



**HEATED SF:** 

1ST FL: 1,035 2ND FL: 977 TOTAL: 2,012

**UNHEATED SF:** 

FRONT PORCH: 127 BACK DECK: 220

\*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 IC.17-16.

484.7' 484.9' - 486.4' +486.7' 1942.7' / 4 = 485.7'

## 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.
- 2. DIMENSIONS ARE TO FINISHED SURFACE UNLESS OTHERWISE NOTED.
- 3. WINDOW HEIGHT ON 1ST FLOOR IS 8'-0" AFF UNLESS OTHERWISE NOTED.
- 4. WINDOW HEIGHT ON 2ND FLOOR IS 7'-6" 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.

## **EGRESS**

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

## STAIRWAY

- 14. 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

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

## Plans Authorized for Construction City of Raleigh

Plans for the purposed use have been reviewed for general compliance with applicable codes. This limited review, and authorization for construction is not to be considered to represent total compliance with all legal requirements for development and construction. The property owner, design consultants, and contractor are each responsible for compliance with all applicable City, State and Federal Laws. This authorization is not a permit, nor shall it be construct to permit any violation of City, State or Federal Law, Code or Ordinance

Malcolm David McCracken Plans Examiner
Approved 5/13/2020

Plan Revision approved 8/12/2020

Lane Miller, AIA 336.312.7199

lane@millerarchdesign.

111 Grand Avenue aleigh, NC 27606

# The Sweetgum

A Squared

PROJECT NUMBER: 20-006

DATE: 04-24-20

PHASE: Construction Documents

SCALE:

REVISIONS:

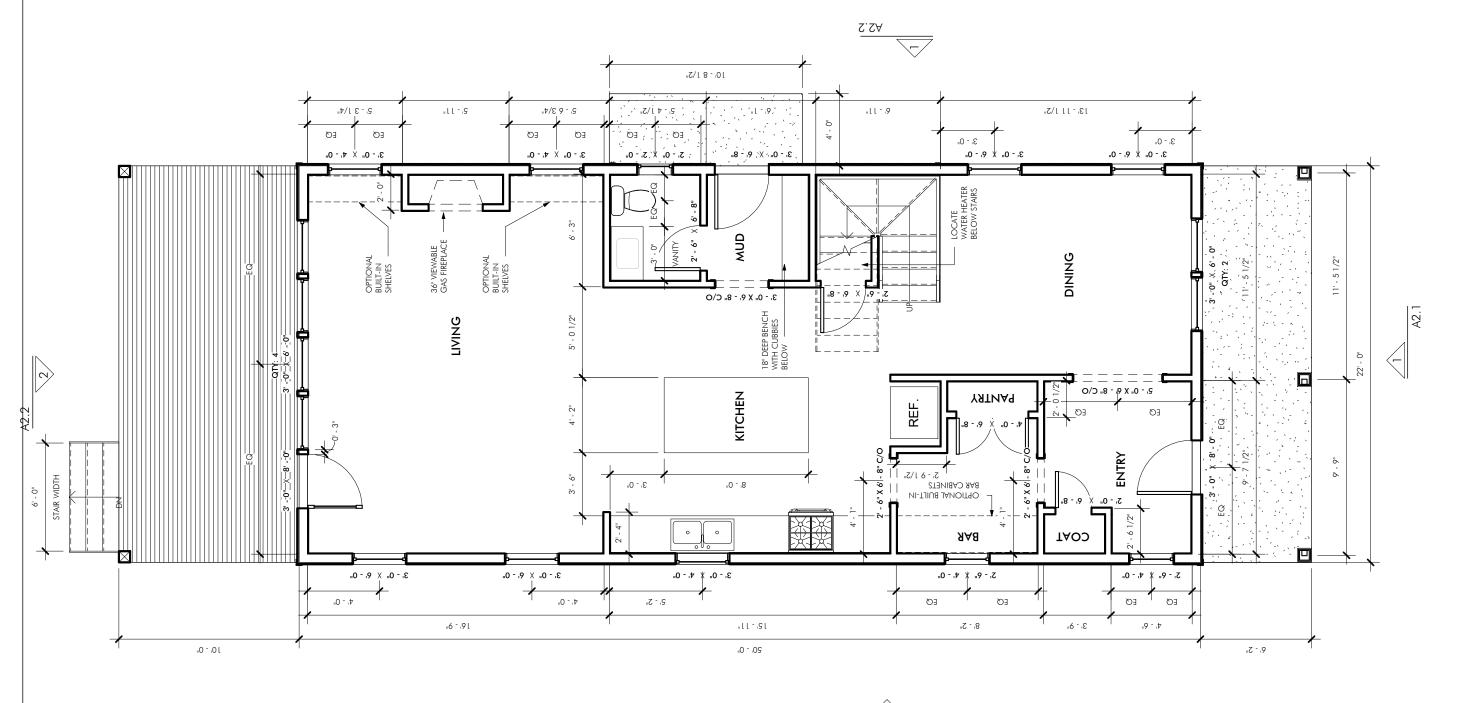
NO. ISSUE DATE 1 Revision 1 06-04-20

Cover

A0.0

6/4/2020 1:46:25 PM





PROJECT NUMBER: 20-006
DATE: 04-24-20
PHASE: Construction Documents
SCALE: 3/16" = 1'-0"

REVISIONS:
NO. ISSUE DATE

First Floor Plan

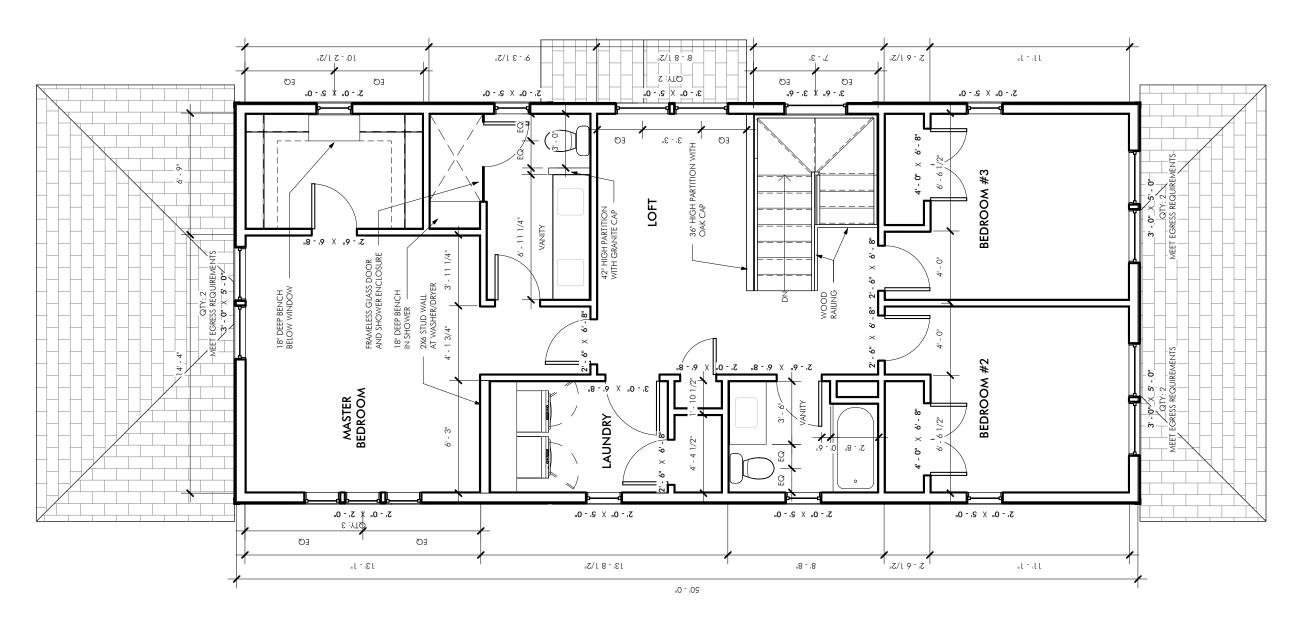
A1.1

2





Z.2A





The Sweetgum Short NUMBER: 20-006
DATE: 04-24-20

111 Grand Avenue Raleigh, NC 27606

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

REVISIONS:

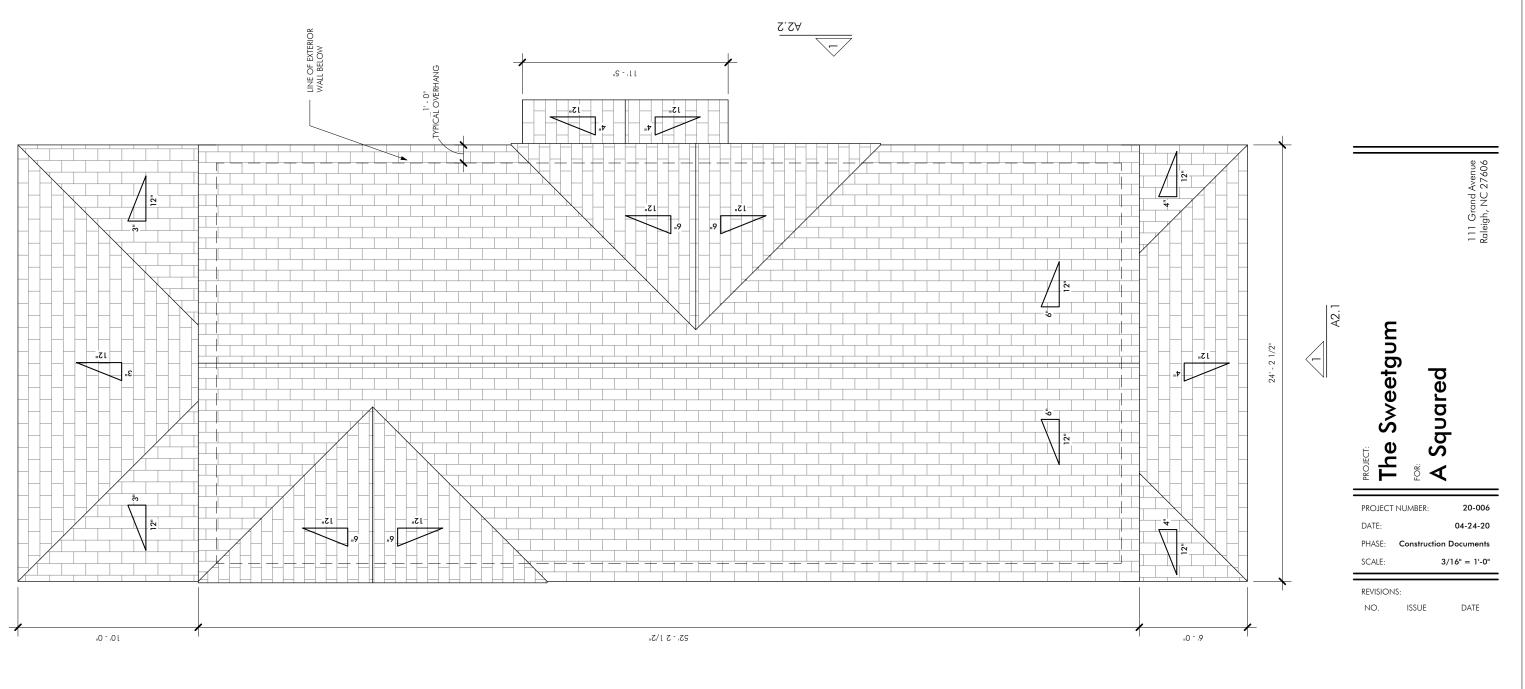
NO. ISSUE DATE

PHASE: SCALE:

Second Floor Plan

A1.2





<u>2.27</u>

Roof Plan

A1.3



11 Grand Avenue aleigh, NC 27606

# The Sweetgum

 PROJECT NUMBER:
 20-006

 DATE:
 04-24-20

 PHASE:
 Construction Documents

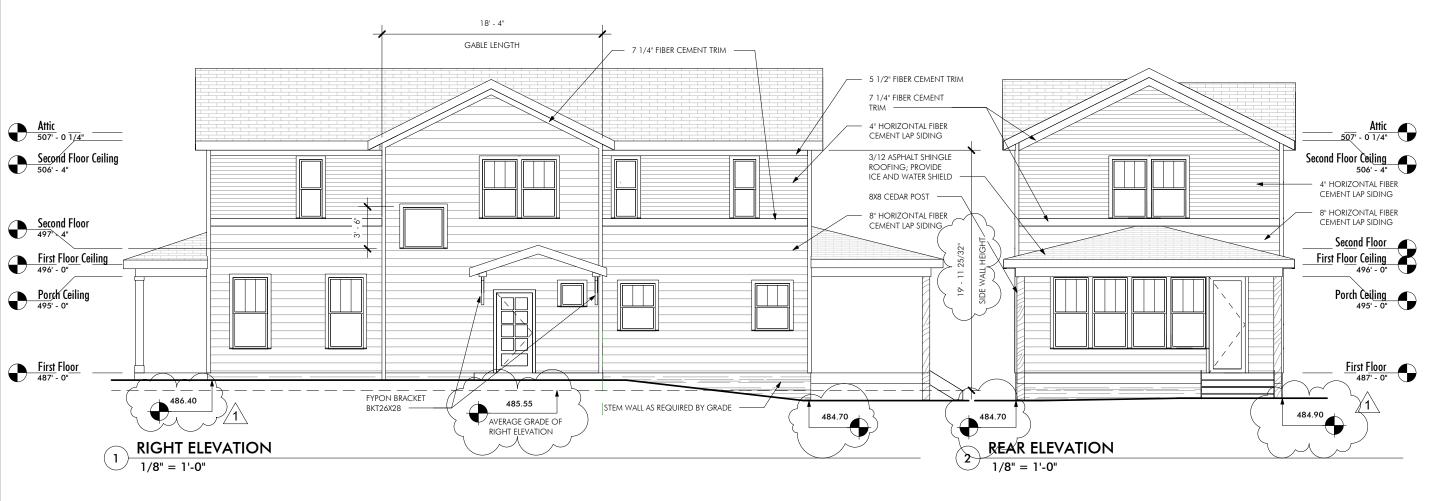
 SCALE:
 1/4" = 1'-0"

REVISIONS:

NO. ISSUE DATE 1 Revision 1 06-04-20

Front Elevation

A2.1





111 Grand Avenue Raleigh, NC 27606

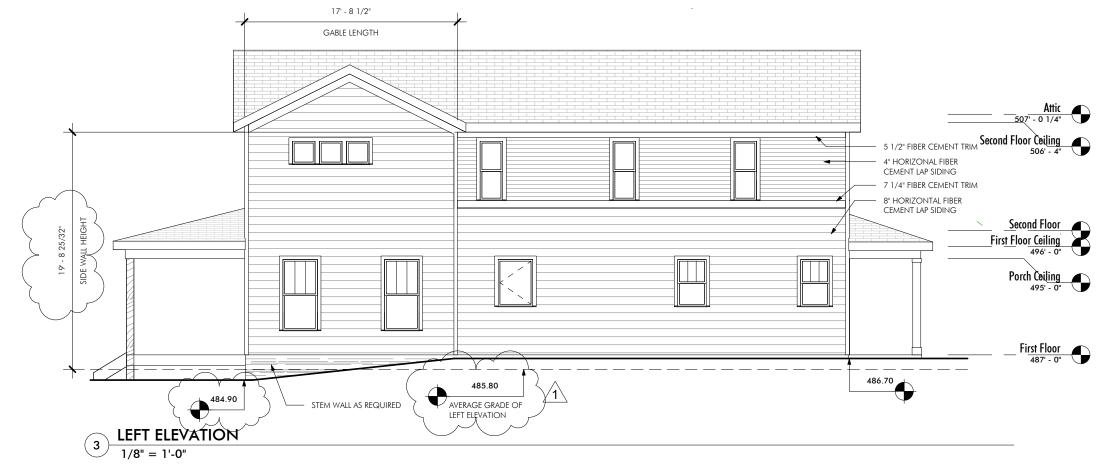
20-006 04-24-20 1/8" = 1'-0"

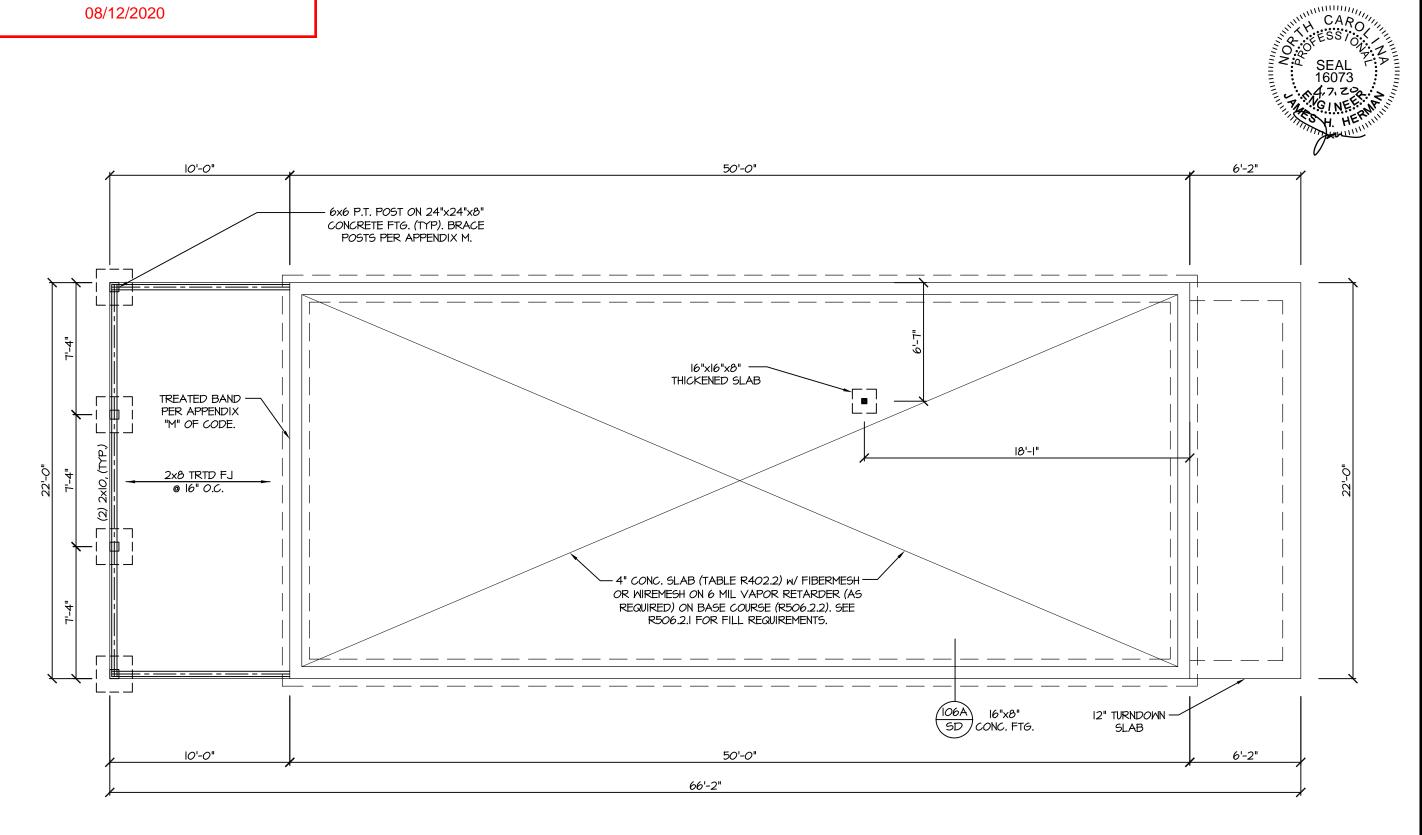
DATE 06-04-20

Elevations

A2.2

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PROJECT # 20-1310

ions.

sare to be brought to the eers. Failure to do so will

eers seal applies only to structural components on this rent.

oes not include construction means, methods, techniques, nees, procedures or safety precautions.
eviations or discrepancies on plans are to be brought to th

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3716 Benson Drive, Raleigh, NC 27609
Phone: (919) 878-1617
License: C-1287
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MILLER ARCHITECTURAL DESIGN

The Sweetgum

FOUNDATION STRUCTURAL PLAN

SCALE: 3/6"=1'-0"

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

S-1

POST TO BASE WITH A POST CAP OR METAL

STRAP(S) OR BRACKET(S), AND/OR A POST BASE.

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

- BRACING NETHOD 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.
- 2. EXTERIOR WALL SHEATHING: WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH WOOD STRUCTURAL PANEL SHEATHING (MSP) (EXPOSURE B: 1/16". 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.
- MSP SHEATHING SHALL EXTEND TO THE UPPERMOST DOUBLE BEARING PLATE. BLOCK AT ROOF PER SECTION R602.IO.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

- 4. "HD" = HOLDOMN: HOLD-DOWN DEVICE (NOTED AS "HD" ON PLANS)
  SHALL BE AN 800 POUND CAPACITY ASSEMBLY AS NOTED ON PLANS. SEE DETAILS FOR HD ASSEMBLY.
- $\underline{\mbox{**GROUND/FIRST FLOOR:}} \ \ \mbox{USE "HD HOLD-DOWN DETAIL" ON SD SHEET}$
- \*\*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 "IBM" ON PLANS) ATTACH I/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.
- 6. INTERIOR BRACED WALL-WOOD STRUCTURAL PANEL: (NOTED AS "IBM-WSP" ON PLANS). ATTACH ONE SIDE WITH %" 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 MSP 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



20-1310

BREAK) OR OTHER APPROVED METHOD. 3/12 NAILING PATTERN BM 🔼 SP -SIMPSON UI4 (TYP.) 2x6 CJ (7)@ 16" 0.C. 14" TJI 230 SIMPSON . 2x6 CJ @ 16" O.C. SP HU 410 (MAX) @ 16" O.C. SIMPSON (2) 1.75x14 LVL HU 410 (MAX) 1.15x14 🚣 SP  $\widehat{\mathcal{D}}$ 4 3/12 NAILING PATTERN 6x6 TRT'D POST (OR EQUIV.) (TYP.) ATTACH RAFTERS 4x4 TRT'D POST (OR EQUIV.) (TYP.) ATTACH RAFTERS-AT PORCH WITH HURRICANE CONNECTORS (SIMPSON AT PORCH WITH HURRICANE CONNECTORS (SIMPSON H2.5A OR EQUIV.) ATTACH HEADER TO POST AND H2.5A OR EQUIV.) ATTACH HEADER TO POST AND WHOLE HOUSE

BRACING SUMMARY

TOTAL REQUIRED BRACING: 66 TOTAL PROVIDED BRACING: 171 (IN FEET)

FIRST FLOOR STRUCTURAL PLAN

POST TO BASE WITH A POST CAP OR METAL

STRAP(S) OR BRACKET(S), AND/OR A POST BASE.

SCALE: 36"=1'-0"

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

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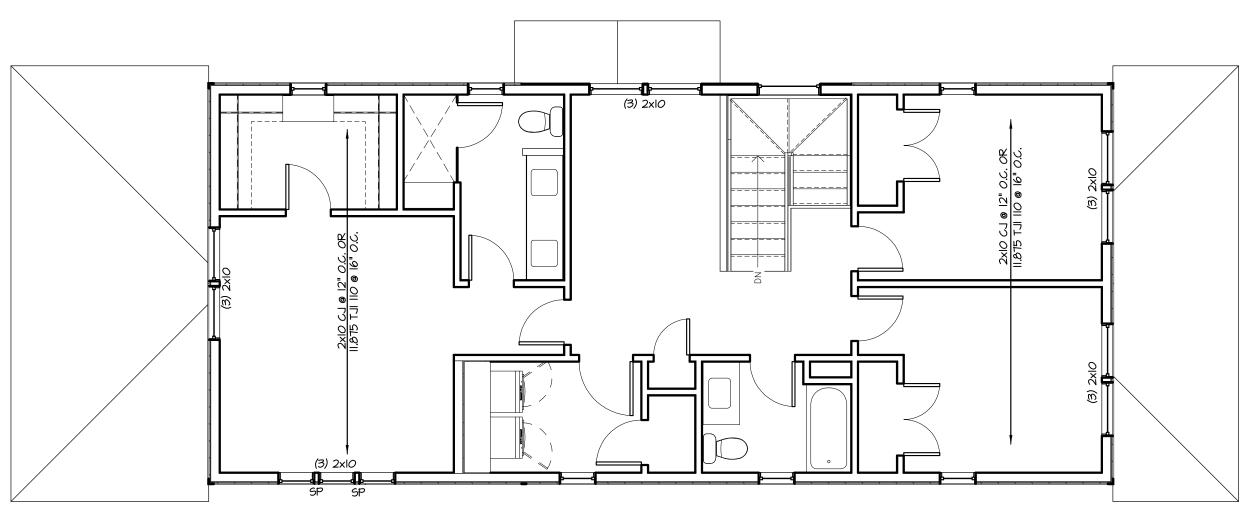
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ARCHITECTURAL DESIGN

Sweetgum

**S-2** 





# HEADER/BEAM & COLUMN NOTES

- I. ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2)2xIO (4" WALL) OR (3)2xIO (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

SECOND FLOOR STRUCTURAL PLAN

SCALE: 3/6"=1'-0"

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

PROJECT # 20-1310

precautions.

on plans are to be brought to the negative state of the property of the property

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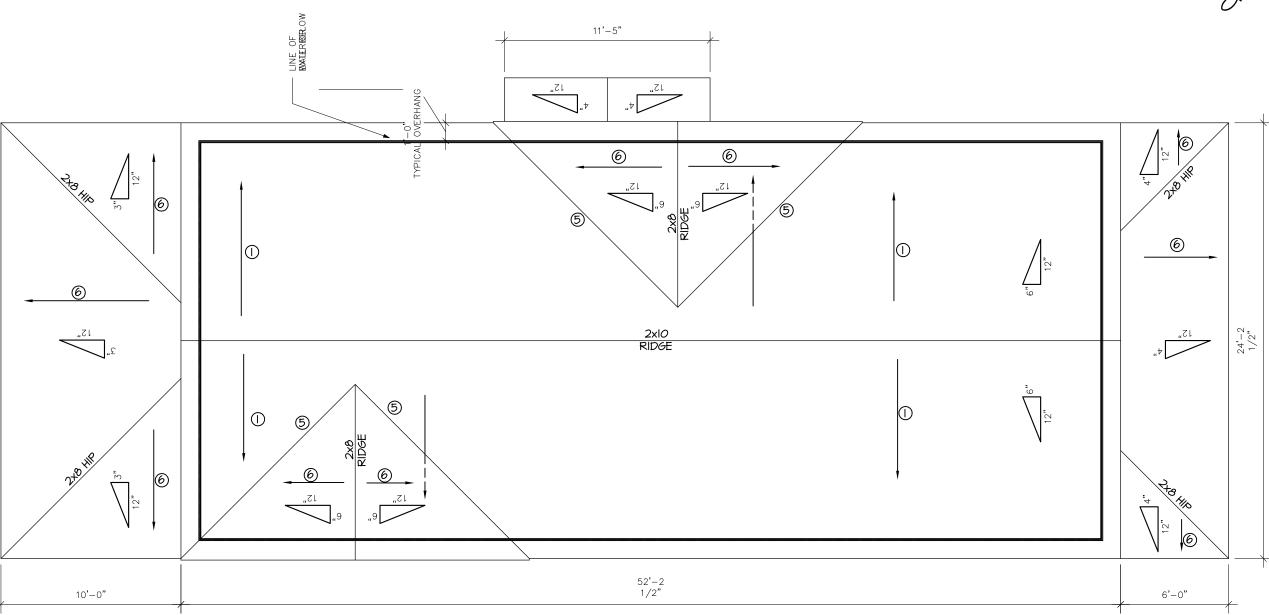
ARCHITECTURAL DESIGN

**S-3** 

The Sweetgum

A SQUARED, LLC





# **ROOF FRAMING NOTES:**

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

- 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) 2xIO OR 1.75x9.25 LVL VALLEY. DO NOT SPLICE VALLEYS
- 1.75x11.875 LVL OR (2)1.75x9.25 LVL VALLEY
- (5.) FALSE FRAME VALLEY ON 2xIO FLAT PLATE
- 2x6 RAFTERS @ I6" O.C. W 2x8 RIDGE, UNO.

- 2xIO RAFTERS @ I6" O.C. W 2xI2 RIDGE, UNO.
- 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: 3/6"=1'-0"

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

PROJECT # 20-1310

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ARCHITECTURAL

DESIGN

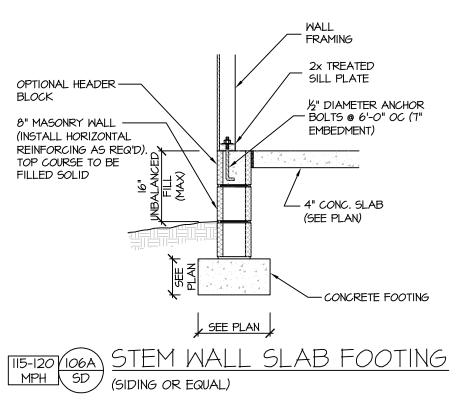
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**S-4** 

## City of Raleigh Malcolm David McCracken

- 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 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, IO PSF, L/360)
- ATTIC WITHOUT PERMANENT STAIR: (20 PSF, IO PSF, L/360)
- ATTIC WITHOUT STORAGE: (IO PSF, IO PSF, L/240)
- STAIRS: (40 PSF, IO PSF, L/360)
- EXTERIOR BALCONIES: (60 PSF, IO PSF, L/360)
- DECKS: (40 PSF, IO PSF, L/360)
- GUARDRAILS AND HANDRAILS: (200 LBS)
- PASSSENGER VEHICLE GARAGES: (50 PSF, IO 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.
- 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 1/4" 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 - MIN).
- 9. L.V.L. SHALL BE LAMINATED VENEER LUMBER: Fb=2600 PSI, Fv=285 PSI, E=1.9xI0 PSI.
- 9.I. P.S.L. SHALL BE PARALLEL STRAND LUMBER: Fb=2900 PSI, Fv=290 PSI, E=2.0xI0 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 (I/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'-O", SEE PLANS FOR SPANS OVER 9'-O". SEE ALSO SECTION R703.8.3 LINTELS.





PROJECT # 20-1310

ns. are to be brought to the ers. Failure to do so will ne year from date of seal.

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ARCHITECTURAL DESIGN

> Sweetgum LLC A SQUARED, The

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