# BENSON II

BRIARWOOD BLUFF LOT 0014



PLAN ID 110122.0203

## 110 VILLAGE TRAIL SUITE 215 WOODSTOCK, GA. 30188

	DRAWING INDEX
A0.0	COVER SHEET
A1.1	FRONT ELEVATIONS
A2.1	SIDE & REAR ELEVATIONS
A3.1	SLAB FOUNDATION
A5.1	FIRST FLOOR PLANS & DETAILS
A5.2	SECOND FLOOR PLANS & DETAILS
A6.1	ROOF PLANS
A7.2-A7	'.3 ELECTRICAL PLANS
A8.1	TRIM LOCATION LAYOUTS

AREA TABULATION		
FIRST FLOOR	726	
SECOND FLOOR	1087	
TOTAL	1813	
GARAGE	408	
FRONT PORCH (COVERED)	76	
REAR PATIO	120	

#### **GOVERNMENTAL CODES & STANDARDS**

HOME TO BE BUILT TO CONFORM TO ALL APPLICABLE LOCAL CODES, PRACTICES AND STANDARDS

#### BUILDING CODE ANALYSIS / DESIGN CRITERIA

HOME TO BE BUILT TO MEET OR EXCEED ALL LOCAL CODES AND DESIGN CRITERIA

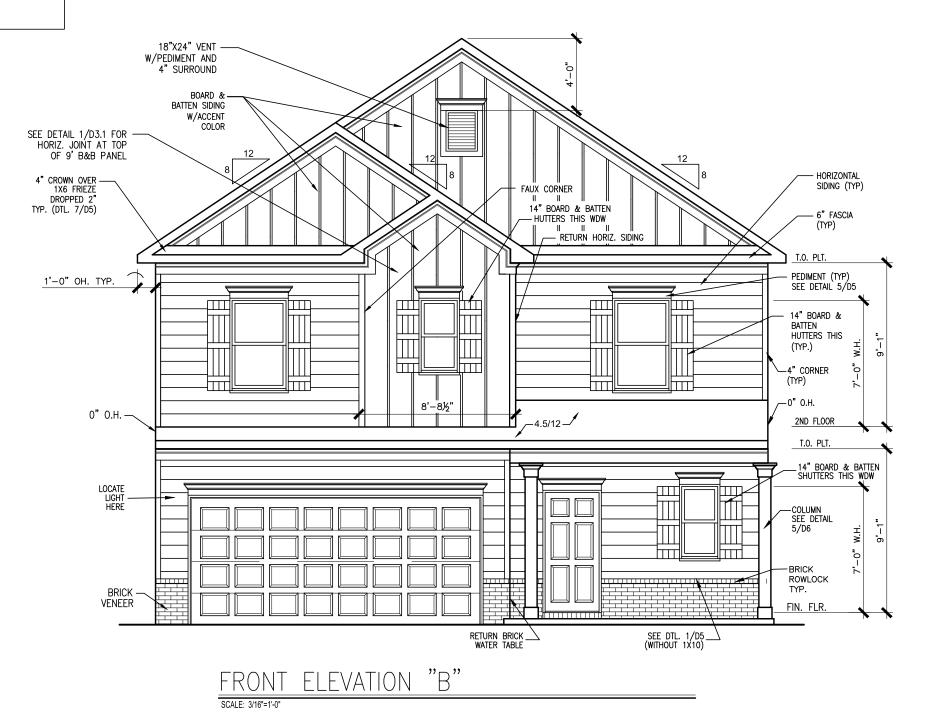
PLAN REVISIONS					
DATE	BY	REVISION	PAGE #		
12/9/2022	AW	Prototype walk revisions - see revision sheet	A5.1, A5.2, A5.2.1,A7.2, A7.3, A7.3.1		
9/21/2023	BB	Removed tub and shower sizes from all affected pages	A5.2, A5.2.1		
1/30/2025	נ	PCR 6201 - added unfinished and finished basements, stair well width adjusted to accommodate basements	A3.1 - A5.2.1, A7.1-8.1		

ALL NON-MASONRY RETURNS TO BE HORIZONTAL SIDING

SOFFIT MATERIAL

SEE SHEET D3 OF SDH TYPICAL DETAILS FOR SOFFIT DETAILS PER

#### BRIARWOOD BLUFF LOT 0014



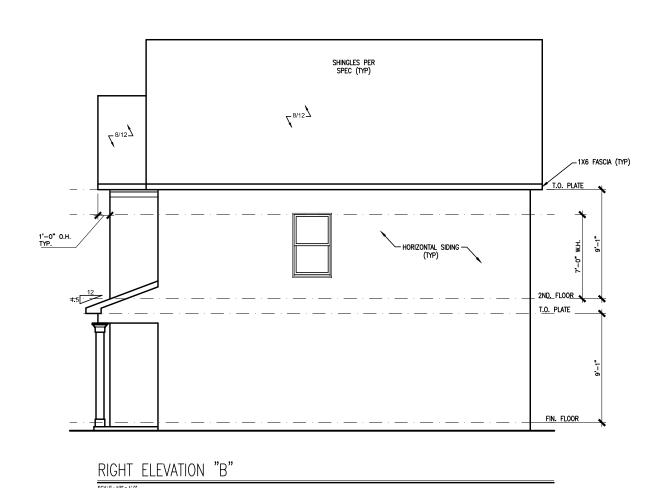
N SMITH DOUGLAS HOMES QUALITY I INTEGRITY I VALUE

SMITH DOUGLAS HOMES
110 VILLAGE TRAIL
SUITE 115
SUITE 115
SUODSTOCK, GA 30188
www.smithdouglas.com

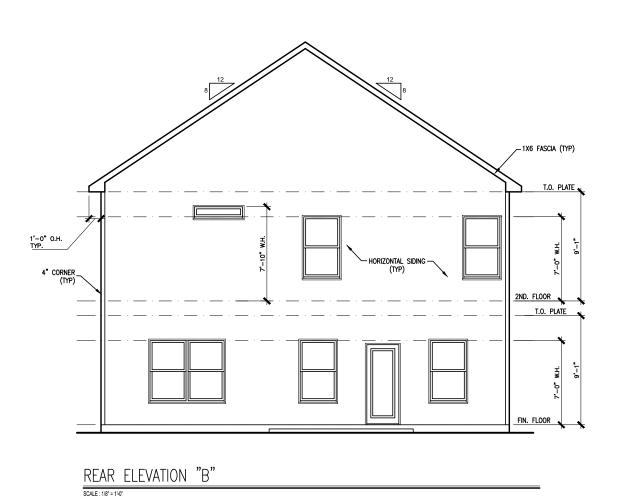
SMITH DOUGLAS HOMES expressly reserves it's property rights in these plans and drawings. These plans and related drawings are not to be reproduced without written consent from SMITH DOUGLAS HOMES.

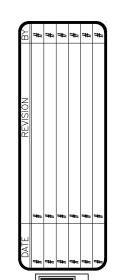


# SHINGLES PER SPEC (TYP) 7<sup>8/12</sup> 1'-0" O.H. TYP. – HORIZONTAL SIDING — (TYP) LEFT ELEVATION "B"



#### **BRIARWOOD BLUFF** LOT 0014





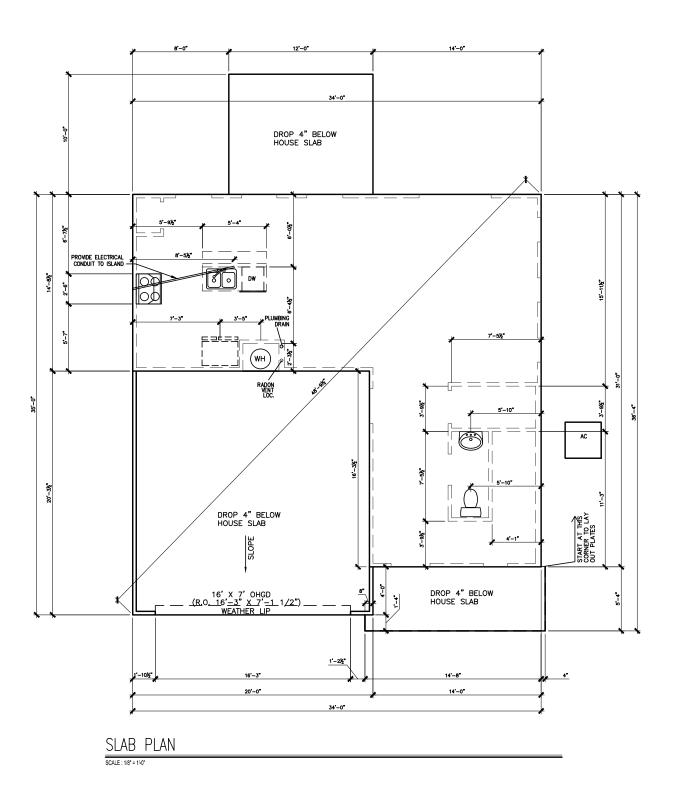


BENSON SIDES SMITH DOUGLAS HOMES 110 VILLAGE TRAIL SUITE 115 WOODSTOCK, GA 30188 www.smithdouglas.com

AND

ELEVATIONS





\*RADON VENT PROVIDED PER LOCAL CODE

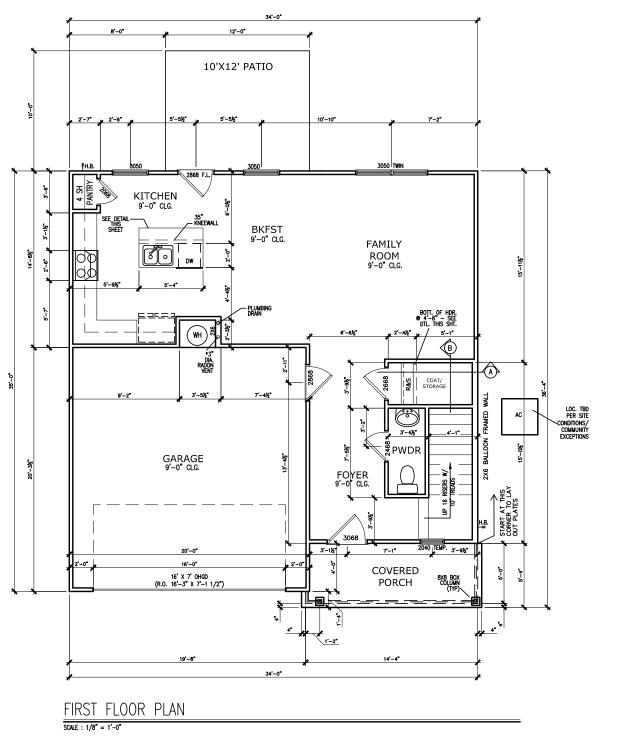
REFER TO DETAIL 3/D1 FOR BRICK LEDGE DETAIL WHEN BRICK VENEER IS CHOSEN

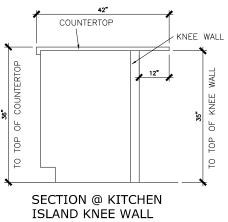


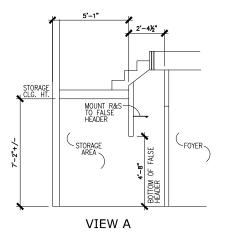
SMITH DOUGLAS HOMES 110 VILLAGE TRAIL SUITE 115 WOODSTOCK, GA 30188 www.smithdouglas.com

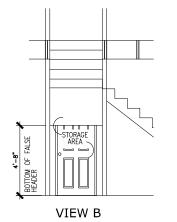
SMITH DOUGLAS HOMES expressly reserves it's property rights in these plans and drawings. These plans and related drawings are not to be reproduced without written consent from SMITH DOUGLAS HOMES.





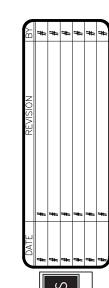






SECTIONS AT COAT/STORAGE CLOSET

\*RADON VENT PROVIDED PER LOCAL CODE

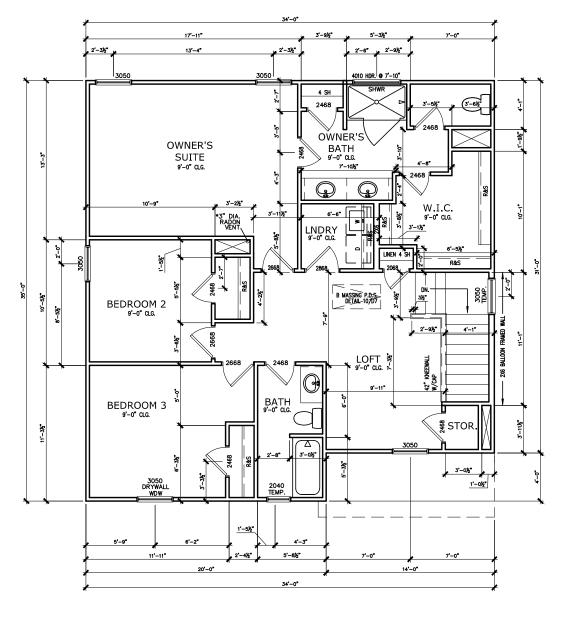




SMITH DOUGLAS HOMES
110 VILLAGE TRAIL
SUITE 115
WOODSTOCK, GA 30188
www.amithdouglas.com

SMITH DOUGLAS HOMES expressly reserves it's property rights in these plans and drawings. These plans are not related crawings are not to be reproduced without writte consent from SMITH DOUGLAS HOMES.





SECOND FLOOR PLAN

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

\*RADON VENT PROVIDED PER LOCAL CODE

REFER TO MANUFACTURER'S SPECS. FOR DRAIN LOCATIONS ON DETAIL SHEETS D12, D12.1, D12.2 & D12.3

SMITH DOUGLAS HOMES



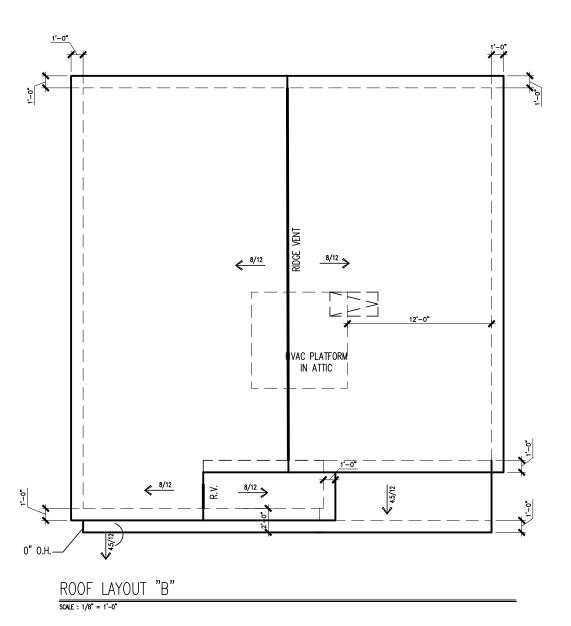
SMITH DOUGLAS HOMES
110 VILLAGE TRAIL
SUITE 115
WOODSTOCK, GA 30188
www.smithdouglas.com

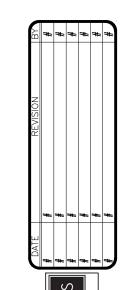
SMITH DOUGLAS HOMES
expressly reserves it's
property rights in these
plans and drawings.
These plans and related

PLAN ID:

PAGE NO:

A 5. 2







ROOF PLAN
ROOF PLAN
BENSON II

SMITH DOUGLAS HOMES
110 VILLAGE TRAIL
SUITE 115
WOODSTOCK, GA 30188
www.smithdouglas.com

SMITH DOUGLAS HOMES expressly reserves it's property rights in these plans and drawings. These plans and related drawings are not to be reproduced without writter consent from SMITH DOUGLAS HOMES.



### 10'X12' PATIO CENTER ON WINDOW BKFST FAMILY ROOM KITCHEN ELECTRICAL PROVIDED AS NEEDED AC PWDR GARAGE FOYER COVERED PORCH

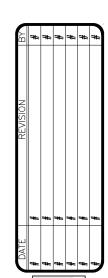
#### FIRST FLOOR ELECTRICAL PLAN

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

#### BRIARWOOD BLUFF LOT 0014

ELECTRICAL LEGEND			
\$	SWITCH		TV
\$3	3 WAY SWITCH	Ф	120V RECEPTACLE
\$4	4 WAY SWITCH	<b>P</b>	120V SWITCHED RECEPTACLE
Ø	CEILING FIXTURE	Φ	220V RECEPTACLE
ψ <sub>κ</sub>	KEYLESS	P <sub>GFCI</sub>	GFCI OUTLET
+Ø	WALL MOUNT FIXTURE	PAFCI	ARCH FAULT CIRCUITINTERRUPTER
0	CEILING FIXTURE	† <sub>GL</sub>	GAS LINE
•	FLEX CONDUIT	T <sub>WL</sub>	WATER LINE
СН	CHIMES	¥	HOSE BIBB
PH	TELEPHONE	Sb	FLOOD LIGHT
SD/Co	SMOKE DETECTOR & CARBON MONOXIDE		1x4 LUMINOUS FIXTURE
SO	SECURITY OUTLET		
	GARAGE DOOR OPENER		CEILING FAN
	EXHAUST FAN		ELECTRICAL WIRING
9	FAN/LIGHT		CEILING FIXTURE
ELECT	FRICAL PLANS TO FOLLOW	ALL LOCAL	CODES
APPRO	X. FIXTURE HGTS (MEASUR	ED FROM B	OTTOM OF FIXTURE)
BREA	KFAST/DINING ROOM	63" ABO	VE FINISHED FLOOR
KITCHEN PENDANT LIGHTS		33" ABOVE COUNTER TOP	
TWO STORY FOYER FIXTURE 96" ABOVE FINISHE			VE FINISHED FLOOR
CEILIN	NG FAN	96" ABO	VE FINISHED FLOOR
FLOOI	D LIGHT	10' MAX	. ABOVE FIN. FLOOR

NOTE: FINAL PLACEMENT OF PHONE/CABLE T.B.D. ON SITE BY THE BUILDER



SMITH DOUGLAS HOMES QUALITY | INTEGRITY | VALUE

ELECTRICAL PLAN
ELECTRICAL PLA

SMITH DOUGLAS HOMES expressly reserves it's property rights in these plans and drawings. These plans and related drawings are not to be reproduced without written consent from SMITH DOUGLAS HOMES



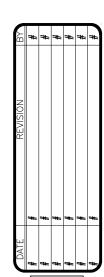
### OWNER'S SUITE OWNER'S w.i.c. LNDRY BEDROOM 2 LOFT STOR. BEDROOM 3

#### SECOND FLOOR ELECTRICAL PLAN

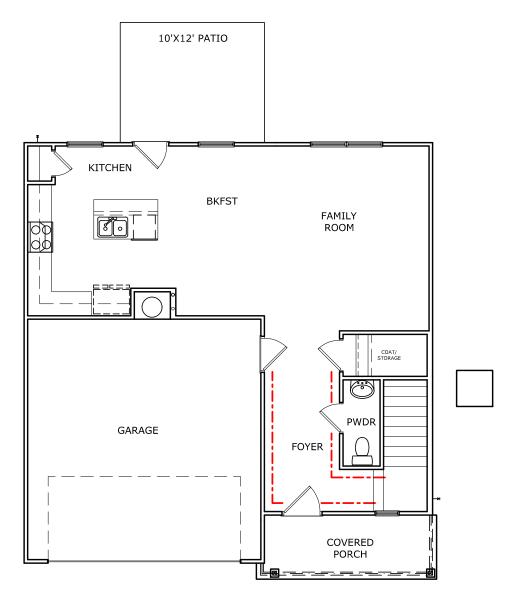
#### **BRIARWOOD BLUFF** LOT 0014

ELECTRICAL LEGEND				
\$	SWITCH	ŢV	TV	
\$3	3 WAY SWITCH	φ	120V RECEPTACLE	
\$4	4 WAY SWITCH	•	120V SWITCHED RECEPTACLE	
Ø	CEILING FIXTURE	•	220V RECEPTACLE	
-ф <sub>к</sub>	KEYLESS	P <sub>GFCI</sub>	GFCI OUTLET	
₩X	WALL MOUNT FIXTURE	PAFCI	ARCH FAULT CIRCUIT	
0	CEILING FIXTURE	† <sub>GL</sub>	GAS LINE	
•	FLEX CONDUIT	T <sub>WL</sub>	WATER LINE	
СН	CHIMES	¥	HOSE BIBB	
PH	TELEPHONE	B	FLOOD LIGHT	
SD/Co	SMOKE DETECTOR & CARBON MONOXIDE		1x4 LUMINOUS FIXTURE	
SO	SECURITY OUTLET		05111110 5441	
	GARAGE DOOR OPENER		CEILING FAN	
	EXHAUST FAN		ELECTRICAL WIRING	
0	FAN/LIGHT		CEILING FIXTURE	
ELEC <sup>-</sup>	TRICAL PLANS TO FOLLOW	ALL LOCAL	CODES	
APPROX. FIXTURE HGTS (MEASURED FROM BOTTOM OF FIXTURE)				
BREAKFAST/DINING ROOM		63" ABOVE FINISHED FLOOR		
KITCHEN PENDANT LIGHTS		33" ABOVE COUNTER TOP		
TWO STORY FOYER FIXTURE		96" ABOVE FINISHED FLOOR		
CEILING FAN		96" ABO	VE FINISHED FLOOR	
FLOOD LIGHT		10' MAX. ABOVE FIN. FLOOR		

NOTE: FINAL PLACEMENT OF PHONE/CABLE T.B.D. ON SITE BY THE BUILDER



FLOOR BENSON SECOND SMITH DOUGLAS HOMES 110 VILLAGE TRAIL SUITE 115 WOODSTOCK, GA 30188 www.smithdouglas.com

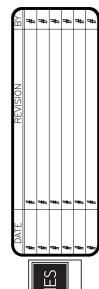


FOYER TRIM - CHAIR/SHADOW —---

TRIM LAYOUT FIRST FLOOR PLAN

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

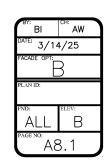
**BRIARWOOD BLUFF** LOT 0014

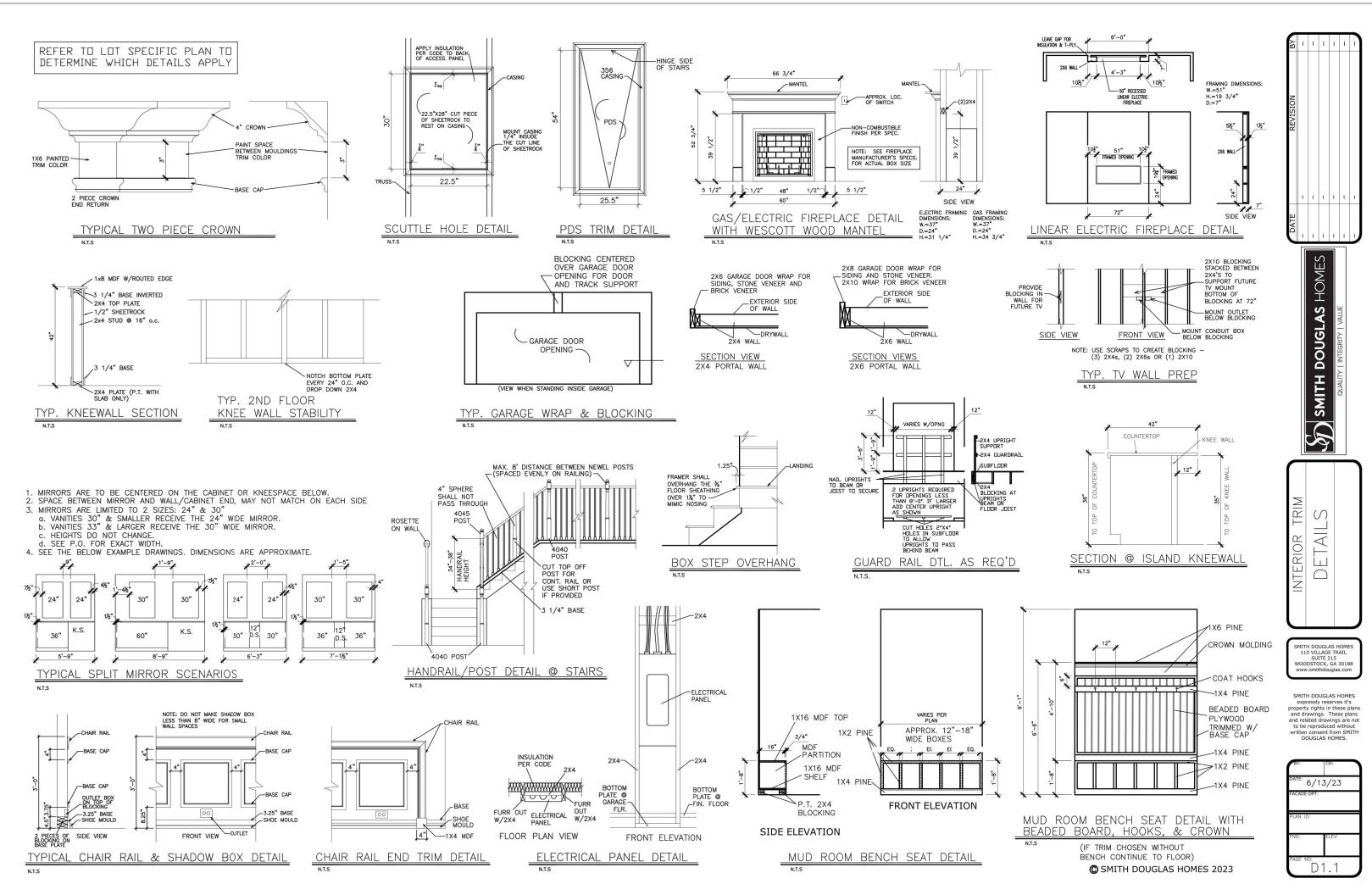






SMITH DOUGLAS HOMES 110 VILLAGE TRAIL SUITE 115 WOODSTOCK, GA 30188 www.smithdouglas.com





#### CONNECTION SPECIFICATIONS (TYP. U.N.O.)

DESCRIPTION OF BLDG. ELEMENT	3"x0.131" NAILS	3"x0.120" NAIL5		
JOIST TO SOLE PLATE SOLE PL. TO JOIST/RIM OR BLK'G STUD TO PLATE	(3) TOENAILS NAILS @ 4" O.C. (4) TOENAILS/ (3)END NAILS	(3) TOENAILS*  NAILS @ 4" O.C.  (4) TOENAILS/ (4)END NAILS*		
RIM TO TOP PLATE BLK'G. BTWN. JOISTS TO TOP PL.	TOENAILS @ 6" o.c. (3) TOENAILS EA. END	TOENAILS @ 4" o.c.* (3) TOENAILS EA. END*		
DOUBLE STUD  DOUBLE TOP PLATE  DOUBLE TOP PLATE LAP SPLICE	NAILS ● 16" O.C.  NAILS ● 12" O.C.  (12) NAILS IN LAPPED AREA	NAILS @ 16" O.C.  NAILS @ 8" O.C.  (15) NAILS IN LAPPED AREA		
TOP PLATE LAP @ CORNERS & INTERSECTING WALLS	(24" MIN.) (3) NAILS	(24" MIN.) (3) NAILS		
RAFTER/TRUSS TO TOP PLATE	(4) TOENAILS + (I) SIMPSON H2.5T	(4) TOENAILS + (1) SIMPSON H2.5T		
GAB. END TRUSS TO DBL. TOP PL. R.T. W HEEL HT. 9 1/4" TO 12"	TOENAILS @ 8" o.c.  2xIO BLK EVERY 3RD BAY FASTENED TO DBL. TOP PLATE W/ TOENAILS @ 6" O.C.	TOENAILS @ 6" o.c.  2xIO BLK EVERY 3RD BAY FASTENED TO DBL. TOP PLATE W/ TOENAILS @ 4" O.C.		
R.T. w/ HEEL HT. 12" TO 16"	2xI2 BLK EVERY 3RD BAY FASTENED TO DBL. TOP PLATE w/ TOENAILS @ 6" O.C.	2xI2 BLK EVERY 3RD BAY FASTENED TO DBL. TOP PLATE w/ TOENAILS @ 4" O.C.		
R.T. w/ HEEL HT. UP TO 24"	LAP WALL SHTG. W/ DBL. TOP PL. & INSTALL ON TRUSS VERT FASTEN W/ NAILS @ 6" O.C.	LAP WALL SHTG. W/ DBL. TOP PL. & INSTALL ON TRUSS VERT FASTEN W/ NAILS @ 6" O.C.*		
R.T. w/ HEEL HT. 24" TO 48"	LAP WALL SHTG, W/DBL, TOP PL. & INSTALL ON TRUSS VERT FASTEN W/ NAILS @ 6" O.C. PROVIDE 2x BLK @ EA. BAY AT TOP OF HEEL	LAP WALL SHTG, W/DBL, TOP PL. 4 INSTALL ON TRUSS VERT FASTEN W/NAILS @ 6"O.C. PROVIDE 2x BLK @ EA. BAY AT TOP OF HEEL*		
WALL TO FOUNDATION	WALL SHTG. LAP W SILL PL. & FASTENED PER SHEAR WALL FASTENING SPEC.			
* 2½'x0.113 IS AN ACCEPTABLE ALTERNATIVE TO A 3"x0.120", SAME SPACING OR NUMBER OF NAILS. (ONLY ACCEPTABLE WHERE * ARE SHOWN)				

#### ADDITIONAL NOTES FOR TRUSS &

ROOF TRUSS AND ENGINEERED JOISTS SHALL BE DESIGNED TO MEET THE DEFLECTION CRITERIA BELOW, UNLESS NOTED OTHERWISE ON PLAN.
MULHERN & KULP CANNOT BE HELD RESPONSIBLE FOR ANY STRUCTURAL ISSUES RELATED TO ANY BUILDING COMPONENT IF COMPONENT SHOP DRAWINGS ARE NOT SUBMITTED TO MEK FOR REVIEW PRIOR TO FABRICATION, DELIVERY, OR INSTALL ATION

I-JOIST MANUFACTURER

TRUSSES/JOISTS SHALL BE DESIGNED SO THAT DIFFERENTIAL DEFLECTION BETWEEN ADJACENT PARALLEL TRUSSES/JOISTS OR GIRDER TRUSSES/FLUS BEAMS DO NOT EXCEED THE FOLLOWING:

- A. ROOF TRUSSES: I/4" DEAD LOAD
- B. ATTIC TRUSSES, & I-JOISTS:
- 1/8" DEAD LOAD

ABSOLUTE DEAD LOAD DEFECTION OF ATTIC TRUSSES WHEN AD JACENT TO ELOOR FRAMING BY OTHERS SHALL BE LIMITED TO 3/16". (NOT DIFFERENTIAL

#### VENEER LINTEL SCHEDULE

SPAN (MAX)	HEIGHT OF VENEER ABOVE LINTEL	STEEL ANGLE SIZE
3'-0"	20 FT, MAX	L3"x3"x/4"
	3 FT. MAX	L3"x3"x/4"
6'-0"	I2 FT. MAX	L4"x3"x/4"
	20 FT. MAX	L5"x3½"x¾"
8'-0"	3 FT. MAX	L4"x4"x¼" *
	I2 FT. MAX	L5"x3½"x¾"
	I6 FT, MAX	L6"x3½"x¾"
9'-6"	I2 FT, MAX	L6"x3½"x¾6"

- L LINTELS: SHALL SUPPORT 2 % 3 ½ VENEER W 40 pof MAXIMUM WEIGH 16' SHALL HAVE 4" MIN. BEARING 16' SHALL HAVE 8" MIN. BEARING 16' SHALL NOT BE FASTENED BACK TO HEADER.
- « GE HALL NOT BE FASTIBLED BACK TO HEADER.
  » GE HALL BE FASTIBLED BACK TO HEADER.
  » GE HALL BE FASTIBLED BACK TO HOOD HEADER IN HALL 646°02. W /S¹ DIA x 3 JS² LONG LAS SCREENED HALL SOME THE CONTROLL OF THE COPENING.
  » GENERAL PAPELS TO ANY HORIZING OF BROCK OPER THE OPENING.
  » HEN SIPPORTING VENERA (3° MOET THE EXTENCE TO GO FT THE HORIZIONTAL LES MAY BE QUIT IN THE FIELD TO BE 35° MIDE OVER THE EXAMINE LISTIN HOUT, THIS IS TO ALLOH FOR HOSTIFAL JOINT FINISHING.
  » EES STIBLINGEN, I LANG FOR ANY LINITE. CONDITION NOT ENCOMPASSED BY THE AROO LESS TO ANY HORIZING THE PAPEL HE STANDARD LISTING.
  » HONE OF MACHETIES.
  » HONE OF MACHETIES.
  » HORIZING HORIZING THE LAGSWY.
  MK STID. MAY 2006.

#### GENERAL STRUCTURAL NOTES

#### **FOUNDATION**

- DESIGN IS BASED ON 2018 NCSBC-RESIDENTIAL CODE & 2018 IRC WITH SOUTH CAROLINA AMENDMENTS
- FOOTING DESIGN 2,000 PSF NET ALLOWABLE SOIL BEARING PRESSURE IS ASSUMED. BUILDER/CONTRACTOR MUST VERIFY.
- FASTEN 2×4/6 SILL PLATES TO CONC FND WITH A MINIMUM OF 2 ANCHORS PER PLATE, 12" MAX. FROM PLATE ENDS - UTILIZING
- I/2" DIA. ANCHOR BOLTS @ 6'-0" O.C.7" MIN. EMBEDMENT FA4 ANCHOR STRAPS @ 6'-0" O.C
- FASTEN 2xIO SILL PLATES TO PRECAST BSMT WALLS WITH A MINIMUM OF 2 ANCHORS PER PLATE, I2" MAX. FROM PLATE ENDS UTILIZING:
- I/2" DIA. BOLTS @ 2'-0" O.C ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT W PERIMETER
- FOUNDATION SHALL BE PRESERVATIVE TREATED SOUTHERN PINE #2. BUILDER TO VERIFY CORROSION-RESISTANCE COMPATIBILITY OF HARDWARE & FASTENERS IN CONTACT W/ PRESERVATIVE-TREATED
- WOOD, CONTACT LUMBER & HARDWARE SUPPLIERS TO COORD. FOUNDATION WALLS & FOOTINGS SHALL BE PLAIN CONCRETE, U.N.O.
- CONCRETE DESIGN BASED ON ACI 318. CONCRETE SHALL ATTAIN THE FOLLOWING MIN. COMPRESSIVE STRENGTHS IN 28 DAYS, U.N.O.:
- f'c = 4,000 psi: ...... FOUNDATION WALLS 3,000 psi: ...... FOOTINGS & INTERIOR SLABS ON GRADE 3,500 psi: ...... GARAGE & EXTERIOR SLABS ON GRADE = 60,000 psi
- BASEMENT FOUNDATION WALL DESIGN BASED ON:
  - . 8' OR 9' HEIGHT (AS NOTED ON PLANS) TALLER WALLS MUST BE ENGINEERED.
- BASEMENT WALL DESIGN IS BASED ON 30 OR 45 PCF BACKFILL SOIL TYPE CLASSIFICATIONS:
  - 30 PCF TYPE (GW, GP, SW, SP) 45 PCF TYPE (GM, GC, SM, SM-SC, ML)
  - IMPORTANT IF 60 PCF SOIL TYPE (SC, ML-CL, OR CL) IS UTILIZED FOR BACKELL CONTACT MULHERN & KULP FOR FURTHER EVALUATION OF FOUNDATION DESIGN.
- BASEMENT WALLS SHALL BE BRACED, PRIOR TO BACKFILLING, BY ADEQUATE TEMPORARY BRACING OR INSTALL Ist FLOOR DECK.
- ALL CONCRETE EXPOSED TO THE WEATHER SHALL NOT HAVE LESS THAN 5% OR MORE THAN 7% AIR ENTRAINMENT.
- ALL FOOTINGS SHALL BEAR BELOW FROST LINE (TYP.) OR 12" MIN IN REGIONS WHERE CODE FROST DEPTH IS NOT APPLICABLE. CONSULT SOILS REPORT OR BUILDING DEPT. FOR MINIMUM DEPTH BELOW
- FOOTINGS AND SLABS ON GRADE SHALL BEAR ON VIRGIN SOIL OR 95% COMPACTED FILL.
- PROVIDE CONTROL JOINTS AT ALL INSIDE CORNERS OF SLAE EDGES, AND OTHER LOCATIONS WHERE SLAB CRACKS ARE LIKELY TO DEVELOP.
  - JOINTS SHALL BE LOCATED @ 10'-0" O.C. (RECOMMENDED) OR 15'-0" O.C. (MAXIMUM)
  - · JOINT GRID PATTERN SHALL BE AS CLOSE TO SQUARES AS POSSIBLE (I:I RATIO), WITH A MAXIMUM OF I:I.5 RATIO
  - · CONTROL JOINTS SHALL NOT BE INSTALLED IN STRUCTURAL
- TYPICAL REINFORCEMENT DETAILS: PROVIDE 3" MIN. CLEAR COVER WHERE CAST AGAINST EARTH, I 1/2" MIN. CLEAR COVER AGAINST FORMS. LAP ALL REBAR 40 BAR DIAMETERS MIN. (24" FOR #4 BARS) & BEND BARS AND LAP AT CORNERS. PROVIDE 6" HOOK INTO SUPPORTING FOOTINGS WHEN FOOTINGS INTERSECT.
- DIMENSIONS BY OTHERS BUILDER TO VERIEY.

#### LEGEND

#### RT. NDICATES ROOF TRUSSES @ 24" O.C. PER ROOF. MANUF. (TYP. U.N.O.)

- - INDICATES TRUSS OVERFRAMING @ 24" O.C. (TYP. U.N.O.)
  - INDICATES I4" DEEP FLOOR I-JOISTS @ 24" O.C MAX. JOIST SERIES AND SPACING SHALL BE THE RESPONSIBILITY OF THE MANUFACTURER NOTE: I4" FLOOR TRUSSES @ 24" O.C. MAX. IS AN ACCEPTABLE ALTERNATE FLOOR SYSTEM
- INDICATES LOCATIONS OF POTENTIAL TILE FLOOR JOIST MANUFACTURER SHALL DESIGN FLOOR SYSTEM FOR ADD'L 10 PSF DEAD LOAD AT THESE LOCATIONS
- INTERIOR BEARING WALL
- □□□□□ BEARING WALL ABOVE (B.W.A.)

- INDICATES POST ABOVE (P.A.) PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.

#### \_ATERAL/WALL BRACING & WALL SHEATHING SPECIFICATIONS

THIS MODEL HAS BEEN DESIGNED TO RESIST LATERAL FORCES RESULTING FROM: )MPH WIND IN 2018 NCSBC:R(

#### **& 120MPH WIND IN 2018 IRC** (120 MPH WIND SPEED IN ASCE 7

WIND MAP PER IRC R301211) EXP. B, RISK CAT. 2 & SEISMIC CAT. A/B.

HE DESIGN WAS COMPLETED PER 2015 \$ 2018 IBC ECTION 1609) & ASCE 7. AS PERMITTED BY R301.1.3 OF THE 2018 NOSBO:RC & 2018 IRC. ACCORDINGLY THIS MODEL, AS DOCUMENTED AND DETAILED HEREWITHIN, IS ADEQUATE TO RESIST THE CODE REQUIRED LATERAL FORCES.

DESIGN WIND UPLIFT LOADS HAVE BEEN CALCULATED UTILIZING ASCE 7 (ACCEPTED ENGINEERING PRACTICE) AS ALLOWED PER 2018 NCSBC:RC & 2018 IRC SECTION R802.II.I.I. THIS MODEL HAS BEEN DETAILED WHERE REQUIRED & ENGINEERED TO RESIST THE WIND UPLIFT LOAD PATH PER SECTIONS R602.3.54 R802.II.

#### EXT. WALL SHEATHING SPECIFICATION

- 7/16" OSB OR 15/32" PLYWOOD: FASTEN SHEATHING W/ 2 3"XO.II3 NAILS @ 6" O.C. AT EDGES & @ 12" O.C. IN THE PANEL FIELD. (TYP, U.N.O.)
- ALL SHEATHING PANELS SHALL BE ORIENTED VERTICALLY (LONG DIRECTION PARALLEL TO STUDS) AND INSTALLED FULL HEIGHT OF SHEAR WALL - OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT ALL UNSUPPORTED PANEL EDGES & EDGE
- ALL EXT. WALLS SHALL BE CONTINUOUSLY SHEATHED AND ARE CONSIDERED SHEAR WALLS.
- ALT, STAPLE CONNECTION SPEC: 1 3/4" 16 GA STAPLES (1/6" CROWN) @ 3" O.C. AT EDGES & @ 6" O.C IN FIELD.

#### 3" O.C. EDGE NAILING

AT DESIGNATED AREAS - FASTEN PANEL EDGES OF WOOD STRUCTURAL WALL SHEATHING TO FRAMING W/ 2 3" x 0.113" NAILS @ 3" O.C. AND 12" O.C. IN THE FIELD NO STAPLE ALTERNATIVE AVAILABLE AT THIS SPEC. ALL SHEATHING PANELS SHALL BE ORIENTED VERTICALLY (LONG DIRECTION PARALLEL TO STUD) AND INSTALLED FULL HEIGHT OF SHEAR WALL - OR - 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT UNSUPPORTED PANEL EDGES AND 3" O.C. EDGE FASTENING.

- SEE CONNECTION SPECIFICATIONS CHART FOR STANDARD SHEAR TRANSFER DETAILING, IF ADDITIONAL CAPACITY IS REQUIRED BY DESIGN, IT WILL BE SPECIFICALLY NOTED ON PLAN.
- DESIGN ASSUMES 16" O.C MAX. STUD SPACING, U.N.O.
- ALL STRUCTURAL PANELS ARE TO BE DIRECTLY APPLIED TO STUD FRAMING.
- PRE-MANUFACTURED PANELIZED WALLS: FASTEN TOGETHER END STUDS OF WALL PANELS SHEATHED W/ OSB OR PLYWOOD W/ 3" x 0.120" NAILS @ 4" O.C. (THRU ONE SIDE ONLY)

INDICATES EXTENT OF INT. OSB
SHEARWALL, AND/OR 3" O.C. EDGE NAILING

INDICATES HOLDOWN

#### NON-BEARING HEADER SCHEDULE

SPAN	2x4 NON-BEARING PARTITION WALL	2x6 NON-BEARING PARTITION WALL
UP TO 3'-0"	(I)2x4 FLAT	(I)2x6 FLAT
UP TO 6'-0"	(2)2x4	(3)2×4
UP TO 8'-0"	(2)2×6	(3)2x6

 ALL NON-BEARING INTERIOR STUD WALLS SHALL BE CONSTRUCTED WITH 2x 'STUD' GRADE MEMBERS SPACED @ 24" O.C. (MAX.)

#### FLOOR FRAMING

- I-JOISTS SHALL BE DESIGNED BY MANUF, TO MEET OR EXCEED L/480 LIVE LOAD DEFLECTION CRITERIA, (EXCLUDES STONE/MARBLE OR WET BED CONSTRUCTED FLOORS - CONTACT M&K FOR EXCLUDED FLOOR DESIGNS)
- PER THE GUIDELINES OF THE TILE COUNCIL OF NORTH AMERICA (TCNA HANDBOOK), IT SHALL BE THE FLOOR FINISH INSTALLER'S RESPONSIBILITY TO VERIFY THAT THE FINISHES TO BE INSTALLED MATCH THE DESIGN CRITERIA NOTED ABOVE (UNDER "DESIGN
- FLOOR SYSTEMS & SHEATHING HAVE BEEN DESIGNED TO SUPPORT ADDITIONAL DEAD LOAD FROM CERAMIC TILE (EXCLUDING MARBLE OR STONE). HOWEVER, IT SHALL BE THE FLOOR FINISH INSTALLER'S RESPONSIBILITY TO PROVIDE PROPER UNDERLAYMENT, UNCOUPLING MEMBRANE AND MORTAR/GROUT PER THE ASSEMBLY DESIGNATION IN THE TONA HANDBOOK (TILE COUNCIL OF NORTH AMERICA).
- AT I-JOIST FLOORS, PROVIDE I" MIN, OSB RIM BOARD
- METAL HANGERS SHALL BE SPECIFIED BY MANUFACTURER, U.N.O. I-JOIST SHOP DWGS. SHALL BE SUBMITTED TO ARCH. & ENG. FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY.
- FLOOR SHEATHING SHALL BE 23/32" A.P.A. RATED 'STURD-I-FLOOR 24" O.C, EXPOSURE I (OR APPROVED EQUAL) WITH TONGUE AND GROOVE EDGES. FASTEN TO FRAMING MEMBERS W GLUE AND
- 2 f" x 0,131" NAILS @ 6"o.c. @ PANEL EDGES & @ 12"o.c. FIELD - 2 🖥 × 0.120" NAILS @ 4" O.C. @ PANEL EDGES \$ @ 8" O.C. FIELD.
- 2 🖁 × 0.113" NAILS @ 3" O.C. @ PANEL EDGES & @ 6" O.C. IN FIELD.

#### ROOF FRAMING

- ROOF SHEATHING SHALL BE 1/16" A.P.A. RATED SHEATHING 24/16 EXPOSURE I (OR APPROVED EQUAL). FASTEN TO FRAMING MEMBERS - W/ 2 ½" × 0.131" NAILS • 6"o.c. • PANEL EDGES € • 12" O.C. FIELD.
- w/ 2 🖁 × 0.120" NAILS @ 4"o.c. @ PANEL EDGES & @ 8" O.C. FIELD. - W/2 🖁 × 0.113" NAILS @ 3"O.C. @ PANEL EDGES & @ 6" O.C. FIELD.
- WITHIN 48" OF ALL ROOF EDGES, RIDGES, & HIPS FASTEN ROOF SHEATHING FIELDS PER EDGE NAILING SPEC
- FASTEN EACH ROOF TRUSS TO TOP PLATE W USP RTTA CLIP (OR APPROVED EQUAL) @ ALL BEARING POINTS. PROVIDE (2) RT7A CLIPS AT 2-PLY GIRDER TRUSSES, (3) RT7A CLIPS AT 3-PLY GIRDER TRUSSES & ROOF BEAMS - AT ALL BEARING POINTS
- METAL HANGERS SHALL BE SPECIFIED BY THE MANUFACTURER, U.N.C
- ROOF TRUSS SHOP DWGS. SHALL BE SUBMITTED TO ARCH & ENG. FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY ERECT AND INSTALL ROOF TRUSSES PER WTCA & TPI'S BCSI I "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES."
- SUPPORT SHORT SPAN ROOF TRUSSES w/2x4 LEDGER FASTENED TO FRAMING w/(2) 3" x 0.120" NAILS @ 16" O.C. (UP TO 7' SPAN)

#### MEANS & METHODS NOTES

THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS FINISHED AND ALL PLAN, DETAIL, AND NOTE SPECIFICATIONS HAVE BEEN COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE ERECTION PROCEDURES AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS, AND TIE-DOWNS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING AND BRACING REQUIRED TO STABILIZE AND PROTECT EXISTING AND ADJACENT STRUCTURES AND SYSTEMS DURING COURSE OF DEMOLITION AND CONSTRUCTION OF

STRUCTURAL DESIGN AND SPECIFICATIONS ASSUME THAT ALL SUPPORTING AND NON-SUPPORTING ELEMENTS IN CONTACT WITH FLOOR FRAMING ARE LEVEL, INCLUDING, BUT NOT LIMITED TO; FOUNDATIONS, SLABS ON GRADE, BEAMS, WALLS, AND NON-BEARING ELEMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LEVELNESS AND MAKE ADJUSTMENTS AS NECESSARY, INCLUDING CONSIDERATION OF THOSE AREAS THAT MAY BE WITHIN MAY BE WITHIN CONTRACTUAL INDUSTRY OR WARRANTY TO FRANCES

#### GENERAL STRUCTURAL NOTES

- DESIGN IS BASED ON 2018 NCSBC-RESIDENTIAL CODE \$ 2018 IRC WITH SOUTH CAROLINA AMENDMENTS
- WOOD FRAME ENGINEERING IS BASED ON NDS, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" - LATEST EDITION.

 DESIGN LOADS: LIVE = 20 PSF DEAD = 7 PSF T.C., 10 PSF B.C. ROOF

LOAD DURATION FACTOR = 1.25

FLOOR LIVE = 40 PSF (30 PSF @ SLEEPING AREAS) DEAD = 10 PSF (1-JOISTS)

ADD'L IO PSF @ CERAMIC TILE IN BATHS & LAUND.

2,000 PSF ASSUMED ALLOWABLE BEARING PRESSURE (TO BE VERIFIED BY BUILDER)

#### GENERAL FRAMING

- ALL TYP, NAIL FASTENER REQUIREMENTS ARE NOTED IN STANDARD CONNECTIONS TABLE (IRC TABLE R602.3(1)) OR ON PLANS, ALL NAILS SPECIFIED ARE MIN DIAMETER AND LENGTH REQUIRED FOR CONNECTION. ALL HANGER NAILS SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS FOR MAX CHARTED CAPACITY. NOTE: HANGERS USE COMMON NAIL DIAMETERS NOT TYPICAL FRAMING GUN NAILS.
- EXT. & INT. BEARING WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" O.C. SPF/SP "STUD" GRADE LUMBER, OR BETTER, U.N.O...

  • WALLS OVER 12' TALL SHALL BE PER PLAN.
- ALL INTERIOR BEARING WALLS ARE ASSUMED TO BE SHEATHED W. GYP WALL BOARD (ONE SIDE MIN.) OR PROVIDE MID HT. BLOCKING.
- ALL HEADERS, BEAMS & OTHER STRUCTURAL MEMBERS SHALL BE SPRUCE-PINE-FIR #2 (SPF) OR SOUTHERN PINE #2 (SP) LUMBER, OR BETTER. SUPPORT ALL HEADERS/ BEAMS W (1)2x JACK STUD & (1)2x KING STUD, MINIMUM.
- THE NUMBER OF STUDS SPECIFIED AT A SUPPORT INDICATES THE NUMBER OF JACK STUDS REQUIRED, U.N.O.. ALL NON-BEARING INTERIOR STUD WALLS SHALL BE CONSTRUCTED
- WITH 2x 'STUD' GRADE MEMBERS SPACED @ 24" O.C. (MAX., U.N.O.)

   HEADERS IN NON-LOAD BEARING WALLS SHALL BE: (1)2x4/6 FLAT @ OPENINGS UP TO 4', (2)2x4/6 FLAT UP TO 8'.
- ALL FRAMING LUMBER SHALL BE DRIED TO 15% MC (KD-15). ENGINEERED LUMBER BEAMS TO MEET OR EXCEED THE FOLLOWING:
- 'LVL' Fb=2600 psi; Fv=285 psi; E=2.0x10^6 psi
- ENGINEERED LUMBER POSTS TO MEET OR EXCEED THE FOLLOWING: "LVL" - Fb=2400 psi; FcII=2500 psi; E=I.8xI0^6 psi
- FOR 2 & 3 PLY BEAMS OF EQUAL 134" MAX. WIDTH, FASTEN PLIES TOGETHER WITH 3 ROWS OF 3"X0.120" NAILS @ 8" O/C OR 2 ROWS USP WS35 SCREWS (OR 31/5" TRUSSLOK SCREWS) @ 16" O/C. USE A MINIMUM OF 4 ROWS FOR BEAM DEPTHS OF 14" OR GREATER. APPLY FASTENING AT BOTH FACES FOR 3-PLY CONDITION. LOCATE TOP & BOTTOM NAILS/SCREWS 2" FROM EDGE. SOLID 3 ½" OR 5 ¼" BEAMS ARE ACCEPTABLE USE 2 ROWS OF NAILS FOR 2x6 & 2x8
- FOR 4 PLY BEAMS OF FOUAL 13/4" MAX WIDTH FASTEN PLIES TOGETHER WITH 3 ROWS OF USP WS6 SCREWS (OR 6 3/4" TRUSSLOK SCREWS) @ 16" O/C. USE A MINIMUM OF 4 ROWS FOR BEAM DEPTHS OF I4" OR GREATER. APPLY FASTENING AT BOTH FACES (ONE SIDE ONLY FOR TRUSSLOK SCREWS). LOCATE TOP AND BOTTOM SCREWS 2" FROM EDGE. A SOLID 7" BEAM IS ACCEPTABLE.
- PROVIDE SOLID BLOCKING IN FLOOR SYSTEM UNDER ALL POSTS
- CONTINUOUS TO FND./BEARING. BLOCKING TO MATCH POST ABOVE. ALL EXTERIOR 4x4 WOOD POSTS SHALL HAVE USP BC522-4 CAP & PA44E BASE, U.N.O.
- · CORROSION NOTES
  - BUILDER RESPONSIBLE TO DETERMINE CORROSION-RESISTANCE REQUIREMENTS AND COMPATIBILITY OF HARDWARE, FASTENERS AND CONNECTORS FOR ENVIRONMENTAL EXPOSURE AND IN CONTACT W/ PRESERVATIVE-TREATED WOOD OF ACTUAL FINAL CONDITIONS AND SOURCED MATERIALS. CONTACT LUMBER & HARDWARE SUPPLIERS TO COORD.
- ALL FASTENERS AND CONNECTORS EXPOSED TO SALT WATER (WITHIN 300' OF SALT WATER SHORELINE, INCLUDING VENTED SPACES) SHALL BE STAINLESS STEEL.

BRIARWOOD

.OT 14

MULHERN+KUL
RESIDENTIAL STRUCTURAL ENGINEERI (Svay, Stitle 165 v maffemikaja smr

C-3825

#



lulhern+Kulp project numbe 256-22019

SMK RAF ssue date: 01.13.2023

initial:

REVISIONS

SMITH DOUGL HOMES

STRUCTURAL NOTES MOD 

H WIND ZONE CAROLINA BENSON 120 MPH NORTH (

GENERAL



MULHERN+KULP

RESIDENTIAL STRUCTURAL ENGINEERING

PER DESIDENTIAL ENGINE

Aulhern+Kulp project number: 256-22019

SMK RAP issue date: 01.13.2023

REVISIONS:

initial:

SMITH DOUGLAS HOMES

MODEL

#### LEGEND

RT. INDICATES ROOF TRUSSES @ 24" O.C. PER ROOF. MANUF. (TYP. U.N.O.)

NOTE: 14" FLOOR TRUSSES @ 24" O.C. MAX. IS AN ACCEPTABLE ALTERNATE FLOOR SYSTEM

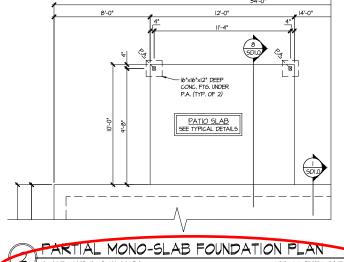
- JOIST MANUFACTURER SHALL DESIGN FLOOR - SYSTEM FOR ADD'L 10 PSF DEAD LOAD AT THESE

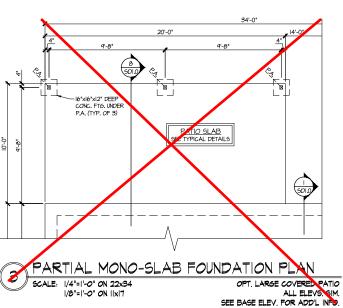
INTERIOR BEARING WALL

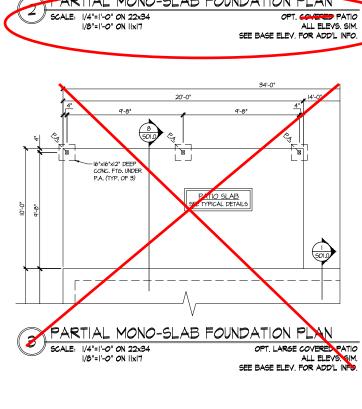
• — BEAM/HEADER

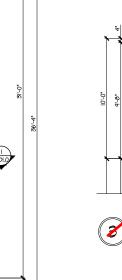
• JL METAL HANGER

BLOCKING UNDER POST OR JAMB ABOVE.









-16"x16"x12" CONC. FOOTING UNDER P.A.

MONO-SLAB FOUNDATION PLAN SCALE: |/4"=|'-0" ON 22x34 |/8"=|'-0" ON ||x|7 ALL ELEVS, SIM,

SLAB-ON-GRADE SEE TYPICAL DETAILS

19'-8 1/2"

(5DI.0)

BRICK ONLY @ ELEVS. "B, D, F, G, H, I"

#### BRIARWOOD .OT 14

CONC. FOOTING UNDER P.A.

OPT. SIDE ENTRY GARAGE ALL ELEVS. SIM. SEE BASE ELEV. FOR ADD'L INFO.

REFER TO SO.O FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

PARTIAL MONO-SLAB FOUNDATION PLAN

-30"x30"x12" PLAIN CONG. FOOTING UNDER P.A.

5 5DI.0

BRICK ONLY 9-ELEVS. B,D,F,6,H,I

SCALE: 1/4"=1'-0" ON 22x34

1/8"=1'-0" ON 11x17

GARAGE SLAB SEE TYPICAL DETAILS

OF INDICATES TRUSS OVERFRAMING (
24" O.C. (TYP. U.N.O.)

INDICATES 14" DEEP FLOOR I-JOISTS © 24" O.C.
MAX. JOIST SERIES AND SPACING SHALL BE THE
RESPONSIBILITY OF THE MANUFACTURER

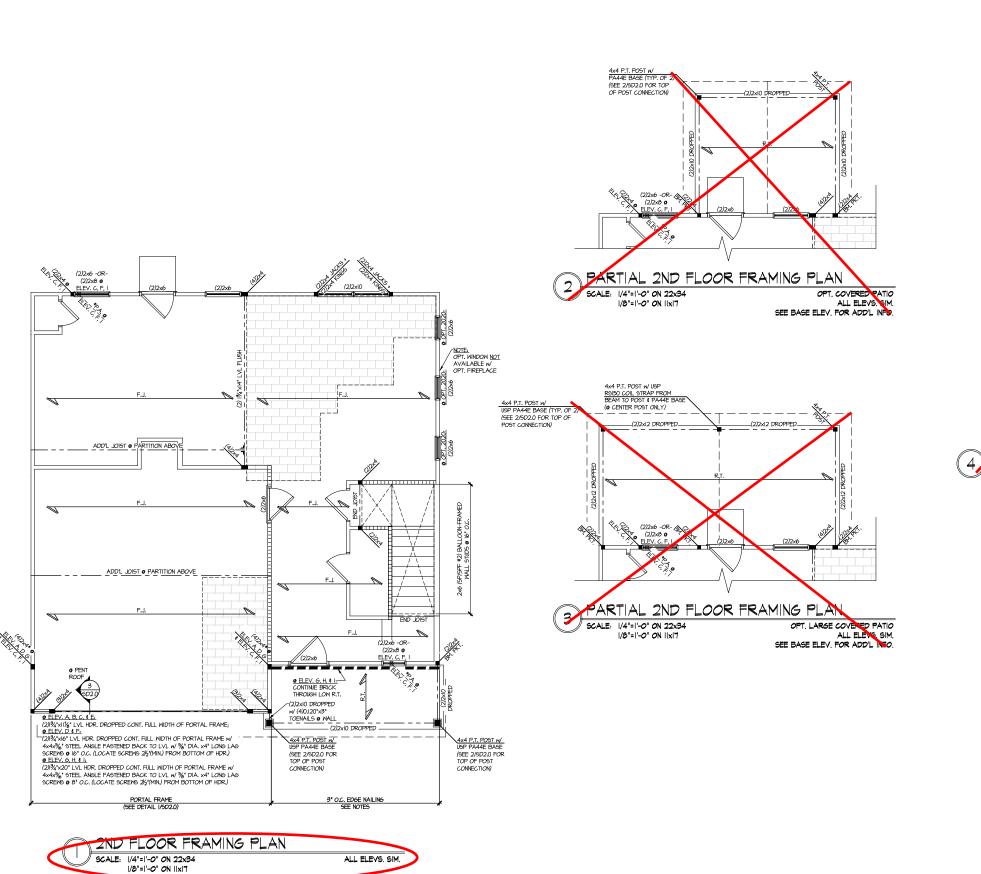
INDICATES LOCATIONS OF POTENTIAL TILE FLOOR

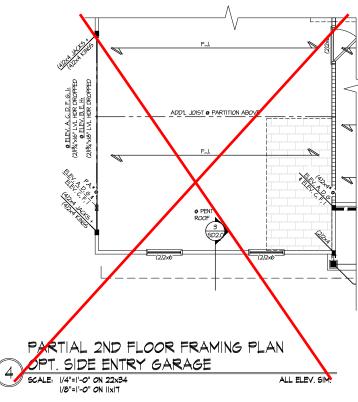
• □□□□□ BEARING WALL ABOVE (B.W.A.)

• \* INDICATES POST ABOVE (P.A.) PROVIDE SOLID

FOUNDATION MONO-SLAB

120 MPH WIND ZONE NORTH CAROLINA BENSON





#### BRIARWOOD \_OT 14

THIS LEVEL HAS BEEN DESIGNED FOR 9'-1" PLATE HEIGHT

REFER TO SO.O FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

#### LEGEND

RT. INDICATES ROOF TRUSSES @ 24" O.C. PER ROOF. MANUF. (TYP. U.N.O.)

O.F. INDICATES TRUSS OVERFRAMING @ 24" O.C. (TYP. U.N.O.)

INDICATES 14" DEEP FLOOR I-JOISTS © 24" O.C.
MAX. JOIST SERIES AND SPACING SHALL BE THE
RESPONSIBILITY OF THE MANUFACTURER NOTE: 14" FLOOR TRUSSES @ 24" O.C. MAX. IS AN ACCEPTABLE ALTERNATE FLOOR SYSTEM

INDICATES LOCATIONS OF POTENTIAL TILE FLOOR JOIST MANUFACTURER SHALL DESIGN FLOOR

SYSTEM FOR ADD'L 10 PSF DEAD LOAD AT THESE

INTERIOR BEARING WALL

• □□□□□ BEARING WALL ABOVE (B.W.A.)

BEAM/HEADER

• JL METAL HANGER

• # INDICATES POST ABOVE (P.A.) PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.

7/14/23

MULHERN+KULP
RESIDENTIAL STRECTORAL ENGINEERINS 1905 Brackside Perkwey, Suite 1905 - Alpha 1970-177-4874 - medianikajanen NC License # C-3825

lulhern+Kulp project number 256-22019

SMK RAF issue date: 01.13.2023

REVISIONS: initial:

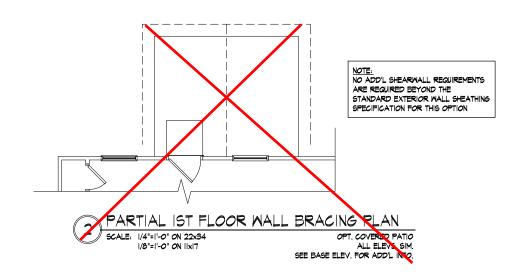
SMITH DOUGLAS HOMES

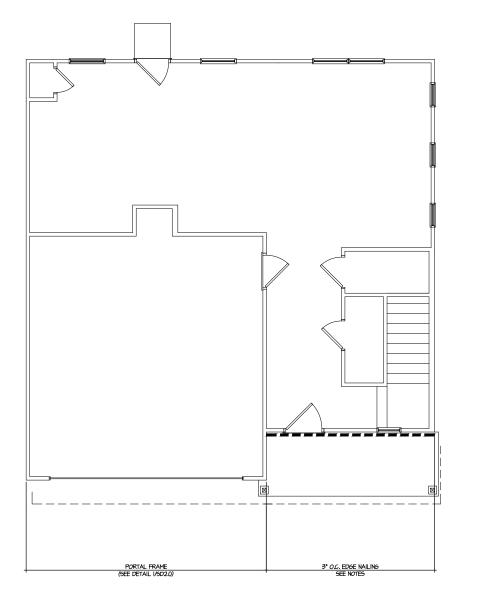
PLAN MODEL FRAMING FLOOR

120 MPH WIND ZONE NORTH CAROLINA BENSON

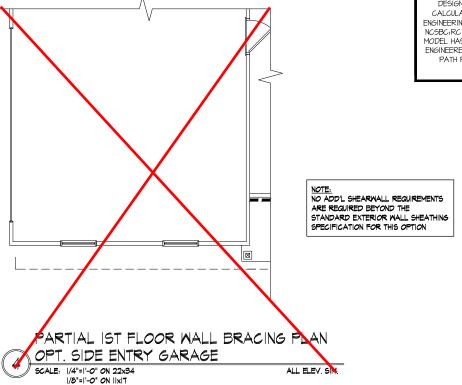
2ND

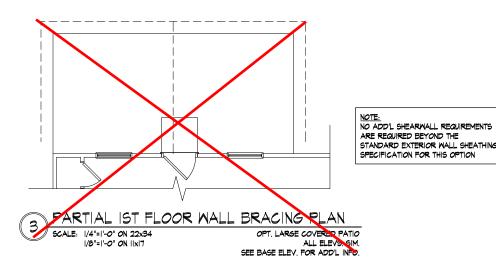
**S2.0M** 





ST FLOOR WALL BRACING PLAN SCALE: |/4"=|'-0" ON 22x34 |/8"=|'-0" ON ||x|7 ALL ELEVS, SIM,





SHEATHING SPECIFICATIONS

THIS MODEL HAS BEEN DESIGNED TO RESIST LATERAL FORCES RESULTING FROM:

#### OMPH WIND IN 2018 NCSBC:F # 120MPH WIND IN 2018 IRC

(120 MPH WIND SPEED IN ASCE 7 WIND MAP, PER IRC R301.2.1.1) EXP. B, RISK CAT. 2 & SEISMIC CAT. A/B.

THE DESIGN WAS COMPLETED PER 2015 \$ 2018 IBC (SECTION 1609) & ASCE 7, AS PERMITTED BY R301.1.3 F THE 2018 NCSBC:RC & 2018 IRC. ACCORDINGLY THIS MODEL, AS DOCUMENTED AND DETAILED HEREWITHIN, IS ADEQUATE TO RESIST THE CODE REQUIRED LATERAL FORCES.

DESIGN WIND UPLIFT LOADS HAVE BEEN CALCULATED UTILIZING ASCE 7 (ACCEPTED ENGINEERING PRACTICE) AS ALLOWED PER 2018 NCSBC:RC & 2018 IRC SECTION R802.II.I.I. THIS MODEL HAS BEEN DETAILED WHERE REQUIRED & ENGINEERED TO RESIST THE WIND UPLIFT LOAD PATH PER SECTIONS R602.3.5¢ R802.II.

#### LATERAL/WALL BRACING & WALL

7/16" 05B OR 15/32" PLYWOOD: FASTEN SHEATHING W/ 2 3"x0.113 NAILS @ 6" O.C. A EDGES & @ 12" O.C. IN THE PANEL FIELD. (TYP, U.N. ALL SHEATHING PANELS SHALL BE ORIENTED

VERTICALLY (LONG DIRECTION PARALLEL TO STUDS, AND INSTALLED FULL HEIGHT OF SHEAR WALL - OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT ALL UNSUPPORTED PANEL EDGES & EDGE

EXT. WALL SHEATHING SPECIFICATION

• ALL EXT. WALLS SHALL BE CONTINUOUSLY SHEATHED AND ARE CONSIDERED SHEAR WALLS.

 ALT STAPLE CONNECTION SPEC. 1 3/4" 16 GA STAPLES (1/6" CROWN) • 3" O.C. AT EDGES \$ • 6" O.C IN FIELD.

#### 3" O.C. EDGE NAILING

• AT DESIGNATED AREAS - FASTEN PANEL EDGES OF MOOD STRUCTURAL WALL SHEATHING TO FRAMING W 2 3 × 0.113" NAILS @ 3" O.C. AND 12" O.C. IN THE PANEL FIELD NO STAPLE ALTERNATIVE AVAILABLE
AT THIS SPEC. ALL SHEATHING PANELS SHALL BE ORIENTED VERTICALLY (LONG DIRECTION PARALLEL TO STUD) AND INSTALLED FULL HEIGHT OF SHEAR WALL - OR - 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT UNSUPPORTED PANEL EDGES AND 3" O.C. EDGE FASTENING.

#### **NOTES**

- SEE CONNECTION SPECIFICATIONS CHART FOR STANDARD SHEAR TRANSFER DETAILING. IF ADDITIONAL CAPACITY IS REQUIRED BY DESIGN IT WILL BE SPECIFICALLY NOTED ON PLAN.
- DESIGN ASSUMES 16" O.C MAX. STUD SPACING, U.N.O
- ALL STRUCTURAL PANELS ARE TO BE DIRECTLY APPLIED TO STUD FRAMING
- PRE-MANUFACTURED PANELIZED WALLS:
  FASTEN TOGETHER END STUDS OF WALL PANELS
  SHEATHED W/ OSB OR PLYWOOD W/3" x 0.120" NAILS @ 4" O.C. (THRU ONE SIDE ONLY)

INDICATES EXTENT OF INT. OSB
SHEARWALL, AND/OR 3" O.C. EDGE NAILING

NDICATES HOLDOWN

# MULHERN + KULP RESIDENTIAL STRUCTURAL ENSINERING SESSENCIAL PARAMETERS - Aphrens, 84,3002 9.719-771-471 - mathematican NC License # C-3825

Aulhern+Kulp project number 256-22019

7/14/23

Structural Engin

SMK RAF

issue date: 01.13.2023 REVISIONS:

initial:

SMITH DOUGLAS HOMES

#### BRIARWOOD OT 14

THIS LEVEL HAS BEEN DESIGNED FOR 9'-I" PLATE HEIGHT

REFER TO 50.0 FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

#### LEGEND

R.T. NDICATES ROOF TRUSSES @ 24" O.C. PER ROOF. MANUF. (TYP. U.N.O.)

OF. INDICATES TRUSS OVERFRAMING @ 24" O.C. (TYP. U.N.O.)

INDICATES LOCATIONS OF POTENTIAL TILE ELOOR - JOIST MANUFACTURER SHALL DESIGN FLOOR - SYSTEM FOR ADD'L 10 PSF DEAD LOAD AT THESE

INTERIOR BEARING WALL

• BEAM/HEADER

• JL METAL HANGER

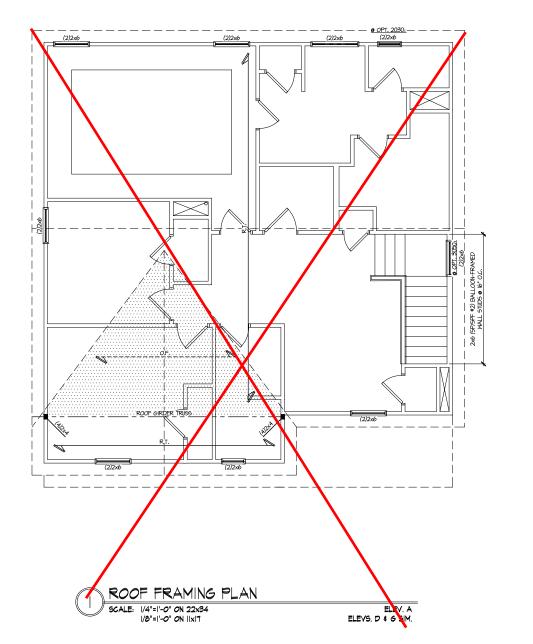
INDICATES 14" DEEP FLOOR 1-JOISTS @ 24" O.C.
MAX, JOIST SERIES AND SPACING SHALL BE THE
RESPONSIBILITY OF THE MANUFACTURER NOTE: 14" FLOOR TRUSSES @ 24" O.C. MAX, IS AN ACCEPTABLE ALTERNATE FLOOR SYSTEM

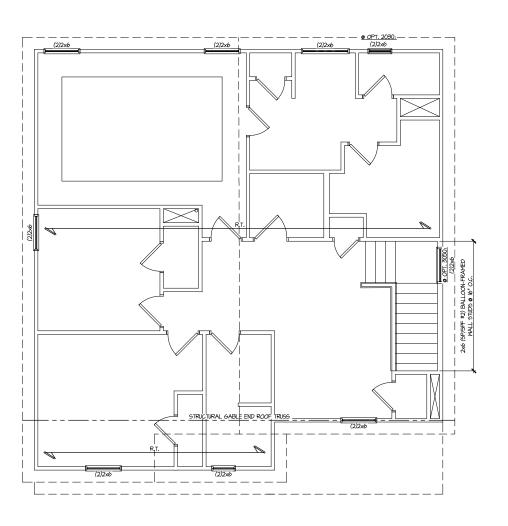
• □□□□□ BEARING WALL ABOVE (B.W.A.)

INDICATES POST ABOVE (P.A.) PROVIDE SOLID

PLAN BRACING MODE WALL BENSON FLOOR S

120 MPH WIND ZONE NORTH CAROLINA









Mulhern+Kulp project number:

256-22019 SMK

RAP issue date: 01.13.2023

initial:

SMITH DOUGLAS HOMES

REFER TO SO.O FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

#### LEGEND

RT. INDICATES ROOF TRUSSES © 24" O.C. PER ROOF. MANUF. (TYP. U.N.O.)

OF INDICATES TRUSS OVERFRAMING © 24" O.C. (TYP. U.N.O.)

F.J. INDICATES I4" DEEP FLOOR I-JOISTS © 24" O.C. MAX. JOIST SERIES AND SPACING SHALL BE THE RESPONSIBILITY OF THE MANUFACTIRER NOTE: I4" FLOOR TRUSSES © 24" O.C. MAX. IS AN ACCEPTABLE ALTERNATE FLOOR SYSTEM

INDICATES LOCATIONS OF POTENTIAL TILE FLOOR.
JOIST MANUFACTURER SHALL DESIGN FLOOR
F SYSTEM FOR ADD'L 10 PSF DEAD LOAD AT THESE
LOCATIONS.

• IIIIIII INTERIOR BEARING WALL

• ETTT BEARING WALL ABOVE (B.W.A.)

• — BEAM/HEADER

• JL METAL HANGER

\*\* INDICATES POST ABOVE (P.A.) PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.

**BRIARWOOD** 

THIS LEVEL HAS BEEN DESIGNED FOR 9'-I" PLATE HEIGHT

OT 14

BENSON II MODEL PLAN ROOF FRAMING

**S3.0M** 

120 MPH WIND ZONE NORTH CAROLINA

#### SHEATHING SPECIFICATIONS

LATERAL FORCES RESULTING FROM:

#### <u>OMPH WIND IN 2018 NCSBC:R</u>

# 120MPH WIND IN 2018 IRC (120 MPH WIND SPEED IN ASCE 7 WIND MAP, PER IRC R301.2.1.1) EXP. B, RISK CAT. 2 & SEISMIC CAT. A/B.

THE DESIGN WAS COMPLETED PER 2015 & 2018 IBC (SECTION 1609) & ASCE 7, AS PERMITTED BY R301.1.3 F THE 2018 NCSBC:RC & 2018 IRC. ACCORDINGLY THIS MODEL, AS DOCUMENTED AND DETAILED HEREWITHIN, IS ADEQUATE TO RESIST THE CODE

REQUIRED LATERAL FORCES.

DESIGN WIND UPLIFT LOADS HAVE BEEN CALCULATED UTILIZING ASCE 7 (ACCEPTED ENGINEERING PRACTICE) AS ALLOWED PER 2018 NCSBC:RC & 2018 IRC SECTION R802.II.I.I. THIS MODEL HAS BEEN DETAILED WHERE REQUIRED & ENGINEERED TO RESIST THE WIND UPLIFT LOAD PATH PER SECTIONS R602.3.54 R802.II.

#### \_ATERAL/WALL BRACING & WALL

THIS MODEL HAS BEEN DESIGNED TO RESIST

ALL SHEATHING PANELS SHALL BE ORIENTED

VERTICALLY (LONG DIRECTION PARALLEL TO STUDS, AND INSTALLED FULL HEIGHT OF SHEAR WALL - OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT ALL UNSUPPORTED PANEL EDGES & EDGE

7/16" OSB OR 15/32" PLYWOOD:

ALL EXT. WALLS SHALL BE CONTINUOUSLY SHEATHED
 AND ARE CONSIDERED SHEAR WALLS.

 ALT, STAPLE CONNECTION SPEC: 1 3/4" 16 GA STAPLES (1/6" CROWN) • 3" O.C. AT EDGES \$ • 6" O.C IN FIELD.

#### 3" O.C. EDGE NAILING

• AT DESIGNATED AREAS - FASTEN PANEL EDGES OF MOOD STRUCTURAL WALL SHEATHING TO FRAMING W 2 3 × 0.113" NAILS @ 3" O.C. AND 12" O.C. IN THE PANEL FIELD NO STAPLE ALTERNATIVE AVAILABLE
AT THIS SPEC. ALL SHEATHING PANELS SHALL BE ORIENTED VERTICALLY (LONG DIRECTION PARALLEL TO STUD) AND INSTALLED FULL HEIGHT OF SHEAR MALL - OR - 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT UNSUPPORTED PANEL EDGES AND 3" O.C. EDGE FASTENING.

#### **NOTES**

- SEE CONNECTION SPECIFICATIONS CHART FOR STANDARD SHEAR TRANSFER DETAILING. IF ADDITIONAL CAPACITY IS REQUIRED BY DESIGN, IT WILL BE SPECIFICALLY NOTED ON PLAN.
- DESIGN ASSUMES 16" O.C MAX. STUD SPACING, U.N.O. • ALL STRUCTURAL PANELS ARE TO BE DIRECTLY
- APPLIED TO STUD FRAMING
- PRE-MANUFACTURED PANELIZED WALLS:
  FASTEN TOGETHER END STUDS OF WALL PANELS
  SHEATHED W OSB OR PLYWOOD W 3" x 0.120" NAILS @ 4" O.C. (THRU ONE SIDE ONLY)

INDICATES EXTENT OF INT. OSB
SHEARWALL, AND/OR 3" O.C. EDGE NAILING

INDICATES HOLDOWN

### BRIARWOOD THIS LEVEL HAS BEEN DESIGNED FOR 9'-1" PLATE HEIGHT REFER TO 50.0 FOR TYPICAL STRUCTURAL NOTES & SCHEDULES LEGEND

R.T. NDICATES ROOF TRUSSES @ 24" O.C. PER ROOF. MANUF. (TYP. U.N.O.)

OF INDICATES TRUSS OVERFRAMING @ 24" O.C. (TYP. U.N.O.)

INDICATES 14" DEEP FLOOR 1-JOISTS @ 24" O.C.
MAX. JOIST SERIES AND SPACING SHALL BE THE
RESPONSIBILITY OF THE MANUFACTURER NOTE: 14" FLOOR TRUSSES @ 24" O.C. MAX. IS AN ACCEPTABLE ALTERNATE FLOOR SYSTEM

INDICATES LOCATIONS OF POTENTIAL TILE FLOOR JOIST MANUFACTURER SHALL DESIGN FLOOR

SYSTEM FOR ADD'L 10 PSF DEAD LOAD AT THESE

INTERIOR BEARING WALL

● □□□□□ BEARING WALL ABOVE (B.W.A.)

BEAM/HEADER

• JL METAL HANGER

INDICATES POST ABOVE (P.A.) PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.

EXT. WALL SHEATHING SPECIFICATION FASTEN SHEATHING W/ 2 3"x0.113 NAILS @ 6" O.C. A EDGES & @ 12" O.C. IN THE PANEL FIELD. (TYP, U.N. Structural Engin

MULHERN + KULP RESIDENTIAL STRUCTURAL ENSINERING SESSENCIAL PARTY - MATERIAL STATES \$778-77-474 - Ambrendagen NC License # C-3825



Aulhern+Kulp project number 256-22019

> SMK RAF

ssue date: 01.13.2023 REVISIONS:

initial:

SMITH DOUGLAS HOMES

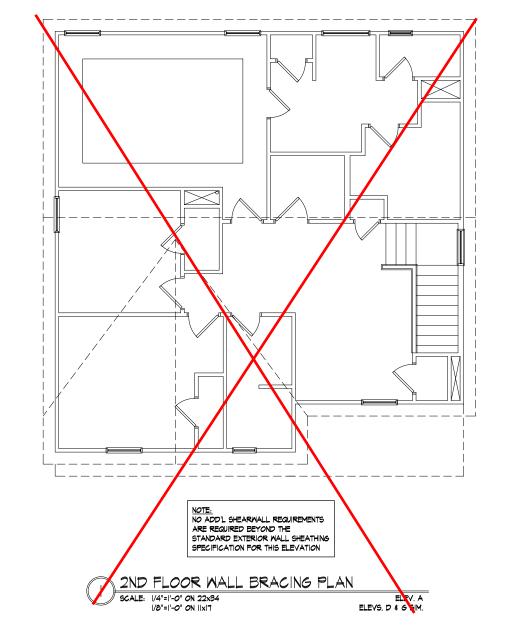
PLAN BRACING

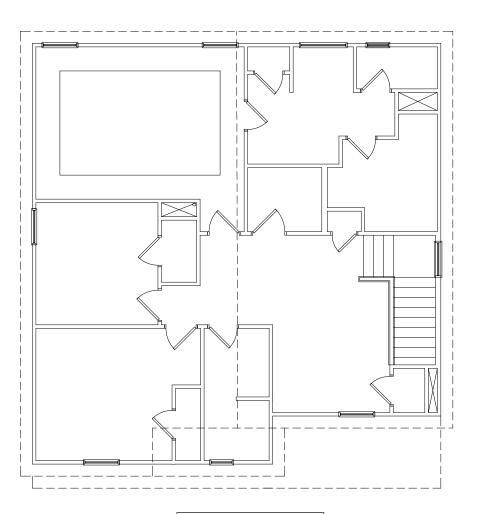
WALL

FLOOR

2ND

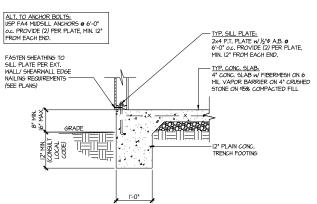
MODI 120 MPH WIND ZONE NORTH CAROLINA BENSON

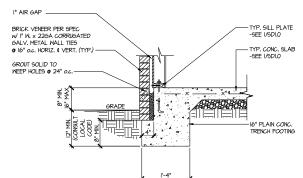




NOTE: NO ADD'L SHEARWALL REQUIREMENTS ARE REQUIRED BEYOND THE STANDARD EXTERIOR WALL SHEATHING SPECIFICATION FOR THIS ELEVATION

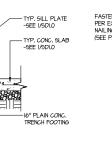
2ND FLOOR WALL BRACING PLAN SCALE: 1/4"=1'-0" ON 22x34 ELEV. B ELEVS. E & H SIM 1/8"=1'-0" ON 11x17



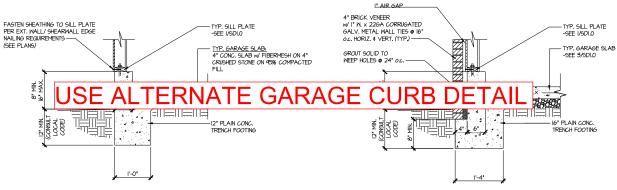


TYPICAL SLAB ON GRADE

2 PERIMETER FOOTING



w/ BRICK VENEER

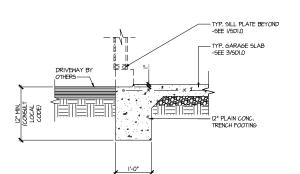


OPT. BRICK (SEE ARCH FOR LOCATIONS)

FASTEN SHEATHING TO-

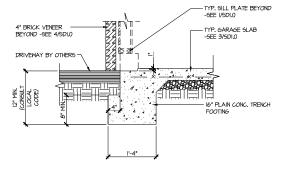
TYPICAL SLAB ON GRADE GARAGE 3 PERIMETER FOOTING

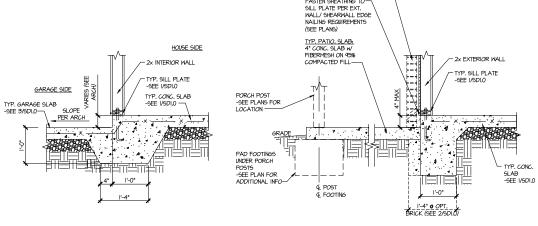
TYPICAL SLAB ON GRADE GARAGE 4 PERIMETER FOOTING n/ BRICK VENEER



TYPICAL SLAB ON GRADE

PERIMETER FOOTING



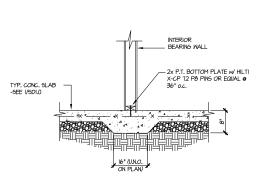


TYPICAL SLAB ON GRADE GARAGE (5) ENTRY @ PERIMETER FOOTING









TYPICAL THICKENED SLAB @ 9 INTERIOR BEARING WALL

BRIARWOOD \_OT 14

MULHERN+KULP
RESIDENTIAL STREETURAL ENGINEERINS

License # C-3825

Mulhern+Kulp project number 256-22019

SMK RAF issue date: 01.13.2023

REVISIONS: initial:

SMITH DOUGLAS HOMES

MODEL FOUNDATION DETAILS 

120 MPH WIND ZONE NORTH CAROLINA BENSON

**SD1.0** 



3625 Brookside Parkway, Suite 165, Alpharetta, GA 30022 ► p 770-777-0074 ► *mulhernkulp.com* 

August 18, 2023

Jody Hunt

Director of Product Development

# **SMITH DOUGLAS HOMES**

110 Village Trail, Suite 215 Woodstock, GA 30188

# **ALTERNATE GARAGE CURB DETAIL**

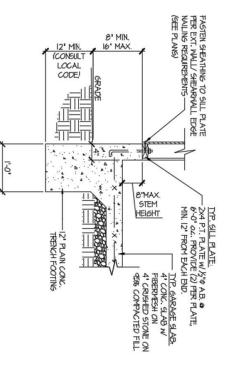
**Smith Douglas Homes** 

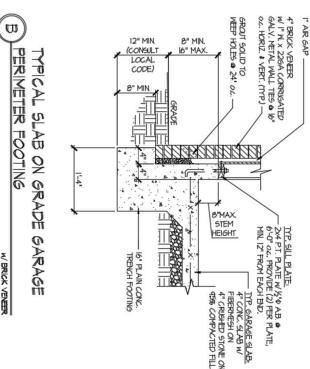
### Reference

Current Structural Plans prepared by Mulhern & Kulp

Jody:

Smith Douglas Homes shown below. The foundation details shown below call for a 4" wide curb with a maximum of 8" stem wall height; these are an acceptable alternative to the 6" wide curb at the garage per M&K foundation details 3 & 4 on sheet SD-1.0 at 2x4 garage Pursuant to your request, we have prepared this letter to address the "Alternate Garage Curb Details", prepared by Mulhern & Kulp for wall locations.





Please feel free to call if you have any questions.

PERIMETER FOOTING

TYPICAL SLAB ON GRADE GARAGE

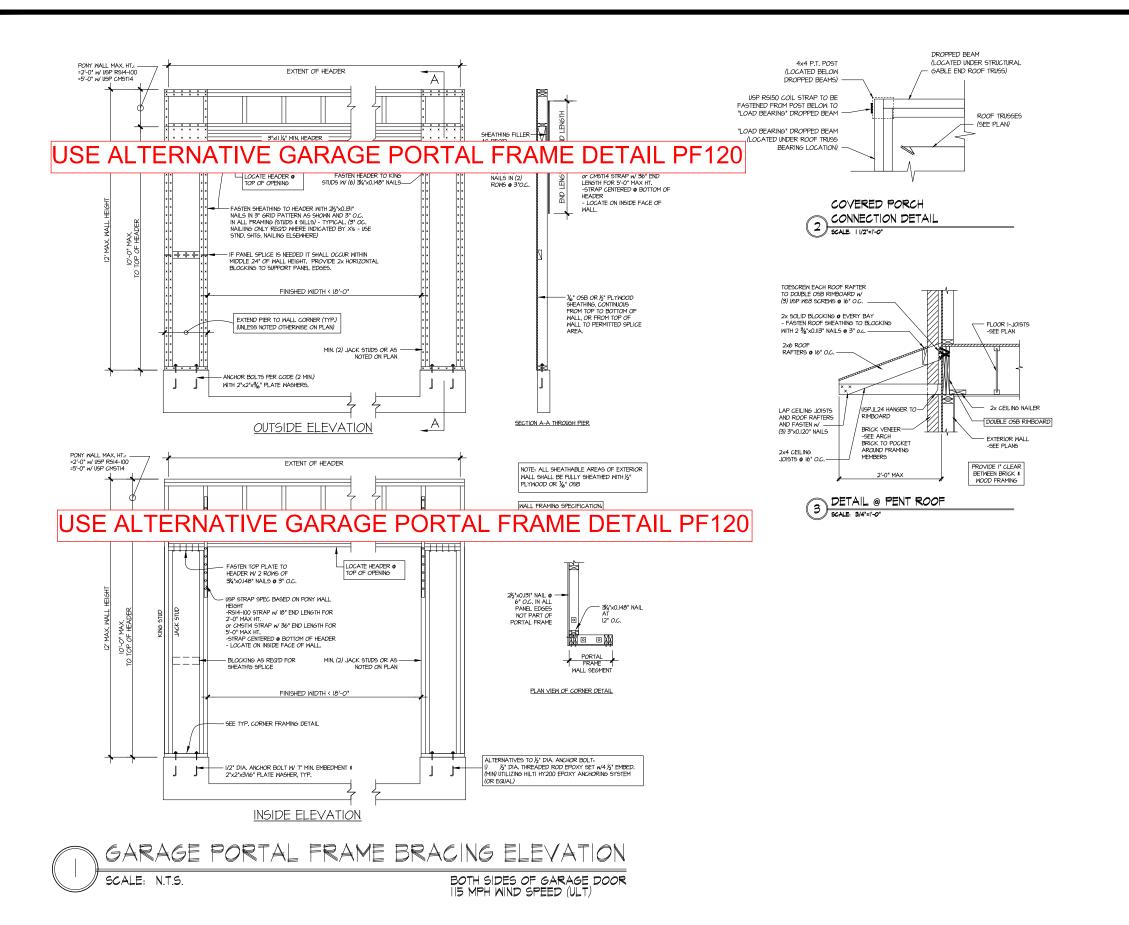
Respectfully,

# MULHERN & KULP STRUCTURAL ENGINEERING, INC.

NC License # C-3825

Shaun M. Kreidel, P.E. Project Manager + Atlanta Office Director





BRIARWOOD LOT 14

SEAL STATE OF THE PROPERTY OF

MULHERN+KULP
RESIDENTIAL STRUCTURAL ENGINEERING
STRUCTURAL ENGINEERING
FTR-TT-RITAL ENGINEERING
NO License # C-3825

**Y** 

Mulhern+Kulp project number: 256-22019

project mgr: SMK drawn by: RAF issue date: 01.13.2023

REVISIONS:
date: initial:

SMITH DOUGLAS HOMES

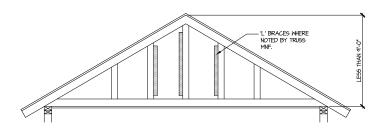
II MODEL

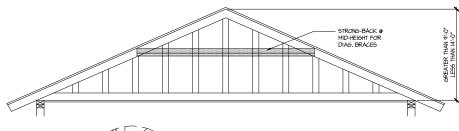
FRAMING DETAILS

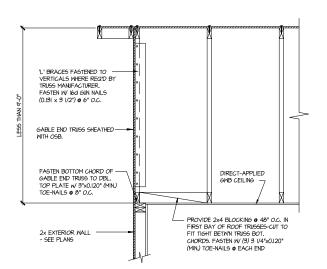
BENSON II Moito MPH WIND ZONE NORTH CAROLINA

sheet:

SD2.0

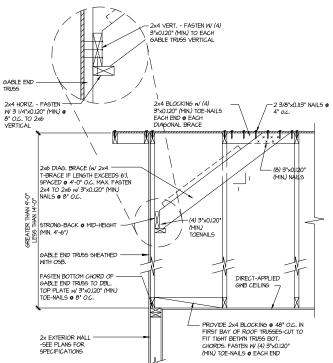






TYPICAL GABLE END BRACING DETAIL A TYPICAL SCALE: NONE

BRACE GABLE END TRUSGES PER ABOVE DETAIL WHEN GABLE HEIGHT IS LESS THAN 9'-O'. L' BRACES REQUIRED WHERE NOTED BY TRUSS MANUFACTURER.



TYPICAL GABLE END BRACING DETAIL

SCALE: NOME REOT & GABLE END TRUSS

REOT & GABLE END TRUSS BRACE GABLE END TRUSSES PER ABOVE DETAIL WHEN GABLE HEIGHT EXCEEDS 9'-0'. 'L' BRACES NOT REQUIRED.

LETTERED DETAILS ARE TYPICAL FOR THIS HOME & SHALL BE IMPLEMENTED IN ALL APPLICABLE AREAS. THESE DETAILS ARE NOT "CUT" ON THE PLANS.

NUMBERED DETAILS ARE PLAN SPECIFIC AND ARE ONLY REQUIRED WHERE SPECIFICALLY INDICATED ("CUT") ON THE PLANS.

> BRIARWOOD OT 14

pyright : MULHERN & KULP Structural Engineering, Inc. MULHERN + KULP

RESIDENTIAL STRUCTURAL ENSINEERING

STS Devicité Parlow, Sub-1955

\$776-777-474 + mathematiques

NC License # C-3825 Mulhern+Kulp project number: 256-22019 issue date: 01.13.2023 REVISIONS: SMITH DOUGLAS HOMES

7/14/23

SMK RAP

initial:

BENSON II MODEL FRAMING DETAILS

SD2.

120 MPH WIND ZONE NORTH CAROLINA



3625 Brookside Parkway, Suite 165, Alpharetta, GA 30022 ► p 770-777-0074 ► *mulhernkulp.com* 

July 28, 2023

Jody Hunt

Director of Product Development

# **SMITH DOUGLAS HOMES**

110 Village Trail, Suite 215 Woodstock, GA 30188

# ALTERNATE GARAGE PORTAL FRAME DETAIL

**Smith Douglas Homes** 

## Reference

"Alternate Garage Portal Frame Detail" on sheet PF-120 & PF-130, prepared by Mulhern & Kulp dated 07/28/2023 - attached

Jody:

Kulp for Smith Douglas Homes. Pursuant to your request, we have prepared this letter to address the "Alternate Garage Portal Frame Detail", prepared by Mulhern &

Mulhern& Kulp. It is the responsibility of "SDH" to provide the correct "Alternate Garage Portal Frame Detail", to the building Carolina with a wind speed less than or equal to 120mph ultimate wind speed per ASCE 7-16. department that matches the jurisdiction's wind speed requirements. or equal to 130mph ultimate wind speed per ASCE 7-16. These details only apply to structural plans that have been designed by Detail" on sheet "PF-130" is an acceptable alternative portal frame design for anywhere in North Carolina with a wind speed less than The "*Alternate Garage Portal Frame Detail*" on sheet "PF-120" is an acceptable alternative portal frame design for anywhere in North The "Alternate Garage Portal Frame

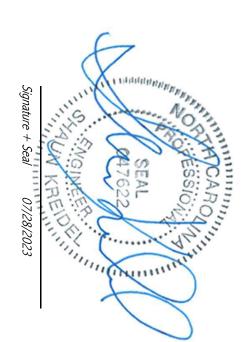
Please feel free to call if you have any questions.

Respectfully,

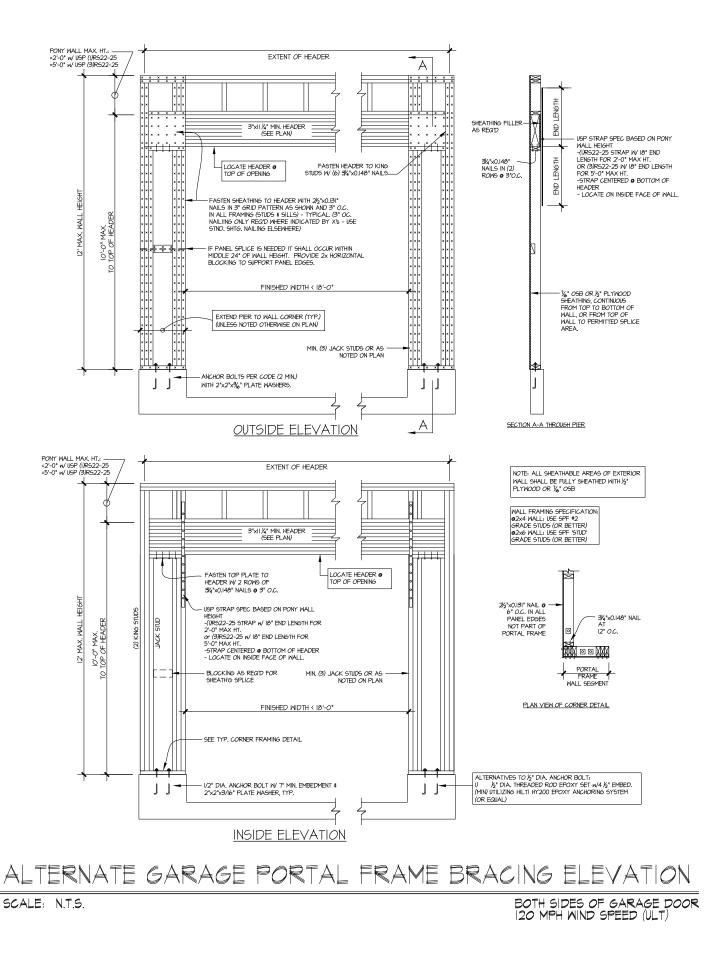
**MULHERN & KULP STRUCTURAL ENGINEERING, INC.** 

NC License # C-3825

Shaun M. Kreidel, P.E. Project Manager + Atlanta Office Director



P:|Client Files|256 - Smith Douglas Homes|2023|23000 - 2023 Client Admin|2023-07-28 - Alternate Portal Frame Letter|Alternate Garage Portal Frame Detail -Letter - RLH.docx

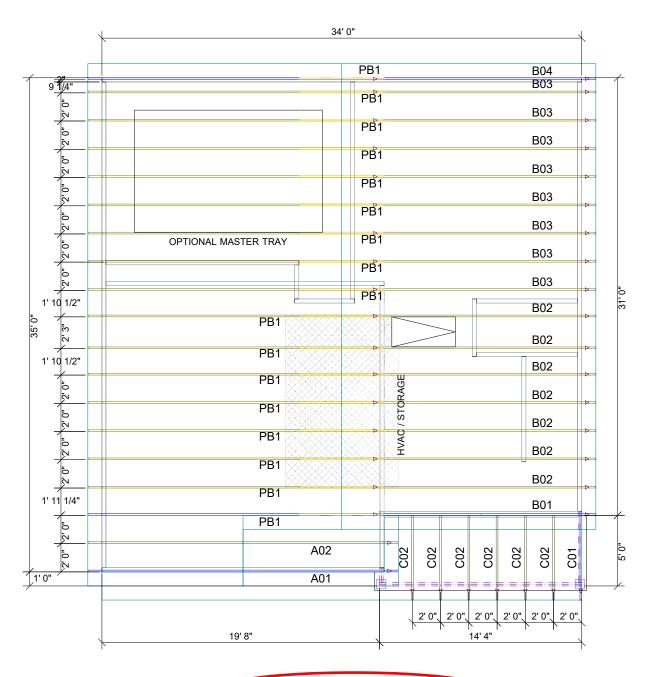


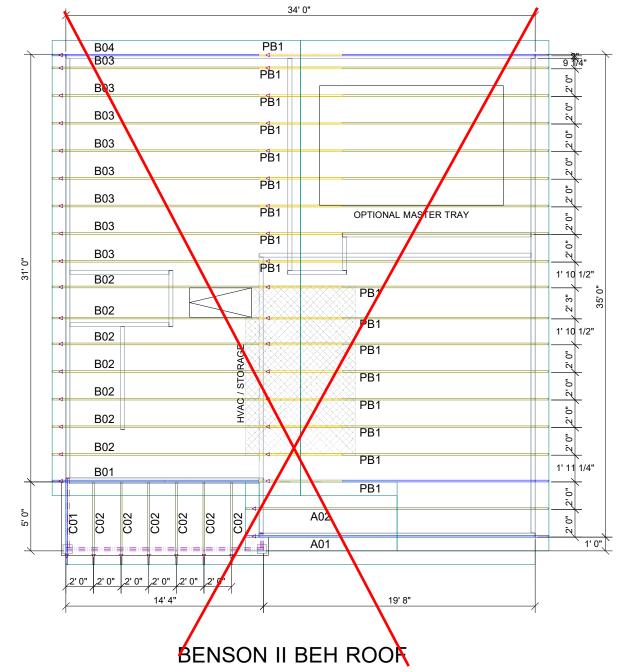
opyright : MULHERN & KULP Structural Engineering, Inc. MULHERN+KULP RESIDENTIAL STRUCTURAL ENGINEERINS \_\_\_\_ Mulhern+Kulp project number: 256-23000 SMK RAP issue date: 07.28.2023 REVISIONS: initial: SMITH DOUGLAS HOMES FRAME PORTAL FRAME ALTERNATE PORTAL

BRIARWOOD \_OT 14

PF-120

#### 72506264 14 BRIARWOOD





BENSON II BEH ROOF

**PLACEMENT PLAN** 

△ INDICATES LEFT END OF TRUSS SCALE: N.T.S

UFP SITE BUILT

-SMITH II BEH -BENSON

DESIGNER HATHCOCK LAYOUT DATE -04.07.2023 ARCH DATE

JOB #: -MASTER

		Products			
PlotID	Length	Product	Plies	Net Qty	Fab Type
J1	34' 0"	14" TJI® 110	1	3	MFD
J2	28' 0"	14" TJI® 110	1	2	MFD
J3	20' 0"	14" TJI® 110	1	1	MFD
J4	20' 0"	14" TJI® 110	1	2	MFD
J5	18' 0"	14" TJI® 110	1	8	MFD
J6	16' 0"	14" TJI® 110	1	9	MFD
J7	5' 0"	14" TJI® 110	1	1	MFD
J8	30' 0"	14" TJI® 210	1	4	MFD
2B-1	15' 0"	1 3/4" x 14" 2.0E Microllam® LVL	2	2	MFD
RIM-1	16' 0"	1 1/8" x 14" TJ® Rim Board	1	9	MFD
Bk1	2' 0"	14" TJI® 110	1	1	MFD

Connector Summary				
PlotID	Qty	Manuf	Product	
H1	17	MiTek	IHFL1714	
H2	2	MiTek	TFL1714	

#### **GENERAL NOTES:**

1.) TOP CHORD OF JOISTS ARE PAINTED RED AT NUMBERED END. PLACE PAINTED END AS

NOTED ON PLAN.

2.) FOLLOW SPECIAL SPACING AND LOCATION DIMENSIONS FOR EXTRAS OR SHIFTED JOISTS

AS SHOWN ON PLAN.
3.) ALL INTERIOR WALL PLATES MUST BE LEVEL WITH OUTSIDE WALL TOP PLATES.

WITH OUTSIDE WALL TOP TATES.

4.) DO NOT STACK CONSTRUCTION LOADS ON UN-BRACED JOISTS.

5.) PROVIDE SOLID SUPPORT BELOW ALL BEAM AND HEADER BEARING POINTS IN WALL AND JOIST SPACES CONTINUOUS DOWN TO THE FOUNDATION.

6.) LOCATE CRIPPLE STUDS IN JOIST SPACE DIRECTLY BELOW HEADER JACKS AT ALL FIRST FLOOR EXTERIOR DOOR LOCATIONS.

7.) INSTALL NAILS IN ALL HOLES PROVIDED IN JOIST HANGERS EXCEPT AT BOTTOM CHORD SEAT. PLACE A DAB OF GLUE IN THE HANGER

SEAT BEFORE SETTING JOISTS. 8.) IMPORTANT NOTE! NO STRUCTURAL ANALYSIS OF CONVENTIONAL HEADERS HAS

BEEN CONDUCTED IF NOT NOTED. THEY ARE CONSIDERED TO BE ADEQUATE TO SUPPORT THE APPLIED LOADS.

#### FRAMER NOTE

DENOTES DUCT HOLE RUNS

ALL DIMENSIONS TO CENTERLINE UNLESS OTHERWISE NOTED

• Avoid Plumbing Drops

#### FRAMER NOTE

. GLUE AND NAIL PLYWOOD SUBFLOOR TO BEAMS AND GIRDERS AT 6" O/C WHERE NO WALL IS ABOVE. 2. FILL HANGER SEAT WITH GLUE BEFORE SETTING JOIST IN HANGER. FILL ROUND HOLES WITH

CRITICAL !!

**INSTALL 2X4 SQUASH BLOCKS** IN FLOOR TRUSS SPACE **BELOW ALL EXTERIOR DOOR** HEADER JACKS. CUT 1/16" TALLER THAN TRUSS.

#### PLAN LEGEND

\*INDICATES BEAM ABOVE TOP PLATE (FLUSH WITH FLOOR SYSTEM) 1B-, 2B-

H-, 1H-, GDH- INDICATES BEAM BELOW TOP PLATE (DROPPED BELOW FLOOR SYSTEM)

\*BEAMS MAY PROTRUDE ABOVE OR BELOW DECKING OR TOP PLATE RESPECTIVELY, REFER TO DETAIL IF BEAM IS A DIFFERENT DEPTH THAN FLOOR SYSTEM

SINGLE PLY BEAM (ADD LINE FOR EACH ADDITIONAL PLY)

PLUMBING, ALIGN W/WALL OR SUPPORT FURNITURE A JOIST ADDED TO THE LAYOUT IN ADDITION TO THE ON CENTER JOISTS

DOUBLE

#### FIELD TRIM NON RED END TO KEEP HOLES ALIGNED CONTAR EL LADO DE SIN MARCA

**ROJA PARA HOYOS ALINEADOS** 

#### **FIELD LOCATE PLUMBING DROPS/CAN LIGHTS, ETC... PRIOR**

**TO JOIST SECUREMENT TO** AVOID INTERFERENCE.

#### LAYOUT FOR 19.2" O/C

1= 19-3/16"	9= 172-13/16"
2= 38-3/8"	10= 192"
3=57-5/8"	11= 211-3/16"
4= 76-13/16"	12= 230-3/8"
5= 96"	13= 249-13/16"
6= 115-3/16"	14= 268-13/16"
7= 134-3/8"	15= 288"
8= 153-5/8"	

FIELD VERIFY DIMENSIONS TO **JOISTS LOCATED UNDER WALLS!!** 2ND FLOOR LAYOUT

JOB #: 25030038F2

2ND FLOOR PLACEMENT PLAN

SCALE: 1/8"=1'

BUILT ةٌ ليا

S | S



**Smith Douglas Homes** 

Benson II 2nd Floor

DESIGNER PB2 LAYOUT DATE 3/3/2025 **ARCH DATE** 9/1/2022 STRUC DATE 7/14/2023