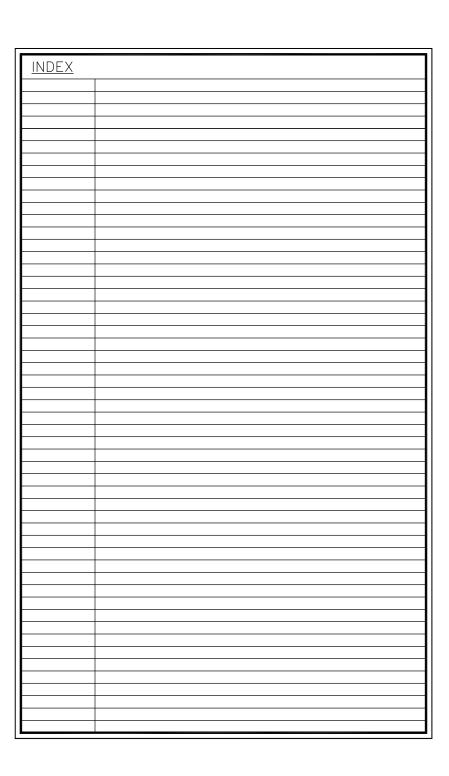
MERLOT-RALE

RALEIGH- LOT 00.0192 THE FARM AT NEILL'S CREEK

(MODEL# 1995)

ELEVATION 2- GR

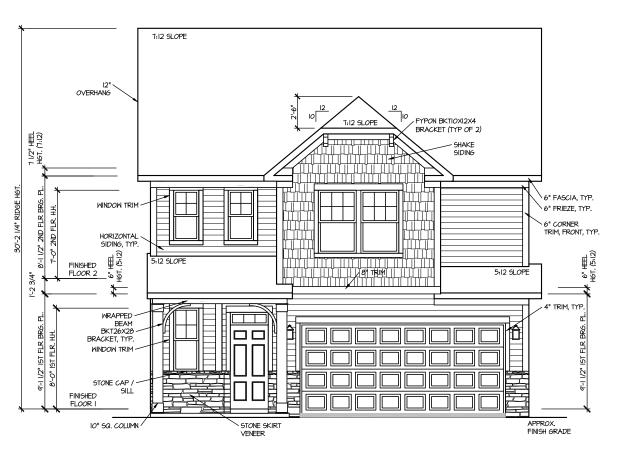
328 Winding Creek Drive



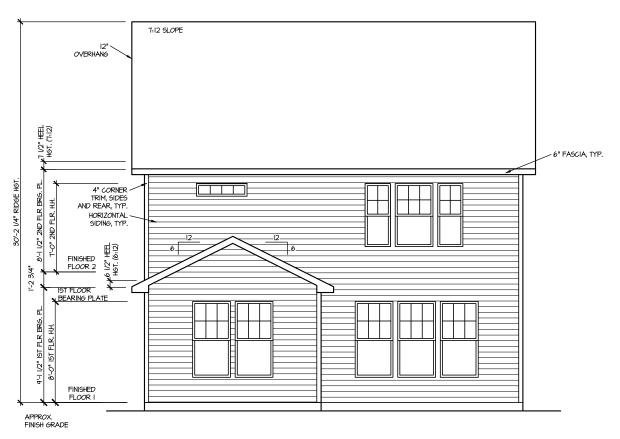


AREA CALCULATIONS		COVERED / UNHEATED	
ELEVATION 2	HEATED	UNHEATED	UNCOVERED
FIRST FLOOR	872 SF		
GARAGE		416 SF	
FRONT PORCH - ELEVATION 2		53 SF	
SECOND FLOOR	1154 SF		
OPTIONS			
4' BREAKFAST EXTENSION	56 SF		
TATIL	0000 05	100.05	
TOTAL	2082 SF	469 SF	

LOT	SPECIFIC	
1	LOT 00.0192	THE FARM AT NEILL'S CREEK
		MERLOT REV. RALE 2 ELEVATION 2
2	ADDRESS	328 WINDING CREEK DR LILLINGTON, NC 27546
	1	



FRONT ELEVATION 2



REAR ELEVATION 2

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

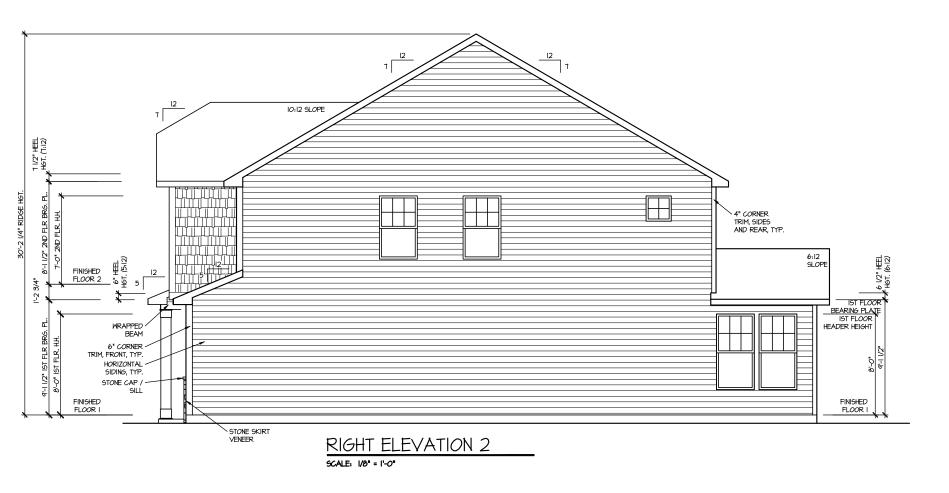
FRONT & REAR ELEVATIONS HOUSE NAME:
MERLOT
DRAWING TITLE

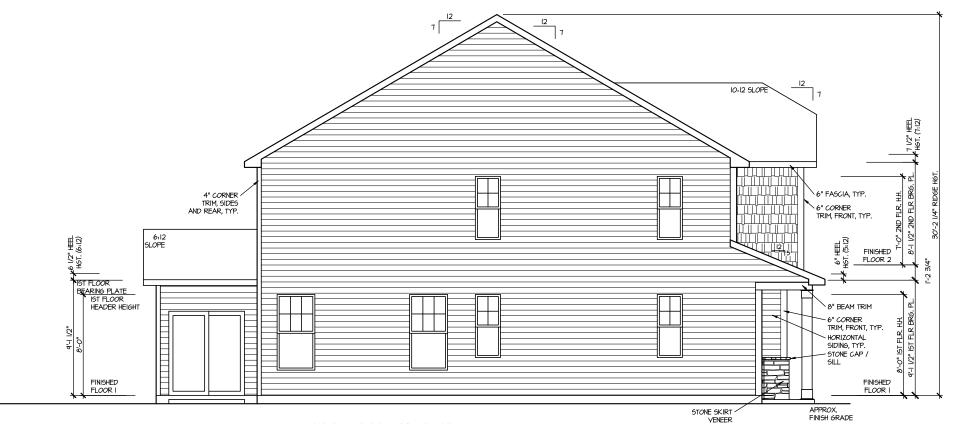
SHEET No.

DRAWN BY:

DATE: 02/08/2024

PLAN NO. 1995





LEFT ELEVATION 2

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

=|LE: Lot 00.0192.dwg DATE: 2/8/2024 2:51 PM

| MASTER PLAN INFORMATION | MASTER PLAN INFO

J SNC

HOUSE NAME:

MERLOT

DRAWING TITLE

RIGHT & LEFT ELEVATIONS

SHEET No.

UPPER ROOF VENTILATION CALCULATIONS:

ROOF AREA = 1800 50, FT.

OVERALL REGISTED VANTILATION.

OVERALL REGISTED VANTILATION.

1 10 300 = 0.61 56, FT.

1 10 300 = 4.33 50, FT.

50-80% IN TOP THIRD = 2.17 - 3.46 50, FT. (1 TO 300)

NET FREE AREA OF VENTIED SOFFIT = 5.1 50, IN / LINEAR FT.

NET FREE AREA OF RIDGE VENT = 10 50, IN LINEAR FT.

LOHER VENTING, (BOTTOM 2/3 RDS)

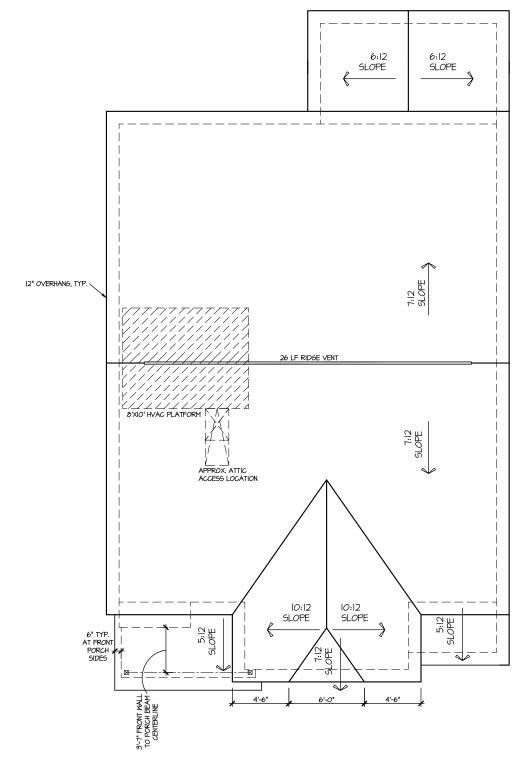
T LINEAR FIEST OF SOFFIT X 5.1 50. IN = 2.26 50. FT.

UPTER VENTING. I/10 2/10 50.

26 LINEAR FIEST OF RIDGE X I6 50. IN = 3.25 50. FT.

3.25 50. ALCOHOL 50. 50. 50.

TOTAL ROOF VENTILATION. 5.51 50. FT. > 4.33 50. FT. (Ra'D)



ROOF PLAN ELEV. 2

DRAWN BY:

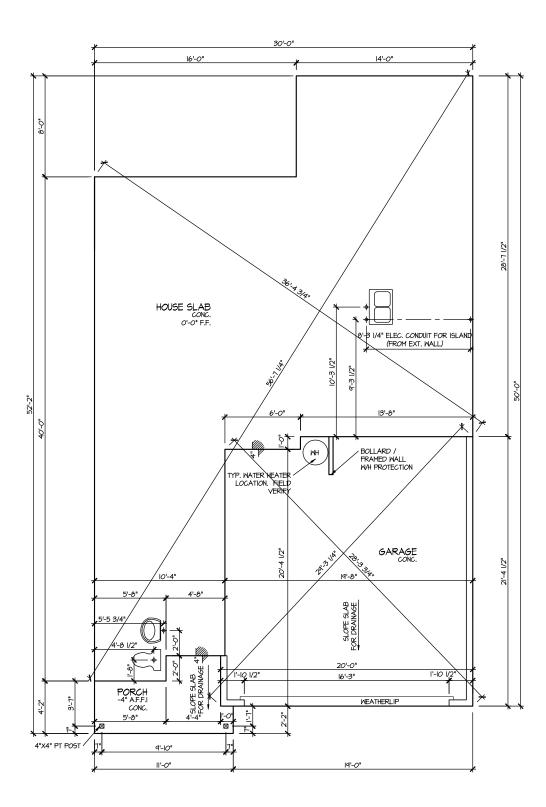
DATE: 02/08/2024 PLAN NO. 1995



HOUSE NAME:
MERLOT
DRAWING TITLE
ROOF PLAN

SHEET No.

Al.3



ELEVATION 2 SLAB PLAN scale: 1/8" = 1'-0"

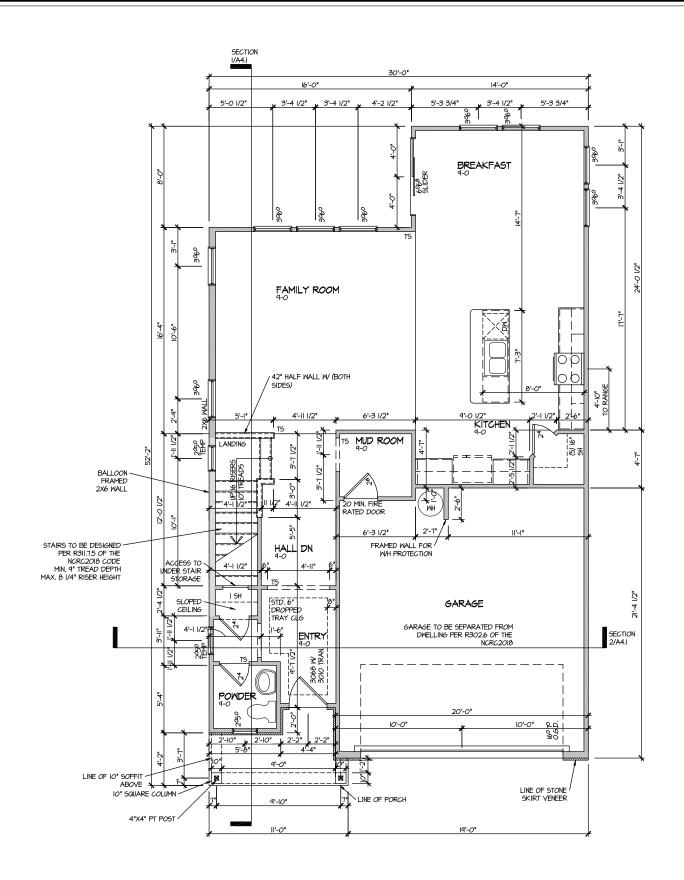
FILE: Lot 00.0192.dwg DATE: 2/8/2024 2:51 PM

DATE: 02/08/2024
PLAN NO. 1995

DRAWN BY:

HOUSE NAME:
MERLOT
DRAWING TITLE
SLAB PLAN

SHEET No.



ELEVATION 2 FIRST FLOOR PLAN SCALE: 1/0" = 1'-0"

ILE: Lot 00.0192.dwg DATE: 2/8/2024 2:51 PM

HOUSE NAME:

MERLOT

DRAWING TITLE

FIRST FLOOR PLAN

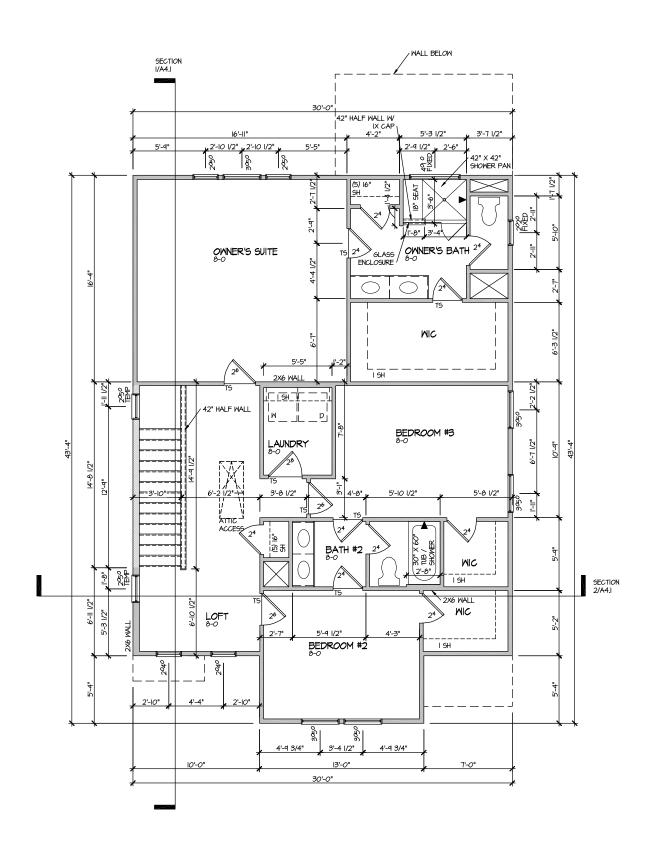
DRAWN BY:

DATE: 02/08/2024

PLAN NO. 1995

SHEET No.

A3.1



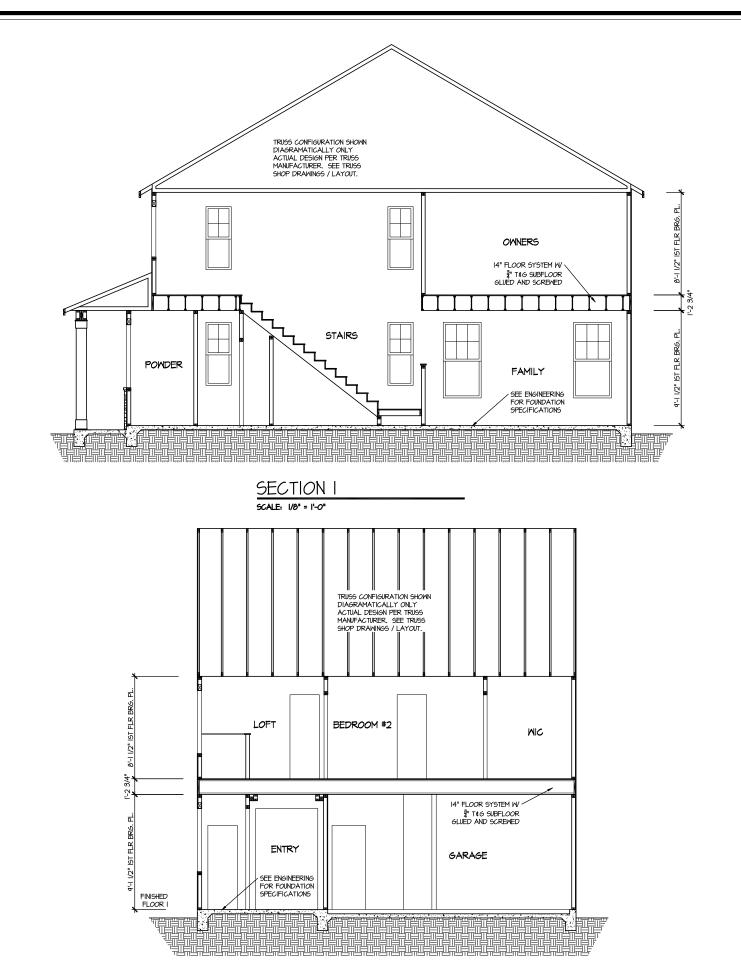
ELEVATION 2 SECOND FLOOR PLAN SCALE: 1/8" = 1'-0"

E: Lot 00.0192.dwg DATE: 2/8/2024 2:51 PM



HOUSE NAME:
MERLOT
DRAWING TITLE
SECOND FLOOR PLAN

SHEET No. A3.2

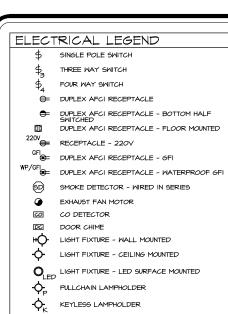


SECTION 2 scale: 1/8" = 1'-0" DRAWN BY: DATE: 02/08/2024 PLAN NO. 1995 BUILDING SECTION HOUSE NAME:
MERLOT
DRAWING TITLE

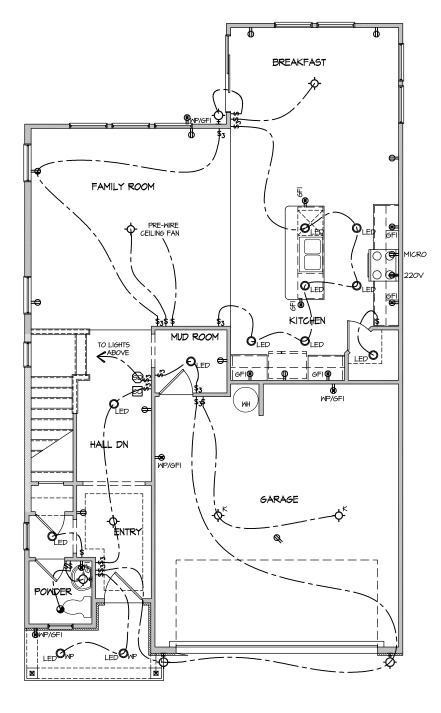
SHEET No.

A4.I

UPDATED



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

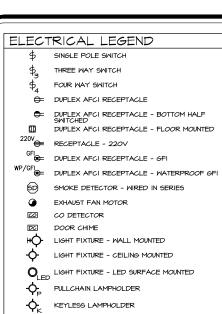


ELECTRICAL

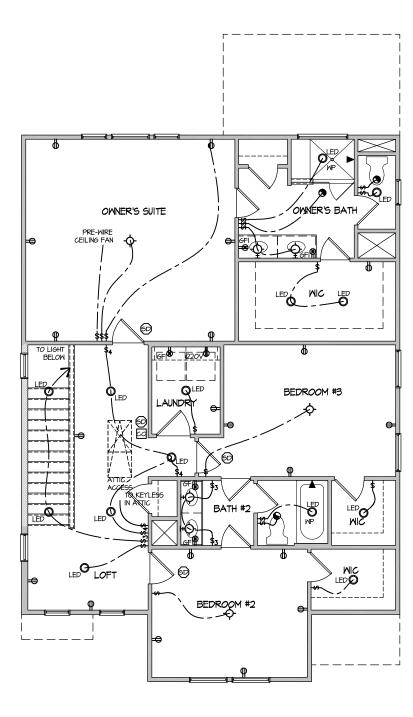
FLOOR

DRAWN BY: DATE: 02/08/2024

PLAN NO. 1995



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. 2 SCALE: 1/8" = 1'-0" HOUSE NAME:

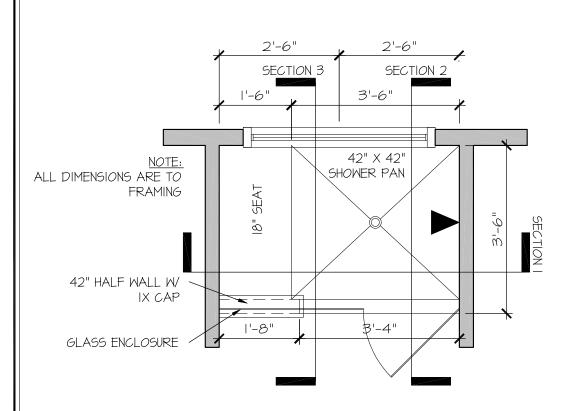
MERLOT

DRAWING TITLE

SECOND FLOOR ELECTRICAL

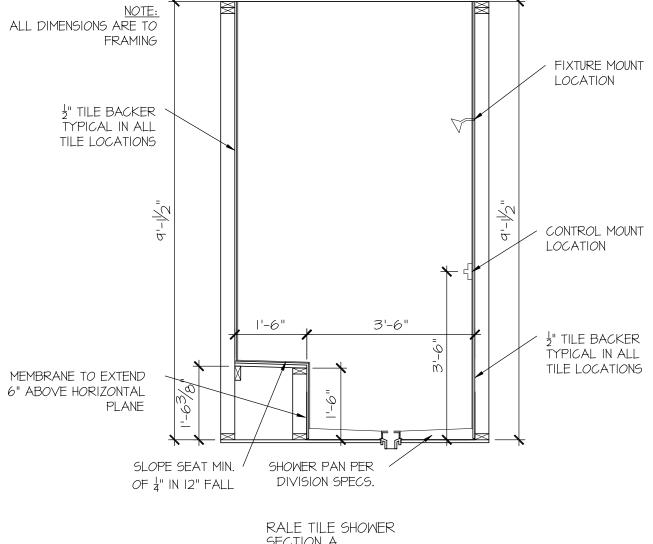
SHEET No.

DRAWN BY:



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.

11 X 17 SCALE

24 X 36 SCALE

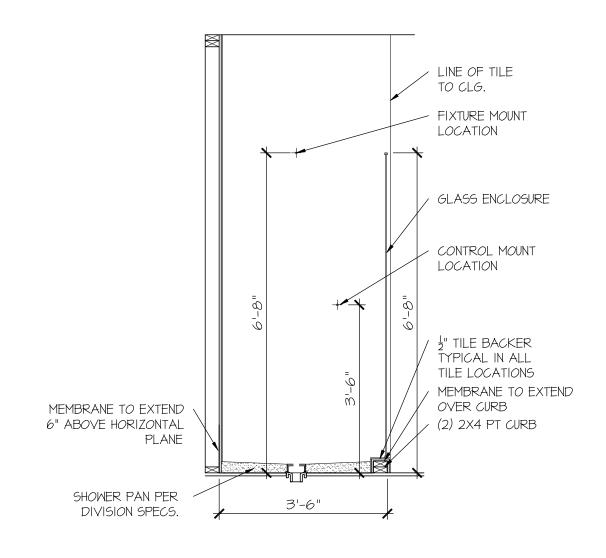


E SHOWER DETAIL

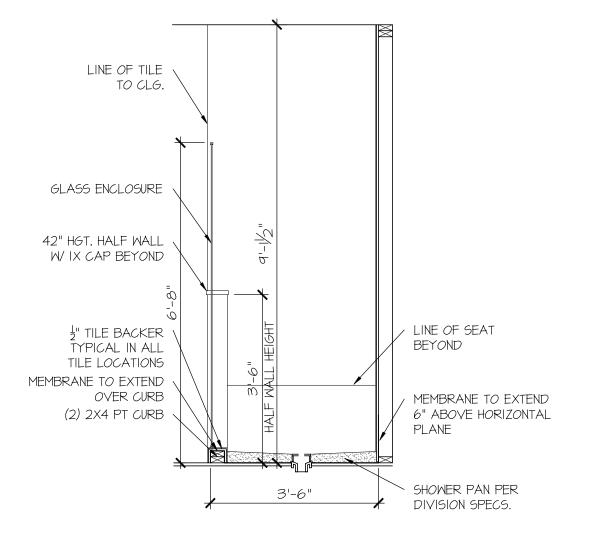
SAWING TITLE

SHEET No.

P 2



RALE TILE SHOWER SECTION B SCALE: 1/2" = 1'-0"



RALE TILE SHOWER SECTION C

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

DESCRIPTION OF BLDG. ELEMENT	3"x0.131" NAIL5	3"x0.120" NAILS
JOIST TO SOLE PLATE	(3) TOENAILS	(3) TOENAILS*
SOLE PLATE TO JOIST/BLK'G.	(3) NAILS @ 4" o.c.	(3) NAILS @ 4" o.c.
STUD TO SOLE PLATE	(2) TOENAILS	(3) TOENAILS*
TOP OR SOLE PLATE TO STUD	(2) NAILS	(3) NAILS
RIM TO TOP PLATE	TOENAILS @ 8" o.c.	TOENAILS @ 6" O.C.*
BLK'G. BTWN. JOISTS TO TOP PL.	(3) TOENAILS	(3) TOENAILS*
DOUBLE STUD	NAILS @ 24" o.c.	NAILS @ 16" O.C.
DOUBLE TOP PLATE	NAILS ⊘ 24" o.c.	NAILS @ 16" o.c.
DOUBLE TOP PLATE LAP SPLICE	(9) NAILS IN LAPPED AREA	(II) NAILS IN LAPPED AREA
TOP PLATE LAP @ CORNERS & INTERSECTING WALLS	(2) NAILS	(2) NAIL5
a alta a como con escapación de contenta escapación de como con escapación de como con escapación de como con escapación de contenta esca		

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

MEANS & METHODS NOTES

THE STRUCTURE IS DESIGNED TO BE SELE 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 AND 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 THAT ALL SUPPORTING AND NON-SUPPORTING ELEMEN IN CONTACT WITH FLOOR FRAMING ARE LEVEL, INCLUDING, 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 TOLERANCES.

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 ADJACENT PARALLEL TRUSSES/JOISTS OR GIRDER TRUSSES/FLUS BEAMS DO NOT EXCEED THE FOLLOWING:

- A ROOF TRISSES. I/4" DEAD LOAD
- B. FLOOR TRUSSES, ATTIC TRUSSES, & I-JOISTS:
- FLOOR TRUSSES & ATTIC TRUSSES ADJACENT TO FLOOR FRAMING BY OTHERS: LIMIT ABSOLUTE TRUSS DEFLECTION TO 3/16" DEAD LOAD. (NOT DIFFERENTIAL DEFLECTION)

GENERAL STRUCTURAL NOTES

- DESIGN IS BASED ON 2018 NORTH CAROLINA STATE BUILDING CODE RESIDENTIAL CODE.
- WOOD 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)

FLOOR DEAD = 10 PSF (I-JOISTS & SOLID SAWN) IO PSF T.C., 5 PSF B.C. (TRUSSES) (ADD'L IO PSF @ TILE)

LATERAL 120 MPH EXPOSURE B. SEISMIC A/B.

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

GENERAL FRAMING

- ALL TYP, NAIL FASTENER REQUIREMENTS ARE NOTED IN STANDARD 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(I) 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:
- (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=I,55xI0^6 psi • 'LVL' - Fb=2600 psi; Fv=285 psi; E=2.0xl0^6 psi
- 'PSL' FB=2900 PSI; FV=290 PSI; E=2.0XIO^6 PSI
- M+K SHALL BE FULLY INDEMNIFIED FOR ANY AND ALL ISSUES RESULTING FROM OR RELATED TO ANY BUILDING COMPONENT IF THE 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 ROMS OF 3"X0.120" NAILS @ 8" O/C OR 2 ROMS ¼"X3½" SIMPSON SDS SCREWS (OR 3½" TRUSSLOK SCREWS) @ 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 $3\,$ ½" OR $5\,$ ½" 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 $\frac{1}{4}$ "x6" SIMPSON SDS SCREWS (OR 6 $\frac{3}{4}$ " 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
- 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.I3I" NAILS @ 24" O.C. (MIN.), EACH PLY.
- PROVIDE SOLID BLOCKING IN FLOOR SYSTEM INDER 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.

FLOOR FRAMING

- I-JOISTS/TRUSSES SHALL BE DESIGNED BY MANUF. TO MEET OR EXCEED 1 /480 LIVE LOAD DEFLECTION CRITERIA (EXCLUDES MARBLE FLOORS - CONTACT M&K FOR MARBLE FLOOR DESIGNS)
- AT I-JOIST FLOORS, PROVIDE I I/8" MIN. OSB RIM BOARD.
- METAL HANGERS SHALL BE SPECIFIED BY MANUFACTURER, U.N.O.
- 24" O.C. EXPOSURE I (OR APPROVED EQUAL) WITH TONGUE AND GROOVE EDGES. FASTEN TO FRAMING MEMBERS W/ GLUE AND
- 2 1" x 0 131" NAII S @ 6"0 C @ PANEL EDGES & @ 12"0 C FIELD
- x 2" MIN. SCREWS @ 6" O.C. @ PANEL EDGES & @ 12" O.C. FIELD
- 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) H2.5T CLIPS AT 2-PLY GIRDER TRUSSES, (3) H2.5T CLIPS AT 3-PLY
- 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
- SUPPORT PORCH & SHORT SPAN ROOF TRUSSES (MAX 7' SPAN) W
 - 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.
- ROOF SHEATHING SHALL BE 1/16" A.P.A. RATED SHEATHING 24/16
- w/ 2 1 x 0.131 NAILS @ 6"04. @ PANEL EDGES & @ 12" 0.6. FIELD.
- w/ 2 📲 x 0.120" NAILS 🧆 4"o.c. 🍑 PANEL EDGES & 🐠 8" O.C. FIELD.

SYMBOL	SPECIFICATION
► HD-I	SIMPSON HTT4 HOLD-DOWN *
► HD-2	SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM U.N.O.) (PRE-BENT MSTC66 ALT. WHEN SPECIFIED)
HD-3	SIMPSON STHD14/14RJ HOLD-DOWN

DIA. THREADED ROD INTO CONCRETE FOUNDATION. PROVIDE 12" MIN. EMBEDMENT INTO CONCRETE. INSTALL PER MANUF. RECOMMENDATIONS. DO NOT

VENEER LINTEL SCHEDULE

SPAN (MAX)	HEIGHT OF VENEER 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"x¾"
8'-0"	3 FT. MAX	L4"x4"x/4" "
0-0	I2 FT. MAX	L5"x3½"x¾"
	I6 FT. MAX	L6"x3½"x%"
9'-6"	I2 FT. MAX	L6"x3½"x¾"
16'-0"	2 FT. MAX	L7"x4"x½" **
	3 FT. MAX	L8"x4"x½" **

- FLOOR SHEATHING SHALL BE 23/32" A.P.A. RATED 'STURD-I-FLOOR'
- 2 3" x 0 120" NAIL S @ 4" O C @ PANEL EDGES & @ 8" O C FIELD
- 2 🖁 x 0.113" NAILS 🛭 3" O.C. 🗗 PANEL EDGES 🕻 🗗 6" O.C. IN FIELD.

ROOF FRAMING

- GIRDER TRUSSES & ROOF BEAMS AT ALL BEARING POINTS.
- OF METAL PLATE CONNECTED WOOD TRUSSES."
- 2x4 LEDGER FASTENED TO:
 - (FLOOR TRUSSES)
- EXPOSURE I (OR APPROVED EQUAL). FASTEN TO FRAMING MEMBER
- W/ 2 🖥 x 0.113" NAILS @ 3"o.c. @ PANEL EDGES & @ 6" O.C. FIELD.

HOLD-DOWN SCHEDULE

SYMBOL	SPECIFICATION
► HD-I	SIMPSON HTT4 HOLD-DOWN *
► HD-2	SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM U.N.O.) (PRE-BENT MSTC66 ALT. WHEN SPECIFIED)

ALTERNATIVE TO SSTB24 ANCHOR BOLT SPECIFICATION: UTILIZE SIMPSON "SET" EPOXY SYSTEM TO FASTEN % LOCATE ANCHORS WITHIN I 3/4" OF EDGE OF FOUNDATION

SPAN (MAX)	HEIGHT OF VENEER 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"x¼"
	20 FT. MAX	L5"x3½"x%"
8'-0"	3 FT. MAX	L4"x4"x¼" "
0-0	I2 FT. MAX	L5"x3½"x%"
	I6 FT. MAX	L6"x3½"x%"
9'-6"	I2 FT. MAX	L6"x3½"x¾"
16'-0"	2 FT. MAX	L7"x4"x½" **
	3 FT. MAX	L8"x4"x/5" **

- SHALL SUPPORT 2 %" 3 ½" VENEER W 40 pef MAXIMUM WEIGHT.
- LE SHALL HAVE A' FIN. BEARINE

 IF SHALL HAVE O' HIN. BEARINE

 IF SHALL HAVE O' HIN. BEARINE

 IF SHALL BEAR STEEPED BACK TO HOOD HEADER. IN MALL 446°02. IN 5' DIA. X 3 5'

 LONG LAG SCREPS IN 2' LONG VERTICALLY SLOTTED HOLES.

 MAX. YEBERS HIN. PAPILES TO ANY PORTION OF PROKE O' OPER THE OPPRING.

 ALL LINTELS SHALL BE LONG LEG VERTICAL.

 BERN SHPPCHING VERER YE FINE THE EXTERIOR TOE OF THE HORIZONTAL LEG

 MAY BEC OT IN THE FIELD TO BE 35' MIDE O'VER THE BEARING LEIGHT ONLY. THE

 SET O'LLONG FOR PROKEN ALONG THROUGHS.

 SET O'LLONG FOR PROKEN ALONG THROUGHS.
- GUEEN VENEER USE L4x3%". R 3½" VENEER ONLY, SEE PLAN FOR VENEER SUPPORT IF VENEER < 3½" THICK

LATERAL BRACING & SHEAR WALL SHEATHING SPECIFICATIONS

THIS MODEL HAS BEEN DESIGNED TO RESIST LATERAL FORCES RESULTING FROM:

<u>0 MPH WIND IN 2018 NCSBC:R(</u> (120 MPH WIND SPEED IN ASCE 7-10 WIND MAP, PER IRC R301.2.1.1) EXP. B, RISK CAT. 2 & SEISMIC CAT. A/B.

THE DESIGN WAS COMPLETED PER 2015 IBC SECTION 1609) & ASCE 7-10. AS PERMITTED BY R30LL3 OF THE 2018 NGSBC:RC, OR THE SIMPLIFIED PRESCRIPTIVE PROCEDURE IN ACCORDANCE WITH THE 2015 IRC IF THE PARAMETERS OF SECTION R60212 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.I. THIS MODEL HAS BEEN DETAILED WHERE REQUIRED & ENGINEERED TO RESIST THE WIND UPLIFT LOAD PATH PER SECTIONS R602.3.5& R802.II.

EXT. WALL SHEATHING SPECIFICATION

- 7/16" OSB OR 15/32" PLYWOOD: Fasten Sheathing W/ 2 ¾"x0.113" Nails @ 6" O.C. At Edges & @ 12" 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: 1/2" 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 3/6" × 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 W/ 8d NAII S @ 3" OC NO STAPI F AI TERNATIVE 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" OC EDGE FASTENING

- SEE CONNECTION SPECIFICATIONS CHART FOR STANDARD SHEAR TRANSFER DETAILING, IF 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.

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 - LITH 17ING
- I/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 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 VERIFY 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: . d' OP IO' HEIGHT (AS NOTED ON PLANS)
- TALLER WALLS MUST BE ENGINEERED. NOMINAL WIDTH (9 ½" 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.O 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
- TO DEVELOP . JOINTS SHALL BE LOCATED @ 10'-0" O.C. (RECOMMENDED) OR
- 15'-O" OC (MAXIMUM) JOINT GRID PATTERN SHALL BE AS CLOSE TO SQUARES AS POSSIBLE (I.I RATIO) WITH A MAXIMIM OF I.I.S 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 2x8 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

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

BE DETERMINED BY PEST CONTROL COMPANY.

H CAR OFESSIO ENGINE EPH T. R

2/22/2

KENGINE ENGINE

ERNCTURAL EL

initial:

RM

LOT 192 RALEIGE

1'-10 1/2"

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

30'-0"

20'-0"

MONO SLAB FOUNDATION PLAN

10'-0"

1'-10 1/2" /

30'-0"

14'-0"

16'-0"



2/22/24

MULHERN+KULI
RESIDENTIAL STRUCTURAL ENGINEERIN



M&K project number: 126-2207

drawn by: KFG issue date: 02-13-24

REVISIONS:

initial:

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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.
 REFER TO SCHEDULE.

REFER TO SO.O FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

OUNDATION P

AT NEIL'S (
- MERLOT 2
1, NC

FARM LOT 192 - PRALEIGH, 1

LOW RT TOP CHORDS TO WALL ABOVE PER

DETAIL 7/SD2.I

4x4 P.T. POST w/ SIMPSON BCS2-2/4 CAP & ABW44Z

BASE (SEE DETAIL

3/SD3.0) (TYP.)

FDGF NAILING

(SEE NOTES)

W TOP CHORD EXTENSION

(2) 2x10 DROPPED

CANT'D. EA. END

@ 24" O.C.

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

| 14" TJI 110's OR BCI 4500's | 16" o.c. (CANT'D)

PORTAL FRAME
(SEE DETAIL I/SD2.2)

└ADD'L JOIST

ROOF TRUSSES

H CAR SEPH T. R

MULHERN+KULI
RESIDENTIAL STRUCTURAL ENGINEERIN

2/22/24



M&K project number 126-2207

rawn by: KFG sue date: 02-13-24

> REVISIONS: initial:

LEGEND

INTERIOR BEARING WALL

SD2.I REFERS TO SD2.IA FOR

LVL/PSL/LSL BEAMS OR SD2.IB

FOR FLITCH BEAMS OR SD2.IC

FOR STEEL BEAMS

- □===□ BEARING WALL ABOVE
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INDICATES HOLD-DOWN OR STRAP. REFER TO SCHEDULE.

REFER TO SO.O FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

	EN	SINEERED B	EAM MATER	RIAL SCHEDULE	
BEAM NUMBER	LVL OPTION	PSL OPTION	LSL OPTION	FLITCH OPTION	STEEL OPTION
001	(2)194"x1176" - H	3½"xII%" - H	(3)194"x11%" - H	(3)2xl2 + (2) ¼"xll¼" STEEL FLITCH PLATES - H	N/A
002	(4) 3¼"x 4" - F	7"xI4" - F	(5)13/4"×14" - F	(4)2xl2 + (3) ¼"xll½" STEEL FLITCH PLATES - FB	WI2xI9 - F
003	(2)134"×14" - D	3½"xl4" - D	(3)13/4"×14" - D	(3)2xl2 + (2) %"xll4" STEEL FLITCH PLATES - D	W8x18 - D
004	(2)13/4"×14" - F	3 ½"xl4" - F	(3)1¾"x14" - F	(2)2xl2 + (I) 从"xl以" STEEL FLITCH PLATES - FB	WI2xI4 - F
005	(2)13/4"×16" - H	3 ½"x16" - H	(3)134"×16" - H	(3)2xl2 + (2) ¼"xll¼" 5TEEL FLITCH PLATES - FB	NA
006	(2)134"×914" - D	3 ½"xq¼" - D	(2)1 ³ 4"×11 ¹ 4" - D	(2)2xi2 + (i) ¼"xil¼" Steel Flitch Plates - D	W8x10 - D

- BEAM NOTATION:

 "F" INDICATES FLUSH BEAM

 "FT" INDICATES FLUSH TOP BEAM

 "FB" INDICATES FLUSH BOTTOM BEAM

 "D" INDICATES DROPPED BEAM

 "H" INDICATES DROPPED OPENING HEADER

- REFER TO DETAIL D'502.0 FOR TYPICAL FLITCH BEAM CONNECTIONS
 REFER TO DETAIL E/502.0 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"X0.120" NAILS @ 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 @ 8" O.C.

ANS CREEK AT NEIL'S (MERLOT 2), NC RAMING OR

LOT 192 – I RALEIGH, ARM

seal: 2/22/24

2

Groopight HallerN & NUP
Subtrail Engineering, Inc.

MULHERN+KULP

RESIDENTIAL STRUCTURAL ENGINEERING

SUBMISSIAN AVERAGE A

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M&K project number: 126-2207

project mgr: JTF drawn by: KF Grissue date: O2-13-24

REVISIONS:

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CREEK LOOK

FARM AT NEIL'S (LOT 192 - MERLOT 2 RALEIGH, NC

FRAMING

OOF

LEGEND

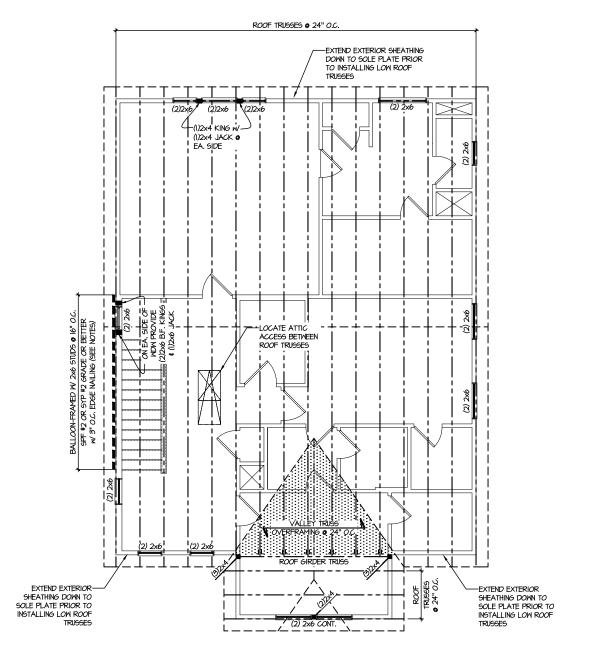
- INTERIOR BEARING WALL
- □===□ BEARING WALL ABOVE
- ---- BEAM / HEADER
- = = INDICATES SHEAR WALL & EXTENT
- EXTENT OF OVERFRAMING

JL METAL HANGER

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

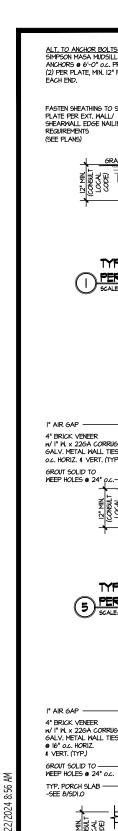
INDICATES HOLD-DOWN OR STRAP. REFER TO SCHEDULE.

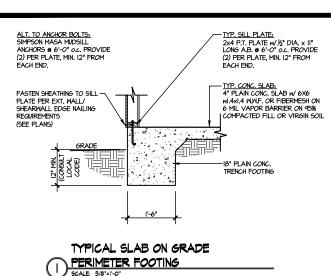
REFER TO SO.O FOR
TYPICAL STRUCTURAL NOTES
\$ SCHEDULES

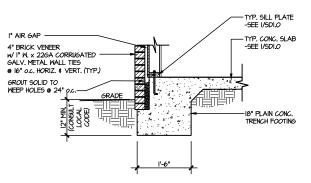


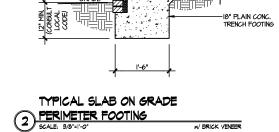
ROOF FRAMING PLAN

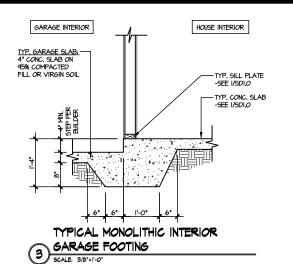
SCALE: |/8"=1"-0"

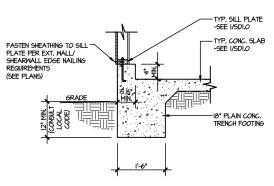




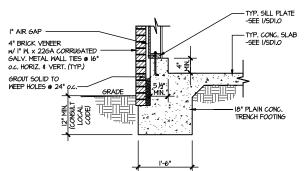




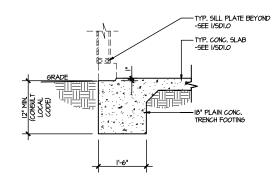




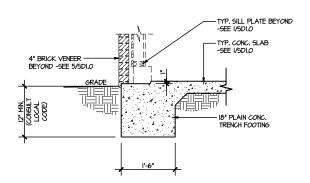




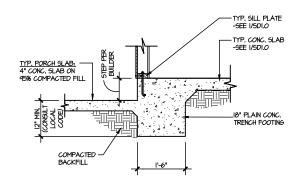




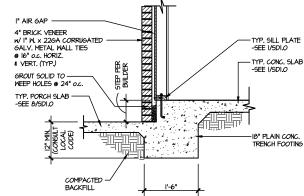
TYPICAL SLAB ON GRADE GARAGE 6 ENTRY @ PERIMETER FOOTING
SCALE: 3/8"=1"-0"



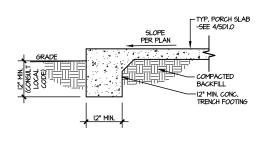
TYPICAL SLAB ON GRADE GARAGE ENTRY @ PERIMETER FOOTING



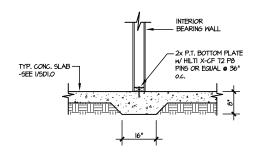
TYPICAL SLAB ON GRADE PERIMETER 8 FOOTING @ PORCH/PATIO SCALE: 3/8"=1'-0"



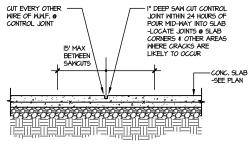




TYPICAL FOOTING @ PORCH SLAB



TYPICAL THICKENED SLAB @ NITERIOR BEARING WALL





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.

AT NEII
MERLOT 2
NC N O FARM Lot 192 -Raleigh,

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2/22/24

ERNATKUI STRUCTURAL ENGINEEL

M&K project number: 126-2207

KFC ssue date: 02-13-2

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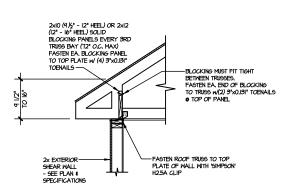
OFESSIO

RIM BOARD FASTENED TO DBL. TOP PLATE w/ 3"x0,131" TOENAILS @ 6" O.C.

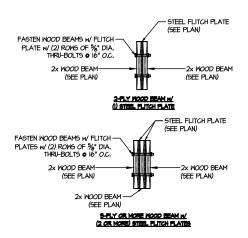


(SEE PLANS)

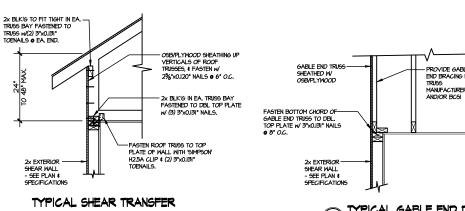
- 2x EXTERIOR SHEAR WALL (SEE PLANS)



TYPICAL SHEAR TRANSFER DETAIL @ ROOF SCALE: 3/8"=1"-0" HEEL HEIGHT BETWEEN 9 1/2 HEEL HEIGHT BETWEEN 9 ½" - 16" BLOCKING REQ'D





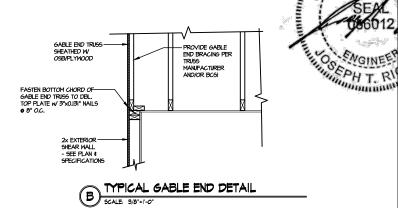


—2x PLATE FASTENED TO TOP FLANGE OF STL. BM. w/ (2) ROWS OF HILTI XU-47P8 PINS @ 16" o.c.

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



PACK OUT STEEL BEAM MEB W— SOLID 2x MATERIAL & FASTEN W/ (2) ROWS OF %" DIA. THRU-BOLTS @ 16" O.C.





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2/22/24

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M&K project number: 126-2207

drawn by: KFC issue date: 02-13-24

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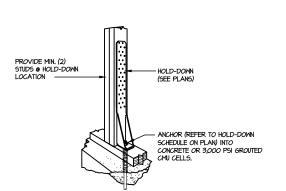
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CREE DETAILS AT NEIL'S (MERLOT 2), NC Ŋ

FARM Lot 192 -Raleigh,

DETAILS ARE NOT "CUT" ON THE PLANS.

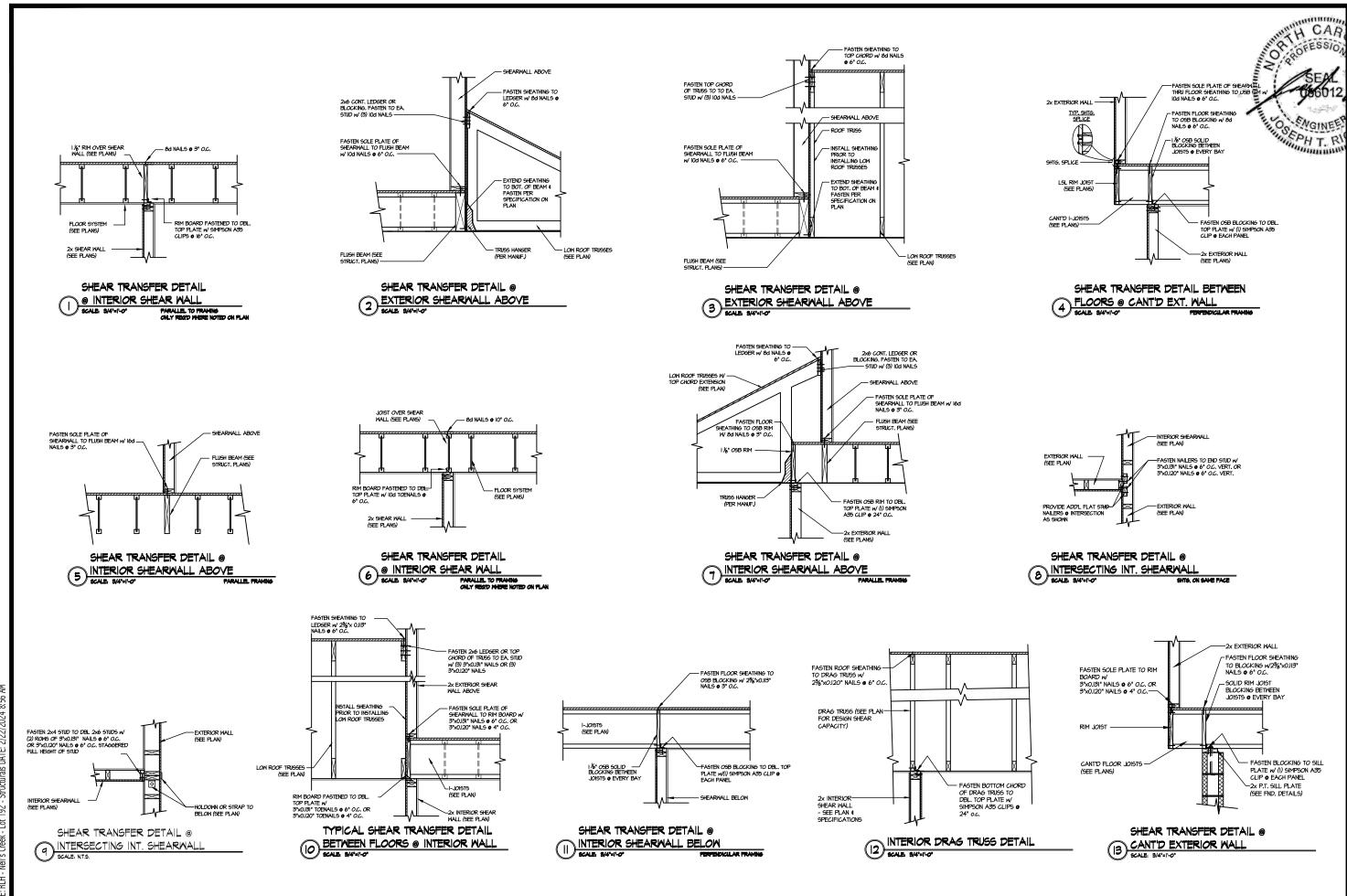
NUMBERED DETAILS ARE PLAN SPECIFIC AND ARE ONLY REQUIRED WHERE SPECIFICALLY INDICATED ("CUT") ON THE PLANS.





DROFFED STEEL BEAM 2x FLATE CONNECTION TYPICAL STEEL BEAM CONNECTION DETAIL

> LETTERED DETAILS ARE TYPICAL FOR THIS HOME & SHALL BE IMPLEMENTED IN ALL APPLICABLE AREAS. THESE



AT NE MERLOT Ŋ FARM Lot 192 -Raleigh,

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2/22/24

LERN+KUI LI STRUCTURAL ENGINEE Malling 4 + Amble, PA 19002

M&K project number: 126-2207

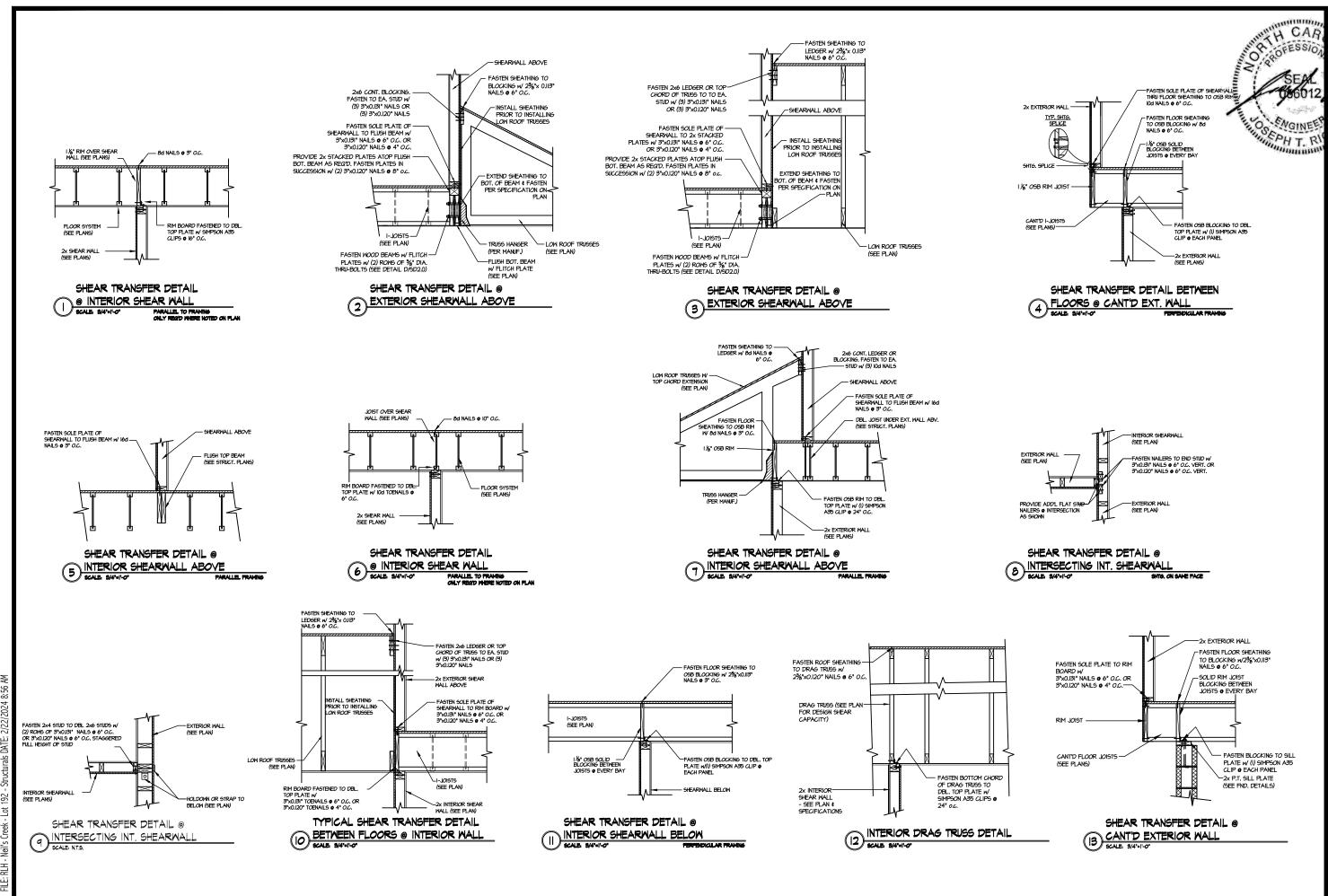
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II E: RI H. Maille Graak 1 of 102 Structurale DATE: 2/22/2024 8:56 AM

SD2.1B

ARM

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EIL'S

AT NE MERLOT.

LOT 192 -Raleigh

2/22/2

ERN+KUI

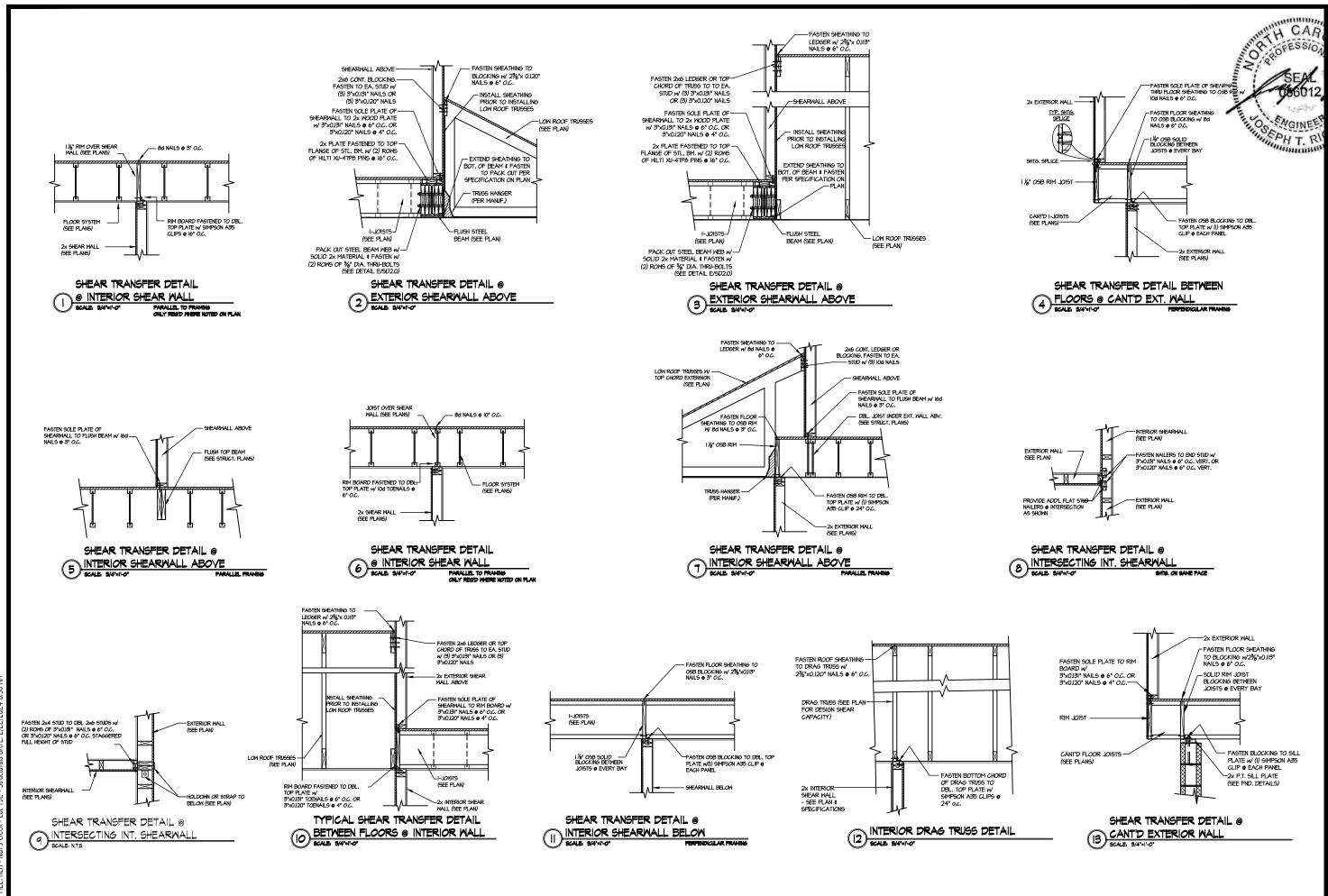
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EIL' AT NE MERLOT. Ü LOT 192 -RALEIGH, ARM

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M&K project number: 126-2207

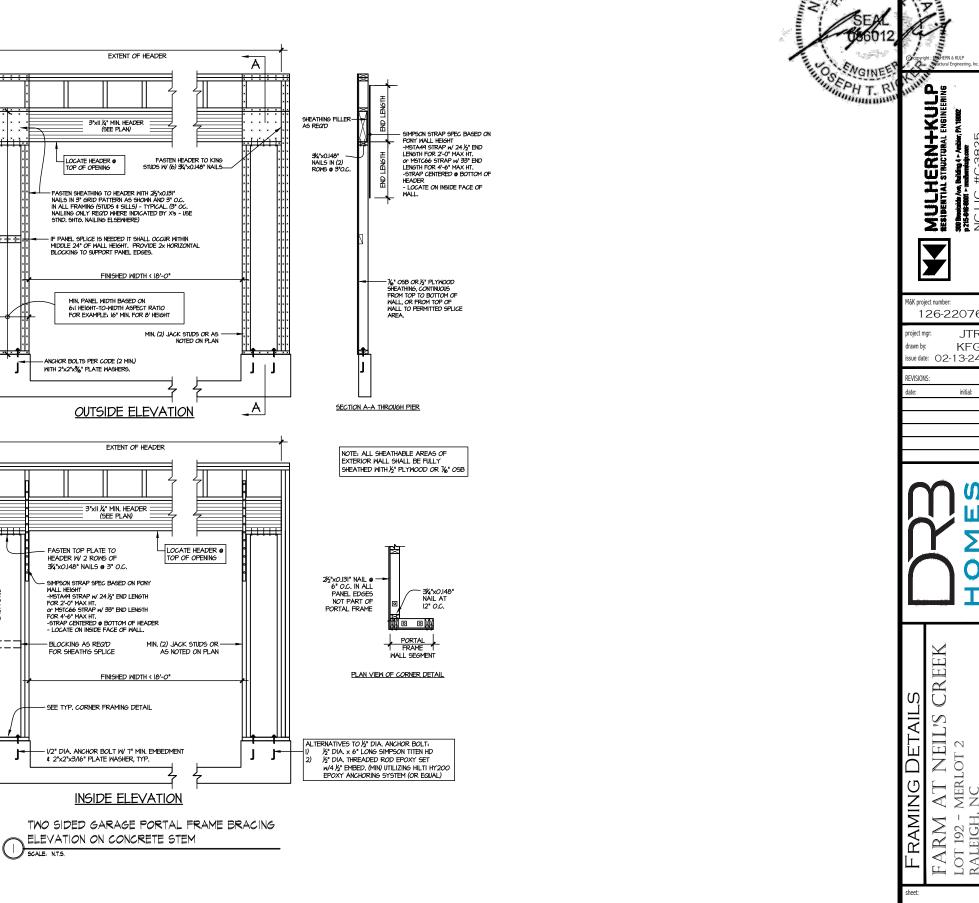
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SD2.1C



10'-0" MAX. TOP OF HEADER

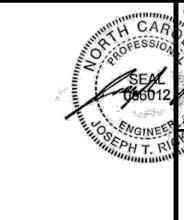
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- MERLOT 2
- NC FARM LOT 192 - NRALEIGH, 1

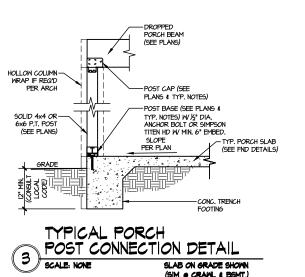
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SLAB ON GRADE SHOWN (SIM. @ CRAWL & BSMT.)

2/22/24

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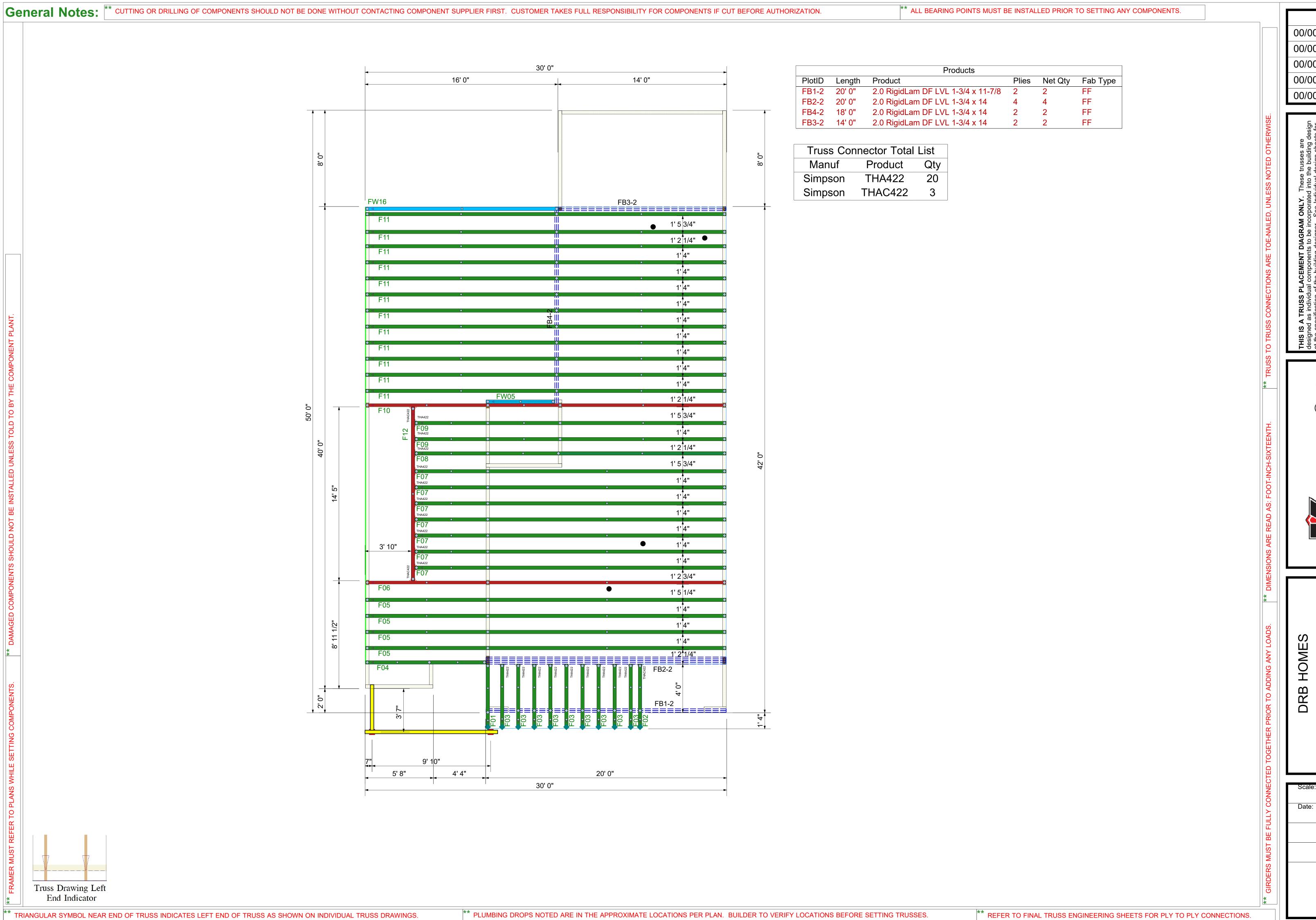
M&K project number: 126-22076

KFG issue date: 02-13-24

drawn by:

FARM AT NEIL'S CREEK LOT 192 - MERLOT 2 RALEIGH, NC

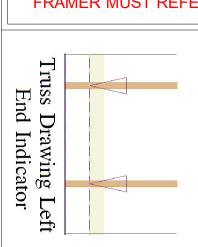
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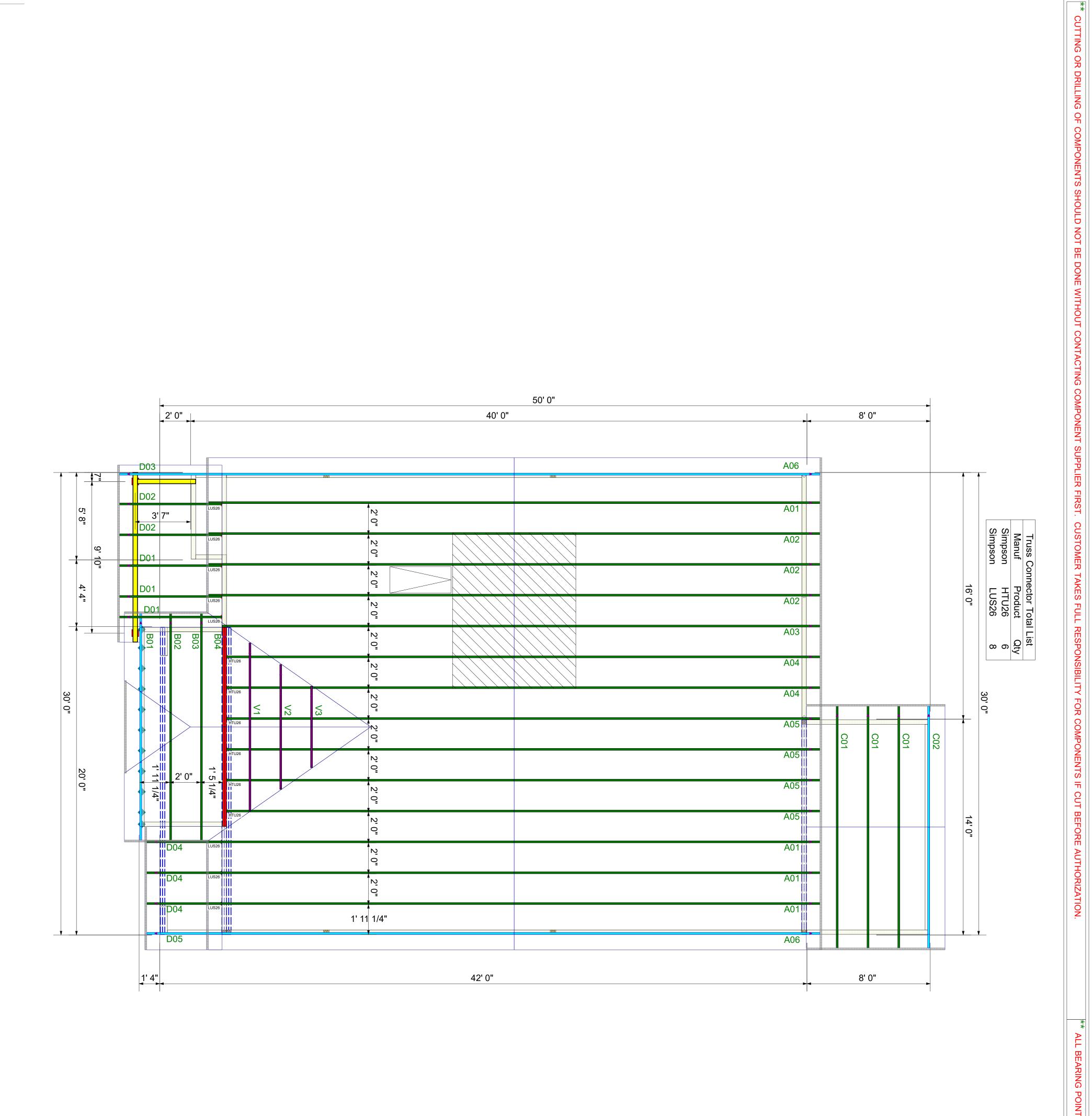


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2/15/2024 Designer: ND Project Number: 24020062 Sheet Number:

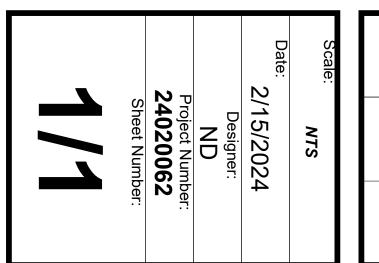




** GIRDERS MUST BE FULLY CONNECTED TOGETHER PRIOR TO ADDING ANY LOADS.

** DIMENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH.

** TRUSS TO TRUSS CONNECTIONS ARE TOE-NAILED, UNLESS NOTED OTHERWISE.



DRB HOMES

192 FARM AT NEILLS CREEK MERLOT 2

COMPONENT PLACEMENT PLAN



THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual components to be incorporated into the building design at the specification of the building designer. See Individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor systems and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding the bracing, consult "Bracing of Wood Truss" available from the Truss Plate Institute, 583 D'Onifrio Drive: Madison, WI 53179

Revisions	sions
00/00/00	Name

S MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS