KNOXVILLE HISTORIC ZONING COMMISSION
STAFF REPORT - CERTIFICATE OF APPROPRIATENESS APPLICATION

PROPERTY LOCATION: 110 13th St. / Parcel ID 94 L M 012

FILE NO.: 11-C-19-HZ

DISTRICT: Ft. Sanders NC-1

MEETING DATE: 11/21/2019

APPLICANT: William Wilson (Contractor)

LEVEL OF WORK: Level III. Construction of new primary building

PROPERTY DESCRIPTION: N/A

Vacant lot (previous residence was non-contributing to Historic District and demolished in 2007).

DESCRIPTION OF WORK:

The proposed primary residence is located at 110 13th Street, though the façade will front Forest Avenue. The house is 30' wide by 50' long on the west elevation and 40'-8" long on the east elevation (58' total length with porch). The house features a 27'-9" floor to ceiling height, including a finished attic, and a 33'-2" floor-to-roof-peak height. The house has a front-gable roof with a 10/12 pitch, clad in asphalt shingles, with a lower front-gable roof massing projecting towards the façade, also with a 10/12 pitch.

The house will rest on a brick foundation. The exterior siding will be Hardie Board lap siding with 5/4x6 corner boards and front and rear gable fields will feature Hardie shingle-style siding. An exterior brick chimney is centrally located on the left (west) elevation.

The façade (south) will feature a full-length porch with a double-hipped roof, clad in asphalt shingles, with a 3/12 pitch. The porch is 8' deep and extends 30' wide. Porch supports are four Craftsman-style, tapered wood columns on brick piers. The façade porch features Trex decking with a 36" tall wood picket railing.

A wood deck is located on the rear (north) elevation, measuring 14'-2" long by 14'-10" wide. Rear porch features a 36" wood picket railing and wood steps that extend from the northeast with a handrail and newel post to meet codes.

On the façade, a four-panel Masonite door will be flanked by single-light sidelights and topped by a transom. Front gable fields feature decorative wood brackets with a paired Craftsman-style window in the primary front gable field.

Window sizes vary but most are Anderson 200 series, one-over-one, double-hung, vinyl-clad wood windows with 4" Miratec trim.

APPLICABLE DESIGN GUIDELINES:

Fort Sanders NC-1, adopted by the Knoxville City Council on September 13, 2000.

A. Height, Scale, & Massing

1. Foundation heights should be consistent with other pre-1940 buildings in the neighborhood.
2. Single-family detached infill housing should be proportional to other pre-1940 houses in terms of height and width.

B. Roofs
1. Select a roof pitch that is in keeping with other pre-1940 houses of the neighborhood, not being less than an 8/12 pitch.
2. Use variations in the form of the roof above the second story such as gables at different angles, hipped roofs and dormers.
3. Use roofing materials that are in keeping with the historic development styles. Asphalt shingle, tile, pressed metal, and slate were used.
4. Darker shades of shingles were historically used and should be selected in new construction.

C. Porches
1. Provide porches with proportions and materials that complement pre-1940 housing. For clapboard type construction, wood is the most appropriate primary material. Brick or cut stone are appropriate as foundations or in column supports.
2. Porches should be no less than 6 feet deep and no more than 10 feet deep. They may be recessed behind the main setback line or alternatively can extend 10 feet into the front setback line.

D. Wall Materials
2. Clapboard (or clapboard-like materials such as aluminum or vinyl), shingle (or shingle-like material), or brick should be used.
4. Quarried, square cut stone can be used on porches or other accents. Such stone should be used in constructing retaining walls.

E. Windows and Entrances
1. Window proportions and symmetry should be similar to the pre-1940 styles in the neighborhood.
2. Windows should be double-hung sash windows. Vinyl or metal-clad windows may be used in place of wood frame windows.
3. Accent windows are appropriate with new construction.
4. Double-hung sash windows are recommended for two to three-story new construction.
5. Variations of double-hung windows should be considered in relation to the design of new buildings. Inserts are acceptable to mimic traditional window forms.
6. The proportions of upper level windows should not exceed the proportion of the first level.
7. Upper level windows should be provided and aligned with doors.
9. Entrances to the building should be provided from the street, using doors that have similar proportions and features to pre-1940 architecture.
10. When parking areas are provided behind buildings, rear entrances are also allowed.

F. Parking
1. In new building construction, the front yard space shall not be used for parking.
2. Provide parking access off the alley or off a side street.
3. Plant one native shade tree for every fifty feet of lot width, adjacent to or as islands within the parking area.
4. In constructing residential parking, 8.5-foot stall widths and 24-foot lane widths may be used for 90-degree angled parking lots.
7. Surface parking area shall always be to the rear of the building.

G. Landscaping, Fencing, & Retaining Walls
1. Plant one native shade tree (e.g. oak or maple) and one ornamental tree (e.g. dogwood) in both the front and rear yards or every 50 feet of lot width.
2. Plant shrubs near new buildings to complement the foundation height, windows, and entries.
5. Keeping with tradition, low, square cut stone, poured concrete, or brick walls should be used in constructing retaining walls.

I. Placement on the Lot: Traditional Lot Development
1. The front yard setback should be the same distance as the majority of pre-1940 houses on the block.
3. Porches should extend 8 to 10 feet into the front yard setback. Steps needed to reach the front of a porch may also extend into the front yard.
4. Bays, composing up to 50% of the side façade, should extend 5 feet into side yard setbacks on corner lots.
5. Bays, composing up to 60% of the front façade, should extend up to 8 feet beyond the predominant portion of the structure or alternatively a porch should extend along the front façade.
6. Site distances should be considered when designing new buildings near intersections. Porches, bays, and steps on corner buildings may have to be stepped back to provide adequate visibility.

COMMENTS:

N/A

STAFF FINDINGS:

1. The proposed residence is well placed on the lot, with side yard setbacks appropriate for a corner lot and a front yard setback that reflects the average front setbacks of the neighboring houses fronting Forest Avenue.

2. The footprint of the house is slightly larger than the adjacent properties; however, the footprints of neighboring houses vary substantially and the proposed residence is across the street from a larger multi-family development. The two-and-one-half story residence is approximately 30' tall to the roof apex. While on the taller side of houses on the blocks fronting Forest Avenue, the proposed design is not so tall as to detract from the historic streetscape. Multiple two-and-one-half-story residences front the following block of 13th Street. The height, scale, and massing are appropriate for the historic context.

3. The house features a foundation height consistent with the surrounding historic houses and appropriate for the sloped topography of the block.

4. The 8' deep front porch is an appropriate form for the historic context and complements the existing rhythm of the streetscape. The proposed Trex flooring and wood columns on brick piers are appropriate materials for new construction in the neighborhood.

5. The two front-gable roof massings and the hipped-roof porch on the façade are appropriately complex for the historic context.

6. Guidelines recommend that bays, composing up to 50% of the side façade, should extend up to five feet into the side setback on corner lots. The applicant has selected an approximately 6' wide by 3' deep masonry chimney as a

method of adding depth to the west elevation. The chimney sufficiently provides visual interest and dimension to the west elevation.

7. The proposed materials, including a brick foundation and chimney, HardiePlank lap and shake siding, and an asphalt shingle roof are appropriate materials within the guidelines. Windows will be one-over-one, wood windows with vinyl cladding and 4" composite trim (Miratec), which are appropriate for the historic context within the NC-1 overlay.

8. On the façade (south) elevation, the proportions and placement of windows reflects the historic neighborhood context. On the highly visible west elevation fronting 13th Street, first and second-story window placement does not reflect historic window symmetry. Second-story windows should be aligned with the first-story windows. The rear (north) elevation features a multi-light accent window on the second story. Guidelines note that accent windows are appropriate with new construction; however, the placement is not reflective of historic window symmetry and should be centered over the first-story windows. On the east elevation, the proportions of the second-story windows exceed those of the first story.

9. Parking access is provided for from the alley and the surface parking is located at the rear of the building. City Engineering staff have verified the 90-degree placement of the five parking stalls is acceptable for a single-family residence.

10. One native shade tree should be planted on the front and rear yards.

11. Guidelines recommend that low, square-cut stone, poured concrete, or brick masonry walls should be used in constructing retaining walls. The grading of the lot to avoid repair or replacement of the existing retaining wall would detract from the overall streetscape and should be avoided. If the existing retaining wall is not salvageable, a new masonry retaining wall should be constructed to reflect the neighborhood context.

STAFF RECOMMENDATION:

Staff recommends approval of the work as proposed, with the following conditions: 1) east, west, and rear elevation window placement be re-designed to better reflect historic patterns of window symmetry, with approval of new design by staff; 2) one native shade tree to be planted in the front and rear yards; and 3) the existing retaining wall be reconstructed in brick or stone to maintain the block's existing topography.

HISTORIC ZONING COMMISSION

11-C-19-HZ

APPLICATION FOR CERTIFICATE OF APPROPRIATENESS

110 13th St. 37916

Ft. Sanders NC-1

Original Print Date: 11/12/2019

Knoxville/Knox County Planning -- Historic Zoning Commission

Petitioner: William Wilson

N

0 250

Feet

Planning
KNOXVILLE | KNOX COUNTY

DESIGN REVIEW REQUEST

- ■ DOWNTOWN DESIGN (DK)
- ■ HISTORIC ZONING (H)
- ■ INFILL HOUSING (IH)

William Wilson

Applicant

Nov 1, 2019	Nov 21, 2019	11-C-19-HZ
Date Filed	Meeting Date (if applicable)	File Number(s)

CORRESPONDENCE

All correspondence related to this application should be directed to the approved contact listed below.

■ Owner ■ Contractor ☐ Engineer ☐ Architect/Landscape Architect

WIlliam Wilson		Wilson Construction		
Name		Company		
120 Suburban Rd Suite 102		Knoxville	TN	37923
Address		City	State	Zip
(865) 256 1021	WilsonConstruction@outlook.com			
Phone	Email			

CURRENT PROPERTY INFO

Fort Knox Homes, LLC	same as above	same as above
Owner Name (if different from applicant)	Owner Address	Owner Phone
110 13th Street Knoxville, TN 37916	094LM012	
Property Address	Parcel ID	
Fort Sanders	C3-NC1 (Recode will be C-G-2)	
Neighborhood	Zoning	

AUTHORIZATION

Lindsay Crockett	Lindsay Crockett	11/4/19
Staff Signature	Please Print	Date
[signature]	William Wilson	11/1/19
Applicant Signature	Please Print	Date

REQUEST

DOWNTOWN DESIGN

Level 1:

☐ Signs ☐ Alteration of an existing building/structure

Level 2:

☐ Addition to an existing building/structure

Level 3:

☐ Construction of new building/structure ☐ Site design, parking, plazas, landscape

See required Downtown Design attachment for more details.

☐ Brief description of work: _____

_____

_____

HISTORIC ZONING

Level 1:

☐ Signs ☐ Routine repair of siding, windows, roof, or other features, in-kind; Installation of gutters, storm windows/doors

Level 2:

☐ Major repair, removal, or replacement of architectural elements or materials ☐ Additions and accessory structures

Level 3:

☒ Construction of a new primary building

Level 4:

☐ Relocation of a contributing structure ☐ Demolition of a contributing structure

See required Historic Zoning attachment for more details.

☒ Brief description of work: Please see attached documents

_____

_____

INFILL HOUSING

Level 1:

☐ Driveways, parking pads, access point, garages or similar facilities ☐ Subdivisions

Level 2:

☐ Additions visible from the primary street ☐ Changes to porches visible from the primary street

Level 3:

☐ New primary structure

☐ Site built ☐ Modular ☐ Multi-Sectional

See required Infill Housing attachment for more details.

☐ Brief description of work: _____

_____

_____

STAFF USE ONLY

ATTACHMENTS

☐ Downtown Design Checklist

☐ Historic Zoning Design Checklist

☐ Infill Housing Design Checklist

ADDITIONAL REQUIREMENTS

☐ Property Owners / Option Holders

Level 1: $50 • **Level 2:** $100 • **Level 3:** $250 • **Level 4:** $500

FEE 1:	TOTAL:
FEE 2:	
FEE 3:	

Application for Certification of Appropriateness Knoxville/Knox County Historic Zoning Commission for 110 13th Street Knoxville, TN 37916

As I presented at the commission workshop on Sept 19th 2019 I am pleased to share our plans for the new single family residence to be built on the vacant lot at 110 13th Street in Fort Sanders.

Our intent is to build a warm traditional Craftsman home that fits seamlessly into this historic neighborhood.

Attachments: Please find the architectural plans, plot plan, and photo of the planned home attached.

Materials List:
Brick foundation and chimney
Hardie Board lap siding
All soffit and facia board to be Hardie (no metal or vinyl)
Above eyebrows and open gables to be Hardie Shake siding
Trex front porch decking with brick columns to match foundation
Masonite doors
30 year dimensional shingle roof
Anderson 200 series wood windows w vinyl clad (no grids) trimmed out with 1 X 4 MiraTEC

Paint Colors:
Home Exterior: Sherman Williams Sporty Blue 6522
All Trim: Sherman Williams Extra White 7006

Historic commission requests from Sept 19th workshop:

Per the notes Lindsay Crockett shared from the commission workshop:

a. The attached detailed plot plan shows the home's front and side setbacks in relation to adjoining homes fronting Forest.

b. Architectural plans reflect the topography of the site and how it relates to foundation height

c. Per the Commission's request we have added another window on the front of the home

d. We have kept the brick chimney and fireplace due to the character it adds to the home in addition to adding character to the West side of the home which the Commission was concerned about.

e. The height of the new home will be approximately 30 feet which is in line with neighboring homes. (neighboring home appears to be 25-30 ft high)

f. Foundation height is consistent with the neighborhood context.

Application for Certification of Appropriateness Knoxville/Knox County Historic Zoning Commission for 110 13th Street Knoxville, TN 37916

g. As parking is extremely important in the Fort, our plan includes 5 parking spaces in the rear (only 2 required by city)
Please note that we confirmed with the city that we will not require ADA spaces or access.

h. Per the Commission's suggestion, the home has been moved closer to the neighboring home and further from the street

i. Commission asked that we save the retaining wall if possible. Structural engineer determined the wall is not salvageable. With the Commission's approval we would like to grade the lot so the wall is no longer needed.


Western Ave
62
11th St
Worlds Fair Park Dr
The Hill Bar and Grill
Grand Ave
Muslim Community of Knoxville Annoor Masjid
13th St
Hedge Ave
12th St
Forest Ave
Checker Cab & limo Knoxville
James Agee St
Highland Ave
Bridge Ave
Google

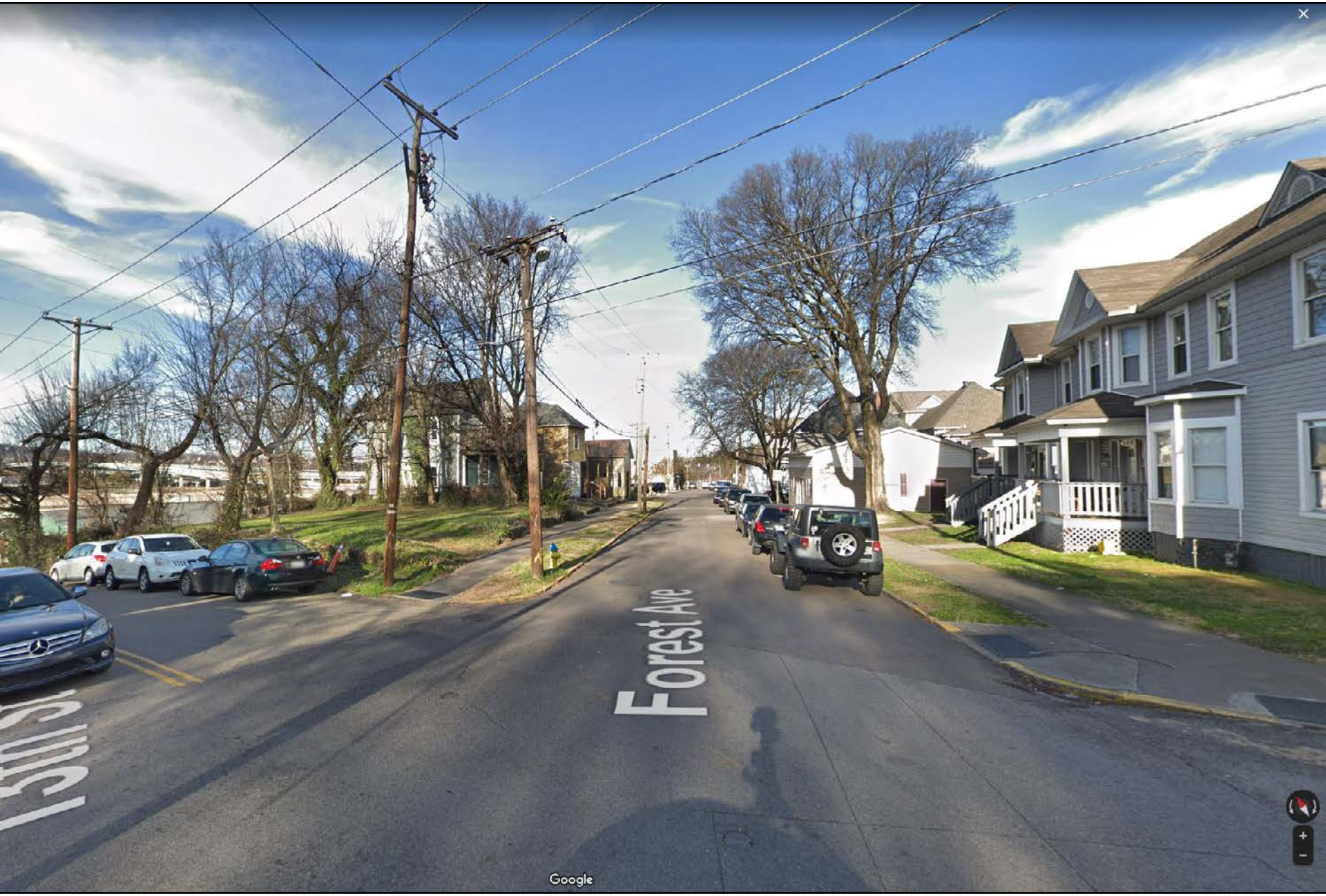
View of site from Forest Avenue, photographer facing north/northwest

Streetscape view of Forest Avenue, photographer facing north/northwest

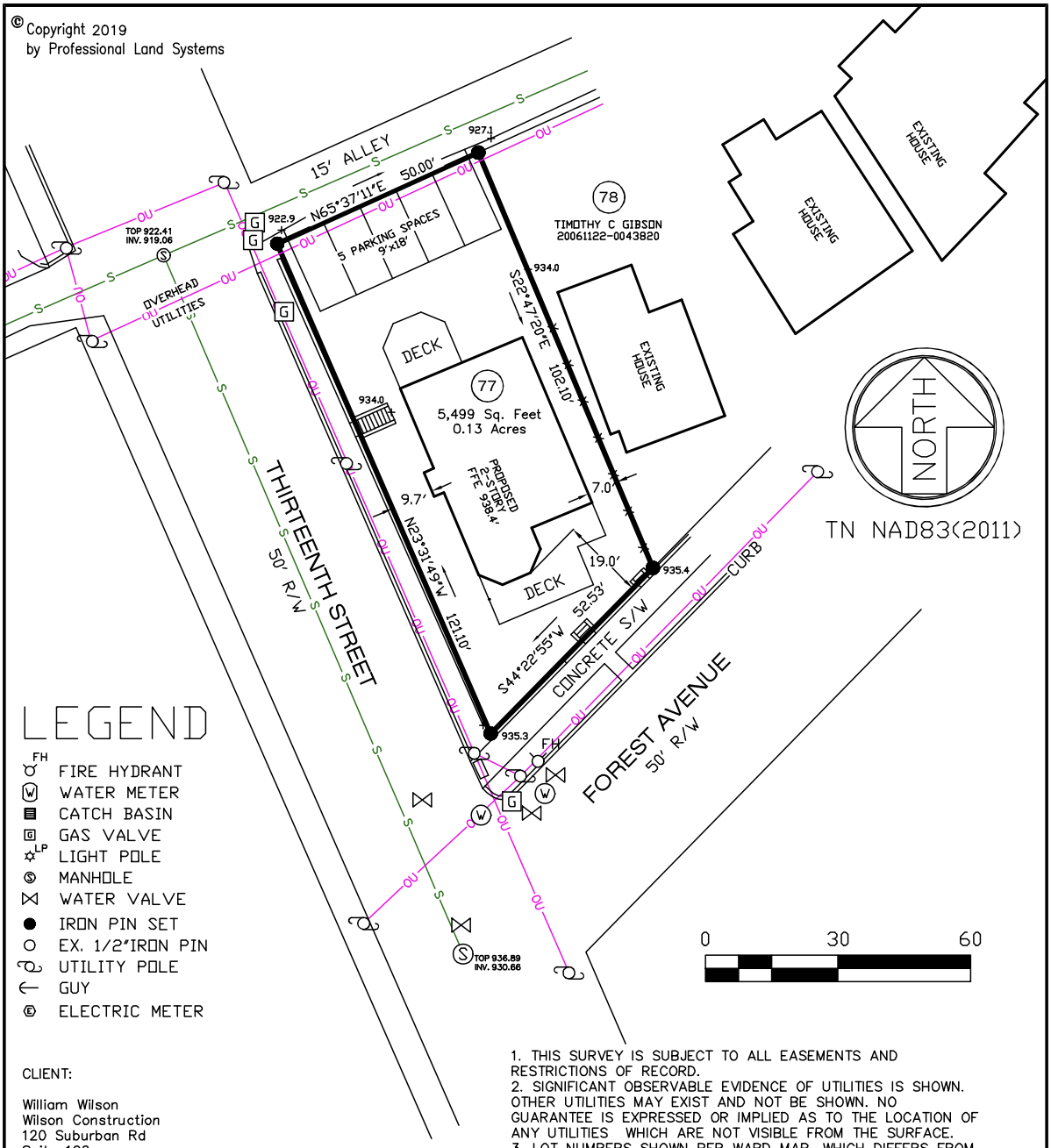
View of site from 13th Street, photographer facing north/northeast

View from 10th Street, photographer facing north/northeast, Google Street View

Streetscape view from 13th Street, photographer facing northeast, Google Street View



Streetscape view, photographer facing northeast, Google Street View



LEGEND

- FH FIRE HYDRANT
- (W) WATER METER
- CATCH BASIN
- (G) GAS VALVE
- LP LIGHT POLE
- (S) MANHOLE
- WATER VALVE
- IRON PIN SET
- EX. 1/2"IRON PIN
- UTILITY POLE
- GUY
- (E) ELECTRIC METER

CLIENT:

William Wilson
Wilson Construction
120 Suburban Rd
Suite 102
Knoxville, TN 37923

1. THIS SURVEY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.
2. SIGNIFICANT OBSERVABLE EVIDENCE OF UTILITIES IS SHOWN. OTHER UTILITIES MAY EXIST AND NOT BE SHOWN. NO GUARANTEE IS EXPRESSED OR IMPLIED AS TO THE LOCATION OF ANY UTILITIES WHICH ARE NOT VISIBLE FROM THE SURFACE.
3. LOT NUMBERS SHOWN PER WARD MAP, WHICH DIFFERS FROM PLAT OF RECORD.
4. NAVD88 ELEVATION DATUM.
5. CITY BLOCK 10142.

NED D. FERGUSON
REGISTERED LAND SURVEYOR
STATE OF TENNESSEE
COMMERCE
8/29/2019
TENNESSEE NO. 1643

I hereby certify that this is a category 1 survey containing less than one acre and that the allowable error does not exceed 1/10 of a foot of positional accuracy at any corner. This survey meets the minimum standards of the state of Tennessee.

This is to certify that the described property IS NOT located in a special flood hazard area as shown on the National Flood Insurance Program Flood Insurance Rate Map.

MAP NO. 47093C0283G ZONE: X

EFFECTIVE: 8/5/13

LAND SURVEY AND SITE PLAN
110 THIRTEENTH ST, KNOXVILLE, TN 37916
PARCEL 094LM012 DEED 20190517-0067718
LOT 77 RAMSEY'S ADD PLAT CAB. A-172B

COUNTY: KNOX DISTRICT: 12 CITY: KNOXVILLE WARD: 10	DATE: 8/29/2019 SCALE: 1"=30' DRAWN BY: NDF

Ned D. Ferguson, R.L.S.
205 Lamar Ave.
Clinton, TN 37716
Phone: (865) 457-4606
Fax: (888) 232-8718

Professional Land Systems
www.PLSurvey.com

When you need to know, knowing is our business.

DRAWING NO. 3C619

#2 southern yellow pine (# 1 syp)				
floor joist		**12" o.c.**	**16"o.c.**	**24"o.c.**
40 psf live load 10 psf dead load (all rooms except sleeping)	2x8	13'-6" @#2 (14'-2" @#1)	11'-10" @#2 (12'-10" @#1)	9'-8" @#2 (11'-3" @#1)
	2x10	16'-2" @#2 (18'-0" @#1)	14'-0" @#2 (16'-1" @#1)	11'-5" @#2 (13'-3" @#1)
30 psf live load 10 psf dead load (sleeping rooms @ L/360)	2x8	11'-11" @#2 (15'-7" @#1)	13'-3" @#2 (14'-2" @#1)	10'-10" @#2 (12'-4" @#1)
	2x10	18'-1" @#2 (19'-10" @#1)	15'-8" @#2 (18'-0" @#1)	12'-10" @#2 (14'-8" @#1)
ceiling joist				
20 psf live load 10 psf dead load (drywall ceiling @ L/240)	2x6	13'-11" @#2 (15'-6" @#1)	12'-0" @#2 (14'-0" @#1)	9'-10" @#2 (11'-5" @#1)
	2x8	17'-7" @#2 (20'-5" @#1)	15'-3" @#2 (17'-9" @#1)	12'-6" @#2 (14'-6" @#1)
rafters				
20 psf live load 10 psf dead load	2x6	14'-9" @#2 (15'-6" @#1)	12'-11" @#2 (14'-1" @#1)	10'-7" @#2 (12'-3" @#1)
	2x8	18'-11" @#2 (20'-5" @#1)	16'-4" @#2 (18'-6" @#1)	13'-4" @#2 (15'-6" @#1)
30 psf live load 10 psf dead load	2x6	12'-11" @#2 (13'-6" @#1)	11'-3" @#2 (12'-3" @#1)	9'-2" @#2 (10'-7" @#1)
	2x8	16'-4" @#2 (17'-10" @#1)	14'-2" @#2 (16'-2" @#1)	11'-7" @#2 (13'-5" @#1)
40 psf live load 10 psf dead load (slope over 3/12 no finished clg @ L/180)	2x6	11'-7" @#2 (12'-3" @#1)	10'-0" @#2 (11'-2" @#1)	8'-2" @#2 (9'-6" @#1)
	2x8	14'-8" @#2 (16'-2" @#1)	12'-8" @#2 (14'-8" @#1)	10'-4" @#2 (12'-0" @#1)

Based on 2015 IRC tables

#2 S-P-F (spruce-pine-fir)				
floor joist		**12" o.c.**	**16"o.c.**	**24"o.c.**
40 psf live load 10 psf dead load (all rooms except sleeping)	2x8 2x10	13'-6" 17'-3"	12'-3" 15'-5"	10'-3" 12'-7"
30 psf live load 10 psf dead load (sleeping rooms @ L/360)	2x8 2x10	14'-11" 19'-0"	13'-6" 17'-2"	11'-6" 14'-1"
ceiling joist				
20 psf live load 5 psf dead load (drywall ceiling @ L/240)	2x6 2x8 2x10	14'-9" 18'-9" 22'-11"	12'-10" 16'-3" 19'-10"	10'-6" 13'-3" 16'-3"
rafters				
20 psf live load 7 psf dead load	2x6 2x8	16'-3" 21'-3"	14'-6" 18'-5"	11'-10" 15'-0"
30 psf live load 7 psf dead load	2x6 2x8	14'-3" 18'-2"	12'-5" 15'-8"	10'-1" 12'-10"
40 psf live load 7 psf dead load (slope over 3/12 no finished clg @ L/180)	2x6 2x8	12'-8" 16'-1"	11'-0" 13'-11"	9'-0" 11'-5"

abbreviations

c.j	ceiling joist
clg.	ceiling
CMU	concrete masonry unit
C.O	cased opening
conc.	concrete
CT.	ceramic tile
dbl.	double
d.j	double joist
ea.	each way
f.j	floor joist
ftg.	footing
HVAC	heating/ventilating/air conditioning
jst.	joist
LVL.	laminated veneer lumber - ie. Parallam
mech.	mechanical
mil	.001 inch
min.	minimum
N.T.S.	not to scale
oc	on center
pc	pull cord
pt.	pressure treated
psf	pounds per square foot
R/A	return air
reqd.	required
reinf.	reinforcing
Rm.	room
ro.	rough opening
sf	square feet
syp	southern yellow pine
Shw.	shower
T&G	tongue and groove
vif	verify in field
W.H.	water heater
WWM	welded wire mesh
yp	yellow pine

Thank you for your purchase of these house plans.

These plans are designed to conform to the 2015 IRC and the 2018 NCRC including local state amendments. National and local building codes vary with location and change from time to time. Therefore it is impossible to warrant compliance to your specific location. It is the responsibility of the purchaser and/or the builder to adapt these plans to the requirements of the individual locale.

Structural Notes

These plans are designed for roof loads of 20 psf live load and 10 psi dead load. The chart to the left can be used to adjust for different requirements. All beams are labeled "LVL" and should be sized locally. Roof loads can vary and have a big impact on the beams carrying accumulated loads. Most lumber suppliers can have this done at no charge, however having a registered engineer is recommended.

Wall Header Notes

Headers 3' or less to be 2-2x6 with 1 jack each side
Headers 4' - 6' to be 2-2x8 with 2 jacks on each side
Beams 4' to 6' to be 2-2x12 with 2 jacks on each side
or 3" min bearing and footing under point loads.

Wall bracing notes

Wall bracing shall be in accordance to IRC/NCRC Section 602.10.3. The required length of bracing for each side of a rectangle circumscribed around the plan or a portion of the plan at each story level shall be determined using Table R602.10.3 and Figure R602.10.3(1). The cumulative contributing length of braced wall panels assigned to a rectangle side shall be greater than or equal to the required length of bracing specified in Table R602.10.3. The following additional requirements shall apply.

Limitations - The continuous sheathing requirements of Section R602.10.3 shall be limited to bracing methods GS-WSP and GS-SFB in accordance with Table R602.10.1 with the following conditions of use:
1. Basic design wind speed shall not exceed 115 mph.
2. Wall height at each story level shall not exceed 12 feet.
3. Eave to ridge height shall not exceed 20 feet.
4. 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.
5. Except when used for bracing method GB, the interior side of exterior walls and both sides of interior walls shall be sheathed continuously with minimum 1/2-inch-thick gypsum wall board interior finish fastened in accordance with Table R702.3.5, or approved interior finish of equivalent or greater shear resistance unless required for fire separation by Section R302.6, gypsum board shall be permitted to be omitted where the required length of bracing, as determined in Table R602.10.3, is multiplied by 1.40.
6. Floors shall not cantilever more than 24 inches (607 mm) beyond the foundation or bearing wall below.

Requirements - The required length of bracing for each side of a rectangle circumscribed around the plan or a portion of the plan at each story level shall be determined using Table R602.10.3 and Figure R602.10.3(1). The cumulative contributing length of braced wall panels assigned to a rectangle side shall be greater than or equal to the required length of bracing specified in Table R602.10.3. The following additional requirements shall apply.
1. Braced wall panels on exterior or interior walls shall be assigned to the nearest rectangle side as shown in Figure R602.10.3(2) for each story level floor plan.
2. Braced wall panels shall be distributed and installed in accordance with Figure R602.10.3(3).
3. A minimum of one-half the required bracing amount for each rectangle side should be located on exterior walls within 8 feet of the location of the rectangle side.
4. Interior braced wall panels using Method GB shall be assigned to the closest parallel rectangle side and shall contribute 0.5 times their actual length. The narrowest width of braced wall panels allowed for GB is 48", and the 0.5 accounts for GB being half the strength of other methods except LIB.
5. The bracing amount provided on an upper story building side shall be deemed-to-comply where it equals or exceeds the amount of bracing required for the story immediately below.
6. Where the bracing amount provided on an upper story equals or exceeds the amount of bracing required for the story below, an analysis of bracing shall not be required for the upper story.
7. GS-WSP Continuous sheathed WSP method to have - Minimum braced material thickness or size 3/8". Minimum brac panel length or brace angle 24" adjacent to window not more than 67% of wall height; 30" adjacent to door or window greater than 67% and less than 85% of wall height. 48" for taller openings. Fasteners 6d common nail or 8d (2 1/2" long x 0.113" diameter) nails. See table R602.3(3). Space 6" edges and 12" field.

General Notes

- Square footages are for heated floor areas. This does not include fireplace projection or vaulted space. Stairs are counted on the main floor only.

- Dimensions are from the face of the stud wall. Contractor to verify all dimensions and please contact us if an error is present..

- All footings shall be on firm undisturbed soil of no less than 2000 psf and be below frost depth. The exact size and reinforcement of concrete footings must be determined by local soil conditions. Verify design with local engineer.

- HVAC design to be sized according to the local climate conditions including compass direction.

Energy Notes

- Caulk all exterior toe plates with latex caulk.

- Caulk all wire and pipe holes where they penetrate all upper and lower exterior plates.

- Use blown-in wall insulation if at all possible. If batt insulation is used pack behind all electrical boxes.

- Seal all joints in HVAC ducts, with leakage no more than 3%. Three inch fiber mesh tape should be used on all collar to plenum connections and all gaps that are 1/4" or wider. Insulate ducts with R-6.5 or greater.

- Foam insulate between all exterior window and door edges and rough opening frame. Use non-expanding foam.

- Provide back draft damper on kitchen hood vent, dryer vent, and bathroom vents.

- Insulate all hot water pipes.

- Install wrap kit on water heater.

Index to Drawings

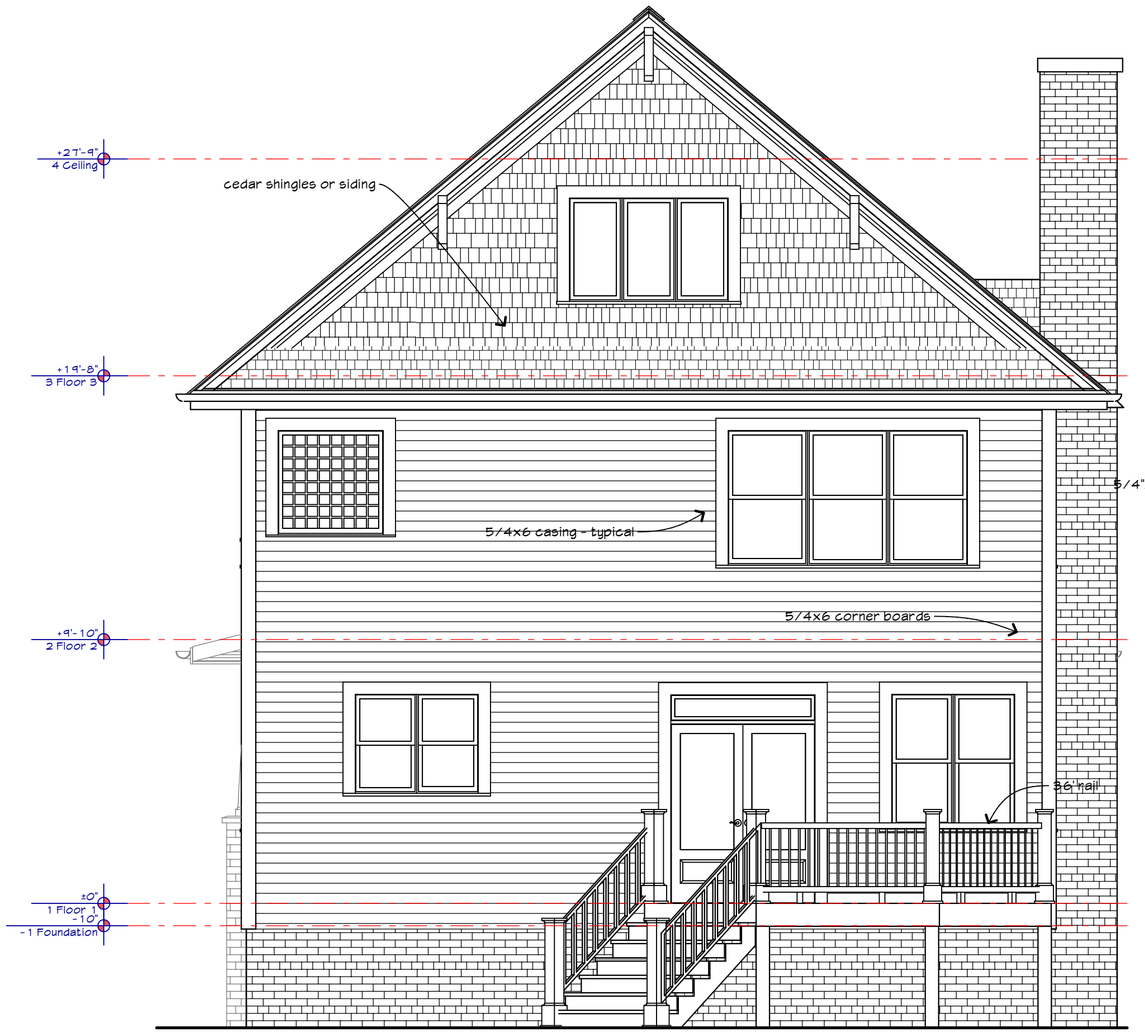
Plan 2401B

This plan is licensed to Wilson Construction

www.thompsonplans.com

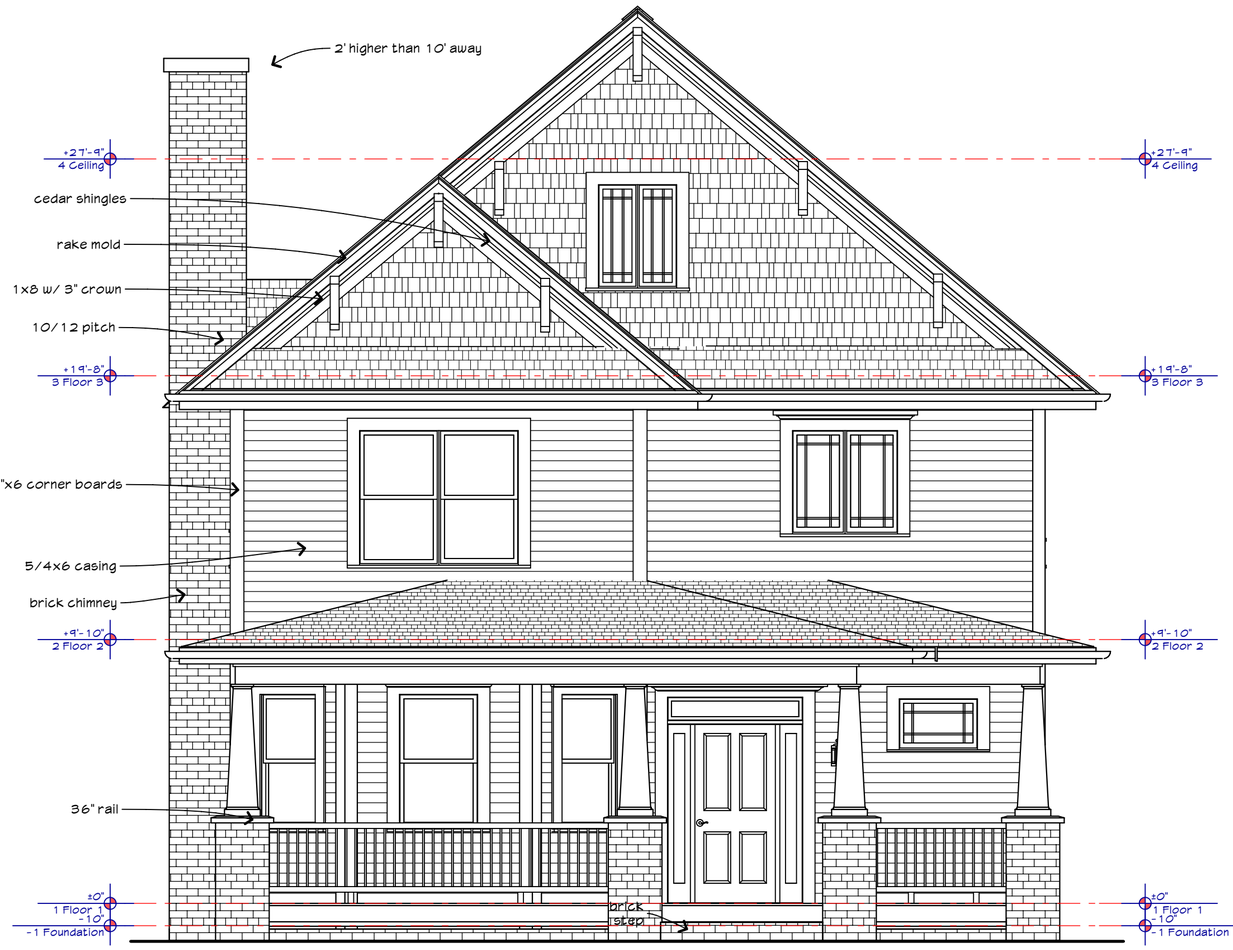
85 Hiaway Trail
Clyde , NC 28721
828-734-2553

original print date
10/30/19



Rear Elevation

scale 1/4" = 1'-0"



Front Elevation

scale 1/4" = 1'-0"

www.thompsonplans.com
Rick Thompson - Architect
85 Hiaway Trail Cylde, NC 28721
828-734-2553

standard contract document

original print date
10/30/19

plan # 2401B

Left Side Elevation

scale 1/4" = 1'-0"

standard contract document

85 Hiaway Trail Cyldе, NC 28721

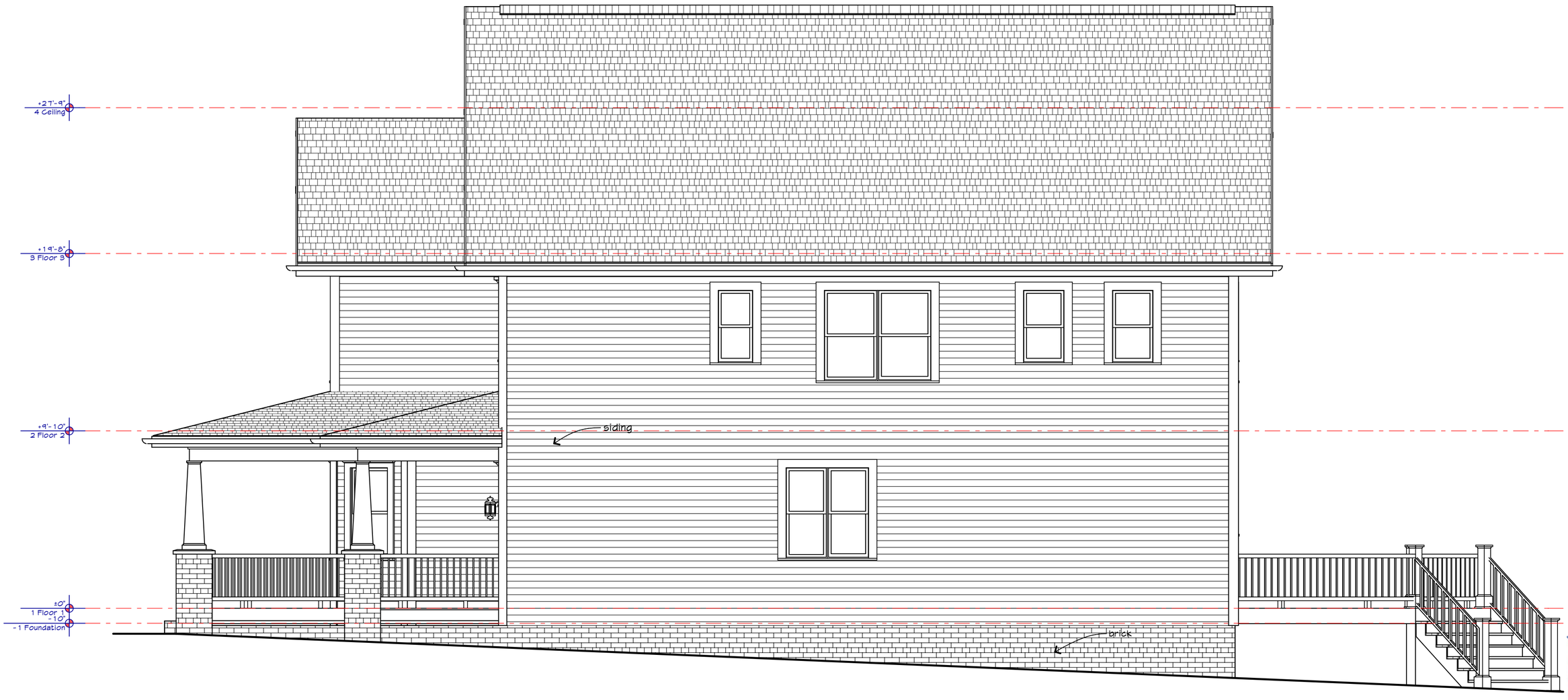
www.thompsonplans.com

Rick Thompson - Architect

828-734-2553

original print date
10/30/19

plan # 2401B



Right Side Elevation

scale 1/4" = 1'-0"

standard contract document

85 Hiaway Trail Clyde, NC 28721

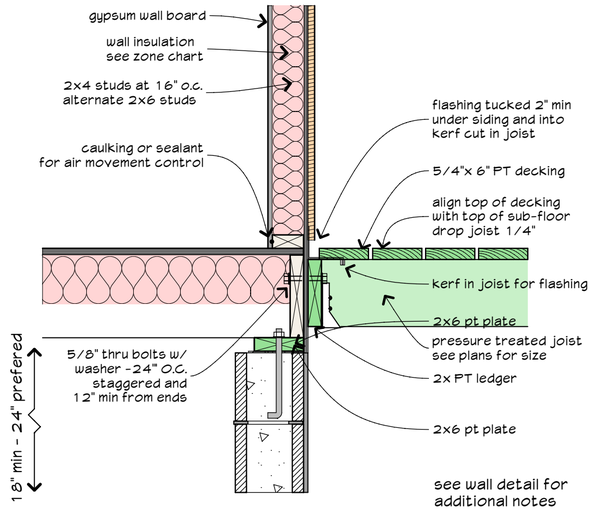
www.thompsonplans.com

Rick Thompson - Architect

828-734-2553

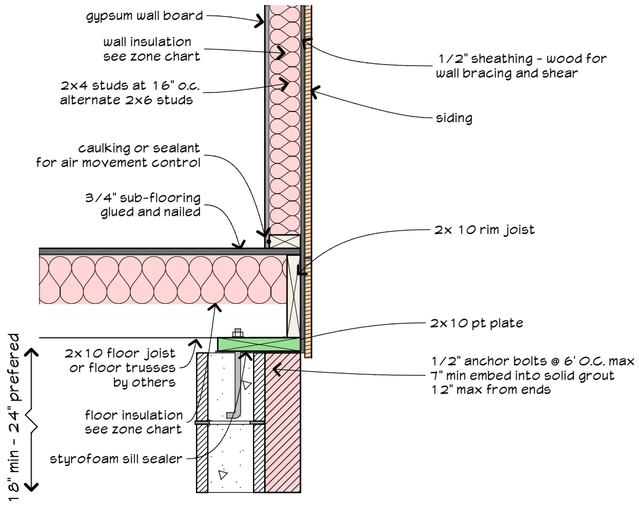
original print date
10/30/19

plan # 2401B



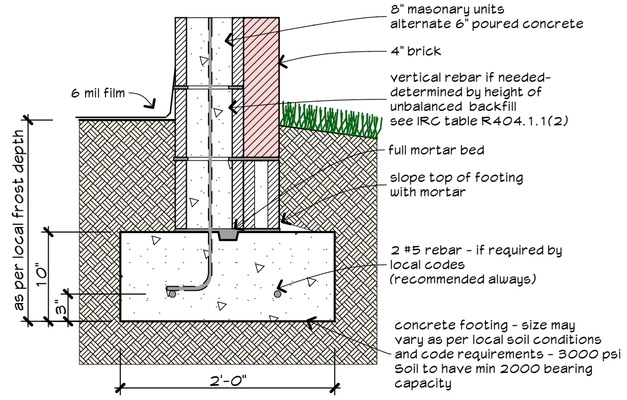
W5 Wall detail Fl 1

scale 1"= 1'-0"



W1

scale 1"= 1'-0"



F4 Foundation - brick face

scale 1"= 1'-0"

General crawl notes

Provide 18"x24" min. access door.
Location as per field conditions - side prefered.

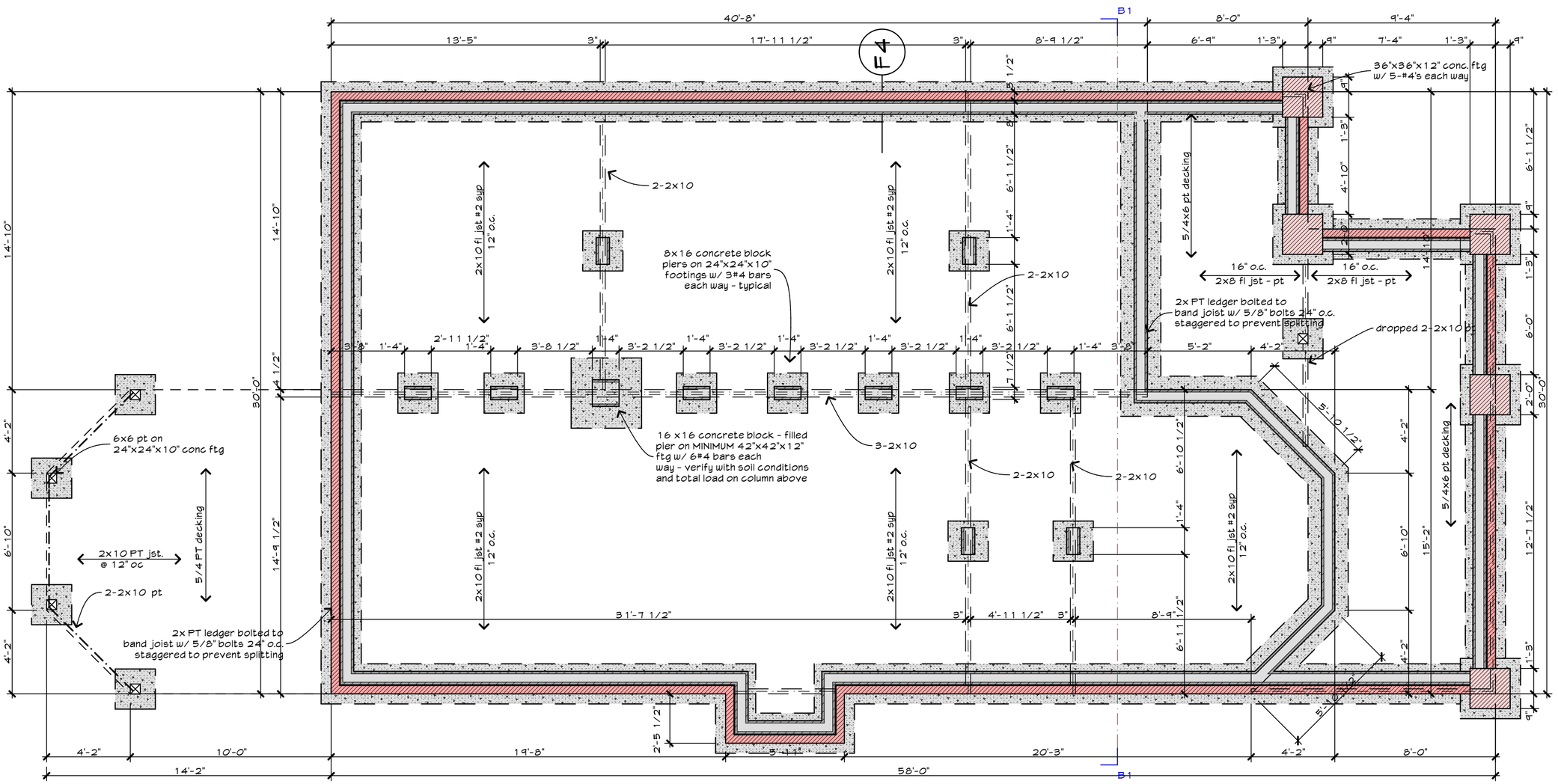
Provide foundation vents not less than 1 sqft per 150 sqft under floor space. One vent within 3 feet of each corner. IRC - R408.1
or
Unvented where exposed earth is covered and and air supplied as per IRC - R408.3

Fill piers solid with grout. Pier block size shown is minimum. May vary as per foundation height.

Pier spacing may vary dependant on local snow loads, soil bearing capacity and the use of roof trusses.

Footing sizes and reinforcment are assumed. Soil conditions vary and must be taken into account. Inspectors can allow builders to adjust the use of rebar and footing sizes as per local conditions.

Girders may be sized with LVL's to reduce piers. Up size footing accordingly (30"x30"x10" min w/ 4-#4's each way) and 16"x16" filled piers.



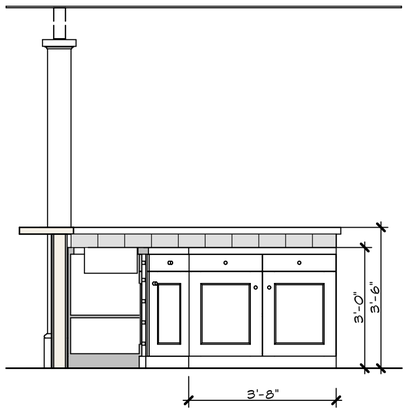
Crawl Foundation Plan

scale 1/4"= 1'-0"

plan # 2401B

standard contract document
85 Hiaway Trail Clyde, NC 28721
Rick Thompson - Architect
828-734-2553
www.thompsonplans.com

original print date
10/30/19



04 Kitchen

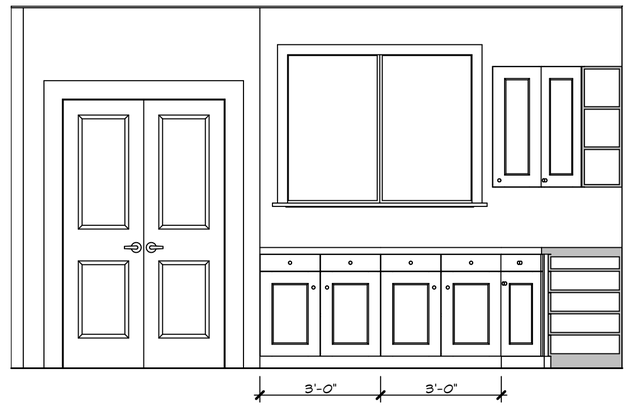
Scale 3/8" = 1'-0"

03 Kitchen

Scale 3/8" = 1'-0"

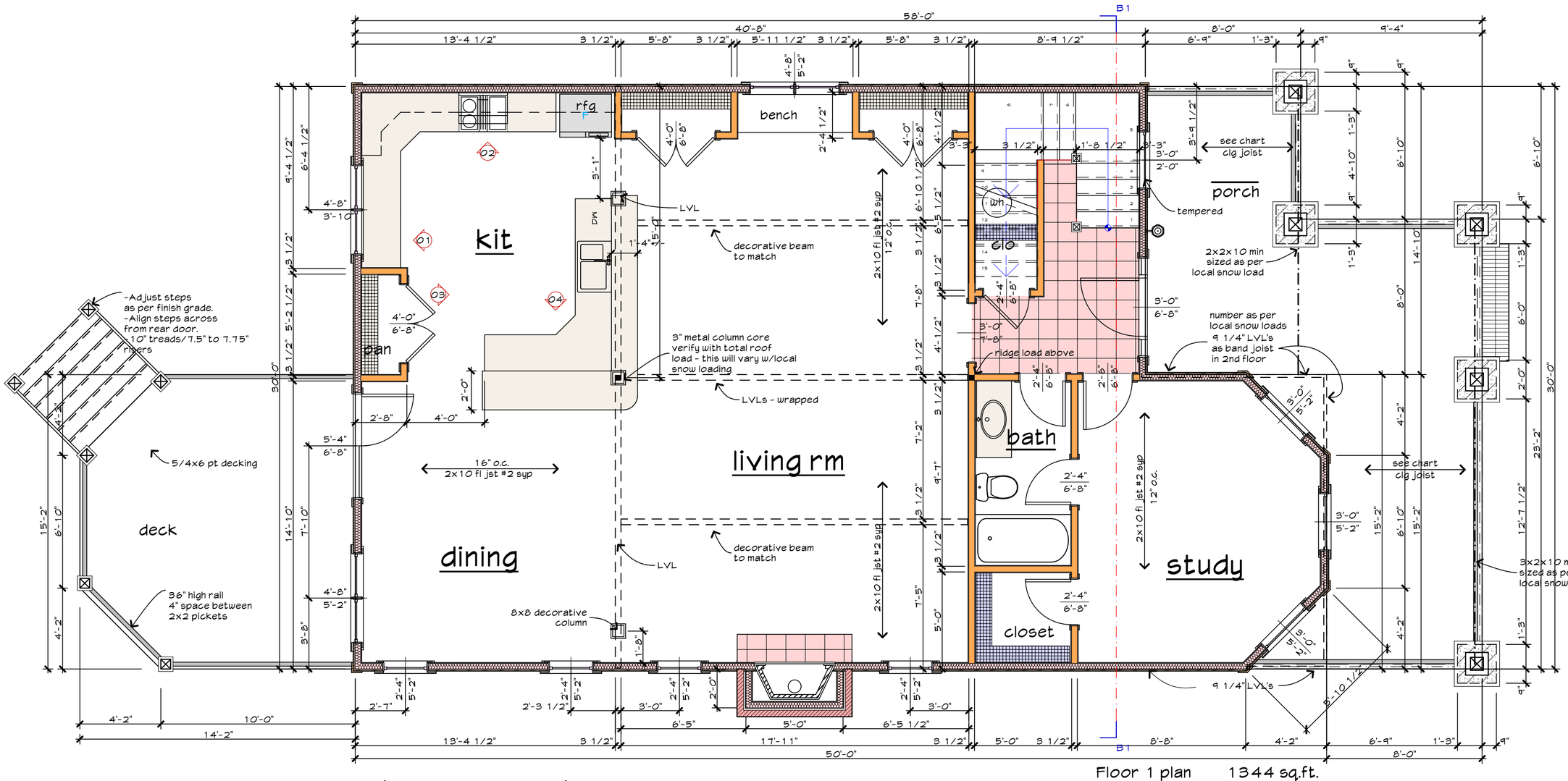
02 Kitchen

Scale 3/8" = 1'-0"



01 Kitchen

Scale 3/8" = 1'-0"



Floor 1 plan

scale 1/4"= 1'-0"

Floor 1 plan	1344 sq.ft.
Floor 2 plan	1306 sq.ft.
total	2650 sq.ft.
Finished attic	666 sq.ft.

plan # 2401B

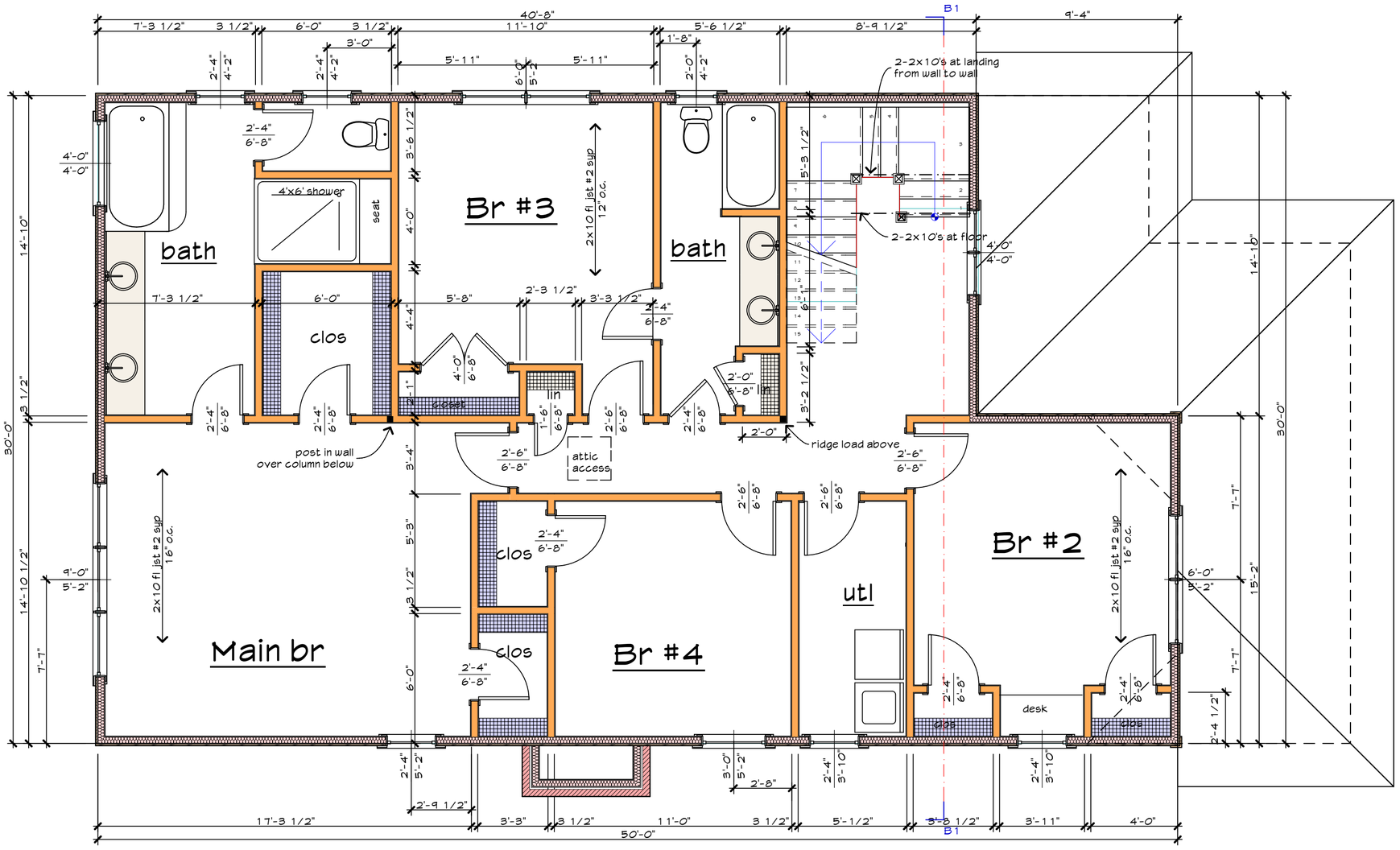
Rick Thompson - Architect
85 Hiaway Trail Clyde, NC 28721
828-734-2553
www.thompsonplans.com

standard contract document

original print date
10/30/19

Door List				
Width	Height	Name	Type	Quantity
1'-6"	6'-8"	RD02 Swing	Interior	1
2'-0"	6'-8"	RD02 Swing	Interior	1
2'-4"	6'-8"	RD02 Swing	Interior	16
2'-6"	6'-8"	RD02 Swing	Interior	7
3'-0"	6'-8"	RD01 Door ST	Exterior	1
3'-0"	7'-8"	RD02 Swing	Interior	1
4'-0"	6'-8"	RD02 Swing	Interior	4
5'-4"	6'-8"	RD01 Door ST	Exterior	1
				32

Window List			
W x H Size	Units	Window Type	Quantity
2'-0"x4'-2"	Single	RN1-4 Doublehung	1
2'-4"x3'-10"	Single	RN1-4 Doublehung	2
2'-4"x4'-2"	Single	RN1-4 Doublehung	2
2'-4"x5'-2"	Single	RN1-4 Doublehung	5
3'-0"x2'-0"	Single	RN1-1 Stationary	1
3'-0"x4'-0"	Twin	RN1-3 Casement	1
3'-0"x5'-2"	Twin	RN1-4 Doublehung	1
3'-0"x5'-2"	Single	RN1-4 Doublehung	3
4'-0"x4'-0"	Twin	RN1-1 Stationary	1
4'-0"x4'-0"	Glass block	RN1-1 Stationary	1
4'-8"x3'-10"	Twin	RN1-4 Doublehung	1
4'-8"x5'-2"	Twin	RN1-4 Doublehung	2
6'-0"x4'-0"	Triple	RN1-3 Casement	1
6'-0"x5'-2"	Twin	RN1-4 Doublehung	2
9'-0"x5'-2"	Triple	RN1-4 Doublehung	1
			25



Floor 2 plan

scale 1/4"= 1'-0"

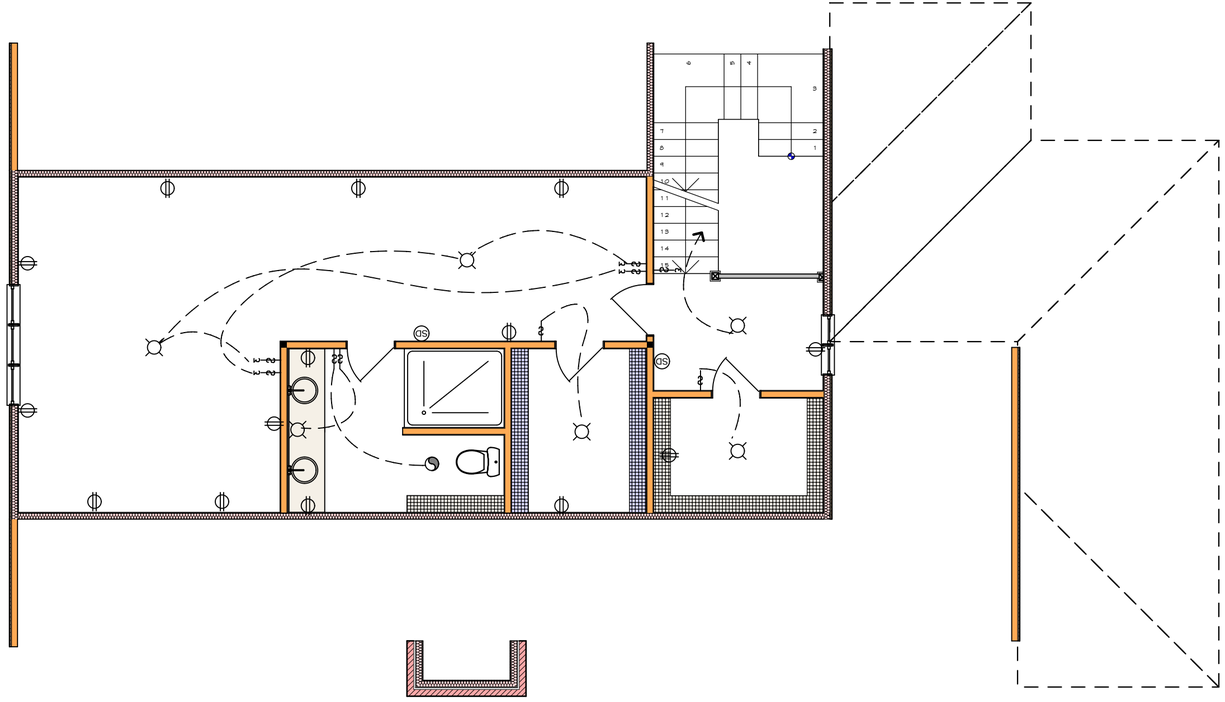
plan # 2401B

standard contract document

85 Hiaway Trail Cylde, NC 28721

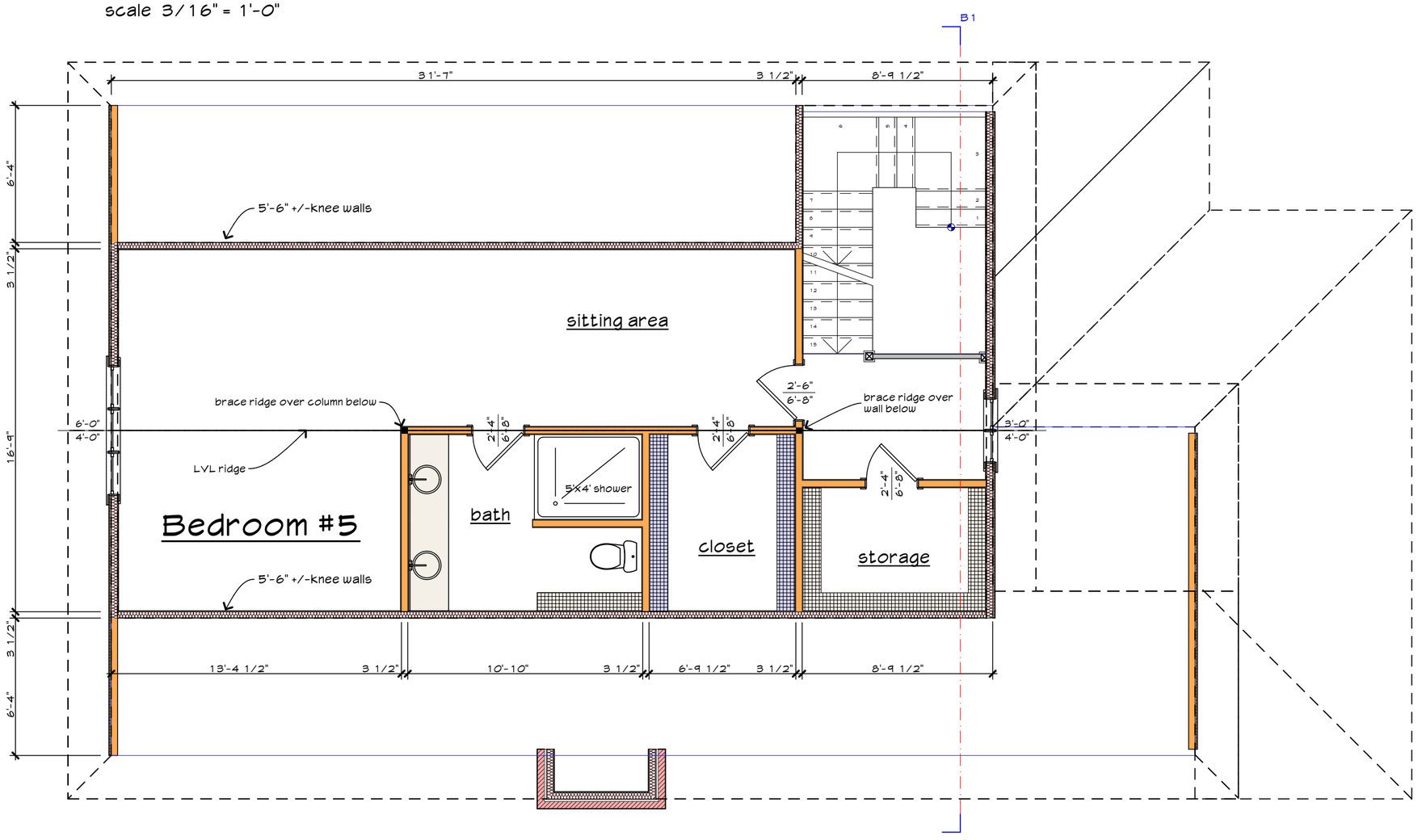
www.thompsonplans.com
Rick Thompson - Architect
828-734-2553

original print date
10/30/19



Electrical - Floor 3 Plan

scale 3/16" = 1'-0"



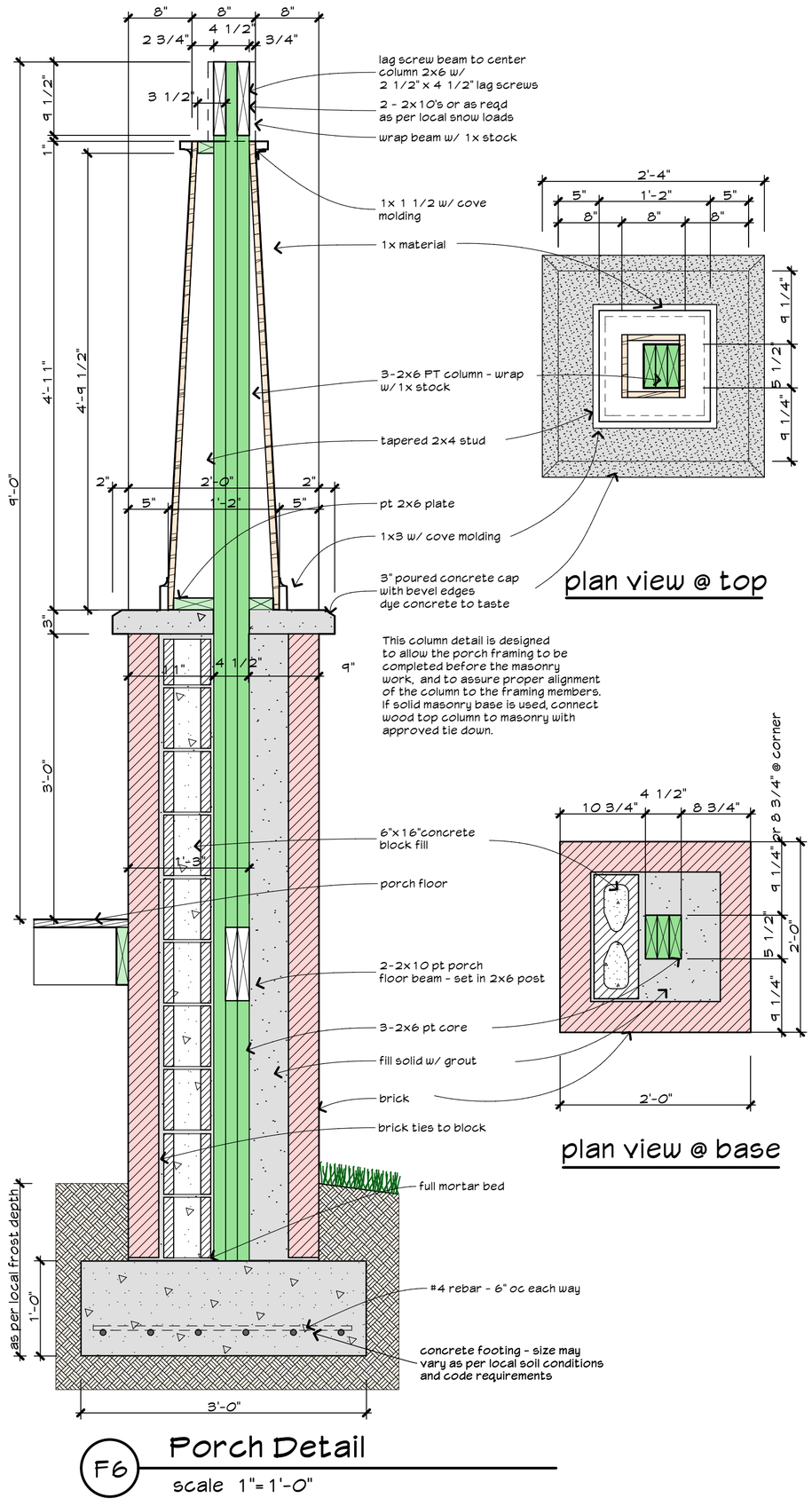
Floor 3 plan

scale 1/4"= 1'-0"

plan # 2401B

standard contract document
85 Hiaway Trail Cylde, NC 28721
www.thompsonplans.com
Rick Thompson - Architect
828-734-2553

original print date
10/30/19



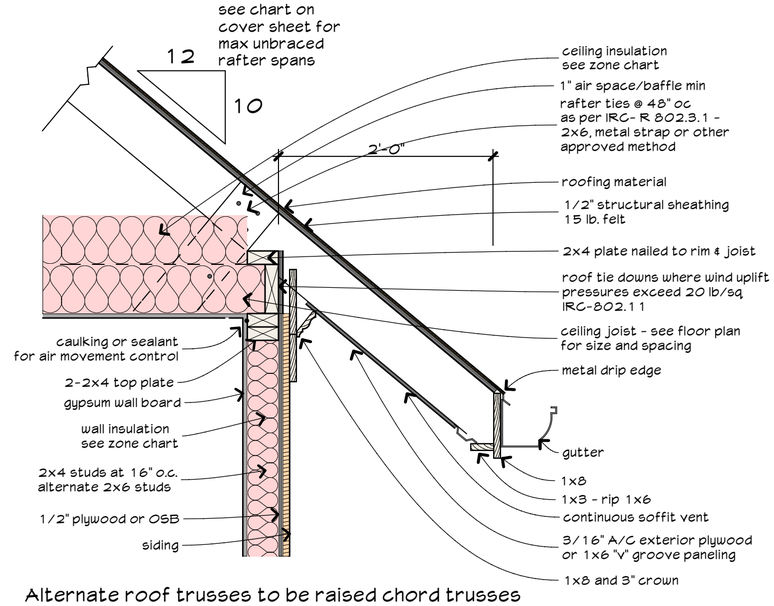
This column detail is designed to allow the porch framing to be completed before the masonry work, and to assure proper alignment of the column to the framing members. If solid masonry base is used, connect wood top column to masonry with approved tie down.

plan view @ top

plan view @ base

F6 Porch Detail

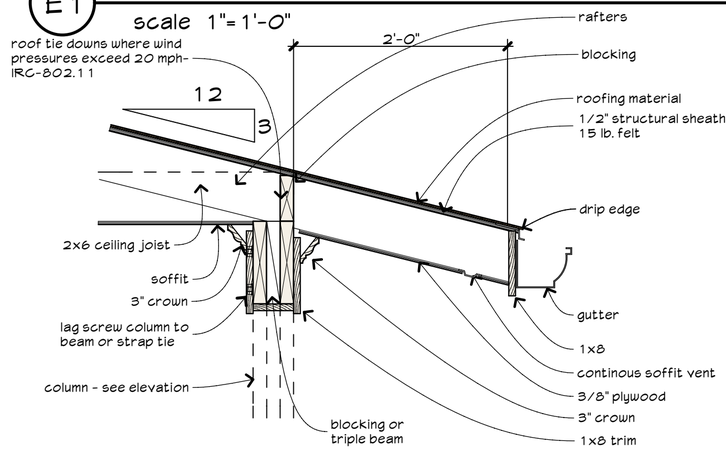
scale 1"= 1'-0"



Alternate roof trusses to be raised chord trusses

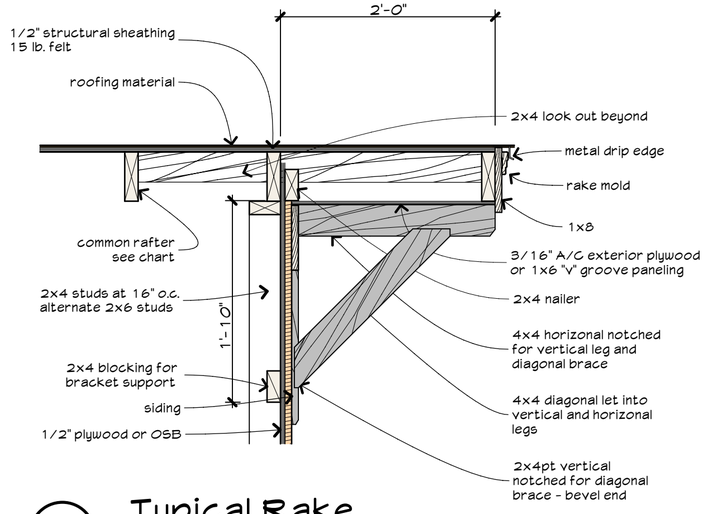
E1 Typical Boxed Eave - rafters on joist

scale 1"= 1'-0"



PE2 Typical Porch Boxed Eave

scale 1"= 1'-0"



E4 Typical Rake

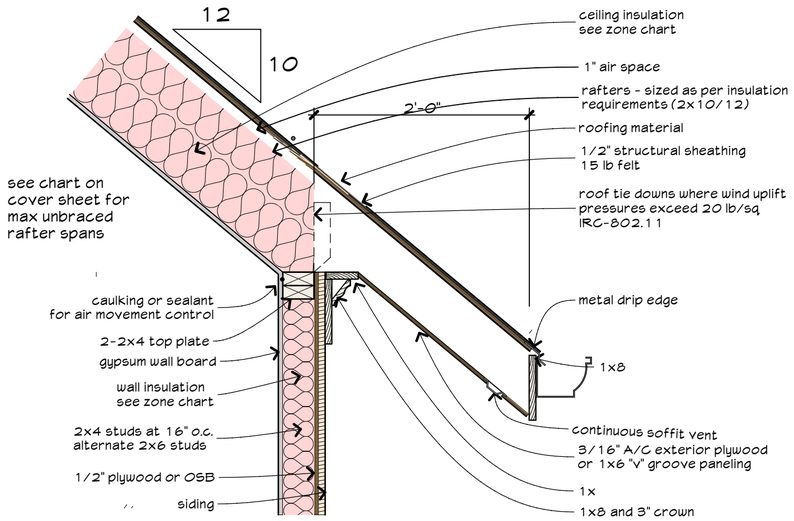
scale 1"= 1'-0"

plan # 2401B

standard contract document

Rick Thompson - Architect
85 Hiaway Trail Clyde, NC 28721
828-734-2553
www.thompsonplans.com

original print date
10/30/19



Alternate roof trusses to be raised chord trusses

E4 Typical Boxed Eave - rafters on joist

scale 1"= 1'-0"

Minimum Insulation Chart

Table N1102.1 - IRC 2015 & (2018 NCRC - in parentheses)
Insulation and fenestration requirements by components [a]

Check appropriate climate zone as determined by local building dept.

	Climate Zone	Glazing U-factor	Glazed fenestration SHGC [b,e]	Ceilings R-value	Wood frame wall R-value	Floors R-value	Basement [c] walls R-value	Slab [d] perimeter R value and depth	Crawl space [c] wall R- value
☐	1	NR	.25	30	13	13	0	0	0
☐	2	.40	.25	38	13	13	0	0	0
☐	3	.35	.25	38 (or 30[g])	20 or (15 or 13+5[h] 13+2.5[h])	19	5/13[f]	0	5/13
☐	4 except Marine	.35	.40	49 (38 or 30[g])	20 or (15 or 13+5[h] 13+2.5[h])	19	10/13 (10/15)	10, 2 (10, 2)	10/13 (10/15)
☐	5 Marine	.32 (35)	NR	49 (38 or 30[g])	20 or (19 or 13+5[h] 13+5[h])	30[g]	10/13 (10/15)	10, 2 (10, 2)	10/13 (10/15)
☐	6	.32	NR	49	20 or 13+5[h]	30[g]	15/19	10, 2'	15/19 (10/19)
☐	7	.32	NR	49	20 or 13+5[h]	38[g]	15/19	10, 4'	15/19
☐	8	.32	NR	49	20 or 13+5[h]	38[g]	15/19	10, 4'	15/19

a - R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed R-value of the insulation shall not be less than the R-value specified in the table.

b - The fenestration U-factor column excludes skylights. The SGHC column applies to all glazed fenestration.

c - "15/19" means R-15 continuous insulated sheathing on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. "15/19" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulated sheathing on the interior or exterior of the home. "10/13" means R-10 continuous insulated sheathing on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall. ("10/15" means R-10 continuous insulated sheathing on the interior or exterior of the home or R-15 cavity insulation at the interior of the basement wall or crawl space wall.)

d - R-5 shall be added to the required slab edge R-values for heated slabs. Insulation depth shall be the depth of the footing or 2 feet, whichever is less in Zones 1 through 3 for heated slabs. For monolithic slabs, insulation shall be applied from the inspection gap downward to bottom of the footing or a maximum of 24 inches below grade whichever is less. For floating slabs, insulation shall extend to the bottom of the foundation wall or 24 inches, whichever is less.

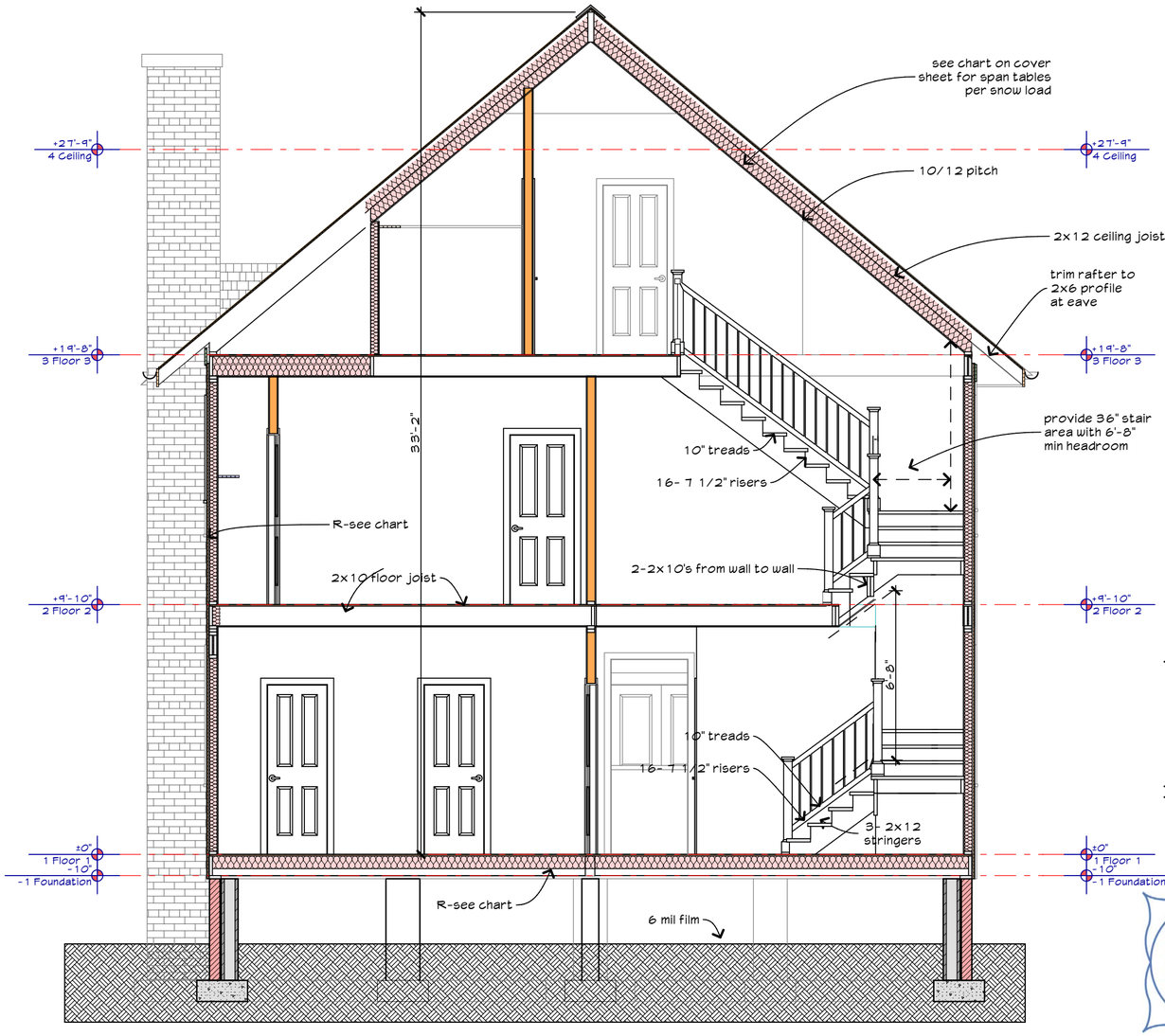
e - There are no solar heat gain coefficient (SGHC) requirements in the Marine Zone.

f - Basement wall insulation is not required in warm-humid locations as defined by Figure 301.1 and Table 301.1.

g - Or insulation sufficient to fill the framing cavity, R-19

h - "13+5" means R-13 cavity insulation plus R-5 insulated sheathing. If structural sheathing covers 25 % or less of the exterior, insulating sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25 percent of exterior, structural sheathing shall be supplemented with insulated sheathing of at least R-2.

i - The second R-value applies when more than half the insulation is on the interior of the mass wall.



Building Section B 1

Scale 1/4" = 1'-0"

standard contract document

85 Hiaway Trail Clyde, NC 28721

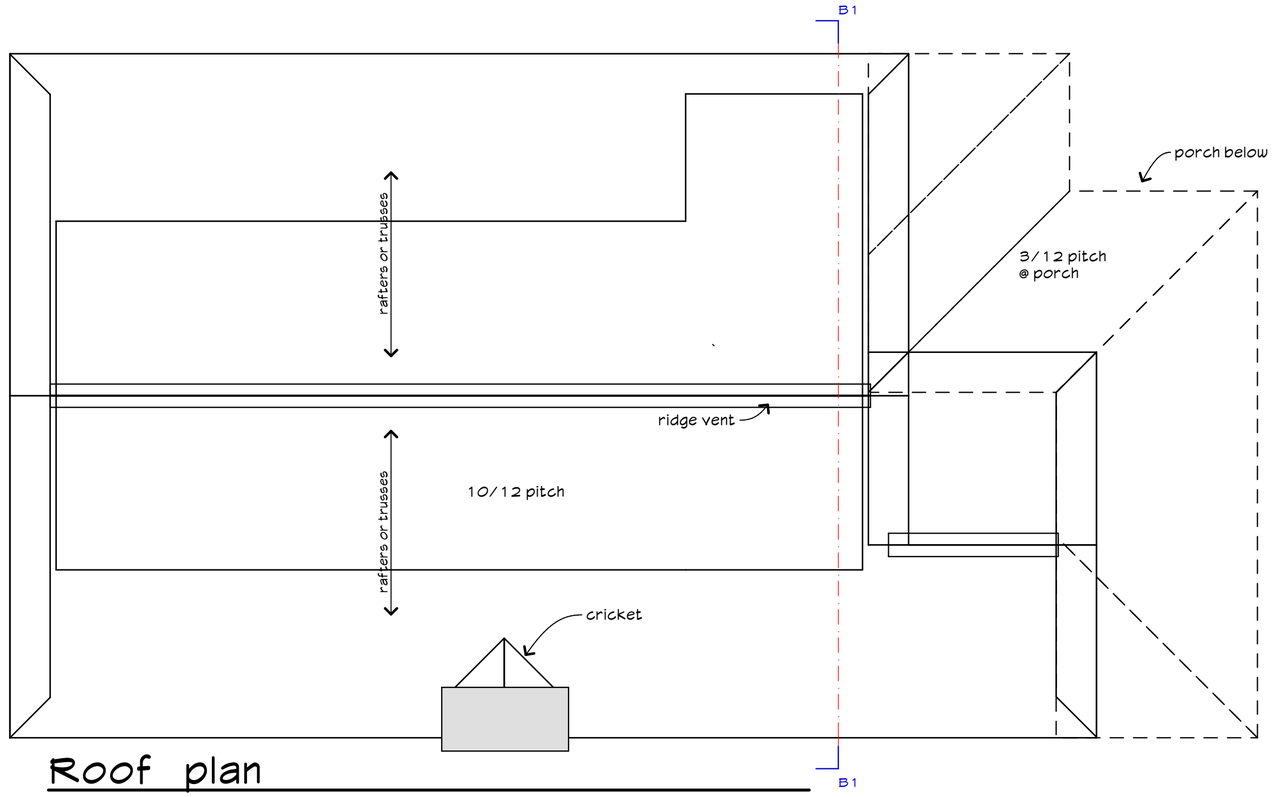
Rick Thompson - Architect

828-734-2553

www.thompsonplans.com

original print date
10/30/19

plan # 2401B



Roof plan

scale 3/16"= 1'-0"

F6 **Rail Detail**

scale 1"= 1'-0"

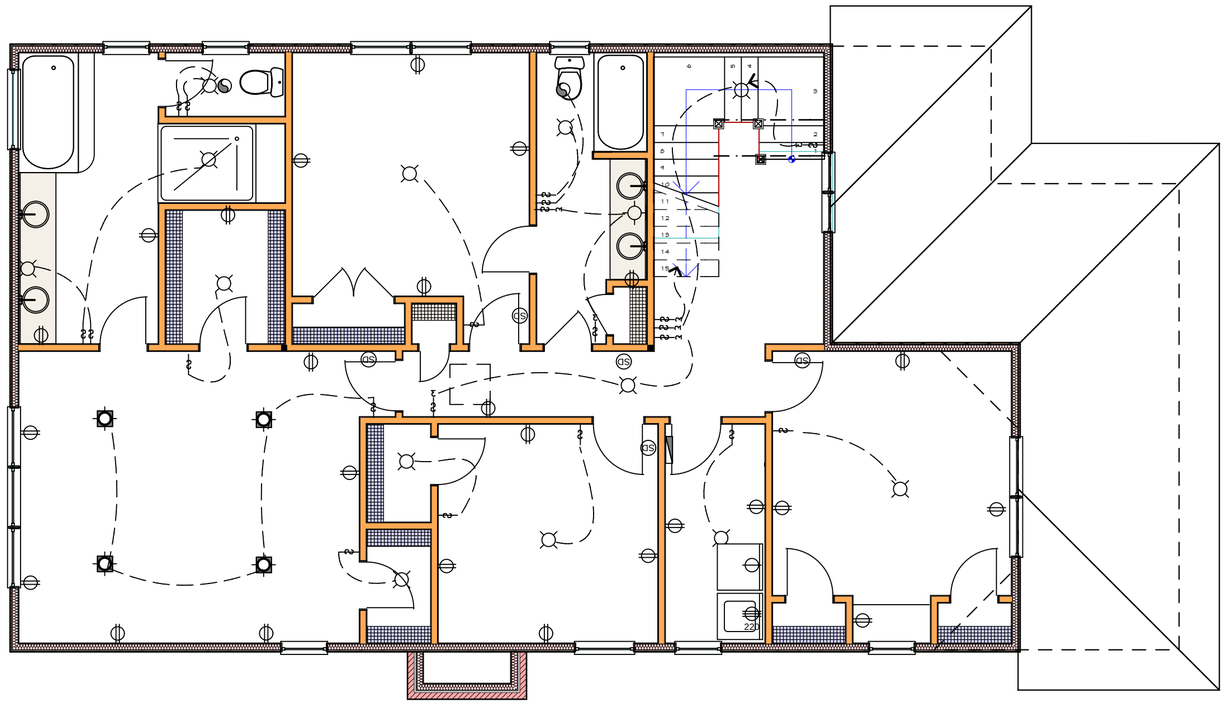
plan # 2401B

standard contract document

85 Hiaway Trail Clyde, NC 28721

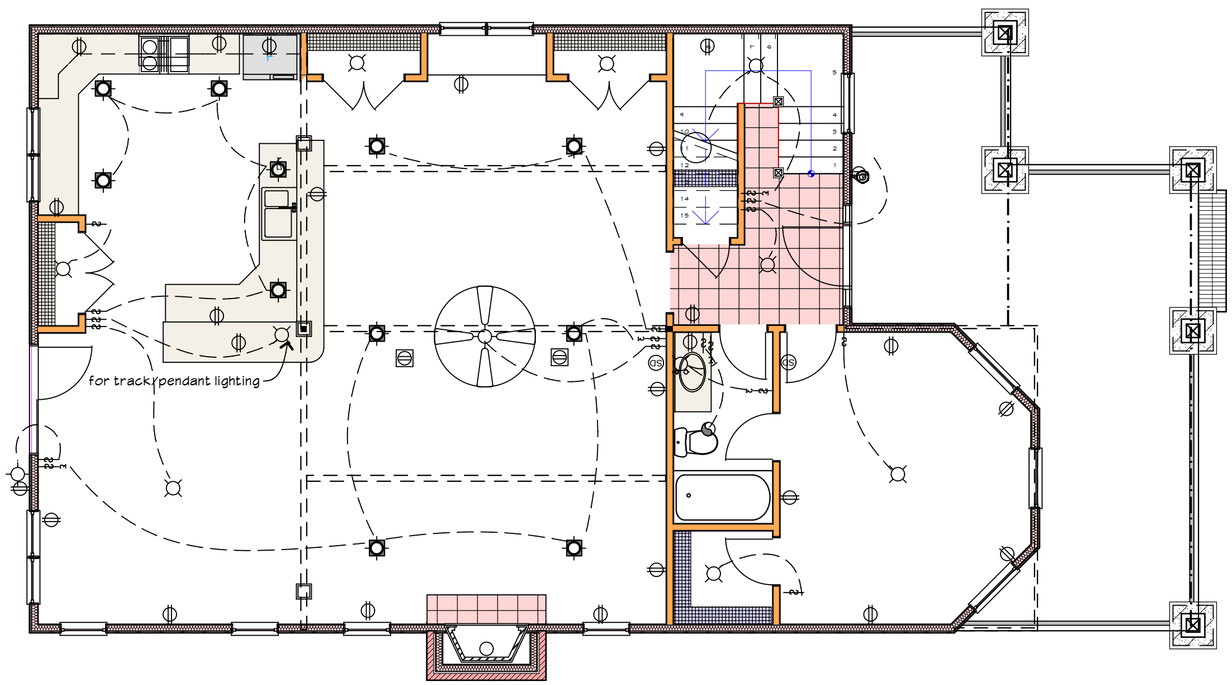
www.thompsonplans.com
Rick Thompson - Architect
828-734-2553

original print date
10/30/19



Electrical - Floor 2 Plan

scale 3/16" = 1'-0"



Electrical - Floor 1 Plan

plan # 2401B

standard contract document

85 Hiaway Trail Clyde, NC 28721

www.thompsonplans.com
Rick Thompson - Architect
828-734-2553

original print date
10/30/19