



FRONT ELEVATION

1/4" = 1'-0"

NOTICE TO CONTRACTOR
 All construction must comply with current NC Building Codes and is subject to field inspection and verification.

APPROVED
 Limited building only review.
 Permit holder responsible for full compliance with the code.

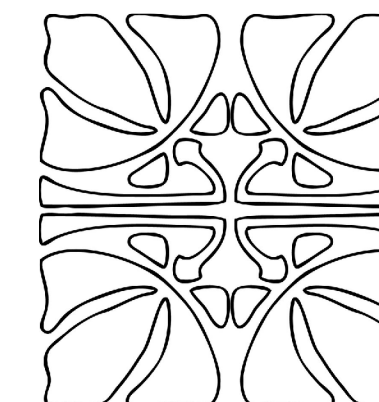
01/03/2023





RIGHT ELEVATION

1/4" = 1'-0"



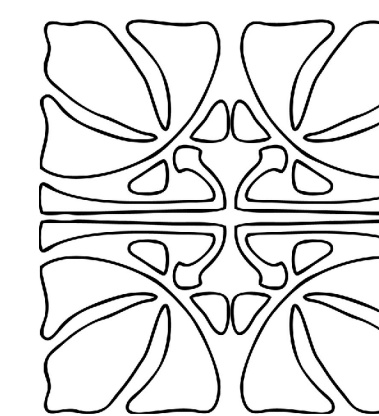
CUELLAR RESIDENCE & DETACHED GARAGE



CIDER HOUSE STUDIO, INC.
424 E. MAIN ST.
CLAYTON, NC 27520
919.624.4776



JABIER CUELLAR



It is the sole responsibility of the contractor and/or builder to determine whether these plans conform to all standards, provisions, requirements, methods of construction, and structures provided by applicable building codes, and any other local agencies, and in accordance with good engineering and construction practices. Cider House Studio does not assume liability for any deviation or discrepancy in these plans. If a discrepancy is discovered, please contact Cider House Studio before continuing work.



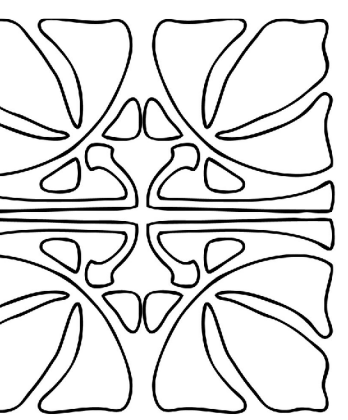
REAR ELEVATION

1/4" = 1'-0"

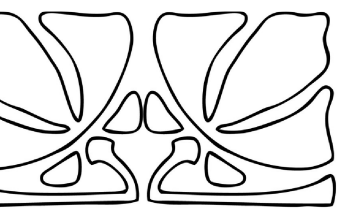


LEFT ELEVATION

1/4" = 1'-0"



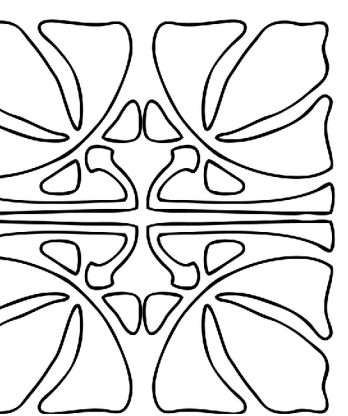
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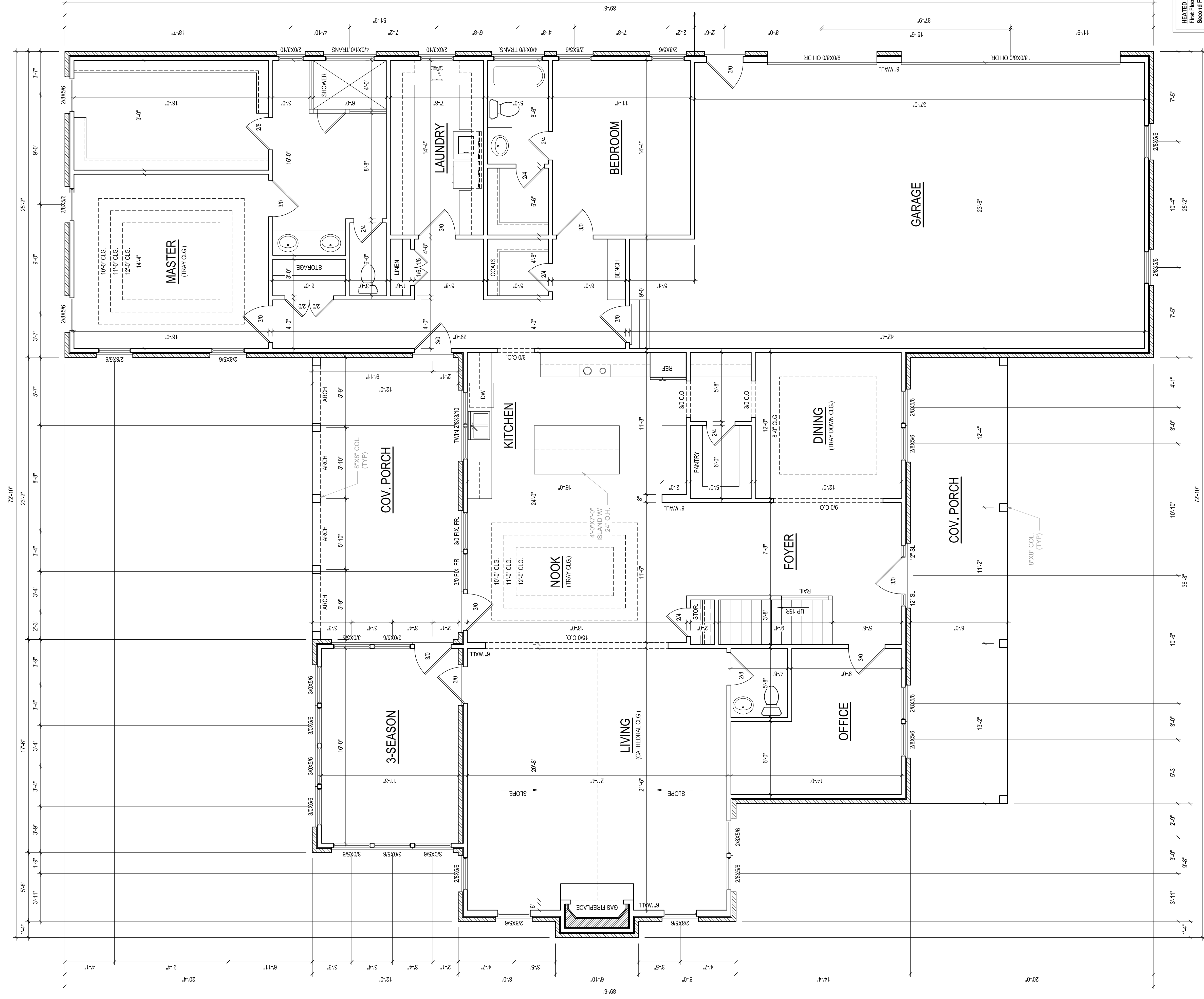
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HEATED SF	2752
Second Floor	1153
TOTAL HEATED	3905
UNHEATED SF	951
Garage	293
Front Porch	288
Rear Porch	288
3-Seasons	200
*Brick Not Included in SF	

FIRST FLOOR PLAN
 1/4" = 1'-0" CEILING HGT. = 9'-0"

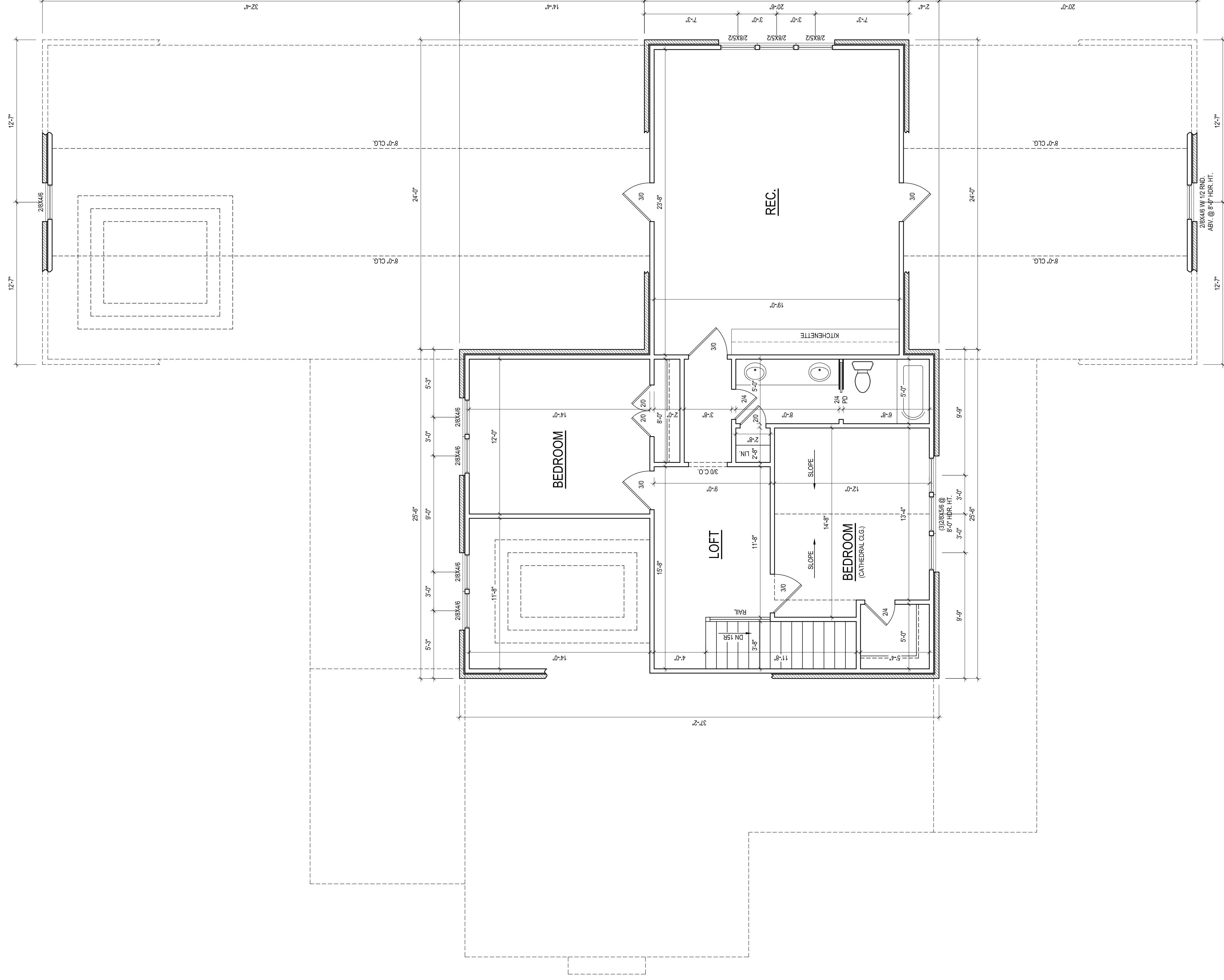
*ALL LUMBER TO BE #2 SYP UNO
 *ALL WALLS TO BE 4" THICK

It is the sole responsibility of the contractor and/or builder to determine whether these plans conform to all city, county, state, and federal codes, regulations, requirements, ordinances, and specifications. The contractor and/or builder shall be responsible for obtaining all necessary permits and approvals from the appropriate authorities. Cider House Studio does not assume liability for any omission or discrepancy in these plans. It is the responsibility of the contractor, please contact Cider House Studio before contacting any other party.

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CUELLAR RESIDENCE &
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SECOND FLOOR PLAN
 1/4" = 1'-0" CEILING HGT. = 9'-0"

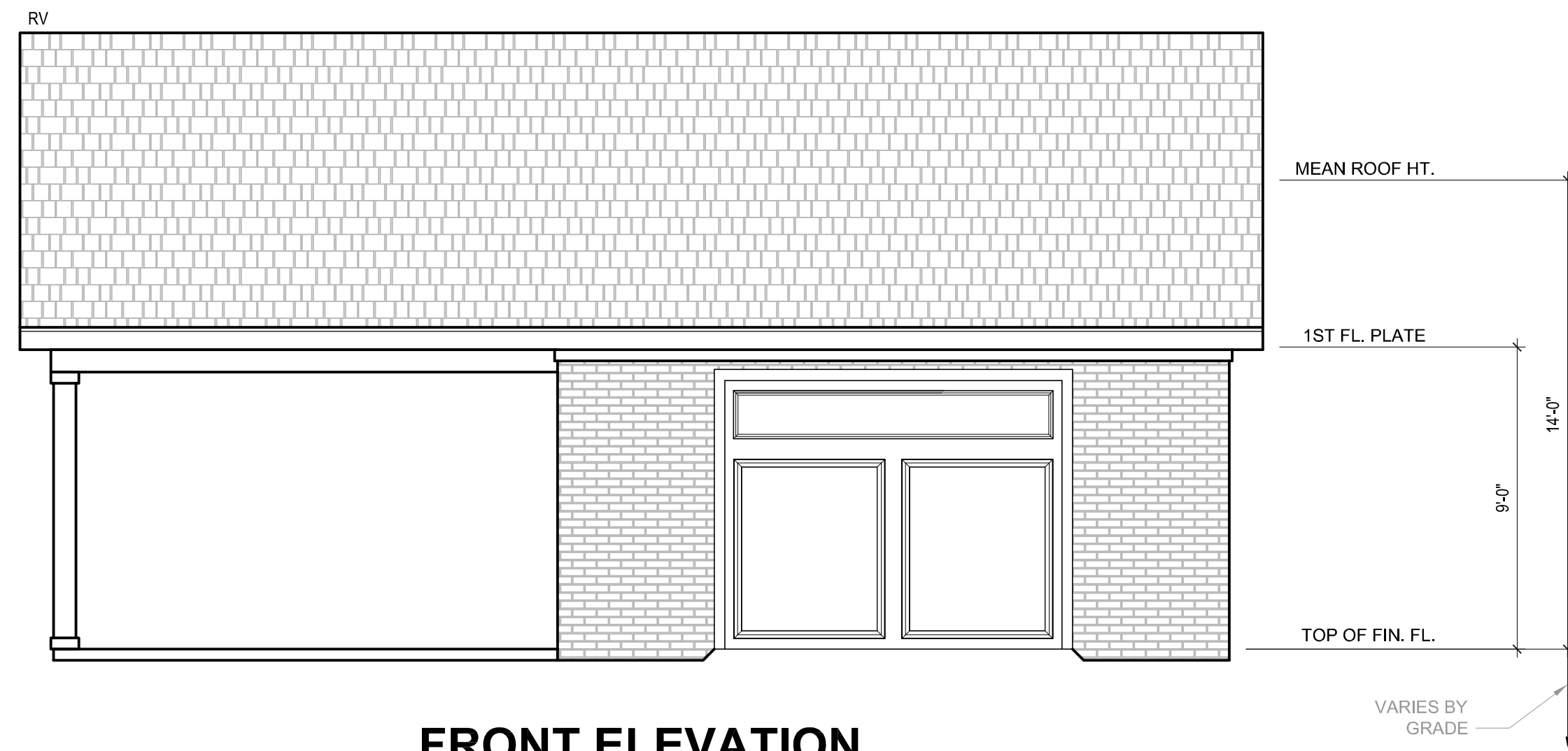
*ALL LUMBER TO BE #2 SYP UNO
 *ALL WALLS TO BE 4" THICK

It is the sole responsibility of the contractor and/or builder to determine whether these plans conform to all applicable codes, provisions, requirements, methods of construction, and other applicable regulations. The architect and/or engineer does not warrant, represent, or assume liability for any deviation or discrepancy in these plans. It is the responsibility of the contractor, fabricator, and/or builder to verify all dimensions and quantities.

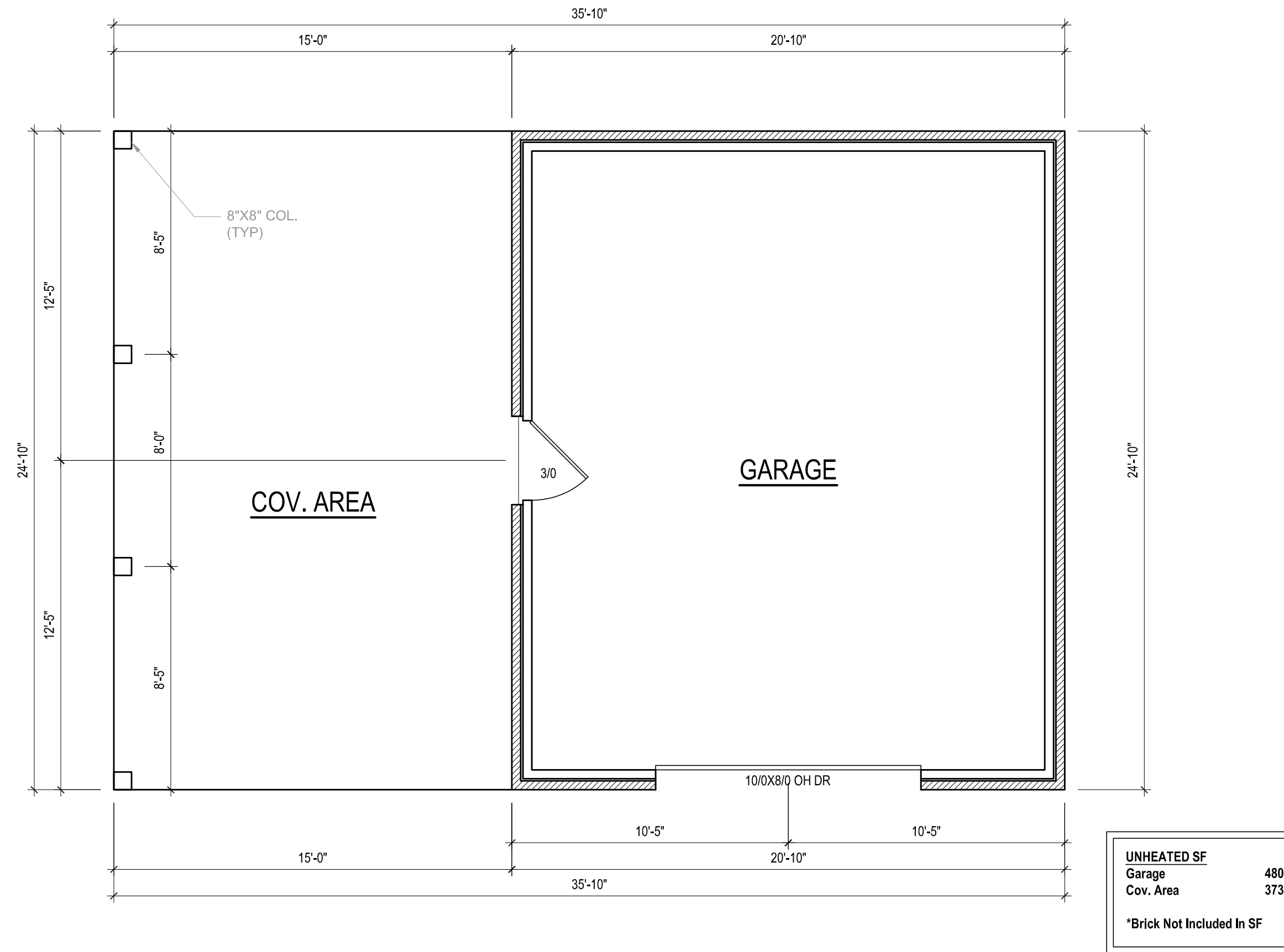
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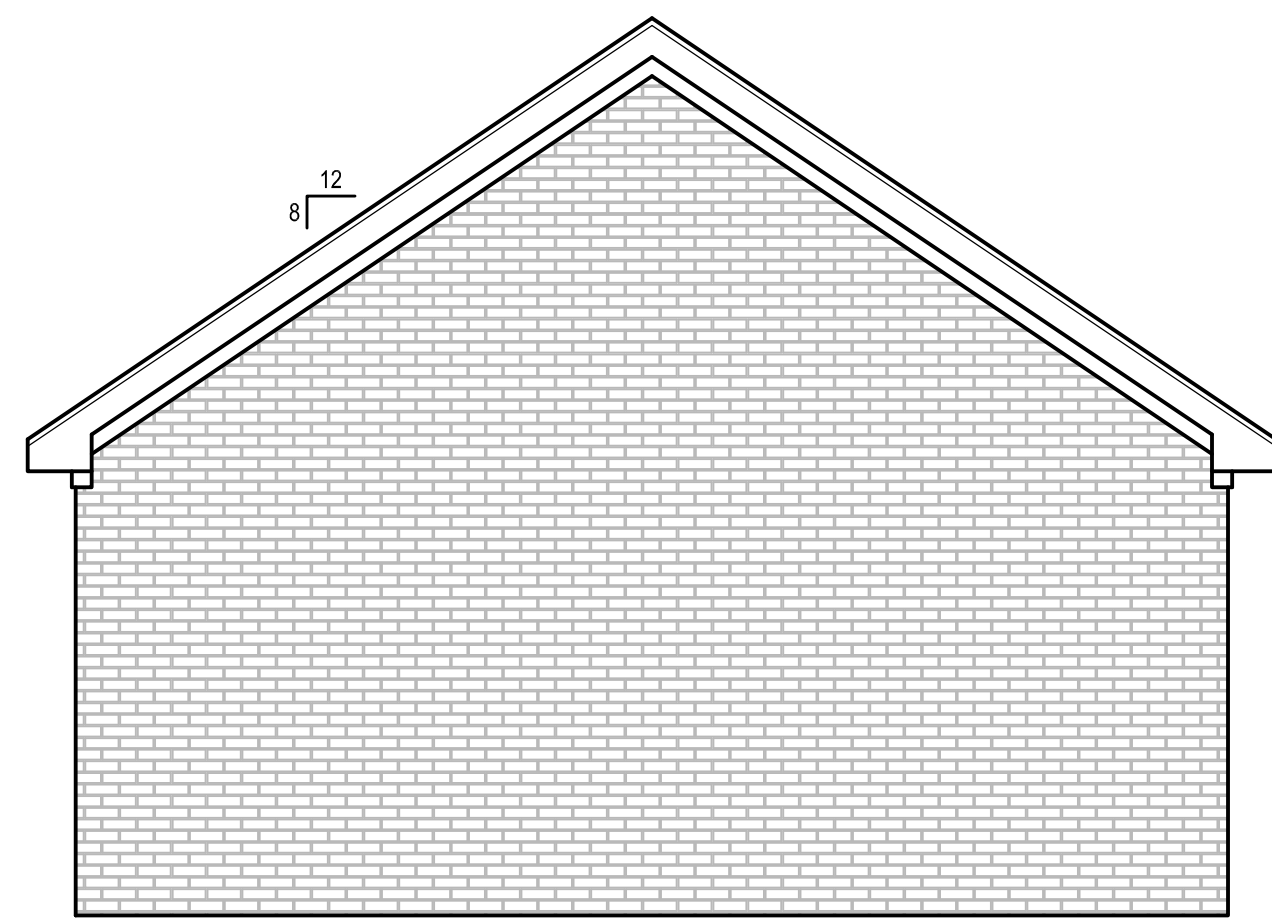


FRONT ELEVATION
1/4" = 1'-0"

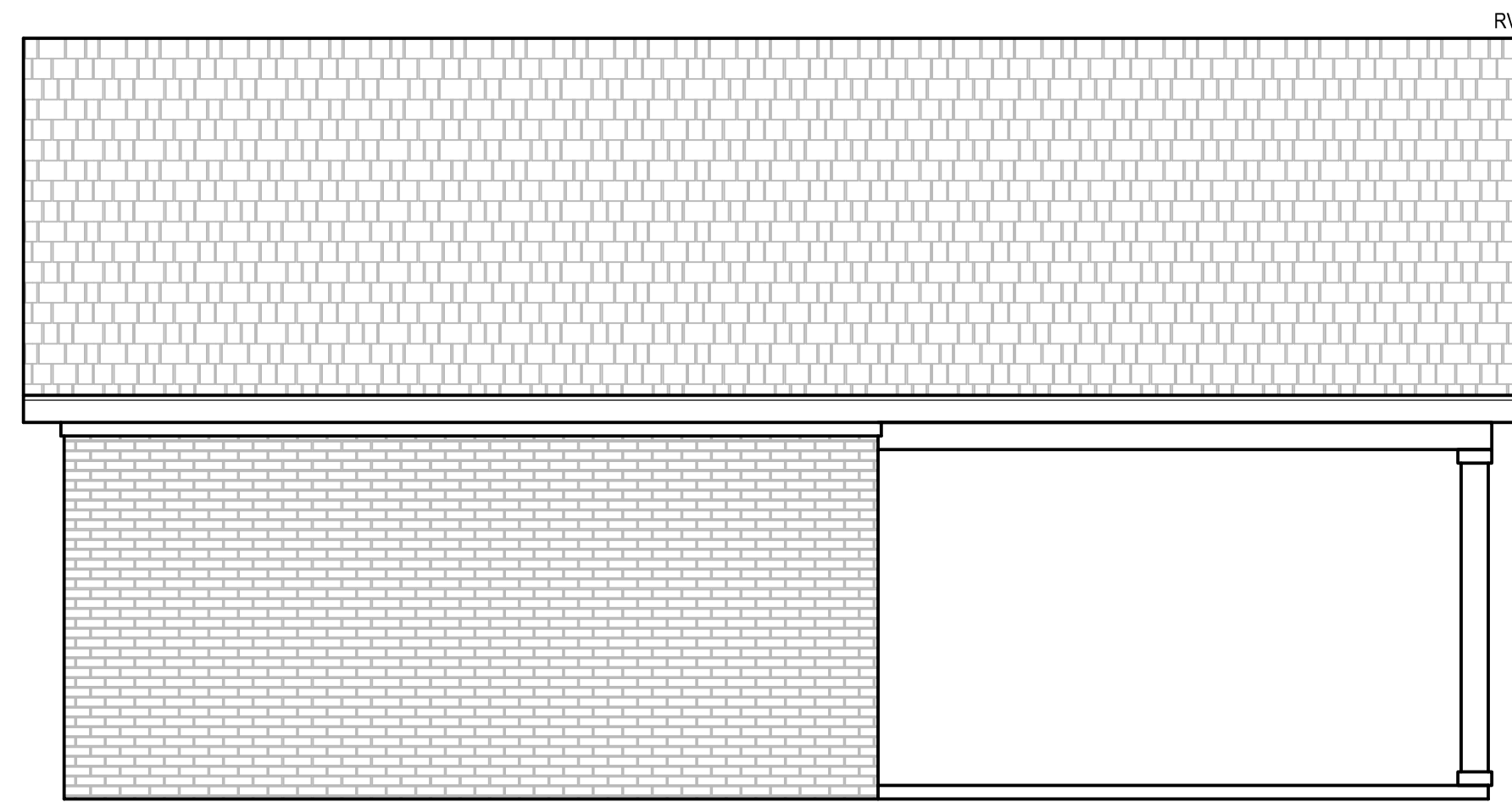


FIRST FLOOR PLAN
1/4" = 1'-0" CEILING HGT. = 9'-0"

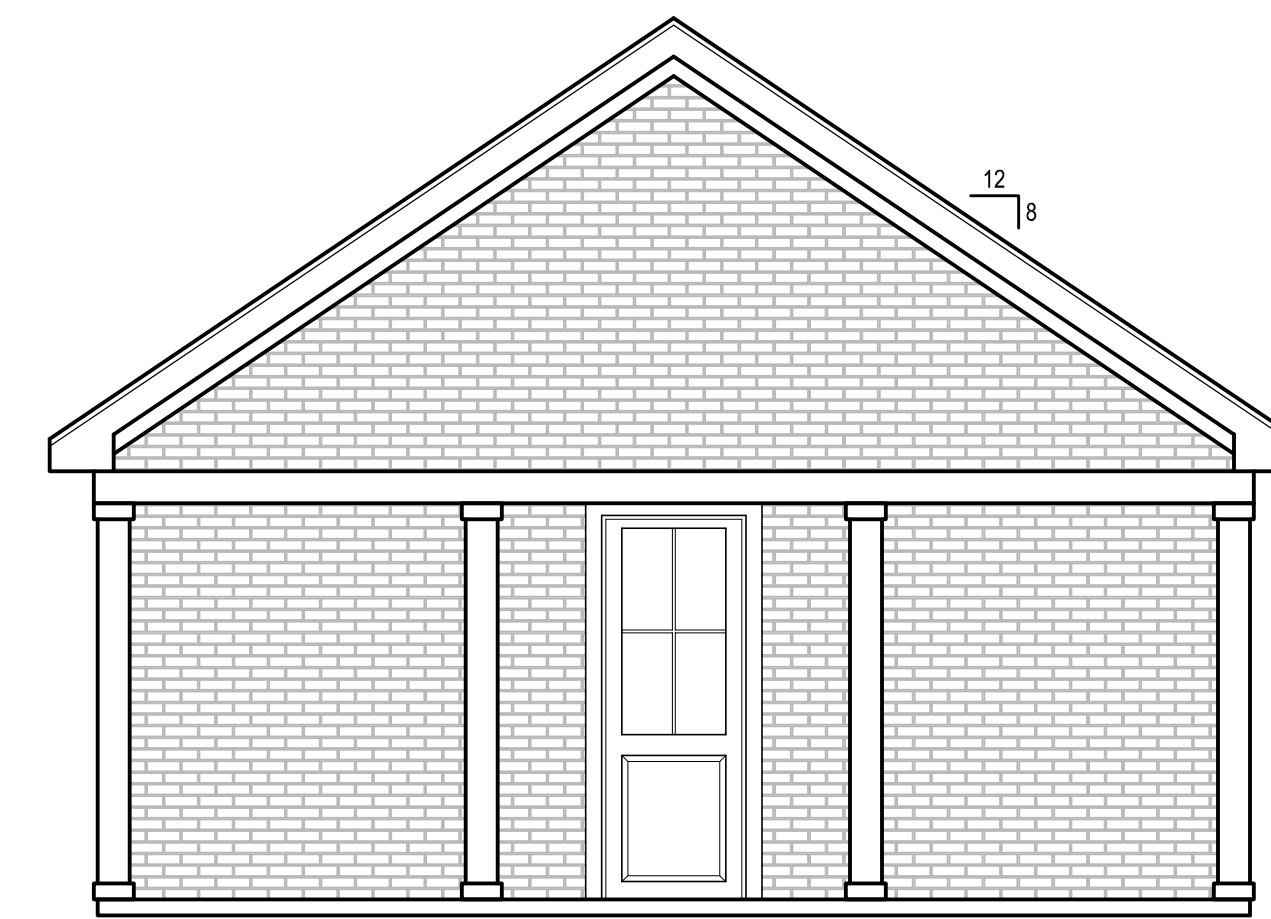
*ALL LUMBER TO BE #2 SYP, UNO
ALL WALLS TO BE 4" THICK



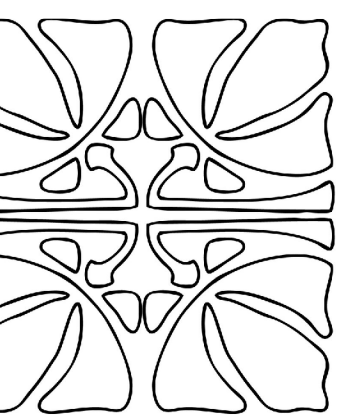
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1/4" = 1'-0"



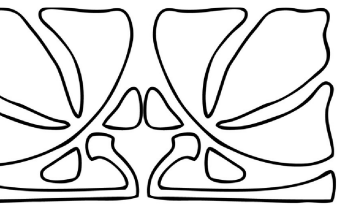
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1/4" = 1'-0"



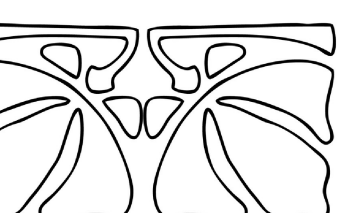
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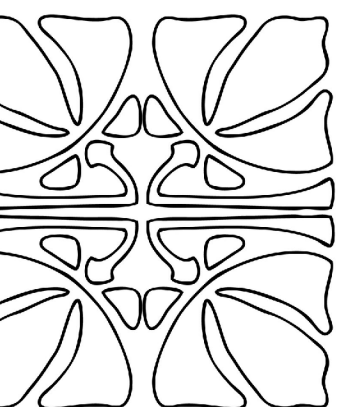
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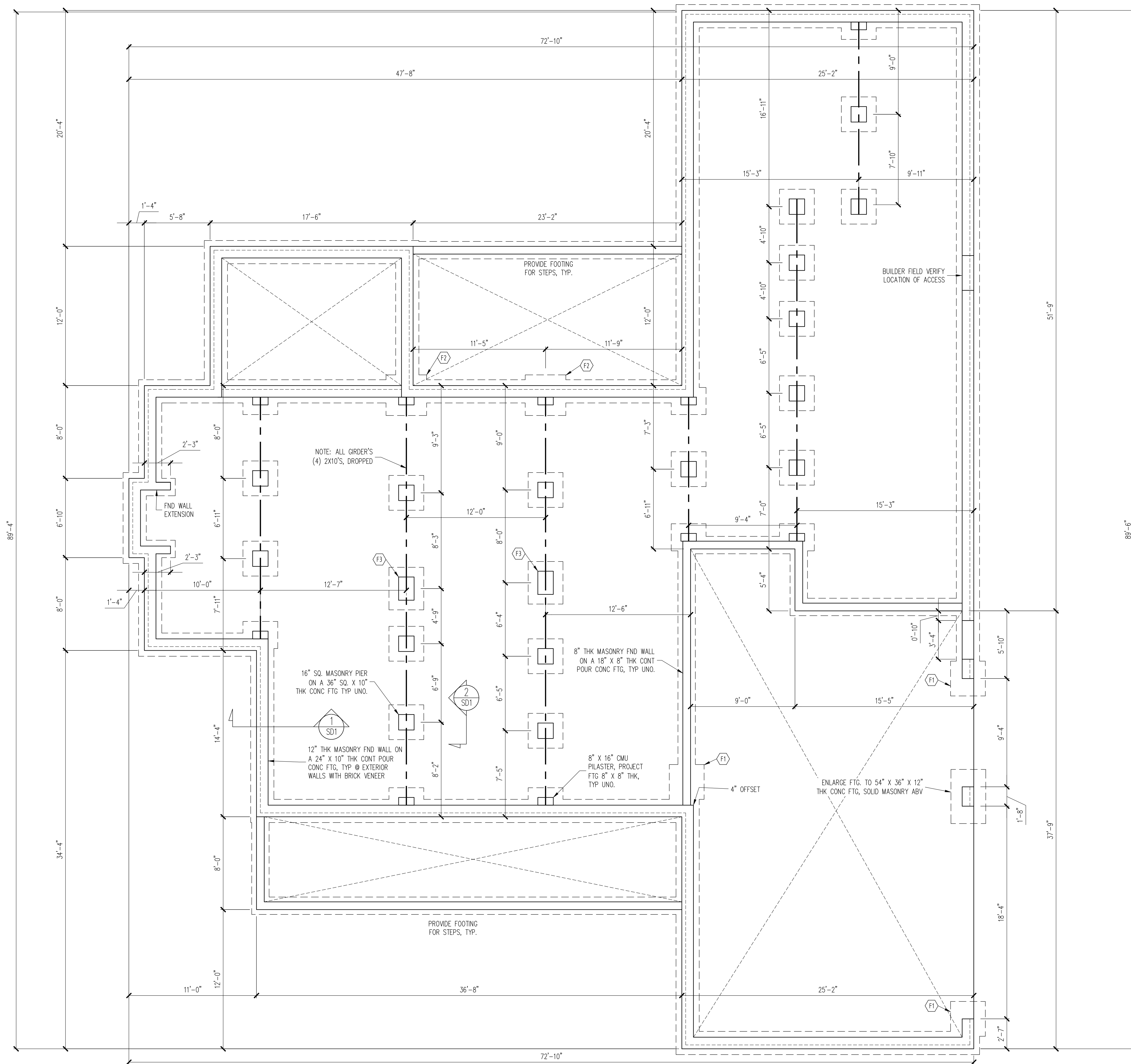
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CONSTRUCTION SPECIFICATIONS
 INSTANT REFERENCES

REFER TO THE CONSTRUCTION SPECIFICATIONS SECTIONS FOR THE FOLLOWING INFORMATION:

PART 1.01: CURRENT GOVERNING CODE

PART 14: STUD SUPPORT FOR BEAMS

PART 16.02: GENERAL WALL BRACING NOTES

PART 17: KING STUDS FOR EXTERIOR WALLS

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

FOUNDATION SCHEDULE

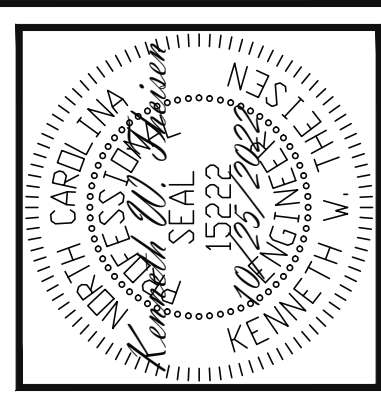
F1 ENLARGE FTG TO 36" SQ. X 12" THK. SOLID MASONRY ABV

F2 ENLARGE FTG TO 42" X 12" THK. THICK CONC FTG TYP UNO.

F3 16" X 24" MASONRY PIER ON A 48" X 36" X 10" THICK CONC FTG.

NOTES:
 -HEIGHT AND BACKFILL LIMITATIONS FOR FOUNDATION WALLS ARE TO BE GOVERNED BY THE NCSBC, LATEST EDITION.
 -14" SQ POURED CONC PIERS OR 16" Ø POURED CONC PIERS MAY BE USED IN LIEU OF 16" SQ MASONRY PIERS.

FOUNDATION PLAN
 1/4" = 1'-0"



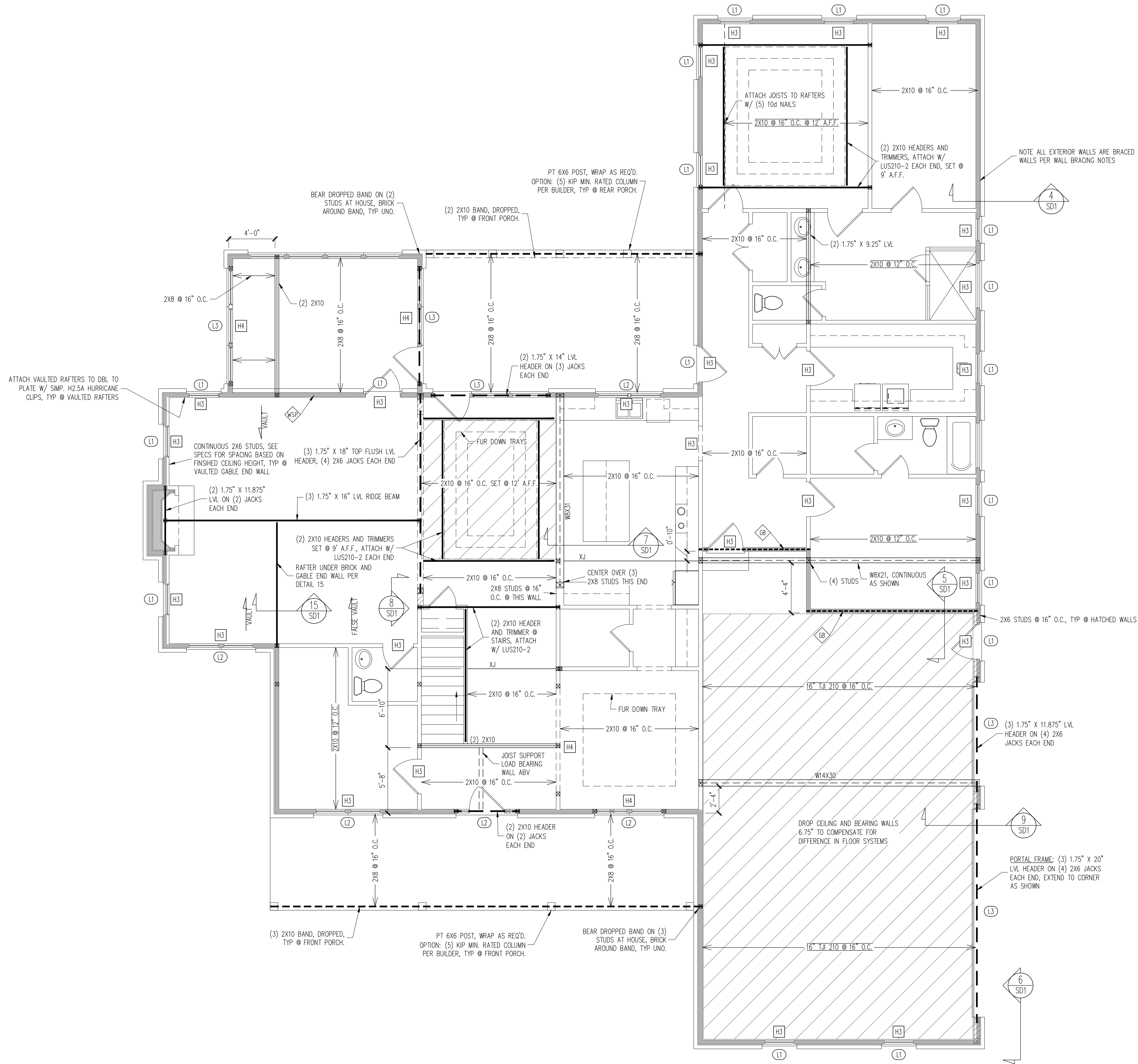
JABIER CUELLAR
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 License No. C-3870
 318 W Millbrook Rd. Unit 201
 Raleigh, North Carolina 27609
 Phone (919) 844-1661

SCOPE:	181 MABRY RD
LOC:	
REV #	REF PROJ #
DATE	

ENG: KWT/CR
 DATE: 10/25/2022

PROJECT NO.
 22-65-562

SHEET NO.
 S1
 1 of 8



WALL BRACING
FIRST FLOOR ONLY

CS - 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.

SHADED WALLS:

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 @ 4" O.C. AT PANEL EDGES, 8" O.C. IN PANEL FIELD.

GB - INTERIOR BRACED WALL. 1/2" GB SECURED PER TABLE R602.10.2 OF THE 2012 NCRBC. (FASTENERS @ 7" O.C.) BOTH SIDES OF WALL, OR (FASTENERS @ 4" O.C.) ONE SIDE OF WALL AT STAIRS

NOTES:
-PROVIDED CONTINUOUS SHEATHING = 344' MIN.

LINTEL SCHEDULE

L1 L 3 1/2 X 3 1/2 X 1/4 TYP UNO
L2 L 5 X 3 1/2 X 5/16
L3 L 6 X 4 X 5/16 ATTACHED TO HEADER WITH (2) 1/2" X 3" LAG SCREWS @ 16" O.C.
L4 16 GAGE STEEL FLEX LINTEL AT ARCH

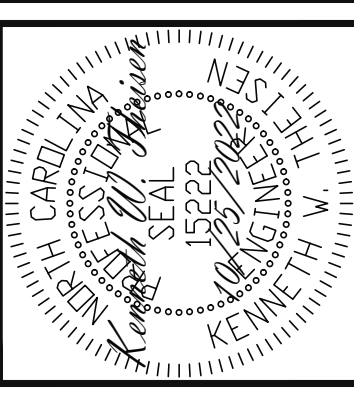
HEADER SCHEDULE

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"



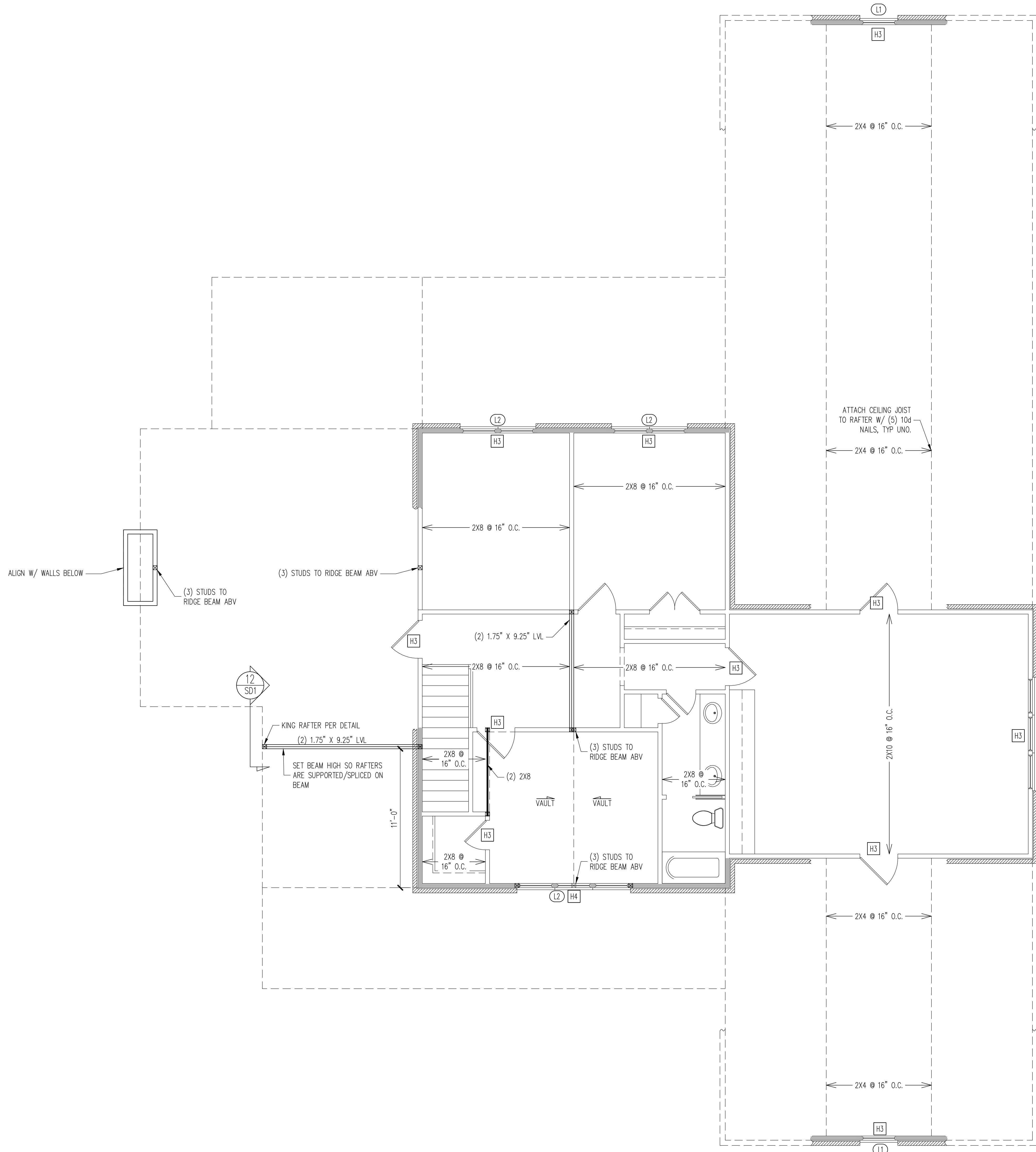
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Phone (919) 844-1661
Engineering Lech ASSOCIATES, P.A.

SCOPE:	STRUCTURAL ADDENDUM
LOC:	181 MABRY RD
REV #	REF PROJ #
DATE	

ENG: KWT/CR
DATE: 10/25/2022

PROJECT NO.
22-65-562

SHEET NO.
S3
3 of 8



WALL BRACING	
SECOND FLOOR ONLY	
CS - 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.	
SHADED WALLS:	
NOTES: -PROVIDED CONTINUOUS SHEATHING = 46' MIN.	
LINTEL SCHEDULE	
L1	L 3 1/2 X 3 1/2 X 1/4 TYP UNO
L2	L 5 X 3 1/2 X 5/16
L3	L 6 X 4 X 5/16 ATTACHED TO HEADER WITH (2) 1/2" X 3" LAG SCREWS @ 16" O.C.
L4	16 GAGE STEEL FLEX LINTEL AT ARCH
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.	

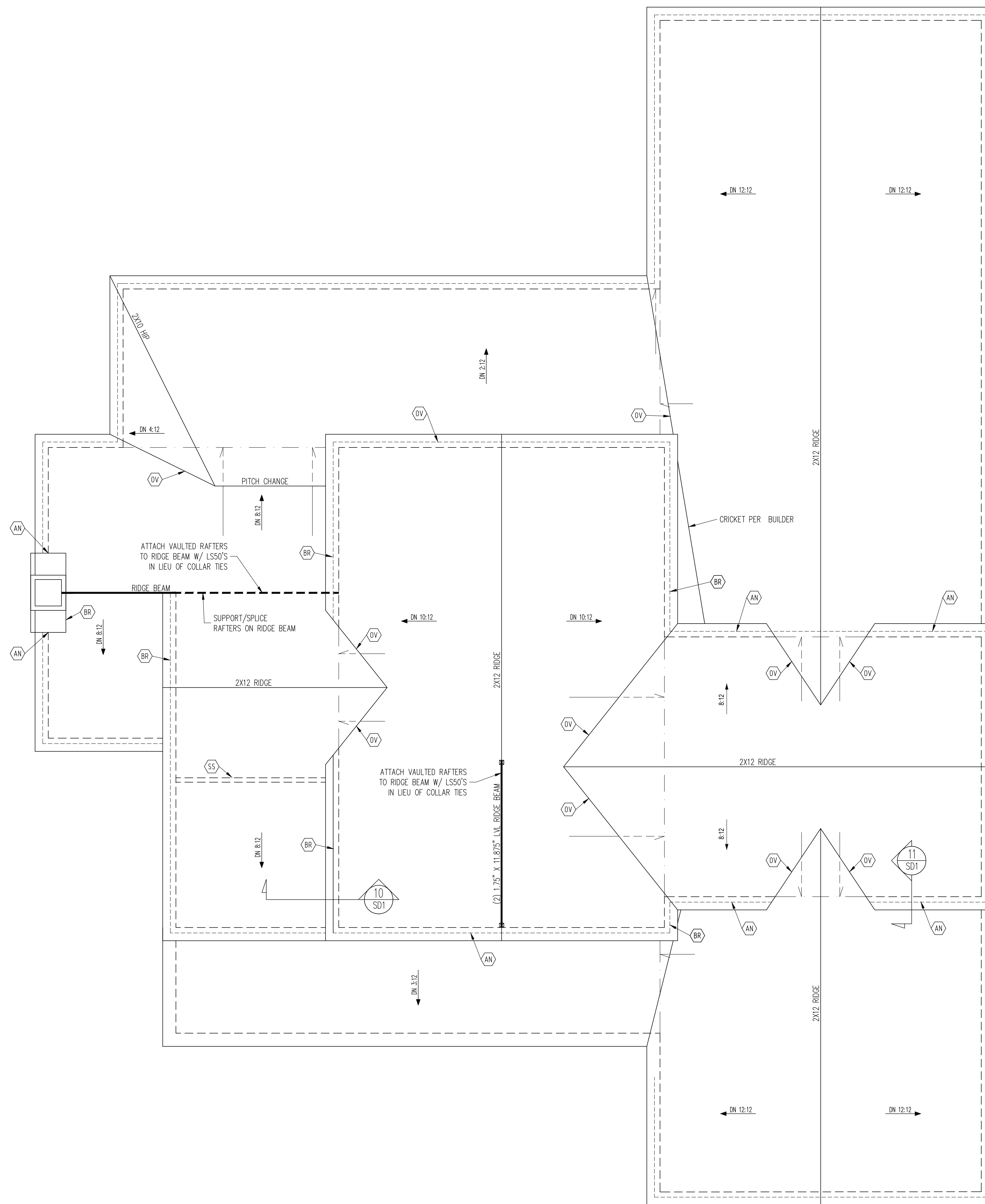
2ND FLOOR FRAMING PLAN
WALLS AND CEILING 1/4" = 1'-0"

Engineering
Lech
ASSOCIATES, P.A.

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JABIER CUELLAR	DATE
STRUCTURAL ADDENDUM	REV # REF PROJ #
SCOPE:	181 MABRY RD
LOC:	

ENG: KWT/CR
DATE: 10/25/2022
PROJECT NO. 22-65-562
SHEET NO. S4
4 of 8

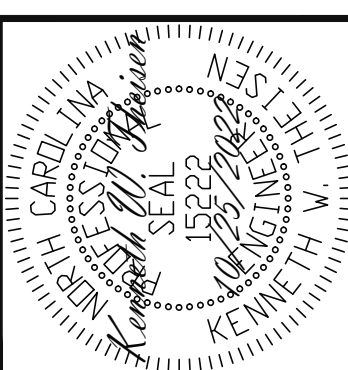


FRAMING NOTES
 ROOF ONLY
 -COMMON RAFTERS 2X8 @ 16" O.C. TYP U.N.O.
 -COLLAR TIES 2X4 EVERY 3RD SET OF RAFTERS TYP U.N.O.
 -VERIFY ROOF PITCHES, OVERHANG LENGTHS, AND KNEEWALL FRAMING HGTS WITH ARCHITECTURAL DRAWINGS, TYPICAL.

FRAMING SCHEDULE
 ROOF ONLY

AN	SUPPORT BRICK VENEER WITH ANGLE ATTACHED TO MODIFIED STUD WALL
BR	SUPPORT BRICK VENEER PER SECT.703.7 OF THE NRC, LATEST EDITION.
OV	OVERFRAME VALLEY (2X10 SLEEPER)
SS	SUPPORT/SPLICE RAFTERS ON KNEEWALL BELOW

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



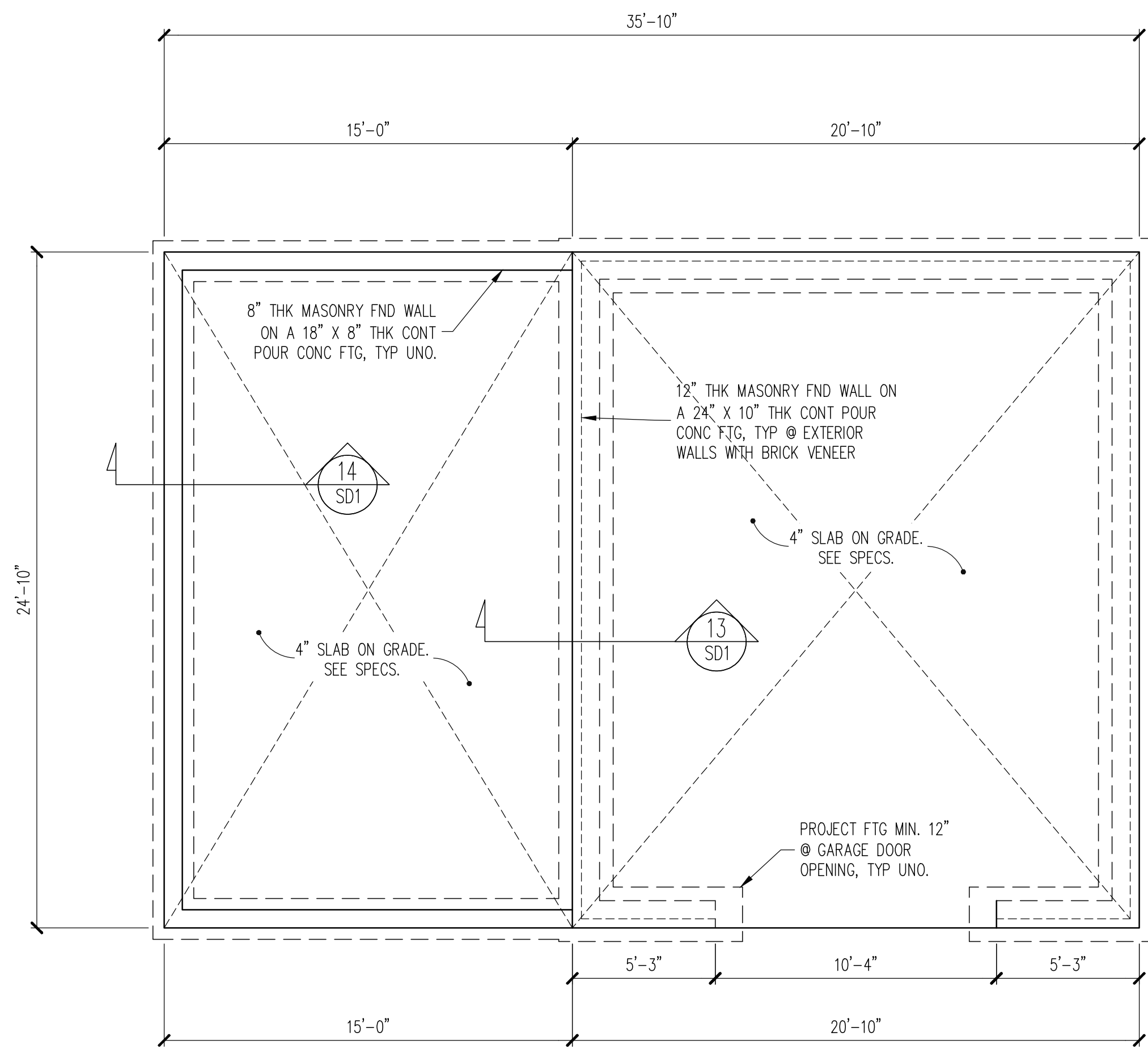
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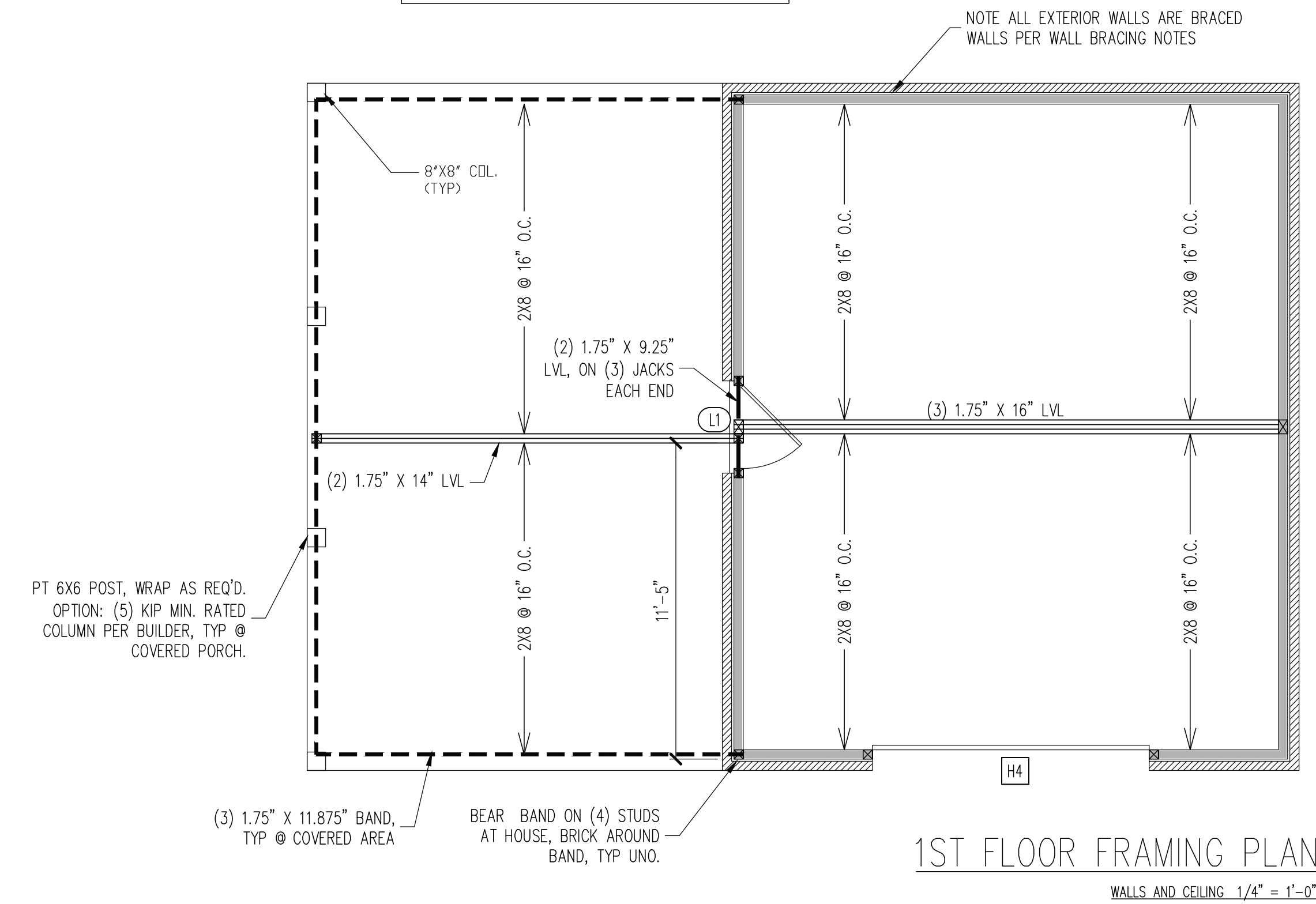
SHEET NO.
 S5
 5 of 8



FOUNDATION PLAN
1/4" = 1'-0"

WALL BRACING	
CS	- 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.
SHADED WALLS:	
NOTES: -PROVIDED CONTINUOUS SHEATHING = 344' MIN.	

LINTEL SCHEDULE	
L1	L 3 1/2 X 3 1/2 X 1/4 TYP UNO
L2	L 5 X 3 1/2 X 5/16
L3	L 6 X 4 X 5/16 ATTACHED TO HEADER WITH (2) 1/2" X 3" LAG SCREWS @ 16" O.C.
L4	16 GAGE STEEL FLEX LINTEL AT ARCH

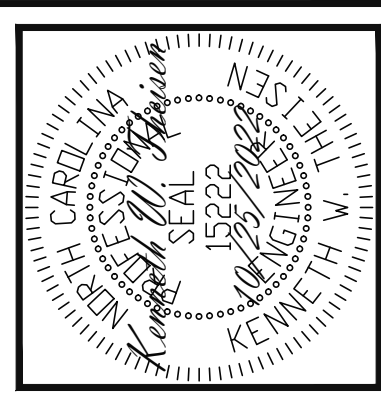


1ST FLOOR FRAMING PLAN
WALLS AND CEILING 1/4" = 1'-0"



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.	

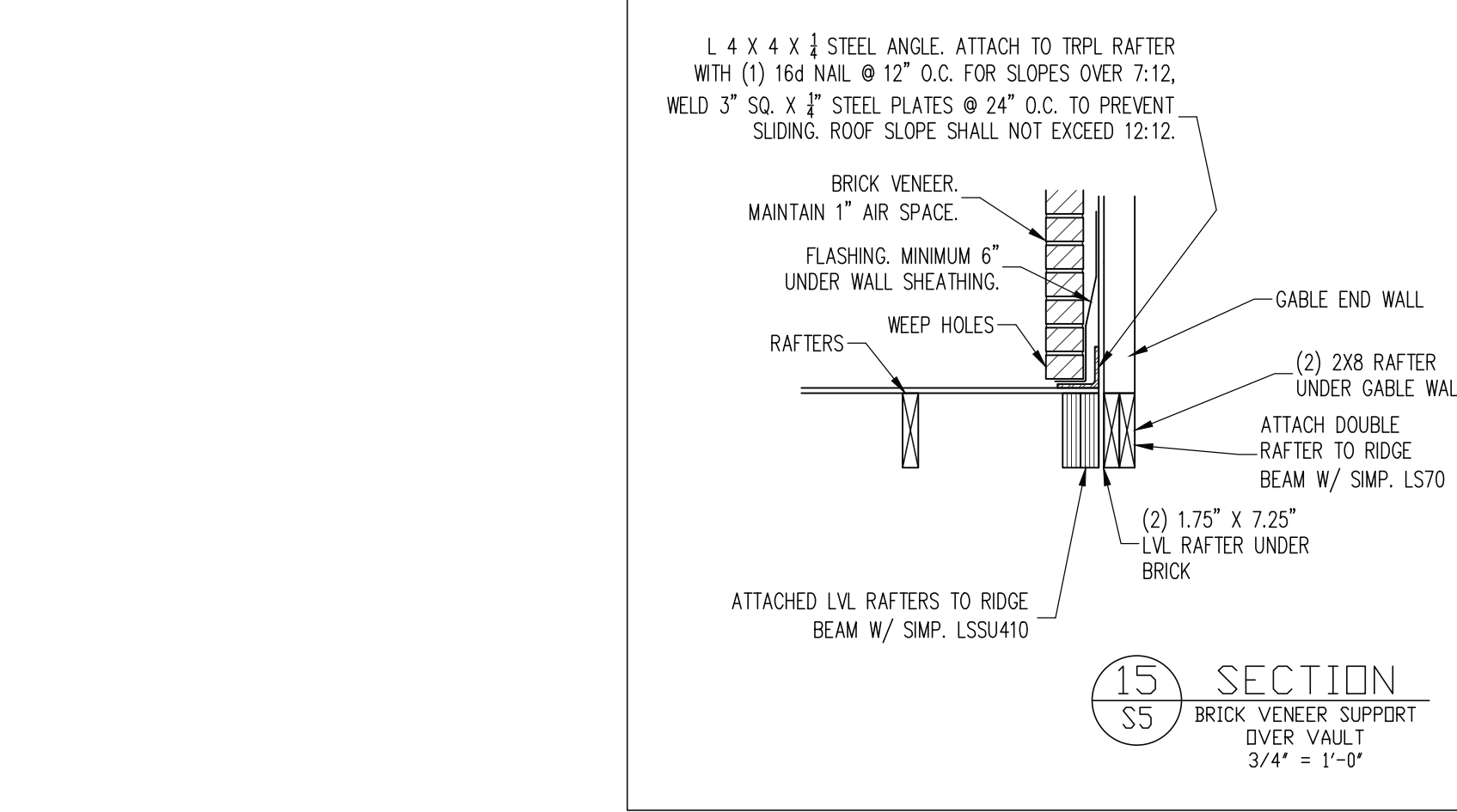
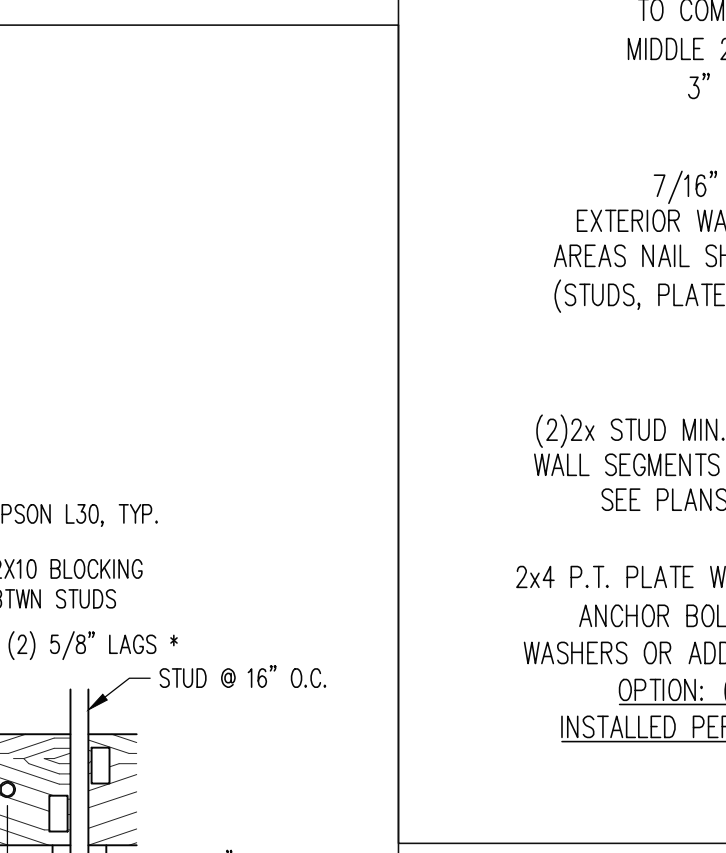
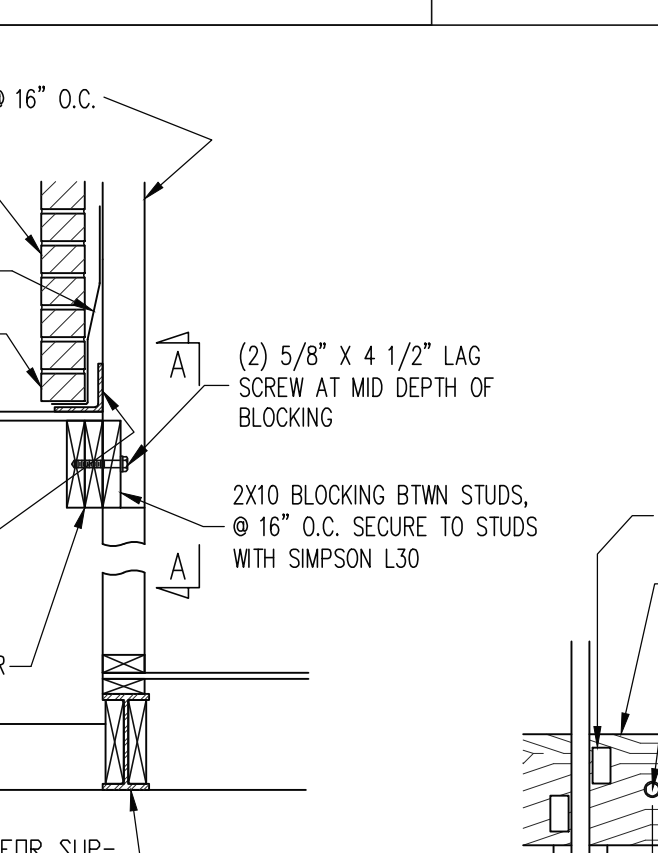
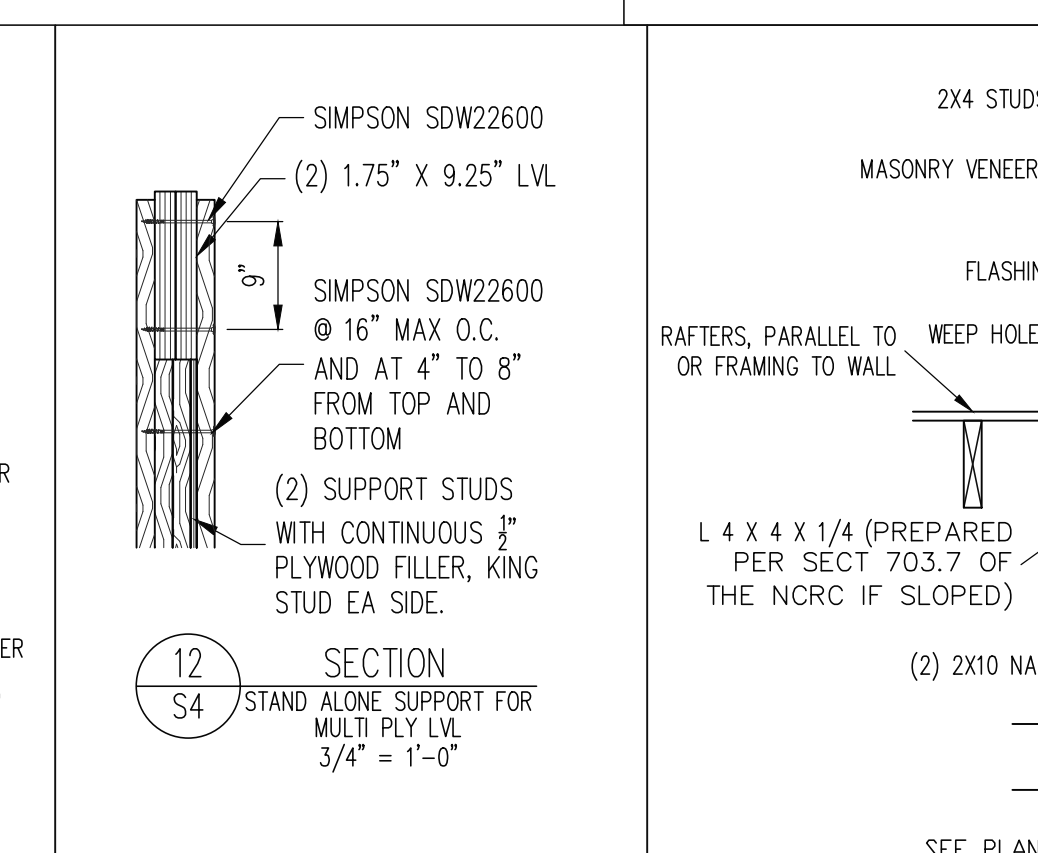
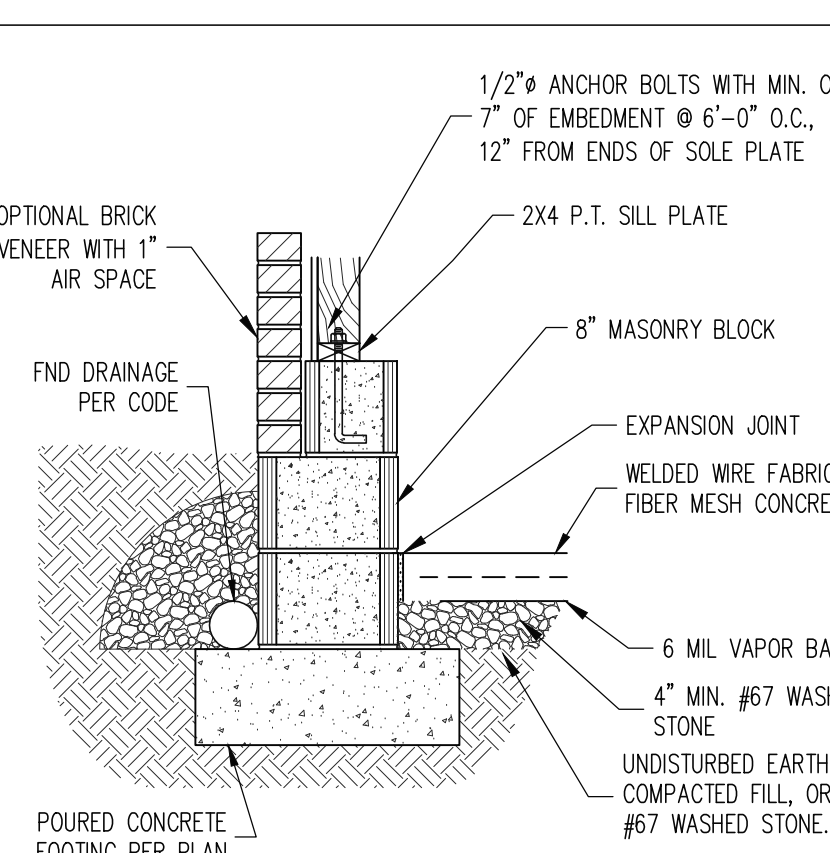
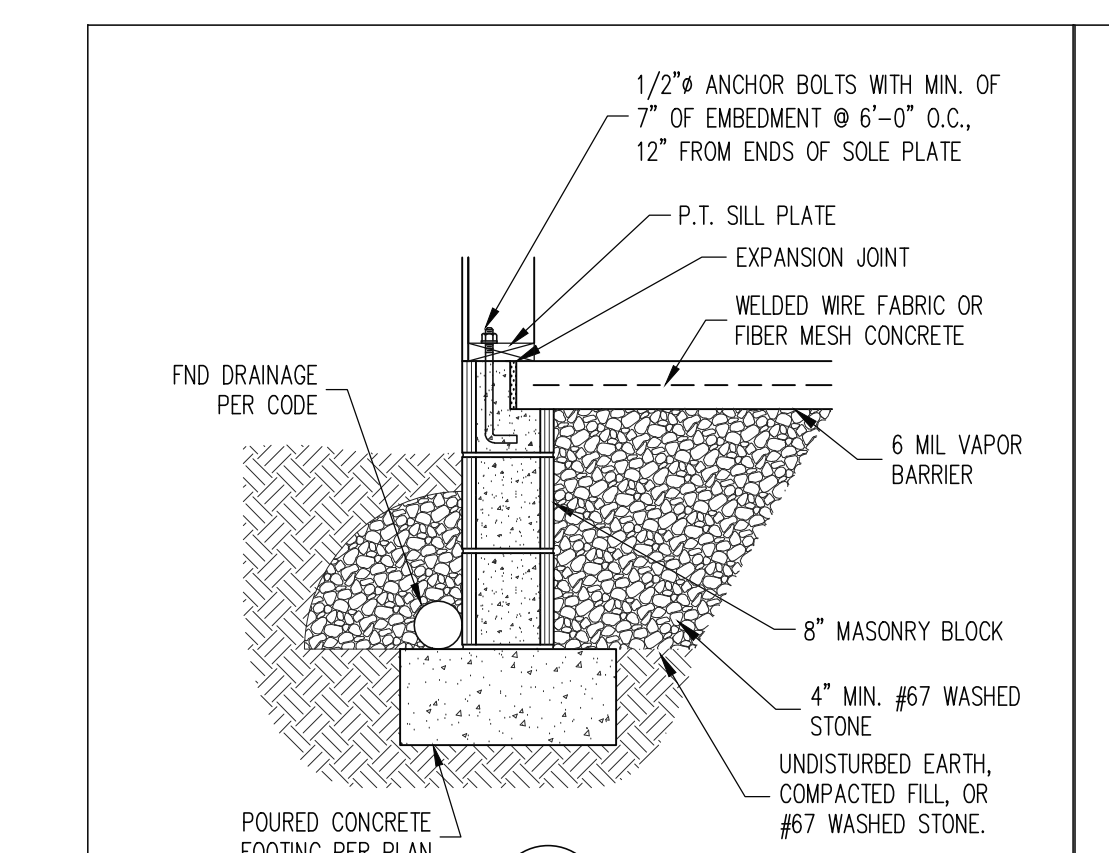
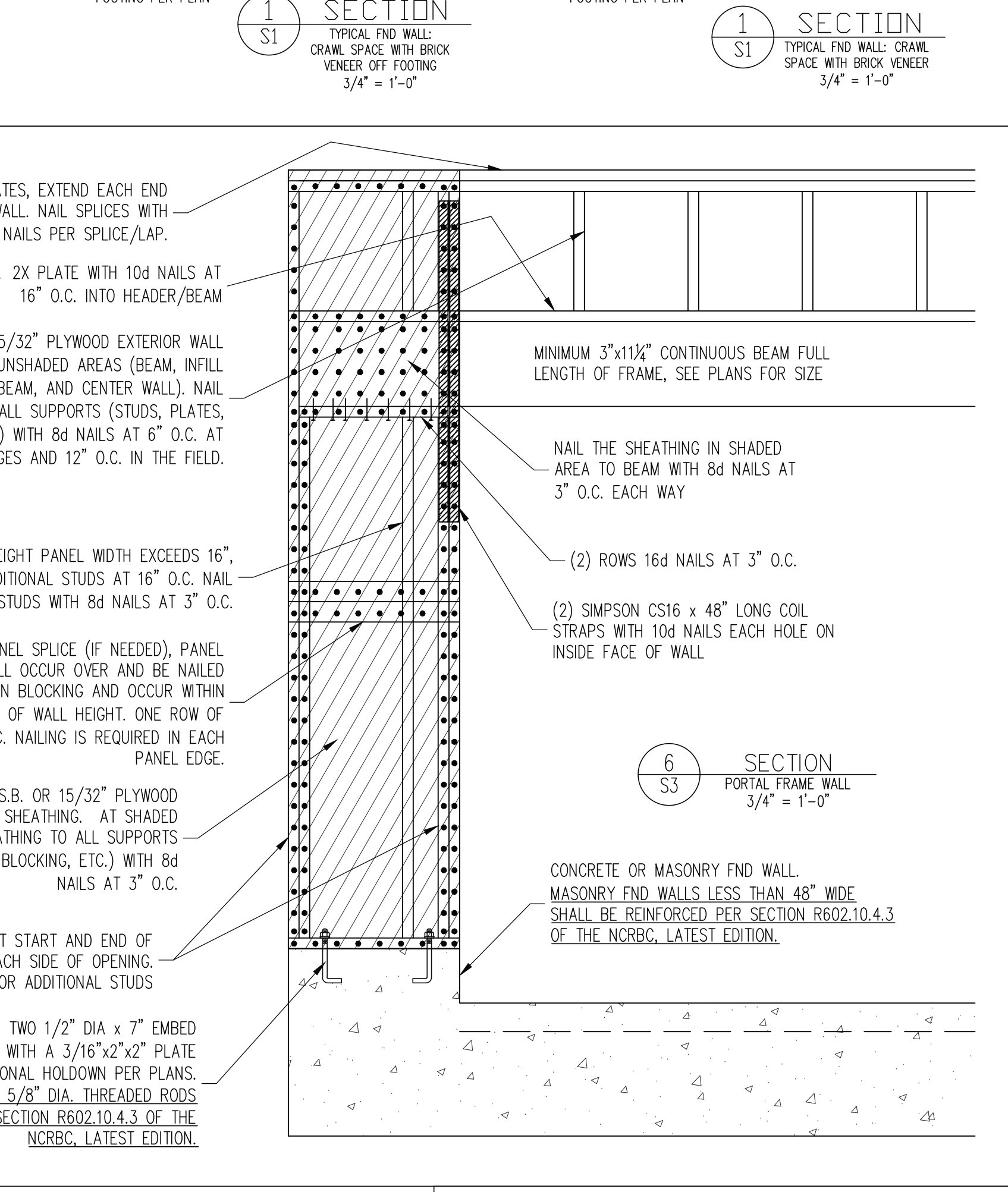
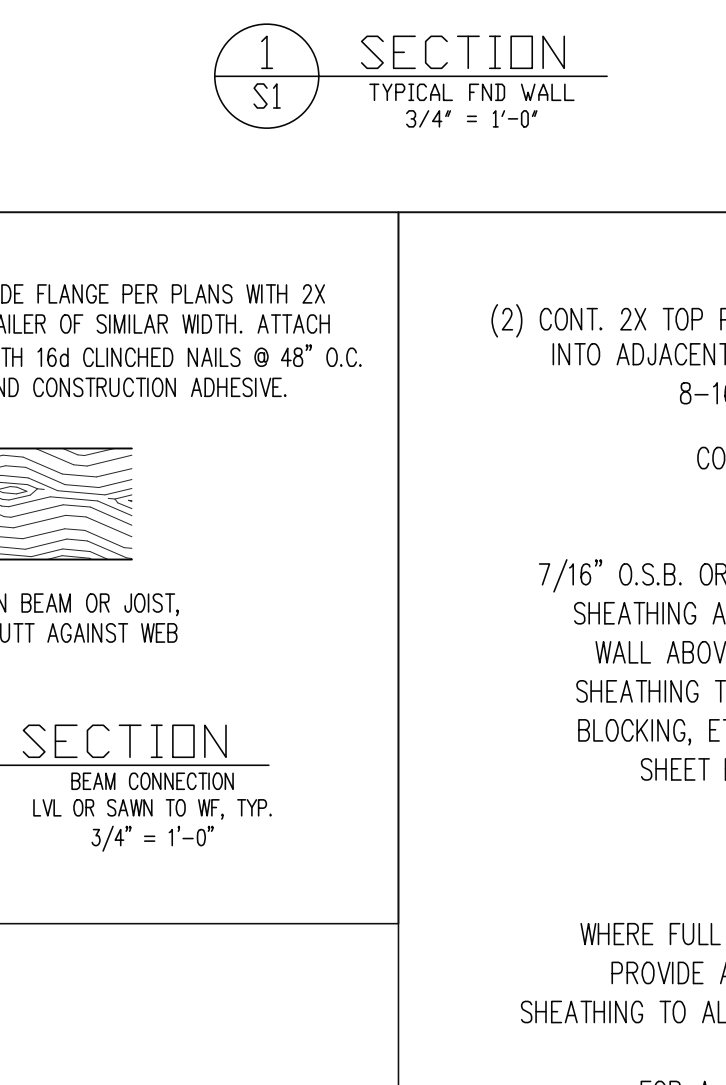
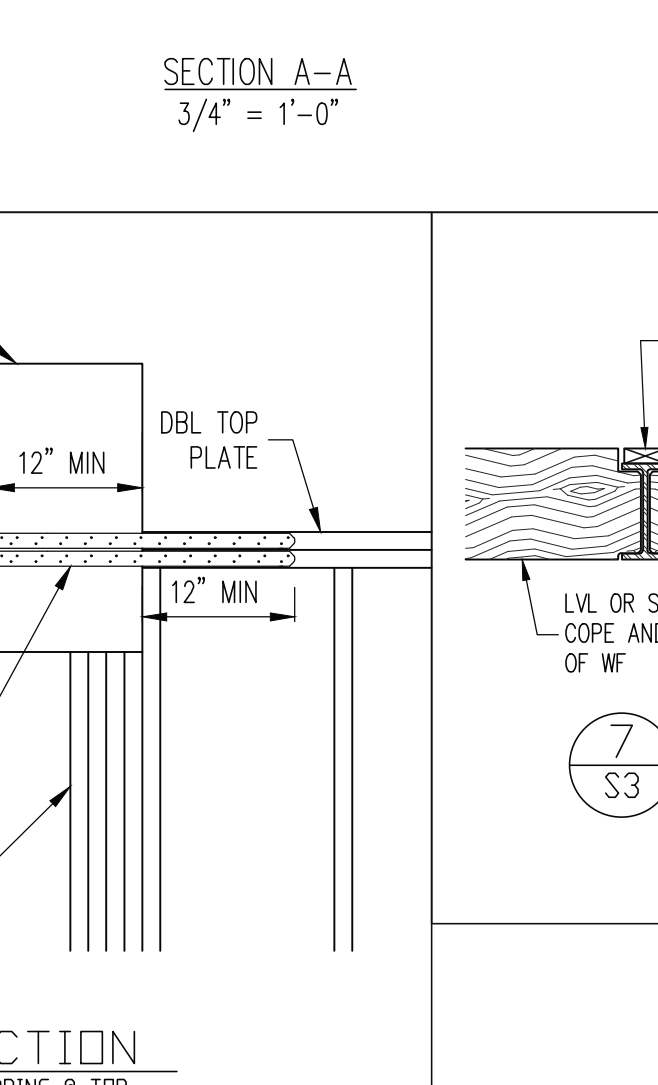
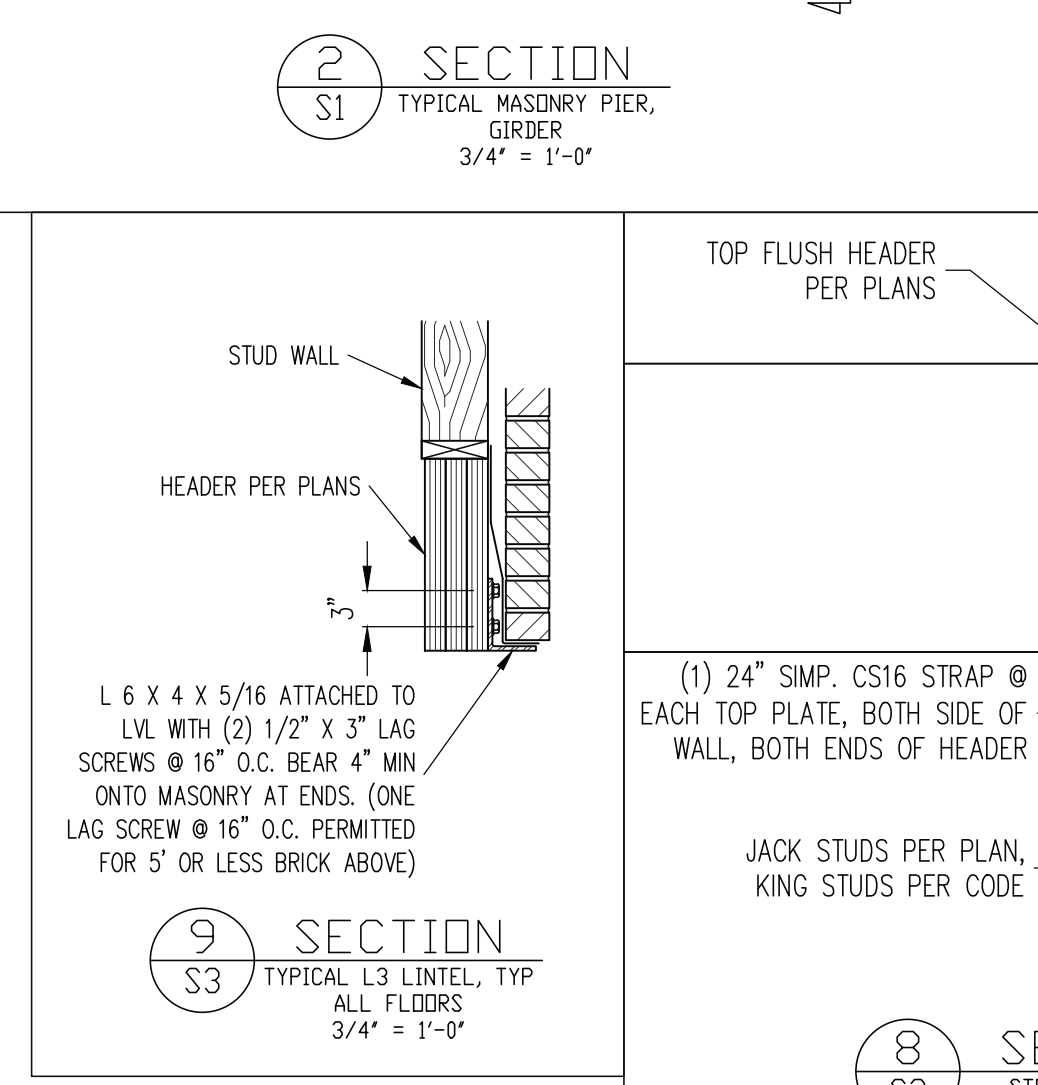
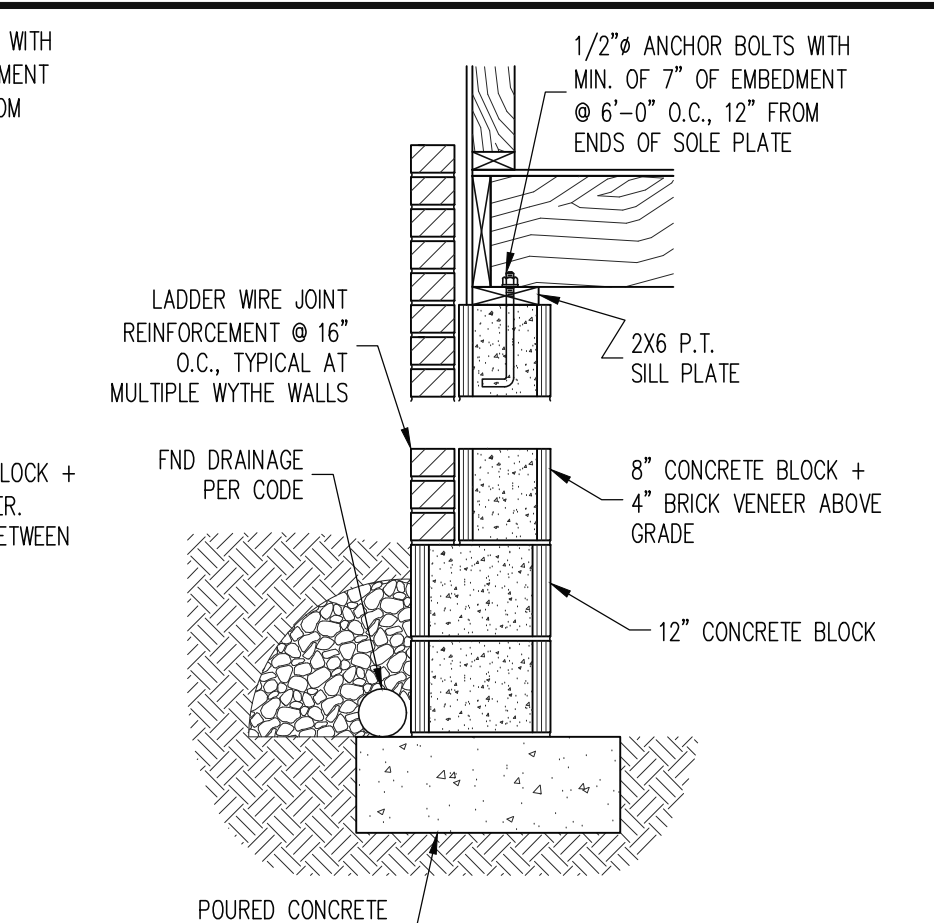
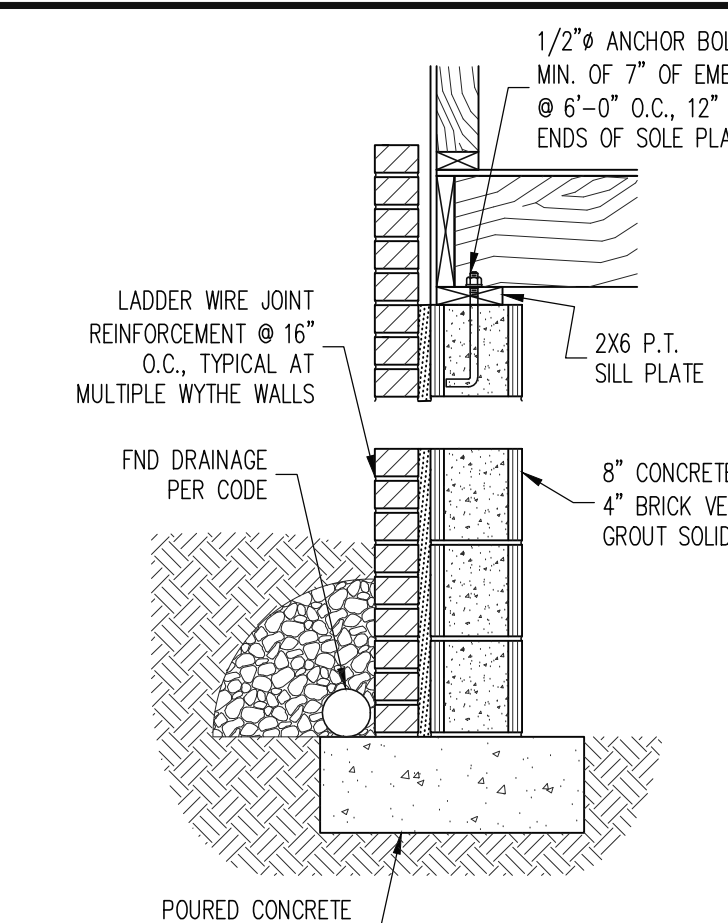
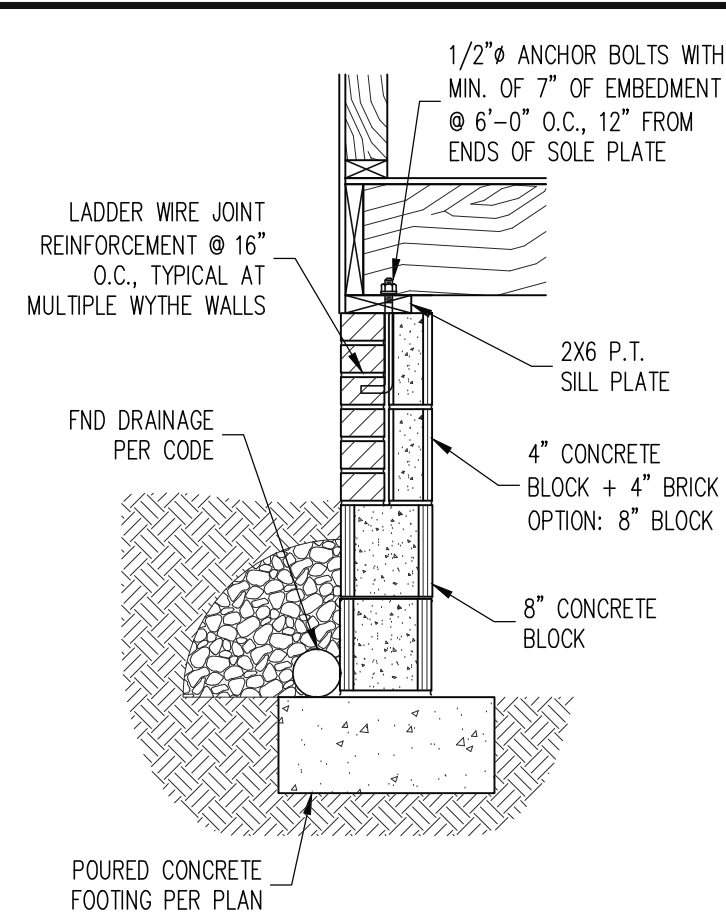
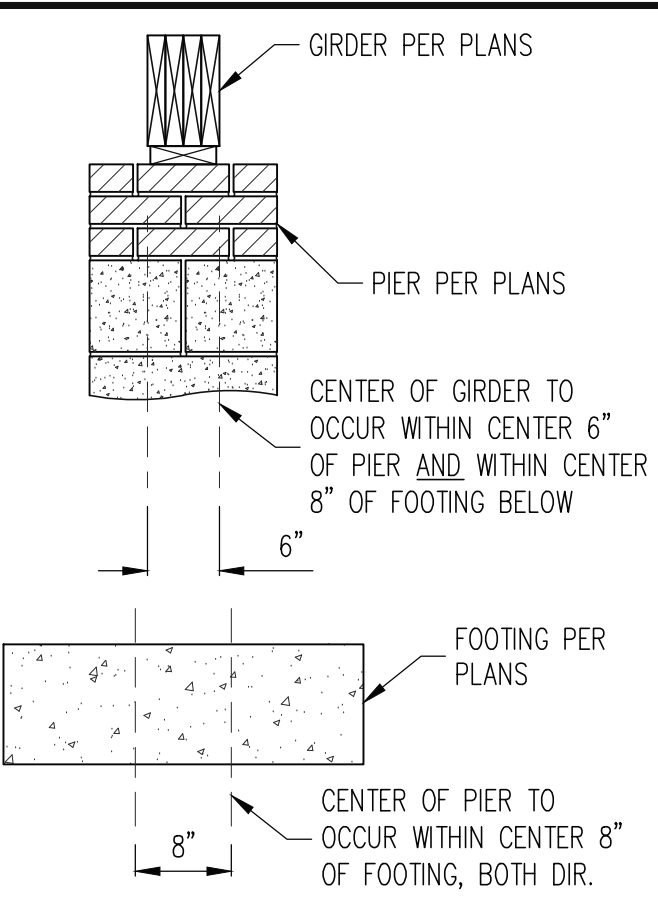
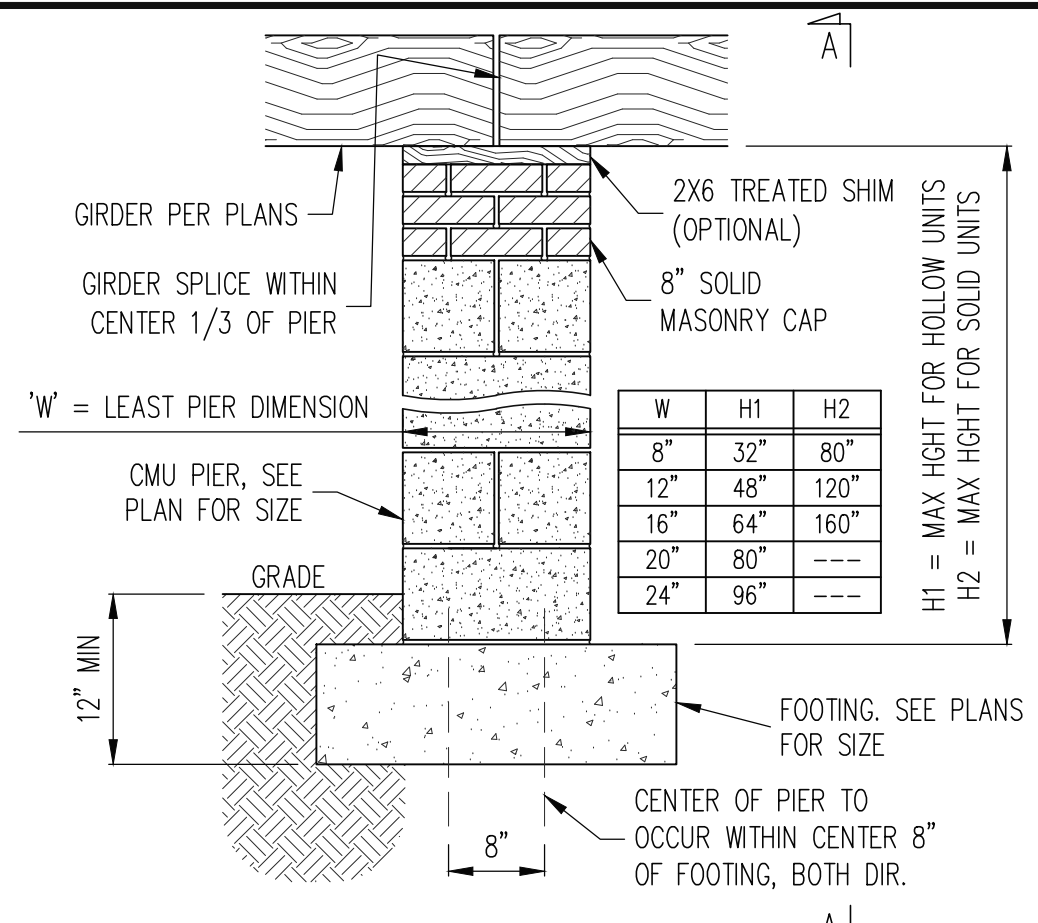
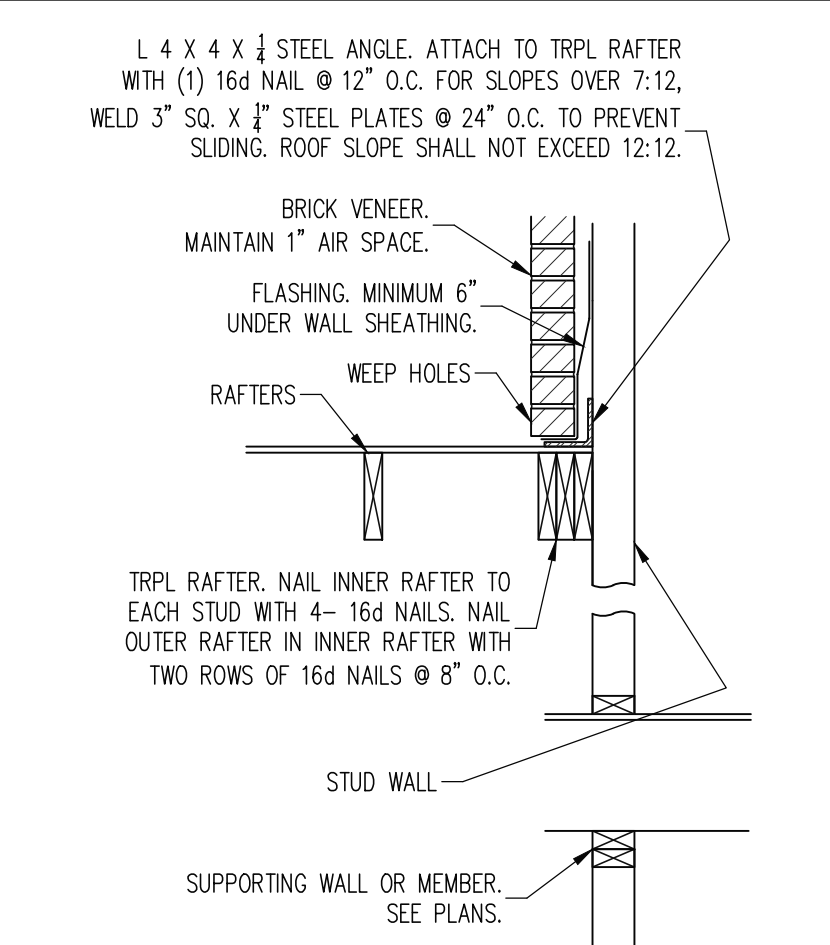
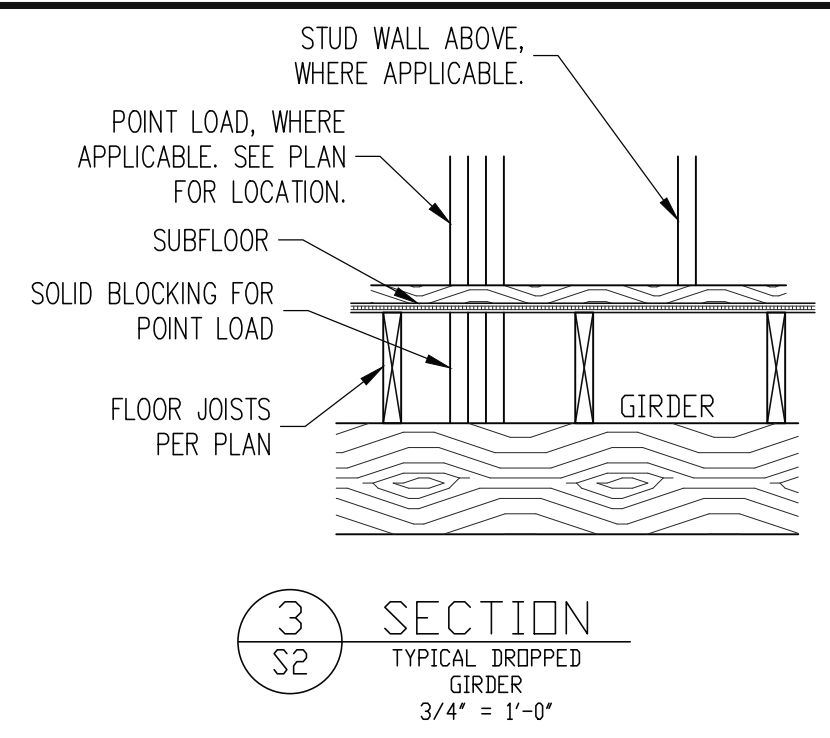
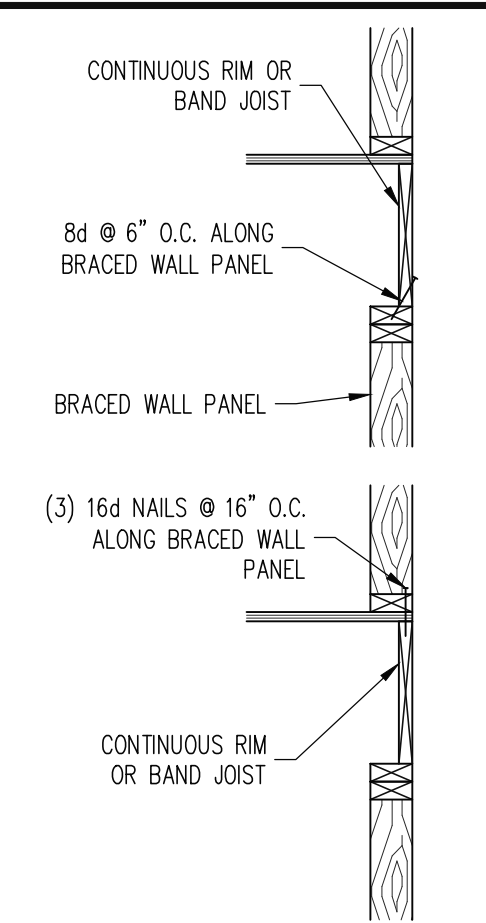
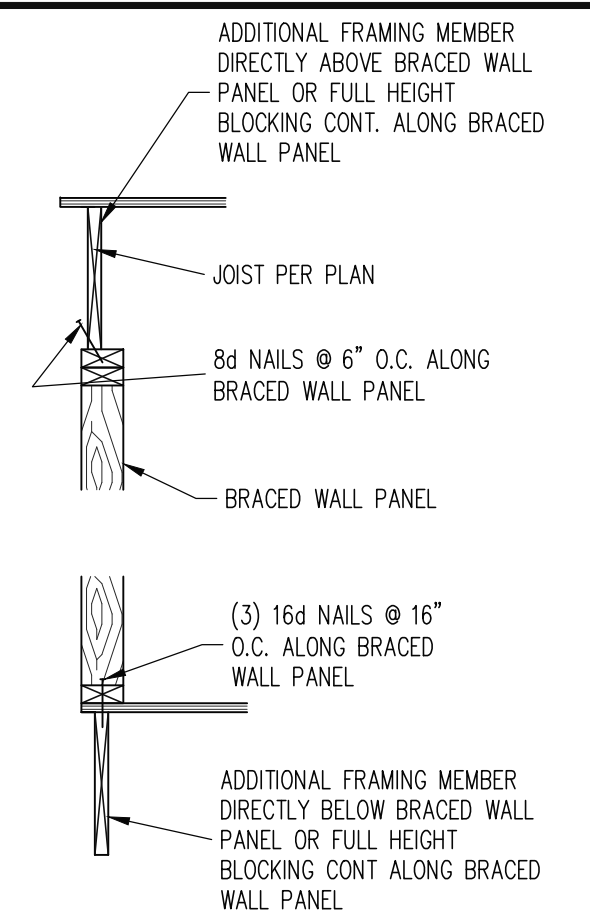

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SCOPE:	STRUCTURAL ADDENDUM
LOC:	181 MABRY RD
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SHEET NO.
S6
6 of 8



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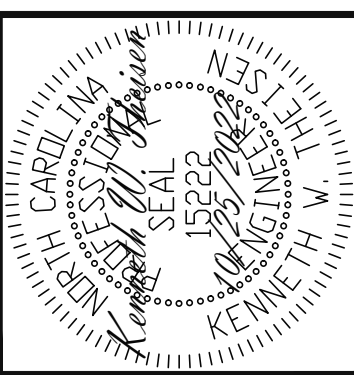
PROJECT NO.
22-65-562

SHEET NO.
SD1
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CONSTRUCTION SPECIFICATIONS

<p>PART 1: GENERAL</p> <p>1.01 CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.</p> <p>1.02 DIMENSIONS SHOWN SHALL GOVERN OVER SCALE ON THESE DRAWINGS.</p> <p>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.</p> <p>PART 2: DESIGN LOADS</p> <p>2.01 DESIGN LOADS SHALL CONFORM WITH THE TABLE BELOW:</p> <table border="1"> <thead> <tr> <th>USE</th> <th>LIVE LOAD (PSF)</th> <th>DEAD LOAD (PSF)</th> </tr> </thead> <tbody> <tr> <td>BALCONIES, DECKS, ATTICS WITH FIXED STAIR ACCESS, DWELLING UNITS INCLUDING ATTICS WITH FIXED STAIR ACCESS, STAIRS, FIRE ESCAPES</td> <td>40</td> <td>10</td> </tr> <tr> <td>GARAGES (PASSENGER CARS ONLY)</td> <td>50</td> <td>--</td> </tr> <tr> <td>ATTICS (NO STORAGE, LESS THAN 5' HEADROOM)</td> <td>10</td> <td>10</td> </tr> <tr> <td>ATTICS (WITH STORAGE)</td> <td>20</td> <td>10</td> </tr> <tr> <td>ROOF</td> <td>20</td> <td>10 (15 FOR VAULTS)</td> </tr> </tbody> </table> <p>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</p> <p>2.02 INTERIOR WALLS: 5 PSF LATERAL.</p> <p>2.03 BASIC WIND DESIGN VELOCITY OF 120 MPH.</p> <p>2.04 SOIL BEARING CAPACITY 2000 PSF (PRESUMPTIVE).</p> <p>PART 3: STRUCTURAL STEEL</p> <p>3.01 WIDE FLANGE BEAMS AND TEE SECTIONS SHALL CONFORM TO ASTM A992 MINIMUM GRADE.</p> <p>3.02 SQUARE AND RECTANGULAR TUBING SHALL CONFORM TO ASTM A500 GRADE B MINIMUM GRADE.</p> <p>3.03 STEEL PIPE SHALL CONFORM TO ASTM A53 GRADE B, TYPE S, MINIMUM GRADE.</p> <p>3.04 ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 MINIMUM GRADE.</p> <p>3.05 STRUCTURAL STEEL CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.</p> <p>PART 4: WELDING</p> <p>4.01 WELDING ELECTRODES SHALL BE E70XX AND ALL WELDING SHALL BE PERFORMED BY AN AWS CERTIFIED WELDER.</p> <p>PART 5: CONCRETE AND SLABS ON GRADE</p> <p>5.01 CAST IN PLACE CONCRETE SHALL BE OF NORMAL WEIGHT, 4-6% AIR ENTRAINMENT, FOR EXTERIOR CONCRETE AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS TYP UNO. ALL ITEMS NOTED AS 'CONCRETE' ARE TO BE CAST IN PLACE, TYP UNO.</p> <p>5.02 REINFORCED CAST IN PLACE CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH THE SPECIFICATIONS OF ACI 318, LATEST EDITION.</p> <p>5.03 SLABS ON GRADE, IF ANY, SHALL BE CAST IN PLACE, CONTAIN SYNTHETIC POLYPROPYLENE FIBRILLATED MICRO FIBERS, FIBER LENGTH 1-1/2", DOSAGE RATE 1 1/2 LBS/SQ YD. SLAB TO BE PLACED ON A 6 MIL VAPOR BARRIER ON 4" MIN GRANULAR FILL ON SOIL WITH 90% MIN STANDARD PROCTOR DENSITY. VAPOR BARRIER MAY BE OMITTED FOR SLABS NOT IN ENCLOSED AREAS.</p> <p>PART 6: REBAR AND WIRE REINFORCEMENT</p> <p>6.01 REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A615 GRADE 60 TYP UNO</p> <p>6.02 LAP SPLICES SHALL BE CLASS B AS DEFINED BY ACI 318, TYP UNO</p> <p>6.03 WIRE REINFORCEMENT SHALL BE 9 GA AND SHALL CONFORM TO ASTM A1064.</p> <p>PART 7: MASONRY</p> <p>7.01 CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 AND C55, NORMAL WEIGHT,</p>	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)	<p>f'm = 1,500 PSI MIN</p> <p>7.02 CLAY MASONRY UNITS SHALL CONFORM TO ASTM C62-17 GRADE SW</p> <p>7.03 MORTAR SHALL BE TYPE S. MORTAR AND GROUT SHALL CONFORM TO ASTM C476, MIN COMPRESSIVE STRENGTH OF 2000 PSI.</p> <p>7.04 MASONRY CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS OF ACI 530</p> <p>7.05 LADDER WIRE REINFORCEMENT SHALL CONFORM TO ASTM A951. 6" MIN LAPS FOR CONTINUOUS WALL APPLICATIONS</p> <p>PART 8: BOLTS AND LAG SCREWS</p> <p>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. HOLES FOR BOLTS SHALL BE AISC STANDARD HOLES UNO</p> <p>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</p> <p>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</p> <p>PART 9: DRIVEN FASTENERS</p> <p>9.01 NAILS, SPIKES AND STAPLES SHALL CONFORM TO ASTM F 1667- 05. NAILS ARE TO BE COMMON WIRE OR BOX</p> <p>PART 10: DIMENSIONAL LUMBER</p> <p>10.01 SOLID SAWN WOOD FRAMING DESIGN IS BASED ON NO. 2 SPRUCE PINE FIR OR CYP #2 FOR JOISTS, RAFTERS, GIRDERS, BEAMS, STUDS, ETC. MINIMUM ALLOWABLE DESIGN PROPERTIES ARE AS FOLLOWS: E= 1,400,000 PSI, F_b spp = 425 PSI, F_v = 285 PSI, SPECIFIC GRAVITY = 0.42 MIN F_e = 875 PSI FOR 2X4, 2X6, 2X8, F_e = 800 PSI FOR 2X10'S, 750 PSI FOR 2X12'S</p> <p>PART 11: ENGINEERED LUMBER</p> <p>11.01 LVL OR PSL MINIMUM ALLOWABLE DESIGN PROPERTIES ARE AS FOLLOWS: E= 1,800,000 PSI, F_b = 2600 PSI, F_v = 285 PSI, F_e spp = 750 PSI LSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS: E= 1.3 X 10E6 PSI, F_b = 1700 PSI, F_v = 400 PSI, F_e spp = 680 PSI</p> <p>11.02 LVL OR PSL MEMBERS MAY BE RIPPED FROM DEEPER MEMBERS TO MATCH THE MEMBER DEPTH SPECIFIED IN THE PLANS</p> <p>PART 12: PRESSURE TREATED LUMBER</p> <p>12.01 LUMBER IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE PRESSURE TREATED IN ACCORDANCE WITH ANPA STANDARD C-15. ALL OTHER EXPOSED LUMBER SHALL BE TREATED IN ACCORDANCE WITH ANPA 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)</p> <p>PART 13: STEEL FLITCH PLATE BEAMS</p> <p>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" X BOLTS SPACED AT 16" O.C. STAGGERED TOP TO BOTTOM OF THE BEAM. MAINTAIN 4" EDGE DISTANCE. PLACE TWO BOLTS, ONE ABOVE THE OTHER, 16" MAX FROM EACH END OF THE BEAM, TYP UNO</p> <p>PART 14: STUD SUPPORTS FOR BEAMS</p> <p>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 TRPL 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 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</p>	<p>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.</p> <p>14.03 EXTRA JOISTS BEARING ON A STUD WALL PERPENDICULAR TO OR SKEWED RELATIVE TO THE BEAM SHALL BE SUPPORTED BY ONE ADDITIONAL STUD.</p> <p>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. 5" 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.</p> <p>PART 15: NAILING OF MULTI PLY WOOD BEAMS</p> <p>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.</p> <p>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</p> <p>PART 16: WALL FRAMING AND BRACING</p> <p>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"</p> <p>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 NRC. CONTINUOUS SHEATHING HAS BEEN PROVIDED, ALONG WITH ALTERNATIVE METHODS TO INSURE THE MINIMUM INTENT OF SECTION 602.10 OF THE 2018 NRC 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 R602.11 UNLESS NOTED OTHERWISE ON STRUCTURAL PLANS. -MAY SUBSTITUTE WSP FOR QB -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 10c 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 WALL LINES ONLY REQUIRED AT SHADED WALLS, UNO.</p> <p>PART 17: KING STUDS</p> <p>17.01 KING STUDS FOR OPENINGS IN EXTERIOR WALLS SHALL BE AS FOLLOWS:</p> <table border="1"> <thead> <tr> <th rowspan="2">MAX OPENING WIDTH</th> <th colspan="5">NUMBER OF KING STUDS</th> </tr> <tr> <th>5'-0"</th> <th>6'-0"</th> <th>8'-0"</th> <th>12'-0"</th> <th>17'-0" 21'-0"</th> </tr> </thead> <tbody> <tr> <td>2X4</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>2X6</td> <td>1</td> <td>1</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>2X8</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>2</td> </tr> </tbody> </table> <p>PART 18: SUBSTITUTIONS</p> <p>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.</p> <p>PART 19: OWNERSHIP OF STRUCTURAL DESIGN</p> <p>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</p>	MAX OPENING WIDTH	NUMBER OF KING STUDS					5'-0"	6'-0"	8'-0"	12'-0"	17'-0" 21'-0"	2X4	1	2	3	4	5	2X6	1	1	2	2	2	2X8	1	1	1	1	2
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<p>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:</p> <p>1) THE WORKING PLANS DO NOT BEAR THE SEAL OF THE EOR</p> <p>2) THE PLANS CONTAIN DISCREPANT OR INCOMPLETE INFORMATION</p> <p>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</p> <p>THE EOR DOES NOT PERFORM FENESTRATION OR VENTING CALCULATIONS OR ANY OTHER CALCULATIONS THAT ARE NOT DIRECTLY RELATED TO STRUCTURAL ENGINEERING.</p> <p>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</p>	<table border="1"> <tr> <td>ABV ABOVE</td> <td>FND FOUNDATION</td> <td>TJ TRIPLE JOIST</td> </tr> <tr> <td>B BOTH</td> <td>FTG FOOTING</td> <td>TYP TYPICAL</td> </tr> <tr> <td>B.E. BOTH ENDS</td> <td>HDG HOT DIPPED</td> <td>TRPL TRIPLE</td> </tr> <tr> <td>B/TWN BETWEEN</td> <td>GALV GALVANIZED</td> <td>TSP TRIPLE STUD POCKET</td> </tr> <tr> <td>CIP CAST IN PLACE</td> <td>HGR HANGER</td> <td>UNO UNLESS NOTED OTHERWISE</td> </tr> <tr> <td>CONC CONCRETE</td> <td>LVL LAMINATED VENEER LUMBER</td> <td>XJ EXTRA JOIST</td> </tr> <tr> <td>CS CONTINUOUS SHEATHING</td> <td>NTS NOT TO SCALE</td> <td></td> </tr> <tr> <td>DA DIAMETER</td> <td>O.C. ON CENTER</td> <td></td> </tr> <tr> <td>DBL DOUBLE</td> <td>PSL PARALLEL STRAND LUMBER</td> <td></td> </tr> <tr> <td>DJ DOUBLE JOIST</td> <td>PT PRESSURE TREATED</td> <td></td> </tr> <tr> <td>DSP DBL STUD POCKET</td> <td>QJ QUAD JOIST</td> <td></td> </tr> <tr> <td>EQ EQUAL</td> <td>SP SPACE (OR SPACING)</td> <td></td> </tr> <tr> <td>EA EACH</td> <td>SQP SINGLE STUD POCKET</td> <td></td> </tr> <tr> <td>FLC FLANGE</td> <td>SQ SQUARE</td> <td></td> </tr> <tr> <td>FL PL FLITCH PLATE</td> <td></td> <td></td> </tr> <tr> <td>FLR FLOOR</td> <td></td> <td></td> </tr> </table>	ABV ABOVE	FND FOUNDATION	TJ TRIPLE JOIST	B BOTH	FTG FOOTING	TYP TYPICAL	B.E. BOTH ENDS	HDG HOT DIPPED	TRPL TRIPLE	B/TWN BETWEEN	GALV GALVANIZED	TSP TRIPLE STUD POCKET	CIP CAST IN PLACE	HGR HANGER	UNO UNLESS NOTED OTHERWISE	CONC CONCRETE	LVL LAMINATED VENEER LUMBER	XJ EXTRA JOIST	CS CONTINUOUS SHEATHING	NTS NOT TO SCALE		DA DIAMETER	O.C. ON CENTER		DBL DOUBLE	PSL PARALLEL STRAND LUMBER		DJ DOUBLE JOIST	PT PRESSURE TREATED		DSP DBL STUD POCKET	QJ QUAD JOIST		EQ EQUAL	SP SPACE (OR SPACING)		EA EACH	SQP SINGLE STUD POCKET		FLC FLANGE	SQ SQUARE		FL PL FLITCH PLATE			FLR FLOOR		
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REV #	REF PROJ #
DATE	

ENG: KWT/CR
 DATE: 10/25/2022

PROJECT NO.
 22-65-562

SHEET NO.
 SPECS
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