

THIS PLAN HAS BEEN DRAWN TO CONFORM TO THE 2018 NORTH CAROLINA RESIDENTIAL CODE

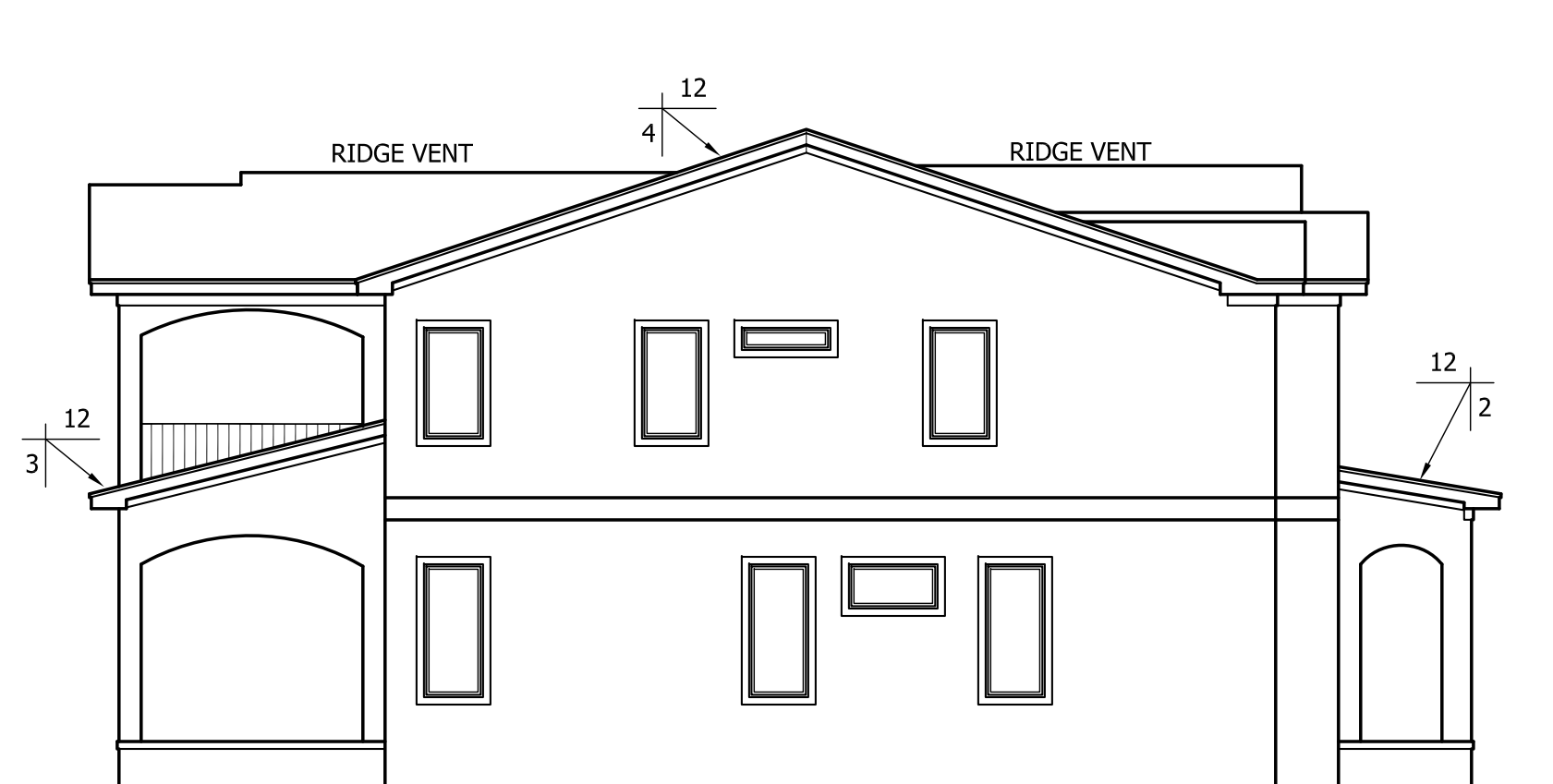
CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO BEGINNING WORK. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL STATE AND LOCAL BUILDING CODES AND ORDINANCES. KADS CUSTOM HOME DESIGNS ASSUMES NO LIABILITY FOR SITE CONDITIONS, CONSTRUCTION METHODS OR ANY DEVIATION OF THESE PLANS.

NOTE:  
ALL WINDOWS TO BE INSTALLED MUST MEET A MAXIMUM OF .32 U VALUE OR BETTER, UNLESS ENERGY CALCULATIONS ARE SUBMITTED WITH PLANS PROVIDED BY BUILDER AT TIME OF PLAN REVIEW.



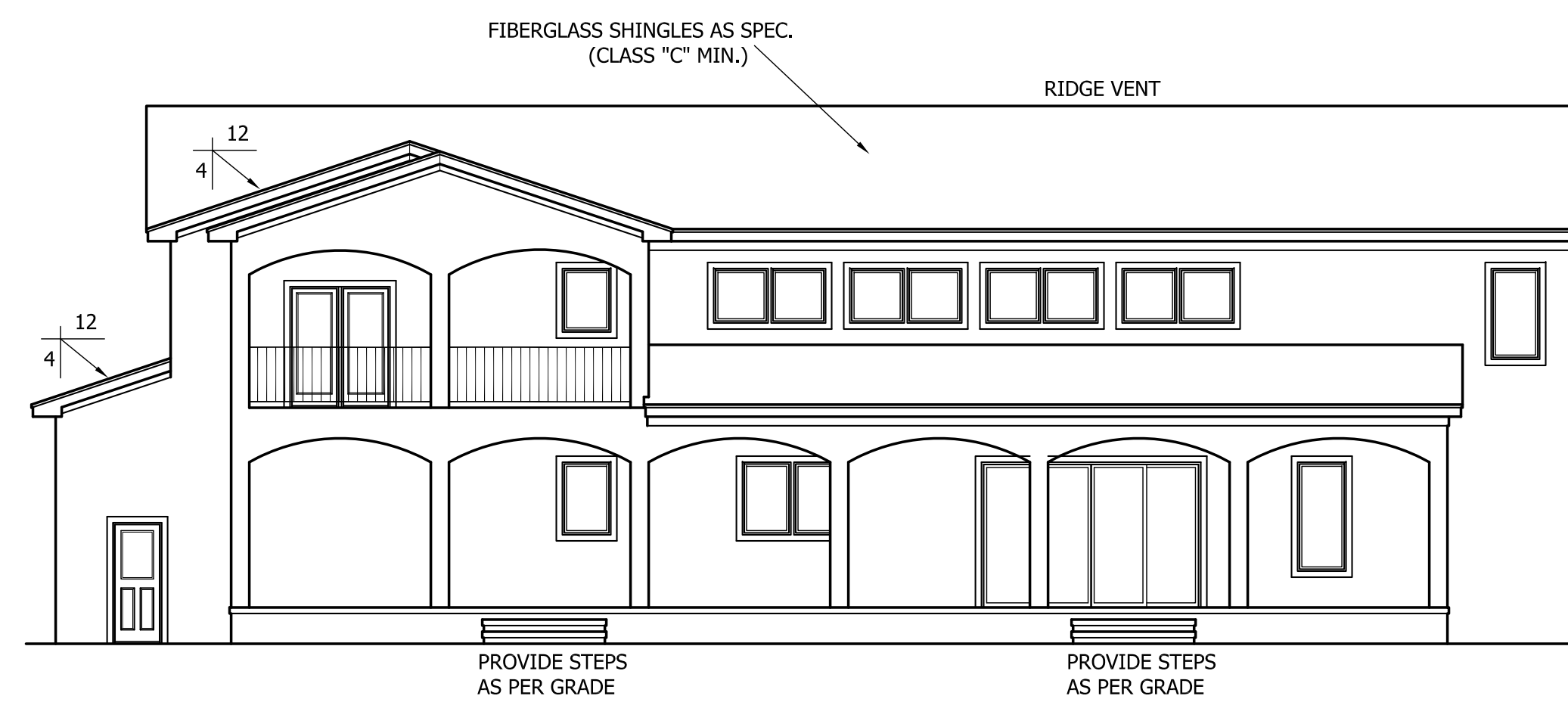
**FRONT ELEVATION**

SCALE: 1/4"=1'-0"



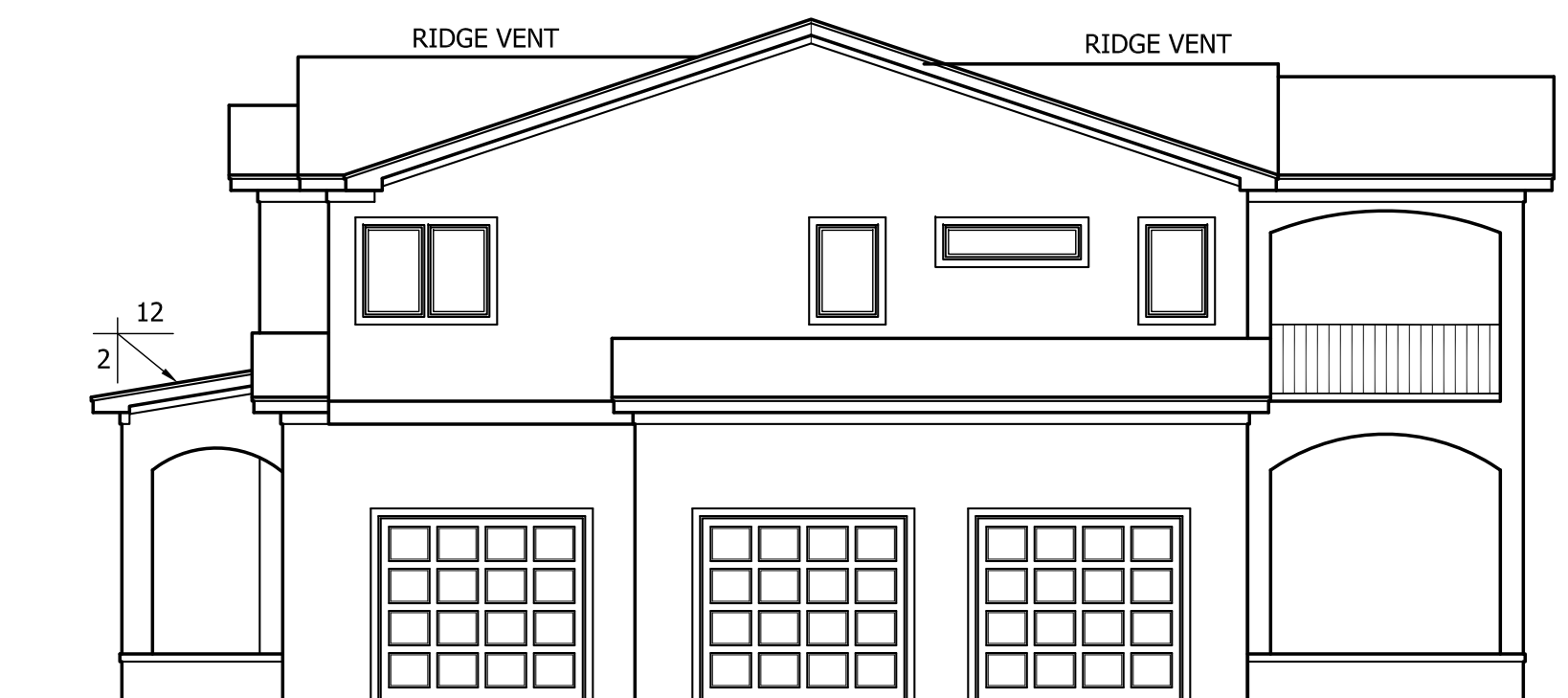
**LEFT ELEVATION**

SCALE: 1/8"=1'-0"



**REAR ELEVATION**

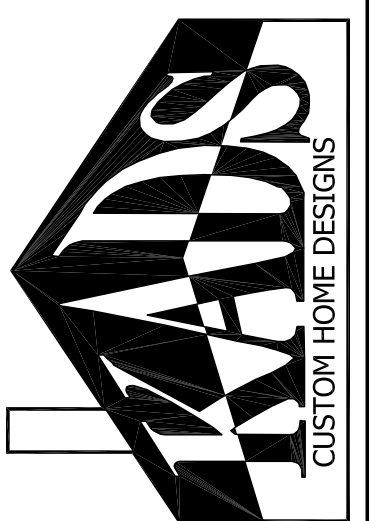
SCALE: 1/8"=1'-0"



**RIGHT ELEVATION**

SCALE: 1/8"=1'-0"

**HERNANDEZ-JAIMES RESIDENCE**



ANGIER, NC  
919-369-7181

DRAWN BY:  
D.W.O.

DATE:  
8/9/23

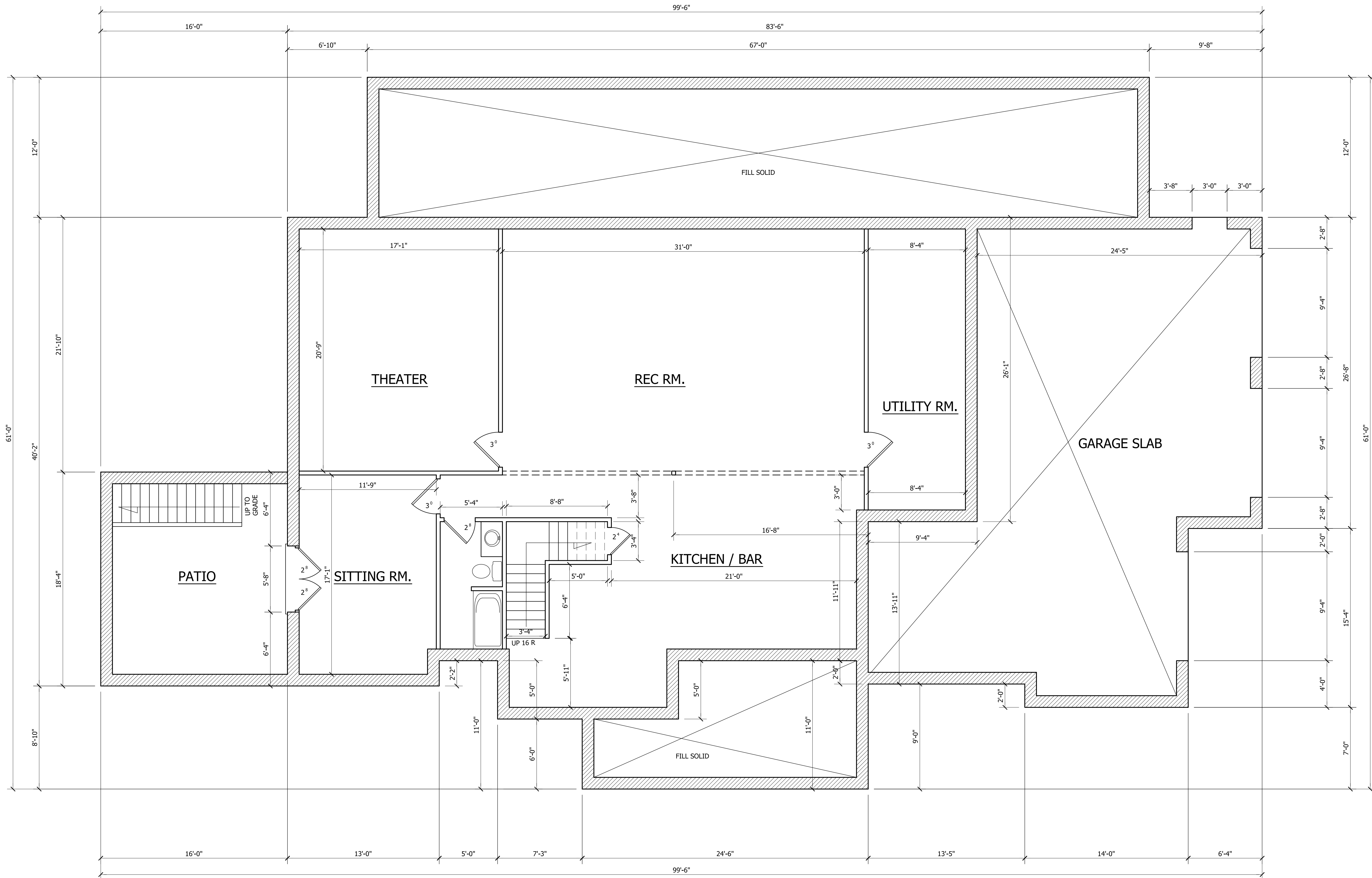
PAGE NO

**1**

OF

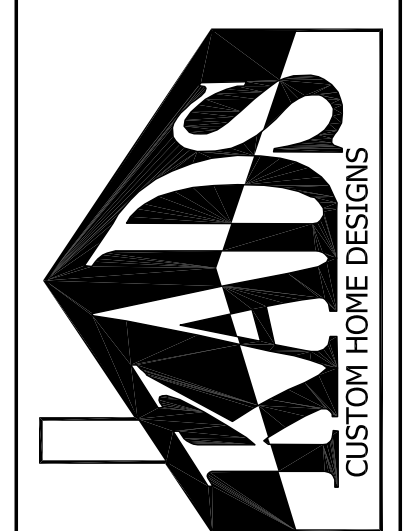
**5**

PLAN NO.  
DK4288



**BASEMENT / CELLAR FLOOR PLAN**  
 SCALE: 1/4"=1'-0"  
 9'-0" CLG. HGT.

**HERNANDEZ-JAIMES RESIDENCE**



ANGIER, NC  
 919-369-7181

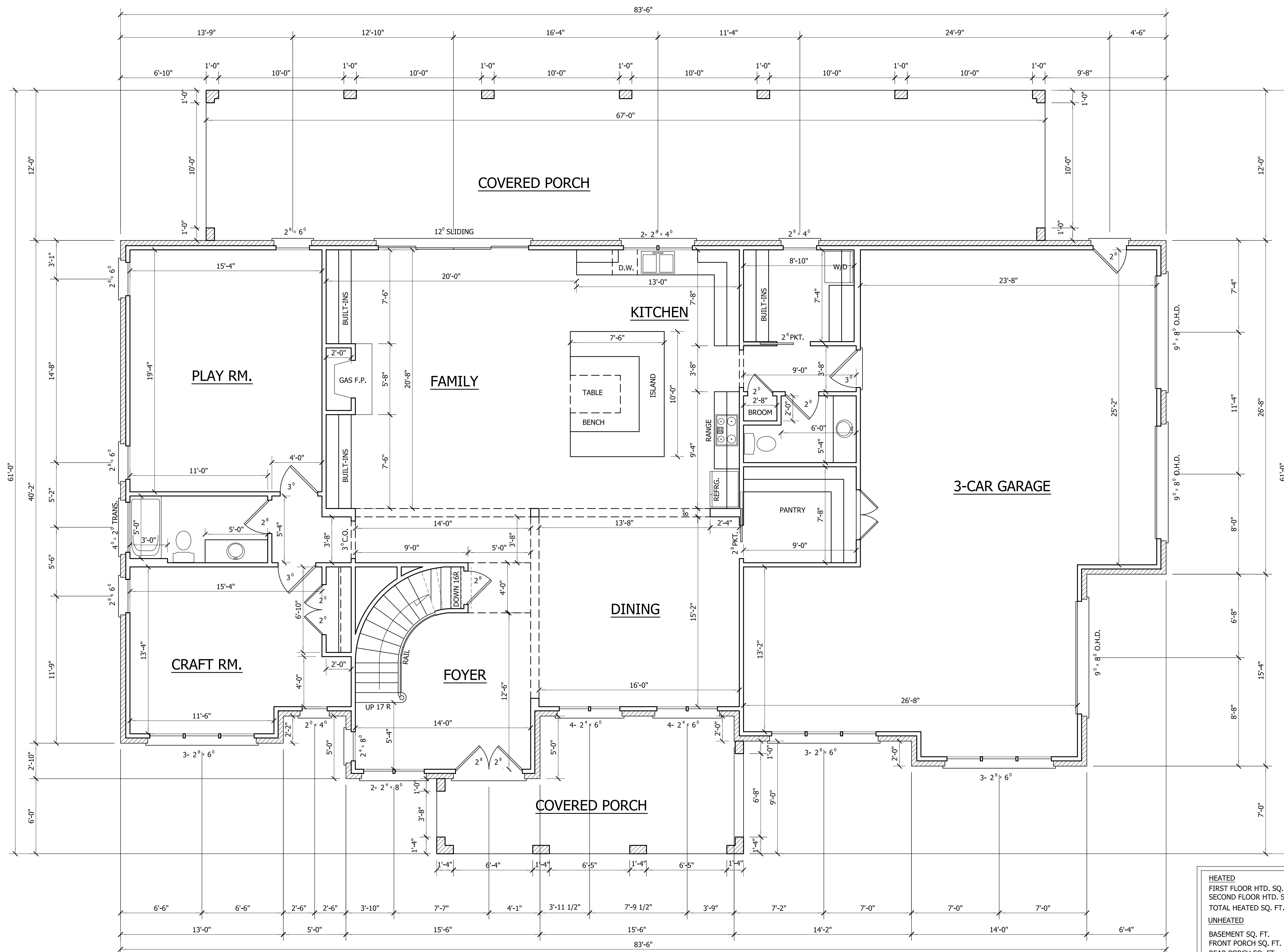
DRAWN BY:  
 D.W.O.

DATE:  
 8/9/23

PAGE NO

**2**  
 OF  
 5

PLAN NO.  
 DK4288

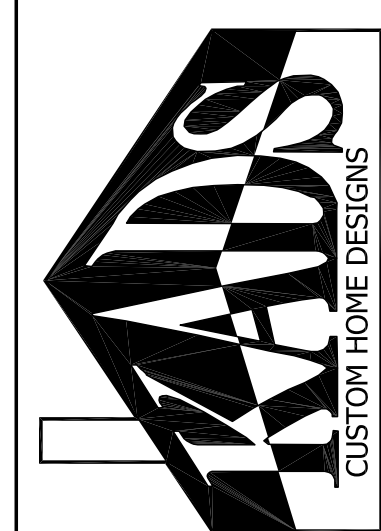


<b>HEATED</b>	
FIRST FLOOR HTD. SQ. FT.	= 2173
SECOND FLOOR HTD. SQ. FT.	= 2115
TOTAL HEATED SQ. FT.	= 4288
<b>UNHEATED</b>	
BASEMENT SQ. FT.	= 2028
FRONT PORCH SQ. FT.	= 227
REAR PORCH SQ. FT.	= 804
MASTER PORCH SQ. FT.	= 276
GARAGE SQ. FT.	= 1009

**FIRST FLOOR PLAN**

SCALE: 1/4"=1'-0"  
 10'-0" CLG. HGT.  
 SET WINDOWS AT 8'-0" A.F.F.

**HERNANDEZ-JAIMES RESIDENCE**



ANGIER, NC  
 919-369-7181

DRAWN BY:  
 D.W.O.

DATE:  
 8/9/23

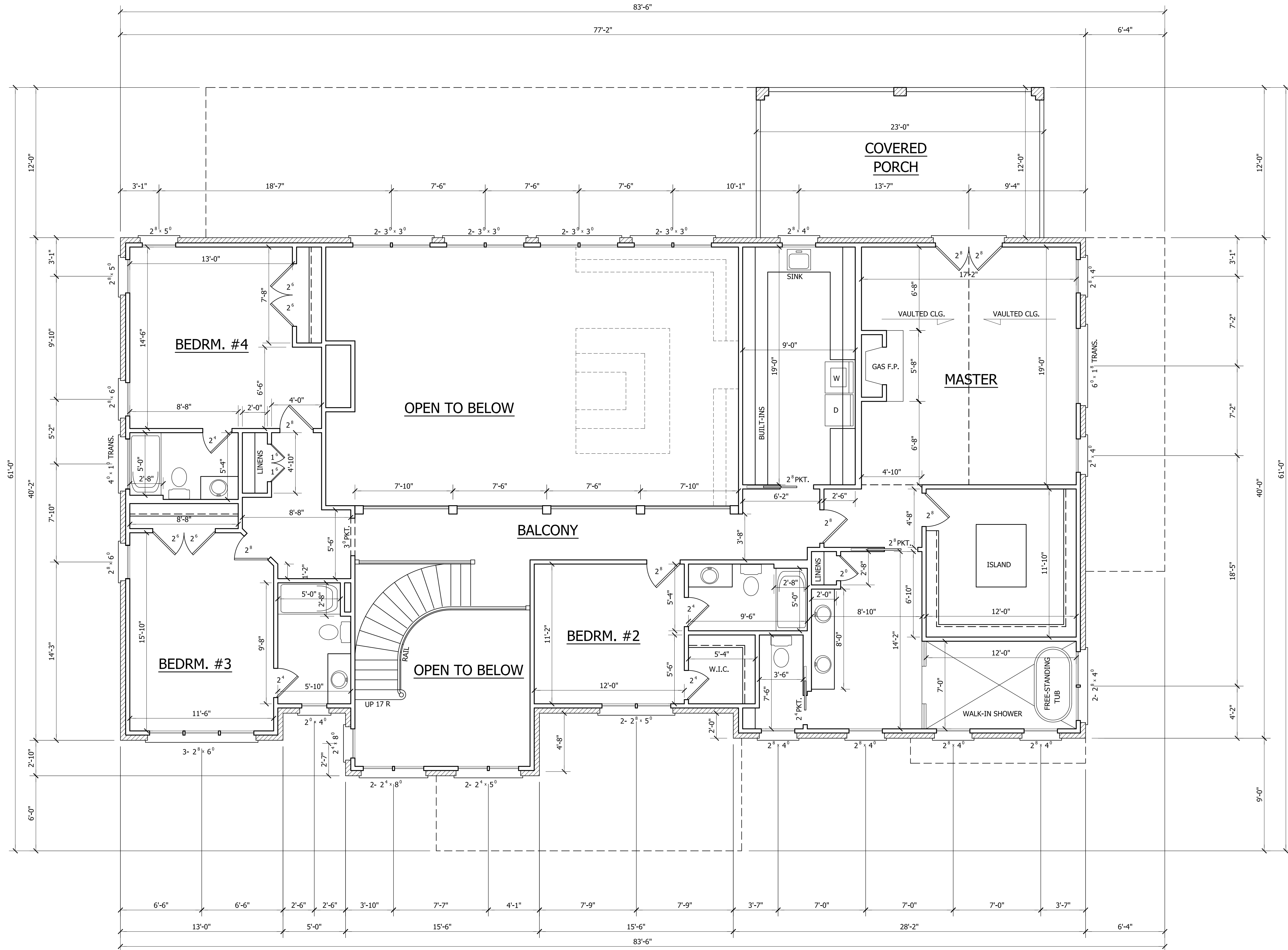
PAGE NO

**3**

OF

**5**

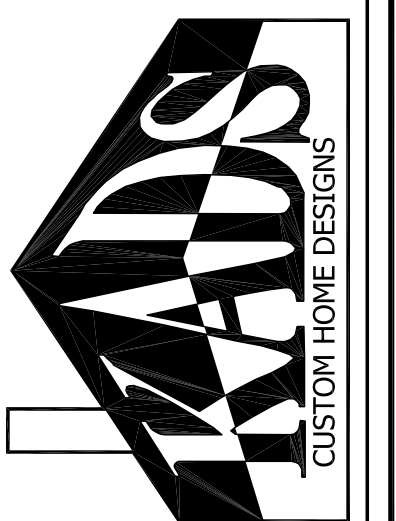
PLAN NO.  
 DK4288



**SECOND FLOOR PLAN**

SCALE: 1/4"=1'-0"  
 9'-0" CLG. HGT.  
 SET WINDOWS AT 7'-8" A.F.F.

**HERNANDEZ-JAIMES RESIDENCE**



ANGIER, NC  
 919-369-7181

DRAWN BY:  
**D.W.O.**

DATE:  
**8/9/23**

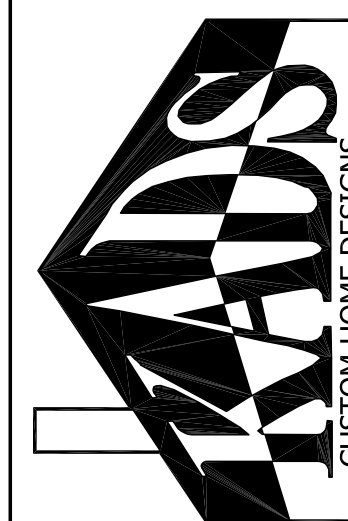
PAGE NO

**4**

OF

**5**

PLAN NO.  
**DK4288**



ANGIER, NC  
919-369-7181

DRAWN BY:  
D.W.O.

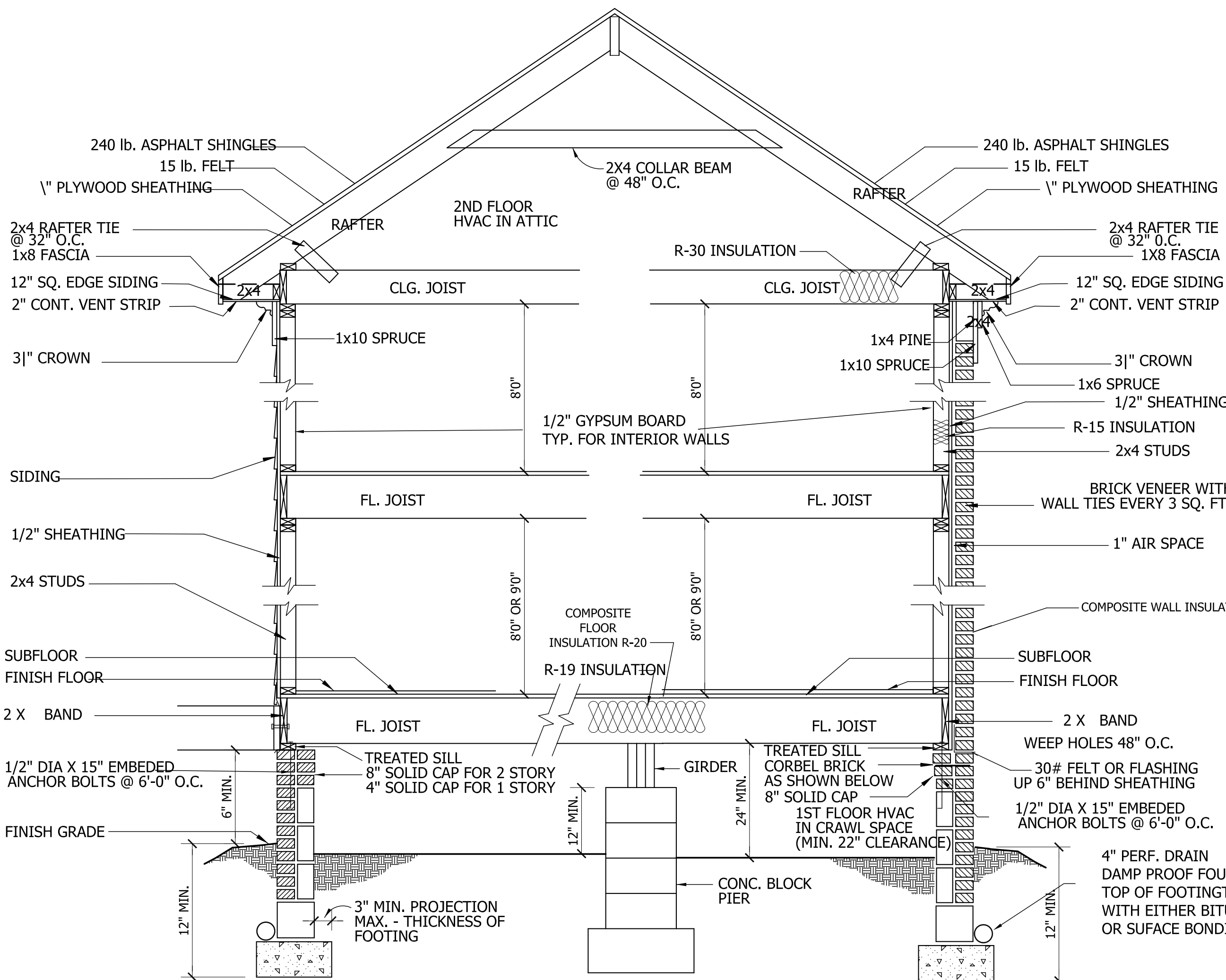
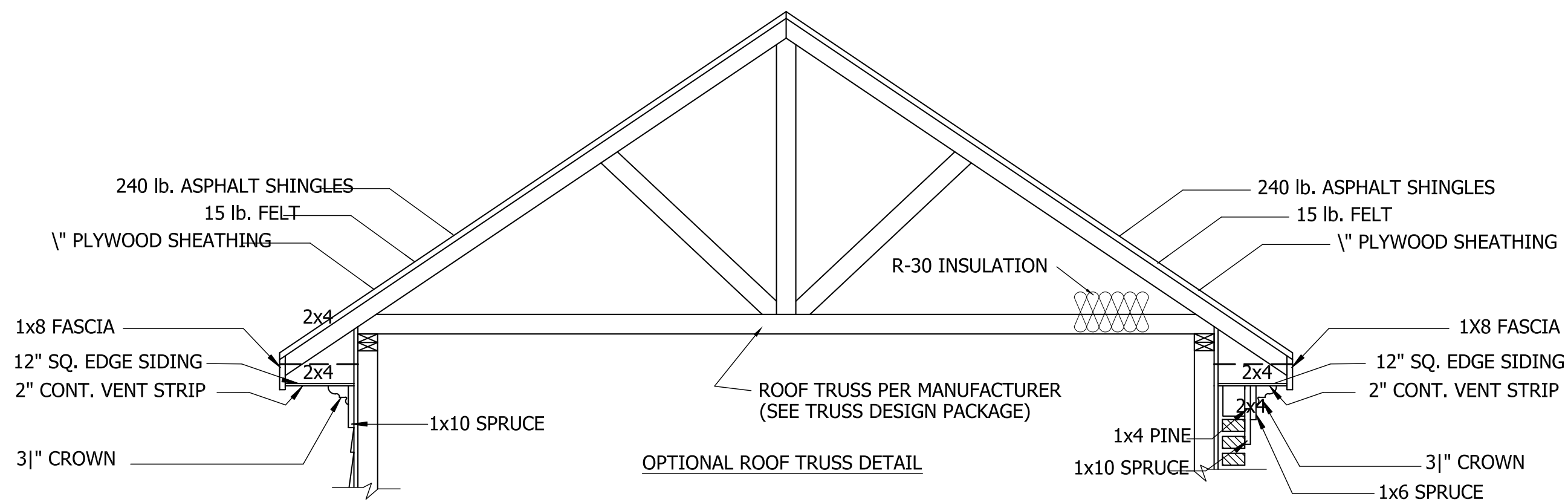
DATE:  
8/9/23

PAGE NO

**5**

OF  
5

PLAN NO.  
DK4288

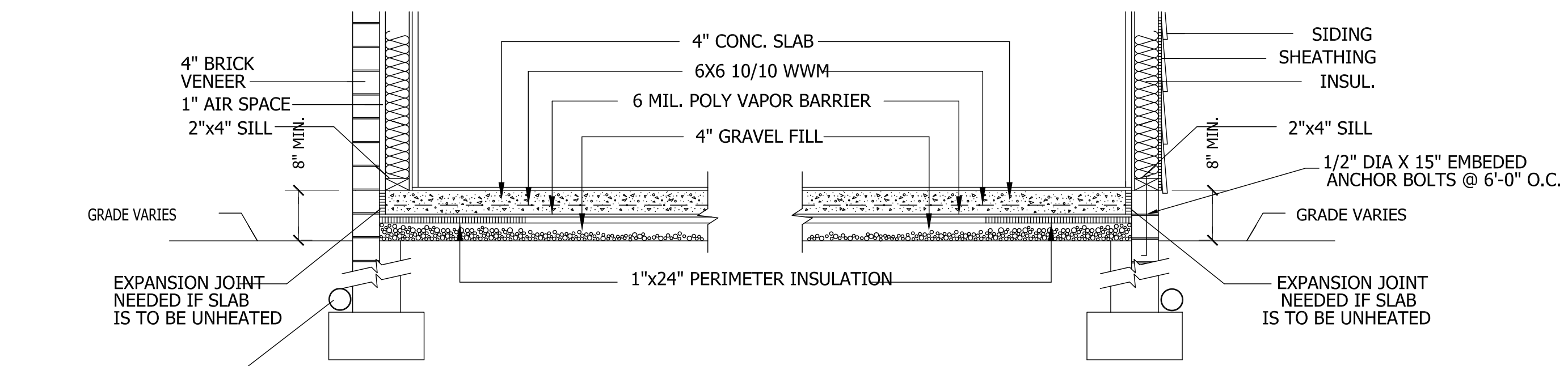


SIDING SECTION

BRICK SECTION

**WALL SECTION**

SCALE: 1/4" = 1'-0"



BRICK VENEER

SIDING

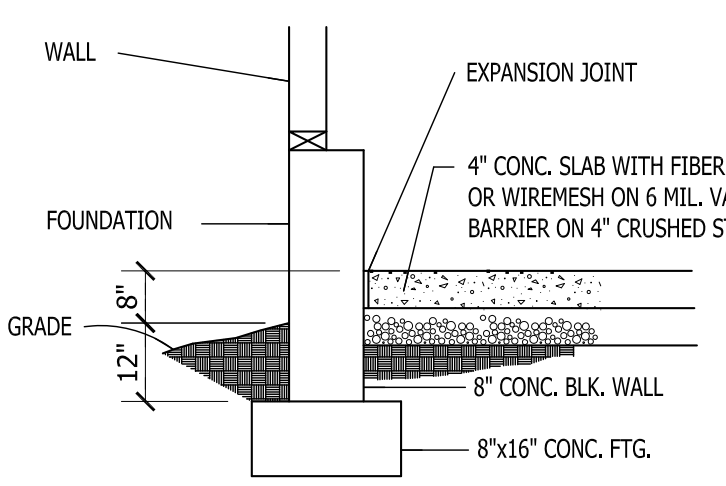
**SLAB FDN. DETAIL**

SCALE: 1" = 1'-0"

ROOF VENTILATING REQUIREMENTS	
$\frac{4213}{150}$	= 28.08 SQ. FT. REQ'D

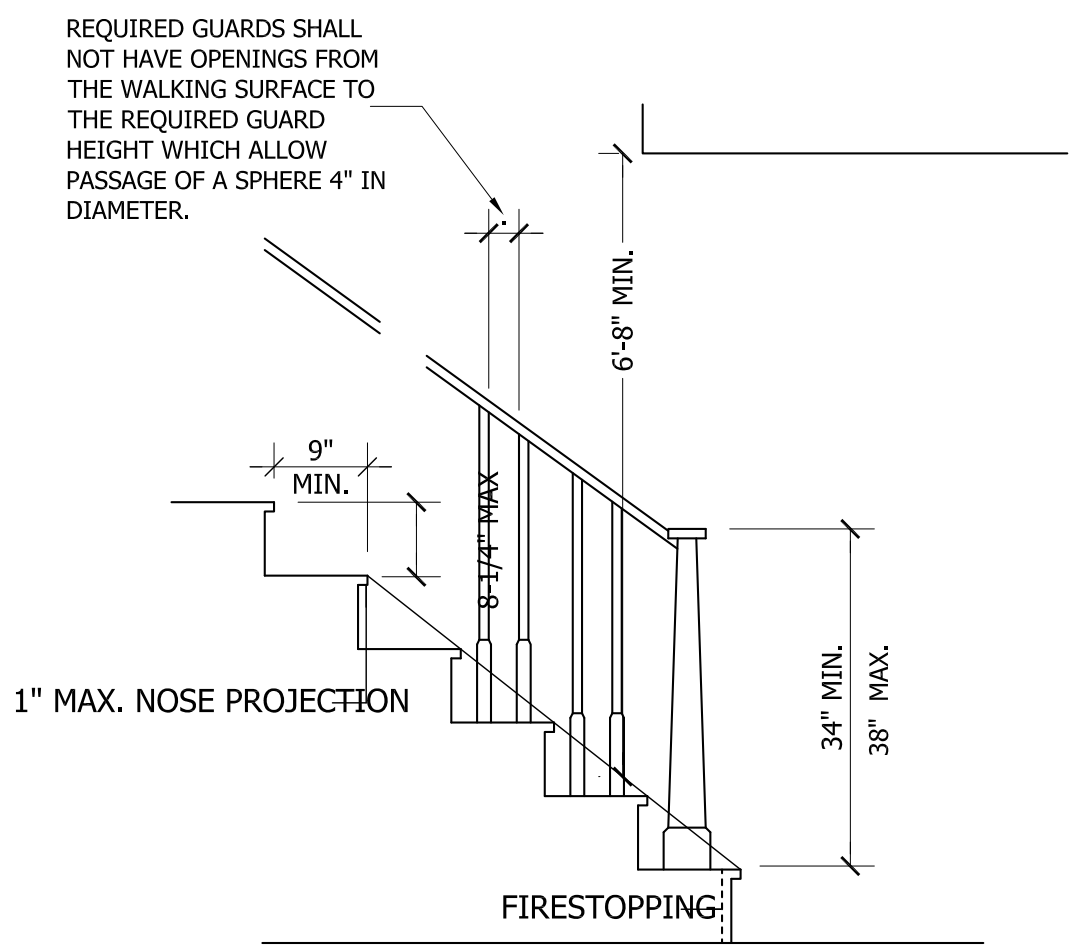
ROOF VENTILATING REQUIREMENTS (POWER ROOF VENTILATOR REQUIRED)	
$\frac{4213}{300}$	= 14.04 SQ. FT. REQ'D

BUILDER TO PROVIDE APPROPRIATE VENTILATING AS REQUIRED.



**GARAGE SLAB**

SCALE: NTS



NOTE:  
Stairways shall not be less than 36 inches in clear width at all points above the permitted handrail height and below the required headroom height. Handrails shall not project more than 4.5 inches on either side of the stairway and the minimum clear width of the stairway at and below the handrail height, including treads and landings, shall not be less than 31-1/2 inches where a handrail is installed on one side and 27 inches where handrails are provided on both sides

**STAIR DETAIL**

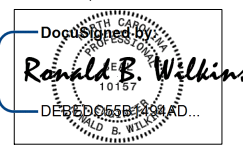
SCALE: NTS

**GENERAL FOUNDATION NOTES:**

1. THIS PLAN DESIGNED IN ACCORDANCE WITH THE NORTH CAROLINA RESIDENTIAL BUILDING CODE, 2018 EDITION.
2. EXTERIOR WALL FOOTING TO BE A MINIMUM OF 16" WIDE AND CONSTRUCTED WITH 3000 PSI CONCRETE. FOR FOUNDATION WALL HEIGHT, THICKNESS AND BACKFILL REQUIREMENTS REFER TO STATE AND LOCAL BUILDING CODES. THE ASSUMED SOIL BEARING CAPACITY FOR THIS PROJECT IS 2000 PSF. THE CONTRACTOR MUST VERIFY THE SITE CONDITIONS AND CONTACT A SOILS ENGINEER IF MARGINAL OR UNSTABLE SOILS ARE ENCOUNTERED.
3. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SUB-GRADE A MINIMUM OF 12" BELOW ADJACENT FINISHED GRADE OR AS OTHERWISE DIRECTED BY THE LOCAL INSPECTOR.
4. FOUNDATION DRAINAGE SHALL BE IN ACCORDANCE WITH SECTION R405 "FOUNDATION DRAINAGE" AND SECTION R406 "FOUNDATION WATERPROOFING AND DAMPPROOFING".
5. ANCHOR BOLTS SHALL BE 1/2" DIAMETER AND INSTALLED AT 12" ON CENTER AND 12" FROM EACH CORNER OR BILL PLATE SPICE LOCATIONS.

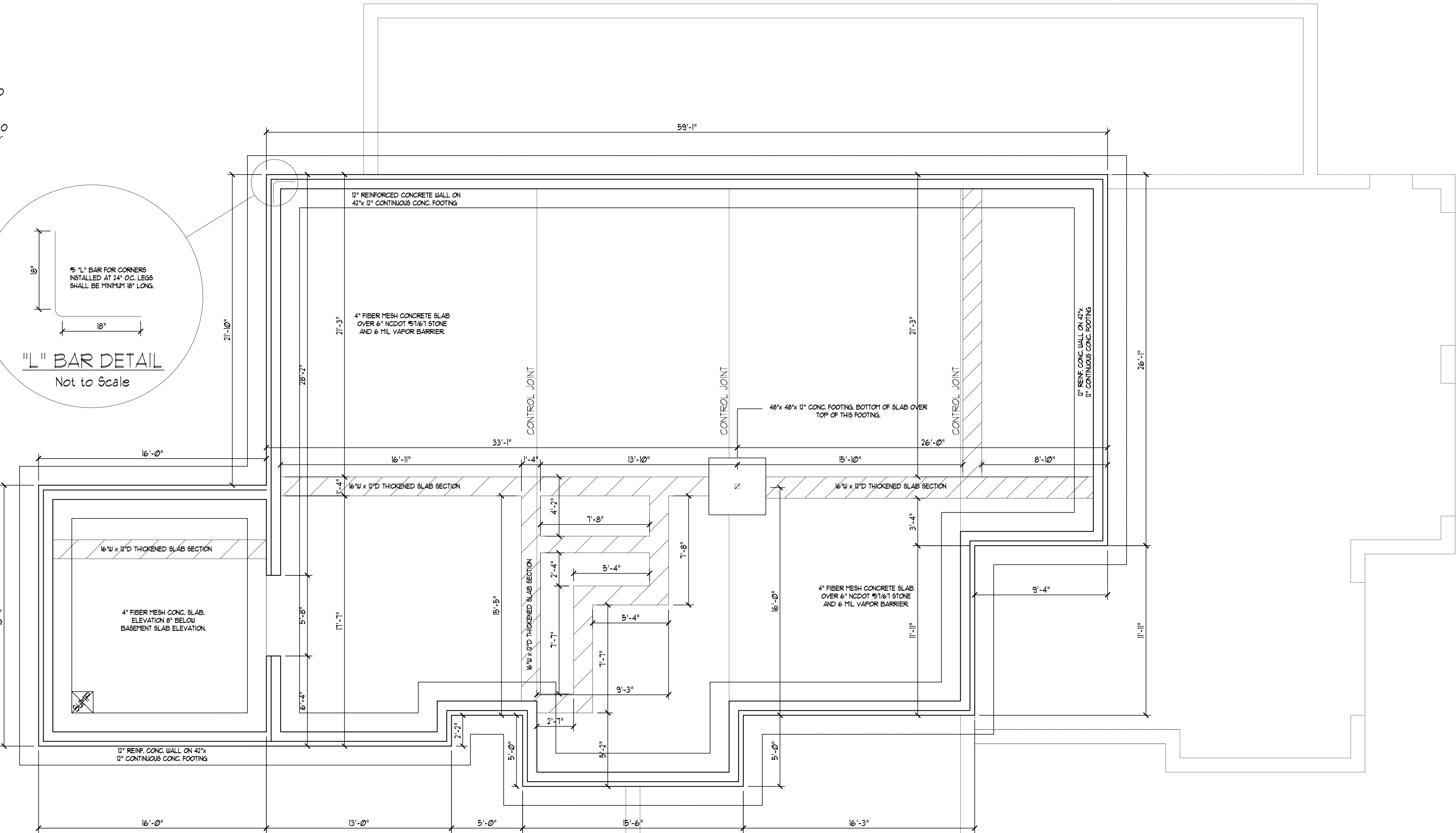
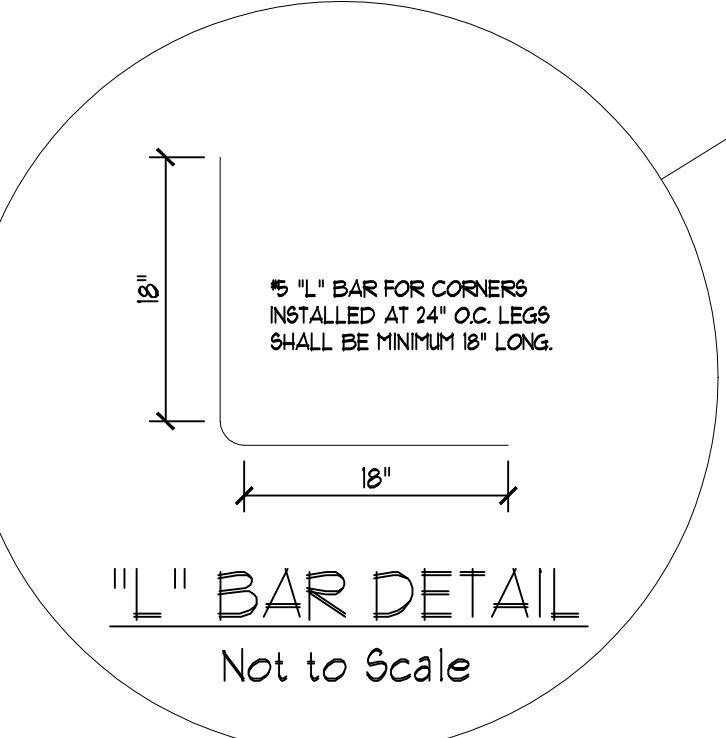
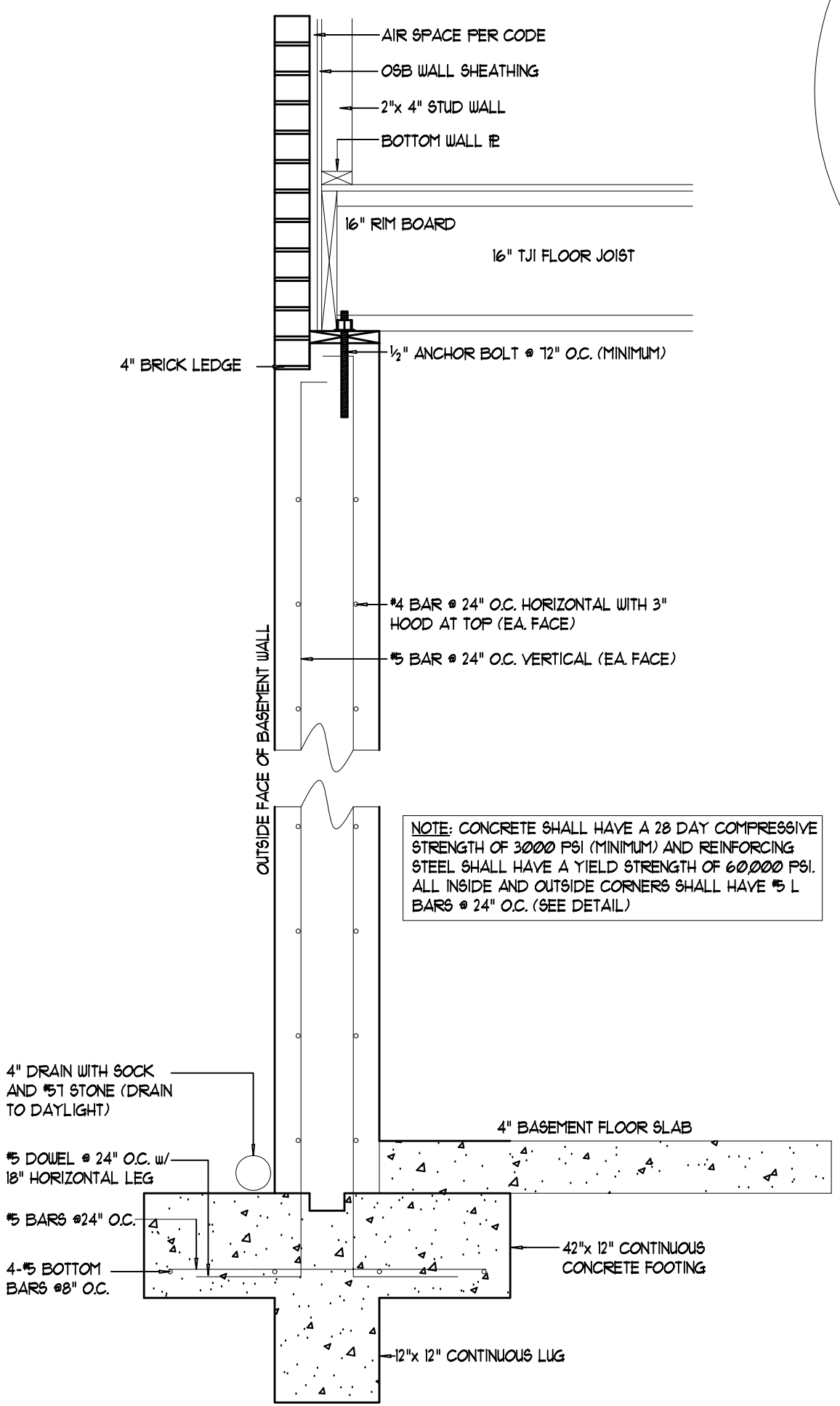
**STRUCTURAL EVALUATION BY:**

WILKINS ENGINEERING, P.C.  
 Post Office Box 31446  
 Raleigh, North Carolina 27621



FILE: ORIANA(REV) 9/21/2023

\*THE ENGINEER'S SEAL AND SIGNATURE APPLY ONLY TO THE STRUCTURAL ELEMENTS OF THIS DOCUMENT. ENGINEER'S APPROVAL DOES NOT INCLUDE CONSTRUCTION REVIEW, MEANS, METHODS, TECHNIQUES OR SEQUENCES OF CONSTRUCTION OR SAFETY REQUIREMENTS. THE CONTRACTOR IS REQUIRED TO ENSURE PROPER SAFETY PRECAUTIONS.  
 \*ANY DEVIATIONS OR DISCREPANCIES IN THESE DRAWINGS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND FAILURE TO DO SO WILL VOID THE ENGINEER'S LIABILITY. CHANGES TO THE DESIGN ARE ONLY ALLOWED WITH THE WRITTEN APPROVAL OF THE ENGINEER.  
 \*DO NOT SCALE THESE DRAWINGS. ENGINEERING APPROVAL EXPIRES IN ONE YEAR.



WILKINS ENGINEERING, P.C.  
 Post Office Box 31446  
 Raleigh, NC 27621  
 919.777.2540  
 wilkinseng@aol.com

ORIANA PLAN  
 DO-4218

Sheet No.  
 S1

COPYRIGHT 2020 WILKINS ENGINEERING, P.C. ALL RIGHTS RESERVED. THESE DRAWINGS ARE THE ORIGINAL WORK OF THE ENGINEER AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER'S LIABILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THESE DRAWINGS WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER'S LIABILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THESE DRAWINGS WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER'S LIABILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THESE DRAWINGS WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.

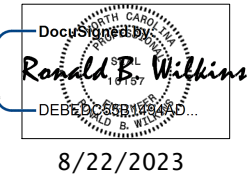
DO NOT SCALE THESE DRAWINGS. ALL DIMENSIONS AND SPACING ARE TO BE AS SHOWN UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SPACING BEFORE CONSTRUCTION. THE ENGINEER'S LIABILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THESE DRAWINGS WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.

GENERAL FOUNDATION NOTES:

1. THIS PLAN DESIGNED IN ACCORDANCE WITH THE NORTH CAROLINA RESIDENTIAL BUILDING CODE, 2018 EDITION.
2. EXTERIOR WALL FOOTING TO BE A MINIMUM OF 16" WIDE AND CONSTRUCTED WITH 3000 PSI CONCRETE. FOR FOUNDATION WALL HEIGHT, THICKNESS AND BACKFILL REQUIREMENTS REFER TO STATE AND LOCAL BUILDING CODES. THE ASSUMED SOIL BEARING CAPACITY FOR THIS PROJECT IS 2000 PSF. THE CONTRACTOR MUST VERIFY THE SITE CONDITIONS AND CONTACT A SOILS ENGINEER IF MARGINAL OR UNSTABLE SOILS ARE ENCOUNTERED.
3. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SUB-GRADE A MINIMUM OF 12" BELOW ADJACENT FINISHED GRADE OR AS OTHERWISE DIRECTED BY THE LOCAL INSPECTOR.
4. FOUNDATION DRAINAGE SHALL BE IN ACCORDANCE WITH SECTION R405 "FOUNDATION DRAINAGE" AND SECTION R406 "FOUNDATION WATERPROOFING AND DAMPPROOFING".
5. ANCHOR BOLTS SHALL BE 1/2" DIAMETER AND INSTALLED AT 12" ON CENTER AND 12" FROM EACH CORNER OR SILL PLATE SPICE LOCATIONS.

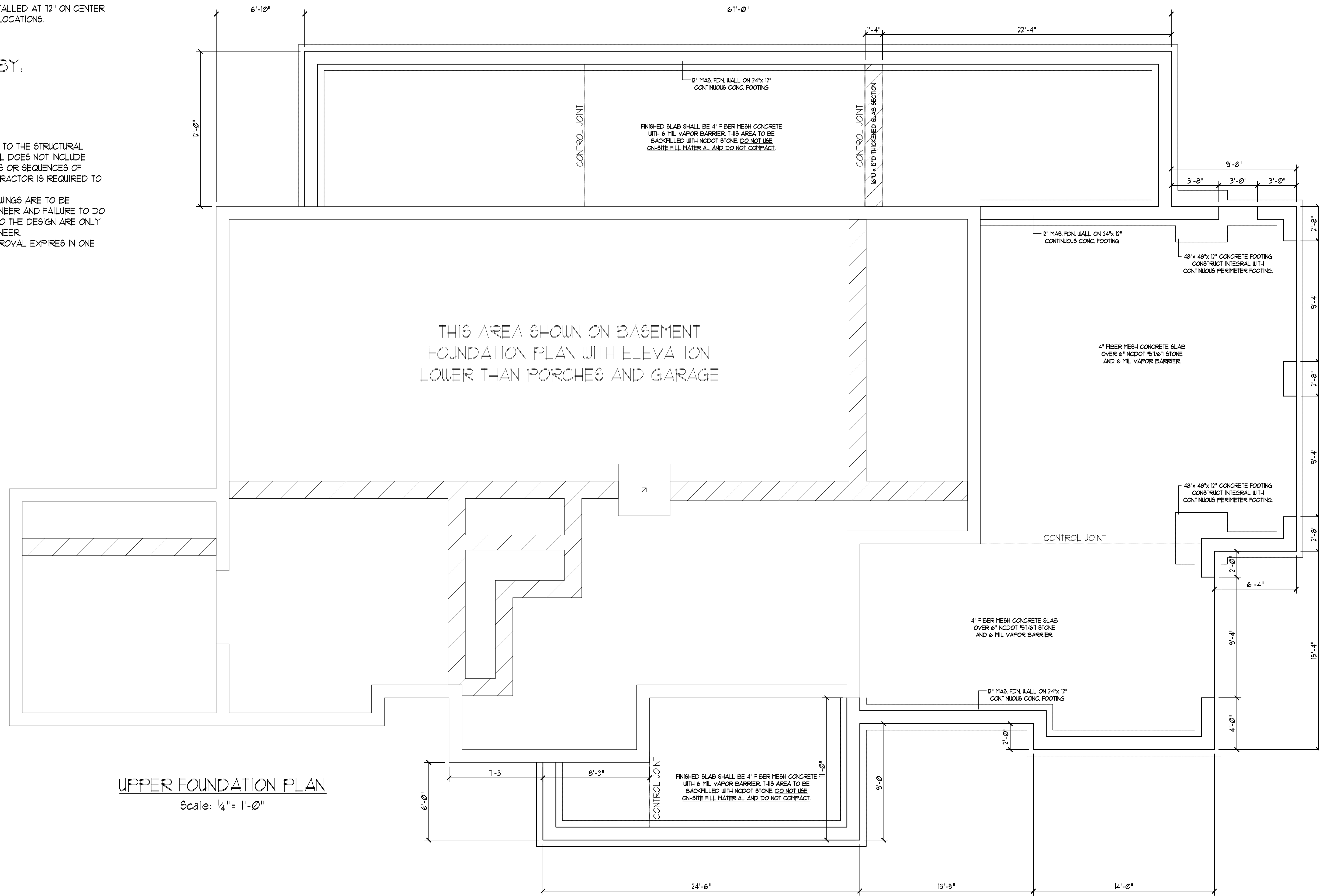
STRUCTURAL EVALUATION BY:

WILKINS ENGINEERING, P.C.  
 Post Office Box 31446  
 Raleigh, North Carolina 27621



FILE:

\*THE ENGINEER'S SEAL AND SIGNATURE APPLY ONLY TO THE STRUCTURAL ELEMENTS OF THIS DOCUMENT. ENGINEER'S APPROVAL DOES NOT INCLUDE CONSTRUCTION REVIEW, MEANS, METHODS, TECHNIQUES OR SEQUENCES OF CONSTRUCTION OR SAFETY REQUIREMENTS. THE CONTRACTOR IS REQUIRED TO ENSURE PROPER SAFETY PRECAUTIONS.  
 \*ANY DEVIATIONS OR DISCREPANCIES IN THESE DRAWINGS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND FAILURE TO DO SO WILL VOID THE ENGINEER'S LIABILITY. CHANGES TO THE DESIGN ARE ONLY ALLOWED WITH THE WRITTEN APPROVAL OF THE ENGINEER.  
 \*DO NOT SCALE THESE DRAWINGS. ENGINEERING APPROVAL EXPIRES IN ONE YEAR.



UPPER FOUNDATION PLAN  
 Scale: 1/4" = 1'-0"

DO NOT SCALE THESE DRAWINGS. ALL DIMENSIONS AND SITE DIRECTIONS ARE TO BE VERIFIED BEFORE CONSTRUCTION BEGINS. SHOULD ANY DISCREPANCIES OR OMISSIONS BE NOTED, THE BUILDER AGREES TO NOTIFY THE ENGINEER IMMEDIATELY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR CODE COMPLIANCE OF NON-STRUCTURAL ITEMS.  
 COPYRIGHT 2020 WILKINS ENGINEERING, P.C. THESE DRAWINGS ARE PROTECTED UNDER FEDERAL COPYRIGHT LAWS. THE ORIGINAL PURCHASER OF THESE DRAWINGS IS LICENSED TO USE THE PLANS FOR FAMILY HOME REPRODUCTION ONLY. ANY REUSE OR REPRODUCTION WITHOUT THE WRITTEN CONSENT OF THE ENGINEER IS EXPRESSLY PROHIBITED.  
**WILKINS ENGINEERING**  
 Post Office Box 31446  
 Raleigh, NC 27621  
 919.717.3540  
 wilkinsengr@aol.com  
**ORIANA PLAN**  
**DO-4218**  
 Sheet No. **S/O**

**GENERAL FOUNDATION NOTES:**

1. THIS PLAN DESIGNED IN ACCORDANCE WITH THE NORTH CAROLINA RESIDENTIAL BUILDING CODE, 2018 EDITION.
2. EXTERIOR WALL FOOTING TO BE A MINIMUM OF 16" WIDE AND CONSTRUCTED WITH 3000 PSI CONCRETE. FOR FOUNDATION WALL HEIGHT, THICKNESS AND BACKFILL REQUIREMENTS REFER TO STATE AND LOCAL BUILDING CODES. THE ASSUMED SOIL BEARING CAPACITY FOR THIS PROJECT IS 2000 PSF. THE CONTRACTOR MUST VERIFY THE SITE CONDITIONS AND CONTACT A SOILS ENGINEER IF MARGINAL OR UNSTABLE SOILS ARE ENCOUNTERED.
3. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SUB-GRADE A MINIMUM OF 1' BELOW ADJACENT FINISHED GRADE OR AS OTHERWISE DIRECTED BY THE LOCAL INSPECTOR.

**GENERAL NOTES:**

1. THIS PLAN IS DESIGNED IN ACCORDANCE WITH THE NORTH CAROLINA RESIDENTIAL BUILDING CODE, 2018 EDITION.
2. WALL CLADDING IS DESIGNED FOR A POSITIVE/NEGATIVE PRESSURE OF NOT LESS THAN 24J PSF.
3. ROOF CLADDING DESIGN VALUES (POSITIVE/NEGATIVE) SHALL BE AS FOLLOWS:  
45.5 PSF FOR ROOF PITCHES FROM 0/12 TO 1/12  
34.5 PSF FOR ROOF PITCHES FROM 1/12 TO 1/12  
21.0 PSF FOR ROOF PITCHES FROM 1/12 TO 1/12  
MEAN ROOF HEIGHT FOR THIS STRUCTURE IS 14'
5. DESIGN CRITERIA IS AS FOLLOWS:

	DEAD LOAD (PSF)	LIVE LOAD (PSF)
PRIMARY FLOOR	10	40
SECONDARY FLOOR	10	40
SLEEPING AREAS	10	40
ATTIC (W/ STAIRS)	10	30
ATTIC (W/O STAIRS)	10	20
ROOF	10	20

WIND LOADING IS BASED ON 3 SECOND GUST OF 130 MPH PER HOUR  
LIVE LOAD DEFLECTION LIMITS (LIVE LOAD) ARE L/360 FOR FLOORS, L/240 FOR ROOF  
6. ALL HEADERS IN LOAD BEARING WALL SHALL BE 2"x10" UNLESS NOTED OTHERWISE.  
FULL HEIGHT KING STUDS SHALL BE INSTALLED ON EACH SIDE OF EXTERIOR WALL HEADERS AND BEAMS AS FOLLOWS:

HEADER SPAN	STUDS @ 16" O.C.	STUDS @ 24" O.C.
3'-0"	1	1
4'-0"	2	1
8'-0"	3	2
12'-0"	5	3
16'-0"	6	4

7. ALL LUMBER USED FOR JOISTS AND RAFTERS SHALL BE #2 SYP OR BETTER LUMBER USED FOR STUD WALL SHALL BE #2 SYP OR BETTER.
8. LVL SHALL BE LAMINATED VENEER LUMBER OR PARALLEL STRAND LUMBER WITH THE FOLLOWING MINIMUM PROPERTIES: Fv=2000 PSI, Fv=205 PSI, E=1,000,000 PSI. MULTIPLE LVL PLIES CAN BE USED TO ACHIEVE THE SPECIFIED SIZE SHOWN ON THESE PLANS AND IS CONSIDERED TO BE STRUCTURALLY EQUIVALENT.

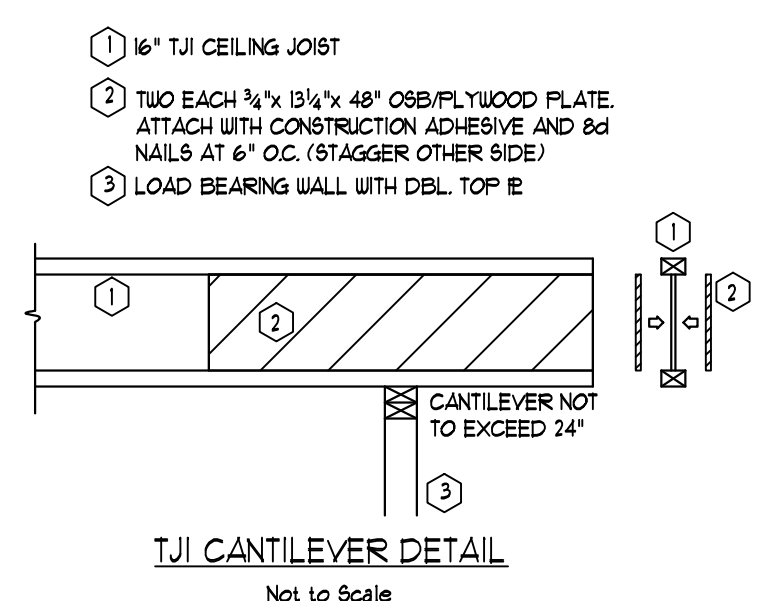
**GENERAL ROOF NOTES:**

1. THIS PLAN DESIGNED IN ACCORDANCE WITH THE NORTH CAROLINA RESIDENTIAL BUILDING CODE, 2018 EDITION.
2. ROOF CLADDING DESIGN VALUES (POSITIVE/NEGATIVE) SHALL BE AS FOLLOWS:  
45.5 PSF FOR ROOF PITCHES FROM 0/12 TO 1/12  
34.5 PSF FOR ROOF PITCHES FROM 1/12 TO 1/12  
21.0 PSF FOR ROOF PITCHES FROM 1/12 TO 1/12  
MEAN ROOF HEIGHT FOR THIS STRUCTURE IS 14'
3. ALL ROOFING ELEMENTS SHALL MEET THE REQUIREMENTS OF CHAPTER 8 OF THE BUILDING CODE.
4. ALL LUMBER SHALL BE #2 SYP OR BETTER.
5. THIS ROOF AND STRUCTURE ARE DESIGNED FOR A DESIGN WIND SPEED OF 130 MPH.
6. ROOF TRUSSES (IF USED) SHALL BE DESIGNED BY THE MANUFACTURER AND THE ANALYSIS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

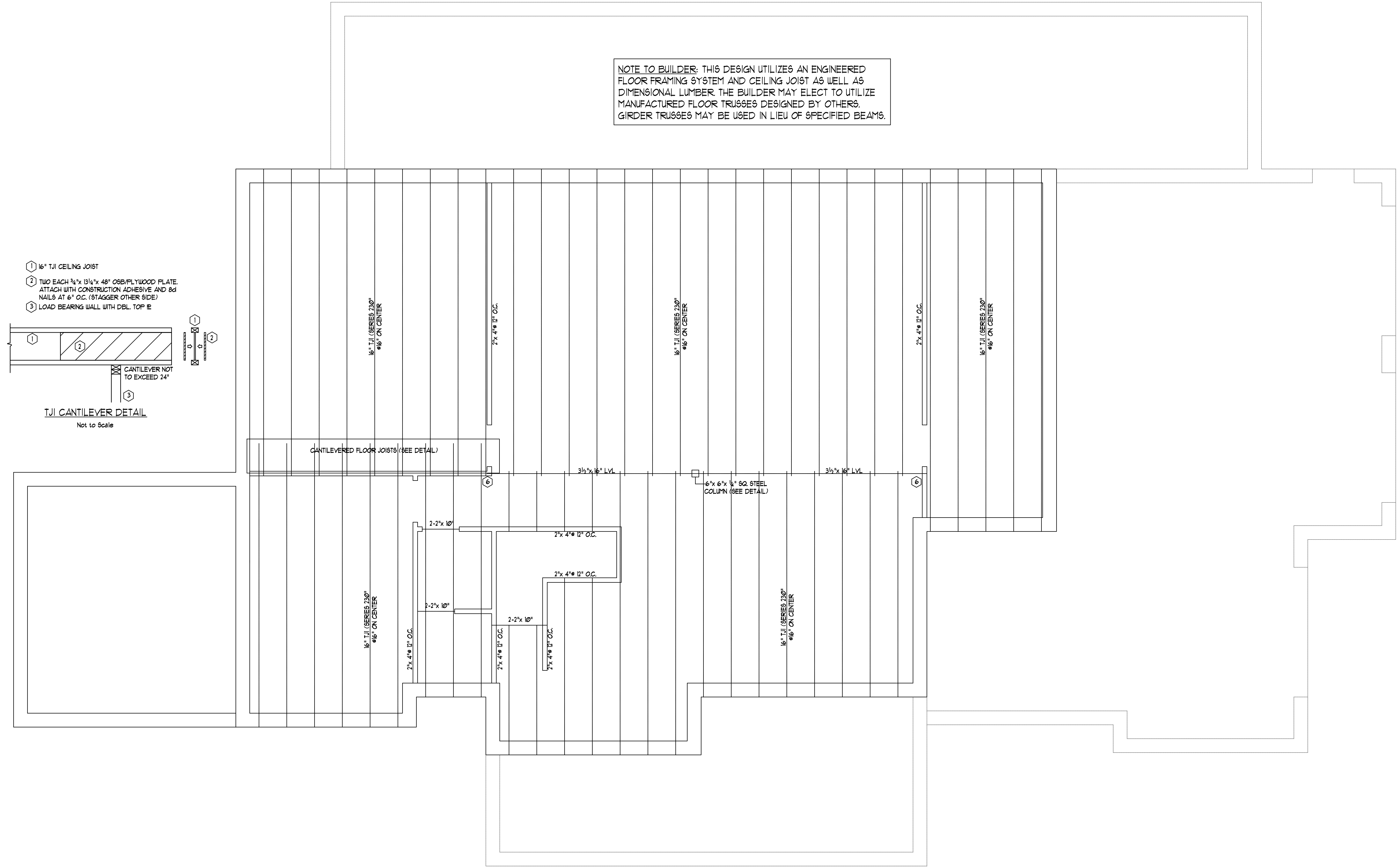
**STRUCTURAL EVALUATION BY:**

WILKINS ENGINEERING, P.C.  
Post Office Box 31449  
Raleigh North Carolina 27621  
*Reynold B. Wilkins*  
8/7/2023

\*THE ENGINEER'S SEAL AND SIGNATURE APPLY ONLY TO THE STRUCTURAL ELEMENTS OF THIS DOCUMENT. ENGINEER'S APPROVAL DOES NOT INCLUDE CONSTRUCTION REVIEW, MEANS, METHODS, TECHNIQUES OR SEQUENCES OF CONSTRUCTION OR SAFETY REQUIREMENTS. THE CONTRACTOR IS REQUIRED TO ENSURE PROPER SAFETY PRECAUTIONS.  
\*ANY DEVIATIONS OR DISCREPANCIES IN THESE DRAWINGS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND FAILURE TO DO SO WILL VOID THE ENGINEER'S LIABILITY. CHANGES TO THE DESIGN ARE ONLY ALLOWED WITH THE WRITTEN APPROVAL OF THE ENGINEER.  
\*DO NOT SCALE THESE DRAWINGS. ENGINEERING APPROVAL EXPIRES IN ONE YEAR.



NOTE TO BUILDER: THIS DESIGN UTILIZES AN ENGINEERED FLOOR FRAMING SYSTEM AND CEILING JOIST AS WELL AS DIMENSIONAL LUMBER. THE BUILDER MAY ELECT TO UTILIZE MANUFACTURED FLOOR TRUSSES DESIGNED BY OTHERS. GIRDER TRUSSES MAY BE USED IN LIEU OF SPECIFIED BEAMS.



**BASEMENT CEILING PLAN**  
Scale: 1/4" = 1'-0"

WILKINS ENGINEERING, P.C.  
 THESE DRAWINGS ARE PROTECTED UNDER FEDERAL COPYRIGHT LAWS. THE ORIGINAL PURCHASER OF THESE DRAWINGS OR ONE WHOSE USE OF THEM IS AUTHORIZED BY THE ENGINEER SHALL BE RESPONSIBLE FOR THE PROTECTION OF THESE DRAWINGS WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. REPRODUCTION, MODIFICATION, OR REUSE OF THESE DRAWINGS WITHOUT THE WRITTEN CONSENT OF THE ENGINEER IS EXPRESSLY PROHIBITED.  
 WILKINS ENGINEERING, P.C.  
 Post Office Box 31446  
 Raleigh, NC 27621  
 919.771.3540  
 wilkinseng@aol.com  
 ORIANA PLAN  
 DO-4218  
 Sheet No.  
 S2



GENERAL NOTES:

- 1. THIS PLAN IS DESIGNED IN ACCORDANCE WITH THE NORTH CAROLINA RESIDENTIAL BUILDING CODE, 2018 EDITION.
- 2. WALL CLADDING IS DESIGNED FOR A POSITIVE/NEGATIVE PRESSURE OF NOT LESS THAN 241 PSF.
- 3. ROOF CLADDING DESIGN VALUES (POSITIVE/NEGATIVE) SHALL BE AS FOLLOWS:
  - 45.5 PSF FOR ROOF PITCHES FROM 0/12 TO 2.25/12
  - 34.5 PSF FOR ROOF PITCHES FROM 2.25/12 TO 1/12
  - 21.0 PSF FOR ROOF PITCHES FROM 1/12 TO 0/12
 MEAN ROOF HEIGHT FOR THIS STRUCTURE IS 18'.
- 4. ALL WALLS, CEILINGS, AND FLOORS SHALL BE INSULATED IN ACCORDANCE WITH PART IV, ENERGY CONSERVATION, CHAPTER II, ENERGY EFFICIENCY OF THE CODE FOR ZONE 4I (TABLE n1601.21)
- 5. DESIGN CRITERIA IS AS FOLLOWS:
 

PRIMARY FLOOR	DEAD LOAD (PSF)	LIVE LOAD (PSF)
SECONDARY FLOOR	10	40
SLEEPING AREAS	10	40
ATTIC (W/ STAIRS)	10	30
ATTIC (W/O STAIRS)	10	20
ROOF	10	20

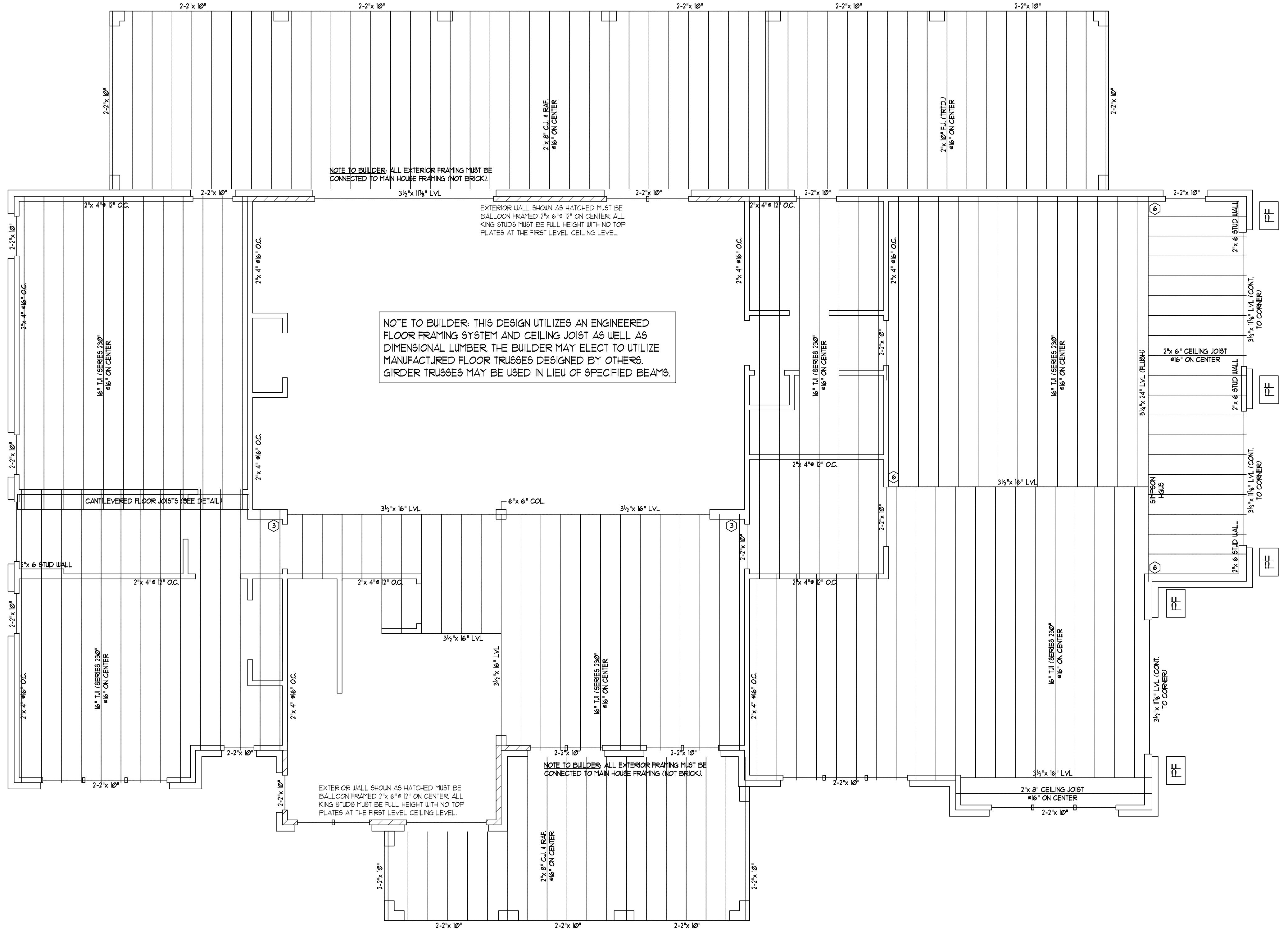
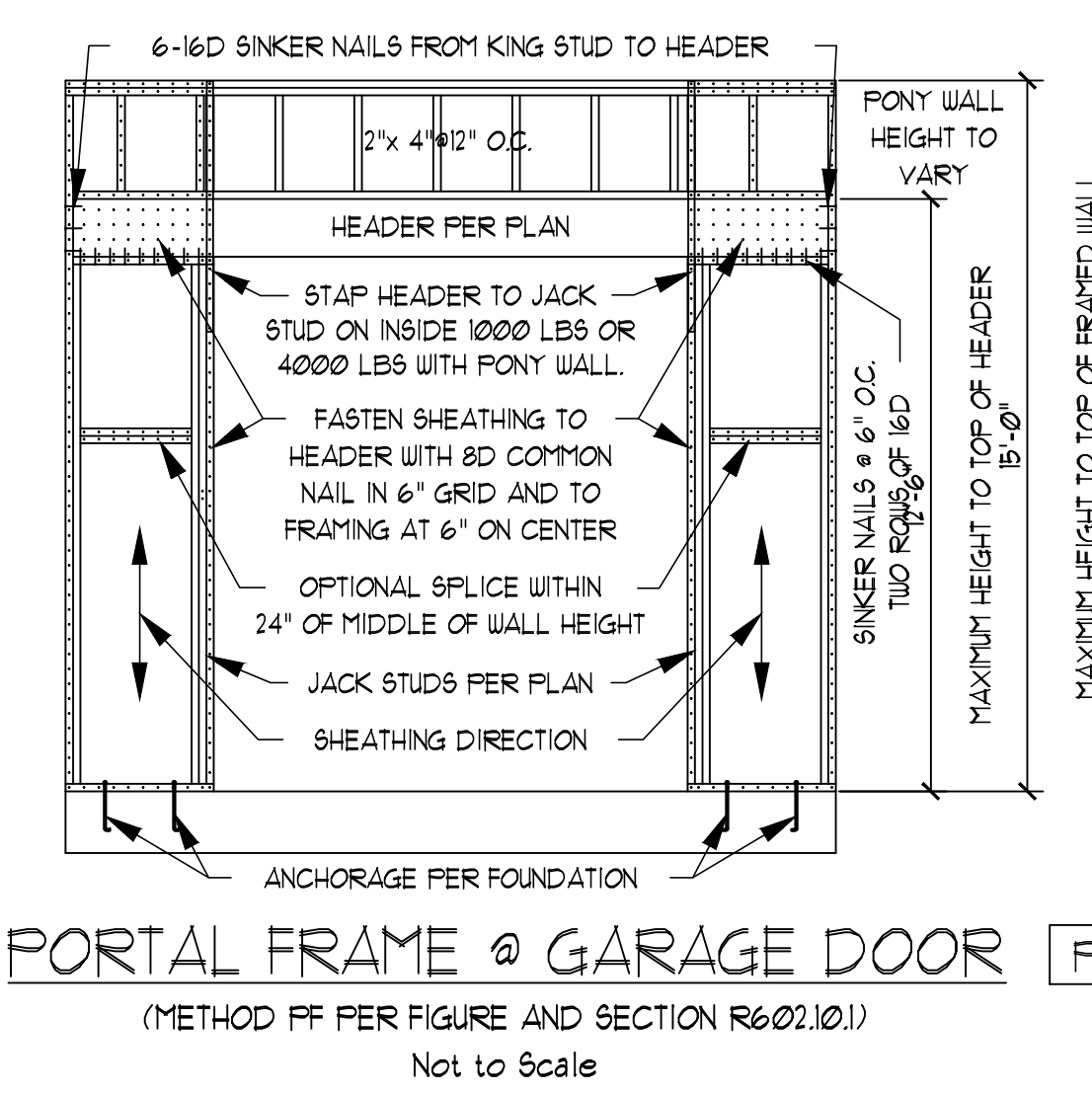
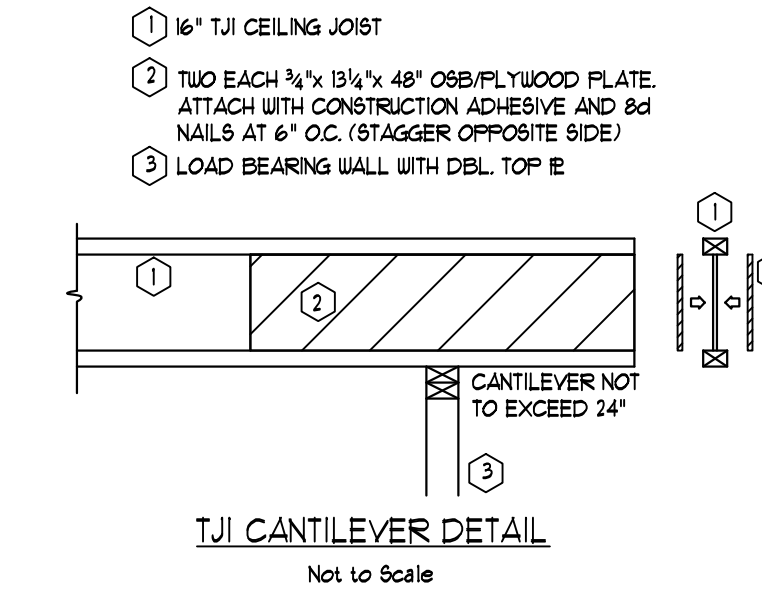
 WIND LOADING IS BASED ON 3 SECOND GUST OF 15 MILES PER HOUR. LIVE LOAD DEFLECTION LIMITS (LIVE LOAD) ARE L/360 FOR FLOORS, L/240 FOR ROOF. 6. ALL HEADERS IN LOAD BEARING WALL SHALL BE 2-2"x 10" UNLESS NOTED OTHERWISE. FULL HEIGHT KING STUDS SHALL BE INSTALLED ON EACH SIDE OF EXTERIOR WALL HEADERS AND BEAMS AS FOLLOWS:
 

HEADER SPAN	STUDS @ 16" O.C.	STUDS @ 24" O.C.
3'-0"	1	1
4'-0"	2	1
8'-0"	3	2
12'-0"	5	3
16'-0"	6	4
- 7. ALL LUMBER USED FOR JOISTS AND RAFTERS SHALL BE #2 SFF OR BETTER LUMBER USED FOR STUD WALL SHALL BE #3 SFF OR BETTER.
- 8. LVL SHALL BE LAMINATED VENEER LUMBER OR PARALLEL STRAND LUMBER WITH THE FOLLOWING MINIMUM PROPERTIES: F<sub>b</sub>=2800 PSI, F<sub>v</sub>=285 PSI, E=2,000,000 PSI. MULTIPLE LVL PLIES CAN BE USED TO ACHIEVE THE SPECIFIED SIZE SHOWN ON THESE PLANS AND IS CONSIDERED TO BE STRUCTURALLY EQUIVALENT.
- 9. THE FOLLOWING SHALL APPLY TO ALL BRACED WALL LINES: ALL EXTERIOR WALLS SHALL BE CONTINUOUSLY SHEATHED WITH 1/2" OSB OR CDX WSP SHALL BE IN ACCORDANCE WITH R-602.10.3 AND SHALL BE COVERED WITH 1/2" GYPSUM BOARD ON THE INTERIOR FACE. ALL WSP PANELS SHALL BE FASTENED WITH 8d NAILS AT 12" ON CENTER (FIELD) AND 6" ON CENTER (EDGES). ALL EXTERIOR WALLS SHALL BE 2"x 4" AT 16" ON CENTER AS A MINIMUM (EXCEPT FOR BALLOON FRAMED WALL SECTIONS AS NOTED) AND CONTINUOUSLY SHEATHED.

STRUCTURAL EVALUATION BY:

WILKINS ENGINEERING, P.C.  
 Post Office Box 31449  
 Raleigh North Carolina 27621  
 FILE: ORIANA  
 8/7/2023

THE ENGINEER'S SEAL AND SIGNATURE APPLY ONLY TO THE STRUCTURAL ELEMENTS OF THIS DOCUMENT. ENGINEER'S APPROVAL DOES NOT INCLUDE CONSTRUCTION REVIEW, MEANS, METHODS, TECHNIQUES OR SEQUENCES OF CONSTRUCTION OR SAFETY REQUIREMENTS. THE CONTRACTOR IS REQUIRED TO ENSURE PROPER SAFETY PRECAUTIONS.  
 ANY DEVIATIONS OR DISCREPANCIES IN THESE DRAWINGS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND FAILURE TO DO SO WILL VOID THE ENGINEER'S LIABILITY. CHANGES TO THE DESIGN ARE ONLY ALLOWED WITH THE WRITTEN APPROVAL OF THE ENGINEER.  
 DO NOT SCALE THESE DRAWINGS. ENGINEERING APPROVAL EXPIRES IN ONE YEAR.



FIRST FLOOR PLAN  
 Scale: 1/4" = 1'-0"

DO NOT SCALE THESE DRAWINGS. ALL DIMENSIONS AND SITE DIMENSIONS ARE TO BE VERIFIED BEFORE CONSTRUCTION BEGINS. SHOULD CONSTRUCTION DISCREPANCIES BE IDENTIFIED, THE BUILDER AGREES TO NOTIFY THE ENGINEER IMMEDIATELY. THESE DRAWINGS APPLY TO STRUCTURAL ELEMENTS ONLY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR CODE COMPLIANCE OF NON-STRUCTURAL ITEMS.

COPYRIGHT 2020 WILKINS ENGINEERING, P.C. THESE DRAWINGS ARE PROTECTED UNDER FEDERAL COPYRIGHT LAWS. THE ORIGINAL PURCHASER OR CONTRACTOR IS NOT TO REPRODUCE OR TRANSMIT THE CONSTRUCTION OF ONE AND ONLY ONE SINGLE FAMILY HOME. REPRODUCTION, MODIFICATION OR TRANSMISSION OF THESE DRAWINGS WITHOUT THE WRITTEN CONSENT OF THE ENGINEER IS EXPRESSLY PROHIBITED.

WILKINS ENGINEERING  
 Post Office Box 31446  
 Raleigh, NC 27621  
 919.712.3540  
 wilkinsengr@aol.com

ORIANA PLAN  
 DO-4218

Sheet No.

53

GENERAL NOTES:

- THIS PLAN IS DESIGNED IN ACCORDANCE WITH THE NORTH CAROLINA RESIDENTIAL BUILDING CODE, 2018 EDITION.
- WALL CLADDING IS DESIGNED FOR A POSITIVE/NEGATIVE PRESSURE OF NOT LESS THAN 241 PSF.
- ROOF CLADDING DESIGN VALUES (POSITIVE/NEGATIVE) SHALL BE AS FOLLOWS:
  - 45.5 PSF FOR ROOF PITCHES FROM 0/12 TO 2.25/12
  - 34.5 PSF FOR ROOF PITCHES FROM 2.25/12 TO 1/12
  - 21.0 PSF FOR ROOF PITCHES FROM 1/12 TO 0/12
 MEAN ROOF HEIGHT FOR THIS STRUCTURE IS 10'.
- ALL WALLS, CEILINGS, AND FLOORS SHALL BE INSULATED IN ACCORDANCE WITH PART IV, ENERGY CONSERVATION, CHAPTER 11, ENERGY EFFICIENCY OF THE CODE FOR ZONE 4I (TABLE 1102.1).
- DESIGN CRITERIA IS AS FOLLOWS:
 

PRIMARY FLOOR	DEAD LOAD (PSF)	LIVE LOAD (PSF)
PRIMARY FLOOR	10	40
SECONDARY FLOOR	10	40
SLEEPING AREAS	10	40
ATTIC (W/ STAIRS)	10	30
ATTIC (W/O STAIRS)	10	20
ROOF	10	20

 WIND LOADING IS BASED ON 3 SECOND GUST OF 115 MILES PER HOUR. LIVE LOAD DEFLECTION LIMITS (LIVE LOAD) ARE L/360 FOR FLOORS, L/240 FOR ROOF.
- ALL HEADERS IN LOAD BEARING WALL SHALL BE 2"x 10" UNLESS NOTED OTHERWISE. FULL HEIGHT KING STUDS SHALL BE INSTALLED ON EACH SIDE OF EXTERIOR WALL. HEADERS AND BEAMS AS FOLLOWS:
 

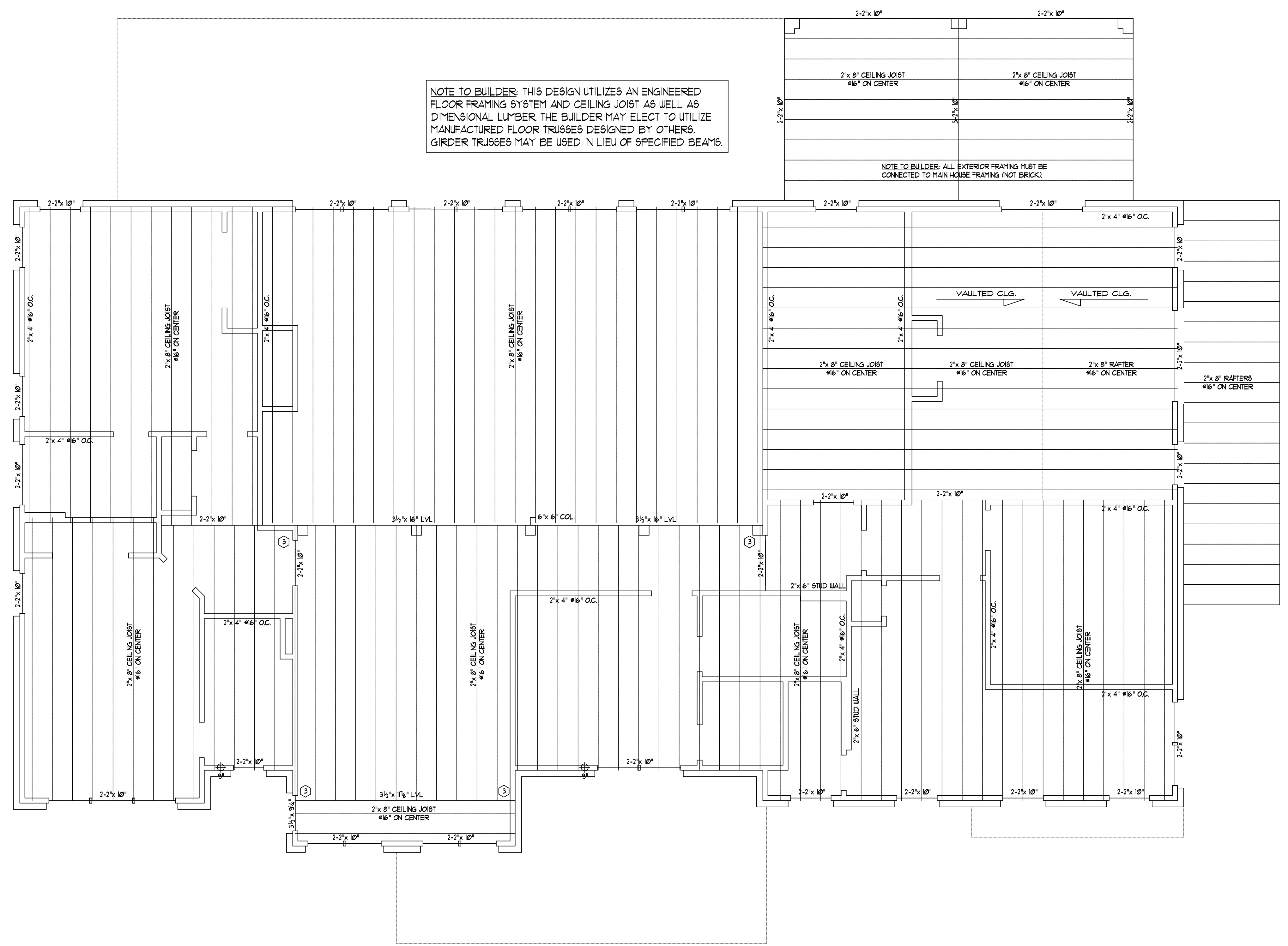
HEADER SPAN	STUDS @ 16" O.C.	STUDS @ 24" O.C.
3'-0"	1	1
4'-0"	2	1
5'-0"	3	2
12'-0"	5	3
16'-0"	6	4
- ALL LUMBER USED FOR JOISTS AND RAFTERS SHALL BE #2 SFF OR BETTER LUMBER. USED FOR STUD WALL SHALL BE #3 SFF OR BETTER.

- LVL SHALL BE LAMINATED VENEER LUMBER OR PARALLEL STRAND LUMBER WITH THE FOLLOWING MINIMUM PROPERTIES: Fb+2800 PSI, Fv+285 PSI, E+2,000,000 PSI. MULTIPLE LVL PLIES CAN BE USED TO ACHIEVE THE SPECIFIED SIZE SHOWN ON THESE PLANS AND IS CONSIDERED TO BE STRUCTURALLY EQUIVALENT.
- THE FOLLOWING SHALL APPLY TO ALL BRACED WALL LINES: ALL EXTERIOR WALLS SHALL BE CONTINUOUSLY SHEATHED WITH 1/2" OSB OR CDX USFP SHALL BE IN ACCORDANCE WITH R-50/103 AND SHALL BE COVERED WITH 1/2" GYPSUM BOARD ON THE INTERIOR FACE. ALL USFP PANELS SHALL BE FASTENED WITH 8d NAILS AT 12" ON CENTER (FIELD) AND 6" ON CENTER (EDGES). ALL EXTERIOR WALLS SHALL BE 2"x 4" AT 16" ON CENTER AS A MINIMUM (EXCEPT FOR BALLOON FRAMED WALL SECTIONS AS NOTED) AND CONTINUOUSLY SHEATHED.

STRUCTURAL EVALUATION BY:

WILKINS ENGINEERING, P.C.  
 Post Office Box 37446  
 Raleigh, North Carolina 27627  
 FILE: ORIANA  
 8/7/2023

"THE ENGINEER'S SEAL AND SIGNATURE APPLY ONLY TO THE STRUCTURAL ELEMENTS OF THIS DOCUMENT. ENGINEER'S APPROVAL DOES NOT INCLUDE CONSTRUCTION REVIEW, MEANS, METHODS, TECHNIQUES OR SEQUENCES OF CONSTRUCTION OR SAFETY REQUIREMENTS. THE CONTRACTOR IS REQUIRED TO ENSURE PROPER SAFETY PRECAUTIONS."  
 "ANY DEVIATIONS OR DISCREPANCIES IN THESE DRAWINGS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND FAILURE TO DO SO WILL VOID THE ENGINEER'S LIABILITY. CHANGES TO THE DESIGN ARE ONLY ALLOWED WITH THE WRITTEN APPROVAL OF THE ENGINEER."  
 "DO NOT SCALE THESE DRAWINGS. ENGINEERING APPROVAL EXPIRES IN ONE YEAR."



SECOND FLOOR PLAN

Scale: 1/4" = 1'-0"

DO NOT SCALE THESE DRAWINGS. ALL DIMENSIONS AND SITE DIMENSIONS ARE TO BE TAKEN FROM THESE DRAWINGS. ANY DISCREPANCIES OR OMISSIONS NOTED BY THE BUILDER AGREES TO NOTIFY THE ENGINEER IMMEDIATELY. THESE DRAWINGS APPLY TO STRUCTURAL ELEMENTS ONLY. COMPLIANCE OF NON-STRUCTURAL ITEMS.

COPYRIGHT 2020 WILKINS ENGINEERING, P.C. THESE DRAWINGS ARE PROTECTED UNDER FEDERAL COPYRIGHT LAWS. NO PART OF THESE DRAWINGS IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. PERMISSION IS EXPRESSLY FORBIDDEN.

WILKINS ENGINEERING  
 Post Office Box 37446  
 Raleigh, NC 27627  
 919.772.3540  
 wilkinsengr@aol.com

ORIANA PLAN  
 DO-4218

Sheet No.

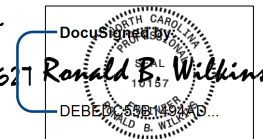
54

GENERAL ROOF NOTES:

1. THIS PLAN DESIGNED IN ACCORDANCE WITH THE NORTH CAROLINA RESIDENTIAL BUILDING CODE, 2018 EDITION.
2. ROOF CLADDING DESIGN VALUES (POSITIVE/NEGATIVE) SHALL BE AS FOLLOWS:  
45.5 PSF FOR ROOF PITCHES FROM 0/12 TO 2/12  
34.5 PSF FOR ROOF PITCHES FROM 2/12 TO 1/12  
21.0 PSF FOR ROOF PITCHES FROM 1/12 TO 0/12  
MEAN ROOF HEIGHT FOR THIS STRUCTURE IS 18'
3. ALL ROOFING ELEMENTS SHALL MEET THE REQUIREMENTS OF CHAPTER 8 OF THE BUILDING CODE.
4. ALL LUMBER SHALL BE #2 SYP, SYP, OR BETTER.
5. THIS ROOF AND STRUCTURE ARE DESIGNED FOR A DESIGN WIND SPEED OF 115 MPH.
6. ROOF TRUSSES (IF USED) SHALL BE DESIGNED BY THE MANUFACTURER AND THE ANALYSIS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

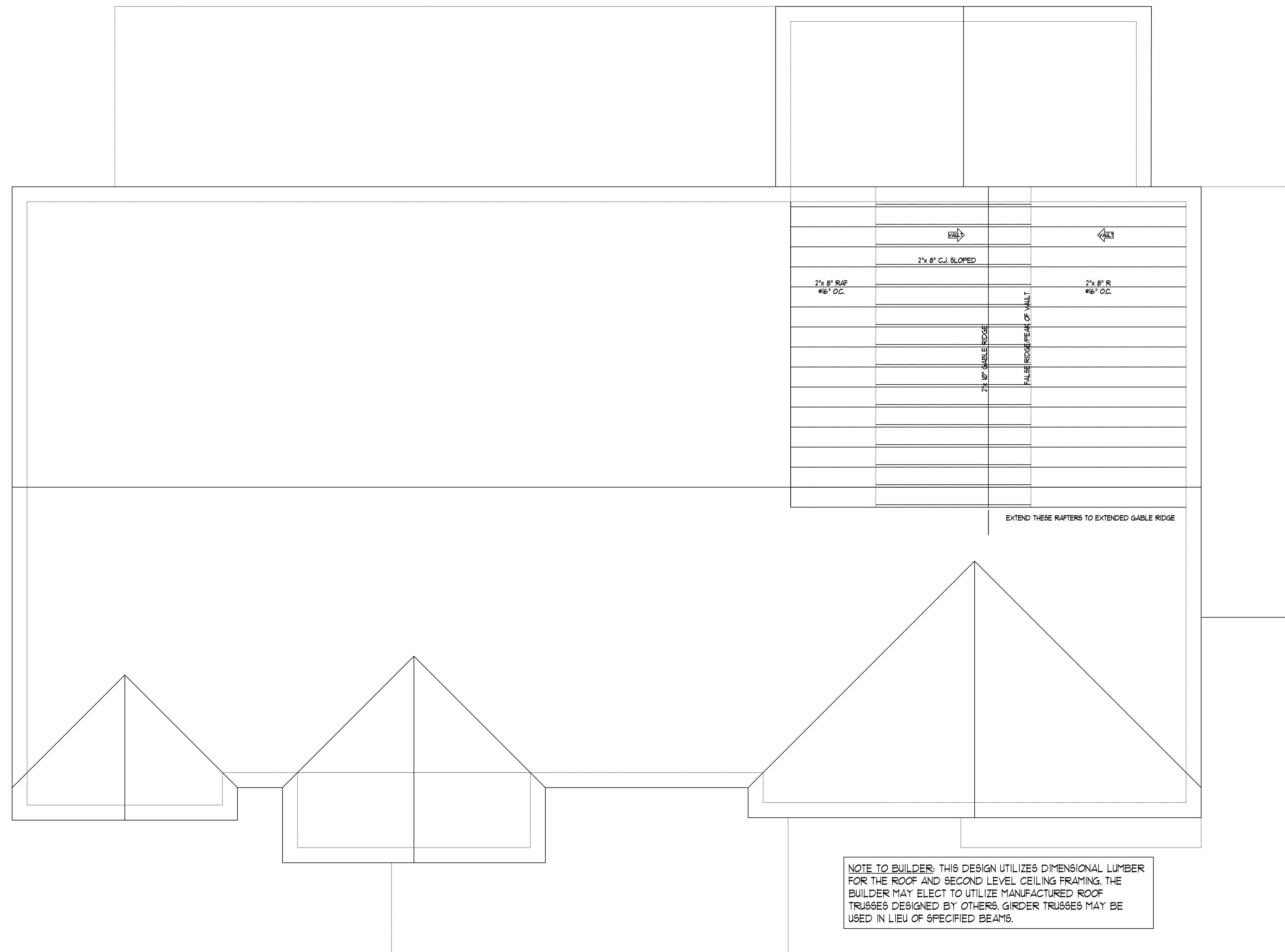
STRUCTURAL EVALUATION BY:

WILKINS ENGINEERING, P.C.  
Post Office Box 31446  
Raleigh, North Carolina 27621



FILE: ORIANA  
8/7/2023

THE ENGINEER'S SEAL AND SIGNATURE APPLY ONLY TO THE STRUCTURAL ELEMENTS OF THIS DOCUMENT. ENGINEER'S APPROVAL DOES NOT INCLUDE CONSTRUCTION REVIEW, MEANS, METHODS, TECHNIQUES OR SEQUENCES OF CONSTRUCTION OR SAFETY REQUIREMENTS. THE CONTRACTOR IS REQUIRED TO ENSURE PROPER SAFETY PRECAUTIONS.  
ANY DEVIATIONS OR DISCREPANCIES IN THESE DRAWINGS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND FAILURE TO DO SO WILL VOID THE ENGINEER'S LIABILITY. CHANGES TO THE DESIGN ARE ONLY ALLOWED WITH THE WRITTEN APPROVAL OF THE ENGINEER.  
DO NOT SCALE THESE DRAWINGS. ENGINEERING APPROVAL EXPIRES IN ONE YEAR.



NOTE TO BUILDER: THIS DESIGN UTILIZES DIMENSIONAL LUMBER FOR THE ROOF AND SECOND LEVEL CEILING FRAMING. THE BUILDER MAY ELECT TO UTILIZE MANUFACTURED ROOF TRUSSES DESIGNED BY OTHERS. GIRDER TRUSSES MAY BE USED IN LIEU OF SPECIFIED BEAMS.

ROOF FRAMING PLAN-STAGE 1

Scale: 1/4" = 1'-0"

DO NOT SCALE THESE DRAWINGS.  
ALL DIMENSIONS AND SITE OVERLAYS ARE TO BE VERIFIED BEFORE CONSTRUCTION BEGINS. SHOULD ANY DISCREPANCIES OR OMISSIONS BE NOTED, THE BUILDER AGREES TO NOTIFY THE ENGINEER IMMEDIATELY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR CODE COMPLIANCE OF NON-STRUCTURAL ITEMS.

COPYRIGHT 2020 WILKINS ENGINEERING, P.C.  
THESE DRAWINGS ARE PROTECTED UNDER FEDERAL COPYRIGHT LAWS. THE ORIGINAL PURCHASER OF THESE DRAWINGS IS LICENSED TO USE THE PLANS FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED. ANY REUSE OR REPRODUCTION WITHOUT THE WRITTEN CONSENT OF THE ENGINEER IS EXPRESSLY PROHIBITED.

WILKINS ENGINEERING  
Post Office Box 31446  
Raleigh, NC 27621  
919.772.3540  
wilkinsong@aol.com

ORIANA PLAN  
DO-4218

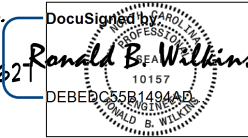
Sheet No.  
55 of 51

GENERAL ROOF NOTES:

1. THIS PLAN DESIGNED IN ACCORDANCE WITH THE NORTH CAROLINA RESIDENTIAL BUILDING CODE, 2018 EDITION.
2. ROOF CLADDING DESIGN VALUES (POSITIVE/NEGATIVE) SHALL BE AS FOLLOWS:  
45.5 PSF FOR ROOF PITCHES FROM 0/12 TO 225/12  
34.5 PSF FOR ROOF PITCHES FROM 225/12 TO 1/12  
21.0 PSF FOR ROOF PITCHES FROM 1/12 TO 12/12  
MEAN ROOF HEIGHT FOR THIS STRUCTURE IS 18'
3. ALL ROOFING ELEMENTS SHALL MEET THE REQUIREMENTS OF CHAPTER 8 OF THE BUILDING CODE.
4. ALL LUMBER SHALL BE #2 SPF, SYP, OR BETTER.
5. THIS ROOF AND STRUCTURE ARE DESIGNED FOR A DESIGN WIND SPEED OF 115 MPH.
6. ROOF TRUSSES (IF USED) SHALL BE DESIGNED BY THE MANUFACTURER AND THE ANALYSIS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

STRUCTURAL EVALUATION BY:

WILKINS ENGINEERING, P.C.  
Post Office Box 31449  
Raleigh, North Carolina 27621



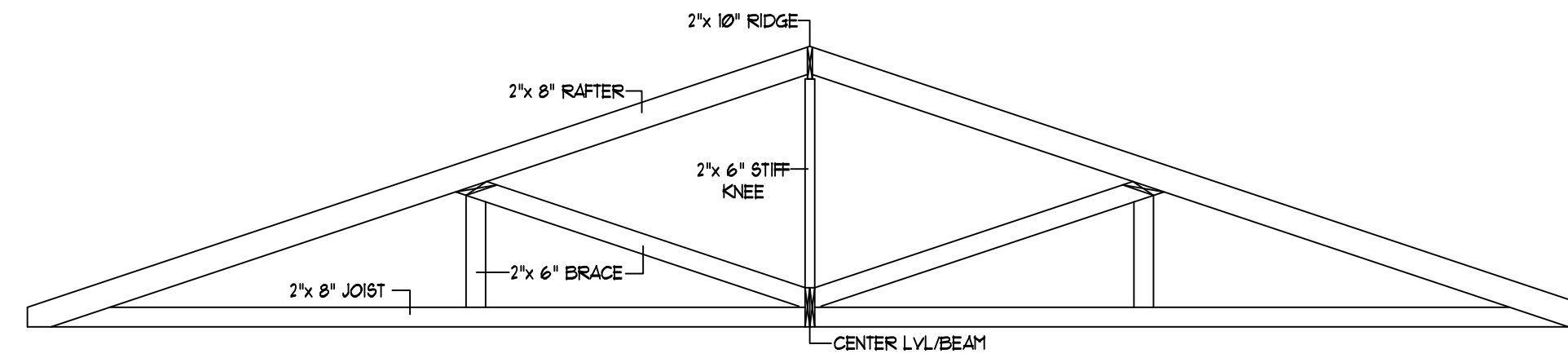
FILE: ORIANA

8/7/2023

THE ENGINEER'S SEAL AND SIGNATURE APPLY ONLY TO THE STRUCTURAL ELEMENTS OF THIS DOCUMENT. ENGINEER'S APPROVAL DOES NOT INCLUDE CONSTRUCTION REVIEW, MEANS, METHODS, TECHNIQUES OR SEQUENCES OF CONSTRUCTION OR SAFETY REQUIREMENTS. THE CONTRACTOR IS REQUIRED TO ENSURE PROPER SAFETY PRECAUTIONS.

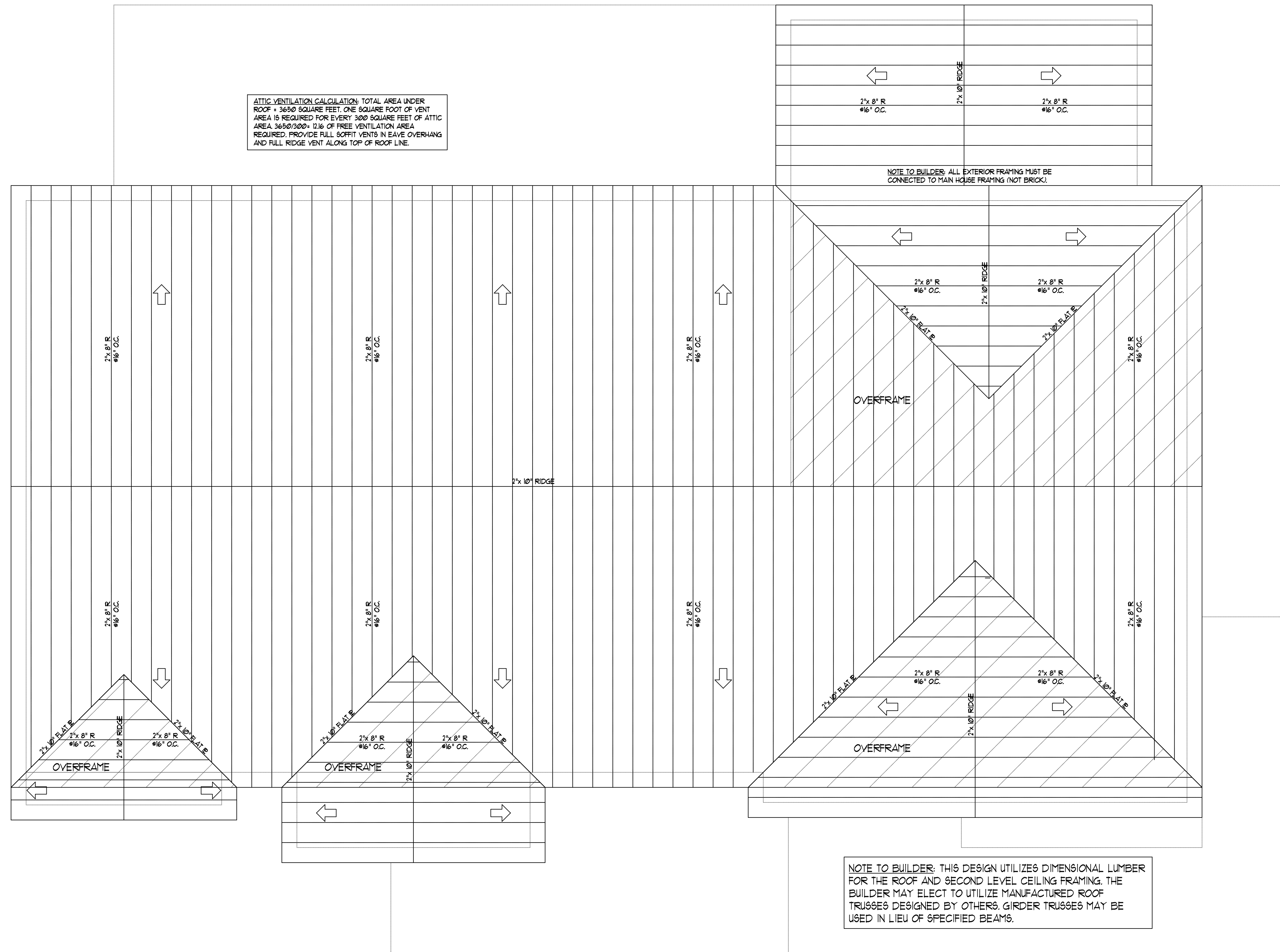
ANY DEVIATIONS OR DISCREPANCIES IN THESE DRAWINGS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND FAILURE TO DO SO WILL VOID THE ENGINEER'S LIABILITY. CHANGES TO THE DESIGN ARE ONLY ALLOWED WITH THE WRITTEN APPROVAL OF THE ENGINEER.

DO NOT SCALE THESE DRAWINGS. ENGINEERING APPROVAL EXPIRES IN ONE YEAR.



MAIN ROOF FRAMING DETAIL

Not to Scale



ATTIC VENTILATION CALCULATION: TOTAL AREA UNDER ROOF = 3650 SQUARE FEET. ONE SQUARE FOOT OF VENT AREA IS REQUIRED FOR EVERY 3000 SQUARE FEET OF ATTIC AREA. 3650/3000 = 1.216 OF FREE VENTILATION AREA REQUIRED. PROVIDE FULL SOFFIT VENTS IN EAVE OVERHANG AND FULL RIDGE VENT ALONG TOP OF ROOF LINE.

NOTE TO BUILDER: ALL EXTERIOR FRAMING MUST BE CONNECTED TO MAIN HOUSE FRAMING (NOT BRICK).

NOTE TO BUILDER: THIS DESIGN UTILIZES DIMENSIONAL LUMBER FOR THE ROOF AND SECOND LEVEL CEILING FRAMING. THE BUILDER MAY ELECT TO UTILIZE MANUFACTURED ROOF TRUSSES DESIGNED BY OTHERS. GIRDER TRUSSES MAY BE USED IN LIEU OF SPECIFIED BEAMS.

ROOF FRAMING PLAN-STAGE 2

Scale: 1/4" = 1'-0"

DO NOT SCALE THESE DRAWINGS. ALL DIMENSIONS AND SITE DIMENSIONS ARE TO BE VERIFIED BEFORE CONSTRUCTION BEGINS. SHOULD ANY DISCREPANCIES OR INCONSISTENCIES BE IDENTIFIED, THESE DRAWINGS APPLY TO STRUCTURAL ELEMENTS ONLY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR CODE COMPLIANCE OF NON-STRUCTURAL ITEMS.

COPYRIGHT 2020 WILKINS ENGINEERING, P.C. THESE DRAWINGS ARE PROTECTED UNDER FEDERAL COPYRIGHT LAWS. THE ORIGINAL PURCHASER OF THESE DRAWINGS IS THE ONLY PARTY AUTHORIZED FOR THE CONSTRUCTION OF ONE AND ONLY ONE SINGLE FAMILY HOME. REPRODUCTION, MODIFICATION, OR REUSE OF THESE DRAWINGS WITHOUT THE WRITTEN CONSENT OF THE ENGINEER IS EXPRESSLY PROHIBITED.

WILKINS ENGINEERING  
Post Office Box 31446  
Raleigh, NC 27621  
wilkinsengr@aol.com  
919.712.3540

ORIANA PLAN  
DO-4218

Sheet No.

ST