

Three Kids Building

Lot #2 Club Drive



**SOUTH
DESIGNS**

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Drawn By:	RWB
Checked By:	RWB
Date:	9-19-2023
Revision No.	Revision Date

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3 Kids Building, LLC
Lot #2
Club Drive

Title

Plan No.
3275

Sheet No. **1** of **8**

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SQUARE FOOTAGE

	HEATED SQUARE FT.	UNHEATED SQUARE FT.
FIRST FLOOR	1861	
SECOND FLOOR	1414	
FRONT PORCH		198
COVERED PORCH		129
SCREEN PORCH		152
1 CAR GARAGE		251
2 CAR GARAGE		488
TOTAL	3275	1218

MEAN ROOF HEIGHT

1 STORY = 11'0"
CLADDING POSITIVE & NEGATIVE PRESSURE = 21 PSF

1 1/2 STORY = 19'0"
CLADDING POSITIVE & NEGATIVE PRESSURE = 34.8 PSF

2 STORY = 19'0"
CLADDING POSITIVE & NEGATIVE PRESSURE = 34.8 PSF

ANCHOR BOLTS

INSTALL ANCHOR BOLTS, NUTS, AND WASHERS PER CODE AT ALL EXTERIOR WALL, TREATED PLATES AND AT INTERIOR BEARING WALL.
TREATED PLATES ON SLAB FOUNDATIONS TO BE A MINIMUM OF 4" O.C. AND WITHIN 12" FROM THE ENDS OF EACH PLATE.

DESIGN PRESSURES

MINIMUM RATING: 25 PSF

M WINDOWS 3500 SERIES
LOW E-GLASS WINDOWS

ABBREVIATIONS

CONC	CONCRETE
CONT	CONTINUOUS
DBL	DOUBLE
DSF	DOUBLE STUD JOIST
EA	EACH
FL PLT	FLAT PLATE
FTG	FOOTING
HOR	HANGER
LVL	LAMINATED VENEER LUMBER
NOT	NOT TO SCALE
OC	ON CENTER
PSL	PARALLEL STRAND LUMBER
PR	PRESSURE TREATED
SC	STUD COLUMN
SP	STUD JOIST
TJ	TRIPLE JOIST
TYP	TYPICAL
UND	UNLESS NOTED OTHERWISE

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 ZONES	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	GLAZED FENESTRATION SHGC U-F	CEILING U-VALUE	WOOD FRAMED WALL U-VALUE	WALL U-VALUE	FLOOR U-VALUE	BASEMENT U-VALUE	SLAB U-VALUE AND DEPTH	CRACK SPACE WALL U-VALUE
0	0.05	0.05	0.05	0	0	0	0.05	0	0	0.05
4	0.05	0.05	0.05	30 OR 34.5	15 OR 16.5	15 OR 16.5	0.15	10	10/15	10/15
5	0.05	0.05	0.05	30 OR 34.5	15 OR 16.5	15 OR 16.5	0.15	10	10/15	10/15

- a. R-VALUES ARE MINIMUMS. U-FACTORS AND SHGC ARE MAXIMUMS.
1. THE FENESTRATION U-FACTOR COLUMN EXCLUDES SKYLIGHTS. THE SHGC COLUMN APPLIES TO ALL GLAZED FENESTRATION.
2. "TYP" MEANS R-4 CONT. INSULATED SHEATHING ON THE INTERIOR OR EXTERIOR OF THE FRAME OR R-4 CAVITY INSULATION AT THE INTERIOR OF THE BASEMENT WALL OR CRACK SPACE WALL.
3. FOR MORTARLESS SLAB, INSULATION SHALL BE APPLIED FROM THE INSPECTION GAP DOWNWARD TO THE BOTTOM OF THE FOOTING OR A MAXIMUM OF 18 INCHES BELOW GRADE. WHICHEVER IS LESS, FOR FLOUTING SLAB, INSULATION SHALL EXTEND TO THE BOTTOM OF THE FOUNDATION WALL OR 24 INCHES, WHICHEVER IS LESS. R-4 SHALL BE ADDED TO THE INSULATED SLAB EDGE U-VALUE FOR HEATED SLAB.
4. R-15 FIBERGLASS BATTIS COMPRESSED AND INSTALLED IN A NOMINAL 2x6 CAVITY IS DEEMED TO COMPLY. FIBERGLASS BATTIS RATED R-10 OR HIGHER COMPRESSED AND INSTALLED IN A 2x6 WALL IS NOT DEEMED TO COMPLY.
5. BASEMENT WALL INSULATION IS NOT REQUIRED IN WARM-HUMID LOCATIONS AS DEFINED BY FIGURE N1101.1 (1) AND (2), AND TABLE N1101.2.
6. OR INSULATION SUFFICIENT TO FILL THE FRAMING CAVITY, R-15 MINIMUM.
7. "TYP" MEANS R-4 CAVITY INSULATION PLUS R-5 INSULATED SHEATHING. 15-41 MEANS R-4 CAVITY INSULATION PLUS R-4 INSULATED SHEATHING. IF STRUCTURAL SHEATHING COVERS 25 PERCENT OR LESS OF THE EXTERIOR, INSULATING SHEATHING IS NOT REQUIRED. IF THE EXTERIOR, INSULATING SHEATHING COVERS MORE THAN 25 PERCENT OF THE EXTERIOR, STRUCTURAL SHEATHING SHALL BE SUPPLEMENTED WITH INSULATED SHEATHING OF AT LEAST R-2. 15-23 MEANS R-4 CAVITY INSULATION PLUS R-2.3 SHEATHING.
8. FOR MASS WALLS, THE SECOND R-VALUE APPLIES WHEN MORE THAN HALF THE INSULATION IS ON THE INTERIOR OF THE MASS WALL.
9. R-4 SHALL BE ADDED TO ANY OF THE CEILING INSULATION REQUIREMENT UNLESS THE FULL HEIGHT OF THE UNCOMPRESSED R-30 INSULATION EXTENDS OVER THE WALL TOP PLATE AT THE EAVES. OTHERWISE, R-5 INSULATION IS REQUIRED WHERE ADEQUATE CLEARANCE EXISTS OR INSULATION MUST EXTEND TO EITHER THE INSULATION RAFFLE OR WITHIN 1" OF THE ATTIC ROOF JOCK.
10. TABLE U-VALUE REQUIRED EXCEPT FOR ROOF EDGE WHERE THE SPACE IS LIMITED BY THE PITCH OR THE ROOF, THERE THE INSULATION MUST FILL THE SPACE UP TO THE AIR RAFFLE.

DESIGN LOADS

TABLE N001.4	LIVE LOAD (PSF)	DEAD LOAD (PSF)
DWELLING UNITS	40	10
SLEEPING ROOMS	20	10
ATTICS WITH STORAGE	20	10
ATTICS WITHOUT STORAGE	10	10
ROOF SNOW	20	10
STAIRS	40	10
DECKS	40	10
EXTERIOR BALCONIES	60	10
PASSINGLY VEHICLE GARAGES	50	—
FIRE ESCAPES	40	10
GUARDRAILS AND HANDRAILS	200	—

MATERIALS

- FRAMING LUMBER SHALL BE #2 SPRUCE PINE FIR (SPF) WITH THE FOLLOWING DESIGN PROPERTIES:
F_b = 875 PSI F_v = 70 PSI E = 1,464 PSI
- FRAMING LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE #2 SOUTHERN YELLOW PINE (SPY) TREATED IN ACCORDANCE WITH AWWA C20 WITH THE FOLLOWING DESIGN PROPERTIES:
F_b = 1060 PSI F_v = 95 PSI E = 1,464 PSI
- ENGINEERED WOOD BEAMS SHALL BE LAMINATED VENEER LUMBER (LVL) OR PARALLEL STRAND LUMBER (PSL) WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES:
F_b = 2800 PSI F_v = 280 PSI E = 1,964 PSI
- STRUCTURAL STEEL SHALL CONFORM TO ASTM A500 MINIMUM GRADE.
- BOLTS SHALL CONFORM TO ASTM MINIMUM GRADE.
- REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A636 GR. 60.
- POURED CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. MATERIALS USED TO REDUCE CONCRETE SHALL COMPLY WITH THE APPLICABLE STANDARDS LISTED IN A308 OR A308.101.
- CONCRETE LOCATED PER **TABLE N002.2** SHALL BE AIR ENTRAINMENT WITH THE TOTAL AIR CONTENT NOT LESS THAN 5 PERCENT OR MORE THAN 7 PERCENT.
- MASONRY UNITS SHALL CONFORM TO ASTM S305 TYPE S3 AND MORTAR SHALL COMPLY WITH ASTM C 270.
- ALLOWABLE SOIL BEARING PRESSURE 2000 PSF.

GENERAL

1. CONTRACTOR SHALL ABIDE BY STRUCTURAL CONVENTIONS ONLY AND DOES NOT COPY BY ARCHITECTURAL LAYOUT OR DIMENSIONAL ACCURACY. ENGINEERS NOT RESPONSIBLE FOR CONSTRUCTION METHODS OR ANY DEVIATION FROM THE PLANS.

ALL CONSTRUCTION WORKMANSHIP, MATERIAL QUALITY AND SECTION SHALL BE IN ACCORDANCE WITH THE **NORTH CAROLINA STATE BUILDING CODE, RESIDENTIAL CODE AND SECTION 302.1** OF THE INTERNATIONAL RESIDENTIAL CODE BOOK (IRC) AND ALL LOCAL CODES AND REGULATIONS. DEPENDENCIES SHALL GOVERN OVER SCALE AND CODE SHALL GOVERN OVER DIMENSIONS.

ADDITIONAL LOADS

- POURING R001.2(4)** - ULTIMATE DESIGN WIND SPEEDS 115 TO 120 MPH
- POURING R001.2(5)** - SEISMIC DESIGN CATEGORY B
- TABLE N002.2** - DESIGN POSITIVE AND NEGATIVE PRESSURE FOR DOORS AND WINDOW FOR A MEAN ROOF HEIGHT OF 15 FEET. COLUMN SHALL BE 25 PSF
- TABLE R001.2(2)** - COMPONENT AND CLADDING LOADS FOR A MEAN ROOF HEIGHT OF 30 FEET OR LESS LOCATED IN CATEGORY B
- ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE DETERMINED BASED ON ROOF PITCHES AS FOLLOWS:
4:12 4:12 TO 2:12 25.0 34.8 PSF FOR 2:12 TO 1:12 AND 21 PSF FOR 1:12 TO 12:12
WALL CLADDING IS DETERMINED FOR A 24.1 PSF POSITIVE AND NEGATIVE PRESSURE.

ENERGY COMPLIANCE

- TABLE N1101.1** - REFER TO TABLE N1101.1 TO DETERMINE THE CLIMATE ZONE BY COUNTY AND REFER TO TABLE N1101.1 FOR U-VALUE INSULATION REQUIREMENTS LISTED BY ZONE.
- TABLE N1101.1 - ZONE 7** - MAX. GLAZING U-FACTOR: **0.05** MIN. INSULATION U-VALUES: CEILING: **R-10** WALLS: **R-13** FLOORS: **R-10** CASSETT WALLS: **R-7** CASSETT FLOOR: **R-5** CRACK SPACE WALLS: **R-7**
- TABLE N1101.1 - ZONE 8** - MAX. GLAZING U-FACTOR: **0.05** MIN. INSULATION U-VALUES: CEILING: **R-10** WALLS: **R-13** FLOORS: **R-10** CASSETT WALLS: **R-8** SLAB PERIMETER: **R-4.5** CRACK SPACE WALLS: **R-8**

CONSTRUCTION

- STEEL PLATE BEAMS SHALL BE FASTENED TOGETHER WITH 1/2" DIAMETER BOLTS WITH WASHERS PLACED UNDER THE WELDED ENDS OF THE JOIST. BOLTS SHALL BE SPACED 18" MAXIMUM AT 1/4" STAGGERED TOP AND BOTTOM OF BEAM WITH A MINIMUM 2" EDGE DISTANCE. TWO BOLTS SHALL BE LOCATED AT EACH END OF EACH JOIST.
- STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3" AND FULL FLANGE WIDTH. BEAMS MUST BE ANCHORED AT EACH END WITH A MINIMUM OF FOUR REBAR OR TWO 12" x 4" LAG SCREWS.
- ENGINEERED WOOD BEAMS SHALL BE INSTALLED WITH ALL CONNECTIONS PER MANUFACTURER'S INSTRUCTIONS.
- 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.
- SOILD BLOCKING SHALL BE PROVIDED AT ALL POINT LOADS TO TRANSFER LOADS THROUGH FLOOR LEVELS. CONNECTIONS SHALL BE CONTRIBUTED TO THE FOUNDATION OR TO OTHER STRUCTURAL ELEMENTS.
- ENGINEERED WOOD FLOOR SYSTEMS AND ROOF TRUSS SYSTEMS SHALL BE PROVIDED FOR REVIEW AND CORRECTIONS WITH THE ENGINEER OF RECORD. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- WALL BRACING REQUIREMENTS SHALL BE IN ACCORDANCE WITH **SECTION N001.2** OF THE NORTH CAROLINA RESIDENTIAL CODE.
- BRICK UNITS SHALL BE 3/8" x 12" x 14" STEEL ANGLE FOR UP TO 10" MAXIMUM SPAN AND 4" x 4" S70 FOR SPANS GREATER THAN 10".
- BRICK UNITS AT SLOPED AREAS SHALL BE 4" x 12" x 14" STEEL ANGLE WITH 16MM DIA. IN 3/8" HOLES IN 4" ANGLE LOCATED 12" ON TO CORNER BRACKET. WHEN THE SLOPE EXCEEDS 4:12 A MINIMUM OF 3/4" x 4" x 16 PLYS SHALL BE WELDED AT 24" OC ALONG THE STEEL ANGLE.



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3 Kids Building, LLC
Lot #2
Club Drive

Client

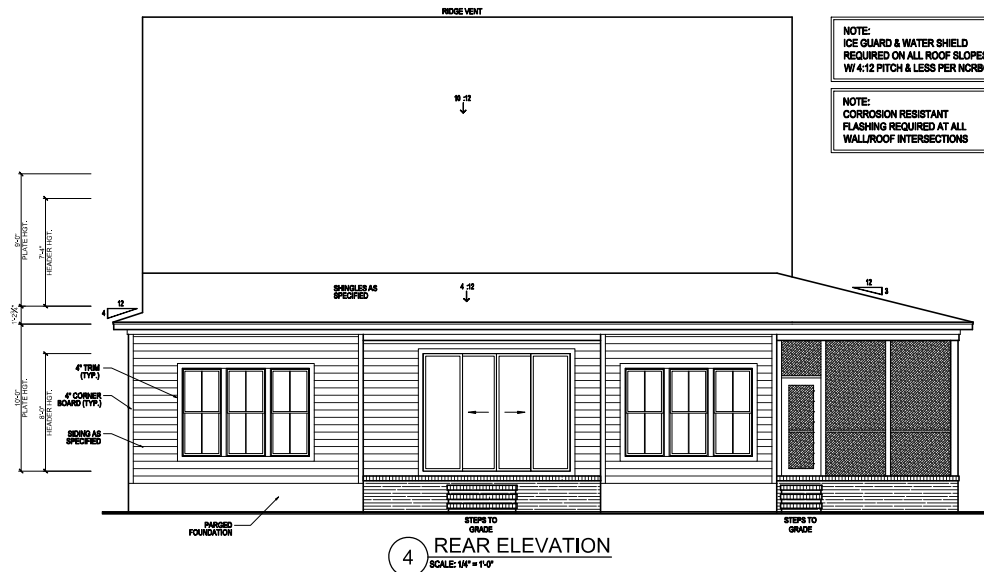
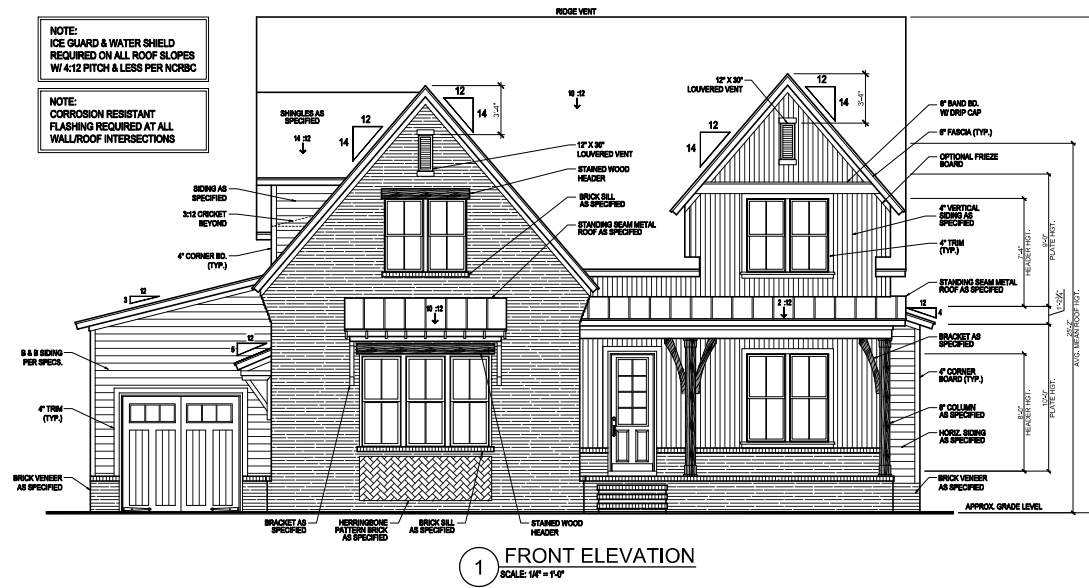
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Plan No.

3275

Sheet No.

2 of **8**





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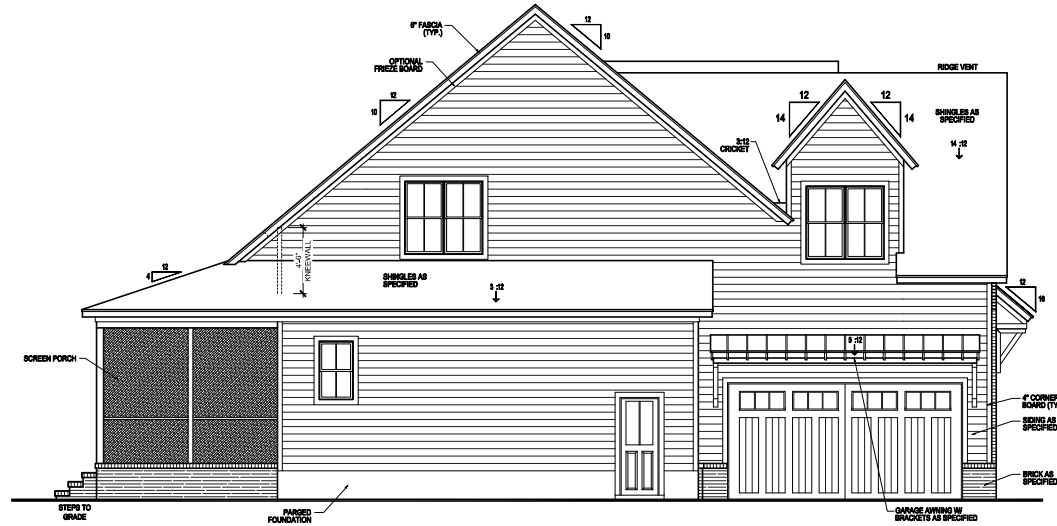
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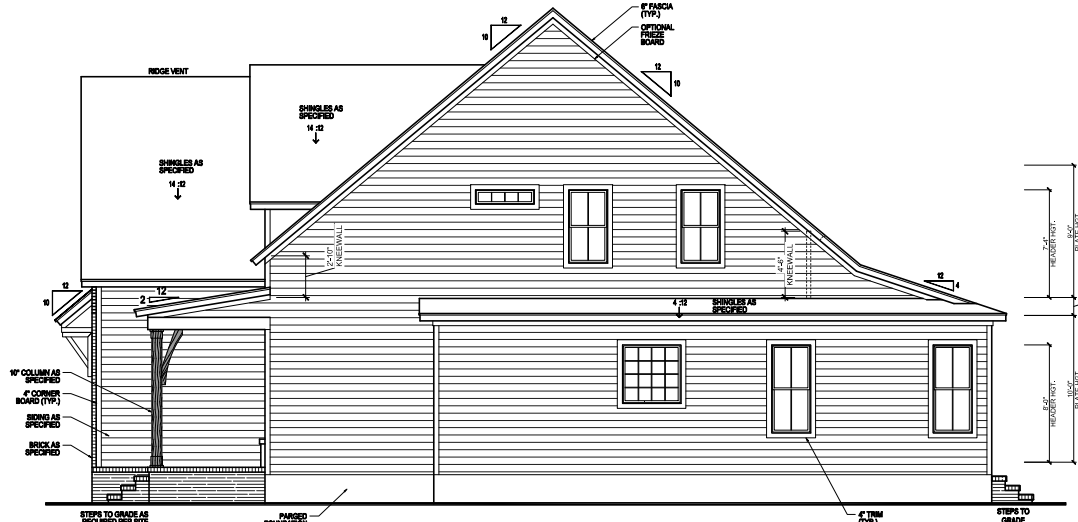
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Plan No.
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Sheet No. **3** of **8**



3 LEFT SIDE ELEVATION
SCALE: 1/4" = 1'-0"



2 RIGHT SIDE ELEVATION
SCALE: 1/4" = 1'-0"



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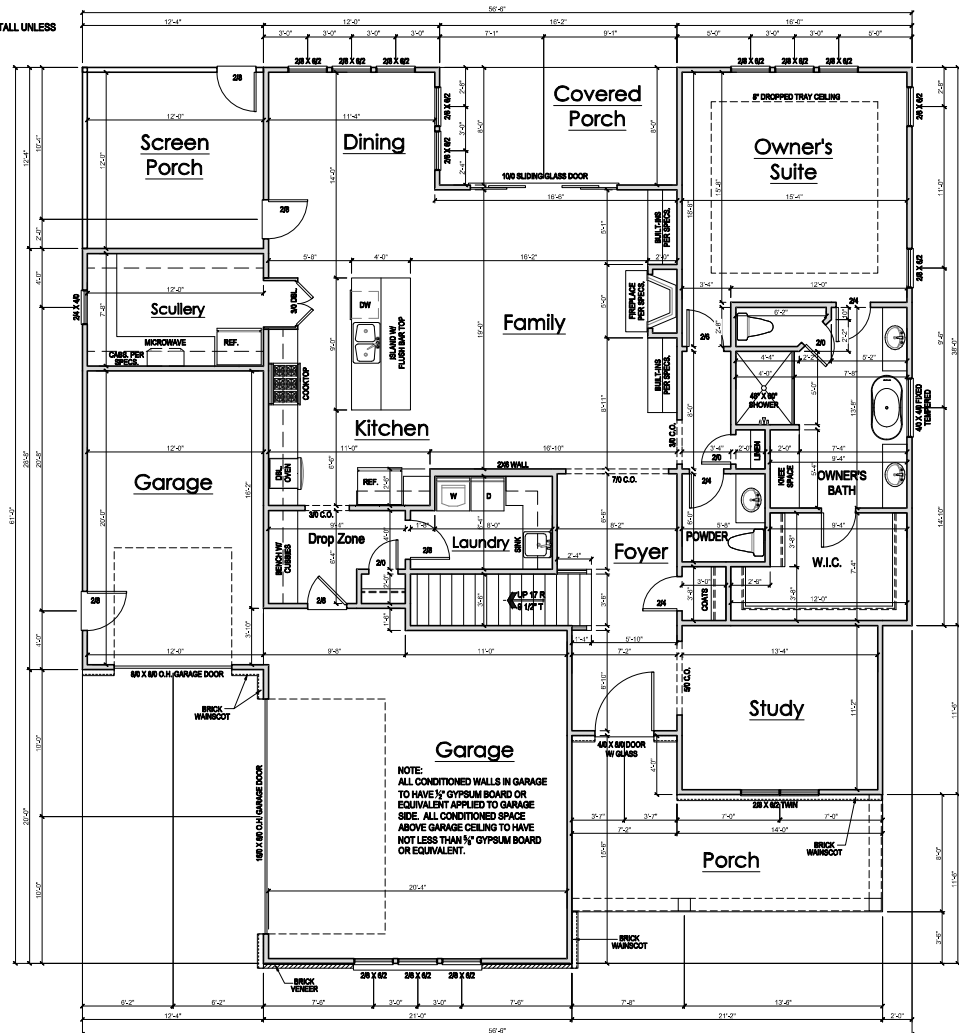
General Floor Plan Notes

General Floor Plan Notes shall apply unless noted otherwise on plan.

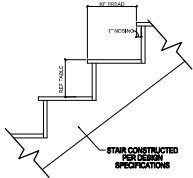
1. Wall Heights: Typically 9'-1-1/2" at basement and first floor, and 8'-1-1/2" at bonus room, U.N.C. All walls are constructed using a double top plate. Splines in Double Top Plate do not need to occur at Vertical Studs but must be at least 24" apart from Joint in other Top Plate layer. Special wall heights are noted on plans where they occur.
2. Wall Thickness is shown 4" at both exterior and interior walls U.N.C. 2x6 frame shall be used at walls that back up to plumbing fixtures. Walls greater than 10' high shall be framed with 2x6 forming or greater and will be noted as a special condition where it occurs on plan.
3. Header height shall be 7'-4" AFF at basement, 7'-8" AFF at first floor, and 7'-0" AFF at second floor, unless noted otherwise.
4. All headers for exterior windows and doors are (2) 2x10 unless noted otherwise. Headers for interior doors shall be a min (2) 2x6.
5. Jacks: Openings up to 3'-4" wide shall have (1) 2x4 jack stud SPF on each side. Openings greater than 3'-4" wide shall have (2) 2x4 jack studs SPF on each side.
6. Soffits, Coffered Ceilings, Tray Ceilings and other significant ceiling plan elements are shown on the floor plans and are denoted as single drained fans. Unless specifically call out as included. Kitchens include soffits over wall cabinetry.
7. Door & Window Frames, where occurring near corners, shall be a minimum of 4" from corner. Except for walk-in closets with doors near a corner, doors at closets shall be centered on closet.
8. Windows: Shall have at least (1) window in each sleeping room, that meets egress. Shall be provided with tempered glass at hazardous glazing areas. False windows shall be installed with obscure glazing.
9. Handrails and Guards at stairs shall be 34" above the finished surface of the ramp surface of the stair. Handrails at landings and overlooks of multilevel spaces shall be 36" above finished floor. Guards (pickets or balusters) shall be spaced so that a 4" cannot pass through the guards.
10. Attic Access shall be provided at all attic area with a height greater than 30". Minimum clear attic access shall be 30" x 30". Full down stairs and access doors in knee walls require minimum criteria are also acceptable.
11. Garage Door to Living Space shall be 2'-8" x 8'-8" minimum size and shall be 20 minute fire rated and weather sealed.
12. Provide 1/2" (minimum) gypsum board separation at walls and ceilings adjacent to the main house and attic areas. With habitable space above, the inside of all garage walls require 1/2" GWB supporting 5/8" type X GWB on ceiling.
13. Provide the following minimum thermal protection for each wall, floor, etc. in the building thermal envelope:

Ceilings:	R-30 (energy head)
Walls:	R-15
Cant/Inverted floors:	R-19
Ground floors:	R-19
Basement Walls:	R-10 / R-15
14. Wall bracing is per the CS-WSP method of R602.10.3.1, of the current North Carolina Residential Code, unless noted otherwise.

NOTE:
ALL DOORS ARE 8'-0" TALL UNLESS
NOTED OTHERWISE



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



STAIR CONSTRUCTED
PER MECHANICAL
SPECIFICATIONS

RISER HEIGHTS PER STAIR CONFIGURATION			
PLATE HEIGHT	10" FLOOR SYSTEM	14" FLOOR SYSTEM	16" FLOOR SYSTEM
35'-1 1/2"	14 RISERS @ 7 11/16"	15 RISERS @ 7 1/2"	15 RISERS @ 7 5/8"
35'-1 1/2"	16 RISERS @ 7 1/2"	16 RISERS @ 7 3/4"	17 RISERS @ 7 1/2"
10'-1 1/2"	17 RISERS @ 7 3/4"	18 RISERS @ 7 9/16"	18 RISERS @ 7 11/16"

2 TYPICAL STAIR DETAIL
SCALE: 3/8" = 1'-0"

NOTE:
HANDRAILS SHALL BE PROVIDED 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. R311.2.8

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

NOTE:
ALL CONDITIONED WALLS IN GARAGE
TO HAVE 1/2" GYPSUM BOARD OR
EQUIVALENT APPLIED TO GARAGE
SIDE. ALL CONDITIONED SPACE
ABOVE GARAGE CEILING TO HAVE
NOT LESS THAN 1/2" GYPSUM BOARD
OR EQUIVALENT.

SQUARE FOOTAGE

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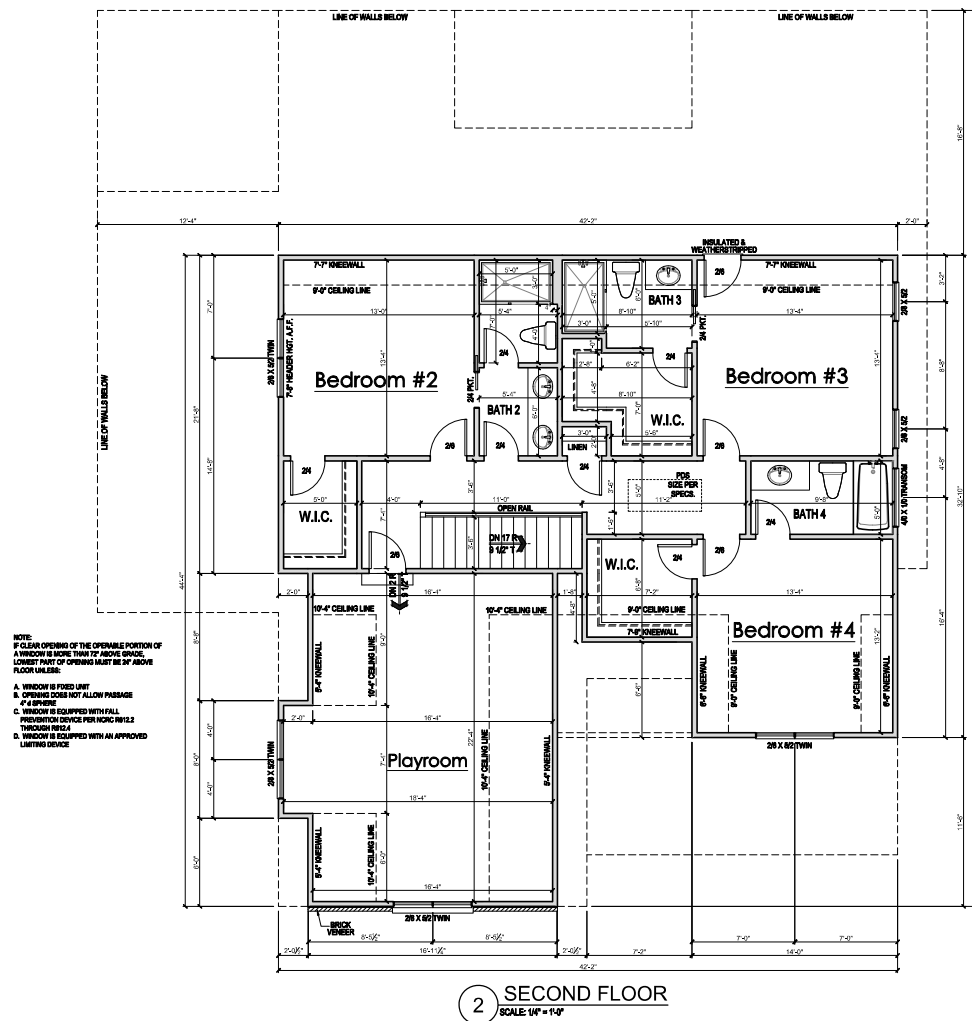
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2 SECOND FLOOR
SCALE: 1/4" = 1'-0"