- FRAMING LUMBER SHALL BE #2 SPRUCE PINE FIR (SPF) WITH THE FOLLOWING DESIGN PROPERTIES: Fb = 875 PSI Fv = 70 PSI E = 1.4E6 PSI
- 2. FRAMING LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE #2 SOUTHERN YELLOW PINE (SYP) TREATED IN ACCORDANCE WITH AWPA C22 WITH THE FOLLOWING DESIGN PROPERTIES:
- 3. ENGINEERED WOOD BEAMS SHALL BE LAMINATED VENEER LUMBER (LVL) OR PARALLEL STRAND LUMBER (PSL) WITH THE Fb = 2900 PSI Fv = 285 PSI E = 1.9E6 PSI
- 4. STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36 MINIMUM GRADE.
- 5. BOLTS SHALL CONFORM TO A307 MINIMUM GRADE.
- 6. REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A615 GRADE 60.
- 7, POURED CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. MATERIALS USED TO PRODUCE CONCRETE SHALL COMPLY WITH THE APPLICABLE STANDARDS LISTED IN ACI 318 OR ASTM C 1157.
- 8. CONCRETE LOCATED PER TABLE R402.2 SHALL BE AIR ENTRAINED WITH THE TOTAL AIR CONTENT NOT LESS THAN 5 PERCENT OR MORE THAN 7 PERCNET.
- 9. MASONRY UNITS SHALL CONFORM TO ACI 530/ASCE 5/TMS 402 AND MORTAR SHALL COMPLY WITH ASTM C 270.
- 10. ALLOWABLE SOIL BEARING PRESSURE 2000 PSF.

ENGINEER'S SEAL APPLIES TO STRUCTURAL COMPONENTS ONLY AND DOES NOT CERTIFY ARCHITECTURAL LAYOUT OR DIMENSIONAL ACCURACY. ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS OR ANY DEVIATION FROM THE

ALL CONSTRUCTION, WORKMANSHIP, MATERIAL QUALITY AND SELECTION SHALL BE IN ACCORDANCE WITH THE NORTH CAROLINA STATE BUILDING CODE - RESIDENTIAL CODE 2018 EDITION FROM THE INTERNATIONAL RESIDENTIAL CODE 2018 (IRC), AND LOCAL CODES AND REGULATIONS. DIMENSIONS SHALL GOVERN OVER SCALE AND CODE SHALL GOVERN OVER

ADDITIONAL LOADS

FIGURE R301.2(4) - ULTIMATE DESIGN WIND SPEEDS 115-120 MPH

FIGURE R301.2(2) - SEISMIC DESIGN CATEGORY B

 $\underline{\textbf{TABLE R301.2(4)}} - \textbf{DESIGN POSITIVE AND NEGATIVE PRESSURE FOR DOORS AND WINDOW FOR A MEAN ROOF HEIGHT OF 35}\\ \underline{\textbf{FEET OR LESS SHALL BE 25 PSF}}$

 $\underline{\textbf{TABLE R301.2(2)}} \textbf{-} \textbf{COMPONENT AND CLADDING LOADS FOR A MEAN ROOF HEIGHT OF 30 FEET OR LESS LOCATED IN EXPOSURE B}$

ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE DESIGNED BASED ON ROOF PITCHES AS FOLLOWS: 45.4 PSF FOR 0:12 TO 2.25:12, 34.8 PSF FOR 2.25:12 TO 7:12 AND 21 PSF FOR 7:12 TO 12:12
WALL CLADDING IS DESIGNED FOR A 24.1 PSF POSITIVE AND NEGATIVE PRESSURE

ABLE N1102.1 - REFER TO TABLE N1101.1 TO DETERMINE THE CLIMATE ZONE BY COUNTY AND REFER TO TABLE N1102.1 FOR R VALUE INSULATION REQUIREMENTS LISTED BY ZONE.

 $\frac{\text{TABLE N1102.1 - ZONE 7} - \text{MAX. GLAZING U FACTOR: } \underline{0.40}. \text{ MIN. INSULATION R VALUES: CEILING } \underline{\text{R-30}}, \text{WALLS } \underline{\text{R-13}}, \\ \text{FLOORS } \underline{\text{R-19}}, \text{BASEMENT WALLS } \underline{\text{R-7}}, \text{SLAB PERIMETER } \underline{\text{R-0}}, \text{CRAWL SPACE WALLS } \underline{\text{R-7}}.$

TABLE N1102.1 - ZONE 8 - MAX. GLAZING U FACTOR: 0.40. MIN. INSULATION R VALUES: CEILING R-30, WALLS R-13, FLOORS R-19, BASEMENT WALLS R-8, SLAB PERIMETER R-5 (2 FT DEEP), CRAWL SPACE WALLS R-10.

- 1. STEEL FLITCH BEAMS SHALL BE FASTENED TOGETHER WITH 1/2" DIAMETER BOLTS WITH WASHERS PLACED UNDER THE THREADED END OF THE BOLT. BOLTS SHALL BE SPACED AT MAXIMUM 24" O.C. STAGGERED TOP AND BOTTOM OF BEAM WITH A MINIMUM 2" EDGE DISTANCE. TWO BOLTS SHALL BE LOCATED AT 6" FROM EACH END OF FLITCH BEAM.
- 2. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" AND FULL FLANGE WIDTH.
- BEAMS MUST BE ANCHORED AT EACH END WITH A MINIMUM OF FOUR 16d NAILS OR TWO 1/2" x 4" LAG SCREWS. 3. ENGINEERED WOOD BEAMS SHALL BE INSTALLED WITH ALL CONNECTIONS PER MANUFACTURER'S INSTRUCTIONS.
- 4. ALL BEAMS SHALL BE CONTINUOUSLY SUPPORTED LATERALLY AND SHALL BEAR FULL WIDTH ON THE SUPPORTING WALLS OR COLUMNS INDICATED WITH A MINIMUM OF THREE STUDS.
- 5. SOLID BLOCKING SHALL BE PROVIDED AT ALL POINT LOADS TO TRANSFER LOADS THROUGH FLOOR LEVELS. COLUMNS SHALL BE CONTINUOUS TO THE FOUNDATION OR TO OTHER STRUCTURAL ELEMENTS.
- 6. ENGINEERED WOOD FLOOR SYSTEMS AND ROOF TRUSS SYSTEMS SHALL BE PROVIDED FOR REVIEW AND COORDINATED
- 7. WALL BRACING REQUIREMENTS SHALL BE IN ACCORDANCE WITH SECTION R602.10 OF THE NORTH CAROLINA RESIDENTIAL
- 8. BRICK LINTELS SHALL BE 3 1/2 x 3 1/2 x 1/4 STEEL ANGLE FOR UP TO 60" MAXIMUM SPAN AND 6 x 4 x 5/16 FOR SPANS
- 9. BRICK LINTELS AT SLOPED AREAS SHALL BE 4 x 3 1/2 x 1/4 STEEL ANGLE WITH 16d NAILS IN 3/16" HOLES IN 4" ANGLE LEG AT 12" o.c. TO DOUBLE RAFTER. WHEN THE SLOPE EXCEEDS 4:12 A MINIMUM OF $3 \times 3 \times 1/4$ PLATES SHALL BE WELDED AT 24" o.c. ALONG THE STEEL ANGLE.

MEAN ROOF HEIGHT 1 STORY = 11'-0" CLADDING POSITIVE & NEGATIVE PRESSURE = 21

CLADDING POSITIVE & NEGATIVE PRESSURE =

2 STORY = 19'-0"

CLADDING POSITIVE & NEGATIVE PRESSURE = 34.8 PSF

INSTALL ANCHOR BOLTS, NUTS, AND WASHERS PER CODE AT ALL EXTERIOR WALL TREATED PLATES AND AT INTERIOR BEARING

TREATED PLATES ON SLAB FOUNDATIONS. TO BE A MINIMUM OF 6' O.C. AND WITHIN 12" FROM THE ENDS OF EACH PLATE.

DESIGN PRESSURES MINIMUM RATING: 25 PSF

MI WINDOWS 3500 SERIES LOW E-GLASS WINDOWS

ſ	ABBREVIATIONS	
	CONC CONT DBL DJ DSP EA FL PT FTG HGR LVL NTS OC PSL PT SC SP TJ	CONCRETE CONTINUOUS DOUBLE DOUBLE JOIST DOUBLE STUD POCKET EACH FLAT PLATE FOOTING HANGER LAMINATED VENEER LUMBER NOT TO SCALE ON CENTER PARALLEL STRAND LUMBER PRESSURE TREATED STUD COLUMN STUD POCKET TRIPLE JOIST
1	TYP UNO	TYPICAL UNLESS NOTED OTHERWISE
- 4	1	

THE "Winston" PLAN NO. 1441

SQUARE FOOT	AGE
FIRST FLOOR	611 S.F.
SECOND FLOOR	810 S.F.
TOTAL HEATED AREA	1441 S.F.
OVERALL WIDTH	24'-0"
OVERALL DEPTH	37'-4"

	REVISION LOG							
Rev	Description	Drawn By	Date	Sheets Affected	Brochure Required	Engineering Required		
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								

TABLE N1102.1 CLIMATE ZONES 3-5

CLIMATE ZONE	PENESTRATION U-FACTORPJ	SKYLIGHT [®] N-FACTOR	GLAZED FERESTRATION SHOC ^{6, 3}	CBURG R-VALUEL	WOOD FRAME WALL RAWLUE	MASS WALL RVALUE	FLOOR RACKLUE	BASEMENT [®] A WALL A-WALUE	SLAB ^d R-WALUE & DEPTH	CRAWIL SPACE* WALL A-VALUE
3	0.36	0.96	0.30	30 or 20 or	<u>15</u> or 13 + <u>2.6</u> 1	5/13 or 5/19el	19	6/13/	0	6/13
4	0.36	0.66	0.30	38 or 30d	<u>15</u> or 13+ <u>25</u> 1	5/13 or 6/16cl	19	10/15	10	10/15
6	0.16	0.66	NR.	30 or 30 ci	19° or 13 + 5° or 15 + 3°	13/17 or 13/12.5 d	301	19/15	10	10/19

- a. Provides are informat. Offsette and \$100 are maintains. When its about its installed in a cody offset is less than the last or design between of his insulation, the last.
 b. The frameworks (Medic offset and observed) in the EMSE above applies to it glossed frameworks.
 1.5 Carlos and The description is framework to perform the provided and the provided and the provided and the performance of the insulation of the insulati
- Descriptional insulation benefit expliced innorm-funded bosobors as defined by Figure NHH17 and Table NHD1.
 Or insulation sufficient of 10 the feating parks, 3-45 without an analysis of the feating parks, 3-45 without an analysis of the feating parks, 3-45 without an analysis of the feating parks and the fe
- Or leaded and device (II to sharing sale), and is remove.

 The resource is a facility relation by the control of the control o

 Balls value regulard except for cod adop when the specials indicate the sight of the roof them the insulation must fill the upper up to the electrical.
n. RSi Standard beti compared and initials in a nominal 2 x 6 forming septy is degreed to comply. Filenting bette point R-Si or higher compared and initialist in a 2 x 4 and is not degreed to comply.
Description in making the minimum rate wall seads had contact applicant may use the mass real Assistance that minimum explanant.

	ATTIC VENT SCHEDULE								
ELEVATION									
MAIN HOUSE SQ I			SQ FTG	3093	AT / NEAR RIDGE			AT / NEAR EAVE	
VENT TYPE	SQ. FT. REQUIRED RANGE		SQ. FT. SUPPLIED PERCENT OF TOTAL SUPPLIED	POT LARGE (SQ. FT. EACH)	POT SMALL (SQ. FT. EACH)	RIDGE VENT (SQ. FT. PER LF)	EAVE VENT (SQ. IN. EACH)	CONT. VEN	
					0.4236	0.2778	0.125	0.1944	0.0625
RIDGE VENT	4.12	5.16	6.63	39.85	0	o	53.00		
SOFFIT VENTS	6.19	5.16	10.00	60.15				0	160.00
TOTAL (MIN)	10.31	10.31	16.63	100.00	POT VENTS MAY BE REQUIRED IF THERE IS INSUFFICIENT RIDGE AVAILABLE				
SCHEDULE HAS	BEEN CA	LCULATI	D ASSUMING	EAVE VENTIL	ATION AT 50-60%	OF TOTAL AND R	IDGE AT 40-50% C	F TOTAL REQUIF	RED VENTILATION

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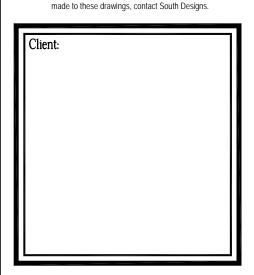
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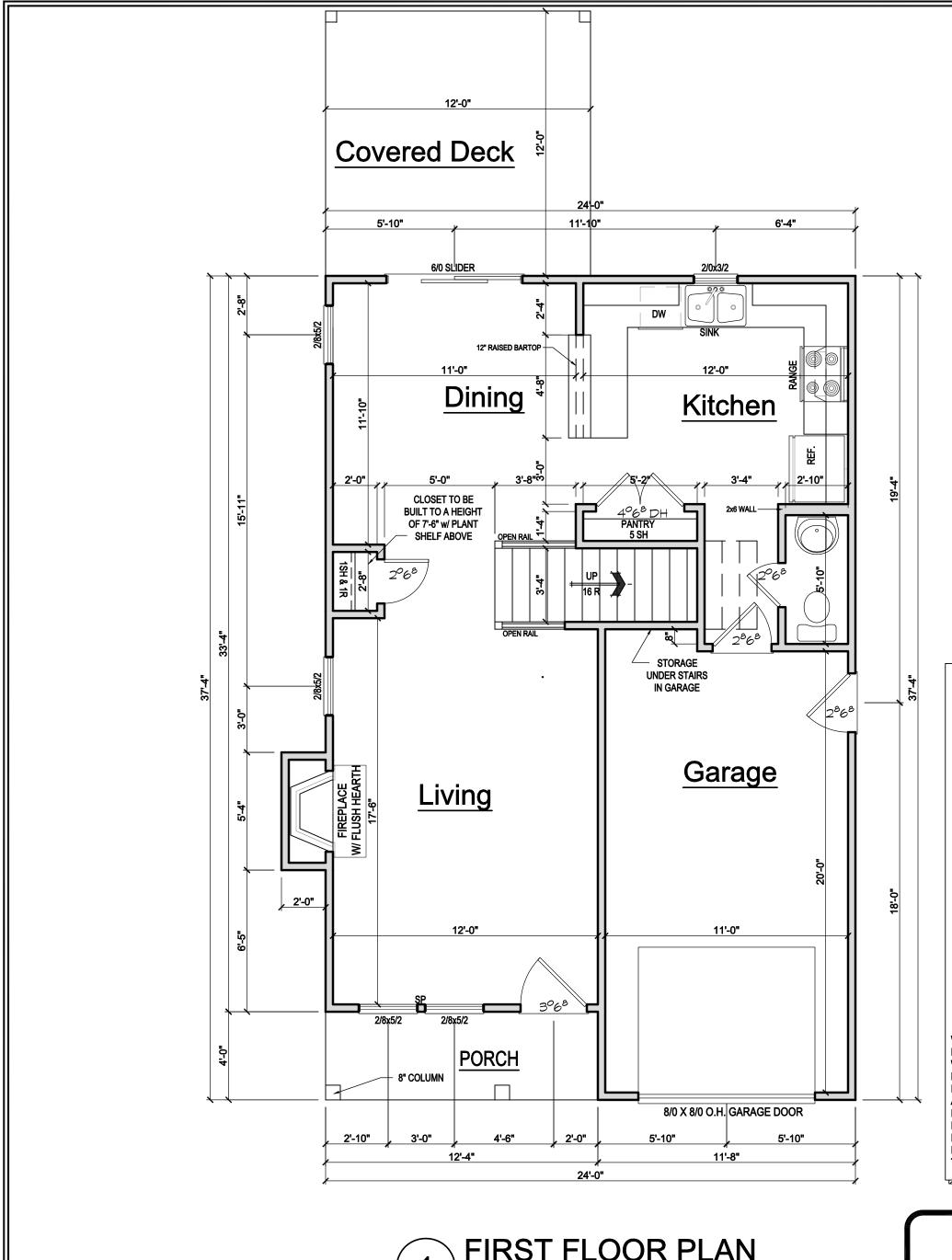
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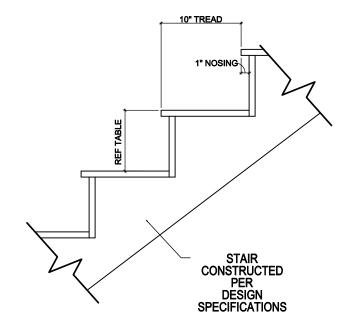
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COVER SHEET

Sheet No.





RISER HEIGHTS PER STAIR CONFIGURATION							
PLATE HEIGHT	10" FLOOR SYSTEM	14" FLOOR SYSTEM	16" FLOOR SYSTEM				
8'-1 1/2"	14 RISERS @ 7 11/16"	15 RISERS @ 7 1/2"	15 RISERS @ 7 5/8"				
9'-1 1/2"	16 RISERS @ 7 1/2"	16 RISERS @ 7 3/4"	17 RISERS @ 7 7/16"				
10'-1 1/2"	17 RISERS @ 7 3/4"	18 RISERS @ 7 9/16"	18 RISERS @ 7 11/16"				

2

TYPICAL STAIR DETIAL

SCALE: 3/8" = 1'-0"

GENERAL NOTES

WALLS:

ALL WALLS ARE DRAWN 4"
THICK U.N.O.
ANGLED WALL ARE DRAWN
@45° U.N.O.

SMOKE DETECTORS:

LOCATION AND NUMBER OF DETECTORS SHALL CONFORM TO NEC.

EGRESS:

ALL BEDROOMS MUST HAVE
AT LEAST ONE WINDOW WHICH
CONFORMS TO R-310 OF THE
N.C. BLDG. CODE. IT IS THE
CONTRACTOR'S RESPONSIBILITY
TO VERIFY CHOSEN WINDOWS
MEET EGRESS REQUIREMENTS
AS MANUFATURERS VARY.

ATTIC ACCESS:

MIN. ATTIC ACCESS SHALL BE PROVIDED BY BUILDER AND LOCATED ON SITE.

WALL/CEILING HGT. WALL AND CEILING HEIGHT NOTES ARE BASED ON NOMINAL

WALL SIZE.
KNEE WALL HEIGHT LABELS
FOR WALLS UNDER RAFTERS
ASSUME AN EXTRA 2" FOR
FURRING (IN HEATED SPACES)
FOR INSULATION. THE WALL
HEIGHT REFERS TO THE HGT.
FROM THE FLOOR DECKING TO
THE BOTTOM OF THE FURRING.

NOTE:

HANDRAILS SHALL BE PROVIDE ON AT LEAST ONE SIDE OF STAIR TREADS WITH 4, OR MORE RISERS. VERTICAL HT. OF HANDRAILS SHALL BE NOT LESS THAN 34" AND NO MORE THAN 38" PER NC 2018 RESIDENTIAL CODE SEC. R311.7.8

GUARDS ON ALL HANDRAILS SHALL BE PLACED SO THAT A SPHERE OF 4" CANNOT PASS THROUGH PER NC 2018 RESIDENTIAL CODE SEC. R312.1



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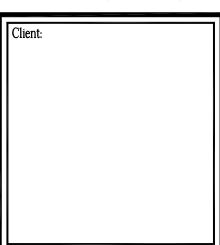
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Revision No.	Revision Date		

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FIRST FLOOR PLAN

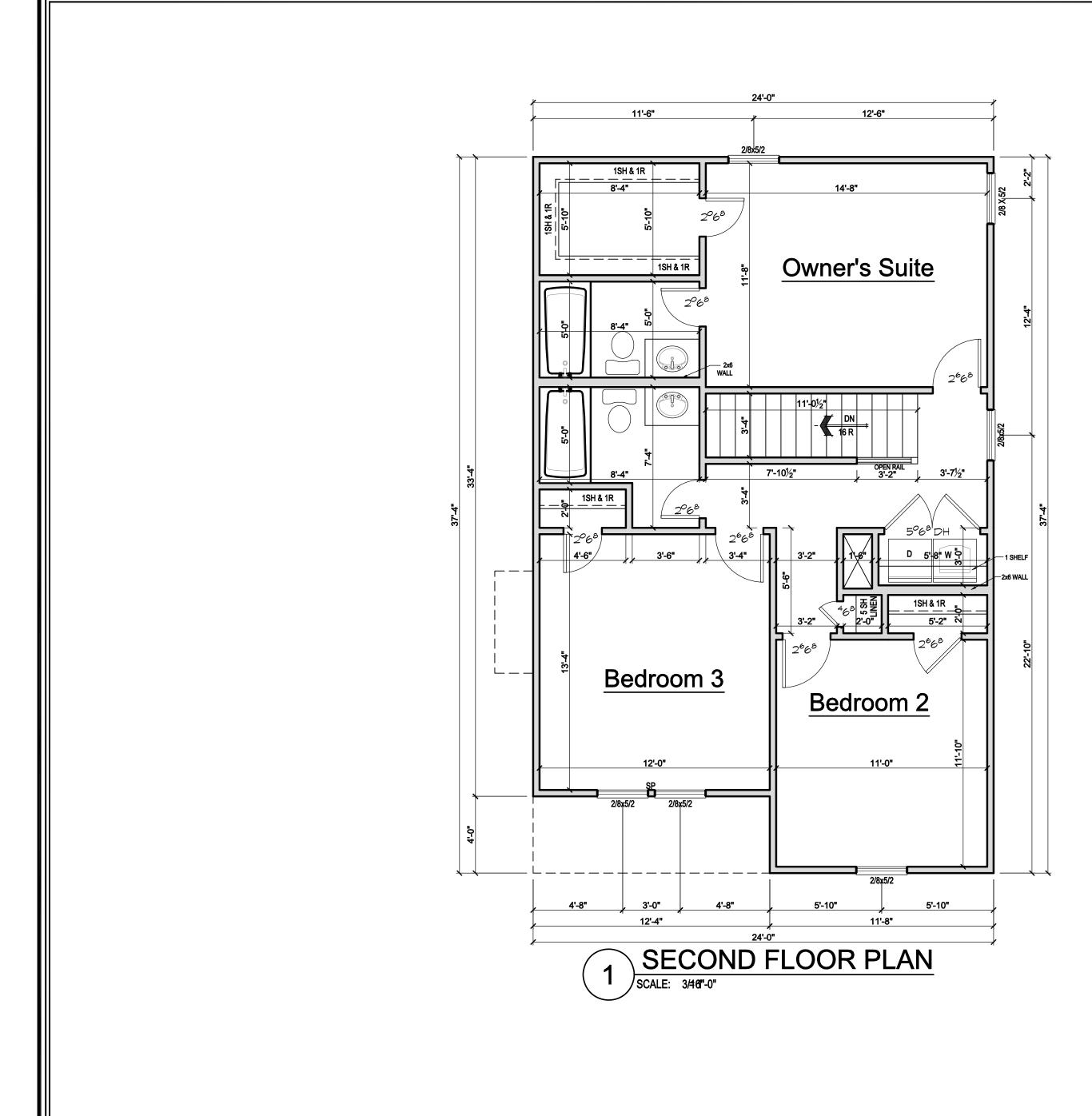
Plan No.

A-1

Sheet No. Of

1 FIRST FLOOR PLAN
SCALE: 3/46"-0"

FIRST FLOOR SECOND FLOOR TOTAL HEATED AREA OVERALL WIDTH OVERALL DEPTH SQUARE FOOTAGE 611 S.F. 810 S.F. 1441 S.F. 24'-0" 37'-4"





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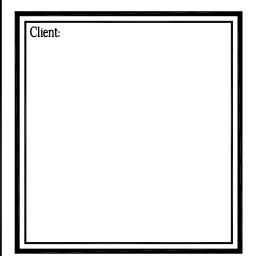
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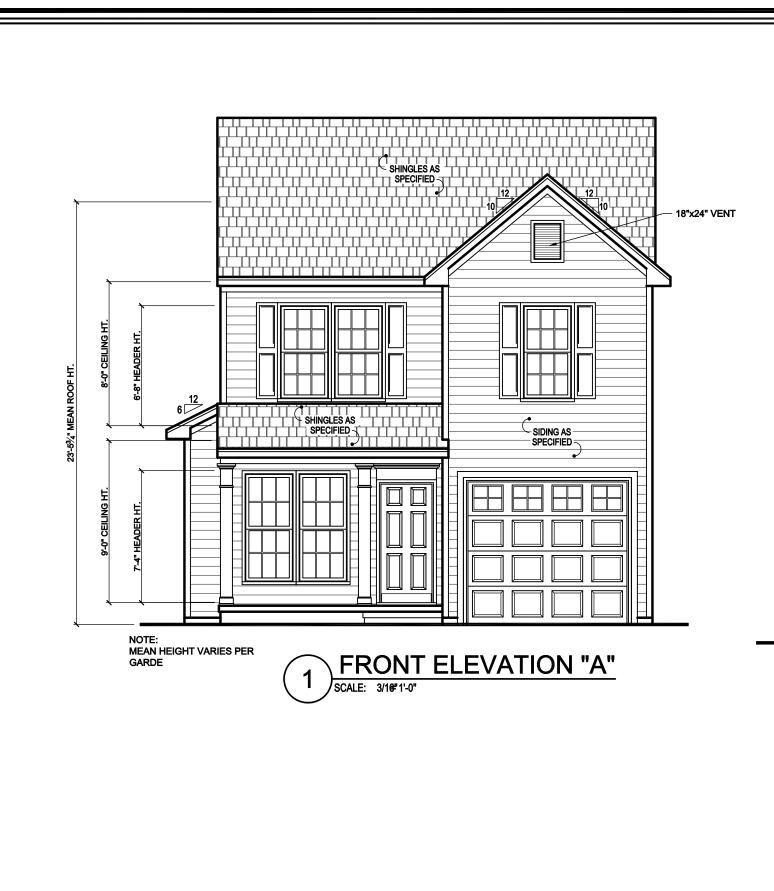
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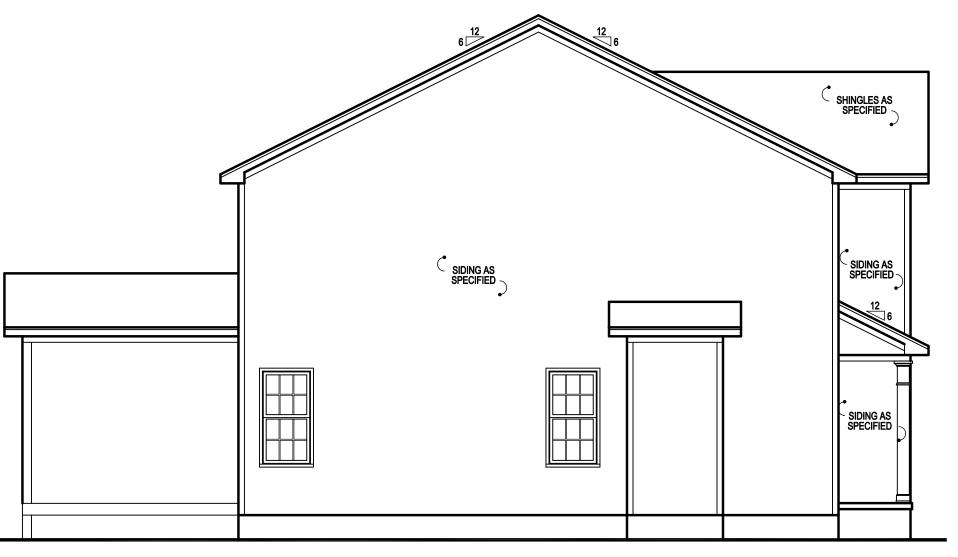
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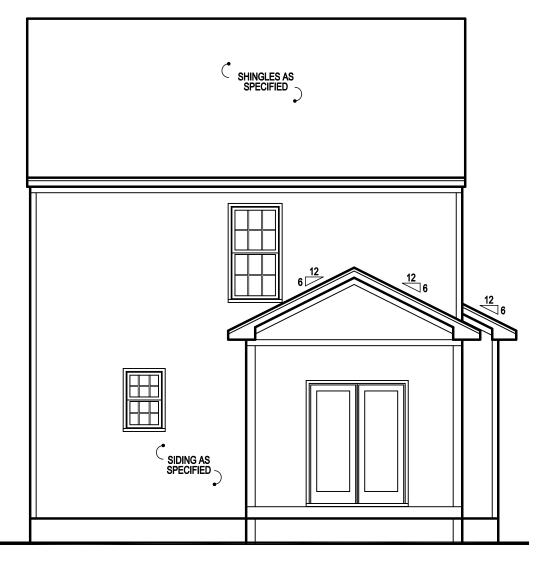


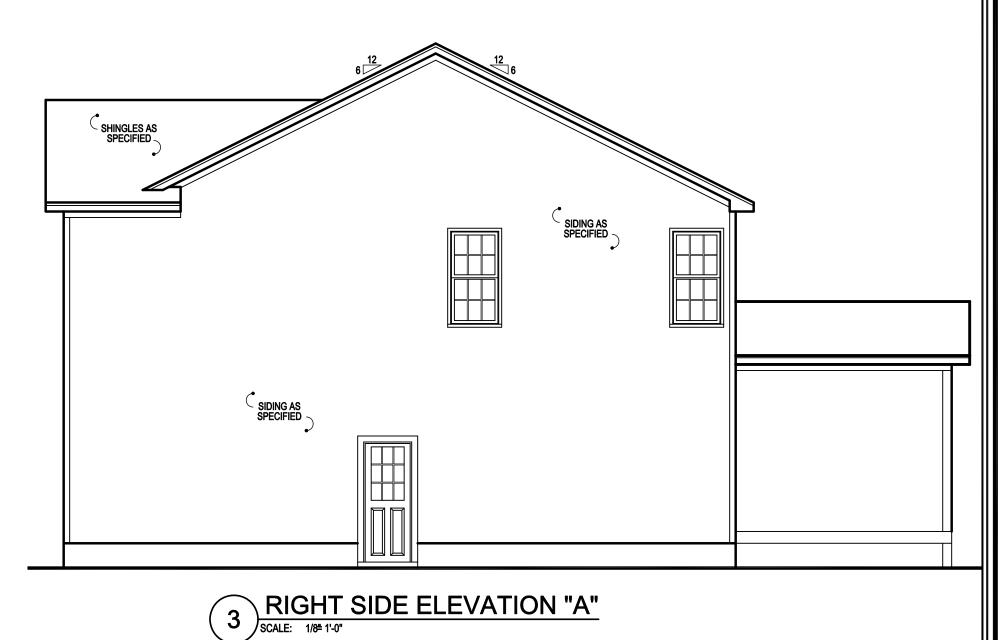
SECOND FLOOR PLAN

A-2Sheet No. Of









2 LEFT SIDE ELEVATION "A"

SCALE: 1/8[±] 1'-0"



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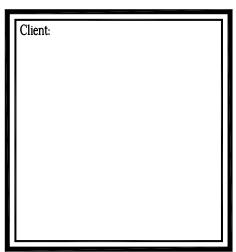
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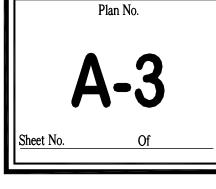
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ELEVATIONS 'A'



REAR ELEVATION "A"

SCALE: 1/8º 1'-0"



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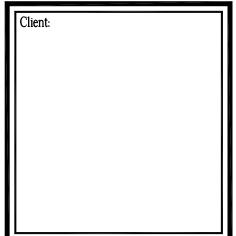
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Title: FOUNDATION

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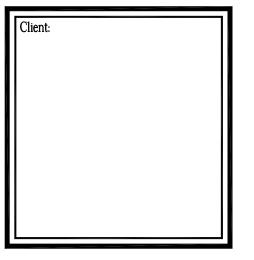
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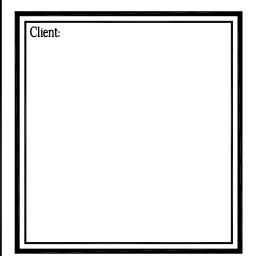
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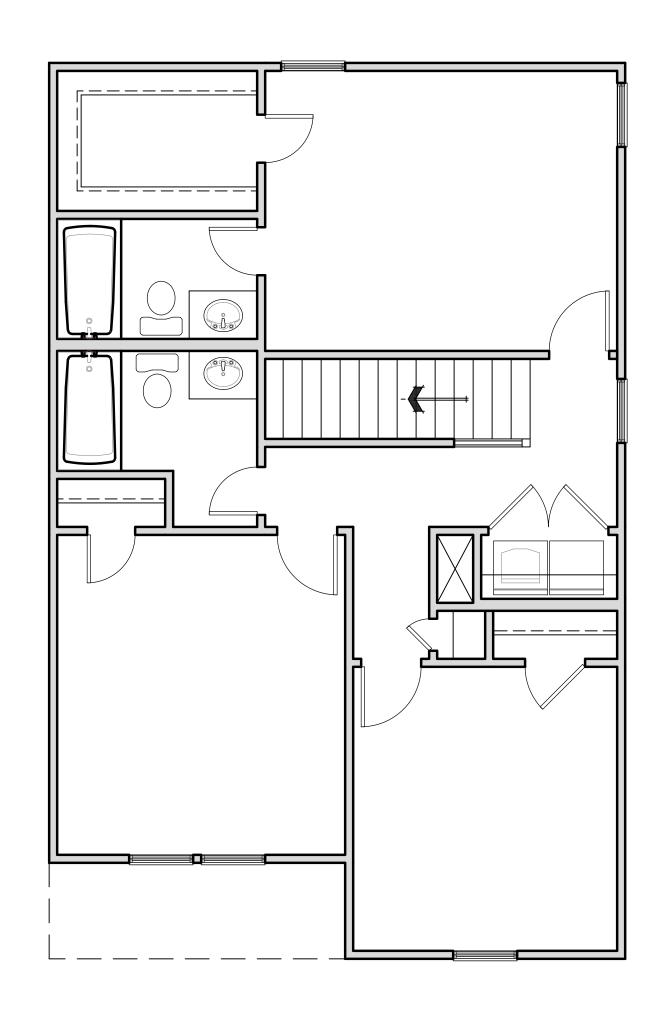
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ELEVATIONS 'B'

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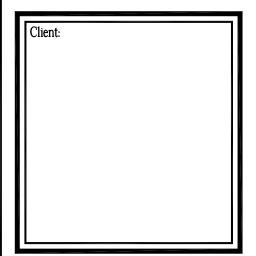
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CEILING FRAMING

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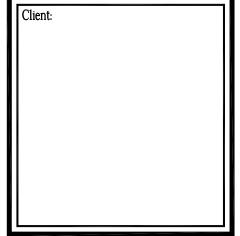
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