

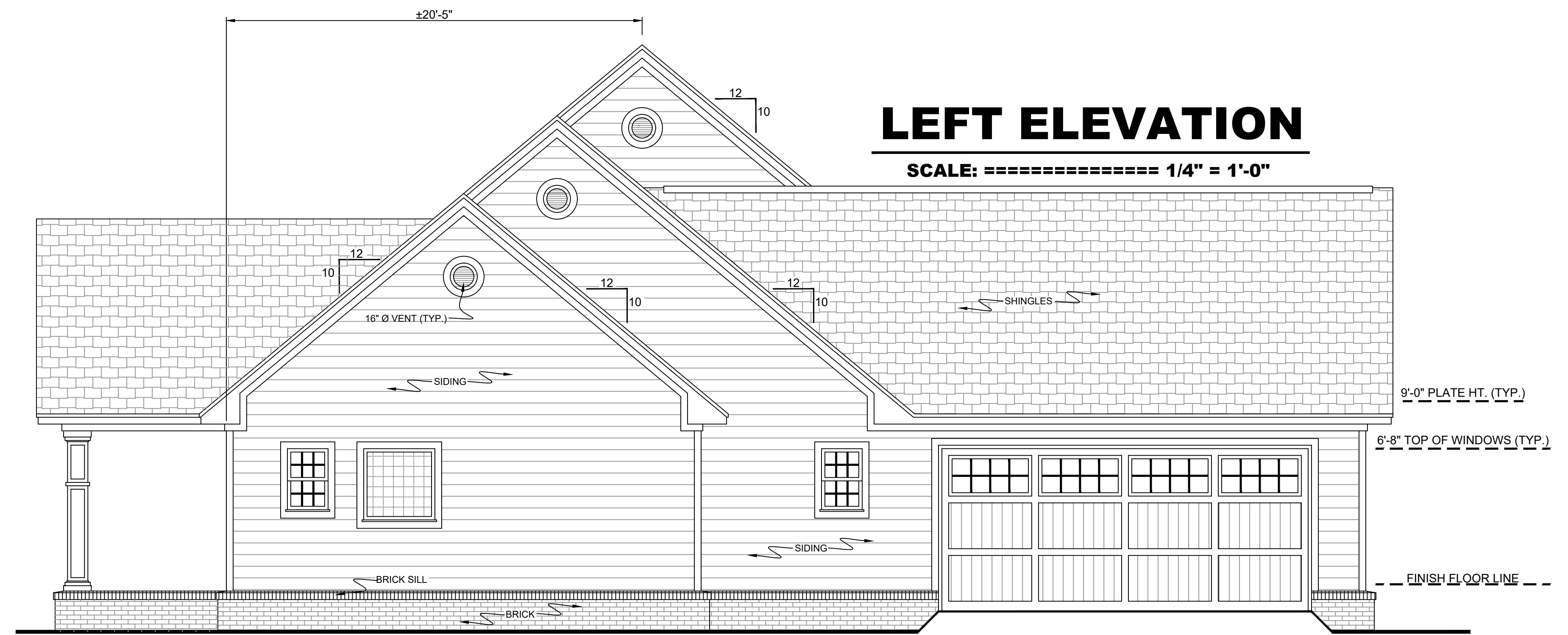
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## LEFT ELEVATION

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



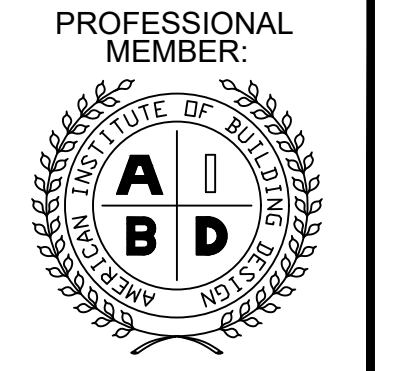
### NOTES

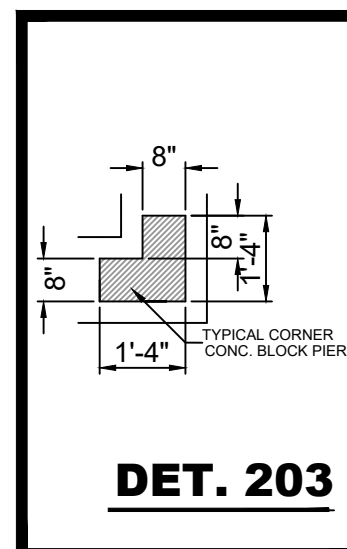
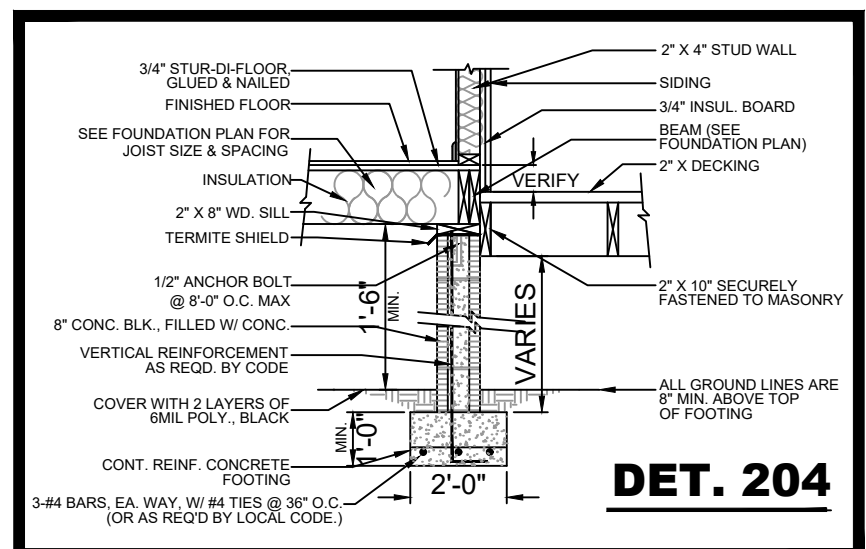
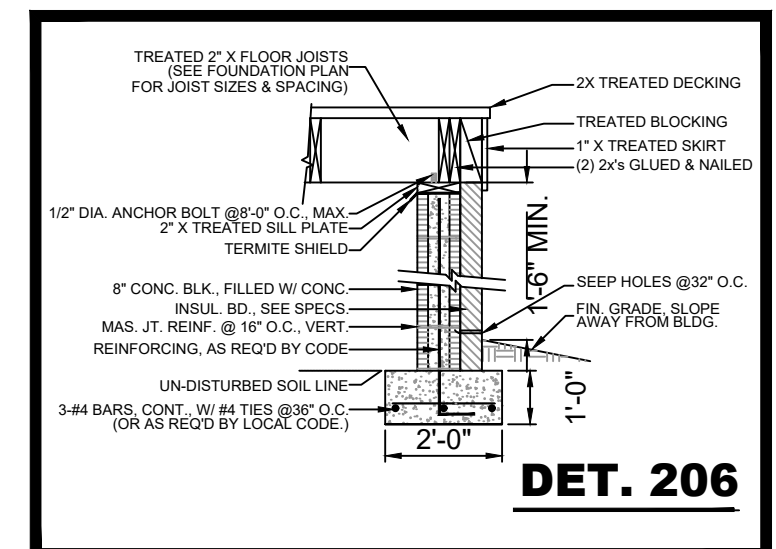
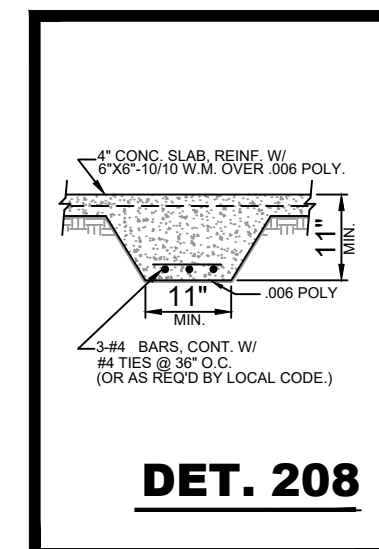
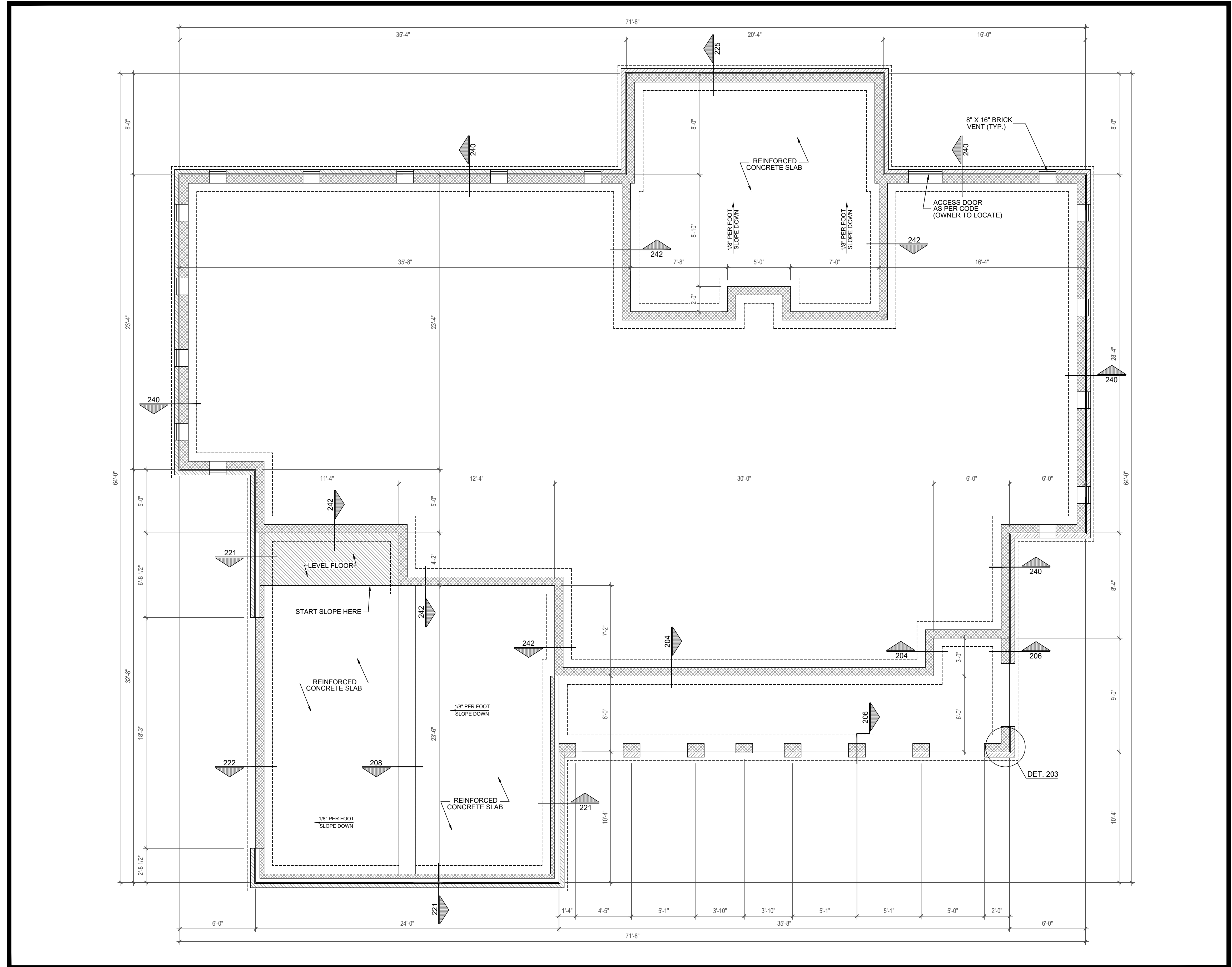
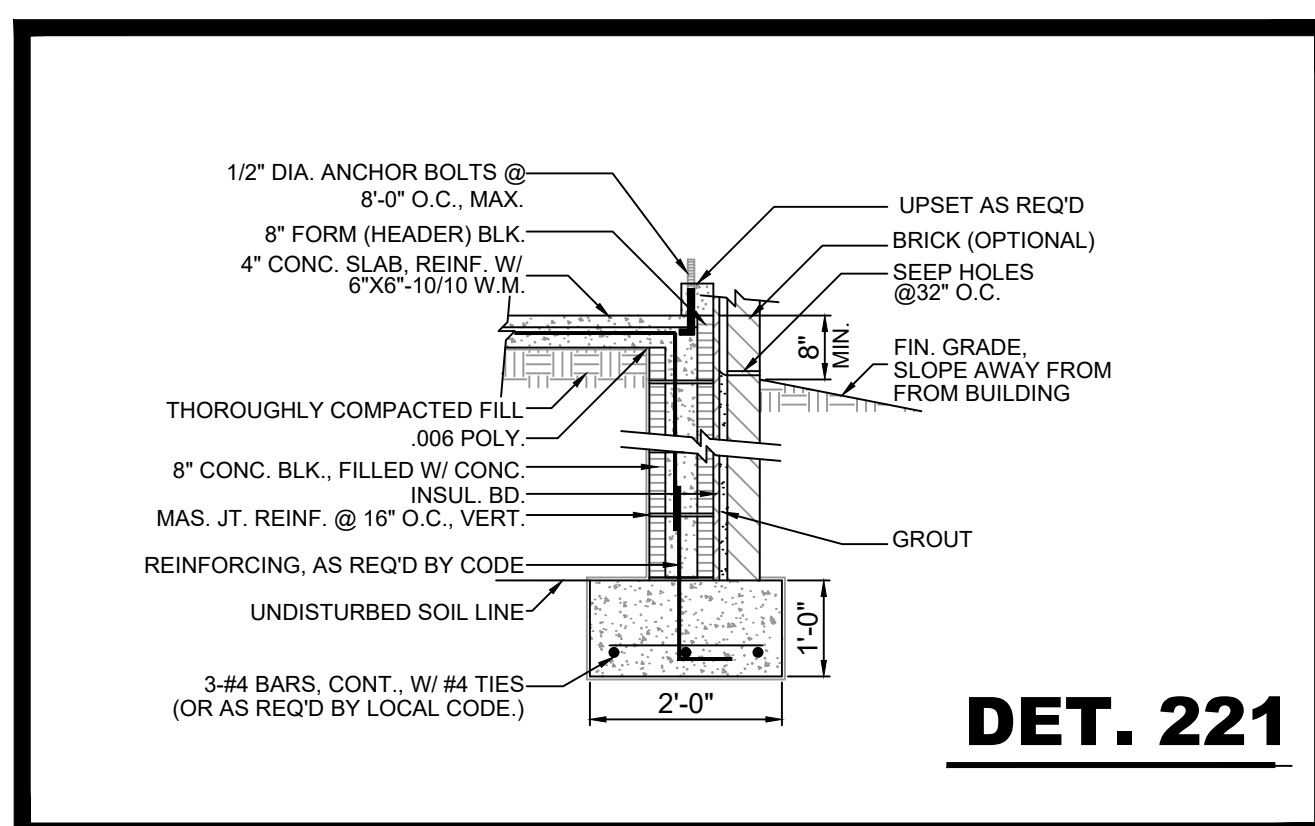
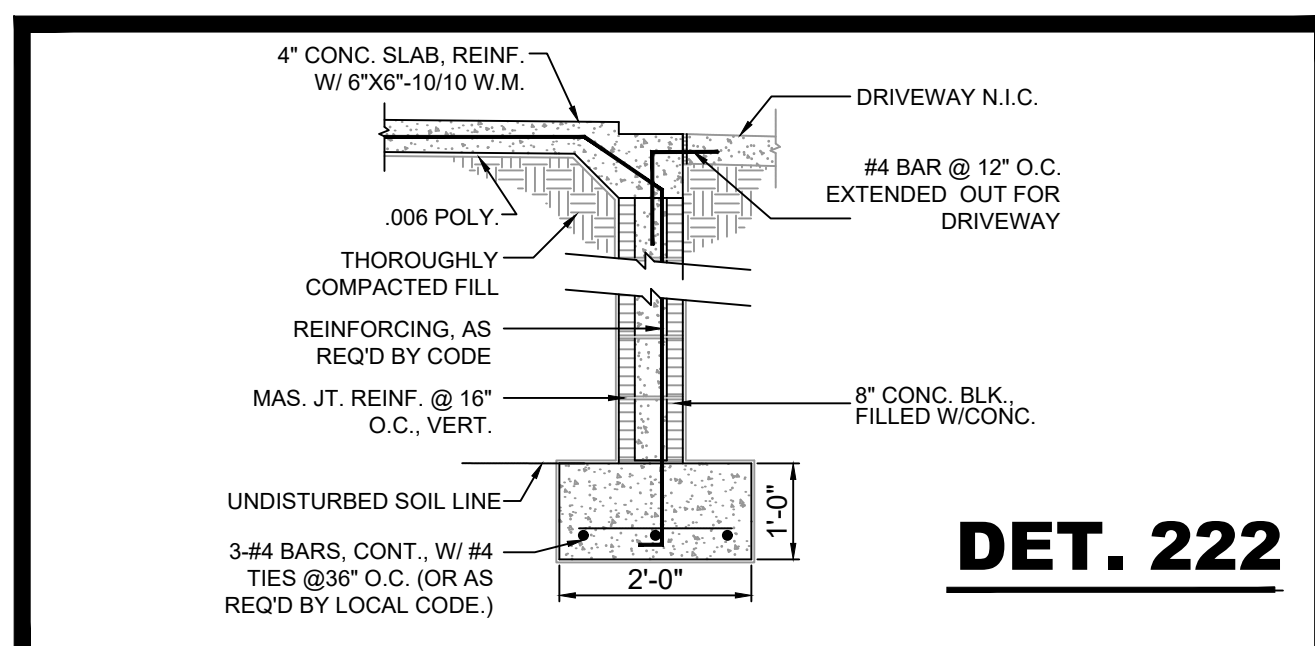
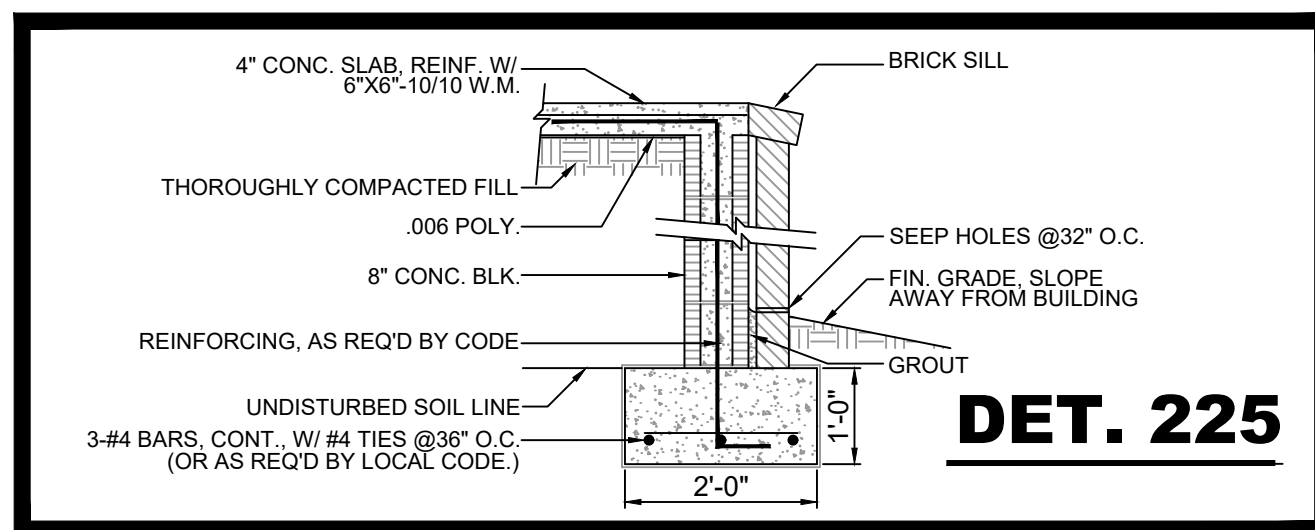
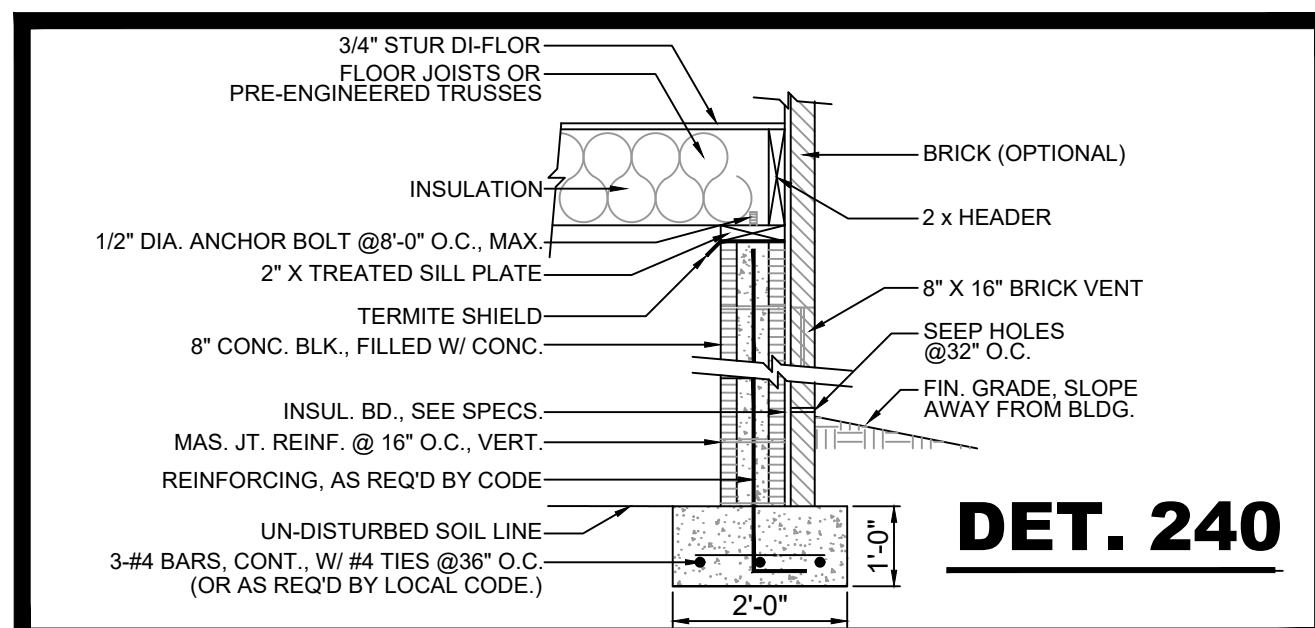
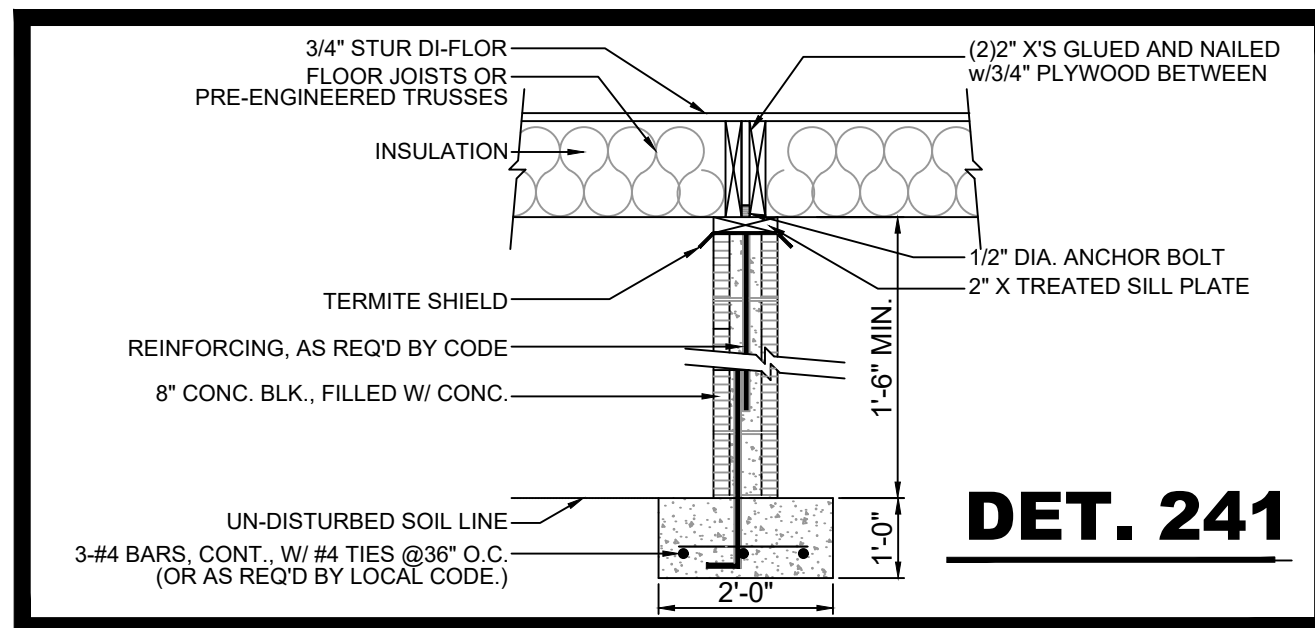
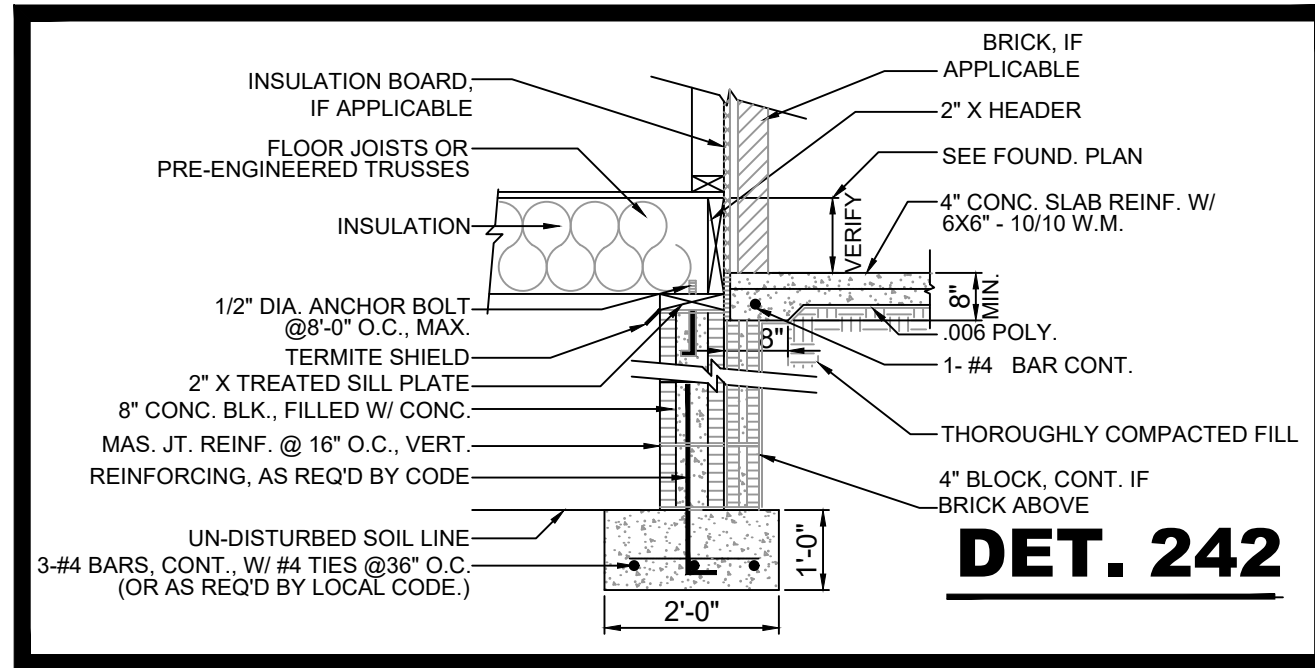
1. OWNER TO SELECT ALL DOOR & WINDOW STYLES.
2. VERIFY ALL STEPS REQUIRED @ SITE.
3. ALL GROUND LINES ARE APPROX.
4. VERIFY ALL EXTERIOR MATERIALS WITH OWNER PRIOR TO CONSTRUCTION.
5. REFER TO TYPICAL WALL FRAMING SECTION FOR FRAMING STYLE.

HOUSE PLAN GALLERY, INC.

6659 HWY. 98 WEST, HATTIESBURG, MS 39402  
 EMAIL: HOUSEPLANALLERY@COMCAST.NET || FAX: (601) 264-4483  
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DATE:	1/27/20
DRAWN BY:	GSM
CHECKED BY:	G.S.M.
PLAN NUMBER	HPG-
	<b>2204R</b>
ELEVATIONS	
SHEET NUMBER	<b>2</b>





**CRAWLSPACE FOUNDATION NOTES:**

1. WE RECOMMEND ALL FOOTING SIZES BE VERIFIED BY A LICENSED STRUCTURAL ENGINEER, BASED ON SOIL ANALYSIS AT SITE, PRIOR TO CONSTRUCTION.
2. FOUNDATION SHALL COMPLY WITH ALL APPLICABLE CODES AT SITE.
3. CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS WITH FOUNDATION PLAN AND MAKE NECESSARY ADJUSTMENTS.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PROPER DRAINAGE AT SITE.
5. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE.
6. GLUE ALL STUR DI-FLOOR FLOOR JOISTS TO FLOOR FRAMING AND NAIL SECURELY W/ RING-SHANK NAILS.
7. ALL FOUNDATION DETAILS ARE TYPICAL. SOME VARIATIONS MAY OCCUR. CONTRACTOR TO MAKE NECESSARY ADJUSTMENTS AT SITE.
8. CONTRACTOR TO PROPERLY SLOPE PORCHES & GARAGE AWAY FROM RESIDENCE FOR PROPER DRAINAGE.
9. CONTRACTOR TO LOCATE ACCESS DOOR @ SITE W/ OWNER FROM RESIDENCE FOR PROPER DRAINAGE.
10. ALL CONCRETE TO BE 4\"/>

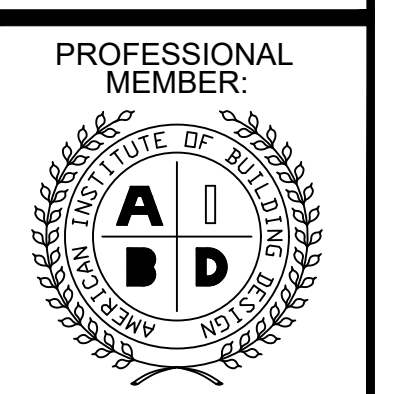
**FOUNDATION**  
SCALE: ===== 1/4" = 1'-0"

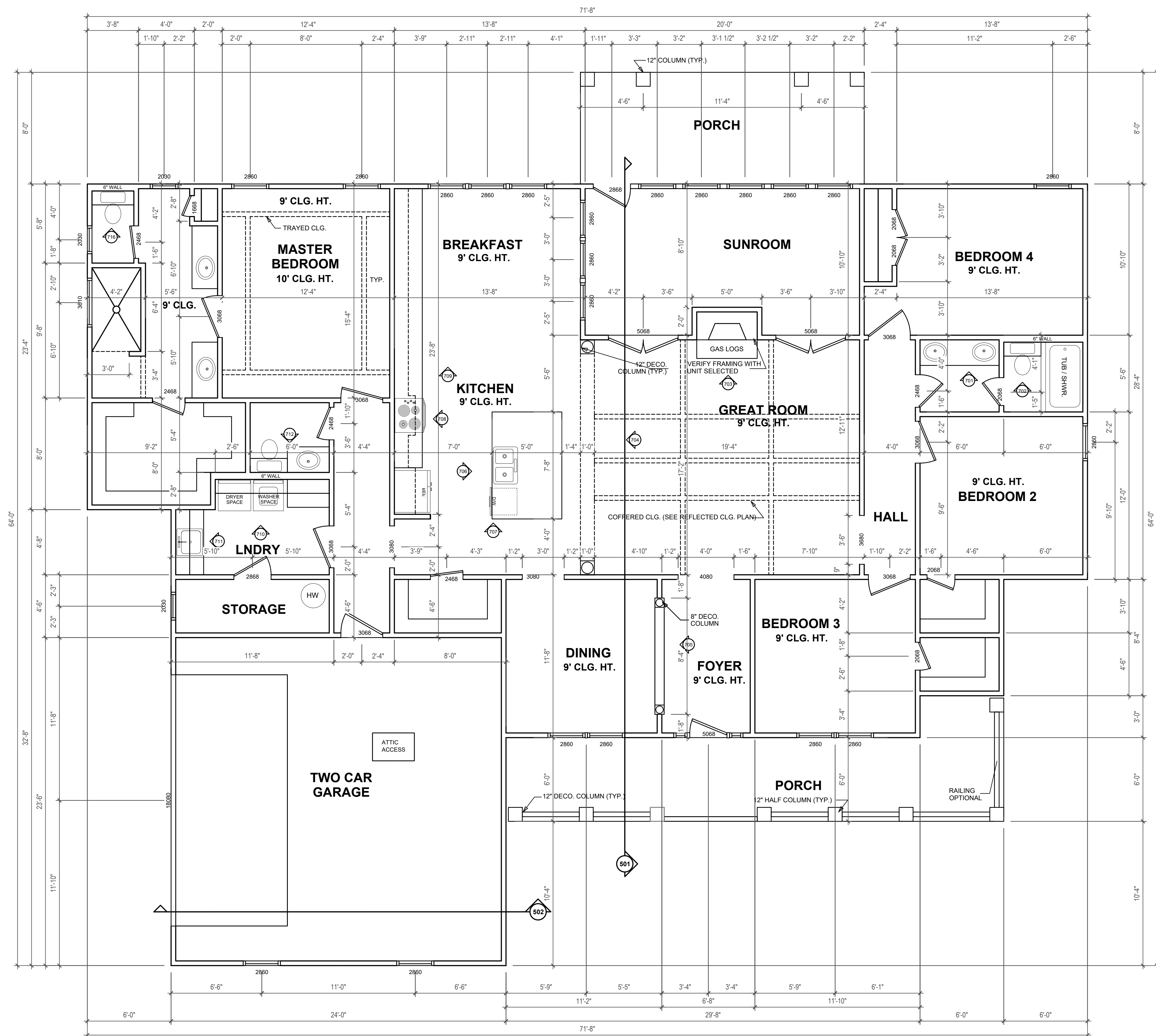
**HOUSE PLAN GALLERY, INC.**

6659 HWY. 98 WEST, HATTIESBURG, MS 39402  
EMAIL: HOUSEPLANGALLERY@COMCAST.NET \ FAX: (601) 264-4483

DATE: 01/27/20  
DRAWN BY: G.S.M.  
CHECKED BY: G.S.M.  
PLAN NUMBER HPG-2204R  
CRAWLSPACE FOUNDATION  
SHEET NUMBER

**3**





**NOTES:**

CONTRACTOR TO VERIFY ALL DIMENSIONS & EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION.

DOOR & WINDOW SIZES ARE GIVEN IN FEET & INCHES IN WIDTH & HEIGHT RESPECTIVELY.  
 DOOR EXAMPLE: 3068. 3'-0" WIDE BY 6'-8" TALL.  
 WINDOW EXAMPLE: 2840. 2'-8" WIDE BY 4'-0" TALL.

CONTRACTOR SHALL VERIFY ALL INTERIOR FINISHES, FLOOR COVERINGS, AND TRIM SIZES & CONFIGURATIONS WITH OWNER PRIOR TO CONSTRUCTION.

IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY CLEARANCES OF THE ITEMS MENTIONED ABOVE PRIOR TO CONSTRUCTION.

REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WALL FINISHES.

REFER TO MANUFACTURERS SPECS FOR ROUGH OPENING DIMENSIONS, FOR DOORS AND WINDOWS.

ALL BEAM SIZES TO BE VERIFIED BY STRUCTURAL ENGINEER.

CONTRACTOR SHALL MAKE ALL NECESSARY MODIFICATIONS DURING CONSTRUCTION PROCESS TO COMPLY WITH I.R.C. (INTERNATIONAL RESIDENTIAL CODE), LATEST EDITION, OR APPLICABLE CODES AT SITE.

# FLOOR PLAN

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

AREAS:	2442	S.F. HEATED
	1004	S.F. UNHEATED
	3446	S.F. TOTAL UNDER ROOF
		**MASONRY NOT INCLUDED**

# HOUSE PLAN GALLERY, INC.

6659 HWY. 98 WEST, HATTIESBURG, MS 39402  
 EMAIL: HOUSEPLANGALLERY@COMCAST.NET \ FAX: (601) 264-4483

DATE:  
1/25/20

DRAWN BY:  
GSM

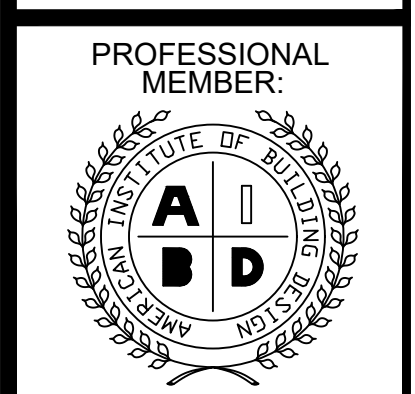
CHECKED BY:  
G.S.M.

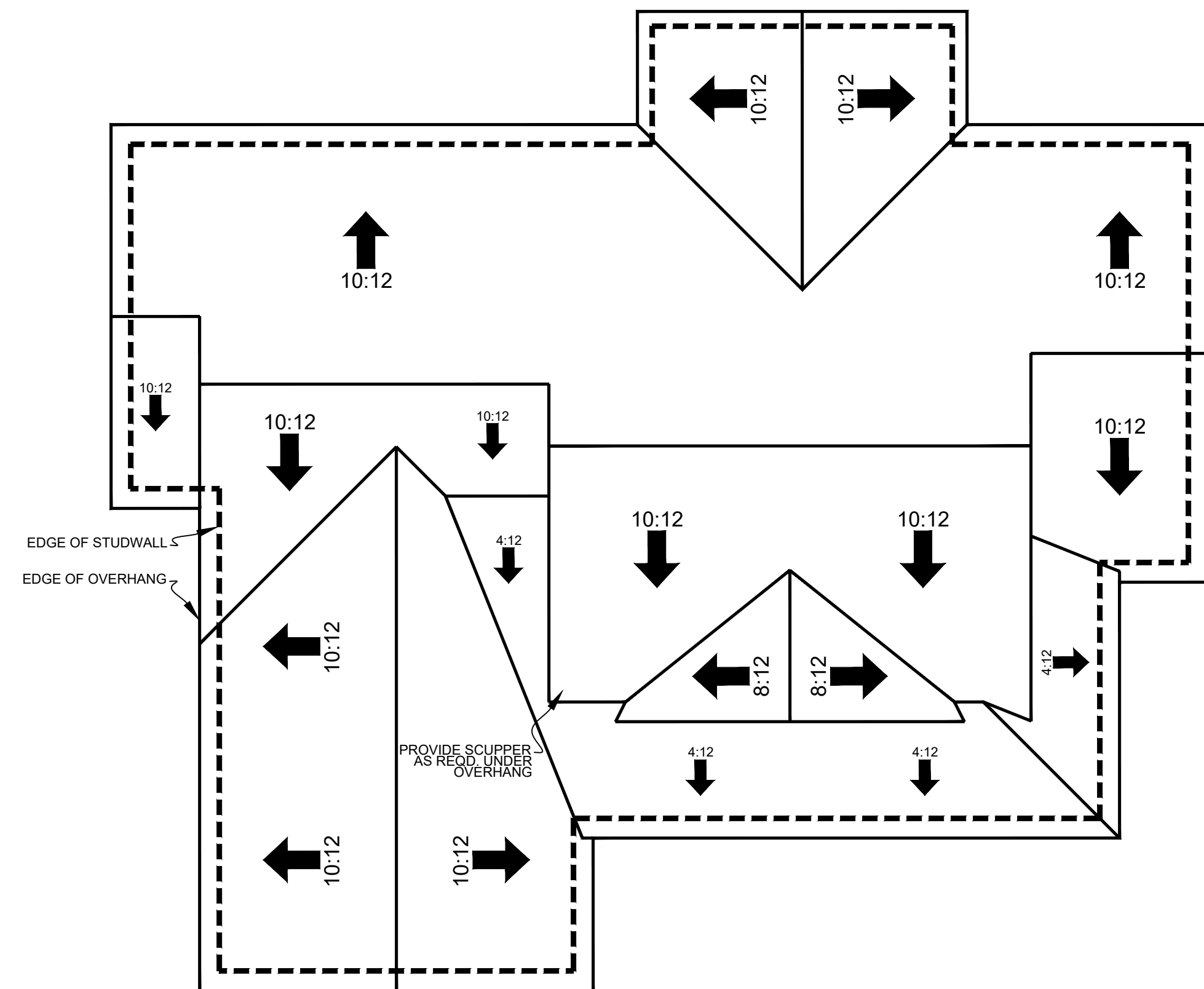
PLAN NUMBER  
HPG-  
2204

FIRST FLOOR

SHEET NUMBER

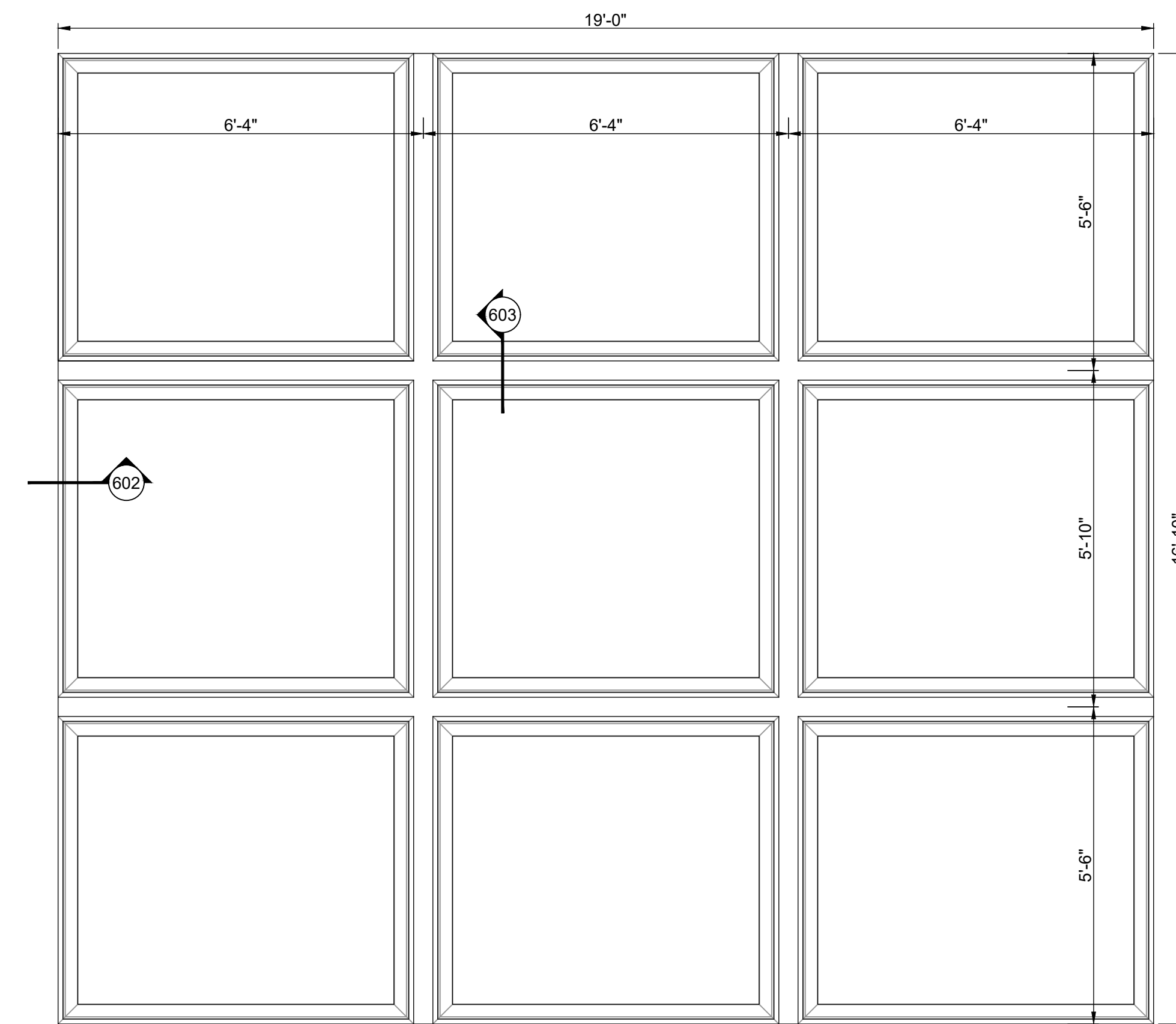
## 4





## ROOF DRAINAGE LAYOUT

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

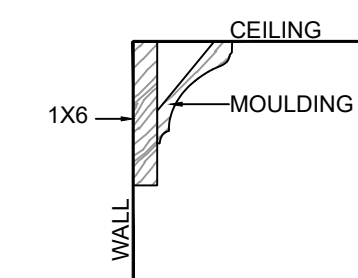


## REFLECTED CEILING PLAN

SCALE: ===== 1/2" = 1'-0"

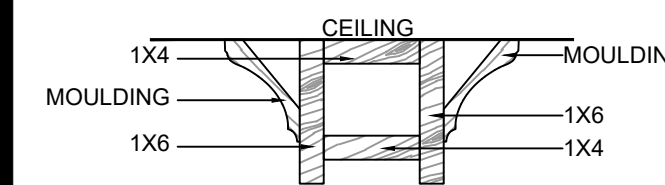
### ROOF DRAINAGE NOTES

1. ALL ROOF PITCHES TO BE VERIFIED WITH EXTERIOR ELEVATIONS.
2. PROVIDE FLASHING NECESSARY FOR WATERPROOFING.
3. ALL OVERHANGS ARE TO BE 1'-4" FROM EXTERIOR FACE OF STUD WALL UNLESS OTHERWISE NOTED.



### DETAIL 602

SCALE: ===== N.T.S.  
(SCHEMATIC) FOR GENERAL REFERENCE ONLY

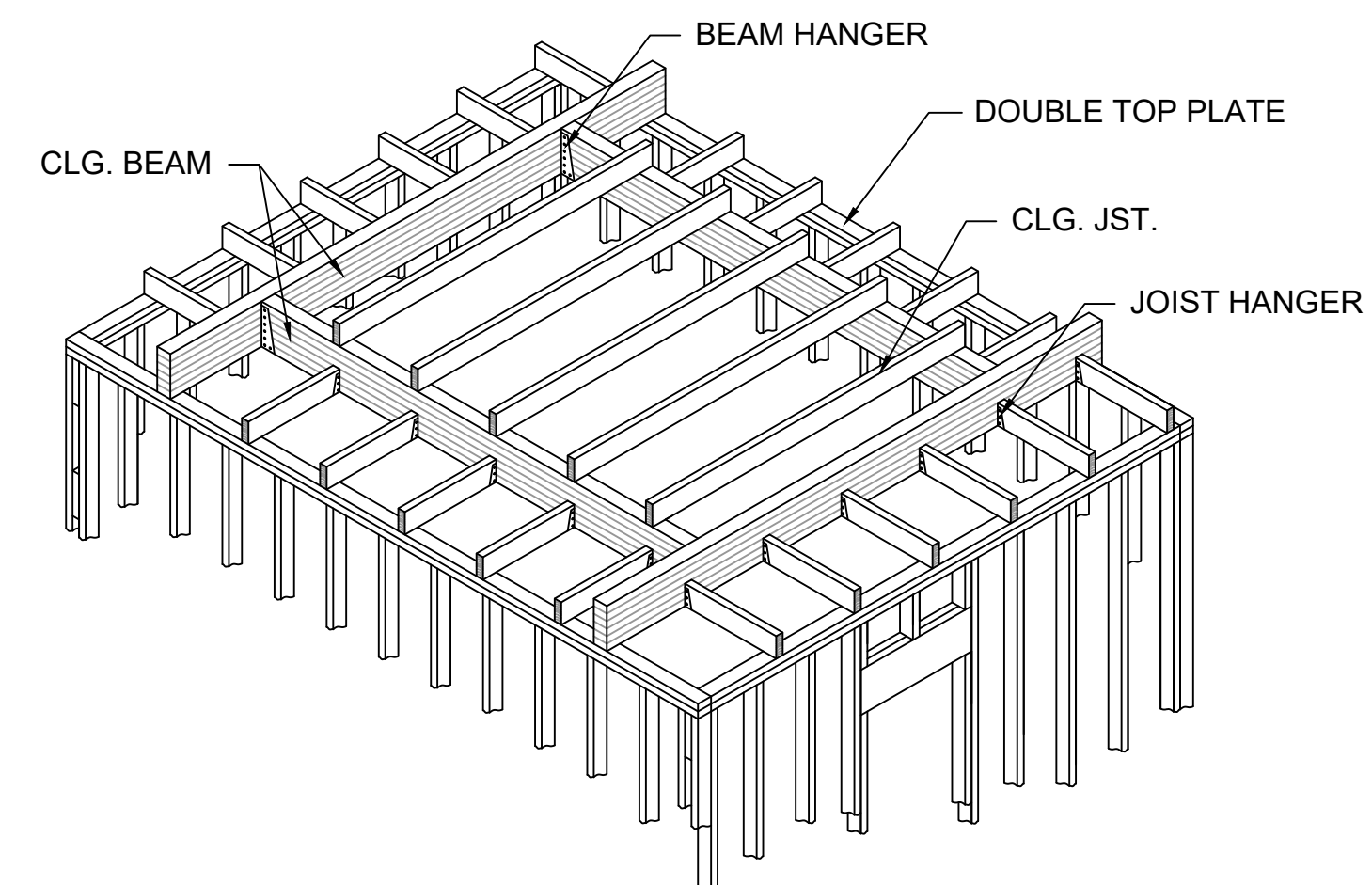


### DETAIL 603

SCALE: ===== N.T.S.  
(SCHEMATIC) FOR GENERAL REFERENCE ONLY

### ROOF FRAMING NOTES

1. ALL RAFTERS SHALL BE PER LOCAL CODE.
2. ALL RIDGE BEAMS, HIP RAFTERS, AND VALLEY RAFTERS ARE TO BE PER LOCAL CODE.
3. ALL WORK SHALL BE IN COMPLIANCE WITH ALL APPLICABLE BUILDING CODES AT SITE.
4. ALL ROOF/WALL INTERSECTIONS AND VALLEYS TO BE THOROUGHLY FLASHED W/ 22 GA. G.I. FLASHING, 24" MINIMUM WIDTH.



## TRAYED CLG. DETAIL

DATE:  
1/27/20

DRAWN BY:  
GSM

CHECKED BY:  
G.S.M.

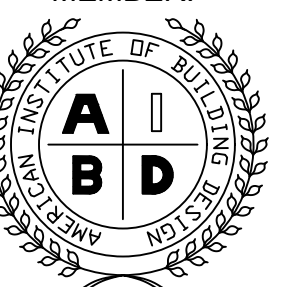
PLAN NUMBER  
HPG-  
**2204R**

ROOF PLAN

SHEET NUMBER

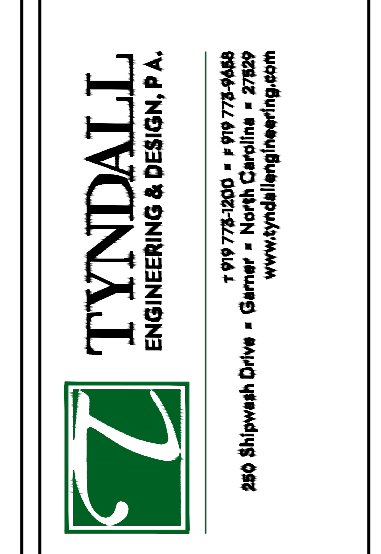
**5**

PROFESSIONAL MEMBER:





\*Engineers and designers do 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 once construction begins.



**TYNDALL**  
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 www.tyndallengineering.com  
 280 Blinnwood Drive • Garner • North Carolina • 27828

CLIENT: **DEBORRAH HUDSON**  
 PROJECT: **HUDSON RESIDENCE**

**1ST FLOOR HEADER**  
**1ST FLOOR CEILING**

Project #: **DRB2101-010170**  
 Date: **08/13/2021**  
 Drawn/Design By: **IJE / SM**  
 DWG. Checked By: **PAT**  
 Scale: **SEE PLAN**

REVISIONS		
No.	Date	Remarks

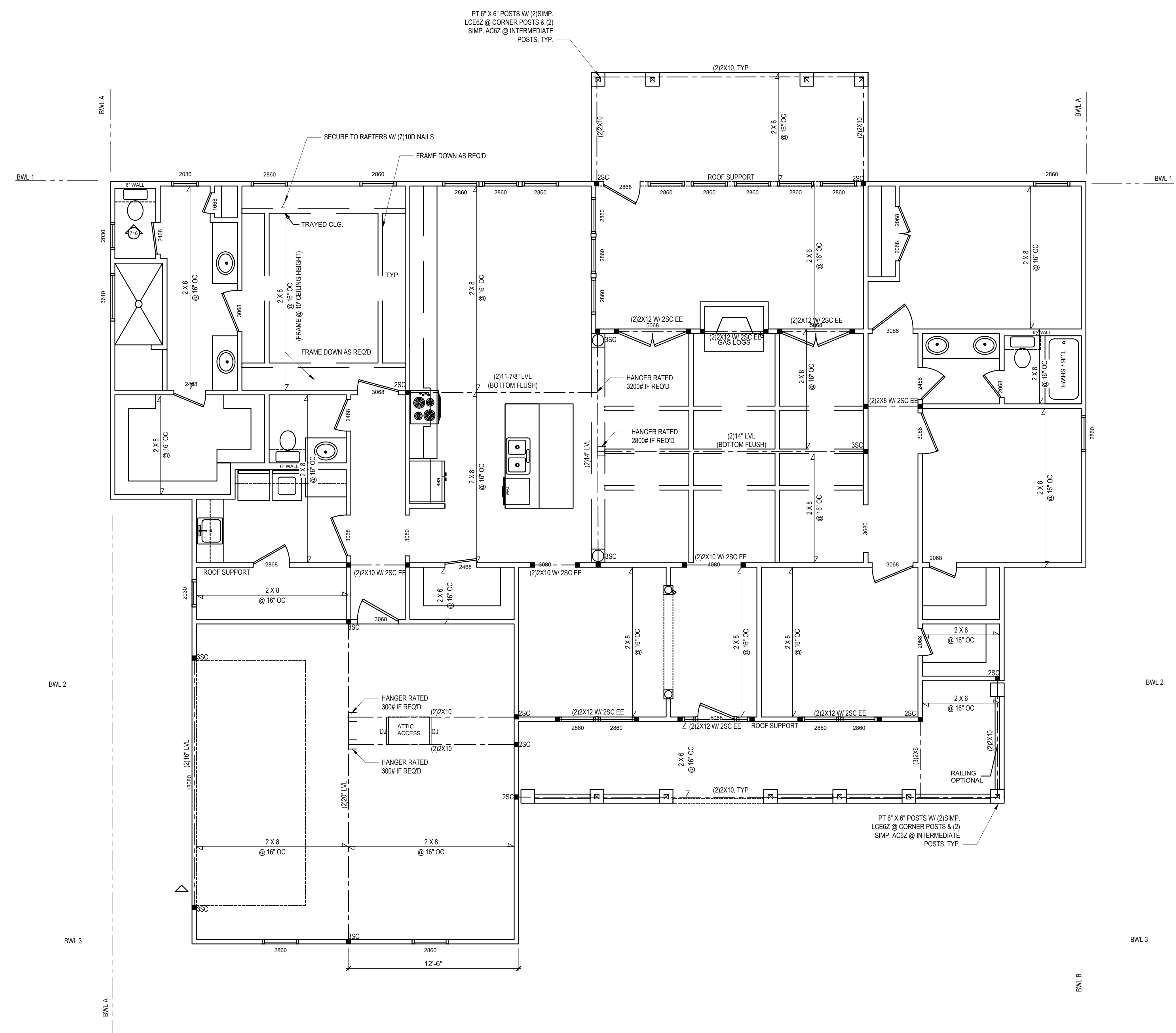
Sheet Number  
**S2**  
 2 of 5

**DESIGN LOADS**

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION	
			LL	TL
FLOOR (primary)	40	10	L/360	L/240
FLOOR (secondary)	40	10	L/360	L/240
ATTIC (w/ storage)	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	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 Fb = 2600 PSI, E = 1.9M PSI
  - (E. LEVEL MICROLAM)  
 ALL LVL LUMBER IS TO BE 1.55E (Fb = 2325 PSI)
  - ALL LOAD BEARING EXTERIOR WINDOW HEADERS ARE TO BE (2) 2x10 w/ (1) 2x4 JACK STUD (U.N.O.) AND KING STUDS PER TABLE R602.7.5, AND TOGETHER W/ (2) 10d NAILS @ 8" O.C., PROVIDED THAT THE TOP OF THE WINDOW HEIGHT IS 6'-8", MINIMUM BOTTOM OF THE WINDOW HEIGHT IS 1'-6". OTHERWISE REFER TO TABLES R602.7(1) AND R602.7(2).
  - ALL INTERIOR LOAD BEARING HEADERS TO BE (2) 2x10 (U.N.O.) REFER TO TABLES R602.7(1) AND 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  
 Fy = 50 KSI MIN. (UNO)
  - ALL EXTERIOR LUMBER TO BE #2 SYP PT
  - ALL CONCRETE, fc = 3000 PSI MIN.
  - PRESUMPTIVE BEARING CAPACITY = 2000 PSF
  - 1/2"Ø 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 COLUMNS DESIGNED WITH MAX. HEIGHT OF 9'-0" (UNO)
  - PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)
  - PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.4 OF THE 2018 IRC
  - MAXIMUM MASONRY PIER 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 NCRC.
  - 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 NCRC.
  - 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/ 5d COMMON NAILS SPACED AT 8" 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 5d 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 2x4 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



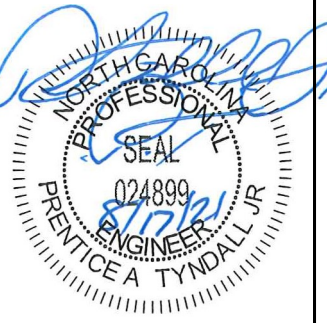
**FIRST FLOOR PLAN**  
 1/4" = 1'-0"

**BRACING PANEL LENGTHS REQUIRED:**  
 BWL A = 11.2 FT  
 BWL B = 11.2 FT  
 BWL 1 = 5.9 FT  
 BWL 2 = 9.2 FT  
 BWL 3 = 3.3 FT

**BRACING PANEL LENGTHS PROVIDED:**  
 BWL A = 35.4 FT CS-WSP  
 BWL B = 35.4 FT CS-WSP  
 BWL 1 = 29.02 FT CS-WSP  
 BWL 2 = 36.9 FT CS-WSP  
 BWL 3 = 19 FT CS-WSP

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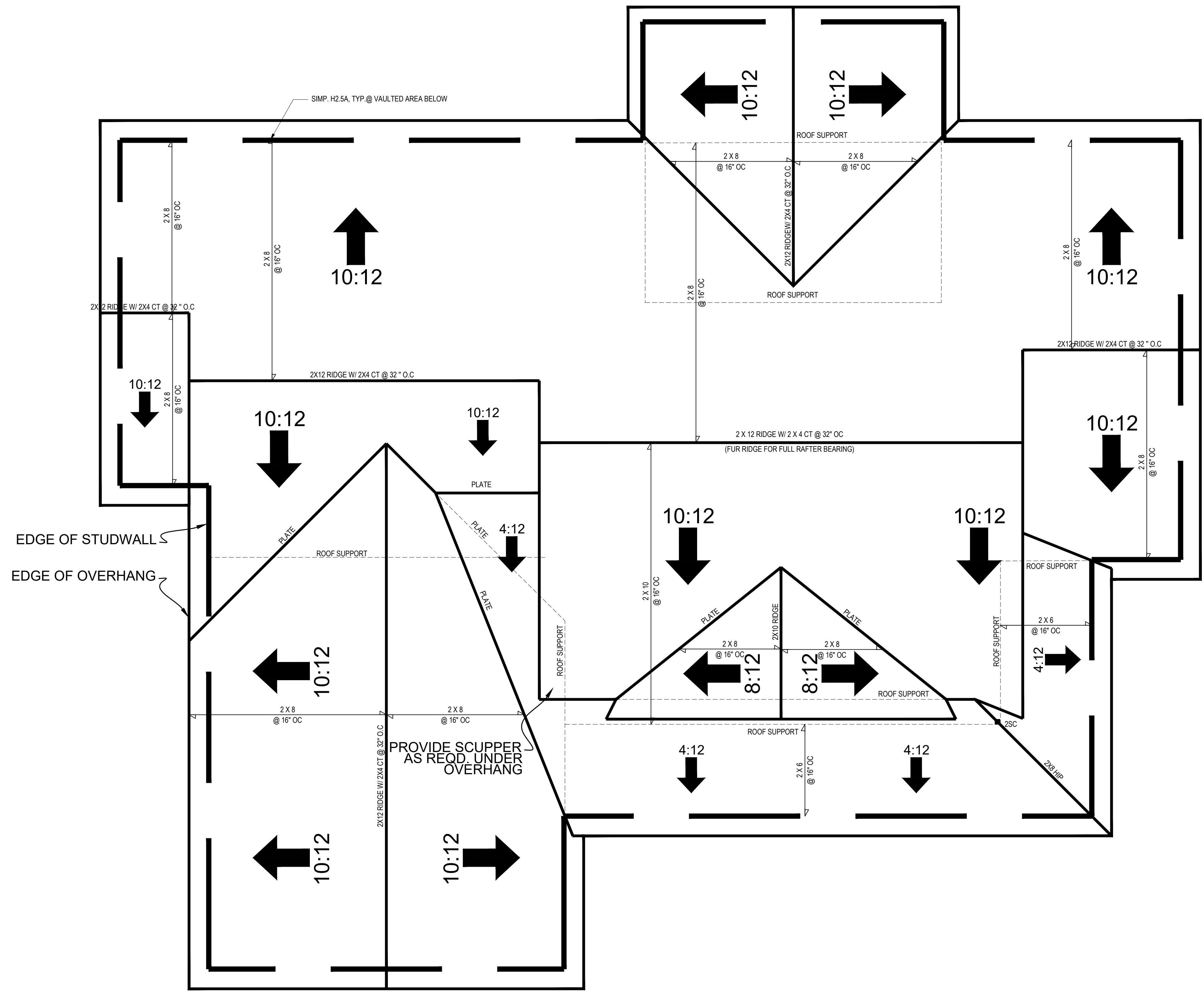
Client: **DEBORRAH HUDSON**  
 Project: **HUDSON RESIDENCE**

# ROOF PLAN

Project #: **DRB2101-010170**  
 Date: **08/13/2021**  
 Drawn/Design By: **IJE / SM**  
 DWG. Checked By: **PAT**  
 Scale: **SEE PLAN**

REVISIONS		
No.	Date	Remarks

Sheet Number  
**S3**  
 3 of 5



**ROOF PLAN**  
 1/4" = 1'-0"

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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 (no walk up 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	20	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.C.)
- 5) MAXIMUM DEPTH OF UNBALANCED FILL AGAINST FOUNDATION WALLS TO BE LESS THAN 4'-0" WITHOUT USING SUFFICIENT WALL BRACING. REFER TO SECTION R602.3 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 (F<sub>b</sub> = 800 PSI, BASED ON D<sub>x</sub>/D<sub>0</sub>) (U.N.) ALL FRAMING LUMBER EXPOSED TO THE ELEMENTS SHALL BE TREATED MATERIAL. ALL LVL LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND F<sub>b</sub> = 2000 PSI, E = 1.9M PSI (U.N.O.) ALL L.S. LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND F<sub>b</sub> = 2325 PSI, E = 1.8M PSI (U.N.O.) ALL PSL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND F<sub>b</sub> = 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 3/12" AND FULL FLANGE WIDTH PROVIDED 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" Ø 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 VALLES BOTH POSITIVE AND NEGATIVE SHALL BE AS FOLLOWS:  
39.0 LBS/SQFT FOR ROOF PITCHES 0/12 TO 1/12  
36.0 LBS/SQFT FOR ROOF PITCHES 1/12 TO 2/12  
18.0 LBS/SQFT FOR ROOF PITCHES 6/12 TO 12/12  
MEAN ROOF HEIGHT 32'-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 N.C.R.C.
- 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 DIMENSION. (U.N.O.)
- 20) MAXIMUM MASONRY PER 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, P.A. IS NOT RESPONSIBLE FOR DIMENSION OR SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.

**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 = POINT LOAD
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	SCH = 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	W/F = 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"

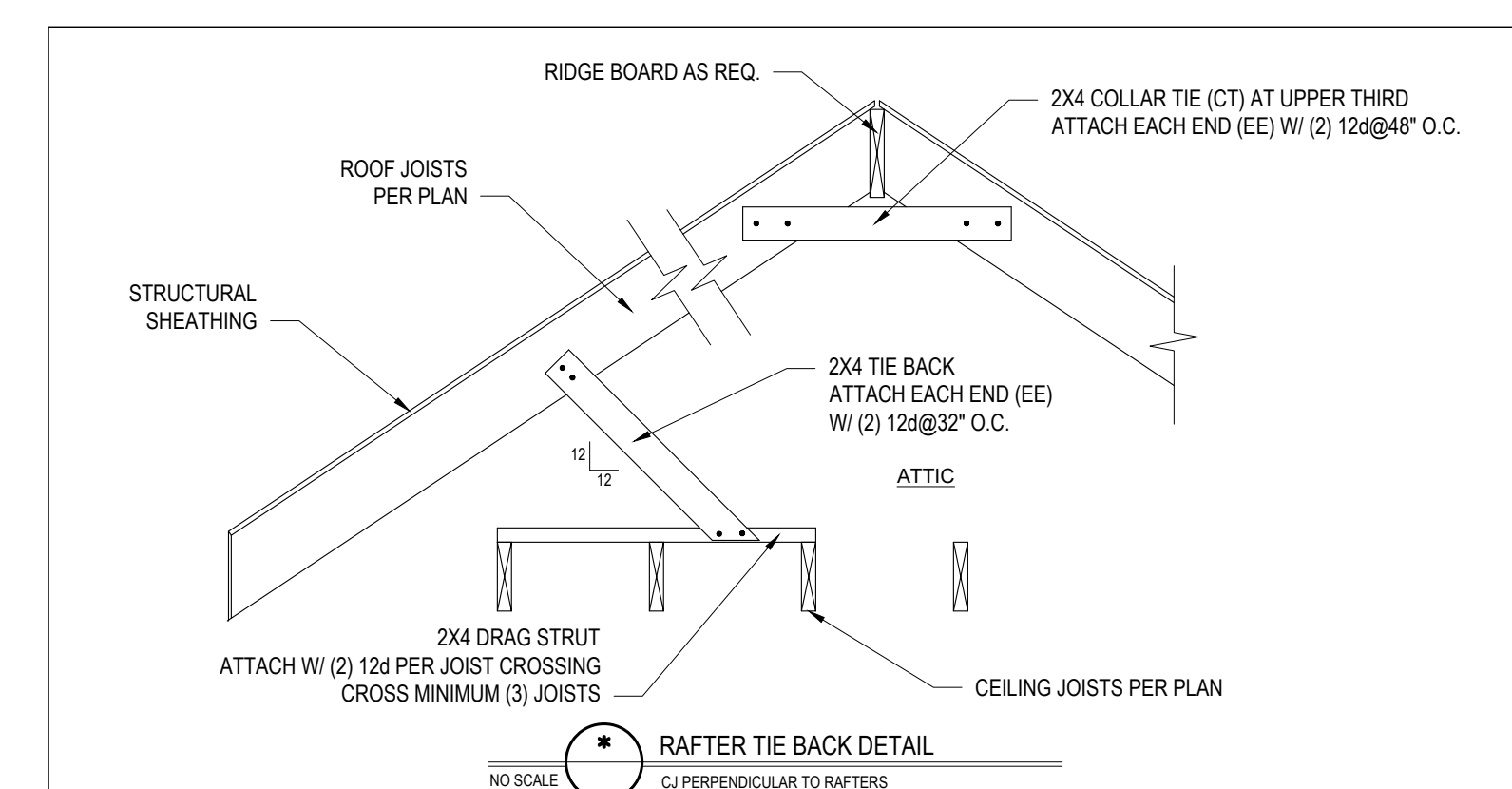
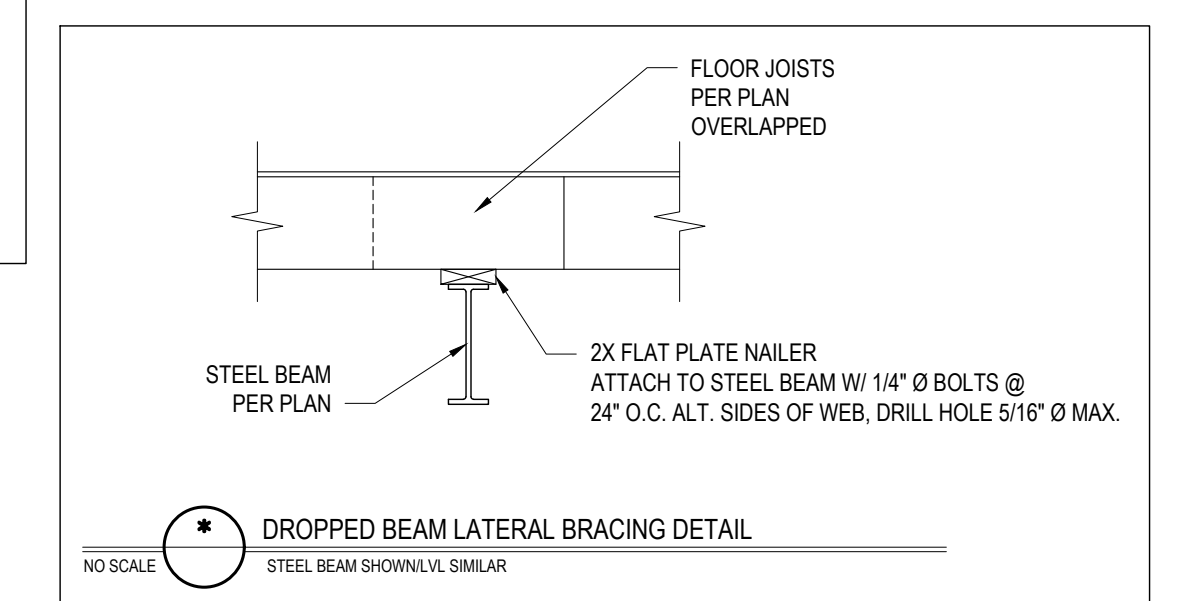
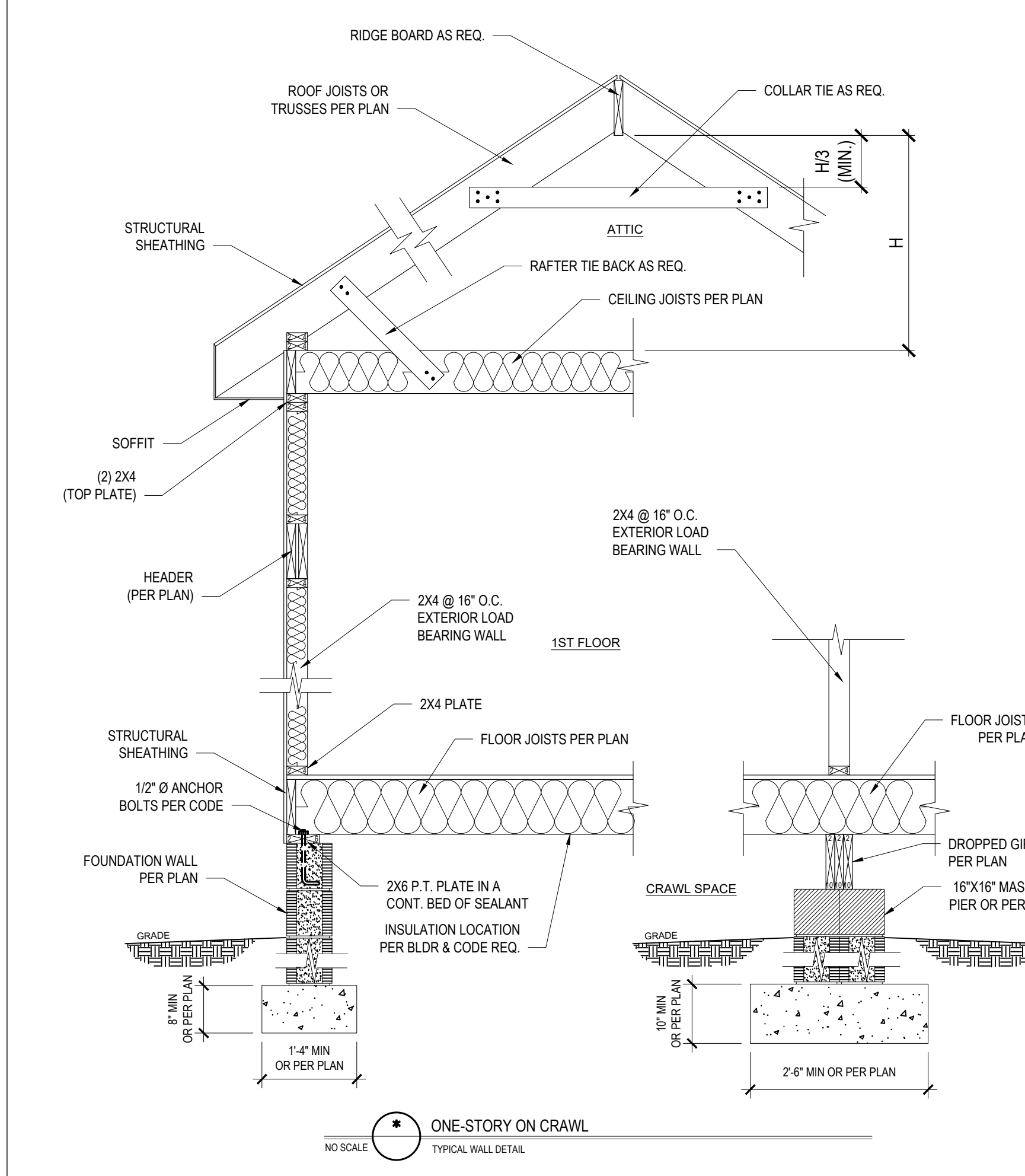
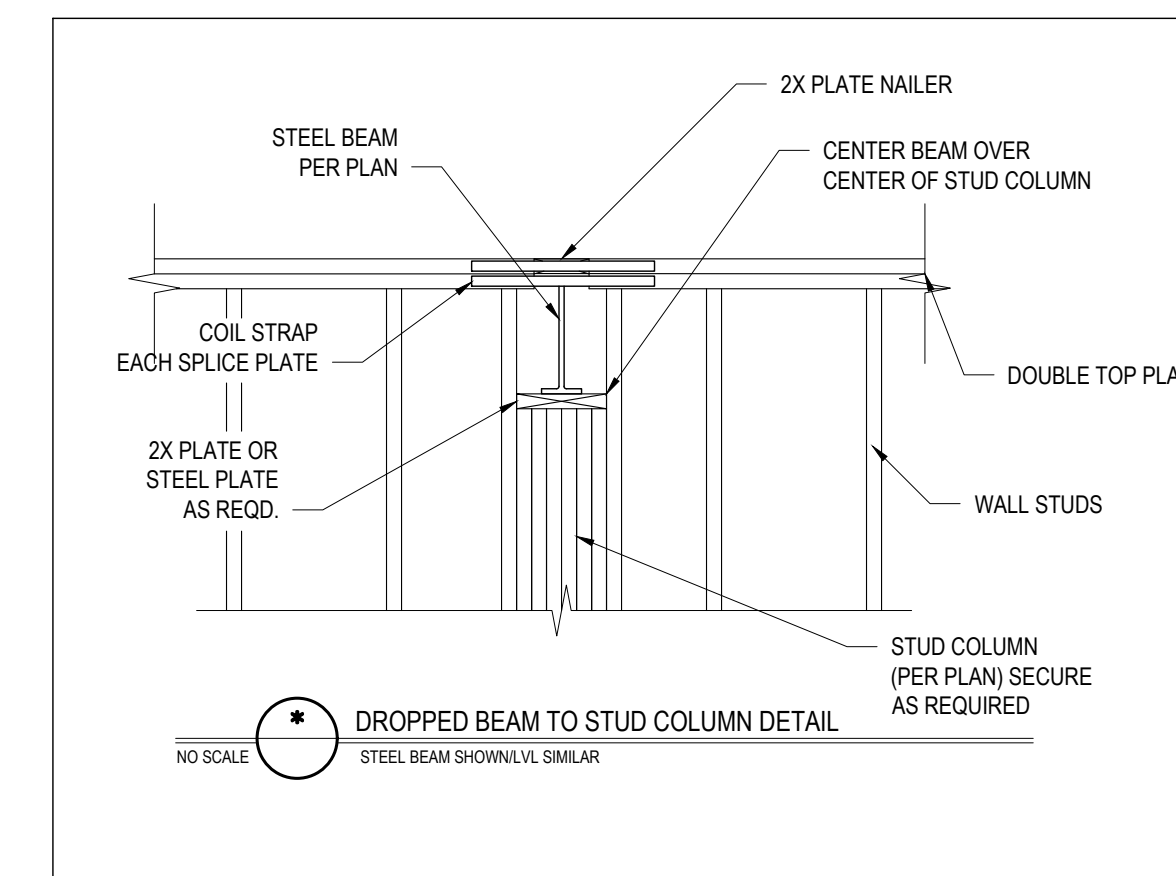
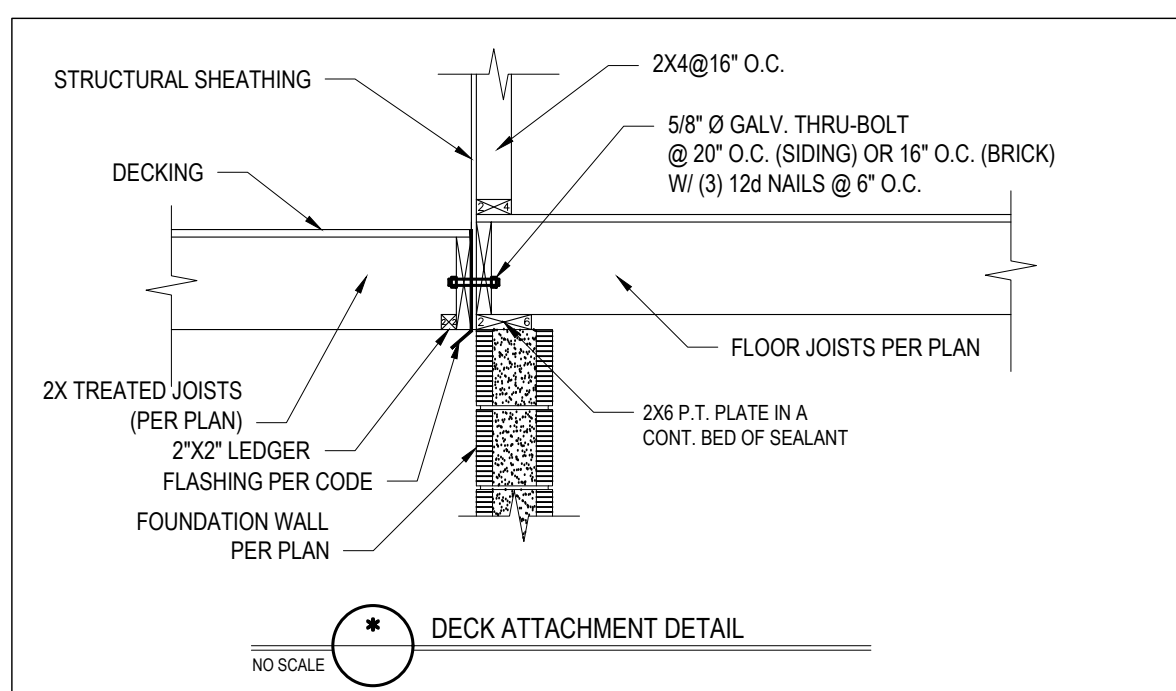
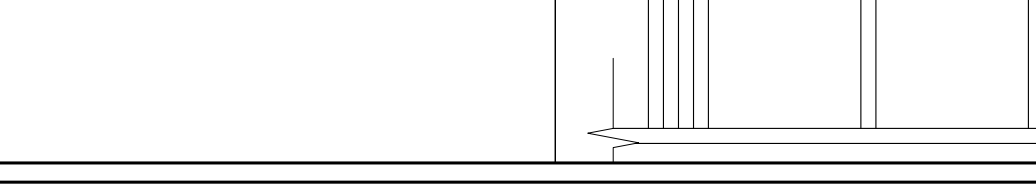
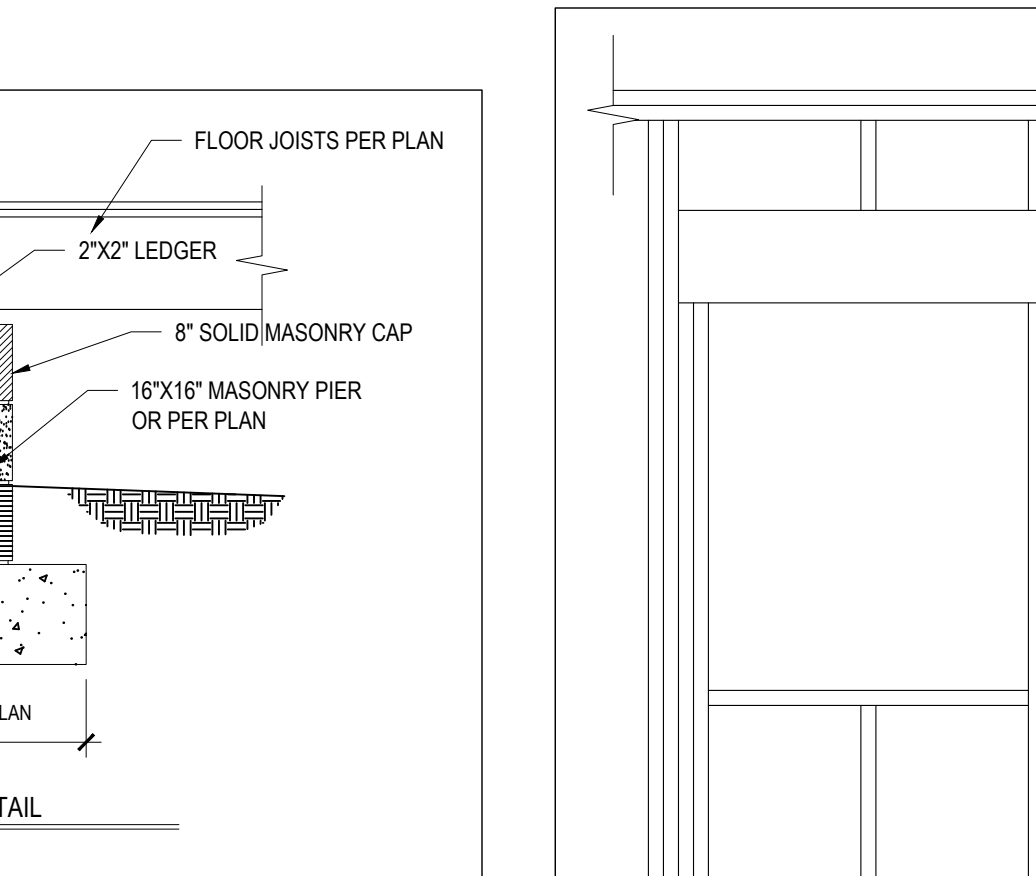
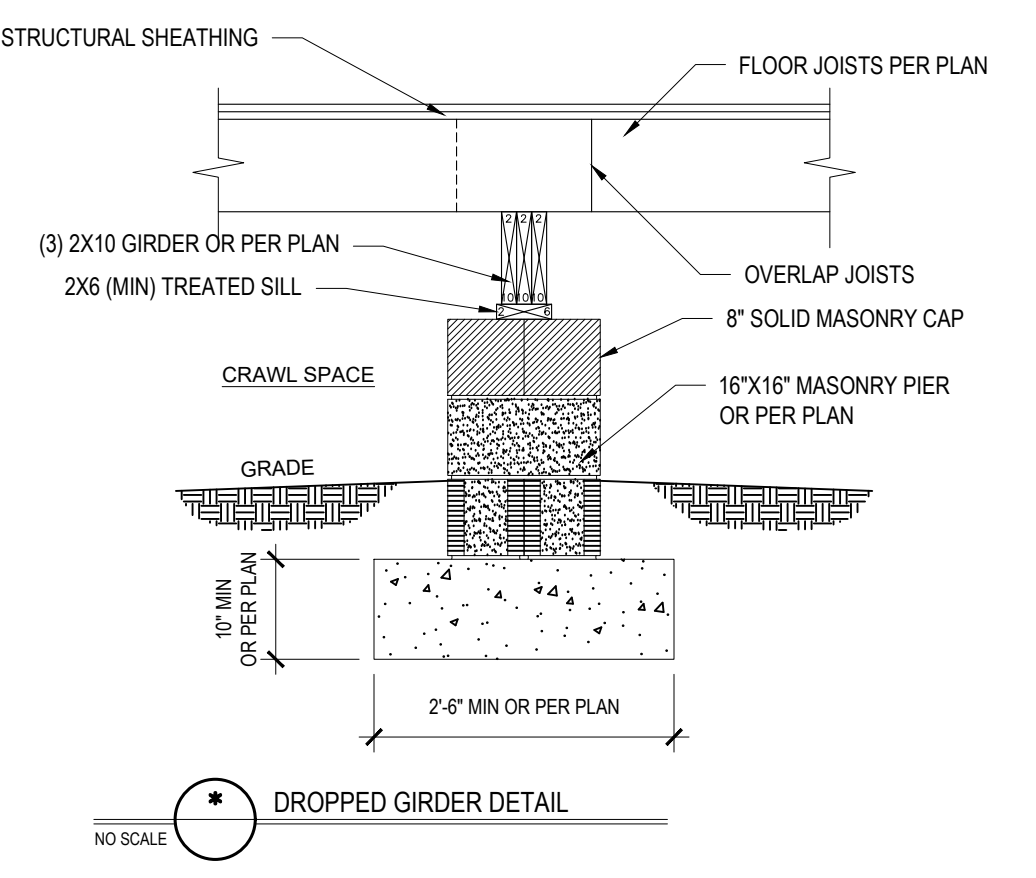
\* THIS TABLE IS BASED ON NO. 2 TREATED SOUTHERN PINE POSTS. MAXIMUM TRIBUTARY AREA IS BASED ON 128 TOTAL SQUARE FEET WHICH MAY BE LOCATED AT DIFFERENT LEVELS.  
\*\* FROM TOP OF FOOTING TO BOTTOM OF GIRDER.  
\*\*\* DECKS WITH POST HEIGHTS OVER 20'-0" SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER 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" Ø 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" Ø HOT DIPPED GALVANIZED BOLT AT EACH END OF EACH BRACING MEMBER.
- E. FOR EMBEDMENT OF PILES IN COASTAL REGIONS, SEE CHAPTER 46.



CLIMATE ZONES

CLIMATE ZONES	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	GLAZED FENESTRATION SHGC	CEILING R-VALUE	WOOD FRAMED WALL R-VALUE	MASS WALL R-VALUE	FLOOR R-VALUE	BASEMENT WALL R-VALUE	SLAB R-VALUE	CRAWL SPACE WALL R-VALUE
3	0.35	0.55	0.30	38 or 30 cont	15 or 13 + 2.5	5/13 or 5/10 cont	19	5/13	0	5/13
4	0.35	0.55	0.30	38 or 30 cont	15 or 13 + 2.5	5/13 or 5/10 cont	19	10/15	10	10/15
5	0.35	0.55	NR	38 or 30 cont	19, or 13 + 5 or 13 + 3	13/17 or 13/12.5 cont	30	10/15	10	10/19

**TABLE N1102.1 CLIMATE ZONES 3-5**

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

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

2. 1/2" MEANS 1/2" CONTINUOUS INSULATION (SPACING) ON THE INTERIOR OR EXTERIOR OF THE HOME OR IN A CAVITY.

3. FOR MONOLITHIC SLAB INSULATION SHALL BE APPLIED FROM THE INSULATION GAP DOWNWARD TO THE BOTTOM OF THE FOOTING OR MINIMUM 2" BELOW GRADE. INSULATION IS USED FOR EXTERIOR SLAB INSULATION SHALL EXTEND TO THE BOTTOM OF THE FOUNDATION WALL OR 2" BELOW GRADE. R-4 SHALL BE ADDED TO THE REQUIRED SLAB EDGE R-VALUES FOR HEATED SLABS.

4. GLETSO

5. BASEMENT WALL INSULATION IS NOT REQUIRED IN WINTERING LOCATIONS AS DEFINED BY FIGURE N1102.7 AND TABLE N1102.7.

6. OR INSULATION SUFFICIENT TO FILL THE FRAMING CAVITY. 10 MINIMUM

7. THE FIRST VALUE IS CAVITY INSULATION. THE SECOND VALUE IS CONTINUOUS INSULATION. 10" 13" MEANS R-13 CAVITY INSULATION PLUS R-13 INSULATED SHEATHING. 15" MEANS R-15 CAVITY INSULATION. PLUS R-9 INSULATED SHEATHING. 2" STRUCTURAL SHEATHING COVERS 25% OR LESS OF THE EXTERIOR INSULATION. INSULATION IS NOT REQUIRED WHERE THE STRUCTURAL SHEATHING IS USED. 2" STRUCTURAL SHEATHING COVERS MORE THAN 25 PERCENT OF THE EXTERIOR. SHALL BE SUBSTITUTED WITH INSULATION SPECIFIED IN TABLE N1102.1. 2" MEANS R-13 CAVITY INSULATION PLUS 2.5 SHEATHING.

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

9. IN ADDITION TO THE EXEMPTION IN SECTION N1102.3.3, A MINIMUM OF TWO GLAZED FENESTRATION PRODUCT ASSEMBLIES HAVING A U-FACTOR NO GREATER THAN 0.35 SHALL BE PERMITTED TO BE SUBSTITUTED FOR MINIMUM CODE COMPLIANT FENESTRATION PRODUCT ASSEMBLIES WITHOUT PENALTY.

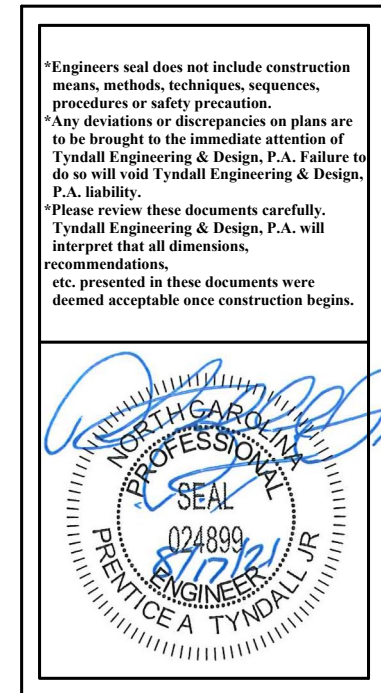
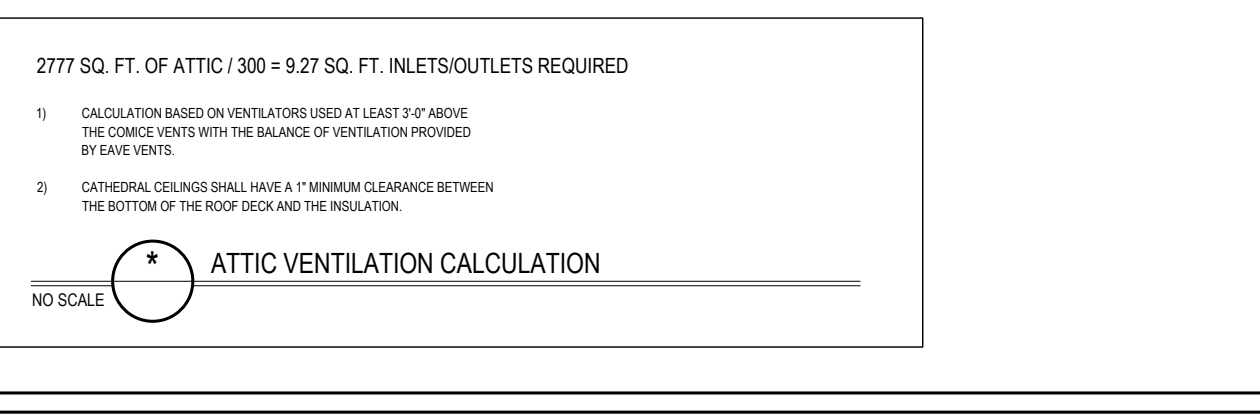
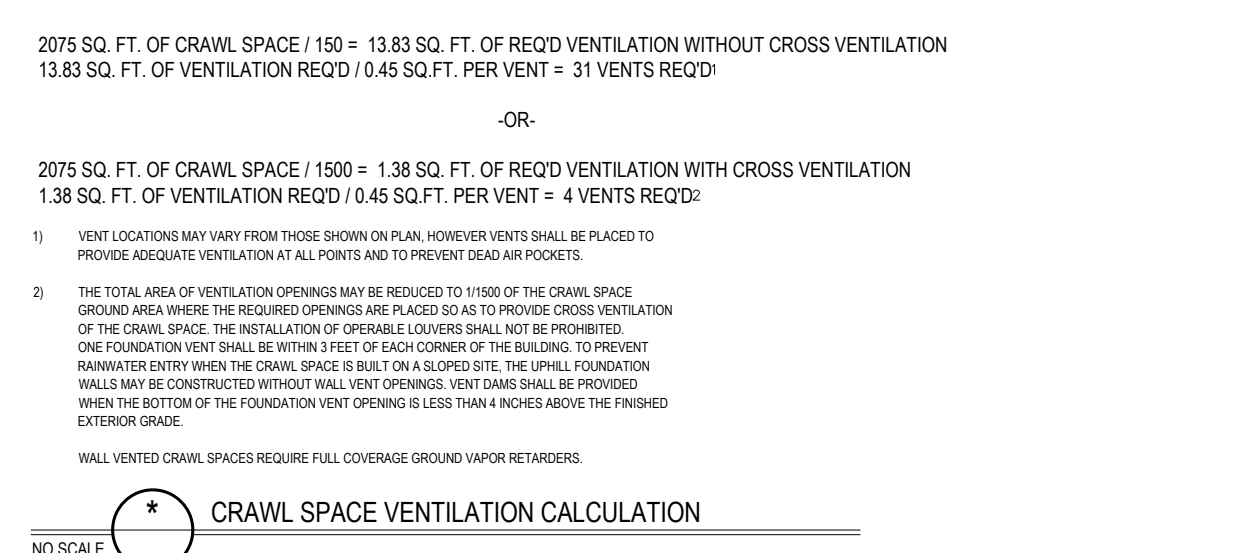
10. IN ADDITION TO THE EXEMPTION IN SECTION N1102.3.3, A MINIMUM OF FOUR GLAZED FENESTRATION PRODUCT ASSEMBLIES HAVING A SHGC NO GREATER THAN 0.30 SHALL BE PERMITTED TO BE SUBSTITUTED FOR MINIMUM CODE COMPLIANT FENESTRATION PRODUCT ASSEMBLIES WITHOUT PENALTY.

11. R-30 SHALL BE REQUIRED TO INSURE THE CEILING INSULATION REQUIREMENT WHERE THE FULL HEIGHT OF ANCHORING INSULATION EXTENDS OVER THE WALL TOP PLATE AT THE LEVELS. OTHERWISE, INSULATION IS REQUIRED WHERE ADEQUATE CLEARANCE EXISTS OR INSULATION MUST EXTEND TO EITHER THE INSULATION TABLE OR WITHIN 1/2" OF THE EXISTING ROOF.

12. TABLE VALUE REQUIRED EXCEPT FOR ROOF EDGE WHERE THE SPACE IS LIMITED BY THE PITCH OF THE ROOF. THERE THE INSULATION MUST FILL THE SPACE UP TO THE AIR BATTLE.

13. 10" IS PERFORMED AS (10" COMPRESSED) AND NOTED IN A MINIMUM 1 x 1 FRAMING CAVITY. 10" HIGHER COMPRESSED AND NOTED IN A 2x4 WALL IS NOT APPLICABLE TO CAVITY.

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



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CLIENT: **DEBORRAH HUDSON**  
PROJECT: **HUDSON RESIDENCE**

**STANDARD DETAILS**

Project #: **DRB2101-010170**  
Date: **08/13/2021**  
Drawn/Design By: **IJE / SM**  
DWG. Checked By: **PAT**  
Scale: **SEE PLAN**

**REVISIONS**

No.	Date	Remarks

Sheet Number: **D1**  
4 of 5

\*Engineers and designers do 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 once construction begins.

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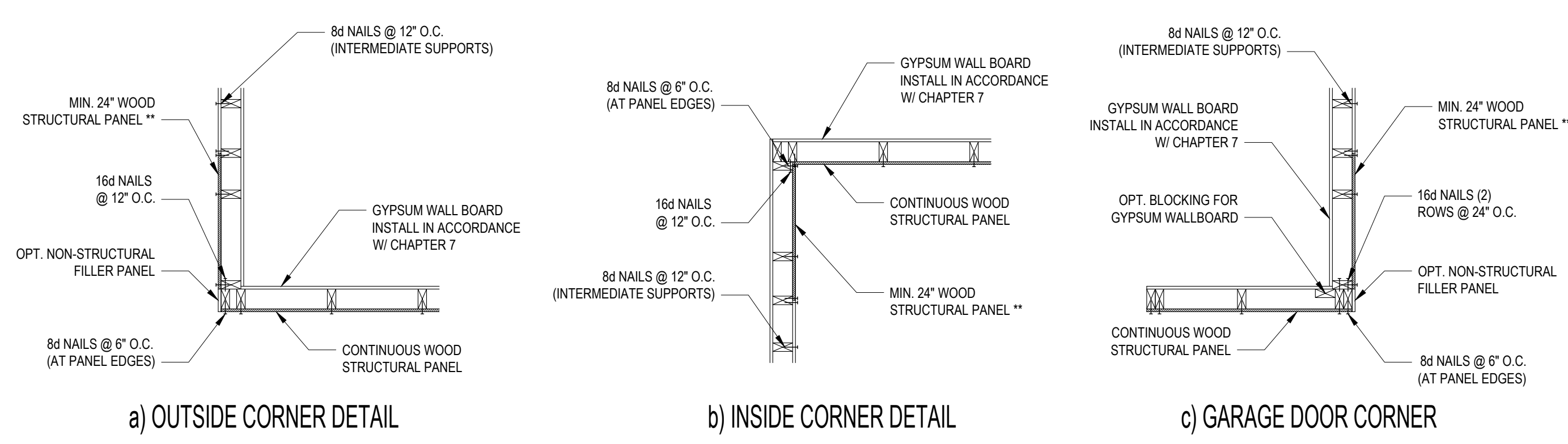
Client: **DEBORRAH HUDSON**  
 Project: **HUDSON RESIDENCE**

**SHEATHING DETAILS**

Project #: **DRB2101-010170**  
 Date: **08/13/2021**  
 Drawn/Design By: **IJE / SM**  
 DWG. Checked By: **PAT**  
 Scale: **SEE PLAN**

REVISIONS		
No.	Date	Remarks

Sheet Number  
**D2**  
 5 of 5

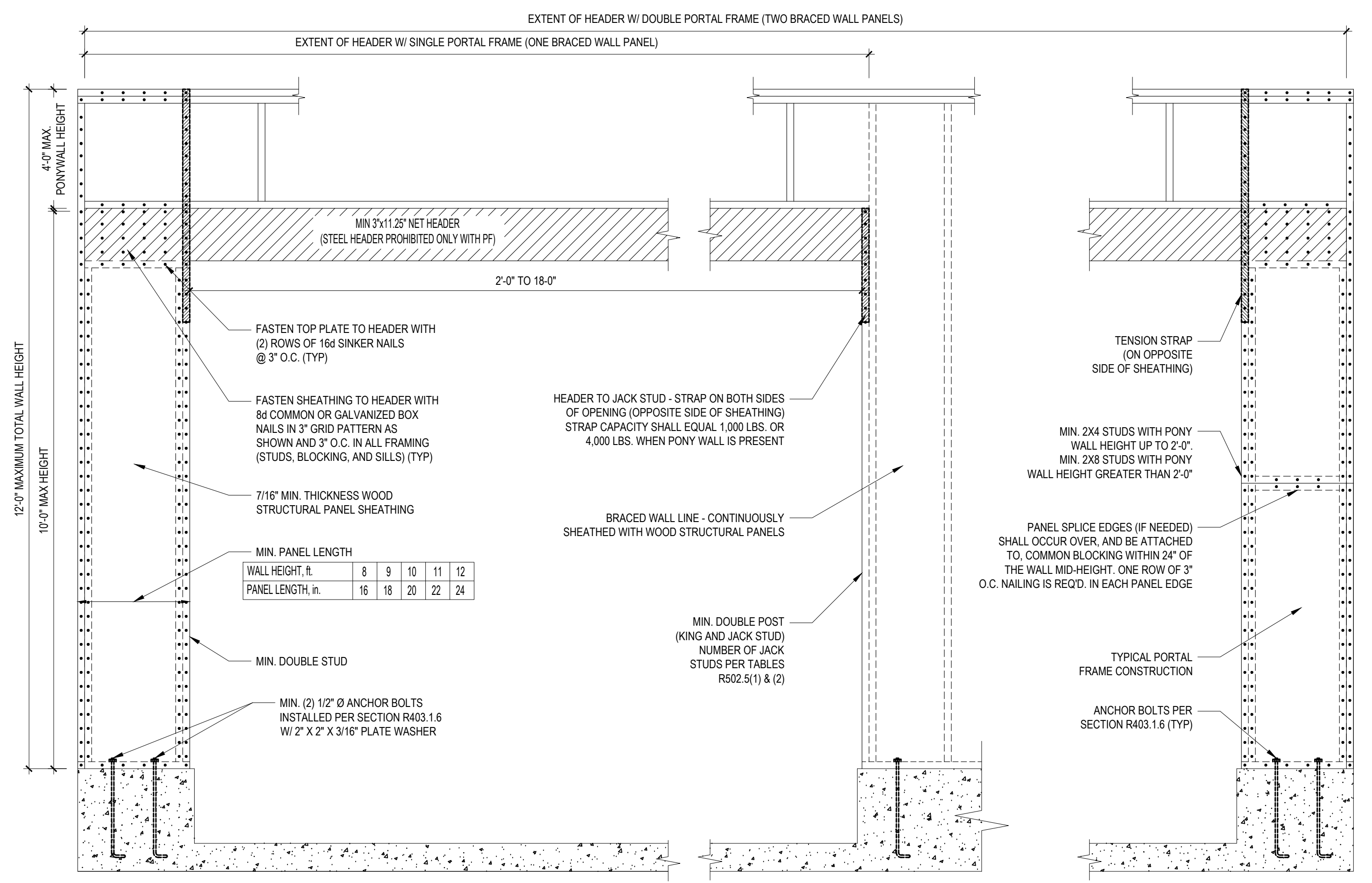


**B1: TYPICAL EXTERIOR CORNER FRAMING FOR CONTINUOUS SHEATHING**  
 NO SCALE

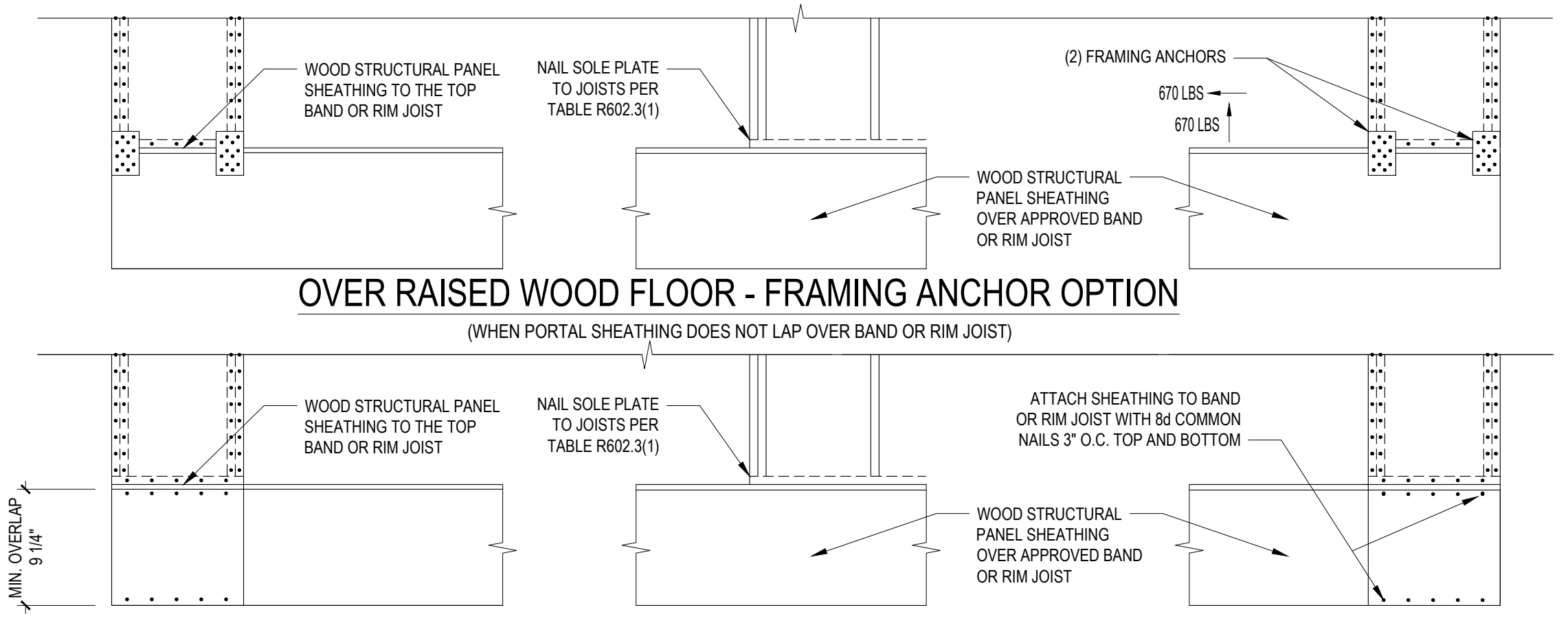
- STRUCTURAL SHEATHING NOTES**
- DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR LESS.
  - WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10.3 OF THE 2018 NCR.
  - BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3. REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & 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).
  - 12" GYPSUM BOARD (GB) MINIMUM LENGTH OF 8'-0" (ISOLATED PANELS) OR 4'-0" (CONTINUOUS SHEATHING).
  - 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 AND 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 R602.10.3.14. IN LIEU OF A CORNER RETURN EITHER A MINIMUM 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.

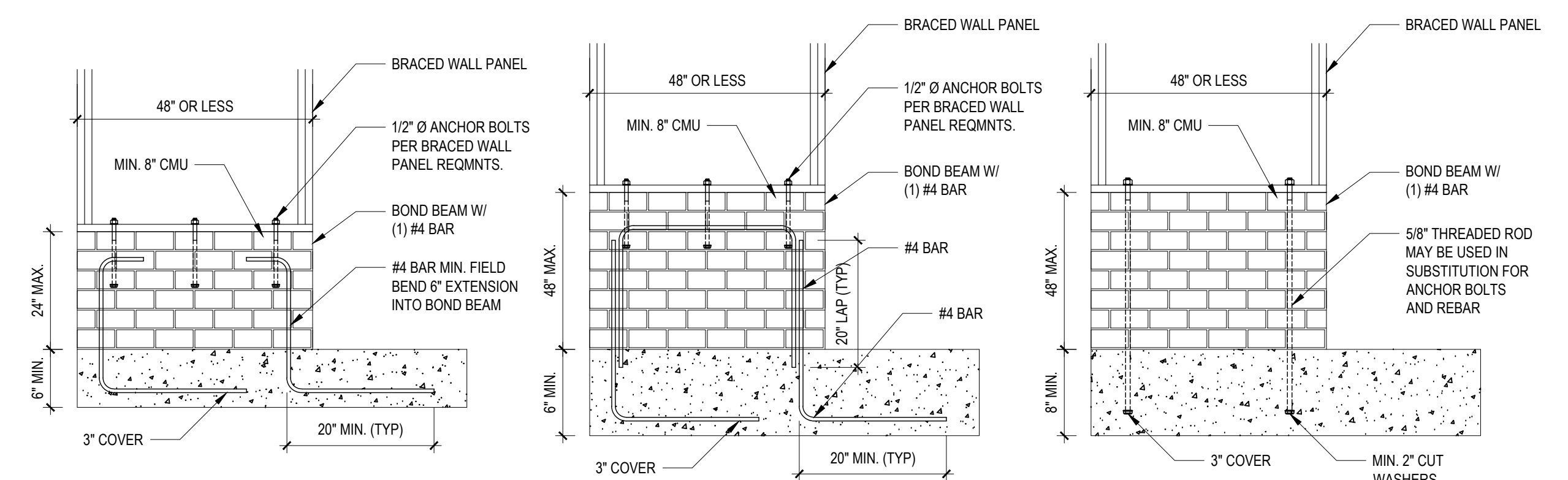
\*\*OR EQUIVALENT PER TABLE R702.3.5  
**B3: BRACE WALL PANEL CONNECTIONS**  
 NO SCALE



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



**B3: BRACE WALL PANEL CONNECTIONS**  
 NO SCALE



**B4: MASONRY STEM WALL SUPPORTING BRACED WALL PANELS**  
 FIGURE R602.10.4.3 OF THE 2018 NCR  
 NOTE: GROUT BOND BEAMS AND ALL CELLS WHICH CONTAIN REBAR, THREADED RODS AND ANCHOR BOLTS

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