



Heated Square Footage	
Level	Area
Basement	1044 SF
First Floor	1210 SF
Second Floor	1357 SF
Total: 3	3611 SF

UnHeated Square Footage	
Front Porch	120 SF
Garage	398 SF
Storage Entry	33 SF
Storage	116 SF
Back Deck	163 SF
Back Patio	131 SF
Grand total: 6	961 SF

GENERAL NOTES

1. ALL CONSTRUCTION TO CONFORM TO 2018 NC RESIDENTIAL BUILDING CODE (NCRC).
2. CONSTRUCTION MEANS AND METHODS ARE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
3. DIMENSIONS ARE TO STUD FRAMING UNLESS OTHERWISE NOTED.
4. WINDOW HEIGHT ON 1ST FLOOR IS 8'-0" AFF UNLESS OTHERWISE NOTED.
5. WINDOW HEIGHT ON 2ND FLOOR IS 8'-0" AFF UNLESS OTHERWISE NOTED.
6. ALL DOORS TO BE SET 6" FROM ADJACENT PERPENDICULAR WALL UNLESS OTHERWISE NOTED.
7. INSTALL MOLD AND MILDEW RESISTANT GYPSUM WALLBOARD ON WALLS AND CEILINGS IN ALL BATHROOMS AND TOILET ROOMS.
8. STRUCTURAL ELEMENTS SHOWN ARE FOR REPRESENTATIONAL PURPOSES ONLY. SEE SIGNED AND SEALED STRUCTURAL DRAWINGS FOR ACTUAL SIZES AND ADDITIONAL INFORMATION.
9. ELECTRICAL LAYOUT BY GENERAL CONTRACTOR.

CRAWL SPACE

10. CRAWL SPACE SHALL BE SEALED AND CONDITIONED IN ACCORDANCE WITH NCRC SECTION R409.
11. PROVIDE ACCESS TO CRAWL SPACE PER NCRC SECTION R409.1.2.
12. THE FLOOR OF THE CRAWL SPACE SHALL BE GRADED SO THAT IT DRAINS TO ONE OR MORE LOW SPOTS. INSTALL A DRAIN TO DAYLIGHT OR SUMP PUMP AT EACH LOW SPOT. CRAWL SPACE DRAINS SHALL BE KEPT SEPARATE FROM ROOF GUTTER DRAIN SYSTEMS AND FOUNDATION PERIMETER DRAINS.

EGRESS

13. PROVIDE MINIMUM OF (1) WINDOW PER BEDROOM THAT MEETS EGRESS REQUIREMENTS PER NCRC SECTION 310.1.
14. CONSULT WINDOW MANUFACTURER'S SPECIFICATIONS FOR EGRESS REQUIREMENTS, PRESSURE RATINGS, AND ROUGH OPENINGS.

STAIRWAY

15. STAIRWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH NCRC SECTION R311.7:
 - INTERIOR STAIR WIDTH: MINIMUM OF 36" ABOVE HANDRAIL. MINIMUM OF 31.5" BELOW HANDRAIL WHERE HANDRAIL IS INSTALLED ON ONE SIDE AND MINIMUM OF 27" WHEN HANDRAIL IS INSTALLED ON BOTH SIDES.
 - RISER HEIGHT: MAXIMUM RISER HEIGHT OF 8 1/4". THE GREATEST RISER HEIGHT SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8". THE TOP AND BOTTOM RISER OF INTERIOR STAIRS SHALL NOT EXCEED THE SMALLEST RISER BY MORE THAN 3/4".
 - TREAD DEPTH: MINIMUM TREAD DEPTH OF 11". THE GREATEST TREAD DEPTH SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8".

GLAZING

16. PROVIDE TEMPERED GLAZING IN HAZARDOUS LOCATIONS AS DEFINED IN NCRC SECTION 308.4.

ATTIC

17. PROVIDE ATTIC VENTILATION PER NCRC SECTIONS R802.



Lane Miller, AIA
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lane@millerarchdesign.com



06-14-22

417 Gardner St
Raleigh, NC 27607

PROJECT: **The Harper**
FOR: **A Squared, LLC**

PROJECT NUMBER: 21-027

DATE: 06-14-22

PHASE: Construction Documents

SCALE:

REVISIONS:

NO.	ISSUE	DATE

Cover Sheet

A0.0

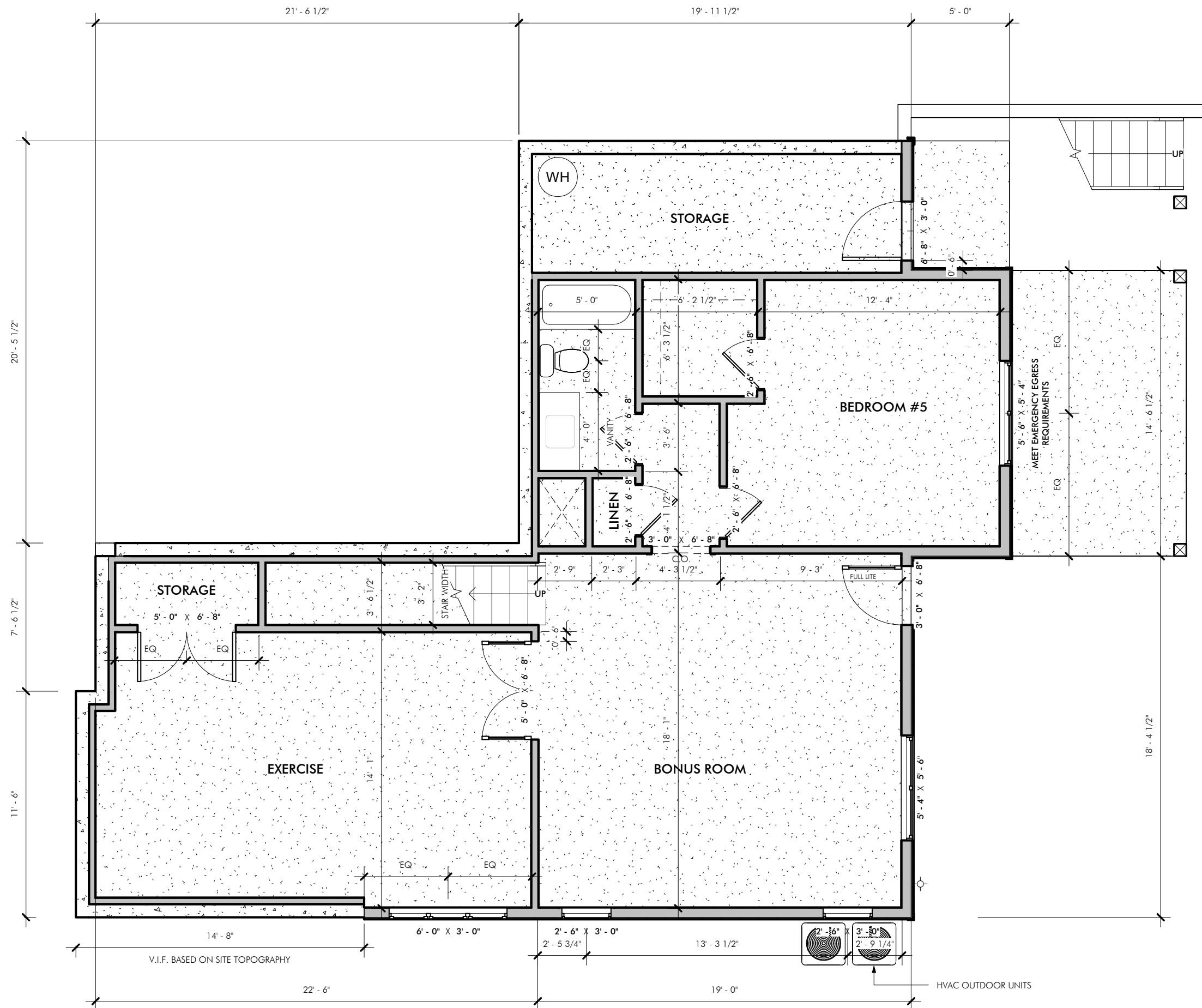
PROJECT:
The Harper
FOR:
A Squared, LLC

PROJECT NUMBER: 21-027
DATE: 06-14-22
PHASE: Construction Documents
SCALE: 3/16" = 1'-0"

NO.	ISSUE	DATE

Basement Floor Plan

A1.0



06-14-22

417 Gardner St
Raleigh, NC 27607

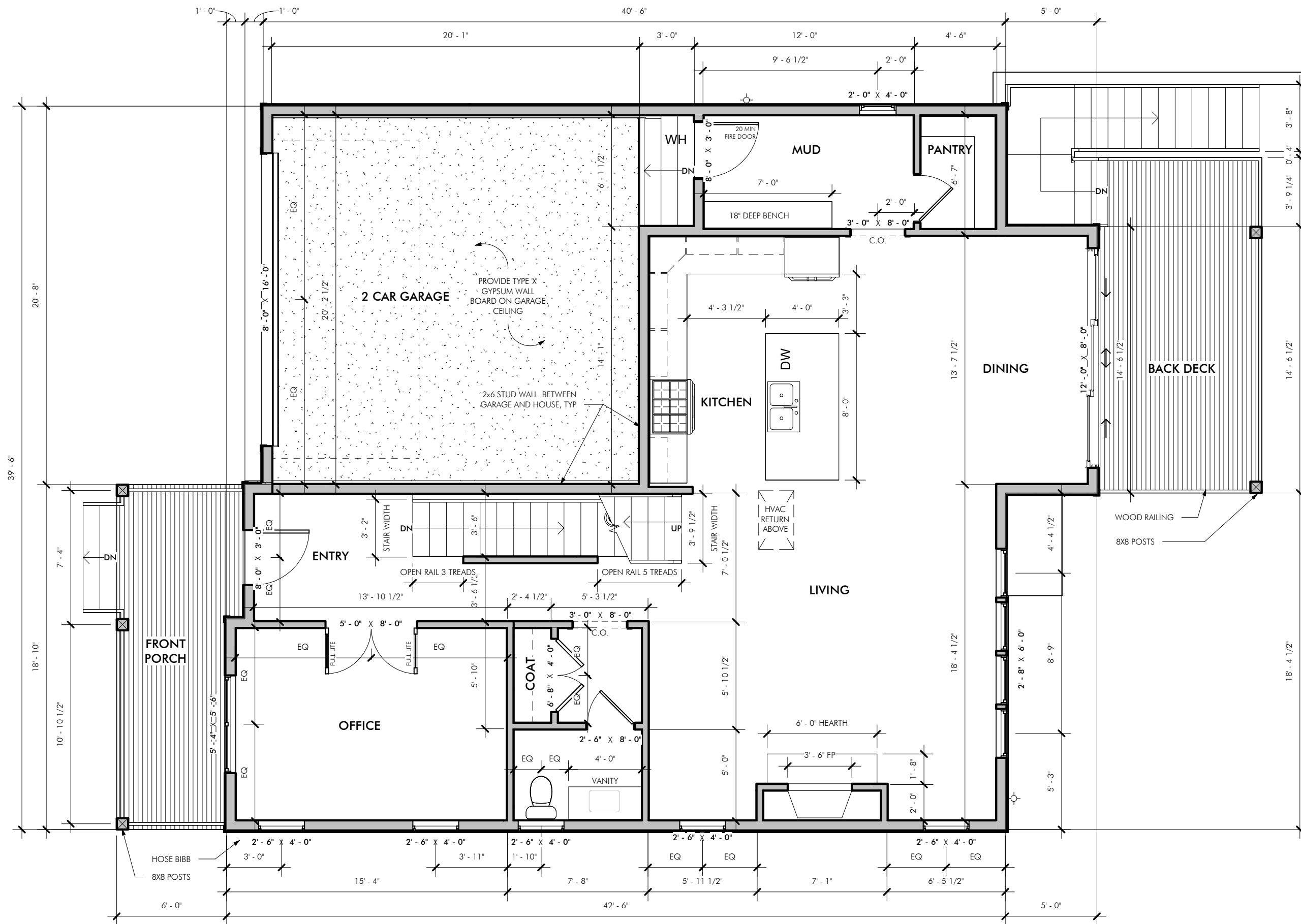
PROJECT:
The Harper
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A Squared, LLC

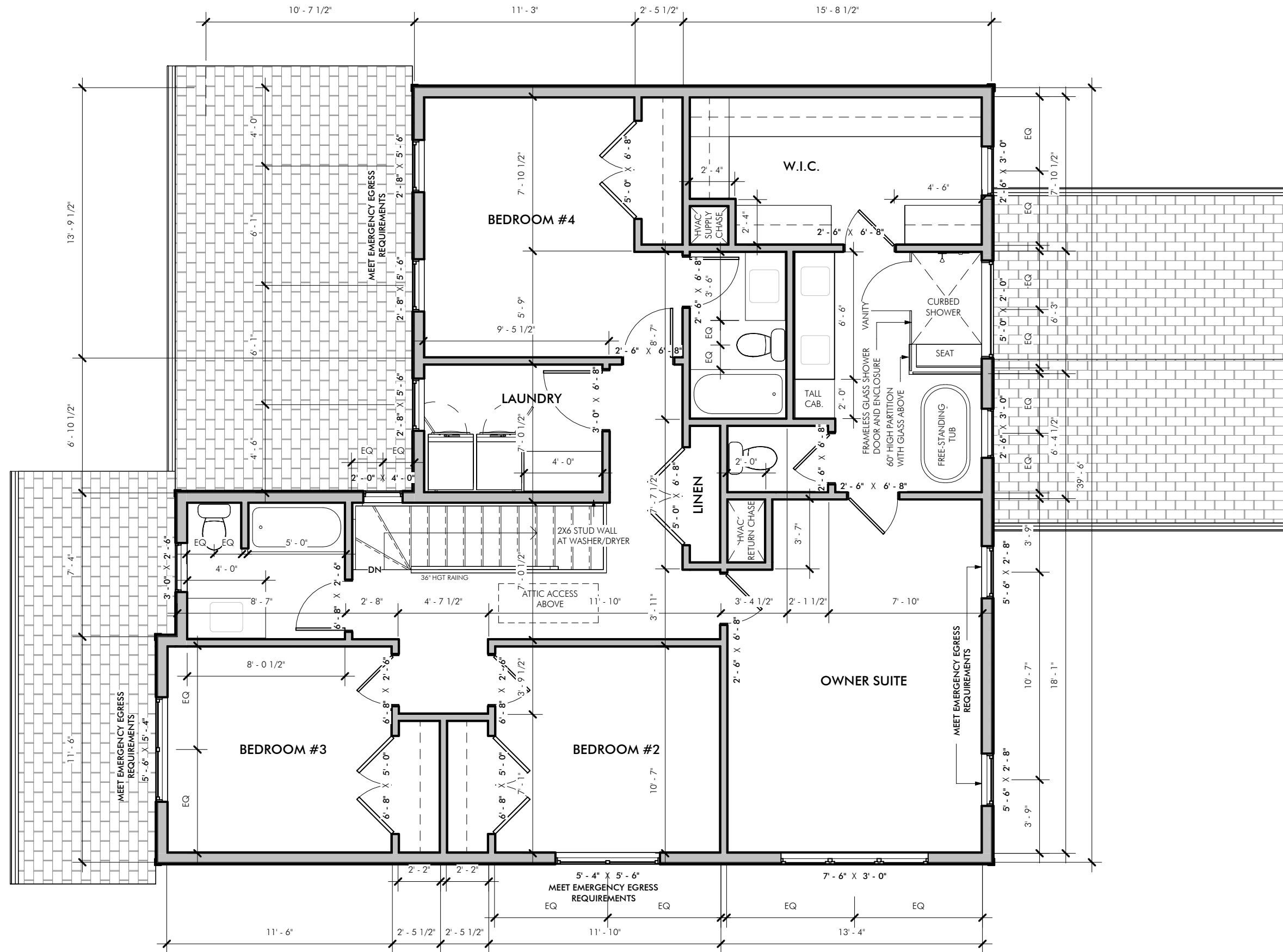
PROJECT NUMBER: 21-027
DATE: 06-14-22
PHASE: Construction Documents
SCALE: 3/16" = 1'-0"

REVISIONS:
NO. ISSUE DATE

First Floor Plan

A1.1





PROJECT: **The Harper**
FOR: **A Squared, LLC**

PROJECT NUMBER: 21-027
DATE: 06-14-22
PHASE: Construction Documents
SCALE: 3/16" = 1'-0"

REVISIONS:

NO.	ISSUE	DATE

Second Floor
Plan

A1.2

PROJECT: **The Harper**
FOR: **A Squared, LLC**

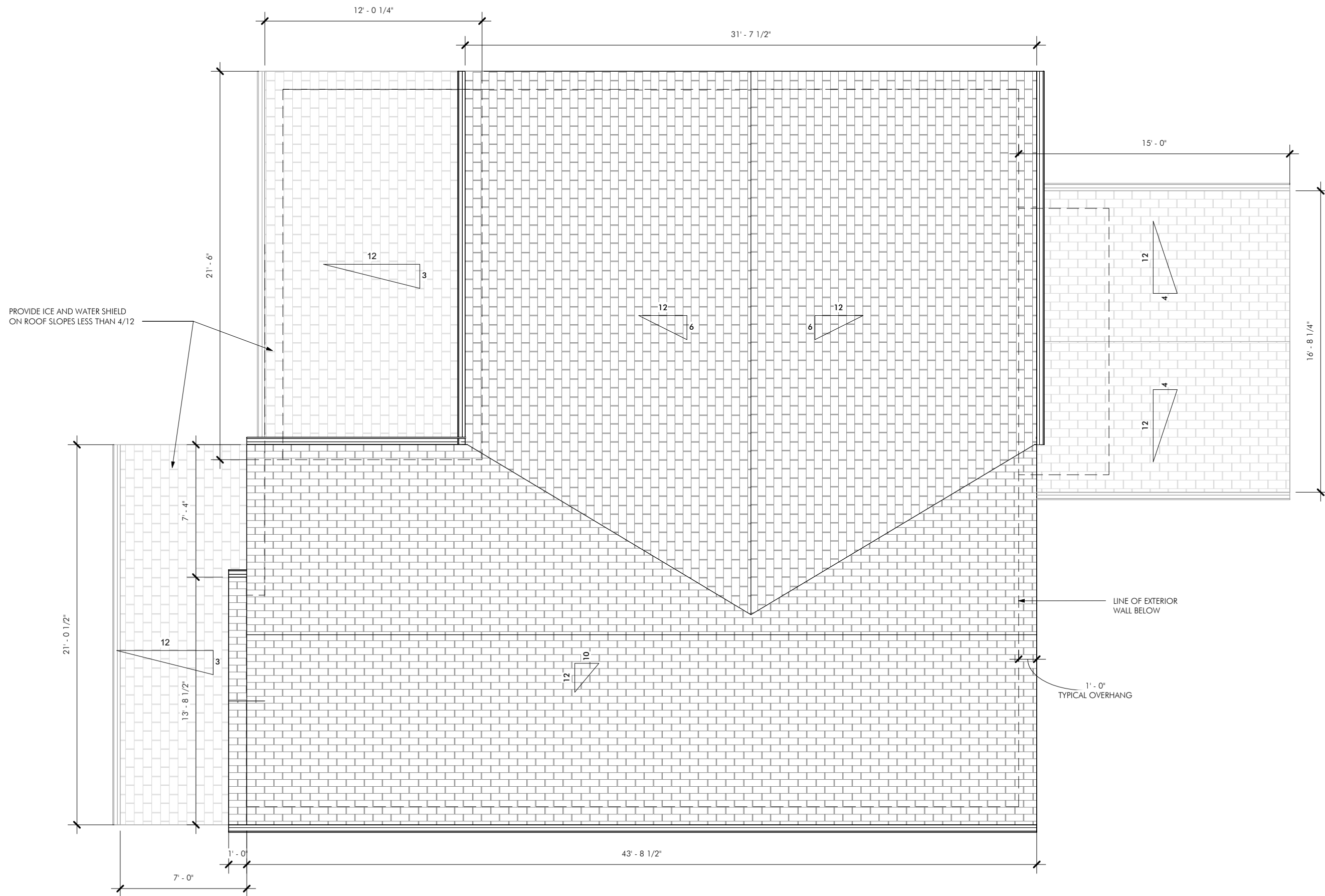
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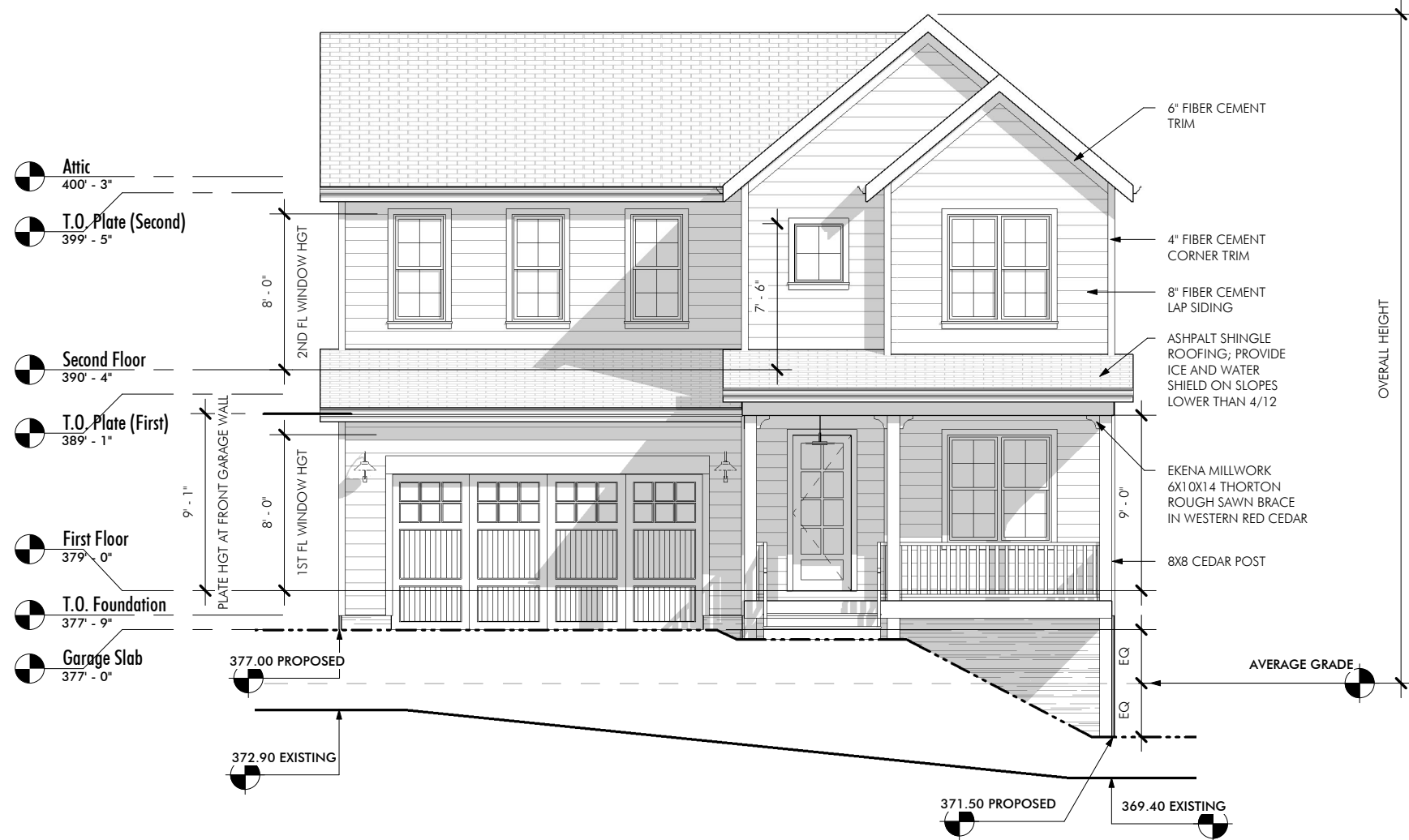
REVISIONS:

NO.	ISSUE	DATE

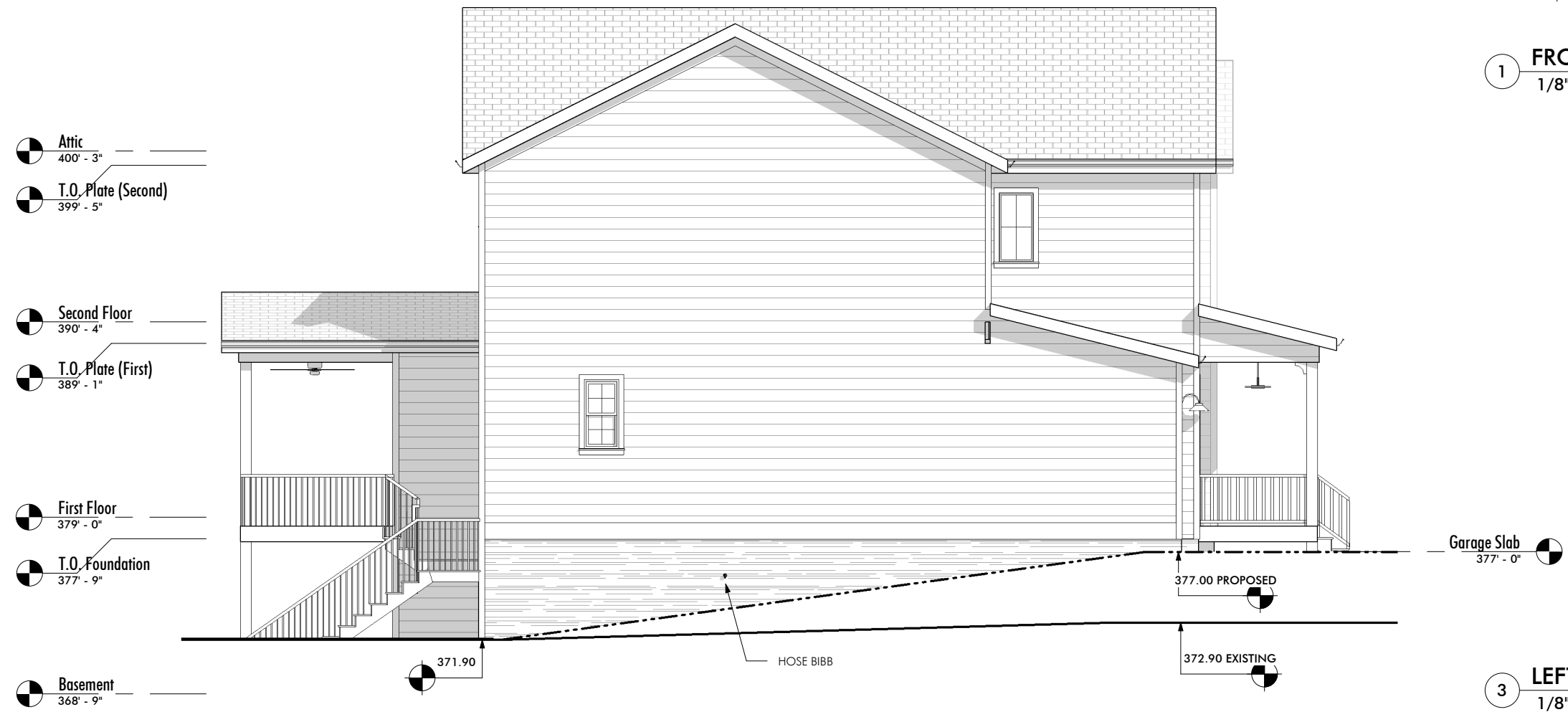
Roof Plan

A1.3





1 FRONT ELEVATION
1/8" = 1'-0"



3 LEFT ELEVATION
1/8" = 1'-0"

PROJECT: **The Harper**
FOR: **A Squared, LLC**

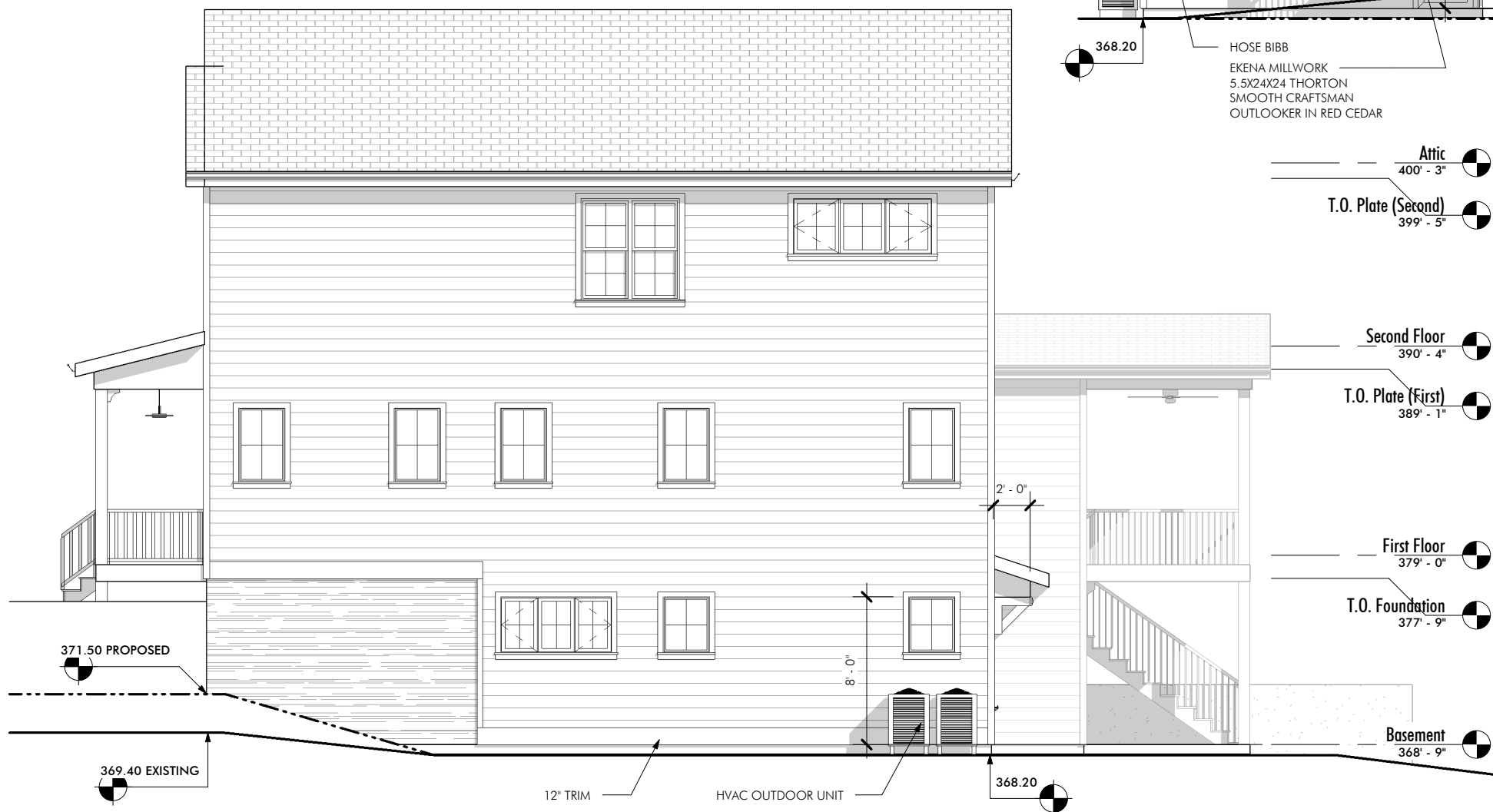
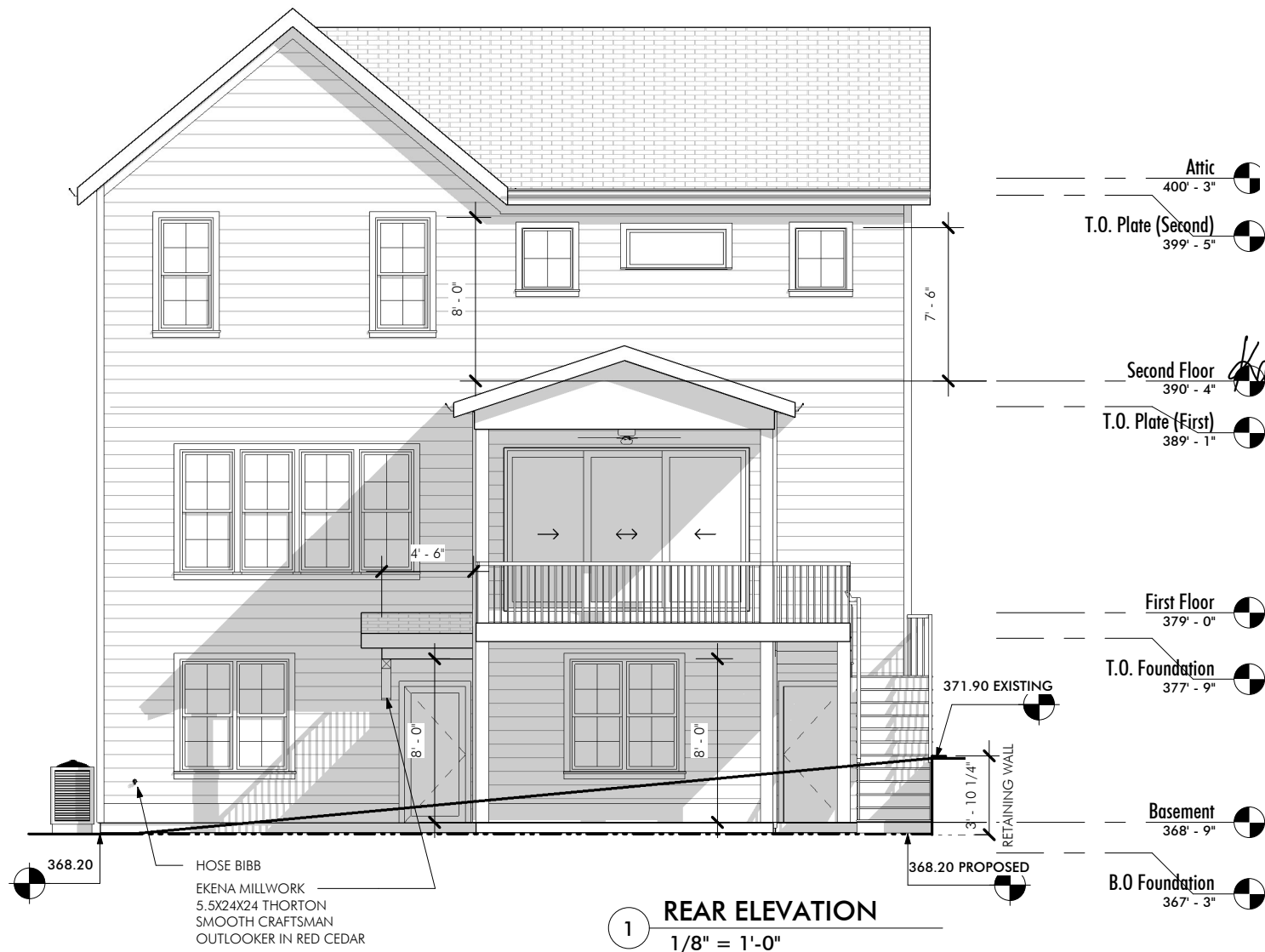
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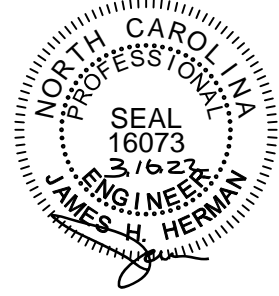
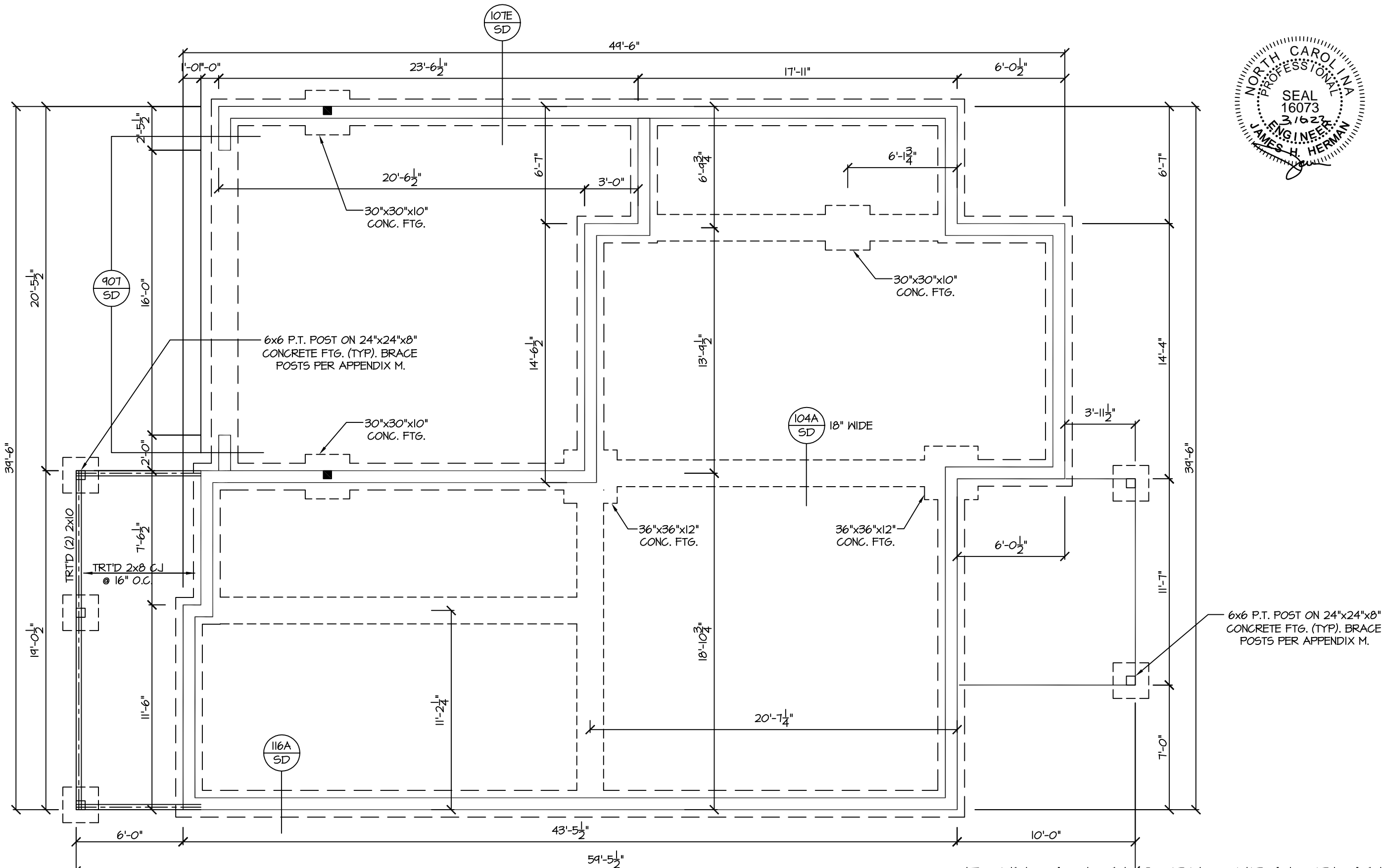
REVISIONS:

NO.	ISSUE	DATE

Elevations

A3.1





PROJECT #
22-1093

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Seal is valid for projects permitted one year from date of seal.
Use of these plans constitutes approval of terms & conditions as defined in the customer agreement.

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Raleigh, NC 27607
A SQUARED, LLC

FOUNDATION STRUCTURAL PLAN

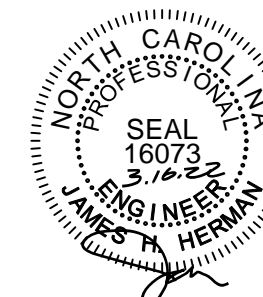
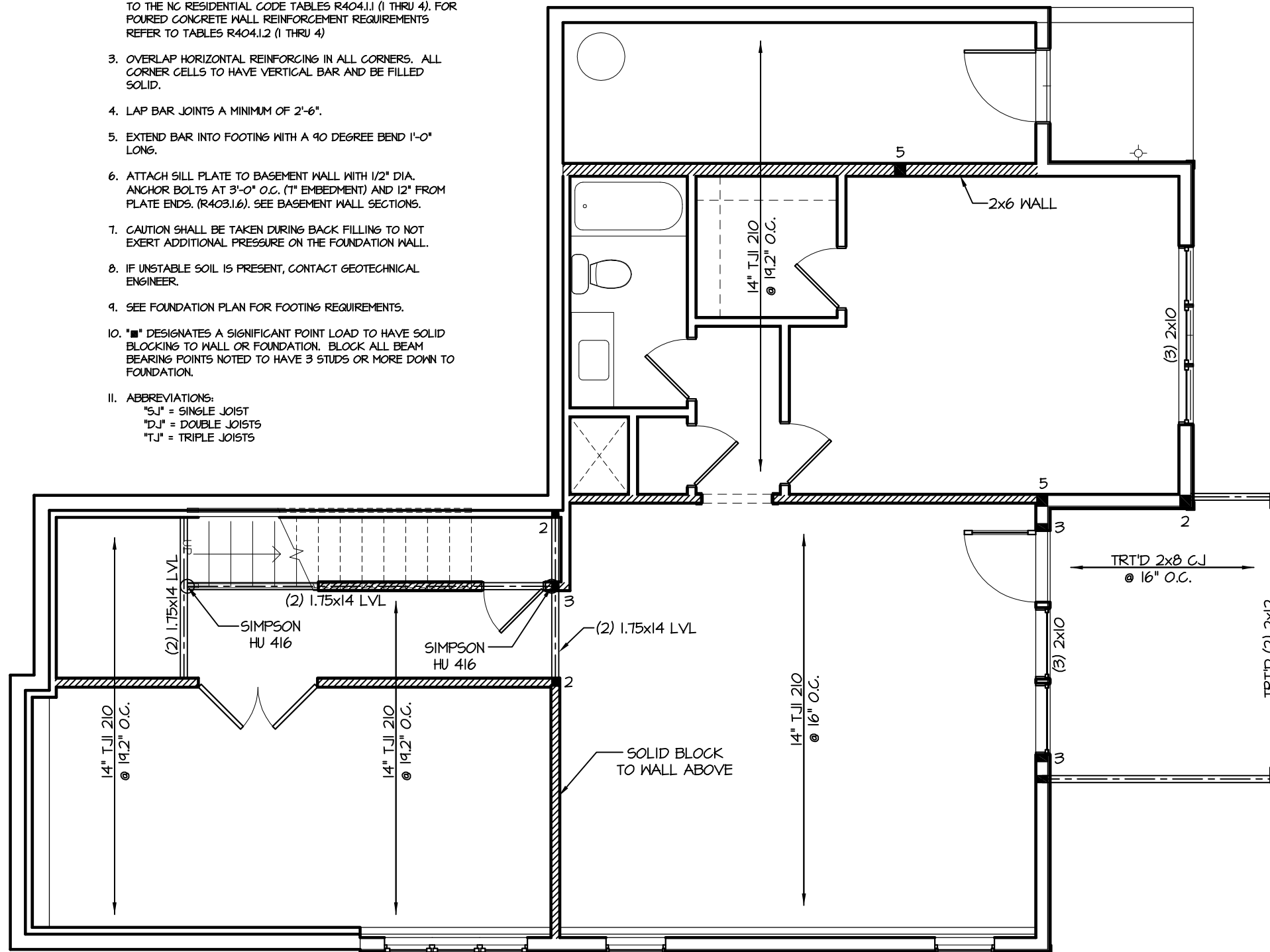
SCALE: 3/16" = 1'-0"

REFER TO "SD" SHEET(S) FOR STANDARD DETAILS AND STRUCTURAL NOTES

BASEMENT WALL REQUIREMENTS:

NC (2018 NCRS), Wind: 115-120 mph

- MASONRY OR POURED CONCRETE BASEMENT WALLS SHALL MEET THE REQUIREMENTS OF SECTION R404.1 OR SHALL BE DESIGNED BY OTHERS.
- FOR MASONRY WALL REINFORCEMENT REQUIREMENTS REFER TO THE NC RESIDENTIAL CODE TABLES R404.1.1 (1 THRU 4). FOR POURED CONCRETE WALL REINFORCEMENT REQUIREMENTS REFER TO TABLES R404.1.2 (1 THRU 4)
- OVERLAP HORIZONTAL REINFORCING IN ALL CORNERS. ALL CORNER CELLS TO HAVE VERTICAL BAR AND BE FILLED SOLID.
- LAP BAR JOINTS A MINIMUM OF 2'-6".
- EXTEND BAR INTO FOOTING WITH A 90 DEGREE BEND 1'-0" LONG.
- ATTACH SILL PLATE TO BASEMENT WALL WITH 1/2" DIA. ANCHOR BOLTS AT 3'-0" O.C. (1" EMBEDMENT) AND 12" FROM PLATE ENDS. (R403.1.6). SEE BASEMENT WALL SECTIONS.
- CAUTION SHALL BE TAKEN DURING BACK FILLING TO NOT EXERT ADDITIONAL PRESSURE ON THE FOUNDATION WALL.
- IF UNSTABLE SOIL IS PRESENT, CONTACT GEOTECHNICAL ENGINEER.
- SEE FOUNDATION PLAN FOR FOOTING REQUIREMENTS.
- "■" DESIGNATES A SIGNIFICANT POINT LOAD TO HAVE SOLID BLOCKING TO WALL OR FOUNDATION. BLOCK ALL BEAM BEARING POINTS NOTED TO HAVE 3 STUDS OR MORE DOWN TO FOUNDATION.
- ABBREVIATIONS:
 "SJ" = SINGLE JOIST
 "DJ" = DOUBLE JOISTS
 "TJ" = TRIPLE JOISTS



HEADER/BEAM & COLUMN NOTES

- ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2)2x10 (4" WALL) OR (3)2x10 (6" WALL) WITH (1) SUPPORT STUD, UNLESS NOTED OTHERWISE.
- THE NUMBER SHOWN AT BEAM AND HEADER SUPPORTS INDICATES THE NUMBER OF SUPPORT STUDS REQUIRED IN STUD POCKET OR COLUMN. THE NUMBER OF KING STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS SHALL BE ACCORDING TO ITEM "d" IN TABLE R602.3(5) OR AS BELOW PER NCD01 COMMENTARY "KING STUDS AT WALL OPENINGS" REVISED 1-4-2020:
 • UP TO 3' SPAN: (1) KING STUD
 • OVER 3' UP TO 6' SPAN: (2) KING STUDS
 • OVER 6' UP TO 9' SPAN: (3) KING STUDS
 • OVER 9' UP TO 12' SPAN: (4) KING STUDS
 • OVER 12' UP TO 15' SPAN: (5) KING STUDS

PROJECT #
22-1093

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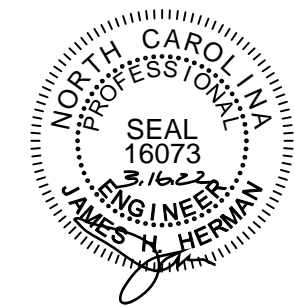
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 www.southernengineers.com

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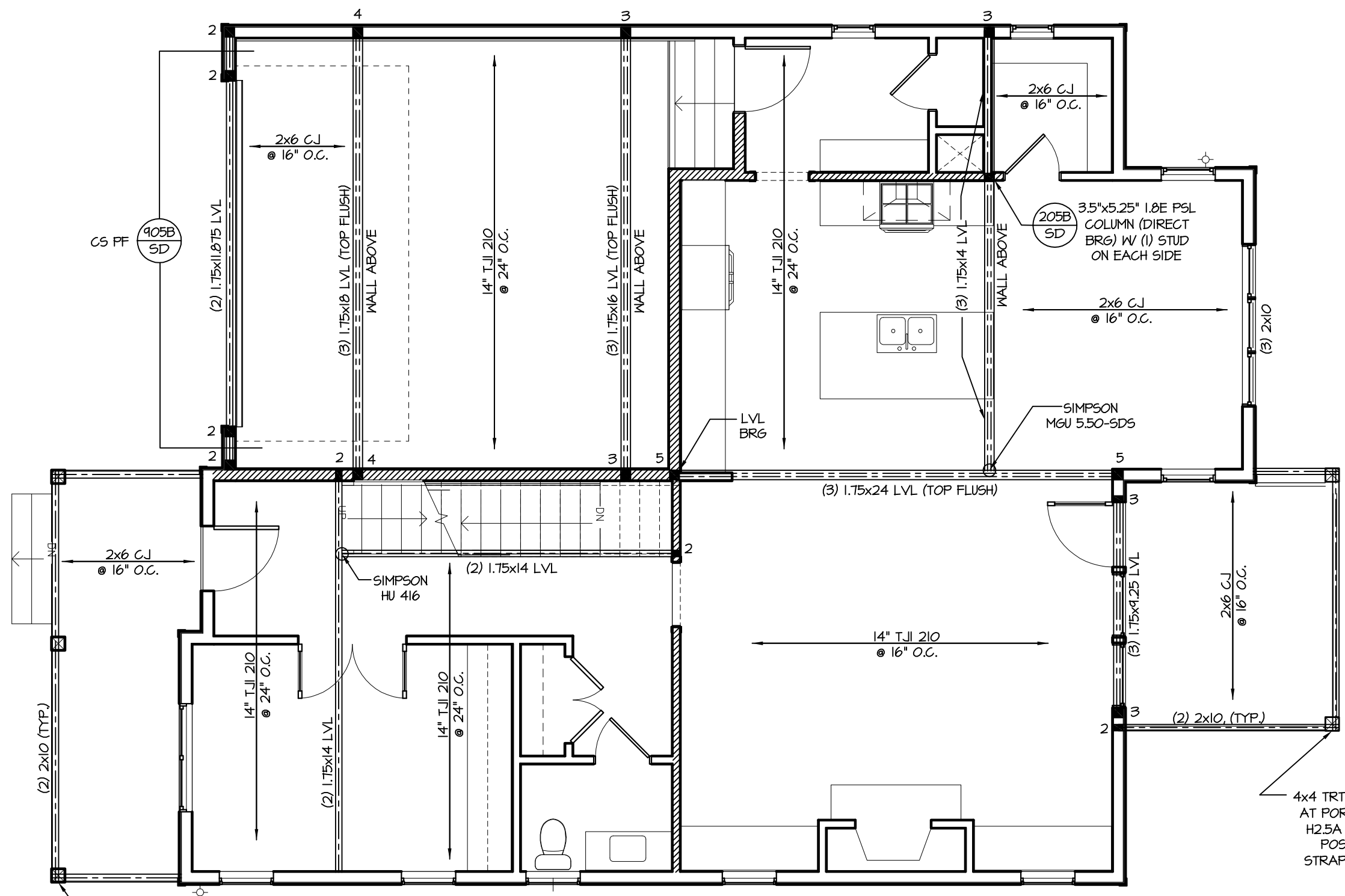
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A SQUARED, LLC

BASEMENT STRUCTURAL PLAN

SCALE: 3/16" = 1'-0"
 REFER TO "SD" SHEET(S) FOR STANDARD DETAILS AND STRUCTURAL NOTES



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WOOD "I" JOISTS
(SHALL BE ONE OF THE FOLLOWING):

- TJI 210 BY TRUS JOIST
- LPI 20 PLUS BY LP
- BCI 5000s 1.8 BY BC

- ALL WOOD "I" JOISTS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- INSTALL SQUASH BLOCKS, WEB STIFFENERS, ETC. AS REQUIRED BY AND ACCORDING TO THE I-JOIST MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS.
- HANGERS FOR I-JOISTS ARE THE RESPONSIBILITY OF THE I-JOIST SUPPLIER.

LVL CONNECTION LEGEND

- (2) PLY 1.75" LVL BEAMS;
• (3) ROWS OF 10d NAILS @ 12" O.C. OR
• (2) ROWS OF SIMPSON SDW2233B (OR EQUAL) SCREWS @ 16" O.C.
- (3) PLY 1.75" LVL BEAMS;
• (3) ROWS OF 10d NAILS @ 8" O.C. ON EACH SIDE OR
• (2) ROWS OF SIMPSON SDW22500 (OR EQUAL) SCREWS @ 16" O.C.
- (4) PLY 1.75" LVL BEAMS;
• (2) ROWS OF SIMPSON SDW22634 (OR EQUAL) SCREWS @ 16" O.C. FOR BEAMS UP TO 18"
• (3) ROWS OF SIMPSON SDW22634 (OR EQUAL) SCREWS @ 16" O.C. FOR BEAMS GREATER THAN 18".

4x4 TRT'D POST (OR EQUIV.) (TYP.) ATTACH RAFTERS AT PORCH WITH HURRICANE CONNECTORS (SIMPSON H2.5A OR EQUIV.) ATTACH HEADER TO POST AND POST TO BASE WITH A POST CAP OR METAL STRAP(S) OR BRACKET(S), AND/OR A POST BASE.

4x4 TRT'D POST (OR EQUIV.) (TYP.) ATTACH RAFTERS AT PORCH WITH HURRICANE CONNECTORS (SIMPSON H2.5A OR EQUIV.) ATTACH HEADER TO POST AND POST TO BASE WITH A POST CAP OR METAL STRAP(S) OR BRACKET(S), AND/OR A POST BASE.

FIRST FLOOR STRUCTURAL PLAN

SCALE: 3/16" = 1'-0"

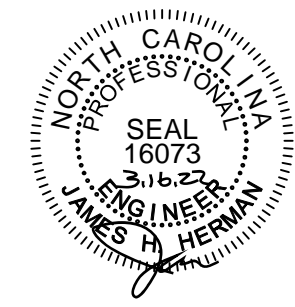
REFER TO "SD" SHEET(S) FOR STANDARD DETAILS AND STRUCTURAL NOTES

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HEADER/BEAM & COLUMN NOTES

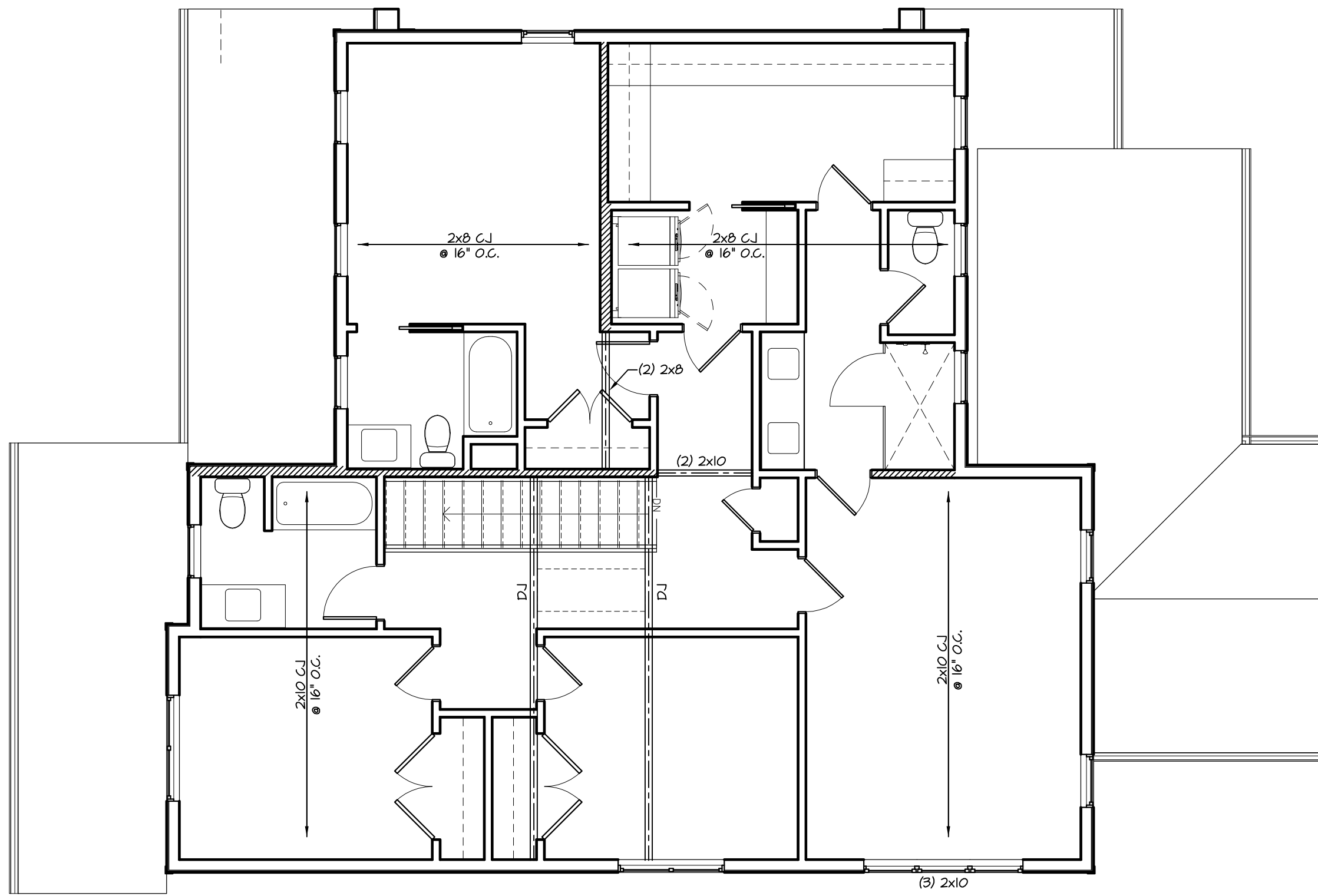
- ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2)2x10 (4" WALL) OR (3)2x10 (6" WALL) WITH (1) SUPPORT STUD, UNLESS NOTED OTHERWISE.
- THE NUMBER SHOWN AT BEAM AND HEADER SUPPORTS INDICATES THE NUMBER OF SUPPORT STUDS REQUIRED IN STUD POCKET OR COLUMN. THE NUMBER OF KING STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS SHALL BE ACCORDING TO ITEM "d" IN TABLE R602.3(5) OR AS BELOW PER NCDO1 COMMENTARY "KING STUDS AT WALL OPENINGS" REVISED 1-4-2020:
 - UP TO 3' SPAN: (1) KING STUD
 - OVER 3' UP TO 6' SPAN: (2) KING STUDS
 - OVER 6' UP TO 9' SPAN: (3) KING STUDS
 - OVER 9' UP TO 12' SPAN: (4) KING STUDS
 - OVER 12' UP TO 15' SPAN: (5) KING STUDS

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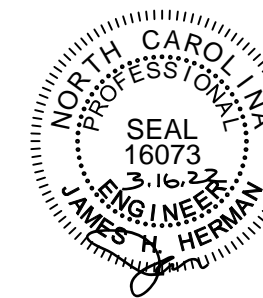
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SECOND FLOOR STRUCTURAL PLAN

SCALE: 3/16" = 1'-0"

REFER TO "SD" SHEET(S) FOR STANDARD DETAILS AND STRUCTURAL NOTES



PROJECT #
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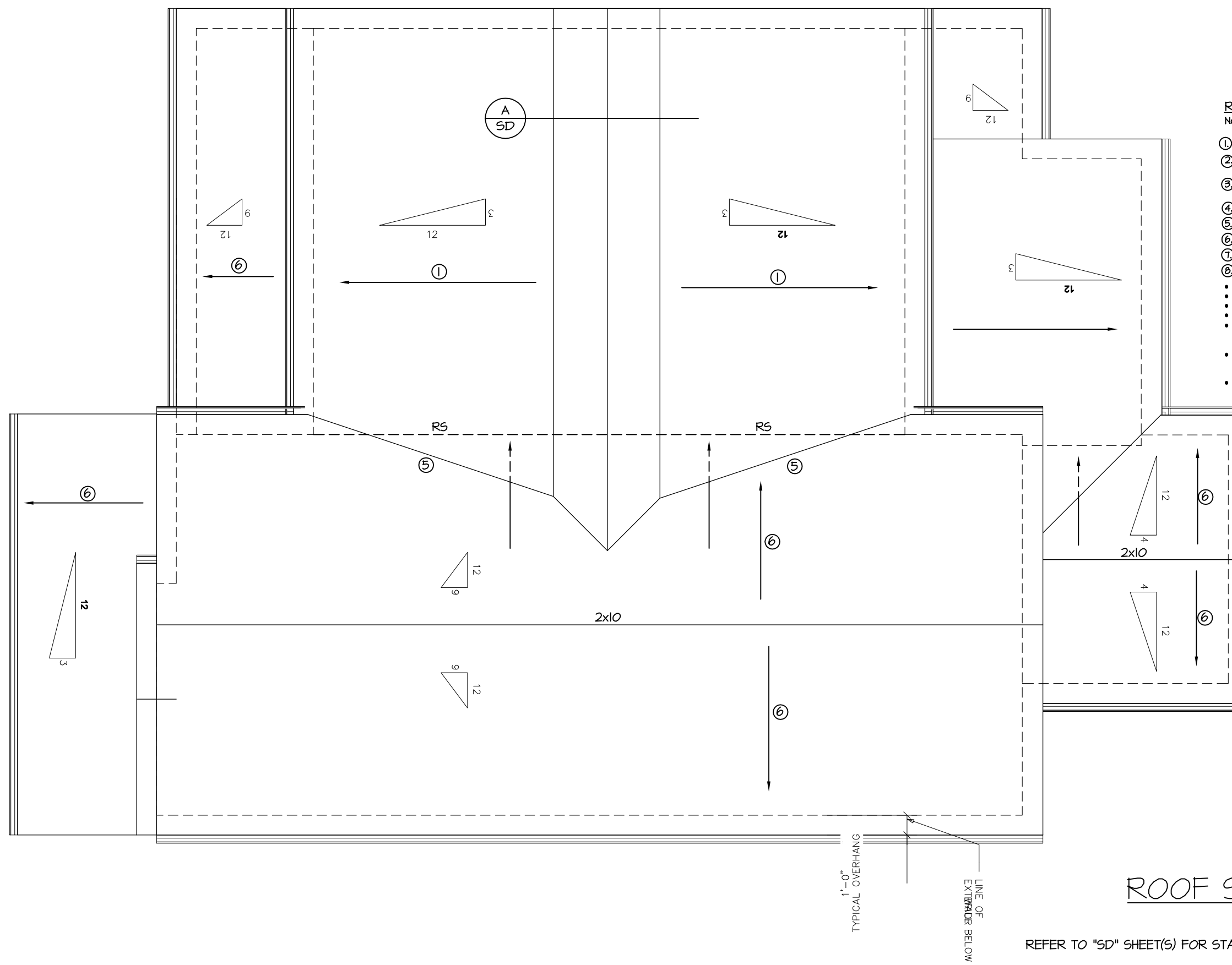
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S-5



ROOF FRAMING NOTES:

NC (2018 NRC): Wind: 115-120 mph

- ① 2x8 RAFTERS @ 16" O.C. WITH 2x10 RIDGE, UNO.
 - ② (2) 2x10 OR 1.75x11.875 LVL HIP, (2) 2x10 HIPs MAY BE SPLICED WITH A MIN. 6'-0" OVERLAP AT CENTER
 - ③ (2) 2x10 OR 1.75x9.25 LVL VALLEY. DO NOT SPLICE VALLEYS
 - ④ 1.75x11.875 LVL OR (2) 1.75x9.25 LVL VALLEY
 - ⑤ FALSE FRAME VALLEY ON 2x10 FLAT PLATE
 - ⑥ 2x6 RAFTERS @ 16" O.C. W/ 2x8 RIDGE, UNO.
 - ⑦ 2x10 RAFTERS @ 16" O.C. W/ 2x12 RIDGE, UNO.
 - ⑧ EXTEND RIDGE 12" BEYOND INTERSECTION
- "SR" = SINGLE RAFTER
 - "DR" = DOUBLE RAFTER
 - "TR" = TRIPLE RAFTER
 - "RS" = ROOF SUPPORT
 - "■" = (3) STUD OR 4x4 POST FOR ROOF SUPPORT (USE 2x6 STUDS OR 6x6 POST FOR SUPPORT OVER 10'-0" IN HEIGHT)
 - ATTACH VAULTED RAFTERS WITH HURRICANE CLIPS, SIMPSON "H-2.5A" OR EQUIVALENT. TIES TO BE INSTALLED ON THE OUTSIDE FACE OF FRAMING.
 - INSTALL RAFTER TIES AND COLLAR TIES PER SECTION R802.3.1 OF THE 2018 NC RESIDENTIAL CODE.

ROOF STRUCTURAL PLAN

SCALE: 3/16" = 1'-0"

REFER TO "SD" SHEET(S) FOR STANDARD DETAILS AND STRUCTURAL NOTES

STRUCTURAL NOTES

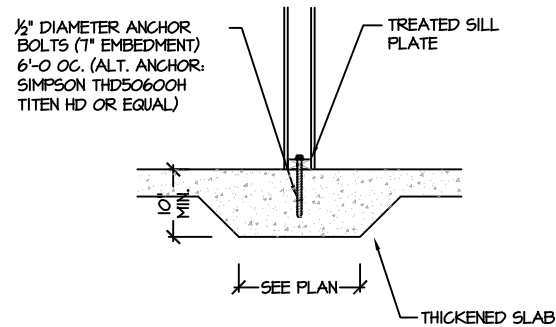
NC (2018 NCRC): Wind: 115-120 mph

- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPs, VALLEYS, RIDGES, FLOORS, WALLS, BEAMS AND HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIER & GIRDER SYSTEM, FOOTING, AND PILING SYSTEM. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM. ALL REQUIREMENTS FOR PROFESSIONAL CERTIFICATION SHALL BE PROVIDED BY THE APPROPRIATE PROFESSIONAL. SOUTHERN ENGINEERS, P.A. CERTIFIES ONLY THE STRUCTURAL COMPONENTS AS SPECIFICALLY STATED.
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE 2018 NC RESIDENTIAL CODE, PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK, NOR WILL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. "CONSTRUCTION REVIEW" SERVICES ARE NOT PART OF OUR CONTRACT. ALL MEMBERS SHALL BE FRAMED ANCHORED, TIED AND BRACED IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND THE BUILDING CODE.
- DESIGN LOADS (LISTED AS: LIVE LOAD, DEAD LOAD, DEFLECTION)
 - ROOMS OTHER THAN SLEEPING ROOMS: (40 PSF, 10 PSF, L/360)
 - SLEEPING ROOMS: (30 PSF, 10 PSF, L/360)
 - ATTIC WITH PERMANENT STAIR: (40 PSF, 10 PSF, L/360)
 - ATTIC WITHOUT PERMANENT STAIR: (20 PSF, 10 PSF, L/360)
 - ATTIC WITHOUT STORAGE: (10 PSF, 10 PSF, L/240)
 - STAIRS: (40 PSF, 10 PSF, L/360)
 - EXTERIOR BALCONIES: (60 PSF, 10 PSF, L/360)
 - DECKS: (40 PSF, 10 PSF, L/360)
 - GUARDRAILS AND HANDRAILS: (200 LBS)
 - PASSENGER VEHICLE GARAGES: (50 PSF, 10 PSF, L/360)
 - FIRE ESCAPES: (40 PSF, 10 PSF, L/360)
 - SNOW: (20 PSF)
- WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH WOOD STRUCTURAL PANELS. SEE FRAMING NOTES FOR THICKNESS AND NAILING REQUIREMENTS.
- SEE APPENDIX M (DCA6) FOR EXTERIOR DECK REQUIREMENTS INCLUDING ATTACHMENTS FOR LATERAL LOADS.
- CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF 5 INCHES UNLESS NOTED OTHERWISE (UNO). AIR ENTRAINED PER TABLE 402.2. ALL CONCRETE SHALL BE PROPORTIONED, MIXED, HANDLED, SAMPLED, TESTED, AND PLACED IN ACCORDANCE WITH ACI STANDARDS. ALL SAMPLES FOR PUMPING SHALL BE TAKEN FROM THE EXIT END OF THE PUMP. CONTROL JOINTS IN SLABS SHALL BE SPACED ON A GRID OF +30 TIMES THE DEPTH (D). CONTROL JOINTS SHALL BE SAWCUT TO A DEPTH OF 1/D. (I.E. 4" CONCRETE SLABS SHALL HAVE 1/4" DEEP CONTROL JOINTS SAWCUT IN SLAB ON A +10'-0" x +10'-0" GRID).
- ALLOWABLE SOIL BEARING PRESSURE ASSUMED TO BE 2000 PSF. THE CONTRACTOR MUST CONTACT A GEOTECHNICAL ENGINEER AND THE STRUCTURAL ENGINEER IF UNSATISFACTORY SUBSURFACE CONDITIONS ARE ENCOUNTERED. THE SURFACE AREA ADJACENT TO THE FOUNDATION WALL SHALL BE PROVIDED WITH ADEQUATE DRAINAGE, AND SHALL BE GRADED SO AS TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS.
- ALL FRAMING LUMBER SHALL BE SPF #2 (Fb = 875 PSI) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE SYP # 2. PLATE MATERIAL MAY BE SPF # 3 OR SYP #3 (Fc(perp) = 425 PSI - MIN).
 - L.V.L. SHALL BE LAMINATED VENEER LUMBER: Fb=2600 PSI, Fv=285 PSI, E=1.9x10⁶ PSI.
 - P.S.L. SHALL BE PARALLEL STRAND LUMBER: Fb=2400 PSI, Fv=240 PSI, E=2.0x10⁶ PSI.
 - L.S.L. SHALL BE LAMINATED STRAND LUMBER: Fb=2250 PSI, Fv=400 PSI, E=1.55x10⁶ PSI. INSTALL ALL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS.
- ALL ROOF TRUSS AND I-JOIST LAYOUTS SHALL BE PREPARED IN ACCORDANCE WITH THE SEALED STRUCTURAL DRAWINGS. TRUSSES AND I-JOISTS SHALL BE INSTALLED ACCORDING TO THE MANUFACTURE'S SPECIFICATIONS. ANY CHANGE IN TRUSS OR I-JOIST LAYOUT SHALL BE COORDINATED WITH SOUTHERN ENGINEERS.
- ALL STRUCTURAL STEEL SHALL BE ASTM A-36. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" INCHES AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO LAG SCREWS (1/2" DIAMETER x 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOIST ARE TOE NAILED TO THE SOLE PLATE, AND SOLE PLATE IS NAILED OR BOLTED TO THE BEAM FLANGE @ 48" O.C. ALL STEEL TUBING SHALL BE ASTM A500.
- REBAR SHALL BE DEFORMED STEEL, ASTM615, GRADE 60. LAP ALL REBAR SPLICES 30 BAR DIAMETERS.
- FLITCH BEAMS SHALL BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTM A325) WITH WASHERS PLACED UNDER THE THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" O.C. (MAX), AND STAGGERED AT THE TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH 2 BOLTS LOCATED AT 6" FROM EACH END.
- BRICK LINTELS (WHEN REQUIRED) SHALL BE 3 1/2"x3 1/2"x1/4" STEEL ANGLE FOR UP TO 6'-0" SPAN AND 6"x4"x5/16" STEEL ANGLE WITH 6" LEG VERTICAL FOR SPANS UP TO 9'-0". SEE PLANS FOR SPANS OVER 9'-0". SEE ALSO SECTION RT03.B.3 LINTELS.

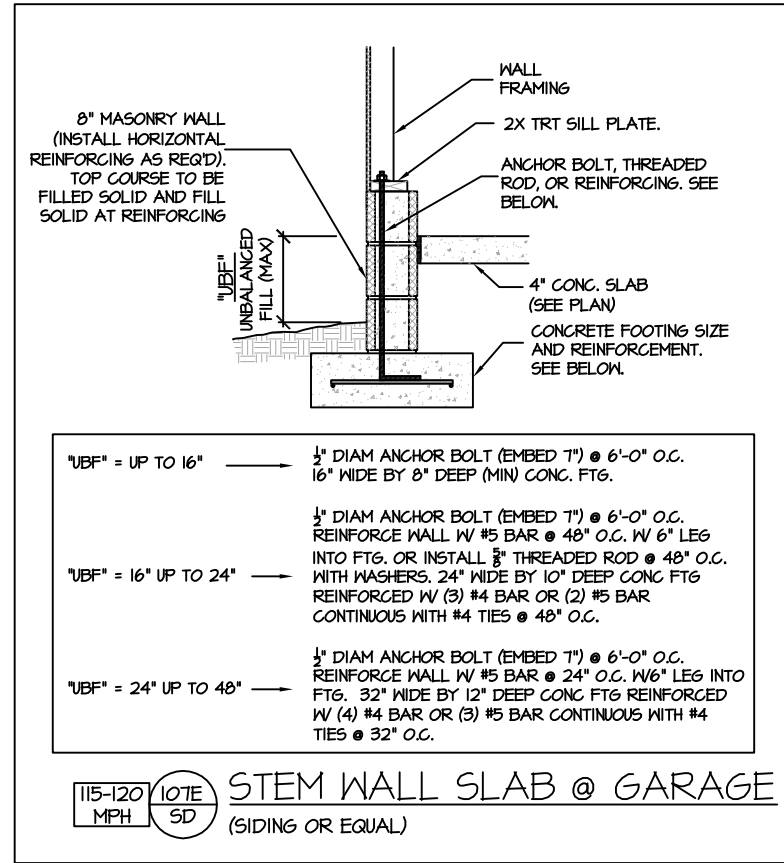
FRAMING NOTES

NC (2018 NCRC): Wind: 115-120 mph

- BRACING METHOD AND TYPE: CONTINUOUSLY SHEATHED WSP. CS-WSP. NOTE THAT THE WALL BRACING AMOUNT PROVIDED ON THE PLANS (DETAILS AND SPECIFICATIONS) IS GREATER THAN THE AMOUNT OF WALL BRACING REQUIRED BY SECTION R602.10 OF THE CODE. SEE NOTES BELOW FOR DETAILS AND SPECIFICATIONS FOR WALL BRACING AND WALL FRAMING.
- EXTERIOR WALL SHEATHING: WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH WOOD STRUCTURAL PANEL SHEATHING (WSP) (EXPOSURE B: 7/16", EXPOSURE C: 15/32"). SHEATHING SHALL BE ATTACHED WITH 8d NAILS AT A 6"x12" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL PANEL EDGES.
- WSP SHEATHING SHALL EXTEND TO THE UPPERMOST DOUBLE BEARING PLATE. BLOCK AT ROOF PER SECTION R602.10.4.5 AND ATTACH BRACED WALLS PER CODE. WSP SHEATHING BETWEEN FLOORS SHALL BE SPLICED ALONG CONTINUOUS BAND OR THE WSP SHEATHING MAY BE SPLICED ACROSS STUDS (CONTINUOUS ACROSS FLOOR SYSTEM) WITH BLOCKING AT PANEL EDGES. (MINIMUM 12" BEYOND FLOOR BREAK) OR OTHER APPROVED METHOD.
- "HD" = HOLD-DOWN: HOLD-DOWN DEVICE (NOTED AS "HD" ON PLANS) SHALL BE AN 800 POUND CAPACITY ASSEMBLY AS NOTED ON PLANS. SEE DETAILS FOR HD ASSEMBLY.
 - **GROUND/FIRST FLOOR: USE "HD HOLD-DOWN DETAIL" ON SD SHEET (OR EQUIV.)
 - **UPPER FLOORS: ATTACH BASE OF KING STUD WITH A SIMPSON C522 STRAP DOWN ACROSS THE BAND AND DOWN TO A STUD BELOW OR HEADER BELOW. EXTEND STRAP 7" MIN ALONG EACH STUD (OR HEADER) AND ATTACH EACH END W/ (1) 8d NAILS.
- INTERIOR BRACED WALL: (NOTED AS "IBW" ON PLANS) ATTACH 1/2" GYPSUM BOARD (GB) ON EACH SIDE OF WALL WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 7" O.C. ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.
- INTERIOR BRACED WALL-WOOD STRUCTURAL PANEL: (NOTED AS "IBW-WSP" ON PLANS). ATTACH ONE SIDE WITH 1/8" WSP SHEATHING WITH 8d NAILS AT A 6"x12" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL PANEL EDGES. ATTACH GB OVER WSP AS REQUIRED. ATTACH OPPOSITE SIDE WITH 1/2" GB WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 7" O.C. ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.

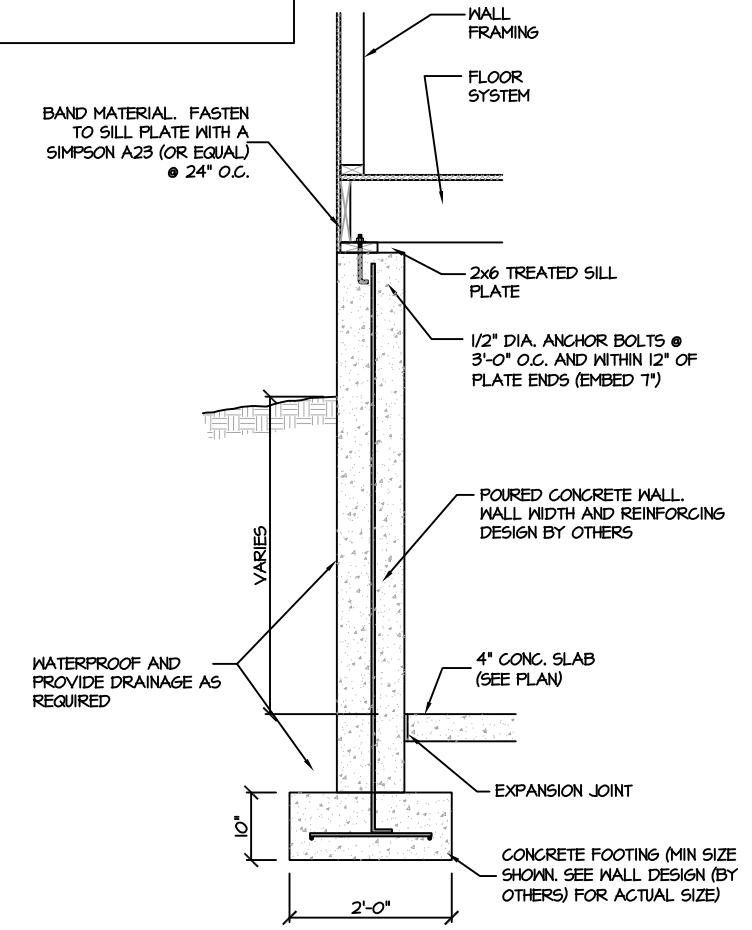


115-120 MPH 104A SD THICKENED SLAB (INTERIOR BEARING WALL)

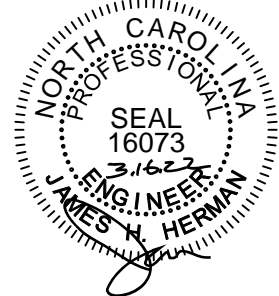


- "UBF" = UP TO 16" → 1/2" DIAM ANCHOR BOLT (EMBED 7") @ 6'-0" O.C. 16" WIDE BY 8" DEEP (MIN) CONC. FTG.
- "UBF" = 16" UP TO 24" → 1/2" DIAM ANCHOR BOLT (EMBED 7") @ 6'-0" O.C. REINFORCE WALL W/ #5 BAR @ 48" O.C. W/ 6" LEG INTO FTG. OR INSTALL 3/8" THREADED ROD @ 48" O.C. WITH WASHERS. 24" WIDE BY 10" DEEP CONC FTG REINFORCED W/ (3) #4 BAR OR (2) #5 BAR CONTINUOUS WITH #4 TIES @ 48" O.C.
- "UBF" = 24" UP TO 48" → 1/2" DIAM ANCHOR BOLT (EMBED 7") @ 6'-0" O.C. REINFORCE WALL W/ #5 BAR @ 24" O.C. W/ 6" LEG INTO FTG. 32" WIDE BY 12" DEEP CONC FTG REINFORCED W/ (4) #4 BAR OR (3) #5 BAR CONTINUOUS WITH #4 TIES @ 32" O.C.

115-120 MPH 107E SD STEM WALL SLAB @ GARAGE (SIDING OR EQUAL)



116A SD BASEMENT WALL SECTION- CONCRETE (SIDING OR EQUAL) SEE R404.1.1 AND TABLES R404.1.2 (1 - 4)



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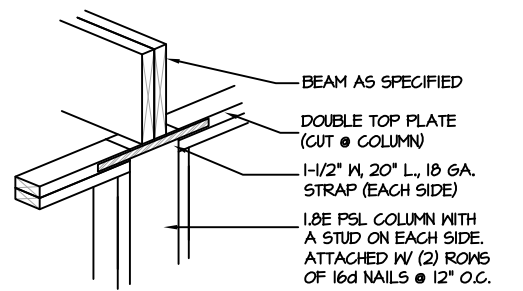
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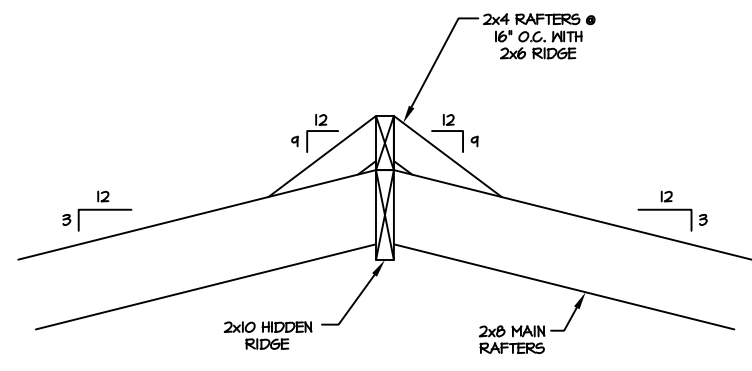
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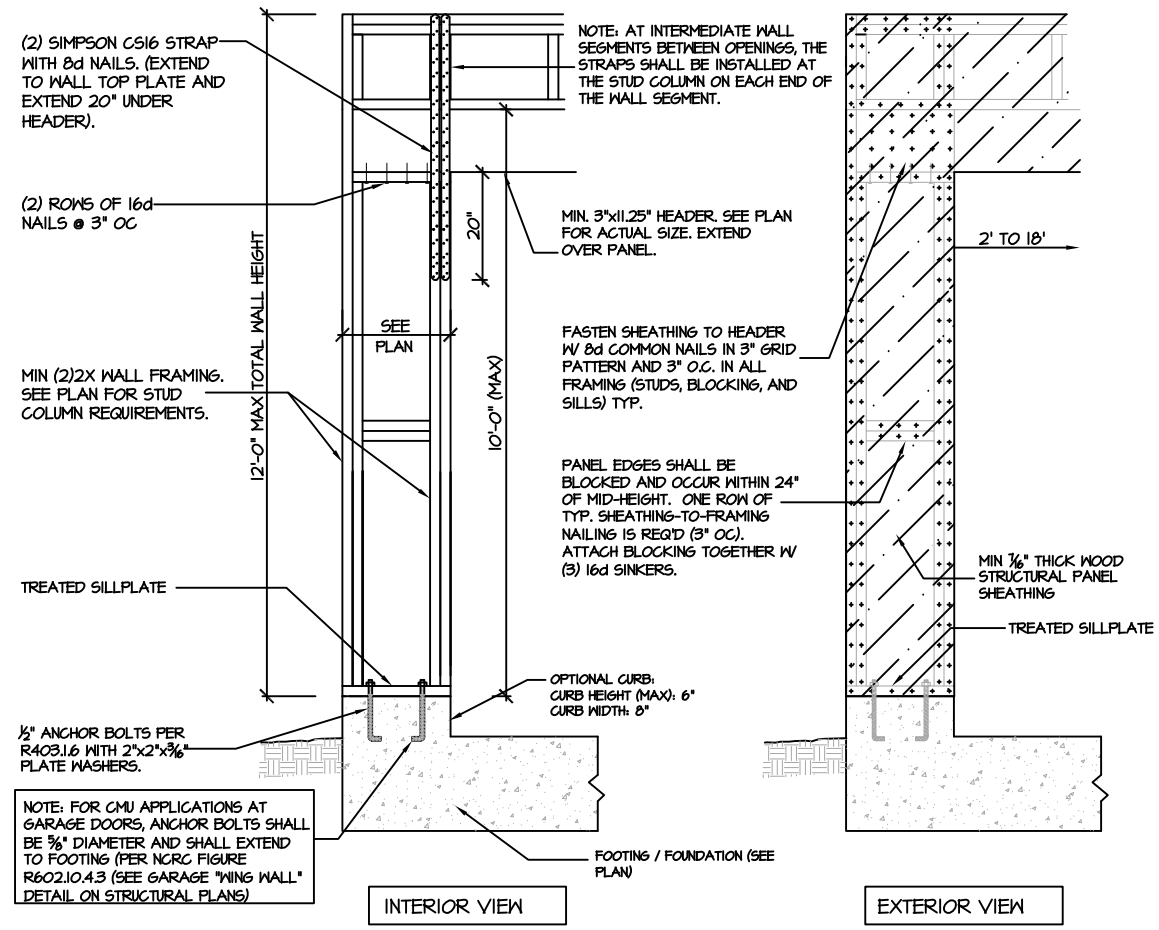
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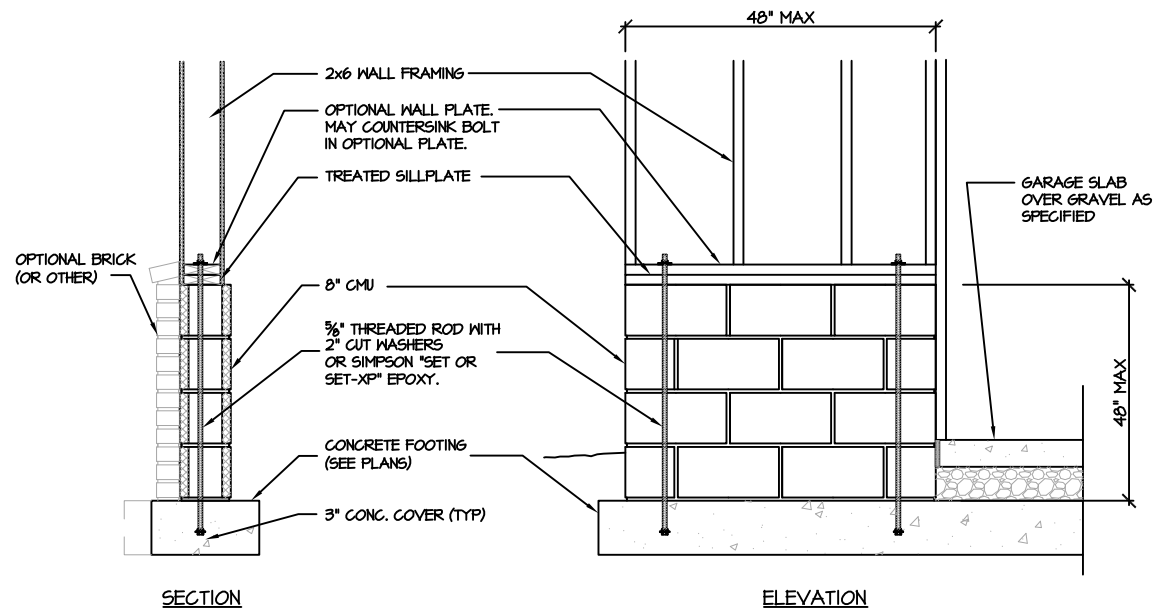
205B DIRECT BEAM BEARING
SD NTS



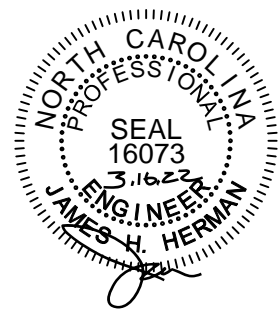
A RAFTER DETAIL
SD



905B CS-PF: CONTINUOUS PORTAL FRAME CONSTRUCTION
SD DETAIL AND APPLICATION BASED ON NCRF FIGURE R602.10.1 - PORTAL FRAME CONSTRUCTION



907 GARAGE 'WING WALL' REINFORCING
SD PER IRC FIGURE R602.10.4.3



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