MALBEC-RALE

RALEIGH - LOT 00.0037 THE FARM AT NELL'S CREEK

(MODEL# 1930)

ELEVATION 1 - GR

INDEX



AREA CALCULATIONS ELEVATION 1 FIRST FLOOR GARAGE FRONT PORCH - ELEVATION 1 SECOND FLOOR	TOTAL	HEATED 885 SF 1100 SF	COVERED / UNHEATED 448 SF 57 SF 505 SF	UNCOVERED

450 Peach Grove Way

		
$I \cap T$	<u>SPECIFIC</u>	
1	LOT 00.0037	THE FARM AT NELL'S CREEK
		MALBEC REV. RALE 1 ELEVATION 1
		MALDEC REV. RALE I ELEVATION I
2	ADDRESS	450 PEACH GROVE WAY LILLINGTON, NC 27546
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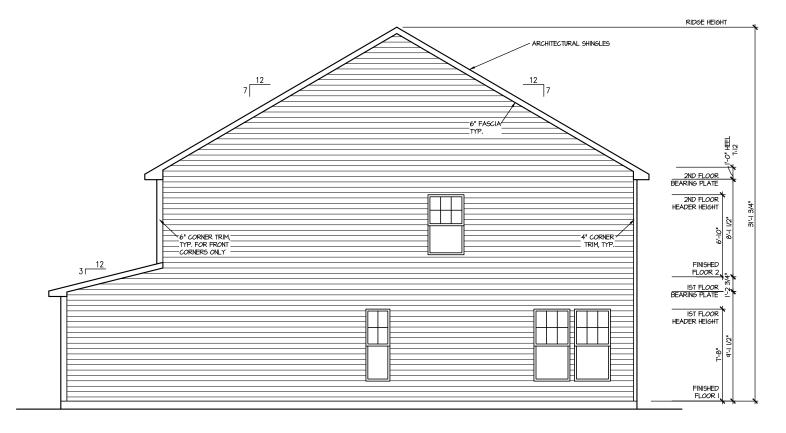
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DATE: 03/04/2025 PLAN NO. 1930

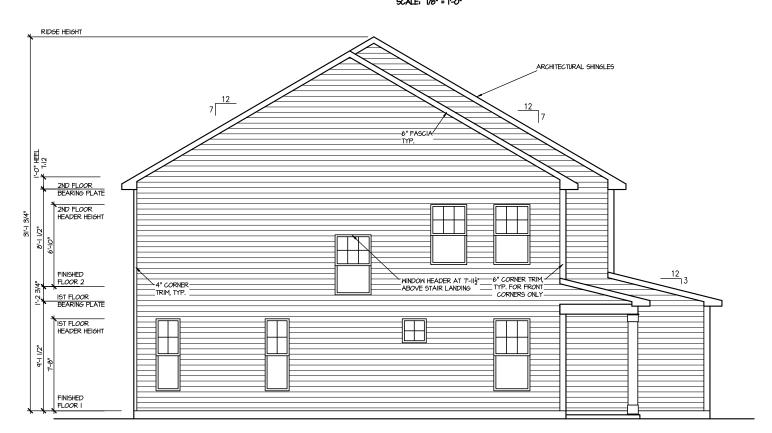


HOUSE NAME:
MALBEC
DRAWING TITLE
FRONT & R

SHEET No. A|.|



RIGHT ELEVATION I SCALE: 1/8" = 1'-0"



LEFT ELEVATION I SCALE: 1/8" = 1'-0"



DRAWN BY: DATE: 03/04/2025 PLAN NO. 1930



<u>0</u>N0 ELEVATION

HOUSE NAME:
MALBEC
DRAWING TITLE
RIGHT # LE

SHEET No. A1.2 UPPER ROOF VENTILATION CALCULATIONS:
ROOF AREA = 1244 50. FT.
OVERALL SEQUEET VENTILATION.
11 100.00 = 4.15 50. FT.
11 00.00 = 4.15 50. FT.
10 50-00 in 100 histo = 2.00 = 332 50. FT. (1 10 300)

NET FREE AREA OF WENTED 500FT = 31 50. IN / LINEAR FT.
NET FREE AREA OF RIDGE VENTI = 10 50. IN LINEAR FT.

LOVER VIRNING. (BOTTOM 2/3 RDS)

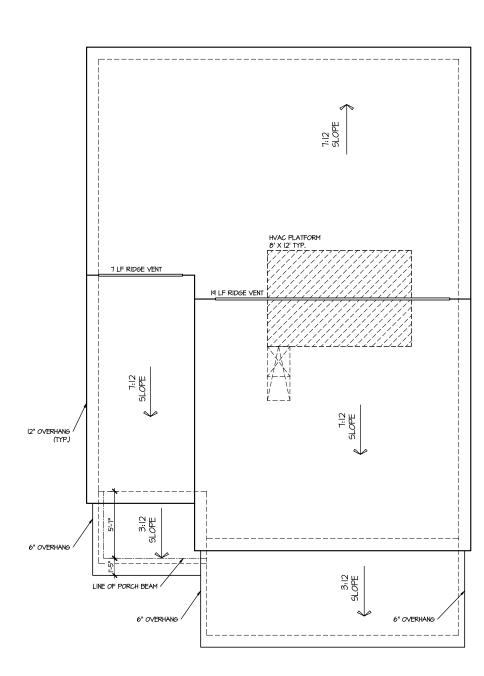
50 LINEAR FIET OF SOFFIT X 5.1 50. IN. = 2.51 50. FT.

19PER VIRNING. TOPE J. 28.0)

26 LINEAR FIET OF RUSSE X 19 50. IN = 3.25 50. FT.

10 30 0.0 ALOVED) 50 - 5.0%

TOTAL ROOF VENTILATION. 5.62 50. FT. > 4.5 50. FT. (R0D)



ROOF PLAN ELEV. I SCALE: 1/8" = 1'-0"

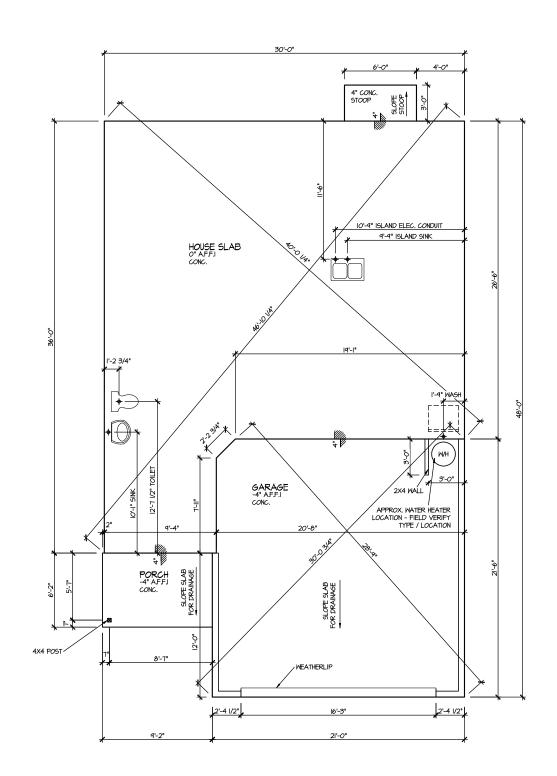
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DATE: 03/04/2025 PLAN NO. 1930



HOUSE NAME:
MALBEC
DRAWING TITLE
ROOF PLAN

SHEET No. AI.3



DRAWN BY: DATE: 03/04/2025

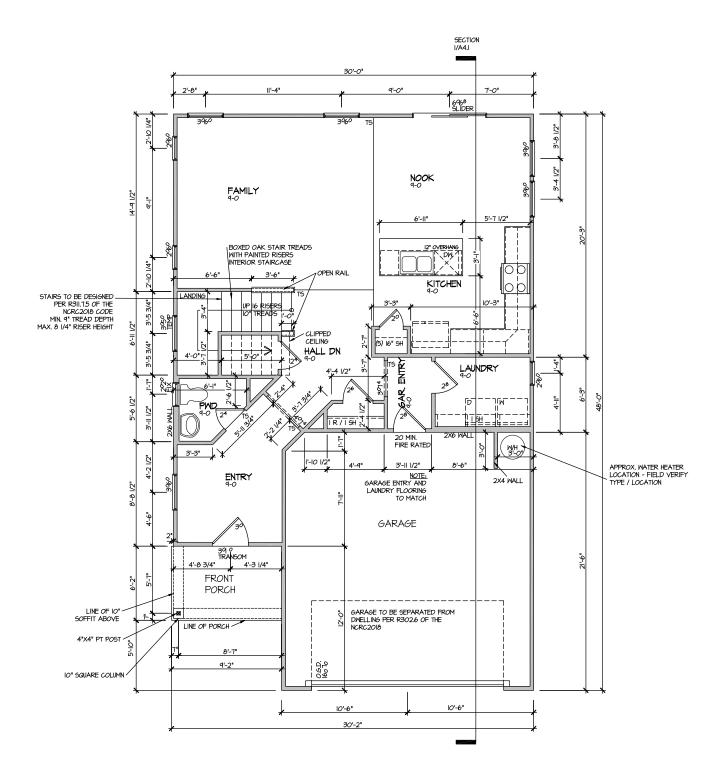
PLAN NO. 1930



HOUSE NAME:
MALBEC
DRAWING TITLE
SLAB PLAN

SHEET No. A2.1

ELEVATION I SLAB PLAN SCALE: 1/8" = 1'-0"



ELEVATION I FIRST FLOOR PLAN SCALE: 1/8" = 1'-0"

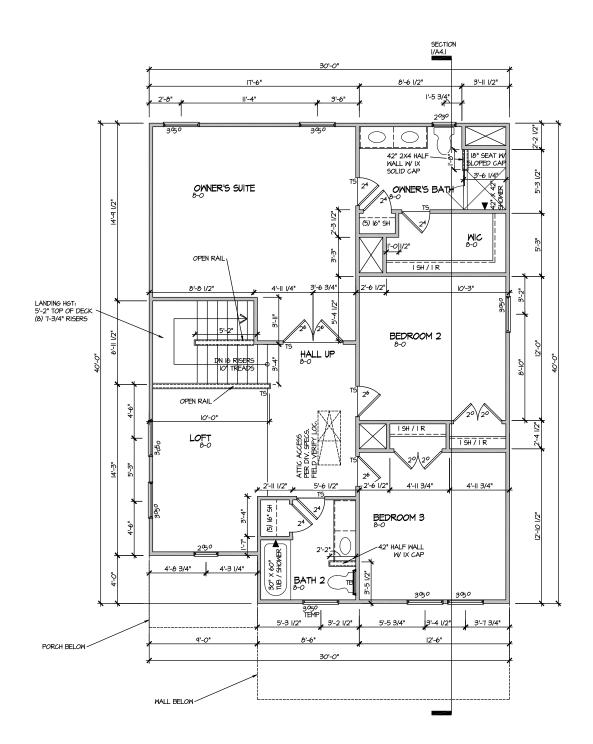
UPDATED DATE 04-17-2024 DRAWN BY: DATE: 03/04/2025

PLAN NO. 1930



HOUSE NAME:
MALBEC
DRAWING TITLE
FIRST FLOC

SHEET No. A3.1



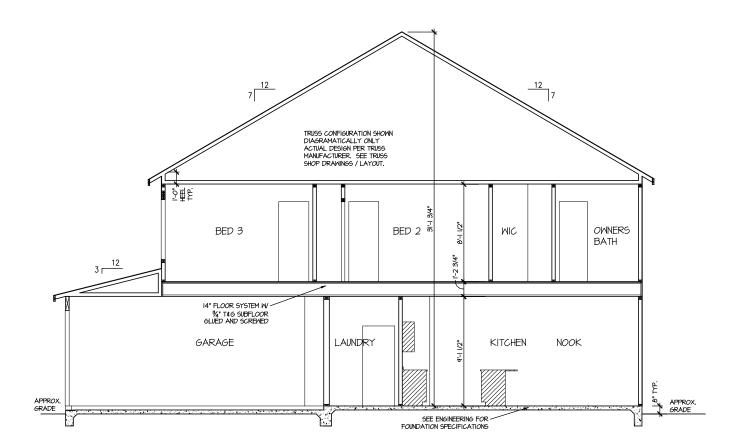
ELEVATION I SECOND FLOOR PLAN SCALE: 1/8" = 1'-0" | MASTER PLAN INFORMATION | REVISION | DATE | DATE

DRAWN BY:
ITS
DATE:
03/04/2025
PLAN NO.
1930



HOUSE NAME:
MALBEC
DRAWING TITLE
SECOND FLOOR PLAN

SHEET No. A3.2



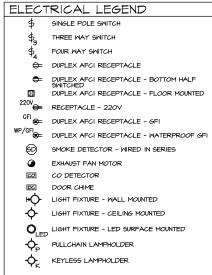
SECTION | SCALE: 1/8" = 1'-0"

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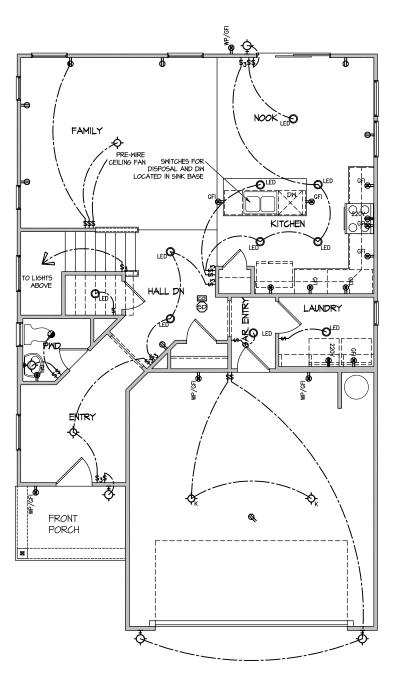
PLAN NO. 1930

SECTION HOUSE NAME:
MALBEC
DRAWING TITLE
BUILDING SE

SHEET No. A4.I



NOTE. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE ADOPTED VERSION OF THE NATIONAL ELECTRICAL CODE, THE LOCAL POWER COMPANY AND TO ALL APPLICABLE LOCAL REGULATIONS.



ELECTRICAL PLAN FIRST FLOOR - ELEV. I SCALE: 1/8" = 1'-0"

UPDATED DATE 04-17-2024 DRAWN BY:

DATE: 03/04/2025 PLAN NO. 1930

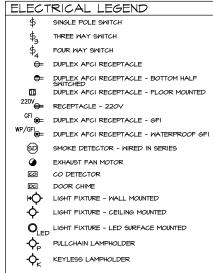


ᇳ NAME: BEC

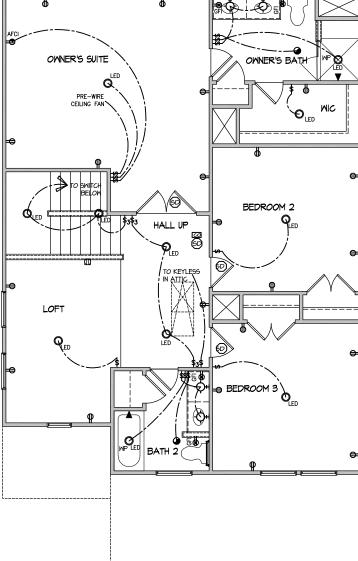
∏ 1897

HOUSE NA MALE DRAWING

SHEET No. ≣|.|



NOTE. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE ADOPTED VERSION OF THE NATIONAL ELECTRICAL CODE, THE LOCAL POWER COMPANY AND TO ALL APPLICABLE LOCAL REGULATIONS.



ELECTRICAL PLAN SECOND FLOOR - ELEV. I SCALE: 1/8" = 1'-0"

DELINE DATE: 03/04/2025
PLAN NO. 1930

BEDROOM 2

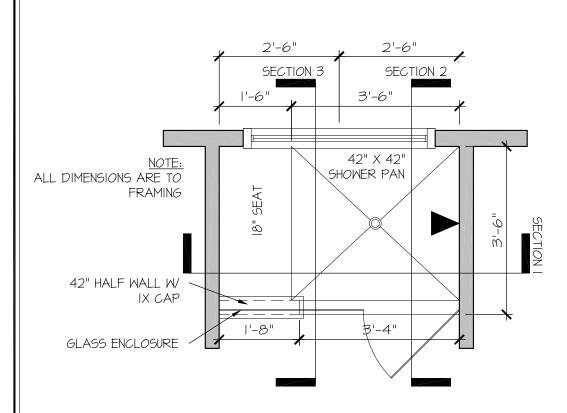
BEDROOM 2

HOMES

THE PLOOR ELECTRICAL

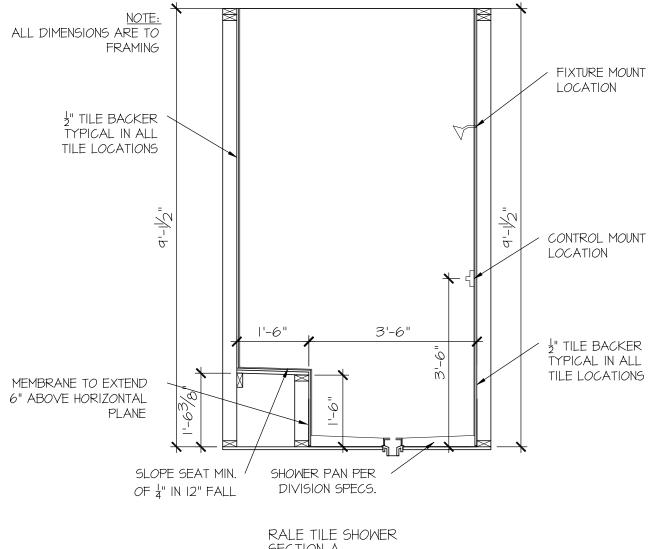
HOUSE NAME:
MALBEC
DRAWING TITLE
SECOND FLOC

SHEET No.



RALE TILE SHOWER 42" X 42" W 18" SEAT

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



SECTION A

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

CONSULTANT LOGO

DRAWN BY: L. BEAVERS DATE: 9/1/22 PLAN NO.

11 X 17 SCALE

24 X 36 SCALE



DETAIL SHOWER RALE

SHEET No.



SEAL

DRAWN BY:
L. BEAVERS
DATE: 9/1/22

PLAN NO.

24 X 36 SCALE

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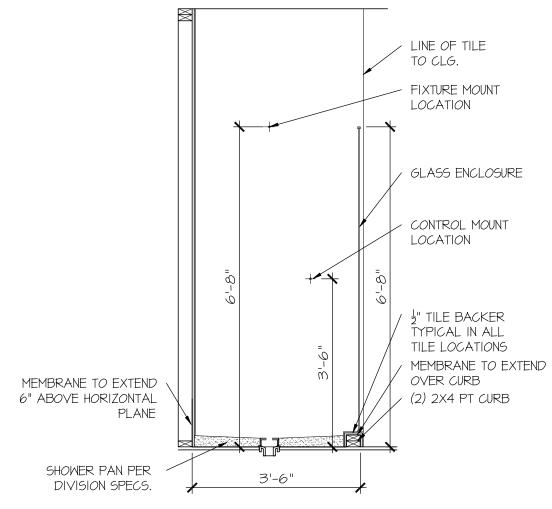


E ILE SHOWER DETAIL

OUSE NAME:

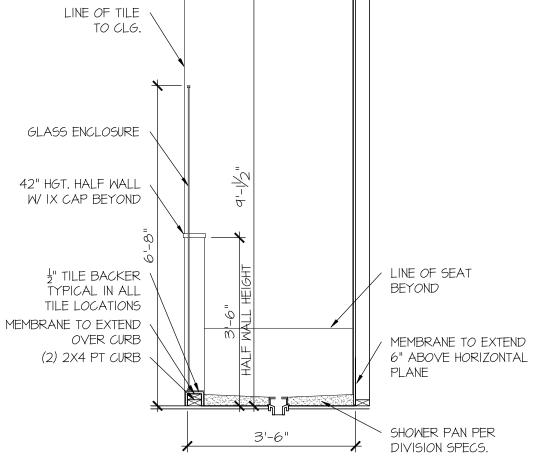
SHEET No.

P||.2



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





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

MOOD FRAME ENGINEERING IS BASED ON NDS, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" - LATEST EDITION.

ROOF DEAD = 7 PSF T.C., 10 PSF B.C. LOAD DURATION FACTOR = 1.25

> LIVE = 40 PSF (30 PSF @ SLEEPING AREAS) DEAD = 10 PSE (1-101STS & SOLID SAWN) IO PSF T.C., 5 PSF B.C. (TRUSSES) (ADD'L IO PSF @ TILF)

LATERAL 120 MPH, EXPOSURE B. SEISMIC A/B

2,000 PSF ASSUMED ALLOWABLE BEARING PRESSURE (TO BE VERIFIED BY BUILDER)

GENERAL FRAMING

- ALL TYP. NAIL FASTENER REQUIREMENTS ARE NOTED IN STANDARD CONNECTIONS TABLE OR ON PLANS, ALL NAILS SPECIFIED ARE MIN DIAMETER AND LENGTH REQUIRED FOR CONNECTION, ALL HANGER NAILS SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS FOR MAX CHARTED CAPACITY. NOTE: HANGERS USE COMMON NAIL DIAMETERS NOT TYPICAL FRAMING GUN NAILS.
- REFER TO FASTENING SCHEDULE TABLE R602.3(1) FOR ALL CONNECTIONS, TYP. U.N.O.
- EXT. & INT. BRG WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS @ 16" O.C. SPF OR SYP "STUD" GRADE LUMBER, OR BETTER, U.N.O. . WALLS OVER 12' TALL SHALL BE PER PLAN.
- ALL HEADERS, BEAMS & OTHER STRUCTURAL MEMBERS SHALL BE SPRUCE-PINE-FIR #2 (SPF) OR SOUTHERN PINE #2 (SYP) LUMBER, OR BETTER (KILN-DRIED). ALL HEADERS HAVE BEEN DESIGNED BASED ON CALCULATED LOADS & SIZED ACCORDINGLY. CODE TABLES HAVE NOT BEEN USED.
- ALL NON-BEARING INTERIOR STUD WALLS SHALL BE CONSTRUCTED. WITH 2x 'STUD' GRADE MEMBERS SPACED @ 16" O.C. (MAX., U.N.O.) . HEADERS IN NON-LOAD BEARING WALLS SHALL BE: (1)2x4/6 FLAT @ OPENINGS UP TO 4', (2)2x4/6 FLAT UP TO 8'.
- ALL FRAMING LUMBER SHALL BE DRIED TO 15% MC (KD-15).
- ENGINEERED LUMBER BEAMS TO MEET OR EXCEED THE FOLLOWING:
- "LSL" Fb=2325 psi; Fv=3I0 psi; E=1.55xI0^6 psi
- 'LVL' Fb=2600 psi; Fv=285 psi; E=2.0xl0^6 psi 'PSL' - FB=2900 PSI: FV=290 PSI: E=2.0XI0^6 PSI
- M+K SHALL BE FULLY INDEMNIFIED FOR ANY AND ALL ISSUES OWNER DOES NOT SUBMIT THE COMPONENT SHOP DRAWINGS TO M+K FOR STRUCTURAL REVIEW PRIOR TO FABRICATION, DELIVERY, OR INSTALL ATION
- FOR 2 & 3 PLY BEAMS OF EQUAL WIDTH, FASTEN PLIES TOGETHER WITH 3 ROWS OF 3" \times 0.120" NAILS \bullet 8" O/C OR 2 ROWS $\mbox{$/4$}$ " \times 3 $\mbox{$/2$}$ " SIMPSON SDS SCREWS (OR 3 $\mbox{$/2$}$ " TRUSSLOK SCREWS) \bullet 16" O/C. USE A MINIMUM OF 3 ROWS FOR BEAM DEPTHS OF 14" OR GREATER APPLY FASTENING AT BOTH FACES FOR 3-PLY CONDITION. LOCATE TOP & BOTTOM NAIL S/SCREWS 2" FROM FDGE SOLID 3 K" OR 5 K" BEAMS ARE ACCEPTABLE. USE 2 ROWS OF NAILS FOR 2x6 \$ 2x8 MEMBERS.
- FOR 4 PLY BEAMS OF EQUAL WIDTH, FASTEN PLIES TOGETHER WITH 3 ROMS OF $\frac{1}{4}$ "x6" SIMPSON SDS SCREMS (OR 6 $\frac{3}{4}$ " TRUSSLOK SCREMS) © 16" O/C. USE A MINIMUM OF 4 ROMS FOR BEAM DEPTHS OF 14" OR GREATER, APPLY FASTENING AT BOTH FACES (ONE SIDE ONLY FOR TRUSSLOK SCREWS). LOCATE TOP AND BOTTOM SCREWS 2" FROM EDGE. A SOLID 7" BEAM IS ACCEPTABLE
- ALL HEADERS SHALL BE SUPPORTED BY (1)2x JACK STUD & (1)2x KING STIP MINIMIM
- THE NUMBER OF STUDS SPECIFIED AT A SUPPORT INDICATES THE NUMBER OF JACK STUDS REQUIRED, U.N.O.,
- ALL MULTI-PLY STUDS TO BE FASTENED TOGETHER w/ 3"X0.131" NAILS @ 24" O.C. (MIN.), EACH PLY.
- PROVIDE SOLID BLOCKING IN FLOOR SYSTEM UNDER ALL POSTS CONTINUOUS TO FND./BEARING. BLOCKING TO MATCH POST ABOVE.
- FASTEN 2x WOOD PLATES TO TOP FLANGE OF STEEL BEAMS WITH P.A.F.'s ('HII TI' X-CF PINS OR FOUAL) @ 16" O.C. STAGGERED. OR 1/2" DIA. BOLTS @ 48" O.C. STAGGERED
- ALL EXTERIOR 4x4 WOOD POSTS SHALL HAVE SIMPSON BCS2-2/4 CAP & ABW44Z BASE, U.N.O.

FLOOR FRAMING

- I-JOISTS/TRUSSES SHALL BE DESIGNED BY MANUF. TO MEET OR EXCEED L/480 LIVE LOAD DEFLECTION CRITERIA. (EXCLUDES MARBLE FLOORS - CONTACT M&K FOR MARBLE FLOOR DESIGNS
- AT I-JOIST FLOORS, PROVIDE LI/8" MIN, OSB RIM BOARD.
- METAL HANGERS SHALL BE SPECIFIED BY MANUFACTURER, U.N.O.
- FLOOR SHEATHING SHALL BE 23/32" A.P.A. RATED 'STURD-I-FLOOR 24" O.C. EXPOSURE I (OR APPROVED EQUAL) WITH TONGUE AND GROOVE EDGES. FASTEN TO FRAMING MEMBERS W/ GLUE AND
- 2 ½" x 0.131" NAILS 6"o.c. PANEL EDGES & 12"o.c. FIELD.
- 2 3" x 0.120" NAILS @ 4" O.C. @ PANEL EDGES \$ @ 8" O.C. FIELD
- . 2 3" V O II 3" NA II S @ 3" O C. @ PANEL EDGES # @ 6" O C. IN EIELD #6 x 2" MIN. SCREWS @ 6" O.C. @ PANEL EDGES & @ 12" O.C. FIELD

ROOF FRAMING

- BAY WINDOWS & SHED ROOFS (UP TO 6' SPAN) CAN BE 2x4 OR 2x6 RAFTERS & CEILING JOISTS @ 16/24" O.C.
- FASTEN EACH ROOF TRUSS TO TOP PLATE W SIMPSON H2.5T CLIP (OR APPROVED EQUAL) @ ALL BEARING POINTS. PROVIDE (2) H2.51 CLIPS AT 2-PLY GIRDER TRUSSES, (3) H2.5T CLIPS AT 3-PLY GIRDER TRUSSES & ROOF BEAMS - AT ALL BEARING POINTS
- METAL HANGERS SHALL BE SPECIFIED BY THE MANUFACTURER, U.N.C
- ERECT AND INSTALL ROOF TRUSSES PER WTCA & TPI'S BCSI I-08 "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES.
- SUPPORT PORCH & SHORT SPAN ROOF TRUSSES (MAX 7' SPAN) W 2x4 LEDGER FASTENED TO:
- RIM BOARD w/ (2) 3"x0.131" NAILS @ 16" O.C. MAX. (I-JOISTS) TRUSS VERTICALS W/ (3) 3"X0.131" NAILS @ 19.2" O.C. MAX. (FLOOR TRUSSES)
- ROOF SHEATHING SHALL BE 7/16" A.P.A. RATED SHEATHING 24/16 EXPOSURE I (OR APPROVED EQUAL). FASTEN TO FRAMING MEMBER
- W 2 ½" x 0.131" NAILS @ 6"o.c. @ PANEL EDGES \$ @ 12" O.C. FIELD.
- · W/ 2 🖁 × 0.120" NAILS 🥑 4"o.c. 💇 PANEL EDGES 🖇 🍪 8" O.C. FIELD. · W/ 2 🖁 × 0.113" NAILS @ 3"o.c. @ PANEL EDGES \$ @ 6" O.C. FIELD.

HOLD-DOWN SCHEDULE

SYMBOL	SPECIFICATION		
► HD-I	SIMPSON HTT4 HOLD-DOWN * (%" DIA. ANCHOR)		
HD-2	SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM UN.O.) -OR- MSTC66B3 ALTERNATE		
₩D-3	SIMPSON STHDI4/STHDI4RJ		

* UTILIZE THE 95TB24 ANCHOR BOLT @ ALL MONOSLAB & INTERIOR RAISED SLAB (I.E. THICKENED SLAB6, FOOTINGS) CONDITIONS, MINIMUM 24" MIN. OUTING THICKNESS PEGUIPED

EPOXY-SET ALTERNATE FOR MONOSLAB & INTERIOR RAISED SLAB CONDITIONS ONLY: UTILIZE SIMPSON 'SET' EPOXY SYSTEM TO FASTEN THREADED ROD INTO CONCRETE FOUNDATION. PROVIDE 10" (FOR 5/8" DIA.) OR 15" (FOR 7/8" DIA.) MIN. EMBEDMENT INTO CONCRETE. NSTALL PER MANUF, INSTRUCTIONS, MINIMUM 16" FOOTING THICKNESS REQ'D.

SD2.I REFERS TO SD2.IA FOR LVL/PSL/LSL BEAMS OR SD2.IB FOR FLITCH BEAMS OR SD2.IC FOR STEEL BEAMS

DO NOT LOCATE ANCHORS WITHIN I 3/4" OF EDGE OF CONCRETE.

LATERAL BRACING & SHEAR WALL SHEATHING SPECIFICATIONS

THIS MODEL HAS BEEN DESIGNED TO RESIST LATERAL FORCES RESULTING FROM: O MPH WIND IN 2018 NCSBC:RC

(120 MPH WIND SPEED IN ASCE 7-10 WIND MAP, PER IRC R301.2.1.1)

(SECTION 1609) & ASCE 7-10, AS PERMITTED BY R30113 OF THE 2018 NCSBC-RC OR THE SIMPLIFIED PRESCRIPTIVE PROCEDURE IN ACCORDANCE WITH THE 2015 IRC IF THE PARAMETERS OF SECTION R602.12 COMPLY. DETAILED HEREWITHIN, IS ADEQUATE TO RESIST THE CODE REQUIRED LATERAL FORCES.

DESIGN WIND UPLIFT LOADS HAVE BEEN NGSBG:RG SECTION R802 IIII. THIS MODEL HAS SECTIONS R602.3.5 R802.II.

- HORIZONTAL BLOCKING OF EXT. WALL/SHEAR WALL PANEL EDGES IS NOT REQUIRED BY THIS DESIGN
- ALL EXT. WALLS SHALL BE CONTINUOUSLY SHEATHED AND ARE CONSIDERED SHEAR WALLS.
- (1/6" CROWN) @ 3" O.C. AT EDGES & @ 6" O.C IN FIELD

AT DESIGNATED AREAS - FASTEN SHEATHING w/ 2 AND 12" O.C. IN THE PANEL FIELD OR 1 3/4" 16 GA STAPLES (1/6" CROWN) @ 3" O.C. AT EDGES & @ 6" O.C IN FIELD. ALL SHEATHING PANELS SHALL BE WALL OR 2x HORIZONTAL BLOCKING SHALL BE

3" O.C. EDGE NAILING

WOOD STRUCTURAL WALL SHEATHING TO FRAMING v/ 8d NAILS @ 3" O.C. NO STAPLE ALTERNATIVE AVAILABLE AT THIS SPEC. ALL SHEATHING PANELS SHALL BE ORIENTED AND INSTALLED FULL HEIGHT OF SHEAR WALL OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT UNSUPPORTED PANEL EDGES AND 3" O.C. EDGE FASTENING

- STANDARD SHEAR TRANSFER DETAILING, IF ADDITIONAL CAPACITY IS REQUIRED BY DESIGN. IT WILL BE SPECIFICALLY NOTED ON PLAN.
- ALL STRUCTURAL PANELS ARE TO BE DIRECTLY
- TOGETHER END STUDS OF WALL PANELS SHEATHED W/ OSB OR PLYWOOD W/ 3" x 0.120" VAILS @ 4" O.C. (THRU ONE SIDE ONLY)

INDICATES HOLDOWN BELOW

VENEER LINTEL SCHEDULE

(MAX)	ABOVE LINTEL	STEEL ANGLE SIZE	
3'-0"	20 FT. MAX	L3"x3"x/4"	
	3 FT. MAX	L3"x3"x/4"	
6'-0"	I2 FT. MAX	L4"x3"x/4"	
	20 FT. MAX	L5"x3½"x5%"	
	3 FT. MAX	L4"x4"x¼" *	
8'-0"	I2 FT. MAX	L5"x3½"x¾6"	
	I6 FT. MAX	L6"x3½"x%"	
q'-6 "	I2 FT. MAX	L6"x3½"x¾"	
16'-0"	2 FT. MAX	L7"x4"x½" **	
	3 FT. MAX	L8"x4"x½" **	

- SHALL SUPPORT 2 1%" 3 1½" VENEER W/ 40 psf MAXIMUM WEIGHT. 16' SHALL HAVE 4" MIN. BEARING
- 16' SHALL HAVE 8" MIN. BEARING 16' SHALL NOT BE FASTENED BACK TO HEADER.
- 6' SHALL BE FASTENED BACK TO WOOD HEADER IN WALL @48"0.0 $w/k_{\parallel}^{\prime\prime}$ DIA, x 3 $k_{\parallel}^{\prime\prime}$ LONG LAG SCREWS IN 2" LONG VERTICALLY SLOTTED HOLES.
- AX, VENEER HT, APPLIES TO ANY PORTION OF BRICK OVER THE
- OFENING. ALL LINTELS SHALL BE LONG LEG VERTICAL. WHEN SUPPORTING VENEER < 3" WIDE THE EXTERIOR TOE OF THE HORIZONTAL LEG MAY BE CUT IN THE FIELD TO BE 3 以 WIDE OVER THE BEARING LENGTH ONLY, THIS IS TO ALLOW FOR MORTAR JOINT
- FINISHING.
 SEE STRICTURAL PLANS FOR ANY LINTEL CONDITION NOT ENCOMPASSED BY THE ABOVE PARAMETERS. FOR ANY LINTEL FASTIENED SHACK TO BEAM FASTIENED SHALL MAINTAIN A 25' (MINIMAN) CLEAR DISTANCE FROM BOTTOM OF BEAM.
- OR QUEEN VENEER USE L4x3%4". FOR 3%" VENEER ONLY, SEE PLAN FOR VENEER SUPPORT IF

LEGEND

- INTERIOR BEARING WALL
- □□□□□□ BEARING WALL ABOVE
- ---- BEAM / HEADER
- ■ ■ INDICATES SHEAR WALL & EXTENT
- EXTENT OF OVERFRAMING
- * INDICATES POST ABOVE, PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
- INDICATES HOLD-DOWN OR STRAP. REFER TO SCHEDULE.

NON-BEARING HEADER SCHEDULE

SPAN	2x4 NON-BEARING PARTITION WALL	2x6 NON-BEARING PARTITION WALL	
UP TO 3'-0"	(I)2x4 FLAT	(I)2x6 FLAT	
UP TO 6'-0"	(2)2x4	(3)2x4	
UP TO 8'-0"	(2)2x6	(3)2x6	
UP TO 12'-0"	(2)2x8	(3)2x8	

ALL NON-BEARING INTERIOR STUD WALLS SHALL BE CONSTRUCTED WITH 2x 'STUD' GRADE MEMBERS SPACED @ 24" O.C. (MAX.)

GENERAL STRUCTURAL NOTES

FOUNDATION

- DESIGN IS BASED ON 2018 NORTH CAROLINA STATE BUILDING CODE: RESIDENTIAL CODE.
- FOOTING DESIGN 2,000 PSF ALLOWABLE SOIL BEARING PRESSURE IS ASSUMED. BUILDER/CONTRACTOR MUST VERIFY.
- FASTEN 2x4/6 SILL PLATES TO FND WITH A MINIMUM OF 2 ANCHORS
- PER PLATE, 12" MAX. FROM PLATE ENDS UTILIZING:
 1/2" DIA. ANCHOR BOLTS 6'-0" O.C., 7" MIN. EMBEDMENT
 - (CONC), 15" MIN. EMBEDMENT (CMU)
- SIMPSON MASA ANCHOR STRAPS @ 6'-0" O.C. (CONC) • SIMPSON MAB23 ANCHOR STRAPS • 2'-8" O.C. (CMU)
- (REFER TO DETAILS FOR 10' TALL WALL ANCHOR REQUIREMENTS) ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT W/ CONCRETE OR CMU SHALL BE PRESERVATIVE TREATED SOUTHERN PINE #2.
- BUILDER TO VERIEY CORROSION-RESISTANCE COMPATIBILITY OF HARDWARE & FASTENERS IN CONTACT W/ PRESERVATIVE-TREATED WOOD, CONTACT LUMBER & HARDWARE SUPPLIERS TO COORD.
- BASEMENT INTERIOR BEARING WALLS & EXTERIOR WALK-OUT BASEMENT WALLS SHALL BE 2x6 @ 16" O.C. SPF OR SYP, "STUD" GRADE OR BETTER.
- CONCRETE DESIGN BASED ON ACI 318. CONCRETE SHALL ATTAIN THE FOLLOWING MIN. COMPRESSIVE STRENGTHS IN 28 DAYS, U.N.O.:
- 4,000 psi: FOUNDATION WALLS
 2,500 psi: FOOTINGS & INTERIOR SLABS ON GRADE 3,000 psi: GARAGE & EXTERIOR SLABS ON GRADE 60,000 psi
- BASEMENT FOUNDATION WALL DESIGN BASED ON • 9' OR 10' HEIGHT (AS NOTED ON PLAN
 - TALLER WALLS MUST BE ENGINEERED.
 - NOMINAL WIDTH (91/5" FOR 10" THICK WALL)
- BASEMENT WALL DESIGN IS BASED ON 60 PCF BACKFILL SOIL TYPE CLASSIFICATIONS (SC. ML-CL. OR CL).
- BASEMENT WALLS SHALL BE BRACED, PRIOR TO BACKFILLING, BY ADEQUATE TEMPORARY BRACING OR INSTALL 1st FLOOR DECK.
- PROVIDE (2) #5 BARS AROUND ALL SIDES OF OPENINGS IN CONCRETE BSMT, FND, WALL WITH 2" CLEAR, REINFORGEMENT SHALL EXTEND 12" PAST CORNER OF OPENING IN ALL DIRECTIONS.
- FOR OPENINGS UP TO 36". PROVIDE MINIMUM IO" CONCRETE. DEPTH OVER OPENING OR (3)2x10 W/ (2)2x6 JACK STUDS, U.N.C
- LARGER OPENINGS SHALL BE PER PLAN.
- ALL CONCRETE EXPOSED TO THE WEATHER SHALL NOT HAVE LESS THAN 5% OR MORE THAN 7% AIR ENTRAINMENT
- ALL FOOTINGS SHALL BEAR AT LEAST 12" BELOW FINISH GRADE.
- FOOTINGS AND SLABS ON GRADE SHALL BEAR ON VIRGIN SOIL OR 95% COMPACTED FILL.
- PROVIDE CONTROL JOINTS AT ALL INSIDE CORNERS OF SLAB EDGES, AND OTHER LOCATIONS WHERE SLAB CRACKS ARE LIKELY
- JOINTS SHALL BE LOCATED @ 10'-0" O.C. (RECOMMENDED) OR 15'-0" O.C. (MAXIMUM)
- JOINT GRID PATTERN SHALL BE AS CLOSE TO SQUARES AS POSSIBLE (I:I RATIO), WITH A MAXIMUM OF I:1.5 RATIO CONTROL JOINTS SHALL NOT BE INSTALLED IN STRUCTURAL
- CONCRETE MASONRY UNITS (CMU) SHALL BE ASTM C90 WITH A MIN. COMPRESSIVE STRENGTH OF 1900 psi (Fm=1500 psi), MORTAR SHALL BE ASTM C270, TYPE S. CMU DESIGN PER ACI 530 € 530.I.
- CMU FOUNDATION WALLS SHALL HAVE 'DUR-O-WALL' HORIZONTAL JOINT REINFORCEMENT (OR EQUAL) - 9 GA. MINIMUM @ 16" O.C.
- PROVIDE 2×8 x 16" LONG P.T. PLATE ON TOP OF ALL CRAWL SPACE PIERS. ALL PIERS SHALL BE GROUTED SOLID.
- PROVIDE 2x6 P.T. PLATE ON INTERIOR CRAWL SPACE WALLS. FASTENED PER ANCHORAGE SPECIFICATION NOTED ABOVE.
- DIMENSIONS BY OTHERS, BUILDER TO VERIFY.
- BUILDER TO VERIFY THAT MODEL HAS BEEN ADEQUATELY TREATED BY A LICENSED AND BONDED PEST CONTROL COMPANY FOR SUBTERRANEAN TERMITES. METHOD AND TYPE OF TREATMENT TO BE DETERMINED BY PEST CONTROL COMPANY

MEANS & METHODS NOTES

THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS FINISHED AND ALL PLAN, DETAIL, AND NOTE SPECIFICATIONS HAVE BEEN COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY DETERMINE THE ERECTION PROCEDURES SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS, AND TIE-DOWNS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING AND BRACING REQUIRED TO STABILIZE AND PROTECT EXISTING AND ADJACENT STRUCTURES AND SYSTEMS DURING COURSE OF DEMOLITION AND CONSTRUCTION OF THE PROJECT.

STRUCTURAL DESIGN AND SPECIFICATIONS ASSUME IN CONTACT WITH FLOOR FRAMING ARE LEVEL. NCLUDING, BUT NOT LIMITED TO; FOUNDATIONS, SLABS ON GRADE, BEAMS, WALLS, AND NON-BEARING FLEMENTS IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LEVELNESS AND MAKE ADJUSTMENTS AS NECESSARY INCLUDING CONSIDERATION OF THOSE AREAS THAT MAY BE WITHIN CONTRACTUAL, INDUSTRY OR WARRANTY TOLERANCES.

ADDITIONAL NOTES FOR TRUSS \$ I-JOIST MANUFACTURER

POOF TRUSS FLOOR TRUSS AND ENGINEERED JOISTS SHALL BE DESIGNED TO MEET THE DIFFERENTIAL DEFLECTION CRITERIA BELOW, UNLESS NOTED OTHERWISE ON PLAN.

TRUSSES/JOISTS SHALL BE DESIGNED SO THAT DIFFERENTIAL DEFLECTION BETWEEN ADJACENT PARALLEL TRUSSES/JOISTS OR GIRDER TRUSSES/FLUS BEAMS DO NOT EXCEED THE FOLLOWING:

- ROOF TRUSSES: I/4" DEAD LOAD
- FLOOR TRUSSES, ATTIC TRUSSES, & I-JOISTS: 1/8" DEAD LOAD
- FLOOR TRUSSES & ATTIC TRUSSES ADJACENT TO LIMIT ABSOLUTE TRUSS DEELECTION TO 3/16" DEAL LOAD. (NOT DIFFERENTIAL DEFLECTION)



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1&K project numbe 126-22076

JTR

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sue date: 03-10-2 REVISIONS

rawn by:

 \Box $\bigcap_{i=1}^{n}$ \sim 1 AT Malbe

ARM LO

3"x0.120" NAILS OIST TO SOLE PLATE 3) TOENAILS (3) TOENAILS* OLE PLATE TO JOIST/BLK TUD TO SOLE PLATE (3) NAILS @ 4" c 3) TOENAILS* 3) NAILS FOENAILS @ 6" O.C.! BLK'G. BTWN, JOISTS TO TOP PL (3) TOFNAIL (3) TOENAU G NAILS @ 16" 0.0 OUBLE TOP PLAT NAILS @ 24" o NAILS @ 16" O. (II) NAILS IN LAPPED ARE

2½"x0.113 IS AN ACCEPTABLE ALTERNATIVE TO A 3"x0.120", SAME SPACING OR NUMBER OF NAILS. (ONLY ACCEPTABLE WHERE * ARE SHOWN)

CONNECTION SPECIFICATIONS (TYP. U.N.O.) DESCRIPTION OF BLDG. ELEMENT 3"x0.131" NAILS OUBLE TOP PLATE LAP SPLICE (9) NAILS IN LAPPED AREA PLATE LAP @ CORNERS & (2) NAILS NTERSECTING WALLS

EXP. B, RISK CAT. 2 & SEISMIC CAT. A/B. THE DESIGN WAS COMPLETED PER 2015 IBC

CCORDINGLY, THIS MODEL, AS DOCUMENTED AND

CALCULATED UTILIZING ASCE 7-10 (ACCEPTED ENGINEERING PRACTICE) AS ALLOWED PER 2018 BEEN DETAILED WHERE REQUIRED & ENGINEERED TO RESIST THE WIND UPLIFT LOAD PATH PER

EXT. WALL SHEATHING SPECIFICATION

- 7/16" OSB OR 15/32" PLYWOOD: FASTEN SHEATHING W/ 2 ¾"x0.II3" NAILS @ 6" O.C. AT EDGES & @ I2" O.C. IN THE PANEL FIELD. TYP, U.N.O.
- EXCEPT FOR THOSE AREAS SPECIFICALLY NOTED.
- ALT. STAPLE CONNECTION SPEC: 1½" 16 GA STAPLES

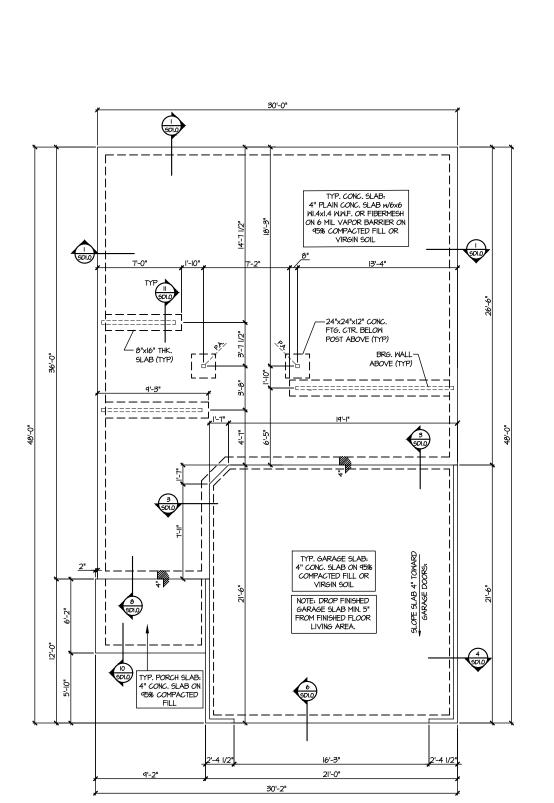
BLOCKED PANEL EDGES

🔏 x 0.113" Nails 🛭 6" O.C. at all panel edges ORIENTED AND INSTALLED FULL HEIGHT OF SHEAR PROVIDED TO SUPPORT ALL UNSUPPORTED PANEL

AT DESIGNATED AREAS - EASTEN PANEL EDGES OF

- NOTES • SEE CONNECTION SPECIFICATIONS CHART FOR
- DESIGN ASSUMES 16" O.C MAX. STUD SPACING, U.N.O.
- APPLIED TO STUD FRAMING. PRE-MANUFACTURED PANELIZED WALLS:

INDICATES EXTENT OF INT. OSB SHEARWALL
OR 3" O.C. OSB SHEARWALL.





3/13/25 H CAR

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RESIDENTIAL STRUCTURAL ENGINEERING



M&K project number: 126-22076

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LEGEND

• == INDICATES SHEAR WALL & EXTENT EXTENT OF OVERFRAMING

* INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.

INDICATES HOLD-DOWN OR STRAP. REFER TO SCHEDULE.

REFER TO SO.O FOR

TYPICAL STRUCTURAL NOTES

& SCHEDULES

• IIIII INTERIOR BEARING WALL ● □===□ BEARING WALL ABOVE • ---- BEAM / HEADER

JL METAL HANGER

FARM AT NEIL'S CREEK LOT 37 - MALBEC 1 RALEIGH, NC **OUNDATION PLANS**

S1.0

MUCHERN+KULP

RESIDENTIAL STRUCTURAL ENGINEERING

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M&K project number 126-22076

> **JTR** drawn by: issue date: 03-10-2

REVISIONS:

initial:

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NEIL'S

MALBEC 1

FARM LOT 37 - M/RALEIGH, N

RAMING

OOR

REFER TO SO.O FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

SD2.I REFERS TO SD2.IA FOR LVL/PSL/LSL BEAMS OR SD2.IB FOR FLITCH BEAMS OR SD2.IC FOR STEEL BEAMS

LEGEND

- IIIIII INTERIOR BEARING WALL
- □===□ BEARING WALL ABOVE
- BEAM / HEADER
- = = INDICATES SHEAR WALL & EXTENT
- EXTENT OF OVERFRAMING
- JL METAL HANGER
- * INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
- INDICATES HOLD-DOWN OR STRAP.
 REFER TO SCHEDULE.

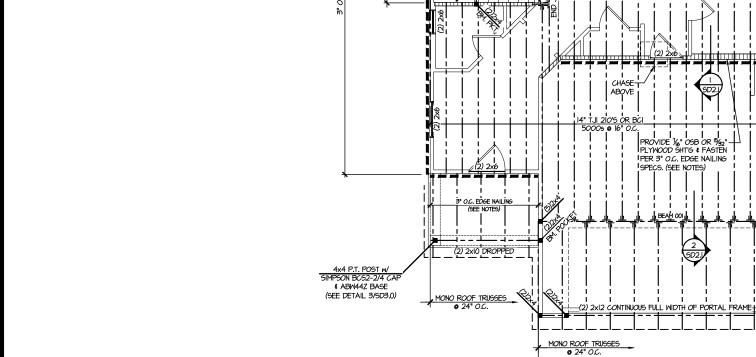
BEAM NUMBER	LVL OPTION	PSL OPTION	LSL OPTION	FLITCH OPTION	STEEL OPTION	
001	(3)134"x18" - FT	5¼"xl8" - FT	N/A	(4)2xl2 + (3) ½"xll¼" STEEL FLITCH PLATES - FB	WI2x26 - F	
002	(2)13/4"×14" - F	3½"x14" - F	(3)13/4"×14" - F	(2)2x12 + (1) ¼"x1l¼" STEEL FLITCH PLATES - FB	WI2xI4 - F	

- BEAM NOTATION:
 "F" INDICATES FLUSH BEAM
 "FT" INDICATES FLUSH TOP BEAM
 "FB" INDICATES FLUSH BOTTOM BEAM

- "H" INDICATES FLUSH BOTTOM BEAM
 "D" INDICATES DROPPED BEAM
 "H" INDICATES DROPPED OPENING HEADER
 REFER TO DETAIL D/SD2.0 FOR TYPICAL FILTCH BEAM CONNECTIONS
 REFER TO DETAIL E/SD2.0 FOR TYPICAL STEEL BEAM CONNECTIONS
 FOR FLUSH TOP BEAMS PROVIDE 2X STACKED PLATES BENEATH BEAM AS REQ'D. FASTEN
 PLATES IN SUCCESSION W (2) 3"X01.20" NAILS 9 8" O.C.
- FOR FLUSH BOTTOM BEAMS PROVIDE 2X STACKED PLATES ATOP BEAM AS REQ'D. FASTEN PLATES IN SUCCESSION w/ (2) 3"XO.120" NAILS 8" O.C.

ENGINEERED BEAM MATERIAL SCHEDULE

BEAM NUMBER	LVL OPTION	PSL OPTION	LSL OPTION	FLITCH OPTION	STEEL OPTION
001	(3)13/4"×18" - FT	5¼"xl8" - FT	N/A	(4)2xl2 + (3) 片"xll片" STEEL FLITCH PLATES - FB	WI2x26 - F
002	(2)13/4"×14" - F	3½"xl4" - F	(3)13/4"×14" - F	(2)2x12 + (1) ¼"x1l¼" STEEL FLITCH PLATES - FB	WI2xI4 - F



2ND FLOOR FRAMING PLAN SCALE: 1/8"=1'-0"

PORTAL FRAME (SEE DETAIL I/SD2.2)

ABOVE

CHASE ABOVE

END JOIST

+ (1)2x4 JACK

/--(2)2x8 **o** LND'G

3/13/25 MUCHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING

Y

M&K project number: 126-22076

JTR drawn by: issue date: 03-10-25

REVISIONS:

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REFER TO SO.O FOR TYPICAL STRUCTURAL NOTES \$ SCHEDULES

LEGEND

• = = INDICATES SHEAR WALL & EXTENT • EXTENT OF OVERFRAMING

INDICATES HOLD-DOWN OR STRAP. REFER TO SCHEDULE.

INTERIOR BEARING WALL

● □===□ BEARING WALL ABOVE

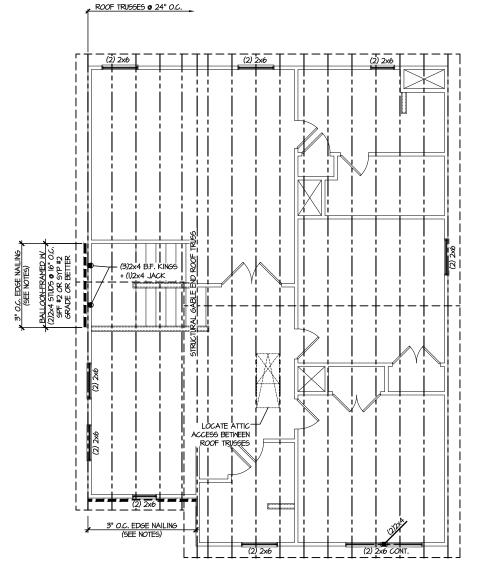
• ---- BEAM / HEADER

JL METAL HANGER

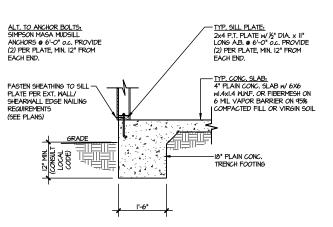
FARM AT NEIL'S CREEK LOT 37 - MALBEC 1 RALEIGH, NC ROOF

* INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.

S3.0



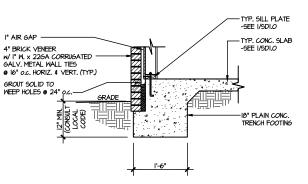
ROOF FRAMING PLAN



TYPICAL SLAB ON GRADE

PERIMETER FOOTING

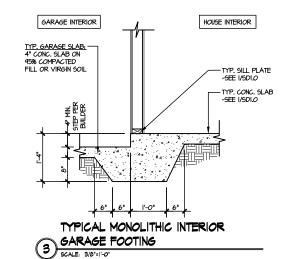
SCALE: 9/8"=1"-0"



TYPICAL SLAB ON GRADE

PERIMETER FOOTING

SCALE: 3/8/1-1/-0" W/ BRICK VENEER



FASTEN SHEATHING TO SILL
PLATE PER EXT. WALL
SHEARRIALE DIDGE NAILING
REQUIREMENTS
(SEE PLANS)

GRADE

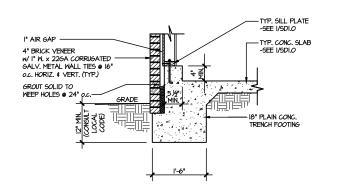
WIND
RECOURS SLAB
SHEATHING TO SILL
FLATE PER EXT.
SHEARRIALE DIDGE NAILING
RECOURS SLAB
FLANS

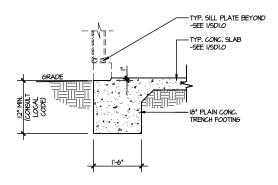
IN PLAIN CONC.
TRENCH FOOTING

TYPICAL SLAB ON GRADE GARAGE

PERIMETER FOOTING

SCALE: 30%-1-0*

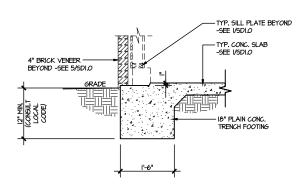




TYPICAL SLAB ON GRADE GARAGE

ENTRY @ PERIMETER FOOTING

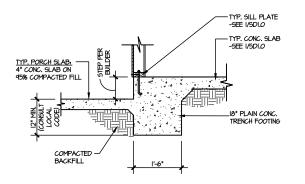
SCALE: 9/8'-1'-0'

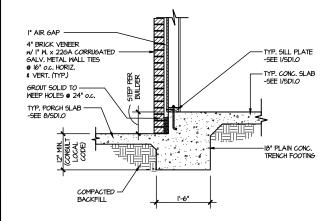


TYPICAL SLAB ON GRADE GARAGE

ENTRY @ PERIMETER FOOTING

SCALE: 5/95*=1-0" // DRICK VENEER

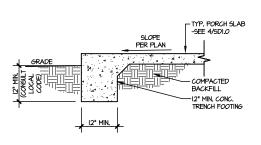




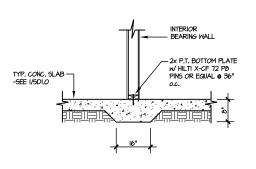
TYPICAL SLAB ON GRADE PERIMETER

FOOTING @ PORCH/PATIO

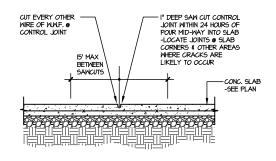
SCALE: 9/8'=1'-0' W PRICK VENER



TYPICAL FOOTING @ PORCH SLAB



TYPICAL THICKENED SLAB @ INTERIOR BEARING WALL SCALE: 9/8/11/0"



TYPICAL CONTROL JOINT

SCALE: 5/8*=1-0*

LOCATE 8 15-0* 04. MAX

OR CORRERS MERRE CRACKS
LIKELY TO DEVELOP

LETTERED DETAILS ARE TYPICAL FOR THIS HOME & SHALL BE IMPLEMENTED IN ALL APPLICABLE AREAS. THESE DETAILS ARE NOT "CUT" ON THE PLANS.

NUMBERED DETAILS ARE PLAN SPECIFIC AND ARE ONLY REQUIRED WHERE SPECIFICALLY INDICATED ("CUT") ON THE PLANS.

U Noille Crook 1 of 27 Chairting DATE: 2/12/2025 10:42 AM

FOUNDATION E FARM AT NEIL' lot 37 - malbec 1 raleigh, nc

REEK

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3/13/2

ERN+KU

M&K project number: 126-22076

ssue date: 03-10-2

drawn by:

REVISIONS:

JTR

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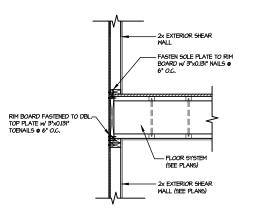
SEPH T. R

SD1.0

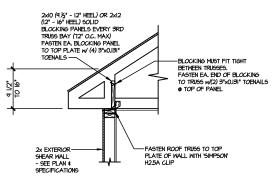
TYPICAL SHEAR

TRANSFER DETAIL @ ROOF

SCALE: 3/8"=1"-0" HEEL HEIGHT LESS THAN HEEL HEIGHT LESS THAN 9½" NO BLOCKING REQ'D

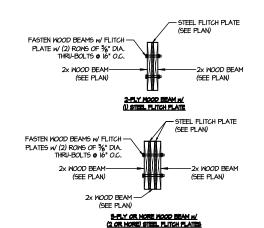


TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ EXTERIOR WALL
SCALE: 3/6"=1"-0"

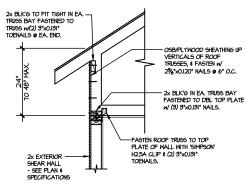


TYPICAL SHEAR

TRANSFER DETAIL @ ROOF
SCALE: 3/8"=1"-0" HEEL HEIGHT BETWEEN 9 1/2 HEEL HEIGHT BETWEEN 9½" - 16" BLOCKING REQ'D

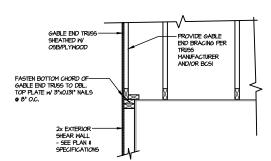


TYPICAL FLITCH BEAM CONNECTION DETAIL SCALE 344-1-67



TYPICAL SHEAR TRANSFER DETAIL @ RAISED HEEL TRUSS

PACK OUT STEEL BEAM WEB W/SOLID 2x MATTERIAL & FASTEN W/ (2) ROMS OF %" DIA.
THRU-BOLTS @ 16" O.C.



TYPICAL GABLE END DETAIL SCALE: 3/8"=1"-0"



TYPICAL STEEL BEAM CONNECTION DETAIL SCALE SIAN-IN-OF

-2x PLATE FASTENED TO TOP FLANGE OF STL. BM. w/ (2) ROWS OF HILTI XU-47P8 PINS @ 16" O.C.

LETTERED DETAILS ARE TYPICAL FOR THIS HOME & SHALL BE IMPLEMENTED IN ALL APPLICABLE AREAS. THESE DETAILS ARE NOT "CUT" ON THE PLANS.

NUMBERED DETAILS ARE PLAN SPECIFIC AND ARE ONLY REQUIRED WHERE SPECIFICALLY INDICATED ("CUT") ON THE PLANS.

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M&K project number 126-22076

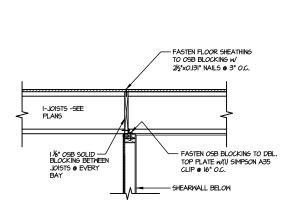
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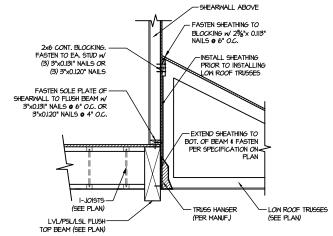
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 \mathbb{Z} \bigcup DETAILS NEIL'S FARM AT N LOT 37 - MALBEC 1 RALEIGH, NC

SD2.0





SHEAR TRANSFER DETAIL @ INTERIOR SHEARWALL BELOW SCALE: 3/8'=1'-0' PERFENDICULA

SHEAR TRANSFER DETAIL @

EXTERIOR SHEARWALL ABOVE

SCALE SA4*-1-0"

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M&K project number: 126-22076

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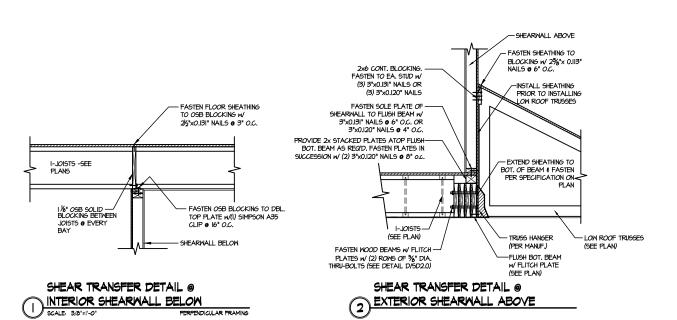
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HOMES

S CREEK

FRAMING DETAILS
FARM AT NEIL'S CREEK
LOT 37 - MALBEC 1
RALEIGH, NC

SD2.1A



MULHERN+KULP

RESIDENTIAL SURFACE

SUBSECULATION PARTICULAR

SUBSECULATION PARTICULAR

PASS SECTION

NOC LICENSE #C-3825 Y M&K project number:

3/13/25

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SEPH T. RI

126-22076 project mgr: JTR

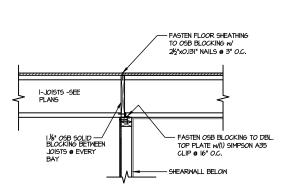
drawn by: issue date: 03-10-25

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FARM AT NEIL'S CREEK Lot 37 - malbec 1 raleigh, nc FRAMING DETAILS

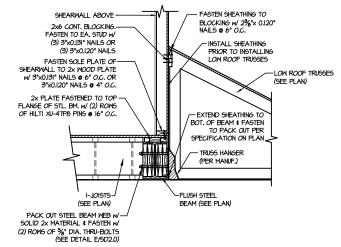
SD2.1B



SHEAR TRANSFER DETAIL @

INTERIOR SHEARMALL BELOW

SCALE: 3/0'=1'-0' FERFENDICULAR FRAM



SHEAR TRANSFER DETAIL @

EXTERIOR SHEARWALL ABOVE

SCALE SAT-11-0*

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M&K project number: 1 26-22076

project mgr: JTR drawn by: JAD issue date: 03-10-25

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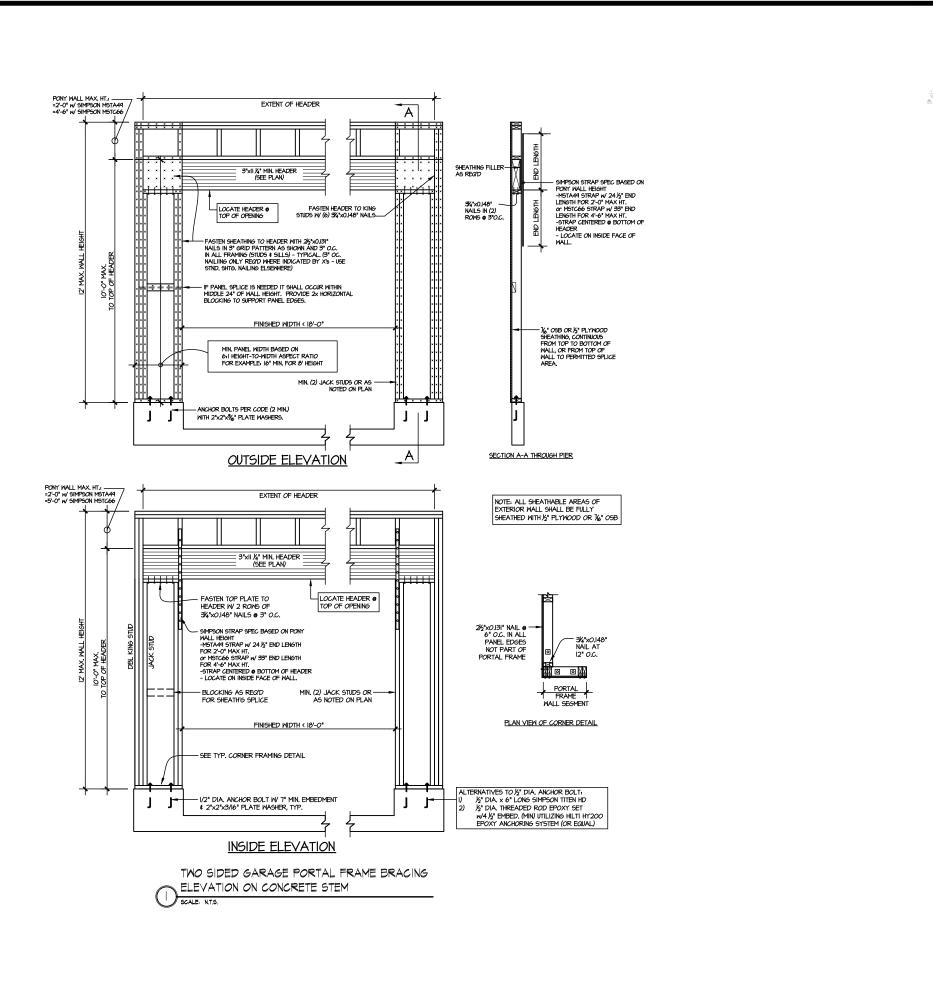
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FRAMING DETAILS
FARM AT NEIL'S CREEK
LOT 37 - MALBEC 1
RALEIGH, NC

SD2.1C



FRAMING DETAILS
FARM AT NEIL'S CREEK
LOT 37 - MALBEC 1
RALEIGH, NC

3/13/25

MULHERNHKULP RESIDENTIAL STRUCTURAL ENGINEERING 300 December No. Bulling 14 - Archite, PA 19802

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M&K project number: 1 26-22076

issue date: 03-10-25

drawn by:

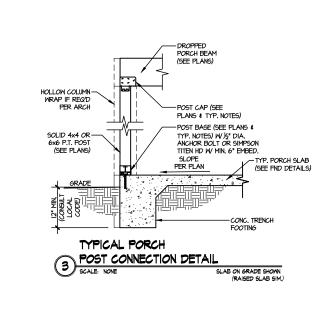
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3/13/25

MULHERNHKULP RESIDENTAL STRUCTURAL ENGINEERING STRUCTURAL ENGINEERING STRUCTURAL ENGINEERING



M&K project number: 126-22076

JTR drawn by:

issue date: 03-10-25

FARM AT NEIL'S CREEK LOT 37 - MALBEC 1 RALEIGH, NC

SD3.0

OPEN WEB FLOOR TRUSS LAYOUT SCALE: NTS

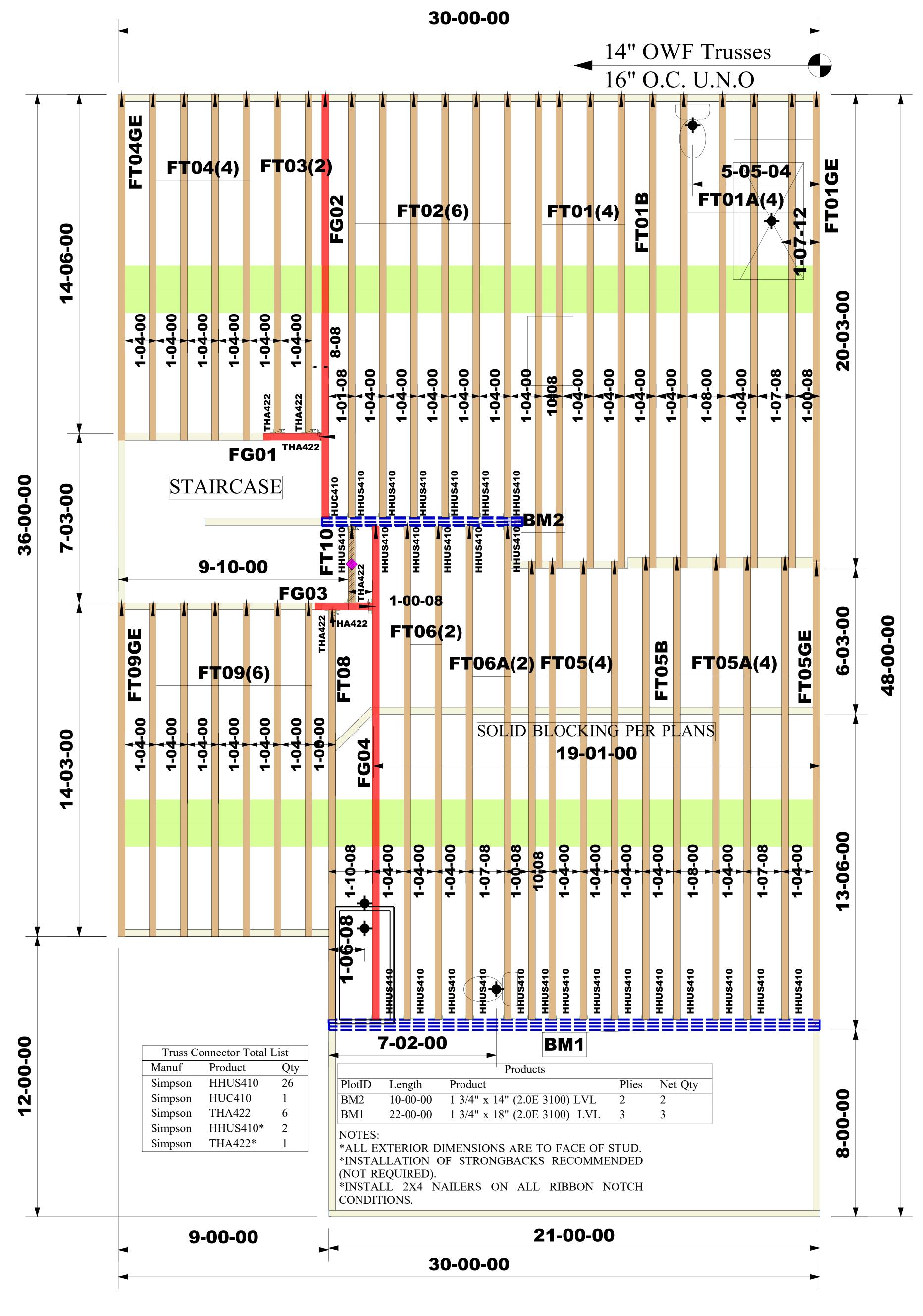
THE FARM AT NEILLS CREEK (NC)(RAL)

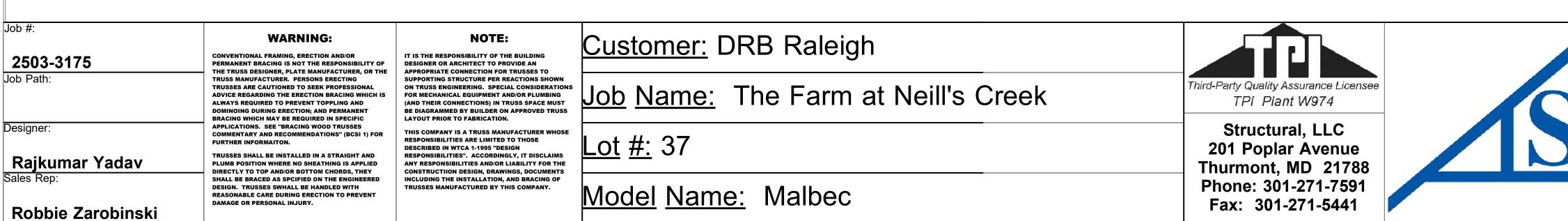
LOT:37 MALBEC REV. 1

ELEV 1

TILE SHOWER
GARAGE RIGHT

SCALE: NTS
FOR CONSTRUCTION





The Farm at Neills Creek(NC)(RAL)

Lot :00.0037 Malbec R1 ELEV 1

GARAGE RIGHT

