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#2 southern yellow pine (# 1 syp)				
floor joist		12" o.c.	16" o.c.	24" o.c.
40 psf live load	2x10	16'-2" @#2 (18'-0" @#1)	14'-0" @#2 (16'-1" @#1)	11'-5" @#2 (13'-5" @#1)
10 psf dead load (all rooms except sleeping)	2x12	14'-1" @#2 (21'-1" @#1)	16'-6" @#2 (11'-1" @#1)	13'-6" @#2 (15'-7" @#1)
30 psf live load	2x10	18'-1" @#2 (14'-1" @#1)	15'-8" @#2 (18'-0" @#1)	12'-10" @#2 (14'-8" @#1)
10 psf dead load (sleeping rooms @ L/3&O)	2x12	21'-4" @#2 (24'-2" @#1)	18'-6" @#2 (21'-4" @#1)	15'-1" @#2 (17'-5" @#1)
ceiling joist				
(GWB ceiling @ 10 psf dead load L/240)	2x6	13'-11" @#2 (15'-6" @#1)	12'-0" @#2 (14'-0" @#1)	9'-10" @#2 (11'-5" @#1)
	2x8	11'-7" @#2 (20'-5" @#1)	15'-3" @#2 (17'-4" @#1)	12'-6" @#2 (14'-6" @#1)
rafters				
20 psf live load	2x6	15'-7"	13'-6"	12'-3"
10 psf dead load	2x8	14'-8"	17'-1"	15'-7"
30 psf live load	2x6	12'-11"	11'-2"	9'-2"
10 psf dead load	2x8	16'-4"	14'-2"	11'-7"
50 psf live load	2x6	10'-6"	9'-2"	7'-5"
10 psf dead load (slope over 3/12 no finished cig @ L/240)	2x8	13'-4"	11'-7"	9'-5"
#2 S-P-F (spruce-pine-fir)				
floor joist		12" o.c.	16" o.c.	24" o.c.
40 psf live load	2x10	17'-3"	15'-5"	12'-7"
10 psf dead load (all rooms except sleeping)	2x12	20'-7"	17'-10"	14'-7"
30 psf live load	2x10	14'-0"	17'-2"	14'-1"
10 psf dead load (sleeping rooms @ L/3&O)	2x12	23'-0"	14'-11"	16'-3"
ceiling joist				
(GWB ceiling @ 10 psf dead load L/240)	2x6	14'-9"	12'-10"	10'-6"
	2x8	18'-4"	16'-3"	13'-3"
	2x10	22'-11"	14'-10"	16'-3"
rafters				
20 psf live load	2x6	16'-3"	14'-4"	11'-9"
10 psf dead load	2x8	21'-0"	18'-2"	14'-10"
30 psf live load	2x6	13'-9"	11'-11"	14'-9"
10 psf dead load	2x8	17'-5"	15'-1"	12'-4"
50 psf live load	2x6	11'-3"	9'-4"	7'-11"
10 psf dead load (slope over 3/12 no finished cig @ L/1&O)	2x8	14'-3"	12'-4"	10'-1"

2015 IRC and the 2018 NGRG

### abbreviations

c.j	ceiling joist
cig.	ceiling
CMU	concrete masonry unit
C.O	cased opening
conc.	concrete
CT.	ceramic tile
dbl.	double
dj	double joist
ew.	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
WH.	water heater
WNM	welded wire mesh
yp	yellow pine

The Small Print - These house plans are not licensed to anyone other than the party listed on each sheet. They are not transferable to any builder, or subcontractor who is hired to build the house, nor their friends nor their family. If any modifications are made to these plans with a PDF editor, they must include the persons name who is changing these plans, and the date of the changes. If the type font anywhere on these drawings is different than this, it has been altered. PDF's are now the industry standard. I appreciate the plan reviewers who have given me feedback on this issue. I try to provide very good house plans and they are very reasonably and fairly priced. I am happy to sell them, and appreciate those who do not steal them, but rather purchase them legally. Thank you, Rick Thompson

Thank you for your purchase of these house plans.

These plans are designed to conform to the 2015 IRC, 2021 IRC and the 2018 NGRG 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 location.

### 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 engineered for their product.

### 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

Continuous 7/16" o.s.b sheathing - typical  
 Wall bracing shall be in accordance with IRC/NGRC 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 method C5-WSP 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 6B, 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 shall be located on exterior walls within 8 feet of the location of the rectangle side.  
 4. Interior braced wall panels using Method 6B 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 6B is 48", and the 0.5 accounts for 6B being half the strength of other methods except L1B.  
 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. C5-WSP Continuous sheathed WSP method to have - Minimum braced material thickness or size 7/16". Minimum brace 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(5). Space 6" edges and 12" field.

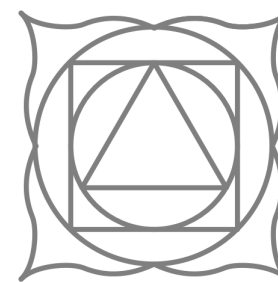
### General Notes

- 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.
- 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.

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## Universal Design Notes

Visible entrance - provide at least one zero step entrance to the floor of the home that contains access to the central living area.

The zero step entrance must be connected to the public street or sidewalk, or drive by a path of travel which does not include a running slope in access or 1:12 (8.33%), and a cross slope not to exceed 1:50 (2%). The path of travel may include changes that do not exceed 1/2". Level changes between 1/4" and 1/2" must be beveled.

Environmental controls - Light switches, thermostats, and breaker boxes must be no higher than 48" above the finish floor, measured to the top of the control. Electrical receptacles must be located no less than 18" above the finished floor, measured to the bottom of the lowest receptacle. Thermostats, breaker boxes, and security system controls, if provided must be located on the floor of the central living area.

Basic gripping features - Throughout the home include all the following features: Lever hardware on all doors, lever facets, and D-pull type or C type cabinet hardware.

Kitchen features -

A kitchen sink with knee-space below.

A cooktop or stove with controls at the front, and with knee space below or beside it.

At least 1/3 or the storage shelves and cabinets must be rotating shelves, pull-down shelves, or no higher than 48" above the finished floor.

Include one bedroom with the following features -

Area to accommodate a bed with a 5' diameter clear turning circle.

A clothes closet with an adjustable hanging rod. At least half the storage shelves must be pull down shelves, height-adjustable shelves, or located no higher than 48".

Bath to have adjustable height or hand-held shower head.

See plans for grab bars and clear floor space.

Lot 2

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# General crawl notes

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

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 air supplied as per IRC - R409

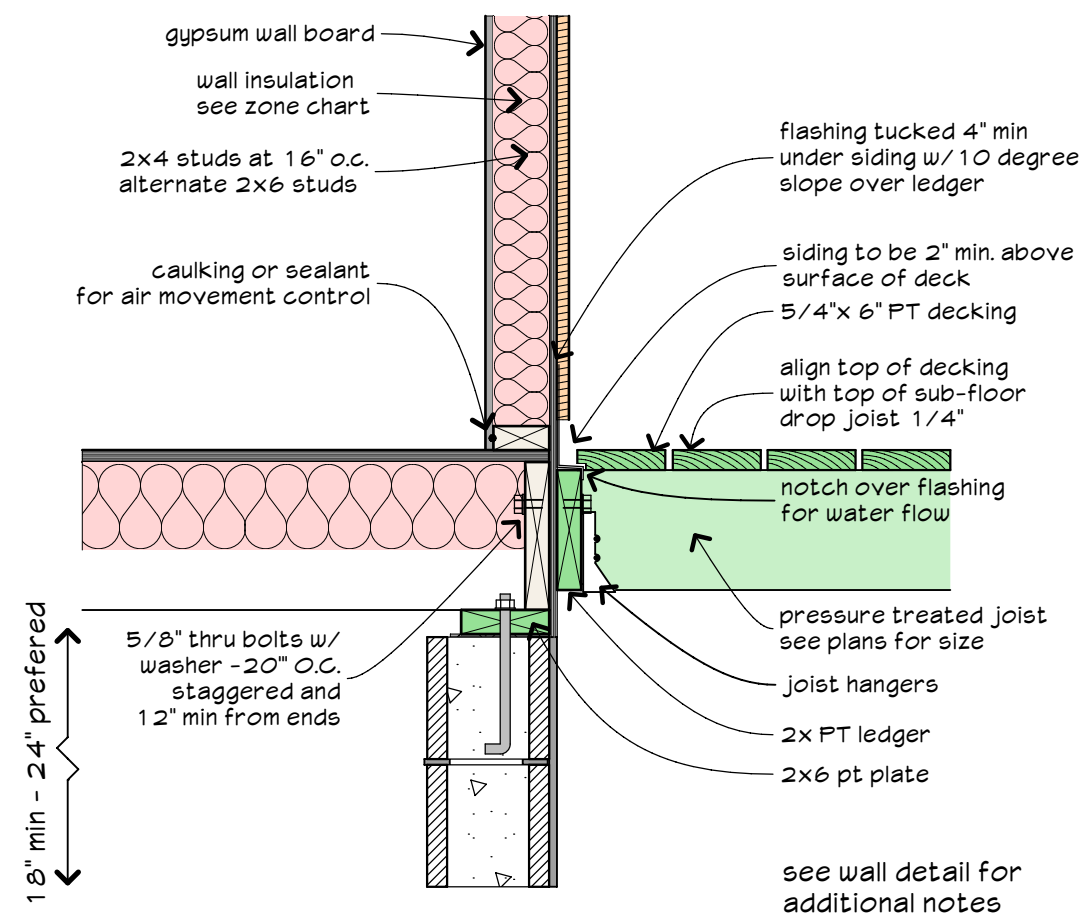
Fill piers solid with grout. Pier block size shown is minimum. May vary as per foundation height.

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

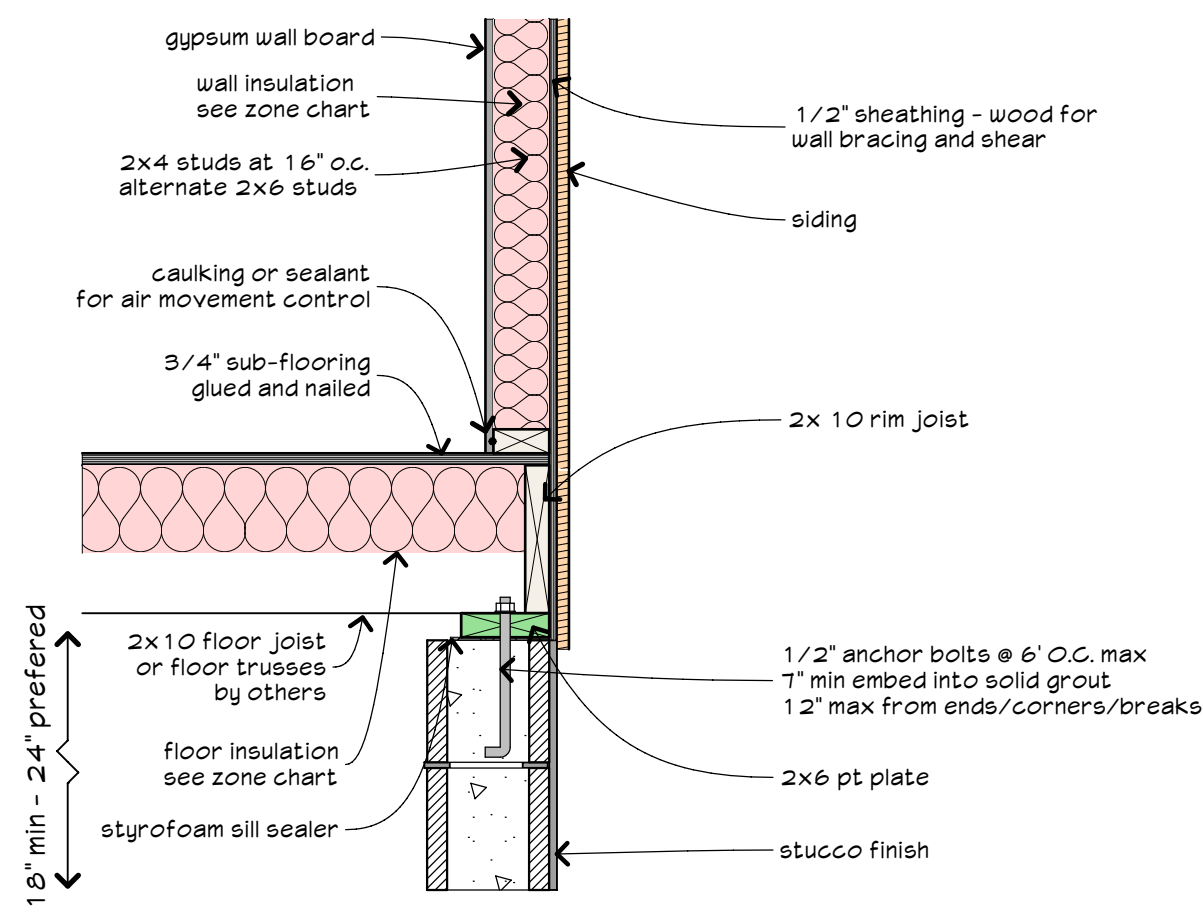
Footing sizes and reinforcement are assumed. Soil conditions vary and must be taken into account. Inspectors can allow builders to adjust the use of rebar and footing sizes as per local conditions.

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. See separate drawing for LVL's

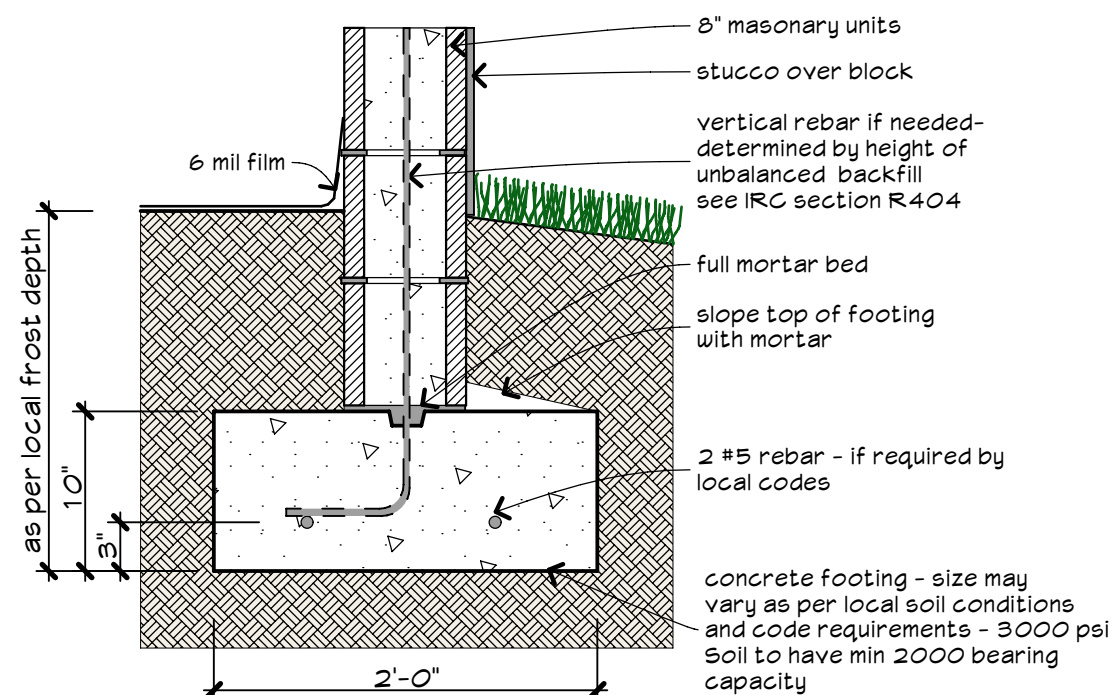
Separate double joist under plumbing walls @ 1/2"



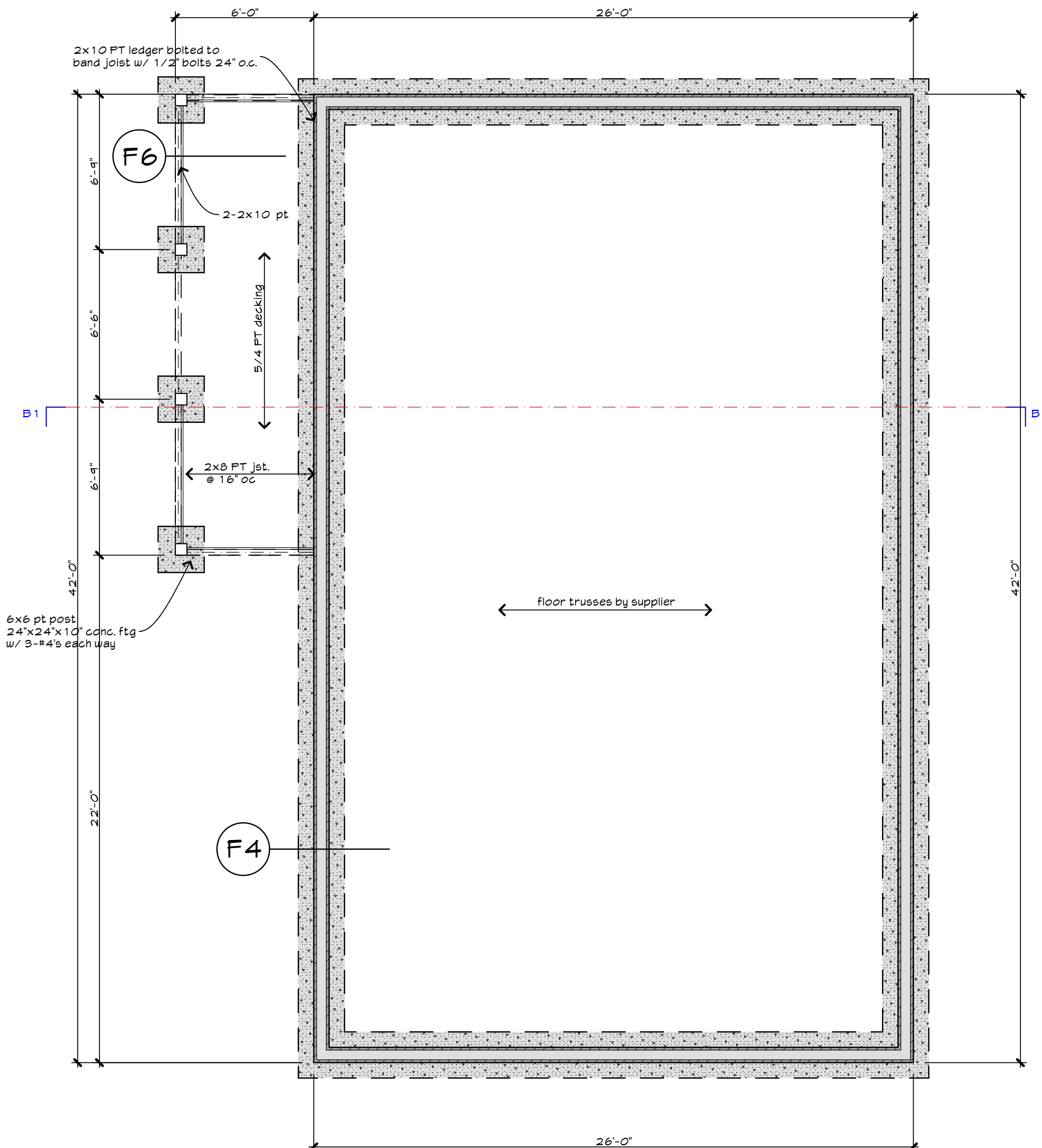
**W5** Wall detail FI 1  
scale 1" = 1'-0"



**W1** Wall detail FI 1  
scale 1" = 1'-0"



**F4** Foundation - block wall  
scale 1" = 1'-0"

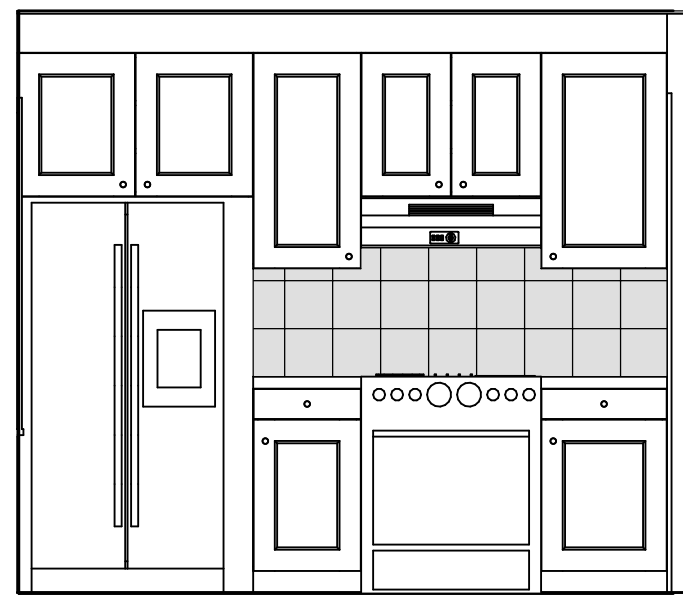


**Crawl Foundation Plan**  
scale 1/4" = 1'-0"

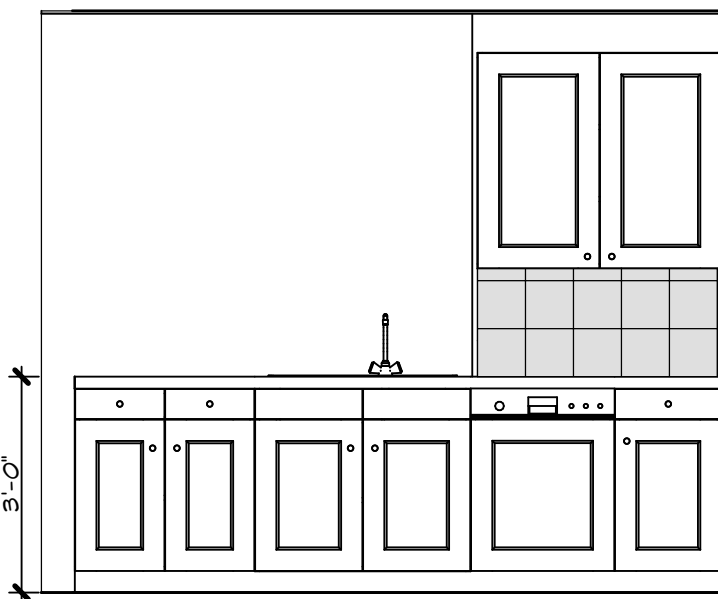
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plan # UD 100 1Fm



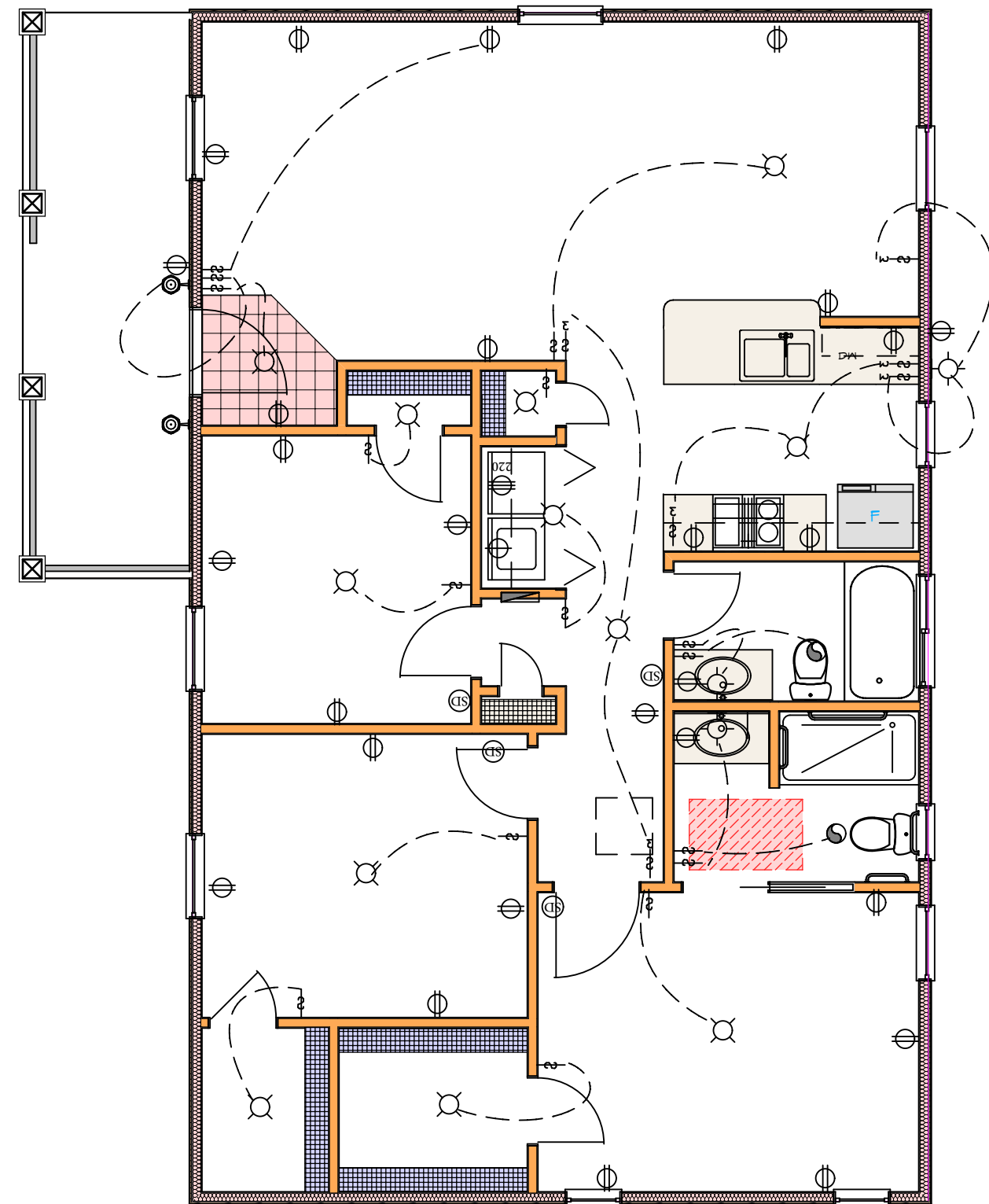
**Kitchen Cabinets 1**  
Scale 3/8" = 1'-0"



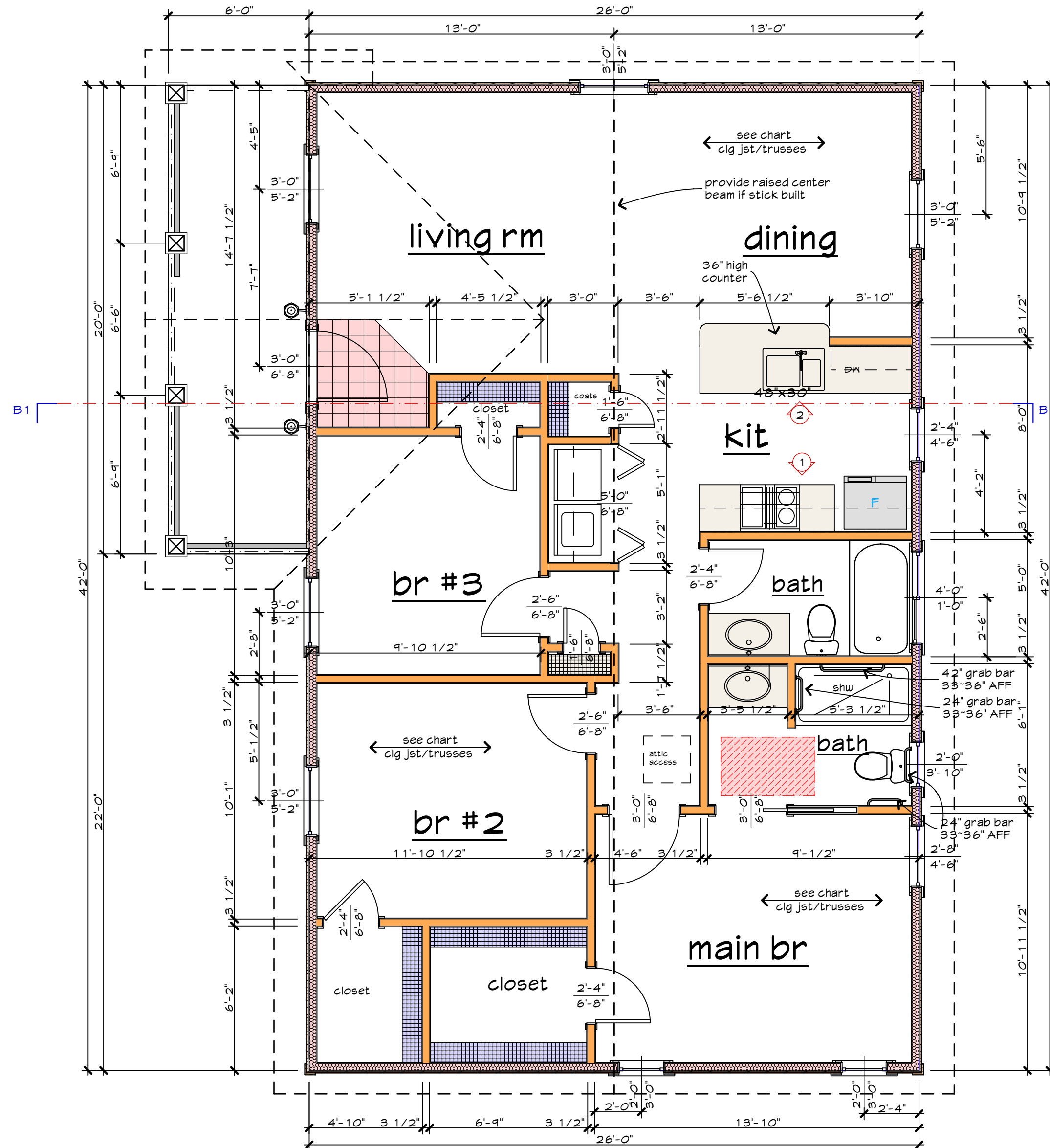
**Kitchen Cabinets 2**  
Scale 3/8" = 1'-0"

Door List				
Width	Height	Name	Type	Quantity
1'-6"	6'-8"	RDO2 Swing	Interior	2
2'-4"	6'-8"	RDO2 Swing	Interior	4
2'-6"	6'-8"	RDO2 Swing	Interior	2
3'-0"	6'-8"	RDO2 Swing	Interior	1
3'-0"	6'-8"	RDO6 Pocket	Interior	1
3'-0"	6'-8"	RDO1 Door ST	Exterior	1
5'-0"	6'-8"	RDO5 Bifold	Interior	1
				<b>12</b>

Window List			
W x H Size	Units	Window Type	Quantity
1'-6"x2'-6"	Attic Vent	Vent Window 26	2
2'-0"x3'-0"	Single	RN 1-4 Doublehung	2
2'-0"x3'-10"	Single	RN 1-4 Doublehung	1
2'-4"x4'-6"	Single	RN 1-4 Doublehung	1
2'-8"x4'-6"	Single	RN 1-4 Doublehung	1
3'-0"x5'-2"	Single	RN 1-4 Doublehung	4
3'-0"x5'-2"	Twin	RN 1-4 Doublehung	1
4'-0"x1'-0"	Single	RN 1-6 Glider	1
			<b>13</b>



**Electrical - Floor Plan**  
scale 3/16" = 1'-0"



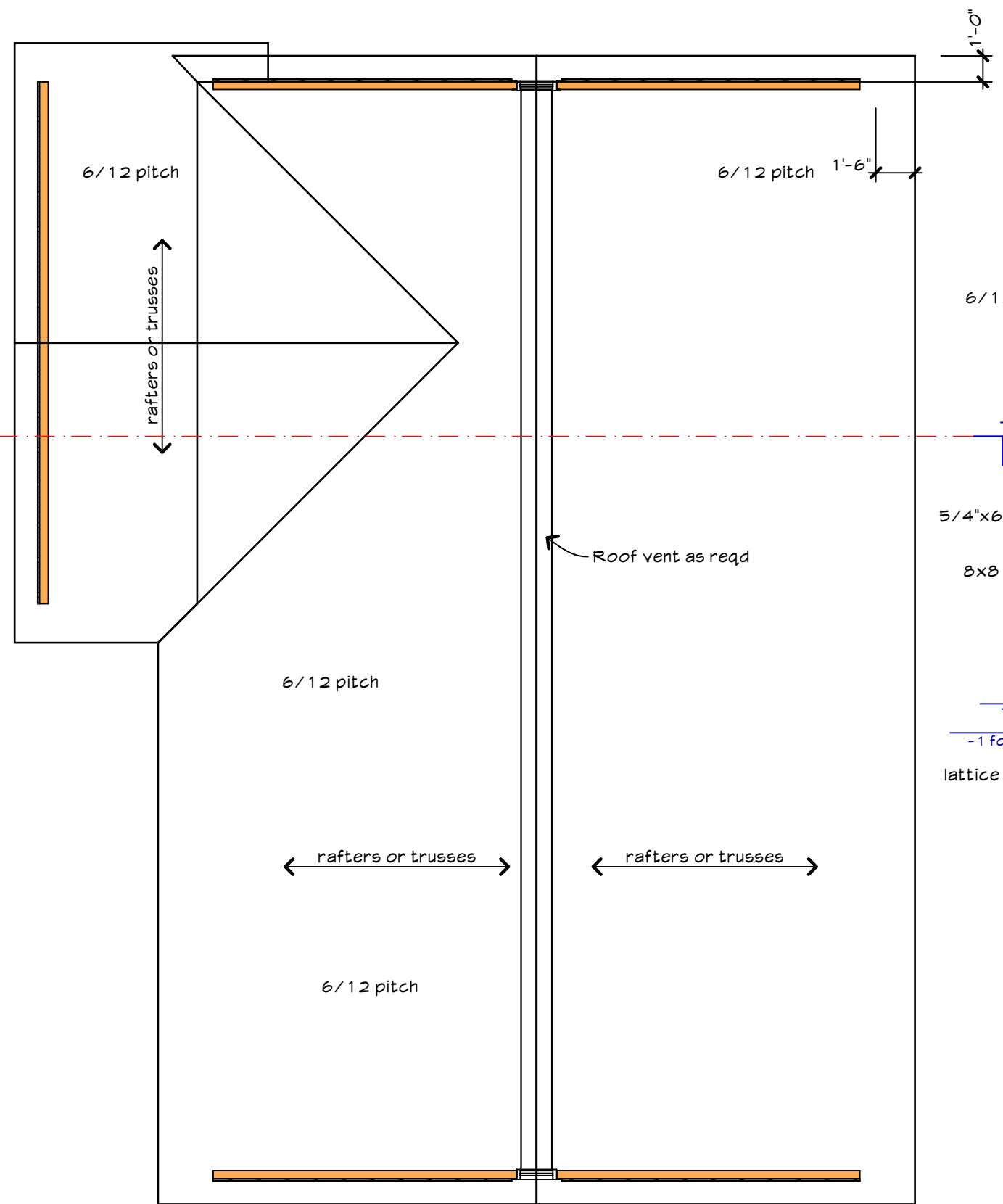
**Floor 1 plan**  
Floor 1 plan 1092 sq.ft.  
scale 1/4" = 1'-0"

standard contract document

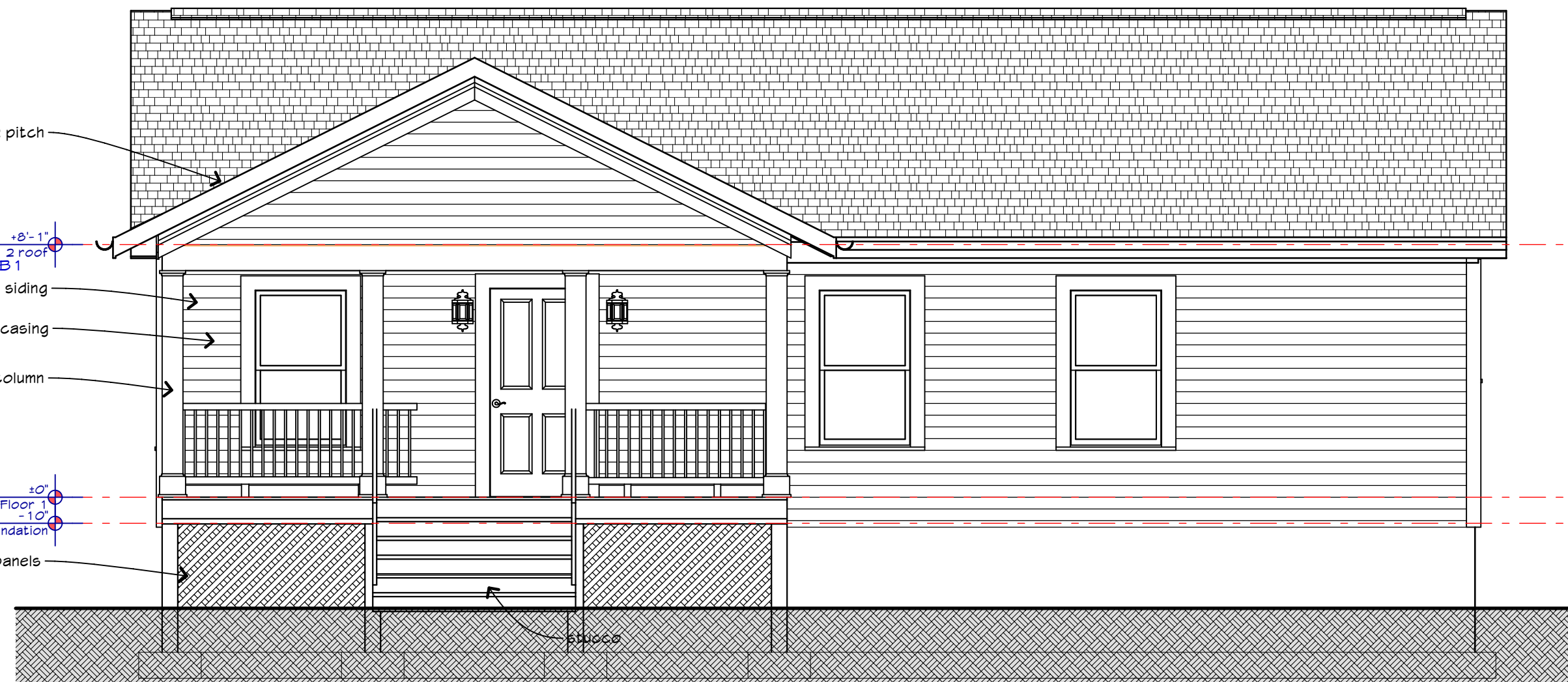
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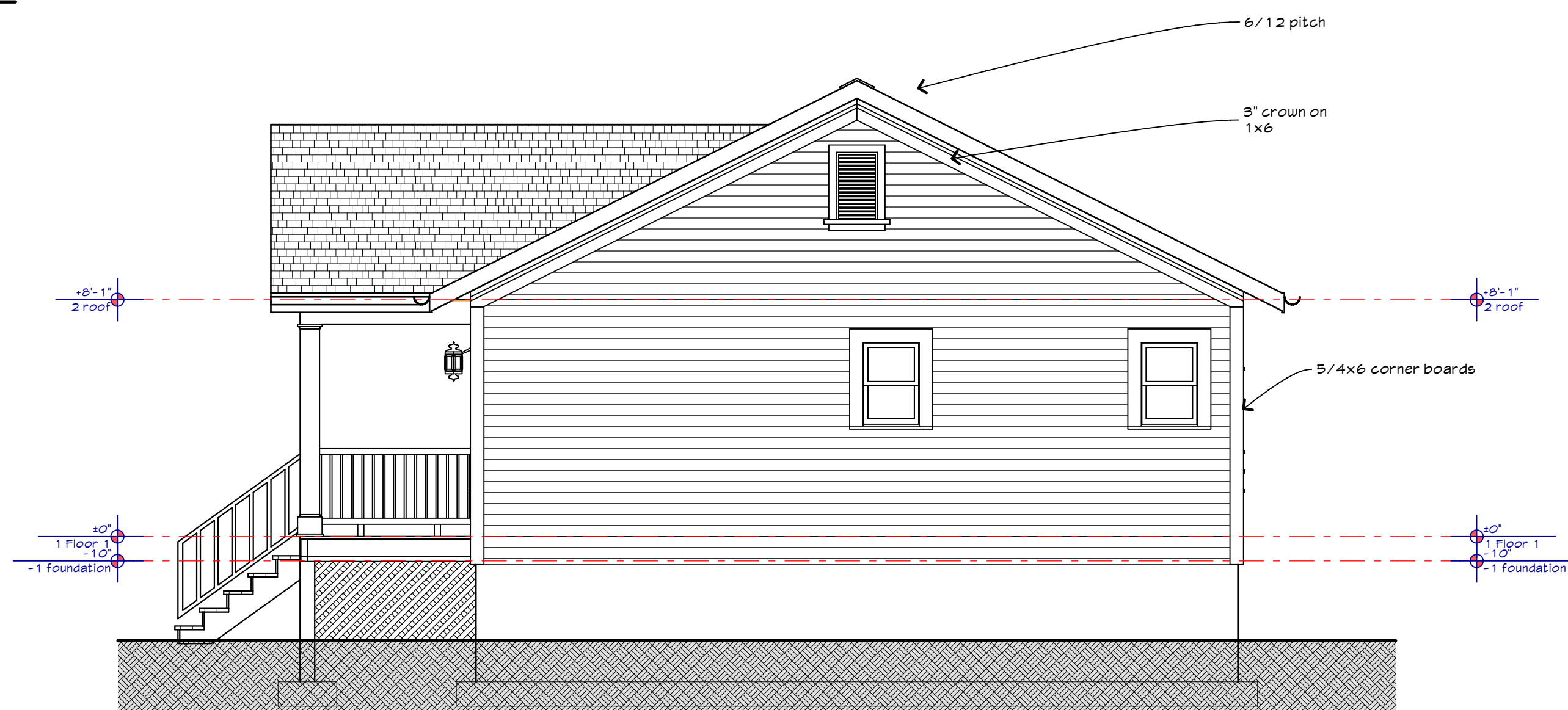
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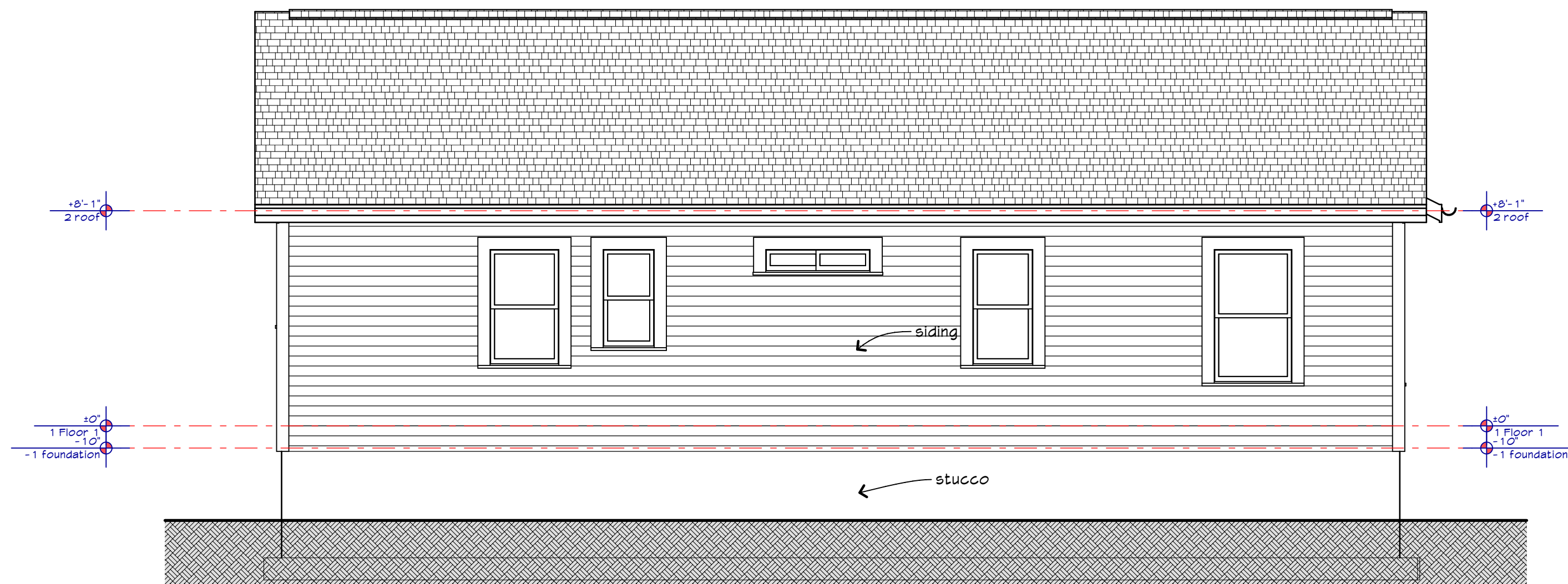
**Roof plan**  
scale 3/16" = 1'-0"



**Front Elevation**  
scale 1/4" = 1'-0"

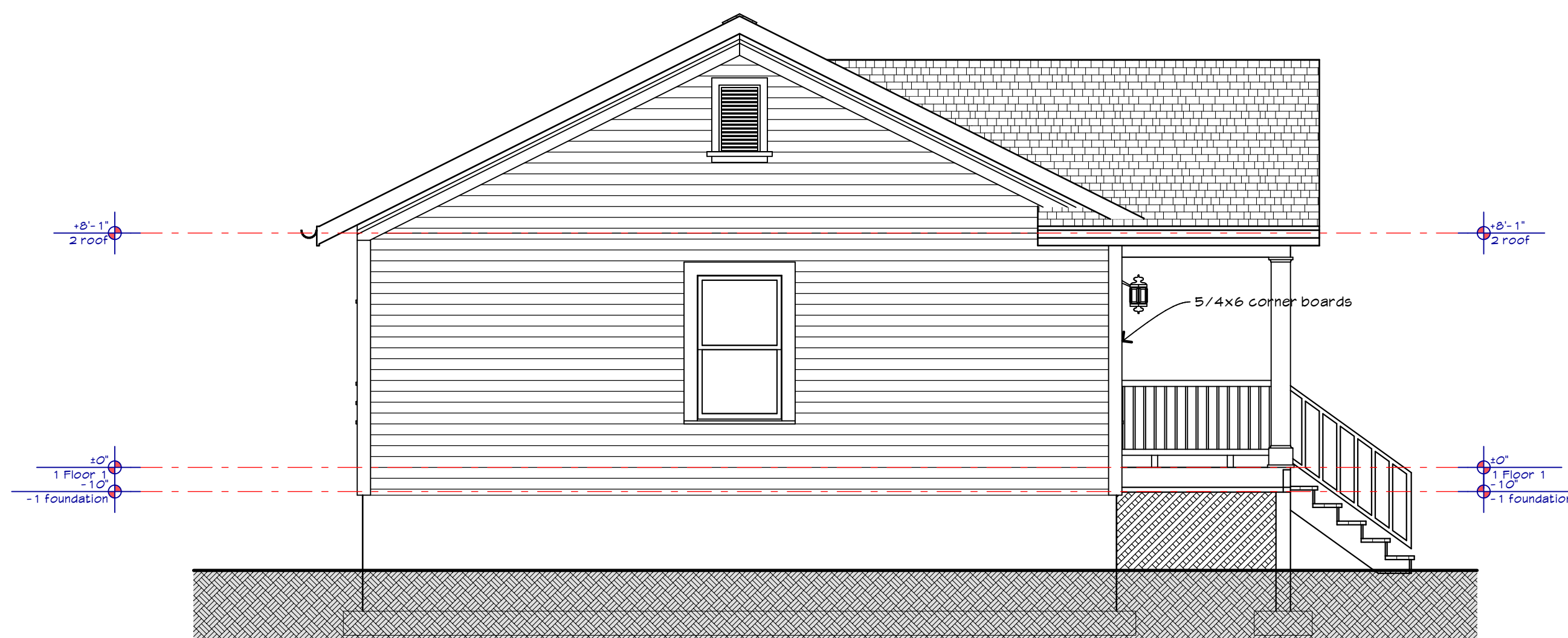


**Right Side Elevation**  
scale 1/4" = 1'-0"



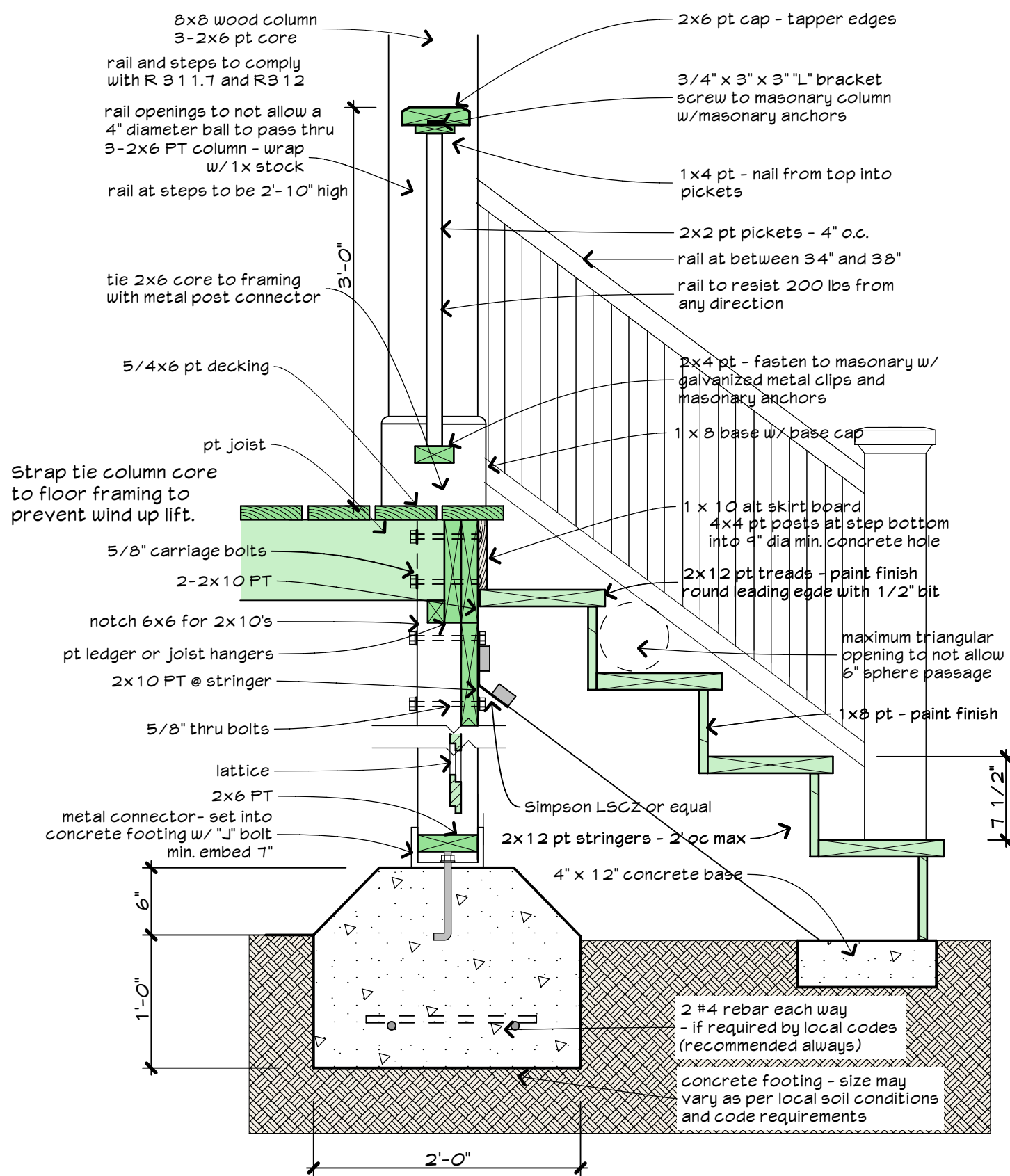
### Rear Elevation

scale 1/4" = 1'-0"

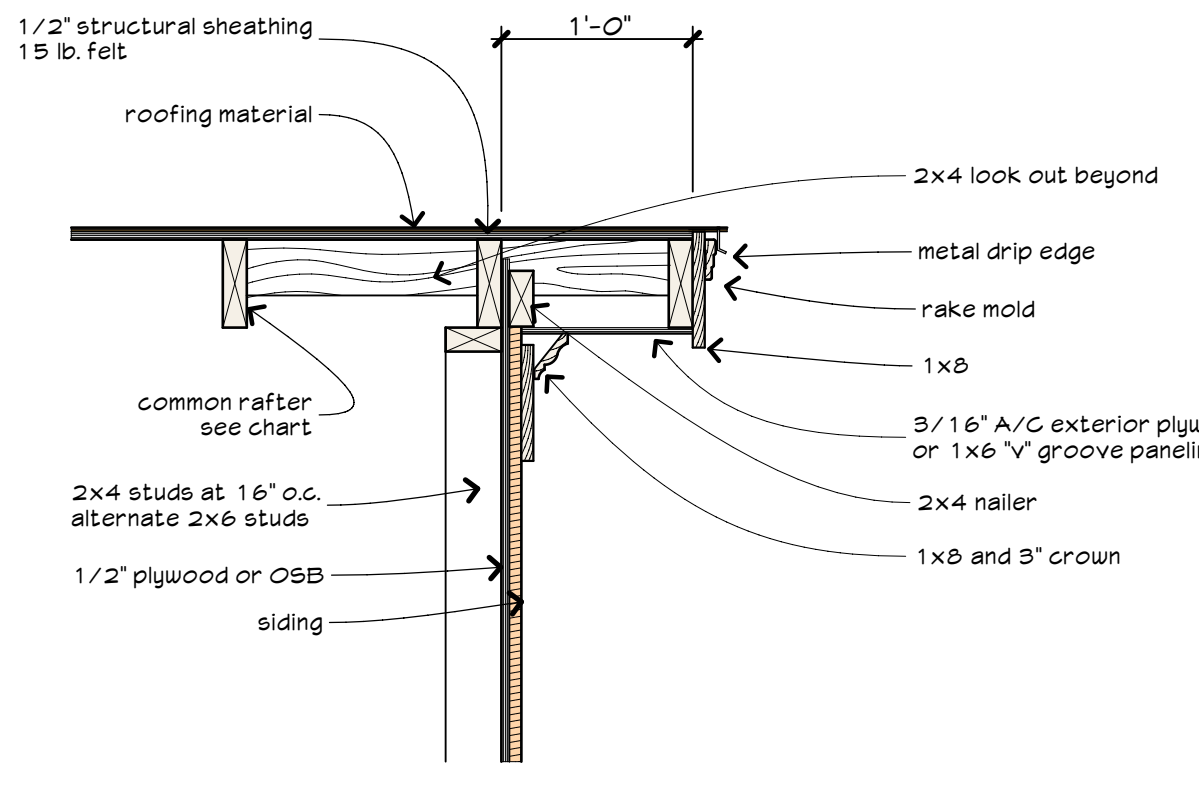


### Left Side Elevation

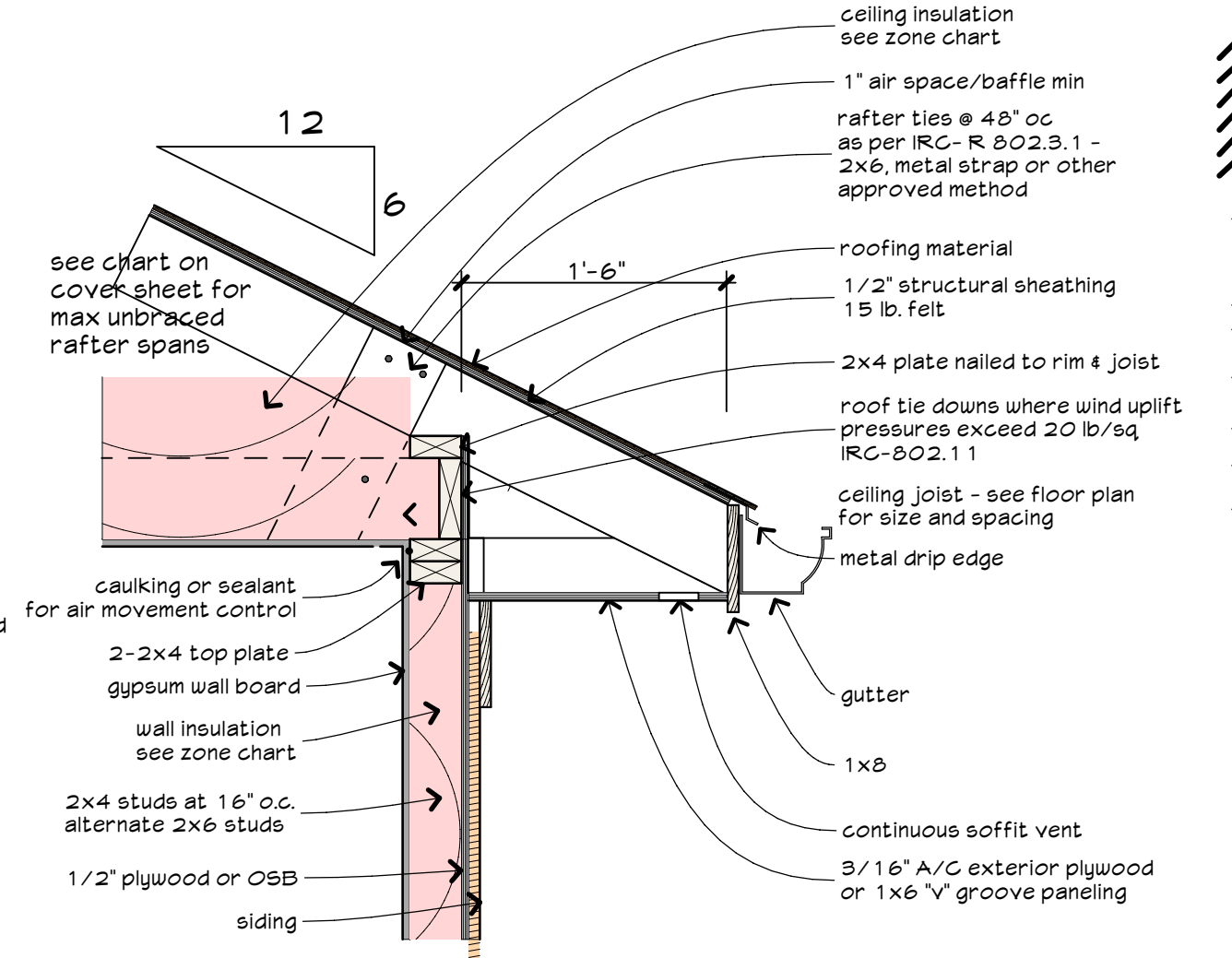
scale 1/4" = 1'-0"



**F6** Porch Detail  
scale 1" = 1'-0"



**E4** Typical Rake - boxed soffit  
scale 1" = 1'-0"



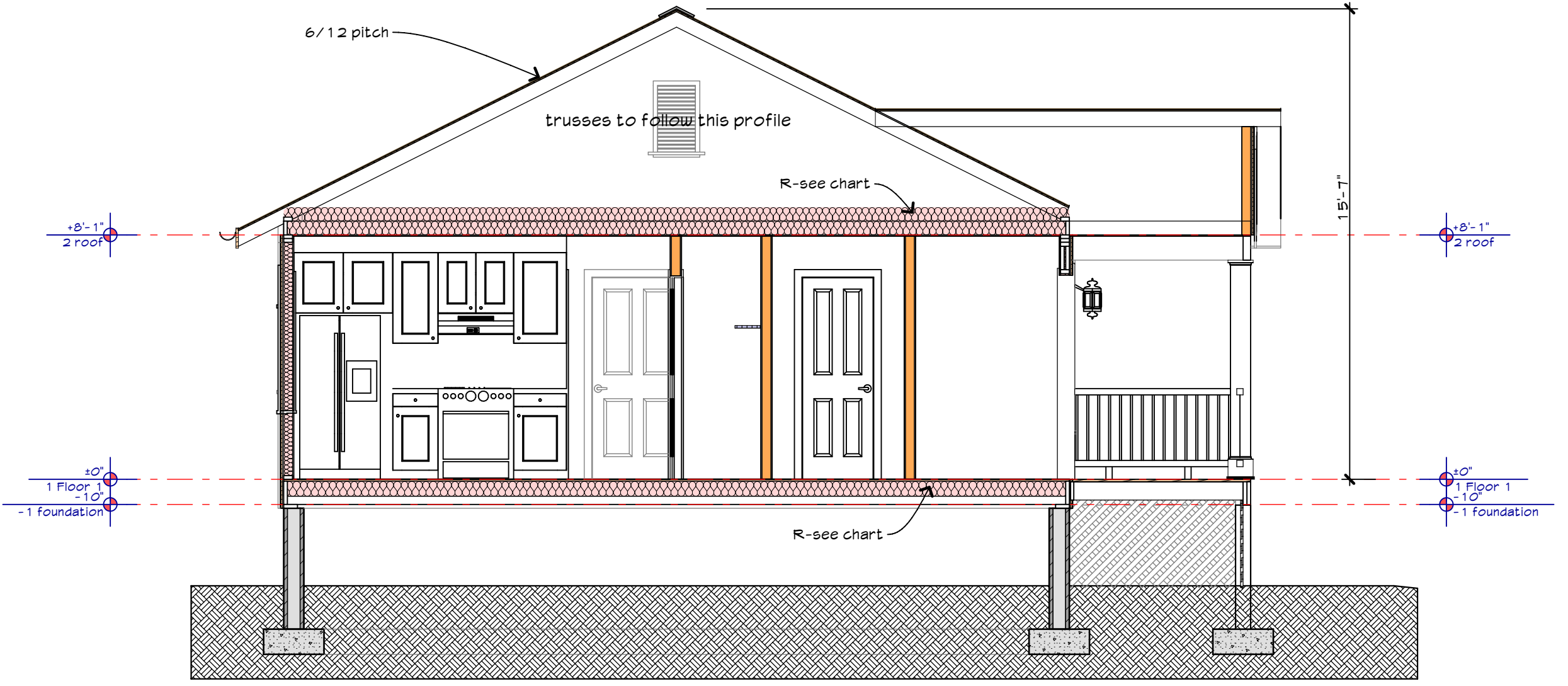
**E1** Typical Boxed Eave - rafters on joist  
scale 1" = 1'-0"

**Minimum Insulation Chart**

Table N1102.1 - IRC 2015 & (2018 NRC - in parentheses)  
Insulation and fenestration requirements by components \*

Climate Zone	Glazing U-factor	Glazes Fenestration SHGC <sup>g</sup>	Ceilings R-value	Wood frame wall R-value	Floors R-value	Basement <sup>c</sup> walls R-value	Slab <sup>d</sup> perimeter R-value and depth	Crawl space <sup>e</sup> 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	20 or (15 or 13.5) <sup>h</sup> 13.5 <sup>h</sup> 13.5 <sup>h</sup>	19	5/13 <sup>i</sup>	0	5/13
4	.35	.40	49 (38 or 30) <sup>g</sup>	20 or (15 or 13.5) <sup>h</sup> 13.5 <sup>h</sup> 13.5 <sup>h</sup>	19	10/13 (10/13)	10.2 (10/13)	10/13 (10/13)
5 <sup>f</sup> Marine	.32	NR	49	20 or (15 or 13.5) <sup>h</sup> 13.5 <sup>h</sup> 13.5 <sup>h</sup>	30 <sup>g</sup>	10/13 (10/13)	10.2 (10/13)	10/13 (10/13)
6	.32	NR	49	20 or (15 or 13.5) <sup>h</sup> 13.5 <sup>h</sup> 13.5 <sup>h</sup>	30 <sup>g</sup>	15/19	10.2 (10/13)	15/19 (10/13)
7	.32	NR	49	20 or (15 or 13.5) <sup>h</sup> 13.5 <sup>h</sup> 13.5 <sup>h</sup>	30 <sup>g</sup>	15/19	10.4	15/19
8	.32	NR	49	20 or (15 or 13.5) <sup>h</sup> 13.5 <sup>h</sup> 13.5 <sup>h</sup>	30 <sup>g</sup>	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 SHGC 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.  
d - "10/13" 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.  
e - 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 the 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.  
f - There are no solar heat gain coefficient (SHGC) requirements in the Marine Zone.  
g - Basement wall insulation is not required in warm-humid locations as defined by Figure 301.1 and Table 301.1.  
h - Or insulation sufficient to fill the framing cavity. R-15.  
i - "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.  
j - 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"

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