



REAR ELEVATION

N1102.1.2 OF 2018 NCRC INSULATION REQUIREMENTS

FLOOR R-19 WALL R-15 **ROOF R-38**

2018 NC Recidential Code

R308.4.2 Glazing adjacent to doors.

Glazing in an individual fixed or operable panel adjacent to a in the same plane $% \left\{ 1,2,\ldots ,n\right\}$ as the door shall be considered to be a hazardous location where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) above the floor or walking surface and it meets either of the following conditions: 1. Where the glazing is within 24 inches (610 mm) of either side of the door $\,$ in the plane of the door in a closed position.

Emergency Escape And Rescue Openings

NCRC 2018 R310 Emergency escape and rescue opening required. Basements, habitable attics and every sleeping room shall have not less than one emergengy escape and rescue opening. Where basements contain one or more sleeping rooms, an emergency escape and rescue opening shall be required in each sleeping room. Emergency escape and rescue openings shall open directly into a public way , or yard or court that opens too a public way

R310.1 Operational constraints and opening control devices Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys, tools or special knowledge. Window opening control devices complying with ASTM F2090 shall be permitted for use on windows serving as a required emergency escape and rescue opeming.

R310.2.1 Minimum opening area.

Emergency and escape rescue openings shall have a minimum net clear openable area of 4 square feet (0.372 m2). The minimum net clear opening height shall be 22 inches (558 mm). The minimum net clear opening width shall be 20 inches (508 mm). Emergency escape and rescue openings must have a minimum total glazing area of not less than 5 square feet (0.465 m2) in the case of a ground floor level window and not less than 5.7 square feet (0.530 m2) in the case of an upper story window.

WINDOWS WITHIN 18" OF FLOOR SHALL BE TEMPERED. 1ST. FLOOR WINDOWS ABOVE 6' FROM GRADE AND ALL 2ND, FLOOR WINDOWS SHALL HAVE SAFTY LATCHES.

20" MIN FLOOR INSIDE ROOM

R311.1 Means of egress.

All dwelling sshall be provided with a means of egress as provided in this section. The means of egress shall provide a continuous and unobstructed path of vertical and horizontal egress travel from all portions of the dwelling to the exterior of the dwelling at the required exterior egress door without requiring travel through a garage.

R311.2 Egress door.

Not less than one exterioregress door shall be provided for each dwelling unit. The egress door shall be side-hinged, and shall provide a clear width of not less than 32 inches (813 mm) where measured between the face of the door and $\,$ the stop, with the door open 90 degrees (1.57 rad). The clear height of the door opening shall be not less than 78 inches (1981 mm) in height measured from the top of the threshold to the bottom of the stop. Other exterior doors shall not be required to comply with these minimum dimensions. Egress doors shall be readily openable from inside the dwelling without the use of a key or special knowledge or effort.

The width of a hallway shall be not less than 3 feet (914 mm) measured from the finished surface of the walls.

R311.6.1 Interior egress doors.

All doors providing egress from habitable rooms shall have nominal minimum dimensions of 2 feet 6 inches (782 mm) width by 6 feet 8 inches (2032 mm) height. Interior egress doors shall be readily openable from the side from which egress is to be made without the use of a key or special knowledge or effort.

- ATTENTION

 1. ALL WORK SHALL MEET ALL LOCAL, STATE, AND NATIONAL CODES APPLICABLE AT TIME OF CONSTRUCTION.

 2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORESTARTING CONSTRUCTION

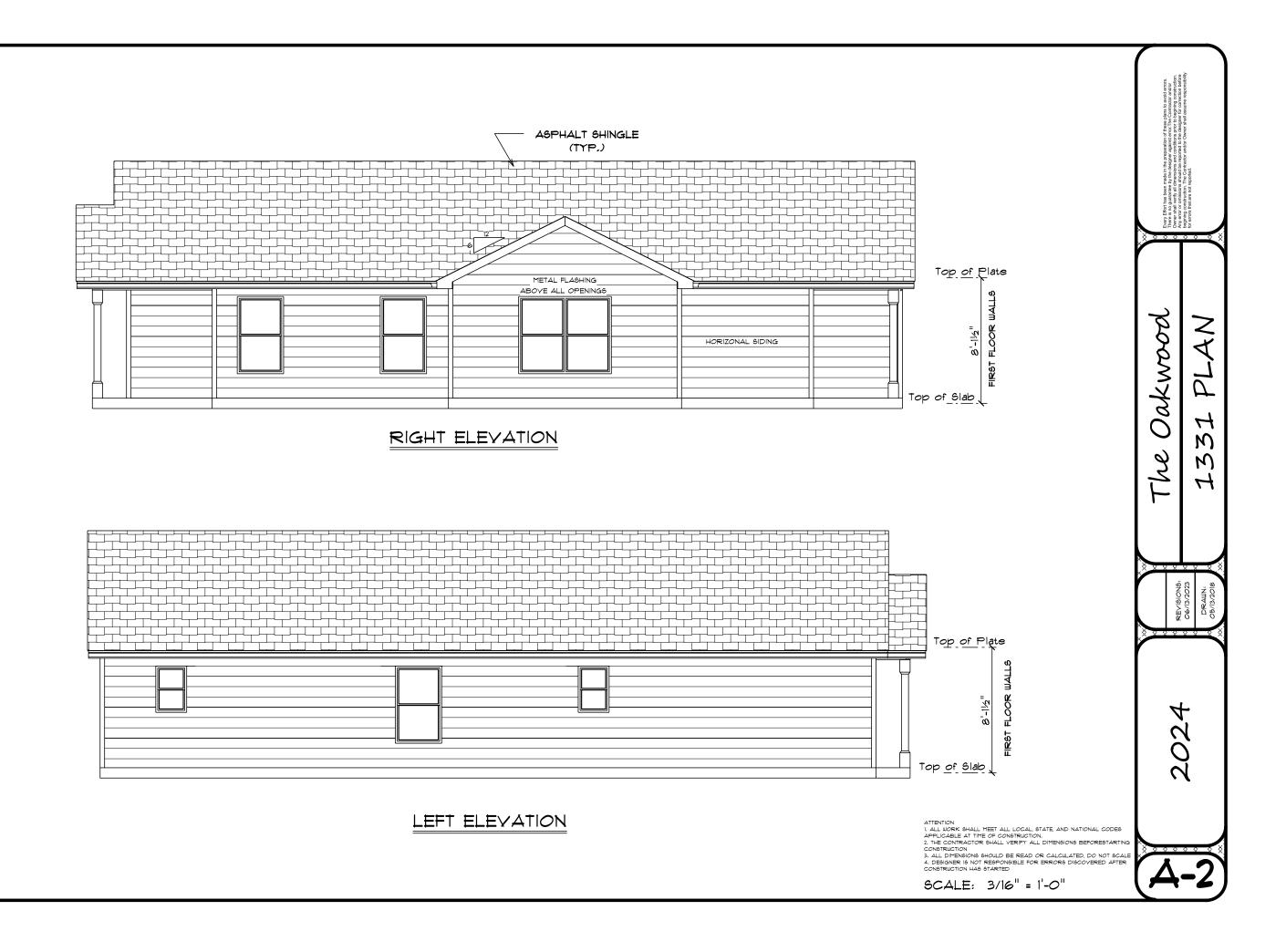
 3. ALL DIMENSIONS SHOULD BE READ OR CALCULATED, DO NOT SCALE

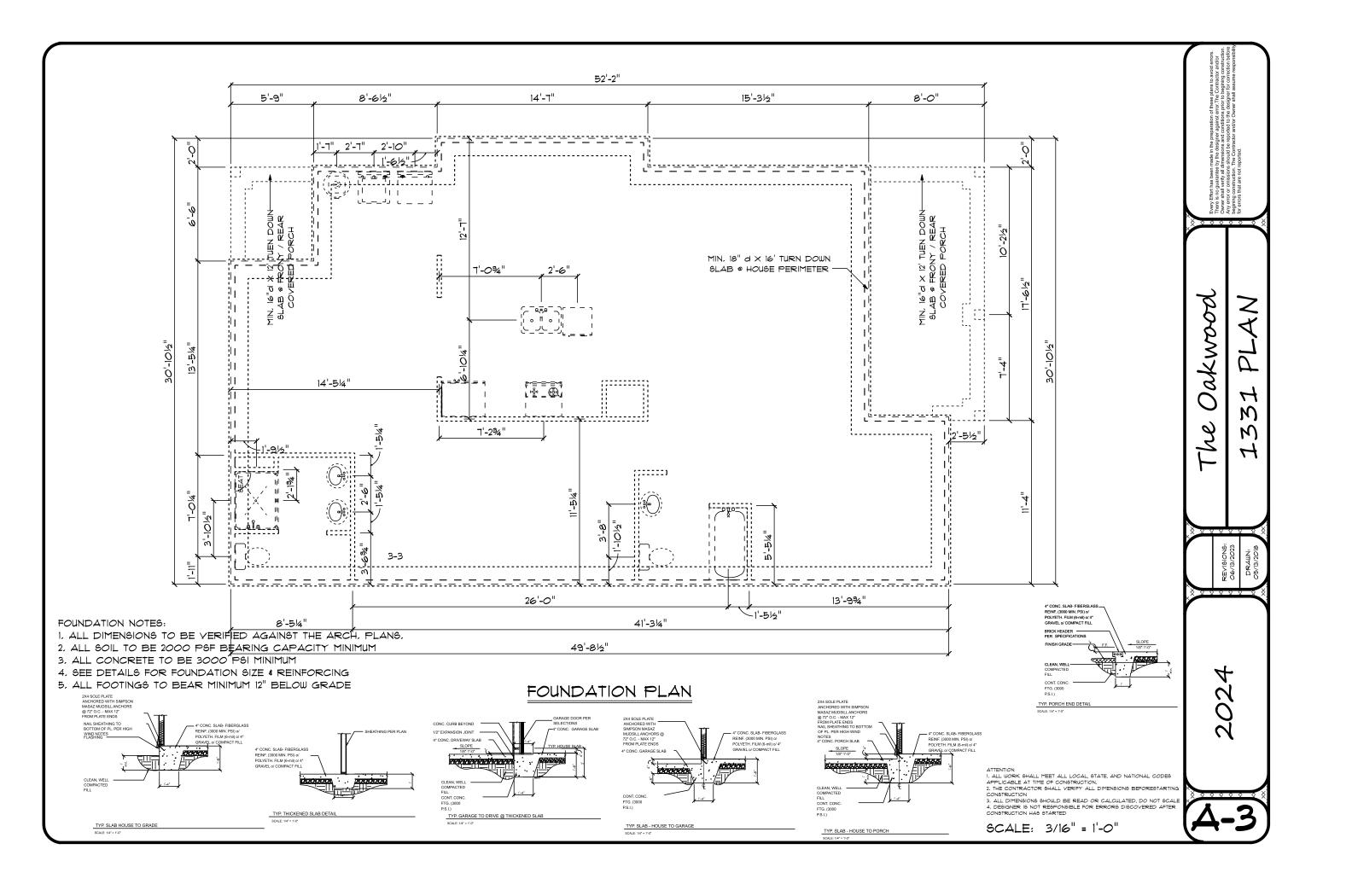
 4. DESIGNER IS NOT RESPONSIBLE FOR ERRORS DISCOVERED AFTER CONSTRUCTION HAS STARTED

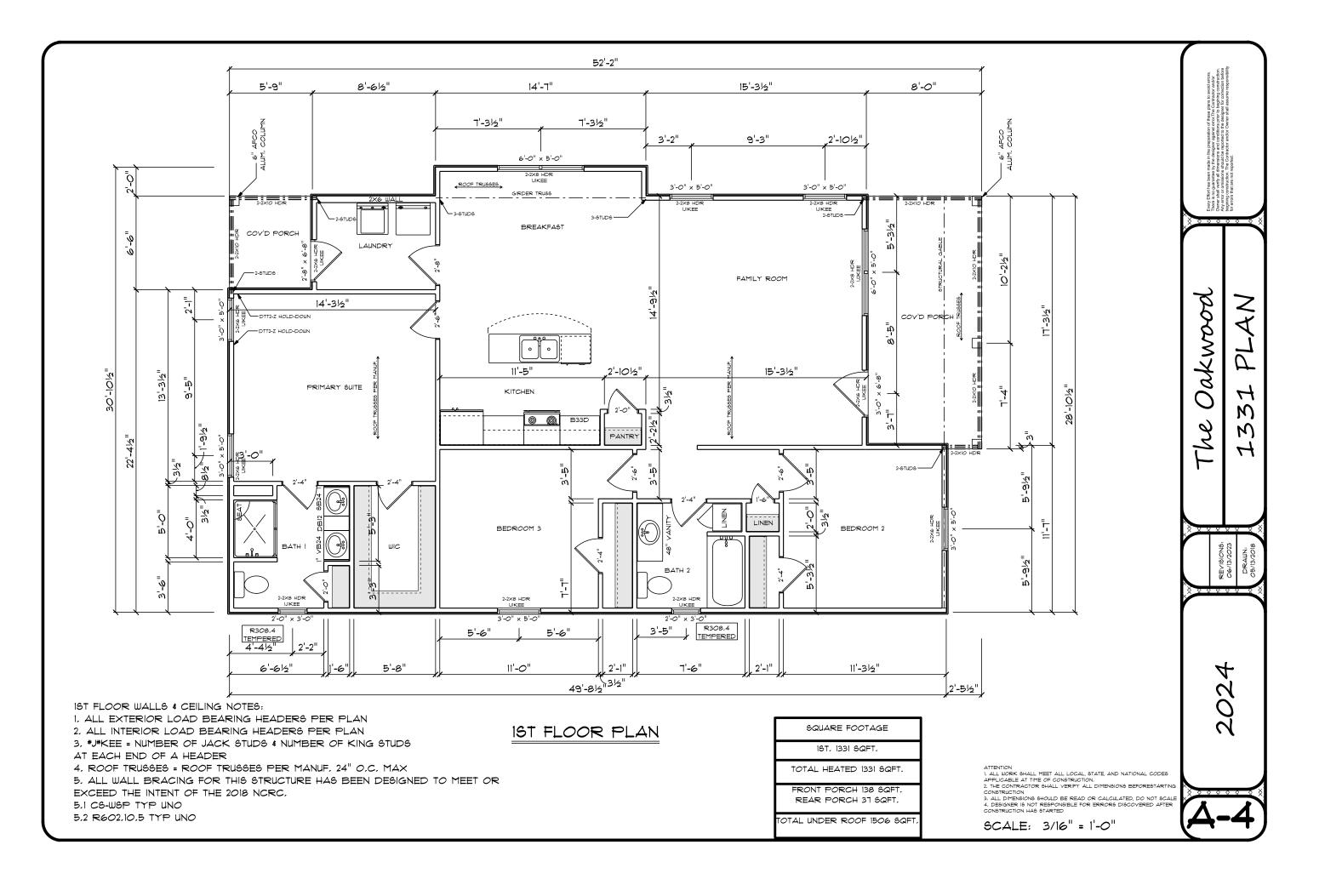
SCALE: 3/16" = 1'-0"

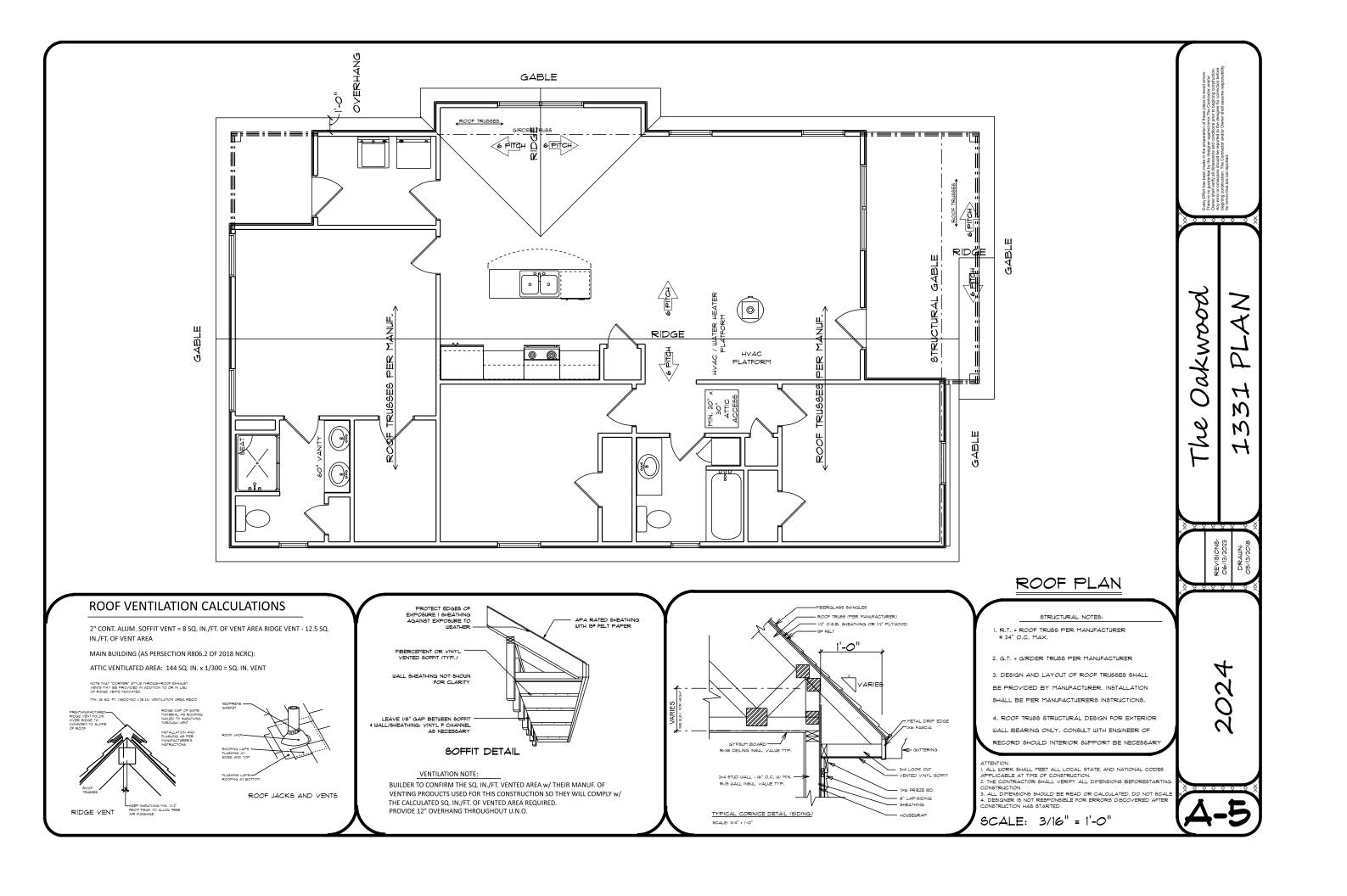
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RESIDENTIAL FOUNDATIONS:

1) ALL CONTINUOUS WALL FOOTINGS ARE 8 " X 12 " FOR ONE-STORY AND 8"XIS" FOR TWO-STORY HOUSES WILESS OTHERWISE NOTED.
REINFORCING IS TO BE 46 NOTED ON PLANS. FOOTINGS ON ORIGINAL SOIL DO NOT NEED REBAR. REBAR IS REQUIRED ON ANY
COMPACTED FILL REGARDLESS OF COMPACTION.

COMPACTED FILL REGARDLESS OF COMPACTION.

ALL INTERIOR PIERS ARE 5 "X is "CMU PT 0.4 MAXIMUM HEIGHT OF 32 ", ALL PIERS OVER 32 " HIGH MUST BE FILLED WITH TYPE 5
MORTAR, MAXIMUM HEIGHT FOR 8 "X is "FILLED PIER IS 6-5 ", PIERS LARGER THAN 8 "X is "ARE NOTED ON PLANS AND MUST BE
FILLED WITH TYPE 5 MORTAR. FOR ONE-STORY STRUCTURES, PIER CAPS ARE TO BE 4 " 50LID MASONRY, FOR TWO-STORY
STRUCTURES, PIER CAPS ARE TO BE 2 " OF SOLID MASONRY,
FOOTINGS FOR 8 "X is "PIERS ARE 24 "X 36" X IO "NULESS NOTED OTHERWISE. REINFORCING IS TO BE 46 NOTED ON PLANS.
INTERIOR THICKENED 5LAS FOOTINGS WHICH COCCUR IN BASYMENTS AND "SLAB ON GRADE FLOORS ARE 10" DEEP BY IS "WIDE WITH
2-41 REINFORCING BARS RUNNING CONTINUOUSLY UNLESS NOTED OTHERWISE. THICKENED FOOTINGS ARE REQUIRED UNDER ALL
BEARNING WALLS.

5) ALL REBAR SPLICES SHALL BE A MINIMUM OF 2'-0 " UNLESS OTHERWISE NOTED.

59 ALL REDAR SPLICES SHALL BE A TIMINING TO YOUR DESCRIPTION OF THE MORE THAN 15 THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ENGINEER OF RECORD IF ANY SOLIS ARE FOUND TO BE UNSUITABLE FOR THIS BEARING CAPACITY. THEE CONTRACTOR IS RESPONSIBLE FOR ON THE SOLID TO BE UNSUITABLE FOR THIS DEARING CAPACITY. THEE CONTRACTOR IS RESPONSIBLE FOR OBTAINING SOLI TESTING TO REJUGE THAT THE BEARING CAPACITY OF THE SOLIN MEETS OR EXCEEDS THIS VALUE. ALL FILL IS TO BE COMPACTED TO 95% DENSITY AS MEASURED BY THE STANDARD PROCTOR TEST (ASTM

D-698).

1) ALL SOLIS AND FILL UNDER FLOORS AND/OR WITHIN OR UNDER BUILDINGS SHALL HAVE PRECONSTRUCTION SOIL TREATMENT FOR PROTECTION AGAINST TERMITES, CERTIFICATION OF COMPLIANCE SHALL BE 1684ED TO THE BUILDING DEPARTMENT BY A LICENSED PEST CONTROL. COMPANY.

8) ALL FROTING EXCAVATIONS SHALL BE NEAT, STRAIGHT, AND LEVEL IN THE PROPER ELEVATIONS TO RECEIVE THE CONCRETE, EXCESSIVE VARIATIONS IN THE DIMENSIONS OF FOOTINGS OR SLABS WILL NOT BE PERMITTED, REINFORCING STEEL AND MESH SHALL BE ACCURATELY PLACED, AND SUPPORTED TO MAINTAIN THEIR POSITION DURING THE CONCRETE POLITING. EDGE FORMS SHALL BE USED

FOR CONCRETE THAT WILL BE EXPOSED.

9. ALL SLAB PENETRATIONS ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR. PENETRATIONS INTERFERING WITH REINFORCING SHALL BE APPROVED BY THE REININEER OF RECORD PRIOR TO THE PLACEMENT OF CONCRETE.

10) ELEVATIONS DIFFERENCES BETWEEN THE BOTTOM OF ADJACENT FOOTINGS SHALL BE LESS THAN THEIR HORIZONTAL DISTANCE LESS ONE FOOT. DIFFERENTIAL HEIGHTS BETWEEN FOOTINGS CAN BECOME EXCESSIVE USUALLY WHERE A PIER FOOTING IN A GRAWLEPACE OR GARAGE FOOTING IS NEXT TO A BASEMENT WALL FOOTING.

SPECIAL FOUNDATION CONSIDERATIONS:

1) CAISSON FOUNDATIONS SHALL BE A HIMMUM OF 12. "DIAMETER DRILLED UNREINFORCED CONCRETE CAISSONS, CAISSONS SHALL EXTEND TO A MINIMUM DEPTH FOROURING, "ENERTRATIONS INTO GOOD ORIGINAL GROUND. DEPTH OF DRILLING IS LIMITED TO IS."

THEREFORE, NO POOR MATERIAL MORE THAN IS DEEP IS SUITABLE FOR A CAISSON FOUNDATION. A CAISSON CANNOT BE USED IF URTER RISES IMMEDIATELY INTO A DRILLED HOLE. PILES WILL HAVE TO BE USED IN SUCH CASES.

TREATED WOOD PILES WITH A MINIMUM DAISTER OR 6. "AND A HIMMUM DESIGN LOAD OF SIX TONS ARE USED FOR ALL FOUNDATIONS WITH UNSUITABLE SOIL DEEPER THAN IS "OR WITH WATER IN DRILLED CAISSON HOLES. DRIVE PER NORTH CAROLINA OR SOUTH

3) SIZES AND REINFORCING FOR FOOTING CAPS OVER CAISSONS OR PILES SHALL BE AS SHOWN ON PLANS.

3) BIZES AND REINFORCING FOR FOOTING CAPS OVER CAISSONS OR PILES SHALL BE AS SHOUN ON PLANS.
4) CHIMMEN FOOTINGS ARE TO BE IS "LARGER THAN THE CHIMMEN FOOTPRIN' BY IS "THICK.
5) FOUNDATION WALLS BACKFILLED WITH DIRT WHICH SUPPORT STRUCTURAL FRAMING SHALL BE CONSTRUCTED AS FOLLOWS:
A/FOR EARTH FILL UP TO A MAXIMUM HEIGHT OF 4'; USE 8 "CMU OR 8" BRICK WITH BITUTHENE MEMBRANE WATERPROFING ON BYTERIOR. FOOTINGS ARE TO BE 8" X IS "OR 8" X 24" AS NOTEO ON THE PLAN.
B)FOR EARTH FILL 4" TO A MAXIMUM HEIGHT OF 9'; USE 8 "X 24" FOOTING WITH 44 AT IS "DOWLES HOOKED IN FOOTINGS AND PROJECTING IS "ABOUT OF OOTINGS. USE 12" CMU WALLS WITH 4" 4" OF "OUTCOAL BARS LOCATED 4" FROM NON-DIRT FILL FACE, LAF ALL SPILCES 12" "AND USE DURS-WALL HORIZONTAL REINFORCING EVERY 8" IN CMU JOINTS. INSTALL 14"3. LEAR WITH 24" LEC' LAF ALL SPILCES 12" "AND USE DURS-WALL HORIZONTAL REINFORCING EVERY 8" IN CMU JOINTS. INSTALL 14"3. LEBAR WITH 24" LEC' CMU WITH BITHER TYPE 5 OR M MORTAR OR FILL WITH 2500 PSI CONCRETE. INSTALL WATERPROOF BITUTHENE MEMBRANE OR FQUAL.

EQUAL.

(IN LIEU OF THE PRECEDING DESIGN, BASEMENT WALLS MAY BE CONSTRUCTED IN ACCORDANCE WITH R404.1 OF THE CODE. HOWEVER, 24", 24", 15 CORNER BARS SHALL BE INSTALLED AT 16 "O/C VERTICALLY REGARDLESS OF THE WALL HEIGHT. ERECT ALL FRAMING BEFORE BACKFILLING.

1) FOR RETAINING WALLS WITHOUT FRAMING SEE SPECIAL DESIGNS ON DRAWINGS.

FRAMING CONSTRUCTION - OTHER THAN ROOF.

1) SEE TABLE RE0023/10 OF THE CODE FOR A FASTENER SCHEDULE FOR STRUCTURAL MEMBERS.

2) WOOD BEAMS SHALL BE UPPORTED BY METAL HANGERS OF ADEQUATE CAPACITY WHERE FRAMING INTO BEAMS OR LEDGERS. THE ALLOWABLE LOAD CAPACITY OF THE HANGER SHALL BE EQUAL TO OR GREATER THAN THE LOAD SPECIFIED ON THE PLAN. WHERE NO LOAD IS SPECIFIED, THE "LIGHTEST VALILABLE HANGER FOR THE APPLICATION IS ACCEPTABLE."

3) CRAWL GIRDERS AND BAND WITH 4" CURTAIN WALL AND PIER CONSTRUCTION SHALL BE 2:2 X 10 SOUTHERN YELLOW PINE "2 WILLESS VOTED." "TO, SPACING OF PIERS".

NOTED OTHERWISE. MAXIMUM CLEAR SPANS ARE TO BE 4'-8 " (6'-0 " O/C SPACING OF PIERS). TO AVOID OBJECTIONABLE CRACKING IN FINISHED HARDWOOD FLOORS OVER ANY GIRDERS, USE THE FOLLOWING PROCEDURE:

ANALING

1) ALL FLOOR JOISTS MUST BE TOENALED TO THEIR SUPPORT GIRDERS WITH A MINIMUM OF 3-80 NALIS AT EACH END. LARGER NALIS WILL SPILIT AND RENDER THE TOENAL INEFFECTIVE. NO END NALIS AT EACH END LARGER OR SAND IS PERHITTED.

11) IF DROPPED GIRDERS ARE USED, END LAP ALL JOISTS AND SIDE NALI EACH WITH A MINIMUM OF 3-80 NALIS AT EACH END OF EACH JOIST, LEDGER STRIPS SHOULD BE SPACED 3. "APART AND NALIED WITH 3-96 NALIS AT EACH JOIST END.

111) NALI MULTIPLE MEMBER BUILT-UP GIRDERS WITH TWO ROWS OF ISO NALIS STAGGERED AT 22. "O.C., 2" DOWN FROM THE TOP AND 2" UP FROM THE BOTTOM WITH 3-96 NALIS ACACH PROCE DE NACH PIECE IN THE JOIST THROUGH THE MEMBERS MAKING UP THE MULTIPLE GIRDER.

12) THIS NALING PATTERN WILL ENSURE A TIGHT FLOOR FROM THE CUTSIDE OF THE HOUSE TO THE CUTSIDE SO THAT WHEN THE FRAMING SHRINKS DURING THE FIRST HEATING SEASON, THE SHRINKAGE WILL BE UNFORMLY DISTRIBUTED OVER THE ENTIRE FLOOR. IF THE GIRDER NALING PATTERN IS ONLY THE CHIEFO, THE SHRINKAGE WILL BE UNFORMLY DISTRIBUTED. OVER THE GIRDER SAND AND OBJECTIONABLE CRACK WILL DEVELOP IN THE FINISHED HARDWOOD FLOOR OVER THE GIRDER LINE.

B) AT ALL GIRDERS WHERE THE JOISTS CHANGE DIRECTION, INSTALL DEPLOTING AT 16" OVER THE GIRDERS AND AND DESCRIVED SECOND ANY JOIST DIRECTION CHANGE. THIS WILL INSURE SHRINKAGE DISTRIBUTION OVER THE FLOOR AND NOT LET IT ACCUMULATE AT THE GIRDER CAND NOT LET IT ACCUMULATE AT THE GIRDER.

GINDER.

OTHERE MUST BE WOOD BLOCKING THRU BOLTED TO THE STEEL BEAM WITH JOISTS TOENALED OR ATTACHED TO THE BEAM WITH METAL
HANGERS UNDER ANY HARDWOOD FLOORS THAT PASS OVER A STEEL BEAM SUPPORTING FLOOR JOISTS. THIS CONDITION OFTEN EXISTS
OVER ASSEMBLY AREAS.

4) ALL OTHER LUMBER MAY BE SPRUCE 12 UNLESS NOTED OTHERWISE.

5) "LAM" BEATH MUST HAVE 37M4 STUD JACKS UNDER EACH END SUPPORT UNLESS NOTED OTHERWISE.

C)FOR 9FAMS FROM 9 TO (8). USE A PAIR OF 9-GAUGE UNIES IN EACH OF THE FIRST 3 COURSES OF BRICK ON A 5 "N" 3 %" X
916" 8 "STEEL ANGLE, LAP ALL 9-GAUGE UNIES POLICES AN MINIMM OF 12 "AND EXTEND UNIES A PRICE OF BRICK ON A 5 "N" 3 %" X
1EMPORARILLY SUPPORT THE STEEL ANGLES BEFORE LAYING MASONRY. THE 6HORING MAY BE REMOVED FIVE DAT'S FOLLOUING THE
NOFALLATION OF MASONRY.
DUHEN STRUCTURAS INTELL BEATH WITH BOTTOM PLATES ARE USED TO SUPPORT MASONRY, THE BOTTOM PLATE MUST EXTEND THE FULL
LENGTH OF THE STEEL BEATH. THIS PROVIDES SUPPORT TO THE BLODG OF THE FLATE BY BEARING ON THE ADJACENT MASONRY JAMPOS.
THE BEATH GHOLD BE TEMPORARILY SHORED PRICE TO LAYING THE MASONRY. THE SHORING MAY BE REPROVED FIVE DAT'S AFTER
ANYING THE MASONRY.

LATING THE MASONEY.

8) ALL BRICK VENEER OVER LOWER ROOFS (BRICK CLIMBS) MUST HAVE A STRUCTURAL ANGLE LAG SCREWED TO AN ADJACENT STUD WALL IN ACCORDANCE WITH DETAIL, WITH STEEL BRICK STOPS TO PREVENT SLIDING OF BRICK.

9) ALL RAFTER BRACES MUST HAVE TWO STUDS FROM PLATE THROUGH ALL FLOORS TO THE FOUNDATION OR SUPPORTING BEAM BELOW, NO BRACES SHALL BE ATTACHED TO TOP WALL PLATE WITHOUT STUDS DIRECTLY MODER THEM.

CONCRETE GENERAL NOTES:

DESCRIPTE GENERAL NOTES:

1) EXCEPT IMPRECIONERUISE NOTED, FOR ALL CONCRETE, THE PROPORTIONS OF CEMENT, AGGREGATE, AND UMATER TO ATTAIN REQUIRED FLASTICITY AND COMPRESSIVE STRENGTH SHALL BE 250 OPS 10 720 DAYS FOR FOOTINGS AND 3,000 PSI FOR WALLS, BEAMS, AND COLUMNS, INLESS NOTED OTHERWISE.

2) BEFORE PLACING CONCRETE, ALL DEERIS IMATER AND OTHER DELETERIOUS HATERIAL SHALL BE REMOVED FROM THE PLACES TO BE OCCUPIED BY THE CONCRETE HE PLACING OF ALL CONCRETE SHALL BE IN ACCORDANCE WITH ACI 398 AND ASTIT CAS REQUIREMENTS. PUMPING OF CONCRETE WILL BE PERMITTED ONLY WITH THE ENGINEER OF RECORDS APPROVAL OF PROPOSED CONCRETE MY AND METHOD OF PUMPING, CONCRETE SHALL BE IN ACCORDANCE WITH ACI 398 AND ASTIT CAS REQUIREMENTS. PUMPING SO CONCRETE ONLY BE REPORTED ON THE MIXER TO FORMS AND DEPOSITED AS NEARLY AS POSSIBLE TO INSTANCE. OF A THE CONCRETE TO BE SHAPED AND WORKED BY HAND AND VIBRATED TO ASSURE CLOSE CONTACT WITH ALL SURFACES OF FORMS AND REPORTED SHEAL AND LEVELED OFF A THE DESCRIPTION OF THE MIXER SHALL BE ASSURED TO CAUSE FIGURE OF THE MIXER OF THE MIXE

CONTS, IN SLASS ON GRADE SAID CONTRACTION JOINS SHALL NOT BE OTHE JOINS SHALL COMMENCE AS SOON AS THE CONCRETE HAS LARDENED SUFFICIENTLY TO PERINT SAUMS DITTOUT EXCESSIVE RAVELING. FILL THE SAID CITS WITH APPROVED JOINT FILLER AFTER THE CONCRETE HAS LARDENED SUFFICIENTLY TO PERINT SAUMS WITHOUT EXCESSIVE RAVELING. FILL THE SAID CITS WITH APPROVED JOINT FILLER AFTER THE CONCRETE HAS LARDENED SUPED.

CONCRETE, WHEN DEPOSITED, SHALL HAVE A TEMPERATURE NOT BELOW BO. "SWADN NOT ABOVE 90 WINTHE METURED AND RECOMMENDED PRACTICES AS DESCRIBED IN ACI 305 BHALL BE FOLLOWED FOR COLD WEATHER CONCRETING AND ACI 305 FOR HOT WEATHER.

5) FRESHLY PLACED CONCRETE SHALL BE PROTECTED FROM PREMATURE DRYING BY ONE OF THE FOLLOWING METHODS:

5) PRESHLY PLACED CONCRETE SHALL BE FRUTELED FOR THE BENEFICE OF THE BENEFICE OF CONTROL OF SHERING BY A PROVINCE OF CONTROL OF SHERING AND A SHERING BY A PROVINCE OF FACER CONCRETING TO ASTYLLING COMPOUND.

D) APPLICATION OF AN APPROVED CHEMICAL CURING COMPOUND.

THE CURING SHALL CONTROL BYILL FURTHER WITH EARLY SHALL SHALL BY THE AMBIENT TEMPERATURE ABOVE BO

"SHADS TOTALED SEVEN. DURING CURING, THE CONCRETE SHALL BE PROTECTED FROM ANY MECHANICAL INJURY, LOAD STRESSES, SHOCK, VIBRATION, OR DAMAGE TO FINISHED SURFACES.

B)EXPOSED TO WEATHER C) SLABS NOT EXPOSED TO WEATHER D)BEAMS AND COLUMNS

GENERAL NOTES

MASONRY GENERAL NOTES:

1) MASONRY WALLS ARE TO BE OF THE SIZES AND IN THE LOCATIONS SHOWN ON THE PLANS AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF ACI 530.

2) HOLLOW LOAD BERRING WITTS, ASTM CSG MADE WITH LIGHTWEIGHT OR NORMAL WEIGHT AGGREGATES. GRADE NI WITTS SHALL BE PROVIDED FOR EXTERIOR AND FOUNDATION WALLS, GRADE NI OR SI WITTS SHALL BE PROVIDED FOR OTHER LOAD-BEARING WALLS

OR PARTITIONS.

CONCRETE BUILDING BRICK, ASTM CS5 MADE WITH LIGHTWEIGHT OR NORMAL AGGREGATES, GRADE NI OR SI EXCEPT THAT BRICK EXPOSED TO WEATHER SHALL BE NI.

MORTAR: ASTM C270-93, TYPE S PREPACKAGED MORTAR MX WHICH SHALL NOT CONTAIN ANY NON-CEMENTITIOUS FILLERS COMBINED WITH NOT MORE THAN THREE PARTS SAND PER ON PART MIX.

REINFORCING STEEL. ASTM AGIS GRADE 60 STEEL DEPORTED BARS WHERE INDICATED ON THE PLANS. WHERE REINFORCING BARS ARE INSTALLED IN THE CELLS OF CONCRETE MASONEY UNITS, THEY SHALL BE SECURED WITH WIRE TIES AT INTERVALS NOT EXCEEDING

SERINORCING STELL. ASTM 4615 GRADE 60 STELL DEFORMED BARG WHERE INDICATED ON THE PLANS. WHERE RENFORCING BARG ARE INSTALLED IN THE CHILL OF CONCRETE MASONRY UNITS, THEY SHALL BE SECURED UITH URE TIEST INTERVALS NOT EXCEEDING 24" O/C TO MAINTAIN THE BARG LOCATION IN THE CELL. THE TOLERANCE FOR SPACING OF VERTICAL BARG 16 % SPACHES ALONG THE LENGTH OF THE WALL. THE TOLERANCE FOR THE DISTANCE BETWEEN THE FACE OF THE CONCRETA MASONRY UNIT AND THE CENTER OF THE BARG BHALL NOT EXCEED "NIMP."

MORTIAR PROTRIGION SHALL BE LESS THAN "X". A PROTRUSION OF "X" OR GREATER MUST BE REMOVED BEFORE GROUTING.

HORIZONTAL JOINT REINFORCEPIENT: ASTM 482 FASRICATED FROM COLD DRAWN STELL WIRE AND HOT DIP ZINC COATED (ASTM 485).

TI SHALL CONSIST OF TWO OR MORE PARALLEL, LONGTUDINAL WIRES O. 1915 "IN DIAMPETER AT A MINITURY OF 16" "CO". JOINT REINFORCEPIENT 15 TO BE INSTALLED IN EVERY OTHER COURSE AND IN THE RIST TWO COURSES AT THE OPTION AND TO OF WALL DEFENDED AND SHALL EXTEND NOT LESS THAT ALL "PLAST THE OPTION AS PALLED. THE OPTION AND THE OPTION OF THE OPTION OF THE OPTION OF THE OPTION OF THE OPTION AND THE OPTION OF THE

DEVICE.

ALL WOOD I-JOISTS AND OPEN JOISTS MUST BE BRACED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS PUBL DETAILS
SHOWN ON PLANS. LOAD-BEARING PARTITIONS, JACKS BEAMS AND COLUMN SUPPORTS MUST BE SOLD BLOCKED THROUGH FLOOR.
TRUSSES AND PLYMUOD SHALL NOT CARRY CONCENTRATED POINT LOADS. LOSS MATERIAL SHOULD NOT BE USED AS BLOCKING
UNDER CONCENTRATED POINT LOADS. ALL POINT LOADS MUST BE CARRIED TO FOUNDATIONS WITH ADEQUATE BLOCKING AND/OR
BEAMS.

BEAMS. ALL STEEL COLUMNS WHERE STEEL COLUMNS BEAR ON CONCRETE OR MASONRY, UNLESS OTHERWISE NOTED, A 5/8 OR 5/8 $^{\circ}$ X 3 $^{\circ}$ X 5 $^{\circ}$ X 6 $^{\circ}$ X 6 $^{\circ}$ X 6 $^{\circ}$ X 6 $^{\circ}$ X 7 $^{\circ}$ X 6 $^{\circ}$ X 6 $^{\circ}$ X 6 $^{\circ}$ X 6 $^{\circ}$ X 7 $^{\circ}$ X 6 $^{\circ}$ X 6 $^{\circ}$ X 6 $^{\circ}$ X 7 $^{\circ}$ X 6 $^{\circ}$ X 7 $^{$

OF EACH OFENING NAILED SECURELY TO THE HEADER.

WALLS BY TO 20 HIGH. BALLOON FRAME 2 % 6 STUDG AT 16 "O/C (½' 06B SHEATHING REQUIRED FOR WALL HEIGHTÉ) IT').

FROVIDE 2-1 ½' X 8 ½' LVL KING 6TUDG ON EACH BIDG OF OFENINGS 3 TO 6 WIDE AND 2-2 % 6 KING 6TUDG FOR OPENINGS.

LEGS THAN 3' WIDE. FASTEN KING 5TUDG SECURELY TO ALL HEADERS WITH A MINIMUM OF 12-16D NAILE OR 4-3/16 "DIAMETER LAG 6CREUS EMBEDDED A MINIMUM OF 4 "INTO THE HEADER.

GABLE END WALLS OR ROOMS WITH VAULTED CEILING JOISTS: BALLOON FRAME WALL AND PROVIDE TRIPLE KING 5TUD ON EACH SIDE OF OPENINGS, NAILED BECURELY TO THE HEADER.

OF OPENINGS, NALED SECURELY TO THE HEADER.
D) TWO-STORY HIGH POYER WALLS LESS THAN 3' WIDE. EXTEND 3 %' X 9 %' PBL MEMBER WITH 3-2 X 4 FLAT PLATES ACROSS THE ENTIRE WALL. LOCATE THE BEAM NEAR MICH-HEIGHT OF THE WALL AT OR NEAR RIRST FLOOR TOP PLATE.
NOTE: SEE SPECIAL DESIGN OR ENGINEER FOR WALLS TALLER THAN 20, WHEN OPENINGS IN HIGH WALLS EXCEED 6' IN WIDTH, OR IF THE WALL CANNOT BE CONSTRUCTED USING ANY OF THE METHODS MENTIONED.
If CONTINUOUS 2 X 6 BRIDGINGS SHALL BE NALED TO DIAGONAL OR VERTICAL. WER MEMBERS OF ALL OPEN-WEB FLOORS TRUSSES OVER 10' LONG. THEY SHALL BE INSTALLED NEAR THO-SPAN AS A LOAD DISTRIBUTION MEMBER. IF THE 2 X 6 BRIDGING IS NOT CONTINUOUS, LAB ENDS OF BRIDGING ONE TRUSS SPACE.

19) LOURE STID WALLS FOR BUILDINGS OVER TWO STORIES, BUT NOT MORE THAN THREE STORIES.

LOAD BEARING NON LOAD BEARING

EXTERIOR WALLS

WES 2 % 6 AT 16 "O/C WITH "%" X 4' X 8' FLYWOOD SHEATHING AT ALL CORNERS AND EVERY 25', OR USE 2 X 4 AT 12 "O/C WITH

"%" FLYWOOD SHEATHING SOLID ON WALLS.

HEADERS SHALL BE AS SHOWN UNLESS NOTED DIFFERENTLY ON PLANS,

INTERIOR AND EXTERIOR

"2.2 X 4'A

SPANS UP TO 2'-6 SPANS UP TO 2'-6 ", SPANS 2'-6 "TO 3'-6 " ... SPANS 3'-6 "TO 6'-6 " 2-2 × 10'8

III. 9 PANS 3'-6 'TO 6'-6 '

"PANS 6'-6 'C M FORE

"SEE PLAN

3). HEADERS WIDER THAN 5' SHALL HAVE A MINIMUM OF THERE KING STUDS ON EACH SIDE UNLESS NOTED OTHERWISE.

3). HEADERS WIDER THAN 5' SHALL HAVE A MINIMUM OF THERE KING STUDS ON EACH SIDE UNLESS NOTED OTHERWISE.

3). HEADERS WIDER THAN 5' SHALL HAVE A MINIMUM OF 6' LONG AT A FEET ON CENTER ACROSS THE TOP OF THE CEILING JOISTS. 2 X 4 RAFTER TIES SHALL BE RASTERN AND THE STERNON-BACK.

8). AT ALL EXTERIOR DIAGONAL WALL PANELS, EACH PANEL SHALL BE NAILED TO EACH ADJACENT PANEL WITH 5' ISO NAILS OR TIED TOGETHER WITH METAL STRIPPING NAILED AT FOUR COATIONS BETWEEN FLOORS WITH A MINIMUM OF ACH PANEL.

AT EACH STRAP, THIS WILL AVOID VERTICAL CRACKING IN PANEL JOINTS DUE TO HORIZONTAL OSCILLATING PARELS.

AT ALL STARE, EVERYS TOUD AT EACH STRINGER MUST BE NAILED TO EACH STRINGER WITH A SHINDHOT OF 1950 NAILS. THIS WILL AVOID CRACKING BETWEEN WALLBOARD AND TOP OF BASE MOLDING DUE TO VERTICAL OSCILLATION OF STAR STRINGERS.

10) ROOF TRUSSESS THAT HAVE NON-BEARING PARTITIONS PASSING UNDER THEM SHOULD BE NAILED TO THE PARTITION PLATES TO AVOID CEILING-WALL CRACKING.

ROOF TRUSSES CLOSE TO SIDE WALLS FRAMING AND USED AS DEAD WOOD FOR SHEETROCK BOARDS SHOULD BE NAILED TO THE

21) ROOF TRUBSES CLOSE TO SIDE WALLS FRAMING AND USED AS DEAD WOOD FOR SHEETROOK BOARDS SHOULD BE NAILED TO THE WALL STRUCTURAL FRAMING TO FREVENT CELINGHALL CRACKING, TO THE WEATHER OR BEARING DIRECTLY ON EXTERIOR MASONRY PIERS OR CONCRETE SHALL BE TREATED. ALL WOOD IN CONTACT WITH THE GROUND IS TO BE GROUND-CONTACT APPROVED. ALL WOOD EXPOSED DIRECTLY TO THE WEATHER SHALL BE PROTECTED TO PREVENT THE OCCURRENCE OF ROT.

3) WILESS OTHERWISE DETAILED, ALL STOKE-SHULT "FALSE CHINNEYS" SHALL BE CONSTRUCTED WITH 2 X 4 STUDS AT 12 "O'C, BALLCONFRAMED FROM ATTIC CEILING OR FLOOR. FASTEN 15/32 "CDX PLYWOOD ON ALL SIDES OF THE CHINNEY ALONG THE FILL ENGTH OF THE STUDS, FASTEN EACH STUD TO THE SUPPORTING BEAM OR CEILING JOIST WITH A 1 "X" X 24 ", IS-GAUGE METAL STRAP, OR A SIMILAR CONNECTOR. LENGTH OF THE BILDS. FASTEN EACH STUD TO THE SUPPORTING BEAM OR CEILING JOIST WITH A 1 1/4" X 24", IS-GAUGE METAL STRAP, OR A SIMILAR CONNECTOR.

(3) ITEM UNCHANGED, BUT MOYED FROM INDER 14 ON OLD PAGE 2:

VOTE: ALL POINT LOADS FROM ROOF BEACES, JACK STUDS, BEAM SUPPORTS - WHETHER WOOD OR STEEL - CANNOT BEAR ON SHEATHING ALONE. BLOCKING BOULD TO OR BETTER THAN THE POINT LOAD SUPPORTS ABOVE MUST BE CARRIED THROUGH ALL CONSTRUCTION TO THE FOUNDATION.

5) NOTE TO APPLY TO ALL HARD COAT STUCCO EXTERIOR FINISHES:

4) JOINTS ARE NECESSARY AT THE FOLLOWING LOCATIONS:

1) HORIZONTALLY AT EACH FLOOR LUNE.

1) NO ADEAS LARGER THAN 18', SURFACE EXPOSED.

10) NO ADEAS LARGER THAN 18', STIMES THE SHORTEST DIMENSION.

3) PERF SORED REQUIRED AT THE BOTTOM OF ALL WALLS 2" ABOVE PAYED AREAS AND 4 ABOVE GRADE.

3) SEE ASTIM 356 AND 1635 FOR FURTHER INFORMATION.

3) APPLICATION OF AN APPROVED CHEMICAL JURING COMPOUND.

THE CURING SHALL CONTINUE UNTIL THE CUMULATIVE NUMBER OR DAYS WHEN THE AMBIENT TEMPERATURE ABOVE 50 1/8/NDAS TOTALED SEVEN. DURING CURING, THE CONCRETE SHALL BE PROTECTED FROM ANY MECHANICAL INJURY, LOAD STRESSES, SHOCK, VIBRATION, OR DAMAGE TO FINISHED SURFACES.

DESIGN CRITERIA: I. DESIGN LOADS ARE ALL DEAD LOADS PLUS: A SI FERING ROOMS 3O PAE B. ALL OTHER FLOORS 40 PSF

BALCONIES 60 PSF D. ATTIC FLOOR LIVE LOADING WITH THE FOLLOWING: AREA ACCESSIBLE BY STAIRS 40 PSF

ROOF 6LOPE6 >3:12 III. ROOF SLOPES (3:12 10 P6F E. ROOF LIVE LOAD 20 PSF

F. WIND LOAD II5 MPH G. SNOW LOAD 20 PSF

ROOF CONSTRUCTION:

ALL ROOF TRUBERS PUIGT BE BUILT IN ACCORDANCE WITH TRUSS MANUFACTURERS' REQUIREMENTS. TIE-DOWN CONNECTIONS TO REBIST UPLIET SHALL BE INSTALLED WHERE REGUIRED, WHEN ROOF TRUSS BY MANUFACTURERS DO NOT PROVUDE THE REQUIRED CONNECTORS, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ROOF TRUSS ENERGE OR THE BEGINEER OF RECORD TO PROVIDE AN ADEQUATE CONNECTOR.

WITH ADDITIONAL METAL CONNECTORS AS FOLLOWS:

A) STICK-FRAMED RAFTER MEMBERS EXCEEDING IO' IN LENGTH, AS MEASURED FROM THEIR HORIZONTAL PROJECTION, AND ALL ROOFS
OVER UNENCLOSED AREAS SUCH AS PORCHES USE SIMPSON H2.5 CONNECTORS EVERY 4' OR AT EVERY THIRD RAFTER TO FASTEN
THE LOWER END OF THE RAFTER TO THE TOP PLATE.

THE LOWER ENDS OF VALLEY AND HE MEMBERS WHICH BEAR ON A TOP PLATE USE A SIMPSON HCP OR EQUIVALENT CONNECTOR. RAFTERS SHALL BE 2 × 6 AT 16 "OC SPRUCE-PINE-PUR" FOR SHINGLES EXCEPT AS NOTED. THEY ARE TO BE CUT INTO HIPS, RIDGES, ETC, UNLESS NOTED OTHERWISE. THE SLATE AND OTHER HEAVY ROOF COYERINGS SHALL USE 2 × 9 AT 16 "O/C SPRUCE-PINE-FUR *2 RAFTERS UNLESS NOTED OTHERWISE.

SPRUCE-PINE-FUR ° RAFTERS UNLESS NOTED OTHERWISE.

COLLAR TIES SHALL BE 2 × 6 4 48 ° 0.0 AT ALL RIDGES UNLESS NOTED OTHERWISE AND LOCATED A NOMINAL 3' BELOW THE RIDGE.

VAULTED CEILINGS REQUIRE SPECIAL COLLAR TIE OR RIDGES BEAM DETAILS. SEE THE END OF TABLE REOLS.1. IN THE CODE UNLESS

A TINIMIM OF THREE COLLAR TIES SHALL BE USED AT ALL RIDGES EVEN IF TWO TIES MUST BE PUT ON ONE SET OF RAFTERS.

ALL HIPS AND RIDGES ARE A SIZE LARGES THAN RAFTERS UNLESS NOTED OTHERWISE. RAFTERS MAY BE SPLICED OVER

ALL HOGS ON CEILING JOISTS OR RAFTERS ARE 1 (LONG AND 2 × 8) UNLESS NOTED OTHERWISE. RAFTERS MAY BE SPLICED OVER

HOGS. SPLICE RAFTER HOGS ONLY.

HOGS. SPLICE RAFTER HOGS ONLY AT A ROOF BRACE.

8) GABLE END FRANING MUST BE BRACED PARALLEL TO RIDDES WITH A MINIMUM OF 2 X 6 DIAGONAL BRACES AT 6' O/C ALONG THE GABLE WALL TO INTERIOR CEILING JOISTS. BRACES TO BEAR ON 2 X 6 HOGS AND TO THE GABLE WALL AT APPROXIMATELY MID-HEIGHT OF GABLE WALLS. BRACES SHALL BE AT AN ANGLE OF APPROXIMATELY 45%D. OTHER BRACING MAY BE USED WITH THE DESIGN BKINGER'S APPROVAL.

LUMBER GENERAL NOTES:
1) ALL COMMON FRAMING LUMBER IS TO MEET THE FOLLOWING MINIMUM SPECIFICATIONS AT 19% MOISTURE CONTENT:
10 ALL COMMON FRAMING LUMBER IS TO MEET THE FOLLOWING MINIMUM SPECIFICATIONS AT 19% MOISTURE CONTENT:
10 FOLIA COMMON FRAMING LUMBER IS TO MEET THE FOLLOWING MINIMUM SPECIFICATIONS AT 19% MOISTURE CONTENT:
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11 FOLIA COMMON FRAMING LUMBER IS TO MEET THE FOLLOWING MINIMUM SPECIFICATIONS AT 19% MOISTURE CONTENT:
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14 FOLIA COMMON FRAMING LUMBER IS TO MEET THE FOLIA COMMON SPECIFICATIONS AT 19% MOISTURE CONTENT:
15 FOLIA COMMON FRAMING LUMBER IS TO MEET THE FOLIA COMMON SPECIFICATIONS AT 19% MOISTURE CONTENT:
16 FOLIA COMMON FRAMING LUMBER IS TO MEET THE FOLIA COMMON SPECIFICATIONS AT 19% MOISTURE CONTENT:
17 FOLIA COMMON SPECIFICATIONS AT 19% MOISTURE CONTENT:
18 FOLIA COMMON SPECIFICATION SPECIFI | MATERIAL | FD (P3) | FT (P3) | E (P3)/FERP) | E (P3)/FERP | E (P3)/FER

1,400,000

ALL STRUCTURAL COMPOSITE LUMBER (LYL, LSL, PSL) IS TO MEET THE FOLLOWING MINIMUM SPECIFICATIONS: <u>APPLICATION</u> <u>FB (P6I)</u> GIRDER6 4 BEAMS (LVL.P6L) 2,600 FC (P91XPARALLEL) FC (P91XPERP.) E (P91)
2310 650 1900,000 COLUMNS (LSL) 4 RIMBOARDS 1,700 1,400 400

ALL GLUE LAMINATED TIMBER (GLU-LAM) IS TO MEET THE FOLLOWING MINIMUM SPECIFICATIONS: APPLICATION GIRDERS 4 BEAMS FB (PSI) 2,400 1,600 FC (PSIXPARALLEL) FC (PSIXPERP.)
1,700 140
1,550 560

4) OPEN WEB FLOOR TRUSSES: DS 2,500 BOARDS 950 APPLICATION TOP 4 BOTTOM CHORDS I.9E MSR LUMBER

5) WHERE THREE OR FOUR-PLY "LAM BEAMS ARE SIDE-LOADED (JOISTS FRAME INTO THE SIDE AT THE OUTSIDE PLIES), FASTEN ALL PLIES TOGETHER WITH TWO ROWS OF ""DIAMETER BOLTS AT IS" O/C, THE BOLTS SHALL BE LOCATED A MINIMUM OF 2 MAXIMUM OF 3 ""FROM THE TOP OR BOTTOM OF THE BEAM.

BUILT-UP WOOD COLUMNS CONSISTING OF MULTIPLE STUDS SHALL HAVE EACH LAMINATION NAILED WITH 16D NAILS AT 9 "O/C

PLANS PERMITTED IN NORTH CAROLINA ARE DESIGNED TO MEET THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE, LATEST EDITION W/AMENDMENTS AS ISSUED BY THE STATE OF NORTH CAROLINA

PLANS PERMITTED IN SOUTH CAROLINA DEBIGNED TO MEET 2018 INTERNATIONAL RESIDENTIAL BUILDING CODE AS ISSUED BY THE STATE OF SOUTH CAROLINA, WITH MODIFICATIONS AS REQUIRED TO MEET LOCAL BUILDING CODES FOR EACH APPLICABLE ARIBIDITION.

REFER TO THE RELEVANT CODE FOR ANY ADDITIONAL INFORMATION NOT COVERED IN THESE NOTES OR THE DESIGNS, ENGINEERING DESIGN IS FOR STRUCTURAL INFORMATION ONLY. THE ENGINEER OF RECORD DOES NOT ACCEPT RESPONSIBILITY FOR DIFFUSION. ERRORS, ARCHITECTURAL ERRORS, DETAILING OF WATERPROPORTS, FLUMBING, ELECTRICAL, OR MECHANICAL INFORMATION OR ANY PART OF THE PLAN NOT RELEVANT TO THE STRUCTURAL INFORMATION.

