

NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.

APPROVED
Limited building only review
Permit holder responsible for full compliance with the code

01/12/2021




Without Boundary

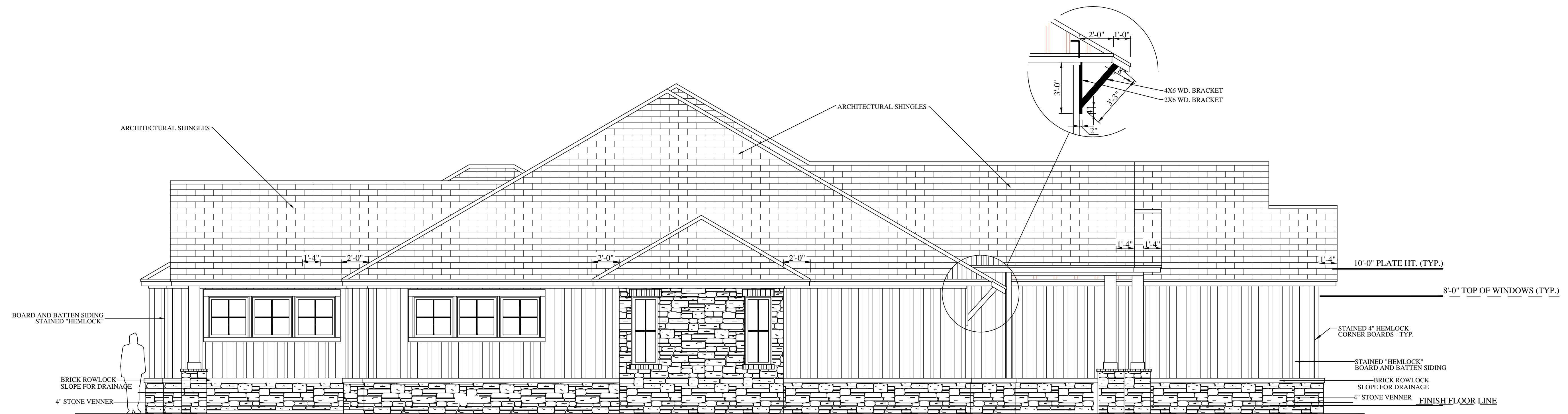
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RIGHT ELEVATION

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



LEFT ELEVATION

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

PROPOSED
RESIDENCE
FOR
ANDREW & ANITA
RUHLAND

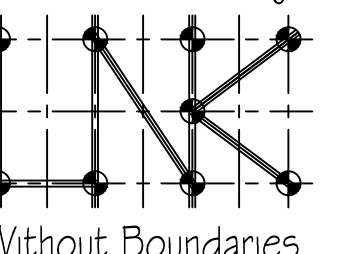
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EXTERIOR
ELEVATION



Without Boundaries

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155 MOCKINGBIRD LANE
SPRING LAKE, NC 28390

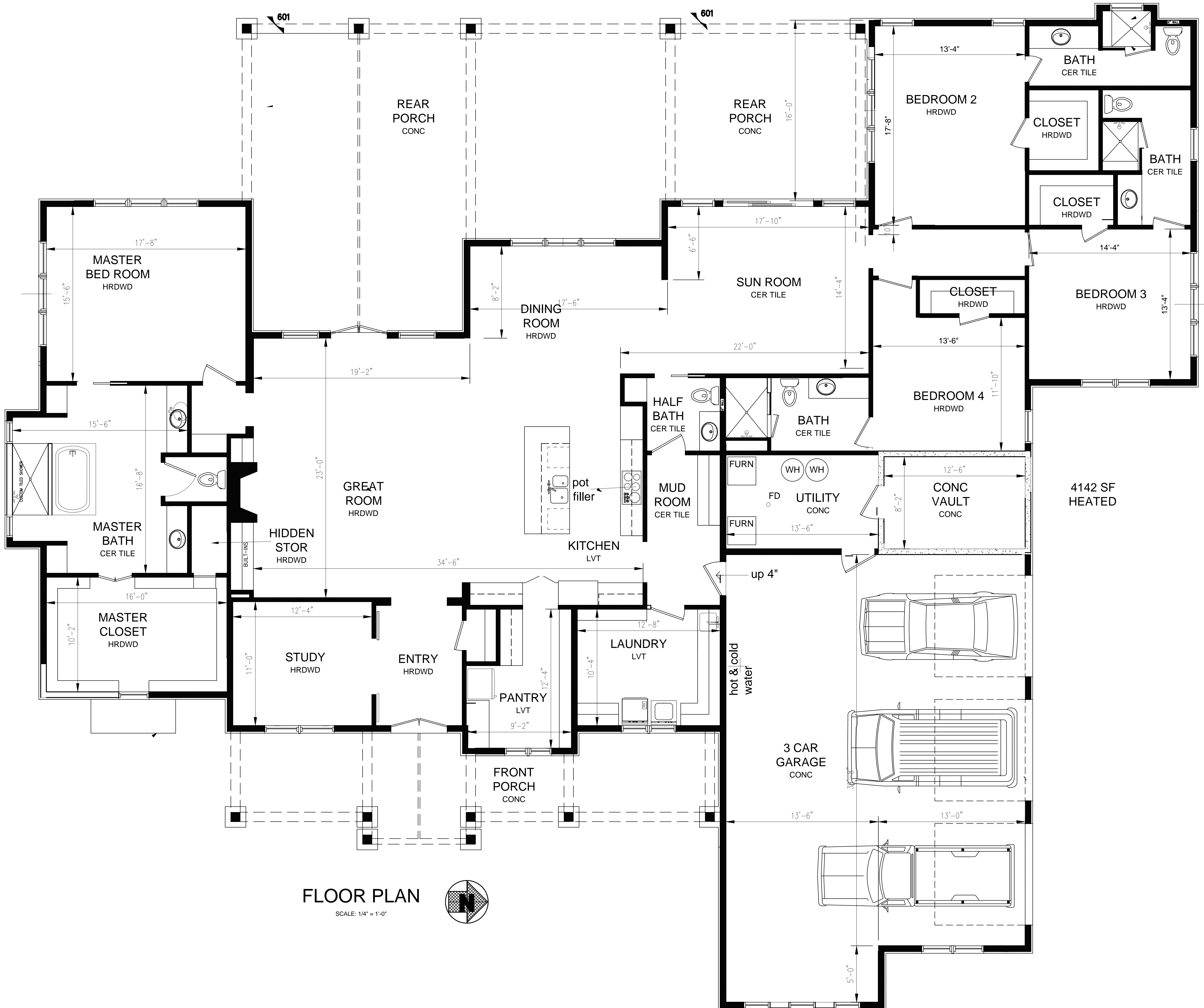
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FLOOR PLAN

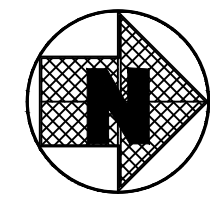
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PA100



FLOOR PLAN

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



STRUCTURAL & MATERIAL SPECIFICATIONS

DESIGN LOADS

DEAD LOAD	LIVE LOAD	USE (LB./ SQUARE FOOT)
10	20	ATTICS ACCESSIBLE BY SCUTTLE OR MEANS OTHER THAN STAIR; CLEAR HEIGHT PERMITS LIMITED STORAGE OF HOUSEHOLD ITEMS
20	20	(SNOW) ROOF
10	10	ALL OTHER ATTIC SPACES, NO STORAGE, ROOF SLOPE 3:12 MAX
10	40	EXTERIOR DECKS
	16.4	WIND PRESSURE: BUILDINGS UP TO 30 FT AT 90 MPH.
	90 MPH	WIND SPEED
	1500 PSF	MINIMUM SOIL BEARING PRESSURE

ALLOWABLE DEFLECTIONS H = HEIGHT L = LENGTH

- L/180 RAFTERS HAVING SLOPES GREATER THAN 3/12 WITH NO FINISHED CEILING ATTACHED TO RAFTERS
- H/180 INTERIOR WALLS AND PARTITIONS

CONCRETE

ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE SECTIONS OF THE AMERICAN CONCRETE INSTITUTE (ACI)'S MOST RECENT EDITION OF THE FOLLOWING GUIDELINES AND SPECIFICATIONS:

ACI 318.1 BUILDING CODE REQUIREMENTS FOR STRUCTURAL PLAIN CONCRETE ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS

ACI 318 & ACI 318R BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE CAST-IN-PLACE CONCRETE SHALL BE READY MIX ASTM C94; CONCRETE FOR FOOTINGS TO BE F'C = 3,000 PSI; CONCRETE FOR GARAGE SLABS TO BE F'C = 4,000 PSI; ALL OTHER CONCRETE TO BE F'C = 3,500 PSI, ALL STRENGTHS MEASURED AT 28 DAYS.

ALL REINFORCING STEEL TO BE ASTM 615 (GRADE 60) WITH 60,000 PSI (MINIMUM) YIELD TRENTH. ALL WELDED WIRE FABRIC (WWF) SHALL BE ASTM 185. CONCRETE COVER: 3" AT EARTH FORM, 1 1/2" AT FORMWORK, SLABS--MID DEPTH, UNLESS OTHERWISE NOTED.

CONCRETE FORMWORK TO BE ADEQUATELY TIED AND BRACED. FORM SHALL NOT BE STRIPPED UNTIL THE WALL HAS CURED FOR SEVEN DAYS.

ALL CAST-IN-PLACE CONCRETE SHALL BE POURED CONTINUOUSLY WITH NO COLD JOINTS, AND VIBRATED ADEQUATELY TO PREVENT AIR POCKETS AND HONEYCOMB EFFECTS. IF A COLD JOINT CANNOT BE AVOIDED, REINFORCING SHALL EXTEND THROUGH THE COLD JOINT UNLESS OTHERWISE NOTED, COLD JOINTS ARE THE RESPONSIBILITY OF THE CONTRACTOR

ALL CONTINUOUS FOOTINGS ARE TO BE 24" X 10" WITH (2) #5 BARS CONTINUOUS UNLESS OTHERWISE NOTED.

CONCRETE SLABS TO BE 4" THICK, OVER 6 MIL VAPOR BARRIER, OVER 4" MINIMUM WASHED GRAVEL (3/4" MINIMUM DIAMETER) WITH 6 X 6 X10/10 WELDED WIRE FABRIC (WWF) OR #4 BARS AT 24" O.C. EACH WAY UNLESS OTHERWISE NOTED. CONTROL JOINTS TO BE PROVIDED AT 10'-0" O.C. MAXIMUM AND 1" DEEP. SLOPE BASEMENT SLABS TO FLOOR DRAINS. SLOPE GARAGE SLABS 1/8" PER FOOT MINIMUM AND 1/4" PER FOOT MAXIMUM TOWARDS GARAGE DOORS.

BEAM POCKETS TO BE SET TO MATCH DEPTH OF STEEL, TO BE 1" WIDER THAN THE BEAM FLANGES, AND TO HAVE A MINIMUM OF 6" BEAM BEARING AREA INTO THE WIDTH OF THE CONCRETE WALL.

OPENINGS IN CONCRETE WALLS TO HAVE (2) #4 BARS VERTICAL AT EACH SIDE OF OPENING, FULL HEIGHT OF THE CONCRETE POUR. CONCRETE LINTELS TO HAVE (2) #4 BARS DIRECTLY ABOVE THE OPENINGS AND EXTEND 30" PAST OPENING (UNLESS OTHERWISE NOTED). (2) #4 BARS AT TOP OF WALL TO BE CONTINUOUS ACROSS LINTEL AREA.

WOOD

WALL STUDS TO BE STUD GRADE SO. YELLOW PINE or SPF. ALL OTHER LUMBER TO BE SOUTHERN YELLOW PINE OR SPF #1 MIN. MICRO-LAM MEMBERS TO HAVE AN FB = 2800 PSI; E = 2,000,000 PSI.

PRESSURE TREATED LUMBER TO BE AWPA, WATERBORNE (CCA) TREATED YELLOW PINE, GRADE 2 FOR ABOVE GROUND USE. ALL CONSTRUCTION GRADE WOOD IN CONTACT WITH CONCRETE OR WITHIN 8" OF GRADE TO BE PRESSURE TREATED. ALL BOTTOM PLATES FOR WOOD WALLS RESTING ON CONCRETE TO BE PRESSURE TREATED. ALL STRUCTURAL LUMBER EXPOSED TO EXTERIOR TO BE PRESSURE TREATED OR APPROVED SPECIES.

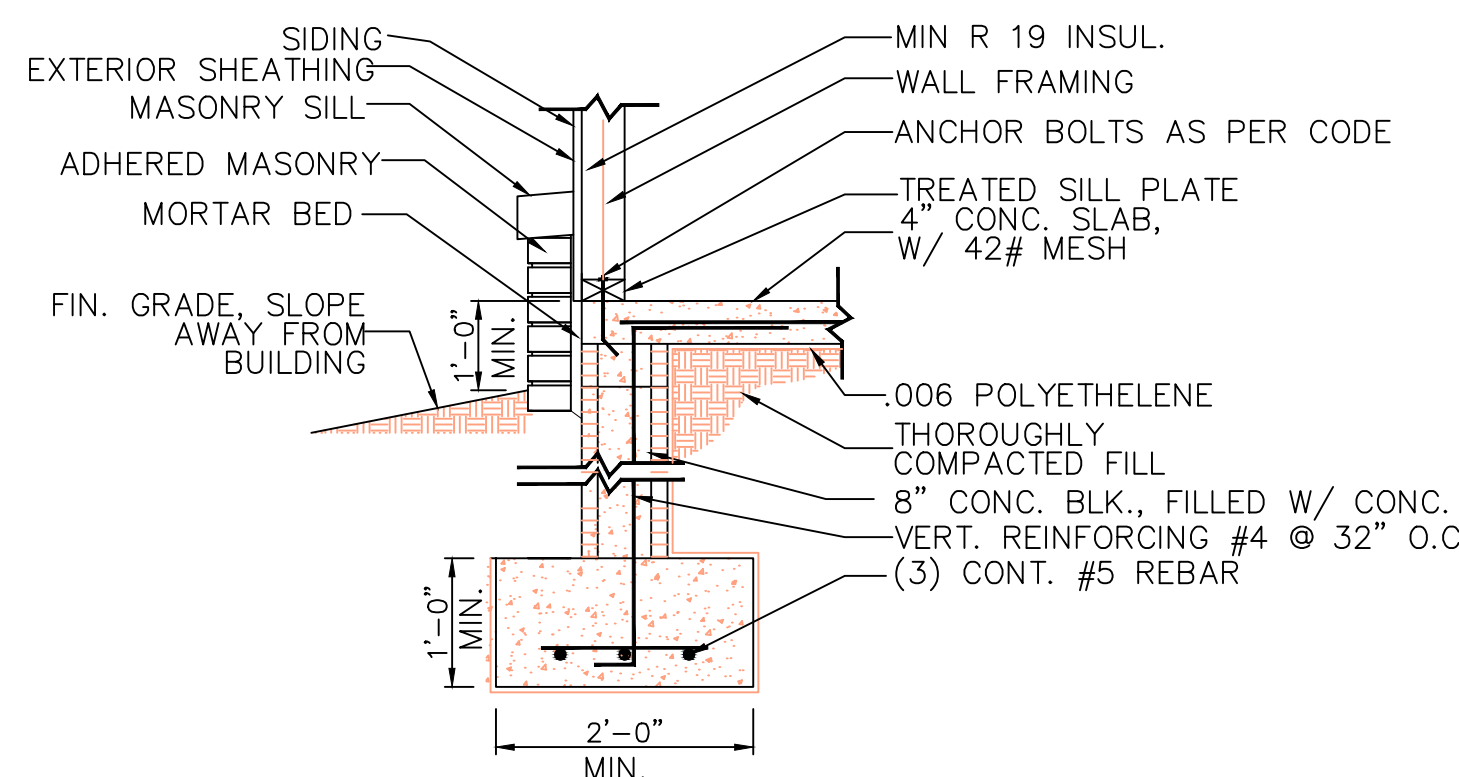
PLYWOOD TO BE APA PANEL SPECIFICATIONS RATED FOR SPECIES, PANEL GRADE, SPAN RATING, THICKNESS, EXPOSURE CLASSIFICATION, AND MILL LUMBER. PLYWOOD SHALL BE GAPPED AS PER APA RECOMENDATIONS ON WALL, FLOOR AND ROOF SHEATING. USE CLIPS AT ALL FREE EDGES. TYPICAL HEADER SIZE AT THE FRAME OPENING TO BE (2)2X10 UNLESS OTHERWISE NOTED.

ALL DOUBLE 2X HEADERS TO BE FASTENED TOGETHER AT THE TOP AND BOTTOM INTO EACH ADJACENT MEMBER WITH (MINIMUM) 2 ROWS OF 16D NAILS AT 12" O.C., UNLESS OTHERWISE NOTED. FOR HEADERS GREATER THAN TWO MEMBERS WIDE, CONTACT DESIGNER FOR FASTENING, UNLESS NOTED ON PLAN.

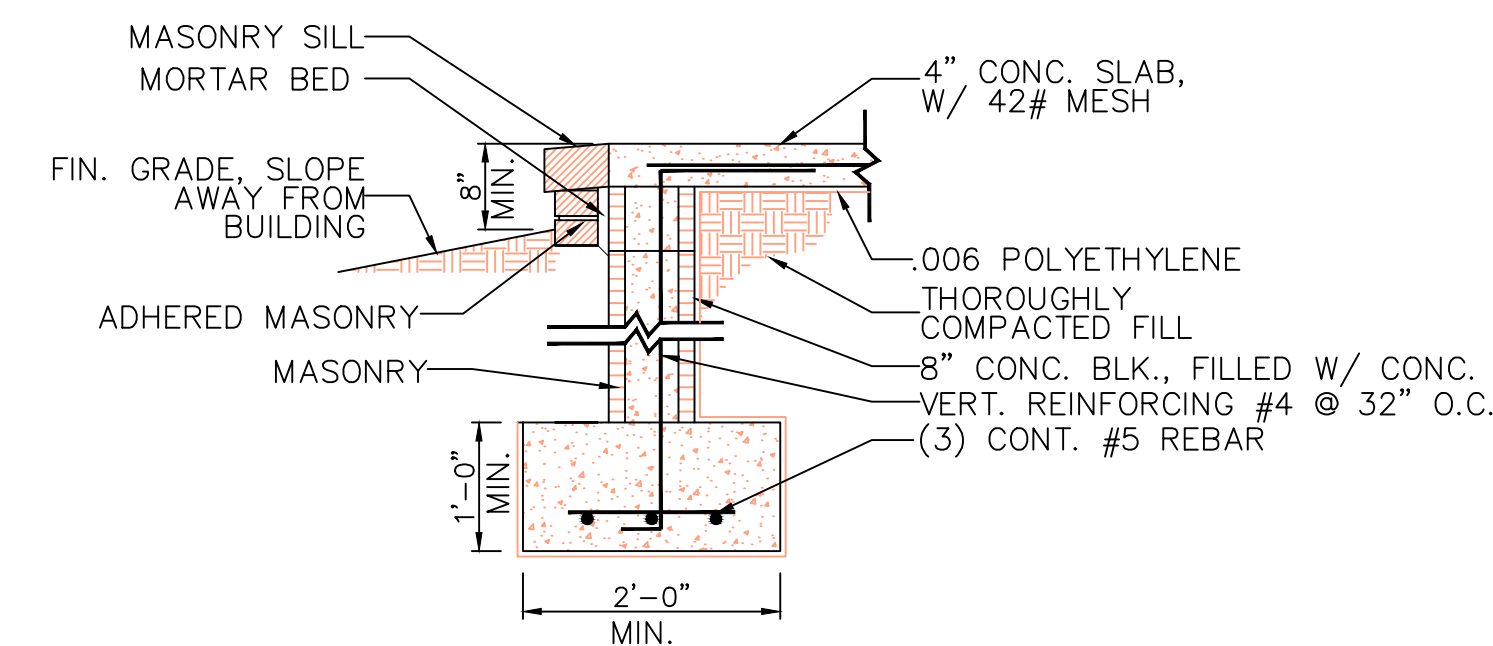
LAMINATED VENEER LUMBER (LVL) BEAMS TO BE FASTENED TOGETHER PER MANUFACTURERS SPECIFICATIONS. ALL TJI'S AND LVL BEAMS TO BE INSTALLED, BRACED, JOIST HUNG, ETC., ACCORDING TO MANUFACTURERS' SPECIFICATIONS. BEARING STIFFENERS TO BE ADDED TO ENDS OF ALL T.J.I.'S.

FIRESTOPPING OF TWO INCH NOMINAL LUMBER SHALL BE PROVIDED TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN ALL CONCEALED DRAFT OPENINGS, BOTH VERTICAL AND HORIZONTAL.

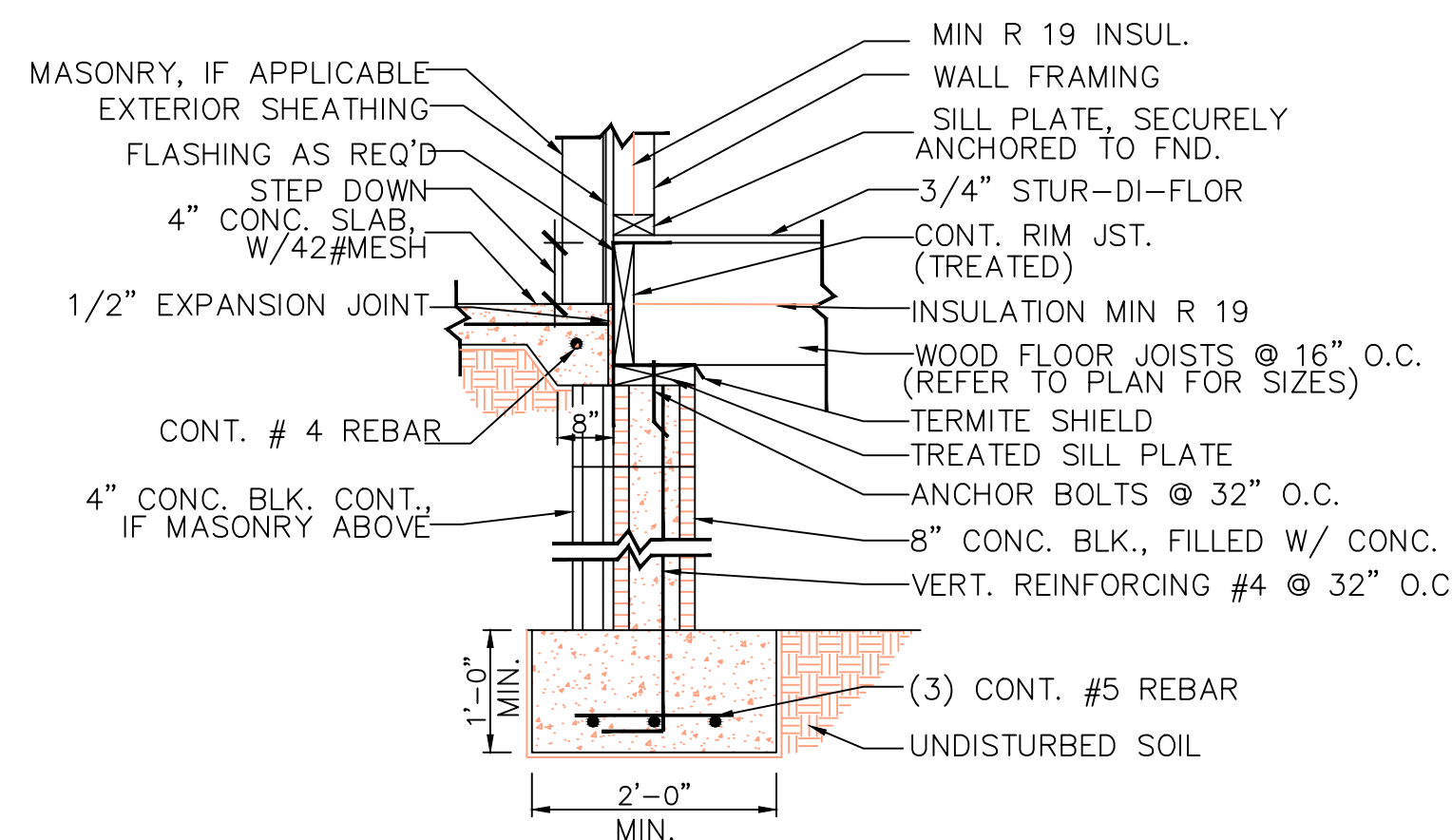
BRIDGING IN FLOOR JOISTS TO BE FABRICATED METAL BRIDGING (SECURED AT BOTH ENDS), OR SOLID BRIDGING OFFSET AND END NAILED. SOLID BRIDGING TO BE MADE OF 2X MATERIAL OF ONE SIZE SMALLER THAN FLOOR JOIST DEPTH. ALIGN BOTTOM CHORDS OF SOLID BRIDGING AND BOTTOM OF FLOOR JOISTS. BRIDGING SHALL NEVER TOUCH BOTTOM OF FLOOR SHEATHING. SET BRIDGING AT 6'0" O.C. MAXIMUM, UNLESS OTHERWISE NOTED.



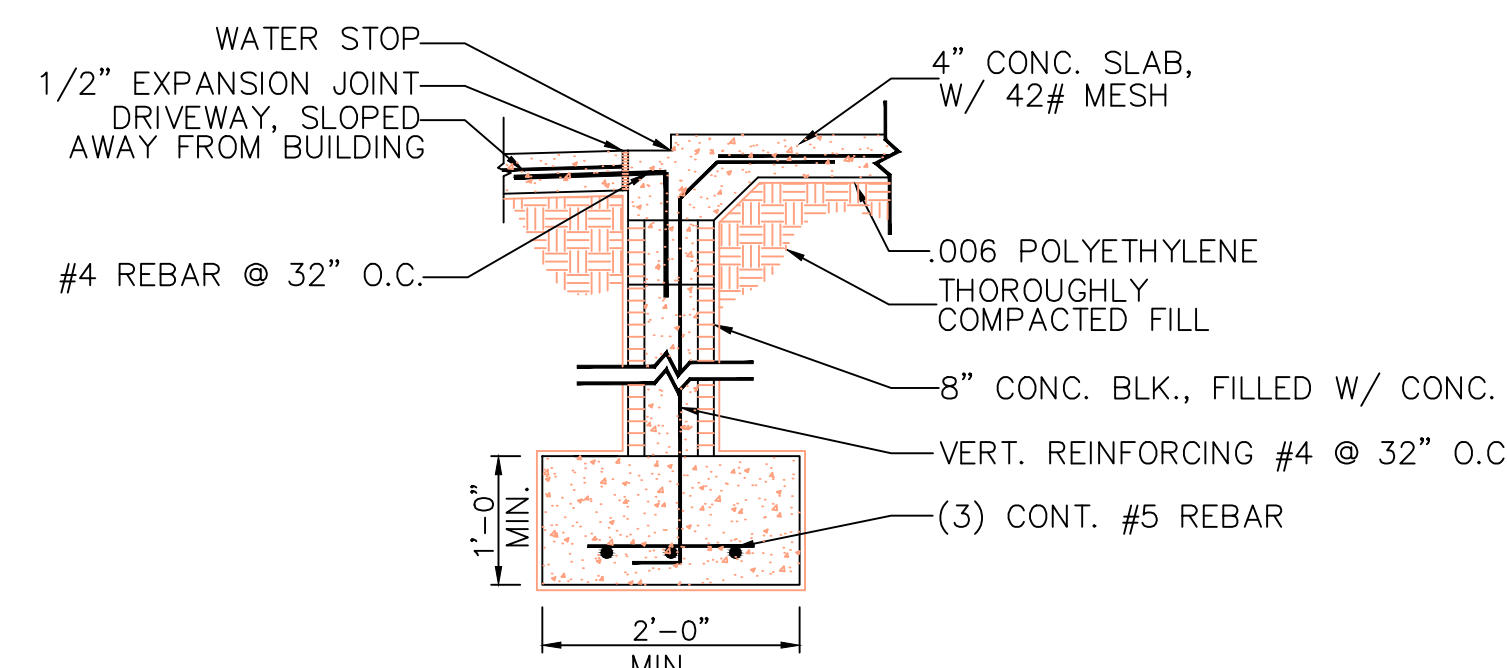
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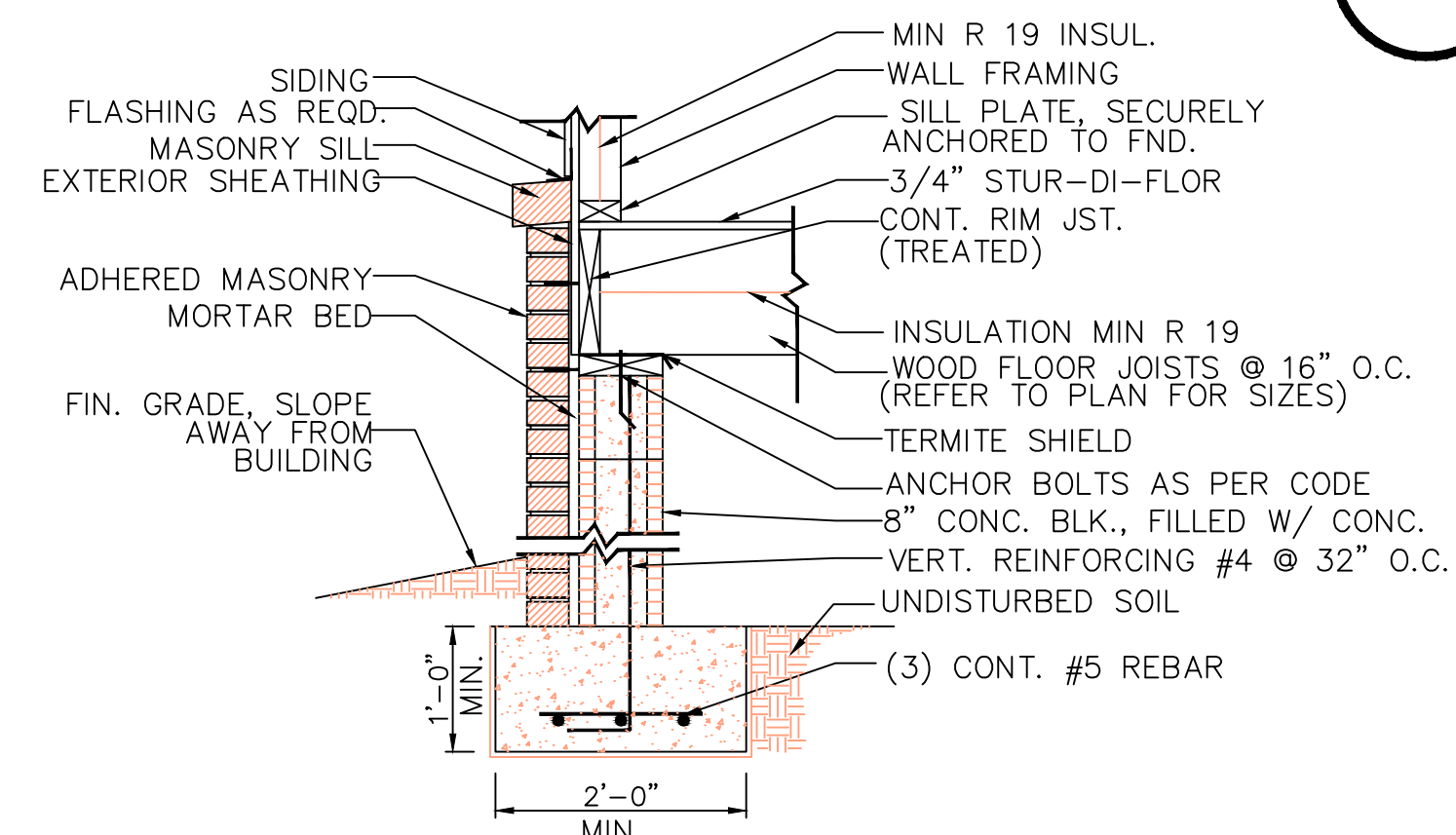
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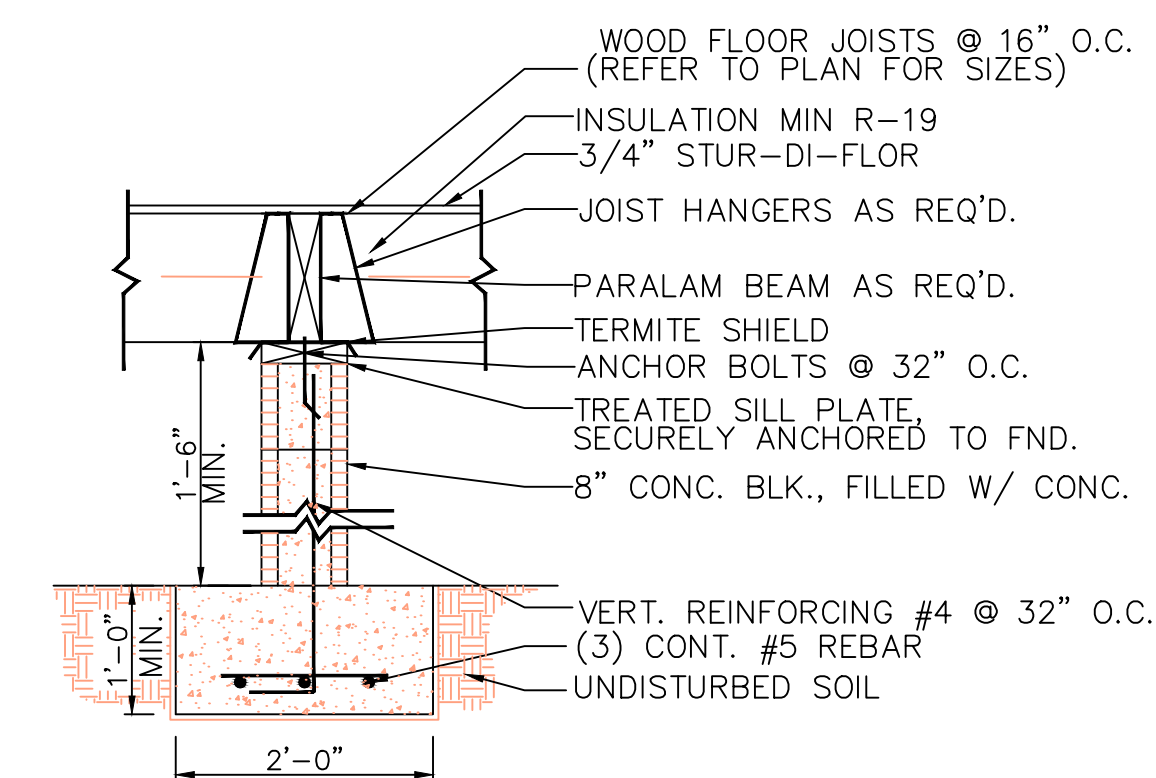
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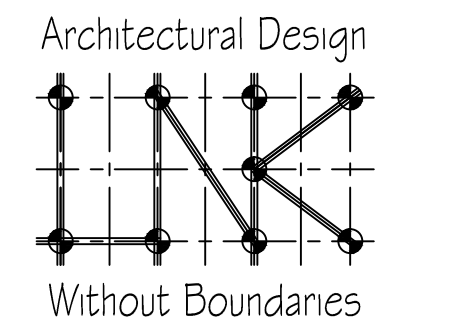
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230 FTG. DET.



240 FTG. DET.



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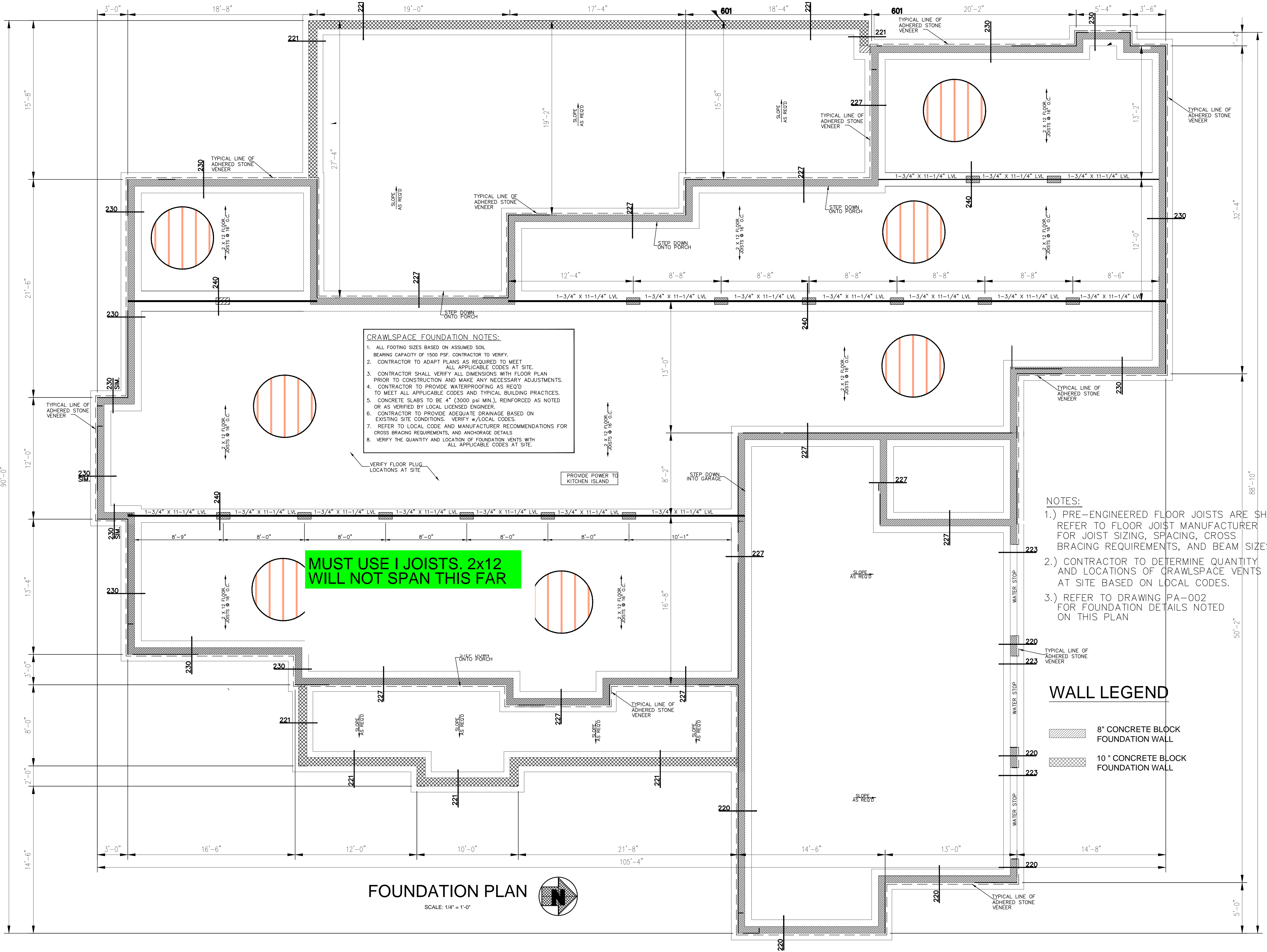
FOUNDATION DETAILS

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PA002

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CRAWLSPACE FOUNDATION NOTES:

1. ALL FOOTING SIZES BASED ON ASSUMED SOIL BEARING CAPACITY OF 1500 PSF. CONTRACTOR TO VERIFY.
2. CONTRACTOR TO ADAPT PLANS AS REQUIRED TO MEET ALL APPLICABLE CODES AT SITE.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH FLOOR PLAN PRIOR TO CONSTRUCTION AND MAKE ANY NECESSARY ADJUSTMENTS.
4. CONTRACTOR TO PROVIDE WATERPROOFING AS REQ'D TO MEET ALL APPLICABLE CODES AND TYPICAL BUILDING PRACTICES.
5. CONCRETE SLABS TO BE 4" (3000 psi MIN.), REINFORCED AS NOTED OR AS VERIFIED BY LOCAL LICENSED ENGINEER.
6. CONTRACTOR TO PROVIDE ADEQUATE DRAINAGE BASED ON EXISTING SITE CONDITIONS. VERIFY w/LOCAL CODES.
7. REFER TO LOCAL CODE AND MANUFACTURER RECOMMENDATIONS FOR CROSS BRACING REQUIREMENTS, AND ANCHORAGE DETAILS.
8. VERIFY THE QUANTITY AND LOCATION OF FOUNDATION VENTS WITH ALL APPLICABLE CODES AT SITE.

MUST USE I JOISTS. 2x12 WILL NOT SPAN THIS FAR

- NOTES:**
- 1.) PRE-ENGINEERED FLOOR JOISTS ARE SHOWN. REFER TO FLOOR JOIST MANUFACTURER FOR JOIST SIZING, SPACING, CROSS BRACING REQUIREMENTS, AND BEAM SIZES.
 - 2.) CONTRACTOR TO DETERMINE QUANTITY AND LOCATIONS OF CRAWLSPACE VENTS AT SITE BASED ON LOCAL CODES.
 - 3.) REFER TO DRAWING PA-002 FOR FOUNDATION DETAILS NOTED ON THIS PLAN

WALL LEGEND

- 8" CONCRETE BLOCK FOUNDATION WALL
- 10" CONCRETE BLOCK FOUNDATION WALL

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

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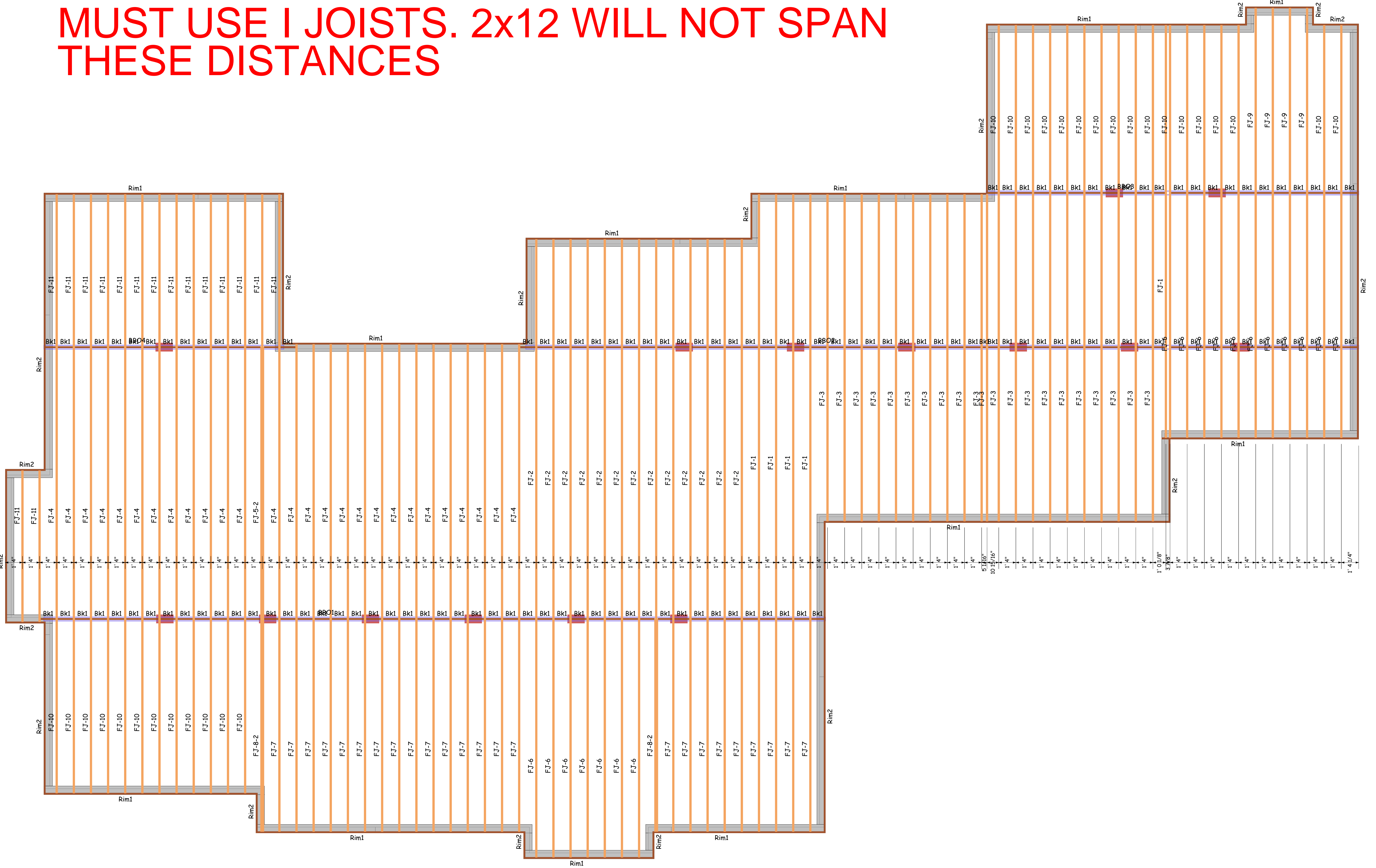
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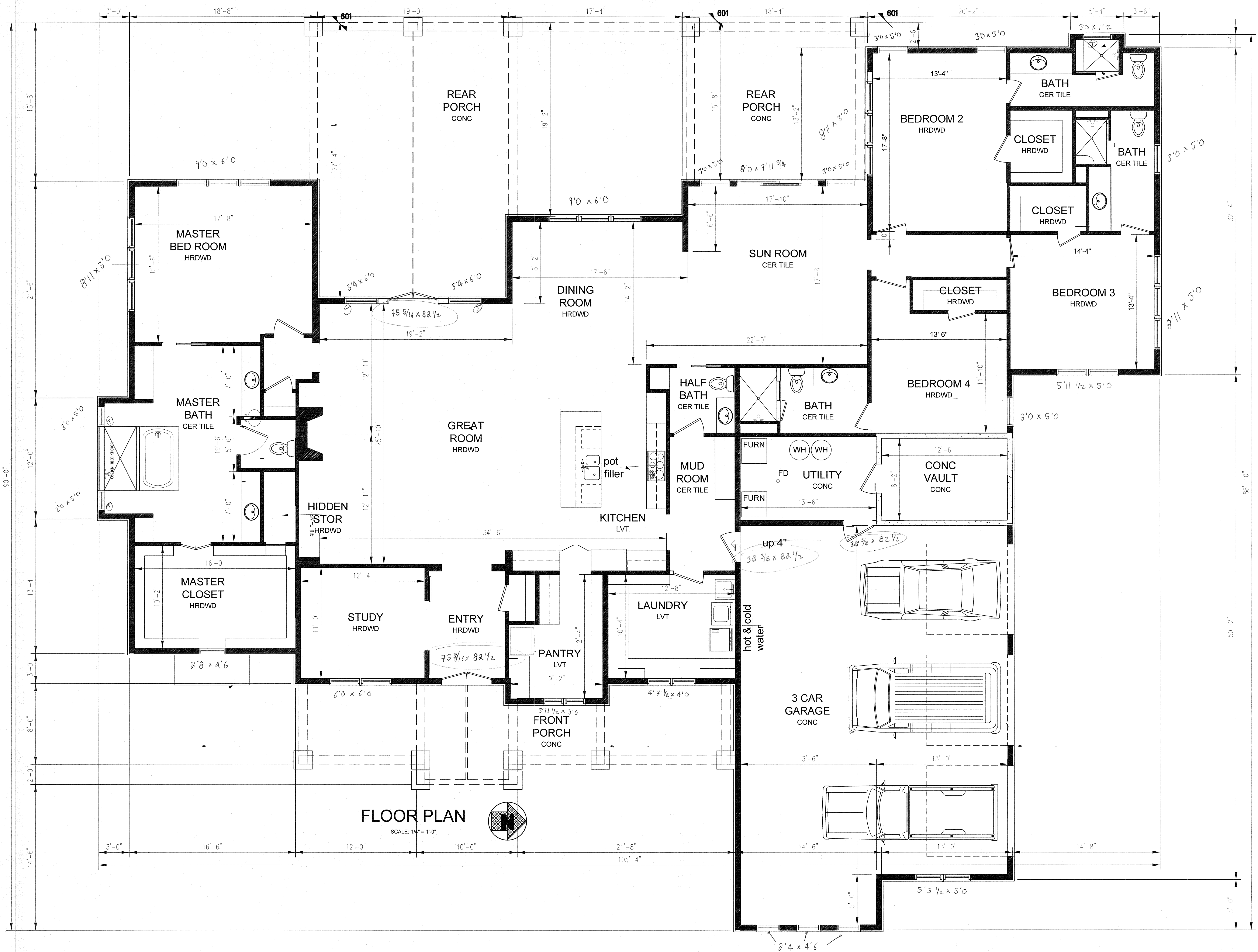
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PA001

MUST USE I JOISTS. 2x12 WILL NOT SPAN THESE DISTANCES





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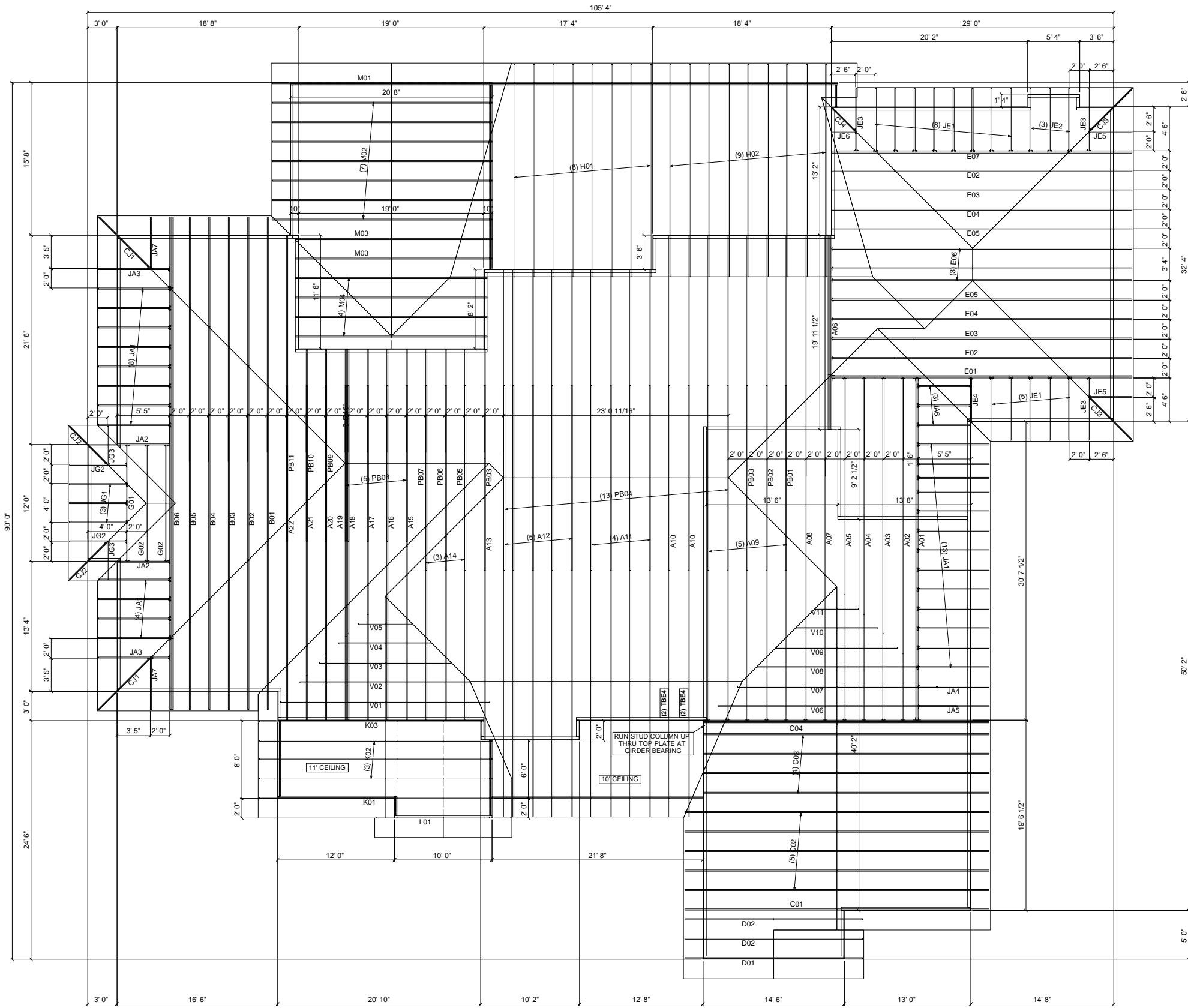
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FLOOR PLAN

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Truss To Truss Connector List			
Supporting Mtl	Qty	Product	Supported Mtl
A06	1	HGUS28-2	E01
	7	HTU26	E02-E06
C04,E01	16	HTU26	A02-A09,JE4
	2	HTU26-2	A01
JA2,JE4	8	HTU26	G01,G02,JA6
B06	2	HTU26	JA2
TOP PLATE	4	TBE4	A10

Truss Connector Total List		
Manuf	Product	Qty
	HGUS28-2	1
	HTU26	33
	HTU26-2	2
	TBE4	4

ROOF TRUSS NOTES:

DO NOT CUT, DRILL, NOTCH, OR OTHERWISE DAMAGE TRUSSES. Contact your BFS Representative for assistance PRIOR TO modifying any truss. **Espanol - (NO CORTE, PERFORE, HAGA MUESCAS O DANE DE CUALQUIER OTRA MANERA LAS TRUSSES (CERCHAS DE MADERA). Contacte a su representante de BFS para asistencia ANTES de realizar cualquier modificación.)**

- This Truss Placement Diagram is intended to serve as a guide for truss installation. This Diagram has been prepared by a Truss Technician and is not an engineered drawing.
- The responsibilities of the Owner, Building Designer, Contractor, Truss Designer, and Truss Manufacturer shall be as defined by the TPI 1 National Standard.
- The wood components shown on this diagram are to be used in dry service (moisture content <19%) and non-toxic environmental applications. The metal plates and hangers are galvanized to the G60 Standard unless noted otherwise.
- Refer to the Truss Design Drawings for specific information about each individual truss design.
- The Truss Technician shall provide Truss-to-Truss Connection Requirements. Any special or other connection shall be the responsibility of the Building Designer.
- The Truss Placement Diagram and Truss Design Drawings are the property of Builders FirstSource and may not be reused or reproduced in part or in total under any circumstances without prior written authorization.
- In some cases, field framing may be required to achieve the final appearance shown on the Construction Documents.
- Field framing, including valley rafters, installed over roof trusses shall have a knee brace from the rafter to the truss top chord at intervals of 48" on center (O.C.) or less. Stagger knee braces from adjacent rafters such that the loads distributed uniformly over multiple truss locations and not concentrated at one location or along one truss.
- Truss Top Chords shall be fully sheathed or have lateral bracing (purlins) spaced at 24" O.C. or less. Truss Bottom Chord Bracing shall not exceed the maximum shown on the Truss Design Drawing. Field framed bottom chord floor or ceiling attachments shall be spaced at 24" O.C. or less. Proper Bracing prevents buckling of individual truss members due to design loads.
- This Placement Diagram is based upon the supporting structure being structurally adequate, dimensionally correct, square, plumb, and level to adequately support the trusses. The foundation design, structural member sizing, load transfer, bearing conditions, and the structure's compliance with the applicable building code are the responsibility of the Owner, Building Designer, and Contractor.
- If Piggyback Trusses are included in this project, refer to the Mitek Piggyback Connection Detail applicable for the project details and wind load category.
- The Contractor shall follow the SBCA TTB Partition Separation Prevention and Solutions for truss attachment to non-load bearing walls and carefully complete these details to avoid gypsum wall board related issues.

WARNING:

TRUSSES MUST BE BRACED DURING INSTALLATION. FAILURE TO DO SO MAY RESULT IN INJURY OR DEATH. **Espanol - (TRUSSES (CERCHAS) DEBERAN TENER UN SOPORTE DURANTE LA INSTALACION. NO HACERLO PODRIA RESULTAR EN LESIONES O MUERTE.)**

- Trusses shall be installed in a safe manner meeting all code, local, OSHA, TPI, and BCSI Specifications. Failure to follow these specifications may result in injury or death.
- Buildings under construction are vulnerable to high winds and present a possible safety hazard. The Contractor is responsible for recognizing adverse weather conditions and shall take appropriate action to prevent injury or death.
- BCSI INSTRUCTIONS SHALL BE FOLLOWED:**
 BCSI-B1 = Safe Truss Handling and Installation
 BCSI-B2 = Installation and Temporary Restraint
 BCSI-B3 = Permanent Restraint
 BCSI-B4 = Safe Construction Loading
 BCSI-B5 = Truss Damage and Modification Guidelines
 BCSI-B7 = Floor Truss Installation
 BCSI-B8 = Toe-Nailed Connections
 BCSI-B9 = Multi-Ply Girders
 BCSI-B10 = Post Frame Truss Installation
 BCSI-B11 = Fall Protection
- Follow TPI Requirements for Long Span Trusses (>60').



Marketplace Builders
 155 Mockingbird Lane
 Cumberland Co., NC

Scale	NTS	Date	11/25/2020	Drawn By	RC	Job No.	2469517
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