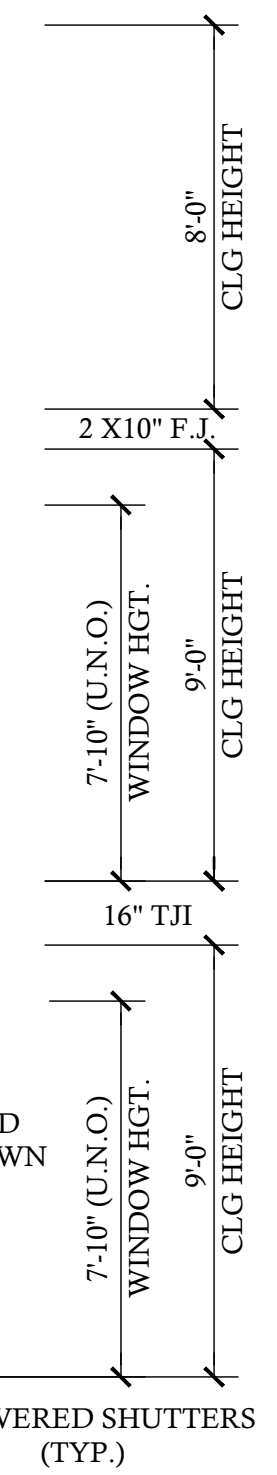
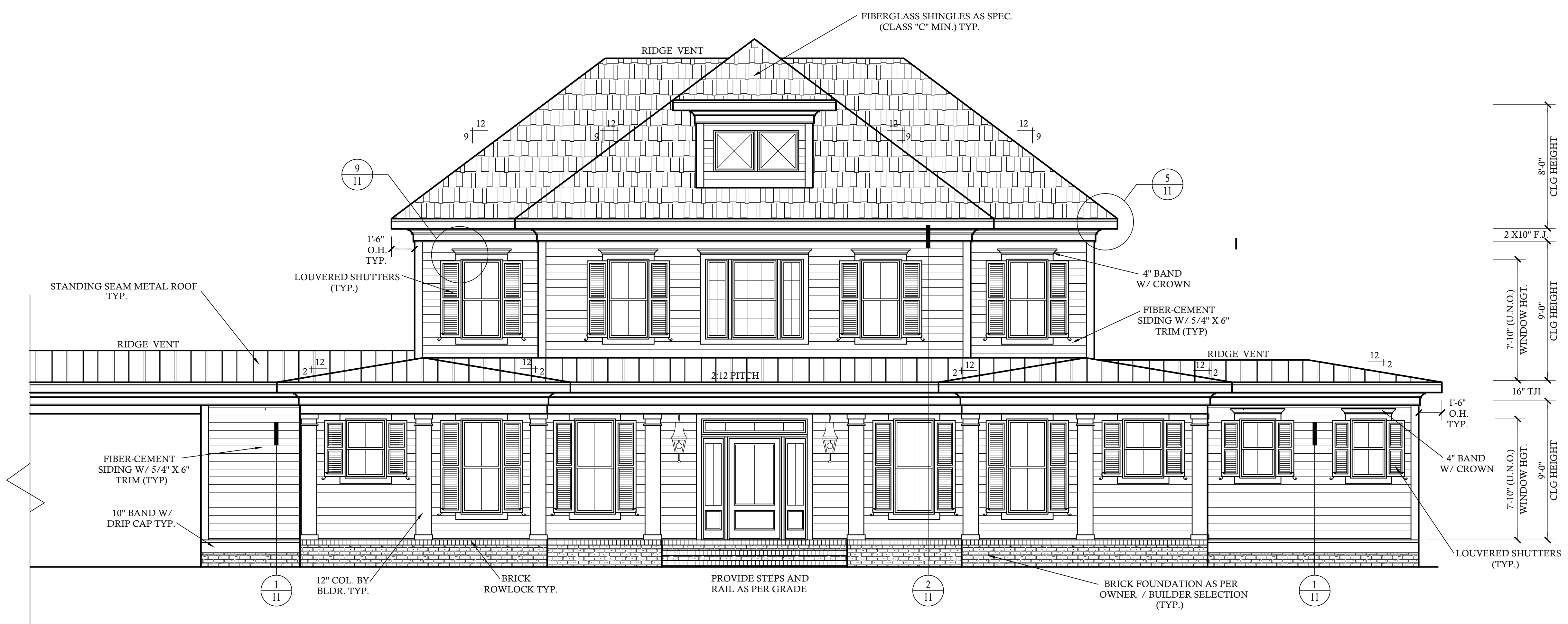


NOTE: PLANS DESIGNED UNDER 2018 NORTH CAROLINA RESIDENTIAL CODE.



FRONT ELEVATION SCALE: 1/4"=1'-0"

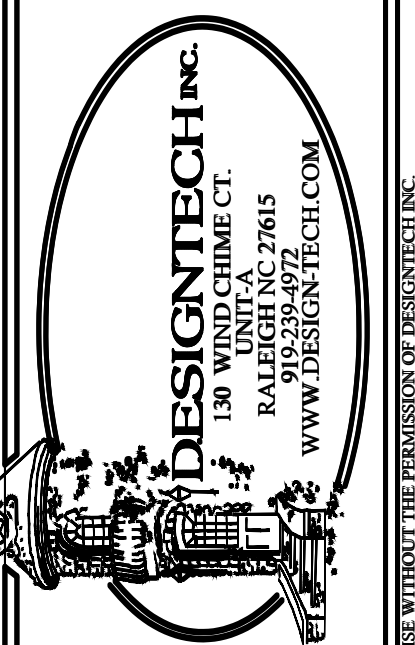
NOTE:  
SHUTTERS ARE SHOWN TO FIT WINDOW AND DOOR OPENINGS AND OPERATE FULLY. SEE BUILDER FOR HARDWARE CHOICE. WINDOWS ARE SHOWN W/ BRICK MOULDING OR 5/4\"/>

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. THE DESIGN OR CONDITIONS FOR CONSTRUCTION NOT SHOWN OR NOT SPECIFIED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR MUST COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS. HOME IS TO BE BUILT IF NO ENGINEERING DRAWINGS ARE LOCAL. CONTRACTOR MUST OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL ASSUME ALL RESPONSIBILITIES FOR CONSTRUCTION. PLAN HAS BEEN DESIGNED TO COMPLY WITH 2018 N.C.C.

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**LIST OF ABBREVIATIONS**

CLG. : CEILING	ABV. : ABOVE
HGT. : HEIGHT	C.O. : CASED OPENING
D.O. : DOUBLE OVEN	REFG. : REFRIGERATOR
WD. : WOOD	D.W. : DISHWASHER
CONT. : CONTINUOUS	T.B.D. : TO BE DETERMINED
CONC. : CONCRETE	W.I.C. : WALK IN CLOSET
COL. : COLUMN	W. : WASHER
ELLIP. : ELLIPSE	D. : DRYER
W/ : WITH	SHWR. : SHOWER
TRANS. : TRANSOM	DN. : DOWN
CANT. : CANTILEVER	K.S. : KNEE SPACE
M.O. : MASONRY OPENING	TYP. : TYPICAL
SS= 5 SHELVES	
1R/1S = 1 ROD AND 1 SHELF	
2R/2S = 2 RODS AND 2 SHELVES	
SD= SMOKE DETECTOR	
CMD= CARBON MONOXIDE DETECTOR	

**GENERAL PLAN NOTES**

1.) SEE CHAPTER 6 OF 2018 NCRS FOR WALL CONSTRUCTION.	5.) ALL ANGLED WALLS ARE 45° UNLESS NOTED OTHERWISE.	9.) ALL CABINET DESIGNS/LAYOUTS TO BE VERIFIED WITH OWNER VIA SHOP DRAWINGS FROM CABINET MANUF.	12.) FINISHES OF SCREEN PORCH COLUMNS, RAILS, FLOORS, CEILINGS, SCREEN DOOR SYSTEM, AND DOOR TO PORCH BY BLDR. & OWNER, PER CONTRACT SPECIFICATIONS
2.) TEMPERED GLASS TO BE USED AT ALL SAFETY REQUIRED LOCATIONS ACCORDING TO 2018 NCRS SECTION R308.4.	6.) VERIFY ALL WINDOW SIZES, RADIUS, AND DETAILS WITH CHOSEN MANUFACTURE.	10.) ALL FLOOR COVERINGS AND FINISHES BY OWNER/ BLDR. COORDINATE HEIGHTS DUE TO THICKNESS CHANGES.	13.) FINISHES FOR CLOSET SHELVING AND ROD BY BLDR. & OWNER, PER CONTRACT SPECIFICATIONS
3.) DWELLING/GARAGE FIRE SEPARATION SHALL PER TABLE 302.6 OF 2018 NCRS.	7.) LOCATE DORMER FACE TO ALLOW 4" MIN. BELOW WINDOW FRAME.	11.) ALL WINDOW GLAZING TO HAVE 0.32 U-FACTOR MIN. SEE TABLE E-4A, E-4B	14.) FINISHES OF ALL INTERIOR BASE BOARD, CLG. DETAIL / MOLDING, OPENING DETAILS, PASS-THRU, WAINSCOTTING DETAILS BY BLDR. & OWNER, PER CONTRACT SPECIFICATIONS
4.) ALL HABITABLE ROOMS SHALL MEET LIGHT/VENTILATION & EGRESS AS REQUIRED IN 2018 NCRS SECTIONS R303.1 AND R310	8.) FLOOR PLAN NOTATIONS GOVERN OVER ELEVATION SCALE.		

**ACCESSORIES LEGEND**

PROVIDE BLOCKING FOR:

TB = TOWEL BAR	MR = MAGAZINE RACK
TP = TOILET PAPER	MC = MEDICINE CABINET
TR = TOWEL RING	

NOTE:  
SELECTION BY OWNER PER BUILDER CONTRACT SPECIFICATIONS

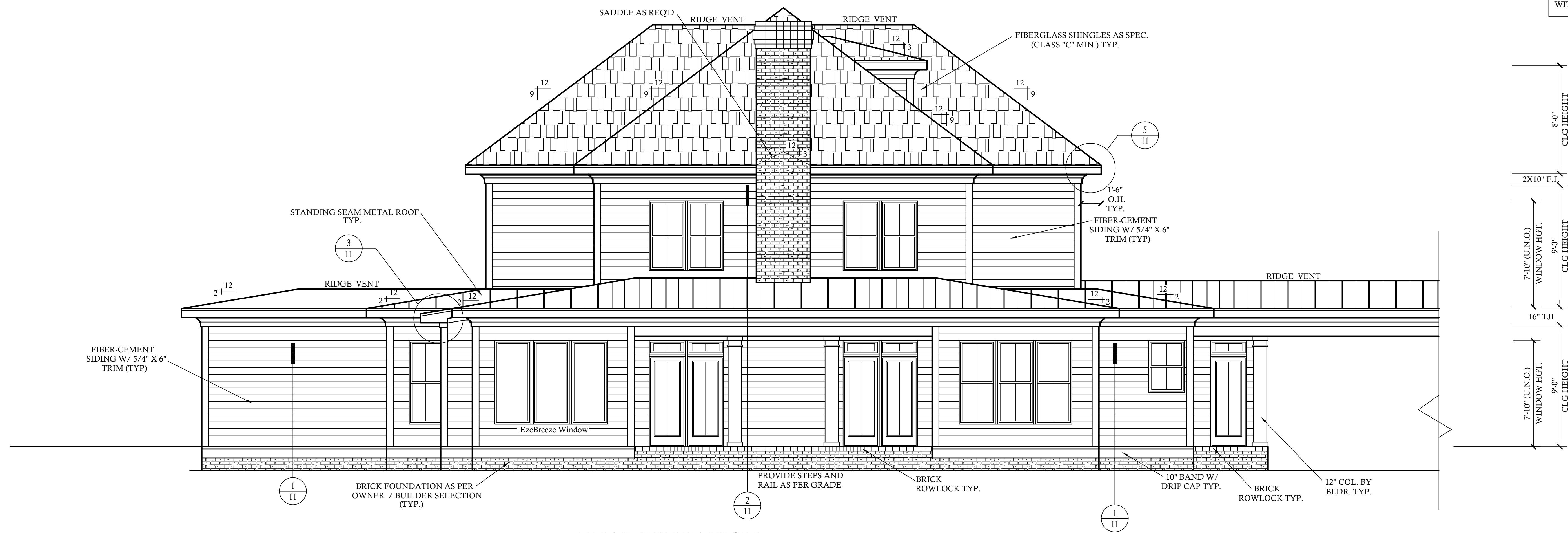
NOTE:  
-SEE ROOF PLAN FOR KNEEWALL HEIGHTS AND LOCATIONS.  
-GRADE LINES ARE ASSUMED. VERIFY WITH FINAL GRADING PLAN.

**AREA CALCULATIONS**

HEATED (SQ. FT.)	UNHEATED (SQ. FT.)
1ST FLOOR: 2689	GARAGE: 1185
2ND FLOOR: 1400	COV. PORCHES: 667
	SCR. PORCH: 144
	PORTICO: 578
<b>TOTAL: 4089</b> (HEATED)	<b>TOTAL: 2574</b> (UNHEATED)
OVERALL DIMENSIONS WIDTH: 78'-10" DEPTH: 61'-4"	UNFINISHED (SQ. FT.) ATTIC: 545

NOTE:  
SEE ROOF PLAN FOR KNEEWALL  
HEIGHTS AND LOCATIONS.

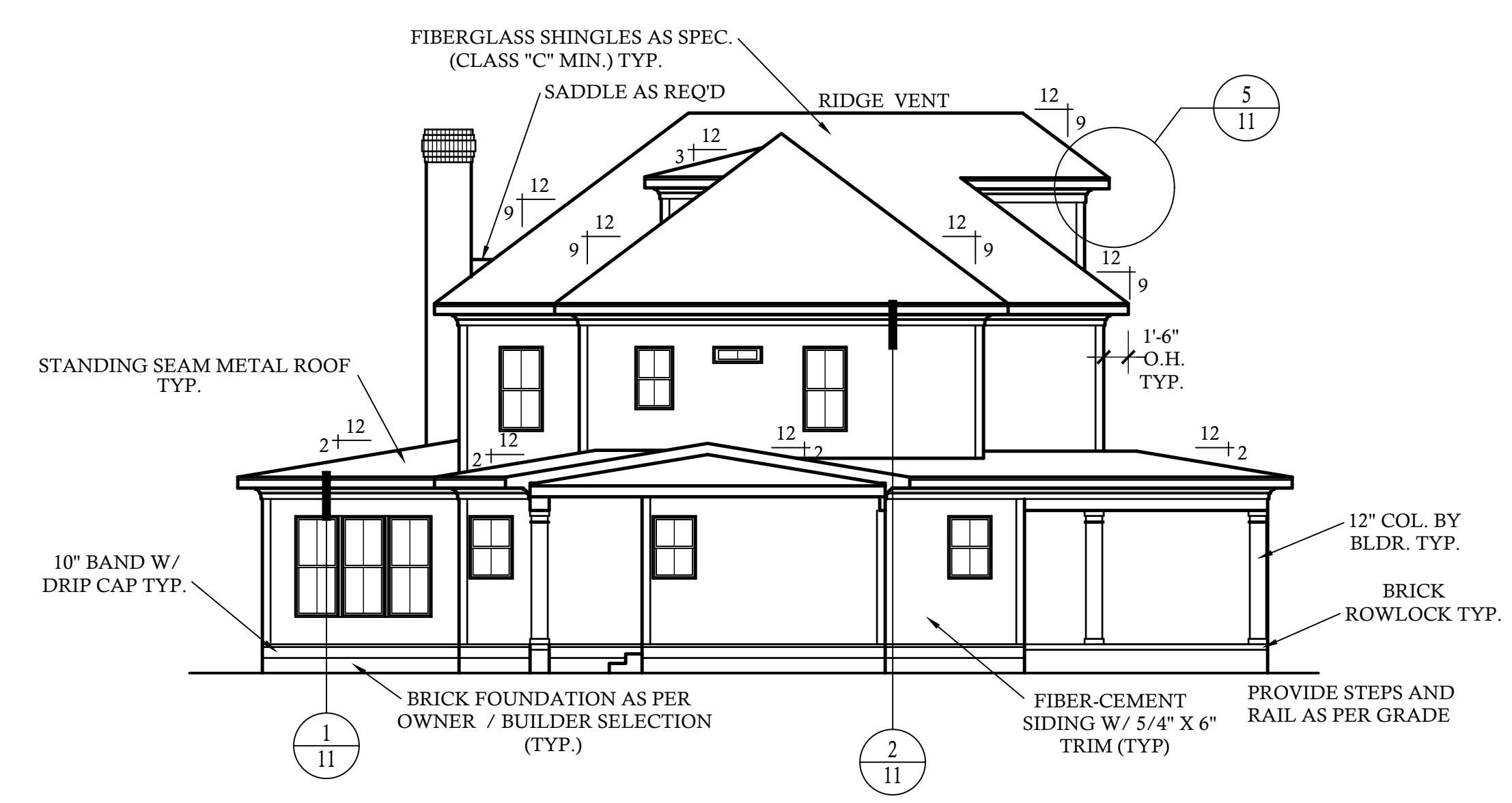
NOTE:  
GRADE LINES ARE ASSUMED. VERIFY  
WITH FINAL GRADING PLAN.



**REAR ELEVATION**

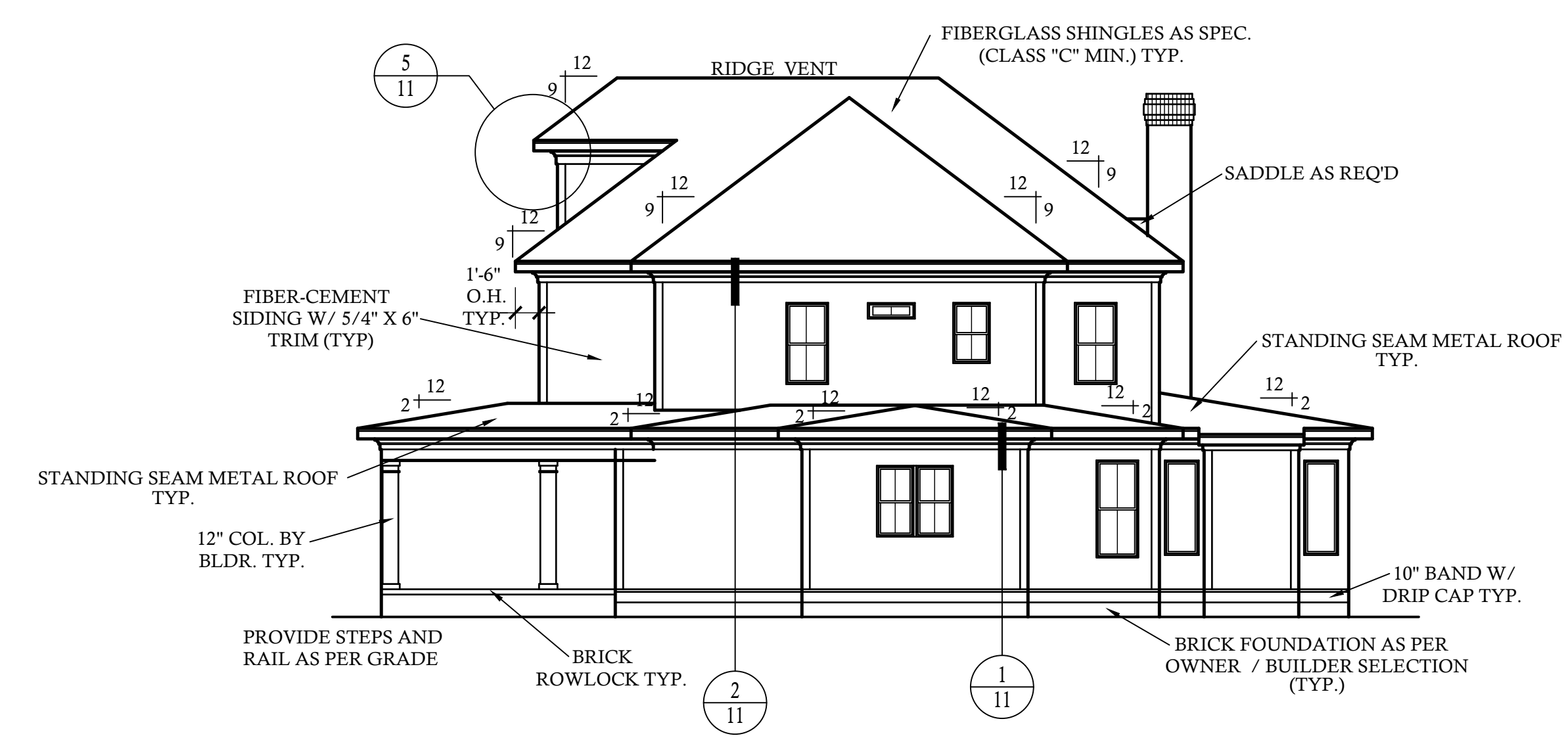
SCALE: 1/4"=1'-0"

EZEBREEZE WINDOWS ARE NOT SHOWN FULLY AT THIS TIME



**LEFT ELEVATION W/OUT GARAGE**

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



**RIGHT ELEVATION**

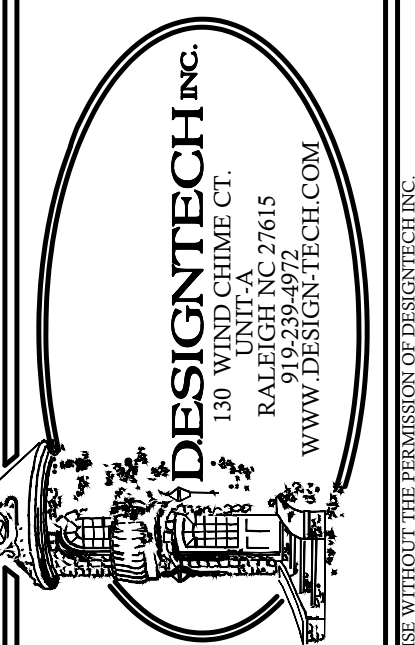
SCALE: 1/8"=1'-0"

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. ANY DEVIATION OR OMISSION SHALL BE REPORTED IMMEDIATELY TO THE ARCHITECT FOR CORRECTION. JUSTIFICATION: CONTRACTOR MUST COMPLY WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS. HOME IS TO BE BUILT IF NO ENGINEERING DRAWINGS ARE LOCAL. ENGINEERING CONTRACTOR MUST VERIFY ALL LOCAL REQUIREMENTS PRIOR TO CONSTRUCTION. STRUCTURAL DESIGN ONCE CONSTRUCTION HAS BEGUN. CONTRACTOR WILL ASSUME ALL RESPONSIBILITIES FOR ANY CHANGES. PLAN HAS BEEN DESIGNED TO COMPLY WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS.

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NOTE:  
SEE ROOF PLAN FOR KNEEWALL  
HEIGHTS AND LOCATIONS.

NOTE:  
GRADE LINES ARE ASSUMED. VERIFY  
WITH FINAL GRADING PLAN.

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES OR OMISSIONS SHALL BE REPORTED IMMEDIATELY TO THE ARCHITECT. THE ARCHITECT'S RESPONSIBILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THE HOME AS SHOWN ON THESE PLANS. THE ARCHITECT DOES NOT ASSUME RESPONSIBILITY FOR THE HOME TO BE BUILT IF NO ENGINEERING OR SURVEYING IS OBTAINED. THE CONTRACTOR MUST OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL JURISDICTION. THE ARCHITECT'S DESIGN IS BASED ON THE ASSUMPTIONS AND CONDITIONS STATED ON THESE PLANS. THE CONTRACTOR SHALL ASSUME ALL RISKS AND RESPONSIBILITIES FOR THE CONSTRUCTION OF THE HOME. THE ARCHITECT'S DESIGN IS NOT TO BE USED FOR ANY OTHER PROJECTS WITHOUT THE PERMISSION OF DESIGNTECH, INC.

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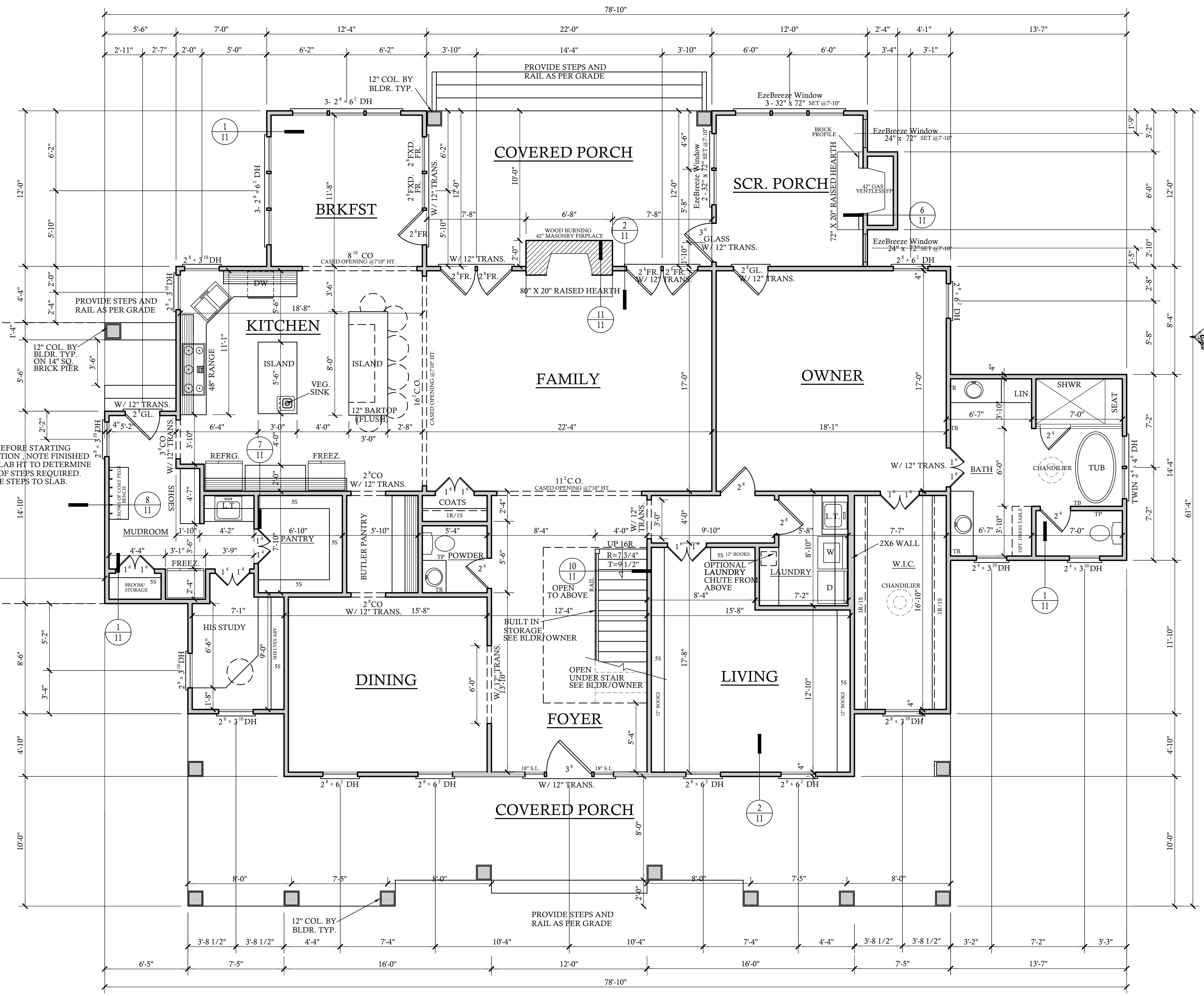


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ALL RIGHTS RESERVED. NO PART OF THESE PLANS MAY BE USED, REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING, OR OTHERWISE WITHOUT THE PERMISSION OF DESIGNTECH, INC. COPYRIGHT 2023 BY DESIGNTECH, INC.

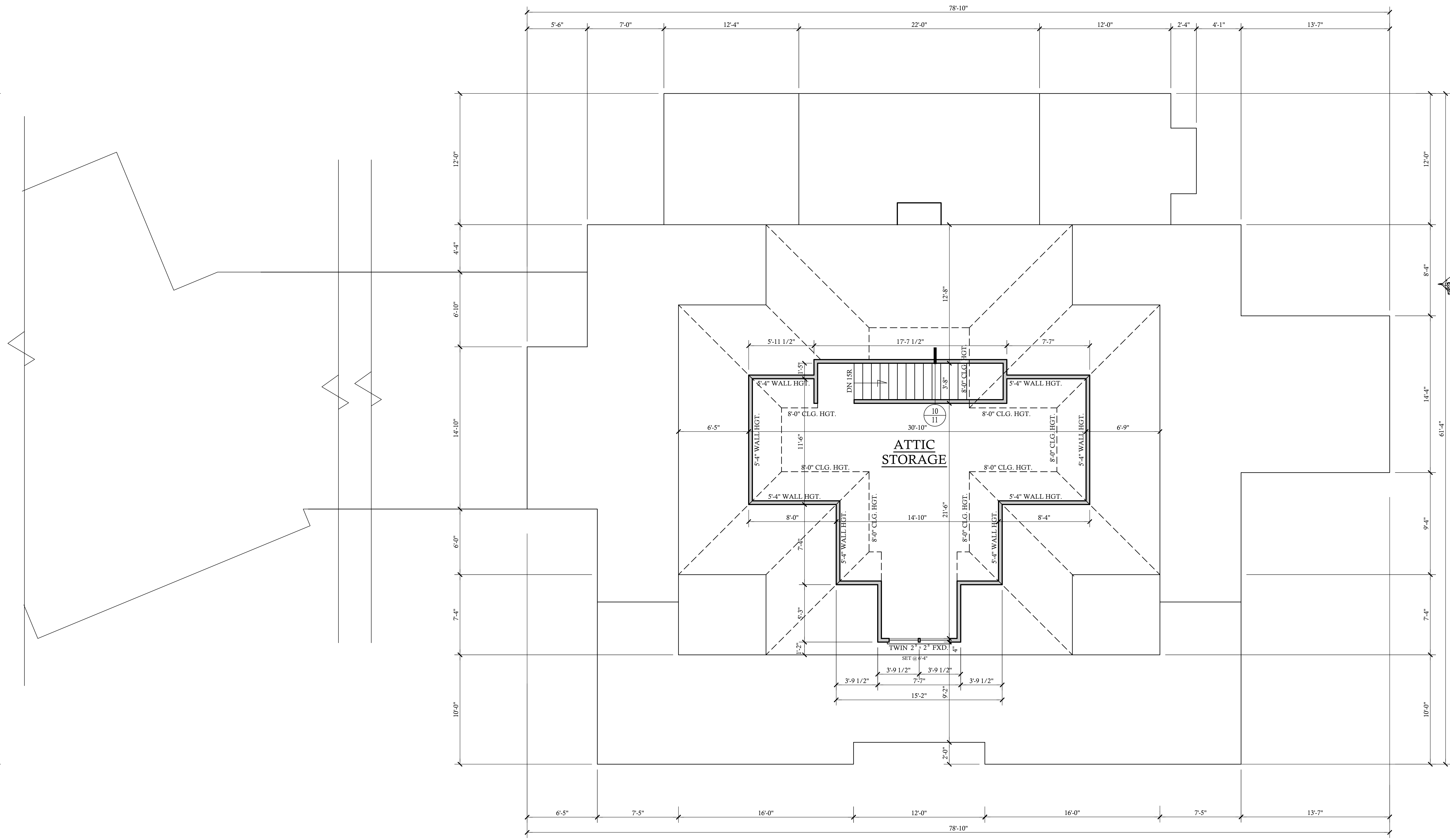
GARAGE & PORTICO SEE PAGE 9

NOTE: BEFORE STARTING CONSTRUCTION, NOTE FINISHED FLOOR HT vs SLAB HT TO DETERMINE NUMBER OF STEPS REQUIRED. PROVIDE STEPS TO SLAB.



**FIRST FLOOR PLAN** SCALE: 1/4"=1'-0"  
9'-0" CLG. HGT. U.N.O.  
SET WINDOWS @ 7'-10" U.N.O.



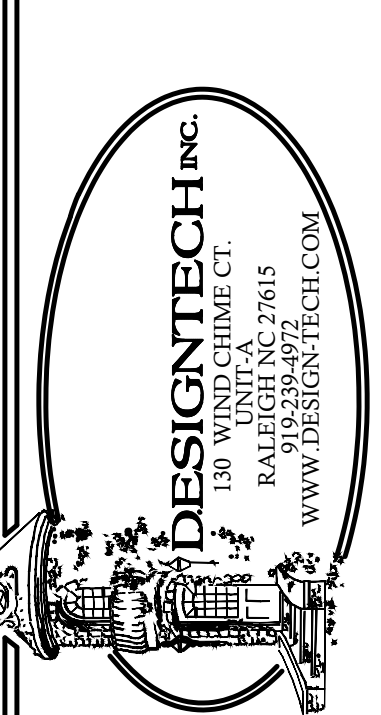


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**THIRD FLOOR PLAN** SCALE: 1/4"=1'-0"  
8'-0" CLG. HGT. U.N.O.

**ELECTRICAL LEGEND**

- - LIGHT FIXTURE
- ⊙ - FAN/LIGHT
- ⊕ WP - WATERPROOF OUTLET
- ◻ - RECESSED LIGHTING
- ◻ - CAN LIGHT W/ FAN
- ⊙ - SINGLE SWITCH
- ⊙ - 3-WAY SWITCH
- ⊙ - 4-WAY SWITCH
- ⊙ - DIMMER SWITCH
- ⊙ CND - CARBON MONOXIDE DETECTOR
- ⊙ SD - SMOKE DETECTOR
- ⊙ - FLOOD LIGHTS
- ⊙ - EYEBALL SPOTS
- ⊙ - DUPLEX RECEPTACLE (110V)
- ⊙ - 220 VOLT RECEPTACLE
- ⊙ - SWITCHED RECEPTACLE (TOP WIRE ONLY)
- GFI - GROUND FAULT CIRCUIT INTERRUPTOR
- ⊙ - CLG FAN/LIGHTS
- ⊙ - TRACK LIGHTS
- ⊙ - FLUORESCENT/LED LIGHTING
- ⊙ - CABLE OUTLET
- ▲ - TELEPHONE OUTLET
- ▲ - COMPUTER DATA OUTLET
- ◻ - INTERCOM

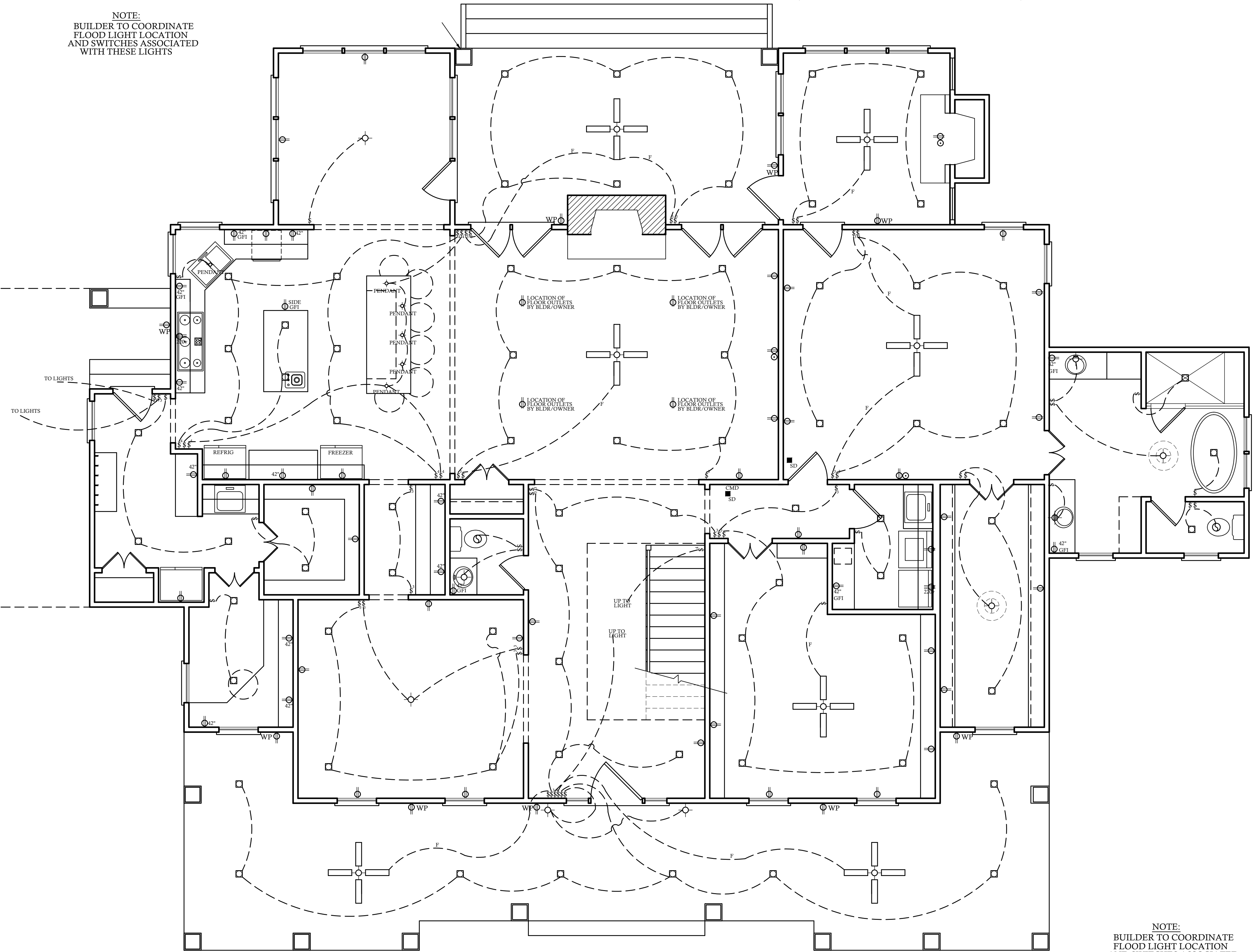
NOTE:  
ALL ELECTRICAL INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE NEC.

**ELECTRICAL NOTES:**

1. THE ELECTRICAL DIAGRAMS SHOWN ON THESE PLANS ARE TO BE USED AS A GUIDE. HOME OWNER AND BUILDER ARE REQUIRED TO REVIEW AND CONFIRM WITH LICENSED ELECTRICAL CONTRACTOR THESE CONTENTS PRIOR TO ROUGH-IN FOR CODE COMPLIANCE AND SPECIAL REQUIREMENTS BY THE HOME OWNER. ONCE CONSTRUCTION BEGINS, IT IS THE RESPONSIBILITY OF THE CONTRACTOR, NOT DESIGN TECH, INCORPORATED.
2. SEE ELECTRICIAN, BUILDER, AND OWNER FOR POSSIBLE GENERATOR LOCATION, SWITCHES, RECEPTACLES, AND ATTACHMENTS. COORDINATE SIZE AND MODEL OF GENERATOR TO HANDLE LOADS ADEQUATELY.
3. UNDER-CABINET COUNTER LIGHTING FOR KITCHEN IS OPTIONAL. PLEASE CONFIRM WITH CABINET MAKER AND ELECTRICIAN.
4. ELECTRICAL FOR EXTERIOR LANDSCAPE LIGHTING AND POOL EQUIPMENT BY BUILDER AS PER CODE.
5. IT IS AN OPTION FOR EVERY TOP RECEPTACLE AT FRONT WINDOWS TO BE ON ONE SWITCH LOCATED BY OWNER/BUILDER FOR WINDOW DECORATION LIGHTING.
6. CLOSET LIGHTING TO BE CONTROLLED BY SWITCH AS SHOWN OR IN-JAMB SWITCH WHICH WOULD ILLUMINATE LIGHT WHEN DOOR IS OPENED. SOME ELECTRICAL PLANS MAY OR MAY NOT SHOW CLOSET LIGHTING. SEE OWNER AND CONFIRM WITH BUILDER.
7. EXHAUST FANS ARE REQUIRED IN BATHROOMS WITHOUT NATURAL VENTILATION. OUR PLANS WILL ALWAYS SHOW EXHAUST FAN.
8. NO HEAT LAMPS OR HEATERS MAY BE SHOWN IN THIS DRAWING. PLEASE CONFIRM WITH BUILDER FOR PRESENCE AND LOCATION.
9. ALL SLEEPING AREAS/BEDROOMS SHOULD CONTAIN SMOKE DETECTORS. SOME CORRIDORS ALSO REQUIRE SMOKE DETECTORS. PLEASE SEE LOCAL, STATE, AND FEDERAL BUILDING CODES TO CONFIRM THESE REQUIREMENTS.
10. PANEL BOX LOCATION BY ELECTRICIAN/BUILDER AS PER CODE.

NOTE:  
BUILDER TO COORDINATE FLOOD LIGHT LOCATION AND SWITCHES ASSOCIATED WITH THESE LIGHTS

NOTE:  
IF T.V. CABLE OUTLETS ARE TO BE LOCATED ABOVE A FIRE PLACE, FLAME RIBBON, ETC. CONSULT WITH BUILDER FOR APPROVED METHOD FOR PREVENTING T.V. FROM BEING EXPOSED TO EXCESSIVE HEAT GAIN  
(NOTE TYPICAL FOR EACH FIREPLACE LOCATION)




NOTE:  
BUILDER TO COORDINATE FLOOD LIGHT LOCATION AND SWITCHES ASSOCIATED WITH THESE LIGHTS

**FIRST FLOOR ELECTRICAL PLAN**

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. NOT BE RESPONSIBLE FOR OMISSIONS, ERRORS, OR INADEQUACIES. DESIGN TECH, INC. SHALL NOT BE RESPONSIBLE FOR OMISSIONS, ERRORS, OR INADEQUACIES. CONTRACTOR MUST COMPLY WITH ALL LOCAL, STATE, AND FEDERAL BUILDING CODES. HOME IS TO BE BUILT BY AN ENGINEERING FIRM. ALL ELECTRICAL INSTALLATIONS MUST BE IN ACCORDANCE WITH THE NEC. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. NOT BE RESPONSIBLE FOR OMISSIONS, ERRORS, OR INADEQUACIES. DESIGN TECH, INC. SHALL NOT BE RESPONSIBLE FOR OMISSIONS, ERRORS, OR INADEQUACIES.

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**DESIGNTECH INC.**  
130 WIND CHIME CT.  
RALEIGH, VA 27615  
919.338.4972  
WWW.DESIGNTECH.COM

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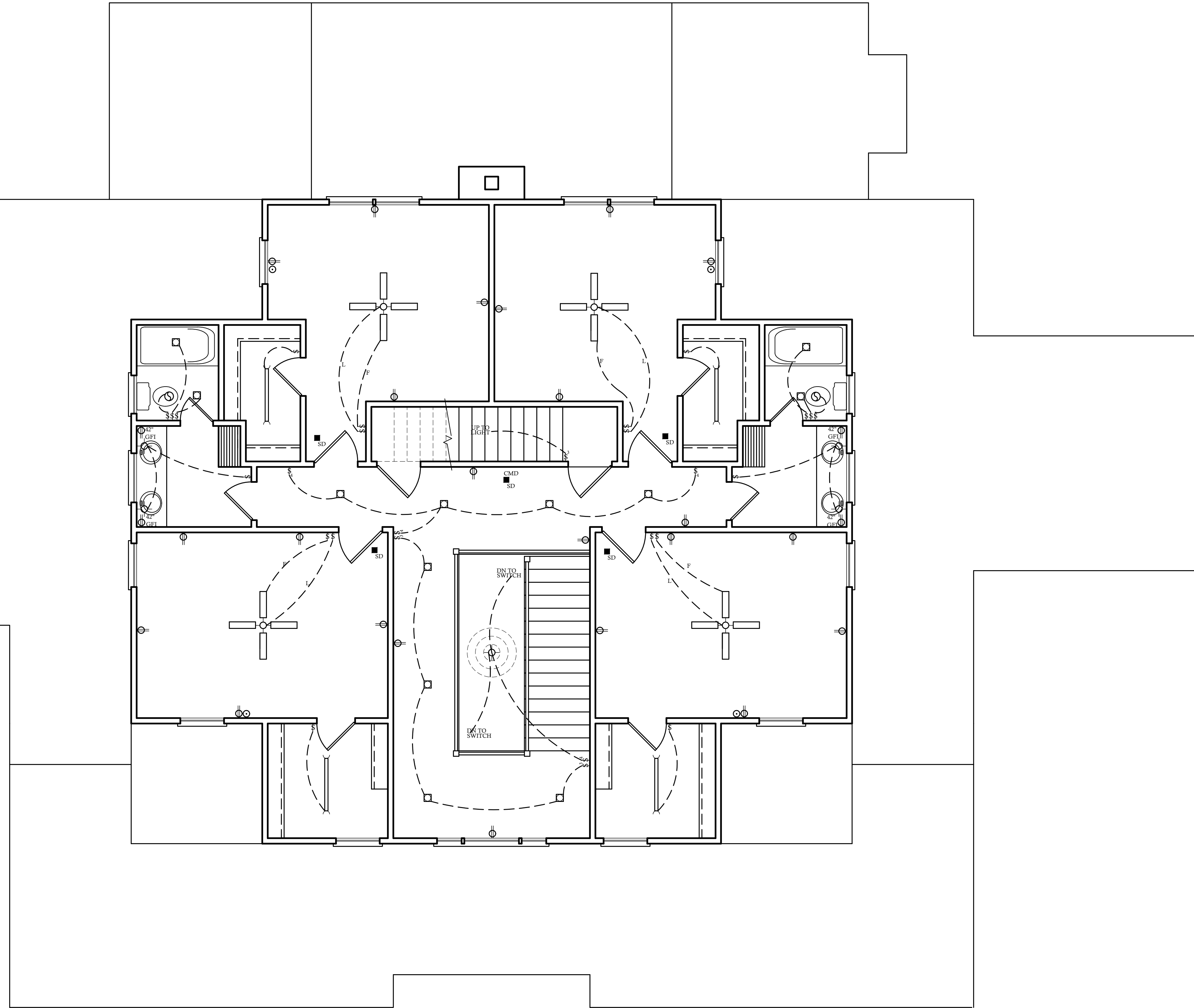
### ELECTRICAL LEGEND

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- ⊙ - FAN/LIGHT
- ⊕ WP - WATERPROOF OUTLET
- ◻ - RECESSED LIGHTING
- ⊕ - CAN LIGHT W/ FAN
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- ▲ - TELEPHONE OUTLET
- ▲ - COMPUTER DATA OUTLET
- - INTERCOM

**NOTE:**  
ALL ELECTRICAL INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE NEC.

### ELECTRICAL NOTES:

1. THE ELECTRICAL DIAGRAMS SHOWN ON THESE PLANS ARE TO BE USED AS A GUIDE. HOME OWNER AND BUILDER ARE REQUIRED TO REVIEW AND CONFIRM WITH LICENSED ELECTRICAL CONTRACTOR THESE CONTENTS PRIOR TO ROUGH-IN FOR CODE COMPLIANCE AND SPECIAL REQUIREMENTS BY THE HOME OWNER. ONCE CONSTRUCTION BEGINS, IT IS THE RESPONSIBILITY OF THE CONTRACTOR, NOT DESIGN TECH, INCORPORATED.
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10. PANEL BOX LOCATION BY ELECTRICIAN/BUILDER AS PER CODE.



**SECOND FLOOR ELECTRICAL PLAN**

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES OR OMISSIONS SHALL BE REPORTED IMMEDIATELY TO THE DESIGNER. THE DESIGNER'S RESPONSIBILITY IS LIMITED TO THE DESIGN AND SPECIFICATION. CONTRACTOR MUST COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS. HOME IS TO BE BUILT BY AN ENGINEERING FIRM. DRAWINGS ARE LOCAL PERMITS ONLY. CONTRACTOR MUST VERIFY ALL LOCAL PERMITS AND REQUIREMENTS. STRUCTURAL DESIGN ONCE CONSTRUCTION BEGINS. CONTRACTOR WILL ASSUME ALL RESPONSIBILITIES. CONTRACTOR WILL ASSUME ALL RISKS. CONTRACTOR WILL ASSUME ALL RISKS. CONTRACTOR WILL ASSUME ALL RISKS.

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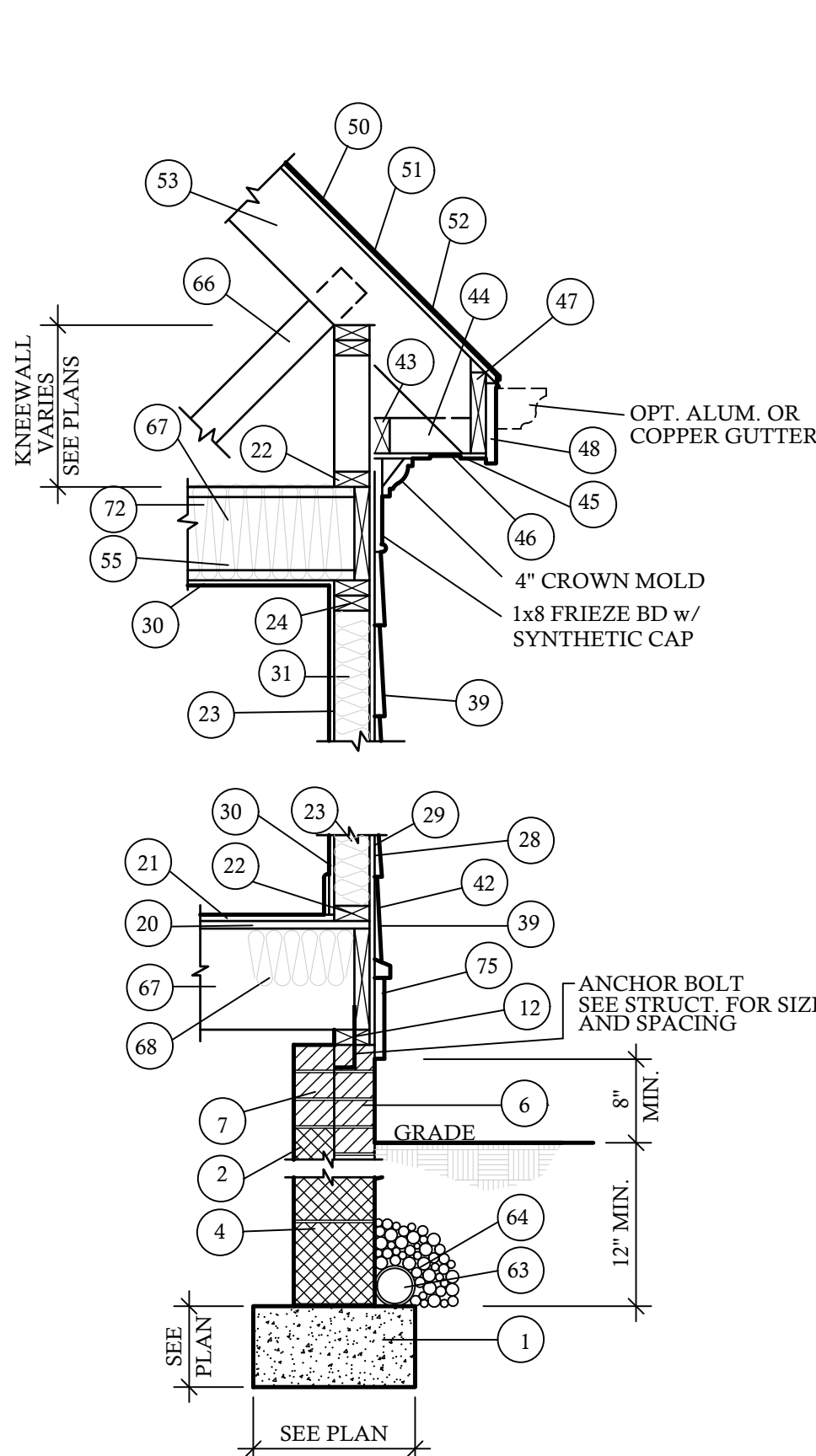
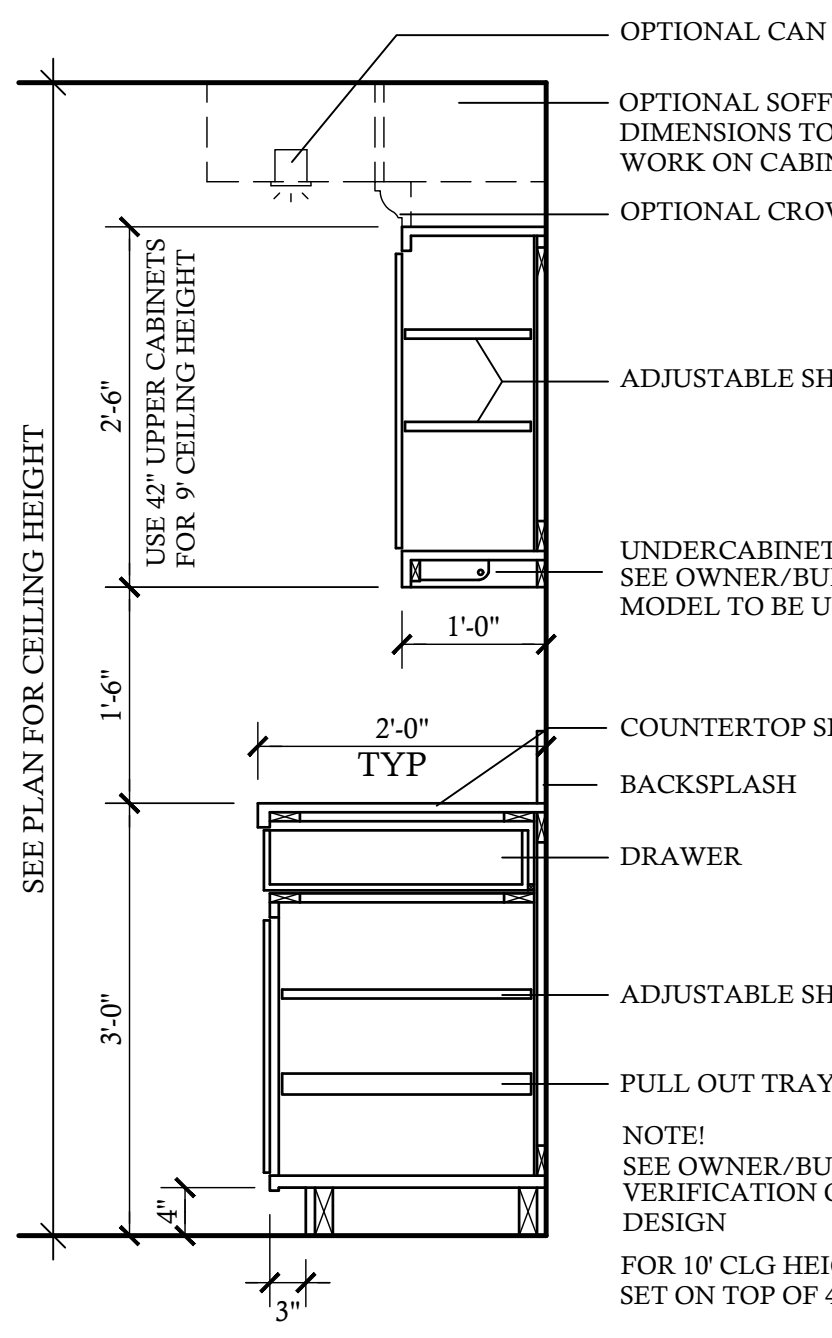




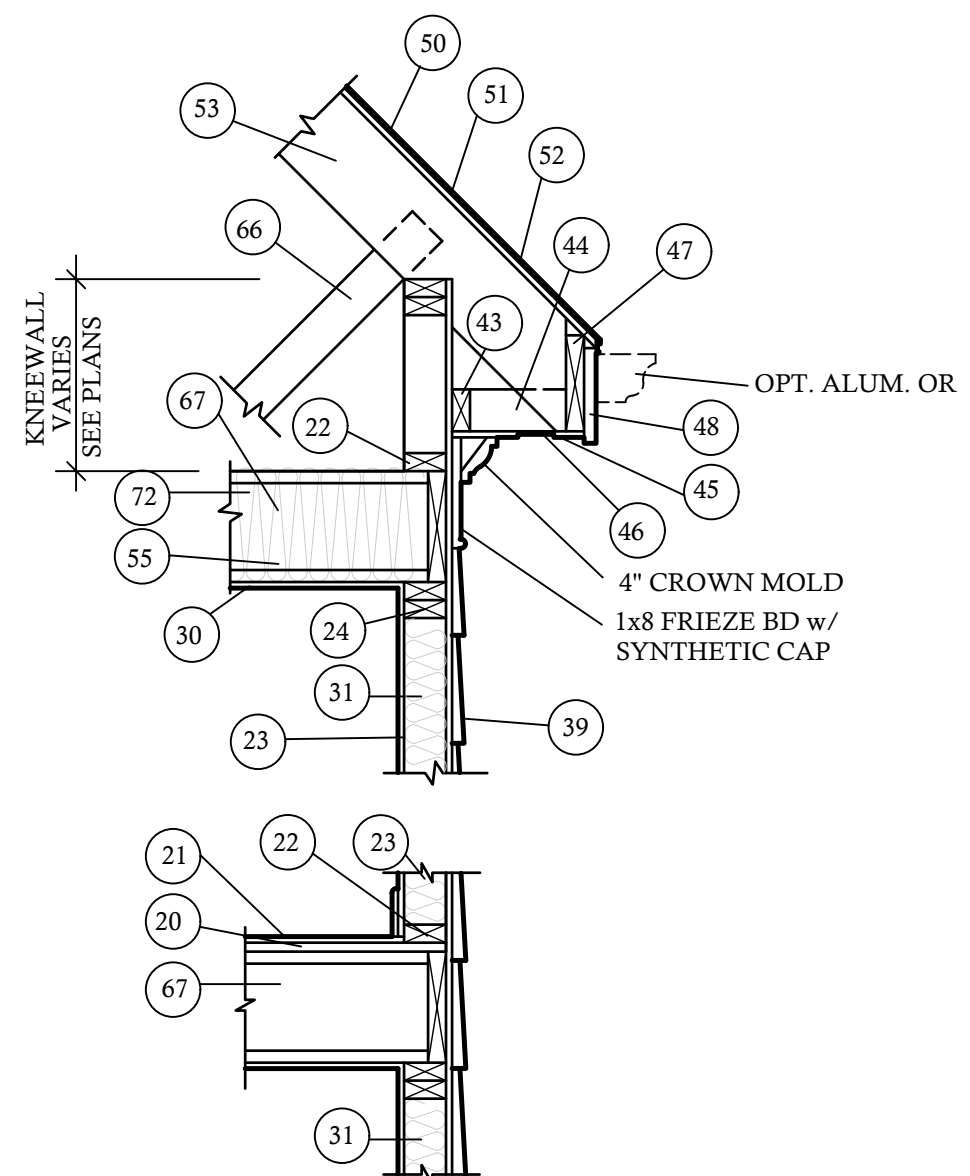


**MATERIAL REFERENCE**

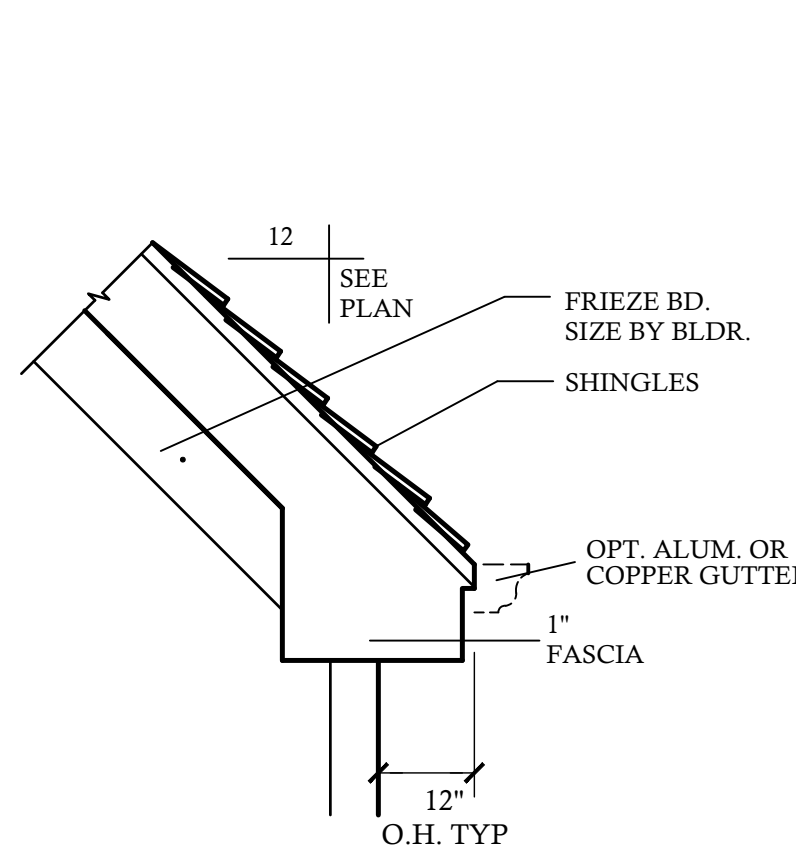
- |                                   |  |
|-----------------------------------|--|
| 1. CONT. POURED CONC. FOOTING     | 42. 1 X FRIEZE BOARD   |
| 2. 4 X 8 X 16 C.M.U.              | 43. NAILER   |
| 3. 6 X 8 X 16 C.M.U.              | 44. LOOKOUT  |
| 4. 8 X 8 X 16 C.M.U.              | 45. 3/8" EXT PLYWOOD SOFFIT  |
| 5. 1/2" X 8" X 16" C.M.U.         | 46. SOFFIT VENT  |
| 6. BRICK                          | 47. SUB FASCIA   |
| 7. SOLID MASONRY CAP              | 48. 1 X FASCIA   |
| 8. 4" CONCRETE SLAB               | 49. METAL DRIP STRIP   |
| 9. 6 MIL VAPOR BARRIER            | 50. SHINGLES AS SPECIFIED  |
| 10. 4" STONE BASE                 | 51. 15 LB. FELT PAPER  |
| 11. 6" X 6" 10-10 W.W.M.          | 52. A.P.A. RATED SHEATHING   |
| 12. 2 X 4 TREATED SILL PLATE      | 53. 2 X 8 RAFTER   |
| 13. 2 X 6 TREATED SILL PLATE      | 54. 2 X 6 RAFTER   |
| 14. 2 X 6 JOIST                   | 55. R-8 BATT INSULATION MIN.                                       |
| 15. 2 X 6 BAND                    | 56. C.M.U. PIER  |
| 16. 2 X 8 JOIST                   | 57. TREATED 2 X 6 SHIM PLATE                                       |
| 17. 2 X 8 BAND                    | 58. GIRDER SIZE PER PLAN   |
| 18. 2 X 10 JOIST                  | 59. 2 X LEDGER BOARD   |
| 19. 2 X 10 BAND                   | 60. 1/2" EXPANSION JOINT   |
| 20. A.P.A. RATED SUB-FLOOR        | 61. 1 1/2" RIGID INSULATION (R-50 MIN)                             |
| 21. A.P.A. RATED UNDERLAYMENT     | 62. WATERPROOFING  |
| 22. 2 X 4 SOLE PLATE              | 63. 4" PERFORATED DRAIN TILE (SLOPE TO DRAIN)                      |
| 23. 2 X 4 STUD WALL               | 64. CRUSHED STONE W/ INFILTRATION BARRIER ABOVE                    |
| 24. DBL. 2 X 4 TOP PLATE          | 65. CONC. WASH   |
| 25. 2 X 6 SOLE PLATE              | 66. 2 X 4 RAFTER TIE BACKS PER ENG SPEC. AT MIN EVERY THIRD RAFTER |
| 26. 2 X 6 STUD WALL               | 67. SEE STRUCTURAL SHEETS FOR JOIST DIRECTION & SIZES              |
| 27. DBL. 2 X 6 TOP PLATE          | 68. R-19 BATT INSULATION (MIN.)                                    |
| 28. EXTERIOR SHEATHING            | 69. POURED CONC. FND. WALL   |
| 29. SHEATHING PAPER               | 70. OPT. TRIM SEE BLDG.  |
| 30. 1/2" DRY WALL                 | 71. STONE VENEER   |
| 31. R-15 BATT INSULATION MIN.     | 72. TRUSSES PER MANUFACTURER                                       |
| 32. BRICK VENEER                  | 73. STUCCO DRIP CAP  |
| 33. WALL TIE                      | 74. STUCCO ON CMU OR CONCRETE WALL                                 |
| 34. WEEP HOLES @ 16" O.C. HORIZ.  | 75. BAND W/ DRIP CAP   |
| 35. FLASHING AS REQ. PER CODE     | 76. SOFFIT BED MOLD TRIM   |
| 36. SELF FURRING GALV. METAL LATH | 77. 2 X 8 TREATED SILL PLATE                                       |
| 37. METAL BEAD                    | 78. 2 X 12 JOIST   |
| 38. STUCCO PLASTER                | 79. 2 X 12 BAND  |
| 39. SIDING AS SPECIFIED           | 80. 66 MIL. OF THRU WALL FLASHING                                  |
| 40. TH. 2 X BLOCKING              |  |
| 41. WOOD FILLER                   |  |



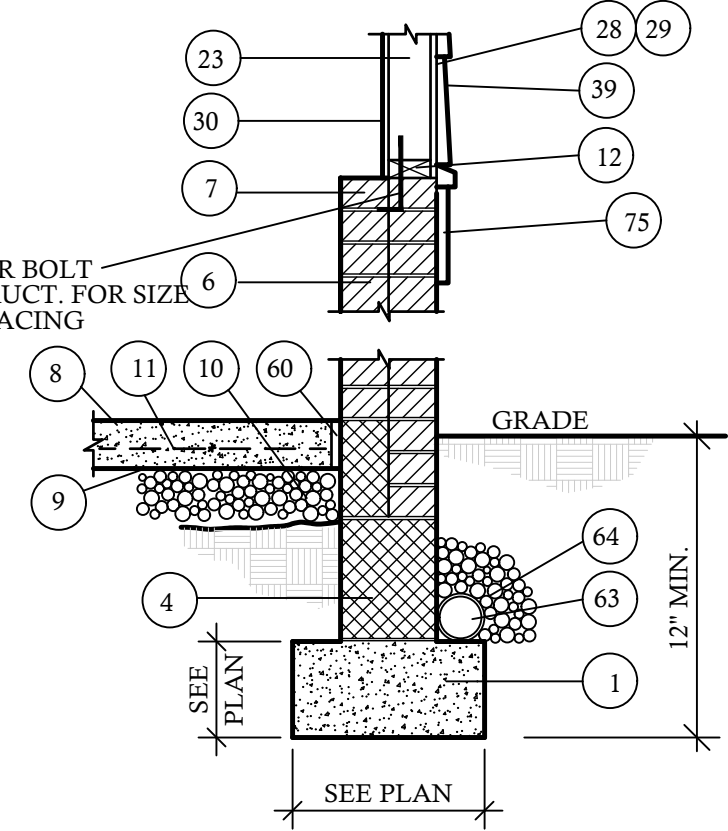
**1** ONE STORY WALL W/ SIDING @ 3/4"=1'-0" PROPERTY OF DESIGN TECH INC. DESIGNED FOR 115 MPH WINDS



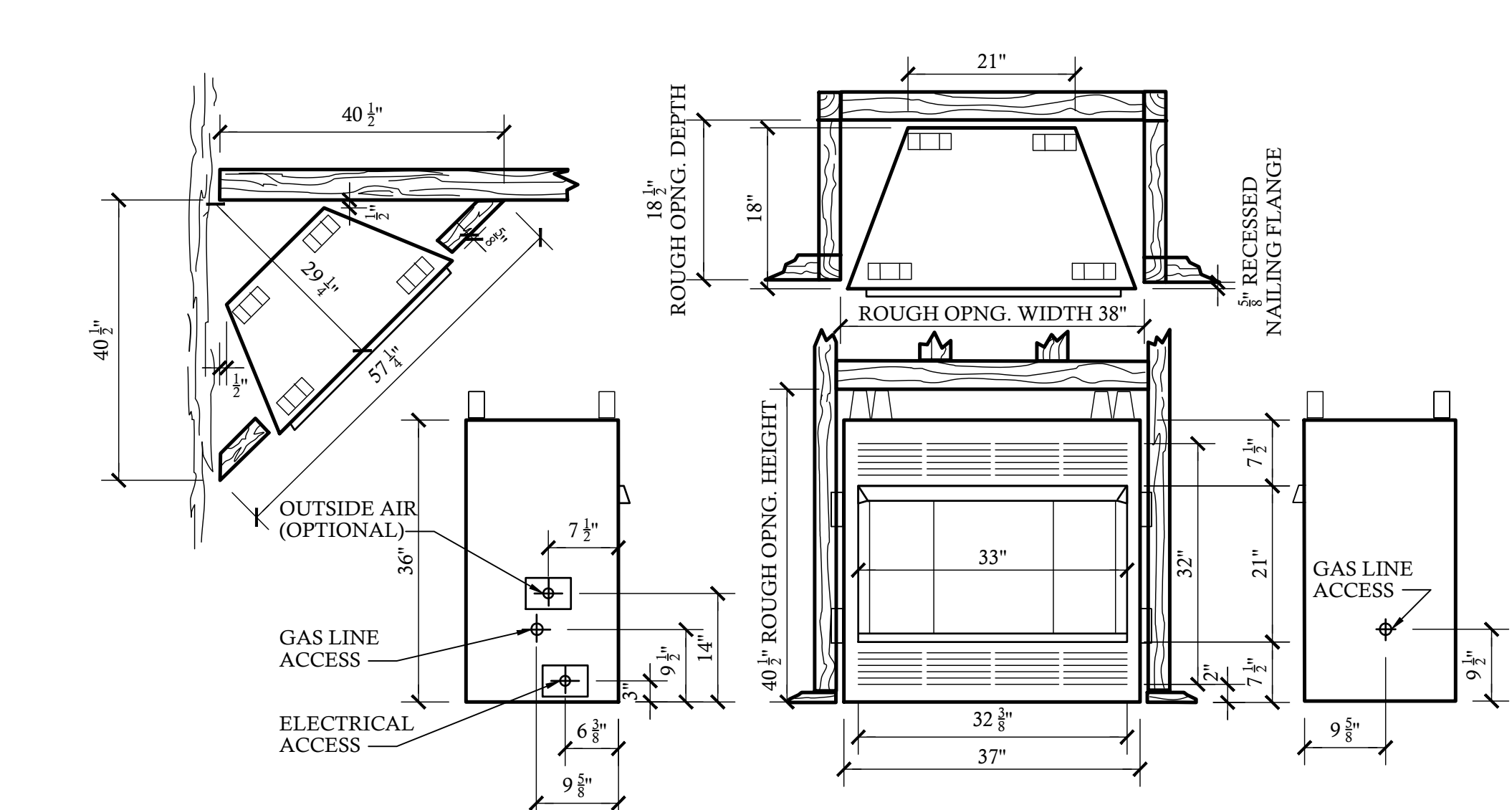
**2** TWO STORY WALL W/ SIDING @ 3/4"=1'-0" PROPERTY OF DESIGN TECH INC. DESIGNED FOR 115 MPH WINDS



**3** BOXING DETAIL @ 3/4"=1'-0" PROPERTY OF DESIGN TECH INC.

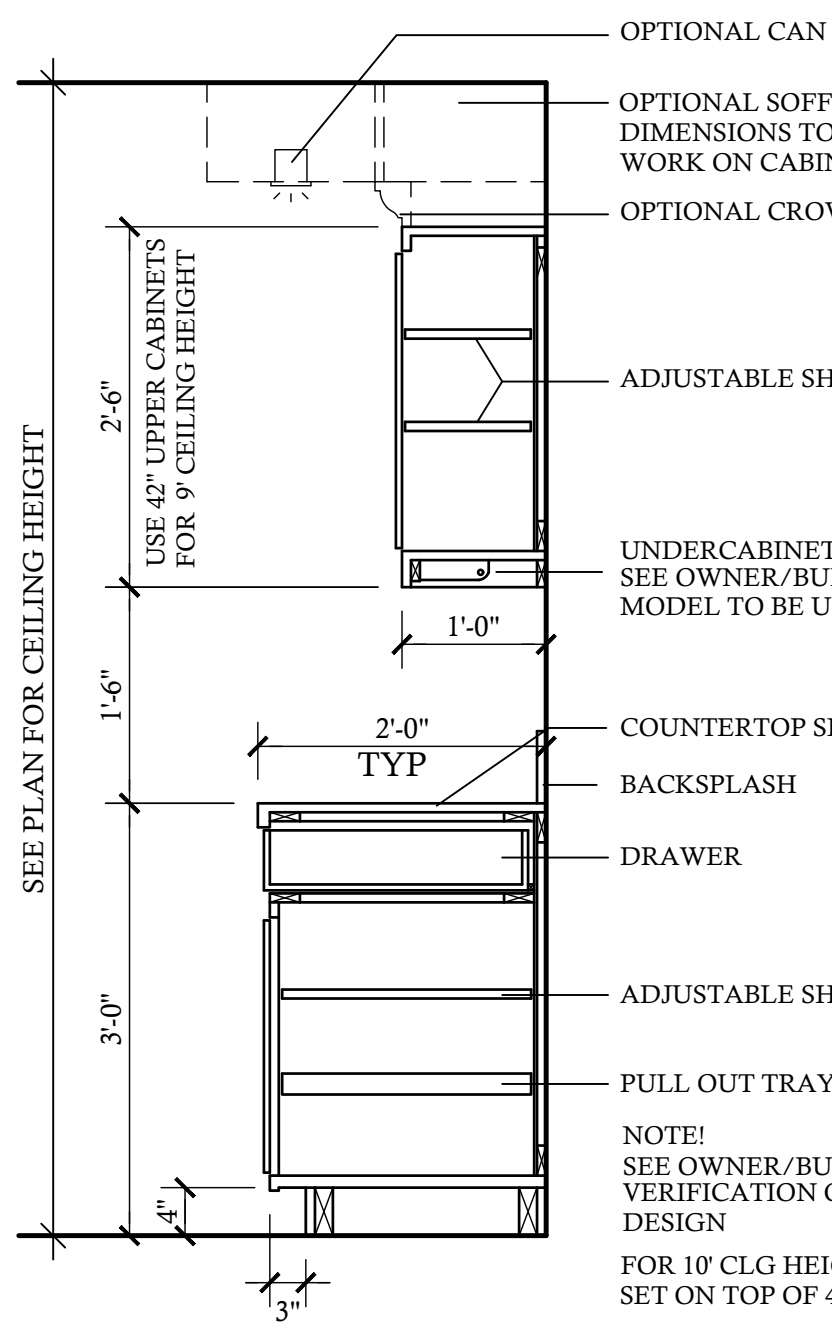


**4** GARAGE WALL W/ SIDING @ 3/4"=1'-0" PROPERTY OF DESIGN TECH INC. DESIGNED FOR 115 MPH WINDS

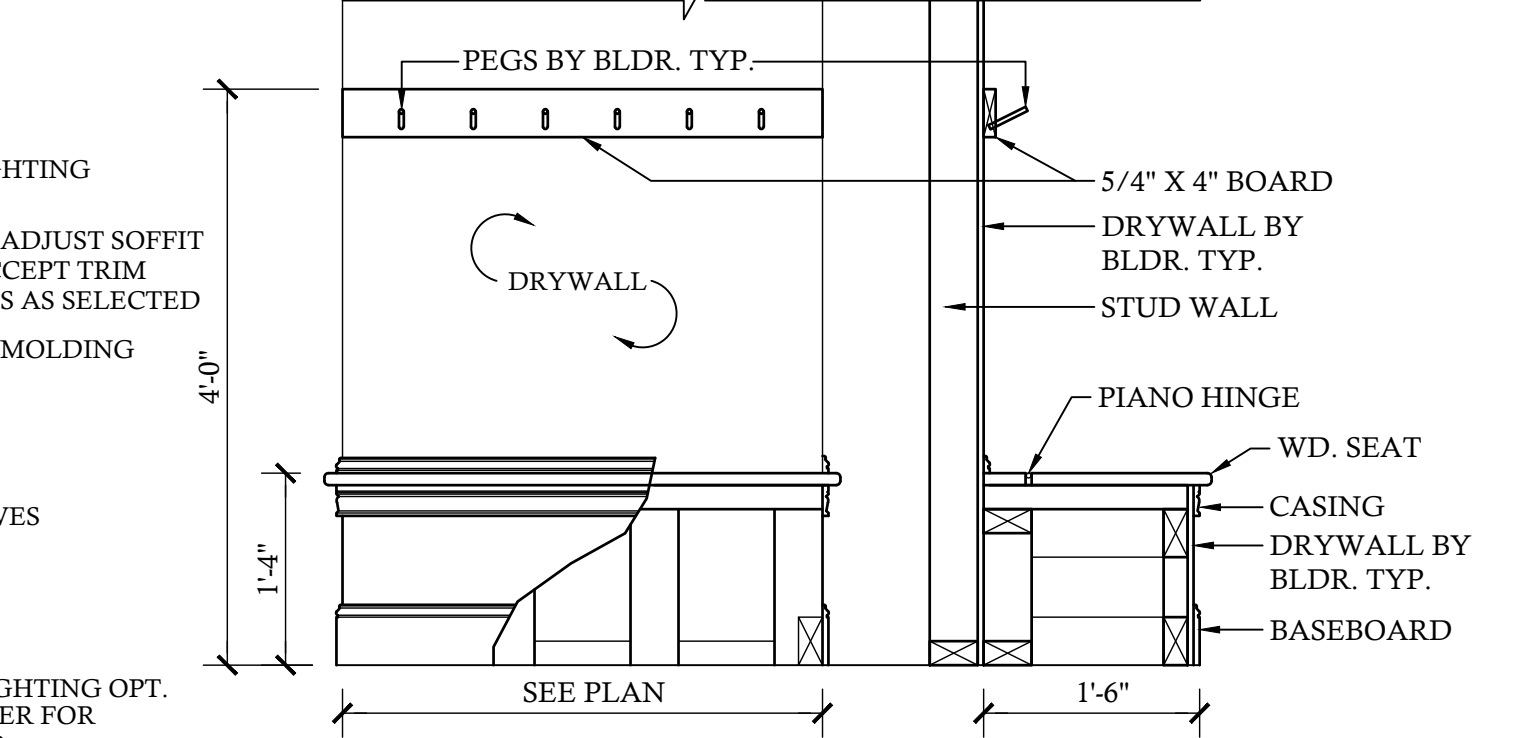


**6** VENTLESS FIREPLACE UNITS

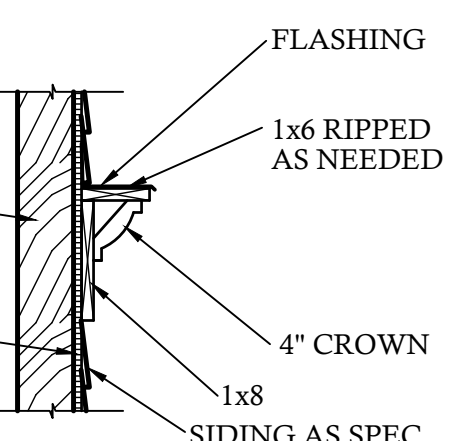
NOTE - VERIFY W/ MANUF. UNIT MODEL NO. & DIMENSIONS REQUIRED FOR FRAMING AROUND FIREPLACE UNIT PRIOR TO CONSTRUCTION



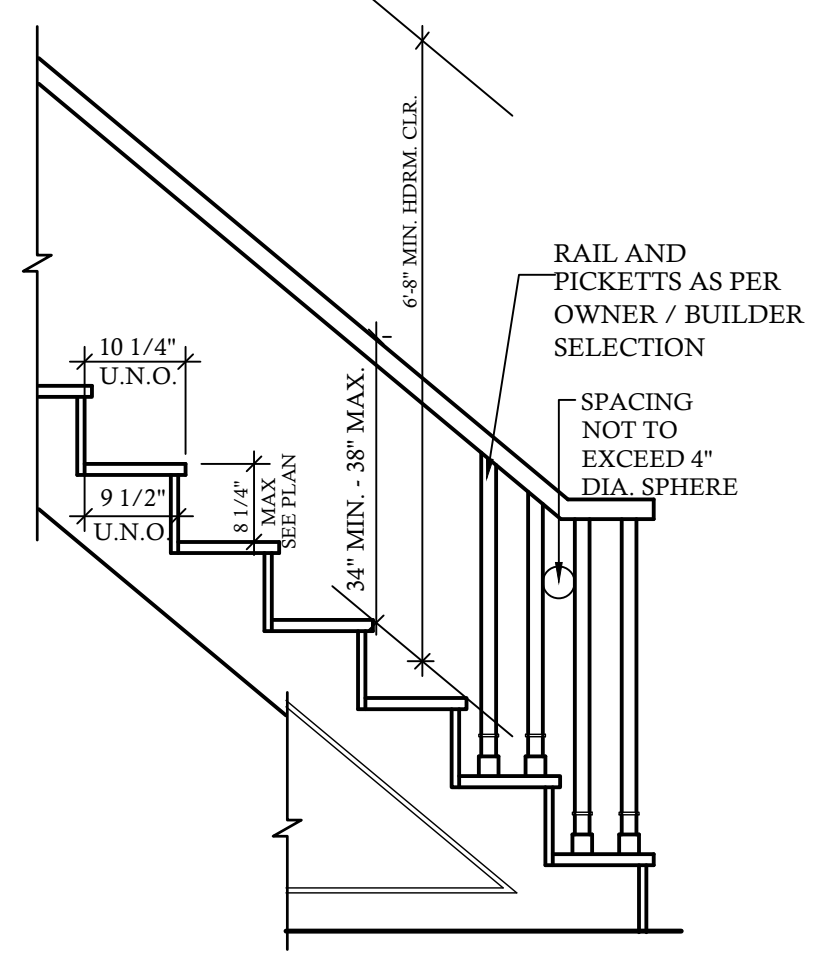
**7** TYP. KITCHEN CABINET SECTION @ 3/4"=1'-0" PROPERTY OF DESIGN TECH INC.



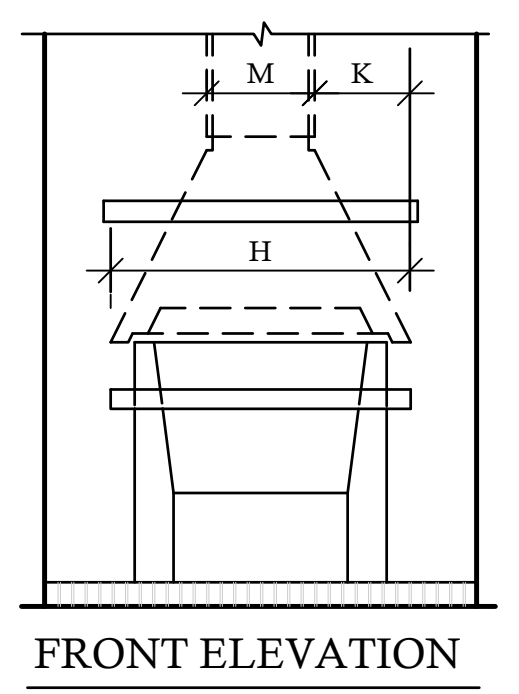
**8** TYP. BENCH & PEGS SECTION @ 3/4"=1'-0" PROPERTY OF DESIGN TECH INC.



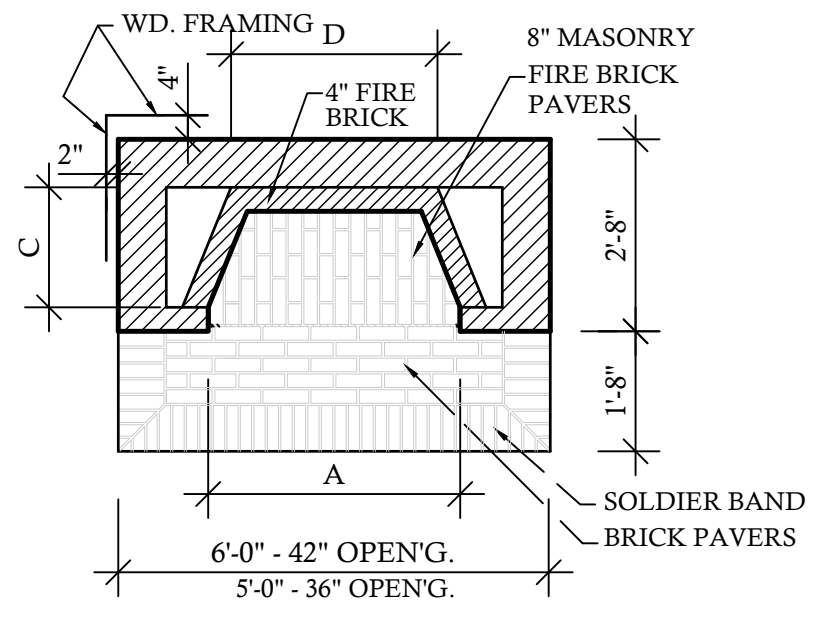
**9** WINDOW HEAD DETAIL @ 1"=1'-0" PROPERTY OF DESIGN TECH INC.



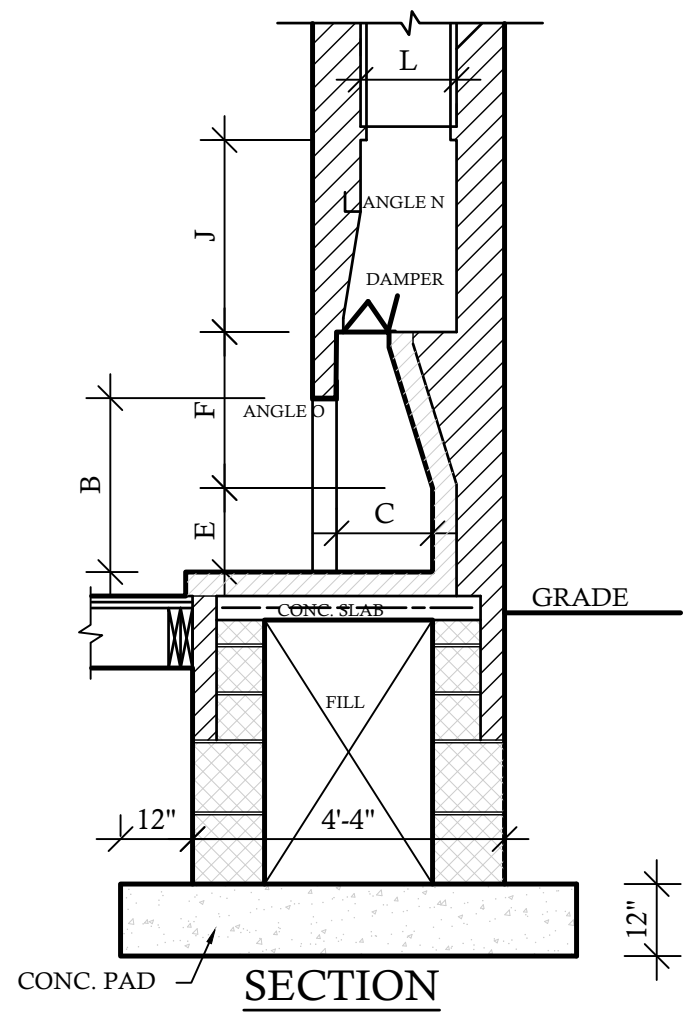
**10** TYP. STAIR DETAIL @ 3/4"=1'-0" PROPERTY OF DESIGN TECH INC.



FRONT ELEVATION



**11** LOWERED HEARTH MASONRY FIREPLACE - N.T.S. PROPERTY OF DESIGN TECH INC.



SECTION

FIREPLACE DIMENSIONS, INCHES													
A	B	C	D	E	F	G	H	J	K	L	M	N	O
36	29	16	23	14	23	8	3/4	44	27	16	12x16	A-48	A-42
42	29	16	29	14	26	8	3/4	50	32	17	16x16	B-54	A-48
48	32	16	33	14	26	8	3/4	56	37	20	16x16	B-60	B-54

ANGLE SIZES: A-3" x 3" x 3/16"; B-3 1/2" x 1/4"

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. NOT BE RESPONSIBLE FOR ANY OMISSIONS, ERRORS, OR INADEQUACIES. CONTRACTOR MUST COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS. HOME IS TO BE BUILT TO ALL APPLICABLE CODES AND REGULATIONS. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL ASSUME ALL RESPONSIBILITIES FOR CONSTRUCTION. CONTRACTOR SHALL ASSUME ALL RESPONSIBILITIES FOR CONSTRUCTION. CONTRACTOR SHALL ASSUME ALL RESPONSIBILITIES FOR CONSTRUCTION.

REVISIONS:  
DATE: NAME:

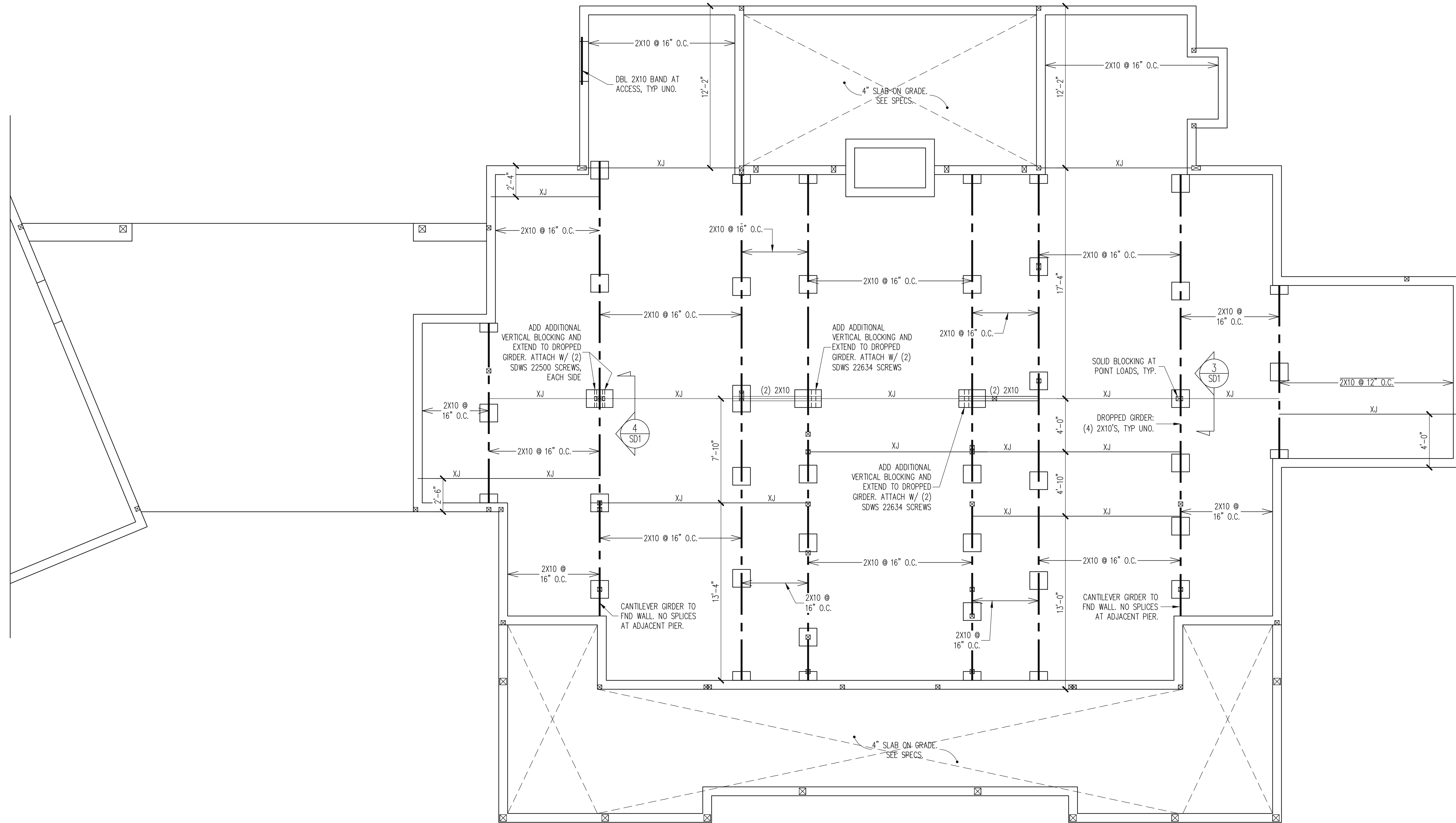
DRAWN BY: RKR  
CHECKED BY: JCD  
DATE: 8-22-23  
PLAN NO. 20-4089-DT

DESIGNTECH INC.  
130 WEND CHIME CT.  
RALEIGH, N.C. 27615  
919.338.4972  
WWW.DESIGNTECH.COM

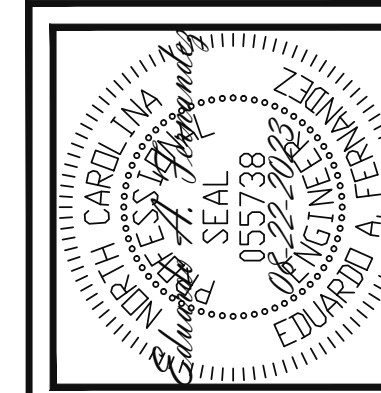
GREGORY RESIDENCE  
20-4056-DT

11 OF 11





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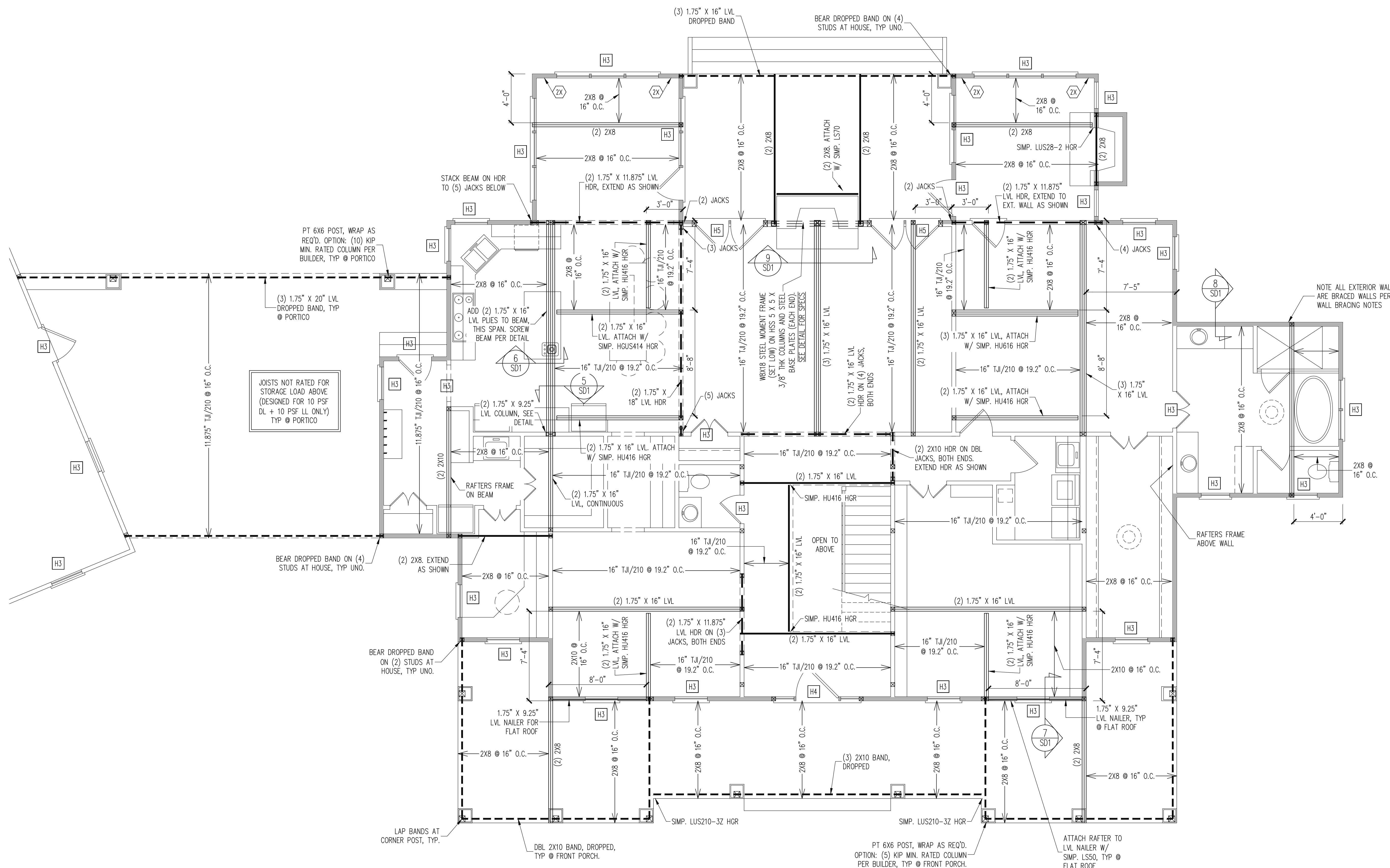
**Engineering Tech Associates, P.A.**  
 STRUCTURAL ENGINEERS  
 License No. C-3870  
 318 W Millbrook Rd. Unit 201  
 Raleigh, North Carolina 27609  
 Phone (919) 844-1661

DESIGN TECH	REV #	REF PROJ #	DATE
STRUCTURAL ADDENDUM			
SCOPE: 2551 NATHAN MATHEWS RD			
LOC: ANGIER, NC			

ENC: EAF/NBG  
 DATE: 08-22-2023

PROJECT NO.  
 23-15-019

SHEET NO.  
 S2  
 2 of 11



JOISTS NOT RATED FOR STORAGE LOAD ABOVE (DESIGNED FOR 10 PSF DL + 10 PSF LL ONLY) TYP @ PORTICO

PT 6X6 POST, WRAP AS REQ'D. OPTION: (10) KIP MIN. RATED COLUMN PER BUILDER, TYP @ PORTICO

(3) 1.75" X 20" LVL DROPPED BAND, TYP @ PORTICO

BEAR DROPPED BAND ON (4) STUDS AT HOUSE, TYP UNO.

BEAR DROPPED BAND ON (2) STUDS AT HOUSE, TYP UNO.

1.75" X 9.25" LVL NAILER FOR FLAT ROOF

LAP BANDS AT CORNER POST, TYP.

DBL 2X10 BAND, DROPPED, TYP @ FRONT PORCH.

SIMP. LUS210-3Z HGR

(3) 2X10 BAND, DROPPED

PT 6X6 POST, WRAP AS REQ'D. OPTION: (5) KIP MIN. RATED COLUMN PER BUILDER, TYP @ FRONT PORCH.

ATTACH RAFTER TO LVL NAILER W/ SIMP. LS50, TYP @ FLAT ROOF

RAFTERS FRAME ABOVE WALL

2X8 @ 16" O.C.

**CONSTRUCTION SPECIFICATIONS**  
INSTANT REFERENCES

REFER TO THE CONSTRUCTION SPECIFICATIONS SECTIONS FOR THE FOLLOWING INFORMATION:  
PART 1.01: CURRENT GOVERNING CODE  
PART 14: STUD SUPPORT FOR BEAMS  
PART 17: KING STUDS FOR EXTERIOR WALLS  
SEE DETAIL / CONSTRUCTION SPECIFICATIONS SHEETS FOR I-JOISTS ALLOWABLE SUBSTITUTIONS

**WALL BRACING**

SHADED WALLS:  
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. IN PANEL FIELD.  
2X - SHEATH BOTH SIDES OF STUD WALL WITH 7/16 APA RATED OSB, NAILED TO STUDS WITH 8d NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C. IN PANEL FIELD.  
NOTES:  
PROVIDED CONTINUOUS SHEATHING = 282" MIN.  
REFERENCE PART 16.02 OF CONSTRUCTION SPECIFICATIONS FOR GENERAL WIND BRACING INFORMATION.

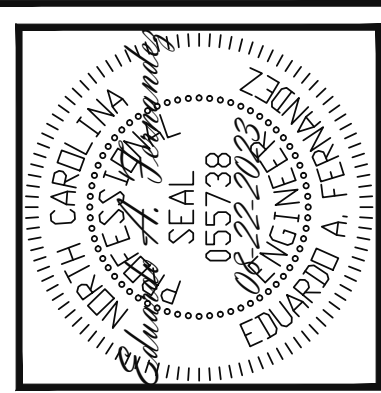
**HEADER SCHEDULE**

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

1ST FLOOR FRAMING PLAN

WALLS AND CEILING  
1/4" = 1'-0"

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Raleigh, North Carolina 27609  
Phone (919) 844-1661  
ASSOCIATES, P.A.

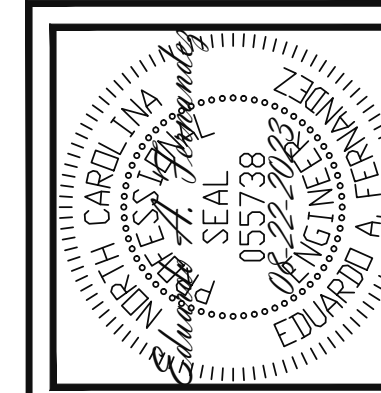
DESIGN TECH	DATE
STRUCTURAL ADDENDUM	
SCOPE: STRUCTURAL ADDENDUM	REV # (REF PROJ) #
LOC: 2551 NATHAN MATHEWS RD	
ANGIER, NC	

ENC: EAF/NBG  
DATE: 08-22-2023

PROJECT NO.  
23-15-019

SHEET NO.  
S3  
3 of 11

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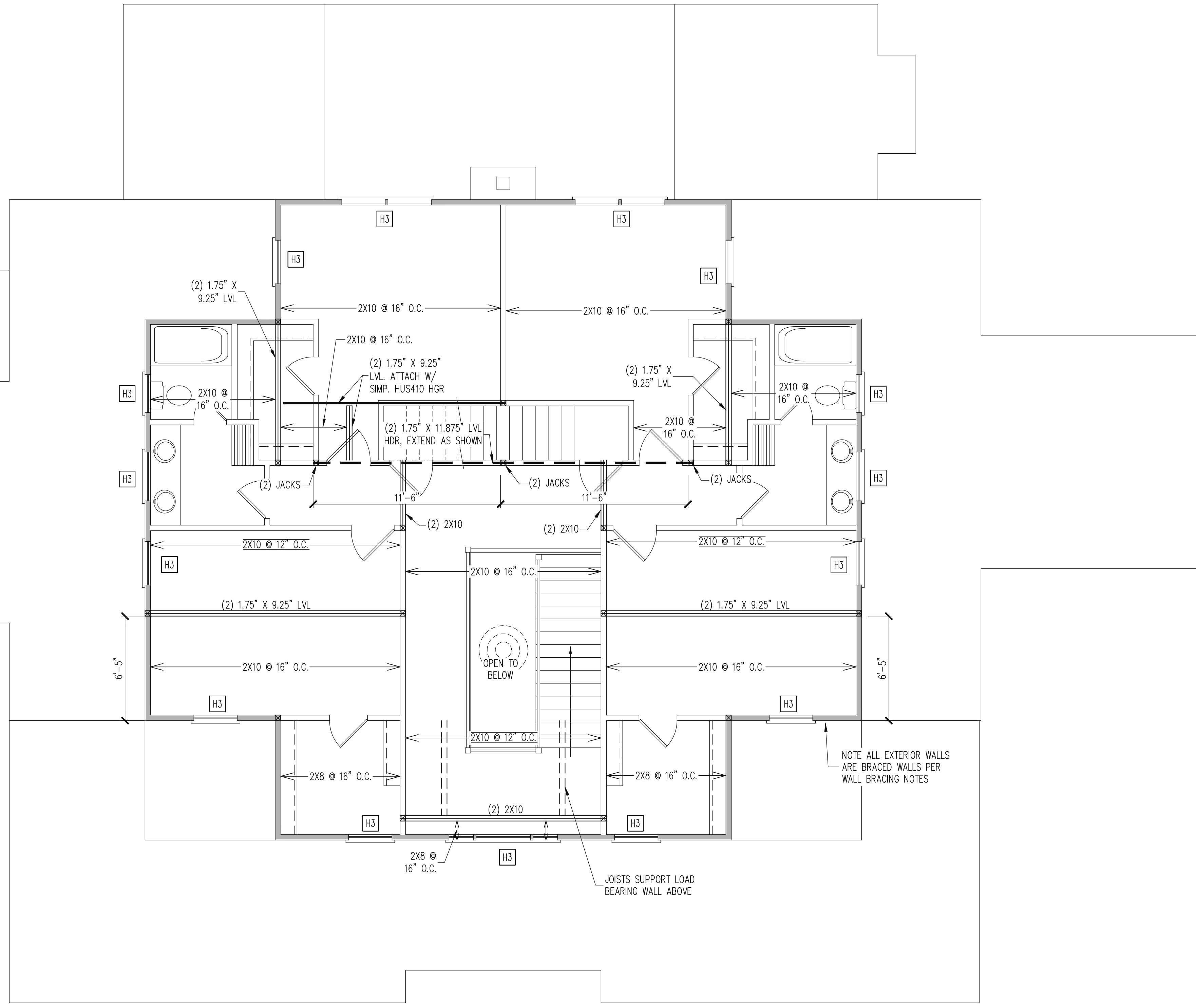
**STRUCTURAL ENGINEERS**  
 License No. C-3870  
 318 W Millbrook Rd. Unit 201  
 Raleigh, North Carolina 27609  
 Phone (919) 844-1661  
**Engineering Tech Associates, P.A.**

DESIGN TECH	DATE
STRUCTURAL ADDENDUM	
REV # REF PROJ #	
SCOPE: STRUCTURAL ADDENDUM	
LOC: 2551 NATHAN MATHEWS RD	
ANGIER, NC	

ENC: EAF/NBG  
 DATE: 08-22-2023

PROJECT NO.  
 23-15-019

SHEET NO.  
 S4  
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**CONSTRUCTION SPECIFICATIONS**  
 INSTANT REFERENCES

REFER TO THE CONSTRUCTION SPECIFICATIONS SECTIONS FOR THE FOLLOWING INFORMATION:

PART 1.01: CURRENT GOVERNING CODE  
 PART 14: STUD SUPPORT FOR BEAMS  
 PART 17: KING STUDS FOR EXTERIOR WALLS

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

**WALL BRACING**

SHADED WALLS:

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. IN PANEL FIELD.

NOTES:  
 PROVIDED CONTINUOUS SHEATHING = 110' MIN.

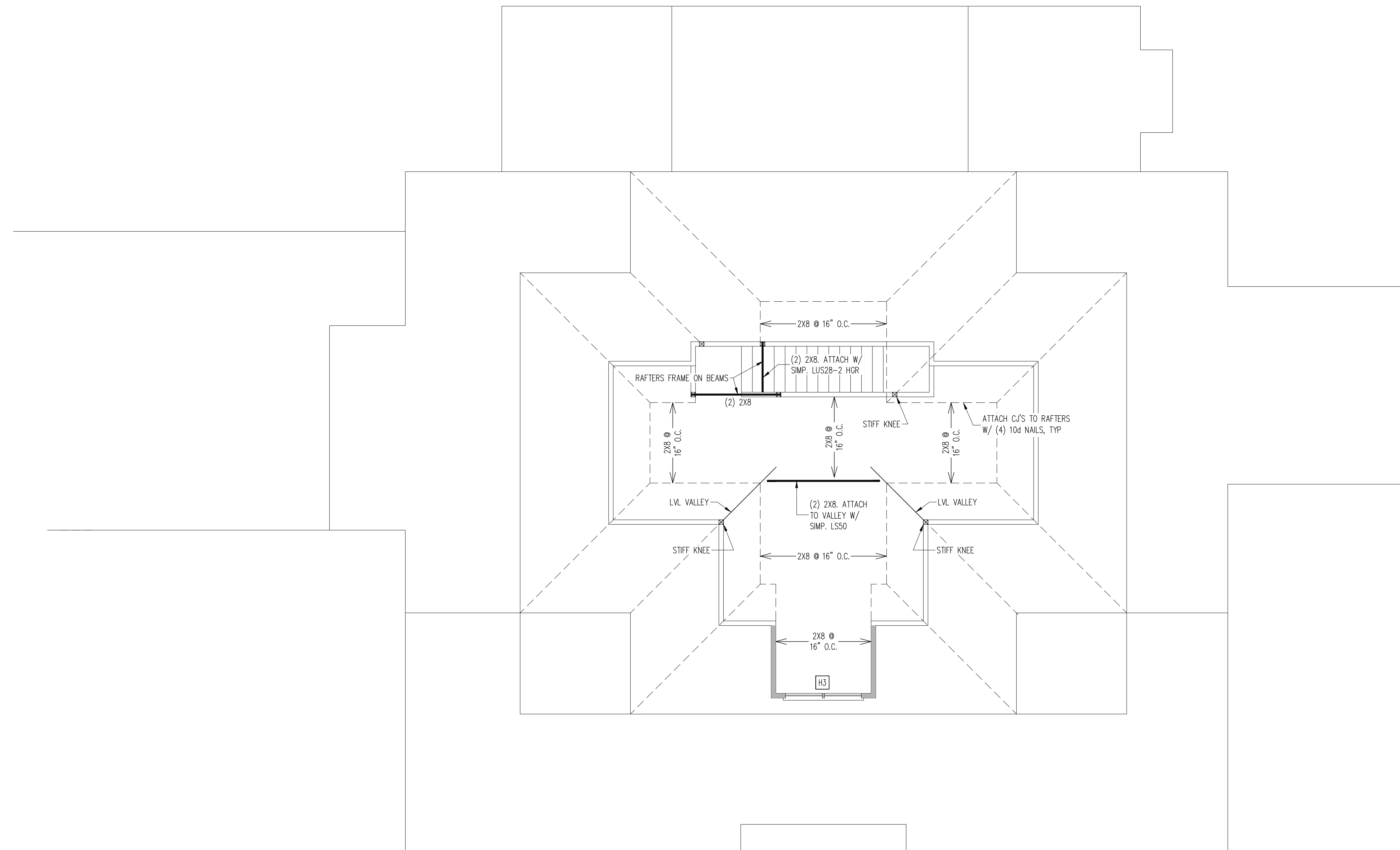
REFERENCE PART 16.02 OF CONSTRUCTION SPECIFICATIONS FOR GENERAL WIND BRACING INFORMATION.

**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

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

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



**CONSTRUCTION SPECIFICATIONS**  
 INSTANT REFERENCES

REFER TO THE CONSTRUCTION SPECIFICATIONS SECTIONS FOR THE FOLLOWING INFORMATION:

PART 1.01: CURRENT GOVERNING CODE

PART 14: STUD SUPPORT FOR BEAMS

PART 17: KING STUDS FOR EXTERIOR WALLS

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

**WALL BRACING**

SHADED WALLS:

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. IN PANEL FIELD.

NOTES:  
 PROVIDED CONTINUOUS SHEATHING = 12' MIN.

REFERENCE PART 16.02 OF CONSTRUCTION SPECIFICATIONS FOR GENERAL WND 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.

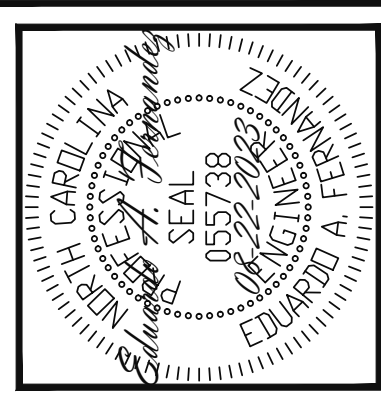
(B) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPNG 38" TO 74" MAX.

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

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

**ATTIC FRAMING PLAN**  
 WALLS AND CEILING  
 1/4" = 1'-0"

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 Raleigh, North Carolina 27609  
 Phone (919) 844-1661

**Engineering Tech Associates, P.A.**

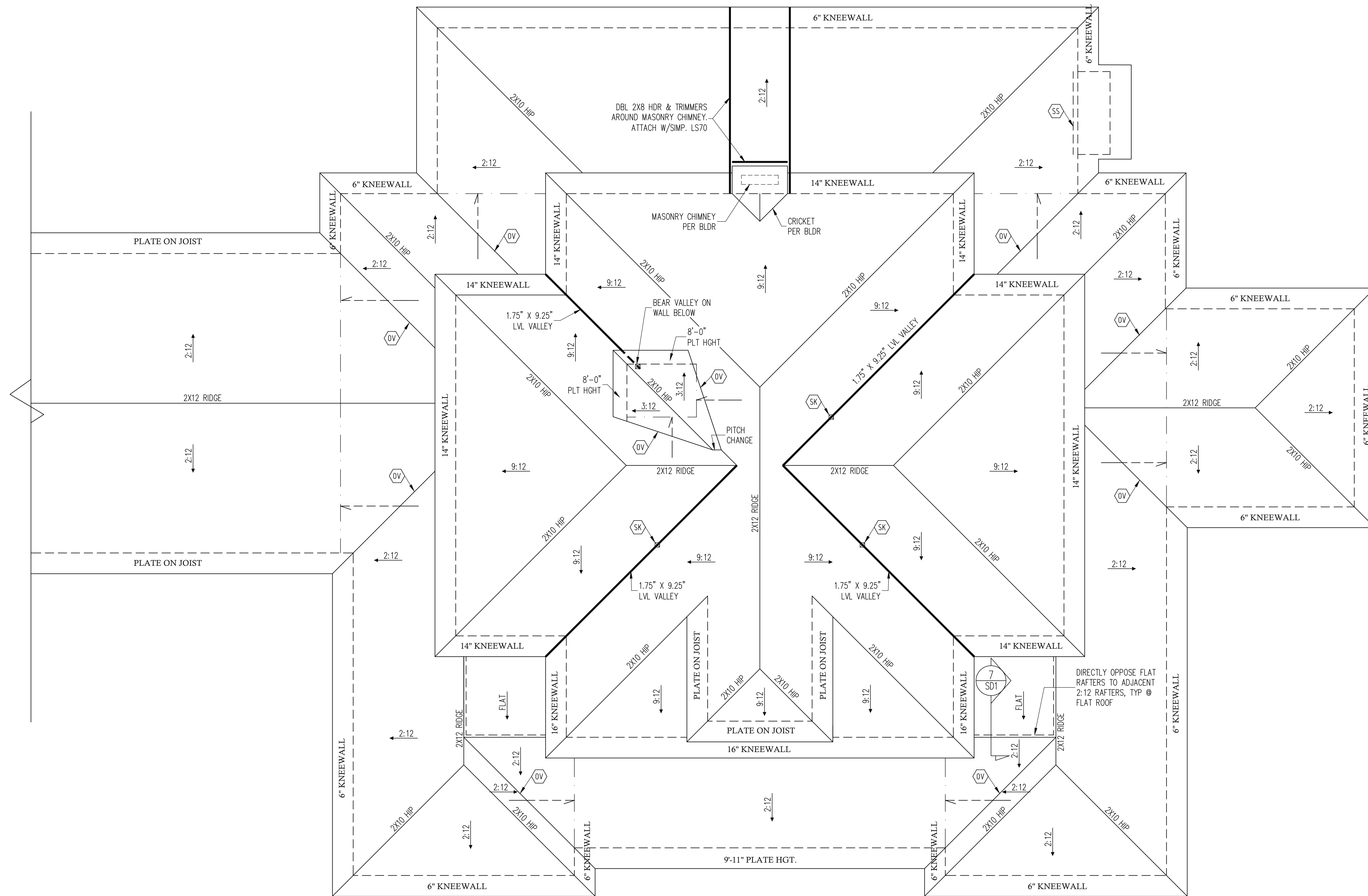
DESIGN TECH	SCOPE	STRUCTURAL ADDENDUM	REV #	REF PROJ #	DATE
	LOC	2551 NATHAN MATHEWS RD			
		ANGIER, NC			

ENC: EAF/NBG  
 DATE 08-22-2023

PROJECT NO.  
 23-15-019

SHEET NO.  
 S5  
 5 of 11

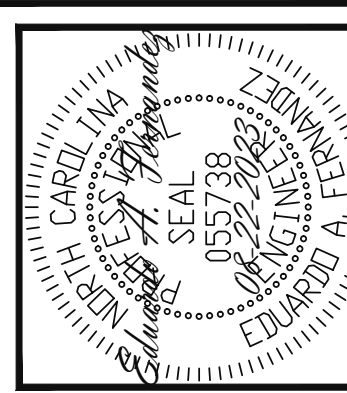




FRAMING NOTES	
ROOF ONLY	
-	COMMON RAFTERS 2x8 @ 16" O.C. TYP U.N.O.
-	COLLAR TIES 2x4 EVERY 3RD SET OF RAFTERS TYP U.N.O.
-	VERIFY ROOF PITCHES, OVERHANG LENGTHS, AND KNEEWALL FRAMING HGTS WITH ARCHITECTURAL DRAWINGS, TYPICAL.
FRAMING SCHEDULE	
ROOF ONLY	
OV	OVERFRAME VALLEY ( 2X10 SLEEPER )
SK	DBL 2X4 STIFF KNEE

MAIN HOUSE ROOF FRAMING PLAN  
1/4" = 1'-0"

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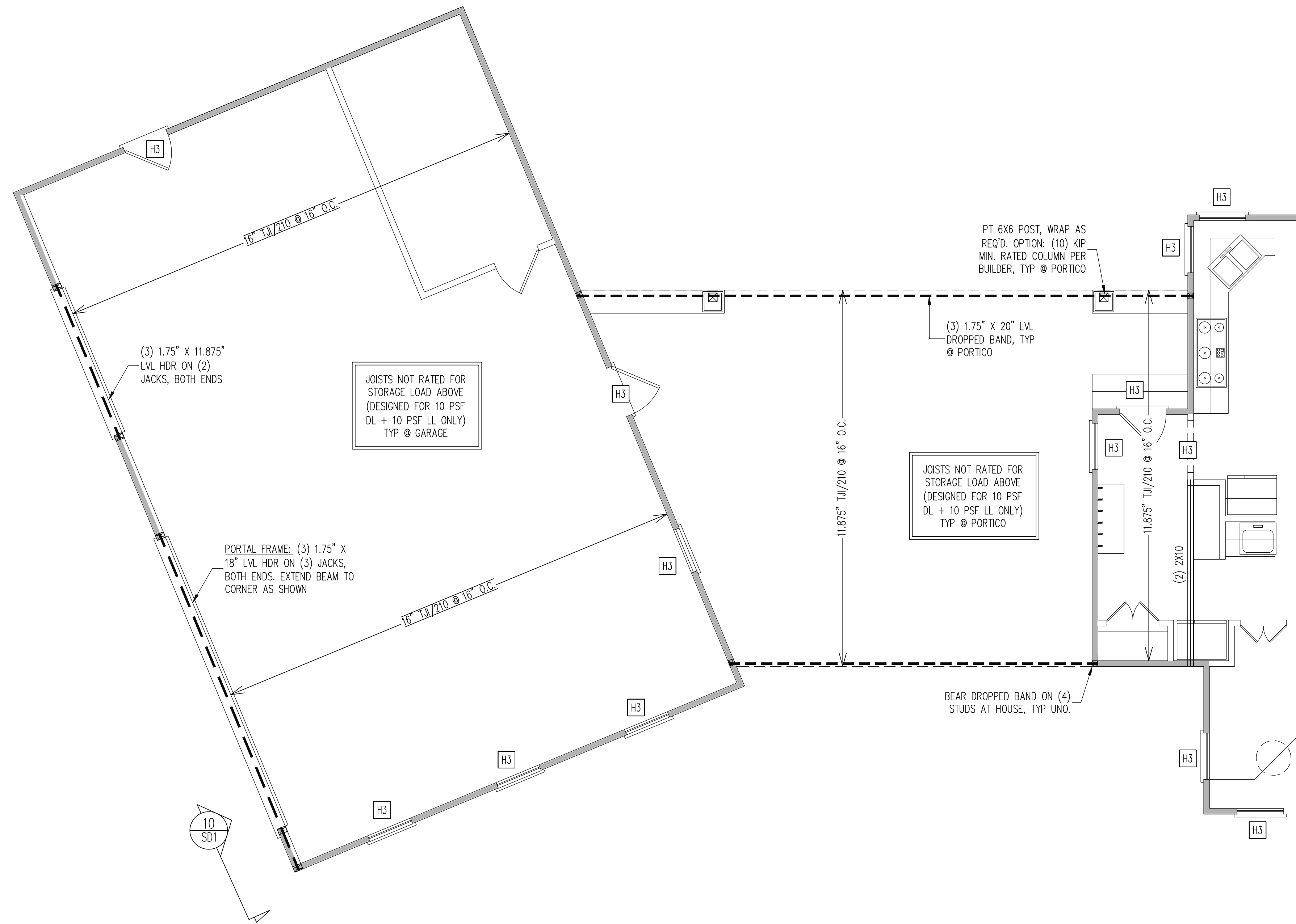
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STRUCTURAL ADDENDUM	
SCOPE:	STRUCTURAL ADDENDUM
LOC:	2551 NATHAN MATHEWS RD ANGIER, NC
REV #	REF PROJ #
DATE	

ENC: EAF/NBG  
DATE: 08-22-2023

PROJECT NO.  
23-15-019

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S6  
6 of 11





**CONSTRUCTION SPECIFICATIONS**  
 INSTANT REFERENCES

REFER TO THE CONSTRUCTION SPECIFICATIONS SECTIONS FOR THE FOLLOWING INFORMATION:

PART 1.01: CURRENT GOVERNING CODE

PART 14: STUD SUPPORT FOR BEAMS

PART 17: KING STUDS FOR EXTERIOR WALLS

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

**WALL BRACING**

SHADED WALLS:

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. IN PANEL FIELD.

NOTES:  
 PROVIDED CONTINUOUS SHEATHING = 140' MIN.

REFERENCE PART 16.02 OF CONSTRUCTION SPECIFICATIONS FOR GENERAL WND 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

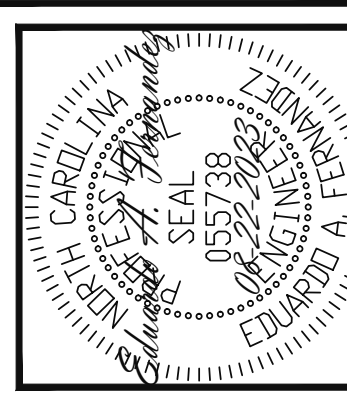
(A) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPENING 38" MAX.

(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.

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

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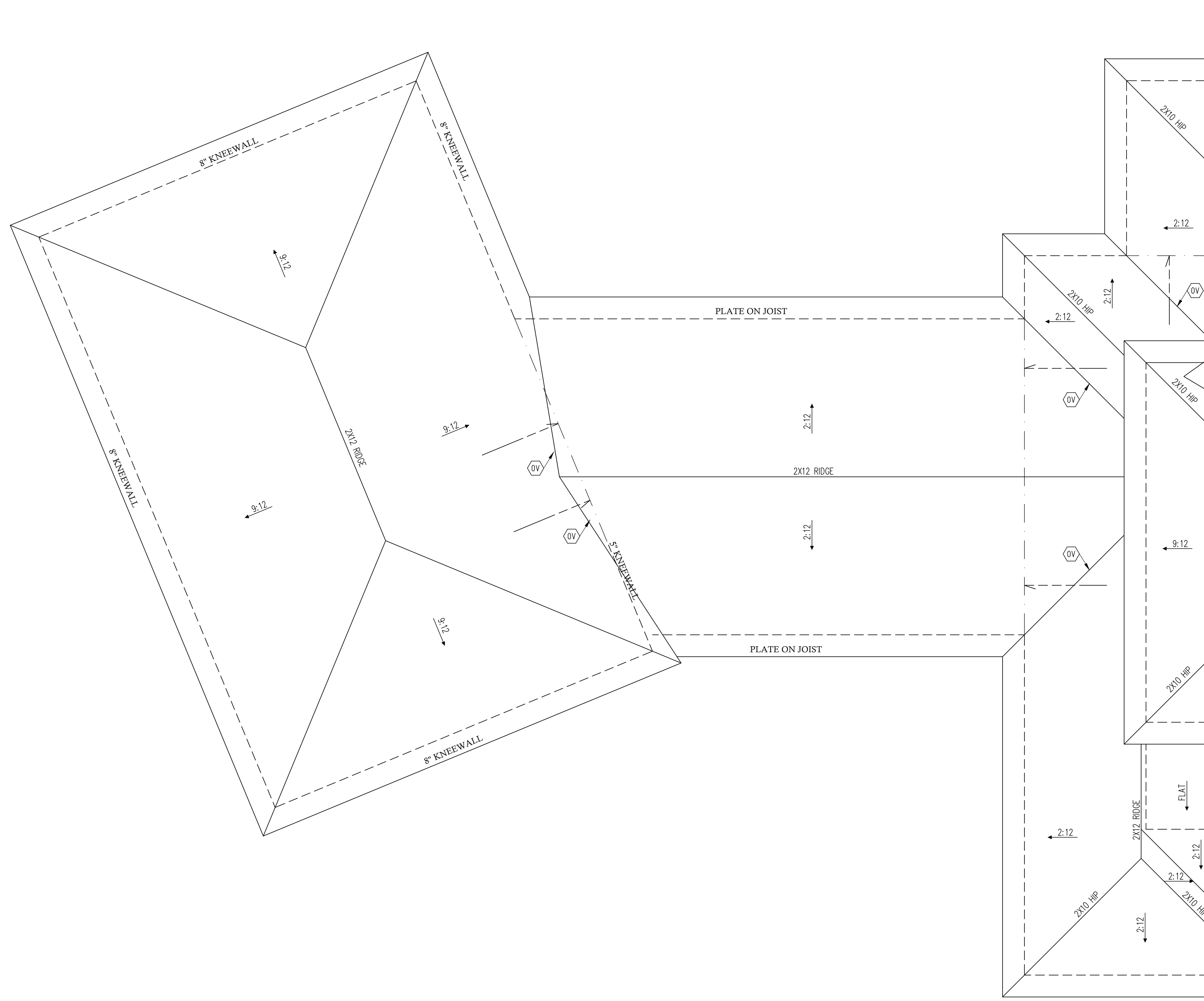
**Engineering Tech Associates, P.A.**

DESIGN TECH	DATE
STRUCTURAL ADDENDUM	REV # REF PROJ #
SCOPE: STRUCTURAL ADDENDUM	DATE
LOC: 2551 NATHAN MATHEWS RD	
ANGIER, NC	

ENC: EAF/NBG  
 DATE: 08-22-2023

PROJECT NO.  
 23-15-019

SHEET NO.  
 S8  
 8 of 11



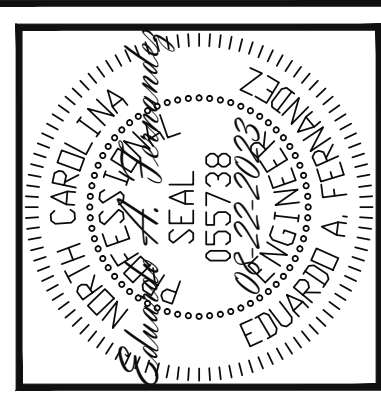
FRAMING NOTES	
ROOF ONLY	
-COMMON RAFTERS 2x8 @ 16" O.C. TYP U.N.O.	
-COLLAR TIES 2x4 EVERY 3RD SET OF RAFTERS TYP U.N.O.	
-VERIFY ROOF PITCHES, OVERHANG LENGTHS, AND KNEEWALL FRAMING HGTS WITH ARCHITECTURAL DRAWINGS, TYPICAL.	

FRAMING SCHEDULE	
ROOF ONLY	
OV	OVERFRAME VALLEY ( 2X10 SLEEPER )
SK	DBL 2X4 STIFF KNEE

GARAGE AND PORTICO ROOF FRAMING PLAN  
 1/4" = 1'-0"

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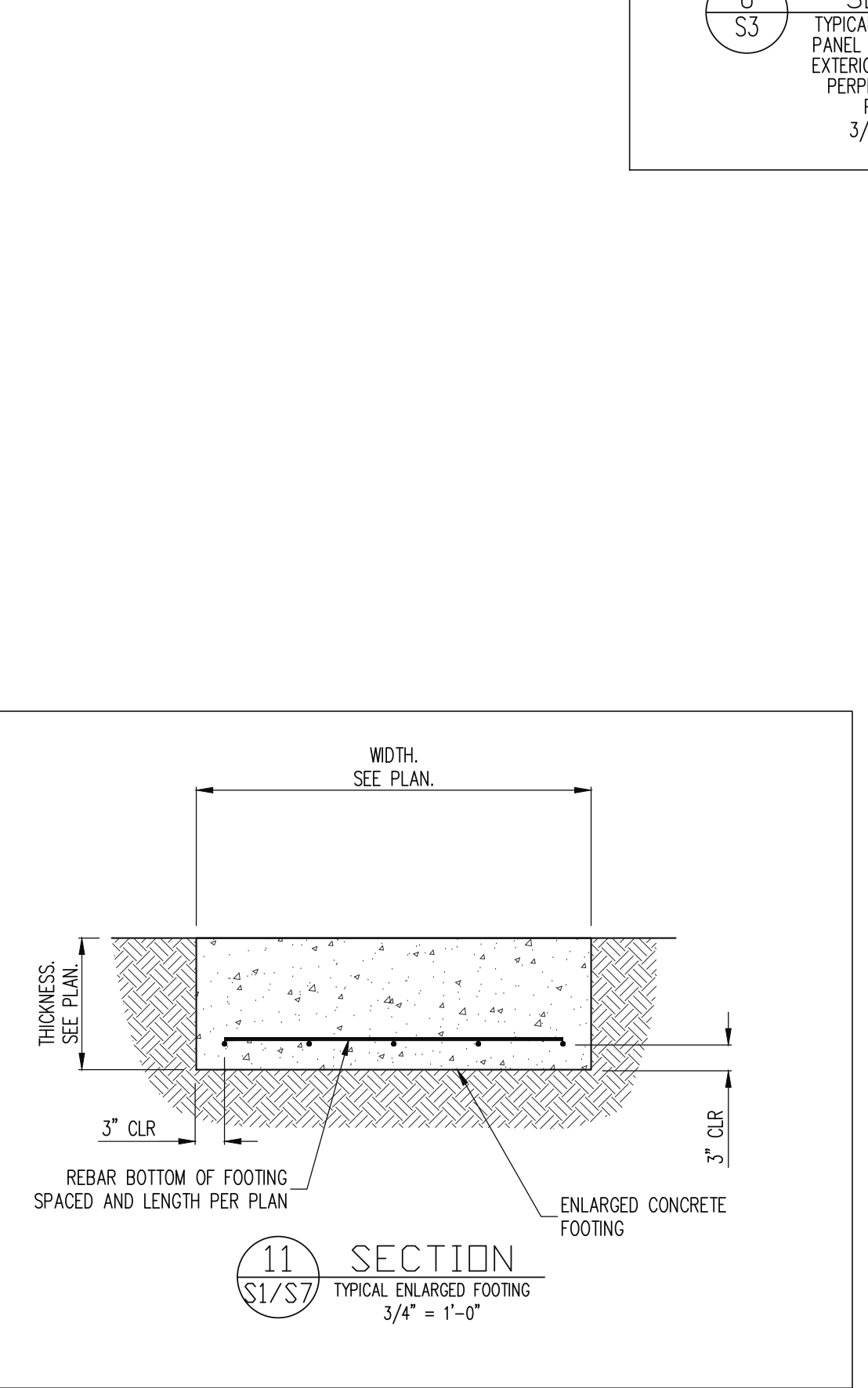
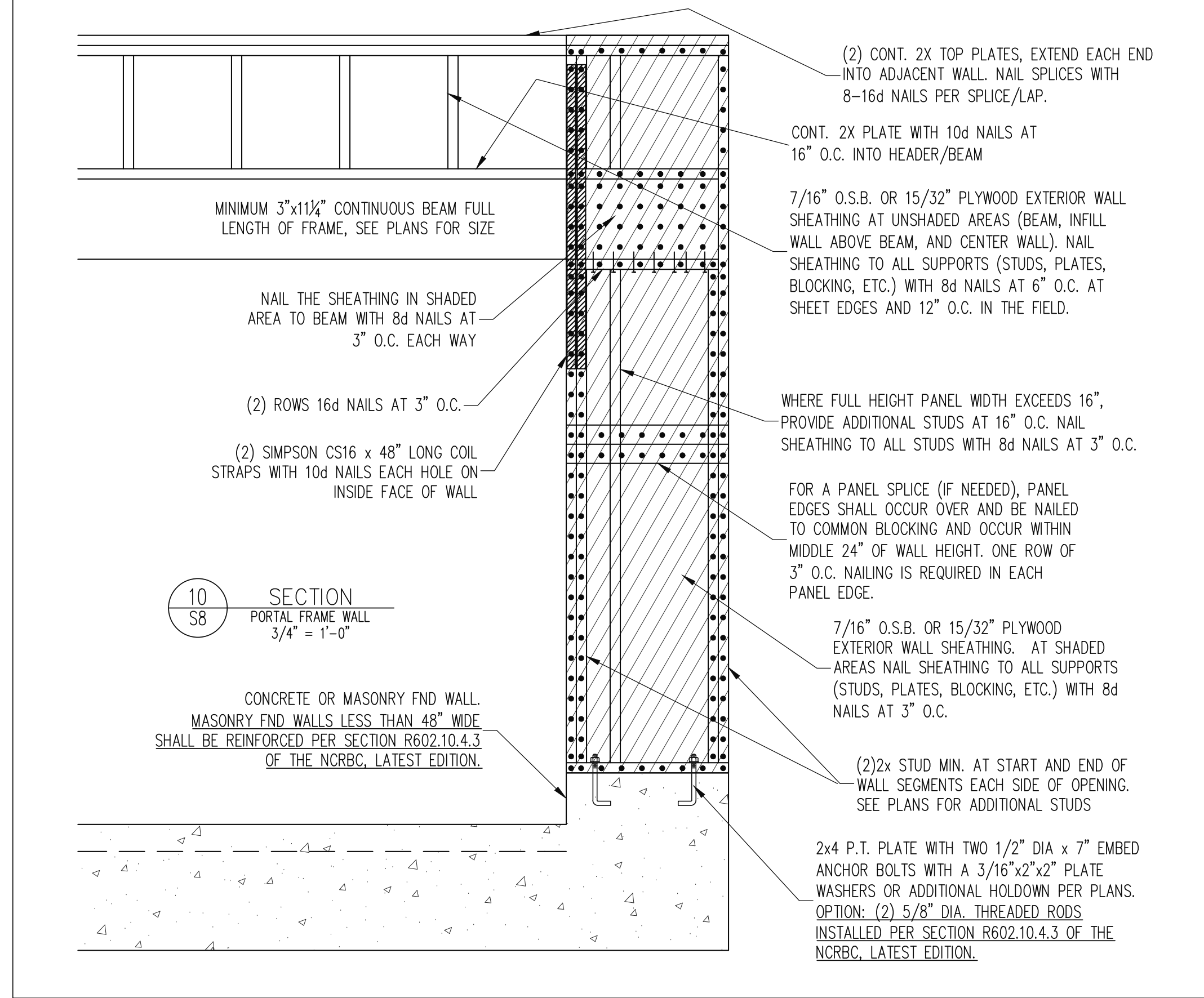
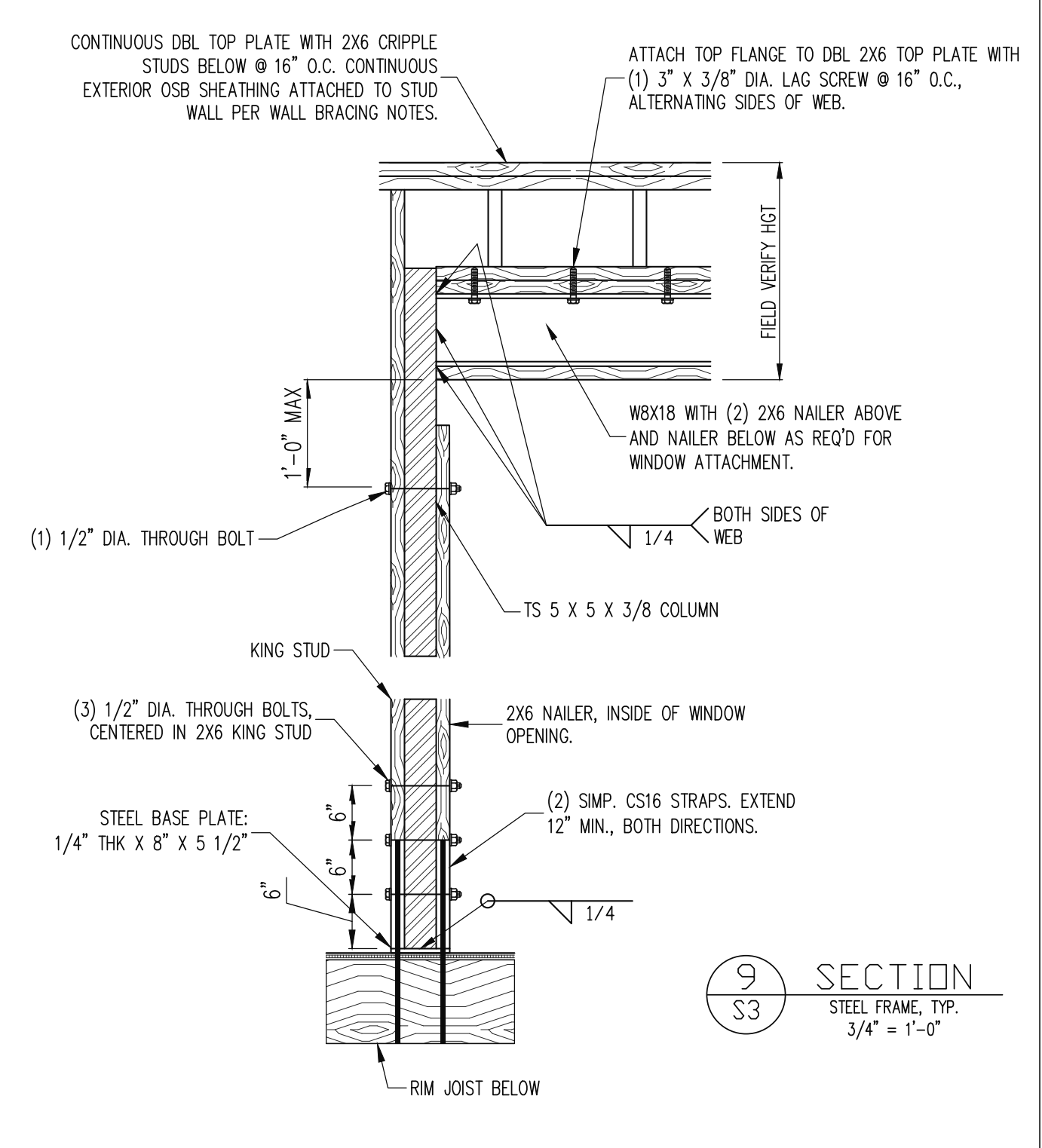
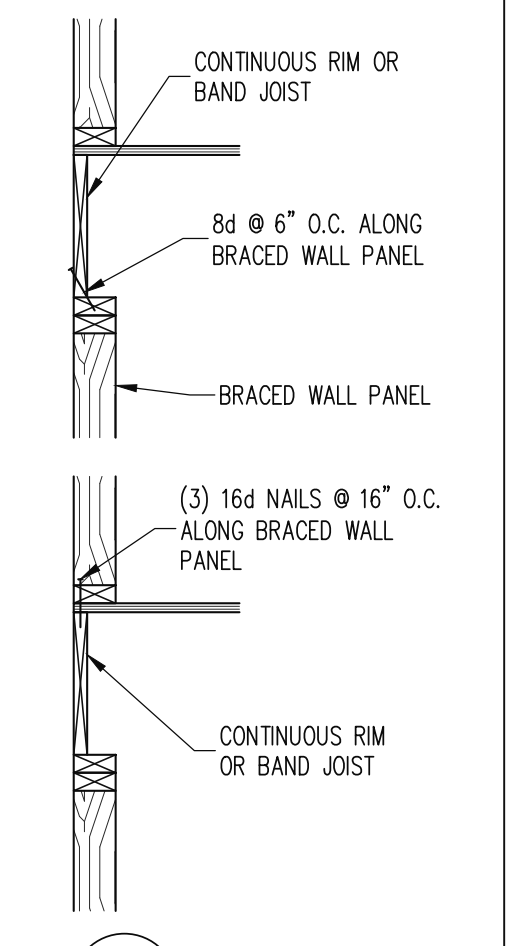
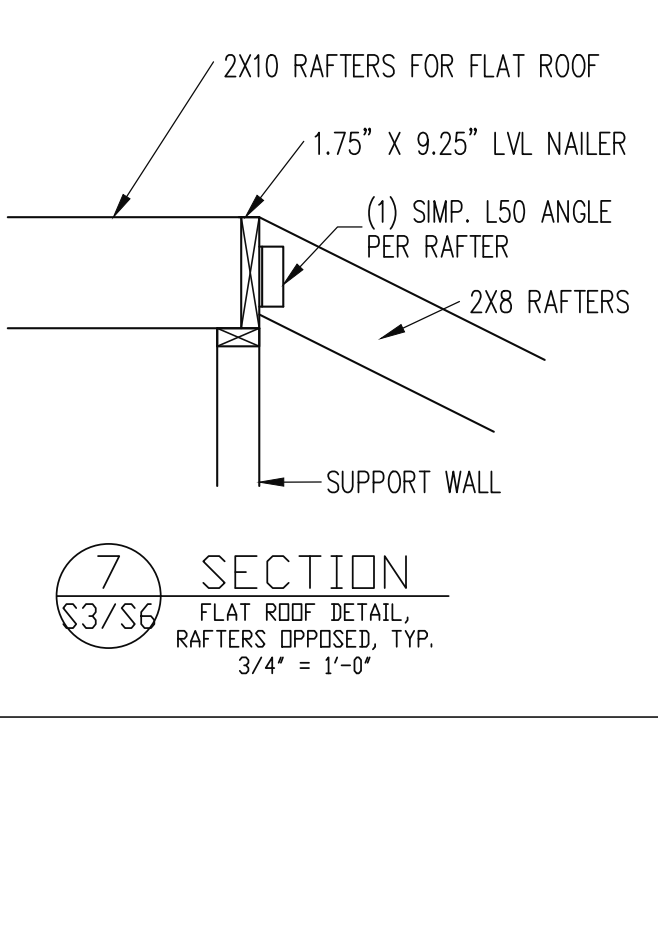
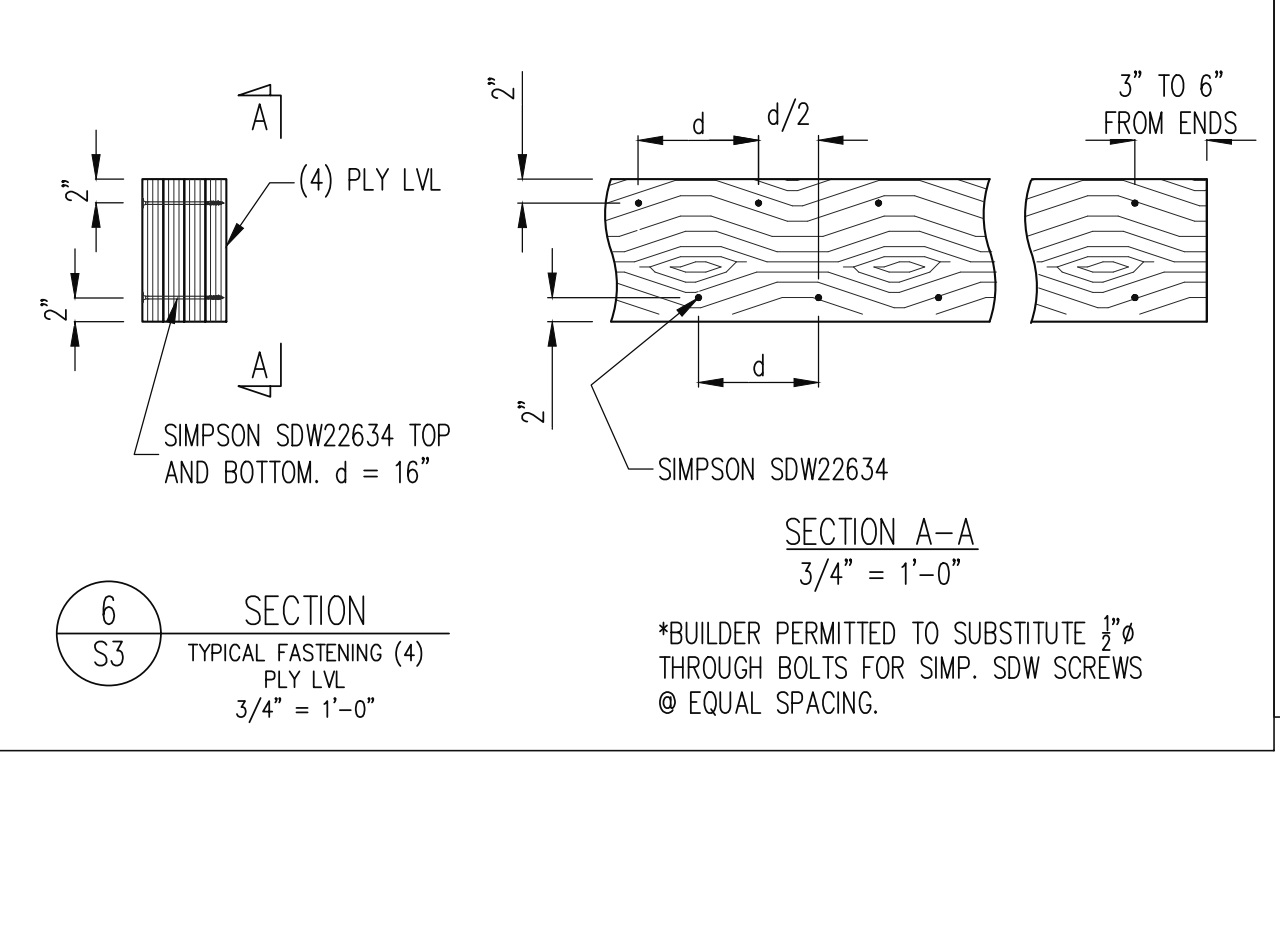
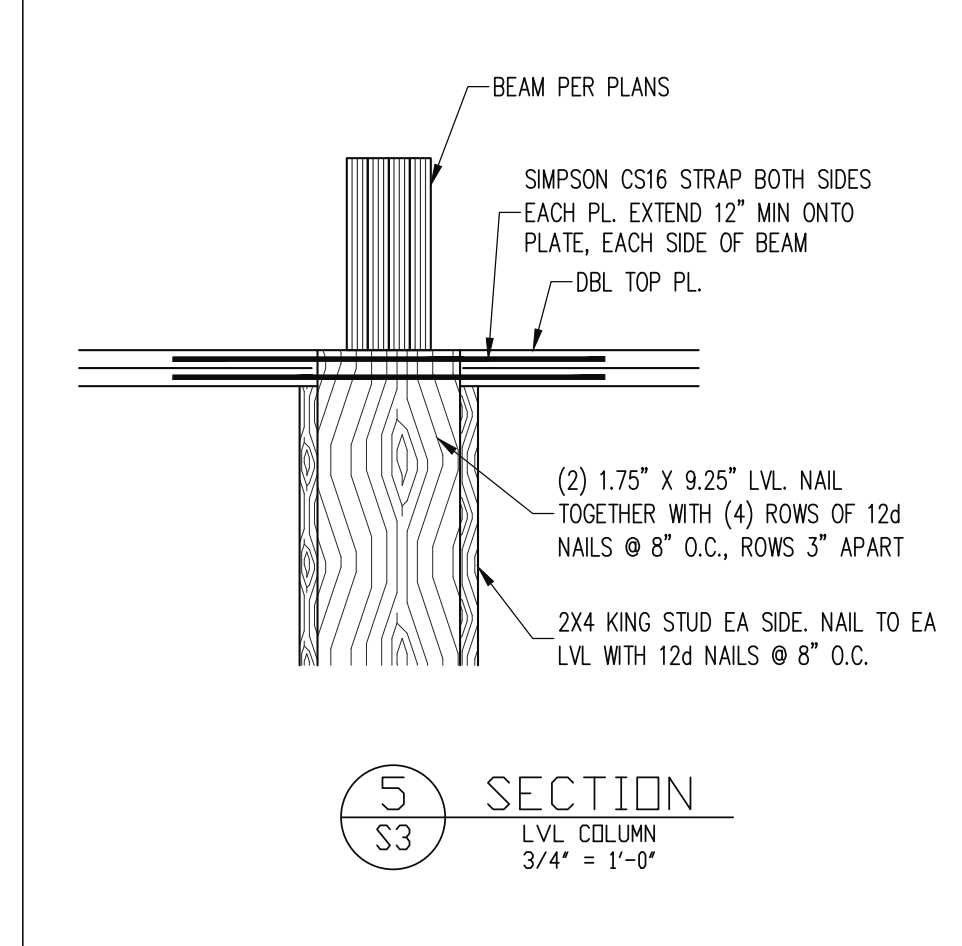
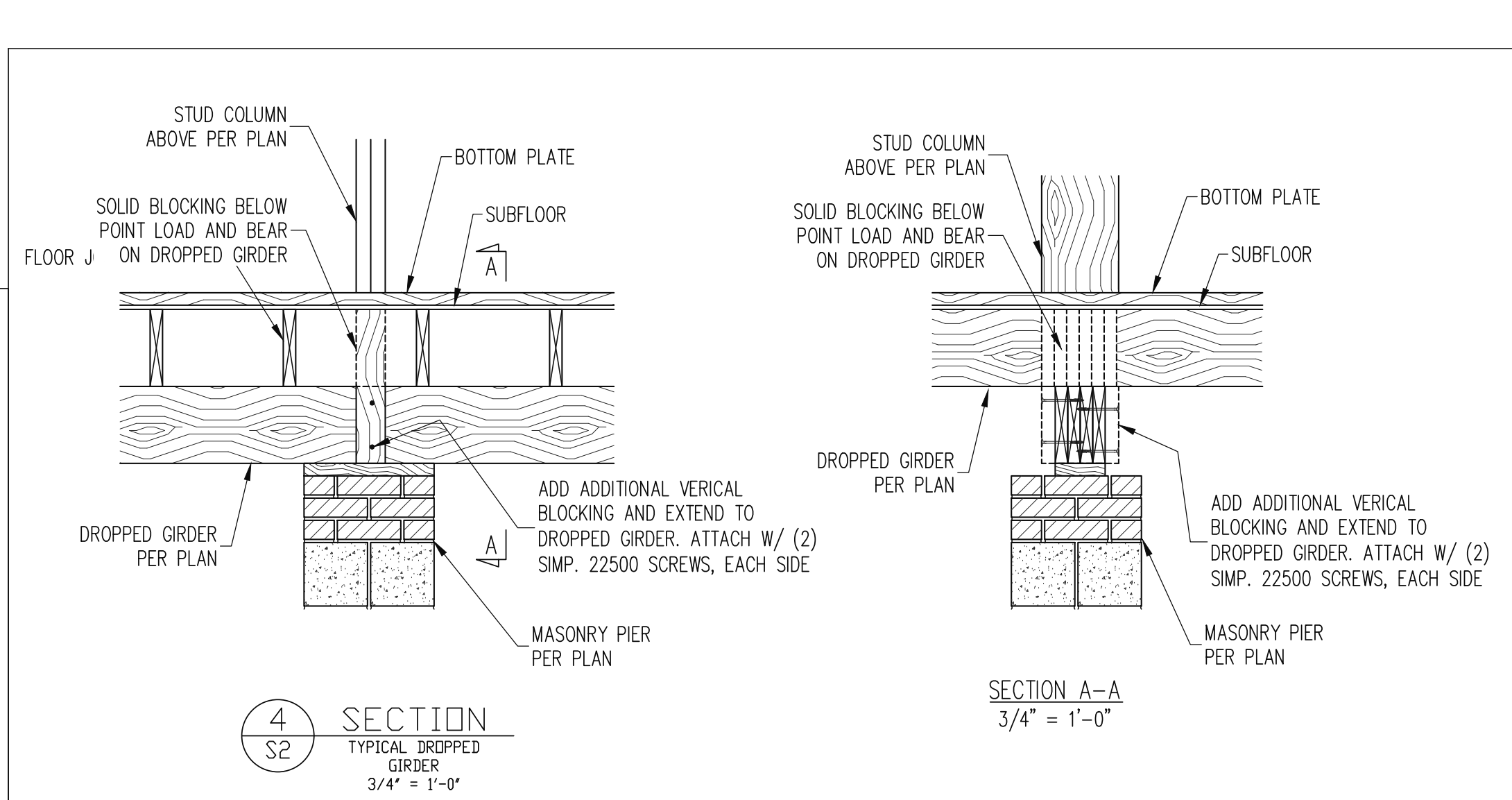
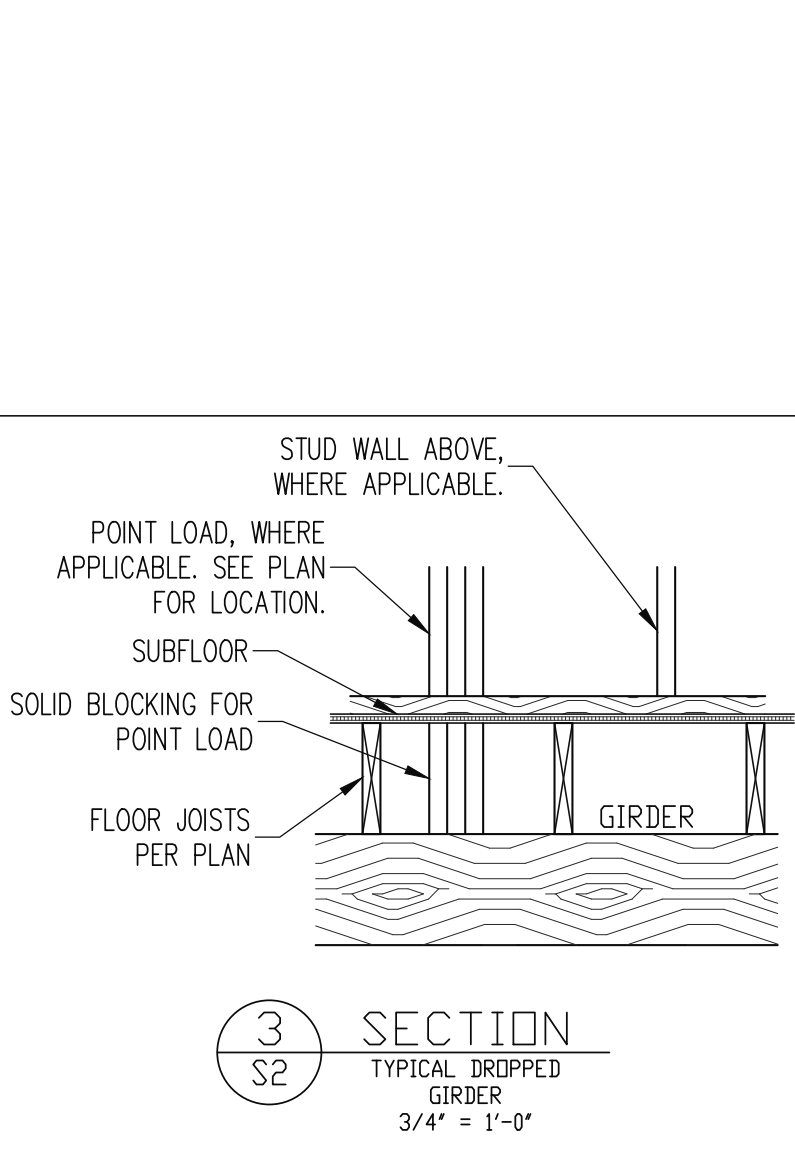
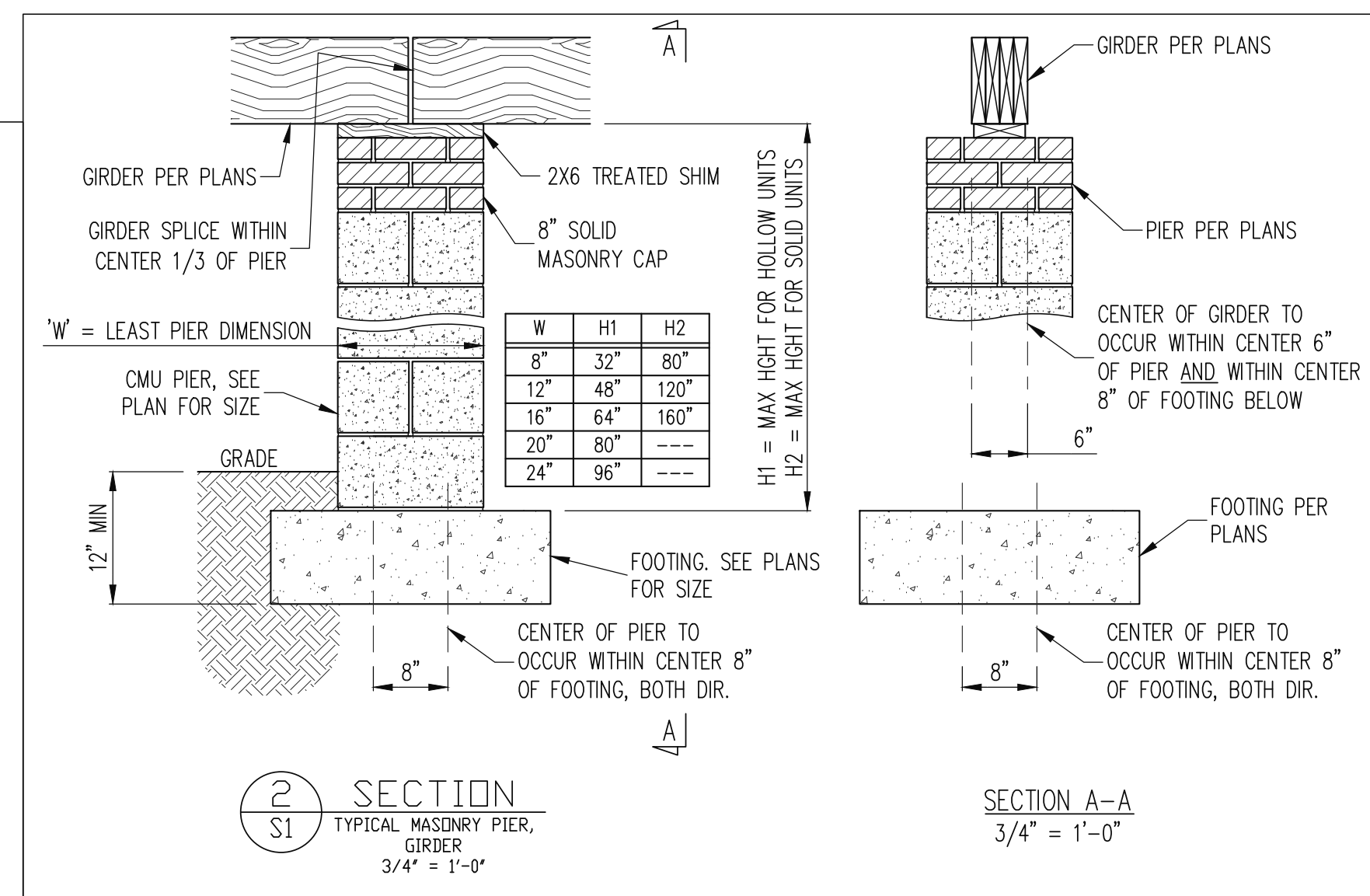
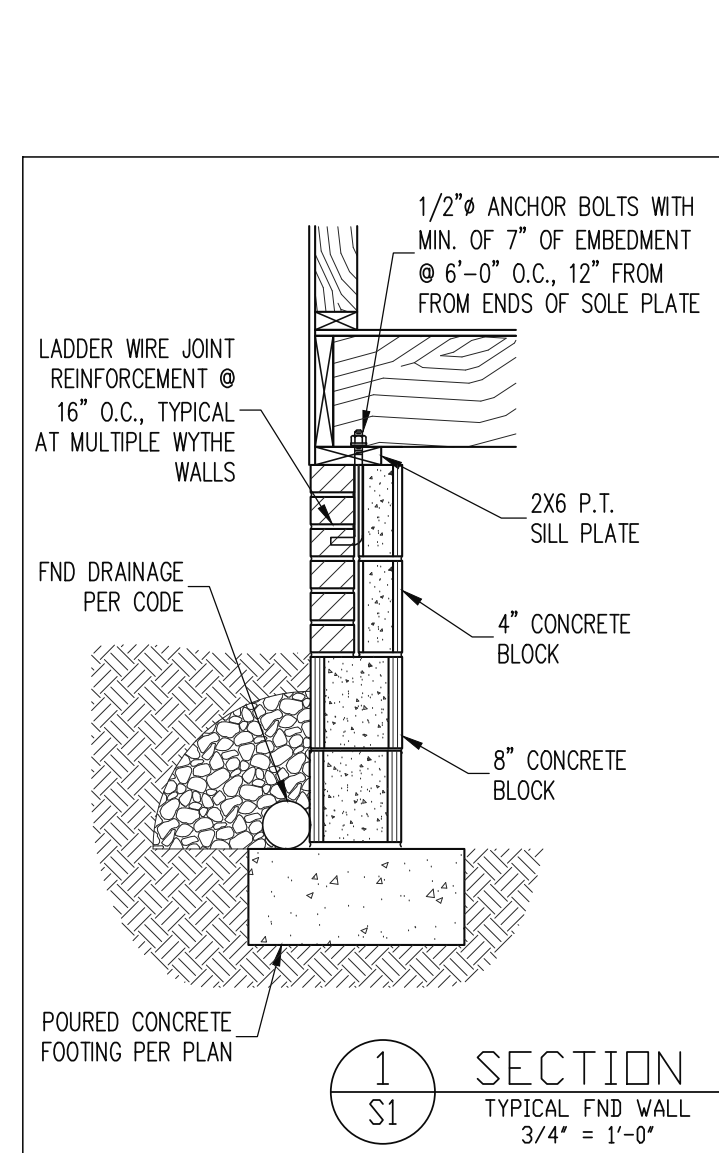
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DESIGN TECH	
SCOPE:	STRUCTURAL ADDENDUM
LOC:	2551 NATHAN MATHEWS RD ANGIER, NC
REV #	REF PROJ #
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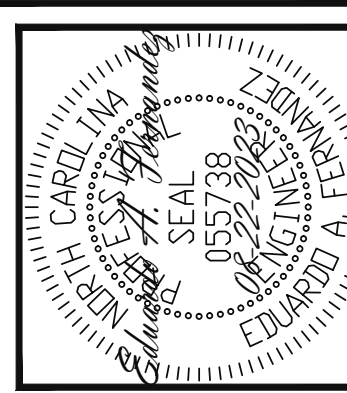
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CONSTRUCTION SPECIFICATIONS

PART 1: GENERAL

- 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 ONLY)   | 50              | ---                |
| ATTICS (NO STORAGE, LESS THAN 5' HEADROOM)  | 10              | 10                 |
| ATTICS (WITH STORAGE)   | 20              | 10                 |
| ROOF  | 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 THESE CONDITIONS

- 2.02 INTERIOR WALLS: 5 PSF LATERAL.
- 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 GRADE.
- 3.02 SQUARE AND RECTANGULAR TUBING SHALL CONFORM TO ASTM A500 GRADE B MINIMUM GRADE.
- 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.

PART 4: WELDING

- 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. ALL CONCRETE, INCLUDING CONCRETE FOR FOOTINGS, IS TO BE CAST IN PLACE, TYP UNO.
- 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 OR 2" MIN GRANULAR FILL ON SOIL WITH 30% 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, FM = 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 MEMBERS

- 8.02 LAG SCREWS SHALL CONFORM TO ANS/ASME STANDARD B18.2.1-1981. PILOT HOLES SHALL BE USED FOR LAG SCREW INSTALLATION AND SHALL BE BORED ACCORDING TO NDS SPECIFICATIONS. INSTALL STANDARD STEEL WASHERS (ASTM F844-07a) FOR SCREW HEAD

- 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 OR 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 10<sup>6</sup> PSI, F<sub>b</sub> = 2800 PSI, F<sub>v</sub> = 285 PSI, F<sub>c</sub> = 750 PSI  
 LSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS:  
 E= 1.5 X 10<sup>6</sup> PSI, F<sub>b</sub> = 1700 PSI, F<sub>v</sub> = 400 PSI, F<sub>c</sub> = 680 PSI

- 11.02 LVL OR PSL MEMBERS MAY BE RIPPED FROM DEEPER MEMBERS TO MATCH THE MEMBER 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 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. MAINTAIN A 2" EDGE DISTANCE. PLACE TWO BOLTS, ONE ABOVE THE OTHER, 6" ± 2" 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:  
 1-WHEN THE BEAM IS PERPENDICULAR TO, OR SKEWED RELATIVE TO THE WALL, THE BEAM SHALL BEAR FULL WIDTH 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 THE BEAM  
 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 TRIP STUD GANGED COLUMN TYP UNO.
- 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 FULL WIDTH ON THE SUPPORTING WALL INDICATED (LESS 1 1/2" TO ALLOW FOR A CONTINUOUS RM 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 TYP UNO.

- 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

PART 15: NAILING OF MULTI-PLY WOOD BEAMS

- 15.01 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 UNO

PART 16: WALL FRAMING AND BRACING

- 16.01 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 UNO.  
 MAX ALLOWABLE WALL HEIGHTS FOR EXTERIOR 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"

PART 17: KING STUDS

- 17.01 KING STUDS FOR OPENINGS IN EXTERIOR WALLS SHALL BE AS FOLLOWS:  
 NUMBER OF KING STUDS  
 MAX OPENING WIDTH 5'-0" 9'-0" 13'-0" 17'-0" 21'-0"  
 STUD SIZE 2X4 1 2 3 4 5  
 2X6 1 1 1 1 2

PART 18: SUBSTITUTIONS

- 18.01 MATERIAL OR MEMBER SIZE SUBSTITUTIONS OR PLAN DEVIATIONS REQUIRE THE WRITTEN AUTHORIZATION OF THE DESIGNER. 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

NOTES

THE BUILDER IS RESPONSIBLE FOR REVIEWING PLANS PRIOR TO CONSTRUCTION. THE BUILDER SHALL IMMEDIATELY CONTACT THE ENGINEER OF RECORD (EOR) BEFORE PROCEEDING IF THE FOLLOWING CONDITIONS ARE NOTED BEFORE OR DURING CONSTRUCTION:  
 1) THE WORKING PLANS DO NOT BEAR THE SEAL OF THE EOR  
 2) THE PLANS CONTAIN DISCREPANT OR INCOMPLETE INFORMATION

ANY ERRORS DUE TO A FAILURE TO FOLLOW THE ABOVE PROCEDURES SHALL NOT BE THE RESPONSIBILITY OF THE EOR. FURTHERMORE, IT IS THE RESPONSIBILITY OF THE BUILDER TO ENSURE THAT ANY REVISIONS ISSUED BY THE EOR ARE PROMPTLY DISTRIBUTED TO THE SUBCONTRACTORS

THE EOR DOES NOT PERFORM FENESTRATION OR VENTING CALCULATIONS OR ANY OTHER CALCULATIONS THAT ARE NOT DIRECTLY RELATED TO STRUCTURAL ENGINEERING.

ROOF AND FLOOR TRUSSES TO BE DESIGNED BY AN ENGINEER REGISTERED BY THE STATE. FINAL TRUSS DRAWING SHOULD BE SUBMITTED TO THE EOR FOR REVIEW

ABBREVIATIONS

ABV ABOVE	FND FOUNDATION	TJ TRIPLE JOIST
B. BOTH ENDS	FTG FOOTING	TYP TYPICAL
B.E. BOTH ENDS	HOG HOT DIPPED	TRPL TRIPLE
BTWN BETWEEN	GLV GALVANIZED	TSP TRIPLE STUD POCKET
CP CAST IN PLACE	HOR HANGER	UNO UNLESS NOTED OTHERWISE
CONC CONCRETE	LVL LAMINATED VENEER LUMBER	XJ EXTRA JOIST
CS CONTINUOUS SHEATHING	O.C. ON CENTER	
DIA DIAMETER	NTS NOT TO SCALE	
DBL DOUBLE	PT PRESSURE TREATED	
DJ DOUBLE JOIST	PSL PARALLEL STRAND LUMBER	
EQ EQUAL	QJ QUAD JOIST	
EA EACH	SP STUD POCKET	
FLG FLANGE	SQ SQUARE	
FL PL FLITCH PLATE		
FLR FLOOR		

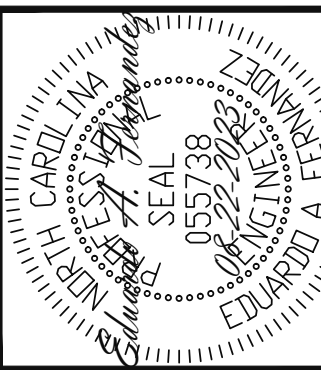
ALLOWABLE I-JOIST SUBSTITUTION

NOTE: MAINTAIN JOIST DEPTH, DIRECTION, AND SPACING SPECIFIED ON PLANS.

MANUFACTURER	DEPTH	SERIES	SIMPSON FACE MOUNT HGR	SIMPSON TOP FLANGE HGR
BLUELIX	11.875"	BLU 40	US2.56/11.88	ITS2.56/11.88
BOISE CASCADE	11.875"	BCI 5000s	US2.06/11.88	ITS2.06/11.88
BOISE CASCADE	11.875"	BCI 6000s	US2.37/11.88	ITS2.37/11.88
INTERNATIONAL BEAMS	11.875"	IB 400	US2.56/11.88	ITS2.56/11.88
LP CORP	11.875"	LPI 20+	US2.56/11.88	ITS2.56/11.88
NORDIC	11.875"	NI 40X	US2.56/11.88	ITS2.56/11.88
ROSEBURG	11.875"	RPFI 40s	US2.56/11.88	ITS2.56/11.88
WEYERHAEUSER	11.875"	TJ 210	US2.06/11.88	ITS2.06/11.88
WEYERHAEUSER	11.875"	EEL-20	US2.37/11.88	ITS2.37/11.88
BLUELIX	16"	BLU 40	US2.56/16	ITS2.56/16
BOISE CASCADE	16"	BCI 5000s	US2.06/16	ITS2.06/16
BOISE CASCADE	16"	BCI 6000s	US2.37/16	ITS2.37/16
INTERNATIONAL BEAMS	16"	IB 600	US2.56/16	ITS2.56/16
LP CORP	16"	LPI 20+	US2.56/16	ITS2.56/16
NORDIC	16"	NI 40X	US2.56/16	ITS2.56/16
ROSEBURG	16"	RPFI 60S	US2.56/16	ITS2.56/16
WEYERHAEUSER	16"	TJ 210	US2.06/16	ITS2.06/16

JOISTS NOT LISTED IN THE ABOVE TABLE MAY BE USED PROVIDED THEY MEET OR EXCEED THE PROPERTIES OF THOSE LISTED. SUBSTITUTE I/SP BRAND HANGERS WITH EQUIVALENT VALUES AS DESIRED.

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