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	FLEV 'C	RAFTSMA
	Name	Area
	FIRST FLOOR	1994 SF
	HEATED	1994 SF
	GARAGE	493 SF
	PATIO	355 SF
	PORCH	166 SF
	SCREENED-IN PORCH	105 SF
DEEN	UNHEATED	1118 SF
BEEN		

BUILDING CODE COMPLIANCE / PROJECT INFORMATION	INDEX
ALL CONSTRUCTION TO COMPLY WITH LOCAL CODES AND ORDINANCES CURRENTLY IN USE WITH THE LOCAL JURISDICTION. APPLICABLE CODES: FOLLOW ALL APPLICABLE STATE AND LOCAL CODES. 2018 NORTH CAROLINA STATE RESIDENTIAL CODE CONTRACTOR AND BUILDER SHALL REVIEW ENTIRE PLAN TO VERIFY CONFORMANCE WITH ALL CURRENT APPLICABLE CODES IN EFFECT AT TIME OF CONSTRUCTION. BY USING THESE DRAWINGS FOR CONSTRUCTION IT IS UNDERSTOOD THAT CONFORMANCE WITH ALL APPLICABLE CODES IS THE RESPONSIBILITY OF THE BUILDER AND CONTRACTOR. PRODUCT: SINGLE FAMILY RESIDENCE	1.1 ELEVATIONS 'CRAFTSMAN' 1.2 ELEVATIONS 'CRAFTSMAN' 1.3 ROOF PLAN 'CRAFTSMAN' 1.4 SECTIONS 1.6 FIRST FLOOR PLAN 'CRAFTSMAN' 1.7 FIRST FLOOR UTILITY PLAN 'CRAFTSMAN'
OCCUPANCY CLASSIFICATION RESIDENTIAL R-3	
CONSTRUCTION TYPE: TYPE VB (2 HOUR DWELLING SEPARATION BETWEEN UNITS.)	ALL CONSULTANT DRAWINGS ACCOMPANYING THESE GMD DESIGN GROUP DRAWINGS HAVE NOT BEEN PREPARED BY OR UNDER THE DIRECTION OF GMD DESIGN GROUP, INC. GMD DESIGN GROUP INC. THEREFORE ASSUMES NO LIABILITY FOR THE COMPLETENESS OR CORRECTNESS OF THESE DRAWINGS.

GENERAL NOTES:

THESE DOCUMENTS ARE THE PROPERTY OF THE DESIGNER AND SHALL NOT BE COPIED, DUPLICATED, ALTERED, MODIFIED OR REVISED IN ANY WAY WITHOUT THE EXPRESSED WRITTEN APPROVAL OF THE DESIGNER.

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE SITE AND ALL INCONSISTENCES SHALL BE BROUGHT TO THE ATTENTION OF THE DEVELOPER AND THE DESIGNER BEFORE PROCEEDING WITH WORK.

ANY ERRORS OR OMISSIONS FOUND IN THESE DRAWINGS SHALL BE BROUGHT TO DEVELOPERS AND DESIGNERS ATTENTION IMMEDIATELY. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED

ALL DIMENSIONS ARE TO FACE OF STUD OR TO FACE OF FRAMING UNLESS OTHERWISE NOTED.

ALL TRUSS DRAWINGS TO BE REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO ISSUANCE OF BUILDING PERMIT.

ALL OR EQUAL SUBSTITUTIONS MUST BE SUBMITTED TO AND APPROVED BY CITY BUILDING OFFICIAL PRIOR TO INSTALLATION.

ALL ANGLED PARTITIONS ARE 45 DEGREES UNLESS OTHERWISE NOTED.

PROVIDE FIREBLOCKING. (PER LOCAL CODES.)

ALL ELECTRICAL AND MECHANICAL EQUIPMENT AND METERS ARE SUBJECT TO RELOCATION DUE TO FIELD CONDITIONS, CONTRACTOR TO VERIFY.

PROVIDE BLOCKING AND/OR BACKING AT ALL TOWEL BAR, TOWEL RING AND/OR TOILET PAPER HOLDER LOCATIONS, AS SHOWN PER PLAN. TYPICAL AT ALL BATHROOMS AND POWDER ROOMS. VERIFY LOCATIONS AT FRAMING WALK.

ELASTOMERIC SHEET WATERPROOFING: FURNISH AND INSTALL ALL WATERPROOFING COMPLETE. A 40 MIL. SELF-ADHERING MEMBRANE OF RUBBERIZED ASPHALT INTEGRALLY BONDED TO POLYETHYLENE SHEETING, OR EQUAL. INSTALL PER MANUFACTURE'S AND TRADE ASSOCIATION'S PRINTED INSTALLATION INSTRUCTIONS. 6" MINIMUM LAP AT ALL ADJACENT WALL SURFACES.

TO THE BEST OF THE DESIGNER'S KNOWLEDGE THESE DOCUMENTS ARE IN CONFORMANCE WITH THE REQUIREMENTS OF THE BUILDING AUTHORITIES HAVING JURISDICTION OVER THIS TYPE OF CONSTRUCTION AND OCCUPANCY. SHOP DRAWING REVIEW AND DISTRIBUSTION, ALONG WITH PRODUCT SUBMITTALS, REQUESTED IN THE CONSTRUCTION DOCUMENTS, SHALL BE THE SOLE

RESPONSIBILITY OF THE GENERAL CONTRACTOR, UNLESS DIRECTED OTHERWISE UNDER A SEPARATE AGREEMENT. DEVIATIONS FROM THESE DOCUMENTS IN THE CONSTRUCTION PHASE SHALL BE REVIEWED BY THE DESIGNER AND THE OWNER PRIOR TO THE START OF WORK IN QUESTION. ANY DEVIATIONS FROM THESE DOCUMENTS WITHOUT PRIOR REVIEW,

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK AND MATERIALS REPRESENTED ON THESE DOCUMENTS INCLUDING THE WORK AND MATERIALS FURNISHED BY SUBCONTRACTORS AND VENDORS.

SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

THE OWNER SHALL FURNISH ANY AND ALL REPORTS RECEIVED FROM THE GEOTECHNICAL ENGINEER (SOILS REPORT), ON THE STUDY OF THE PROPOSED SITE, TO THE DESIGNER, STRUCTURAL ENGINEER, AND GENERAL CONTRACTOR. IN THE EVENT THE GEOTECHNICAL REPORTS DO NOT EXIST, THE SOILS CONDITION SHALL BE ASSUMED TO BE A MINIMUM DESIGN SOIL PRESSURE STATED BY THE STRUCTURAL ENGINEER OF RECORD FOR THE PURPOSE OF STRUCTURAL DESIGN. GENERAL CONTRACTOR SHALL ASSURE THE SOIL CONDITIONS MEET OR EXCEED THE CRITERIA.

ALL WORK PERFORMED BY THE GENERAL CONTRACTOR SHALL COMPLY AND CONFORM WITH LOCAL AND STATE BUILDING CODES, ORDINANCES AND REGULATIONS, ALONG WITH ALL OTHER AUTHORITIES HAVING JURISDICTION. THE GENERAL CONTRCATOR IS RESPONSIBLE TO BE AWARE OF THESE REQUIREMENTS AND GOVERNING REGULATIONS.

PROVIDE AN APPROVED WASHER DRAIN PAN AT SECOND FLOOR ONLY

PROVIDE STAIR HANDRAILS AND GUARDRAILS PER

LOCAL CODES.

THAT DRAINS TO EXTERIOR. WINDOW SUPPLIER TO VERIFY AT LEAST ONE WINDOW IN ALL BEDROOMS TO HAVE A CLEAR OPENABLE AREA OF 4.0 SQ FT. THE MINIMUM NET CLEAR OPENING HEIGHT SHALL BE 22" AND THE MINIMUM NET CLEAR OPENING WIDTH SHALL BE 20". GLAZING TOTAL AREA OF NOT LESS THAN 5.0 SQ FT IN THE CASE OF A GROUND WINDOW AND NOT LESS THAN 5.7 SQ FT IN THE CASE OF AN UPPER STORY WINDOW. (PER NCRC SECTION R310.1.1) ALL HANDRAIL BALLUSTERS TO BE SPACED SUCH THAT A 4" SPHERE CANNOT PASS BETWEEN BALLUSTERS. (PER LOCAL CODES.)

BUILDER SET:

THE SCOPE OF THIS SET OF PLANS IS TO PROVIDE A "BUILDER'S SET" OF CONSTRUCTION DOCUMENTS AND GENERAL NOTES HEREINAFTER REFERRED TO AS "PLANS". THIS SET OF PLANS IS SUFFICIENT TO OBTAIN A BUILDING PERMIT; HOWEVER, ALL MATERIALS AND METHODS OF CONSTRUCTION NECESSARY TO COMPLETE THE PROJECT ARE NOT NECESSARILY DESCRIBED. THE PLANS DELINEATE AND DESCRIBE ONLY LOCATIONS, DIMENSIONS, TYPES OF MATERIALS, AND GENERAL METHODS OF ASSEMBLING OR FASTENING. THEY ARE NOT INTENDED TO SPECIFY PARTICULAR PRODUCTS OR OTHER METHODS OF ANY SPECIFIC MATERIALS, PRODUCT OR METHOD, THE IMPLEMENTATION OF THE PLANS REQUIRES A CLIENT / CONTRACTOR THOROUGHLY KNOWLEDGEABLE WITH THE APPLICABLE BUILDING CODES AND METHODS OF CONSTRUCTION SPECIFIC TO THIS PRODUCT TYPE AND TYPE OF CONSTRUCTION.

CONSTRUCTION REQUIREMENTS AND QUALITY: PROVIDE WORK OF THE SPECIFIC QUALITY; WHERE QUALITY LEVEL IS NOT INDICATED, PROVIDE WORK OF QUALITY CUSTOMARY IN SIMILAR TYPES OF WORK. WHERE THE PLANS AND SPECIFICATIONS, CODES, LAWS, REGULATIONS, MANUFACTURER'S RECOMMENDATIONS OR INDUSTRY STANDARDS REQUIRE WORK OF HIGHER QUALITY OR PERFORMANCE, PROVIDE WORK COMPLYING WITH THOSE REQUIREMENTS AND QUALITY. WHERE TWO OR MORE QUALITY PROVISIONS OF THOSE REQUIREMENTS CONFLICT WITH THE MOST STRINGENT REQUIREMENT; WHERE REQUIREMENTS ARE DIFFERENT BUT APPARENTLY EQUAL, AND WHERE IT IS UNCERTAIN WHICH REQUIREMENT IS MOST STRINGENT, OBTAIN CLARIFICATION FROM THE ARCHITECT BEFORE PROCEEDING.

SHEET TITLE:

COVER SHEET

PRINT DATE: 12.03.19

SHEET NO:

T-1

ALL WINDOWS WHOSE OPENING IS LESS THAN 24" ABOVE THE FINISH FLOOR AND WHOSE OPENING IS GREATER THAN 72" ABOVE THE OUTSIDE WALKING SURFACE MUST HAVE WINDOW OPENING LIMITING DEVICES COMPLYING WITH THE 2018 NCRC SECTION R312.2.

NOTES:

-GRADE CONDITIONS MAY VARY FOR INDIVIDUAL SITE FROM THAT SHOWN. BUILDER SHALL VERIFY AND COORDINATE PER ACTUAL SITE CONDITIONS.

-WINDOW HEAD HEIGHTS: 1ST FLOOR = 8'-0" U.N.O. ON ELEVATIONS

1ST FLOOR = 8'-0" U.N.O. ON ELEVATIONS 2ND FLOOR = 7'-0" U.N.O. ON ELEVATIONS 3RD FLOOR = 7'-0" U.N.O. ON ELEVATIONS.

-ROOFING: PITCHED SHINGLES PER BUILDER.

-WINDOWS: MANUFACTURER PER BUILDER. DIVIDED LITES AS SHOWN ON THE EXTERIOR ELEVATIONS

-ENTRY DOOR: AS SELECTED BY BUILDER

-CHIMNEY AS OCCURS: TOP OF CHIMNEYS TO BE A MINIMUM OF 24" ABOVE

ANY ROOF WITHIN 10'-0" OF CHIMNEY.

-ALL EXTERIOR MATERIALS TO BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

ELEVATION KEYNOTE LEGEND

ADHERED STONE VENEER AS SELECTED BY DEVELOPER, HEIGHT AS NOTED

FYPON OR EQUIVALENT LOUVERED VENT, SIZE AS NOTED

CORROSION RESISTANT ROOF TO WALL FLASHING, CODE COMPLIANT FLASHING MUST BE INSTALLED AT ALL ROOF/WALL INTERSECTIONS

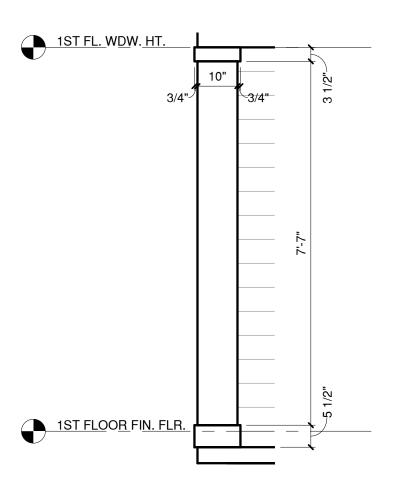
E10 OPT. STANDING SEAM METAL ROOF, INSTALL PER MANUFACTURER'S WRITTEN

INSTRUCTIONS

E12 FIBER CEMENT SHAKE SIDING PER DEVELOPER W/ 5/4x4 CORNER TRIM BOARDS
E13 FIBER CEMENT LAP SIDING PER DEVELOPER W/ 5/4x4 CORNER TRIM BOARDS

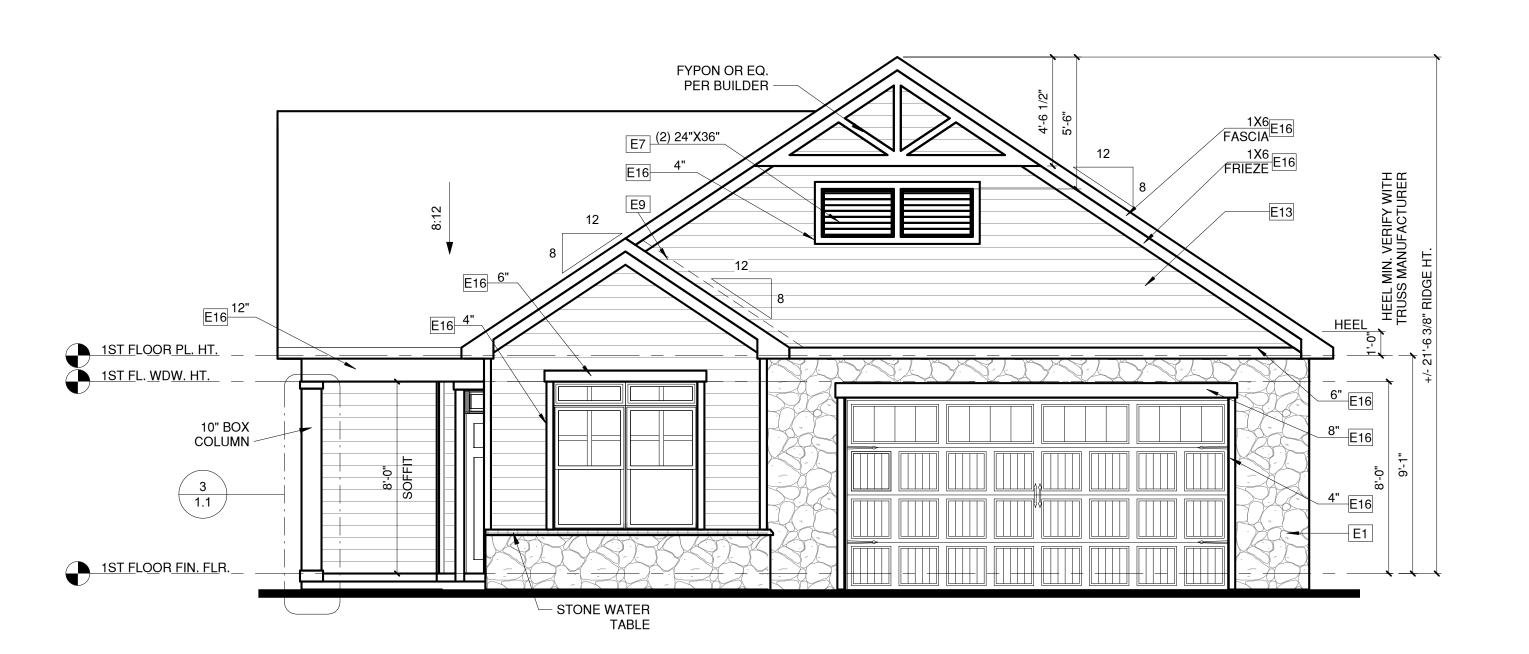
E15 FIBER CEMENT PANEL SIDING W/ 1X3 BATTS AT 16" O.C. (VINYL BOARD AND BATTEN

E16 1X FIBER CEMENT TRIM OR EQUAL, U.N.O. SIZE AS NOTED



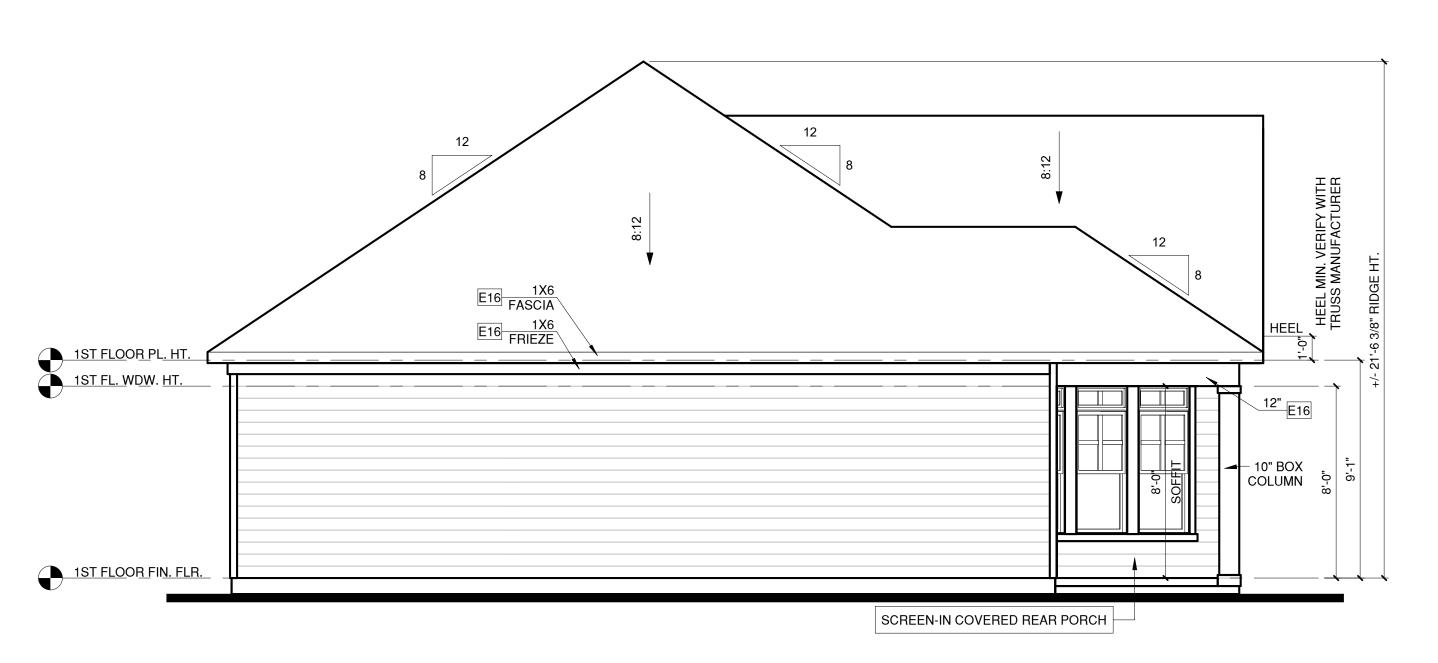
3 COLUMN DETAIL

1/2" = 1'-0" AT 22"X34" LAYOUT 1/8"= 1'-0" AT 11" X 17" LAYOUT



FRONT ELEVATION 'CRAFTSMAN'

1 1/4" = 1'-0" AT 22"X34" LAYOUT 1/8"= 1'-0" AT 11" X 17" LAYOUT



REAR ELEVATION 'CRAFTSMAN' 1/4" = 1'-0" AT 22"X34" LAYOUT 1/8" = 1'-0" AT 11" X 17" LAYOUT

■ Mckee Homes, LLC Lot 1022 Anderson Creek Carriag Promenade Craftsman RH Monoslab Foundation

SHEET TITLE:

ELEVATIONS 'CRAFTSMAN'

PRINT DATE: 12.03.19

SHEET NO:

ALL WINDOWS WHOSE OPENING IS LESS THAN 24" ABOVE THE FINISH FLOOR AND WHOSE OPENING IS GREATER THAN 72" ABOVE THE OUTSIDE WALKING SURFACE MUST HAVE WINDOW OPENING LIMITING DEVICES COMPLYING WITH THE 2018 NCRC SECTION R312.2.

NOTES:

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BUILDER SHALL VERIFY AND COORDINATE PER ACTUAL SITE CONDITIONS.

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1ST FLOOR = 8'-0" U.N.O. ON ELEVATIONS 2ND FLOOR = 7'-0" U.N.O. ON ELEVATIONS 3RD FLOOR = 7'-0" U.N.O. ON ELEVATIONS.

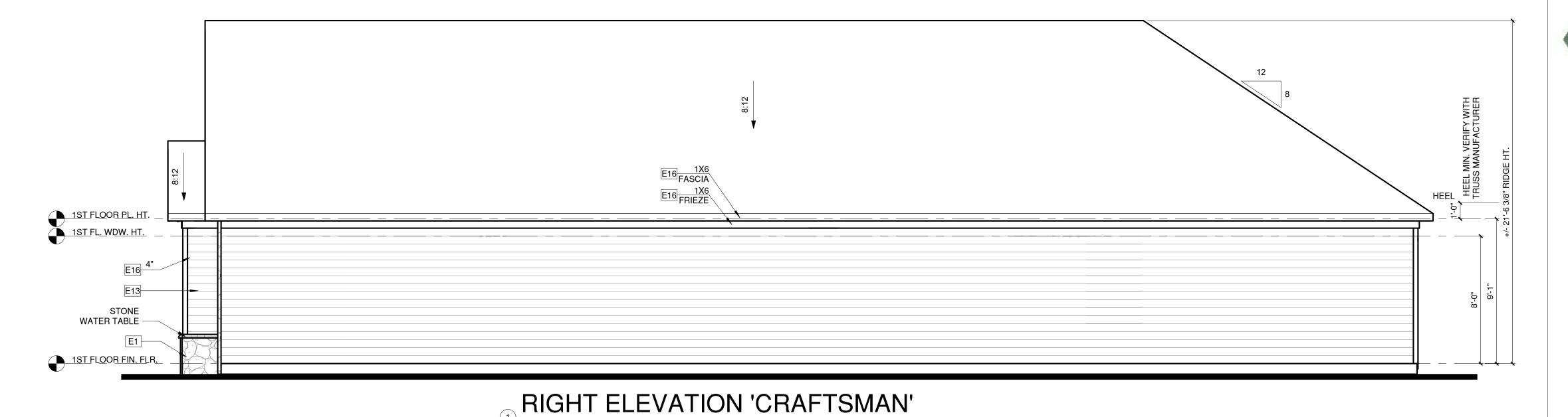
-ROOFING: PITCHED SHINGLES PER BUILDER.

-WINDOWS: MANUFACTURER PER BUILDER. DIVIDED LITES AS SHOWN ON THE EXTERIOR ELEVATIONS

-ENTRY DOOR: AS SELECTED BY BUILDER

-CHIMNEY AS OCCURS: TOP OF CHIMNEYS TO BE A MINIMUM OF 24" ABOVE ANY ROOF WITHIN 10'-0" OF CHIMNEY.

-ALL EXTERIOR MATERIALS TO BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

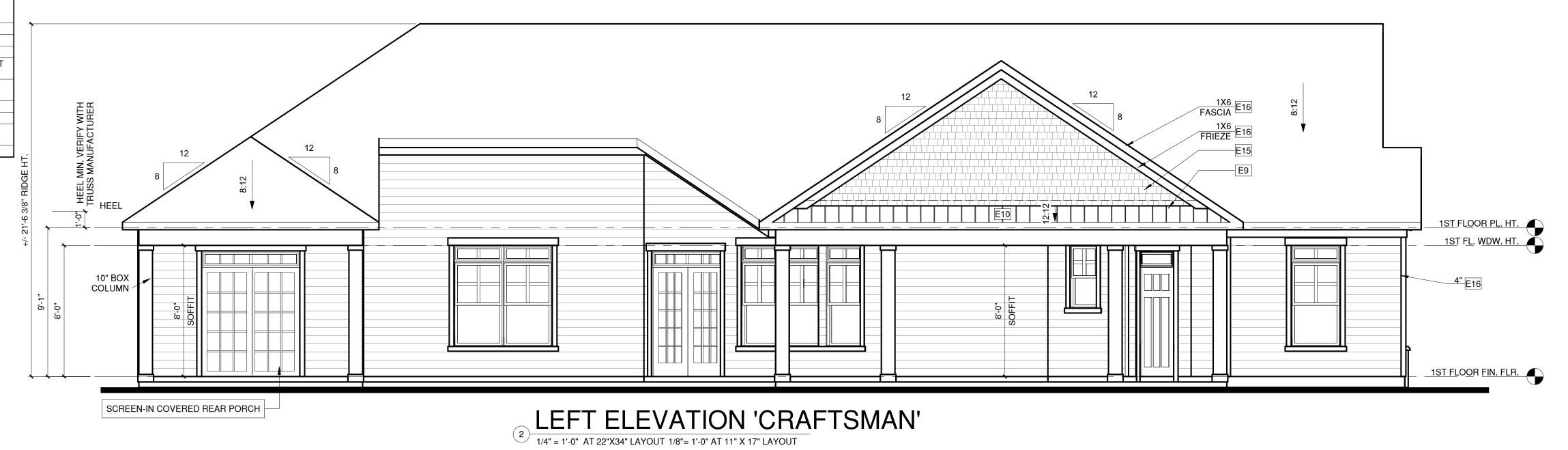


1 1/4" = 1'-0" AT 22"X34" LAYOUT 1/8"= 1'-0" AT 11" X 17" LAYOUT

ELEVATION KEYNOTE LEGEND

- ADHERED STONE VENEER AS SELECTED BY DEVELOPER, HEIGHT AS NOTED FYPON OR EQUIVALENT LOUVERED VENT, SIZE AS NOTED
- CORROSION RESISTANT ROOF TO WALL FLASHING, CODE COMPLIANT FLASHING MUST BE INSTALLED AT ALL ROOF/WALL INTERSECTIONS
- OPT. STANDING SEAM METAL ROOF, INSTALL PER MANUFACTURER'S WRITTEN
- E12 FIBER CEMENT SHAKE SIDING PER DEVELOPER W/ 5/4x4 CORNER TRIM BOARDS
- E13 FIBER CEMENT LAP SIDING PER DEVELOPER W/ 5/4x4 CORNER TRIM BOARDS
- E15 FIBER CEMENT PANEL SIDING W/ 1X3 BATTS AT 16" O.C. (VINYL BOARD AND BATTEN

E16 1X FIBER CEMENT TRIM OR EQUAL, U.N.O. SIZE AS NOTED



Sraftsman Foundation

SHEET TITLE:

ELEVATIONS 'CRAFTSMAN'

PRINT DATE: 12.03.19

SHEET NO:

1/150 RATIO:

GENERAL CONTRACTOR SHALL VERIFY THE NET FREE VENTILATION OF THE VENT PRODUCT SELECTED BY OWNER. VERIFY WITH MANUFACTURER OF HIGH AND LOW VENTS TO BE USED FOR MINIMUM CALCULATED VENTS REQUIRED. THE REQUIRED VENTILATION SHALL BE MAINTAINED. PROVIDE INSULATION STOP SUCH THAT INSULATION DOES NOT OBSTRUCT FREE AIR MOVEMENT AS REQUIRED BY THE BUILDING OFFICIAL.

ALL OVERLAP FRAMED ROOF AREAS SHALL HAVE OPENINGS BETWEEN THE ADJACENT ATTICS IN THE ROOF SHEATHING (AS ALLOWED BY THE STRUCTURAL ENGINEER) TO ALLOW PASSAGE AND ATTIC VENTILATION BETWEEN THE TWO OR ISOLATED ATTIC SPACES SHALL BE VENTED INDEPENDENTLY.

PER DEVELOPER, AT ALL CANTILEVERED FLOORS, CANTILEVERED DECORATIVE PROJECTIONS, AND ANY DOUBLE FRAMING PROJECTIONS THAT ARE SEPARATED FROM THE VENTING CALCULATIONS SHOWN ABOVE PROVIDE A CONTINUOUS 2" CORROSION RESISTANT SOFFIT VENT AT UNDERSIDE OF FRAMED ELEMENT.

1/300 RATIO:

AS AN ALTERNATE TO THE 1/150 RATIO LISTED, THE NET FREE CROSS-VENTILATION AREA MAY BE REDUCED TO 1/300 WHEN A VAPOR BARRIER IS HAVING A TRANSMISSION RATE NOT EXCEEDING I-PERM INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.

GENERAL CONTRACTOR SHALL VERIFY THE NET FREE VENTILATION OF THE VENT PRODUCT SELECTED BY OWNER. VERIFY WITH MANUFACTURER OF HIGH AND LOW VENTS TO BE USED FOR MINIMUM CALCULATED VENTS REQUIRED. THE REQUIRED VENTILATION SHALL BE MAINTAINED. PROVIDE INSULATION STOP SUCH THAT INSULATION DOES NOT OBSTRUCT FREE AIR MOVEMENT AS REQUIRED BY THE BUILDING OFFICIAL.

ALL OVERLAP FRAMED ROOF AREAS SHALL HAVE OPENINGS BETWEEN THE ADJACENT ATTICS IN THE ROOF SHEATHING (AS ALLOWED BY THE STRUCTURAL ENGINEER) TO ALLOW PASSAGE AND ATTIC VENTILATION BETWEEN THE TWO OR ISOLATED ATTIC SPACES SHALL BE VENTED INDEPENDENTLY.

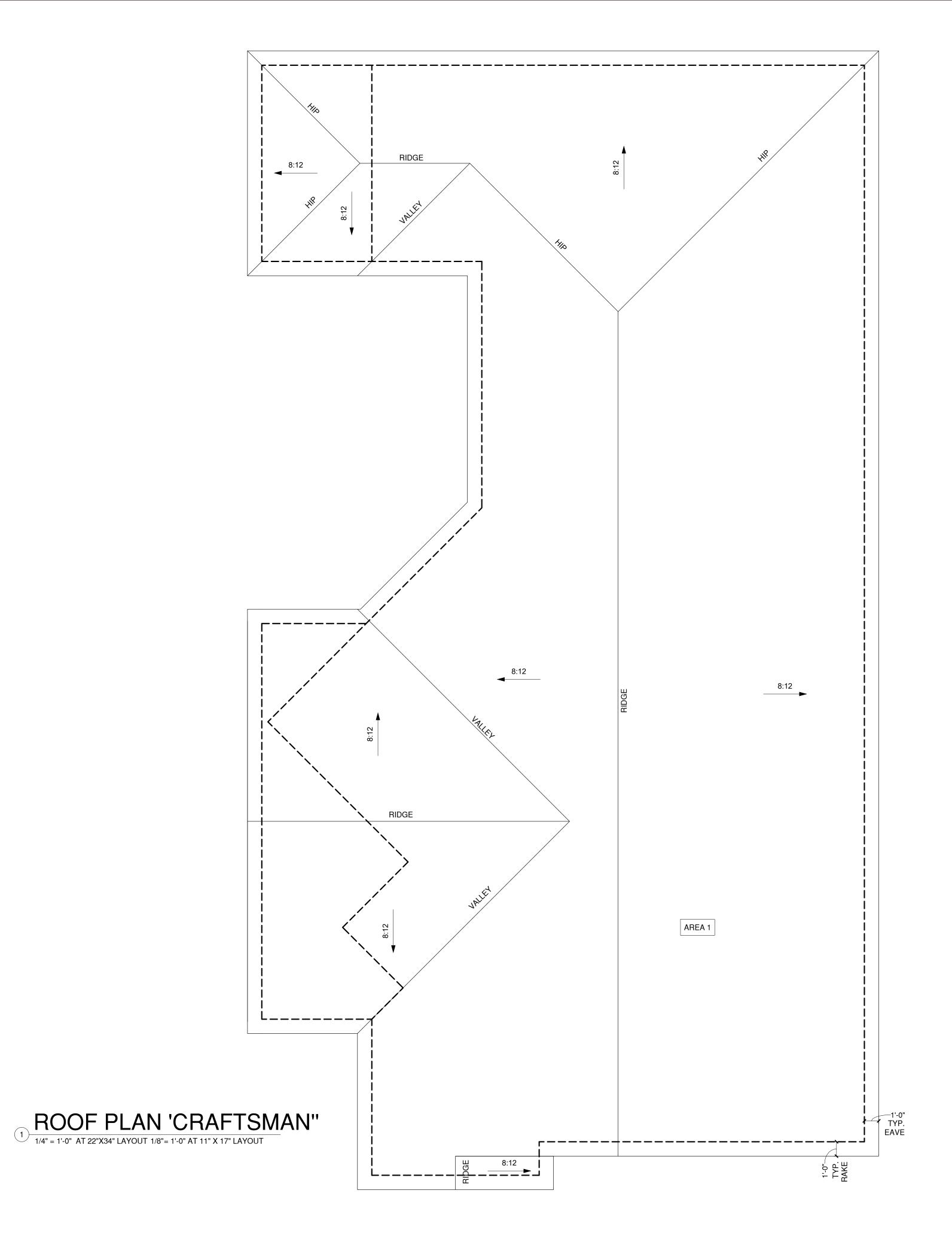
PER DEVELOPER, AT ALL CANTILEVERED FLOORS, CANTILEVERED DECORATIVE PROJECTIONS, AND ANY DOUBLE FRAMING PROJECTIONS THAT ARE SEPARATED FROM THE VENTING CALCULATIONS SHOWN ABOVE, PROVIDE A CONTINUOUS 2" CORROSION RESISTANT SOFFIT VENT AT UNDERSIDE OF FRAMED ELEMENT.

NOTES:

- ALL ROOF DRAINAGE SHALL BE PIPED TO STREET OR APPROVED DRAINAGE FACILITY.
- DASHED LINES INDICATE WALL BELOW. LOCATE GUTTER AND DOWNSPOUTS PER BUILDER. PITCHED ROOFS AS NOTED.
- TRUSS MANUFACTURER SHALL SUBMIT STRUCTURAL CALCS AND SHOP DRAWING TO THE BUILDER'S GENERAL CONTRACTOR AND BUILDING DEPARTMENT FOR REVIEW
- PRIOR TO FABRICATIONS.
- " ALL PLUMBING VENTS SHALL BE COMBINED INTO A MINIMUM AMOUNT OF ROOF PENETRATIONS. ALL ROOF PENETRATIONS SHALL OCCUR TO THE REAR OF THE MAIN RIDGE.

ROOF VENT CALC. ELEV. 'A'

1/300 RATIO AT HIGH & LOW 1/150 RATIO AT HIGH & LOW 2757 SF 661.73 in²





SHEET TITLE:

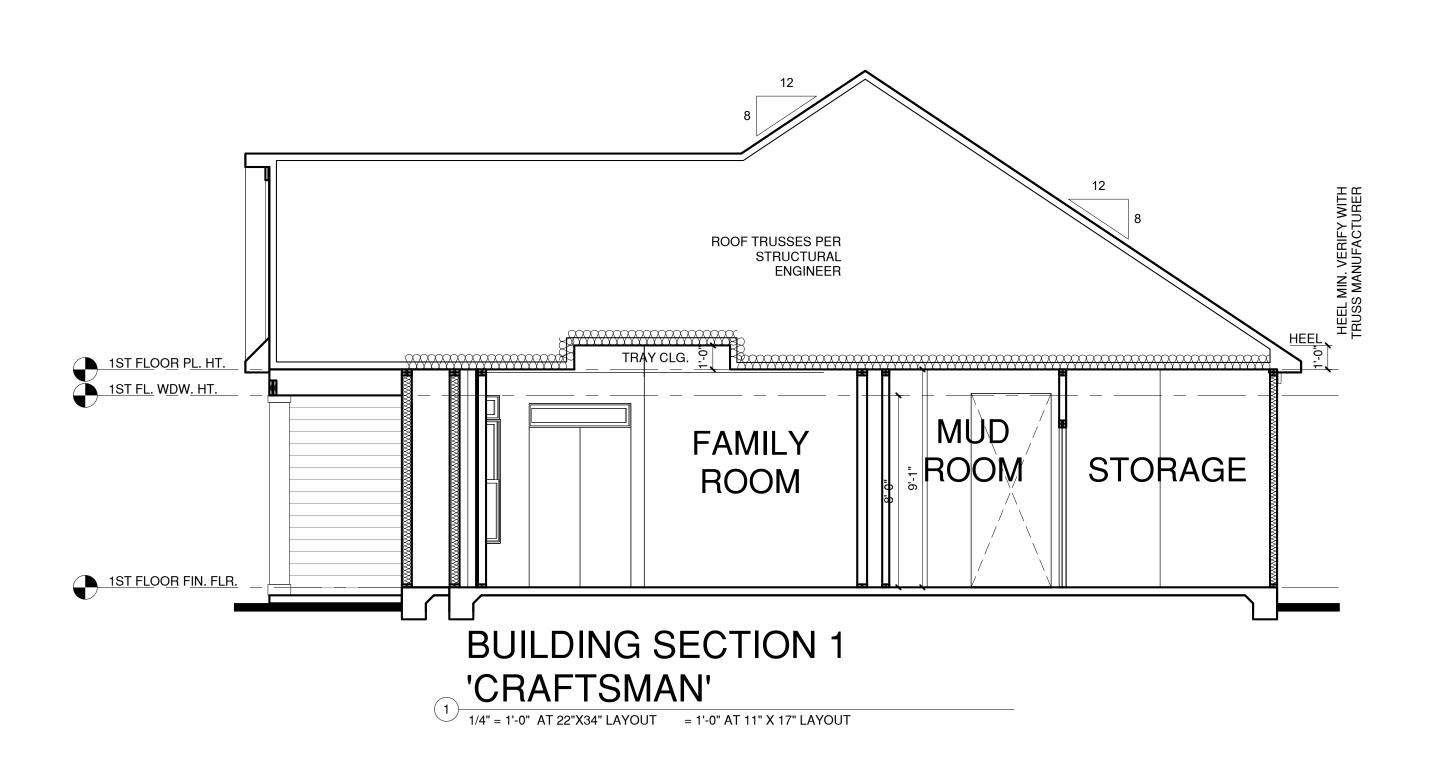
ROOF PLAN

PRINT DATE:

SHEET NO:

'CRAFTSMAN'

12.03.19





| McKee Homes, LLC | Lot 1022 Anderson Creek Carriage (Promenade Craftsman | RH Monoslab Foundation

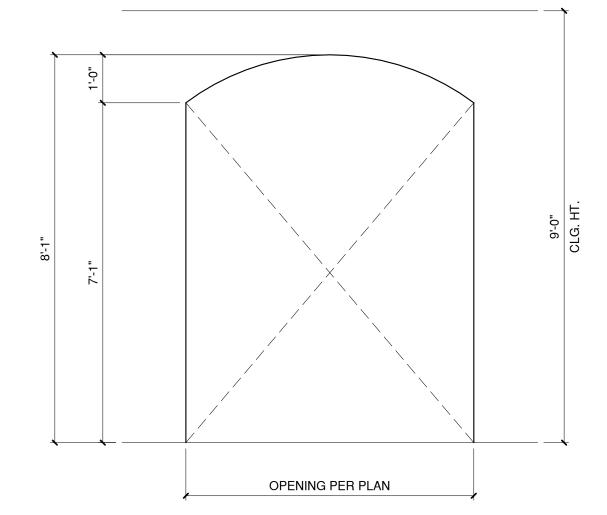
SHEET TITLE:
SECTIONS

PRINT DATE: 12.03.19

SHEET NO: **1.4**

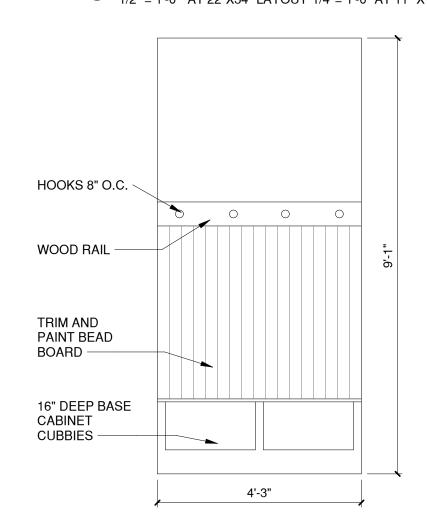
WALL LEGEND **FULL HEIGHT FULL HEIGHT** 2X4 WOOD STUD PARTITION 2X6 WOOD STUD PARTITION DRYWALL OPENING HEIGHT STONE VENEER AS NOTED ON PLAN BRICK VENEER STUD WALL BELOW HEIGHT AND STUD SIZE AS NOTED

FLOOR PLAN KEYNOTE LEGEND HOUSE TO GARAGE FIRE SEPARATION, GARAGE/HOUSE SEPARATION AT VERTICAL SURFACES SHALL BE PROTECTED WITH ONE (1) LAYER 1/2" GYPSUM BOARD. GARAGE/HOUSE SEPARATION AT HORIZONTAL SURFACES SHALL BE PROTECTED WITH ONE (1) LAYER 5/8" TYPE "X" GYPSUM BOARD HOUSE TO GARAGE DOOR SEPARATION. PROVIDE 1 3/8" SOLID CORE DOOR OR APPROVED 20 MINUTE RATED DOOR BENEATH STAIRS AND LANDINGS. 1/2" GYPSUM BOARD ON WALLS AND CEILING OF ENCLOSED ACCESSIBLE AREAS GAS WATER HEATER ON 18" HIGH PLATFORM PRE-FABRICATED METAL FIREPLACE, INSTALL PER MANUFACTURER WRITTEN INSTRUCTIONS ATTIC ACCESS LARGE ENOUGH TO REMOVE LARGEST PIECE OF EQUIPMENT BUT NOT LESS THAN 30"X22". FIRE RATED ACCESS AS NOTED. ATTIC ACCESS LADDER, VERIFY LOCATION AND SIZE WITH TRUSSES (25 1/2"X54" SIZE) TEMPERED SAFETY GLASS INTERIOR SOFFITS: FFL = 8'-1" U.N.O. SFL = 7'-6" U.N.O., OPT. CASED OPENING U.N.O. SHOWER, TEMPERED GLASS ENCLOSURE TUB-SHOWER COMBO ACRYLIC TUB W/ PLATFORM, SIZE AS NOTED GAS COOKTOP AND HOOD, VENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS

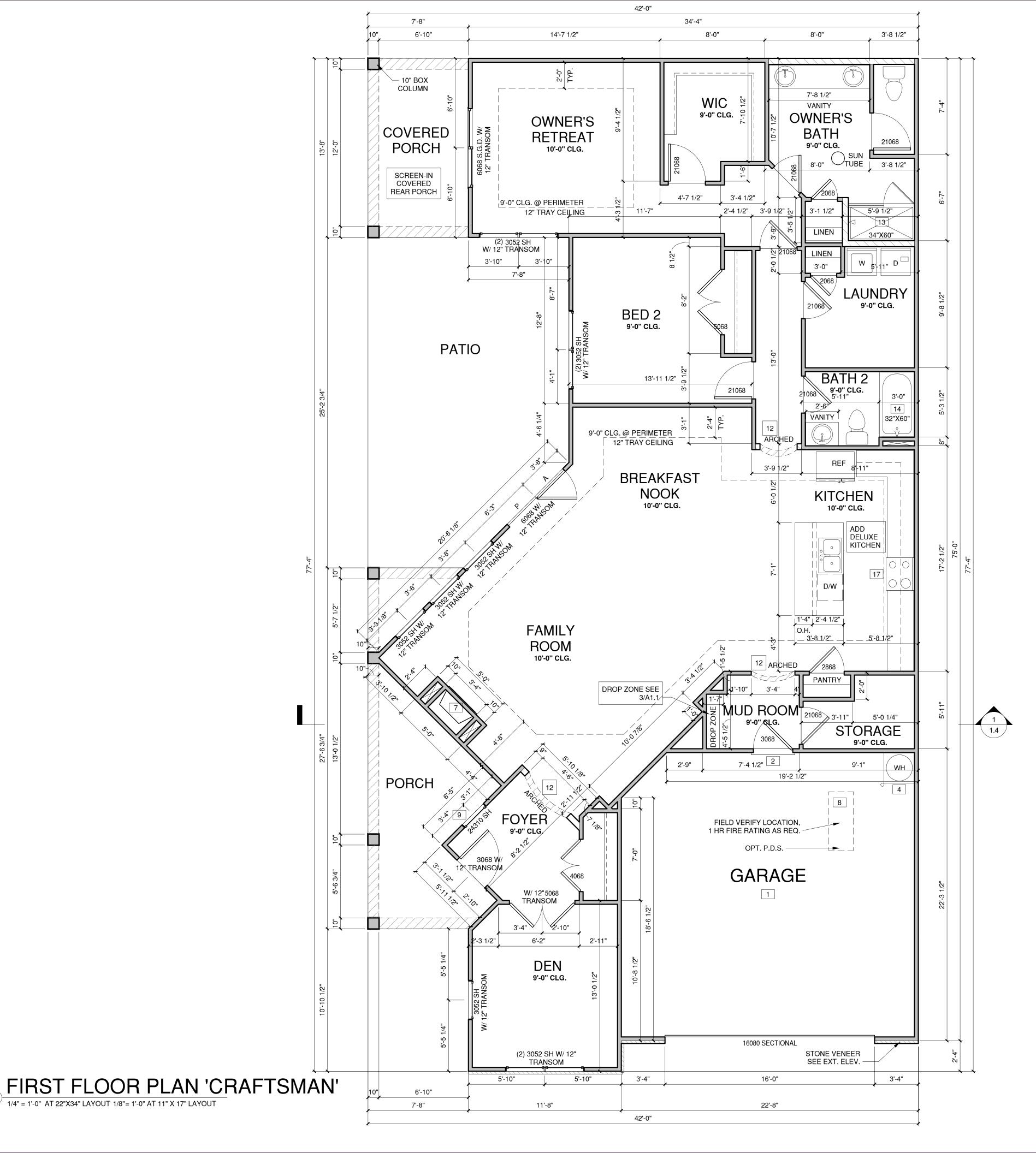


TYP. ARCHED OPENING DETAIL

1 1/4" = 1'-0" AT 22"X34" LAYOUT 1/8"= 1'-0" AT 11" X 17" LAYOUT



DROP ZONE DETAIL



SHEET TITLE:

PRINT DATE:

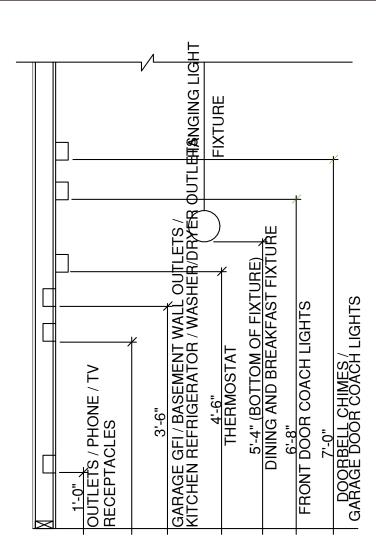
SHEET NO:

PLAN

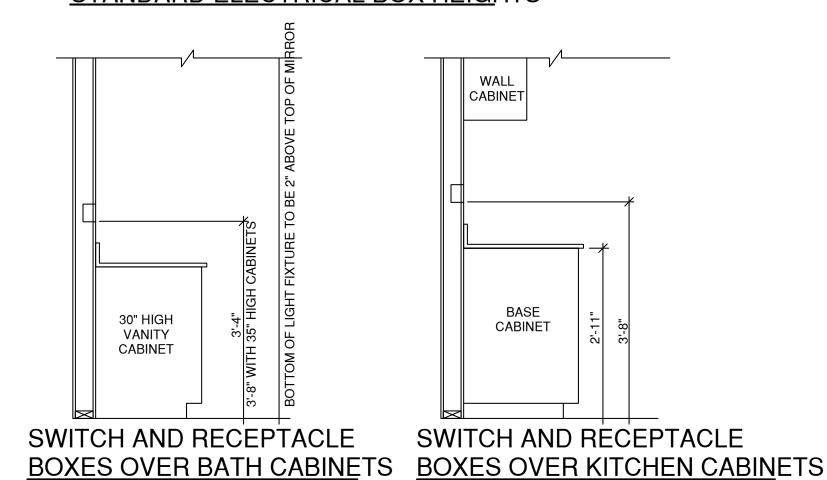
FIRST FLOOR

'CRAFTSMAN'

12.03.19



STANDARD ELECTRICAL BOX HEIGHTS



NOTES:

PROVIDE GROUNDING ELECTRICAL ROD PER LOCAL CODES.

-PROVIDE AND INSTALL ARC FAULT CIRCUIT-INTERRUPTERS (AFCI) AS REQUIRED BY NATIONAL ELECTRICAL CODE (NEC) AND MEETING THE REQURIEMENTS OF ALL GOVERNING CODES.

-ALL EXHAUST FANS SHALL HAVE BACKDRAFT DAMPERS

FAN/LIGHTS IN WET/DAMP LOCATIONS SHALL BE LABLED "SUITABLE FOR WET OR DAMP LOCATIONS."

ELECTRICAL SYSTEMS ARE SHOWN FOR INTENT ONLY. THESE SYSTEMS SHALL BE ENGINEERED BY OTHERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND PLACEMENT.

PROVIDE AND INSTALL LOCALLY CERTIFIED SMOKE DETECTORS AND CO2 DETECTORS AS REQUIRED BY NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES.

PROVIDE AND INSTALL GROUND FAULT CIRCUIT-INTERRUPTERS (GFI) AS REQUIRED BY NATIONAL ELECTRICAL

CODE (NEC) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES.

ELECTRICAL CONTRACTOR TO PROVIDE REQURIED DIRECT HOOK-UPS/CUTOFFS.

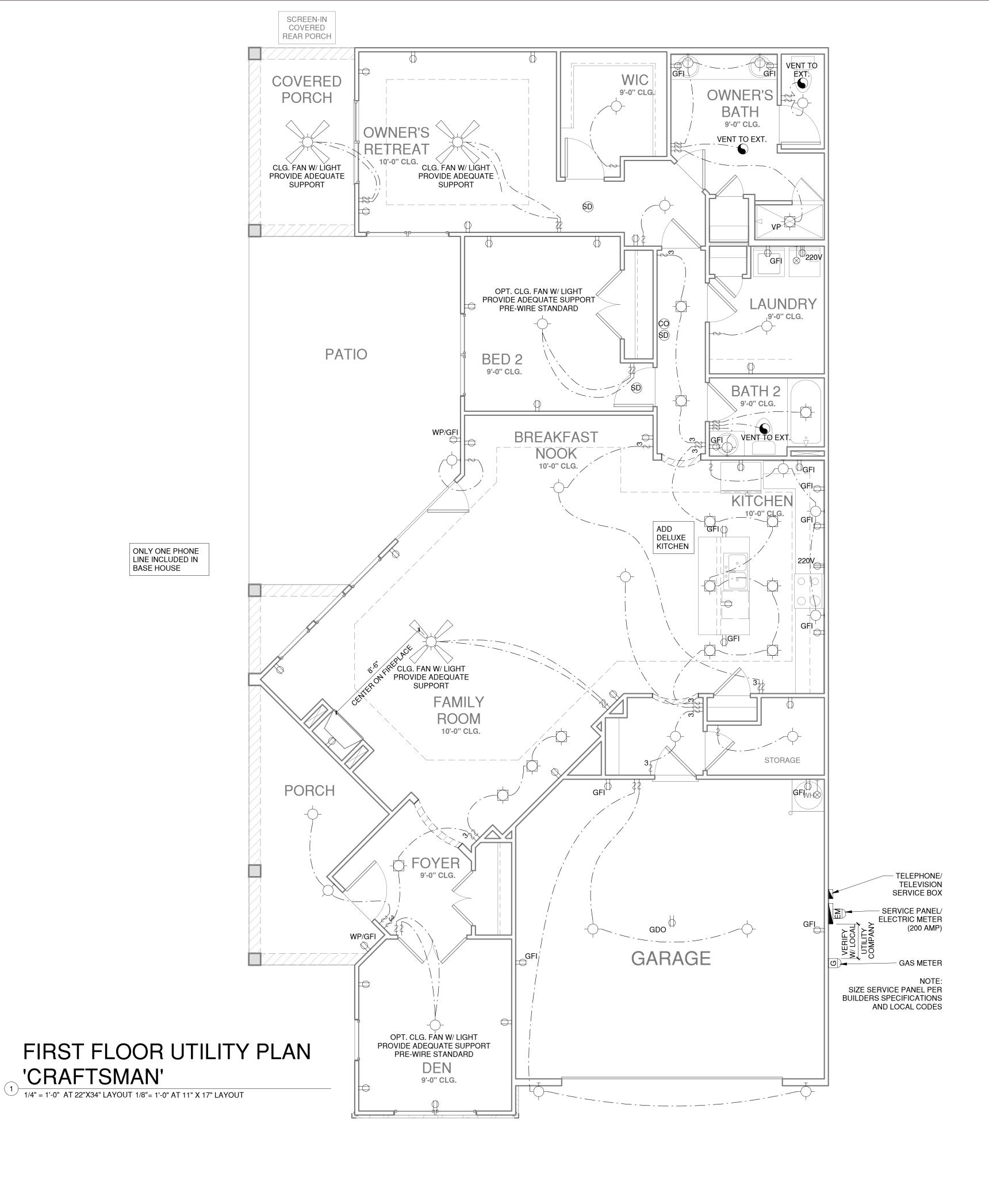
HVAC CONTRACTOR TO VERIFY THERMOSTAT LOCATIONS.

MANUFACTURER'S WRITTEN INSTRUCTIONS.

ALL ELECTRICAL AND MECHANICAL EQUIPMENT (FURNACES, A/C UNITS, ELECTRICAL PANELS, SANITARY SUMP PITS, DRAING TILE SUMP, AND WATER HEATERS) ARE SUBJECT TO RELOCATOIN DUE TO FIELD CONDITIONS.

PROVIDE POWER, LIGHT AND SWITCH AS REQUIRED FOR ATTIC FURNACE PER CODE AND

LEGE	ND:			
Ф	DUPLEX OUTLET	CEILING MOUNTED INCANDESCENT LIGHT FIXTURE		
₩P/GFI	WEATHERPROOF GFI DUPLEX OUTLET	- WALL MOUNTED INCANDESCENT LIGHT FIXUTRE		
₽gFI	GROUND-FAULT CIRCUIT- INTERRUPTER DUPLEX OUTLET	RECESSED INCANDESCENT LIGHT FIXTURE		
P	HALF-SWITCHED DUPLEX OUTLET	(VP) = VAPOR PROOF		
⊕ ₂₂₀ ∨	220 VOLT OUTLET	EXHAUST FAN (VENT TO EXTERIOR)		
J	REINFORCED JUNCTION BOX	EXHAUST FAN/LIGHT COMBINATION (VENT TO EXTERIOR)		
\$	WALL SWITCH			
\$3	THREE-WAY SWITCH	FLUORESCENT LIGHT FIXTURE		
\$4	FOUR-WAY SWITCH	TECH HUB SYSTEM		
СН	CHIMES	CEILING FAN		
	PUSHBUTTON SWITCH	(PROVIDE ADEQUATE SUPPORT)		
SD	110V SMOKE DETECTOR W/ BATTERY BACKUP	CEILING FAN WITH INCANDESCENT LIGHT FIXTURE		
Co	CO2 DETECTOR	(PROVIDE ADEQUATE SUPPORT)		
T	THERMOSTAT	⊢⊗ GAS SUPPLY WITH VALVE		
PH	TELEPHONE			
TV	TELEVISION	HB HOSE BIBB		
	ELECTRIC METER	CW 1/4" WATER STUB OUT		
	ELECTRIC PANEL			
—	DISCONNECT SWITCH	→ WALL SCONCE		





SHEET TITLE:

FIRST FLOOR **UTILITY PLAN** 'CRAFTSMAN'

PRINT DATE: 12.03.19

SHEET NO: 1.7 Construction Type: Commerical ☐ Residential ☒

Applicable Building Codes:

• 2018 North Carolina Residential Building Code with All Local Amendments ASCE 7-10: Minimum Design Loads for Buildings and Other Structures

Design Loads:

1.	Roof	Live Loads	
	1.1.	Conventional 2x	20 PSF
	1.2.	Truss	20 PSF
		1.2.1. Attic Truss	60 PSF
2.	Roof	Dead Loads	
	2.1.	Conventional 2x	10 PSF
	2.2.	Truss	20 PSF
3.	Snow		15 PSF
	3.1.	Importance Factor	1.0
4.		Live Loads	
	4.1.	Typ. Dwelling	40 PSF
	4.2.	Sleeping Areas	30 PSF
	4.3.	Decks	40 PSF
	4.4.	Passenger Garage	50 PSF
5.		Dead Loads	
	5.1.	Conventional 2x	10 PSF
	5.2.	I-Joist	15 PSF
	5.3.	Floor Truss	15 PSF
6.	Ultima [.]	te Design Wind Speed (3 sec. gust)	130 MPH
	6.1.	Exposure	В
	6.2.	Importance Factor	1.0
	6.3.	Wind Base Shear	

Component and Cladding (in PSF)					
MEAN ROC HT.	UP TO 30'	3Ø'1"-35'	35'1"-4Ø'	40'1"-45'	
ZONE 1	16.7,-18.0	17.5,-18.9	18.2,-19.6	18.7,-20.2	
ZONE 2	16.7,-21.0	17.5,-22.1	18.2,-22.9	18.7,-23.5	
ZONE 3	16.7,-21.0	17.5,-22.1	18.2,-22.9	18.7,-23.5	
ZONE 4	18.2,-19.0	19.2,-20.0	19.9,-20.7	20.4,-21.3	
ZONE 5	18.2,-24.0	19.2,-25.2	19.9,-26.1	20.4,-26.9	

8. Seismic

	C
8.1.	Site ClassD
8.2.	Design CategoryC
8.3.	Importance Factor
8.4.	Seismic Use Group
8.5.	Spectral Response Acceleration
	8.5.1. Sms = %q
	8.5.2. Sml = %q

8.6. Seismic Base Shear 8.6.1. Vx =

6.3.1. Vx = 6.3.2. Vy =

8.6.2.Vy = 8.7. Basic Structural System (check one) Bearing Wall ☐ Building Frame

> □ Dual w/ Special Moment Frame □ Dual w/ Intermediate R/C or Special Steel □ Inverted Pendulum

8.8. Arch/Mech Components Anchored 8.9. Lateral Design Control: Seismic
Wind
Wind



STRUCTURAL PLANS PREPARED FOR:

PROJECT ADDRESS:

McKee Homes 109 Hay St., Suite 301 Fayetteville, NC 28301

DESIGNER:

Planworx Architecture, P.A. 5711 Six Forks Rd. #100 Raleigh, NC 27609

These drawings are to be coordinated with the architectural, mechanical, plumbing, electrical, and civil drawings. This coordination is not the responsibility of the structural engineering of record (SER). Should any discrepancies become apparent, the contractor shall notify SUMMIT Engineering, Laboratory & Testing, P.C. before construction begins.

PLAN ABBREVIATIONS:

AB	ANCHOR BOLT	PT	PRESSURE TREATED
AFF	ABOVE FINISHED FLOOR	RS	ROOF SUPPORT
CJ	CEILING JOIST	SC	STUD COLUMN
CLR	CLEAR	SJ	SINGLE JOIST
DJ	DOUBLE JOIST	SPF	SPRUCE PINE FIR
DSP	DOUBLE STUD POCKET	SST	SIMPSON STRONG-TIE
EE	EACH END	SYP	SOUTHERN YELLOW PINE
ΕW	EACH WAY	ŤJ	TRIPLE JOIST
NTS	NOT TO SCALE	TSP	TRIPLE STUD POCKET
OC	ON CENTER	TYP	TYPICAL
PSF	POUNDS PER SQUARE FOOT	UNO	UNLESS NOTED OTHERWISE
PSI	POUNDS PER SQUARE INCH	WWF	WELDED WIRE FABRIC

Roof truss and floor joist layouts, and their corresponding loading details, were not provided to SUMMIT Engineering, Laboratory & Testing, P.C. (SUMMIT) prior to the initial design. Therefore, truss and joist directions were assumed based on the information provided by MCKEE HOMES. Subsequent plan revisions based on roof truss and floor joist layouts shall be noted in the revision list, indicating the date the layouts were provided. Should any discrepancies become apparent, the contractor shall notify SUMMIT immediately.

Description Sheet No. CS1 Cover Sheet, Specifications, Revisions S1,0m Monolithic Slab Foundation S1.0s Stem Wall Foundation S1.0c Crawl Space Foundation S1.0b Basement Foundation S2.Ø Basement Framing Plan S3.Ø First Floor Framing Plan S4.Ø Second Floor Framing Plan S5.Ø Roof Framing Plan S6.0 Basement Bracing Plan S7.Ø First Floor Bracing Plan 58.Ø Second Floor Bracing Plan

REVISION LIST:

SHEET LIST:

Revision No.	Date	Project No.	Description
1	8.8.19	22224R	Updated per new truss layouts and added foundation for optional L-shaped shower Updated floor beams to be floor depth
2	11.14.19	22224R2	Updated floor beams to be floor depth
			,

GENERAL STRUCTURAL NOTES:

- The design professional whose seal appears on these drawings is the structural engineer of record (SER) for this project. The SER bears the responsibility of the primary structural elements and the performance of this structure. No other party may revise, alter, or delete any structural aspects of these construction documents without written permission of SUMMIT Engineering, Laboratory & Testing, P.C. (SUMMIT) or the SER. For the purposes of these construction documents the SER and SUMMIT shall be considered the same entity.
- The structure is only stable in its completed form. The contractor shall provide all required temporary bracing during construction to stabilize the structure.
- The SER is not responsible for construction sequences, methods, or techniques in connection with the construction of this structure. The SER will not be held responsible for the contractor's failure to conform to the contract documents, should any non-conformities occur.
- Any structural elements or details not fully developed on the construction drawings shall be completed under the direction of a licensed professional engineer. These shop drawings shall be submitted to SUMMIT for review before any construction begins. The shop drawings will be reviewed for overall compliance as it relates to the structural design of this project. Verification of the shop drawings for dimensions, or for actual field conditions, is not the responsibility of the SER or SUMMIT.
- Verification of assumed field conditions is not the responsibility of the SER. The contractor shall verify the field conditions for accuracy and report any discrepancies to SUMMIT before construction begins.
- The SER is not responsible for any secondary structural elements or non-structural elements, except for the elements specifically noted on the structural drawings
- This structure and all construction shall conform to all
- applicable sections of the international residential code. 8. This structure and all construction shall conform to all
- applicable sections of local building codes. 9. All structural assemblies are to meet or exceed to requirements of the current local building code.

FOUNDATIONS:

The structural engineer has not performed a subsurface investigation. Verification of this assumed value is the responsibility of the owner or the contractor. Should any adverse soil condition be encountered the SER must be contacted before proceeding.

2. The bottom of all footings shall extend below the frost line for the region in which the structure is to be constructed. However, the bottom of all footings shall be a minimum of 12" below grade.

3. Any fill shall be placed under the direction or recommendation

- 4. The resulting soil shall be compacted to a minimum of 95%
- 5. Excavations of footings shall be lined temporarily with a 6 mil polyethylene membrane if placement of concrete does not occur within 24 hours of excavation.
- 6. No concrete shall be placed against any subgrade containing water, ice, frost, or loose material.

- latest editions.
- Welding shall conform to the latest edition of the American Welding Society's Structural Welding Code AWS D.I. Electrodes for shop and field welding shall be class ETOXX. All welding shall be performed by a certified welder per the above
- Concrete shall have a normal weight aggregate and a minimum compressive strength (f'c) at 28 days of 3000 psi, unless
- Concrete shall be proportioned, mixed, and placed in Requirements for Reinforced Concrete" and ACI 301:
- 3. Air entrained concrete must be used for all structural elements exposed to freeze/thaw cycles and deicing chemicals. Air entrainment amounts (in percent) shall be within -1% to +2% of target values as follows:

written permission of the SER.

3.1. Footings: 5%

- of a licensed professional engineer. maximum dry density.

STRUCTURAL STEEL:

- Structural steel shall be fabricated and erected in accordance with the American Institute of Steel Construction "Code of Standard Practice for Steel Buildings and Bridges" and the manual of Steel Construction "Load Resistance Factor Design"
- Structural steel shall receive one coat of shop applied rust-inhibitive paint. All steel shall have a minimum yield stress (F,,) of 36 ksi unless
- otherwise noted.

standards.

- otherwise noted on the plan.
- accordance with the latest editions of ACI 318: "Building Code "Specifications for Structural Concrete for Buildings".
- 3.2.Exterior Slabs: 5% 4. No admixtures shall be added to any structural concrete without

- Concrete slabs-on-grade shall be constructed in accordance with ACI 302.IR-96: "Guide for Concrete Slab and Slab
- The concrete slab-on-grade has been designed using a subgrade modulus of k=250 pci and a design loading of 200 psf. The SER is not responsible for differential settlement, slab cracking or other future defects resulting from unreported
- conditions not in accordance with the above assumptions. Control or saw cut joints shall be spaced in interior slabs-on-grade at a maximum of 15'-0" O.C. and in exterior slabs-on-grade at a maximum of 10'-0" unless otherwise noted. Control or saw cut joints shall be produced using conventional process within 4 to 12 hours after the slab has been finished
- 9. Reinforcing steel may not extend through a control joint. Reinforcing steel may extend through a saw cut joint. 10. All welded wire fabric (W.W.F.) for concrete slabs-on-grade shall be placed at mid-depth of slab. The W.W.F. shall be securely

supported during the concrete pour.

CONCRETE REINFORCEMENT:

- Fibrous concrete reinforcement, or fibermesh, specified in concrete slabs-on-grade may be used for control of cracking due to shrinkage and thermal expansion/contraction, lowered water migration, an increase in impact capacity, increased abrasion resistance, and residual strength.
- Fibermesh reinforcing to be 100% virgin polypropylene fibers containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement.
- Application of fibermesh per cubic yard of concrete shall equal a minimum of 0.1% by volume (1.5 pounds per cubic yard) Fibermesh shall comply with ASTM CIII6, any local building code requirements, and shall meet or exceed the current industry
- 5. Steel reinforcing bars shall be new billet steel conforming to ASTM A615, grade 60.
- 6. Detailing, fabrication, and placement of reinforcing steel shall be in accordance with the latest edition of ACI 315: "Manual of Standard Practice for Detailing Concrete Structures" Horizontal footing and wall reinforcement shall be continuous

and shall have 90° bends, or corner bars with the same

tension splice. 8. Lap reinforcement as required, a minimum of 40 bar diameters for tension or compression unless otherwise noted. Splices in masonry shall be a minimum of 48 bar diameters.

size/spacing as the horizontal reinforcement with a class B

- 9. Where reinforcing dowels are required, they shall be equivalent in size and spacing to the vertical reinforcement. The dowel shall extend 48 bar diameters vertically and 20 bar diameters into the footing.
- 10. Where reinforcing steel is required vertically, dowels shall be provided unless otherwise noted.

- Solid sawn wood framing members shall conform to the specifications listed in the latest edition of the "National Design Specification for Wood Construction" (NDS). Unless otherwise noted, all wood framing members are designed to be Southern-Yellow-Pine (SYP) #2.
- LVL or PSL engineered wood shall have the following minimum 2.1. E = 1,900,000 psi
- $2.2. \, \text{Fb} = 2600 \, \text{psi}$ 2.3. Fv = 285 psi
- 2.4.Fc = 700 psi Wood in contact with concrete, masonry, or earth shall be pressure treated in accordance with AWPA standard C-15. All other moisture exposed wood shall be treated in accordance with AWPA standard C-2
- Nails shall be common wire nails unless otherwise noted. 5. Lag screws shall conform to ANSI/ASME standard B18.2.1-1981. Lead holes for lag screws shall be in accordance with NDS specifications.
- . All beams shall have full bearing on supporting framing members unless otherwise noted.
- Exterior and load bearing stud walls are to be 2x4 SYP #2 @ 16" O.C. unless otherwise noted. Studs shall be continuous from the sole plate to the double top plate. Studs shall only be discontinuous at headers for window/door openings. A minimum of one king stud shall be placed at each end of the header. King studs shall be continuous.
- Individual studs forming a column shall be attached with one 10d nail @ 6" O.C. staggered. The stud column shall be continuous to the foundation or beam. The column shall be properly blocked at all floor levels to ensure proper load transfer. . Multi-ply beams shall have each ply attached with (3) 10d nails a
- 10. Four and five ply beams shall be bolted together with (2) rows of 1/2" diameter through bolts staggered a 16" O.C. unless noted otherwise.

- The wood truss manufacturer/fabricator is responsible for the design of the wood trusses. Submit sealed shop drawings and supporting calculations to the SER for review prior to fabrication. The SER shall have a minimum of five (5) days for review. The review by the SER shall review for overall compliance with the design documents. The SER shall assume no responsibility for the correctness for the structural design for the wood trusses.
- The wood trusses shall be designed for all required loadings as specified in the local building code, the ASCE Standard "Minimum Design Loads for Buildings and Other Structures." (ASCE 7-10), and the loading requirements shown on these specifications. The truss drawings shall be coordinated with all other construction documents and provisions provided for loads shown on these drawings including but not limited to HVAC equipment, piping, and architectural fixtures attached to the trusses.
- The trusses shall be designed, fabricated, and erected in accordance with the latest edition of the "National Design Specification for Wood Construction." (NDS) and "Design" Specification for Metal Plate Connected Wood Trusses."
- The truss manufacturer shall provide adequate bracing information in accordance with "Commentary and Recommendations for Handling, Installing, and Bracing Metal Plate Connected Wood Trusses" (HIB-91). This bracing, both temporary and permanent, shall be shown on the shop drawings. Also, the shop drawings shall show the required attachments for
- Any chords or truss webs shown on these drawings have been shown as a reference only. The final design of the trusses shall be per the manufacturer.
- EXTERIOR WOOD FRAMED DECKS:
- Decks are to be framed in accordance with local building codes and as referenced on the structural plans, either through code references or construction details.

<u>WOOD STRUCTURAL PANELS:</u>

- Fabrication and placement of structural wood sheathing shall be in accordance with the APA Design/Construction Guide "Residential and Commercial," and all other applicable APA
- All structurally required wood sheathing shall bear the mark of the APA.

- Wood wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more information. Sheathing shall be applied with the long direction
- Roof sheathing shall be APA rated sheathing exposure 1 or 2. Roof sheathing shall be continuous over two supports and attached to its supporting roof framing with (1)-8d CC nail at 6"o/c at panel edges and at 12"o/c in panel field unless otherwise noted on the plans. Sheathing shall be applied with the long direction perpendicular to framing. Sheathing shall have a span rating consistent with the framing spacing. Use suitable edge support by use of plywood clips or lumber blocking unless otherwise noted. Panel end joints shall occur over framing. Apply building paper over the sheathing as

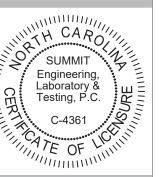
perpendicular to framing, unless noted otherwise.

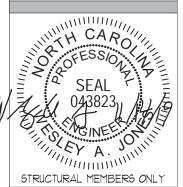
- required by the state Building Code. Wood floor sheathing shall be APA rated sheathing exposure 1 or 2. Attach sheathing to its supporting framing with (1)-8d CC ringshank nail at 6"o/c at panel edges and at 12"o/c in panel field unless otherwise noted on the plans. Sheathing shall be applied perpendicular to framing. Sheathing shall have a span rating consistent with the framing spacing. Use suitable edge support by use of T&G plywood or lumber blocking unless otherwise noted. Panel end joints shall occur over framing. Apply building paper over the sheathing as required by the state Building Code.
- Sheathing shall have a 1/8" gap at panel ends and edges as recommended in accordance with the APA.

<u>RUCTURAL FIBERBOARD PANELS:</u>

- Fabrication and placement of structural fiberboard sheathing shall be in accordance with the applicable AFA standards. All structurally required fiberboard sheathing shall bear the
- mark of the AFA. Fiberboard wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more information.
- Sheathing shall have a 1/8" gap at panel ends and edges are recommended in accordance with the AFA.

SUMMIT 3070 HAMMOND BUSINESS PLACE, SUITE 171 RALEIGH, NC 27603 OFFICE: 919.380.9991 FAX: 919.380.9993 WWW.SUMMIT-COMPANIES.COM SUMMIT





DATE: 11/14/2019 SCALE: 22x34 |/4"=1'-0" ||x|1 |/8"=|'-0" PROJECT *: 22224R2 DRAWN BY: EMB

ORIGINAL INFORMATION

CHECKED BY: WAJ

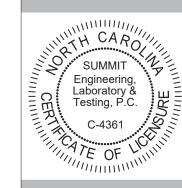
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

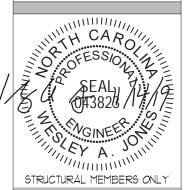


STRUCTURAL REVISION LOG:

DATE:	SHEET:	REVISION:
8.8.19	ALL	Updated per new truss layouts and added foundation for optional L-shaped shower
11.14.19	S3	Updated floor beams to be floor depth
		· · · · · · · · · · · · · · · · · · ·
	1	

SUMMIT ENGINEERING LABORATORY TESTING 3070 HAMMOND BUSINESS
PLACE, SUITE 171
RALEIGH, NC 27603
OFFICE: 919.380.9991
FAX: 919.380.9993
WWW.SUMMIT-COMPANIES.COM





DRAWING DATE: 11/14/2019 SCALE: 22x34 1/4"=1'-@" 11x17 1/8"=1'-@" PROJECT *: 22224R2 DRAWN BY: EMB CHECKED BY: WAJ

ORIGINAL INFORMATION
PROJECT * DATE
22224 Ø5/24/2019

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

FOUNDATION NOTES:

- FOUNDATIONS TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 4 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
- 2. STRUCTURAL CONCRETE TO BE F_c = 3000 PSI, PREPARED AND PLACED IN ACCORDANCE WITH ACI STANDARD 318.
- 3. FOOTINGS TO BE PLACED ON UNDISTURBED EARTH, BEARING A MINIMUM OF 12" BELOW ADJACENT FINISHED GRADE, OR AS OTHERWISE DIRECTED BY THE CODE ENFORCEMENT OFFICIAL.
- 4. FOOTING SIZES BASED ON A PRESUMPTIVE SOIL BEARING CAPACITY OF 2000 PSF. CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE SUITABILITY OF THE SITE SOIL CONDITIONS AT THE TIME OF CONSTRUCTION.
- 5. FOOTINGS AND PIERS SHALL BE CENTERED UNDER THEIR RESPECTIVE ELEMENTS. PROVIDE 2" MINIMUM FOOTING PROJECTION FROM THE FACE OF MASONRY.
- 6. MAXIMUM DEPTH OF UNBALANCED FILL AGAINST MASONRY WALLS TO BE AS SPECIFIED IN SECTION R404.1 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
- PILASTERS TO BE BONDED TO PERIMETER FOUNDATION WALL.
- 8. PROVIDE FOUNDATION WATERPROOFING, AND DRAIN WITH POSITIVE SLOPE TO OUTLET AS REQUIRED BY SITE CONDITIONS.
- 9. PROVIDED PERIMETER INSULATION FOR ALL FOUNDATIONS PER 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
- 10. CORBEL FOUNDATION WALL AS REQUIRED TO ACCOMMODATE BRICK
- II. CRAWL SPACE TO BE GRADED LEVEL, AND CLEARED OF ALL DEBRIS.
- 12. FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER THE 2018 NORTH CAROLINA RESIDENTIAL CODE SECTION R403.1.6. MINIMUM 1/2" DIA. BOLTS SPACED AT 6'-0" ON CENTER WITH A 1" MINIMUM EMBEDMENT INTO MASONRY OR CONCRETE. ANCHOR BOLTS SHALL BE 12" FROM THE END OF EACH PLATE SECTION. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
- 13. ABBREVIATIONS:
 - DJ = DOUBLE JOIST
 GT = GIRDER TRUSS
 SC = STUD COLUMN
 EE = EACH END
 TJ = TRIPLE JOIST
 CL = CENTER LINE

 SJ = SINGLE JOIST
 FT = FLOOR TRUSS
 FT = FLOOR TRUSS
 TR = TRIPLE RAFTER
 OC = ON CENTER
 PL = POINT LOAD
- 14. ALL PIERS TO BE 16"X16" MASONRY AND ALL PILASTERS TO BE 8"X16" MASONRY, TYPICAL. (UNO)
- 15. WALL FOOTINGS TO BE CONTINUOUS CONCRETE, SIZES PER STRUCTURAL PLAN.16. A FOUNDATION EXCAVATION OBSERVATION SHOULD BE CONDUCTED BY A
- 16. A FOUNDATION EXCAVATION OBSERVATION SHOULD BE CONDUCTED BY A PROFESSIONAL GEOTECHNICAL ENGINEER, OR HIS QUALIFIED REPRESENTATIVE. IF ISOLATED AREAS OF YIELDING MATERIALS AND/OR POTENTIALLY EXPANSIVE SOILS ARE OBSERVED IN THE FOOTING EXCAVATIONS AT THE TIME OF CONSTRUCTION, SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. MUST BE PROVIDED THE OPPORTUNITY TO REVIEW THE FOOTING DESIGN PRIOR TO CONCRETE PLACEMENT.
- 17. ALL FOOTINGS & SLABS ARE TO BEAR ON UNDISTURBED SOIL OR 95% COMPACTED FILL, VERIFIED BY ENGINEER OR CODE OFFICIAL.

REFER TO BRACED WALL PLAN FOR PANEL LOCATIONS AND ANY REQUIRED HOLD-DOWNS. ADDITIONAL INFORMATION PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCRC.

NOTE: ALL EXTERIOR FOUNDATION DIMENSIONS ARE TO FRAMING AND <u>NOT</u> BRICK VENEER, UNO

NOTE: A 4" CRUSHED STONE BASE COURSE IS NOT REQUIRED WHEN SLAB IS INSTALLED ON WELL-DRAINED OR SAND-GRAVEL MIXTURE SOILS CLASSIFIED AS GROUP I PER TABLE R405.1

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY MCKEE HOMES COMPLETED/REVISED ON 05/15/2018. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

STRUCTURAL MEMBERS ONLY

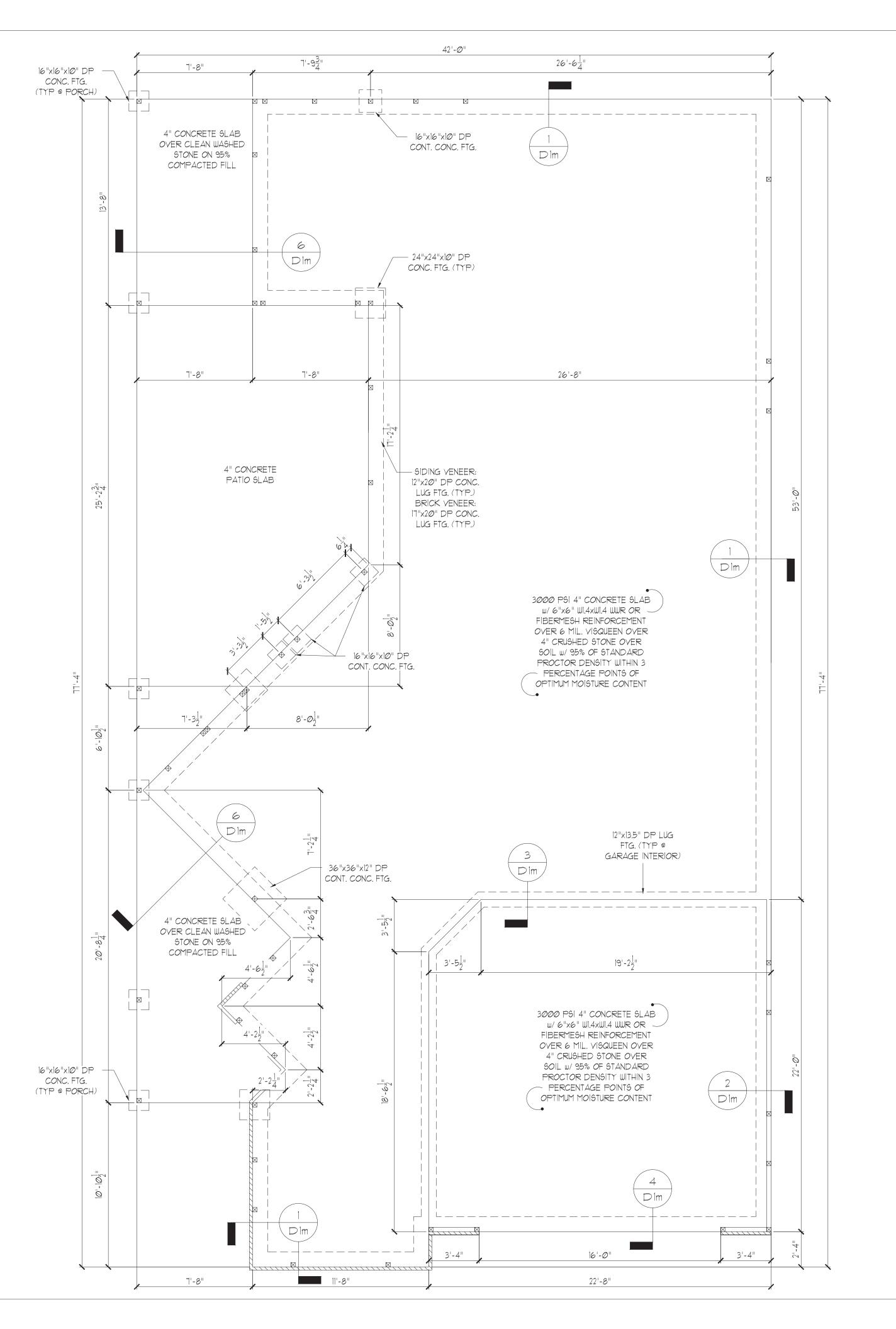
ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT, SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. FAILURE TO DO SO WILL VOID SUMMIT LIABILITY.

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

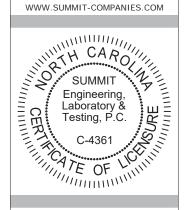
MONOLITHIC SLAB FOUNDATION PLAN

CRAFTSMAN

SCALE: 1/4"=1'-0" ON 22"x34" OR 1/8"=1'-0" ON 11"x17"



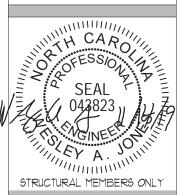




McKee Homes
109 Hay St., Suite 301
Faucetteville NC 28301

Promenade RH

Monolithic Slab Foundi



DRAWN BY: EMB

CHECKED BY: WAJ

ORIGINAL INFORMATION
PROJECT DATE

PROJECT DATE
22224 Ø5/24/2019

REFER TO COVER SHEET FOR A
COMPLETE LIST OF REVISIONS

8 4 =

GENERAL STRUCTURAL NOTES:

- 1. CONSTRUCTION SHALL CONFORM TO 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
- 2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONTRACTOR SHALL COMPLY WITH THE CONTENTS OF THE DRAWING FOR THIS SPECIFIC PROJECT, ENGINEER IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM THIS PLAN.
- 3. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY BRACING REQUIRED TO RESIST ALL FORCES ENCOUNTERED DURING ERECTION.
- 4. PROPERTIES USED IN THE DESIGN ARE AS FOLLOWS:

 MICROLLAM (LVL): F_b = 2600 PSI, F_V = 285 PSI, E = 1.9×10⁶ PSI

 PARALLAM (PSL): F_b = 2900 PSI, F_V = 290 PSI, E = 1.25×10⁶ PSI
- STUD COLUMNS AND JOISTS SHALL BE #2 SYP (UNO).

 6. ALL BEAMS SHALL BE SUPPORTED WITH A (2) 2x4 #2 SYP STUD COLUMN

ALL WOOD MEMBERS SHALL BE #2 SYP UNLESS NOTED ON PLAN. ALL

- AT EACH END UNLESS NOTED OTHERWISE.
- 1. ALL REINFORCING STEEL SHALL BE GRADE 60 BARS CONFORMING TO ASTM A615 AND SHALL HAVE A MINIMUM COVER OF 3".
- 8. FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER THE 2018
 NORTH CAROLINA RESIDENTIAL CODE SECTION R403.1.6. MINIMUM 1/2"
 DIA. BOLTS SPACED AT 6'-0" ON CENTER WITH A 1" MINIMUM
 EMBEDMENT INTO MASONRY OR CONCRETE. ANCHOR BOLTS SHALL BE
 12" FROM THE END OF EACH PLATE SECTION. MINIMUM (2) ANCHOR BOLTS
 PER PLATE SECTION. ANCHOR BOLTS SHALL BE LOCATED IN THE
 CENTER THIRD OF THE PLATE.
- 9. CONTRACTOR TO PROVIDED LOOKOUTS WHEN CEILING JOISTS SPAN
- PERPENDICULAR TO RAFTERS.

 10. FLITCH BEAMS, 4-PLY LVLS AND 3-PLY SIDE LOADED LVLS SHALL BE
- BOLTED TOGETHER WITH 1/2" DIA. THRU BOLTS SPACED AT 24" O.C.

 (MAX) STAGGERED OR EQUIVALENT CONNECTIONS PER DETAIL 1/D3f.

 MIN. EDGE DISTANCE SHALL BE 2" AND (2) BOLTS SHALL BE LOCATED

 MINIMUM 6" FROM EACH END OF THE BEAM.
- II. ALL NON-LOAD BEARING HEADERS SHALL BE (1) FLAT 2x4 SYP #2,
 DROPPED. FOR NON-LOAD BEARING HEADERS EXCEEDING 8'-Ø" IN
 WIDTH AND/OR WITH MORE THAN 2'-Ø" OF CRIPPLE WALL ABOVE, SHALL
 BE (2) ELAT 2x4 SYB #2, DROPPED (UNI ESS NOTED OT LEDUISE)
- BE (2) FLAT 2x4 SYP #2, DROPPED. (UNLESS NOTED OTHERWISE)
 12. ABBREVIATIONS:
 - DJ = DOUBLE JOIST SJ = SINGLE JOIST
 - GT = GIRDER TRUSS FT = FLOOR TRUSS SC = STUD COLUMN DR = DOUBLE RAF
 - SC = STUD COLUMN DR = DOUBLE RAFTER EE = EACH END TR = TRIPLE RAFTER
 - TJ = TRIPLE JOIST OC = ON CENTER
 CL = CENTER LINE PL = POINT LOAD

SHADED WALLS INDICATED LOAD BEARING WALLS

NOTE: REDUCE JOIST SPACING UNDER TILE FLOORS, GRANITE COUNTERTOPS AND/OR ISLANDS.

JOIST & BEAM SIZES SHOWN ARE MINIMUMS. BUILDER MAY INCREASE DEPTH FOR EASE OF CONSTRUCTION.

NOTE:

== DESIGNATES JOIST SUPPORTED LOAD BEARING WALL ABOVE. PROVIDE BLOCKING UNDER JOIST SUPPORTED LOAD BEARING WALL.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY MCKEE HOMES COMPLETED/REVISED ON 05/15/2018. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

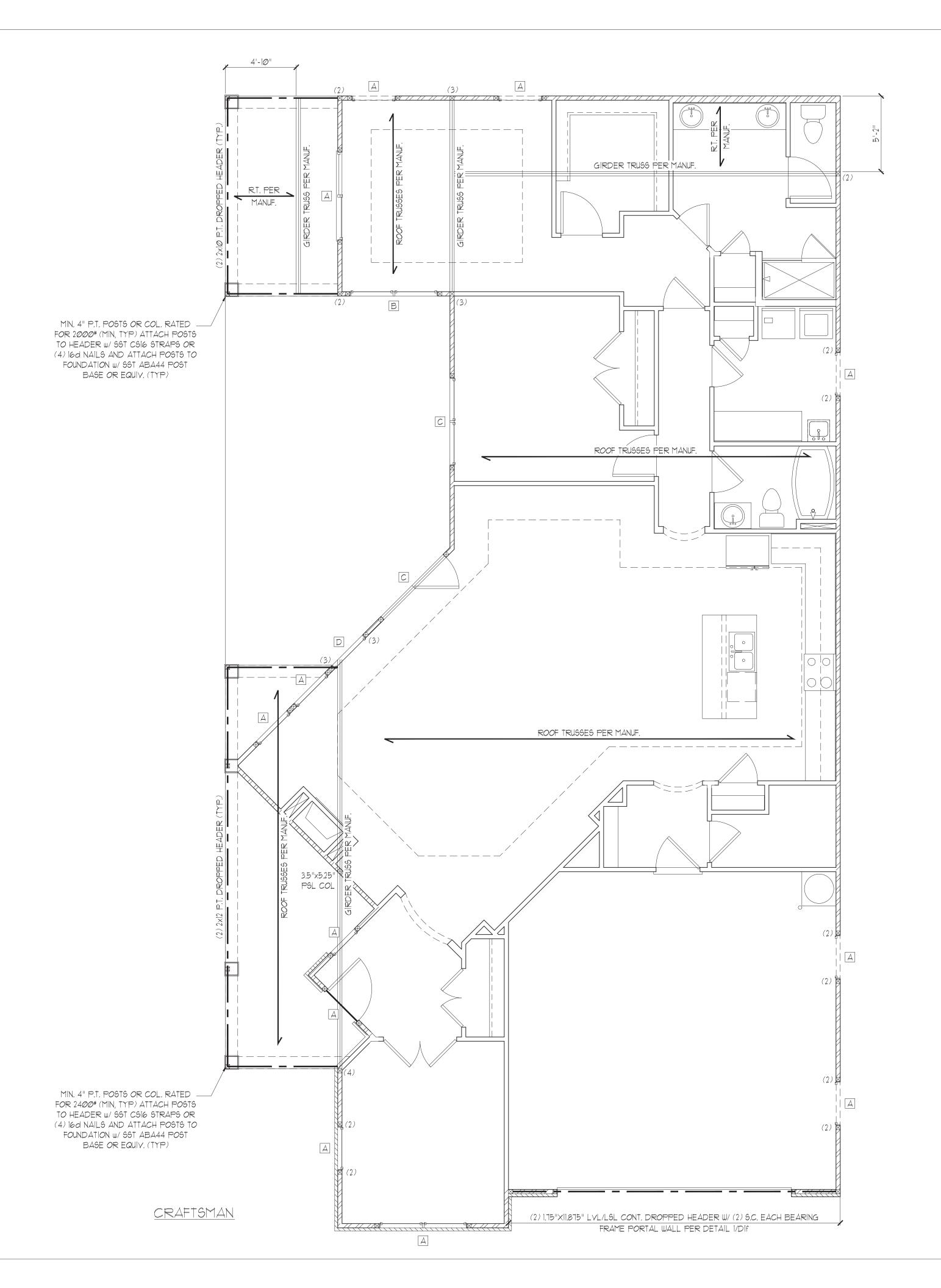
STRUCTURAL MEMBERS ONLY

ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT, SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. FAILURE TO DO SO WILL VOID SUMMIT LIABILITY.

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

FIRST FLOOR FRAMING PLAN

SCALE: 1/4"=1'-0" ON 22"x34" OR 1/8"=1'-0" ON 11"x17"



HEADER SCHEDULE			
TAG	SIZE	JACKS (EACH END)	
Д	(2) 2×6	(1)	
B	(2) 2×8	(2)	
С	(2) 2xlØ	(2)	
D	(2) 2×12	(2)	
E	(2) 9-1/4" LSL/LVL	(3)	
F	(3) 2x6	(1)	
G	(3) 2x8	(2)	
Н	(3) 2x1Ø	(2)	
	(3) 2x12	(3)	

NOTES:

1. HEADER SIZES SHOWN ON PLANS ARE MINIMUMS. GREATER HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION.

2. ALL HEADERS TO BE DROPPED (U.N.O.).

3. STUD COLUMNS NOTED ON PLAN OVERRIDE STUD COLUMNS LISTED ABOVE (U.N.O.).

4. OPENINGS LESS THAN 3'-O" USE (1) KING STUD AT E.E. OPENINGS 3'-1" TO 4'-O" USE (2) KING STUDS AT E.E. OPENINGS 8'-1" TO 12'-O" USE (5) KING STUDS AT E.E. OPENINGS 12'-1" TO 16'-O" USE (6) KING STUDS AT E.E. OPENINGS 12'-1" TO 16'-O" USE (6) KING STUDS AT E.E.

ALL HEADERS WHERE BRICK IS USED, TO BE:

1 LINTEL (U.N.O.)

LINTEL SCHEDULE:

STEEL ANGLES TO HAVE MINIMUM 4" BEARING ONTO BRICK AT EACH END.

L3x3x1/4"

2 L5x3"x1/4"

3 L5x3-1/2x5/16"

4 L5x3-1/2"x5/16" ROLLED OR EQUAL ARCHED COMPONENT.

SECURE LINTEL TO HEADER W/(2)1/2" DIAMETER LAG SCREWS STAGGERED @ 16" O.C. (TYP FOR (3))

WALL STUD SCHEDULE (10 FT HEIGHT)				EIGHT)
STUD SIZE	STUD SPACING (O.C.)			
	ROOF ONLY	ROOF & 1 FLOOR	ROOF & 2 FLOORS	NON-LOAD BEARING
2×4	24"	16"	12"	24"
2x6	24"	24"	16"	24"
NOTES.				

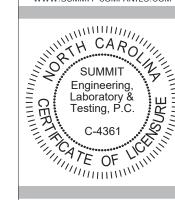
NOTES:

1. BRACED WALLS STUDS SHALL BE A MAX. OF 16" O.C.

2. STUDS SUPPORTS OPTIONAL WALK-UP ATTIC SHALL BE SPACED A MAX. OF 16" O.C.

3. TWO STORY WALLS SHALL BE FRAMED w/ 2x4 STUDS @ 12"
O.C. OR 2x6 STUDS @ 16" O.C. BALLOON FRAMED w/ CROSS
BRACING @ 6'-0" O.C. VERTICALLY.

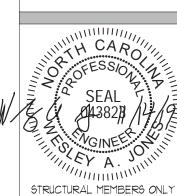
SUMMIT
ENGINEERING LABORATORY TESTING
3070 HAMMOND BUSINESS
PLACE, SUITE 171
RALEIGH, NC 27603
OFFICE: 919.380.9991
FAX: 919.380.9993
WWW.SUMMIT-COMPANIES.COM



OLIEN : McKee Homes 109 Hay St., Suite 301 Eaugtteville NC 28301

Promenade RH

First Floor Framing B



RAWING DATE: 11/14/2019 9CALE: 22x34 1/4"=1"

9CALE: 22x34 | |/4"=|'-0" ||x|T | |/2"=|'-0" |PROJECT • 22224R2 |DRAWN BY: EMB |CHECKED BY: WAJ

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PROJECT * DATE
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53*.*Ø

TRUSS UPLIFT CONNECTOR SCHEDULE				
MAX. UPLIFT	ROOF TO WALL	FLOOR TO FLOOR	FLOOR TO FND	
600 LBS	H2.5A	PER WALL SHEATHIN	NG & FASTENERS	
12 <i>00</i> LBS	(2) H2.5A	CS16 (END = 11")	DTT2Z	
1450 LBS	HTS2Ø	CS16 (END = 11")	DTT2Z	
2000 LBS	(2) MTS2Ø	(2) CS16 (END = 11")	DTT2Z	
2900 LBS	(2) HTS2Ø	(2) CS16 (END = 11")	HTT4	
3685 LBS	LGT3-SDS2.5	MSTC52	HTT4	
ALL PRODUCTS LISTED ARE SIMPSON STRONG THE FOUNTALENT				

1. ALL PRODUCTS LISTED ARE SIMPSON STRONG-TIE. EQUIVALENT PRODUCTS MAY BE USED PER MANUFACTURER'S SPECIFICATIONS.

2. UPLIFT VALUES LISTED ARE FOR SYP *2 GRADE MEMBERS.

3. REFER TO TRUSS LAYOUT PER MANUF. FOR UPLIFT VALUES AND TRUSS TO TRUSS CONNECTIONS. CONNECTORS SPECIFIED BY TRUSS MANUFACTURER OVERRIDE THOSE LISTED ABOVE.

4. CONTACT SUMMIT FOR REQUIRED CONNECTORS WHEN LOADS EXCEED THOSE LISTED ABOVE.

NOTE: IST PLY OF ALL SHOWN GIRDER TRUSSES TO ALIGN WITH INSIDE FACE OF WALL (TYP, UNO)

NOTE: ROOF TRUSSES SHALL BE SPACED TO SUPPORT FALSE FRAMED DORMER WALLS (TYP, UNO)

REFER TO DETAIL 5/D3F FOR EYEBROW, RETURN OR SHED ROOF FRAMING REQUIREMENTS. (TYP FOR ROOFS PROTRUDING MAXIMUM 24" FROM STRUCTURE)

NOTE: TRUSS UPLIFT LOADS SHALL BE DETERMINED PER TRUSS MANUFACTURER IN ACCORDANCE WITH SECTION R802.II.I.I. WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.5 OF THE 2018 NCRC. REFER TO BRACED WALL PLANS FOR SHEATHING AND FASTENER REQUIREMENTS.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY MCKEE HOMES COMPLETED/REVISED ON 05/15/2018. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

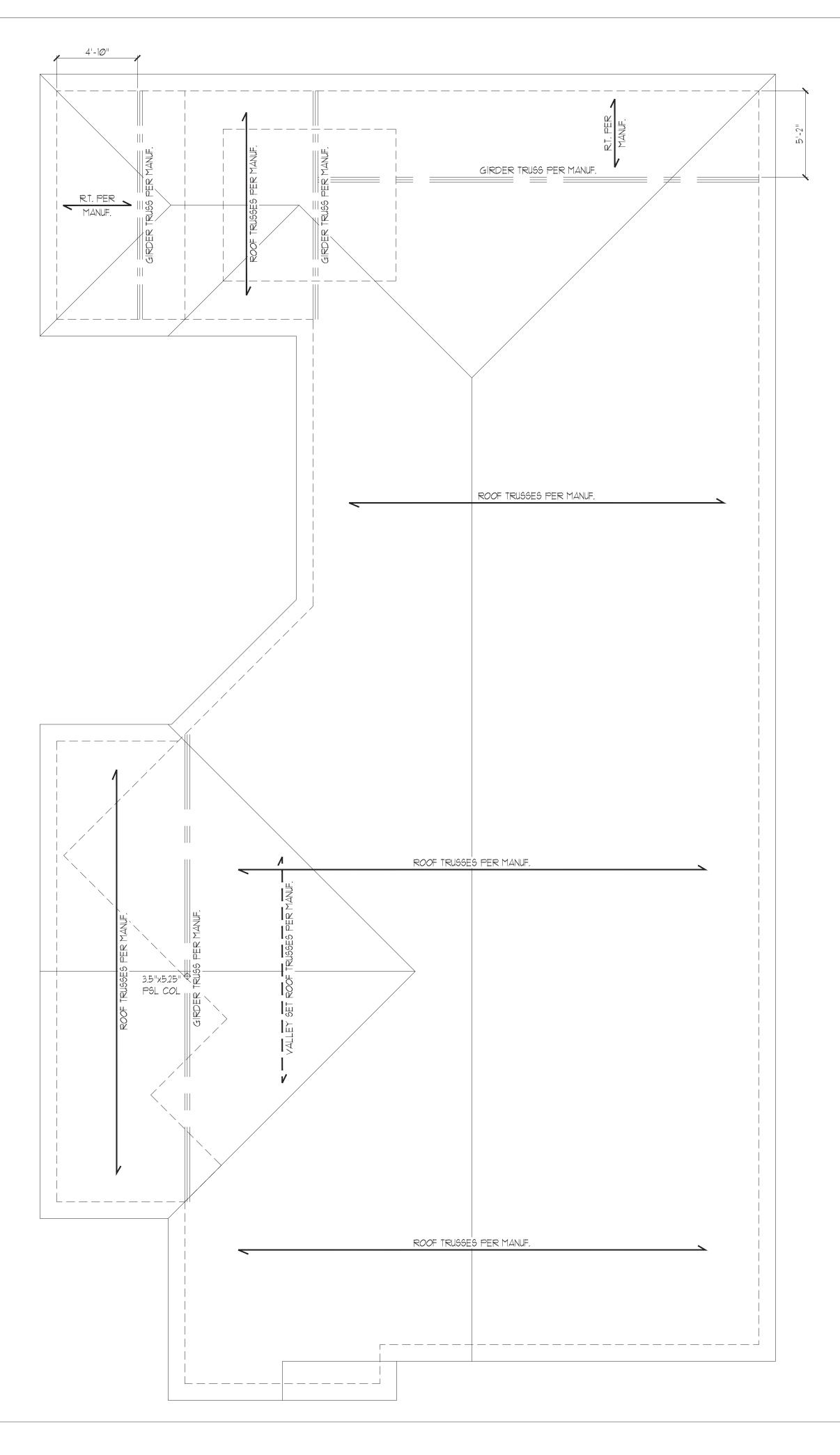
STRUCTURAL MEMBERS ONLY

ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT, SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. FAILURE TO DO SO WILL VOID SUMMIT LIABILITY.

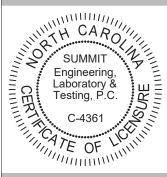
STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

ROOF FRAMING PLAN

SCALE: 1/4"=1'-0" ON 22"x34" OR 1/8"=1'-0" ON 11"x17"

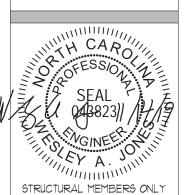






CLIENI: McKee Homes 109 Hay St., Suite 301 Fauetteville NC 28301

ROJECI:
romenade RH



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RAWING

DATE: 11/14/2019

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

IIXIT 1/8"=1'-0"

PROJECT * 22224R2

DRAWN BY: EMB

CHECKED BY: WAJ

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22224 05/24/2019

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CRAFTSMAN

REQUIRED BRACED WALL PANEL CONNECTIONS					
			REQUIRED CONNECTION		
METHOD	MATERIAL	MIN. THICKNESS	@ PANEL EDGES	@ INTERMEDIATE SUPPORTS	
CS-WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.	
GB	GYPSUM BOARD	1/2"	5d COOLER NAILS** @ 7" O.C.	5d COOLER NAILS** @ 7" O.C.	
WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.	
PF	WOOD STRUCTURAL PANEL	7/16"	PER FIGURE R602,10,1	PER FIGURE R602,10,1	
**OR EQUIVALENT PER TABLE R102.3.5					

REAR

HOUSE

BRACED WALL NOTES:

- 1. WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2018 INTERNATIONAL RESIDENTIAL CODE WITH ALL LOCAL AND STATE AMENDMENTS.
- 2. WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE DESIGN WIND SPEEDS UP TO 130 MPH.
- 3. REFER TO ARCHITECTURAL PLAN FOR DOOR/WINDOW OPENING SIZES.
- 4. BRACING MATERIALS, METHODS AND FASTENERS SHALL BE IN ACCORDANCE WITH TABLE R602.10.1
- 5. ALL BRACED WALL PANELS SHALL BE FULL WALL HEIGHT AND SHALL NOT EXCEED 10 FEET FOR ISOLATED PANEL METHOD AND 12 FEET FOR CONTINUOUS SHEATHING METHOD WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- 6. MINIMUM PANEL LENGTH SHALL BE PER TABLE R602.10.1.1. THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR
- WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSUM BOARD (UNO). 8 FOR CONTINUOUS SHEATHING METHOD EXTERIOR WALLS SHALL BE
- 8. FOR CONTINUOUS SHEATHING METHOD, EXTERIOR WALLS SHALL BE SHEATHED ON ALL SHEATHABLE SURFACES INCLUDING INFILL AREAS BETWEEN BRACED WALL PANELS, ABOVE AND BELOW WALL OPENINGS, AND ON GABLE END WALLS.
- 9. FLOORS SHALL NOT BE CANTILEVERED MORE THAN 24" BEYOND THE FOUNDATION OR BEARING WALL BELOW WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- 10. A BRACED WALL PANEL SHALL BE LOCATED WITHIN 12 FEET OF EACH END OF A BRACED WALL LINE.
- 11. THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 21 FEET.
- 12. MASONRY OR CONCRETE STEM WALLS WITH A LENGTH OF 48" OR LESS SUPPORTING A BRACED WALL PANEL SHALL BE DESIGNED IN
- ACCORDANCE WITH FIGURE R602.10.4.3 OF THE 2018 IRC OR DETAIL 2/D2f.
- 13. BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.4
- 14. BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.5
- 15. CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.104.6
- 16. PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.1 (UNO)
- 17. ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS.
 18. ABBREVIATIONS:

, ABBINEFIANORO.

GB = GYPSUM BOARD WSP = WOOD STRUCTURAL PANEL CS-XXX = CONT. SHEATHED ENG = ENGINEERED SOLUTION PF = PORTAL FRAME PF-ENG = ENG. PORTAL FRAME

INSTALL HOLD-DOWNS FOR BRACED WALL END CONDITIONS PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCRC.

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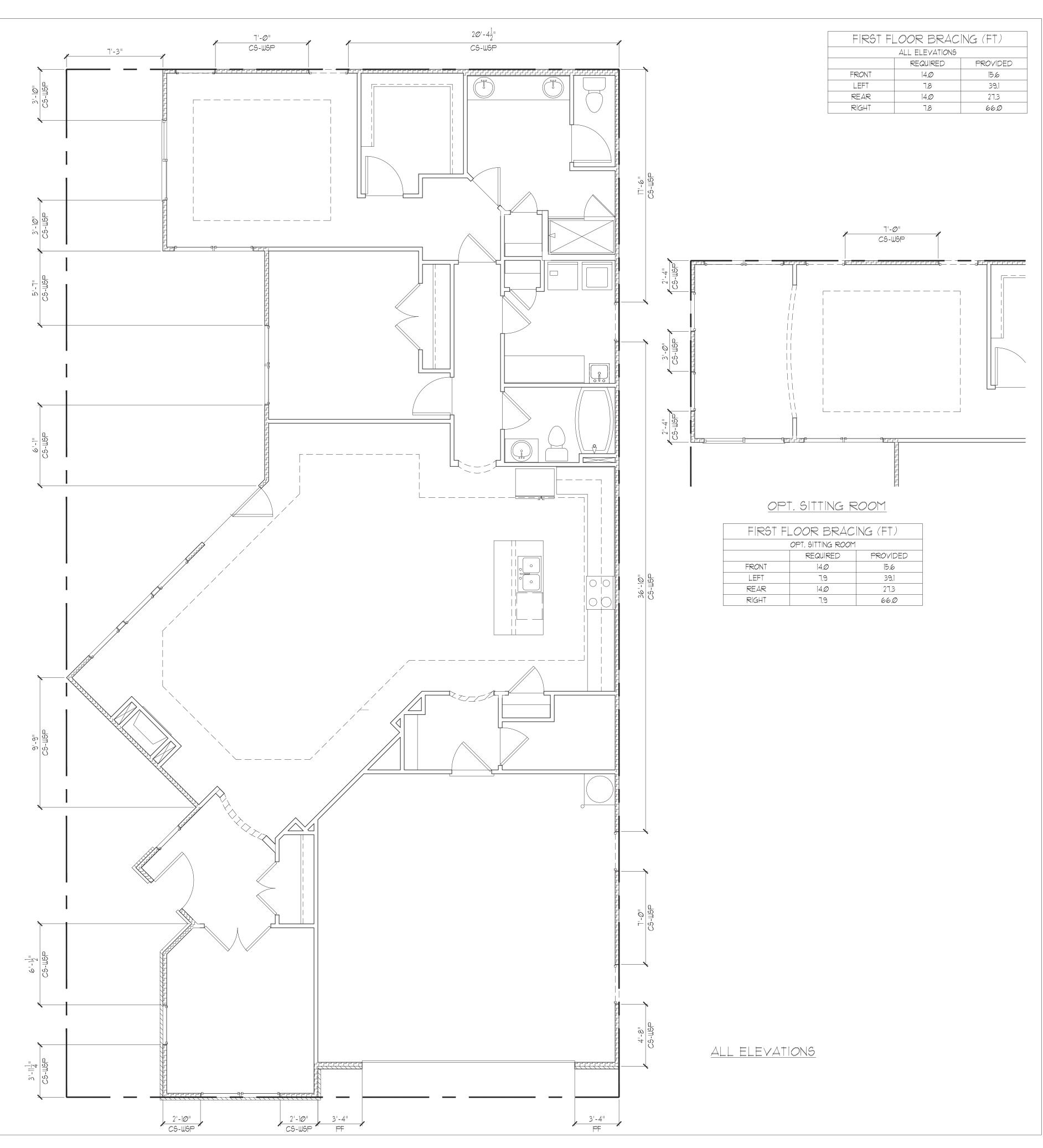
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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

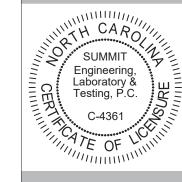
FIRST FLOOR BRACING PLAN

SCALE: 1/4"=1'-0" ON 22"x34" OR 1/8"=1'-0" ON 11"x17"



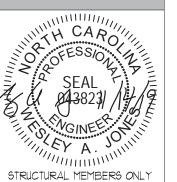


FAX: 919.380.9993 WWW.SUMMIT-COMPANIES.COM



ilient: 1cKee Homes 09 Hay St., Suite 301 aqetteville, NC 28301

Promenade RH
First Floor Bracing Plan



FAWING

DATE: 11/14/2019

SCALE: 22x34 1/4"=1'-0"
11x11 1/8"=1'-0"

PROJECT % 22224R2

DRAWN BY: EMB

CHECKED BY: WAJ

ORIGINAL INFORMATION
PROJECT * DATE
22224 Ø5/24//

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS



STRUCTURAL PLANS PREPARED FOR:

Standard Details

McKee Homes

109 Hay St., Suite 301 Fayetteville, NC 28301

DESIGNER:

These drawings are to be coordinated with the architectural, mechanical, plumbing, electrical, and civil drawings. This coordination is not the responsibility of the structural engineering of record (SER). Should any discrepancies become apparent, the contractor shall notify SUMMIT Engineering, Laboratory 4 Testing, P.C. before construction begins.

PLAN ABBREVIATIONS:

AB	ANCHOR BOLT	PT	PRESSURE TREATED
AFF	ABOVE FINISHED FLOOR	R6	ROOF SUPPORT
CJ	CEILING JOIST	9C	STUD COLUMN
CLR	CLEAR	SJ	SINGLE JOIST
DJ	DOUBLE JOIST	SPF	SPRUCE PINE FIR
DSP	DOUBLE STUD POCKET	551	SIMPSON STRONG-TIE
EE	EACH END	SYP	SOUTHERN YELLOW PINE
ΕW	EACH WAY	TJ	TRIPLE JOIST
NTS	NOT TO SCALE	TSP	TRIPLE STUD POCKET
oc	ON CENTER	TYP	TYPICAL
PSF	POUNDS PER SQUARE FOOT	UNO	UNLESS NOTED OTHERWISE
PSI	POUNDS PER SQUARE INCH	WWF	WELDED WIRE FABRIC

Roof truss and floor joist layouts, and their corresponding loading details, were not provided to SUMMIT Engineering, Laboratory & Testing, P.C. (SUMMIT) prior to the initial design. Therefore, truss and joist directions were assumed based on the information provided by MERITAGE HOMES, Subsequent plan revisions based on roof truss and floor joist layouts shall be noted in the revision list, indicating the date the layouts were provided. Should any discrepancies become apparent, the contractor shall notify SUMMIT immediately.

Sheet No.	Description	
CSI	Cover Sheet, Specifications, Revisions	
Dlm	Monolithic Slab Foundation Details	_
Dis	Stem Wall Foundation Details	
Dlc	Crawl Space Foundation Details	
Dlb	Basement Foundation Details	_
DIf	Framing Details	_
		_
	·	
•		

REVISION LIST:

SHEET LIST:

Revision No.	Date	Project No.	Description
ı	1.11.19	-	Updated to 2018 NCRC

GENERAL STRUCTURAL NOTES:

The design professional whose seal appears on these drawings is the structural engineer of record (SER) for this project. The SER bears the responsibility of the primary structural elements and the performance of this structure. No other party may revise alter, or delete any structural aspects of these construction documents without written permission of SUMMIT Engineering, Laboratory 4 Testing, P.C. (SUMMIT) or the SER. For the purposes of these construction documents the SER and SUMMIT shall be considered the same entity.

The structure is only stable in its completed form The contractor hall provide all required temporary bracing during construction to stabilize the structure.

The SER is not responsible for construction sequences, methods,

or techniques in connection with the construction of this structure. The SER will not be held responsible for the contractor's failure to conform to the contract documents. should any non-conformities occur.

Any structural elements or details not fully developed on the

any structural elements or details not fully developed on the construction drawings shall be completed under the direction of a licensed professional engineer. These shop drawings shall be submitted to SUMMIT for review before any construction begins. The shop drawings will be reviewed for overall compliance as it. relates to the structural design of this project. Verification of the shop drawings for dimensions, or for actual field conditions, is not the responsibility of the SER or SUMMIT.

Verification of assumed field conditions is not the responsibility

of the SER. The contractor shall verify the field conditions for accuracy and report any discrepancies to SUMMIT before

construction begins.

The SER is not responsible for any secondary structural elements or non-structural elements, except for the elements specifically noted on the structural drawings.
This structure and all construction shall conform to all

applicable sections of the international residential code.

This structure and all construction shall conform to all applicable sections of local building codes.

All structural assemblies are to meet or exceed to requirements

of the current local building code.

FOUND ATIONS:

The structural engineer has not performed a subsurface investigation. Verification of this assumed value is the responsibility of the owner or the contractor. Should any contacted before proceeding.

The bottom of all footings shall extend below the frost line for the region in which the structure is to be constructed. However,

the bottom of all footings shall be a minimum of 12° below grade.
Any fill shall be placed under the direction or recommendation
of a licensed professional engineer.
The resulting soil shall be compacted to a minimum of 95%

maximum dry density. Excavations of footings shall be lined temporarily with a 6 mil polyethylene membrane if placement of concrete does not occur within 24 hours of excavation.

No concrete shall be placed against any subgrade containing

STRUCTURAL STEEL

Structural steel shall be fabricated and erected in accordance with the American Institute of Steel Construction "Code of Standard Practice for Steel Buildings and Bridges" and the manual of Steel Construction "Load Resistance Factor Design" latest editions.

Structural steel shall receive one coat of shop applied rust-inhibitive paint. All steel shall have a minimum yield stress (F $_{\! u}\!\!$) of 36 ksi unless

otherwise noted.

Welding shall conform to the latest edition of the American Welding Society's Structural Welding Code AWS D.I. Electrodes for shop and field welding shall be class ETØXX. All welding shall be performed by a certified welder per the above

Concrete shall have a normal weight aggregate and a minimum compressive strength (f'c) at 28 days of 3000 psi, unless

otherwise noted on the plan.

Concrete shall be proportioned, mixed, and placed in accordance with the latest editions of ACI 318: "Building Code Requirements for Reinforced Concrete" and ACI 301: "Specifications for Structural Concrete for Buildings".

Air entrained concrete must be used for all structural elements exposed to freeze/thaw cycles and deicing chemicals. Air entrainment amounts (in percent) shall be within -1% to +2% of taraet values as follows:

3.2. Exterior Slabs: 5%

No admixtures shall be added to any structural concrete without

Concrete slabs-on-grade shall be constructed in accordance with ACI 302.IR-96: "Guide for Concrete Slab and Slab Construction".

The concrete slab-on-grade has been designed using a subgrade modulus of k=250 pci and a design loading of 200 psf. The SER is not responsible for differential settlement, slab cracking or other future defects resulting from unreported conditions not in accordance with the above assumptions.

Control or saw cut joints shall be spaced in interior slabs-on-grade at a maximum of 15'-0" O.C. and in exterior slabs-on-grade at a maximum of 10'-0" unless otherwise noted

Control or saw cut Joints shall be produced using conventional process within 4 to 12 hours after the slab has been finished Reinforcing steel may not extend through a control joint. Reinforcing steel may extend through a saw cut joint.

All welded wire fabric (WWF.) for concrete slabs-on-grade shall be placed at mid-depth of slab. The WWF, shall be securely supported during the concrete pour.

CONCRETE REINFORCEMENT:

1. Fibrous concrete reinforcement, or fibermesh, specified in concrete slabs-on-grade may be used for control of cracking due to shrinkage and thermal expansion/contraction, lowered water migration, an increase in impact capacity, increased abrasion resistance, and residual strength.
Fibermesh reinforcing to be 100% virgin polypropylene fibers

containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement.

Application of fibermesh per cubic yard of concrete shall equal

a minimum of 0.1% by volume (1.5 pounds per cubic yard)
Fibermesh shall comply with ASTM CIII6, any local building code
requirements, and shall meet or exceed the current industry

standard. Steel reinforcing bars shall be new billet steel conforming to ASTM A615, grade 60.

ASITI Abib, grade 60.

Detailing, fabrication, and placement of reinforcing steel shall be in accordance with the latest edition of ACI 315: "Manual of Standard Practice for Detailing Concrete Structures" Horizontal footing and wall reinforcement shall be continuous and shall have 90° bends, or corner bars with the same size/spacing as the horizontal reinforcement with a class B

Lap reinforcement as required, a minimum of 40 bar diameters for tension or compression unless otherwise noted. Splices in masonry shall be a minimum of 48 bar diameters. Where reinforcing dowels are required, they shall be equivalent in size and spacing to the vertical reinforcement. The dowel shall extend 48 bar diameters vertically and 20 bar diameters

into the footing.

Where reinforcing steel is required vertically, dowels shall be provided unless otherwise noted

WOOD FRAMING:

Solid sawn wood framing members shall conform to the specifications listed in the latest edition of the "National Design Specification for Wood Construction" (NDS) Unless otherwise noted, all wood framing members are designed to be Southern-Yellow-Pine (SYP) 2.

LVL or PSL engineered wood shall have the following minimum design values: 2.1. E = 1,900,000 psi

2.2. Fb = 2600 psi

2.4.Fc = 700 psi Wood in contact with concrete, masonry, or earth shall be pressure treated in accordance with AWPA standard C-15. All . other moisture exposed wood shall be treated in accordance

with AWPA standard C-2

Nails shall be common wire nails unless otherwise noted. Lag screws shall conform to ANSI/ASME standard B182.1-1981. Lead holes for lag screws shall be in accordance with NDS specifications.

All beams shall have full bearing on supporting framing members

unless otherwise noted.

Exterior and load bearing stud walls are to be 2x4 SYP *2 * 16" OC. unless otherwise noted. Studs shall be continuous from the sole plate to the double top plate. Studs shall only be discontinuous at headers for window/door openings. A minimum of one king stud shall be placed at each end of the header. Kina studs shall be continuous.

king stude shall be continuous.

Individual stude forming a column shall be attached with one lod nail @ 6" O.C. staggered. The stud column shall be continuous to the foundation or beam. The column shall be properly blocked at all floor levels to ensure proper load transfer. Multi-ply beams shall have each ply attached with (3) 10d nails \$

Four and five ply beams shall be bolted together with (2) rows of 1/2" diameter through bolts staggered © 16" O.C. unless noted otherwise.

WOOD TRUSSES:

The wood truss manufacturer/fabricator is responsible for the design of the wood trusses. Submit sealed shop drawings and supporting calculations to the SER for review prior to fabrication. The SER shall have a minimum of five (5) days for review. The review by the SER shall review for overall compliance with the design documents. The SER shall assume no responsibility for the correctness for the structural design for

the wood trusses.

The wood trusses shall be designed for all required loadings as specified in the local building code, the ASCE Standard "Minimum Design Loads for Buildings and Other Structures." (ASCE 1-10), and the loading requirements shown on these specifications. The truss drawings shall be coordinated with all other construction documents and provisions provided for loads shown on these drawings including but not limited to HVAC equipment, piping, and architectural fixtures attached to

The trusses shall be designed, fabricated, and erected in specification for Metal Plate Connected Wood Trusses."

information in accordance with "Commentary and Recommendations for Handling, Installing, and Bracing Metal Plate Connected Wood Trusses" (HIB-91). This bracing, both temporary and permanent, shall be shown on the shop drawings. Also, the shop drawings shall show the required attachments for the trusses.

Any chords or truss webs shown on these drawings have been shown as a reference only. The final design of the trusses shall be per the manufacturer.

EXTERIOR WOOD FRAMED DECKS:

Decks are to be framed in accordance with local building codes and as referenced on the structural plans, either through

UDOD STRUCTURAL PANELS:

I. Fabrication and placement of structural wood sheathing shall be in accordance with the APA Design/Construction Guide
"Residential and Commercial," and all other applicable APA

All structurally required wood sheathing shall bear the mark of

Wood wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more information. Sheathing shall be applied with the long direction

perpendicular to framing, unless noted otherwise.

Roof sheathing shall be APA rated sheathing exposure 1 or 2.

Roof sheathing shall be continuous over two supports and attached to its supporting roof framing with (1)-8d CC nail at 6"o/c at panel edges and at 12"o/c in panel field unless otherwise noted on the plans. Sheathing shall be applied with the long direction perpendicular to framing Sheathing shall have a span rating consistent with the framing spacing. Use suitable edge support by use of plywood clips or lumber blocking unless otherwise noted. Panel end joints shall occur over framing. Apply building paper over the sheathing as required by the state Building Code.

Wood floor sheathing shall be APA rated sheathing exposure I or 2. Attach sheathing to its supporting framing with (I)-8d CC ringshank nail at 6°0/c at panel edges and at 12°0/c in panel field unless otherwise noted on the plans. Sheathing shall be applied perpendicular to framing, Sheathing shall have a span rating consistent with the framing spacing. Use suitable edge support by use of T4G plywood or lumber blocking unless otherwise noted. Panel and joints shall occur over framing. Apply building paper over the sheathing as required by the state Building Code.
Sheathing shall have a 1/8" gap at panel ends and edges as

TRUCTURAL FIBERBOARD PANELS:

Fabrication and placement of structural fiberboard sheathing shall be in accordance with the applicable AFA standards. All structurally required fiberboard sheathing shall bear the

Fiberboard wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more

Sheathing shall have a 1/8" gap at panel ends and edges are

SUMMIT

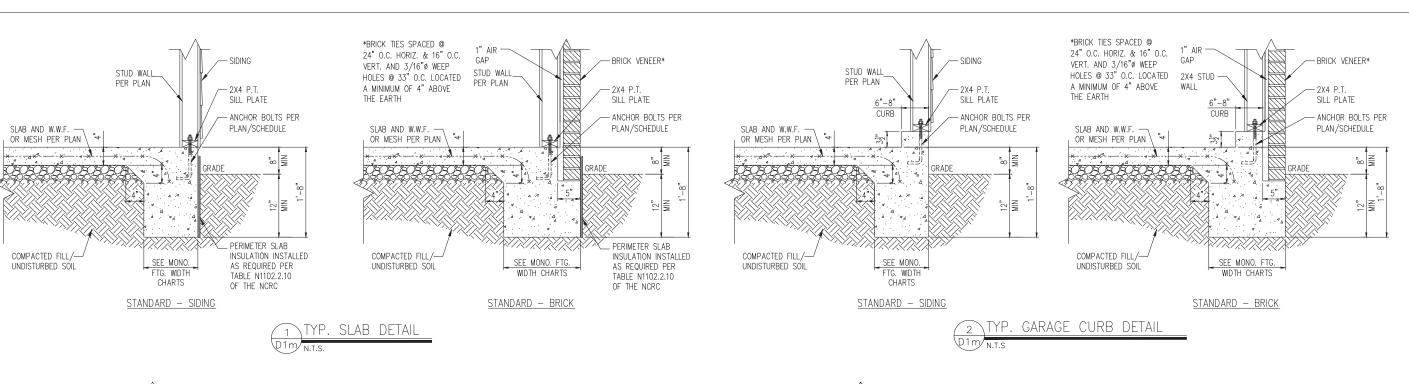




DATE: ØVII/2Ø19 SCALE: 22x34 1/4"+1"-@" ||x|T 1/8"+1"-@" DRAWN BY: EMB CHECKED BY: WAJ

ORIGINAL INFORMATION
PROJECT P DATE

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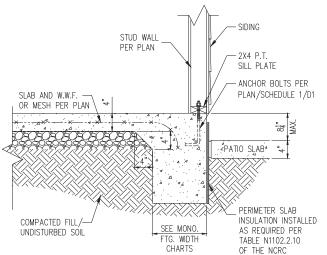
STUD WALL STUD WALL PER PLAN SLAB TO BE SLOPED -DRIVEWAY SLOPED-PER PLAN 2X4 OR 2X6 P.T. PER BUILDER SILL PLATE 1/8" PER FOOT SILL PLATE TOWARDS GARAGE ENTR' - ANCHOR BOLTS PER - ANCHOR BOLTS PER PLAN/SCHEDULE PLAN/SCHEDULE SLAB AND W.W.F. -SLAB AND W.W.F. 1/2" EXPANSION SLAB AND W.W.F. -OR MESH PER PLAN OR MESH PER PLAN OR MESH PER PLAN JOINT COMPACTED FILL/-10' TO NEAREST FULL COMPACTED FILL/-COMPACTED FILL/ UNDISTURBED SÓIL UNDISTURBED SÓIL UNDISTURBED SÓIL WIDTH EXP. JOINT

STEP IN GARAGE

SLAB AT GARAGE DOOR

PATIO SLAB DETAIL

TYP. THICKENED SLAB DETAIL



STANDARD - SIDING

*BRICK TIES SPACED @ 24" O.C. HORIZ. & 16" O.C. VERT. AND 3/16"Ø WEEP HOLES @ 33" O.C. LOCATED 2X4 STUD A MINIMUM OF 4" ABOVE WALL THE EARTH - ANCHOR BOLTS PER SLAB AND W.W.F. PLAN/SCHEDULE OR MESH PER PLAN ∠PATIO SLAR4 PERIMETER SLAB COMPACTED FILL/-INSULATION INSTALLED SEE MONO. FTG. UNDISTURBED SOIL AS REQUIRED PER WIDTH CHARTS TABLE N1102.2.10 STANDARD - BRICK

SST ARU44/66 OR EQUIV. ANCHORED w/ 1/2"ø BOLT — PER PLAN w / 7" EMBEDMENT PATIO SLAB PER PLAN SPOT FOOTING PER PLAN OR CONTINUOUS LUG FOOTING PER PLAN COMPACTED FILL / UNDISTURBED SOIL

COVERED PATIO DETAIL

MONOLITHIC FOOTING WIDTH

MONOCHINIO I CONTICO MID III							
# OF STORIES WIDTH BASED ON SOIL I			BEARING CAPACITY				
	1500 PSF	2000 PSF	2500 PSF				
1 STORY - STD.	16"	16"	16"				
1 STORY - BRICK VENEER	21"*	21"*	21"*				
2 STORY - STD.	16"	16"	16"				
2 STORY - BRICK VENEER	21"*	21"*	21"*				
3 STORY - STD.	23"	18"	18"				
3 STORY - BRICK VENEER	32"*	24"*	24"*				
*5" BRICK LEDGE HAS BEEN ADDED TO THE MONOLITHIC							
FOOTING WIDTH FOR BRICK SUPPORT							

WALL ANCHOR SCHEDULE

WALL ANGION SCILLOLL				
TYPE OF ANCHOR	MIN. CONC.	SPACING	INTERIOR	EXTERIOR
	EMBEDMENT	EMBEDMENT	WALL	WALL
1/2"ø A307 BOLTS w/	7"	6'-0"	YES	YES
STD. 90° BEND				
SST - MAS	4"	5'-0"	NO	YES
HILTI KWIK BOLT KBI 1/2-2-3/4	2-1/4"	6'-0"	YES	NO
1/2"ø HILTI THREADED ROD	7"	6'-0"	YES	YES
w/ HIT HY150 ADHESIVE				

NOTE: INSTALL ALL ANCHORS 12" MAX. FROM ALL BOTTOM PLATE ENDS AND JOINTS.

- NOTES:

 1. REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET FOR ADDITIONAL INFORMATION.
- 2. PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE. 3. SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS,
- SLOPES AND DEPRESSIONS.

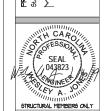
 4. REFER TO STRUCTURAL PLANS AND FRAMING DETAILS FOR
- BRACED WALL PANEL LAYOUT, DIMENSIONS, ATTACHMENT AND CONNECTIONS 5. REFER TO LOCAL AND STATEWIDE CODES FOR ADDITIONAL
- AMENDMENTS AND REQUIREMENTS NOT SHOWN 6. PERIMETER INSULATION SHOWN AS REQUIRED BY LOCAL CLIMATE

ZONE. INSTALL PER TABLE N1102.2.10 OF THE 2018 NCRC

SUMMIT 3070 HAMMOND BUSINES PLACE; SUITE 171 RALEIGH, NC 27603 OFFICE: 919.380.9991 FAX: 919.380.9993 WW.SUMMIT-COMPANIES.

WINDER OF STREET

tails Ω Slab Monolithia



PROJECT *: 424@5@@ DRAWN BY: EMB CHECKED BY: WAJ PROJECT DATE

SCALE: 22x34 1/4"+1"-@" llxi1 1/8"+1"-@"

DATE: ØVII/2Ø19

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

Dlm