



HEATED SF:
1ST FL: 1,000
2ND FL: 1,300

UNHEATED SF:
GARAGE: 268
FRONT PORCH (SMALL): 92
FRONT PORCH (LARGE): 130
BACK PATIO: 140

NOTE: EXISTING SITE TOPOGRAPHY TO REMAIN. GRADES NOTED REFER TO EXISTING AND PROPOSED GRADE.

*AVERAGE GRADE DETERMINED AS THE AVERAGE OF THE (4) BUILDING CORNER ELEVATIONS SINCE THESE REPRESENT THE HIGH AND LOW GRADES ALONG EACH ELEVATION, IN ACCORDANCE WITH TC-17-16.

478' - 5"
478' - 3"
478' - 1"
+478' - 11"
1911' - 8 1/4" / 4 = 477' - 11"

GENERAL NOTES

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

CRAWL SPACE

9. CRAWL SPACE SHALL BE SEALED AND CONDITIONED IN ACCORDANCE WITH NRC SECTION R409.
10. PROVIDE ACCESS TO CRAWL SPACE PER NRC SECTION R409.1.2.
11. 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 SLUMP PUMP AT EACH LOW SPOT. CRAWL SPACE DRAINS SHALL BE KEPT SEPARATE FROM ROOF GUTTER DRAIN SYSTEMS AND FOUNDATION PERIMETER DRAINS.

EGRESS

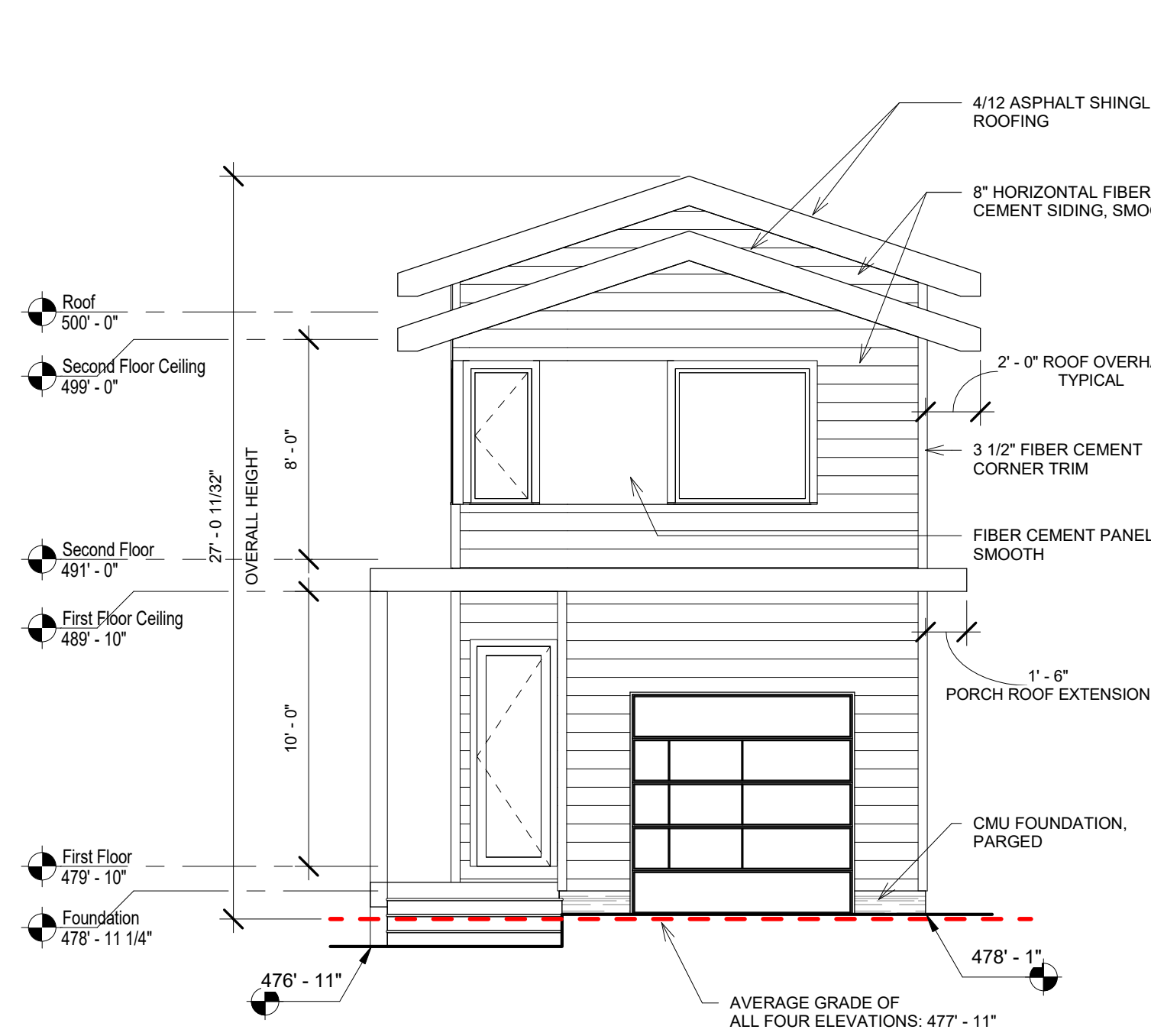
12. PROVIDE MINIMUM OF (1) WINDOW PER BEDROOM THAT MEETS EGRESS REQUIREMENTS PER NRC SECTION 310.1.
13. CONSULT WINDOW MANUFACTURER'S SPECIFICATIONS FOR EGRESS REQUIREMENTS, PRESSURE RATINGS, AND ROUGH OPENINGS.

STAIRWAYS

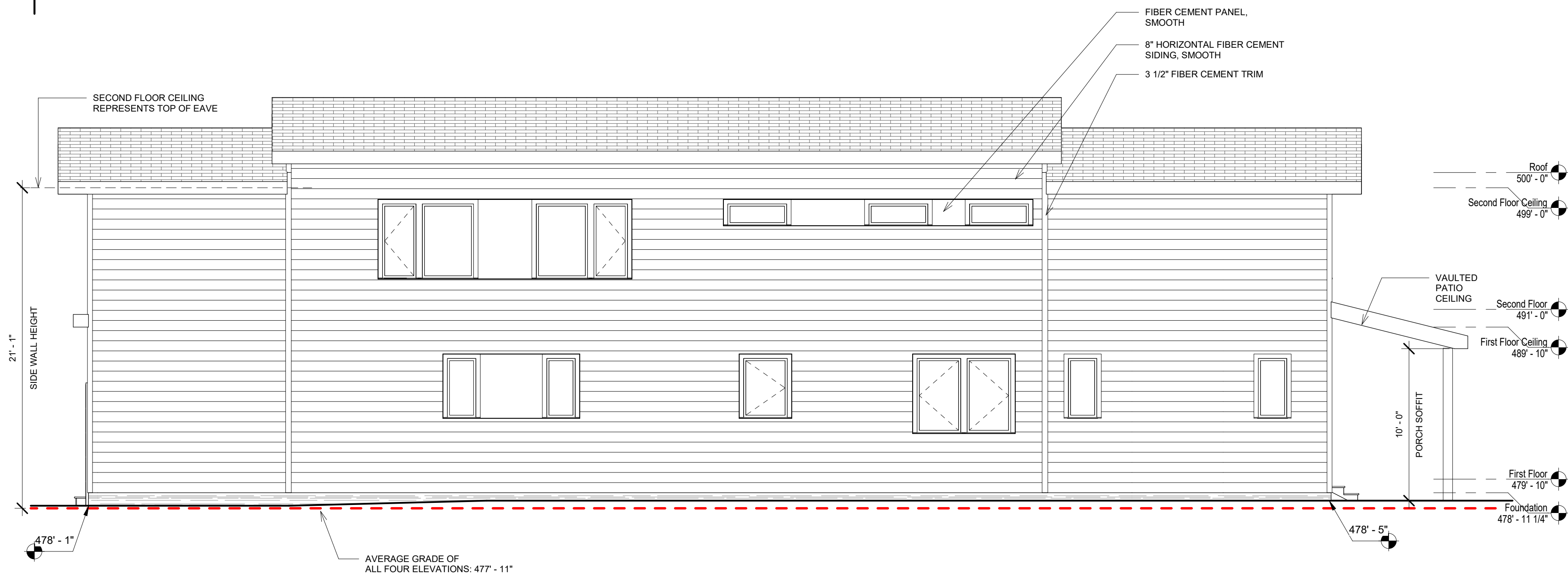
14. STAIRWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH NRC SECTION R311.7:
 - INTERIOR STAIR WIDTH: MINIMUM OF 36" ABOVE HANDRAIL. MINIMUM OF 31.5" BELOW HANDRAIL WHERE HANDRAIL IS INSTALLED ON ONE SIDE AND MINIMUM OF 27" WHEN HANDRAIL IS INSTALLED ON BOTH SIDES.
 - RISER HEIGHT: MAXIMUM RISER HEIGHT 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

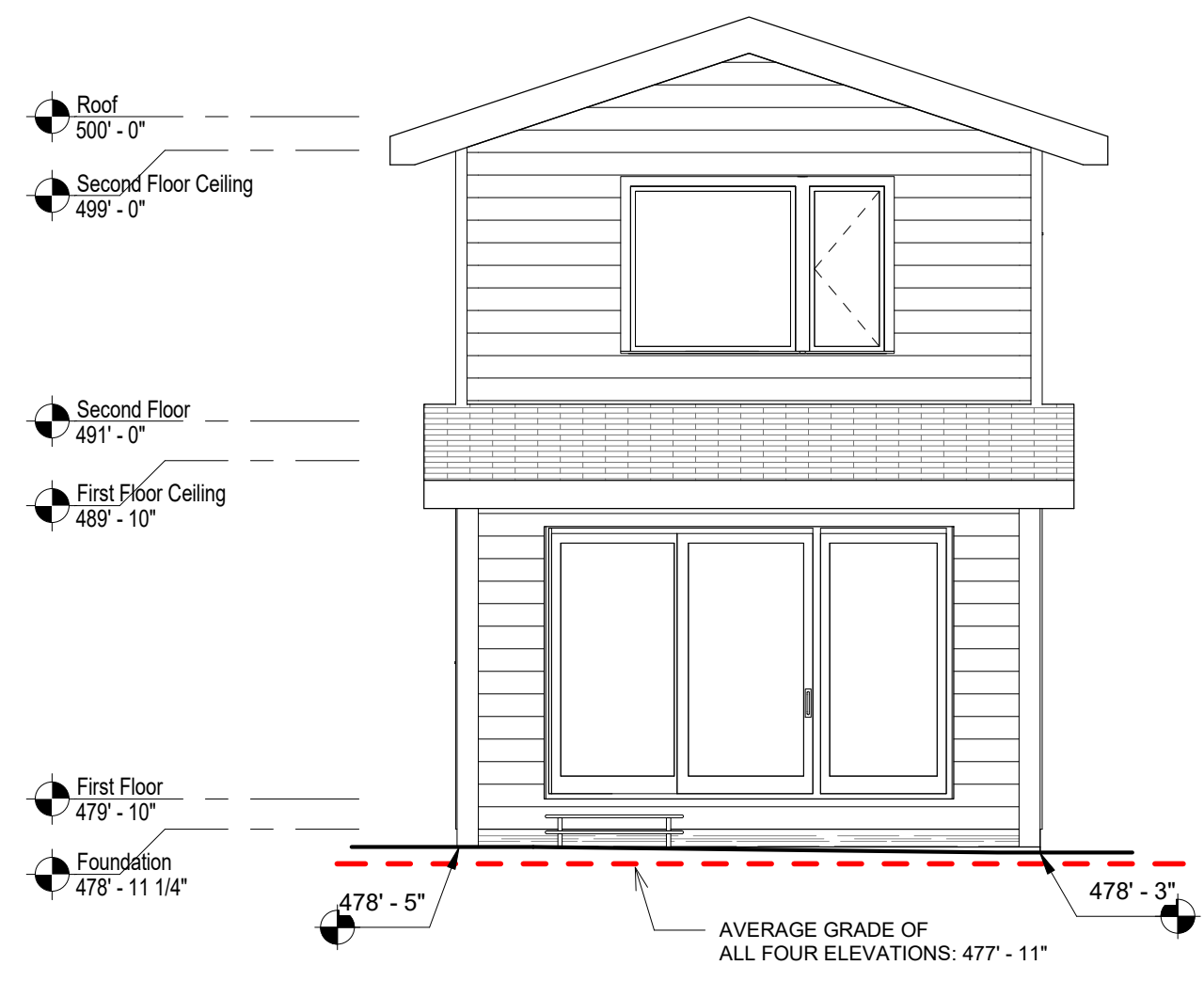
15. PROVIDE TEMPERED GLAZING IN HAZARDOUS LOCATIONS AS DEFINED IN NRC SECTION 308.4.



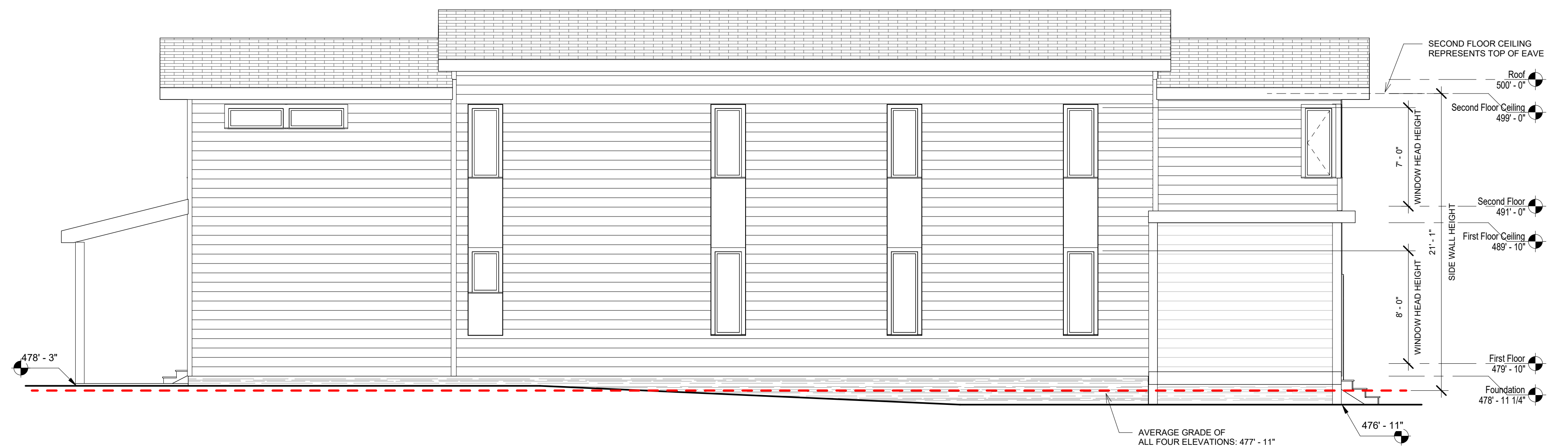
1 FRONT ELEVATION
3/16" = 1'-0"



2 RIGHT ELEVATION
3/16" = 1'-0"



3 REAR ELEVATION
3/16" = 1'-0"



4 LEFT ELEVATION
3/16" = 1'-0"

Construction Documents

07/02/19

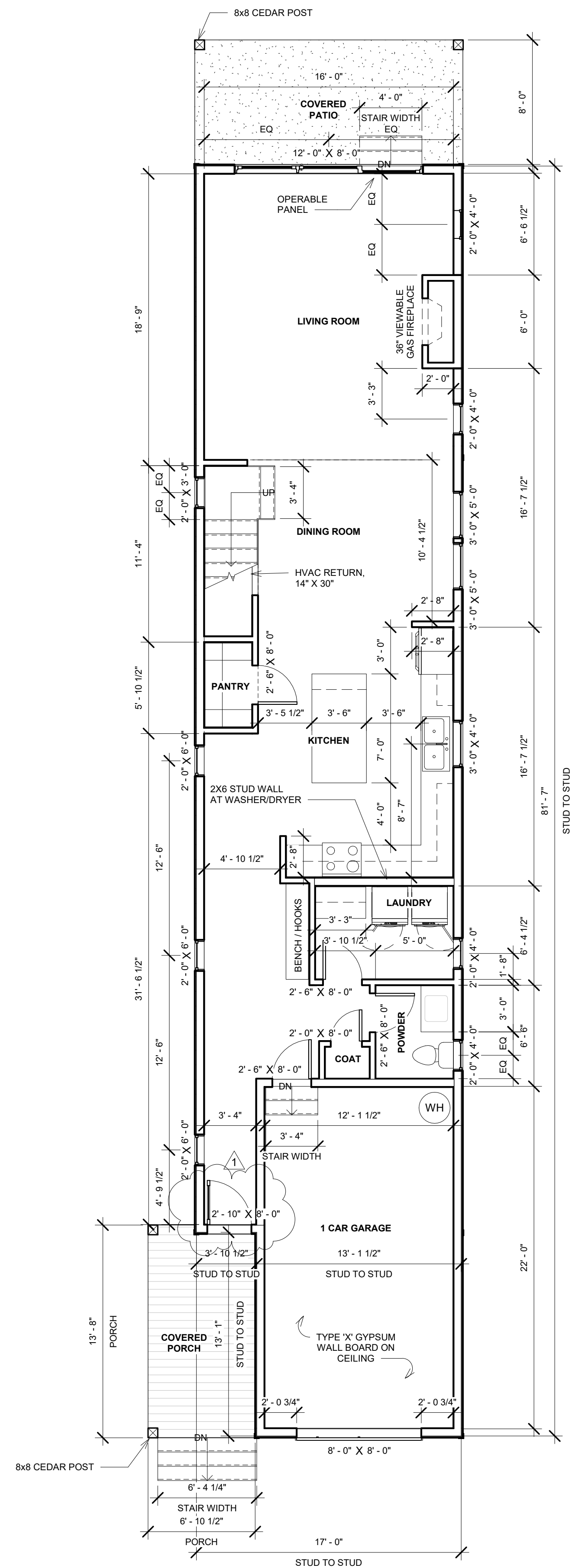
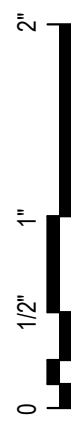
Revisions

NO	ISSUE	DATE
Sheet Information		
Date	07/02/19	
Job Number	18-010	
Drawn	LM	
Checked	N/A	
Approved	N/A	
Title		

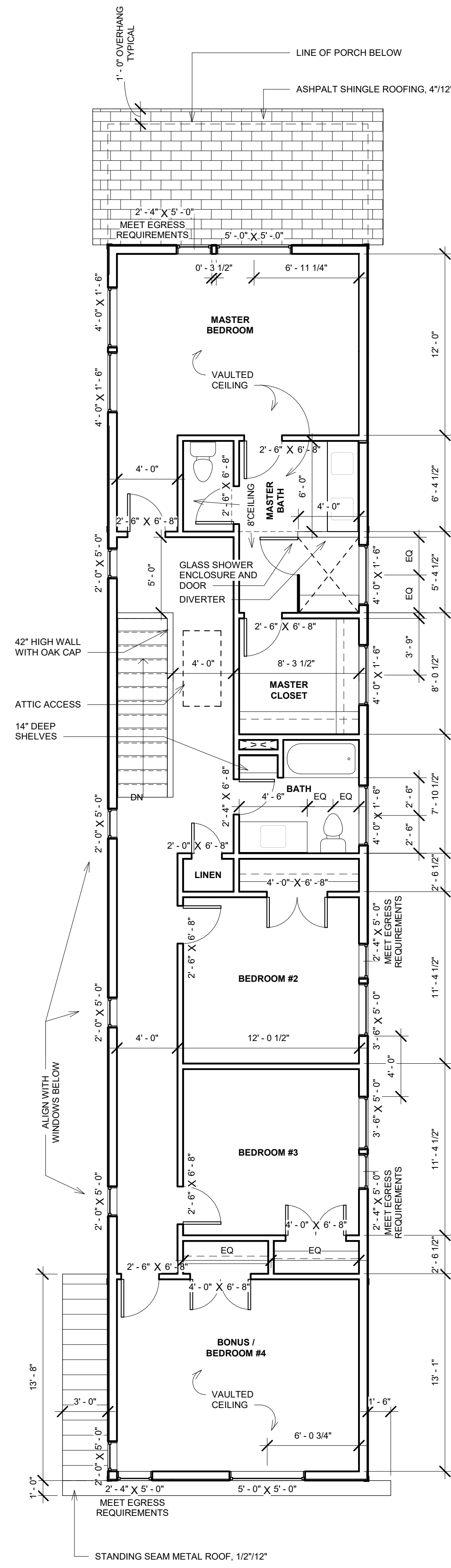
GENERAL NOTES
+ ELEVATIONS

Sheet

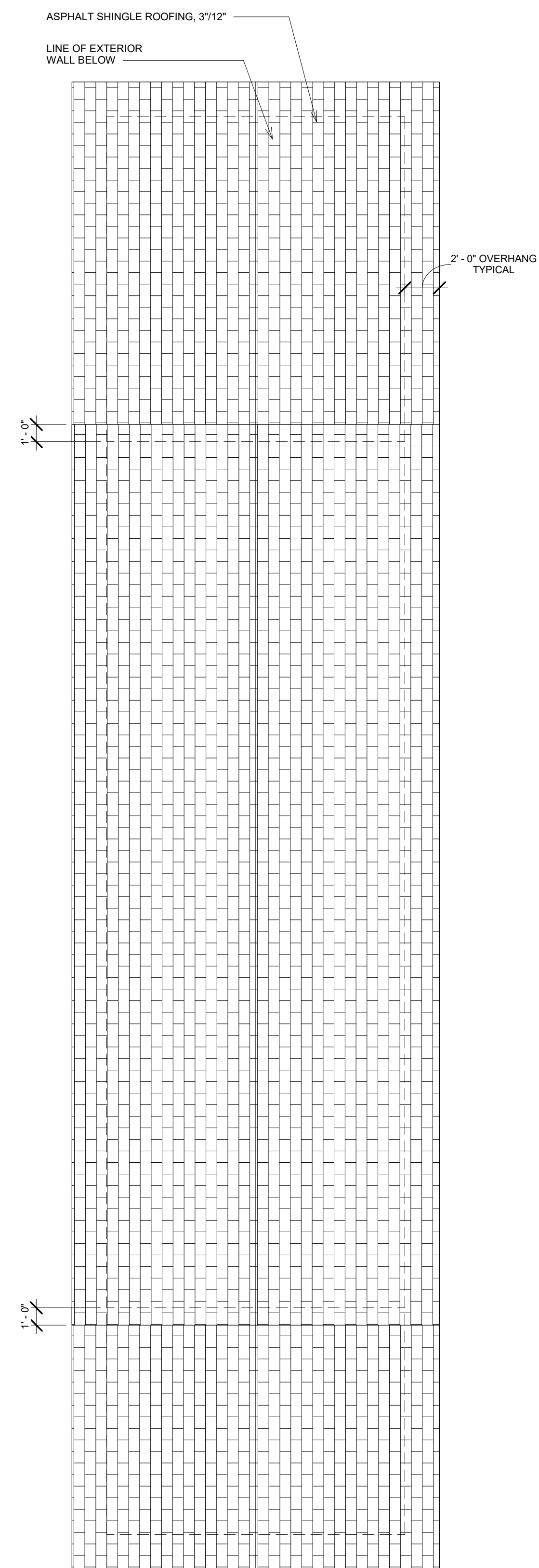
A0



1 FIRST FLOOR PLAN
3/16" = 1'-0"



2 SECOND FLOOR PLAN
3/16" = 1'-0"



3 ROOF PLAN
3/16" = 1'-0"

Construction Documents

07/02/19

Revisions

NO	Revision	ISSUE	DATE
1	Revision 1		08/08/18

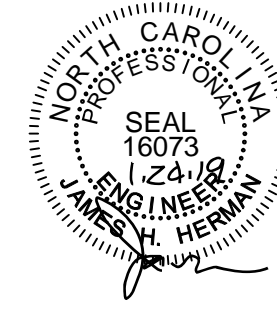
Sheet Information

Date: 07/02/19
Job Number: 18-010
Drawn: LM
Checked: N/A
Approved: Approver

Title

FLOOR PLANS

Sheet
A1

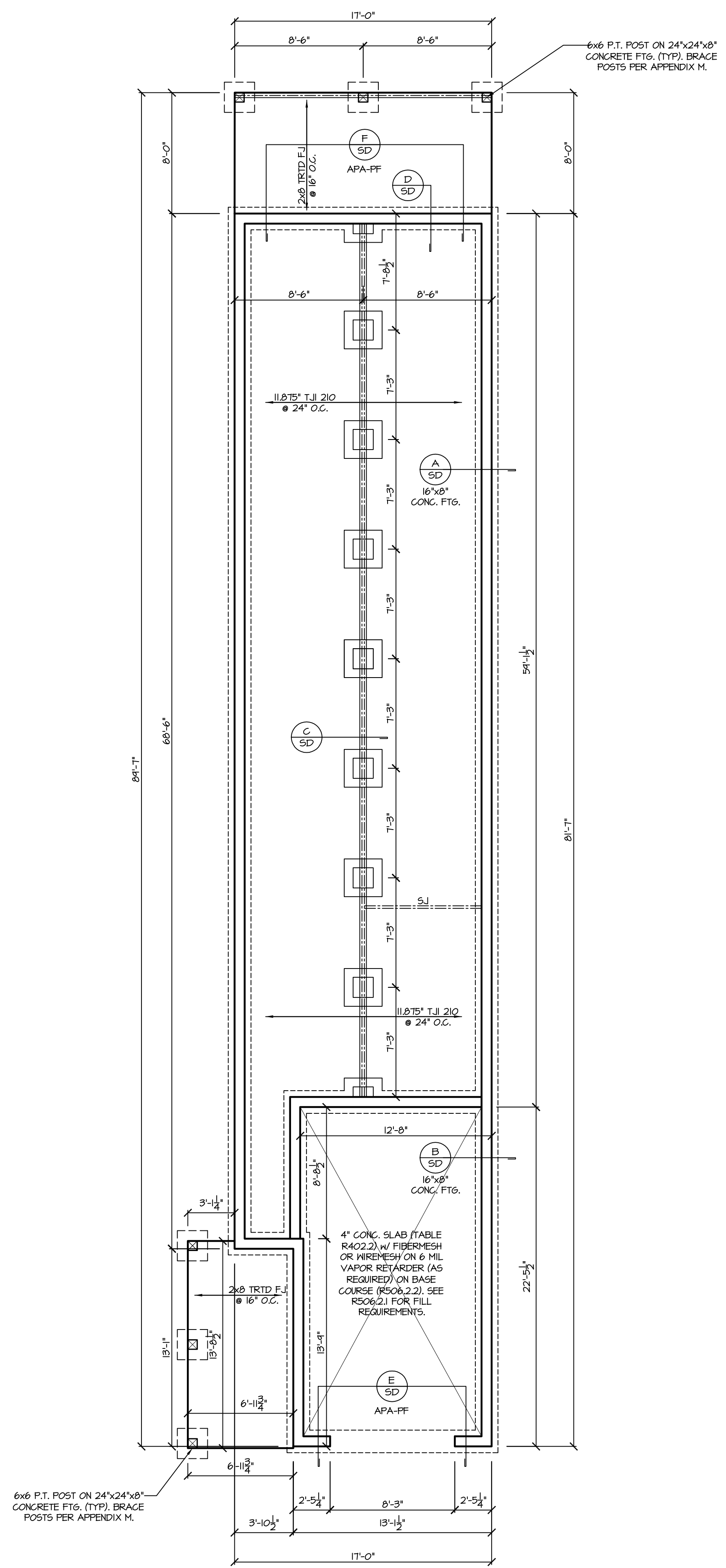


Engineers seal applies only to structural components on this document.
Seal does not include construction means, methods, techniques, sequences, procedures or safety precautions.
Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure to do so will void Southern Engineers' liability.
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.

Southern Engineers, P.A.
3716 Benson Drive, Raleigh, NC 27609
Phone: (919) 878-1617
License: C-1287
www.southernengineers.com

MILLER
ARCHITECTURAL
DESIGN

The Heather
A Squared, LLC



- FOUNDATION STRUCTURAL NOTES**
NC (2018 NRC); Wind: 115-120 mph - CRAWL
- (3) 2x10 SYP #2 OR SFP #2 GIRDER, TYPICAL UNO.
 - CONCRETE BLOCK PIER SIZE SHALL BE:

SIZE	HOLLOW	SOLID
8x8	UP TO 32'	UP TO 3'-0"
12x16	UP TO 48'	UP TO 4'-0"
16x16	UP TO 64'	UP TO 12'-0"
24x24	UP TO 96'	UP TO 12'-0"

 WITH 30" x 30" x 10' CONCRETE FOOTINGS, UNO.
 - WALL FOOTING AS FOLLOWS:
 DEPTH: 8" - UP TO 2 STORY
 10" - 3 STORY
 WIDTH:
 SIDING: 16" - UP TO 2 STORY
 20" - 3 STORY
 BRICK: 16" - 1 STORY
 20" - 2 STORY
 24" - 3 STORY
 - FOR FOUNDATION WALL HEIGHT AND BACKFILL REQUIREMENTS, REFER TO CODE TABLE R402.1 (1 THRU 4) NOTE. ASSUMED SOIL BEARING CAPACITY = 2000 PSF. CONTRACTOR MUST VERIFY SITE CONDITIONS AND CONTACT SOILS ENGINEER IF MARGINAL OR UNSTABLE SOILS ARE ENCOUNTERED.
 - (4) 2x10 SFP #2 OR SYP #2 GIRDER
 - (2) 1.75x4.25 LVL OR LSL GIRDER
 - (3) 1.75x4.25 LVL OR LSL GIRDER
 - DESIGNATES A SIGNIFICANT POINT LOAD TO HAVE SOLID BLOCKING TO PIER. SOLID BLOCK ALL BEAM BEARING POINTS NOTED TO HAVE THREE OR MORE STUDS TO END, TYPICAL.
 - ABBREVIATIONS:
 "S" = SINGLE JOIST
 "DJ" = DOUBLE JOIST
 "TJ" = TRIPLE JOIST
 - ADJUST SUBFLOOR THICKNESS OR JOIST SPACING AS REQ'D FOR FLOOR FINISH MATERIALS.

- WOOD "I" JOISTS**
(SHALL BE ONE OF THE FOLLOWING):
- TJ 210 BY I-LEVEL
 - LP1 20 PLUS BY LP
 - BC1 5000s I2 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.

FOUNDATION STRUCTURAL PLAN

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

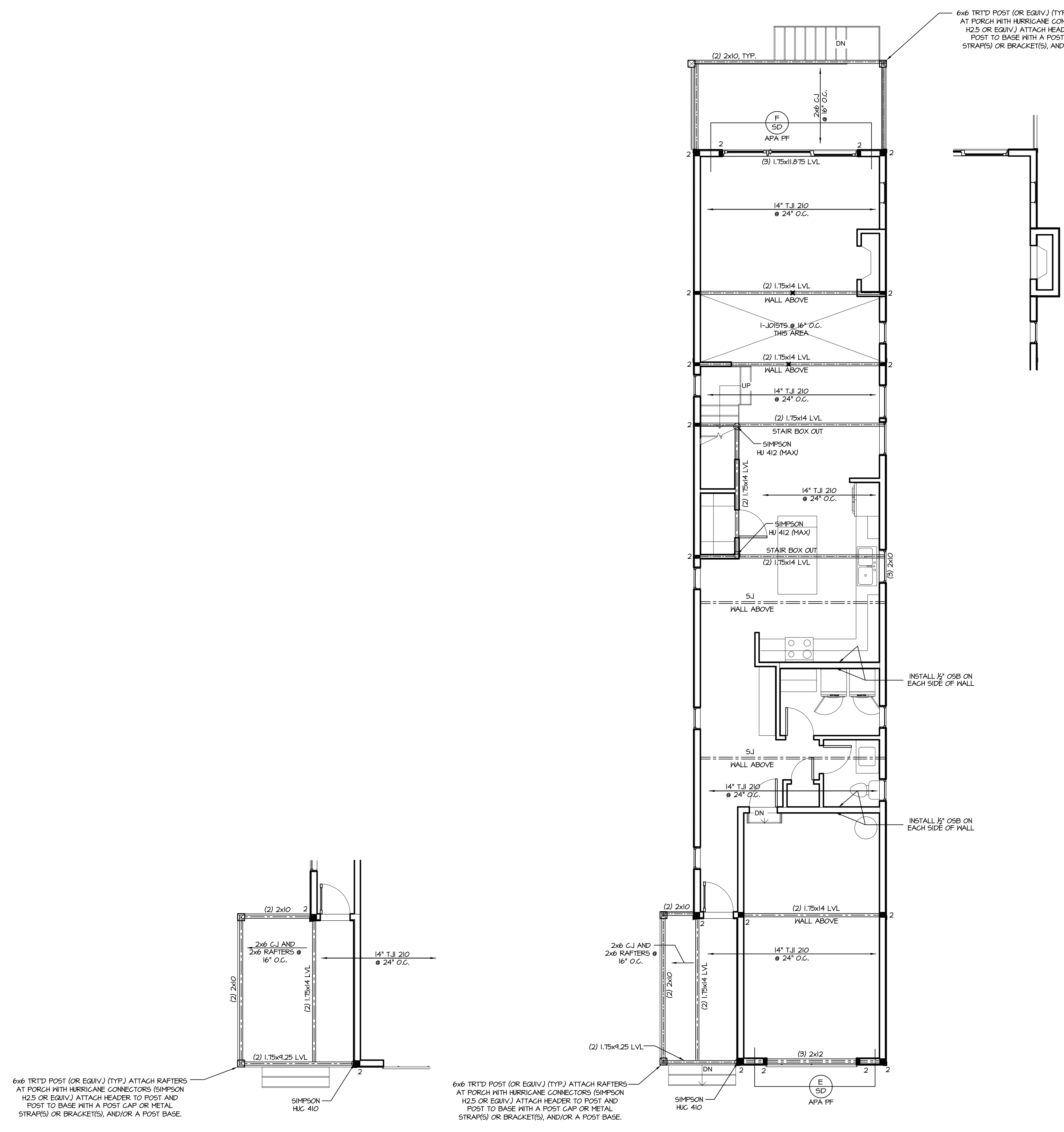


Engineers seal applies only to structural components on this document.
Seal does not include construction means, methods, techniques, sequences, procedures or safety precautions.
Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure to do so will void Southern Engineers' liability.
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.

Southern Engineers, P.A.
3716 Benson Drive, Raleigh, NC 27609
Phone: (919) 878-1617
License: C-1287
www.southernengineers.com

MILLER
ARCHITECTURAL
DESIGN

The Heather
A Squared, LLC



HEADER / BEAM NOTES

- ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN (2)2x6 (4" WALL) OR (2)2x10 (6" WALL) WITH (1) SUPPORT STUD AND (1) KING 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 FOR HEADERS SHALL BE ACCORDING TO ITEM "d" IN TABLE R602.3(5) OR AS BELOW:
 - UP TO 4' SPAN: (1) KING STUD E/E
 - OVER 4' AND UP TO 8' SPAN: (2) KING STUDS E/E
 - OVER 8' AND UP TO 10' SPAN: (3) KING STUDS E/E
 - OVER 10' SPAN: (4) KING STUDS E/E

FRAMING NOTES

- NC (2018 NCR/C), Wind: 115-120 mph
- BRACING METHOD AND TYPE: CONTINUOUSLY SHEATHED WSP, C5-WSP. NOTE THAT THE WALL BRACING AMOUNT PROVIDED ON THE PLANS (DETAILS AND SPECIFICATIONS) IS GREATER THAN THE AMOUNT OF WALL BRACING REQUIRED BY 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 STORES WITH WOOD STRUCTURAL PANEL SHEATHING (WSP) EXPOSURE B: 7/16" EXPOSURE C: 15/32". SHEATHING SHALL BE ATTACHED WITH 8d NAILS AT A 6"/12" 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 AND ATTACH BRACED WALLS PER CODE. WSP SHEATHING BETWEEN FLOORS SHALL BE SLICED ALONG CONTINUOUS BAND OR THE WSP SHEATHING MAY BE SLICED 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.
 - **REPTER 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/ (7) 8d NAILS.
 - INTERIOR BRACED WALL: (NOTED AS "IBX" 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 "IBX-WSP" ON PLANS) ATTACH ONE SIDE WITH 3/4" WSP SHEATHING WITH 8d NAILS AT A 6"/12" 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.

WOOD "I" JOISTS

- (SHALL BE ONE OF THE FOLLOWING):
- TJI 210 BY LEVEL
 - LP1 20 PLUS BY LP
 - BCI 5000s 18 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.

NOTE: I-JOISTS MAY BE SUBSTITUTED WITH FLOOR TRUSSES DESIGNED BY SUPPLIER

WHOLE HOUSE BRACING SUMMARY
TOTAL REQUIRED BRACING: 45
TOTAL PROVIDED BRACING: 320
(IN FEET)

FIRST FLOOR STRUCTURAL PLAN

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



PROJECT #
18-1896

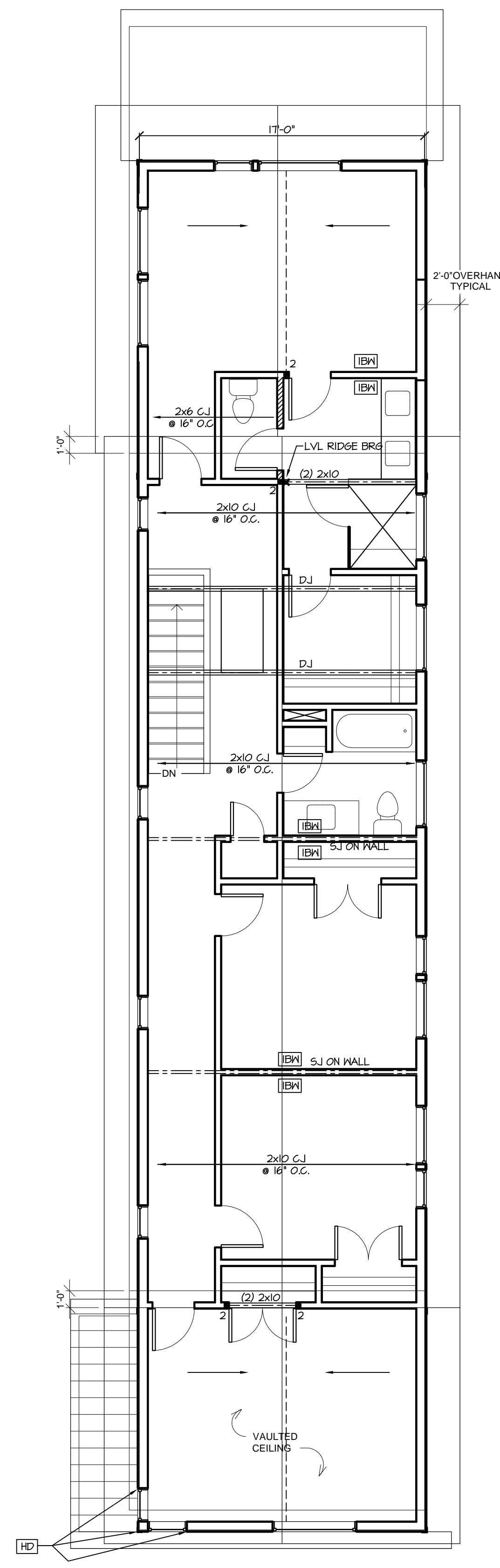
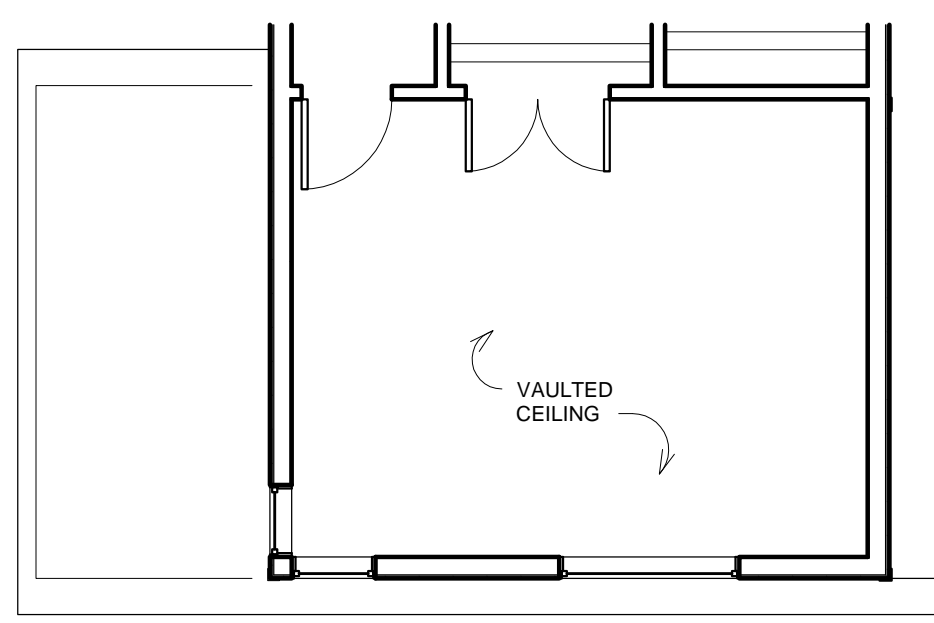
Engineers seal applies only to structural components on this document.
Seal does not include construction means, methods, techniques, sequences, procedures or safety precautions.
Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure to do so will void Southern Engineers' liability.
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.

Southern Engineers, P.A.
3716 Benson Drive, Raleigh, NC 27609
Phone: (919) 878-1617
License: C-1287
www.southernengineers.com

MILLER
ARCHITECTURAL
DESIGN

The Heather
A Squared, LLC

S-3



HEADER / BEAM NOTES

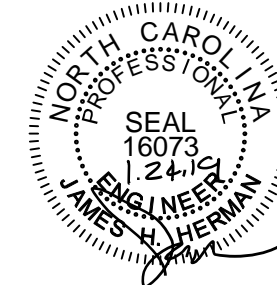
- ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN (2)2x8 (4" WALL) OR (3)2x10 (6" WALL) WITH (1) SUPPORT STUD AND (1) KING STUD, UNLESS NOTED OTHERWISE.
- THE NUMBER SHOWN AT BEAM AND HEADER SUPPORTS INDICATES THE NUMBER OF SUPPORT STUDS REQUIRED IN STUD POCKET OR COLUMN. THE NUMBER OF KING STUDS FOR HEADERS SHALL BE ACCORDING TO ITEM "4" IN TABLE R602.3(5) OR AS BELOW:
 - UP TO 4' SPAN: (1) KING STUD E/E
 - OVER 4' AND TO 8' SPAN: (2) KING STUDS E/E
 - OVER 8' AND UP TO 10' SPAN: (3) KING STUDS E/E
 - OVER 10' SPAN: (4) KING STUDS E/E

FRAMING NOTES

- NC (2018 NCR/C), Wind: 115-120 mph
- BRACING METHOD AND TYPE: CONTINUOUSLY SHEATHED WSP, C5-WSP. NOTE THAT THE WALL BRACING AMOUNT PROVIDED ON THE PLANS (DETAILS AND SPECIFICATIONS) IS GREATER THAN THE AMOUNT OF WALL BRACING REQUIRED BY 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 1: 1/8", EXPOSURE 2: 1/2"). SHEATHING SHALL BE ATTACHED WITH 8d NAILS AT A 6"/12" 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 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 "IBX" ON PLANS) ATTACH 1/2" GYPSUM BOARD (GB) ON EACH SIDE OF WALL WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 1' O.C. ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.
 - INTERIOR BRACED WALL-WOOD STRUCTURAL PANEL: (NOTED AS "IBRWSP" ON PLANS) ATTACH ONE SIDE WITH 1/4" WSP SHEATHING WITH 8d NAILS AT A 6"/12" 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 @ 1' O.C. ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.

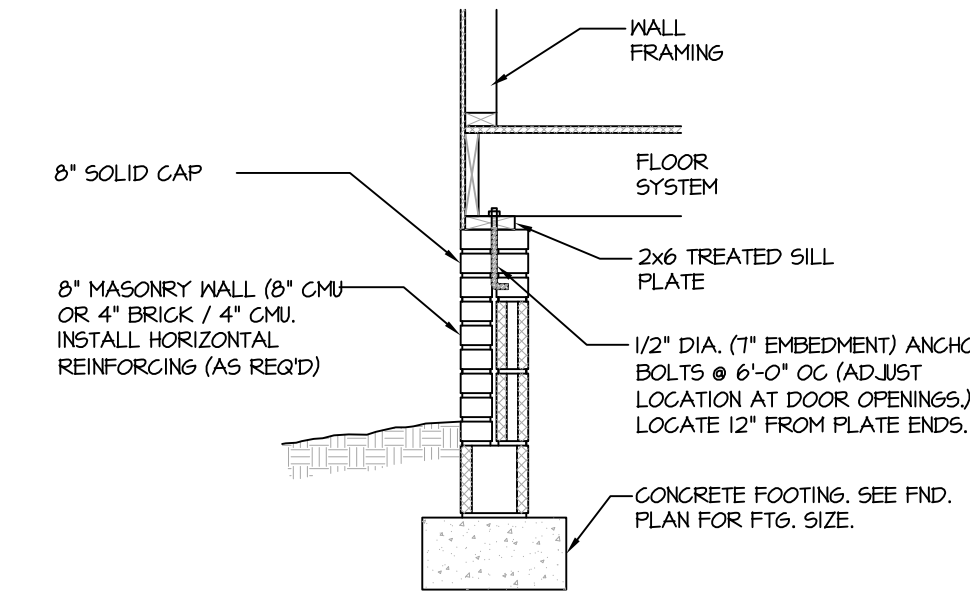
SECOND FLOOR STRUCTURAL PLAN

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

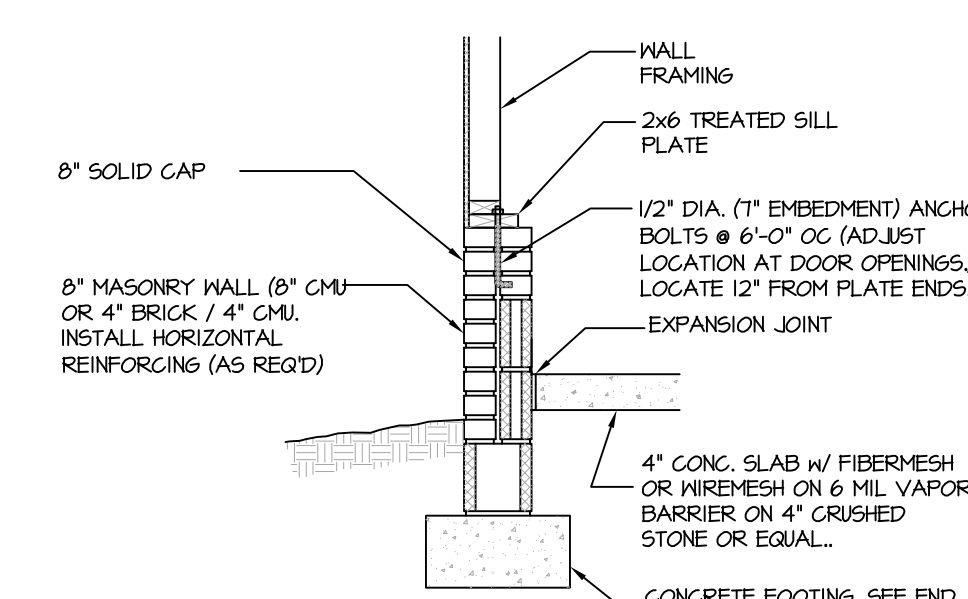


STRUCTURAL NOTES
NC (2018 NCRS), Wind: 115-120 mph

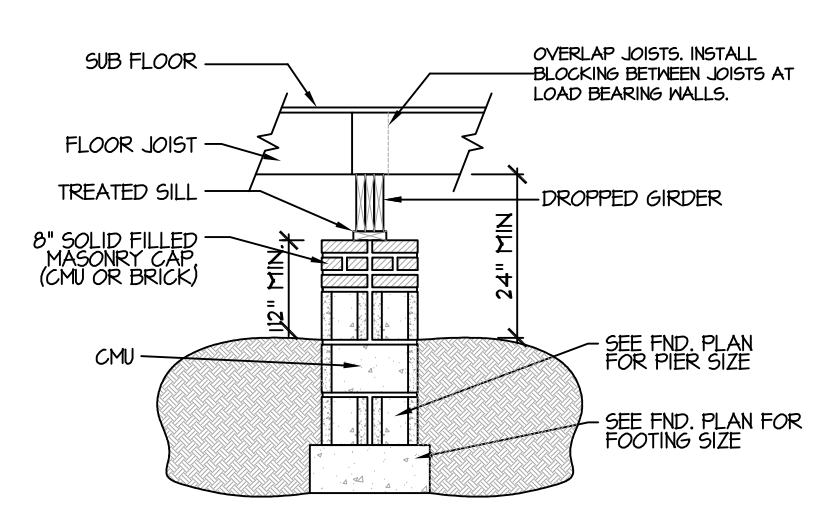
- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPs, VALLEYS, RIDGES, FLOORS, WALLS, BEAMS AND HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIER & GIRDER SYSTEM FOOTING, AND PILING SYSTEM. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM. ALL REQUIREMENTS FOR PROFESSIONAL CERTIFICATION SHALL BE PROVIDED BY THE APPROPRIATE PROFESSIONAL SOCIETY ENGINEERS, P.A. CERTIFIES ONLY THE STRUCTURAL COMPONENTS AS SPECIFICALLY STATED.
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF 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 (DC66) 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 (NO). AIR ENTRAINMENT PER TABLE 402.2. ALL CONCRETE SHALL BE PROPORTIONED, MIXED, HANDLED, SAMPLED, TESTED, AND PLACED IN ACCORDANCE WITH ACI STANDARDS. ALL SAMPLES FOR FINISHING 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 SAUCUT TO A DEPTH OF 1/2". (I.E. 4" CONCRETE SLABS SHALL HAVE 1/2" DEEP CONTROL JOINTS SAUCUT 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 (NO). ALL TREATED LUMBER SHALL BE SYP # 2. PLATE MATERIAL MAY BE SPF # 3 OR SYP #3 (F_c(perp) = 425 PSI - MIN).
- L.V.L. SHALL BE LAMINATED VENEER LUMBER: Fb=2600 PSI, Fv=285 PSI, E=1.4x10⁶ PSI.
 4.1. P.S.L. SHALL BE PARALLEL STRAND LUMBER: Fb=2100 PSI, Fv=290 PSI, E=2.0x10⁶ PSI.
 4.2. L.S.L. SHALL BE LAMINATED STRAND LUMBER: Fb=2250 PSI, Fv=400 PSI, E=1.55x10⁶ PSI. INSTALL ALL CONNECTIONS PER MANUFACTURER'S 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 MANUFACTURER'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. LAP ALL REBAR SPLICES 30 BAR DIAMETERS.
- REBAR SHALL BE DEFORMED STEEL, ASTM605, GRADE 60.
- FLITCH BEAMS SHALL BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTM A325) WITH WASHERS PLACED UNDER THE TIGHT 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"x3/8" STEEL ANGLE WITH 6" LEG VERTICAL FOR SPANS UP TO 4'-0". SEE PLANS FOR SPANS OVER 4'-0". SEE ALSO SECTION R103.1.3 LINTELS.



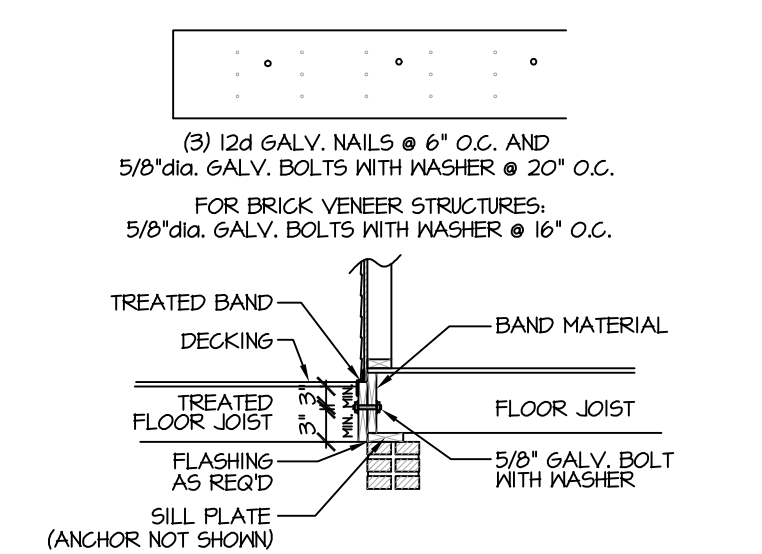
(A) CRAWL SPACE FOOTING
(SIDING OR EQUAL)



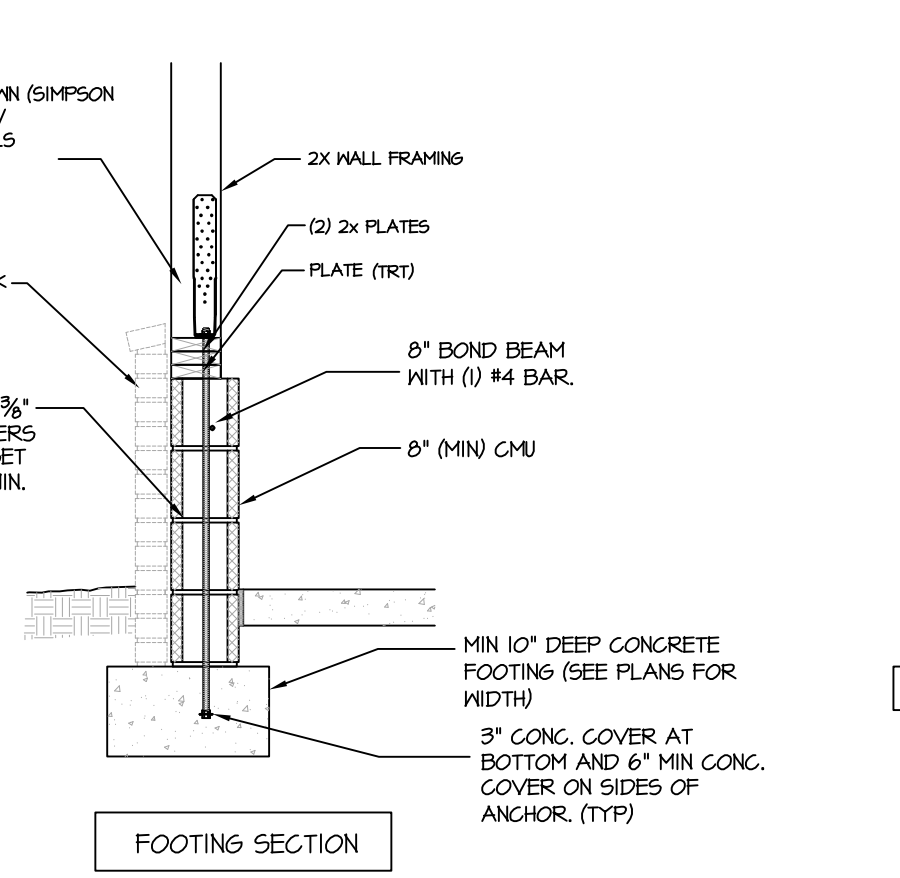
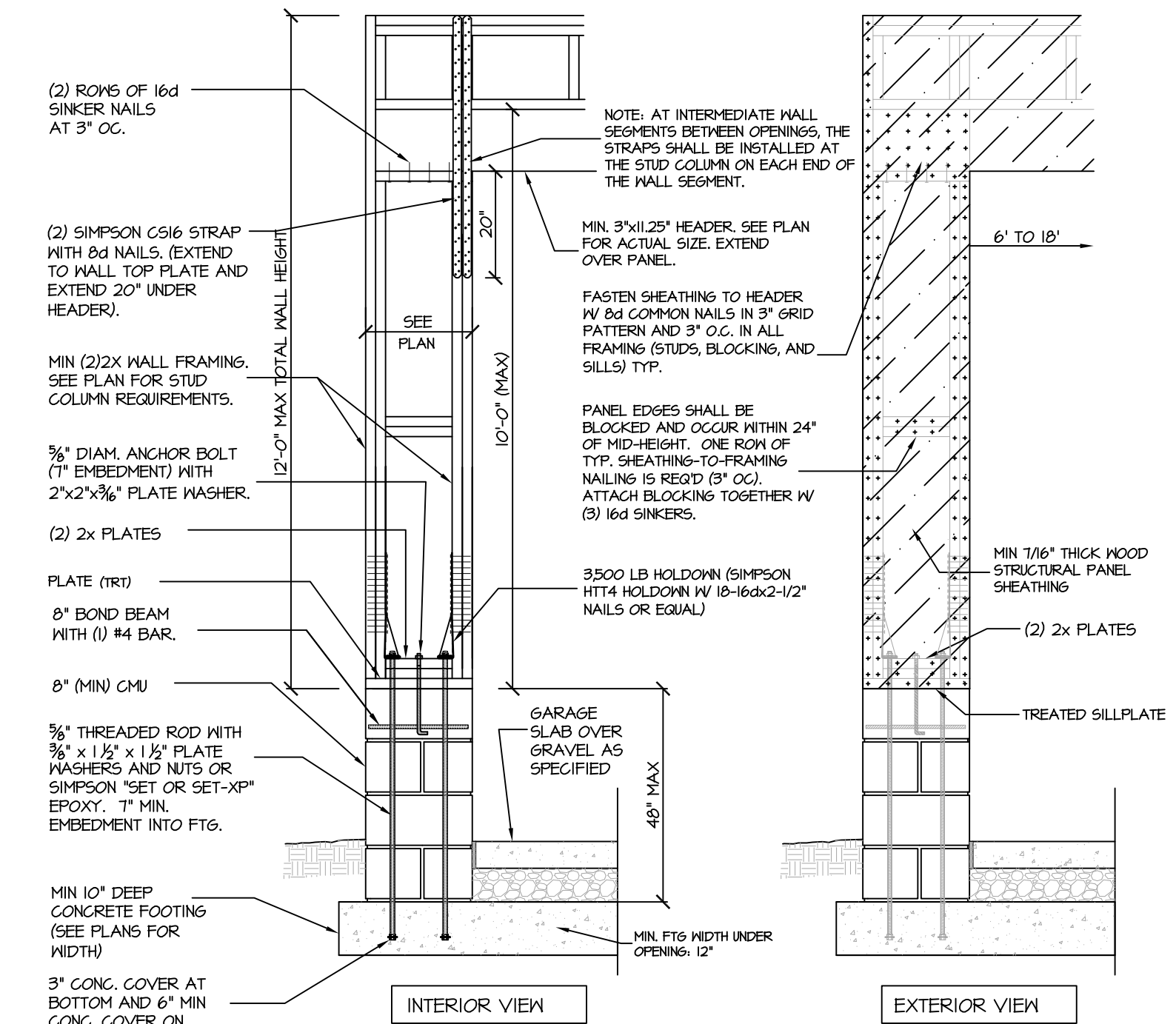
(B) GARAGE WALL FOOTING
(SIDING OR EQUAL)



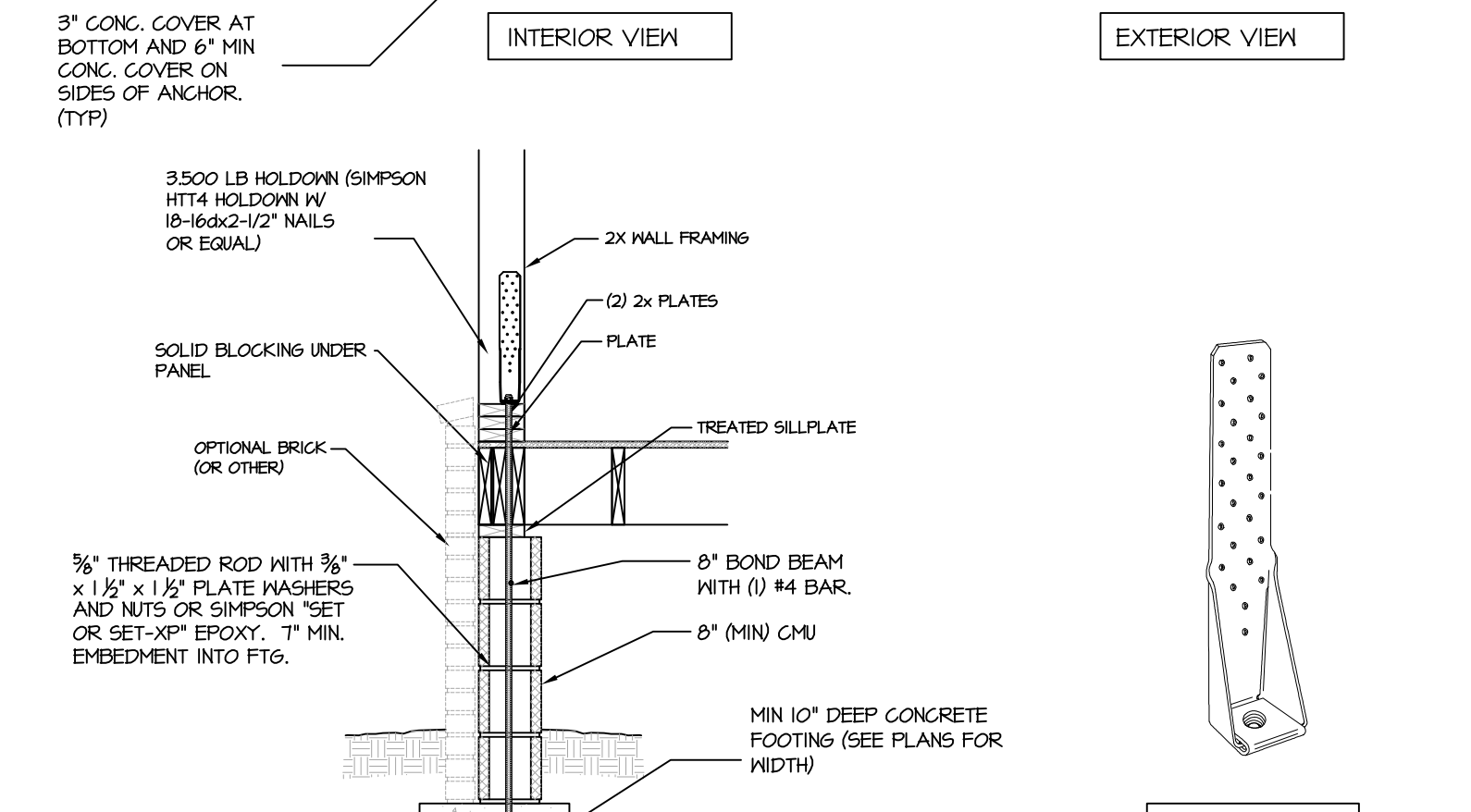
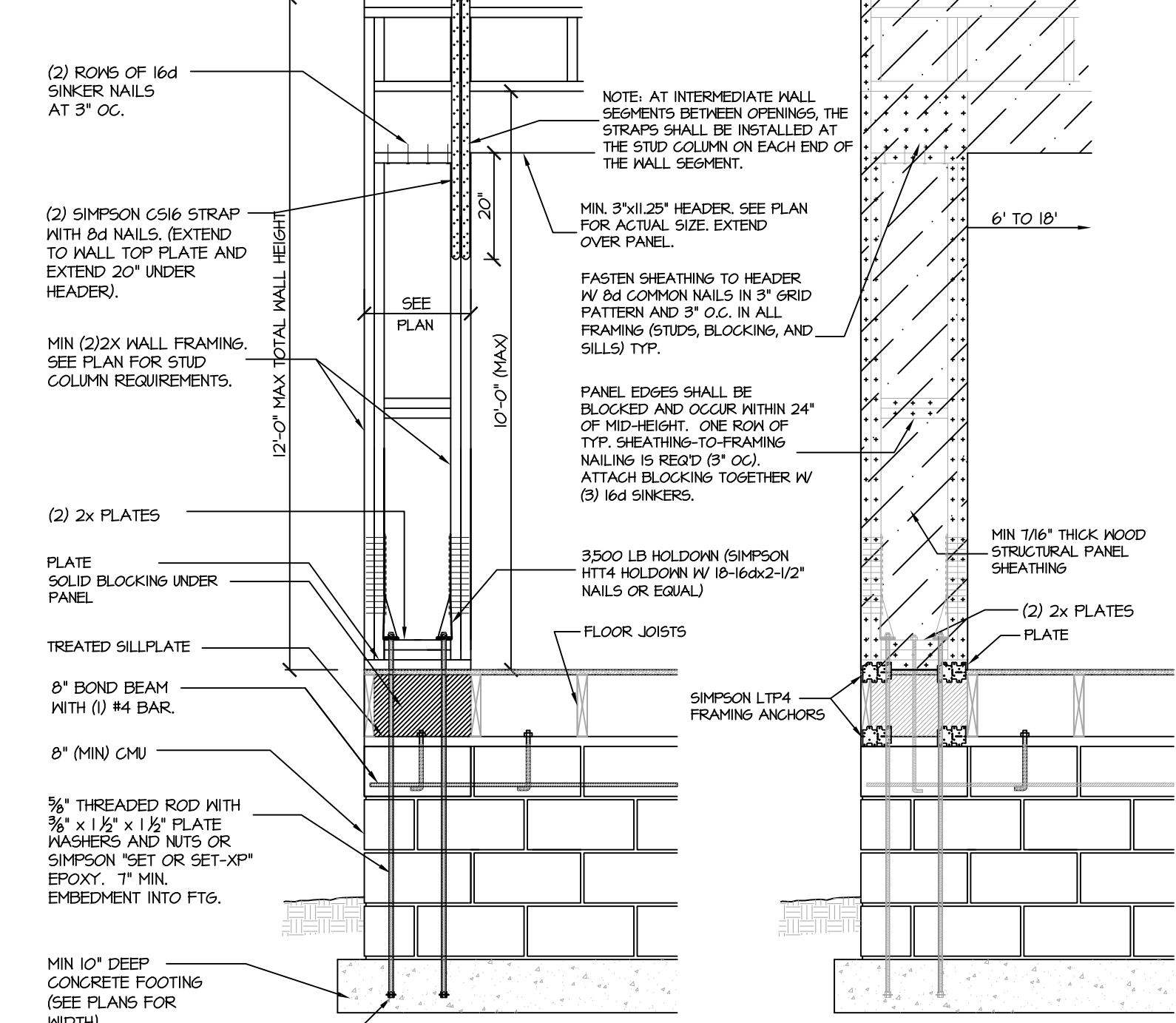
(C) DROPPED GIRDER
NTS



(D) DECK ATTACHMENT DETAIL
NTS



(E) APA PORTAL FRAME W/ HOLD-DOWNS
DETAIL AND APPLICATION BASED ON APA TT-100E WITH USE OF TABLE I FOR APA PORTAL FRAME WITH HOLD-DOWN CAPACITIES.



(F) APA PORTAL FRAME W/ HOLD-DOWNS
DETAIL AND APPLICATION BASED ON APA TT-100E WITH USE OF TABLE I FOR APA PORTAL FRAME WITH HOLD-DOWN CAPACITIES.

Engineers seal applies only to structural components on this document.
 Seal does not include construction means, methods, techniques, sequences or safety precautions.
 Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure to do so will void Southern Engineers liability.
 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.

Southern Engineers, P.A.
 3716 Benson Drive, Raleigh, NC 27609
 Phone: (919) 878-1617
 License: C-1287
 www.southernengineers.com

MILLER ARCHITECTURAL DESIGN

The Heather
 A Squared, LLC