FIBERGLASS SHINGLES (TYPICAL)

1 X 4 CORNER BOARD

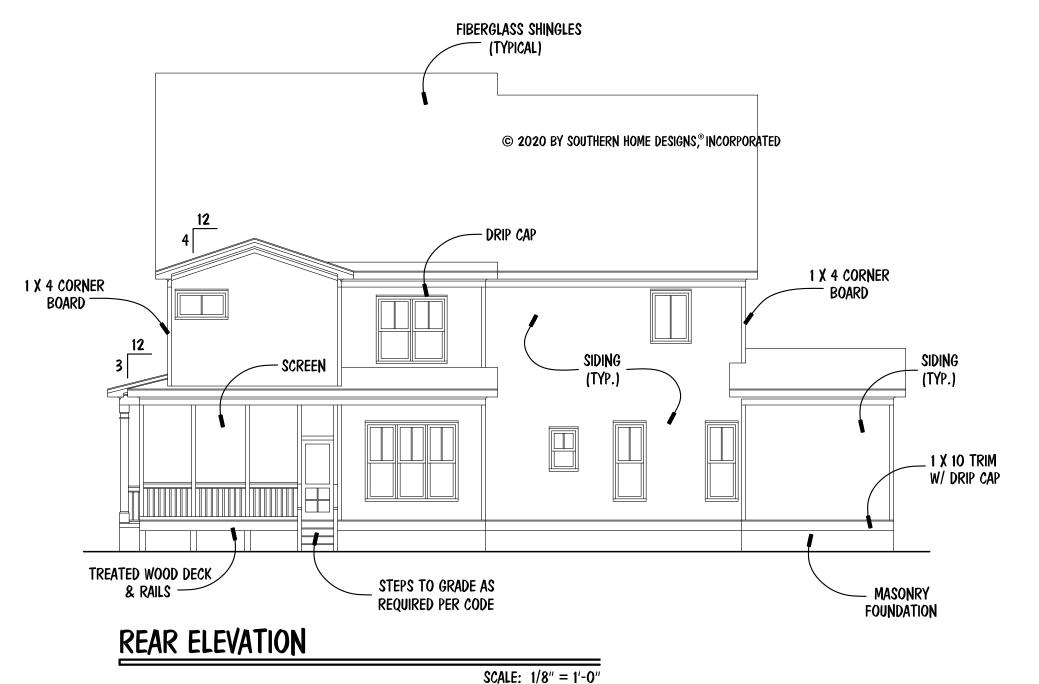
SIDING\_ (TYP.)

© 2020 BY SOUTHERN HOME DESIGNS," INCORPORATED

LEFT ELEVATION

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

MASONRY \_ FOUNDATION





Southern

THE MOREFIELD J

GEMSTONE (SPring Office: 919.355.6

ENGR. #:

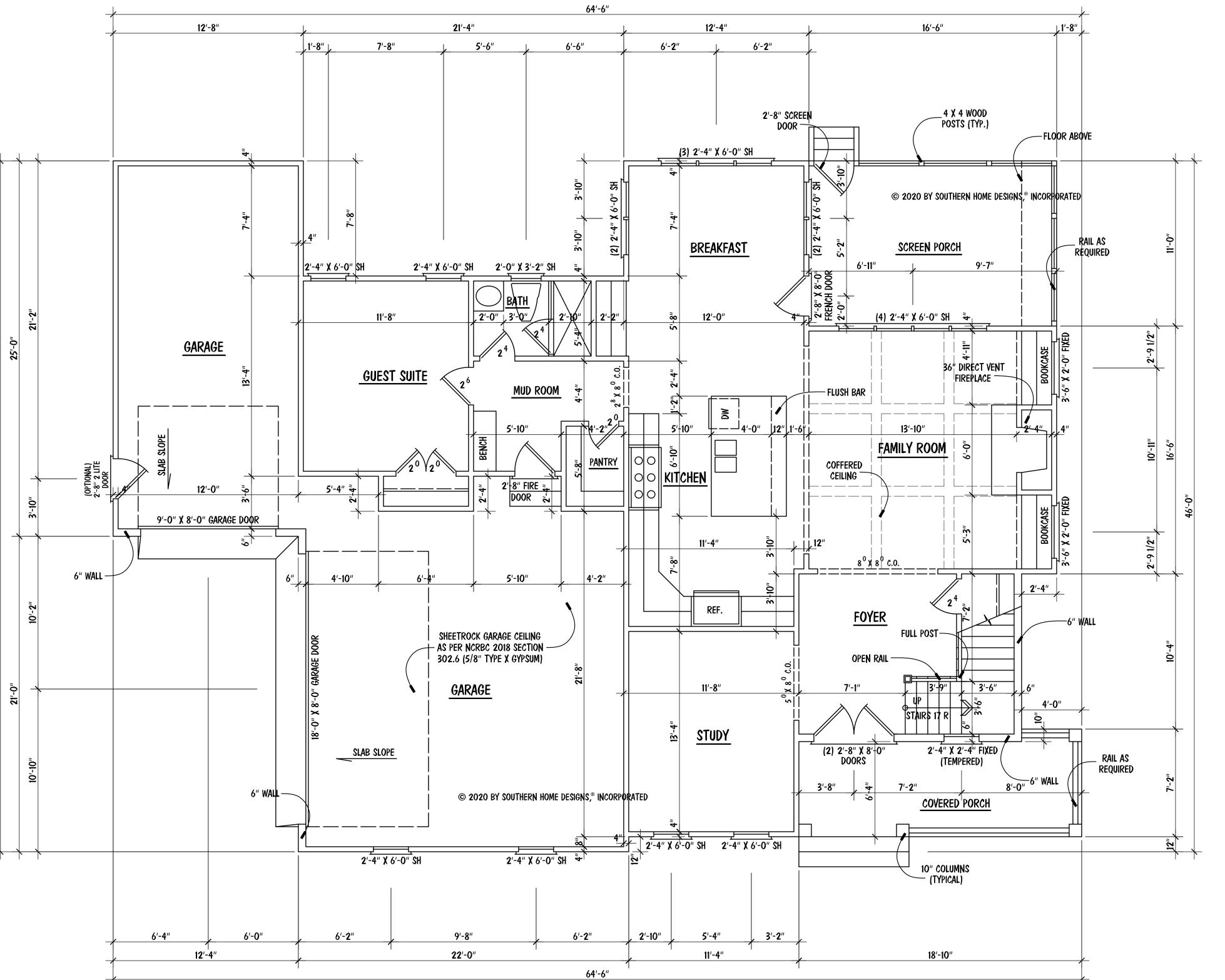
DATE: 01-08-20 SHEET: A-1

PLAN #: 20-010820-AM

© 2020 BY SOUTHERN HOME DESIGNS,® INCORPORATED

### NOTES:

- 10'-0" CEILING HGT. (TYP.) U.N.O.
- SET WINDOWS @ 7'-10" A.F.F. (TYP.) U.N.O
- SET WINDOW IN GUEST SUITE BATH @ 7'-4" A.F.F.
- STAIRS: UP 17 R (TYP.), 1ST FLOOR TO 2ND FLOOR



MISCELLANEOUS

GARAGE 828

FRONT PORCH 123

SCREEN PORCH 182

SQUARE FOOTAGE

FIRST FLOOR

SECOND FLOOR

THIRD FLOOR

TOTAL

# FIRST FLOOR PLAN

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

1295

1631

948

3874

DATE: 01-08-20

SHEET: A-2

PLAN #: 20-010820-AM

© 2020 BY SOUTHERN HOME DESIGNS,® INCORPORATED

DUTHERN HOME DESIGNS,® INCORPROTECTED UNDER FEDERAL COPYRIGHT CHASER OF THESE PLANS IS LICENSED THE CONSTRUCTION OF ONE AND ONLY OF ME. REPRODUCTION, MODIFICATION, OR ALLOID THE WOLTEN CONSENT OF SOME

THESE PLANS ARE PROTECTED IN THE ORIGINAL PURCHASER OF THE ORIGINAL PURCHASER OF THE ORIGINAL PURCHASER OF THE PLANS FOR THE CONSTRUCTION HAS SINGLE FAMILY HOME. REPRODURATED, IS RELEASED OF THESE PLANS WITHOUT THE

ALL DIMENSIONS AND SITE DIMENSIONS ARE TO BE VER BEFORE CONSTRUCTION BEGINS. ONCE CONSTRUCTION BEGINS, INCORPORATED, IS INCORPORATED, IS INCORPORATED, IS INCORPORATED.

I MOME LESIGNS

INCOMPCINATION

IN Street, Suite 101, Apex, NC 27502

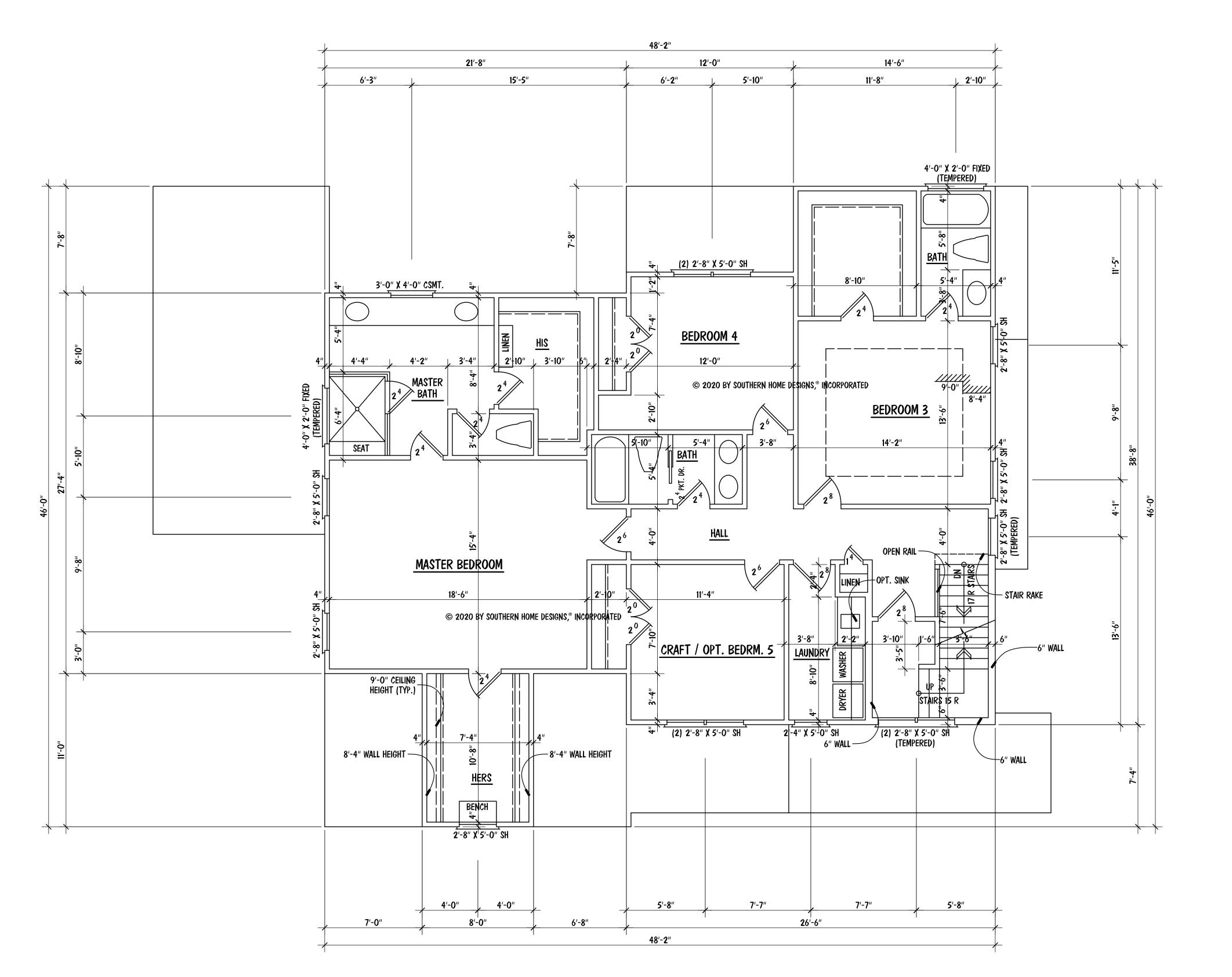
00 Office 919.380.7464 Fax

THE MOREFIELD IV 301 South Salem S 919.380.7400

OMES

NC 27540

- 9'-0" CEILING HGT. (TYP.) U.N.O.
- SET WINDOWS @ 7'-4" A.F.F. (TYP.) U.N.O
- SET WINDOWS IN MASTER BATH & BEDROOM 3 BATH @ 7'-10" A.F.F.
- STAIRS: DN 17 R (TYP.), 2ND FLOOR TO 1ST FLOOR
   STAIRS: UP 15 R (TYP.), 2ND FLOOR TO 3RD FLOOR



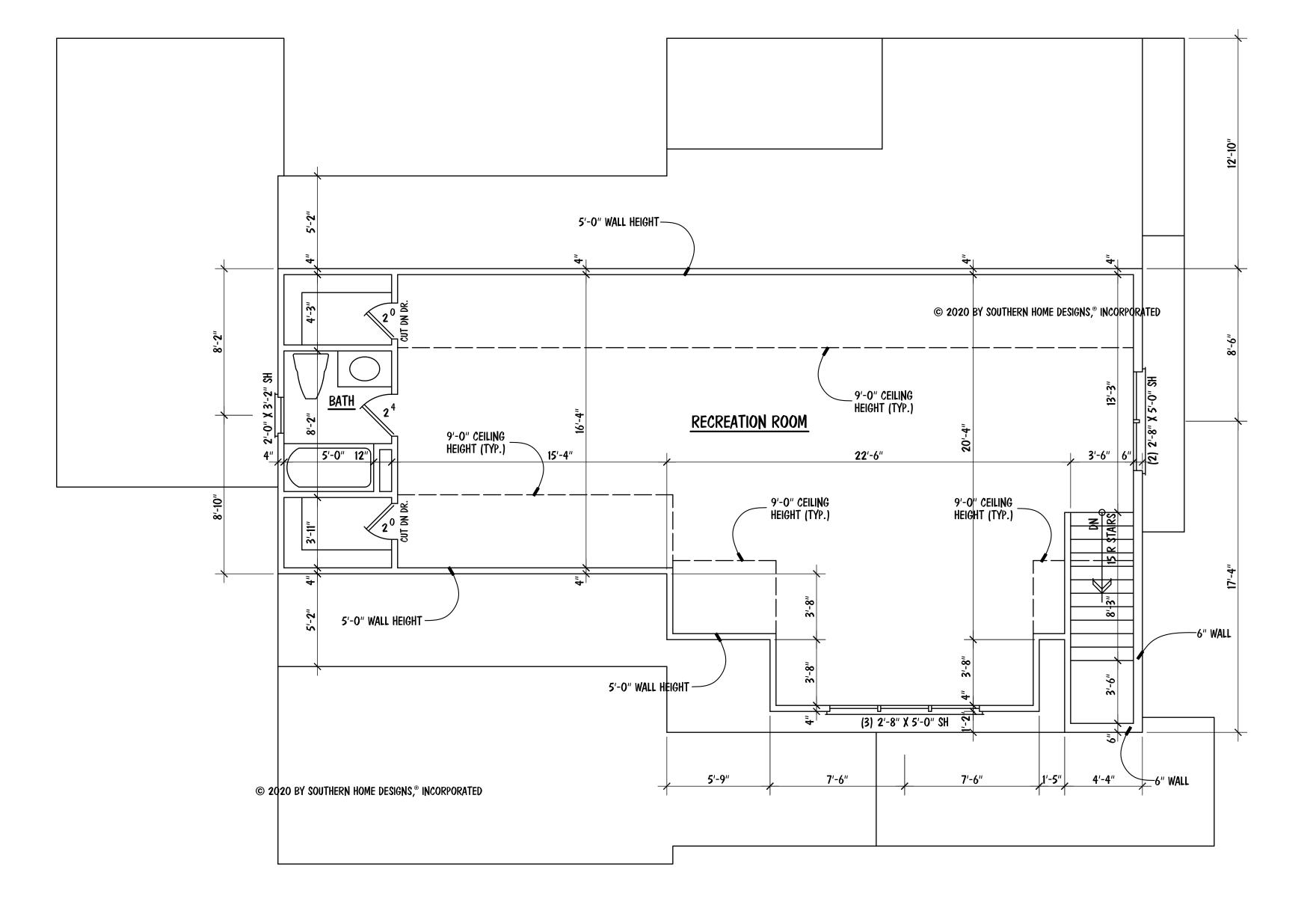
SECOND FLOOR PLAN

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

SHEET: A-3 PLAN #: 20-010820-AM

DATE: 01-08-20

© 2020 BY SOUTHERN HOME DESIGNS,® INCORPORATED



- 9'-0" CEILING HGT. (TYP.) U.N.O.
   SET WINDOWS @ 7'-4" A.F.F. (TYP.) U.N.O
- SET WINDOWS IN DORMER @ 7'-6" A.F.F.
   STAIRS: DN 15 R (TYP.), 3RD FLOOR TO 2ND FLOOR

NOTES:

Southern



ENGR. #:

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

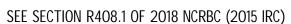
DATE: 01-08-20 SHEET: A-4

PLAN #: 20-010820-AM

THIRD FLOOR PLAN

### CRAWL SPACE VENTILATION

1295 SQ. FT. OF CRAWL AREA / 150 = 8.63 SQ. FT. OF FREE VENT AREA REQUIRED



FREE VENT AREA REQUIRED MAY BE REDUCED TO 1/1500 IF APPROVED VAPOR BARRIER IS INSTALLED OVER 100% OF CRAWL FLOOR AREA AND VENTS ARE INSTALLED TO PERMIT CROSS- VENTILATION OF CRAWL SPACE. SEE SECTION R408.1.1.



PROJECT #

20-1163-GL

# FOUNDATION STRUCTURAL NOTES

••	<u>SIZE</u>	<u>HOLLOW</u>	<u>SOLID</u>
••	8x16	UP TO 32"	UP TO 5'-0
••	12x16	UP TO 48"	UP TO 9'-0
••	16×16	UP TO 64"	UP TO 12'-0
••	24x24	UP TO 96"	

• WITH 30" x 30" x 10" CONCRETE FOOTING, UNO.

10" - 3 STORY

MIDTH: 16" - UP TO 2 STORY 20" - 3 STORY BRICK: 16" - I STORY 20" - 2 STORY 24" - 3 STORY

• FOR FOUNDATION WALL HEIGHT AND BACKFILL REQUIREMENTS, REFER TO CODE TABLE R404.I.I (I 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) 2xIO SPF #2 OR SYP #2 GIRDER

9. ADJUST SUBFLOOR THICKNESS OR JOIST SPACING

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

(3)2xIO SYP#2 OR SPF#2 GIRDER, TYPICAL UNO.

(2) CONCRETE BLOCK PIER SIZE SHALL BE:

WALL FOOTING AS FOLLOWS

DEPTH: 8" - UP TO 2 STORY

(2) 1.75x9.25 LVL OR LSL GIRDER

(6) (3) 1.75x9.25 LVL OR LSL GIRDER

7. "" 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 FND, TYPICAL.

8. ABBREVIATIONS:

• "SJ" = SINGLE JOIST

"DJ" = DOUBLE JOIST"TJ" = TRIPLE JOIST

AS REQ'D FOR FLOOR FINISH MATERIALS.

HOME SOUTHERN **DESIGNS** 

P.A. 27609

Southern E
3716 Benson Dri
Phone: (

The Morefield

FOUNDATION PLAN

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

GEMSTONE HOMES



### HEADER/BEAM & COLUMN NOTES

- I. ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2)2x10 (4" WALL) OR (3)2x10 (6" WALL) WITH (I) SUPPORT STUD, UNLESS NOTED OTHERWISE.
- 2. 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:
- •• UP TO 4' SPAN: (I) KING STUD
- OVER 4' UP TO 8' SPAN: (2) KING STUDS
- OVER 8' UP TO II' SPAN: (3) KING STUDS OVER II' SPAN: (4) KING STUDS

### MOOD "I" JOISTS

6x6 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.

—FLOOR ABOVE

-4"x4" POST

OR (3) STUDS

\_\_\_

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.

(2) 1.75x9.25 LVL

(2) 1.75x16 LVL-

BOTTOM FLUSH

COFFERED

CEILING <sup>-</sup>

/<del>(</del>2) 1.75x9.25 LVL

(3) 2x10

(2) 2x10 (TYP.)

(2) 2×10

(2) 1.75x14 LVL

17 R STAIRS

(2) 1.75x14 LVL (WALL ABOVE)

14" TJI 210

@ <u>24" O.C</u>

(3) 1.75×14 LVL W/ 2

ROWS EACH SIDE

SIMPSON SDW 22500

SCREWS @ 24" O.C.

@ 24" O.C.

14" TJI 210

@ 24" O.C.

<u>(2) 1.75x14 LVL</u>

@ 16" O.C.

(2) 1.75x14 LVL-

(906)

SD

CS-PF END

CONDITION

(3) 2xIO

@ 24" O.C

WALL ABOV

-(4) 2x6 BRG TO

HDR OR SET QUAD

LYL DIRECTLY ON

TOP OF HDR

SLAB SLOPE

SD /

14" TJI 230

@ 16" O.C.

(4) 1.75x18 LV4 W/ 2 ROWS EACH SIDE

SIMPSON SDW 22624 SCREWS @ 24" O.C.

WALL ABOVE (TOP FLUSH)

14" TJI 230

@ 16" O.C.

ADJUST GARAGE SLAB

ELEVATION AS NECESSARY

TO PROVIDE HEAD

CLEARANCE AT BEAM.

(2) 1.75×4.25 LVL

- (SHALL BE ONE OF THE FOLLOWING):
- 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.

### FRAMING NOTES

I. 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 THE CODE. SEE NOTES BELOW FOR DETAILS AND SPECIFICATIONS FOR WALL BRACING AND WALL

- \*\*UPPER FLOORS: ATTACH BASE OF KING STUD WITH A SIMPSON CS22 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.
- 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.
- 6. INTERIOR BRACED WALL-WOOD STRUCTURAL PANEL: (NOTED AS "IBW-WSP" ON PLANS). ATTACH ONE SIDE WITH 1/6" 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 I/2" GB WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 7" OC ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.

MHOLE HOUSE (IN FEET)

# TJI 2IO BY I-LEVEL

- LPI 20 PLUS BY LP
- BCI 5000s I.8 BY BC
- HANGERS FOR I-JOISTS ARE THE RESPONSIBILITY OF THE I-JOIST SUPPLIER.

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

- FRAMING.
- 2. 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"/12" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL PANEL EDGES.
- 3. 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.
- 4. "HD" = HOLDOWN: 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.)
- 5. INTERIOR BRACED WALL: (NOTED AS "IBW" ON PLANS) ATTACH I/2"

BRACING SUMMARY TOTAL REQUIRED BRACING: 100 TOTAL PROVIDED BRACING: 178

# FIRST FLOOR STR. PLAN

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

-NS OUTHERN SIG DE S

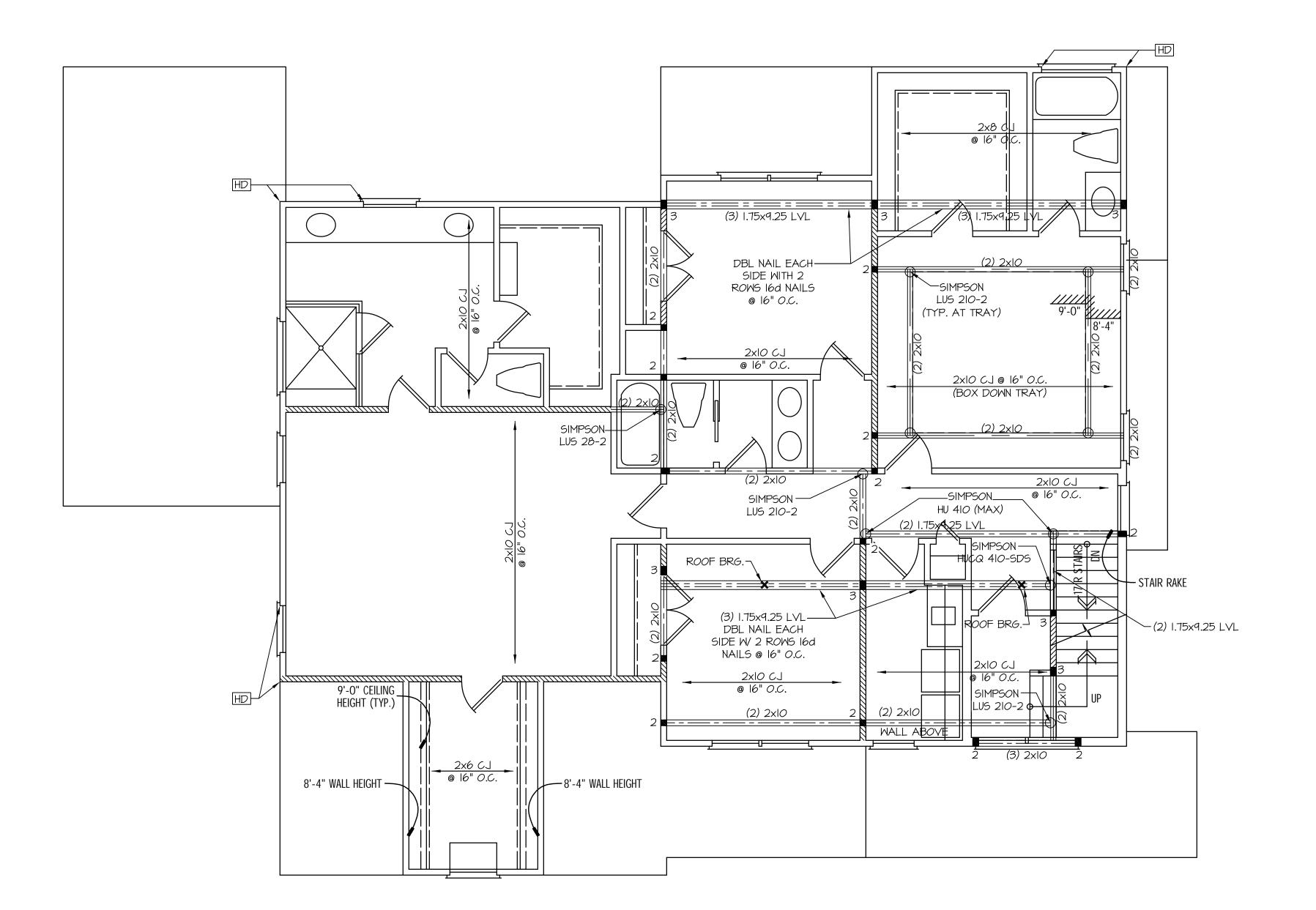
P.A. 27609

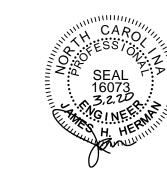
Southern 3716 Benson D

PROJECT #

20-1163-GL

GEMSTONE HOMES Morefield The





### HEADER/BEAM & COLUMN NOTES

- I. ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2)2x10 (4" WALL) OR (3)2x10 (6" WALL) WITH (I) SUPPORT STUD, UNLESS NOTED OTHERWISE.
- 2. 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:

- OVER 8' UP TO 11' SPAN: (3) KING STUDS

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 THE CODE. SEE NOTES BELOW FOR DETAILS AND SPECIFICATIONS FOR WALL BRACING AND WALL
- 2. EXTERIOR WALL SHEATHING: WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH WOOD STRUCTURAL PANEL SHEATHING (MSP) (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.
- 3. WSP SHEATHING SHALL EXTEND TO THE UPPERMOST DOUBLE BEARING PLATE. BLOCK AT ROOF AND ATTACH BRACED WALLS PER CODE. MSP 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.
- \*\*GROUND/FIRST FLOOR: USE "HD HOLD-DOWN DETAIL" ON SD SHEET (OR EQUIV.)
- \*\*UPPER FLOORS: ATTACH BASE OF KING STUD WITH A SIMPSON CS22 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.
- 5. INTERIOR BRACED WALL: (NOTED AS "IBW" ON PLANS) ATTACH I/2" GYPSUM BOARD (GB) ON EACH SIDE OF WALL WITH A MIN. OF 5d
- 6. INTERIOR BRACED WALL-WOOD STRUCTURAL PANEL: (NOTED AS "IBW-WSP" ON PLANS). ATTACH ONE SIDE WITH 1/6" 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 I/2" GB WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 7" OC ALONG THE EDGES AND AT INTERMEDIATE

- - UP TO 4' SPAN: (I) KING STUD
  - OVER 4' UP TO 8' SPAN: (2) KING STUDS
- •• OVER II' SPAN: (4) KING STUDS

### FRAMING NOTES

- 4. "HD" = HOLDOWN: HOLD-DOWN DEVICE (NOTED AS "HD" ON PLANS) SHALL BE AN 800 POUND CAPACITY ASSEMBLY AS NOTED ON PLANS. SEE DETAILS FOR HD ASSEMBLY.

- COOLER NAILS OR #6 SCREWS @ 7" O.C. ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.
- SUPPORTS.

# The

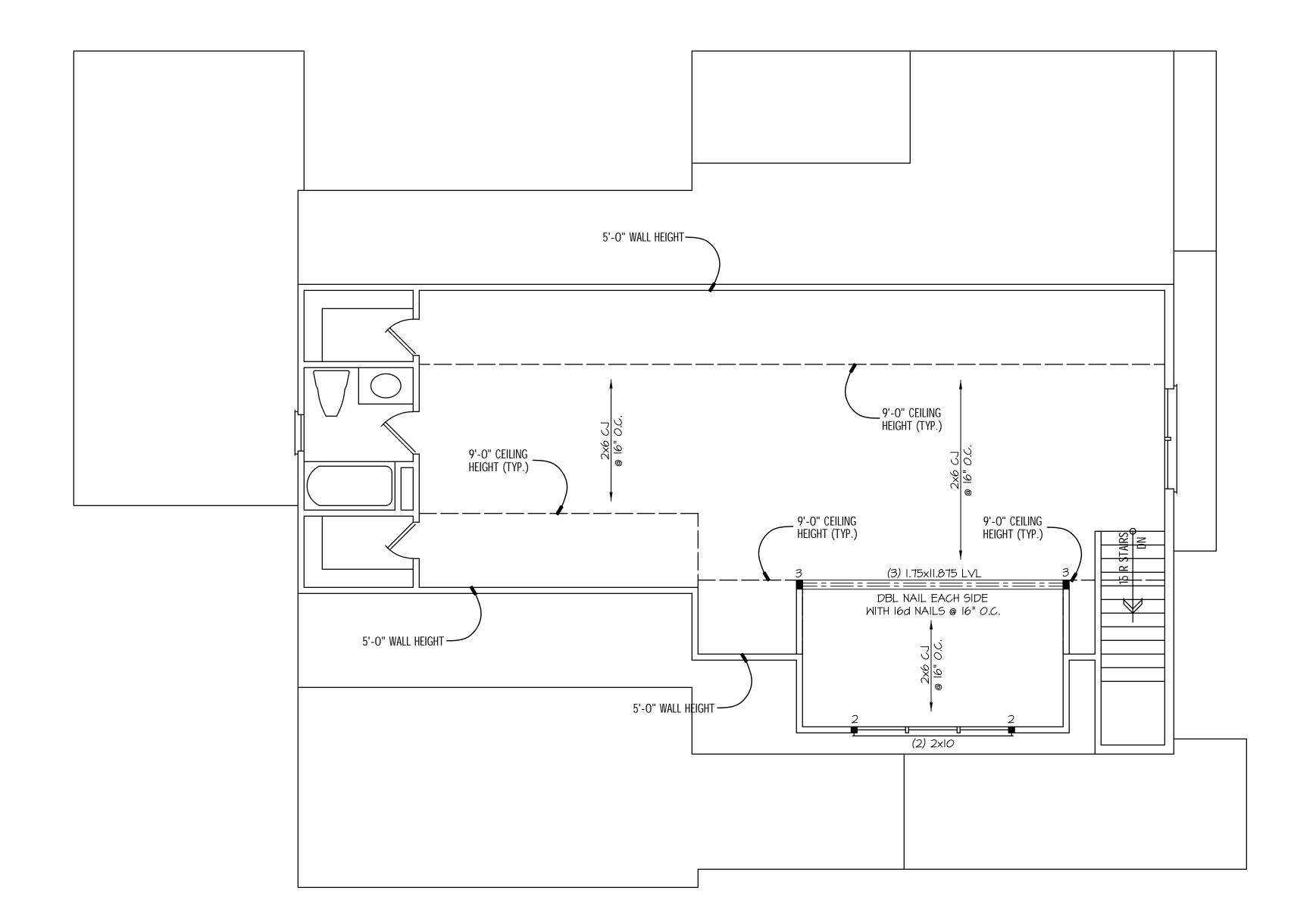
# SECOND FLOOR STR. PLAN

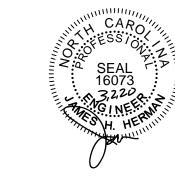
PROJECT # 20-1163-GL

P.A. 27609

son Drive, Raleigh, NC 27, Phone: (919) 878-1617
License: C-1287
w.southernengineers.com Southern 3716 Benson D

**S-3** 





### HEADER/BEAM & COLUMN NOTES

- HEADERS IN EXTERIOR WALLS SHALL BE OR AS BELOW:
  - OVER 4' UP TO 8' SPAN: (2) KING STUDS
- •• OVER II' SPAN: (4) KING STUDS

I. ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2)2x10 (4" WALL) OR (3)2x10 (6" WALL) WITH (I) SUPPORT STUD, UNLESS NOTED OTHERWISE.

2. 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 ACCORDING TO ITEM "d" IN TABLE R602.3(5)

•• UP TO 4' SPAN: (I) KING STUD

•• OVER 8' UP TO II' SPAN: (3) KING STUDS

# Southern Engineers, P 3716 Benson Drive, Raleigh, NC 27 Phone: (919) 878-1617 License: C-1287 www.southernengineers.com

PROJECT #

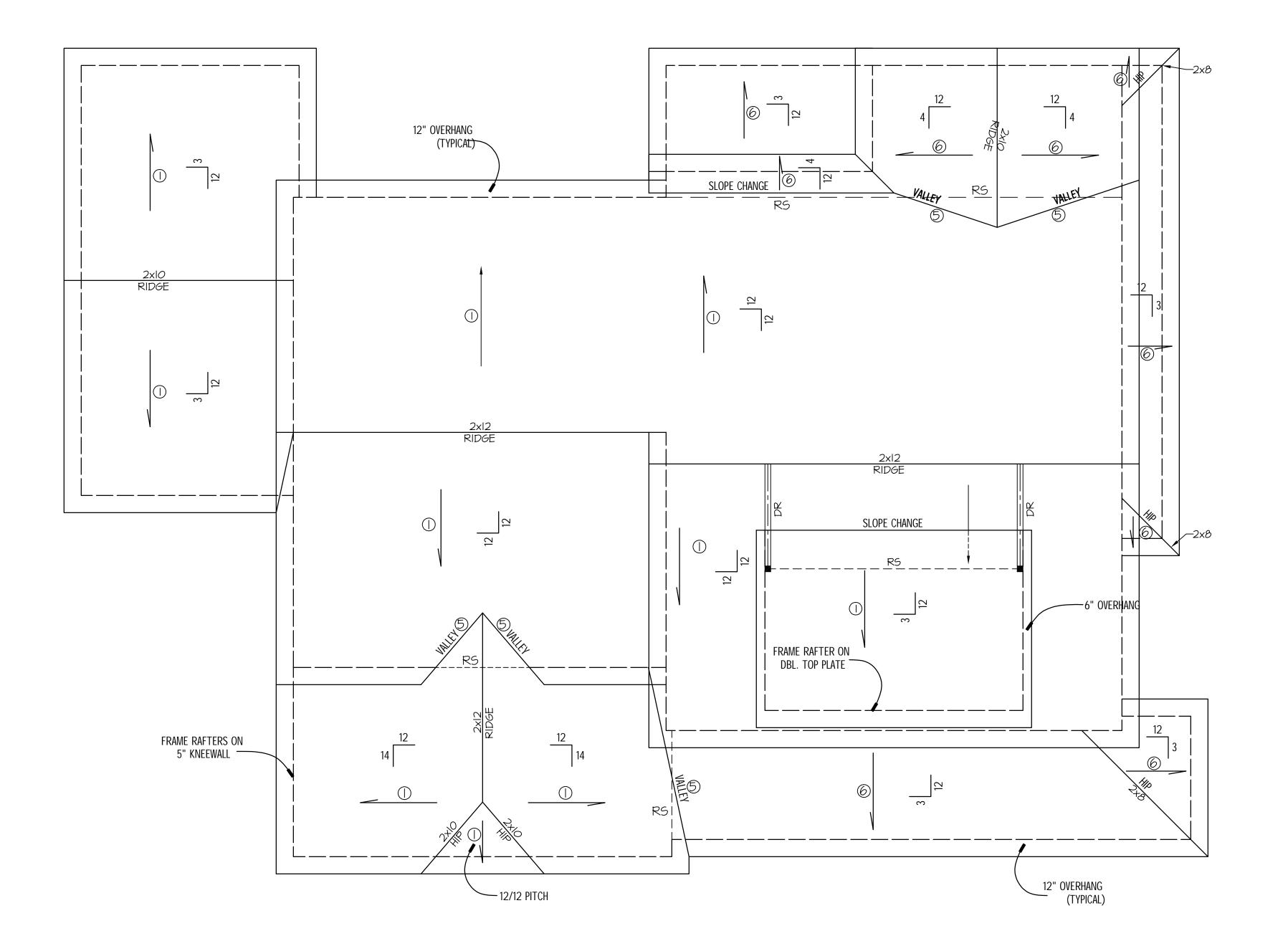
20-1163-GL

HOME DESIGNS, SOUTHERN

The Morefield IV GEMSTONE HOMES

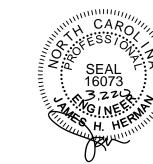
THIRD FLOOR STR. PLAN

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



NOTES:

. MEAN ROOF HEIGHT FOR THIS STRUCTURE IS 26'-2"



ATTIC VENTILATION:

2428 SQUARE FEET = 8.09 REQUIRED 300

THE NET FREE AREA OF VENTILATION REQUIRED IS TO BE

8.09 SQUARE FEET.

ROOF FRAMING NOTES: NC (2018 NCRC): Wind: 115-120 mph

- 1. 2x8 RAFTERS @ 16" O.C. WITH 2x10 RIDGE, UNO.
- (2) 2x10 OR 1.75x11.875 LVL HIP. (2) 2x10 HIPS MAY BE SPLICED WITH A MIN. 6'-0" OVERLAP AT CENTER
- (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 2XIO FLAT PLATE
- 6) 2x6 RAFTERS @ 16" O.C. W/ 2x8 RIDGE, UNO.
- (7.) 2xIO RAFTERS @ I6" O.C. W/ 2xI2 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 IO'-O" 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.I OF THE 2018 NC RESIDENTIAL CODE.

# ROOF FRAMING PLAN

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

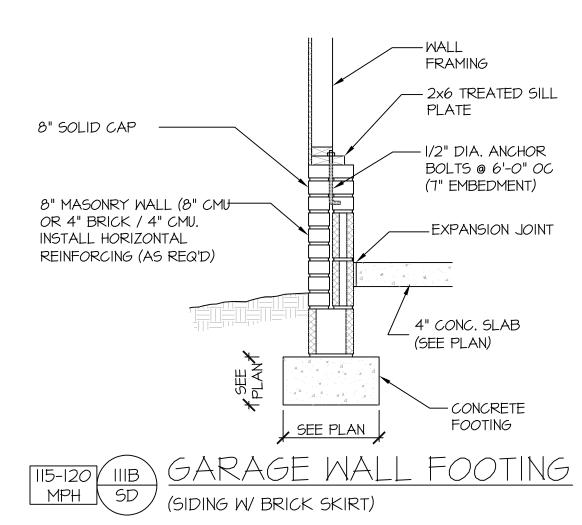
20-1163-GL

Southern Engus 3716 Benson Drive, Ral Phone: (919) 8

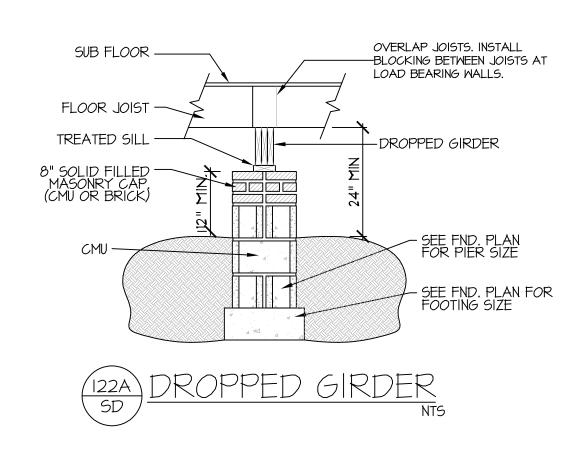
HOME DESIGNS, SOUTHERN

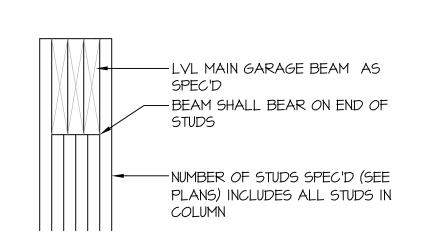
GEMSTONE HOMES Morefield

MPH SD

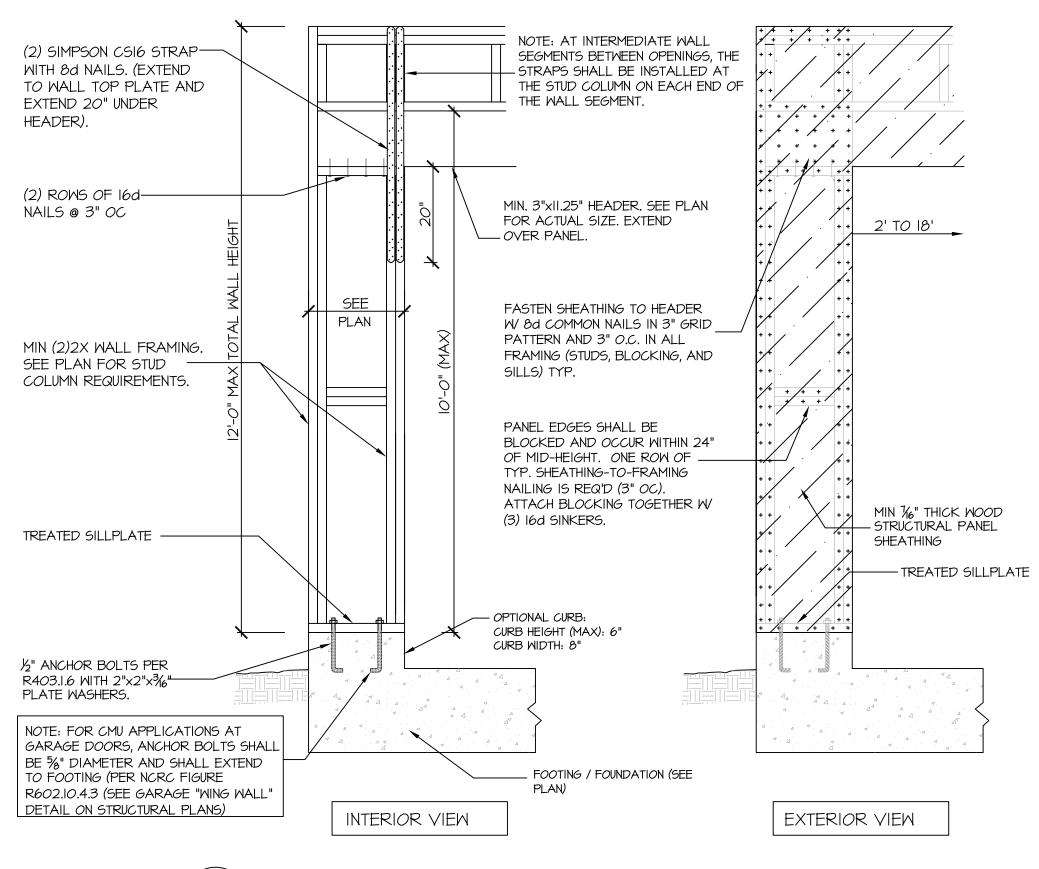


(SIDING W/ BRICK SKIRT)









CS-PF: CONTINUOUS PORTAL FRAME CONSTRUCTION /DETAIL AND APPLICATION BASED ON NCRC FIGURE R602.10.1 - PORTAL FRAME CONSTRUCTION

- 2x6 WALL FRAMING-

IN OPTIONAL PLATE.

TREATED SILLPLATE -

— 8" SOLID BRICK CAP ——

– 4" BRICK AND 4" CMU —

%" THREADED ROD WITH

OR SIMPSON "SET OR

3" CONC. COVER (TYP)

(907B) GARAGE 'WING WALL' REINFORCING

CONCRETE FOOTING (SEE

-PLANS) - CONTINUE FOOTING -ACROSS GARAGE DOOR

(OR BRICK)

2" CUT WASHERS

SET-XP" EPOXY.

LOCATE RODS AT -

"LADDER" WIRE AT

EACH COURSE IN -

8" CAP AND THEN

4" BRICK SHALL BE

NOTCHED/CHIPPED TO

<u>SECTION</u>

、SD / PER IRC FIGURE R602.10.4.3

ALLOW FOR %" ROD

8" OC

8" CMU —

ENDS OF PANELS

OPTIONAL WALL PLATE. -MAY COUNTERSINK BOLT

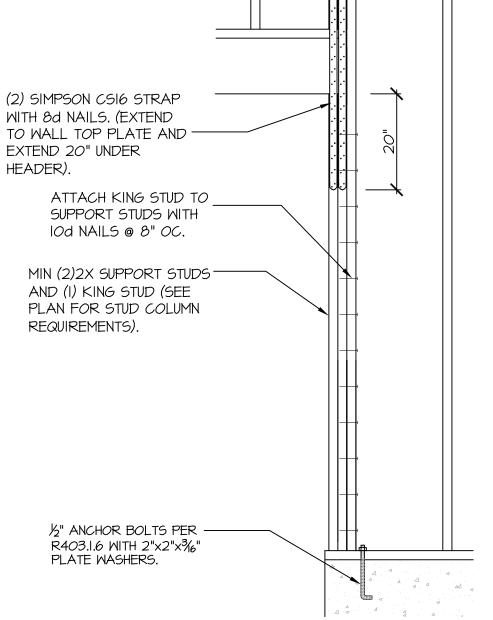
48" MAX

ELEVATION

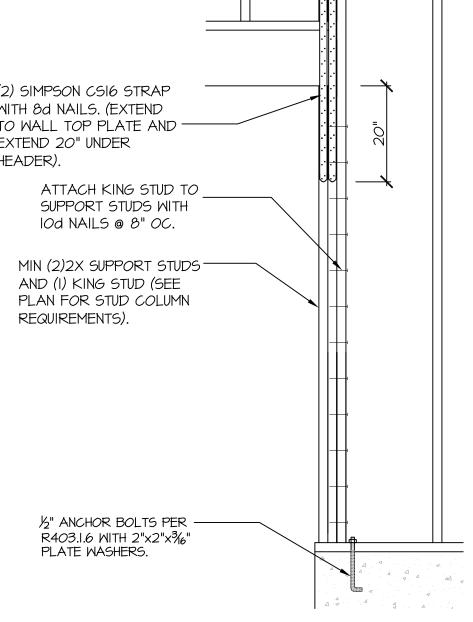
GARAGE SLAB

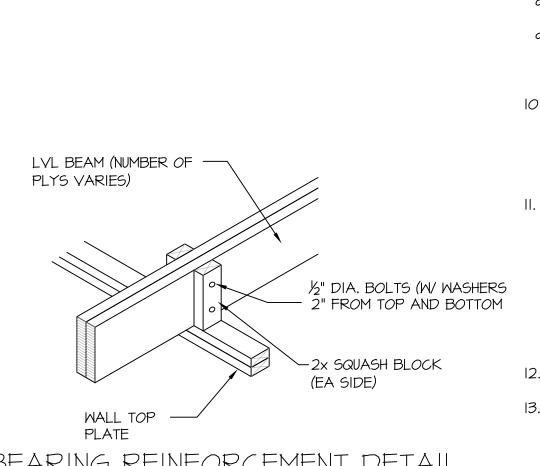
SPECIFIED

OVER GRAVEL AS



CS-PF: END CONDITION DETAIL (FOR USE WITH SINGLE CS-PF CONDITION) DETAIL AND APPLICATION BASED ON NORC FIGURE R602.10.1 - PORTAL FRAME CONSTRUCTION





(A) BEARING REINFORCEMENT DETAIL SQUASH BLOCK OPTION

### STRUCTURAL NOTES NC (2018 NCRC): Wind: 115-120 mph

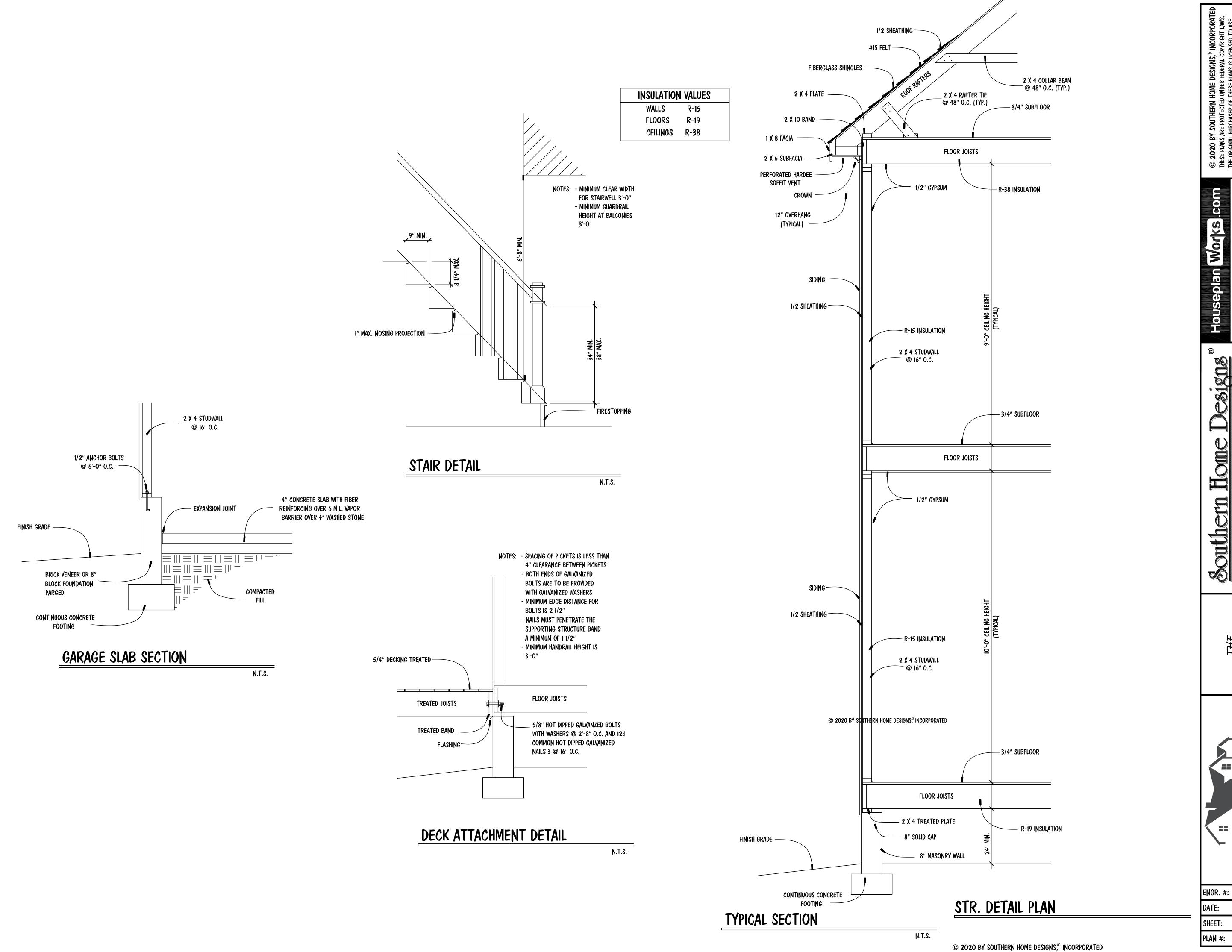
- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPS, VALLEYS, RIDGES, FLOORS, WALLS, BEAMS AND HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIER & GIRDER SYSTEM, FOOTING, AND PILING SYSTEM. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL 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.
- 2. 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.
- 3. DESIGN LOADS (LISTED AS: LIVE LOAD, DEAD LOAD, DEFLECTION) ROOMS OTHER THAN SLEEPING ROOMS: (40 PSF, IO PSF, L/360)
- SLEEPING ROOMS: (30 PSF, IO PSF, L/360)
- ATTIC WITH PERMANENT STAIR: (40 PSF, IO PSF, L/360)
- ATTIC WITHOUT PERMANENT STAIR: (20 PSF, IO PSF, L/360) ATTIC WITHOUT STORAGE: (10 PSF, 10 PSF, L/240)
- STAIRS: (40 PSF, IO PSF, L/360)
- EXTERIOR BALCONIES: (60 PSF, 10 PSF, L/360) DECKS: (40 PSF, 10 PSF, L/360)
- GUARDRAILS AND HANDRAILS: (200 LBS)
- PASSSENGER VEHICLE GARAGES: (50 PSF, IO PSF, L/360)
- FIRE ESCAPES: (40 PSF, IO PSF, L/360)
- SNOW: (20 PSF)
- 4. WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH WOOD STRUCTURAL PANELS. SEE FRAMING NOTES FOR THICKNESS AND NAILING REQUIREMENTS.
- 5. SEE APPENDIX M (DCA6) FOR EXTERIOR DECK REQUIREMENTS INCLUDING ATTACHMENTS FOR LATERAL LOADS.
- 6. 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 I/D. (I.E. 4" CONCRETE SLABS SHALL HAVE 以" DEEP CONTROL JOINTS SAWCUT IN SLAB ON A +-10'-0" x +-10'-0" GRID).
- 7. ALLOWABLE SOIL BEARING PRESSURE ASSUMED TO BE 2000 PSF. THE CONTRACTOR MUST CONTACT A GEOTECHNICAL ENGINEER AND THE STRUCTUAL 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 DRAINSURFACE WATER AWAY FROM FOUNDATION WALLS.
- 8. 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 -
- 9. L.V.L. SHALL BE LAMINATED VENEER LUMBER: Fb=2600 PSI, Fv=285 PSI, E=1.9x10 PSI.
- 9.I. P.S.L. SHALL BE PARALLEL STRAND LUMBER: Fb=2900 PSI, Fv=290 PSI, E=2.0x10 PSI. L.S.L. SHALL BE LAMINATED STRAND LUMBER: Fb=2250 PSI, Fv=400 PSI, E=1.55xIO PSI. INSTALL ALL CONNECTIONS PER

MANUFACTURERS INSTRUCTIONS.

- IO. 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.
- II. 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.
- 12. REBAR SHALL BE DEFORMED STEEL, ASTM615, GRADE 60.
- 13. 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.
- 14. BRICK LINTELS (WHEN REQUIRED) SHALL BE 3 1/2"x3 1/2"x1/4" STEEL ANGLE FOR UP TO 6'-O" 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 R703.7.3 LINTELS.

PROJECT # 20-1163-GL

S



THE MOREFIELD

GEMSTONE ( P.O. Box 146, Holly Spring Office: 919.355.65

ENGR. #:

DATE: 01-08-20 SHEET: A-5

PLAN #: 20-010820-AM