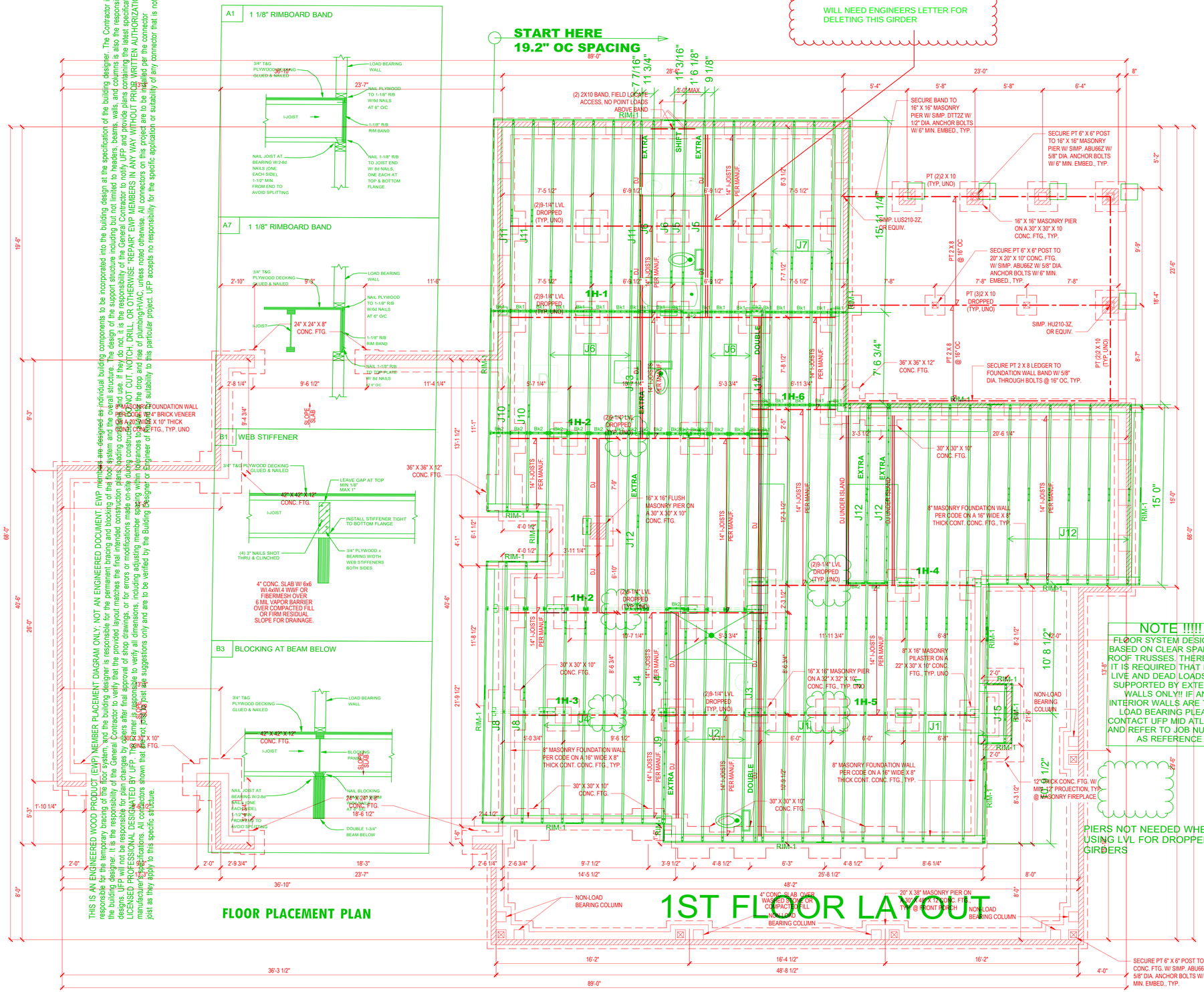
DESIGN LOADS

	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:

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) IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, PA IS NOT RESPONSIBLE FOR DIMENSIONS AND SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.
3) ALL LUMBER SHALL BE SYP #2 (UNO)
   ALL LVL LUMBER TO BE 1.75" WIDE (ACTUAL) EACH SINGLE MEMBER AND Fb = 2600 PSI, E = 1.5M PSI (OR GREATER)
   (I.E. iLEVEL MICROLAM)
   ALL LSL LUMBER IS TO BE 1.55E (Fb = 2325 PSI) (OR GREATER)
   ALL PSL LUMBER IS TO BE 1.8E (Fb = 2,400 PSI) (OR GREATER)
4) 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).
5) ALL INTERIOR LOAD BEARING HEADERS TO BE (2) 2x10 (U.N.O.) REFER TO TABLES R802.7(1) AND R602.7(2) FOR JACK STUD REQUIREMENTS FOR HEADER SPANS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS (UNO)
6) REFER TO 2018 NC BUILDING CODE SECTION R602 FOR CONSTRUCTION OF ALL WALLS OVER 10'-0" IN HEIGHT.
7) ALL STRUCTURAL STEEL SHALL BE ASTM A992 GRADE 50
   Fy = 50 KSI MIN. (UNO)
8) ALL EXTERIOR LUMBER TO BE #2 SYP PT
9) ALL CONCRETE, fc = 3000 PSI MIN.
10) PRESUMPTIVE BEARING CAPACITY = 2000 PSF
11) 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.
12) PSL COLUMNS DESIGNED WITH MAX. HEIGHT OF 9'-0" (UNO)
13) PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)
14) PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.3 OF THE 2018 NCRC.
15) MAXIMUM MASONRY PIER HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST HORIZONTAL DIMENSION.
16) UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION.
17) METAL HANGERS SHALL BE SIMPSON OR APPROVED EQUAL.



THIS IS AN ENGINEERED WOOD PRODUCT (EWP) MEMBER PLACEMENT DIAGRAM ONLY; NOT AN ENGINEERED DOCUMENT. EWP members are designed as individual building components to be incorporated into the building design at the specification of the building designer. The Contractor is responsible for the temporary bracing of the floor system, and the building designer is responsible for the permanent bracing and blocking of the floor system and the overall structure. The design of the support structure including but not limited to headers, beams, walls, and columns is also the responsibility of the building designer. It is the responsibility of the General Contractor to verify that the provided layout matches the final intended construction plans, bearing conditions, and use. If they do not, it is the responsibility of the General Contractor to notify UFP and provide plans containing the latest specifications and designs. UFP will not be responsible for plan changes by others after final approval of shop drawings, or for errors or modifications made on site during construction. DO NOT CUT, NOTCH, DRILL, OR OTHERWISE "REPAIR" EWP MEMBERS IN ANY WAY WITHOUT PRIOR WRITTEN AUTHORIZATION BY A LICENSED PROFESSIONAL DESIGNATED BY UFP. The Framer is responsible for the drop and rise of plumbing/HVAC, unless noted otherwise. All connectors on this project are to be installed per the connector manufacturer's specifications. All connectors shown that are not post to post are suggestions only and are to be verified by the Building Designer or Engineer of Record for suitability to this particular project. UFP accepts no responsibility for the specific application or suitability of any connector that is not post to post as they apply to this specific structure.

2278 SQ. FT. OF CRAWL SPACE / 150 = 15.19 SQ. FT. OF REQ'D VENTILATION WITHOUT CROSS VENTILATION
15.19 SQ. FT. OF VENTILATION REQ'D / 0.88 SQ.FT. PER VENT = 18.0 VENTS REQ'D (BASED ON 8" X 16" VENTS)1

-OR-

2278 SQ. FT. OF CRAWL SPACE / 1500 = 1.52 SQ. FT. OF REQ'D VENTILATION WITH CROSS VENTILATION
1.52 SQ. FT. OF VENTILATION REQ'D / 0.88 SQ.FT. PER VENT = 2.0 VENTS REQ'D (BASED ON 8" X 16" VENTS)2

1) VENT LOCATIONS MAY VARY FROM THOSE SHOWN ON PLAN, HOWEVER VENTS SHALL BE PLACED TO PROVIDE ADEQUATE VENTILATION AT ALL POINTS AND TO PREVENT DEAD AIR POCKETS.

2) THE TOTAL AREA OF VENTILATION OPENINGS MAY BE REDUCED TO 1/1500 OF THE CRAWL SPACE GROUND AREA WHERE THE REQUIRED OPENINGS ARE PLACED SO AS TO PROVIDE CROSS VENTILATION OF THE CRAWL SPACE. THE INSTALLATION OF OPERABLE LOUVERS SHALL NOT BE PROHIBITED. ONE FOUNDATION VENT SHALL BE WITHIN 3 FEET OF EACH CORNER OF THE BUILDING. TO PREVENT RAINWATER ENTRY WHEN THE CRAWL SPACE IS BUILT ON A SLOPED SITE, THE UPHILL FOUNDATION WALLS MAY BE CONSTRUCTED WITHOUT WALL VENT OPENINGS. VENT DAMS SHALL BE PROVIDED WHEN THE BOTTOM OF THE FOUNDATION VENT OPENING IS LESS THAN 4 INCHES ABOVE THE FINISHED EXTERIOR GRADE.

WALL VENTED CRAWL SPACES REQUIRE FULL COVERAGE GROUND VAPOR RETARDERS.

CRAWL SPACE VENTILATION CALCULATION

NO SCALE

FOUNDATION PLAN

1/4" = 1'-0"

*Engineers seal does not include construction means, methods, techniques, sequences, procedures or safety precaution.
*Any deviation or discrepancies on plans are to be reported to the Tyndall Engineering & Design, P.A. prior to construction.
Typical dimensions, details and sections are to be used for all dimensional and structural components.
*Any set of plans in these documents not bearing a decorated seal are considered incomplete and deemed acceptable once construction begins.

PlotID	Length	Product
J1	9' 7" 0"	14" TJI® 110
J2	7' 4" 0"	14" TJI® 110
J3	14' 4" 0"	14" TJI® 110
J4	33' 0"	14" TJI® 110
J5	27' 0"	14" TJI® 110
J6	26' 0"	14" TJI® 110
J7	24' 0"	14" TJI® 110
J8	22' 0"	14" TJI® 110
J9	18' 0"	14" TJI® 110
J10	7' 0"	14" TJI® 110
J11	16' 0"	14" TJI® 110
J12	15' 0"	14" TJI® 110
J13	11' 0"	14" TJI® 110
J14	11' 0"	14" TJI® 110
J15	5' 0"	14" TJI® 110
1H-1	28' 0"	1 3/4" x 9 1/4" 2.0E
1H-2	22' 0"	1 3/4" x 9 1/4" 2.0E
1H-3	22' 0"	1 3/4" x 9 1/4" 2.0E
1H-4	19' 0"	1 3/4" x 9 1/4" 2.0E
1H-5	18' 0"	1 3/4" x 9 1/4" 2.0E
1H-6	7' 0"	1 3/4" x 9 1/4" 2.0E
RIM-1	16' 0"	1 3/8" x 14" TJI® R
BK1	2' 0"	14" TJI® 110
BK2	2' 0"	14" TJI® 110

TYNDALL ENGINEERING & DESIGN, P.A.
NORTH CAROLINA PROFESSIONAL SEAL C-2303 CORPORATION TYNDALL ENGINEERING AND DESIGN, P.A.

● Avoid Plumbing

FIELD LOCAT
PLUMBING DROP
LIGHTS, ETC... P
TO JOIST
SECUREMENT
AVOID INTERFER

LAYOUT FOR 19.

1= 9-3/16"
2= 15-9/16"
3= 21-3/8"
4= 76-13/16"
5= 96"
6= 115-3/16"
7= 134-3/8"
8= 153-5/8"
9=
10= 19
11= 21
12= 23
13= 24
14= 26
15= 28

CHAIK BUILDERS INC
329 TOM MEYERS RD
MOCKSVILLE, NC 27028
TOM MEYERS
704-940-7500

FOUNDATION PLAN
1ST FLOOR FRAMING

FR
1. GLU
SUBF
GIRD
NO W
2. FILL
GLU
JOIS
ROU

IN
BLOC
SPACE
DOOR
1/16"

FIELD VERI
JOISTS LOCA

Project #:
2401-010266
Date:
10/31/2024
Engineer:
JA
Drawn Back by:
PAT
Scale:
SEE PLAN

REVISIONS

No.	Date:	Remarks
1		
2		
3		
4		

Sheet Number

S1

1 of 3

FLDWG: Z:\PLEDGE OFFICE\RESIDENTIAL ENGINEERING\2024 STRUCTURAL PROJECTS\2401-010266 - CHAIK BUILDERS - 329 TOM MEYERS RD\2401-010266\CAD_FILES\2401-010266_E.DWG SAVED BY: JAY LAST PLOT DATE:10/31/2024 12:00 PM