

NORTH CAROLINA 40' SERIES PLAN 238.2338

LOT 5 MASON POINTE -ELEVATION A

SHELF AND POLE

SMOKE DETECTOR

SOLID CORE

SINGLE HUNG

SHEATHING

SECTION

SHEET

SHOWER SIMILAR

SI IDING

TOG

T.O.S.

U.N.O.

SLIDING GLASS

STANDARD

SHEET VINYL

TOP OF CURB

TOP OF PLATE

TOP OF SLAB

UNLESS NOTED OTHERWISE

VAPOR PROOF

MATER HEATER

WEATHER PROOF

TYPICAL

MASHER

MOOD

TEMPERED GLASS

ABBREVIATIONS

GYP. BD.

HDR.

HS

INSUL.

LAV.

LUM. M.C.

MFR.

MIN.

MTD

MTL.

N.T.S.

0.S.A.

PH. PLT.

PLYMD.

P.T.D.F.

RAD.

RAG

REF.

REV.

RF/S

ABOVE

ADJ.

ALT AMP BD.

CONC

DIA. DIM.

DISP.

ELEV.

F.G./FX.

FR. DR

AIR CONDITIONING

ADJUSTABLE

ALTERNATE

AMPERAGE

CENTER LINE

BOARD

CABINET

CEILING

CLEAR

CARPET

DRYER

DOUBLE

DIAMETER

DIMENSION

DISPOSAL

DEEP

DOOR

DETAIL

EACH

EQUAL EXHAUST

EXTERIOR

FUEL GAS

FINISH

FLOOR

GAUGE

FLR. LINE FLOOR LINE FLUORESCENT

FORGED AIR UNIT

FIXED GLASS

FRENCH DOOR

DIVIDED LIGH

DISHWASHER

ELEVATION

CONCRETE

CERAMIC TILE

DUAL GLAZED

GROUND-FAULT CIRCUIT INTERRUPTER

GYPSUM BOARD

HOLLOW CORE

HEADER HEIGHT

HEADER

IN LIEU OF

INSULATION

LAMINATED

LAVATORY

MANUFACTURER

NOT TO SCALE

MEDICINE CABINET T.O.P.

NOT IN CONTRACT V.P.

LIMINOUS

MINIMUM

METAL

OVER

PLATE

PAIR

RISER

RADIUS

REVERSE

RETURN AIR GRILL

REFRIGERATOR

PLYWOOD

ON CENTER

OPTIONAL OUTSIDE AIR

PUSH BUTTON

PROPERTY LINE

MOUNTED

INTERIOR

GALVANIZED IRON S.C.

SHEET INDEX

185

12'x12' COVERED DECK

24'x12' COVERED DECK

ARCHITECTURAL DETAILS

ARCHITECTURAL DETAILS
ARCHITECTURAL DETAILS
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ARCHITECTURAL DETAILS
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PLAN #238.2338

- TITLE SHEET GENERAL NOTES GENERAL NOTES
- FIRST FLOOR PLAN SECOND FLOOR PLAN FIRST FLOOR AT CRAWL SPACE OPTION FIRST FLOOR PLAN OPTIONS SECOND FLOOR PLAN OPTIONS
- SLAB INTERFACE PLAN 'A'
 PARTIAL SLAB INTERFACE PLAN 'B', 'C', & 'D'
 CRAWL SPACE PLAN 'A'
 PARTIAL GRAWL SPACE PLAN 'B', 'C' & 'D'
- ROOF PLAN, FRONT & REAR ELEVATIONS 'A'
 LEFT & RIGHT ELEVATIONS 'A'
 PARTIAL FIRST FLOOR PLAN, FRONT ELEVATION AND PARTIAL LEFT AND RIGHT
 ELEVATIONS 'A' AT CRAYL SPACE
 FRONT ELEVATION 'A' AT OPTIONAL 9-0' PLATE AT SLAB & CRAYL SPACE
- PARTIAL FIRST & SECOND FLOOR PLANS 'B

- **₽** 3.B6 AT EXTENDED PORCH OPTION W CRANLESPACE
 FRONT ELEVATION B' AT OPTIONAL 9'-O" PLATE AT SLAB & CRANL SPACE
- PARTIAL FIRST & SECOND FLOOR PLANS 'C'
- 36.1 PARTIAL FIRST & SECOND FLOOR PLANS C' 36.2 ROOF PLAN, FRONT & REAR ELEVATIONS C' 36.4 PARTIAL FIRST FLOOR PLAN, FRONT ELEVATION AND PARTIAL LEFT AND RIGHT ELEVATIONS C' AT CRANL SPACE 3.55 FRONT ELEVATION C' AT OPTIONAL 9'-0" PLATE AT SLAB & CRANL SPACE
- SDI PARTIAL FIRST & SECOND FLOOR PLANS D'
 SD2 ROOF PLAN, FRONT & REAR ELEVATIONS D'
 SD3 LEFT & RIGHT ELEVATIONS D'
 (\$3D4 LEFT & RIGHT ELEVATIONS D'
 FARTIAL FIRST FLOOR PLAN, FRONT ELEVATION AND PARTIAL LEFT AND RIGHT

 - ELEVATIONS C'AT CRAWL SPACE 3.05 FRONT ELEVATION 'C' AT OPTIONAL 9'-0" PLATE AT SLAB & CRAWL SPACE

 - INTERIOR ELEVATIONS SECTIONS SECTIONS CRAWL SPACE

 - PARTIAL FLOOR PLAN, ELEVATIONS, CRAWL SPACE PLAN 'A/B/C/D' AT 12'x12' DECK PARTIAL FLOOR PLAN, ELEVATIONS, CRAWL SPACE PLAN 'A/B/C/D' AT 24'x12' DECK

CONSULTANTS

OWNER:





NORTH CAROLINA 40' SERIES

KB HOME NORTH CAROLINA DIVISION

- 4518 S. MIAMI BLVD. SUITE 180 DURHAM, NC 27703
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CODE INFORMATION

PARTIAL FLOOR PLAN, ROOF & ELEVATIONS W OPT. COVERED PATIO
PARTIAL FLOOR PLAN, ROOF & ELEVATIONS W OPT. EXTENDED COVERED PATIO
PARTIAL FLOOR PLAN, ROOF & ELEVATIONS W OPT. COVERED SCREENED FATIO
PARTIAL FLOOR PLAN, POOF & ELEVATIONS W OPT. EXTENDED COVERED SCREENED PATIO
PARTIAL FLOOR PLAN, ELEVATIONS & SLAB INTERFACE PLAN 'AB/C/D' AT SCREENED-IN

PARTIAL FLOOR PLAN, ELEVATIONS & SLAB INTERFACE PLAN 'A/B/C/D' AT SCREENED-IN

APPLICABLE CODES: 2018 NORTH CAROLINA STATE BUILDING CODE: RESIDENTIAL CODE, INCLUDING REFERENCED CODES AND STANDARDS

PROJECT DESCRIPTION:

2 STORY SINGLE FAMILY DETACHED RESIDENTIAL PLAN W 4 ELEVATIONS OCCUPANCY:

CONSTRUCTION TYPE: V - B

CODE ABBREVIATIONS

N.C.-R. NORTH CAROLINA RESIDENTIAL CODE
N.C.-B. NORTH CAROLINA BUILDING CODE NORTH CAROLINA MECHANICAL CODE NORTH CAROLINA PLUMBING CODE N.C.-F. NORTH CAROLINA FUEL GAS CODE

N.C.-E. NORTH CAROLINA ELECTRICAL N.C-E.C. NORTH CAROLINA ENERGY CODE N.E.C. NATIONAL ELECTRICAL CODE N.E.C. NATIONAL ELECTRICAL

I.C.B.O. INTERNATIONAL CONFERENCE
OF BUILDING OFFICIALS

EOR

A.S.T.M. AMERICAN SOCIETY FOR TESTING MATERIALS ADD CRAWL SPACE NCI8024NCP - 07/24/18 - CTD N.F.P.A. NATIONAL FIRE PROTECTION ASSOCIATION DIVISION REVISIONS
NCIS04INCP- 9/27/18 CTD

AMERICAN NATIONAL STANDARDS I.E.C.C. INTERNATIONAL ENERGY CONSERVATION CODE INTERNATIONAL CODE COUNCIL

DIVISION REVISION
NCI9017NCP- 04/01/19 CTD

ISSUE DATE:

DIVISION MGR.:

REVISIONS:

01/08/15

04/26/19

PROJECT No.: 1350999:56

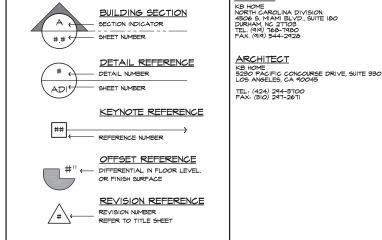
PARTIN PLACE 2 SET NC17002P - 02/23/17 - CTD

PLAN 238.2338

HEET:

TS

SPEC. LEVEL 1 RALEIGH-DURHAM



ARCH. SYMBOLS

SCALE NOTE

IF BOX IS I" SQ. THEN SCALE IS I/4" = I'-O"

IF BOX IS 1/2" SQ. THEN SCALE IS 1/8" = 1'-0"

PLAN 238.2338 PARTIN PLACE 2 SECOND FLOOR AREA TOTAL AREA 2337 SQ. FT GARAGE AREA 5Q. I PORCH AREA(S) ELEVATION 'A' ELEVATION 'B' ELEVATION 'C 146 174 ELEVATION 'D' SQ. FT. PATIO AREA(S) 50. FT. 50. FT. IO'x20' COVERED 200 DECK AREA(S) 12'x12' DECK 12'x21' EXT. DECK

SOUARE FOOTAGE

REVISION LIST

DELTA	DATE	SHEETS REVISED	LOG NUMBER
- 1	03/10/15	I.I, I.3, I.4, I.5, 2.I, 2.3, 3.A2, 3.A3, 3.A5, 3.BI, 3.B2, 3.B3, 3.B4, 3.B5, 3.B6,	NC15013
		3.Cl, 3.C2, 3.C3, 3.C4, 3.C5, 3.Dl, 3.D2, 3.D3, 3.D4, 3.D5, 4.I, 4.2, 4.3, 5.2, 5.4	
2	03/23/15	T.S, I.I, 2.6, 2.7, 2.8, 5.5, 5.6, 5.7, 7.7, 7.8, 7.9, 7.10, 7.11, 7.12, 7.18, 7.14, 7.15, 7.16	NC15012
4	02/23/17	ALL SHEETS	NC17002P
5	05/23/17	TS, II, I2, I3, I4, 3AI, 3A2, 3A3, 3B2-3B4, 3C2-3C4, 3D2-3D4, 4I, 54, 8I,	
		8.2, 83,84	NC17016P
6	07/24/18	T.S, I.S, 2.S, 2.4, 3A3, 3.A4, 3.B5, 3.B6, 3.BT, 3.C4, 3.C5, 3.D4, 3.D5,	
		4.3, 7.1, 7.2, 8.5, 8.6	NCIBO24NCP
7	09/27/18	1.3, 5.3	NCI804INCP
8	01/15/19	T.S, GNI, GN2, GN3, 5.1-5.4	NC19015NCP
9	04/01/19	I.I, 2.I, 3.AI, 3.B2, 3.C2, 3.D2, 5.I	NCIGOITHOP
10	04/26/19	1.1, 2.1, 4.2, 4.3	NCI9032NCP

GENERAL REQUIREMENTS

- THE WORD 'CONTRACTOR' AS USED HEREIN SHALL MEAN THE GENERAL CONTRACTOR, SUBCONTRACTORS AND ALL PERSONS DIRECTLY OR PIRECTLY EMPLOYED BY ANY OF THEM
- CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH THE FOLLOWING APPLICABLE CODE REQUIREMENTS:
 - ALL LAMS, STATUTES, THE MOST RECENT BUILDING CODES, ORDINANCES, RULES, REGULATIONS, AND LAMPIL ORDERS OF ALL PUBLIC AUTHORITIES HAVING JURISDICTION OVER OWNER, CONTRACTOR, THE PROJECT, THE PROJECT SITE, THE WORK, OR THE PROSECUTION OF THE MORK.
- THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT AND ALL OTHER APPLICABLE CODE REQUIREMENTS RELATING TO SAFETY.
- THE FAIR HOUSING AMENDMENTS ACT. THE AMERICANS WITH DISA-BILITIES ACT, AND ALL OTHER APPLICABLE CODE REQUIREMENTS RELATING THERETO.
- CONTRACTOR SHALL CAREFULLY STUDY AND REVIEW THE CONSTRUCTION CONTRACTOR SHALL CAREFULLY SHUT AND REVIEW IN HE CONSTRUCTION DOCUMENTS AND INFORMATION FURNISHED BY OWNER, AND SHALL PROMPTLY REPORT IN MRITING TO OWNER'S REPRESENTATIVE ANY DETROOPS, INCONSTRUCTIONS OF THE CONSTRUCTION DOCUMENTS OR INCONSISTENCIES WITH APPLICABLE CODE REQUIREMENTS OF INCONSISTENCIES WITH APPLICABLE CODE REQUIREMENTS OF INCONSISTENCIES WITH APPLICABLE CODE REQUIREMENTS OF THE CONTRACTOR.
- IF CONTRACTOR PERFORMS WORK WHICH HE KNOWS OR SHOULD KNOW IS CONTRARY TO APPLICABLE CODE REQUIREMENTS, WITHOUT THE AGREEMENT OF OWNER, CONTRACTOR SHALL BE RESPONSIBLE FOR SUCH WORK AND SHALL BEAR THE RESULTANT LOSSES, INCLUDING, WITHOUT LIMITATION, THE COSTS OF CORRECTING DEFECTIVE WORK.
- CONTRACTOR SHALL PROVIDE CERTIFICATES OF INSURANCE ACCEPTABLE TO OWNER PRIOR TO COMMENCEMENT OF WORK.
- CONTRACTOR SHALL TAKE FIFLD MEASUREMENTS VERIEV FIFLD CONDITIONS AND CAREFULLY COMPARE WITH THE CONSTRUCTION DOCUMENTS SUCH FIELD MEASUREMENTS, CONDITIONS, AND OTHER NEORMATION KNOWN TO CONTRACTOR BEFORE COMMENCING THE WORK ERRORS, INCONSISTENCIES, OR OMISSIONS DISCOVERED AT ANY TIME SHALL BE PROMPTLY REPORTED IN WRITING TO THE OWNER.
- CONTRACTOR SHALL PROMPTLY NOTIFY OWNER'S REPRESENTATIVE IF CONTRACTOR BECOMES AWARE DURING THE PERFORMANCE OF THE WORK THAT THE CONSTRUCTION DOCUMENTS ARE NOT IN COMPLIANCE WITH APPLICABLE CODE REQUIREMENTS.
- BY SUBMITTAL OF BID, CONTRACTOR WARRANTS TO OWNER THAT ALL MATTERIALS AND EQUIPMENT TO BE FURNISHED ARE NEW UNLESS NOTED OTHERWISE AND ALL WORK WILL BE OF GOOD QUALITY AND FREE FROM FAULTS AND DEFECTS.
- SUB-CONTRACTORS SHALL INSURE THAT ALL WORK IS DONE IN SUB-CONTRACTORS SHALL INSURE THAT BY SUM WKK, IS DONE IN A PROPESSIONAL WORKMANLIKE MANALIKE THAT BY SUB-CONTRACTORS AND SHALL REPLACE ANY MATERIALS OR ITEMS DAMAGED BY SUB-CONTRACTORS AND SUPPLIERS ARE HEREBY NOTIFIED THAT THEY ARE TO CONFER AND COOPERATE PULL HEREBY NOTIFIED THAT THEY ARE TO CONFER AND COOPERATE OF THE PROPERTY OF CONSTRUCTION TO DETERMINE THE EXACT EXTENT AND OVERLAP OF EACH OTHER'S WORK AND TO SUCCESSFULLY COMPLETE THE EXECUTION OF THE WORK, ALL SUB-CONTRACTOR WORKMANSHIP SHALL BE OF GUALITY TO PASS INSPECTIONS BY LOCAL AUTHORITIES, LENDING INSTITUTIONS, ARCHITECT OR BUILDER, ANY ONE OR ALL OF THE ABOVE MENTIONED INSPECTORS MAY INSPECT WORKMANSHIP AT ANY TIME, AND CORRECTIONS NEEDED TO ENHANCE THE GUALITY OF BUILDING WILL BE DONE IMMEDIATELY. EACH SUBCONTRACTOR, UNLESS SPECIFICALLY EXEMPTED BY THE TERMS OF HISHERS SUB-CONTRACT AGREEMENT, SHALL BE RESPONSIBLE FOR CLEANING UP AND REMOVING FROM THE JOB SITE ALL TRASH AND DEBRIS NOT LEFT BY OTHER SUB-CONTRACTORS, BUILDER WILL DETERMINE HOW SOON AFTER SUB-CONTRACTOR COMPLETES EACH PHASE OF HIS WORK THAT TRASH AND DEBRIS WILL BE REMOVED FROM THE SITE. DETERMINE THE EXACT EXTENT AND OVERLAP OF EACH OTHER'S WORK
- APPROVAL BY THE BUILDING INSPECTOR DOES NOT MEAN APPROVAL OR ALLOWABLE FAILURE TO COMPLY WITH THE PLANS AND SPECIFICATIONS. ANY DESIGN WHICH FAILS TO BE CLEAR OR IS ANBIGUOUS MUST BE REFERRED TO THE ARCHITECT OR ENGINEER FOR INTERPRETATION
- ALL EQUIPMENT AND MATERIALS FURNISHED AND INSTALLED UNDER THESE PLANS SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE WORK BY OWNER UNLESS STIPULATED OTHERWISE
- ALL TRADE NAMES AND BRAND NAMES CONTAINED HEREIN ESTABLISH GUALITY STANDARDS. SUBSTITUTIONS ARE PERMITTED, NITH PRIOR APPROVAL BY THE OWNERS REPRESENTATIVE. THE CONTRACTOR SHALL SUBMIT FOR THE ARCHITECT'S AND BUILDIER'S APPROVAL ALL MATERIALS OR EQUIPMENT WHICH IS CONSIDERED 'OR EQUIPMENT WHICH IS CONSIDERED' OR EQUIPMENT WHICH IS CONSIDERED' OR EQUIPMENT WHICH IS CONSIDERED' OR EQUIPMENT WHICH IS CONSIDERED 'OR EQUIPMENT WHICH IS CONSIDERED'.
- CONSTRUCTION DOCUMENTS IDENTIFIED AS "BID SET" ON ANY OR ALL SHEETS MAY BE SUBJECT TO REVIEW. THIS REVIEW MAY RESULT IN CHANGES WHICH MAY BE MADE TO THE FLANS PRICK TO THE ISSUANCE OF THE FINAL CONSTRUCTION SET WHICH WILL CONTAIN NO "BID SET" DESIGNATIONS. CONSTRUCTION DOCUMENTS IDENTIFIED AS "BID SET" ARE NOT TO BE CONSTRUCTION DOCUMENTS IDENTIFIED AS "BID SET" ARE NOT TO BE CONSTRUCT AS BEING THE COMPLETED OR FINAL DRAWINGS AND THEY SHOULD NOT IN ANY WAY BE USED AS SUCH.
- ALL STANDARD NOTES CONTAINED HEREIN ARE TYPICAL UNLESS
- TYPICAL DETAILS AND SPECIFICATIONS ARE MINIMUM REQUIREMENTS TO BE USED WHEN CONDITIONS ARE NOT SHOWN OTHERWISE.
- SPECIFIC NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
 WHERE NO DETAILS ARE SHOWN CONSTRUCTION SHALL CONFORM
 TO SIMILAR WORK ON THE PROJECT.
- SEE ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND MECHANIC DRAWINGS FOR PITS, TRENCHES, ROOF OPENINGS, DEPRESSIONS ETC. NOT SHOWN ON THE OTHER DRAWINGS.
- THE CONSTRUCTION DOCUMENTS AND ALL COPIES THEREOF FURNISHED TO CONTRACTOR ARE THE PROPERTY OF THE ARCHITECT AND ARE NOT TO BE USED ON OTHER WORK.

SITE WORK

- CONTRACTOR SHALL INVESTIGATE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILLED EXCAVATIONS OR BURIED STRUCTURES SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC., AND BURIED ARTIFACTS SUCH AS INDIAN OR DINOSAUR BONES. IF ANY SUCH ITEMS ARE FOUND THE ARCHITECT, CIVIL ENGINEER, AND SOILS ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- REFER TO THE SOILS REPORT AS PREPARED BY THE GEOTECHNICAL
- 4. REFER TO CIVIL ENGINEER'S CURRENT GRADING AND PLOT PLANS

SITE WORK (continued)

- REFER TO THE LANDSCAPE ARCHITECT'S CURRENT GRADING PLAN AND CONSTRUCTION DOCUMENTS.
- ALL FOOTINGS SHALL REST ON FIRM NATURAL SOIL OR APPROVED COMPACTED FILL. REFER TO GEOTECHNICAL REPORT.
- EXCAVATIONS FOR FOOTINGS SHALL BE MADE TO THE WIDTH, LENGTH, AND DEPTH REQUIRED AND FINISHED WITH LEVEL BOTTOMS.
- EXCAVATIONS SHALL BE KEPT FREE OF STANDING WATER.
- WHERE EXCAVATIONS ARE MADE TO A DEPTH GREATER THAN INDICATED, SUCH ADDITIONAL DEPTH SHALL BE FILLED WITH CONCRETE AS SPECIFIED FOR FOOTINGS.
- IO. FILL MATERIALS SHALL BE FREE FROM DEBRIS, VEGETABLE MATTER AND OTHER FOREIGN SUBSTANCES.
- ALL FINISH GRADES TO DRAIN AWAY FROM THE BUILDING FOOTINGS.
- 12. THERE SHALL BE NO ON-SITE WATER RETENTION.
- THERE SHALL BE NO DRAINAGE TO ADJACENT PROPERTY
- FOR ONSITE CONTSRUCTION, PLANS TO COMPLY WITH NECESSARY PROVED BY THE BUILDING OFFICIAL
- THE REQUIREMENTS IN THESE NOTES ARE THE MINIMUM THAT SHALL BE MET. REQUIREMENTS OF THE STRUCTURAL DRAWINGS THAT EXCEED THE REQUIREMENTS SHOWN HERE SHALL BE MET.

CONCRETE

- REFER TO STRUCTURAL ENGINEERING CALCULATIONS AND SOILS REPORT FOR THE PERFORMANCE REQUIREMENTS FOR CONCRET
- CONCRETE SHALL BE PROPORTIONED TO PROVIDE AN AVERAGE COMPRESSIVE STRENGTH AS PRESCRIBED IN THE N.C.-R, AS WELL AS SATISFY THE DURABILITY CRITERIA OF THE N.C.-R
- MIXING OF CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH ACI 318, SECTION 5.8.
- THE DEPOSITING OF CONCRETE SHALL COMPLY WITH THE PROVISIONS ACI 310, SECTION 5.10.
- THE CURING OF CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318, SECTION 5.II.
- ALL FORM WORK SHALL BE DESIGNED, CONSTRUCTED, UTILIZED, AND REMOVED.
- CONDUIT, PIPES AND SLEEVES OF ANY MATERIAL NOT HARMFUL TO CONCRETE AND WITHIN THE LIMITATIONS OF ACI 316, SECTION 6.3, ARE PERMITTED TO BE EMBEDDED IN CONCRETE WITH APPROVAL OF THE REGISTERED DESIGN PROFESSIONAL.
- CONSTRUCTION JOINTS INCLUDING THEIR LOCATION SHALL COMPLY WITH THE PROVISIONS OF ACI 318, SECTION 6.4.
- ALL STEEL REINFORCING OF CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE N.C.-R
- TOP OF CONCRETE SLABS TO BE A MINIMUM 4" W MASONRY VENEER 6" ELSEWHERE (8" H.J.D.) ABOVE FINISH GRADE.
- FOUNDATION MIDTHS, DEPTHS, AND REINFORCING, AS SHOWN ON PLANS, ARE SUPERCEDED BY ANY LOCAL CODES OR ORDINANCES WHICH REQUIRE INCREASES OF THE SAME.
- ALL REINFORCEMENT, CONDUIT, OUTLET BOXES, ANCHORS, HANGERS, SLEEVES, BOLTS OR OTHER EMBEDDED MATERIALS AND ITEMS MUST BE SECURED AND APPROPRIATELY FASTENED IN THEIR PROPER LOCATIONS PRIOR TO THE PLACEMENT OF CONCRETE. SUB-CONTRACTOR SHALL VERIFY INSTALLATION OF HOLD-DOWNS. ANCHOR BOLTS, PA STRAPS, AND OTHER ANCHORAGE MATERIAL AND ITEMS PRIOR TO PLACEMENT OF CONCRETE
- IS. POST-TENSION SLABS, IF APPLICABLE:
 - POINT AND LINE LOADS FROM STRUCTURE ABOVE TO BE PROVIDED TO POST-TENSION ENGINEER PRIOR TO POST-
- ANCHOR BOLTS AND OTHER HARDWARE TO BE SHOWN ON POST-TENSION PLANS TO AVOID MIS-LOCATION OF HARDWARE AND POSSIBLE FIELD FIXES WHICH MAY CUT TENDONS.

MASONRY

- ALL MASONRY DESIGN SHALL FOLLOW THE REQUIREMENTS OF THE CURRENT ADOPTED CODES.
- ANCHORED MASONRY VENEER SHALL COMPLY WITH THE PROVISIONS OF N.C.-R, AND SECTIONS 6.1 AND 6.2 OF ACI 530/ASCE 5/TMS 402.
- STONE VENEER UNITS NOT EXCEEDING 5 INCHES IN THICKNESS SHALL BE ANCHORED DIRECTLY TO MASONRY, CONCRETE OR TO STUD CONSTRUCTION BY ONE OF THE APPROVED METHODS LISTED IN THE N.C.-R
- MORTAR FOR USE IN MASONRY CONSTRUCTION SHALL COMPLY WITH ASTM \mathcal{C} 270. THE TYPE OF MORTAR SHALL BE IN ACCORDANCE WITH THE N.C. R AND SHALL MEET THE PROPORTION SPECIFICATIONS OR THE PROPERTY SPECIFICATIONS OF ASTM \mathcal{C} 270
- GROUT SHALL CONSIST OF CEMENTITIOUS MATERIAL AND AGGREGATE IN ACCORDANCE WITH ASTM C 476 AND THE PROPORTION SPECIFICATIONS PER THE NO -R
- AGGREGATES FOR MORTAR AND GROUT SHALL BE NATURAL SAND AND ROCK CONFORMING TO A.S.T.M. C-144-04 (MASONRY MORTAR) AND C-404-01 (GROUT).
- 7. CEMENT SHALL BE PORTLAND CEMENT CONFORMING TO A.S.T.M. C 150.
- 8. ALL BRICK SHALL CONFORM TO A.S.T.M. C 216, GRADE MM.
- UNLESS SPECIFICALLY SHOWN OTHERWISE ALL BRICK SHALL BE LAID IN A RUNNING BOND PATTERN.
- IO. ANCHORS, TIES AND WIRE FABRIC SHALL CONFORM TO N.C.-R
- ANCHOR TIES AND WIRE FABRIC FOR USE IN MASONRY WALL CONSTRUCTION SHALL CONFORM TO THE N.C.-R

METALS

- REFER TO STRUCTURAL NOTES AND SPECIFICATIONS FOR STRUCTURAL STEEL, METAL AND REINFORCING STEEL SPECIFICATIONS
- 2. ALL STRUCTURAL STEEL SHALL CONFORM TO AISC/CRED
- ANCHOR RODS SHALL BE SET ACCURATELY TO THE PATTERN AND DIMENSIONS CALLED FOR ON THE PLANS. THE PROTRUSION OF THE THREADED BIDS THROUGH THE CONNECTED MATERIAL SHALL BELL SHELD BELL TO FILLY ENGAGE THE THREADS OF THE NUTS, BUT SHALL OT BE SREATER THAN THE LENGTH OF THE THREADS ON THE BOLTS
- FASTENERS FOR PRESERVATIVE-TREATED AND FIRE-RETARDANT-TREATED MOOD SHALL BE OF HOT-DIPPED ZINC COATED GALVANIZED STEEL, STAINLESS STEEL, SILCON BRONZE OR COPPER VERIEY ACCEPTABLE FASTENERS PER CHEMICALS USED IN PRESSURE PRESERVITIVELY TREATED MOOD IN N.C.-R. FASTENINGS FOR MOOD FOUNDATIONS SHALL BE AS REQUIRED IN AFISPA TECHNICAL REPORT NO. 7.

WOOD & FRAMING

- THE DESIGN AND CONSTRUCTION OF CONVENTIONAL LIGHT-FRAME WOOD CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE N.C.-R
- CONSTRUCTION, PROJECTIONS, OPENINGS AND PENETRATIONS OF EXTERIOR MALLS OF DWELLINGS AND ACCESSORY BUILDINGS SHALL COMPLY WITH TABLE RSQ2.1.
- ALL LUMBER SHALL MEET THE STANDARDS OF QUALITY AS STATED IN THE N.C.-R
- LUMBER AND PLYWOOD REQUIRED TO BE PRESSURE PRESERVATIVELY REATED IN ACCORDANCE WITH THE N.C.-R AND SHALL BEAR THE QUALITY MARK OF AN APPROVED INSPECTION AGENCY THAT MAINTAINS CONTINUING SUPERVISION, TESTING AND INSPECTION OVER THE QUALITY OF THE PRODUCT AND THAT HAS BEEN APPROVED BY AN ACCREDITATION BODY THAT COMPLIES WITH THE REQUIREMENTS OF THE AMERICAN LUMBER STANDARD COMMITTEE TREATED WOOD PROGRAM
- ALL LUMBER SIZES NOTED AND SPECIFIED ON PLANS ARE NOMINAL SIZES UNLESS SPECIFICALLY INDICATED AS NET SIZE.

GLUE LAMINATED LUMBER

- REFER TO THE STRUCTURAL ENGINEER'S CURRENT NOTES, CALCULATIONS, AND SPECIFICATIONS.
- GLUED LAMINATED TIMBERS SHALL BE MANUFACTURED AND IDENTIFIED AS REQUIRED IN AITC AIGO. I AND ASTM D 3737.

PROTECTION AGAINST DECAY & TERMITE

- IN AREAS SUBJECT TO DECAY DAMAGE AS ESTABLISHED BY THE N.C.-R AND END USE. PRESERVATIVES SHALL BE LISTED IN SECTION 4 OF AMPA UI
- MOOD JOISTS OR THE BOTTOM OF MOOD FLOOR WHEN CLOSER THAN IS INCHES, OR WOOD GIRDERS WHEN CLOSER THAN IZ INCHES TO THE EXPOSED GROUND IN CRANL SPACES OR INEXCAVATED AREAS LOCATED WITHIN THE PERIPHERY OF THE BUILDING FOUNDATION.
- ALL EXTERIOR SILLS &PLATES THAT REST ON CONCRETE OR MASONRY EXTERIOR FOUNDATION WALLS.
- SILLS AND SLEEPERS ON A CONCRETE OR MASONRY, UNLESS THE SLAB THAT IS IN DIRECT CONTACT WITH THE GROUND IS SEPARATED FROM THE GROUND BY AN APPROVED IMPERVIOUS MOISTURE
- THE ENDS OF WOOD GIRDERS ENTERING EXTERIOR MASONRY OR CONCRETE WALLS HAVING CLEARANCES OF LESS THAN 0.5 INCH ON TOPS, SIDES AND ENDS.
- MOOD SIDING AND SHEATHING ON THE EXTERIOR OF A BUILDING HAVING A CLEARANCE OF LESS THAN 6 INCHES FROM THE GROUND.
- MOOD STRUCTURAL MEMBERS SUPPORTING MOISTURE-PERMEABLE FLOORS OR ROOFS THAT ARE EXPOSED TO THE NEATHER, SUCH AS CONCRETE OR MASONRY SLABS, UNLESS SEPARATED FROM SUCH FLOORS OR ROOFS BY ANIMPERVIOUS MOISTURE BARRIER.
- ALL PORTIONS OF A PORCH, SCREEN PORCH OR DECK FROM THE BOTTOM OF THE HEADER DOINN, INCLUDING POSTS, GUARDRAILS, PICKETS, STEPS AND FLOOR STRUCTURE. COVERINGS THAT WOULD REVENT MOISTURE OR MATER ACCUMILATION ON THE SURFACE OR AT JOINTS BETWEEN MEMBERS ARE ALLOWED.
- IN AREAS SUBJECT TO DAMAGE FROM TERMITES METHODS OF PROTECTION SHALL BE ONE OF THE METHODS LISTED IN THE N.C.-R
- UNDER-FLOOR AREAS SHALL BE VENTILATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE N.C.-R

WOOD & FRAMING (continued)

- WOOD STRUCTURAL PANELS SHALL CONFORM TO THE REQUIREMENTS
- ROOF SHEATHING PANELS SHALL BE LAID WITH FACE GRAIN OR STRENGTH AXIS PERPENDICULAR TO SUPPORTS AND WITH PANEL CONTINUOUS OVER TWO OR MORE SPANS.
- ROOF SHEATHING SHALL BE IN ACCORDANCE WITH THE N.C.-R
- FLOOR SHEATHING PANELS SHALL BE LAID WITH FACE GRAIN OR STRENGTH AXIS PERPENDICULAR TO SUPPORTS AND WITH PANEL CONTINUOUS OVER TWO OR MORE SPANS.
- STRUCTURAL FLOOR SHEATHING SHALL COMPLY WITH THE PROVISIONS OF THE N.C.-R
- REFER TO THE STRUCTURAL ENGINEER'S CURRENT SPECIFICATIONS, CALCULATIONS, AND PLANS FOR REQUIRED STRENGTH, GRADE, AND THICKNESS FOR PLYWOOD FLOOR SHEATHING PANELS AND FOR DIAPHRAGM NAILING AND ADHESIVE REQUIREMENTS
- ALL VERTICAL JOINTS OF PANEL SHEATHING SHALL OCCUR OVER, AND BE FASTENED TO, COMMON STUDS. HORIZONTAL JOINTS IN BRACED WALL PANELS SHALL OCCUR OVER, AND BE FASTENED TO, COMMON BLOCKING OF A MINIMAM OF I I/2 INCH THICKNESS.
- WHERE APPLICABLE, REFER TO THE SHEAR WALL SCHEDULE FOR REQUIRED STRENGTH, GRADE, AND THICKNESS OF PLYWOOD SHEAR PANELS AND FOR REQUIRED SHEAR WALL NAILING SCHEDULE.
- IN ONE- AND TWO-FAMILY DWELLING CONSTRUCTION USING VINYL ALMINUM AS A SOFFIT MATERIAL, THE SOFFIT MATERIAL SHALL SECURELY ATTACHED TO FRAMING MEMBERS AND USE AN UNDERLAYMENT MATERIAL OF EITHER FIRE RETARDANT TREATE! ANT TREATED WOOD 23/52 INCH WOOD SHEATHING OR 5/6 INCH CYPSUM BOARD, VENTING REQUIREMENTS APPLY TO BOTH SOFFIT AND UNDERLAYMENT AND SHALL BE PER SECTION REDUCTION OF THE NORTH CARCHINA RESIDENTIAL CODE. WHERE THE PROPRIETY LINE IS OFFIT OR MORE PROM THE BUILDING FACE, THE PROVISIONS OF THIS CODE SECTION DO NOT APPLY.

FLOOR FRAMING

- ALL FLOOR JOISTS SHALL BE DESIGNED I-JOIST WOOD FLOOR TRUSSES. REFER TO MANUFACTURER FOR ALL LAYOUTS AND CALCULATIONS.
- REFER TO THE STRUCTURAL ENGINEER'S CURRENT PLANS & CALCULATIONS FOR SIZE, SPACING, AND ANCHORAGE OF ALL FLOOR JOISTS; SIZE, LOCATION, AND ANCHORAGE OF ALL FLOOR BEAMS AND HEADERS; AND ALL RELATED FRAMING ISSUES.

- ROOF FRAMING SHALL BE BY PRE-MANUFACTURED ROOF TRUSSES SPACED AT 24 INCHES ON CENTER UNLESS NOTED OTHERWISE.
- WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE N.C.-R
- THE MANUFACTURER SHALL SUPPLY TO THE ARCHITECT AND BUILDER CALCULATIONS AND SHOP DRAWINGS FOR APPROVAL OF DESIGN LOADS, CONFIGURATION (2 OR 3 POINT BEARING), VOLUME CEILING OPTIONS, AND SHEAR TRANSFER, PRIOR TO FABRICATION.
- THE BRACING OF WOOD TRUSSES SHALL COMPLY TO THEIR APPROPRIATE ENGINEERED DESIGN. PER THE N.C.-R
- TRUSS MEMBERS SHALL NOT BE CUT, NOTCHED, DRILLED, SPLICED OR OTHERWISE ALTERED IN ANY WAY WITHOUT THE APPROVAL OF A RESISTERED DESIGN PROPERSIONAL. ALTERATIONS RESULTING IN THE ADDITION OF LOAD (E.S. HYAC EQUIPMENT, WATER HEATER) THAT EXCEEDS THE DESIGN LOAD FOR THE TRUSSES SHALL NOT B PERMITTED WITHOUT WRITTEN YERRIFICATION THAT THE TRUSS IS CAPABLE OF SUPPORTING SUCH ADDITIONAL LOADING.
- ALL CALCULATIONS AND SHOP DRAWINGS SHALL BE SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHEREIN THE PROJECT IS TO BE BUILT.
- MANUFACTURER IS TO SECURE BUILDING DEPARTMENT APPROVA OF CALCULATIONS AND SHOP DRAWINGS PRIOR TO FABRICATION.

WALL FRAMING

- THE SIZE, HEIGHT, AND SPACING OF STUDS SHALL BE IN ACCORDANCE
- STUDS SHALL BE PLACED WITH THEIR WIDE DIMENSION PERPENDICULAR TO THE WALL.
- NOT LESS THAN THREE STUDS SHALL BE INSTALLED AT EACH CORNER OF AN EXTERIOR WALL.
- WOOD STUD WALLS SHALL BE CAPPED WITH A DOUBLE TOP PLATE INSTALLED TO PROVIDE OVERLAPPING AT CORNERS AND INTERSECTIO. WITH BEARING PARTITIONS. END JOINTS IN TOP PLATES SHALL BE OFFSET AT LEAST 24 INCHES. JOINTS NEED NOT COCUR OVER STUDS. PLATES SHALL BE NOT LESS THAN 2-INCHES NOMINAL THICKNESS AND HAVE A WIDTH AT LEAST EQUAL TO THE WIDTH OF THE STUDS. SEE EXCEPTIONS.
- WHERE JOISTS, TRUSSES OR RAFTERS ARE SPACED MORE THAN 16 INCHES ON CENTER AND THE BEARING STUDS BELOW ARE SPACED 24 INCHES ON CENTER, SUCH MEMBERS SHALL BEAR WITHIN 5 INCHES OF THE STUDS BENEATH. SEE EXCEPTIONS.
- STUDS SHALL HAVE FULL BEARING ON NOMINAL 2 BY OR LARGE PLATE OR SILL HAVING A MIDTH AT LEAST EQUAL TO THE MIDTOF THE STUDS.
- INTERIOR NONBEARING WALLS SHALL BE PERMITTED TO BE CONSTRUCTED MITH 2-INCH-BY-8-INCH STUDS SPACED 24 INCHES ON CENTER OR, WHEN NOT A PART OF A BRACED WALL LINE, 2-INCH-BY-4-INCH FLAT STUDS SPACED 16 INCHES ON CENTER. INTERIOR NONBEARING WALLS SHALL BE CAPPED WITH AT I FAST A SINGLE TOP PLATE INTERIOR NONBEARING WALLS SHALL BE FIREBLOCKED IN ACCORDANCE WITH THE N.C.-F

WOOD & FRAMING

(continued)

- 8. DRILLING AND NOTHCING OF STUDS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
 - NOTHCING, ANY STID IN AN EXTERIOR WALL OR BEARING PARTITION MAY BE OUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH, STIDS IN NONBEARING PARTITIONS MAY BE NOTCHED TO A DEPTH NOT TO EXCEED 40 PERCENT OF A SINGLE STID WIDTH, NOTCHING OF BEARING STIDS SHALL BE ON ONE EDGE ONLY AND NOT TO EXCEED PARKING STIDS SHALL BY STUD, NOTCHING SHALL NOT OCCUR IN THE BOTTOM OR TOP 6 INCHES OF BEARING STIDS.
 - DRILLING, ANY STUD MAY BE BORED OR DRILLED, PROVIDED THAT THE DIAMETER OF THE RESULTING HOLE IS NO MORE THAN 60 PERCENT OF THE STUD HIDTH, THE EDGE OF THE HOLE IS NO MORE THAN 5/8" INCH TO THE EDGE OF THE STUD, AND THE HOLE SHALL NOT BE CLOSER THAN 6 INCHES FROM AN AD JACENT HOLE OR NOTCH, HOLES NOT EXCEEDING 3/4 INCH DIAMETER CAN BE AS CLOSE AS I I/2 INCHES ON CENTER, SPACING, STUDS LOCATED IN EXTERIOR MALLS OR BEARING PARTITIONS DRILLED OVER 40 PERCENT AND UP TO 60 PERCENT SHALL ALSO BE DOUBLED WITH NO MORE THAN TWO SUCCESSIVE DOUBLED STUDS BORRED.
 - CUTTING AND NOTCHING OF STUDS SHALL BE PERMITTED TO BE INCREASED TO 65 PERCENT OF THE MIDTH OF THE STUD IN EXTERIOR AND INTERIOR MALLS AND BEARING PARTITIONS, PROVIDED THAT ONE OF THE FOLLOWING CONDITIONS ARE MET.

 (a) THE WALL SECTION IS REINFORCED WITH 1/2-INCH EXTERIOR GRADE PLYWOOD OR EQUIVALENT REINFORCHENT ON THE NOTCHED SIDE OF THE WALL. PLYWOOD, IF USED, SHALL REACH FROM THE FLOOR TO CEILING AND AT LEAST ONE STUD PRINTERS ON EACH SIDE OF THE SECTION THAT HAS BEEN NOTCHED OR CUT.

 (b) THE EXTERIOR WALLS OF A KITCHEN MAY BE REINFORCED BY PLACING 1/2-INCH PLYWOOD OR EQUIVALENT REINFORCEMENT ON THE NOTCHED SIDE OF THE MALL SHALL SHAW OF THE MET ON THE PLACING SIDE OF THE MALL SHAW OF THE MET ON THE PLACING SIDE OF THE MALL SHAW OF THE SECTION THAT HAS BEEN NOTCHED OR CUT.
- WHEN PIPING OR DUCTWORK IS PLACED IN OR PARTIALY IN AN EXTERIOR OR INTERIOR LOAD-BEARING WALL, NECESSITATION CUTTING, DRILLING OR NOTCHING OF THE TOP PLATE B MORE THAN 50 PERCENT OF ITS WIDTH A GALVANIZED METAL TIE OF NOT LESS THAN 0.054 INCH THICK A NCHES WIDE SHALL BE FASTENED ACROSS AND TO THE PLATE AT EACH SIDE OF THE OPENING WITH NOT LESS THAN EIGHT IOA NAILS HAVING A MINIMM LENGTH OF I I/2 INCHES (38 MM) AT EACH SIDE OR EQUIVALENT. THE METAL TIE MUST EXTEND A MINIMUM OF 6 INCHES PAST THE OPENING
- HEADERS SHALL MEET THE REQUIREMENTS OF THE N.C.-R
- PROVIDE LATERAL BRACING PER THE N.C.-R
- FOUNDATION CRIPPLE WALLS SHALL MEET THE REQUIREMENTS OF THE N.C.-R CODE
- 14. WOOD STUD WALLS SHALL BE BRACED AS REQUIRED BY THE N.C.-R.
- 15. UNLESS COVERED BY INTERIOR OR EXTERIOR WALL COVERINGS OR SHEATHING MEETING THE MINIMUM REQUIREMENTS OF THIS CODE, ALL STUD PARTITIONS OR WALLS WITH STUDS HAVING A HEIGHT-TO-LEAST THICKNESS RATIO EXCEEDING 50 SHALL HAVE BRIDGING NOT LESS THAN 2 INCHES IN THICKNESS AND OF THE SAME MIDTH AS THE STUDS FITTED SNUGLY AND NAILED THERETO TO PROVIDE ADEQUATE LATERAL SUPPORT.

FIRE BLOCKS AND DRAFT STOPS

- FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAF OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIV BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND A ROOF SPACE, FIREBLOCKING SHALL BE REVIDED IN WOOD-FRAME CONSTRUCTION IN THE LOCATIONS SPECIFIED IN THE N.C.-R
- FIRE BLOCKING SHALL CONSIST OF 2 INCHES NOMINAL LUMBER, OR TWO THICKNESSES OF I-INCH NOMINAL LUMBER WITH BROKEN LAP JOINTS, OR ONE THICKNESS OF 25/92-INCH WOOD STRUCTURAL PANELS WITH JOINTS BACKED BY 23/32-INCH WOOD STRUCTURAL PANELS OR ONE THICKNESS OF 3/4-INCH PARTICLEBOARD WITH JOINTS BACKED BY 3/4-INCH ARTICLEBOARD, 1/2-INCH GYPSOM BOARD, OR 1/4-INCH CEMENT-BASED
- BATTS OR BLANKETS OF MINERAL WOOL OR GLASS FIBER OR OTHER APPROVED MATTERIALS INSTALLED IN SUCH A MANNER AS TO BE SECURELY RETAINED IN PLACE SHALL BE PERMITTED AS AN ACCEPTABLE FIRE BLOCK.
- BATTS OR BLANKETS OF MINERAL OR GLASS FIBER OR OTHER APPROVED NON-RISID MATERIALS SHALL BE PERMITTED FOR COMPLIANCE WITH THE 10 FOOT HORIZONTAL FIREBLOCKING IN WALLS CONSTRUCTED USING PARALLEL ROWS OF STUDS OR STAGGERED STUDS. LOOSE FILL INSULATION MATERIAL SHALL NOT BE USED AS A FIREBLOCK UNLESS SPECIFICALLY TESTED IN THE FORM AND MANNER INTENDED FOR USE TO DEMONSTRATE ITS ABILITY TO REMAIN IN PLACE AND TO RETARD THE SPREAD OF FIRE AND HOT GASSES.
- WHEN THERE IS USABLE SPACE BOTH ABOVE AND BELOW THE CONCEALED WHEN THERE IS DABLE STACE BUT A BOY AND BELLOW THE CONCALED SPACE OF A FLOOR/CEILING ASSEMBLY, DRAFTSTOPS SHALL BE INSTALLED SO THAT THE AREA OF THE CONCEALED SPACE DOES NOT EXCEED I/DOO SOULARE FEET, DRAFTSTOPPING SHALL DIVIDE THE CONCEALED SPACE INTO APPROXIMATELY EQUAL AREAS, WHERE THE ASSEMBLY IS ENCLOSED BY A FLOOR MEMBRANE ABOVE AND A CEILING MEMBRANE BELOW DRAFTSTOPPING SHALL BE PROVIDED IN FLOOR/CEILING ASSEMBLIES UNDER THE FOLLOWING CIRCUMSTANCES:
 - CEILING IS SUSPENDED UNDER THE FLOOR FRAMING
 - FLOOR FRAMING IS CONSTRUCTED OF TRUSS-TYPE OPEN-WEB OR PERFORATED MEMBERS.

- GUARDRAIL OF 36" HIGH MIN, SHALL BE PROVIDED WHERE FINISHED GRADE OR FLOOR BELOW RAISED AREA EXCEEDS 30".
- HANDRAIL AT STAIRS SHALL BE PROVIDED WHEN 4 OR MORE STAIR RISERS



NORTH CAROLINA 40' SERIES

KB HOME NORTH CAROLINA DIVISION

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SPEC. LEVEL 1 RALEIGH-DURHAM 40' SERIES

THERMAL & MOISTURE PROTECTION

- PROVIDE ALL FLASHING, COUNTER-FLASHING, BITUTHENE, MEMBRANE FING, SHEET METAL, CAULKING, SEALANTS, ELASTOMERIC
- "CORROSION RESISTANCE" SHALL MEAN THE ABILITY OF A MATERIAL TO WITHSTAND DETERIORATION OF IT'S SURFACE OR IT'S PROPERTIES WHEN EXPOSED TO IT'S ENVIRONMENT
- BALCONIES, LANDINGS, EXTERIOR STAIRWAYS, OCCUPIED ROOFS AND SIMILAR SURFACES EXPOSED TO THE MEATHER AND SEALED UNDER-NEATH SHALL BE WATERPROOFED AND SLOPED A MINIMUM OF 1/4 UNIT VERTICAL IN 12 UNITS HORIZONTAL (2% SLOPE) FOR DRAINAGE.
- PROVIDE A MINIMUM 2 INCH DROP FROM FINISHED INTERIOR FLOOR ELEVATION TO THE HIGHEST FLOOR ELEVATION OF ANY ADJOINING DECK OR BALCONY.
- ELASTOMERIC OR MEMBRANE DECK COATINGS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AT DECKS AND BALCONIES COLOR, FINISH, AND DETAILING SHALL BE APPROVED BY OWNER
- UNLESS DESIGNED TO DRAIN OVER DECK EDGES, DRAINS AND OVERFLOWS OF ADEQUATE SIZE SHALL BE INSTALLED AT THE LOW POINTS OF THE DECK OR BALCONY.
- FOUNDATION WALLS WHERE THE OUTSIDE GRADE IS HIGHER THAN THE INSIDE GRADE SHALL BE WATER-PROOFED AND DAMPPROOFED IN ACCORDANCE WITH THE N.C.-R
- PARAPET WALLS SHALL BE PROPERLY COPED WITH NONCOMBUSTIBLE, WEATHERPROOF MATERIALS OF A WIDTH NO LESS THAN THE THICKNESS OF THE PARAPET WALL. PARAPET COPING SHALL EXTEND 2" MINIMUM DOWN THE FACES OF THE PARAPET.

- APPROVED CORROSION-RESISTANT FLASHING SHALL BE APPLIED SHINGLE-FASHION IN A MANNER TO PREVENT ENTRY OF MATER INTO THE WALL 12. CAVITY OR PENETRATION OF MATER TO THE BUILDING STRUCTURAL FRAMING COMPONENTS, SELF-ADHERED MEMBRANES USED AS FLASHING SHALL COMPLY MITH AAMA II, FUID-APPLIED MEMBRANES USED AS FLASHING IN EXTERIOR MALLS SHALL COMPLY MITH AAMA TIA. THE FLASHING SHALL STRUCTURAL SHALL COMPLY MITH AAMA TIA. THE FLASHING SHALL STRUCTURAL OF THE EXTERIOR MALL FINISH ALUMINAM FLASHING SHALL NOT BE USED IN CONTACT NITH CEMENTITIOUS MATERIAL, EXCEPT AT COUNTER FLASHINGS SHALL BE INSTALLED AT ALL OF THE LOCATIONS STATED IN N.C.-R.
- ALL BEAMS, OUTLOOKERS, CORBELS, ETC. PROJECTED THROUGH EXTERIOR WALLS OR PENETRATING EXTERIOR FINISHES SHALL BE FLASHED WITH A MINIMUM O.OIM-INCH (NO. 26 SHEET METAL GAGE) CORROSION-RESISTANT METAL AND CAULKED.
- ALL SHEET METAL WORK SHALL BE PERFORMED IN ACCORDANCE ALL SHEET METICAL WORK SHALL BE MERFORMED IN ACCORDANCE WITH THE RECOMMENDATIONS AND STANDARDS OF THE SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION (SMACNA). THE ARCHITECTURAL SHEET METAL MANUAL, AND SEALANT, WATERPROOFING AND RESTORATION INSTITUTE'S (SWR.II.) GUIDE - "SEALANTS." THE PROFESSIONAL'S GUIDE".
- SHEET METAL SHALL BE STEEL SHEET, HOT-DIPPED, TIGHT COATED AND GALVANIZED, CONFORMING TO A.S.T.M. A525 AND SHALL BE A NUMBER 24 SHEET METAL GAGE UNLESS OTHERWISE NOTED IN THESE NOTES, PLANS, OR MANUFACTURER'S SPECIFICATIONS.
- FABRICATE SHEET METAL WITH FLAT LOCK SEAMS AND SOLDER WITH TYPE AND FLUX RECOMMENDED BY MANUFACTURER. SEAL ALUMINUM SEAMS WITH EPOXY METAL SEAM CEMENT. WHERE REQUIRED FOR STRENGTH, RIVET SEAMS AND JOINTS.
- SHOP FABRICATE TO THE GREATEST EXTENT POSSIBLE IN ACCORDANCE WITH APPLICABLE STANDARDS TO PROVIDE A PERMANENTLY MATER-PROOF, WEATHER RESISTANT INSTALLATION.
- ASPHALT SHINGLES SHALL HAVE SELF-SEAL STRIPS OR BE INTERLOCKING, AND COMPLY WITH ASTM D 225 OR D 8462.
- BASE AND CAP FLASHING SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS, BASE FLASHING SHALL BE OF EITHER CORROSION-RESISTANT METAL OF MINIMAY NOMINAL O.OM-INCH THICKNESS OR MINERAL SURFACE ROLL ROOFING MEIGHING A MINIMAM OF TI POUNDS PER IOO SQUARE FIEET, CAP FLASHING SHALL BE CORROSION-RESISTANT METAL OF MINIMAM NOMINAL O.OM-INCH THICKNESS
- VALLEY LININGS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS BEFORE APPLYING SHINGLES. VALLEY LININGS OF THE FOLLOWING TYPES SHALL BE PERMITTED AS STATED FER THE N.C.-R.
- A CRICKET OR SADDLE SHALL BE INSTALLED ON THE RIDGE SIDE OF ANY A CHICAGE OF ADDLE SHALL BE INSTITUTED ON THE RIVES SIZE OF AN CHIMMEY OR PENETRATION MORE THAN 30 INCHES NIDE AS MEASURED PERPENDICULAR TO THE SLOPE, CRICKET OR SADDLE COVERINGS SHALL BE SHEET METAL OR OF THE SAME MATERIAL AS THE ROOF COVERING, PROVIDE FLASHING AT THE INTERSECTION OF CRICKET OR SADDLE AND
- FLASHING AGAINST A VERTICAL SIDEMALL SHALL BE BY THE STEP-FLASHING METHOD PER NC-R.
- ASHING AGAINST A VERTICAL FRONT WALL, AS WELL AS SOIL STACI NT PIPE AND CHIMNEY FLASHING, SHALL BE APPLIED ACCORDING TO PHALT SHINGLE MANUFACTURER'S PRINTED INSTRUCTIONS.
- AT THE JUNCTURE OF ROOF VERTICAL SURFACES, FLASHING AND COUNTERFLASHING SHALL BE PROVIDED IN ACCORDANCE WITH THE N.C.-R AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WHERE OF METAL, SHALL NOT BE LESS THAN O.O.I INCH (NO. 26 GALVANIZED
- 16. VALLEY FLASHING FOR CONCRETE TILE ROOFS SHALL BE AS REQUIRED

ROOFING MATERIALS

- ROOF COVERINGS SHALL BE APPLIED IN ACCORDANCE WITH THE N.C.-R. AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, INSTALLATION OF ROOF COVERINGS SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF THE N.C.-R.
- ROOFS AND ROOF COVERINGS SHALL BE OF MATERIALS THAT ARE COMPATIBLE WITH EACH OTHER AND WITH THE BUILDING OR STRUCTURE TO WHICH THE MATERIALS ARE APPLIED.
- ROOF COVERING MATERIALS SHALL CONFORM TO THE APPLICABLE STANDARDS LISTED IN THE N.C.-R. IN THE ABSENCE OF APPLICABLE STANDARDS OR WHERE MATERIALS ARE OF QUESTIONABLE SUITABILITY, TESTING BY AN APPROVED TESTING AGENCY SHALL BE REQUIRED BY THE BUILDING OFFICIAL TO DETERMINE THE CHARACTER, QUALITY, AND LIMITATIONS OF APPLICATION OF THE MATERIALS.

THERMAL & MOISTURE PROTECTION (continued)

- ROOF COVERING MATERIALS SHALL BE DELIVERED IN PACKAGES BEARING THE MANUFACTURER'S IDENTIFYING MARKS AND APPROVED TESTING LABELS WHEN REQUIRED. BULK SHIPMENTS OF MATERIALS SHALL BE ACCOMPANIED BY THE SAME INFORMATION ISSUED IN THE FORM OF A CERTIFICATE OR ON A BILL OF LADING BY THE MANUFACTURER
- COMPOSITION ROOFING SHINGLES SHALL BE OF ASPHALT OR APPROVED RELATED MATERIALS AND MEET THE REQUIREMENTS OF THE N.C.-R
- UNDERLAYMENT FOR ASPHALT SHINGLES SHALL CONFORM TO ASTM D 226 TYPE I, ASTM D 4869, TYPE I, OR ASTM D 6757. SELF-ADHERING POLYMER MODIFIED BITIMEN SHEET SHALL COMPLY WITH ASTM D 1970
- ASPHALT SHINGLES SHALL COMPLY WITH ASTM D 225 OR ASTM D 3462.
- FASTENERS FOR ASPHALT SHINGLES SHALL BE GALVANIZED STEEL, STAINLESS STEEL, ALIMINIM, OR COPPER ROOFING NAILS, MINIMM 12 GAGE SHANK MITH A MINIMM 3/6 INCH DIAMETER HEAD, ASTM F 1667, OF A LENGTH TO PENETRATE THROUGH THE ROOFING MATERIALS AND A MINIMM 0F 3/4 INCH INTO THE ROOF SHEATHING. WHERE THE ROOF SHEATHING IS LESS THAN 3/4 INCH THICK, THE FASTENERS SHALL PENETRATE THROUGH THE SHEATHING. FASTENERS SHALL COMPLY WITH AGTUS LIGHT.
- UNDERLAYMENT FOR ASPHALT SHINGLES SHALL BE APPLIED IN ACCORDANCE WITH THE N.C.-R
- THE INSTALLATION OF CLAY AND CONCRETE TILE SHALL COMPLY WITH THE PROVISIONS OF N.C.-R CLAY ROOF TILE SHALL COMLY WITH
- CONCRETE AND CLAY TILE SHALL BE INSTALLED ONLY OVER SOLID SHEATHING OR SPACED STRUCTURAL SHEATHING BOARDS.
- CLAY AND CONCRETE ROOF TILE SHALL BE INSTALLED ON ROOF SLOPES OF 2 1/2 UNITS VERTICAL. IN 12 UNITS HORIZONTAL. (2-1/2.12) OR GREATER FOR ROOF SLOPES FROM 2 1/2 UNITS VERTICAL. IN 12 UNITS HORIZONTAL. (2-1/2.12) TO FOUR UNITS VERTICAL. IN 12 UNITS HORIZONTAL. (4-1/2.) DOUBLE UNDERLAYMENT APPLICATION IS REQUIRED IN ACCORDANCE WITH THE N.C.-R.
- UNDERLAYMENT FOR CLAY AND CONCRETE TILE SHALL CONFORM WITH ASTM D 226, TYPE II; ASTM D 2626 TYPE I; OR ASTM D 6380 CLASS I MINERAL SURFACED ROLL ROOFING.
- CONCRETE ROOF TILE SHALL COMPLY WITH ASTM C 1492.
- NAILS SHALL BE CORROSION-RESISTANT AND NOT LESS THAN II GAGE NAILE STACE DE CORROSIONNESSISTANT TOUR NOT LESS IMAN II SAGE, SIG-INCH HEAD, AND OF SYFFICIENT LENGTH TO PENETRATE THE DECK, A MINIMUM OF SY4-INCH OR THROUGH THE THICKNESS OF THE DECK, WHICHEVER IS LESS. ATTACHING WIRE FOR CLAY OR CONCRETE TILE SHALL NOT BE SMALLER THAN O.OSS-INCH. PERIMETER PASTENING AREAS INCLUDE THREE TILE COURSES BUT NOT LESS THAN 36 INCHES FROM EITHER SIDE OF HIPS OR RIDGES AND EDGES OF EAVES AND GABLE RAKES.
- 17. CLAY AND CONCRETE ROOF TILES SHALL BE FASTENED IN ACCORDANCE WITH THE N.C.-R
- TILE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, BASED ON CLIMATIC CONDITIONS, ROOS SLOPE, UNDERLAYMEN SYSTEM, AND TYPE OF TILE BEINS INSTALLED PER THE N.C.-R
- THE INSTALLTION OF BUILT-UP ROOFS SHALL COMPLY WITH THE N.C.-R
- 20. BUILT-UP ROOFS SHALL HAVE A DESIGN SLOPE OF A MINIMUM OF ONE-FOUTH UNIT VERTICAL IN I2 UNITS HORIZONTAL (2-PERCENT SLOPE) FOR DRAINAGE, EXCEPT FOR COAL-TAR BUILT-UP ROOFS THAT SHALL HAVE A DESIGN SLOPE OF A MINIMUM ONE-BIGHTH UNIT VERTICAL IN
- 21. BUILT-UP ROOF COVERING MATERIALS SHALL COMPLY WITH THE

EXTERIOR WALL COVERINGS

- SEE FINISHES IN THESE GENERAL NOTES FOR EXTERIOR PLASTER.
- MATERIALS USED FOR THE CONSTRUCTION OF EXTERIOR WALLS SHALL COMPLY WITH THE PROVISIONS OF THE N.C.-R
- EXTERIOR WALLS SHALL PROVIDE THE BUILDING WITH A WEATHER-RESISTANT EXTERIOR WALL ENVELOPE. THE EXTERIOR WALL ENVELOPE SHALL INCLUDE TASHING. THE EXTERIOR WALL ENVELOPE SHALL INCLUDE TASHING. THE EXTERIOR WALL ENVELOPE SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT PREVENTS THE ACCUMULATION OF MATER WITHIN THE WALL ASSEMBLY BY PROVIDING A WATER-RESISTANT BARRIER BEHIND THE EXTERIOR VENEER AS REQUIRED AND A MEANS OF DRAINING WATER THAT ENTERS THE ASSEMBLY TO THE EXTERIOR. PROTECTION AGAINST CONDENSATION IN THE EXTERIOR WALL ASSEMBLY SHALL BE PROVIDED.
- ONE LAYER OF NO. 15 ASPHALT FELT, FREE FROM HOLES AND BREAKS. ONE LAYER OF NO. 15 ASPHALT FELT, FREE FROM HOLES AND BREAKS, COMPLYING NITH ASTM D 226 FOR TYPE I FELT OR OTHER APPROVED MATER-RESISTIVE BARRIER SHALL BE APPLIED OVER STUDS OR SHEATHING OF ALL EXTERIOR WALLS, SUCH FELT OR MATERIAL SHALL BE APPLIED HORIZONTALLY, WITH THE UPPER LAYER LAPPED OVER THE LOWER LAYER NOT LESS THAN 2 INCHES, WHERE JOINTS OCCUR, FELT SHALL BE LAPPED NOT LESS THAN 6 INCHES, THE FELT OR OTHER APPROVED MATERIAL SHALL BE CONTINUOUS TO THE TOP OF WALLS AND TERMINATED AT PENETRATIONS AND BUILDING APPENDAGES IN A MANNER TO MEET THE REQUIREMENTS OF THE EXTERIOR WALL ENVELOPE.
- VINYL SIDING CONFORMING TO THE REQUIREMENTS OF THE N.C.-R AND COMPLYING WITH ASTM D 3679 SHALL BE PERMITTED ON EXTERIOR WALLS OF BUILDINGS OF TYPE V CONSTRUCTION LOCATED IN AREAS INHERE THE ULTIMATE WIND SPEED SPECIFIED DOES NOT EXCEED IOO MILES PER HOUR AND THE BUILDING HEIGHT IS LESS THAN 40 FEET IN EXPOSURE C. WHERE CONSTRUCTION IS LOCATED IN AREAS WHERE THE ULTIMATE WIND SPEED EXCEEDS ISO MILES PER HOUR OR BUILDING HEIGHTS ARE IN EXCESS OF 40 T. DATA INDIGATING COMPLIANCE MUST BE SUBMITTED. VINYL SIZ SHALL BE SECURED TO BUILDING TO PROVIDE WEATHER PROTECTION FOR THE EXTERIOR WALLS OF THE BUILDING.
- VINYL SIDING SHALL BE APPLIED OVER SHEATHING OR MATERIALS LISTED IN THE N.C.-R VINYL SIDING SHALL BE APPLIED TO CONFORM MITH THE WEATHER-RESISTIVE BARRIER REQUIREMENTS VINYL SIDING AND ACCESSORIES SHALL BE INSTALLED IN ACCORDANCE WITH APPROVED MANUFACTURER'S INSTRUCTIONS.
- VINYL SIDING FASTENERS AND ACCESSORIES SHALL MEET THE REQUIREMENTS OF THE N.C.-B
- EXTERIOR WALLS OF WOOD CONSTRUCTION SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE N.C.-R

THERMAL & MOISTURE PROTECTION (continued)

- HARDBOARD SIDING SHALL CONFORM TO THE REQUIREMENTS OF AHA AISS.6 AND, WHERE USED STRUCTURALLY, SHALL BE SO IDENTIFIED BY THE LABEL OF AN APPROVED AGENCY.
- WOOD VENEERS ON EXTERIOR WALLS OF BUILDINGS OF TYPES I, II, III, AND IV CONSTRUCTION SHALL BE NOT LESS THAN I-INCH NOMINAL THICKNESS, 0.438-INCH EXTERIOR HARDBOARD SIDING OR 0.375-INCH EXTERIOR-TYPE WOOD STRUCTURAL PANELS OR PARTICLE-BOARD AND SHALL CONFORM TO THE REQUIREMENTS OF THE N.C.-R
- FIBER-CEMENT LAP SIDING HAVING A MAXIMUM MIDTH OF 12 INCHES SHALL COMPLY WITH THE REQUIREMENTS OF ASTM CIBE, TYPE A, MINIMUM GRADE II LAP SIDING SHALL BE LAPPED A MINIMUM OF II/4 INCHES (32 MM) AND LAP SIDING NOT HAVING TONGUE-AND-SROOVE END JOINTS SHALL HAVE THE ENDS SEALED WITH CAULKING, INSTALLED WITH AN H-SECTION JOINT COVER, LOCATED OVER A STRIP OF FLASHING OR SHALL BE DESIGNED TO COME WITH KC-R. LAP SIDING COURSES MAY BE INSTALLED WITH THE FASTENER HEADS EXPOSED OR CONCEALED, ACCORDING TO NC-R OR APPROVED MANUFACTURERS INSTALLATION INSTRUCTIONS.

- INSULATING MATERIALS, INCLUDING FACINGS, SUCH AS VAPOR INSULATING MATTERIALS, INCLUDING FACINGS, SUCH AS VAPOR RETARDERS OR VAPER-PERMEABLE HEMBERANES, INSTALLED WITHIN FLOOR-CEILING ASSEMBLIES, ROOF-CEILING ASSEMBLIES, WALL-ASSEMBLIES, CRANL SPACES AND ATTICS SHALL HAVE A FLAME-SPREAD INDEX NOT TO EXCEED 25 WITH AN ACCOMPANYING SMOKE-DEVELOPED INDEX NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH ASTM E 84 OR UL 123.
- DUCT INSULATION MATERIALS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS OF THE N.C.-R
- INSULATION AND COVERING ON PIPE AND TUBING SHALL HAVE A FLANE-SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450. SEE EXCEPTIONS.
- ALL EXPOSED INGULATION MATERIALS INSTALLED ON ATTIC FLOORS SHALL CENTIMETER PER N.C.-R TESTS FOR CRITIAL RADIANT FLUX SHALL BE MADE IN ACCORDANCE WITH ASTM E 970.
- THE USE OF ABOVE DECK THERMAL INSULATION SHALL BE PER PROVIDED SUCH INSULATION IS COVERED WITH AN APPROVED ROOF COVERING AND PASSES FM 4450 OR UL 1256 PER N.C.-R.
- CELLULOSE LOOSE-FILL INSULATION SHALL COMPLY WITH CPSC 16 CFR, PARTS 1209 AND 1404. EACH PACKAGE OF SUCH INSULATING MATERIAL SHALL BE CLEARLY LABELED IN ACCORDANCE WITH CPSC 16 CFR, PARTS 1209 AND 1404.
- INSULATION IN FLOOR-CEILING ASSEMBLIES, ROOF-CEILING ASSEMBLIES, MALLS, CRANL SPACES OR ATTICS SHALL BE EITHER OF THE BLOWN-IN CELLULOSE TYPE OR FIBERGLASS BATTS OR BLANKET TYPE PER BUILDER'S SPECIFICATIONS.
- THE ENERGY EFFICIENCY REQUIREMENTS INCLUDING LEGG. BUT NOT IMITED TO INSULATION RY VALUES, PERCENTAGE OF GLAZING TO AUDITOR OF SHALL BE DETERMINED BY THE ADOPTED STATE AND LOCAL ENERGY CODE EQUIREMENTS, REFER TO MECHANICAL PLANS FOR SPECIFICATIONS
- THE BUILDING THERMAL ENVELOPE SHALL BE DURABLY SEALED WITH AN AIR BARRIER SYSTEM TO LIMIT INFILTRATION. THE SEALING METHODS BETWEEN DISSIMILAR MATERIALS SHALL ALLOW FOR DIFFERENTIAL EXPANSION AND CONTRACTION, FOR ALL HOMES, WHERE PRESENT, THE FOLLOWING SHALL BE CAULKED, GASKETED, MEATHERSTRIPPED OR OTHERWISE SHALL BE CAULKED, GASKETED, MEATHERSTRIPPED OR OTHERWISE. APPENDIX E-23 AND E-24 OF THE NG-R II BLOCKING AND SEALING FLOOR/CEILING SYSTEMS AND UNDER KNEE MALLS OPEN TO UNCONDITIONED OR EXTERIOR SPACE.

 2. CAPPING AND SEALING SHAFTS OR CHASES, INCLUDING FLUE 3. CAPPING AND SEALING SOFFIT OR DROPPED CEILING AREAS
- FRAMED CAVITY WALLS, THE EXTERIOR THERMAL ENVELOPE WALL INSULATION SHALL BE INSTALLED IN SUBSTANTIAL CONTACT AND CONTINUOUS ALIGNMENT WITH THE BUILDING ENVELOPE AIR BARRIER, INSULATION SHALL BE SUBSTANTIALLY FREE FROM INSTALLATION GAPS, VOIDS, OR COMPRESSION. FOR FRAMED WALLS, THE CAVITY INSULATION SHALL BE ENCLOSED ON ALL SIDES WITH A RIGID MATERIAL OR AN AIR BARRIEM MATERIAL, MALL INSULATION SHALL BE ENCLOSED AT THE FOLLOWING LOCATIONS WHEN INSTALLED ON EXTERIOR WALLS PRICE TO BEING COVERED BY SUBSEQUENT CONSTRUCTION, CONSISTENT WITH APPENDIX E-2.3 AND E-2.4 OF NC-R:
- SHOWERS
- S. STAIRS
 4. FIREPLACE UNITS
 ENCLOSURE OF WALL CAVITY INSULATION ALSO APPLIES TO WALLS THAT ADJOIN ATTIC SPACES BY PLACING A RIGID MATERIAL OR AIR BARRIER MATERIAL ON THE ATTIC SIDE.

DOORS & WINDOWS

- SEE ELOOR PLANS AND ELEVATIONS FOR SIZES AND TYPES OF DOORS AND WINDOWS AND FOR ANY DIVIDED LITE PATTERNS. COLORS SHALL BE APPROVED BY THE BUILDER AND ARCHITECT
- OPENINGS FROM A PRIVATE GARAGE DIRECTLY INTO A ROOM USED OF SLEPTING PURPOSES SHALL NOT BE FERMITTED. OTHER OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHAIL NOT BE FERMITTED. OTHER OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHAIN 13/6 INCHES IN THICKNESS, SOLID OR HONEYCOMB CORE STEEL DOORS NOT LESS THAN 13/6 INCHES THICK, OR 20-MINITE FIRE-RATED DOORS.
- NO DOUBLE FRENCH DOORS SHALL BE USED UNLESS THERE IS A SUFFICIENT OVERHANS OR COVERED PATIO COVERING THESE DOORS. NO DOUBLE \underline{WOOD} FRENCH DOORS SHALL BE USED IN
- ALL AUTOMATIC GARAGE DOOR OPENERS REQUIRE THE INCLUSION OF A PHOTOELECTRIC SENSOR, EDGE SENSOR OR SOME OTHER SIMILAR DEVICE FOR REMOTE OPERATION AND AS A SAFETY PRE-CAUTION TO PREVENT THE DOOR FROM CLOSING WHEN SOMETHING IS BLOCKING THE PATH OF THE DOOR, SEE MANUFACTURERS NSTALLTION INSTRUCTIONS
- ALL MANUFACTURED MINDOMS AND SLIDING GLASS DOORS SHALL MEET THE AIR INFILTRATION STANDARDS OF THE CURRENT AMERICAN NATIONAL STANDARDS INSTITUTE AST, M. 2283—73 MITH A PRESSURE DIFFERENTIAL OF 15T POUNDS PER SQUARE FOOT AND SHALL BE CERTIFIED AND LABELED.
- WHERE EMERGENCY ESCAPE AND RESCUE OPENINGS ARE PROVIDED THEY SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44 INCHES ABOVE THE FLOOR.
- EMERGENCY ESCAPE AND RESCUE OPENINGS WITH A FINISHED SILL HEIGHT BELOW THE ADJACENT GROUND ELEVATION SHALL BE PROVIDED WITH A WINDOW WELL.

DOORS & WINDOWS (continued)

- IO. ALL EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF NOT LESS THAN 5 SQUARE FEET IN THE CASE OF A GROUND FLOOR LEVEL WINDOW AND NOT LESS THAN 5.7 SQUARE FEET IN THE CASE OF AN UPPER STORY WINDOW.
- ALL EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING HEIGHT OF 24 INCHES.
- ALL EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING WIDTH OF 20 INCHES.
- EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE OPERATIONAL FROM THE INSIDE OF THE ROOM WITHOUT THE USE OF KEYS, TOOLS OR SPECIAL KNOWLEDGE.
- THE MINIMUM HORIZONTAL AREA OF THE WINDOW WELL SHALL BE 9 SQUARE THE MINIMUM MIXIZONI ALL AZEA OF THE NINCON MELL SMALLE 9 SALVA FEET, MITH A MINIMUM HORIZONTAL PROJECTION AND WIDTH OF 36 INCHES THE AREA OF THE MINDOW WELL SHALL ALLOW EMERGENCY ESCAPE AND RESCUE OPENING TO BE FULLY OPENED PER THE N.C.-R THE LADDER OR STEPS REQUIRED SHALL BE PERMITTED TO ENCROACH A MAXIMUM OF 6" INTO THE REQUIRED DIMENSIONS OF THE WINDOW WELL
- WINDOW WELLS WITH A VERTICAL DEPTH GREATER THAN 44 INCHES SHALL BE EQUIPPED WITH A PERMANENTLY AFFIXED LADDER OF STEPS USABLE WITH THE WINDOW IN THE FULLY OPEN POSITION.
- BARS, GRILLES, COVERS, SCREENS OR SIMILAR DEVICES ARE PERMITTED TO BE PLACED OVER EMERGENCY ESCAPE AND RESCUE OPENINGS, BULKHEAD ENCLOSURES, OR NINDOW WELLS THAT SERVE SUCH OPENINGS, FROVIDED THE MINIMM, NET CLEAR OPENING SIZE COMPLIES WITH THE NC.-R AND SUCH DEVICES SHALL BE RELEASABLE OR REMOVABLE FROM THE INSIDE WITHOUT THE USE OF A KEY, TOOL, SPECIAL KNOWLEDSE OR FORCE GREATER THAN THAT WHICH IS REQUIRED FOR NORMAL OPERATION OF THE
- ALL INTERIOR EGRESS DOORS AND A MINIMUM OF ONE EXTERIOR EGRESS DOOR SHALL BE READILY OPENABLE FROM THE SIDE FROM WHICH EGRESS IS TO BE MADE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR

GLAZING & SAFETY GLAZING

- HABITABLE ROOMS SHALL HAVE AN AGGREGATE GLAZING AREA OF NOT LESS THAN 8 PERCENT OF THE FLOOR AREA OF SUCH ROOMS, NATURAL VENTILATION SHALL BE THROUGH KINDOMS, SKYLIGHTS, DOORS, LOUVERS OR OTHER APPROVED OPENINGS TO THE OUTDOOR AIR. SUCH OPENINGS SHALL BE PROVIDED WITH READY ACCESS OR SHALL OTHERWISE BE READILY CONTROLLABLE BY THE BUILDING OCCUPANTS, THE OPENABLE AREA TO THE OUTDOORS SHALL BE NOT LESS THAN 4 PERCENT OF THE FLOOR AREA BEING VENTILATED.
- BATHROOMS WATER CLOSET COMPARTMENTS AND OTHER SIMIL AS DATIFECOMO, PATER CLOSE! COMPARTIMENTS AND OTHER SIMILAR ROOMS SHALL BE PROVIDED WITH AGGREGATE GLAZING AREAS! WINDOWS OF NOT LESS THAN 3 SQUARE FEET, ONE-HALF OF WHICH MUST BE OPENABLE.
- EXCEPT AS INDICATED, EACH PANE OF GLAZING INSTALLED IN HAZARDOUS EXCEPT AS INDICATED, EACH PANE OF GLAZING INSTALLED IN HAZARDOUS LOCATIONS SHALL BE PROVIDED WITH ANAPHACTURER'S DESIGNATION SPECIFYING WHO APPLIED THE DESIGNATION, DESIGNATING THE TYPE OF GLASS AND THE SAFETY GLAZING STANDARD WITH HAIGH IT COMPLIES, WHICH IS VISIBLE IN THE FINAL INSTALLATION. THE DESIGNATION SHALL BE ACID ETCHED, SANDBLASTED, CERAMIC-PIRED, LASER ETCHED, DEPOSSED, OR BE OF A TYPE WHICH ONCE APPLIED CANNOT BE REMOVED WITHOUT SELVE DESIGNATION.
- LOCATIONS SHALL PASS THE TEST REQUIREMENTS OF CPSC 16 CFR, PART 1201. GLAZING SHALL COMPLY WITH CPSC 16.
- THE FOLLOWING SHALL BE CONSIDERED SPECIFIC HAZARDOUS LOCATIONS FOR THE PURPOSES OF GLAZING:
- GLAZING IN ALL FIXED AND OPERABLE PANELS OF SWINGING SLIDING AND BIFOLD DOORS
- SALDING AND DITULAL PLOYAGE AND OFFICE PANEL IN THE SAME PLANE AS A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN 24-INCHES OF THE DOOR IN A CLOSED POSITION AND WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR OR WALKING SIMPLAY
- GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS:
- 3.I EXPOSED AREA OF AN INDIVIDUAL PANE LARGER THAN 9 SQUARE
- 3.2 BOTTOM EDGE LESS THAN IS INCHES ABOVE THE FLOOR
- 3.3 TOP EDGE MORE THAN 36 INCHES ABOVE THE FLOOR 9.4 ONE OR MORE WALKING SURFACES WITHIN 36 INCHES, MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, OF THE GLAZING.
- GLAZING IN GUARDS AND RAILINGS, INCLUDING STRUCTURAL BALUSTER PANELS AND NONSTRUCTURAL IN-FILL PANELS, REGARDLESS OF AREA OR HEIGHT ABOVE A WALKING SURFACE.
- GLAZING IN DOORS AND ENCLOSURES FOR HOT TUBS, WHIRLPOOLS. SALNAS, STEAM ROOMS, BATHTUBS AND SHOWERS, GLAZING ENCLOSING THESE COMPARTMENTS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE.
- GLAZING IN WALLS AND FENCES ENCLOSING INDOOR AND OUTDOOR SMIMMING POOLS, HOT TUBS AND SPAS WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A MALKING SURFACE AND WITHIN 60 INCHES HORIZONTALLY OF THE MATERS EDGE. THIS SHALL APPLY TO SINGLE GLAZING AND ALL PANES IN MULTIPLE
- GLAZING ADJACENT TO STAIRWAYS, LANDINGS AND RAMPS WITHIN 36 INCHES HORIZONTALLY OF A WALKING SURFACE MHEN THE EXPOSED SURFACE OF THE GLAZING IS LESS THAN 36 INCHES ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE.
- GLAZING ADJACENT TO THE LANDING AT THE BOTTOM OF STAIRWAYS WHERE THE GLAZING IS LESS THAN 36 INCHES ABOVE THE LANDING AND WITHIN A 60-INCH HORIZONTAL ARG LESS THAN ISO DEGREES FROM THE BOTTOM TREAD NOSING.
- HINGED SHOWER DOORS SHALL OPEN OUTWARD.
- GLAZING SHALL BE IN ACCORDANCE WITH ENERGY COMPLIANCE CALCULATIONS BASED ON A LOCALLY ADOPTED ENERGY CODE, THE MODEL ENERGY CODE OR THE INTERNATIONAL ENERGY
- IN DWELLING UNITS, WHERE THE OPENING OF AN OPERABLE MINDOM IS LOCATED MORE THAN 12 INCHES (1824 MM) ABOVE THE FINISHED GRADE OR SURFACE BELOW, THE LOVEST PART OF THE CLEAR OPENING OF THE MINDOM SHALL BE A MINIMUM OF 24 INCHES (610 MM) ABOVE THE FINISHED FLOOR OF THE ROOM IN WHICH THE WINDOM IS LOCATED. OPERABLE SECTIONS OF WINDOMS SHALL NOT PERMIT OPENINGS THAT ALLOM PASSAGE OF A 4 INCH (102 MM) DIAMETER SPHERE WHERE SUCH OPENINGS ARE LOCATED OPENINGS ARE LOCATED WITHIN 24 INCHES (610 MM) OF THE FINISHED FLOOR.

FINISHES

- GYPSUM MALLBOARD SHALL BE INSTALLED IN CONFORMANCE WITH THE CURRENT EDITION OF THE NORTH CAROLINA RESIDENTIAL CODE AND ALL STATE AND LOCAL BUILDING CODES, THE MOST STRINGENT
- MATERIALS. ALL SYPSUM BOARD MATERIALS AND ACCESSORIES SHALL CONFORM TO ASTM C 22, C 4 TS, C 514, C 1002, C 1041, C 1117, C 1117, C 1118, C 1278, C 1346, OR C 1658 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THE N.C.-R. ADHESIVES FOR THE INSTALLATION OF GYPSUM BOARD SHALL CONFORM TO ASTM C 551.
- GYPSUM BOARD MATERIALS SHALL CONFORM TO THE APPROPRIATE STANDARDS LISTED IN THE N.C.-R WHERE REQUIRED FOR FIRE PROTECTION, CONFORM TO THE N.C.-R
- INTERIOR GYPSUM BOARD SHALL NOT BE INSTALLED WHERE IT IS DIRECTLY EXPOSED TO THE WEATHER OR TO WATER
- ALL EDGES AND ENDS OF GYPSUM BOARD SHALL OCCUR ON THE ALL EDGES AND ENDS OF GYPSYM BOARD SHALL OCCUR ON THE FRAMING MEMPERS, EXCEPT THOSE EDGES AND ENDS THAT ARE PERRENDICULAR TO THE FRAMING MEMBERS. EDGES AND ENDS OF GYPSYM BOARD SHALL BE IN MODERATE CONTACT EXCEPT IN CO. CEALED SPACES WHERE FIRE-RESISTACE-RATED CONSTRUCTION, SHEAR RESISTANCE, OR DIAPHRAGM ACTION IS NOT REQUIRED. CEALED SPACES WHERE FIRE-RESISTACE-RATED CONSTRUCTION.
- FASTENERS AT THE TOP AND BOTTOM PLATES OF VERTICAL ASSE
- GYPSUM BOARD USED AS THE BASE OR BACKER FOR ADHESIVE APPLICATION OF CERAMIC TILE OR OTHER REQUIRED NON-ABSORBENT FINISH MATERIAL SHALL CONFORM TO ASTM C 1946, C 1176 OR C1276. USE OF WATER-RESISTANT GYPSUM BACKING BOARD SHALL BE PERMITTED ON CEILINGS WHERE FRAMING SPACING DOES NOT EXCEED 12 INCHES ON CENTER FOR 1/2-INCH-THICK OR 16 INCHES FOR 5/8-INCH-THICK GYPSUM BO WATER-RESISTANT GYPSUM BOARD SHALL NOT BE INSTALLED OVER A VAPOR RETARDER IN A SHOWER OR TUB COMPARTMENT. CUT OR EXPO EDGES, INCLUDING THOSE AT WALL INTERSECTIONS, SHALL BE SEALED AS RECOMMENDED BY THE MANUFACTURER.
- MATER RESISTANT GYPSUM BACKING BOARD SHALL NOT BE USED MHERE THERE MILL BE DIRECT EXPOSURE TO MATER, OR IN AREAS SUBJECT TO CONTINUOUS HIGH HUMIDITY.
- WHEN APPLYING A MATER-BASED TEXTURE MATERIAL, THE MINIMM GYPSUM BOARD THICKNESS SHALL BE INCREASED FROM 3/6 INCH TO 1/2 INCH FOR I6-INCH ON CENTER FRAMING, AND FROM 1/2 INCH TO 5/6 INCH FOR 24-INCH ON CENTER FRAMING OR 1/2 INCH SAG-RESISTANT GYPSUM CEILING BOARD SHALL BE USED.

EXTERIOR LATH

- ALL LATH AND LATH ATTACHMENTS SHALL BE OF CORROSION-
- BACKING OR A LATH SHALL PROVIDE SUFFICIENT RIGIDITY TO PERMIT PLASTER APPLICATION.
- WHERE LATH ON VERTICAL SURFACES EXTENDS BETWEEN RAFTERS OR OTHER SIMILAR PROJECTING MEMBERS, SOLID BACKING SHALL BE INSTALLED TO PROVIDE SUPPORT FOR LATH AND ATTACHMENTS.
- GYPSUM LATH OR GYPSUM BOARD SHALL NOT BE USED, EXCEPT THAT ON HORIZONTAL SUPPORTS OF CEILINGS OR ROOF SOFFITS IT MAY BE USED AS BACKING FOR METAL LATH OR WIRE FABRIC LATH AND CEMENT PLASTER.
- UNLESS SPECIFIED OTHERWISE, ALL MALL COVERINGS SHALL BE SECURELY FASTENED PER THE N.C.-R. OR WITH OTHER APPROVED ALLMINUM, STAINLESS STEEL, ZINC-COATED OR OTHER APPROVED CORROSION-RESISTIVE FASTENERS, MEIRE THE BASIC NIND SPEED IS 110 MILES PER HOUR OR HIGHER, THE ATTACHMENT OF MALL COVERINGS SHALL BE DESIGNED TO RESIST THE COMPONENT AND CLADDING LOADS SPECIFIED AND ADJUSTED FOR HEIGHT AND EXPOSURE
- A MINIMO O. 014-INCH (NO. 26 GALVANIZED SHEET GAGE),
 CORROSION-REDISTANT WEEP SCREED OR PLASTIC NEEP SCREED, WITH A
 MINIMAM VERTICAL ATTACHMENT FLANGE OF 91/2 INCHES SHALL BE
 PROVIDED AT OR BELION THE FOUNDATION FLATE LINE ON EXTERIOR STUD
 WALLS IN ACCORDANCE WITH ASTIN C 926. THE NEEP SCREED SHALL BE
 PLACED A MINIMUM OF 4 INCHES ABOVE THE BARTH OR 2 INCHES ABOVE
 PAVED AREAS AND SHALL BE OF A TYPE THAT WILL ALLOW TRAPPED
 WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING. THE
 WEATHER-RESISTANT BARRIER SHALL LAP THE ATTACHMENT FLANGE. THE
 EXTERIOR LATH SHALL COVER AND TERMINATE ON THE ATTACHMENT FLANGE
 OF THE WEEP SCREED.

EXTERIOR PLASTER

PLASTERING WITH PORTLAND CEMENT PLASTER SHALL BE NOT LESS THAN THREE COATS WHEN APPLIED OVER METAL LATH OR WIRE LATH AND SHALL BE NOT LESS THAN TWO COATS WHEN APPLIED OVER MASONRY, CONCRETE, PRESSURE-PRESERVATIVE TREATED MODD OR DECAY-RESISTANT WOOD OR SYPSUM BACKING. IF THE PLASTER SURFACE IS COMPLETELY COVERED BY VENEER OR OTHER FACING MATERIAL OR IS COMPLETELY CONCRALED, PLASTER APPLICATION NEED BE ONLY TWO COATS, PROVIDED THE TOTAL THICKNESS IS AS SET FORTH PER THE N.C.-R

ON WOOD-FRAME CONSTRUCTION WITH AN ON-GRADE FLOOR SLAB SYSTEM, EXTERIOR PLASTER SHALL BE APPLIED TO COVER, BUT NOT EXTEND BELOW LATH, PAPER AND SCREED.

THE PROPORTION OF AGGREGATE TO CEMENTITIOUS MATERIALS SHALL BE AS SET FORTH PER THE N.C.-R

- ONLY APPROVED PLASTICITY AGENTS AND APPROVE AMOUNTS THEREOF MAY BE ADDED TO PORTLAND CEMENT. WHEN PLASTIC CEMENT IS USED, NO ADDITIONAL LIME OR PLASTICIZERS SHALL BE ADDED. HYDRATED LIME OR THE EQUIVALENT AMOUNT OF LIME PUTTY USED AS A PLASTICIZER MAY BE ADDED TO CEMENT PLASTER OR CEMENT AND LIME PLASTER IN AN AMOUNT NOT TO EXCEED THAT
- GYPSUM PLASTER SHALL NOT BE USED ON EXTERIOR SURFACES.
- PLASTER COATS SHALL BE PROTECTED FROM FREEZING FOR A PERIOD OF NOT LESS THAN 24 HOURS AFTER SET HAS OCCURRED. PLASTER SHALL BE APPLIED WHEN THE AMBIENT TEMPERATURE IS HIGHER THAN 40 DESPREES P(4 DESPREES C), UNLESS PROVISIONS ARE MADE TO KEEP CEMENT PLASTER WORK ABOVE 40 DESPREES (4 DESPREES C), PRIOR TO & DURING APPLICATION AND 48 HOURS THEREAFTER.
- COLOR AND FINISH TO BE SELECTED AND APPROVED BY OWNER BUILDER AND ARCHITECT. -COAT EXTERIOR PLASTER SYSTEM SICH AS "MAGNA WALL
- A I-CUAT EXTERIOR PLASTER STSTEM SUCH AS MAGNA MALL I.C.C. NO. ER-4TT6, "EXPO FIBREMALL" I.C.C. NO. ER-4366, OR APPROVED EQUAL MAY BE USED IN LIEU OF A 3-COAT EXTERIOR



NORTH CAROLINA 40' SERIES

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RALEIGH-DURHAM **SERIES**

MECHANICAL & PLUMBING

- ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ALL MATERIALS AND CONSTITUCTION FOR THE PART BE IN CONTORNANCE WITH THE NORTH CAROLINA RESIDENTIAL. AND MECHANICAL CODE. INSTALLATIONS OF MECHANICAL APPLIANCES, EQUIPMENT AND SYSTEMS NOT ADDRESSED BY THIS CODE SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF THE NORTH CAROLINA RESIDENTIAL AND FUEL 64S CODE.
- CONTRACTOR SHALL DESIGN ENTIRE H.V.A.C. SYSTEM AND SUBMIT DRAWINGS FOR OWNER/BUILDER'S APPROVAL PRIOR TO ORDERING MATERIALS OR EQUIPMENT.
- WHERE AIR CONDITIONING IS AN OPTIONAL FEATURE, HEATING SYSTEMS MUST BE DESIGNED AND DUCT WORK SIZED TO ACCOMMODATE FUTURE AIR CONDITIONING NEEDS.
- WHERE THE PRIMARY HEATING SYSTEM IS A FORCED-AIR FURNACE, AT LEAST ONE THERMOSTAT PER DIVELLING UNIT SHALL BE CAPABLE OF CONTROLLING THE HEATING AND COOLING SYSTEM ON A DAILY SCHEDULE TO MAINTAIN DIFFERENT TEMPERATURE SET POINTS AT DIFFERENT TIMES OF THE DAY, THIS THERMOSTAT SHALL INCLUDE THE CAPABILITY TO SET BACK OR TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN ZONE TEMPERATURES DOWN TO 55 DEG. F (18 C) OR UP TO 85 DEG. F (29 C).
- ALL DUCTWORK SHALL CONFORM TO THE REQUIREMENTS OF THE
- COMBUSTION AIR SHALL BE PROVIDED FOR FORCED AIR UNITS IN ACCORDANCE WITH N.C.-R
- CONTRACTOR TO PROVIDE BOOT IN DUCTWORK WHEN OPTIONAL "HONEYWELL" OR "CARRIER" ELECTRONIC AIR CLEANER IS PROVIDED.
- DUCTS IN THE GARAGE AND DUCTS PENETRATING THE WALLS OR CEILINGS SEPARATING THE DWELLING FROM THE GARAGE SHALL BI CONSTRUCTED OF A MINIMUM NO. 26 GAGE SHEET STEEL OR OTHER APPROVED MATERIAL AND SHALL HAVE NO OPENINGS INTO THE
- EXTERIOR-GRADE INSTALLATIONS, EQUIPMENT AND APPLIANCES INSTALLED ABOVE GRADE LEVEL SHALL BE SUPPORTED ON A SOLID BASE OR APPROVED MATERIAL A MINIMUM OF 2 INCHES THICK.
- IO. UNDER-FLOOR INSTALLATION. SUSPENDED EQUIPMENT SHALL BE A MINIMUM OF 6 INCHES ABOVE THE ADJOINING GRADE.
- CRANL SPACE SUPPORTS. IN A CRANL SPACE, A MINIMUM OF 2-INCH THICK SOLID BASE, 2-INCH (5) MM) THICK FORMED CONCRETE, OR STACKED MASONRY UNITS HELD IN PLACE BY MORTAR OR OTHER APPROVED METHOD. THE IMATER HEATER SHALL BE SUPPORTED NOT LESS THAN 2 INCHES ABOVE GRADE.
- DRAINAGE. BELOW-GRADE INSTALLATIONS SHALL BE PROVIDED WITH A NATURAL DRAIN OR AN AUTOMATIC LIFT OR SUMP PUMP. FOR PIT REQUIREMENTS REFER TO N.C.-M.

- IN LIEU OF REQUIRED EXTERIOR OPENINGS FOR NATURAL VENTILATION OMS CONTAINING A BATHTUB, SHOWER OR COMBINATION THEREOF, A MECHANICAL VENTILATION SYSTEM MAY BE PROVIDED. THE MINIMAM VENTILATION RATES SHALL BE SO CFM FOR INTERMITTENT VENTILATION OR 20 CFM FOR CONTINUOUS VENTILATION. VENTILATION AR FROM THE SPACE SHALL BE EXHAUSTED DIRECTLY TO THE OUTSIDE
- AUST DUCTS SHALL TERMINATE OUTSIDE THE BUILDING AND SHALL EQUIPPED WITH BACKDRAFT DAMPERS.
- RANGE HOODS SHALL DISCHARGE TO THE OUTDOORS THROUGH A DUCT. THE DUCT SERVING THE HOOD SHALL HAVE A SMOOTH INTERIOR SURFACE SHALL BE AIR IGHT, SHALL BE EQUIPPED HITH A BACK-DRAFT DAMPER AND SHALL BE INDEPENDENT OF ALL OTHER EXHAUST SYSTEMS, DUCTS SERVING RANGE HOODS SHALL NOT TERMINATE IN AN ATTIC OR CRANL SPACE OR AREAS INSIDE THE BUILDING, DUCTS SERVING RANGE HOODS SHALL BE CONSTRUCTED OF GALVANIZED STEEL, STAINLESS STEEL OR COPPER.
- WHERE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND WHERE MECHANICAL OR NATURAL VENTILATION IS OTHERWISE PROVIDED, LISTED AND LABELED DUCTLESS RANGE HOODS SHALL NOT BE REQUIRED TO DISCHARGE TO THE OUTDOORS PER N.C.-M
- DUCTS FOR DOMESTIC KITCHEN COOKING APPLIANCES EQUIPPED WITH DOWN DRAFT EXHAUST SYSTEMS SHALL BE PERMITTED TO BE CONSTRUCTED OF SCHEDULE 40 PVC PIPE PROVIDED THAT THINSTALLATION COMPLIES WITH ALL OF THE FOLLOWING PER N.C.-M
- THE DUCT SHALL BE INSTALLED UNDER A CONCRETE SLAB POURED ON GRADE.
- THE UNDERFLOOR TRENCH IN WHICH THE DUCT IS INSTALLED SHALL BE COMPLETELY BACKFILLED WITH SAND OR GRAVEL.
- THE PVC DUCT SHALL EXTEND NOT GREATER THAN I INCH ABOVE THE INDOOR CONCRETE FLOOR SURFACE.
- THE PVC DUCT SHALL EXTEND NOT GREATER THAN I INCH ABOVE GRADE OUTSIDE THE BUILDING.
- E. THE PVC DUCTS SHALL BE SOLVENT CEMENTED.
- EXHAUST HOOD SYSTEMS CAPABLE OF EXHAUSTING IN EXCESS OF 400 CPM SHALL BE PROVIDED WITH MAKEUP AIR AT A RATE APPROXIMATE, EQUAL TO THE EXHAUST AIR RATE HAT IS IN EXCESS OF 400 CUBIC FEPER MINUTE, SUCH MAKEUP AIR SYSTEMS SHALL BE EQUIPMED WITH EMANS OF CLOSURE AND SHALL BE AUTOMATICALLY CONTROLLED TO START AND OPERATE SIMULTANEOUSLY WITH THE EXHAUST SYSTEM. DAMPERS SHALL BE ACCESSIBLE FOR INSPECTION, SERVICE, REPAIR AND REPLACEMENT WITHOUT REMOVING PERMANENT CONSTRUCTION
- DOMESTIC WATER HEATERS, UNLESS SPECIFIED OTHERWISE BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, SHALL BE VENTED TO THE OUTSIDE AIR BY A TYPE B' VENT AND COMPLY WITH THE REQUIREMENTS OF THE NC.-M

- A POTABLE WATER SUPPLY SYSTEM SHALL BE DESIGNED, INSTALLED AND MAINTAINED IN SUCH A MANNER SO AS TO PREVENT CONTAINIATION FROM NONPOTABLE LIGIDIDS, SOLIDS OR 6ASES BEING INTRODUCED INTO THE POTABLE WATER SUPPLY THROUGH CROSS-CONBECTIONS OR ANY OTHER PIPING CONNECTIONS TO THE SYSTEM, BACKFLOW PRE- VENTER APPLICATIONS SHALL CONFORM TO NOLES.
- THE SUPPLY LINES OR FITTINGS FOR EVERY PLUMBING FIXTURE SHALL BE INSTALLED SO AS TO PREVENT BACKFLOW, PLUMBING FIXTURE FITTINGS SHALL PROVIDE BACKFLOW PROTECTION IN ACCORDANCE WITH ASME AII 2.18.1.

MECHANICAL & PLUMBING (continued)

- ALL DEVICES, APPURTENANCES, APPLIANCES AND APPARATUS INTENDED TO SERVE SOME SPECIAL FUNCTION, SUCH AS STERILIZATION, DISTILLATION, PROCESSING, COOLING, OR STORAGE OF ICE OR FOODS, AND THAT CONNECT TO THE WATER SUPPLY SYSTEM, SHALL BE FROVIDED WITH PROTECTION ASIANS BACKELON AND CONTAMINATION OF THE MATER SUPPLY SYSTEM. WATER PUMPS, FILTERS, SOFTENERS, TANKS AND ALL OTHER APPLIANCES AND DEVICES THAT HANDLE OR TREAT POTABLE WATER SHALL BE PROTECTED AGAINST CONTAMINATION.
- WATER SERVICE PIPING SHALL BE PROTECTED IN ACCORDANCE WITH N.C.-P SECTIONS AND EXCEPTIONS)
- FIXTURE FITTINGS, FAUCETS AND DIVERTERS SHALL BE CONNECTED TO THE MATER DISTRIBUTION SYSTEM SO THAT HOT WATER CORRESPONDS TO THE LEFT SIDE OF THE FITTINGS.
- DIVERTERS FOR SINK FAUCETS WITH A SECONDARY OUTLET CONSISTING OF A FLEXIBLE HOSE AND SPRAY ASSEMBLY SHALL CONFORM TO ASTM AII2.18.1 IN ADDITION TO THE REQUIREMENTS IN N.C.-P
- THE INSTALLATION OF A WATER SERVICE OR WATER DISTRIBUTION PIPE THE INSTALLATION OF A WATER SERVICE OR WATER DISTRIBUTION PIPE SHALL BE PROHIBITED IN SOIL AND GROUND WATER THAT IS CONTAMINATED. GROUND WATER CONDITIONS SHALL BE REQUIRED TO ACERTAIN THE ACCEPTAIN THE WATER SERVICE OR WATER DISTRIBUTION PIPING MATERIAL FOR THE SPECIFIC INSTALLATION, WHERE DETRIMENTAL CONDITIONS EXIST, APPROVED ALTERNATIVE MATERIALS OR ROUTING SHALL BE REQUIRED.
- WATER DISTRIBUTION PIPE SHALL CONFORM TO NSF 61 AND SHALL CONFORM TO ONE OF THE STANDARDS LISTED IN N.C.-PLUMBING. WATER DISTRIBUTION PIPE AND TUBING SHALL HAVE A MINIMM PRESSURE RATING OF 100 PSI AT 180 DESPREES F.
- PIPE PASSING THROUGH CONCRETE OR CINDER WALLS AND FLOORS OR OTHER CORROSIVE MATERIAL SHALL BE PROTECTED AGAINS EXTERNAL CORROSION BY A PROTECTIVE SHEATHING OR WRAPPING OR OTHER MEANS THAT WILL WITHSTAND ANY REACTION FROM THE LIME AND ACID OF CONCRETE, CINDER OR OTHER CORROSIVE MATERIAL SHEATHING OR WRAPPING SHALL ALLOW FOR EXPANSION AND CONTRACTION OF PIPING TO PREVENT ANY RUBBING ACTION. MINIMUM WALL THICKNESS OF MATERIAL SHALL BE 0.025-INCH.
- PIPES PASSING UNDER OR THROUGH WALLS SHALL BE PROTECTED FROM PHYSICAL DAMAGE PER NC-R.
- PIPING SHALL BE INSTALLED SO AS TO PREVENT DETRIMENTAL STRAINS AND STRESSES IN THE PIPE, PROVISIONS SHALL BE MADE TO PROTECT PIPING FROM DAMAGE RESULTING FROM EXPANSION, CONTRACTION AND STRUCTURAL SETTLEMENT. PIPING SHALL BE INSTALLED TO AVOID STRUCTURAL STRESSES OR STRAINS WITHIN BUILDING COMPONENTS.
- WATER PIPES INSTALLED IN A WALL EXPOSED TO THE EXTERIOR SHALL BE LOCATED ON THE HEATED SIDE OF THE WALL INSULATION. IN OTHER CASES, WATER, SOIL AND WASTE PIPES SHALL NOT BE INSTALLED OUTSIDE OF A BUILDING, IN UNCONDITIONED ATTICS, UNCONDITIONED OUTSIDE OF A BUILDING, IN UNCONDITIONED ATTICS, UNCONDITIONED UTILITY ROOMS OR IN ANY OTHER PLACE SUBJECTED TO FREEZING TEMPERATURES UNLESS ADEQUATE PROVISION IS MADE TO PROTECT SUCH PIPES FROM FREEZING BY A MINIMUM OF R-55 INSULATION DETERMINED AT 75 DEG. F IN ACCORDANCE WITH ASTM CITT OR HEAT OR BOTH.

 EXTERIOR WATER SUPPLY SYSTEM PIPING SHALL BE INSTALLED NOT LESS THAN 12 INCHES BELOW THE FROST LINE AND NOT LESS THAN 12 INCHES BELOW GRADE.
- BUILDING SEWER PIPE SHALL CONFORM TO ONE OF THE STANDARDS
- BUILDING SEMER PIPE FITTINGS SHALL BE APPROVED FOR INSTALLATION MITH THE PIPING MATERIAL INSTALLED AND SHALL CONFORM TO THE RESPECTIVE PIPE STANDARDS OR ONE OF THE STANDARDS LISTED IN
- WHERE WASTE LINE DROPS OCCUR IN A LOCATION WHERE THE SOUND OF FLUSHED TOILET MAY BE UNDESIRABLE, SUCH AS IN WALLS OR PARTITIONS ADJACENT TO EATING ROOMS, USE CAST IRON PIPING OR SIMILAR APPROVED HARD OR DENSE PIPING TO MITIGATE SOUND.
- 16. CLEANOUTS ON BUILDING SEWERS SHALL BE LOCATED AS SET FORTH IN
- THE MAXIMUM WATER CONSUMPTION FLOW RATES AND QUANTITIES FOR ALL PLUMBING FIXTURES SHALL BE IN ACCORDANCE WITH N.C.-R.
- INDIVIDUAL SHOWER AND TUB/SHOWER COMBINATION VALVES SHALL BE EQUIPPED WITH CONTROL. VALVES OF THE PRESSURE-BALANCE, THERMOSTATIC-MIXING OR COMBINATION PRESSURE-BALANCE/THERMOSTATIC-MIXING VALVE TYPES WITH A HIGH LIMIT STOP IN ACCORDANCE WITH ASSE 1016/ ASME AII2.1016/CSA BIZSIE. AND SHALL BE INSTALLED AND ADJSTED PER MANUFACTURES INSTRUCTIONS.
- GAS AND ELECTRIC WATER HEATERS HAVING AN IGNITION SOURCE SHALL BE ELEVATED SUCH THAT THE SOURCE OF IGNITION IS NOT LESS THAN IS INCHES ABOVE THE GARAGE FLOOR. REPER TO N.C.-R FOR EXCEPTION.
- 20. WATER HEATERS, (USING SOLID, LIQUID OR GAS FUEL) WITH THE EXCEPTION WATER HEATERS, (USING SOLID, LIQUID OR ASS FUEL) WITH THE EXCEPTION OF THOSE HAVING DIRECT VENT SYSTEMS, SHALL NOT BE INSTALLED IN BATHROOMS AND BEDROOMS OR IN A CLOSET WITH ACCESS ONLY THROUGH A BEDROOM OR BATHROOM, HONEVER, WATER HEATERS OF THE AUTOMATIC STORAGE TYPE MAY BE INSTALLED AS REPLACEMENT IN A BATHROOM, WHEN APPROVED BY THE PLUMBING OFFICIAL, PROVIDED THEY ARE VENTED AND SUPPLIED WITH ADEQUATE COMBUSTION AIR.
- IN SEISMIC DESIGN CATEGORIES DO, DI AND D2 AND TOWNHOUSES IN SEISMI DESIGN CATEGORY C, WATER HEATERS SHALL BE ANCHORED OR STRAPPEL IN THE UPPER ONE—THIRD AND IN THE LOWIER ONE—THIRD OF THE APPLIANCE TO RESIST A HORIZONTAL FORCE EQUAL TO ONE—THIRD OF THE OPERATING WEIGHT OF THE MATER HEATER, ACTING IN ANY HORIZONTAL DIRECTION, OR IN ACCORDANCE WITH THE APPLIANCE MANUFACTURER'S RECOMMENDATIONS
- 22. APPLIANCES LOCATED IN A GARAGE OR CARPORT SHALL BE PRO-TECTED FROM IMPACT BY A MOVING VEHICLE.
- 23. WHERE WATER HEATERS OR HOT WATER STORAGE TANKS ARE INSTALLED IN. MERCE VALEN FRAILES OR NOT MALED IN:
 REMOTE LOCATIONS SUCH AS SUSPENDED CEILING, ATTICS, ABOVE OCCUPIED
 SPACES, OR UNVENTILATED CRANL SPACES, A LOCATION WHERE WATER
 LEAKAGE FROM THE TANK WILL CAUSE DAMAGE TO PRIMARY STRUCTURAL
 MEMBERS, THE TANK OR WATER HEATER SHALL BE INSTALLED IN A GALVANIZED STEEL PAN HAVING A MINIMUM THICKNESS OF 24 GAGE, OR OTHER PANS APPROVED FOR SUCH USE.
- WHERE CLOTHES WASHING MACHINES ARE LOCATED ON WOOD FRAMED FLOORS WHERE LEAKAGE WOULD CAUSE DAMAGE, A GALVANIZED STEEL PAN HAVING A MINIMAN THICKNESS OF 24 GAGE, OR OTHER PANS APPROVED FOR SUCH USE SHALL BE PROVIDED.

MECHANICAL \$ PLUMBING (continued)

- 25. APPLIANCES AND EQUIPMENT USED FOR HEATING WATER OR STORING HOT WATER SHALL BE PROTECTED BY A SEPARATE PRESSURE-RELIEF VALVE AND A SEPARATE TEMPERATURE-RELIEF VALVE OR A COMBINATION PRESSURE-AND-TEMPERATURE RELIEF VALVE, RELIEF VALVES SHALL HAVE A PRESGURE-AND-TEMPERATURE RELIEF VALVE. RELIEF VALVES SHALL HA MINIMUM RATED CAPACITY FOR THE EQUIPMENT SERVED AND SHALL CONFORM TO ANSI 22122. THE RELIEF VALVE SHALL NOT BE USED AS A MEANS OF CONTROLLING THERMAL EXPANSION.
- THE WATER SUPPLY TO A DISHWASHER SHALL BE PROTECTED AGAINST BACKFLOW BY AN AIR GAP COMPLYING WITH ASME AII2.1.9 OR AII2.1.2 THAT IS INSTALLED INTEGRALLY WITHIN THE MACHINE OR A BACKFLOW PREVENTER IN ACCORDANCE WITH THE NC-R.
- SINK AND DISHWASHER. THE COMBINED DISCHARGE FROM A DISHWASHER AND A ONE- OR TWO-COMPARTMENT SINK, WITH OR MITHOUT A FOOD-MASTE DISPOSER, SHALL BE SERVED BY A TRAP OF NOT LESS THAN II/2 INCHES (36 MM) IN OUTSIDE DIAMETER. THE DISHWASHER DISCHARGE PIPE OR TUBING SHALL RISE TO THE UNDERSIDE OF THE COUNTER AND SHALL BE SECURELY FASTENED TO THE UNDERSIDE OF THE SINK RIM OR COUNTER BEFORE CONNECTING TO THE HEAD OF THE FOOD-WASTE DISPOSER OR TO A MYE FITTING IN THE SINK TAILPIECE.

- FACTORY-BUILT FIREPLACES SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE CONDITIONS OF LISTING. FACTORY-BUILT FIREPLACES SHALL BE TESTED IN ACCORDANCE WITH JL. 127.
- 2. FIREPLACES ARE TO BE PROVIDED WITH AN EXTERIOR AIR SUPPLY

ELECTRICAL

- ALL MATERIALS AND APPLIANCES, INSTALLATION AND CONSTRUCTION METHODS SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE OR CURRENT SAE REQUIREMENTS.
- ALL ELECTRICAL SYSTEMS, CIRCUITS, FIXTURES AND EQUIPMENT SHALL BE GROUNDED IN A MANNER COMPLYING WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
- ALL WIRING SHALL BE SO INSTALLED THAT, WHEN COMPLETED, THE SYSTEM WILL BE FREE FROM SHORT CIRCUITS AND FROM GROUNDS OTHER THAN AS REQUIRED OR PERMITTED IN N.E.C. ARTICLE 250.
- ELECTRIC EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORK-MANLIKE MANNER.
- ALL 125-VOLT, SINGLE-PHASE, 15- AND 20-AMPERE RECEPTACLES INSTALLED IN THE LOCATIONS SPECIFIED BELOW SHALL HAVE GROUND-FAULT CIRCUIT-INTERRIPTER PROTECTION FOR PERSONNEL. THE GROUND-FAULT CIRCUIT-INTERRIPTER SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION.
 - A. BATHROOMS.
 - GARAGES AND ALSO ACCESSORY BUILDINGS THAT HAVE A FLOOR LOCATED AT OR BELOW GRADE LEVEL NOT INTENDED AS HABITABLE ROOMS AND LIMITED TO STORAGE AREAS, WORK AREAS, AND AREAS OF SIMILAR USE.

 - CRAWL SPACES. WHERE THE CRAWL SPACE IS AT OR BELOW GRADE LEVEL.
 - UNFINISHED PORTIONS OR AREAS OF THE BASEMENT NOT INTENDED AS HABITABLE ROOMS.
 - KITCHENS. WHERE THE RECEPTACLES ARE INSTALLED TO SERVE THE COUNTERTOP SURFACES.
 - SINKS. WHERE RECEPTACLES ARE INSTALLED WITHIN 6 FT FROM THE TOP INSIDE EDGE OF THE BOWL OF THE SINK.
- BOAT HOUSES
- BATHTUBS OR SHOWER STALLS WHERE RECEPTACLES ARE INSTALLED WITHIN 6' OF THE OUTSIDE EDGE OF THE BATHTUB OR SHOWER STALL.
- DISHWASHER GFCI PROTECTION IS NOT REQUIRED FOR OUTLETS THAT SUPPLY DISHWASHERS INSTALLED IN DWELLING UNIT LOCATIONS.
- CRAWL SPACE LIGHTING OUTLETS. GFCI PROTECTION SHALL BE PROVIDED FOR LIGHTING OUTLETS NOT EXCEEDING 120 YOLTS INSTALLED IN CRAWL SPACES.
- APPLIANCE RECEPTAGLE OUTLETS INSTALLED IN A DWELLING UNIT FOR SPECIFIC APPLIANCES, SUCH AS LAUNDRY EQUIPMENT, SHALL BE INSTALLED WITHIN 6 FEET OF THE INTENDED LOCATION OF THE APPLIANCE.
- IN EVERY KITCHEN, FAMILY ROOM, DINING ROOM, LIVING ROOM, PARLOR, LIBRARY DEN, SUNROOM, BEDROOM, RECREATION ROOM, OR SIMILAR ROOM OR AREA OF DIMELLING UNITS, RECEPTACLE OUTLETS SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAN 6 FEET, MEASURED HORIZONTALLY, FROM AN CUTLET IN THAT SPACE, INCLIDING ANY HORIZONTALLY, FROM AN OUTLET IN THAT SPACE, INCLIDING ANY WALL SPACE 2 FIET OR MORE IN MIDTH (INCLIDING SPACE MEASURED AROUND CORNERS). AND UNBROKEN ALONG THE FLOOR RINE BY DOORWAYS AND SIMILAR OPENINGS, FIREPLACES, AND THE WALL SPACE OCCUPIED BY FIXED PAVELS IN EXTERIOR WALLS, BUT EXCLIDING SALIDING PANELS IN EXTERIOR WALLS, BUT EXCLIDING SALIDING PANELS IN EXTERIOR WALLS. THE WALL SPACE AFFORDED BY FIXED ROOM DIVIDERS, SUCH AS FREESTANDING BAR-TYPE CONTERS OR RAILINGS, SHALL BE INCLIDED IN THE 6 FOOT MEASUREMENT.
- IN THE KITCHEN PANTRY BREAKFAST ROOM DINING ROOM OR SIMILAR AREA OF A DIRELLING UNIT, THE TWO OR MORE 20-AMPERE SMALL-APPLIANCE BRANCH CIRCUITS REQUIRED SHALL SERVE ALL MALL AND FLOOR RECEPTACLE OUTLETS, ALL COUNTERTOP OUTLETS, AND MORE SMALL-APPLIANCE BRANCH CIRCUITS SHALL HAVE NO OTHER OUTLETS.
- IN KITCHENS, PANTRIES, BREAKFAST ROOMS, DINING ROOMS AND SIMILAR AREAS OF DWELLING UNITS, RECEPTACLE OUTLETS FOR COUNTER SPACES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING.
- A RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH WALL COUNTER SPACE IZ INCHES OR WIDER. RECEPTACLE OUTLETS SHALL BE INSTALLED SO THAT NO POINT ALONS THE MALL LINE IS MORE THAN 24 INCHES MEASURED HORIZONTALLY FROM A RECEPTACLE OUTLET IN THAT SPACE.

ELECTRICAL (continued)

- (2) AT LEAST ONE RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH ISLAND COUNTER SPACE NITH A LONG DIMENSION OF 24 INCHES OR GREATER AND A SHORT DIMENSION OF 12 INCHES OR GREATER.
- AT LEAST ONE RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH PENINSULAR COUNTER SPACE WITH A LONG DIMENSION OF 24 INCHES OR GREATER AND A SHORT DIMENSION OF 12 INCHES OR GREATER. A PENINSULAR COUNTERTOP IS MEASURED FROM CONNECTING PERPENDICULAR WALL.
- COUNTERTOP SPACES SEPARATED BY RANGE TOPS, REFRIGER-ATORS, OR SINKS SHALL BE CONSIDERED AS SEPARATE COUNTER-TOP SPACES IN APPLYING THE REQUIREMENTS OF (I), (2), AND (3) ABOVE. IF A RANGE, COUNTER-MOUNTED COOKING UNIT, OR SINK ABOVE. IF A RANSE, CONTINUED ACCORNING UNIT, OR SINK IS INSTALLED IN AN ISLAND OR PENINSULAR CONTINERTOP AND THE DEPTH OF THE COUNTER BEHIND THE ITEM IS LESS THEN IS INCHES. IT WILL BE CONTERED SPACE INCHES. THE COUNTERTOP SPACE INCHES. THE COUNTERTOP SPACE INCHES. SHALL COMPLY WITH A PELICABLE REQUIREMENTS.
- RECEPTACLE OUTLETS SHALL BE LOCATED NOT MORE THAN 20 INCHES ABOVE THE COUNTEROP. RECEPTACLE OUTLETS RENDERED NOT READILY ACCESSIBLE BY APPLIANCES FASTENED IN PLACE, APPLIANCE GARAGES, SINKS, OR RANGETOPS AS COVERED IN 4) ABOVE, OR APPLIANCES OCCUPYING DEDICATED SPACE SHALL NOT BE CONSIDERED AS THESE REQUIRED OUTLETS.
- AT LEAST ONE WALL RECEPTACLE OUTLET SHALL BE INSTALLED IN BATHROOMS WITHIN 3 FEET OF THE OUTSIDE EDGE OF EACH BASIN. THE RECEPTACLE OUTLET SHALL BE LOCATED IN WALL OR PARTITION THAT IS ADJACENT TO THE BASIN OR BASIN COUNTERTOP, OR INSTALLED ON THE SIDE OF FACE OF THE BASIN CABINET NOT MORE
- IN DWELLING UNITS, AT LEAST ONE RECEPTACLE OUTLET SHALL BE INSTALLED IN AREAS DESIGNATED FOR THE INSTALLATION OF LAUNDRY EQUIPMENT.
- IN EACH ATTACHED SARAGE AND IN EACH DETACHED SARAGE WITH ELECTRIC POWER, THE BRANCH CIRCUIT SUPPLYTHIS THIS RECEPTACLE(S) SHALL NOT SUPPLY OUTLETS CUTSIDE OF THE SARAGE. AT LEAST ONE RECEPTACLE OUTLET SHALL BE INSTALLED IN EACH VEHICLE DAY.
- CABLE- OR RACEWAY-TYPE WIRING METHODS INSTALLED IN A GROOVE, TO BE COVERED BY MALLBOARD, SIDING, PANELING, CARPETING, OR SIMILAR FINISH, SHALL BY PROTECTED BY I/I6 INCH THICK STELL PILATE, SLEEVE, OR EQUIVALENT OR BY NOT LESS THAN I-I/4 INCH FREE SPACE FOR THE FULL LENSTH OF THE GROOVE IN WHICH THE CABLE OR RACEWAY IS INSTALLED.
- 15. RECEPTACLES IN DAMP OR MET LOCATIONS.
- A. A RECEPTAGLE INSTALLED OUTDOORS IN A LOCATION PROTECTED PROM NEATHER OR IN OTHER DAMP LOCATIONS SHALL HAVE AN ENCLOSURE FOR THE RECEPTACLE THAT IS MEATHERROOF MENTHE RECEPTACLE IS COVERED, (AITACHMENT PLUE CAP NOT INSERTED AND RECEPTACLE COVERS CLOSED.)
- ALL IS- AND 20- AMPERE, I25- AND 250-VOLT RECEPTACLES INSTALLED IN A WET LOCATION SHALL HAVE AN ENCLOSURE THAT IS MEATHER PROOF WHETHER OR NOT THE ATTACHMENT PLUG CAP IS MERETRED. AN OUTLET BOX HOOD INSTALLED FOR THIS PURPOSE SHALL BE LISTED AND SHALL BE IDENTIFIED AS "EXTRA DUTY". ALL IS- AND 20- AMPERE, I25- AND 250-VOLT NONLOCKING RECEPTACLES SHALL BE LISTED WEATHER RESISTANT TYPE.
- LIGHT FIXTURES WITHIN CLOTHES CLOSETS SHALL BE INSTALLED IN
- ALL 120-VOLT, SINGLE PHASE, 15- AND 20-AMPERE BRANCH CIRCUITS ALL 120-VOLT, SINGLE PHASE, IS- AND 20-AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS OR DEVICES INSTALLED IN DIRELLING WITH FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE FROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTERS) COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT. THE ARC-FAULT CIRCUIT INTERRUPTER SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION.
- BUILDINGS SHALL BE PROVIDED WITH APPROVED ADDRESS IDENTIFICATION. THE ADDRESS IDENTIFICATION SHALL BE LEGIBLE AND PLACED IN A POSITION THAT IS VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.
- 20. TAMPER-RESISTANT RECEPTACLES IN DWELLING UNITS IN ALL AREAS, ALL NON-LOCKING TYPE I25-VOLT I5-AND 20-AMPERE RECEPTACLES SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES. EXCEPTIONS LISTED BELOW:
 - I. RECEPTACLES LOCATED MORE THAN 51 ABOVE THE FLOOR 2. RECEPTACLES THAT ARE PART OF A LUMINAIRE OR APPLIANCE.
 - 3. A SINGLE RECEPTACLE OR A DUPLEX RECEPTACLE FOR TWO APPLIANCES LOCATED WITHIN DEDICATED SPACE FOR EACH APPLIANCE THAT, IN NORMAL USE, IS NOT EASILY MOVED FROM ONE PLACE TO ANOTHER, AND THAT IS CORD-AND-PLUS CONNECTED.
 - 4. NON-GROUNDING RECEPTACLES USED FOR REPLACEMENTS.
- DIMMER-CONTROLLED RECEPTACLES. A RECEPTACLE SUPPLYING LIGHTING LOADS SHALL NOT BE CONNECTED TO A DIMMER UNLESS THE PLUS/RECEPTACLE COMPINATION IS A NONSTANDARD CONFEINATION TYPE THAT IS SPECIFICALLY LISTED AND IDENTIFIED FOR EACH SUCH

SMOKE DETECTORS

- SMOKE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED MANUFACTURER'S INSTRUCTIONS AND NC-R R314
- ALL SMOKE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 217 AND INSTALLED IN ACCORDANCE WITH THE REVO/ISIONS OF THIS CODE AND THE HOUSEHOLD FIRE WARNING EQUIPMENT PROVISIONS OF NIPPA 12.

HOUSEHOLD FIRE ALARM SYSTEMS INSTALLED IN ACCORDANCE WITH NPPA 12 THAT INCLUDE SMOKE ALARMS, OR A COMBINATION OF SMOKE DETECTOR AND AUDIEL NOTIFICATION DEVICE INSTALLED AS REQUIRED BY THE INC-R RSI43 FOR SMOKE ALARMS, SHALL BE PERMITTED. THE HOUSEHOLD FIRE ALARM SYSTEM SHALL PROVIDE THE SAME LEVEL OF SMOKE DETECTION AND ALARM AS REQUIRED BY THE INC-R FOR SMOKE ALARMS IN THE EVENT THE FIRE ALARM PANEL IS REMOVED OR THE SYSTEM IS NOT CONNECTED TO A CENTRAL STATION.

REQUIRED SMOKE DETECTORS SHALL BE LOCATED IN ACCORDANCE MITH THE NC-R R3143

ELECTRICAL (continued)

CARBON MONOXIDE ALARMS

- CARBON MONOXIDE ALARMS IN DMELLING UNITS SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE INMEDIATE VICINITY OF THE BEDROOMS, WHERE A FUEL-BURNING APPLIANCE IS LOCATED MITHIN A BEDROOM OR ITS ATTACHED BATHROOM, A CARBON MONOXIDE ALARM SHALL BE INSTALLED
- SINGLE STATION CARBON MONOXIDE ALARMS SHALL BE LISTED AS COMPLYING WITH UL 2034 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE NC-R 9315 AND THE MANUFACTURER'S NSTALLATION INSTRUCTIONS.
- COMBINATION CARBON MONOXIDE AND SMOKE ALARMS SHALL BE PERMITTED TO BE USED IN LIEU OF INDIVIDUAL CARBON MONOXIDE OR SMOKE ALARMS.

DRYER VENT

THE DRYER DUCT IS REQUIRED TO IDENTIFY THE LENGTH IN ACCORDANCE WITH SECTION MISO2.4.5



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NORTH CAROLINA 40' SERIES

KB HOME NORTH CAROLINA DIVISION

4518 S. MIAMI BLVD.

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SUITE 180 DURHAM, NC 27703 TEL: (919) 768-7988 • FAX: (919) 472-0582

ISSUE DATE: 01/08/15 PROJECT No.: 1350999:56 DIVISION MCR · MCP REVISIONS: 04/26/19

PARTIN PLACE 2 SET NC17002P • 02/23/17 • CTD DIVISION REVISIONS NC17016P - 05/23/17 - DCS

ADD CRAWL SPACE NCI8024NCP - 07/24/18 - CTD

DIVISION REVISIONS
NCISO4INCP- 9/27/18 CTD 2018 CODE UPDATE NCI9015NCP- 01/15/19 - MCP

DIVISION REVISION
NCI9017NCP- 04/01/19 CTD

DIVISION REVISION
NCI9032NCP · 04/26/19 · MCP REVIEWED BY:

238.2338 GN₃

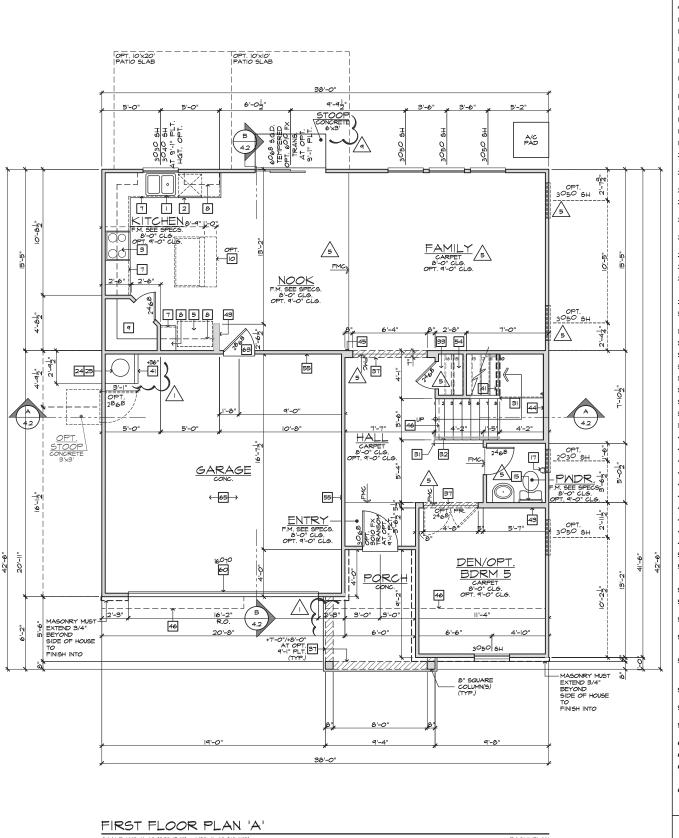
SPEC. LEVEL 1 RALEIGH-DURHAM 40' SERIES

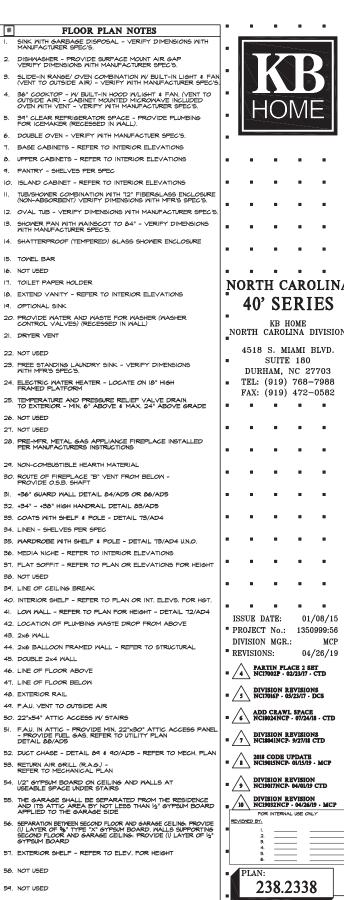


	INTERIOR K	EY		
	SOUARE FOOT	AGE		1
PLA	N 238.2338 PARTI	N PLACE	2	
FIRST FLOOR ARE	ĒΑ	994	SQ. FT.	İ
SECOND FLOOR A	REA	1343	SQ. FT.	
TOTAL ARE	A	2337	SQ. FT.	
GARAGE AREA		421	SQ. FT.	l
PORCH AREA(S)				l
	ELEVATION 'A'	73	SQ. FT.	
	ELEVATION 'B'	62	SQ. FT.	
	ELEVATION 'C'	146	SQ. FT.	
	ELEVATION 'D'	174	SQ. FT.	l
PATIO AREA(S)				
	IO'XIO' COVERED	100	50. FT.	
DECK AREA(S)	IO'x20' COVERED	200	SQ. FT.	1 .
DLUK MREM(S)	12'x12' DECK	144	SQ.FT.)
	12'x21' EXT. DECK	252	5Q.FT.	4
	PLATE NOTI			()
			2018 N.GR	2
	8'-I" PLATE NO			
	DER HEIGHT: NINDOW HDR. HEIGHT:	6'-8" U.N.C 7'-0" U.N.C	? .	4 6
ENTRY DOOF		6'-8" U.N.C).	
	SS DOOR HEIGHT:	6'-8" (TEM	IP.)	
 INTERIOR SC INTERIOR DC 	PEFIT HEIGHT: OOR HEIGHT:	7'-4" U.N.O 6'-8" U.N.O),).	l
11121101120	9'-I" PLATE NO		·	
MINDOM HEA	DER HEIGHT Ist OR 2nd			l
	N OVER TUB HDR. HGT.:	8'-4" U.N.C).	
 ENTRY DOOR 		6'-8" U.N.C).	
	SS DOOR HEIGHT: FFIT HEIGHT:	6'-8" (TEM 8'-0" U.N.C	(P.)	l
TRAY CEILIN		71/4" DROP	U.N.O.	
 INTERIOR DO 	OR HEIGHT:	6'-8" U.N.C).	
	STAIR DATA NO	OTES	2018 N.CR	
14" DEEP T.J.I. FL 14 TREADS A	TH 8'-P PLATE HEIGHT: OOR JOISTS WITH 3/4" AT IO" EACH T 7-7/16" EACH	T&G DECKING		
14" DEEP T.II FI	TH 94" PLATE HEIGHT: .OOR JOISTS WITH 3/4" AT IO" EACH T 7-3/4" EACH	T&G DECKING		
	GENERAL PLAN	NOTES	2018 N.CR	
ALL CEILING HEIGHTS, U.N.O.	SHTS PER SECTION AND	ELEVATION P		
ALL INTERIOR DOORS TO BE HOLLOW CORE I 3/6" THICK, UN.O. (REFER TO PLAN FOR SIZE).				
	RVICE DOORS TO BE H E (REFER TO PLAN FOR			
ALL HOUSE TO G	ARAGE DOORS TO BE :	20-MINUTE FIR	E-RATED	

ALL ENTRY DOORS AND EXTERIOR FRENCH DOORS TO BE SOLID CORE | 3/4" THICK (REFER TO PLAN FOR SIZE).

ALL FLOOR MATERIAL CHANGES TO OCCUR AT CENTER OF DOOR JAMBS, U.N.O.





NORTH CAROLINA

40' SERIES

NORTH CAROLINA DIVISION

4518 S. MIAMI BLVD. SUITE 180

26. NOT USED

27. NOT USED

29. NON-COMBUSTIBLE HEARTH MATERIAL

32. +34" - +38" HIGH HANDRAIL DETAIL 83/AD5

36. MEDIA NICHE - REFER TO INTERIOR ELEVATIONS

38. NOT USED

39. LINE OF CEILING BREAK

40. INTERIOR SHELF - REFER TO PLAN OR INT. ELEVS. FOR HGT.

41. LOW WALL - REFER TO PLAN FOR HEIGHT - DETAIL 12/AD4

45. DOUBLE 2x4 WALL

46. LINE OF FLOOR ABOVE

48. EXTERIOR RAIL

52. DUCT CHASE - DETAIL 89 \$ 90/AD5 - REFER TO MECH. PLAI

58. NOT USED

59. NOT USED

60. SECTIONAL GARAGE DOOR - VERIFY WINDOW OPTION

63. OPENINGS BETWEEN GARAGE AND HOUSE SHALL BE EQUIPPE MITH SOLID WOOD DOORS NOT LESS THAN I 3/6-INCH THICK OR SHALL BE 20-MINTE FIRE RATED. DOORS SHALL BE WEATHERSTRIPPED

NOTE: FOR ALL PLAN OPTIONS REFER TO BASIC PLAN FOR INFORMATION NOT SHOWN HERE.

04/26/19

SPEC. LEVEL 1 RALEIGH-DURHAM 40' SERIES

SHEET: 1.1



INTERIOR KEY

	PLATE NOTE	2018 NG-R		
	8'-I" PLATE NO	OTES		
•	MINDOM HEADER HEIGHT: 2nd FLOOR MINDOM HDR, HEIGHT: ENTRY DOOR HEIGHT: SLIDING GLASS DOOR HEIGHT: INTERIOR SOFFIT HEIGHT: INTERIOR DOOR HEIGHT:	6'-8" U.N.O. 6'-8" U.N.O. 6'-8" U.N.O. 6'-8" (TEMP.) 1'-4" U.N.O. 6'-8" U.N.O.		
	9'-I" PLATE NOTES			
•	WINDOM HEADER HEIGHT IST OR 2nd 40/0 WINDOM OVER TUB HDR, HGT., ENTRY DOOR HEIGHT: SITEN SLASS DOOR HEIGHT: INTERIOR SOPFIT HEIGHT: TRAY CELLING: INTERIOR DOOR HEIGHT:			
STAIR DATA NOTES				
FIRST FLOOR WITH 8-1P PLATE HEIGHT: 14" DEEP T.J.I. FLOOR JOISTS WITH 3/4" T&G DECKING. 14 TREADS AT 10" FACH				

14 TREADS AT IO" EACH 15 RISERS AT 7-7/16" EACH

FIRST FLOOR WITH 9-1" PLATE HEIGHT: 14" DEEP T.J.I. FLOOR JOISTS WITH 3/4" T&G DECKING. 15 TREADS AT 10" EACH 16 RISERS AT 7-3/4" EACH

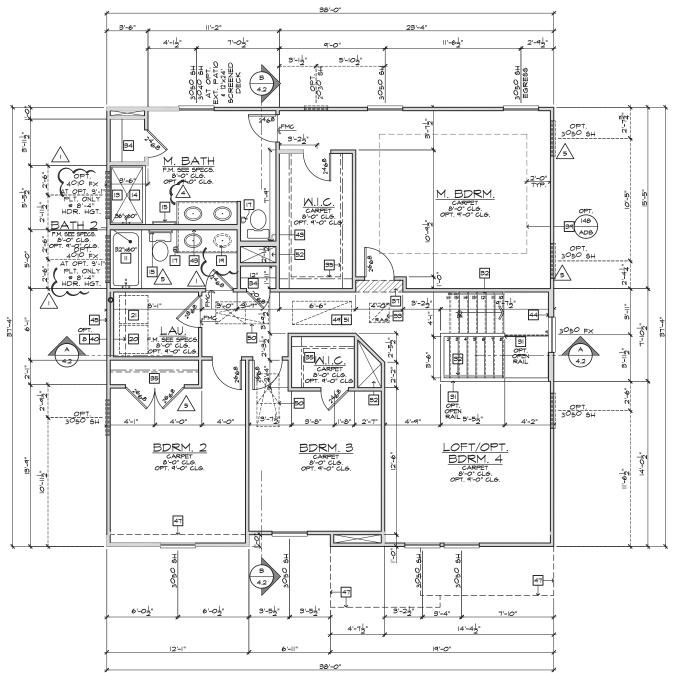
GENERAL PLAN NOTES

ALL CEILING HEIGHTS PER SECTION AND ELEVATION PLATE HEIGHTS, U.N.O.

ALL INTERIOR DOORS TO BE HOLLOW CORE | 3/8" THICK, U.N.O. (REFER TO PLAN FOR SIZE).

ALL GARAGE SERVICE DOORS TO BE HOLLOW CORE EXTERIOR GRADE (REFER TO PLAN FOR SIZE). ALL HOUSE TO GARAGE DOORS TO BE 20-MINUTE FIRE-RATED (REFER TO PLAN FOR SIZE)

ALL ENTRY DOORS AND EXTERIOR FRENCH DOORS TO BE SOLID CORE I 3/4" THICK (REFER TO PLAN FOR SIZE). ALL FLOOR MATERIAL CHANGES TO OCCUR AT CENTER OF DOOR JAMBS, U.N.O.



FLOOR PLAN NOTES SINK WITH GARBAGE DISPOSAL - VERIFY DIMENSIONS WITH MANUFACTURER SPEC'S. DISHMASHER - PROVIDE SURFACE MOUNT AIR GAP VERIFY DIMENSIONS WITH MANUFACTURER SPEC'S. SLIDE-IN RANGE/ OVEN COMBINATION W BUILT-IN LIGHT & FA (VENT TO OUTSIDE AIR) - VERIFY WITH MANUFACTURER SPEC! 36" COOKTOP - W BUILT-IN HOOD W/LIGHT & FAN. (VENT TO OUTSIDE AIR) - CABINET MOUNTED MICROMAYE INCLUDED OVEN WITH VENT - VERIFY WITH MANUFACTURER SPEC'S. 39" CLEAR REFRIGERATOR SPACE - PROVIDE PLUMBING FOR ICEMAKER (RECESSED IN WALL). DOUBLE OVEN - VERIFY WITH MANUFACTUER SPEC'S. BASE CABINETS - REFER TO INTERIOR ELEVATIONS UPPER CABINETS - REFER TO INTERIOR ELEVATIONS PANTRY - SHELVES PER SPEC IO. ISLAND CABINET - REFER TO INTERIOR ELEVATIONS TUB/SHOWER COMBINATION WITH 12" FIBERGLASS ENCLOSUR (NON-ABSORBENT) VERIFY DIMENSIONS WITH MFR'S SPEC'S. 12. OVAL TUB - VERIFY DIMENSIONS WITH MANUFACTURER SPECT SHOWER PAN WITH WAINSCOT TO 84" - VERIFY DIMENSIONS WITH MANUFACTURER SPEC'S. 14. SHATTERPROOF (TEMPERED) GLASS SHOWER ENCLOSURE 15. TOWEL BAR 16. NOT USED 17. TOILET PAPER HOLDER 18. EXTEND VANITY - REFER TO INTERIOR ELEVATIONS 19. OPTIONAL SINK 20. PROVIDE WATER AND WASTE FOR WASHER (WASHER CONTROL VALVES) (RECESSED IN WALL) 21. DRYER VENT 22. NOT USED 23. FREE STANDING LAUNDRY SINK - VERIFY DIMENSIONS WITH MER'S SPEC'S. 24. ELECTRIC MATER HEATER - LOCATE ON 18" HIGH FRAMED PLATFORM 26. NOT USED 27. NOT USED 28. PRE-MFR. METAL GAS APPLIANCE FIREPLACE INSTALLED PER MANUFACTURERS INSTRUCTIONS 29. NON-COMBUSTIBLE HEARTH MATERIAL 30. ROUTE OF FIREPLACE "B" VENT FROM BELOW - PROVIDE O.S.B. SHAFT 31. +36" GUARD WALL DETAIL 84/AD5 OR 86/AD5 32. +34" - +38" HIGH HANDRAIL DETAIL 83/AD5 33. COATS WITH SHELF & POLE - DETAIL 73/AD4 34 LINEN - SHELVES PER SPEC 36. MEDIA NICHE - REFER TO INTERIOR ELEVATIONS 37. FLAT SOFFIT - REFER TO PLAN OR ELEVATIONS FOR HEIGH 38. NOT USED 39. LINE OF CEILING BREAK 40. INTERIOR SHELF - REFER TO PLAN OR INT. ELEVS. FOR HGT. 41. LOW WALL - REFER TO PLAN FOR HEIGHT - DETAIL 72/AD4 ISSUE DATE: 01/08/15 42. LOCATION OF PLUMBING WASTE DROP FROM ABOVE PROJECT No.: 1350999:56 DIVISION MGR.: 44. 2x6 BALLOON FRAMED WALL - REFER TO STRUCTURAL REVISIONS: 45. DOUBLE 2x4 WALL PARTIN PLACE 2 SET NC17002P - 02/23/17 - CTD 46. LINE OF FLOOR ABOVE 47. LINE OF FLOOR BELOW DIVISION REVISIONS NCI7016P - 05/23/17 - DCS 48. EXTERIOR RAIL 49. F.A.U. VENT TO OUTSIDE AIR ADD CRAWL SPACE NCI8024NCP - 07/24/18 - CTD 50. 22"x54" ATTIC ACCESS W/ STAIRS 51. F.A.J. IN ATTIC - PROVIDE MIN. 22"x30" ATTIC ACCESS PANEL - PROVIDE FUEL 6AS, REFER TO UTILITY PLAN DETAIL 88/AD5 DIVISION REVISIONS
NCISO4INCP- 9/27/18 CTD 52. DUCT CHASE - DETAIL 89 & 90/AD5 - REFER TO MECH. PLAI 2018 CODE UPDATE NCI9015NCP- 01/15/19 - MCP 53. RETURN AIR GRILL (R.A.G.) -REFER TO MECHANICAL PLAN DIVISION REVISION
NC19017NCP: 04/01/19 CTD 4. I/2" GYPSUM BOARD ON CEILING AND WALLS AT USEABLE SPACE UNDER STAIRS 55. THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAN 1/2" GYPSUM BOARD APPLIED TO THE GARAGE SIDE DIVISION REVISION NC19032NCP · 04/26/19 · MCP 6. SEPARATION BETWEEN SECOND FLOOR AND GARAGE CEILING, PROVIDE (I) LAYER OF %" TYPE "X" GYPSUM BOARD, WALLS SUPPORTING SECOND FLOOR AND GARAGE CEILING, PROVIDE (I) LAYER OF ½" GYPSUM BOARD 57. EXTERIOR SHELF - REFER TO ELEV. FOR HEIGHT 58. NOT USED 59. NOT USED 60. SECTIONAL GARAGE DOOR - VERIFY WINDOW OPTION 63. OPENINGS BETWEEN GARAGE AND HOUSE SHALL BE EQUIPPE WITH SOLID WOOD DOORS NOT LESS THAN I 3/6-INCH THICK OR SHALL BE 20-MINJTE FIRE RATED, DOORS SHALL BE WEATHERSTRIPPED

NORTH CAROLINA 40' SERIES

NORTH CAROLINA DIVISION

4518 S. MIAMI BLVD. SUITE 180 DURHAM, NC 27703

TEL: (919) 768-7988 • FAX: (919) 472-0582

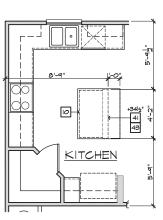
NOTE: FOR ALL PLAN OPTIONS REFER TO BASIC PLAN FOR INFORMATION NOT SHOWN HERE.

238.2338 SHEET:

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04/26/19

SPEC. LEVEL 1 RALEIGH-DURHAM 40' SERIES



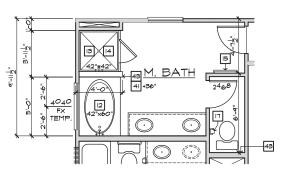
KITCHEN ISLAND

FIRST FLOOR PLAN OPTIONS

SCALE |/4"=|'-0" (22"X34") - |/8"=|'-0" (||"X|7")

BASIC PI AI





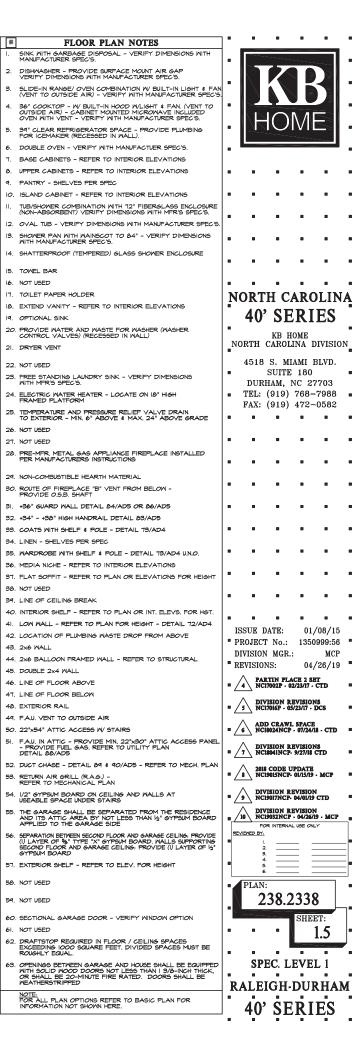
SUPER M. BATH

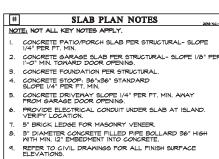
AT M. BATH

SECOND FLOOR PLAN OPTIONS

SCALE I/4"=I'-O" (22"X84") - I/8"=I'-O" (II"XI7")

BASIC PLA

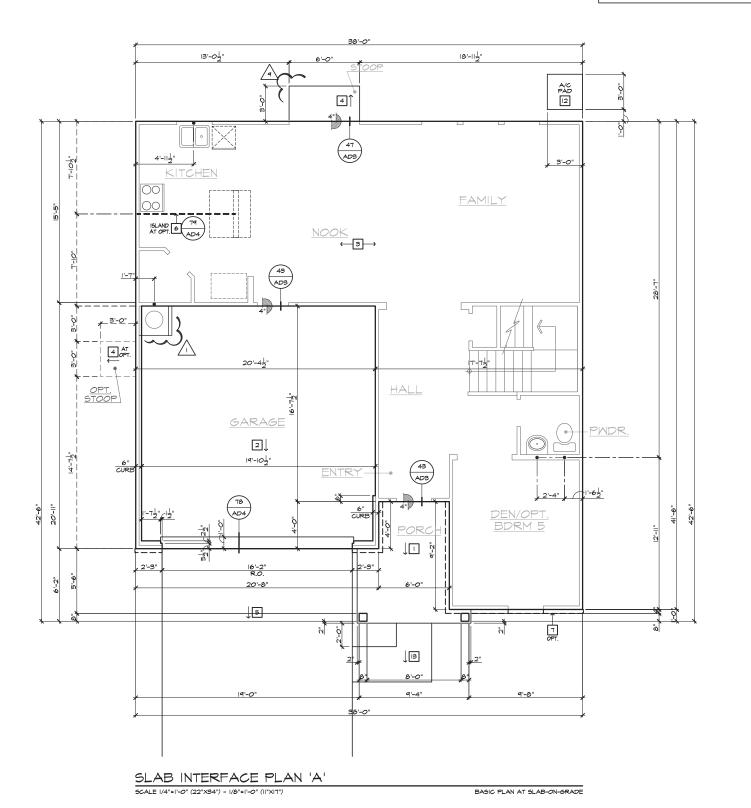




IO. VERIFY ALL PLUMBING STUB DIMENSIONS SHOWN HERE PRIOR TO POUR OF SLAB.

| 11. 4" MIN. 8 | /4" MAX. TO HARD SURFACE. | 12. A/C PAD. YERIFY LOCATION. | 13. 36" WIDE WALKWAY- SLOPE | /4" PER FT. MIN.





NORTH CAROLINA 40' SERIES

KB HOME NORTH CAROLINA DIVISION 4518 S. MIAMI BLVD.

SUITE 180
DURHAM, NC 27703
TEL: (919) 768-7988
FAX: (919) 472-0582

ISSUE DATE: 01/08/15

PROJECT No.: 1350999:56

DIVISION MGR.: MCP

REVISIONS: 04/26/19

PARTIN PLACE 2 SET NC17002P - 02/23/17 - CTD

DIVISION REVISIONS
NC17016P - 05/23/17 - DCS

ADD CRAWL SPACE
NC18024NCP - 07/24/18 - CTD

DIVISION REVISIONS NCI8041NCP- 9/27/18 CTD

Description of the second seco

DIVISION REVISION
NCI9017NCP- 04/01/19 CTD

IS NO DIVISION REVISION NCP POPULATION NCP POPULATION NCP POPULATION NETWORK USE ONLY

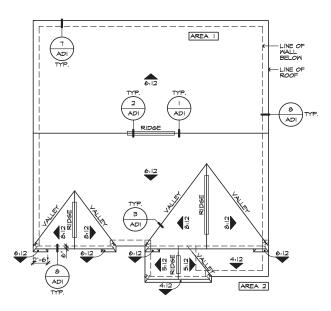
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PLAN: 238.2338

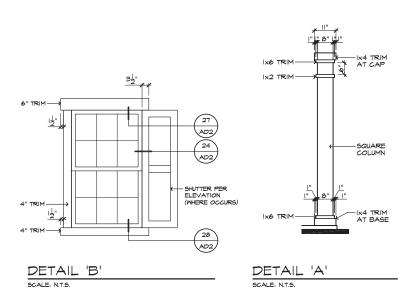
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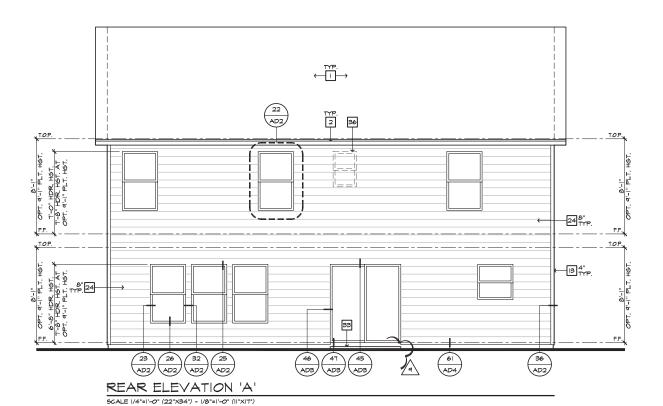
spec. level 1
RALEIGH-DURHAM
40' SERIES



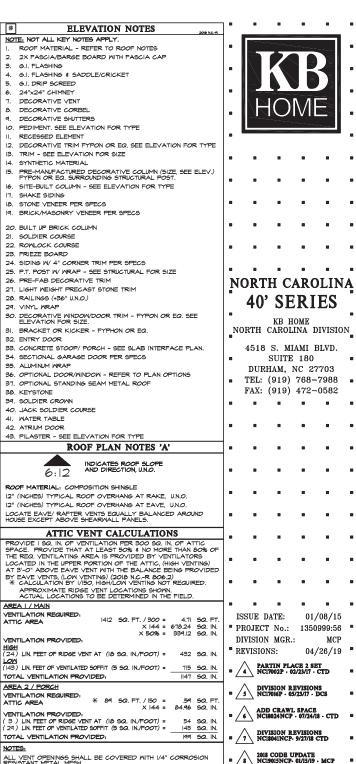
ROOF PLAN 'A'

SCALE I/8"=1'-0" (22"X34") - I/I6"=1'-0" (II"XI7")









APPROXIMATE RIDGE VENT LOCATIONS SHOWN. ACTUAL LOCATIONS TO BE DETERMINED IN THE FIELD. AREA I / MAIN VENTILATION REQUIRED: ATTIC AREA VENTILATION PROVIDED: HIGH (24) LIN FEET OF RIDGE VENT AT (18 SQ. IN/FOOT) = 432 SQ. IN. (143) LIN FEET OF VENTILATED SOFFIT (5 SQ. IN./FOOT) = 715 SQ. IN. TOTAL VENTILATION PROVIDED: AREA 2 / PORCH VENTILATION REQUIRED: ATTIC AREA VENTILATION PROVIDED:
(3) LIN FEET OF RIDGE VENT AT (16 SQ. IN./FOOT) = (24) LIN FEET OF VENTILATED SOFFIT (5 SQ. IN./FOOT) = TOTAL VENTILATION PROVIDED: NOTES: ALL VENT OPENINGS SHALL BE COVERED WITH 1/4" CORROSION RESISTANT METAL MESH. FRAMER SHALL BE RESPONSIBLE FOR COORDINATING WITH TRUSS MANUFACTURER TO ACCOMMODATE ALL ATTIC VENTS.

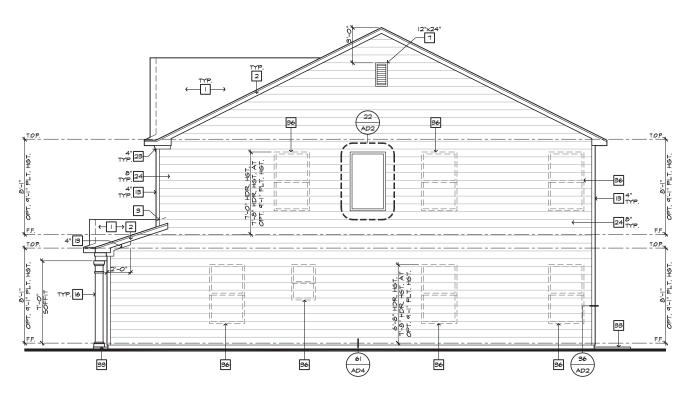
REVIEWED BY: LOCATE HIGH VENTING MINIMUM 3'-O" VERTICAL DISTANCE ABOVE EAVES.

WHEN GABLE END TRUSS MEMBERS BLOCK GABLE END VENTS, PROVIDE ADEQUATE ADDITIONAL VENTILATION BY MEANS OF ROOF TILE VENTS.

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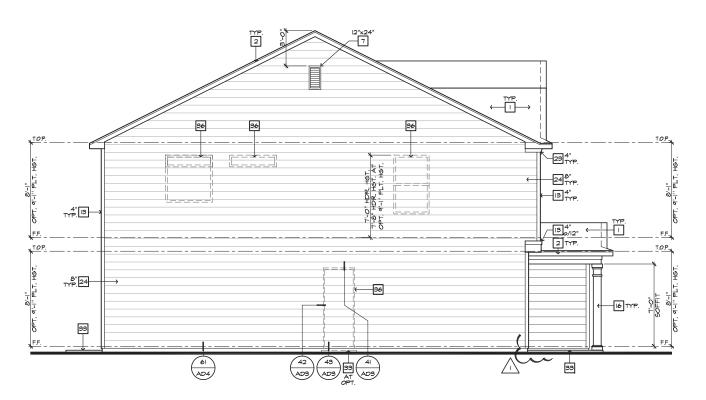
MCP

SPEC. LEVEL 1 RALEIGH-DURHAM 40' SERIES



RIGHT ELEVATION 'A'

SCALE I/4"=1'-0" (22"X34") - I/6"=1'-0" (II"XI7")



LEFT ELEVATION 'A' SCALE |/4"=|'-0" (22"X34") - |/8"=|'-0" (||"X|7")

II. RECESSED ELEMENT
12. DECORATIVE TRIM FYPON OR EQ. SEE ELEVATION FOR TYPE PRE-MANUFACTURED DECORATIVE COLUMN (SIZE, SEE ELEV.)
 PYPON OR EQ. SURROUNDING STRUCTURAL POST.
 SITE-BUILT COLUMN - SEE ELEVATION FOR TYPE **NORTH CAROLINA** 30. DECORATIVE WINDOWDOOR TRIM - FYPON OR EQ. SEE ELEVATION FOR SIZE. KB HOME NORTH CAROLINA DIVISION 33. CONCRETE STOOP/ PORCH - SEE SLAB INTERFACE PLAN.
34. SECTIONAL GARAGE DOOR PER SPECS

ELEVATION NOTES

NOTE: NOT ALL KEY NOTES APPLY.

4. G.I. FLASHING & SADDLE/CRICKET

9. DECORATIVE SHUTTERS
10. PEDIMENT, SEE ELEVATION FOR TYPE

IS. TRIM - SEE ELEVATION FOR SIZE

14. SYNTHETIC MATERIAL

18. STONE VENEER PER SPECS

19. BRICK/MASONRY VENEER PER SPECS

24. SIDING W/ 4" CORNER TRIM PER SPECS 25. P.T. POST W/ WRAP - SEE STRUCTURAL FOR SIZE

27. LIGHT WEIGHT PRECAST STONE TRIM

31. BRACKET OR KICKER - FYPHON OR EQ. 32. ENTRY DOOR

37. OPTIONAL STANDING SEAM METAL ROOF 38. KEYSTONE

43. PILASTER - SEE ELEVATION FOR TYPE

35. ALUMINUM MRAP 36. OPTIONAL DOOR/WINDOM - REFER TO PLAN OPTIONS

26 PRE-FAB DECORATIVE TRIM

28. RAILINGS (+36" U.N.O.) 29. VINYL WRAP

39. SOLDIER CROWN 40. JACK SOLDIER COURSE 41. WATER TABLE 42. ATRIUM DOOR

3. G.I. FLASHING

5. G.I. DRIP SCREED 6. 24"x24" CHIMNEY DECORATIVE VENT DECORATIVE CORBEL

IT. SHAKE SIDING

20. BUILT UP BRICK COLUMN 21. SOLDIER COURSE 22. ROWLOCK COURSE 23. FRIEZE BOARD

ROOF MATERIAL - REFER TO ROOF NOTES 2. 2X FASCIA/BARGE BOARD WITH FASCIA CAF

40' SERIES

4518 S. MIAMI BLVD. SUITE 180 DURHAM, NC 27703

TEL: (919) 768-7988 • FAX: (919) 472-0582

REVISIONS:

DIVISION REVISION NCI9032NCP · 04/26/19 · MCP

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3.A2

SPEC. LEVEL 1 RALEIGH-DURHAM 40' SERIES

ISSUE DATE: 01/08/15 * PROJECT No.: 1350999:56 * DIVISION MGR.: 04/26/19 PARTIN PLACE 2 SET NC17002P - 02/23/17 - CTD DIVISION REVISIONS NC17016P · 05/23/17 · DCS ADD CRAWL SPACE NCI8024NCP - 07/24/18 - CTD DIVISION REVISIONS NCI804INCP- 9/27/18 CTD 2018 CODE UPDATE NC19015NCP- 01/15/19 - MCP DIVISION REVISION
NCI9017NCP- 04/01/19 CTD REVIEWED BY:





NORTH CAROLINA DIVISION

4518 S. MIAMI BLVD.
SUITE 180
DURHAM, NC 27703
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PARTIN PLACE 2 SET
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= ADD CRAWL SPACE NCI8024NCP - 07/24/18 - CTD

DIVISION REVISIONS NCISO4INCP. 9/27/18 CTD

2018 CODE UPDATE NC19015NCP- 01/15/19 - MCP

DIVISION REVISION NCI9017NCP- 04/01/19 CTD

DIVISION REVISION
NCI9932NCP - 04/26/19 - MCP
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REVIEWED BY:

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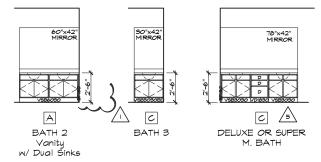
PLAN: 238.2338

238.2338 • SHEET: • 4.1

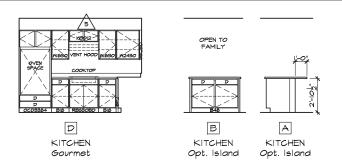
SPEC LEVEL 1
RALEIGH-DURHAM
40' SERIES



INTERIOR ELEVATIONS



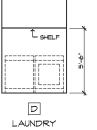
BATH ELEVATIONS



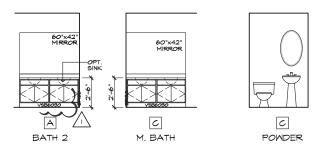
KITCHEN ELEVATIONS

OPTIONAL INTERIOR ELEVATIONS

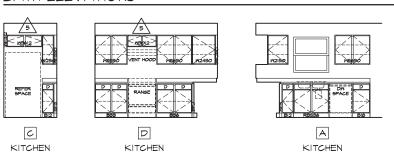
SCALE: |/4"=|'-0" (22"X34") - |/8"=|'-0" (||"X|7")



INTERIOR ELEVATIONS



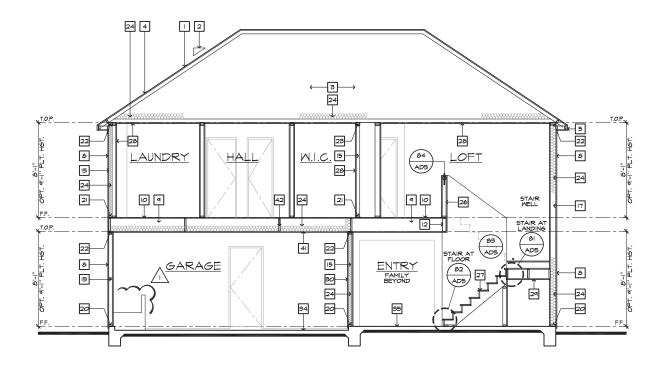
BATH ELEVATIONS



KITCHEN ELEVATIONS

INTERIOR ELEVATIONS

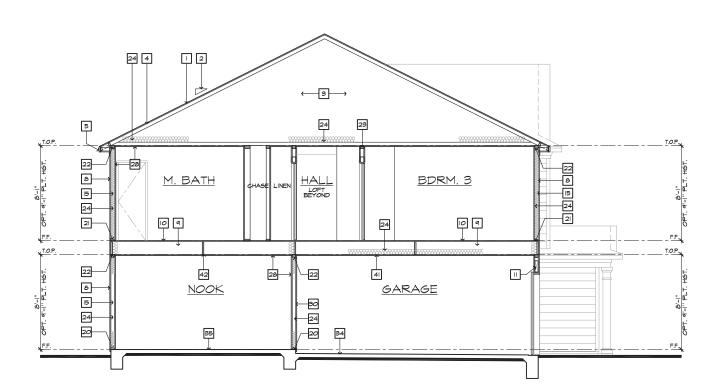
SCALE: I/4"=I'-0" (22"X84") - I/8"=I'-0" (II"XIT")



SECTION "A"

SCALE 1/4"=1'-0" (22"X34") - 1/8"=1'-0" (11"X17")

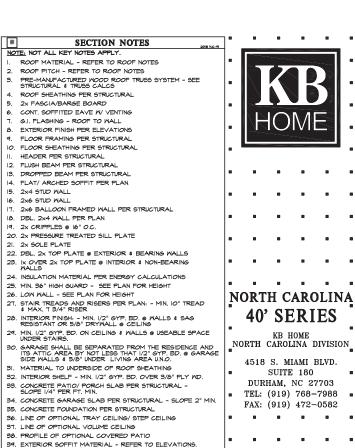
AT SLAB-ON-GRADE



SECTION "B"

SCALE |/4"=|'-0" (22"X34") - |/8"=|'-0" (||"X|7")

AT SLAB-ON-GRADE



SECTION NOTES

NOTE: NOT ALL KEY NOTES APPLY. ROOF MATERIAL - REFER TO ROOF NOTES ROOF PITCH - REFER TO ROOF NOTES

 ROOF SHEATHING PER STRUCTURAL
 2x FASCIA/BARGE BOARD CONT. SOFFITED EAVE W VENTING G.I. FLASHING - ROOF TO WALL EXTERIOR FINISH PER ELEVATIONS FLOOR FRAMING PER STRUCTURAL

IO. FLOOR SHEATHING PER STRUCTURAL

II. HEADER PER STRUCTURAL FLUSH BEAM PER STRUCTURAL
 DROPPED BEAM PER STRUCTURAL . FLAT/ ARCHED SOFFIT PER PLAN

26 LOW WALL - SEE PLAN FOR HEIGHT

35. CONCRETE FOUNDATION PER STRUCTURAL

40.8° BLOCK WALL

4. 5/8° TYPE-X DRYWALL © GARAGE
CELING

4. MFEN THERE IS USABLE SPACE ABOVE AND BELOW THE
CONCEALED SPACE OF A FLOOR-CELING ASSEMBLY IN A
SINGLE-FAMILY DWELING DRAFT STOPS SHALL BE INSTALLED
SO THAT THE AREA OF THE CONCEALED SPACE DOES NOT
EXCEED I/OO SQUARE FIETT. DRAFTSTOPPING SHALL DIVIDE
THE CONCEALED SPACE INTO APPROXIMATELY EQUAL AREAS.

37. LINE OF OPTIONAL VOLUME CEILING

40. 8" BLOCK WALL

15. 2x4 STUD WALL

2I. 2x SOLE PLATE

18. DBL. 2x4 WALL PER PLAN 19. 2x CRIPPLES @ 16" O.C. 20. 2x PRESSURE TREATED SILL PLATE

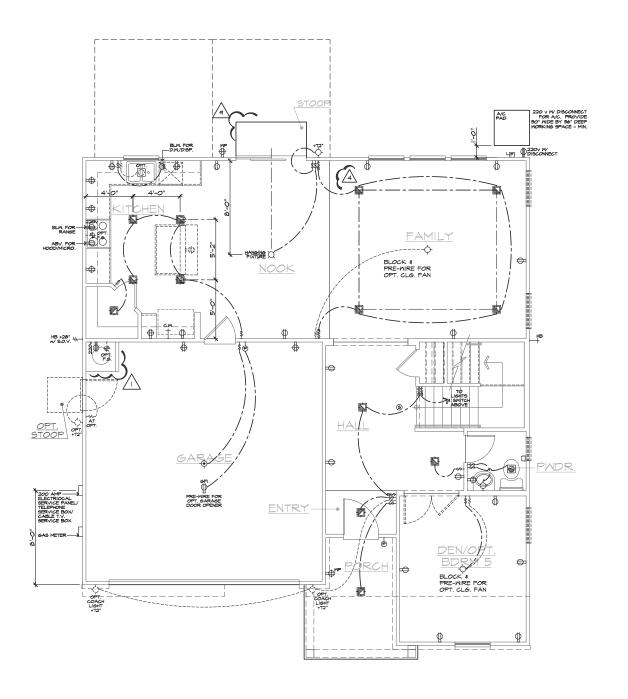
> ISSUE DATE: 01/08/15 * PROJECT No.: 1350999:56 * DIVISION MGR.: REVISIONS: 04/26/19 PARTIN PLACE 2 SET NC17002P · 02/23/17 · CTD DIVISION REVISIONS
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> NCISO4INCP- 9/27/IS CTD 2018 CODE UPDATE NCI9015NCP- 01/15/19 - MCP DIVISION REVISION
> NC19017NCP: 04/01/19 CTD DIVISION REVISION NCI9032NCF · 04/26/19 · MCP REVIEWED BY:

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SPEC. LEVEL 1

40' SERIES

RALEIGH-DURHAM

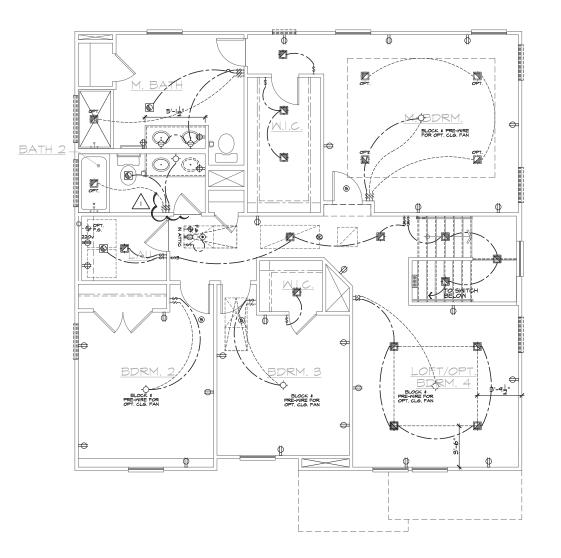


FIRST FLOOR UTILITY PLAN

SCALE |/4"=1'-0" (22"X34") - |/8"=1'-0" (|1"X|7")

BASIC PLAN



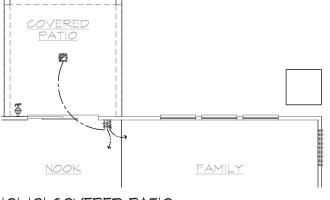


SECOND FLOOR UTILITY PLAN

SCALE |/4"=|'-0" (22"X34") - |/8"=|'-0" (||"X|7")

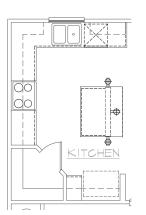
BASIC P





10'x10' COVERED PATIO

AT GREAT ROOM



KITCHEN ISLAND

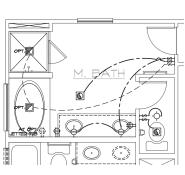
AT KITCHE

UTILITY LEGEND 120V DUPLEX CONVENIENCE RECEPTACLE ARC FAULT(AFCI) AND TAMPER RESISTANT(TR) 12" ABV. FIN. FLR. TYPICAL U.N.O. W F F 120V (TR) RECEPTACLE W F CIRCUIT III MP € 6FI 120V (TR) RECEPTACLE W 6FI CIRCUIT FUSED DISCONNECT 120v (AFCI & TR) RECESSED FLOOR RECEPTACLE W COVER 0 120v (AFCI & TR) DUPLEX CONVENIENCE RECEPTACLE SWITCH CONTROLLED, 1/2 HOT \Box #220 v 220v SINGLE CONVENIENCE RECEPTACLE HEIGHT NOTED AS PER PLAN TWO-POLE LIGHT SWITCH AT 42" ABV. FIN. FLR. 8" ABOVE COUNTER U.N.O. FOUR-POLE LIGHT SMITCH NORTH CAROLINA HANGING INCANDESCENT LIGHT FIXTURE Ø 40' SERIES RECESSED INCANDESCENT DIRECTIONAL LIGHT FIXTURE (EYE BALL) Φ кв номе \bigcirc RECESSED INCANDESCENT LIGHT FIXTURE NORTH CAROLINA DIVISION LIGHTING - TRAVERSE II LED FIXTURE - PER SPECS 4518 S. MIAMI BLVD. ØM.P. RECESSED INCANDESCENT LIGHT FIXTURE W/ WATER RESISTANT HOUSING SUITE 180 DURHAM, NC 27703 **®** RECESSED FLUORESCENT LIGHT FIXTURE TEL: (919) 768-7988 • RECESSED EXHAUST FAN FAX: (919) 472-0582 8 RECESSED EXHAUST FAN/ INCANDESCENT LIGHT COMBINATION RECESSED EXHAUST FAN/ FLUORESCENT LIGHT COMBINATION INCANDESCENT WALL SCONCE ILLUMINATED ADDRESS SIGN - VISIBLE FROM STREET 12"x48" FLUORESCENT LIGHT BOX (CEILING MOUNTED) € CEILING MOUNTED JUNCTION BOX MALL MOUNTED JUNCTION BOX 000 DOOR CHIME ISSUE DATE: 01/08/15 \vdash CATY RECEPTACLE PROJECT No.: 1350999:56 PUSH BUTTON DIVISION MGR.: MCP PHONE OUTLET REVISIONS: 04/26/19 SERVICE BOX PARTIN PLACE 2 SET NC17002P - 02/23/17 - CTD HOSE BIB W S.O.V. WATER STUB FOR ICE MAKER APPROVED CARBON MONOXIDE ALARM/ SMOKE DET. THERMOSTAT (VERIFY LOCATION W/ HVAC PLAN) 8 2018 CODE UPDATE NC19015NCP- 01/15/19 - MCP DIVISION REVISION
NCI9017NCP- 04/01/19 CTD IGHT / FAN DWELLING 2'-0" GFI # \$ \$ \$ SECONDARY MASTER NOTES MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS ARE SHONN FOR INTENT ONLY. THESE SYSTEMS SHALL BE ENGINEERED BY OTHERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND PLACEMENT, ALL HEIGHTS SHOWN ARE TO CENTERLINE OF FIXTURE. 238.2338 5.3 PROVIDE SMITCH, LIGHT, 120V (AFCI & TR) DUPLEX RECEPTACLE, & FUEL GAS STUB OR 220V RECEPTACLE IN ATTIC FOR F.A.U. - PER COMMUNITY SPECIFICATIONS. SMOKE DETECTORS IN ROOMS WITH VOLUME CEILING TO BE LOCATED AT HIGHEST POINT OF CEILING SPEC. LEVEL 1 20 FOOT #4 REBAR FOR UFER GROUND AND ADDITIONAL COLD WATER GROUND, REFER TO SLAB INTERFACE PLAN FOR LOCATION. RALEIGH-DURHAM 200 AMP ELECTRICAL PANEL (DEFAULT). ELECTRICAL PLAN CHECK PERMIT REQUIRED IF LOAD EXCEED 400 AMPS. 40' SERIES

FIRST FLOOR UTILITY PLAN OPTIONS

BASIC PLAN

SCALE |/4"=|'-0" (22"X34") - |/8"=|'-0" (||"X|7")



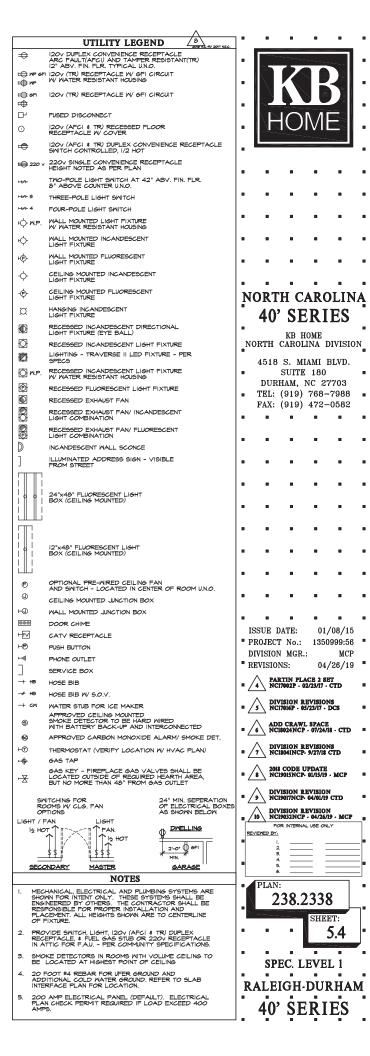
SUPER M. BATH

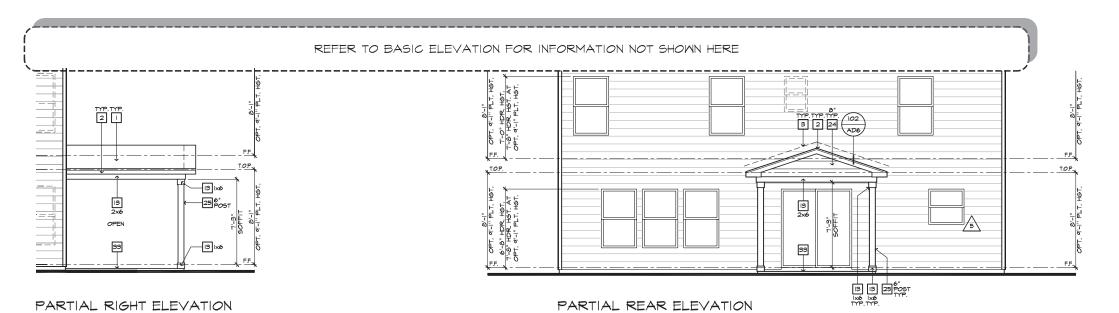
AT M. BATH

SECOND FLOOR UTILITY PLAN OPTIONS

SCALE I/4"=1'-0" (22"X34") - I/8"=1'-0" (II"XIT")

BASIC PLAN









INDICATES ROOF SLOPE AND DIRECTION, U.N.O.

ROOF MATERIAL: COMPOSITION SHINGLE 12" (INCHES) TYPICAL ROOF OVERHANG AT RAKE, U.N.O. 12" (INCHES) TYPICAL ROOF OVERHANG AT EAVE, U.N.O. LOCATE EAVE/ RAFTER VENTS EQUALLY BALANCED AROUND HOUSE EXCEPT ABOVE SHEARMALL PANELS.

ATTIC VENT CALCULATIONS

ATTIC VENT CALCULATIONS

PROVIDE I 50, IN OF VENTILATION PER 300 50, IN, OF ATTIC

SPACE. PROVIDE THAT AT LEAST 50% & NO MORE THAN 80% OF

THE REQ. VENTILATING AREA IS PROVIDED BY VENTILATORS

LOCATED IN THE UPPER PORTION OF THE ATTIC, (HIGH VENTING)

AT 3'-O' ABOVE EAVE VENT WITH THE BALANCE BEING PROVIDED

BY EAVE VENTS, (LOW VENTING) (2018 NC.-R 8062)

** CALCULATION BY //I5O, HIGH/LOW VENTING NOT REQUIRED.

APPROXIMATE RIDES VENT LOCATIONS SHOWN,

ACTUAL LOCATIONS TO BE DETERMINED IN THE FIELD.

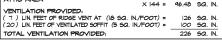
AREA 3 / OPTIONAL IOXIO COVERED PATIO

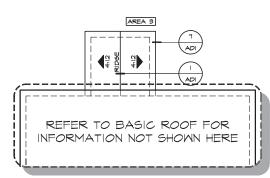
 AFEA 5 / OF INDICAL 1600

 VENTILATION REQUIRED;

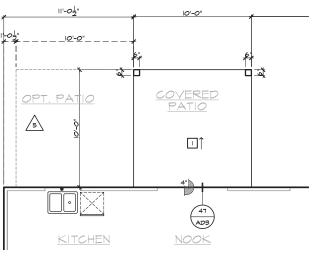
 ATTIC AREA
 * IOO
 SQ. FT. / I5O = 0.61
 SQ. FT.

 ATTIC AREA
 X I44 = 96.40
 SQ. IN.

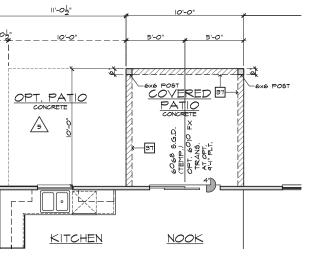




PARTIAL ROOF PLAN

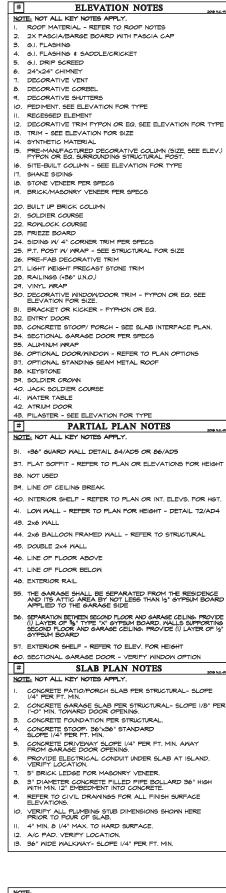


PARTIAL SLAB INTERFACE PLAN



PARTIAL FIRST FLOOR PLAN

10'X10' COVERED PATIO AT SLAB ON GRADE





NORTH CAROLINA 40' SERIES KB HOME

NORTH CAROLINA DIVISION

4518 S. MIAMI BLVD. SUITE 180 DURHAM, NC 27703 TEL: (919) 768-7988 •

FAX: (919) 472-0582

ISSUE DATE:

DIVISION MGR.:

REVISIONS:

01/08/15

04/26/19

MCP

PROJECT No.: 1350999:56

ADD CRAWL SPACE NCI8024NCP - 07/24/18 - CTD

DIVISION REVISIONS
NCISO4INCP- 9/27/18 CTD

8 2018 CODE UPDATE NC19015NCP- 01/15/19 - MCP

DIVISION REVISION
NCI9017NCP- 04/01/19 CTD

DIVISION REVISION
NCI9032NCP · 04/26/19 · MCP FOR INTERNAL USE ONLY

REVIEWED BY:

40. INTERIOR SHELF - REFER TO PLAN OR INT. ELEVS. FOR HGT

41. LOW WALL - REFER TO PLAN FOR HEIGHT - DETAIL 72/AD4

44. 2x6 BALLOON FRAMED WALL - REFER TO STRUCTURAL

56. SEPARATION BETWEEN SECOND FLOOR AND GARAGE CEILING. PROVIDE

(1) LAYER OF "B," TYPE "X" GYPSIM BOARD, MALLS SUPPORTING
SECOND FLOOR AND GARAGE CEILING. PROVIDE (1) LAYER OF 'L'
GYPSIM BOARD

PARTIN PLACE 2 SET NC17002P - 02/23/17 - CTD DIVISION REVISIONS
NC17016P - 05/23/17 - DCS

NOTE: REFER TO BASIC ROOF PLAN FOR INFORMATION NOT NOTE: REFER TO BASIC ELEVATIONS FOR INFORMATION NOT SUDUM HERE NOTE: REFER TO BASIC FLOOR PLAN FOR INFORMATION NOT SHOWN HERE NOTE: REFER TO BASIC SLAB PLAN FOR INFORMATION NOT SUCIAIN LIEBE

238.2338 8.1

SPEC. LEVEL 1 RALEIGH-DURHAM 40' SERIES

13 (F07) F07 Start Frmaing Here @ 19.2" OC F09 15 All I-Joist and Versa-Lam Beams

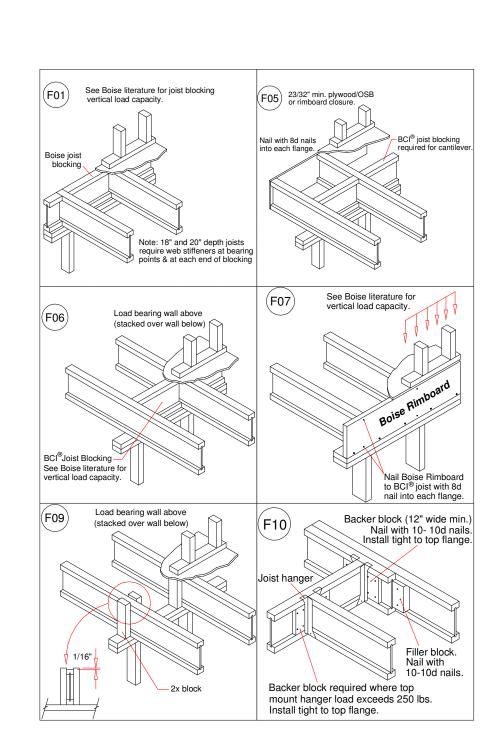
Must be Installed per The

Boise Cascade Installation Guide!

KB Homes 2338 Lot 5 Mason Pointe

		Products		
PlotID	Net Qty	Product	Length	Plies
1	4	14" BCI® 5000s-1.8	38' 0"	1
2	4	14" BCI® 5000s-1.8	38' 0"	2
3	2	14" BCI® 5000s-1.8	28' 0"	1
4	2	14" BCI® 5000s-1.8	28' 0"	2
5	2	14" BCI® 5000s-1.8	26' 0"	1
6	4	14" BCI® 5000s-1.8	21' 0"	2
7	1	14" BCI® 5000s-1.8	19' 0"	1
8	2	14" BCI® 5000s-1.8	19' 0"	2
9	24	14" BCI® 5000s-1.8	16' 0"	1
10	2	14" BCI® 5000s-1.8	8' 0"	1
11	7	14" BCI® 5000s-1.8	5' 0"	1
12	4	14" BCI® 5000s-1.8	5' 0"	2
13	2	1-3/4" x 9-1/4" VERSA-LAM® 2.0 3100 SP	8' 0"	2
14	3	1-3/4" x 16" VERSA-LAM® 2.0 3100 SP	22' 0"	3
15	11	1" x 14" BC RIM BOARD OSB	12' 0"	1
Bk1	28	14" BCI® 5000s-1.8	2' 0"	1

Connector Summary				
PlotID	Qty	Manuf	Product	
H1	2	Simpson	HU4.12/11	
H2	13	Simpson	IUS2.06/14	



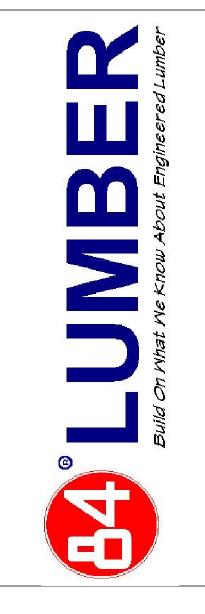
Squash Blocks Required
Under The Ends Of All LVL
And Point Loads For Load
Transfer - See Details

Second Floor Layout

ALL DIMENSIONS AND CONDITIONS
TO BE REVIEWED AND APPROVED
BY BOTH THE CONTRACTOR AND
THE ENGINEER OF RECORD
PRIOR TO INSTALLATION

scade





KB Homes
2338
Lot 5 Mason Pointe
84 Lumber EWP

BC FRAMER II

Plan Date: 07242018

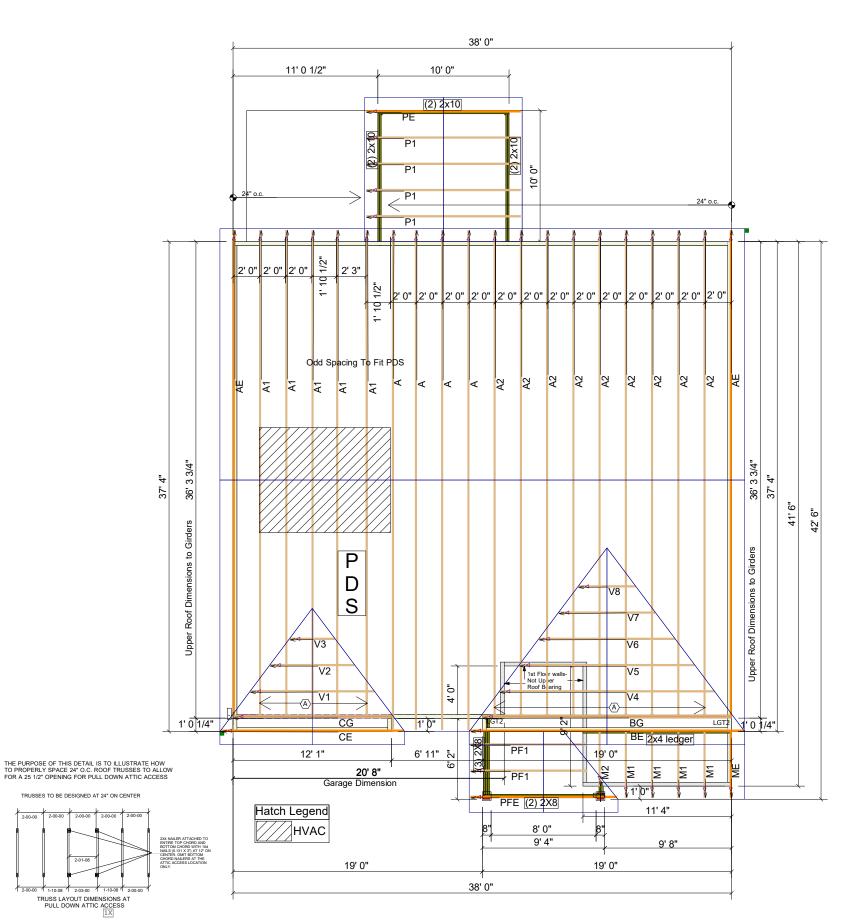
Plan Date: 07242018

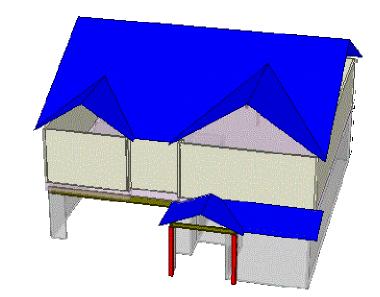
Struc Date: 08032018

By: KOG

Sheet: 2/4

THIS LAYOUT IS INTENDED FOR THE PURPOSE OF TRUSS LOCATION AND PLACEMENT ONLY. REFER TO THE BUILDING PLANS FOR ACTUAL BUILDING CONSTRUCTION.





Truss Connector List					
	Product Qty				
Α	Simpson	HUS26	14		
LGT2	Simpson	LGT2	2		
	Simpson	H2.5A As info Only	50		



DEDICATED TO QUALITY AND EXCELLENCE 200 EMMETT ROAD DUNN, NORTH CAROLINA 28334 PHONE: 910-892-8400 FAX: 910-892-8384

nte			ORDER: 22309	SHIP DATE: 2019
Lot 5 @ Mason Pointe	KB HOME	Plan 238.2338 "A"	P.O. NUMBER: PO #	REV: 10/7/19
	KB	Plan 238		PRINT DATE: 10/7/19
	CUSTOMER:	MODEL:	SCALE: NOT TO SCALE	DRAWN BY: MWM
TOP LIVE: 20 PSF				

TOP DEAD: 10 PSF

BOTM DEAD: 10 PSF

WIND SPD: 130 MPH

GENERAL NOTES:

DO NOT CUT OR MODIFY TRUSSES.

TRUSSES ARE SPACED 24" ON CENTER UNLESS NOTED OTHERWISE.

REFER TO THE INDIVIDUAL TRUSS DESIGN DRAWINGS FOR THE LOCATION OF LATERAL BRACING AND MULTI-PLY CONNECTION REQUIREMENTS.

PER ANSI TPI 1-2002 THE TRUSS ENGINEER IS RESPONSIBLE FOR TRUSS TO TRUSS CONNECTIONS AND TRUSS PLY TO PLY CONNECTIONS. THIS TRUSS PLACEMENT PLAN RECCOMENDS TRUSS TO BEARING CONNECTIONS AND TRUSS TO BEAM CONNECTIONS WHICH SHALL BE REVIEWED BY THE BUILDING DESIGNER. IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER TO RESOLVE ALL ROOF FORCES ADEQUATELY TO THE FOUNDATION.

STRUCTURAL PLANS FOR:



238.2338 - LH GARAGE

PLAN RI	ELEASE / REVISIONS		
REV DATE	ARCH PLAN VERSION	REVISION DESCRIPTION	DRFT
10/02/2019	2338-238-01350	INITIAL SETUP OF LAYOUT	CAR
10/02/2019	2338-238-01350	CREATED LOT-SPECIFIC STRUCTURAL LAYOUT FROM MASTER PLAN AND EWP LAYOUT	CAR

NOTES

- 1. ENGINEER'S SEAL APPLIES TO STRUCTURAL COMPONENTS ONLY. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT, INCLUDING ROOF GEOMETRY. JDS CONSULTING & DESIGN, PLLC ASSUMES NO LIABILITY FOR CHANGES MADE TO THESE PLANS BY OTHERS, OR FOR CONSTRUCTION METHODS, OR FOR ANY DEVIATION FROM THE PLANS. ENGINEER TO BE NOTIFIED PRIOR TO CONSTRUCTION IF ANY DISCREPANCIES ARE NOTED ON THE PLANS.
- 2. DIMENSIONS SHALL GOVERN OVER SCALE, AND CODE SHALL GOVERN OVER DIMENSIONS.
- 3. PLANS MUST HAVE SIGNED SEAL TO BE VALID AND ARE LIMITED TO THE FOLLOWING USES:
 - A. IF THESE PLANS ARE ISSUED AS A MASTER-PLAN SET, THE SET IS VALID FOR 18 MONTHS FROM THE DATE ON THE SEAL, UNLESS ANY CODE-REQUIRED UPDATES ARE PLACED IN EFFECT BY THE MUNICIPALITY.
 - B. IF THESE PLANS ARE NOT ISSUED AS A MASTER-PLAN SET, THE SET IS VALID FOR A CONDITIONAL, ONE-TIME USE FOR THE LOT OR ADDRESS SPECIFIED ON THE TITLE BLOCK.

CODE

ALL CONSTRUCTION, WORKMANSHIP, AND MATERIAL QUALITY AND SELECTION SHALL BE PER:

2018 NORTH CAROLINA STATE BUILDING CODE: RESIDENTIAL CODE

ENGINEER OF RECORD

JDS CONSULTING & DESIGN, PLLC
ENGINEERING, BUILDING DESIGN, & CONSTRUCTION
CONSULTING SERVICES
8600 'D' JERSEY COURT
RALEIGH, NC 27617
PROJECT REFERENCE: 19901951



KB HOME
NORTH CAROLINA DIVISION
4518 S. MIAMI BLVD.

SUITE 180
DURHAM, NC 27703
TEL: (919) 768-7988

FAX: (919) 472-0582



P-0961



INFO@JDSDESIGNONLINE.COM WWW.JDSDESIGNONLINE.COM

PROJECT NO.: 19901951 DATE: 10/2/2019

. . .

PLAN: **238.2338**

TITLE SHEET

T

NOTE: ALL CHAPTERS, SECTIONS, TABLES, AND FIGURES CITED WITHOUT A PUBLICATION TITLE ARE FROM THE APPLICABLE RESIDENTIAL CODE (SEE TITLE SHEET).

GENERAL

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION, FURTHERMORE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, AND SAFETY ON SITE, NOTIFY JDS CONSULTING & DESIGN, PLLC IMMEDIATELY IF DISCREPANCIES ON PLAN EXIST.
- BRACED-WALL DESIGN IS BASED ON SECTION R602.10 WALL BRACING, PRIMARY PRESCRIPTIVE METHOD TO BE CS-WSP, SEE WALL BRACING PLANS AND DETAILS FOR ADDITIONAL INFORMATION.
- ALL NON-PRESCRIPTIVE SOLUTIONS ARE BASED ON GUIDELINES **ESTABLISHED IN THE AMERICAN SOCIETY OF CIVIL ENGINEERS** PUBLICATION ASCE 7 AND THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION - SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC.
- SEISMIC DESIGN SHALL BE PER SECTION R301.2.2 SEISMIC PROVISIONS, INCLUDING ASSOCIATED TABLES AND FIGURES, BASED ON LOCAL SEISMIC DESIGN CATEGORY

DESIGN LOADS

ASSUMED SOIL BEARING-CAPACITY	2,000 PSF	
	LIVE LOAD	
ULTIMATE DESIGN WIND SPEED	115 MPH, EX	POSURE B
GROUND SNOW	15 PSF	
ROOF	20 PSF	
DESIDENTIAL CODE TABLE DOGLE	1 D/E 1 O 4 D (DOE)	
RESIDENTIAL CODE TABLE R301.5	LIVE LOAD (PSF)	
DWELLING UNITS	40	
SLEEPING ROOMS	30	
ATTICS WITH STORAGE	20	
ATTICS WITHOUT STORAGE	10	
STAIRS	40	
DECKS	40	
EXTERIOR BALCONIES	60	
PASSENGER VEHICLE GARAGES	50	
FIRE ESCAPES	40	
GUARDS AND HANDRAILS	200 (nounds	concentrat

COMPONENT AND CLADDING LOADS, INCLUDING THOSE FOR DOORS AND WINDOWS, SHALL BE DERIVED FROM TABLES R301.2(2) AND R301.2(3) FOR A BUILDING WITH A MEAN ROOF HEIGHT OF 35 FEET, LOCATED IN EXPOSURE B.

ABBR	EVIATIONS	KS	KING STUD COLUMN
	 _	LVL	LAMINATED VENEER
ABV	ABOVE		LUMBER
AFF	ABOVE FINISHED FLOOR	MAX	MAXIMUM
ALT	AI TERNATE	MECH	MECHANICAL
BRG	ABOVE FINISHED FLOOR ALTERNATE BEARING	MFTR	MANUFACTURER
	BASEMENT	MIN	MINIMUM
	CANTILEVER	NTS	NOT TO SCALE
CJ		OA	OVERALL
CLG	CEILING	oc	ON CENTER
	CONCRETE MASONRY UNIT	PT	PRESSURE TREATED
	CASED OPENING	R	RISER
	COLUMN	REF	REFRIGERATOR
CONC		RFG	ROOFING
CONT	CONTINUOUS	RO	ROUGH OPENING
D	CLOTHES DRYER	RS	ROOF SUPPORT
DBL	DOUBLE	SC	STUD COLUMN
DIAM DJ	DIAMETER	SF	SQUARE FOOT (FEET)
DJ	DOUBLE JOIST	SH	SHELF / SHELVES
DN	DOWN	SHTG	
DP	DEEP	SHW	
DR	DOUBLE RAFTER	SIM	SIMILAR
DSP	DOUBLE STUD POCKET	SJ	SINGLE JOIST
EA	EACH	SP	STUD POCKET
EE	EACH END		SPECIFIED
EQ	EQUAL	SQ	SQUARE
EX	EXTERIOR	Т	TREAD
	FORCED-AIR UNIT	TEMP	TEMPERED GLASS
FDN	FOUNDATION	THK	THICK(NESS)
FF	FINISHED FLOOR	TJ	TRIPLE JOIST
FLR	FLOOR(ING)	TOC	TOP OF CURB / CONCRETE
FP	FIREPLACE	TR	TRIPLE RAFTER
FTG	FOOTING	TYP	TYPICAL
НВ	HOSE BIBB	UNO	UNLESS NOTED OTHERWISE
HDR	HEADER	W	CLOTHES WASHER
HGR	HANGER	WH	WATER HEATER
JS	JACK STUD COLUMN	WWF	WELDED WIRE FABRIC
I		ΧJ	EXTRA JOIST

MATERIALS

1. INTERIOR / TRIMMED FRAMING LUMBER SHALL BE #2 SPRUCE PINE FIR (SPF) WITH THE FOLLOWING DESIGN PROPERTIES (#2 SOUTHERN YELLOW PINE MAY BE SUBSTITUTED):

Fb = 875 PSI Fv = 70 PSI E = 1.4E6 PSI

FRAMING LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND, CONCRETE, OR MASONRY SHALL BE PRESSURE TREATED #2 SOUTHERN YELLOW PINE (SYP) WITH THE FOLLOWING

Fb = 975 PSI Fv = 95 PSI E = 1.6E6 PSI

3. LVL STRUCTURAL MEMBERS TO BE LAMINATED VENEER LUMBER WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES:

Fb = 2600 PSI Fv = 285 PSI E = 1.9E6 PSI

PSL STRUCTURAL MEMBERS TO BE PARALLEL STRAND LUMBER WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES:

5. LSL STRUCTURAL MEMBERS TO BE LAMINATED STRAND LUMBER WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES:

Fb = 2250 PSI Fv = 400 PSI E = 1.55E6 PSI

- 6. STRUCTURAL STEEL WIDE-FLANGE BEAMS SHALL CONFORM TO ASTM A992. Fv = 50 KSI
- REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A615,
- 8. POURED CONCRETE COMPRESSIVE STRENGTH TO BE A MINIMUM 3,000 PSI AT 28 DAYS, MATERIALS USED TO PRODUCE CONCRETE SHALL COMPLY WITH THE APPLICABLE STANDARDS LISTED IN AMERICAN CONCRETE INSTITUTE STANDARD ACI 318 OR ASTM
- 9. CONCRETE SUBJECT TO MODERATE OR SEVERE WEATHERING PROBABILITY PER TABLE R301.2(1) SHALL BE AIR-ENTRAINED WHEN REQUIRED BY TABLE R402.2.
- 10. CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE PUBLICATION 530: BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES AND COMPANION COMMENTARIES AND THE MASONRY SOCIETY PUBLICATION TMS 402/602: BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY
- 11. MORTAR SHALL COMPLY WITH ASTM INTERNATIONAL STANDARD
- 12. INDICATED MODEL NUMBERS FOR ALL METAL HANGERS, STRAPS. FRAMING CONNECTORS, AND HOLD-DOWNS ARE SIMPSON STRONG-TIE BRAND, EQUIVALENT USP BRAND PRODUCTS ARE ACCEPTABLE.
- 13. REFER TO I-JOIST EQUIVALENCE CHART ON I-JOIST DETAIL SHEET FOR SUBSTITUTION OF MANUFACTURER SERIES.

FOUNDATION

- MINIMUM ALLOWABLE SOIL BEARING CAPACITY IS ASSUMED TO BE 2,000 PSF. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SOIL BEARING CAPACITY IF UNSATISFACTORY CONDITIONS
- 2. CONCRETE FOUNDATION WALLS TO BE SELECTED AND CONSTRUCTED PER SECTION R404 OR AMERICAN CONCRETE INSTITUTE STANDARD ACI 318.
- 3. MASONRY FOUNDATION WALLS TO BE SELECTED AND CONSTRUCTED PER SECTION R404 AND/OR AMERICAN CONCRETE INSTITUTE PUBLICATION 530: BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES AND COMPANION COMMENTARIES AND/OR THE MASONRY SOCIETY PUBLICATION TMS 402/602: BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES
- CONCRETE WALL HORIZONTAL REINFORCEMENT TO BE PER TABLE R404.1.2(1) OR AS NOTED OR DETAILED. CONCRETE WALL VERTICAL REINFORCEMENT TO BE PER TABLES R404.1.2(3 AND 4) OR AS NOTED OR DETAILED. ALL CONCRETE WALLS SHALL COMPLY WITH APPLICABLE PROVISIONS OF CHAPTER 6.
 - A. TABLES ASSUME THAT WALLS HAVE PERMANENT LATERAL SUPPORT AT THE TOP AND BOTTOM
 - FOUNDATION DRAINS ARE ASSUMED AT ALL WALLS PER
- PLAIN-MASONRY WALL DESIGN TO BE PER TABLE R404.1.1(1) OR AS NOTED OR DETAILED. MASONRY WALLS WITH VERTICAL REINFORCEMENT TO BE PER TABLES R404.1.1 (2 THROUGH 4) OR AS NOTED OR DETAILED. ALL MASONRY WALLS SHALL COMPLY WITH APPLICABLE PROVISIONS OF CHAPTER 6.
 - A. TABLES ASSUME THAT WALLS HAVE PERMANENT LATERAL SUPPORT AT THE TOP AND BOTTOM.
 - B. WALL REINFORCING SHALL BE PLACED ACCORDING TO FOOTNOTE (c) OF THE TABLES (REINFORCING IS NOT CENTERED IN WALL).
 - FOUNDATION DRAINS ARE ASSUMED AT ALL WALLS PER
- WOOD SILL PLATES TO BE ANCHORED TO THE FOUNDATION WITH 1/2" DIAMETER ANCHOR BOLTS WITH MINIMUM 7" EMBEDMENT, SPACED A MAXIMUM OF 6'-0" OC AND WITHIN 12" FROM THE ENDS OF EACH PLATE SECTION, INSTALL MINIMUM (2) ANCHOR BOLTS PER SECTION. SEE SECTION R403.1.6 FOR SPECIFIC CONDITIONS.
- THE UNSUPPORTED HEIGHT OF SOLID MASONRY PIERS SHALL NOT EXCEED TEN TIMES THEIR LEAST DIMENSION. UNFILLED, HOLLOW PIERS MAY BE USED IF THE UNSUPPORTED HEIGHT IS NOT MORE THAN FOUR TIMES THEIR LEAST DIMENSION
- CENTERS OF PIERS TO BEAR IN THE MIDDLE THIRD OF THE FOOTINGS, AND GIRDERS SHALL CENTER IN THE MIDDLE THIRD OF
- ALL FOOTINGS TO HAVE MINIMUM 2" PROJECTION ON EACH SIDE OF FOUNDATION WALLS (SEE DETAILS).
- 10. ALL REBAR NOTED IN CONCRETE TO HAVE AT LEAST 2" COVER FROM EDGE OF CONCRETE TO EDGE OF REBAR.
- 11. FRAMING TO BE FLUSH WITH FOUNDATION WALLS.
- 12. WITH CLASS 1 SOILS, VAPOR BARRIER AND CRUSHED STONE MAY BE OMITTED.

FRAMING

- ALL BEARING HEADERS TO BE (2) 2x6 SUPPORTED W/ MIN (1) JACK STUD AND (1) KING STUD EACH END, UNO.
- ALL NON-BEARING HEADERS TO BE (2) 2x4, UNO
- NON-BEARING INTERIOR WALLS NOT MORE THAN 10' NOMINAL HEIGHT AND NOT SHOWN AS BRACED WALLS MAY BE FRAMED WITH 2x4 STUDS @ 24" OC.
- SOLID BLOCKING TO BE PROVIDED AT ALL POINT LOADS THROUGH FLOOR LEVELS TO THE FOUNDATION OR TO OTHER STRUCTURAL COMPONENTS.
- ALL BEAMS SPECIFIED ARE MINIMUM SIZES ONLY LARGER MEMBERS MAY SUBSTITUTED AS NEEDED FOR EASE OF
- ALL EXTERIOR WALLS TO BE FULLY SHEATHED WITH 7/16" OSB.
- PORCH / PATIO COLUMNS TO BE 4x4 MINIMUM PRESSURE-TREATED LUMBER
 - A. ATTACH PORCH COLUMNS TO SLAB / FDN WALL USING ABA, ABU, ABW, OR CPT SIMPSON POST BASES TO FIT COLUMN SIZES NOTED ON PLAN -OR- ANY OTHER COLUMN CONNECTION WITH 500# UPLIFT CAPACITY.
 - ATTACH PORCH COLUMNS TO PORCH BEAMS USING AC OR BC SIMPSON POST CAPS TO FIT COLUMN SIZES NOTED ON PLAN -OR- ANY OTHER COLUMN CONNECTION WITH 500# LIPLIET CAPACITY
 - C. TRIM OUT COLUMN(S) AND BEAM(S) PER BUILDER AND DETAILS.
- ALL ENGINEERED WOOD PRODUCTS (LVL, PSL, LSL, ETC.) SHALL BE INSTALLED WITH CONNECTIONS PER MANUFACTURER **SPECIFICATIONS**
- ENGINEERED WOOD ELOOR SYSTEMS AND ROOF TRUSS SYSTEMS:
 - A. SHOP DRAWINGS FOR THE SYSTEMS SHALL BE PROVIDED TO THE ENGINEER OF RECORD FOR REVIEW AND COORDINATION BEFORE CONSTRUCTION.
 - B. TRUSS PROFILES SHALL BE SEALED BY THE TRUSS MANUFACTURER.
 - INSTALLATION OF THE SYSTEMS SHALL BE PER MANUFACTURER'S INSTRUCTIONS.
 - TRUSS LAYOUT AND PLACEMENT BY MANUFACTURER TO COINCIDE WITH THE SUPPORT LOCATIONS SHOWN IN THESE
- 10. ALL BEAMS TO BE CONTINUOUSLY SUPPORTED LATERALLY AND SHALL BEAR FULL WIDTH ON THE SUPPORTING WALLS OR COLUMNS INDICATED. WITH A MINIMUM OF THREE STUDS. UNO.
- ALL STEEL BEAMS TO BE SUPPORTED AT EACH END WITH A MIN BEARING LENGTH OF 3 1/2" AND FULL FLANGE WIDTH. BEAMS MUST BE ATTACHED AT EACH END WITH A MINIMUM OF FOUR 16d NAILS OR TWO 1/2" x 4" LAG SCREWS. UNO.
- 12. STEEL FLITCH BEAMS TO BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTM 307) WITH WASHERS PLACED UNDER THE THREADED END OF THE BOLT, BOLTS TO BE SPACED AT 24" OC (MAX) AND STAGGERED TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH TWO BOLTS TO BE LOCATED AT 6" FROM
- WHEN A 4-PLY LVL BEAM IS USED, ATTACH WITH (1) 1/2" DIAMETER BOLT, 12" OC. STAGGERED TOP AND BOTTOM, 1 1/2" MIN FROM ENDS. ALTERNATE FOUIVALENT ATTACHMENT METHOD MAY BE USED, SUCH AS SDS, SDW, OR TRUSSLOK SCREWS (SEE MANUFACTURER SPECIFICATIONS).
- 14. FOR STUD COLUMNS OF 4-OR-MORE STUDS, INSTALL SIMPSON STRONG-TIE CS16 STRAPS ACROSS STUDS @ 30" OC, 6" MAX FROM PLATES, ON INSIDE FACE OF COLUMN (EXTERIOR WALL), ON BOTH FACES OF COLUMN (INTERIOR WALL).
- 15. FLOOR JOISTS ADJACENT AND PARALLEL TO THE EXTERIOR FOUNDATION WALL SHALL BE PROVIDED WITH FULL-DEPTH SOLID BLOCKING, NOT LESS THAN TWO (2) INCHES NOMINAL IN THICKNESS, PLACED PERPENDICULAR TO THE JOIST AT SPACING NOT MORE THAN FOUR (4) FEET. THE BLOCKING SHALL BE NAILED TO THE FLOOR SHEATHING, THE SILL PLATE, THE JOIST, AND THE EXTERIOR RIM JOIST / BOARD.
- 16. BRACED WALL PANELS SHALL BE FASTENED TO MEET THE **UPLIFT-RESISTANCE REQUIREMENTS IN CHAPTERS 6 AND 8 OF** THE APPLICABLE CODE (SEE TITLE SHEET). REQUIREMENTS OF THE STRUCTURAL DRAWINGS THAT EXCEED THE CODE MINIMUM SHALL BE MET.



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GENERAL NOTES

FASTENER SCHEDULE			
CONNECTION	3" x 0.131" NAIL	3" x 0.120" NAIL	
JOIST TO SILL PLATE	(4) TOE NAILS	(4) TOE NAILS	
SOLE PLATE TO JOIST / BLOCKING	NAILS @ 8" OC (typical) (4) PER 16" SPACE (at braced panels)	NAILS @ 8" OC (typical) (4) PER 16" SPACE (at braced panels)	
STUD TO SOLE PLATE	(4) TOE NAILS	(4) TOE NAILS	
TOP OR SOLE PLATE TO STUD	(3) FACE NAILS	(4) FACE NAILS	
RIM JOIST OR BAND JOIST TO TOP PLATE OR SILL PLATE	TOE NAILS @ 6" OC	TOE NAILS @ 4" OC	
BLOCKING BETWEEN JOISTS TO TOP PLATE OR SILL PLATE	(4) TOE NAILS	(4) TOE NAILS	
DOUBLE STUD	NAILS @ 8" OC	NAILS @ 8" OC	
DOUBLE TOP PLATES	NAILS @ 12" OC	NAILS @ 12" OC	
DOUBLE TOP PLATES LAP (24" MIN LAP LENGTH)	(12) NAILS IN LAPPED AREA, EA SIDE OF JOINT	(12) NAILS IN LAPPED AREA, EA SIDE OF JOINT	
TOP PLATE LAP AT CORNERS AND INTERSECTING WALLS	(3) FACE NAILS	(3) FACE NAILS	
OPEN-WEB TRUSS BOTTOM CHORD TO TOP PLATES OR SILL PLATE (PARALLEL TO WALL)	NAILS @ 6" OC	NAILS @ 4" OC	
BOTTOM CHORD OF TRUSS TO TOP PLATES OR SILL PLATE (PERPENDICULAR TO WALL)	(3) TOE NAILS	(3) TOE NAILS	

SEE <u>TABLE R602.3(1)</u> FOR ADDITIONAL STRUCTURAL-MEMBER FASTENING REQUIREMENTS.

DETAILS AND NOTES ON DRAWINGS GOVERN.

BALLOON WALL FRAMING SCHEDULE (USE THESE STANDARDS UNLESS NOTED OTHERWISE ON THE FRAMING PLAN SHEETS)

FRAMING MEMBER SIZE	MAX HEIGHT (PLATE TO PLATE) 115 MPH ULTIMATE DESIGN WIND SPEED
04 @ 40!! 00	401.011
2x4 @ 16" OC	10'-0"
2x4 @ 12" OC	12'-0"
2x6 @ 16" OC	15'-0"
2x6 @ 12" OC	17'-9"
2x8 @ 16" OC	19'-0"
2x8 @ 12" OC	22'-0"
(2) 2x4 @ 16" OC	14'-6"
(2) 2x4 @ 12" OC	17'-0"
(2) 2x6 @ 16" OC	21'-6"
· / _	
(2) 2x6 @ 12" OC	25'-0"
(2) 2x8 @ 16" OC	27'-0"
(2) 2x8 @ 12" OC	31'-0"

- a. ALL HEIGHTS ARE MEASURED SUBFLOOR TO TOP OF WALL PLATE.
- b. WHEN SPLIT-FRAMED WALLS ARE USED FOR HEIGHTS OVER 12', THE CONTRACTOR SHALL ADD 6' MINIMUM OF CS16 COIL STRAPPING (FULLY NAILED), CENTERED OVER THE WALL BREAK.
- c. FINGER-JOINTED MEMBERS MAY BE USED FOR CONTINUOUS HEIGHTS WHERE TRADITIONALLY MILLED LUMBER LENGTHS ARE LIMITED
- d. FOR GREATER WIND SPEED, SEE ENGINEERED SOLUTION FOR CONDITION IN DRAWINGS.

ROOF SYSTEMS

TRUSSED ROOF - STRUCTURAL NOTES

 PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.



DENOTES OVER-FRAMED AREA

- 3. MINIMUM 7/16" OSB ROOF SHEATHING
- 4. TRUSS LAYOUT AND PLACEMENT BY MANUFACTURER TO COINCIDE WITH THE SUPPORT LOCATIONS SHOWN. TRUSS PROFILES SHALL BE SEALED BY THE TRUSS MANUFACTURER. TRUSS PLANS TO BE COORDINATED WITH THE SEALED STRUCTURAL DRAWINGS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 5. MANUFACTURER TO PROVIDE REQUIRED UPLIFT CONNECTION.
- 6. PROVIDE H2.5A (MINIMUM) OR EQUIVALENT AT EACH TRUSS-TO-TOP PLATE CONNECTION AT OVER-FRAMED AREAS, UNLESS NOTED OTHERWISE.
- 7. UPLIFT CONNECTION TO BE CARRIED THROUGH TO FLOOR SYSTEM

STICK-FRAMED ROOF - STRUCTURAL NOTES

- PROVIDE 2x4 COLLAR TIES AT 48" OC AT UPPER THIRD OF RAFTERS, UNLESS NOTED OTHERWISE.
- 2. FUR RIDGES FOR FULL RAFTER CONTACT.
- PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.



DENOTES OVER-FRAMED AREA

- 5. MINIMUM 7/16" OSB ROOF SHEATHING
- PROVIDE 2x4 RAFTER TIES AT 16" OC AT 45° BETWEEN RAFTERS AND CEILING JOISTS. USE (4) 16d NAILS AT EACH CONNECTION. RAFTER TIES MAY BE SPACED AT 48" OC AT LOCATIONS WHERE NO KNEE WALLS ARE INSTALLED.
- PROVIDE H2.5A (MINIMUM) OR EQUIVALENT AT EACH RAFTER-TO-TOP PLATE CONNECTION AT OVER-FRAMED AREAS, UNLESS NOTED OTHERWISE.
- 8. UPLIFT CONNECTION TO BE CARRIED THROUGH TO FLOOR SYSTEM.

BRICK VENEER LINTEL SCHEDULE					
SPAN	STEEL ANGLE SIZE	END BEARING LENGTH			
UP TO 42"	L3-1/2"x3-1/2"x1/4"	8" (MIN. @ EACH END)			
UP TO 72"	TO 72" L6"x4"x5/16"* (LLV) 8" (MIN. @ EAC				
OVER 72" L6"x4"x5/16"* (LLV) ATTACH LINTEL w/ 1/2" THRU BOLT @ 12" OC, 3" FROM EACH END					

* FOR QUEEN BRICK: LINTELS AT THIS CONDITION MAY BE 5"x3-1/2"x5/16"

NOTE: BRICK LINTELS AT SLOPED AREAS TO BE 4"x3-1/2"x1/4" STEEL ANGLE WITH 16D NAILS IN 3/16" HOLES IN 4" ANGLE LEG AT 12" OC TO TRIPLE RAFTER. WHEN THE SLOPE EXCEEDS 4:12 A MINIMUM OF 3"x3"x1/4" PLATES SHALL BE WELDED AT 24" OC ALONG THE STEEL ANGLE.



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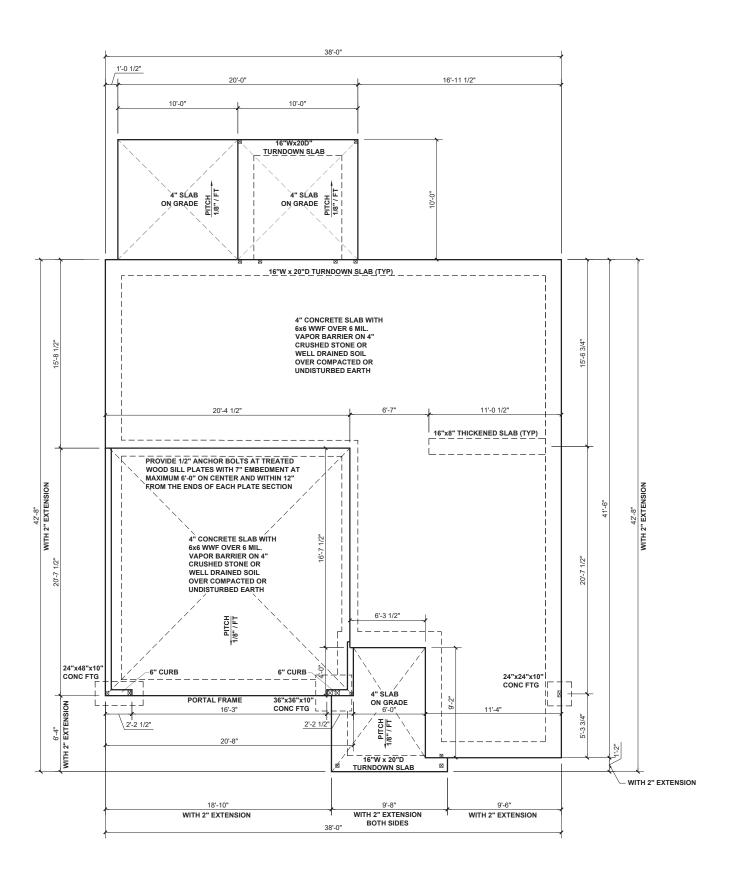
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GENERAL NOTES



BEAM & POINT LOAD LEGEN

INTERIOR LOAD BEARING WALL

---- ROOF RAFTER / TRUSS SUPPORT

DOUBLE RAFTER / DOUBLE JOIST
STRUCTURAL BEAM / GIRDER

----- WINDOW / DOOR HEADE

■ POINT LOAD FROM ABOVE BEARING ON BEAM / GIRDER

(1) #5 REBAR @ CENTER OFF ALL PERIMETER AND INTERNAL LOAD BEARING FOOTINGS. (2" C.C. MIN)



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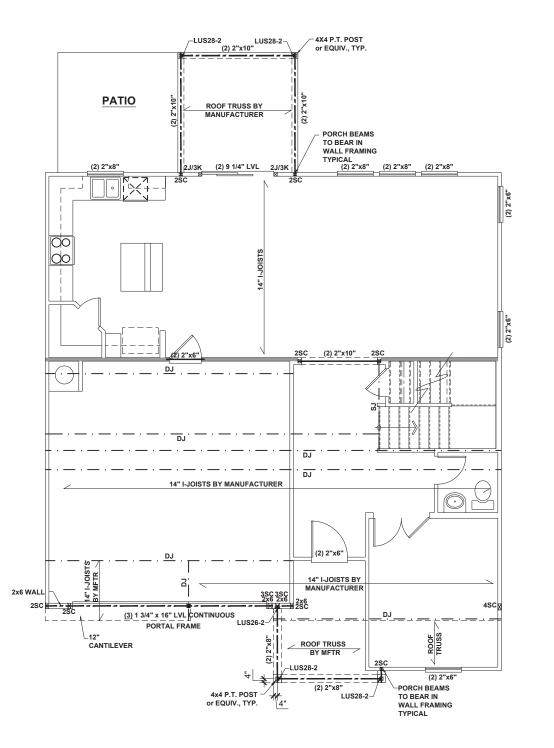
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SLAB FOUNDATION PLAN

S.10A

SLAB FOUNDATION PLAN - 'A'



BEAM & POINT LOAD LEGEN

INTERIOR LOAD BEARING WALL

· —· · DOUBLE RAFTER / DOUBLE JOIST

DOUBLE RAFTER / DOUBLE JOIS
STRUCTURAL BEAM / GIRDER

WINDOW / DOOR HEADER

POINT LOAD TRANSFER

■ POINT LOAD FROM ABOVE BEARING ON BEAM / GIRDER

STRUCTURAL FRAMING NOTES - (SEE GENERAL NOTES SHEET FOR ADDITIONAL REQUIREMENTS.)

ALL FRAMING TO BE #2 SPF MINIMUM.

2. ALL BEARING HEADERS TO BE (2) 2x6 SUPPORTED W/ MIN (1) JACK AND (1) KING EACH END, UNO.

. EXTERIOR WALL OPENINGS OVER 3' TO HAVE MULTIPLE KING STUDS AS NOTED ON PLAN.

 ALL NON-BEARING HEADERS TO BE (2) 2x4 (1) J (1) K, UNO.

PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.

ALL HANGERS AND CONNECTORS SPECIFIED ARE TO BE SIMPSON STRONG-TIE OR EQUIVALENT.

ALL BEAMS SPECIFIED ARE MINIMUM SIZES ONLY.
LARGER MEMBERS MAY SUBSTITUTED AS
NEEDED FOR EASE OF CONSTRUCTION. MINIMUM
BEAM SUPPORT IS (1) 2x4 STUD.

ALL EXTERIOR WALLS TO BE FULLY SHEATHED
WITH 7/16" OSB

. FRONT PORCH COLUMNS TO BE MIN 4x4 PT ATTACHED AT TOP AND BOTTOM USING SIMPSON (OR EQUIV) COLUMN BASE OR SST A24 BRACKETS. TRIM OUT PER BUILDER.

 PORCH COLUMNS TO BE MIN 4x4 PT ATTACHED AT BOTTOM USING SIMPSON (OR EQUIV) ABA44 AND AT TOP USING CS 16 STRAPPING (12" MIN) TO PORCH HEADER / BAND.

WHEN A 4-PLY LVL IS USED, ATTACH WITH (1) 1/2" Ø BOLT 12" OC STAGGERED, TOP AND BOTTOM, 1-1/2" MIN FROM ENDS. ALTERNATE ATTACHMENT EQUIVALENT METHOD MAY BE USED, SUCH AS SDW OR TRUSSLOK SCREWS (SEE MANUFACTURER'S SPECIFICATIONS).

2. FOR STUD COLUMNS OF 4 OR MORE, INSTALL SST CS16 STRAPS @ 30" OC, 6" MAX FROM PLATES, ON INSIDE FACE OF COLUMN (EXTERIOR WALL), ON BOTH FACES OF COLUMN (INTERIOR WALL).

I-JOIST SPACING NOT TO EXCEED 19.2" OC IN LOCATIONS WITH TILE FINISH FLOOR

ALL FLUSH BEAMS TO BE DIRECTLY SUPPORTED BY
(2) 2X_STUDS UNLESS OTHERWISE NOTED. STUD
COLUMNS TO BE SUPPORTED BY SOLID BLOCKING TO
FOUNDATION OR TO BEARING COMPONENT BELOW.

FLOOR FRAMING TO BE 14" DEEP TJI 210 SERIES OR EQUAL, 19.2" OC MAXIMUM SPACING, U.N.O.

**REFER TO I-JOIST EQUIVALENCE CHART ON I-JOIST DETAIL SHEET FOR SUBSTITUTION OF MANUFACTURER SERIES

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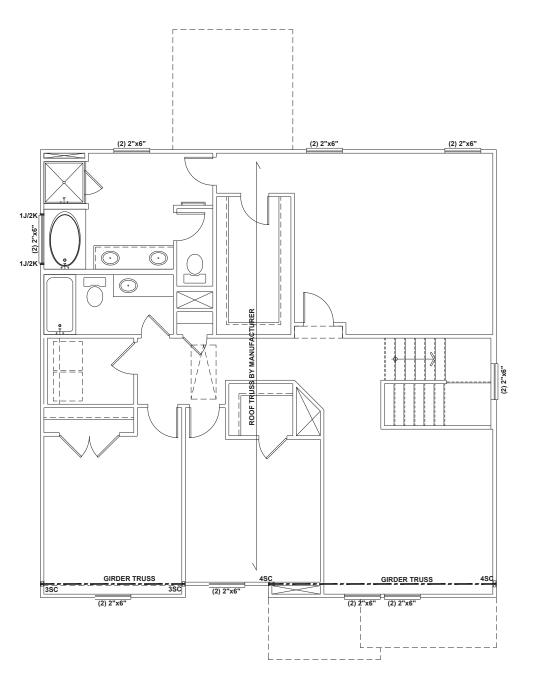
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FIRST FLOOR CEILING FRAMING PLAN

S1.0A

FIRST FLOOR CEILING FRAMING PLAN - 'A'



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

BEAM & POINT LOAD LEGE

INTERIOR LOAD BEARING WALL
--- ROOF RAFTER / TRUSS SUPPOR

STRUCTURAL BEAM / GIRDE
WINDOW / DOOR HEADER

POINT LOAD FROM ABOVE BEARING ON BEAM / GIRDER

STRUCTURAL FRAMING NOTES - (SEE GENERAL NOTES SHEET FOR ADDITIONAL REQUIREMENTS.)

- ALL FRAMING TO BE #2 SPF MINIMUM.
- ALL BEARING HEADERS TO BE (2) 2x6 SUPPORTED w/ MIN (1) JACK AND (1) KING EACH END, UNO.
- EXTERIOR WALL OPENINGS OVER 3' TO HAVE MULTIPLE KING STUDS AS NOTED ON PLAN.
- 3. ALL NON-BEARING HEADERS TO BE (2) 2x4 (1) J (1) K, UNO.
- PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.
- . ALL HANGERS AND CONNECTORS SPECIFIED ARE TO BE SIMPSON STRONG-TIE OR EQUIVALENT.
- 7. ALL BEAMS SPECIFIED ARE MINIMUM SIZES ONLY. LARGER MEMBERS MAY SUBSTITUTED AS NEEDED FOR EASE OF CONSTRUCTION. MINIMUM BEAM SUPPORT IS (1) 2x4 STUD.
- ALL EXTERIOR WALLS TO BE FULLY SHEATHED
 WITH 7/16" OSB
- D. FRONT PORCH COLUMNS TO BE MIN 4x4 PT ATTACHED AT TOP AND BOTTOM USING SIMPSON (OR EQUIV) COLUMN BASE OR SST A24 BRACKETS. TRIM OUT PER BUILDER.
- PORCH COLUMNS TO BE MIN 4x4 PT ATTACHED AT BOTTOM USING SIMPSON (OR EQUIV) ABA44 AND AT TOP USING CS 16 STRAPPING (12" MIN) TO PORCH HEADER / BAND.
- I. WHEN A 4-PLY LVL IS USED, ATTACH WITH (1) 1/2" Ø BOLT 12" OC STAGGERED, TOP AND BOTTOM, 1-1/2" MIN FROM ENDS. ALTERNATE ATTACHMENT EQUIVALENT METHOD MAY BE USED, SUCH AS SDW OR TRUSSLOK SCREWS (SEE MANUFACTURER'S SPECIFICATIONS).
- 2. FOR STUD COLUMNS OF 4 OR MORE, INSTALL SST CS16 STRAPS @ 30" OC, 6" MAX FROM PLATES, ON INSIDE FACE OF COLUMN (EXTERIOR WALL), ON BOTH FACES OF COLUMN (INTERIOR WALL).

ALL FLUSH BEAMS TO BE DIRECTLY SUPPORTED BY (2) 2X_STUDS UNLESS OTHERWISE NOTED. STUD COLUMNS TO BE SUPPORTED BY SOLID BLOCKING TO FOUNDATION OR TO BEARING COMPONENT BELOW.



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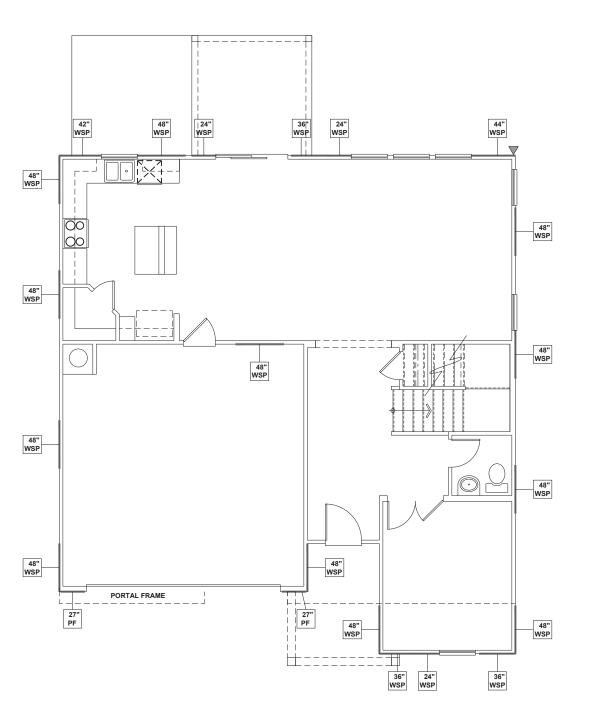
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SECOND FLOOR CEILING FRAMING PLAN

S2.0A

SECOND FLOOR CEILING FRAMING PLAN - 'A'



WALL BRACING REQUIREMENTS

- MINIMUM PANEL WIDTH IS 24"
 FIGURES BASED ON THE CONTINUOUS SHEATHING
 METHOD USING THE RECTANGLE CIRCUMSCRIBED
 AROUND THE FLOOR PLAN OR PORTION OF THE
 FLOOR PLAN. IF NO RECTANGLE IS NOTED, THE STRUCTURE HAS BEEN FIGURED ALL WITHIN ONE RECTANGLE.
 - PANELS MAY SHIFT UP TO 36" EITHER DIRECTION
- FOR EASE OF CONSTRUCTION (NAILING & BLOCK REQUIREMENTS STILL APPLY).
- FOR ADDITIONAL WALL BRACING INFORMATION, REFER TO WALL BRACING DETAIL SHEET(S). SCHEMATIC BELOW INDICATES HOW SIDES OF
- RECTANGLE ARE TO BE INTERPRETED IN BRACING CHART WHEN APPLIED TO STRUCTURE:



CS16 STRAP FROM STUD, CROSS HEADER, TO WALL TOP PLATE, 36" LONG MINIMUM

SIMPSON MSTA15 HOLD DOWN CAPACITY OF 970 POUNDS PER ANCHOR WITH (12) 10d NAILS. STRAF TO BE LOCATED AT EDGE OF BRACED WALL PANEL (CS16 STRAPPING MAY BE SUBSTITUTED W/ SIMILAR LENGTH AND NAILING PATTERN.) USE HTT4 FOR ATTACHMENT TO CONCRETE.

SCALED LENGTH	- 1
OF WALL PANEL AT LOCATION —	
	_

WALL BRACING: RECTANGLE 1

WILE BIGGOING: REGINATORE !						
SIDE	REQUIRED	PROVIDED				
0.52	LENGTH	LENGTH				
FRONT	17.0 FT.	20.5 FT.				

LEFT	17.0 FT.	20.0 FT.				
REAR	17.0 FT.	18.16 FT.				
REAR	17.0 F1.	18.16 FT.				
RIGHT	17.0 FT.	20.0 FT.				
Ittom	17.011.	20.011.				



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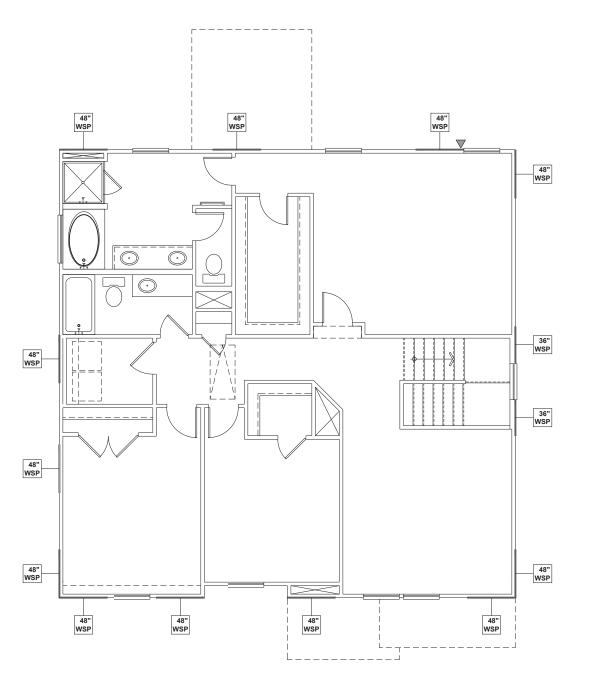
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FIRST FLOOR WALL BRACING PLAN

FIRST FLOOR WALL BRACING PLAN - 'A'



WALL BRACING REQUIREMENTS

- MINIMUM PANEL WIDTH IS 24"
 FIGURES BASED ON THE CONTINUOUS SHEATHING
 METHOD USING THE RECTANGLE CIRCUMSCRIBED
 AROUND THE FLOOR PLAN OR PORTION OF THE
 FLOOR PLAN. IF NO RECTANGLE IS NOTED, THE STRUCTURE HAS BEEN FIGURED ALL WITHIN ONE RECTANGLE.

 - PANELS MAY SHIFT UP TO 36" EITHER DIRECTION
- FOR EASE OF CONSTRUCTION (NAILING & BLOCK REQUIREMENTS STILL APPLY).
- FOR ADDITIONAL WALL BRACING INFORMATION, REFER TO WALL BRACING DETAIL SHEET(S). SCHEMATIC BELOW INDICATES HOW SIDES OF RECTANGLE ARE TO BE INTERPRETED IN BRACING CHART WHEN APPLIED TO STRUCTURE:



CS16 STRAP FROM STUD, CROSS HEADER, TO WALL TOP PLATE, 36" LONG MINIMUM

SIMPSON MSTA15 HOLD DOWN CAPACITY OF 970 POUNDS PER ANCHOR WITH (12) 10d NAILS. STRAF TO BE LOCATED AT EDGE OF BRACED WALL PANEL (CS16 STRAPPING MAY BE SUBSTITUTED W/ SIMILAR LENGTH AND NAILING PATTERN.) USE HTT4 FOR ATTACHMENT TO CONCRETE.

ALED LENGTH WALL PANEL LOCATION	24" NUMERICAL LENGTH OF PANEL
	PANEL TYPE

WALL BRACING: RECTANGLE 1						
SIDE	PROVIDED LENGTH					
FRONT	9.0 FT.	16.0 FT.				
LEFT	9.0 FT.	12.0 FT.				
REAR	9.0 FT.	12.0 FT.				
RIGHT	9.0 FT.	14.0 FT.				



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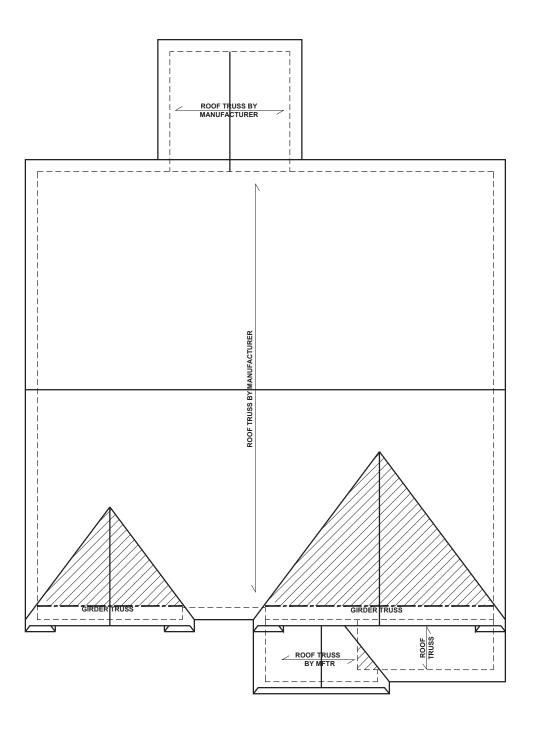


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SECOND FLOOR WALL BRACING PLAN

S5.0A

SECOND FLOOR WALL BRACING PLAN - 'A'



BEAM & POINT LOAD LEGEND

INTERIOR LOAD BEARING WALL

ROOF RAFTER / TRUSS SUPPORT

ROOF RAFTER / TRUSS SU

- WINDOW / DOOR HEADER

■ POINT LOAD FROM ABOVE BEARING ON BEAM / GIRDER

TRUSSED ROOF - STRUCTURAL NOTES

 PROVIDE CONTINUOUS BLOCKING THROUGH STRUCTURE FOR ALL POINT LOADS.

DENOTES OVER-FRAMED AREA

3. MINIMUM 7/16" OSB ROOF SHEATHING

- 4. TRUSS LAYOUT AND PLACEMENT BY MANUFACTURER TO COINCIDE WITH THE SUPPORT LOCATIONS SHOWN. TRUSS PROFILES SHALL BE SEALED BY THE TRUSS MANUFACTURER. TRUSS PLANS TO BE COORDINATED WITH THE SEALED STRUCTURAL DRAWINGS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 5. MANUFACTURER TO PROVIDE REQUIRED UPLIFT CONNECTION.
- 6. PROVIDE H2.5A (MINIMUM) OR EQUIVALENT AT EACH TRUSS-TO-TOP PLATE CONNECTION AT OVER-FRAMED AREAS, UNLESS NOTED OTHERWISE.
- 7. UPLIFT CONNECTION TO BE CARRIED THROUGH TO FLOOR SYSTEM.

TRUSS UPLIFT CONNECTORS: EXPOSURE B, 115 MPH, ANY PITCH, 24" O.C. MAX ROOF TRUSS SPACING

TRUSSES SHALL BE ATTACHED TO SUPPORT WALL FOR UPLIFT RESISTANCE. CONTINUOUS OSB WALL SHEATHING BELOW PROVIDES CONTINUOUS UPLIFT RESISTANCE TO FOUNDATION. ALL TRUSSES SUPPORTED BY INTERMEDIATE SUPPORT WALLS, KNEEWALLS, OR BEAMS SHALL BE ATTACHED TO SUPPORTING MEMBER PER SCHEDULE:

ROOF SPAN IS MEASURED HORIZONTALLY BETWEEN FURTHEST SUPPORT POINTS.

OOF PLAN

CONNECTOR NAILING PER TABLE 602.3(1)

OVER 28'

(1) SIMPSON H2.5A HURRICANE CLIP TO DBL TOP PLATE OR

OR (1) SIMPSON H3 CLIP TO SINGLE 2x4 PLATE



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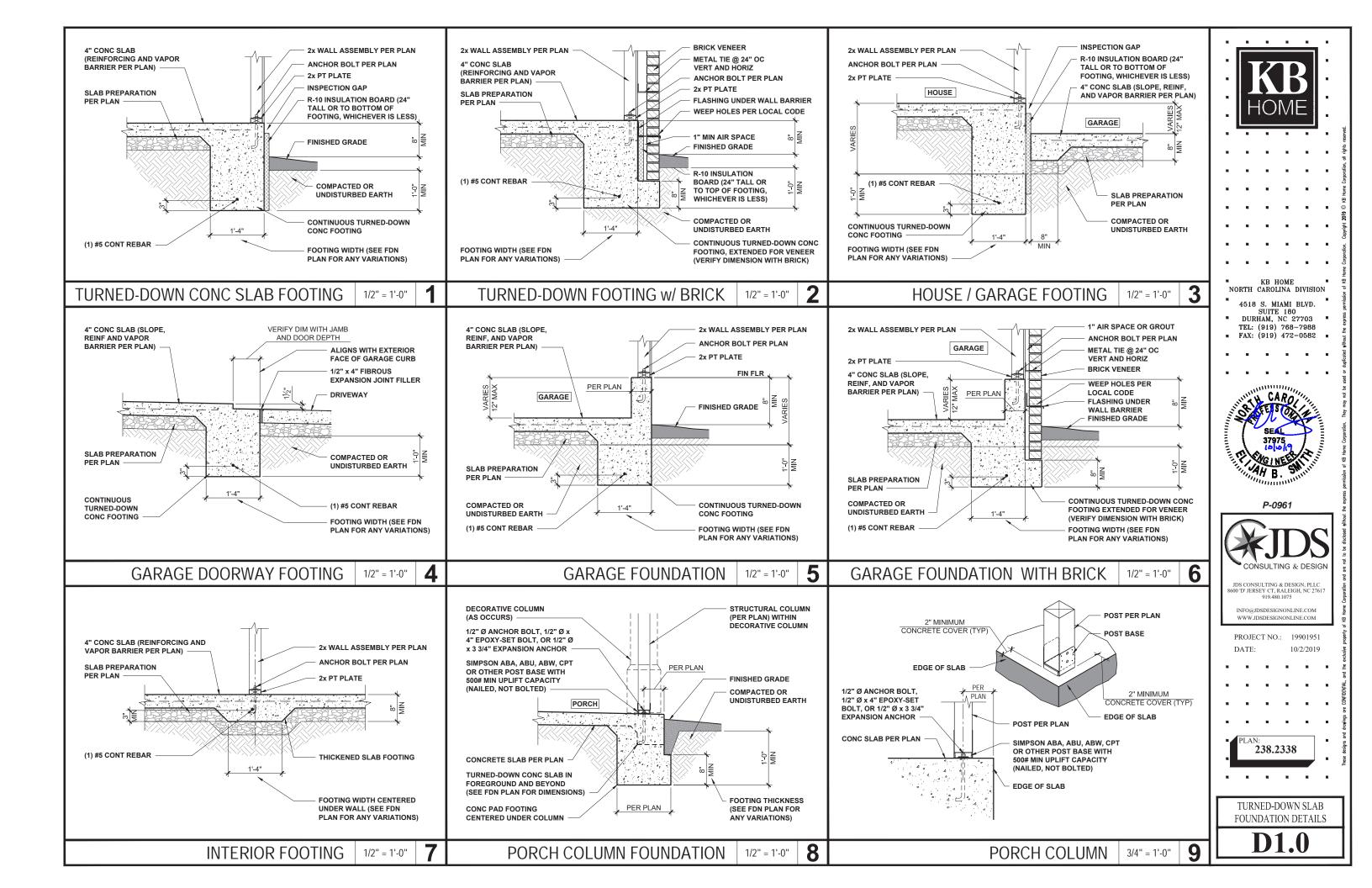
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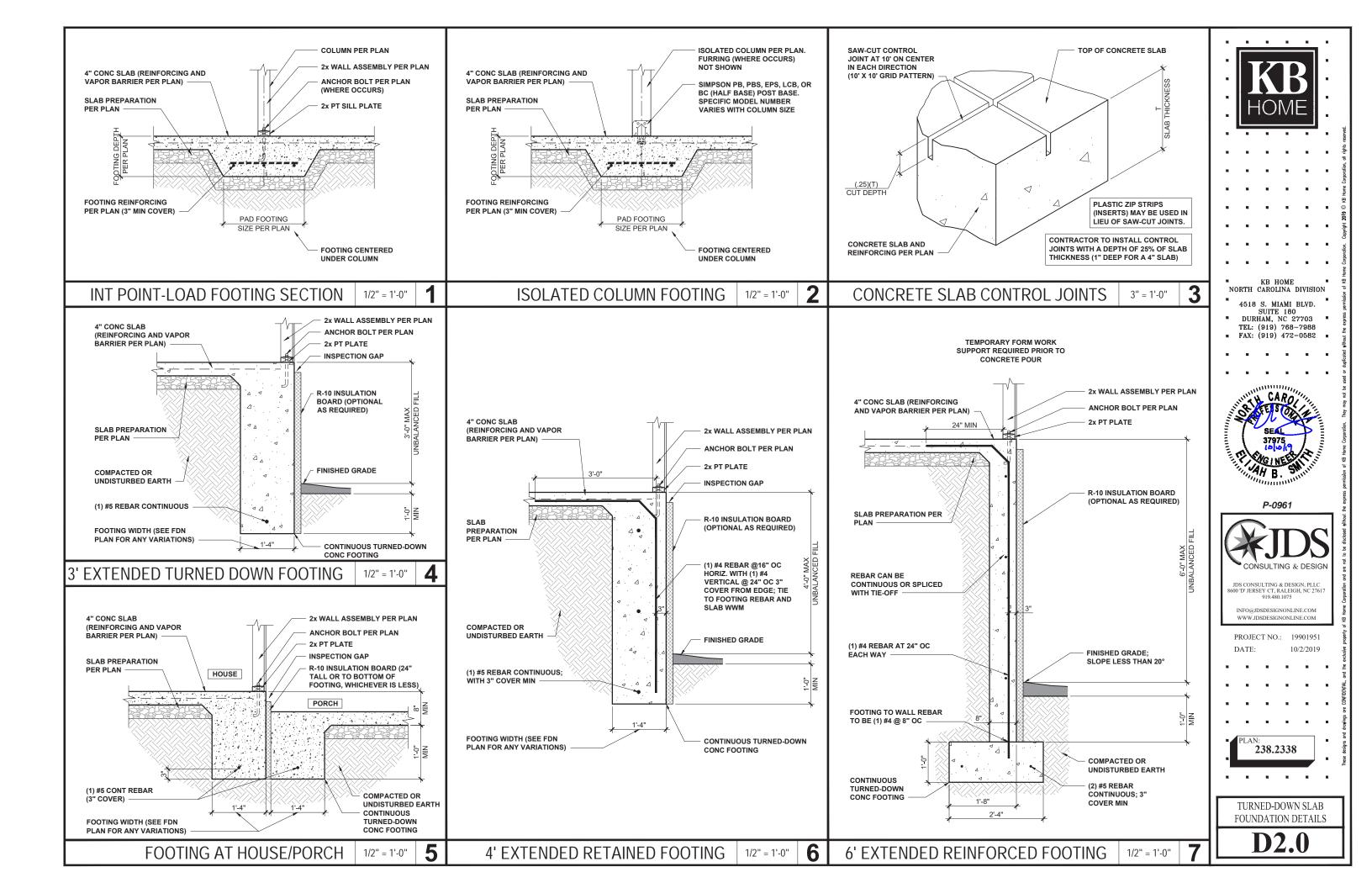
ROOF FRAMING PLAN

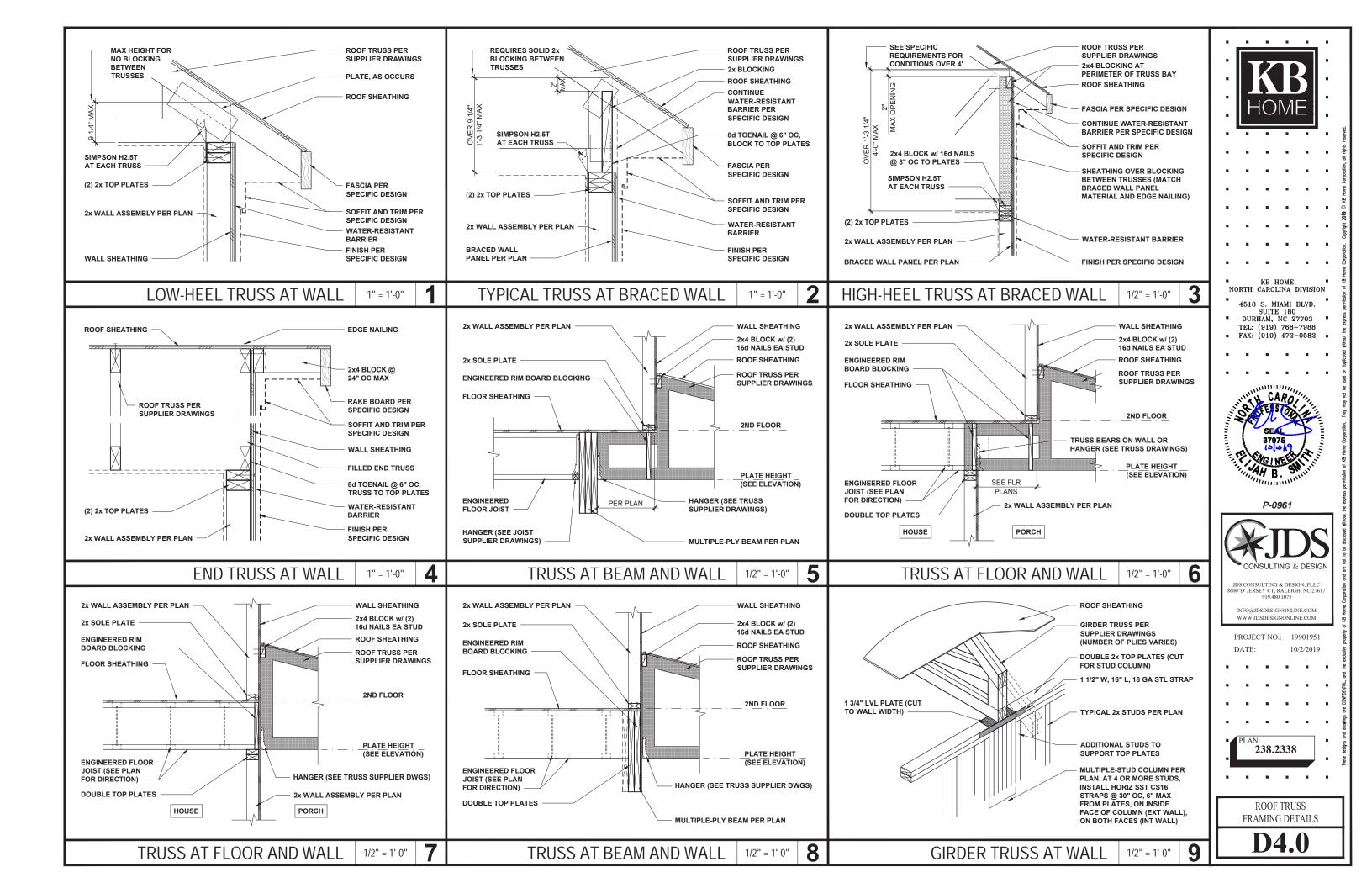
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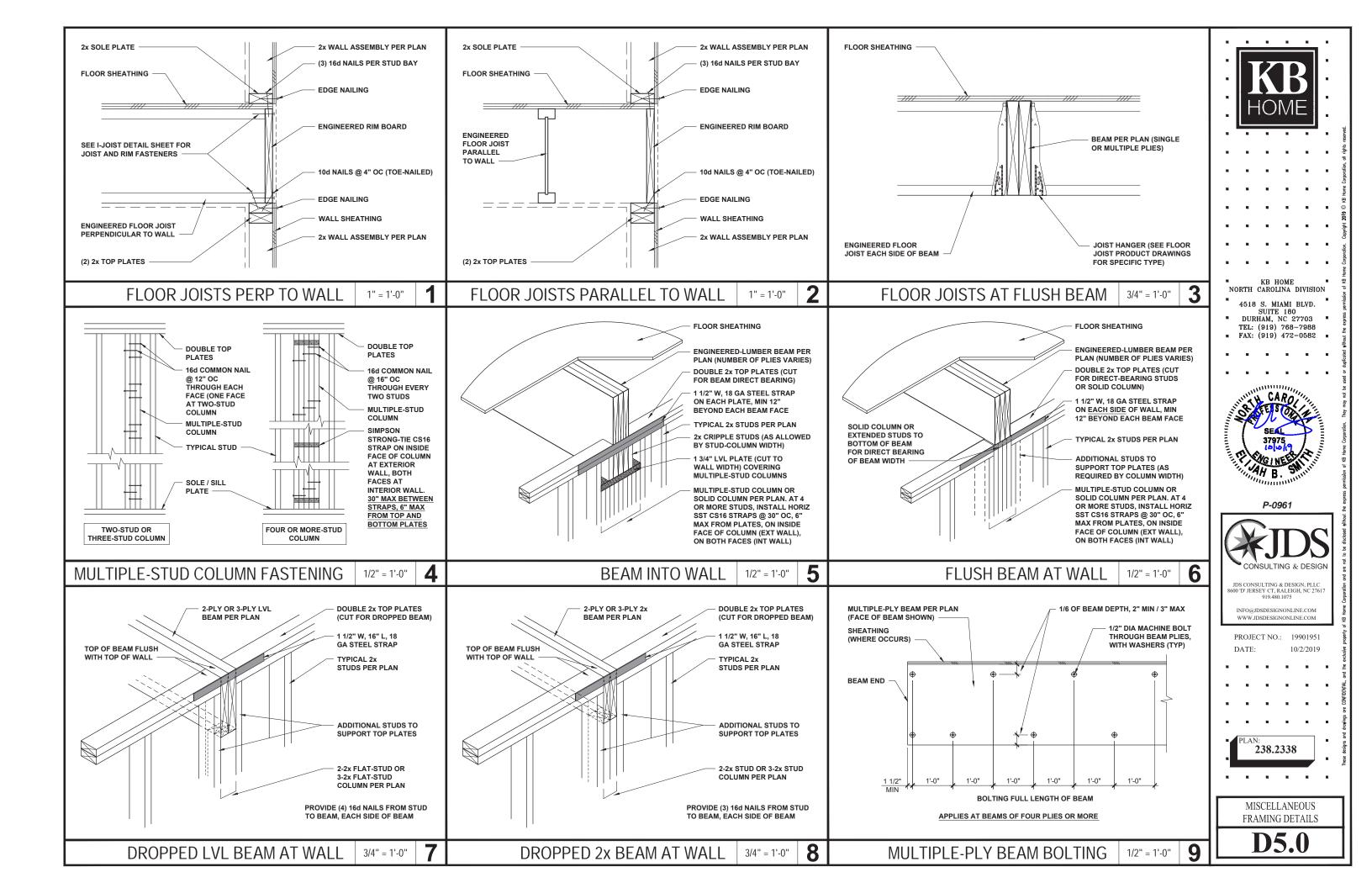
S7.0A

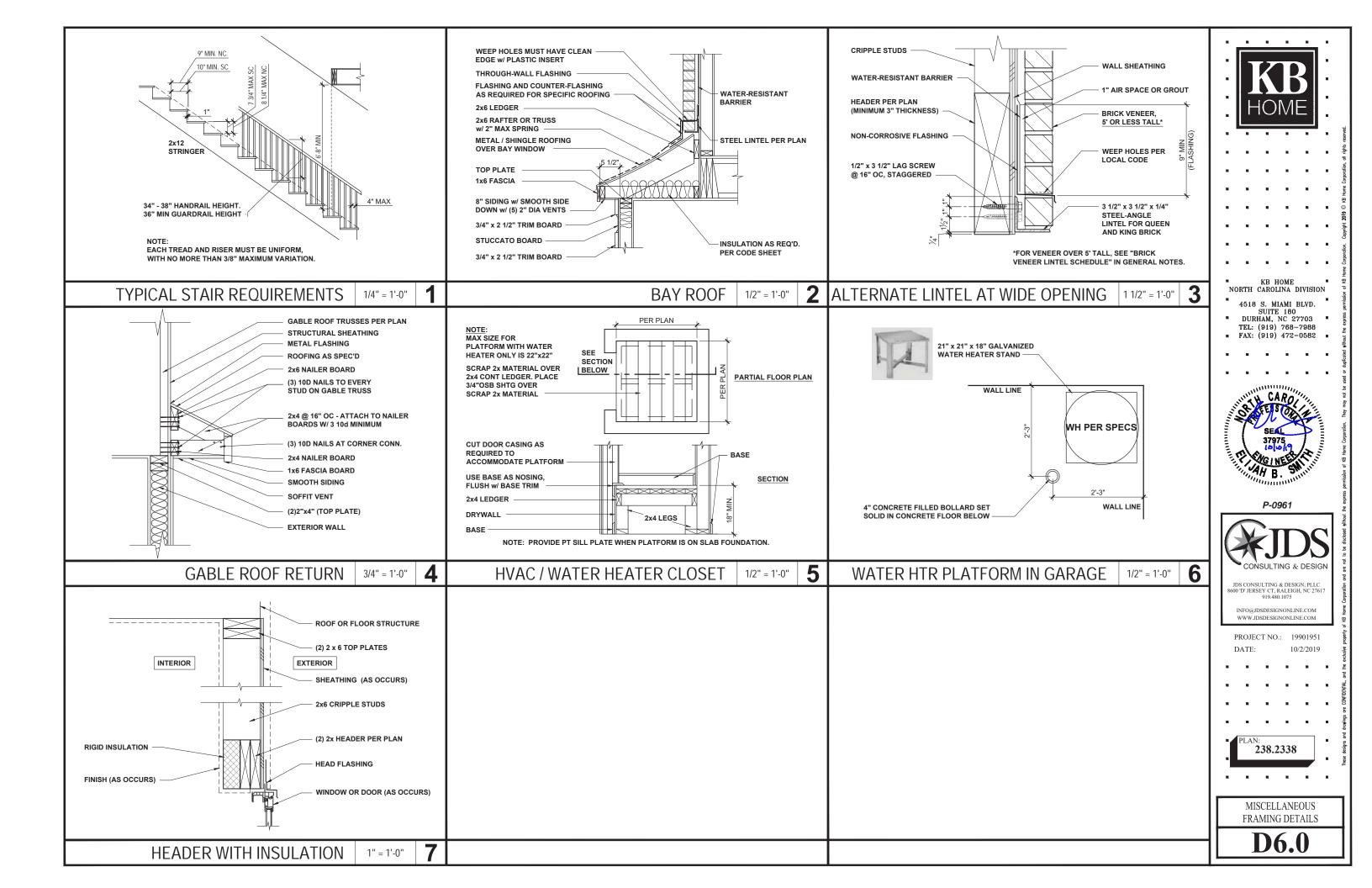
ROOF FRAMING PLAN - 'A'

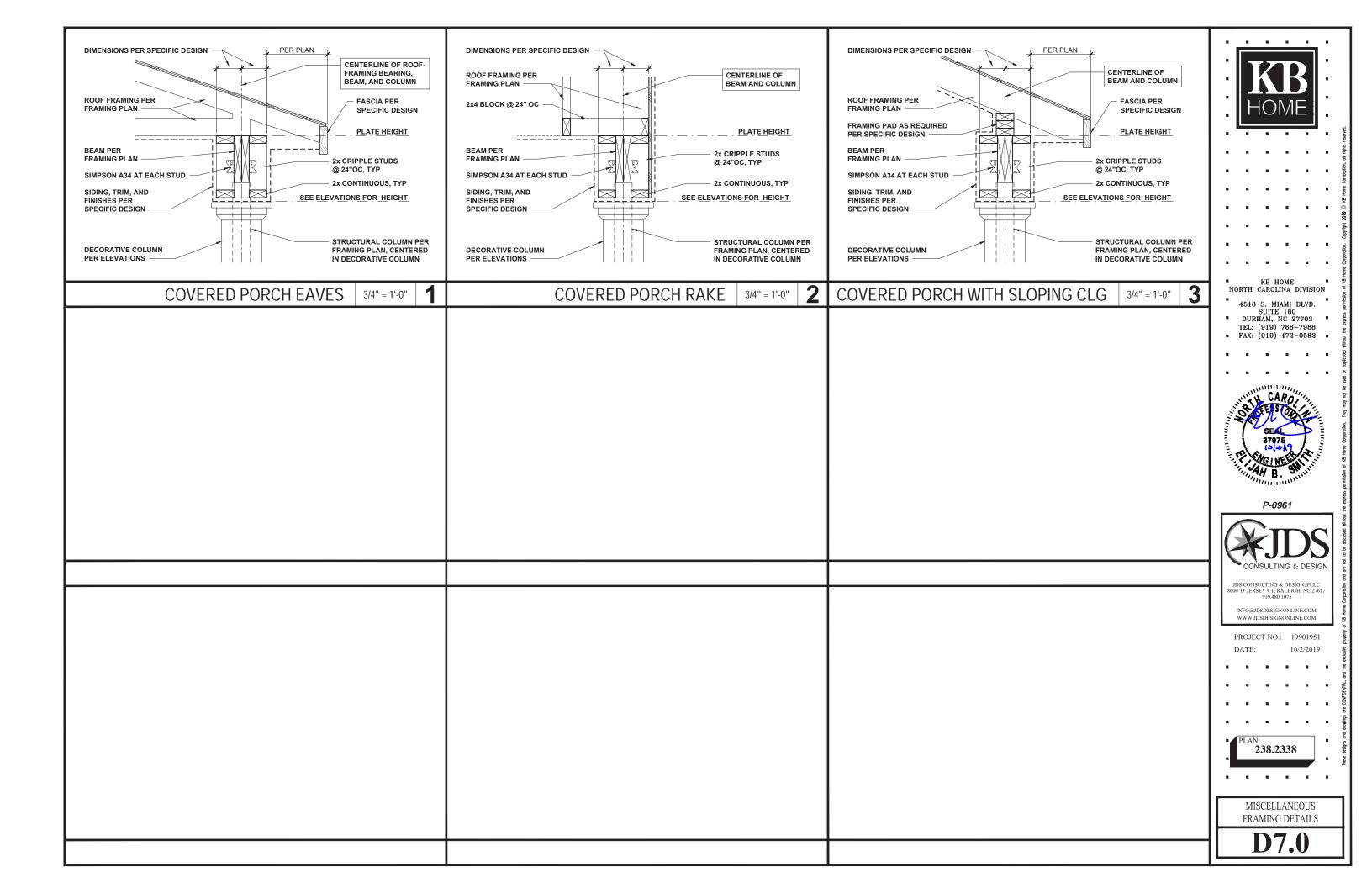


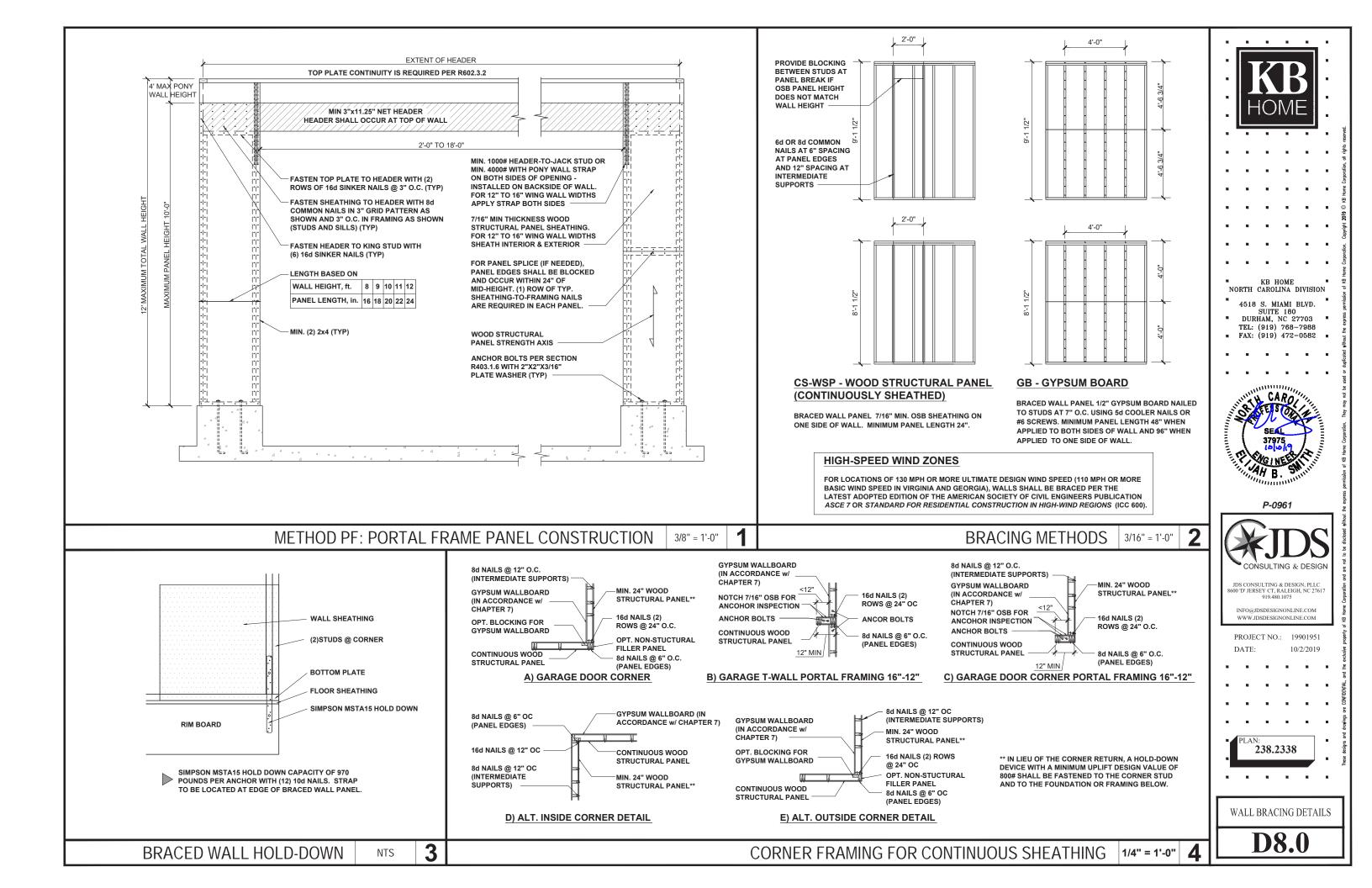




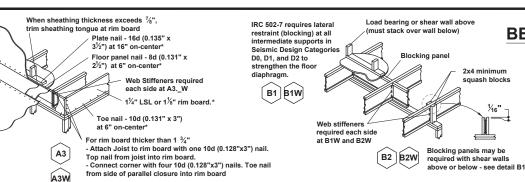








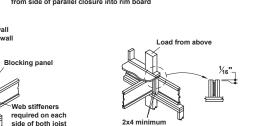
JOIST DETAILS A2 A2W Must have 13/4" minimum joist bearing at ends. Attach rim joist per A3 detail INTERMEDIATE BEARING Load bearing or shear wall NO LOAD BEARING WALL ABOVE above (must stack over wall Web stiffeners required Blocking panels may be B3 B3W B4 B4W above or below (See detail B1) **FASTENING of FLOOR PANELS** Guidelines for Closest On-Center Spacing per Row Nail Size 360 and nd 230 EQ. 560 FQ 8d (0.131" x 2½") 4" 10d (0.148"x 3"), 12d (0.148"x 31/4") 4" 16d (0.162"x 3½") 6" 6" (1) One row of fasteners permitted (two at abutting panel edges) for diaphragms. Stagger nails when using 4" on-center spacing and maintain 3/8" joist and panel edge distance. For other applications, multiple rows of fasteners are permitted if the rows are offset at least ½" and staggered. (2) Can be reduced to 4" on-center if nail penetration into the narrow edge is no more than 1 3/8" (to avoid splitting). • Recommended nailing is 12" on-center in field and 6" on-center along panel edge. Fastening requirements on engineered drawings supersede recommendations listed above. • Recommended use of a non-polyurethane subfloor adhesive on all contact points between panels and floor framing. ullet Nailing rows must be offset at least 1/2" and staggered. • 14 ga. staples may be substituted for 8d (0.113" x 21/3") nails if minimum penetration of 1" into the joist or rim board is achieved. • Maximum spacing of nails is 18" on-center for joists. (L5)



PSI

4"

6"



LVL

4"

8"

face of wall or bean

* SEE I-JOIST EQUIVALENCE CHART

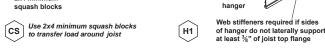
LSL or wide

6"(2)

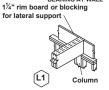
of support

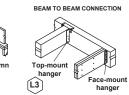
Rim Board

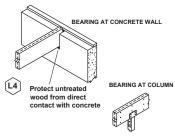
6"(2)



BEAM and COLUMN DETAILS







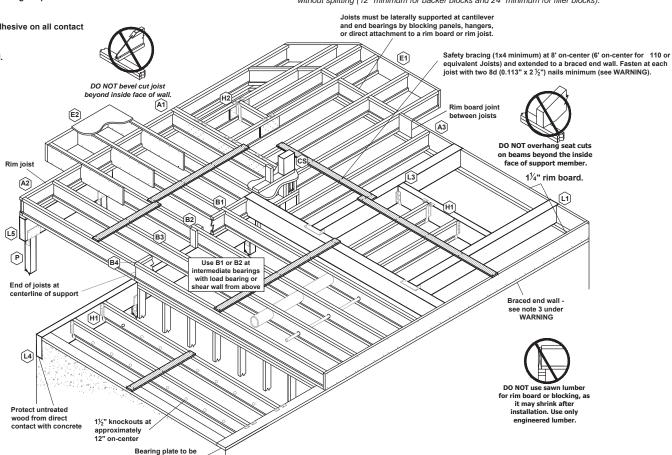
Verify column capacity

FILLER and BACKER BLOCK SIZES * SEE I-JOIST EQUIVALENCE CHART

60% of joist deptl

I-Joists	110 E	EQ. *	210	EQ. *		230 or 360	EQ. *	5	60 EQ.	*
Depth	9½" or 11½"	14"	9½" or 11½"	14" or 16"	9½" or 11 ⁷ %"	14" or 16"	18" or 20"	117/8"	14" or 16"	18" or 20"
Filler Block (1) (Detail H2)	2x6	2x8	$2x6 + \frac{3}{8}$ " sheathing	2x8 + 3/8" sheathing	2x6 + ½" sheathing	2x8 + ½" sheathing	2x12 + ½" sheathing	Two 2x6	Two 2x8	Two 2x12
Cantilever Filler (Detail E4)	2x6 4'-0" long	2x10 6'-0" long	2x6 + 3/8" sheathing 4'-0" long	2x10 + 3/8" sheathing 6'-0" long	$2x6 + \frac{1}{2}$ " sheathing 4'-0" long	2x10 + ½" sheathing 6'-0" long	Not applicable	aŗ	Not oplicab	ole
Backer Block (1) (Detail F1 or H2)	5⁄8" o	r ¾"	³⁄₄" c	or 7⁄8"		1" Net		2x6	2x8	2x12

(1) If necessary, increase filler and backer block height for face mount hangers and maintain $\frac{1}{8}$ " gap at top of joist; see detail W. Filler and backer block lengths should accomodate required nailing without splitting (12" minimum for backer blocks and 24" minimum for filler blocks).



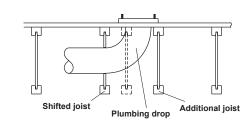
INSTALLATION TIPS

Subfloor adhesive will improve floor performance, but may not be required.

Squash blocks and blocking panels carry stacked vertical loads (details B1 and B2). Packing out the web of a joist (with web stiffeners) is not a substitute for squash blocks or blocking panels.

When joists are doubled at non-load bearing parallel partitions, space joists apart the width of the wall for plumbing or HVAC.

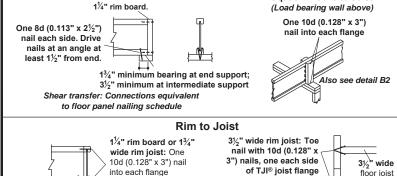
Additional joist at plumbing drop (see detail).

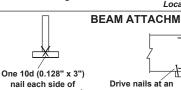


* I-JOIST EQUIVALENCY CHART

EQUIVALENT IN SPAN AND SPACING						
Depth	Mftr & Series	Mftr & Series	Mftr & Series			
	TJI - 110	BCI 4500				
9 ¼"	TJI - 210	BCI 5000				
,	TJI - 230	BCI 6000	EverEdge 20			
		BCI 6500				
	TJI - 110	BCI 4500				
	TJI - 210	BCI 5000				
11 ½"	TJI - 230	BCI 6000	EverEdge 20			
- 8		BCI 6500				
	TJI - 360	BCI 60'S	EverEdge 30			
	TJI - 560	BCI 90'S	EverEdge 50/60			
	TJI - 110	BCI 4500				
Γ	TJI - 210	BCI 5000				
14"	TJI - 230	BCI 6000	EverEdge 20			
		BCI 6500				
	TJI - 360	BCI 60'S	EverEdge 30			
	TJI - 560	BCI 90'S	EverEdge 50/60			
	TJI - 110	BCI 4500				
16"	TJI - 210	BCI 5000				
	TJI - 230	BCI 6000	EverEdge 20			
		BCI 6500				
	TJI - 360	BCI 60'S	EverEdge 30			
	TJI - 560	BCI 90'S	EverEdge 50/60			

JOIST NAILING REQUIREMENTS at BEARING





member at bearing, 11/2" minimum from end

Joist to Bearing Plate

angle to minimize splitting of plate or iLevel® Framer's Pocket

floor joist

 $2\frac{1}{16}$ " - $2\frac{5}{16}$ " wide rim joist: One 16d (0.135" x 31/2") nail into each flange rim ioist Top View Locate rim board joint between joists.

Squash Blocks to Joist

BEAM ATTACHMENT at BEARING

 $1\frac{1}{4}$ " rim board. See framing plan (if applicable)

Guide for minimum end and intermediate bearing lengths

кв номе NORTH CAROLINA DIVISION 4518 S. MIAMI BLVD.

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10/2/2019

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ENGINEERED JOIST DETAILS