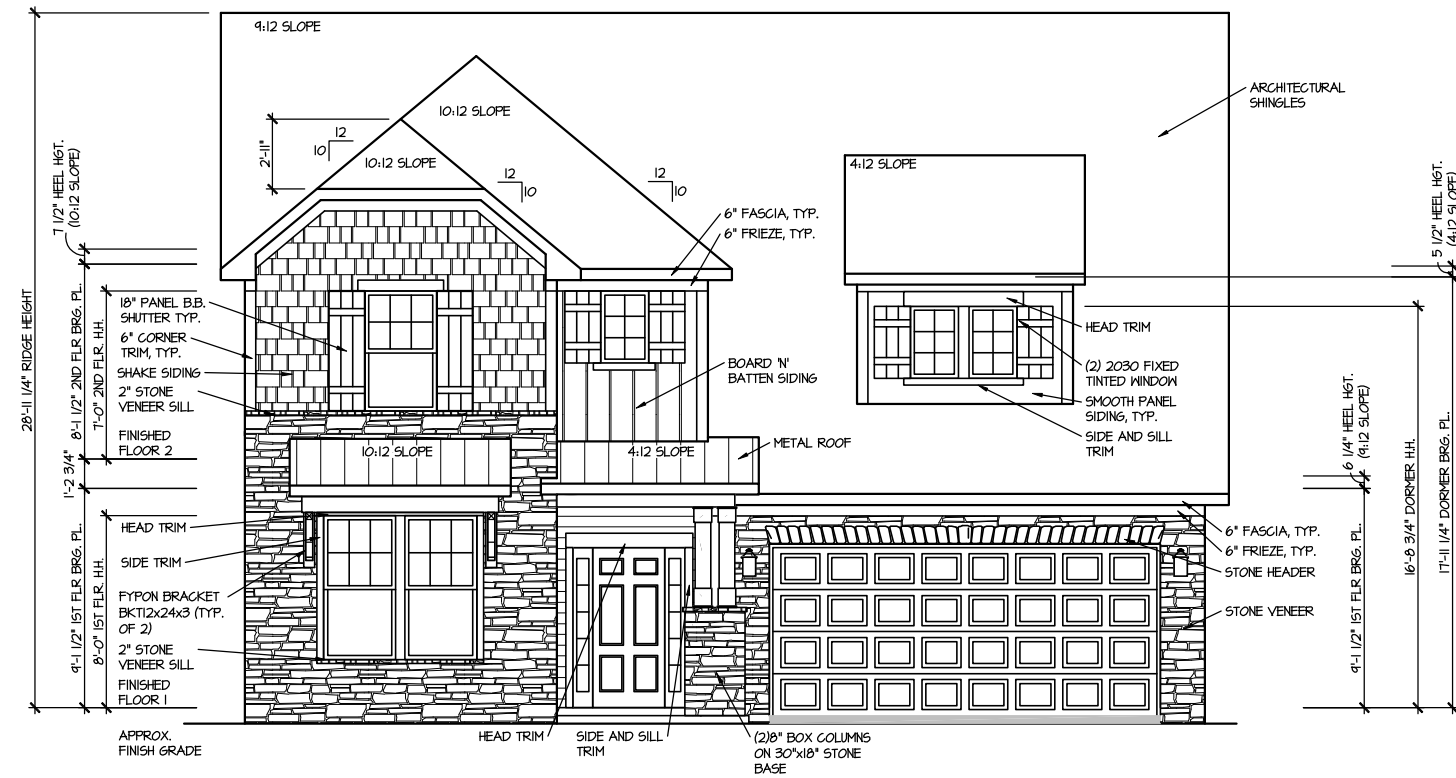


[illegible]



DRAWN BY:	ITS
DATE:	03/28/2025
PLAN NO.	2695

MASTER PLAN INFORMATION	
REVISION	DATE
2 - RALE	03-06-2019

UPDATED DATE
01-27-2025

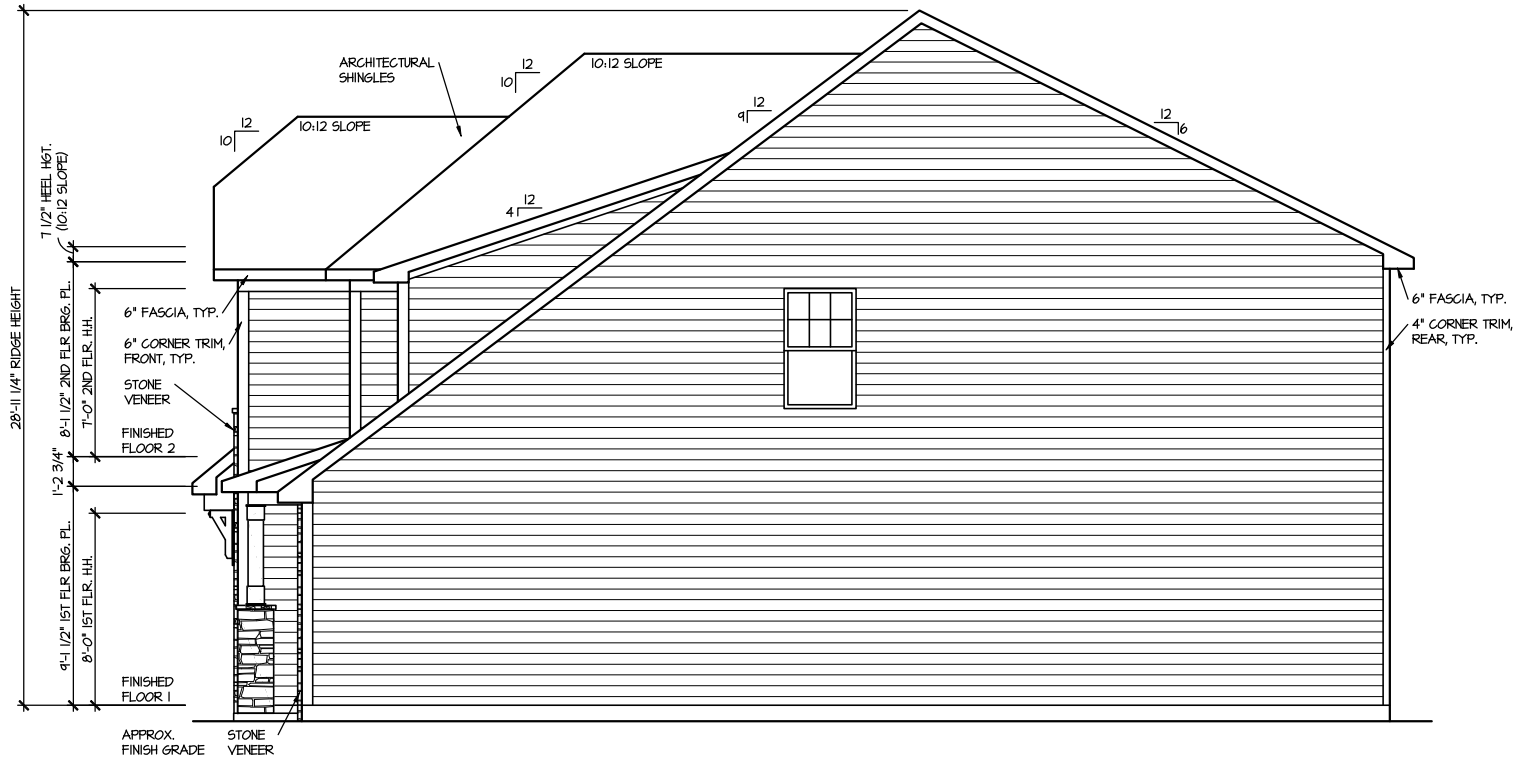


HOUSE NAME:  
**DRAYTON**

DRAWING TITLE  
**FRONT & REAR ELEVATIONS**

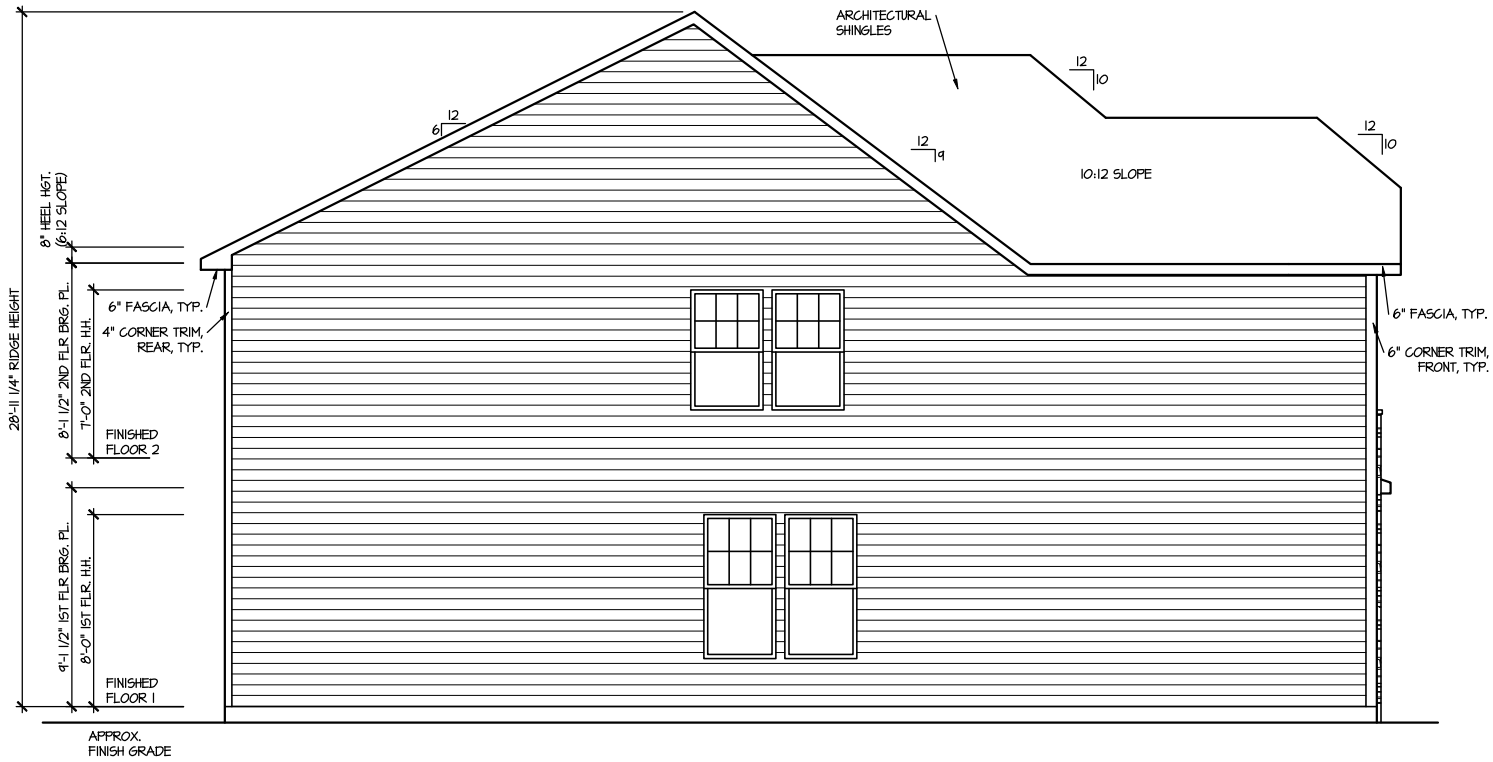
SHEET No.

A | . |



RIGHT ELEVATION 5

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



LEFT ELEVATION 5

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

MASTER PLAN INFORMATION		
REVISION	DATE	UPDATED DATE
2-RAL	03-06-2019	01-27-2025

DRAWN BY:	ITS
DATE:	03/28/2025
PLAN NO.	2695

DRB HOMES

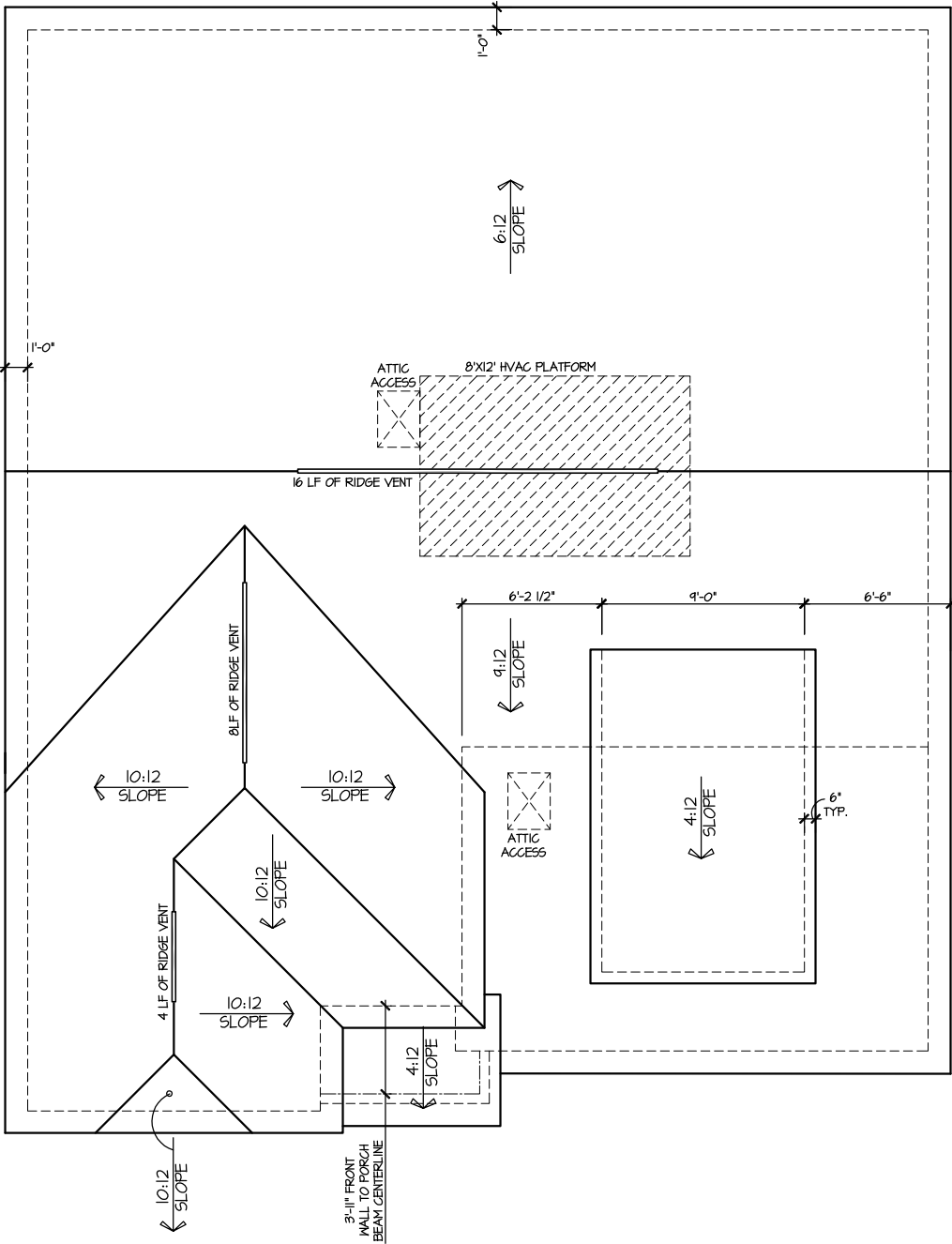
HOUSE NAME:	DRAYTON
DRAWING TITLE	RIGHT & LEFT ELEVATIONS

SHEET No.	A.2
-----------	-----

ROOF VENTILATION CALCULATIONS:

ROOF AREA = 1836 SQ. FT.  
OVERALL REQUIRED VENTILATION:  
1 TO 150 = 12.24 SQ. FT.  
1 TO 300 = 6.12 SQ. FT.  
50-80% IN TOP THIRD = 3.06- 4.90 FT. (1 TO 300)  
NET FREE AREA OF VENTED SOFFIT = 5.7 SQ. IN / LINEAR FT.  
NET FREE AREA OF RIDGE VENT = 18 SQ. IN/ LINEAR FT.

LOWER VENTING: (BOTTOM 2/3 RDS)  
77 LINEAR FEET OF SOFFIT X 5.7 SQ. IN. = 3.05 SQ. FT.  
UPPER VENTING: (TOP 1/3 RD)  
28 LINEAR FEET OF RIDGE X 18 SQ. IN = 3.5 SQ. FT.  
3.5 SQ. FT. BETWEEN 50% - 80%  
(1 TO 300 ALLOWED)  
TOTAL ROOF VENTILATION: 6.55 SQ. FT. > 6.12 SQ. FT. (REQ'D)



ROOF PLAN ELEV. 5

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

MASTER PLAN INFORMATION			
REVISION	DATE	UPDATED DATE	
2-RALE	03-06-2019	01-27-2025	

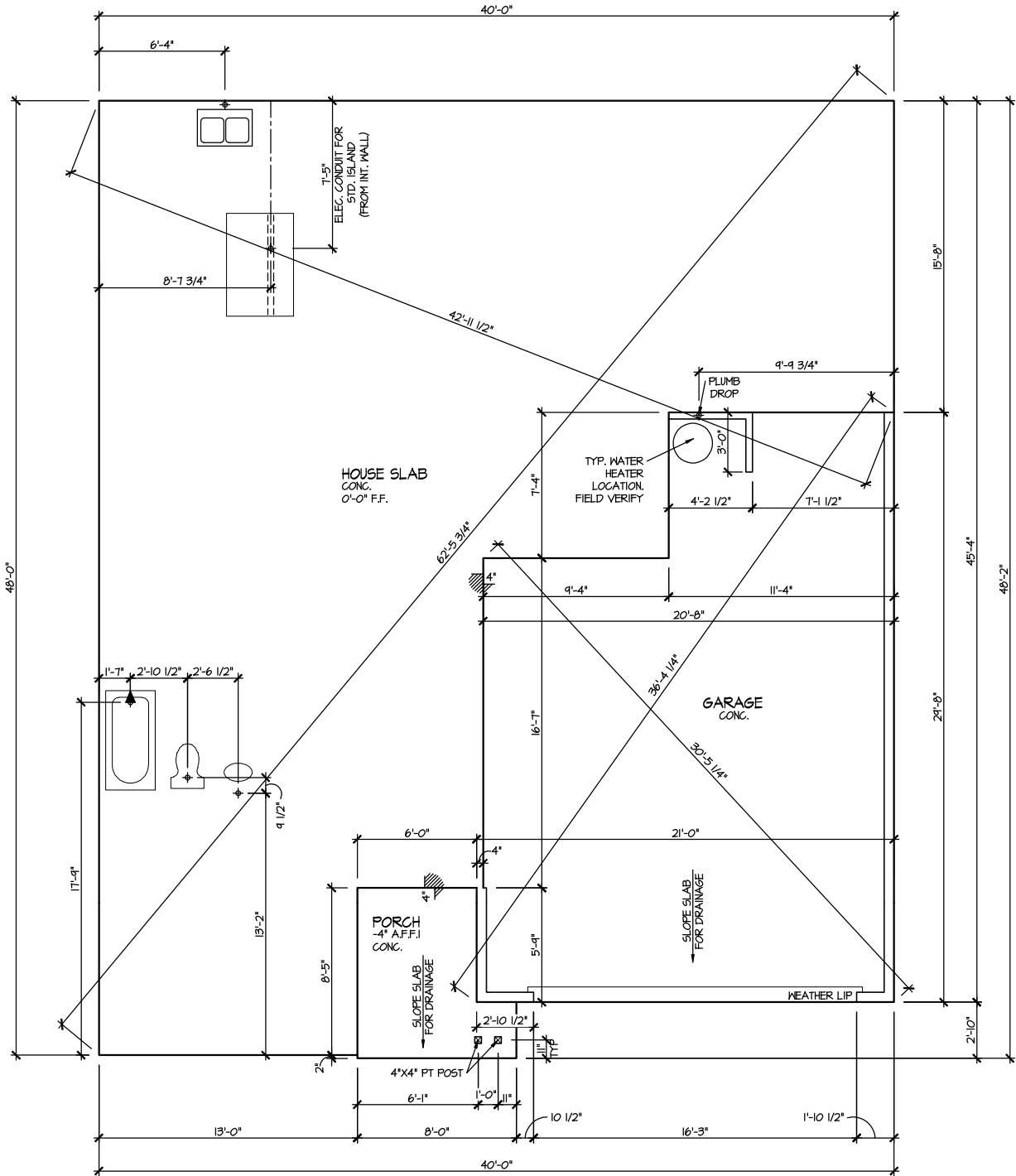
DRAWN BY:	ITS
DATE:	03/28/2025
PLAN NO.	2695

DRB  
HOMES

HOUSE NAME:  
DRAYTON  
DRAWING TITLE  
ROOF PLAN

SHEET No.

A.3



ELEVATION 5  
SLAB PLAN

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

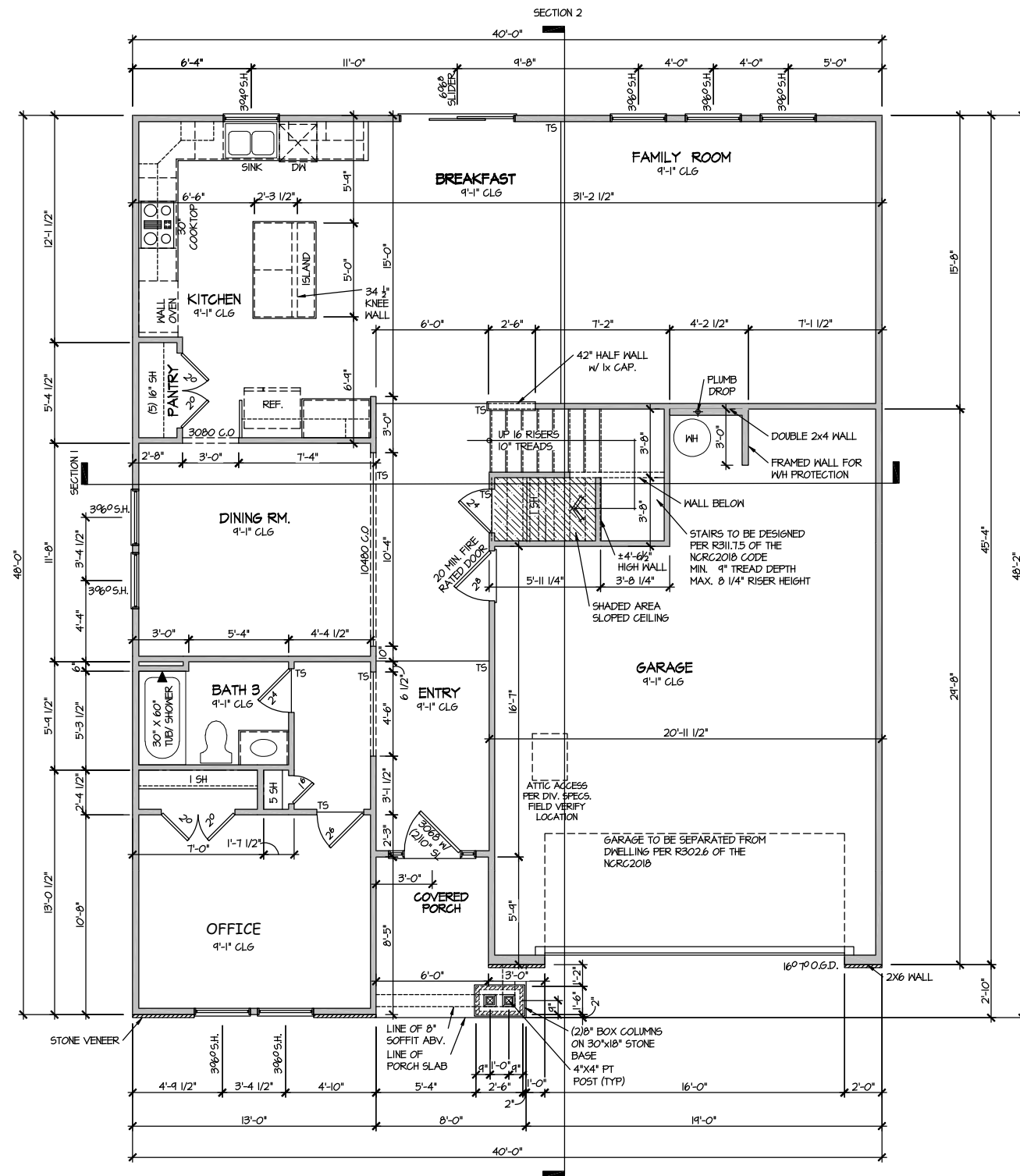
MASTER PLAN INFORMATION			
REVISION	DATE	DATE	UPDATED DATE
2-RAL	03-06-2019		01-27-2025

DRAWN BY: ITS	
DATE: 03/28/2025	
PLAN NO. 2695	



HOUSE NAME:  
DRAYTON  
DRAWING TITLE  
SLAB PLAN

SHEET No.  
A2.1



ELEVATION 5  
FIRST FLOOR PLAN  
SCALE: 1/8" = 1'-0"

MASTER PLAN INFORMATION		
REVISION	DATE	UPDATED DATE
2 - RALE	03-06-2019	01-27-2025

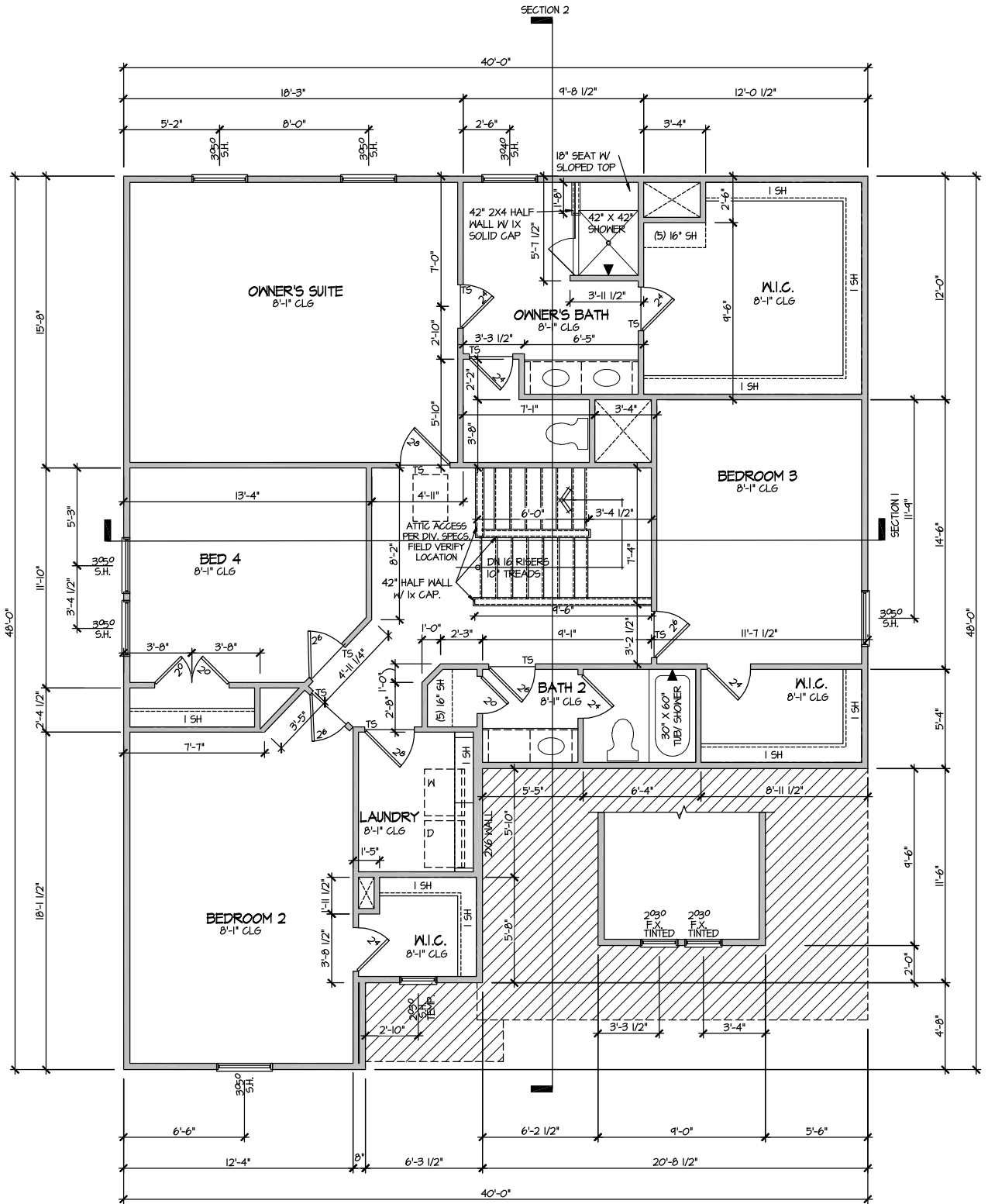
DRAWN BY:	ITS
DATE:	03/28/2025
PLAN NO.	2695



HOUSE NAME:  
**DRAYTON**

DRAWING TITLE  
**FIRST FLOOR PLAN**

SHEET No. A3.



ELEVATION 5  
SECOND FLOOR PLAN  
SCALE: 1/8" = 1'-0"

FILE: Lot 00.0181.dwg DATE: 3/28/2025 10:04 AM

MASTER PLAN INFORMATION			UPDATED DATE
REVISION	DATE		
2-RALE	03-06-2019		01-27-2025

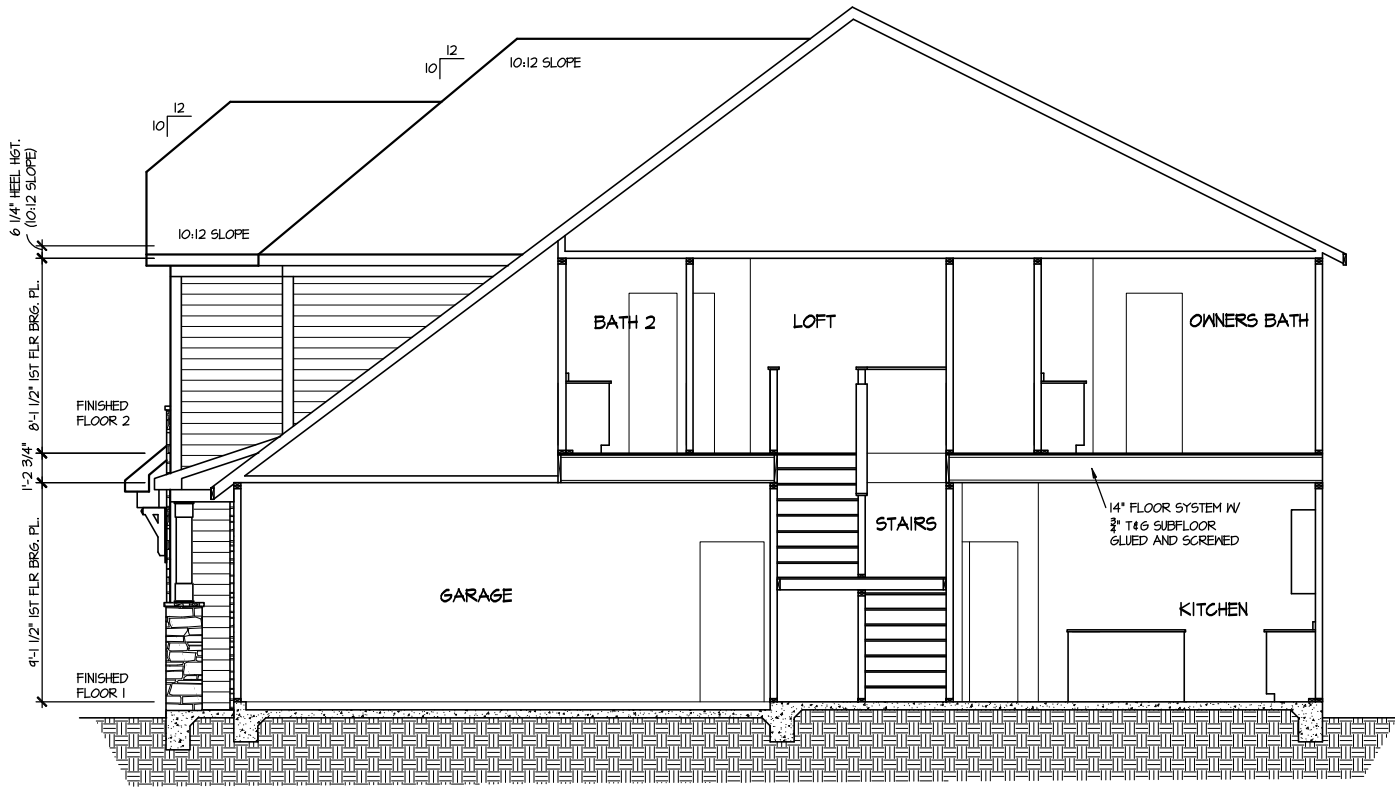
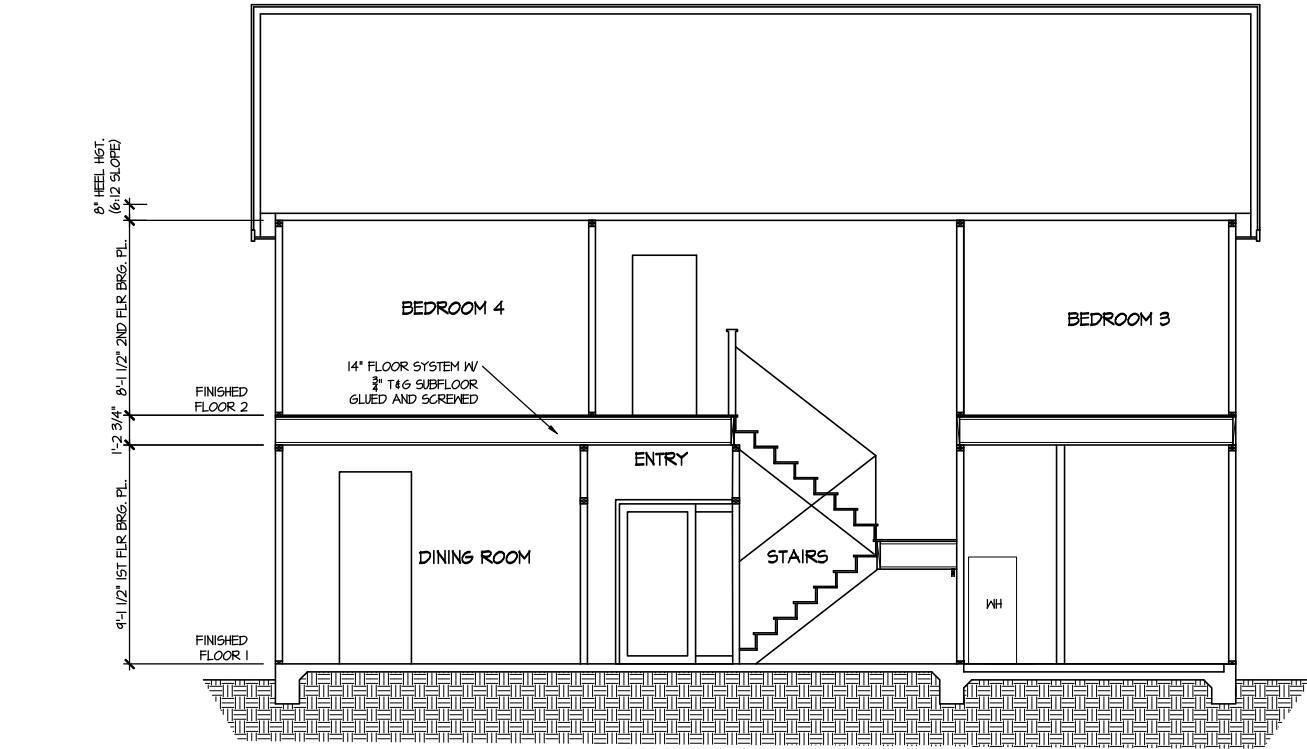
DRAWN BY:	ITS
DATE:	03/28/2025
PLAN NO.	2695



HOUSE NAME:	DRAYTON
DRAWING TITLE	SECOND FLOOR PLAN

SHEET No.
A3.2

FILE: Lot 00.0181.dwg DATE: 3/28/2025 10:04 AM



MASTER PLAN INFORMATION			UPDATED DATE
REVISION	DATE		
2-RALE	03-06-2019		01-27-2025

DRAWN BY:	ITS
DATE:	03/28/2025
PLAN NO.	2695

DRB  
HOMES

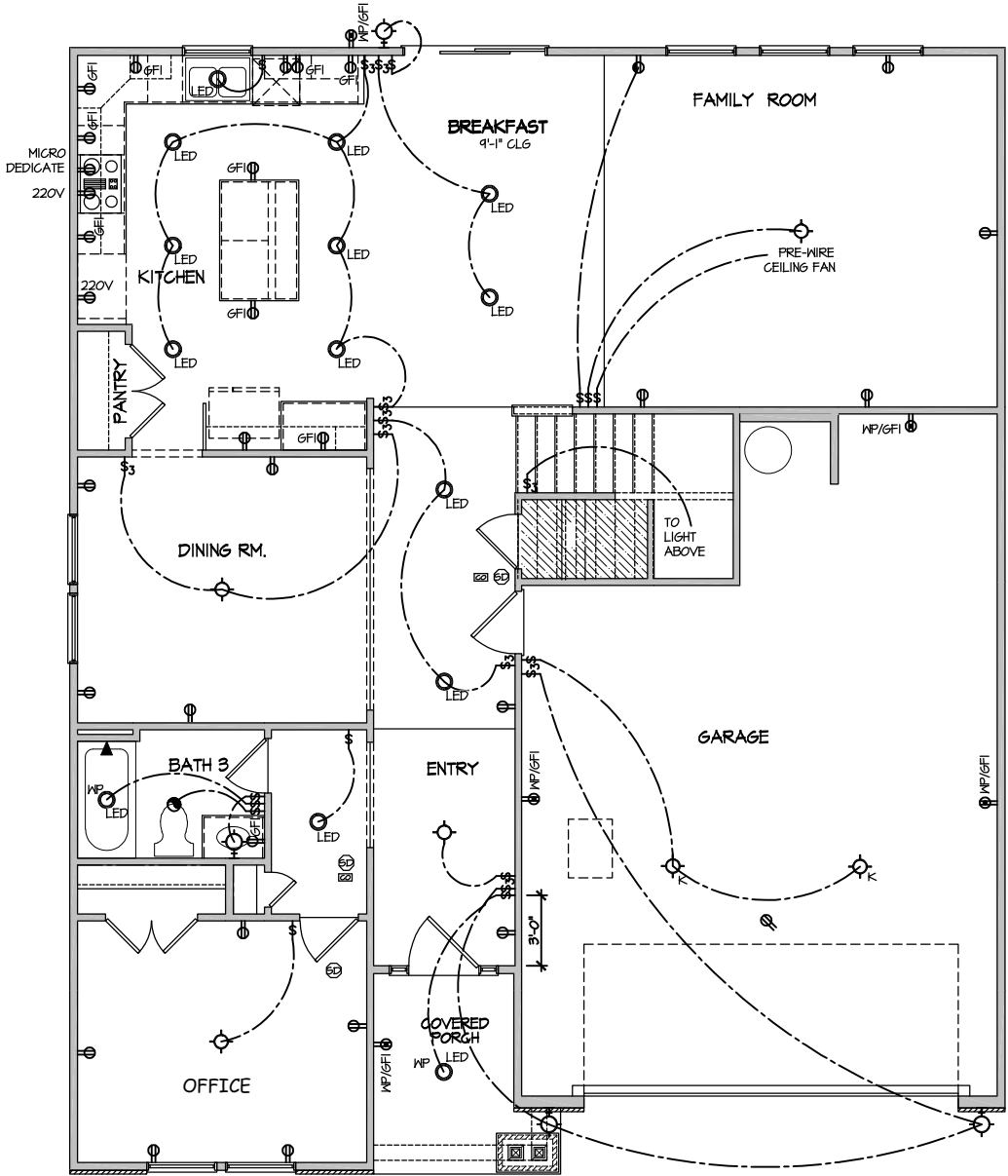
HOUSE NAME:	DRAYTON
DRAWING TITLE	BUILDING SECTION

SHEET No.  
A4.1

ELECTRICAL LEGEND

- SINGLE POLE SWITCH
- THREE WAY SWITCH
- FOUR WAY SWITCH
- DUPLEX AFCI RECEPTACLE
- DUPLEX AFCI RECEPTACLE - BOTTOM HALF SWITCHED
- DUPLEX AFCI RECEPTACLE - FLOOR MOUNTED
- RECEPTACLE - 220V
- DUPLEX AFCI RECEPTACLE - GFI
- DUPLEX AFCI RECEPTACLE - WATERPROOF GFI
- SMOKE DETECTOR - WIRED IN SERIES
- EXHAUST FAN MOTOR
- CO DETECTOR
- DOOR CHIME
- LIGHT FIXTURE - WALL MOUNTED
- LIGHT FIXTURE - CEILING MOUNTED
- LIGHT FIXTURE - LED SURFACE MOUNTED
- PULLCHAIN LAMPHOLDER
- KEYLESS LAMPHOLDER

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. 5  
SCALE: 1/8" = 1'-0"

MASTER PLAN INFORMATION			UPDATED DATE
REVISION	DATE		
2-RALE	03-06-2019		01-27-2025

DRAWN BY:	ITS
DATE:	03/28/2025
PLAN NO.	2695

DRB  
HOMES

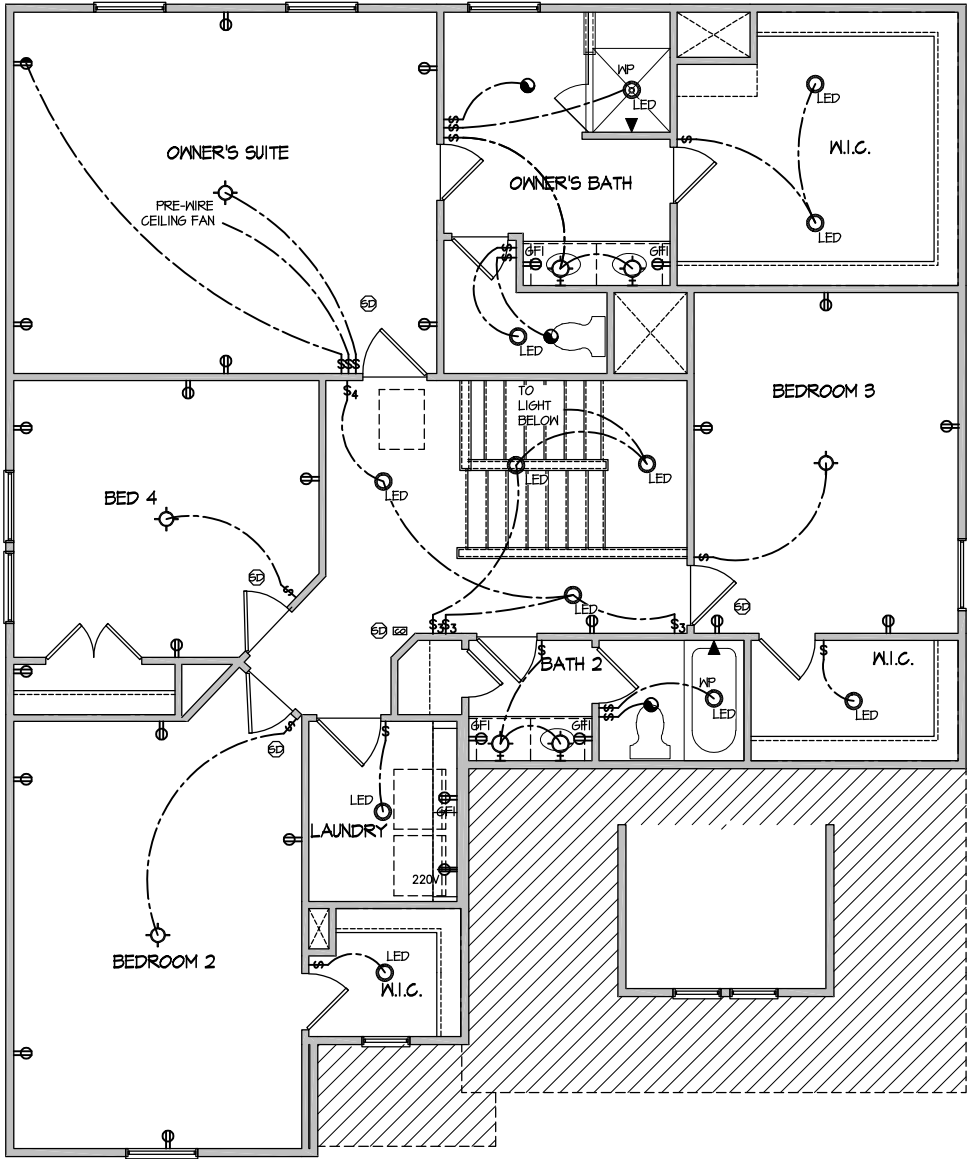
HOUSE NAME:  
DRAYTON  
DRAWING TITLE  
FIRST FLOOR ELECTRICAL

SHEET No.  
11.1

ELECTRICAL LEGEND

- ⌚ SINGLE POLE SWITCH
- ⌚<sub>3</sub> THREE WAY SWITCH
- ⌚<sub>4</sub> FOUR WAY SWITCH
- ⌚-DUPLEX AFCI RECEPTACLE
- ⌚-DUPLEX AFCI RECEPTACLE - BOTTOM HALF SWITCHED
- ⌚-DUPLEX AFCI RECEPTACLE - FLOOR MOUNTED
- 220V ⌚ RECEPTACLE - 220V
- GF ⌚ DUPLEX AFCI RECEPTACLE - GFI
- WP/GFI ⌚ DUPLEX AFCI RECEPTACLE - WATERPROOF GFI
- SD SMOKE DETECTOR - WIRED IN SERIES
- EXHAUST FAN MOTOR
- ☒ CO DETECTOR
- ☒ DOOR CHIME
- ⌚-LIGHT FIXTURE - WALL MOUNTED
- ⌚-LIGHT FIXTURE - CEILING MOUNTED
- ⌚-LED LIGHT FIXTURE - LED SURFACE MOUNTED
- ⌚-P FULLCHAIN LAMPHOLDER
- ⌚-K KEYLESS LAMPHOLDER

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. 5  
SCALE: 1/8" = 1'-0"

FILE: Lot\_000181.dwg DATE: 3/28/2025 10:04 AM

MASTER PLAN INFORMATION		UPDATED DATE
DATE	03-06-2019	01-27-2025
REVISION	2-RALE	

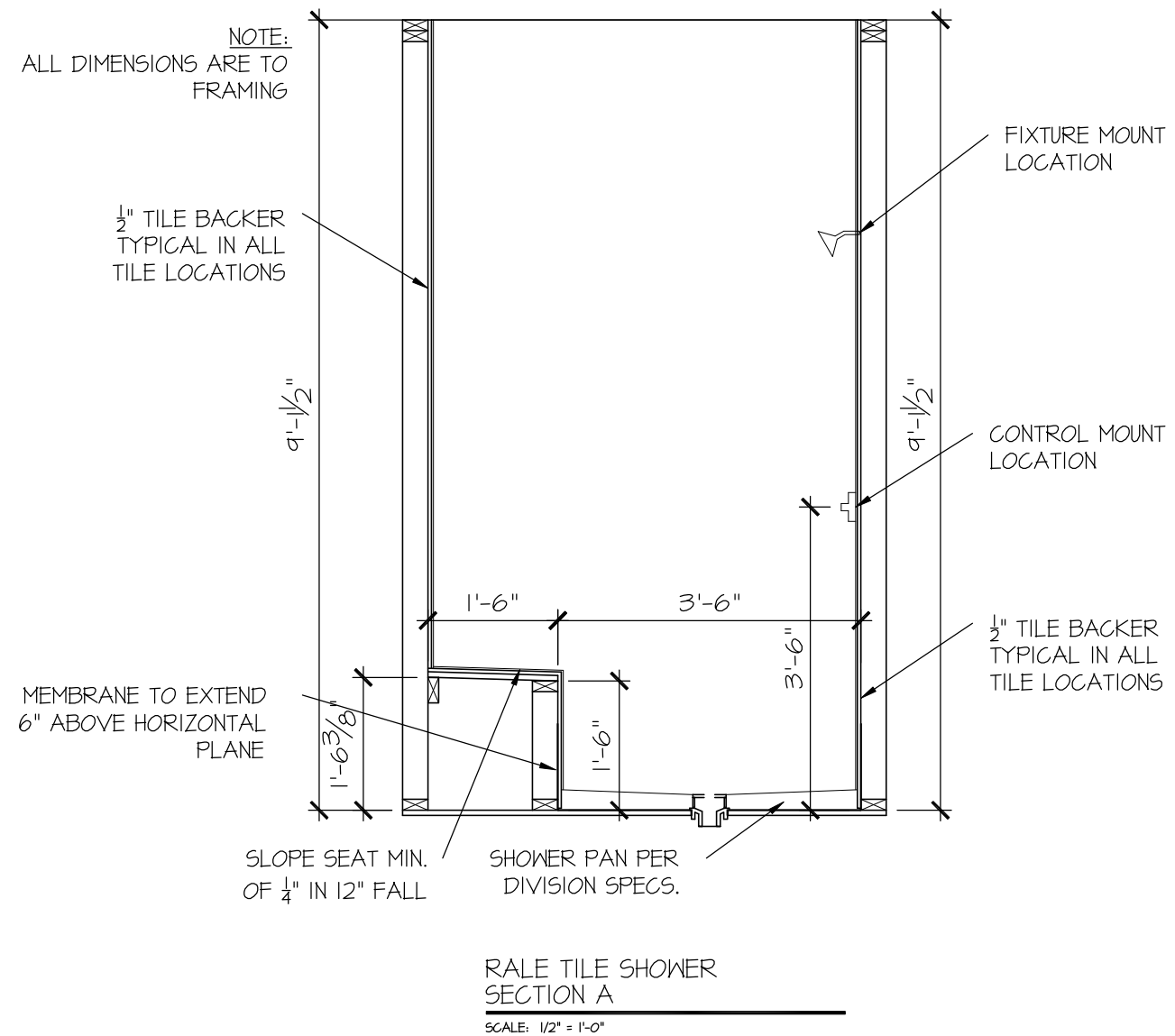
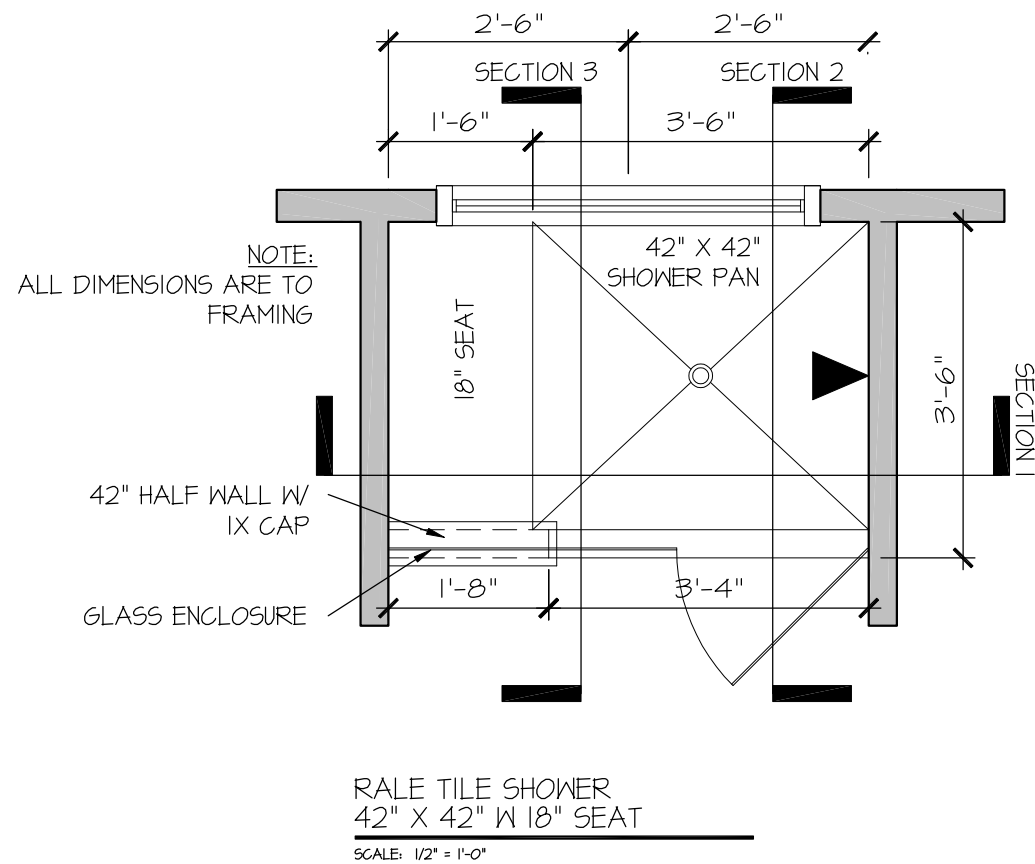
DRAWN BY:	ITS
DATE:	03/28/2025
PLAN NO.	2695

DRB  
HOMES

HOUSE NAME:  
DRAYTON  
DRAWING TITLE  
SECOND FLOOR ELECTRICAL

SHEET No.  
1.2

FILE: RALE TILE SHOWER DETAIL 8-2022.dwg DATE: 09-19-2022



CONSULTANT LOGO

SEAL

DRAWN BY:  
L. BEAVERS  
DATE: 9/1/22  
PLAN NO.  
11 X 17 SCALE  
24 X 36 SCALE

**DRB**  
HOMES

HOUSE NAME:

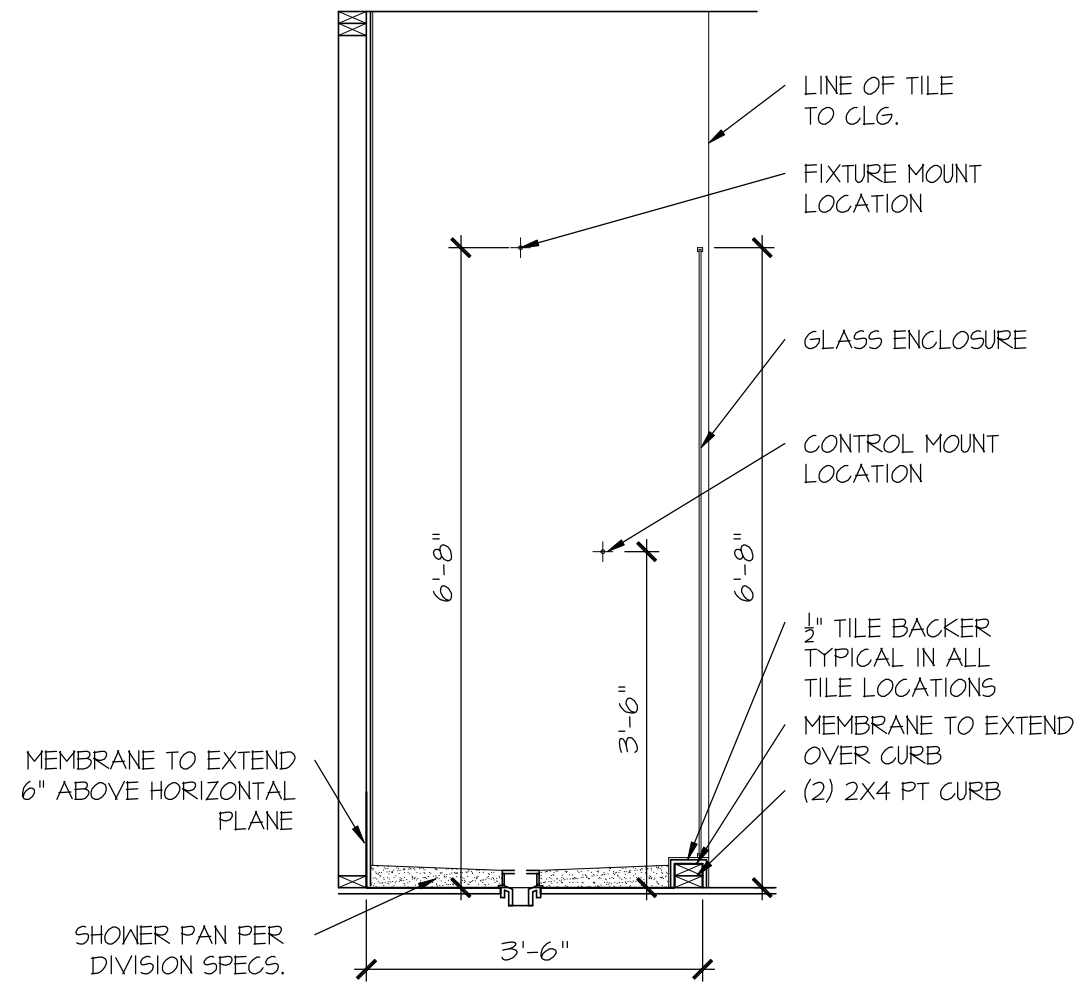
DRAWING TITLE

RALE TILE SHOWER DETAIL

SHEET No.

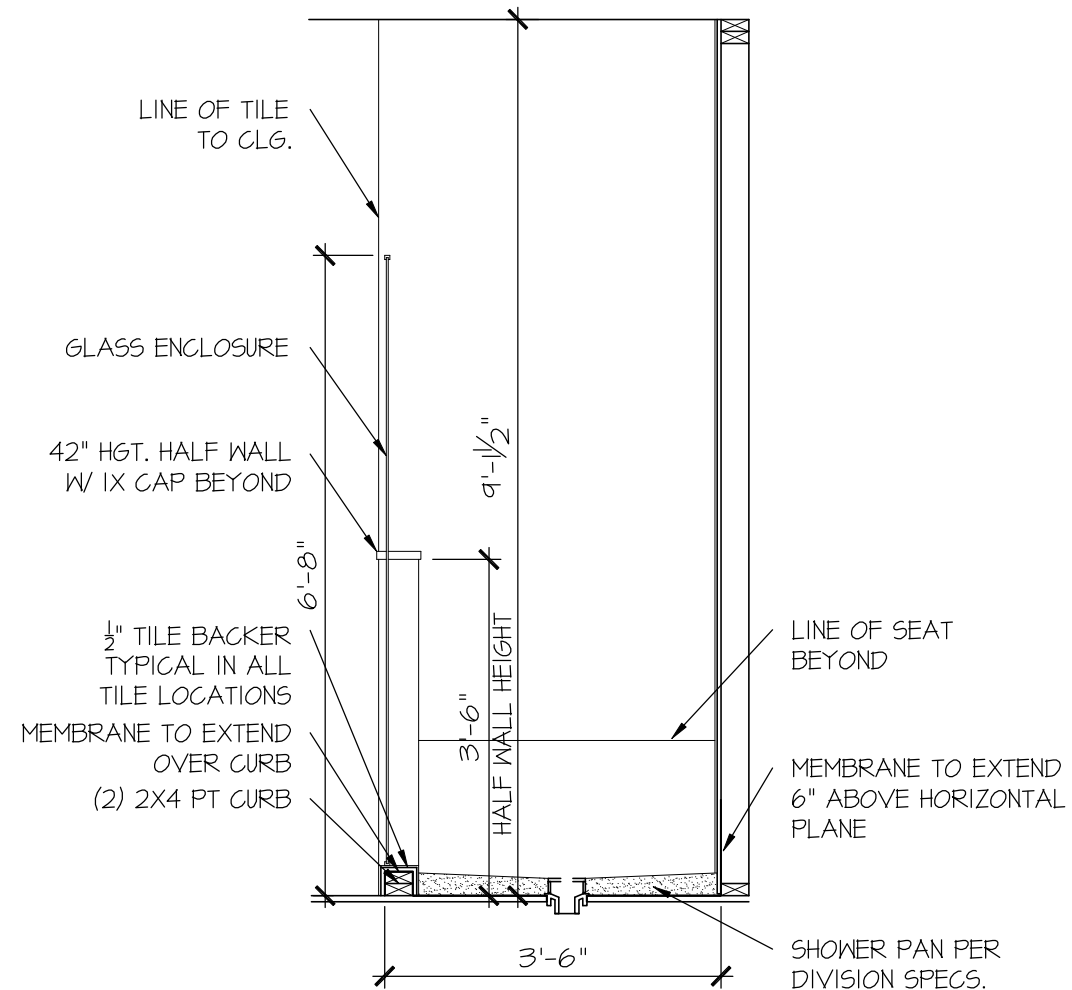
0111

FILE: RALE TILE SHOWER DETAIL 8-2022.dwg DATE: 09-19-2022



RALE TILE SHOWER  
SECTION B

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



RALE TILE SHOWER  
SECTION C

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

CONSULTANT LOGO

SEAL

DRAWN BY:  
L. BEAVERS  
DATE: 9/1/22  
PLAN NO.  
11 X 17 SCALE  
24 X 36 SCALE

DRB  
HOMES

HOUSE NAME:  
DRAWING TITLE  
RALE TILE SHOWER DETAIL

SHEET No.

01.12

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., 1" 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 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. SFF OR SYP, "STUD" GRADE OR BETTER.

• CONCRETE DESIGN BASED ON ACI 318. CONCRETE SHALL ATTAIN THE FOLLOWING MIN. COMPRESSIVE STRENGTHS IN 28 DAYS, UNO.:

f <sub>c</sub> =	4,000 psi:	.....	FOUNDATION WALLS
	2,500 psi:	.....	FOOTINGS & INTERIOR SLABS ON GRADE
	3,000 psi:	.....	GARAGE & EXTERIOR SLABS ON GRADE
f <sub>y</sub> =	60,000 psi		

• BASEMENT FOUNDATION WALL DESIGN BASED ON:

- 9' OR 10' HEIGHT (AS NOTED ON PLANS)
- 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 BSMT. FND. 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, UNO.
- LARGER OPENINGS SHALL BE PER PLAN.

• ALL CONCRETE EXPOSED TO THE WEATHER SHALL NOT HAVE LESS THAN 5% OR MORE THAN 1% 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'-0" O.C. (MAXIMUM)
- JOINT GRID PATTERN SHALL BE AS CLOSE TO SQUARES AS POSSIBLE (1:1 RATIO), WITH A MAXIMUM OF 1:1.5 RATIO
- CONTROL JOINTS SHALL NOT BE INSTALLED IN STRUCTURAL SLABS

• CONCRETE MASONRY UNITS (CMU) SHALL BE ASTM C90 WITH A MIN. COMPRESSIVE STRENGTH OF 1400 PSI (f<sub>m</sub>=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) - 4 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 BE DETERMINED BY PEST CONTROL COMPANY.

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/FLUSH BEAMS DO NOT EXCEED THE FOLLOWING:

A. ROOF TRUSSES:

- 1/4" DEAD LOAD

B. FLOOR TRUSSES, ATTIC TRUSSES, & I-JOISTS:

- 1/8" DEAD LOAD

C. 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

GENERAL FRAMING

• 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.

• DESIGN LOADS:

ROOF	DEAD = 7 PSF T.C., 10 PSF B.C. LIVE = 16 PSF LOAD DURATION FACTOR = 1.25
FLOOR	LIVE = 40 PSF (30 PSF @ SLEEPING AREAS) DEAD = 10 PSF (I-JOISTS & SOLID SAWN) 10 PSF T.C., 5 PSF B.C. (TRUSSES) (ADD'L 10 PSF @ TILE)
LATERAL	120 MPH, EXPOSURE B. SEISMIC A/B.
SOIL	2,000 PSF ASSUMED ALLOWABLE BEARING PRESSURE (TO BE VERIFIED BY BUILDER)

• 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. UNO.

• EXT. & INT. BRG WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" O.C. SFF OR SYP "STUD" GRADE LUMBER, OR BETTER, UNO.

- 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., UNO.)

- 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=310 psi; E=1.55x10<sup>6</sup> psi
- 'LVL' - Fb=2600 psi; Fv=285 psi; E=2.0x10<sup>6</sup> psi
- 'PSL' - Fb=2400 PSI; Fv=240 PSI; E=2.0x10<sup>6</sup> PSI

• MKF SHALL BE FULLY IDENTIFIED FOR ANY AND ALL ISSUES RESULTING FROM OR RELATED TO ANY BUILDING COMPONENT IF THE OWNER DOES NOT SUBMIT THE COMPONENT SHOP DRAWINGS TO MKF 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 @ 8" O/C OR 2 ROWS 1/2"x3/2" SIMPSON SDS SCREWS (OR 3/2" TRUSSELOK 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 1/2" OR 5 1/4" 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 1/2"x6" SIMPSON SDS SCREWS (OR 6 3/4" TRUSSELOK 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 TRUSSELOK 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 STUD, MINIMUM.

- THE NUMBER OF STUDS SPECIFIED AT A SUPPORT INDICATES THE NUMBER OF JACK STUDS REQUIRED, UNO..

• 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 1/2" DIA. BOLTS @ 48" O.C. STAGGERED.

• ALL EXTERIOR 4x4 WOOD POSTS SHALL HAVE SIMPSON BCS2-2/4 CAP & ABW44Z BASE, UNO.

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

FLOOR FRAMING

ROOF FRAMING

• I-JOISTS/TRUSSES SHALL BE DESIGNED BY MANUF. TO MEET OR EXCEED L/480 LIVE LOAD DEFLECTION CRITERIA. (EXCLUDES MARBLE FLOORS - CONTACT MKF FOR MARBLE FLOOR DESIGNS)

• AT I-JOIST FLOORS, PROVIDE 1 1/8" MIN. OSB RIM BOARD.

• METAL HANGERS SHALL BE SPECIFIED BY MANUFACTURER, UNO.

• FLOOR SHEATHING SHALL BE 23/32" A.P.A. RATED 'STURD-I-FLOOR' 24" O.C, EXPOSURE 1 (OR APPROVED EQUAL) WITH TONGUE AND GROOVE EDGES. FASTEN TO FRAMING MEMBERS W/ GLUE AND - 2 1/2" x 0.131" NAILS @ 6"o.c. @ PANEL EDGES @ 12"o.c. FIELD.

- 2 3/8" x 0.120" NAILS @ 4" O.C. @ PANEL EDGES @ 8" O.C. FIELD.

- 2 3/8" x 0.113" NAILS @ 3" O.C. @ PANEL EDGES @ 6" O.C. IN FIELD.

- #6 x 2" MIN. SCREWS @ 6" O.C. @ PANEL EDGES @ 12" O.C. FIELD.

• ERECT AND INSTALL ROOF TRUSSES PER WTCA & TPI'S BCSI 1-08 "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 @ 14.2" O.C. MAX. (FLOOR TRUSSES)

• ROOF SHEATHING SHALL BE 7/16" A.P.A. RATED SHEATHING 24/16 EXPOSURE 1 (OR APPROVED EQUAL). FASTEN TO FRAMING MEMBERS

- W/ 2 1/2" x 0.131" NAILS @ 6"o.c. @ PANEL EDGES @ 12" O.C. FIELD.
- W/ 2 3/8" x 0.120" NAILS @ 4"o.c. @ PANEL EDGES @ 8" O.C. FIELD.
- W/ 2 3/8" x 0.113" NAILS @ 3"o.c. @ PANEL EDGES @ 6" O.C. FIELD.

HOLD-DOWN SCHEDULE

LEGEND

SYMBOL	SPECIFICATION
▶ HD-1	SIMPSON HTT4 HOLD-DOWN @ 9/8" DIA. ANCHOR
▶ HD-2	SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM UNO.) -OR- MSTC66B3 ALTERNATE
▶ HD-3	SIMPSON STHD14/STHD14RJ

\* UTILIZE THE 56TB24 ANCHOR BOLT @ ALL MONOSLAB & INTERIOR RAISED SLAB (I.E. THICKENED SLABS, FOOTINGS) CONDITIONS. MINIMUM 24" MIN. FOOTING THICKNESS REQUIRED. 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 1/2" DIA.) MIN. EMBEDMENT INTO CONCRETE. INSTALL PER MANUF. INSTRUCTIONS. MINIMUM 16" FOOTING THICKNESS REQ'D. DO NOT LOCATE ANCHORS WITHIN 1 3/4" OF EDGE OF CONCRETE.

• [|||||] 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.

NON-BEARING HEADER SCHEDULE

SPAN	2x4 NON-BEARING PARTITION WALL	2x6 NON-BEARING PARTITION WALL
UP TO 3'-0"	(1)2x4 FLAT	(1)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

NOTES:

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

LATERAL BRACING & SHEAR WALL SHEATHING SPECIFICATIONS

EXT. WALL SHEATHING SPECIFICATION

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

120 MPH WIND IN 2018 NC5BC:RC

(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 I609) & ASCE 7-10, AS PERMITTED BY R301.1.3 OF THE 2018 NC5BC:RC, OR THE SIMPLIFIED PRESCRIPTIVE PROCEDURE IN ACCORDANCE WITH THE 2015 IRC IF THE PARAMETERS OF SECTION R602.12 COMPLY. ACCORDINGLY, 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 NC5BC:RC SECTION R802.11.1.1. THIS MODEL HAS BEEN DETAILED WHERE REQUIRED & ENGINEERED TO RESIST THE WIND UPLIFT LOAD PATH PER SECTIONS R602.3.54 R802.11.

• AT DESIGNATED AREAS - FASTEN SHEATHING W/ 2 3/8" 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.

• ALL EXT. WALLS SHALL BE CONTINUOUSLY SHEATHED AND ARE CONSIDERED SHEAR WALLS.

• ALT. STAPLE CONNECTION SPEC: 1 1/2" 16 GA STAPLES (1/6" CROWN) @ 3" O.C. AT EDGES @ 6" O.C. IN FIELD.

• AT DESIGNATED AREAS - FASTEN SHEATHING W/ 2 3/8" 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 UNSUPPORTED PANEL EDGES & EDGE FASTENING.

• 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, UNO.

• ALL STRICTIONAL 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 SHEARNWALL OR 3" O.C. OSB SHEARNWALL.

▶ INDICATES HOLDDOWN BELOW

MEANS & METHODS NOTES

VENEER LINTEL SCHEDULE

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 TO 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 ELEMENTS 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.

SPAN (MAX)	HEIGHT OF VENEER ABOVE LINTEL	STEEL ANGLE SIZE
3'-0"	20 FT. MAX	L3"x3"x1/4"
	3 FT. MAX	L3"x3"x1/4"
6'-0"	12 FT. MAX	L4"x3"x1/4"
	20 FT. MAX	L5"x3"x3/8"
	3 FT. MAX	L4"x4"x1/4" *
8'-0"	12 FT. MAX	L5"x3"x3/8"
	16 FT. MAX	L6"x3"x3/8"
9'-6"	12 FT. MAX	L6"x3"x3/8"
	2 FT. MAX	L7"x4"x3/2" **
16'-0"	3 FT. MAX	L8"x4"x3/2" **

ALL LINTELS:

- SHALL SUPPORT 2 3/4" - 3 1/2" VENEER W/ 40 psi MAXIMUM HEIGHT.
- < 16" SHALL HAVE 4" MIN. BEARING
- >= 16" SHALL HAVE 8" MIN. BEARING
- >= 16" SHALL NOT BE FASTENED BACK TO HEADER.
- >= 16" SHALL BE FASTENED BACK TO WOOD HEADER IN WALL @48"o.c.
- W/ 1/2" DIA. x 3 1/2" LONG LAG SCREWS IN 2" LONG VERTICALLY SLOTTED HOLES
- MAX. 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 1/2" 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 BACK TO BEAM, FASTENERS SHALL MAINTAIN A 2 1/2" (MINIMUM) CLEAR DISTANCE FROM BOTTOM OF BEAM.
- \* FOR QUEEN VENEER USE L4x3/4".
- \*\* FOR 3/2" VENEER ONLY. SEE PLAN FOR VENEER SUPPORT IF VENEER < 3/2" THICK.

ENGINEERED BEAM MATERIAL SCHEDULE

BEAM NUMBER	LVL OPTION	PSL OPTION	LSL OPTION	FLITCH OPTION	STEEL OPTION
001	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 1/4"x11/4" STEEL FLITCH PLATES - FB	W12x14 - F
002	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 1/4"x11/4" STEEL FLITCH PLATES - FB	W12x14 - F
003	(3)3/4"x18" - FB or (2)3/4"x20" - FB	5/4"x18" - FB	N/A	(3)2x12 + (2) 3/8"x11/4" STEEL FLITCH PLATES - FB	W12x26 - F
004	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 1/4"x11/4" STEEL FLITCH PLATES - FB	W12x14 - F
005	(2)3/4"x17 1/2" - H cont.	3/2"x17 1/2" - H cont.	(2)3/4"x17 1/2" - H cont.	(3)2x12 + (2) 1/4"x11/4" STEEL FLITCH PLATES - H cont.	N/A
005A	(3)3/4"x14" - H cont.	5/4"x14" - H cont.	N/A	(3)2x12 + (2) 1/4"x11/4" STEEL FLITCH PLATES - H cont.	N/A
006	(1)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 1/4"x11/4" STEEL FLITCH PLATES - FB	W12x14 - F
007	(2)3/4"x17 1/2" - D	3/2"x17 1/2" - D	(2)3/4"x17 1/2" - D	(2)2x12 + (1) 1/4"x11/4" STEEL FLITCH PLATES - D	W10x12 - D
008	(2)3/4"x16" - H cont.	3/2"x16" - H cont.	(3)3/4"x16" - H cont.	(3)2x12 + (2) 3/8"x11/4" STEEL FLITCH PLATES - H cont.	N/A
009	(2)3/4"x9 1/4" - F	3/2"x9 1/4" - F	(2)3/4"x9 1/4" - F	(2)2x10 + (1) 1/4"x9 1/4" STEEL FLITCH PLATES - F	W8x10 - F
010	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 1/4"x11/4" STEEL FLITCH PLATES - FB	W12x14 - F
011	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 1/4"x11/4" STEEL FLITCH PLATES - FB	W12x14 - F
012	(2)3/4"x17 1/2" - D	3/2"x17 1/2" - D	(2)3/4"x17 1/2" - D	(2)2x12 + (1) 1/4"x11/4" STEEL FLITCH PLATES - D	W10x12 - 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/SD2.0 FOR TYPICAL FLITCH 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"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.

seal:

4/1/25

MULHERN+KULP

RESIDENTIAL STRUCTURAL ENGINEERING

300 Bannockburn Ave., Building 4 - Ardur, PA 15002

P 215-946-2001 | mulhern+kulp.com

NC LICENSE #C-3825

M&K project number:

126-22076

project mgr:

JTR

drawn by:

TEW

issue date:

03-31-25

REVISIONS:

date:                      initial:

STRUCTURAL NOTES

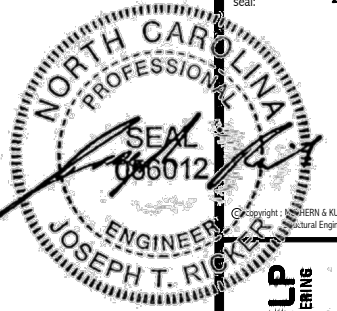
FARM AT NEIL'S CREEK

LOT 181 - DRAYTON 5

RALEIGH, NC

sheet:

SO.0



**MULHERN+KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING  
300 Bankside Ave, Building 4 ▶ Ardmore, PA 19002  
p 215-676-8001 ▶ [mulhern+kulp.com](mailto:mulhern+kulp.com)  
NC LICENSE #C-3825



&K project number:  
126-22076

Project mgr: JTR  
Drawn by: TEW  
Issue date: 03-31-25

Initial: \_\_\_\_\_

---


---

m



--	--



11

USUR

AFC

## References

# NEELAN

ON TO

# ATLANTA

**DATA**

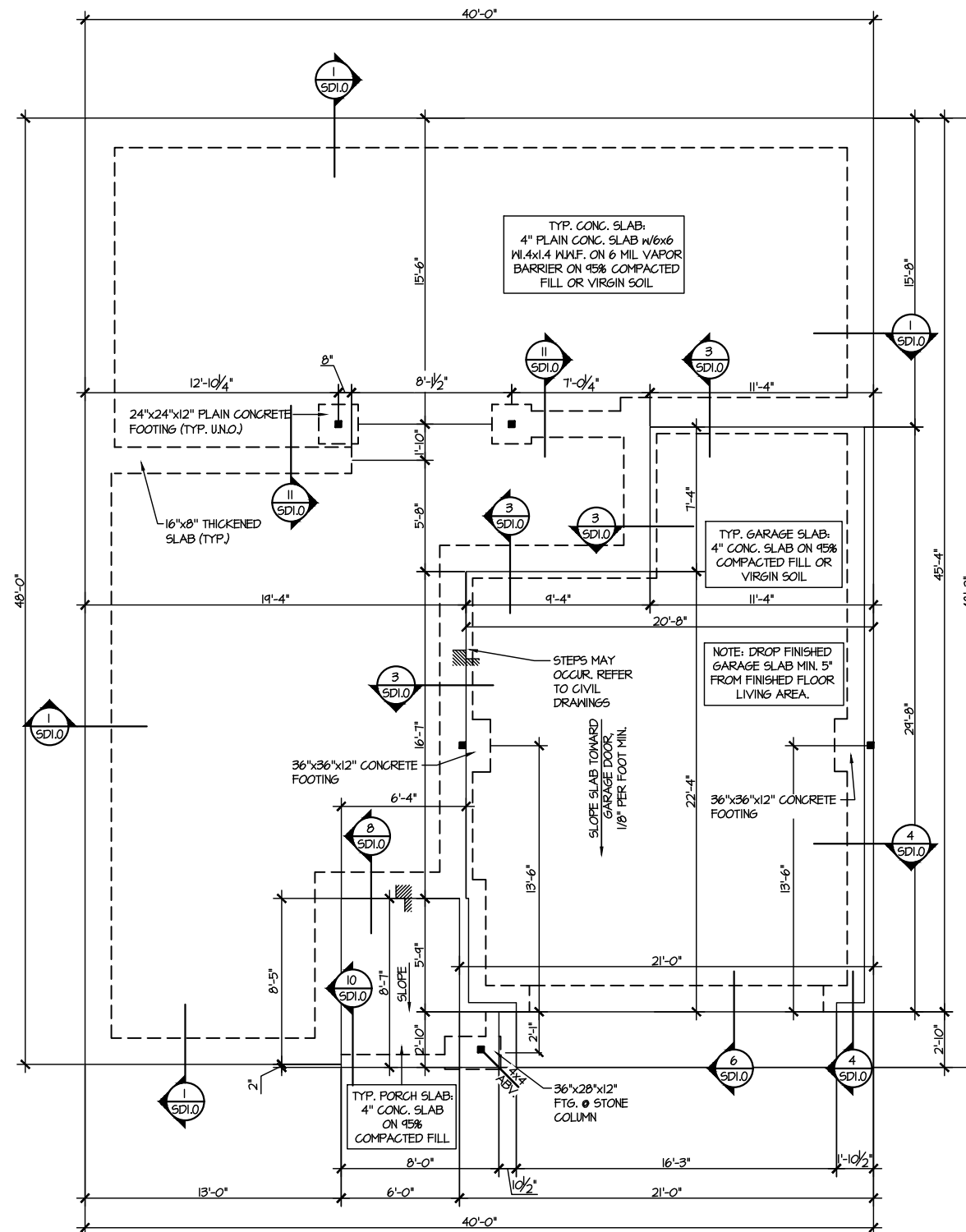
81

# CONTACT

F E L R







meet:

# \$1.01



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

## LEGEND

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

REFER TO SO.0 FOR  
TYPICAL STRUCTURAL NOTES  
& SCHEDULES

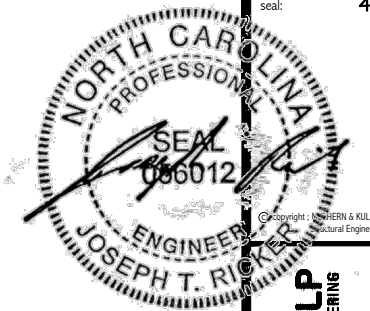
## FOUNDATION PLANS

FARM AT NEIL'S CREEK  
 OCT 1911 DAYTON, OH

LOT 181 - DRA YTON 5  
RALEIGH, NC

meet:

# S1.0



**MULHERN+KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING  
300 Bankside Ave, Building 4 - Ardmore, PA 19002  
p 215-676-8001 > [multiphase@mulhernkulp.com](mailto:multiphase@mulhernkulp.com)  
NC LICENSE #C-3825



SK project number:  
126-22076

Project mgr: JTR  
Drawn by: TEW  
Issue date: 03-31-25

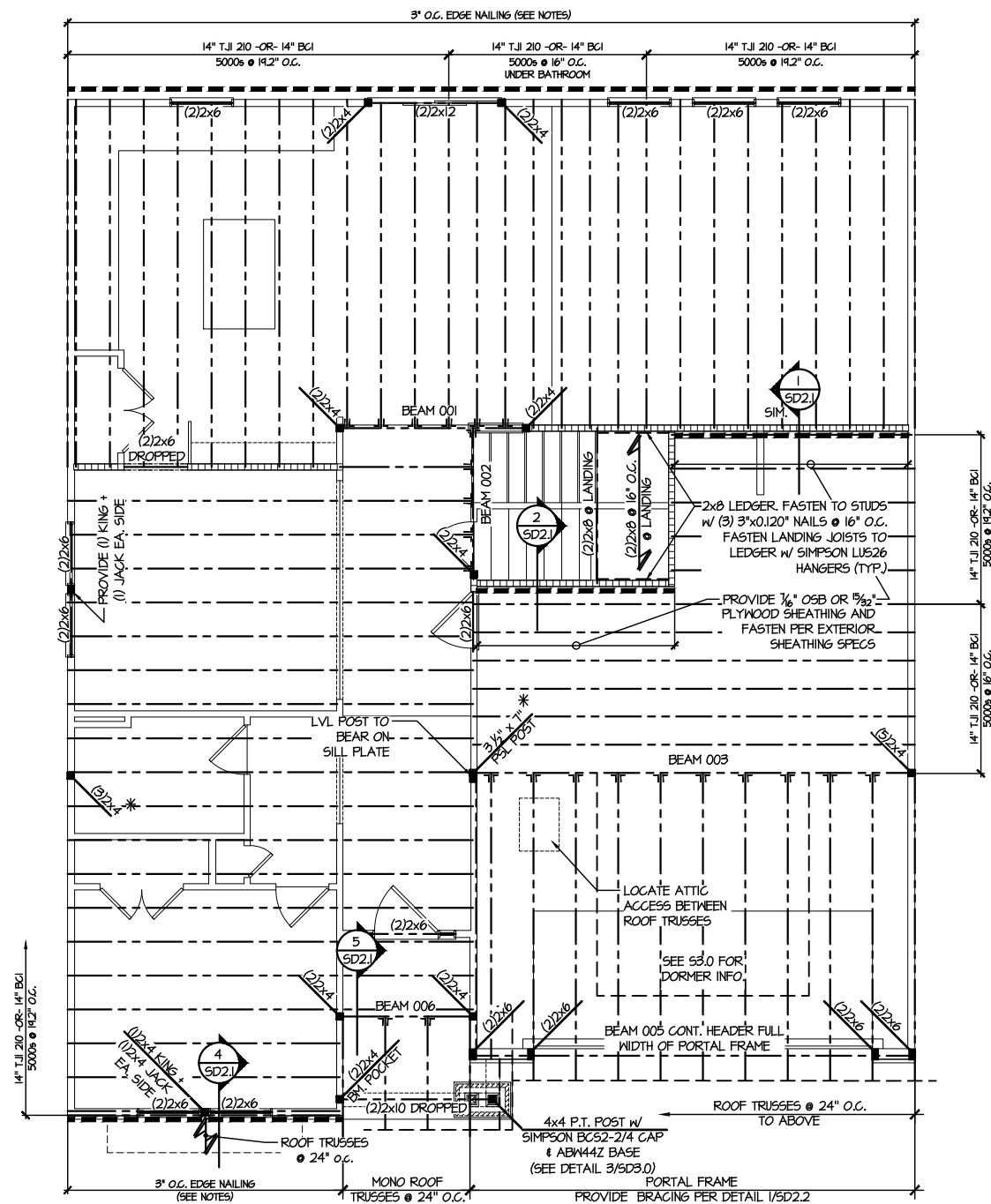
date: initial:




ANS  
JEEK

FLOOR FRAMING PLAN  
FARM AT NEIL'S CREEK  
LOT 181 - DRAYTON 5  
RALEIGH, NC

Sheet:  
**S2.0**



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







### ENGINEERED BEAM MATERIAL SCHEDULE

BEAM NUMBER	LVL OPTION	PSL OPTION	LSL OPTION	FLITCH OPTION	STEEL OPTION
001	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 1/4"x14" STEEL FLITCH PLATES - FB	W12x14 - F
002	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 1/4"x14" STEEL FLITCH PLATES - FB	W12x14 - F
003	(3)3/4"x18" - FB or (2)3/4"x20" - FB	5/4"x18" - FB	N/A	(3)2x12 + (2) 3/8"x14" STEEL FLITCH PLATES - FB	W12x26 - F
004	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 1/4"x14" STEEL FLITCH PLATES - FB	W12x14 - F
005	(2)3/4"x17 1/2" - H cont.	3/2"x17 1/2" - H cont.	(2)3/4"x17 1/2" - H cont.	(3)2x12 + (2) 3/4"x17 1/2" STEEL FLITCH PLATES - H cont.	N/A
005A	(3)3/4"x14" - H cont.	5/4"x14" - H cont.	N/A	(3)2x12 + (2) 3/4"x17 1/2" STEEL FLITCH PLATES - H cont.	N/A
006	(1)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 3/4"x14" STEEL FLITCH PLATES - FB	W12x14 - F
007	(2)3/4"x17 1/2" - D	3/2"x17 1/2" - D	(2)3/4"x17 1/2" - D	(2)2x12 + (1) 3/4"x17 1/2" STEEL FLITCH PLATES - D	W10x12 - D
008	(2)3/4"x16" - H cont.	3/2"x16" - H cont.	(3)3/4"x16" - H cont.	(3)2x12 + (2) 3/4"x16" STEEL FLITCH PLATES - H cont.	N/A
009	(2)3/4"x9 1/4" - F	3/2"x9 1/4" - F	(2)3/4"x9 1/4" - F	(2)2x10 + (1) 1/4"x9 1/4" STEEL FLITCH PLATES - F	W8x10 - F
010	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 1/4"x14" STEEL FLITCH PLATES - FB	W12x14 - F
011	(2)3/4"x14" - F	3/2"x14" - F	(2)3/4"x14" - F	(2)2x12 + (1) 1/4"x14" STEEL FLITCH PLATES - FB	W12x14 - F
012	(2)3/4"x17 1/2" - D	3/2"x17 1/2" - D	(2)3/4"x17 1/2" - D	(2)2x12 + (1) 3/4"x17 1/2" STEEL FLITCH PLATES - D	W10x12 - D

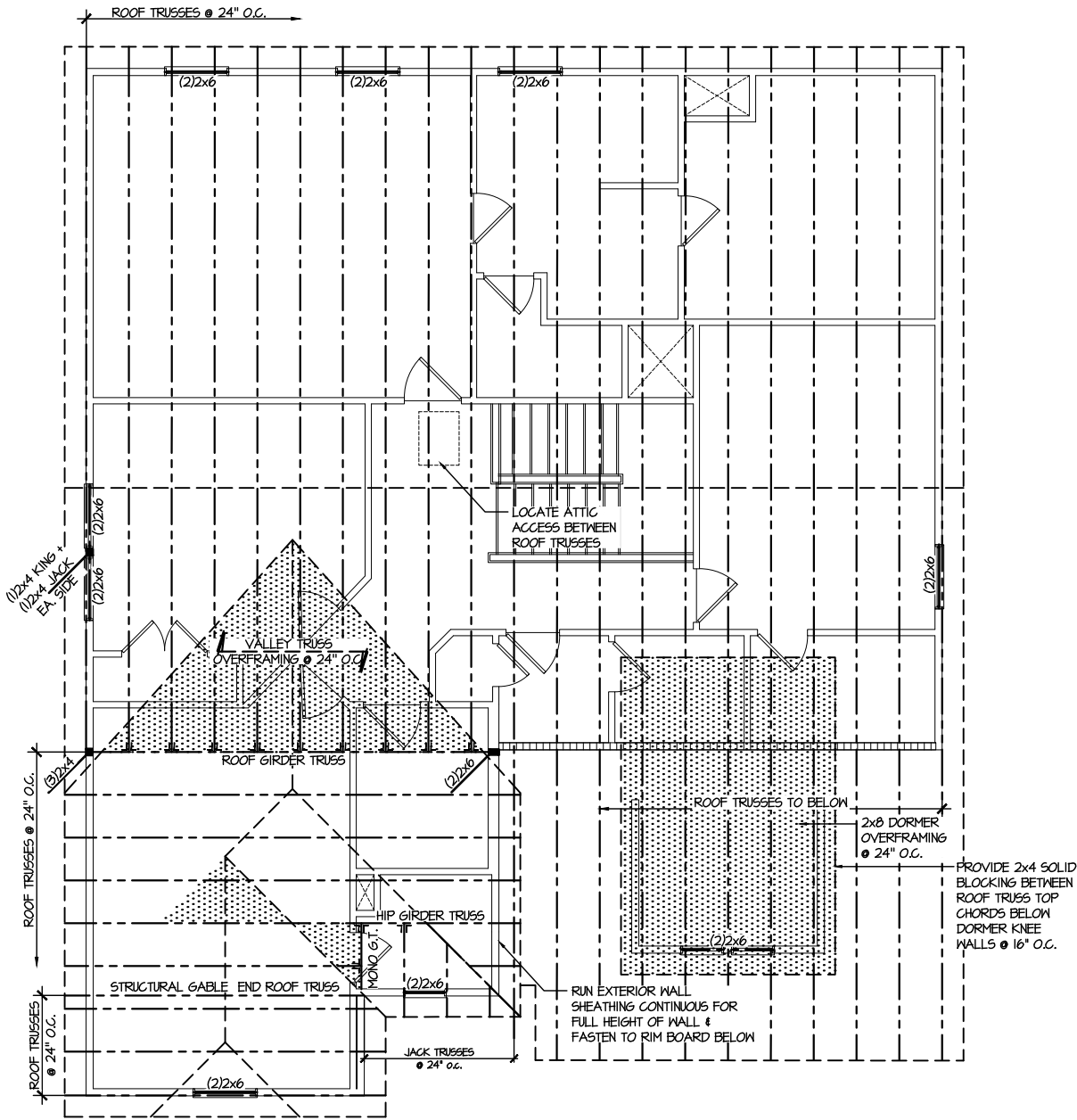
- **BEAM NOTATION:**
  - "F" INDICATES FLUSH BEAM
  - "FT" INDICATES FLUSH TOP BEAM
  - "FB" INDICATES FLUSH BOTTOM BEAM
  - "D" INDICATES DROPPED BEAM
  - "H" INDICATES DROPPED OPENING HEADER
- REFER TO DETAIL D/SD2.0 FOR TYPICAL FLITCH BEAM CONNECTIONS
- REFER TO DETAIL E/SD2.0 FOR TYPICAL STEEL BEAM CONNECTIONS
- FOR FLUSH TOP BEAMS PROVIDE 2x STACKED PLATES BENEATH BEAM AS REQ'D. FASTEN PLATES IN SUCCESSION W/ (2) 3"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.

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

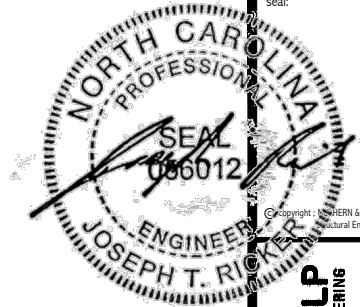
## LEGEND

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

REFER TO 50.0 FOR  
TYPICAL STRUCTURAL NOTES  
& SCHEDULES



1 HIGH ROOF FRAMING PLAN  
SCALE: 1/8"=1'-0"



**MULHERN+KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING  
300 Riverside Ave., Building 4 - Asheville, PA 10002  
P 215-546-8001 • mulhern+kulp.com  
NC LICENSE #C-3825

M&K project number:  
126-22076  
project mgr: JTR  
drawn by: TEW  
issue date: 03-31-25

REVISIONS:	
date:	initial:

**DRB**  
**HOMES**

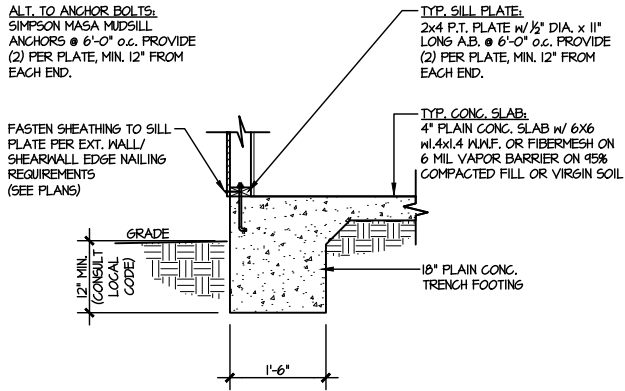
ROOF FRAMING PLANS  
FARM AT NEILS CREEK  
LOT 181 - DRAYTON 5  
RALEIGH, NC

sheet:  
**S3.0**

LEGEND

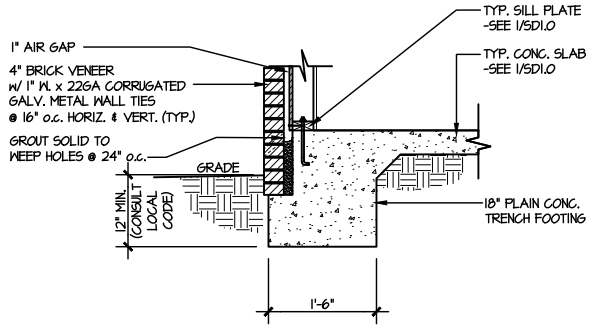
- (dashed line) INTERIOR BEARING WALL
- (dashed line) BEARING WALL ABOVE
- (solid line) BEAM / HEADER
- (dashed line) INDICATES SHEAR WALL & EXTENT
- (stippled area) EXTENT OF OVERFRAMING
- 1L METAL HANGER
- \* INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
- ▴ INDICATES HOLD-DOWN OR STRAP. REFER TO SCHEDULE.

REFER TO S.O. FOR  
TYPICAL STRUCTURAL NOTES  
& SCHEDULES



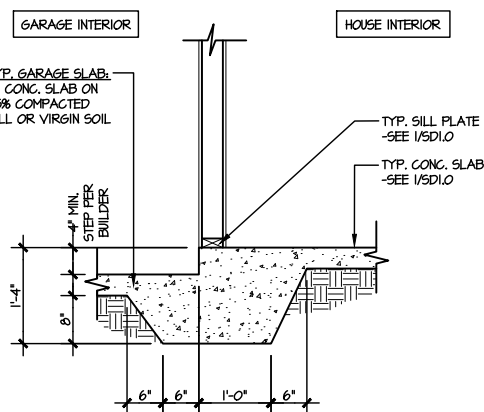
**1** TYPICAL SLAB ON GRADE  
PERIMETER FOOTING

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



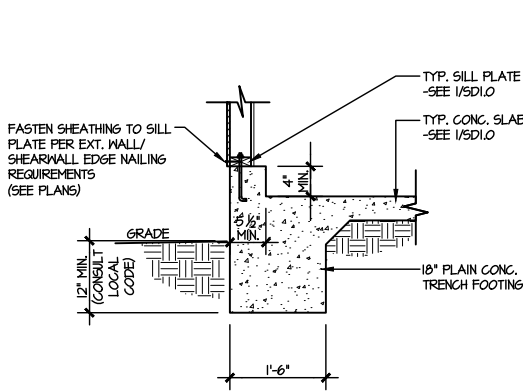
**2** TYPICAL SLAB ON GRADE  
PERIMETER FOOTING

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



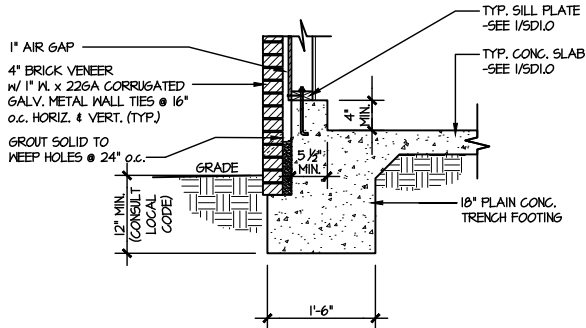
**3** TYPICAL MONOLITHIC INTERIOR  
GARAGE FOOTING

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



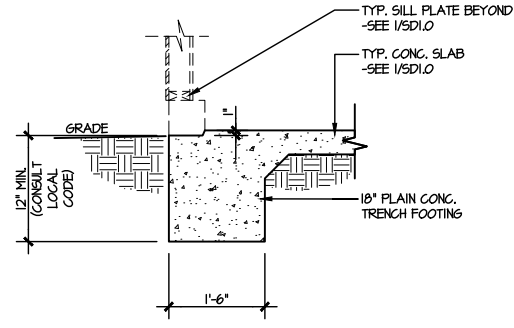
**4** TYPICAL SLAB ON GRADE GARAGE  
PERIMETER FOOTING

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



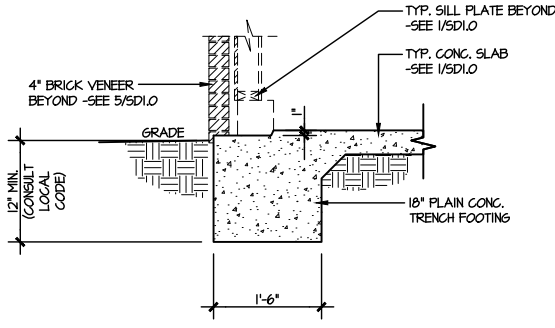
**5** TYPICAL SLAB ON GRADE GARAGE  
PERIMETER FOOTING

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



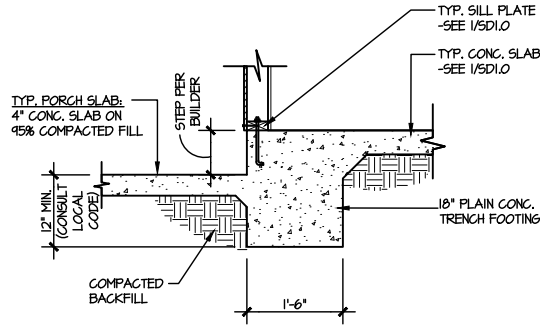
**6** TYPICAL SLAB ON GRADE GARAGE  
ENTRY @ PERIMETER FOOTING

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



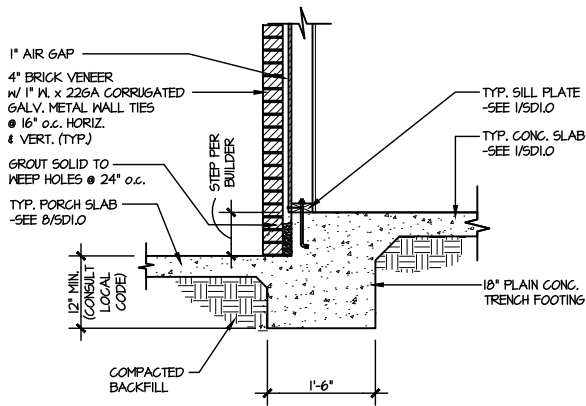
**7** TYPICAL SLAB ON GRADE GARAGE  
ENTRY @ PERIMETER FOOTING

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



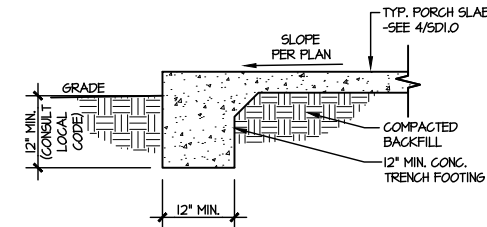
**8** TYPICAL SLAB ON GRADE PERIMETER  
FOOTING @ PORCH/PATIO

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



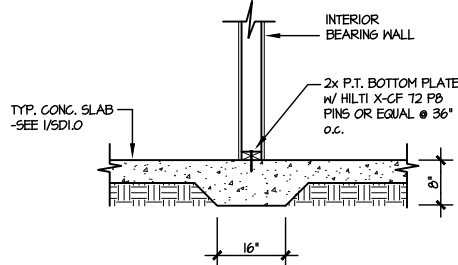
**9** TYPICAL SLAB ON GRADE PERIMETER  
FOOTING @ PORCH/PATIO

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



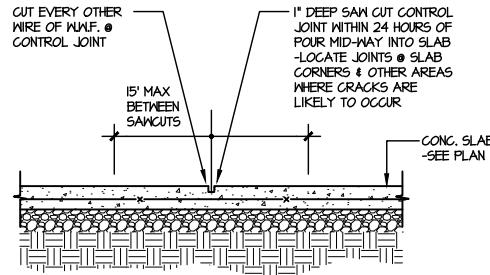
**10** TYPICAL FOOTING @ PORCH SLAB

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



**11** TYPICAL THICKENED SLAB @  
INTERIOR BEARING WALL

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



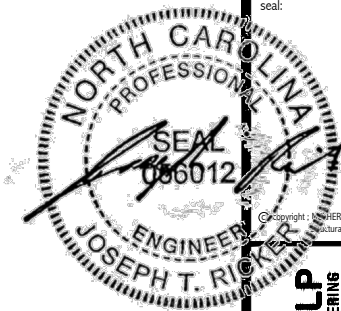
**A** TYPICAL CONTROL JOINT

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

LOCATE @ 15'-0" o.c. MAX.  
OR CORNERS WHERE 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.



seal: 4/1/25

**MULHERN+KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING  
300 Bunkle Ave., Building 4 - Asheville, PA 10002  
P 215-546-8001 - mulhern+kulp.com  
NC LICENSE #C-3825



M&K project number:  
126-22076

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

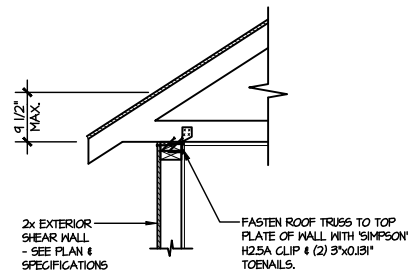
REVISIONS:  
date: initial:

**DRB**  
**HOMES**

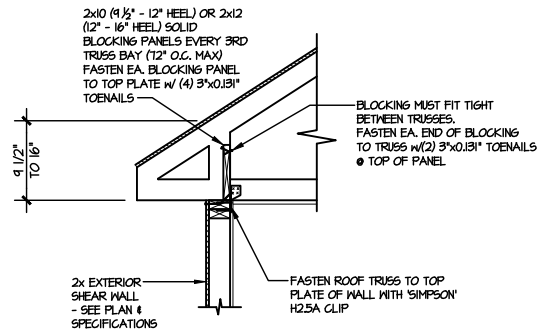
FOUNDATION DETAILS  
FARM AT NEILS CREEK  
LOT 181 - DRAYTON 5  
RALEIGH, NC

sheet:

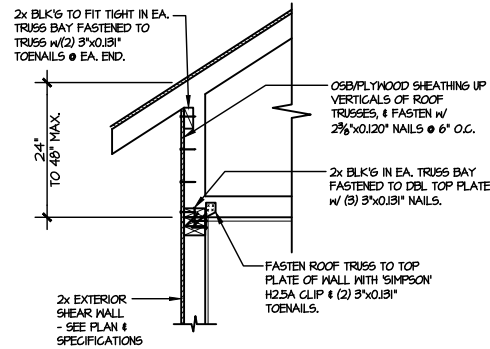
**SD1.0**



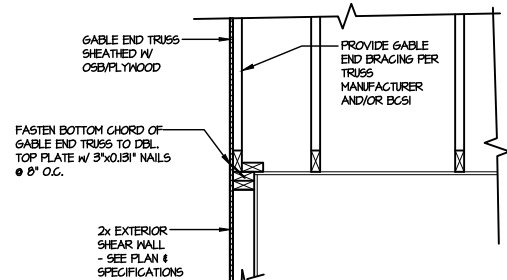
**TYPICAL SHEAR  
TRANSFER DETAIL @ ROOF**  
**A1** SCALE: 3/8"=1'-0" HEEL HEIGHT LESS THAN 9 1/2"  
NO BLOCKING REQ'D



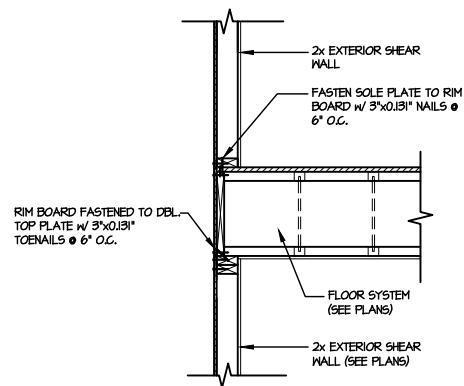
**TYPICAL SHEAR  
TRANSFER DETAIL @ ROOF**  
**A2** SCALE: 3/8"=1'-0" HEEL HEIGHT BETWEEN 9 1/2" - 16"  
BLOCKING REQ'D



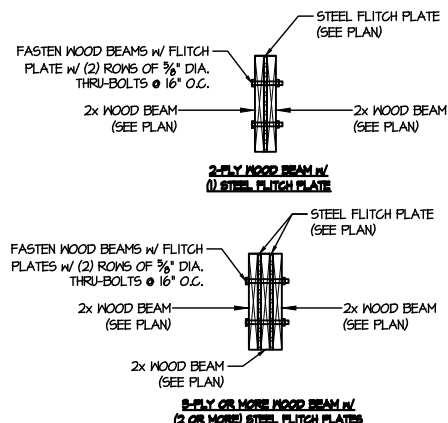
**TYPICAL SHEAR TRANSFER  
DETAIL @ RAISED HEEL TRUSS**  
**A3** SCALE: 3/8"=1'-0" HEEL HEIGHT UP TO 48" MAX.



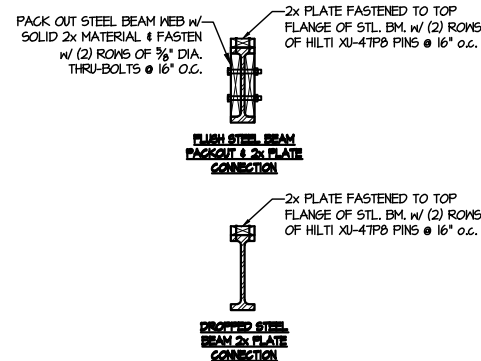
**TYPICAL GABLE END DETAIL**  
**B** SCALE: 3/8"=1'-0"



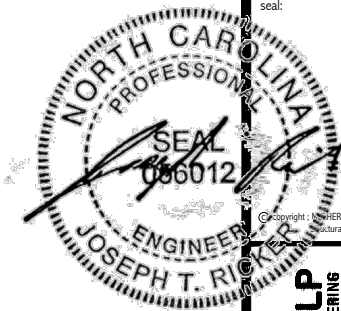
**TYPICAL SHEAR TRANSFER DETAIL  
BETWEEN FLOORS @ EXTERIOR WALL**  
**C** SCALE: 3/8"=1'-0"



**TYPICAL FLITCH BEAM CONNECTION DETAIL**  
**D** SCALE: 3/4"=1'-0"



**TYPICAL STEEL BEAM CONNECTION DETAIL**  
**E** SCALE: 3/4"=1'-0"



**MULHERN+KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING  
300 Bunkie Ave, Building 4 - Asheville, PA 10002  
P 252-946-8001 • mulhern+kulp.com  
NC LICENSE #C-3825

M&K project number:  
**126-22076**  
project mgr: **JTR**  
drawn by: **TEW**  
issue date: **03-31-25**

REVISIONS:  
date: initial:

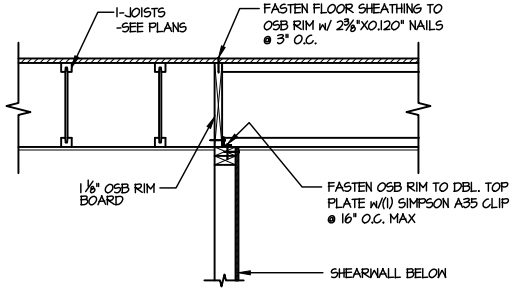
**DRB**  
**HOMES**

**FRAMING DETAILS**  
**FARM AT NEIL'S CREEK**  
**LOT 181 - DRAYTON 5**  
**RALEIGH, NC**

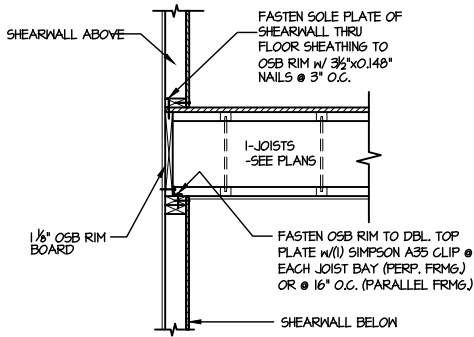
sheet:  
**SD2.0**

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

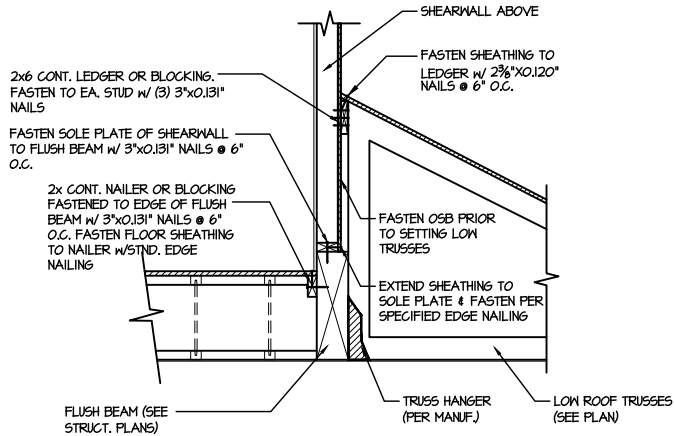
NUMBERED DETAILS ARE PLAN SPECIFIC AND ARE ONLY REQUIRED WHERE SPECIFICALLY INDICATED ("CUT") ON THE PLANS.



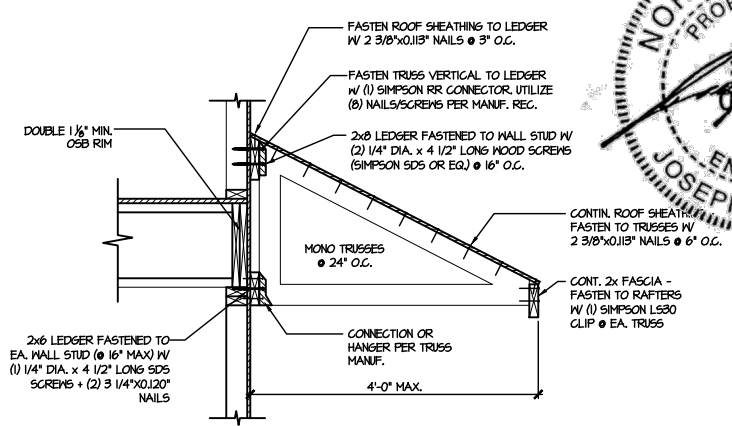
**1** SHEAR TRANSFER DETAIL @ INTERIOR SHEARWALL BELOW  
SCALE: 3/4"=1'-0" PARALLEL FRAMING



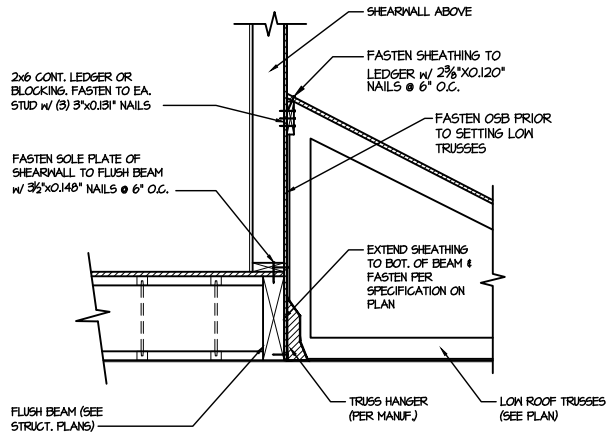
**2** SHEAR TRANSFER DETAIL @ INT. SHEARWALL ABOVE & BELOW  
SCALE: 3/4"=1'-0" EDGE OF FRAMING



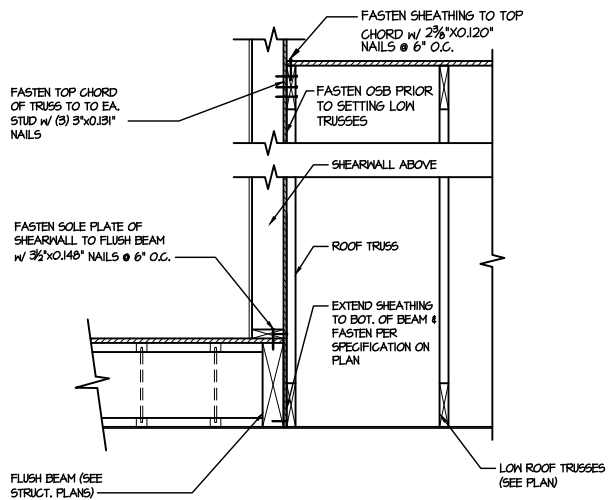
**3** SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE  
SCALE: 3/4"=1'-0"



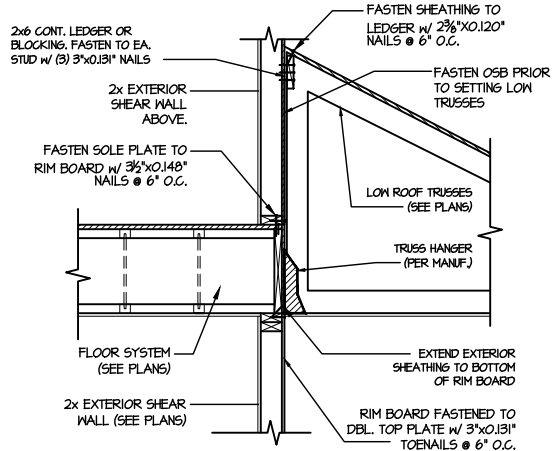
**4** DETAIL @ SHED ROOF  
SCALE: 3/8"=1'-0"



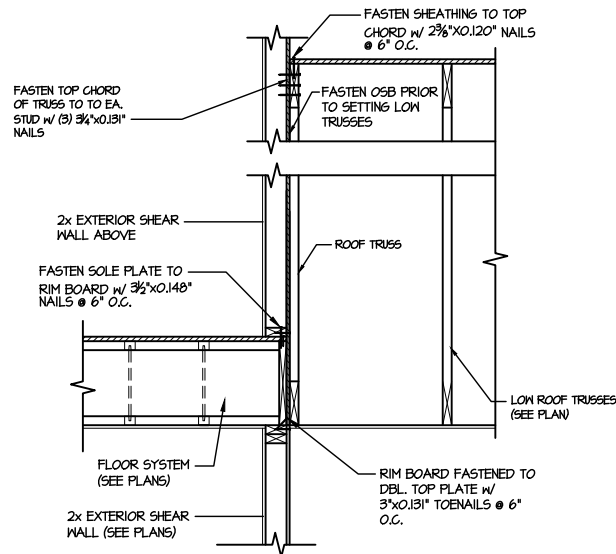
**5** SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE  
SCALE: 3/4"=1'-0"



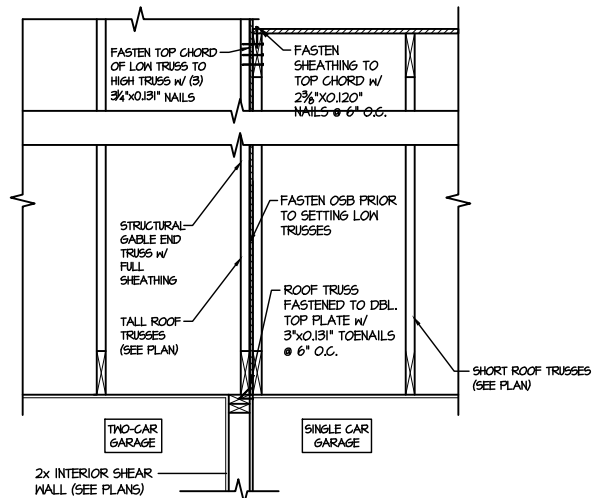
**6** SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE  
SCALE: 3/4"=1'-0"



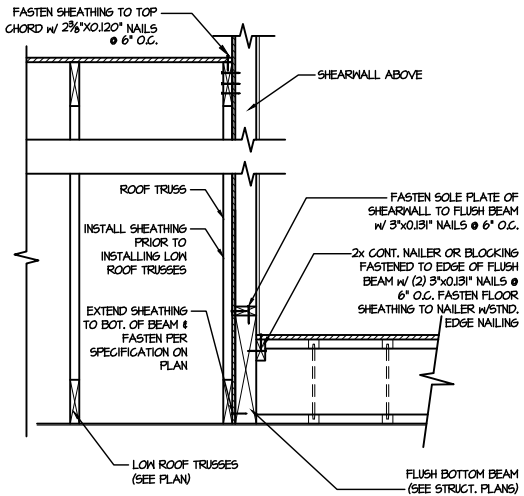
**7** TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ INTERIOR WALL  
SCALE: 3/4"=1'-0"



**8** TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ INTERIOR WALL  
SCALE: 3/4"=1'-0"



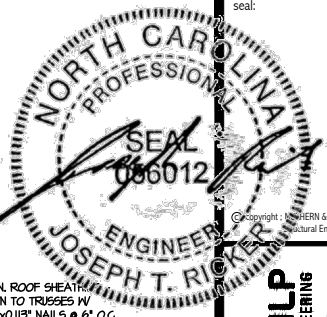
**9** TYPICAL SHEAR TRANSFER DETAIL BETWEEN GARAGE BAYS  
SCALE: 3/4"=1'-0"



**13** SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE  
SCALE: 3/4"=1'-0"

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.



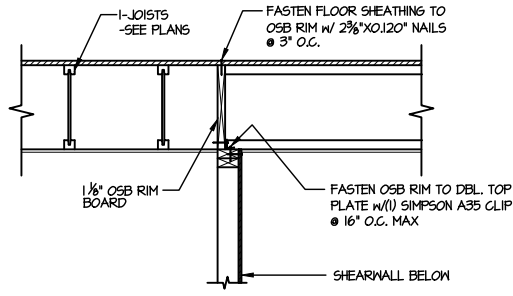
M&K project number: 126-22076  
project mgr: JTR  
drawn by: TEW  
issue date: 03-31-25

REVISIONS:  
date: initial:

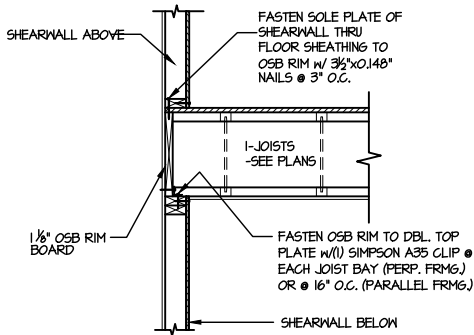


FRAMING DETAILS  
FARM AT NEILS CREEK  
LOT 181 - DRAYTON 5  
RALEIGH, NC

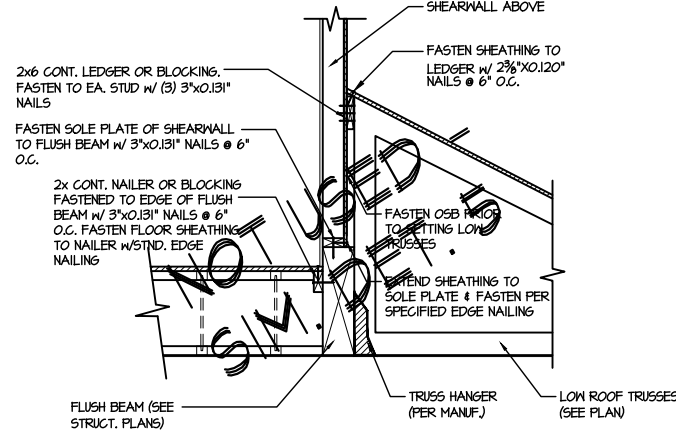
sheet: SD2.1A



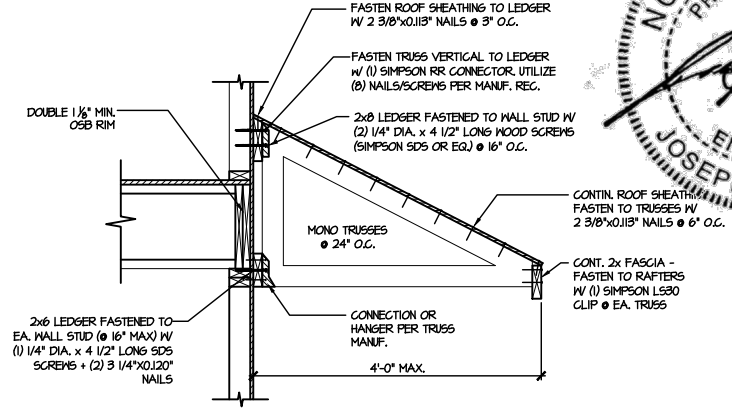
**1** SHEAR TRANSFER DETAIL @ INTERIOR SHEARWALL BELOW  
SCALE: 3/4"=1'-0"  
PARALLEL FRAMING



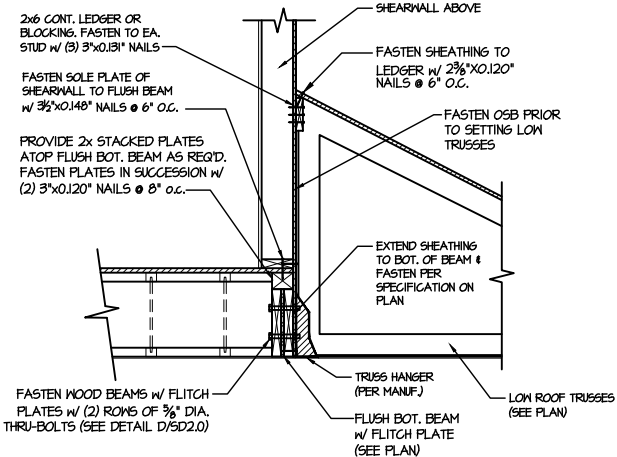
**2** SHEAR TRANSFER DETAIL @ INT. SHEARWALL ABOVE & BELOW  
SCALE: 3/4"=1'-0"  
EDGE OF FRAMING



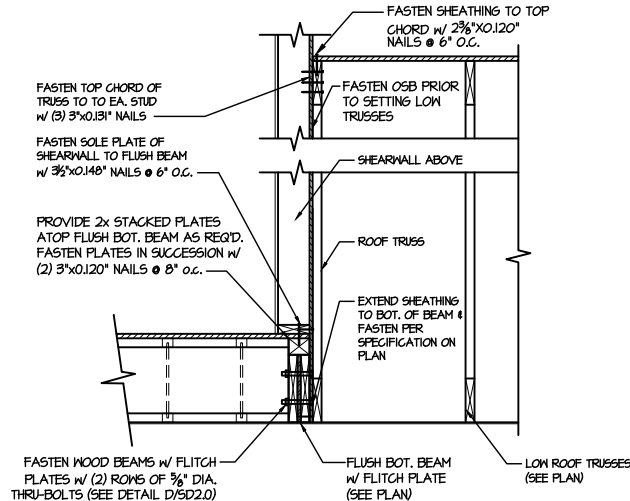
**3** SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE  
SCALE: 3/4"=1'-0"



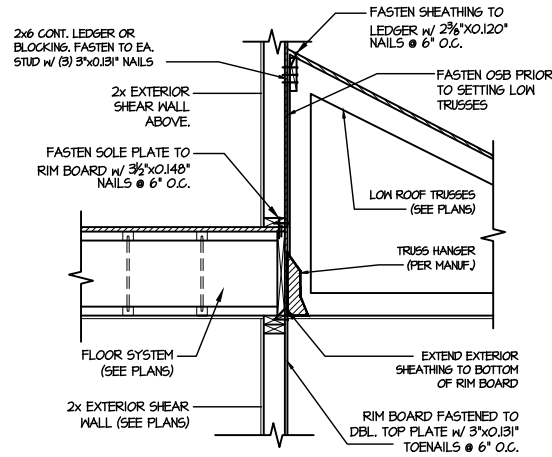
**4** DETAIL @ SHED ROOF  
SCALE: 3/8"=1'-0"



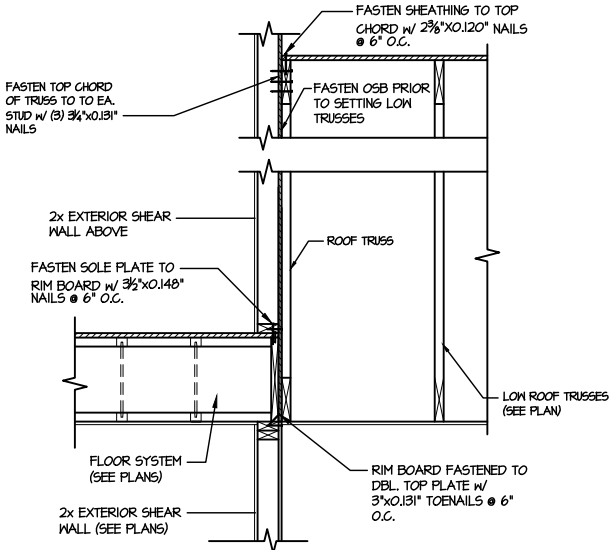
**5** SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE  
SCALE: 3/4"=1'-0"



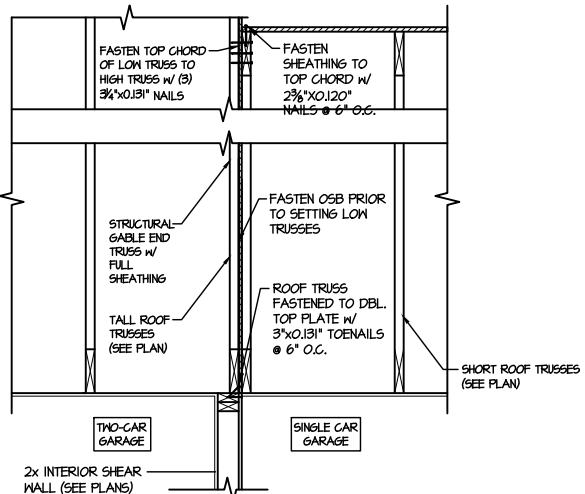
**6** SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE  
SCALE: 3/4"=1'-0"



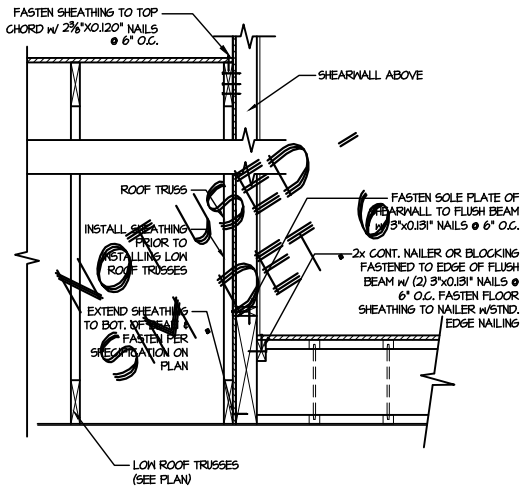
**7** TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ INTERIOR WALL  
SCALE: 3/4"=1'-0"



**8** TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ INTERIOR WALL  
SCALE: 3/4"=1'-0"



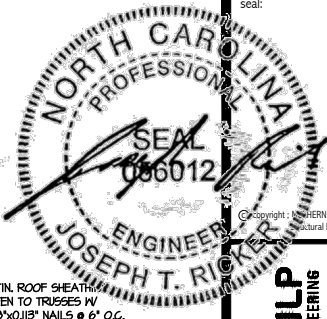
**9** TYPICAL SHEAR TRANSFER DETAIL BETWEEN GARAGE BAYS  
SCALE: 3/4"=1'-0"



**13** SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE  
SCALE: 3/4"=1'-0"

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.



**MULHERN+KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING  
300 Bunkieville Ave., Building 4 - Asheville, PA 18002  
P 215-545-8801 • mulhern+kulp.com  
NC LICENSE #C-3825

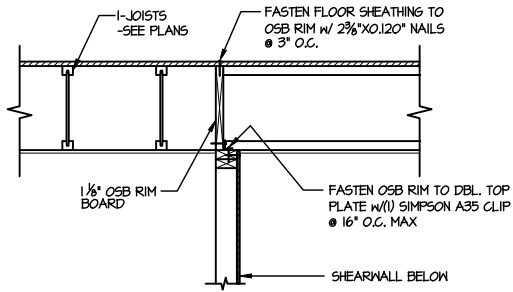
M&K project number:  
**126-22076**  
project mgr: JTR  
drawn by: TEW  
issue date: 03-31-25

REVISIONS:  
date: initial:

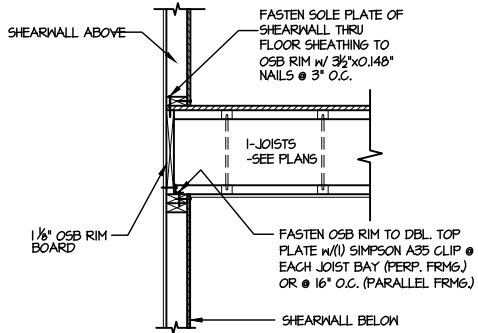
**DRB HOMES**

FRAMING DETAILS  
**FARM AT NEILS CREEK**  
LOT 181 - DRAYTON 5  
RALEIGH, NC

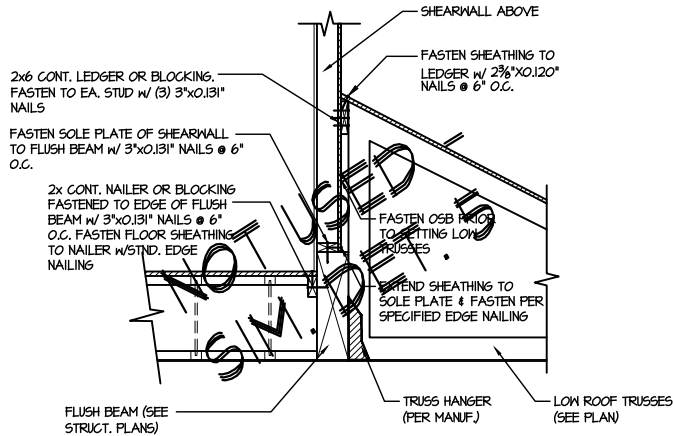
sheet:  
**SD2.1B**



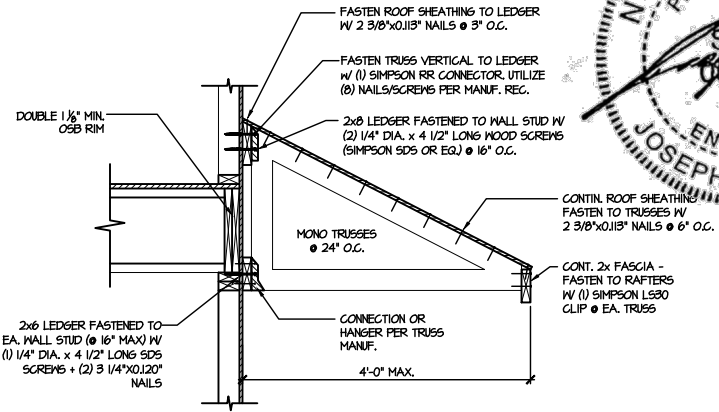
**1** SHEAR TRANSFER DETAIL @ INTERIOR SHEARWALL BELOW  
SCALE: 3/4"=1'-0" PARALLEL FRAMING



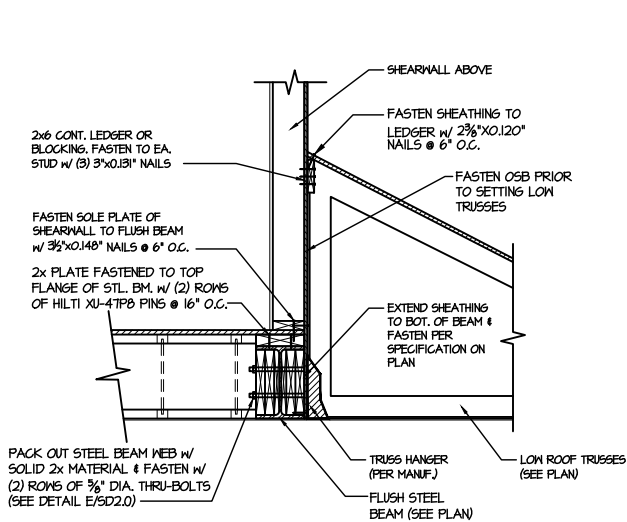
**2** SHEAR TRANSFER DETAIL @ INT. SHEARWALL ABOVE & BELOW  
SCALE: 3/4"=1'-0" EDGE OF FRAMING



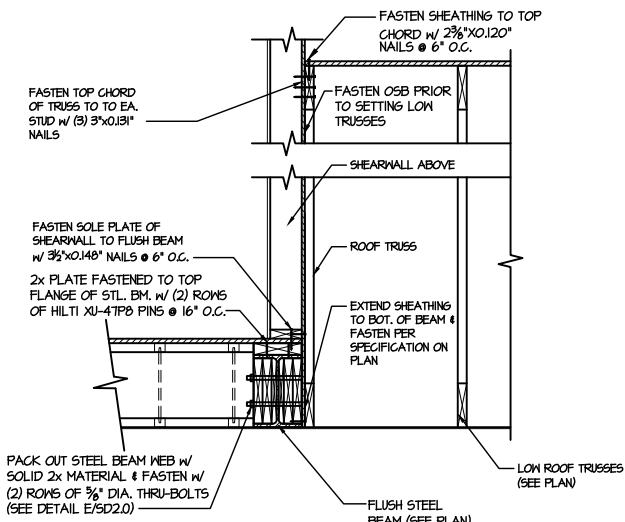
**3** SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE  
SCALE: 3/4"=1'-0"



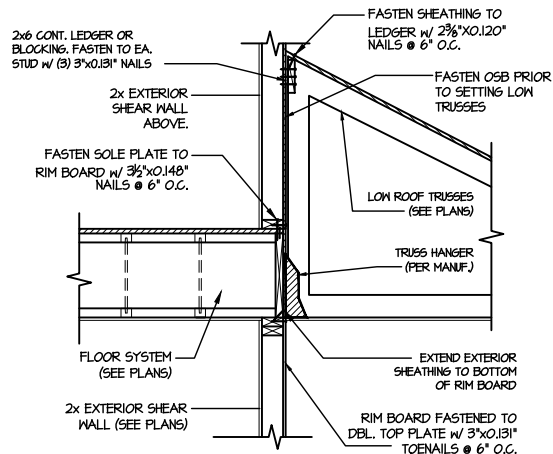
**4** DETAIL @ SHED ROOF  
SCALE: 3/8"=1'-0"



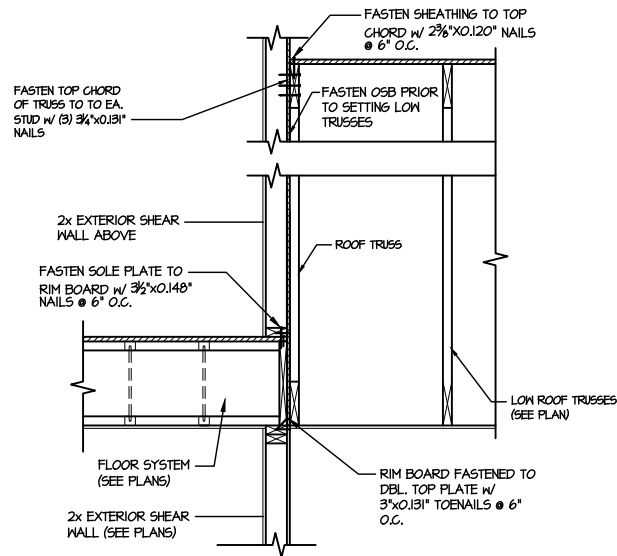
**5** SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE  
SCALE: 3/4"=1'-0"



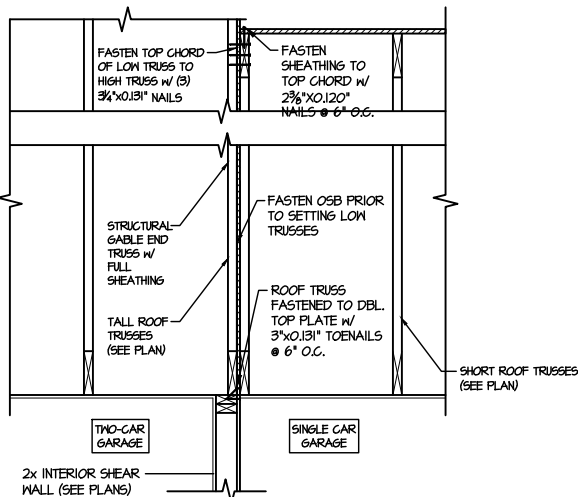
**6** SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE  
SCALE: 3/4"=1'-0"



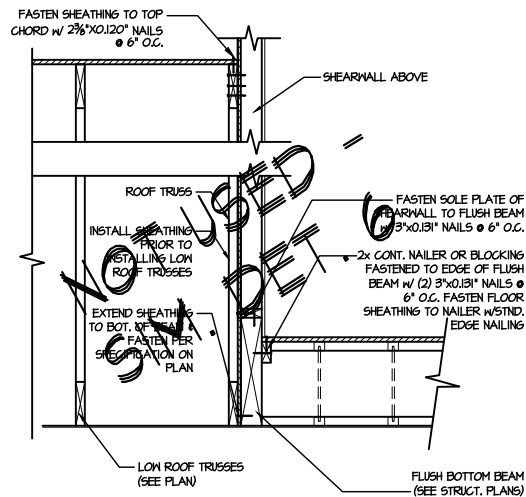
**7** TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ INTERIOR WALL  
SCALE: 3/4"=1'-0"



**8** TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ INTERIOR WALL  
SCALE: 3/4"=1'-0"



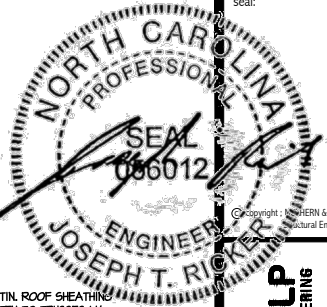
**9** TYPICAL SHEAR TRANSFER DETAIL BETWEEN GARAGE BAYS  
SCALE: 3/4"=1'-0"



**13** SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE  
SCALE: 3/4"=1'-0"

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.

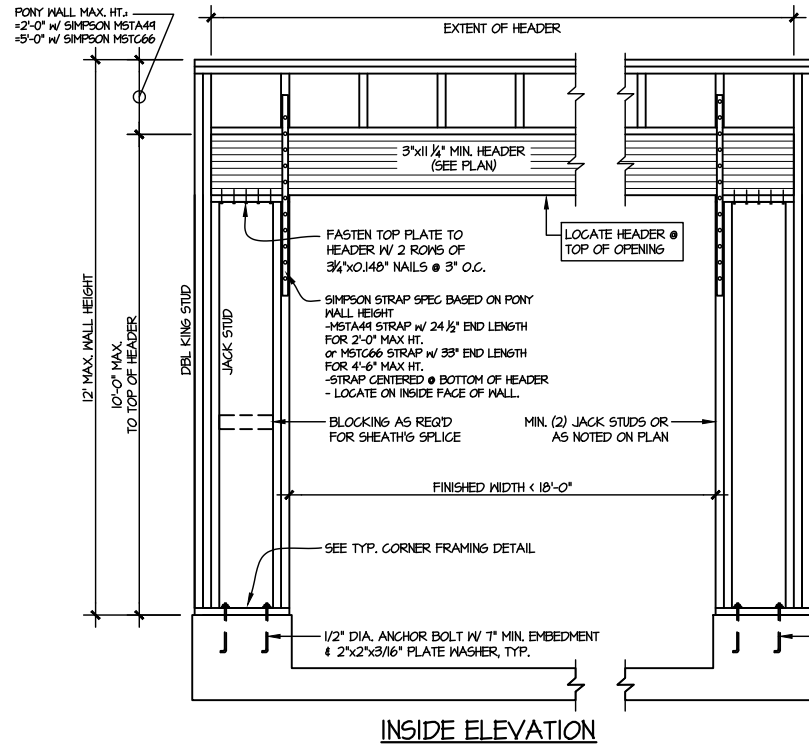
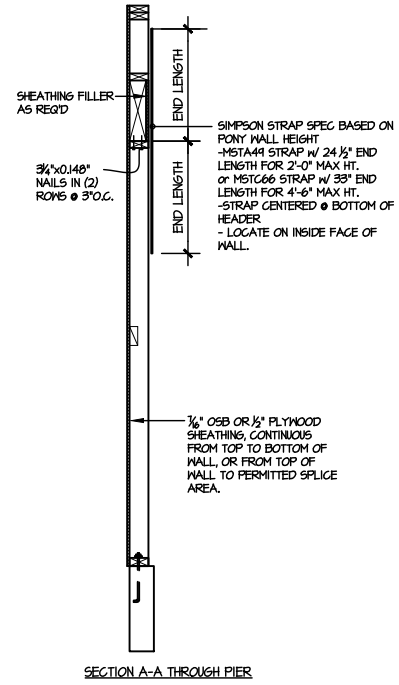
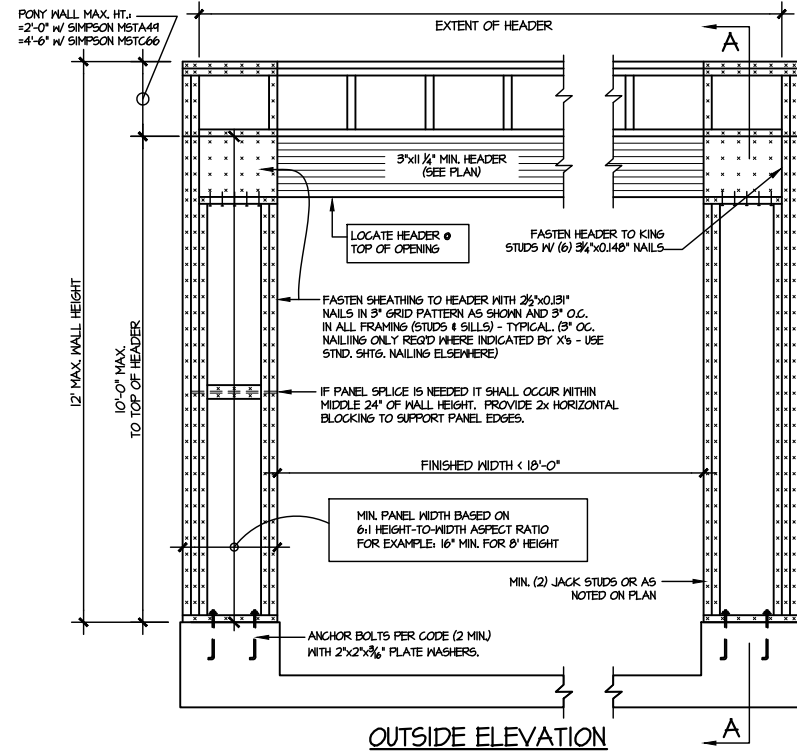


M&K project number: 126-22076  
project mgr: JTR  
drawn by: TEW  
issue date: 03-31-25

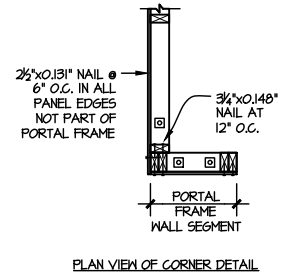
REVISIONS:  
date: initial:



FRAMING DETAILS  
FARM AT NEILS CREEK  
LOT 181 - DRAYTON 5  
RALEIGH, NC

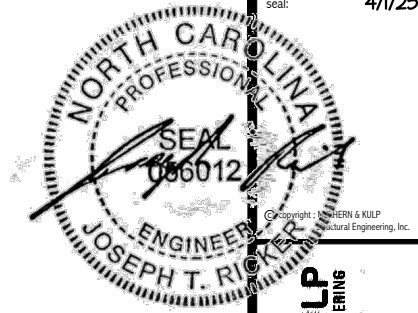


NOTE: ALL SHEATHABLE AREAS OF EXTERIOR WALL SHALL BE FULLY SHEATHED WITH 1/2" PLYWOOD OR 1/2" OSB



- ALTERNATIVES TO 1/2" DIA. ANCHOR BOLT:
- 1) 1/2" DIA. x 6" LONG SIMPSON TITEN HD
  - 2) 1/2" DIA. THREADED ROD EPOXY SET w/ 4 1/2" EMBED. (MIN UTILIZING HILTI HY200 EPOXY ANCHORING SYSTEM (OR EQUAL))

TWO SIDED GARAGE PORTAL FRAME BRACING  
ELEVATION ON CONCRETE STEM  
SCALE: N.T.S.



**MULHERN+KULP**  
RESIDENTIAL STRUCTURAL ENGINEERING  
300 Riverside Ave., Building 4 - Asheville, PA 18002  
P 215-545-8801 • mulhern+kulp.com  
NC LICENSE #C-3825

M&K project number:  
**126-22076**

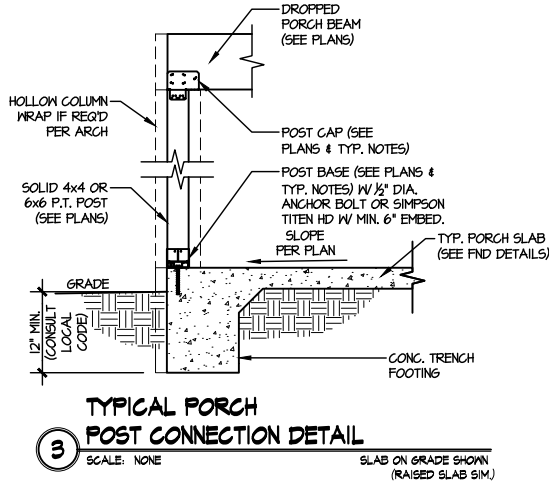
project mgr: **JTR**  
drawn by: **TEW**  
issue date: **03-31-25**

REVISIONS:  
date: initial:

**DRB**  
**HOMES**

FRAMING DETAILS  
**FARM AT NEIL'S CREEK**  
LOT 181 - DRAYTON 5  
RALEIGH, NC

sheet:  
**SD2.2**



seal:

4/1/25

SEAL

086012

ENGINEER

JOSEPH T. RICKER

MULHERN+KULP

RESIDENTIAL STRUCTURAL ENGINEERING

300 Bunkle Ave, Building 4 - Ardur, PA 10002

P 215-546-8001 • mulhern+kulp.com

NC LICENSE #C-3825

MULHERN+KULP

RESIDENTIAL STRUCTURAL ENGINEERING

300 Bunkle Ave, Building 4 - Ardur, PA 10002

P 215-546-8001 • mulhern+kulp.com

NC LICENSE #C-3825

M&K project number:  
126-22076

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

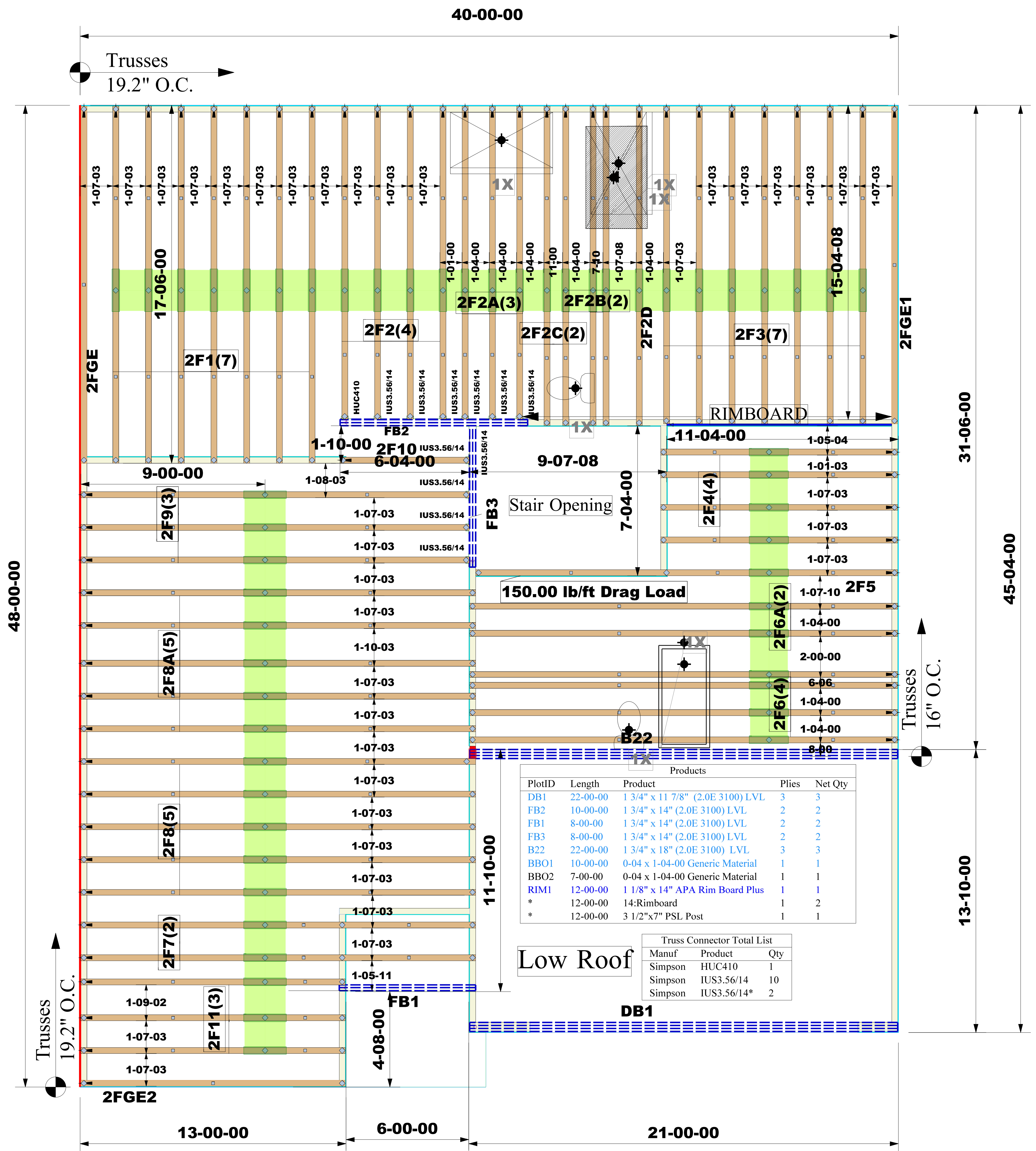
REVISIONS:  
date: initial:

FRAMING DETAILS

FARM AT NEIL'S CREEK  
LOT 181 - DRAYTON 5  
RALEIGH, NC

sheet:  
SD3.0

**FLOOR TRUSS LAYOUT**  
SCALE: NTS

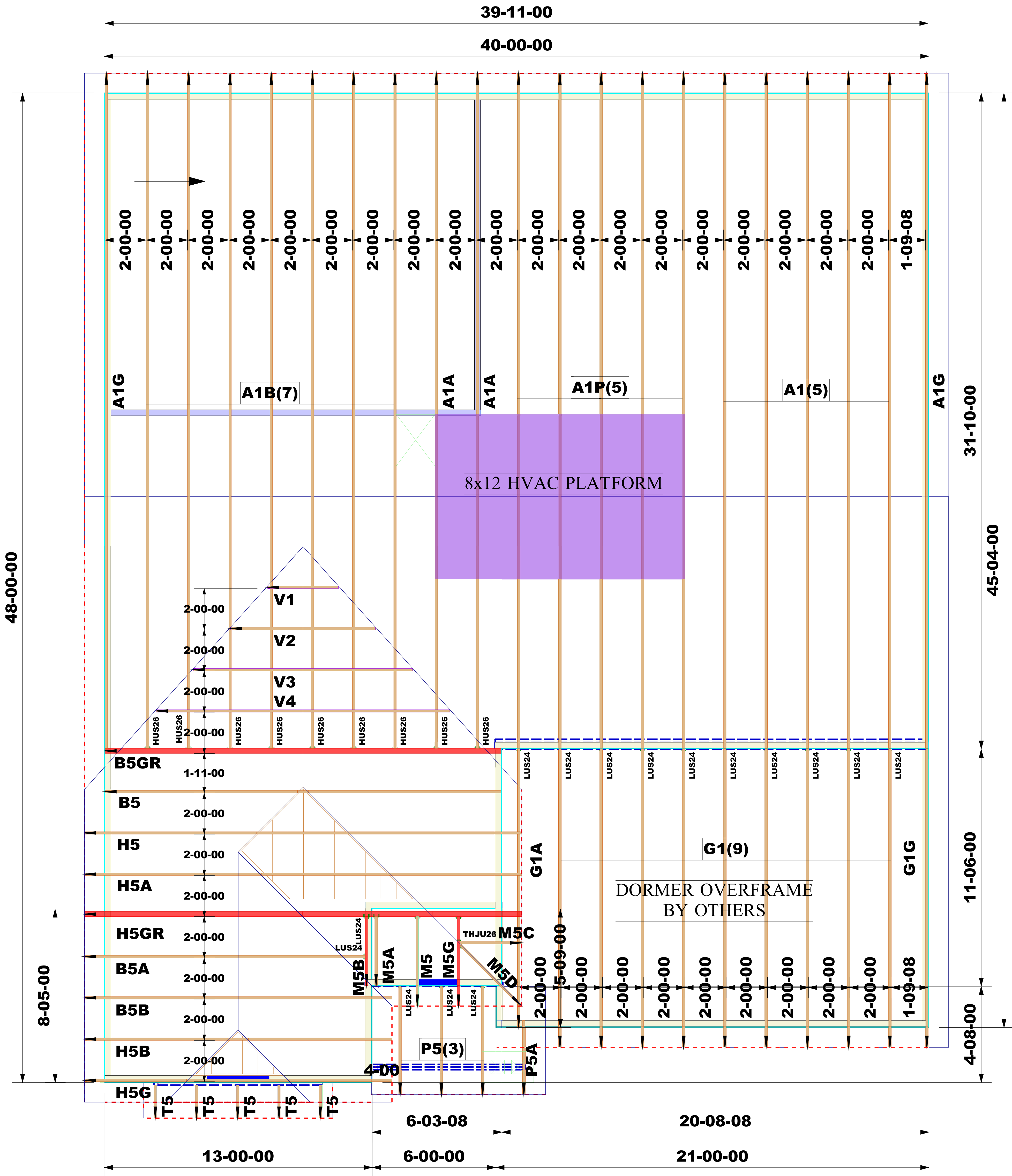


ELEV.5  
2nd FLOOR FRAMING

The Farm at Neills Creek(NC)(RAL)  
 Lot 00.0181  
 Drayton rev2  
 Elev 5  
 Garage Right

		Products		
PlotID	Length	Product	Plies	Net Qty
DB1	22-00-00	1 3/4" x 11 7/8" (2.0E 3100) LVL	3	3
FB2	10-00-00	1 3/4" x 14" (2.0E 3100) LVL	2	2
FB1	8-00-00	1 3/4" x 14" (2.0E 3100) LVL	2	2
FB3	8-00-00	1 3/4" x 14" (2.0E 3100) LVL	2	2
B22	22-00-00	1 3/4" x 18" (2.0E 3100) LVL	3	3
BBO1	10-00-00	0-04 x 1-04-00 Generic Material	1	1
BBO2	7-00-00	0-04 x 1-04-00 Generic Material	1	1
RIM1	12-00-00	1 1/8" x 14" APA Rim Board Plus	1	1
*	12-00-00	14:Rimboard	1	2
*	12-00-00	3 1/2"x7" PSL Post	1	1

Truss Connector Total List		
Manuf	Product	Qty
Simpson	HUC410	1
Simpson	IUS3.56/14	10
Simpson	IUS3.56/14*	2



ELEV.5

\*INSTALL SIMPSON H2.5A HURRICANE ANCHORS AT EACH BEARING POINT

ROOF FRAMING PLAN

Truss Connector Total List		
Manuf	Product	Qty
Simpson	LUS24	23
Simpson	HUS26	10
Simpson	THJU26	1
Simpson	H2.5A	75
Simpson	A35	5

The Farm at Neills Creek (NC)(RAL)  
Lot 00.0181  
Drayton rev2  
Elev 5  
Right Garage