

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.	1.1 ELEVATIONS 'CRAFTSMAN' 1.2 ELEVATIONS 'CRAFTSMAN' 1.3 ROOF PLAN 'CRAFTSMAN' 1.4 SECTIONS 1.5 FIRST FLOOR PLAN 'CRAFTSMAN' 1.6 FIRST FLOOR UTILITY PLAN
SINGLE FAMILY RESIDENCE 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.

ELEV. 'CRAFTSMAN' AREA			
Name	Area		
FIRST FLOOR	1927 SF		
HEATED	1927 SF		
COVERED PORCH	143 SF		
GARAGE	541 SF		
PATIO	213 SF		
PORCH	228 SF		
UNHEATED	1124 SF		

AREA OPTIONS			
Name	Area		
. SITTING ROOM	146 SF		
TED	146 SF		

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 THAT DRAINS TO EXTERIOR.

PROVIDE STAIR HANDRAILS AND GUARDRAILS PER

LOCAL CODES.

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.

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SHEET TITLE:

COVER SHEET

PRINT DATE: 12.17.19

SHEET NO:

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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

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

-ROOFING: PITCHED SHINGLES PER BUILDER. INSTALL ALL LOW SLOPE ROOFING IN ACCORDANCE WITH R905 AND MANUFACTURERS SPECS.

-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

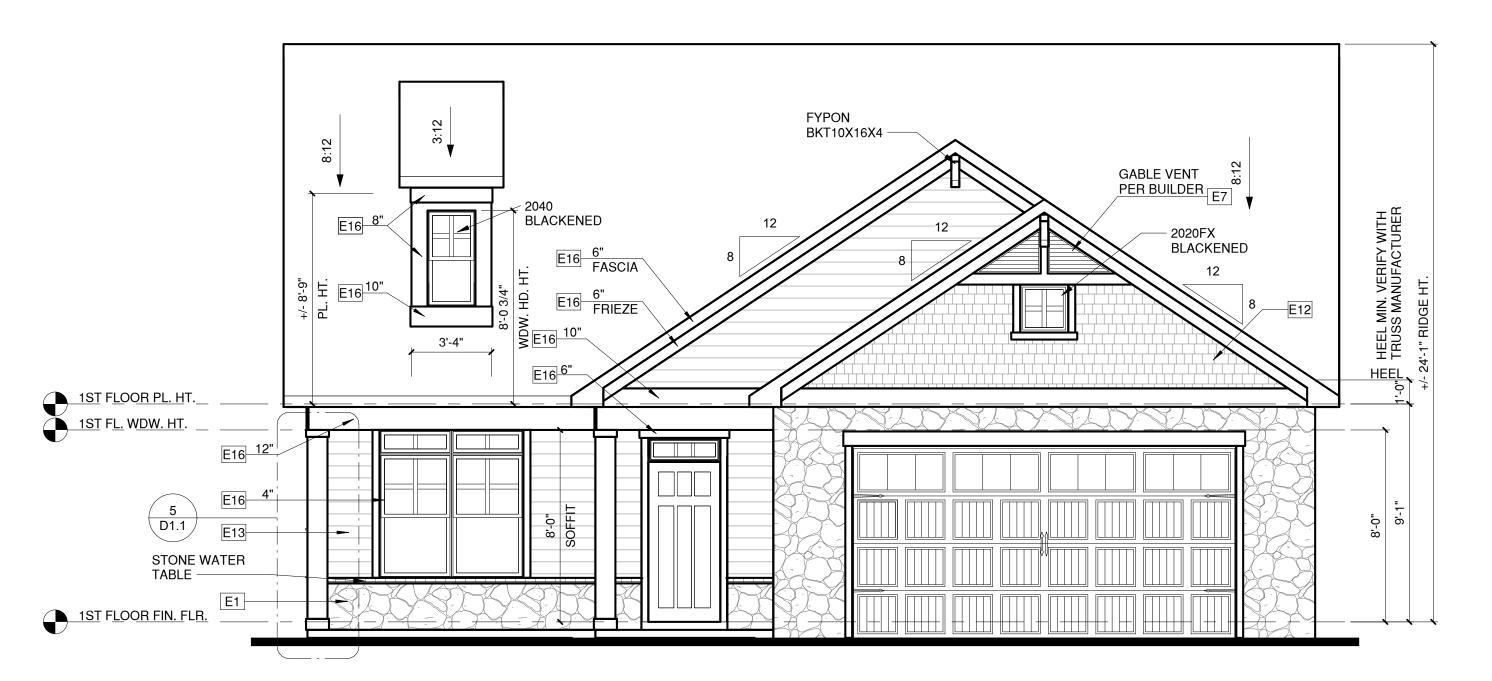
ANY ROOF WITHIN 10'-0" OF CHIMNEY.

-ALL EXTERIOR MATERIALS TO BE INSTALLED PER MANUFACTURER'S

WRITTEN INSTRUCTIONS.

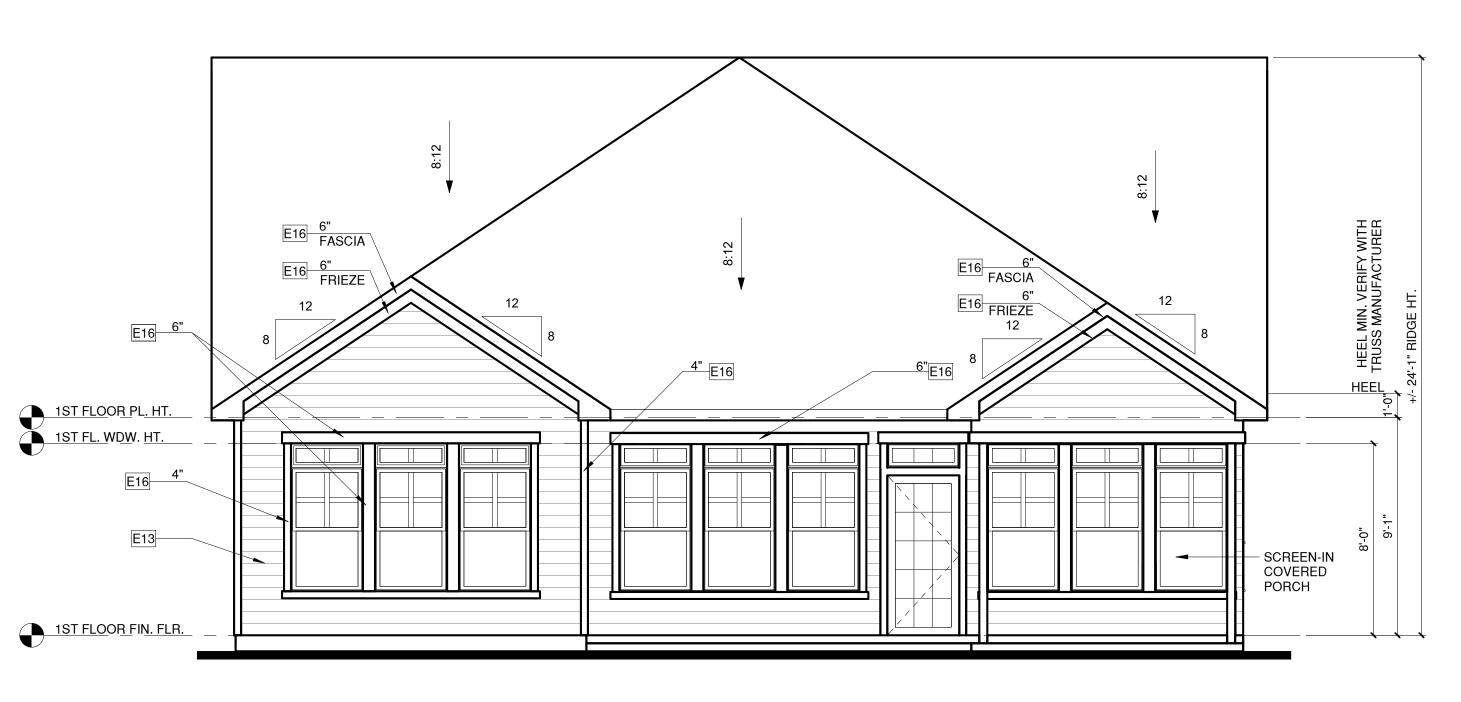
ELEVATION KEYNOTE LEGEND

- ADHERED STONE VENEER AS SELECTED BY DEVELOPER, HEIGHT AS NOTED
- CORROSION RESISTANT SCREEN LOUVERED VENTS, SIZE AS NOTED CORROSION RESISTANT ROOF TO WALL FLASHING, CODE COMPLIANT FLASHING MUST BE INSTALLED AT ALL ROOF/WALL INTERSECTIONS
- E10 | 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 12" O.C. (VINYL BOARD AND BATTEN
- SIDING)
- E16 5/4X FIBER CEMENT TRIM OR 5/4X WOOD TRIM W/ VINYL CAP OR COIL STOCK, SIZE AS
- NOTED (SIZES SHOWN ARE NOMINAL WIDTHS) E17 FALSE WOOD SHUTTERS, TYPE AS SHOWN, SIZE AS NOTED



FRONT ELEVATION 'CRAFTSMAN'

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



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ELEVATIONS

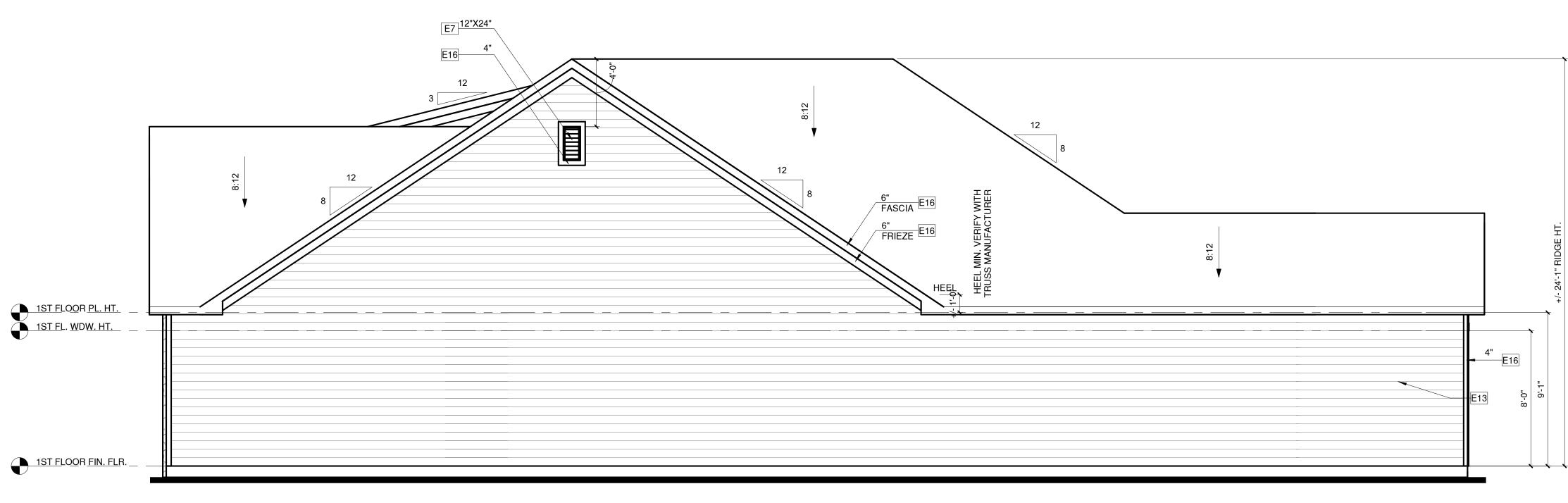
'CRAFTSMAN'

12.17.19

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NOTES:

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-WINDOW HEAD HEIGHTS: 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. INSTALL ALL LOW SLOPE ROOFING IN ACCORDANCE WITH R905 AND MANUFACTURERS SPECS.

-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 CORROSION RESISTANT SCREEN LOUVERED VENTS, SIZE AS NOTED

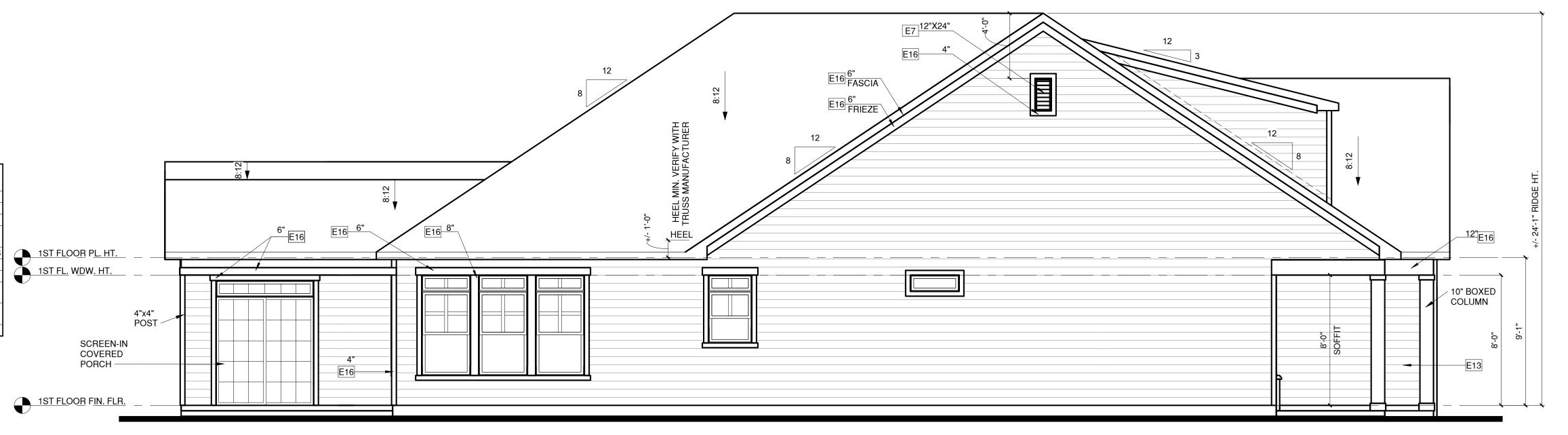
CORROSION RESISTANT ROOF TO WALL FLASHING, CODE COMPLIANT FLASHING MUST BE INSTALLED AT ALL ROOF/WALL INTERSECTIONS 0 STANDING SEAM METAL ROOF, INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS

2 FIBER CEMENT SHAKE SIDING PER DEVELOPER W/ 5/4x4 CORNER TRIM BOARDS 3 FIBER CEMENT LAP SIDING PER DEVELOPER W/ 5/4x4 CORNER TRIM BOARDS FIBER CEMENT PANEL SIDING W/ 1X3 BATTS AT 12" O.C. (VINYL BOARD AND BATTEN

E16 5/4X FIBER CEMENT TRIM OR 5/4X WOOD TRIM W/ VINYL CAP OR COIL STOCK, SIZE AS

NOTED (SIZES SHOWN ARE NOMINAL WIDTHS) E17 FALSE WOOD SHUTTERS, TYPE AS SHOWN, SIZE AS NOTED





LEFT ELEVATION 'CRAFTSMAN'

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

SHEET TITLE:

ELEVATIONS 'CRAFTSMAN'

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PRINT DATE: 12.17.19

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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 ARCHITECTURAL POPOUTS, 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 ARCHITECTURAL POP-OUTS, 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.

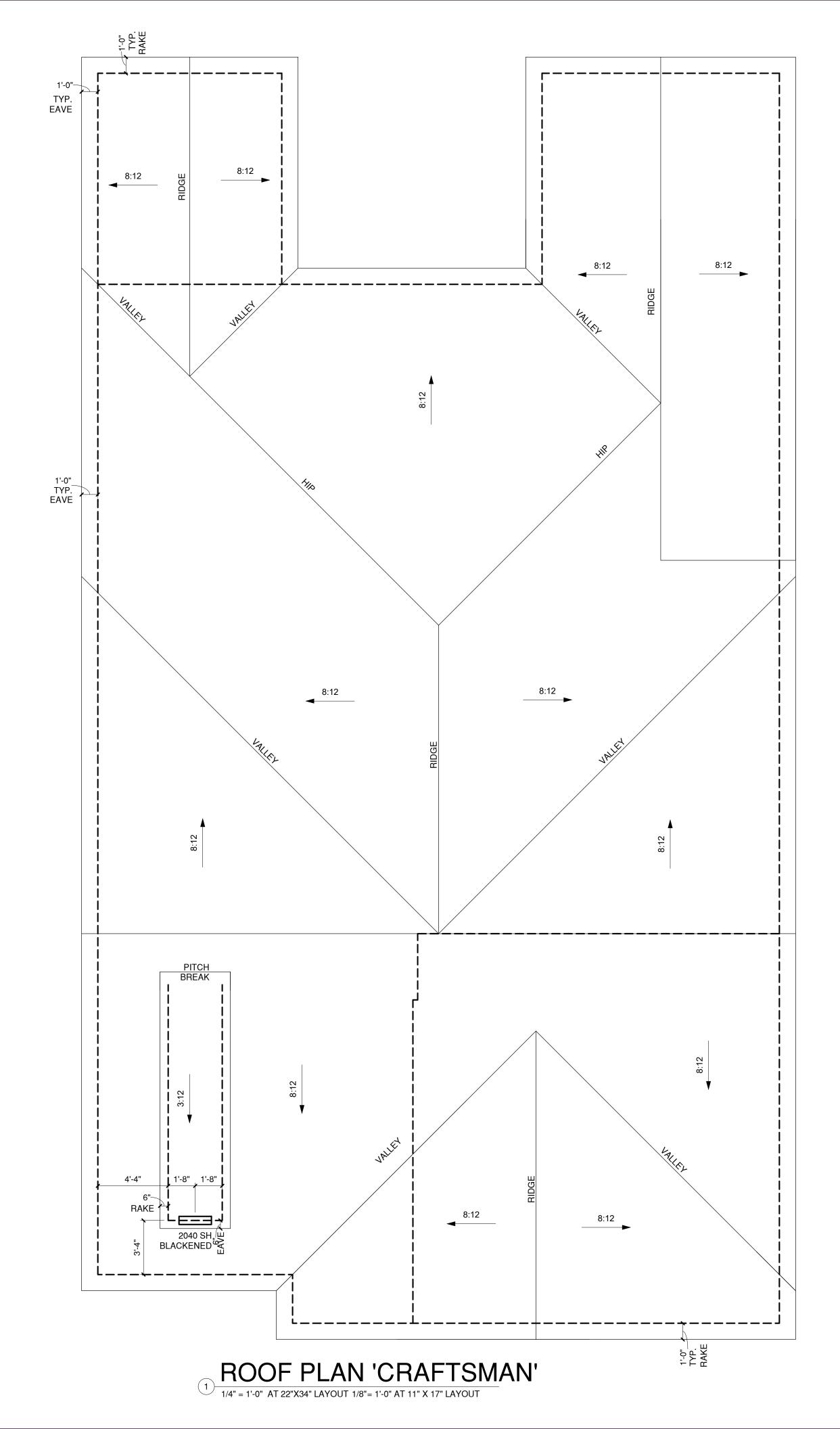
NOTES:

- 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'				
Name	Area	1/300 RATIO AT HIGH & LOW	1/150 RATIO AT HIGH & LOW	
AREA 1	2839 SF	681.33 in ²	1362.66 in ²	





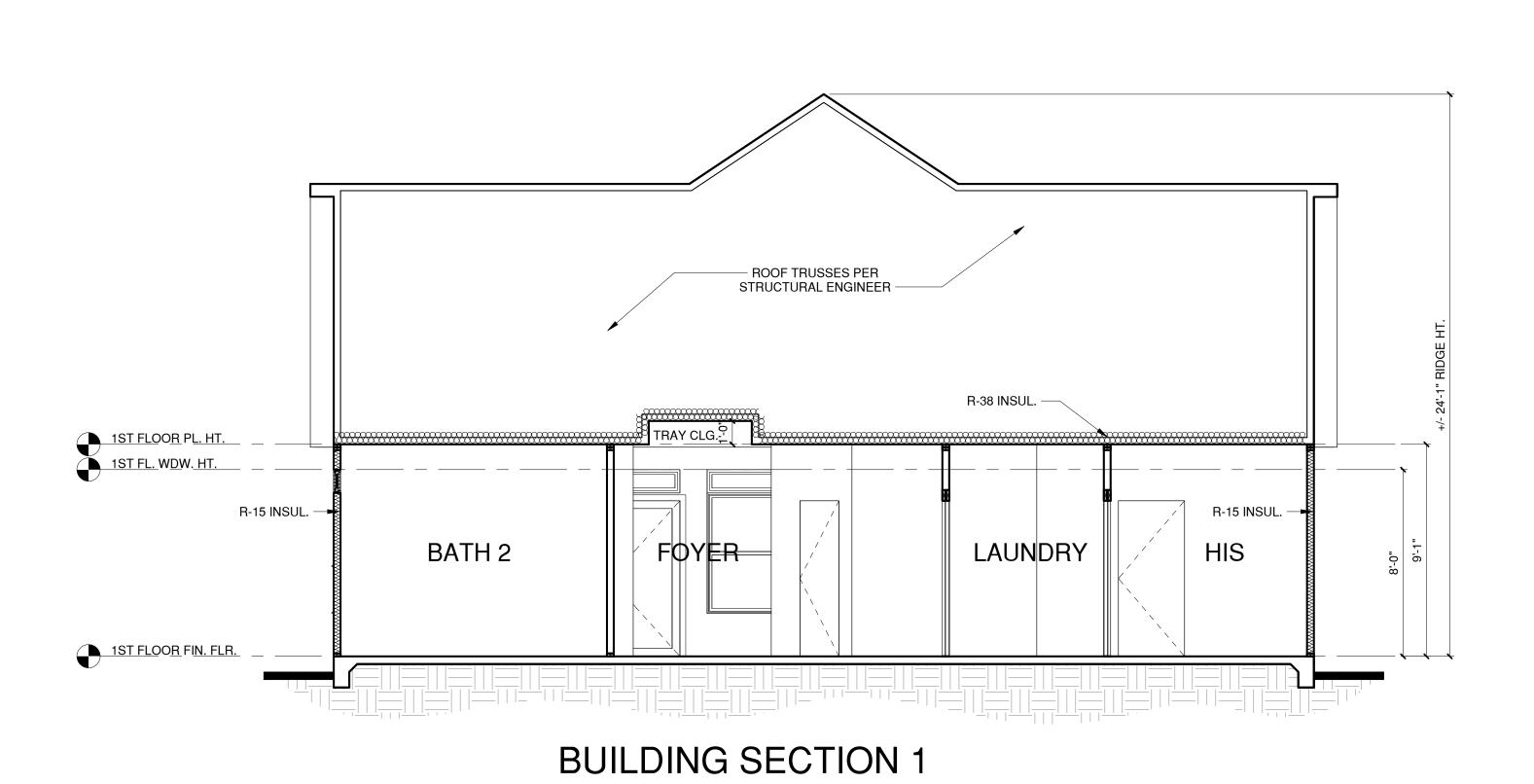
McKee Homes, LLC Lot 1019 Anderson C Torino II Craftsman RH Monoslab Found

SHEET TITLE:

ROOF PLAN 'CRAFTSMAN'

PRINT DATE: 12.17.19

SHEET NO:



CRAFTSMAN

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



SHEET TITLE:

PRINT DATE:

SHEET NO:

12.17.19

1.4

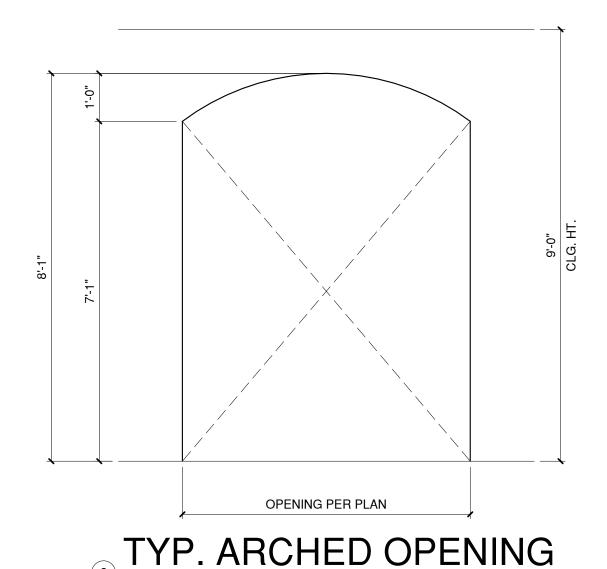
SECTIONS

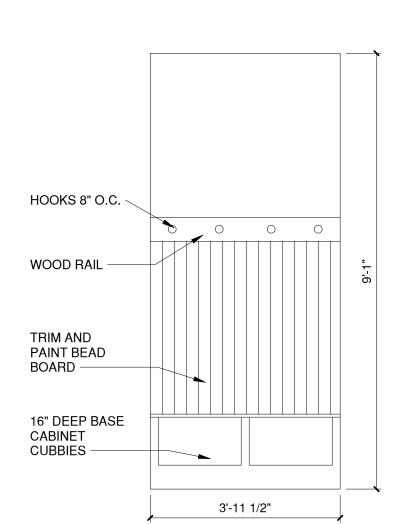
WALL LEGEND **FULL HEIGHT FULL HEIGHT** 2X4 WOOD STUD PARTITION 2X6 WOOD STUD PARTITION DRYWALL OPENING HEIGHT STONE VENEER AS NOTED ON PLAN BRICK VENEER STUD WALL BELOW

HEIGHT AND STUD SIZE AS NOTED

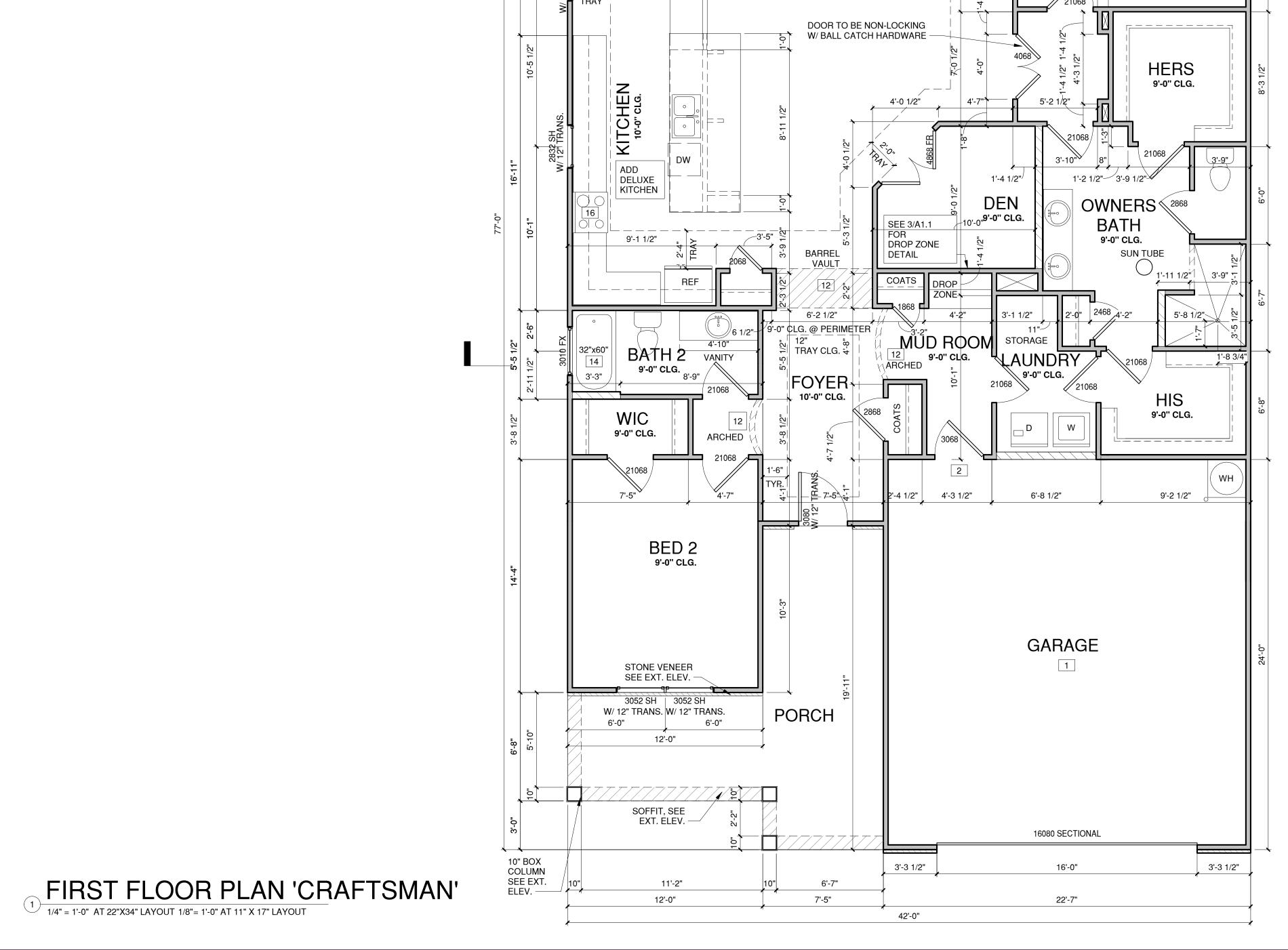
FLOOR PLAN KEYNOTE LEGEND HOUSE TO GARAGE FIRE SEPARATION, GARAGE/HOUSE SEPARATION AT VERTICAL SURFACES SHALL BE PROTECTED WITH ONE (1) LAYER 1/2" GYPSUM BOARD. GARAGE/HOUSE SEPARATION AT HORIZONTAL SURFACES SHALL BE PROTECTED WITH ONE (1) LAYER 5/8" TYPE "X" GYPSUM BOARD HOUSE TO GARAGE DOOR SEPARATION. 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 TEMPERED SAFETY GLASS HALF WALL, HEIGHT AS NOTED INTERIOR SOFFITS: FFL = 8'-1" U.N.O. SFL = 7'-6" U.N.O. SHOWER, TEMPERED GLASS ENCLOSURE TUB-SHOWER COMBO SLIDE-IN ELECTRICAL RANGE W/ HOOD AND MICRO ABV. VENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS

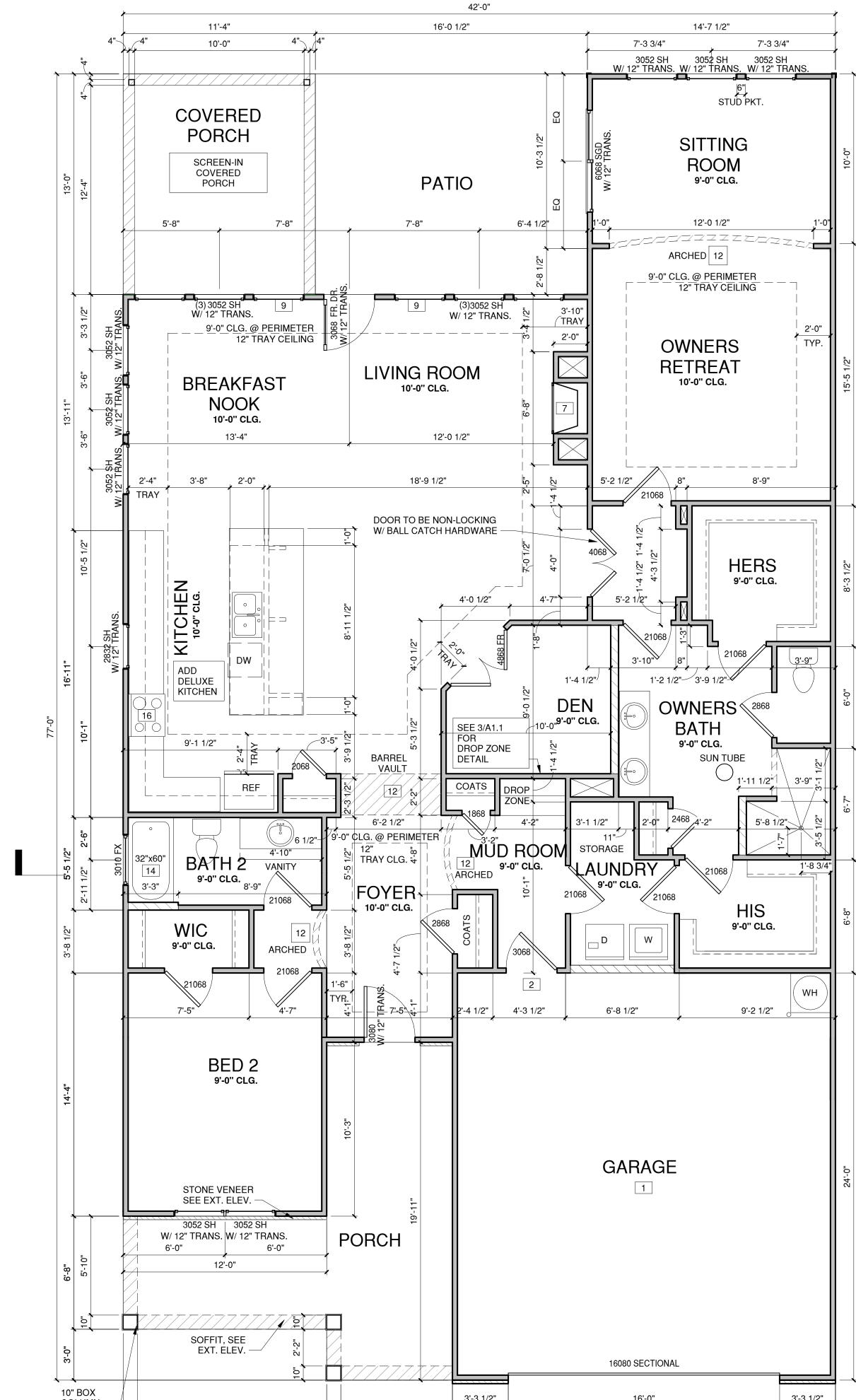
ACCESS HATCH/DOOR. FULLY WEATHER STRIPPED AND INSULATED. (PER NCRC SECTION N1102.2.3)





DROP ZONE DETAIL 1/2" = 1'-0" AT 22"X34" LAYOUT 1/4"= 1'-0" AT 11" X 17" LAYOUT





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PLAN

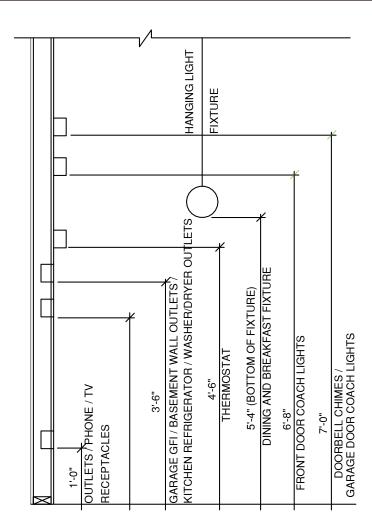
FIRST FLOOR

'CRAFTSMAN'

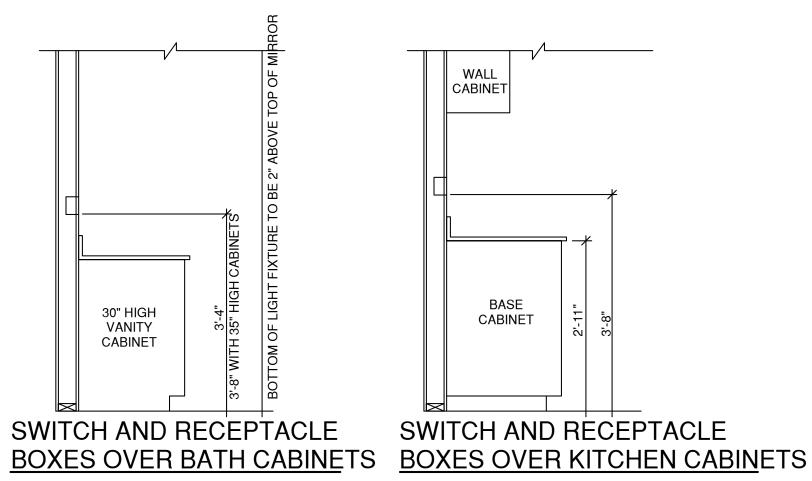
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STANDARD ELECTRICAL BOX HEIGHTS



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

PROVIDE AND INSTALL LOCALLY CERTIFIED SMOKE DETECTORS AND CO2 DETECTORS AS REQUIRED BY

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.

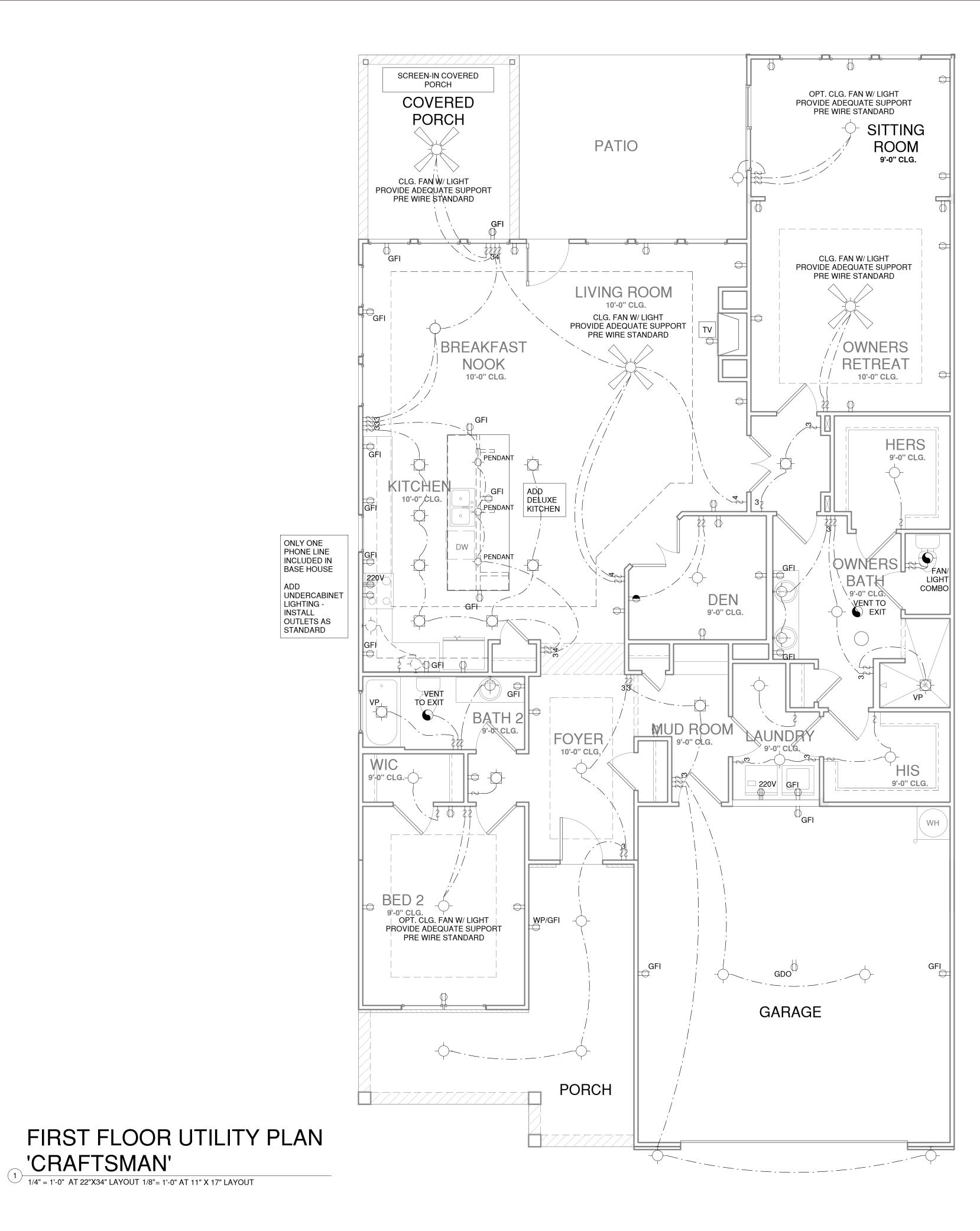
HVAC CONTRACTOR TO VERIFY THERMOSTAT LOCATIONS.

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

MANUFACTURER'S WRITTEN INSTRUCTIONS.

DUPLEX OUTLET WEATHERPROOF GFI DUPLEX OUTLET GROUND-FAULT CIRCUIT- INTERRUPTER DUPLEX OUTLET HALF-SWITCHED DUPLEX OUTLET 220 VOLT OUTLET REINFORCED JUNCTION BOX WALL SWITCH	PENDANT LIGHT FIXTURE CEILING MOUNTED INCANDESCENT LIGHT FIXTURE WALL MOUNTED INCANDESCENT LIGHT FIXUTRE RECESSED INCANDESCENT LIGHT FIXTURE (VP) = VAPOR PROOF EXHAUST FANGUET COMPINITION
GROUND-FAULT CIRCUIT- INTERRUPTER DUPLEX OUTLET HALF-SWITCHED DUPLEX OUTLET 220 VOLT OUTLET REINFORCED JUNCTION BOX	WALL MOUNTED INCANDESCENT LIGHT FIXUTRE RECESSED INCANDESCENT LIGHT FIXTURE (VP) = VAPOR PROOF EXHAUST FAN (VENT TO EXTERIOR)
HALF-SWITCHED DUPLEX OUTLET 220 VOLT OUTLET REINFORCED JUNCTION BOX	WALL MOUNTED INCANDESCENT LIGHT FIXUTRE RECESSED INCANDESCENT LIGHT FIXTURE (VP) = VAPOR PROOF EXHAUST FAN (VENT TO EXTERIOR)
HALF-SWITCHED DUPLEX OUTLET 220 VOLT OUTLET REINFORCED JUNCTION BOX	RECESSED INCANDESCENT LIGHT FIXTURE (VP) = VAPOR PROOF EXHAUST FAN (VENT TO EXTERIOR)
REINFORCED JUNCTION BOX	(VP) = VAPOR PROOF EXHAUST FAN (VENT TO EXTERIOR)
	,
WALL SWITCH	
	EXHAUST FAN/LIGHT COMBINATION
THREE-WAY SWITCH	(VENT TO EXTERIOR)
FOUR-WAY SWITCH	FLUORESCENT LIGHT FIXTURE
CHIMES	TECH HUB SYSTEM
PUSHBUTTON SWITCH	
110V SMOKE DETECTOR W/ BATTERY BACKUP	CEILING FAN (PROVIDE ADEQUATE SUPPORT)
CO2 DETECTOR	CEILING FAN WITH INCANDESCENT LIGHT FIXTURE
THERMOSTAT	(PROVIDE ADEQUATE SUPPORT)
TELEPHONE	<u> </u>
TELEVISION	├────────────────────────────────────
ELECTRIC METER	HB HOSE BIBB
ELECTRIC PANEL	1/4" WATER STUR OUT
DISCONNECT SWITCH	CW 1/4 WATER STOB OUT
PINCTTTEE	USHBUTTON SWITCH 10V SMOKE DETECTOR I/ BATTERY BACKUP 02 DETECTOR HERMOSTAT ELEPHONE ELEVISION LECTRIC METER LECTRIC PANEL



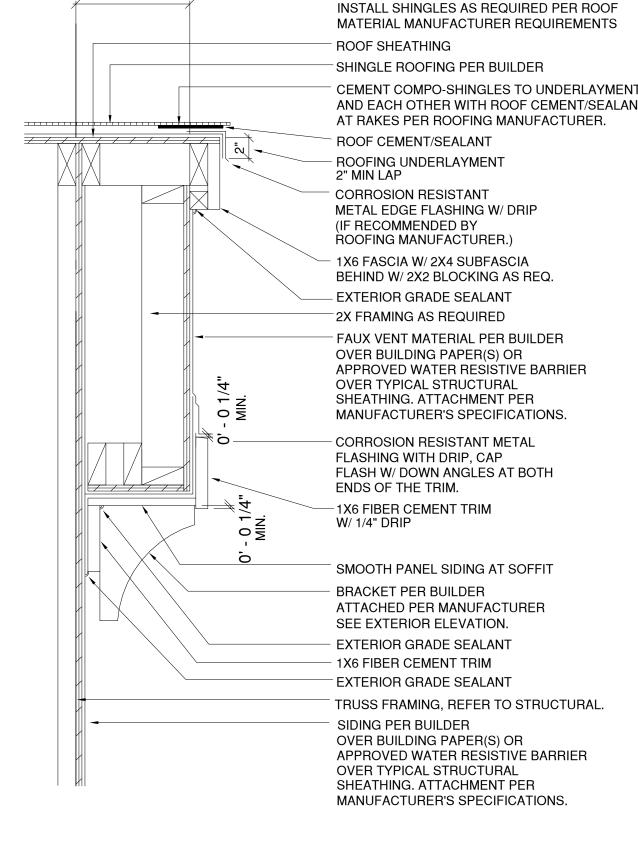


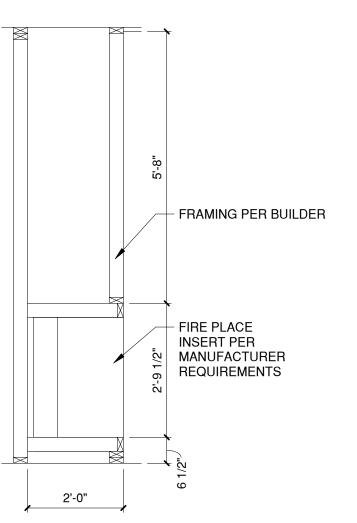
SHEET TITLE:

FIRST FLOOR **UTILITY PLAN**

PRINT DATE: 12.17.19

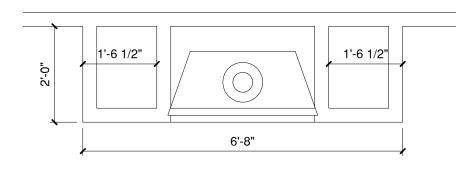
SHEET NO: 1.6







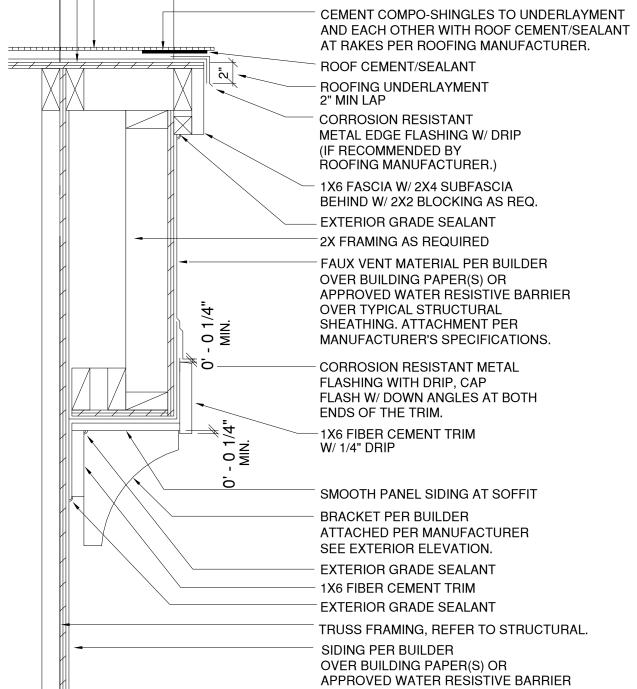






COLUMN DETAIL

5 1/2" = 1'-0" AT 22"X34" LAYOUT 1/4"= 1'-0" AT 11" X 17" LAYOUT





6'-8"

FIREPLACE DETAIL

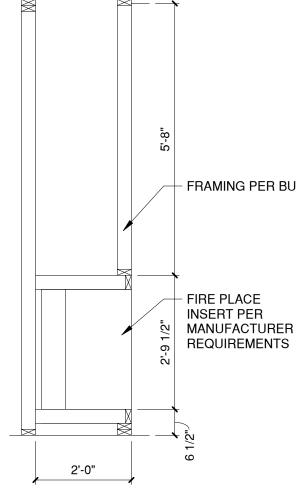
1) 1/2" = 1'-0" AT 22"X34" LAYOUT 1/4"= 1'-0" AT 11" X 17" LAYOUT

1'-5 3/8"

-γ φ

1'-5 3/8"

AS NOTED









DETAILS

SHEET TITLE:

PRINT DATE: 12.17.19

SHEET NO: **D1.1**

DESIGN SPECIFICATIONS:

Construction Type: Commerical ☐ Residential ☒

Applicable Building Codes:

• 2018 North Carolina Residential Building Code with All Local Amendments ASCE 1-10: Minimum Design Loads for Buildings and Other Structures

Desian Loads:

08ds:	
Roof Live Loads	
1.1. Conventional 2x	20 PSI
1.2. Truss	20 PSI
1.2.1. Attic Truss	60 PS
Roof Dead Loads	
2.l. Conventional 2x	10 PSF
2.2. Truss	20 PSI
Snow	
3.I. Importance Factor	1.0
Floor Live Loads	
4.1. Typ. Dwelling	40 PS
42. Sleeping Areas	3Ø PSI
43. Decks	40 PS
4.4. Passenger Garage	50 PS
Floor Dead Loads	
5.1. Conventional 2x	10 PSF
5.2. I-Joist	15 PSF
5.3. Floor Truss	15 PSF
Ultimate Design Wind Speed (3 sec. gust)	130 MF
	Roof Live Loads

6.3.1. Vx = 6.3.2. Vy = onent and Cladding (in PSF.

importance Factor.....

6.1. Exposure

6.3. Wind Base Shear

ľ	component and cladding (iii) or				
	MEAN ROOF HT.	UP TO 30'	3Ø'1"-35'	35'1"-40'	40'1"-45'
	ZONE I	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	182,-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

Seisiii	C
8.1.	Site ClassD
82.	Design CategoryC
8.3.	Importance Factor10
8.4.	Seismic Use Group1
8.5.	Spectral Response Acceleration
	8.5.l. Sms = %g
	8.5.2. Sml = %g
8.6.	Seismic Base Shear
	8.6.1. Vx =
	8.6.2.Vy =
8.7.	Basic Structural System (check one)

☐ Building Frame
☐ Moment Frame

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 blaced against any subgrade containing

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"

All steel shall have a minimum yield stress (F_{q}) of 36 ksi unless

Welding Society's Structural Welding Code AWS D.I. Electrodes for shop and field welding shall be class ETØXX. All welding

otherwise noted.

Welding shall conform to the latest edition of the American

shall be performed by a certified welder per the above

Concrete shall have a normal weight aggregate and a minimum compressive strength (1°c) at 28 days of 3000 psi, unless otherwise noted on the plan.

accordance with the latest editions of ACI 318: "Building Code

Air entrained concrete must be used for all structural elements

No admixtures shall be added to any structural concrete without

exposed to freeze/thaw cycles and deicing chemicals. Air entrainment amounts (in percent) shall be within -1% to +2% of

Concrete shall be proportioned, mixed, and placed in

Requirements for Reinforced Concrete" and ACI 301:

Specifications for Structural Concrete for Buildings".

Structural steel shall receive one coat of shop applied

water, ice, frost, or loose material

STRUCTURAL STEEL:

latest editions.

CONCRETE:

rust-inhibitive paint.

target values as follows:

3.1. Footings: 5% 32.Exterior Slabs: 5%

_] Dual w/ Special Moment Frame Dual w/ Intermediate R/C or Special Steel ☐ Inverted Pendulum

8.8. Arch/Mech Components Anchored

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 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.

Anu 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 ir 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.

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.



STRUCTURAL PLANS PREPARED FOR:

TORINO II

PROJECT ADDRESS:

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

DESIGNER.

Epcon Communities 500 Stonehenge Parkway Duplin, OH 43017

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:

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

Reinforcing steel may not extend through a control joint, Reinforcing steel may extend through a saw cut joint.

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

All welded wire fabric (W.W.F.) for concrete slabs-on-grade shall

be placed at mid-depth of slab. The WIWF, shall be securely supported during the concrete pour.

Fibrous concrete reinforcement, or fibermesh, specified in

water migration, an increase in impact capacity, increased

a minimum of 0.1% by volume (1.5 pounds per cubic yard)

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

Fibermesh shall comply with ASTM CIII6, any local building code requirements, and shall meet or exceed the current industry

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

Detailing, fabrication, and placement of reinforcing steel shall be in accordance with the latest edition of ACI 315: "Manual of

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

tension splice.

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.

Standard Practice for Detailing Concrete Structures"

concrete slabs-on-grade may be used for control of cracking due to shrinkage and thermal expansion/contraction, lowered

Construction".

CONCRETE REINFORCEMENT:

standard.

AB	ANCHOR BOLT	PT	PRESSURE TREATED
AFF	ABOVE FINISHED FLOOR	R5	ROOF SUPPORT
α	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
E₩	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 4 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.

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.

2. Where reinforcing steel is required vertically, dowels shall be

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

Wood in contact with concrete, masonry, or earth shall be pressure treated in accordance with AWPA standard C-Ib. All

other moisture exposed wood shall be treated in accordance

Lag screws shall conform to ANSI/ASME standard B182.1-1981. Lead holes for lag screws shall be in accordance with NDS

All beams shall have full bearing on supporting framing members

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

Ring studs shall be continuous, individual studs forming a column shall be attached with one lØd nail @ 6" OC, 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) lod nails 6

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

with AWPA standard C-2
Nails shall be common wire nails unless otherwise noted.

provided unless otherwise noted

design values: 2.1. E = 1,900,000 psi

2.2. Fb = 2600 psi

2.4.Fc = 700 psi

specifications.

24" OC

noted otherwise.

unless otherwise noted.

King studs shall be continuous.

WOOD FRAMING:

SHEET LIST:

Sheet No.	Description	
CSI	Cover Sheet, Specifications, Revisions	
51.Øm	Monolithic Slab Foundation	
51.Øs	Stem Wall Foundation	
51.Øc	Crawl Space Foundation	
S1.Øb	Basement Foundation	
S2.Ø	Basement Framing Plan	
53.Ø	First Floor Framing Plan	
54.0	Second Floor Framing Plan	
95.Ø	Roof Framing Plan	
56.0	Basement Bracing Plan	
S7.Ø	First Floor Bracing Plan	
58.0	Second Floor Bracing Plan	

REVISION LIST:

Revision No.	Date	Project No.	Description

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 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 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 Trusse

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:

ERIOR WOOD FRATED DECKS:

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

WOOD 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 standards.

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

building codes for the appropriate state as indicated on the 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 | 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.

required by the state Building Code. Wood for sheathing exposure I or 2. Attach sheathing to its supporting framing with (1)-2d CC ringshank nail at 6°0.6 at panel edges and at 12°0.6 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 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

ded in accordance with the APA

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 PLACE, SUITE 171 RALEIGH, NC 27603 OFFICE: 919.380.9991 FAX: 919.380.9993 V.SUMMIT-COMPANIES



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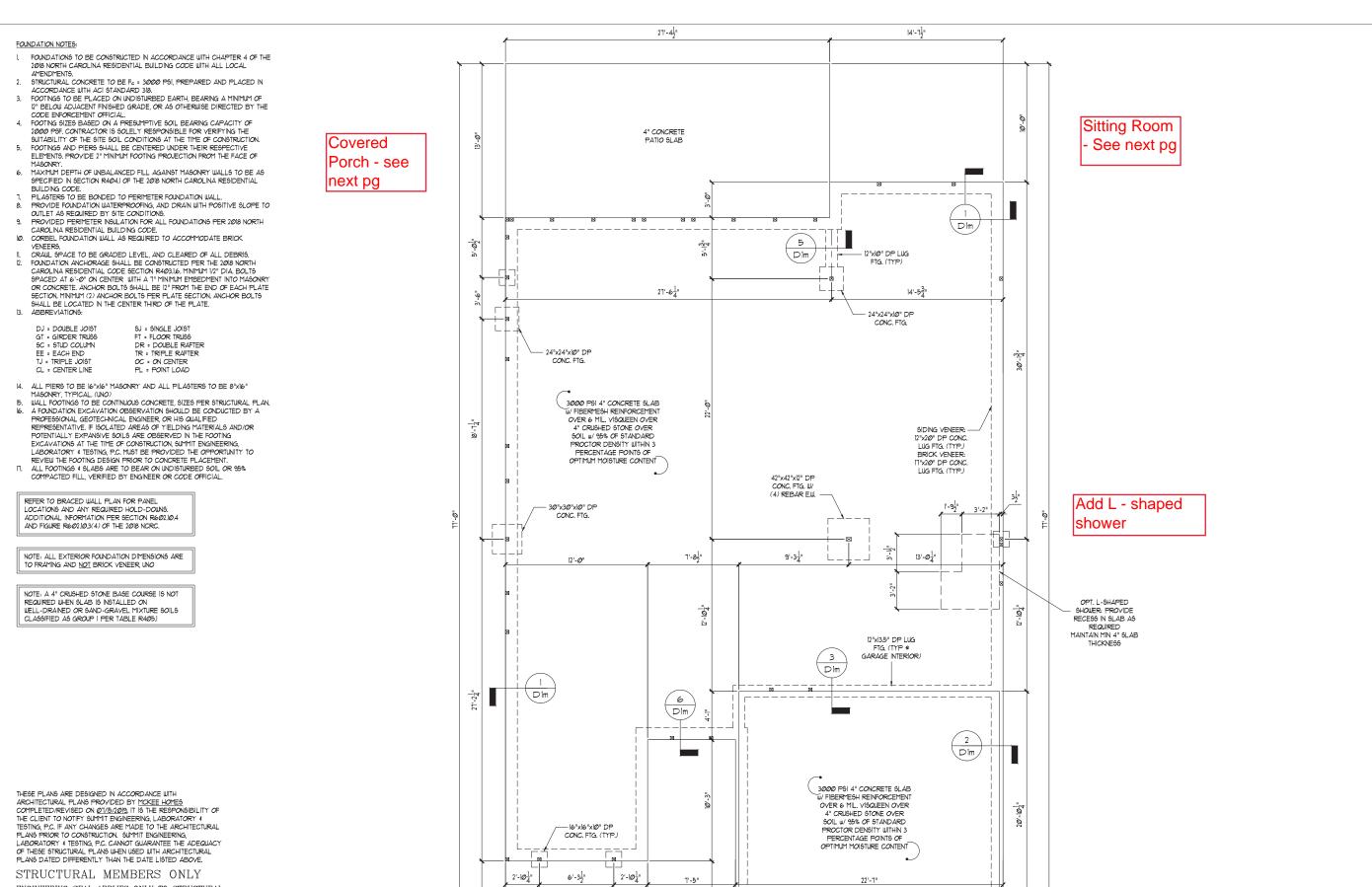
STRUCTURAL MEMBERS ONLY

9CALE: 22x34 1/4"=1"-@" lb:IT 1/8"=1"-@" PROJECT 5 4240500: 24396 DRAWN BY: EMB

CHECKED BY: WAJ

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS





CONC. FTG.

ω<u>π</u>4

3'-31"

42'-Ø"

CONC. FTG.

CRAFTSMAN

Dim,

4" CONCRETE SLAB

OVER CLEAN WASHED

STONE ON 95%

COMPACTED FILL

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

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



datí

TO SC

Slab

O

SUMMIT

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RALEIGH, NC 27603

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FAX: 919.380.9993

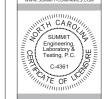
V.SUMMIT-COMPANIES

ORIGINAL INFORMATION
PROJECT * DATE
24396 08/30/26

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

, S1.Øm





· Foundation Slab PROJECT: Torino II - RH Monolithic (

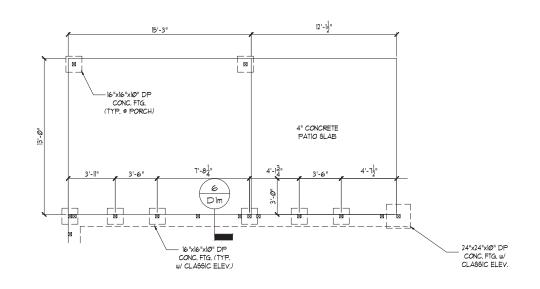


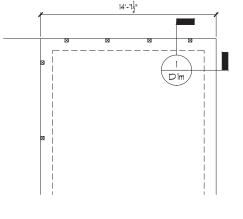
STRUCTURAL MEMBERS ONLY

9CALE: 22x34 1/4"=1"-Ø" 1b/1 1/8"=1"-Ø" PROJECT 1 4240500: 24396 DRAWN BY: EMB CHECKED BY: WAJ

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

S1.3m





OPT. COVERED PORCH

OPT. SITTING ROOM

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

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

GENERAL STRUCTURAL NOTES:

- I. CONSTRUCTION SHALL CONFORM TO 2018 NORTH CAROLINA RESIDENTIAL
- BUILDING CODE WITH ALL LOCAL AMENDMENTS.

 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.
 PROPERTIES USED IN THE DESIGN ARE AS FOLLOWS:
- MICROLLAM (LVL.); F_b = 2900 PSI, F_v = 295 PSI, E = 19x0° PSI PARALLAM (PSL.); F_b = 2900 PSI, F_v = 290 PSI, E = 125x10° PSI ALL WOOD MEMBERS SHALL BE 12 SYP UNLESS NOTED ON PLAN ALL
- STUD COLUMNS AND JOISTS SHALL BE 12 SYP (UNO).
 ALL BEAMS SHALL BE SUPPORTED WITH A (2) 2x4 12 SYP STUD COLUMN
- AT EACH END UNLESS NOTED OTHERWISE. ALL REINFORCING STEEL SHALL BE GRADE 60 BARS CONFORMING TO ASTM AGIS AND SHALL HAVE A MINIMUM COVER OF 3".
- FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER THE 2018
 NORTH CAROLINA RESIDENTIAL CODE SECTION R403.16. MINIMUM 1/2"
 DIA BOLTS SPACED AT 6'-0" ON CENTER WITH A 7" 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.
 CONTRACTOR TO PROVIDED LOOKOUTS WHEN CEILING JOISTS SPAN
- PERPENDICULAR TO RAFTERS
- 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 I/D3f. MIN. EDGE DISTANCE SHALL BE 2" AND (2) BOLTS SHALL BE LOCATED MINIMUM 6" FROM EACH END OF THE BEAM.
- ALL NON-LOAD BEARING HEADERS SHALL BE (1) FLAT 2x4 SYP *2, DROPPED. FOR NON-LOAD BEARING HEADERS EXCEEDING 8'-0" IN WIDTH AND/OR WITH MORE THAN 2'-O" OF CRIPPLE WALL ABOVE, SHALL BE (2) FLAT 2x4 SYP *2, DROPPED. (UNLESS NOTED OTHERWISE)

SJ = SINGLE JOIST FT = FLOOR TRUSS

- DJ = DOUBLE JOIST
- GT = GIRDER TRUSS
- SC = STUD COLUMN EE = EACH END
- DR = DOUBLE RAFTER TR = TRIPLE RAFTER TJ = TRIPLE JOIST OC = ON CENTER

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.

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 01/15/2019, 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.

(4) 16d NAILS AND ATTACH POSTS TO

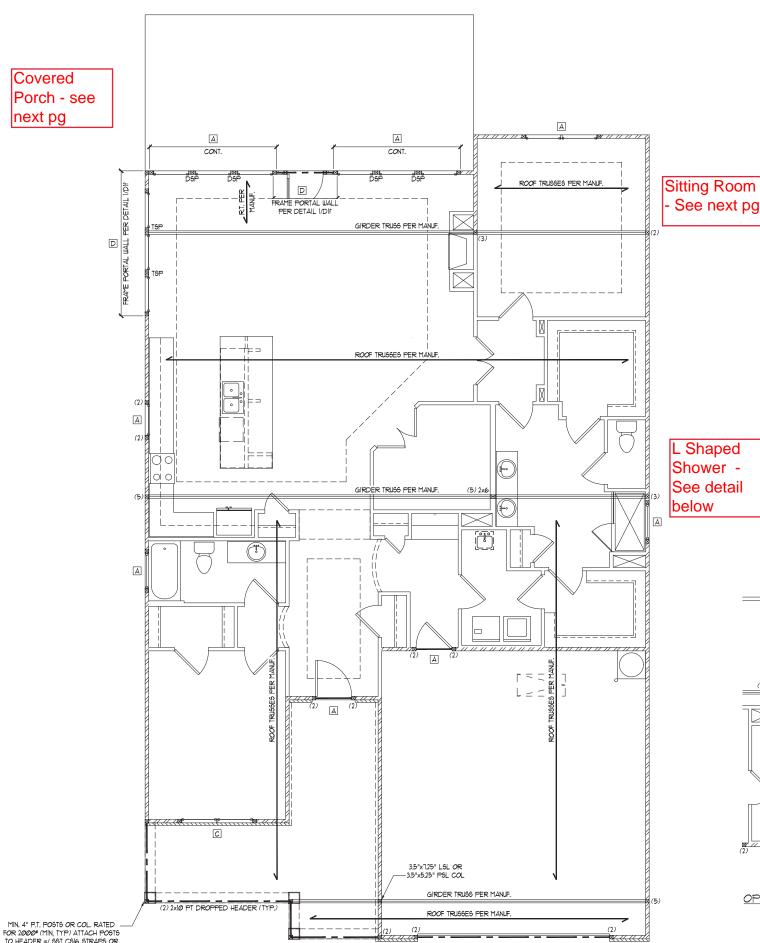
FOUNDATION W/ SST ABA44 POST

BASE OR EQUIV. (TYP)

STRUCTURAL ANALYSIS BASED ON 2018 NCRC

FIRST FLOOR FRAMING PLAN

\$CALE: 1/4"=1'-@" ON 22"x34" OR 1/8"=1'-@" ON 11"x17"



HEADER SCHEDULE			
TAG	SIZE	JACKS (EACH END	
A	(2) 2x6	(1)	
В	(2) 2x8	(2)	
С	(2) 2xlØ	(2)	
D	(2) 2x12	(2)	
E	(2) 9-1/4" LSL/LVL	(3)	
F	(3) 2x6	(1)	
G	(3) 2x8	(2)	
Н	(3) 2xlØ	(2)	
1	(3) 2xl2	(3)	

NOTES: I. HEADER SIZES SHOWN ON PLANS ARE MINIMUMS, GREATER HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION. 3. STUD COLUMNS NOTED ON PLAN OVERRIDE STUD COLUMNS LISTED ABOVE (UNO.).

4. OPENINGS LESS THAN 3'-0" USE (I) KING STUD AT E.E.

OPENINGS 3'-1" TO 4'-0" USE (2) KING STUDS AT E.E. OPENINGS 4'-1" TO 8'-0" USE (3) KING STUDS AT E.E. OPENINGS 8'-1" TO 12'-0" USE (5) KING STUDS AT E.E.

OPENINGS 12'-1" TO 16'-0" USE (6) KING STUDS AT E.E

ALL HEADERS WHERE BRICK IS USED, TO BE:

(I) LINTEL (UN.O.)

LINTEL SCHEDULE:

STEEL ANGLES TO HAVE MINIMUM 4" BEARING ONTO

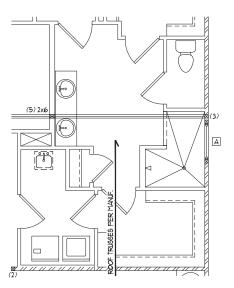
- 1 L3x3xI/4" 2 L5x3"x1/4"
- 3 L5x3-1/2x5/16"
- 4 L5x3-1/2"x5/16" ROLLED OR EQUAL ARCHED COMPONENT.

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

WALL STUD SCHEDULE (10 FT HEIGH						
STUD SIZE		STUD SPA	ID SPACING (O.C.)			
	ROOF ONLY	ROOF & I FLOOR	ROOF & 2 FLOORS	NON-LOAD BEARING		
2×4	24"	16"	12"	24"		
2×6	24"	24"	16"	24"		

. 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.



OPT. L-SHAPED SHOWER

CRAFTSMAN

(2) 1.75"X11.875" LVL/LSL DROPPED HEADER

SUMMIT PLACE, SUITE 171
RALEIGH, NC 27603
OFFICE: 919.380.9991
FAX: 919.380.9993
N SIMMIT-COMPANIES



 $\overline{\Omega}$ Framing 並正

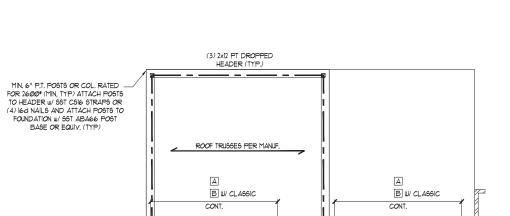


STRUCTURAL MEMBERS ONLY

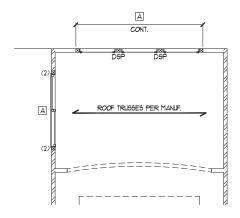
DATE: 08/30/2019 SCALE: 22x34 1/4*=1"-@" lb:l1 1/8*=1"-@" PROJECT 5 4240500: 2439 DRAIN BY: EMB CHECKED BY: WAJ

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

53*.*Ø



FRAME PORTAL WALL
PER DETAIL I/DIF



OPT. COVERED PORCH

OPT. SITTING ROOM

STRUCTURAL MEMBERS ONLY

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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

FIRST FLOOR FRAMING PLAN

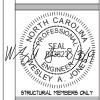
9CALE: 1/4"=1"-0" ON 22"x34" OR 1/8"=1"-0" ON 11"x17"

SUMMIT
ENENERING LABRATON TERMS
30701 HAMMOND BUSINESS
PRACE, SUITE 171
RALEIGH, NC 27203
OFFICE: 919, 380, 9991
FAX: 919, 380, 9993
WWW.SUMMIT-COMPANIES.COM



CLIENT: McKee Homes 109 Hay 6t., Suite 301 Fauetteville, NC 28301

PROJECT:
Torico II - RH
First Floor Framing Plan



DAILE: 08/30/20/3

SCALE: 22x34 | 1/4*1"-0*
|bit | 1/8*1"-0*
| PROJECT *, 4240500: 24396
| DRAIN BY: EMB

ORIGINAL INFORMATION
PROJECT * DATE
24396 08/30/2

CHECKED BY: WAJ

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

.

S3.3

TRUSS UPLIFT CONNECTOR SCHEDULE							
MAX. UPLIFT ROOF TO WALL FLOOR TO FLOOR FLOOR TO FNI							
600 LBS H25A PER WALL SHEATHING & FASTENERS							
1200 LBS	(2) H2.5A	CSI6 (END = II")	DTT2Z				
1450 LBS	HT52Ø	CSI6 (END = II")	DTT2Z				
2000 LBS	(2) MT52Ø	(2) CSI6 (END = II")	DTT2Z				
2900 LBS	(2) HT52Ø	(2) CSI6 (END = II")	HTT4				
3685 LBS	LGT3-9D92.5	MSTC52	HTT4				

I. ALL PRODUCTS LISTED ARE SIMPSON STRONG-TIE. EQUIVALENT PRODUCTS MAY BE USED PER MANUFACTURER'S SPECIFICATIONS. UPLIFT VALUES LISTED ARE FOR \$YP 72 GRADE MEMBERS.
 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: 1ST 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 UPLIFI LOADS SHALL BE DETERMINED PER TRUSS MANUFACTURER IN ACCORDANCE WITH SECTION R802.1[.1]. WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R60235 OF THE 2018 NCRC, REFER TO BRACED WALL PLANS FOR SHEATHING AND FASTENER REQUIREMENTS.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH HESE FLANS ARE DESIGNED IN ACCOUNTANCE WITH A ARCHITECTURAL PLANS PROVIDED BY MOKE HOMES COMPLETED/REVISED ON 0/16/20/9, IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY 4 TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY 4 TESTING, P.C. CANNOT GLARANTEE THE ADEQUACY
OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL
PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

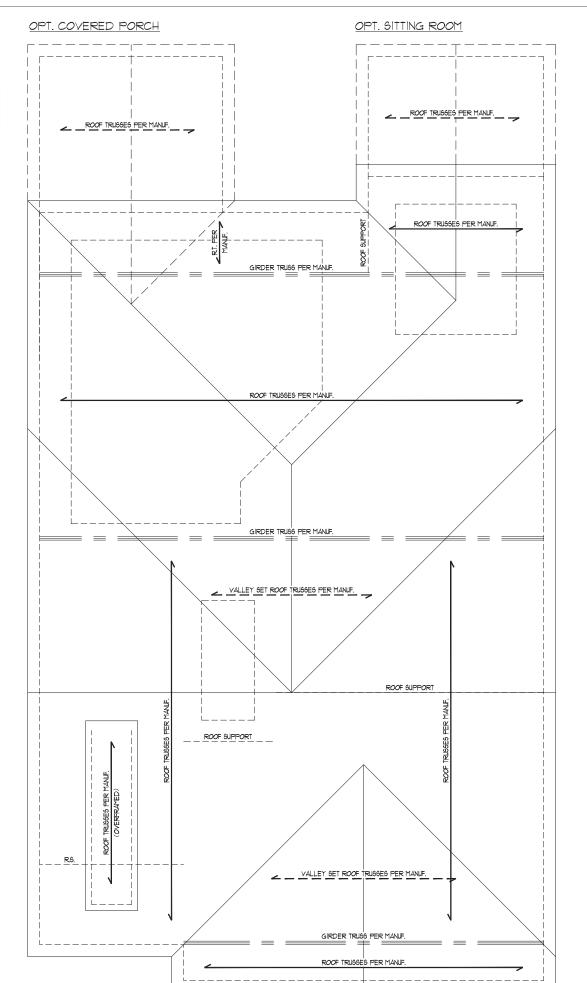
STRUCTURAL MEMBERS ONLY

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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

ROOF FRAMING PLAN \$CALE: 1/4"=1"-0" ON 22"x34" OR 1/8"=1"-0" ON 11"x17"

Add Covered Porch



Add Sitting Room

SUMMIT PLACE, SUITE 171
RALEIGH, NC 27603
OFFICE: 919.380.9991
FAX: 919.380.9993
W.SUMMIT-COMPANIES.



 $\overline{\Omega}$ Ø 至广 PROJECT: Torino 11 - F ROO f



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CHECKED BY: WAJ

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

S5.Ø

CRAFTSMAN

REQUIRED BRACED WALL PANEL CONNECTIONS							
	MATERIAL	MIN. THICKNESS	REQUIRED CONNECTION				
METHOD			@ PANEL EDGES	@ INTERMEDIATE SUPPORTS			
C5-W5P	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS	6d COMMON NAILS \$ 12" O.C.			
GB GYPSUM BOARD		1/2"	5d COOLER NAILS** ⊕ 7" O.C.	5d COOLER NAILS** ® T" O.C.			
W6P	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS	6d COMMON NAILS 12" O.C.			
PF WOOD STRUCTURAL PANEL		7/16"	PER FIGURE R602.10.1	PER FIGURE R602.10.1			
CONTROL ALITHMENT AND THE PROPERTY							

"OR EQUIVALENT PER TABLE R102.3.5

REAR

HOUSE

FRONT

BRACED WALL NOTES:

- WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2018 INTERNATIONAL RESIDENTIAL CODE WITH ALL LOCAL AND
- WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE DESIGN
- WALLS ARE DESIGNED FOR 1950 MPH.

 REFER TO ARCHITECTURAL PLAN FOR DOOR/WINDOW OPENING SIZES,

 BRACING MATERIALS, METHODS AND FASTENERS SHALL BE IN ACCORDANCE WITH TABLE R602.10.1 ALL BRACED WALL PANELS SHALL BE FULL WALL HEIGHT AND SHALL
- NOT EXCEED IN SEFT FOR ISOLATED PANEL METHOD AND 12 SEET FOR CONTINUOUS SHEATHING METHOD WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- WINDIN PANEL LENGTH SHALL BE PER TABLE R602/02.

 THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSUM BOARD (INO).

 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.
- A BRACED WALL PANEL SHALL BE LOCATED WITHIN 12 FEET OF EACH END OF A BRACED WALL LINE.

 THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL
- NOT EXCEED 21 FEET.
 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 2016 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
- I5. CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.1046
- 16. PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE
- R602.10.1 (INO)

 11. ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS. 18. ABBREVIATIONS:

GB = GYP9UM BOARD WSP = WOOD STRUCTURAL PANEL C3-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.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY MCKEE HOMES
COMPLETED/REVISED ON 01/5/2019, 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.

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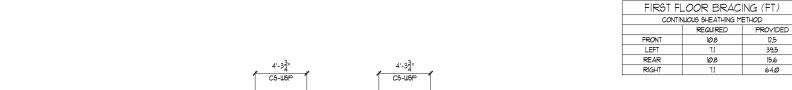
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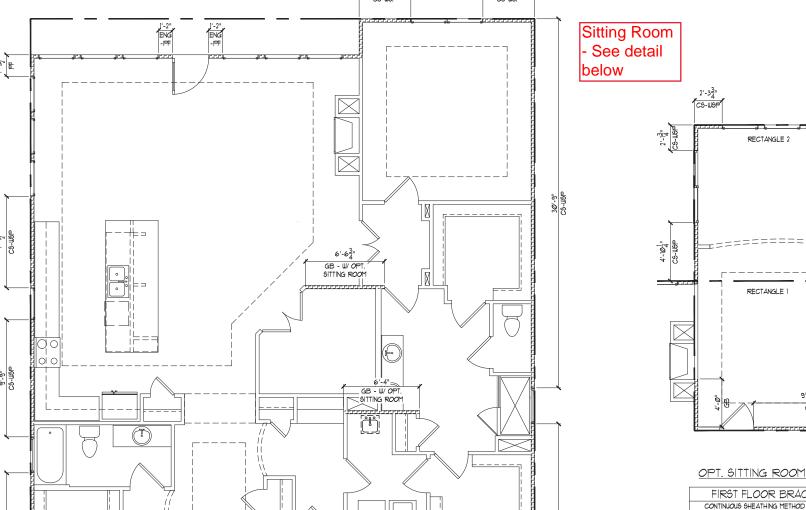
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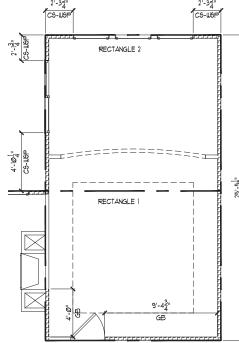
STRUCTURAL ANALYSIS BASED ON 2018 NCRC

FIRST FLOOR BRACING PLAN

\$CALE: 1/4"=1"-0" ON 22"x34" OR 1/8"=1"-0" ON 11"x17"







FIRST FL	FIRST FLOOR BRACING (FT)						
CONTINUOUS SH	CONTINUOUS SHEATHING METHOD - RECTANGLE 1						
	REQUIRED PROVIDED						
FRONT	10.3	12.5					
LEFT	T,I	39.5					
REAR	10.3	13.4					
RIGHT	7.1	61.0					

FIRST FLOOR BRACING (FT)						
CONTINUOUS SHEATHING METHOD - RECTANGLE 2						
REQUIRED PROVIDED						
FRONT	4.4	4.6				
LEFT	2.9	9.0				
REAR	4.4	4.6				
RIGHT	2.9	13.Ø				





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STRUCTURAL MEMBERS ONLY

DATE: 08/30/2019

SCALE: 22x34 1/4"=1"-@" IbiT 1/8"=1"-@" PROJECT 5 4240500: 2439 DRAWN BY: EMB CHECKED BY: WAJ

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

S7.Ø

CRAFTSMAN



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:

ANCHOR BOLT		
ANCHOR DOLI	PT	PRESSURE TREATED
ABOVE FINISHED FLOOR	R9	ROOF SUPPORT
CEILING JOIST	эc	STUD COLUMN
CLEAR	SJ	SINGLE JOIST
DOUBLE JOIST	SPF	SPRUCE PINE FIR
DOUBLE STUD POCKET	SST	SIMPSON STRONG-TIE
EACH END	SYP	SOUTHERN YELLOW PINE
EACH WAY	TJ	TRIPLE JOIST
NOT TO SCALE	TSP	TRIPLE STUD POCKET
ON CENTER	TYP	TYPICAL
POUNDS PER SQUARE FOOT	UNO	UNLESS NOTED OTHERWISE
POUNDS PER SQUARE INCH	WWF	WELDED WIRE FABRIC
	JEILING JOIST LEAR DOUBLE JOIST DOUBLE STUD POCKET EACH END SACH WAY HOT TO SCALE POUNDS PER SQUARE FOOT	EILING JOIST SC CLEAR 9, J COUBLE JOIST 9PF COUBLE STUD POCKET 9ST EACH END SYP EACH BUAY 1, J KOT TO SCALE TSP POUNDS PER SQUARE FOOT UNO

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
D1m	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
1	1.11.19		Updated to 2018 NCRC

GENERAL STRUCTURAL NOTES:

1. 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 adverse soil condition be encountered the SER must be 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, the bottom of all loads 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 \$\frac{1}{2}\$

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°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 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

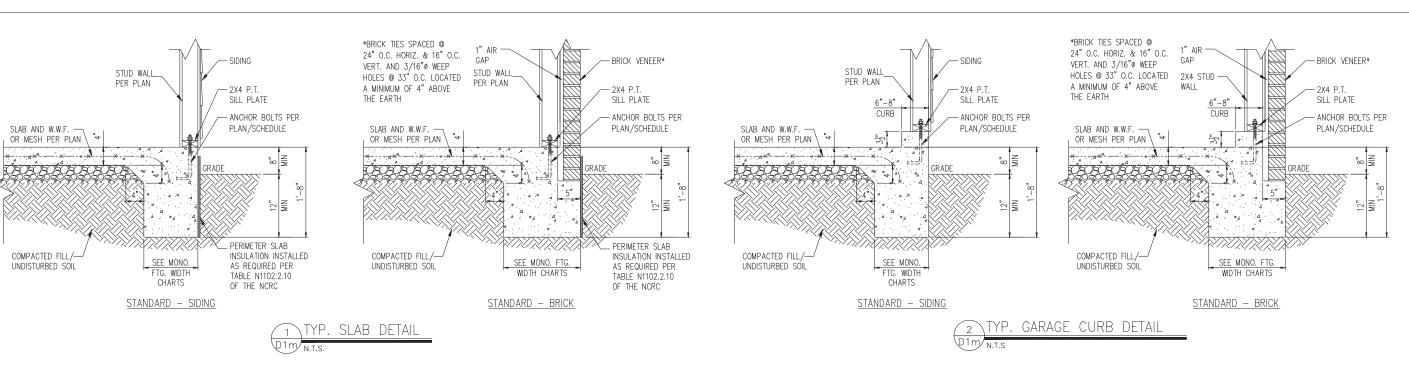


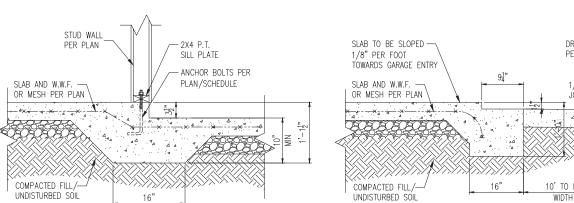


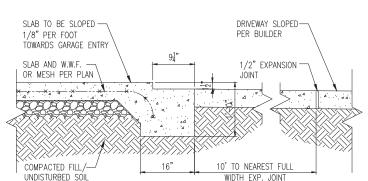
DATE: ØVII/2Ø19 SCALE: 22x34 1/4"+1"-@" ||x|T 1/8"+1"-@" DRAWN BY: EMB

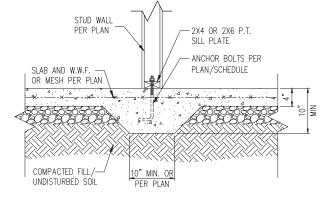
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PROJECT P DATE

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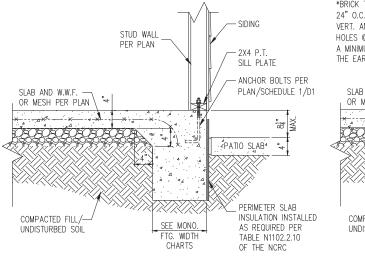






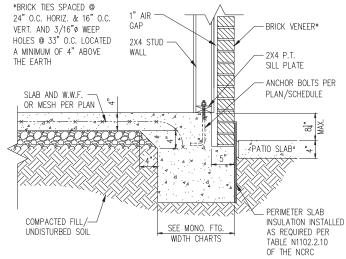


TYP. THICKENED SLAB DETAIL

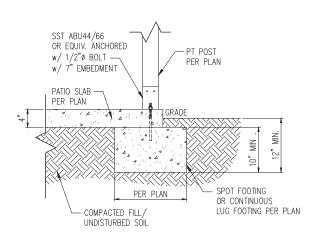


STANDARD - SIDING

STEP IN GARAGE



STANDARD - BRICK



COVERED PATIO DETAIL

MONOLITHIC FOOTING WIDTH

# OF STORIES	WIDTH BASED ON SOIL 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

H CARO SEAL / 043823 / 043823 KEY A. JC STRUCTURAL MEMBERS ONL'

> SCALE: 22x34 1/4"+1"-@" llxi1 1/8"+1"-@" PROJECT *: 424@5@@ DRAWN BY: EMB CHECKED BY: WAJ

DATE: ØVII/2Ø19

PROJECT DATE

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

Dlm