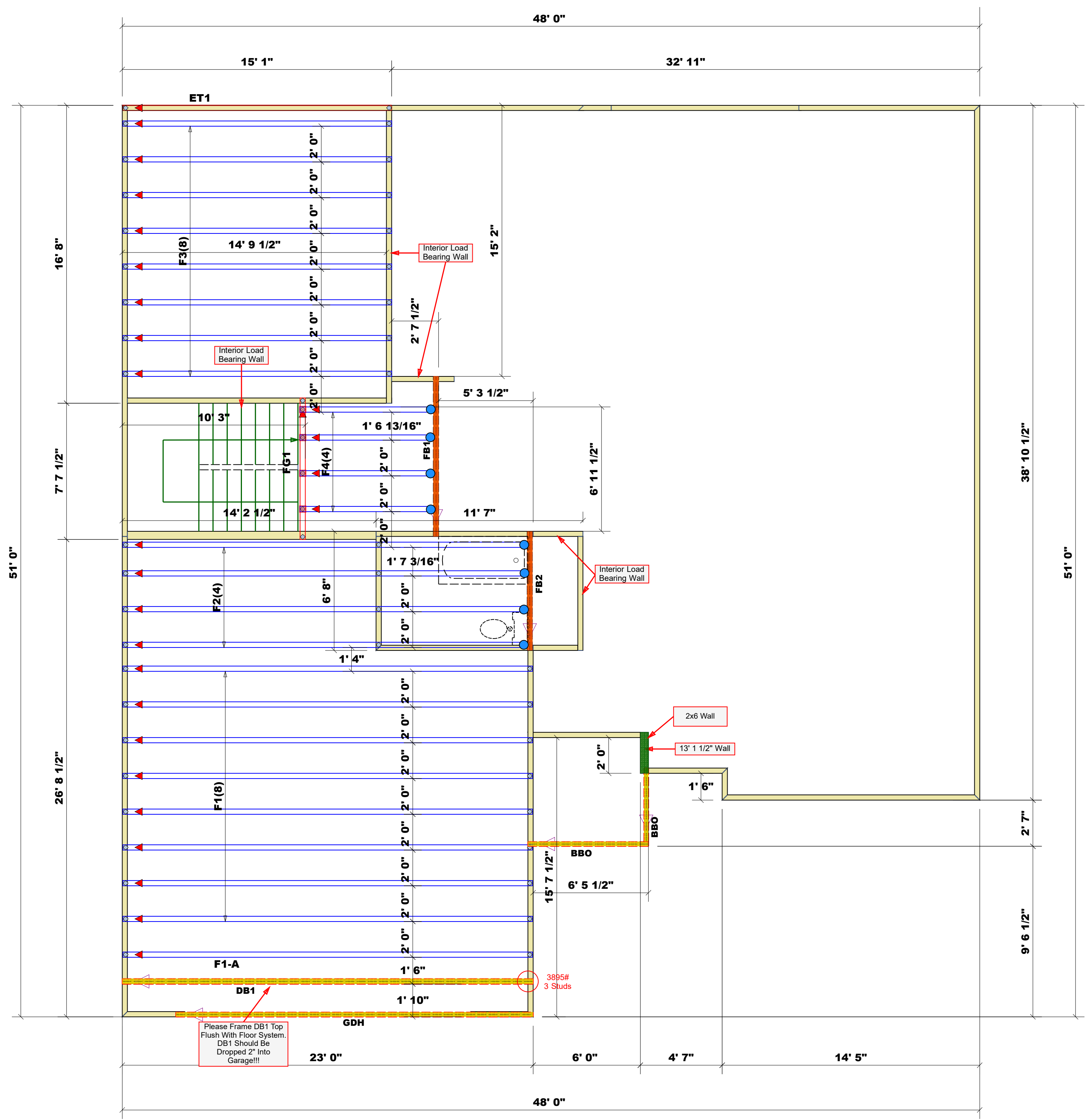
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| BUILDER                | JOB NAME               | PLAN    | SEAL DATE | QUOTE #      | JOB #        |
|------------------------|------------------------|---------|-----------|--------------|--------------|
| Precision Custom Homes | Lot 11 Liberty Meadows | Hazlitt | 7/20/2022 | N/A          | J1021-6179   |
| Harnett                | Lot 11 Liberty Meadows | Floor   | 7/22/2022 | Neil Baggett | Neil Baggett |

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# North Carolina 2018 - R402.1.5 Total UA

**Property**

Cameron, NC 28326  
Model: Hazlitt  
Community: Liberty Meadows

**Organization**

Southern Energy Manager  
Justin Smith

**Inspection Status**

Results are projected

Template - SMG Precision - Liberty  
Meadows lot 11 - CZ 3 slab -  
Liberty Meadows lot 11

**Builder**

SMG Precision Properties

**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   | 61.8         | 58.6         |
| Above-Grade Walls                                  | 190.0        | 141.1        |
| Windows, Doors and Skylights                       | 87.7         | 77.5         |
| Slab Floor:  | 85.0         | 111.1        |
| Framed Floors                                      | 23.3         | 25.3         |
| Foundation Walls                                   | 0.0          | 0.0          |
| Rim Joists   | 9.9          | 8.0          |
| <b>Overall UA (Design must be equal or lower):</b> | <b>457.7</b> | <b>421.6</b> |

## Requirements

|   |                     |  |
|---|---------------------|--|
| ✓ | 402.1.5             | Total UA alternative compliance passes by 7.9%.  |
| ✓ | 402.3.2             | Average SHGC: 0.28 Max SHGC: 0.30  |
| ✓ | R402.4.2.2          | Air Leakage Testing <small>Air sealing is 0.25 CFM50 / ft<sup>2</sup> Shell Area. It must not exceed 0.30 CFM50 / ft<sup>2</sup> Shell Area.</small> |
| ✓ | 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 7.9%.**

Name: Justin Smith

Signature: Justin Smith

Organization: Southern Energy Management

Digitally signed: 8/9/22 at 11:13 AM

### Ekotrope RATER - Version 4.0.1.2966

North Carolina 2018 Prescriptive compliance results calculated using Ekotrope RATER's energy and code compliance algorithm, including appropriate amendments.  
Ekotrope RATER is a RESNET Accredited HERS Rating Tool. All results are based on data entered by Ekotrope users.  
Ekotrope disclaims all liability for the information shown on this report.



# Building Summary



**Property**  
 Cameron, NC 28326  
 Model: Hazlitt  
 Community: Liberty Meadows

**Organization**  
 Southern Energy Management  
 Justin Smith

**Inspection Status**  
 Results are projected

Template - SMG Precision - Liberty Meadows lot 11  
 - CZ 3 slab - ecoSelect  
 Liberty Meadows lot 11

**Builder**  
 SMG Precision Properties

## General Building Information

|                                  |                        |
|----------------------------------|------------------------|
| Number Of Bedrooms               | 4                      |
| Number Of Floors                 | 2                      |
| Conditioned Floor Area [sq. ft.] | 2,430                  |
| Has Electric Vehicle Ready Space | No                     |
| Unconditioned, attached garage?  | Yes                    |
| Conditioned Volume [cu. ft.]     | 21,870                 |
| Total Units in Building          | 1                      |
| Residence Type                   | Single family detached |
| Number of Floors in Building     | -                      |
| Floor Number                     | -                      |
| Model                            | Hazlitt                |
| Community                        | Liberty Meadows        |
| RESNET/IECC 2006 Climate Zone    | 4A                     |
| IECC 2021 Climate Zone           | 3A                     |

## Foundation Wall

None Present

## Foundation Wall Library List

None Present

## Slab

| Name | Library Type | Perimeter | Floor Grade | Carpet R | Exposed Masonry Area | Surface Area | Location         | Enclosing         |
|------|--------------|-----------|-------------|----------|----------------------|--------------|------------------|-------------------|
| slab | Uninsulated  | 174       | On Grade    | 1        | 0                    | 1,564.0 ft²  | Exposed Exterior | Conditioned Space |

## Slab Library List

| Name        | Wall Construction Type | Slab Completely Insulated? | Underslab Insulation Width [ft] | Perimeter Insulation Depth [ft] | Perimeter Insulation R Value | Thermal Break | Effective R-value |
|-------------|------------------------|----------------------------|---------------------------------|---------------------------------|------------------------------|---------------|-------------------|
| Uninsulated | Wood Frame / Other     | No                         | 0                               | 0                               | 0                            | No            | 0.00              |

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Southern Energy Management  
Justin Smith

**Inspection Status**  
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Template - SMG Precision - Liberty Meadows lot 11  
- CZ 3 slab - ecoSelect  
Liberty Meadows lot 11

**Builder**  
SMG Precision Properties

## Framed Floor

| Name        | Library Type          | Carpet R | Floor Grade | Surface Area          | Location                       |
|-------------|-----------------------|----------|-------------|-----------------------|--------------------------------|
| over garage | R 19, 16"OC G1 Carpet | 0        | Above Grade | 495.0 ft <sup>2</sup> | Unconditioned, attached garage |

## Framed Floor Library List

| Name                  | 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 | 144.0 ft <sup>2</sup> | Exposed Exterior               |
| 1st floor garage  | R 19 G1, 16"OC | 34.0 ft <sup>2</sup>  | Unconditioned, attached garage |

## Rim Joist Library List

| Name           | Effective Insulation R-value |
|----------------|------------------------------|
| R 19 G1, 16"OC | 17.30                        |

## Wall

| Name              | Library Type                 | Surface Color | Surface Area            | Location                       |
|-------------------|------------------------------|---------------|-------------------------|--------------------------------|
| 1st floor ambient | R 19 Adv. Framing G1 16" O.C | Medium        | 1,260.0 ft <sup>2</sup> | Exposed Exterior               |
| 1st floor garage  | R 19 Adv. Framing G1 16" O.C | Medium        | 306.0 ft <sup>2</sup>   | Unconditioned, attached garage |
| 2nd floor ambient | R 19 Adv. Framing G1 16" O.C | Medium        | 1,152.0 ft <sup>2</sup> | Exposed Exterior               |

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- CZ 3 slab - ecoSelect  
Liberty Meadows lot 11

**Builder**  
SMG Precision Properties

## Wall Library List

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

## Glazing

| Name               | Library Type | Wall Assignment   | Foundation Wall Assignment | Is Operable | Overhang Depth | Overhang Ft To Top | Overhang Ft To Bottom | Orientation | Surface Area         |
|--------------------|--------------|-------------------|----------------------------|-------------|----------------|--------------------|-----------------------|-------------|----------------------|
| front 2nd unshaded | 33/28        | 2nd floor ambient |                            | Yes         | 0              | 0                  | 0                     | North       | 40.1 ft <sup>2</sup> |
| front unshaded     | 33/28        | 1st floor ambient |                            | Yes         | 0              | 0                  | 0                     | North       | 13.4 ft <sup>2</sup> |
| rear 2nd unshaded  | 33/28        | 2nd floor ambient |                            | Yes         | 0              | 0                  | 0                     | South       | 26.7 ft <sup>2</sup> |
| rear unshaded      | 33/28        | 1st floor ambient |                            | Yes         | 0              | 0                  | 0                     | South       | 77.1 ft <sup>2</sup> |
| right unshaded     | 33/28        | 1st floor ambient |                            | Yes         | 0              | 0                  | 0                     | West        | 53.4 ft <sup>2</sup> |

## Glazing Library List

| Name  | Shgc | U-factor |
|-------|------|----------|
| 33/28 | 0.28 | 0.330    |

## Skylight

None Present

## Skylight Library List

None Present

# Building Summary



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Community: Liberty Meadows

**Organization**  
Southern Energy Management  
Justin Smith

**Inspection Status**  
Results are projected

Template - SMG Precision - Liberty Meadows lot 11  
- CZ 3 slab - ecoSelect  
Liberty Meadows lot 11

**Builder**  
SMG Precision Properties

## Opaque Door

| Name         | Library Type   | Wall Assignment   | Foundation Wall Assignment | Emittance | Solar Absorptance | Surface Color | 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

| Name           | Effective U-factor |
|----------------|--------------------|
| Fiberglass R-5 | 0.200              |

## Roof Insulation

| Name  | Library Type   | Attic Exterior Area [ft²] | Clay or Concrete Roof Tiles | Surface Color | Surface Area | Location |
|-------|--|---------------------------|-----------------------------|---------------|--------------|----------|
| attic | R 38 Attic BLOWN FG<br>G1 2x10 24"OC NO<br>Radiant Barrier | 3,026.73                  | No                          | Dark          | 2,059.0 ft²  | Attic    |

## Roof Insulation Library List

| Name   | Has Radiant Barrier | Effective R-value |
|--|---------------------|-------------------|
| R 38 Attic BLOWN FG<br>G1 2x10 24"OC NO<br>Radiant Barrier | No                  | 35.115            |

## Whole House Infiltration

| Infiltration      | Measurement Type   | Shelter Class |
|-------------------|--------------------|---------------|
| 1750 CFM at 50 Pa | Blower-door tested | 4             |

## Mechanical Ventilation

None Present

# Building Summary



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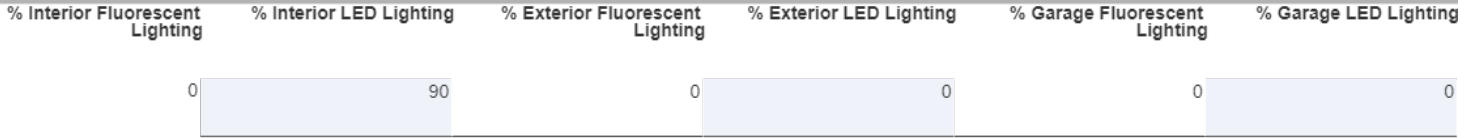
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**Builder**  
SMG Precision Properties

## Lighting



## Onsite Generation

None Present

## Onsite Generation Library List

None Present

## Solar Generation

None Present

## Dehumidifier

None Present

## Dehumidifier Library List

None Present

## Whole House Fan

None Present

# Building Summary



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SMG Precision Properties

## Whole House Fan Library List

None Present

## Conditioning Equipment

| Name                | Library Type           | Serial Number | Heating Percent Load | Cooling Percent Load | Hot Water Percent Load | Location             |
|---------------------|------------------------|---------------|----------------------|----------------------|------------------------|----------------------|
| 1st floor heat pump | z 24k 14 SEER 8.2hspf  |               | 64%                  | 64%                  | 0%                     | Attic                |
| 2nd floor heat pump | z 24k 14 SEER 8.2hspf  |               | 36%                  | 36%                  | 0%                     | Attic                |
| Water Heating       | z 50 gal. 0.95 EF Elec |               | 0%                   | 0%                   | 100%                   | Unconditioned Garage |

### 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 gal. 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                        |

# Building Summary

## Property

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## Organization

Southern Energy Management  
 Justin Smith

## Inspection Status

Results are projected



**SOUTHERN ENERGY**  
**MANAGEMENT**  
 ENERGY EFFICIENCY & SOLAR POWER

Template - SMG Precision - Liberty Meadows lot 11  
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 Liberty Meadows lot 11

## Builder

SMG Precision Properties

## Distribution System

|                                    |                                |
|------------------------------------|--------------------------------|
| Distribution Type                  | Forced Air                     |
| Heating Equipment                  | 1st floor heat pump            |
| Cooling Equipment                  | 1st floor heat pump            |
| Sq. Feet Served                    | 1,564                          |
| # Return Grilles                   | 2                              |
| Supply Duct R Value                | 8                              |
| Return Duct R Value                | 8                              |
| Supply Duct Area [ft²]             | 422.28                         |
| Return Duct Area [ft²]             | 156.4                          |
| Leakage to Outdoors                | 62 CFM @ 25Pa (3.96 / 100 ft²) |
| Total Leakage                      | 62 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                             |                                |
| 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                              |

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**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                     | 866   |
| # Return Grilles                    | 2   |
| Supply Duct R Value                 | 8   |
| Return Duct R Value                 | 8   |
| Supply Duct Area [ft <sup>2</sup> ] | 233.82                                      |
| Return Duct Area [ft <sup>2</sup> ] | 86.6  |
| Leakage to Outdoors                 | 34 CFM @ 25Pa (3.93 / 100 ft <sup>2</sup> ) |
| Total Leakage                       | 34 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 |



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**Builder**  
SMG Precision Properties

## Water Distribution

|  |          |
|--|----------|
| Water Fixture Type                         | Low-flow |
| Use Default Hot Water Pipe Length          | No       |
| Hot Water Pipe Length [ft]                 | 87       |
| 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           |

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**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 06/30/22 \_\_\_\_\_

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