



FRONT ELEVATION

WITH SIDE LOAD OPTION

SCALE 1/8" = 1'-0"

GUARD RAIL NOTES

R312.1 Where required. Guards shall be located along open-sided walking surfaces, including stairs, ramps and landings, that are located more than 30 inches (762 mm) measured vertically to the floor or grade below at any point within 36 inches (914 mm) horizontally to the edge of the open side. Insect screening shall not be considered as a

R312.2 Height. Required guards at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 36 inches (914 mm) high measured vertically above the adjacent walking surface, adjacent fixed seating or the line connecting the leading edges of the

treads. **Exceptions:**

1. *Guards* on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.

2. Where the top of the *guard* also serves as a handrail on the open sides of stairs, the top of the *guard* shall not be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.

R312.3 Opening limitations. Required guards shall not have openings from the walking surface to the required *guard* height which allow passage of a sphere 4 inches (102 mm)in

Exceptions:

1. The triangular openings at the open side of a stair, formed by the riser, tread and bottom rail of a *quard*, shall not allow passage of a sphere 6 inches (153 mm) in diameter. 2. Guards on the open sides of stairs shall not have openings which allow passage of a sphere 4 3/8 inches (111 mm) in diameter.

AIR LEAKAGE

N1102.4.1 Building thermal envelope. The building thermal envelope shall be durably sealed with an air barrier system to limit infiltration. The sealing methods between dissimilar materials shall allow for differential expansion and

contraction. For all homes, where present, the following shall be caulked, gasketed, weather stripped or otherwise sealed with an air barrier material or solid material consistent with Appendix E-2.4 of this code:

1. Blocking and sealing floor/ceiling systems and under knee walls open to unconditioned or exterior space. 2. Capping and sealing shafts or chases, including flue shafts.

3. Capping and sealing soffit or dropped ceiling areas.

PLANS DESIGNED TO THE 2018 NORTH CAROLINA STATE RESIDENTIAL BUILDING CODE

MEAN	ROOF	HEIGHT:	24'-11"

HEIGHT TO RIDGE: 30'-9"

CLIMATE ZONE	ZONE 3A	ZONE 4A	ZONE 5A
FENESTRATION U-FACTOR	0.35	0.35	0.35
SKYLIGHT U-FACTOR	0.55	0.55	0.55
GLAZED FENESTRATION SHGC	0.30	0.30	0.30
CEILING R-VALUE	38 or 30ci	38 or 30ci	38 or 30ci
WALL R-VALUE	15	15	19
FLOOR R-VALUE	19	19	30
* BASEMENT WALL R-VALUE	5/13	10/15	10/15
** SLAB R-VALUE	0	10	10
* CRAWL SPACE WALL R-VALUE	5/13	10/15	10/19

* "10/13" MEANS R-10 SHEATHING INSULATION OR R-13 CAVITY INSULATION ** INSULATION DEPTH WITH MONOLITHIC SLAB 24" OR FROM INSPECTION GAP TO BOTTOM OF

 MEAN ROOF
 UP TO 30'
 30'-1" TO 35'
 35'-1" TO 40'
 40'-1" TO 45'

 ZONE 1
 14.2
 -15.0
 14.9
 -15.8
 15.5
 -16.4
 15.9
 -16.8

14.2 -18.0 14.9 -18.9 15.5 -19.6 15.9 -20.2

14.2 -18.0 14.9 -18.9 15.5 -19.6 15.9

ZONE 4	15.5	-16.0	16.3	-16.8	16.9	-1/.4	17.4	-17.9			
ZONE 5	15.5	-20.0	16.3	-21.0	16.9	-21.8	17.4	-22.4			
DESIGNED FOR WIND SPEED OF 130 MPH, 3 SECOND GUST (101 FASTEST MILE) EXPOSURE "B"											
COMPONENT & CLADDING DESIGNED FOR THE FOLLOWING LOADS											
MEAN ROOF	UP T	O 30'	30'-1"	TO 35'	35'-1"	TO 40'	40'-1"	TO 45'			
ZONE 1	16.7	-18.0	17.5	-18.9	18.2	-19.6	18.7	-20.2			
ZONE 2	16.7	-21.0				-22.9	18.7	-23.5			
ZONE 3	16.7	-21.0	17.5	-22.1	18.2	-22.9	18.7	-23.5			
ZONE 4	18.2	-19.0	19.1	-20.0	19.8	-20.7	20.4	-21.3			
ZONE 5	18.2	-24.0	19.1	-25.2	19.8	-26.2	20.4	-26.9			

ROOF VENTILATION

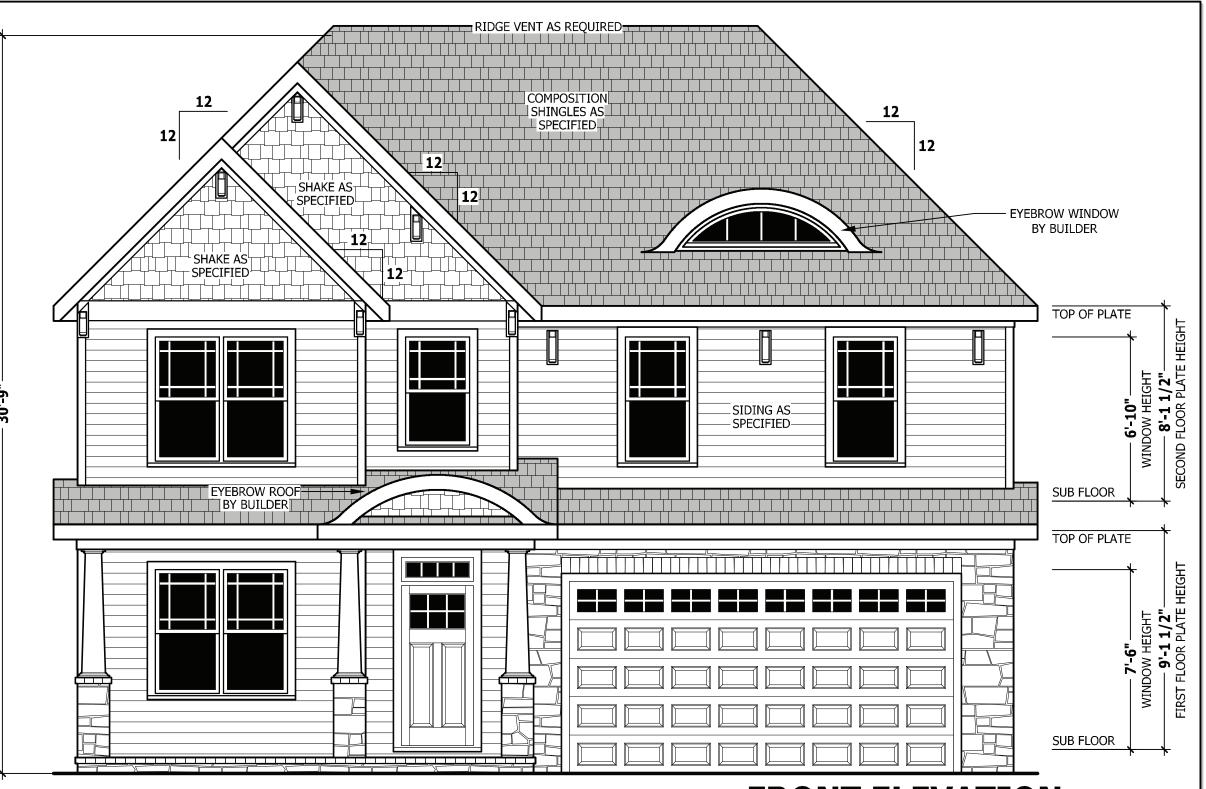
R806.1 Ventilation required. Enclosed *attics* and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain or snow. Ventilation openings shall have a least dimension of 1/16 inch (1.6 mm) minimum and 1/4 inch (6.4 mm) maximum. Ventilation openings having a least dimension larger than 1/4 inch (6.4 mm) shall be provided with corrosion-resistant wire cloth screening, hardware cloth, or similar material with openings having a least dimension of 1/16 inch (1.6 mm) minimum and 1/4 inch (6.4 mm) maximum. Openings in roof framing members shall conform to the requirements of Section R802.7.

R806.2 Minimum area. The total net free ventilating area shall not be less than 1/150 of the area of the space ventilated except that reduction of the total area to 1/300 is permitted provided that at least 50 percent and not more than 80 percent of the required ventilating area is provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet (914 mm) above the eave or cornice vents with the balance of the required ventilation provided by eave or cornice vents. As an alternative, the net free cross-ventilation area may be reduced to 1/300 when a Class I or II vapor retarder is installed on the warm-in-winter side of the ceiling. Exceptions:

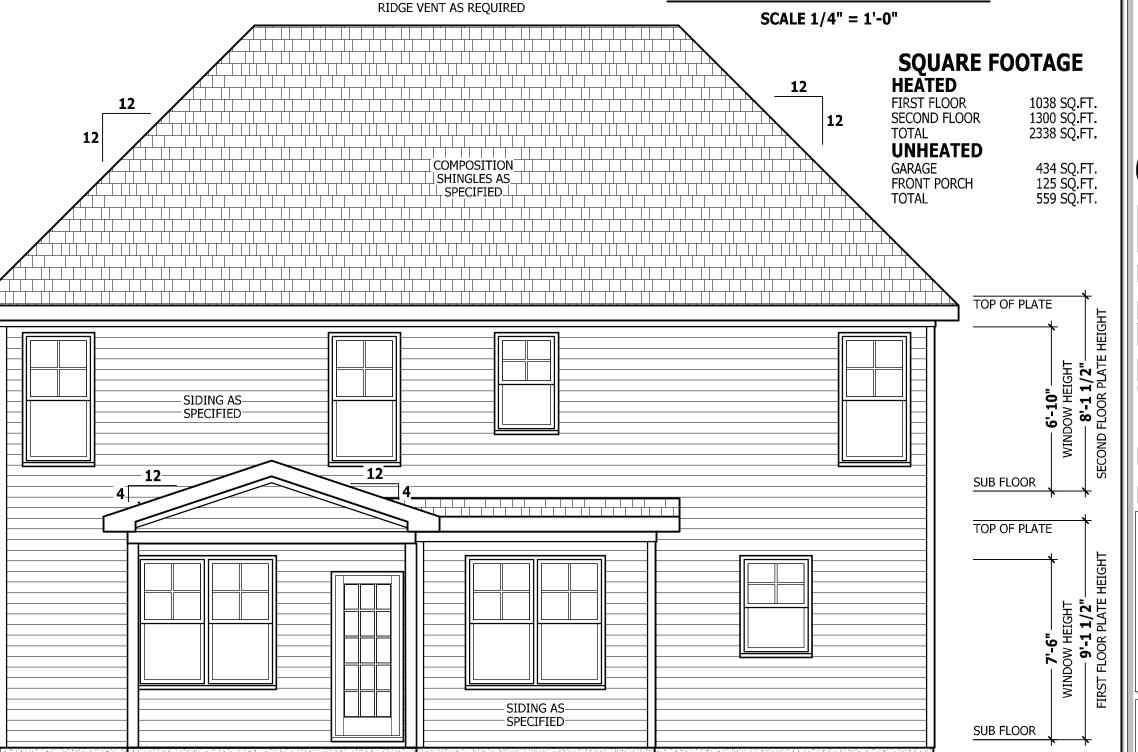
- 1. Enclosed attic/rafter spaces requiring less than 1 square foot (0.0929 m2) of ventilation may be vented with continuous soffit ventilation only.
- 2. Enclosed attic/rafter spaces over unconditioned space may be vented with continuous soffit vent only.

SQUARE FOOTAGE OF ROOF TO BE VENTED = 1,597 SQ.FT. NET FREE CROSS VENTILATION NEEDED:

WITHOUT 50% TO 80% OF VENTING 3'-0" ABOVE EAVE = 10.64 SQ.FT. WITH 50% TO 80% OF VENTING 3'-0" ABOVE EAVE; OR WITH CLASS I OR II VAPOR RETARDER ON WARM-IN-WINTER SIDE OF CEILING = 5.32 SQ.FT.







REAR ELEVATION

SCALE 1/4" = 1'-0"

PLIRCHASER MUST VERTEY ALL EFORE CONSTRUCTION BEGIN HAYNES HOME PLANS, INC. ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND

CODES AND CONDITIONS MAY DESIGNER, ARCHITECT OR GINEER SHÓULD BE CONSULTEI

BEFORE CONSTRUCTION. THESE DRAWING ARE NSTRUMENTS OF SERVICE AND

PROPERTY OF THE DESIGNER

ELEVATION

REAR 3 ~ 5 AND

FRONT



SQUARE FOOTAGE HEATED FIRST FLOOR SECOND FLOOR UNHEATED Garage Front Porch

© Copyright 2020 laynes Home Plans, Inc.

3/4/2021 201114B

PAGE 1 OF 8

PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS EFORE CONSTRUCTION BEGINS HAYNES HOME PLANS, INC. ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES.

CODES AND CONDITIONS MAY VARY WITH LOCATION. A LOCAL DESIGNER, ARCHITECT OR NGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION.

THESE DRAWING ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN
PROPERTY OF THE DESIGNER.

ELEVATIONS

38

od REAR



 SQUARE FOOTAGE

 HEATED
 1038 SQ.FT.

 FIRST FLOOR
 1300 SQ.FT.

 SECOND FLOOR
 1300 SQ.FT.

 TOTAL
 2338 SQ.FT.

 UNHEATED
 GARAGE

 GARAGE
 434 SQ.FT.

 FRONT PORCH
 125 SQ.FT.

 TOTAL
 559 SQ.FT.

© Copyright 2020 Haynes Home Plans, Inc. 3/4/2021 201114B

ATTIC ACCESS

are not required to have access.

protrude into the net clear opening.

WALL THICKNESSES

Exterior walls and walls adjacent to a garage area

are drawn as 4" or as noted 2 X 6 are drawn as 6" to include 1/2" sheathing or gypsum. Subtract 1/2" for

Interior walls are drawn as 3 1/2" or as noted 2 X 6

REFER TO SECTIONS R302.5, R302.6, AND R302.7

exposed sides of all stairways.

fire-rated doors.

DWELLING / GARAGE SEPARATION

WALLS. A minimum 1/2" gypsum board must be installed on all walls supporting

STAIRS. A minimum of 1/2" gypsum board must be installed on the underside and

CEILINGS. A minimum of 1/2" gypsum must be installed on the garage ceiling if there

are no habitable room above the garage. If there are habitable room above the garage a minimum of 5/8" type X gypsum board must be installed on the garage ceiling. **OPENING PENETRATIONS.** Openings between the garage and residence shall be equipped with solid wood doors not less than 1 3/8 inches (35 mm) in thickness, solid

or honeycomb core steel doors not less than 1 3/8 inches (35 mm) thick, or 20-minute

ceilings separating the dwelling from the garage shall be constructed of a minimum No.

26 gage (0.48 mm) sheet steel or other *approved* material and shall have no openings

DUCT PENETRATIONS. Ducts in the garage and ducts penetrating the walls or

OTHER PENETRATIONS. Penetrations through the separation required in Section

R302.6 shall be protected as required by Section R302.11, Item 4.

floor/ceiling assemblies used for separation required by this section.

are drawn as 5 1/2", and do not include gypsum.

in attics.

R807.1 Attic access. An attic access opening shall be provided to attic areas that exceed 400 square feet (37.16 m2) and have

a vertical height of 60 inches (1524 mm) or greater. The net clear opening shall not be less than 20 inches by 30 inches (508 mm by 762 mm) and shall be located in a hallway or other

unobstructed headroom in the attic space shall be provided at

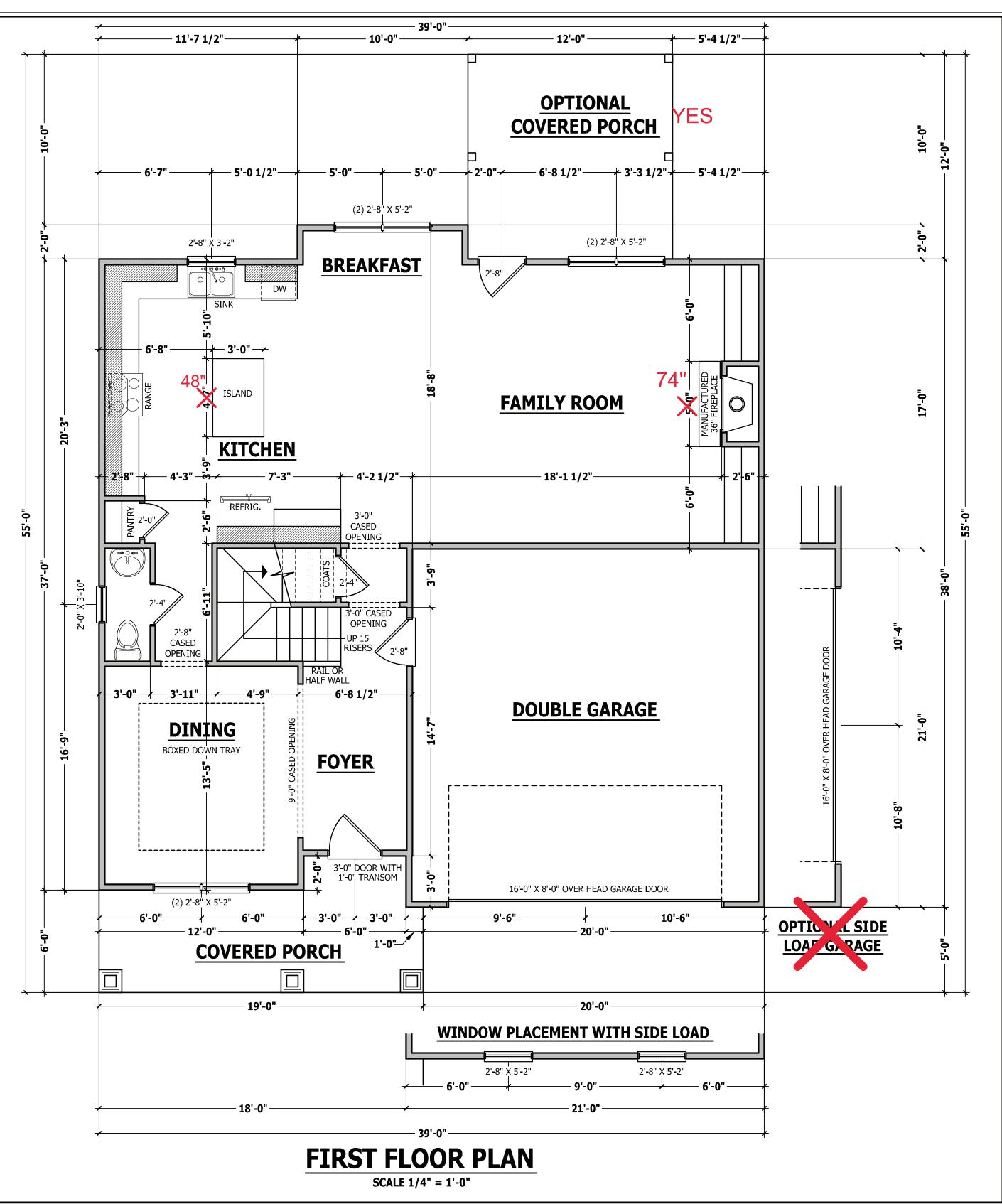
some point above the access opening. See Section M1305.1.3

for access requirements where mechanical equipment is located

1. Concealed areas not located over the main structure including porches, areas behind knee walls, dormers, bay windows, etc.

2. Pull down stair treads, stringers, handrails, and hardware may

readily accessible location. A 30-inch (762 mm) minimum



PURCHASER MUST VERIFY ALL
DIMENSIONS AND CONDITIONS
BEFORE CONSTRUCTION BEGINS.
HAYNES HOME PLANS, INC.
ASSUMES NO LIABILITY FOR
CONTRACTORS PRACTICES AND
PROCEDURES.
CODES AND CONDITIONS MAY
VARY WITH LOCATION. A LOCAL
DESIGNER ARCHITECT OR

VARY WITH LOCATION. A LOCAL
DESIGNER, ARCHITECT OR
ENGINEER SHOULD BE CONSULTED
BEFORE CONSTRUCTION.

BEFORE CONSTRUCTION.
THESE DRAWING ARE
INSTRUMENTS OF SERVICE AND
AS SUCH SHALL REMAIN
PROPERTY OF THE DESIGNER.

R PLAN

FIRST FLOOR PI CL-2338

Earliding and Development Company
Building and Development Company

HOWE PLANS, INC

SQUARE FOOTAGE
HEATED
FIRST FLOOR 1038 SQ.FT
SECOND FLOOR 1300 SQ.FT
TOTAL 2338 SQ.FT

FIRST FLOOR SECOND FLOOR TOTAL UNHEATED GARAGE FRONT PORCH TOTAL

> © Copyright 2020 Haynes Home Plans, Inc.

3/4/2021

201114B PAGE 4 OF 8

STRUCTURAL NOTES

All construction shall conform to the latest requirements of the 2018 North Carolina Residential Building Code, plus all local codes and regulations. This document in no way shall be construed to supersede the code.

JOB SITE PRACTICES AND SAFETY: Haynes Home Plans, Inc. assumes no liability for contractors practices and procedures or safety program. Haynes Home Plans, Inc. takes no responsibility for the contractor's failure to carry out the construction work in accordance with the contract documents. All members shall be framed, anchored, and braced in accordance with good construction practice and the building code.

DESIGN LOADS	LIVE LOAD	DEAD LOAD	DEFLECTION	
USE	(PSF)	(PSF)	(LL)	
Attics without storage	10		L/240	
Attics with limited storage	20	10	L/360	
Attics with fixed stairs	40	10	L/360	
Balconies and decks	40	10	L/360	
Fire escapes	40	10	L/360	
Guardrails and handrails	200			
Guardrail in-fill components	50			
Passenger vehicle garages	50	10	L/360	
Rooms other than sleeping	40	10	L/360	
Sleeping rooms	30	10	L/360	
Stairs	40		L/360	
Snow	20			

FRAMING LUMBER: All non treated framing lumber shall be SPF #2 (Fb = 875 PSI) or SYP #2 (Fb = 750 PSI) and all treated lumber shall be SYP #2 (Fb = 750 PSI) unless noted other wise.

ENGINEERED WOOD BEAMS:

Laminated veneer lumber (LVL) = Fb=2600 PSI, Fv=285 PSI, E=1.9x10⁶ PSI Parallel strand lumber (PSL) = Fb=2900 PSI, Fv=290 PSI, E=2.0x10⁶ PSI Laminated strand lumber (LSL) Fb=2250 PSI, Fv=400 PSI, E=1.55x10⁶ PSI Install all connections per manufacturers instructions.

TRUSS AND I-JOIST MEMBERS: All roof truss and I-joist layouts shall be prepared in accordance with this document. Trusses and I-joists shall be installed according to the manufacture's specifications. Any change in truss or I-joist layout shall be coordinated with Haynes Homes Plans, Inc.

LINTELS: Brick lintels shall be 3 1/2" x 3 1/2" x 1/4" steel angle for up to 6'-0" span. 6" x 4" x 5/16" steel angle with 6" leg vertical for spans up to 9'-0" unless noted otherwise. 3 1/2" x 3 1/2" x 1/4" steel angle with 1/2" bolts at 2'-0" on center for spans up to 18'-0" unless noted otherwise.

FLOOR SHEATHING: OSB or CDX floor sheathing minimum 1/2" thick for 16" on center joist spacing, minimum 5/8" thick for 19.2" on center joist spacing, ROOF SHEATHING: OSB or CDX roof sheathing minimum 3/8" thick for 16" on center rafters and 7/16" for 24" on center rafters.

CONCRETE AND SOILS: See foundation notes.

ROOF TRUSS REQUIREMENTS

TRUSS DESIGN. Trusses to be designed and engineered in accordance with these drawings. Any variation with these drawings must be brought to Haynes Home Plan, Inc. attention before construction begins. **KNEE WALL AND CEILING HEIGHTS.** All finished knee wall heights and ceiling heights are shown furred down 10" from roof decking for insulation. If for any reason the truss manufacturer fails to meet or exceed designated heel heights, finished knee wall heights, or finished ceiling heights shown on these drawings the finished square footage may vary. Any discrepancy must be brought to Haynes Home Plans, Inc. attention, so a suitable solution can be reached before construction begins. Any variation due to these conditions not being met is the reasonability of the truss manufacturer.

ANCHORAGE. All required anchors for trusses due to uplift or bearing shall meet the requirements as specified on the truss schematics. **BEARING.** All trusses shall be designed for bearing on SPF #2 plates or ledgers unless noted otherwise.

Plate Heights & Floor Systems. See elevation page(s) for plate heights and floor system thicknesses.

ATTIC ACCESS

SECTION R807

R807.1 Attic access. An attic access opening shall be provided to attic areas that exceed 400 square feet (37.16 m2) and have a vertical height of 60 inches (1524 mm) or greater. The net clear opening shall not be less than 20 inches by 30 inches (508 mm by 762 mm) and shall be located in a hallway or other readily accessible location. A 30-inch (762 mm) minimum unobstructed headroom in the attic space shall be provided at some point above the access opening. See Section M1305.1.3 for access requirements where mechanical equipment is located in attics.

Exceptions:

- 1. Concealed areas not located over the main structure including porches, areas behind knee walls, dormers, bay windows, etc. are not required to have access.
- 2. Pull down stair treads, stringers, handrails, and hardware may protrude into the net clear opening.

WALL THICKNESSES

Exterior walls and walls adjacent to a garage area are drawn as 4" or as noted 2 X 6 are drawn as 6" to include 1/2" sheathing or gypsum. Subtract 1/2" for

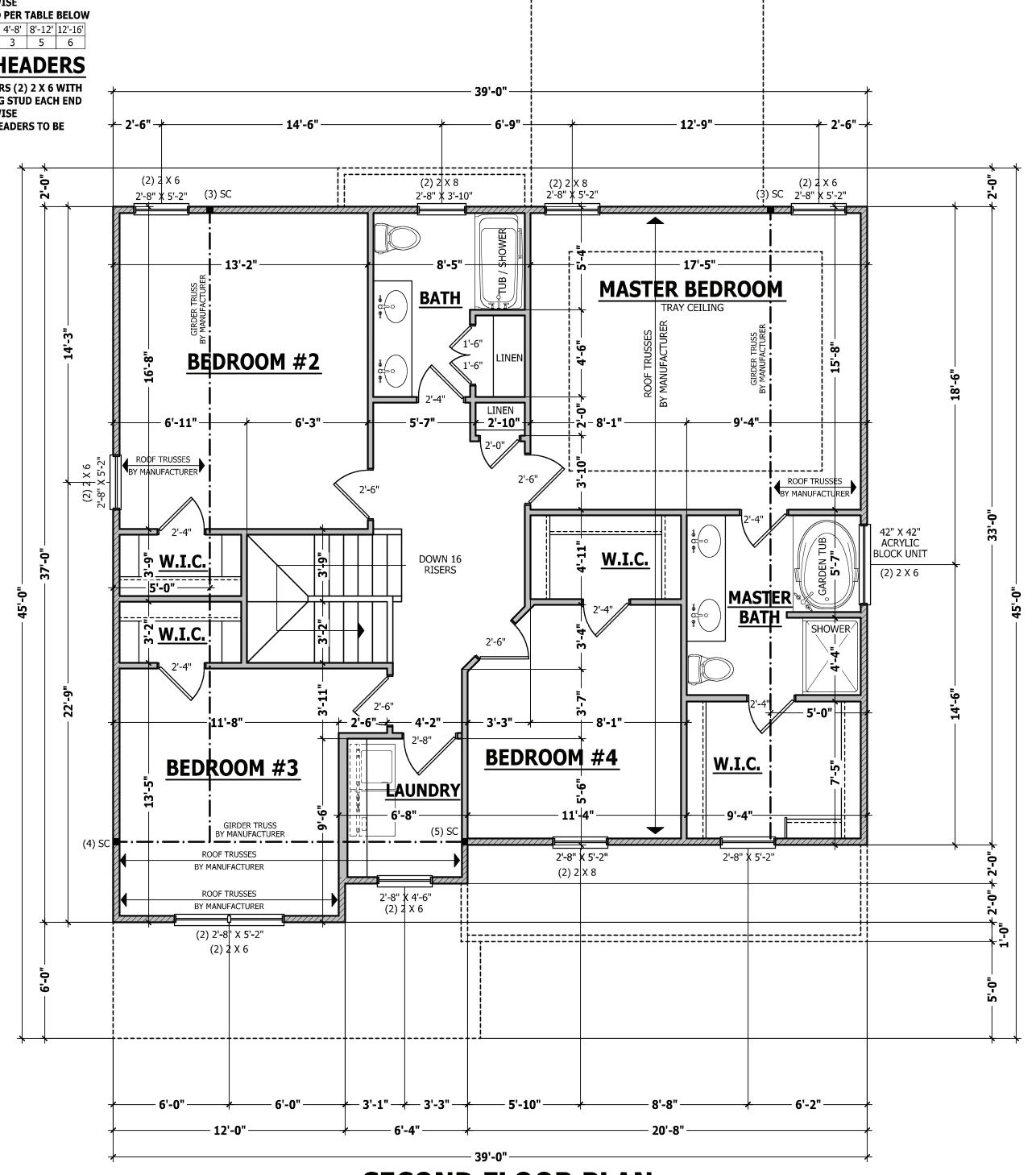
Interior walls are drawn as 3 1/2" or as noted 2 X 6 are drawn as 5 1/2", and do not include gypsum.

EXTERIOR HEADERS

- (2) 2 X 6 WITH 1 JACK STUD EACH END UNLESS NOTED OTHERWISE

INTERIOR HEADERS

- LOAD BEARING HEADERS (2) 2 X 6 WITH 1 JACK STUD AND 1 KING STUD EACH END UNLESS NOTED OTHERWISE
- NON LOAD BEARING HEADERS TO BE LADDER FRAMED



BRACING NOT SHOWN ON UPPER STORY PER R602.10.3.2 (5) & (6) **SECOND FLOOR PLAN**

SCALE 1/4" = 1'-0"

PURCHASER MUST VERIFY ALL
DIMENSIONS AND CONDITIONS
BEFORE CONSTRUCTION BEGINS
HAYNES HOME PLANS, INC.
ASSUMES NO LIABILITY FOR
CONTRACTORS PRACTICES AND
PROCEDURES.

CODES AND CONDITIONS MAY VARY WITH LOCATION. A LOCAL DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION.

THESE DRAWING ARE
INSTRUMENTS OF SERVICE AND
AS SUCH SHALL REMAIN
PROPERTY OF THE DESIGNER.

FLOOR PLAN -2338

CL-23

SECOND





 SQUARE FOOTAGE

 HEATED
 1038 SQ.FI

 FIRST FLOOR
 1300 SQ.FI

 TOTAL
 2338 SQ.FI

 UNHEATED
 GARAGE
 434 SQ.FI

 FRONT PORCH
 125 SQ.FI

 TOTAL
 559 SQ.FI

© Copyright 2020 Haynes Home Plans, Inc.

3/4/2021 201114B

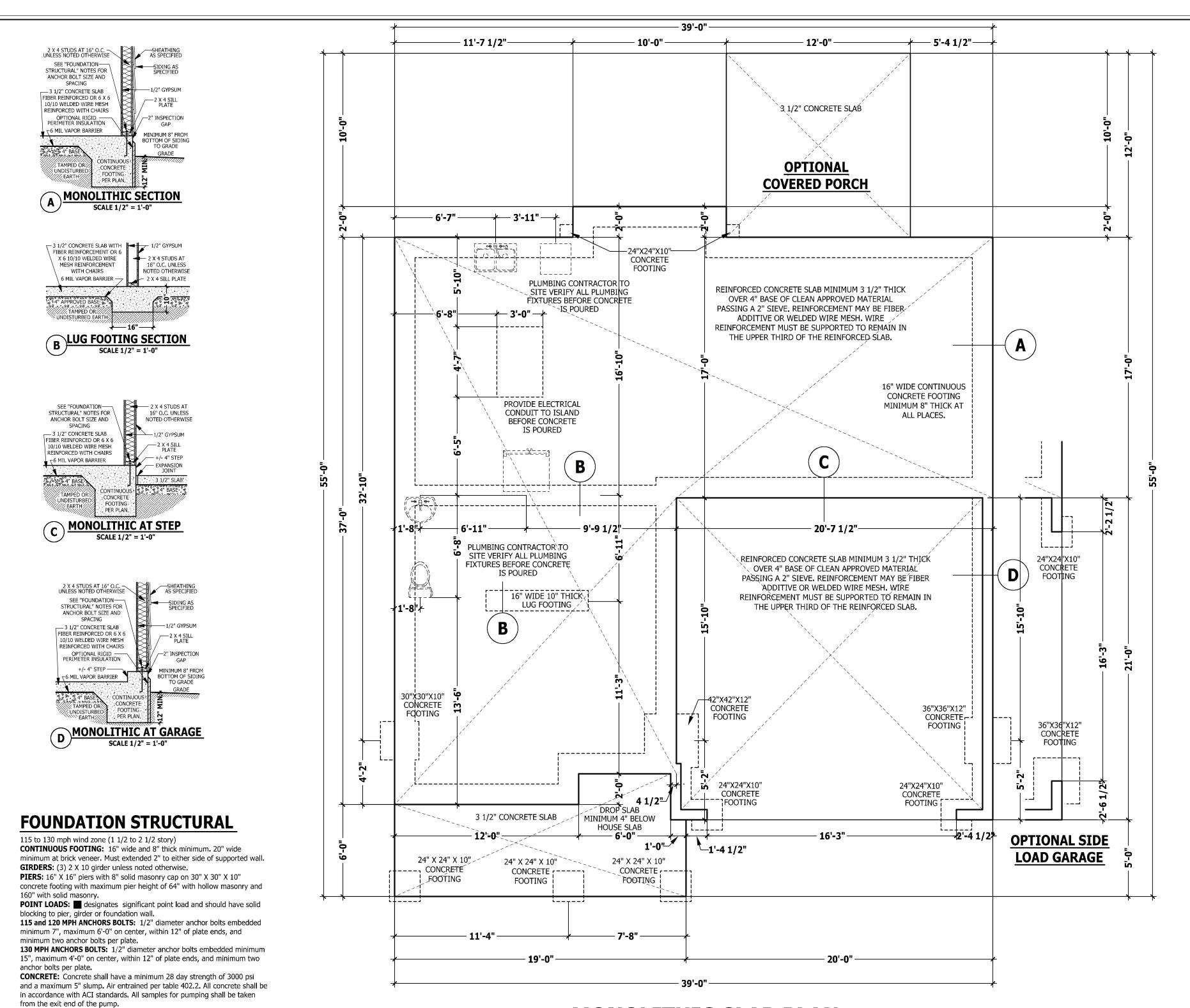
PAGE 6 OF 8

SOILS: Allowable soil bearing pressure assumed to be 2000 PSF. The contractor must contact a geotechnical engineer and a structural engineer if

unsatisfactory subsurface conditions are encountered. The surface area

adjacent to the foundation wall shall be provided with adequate drainage,

and shall be graded so as to drain surface water away from foundation walls.



MONOLITHIC SLAB PLAN

SCALE 1/4" = 1'-0"

© Copyright 2020
Haynes Home Plans, Inc.

3/4/2021

201114B

PAGE 3 OF 8

SQUARE FOOTAGE HEATED

FIRST FLOOR SECOND FLOOR

TOTAL UNHEATED

Garage Front Porch

PURCHASER MUST VERIFY ALL

DIMENSIONS AND CONDITIONS EFORE CONSTRUCTION BEGINS

HAYNES HOME PLANS, INC. ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND

CODES AND CONDITIONS MAY

VARY WITH LOCATION. A LOCAL

DESIGNER, ARCHITECT OR NGINEER SHOULD BE CONSULTED

BEFORE CONSTRUCTION.

THESE DRAWING ARE

NSTRUMENTS OF SERVICE AND

AS SUCH SHALL REMAIN

PROPERTY OF THE DESIGNER.

33

2

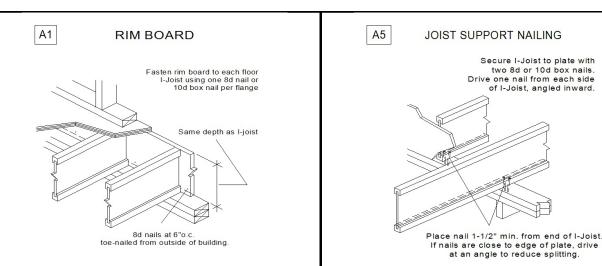
AN

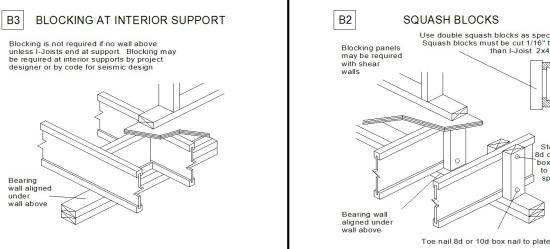
Q

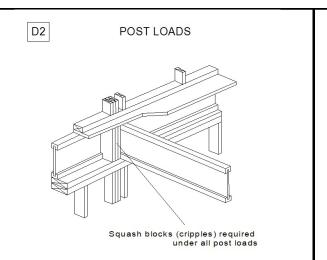
SLAB

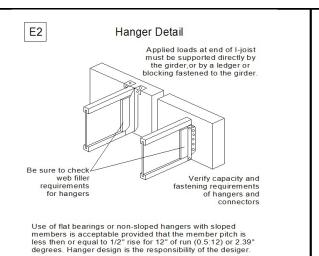
ONOLITHIC

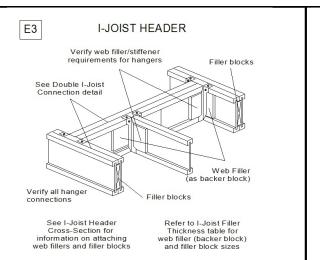
Σ

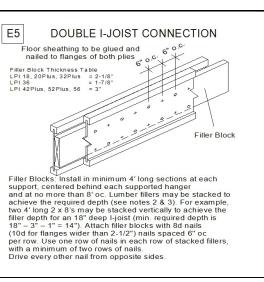












Width

2.5

2.5

2.5

2.5

2.5

2.5

Width

1.75 11.875

Width

Depth

Depth

Depth

Depth

Skew | Slope

Qty

Qty

Qty

Qty

Qty

Qty

LinFt

2nd Floor

I Joist (Flush)

Label Description

J8 LPI 20Plus J6 LPI 20Plus

J7 LPI 20Plus

J3 LPI 20Plus

J5 LPI 20Plus

J4 LPI 20Plus

J2 LPI 20Plus

J10 LPI 20Plus

J1 LPI 20Plus

Label Description

FB2 LP-LVL 2900Fb-2.0E

FB4 LP-LVL 2900Fb-2.0E

FB1 LP-LVL 2900Fb-2.0E

Opt. CP LP-LVL 2900Fb-2.0E

LP-LVL 2900Fb-2.03

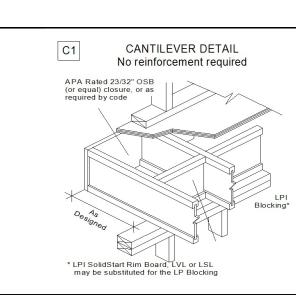
FB3 LP-LVL 2900Fb-2.0E

LVL/LSL (Flush)

LVL/LSL (Dropped)

Label Description

Beam By Others (Dropped)



Plies

Plies

Plies

Plies

Plies

Plies

Beam/Girder

fasteners

12 10d

Pcs

19

11

Pcs

Length

20-0-0

18-0-0

18-0-0

16-0-0

14-0-0

12-0-0

8-0-0

8-0-0

4-0-0



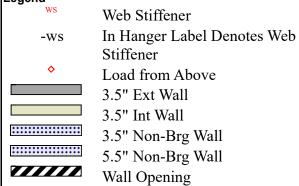
2160 Satellite Blvd., Suite 450 Duluth, GA 30097 888-613-5078





Pcs	Length	
4	14-0-0	Dealer
2	22-0-0	84 Lumber-Fayetteville #2307
		Dealer Address
Pcs	Length	620 Belt Road
4	12-0-0	Fayetteville, NC 28301
4	8-0-0	(910) 867-9185
2	6-0-0	Project
		"
Pcs	Length	25977
6	12-0-0	Created
		April 07, 2021
		Layout Name
Pcs	Length	202103-25977
Varies	23-0-0	202103-25977
		Description
Support	ed Member	Caviness Land
fas	teners	CL2338 - 4 Alexander
		Designer
		Kyle Militzer

2nd Floor	
Design Method	ASD (US
Building Code	IRC 20
Floor	
Loads	
Live	
Dead	
Decking	
Decking	C
	23/32 APA Rated Stu
	I-F1
Fastener	Nailed & Gl

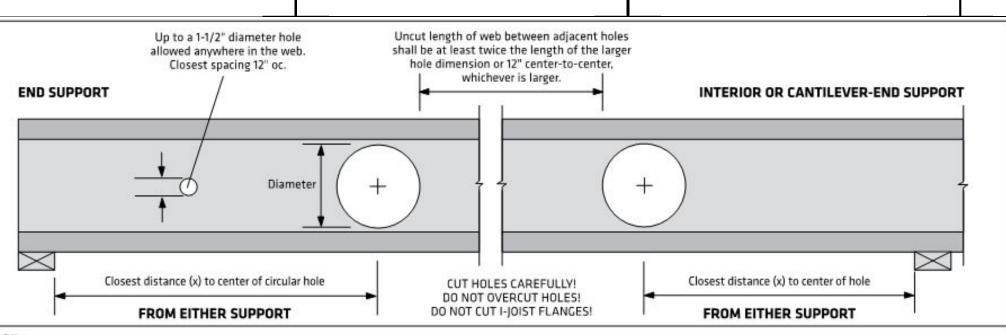


LP APA Rated OSB 1.125 X 14 LPI 20Plus 14

LP-LVL 2900Fb-2.0E 1.75 X 9.25

LP-LVL 2900Fb-2.0E 1.75 X 11.875 (Dropped)

LP-LVL 2900Fb-2.0E 1.75 X 14 LP-LVL 2900Fb-2.0E 1.75 X 20 1.5 X 9.25 (Dropped)



TO USE:

- Select the required series and depth.
- Determine the support condition for the nearest bearing: end support or interior support (including cantilever-end supports).
- Select the row corresponding to the required Clear Span. For spans between those listed, use the next largest value.
- Select the column corresponding to the required hole diameter. For diameters between those listed, use the next largest value.
- The intersection of the Clear Span row and Hole Diameter column gives the minimum distance from the inside face of bearing to the center of a circular hole.
- Double check the distance to the other support, using the appropriate support condition.

Depth	Clear	Distance from End Support						Distance from Interior or Cantilever-End Support					
	Span Hole Diameter					Hole Diameter							
	(ft)	2"	4"	6"	8"	10"	12"	2"	4"	6"	8"	10"	12"
14"	14'	1'-0"	1'-0"	1'-0"	1'-0"	2'-2"	-	1'-0"	1'-0"	1'-5"	2'-7"	3'-9"	-
	18'	1'-0"	1'-0"	1'-9"	3'-1"	4'-6"	-	1'-8"	2'-10"	3'-11"	5'-1"	6'-3"	-
	22'	1'-5"	2'-9"	4'-1"	5'-6"	7'-0"	-	4'-2"	5'-4"	6'-5"	7'-7"	8'-9"	-
	26'	3'-8"	5'-0"	6'-5"	8'-0"	9'-8"	-	6'-8"	7'-10"	8'-11"	10'-1"	11'-4"	-
16"	18'	1'-0"	1'-0"	1'-4"	2'-5"	3'-7"	4'-11"	1'-6"	2'-6"	3'-6"	4'-6"	5'-6"	6'-6"
	22'	1'-4"	2'-5"	3'-6"	4'-9"	6'-1"	7'-5"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"
	26'	3'-6"	4'-8"	5'-11"	7'-2"	8'-7"	10'-1"	6'-6"	7'-6"	8'-6"	9'-6"	10'-6"	11'-9"
	30'	5'-9"	7'-0"	8'-4"	9'-9"	11'-3"	12'-10"	9'-0"	10'-0"	11'-0"	12'-0"	13'-2"	14'-8"

DESIGN ASSUMPTIONS:

 The hole locations listed above are valid for floor joists supporting only uniform loads. The total uniform load shall not exceed 130 plf (e.g., 40 psf

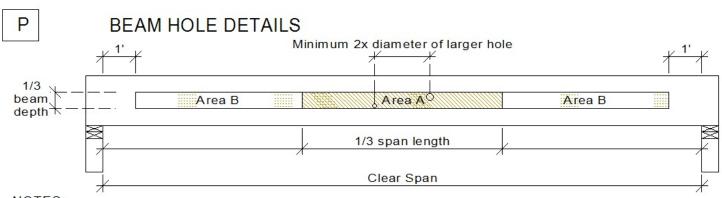
closest support.

- Live Load and 25 psf Dead Load spaced 24" oc). Hole location is measured from the inside face of bearing to the center of a circular hole, from the
- 3. Clear Span has not been verified for these joists and is shown for informational purposes only! Verify that the joist selected will work for the span and loading conditions needed before checking
- hole location. 4. The maximum hole depth for circular holes is the I-joist Depth less 4", except the maximum hole depth is 6" for 9-1/2" LPI joists, and 8" for 11-7/8" LPI joists.
- Holes cannot be located in the span where designated "-", without further analysis by a design professional.

NOTES:

- Holes may be placed anywhere within the depth of the joist. A minimum 1/4" clear distance is required between the hole and the flanges.
- Round holes up to 1-1/2" diameter may be placed anywhere in the web. Perforated "knockouts" may be neglected when
- locating web holes.
- Holes larger than 1-1/2" are not permitted in cantilevers without special engineering.
- Multiple holes shall have a clear separation along the length of the joist of at least twice the length of the larger adjacent hole, or a minimum of 12" center-to-center, whichever is greater.
- Multiple holes may be spaced closer provided they fit within the boundary of an acceptable larger hole. Example: two 3" round holes aligned parallel to the joist length may be spaced 2" apart (clear distance) provided that a 3" high by 8" long rectangle or an 8" diameter round hole are acceptable for the joist depth at that location and completely encompass the holes.
- For conditions not covered in this table, use LP's design software or contact your local LP® SolidStart® Engineered Wood Products distributor for more information.

products are encountered.



- 1. These guidelines apply to uniformly loaded beams selected from the Quick Reference Tables or the Uniform Load Tables or designed with LP's design/specification software only. For all other applications, such as beams with concentrated loads,
- please contact your LP® SolidStart® Engineered Wood Products distributor for assistance. 2. Round holes can be drilled anywhere in "Area A" provided that: no more than four holes are cut, with the minimum spacing described in the diagram. The maximum hole size is 1-1/2" for depths up to 9-1/4," and 2" for depths greater than 9-1/4."
- 3. Rectangular holes are NOT allowed. 4. DO NOT drill holes in cantilevers without prior approval from the project designer.
- 5. Other hole sizes and configurations MAY be possible with further engineering analysis. For more information, contact your LP SolidStart Engineered Wood Products distributor.
- 6. Up to three 3/4" holes may be drilled in "Area B" to accommodate wiring and/or water lines. These holes shall be at least 12" apart. The holes shall be located in the middle third of the depth, or a minimum of 3" from the bottom and top of the
- beam. For beams shallower than 9-1/4", locate holes at mid-depth. 7. Protect plumbing holes from moisture.

mportant Notes WARNING: Failure to follow proper procedures for handling, storage and installation could result in unsatisfactory performance, unsafe These instructions are offered as a guide to good practice in the handling, storage and installation of LP® SolidStart® I-Joists, LP SolidStart LVL & LP SolidStart LSL beams. They are, however, solely general recommendations and, in some instances, other or additional precautions may be desirable. In all cases, the procedures used should be

- as specified by the architect/engineer responsible for the entire building. • This is not intended as a manual for selecting products and assumes that components and details have been specified correctly. Consult the LP SolidStart I-Joist, LP SolidStart LVL & LP SolidStart LSL brochures or contact your LP SolidStart products distributor for assistance.

 • All rim joists, blocking, connections and temporary bracing must be installed before
- erectors are allowed on the structure. • No loads other than the weight of the erectors are to be imposed on the structure before it is permanently sheathed. • After sheathing, do not overload joists with construction materials exceeding design loads • LP SolidStart I-Joists, LP SolidStart LVL & LP SolidStart LSL beams must be used under dry, covered and well ventilated interior conditions in which the equivalent moisture content in lumber will not exceed 16%.
- landling & Storage Keep LP SolidStart I-Joists, LP SolidStart LVL & LP SolidStart LSL beams dry. Unload products carefully by lifting. Support the bundles to reduce excessive bowing. Individual products should be handled in a manner which prevents physical damage during measuring, cutting, erection, etc. I-Joists should be handled vertically and not flatwise. Keep stored in wrapped and strapped bundles stacked no more than 10' high. Support and separate bundles with 2 x 4 (or larger) stickers spaced no more than 10' apart. Keep stickers in line vertically. Product must not be stored in contact with the ground, or have prolonged exposure to the weather. Use forklifts and cranes carefully to avoid damaging product. · Do not use visually damaged product. Call your local LP SolidStart Engineered Wood Products distributor for assistance when damaged Hard, dry, level surface

