

FIELD & REDLINE NOTES

LIST OF ABBREVIATIONS

ACCESS	ACCESS TO ATTIC OR CRAWL SPACE	DM	DISH WASHER	PKT	POCKET DOOR	T.C.	TOP CHORD
AFF	ABOVE FLOOR	EQ	EQUAL	PERF	PERFORATED	TOP	TOP OF WALL
BD	BOARD	FM	FOUNDATION	PL	PLATE	TRANS	TRANSOM
BRN	BEDROOM	FV	FOUNDATION VENT	PT	PRESSURE TREATED FOR EXPOSURE	TYP	TYPICAL
BM	BEAM	GL	GLASS (DOOR)	PL	POINT LOAD (SOLID BLOCK)	UN	UNLESS OTHERWISE NOTED
CAB	CABINETS / CABINETRY	IB	HOSE BIB	R4S	ROOF & SHELF (CLOSETS)	V.B.	VAPOR BARRIER
C.J.	CENTERLINE	HR	DOOR / WINDOW / OPENING HEADER	REF	REFRIGERATOR	VAN	VANITY
C	CENTERLINE	HVAC	HEATING, VENTING & AIR CONDITION	REIN	REINFORCEMENT	H	HIDE
CMU	CONCRETE MASONRY UNIT	KHALL	KNEEHALL	RH	ROOM	W	WITH
CO	CLEAR OPENING	LVL	LAMINATED VENEER LUMBER	SEG	SEGMENTED		
COL	COLUMN	MANF	MANUFACTURED	SHR	SHOWER		
CONC	CONCRETE	MAS	MASONRY	SHLV(S)	SHELVES(S)		
CSMT	CASEMENT	NG	NOT IN CONTRACT	SPEC(D)	SPECIFICATION / SPECIFIED		
DEL	DOUBLE	OC	ON CENTER	SQ	SQUARE		
DIA	DIAMETER	OH	OVERHANG	ST	SIMPSON STRONG-TIE OR EQUAL		
DASH	DOUBLE HUNG / SINGLE HUNG WINDOW	OFNS	OVERHANG	SUFPLR	SUB-FLOOR		
DN	DOWN			SYP	SOUTHERN YELLOW PINE		
DP	DEEP						

SUMMARY

**PROJECT INFO**  
 NAME OF PROJECT: LOT 643 MANORS @ LEXINGTON PLANTATION / CC2325  
 PROJECT ADDRESS: 130  
 PROPOSED USE: RESIDENTIAL  
 CONTACT: CAVINESS & CATES

**CODE COMPLIANCE**  
 MUNICIPALITY: 2018 NC STATE RESIDENTIAL BUILDING CODE  
 HARRETT COUNTY

**DESIGNER:** TODD TUCKER, AIA, CPED

**BUILDING DESCRIPTION**  
 FIRST FLOOR HEATED: 975 SF  
 SECOND FLOOR HEATED: 1350 SF  
 TOTAL HEATED: 2325 SF

**FRONT PORCH:** 100 SF  
**GARAGE:** 443 SF  
**12x0 COVERED PORCH:** 120 SF

**BUILDING HEIGHT:** 4'-3 1/4" (SLAB)  
**NUMBER OF FLOOR:** 2 STORIES

**DESIGN LOADS**  
 ROOF LOADS: 20 PSF LIVE, 10 PSF DEAD  
 ATTIC LOADS: 20 PSF LIVE (SEE TRUSS DIMS FOR CAROLINA-6), 10 PSF DEAD  
 FIRST FLOOR: 40 PSF LIVE, 10 PSF DEAD  
 UPPER FLOORS: 30 PSF LIVE, 15 PSF DEAD  
 WIND LOAD: FOR ASCE 7-10, RISK CATEGORY II, EXPOSURE B, 120 mph  
 \*\*\* ALL GARAGE PORTAL HALLS TO BE FRAMED WITH 2x6 STUDS

**ATTIC VENT CALCULATIONS R806**

FIRST FLOOR ATTIC AREA: 254 SF	SECOND FLOOR ATTIC AREA: 1350 SF
R806.2 EXCEPTIONS 1 & 2	RIDGE VENTS: 41 LF. / 5 SF. (36%)
	SOFFIT VENTS: 65 LF. / 4 SF. (44%)
	RATIO: $\frac{41}{1350} = \frac{1}{33}$

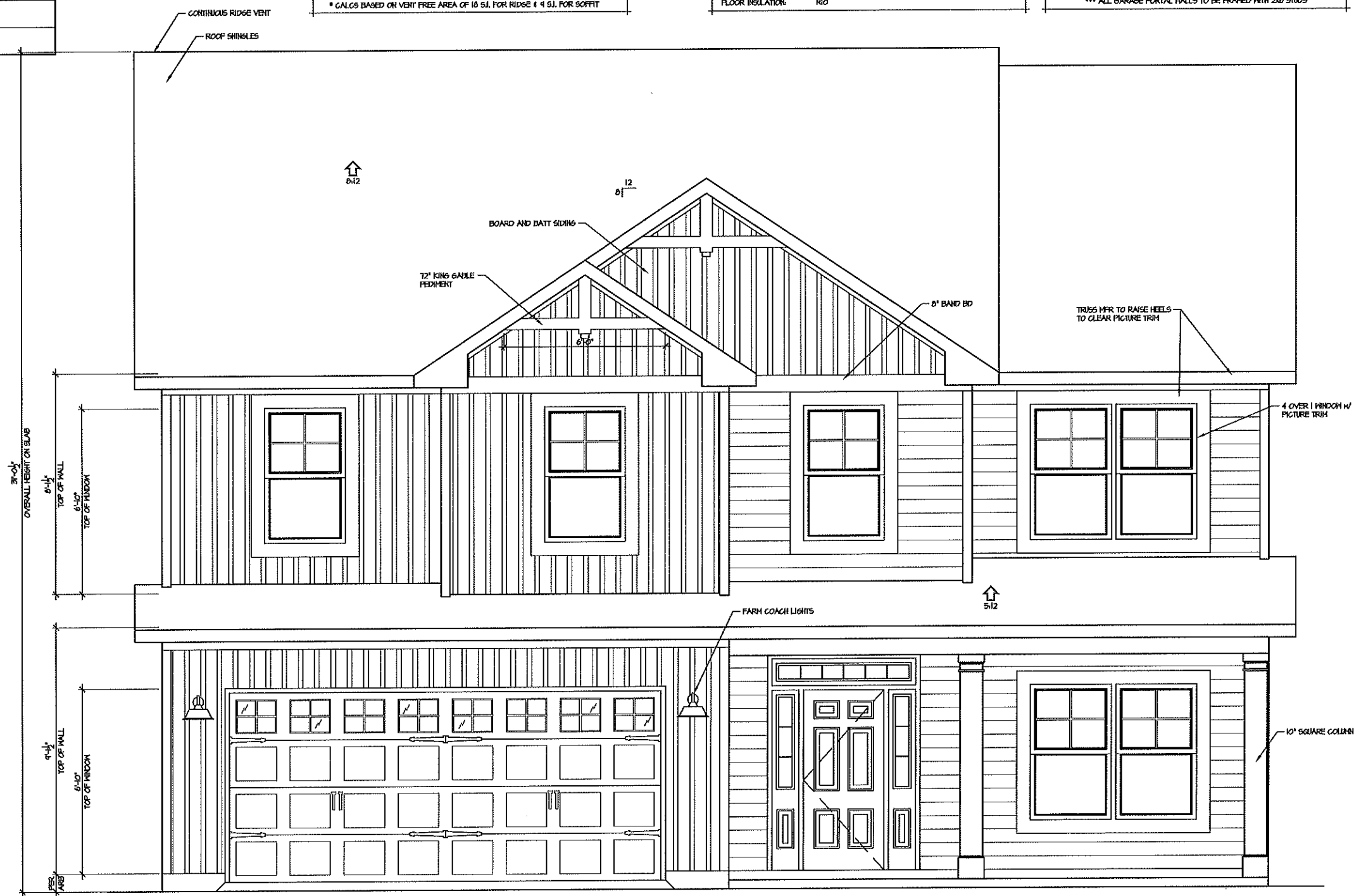
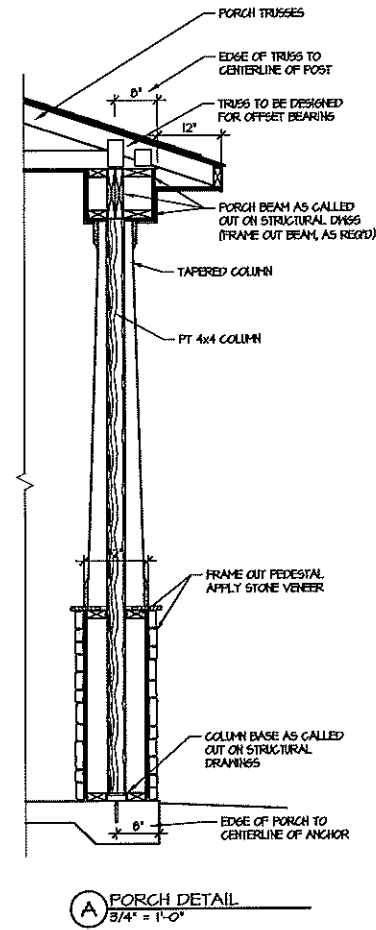
\* CALCS BASED ON VENT FREE AREA OF 10 SJ. FOR RIDGE & 4 SJ. FOR SOFFIT

**ENERGY COMPLIANCE**  
 CLIMATE ZONE: 4A HARRETT COUNTY  
 CHAPTER 11 ENERGY EFFICIENCY COMPLIANCE (CHECK ONE)  
 PRESCRIPTIVE CODE  
 PERFORMANCE CODE

CEILING INSULATION: R55  
 WALL INSULATION: R19  
 FLOOR INSULATION: R10

**LIST OF SYMBOLS**

	SECTION MARK		SLOPE UP PITCH
	DETAIL MARK		EARTH
	TITLE MARK		INSULATION
	INTERIOR BEARING WALL		STANDARD WALL

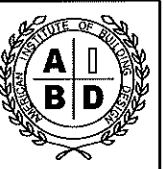


1 FRONT ELEVATION "F"  
 1/2" = 1'-0"

CONSTRUCTION SET 7-22-2021



© 2019 Caviness & Cates  
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 Fax: 910-481-0585



TODD TUCKER 34-156  
 FORTIFIED WISE™  
 PROFESSIONAL  
 910-824-1474

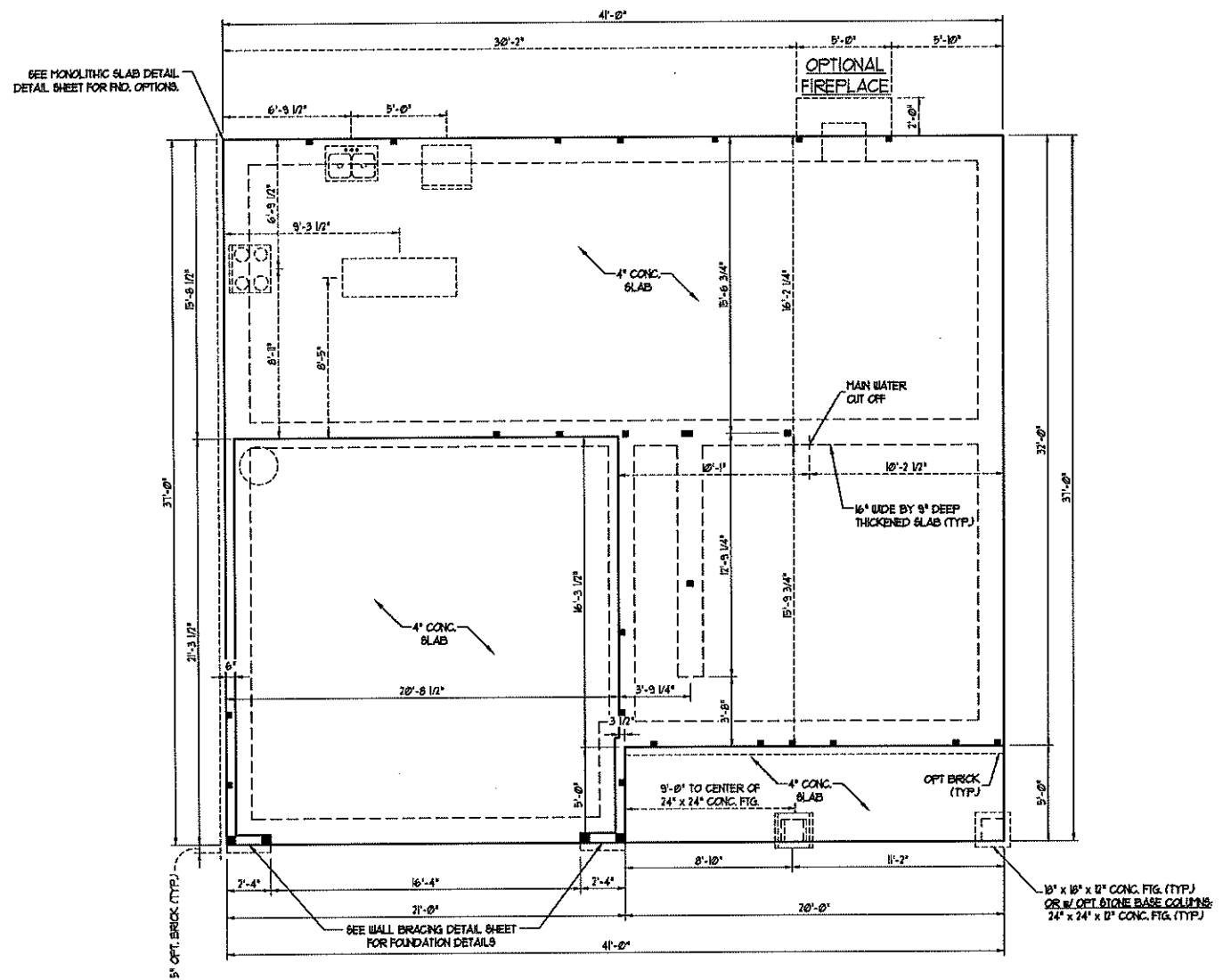
PLAN NUMBER: CC 2325  
 SHEET TITLE: ELEVATIONS

PLAN NO. CC 2325  
 DATE: SEPTEMBER 2019  
 REVISIONS:

SHEET NO. 1  
 LOT ML693

T:\Caviness and Cates\CC 2156 2325\LOT SPECIFIC PLANS\MANORS @ LEXINGTON PLANTATION\ML693\ML693 CC2325F GL 2x6 7-22-21.dwg 7/22/2021 10:10:52 AM, 1:1





**120 MPH ULTIMATE DESIGN WIND SPEED NOTES FOR LESS THAN 30' MEAN ROOF HEIGHT.**

- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM.
- STRUCTURAL DESIGN PER NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION WITH SPECIAL CONSIDERATION TO CHAPTER 16 ("HIGH WIND ZONES" FOR 60 MPH WIND).
- BUILDER IS TO PROVIDE FRAMING CONNECTIONS AS REQUIRED BY CHAPTER 16 ("HIGH WIND ZONES" FOR 60 MPH WIND) OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
- FOUNDATION ANCHORAGE TO COMPLY WITH SECTION 1607.04 OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
- MEAN ROOF HEIGHT IS LESS THAN 30 FEET.
- WALL GLAZINGS DESIGNED FOR: 413 PSF AND -30 PSF (+/- INDICATE POSITIVE / NEGATIVE PRESSURE (TYP)).
- ROOF GLAZINGS DESIGNED FOR: 413 PSF AND -38 PSF FOR ROOF PITCHES 1/2 TO 1/2 AND 41 PSF AND -31 PSF FOR ROOF PITCHES 12/12 TO 1/8.
- 1/2" OSB SHEATHING IS REQUIRED ON ALL EXTERIOR WALLS.
- WALLS TO BE BRACED IN ACCORDANCE WITH SECTION 1607.03 OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION AND AS NOTED ON PLANS.
- ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER 8 OF THE NRC, 2018 EDITION.

**120 MPH ULTIMATE DESIGN WIND SPEED NOTES FOR LESS THAN 30' MEAN ROOF HEIGHT.**

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- STRUCTURAL DESIGN PER NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
- INSTALL 1/2" ANCHOR BOLTS 6"-0" O.C. AND WITH 1'-0" FROM END OF EACH CORNER. ANCHOR BOLTS MUST EXTEND A MINIMUM OF 1" INTO MASONRY OR CONCRETE. LOCATE BOLT WITHIN MIDDLE THIRD OF PLATE WIDTH.
- MEAN ROOF HEIGHT IS LESS THAN 30 FEET.
- EXTERIOR WALLS DESIGNED FOR 60 MPH WIND.
- WALL GLAZINGS DESIGNED FOR: 413 PSF AND -38 PSF (+/- INDICATE POSITIVE / NEGATIVE PRESSURE (TYP)).
- ROOF GLAZINGS DESIGNED FOR: 413 PSF AND -38 PSF FOR ROOF PITCHES 1/2 TO 1/2 AND 41 PSF AND -31 PSF FOR ROOF PITCHES 12/12 TO 1/8.
- INSTALL 1/2" OSB SHEATHING ON ALL EXTERIOR WALLS OF ALL STORES IN ACCORDANCE WITH SECTION 1607.03 OF THE NRC, 2018 EDITION. SEE THE WALL BRACING NOTES AND DETAIL SHEET FOR MORE INFORMATION.
- ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER 8 OF THE NRC, 2018 EDITION.
- REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

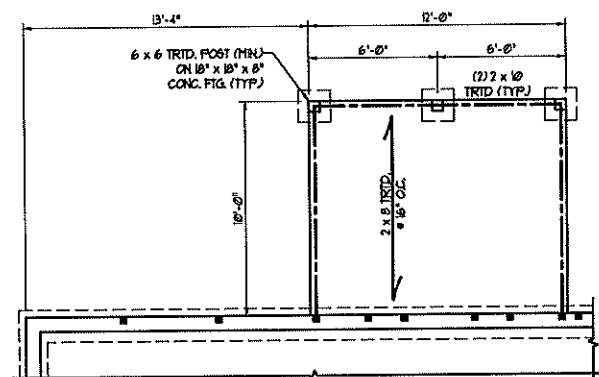
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CC 2325  
 CAVINESS & CATES

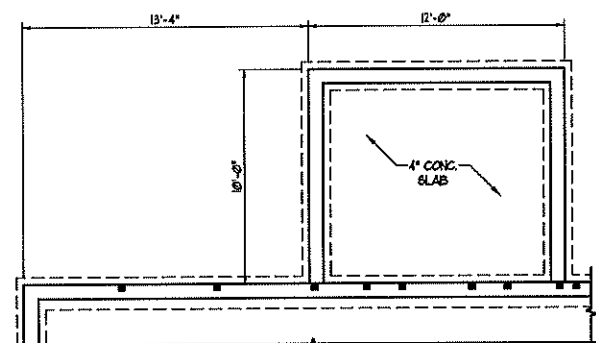


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 SCALE: 1/4" = 1'-0"  
 DRAWN BY: TT  
 ENGINEERED BY: JAG

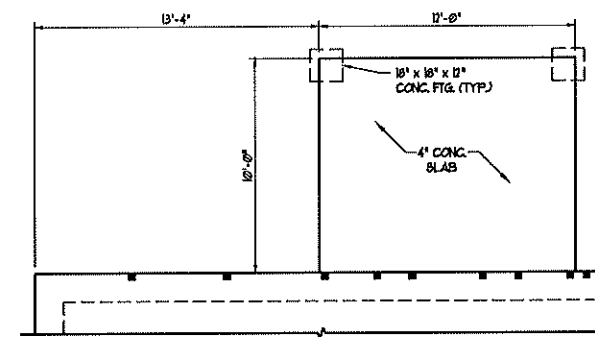
SHEET 2 OF 14  
 S-1b  
 MONO SLAB  
 FOUNDATION PLAN



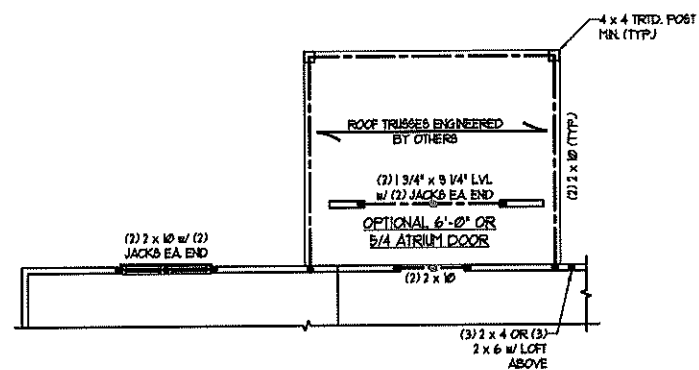
CRAWL SPACE



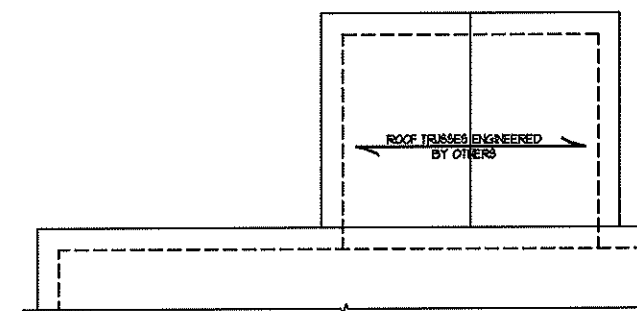
STEM WALL



MONO SLAB



FRAMING PLAN



ROOF FRAMING PLAN



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DATE: APRIL 30, 2021  
SCALE: 1/4" = 1'-0"  
DRAWN BY: JT  
ENGINEERED BY: JAG

SHEET 12 OF 14

S-10  
10' PORCH



TABLE R602.15  
 MINIMUM NUMBER OF FULL HEIGHT STUDS  
 AT EACH END OF HEADERS IN EXTERIOR WALLS

HEADER SPAN (FEET)	MAXIMUM STUD SPACING (INCHES) (PER TABLE R602.15)	
	W	D
UP TO 3'	1	24
4'	2	1
5'	3	2
6'	4	3
7'	5	4

- BRACED WALL DESIGN NOTES:**
- BRACED WALL DESIGN PER SECTION R602.10 OF THE NCRC 2018 EDITION.
  - CS-105P REFERS TO "CONTINUOUS SHEATHING - WOOD STRUCTURAL PANELS" CONTRACTOR IS TO INSTALL 1/4" OSB ON ALL EXTERIOR WALLS ATTACHED w/ 8d NAILS SPACED 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD.
  - GBS REFERS TO "GYPSUM BOARD" CONTRACTOR IS TO INSTALL 1/2" (MIN) GYPSUM WALL BOARD WHERE NOTED ON THE PLANS. FASTEN GB WITH 1 1/4" SCREWS OR 1 5/8" NAILS SPACED 12" O.C. ALONG PANEL EDGES AND IN THE FIELD INCLUDING TOP AND BOTTOM PLATES.
  - BRACED WALL DESIGN APPLIED IN WIND ZONES UP TO 130 MPH. FOR HIGH WIND ZONES, BRACE WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 15 OF THE NCRC 2018 EDITION. SEE NOTES AND DETAIL SHEETS FOR ADDITIONAL BRACED WALL INFORMATION.

**LINTEL SCHEDULE FOR BRICK/NATURAL STONE SUPPORT**

LENGTH (FT.)	SIZE OF LINTEL
UP TO 4 FT.	L 3 1/2 x 3 1/2 x 1/4
4-8	L 5 x 3 1/2 x 5/16 LLV
8 AND GREATER	L 6 x 4 x 5/16 LLV

- BRICK SUPPORT NOTES:**
- LINTEL SCHEDULE APPLIES TO ALL OPENINGS IN BRICK VENEER (UNO). SEE ARCH DSGS. FOR SIZE AND LOCATION OF OPENINGS.
  - (LLV) = LONG LEG VERTICAL.
  - LENGTH = CLEAR OPENING.
  - SPREAD ALL ANGLE IRONS MIN. 4" EACH SIDE INTO VENEER TO PROVIDE BEARING.
  - FOR ALL HEADERS 8'-0" AND GREATER IN LENGTH, ATTACH STEEL ANGLE TO HEADER w/ 1/2" LAG SCREWS @ 2' O.C. STAGGERED.
  - FOR ALL BRICK SUPPORT = ROOF LINES, FASTEN (2) 2 x 10 BLOCKING BETWEEN STUDS w/ (4) 10d NAILS PER PLY. FASTEN A 6" x 4" x 5/16" STEEL ANGLE TO (2) 2 x 10 BLOCKING w/ (2) 1/2" LAG SCREWS @ 12" O.C. STAGGERED. (SEE SECTION R603.02) OF THE 2018 NCRC FOR ADDITIONAL BRICK SUPPORT INFORMATION.
  - PRECAST REINFORCED CONCRETE LINTELS ENGINEERED BY OTHERS MAY BE USED IN LIEU OF STEEL LINTELS.

**BRACED WALL DESIGN**

**RECTANGLE A**

**SIDE 1A (FRONT LOAD)**  
 METHOD: CS-105P/FFGB  
 TOTAL REQUIRED LENGTH: 12.6'  
 TOTAL PROVIDED LENGTH: 14.25'

**SIDE 2A**  
 METHOD: CS-105P  
 TOTAL REQUIRED LENGTH: 12.6'  
 TOTAL PROVIDED LENGTH: 24.0'

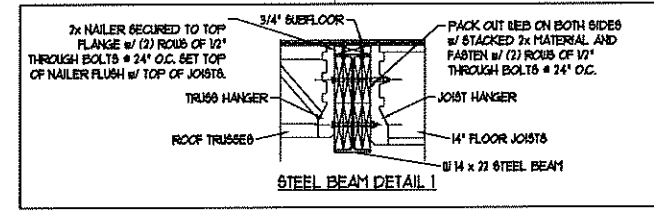
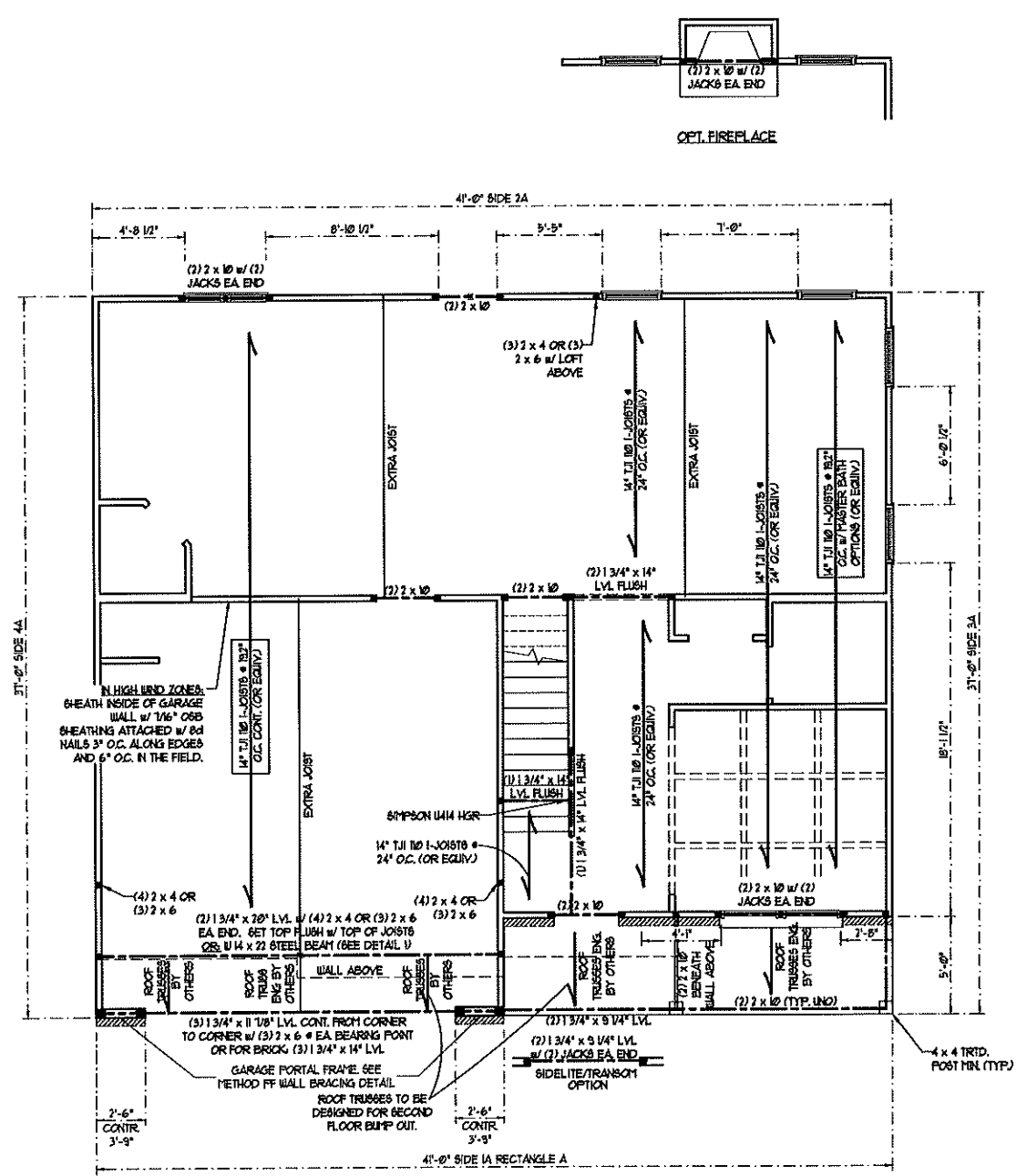
**SIDE 3A**  
 METHOD: CS-105P  
 TOTAL REQUIRED LENGTH: 13.8'  
 TOTAL PROVIDED LENGTH: 23.1'

**SIDE 4A (SIDE LOAD)**  
 METHOD: CS-105P/FF  
 TOTAL REQUIRED LENGTH: 13.8'  
 TOTAL PROVIDED LENGTH: 22.64'

**NOTE: ALL EXTERIOR WALLS AND ATTIC WALLS ARE TO BE 2 x 4 @ 16" O.C. MIN. (UNO). 2 x 6 @ 24" O.C. EXTERIOR WALLS MAY BE CONSTRUCTED IN LIEU OF 2 x 4 WALLS (UNO). ALL INTERIOR LOAD BEARING WALLS ARE TO BE 2 x 4 @ 16" O.C. (UNO) AND NON-LOAD BEARING INTERIOR WALLS ARE TO BE 2 x 4 @ 24" O.C. (UNO).**

**NOTE: ECI 4500x-10 JOISTS MAY BE INSTALLED IN LIEU OF 1 1/2" JOISTS AT THE DEPTH AND SPACING INDICATED ON THE PLAN.**

- STRUCTURAL NOTES:**
- ALL FRAMING LUMBER TO BE SYP #2 (UNO). ALL TREATED LUMBER TO BE SYP #2 (UNO).
  - ALL LOAD BEARING HEADERS TO BE (2) 2 x 6 SYP #2 OR SYP #2 (KILN DRIED) (UNO). HEADERS HAVE BEEN DESIGNED BASED ON CALCULATED LOADS. CODE TABLES HAVE NOT BEEN USED.
  - INSTALL AN EXTRA JOIST UNDER WALLS PARALLEL TO FLOOR JOISTS WHERE NOTED ON THE PLANS.
  - WINDOW AND DOOR HEADERS TO BE SUPPORTED w/ (1) JACK STUD AND (1) KING STUD EA END (UNO). SEE TABLE R602.15 FOR ADDITIONAL KING STUD REQUIREMENTS.
  - SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION. ALL SQUARES TO BE (2) STUDS (UNO).
  - FOR HIGH WIND ZONES, ALL EXTERIOR WALLS TO BE SHEATHED WITH 1/4" OSB SHEATHING WITH JOINTS BLOCKED AND SECURED WITH 8d NAILS AT 3" O.C. ALONG EDGES AND 6" O.C. IN THE FIELD.
  - FOR HIGH WIND ZONES, SECURE ALL EXTERIOR WALL SHEATHING PANELS TO DOUBLE TOP PLATES, BANDS, JOISTS, AND GIRDERS WITH (2) ROWS OF 8d NAILS STAGGERED AT 3" O.C. PANELS SHALL EXTEND 12" BEYOND CONSTRUCTION JOINTS AND SHALL OVERLAP GIRDERS AND DOUBLE SILL PLATES THEIR FULL DEPTH.
  - SPECIFIED SIMPSON STRONG-TIE PRODUCTS MAY BE SUBSTITUTED WITH THOSE MANUFACTURED BY 10P STRUCTURAL CONNECTORS PROVIDED THAT THE LOAD CAPACITY AND FUNCTION IS EQUIVALENT.
  - ALL 4 x 4 POSTS SHALL BE ANCHORED TO SLABS w/ SIMPSON AB44 POST BASES (OR EQUAL) AND 6 x 6 POSTS w/ AB466 POST BASES (OR EQUAL) (UNO). ALL 4 x 4 AND 6 x 6 POSTS TO BE INSTALLED WITH 100 LB CAPACITY UPLIFT CONNECTORS AT TOP AND BOTTOM (UNO).
  - FOR FIBERGLASS, ALUMINUM, OR COLUMN BLS BY OTHERS, SECURE TO SLAB w/ (2) METAL ANGLES USING 2" CONC. SCREWS. FASTEN ANGLES TO COLUMNS w/ 1/4" THROUGH BOLTS w/ NUTS AND WASHERS. LOCATE ANGLES ON OPPOSITE SIDES OF COLUMN. THROUGH BOLTS MUST BE INSTALLED PRIOR TO SETTING COLUMN.
  - REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

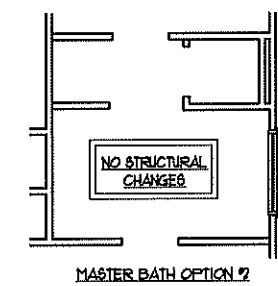
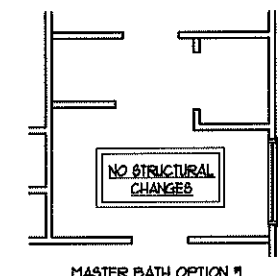
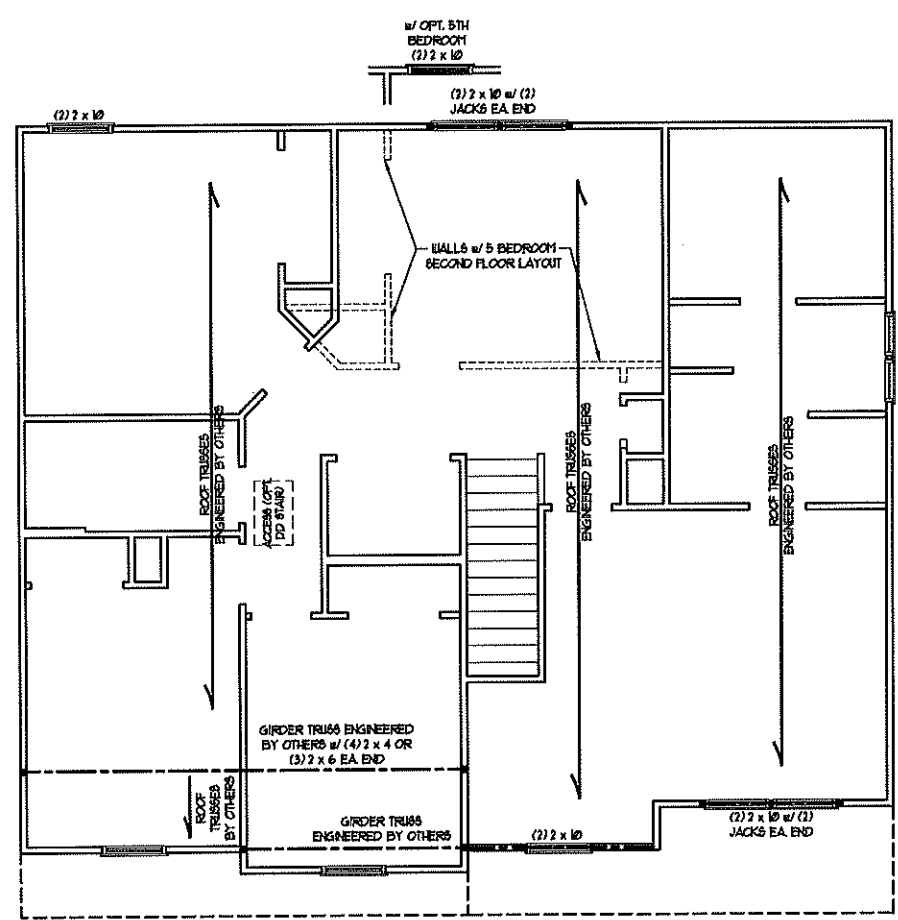


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CC 2325  
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DATE: APRIL 30, 2021  
 SCALE: 1/4" = 1'-0"  
 DRAWN BY: TT  
 ENGINEERED BY: JAG

SHEET 4 OF 14  
 S-2  
 SECOND FLOOR FRAMING PLAN



**NOTE: ALL EXTERIOR WALLS AND ATTIC WALLS ARE TO BE 2 x 4 @ 16" O.C. MIN. (UNO). 2 x 6 @ 24" O.C. EXTERIOR WALLS MAY BE CONSTRUCTED IN LIEU OF 2 x 4 WALLS (UNO). ALL INTERIOR LOAD BEARING WALLS ARE TO BE 2 x 4 @ 16" O.C. (UNO) AND NON-LOAD BEARING INTERIOR WALLS ARE TO BE 2 x 4 @ 24" O.C. (UNO).**

- BRACED WALL DESIGN NOTES:**
- BRACED WALL DESIGN PER SECTION R60710 OF THE NCRC 2018 EDITION.
  - CS-10P REFERS TO "CONTINUOUS SHEATHING - WOOD STRUCTURAL PANELS" CONTRACTOR IS TO INSTALL 1/8" OSB ON ALL EXTERIOR WALLS ATTACHED w/ 8d NAILS SPACED 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD.
  - GB REFERS TO "GYPSUM BOARD" CONTRACTOR IS TO INSTALL 1/2" (MIN) GYPSUM WALL BOARD WHERE NOTED ON THE PLANS. FASTEN GB WITH 1 1/4" SCREWS OR 1 5/8" NAILS SPACED 1" O.C. ALONG PANEL EDGES AND IN THE FIELD INCLUDING TOP AND BOTTOM PLATES.
  - BRACED WALL DESIGN APPLIED IN WIND ZONES UP TO 130 MPH. FOR HIGH WIND ZONES BRACE WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 45 OF THE NCRC 2018 EDITION. SEE NOTES AND DETAIL SHEETS FOR ADDITIONAL BRACED WALL INFORMATION.

- NOTE:**
- PER SECTION R602032 OF THE 2018 NCRC, THE AMOUNT OF BRACING ON THE SECOND FLOOR EXCEEDS THE AMOUNT REQUIRED FOR THE FIRST FLOOR AND NO BRACED WALL ANALYSIS IS REQUIRED.
  - SHEATH ALL EXTERIOR WALLS WITH 1/8" OSB SHEATHING ATTACHED WITH 8d NAILS AT 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD.

TABLE R6-02.15  
MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS

HEADER SPAN (FEET)	MINIMUM STUD SPACING (INCHES) (PER TABLE R6-02.15)	
	16	24
UP TO 3'	1	1
4'	2	1
5'	3	2
11'	5	3
16'	6	4

- STRUCTURAL NOTES:**
- ALL FRAMING LUMBER TO BE #2 GPF (UNO).
  - ALL LOAD BEARING HEADERS TO BE (2) 2 x 6 (UNO).
  - WINDOW AND DOOR HEADERS TO BE SUPPORTED w/ (1) JACK STUD AND (1) KING STUD EA. END (UNO). SEE TABLE R6-02.15 FOR ADDITIONAL KING STUD REQUIREMENTS.
  - SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION. SQUARES TO BE (2) STUDS (UNO).
  - FOR HIGH WIND ZONES, ALL EXTERIOR WALLS TO BE SHEATHED WITH 1/8" OSB SHEATHING WITH JOINTS BLOCKED AND SECURED WITH 8d NAILS AT 3" O.C. ALONG EDGES AND 6" O.C. IN THE FIELD.
  - FOR HIGH WIND ZONES, SECURE ALL EXTERIOR WALL SHEATHING PANELS TO DOUBLE TOP PLATES, BANDS, JOISTS, AND GIRDERS WITH (2) ROWS OF 8d NAILS STAGGERED AT 3" O.C. PANELS SHALL EXTEND 12" BEYOND CONSTRUCTION JOINTS AND SHALL OVERLAP GIRDERS AND DOUBLE END PLATES THEIR FULL DEPTH.
  - SPECIFIED SIMPSON STRONG-TIE PRODUCTS MAY BE SUBSTITUTED WITH THOSE MANUFACTURED BY USP STRUCTURAL CONNECTORS PROVIDED THAT THE LOAD CAPACITY AND FUNCTION IS EQUIVALENT.
  - REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

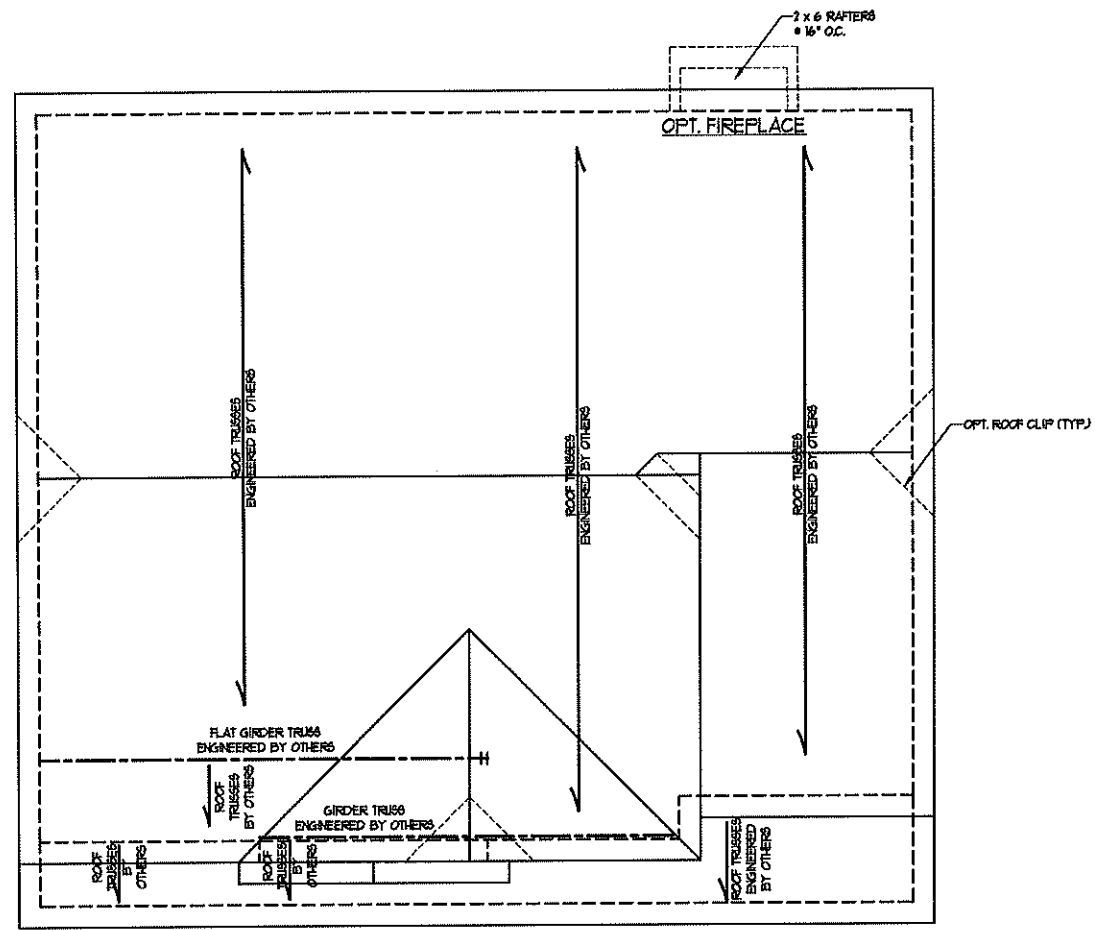
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CC 2325  
CAVINESS & CATES

DATE: APRIL 30, 2021  
SCALE: 1/4" = 1'-0"  
DRAWN BY: TT  
ENGINEERED BY: JAC

SHEET 5 OF 14  
S-3  
ATTIC FLOOR FRAMING PLAN





**STRUCTURAL NOTES:**

1. ALL FRAMING LUMBER TO BE #2 OFF (UNG).
2. CIRCLES DENOTE (3) 2 x 4 POSTS FOR ROOF SUPPORT.
3. FRAME DORMER WALLS ON TOP OF DOUBLE OR TRIPLE RAFTERS.
4. HIP BRACES ARE TO BE SPACED A MIN OF 8'-0". FASTEN MEMBERS WITH THREE ROWS OF 2d NAILS @ 16" O.C. (TYP).
5. STICK FRAME OVER-FRAMED ROOF SECTIONS W/ 2 x 6 RIDGES, 2 x 6 RAFTERS @ 16" O.C. AND FLAT 2 x 10 VALLEYS OR USE VALLEY TRUSSES.
6. FASTEN FLAT VALLEYS TO RAFTERS OR TRUSSES WITH SIMPSON 125A HURRICANE TIES @ 32" O.C. MAX. PASS HURRICANE TIES THROUGH NOTCH IN ROOF SHEATHING. EACH RAFTER IS TO BE FASTENED TO THE FLAT VALLEY WITH A MIN OF (6) 2d TOE NAILS.
7. REFER TO SECTION R802.1 OF THE 2018 NRC FOR REQUIRED UPLIFT RESISTANCE AT RAFTERS AND TRUSSES.
8. REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

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CC 2325  
 CAVINESS & CATES



4/30/2021

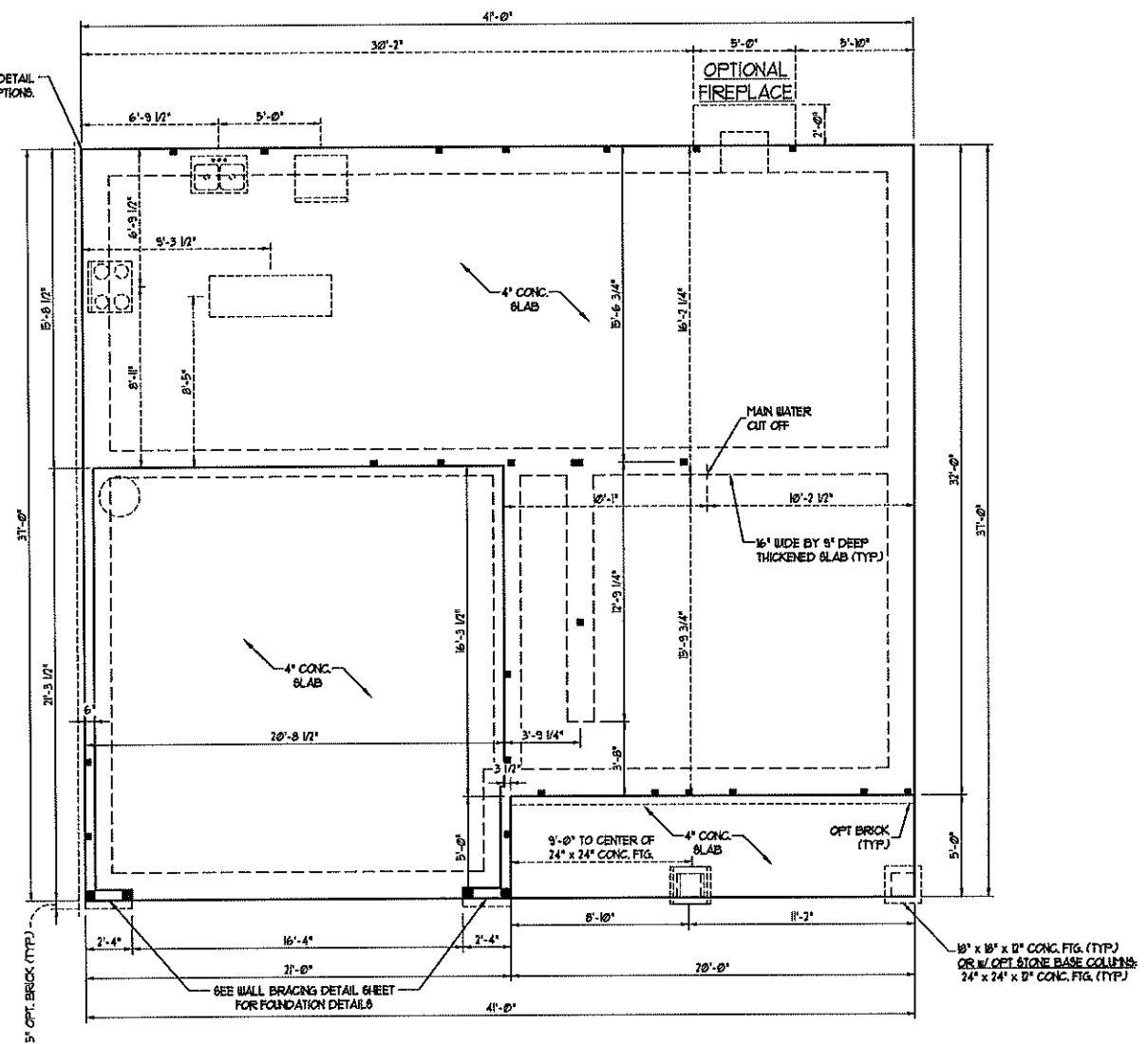
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DRAWN BY: TT
ENGINEERED BY: IAG

SHEET: 6 OF 14  
**S-4a**  
 ROOF FRAMING PLAN





SEE MONOLITHIC SLAB DETAIL  
 DETAIL SHEET FOR FND. OPTIONS.



**60 MPH ULTIMATE DESIGN WIND SPEED NOTES FOR LESS THAN 30' MEAN ROOF HEIGHT.**

- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM.
- STRUCTURAL DESIGN PER NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION WITH SPECIAL CONSIDERATION TO CHAPTER 46 ("HIGH WIND ZONES" FOR 60 MPH WINDS).
- BUILDER IS TO PROVIDE FRAMING CONNECTIONS AS REQUIRED BY CHAPTER 46 ("HIGH WIND ZONES" FOR 60 MPH WINDS) OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
- FOUNDATION ANCHORAGE TO COMPLY WITH SECTION 4504 OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
- MEAN ROOF HEIGHT IS LESS THAN 30 FEET.
- WALL CLADDINGS DESIGNED FOR 24.3 PSF AND -31 PSF (-V INDICATE POSITIVE / NEGATIVE PRESSURE (TYP)).
- ROOF CLADDING DESIGNED FOR 42.3 PSF AND -38 PSF FOR ROOF PITCHES 1/2 TO 2/3 AND 44 PSF AND -31 PSF FOR ROOF PITCHES 2/3 TO 1/2.
- 1/2" OSB SHEATHING IS REQUIRED ON ALL EXTERIOR WALLS.
- WALLS TO BE BRACED IN ACCORDANCE WITH SECTION 4507.01 OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION AND AS NOTED ON PLANS.
- ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER 8 OF THE 2018 IRC.

**120 MPH ULTIMATE DESIGN WIND SPEED NOTES FOR LESS THAN 30' MEAN ROOF HEIGHT.**

- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM.
- STRUCTURAL DESIGN PER NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
- INSTALL 1/2" ANCHOR BOLTS 6"-8" O.C. AND EXTEND 4" FROM END OF EACH CORNER ANCHOR BOLTS MUST EXTEND A MINIMUM OF 1" INTO MASONRY OR CONCRETE. LOCATE BOLT WITHIN MIDDLE THIRD OF PLATE BIRTH.
- MEAN ROOF HEIGHT IS LESS THAN 30 FEET.
- EXTERIOR WALLS DESIGNED FOR 50 PSF WIND.
- WALL CLADDINGS DESIGNED FOR 40.8 PSF AND -36 PSF (-V INDICATE POSITIVE / NEGATIVE PRESSURE (TYP)).
- ROOF CLADDING DESIGNED FOR 44.2 PSF AND -38 PSF FOR ROOF PITCHES 1/2 TO 2/3 AND 46 PSF AND -34 PSF FOR ROOF PITCHES 2/3 TO 1/2.
- INSTALL 1/2" OSB SHEATHING ON ALL EXTERIOR WALLS OF ALL STORES IN ACCORDANCE WITH SECTION 4507.01 OF THE 2018 IRC. SEE THE WALL BRACING NOTES AND DETAIL SHEET FOR MORE INFORMATION.
- ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER 8 OF THE 2018 IRC.
- REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

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CC 2325  
 CAVINESS & CATES

DATE: APRIL 30, 2021  
 SCALE: 1/4" = 1'-0"  
 DRAWN BY: TT  
 ENGINEERED BY: JAO

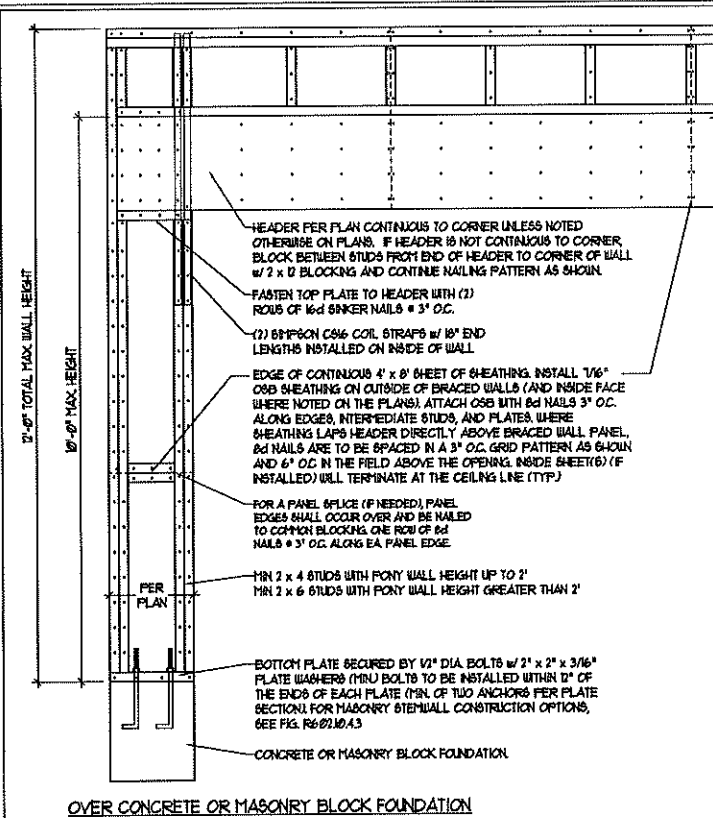


sheet 2 of 14  
 S-1b  
 MONO SLAB  
 FOUNDATION PLAN

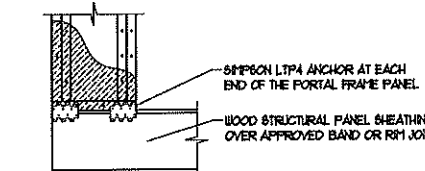


### GENERAL WALL BRACING NOTES:

1. WALL BRACING DESIGNED IN ACCORDANCE WITH CHAPTER 6 OF THE 2018 NC RESIDENTIAL BUILDING CODE (NRC). TABLES AND FIGURES REFERENCED ARE FROM THE 2018 NRC.
2. SEE THIS SHEET FOR GENERAL DETAILS. REFER TO THE 2018 NRC FOR ADDITIONAL INFORMATION AS NEEDED.
3. BRACED EXTERIOR WALLS SUPPORTING ROOF TRUSSES AND RAFTERS, INCLUDING STORIES BELOW THE TOP FLOOR, HAVE BEEN DESIGNED PER R602.10.3 (3). WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST COMBINED UPLIFT AND SHEAR FORCES IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICE.
4. SEE STRUCTURAL SHEETS FOR BRACED WALL LOCATIONS, DIMENSIONS, HOLD DOWN TYPE AND LOCATIONS. BRACED WALL LINE KEY WITH WALL DESIGN SUMMARY OF REQUIRED/PROVIDED TOTALS FOR EACH WALL LINE AND ANY SPECIAL NOTES OR REQUIREMENTS.
5. ALL EXTERIOR WALLS ARE TO BE SHEATHED WITH CS-105P IN ACCORDANCE WITH SECTION R602.10.3 UNLESS NOTED OTHERWISE.
6. ALL EXTERIOR AND INTERIOR WALLS TO HAVE 1/2" GYPSUM INSTALLED. WHEN NOT USING METHOD "GB", GYPSUM TO BE FASTENED PER TABLE R102.3.5. METHOD GB TO BE FASTENED PER TABLE R602.10.1.
7. CS-105P REFERS TO THE "CONTINUOUS SHEATHING - WOOD STRUCTURAL PANELS" WALL BRACING METHOD. 1/16" OSB SHEATHING IS TO BE INSTALLED ON ALL EXTERIOR WALLS ATTACHED w/ 6d COMMON NAILS OR 6d (7 1/2" LONG x 0.133" DIAMETER) NAILS SPACED 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD (MIN.).
8. GB REFERS TO THE "GYPSUM BOARD" WALL BRACING METHOD. 1/2" (MIN) GYPSUM WALL BOARD IS TO BE INSTALLED ON BOTH SIDES OF THE BRACED WALL FASTENED WITH 1 1/4" SCREWS OR 1 5/8" NAILS SPACED 7" O.C. ALONG PANEL EDGES INCLUDING TOP AND BOTTOM PLATES AND INTERMEDIATE SUPPORTS (UNO). VERIFY ALL FASTENER OPTIONS FOR 1/2" AND 5/8" GYPSUM PRIOR TO CONSTRUCTION. FOR INTERIOR FASTENER OPTIONS SEE TABLE R102.3.5. FOR EXTERIOR FASTENER OPTIONS SEE TABLE R602.3(1). EXTERIOR GB TO BE INSTALLED VERTICALLY.
9. REQUIRED BRACED WALL LENGTH FOR EACH SIDE OF THE CIRCUMSCRIBED RECTANGLE ARE INTERPOLATED PER TABLE R602.10.3. METHOD CS-105P CONTRIBUTES ITS ACTUAL LENGTH, METHOD GB CONTRIBUTES 5' ITS ACTUAL LENGTH, AND METHOD FF CONTRIBUTES 15' TIMES ITS ACTUAL LENGTH.

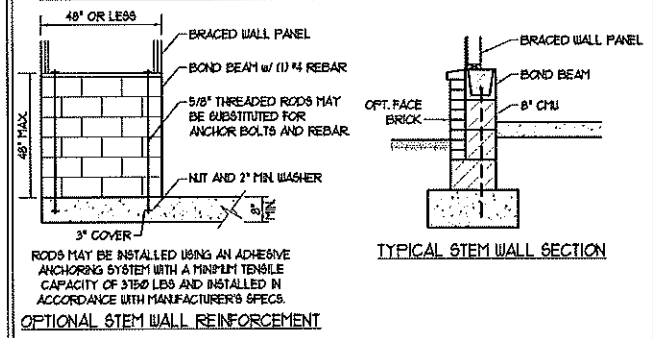
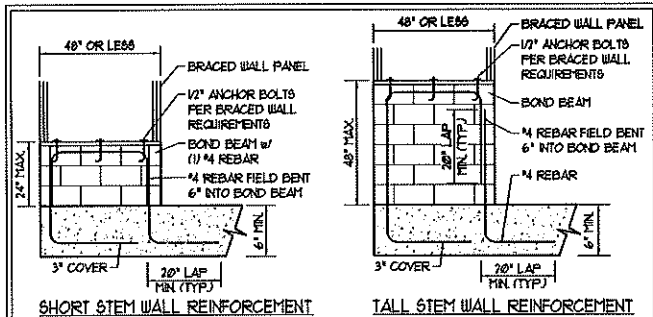


OVER CONCRETE OR MASONRY BLOCK FOUNDATION

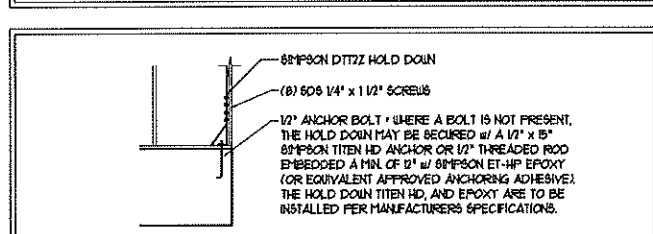
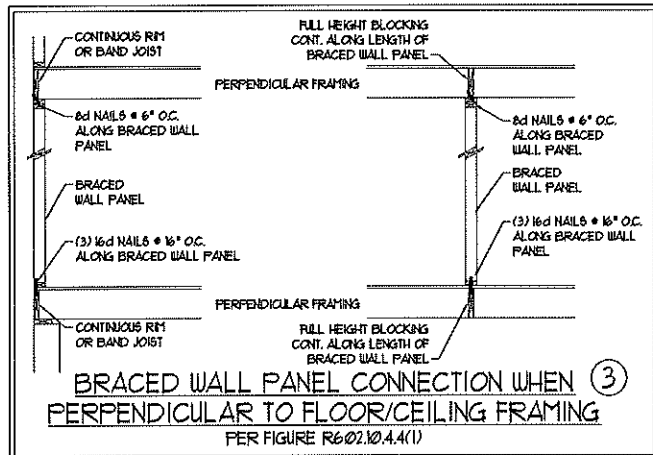


OVER RAISED WOOD FLOOR - FRAMING ANCHOR OPTION  
\* APPLICABLE w/ GREATER THAN 12" KNEE WALL HEIGHTS IN CRAWL SPACE AND ABOVE FRAMED BASEMENT WALLS \*

### METHOD FF-PORTAL FRAME DETAIL ①

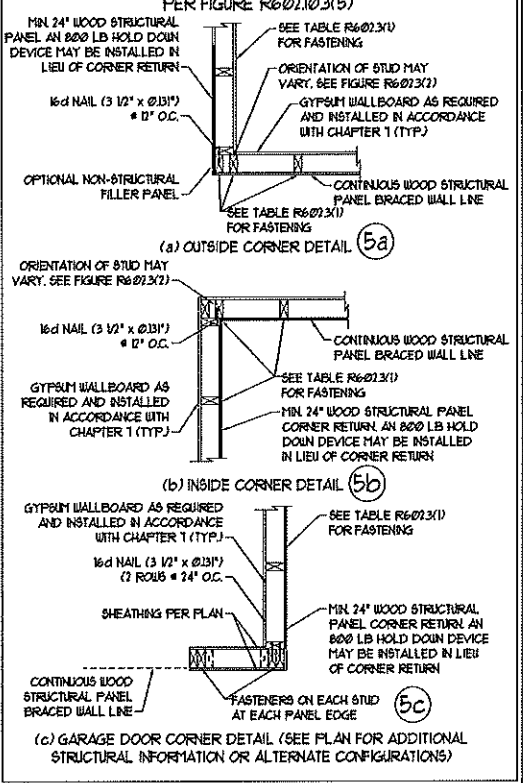


NOTE: GROUT BOND BEAMS AND ALL CELLS WHICH CONTAIN REBAR, THREADED RODS AND ANCHOR BOLTS  
**MASONRY STEM WALLS SUPPORTING BRACED WALL PANELS ②**  
PER FIGURE R602.10.4.3

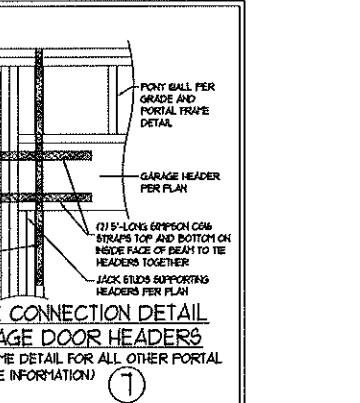
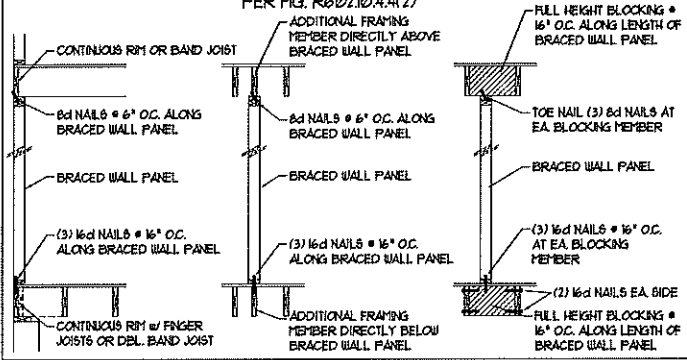


**HOLD DOWN DETAIL FOR MASONRY FOUNDATION OR MONOLITHIC SLAB ④**  
\* APPLICABLE ONLY WHERE SPECIFIED ON PLAN \*

### TYPICAL EXTERIOR CORNER FRAMING FOR CONTINUOUS SHEATHING ⑤

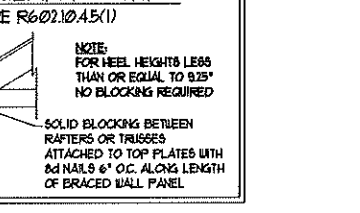


### BRACED WALL PANEL CONNECTION WHEN PARALLEL TO FLOOR/CEILING FRAMING ⑥

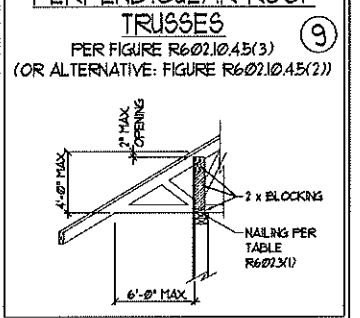


**PORTAL FRAME CONNECTION DETAIL BETWEEN GARAGE DOOR HEADERS**  
(REFERENCE PORTAL FRAME DETAIL FOR ALL OTHER PORTAL FRAME INFORMATION) ⑦

### BRACED WALL PANEL CONNECTION TO PERPENDICULAR RAFTERS ⑧



### BRACED WALL PANEL CONNECTION TO PERPENDICULAR ROOF TRUSSES ⑨



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WALL BRACING NOTES AND DETAILS

DATE: MAY 18, 2020  
SCALE: 1/4" = 1'-0"  
DRAWN BY: JST  
ENGINEERED BY: JST

BRACED WALL NOTES AND DETAILS AND FF DETAIL

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STANDARD STRUCTURAL NOTES

**GENERAL NOTES**

- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPs, VALLEYS, RIDGES, FLOORS, WALLS, BEAMS, HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIERS, GIRDER SYSTEM AND FOOTING. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OF ARCHITECTURAL LAYOUT INCLUDING ROOF. ENGINEER'S SEAL DOES NOT APPLY TO I-JOIST OR FLOOR/ROOF TRUSS LAYOUT DESIGN AND ACCURACY.
  - ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE (NRC) 2018 EDITION PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK. NOR WILL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
  - STRUCTURAL DESIGN BASED ON THE PROVISIONS OF THE NRC, 2018 EDITION (R301.4 - R301.7)
- | DESIGN CRITERIA  | LIVE LOAD (PSF)    | DEAD LOAD (PSF) | DEFLECTION (IN)                   |
|--|--------------------|-----------------|-----------------------------------|
| ATTIC WITH LIMITED STORAGE                                     | 20                 | 10              | L/240 (L/360 w/ BRITTLE FINISHES) |
| ATTIC WITHOUT STORAGE  | 10                 | 10              | L/360                             |
| DECKs  | 40                 | 10              | L/360                             |
| EXTERIOR BALCONIES   | 40                 | 10              | L/360                             |
| FIRE ESCAPES   | 40                 | 10              | L/360                             |
| HANDRAILS/GUARDRAILS   | 200 LB OR 50 (PLF) | 10              | L/360                             |
| PASSENGER VEHICLE GARAGE                                       | 50                 | 10              | L/360                             |
| ROOMS OTHER THAN SLEEPING ROOM                                 | 40                 | 10              | L/360                             |
| SLEEPING ROOMS   | 30                 | 10              | L/360                             |
| STAIRS   | 40                 | 10              | L/360                             |
| WIND LOAD<br>(BASED ON TABLE R301.2(4) WIND ZONE AND EXPOSURE) |                    |                 |                                   |
| GROUND SNOW LOAD, P <sub>g</sub>                               | 20 (PSF)           |                 |                                   |
- I-JOIST SYSTEMS DESIGNED WITH D PSF DEAD LOAD AND DEFLECTION (IN) OF L/480
  - FLOOR TRUSS SYSTEMS DESIGNED WITH B PSF DEAD LOAD
- FOR 15 AND 150 MPH WIND ZONES, FOUNDATION ANCHORAGE IS TO COMPLY WITH SECTION R403.6 OF THE NRC, 2018 EDITION. FOR 50 MPH, 140 MPH, AND 50 MPH WIND ZONES, FOUNDATION ANCHORAGE IS TO COMPLY WITH SECTION 4504 OF THE NRC, 2018 EDITION.
  - ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER 8 OF THE NRC, 2018 EDITION.

**FOOTING AND FOUNDATION NOTES**

- FOUNDATION DESIGN BASED ON A MINIMUM ALLOWABLE BEARING CAPACITY OF 3000 PSF. CONTACT GEOTECHNICAL ENGINEER IF BEARING CAPACITY IS NOT ACHIEVED.
- FOR ALL CONCRETE SLABS AND FOOTINGS, THE AREA WITHIN THE PERIMETER OF THE BUILDING ENVELOPE SHALL HAVE ALL VEGETATION, TOP SOIL, AND FOREIGN MATERIAL REMOVED. FILL MATERIAL SHALL BE FREE OF VEGETATION AND FOREIGN MATERIAL. THE FILL SHALL BE COMPACTED TO ASSURE UNIFORM SUPPORT OF THE SLAB, AND EXCEPT WHERE APPROVED, THE FILL DEPTHS SHALL NOT EXCEED 24" FOR CLEAN SAND OR GRAVEL. A 4" THICK BASED COURSE CONSISTING OF CLEAN GRADED SAND OR GRAVEL SHALL BE PLACED. A BASE COURSE IS NOT REQUIRED WHERE A CONCRETE SLAB IS INSTALLED ON WELL-DRAINED OR SAND-GRAVEL MIXTURE SOILS CLASSIFIED AS GROUP 1, ACCORDING TO THE UNITED SOIL CLASSIFICATION SYSTEM IN ACCORDANCE WITH TABLE R403.1 OF THE NRC, 2018 EDITION.
- PROPERLY DEWATER EXCAVATION PRIOR TO POURING CONCRETE WHEN BOTTOM OF CONCRETE SLAB IS AT OR BELOW WATER TABLE. IF APPLICABLE, 3/4" - 1" DEEP CONTROL JOINTS ARE TO BE SAILED WITH 4 TO 12 HOURS OF CONCRETE FINISHING AND WALL LOCATIONS HAVE BEEN MARKED. ADJUST WHERE NECESSARY.
- CONCRETE SHALL CONFORM TO SECTION R402.2 OF THE NRC, 2018 EDITION. CONCRETE REINFORCING STEEL TO BE ASTM A615 GRADE 60, WELDED WIRE FABRIC TO BE ASTM A185. MAINTAIN A MINIMUM CONCRETE COVER AROUND REINFORCING STEEL OF 3" IN FOOTINGS AND 1 1/2" IN SLABS. FOR POURED CONCRETE WALLS, CONCRETE COVER FOR REINFORCING STEEL, MEASURED FROM THE INSIDE FACE OF THE WALL SHALL NOT BE LESS THAN 3/4". CONCRETE COVER FOR REINFORCING STEEL MEASURED FROM THE OUTSIDE FACE OF THE WALL SHALL NOT BE LESS THAN 1 1/2" FOR #5 BARS OR SMALLER, AND NOT LESS THAN 2" FOR #6 BARS OR LARGER.
- MASONRY UNITS TO CONFORM TO ACE 530/ASCE 5/1115 402. MORTAR SHALL CONFORM TO ASTM C270.
- THE UNSUPPORTED HEIGHT OF MASONRY PIERS SHALL NOT EXCEED FOUR TIMES THEIR LEAST DIMENSION FOR UNFILLED HOLLOW CONCRETE MASONRY UNITS AND TEN TIMES THEIR LEAST DIMENSION FOR SOLID OR SOLID FILLED PIERS. PIERS MAY BE FILLED SOLID WITH CONCRETE OR TYPE N OR S MORTAR. PIERS AND WALLS SHALL BE CAPPED WITH 8" OF SOLID MASONRY.
- THE CENTER OF EACH OF THE PIERS SHALL BEAR IN THE MIDDLE THIRD OF ITS RESPECTIVE FOOTING. EACH GIRDER SHALL BEAR IN THE MIDDLE THIRD OF THE PIERS.
- ALL CONCRETE AND MASONRY FOUNDATION WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF SECTION R404 OF THE NRC, 2018 EDITION OR IN ACCORDANCE WITH ACI 318, ACI 309, NCM 1168-A OR ACE 530/ASCE 5/1115 402. MASONRY FOUNDATION WALLS ARE TO BE REINFORCED PER TABLE R404.1(1), R404.1(2), R404.1(3), OR R404.1(4) OF THE NRC, 2018 EDITION. CONCRETE FOUNDATION WALLS ARE TO BE REINFORCED PER TABLE R404.1(5) OF THE NRC, 2018 EDITION. STEP CONCRETE FOUNDATION WALLS TO 2 x 6 FRAMED WALLS AT 16" O.C. WHERE GRADE PERMITS (N.O.).

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**FRAMING NOTES**

- ALL FRAMING LUMBER SHALL BE #2 OFF MINIMUM (Fb = 815 P8L, Fv = 315 P8L, E = 1600000 P8L) UNLESS NOTED OTHERWISE (N.O.). ALL TREATED LUMBER SHALL BE #2 SYP MINIMUM (Fb = 815 P8L, Fv = 175 P8L, E = 1600000 P8L) UNLESS NOTED OTHERWISE (N.O.).
- LAMINATED VENEER LUMBER (LVL) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb = 3600 P8L, Fv = 205 P8L, E = 1500000 P8L. LAMINATED STRAND LUMBER (LSL) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb = 2315 P8L, Fv = 310 P8L, E = 8500000 P8L. PARALLEL STRAND LUMBER (PSL) UP TO 1" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb = 2500 P8L, E = 18000000 P8L. PARALLEL STRAND LUMBER (PSL) MORE THAN 1" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb = 2300 P8L, E = 20000000 P8L. INSTALL ALL CONNECTIONS PER MANUFACTURER'S SPECIFICATIONS.
- STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS:
  - A. W AND WT SHAPES: ASTM A992
  - B. CHANNELS AND ANGLES: ASTM A36
  - C. PLATES AND BARS: ASTM A36
  - D. HOLLOW STRUCTURAL SECTIONS: ASTM A500 GRADE B
  - E. STEEL PIPE: ASTM A53, GRADE B, TYPE E OR S
- STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" AND FULL FLANGE WIDTH (N.O.). PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED AT THE BOTTOM FLANGE TO EACH SUPPORT AS FOLLOWS (N.O.):
  - A. WOOD FRAMING: (2) 1/2" DIA. x 4" LONG LAG SCREWS
  - B. CONCRETE: (2) 1/2" DIA. x 4" WEDGE ANCHORS
  - C. MASONRY (FULLY GRouted): (2) 1/2" DIA. x 4" LONG 8MMPCB TITEN HD ANCHORS
 LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOISTS ARE TOE NAILED TO THE 2x NAILER ON TOP OF THE STEEL BEAM, AND THE 2x NAILER IS SECURED TO THE TOP OF THE STEEL BEAM w/ (2) ROWS OF BELT TAPPING SCREWS @ 16" O.C. OR (2) ROWS OF 1/2" DIAMETER BOLTS @ 16" O.C. IF 1/2" BOLTS ARE USED TO FASTEN THE NAILER, THE STEEL BEAM SHALL BE FABRICATED w/ (2) ROWS OF 3/16" DIAMETER HOLES @ 16" O.C.
- SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION. SHADED SQUARES DENOTE POINT LOADS FROM ABOVE WHICH REQUIRE SOLID BLOCKING TO SUPPORTING MEMBER BELOW.
- ALL LOAD BEARING HEADERS TO CONFORM TO TABLE R602.1(1) AND R602.1(2) OF THE NRC, 2018 EDITION OR BE (2) 2 x 6 WITH (1) JACK AND (1) KING STUD EACH END (N.O.) WHICHEVER IS GREATER. ALL HEADERS TO BE SECURED TO EACH JACK STUD WITH (4) 8d NAILS. ALL BEAMS TO BE SUPPORTED WITH (2) STUDS AT EACH BEARING POINT (N.O.). INSTALL KING STUDS PER SECTION R602.13 OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
- ALL BEAMS, HEADERS, OR GIRDER TRUSSES PARALLEL TO WALL ARE TO BEAR FULLY ON (1) JACK OR (2) STUDS MINIMUM OR THE NUMBER OF JACKS OR STUDS NOTED. ALL BEAMS OR GIRDER TRUSSES PERPENDICULAR TO WALL AND SUPPORTED BY (3) STUDS OR LESS ARE TO HAVE 1 1/2" MINIMUM BEARING (N.O.). ALL BEAMS OR GIRDER TRUSSES PERPENDICULAR TO WALL AND SUPPORTED BY MORE THAN (3) STUDS OR OTHER NOTED COLUMN ARE TO BEAR FULLY ON SUPPORT COLUMN FOR ENTIRE WALL DEPTH (N.O.). BEAM ENDS THAT BUTT INTO ONE ANOTHER ARE TO EACH BEAR EQUAL LENGTHS (N.O.).
- FLITCH BEAMS SHALL BE BOLTED TOGETHER USING 1/2" DIAMETER BOLTS (ASTM A307) WITH WASHERS PLACED AT THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" CENTERS (MAXIMUM), AND STAGGERED AT TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH (2) BOLTS LOCATED AT 6" FROM EACH END (N.O.).
- ALL I-JOIST OR TRUSS LAYOUTS ARE TO BE IN COMPLIANCE WITH THE OVERALL DESIGN SPECIFIED ON THE PLANS. ALL DEVIATIONS ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD PRIOR TO INSTALLATION.
- BRACED WALL PANELS SHALL BE CONSTRUCTED ACCORDING TO THE NORTH CAROLINA RESIDENTIAL CODE 2018 EDITION WALL BRACING CRITERIA. THE AMOUNT, LENGTH, AND LOCATION OF BRACINGS SHALL COMPLY WITH ALL APPLICABLE TABLES IN SECTION R607.10.
- PROVIDE DOUBLE JOIST UNDER ALL WALLS PARALLEL TO FLOOR JOISTS. PROVIDE SUPPORT UNDER ALL WALLS PARALLEL TO FLOOR TRUSSES OR I-JOISTS PER MANUFACTURER'S SPECIFICATIONS. INSTALL BLOCKING BETWEEN JOISTS OR TRUSSES FOR POINT LOAD SUPPORT FOR ALL POINT LOADS ALONG OFFSET LOAD LINES.
- FOR ALL HEADERS SUPPORTING BRICK VENEER THAT ARE LESS THAN 8'-0" IN LENGTH, REST A 6" x 4" x 5/16" STEEL ANGLE WITH 6" MINIMUM EMBEDMENT AT ENDS FOR BRICK SUPPORT (N.O.). FOR ALL HEADERS 8'-0" AND GREATER IN LENGTH, BOLT A 6" x 4" x 5/16" STEEL ANGLE TO HEADER WITH 1/2" LAG SCREWS AT 16" O.C. STAGGERED FOR BRICK SUPPORT. FOR ALL BRICK SUPPORT AT ROOF LINES, BOLT A 6" x 4" x 5/16" STEEL ANGLE TO (2) 2 x 10 BLOCKING INSTALLED w/ (4) 10d NAILS EA. PLY BETWEEN WALL STUDS WITH (2) ROWS OF 1/2" LAG SCREWS AT 16" O.C. STAGGERED AND IN ACCORDANCE WITH SECTION R103.9(2) OF THE NRC, 2018 EDITION.
- FOR STICK FRAMED ROOFS, CIRCLES DENOTE (3) 2 x 4 POSTS FOR ROOF MEMBER SUPPORT. HIP SPLICES ARE TO BE SPACED A MINIMUM OF 8'-0". FASTEN MEMBERS WITH THREE ROWS OF 10d NAILS AT 16" O.C. FRAME DORMER WALLS ON TOP OF DOUBLE OR TRIPLE RAFTERS AS SHOWN (N.O.).
- FOR TRUSSED ROOFS, FRAME DORMER WALLS ON TOP OF 2 x 4 LADDER FRAMING AT 24" O.C. BETWEEN ADJACENT ROOF TRUSSES. STICK FRAME OVER-FRAMED ROOF SECTIONS WITH 2 x 8 RIDGES, 2 x 6 RAFTERS AT 16" O.C. AND FLAT 2 x 10 VALLEYS (N.O.).
- ALL 4 x 4 AND 6 x 6 POSTS TO BE INSTALLED WITH 100 LB CAPACITY UPLIFT CONNECTORS TOP AND BOTTOM (N.O.). POSTS MAY BE SECURED USING ONE 8MMPCB 16 OR 125U UPLIFT CONNECTOR FASTENED TO THE BAND AT THE BOTTOM AND THE BEAM AT THE TOP OF EACH POST. ONE 16" SECTION OF 8MMPCB C516 COIL STRAPPING WITH (8) 8d HDG NAILS AT EACH END MAY BE USED IN LIEU OF EACH TRUSS STRAP IF DESIRED. FOR MASONRY OR CONCRETE FOUNDATION USE 8MMPCB POST BASE.

DATE: OCTOBER 29, 2018  
SCALE: 1/4" = 1'-0"  
DRAWN BY: JES  
ENGINEERED BY: JST  
SHEET:  
STRUCTURAL NOTES  
4/30/2021

