

NOSNHOP n@jwcustor JASON

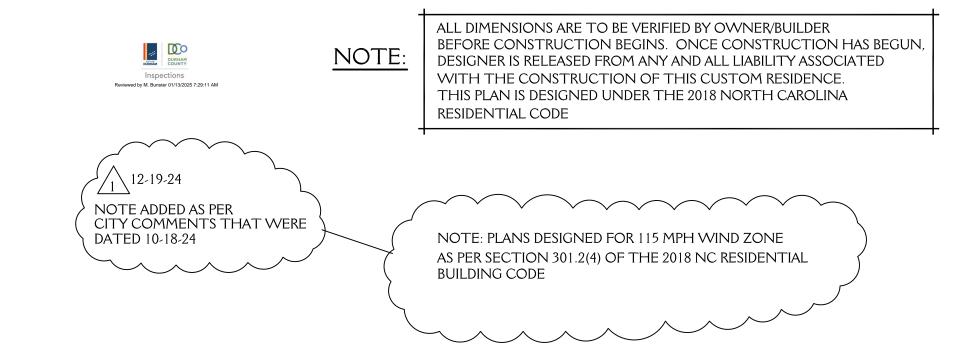
SURVEYING LANE 581 SHONELE 154 SH STEM, ONE (9 CANOY

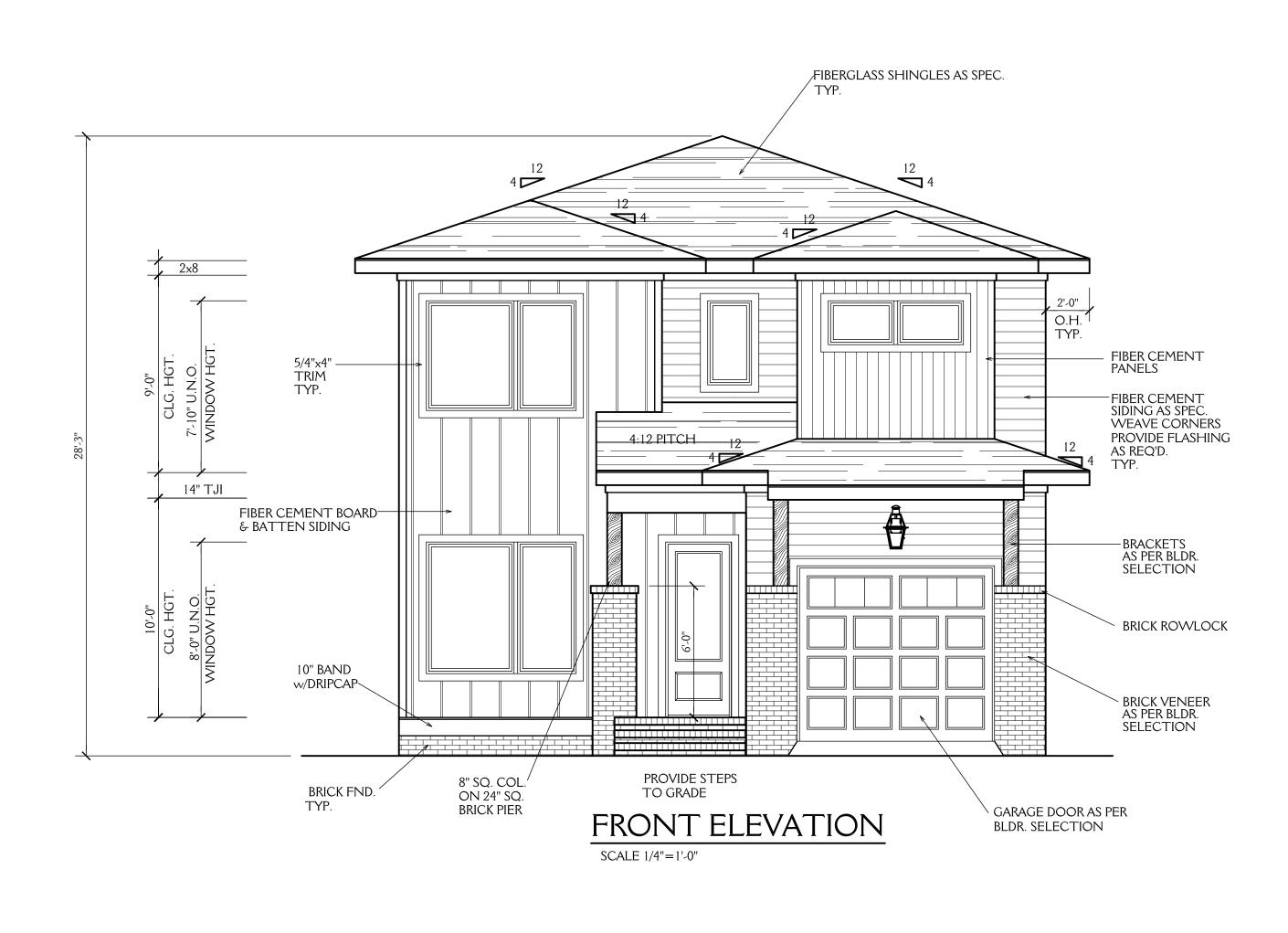
PROPERTY O
2603 V
NC PIN #
DURHAM (

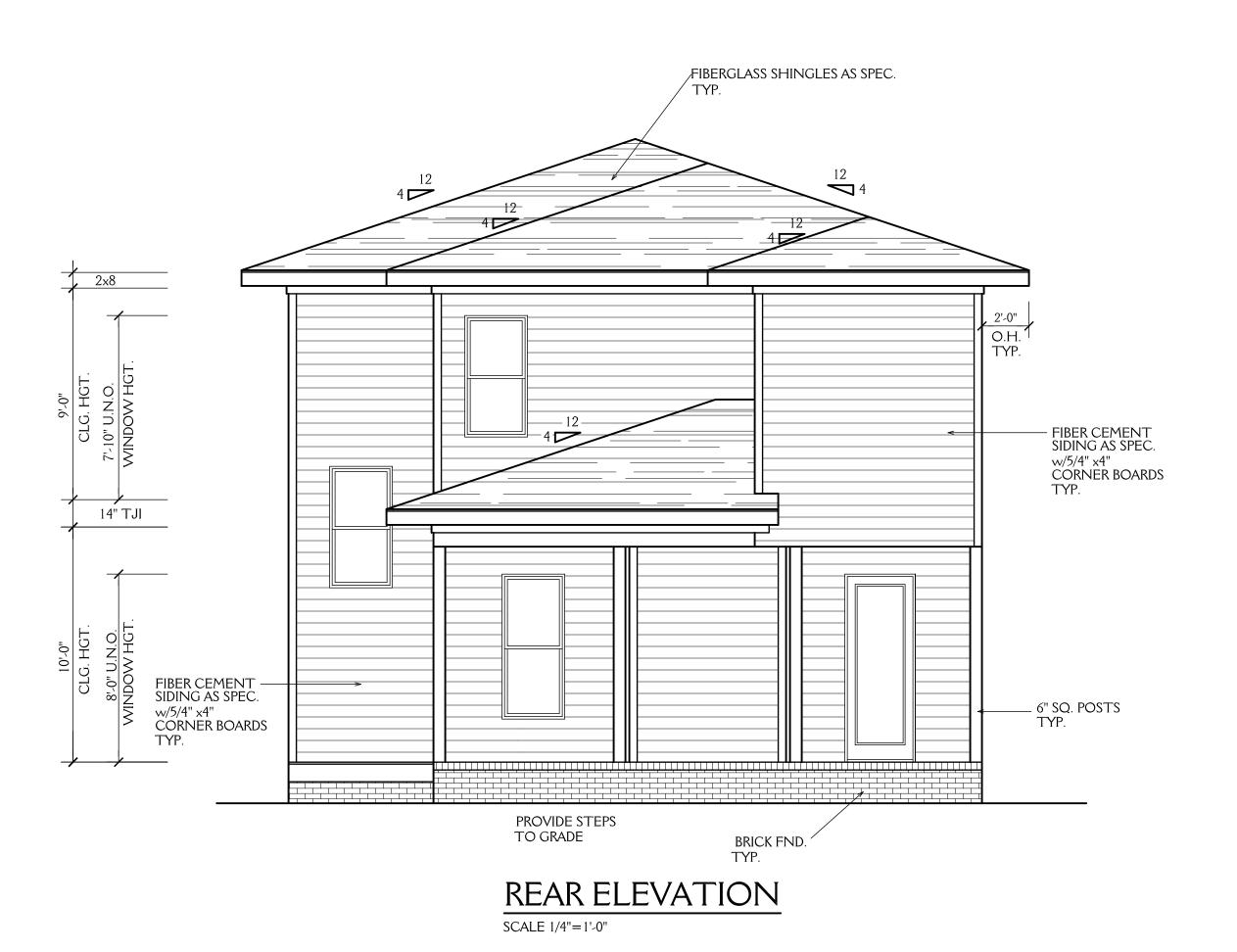
1/29/2025 SCALE:

DRAWN BY: DL CHECKED BY: ARC PROJECT:

SHEET:







JOBSITE COPY
A copy of the plans, as approved by the Durham City-County Inspections Department, is required to be kept at the building during the period of construction.

Per 204.5.2 Permit Intent: A permit issued shall be construed as permission to proceed with the work and not as authority to violate, cancel, alter, or set aside any of the provisions of the technical codes. Issuance of a permit shall not prevent the inspections department from requiring correction of errors in plans, construction, or violations of this code. (General Statute 160D-1110)

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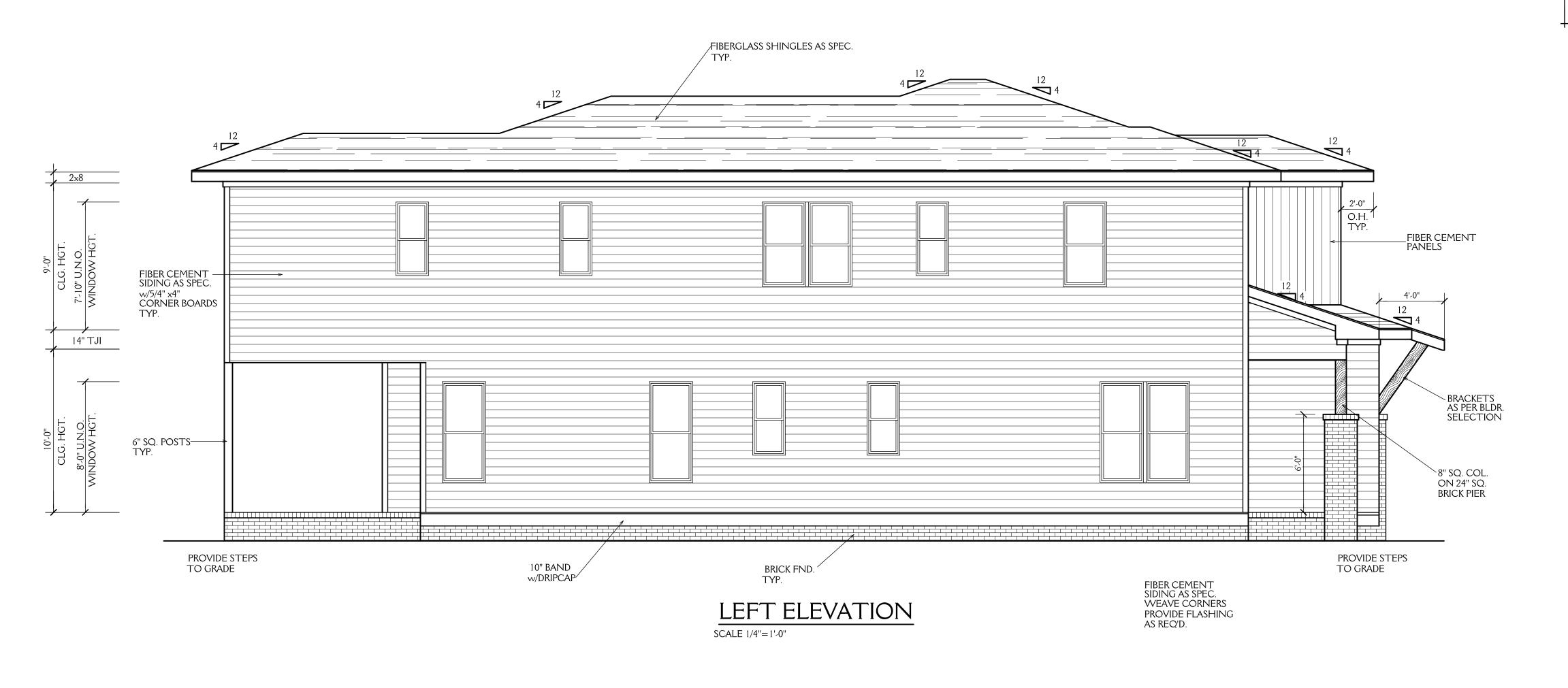
PLANS DESIGNED TO THE 2018 NORTH CAROLINA RESIDENTIAL CODE
HOUSE DESIGNED FOR 115 MPH 3 SECOND GUST (89 FASTEST MILE), EXPOSURE B
ANCHOR BOLTS TO BE NO MORE THAN 6' O.C. AND WITHIN 12" OF ALL PLATES SPLICES
ANCHOR BOLTS SHALL BE MIN. 1/2" DIAMETER & SHALL EXTEND A MINIMUM 7" INTO MASONRY OR CONCRETE

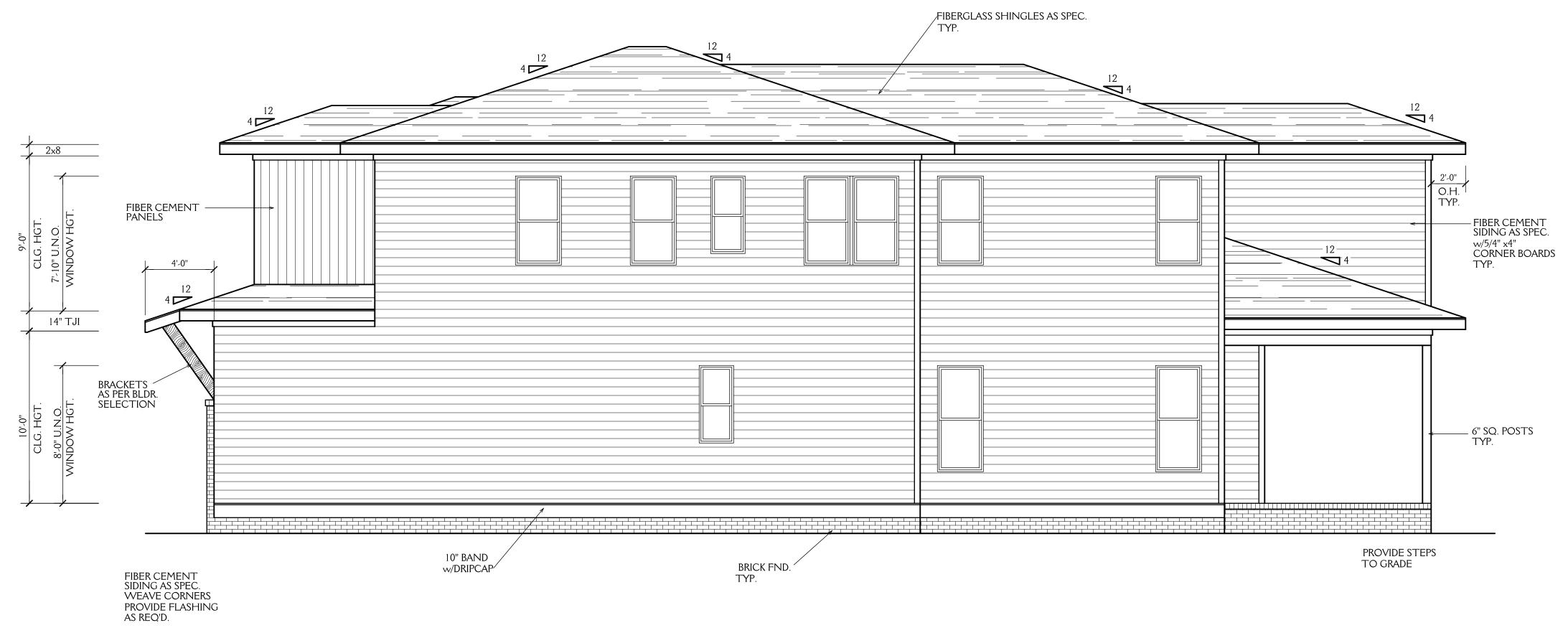
MEANIBOOFLIELGLIT	< 30'-0"			
MEAN ROOF HEIGHT $=$				
COMPONENT	& CLADDING	designed for t	THE FOLLOWING	g Loads
MEAN ROOF HEIGHT	UP TO 30'	30'-1" - 35'	35'-1" - 40'	40'-1" - 45'
ZONE 1	16.5, -18.0	17.3, -18.9	18.0, -19.6	18.5, -20.2
ZONE 2	16.5, -21.0	17.3, -22.1	18.0, -22.9	18.5, -23.5
ZONE 3	16.5, -21.0	17.3, -22.1	18.0, -22.9	18.5, -23.5
ZONE 4	18.0, -19.5	18.9, -20.5	19.6, -21.3	20.2, -21.8
ZONE 5	18.0, -24.1	18.9, -25.3	19.6, -26.3	20.2, -27.0

MINIMUM VALUES FOR ENERGY COMPLIANCE:

ZONE 4 MAX GLAZING U-FACTOR = 0.35 CEILING R-38 WALLS R-15 FLOORS R-19

ALL DIMENSIONS ARE TO BE VERIFIED BY OWNER/BUILDER
BEFORE CONSTRUCTION BEGINS. ONCE CONSTRUCTION HAS BEGUN,
DESIGNER IS RELEASED FROM ANY AND ALL LIABILITY ASSOCIATED
WITH THE CONSTRUCTION OF THIS CUSTOM RESIDENCE.
THIS PLAN IS DESIGNED UNDER THE 2018 NORTH CAROLINA
RESIDENTIAL CODE

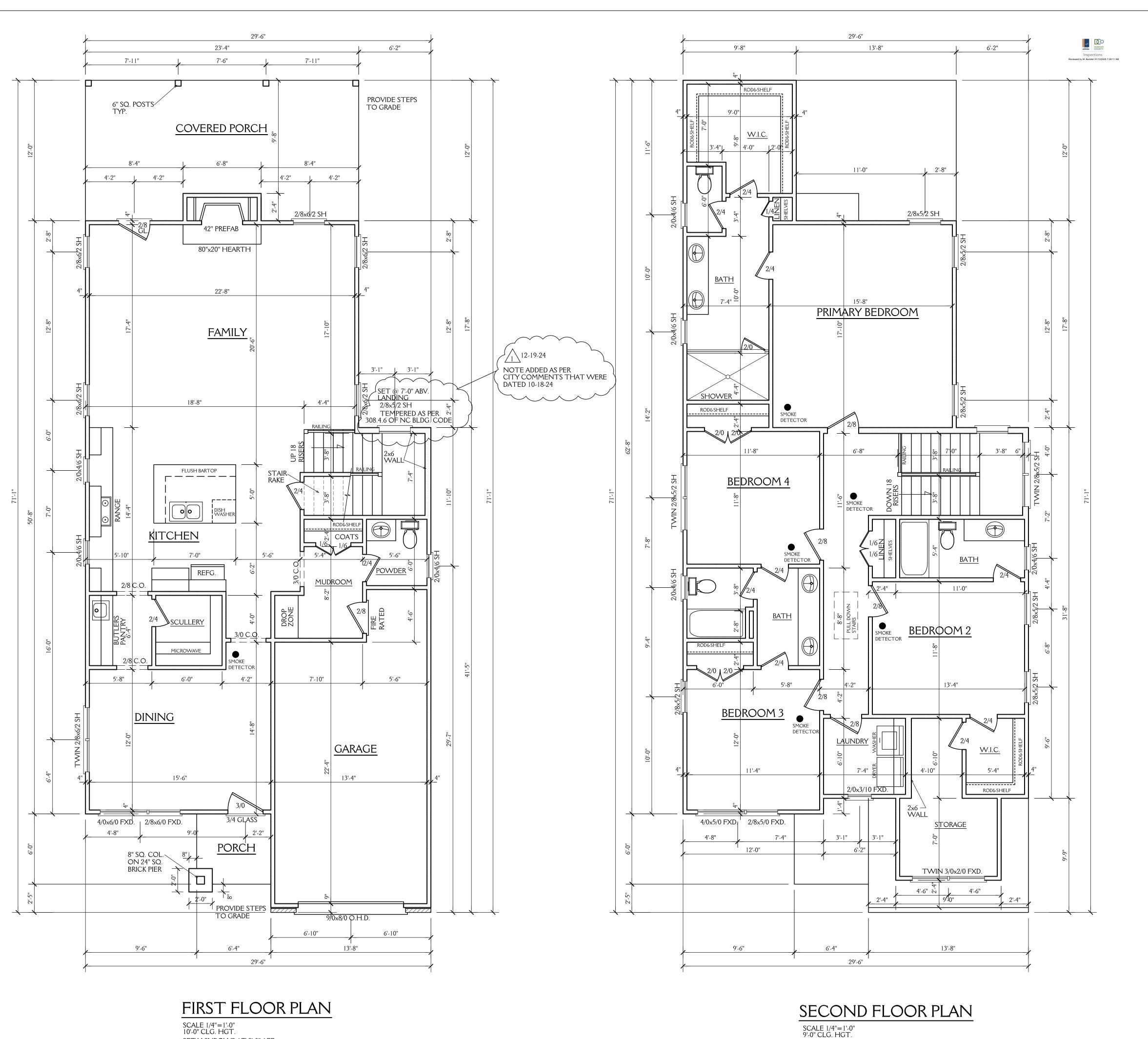




RIGHT ELEVATION

SCALE 1/4"=1'-0"





SET WINDOWS AT 8'-0" AFF

NOTE: ALL DOORS & CASED OPENINGS TO BE 8'-0" HGT.

ALL DIMENSIONS ARE TO BE VERIFIED BY OWNER/BUILDER BEFORE CONSTRUCTION BEGINS. ONCE CONSTRUCTION HAS BEGUN, DESIGNER IS RELEASED FROM ANY AND ALL LIABILITY ASSOCIATED WITH THE CONSTRUCTION OF THIS CUSTOM RESIDENCE. THIS PLAN IS DESIGNED UNDER THE 2018 NORTH CAROLINA RESIDENTIAL CODE

NOTES:

CONSTRUCTION TO MEET OR EXCEED ALL REQUIREMENTS OF THE 2018 NC RESIDENTIAL BUILDING CODE

1. SEE SECTION R310 OF THE 2018 NC RESIDENTIAL BUILDING CODE FOR ALL

- EMERGENCY ESCAPE & RESCUE OPENING requirements. SEE SECTION R303 OF THE 2018 NC RESIDENTIAL
- BUILDING CODE FOR LIGHT & VENTILATION REQUIREMENTS. SEE SECTION R310.1 & R311 OF THE 2018 NC RESIDENTIAL BUILDING CODE EGRESS REQUIREMENTS.
- 2. BUILDER & WINDOW SALESMAN TO CONFIRM THAT WINDOWS CHOSEN MEET ALL REQUIREMENTS OF SECTION R310 OF THE 2018 NC RESIDENTIAL BUILDING CODE.
- 3. SEE SECTION R308.4 OF THE 2018 NC
- RESIDENTIAL BLDG. CODE FOR GLAZING REQUIREMENTS IN HAZARDOUS LOCATIONS
- 4. PROVIDE FALL PROTECTION AT WINDOWS AS REQUIRED
- BY 2018 NC RESIDENTIAL BUILDING CODE
- 5. ALL GLASS TO HAVE A U FACTOR OF 0.32 OR BETTER AND SHGC OF .30 OR BETTER.
- 6. SEE CHAPTER 11 OF THE 2018 NC RESIDENTIAL BUILDING CODE FOR ALL ENERGY CONSERVATION
- REQUIREMENTS 7. SEE SECTION R302.5 & R302.6 OF THE 2018 NC RESIDENTIAL BLDG. CODE FOR DWELLING/

GARAGE FIRE SEPARATION REQUIREMENTS

- 8. SEE APPENDIX M OF THE 2018 NC RESIDENTIAL BUILDING CODE FOR ALL DECK CONSTRUCTION REQUIREMENTS
- 9. PROVIDE CARBON MONOXIDE DETECTORS AS PER SECTION R315 OF THE 2018 NC RESIDENTIAL BUILDING CODE
- 10. PROVIDE CRAWLSPACE ACCESS AS PER SECTION 408.8 OF THE 2018 NC RESIDENTIAL BUILDING CODE
- LOCATION T.B.D. IN FIELD BY BUILDER. 11. PROVIDE FOUNDATION DRAINAGE AS PER CODE.
- SEE SECTIONS 405, 801.3 & 401.3 OF THE 2018 NC RESIDENTIAL BUILDING CODE. 12. SEE SECTION R311.7 OF THE 2018 NC RESIDENTIAL
- BUILDING CODE FOR ALL STAIRWAY REQUIREMENTS. SEE SECTION R312 OF THE 2018 NC RESIDENTIAL BUILDING CODE FOR ALL GUARD RAIL & HAND RAIL REQUIREMENTS.
- 13. SEE SECTION R307 OF THE 2018 NC RESIDENTIAL BUILDING CODE FOR ALL BATH FIXTURE CLEARANCES. 14. SEE CHAPTER 10 OF THE NC RESIDENTIAL BUILDING
- CODE FOR ALL FIREPLACE & CHIMNEY CLEARANCES & REQUIREMENTS.
- 15. ALL ANGLES WALLS ARE 45° U.N.O.

ABBREVIATIONS

CANT.: CANTILEVER TYP.: TYPICAL C.O.: CASED OPENING CLG.: CEILING D.W.: DISHWASHER HGT.: HEIGHT W.I.C.: WALK IN CLOSET

SHWR. : SHOWER DN. : DOWN COL.: COLUMN TRANS.: TRANSOM

1165 SQ FT HTD (1ST FLOOR) 1369 SQ FT HTD (2ND FLOOR) 2534 SQ FT HTD TOTAL

38 SQ FT (PORCH) 264 SQ FT (COV. PORCH) 94 SQ FT (STORAGE) 330 SQ FT (GARAGE) 726 UNHEATED TOTAL



DATE: 10-8-24 **REVISIONS:**

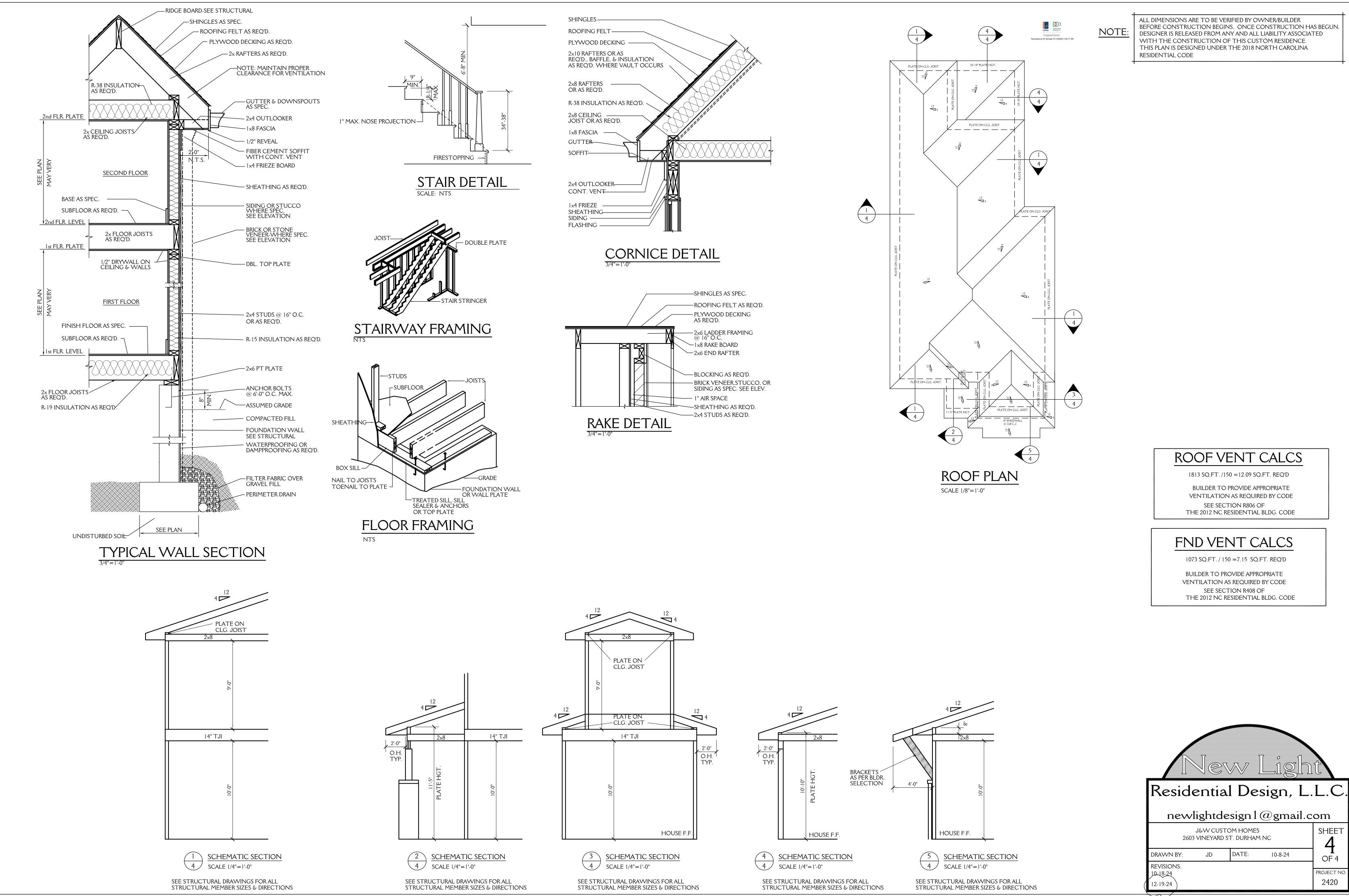
SET WINDOWS AT 7'-10" AFF U.N.O.

12-19-24

OF 4

PROJECT NO

2420

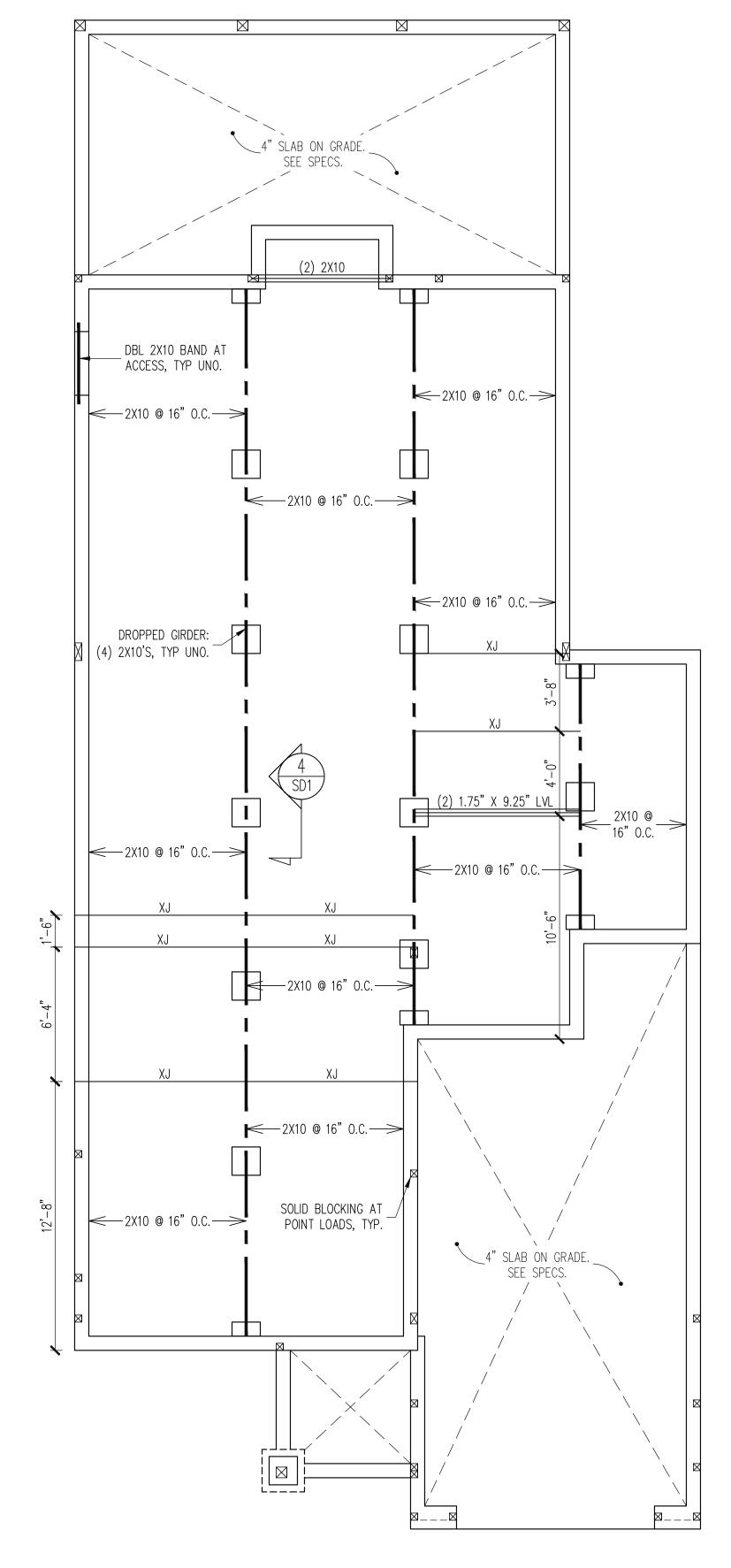


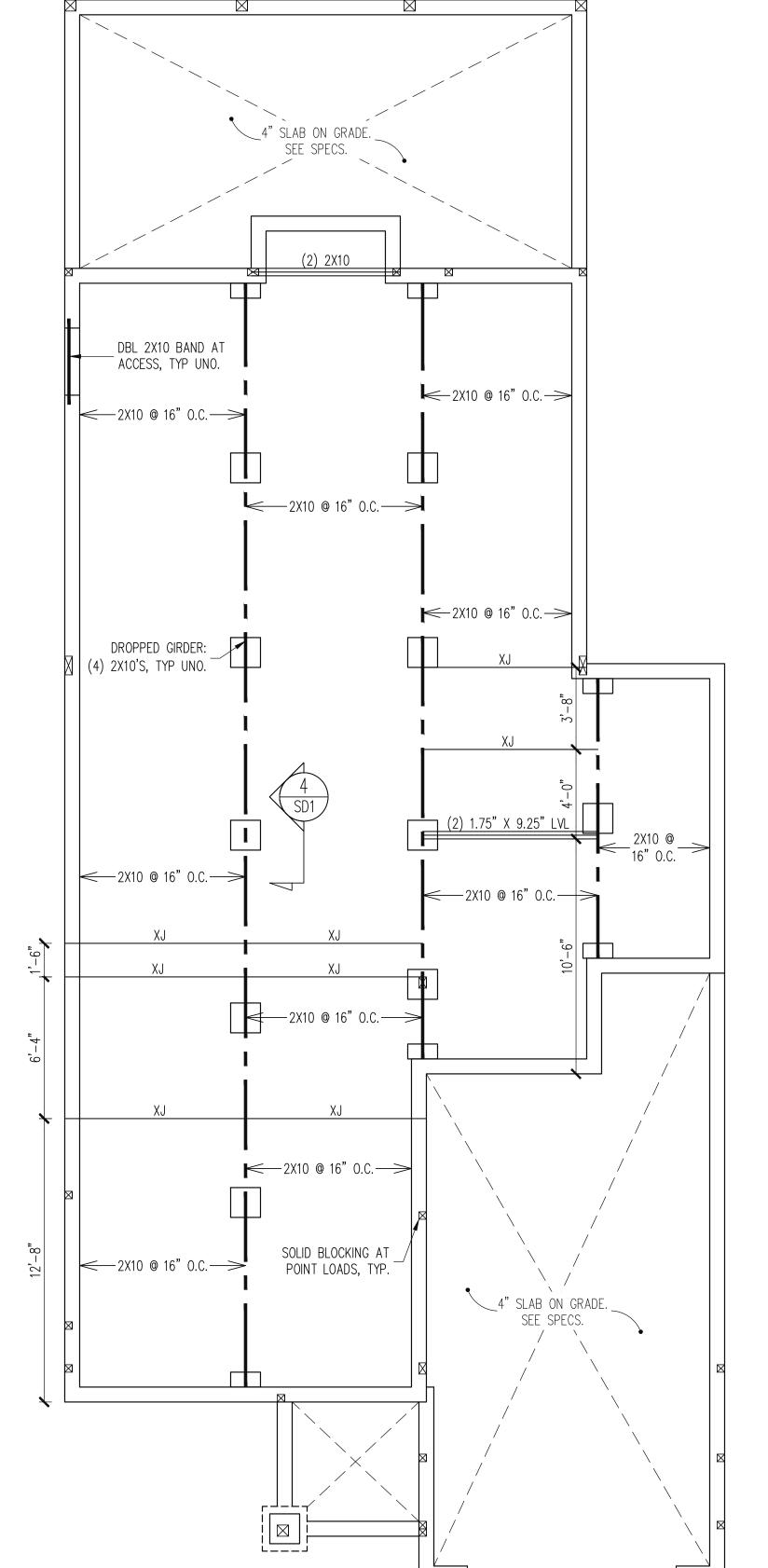
SHEET

OF 4

PROJECT NO

2420





ENG: PAL/NBG DATE: 10/07/2024

PROJECT NO. 24-17-014

SHEET NO.

of 5

CRAWLSPACE FRAMING PLAN 1/4" = 1'-0"



REFER TO THE CONSTRUCTION SPECIFICATIONS SECTIONS FOR THE FOLLOWING INFORMATION:

PART 1.01: <u>CURRENT GOVERNING CODE</u>

PART 14: <u>STUD SUPPORT FOR BEAMS</u>

23'-4"

42" SQ. X 12" THK.
SOLID MASONRY

16" SQ. MASONRY PIER

ON A 36" SQ. X 10" THK

CONC FTG TYP UNO.

DROPPED GIRDER: (4) 2X10'S, TYP UNO.

8" X 16" CMU PILASTER, PROJECT

TYP UNO.

16" SQ MASONRY PIER ON A 36" SQ. X 10" THK CONC FTG

4" BRICK AROUND 16"

9'-6"

SQ. MASONRY PIER, TYP

FTG 8" X 8" THK,

8"OFFSET @ EXTERIOR SIDE

6'-4"

29'-6"

ENLARGE FOOTING TO 42" SQ. X 12" THK.—
SOLID MASONRY ABOVE.

_4" SLAB ON GRADE.

SEE SPECS.

PROJECT FOOTING 12" @

GARAGE DOOR OPENING

9'-4"

13'-8"

12" THK MASONRY FND WALL ON A 24" X 8" THK CONT POUR_ CONC FTG, TYP @ EXTERIOR WALLS WITH BRICK VENEER

-4" OFFSET

8'-4"

BUILDER FIELD VERIFY LOCATION—

8" THK MASONRY FND WALL

ON A 18" X 8" THK CONT—POUR CONC FTG, TYP UNO.

ENLARGE FOOTING TO 36" SQ. X 12" THK.

SOLID MASONRY ABOVE.

OF ACCESS

6'-2"

PART 16.02: GENERAL WALL BRACING NOTES

PART 17: KING STUDS FOR EXTERIOR WALLS

SEE DETAIL / CONSTRUCTION SPECIFICATIONS SHEETS FOR I-JOISTS ALLOWABLE SUBSTITUTIONS

-HEIGHT AND BACKFILL LIMITATIONS FOR
FOUNDATION WALLS ARE TO BE GOVERNED
BY THE NCSBC, LATEST EDITION.
REINFORCEMENT AND GROUTING SHALL BE
DETERMINED BY FINAL SITE CONDITIONS.

-BUILDER TO FIELD LOCATE CRAWLSPACE ACCESS OPENING WITH MINIMUM DIMENSIONS OF 18X24. DO NOT LOCATE ACCESS OPENING BELOW POINT LOADS FROM ABOVE WITHOUT ENGINEER APPROVAL.

FOUNDATION PLAN

1/4" = 1'-0"



ENG: PAL/NBG

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ARE TO BE CONTINUOUSLY SHEATHED WITH 7/16 APA RATED OSB NAILED TO STUDS WITH 8d NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C. IN PANEL FIELD.

WALL BRACING

SHADED WALLS:

PROVIDED CONTINUOUS SHEATHING = 197' MIN.

ALL EXTERIOR STUD WALLS, EXTERIOR SIDE,

REFERENCE PART 16.02 OF CONSTRUCTION SPECIFICATIONS FOR GENERAL WIND BRACING INFORMATION.

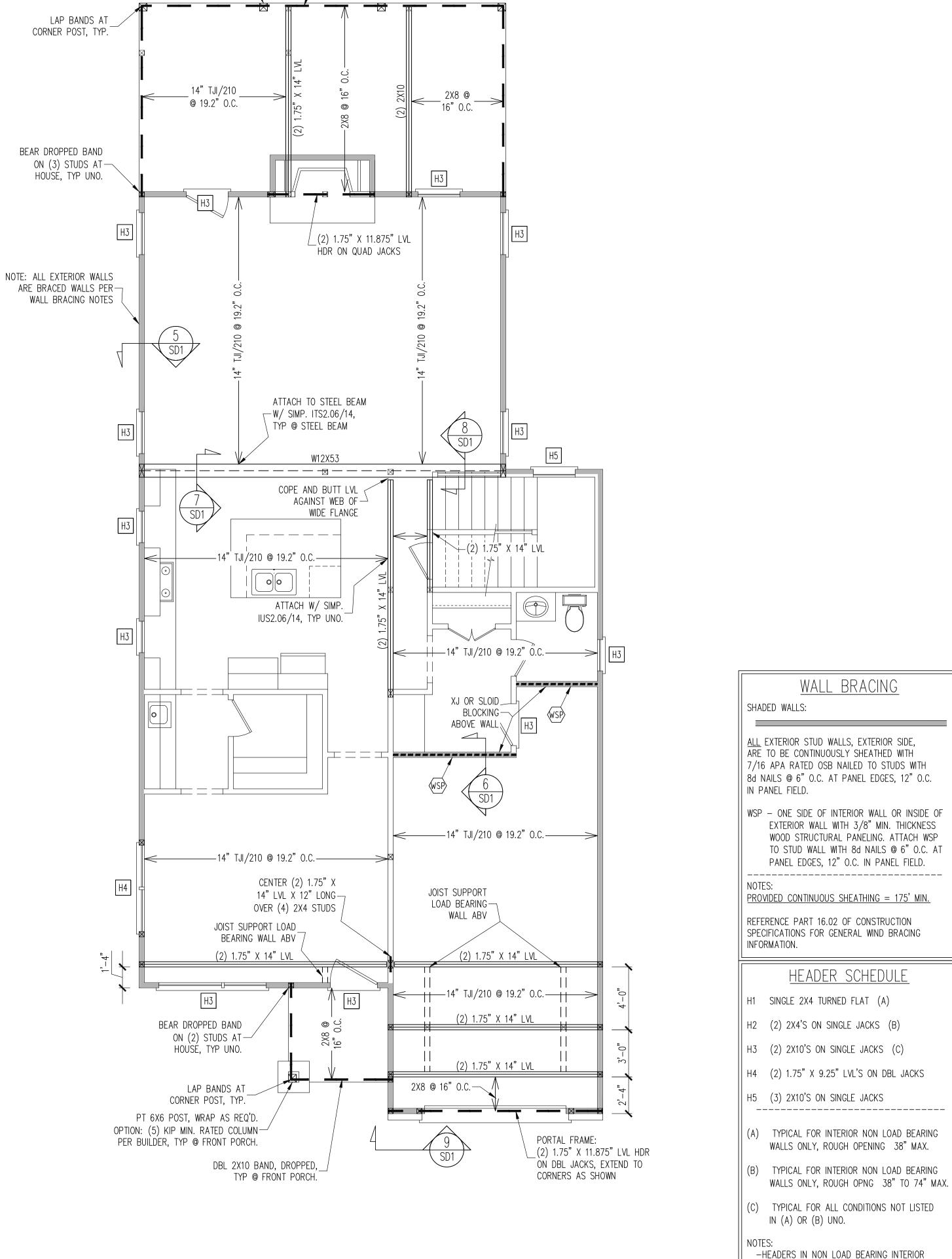
HEADER SCHEDULE

- H1 SINGLE 2X4 TURNED FLAT (A)
- H2 (2) 2X4'S ON SINGLE JACKS (B)
- H3 (2) 2X10'S ON SINGLE JACKS (C)
- H4 (2) 1.75" X 9.25" LVL'S ON DBL JACKS
- H5 (3) 2X10'S ON SINGLE JACKS
- (A) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPENING 38" MAX.
- (B) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPNG 38" TO 74" MAX.

- (C) TYPICAL FOR ALL CONDITIONS NOT LISTED
- IN (A) OR (B) UNO.

-HEADERS IN NON LOAD BEARING INTERIOR WALLS ARE NOT LABELED.

2ND FLOOR FRAMING PLAN WALLS AND CEILING 1/4" = 1'-0"



DBL (2) 1.75" X 11.875"

∕—LVL BAND, DROPPED,

TYP @ REAR PORCH.

PT 6X6 POST, WRAP AS REQ'D. ATTACH BAND WITH SIMP. LCE4Z POST CAP AT CORNER POST. ATTACH TO BAND WITH AC6Z MAX POST CAP AT INTERMEDIATE-

POSTS. ATTACH TO FND WITH SIMP ABU66Z POST

BASE PER DETAIL, TYP @ REAR PORCH

WALL BRACING

(2) 2X10

——2X8 @ 16" O.C.—

—2X8 @ 16" 0.C.-

RAFTERS

-FRAME

ABOVE

−2X8 @ 16"O.C.—

-2X8 @ 16"O.C.-

−2X8 @ 16" O.C.—

RAFTERS

(2) 2X10

H3

FRAME-

ABOVE

H3

+2X8 @ 16"O.C.-

(2) 2X10 HEADERS AND

LUS210-2, TYP @ PDS

-TRIMMERS, ATTACH W/ SIMP.

——2X8 @ 16"O.C.-

(2) 2X10 💉

2X8 @ 16" O.C.

(2) 2X10

H3

H3

RAFTERS

ABOVE

—FRAME

-2X8 @ 16"O.C.———

FRAME: ABOVE

ALL EXTERIOR STUD WALLS, EXTERIOR SIDE, ARE TO BE CONTINUOUSLY SHEATHED WITH 7/16 APA RATED OSB NAILED TO STUDS WITH 8d NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C.

WSP - ONE SIDE OF INTERIOR WALL OR INSIDE OF EXTERIOR WALL WITH 3/8" MIN. THICKNESS WOOD STRUCTURAL PANELING. ATTACH WSP TO STUD WALL WITH 8d NAILS @ 6" O.C. AT

REFERENCE PART 16.02 OF CONSTRUCTION SPECIFICATIONS FOR GENERAL WIND BRACING

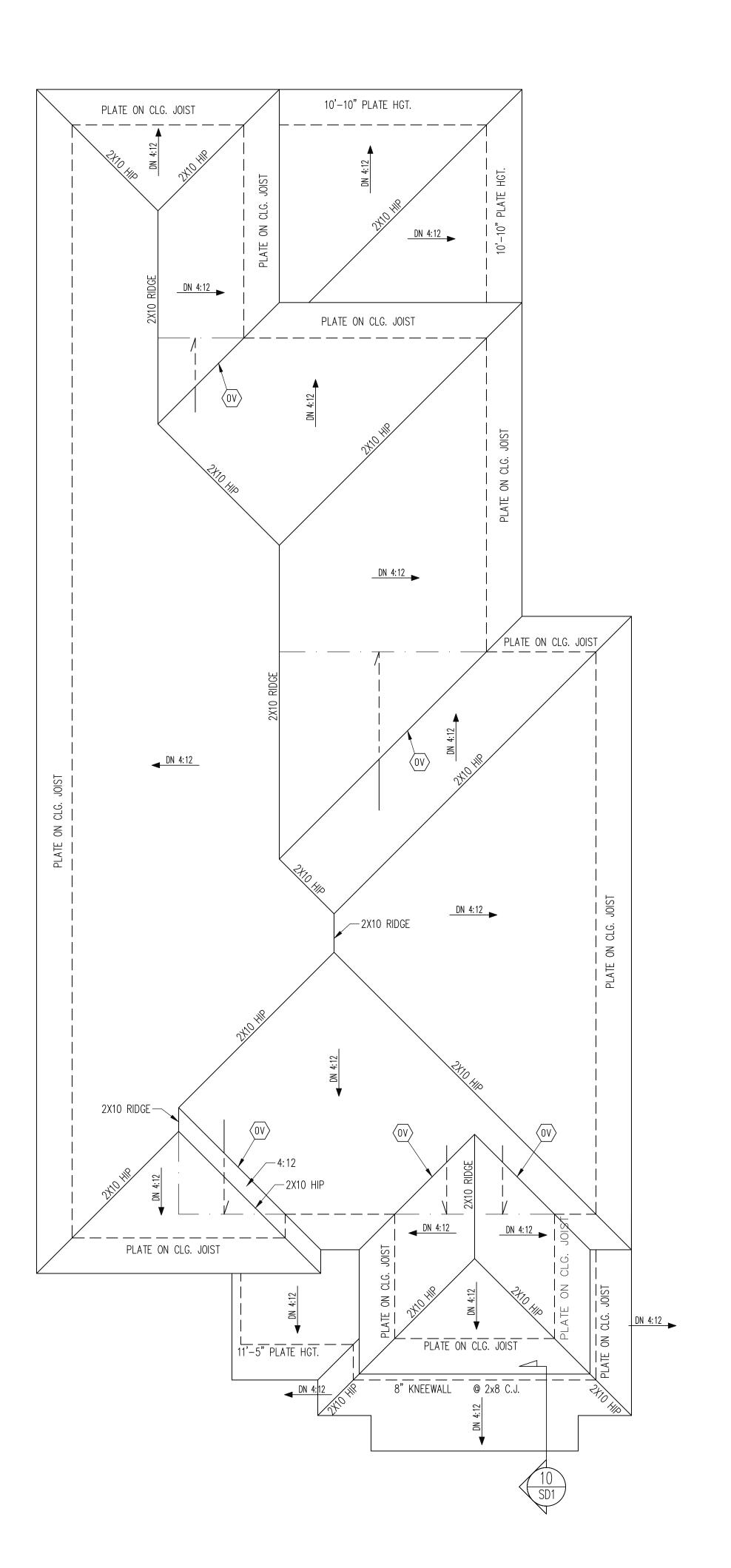
HEADER SCHEDULE

- H2 (2) 2X4'S ON SINGLE JACKS (B)
- H3 (2) 2X10'S ON SINGLE JACKS (C)
- H4 (2) 1.75" X 9.25" LVL'S ON DBL JACKS
- (A) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPENING 38" MAX.
- (B) TYPICAL FOR INTERIOR NON LOAD BEARING
- (C) TYPICAL FOR ALL CONDITIONS NOT LISTED

WALLS ARE NOT LABELED.

1ST FLOOR FRAMING PLAN WALLS AND CEILING 1/4" = 1'-0"





J&W CUST STRUCTURAI 2603 VINEYARD ST

ENG: PAL/NBG
DATE: 10/07/2024

DATE: 10/07/2024

PROJECT NO. 24-17-014

SHEET NO.

\$3

OV OVERFRAME VALLEY (2X10 SLEEPER)

ROOF FRAMING PLAN

1/4" = 1'-0"

FRAMING NOTES

ROOF ONLY

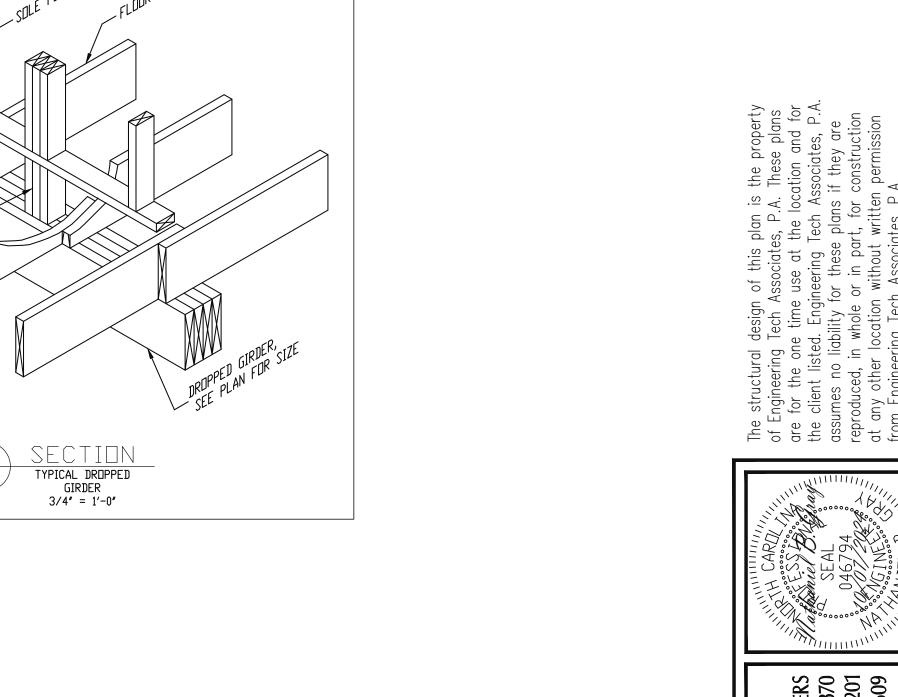
-COMMON RAFTERS 2X8 @ 16" O.C. TYP U.N.O. -COLLAR TIES 2X4 EVERY 3RD SET OF RAFTERS TYP U.N.O.

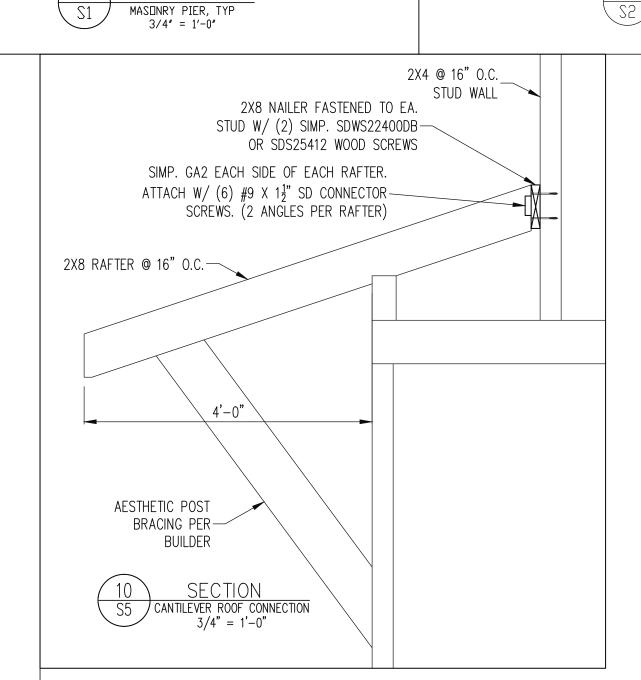
-VERIFY ROOF PITCHES, OVERHANG LENGTHS, AND KNEEWALL FRAMING HGTS WITH ARCHITECTURAL DRAWINGS, TYPICAL.

FRAMING SCHEDULE

ROOF ONLY







16" CONCRETE MASONRY

#4 REBAR, CONTINUOUS,

(1) PER CELL. LAP SPLICED

→ 90° HOOK INTO FOOTING

NOTE: FLOOR SHEATHING

OMITTED FOR CLARITY

UNIT, GROUTED SOLID

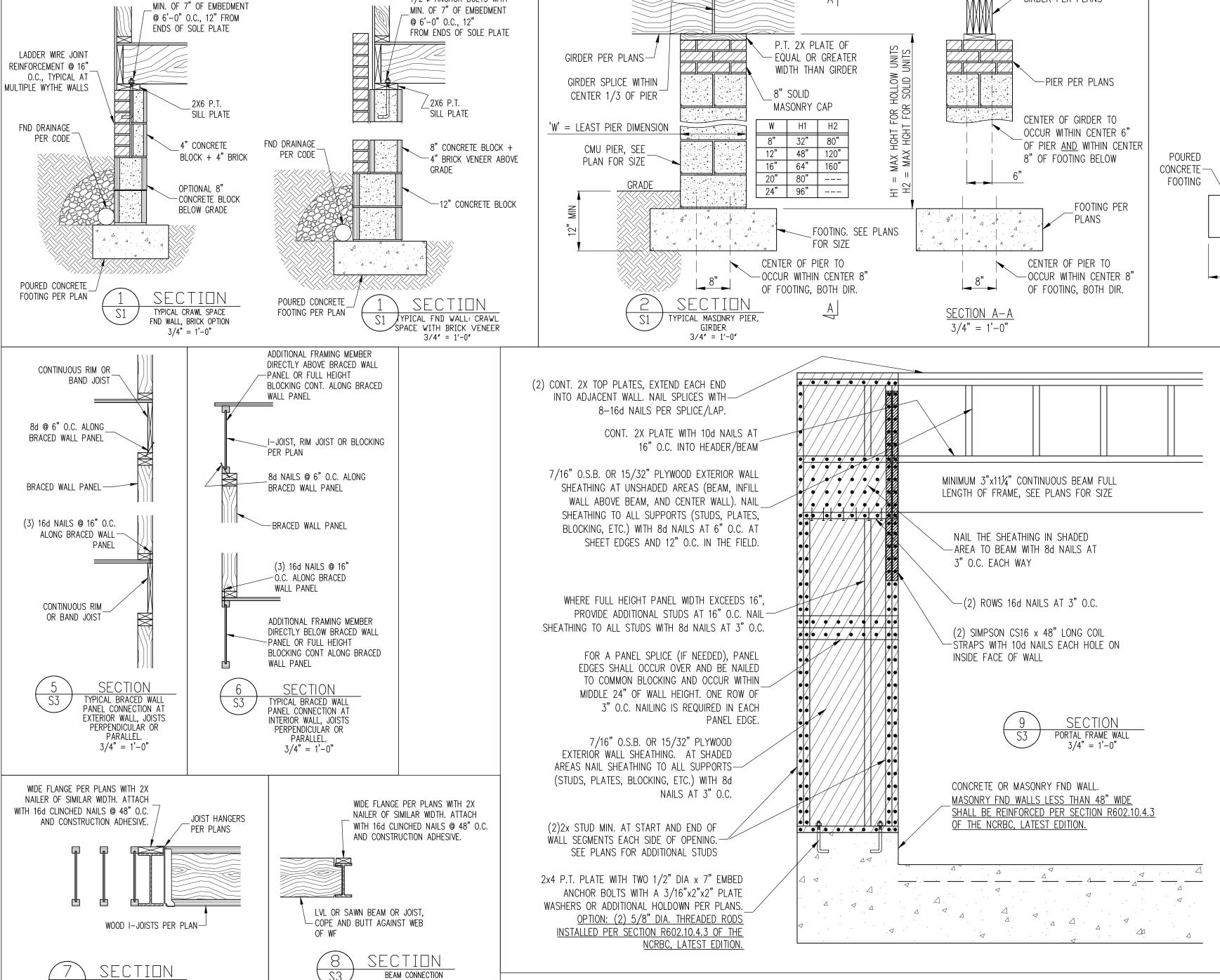
−4" BRICK

REBAR 20" MIN.

10"

3'-0"

GIRDER PER PLANS



1/2"ø ANCHOR BOLTS WITH

LVL OR SAWN TO WF, TYP.

3/4" = 1'-0"

1/2"ø ANCHOR BOLTS WITH

WOOD I-JOIST AT WIDE FLANGE

3/4" = 1'-0"

J&W CUSTOM HOMES

OC: 2603 VINEYARD ST

OC: 2603 VINEYARD ST

REV # REF PROJ # DATE

318 W N

ASSOCIATES B.A.

ASSOCIATES B.A

ENG: PAL/NBG
DATE: 10/07/2024

PROJECT NO. 24-17-014

SHEET NO.

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00	CULATIONS THAT AF F AND FLOOR TRUS SS DRAWING SHOULI	SSES TO BE	DESIGNED I	BY AN ENGINEER R	EGISTERED BY THI	E STATE. FINAL	EA FLG FL PL FLR	EACH FLANGE FLITCH PLATE FLOOR	QJ SP SQ	QUAD JOIST STUD POCKET SQUARE
						1				
	<u>ALLOV</u>	WABLE	E I-JOIS	T SUBSTIT	UTION					
	NOTE: MAINTAIN JOIST DEPTH, DIRECTION, AND SPACING SPECIFIED ON PLANS.									
	MANUFACTURER	DEPTH	SERIES	SIMPSON FACE MOUNT HGR	SIMPSON TOP FLANGE HGR					
	BLUELINX		BLI 40	IUS2.56/11.88	ITS2.56/11.88					
	BOISE CASCADE		BCI 5000s	IUS2.06/11.88	ITS2.06/11.88					
	BOISE CASCADE INTERNATIONAL	11.875"	BCI 6000s IB 400	IUS2.37/11.88 IUS2.56/11.88	ITS2.37/11.88 ITS2.56/11.88					
	BEAMS	11.073	וט וטט	1032.30/11.00	1132.30/11.00					

<u>ALLO\</u>	<u>wable</u>	<u> </u>	T SUBSTIT	<u> TUTION</u>	
NOTE: MAINTAIN PLANS.	JOIST DEPT	H, DIRECTION	I, AND SPACING SF	PECIFIED ON	
MANUFACTURER	DEPTH	SERIES	SIMPSON FACE MOUNT HGR		
BLUELINX	11.875"	BLI 40	IUS2.56/11.88	ITS2.56/11.88	
BOISE CASCADE				ITS2.06/11.88	
BOISE CASCADE				ITS2.37/11.88	
INTERNATIONAL BEAMS	11.875"	IB 400		ITS2.56/11.88	
LP CORP	11.875"	LPI 20+	IUS2.56/11.88	ITS2.56/11.88	
NORDIC	11.875"	NI 40X	IUS2.56/11.88	ITS2.56/11.88	
ROSEBURG	11.875"	RFPI 40s	IUS2.56/11.88	ITS2.56/11.88	
WEYERHAEUSER	11.875"	TJI 210	IUS2.06/11.88	ITS2.06/11.88	
WEYERHAEUSER	11.875"	EEI-20	IUS2.37/11.88	ITS2.37/11.88	

BRAND HANGERS WITH EQUIVALENT VALUES AS DESIRED.

<u>CONSTRUCTION</u>	SPECIFICATIONS

- 1.01 CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
- 1.02 DIMENSIONS SHOWN SHALL GOVERN OVER SCALE ON THESE DRAWINGS. 1.05 METHODS, PROCEDURES AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR, WHO SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION. PART 2: DESIGN LOADS
- 2.01 DESIGN LOADS SHALL CONFORM WITH THE TABLE BELOW:

USE	LIVE LOAD (PSF)	DEAD LOAD (PSF)
BALCONIES, DECKS, ATTICS WITH FIXED STAIR ACCESS, DWELLING UNITS INCLUDING ATTICS WITH FIXED STAIR ACCESS, STAIRS, FIRE ESCAPES	40	10
GARAGES (PASSENGER CARS ONL)	r) 50	
ATTICS (NO STORAGE, LESS THAN 5' HEADROOM	1) 10	10
ATTICS (WITH STORAGE	20	10
ROC	F 20	10 (15 FOR VAULTS)

- NOTES: INDIVIDUAL STAIR TREADS ARE TO BE DESIGNED FOR THE UNIFORMLY DISTRIBUTED LIVE LOAD OF 40 PSF OR A 300 LB. CONCENTRATED LOAD ACTING OVER AN AREA OF 4 SQ. WHICHEVER PRODUCES THE GREATER STRESS. - BUILDER TO VERIFY DEAD LOAD DOES NOT EXCEED 10 PSF WHEN HEAVY FLOOR OR ROOF FINISHES SUCH AS TILE OR SLATE ARE UTILIZED. NOTIFY ENGINEERING UNDER
- 2.02 INTERIOR WALLS: 5 PSF LATERAL.

<u>PART 1: GENERAL</u>

- 2.03 BASIC WIND DESIGN VELOCITY OF 120 MPH.
- 2.04 SOIL BEARING CAPACITY 2000 PSF (PRESUMPTIVE).
- PART 3: STRUCTURAL STEEL 3.01 WIDE FLANGE BEAMS AND TEE SECTIONS SHALL CONFORM TO ASTM A992 MINIMUM
- 3.02 SQUARE AND RECTANGULAR TUBING SHALL CONFORM TO ASTM A500 GRADE B MINIMUM
- 3.03 STEEL PIPE SHALL CONFORM TO ASTM A53 GRADE B, TYPE S, MINIMUM GRADE 3.04 ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 MINIMUM GRADE
- 3.05 STRUCTURAL STEEL CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
- 4.01 WELDING ELECTRODES SHALL BE E70XX AND ALL WELDING SHALL BE PERFORMED BY AN AWS CERTIFIED WELDER
- PART 5: CONCRETE AND SLABS ON GRADE
- 5.01 CAST IN PLACE CONCRETE SHALL BE OF NORMAL WEIGHT, 6% AIR ENTRAINMENT, AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS TYP UNO. LL CONCRETE, INCLUDING CONCRETE FOR FOOTINGS, IS TO BE CAST IN PLACE, TYP
- 5.02 REINFORCED CAST IN PLACE CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH THE SPECIFICATIONS OF ACI 318, LATEST EDITION.
- 5.03 SLABS ON GRADE, IF ANY, SHALL CONTAIN SYNTHETIC POLYPROPYLENE FIBRILLATED MICRO FIBERS, FIBER LENGTH 1 1/2", DOSAGE RATE 1 1/2 LBS/CU YD. SLAB TO BE PLACED ON A 6 MIL VAPOR BARRIER ON 2" MIN GRANULAR FILL ON SOIL WITH 90% MIN STANDARD PROCTOR DENSITY. VAPOR BARRIER MAY BE OMITTED FOR SLABS NOT IN ENCLOSED AREAS

PART 6: REBAR AND WIRE REINFORCEMENT

- 6.01 REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A615 GRADE 60 TYP UNO 6.02 LAP SPLICES SHALL BE CLASS B AS DEFINED BY ACI 318, TYP UNO
- 6.03 WIRE REINFORCEMENT SHALL BE 9 GA AND SHALL CONFORM TO ASTM A1064.
- PART 7: MASONRY 7.01 CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 AND C55, NORMAL WEIGHT,
- f'M = 1,500 PSI MIN
- 7.02 CLAY MASONRY UNITS SHALL CONFORM TO ASTM C62-17 GRADE SW 7.03 MORTAR SHALL BE TYPE S. MORTAR AND GROUT SHALL CONFORM TO ASTM C476, MIN
- COMPRESSIVE STRENGTH OF 2000 PSI. 7.04 MASONRY CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS OF ACI 530
- 7.05 LADDER WIRE REINFORCEMENT SHALL CONFORM TO ASTM A951. 6" MIN LAPS FOR CONTINUOUS WALL APPLICATIONS
- PART 8: BOLTS AND LAG SCREWS
- 8.01 BOLTS SHALL CONFORM TO ASTM A307 MINIMUM GRADE TYP UNO. INSTALL STANDARD STEEL WASHERS (ASTM F844-07a) FOR THE NUT / BOLT HEAD WHEN BOLTING WOOD
- 8.02 LAG SCREWS SHALL CONFORM TO ANSI/ASME STANDARD B18.2.1-1981. PILOT HOLES SHALL BE USED FOR LAG SCREW INSTÁLLATION AND SHALL BE BORED ACCORDING TO NDS SPECIFICATIONS. INSTALL STANDARD STEEL WASHERS (ASTM F844-07a) FOR
- 8.03 ANCHOR RODS AND BOLTS SHALL CONFORM TO ASTM F1554-15 GRADE 36 UNO. BENT ANCHOR BOLTS SHALL HAVE A 2" MIN HOOK UNO PART 9: DRIVEN FASTENERS
- 9.01 NAILS, SPIKES AND STAPLES SHALL CONFORM TO ASTM F 1667- 05. NAILS ARE TO BE COMMON WIRE OR BOX PART 10: DIMENSIONAL LUMBER
- 10.01 SOLID SAWN WOOD FRAMING DESIGN IS BASED ON NO. 2 SPRUCE PINE FIR <u>OR</u> SYP #2 FOR JOISTS, RAFTERS, GIRDERS, BEAMS, STUDS, ETC. PART 11: ENGINEERED LUMBER
- 11.01 LVL OR PSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS: E= 1.9 X 10E6 PSI, Fb = 2600 PSI, Fv = 285 PSI, Fc = 750 PSI LSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS: $E= 1.3 \times 10E6 \text{ PSI}$, Fb = 1700 PSI, Fv = 400 PSI, Fc = 680 PSI

- 11.02 LVL OR PSL MEMBERS MAY BE RIPPED FROM DEEPER MEMBERS TO MATCH THE MEMBER SHALL IMMEDIATELY CONTACT THE ENGINEER OF RECORD (EOR) BEFORE PROCEEDING IF THE DEPTH SPECIFIED IN THE PLANS PART 12: PRESSURE TREATED LUMBER
- 12.01 LUMBER IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA STANDARD C-15. ALL OTHER EXPOSED LUMBER SHALL BE TREATED IN ACCORDANCE WITH AWPA STANDARD C-2 OR BY ANY METHOD GIVING EQUAL PROTECTION. THE BUILDING CODE OFFICE MAY ALSO APPROVE A NATURAL DECAY RESISTANT WOOD PER SECTION 19-6(A)
- PART 13: STEEL FLITCH PLATE BEAMS
- 13.01 FLITCH PLATE BEAMS SHALL CONSIST OF A CONTINUOUS STEEL PLATE BOLTED BETWEEN CALC TWO PIECES OF CONTINUOUS LUMBER AS SIZED ON THE PLANS. BOLT PIECES TOGETHER USING 1/2" Ø BOLTS SPACED AT 24" O.C. STAGGERED TOP TO BOTTOM OF THE BEAM. | ROC MAINTAIN A 2" EDGE DISTANCE. PLACE TWO BOLTS, ONE ABOVE THE OTHER, $6" \pm 2"$ | $_{TRUS}$ FROM EACH END OF THE BEAM.
- PART 14: STUD SUPPORTS FOR BEAMS
- 14.01 STEEL, ENGINEERED LUMBER, AND FLITCH PLATE BEAMS BEARING ON A STUD WALL SHALL BEAR AS FOLLOWS:

-WHEN THE BEAM IS PERPENDICULAR TO, OR SKEWED RELATIVE TO THE WALL, THE BEAM

- SHALL BEAR <u>FULL WIDTH</u> ON THE SUPPORTING WALL INDICATED AND SHALL BE SUPPORTED BY A MINIMUM OF THREE GANGED STUDS, OR A GANGED STUD COLUMN WITH A NUMBER OF STUDS SUCH THAT THE STUD COLUMN IS AT LEAST AS WIDE AS THE TRUE WIDTH OF THE BEAM BEING SUPPORTED, WHICHEVER IS GREATER, TYP UNO. FOR THE SKEWED CONDITION PARTICULAR CARE SHALL BE TAKEN TO ENSURE STUD COLUMN IS CENTERED ON
- 2-BEAMS BEARING ONTO THE END OF A STUD WALL PARALLEL TO THE BEAM SHALL BEAR A MINIMUM OF 4 1/2" ONTO THE WALL AND BE SUPPORTED BY A TRPL STUD GANGED
- 14.02 DIMENSIONAL LUMBER BEAMS BEARING ON A STUD WALL SHALL BEAR AS FOLLOWS: 1-WHEN THE BEAM IS PERPENDICULAR TO, OR SKEWED RELATIVE TO THE WALL, THE BEAM SHALL BEAR <u>FULL WIDTH</u> ON THE SUPPORTING WALL INDICATED (LESS 1 1/2" TO ALLOW FOR A CONTINUOUS RIM JOIST WHERE APPLICABLE) AND SHALL BE SUPPORTED BY A GANGED STUD COLUMN THE SAME WIDTH AS THE BEAM TYP UNO. (E.G. A TRIPLE 2X10 IS TO BE SUPPORTED BY (3) STUDS). FOR THE SKEWED CONDITION PARTICULAR CARE SHALL BE TAKEN TO ENSURE STUD COLUMN IS CENTERED ON THE BEAM 2-BEAMS BEARING ONTO THE END OF A STUD WALL PARALLEL TO THE BEAM SHALL BEAR A MINIMUM OF 3" ONTO THE WALL AND BE SUPPORTED BY A DBL STUD GANGED COLUMN
- 14.03 EXTRA JOISTS BEARING ON A STUD WALL PERPENDICULAR TO OR SKEWED RELATIVE TO THE BEAM SHALL BE SUPPORTED BY ONE ADDITIONAL STUD.
- 14.04 STUDS THAT ARE GANGED TO FORM A COLUMN SHALL HAVE ADJACENT STUDS WITHIN THE COLUMN NAILED TOGETHER WITH ONE ROW OF 10d NAILS AT 8" O.C. (TWO ROWS OF 10d NAILS @ 8" O.C., 3" APART, FOR 2X8 OR 2X10 STUDS) ALL COLUMNS SHALL BE CONTINUOUS DOWN TO THE FOUNDATION OR OTHER PROPERLY DESIGNED STRUCTURAL ELEMENT SUCH AS A BEAM. COLUMNS TRANSFERRING LOADS THROUGH FLOOR LEVELS SHALL BE SOLIDLY BLOCKED FOR THE FULL WIDTH OF THE STUD COLUMN WITHIN THE CAVITY FORMED BY THE FLOOR JOISTS.

PART 15: NAILING OF MULTI PLY WOOD BEAMS

- 5.01 SOLID SAWN LUMBER JOISTS THAT ARE GANGED TO FORM A BEAM SHALL HAVE ADJACENT MEMBERS IN THE BEAM NAILED TOGETHER WITH THREE ROWS OF 10d NAILS @ 16" O.C. FOR 2X10 OR LARGER, TWO ROWS OF 10d NAILS @ 16" O.C. FOR 2X8, ONE ROW OF 10d NAILS @ 16" O.C. FOR 2X6 OR SMALLER. STAGGER ROWS 5" MIN.
- 15.02 LVL MEMBERS THAT ARE GANGED TO FORM A BEAM SHALL HAVE ADJACENT MEMBERS IN THE BEAM FASTENED TOGETHER PER MANUFACTURERS RECOMMENDATIONS, TYP

PART 16: WALL FRAMING AND BRACING

- 3.01 STUD WALLS SHALL CONSIST OF 2X4 STUDS SPACED AT 16" O.C. UNO. STUDS SHALL BE CONTINUOUS FROM SOLE PLATE AT FLOOR TO DOUBLE TOP PLATE AT THE CEILING OR ROOF. NO INTERMEDIATE BANDS OR PLATES SHALL CAUSE DISCONTINUITIES IN A STUD WALL EXCEPT AS REQUIRED FOR DOOR OR WINDOW OPENINGS. THE KING STUDS FOR SUCH OPENINGS SHALL BE CONTINUOUS, TYP UNK MAX ALLOWABLE WALL HEIGHTS FOR EXTÉRIOR STUD WALLS, INCLUSIVE OF SOLE PLATE AND DBL TOP PLATE AND 7/16" OSB EXTERIOR BRACING AND ROW OF 2X4 2X6 PURLINS AT 8' HEIGHT (AND AT 16' HEIGHT FOR TALL WALLS), TYP UNO: 2X4 @ 16" O.C.: 11'-1 1/2" 2X6 @ 16" O.C.: 17'-0" 2X4 @ 12" O.C.: 12'-1 1/2" 2X6 @ 12" O.C.: 18'-8" DBL 2X4 @ 16" O.C.: 13'-4" DBL 2X6 @ 16" O.C.: 21'-0"
- 16.02 FOR WALL BRACING THE FOLLOWING SHALL APPLY: -BLOCKING AT UNSUPPORTED PANEL EDGES IS REQUIRED TYP UNO. -WALL BRACING IS BY ENGINEERED DESIGN AND NOT PRESCRIPTIVE PER SECTION 602.10 OF THE 2018 NCRC. CONTINUOUS SHEATHING HAS BEEN PROVIDED, ALONG WITH ALTERNATIVE METHODS TO INSURE THE MINIMUM INTENT OF SECTION 602.10 OF THE 2018 NCRC HAS BEEN MET AND EXCEEDED. -BRACED WALL PANELS SHALL BE FASTENED IN ACCORDANCE WITH TABLE 602.3(1) TO PROVIDE CONTINUOUS PANEL UPLIFT RESISTANCE AND COMPLIANCE WITH NCRBC R602.3.5 AND R802.11 UNLESS NOTED OTHERWISE ON STRUCTURAL PLANS. -SINGLE JOIST, CONTINUOUS RIM JOIST, OR BLOCKING OF EQUAL DEPTH IS REQUIRED ABOVE AND BELOW ALL BRACED WALLS. NAIL BLOCKING ABOVE WALL TO TOP PLATE WITH 16d TOE NAILS @ 6" O.C. NAIL SOLE PLATE OF BRACED WALL TO BLOCKING

BELOW WITH (3) 16d NAILS @ 16" O.C. BLOCKING AT HORIZONTAL JOINTS IN BRACED

PART 17: KING STUDS

17.01 KING STUDS FOR OPENINGS IN EXTERIOR WALLS SHALL BE AS FOLLOWS:

WALL LINES ONLY REQUIRED AT SHADED WALLS, UNO.

		NOWREK OF KING STODS					
MAX OPENING	G WIDTH	5'-0"	9'-0"	13 ' -0"	17'-0"	21'-0"	
	2X4	1	2	3	4	5	
STUD SIZE	2X6	1	1	2	2	2	
	2X8	1	1	1	1	2	

PART 18: SUBSTITUTIONS

18.01 MATERIAL OR MEMBER SIZE SUBSTITUTIONS OR PLAN DEVIATIONS REQUIRE THE WRITTEN AUTHORIZATION OF THE DESIGNERS. UNAUTHORIZED DEVIATIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

PART 19: OWNERSHIP OF STRUCTURAL DESIGN

19.01 THE STRUCTURAL DESIGN OF THIS PLAN IS THE PROPERTY OF ENGINEERING TECH ASSOCIATES (ETA). THESE PLANS ARE FOR THE ONE TIME USE AT THE LOCATION INDICATED AND FOR THE CLIENT LISTED. ETA ASSUMES NO LIABILITY FOR THESE PLANS IF THEY ARE REPRODUCED, IN WHOLE OR IN PART, FOR CONSTRUCTION AT ANY OTHER LOCATION WITHOUT WRITTEN PERMISSION FROM ETA

ENG: PAL/NBG DATE: 10/07/2024

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