

RALEIGH - LOT 00.0021 THE FARM AT NEILL'S CREEK

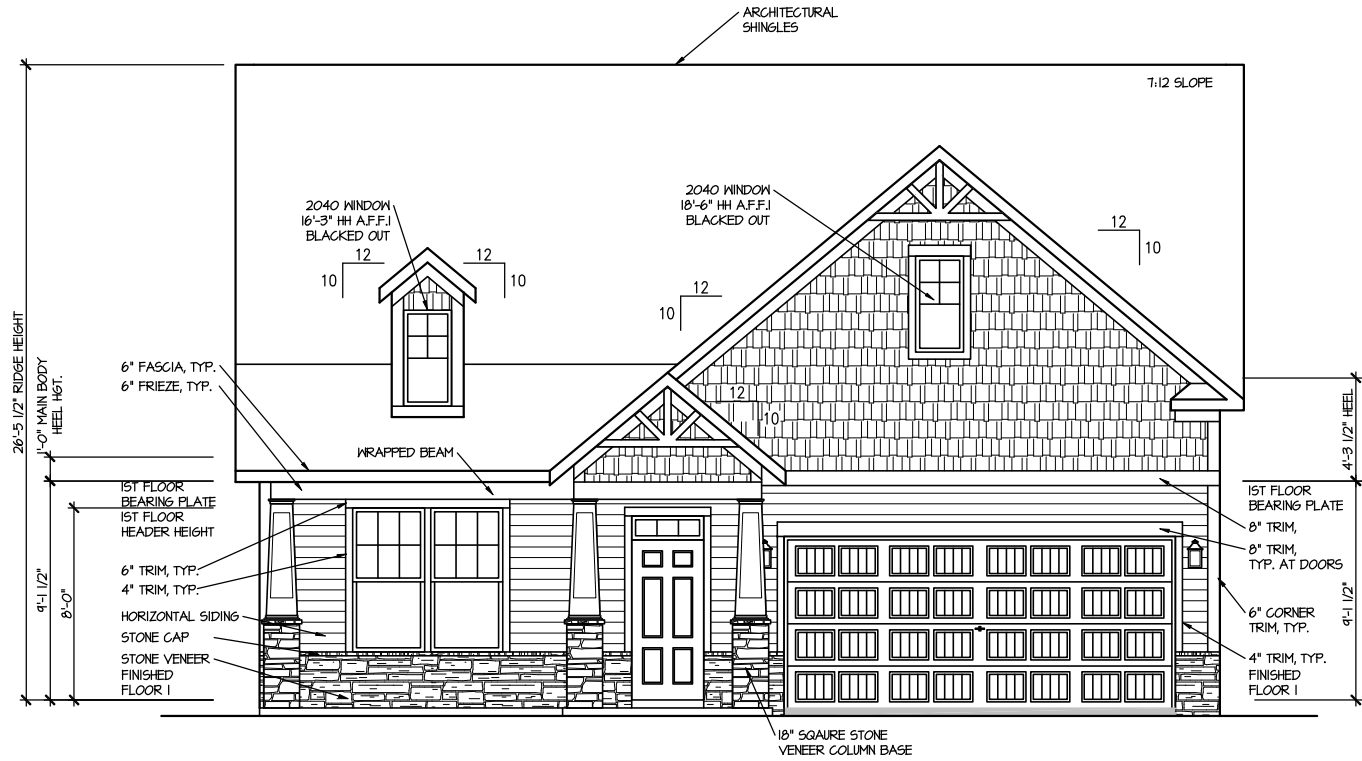
ELEVATION 9 - GR

LOT SPECIFIC

1	LOT 00.0021	THE FARM AT NEILL'S CREEK
		COOPER 3 REV. RALE 4 ELEVATION 9
2	ADDRESS	218 PEACH GROVE WAY LILLINGTON, NC 27546

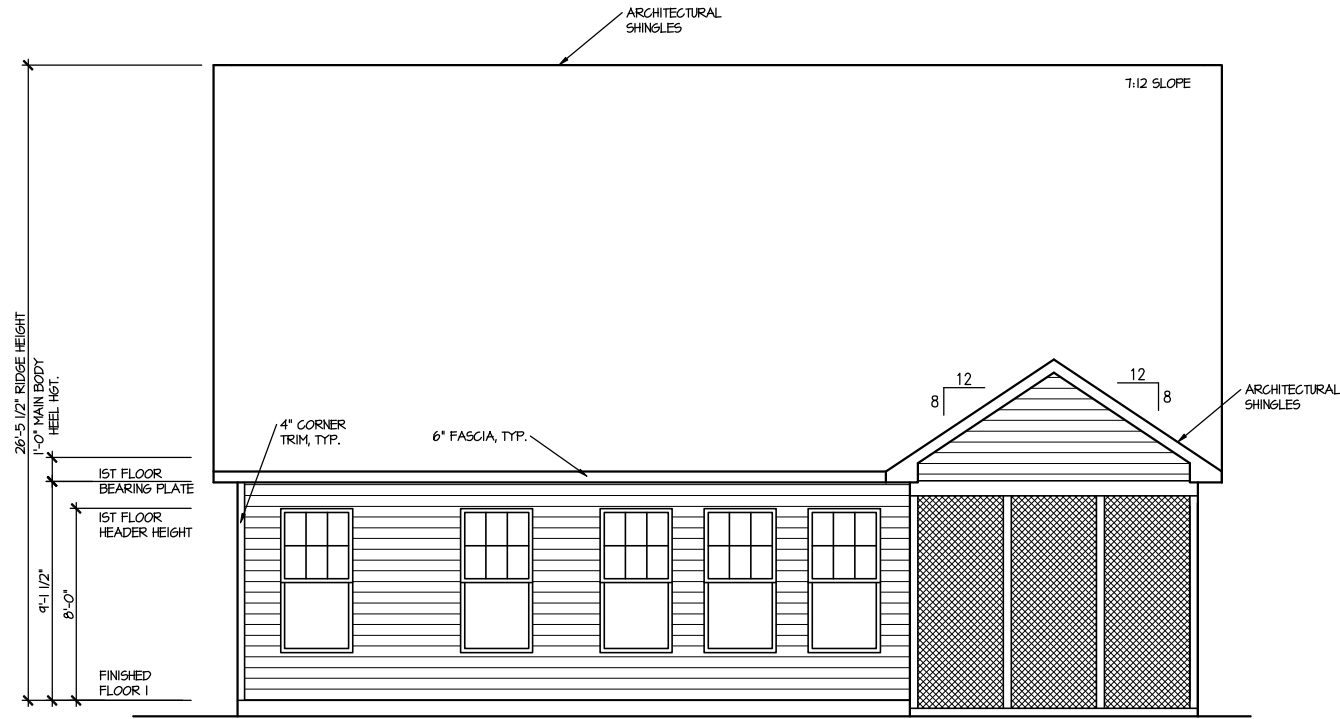
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FILE: Lot_00.0021.dwg DATE: 7/11/2025 10:38 AM



FRONT ELEVATION 9

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



REAR ELEVATION 9

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

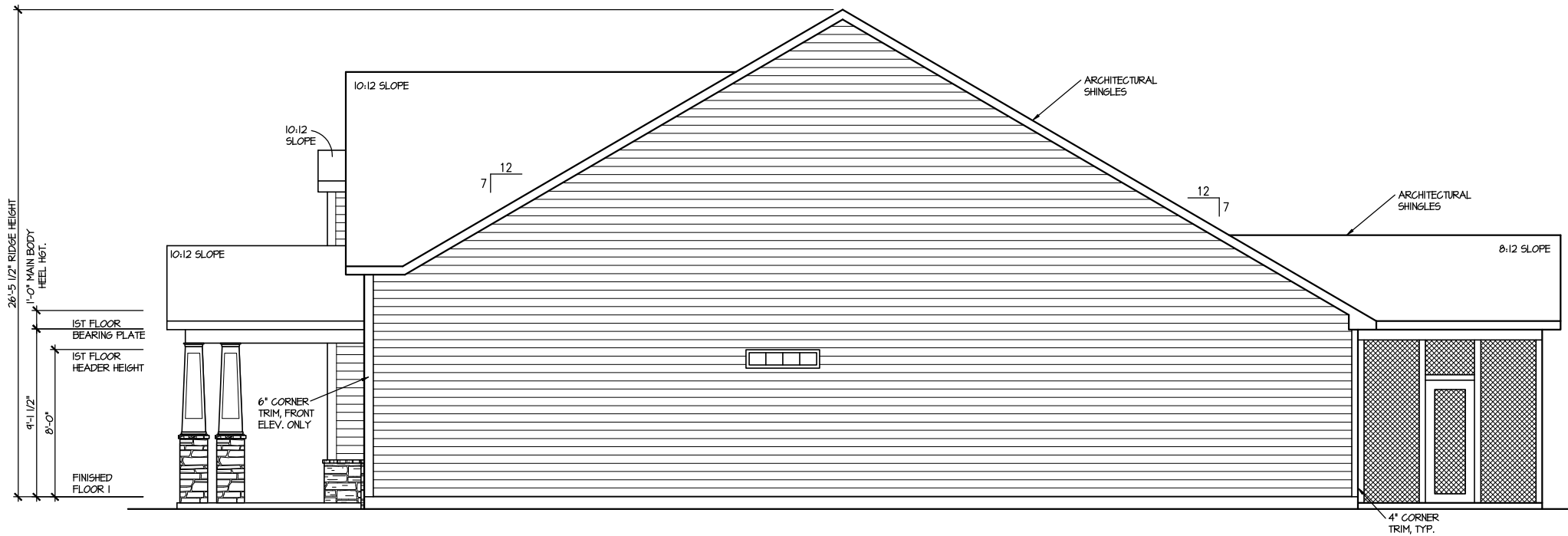
DRAWN BY: ITS
DATE: 07/11/2025
PLAN NO. 1777

DRB HOMES

HOUSE NAME: COOPER 3
DRAWING TITLE: FRONT & REAR ELEVATIONS

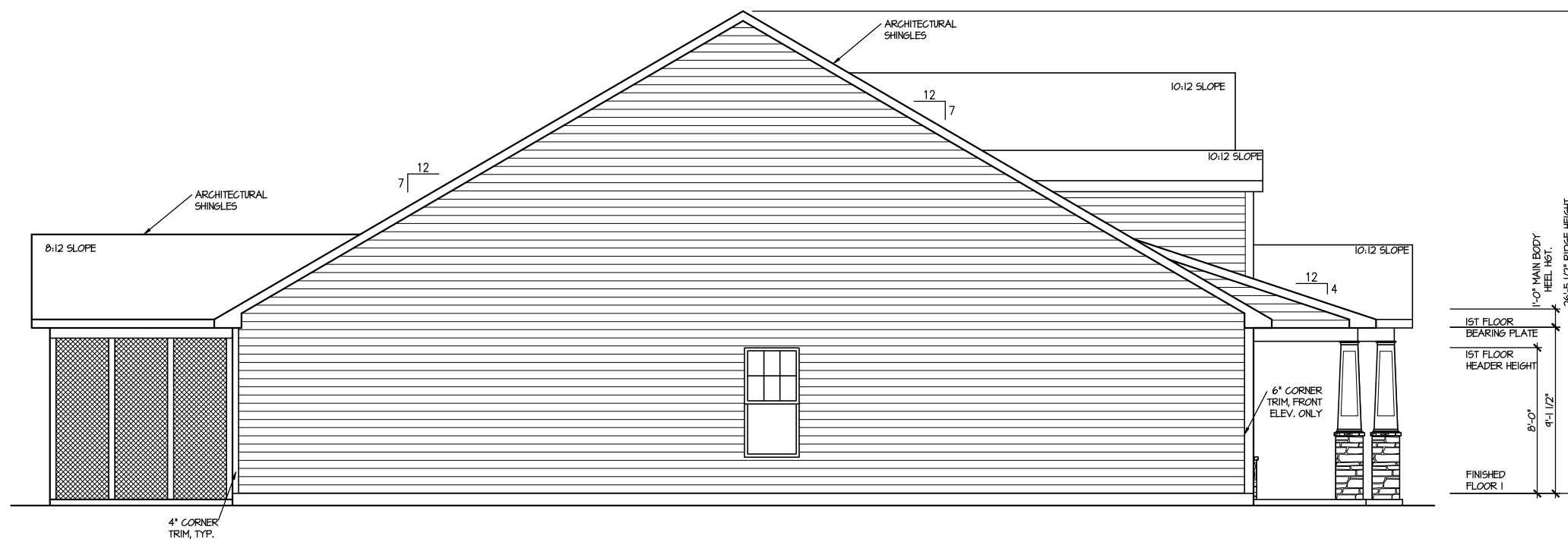
SHEET No. A.1

MASTER PLAN INFORMATION
REVISION DATE 02-24-2022
4-RALE
UPDATED DATE 02-19-2025



RIGHT ELEVATION 9

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



LEFT ELEVATION 9

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

FILE: Lot_00.0021.dwg DATE: 7/11/2025 10:38 AM

MASTER PLAN INFORMATION			UPDATED DATE
REVISION	DATE		
4-RALE	02-24-2022		02-19-2025

DRAWN BY:	ITS
DATE:	07/11/2025
PLAN NO.	1777

DRB
HOMES

HOUSE NAME:
COOPER 3

DRAWING TITLE

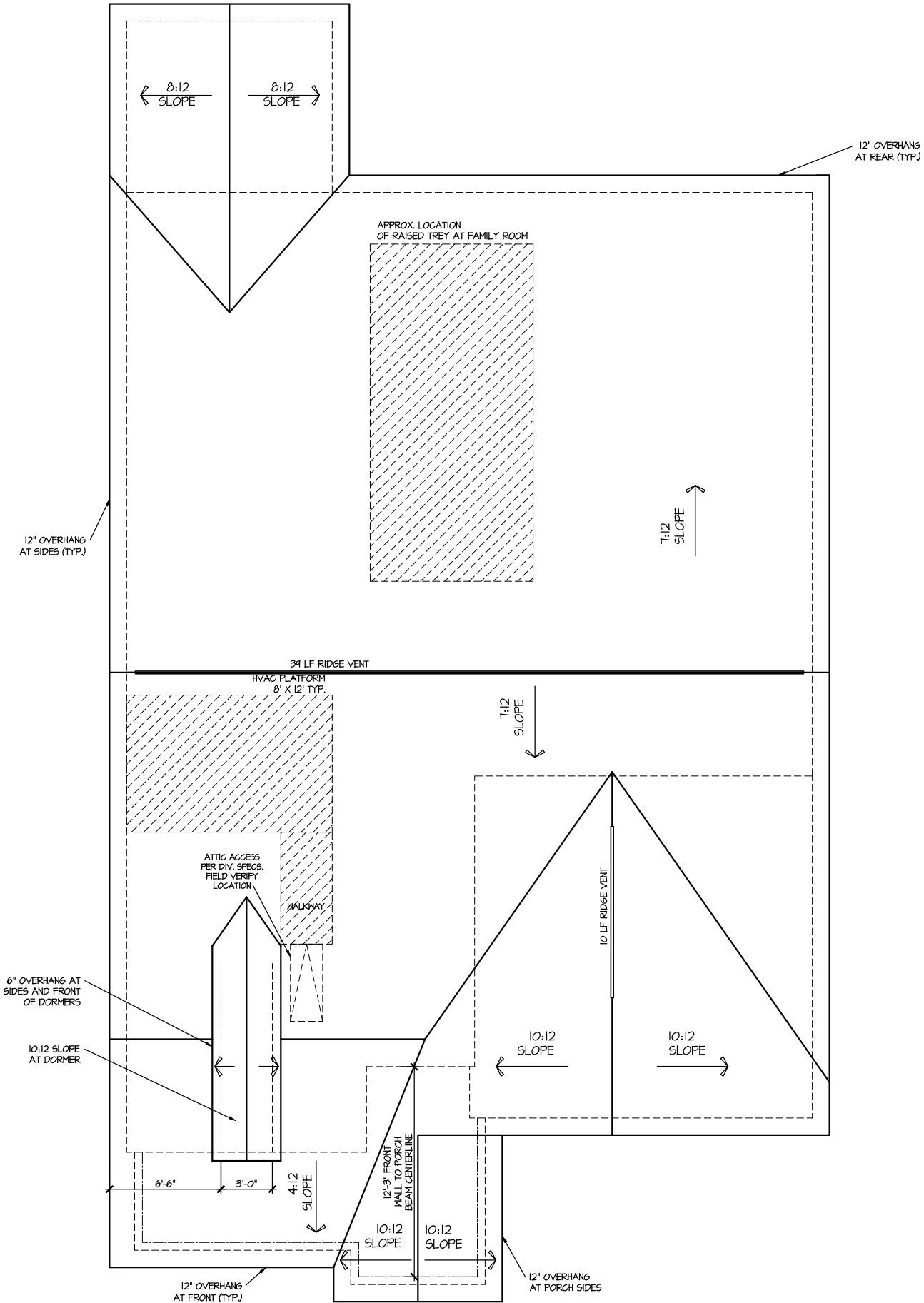
RIGHT & LEFT ELEVATIONS

SHEET No.

A1.2

ROOF VENTILATION CALCULATIONS:

ROOF AREA = 2466 SQ. FT.
OVERALL REQUIRED VENTILATION:
1 TO 150 = 16.44 SQ. FT.
1 TO 300 = 8.22 SQ. FT.
50-80% IN TOP THIRD = 4.11 = 6.59 SQ. FT. (1 TO 300)
NET FREE AREA OF VENTED SOFFIT = 5.1 SQ. IN / LINEAR FT.
NET FREE AREA OF RIDGE VENT = 18 SQ. IN / LINEAR FT.
LOWER VENTING (BOTTOM 2/3 ROOF)
14 LINEAR FEET OF SOFFIT X 5.1 SQ. IN = 2.93 SQ. FT.
UPPER VENTING (TOP 1/3 ROOF)
41 LINEAR FEET OF RIDGE X 18 SQ. IN = 6.18 SQ. FT.
6.18 SQ. FT. BETWEEN 50% - 80%
(1 TO 300 ALLOWED)
TOTAL ROOF VENTILATION: 7.81 SQ. FT. > 8.22 SQ. FT. (R62D)



ROOF PLAN ELEV. 1

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

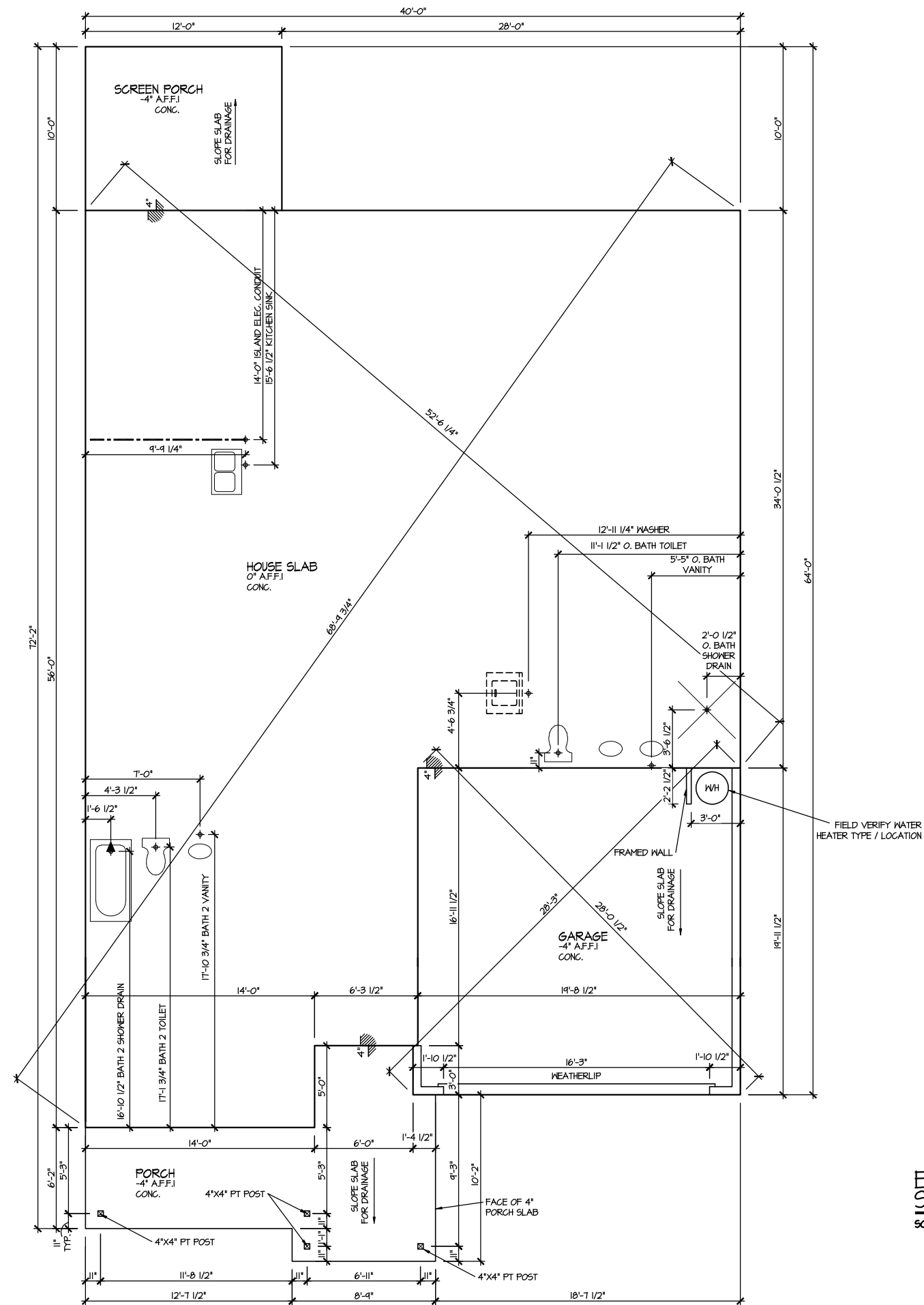
MASTER PLAN INFORMATION			
REVISION	DATE	DATE	UPDATED DATE
4-RALE	02-24-2022		02-19-2025

DRAWN BY:	ITS
DATE:	07/11/2025
PLAN NO.	1777



HOUSE NAME:	COOPER 3
DRAWING TITLE	ROOF PLAN

SHEET No.	A1.3
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ELEVATION 9
SLAB PLAN
SCALE: 1/8" = 1'-0"

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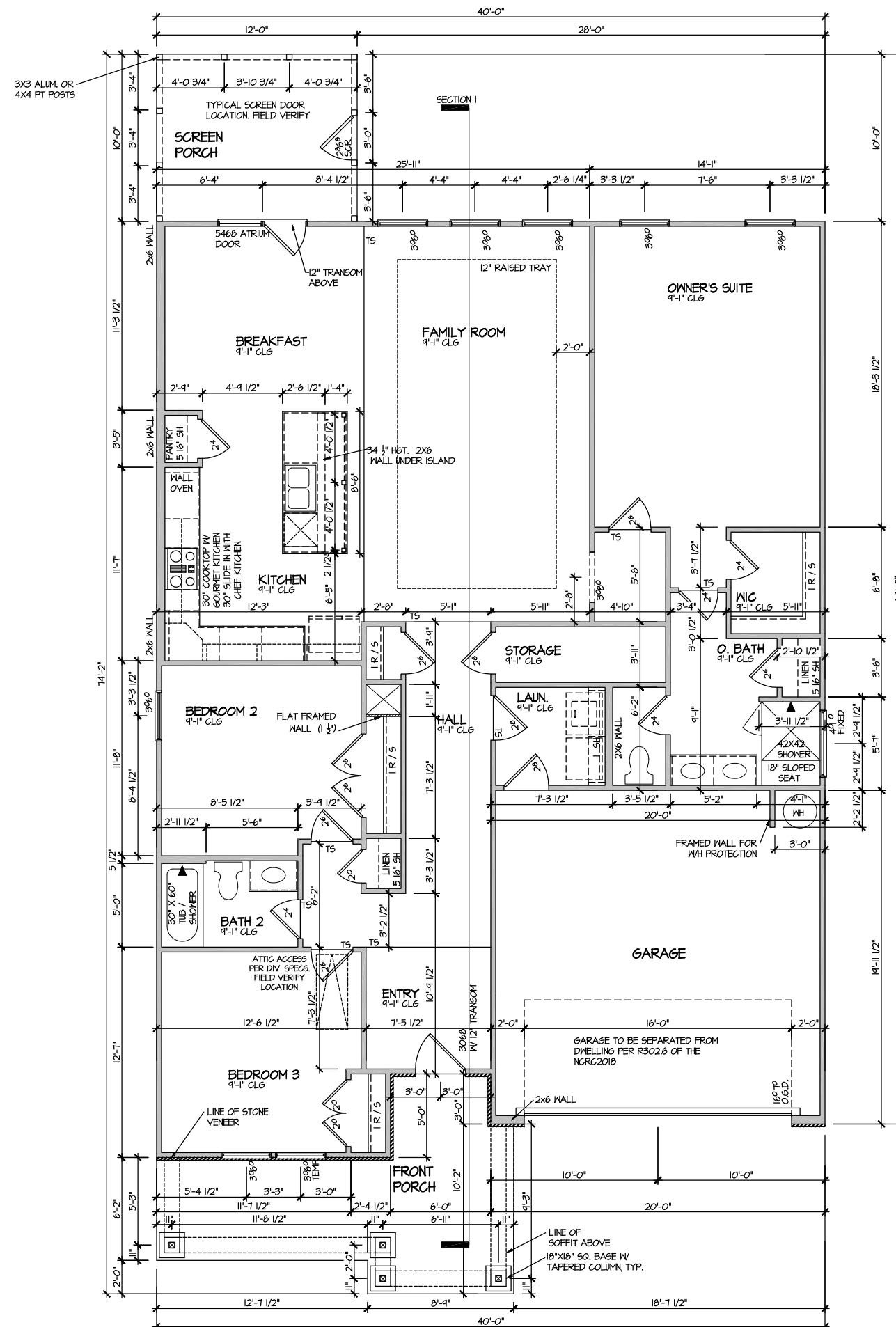
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DATE:	07/11/2025
PLAN NO.	1777



HOUSE NAME:
COOPER 3

DRAWING TITLE
SLAB PLAN

SHEET No.
A2.1



ELEVATION 9
FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

DRAWN BY:	ITS
DATE:	07/11/2025
PLAN NO.	1777

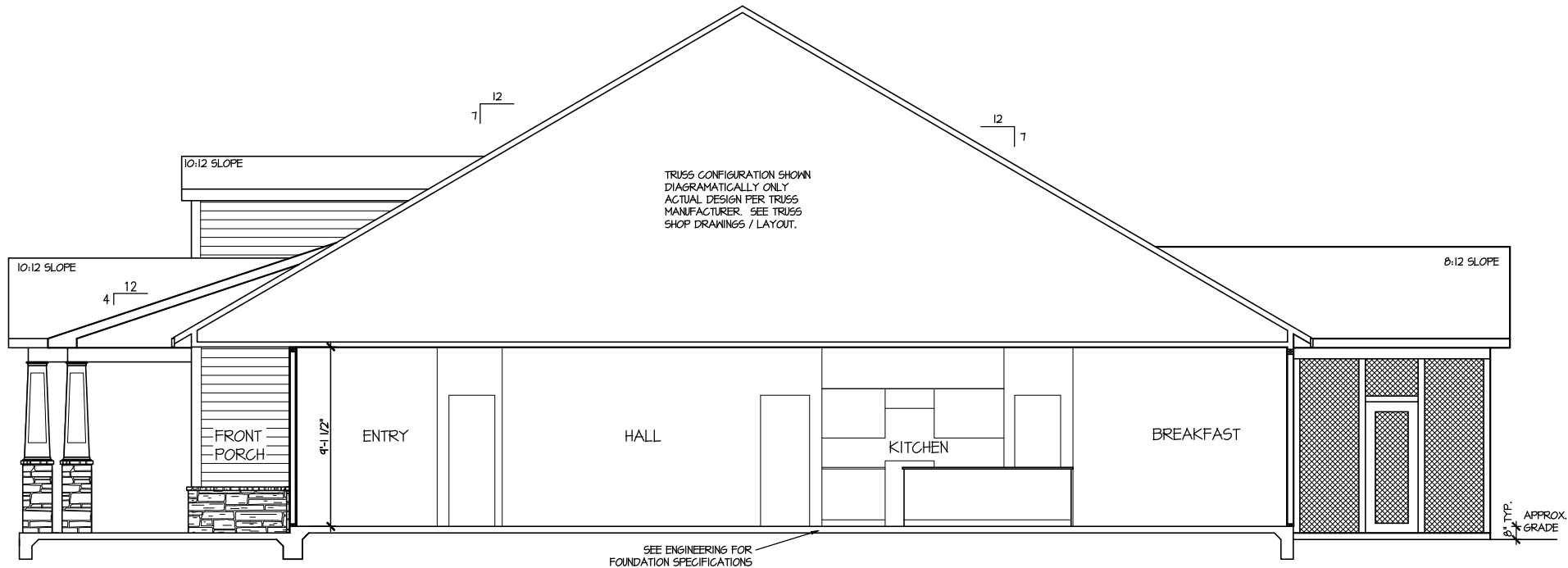
MASTER PLAN INFORMATION	
REVISION	DATE
4 - RALE	02-24-2022

UPDATED DATE
02-19-2025

HOUSE NAME:
COOPER 3

DRAWING TITLE
FIRST FLOOR PLAN

SHEET No. A3.



SECTION I

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

MASTER PLAN INFORMATION			UPDATED DATE
REVISION	DATE		
4-RALE	02-24-2022		02-19-2025

DRAWN BY:	ITS
DATE:	07/11/2025
PLAN NO.	1777



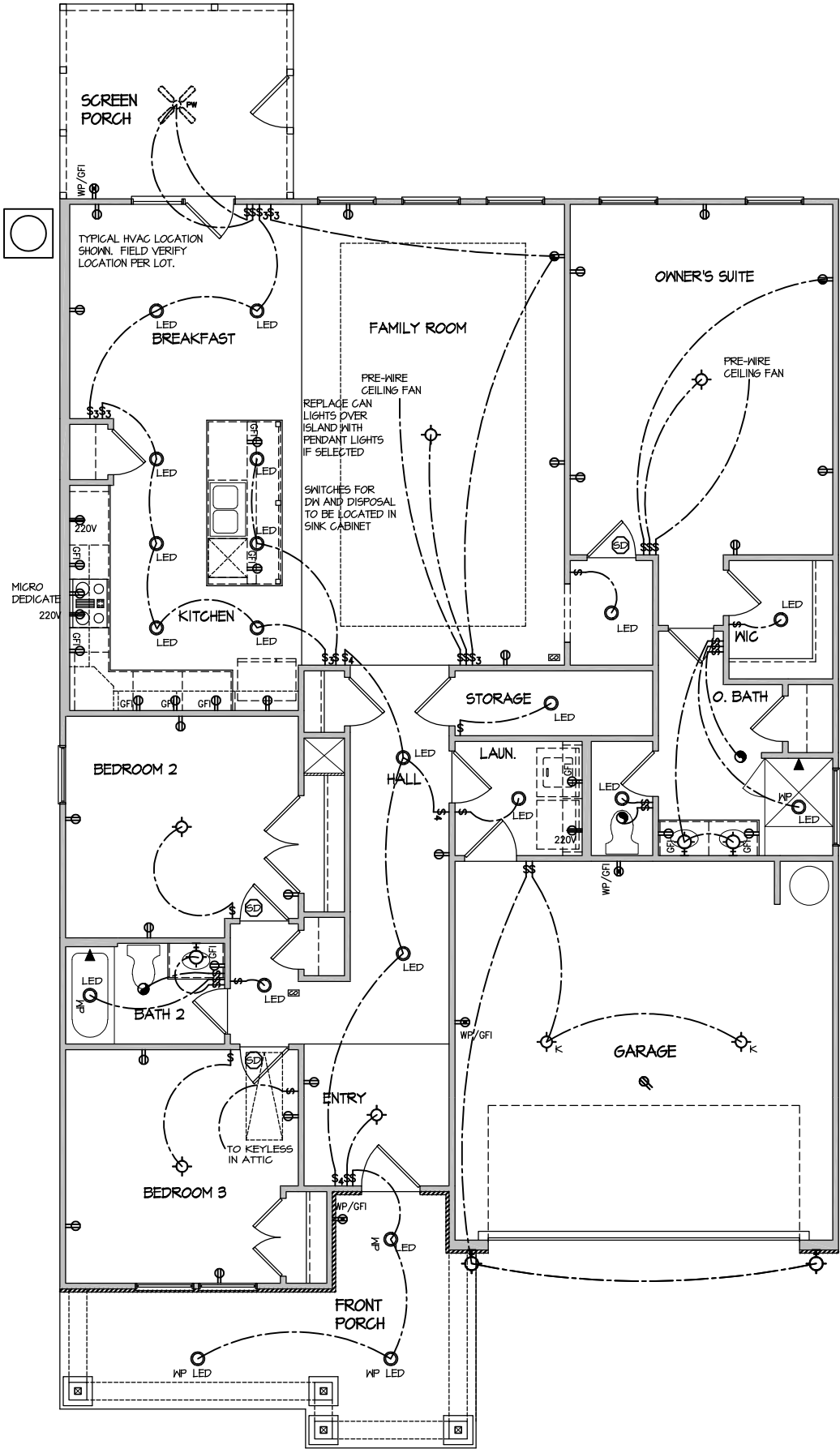
HOUSE NAME:	COOPER 3
DRAWING TITLE	BUILDING SECTION

SHEET No.
A4.1

ELECTRICAL LEGEND

- Ⓢ SINGLE POLE SWITCH
- Ⓢ₃ THREE WAY SWITCH
- Ⓢ₄ FOUR WAY SWITCH
- Ⓢ- DUPLEX AFCI RECEPTACLE
- Ⓢ- DUPLEX AFCI RECEPTACLE - BOTTOM HALF SWITCHED
- Ⓢ- DUPLEX AFCI RECEPTACLE - FLOOR MOUNTED
- 220V Ⓢ RECEPTACLE - 220V
- GFI Ⓢ DUPLEX AFCI RECEPTACLE - GFI
- WP/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 - RECESSED CAN
- Ⓢ- LED 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. 9

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

DRAWN BY:
ITS
DATE: 07/11/2025
PLAN NO.
1777



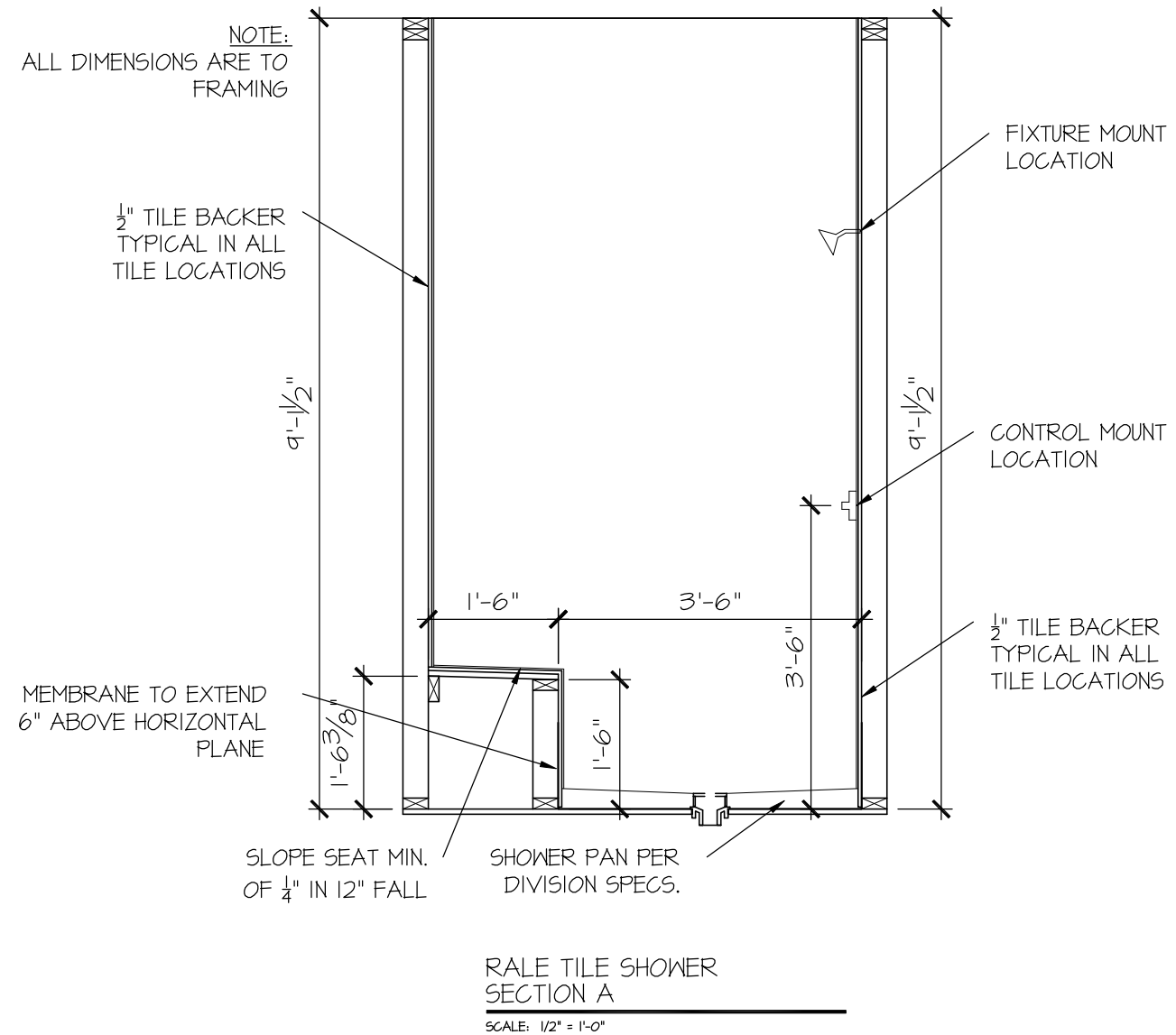
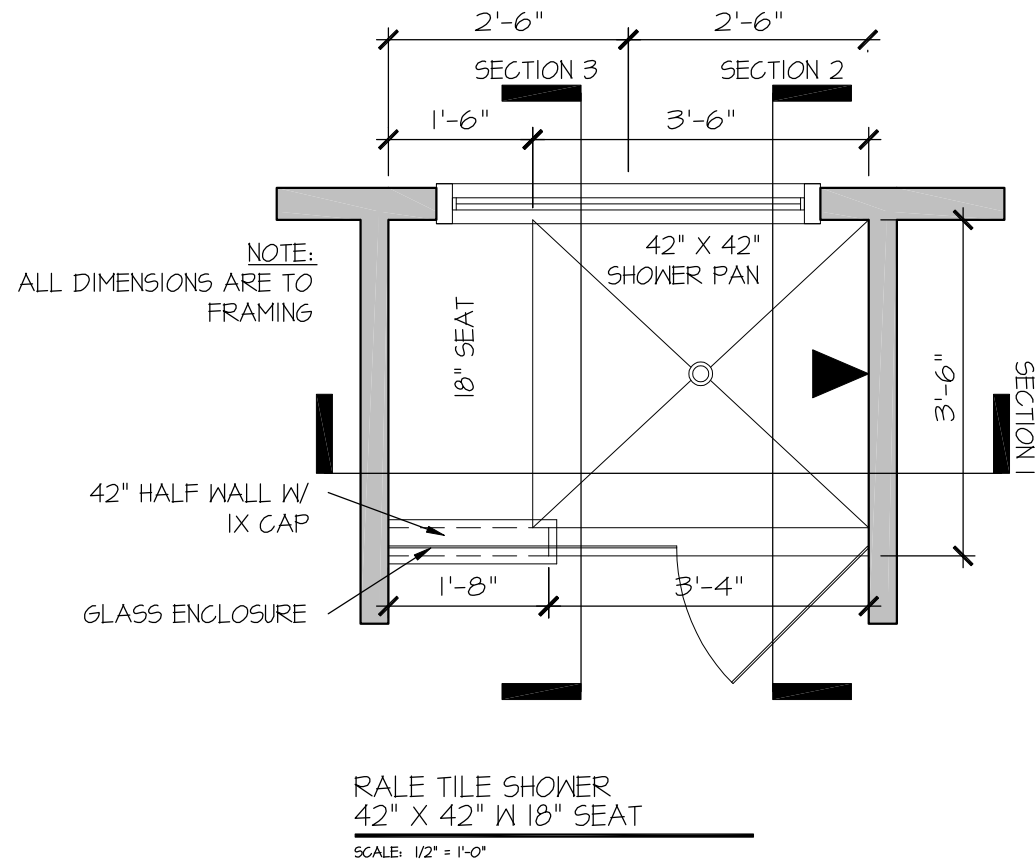
HOUSE NAME:
COOPER 3
DRAWING TITLE
FIRST FLOOR ELECTRICAL

SHEET No.
11

MASTER PLAN INFORMATION

REVISION
4-RALE
DATE
02-24-2022
UPDATED DATE
02-19-2025

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:

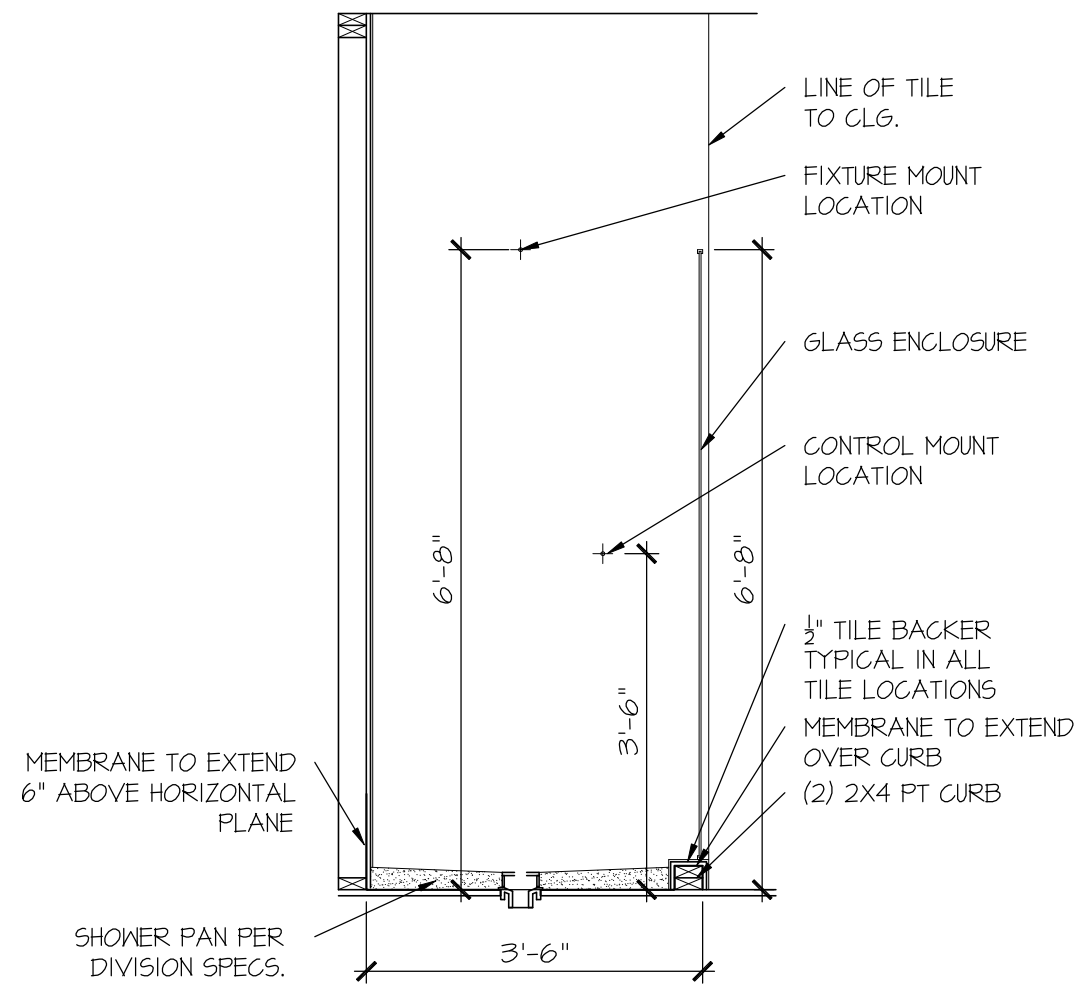
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RALE TILE SHOWER DETAIL

SHEET No.

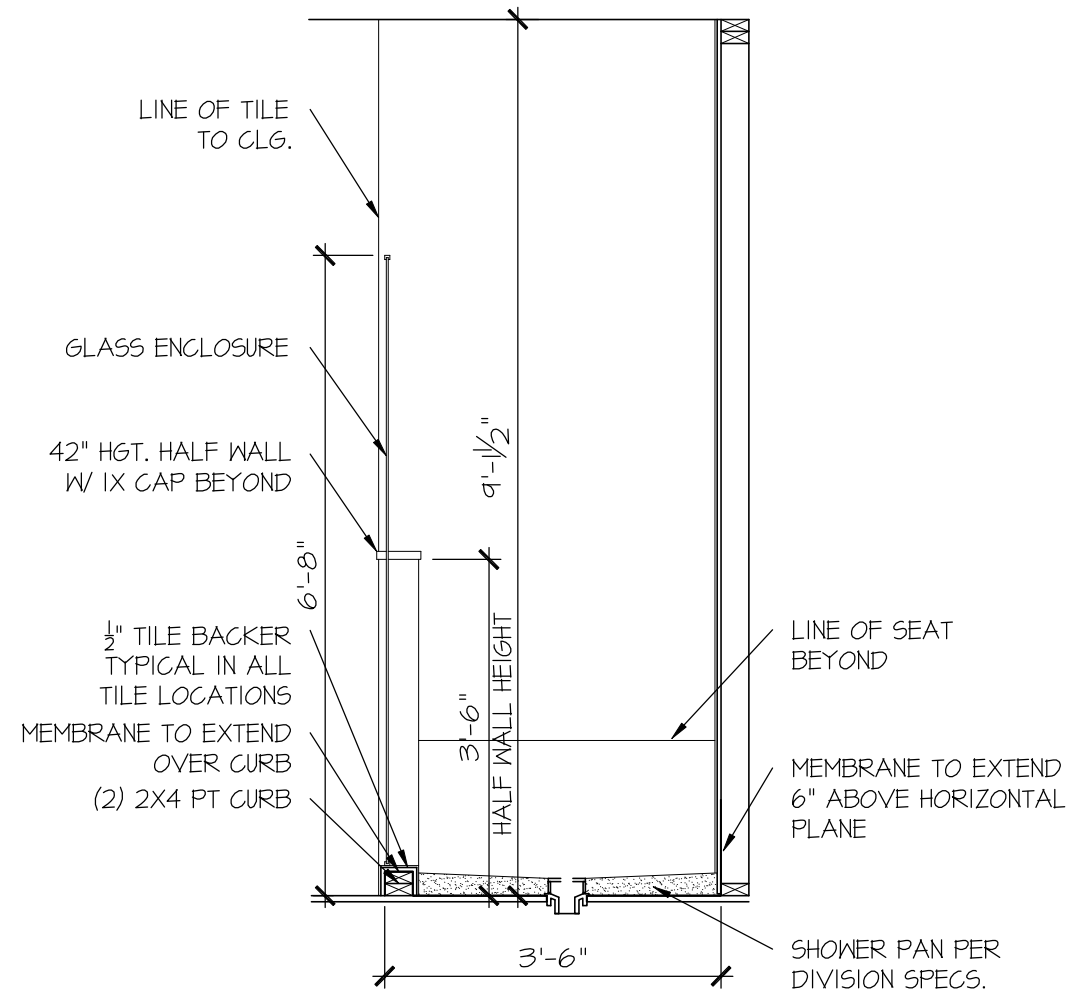
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FILE: RALE TILE SHOWER DETAIL 8-2022.dwg DATE: 09-19-2022



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 2x SILL PLATES TO FND WITH A MINIMUM OF 2 ANCHORS PER PLATE, 12" MAX. FROM PLATE ENDS - UTILIZING:
 - 1/2" DIA. ANCHOR BOLTS @ 6'-0" O.C., 7" MIN. EMBEDMENT (CONC), 15" MIN. EMBEDMENT (CMU)
 - SIMPSON MASA ANCHOR STRAPS @ 6'-0" O.C. (CONC.)
 - SIMPSON MAB23 ANCHOR STRAPS @ 2'-8" O.C. (CMU)(REFER TO DETAILS FOR 10' TALL WALL ANCHOR REQUIREMENTS)
- ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT W/ CONCRETE OR CMU SHALL BE PRESERVATIVE TREATED SOUTHERN PINE #2.
- BUILDER TO 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 GRADE 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_c = 4,000 psi: FOUNDATION WALLS
 - 2,500 psi: FOOTINGS & INTERIOR SLABS ON GRADE
 - 3,000 psi: GARAGE & EXTERIOR SLABS ON GRADE
 - f_y = 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 1900 psi (F_m=1500 psi). MORTAR SHALL BE ASTM C270, TYPE S. CMU DESIGN PER ACI 530 & 530.1.
- CMU FOUNDATION WALLS SHALL HAVE 'DUR-O-WALL' HORIZONTAL JOINT REINFORCEMENT (OR EQUAL) - 9 GA. MINIMUM @ 16" O.C.
- PROVIDE 2x6 (MIN.) x 16" LONG P.T. PLATE ON TOP OF ALL GRAVL SPACE PIERS. ALL PIERS SHALL BE FASTENED PER ANCHORAGE SPECIFICATIONS NOTED ABOVE. TOP 2 COURSES (MIN.) OF PIER TO BE GROUTED SOLID (8 COURSE MAX. PIER HEIGHT).
- PROVIDE 2x6 P.T. PLATE ON INTERIOR GRAVL SPACE WALLS, FASTENED PER ANCHORAGE SPECIFICATION NOTED ABOVE. TOP 2 COURSES (MIN.) OF WALL TO BE GROUTED SOLID (8 COURSE MAX. WALL HEIGHT)
- 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.

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.
- 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 (1-JOISTS & SOLID SAMN) 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)

GENERAL FRAMING

- ALL TYP. NAIL FASTENER REQUIREMENTS ARE NOTED IN STANDARD CONNECTIONS TABLE OR ON PLANS. ALL NAILS SPECIFIED ARE MIN DIAMETER AND LENGTH REQUIRED FOR CONNECTION. ALL HANGER NAILS SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS FOR MAX CHARTED CAPACITY. NOTE: HANGERS USE COMMON NAIL DIAMETERS NOT TYPICAL FRAMING GUN NAILS.
- REFER TO FASTENING SCHEDULE TABLE R602.3(1) FOR ALL CONNECTIONS, TYP. 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 (SP) 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=1.55x10⁶ psi
 - "LVL" - Fb=2600 psi; Fv=285 psi; E=2.0x10⁶ psi
 - "PSL" - Fb=2400 PSI; Fv=240 PSI; E=2.0X10⁶ PSI
- MK 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 MK 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 1/4"x3/8" SIMPSON SDS SCREWS (OR 3/8" 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 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 1/4"x6" SIMPSON SDS SCREWS (OR 6 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 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.

FLOOR FRAMING

- 1-JOISTS/TRUSSES SHALL BE DESIGNED BY MANUF. TO MEET OR EXCEED L/480 LIVE LOAD DEFLECTION CRITERIA. (EXCLUDES MARBLE FLOORS - CONTACT MK FOR MARBLE FLOOR DESIGNS)
- AT 1-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.
 - 1/4" x 2" MIN. SCREWS @ 6" O.C. @ PANEL EDGES & @ 12" O.C. FIELD.

ROOF FRAMING

- BAY WINDOWS & SHED ROOFS (UP TO 6' SPAN) CAN BE 2x4 OR 2x6 RAFTERS & CEILING JOISTS @ 16/24" O.C.
- FASTEN EACH ROOF TRUSS TO TOP PLATE W/ SIMPSON H2.5T CLIP (OR APPROVED EQUAL) @ ALL BEARING POINTS. PROVIDE (2) H2.5T CLIPS AT 2-PLY GIRDER TRUSSES, (3) H2.5T CLIPS AT 3-PLY GIRDER TRUSSES & ROOF BEAMS - AT ALL BEARING POINTS.
- METAL HANGERS SHALL BE SPECIFIED BY THE MANUFACTURER, UNO.
- 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. (1-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

SYMBOL	SPECIFICATION
	SIMPSON HTT4 HOLD-DOWN @ 9/8" DIA. ANCHOR
	SIMPSON MSTC666 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM UNO.) -OR- MSTC666B ALTERNATE
	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 1/8" 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.

LATERAL BRACING & SHEAR WALL SHEATHING SPECIFICATIONS

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 1609) & 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.

EXT. WALL SHEATHING SPECIFICATION

- 7/16" OSB OR 15/32" PLYWOOD:
 - FASTEN SHEATHING W/ 2 3/8"x0.113" NAILS @ 6" O.C. AT EDGES & @ 12" O.C. IN THE PANEL FIELD. TYP, UNO.
- 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 1/2" 16 GA STAPLES (1/16" CROWN) @ 3" O.C. AT EDGES & @ 6" O.C. IN FIELD.

BLOCKED PANEL EDGES

- 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 1/2" 16 GA STAPLES (1/16" 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 NAILS @ 3" O.C. NO STAPLE ALTERNATIVE AVAILABLE AT THIS SPEC. ALL SHEATHING PANELS SHALL BE ORIENTED AND INSTALLED FULL HEIGHT OF SHEAR WALL OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT UNSUPPORTED PANEL EDGES AND 3" O.C. EDGE FASTENING.

NOTES

- SEE CONNECTION SPECIFICATIONS CHART FOR STANDARD SHEAR TRANSFER DETAILING. IF ADDITIONAL CAPACITY IS REQUIRED BY DESIGN, IT WILL BE SPECIFICALLY NOTED ON PLAN.
- DESIGN ASSUMES 16" O.C. MAX. STUD SPACING, UNO.
- 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 SHEARNWALL OR 3" O.C. OSB SHEARNWALL.
- INDICATES HOLDDOWN BELOW

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)

ENGINEERED BEAM MATERIAL SCHEDULE

BEAM NUMBER	LVL OPTION	PSL OPTION	LSL OPTION	FLITCH OPTION	STEEL OPTION
001	(2)3/4"x11 1/8" - F	3/2"x11 1/8" - F	(3)3/4"x11 1/8" - F	(2)2x12 + (1) 3/8"x11 1/8" STEEL FLITCH PLATES - F	W12x14 - F
002	(3)3/4"x11 1/8" - F	5/4"x11 1/8" - F	(4)3/4"x11 1/8" - F	(2)2x12 + (1) 3/8"x11 1/8" STEEL FLITCH PLATES - F	W12x14 - F
003	(2)3/4"x11 1/8" - F	3/2"x11 1/8" - F	(3)3/4"x11 1/8" - F	(2)2x12 + (1) 3/8"x11 1/8" STEEL FLITCH PLATES - F	W12x14 - F
004	(2)3/4"x11 1/4" - D	3/2"x11 1/4" - D	(2)3/4"x11 1/8" - D	(2)2x10 + (1) 3/8"x11 1/8" 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/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.

LEGEND

- INTERIOR BEARING WALL
- BEARING WALL ABOVE
- BEAM / HEADER
- INDICATES SHEAR WALL & EXTENT
- 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.

NON-BEARING HEADER SCHEDULE

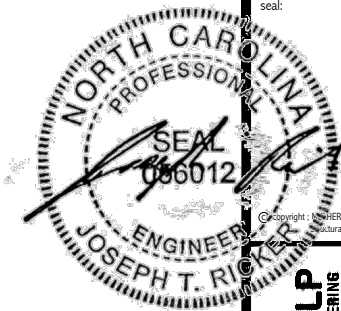
SPAN	2x4 NON-BEARING PARTITION WALL	2x6 NON-BEARING PARTITION WALL
UP TO 3'-0"	(1)2x4 FLAT	(1)2x6 FLAT
UP TO 6'-0"	(2)2x4	(3)2x4
UP TO 8'-0"	(2)2x6	(3)2x6
UP TO 12'-0"	(2)2x8	(3)2x8

NOTES:

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

ALTERNATE F.J. MANUFACTURERS

- FLOOR JOISTS BY MANUFACTURER'S OTHER THAN THOSE SHOWN ON PLAN SHALL CONFORM TO THE APA PERFORMANCE RELATED I-JOISTS DESIGN AND CONSTRUCTION GUIDE. MINIMUM JOIST PROPERTIES INCLUDING, BUT NOT LIMITED TO, ALLOWABLE SHEAR, ALLOWABLE MOMENT, STRENGTH, AND STIFFNESS, SHALL MEET OR EXCEED THOSE LISTED FOR THE PRI-60 SERIES I-JOISTS. ALL ALLOWABLE HOLES, BEARING STIFFENERS, AND JOIST TO JOIST CONNECTIONS ARE PER THE JOIST MANUFACTURER.



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M&K project number:

126-22076

project mgr:

JTR

drawn by:

GTK

issue date: 07-16-25

REVISIONS:

date:

initial:

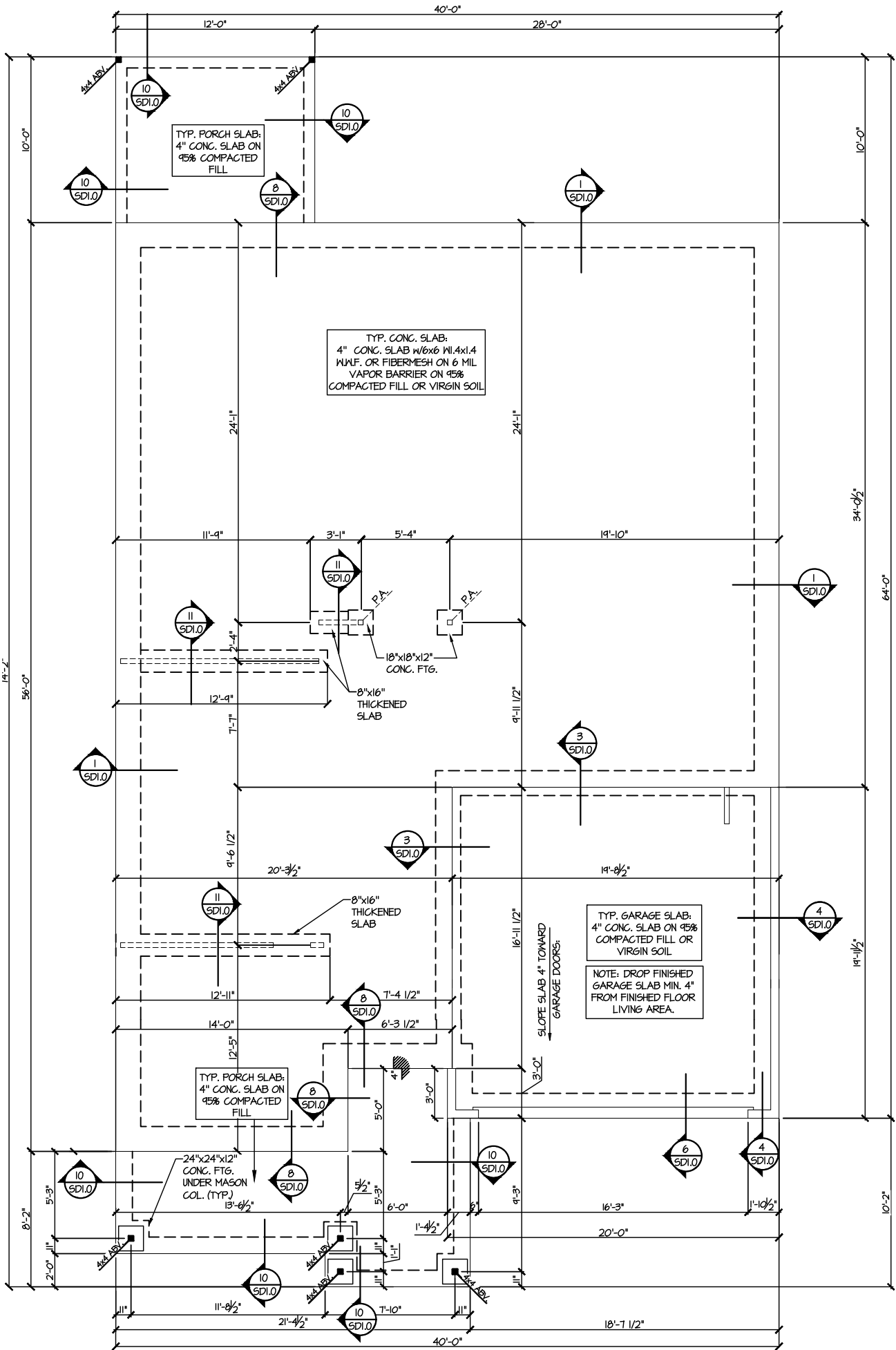
DRB HOMES

STRUCTURAL NOTES
FARM AT NEIL'S CREEK
LOT 21 - COOPER 9
RALEIGH, NC

sheet:

S0.0

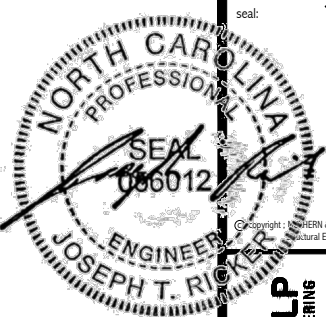
seal: 7/16/25



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

LEGEND	
• ————	INTERIOR BEARING WALL
• - - - - -	BEARING WALL ABOVE
• — · — · —	BEAM / HEADER
• - - - - -	INDICATES SHEAR WALL & EXTENT
• [stippled]	EXTENT OF OVERFRAMING
• H	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



seal: 7/16/25

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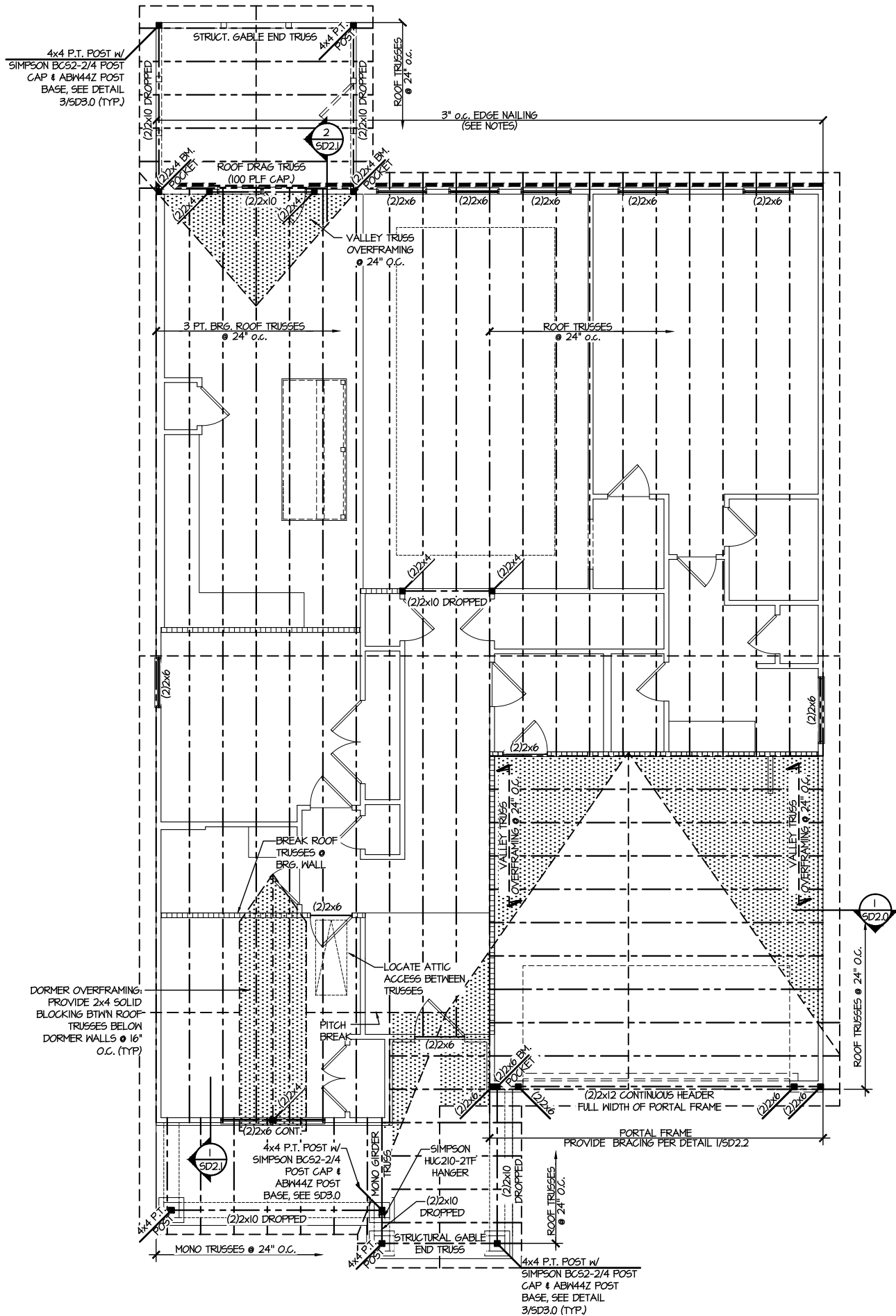
M&K project number:
126-22076
project mgr: JTR
drawn by: GTK
issue date: 07-16-25

REVISIONS:	
date:	initial:

DRB
HOMES

FOUNDATION PLANS
FARM AT NEILS CREEK
LOT 21 - COOPER 9
RALEIGH, NC

sheet:
S1.0



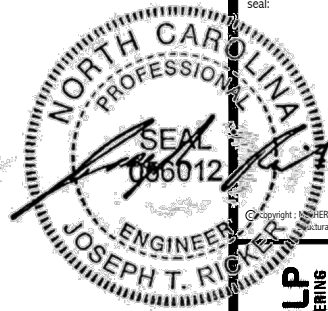
1 ROOF FRAMING PLAN
SCALE: 1/8"=1'-0"

LEGEND

- INTERIOR BEARING WALL
- BEARING WALL ABOVE
- BEAM / HEADER
- INDICATES SHEAR WALL & EXTENT
- 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 50.0 FOR
TYPICAL STRUCTURAL NOTES
& SCHEDULES**

ENGINEERED BEAM MATERIAL SCHEDULE					
BEAM NUMBER	LVL. OPTION	PSL. OPTION	LSL. OPTION	FLITCH OPTION	STEEL OPTION
001	(2)3/4"x11 7/8" - F	3/2"x11 7/8" - F	(3)3/4"x11 7/8" - F	(2)2x12 + (1) 3/8"x11/4" STEEL FLITCH PLATES - F	W12x14 - F
002	(3)3/4"x11 7/8" - F	5/4"x11 7/8" - F	(4)3/4"x11 7/8" - F	(2)2x12 + (1) 3/8"x11/4" STEEL FLITCH PLATES - F	W12x14 - F
003	(2)3/4"x11 7/8" - F	3/2"x11 7/8" - F	(3)3/4"x11 7/8" - F	(2)2x12 + (1) 3/8"x11/4" STEEL FLITCH PLATES - F	W12x14 - F
004	(2)3/4"x11 1/4" - D	3/2"x11 1/4" - D	(2)3/4"x11 7/8" - D	(2)2x10 + (1) 3/8"x11/4" STEEL FLITCH PLATES - D	W8x10 - D
<p>BEAM NOTATION:</p> <ul style="list-style-type: none">"F" INDICATES FLUSH BEAM"FT" INDICATES FLUSH TOP BEAM"FB" INDICATES FLUSH BOTTOM BEAM"D" INDICATES DROPPED BEAM"H" INDICATES DROPPED OPENING HEADER <p>REFER TO DETAIL D/SD2.0 FOR TYPICAL FLITCH BEAM CONNECTIONS</p> <p>REFER TO DETAIL E/SD2.0 FOR TYPICAL STEEL BEAM CONNECTIONS</p> <p>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.</p> <p>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.</p>					



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M&K project number:
126-22076

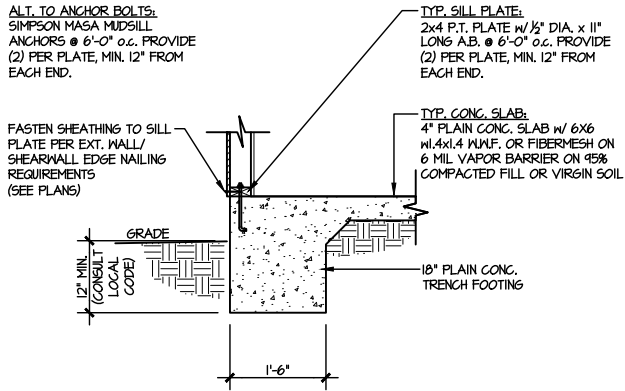
project mgr: **JTR**
drawn by: **GTK**
issue date: **07-16-25**

REVISIONS:	
date:	initial:



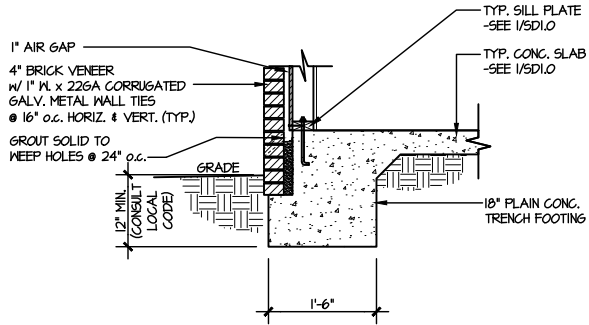
ROOF FRAMING PLANS
FARM AT NEILS CREEK
LOT 21 - COOPER 9
RALEIGH, NC

sheet:
S2.0



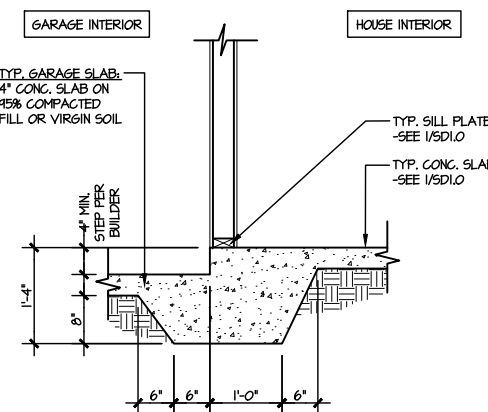
1 TYPICAL SLAB ON GRADE
PERIMETER FOOTING

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



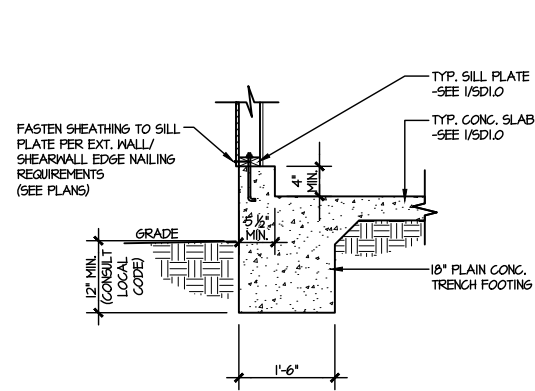
2 TYPICAL SLAB ON GRADE
PERIMETER FOOTING

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



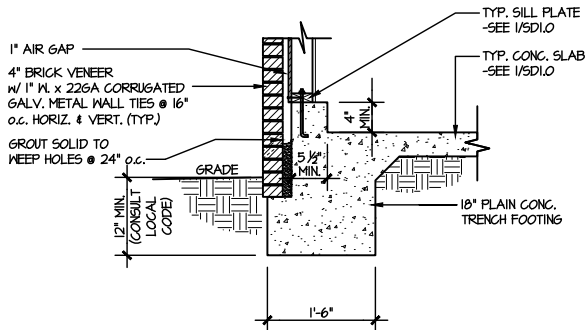
3 TYPICAL MONOLITHIC INTERIOR
GARAGE FOOTING

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



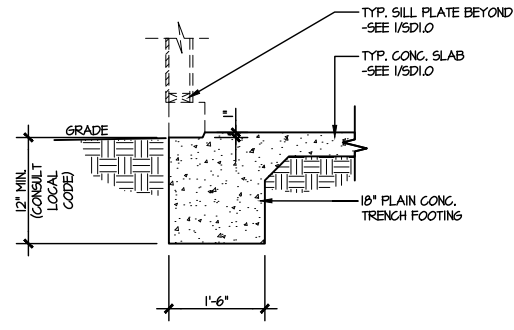
4 TYPICAL SLAB ON GRADE GARAGE
PERIMETER FOOTING

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



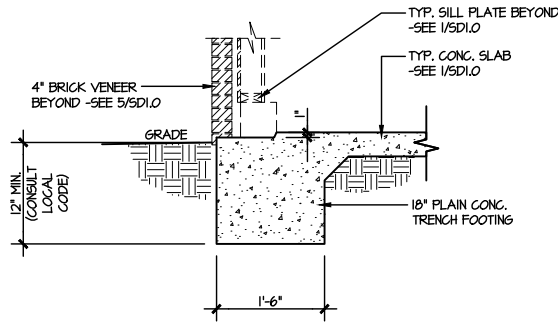
5 TYPICAL SLAB ON GRADE GARAGE
PERIMETER FOOTING

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



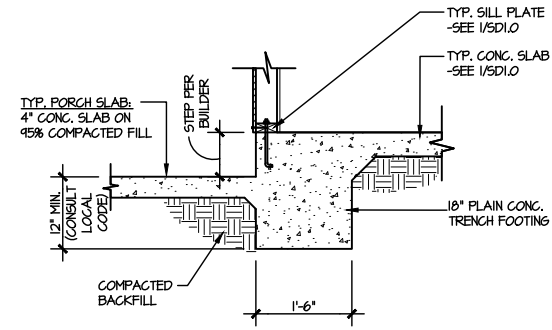
6 TYPICAL SLAB ON GRADE GARAGE
ENTRY & PERIMETER FOOTING

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



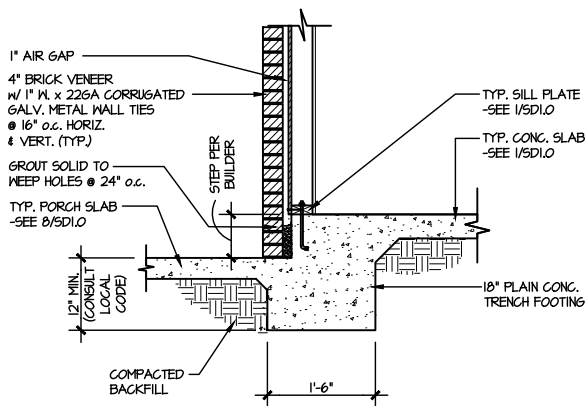
7 TYPICAL SLAB ON GRADE GARAGE
ENTRY & PERIMETER FOOTING

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



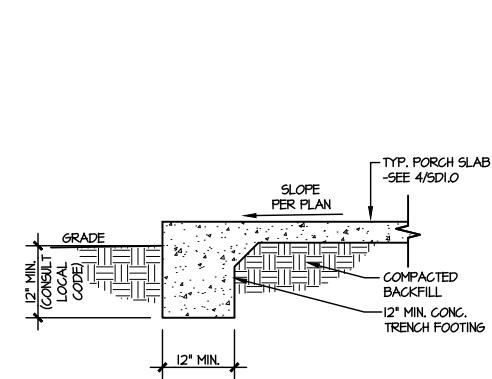
8 TYPICAL SLAB ON GRADE PERIMETER
FOOTING & PORCH/PATIO

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



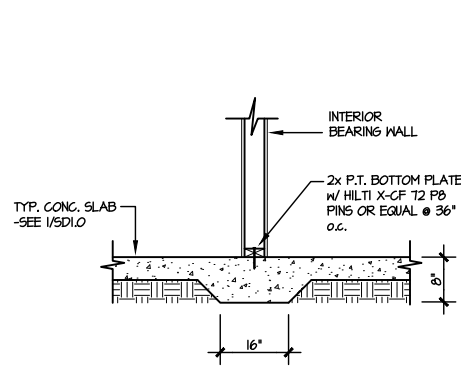
9 TYPICAL SLAB ON GRADE PERIMETER
FOOTING & PORCH/PATIO

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



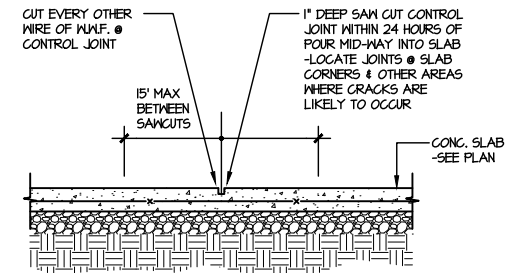
10 TYPICAL FOOTING & PORCH SLAB

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



11 TYPICAL THICKENED SLAB @
INTERIOR BEARING WALL

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



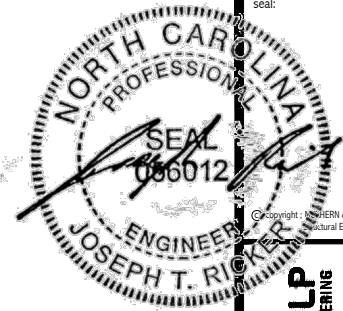
A TYPICAL CONTROL JOINT

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.



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M&K project number:
126-22076

project mgr: **JTR**

drawn by: **GTK**

issue date: **07-16-25**

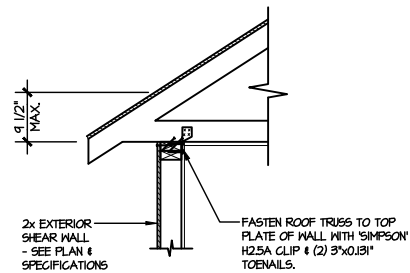
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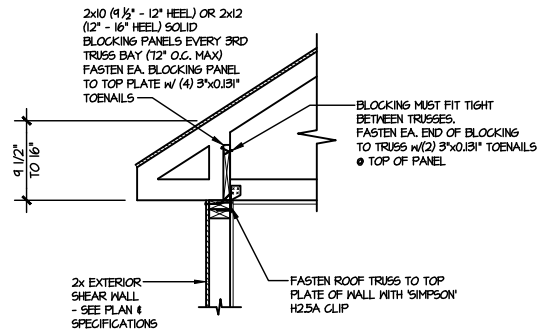
DRB
HOMES

FOUNDATION DETAILS
FARM AT NEILS CREEK
LOT 21 - COOPER 9
RALEIGH, NC

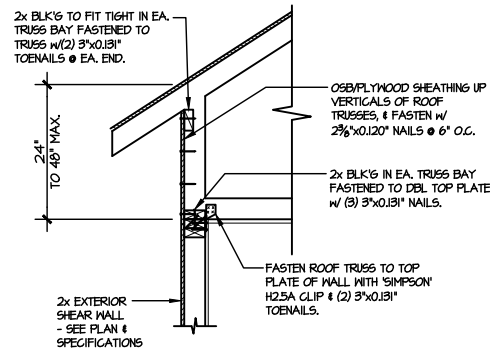
sheet:
SD1.0



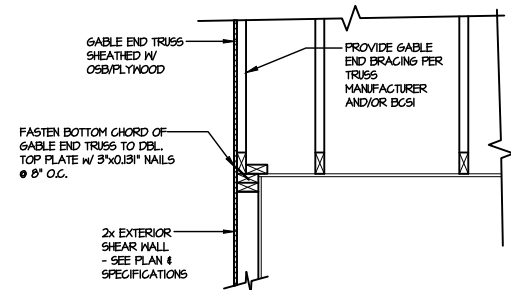
A1 TYPICAL SHEAR
TRANSFER DETAIL @ ROOF
SCALE: 3/8"=1'-0"
HEEL HEIGHT LESS THAN 9 1/2"
NO BLOCKING REQ'D



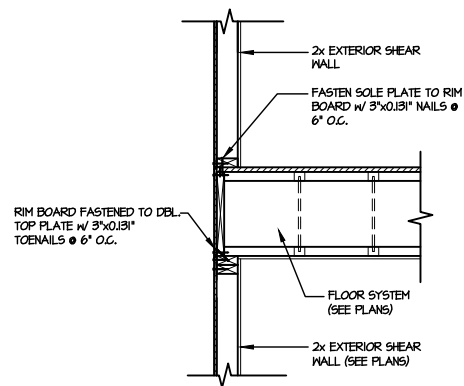
A2 TYPICAL SHEAR
TRANSFER DETAIL @ ROOF
SCALE: 3/8"=1'-0"
HEEL HEIGHT BETWEEN 9 1/2" - 16"
BLOCKING REQ'D



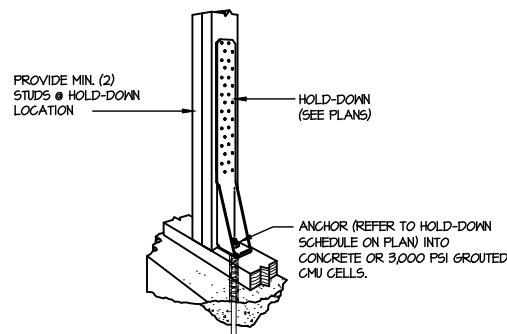
A3 TYPICAL SHEAR TRANSFER
DETAIL @ RAISED HEEL TRUSS
SCALE: 3/8"=1'-0"
HEEL HEIGHT UP TO 48" MAX.



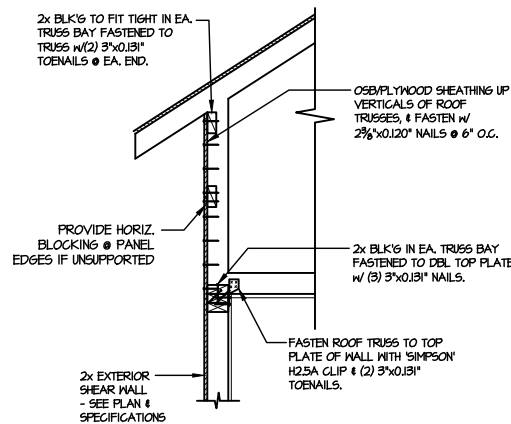
B TYPICAL GABLE END DETAIL
SCALE: 3/8"=1'-0"



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



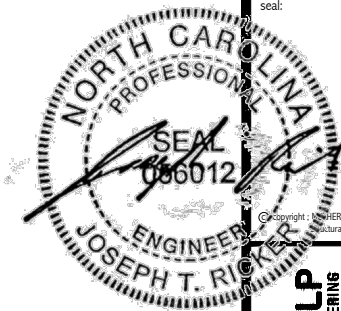
F1 TYPICAL HOLD DOWN INSTALLATION
SCALE: N.T.S.



I TYPICAL SHEAR TRANSFER
DETAIL @ RAISED HEEL TRUSS
SCALE: 3/8"=1'-0"
HEEL HEIGHT GREATER THAN 48"

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

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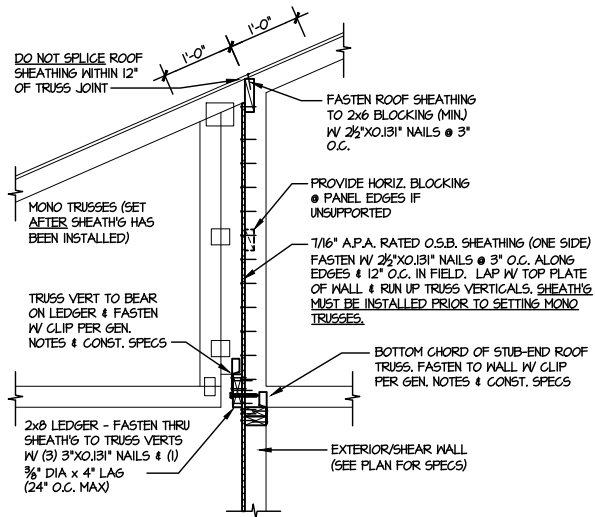
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DRB
HOMES

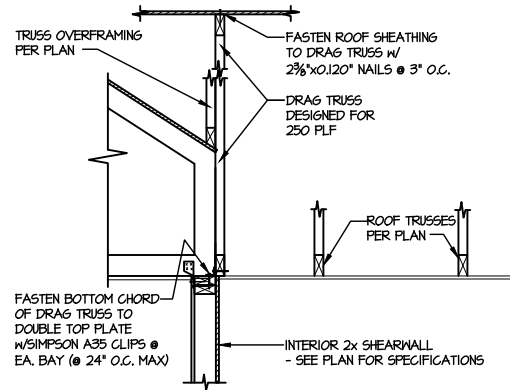
FRAMING DETAILS
FARM AT NEILS CREEK
LOT 21 - COOPER 9
RALEIGH, NC

sheet:
SD2.0

FILE: RLH - Neils Creek - Lot 21 - Structural.s DATE: 7/16/2025 1:57 PM



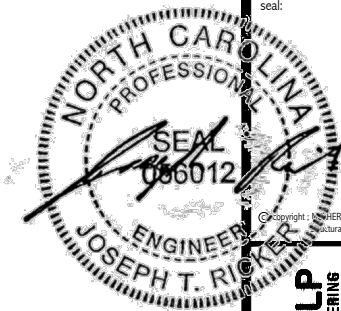
1 SHEAR TRANSFER DETAIL @
BREAK IN TRUSSES OVER SHEAR WALL
SCALE: 3/4"=1'-0" - 22-04
3/8"=1'-0" - 11x7



2 SHEAR TRANSFER DETAIL
AT INTERIOR SHEARWALL BELOW
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.

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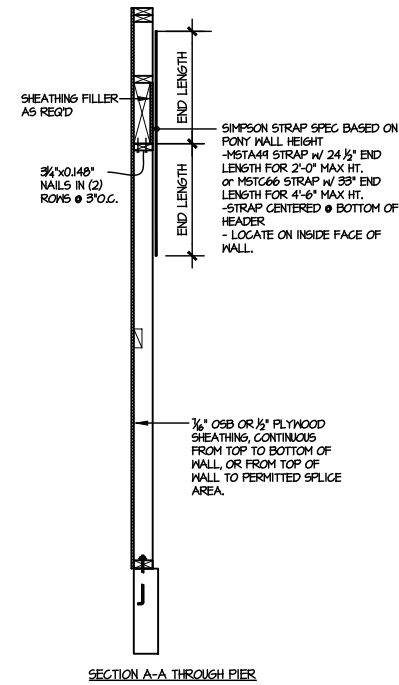
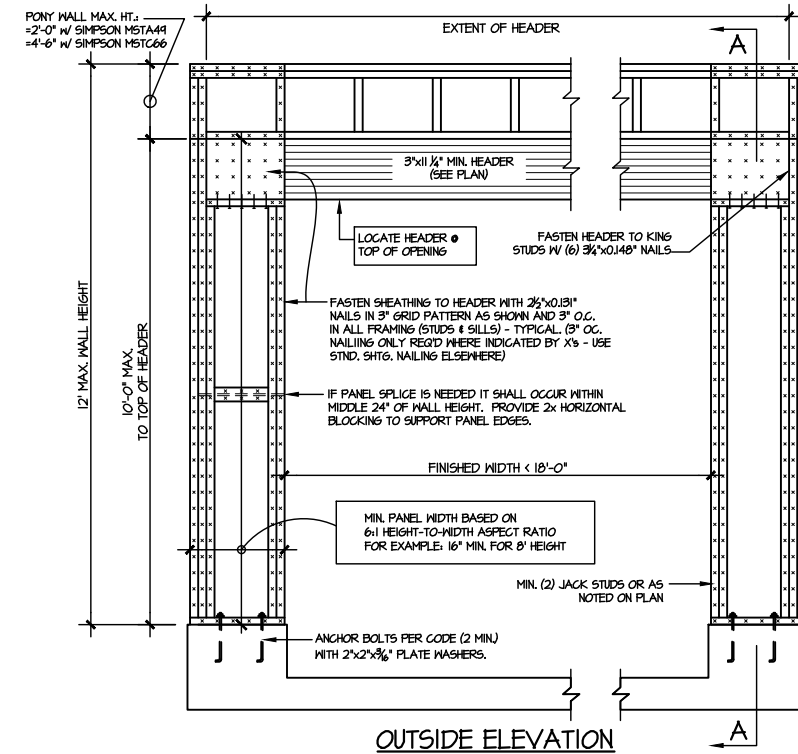
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REVISIONS:	
date:	initial:

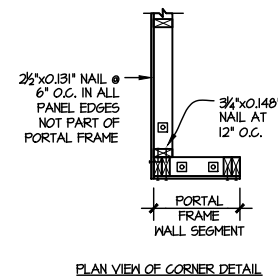
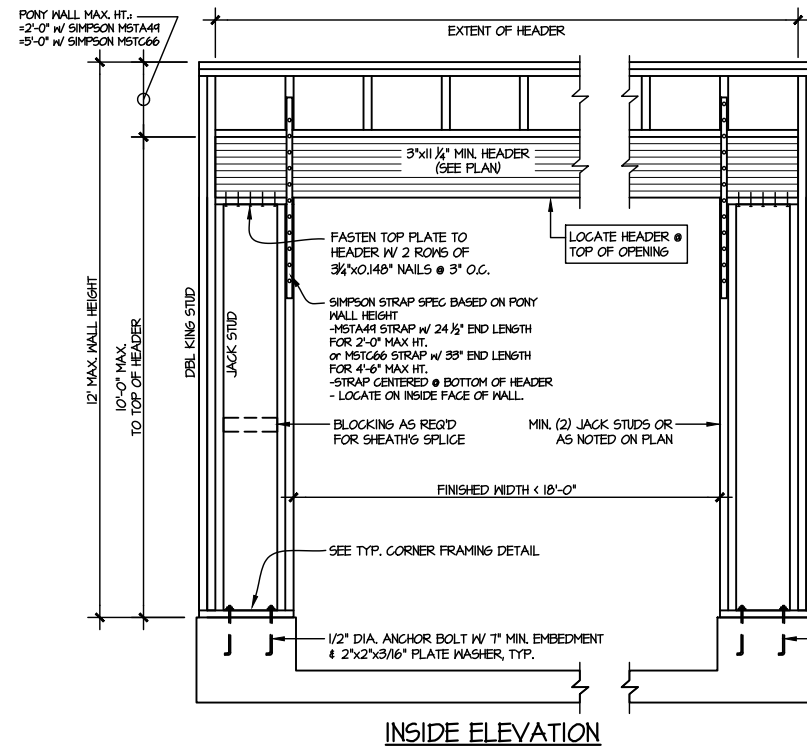


FRAMING DETAILS
FARM AT NEIL'S CREEK
LOT 21 - COOPER 9
RALEIGH, NC

sheet:
SD2.1



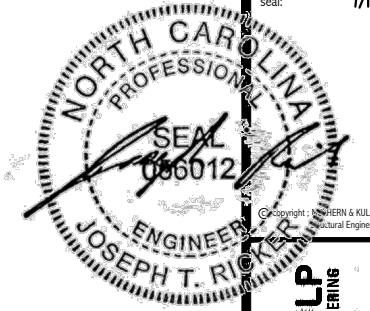
NOTE: ALL SHEATHABLE AREAS OF
EXTERIOR WALL SHALL BE FULLY
SHEATHED WITH 1/2" PLYWOOD OR 1/8" OSB



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.



M&K project number:
126-22076

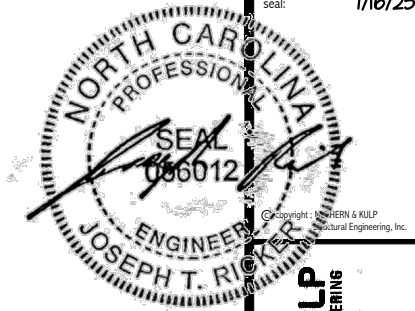
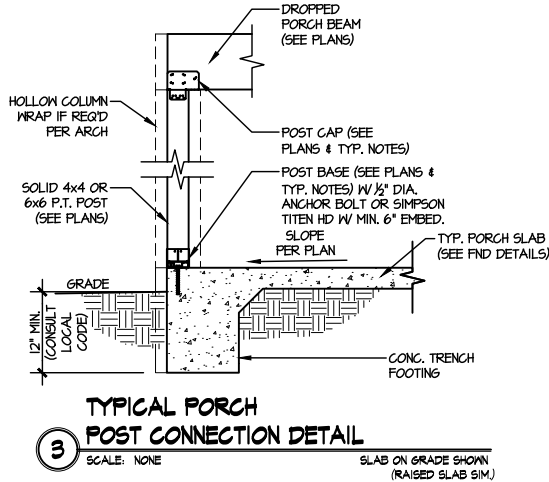
project mgr: JTR
drawn by: GTK
issue date: 07-16-25

REVISIONS:
date: initial:



FRAMING DETAILS
FARM AT NEILS CREEK
LOT 21 - COOPER 9
RALEIGH, NC

sheet:
SD2.2



seal: 7/16/25



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FRAMING DETAILS

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