MALBEC-RALE

RALEIGH - LOT 00.0175 THE FARM AT NEILL'S CREEK

(MODEL# 1930)

ELEVATION 1 - GL

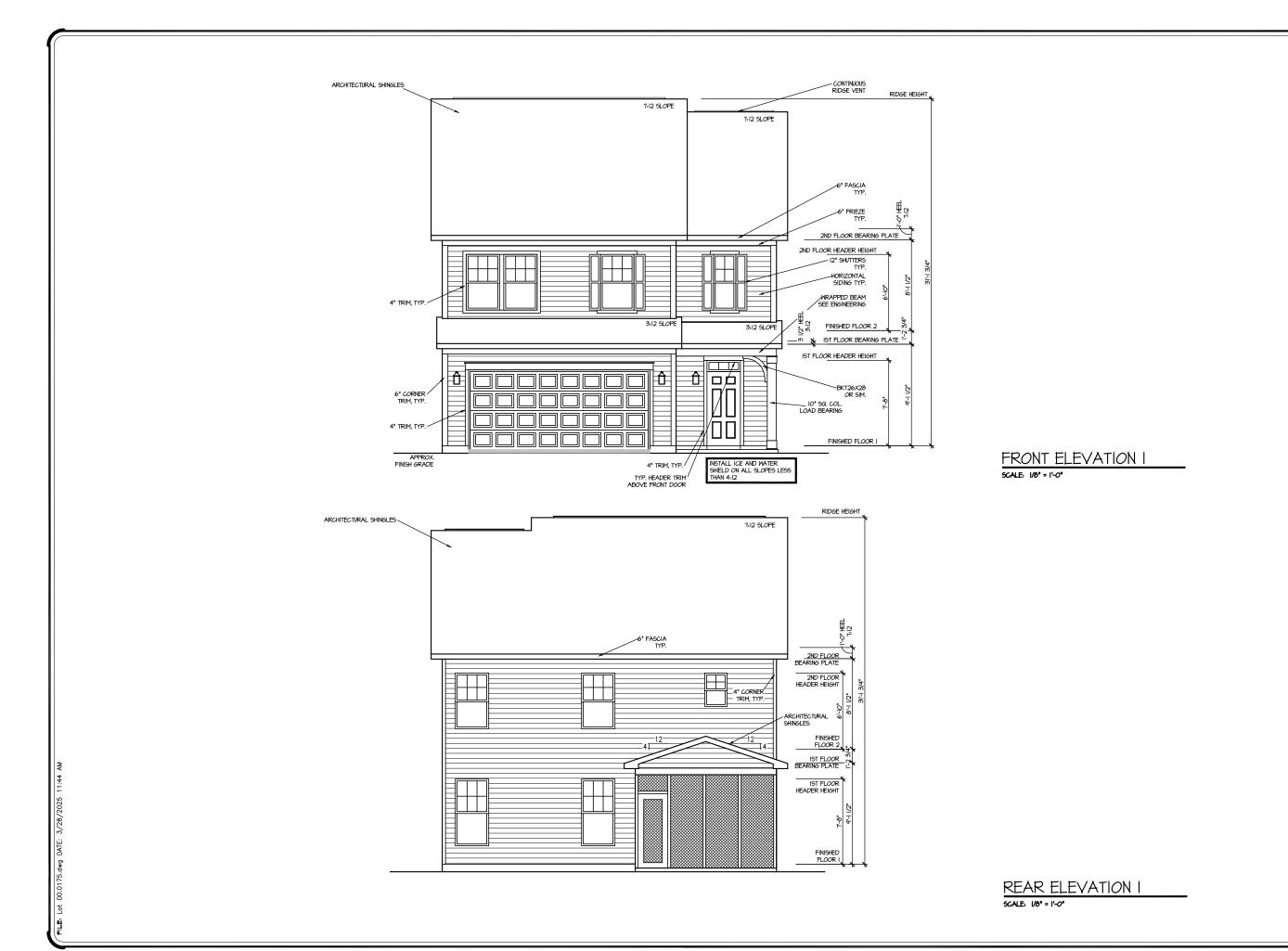


AREA CALCULATIONS ELEVATION 1 FIRST FLOOR GARAGE FRONT PORCH — ELEVATION 1 SECOND FLOOR OPTIONS SCREENED PORCH	TOTAL	HEATED 885 SF 1100 SF	COVERED / UNHEATED 448 SF 57 SF 127 SF	UNCOVERED

181 Appleseed Drive

L 0.T		
LOT	SPECIFIC	
	LOT 00.0175	
· ·	201 00:0170	MALBEC REV. RALE 1 ELEVATION 1
2	ADDRESS	181 APPLESEED DR LILLINGTON, NC 27546
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DRAWN BY: ITS

DATE:
03/28/2025

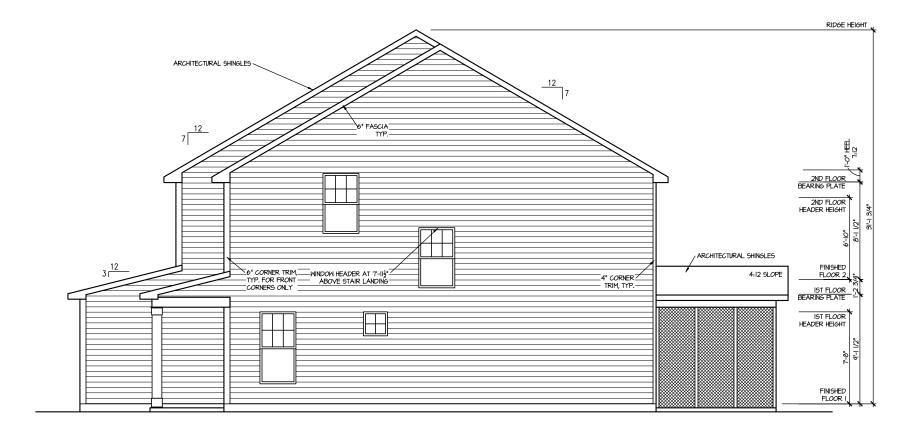
PLAN NO.
1930



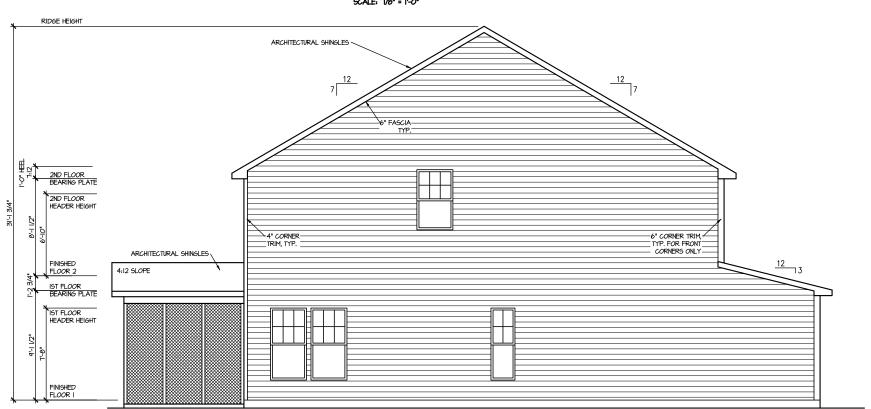
* REAR ELEVATIONS

HOUSE NAME:
MALBEC
DRAWING TITLE
FRONT # 181

SHEET No.



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



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



DRAWN BY: DATE: 03/28/2025 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 VENT = 10 50. IN LINEAR FT.

LOVER VIRNING. (BOTTOM 2/3 RDS)

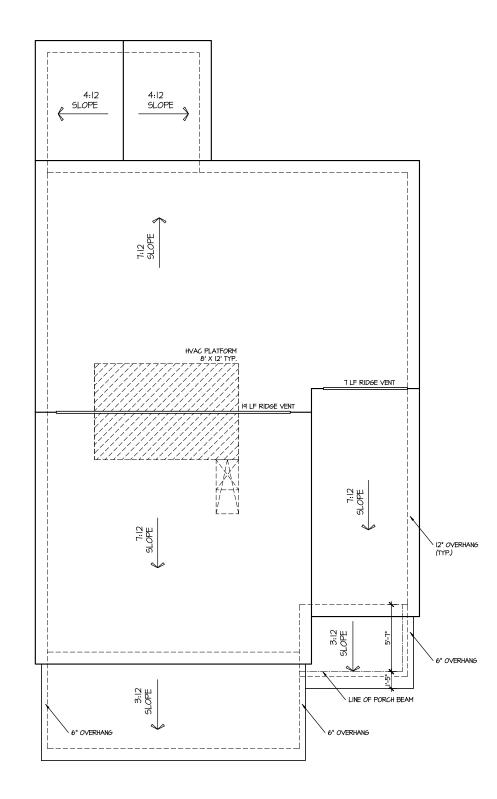
50 LINEAR FIET OF SOFFIT X 5.1 50. IN. = 2.51 50. FT.

19PER VIRNING. TOPE J. 28.0)

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

10 30 0.0 ALLOYED) 50% - 50%

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



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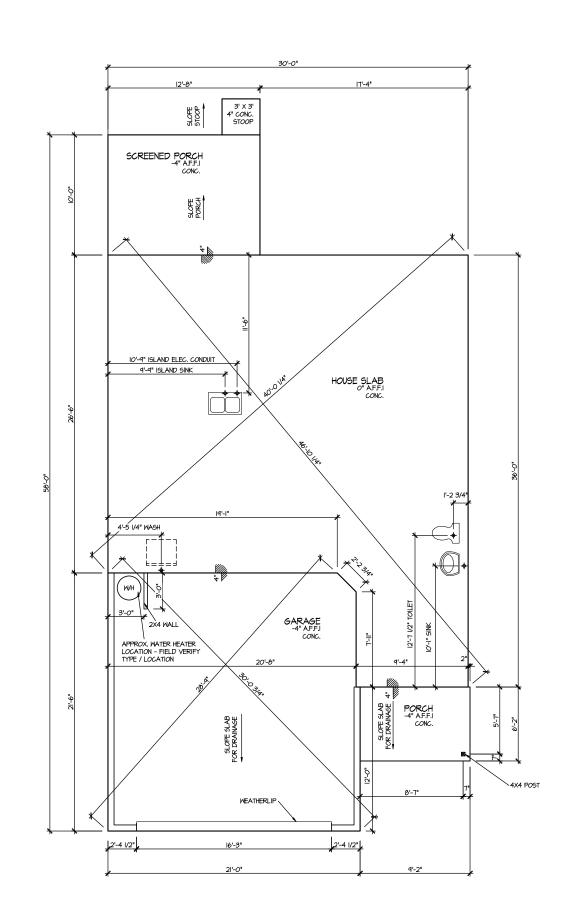
PLAN NO. 1930

DATE: 03/28/2025

HOUSE NAME:
MALBEC
DRAWING TITLE
ROOF PLAN

SHEET No. AI.3

ROOF PLAN ELEV. I





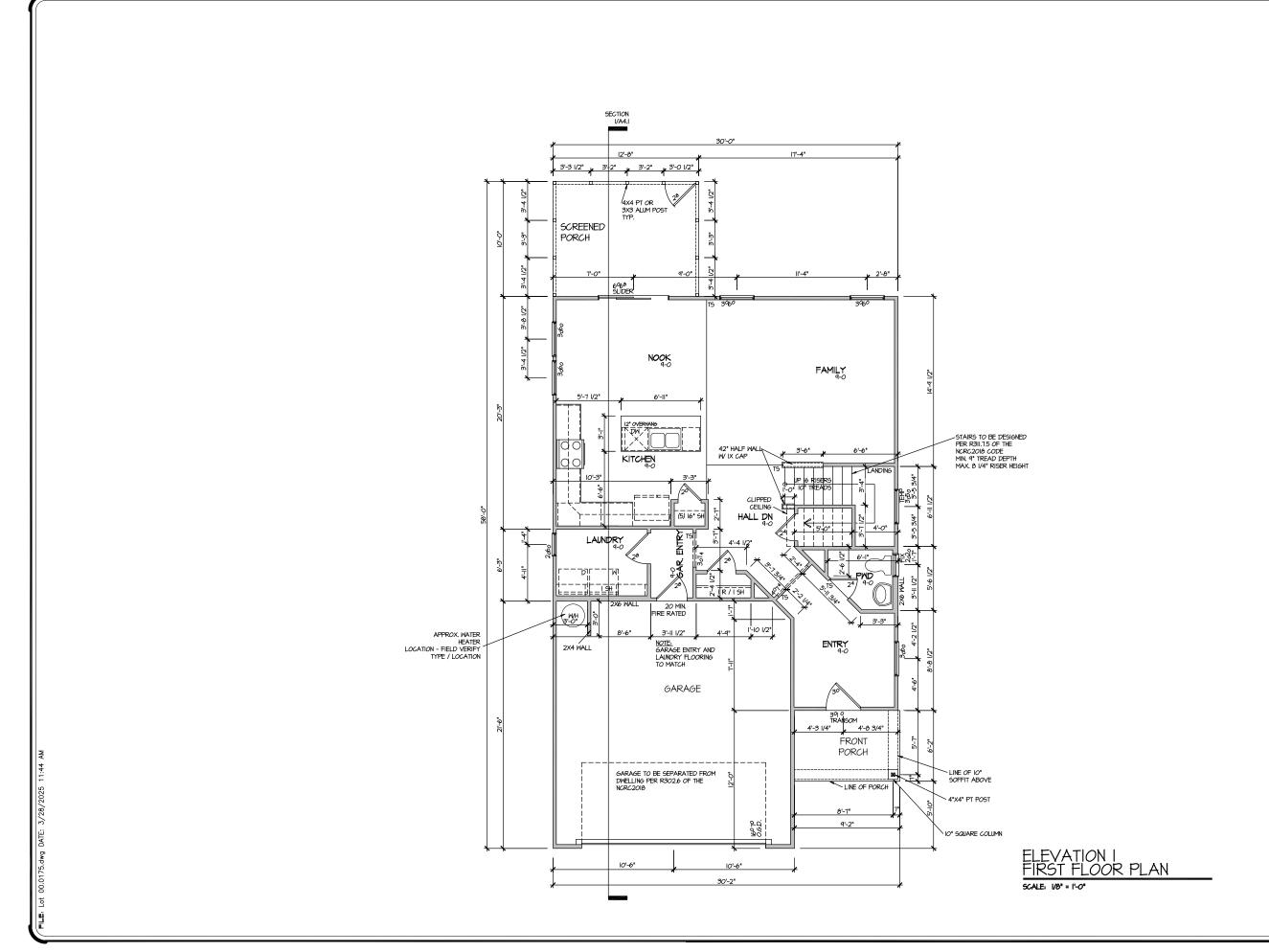
DATE: 03/28/2025 PLAN NO. 1930



HOUSE NAME:
MALBEC
DRAWING TITLE
SLAB PLAN

SHEET No. A2.1

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

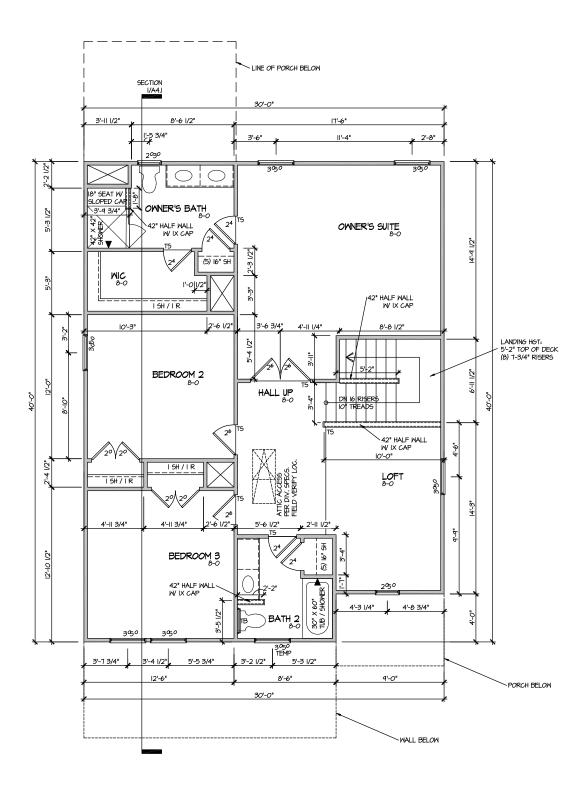


UPDATED DATE 04-17-2024 DRAWN BY:

DATE: 03/28/2025 PLAN NO. 1930

HOUSE NAME:
MALBEC
DRAWING TITLE
FIRST FLOC

SHEET No. A3.1



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

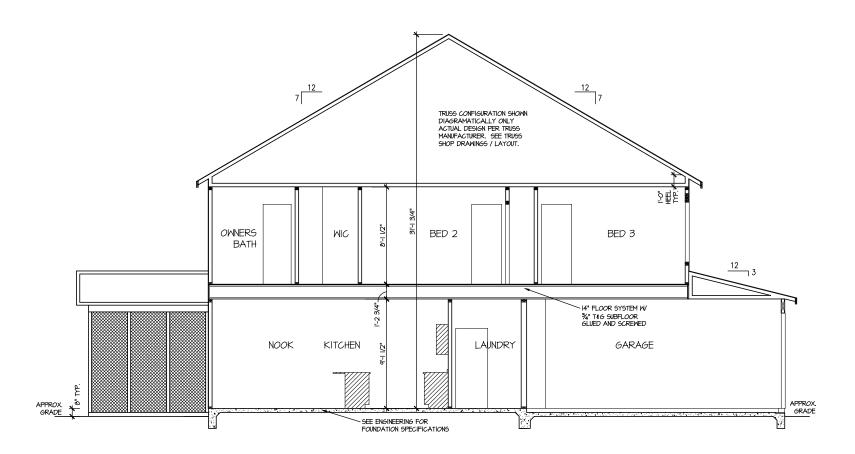
UPDATED DATE 04-17-2024 DRAWN BY:

DATE: 03/28/2025 PLAN NO. 1930



HOUSE NAME:
MALBEC
DRAWING TITLE SECOND

SHEET No. A3.2



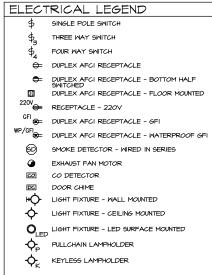
SECTION 1 9CALE: 1/8" = 1'-0"

DRAWN BY: DATE: 03/28/2025 PLAN NO. 1930

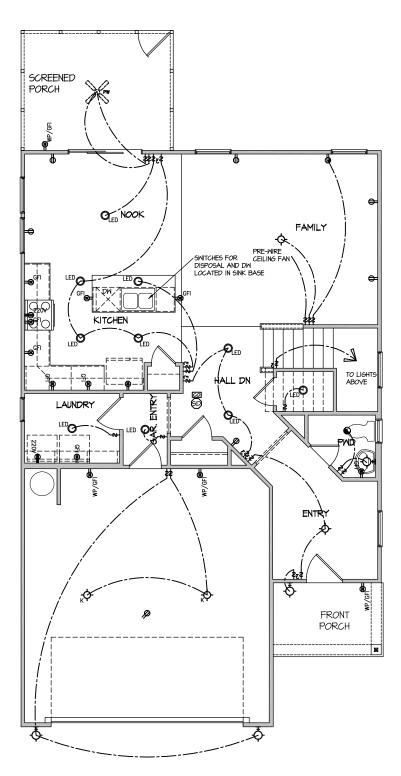


 $\frac{O}{S}$ の目の一 HOUSE NAME:
MALBEC
DRAWING TITLE
BUILDING SI

SHEET No. A4.1



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.





DRAWN BY: ITS DATE: 03/28/2025 PLAN NO. 1930



HLE =LOOR ELECTRICAL

HOUSE NAME:
MALBEC
DRAWING TITLE

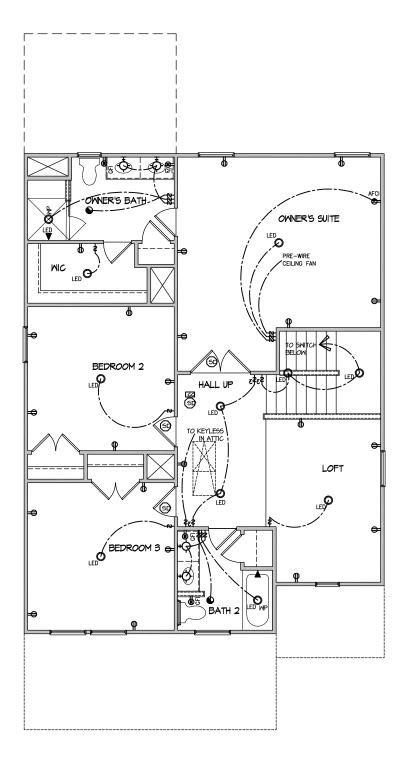
SHEET No.

ELECTRICAL PLAN FIRST FLOOR - ELEV. I

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

=|.|

NOTE: ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE ADDPTED 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"

DATE: 03/28/2025 PLAN NO. 1930

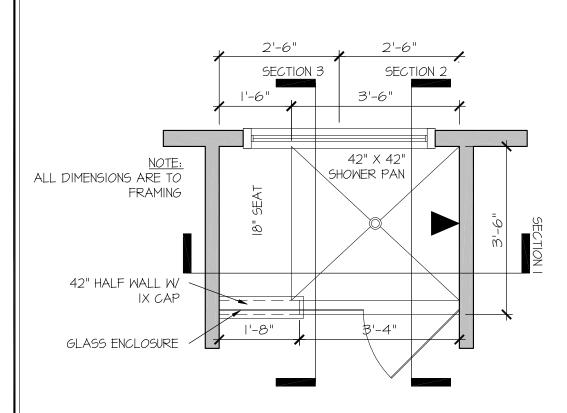


Ú Щ SECOND

HOUSE NAME:
MALBEC
DRAWING TITLE

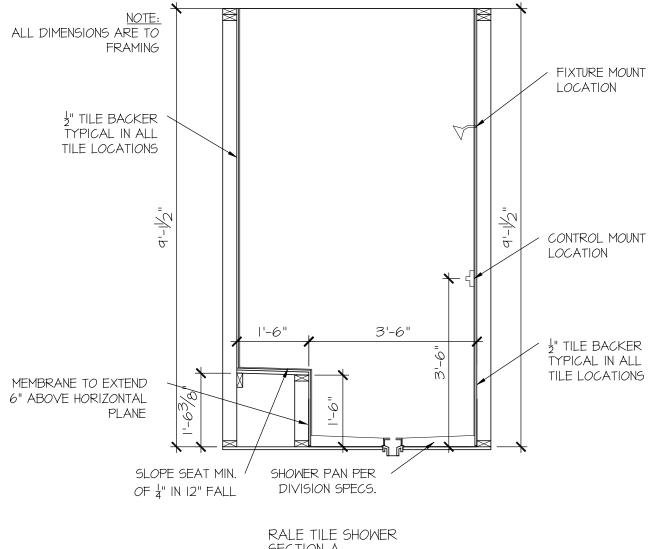
SHEET No.

E1.2



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

~ "

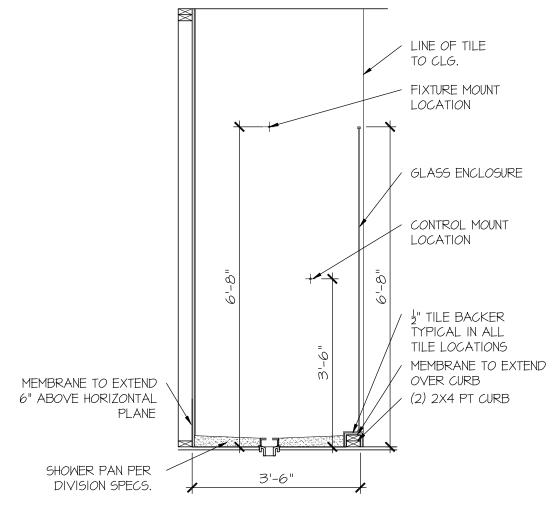


E ILE SHOWER DETAIL

OUSE NAME:

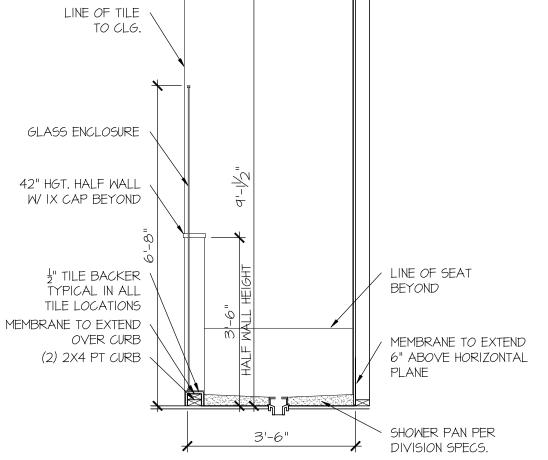
SHEET No.

P||.2



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





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

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

ROOF

DEAD = 1 PSF T.C., IO PSF B.C. LOAD DURATION FACTOR = 1.25

LIVE = 40 PSF (30 PSF @ SLEEPING AREAS) DEAD = 10 PSF (1-JOISTS & SOLID SAWN) (ADD'L IO PSF @ TILE)

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)
 I6" O.C. SPF OR SYP "STUD" GRADE LUMBER, OR BETTER, UN.O. WALLS OVER 12' TALL SHALL BE PER PLAN.
- ALL HEADERS, BEAMS & OTHER STRUCTURAL MEMBERS SHALL BE SPRICE-PINE-FIR #2 (SPE) 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" OC (MAX. UNO) . HEADERS IN NON-LOAD BEARING WALLS SHALL BE: (I)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).
- PENGINEERED LUMBER BEAMS TO MEET OR EXCEED THE FOLLOWING:
- "LSL" Fb=2325 psi: Fv=3I0 psi: E=L55xI0^6 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 INSTALLATION.
- FOR 2 & 3 PLY BEAMS OF EQUAL WIDTH, FASTEN PLIES TOGETHER WITH 3 ROWS OF 3"X0.120" NAILS \odot 8" O/C OR 2 ROWS 1/4"X31/2" SIMPSON SDS SCREWS (OR 3/2" TRUSSLOK SCREWS) \odot 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 NAILS/SCREWS 2" FROM EDGE. SOLID 3 1/2" OR 5 1/2" BEAMS ARE ACCEPTABLE. USE 2 ROWS OF NAILS FOR 2x6 \$ 2x8 MEMBERS
- FOR 4 PLY BEAMS OF EQUAL WIDTH, FASTEN PLIES TOGETHER WITH 3 ROWS OF $\mbox{\it k}^{*}$ "x6" SIMPSON SDS SCREWS (OR 6 $\mbox{\it k}^{*}$ " TRUSSLOK SCREWS) © 16" O/C. USE A MINIMUM OF 4 ROWS 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 STID 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 ('HILTI' X-CF PINS OR EQUAL) • 16" O.C. STAGGERED, OR I/2" DIA. BOLTS @ 48" O.C. STAGGERED.
- ALL EXTERIOR 4x4 WOOD POSTS SHALL HAVE SIMPSON BCS2-2/4 CAP & ABM44Z BASE, U.N.O.

CONNECTION SPECIFICATIONS (TYP. U.N.O.)

(3) TOENAILS

NAII S @ 24" a

OENAILS @ 8" o

DESCRIPTION OF BLDG. ELEMENT 3"x0.131" NAILS

BLK'G. BTWN. JOISTS TO TOP PL. (3) TOENAILS

DOUBLE TOP PLATE LAP SPLICE (9) NAILS IN LAPF

JOIST TO SOLE PLATE

DOUBLE TOP PLATE

SOLE PLATE TO JOIST/BLK'S STUD TO SOLE PLATE

TOP OR SOLE PLATE TO STU

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 I 1/8" 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 × 0.120 NAILS @ 4" O.C. @ PANEL EDGES \$ @ 8" O.C. FIELD. 2 3" × O II3" NAII S @ 3" O C @ PANEL EDGES & @ 6" O C IN FIELD
- #6 x 2" MIN. SCREMS @ 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 FACH 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) H25T 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. (1-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 MEMBERS
- 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 3" x 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
▶ HD-3	SIMPSON STHDI4/STHDI4RJ

* <u>UTILIZE THE 95TB24 ANCHOR BOLT</u> • ALL MONOSLAB & INTERIOR RAISED SLAB (I.E. THICKENED SLABS, FOOTINGS) CONDITIONS, MINIMUM 24" MIN. COTING THICKNESS REQUIRED

EPOXY-SET ALTERNATE FOR MONOSLAB & INTERIOR RAISED SLAB ONDITIONS ONLY. UTILIZE SIMPSON 'SET' EPOXY SYSTEM TO FASTE 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. DO NOT LOCATE ANCHORS WITHIN I 3/4" OF EDGE OF CONCRETE.

SD2. | REFERS TO SD2. | A FOR LVL/PSL/LSL BEAMS OR SD2.IB FOR FLITCH BEAMS OR SD2.IC FOR STEEL BEAMS

3"x0.120" NAILS

(3) TOENAILS*

(3) TOFNAIL S*

NAILS @ 16" o

NAII 5 @ 16" 00

(3) NAILS @ 4" o.c 3) TOENAILS*

(3) NAILS TOENAILS **0** 6" O.C

(II) NAILS IN LAPPED ARE

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 R30L2LI) EXP. B. RISK CAT. 2 & SEISMIC CAT. A/B.

THE DESIGN WAS COMPLETED PER 2015 IBC 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. CCORDINGLY, THIS MODEL, AS DOCUMENTED AND DETAILED HEREWITHIN, IS ADEQUATE TO RESIST THE CODE REQUIRED LATERAL FORCES.

DESIGN WIND UPLIFT LOADS HAVE BEEN CALCULATED UTILIZING ASCE 7-10 (ACCEPTED ENGINEERING PRACTICE) AS ALLOWED PER 2018 NCSBC:RC SECTION R802.II.I. THIS MODEL HAS BEEN DETAILED WHERE REQUIRED & ENGINEERED TO RESIST THE WIND UPLIFT LOAD PATH PER SECTIONS R60235& R80211

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.
- HORIZONTAL BLOCKING OF EXT. WALL/SHEAR WALL PANEL EDGES IS NOT REQUIRED BY THIS DESIGN EXCEPT FOR THOSE AREAS SPECIFICALLY NOTED.
- ALL EXT. WALLS SHALL BE CONTINUOUSLY SHEATHED AND ARE CONSIDERED SHEAR WALLS.
- ALT. STAPLE CONNECTION SPEC: 1/5" 16 GA STAPLES (1/6" CROWN) @ 3" O.C. AT EDGES & @ 6" O.C IN FIELD.

BLOCKED PANEL EDGES

AT DESIGNATED AREAS - FASTEN SHEATHING w/ 2 %" x 0.113" NAILS @ 6" O.C. AT ALL PANEL EDGES 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 ORIENTED AND INSTALLED FULL HEIGHT OF SHEAR WALL OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT ALL UNSUPPORTED PANEL EDGES & EDGE FASTENING.

3" O.C. EDGE NAILING

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

NOTES

- SEE CONNECTION SPECIFICATIONS CHART FOR STANDARD SHEAR TRANSFER DETAILING, IF ADDITIONAL CAPACITY IS REQUIRED BY DESIGN, IT WILL BE SPECIFICALLY NOTED ON PLAN.
- DESIGN ASSUMES 16" O.C MAX. STUD SPACING, U.N.O.
- ALL STRUCTURAL PANELS ARE TO BE DIRECTLY APPLIED TO STUD FRAMING
- PRE-MANUFACTURED PANELIZED WALLS: FASTEN TOGETHER END STUDS OF WALL PANELS SHEATHED W/ OSB OR PLYWOOD W/ 3" x 0.120" NAILS @ 4" O.C. (THRU ONE SIDE ONLY)

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

INDICATES HOLDOWN BELOW

VENEER LINTEL SCHEDULE

(MAX)	ABOVE LINTEL	SIEEL 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"x¾6"	
	3 FT. MAX	L4"x4"x/4" *	
8'-0"	I2 FT. MAX	L5"x3½"x¾6"	
	I6 FT. MAX	L6"x3½"x¾"	
q'-6"	I2 FT. MAX	L6"x3½"x%;"	
16'-0"	2 FT. MAX	L7"x4"x½" **	
10-0	3 FT. MAX	L8"x4"x⁄2" **	

ALL LINTELS:

- SHALL SUPPORT 2 %" 3½" 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"04 w/ ½" DIA, x 3 ½" LONG LAG SCREMG IN 2" LONG VERTICALLY SLOTTED HOLES.
- X. VENEER HT. APPLIES TO ANY PORTION OF BRICK OVER THE
- OPENING. 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 ¼" WIDE OVER THE BEARING LENGTH ONLY, THIS IS TO ALLOW FOR MORTAR JOINT
- FINISHING.
 SEE STRUCTURAL PLANS FOR ANY LINTEL CONDITION NOT ENCOMPASSED BY THE ABOVE PARAMETERS, FOR ANY LINTEL FASTENED SHACK TO DEAM FASTENEDS SHALL MAINTAIN A 2½ (MINIMA) CLEAR DISTANCE FROM BOTTOM OF BEAM. FOR GWEEN VENEER USE L4x3x/4". FOR 31/4" VENEER ONLY, SEE PLAN FOR VENEER SUPPORT IF

LEGEND

- 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.

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
VP TO 12'-0"	(2)2x8	(3)2x8
NOTEC		

ALL NON-BEARING INTERIOR STUD WALLS SHALL BE CONSTRUCTED WITH 2x 'STUD' GRADE MEMBERS SPACED a 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:
- (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 IO' 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 ACL 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 (9 1/2" 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 BOMT END WALL WITH 2" CLEAR REINFORCEMENT
- SHALL EXTEND 12" PAST CORNER OF OPENING IN ALL DIRECTIONS. FOR OPENINGS UP TO 36". PROVIDE MINIMUM 10" 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 \$ 530.1. CMU FOUNDATION WALLS SHALL HAVE 'DUR-O-WALL' HORIZONTAL JOINT REINFORCEMENT (OR EQUAL) - 9 GA. MINIMUM @ 16" O.C.
- PROVIDE 2x8 x 16" LONG PT 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 VERIEY 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 INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF NECESSARY SHORING, SHEETING, 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 THAT ALL SUPPORTING AND NON-SUPPORTING ELEMENTS IN CONTACT WITH FLOOR FRAMING ARE LEVEL. NCLUDING, BUT NOT LIMITED TO; FOUNDATIONS, SLABS ON GRADE, BEAMS, WALLS, AND NON-BEARING ELEMENTS. 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 TO FRANCES

ADDITIONAL NOTES FOR TRUSS & I-JOIST MANUFACTURER

ROOF 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 AD JACENT 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 AD JACENT TO FLOOR FRAMING BY OTHERS: LIMIT ABSOLUTE TRUSS DEFLECTION TO 3/16" DEAL LOAD. (NOT DIFFERENTIAL DEFLECTION)

4/4/2 H CAR OFESSIO

> ERNH Y

1&K project numbe 126-22076

JTR

KJN

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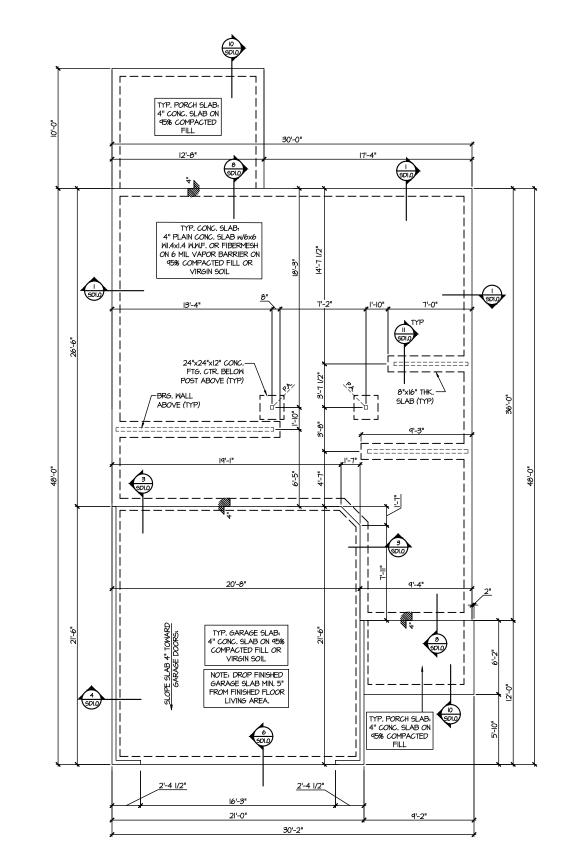
sue date: 03-31-2 REVISIONS

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LO

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



MONO SLAB FOUNDATION PLAN SCALE: 1/8"=1"-0"

4/4/25 H CAR

MUCHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING



M&K project number: 126-22076

JTR drawn by: KJN issue date: 03-31-25

REVISIONS:

initial:



OUNDATION PLANS

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

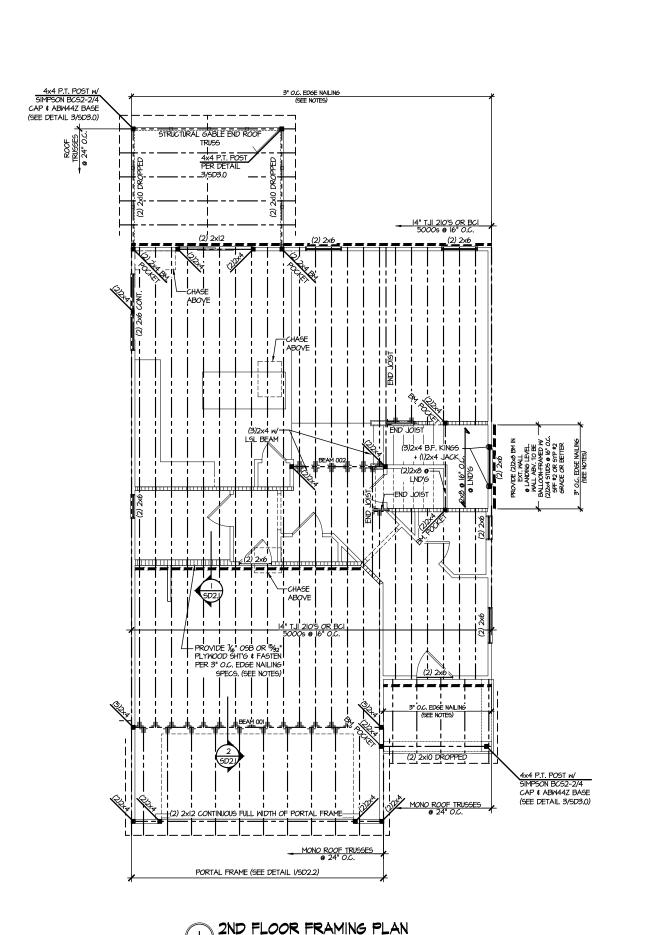
& SCHEDULES

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

JL METAL HANGER

FARM AT NEIL'S CREEK
LOT 68 - MALBEC 1
RALEIGH, NC

S1.0



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

H CAR MUCHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING

Y

4/4/25

M&K project number: 126-22076

JTR drawn by: KJN issue date: 03-31-25

REVISIONS:

initial:

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

- IIIIIII 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.

ENGINEERED BEAM MATERIAL SCHEDULE

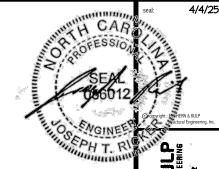
BEAM NUMBER	LVL OPTION	PSL OPTION	LSL OPTION	FLITCH OPTION	STEEL OPTION
001	(3)194"×18" - FT	5¼"xl8" - FT	N/A	(4)2xl2 + (3) ½"xll¼" STEEL FLITCH PLATES - FB	WI2x26 - F
002	(2)13/4"×14" - F	3½"x14" - F	(3)13/4"×14" - F	(2)2x12 + (1) ¼"x1l¼" STEEL FLITCH PLATES - FB	WI2xI4 - F

- 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 FLITCH BEAM CONNECTIONS
 REFER TO DETAIL E/SD2.0 FOR TYPICAL STEEL BEAM CONNECTIONS
 FOR FLUSH TO'P BEAM'S PROVIDE 2X STACKED PLATES BENEATH BEAM AS REQ'D. FASTEN
 PLATES IN SUCCESSION W (2) 3"X0.120" NAILS 6 8" O.C.
- FOR FLUSH BOTTOM BEAMS PROVIDE 2x STACKED PLATES ATOP BEAM AS REQ'D. FASTEN PLATES IN SUCCESSION w' (2) 3*x0.120* NAILS \odot 8* O.C.

CREEK NEIL'S RAMING FARM AT N LOT 68 - MALBEC 1 RALEIGH, NC OOR

S2.0



MUCHERN+KULP

RESIDENTIAL STRUCTURAL ENSINEERING

STRUCTURAL ARTINITY THE PROPERTY OF THE PROP Y

M&K project number: 126-22076

JTR drawn by: issue date: 03-31-25

REVISIONS:

initial:

FARM AT NEIL'S CREEK
LOT 68 - MALBEC 1
RALEIGH, NC RAMING P

ROOF

* INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE. **S3.0** INDICATES HOLD-DOWN OR STRAP. REFER TO SCHEDULE.

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

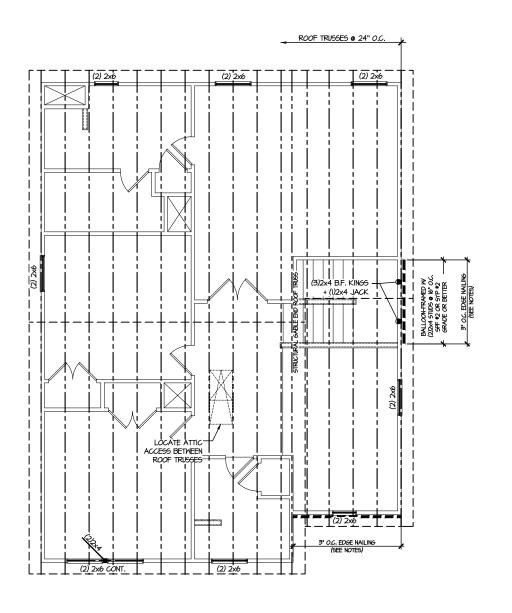
LEGEND

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

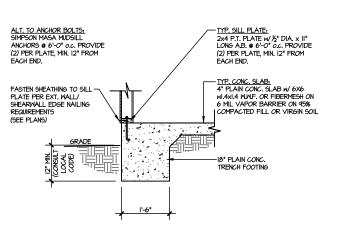
 INTERIOR BEARING WALL • □===□ BEARING WALL ABOVE

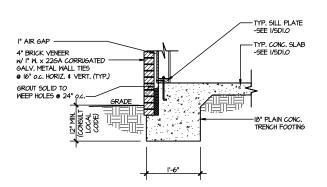
• ---- BEAM / HEADER

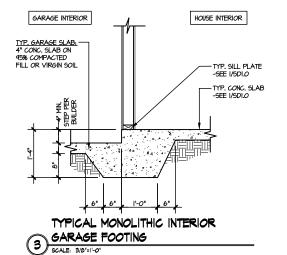
JL METAL HANGER

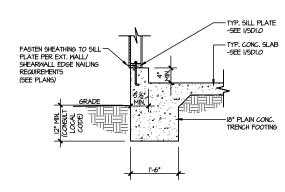


ROOF FRAMING PLAN









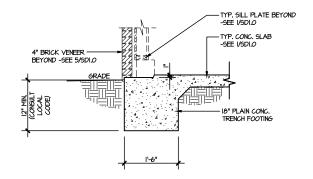


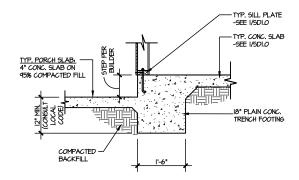






IS" PLAIN CONC.





TYPICAL SLAB ON GRADE GARAGE 5 PERIMETER FOOTING w/ BRICK VENEER

1'-6"

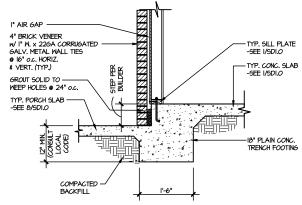
GRADE

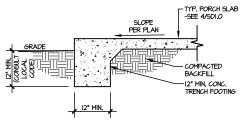


1'-6"

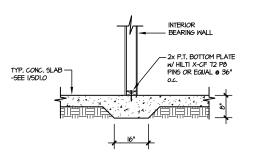
TYPICAL SLAB ON GRADE GARAGE TENTRY @ PERIMETER FOOTING

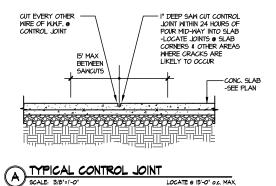
TYPICAL SLAB ON GRADE PERIMETER 8 FOOTING @ PORCH/PATIO





TYPICAL FOOTING @ PORCH SLAB







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.

LOCATE ® 15'-O" o.c. MAX. OR CORNERS WHERE CRACKS LIKELY TO DEVELOP

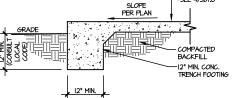
- TYP. SILL PLATE -SEE I/SDI.O

- TYP. CONC. SLAB -SEE I/SDI.O

18" PLAIN CONC.

TRENCH FOOTING

TYPICAL SLAB ON GRADE PERIMETER



TYPICAL THICKENED SLAB @ INTERIOR BEARING WALL

I" AIR GAP

4" BRICK VENEER

GROUT SOLID TO

w/ I" W x 226A CORRUGATED

GALV. METAL WALL TIES @ 16" o.c. HORIZ. & VERT. (TYP.)

1 AT MALBE ARM LOT 68 - N RALEIGH, 1

REEK

 \Box

NEIL

NO

4/4/2

STRUCTURAL ENGINEER

M&K project number: 126-22076

drawn by:

REVISIONS:

JTR

KJN

initial:

ssue date: 03-31-25

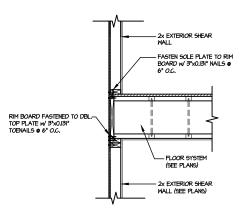
H CAR

SEPH T. R

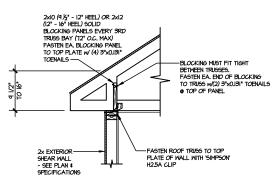
TYPICAL SHEAR

TRANSFER DETAIL @ ROOF

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

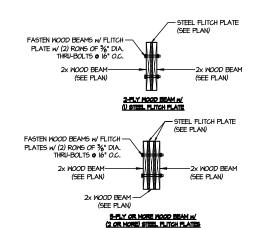


TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ EXTERIOR WALL
SCALE: 3/6"=1"-0"

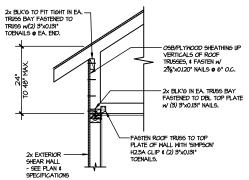


TYPICAL SHEAR

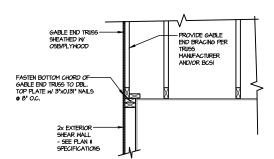
TRANSFER DETAIL @ ROOF
SCALE: 3/8"=1"-0" HEEL HEIGHT BETWEEN 9 1/2 HEEL HEIGHT BETWEEN 9½" - 16" BLOCKING REQ'D



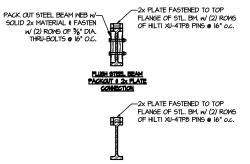
TYPICAL FLITCH BEAM CONNECTION DETAIL SCALE 344-1-67



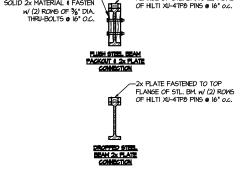
TYPICAL SHEAR TRANSFER DETAIL @ RAISED HEEL TRUSS



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



TYPICAL STEEL BEAM CONNECTION DETAIL SCALE SIAN-IN-OF



 \mathbb{Z} \bigcup DETAILS

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SD2.0

FARM AT NEIL'S (LOT 68 - MALBEC 1 RALEIGH, NC

4/4/25

MULHERN+KULP

Y

M&K project number

drawn by:

REVISIONS:

126-22076

issue date: 03-31-25

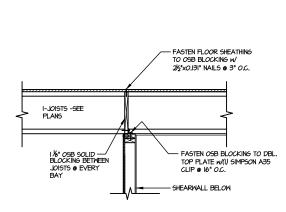
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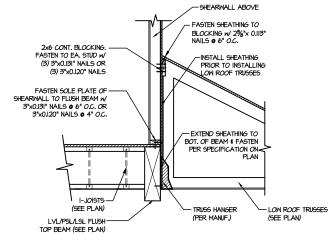
KJN

initial:

H CAR

SEPHT. R





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

SHEAR TRANSFER DETAIL @ 2 EXTERIOR SHEARWALL ABOVE SCALE SWITCH

4/4/25 TH CAR SEPH T. RI

MULHERN+KULP

RESIDENTIAL SURFACE

SUBSECULATION PARTICULAR

SUBSECULATION PARTICULAR

PASS SECTION

NOC LICENSE ##C-3825



M&K project number: 126-22076

project mgr: **JTR** drawn by: KJN issue date: 03-31-25

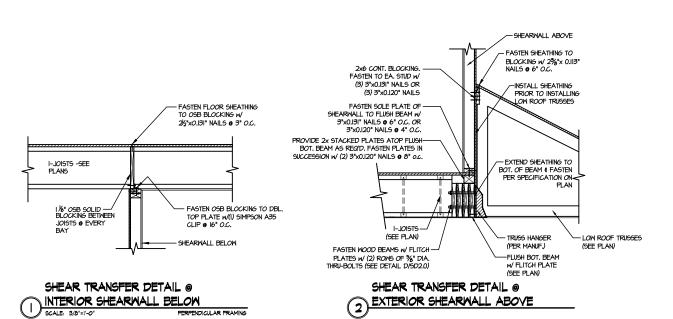
REVISIONS:

initial:

FARM AT NEIL'S CREEK LOT 68 - MALBEC 1 RALEIGH, NC

FRAMING DETAILS

SD2.1A



F. RI H - Neil's Creek - Lot 175 - Structurals DATF: 4/4/2025 10:32 AM

4/4/25

TH CAR

SEPH T. RI

M&K project number: 126-22076

project mgr: JTR drawn by: KJN issue date: 03-31-25

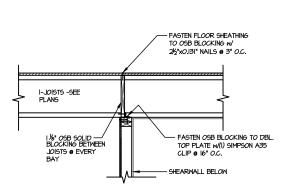
REVISIONS:

date: initial:



FRAMING DETAILS
FARM AT NEIL'S CREEK
LOT 68 - MALBEC 1
RALEIGH, NC

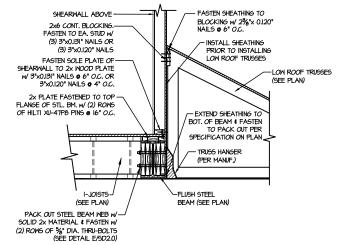
SD2.1B



SHEAR TRANSFER DETAIL @ INTERIOR SHEARWALL BELOW

SCALE: 3/8"=1"-0"

FERPENDIA



SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE

4/4/25 TH CAR SEPHT. RI

MULHERN+KULP

RESIDENTIAL SURFACE

SUBSECULAR DESIGNEY AND THE PASSING

PASSING TO THE PASSING T



M&K project number: 126-22076

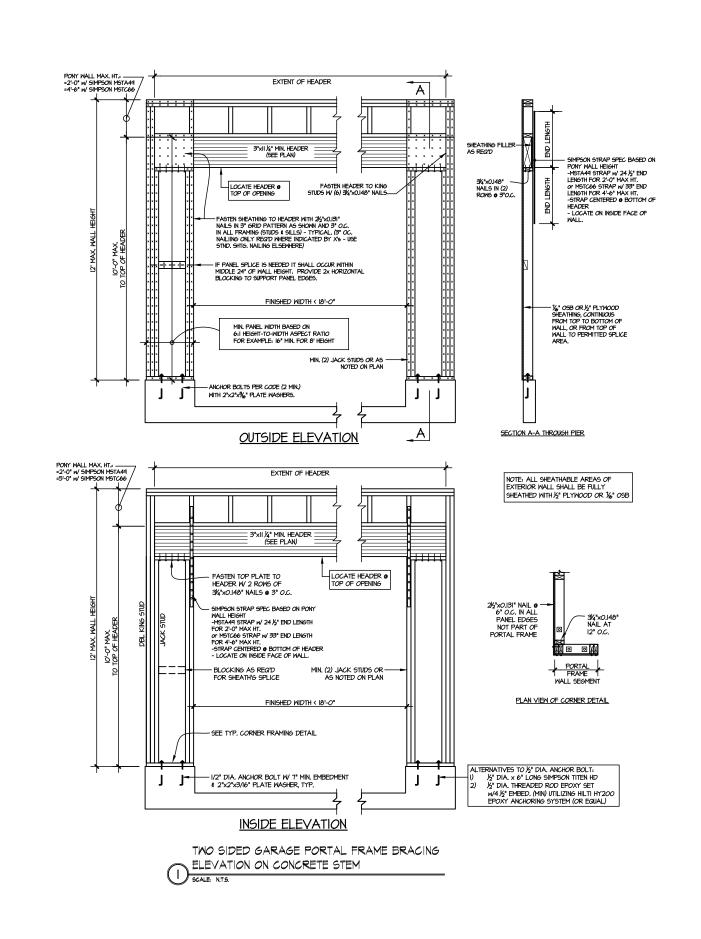
JTR drawn by: KJN issue date: 03-31-25

REVISIONS:

initial:

FARM AT NEIL'S CREEK LOT 68 - MALBEC 1 RALEIGH, NC FRAMING DETAILS

SD2.1C



TH CAR SEPH T. RI MULHERNHKULP RESIDENTIAL STRUCTURAL ENGINEERING 300 December Ave. Parker, PA 19802



4/4/25

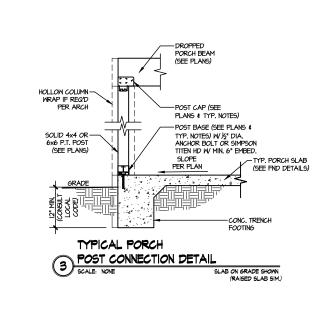
M&K project number 126-22076

JTR drawn by: KJN issue date: 03-31-25

REVISIONS:

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CREE RAMING DETAILS FARM AT NEIL'S LOT 68 - MALBEC 1 RALEIGH, NC



4/4/25 MUCHERN+KULP RESIDENTAL STRUCTURAL ENGINEERING STRUCTURAL ENGINEERING

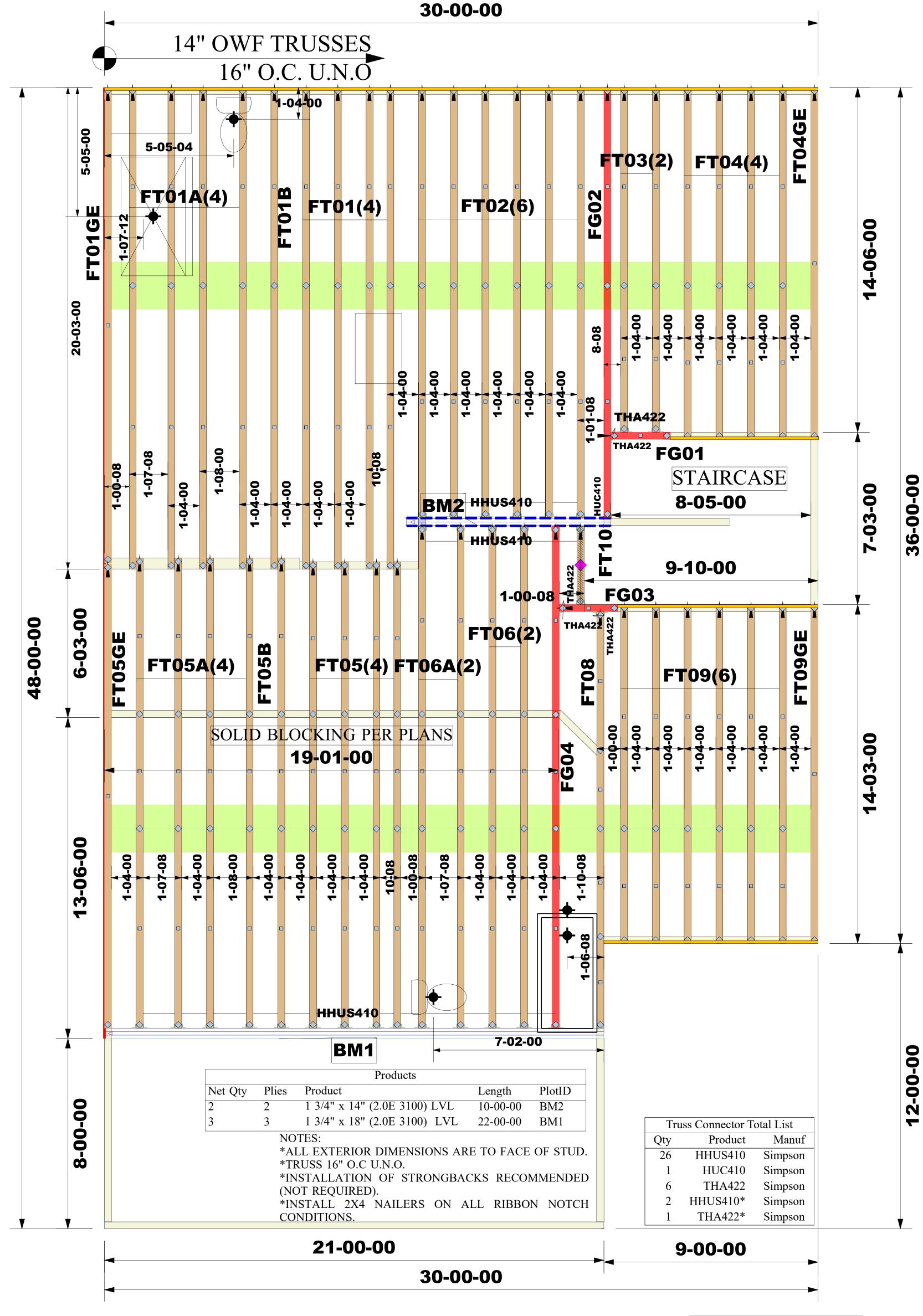
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M&K project number: 126-22076

JTR KJN drawn by: issue date: 03-31-25

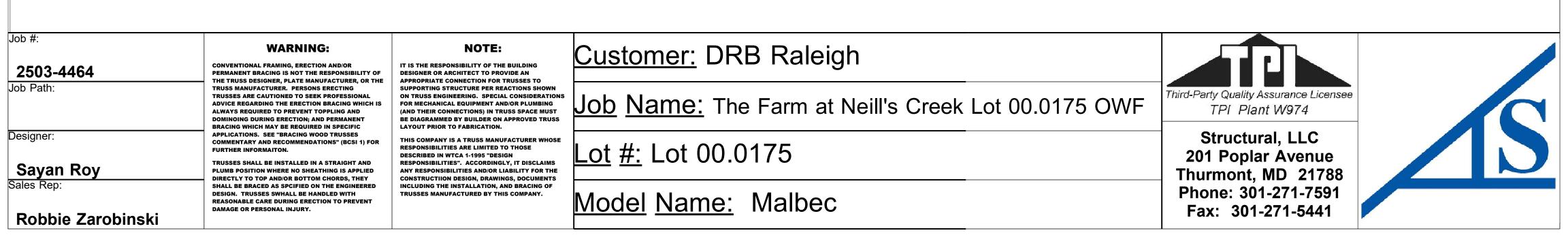
FARM AT NEIL'S CREEK
LOT 68 - MALBEC 1
RALEIGH, NC

SD3.0



SECOND FLOOR FRAMING ELEV. 1

THE FARM AT NEILL'S CREEK (NC)(RAL)
LOT 00.0175 PHASE
MODEL-1930-1-MALBEC
GARAGE LEFT SIDE



ROOF TRUSS LAYOUT SCALE: NTS

