

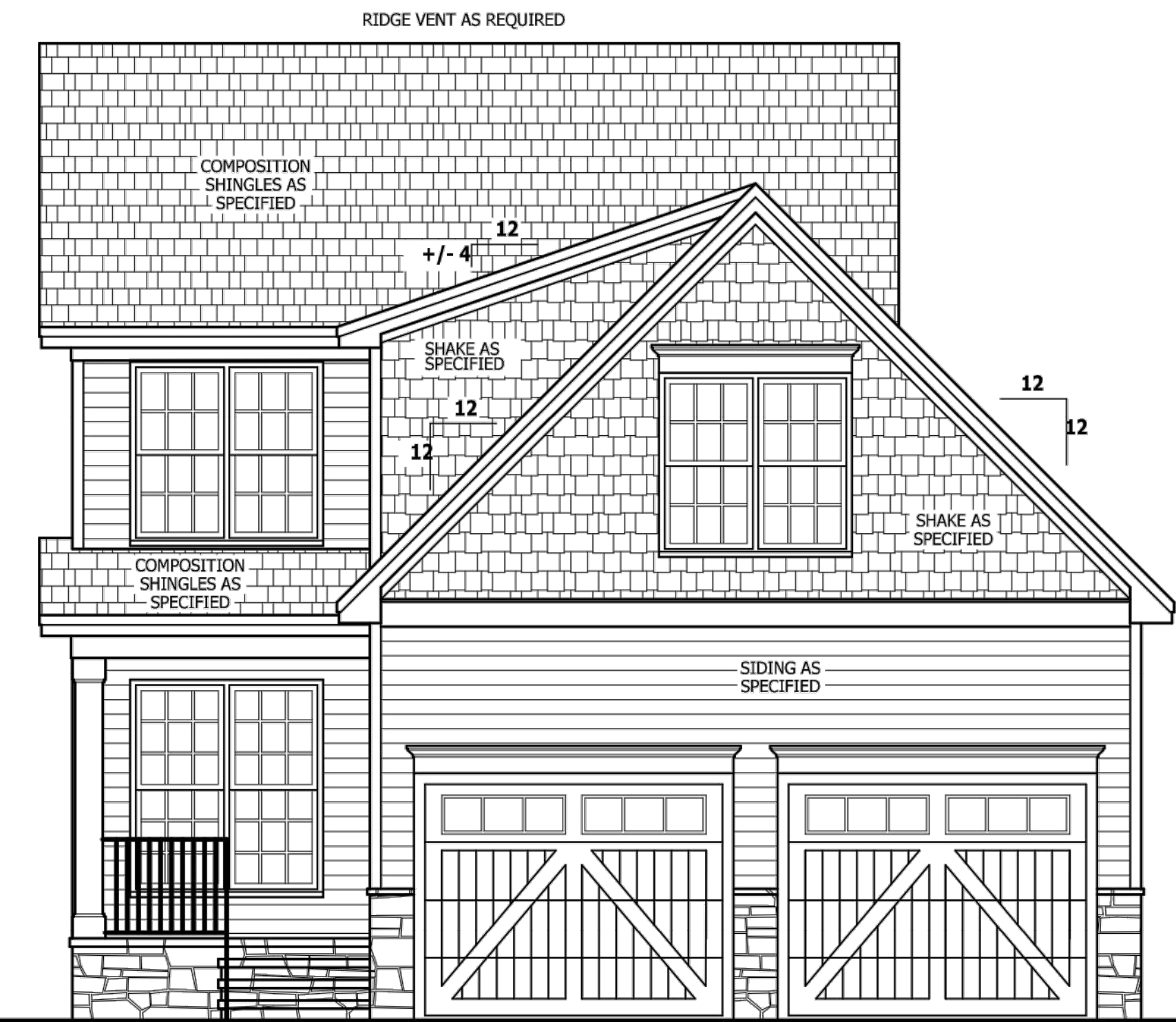
BUILD PER PLAN

Watson II Elv A- Right Hand Garage-Slab



RIGHT SIDE ELEVATION

SCALE 1/4" = 1'-0"

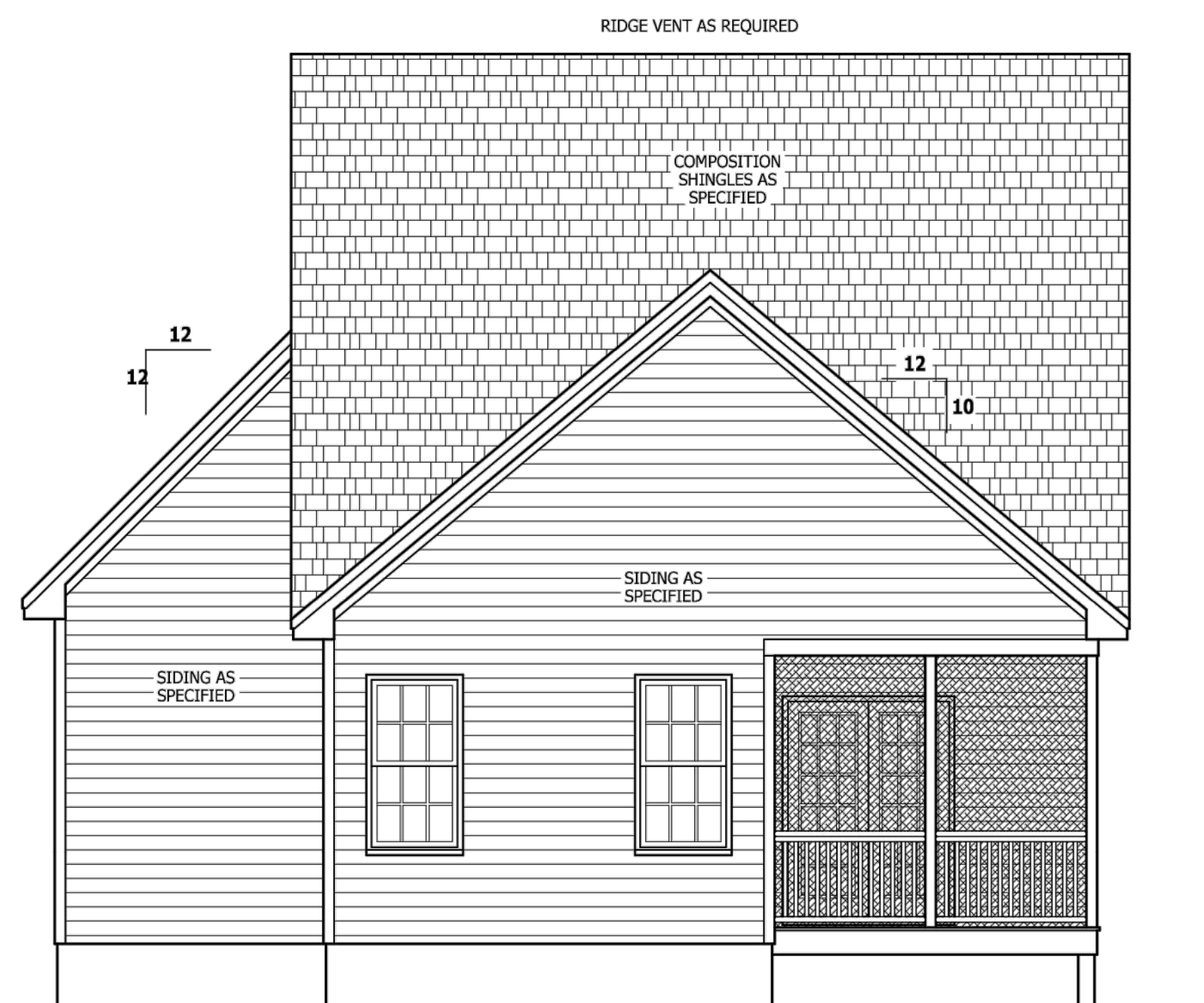


FRONT ELEVATION - A

SCALE 1/4" = 1'-0"

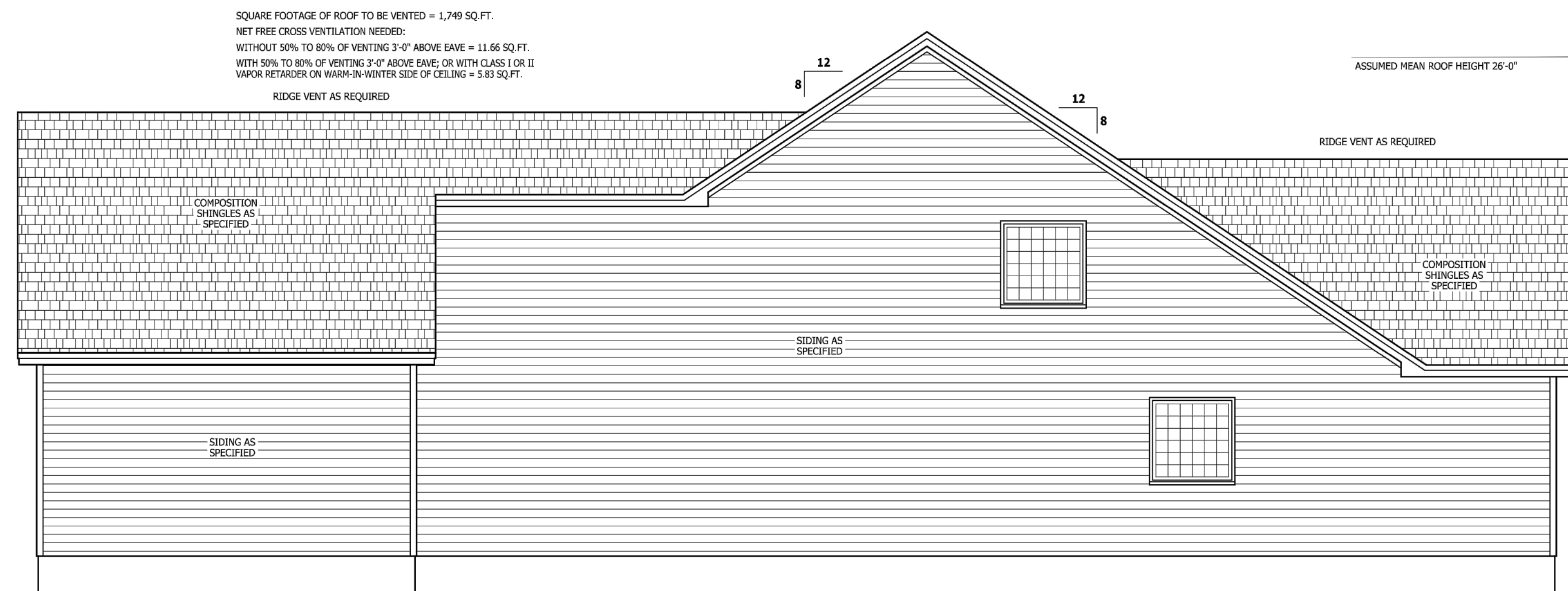
SQUARE FOOTAGE

| HEATED | |
|--------------|--------------|
| FIRST FLOOR | 1180 SQ. FT. |
| SECOND FLOOR | 834 SQ. FT. |
| PLAYROOM | 263 SQ. FT. |
| TOTAL | 2277 SQ. FT. |
| UNHEATED | |
| GARAGE | 462 SQ. FT. |
| FRONT PORCH | 45 SQ. FT. |
| REAR PORCH | 129 SQ. FT. |
| TOTAL | 636 SQ. FT. |



REAR ELEVATION

SCALE 1/4" = 1'-0"



LEFT SIDE ELEVATION

SCALE 1/4" = 1'-0"

PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS. HAYNES HOME PLANS, INC. ASSUMES NO LIABILITY FOR CONTRACTOR PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCATION. A LOCAL DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION. THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

**THE WATSON II
ELEVATION - A**

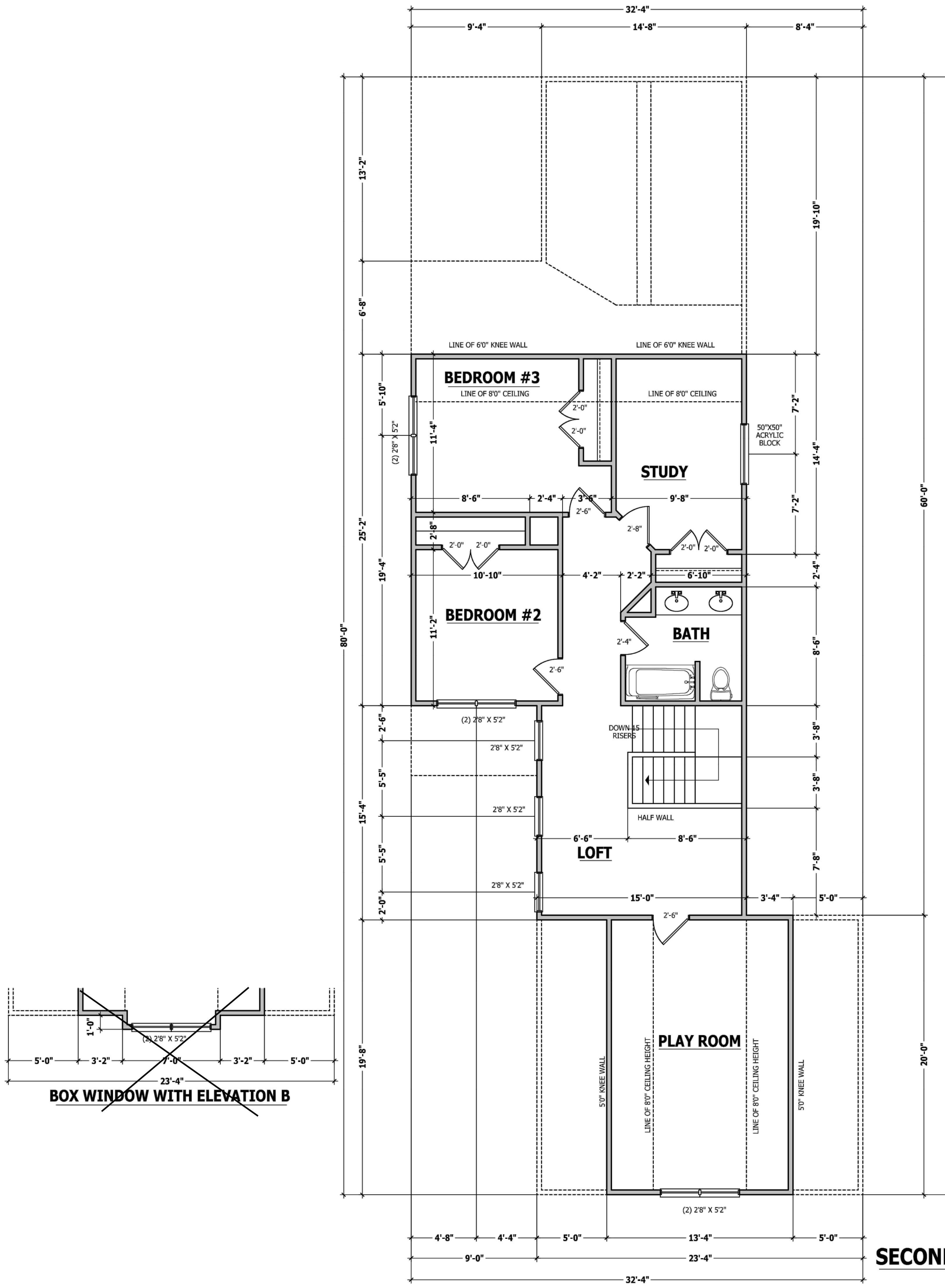
WYNN CONSTRUCTION, INC.
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CREEDMOOR, NC 27522

**HAYNES
HOME PLANS, INC.**
P.O. Box 702, Wake Forest, NC 27588 919-435-6180 Fax 1-866-691-0386



| SQUARE FOOTAGE | |
|----------------|--------------|
| HEATED | |
| FIRST FLOOR | 1180 SQ. FT. |
| SECOND FLOOR | 834 SQ. FT. |
| PLAYROOM | 263 SQ. FT. |
| TOTAL | 2277 SQ. FT. |
| UNHEATED | |
| GARAGE | 462 SQ. FT. |
| FRONT PORCH | 45 SQ. FT. |
| REAR PORCH | 129 SQ. FT. |
| TOTAL | 636 SQ. FT. |

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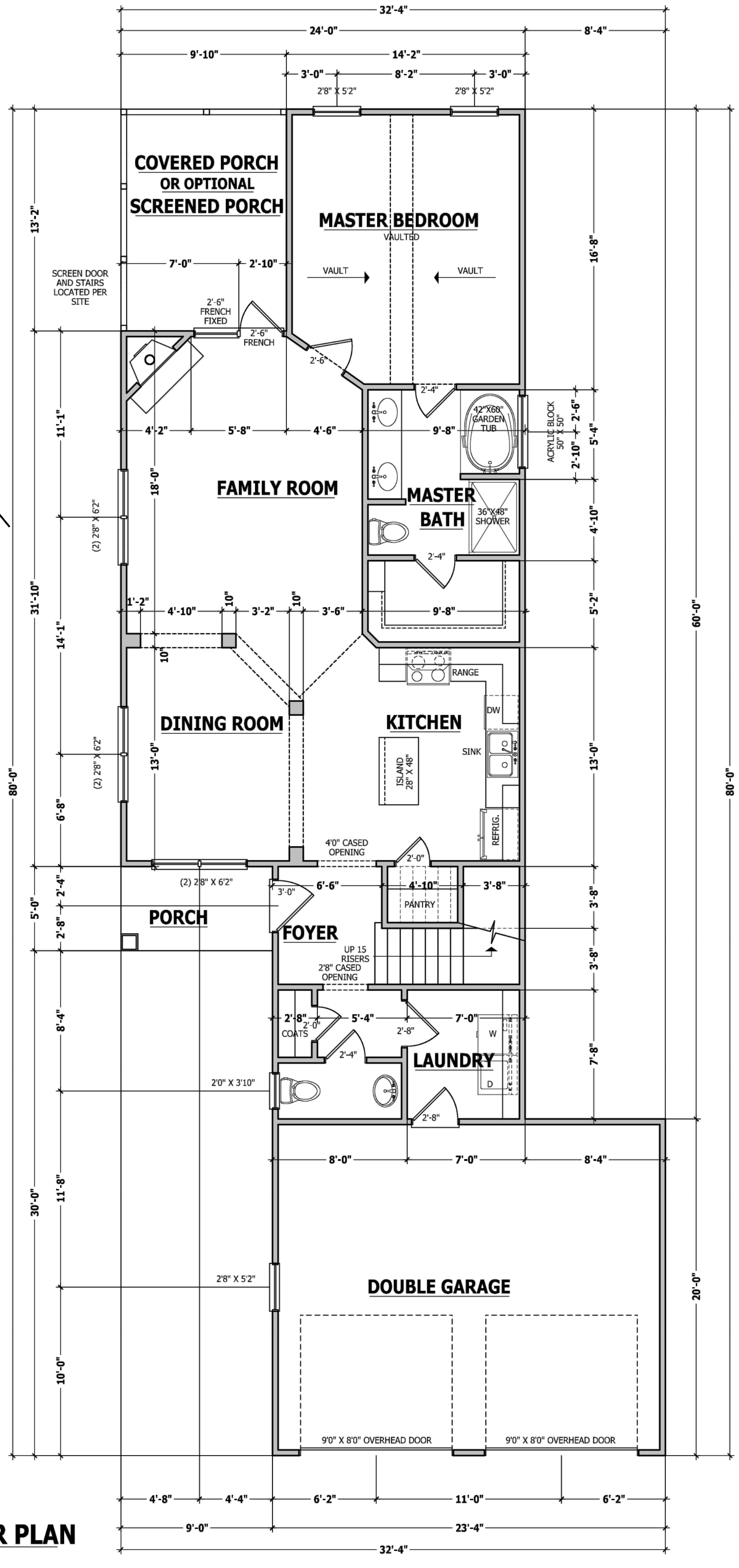


SQUARE FOOTAGE

| HEATED | |
|--------------|--------------|
| FIRST FLOOR | 1180 SQ. FT. |
| SECOND FLOOR | 834 SQ. FT. |
| PLAYROOM | 263 SQ. FT. |
| TOTAL | 2277 SQ. FT. |

| UNHEATED | |
|-------------|-------------|
| GARAGE | 462 SQ. FT. |
| FRONT PORCH | 45 SQ. FT. |
| REAR PORCH | 129 SQ. FT. |
| TOTAL | 636 SQ. FT. |

SECOND FLOOR PLAN SCALE 1/4" = 1'-0"
FIRST FLOOR PLAN SCALE 1/4" = 1'-0"



PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS. HAYNES HOME PLANS, INC. ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCALITY. A LOCAL DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION. THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

THE WATSON II
FIRST AND SECOND FLOOR PLANS

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| SQUARE FOOTAGE | |
|----------------|--------------|
| HEATED | |
| FIRST FLOOR | 1180 SQ. FT. |
| SECOND FLOOR | 834 SQ. FT. |
| PLAYROOM | 263 SQ. FT. |
| TOTAL | 2277 SQ. FT. |
| UNHEATED | |
| GARAGE | 462 SQ. FT. |
| FRONT PORCH | 45 SQ. FT. |
| REAR PORCH | 129 SQ. FT. |
| TOTAL | 636 SQ. FT. |

PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS. HAYNES HOME PLANS, INC. ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCATION. A LOCAL DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION. THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

**THE WATSON II
STRUCTURAL PLANS**

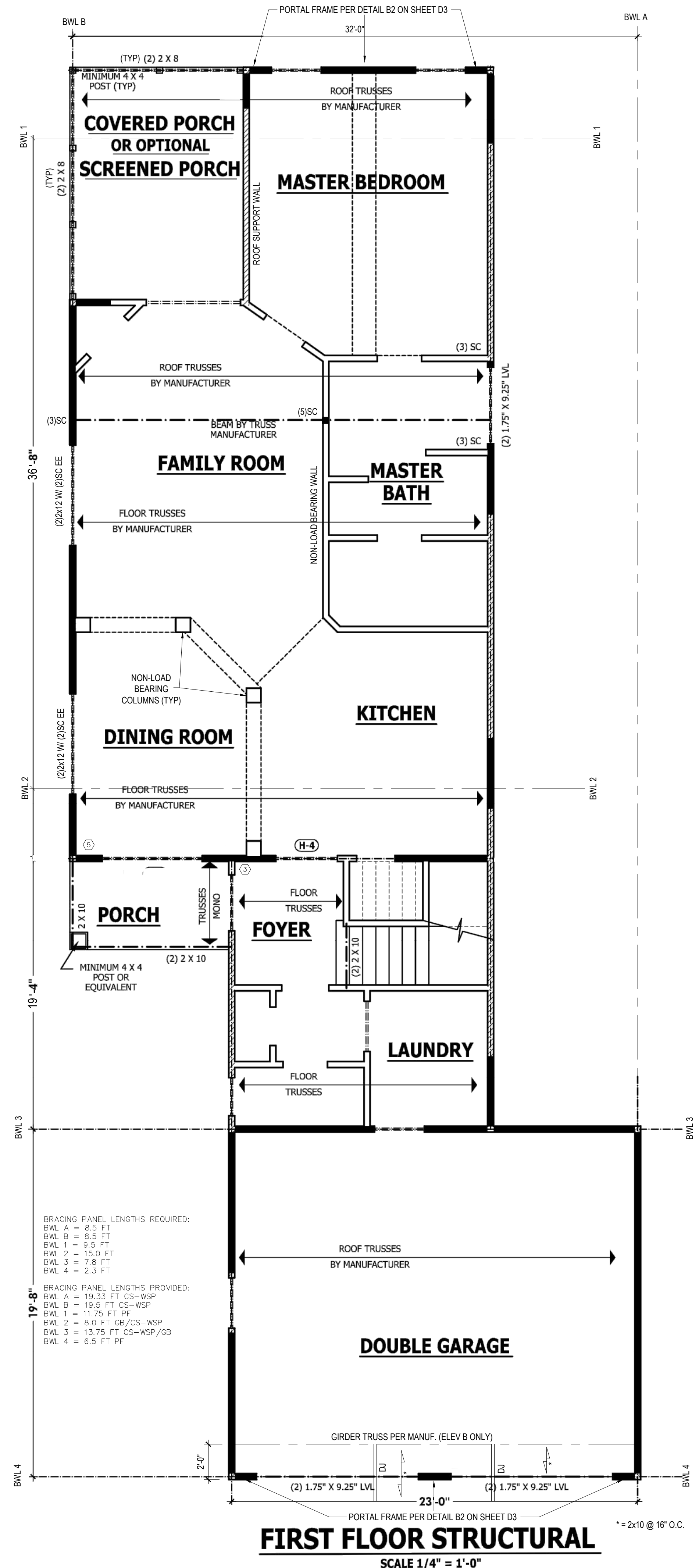
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SQUARE FOOTAGE

| | |
|--------------|--------------|
| HEATED | 1180 SQ. FT. |
| FIRST FLOOR | 894 SQ. FT. |
| SECOND FLOOR | 286 SQ. FT. |
| PLANTING | 2777 SQ. FT. |
| UNHEATED | |
| GARAGE | 462 SQ. FT. |
| FRONT PORCH | 45 SQ. FT. |
| REAR PORCH | 129 SQ. FT. |
| TOTAL | 636 SQ. FT. |

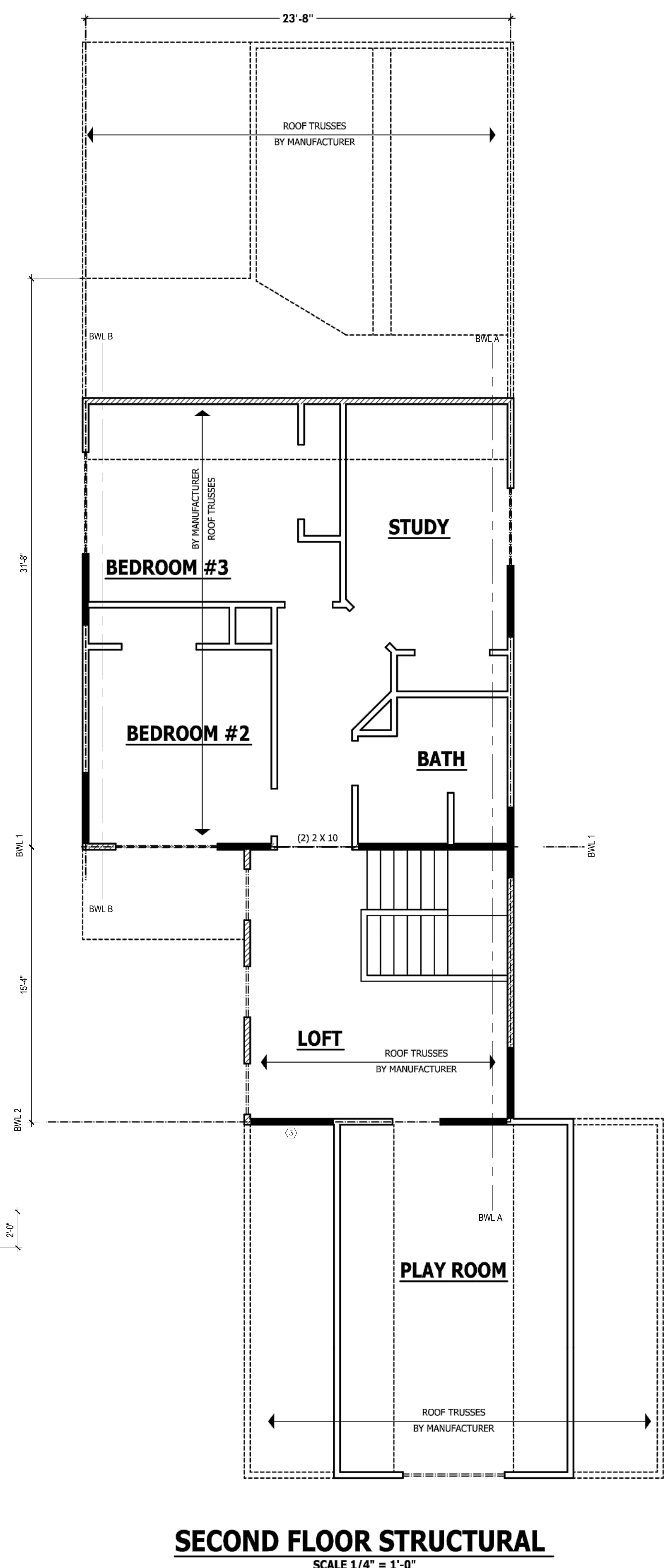


DESIGN LOADS

| FLOOR (or ROOF) | LIVE LOAD (PSF) | DEAD LOAD (PSF) | DEFLECTION (LL / TL) |
|--------------------|---------------------------------|-----------------|----------------------|
| FLOOR (Living) | 40 | 10 | L/240 L/240 |
| FLOOR (Balcony) | 40 | 10 | L/240 L/240 |
| ATRIC (w/ storage) | 20 | 10 | L/240 L/180 |
| ATRIC (no storage) | 10 | 10 | L/240 L/180 |
| EXTERNAL BALCONY | 40 | 10 | L/240 L/240 |
| ROOF | 20 | 10 | L/240 L/180 |
| ROOF TRUSS | 20 | 20 | L/240 L/180 |
| WIND LOAD | BASED ON 120 MPH (EXPOSURE B) | | |
| SEISMIC | BASED ON SEISMIC ZONES A, B & C | | |

- STRUCTURAL NOTES:**
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE", IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, P.A. IS NOT RESPONSIBLE FOR DIMENSIONS AND SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.
 - ALL LUMBER SHALL BE SYP #2 (UNO). ALL LVL LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND F_b = 2600 PSI, E = 1.9M PSI (I.E. LEVEL MICROLAM).
 - ALL LVL LUMBER IS TO BE 1.55E (F_b = 2325 PSI).
 - ALL LOAD BEARING EXTERIOR WINDOW HEADERS WITH MAXIMUM SPAN OF 5'-6" SHOULD BE A (2) 2x10 w/ (1) 2x4 KING STUD AND (1) 2x4 JACK STUD NAILED TOGETHER w/ (2) 10# @ 8" O.C. PROVIDED THAT THE TOP OF THE WINDOW HEIGHT IS 6'-6", MINIMUM BOTTOM OF THE WINDOW HEIGHT IS 1'-6", OTHERWISE REFER TO TABLE R602.7(1).
 - ALL INTERIOR LOAD BEARING HEADERS TO BE (2) 2x10 (UNO.) REFER TO TABLE R602.7(2) FOR JACK STUD REQUIREMENTS FOR HEADER SPANS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS (UNO).
 - REFER TO 2018 NC BUILDING CODE SECTION R602 FOR CONSTRUCTION OF ALL WALLS OVER 10'-0" IN HEIGHT.
 - ALL STRUCTURAL STEEL SHALL BE ASTM A992 GRADE 50 F_y = 50 KSI MIN. (UNO).
 - ALL EXTERIOR LUMBER TO BE #2 SYP PT.
 - ALL CONCRETE, f_c = 3000 PSI MIN.
 - PRESUMPTIVE BEARING CAPACITY = 2000 PSF
 - 1/2" ANCHOR BOLTS SPACED AT MAXIMUM OF 6'-0" O.C. AND NOT MORE THAN 12" FROM THE CORNER. THERE SHALL BE A MINIMUM OF (2) BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3'-0" O.C. FOR BASEMENTS. ANCHOR BOLT SHALL EXTEND 7" INTO CONCRETE OR MASONRY.
 - PSL COLLARS DESIGNED WITH MAX. HEIGHT OF 9'-0" (UNO) PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS (UNO).
 - PROVIDE CONTINUOUS SHEATHING PER SECTION R602.10.4 OF THE 2018 IRC.
 - MAXIMUM MASONRY RIER HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST HORIZONTAL DIMENSION.
 - UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION.
 - METAL HANGERS SHALL BE SIMPSON OR APPROVED EQUAL.

- STRUCTURAL SHEATHING NOTES**
- DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR LESS.
 - WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF THE 2018 NRC.
 - BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3. REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL PANELS.
 - REFERENCE FIGURE R602.10.4.3 OF THE 2018 NRC.
 - INTERIOR BRACED WALL PANELS (BWP) INDICATED SHALL BE SHEATHED IN ACCORDANCE WITH THE GB METHOD OR WSP METHOD AS PRESCRIBED IN SECTION R602.10.1 (UNO)
 - 1/2" GYPSUM BOARD (GB) MINIMUM LENGTH OF 8'-0" (ISOLATED PANELS) OR 4'-0" (CONTINUOUS SHEATHING). SECURE w/ 50 COOLER NAILS (OR EQUAL PER TABLE R702.3.3) SPACED @ 7" O.C. AT PANEL EDGES, INCLUDING TOP AND BOTTOM PLATES & 7" O.C. AT INTERMEDIATE SUPPORTS.
 - 3/8" WOOD STRUCTURAL PANEL (WSP) SECURE w/ 6# COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.
 - EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-WSP METHOD AS PRESCRIBED IN SECTION R602.10.3 (UNO).
 - ALL SHEATHABLE SURFACES OF EXTERIOR WALLS (INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS) SHALL BE CONTINUOUSLY SHEATHED WITH WOOD STRUCTURAL PANEL (WSP) SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM 6# COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND SPACED AT 12" O.C. AT INTERMEDIATE SUPPORTS.
 - MINIMUM BRACED WALL PANEL LENGTHS WITH CS-WSP METHOD SHALL BE AS FOLLOWS:
 - 24" ADJACENT TO OPENINGS NOT MORE THAN 67% OF WALL HEIGHT
 - 30" ADJACENT TO OPENINGS GREATER THAN 67% AND LESS THAN 85% OF WALL HEIGHT
 - 48" FOR OPENINGS GREATER THAN 85% OF WALL HEIGHT
 - SHEATH INTERIOR & EXTERIOR
 - FOR CS-WSP METHOD, A MINIMUM 24" BRACED WALL PANEL CORNER RETURN SHALL BE PROVIDED AT BOTH ENDS OF A BRACED WALL LINE IN ACCORDANCE WITH FIGURE R602.10.3(4). IN LIEU OF A CORNER RETURN, EITHER A MIN. 4x4 BRACED WALL PANEL SHALL BE PROVIDED AT THE CORNER OR A HOLD-DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800# SHALL BE FASTENED TO THE EDGE OF THE BRACED WALL PANEL CLOSEST TO THE CORNER AND TO THE FOUNDATION OR FRAMING BELOW.
 - MINIMUM 800# HOLD-DOWN DEVICE

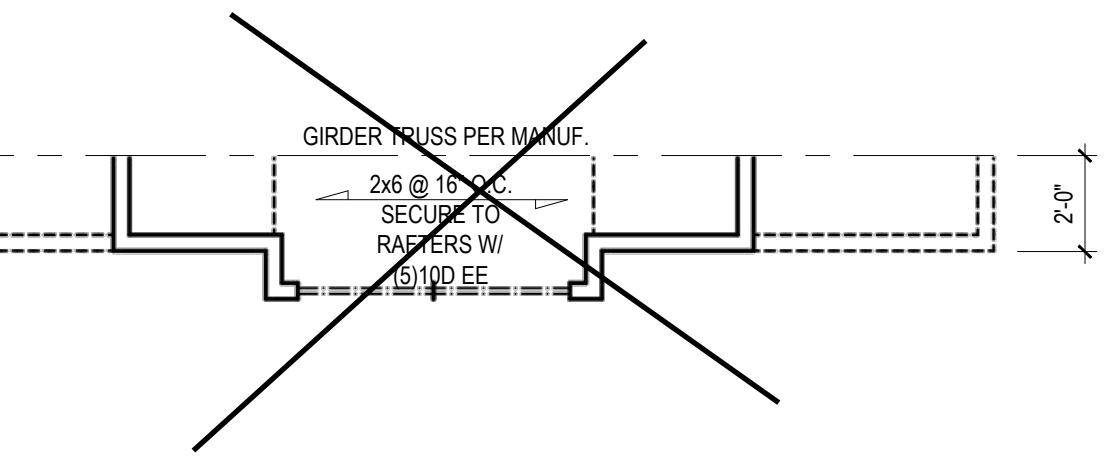


**TYNDALL
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380 Shipwash Drive • Garner • North Carolina • 27539
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Project Number: 1901-010170
*Structural analysis based on NC Residential Building Code 2018
The Engineer's seal applies only to structural components on this document. The seal does not include construction means, methods, techniques, procedures, or safety precautions. Any deviations or discrepancies on plans are to be brought to the immediate attention of Tyndall Engineering & Design, P.A. Failure to do so will void Tyndall Engineering's Liability.

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BOX WINDOW WITH ELEVATION B



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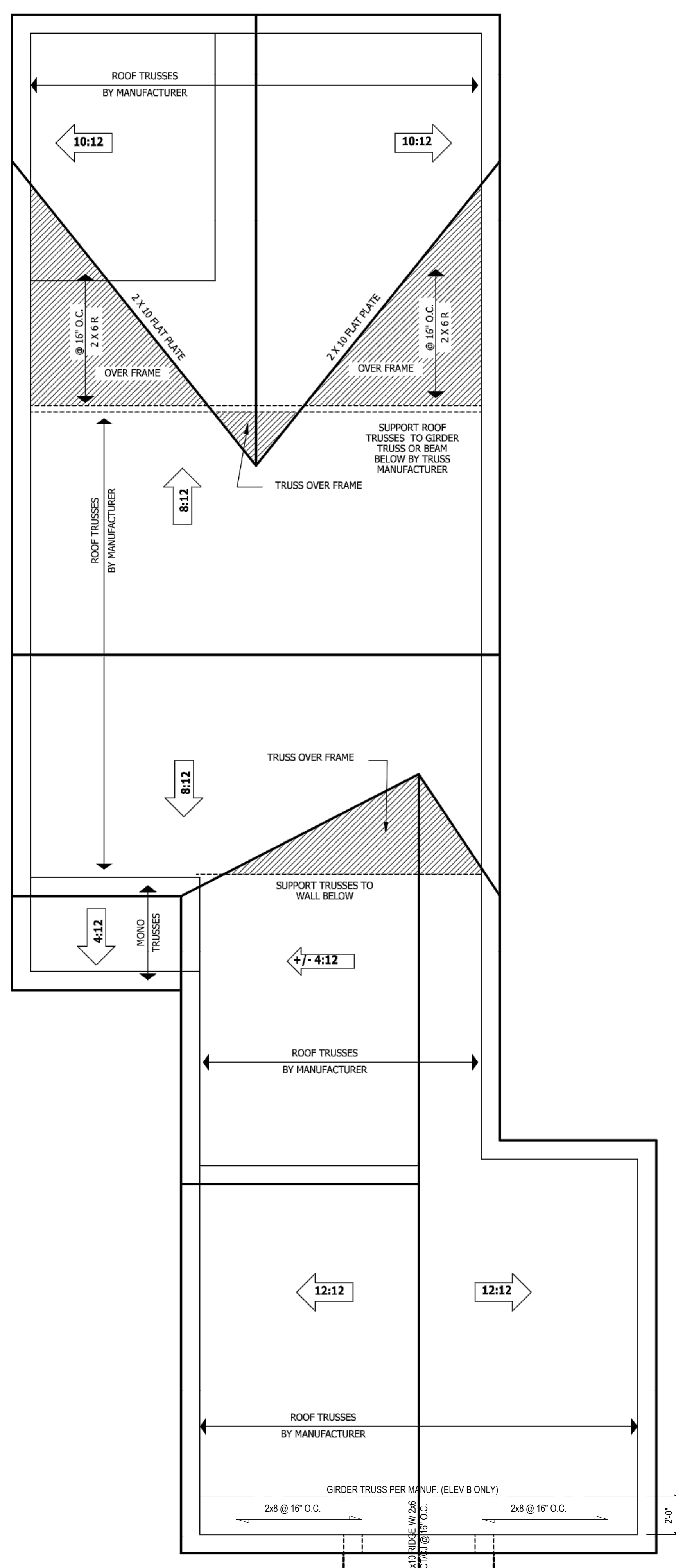
THE WATSON II ROOF PLANS

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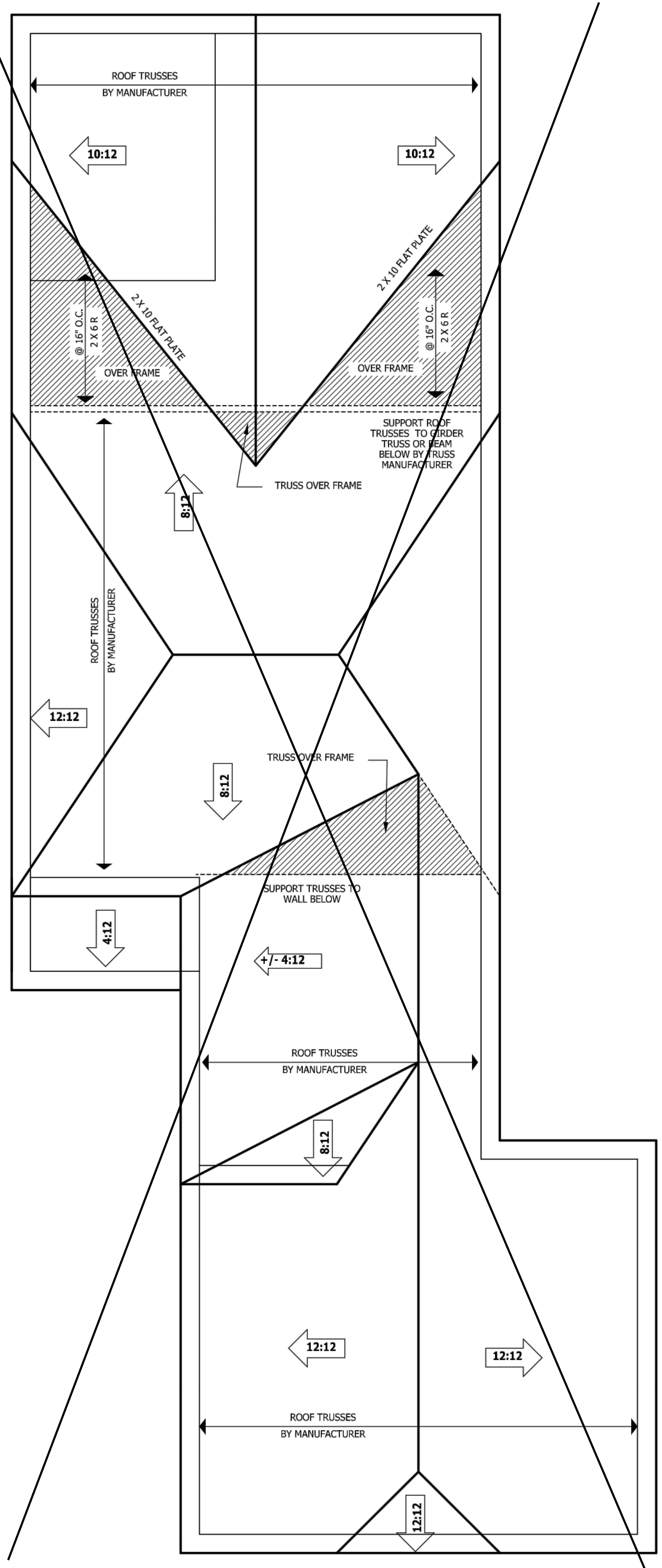


| SQUARE FOOTAGE | |
|-----------------|--------------|
| HEATED | |
| FIRST FLOOR | 1889 SQ. FT. |
| SECOND FLOOR | 894 SQ. FT. |
| PLATFORM | 283 SQ. FT. |
| TOTAL | 3066 SQ. FT. |
| UNHEATED | |
| CARAGE | 462 SQ. FT. |
| FRONT PORCH | 45 SQ. FT. |
| REAR PORCH | 129 SQ. FT. |
| TOTAL | 636 SQ. FT. |



ROOF PLAN WITH ELEVATIONS A & B

SCALE 1/4" = 1'-0"



ROOF PLAN WITH ELEVATION C

SCALE 1/4" = 1'-0"



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www.tyndallengineering.com

Project Number: 1901-010170
* Structural analysis based on NC Residential Building Code 2018
The Engineer's seal applies only to structural components on this document. The seal does not include construction means, methods, techniques, procedures, or safety precautions. Any deviations or discrepancies on plans are to be brought to the immediate attention of Tyndall Engineering & Design, P.A. Failure to do so will void Tyndall Engineering's Liability.

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STRUCTURAL NOTES

1) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE", IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.

2) DESIGN LOADS:

| | LIVE LOAD (PSF) | DEAD LOAD (PSF) | DEFLECTION | |
|---------------------------|-------------------------------|-----------------|------------|-------|
| | | | LL | TL |
| ALL FLOORS | 40 | 10 | L/360 | L/240 |
| ATTIC (w/ walk up stairs) | 30 | 10 | L/360 | L/240 |
| ATTIC (pull down access) | 20 | 10 | L/240 | L/180 |
| ATTIC (no access) | 10 | 5 | L/240 | L/180 |
| EXTERNAL BALCONY | 40 | 10 | L/360 | L/240 |
| ROOF | 20 | 10 | L/240 | L/180 |
| ROOF TRUSS | 20 | 20 | L/240 | L/180 |
| WIND LOAD | BASED ON 120 MPH (EXPOSURE B) | | | |
| SEISMIC | SEISMIC ZONES A, B & C | | | |

- 3) MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF
- 4) CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF FIVE INCHES UNLESS NOTED OTHERWISE. (U.N.O.)
- 5) MAXIMUM DEPTH OF UNBALANCED FILL AGAINST FOUNDATION WALLS TO BE LESS THAN 4'-0" WITHOUT USING SUFFICIENT WALL BRACING. REFER TO SECTION R404 OF 2018 NC BUILDING CODE FOR BACKFILL LIMITATIONS BASED ON WALL HEIGHT, WALL THICKNESS, SOIL TYPE, AND UNBALANCED BACKFILL HEIGHT.
- 6) ALL FRAMING LUMBER SHALL BE SYP #2 (Fb = 800 PSI, BASED ON 2x10) UNO. ALL FRAMING LUMBER EXPOSED TO THE ELEMENTS SHALL BE TREATED MATERIAL. ALL LVL LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2600 PSI, E = 1.9M PSI (U.N.O.) ALL LSL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2325 PSI, E = 1.6M PSI (U.N.O.) ALL PSL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2400 PSI, E = 1.8M PSI (U.N.O.)
- 7) ALL LOAD BEARING EXTERIOR HEADERS SHALL BE AT (2) 2x10. (U.N.O.) REFER TO TABLE R602.7(1) & (2) FOR JACK STUD REQUIREMENTS FOR HEADER SPANS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS UNLESS SPECIFICALLY NOTED ON PLANS.
- 8) ALL STRUCTURAL STEEL W-SHAPES (I-BEAMS) SHALL BE ASTM A992 GRADE 50. ALL STEEL ANGLES, PLATES, AND C-CHANNELS SHALL BE ASTM A36. ALL STEEL PIPE SHALL BE ASTM A53 GRADE B.
- 9) STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3'-1/2" AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO (2) LAG SCREWS (1/2" x 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDED THE JOISTS ARE TOE NAILED TO THE SOLE PLATES, AND THE SOLE PLATES ARE NAILED OR BOLTED TO THE BEAM FLANGES @ 48" O.C.
- 10) PROVIDE ANCHOR BOLT PLACEMENT PER SECTION 403.1.6: 1/2" ANCHOR BOLTS SPACED AT 6'-0" O.C. AND PLACED 12" FROM THE END OF EACH PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3'-0" O.C. FOR BASEMENTS. ANCHOR BOLT SHALL EXTEND 7" INTO CONCRETE OR MASONRY. THE BOLTS SHALL BE LOCATED IN THE MIDDLE THIRD OF THE WIDTH OF THE PLATE. THERE SHALL BE A MINIMUM TWO ANCHOR BOLTS PER PLATE SECTION.
- 11) FOUNDATION DRAINAGE--DAMP PROOFING OR WATERPROOFING PER SECTION 405 AND 406 OF NC BUILDING CODE.
- 12) WALL AND ROOF CLADDING VALUES:
WALL CLADDING SHALL BE DESIGNED FOR 28.0 POUNDS PER SQUARE FOOT (LBS/SQFT) OR GREATER POSITIVE AND NEGATIVE PRESSURE. ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE AS FOLLOWS:
39.0 LBS/SQFT FOR ROOF PITCHES 0/12 TO 1.5/12
36.0 LBS/SQFT FOR ROOF PITCHES 1.5/12 TO 6/12
18.0 LBS/SQFT FOR ROOF PITCHES 6/12 TO 12/12
**MEAN ROOF HEIGHT 30'-0" OR LESS
- 13) FOR ROOF SLOPES FROM 2/12 THROUGH 4/12, BUILDER TO INSTALL 2 LAYERS OF 15# FELT PAPER.
- 14) REFER TO SECTION R602.3 FOR FRAMING OF ALL WALLS OVER 10'-0" IN HEIGHT.
- 15) PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.3 OF THE 2018 IRC.
- 16) UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION.
- 17) REFER TO TABLE N1102.1 FOR PRESCRIPTIVE BUILDING ENVELOPE THERMAL COMPONENT CRITERIA.
- 18) PSL COLUMNS DESIGNED WITH MAXIMUM HEIGHT OF 9'-0" (U.N.O.)
- 19) PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)
- 20) MAXIMUM MASONRY PEIR HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST HORIZONTAL DIMENSION.
- 21) IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, PA IS NOT RESPONSIBLE FOR DIMENSION OR SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.

| CLIMATE ZONES | FENESTRATION U-FACTOR ^a | SKYLIGHT ^b U-FACTOR | GLAZED FENESTRATION SHGC ^{c,d} | CEILING ^e R-VALUE | WOOD FRAMED WALL R-VALUE | MASS WALL R-VALUE ¹ | FLOOR R-VALUE | BASEMENT ² WALL R-VALUE | SLAB ³ R-VALUE AND DEPTH | CRAWL SPACE ⁴ WALL R-VALUE |
|---------------|------------------------------------|--------------------------------|---|------------------------------|---|------------------------------------|-----------------|------------------------------------|-------------------------------------|---------------------------------------|
| 3 | 0.35 | 0.55 | 0.30 | 38 or 30 cont ¹ | 15 or 13 + 2.5 ^h | 5/13 or 5/10 cont ¹ | 19 | 5/13 ¹ | 0 | 5/13 |
| 4 | 0.35 | 0.55 | 0.30 | 38 or 30 cont ¹ | 15 or 13 + 2.5 ^h | 5/13 or 5/10 cont ¹ | 19 | 10/15 | 10 | 10/15 |
| 5 | 0.35 | 0.55 | NR | 38 or 30 cont ¹ | 19 ^g or 13 + 5 ^h or 15 + 3 ^h | 13/17 or 13/12.5 cont ¹ | 30 ^g | 10/15 | 10 | 10/19 |

TABLE N1102.1 CLIMATE ZONES 3-5

NO SCALE

a. R-VALUES ARE MINIMUM U-FACTORS AND SHGC ARE MAXIMUM. WHEN INSULATION IS INSTALLED IN A CAVITY WHICH IS LESS THAN THE LABEL OR DESIGN THICKNESS OF THE INSULATION, THE INSTALLED R-VALUE OF THE INSULATION SHALL NOT BE LESS THAN THE VALUE SPECIFIED IN THE TABLE.

b. THE FENESTRATION U-FACTOR COLUMN EXCLUDES SKYLIGHTS. THE SOLAR HEAT GAIN COEFFICIENT (SHGC) COLUMN APPLIES TO ALL GLAZED FENESTRATION.

c. "10/15" MEANS R-10 CONTINUOUS INSULATED SHEATHING ON THE INTERIOR OR EXTERIOR OF THE HOME OR R-15 CAVITY INSULATION AT THE INTERIOR OF THE BASEMENT WALL OR CRAWL SPACE WALL.

d. FOR MONOLITHIC SLAB INSULATION SHALL BE APPLIED FROM THE INSULATION GAGE DOWNWARD TO THE BOTTOM OF THE FOOTING OR A MAXIMUM OF 24" BELOW GRADE WHOSEVER IS LESS. FOR FLOATING SLAB INSULATION SHALL EXTEND TO THE BOTTOM OF THE FOUNDATION WALL OR 4" BELOW GRADE WHOSEVER IS LESS. R-9 SHALL BE ADDED TO THE REQUIRED SLAB EDGE R-VALUES FOR HEATED SLABS.

e. SELECTED

f. BASEMENT WALL INSULATION IS NOT REQUIRED IN WARM-HUMID LOCATIONS AS DEFINED BY FIGURE N1101.2 AND TABLE N1101.7.

g. OR INSULATION SUFFICIENT TO FILL THE FRAMING CAVITY. R-19 MINIMUM.

h. THE FIRST VALUE IS CAVITY INSULATION, THE SECOND VALUE IS CONTINUOUS INSULATION. SO "13+5" MEANS R-13 CAVITY INSULATION PLUS R-5 INSULATED SHEATHING. "15+3" MEANS R-15 CAVITY INSULATION PLUS R-3 INSULATED SHEATHING. IF STRUCTURAL SHEATHING COVERS 25% OR LESS OF THE EXTERIOR INSULATING SHEATHING IS NOT REQUIRED WHERE THE STRUCTURAL SHEATHING IS USED. IF STRUCTURAL SHEATHING COVERS MORE THAN 25 PERCENT OF THE EXTERIOR, SHALL BE SUPPLEMENTED WITH INSULATED SHEATHING OF AT LEAST R-2. "13 + 2.5" MEANS R-13 CAVITY INSULATION PLUS R-2.5 SHEATHING.

i. FOR MASS WALLS, THE SECOND R-VALUE APPLIES WHEN MORE THAN HALF THE INSULATION IS ON THE INTERIOR MASS WALL.

j. IN ADDITION TO THE EXEMPTION IN SECTION N1102.3.3, A MAXIMUM OF TWO GLAZED FENESTRATION PRODUCT ASSEMBLIES HAVING A U-FACTOR NO GREATER THAN 0.55 SHALL BE PERMITTED TO BE SUBSTITUTED FOR MINIMUM CODE COMPLIANT FENESTRATION PRODUCT ASSEMBLIES WITHOUT PENALTY.

k. IN ADDITION TO THE EXEMPTION IN SECTION N1102.3.3, A MAXIMUM OF TWO GLAZED FENESTRATION PRODUCT ASSEMBLIES HAVING A SHGC NO GREATER THAN 0.70 SHALL BE PERMITTED TO BE SUBSTITUTED FOR MINIMUM CODE COMPLIANT FENESTRATION PRODUCT ASSEMBLIES WITHOUT PENALTY.

l. R-9 SHALL BE ADDED TO SATISFY THE CEILING INSULATION REQUIREMENT, WHEREVER THE FULL HEIGHT OF UNCOMPRESSED R-30 INSULATION EXTENDS OVER THE WALL TOP PLATE OF THE ATTIC ROOF DECK.

m. TABLE VALUE REQUIRED EXCEPT FOR ROOF EDGE WHERE THE SPACE IS LIMITED BY THE PITCH OF THE ROOF, THERE THE INSULATION MUST FULLY SPREAD UP TO THE AIR BATTLE.

n. 1" FIBERGLASS BATTIS COMPRESSED AND INSTALLED IN A NOMINAL 2" 6" FRAMING CAVITY IS DEEMED TO COMPLY. FIBERGLASS BATTIS RATED R-19 OR HIGHER COMPRESSED AND INSTALLED IN A 2" WALL IS NOT DEEMED TO COMPLY.

o. BASEMENT WALL MEETING THE MINIMUM MASS SPECIFIC HEAT CONTENT REQUIREMENT MAY USE THE MASS WALL R-VALUE AS THE MINIMUM REQUIREMENT.

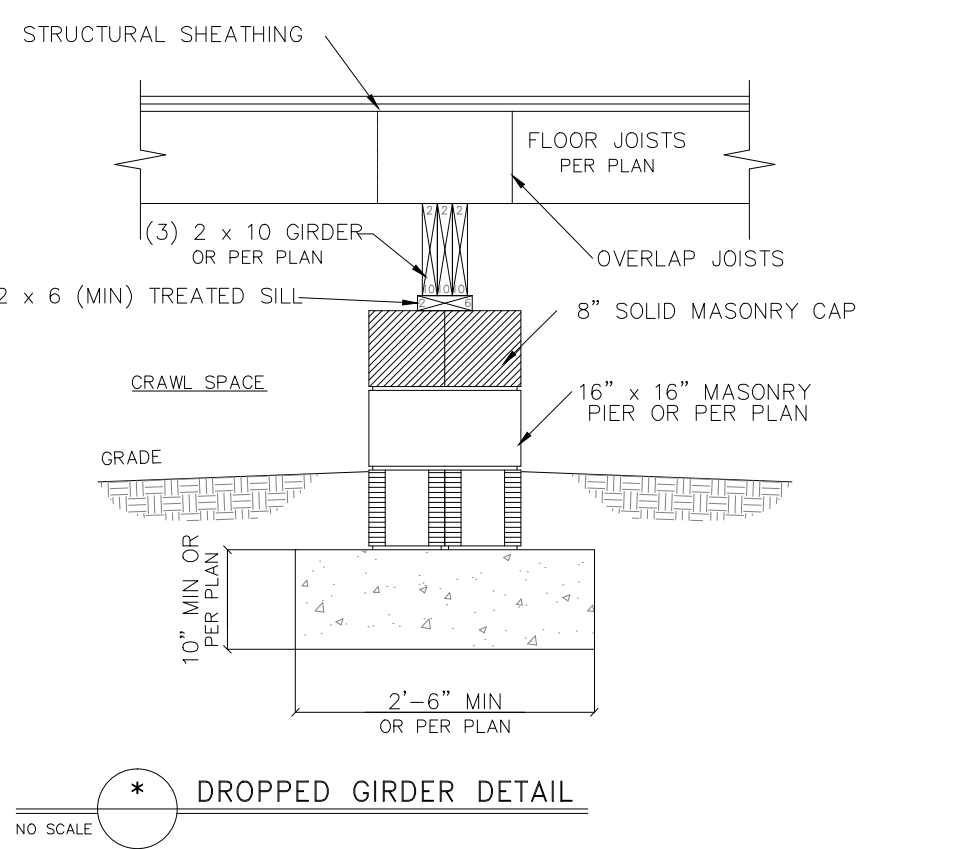
DEFINITIONS FOR COMMON ABBREVIATIONS

| | |
|-----------------------------|------------------------------|
| ALT = ALTERNATE | MAX = MAXIMUM |
| CANT = CANTILEVER | MIN = MINIMUM |
| CJ = CEILING JOIST | NOM = NOMINAL |
| CMU = CONCRETE MASONRY UNIT | O.C. = ON CENTER |
| COL = COLUMN | PL = PLATE |
| CONC = CONCRETE | PT = PRESSURE TREATED |
| CONT = CONTINUOUS | REIN = REINFORCED |
| CT = COLLAR TIE | REQD = REQUIRED |
| DBL = DOUBLE | RJ = ROOF JOIST |
| Dia = DIAMETER | RS = ROOF SUPPORT |
| DJ = DOUBLE JOIST | SC = STUD COLUMN |
| DR = DOUBLE RAFTER | SOH = SCHEDULE |
| EA = EACH | SPEC = SPECIFIED |
| EE = EACH END | THK = THICK |
| FJ = FLOOR JOIST | TJ = TRIPLE JOIST |
| FND = FOUNDATION | TRTD = TREATED |
| FTG = FOOTING | TYP = TYPICAL |
| GALV = GALVANIZED | UNO = UNLESS NOTED OTHERWISE |
| HORIZ = HORIZONTAL | W = WIDE FLANGE BEAM |
| HT = HEIGHT | WWF = WELDED WIRE FABRIC |
| MANUF = MANUFACTURER | XJ = EXTRA JOIST |

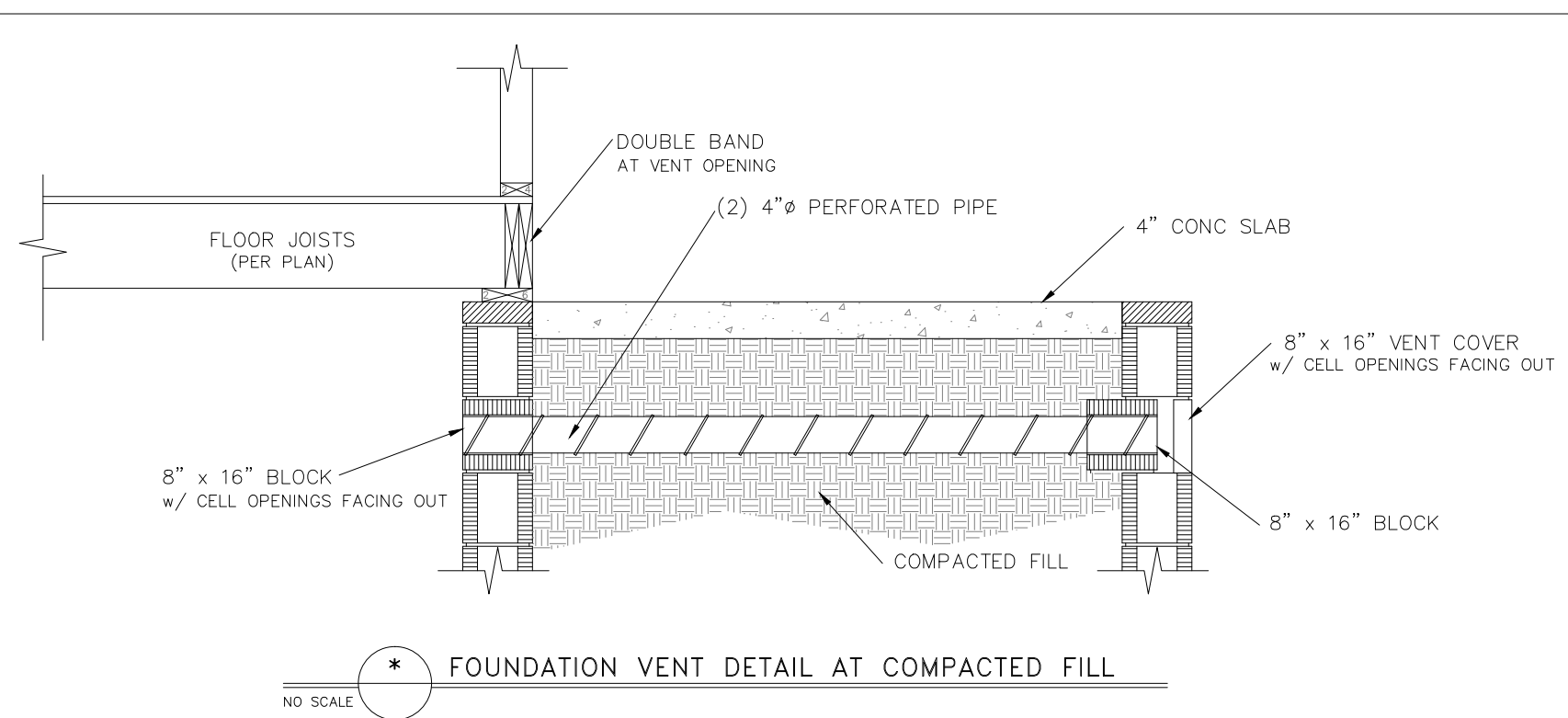
1) MAXIMUM HEIGHT OF DECK SUPPORT POSTS AS FOLLOWS:

| POST SIZE | MAX. POST HEIGHT** |
|-----------|--------------------|
| 4 x 4 | 8'-0" |
| 6 x 6 | 20'-0" |
| *** | OVER 20'-0" |

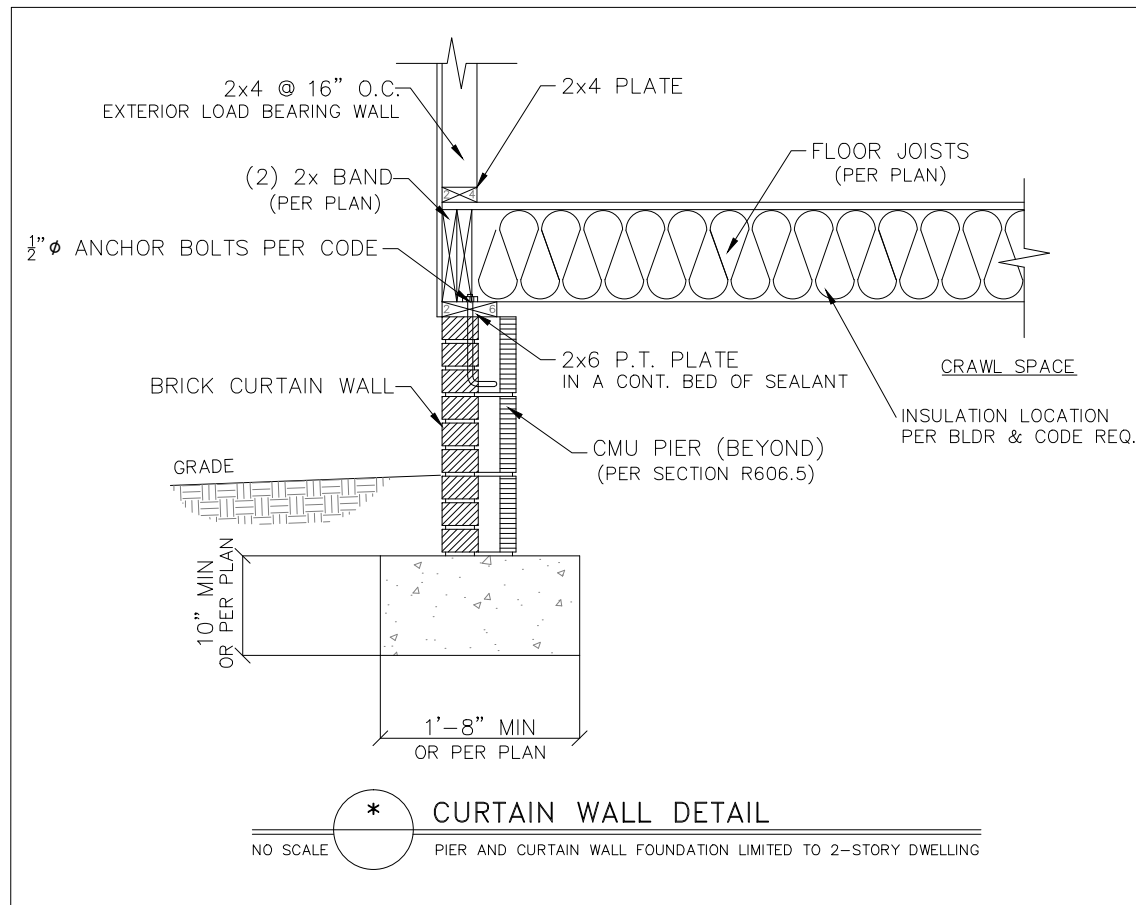
- * THIS TABLE IS BASED ON NO. 2 TREATED SOUTHERN PINE POSTS. MAXIMUM TRIBUTARY AREA IS BASED ON 128 TOTAL SQUARE FEET WHICH MAY BE LOCATED AT DIFFERENT LEVELS.
- ** FROM TOP OF FOOTING TO BOTTOM OF GIRDER
- *** DECKS WITH POST HEIGHTS OVER 20'-0" SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT.
- 2) DECKS SHALL BE BRACED TO PROVIDE LATERAL STABILITY BY ONE OF THESE METHODS:
- A. THE DECK FLOOR HEIGHT IS LESS THAN 4'-0" AND THE DECK IS ATTACHED TO THE STRUCTURE IN ACCORDANCE WITH SECTION (4) ABOVE. LATERAL BRACING IS NOT REQUIRED.
- B. 4 x 4 WOOD KNEE BRACES MAY BE PROVIDED ON EACH COLUMN IN BOTH DIRECTIONS. THE KNEE BRACES SHALL ATTACH TO EACH POST AT A POINT NOT LESS THAN 1/3 OF THE POST LENGTH FROM THE TOP OF THE POST, AND THE BRACES SHALL BE ANGLED BETWEEN 45° AND 60° FROM THE HORIZONTAL. KNEE BRACES SHALL BE BOLTED TO THE POST AND GIRDER WITH ONE 5/8" HOT DIPPED GALVANIZED BOLT AT EACH END OF THE BRACE.
- C. FOR FREESTANDING DECKS WITHOUT KNEE BRACES OR DIAGONAL BRACING, LATERAL STABILITY MAY BE PROVIDED BY EMBEDDING THE POSTS IN ACCORDANCE WITH THE FOLLOWING:
- | POST SIZE | MAX. TRIBUTARY AREA | MAX. POST HEIGHT | EMBEDMENT DEPTH | CONCRETE DIAMETER |
|-----------|---------------------|------------------|-----------------|-------------------|
| 4 x 4 | 48 SQ. FT. | 4'-0" | 2'-6" | 1'-0" |
| 6 x 6 | 120 SQ. FT. | 6'-0" | 3'-6" | 1'-8" |
- D. 2 x 6 DIAGONAL VERTICAL CROSS BRACING MAY BE PROVIDED IN TWO (2) PERPENDICULAR DIRECTIONS FOR FREESTANDING DECKS OR PARALLEL TO THE STRUCTURE AT THE EXTERIOR COLUMN LINE FOR ATTACHED DECKS. THE 2 x 6s SHALL BE ATTACHED TO THE POSTS WITH ONE 5/8" HOT DIPPED GALVANIZED BOLT AT EACH END OF EACH BRACING MEMBER.
- E. FOR EMBEDMENT OF PILES IN COASTAL REGIONS, SEE CHAPTER 46.



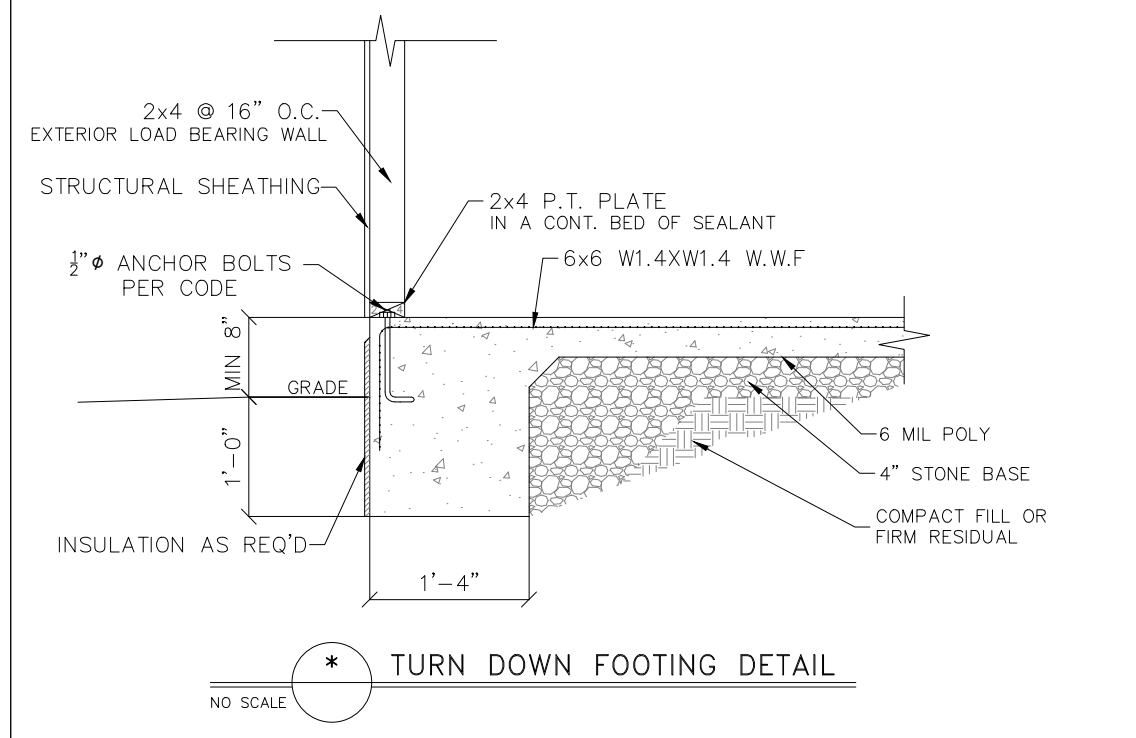
DROPPED GIRDER DETAIL



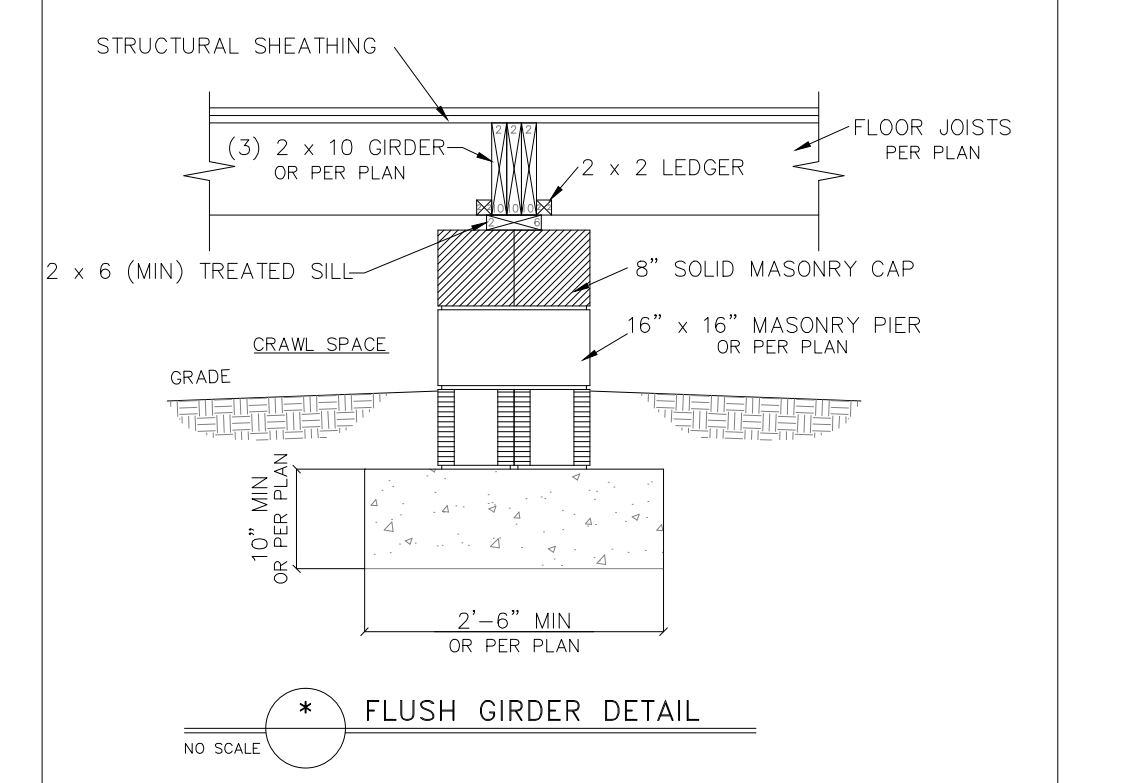
FOUNDATION VENT DETAIL AT COMPACTED FILL



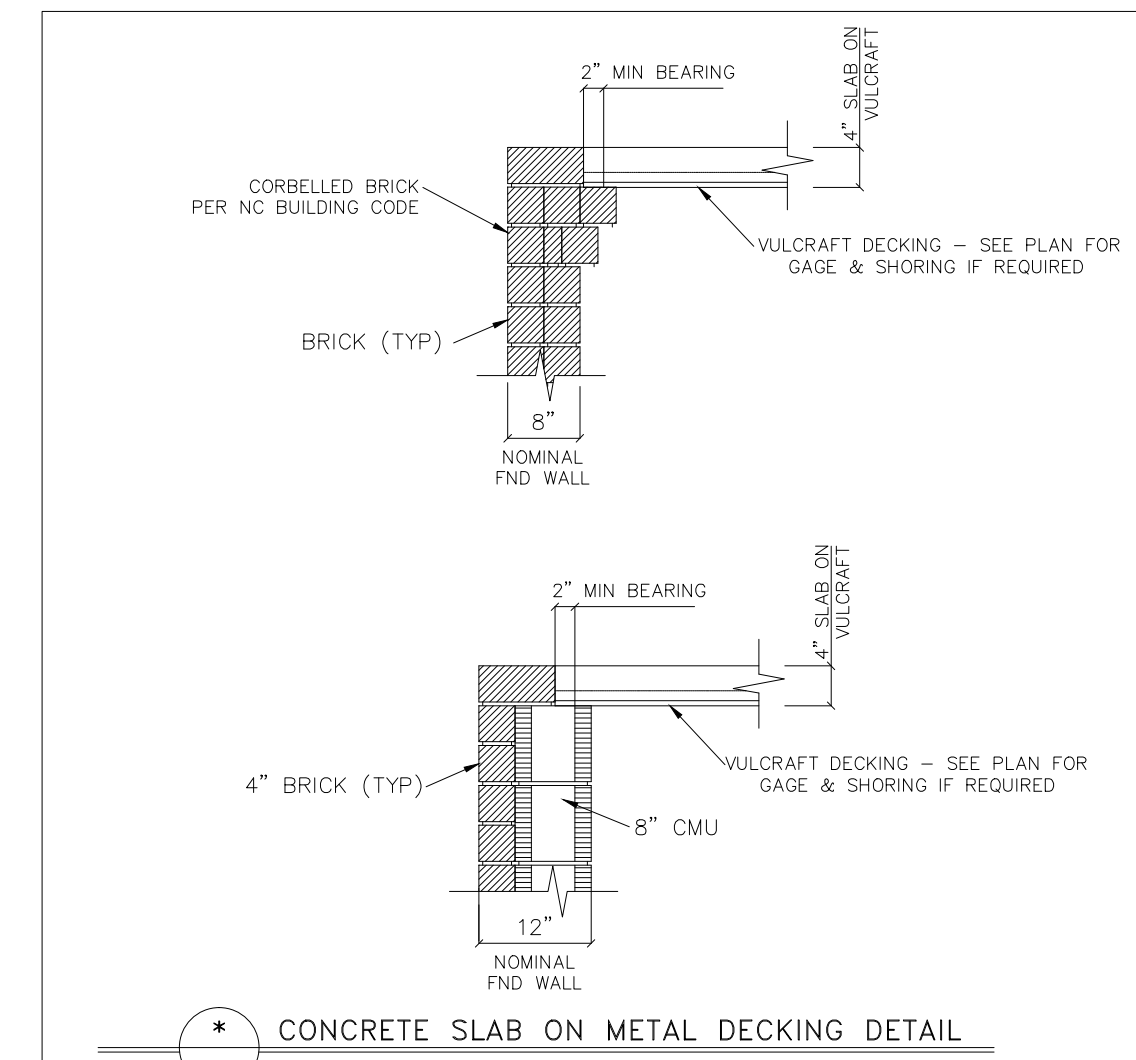
CURTAIN WALL DETAIL



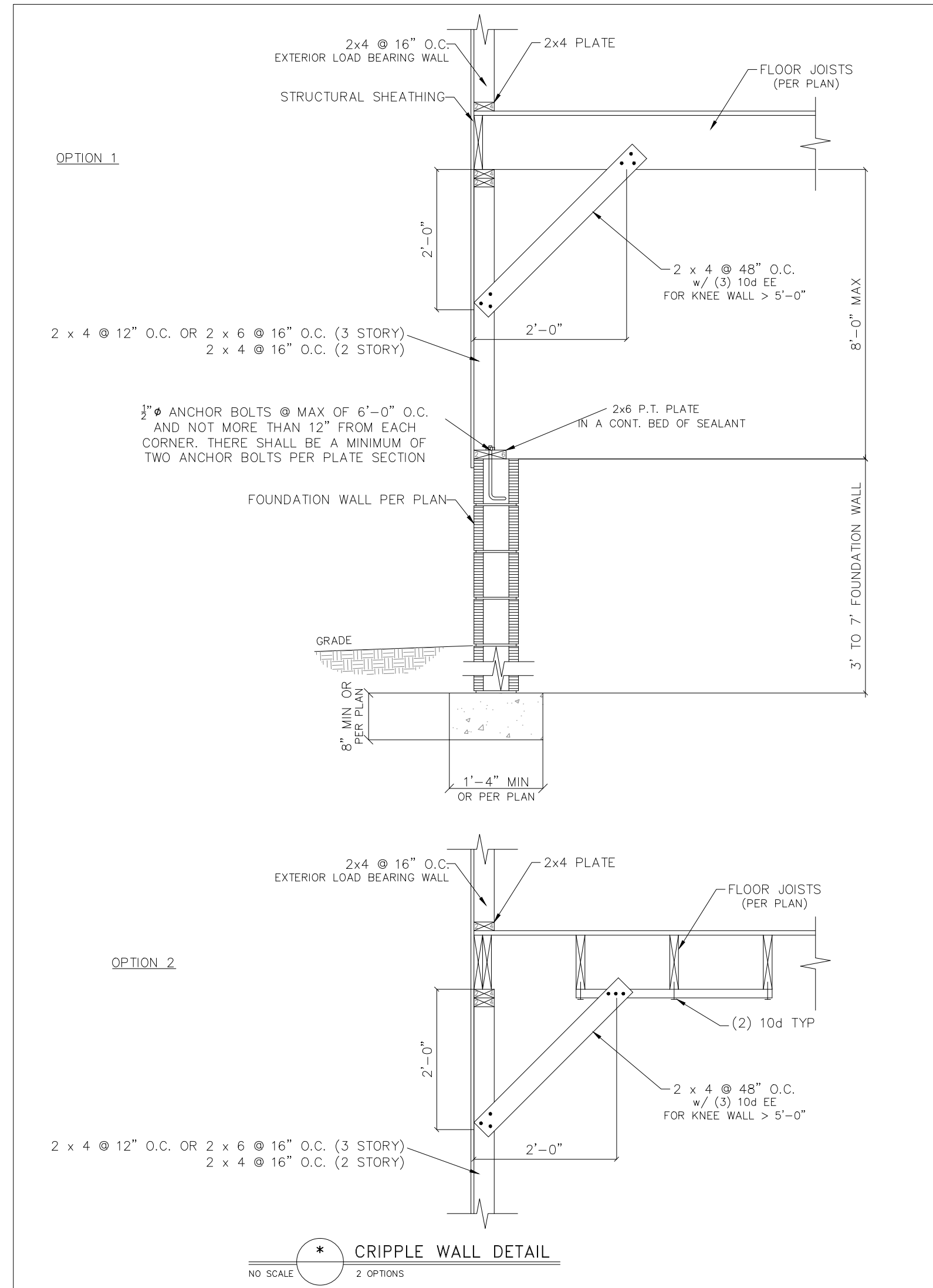
TURN DOWN FOOTING DETAIL



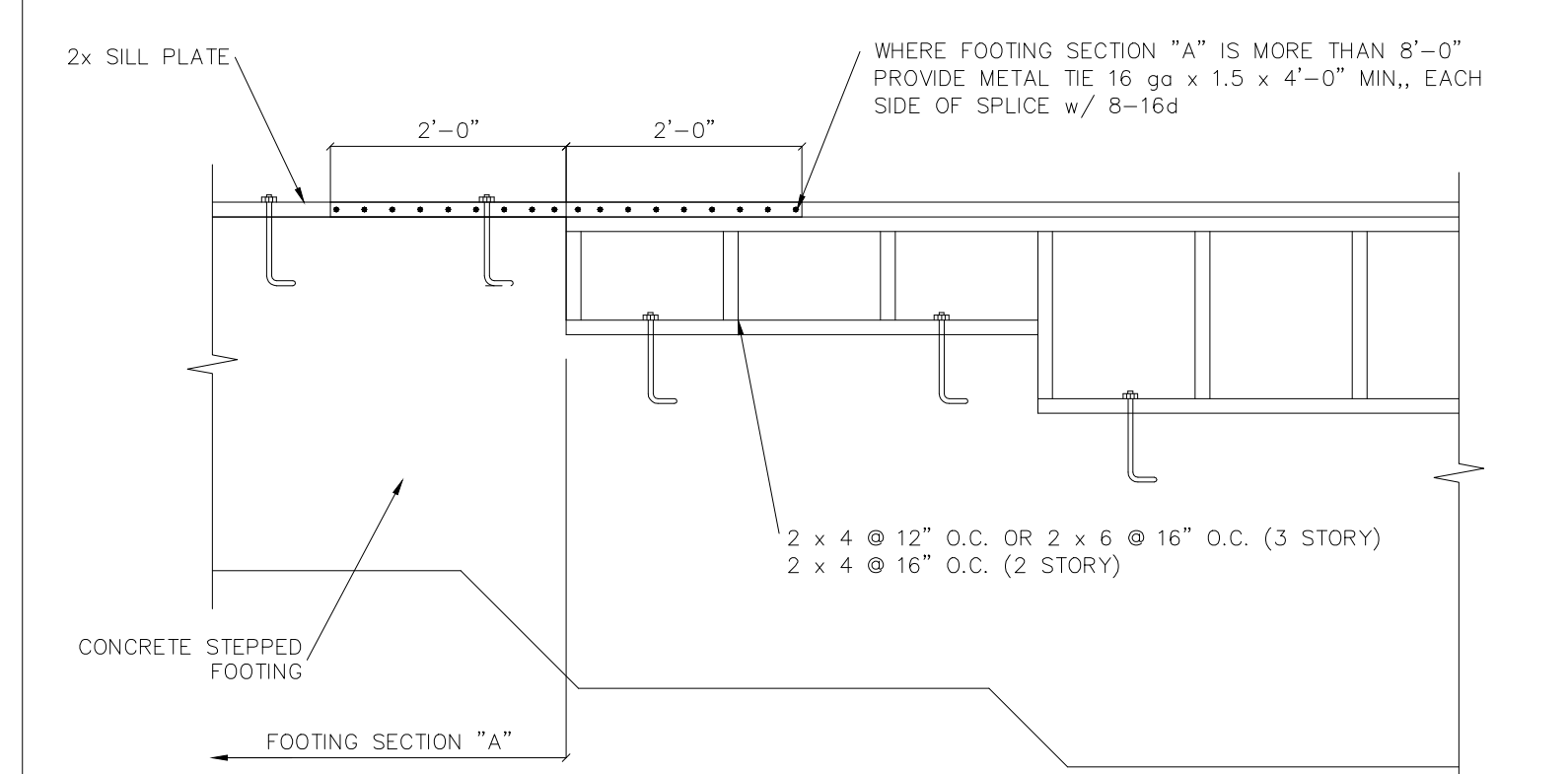
FLUSH GIRDER DETAIL



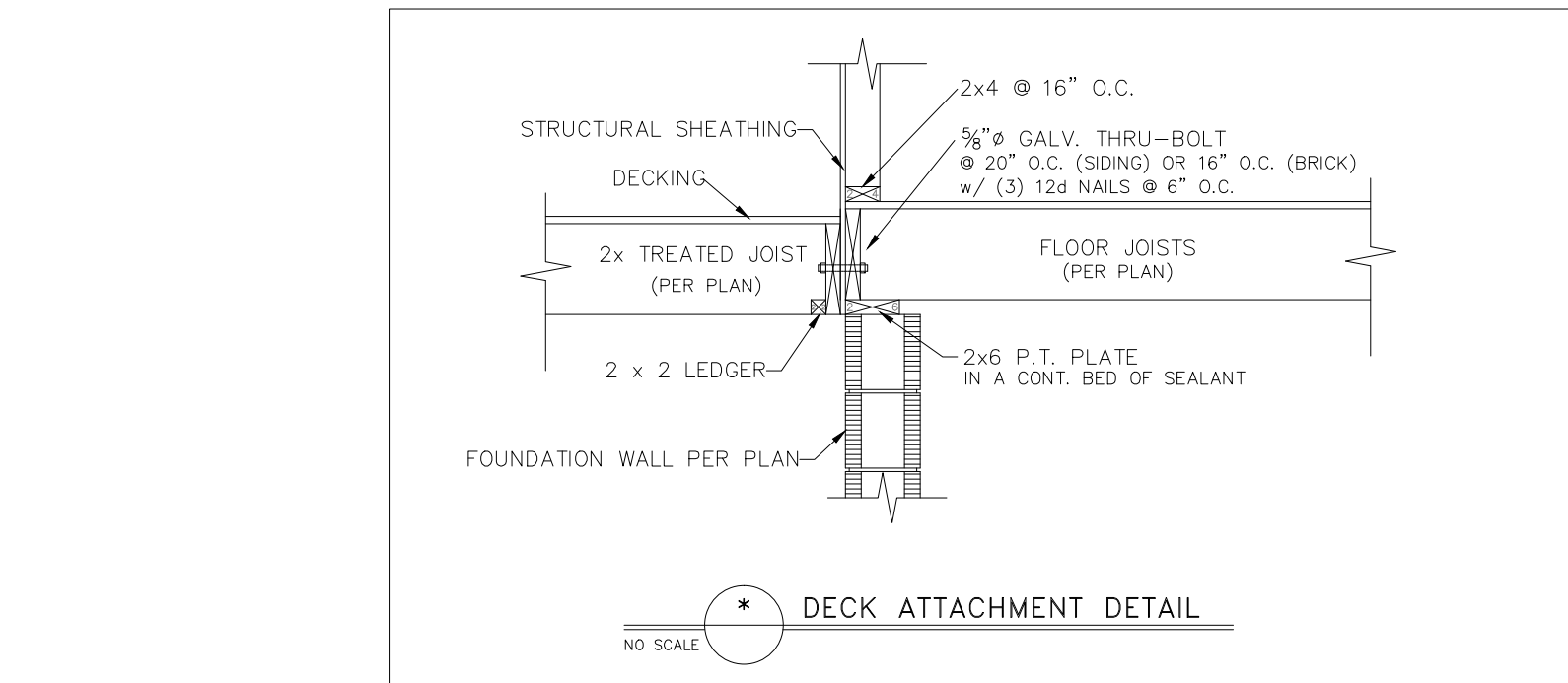
CONCRETE SLAB ON METAL DECKING DETAIL



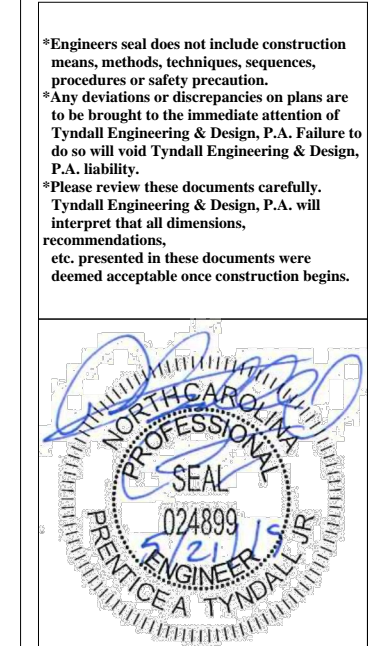
CRIPPLE WALL DETAIL



STEP DOWN FOUNDATION AT CRIPPLE WALL



DECK ATTACHMENT DETAIL



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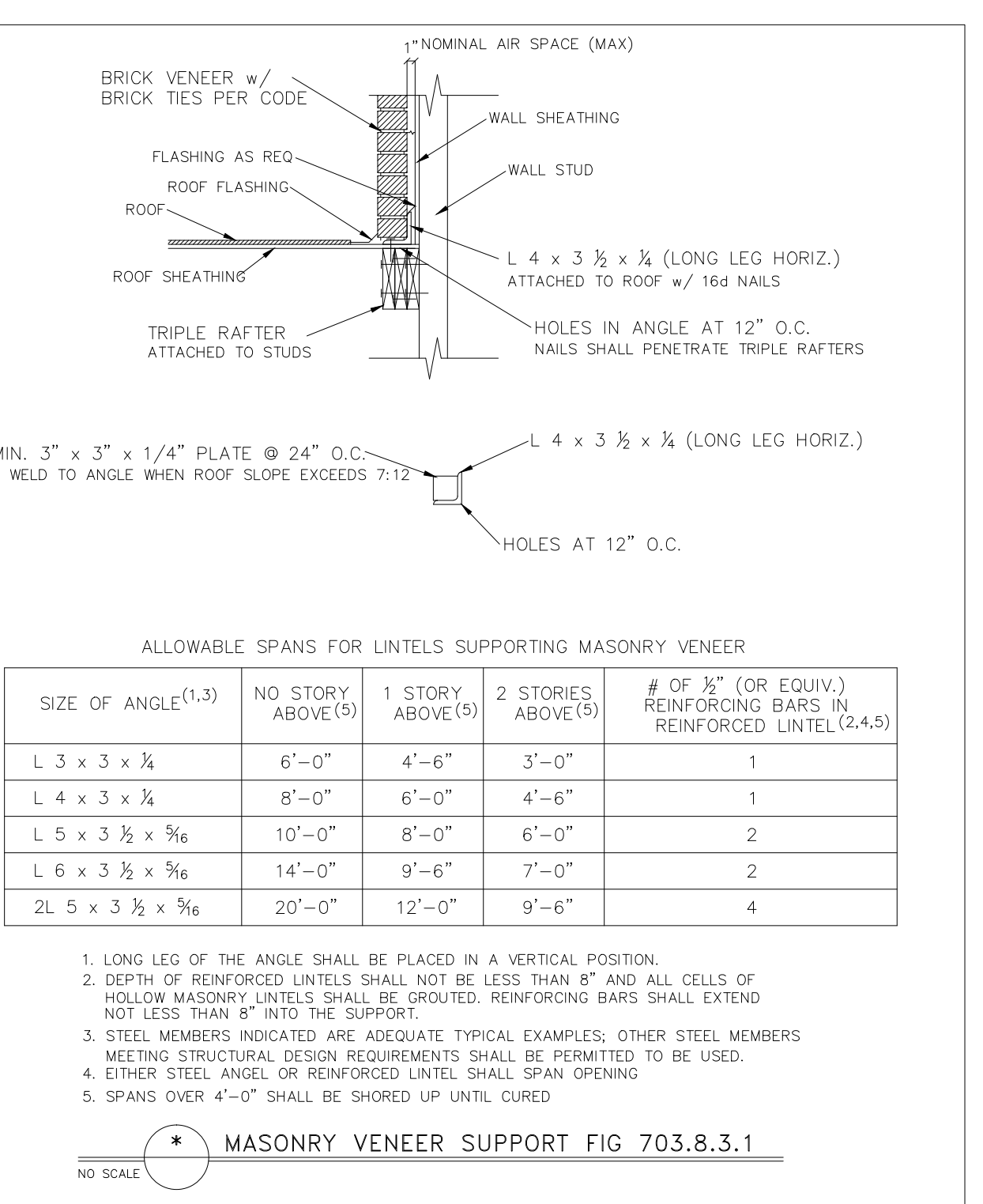
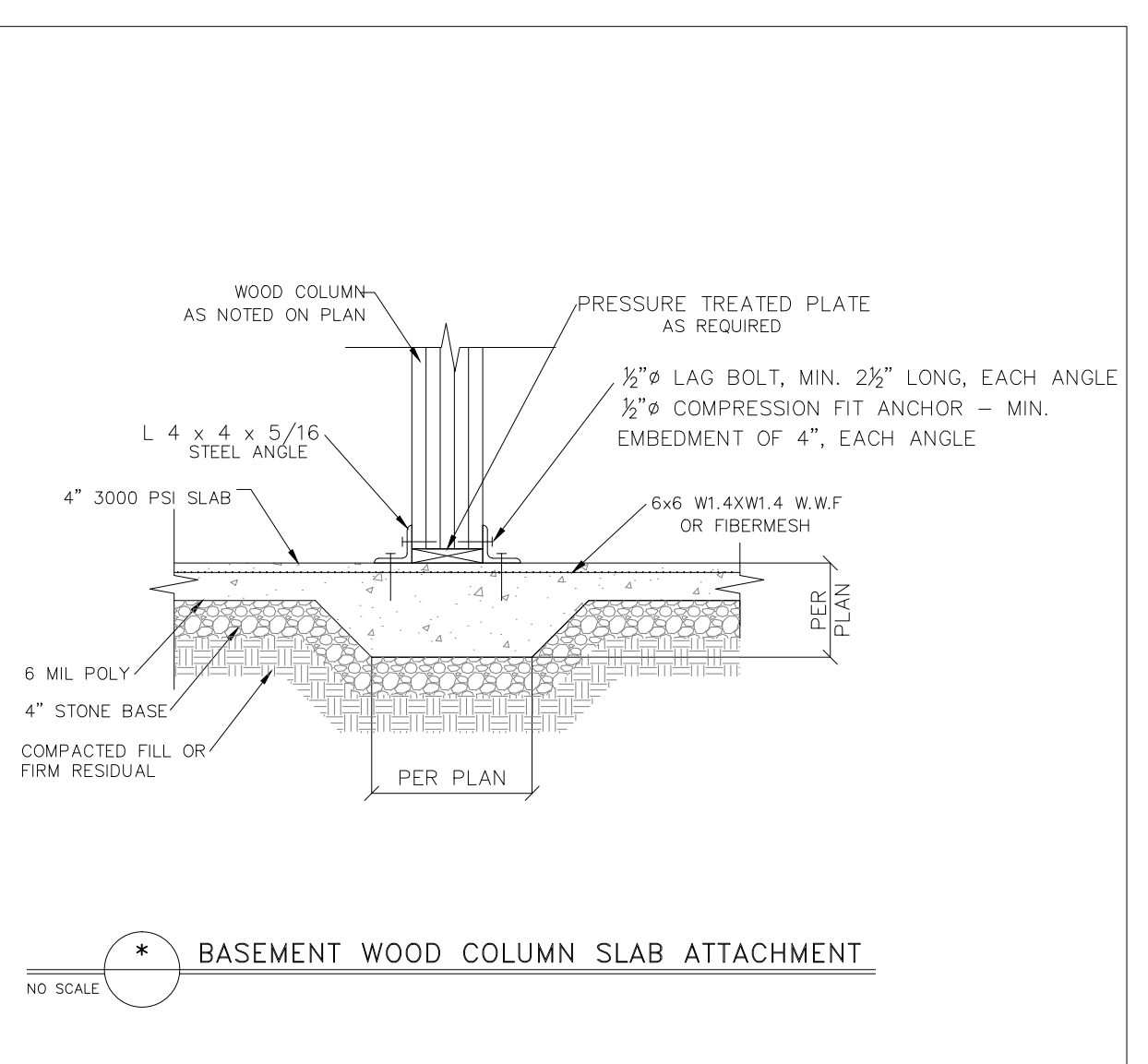
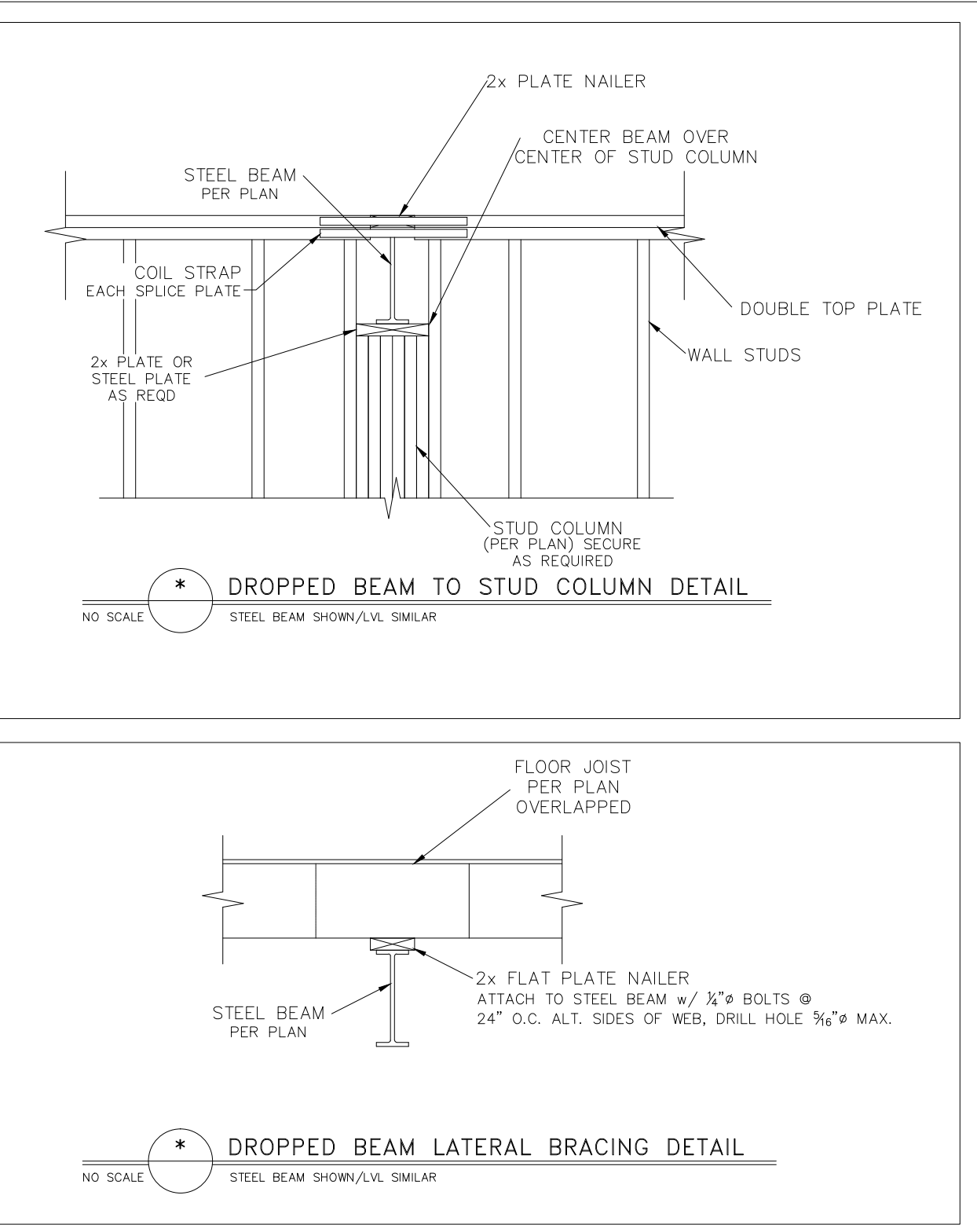
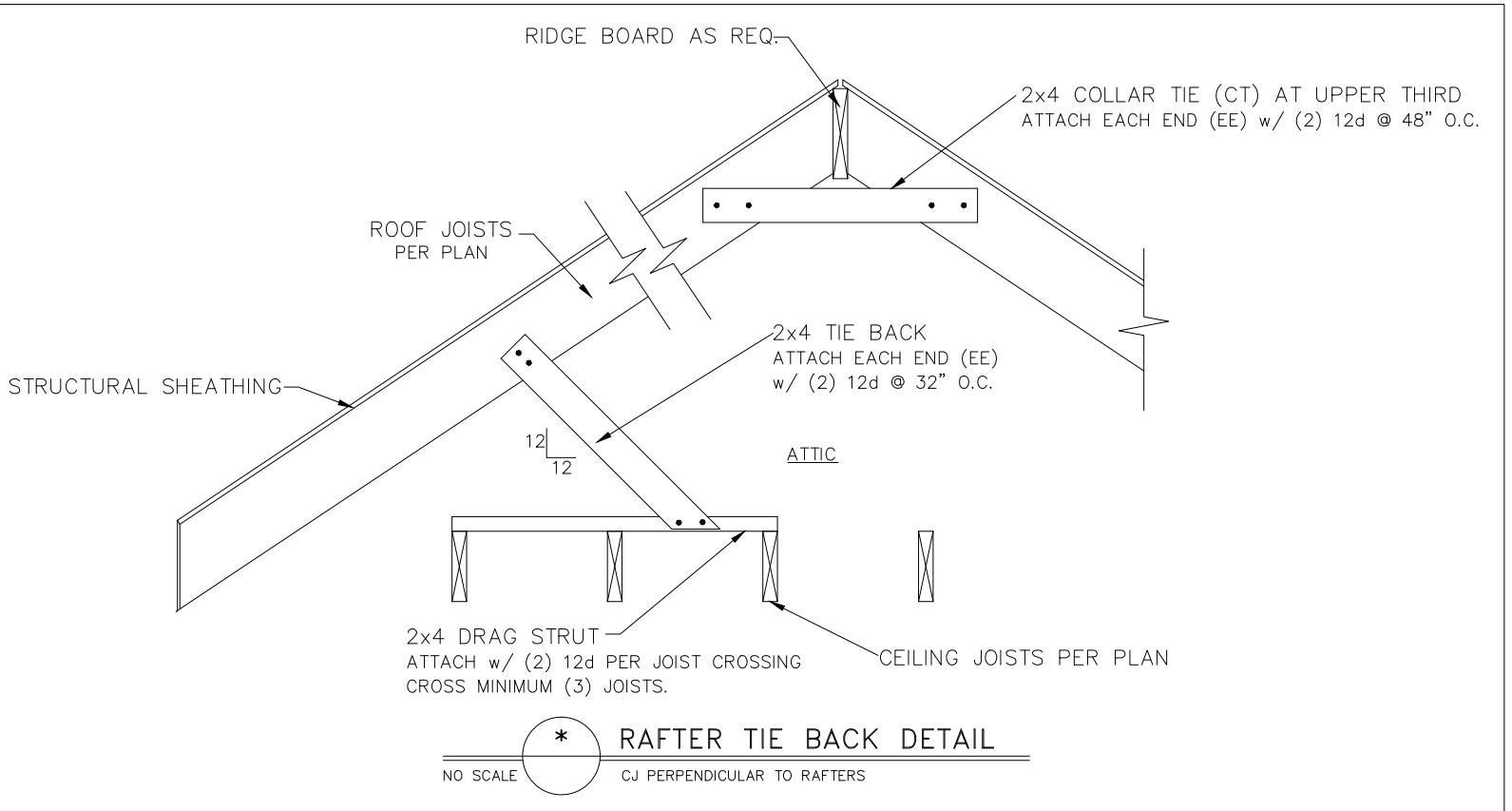
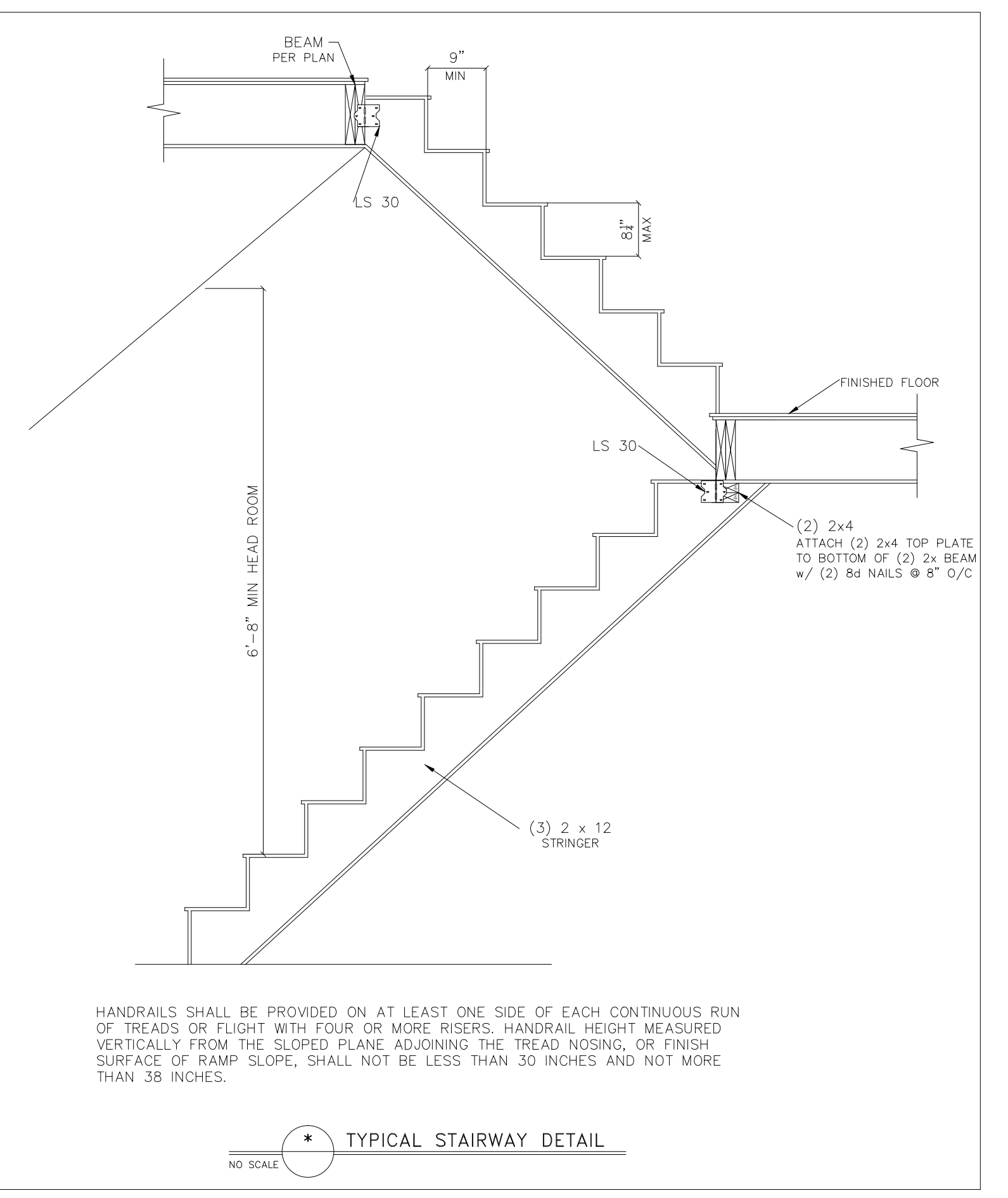
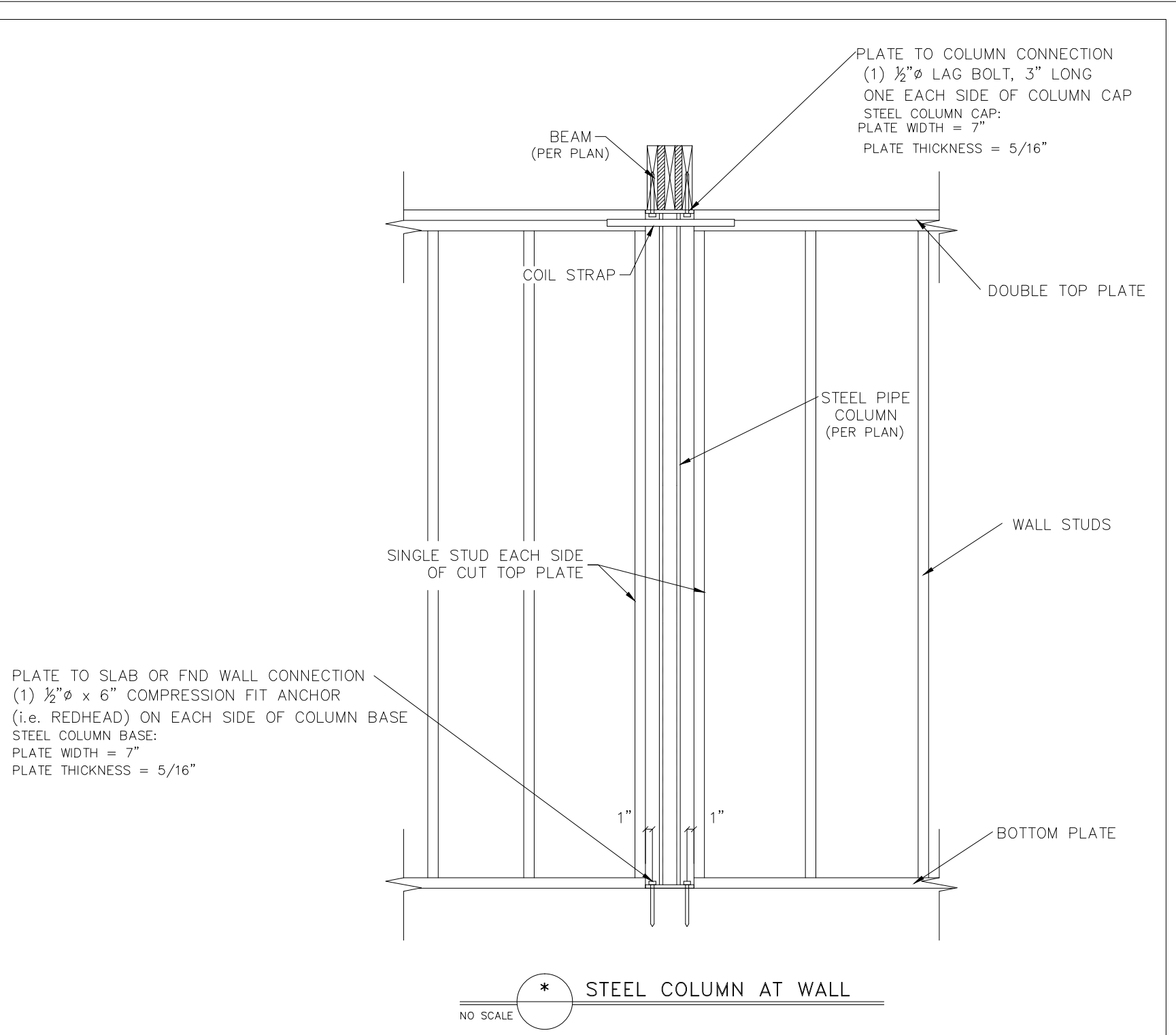
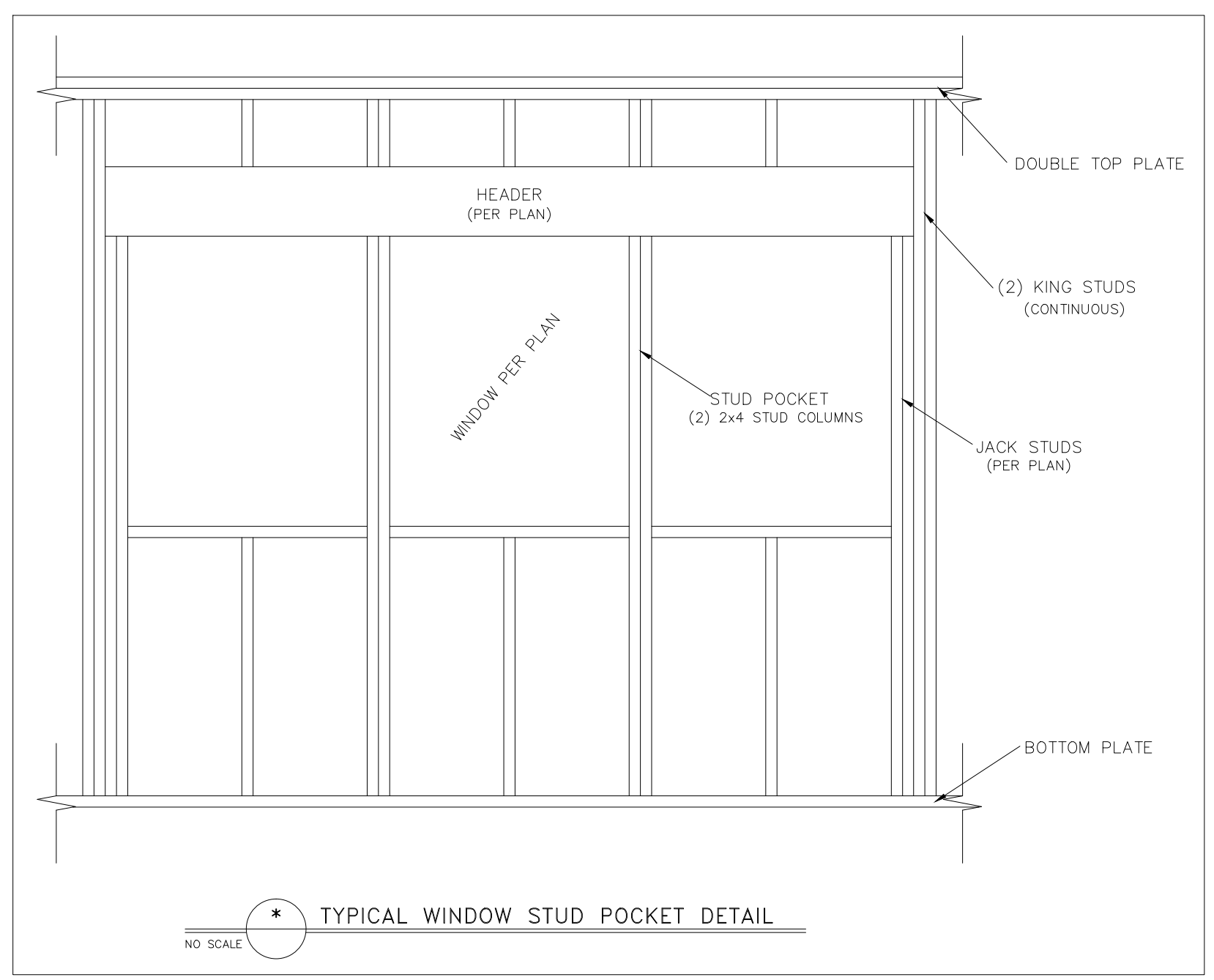
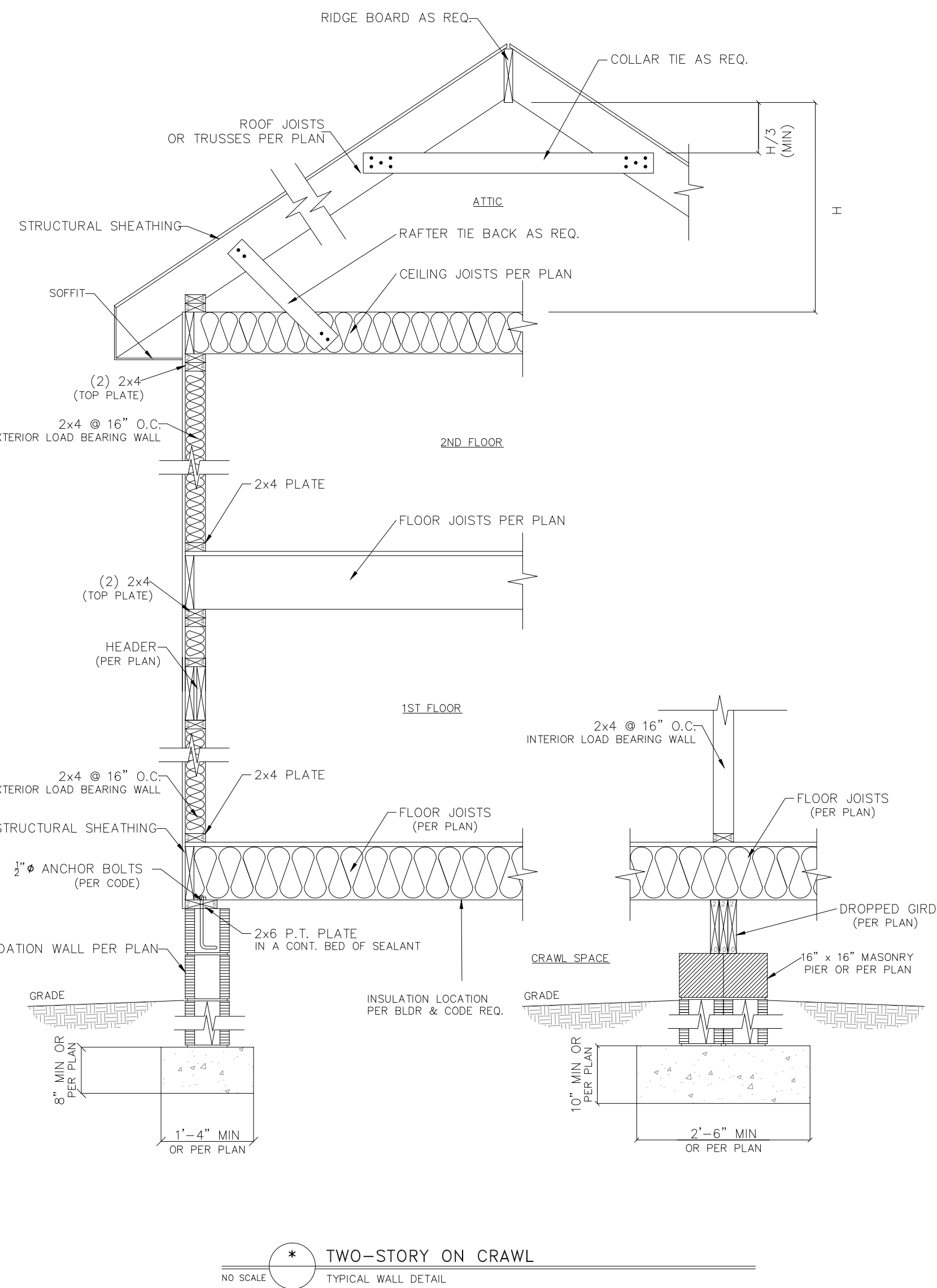
STANDARD DETAILS

Project #: 1901-010170
Date: 5/20/19
Drawn/Design By: JWA
DWG. Checked By: PTII
Scale: NOT TO SCALE

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| No. | Date | Remarks |
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Sheet Number
D1
of 3



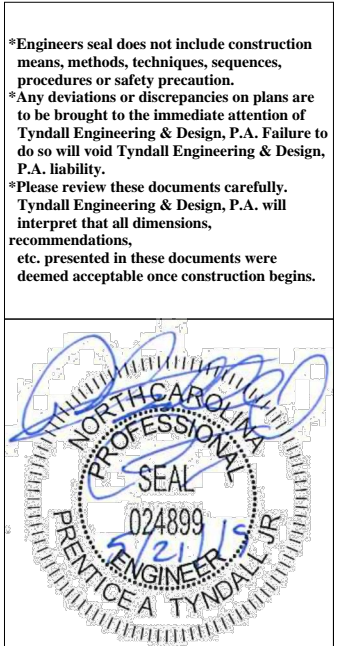
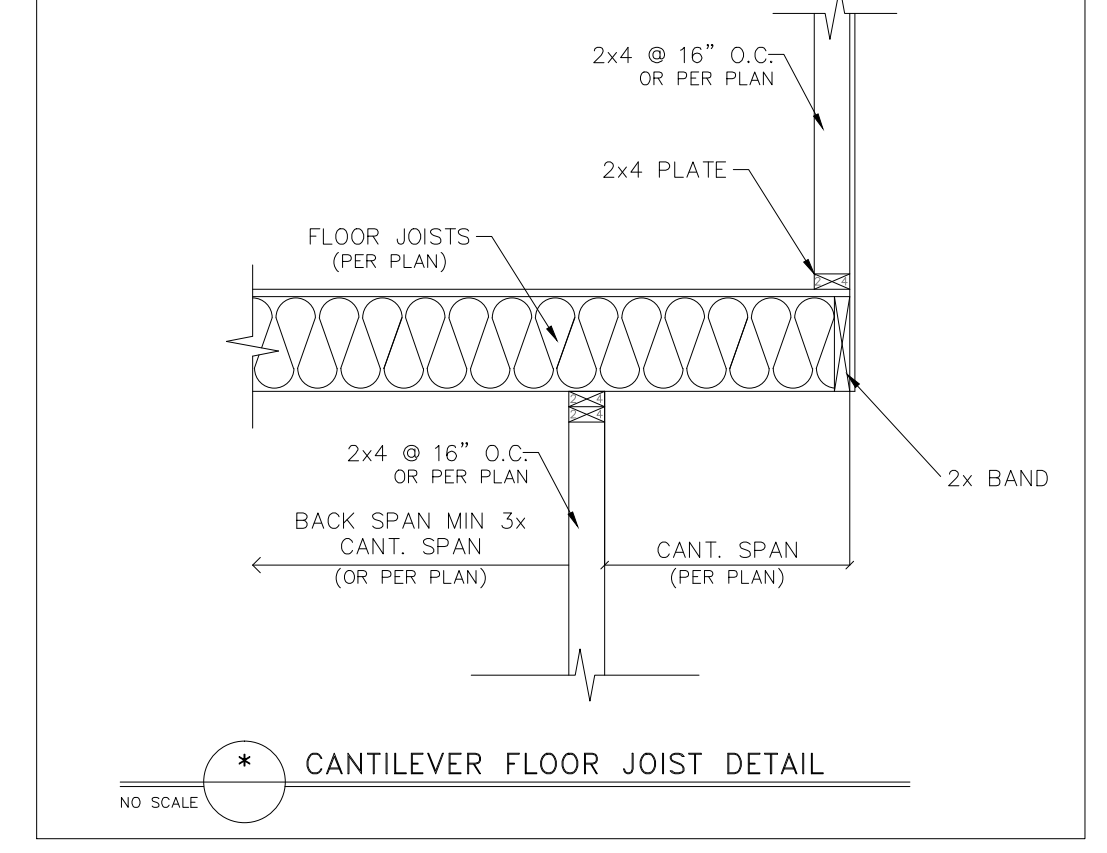
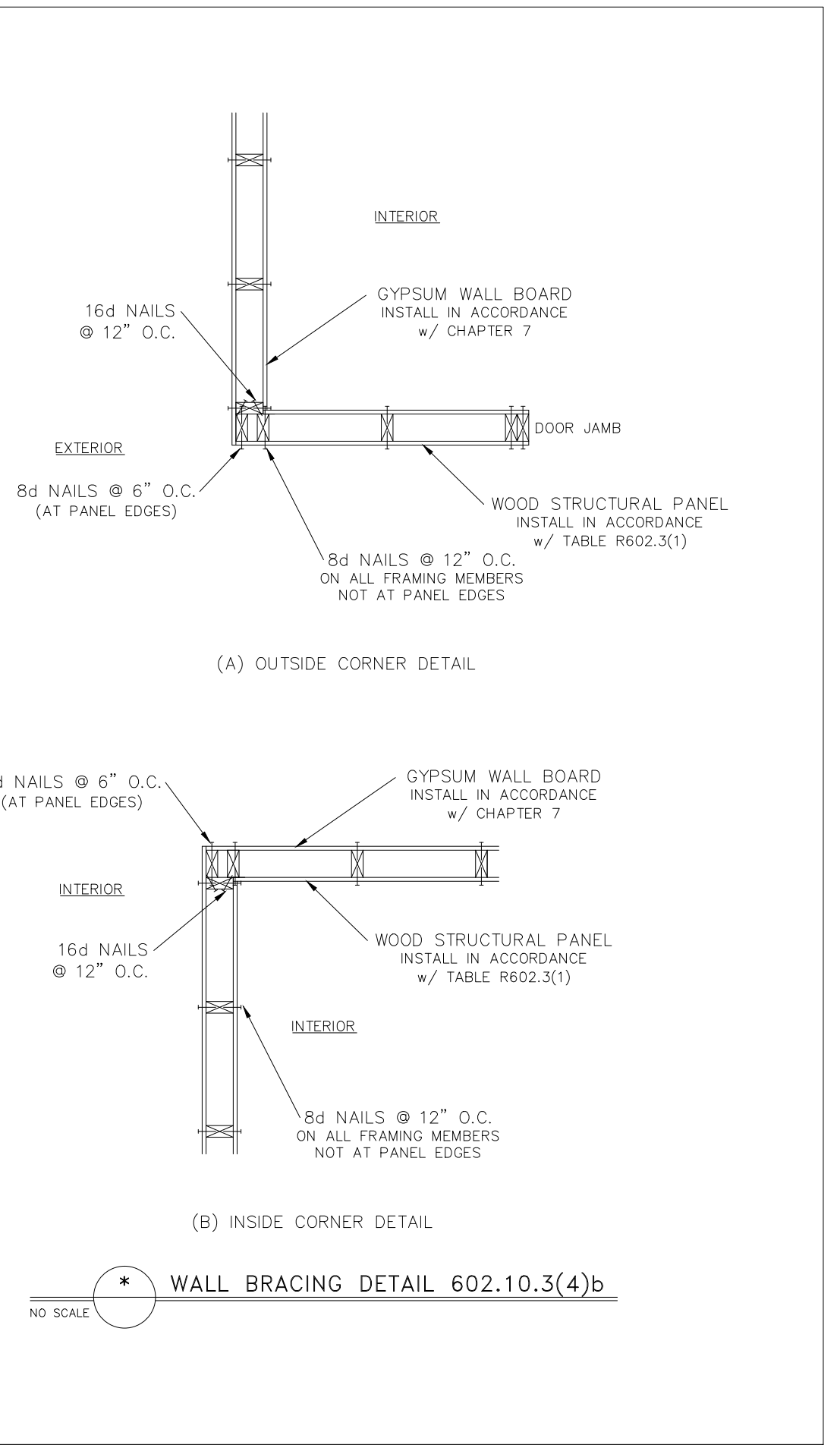
ALLOWABLE SPANS FOR LINTELS SUPPORTING MASONRY VENEER

| SIZE OF ANGLE(1,3) | NO STORY ABOVE(5) | 1 STORY ABOVE(5) | 2 STORIES ABOVE(5) | # OF 1/2" (OR EQUIV.) REINFORCING BARS IN REINFORCED LINTEL(2,4,5) |
|---------------------|-------------------|------------------|--------------------|--|
| L 3 x 3 x 1/4 | 6'-0" | 4'-6" | 3'-0" | 1 |
| L 4 x 3 x 1/4 | 8'-0" | 6'-0" | 4'-6" | 1 |
| L 5 x 3 1/2 x 3/16 | 10'-0" | 8'-0" | 6'-0" | 2 |
| L 6 x 3 1/2 x 3/16 | 14'-0" | 9'-6" | 7'-0" | 2 |
| 2L 5 x 3 1/2 x 3/16 | 20'-0" | 12'-0" | 9'-6" | 4 |

- LONG LEG OF THE ANGLE SHALL BE PLACED IN A VERTICAL POSITION.
- DEPTH OF REINFORCED LINTELS SHALL NOT BE LESS THAN 8" AND ALL CELLS OF HOLLOW MASONRY LINTELS SHALL BE GROUTED. REINFORCING BARS SHALL EXTEND NOT LESS THAN 6" INTO THE SUPPORT.
- STEEL MEMBERS INDICATED ARE ADEQUATE TYPICAL EXAMPLES; OTHER STEEL MEMBERS MEETING STRUCTURAL DESIGN REQUIREMENTS SHALL BE PERMITTED TO BE USED.
- EITHER STEEL ANGLE OR REINFORCED LINTEL SHALL SPAN OPENING.
- SPANS OVER 4'-0" SHALL BE SHORED UP UNTIL CURED.

HARDWARE CROSS-REFERENCE CHART

| SIMPSON STRONG-TIE PRODUCT NUMBER | USP STRUCTURAL CONNECTORS PRODUCT NUMBER |
|-----------------------------------|--|
| A35 | MPA1 |
| ABE | PAE |
| CBSQ | CBSQ |
| CCO | KCCO |
| CMSTC16 | CMSTC16 |
| CS | RS |
| H1 | RT15 |
| H2.5A | RT7A |
| H10 | RT16 |
| HDQ8-SDS3 | UPHD8 |
| HDU2-SDS2.5 | PHD2 |
| HDU5-SDS2.5 | PHD5 |
| HETA | HTA |
| HGAM10KTA | HGAM |
| HHO14-SDS2.5 | UPHD14 |
| HTS | HTW |
| HTT | HTT |
| HUS | HUS |
| LTA1 | LPTA |
| LTHJA26 | HJC26 |
| LTP4 | MP4F |
| LUS | JUS |
| MAS | FA3 |
| MSTAM | MSTAM |
| PC | PCM |
| PHD-SDS3 | PHD |
| SSP | RSPT6 |
| STC | TR1 |
| STHD | STAD |



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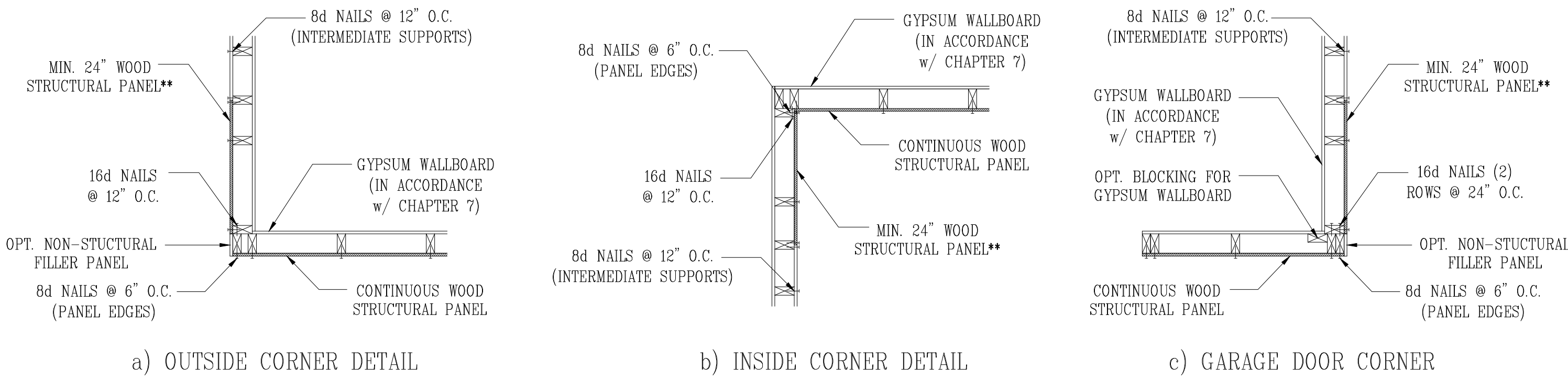
STANDARD DETAILS

Project #: **1901-010170**
Date: **5/20/19**
Drawn/Design By: **JWA**
DWG. Checked By: **PTII**
Scale: **NOT TO SCALE**

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Sheet Number **D2**
of 3



** IN LIEU OF THE 24" (MIN.) CORNER RETURN, A HOLD-DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800# SHALL BE FASTENED TO THE CORNER STUD AND TO THE FOUNDATION OR FRAMING BELOW.

B1: TYPICAL EXTERIOR CORNER FRAMING FOR CONTINUOUS SHEATHING
 NO SCALE

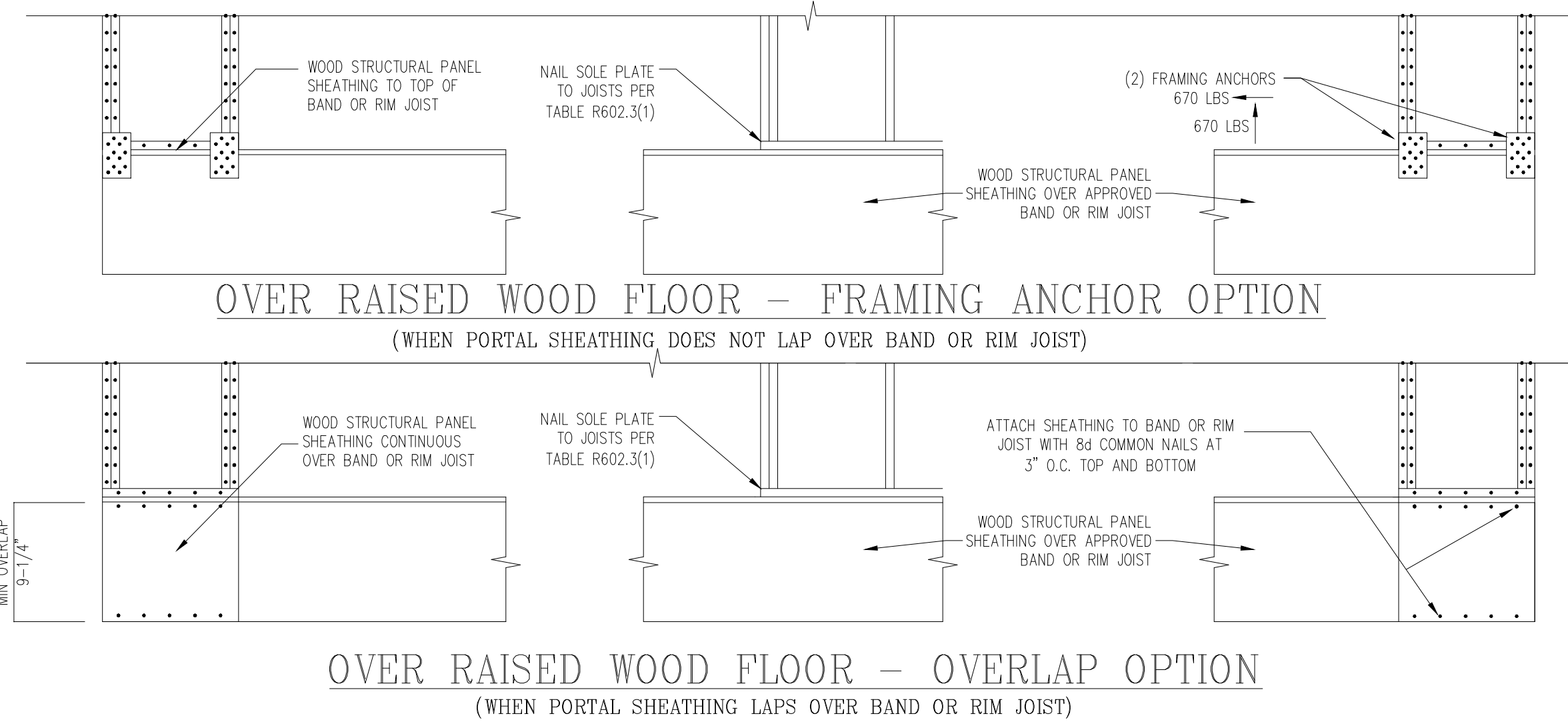
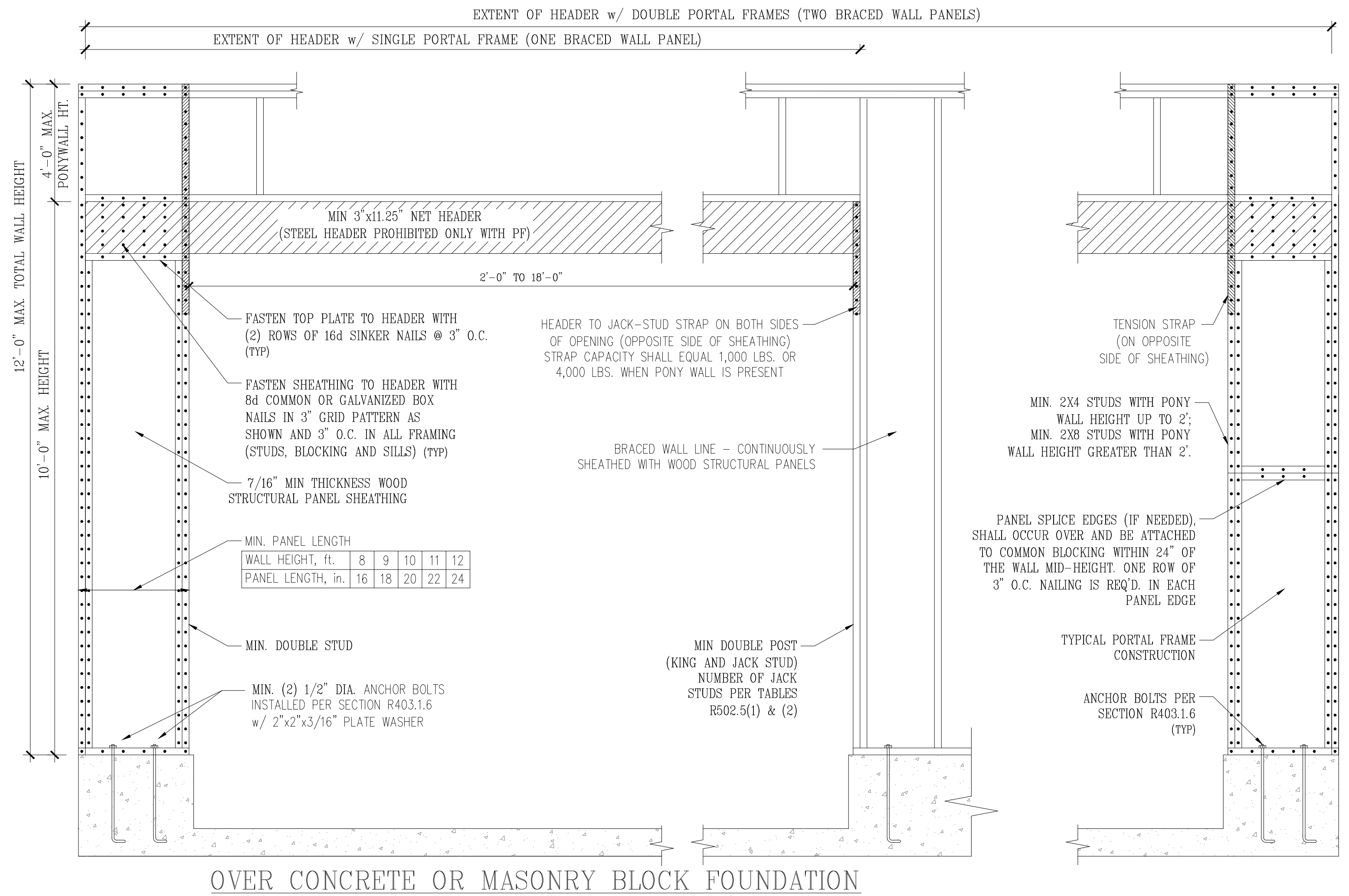
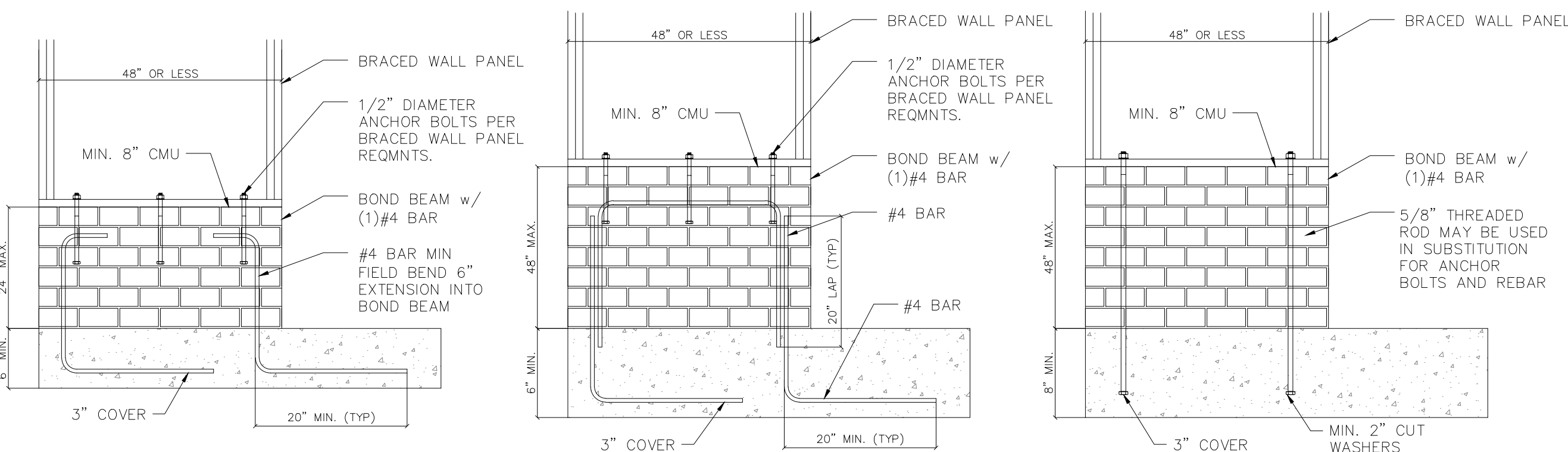
STRUCTURAL SHEATHING NOTES

- DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR LESS.
- WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF THE 2018 NCR.
- BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3. REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS, INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL PANELS.
 - REFERENCE FIGURE R602.10.4.3 OF THE 2018 NCR.
- INTERIOR BRACED WALL PANELS (BWP) INDICATED SHALL BE SHEATHED IN ACCORDANCE WITH THE GB METHOD OR WSP METHOD AS PRESCRIBED IN SECTION R602.10.1 (UNO)
 - 1/2" GYPSUM BOARD (GB) MINIMUM LENGTH OF 8'-0" (ISOLATED PANELS) OR 4'-0" (CONTINUOUS SHEATHING). SECURE w/ 5d COOLER NAILS (OR EQUAL PER TABLE R702.3.5) SPACED @ 7" O.C. AT PANEL EDGES, INCLUDING TOP AND BOTTOM PLATES & 7" O.C. AT INTERMEDIATE SUPPORTS.
 - 3/8" WOOD STRUCTURAL PANEL (WSP) SECURE w/ 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.
- EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-WSP METHOD AS PRESCRIBED IN SECTION R602.10.3 (UNO)
- ALL SHEATHABLE SURFACES OF EXTERIOR WALLS (INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS) SHALL BE CONTINUOUSLY SHEATHED WITH WOOD STRUCTURAL PANEL (WSP) SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND SPACED AT 12" O.C. AT INTERMEDIATE SUPPORTS.
- MINIMUM BRACED WALL PANEL LENGTHS WITH CS-WSP METHOD SHALL BE AS FOLLOWS:
 - 24" ADJACENT TO OPENINGS NOT MORE THAN 67% OF WALL HEIGHT
 - 30" ADJACENT TO OPENINGS GREATER THAN 67% AND LESS THAN 85% OF WALL HEIGHT
 - 48" FOR OPENINGS GREATER THAN 85% OF WALL HEIGHT
- SHEATH INTERIOR & EXTERIOR
- FOR CS-WSP METHOD, A MINIMUM 24" BRACED WALL PANEL CORNER RETURN SHALL BE PROVIDED AT BOTH ENDS OF A BRACED WALL LINE IN ACCORDANCE WITH FIGURE R602.10.3(4). IN LIEU OF A CORNER RETURN, EITHER A MIN. 48" BRACED WALL PANEL SHALL BE PROVIDED AT THE CORNER OR A HOLD-DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800# SHALL BE FASTENED TO THE EDGE OF THE BRACED WALL PANEL CLOSEST TO THE CORNER AND TO THE FOUNDATION OR FRAMING BELOW.
 - MINIMUM 800# HOLD-DOWN DEVICE

| REQUIRED BRACED WALL PANEL CONNECTIONS | | | | |
|--|-----------------------|----------------|----------------------------|----------------------------|
| METHOD | MATERIAL | MIN. THICKNESS | REQUIRED CONNECTION | |
| | | | @ PANEL EDGES | @ INTERMEDIATE SUPPORTS |
| CS-WSP | WOOD STRUCTURAL PANEL | 3/8" | 6d COMMON NAILS @ 6" O.C. | 6d COMMON NAILS @ 12" O.C. |
| GB | GYPSUM BOARD | 1/2" | 5d COOLER NAIL** @ 7" O.C. | 5d COOLER NAIL** @ 7" O.C. |
| WSP | WOOD STRUCTURAL PANEL | 3/8" | 6d COMMON NAILS @ 6" O.C. | 6d COMMON NAILS @ 12" O.C. |

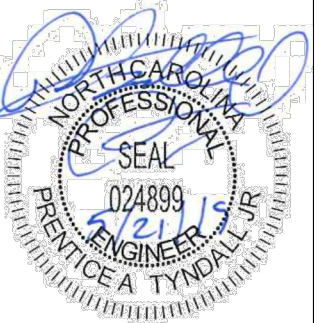
**OR EQUIVALENT PER TABLE R702.3.5

B3: BRACE WALL PANEL CONNECTIONS
 NO SCALE



B2: METHOD CS-PF: CONTINUOUSLY SHEATHED PORTAL FRAME
 FIGURE R602.10.1

*Engineers and does not include construction means, methods, techniques, sequences, procedures or safety precautions.
 Any deviations or discrepancies on plans are to be brought to the immediate attention of Tyn dall Engineering & Design, P.A. Failure to do so will void Tyn dall Engineering & Design, P.A. liability.
 **Please review these documents carefully. Tyn dall Engineering & Design, P.A. will interpret that all dimensions, recommendations, etc. presented in these documents were deemed acceptable under construction codes.



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SHEATHING DETAILS

Project #: 1901-010170
 Date: 5/20/19
 Drawn/Design By: JWA
 DWG. Checked By: PTH
 Scale: NOT TO SCALE

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Sheet Number
D3
 of 3