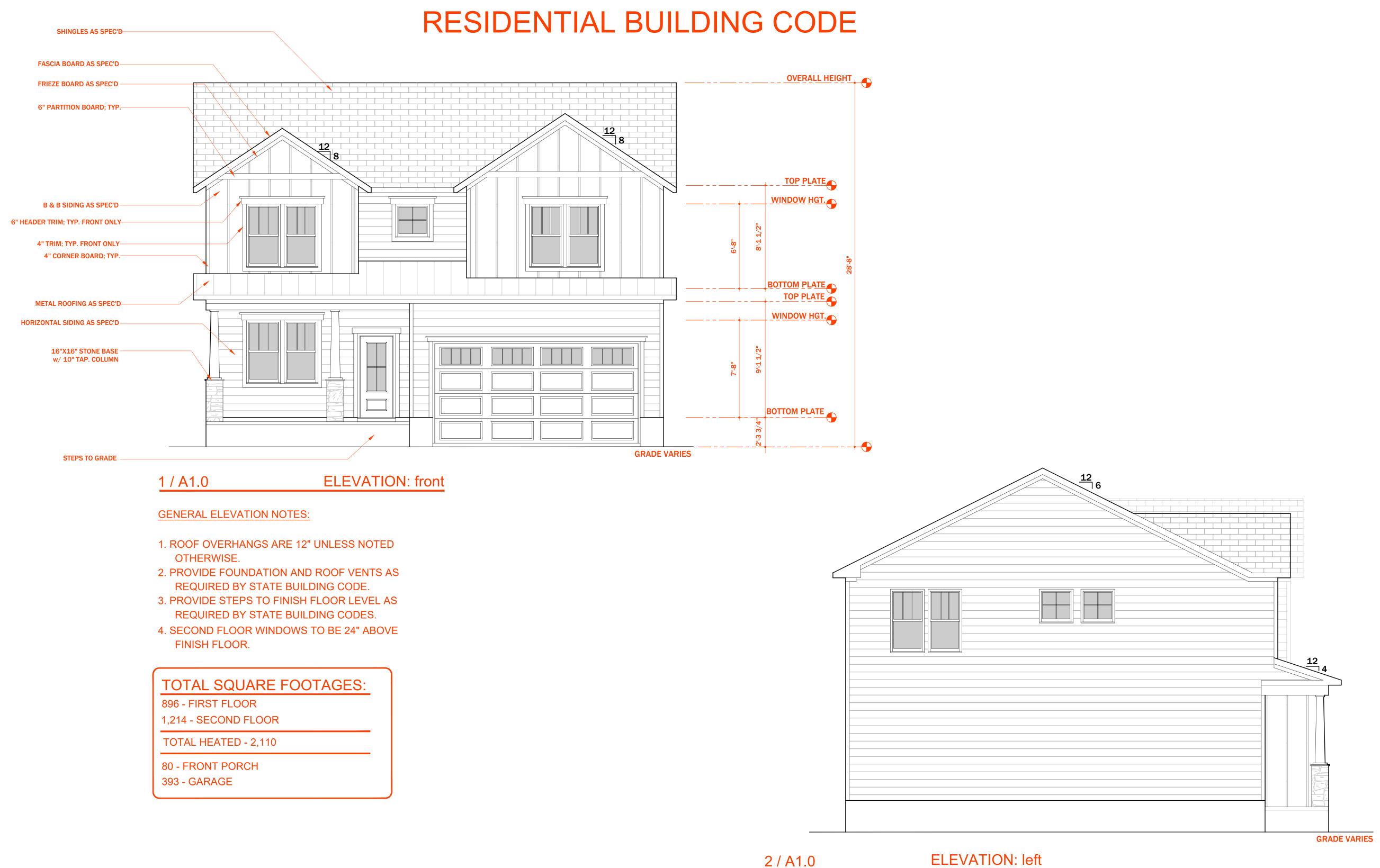
PLANS DESIGNED TO THE 2018 NORTH CAROLINA STATE



2 / A1.0





House flipped to garage right -Adjusted engineering note

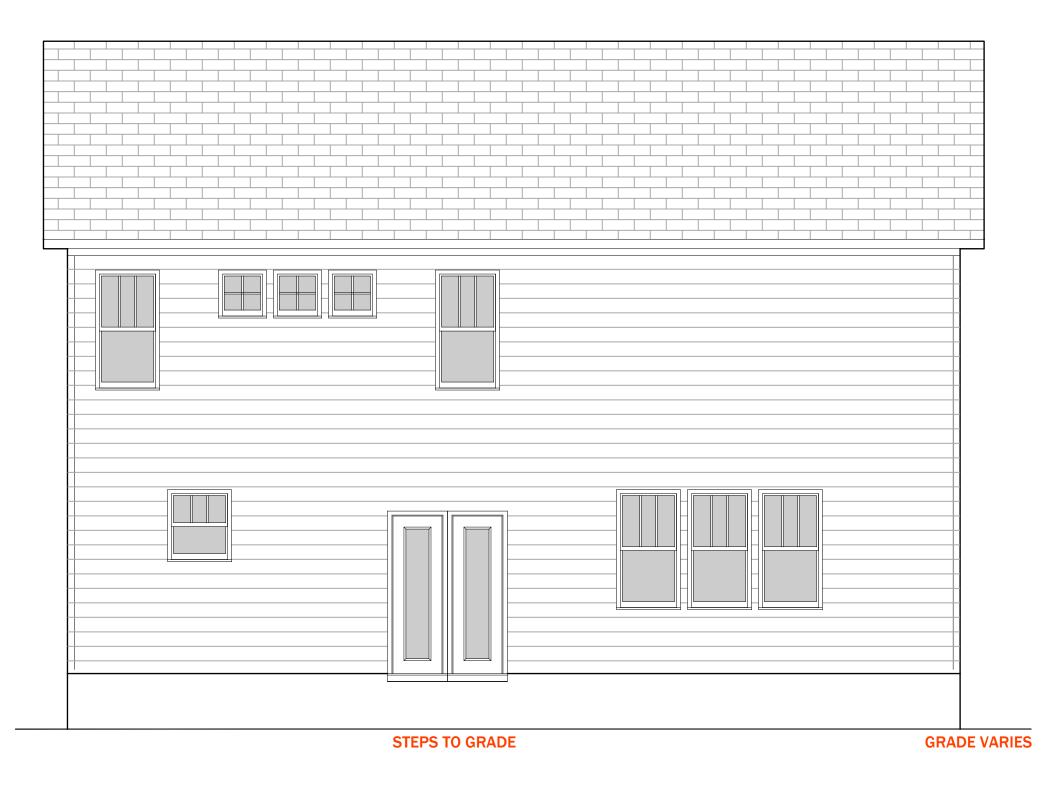
809 Trinity Park Dr

02.28.2022

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A1.0

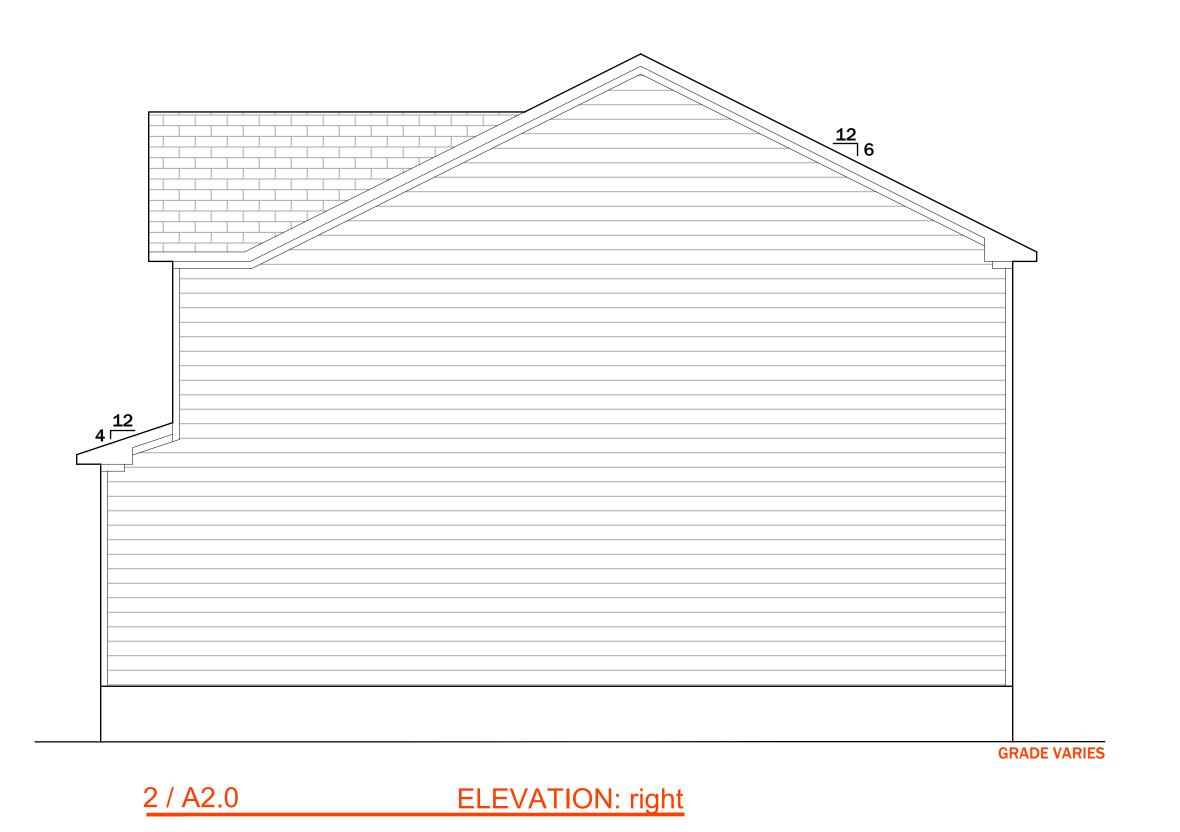


1 / A2.0

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.



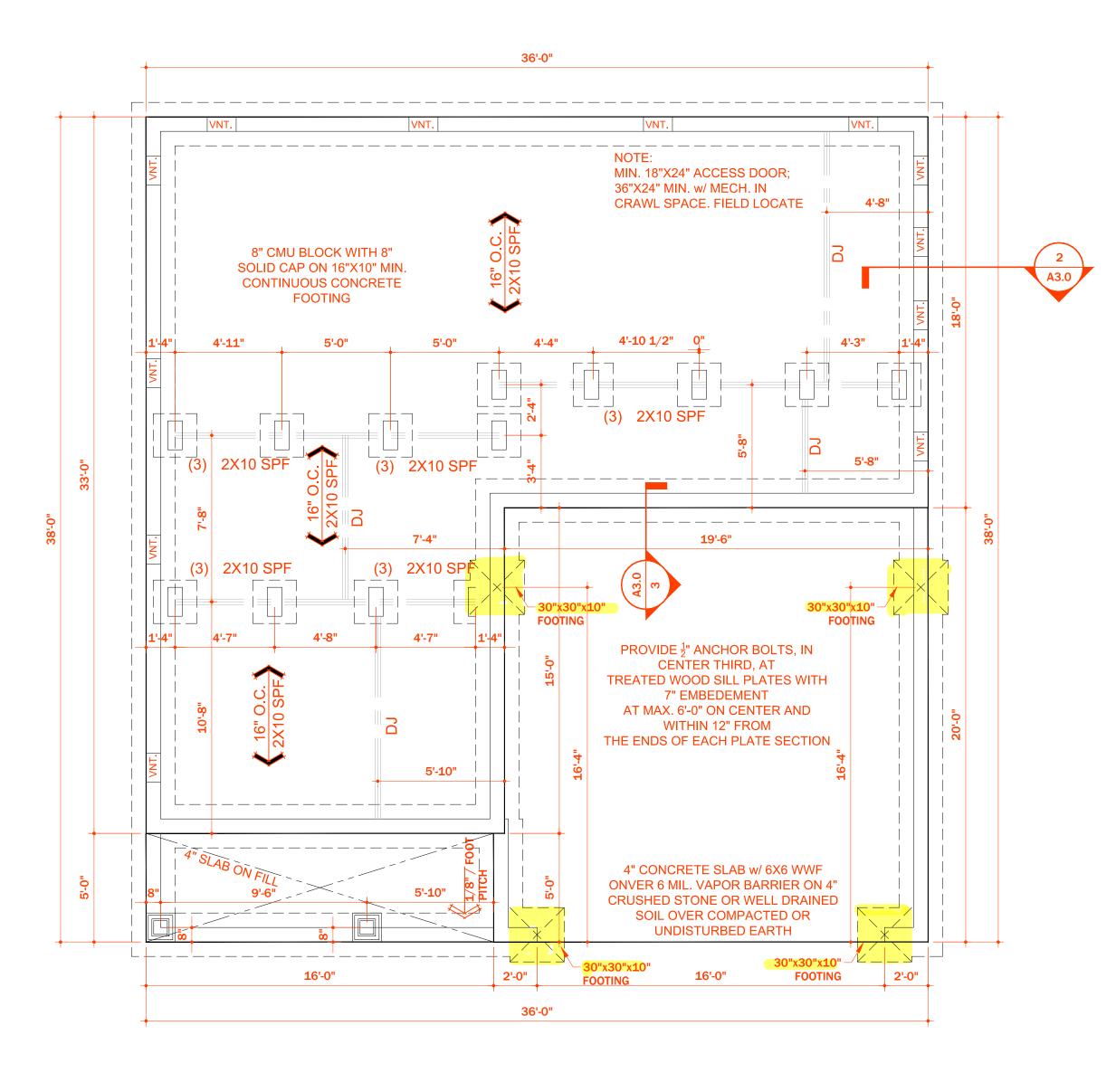
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Drawing Title

Elevation

A2.0



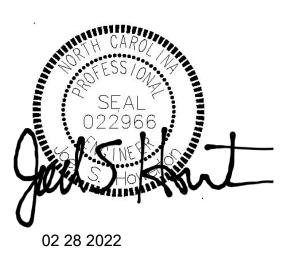
STRUCTURAL EVALUATION BY:
HOWERTON SERVICES, PLLC
3513 CATHEDRAL BELL ROAD
RALEIGH, NC 27614
LICENSE P-1716

CONSTRUCTION REVIEW,

* ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT INCLUDE

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.



2" X 4" STUDS, 16" O.C. (12" O.C. AT 3/4" T&G SUB-FLOOR NAILED & GLUED -FIRST LEVEL OF 2 1/2 OR 3 STORY) FLOOR SYSTEM (SEE -FRAMING PLANS FOR SIZE) MOISTURE BARRIER 7/16" OSB SHEATHING 2X4 P.T. BOTTOM PLATE SEE STRUCTURAL NOTES TABLE -HORIZ. SIDING (PER SPEC) CORNER STILE (BEYOND) RIM BOARD (SEE -FRAMING PLANS FOR SIZE) 2X6 P.T. PLATE W/-1/2" DIA. ANCHOR BOLT @ 6' O.C. PLACE BOLTS WITHIN 12" OF ALL CORNERS. 7" MIN. EMBEDMENT. 8" POURED CONCRETE OR 8" CMU STEM WALL, TOP SOLID
AT BRICK LEDGE NOTE:
1. CHEMICAL
PRE-TREATMENT OF SOIL IS
REQ'D BEFORE CASTING OF
SLAB. 2- #4 REBAR CONTINUOUS

2 / A3.0

PLAN: detail

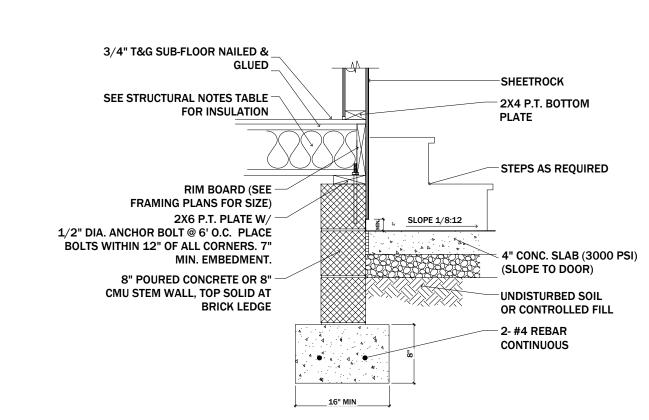
1 / A3.0

PLAN: foundation

GENERAL FOUNDATION NOTES:

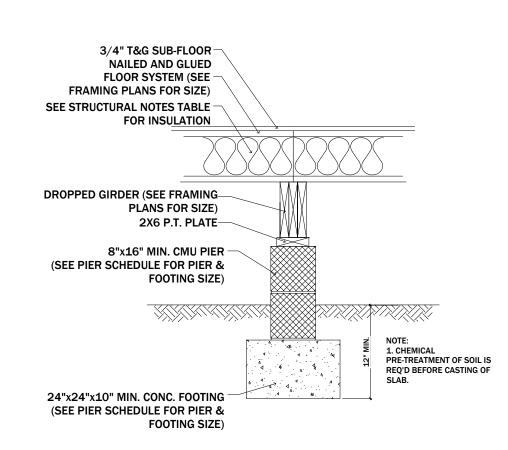
- 1. THIS PLAN DESIGNED IN ACCORDANCE WITH NC RESIDENTIAL CODE, 2018 EDITION.
- 2. EXTERIOR WALL FOOTING TO BE 20" X 8" 3000 PSI STRUCTURAL CONCRETE WITH 2- #4 BARS UNLESS OTHERWISE NOTED.
 CONCRETE TO BE PREPARED AND PLACED IN ACCORDANCE WITH ACI 318. FOR FOUNDATION WALL HEIGHT, THICKNESS AND BACKFILL 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 SHAIL 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.
- FOUNDATION WALLS SHALL BE 12" IN WIDTH WHERE SUPPORTING FRAMING WITH BRICK VENEER.
- 8. PORCH POST FOOTINGS SHALL BE 24"X24"X10" WITH 2- #4 BARS EACH WAY.



3 / A3.0

PLAN: detail



4 / A3.0

PLAN: detail



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TRIANGLE BUILD, & PROP.



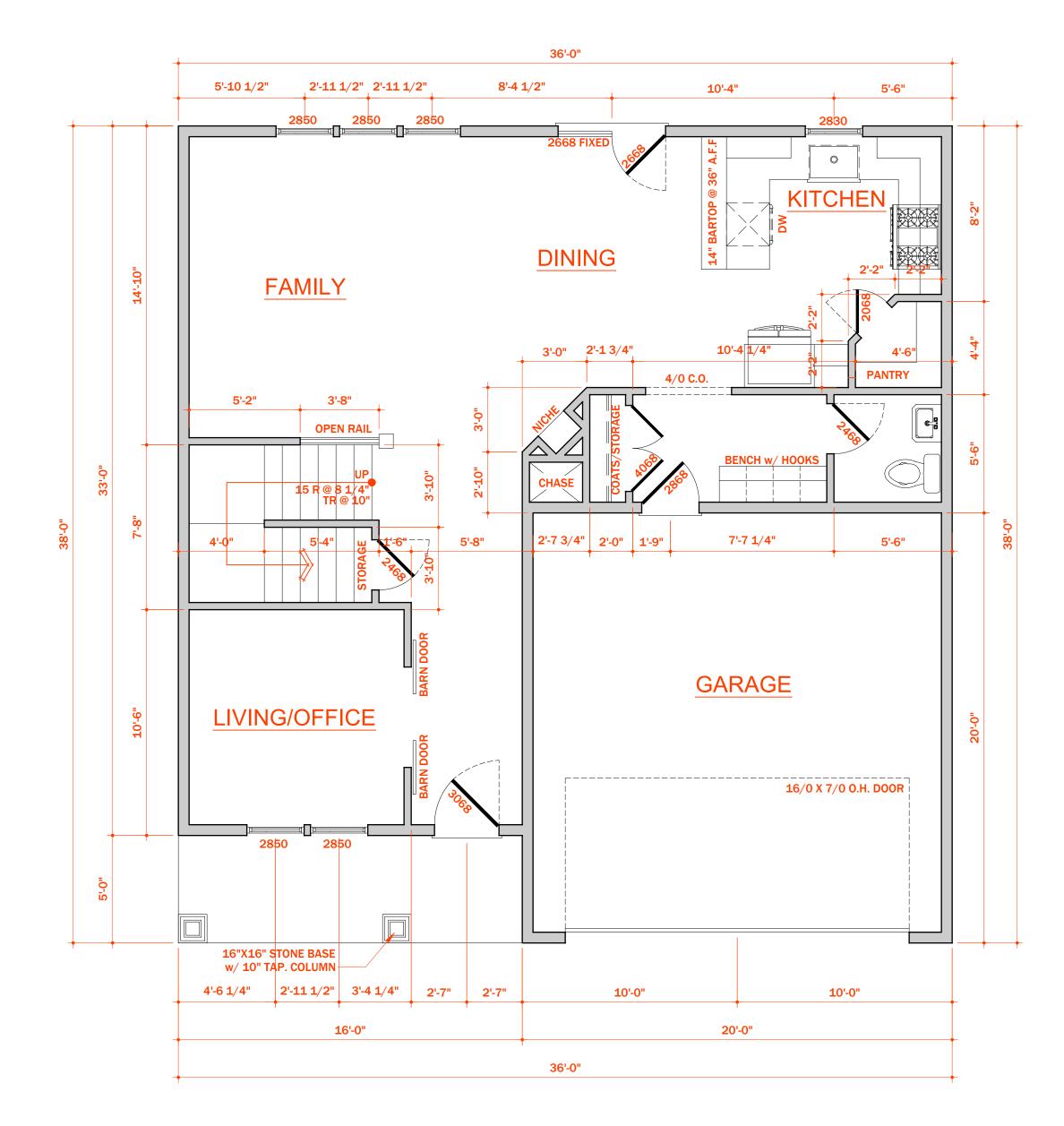
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Notes
L. ---2. ---3. ----

Drawing Title Foundation

A3.0



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

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.



TRIANGLE 3UILD, & PROP ots 6 & 8



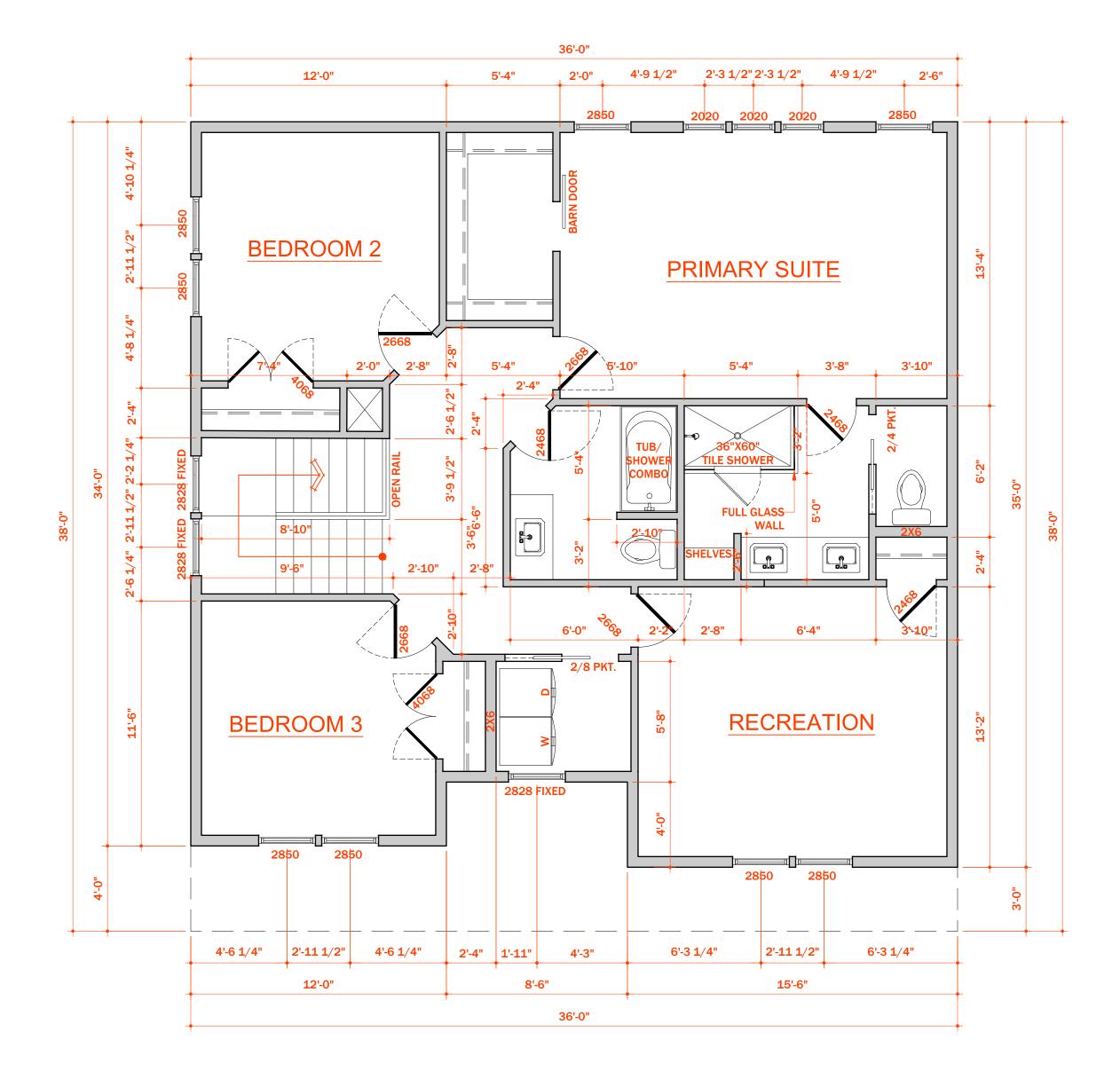
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Notes
1. ---2. ---3. ----

Drawing Title Floor Plan

A4.0



1 / A4.1

PLAN: second floor

1,214 HEATED SQUARE FEET

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



FRIANGLE BUILD, & PROP.



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

Drawing Title Floor Plan

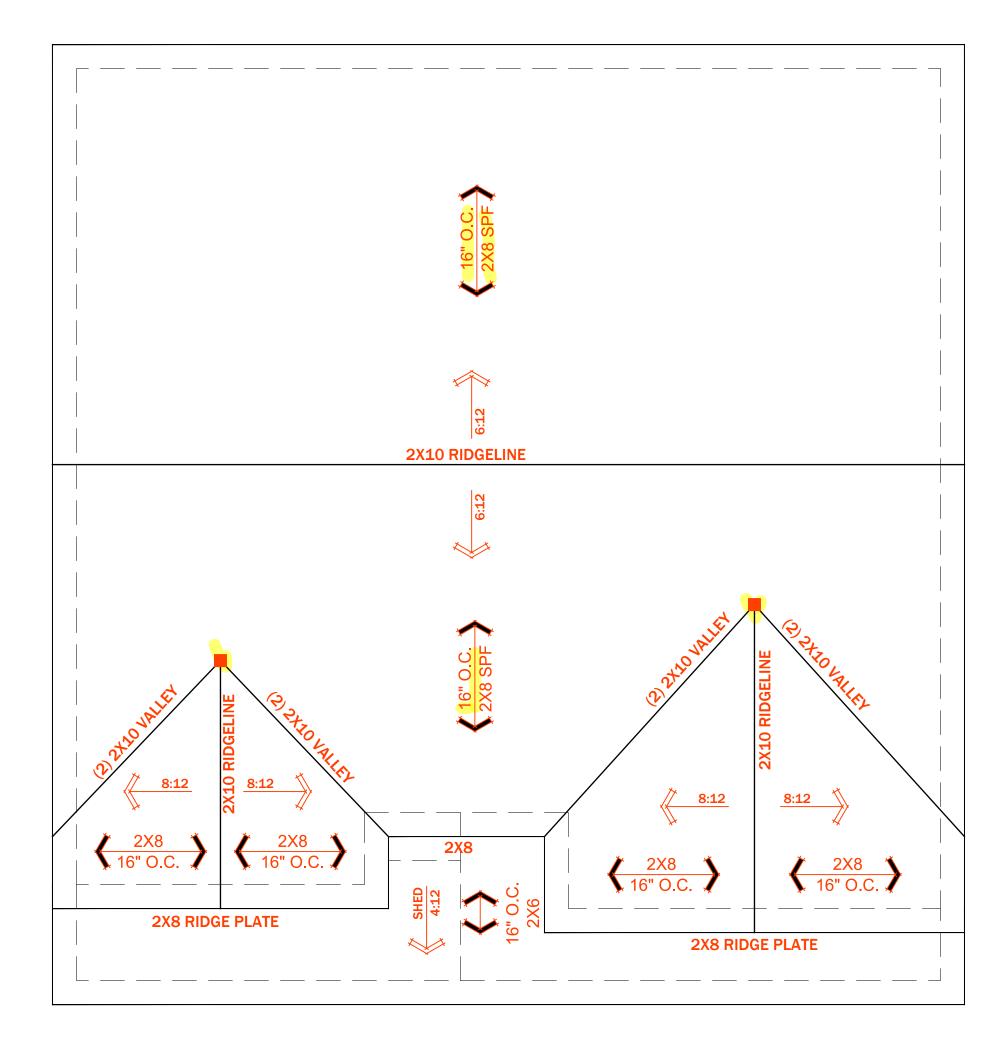
A4.1

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 16-3" 21'-0" 25'-8"
- SPACING 12" O.C.

DESIGNISSUES.

- 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"
- OR USE 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 AII SHEATHING
- AND RAFTER TIES/COLLARS ARE INSTALLED. 20. DO NOT SCALE THESE DRAWINGS. IF DESCREPANCIES ARE NOTED, CONTACT
- 21. DESIGN BASIS PROVIDED BY ARCHITECT AND ARCHITECT IS RESPONSIBLE FOR All Architectural Features, Dimensions, Compliance with All ACCESS/EGRESS REQUIREMENTS, FIRE CODE AND LIFE SAFETY





02 28 2022

(3) 2X4 STUD COLUMNS BELOW

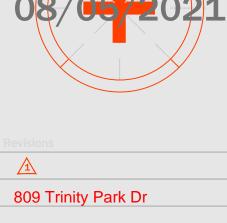
1 / A5.0

PLAN: roof

ATTIC VENTILATION	
REQUIRED 1214 SQ FT OF ATTIC / $300 = 4.05$ SQ. FT. OF INLET & OUTLET	
PROVIDED (INLET) SOFFIT .07 SQ. FT. PER x 30 LINEAR FT. = 2.1 LINEAR FT. OF VENT.	(TOTAL OF INLET) SQ. FT. 49 % OF VENT.
(OUTLET) RIDGE11 SQ. FT. PER x _ 20 LINEAR FT. = _ 2.2 LINEAR FT. OF VENT.	(TOTAL OF OUTLET) SQ. FT. 51 % OF VENT.
GABLESQ. FT. PER x NO. VENTS = VENT.	SQ. FT. % OF VENT.
	TOTAL SQ. FT. OF VENT. 4.3



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Drawing Title Roof Plan

A5.0

BRACED WALL NOTES:

- 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 LABLED "CS BRACING" AND LENGTH OF WALL BRACING LABELED IN LINEAR FEET.
- INTERIOR WAILS WHERE NOTED SHALL BE BRACED PER INDICATED METHOD IN REFERENCE TO NCBC-RESIDENTIAL CODE, TABLE R602.10.2.

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

MINIMUM \rlap/b 2" GYPSUM BOARD TURNED VERTICALLY AND CONTINUOU FROM TOP PLATE TO BOTTOM PLATE. SCREW CONNECTION TO FRAMING USING SPACING CRITERIA AS

- SPECIAL BRACING DETAILS ARE ILLUSTRATED IN THE CODE AND ALLOWED WHERE WALLS DO NOT MEET THE MINIMUM REQUIREMENTS FOR SUPPORT.
- 5. SEE TABLE R602.7.5 FOR CORRECT NUMBER OF KING STUDS PER HEADER.

GENERAL FRAMING NOTES:

INDICATED IN CODE TABLES.

- 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

20 PSF

CODE SUMMARY. 5. DESIGN CRITERIA: DEAD 10 PSF 40 PSF PRIMARY FLOOR 10 PSF 40 PSF SECONDARY FLOOR SLEEPING AREAS 10 PSF 30 PSF ATTIC ROOF 10 PSF **20 PSF**

10 PSF DEFLECTION LIMITS:

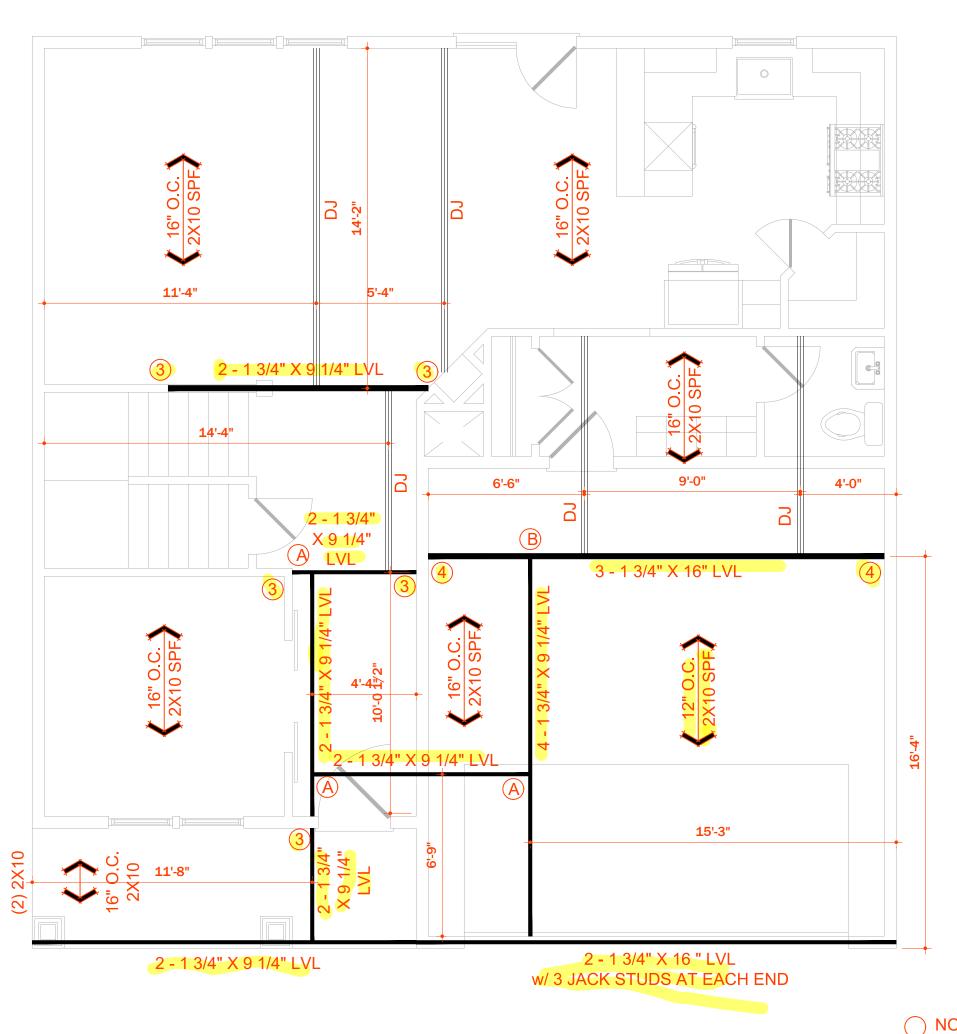
L/240 6. ALL HEADERS IN LOAD BEARING WALLS SHALL BE DOUBLE 2X10 U.O.N.

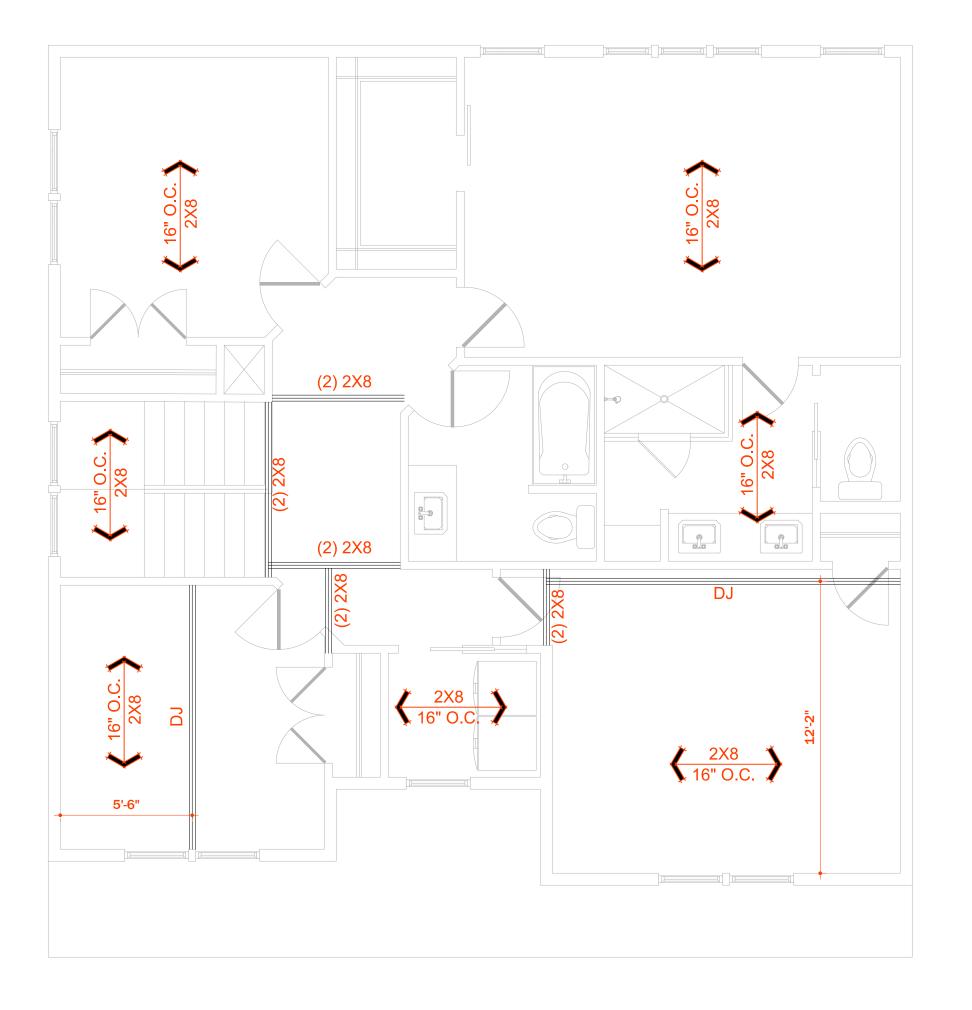
L/360{LIVE LOAD ONLY)

- 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.







PLAN: first floor framing

1 / A6.0

NOTE:
FASTEN QUAD 1 3/4" X 9 1/4" LVL MEMBERS WITH
2 ROWS OF 1/2" BOLTS SPACED AT 12" O.C.

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

design solutions 100 Island Mimosa Dr. Carolina Beach, NC p: [910] 262.0192 e:sunshackdesignsolutions@gmail.com



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Drawing Title Framing

A6.0