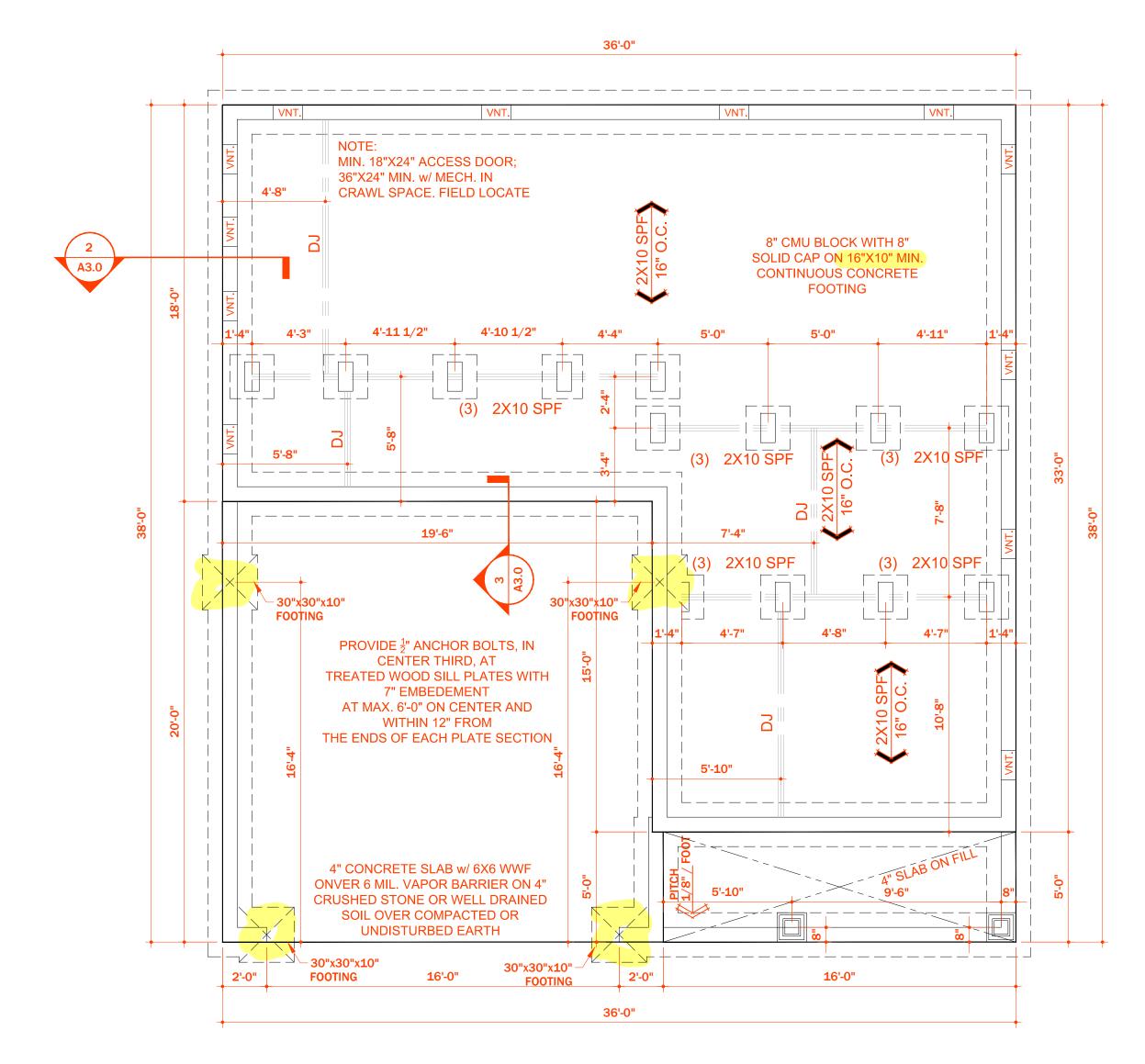
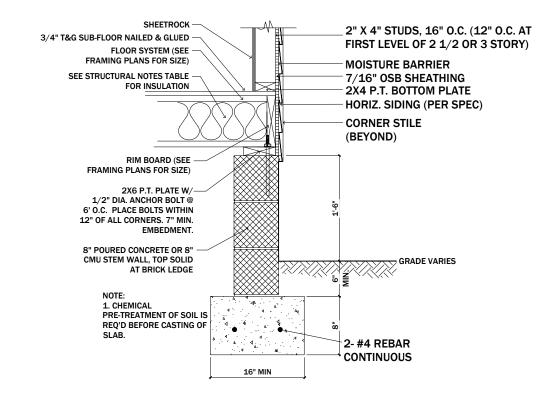
STRUCTURAL EVALUATION BY: HOWERTON SERVICES, PLLC 3513 CATHEDRAL BELL ROAD RALEIGH, NC 27614 LICENSE P-1716

- \* ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT INCLUDE CONSTRUCTION REVIEW, MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS.
- \* ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO IMMEDIATE ATTENTION OF THE ENGINEER. FAILURE TO DO SO WILL VOID ENGINEER'S LIABILITY.



#### **GENERAL FOUNDATION NOTES:**

- 1. THIS PLAN DESIGNED IN ACCORDANCE WITH NC RESIDENTIAL CODE, 2018 EDITION.
- 2. EXTERIOR WALL FOOTING TO BE 16" X 10" 3000 PSI STRUCTURAL CONCRETE WITH 2- #4 BARS UNLESS OTHERWISE NOTED. CONCRETE TO BE PREPARED AND PLACED IN ACCORDANCE WITH ACI 318. FOR FOUNDATION WALL HEIGHT THICKNESS AND BACKFILL REQUIREMENTS, REFER TO STATE AND LOCAL BUILDING CODES. NOTE: ASSUMED SOIL BEARING CAPACITY=2000 PSF. CONTRACTOR MUST VERIFY SITE CONDITIONS AND CONTACT SOIL ENGINEER IF MARGINAL OR UNSTABLE SOILS ARE ENCOUNTERED.
- 3. FOOTINGS TO BEAR ON UNDISTURBED EARTH A MIN. OF 12" BELOW ADJACENT FINISH GRADE OR AS OTHERWISE DIRECTED BY LOCAL INSPECTOR.
- 4. FOUNDATION DRAINAGE SHALL BE IN ACCORDANCE WITH SECTION
- R405 OF THE CODE "FOUNDATION DRAINAGE". 5. THE FOUNDATION SHALL BE TREATED IN ACCORDANCE W/SECTION R406 OF THE CODE "FOUNDATION
- WATERPROOFING AND DAMPPROOFING". 6. THIS FOUNDATION DESIGN IS VALID FOR 120 MPH WIND ZONES.
- 7. FOUNDATION WALLS SHALL BE 8" WIDE MASONRY.



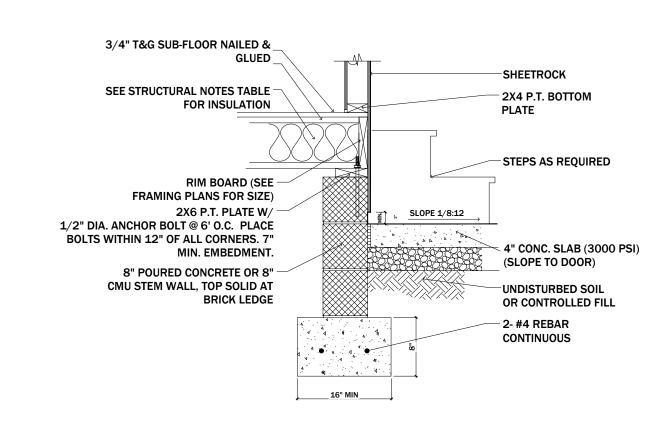
2 / A3.0

PLAN: detail

1 / A3.0

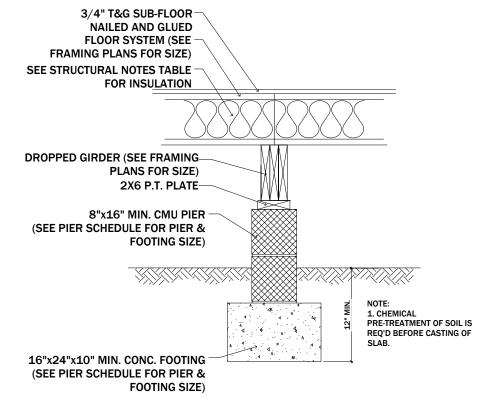
**PLAN**: foundation

# WALL VENTED CRAWL SPACE 896 SQ. FT. / 150 = 5.97 \_\_ SQ. FT. OF VENTILATION \_\_\_\_\_ SQ. FT. / VENT x\_\_\_\_\_ VENTS =\_\_\_\_ (SQ. FT. OF VENTILATION) ONE VENTILATING OPENING SHALL BE WITHIN 3 FEET OF EACH CORNER.



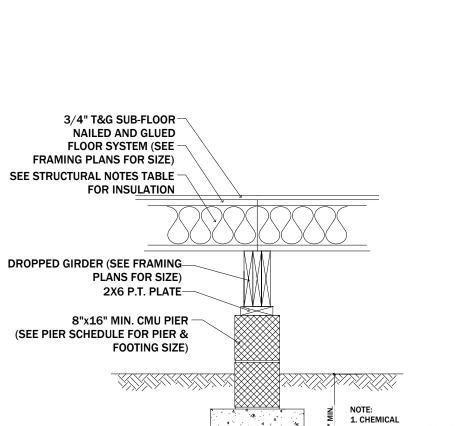
3 / A3.0

PLAN: detail



4 / A3.0

PLAN: detail



**A3.0** 

**Drawing Title** 

**Foundation** 

**Structural Review Only** 

**Town of Wake Forest** 

Approved

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**Marvin Weathers** 01/21/2022

804 TRINITY PARK DR

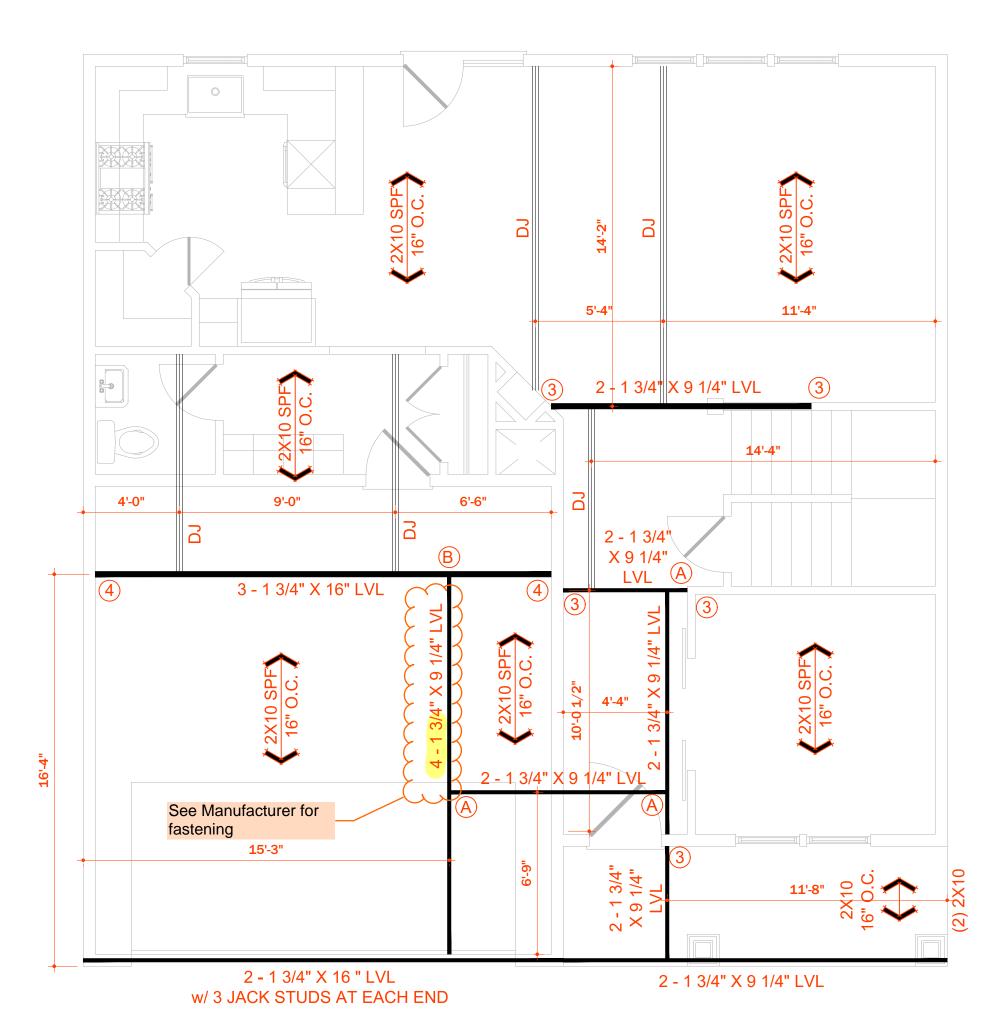
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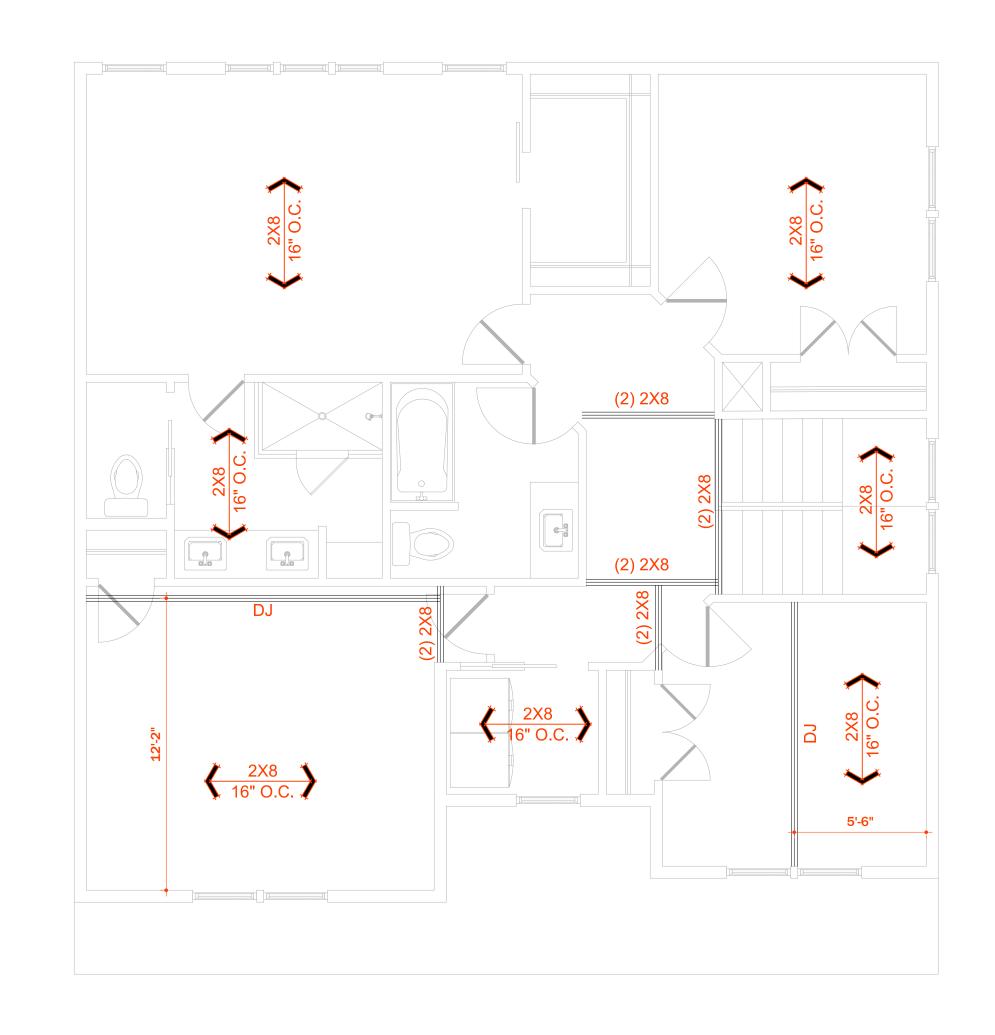
e:sunshackdesignsolutions@gmail.com

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p: [910] 262.0192

08 14 2021





#### PLAN: first floor framing 1 / A6.0

BRACED WALL NOTES:

INDICATED IN CODE TABLES.

### GENERAL FRAMING NOTES:

- 1. THIS PLAN DESIGNED IN ACCORDANCE WITH NC RESIDENTIAL CODE. 2018
- 2. GLAZING AREAS SHOWN ON THESE DESIGN DRAWINGS DO NOT EXCEED 15% OF THE GROSS AREA OF THE EXTERIOR WALLS. THIS STRUCTURE MEETS THE REQUIREMENTS OF NI101.2.1, RESIDENTIAL BUILDING, TYPE A-1.
- 3. WALL CLADDING IS DESIGNED FOR A 24.1 #/SF OR GREATER
- POSITIVE/NEGATIVE PRESSURE.
  4. ALL WALLS, FLOORS AND CEILINGS SHALL BE INSUIATED IN ACCORDANCE WITH CODE SÚMMARY.
- DEAD 10 PSF 10 PSF 10 PSF 10 PSF 10 PSF 5. DESIGN CRITERIA: PRIMARY FLOOR 40 PSF SECONDARY FLOOR 40 PSF SLEEPING AREAS ATTIC ROOF **20 PSF** 20 PSF DEFLECTION LIMITS:
  - **FLOOR** L/360(LIVE LOAD ONLY)
- ROOF L/240 6. ALL HEADERS IN LOAD BEARING WALLS SHALL BE DOUBLE 2X10 U.O.N.
- 7. ALL WALLS ARE 2X4 @ 16" O.C. U.O.N. 8. PROVIDE DOUBLE FLOOR JOISTS UNDER WALLS ABOVE.
- 9. PROVIDE FOUNDATION VENT WITHIN 36" OF EACH CORNER. 10. ALL JOISTS TO BE SPF.

5. SEE TABLE R602.7.5 FOR CORRECT NUMBER OF KING STUDS PER HEADER.

4. SPECIAL BRACING DETAILS ARE ILLUSTRATED IN THE CODE AND ALLOWED WHERE WALLS DO NOT MEET THE **MINIMUM** REQUIREMENTS FOR SUPPORT.

1. BRACED WAILS ARE REQUIRED PER SECTION R602.10.1 2018 NCBC RESIDENTIAL CODE

2. THE EXTERIOR WALL STRUCTURE SHALL BE CONTINUOUSLY SHEATHED, FULL HEIGHT WITH

MIN. THICKNESS 7/16\* OSB. THESE WALLS SHALL BE CONSTRUCTED IN CONFORMANCE TO TYPE CS-WSP DETAILS. REFER TO PLAN FOR LOCATION OF REQUIRED BRACING

LIB METHOD: INSTALL 1X4 WOOD OR CONTINUOUS METAL STRAPPING AT 45 DEGREES TO 60

DEGREES FROM TOP PLATE TO BOTTOM PLATE ACROSS STUDS WITH MAXIMUM STUD

MINIMUM  $\rlap/v_2$  gypsum board turned vertically and continuou from top plate to bottom plate. Screw connection to framing using spacing criteria as

SPACING OF 16" ON CENTER. CONNECT AS INDICATED IN CODE SECTION.

LABLED "CS BRACING" AND LENGTH OF WALL BRACING LABELED IN LINEAR FEET.

INTERIOR WALLS WHERE NOTED SHALL BE BRACED PER INDICATED METHOD IN REFERENCE TO NCBC-RESIDENTIAL CODE, TABLE R602.10.2.

## O NOTE:

NUMBER IN CIRCLE INDICATES NUMBER OF STUDS NEEDED IN STUD COLUMN

- A SIMPSON HUS410 HANGER
- B SIMPSON HUS410-2 HANGER

2 / A6.0

PLAN: second floor framing



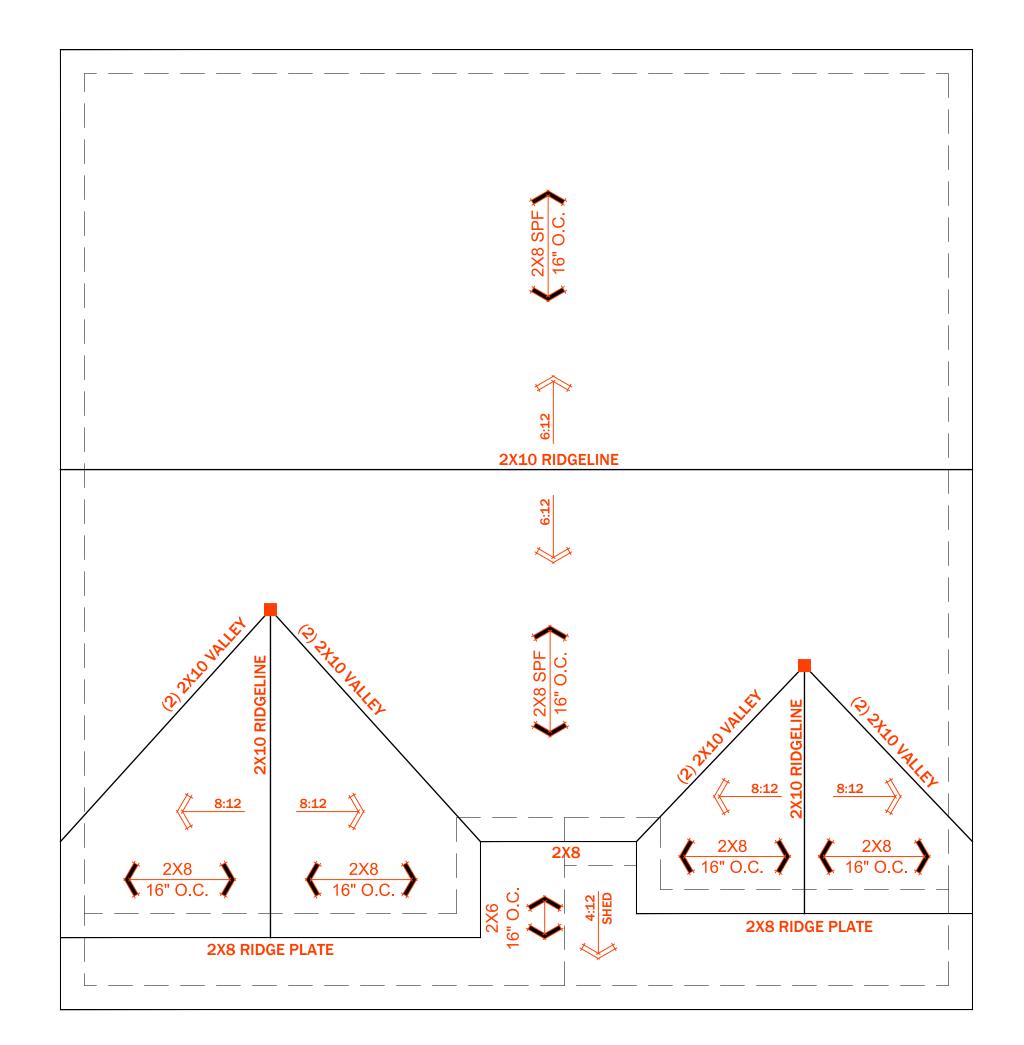
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804 TRINITY PARK DR

**Drawing Title** Framing



#### **GENERAL ROOF NOTES:**

1. THIS PLAN DESIGNED IN ACCORDANCE WITH NC RESIDENTIAL CODE, 2018 EDITION. 2. ROOF CLADDING DESIGN VALUES (POSITIVE/NEGATIVE) SHALL BE AS FOLLOWS: 45.5 #/SF FOR ROOF PITCHES FROM 0/12 TO 2.25/12 34.5 #/SF FOR ROOF PITCHES FROM 2.25/12 TO 7/12 21 #/SF FOR ROOF PITCHES FROM 7/12 TO 3. ALL ROOFING ELEMENTS SHALL MEET THE REQUIREMENTS OF CHAPTER 8 OF THE 4. All LUMBER SHALL BE #2 SPF OR BETTER. RAFTERS MAY BE FINGER JOINTED PER NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION, AND MUST HAVE THE STRUCTURAL CERTIFICATION STAMPED ON THE MEMBER. 5. RAFTER SIZES, SPANS AND SPACING SHALL NOT EXCEED THE FOLLOWING: SIZE 2X6 2X8 2X10 SPACING 12" O.C. 16-3" 21'-0" 25'-8" SPACING 16" O.C. 14'-4" 18'-2" 22'-3" 6. All RAFTERS TO BE 2X8 @ 16" O.C. #2 SPF UNLESS NOTED OTHERWISE. 7. 2-2X10 HIPS MAY BE SPLICED WITH A MIN. 6'-0" OVERLAP. 8. PROVIDE DOUBLE RAFTER EACH SIDE OF DORMERS WITH DOUBLE HEADER. 9. ATTACH VAULTED RAFTERS WITH HURRICANE CUP SIMPSON "H-5" OR EQUIVALENT. PROVIDE DOUBLE OPPOSING RAFTERS WHERE 10. 2X8 RAFTERS O CATHEDRAL OR VAULTED CEILINGS TO BE FURRED DOWN 2" ORUSE 2X10 RAFTERS FOR INSUIATION PER CODE. 11. PROVIDE 2X4 COLLAR TIES EVERY SECOND RAFTER (TYPICAL) 12. PROVIDE 2X4 RAFTER TIES **O** 32" O.C. (TYPICAL) 13. FRAME RAFTERS ON 2X4 PLATE ON TOP OF CEILING JOISTS UNLESS NOTED OTHERWISE. 14. SHINGLES ASSUMED TO BE 240 LB. FIBERGIASS, OR EQUAL MINIMUM ROOF PITCH TO BE AS INDICATED ON ARCHITECTURAL PLAN SHEETS. 15. PROVIDE DOUBLE LAYER OF ROOF FELT WHERE ROOF PITCH IS LESS THAN 4 /12. 16. THESE DESIGN DRAWINGS WERE PRODUCED BY HOWERTON SERVICES, PLLC AND ASSUMES NO LIABILITY FOR THE CORRECTNESS OF ARCHITECTURAL FEATURES, DIMENSIONS OR FIXTURES. 17. All HIP RIDGES AND VALLEYS SHALL BE DOUBLE 2X10 UNLESS NOTED OTHERWISE. 18. CONTRACTOR IS RESPONSIBLE FOR REVIEWING DRAWINGS FOR CONSTRUCTABILITY PRIOR TO BEGINNING CONSTRUCTION. 19. VALLEY RAFTERS WITH SPANS LONGER THAN 15' SHALL BE LVLs SUPPORTED AS NOTED. PROVIDE TEMPORARY STIFF KNEE SUPPORT UNTIL All SHEATHING AND RAFTER TIES/COLLARS ARE INSTALLED. 20. DO NOT SCALE THESE DRAWINGS. IF DESCREPANCIES ARE NOTED, CONTACT THE ENGINEER.

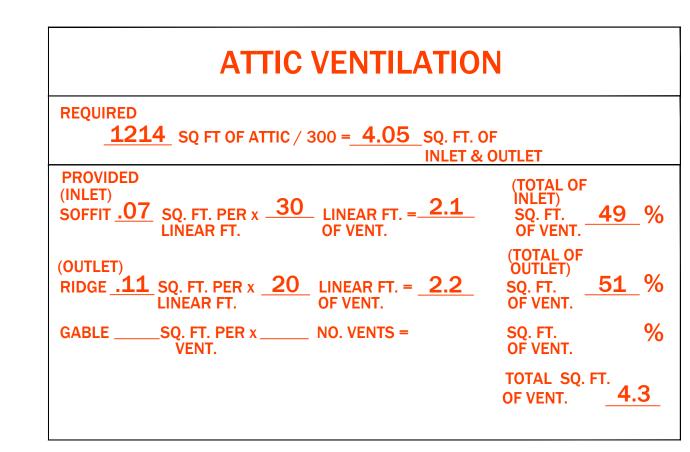
21. DESIGN BASIS PROVIDED BY ARCHITECT AND ARCHITECT IS RESPONSIBLE FOR All ARCHITECTURAL FEATURES, DMENSIONS, COMPLIANCE WITH All ACCESSÆGRESS REQUIREMENTS, FIRE CODE AND LIFE SAFETY

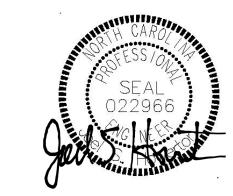
(3) 2X4 STUD COLUMNS BELOW

1 / A5.0

DESIGNISSUES.

PLAN: roof





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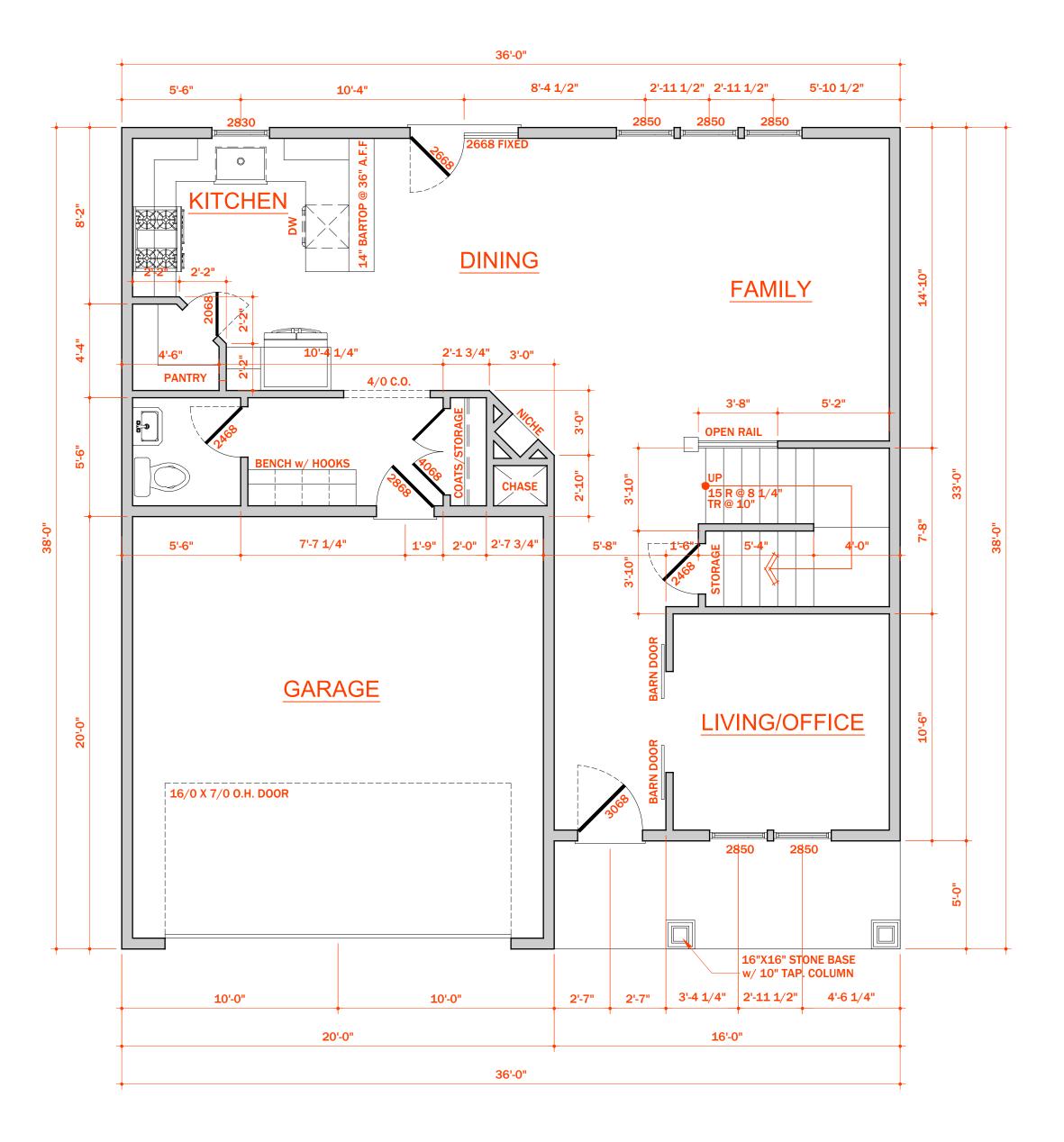
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1. ----2. ----3. ----

Drawing Title Roof Plan

**A5.0** 



1 / A4.0 PLAN: first floor

896 HEATED SQUARE FEET 393 SQUARE FEET - GARAGE 80 SQUARE FEET - FRONT PORCH

#### **GENERAL PLAN NOTES:**

1) 9'-0" CEILING HGT.9'-1 1/2" PLATE HGT.) U.N.O.
2) ALL EXT. WALLS FIGURED AT 6" WIDTHS U.N.O.
ALL INT. WALLS FIGURED AT 4" WIDTHS U.N.O.
3) SET WINDOWS AT 7-8" A.F.F.
UNLESS NOTED OTHERWISE.
4) DIMENSIONS ARE TO FRAMING
UNLESS NOTED OTHERWISE.
5) CONSULT WINDOW MANUFACTURER'S
SPECS. FOR EGRESS REQUIREMENTS,
PRESSURE RATINGS, & ROUGH OPNG'S.
6) ALL DIMENSIONS SHOWN ARE TO FACE OF FOUNDATION
AND/OR FACE OF STUD (FRAMING) UNLESS NOTED
OTHERWISE.
7) PROVIDE WOOD BLOCKING IN WALL FRAMING FOR ALL
ACCESSORIES INCLUDING BUT NOT LIMITED TO:
TOWEL BARS, TOILET PAPER HOLDERS, SHELVING
ATTACHMENT, ROBE HOOKS, GRAB BARS, ETC.

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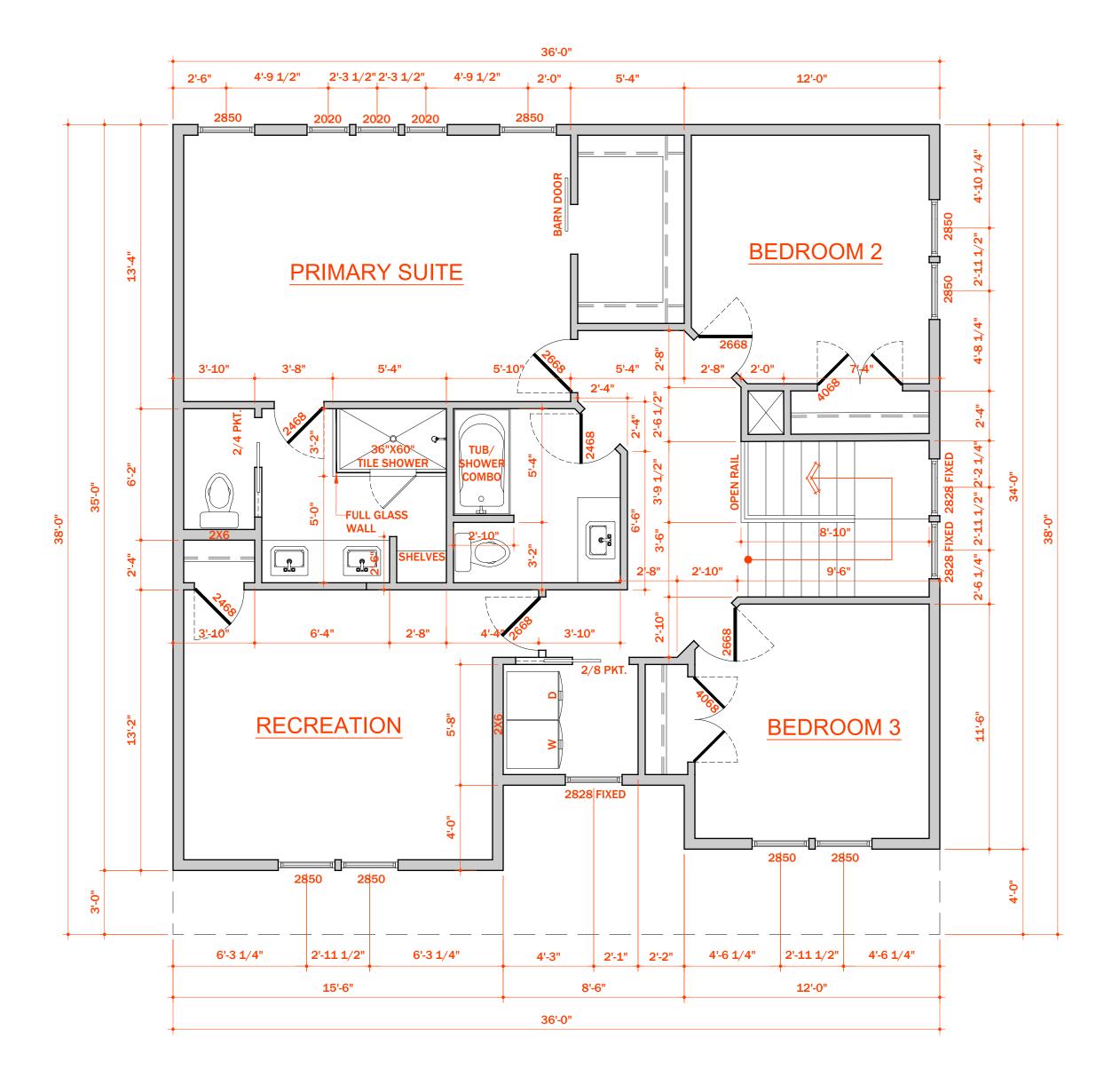
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2. ----3. ----

Drawing Title Floor Plan

**A4.0** 



1 / A4.1

PLAN: second floor

### 1,214 HEATED SQUARE FEET

TOWEL BARS, TOILET PAPER HOLDERS, SHELVING ATTACHMENT, ROBE HOOKS, GRAB BARS, ETC.

#### **GENERAL PLAN NOTES:**

8'-0" CEILING HGT.9'-1 1/2" PLATE HGT.) U.N.O.
 ALL EXT. WALLS FIGURED AT 6" WIDTHS U.N.O.
 ALL INT. WALLS FIGURED AT 4" WIDTHS U.N.O.
 SET WINDOWS AT 6-8" A.F.F.
 UNLESS NOTED OTHERWISE.
 DIMENSIONS ARE TO FRAMING
 UNLESS NOTED OTHERWISE.
 CONSULT WINDOW MANUFACTURER'S
 SPECS. FOR EGRESS REQUIREMENTS,
 PRESSURE RATINGS, & ROUGH OPNG'S.
 ALL DIMENSIONS SHOWN ARE TO FACE OF FOUNDATION
 AND/OR FACE OF STUD (FRAMING) UNLESS NOTED
 OTHERWISE.
 PROVIDE WOOD BLOCKING IN WALL FRAMING FOR ALL
 ACCESSORIES INCLUDING BUT NOT LIMITED TO:

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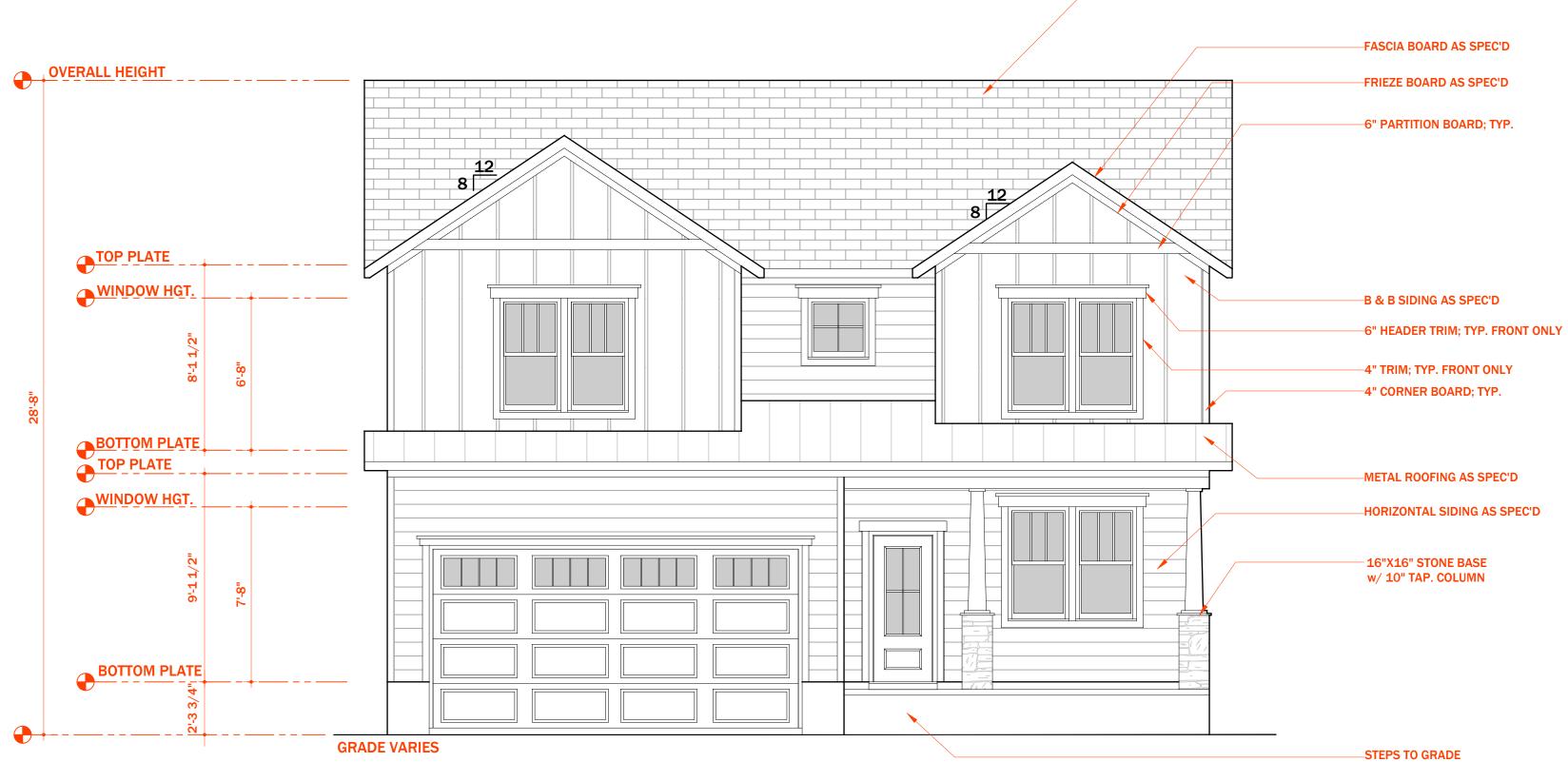
804 TRINITY PARK DR

Notes L. ----2. ----3. ----

Drawing Title Floor Plan

A4.1

PLANS DESIGNED TO THE 2018 NORTH CAROLINA STATE RESIDENTIAL BUILDING CODE



-SHINGLES AS SPEC'D

#### **ELEVATION**: front 1 / A1.0

### **GENERAL ELEVATION NOTES:**

- 1. ROOF OVERHANGS ARE 12" UNLESS NOTED OTHERWISE.
- 2. PROVIDE FOUNDATION AND ROOF VENTS AS REQUIRED BY STATE BUILDING CODE.
- 3. PROVIDE STEPS TO FINISH FLOOR LEVEL AS REQUIRED BY STATE BUILDING CODES.
- 4. SECOND FLOOR WINDOWS TO BE 24" ABOVE FINISH FLOOR.

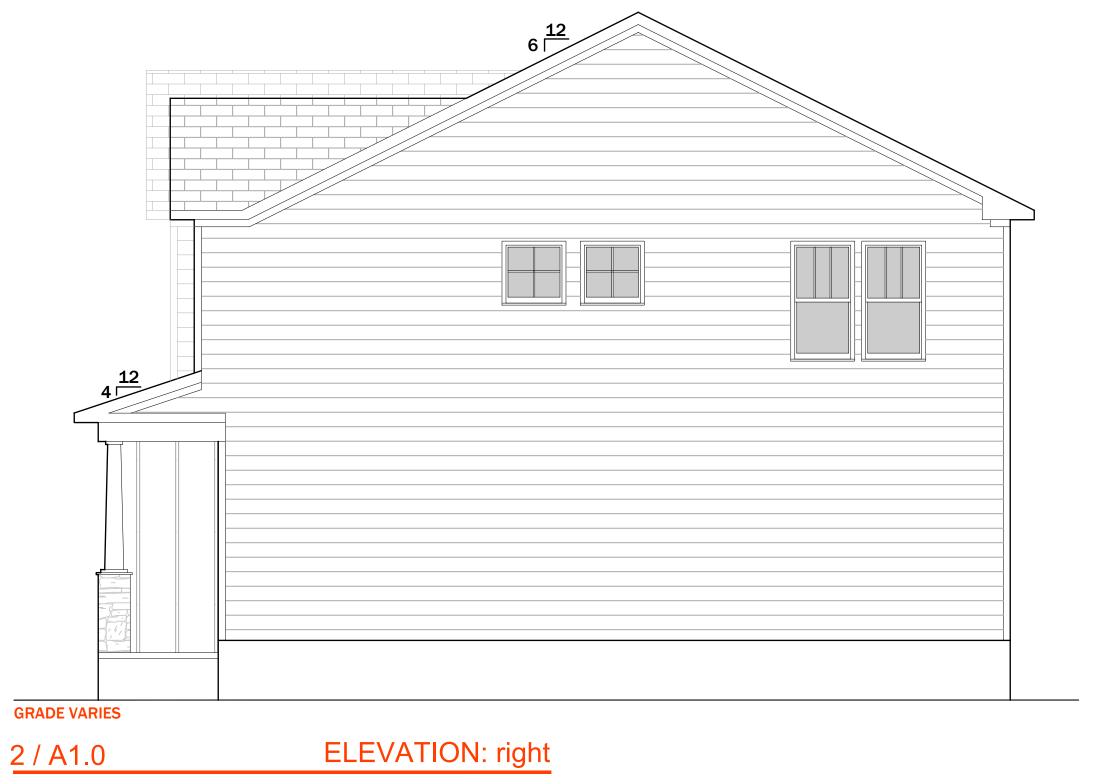
### TOTAL SQUARE FOOTAGES:

896 - FIRST FLOOR

1,214 - SECOND FLOOR

TOTAL HEATED - 2,110

80 - FRONT PORCH 393 - GARAGE



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**Drawing Title Elevation** 

**A1.0** 

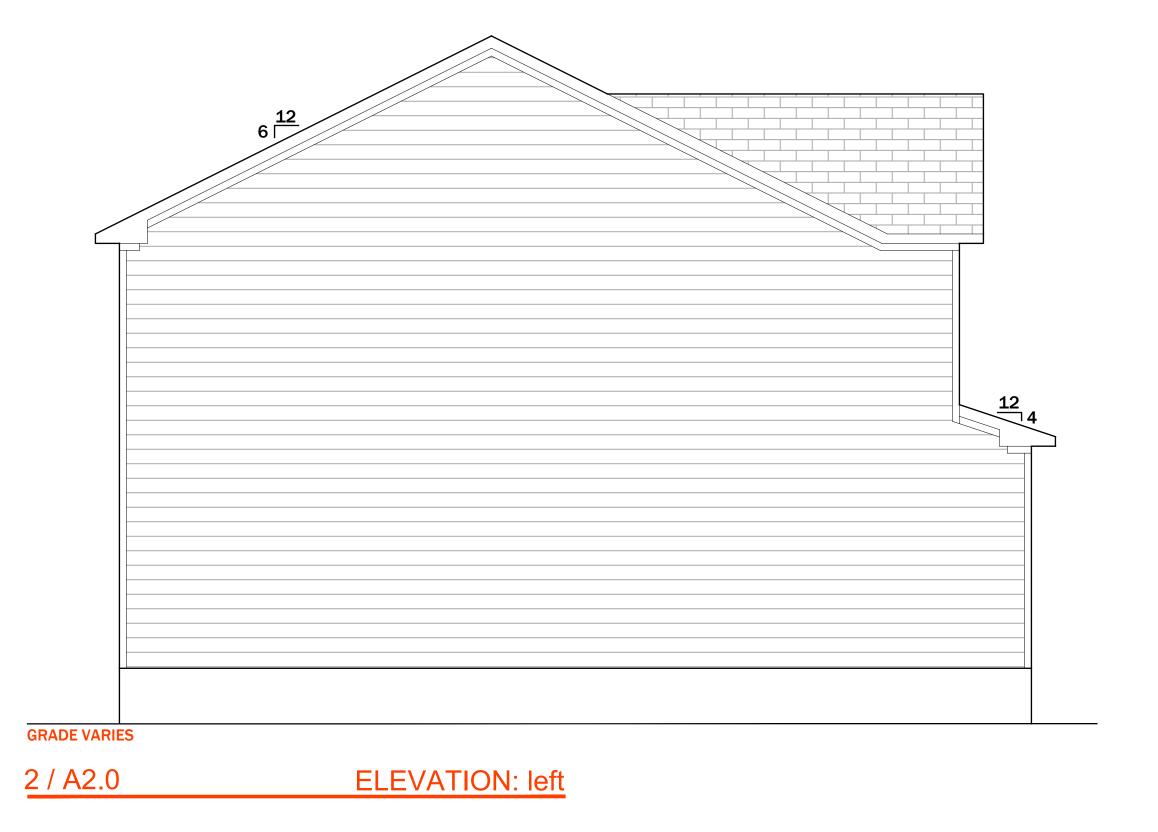


1 / A2.0

**ELEVATION**: rear

#### GENERAL ELEVATION NOTES:

- 1. ROOF OVERHANGS ARE 12" UNLESS NOTED OTHERWISE.
- 2. PROVIDE FOUNDATION AND ROOF VENTS AS REQUIRED BY STATE BUILDING CODE.
- 3. PROVIDE STEPS TO FINISH FLOOR LEVEL AS REQUIRED BY STATE BUILDING CODES.
- 4. SECOND FLOOR WINDOWS TO BE 24" ABOVE FINISH FLOOR.





FRIANGLE SUILD, & PROP.



Revisions

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Notes
L. ---2. ---3. ----

Drawing Title Elevation

**A2.0**