ENERGY COMPLIANCE

CLIMATE ZONE: 3A

CHAPTER 11 ENERGY EFFICIENCY COMPLIANCE (CHECK ONE)

☒ PRESCRIPTIVE CODE

TOTAL GLAZING AREA:	158 SQUARE FEET
CEILING INSULATION:	R38
WALL INSULATION:	R15
FLOOR INSULATION:	R19 FOR CRAWL SPACE / R10 FOR SLAB

ATTIC VENT CALCULATIONS

ATTIC AREA: 1777 SF

RIDGE VENTS*: 64 L.F. / 8 S.F. (50%)

SOFFIT VENT*: 129 L.F. / 8 S.F. (50%)

RATIO: $\frac{16}{1777} = \frac{1}{112}$

* CALCS BASED ON VENT FREE AREA OF 18 S.I. FOR RIDGE & 9 S.I. FOR SOFFIT

LIST OF SYMBOLS

SECTION / SHEET (X / Y)	SECTION MARK	12:12	SLOPE UP PITCH
SECTION / SHEET (X / Y)	DETAIL MARK		EARTH
X TITLE / SCALE	TITLE MARK		INSULATION
	INTERIOR BEARING WALL		STANDARD WALL

SUMMARY

PROJECT INFO

NAME OF PROJECT:	CL 2344
PROJECT ADDRESS:	TBD
PROPOSED USE:	RESIDENTIAL
CONTACT:	CAVINESS & CATES, INC
CODE COMPLIANCE:	2018 NC STATE RESIDENTIAL BUILDING CODE
MUNICIPALITY:	
DESIGNER:	TODD TUCKER, AIBD, CPBD 910-366-2636

SPACE DATA:

FIRST FLOOR:	1228 SF
SECOND FLOOR:	1116 SF
TOTAL HEATED:	2344 SF
FRONT PORCH:	101 SF
REAR PORCH:	144 SF
GARAGES:	549 / 280 SF

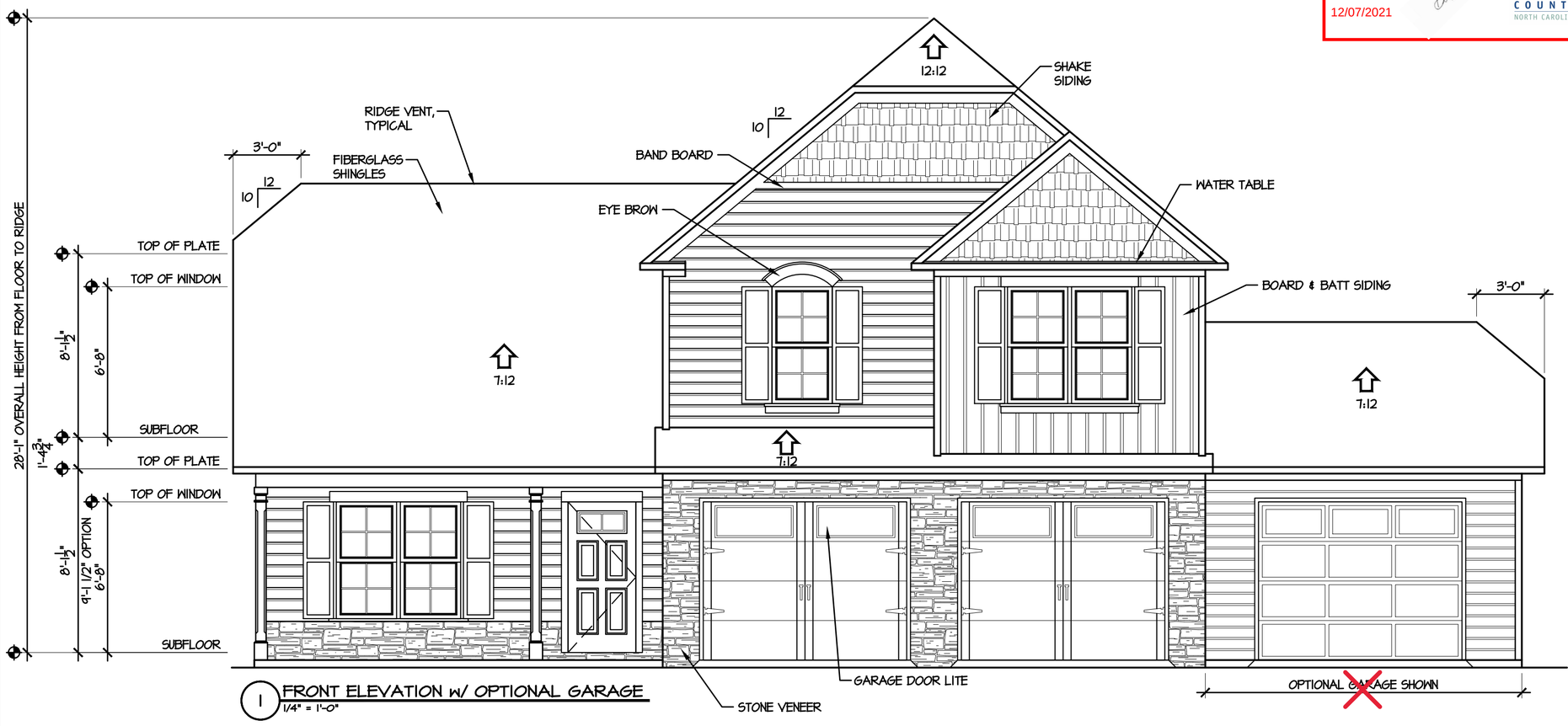
OVERALL BUILDING HEIGHT 28'-10" WITH SLAB FOUNDATION

DESIGN LOADS

ROOF LOADS:	20 PSF LIVE, 20 PSF DEAD
ATTIC LOADS:	20 PSF LIVE, WHERE INDICATED (SEE TRUSS DWGS)
FIRST FLOOR:	40 PSF LIVE, 10 PSF DEAD
UPPER FLOORS:	30 PSF LIVE, 15 PSF DEAD
WIND LOAD:	FOR ASCE 7-10, RISK CATEGORY II, EXPOSURE "B" (SEE SEALED TRUSS DRAWINGS FOR WIND ZONE)

ALL GARAGE PORTAL WALLS TO BE FRAMED WITH 2x6 STUDS

NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.
APPROVED
Limited building only review
Permit holder responsible for full compliance with the code
12/07/2021
Harnett COUNTY NORTH CAROLINA



1 FRONT ELEVATION w/ OPTIONAL GARAGE
1/4" = 1'-0"

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NATIONAL COUNCIL OF BUILDING DESIGNER CERTIFICATION
TODD TUCKER 34 - 156

Caviness Land

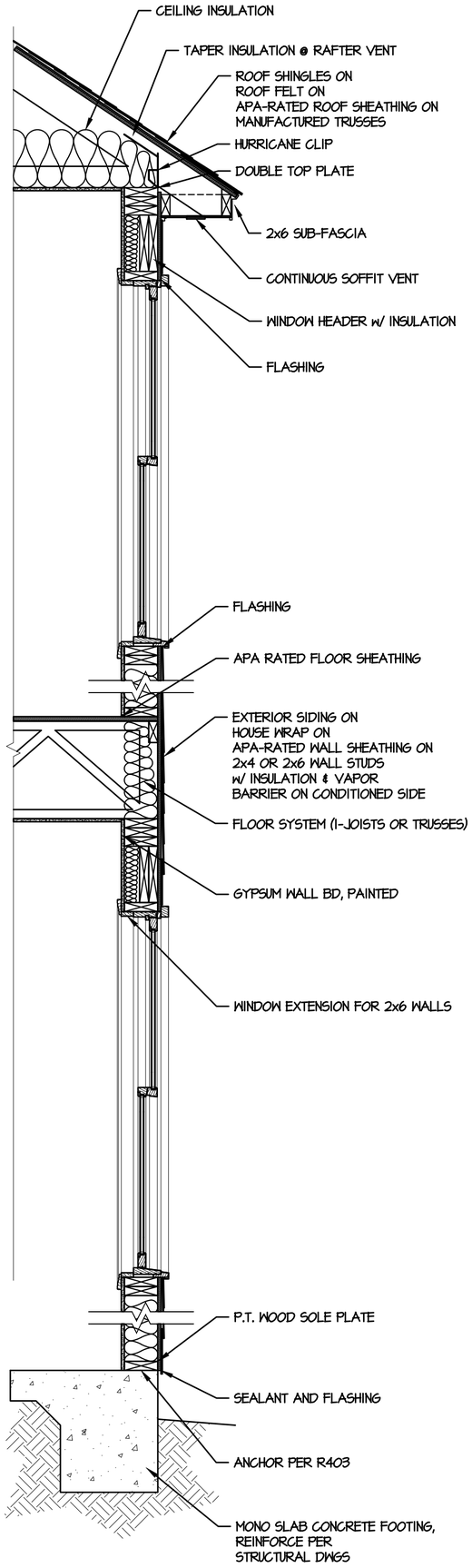
SHEET TITLE: ELEVATIONS

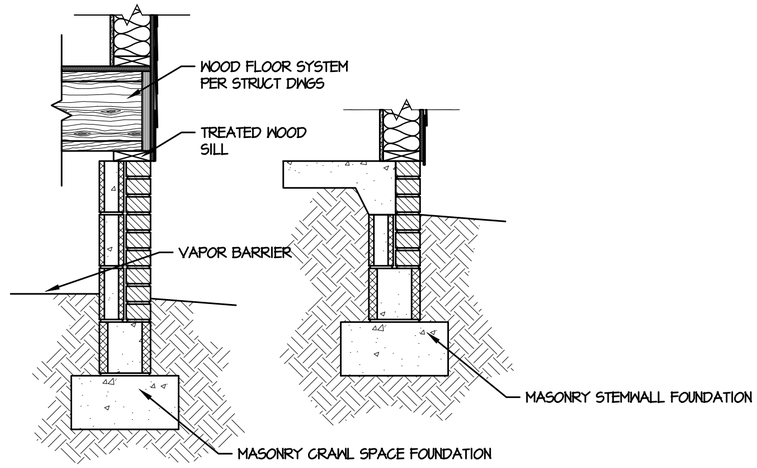
SCALE: AS NOTED

DATE: NOVEMBER 2012

PLAN NO: CL 2344

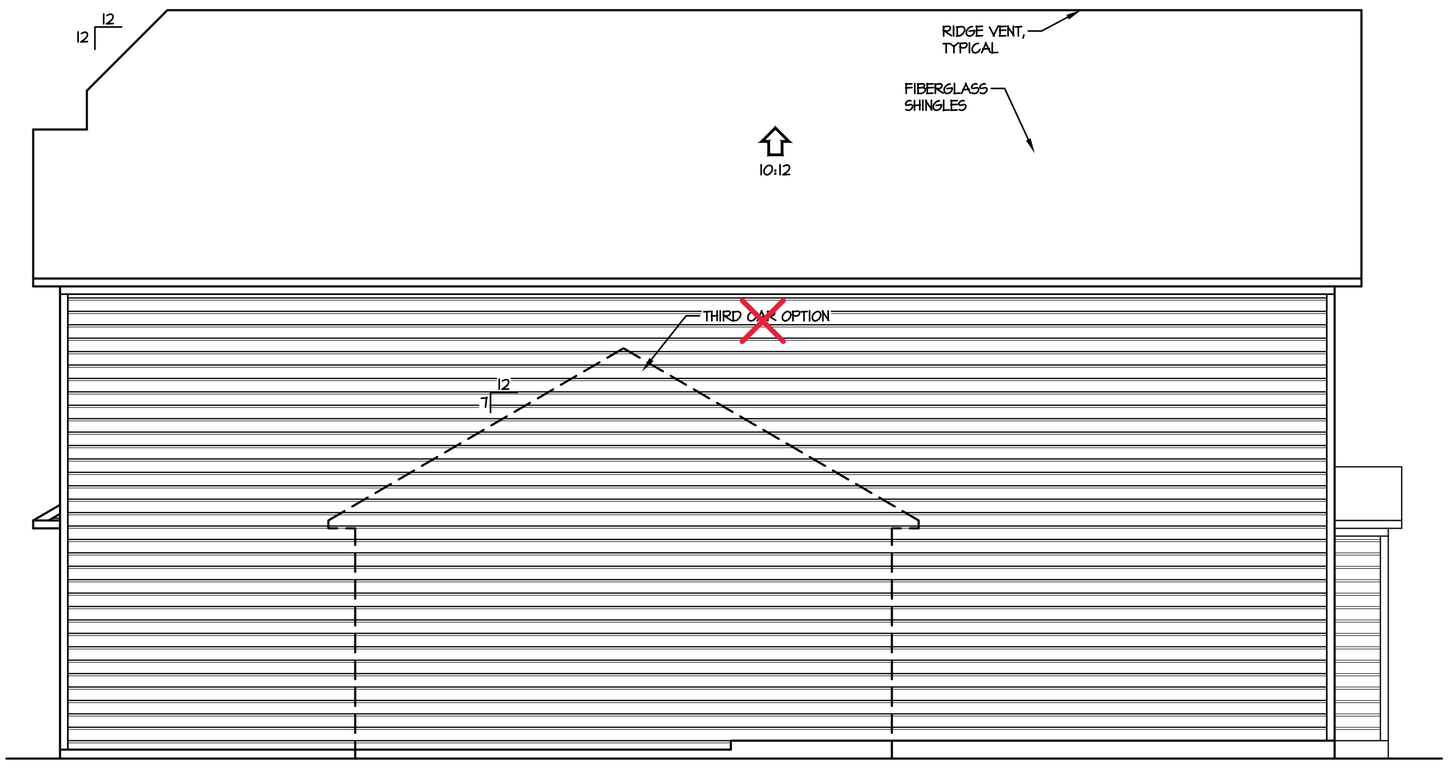
SHEET NO: 1





R403.1.6 FOUNDATION ANCHORAGE.
WOOD SILL PLATES AND WOOD WALLS SUPPORTED DIRECTLY ON CONTINUOUS FOUNDATIONS SHALL BE ANCHORED TO THE FOUNDATION IN ACCORDANCE WITH THIS SECTION.
WOOD SOLE PLATES AT ALL EXTERIOR WALLS ON MONOLITHIC SLABS, WOOD SOLE PLATES OF BRACED WALL PANELS AT BUILDING INTERIORS ON MONOLITHIC SLABS AND ALL WOOD SILL PLATES SHALL BE ANCHORED TO THE FOUNDATION WITH MINIMUM 1/2-INCH-DIAMETER (12.7 MM) ANCHOR BOLTS SPACED A MAXIMUM OF 6 FEET (1829 MM) ON CENTER OR APPROVED ANCHORS OR ANCHOR STRAPS SPACED AS REQUIRED TO PROVIDE EQUIVALENT ANCHORAGE TO 1/2-INCH-DIAMETER (12.7 MM) ANCHOR BOLTS. BOLTS SHALL EXTEND A MINIMUM OF 7 INCHES (178 MM) INTO CONCRETE OR GROUTED CELLS OF MASONRY UNITS. THE BOLTS SHALL BE LOCATED IN THE MIDDLE THIRD OF THE WIDTH OF THE PLATE. A NUT AND WASHER SHALL BE TIGHTENED ON EACH ANCHOR BOLT. THERE SHALL BE A MINIMUM OF TWO BOLTS PER PLATE SECTION WITH ONE BOLT LOCATED NOT MORE THAN 12 INCHES (305 MM) FROM THE CORNER. INTERIOR BEARING WALL SOLE PLATES ON MONOLITHIC SLAB FOUNDATION THAT ARE NOT PART OF A BRACED WALL PANEL SHALL BE POSITIVELY ANCHORED WITH APPROVED FASTENERS.

A TYPICAL WALL SECTION
3/4" = 1'-0" TWO STORY



1 RIGHT ELEVATION
1/4" = 1'-0"

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Caviness Land

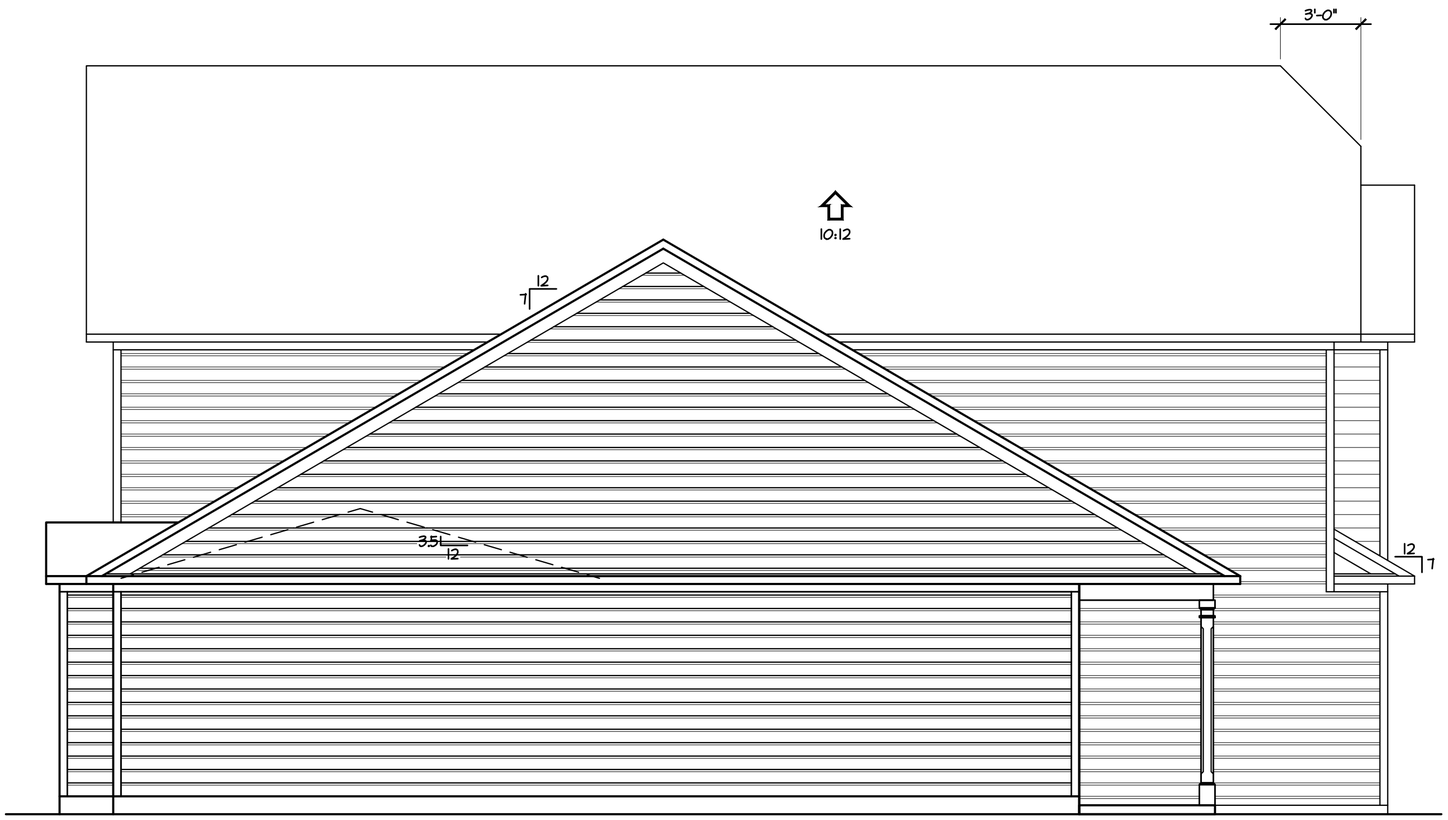
SHEET TITLE: ELEVATIONS

SCALE: AS NOTED

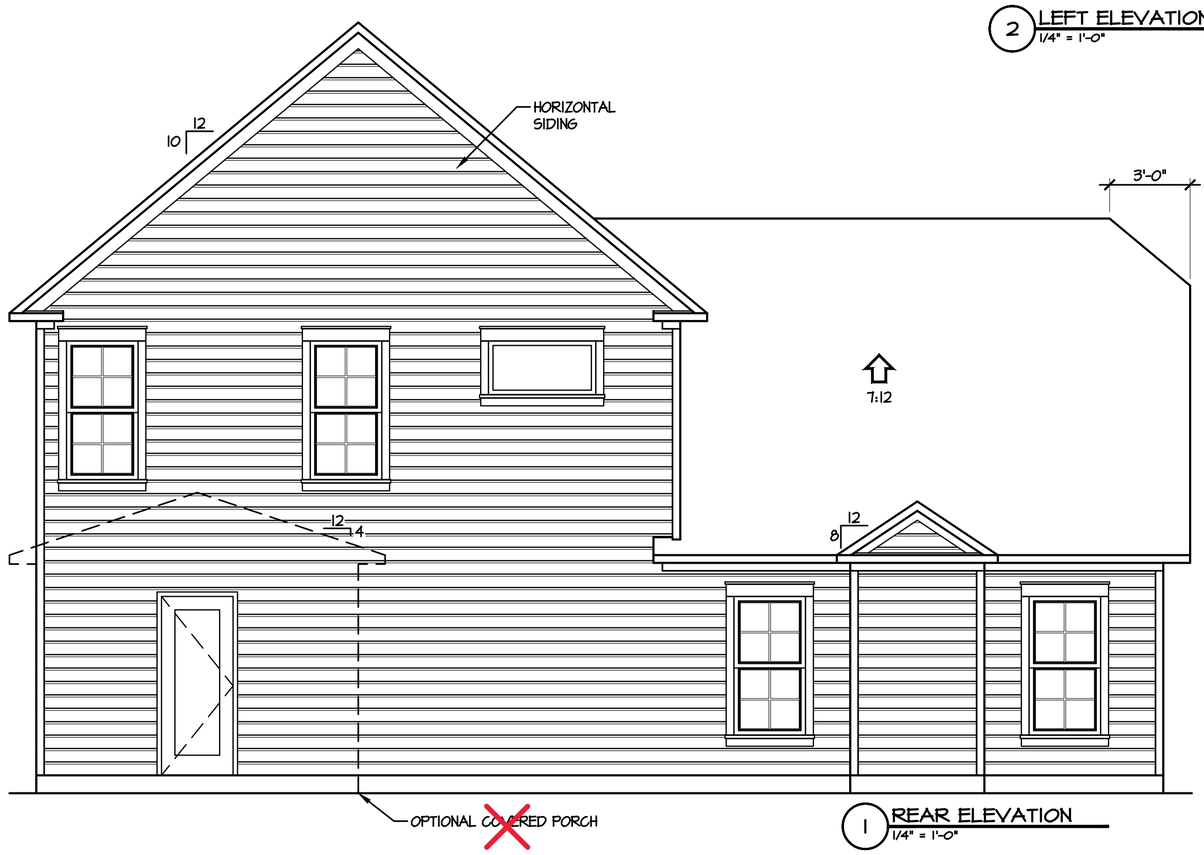
DATE: NOVEMBER 2012

PLAN NO: CL 2344

SHEET NO: 1a



2 LEFT ELEVATION
1/4" = 1'-0"



1 REAR ELEVATION
1/4" = 1'-0"

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Caviness Land

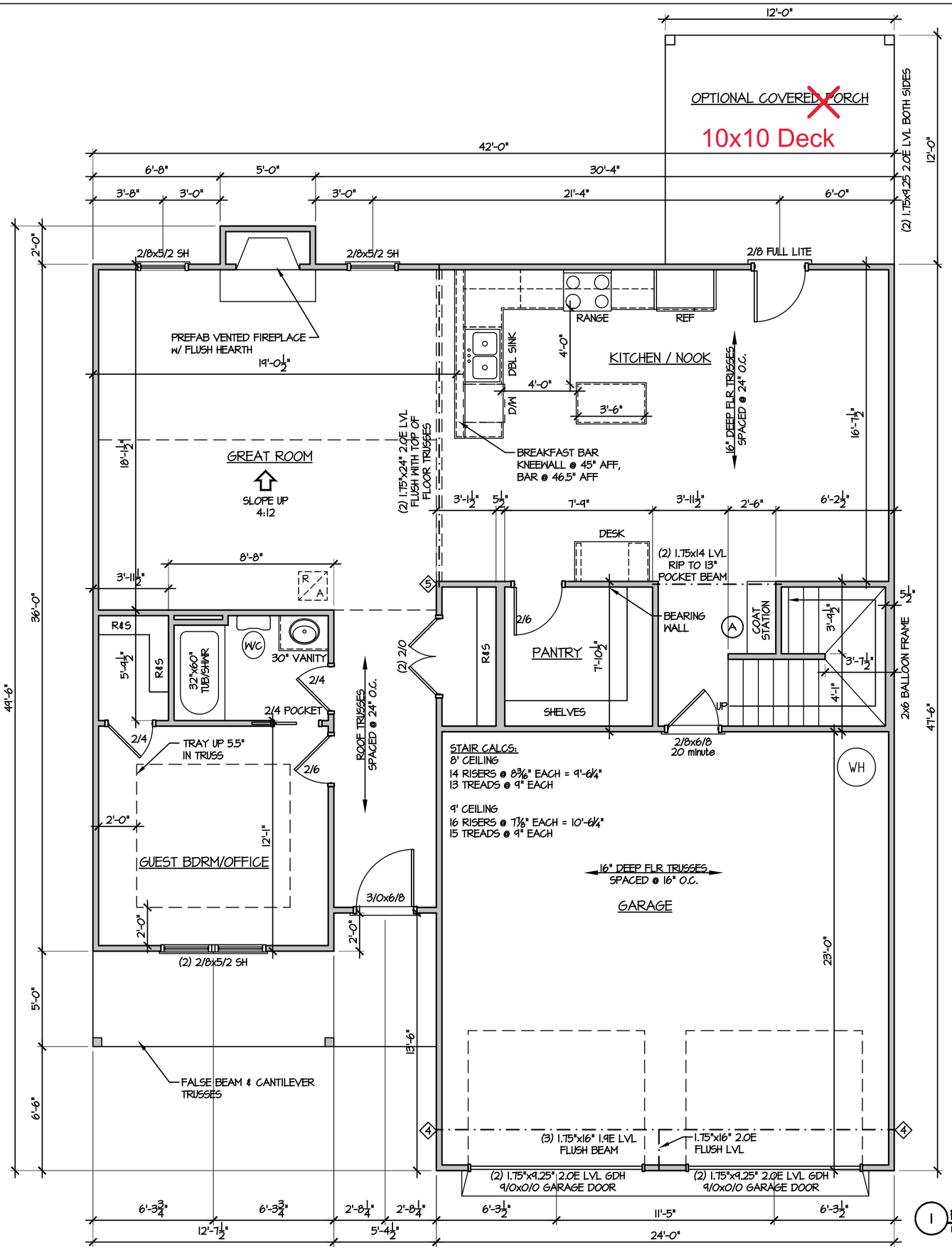
SHEET TITLE: ELEVATIONS

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

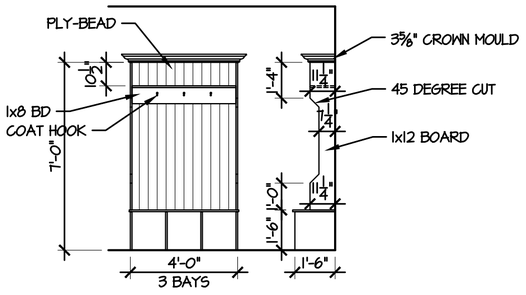
DATE: NOVEMBER 2012

PLAN NO: CL 2344

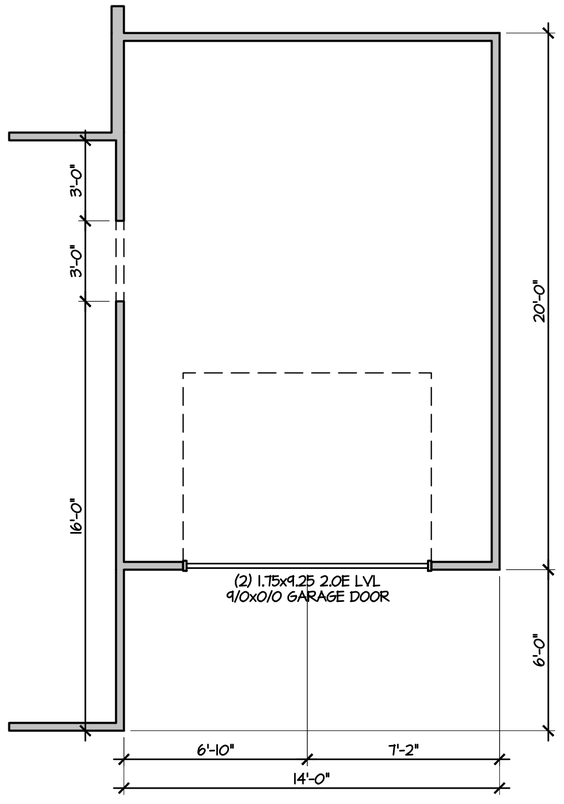
SHEET NO: 2



1 FIRST FLOOR
1/4" = 1'-0"



A COAT STATION
1/4" = 1'-0"



2 THIRD CAR GARAGE OPTION
1/4" = 1'-0"

GENERAL NOTE:
ALL 2x4 WALLS DRAWN AS 3 1/2"
ALL 2x6 WALLS DRAWN AS 5 1/2"

ALL EXTERIOR DIMENSIONS INCLUDE WALL SHEATHING

ALL WALLS ARE 2x4 WALLS UNLESS OTHERWISE NOTED

IN LOAD-BEARING WALLS:
ALL OPENING, WINDOW & DOOR HEADERS TO BE (2) 2x10 SYP #2 & (1) STUD ON EACH SIDE UNLESS NOTED OTHERWISE

(n) SYMBOL FOR REQUIRED STUDS FOR BEAM ABOVE

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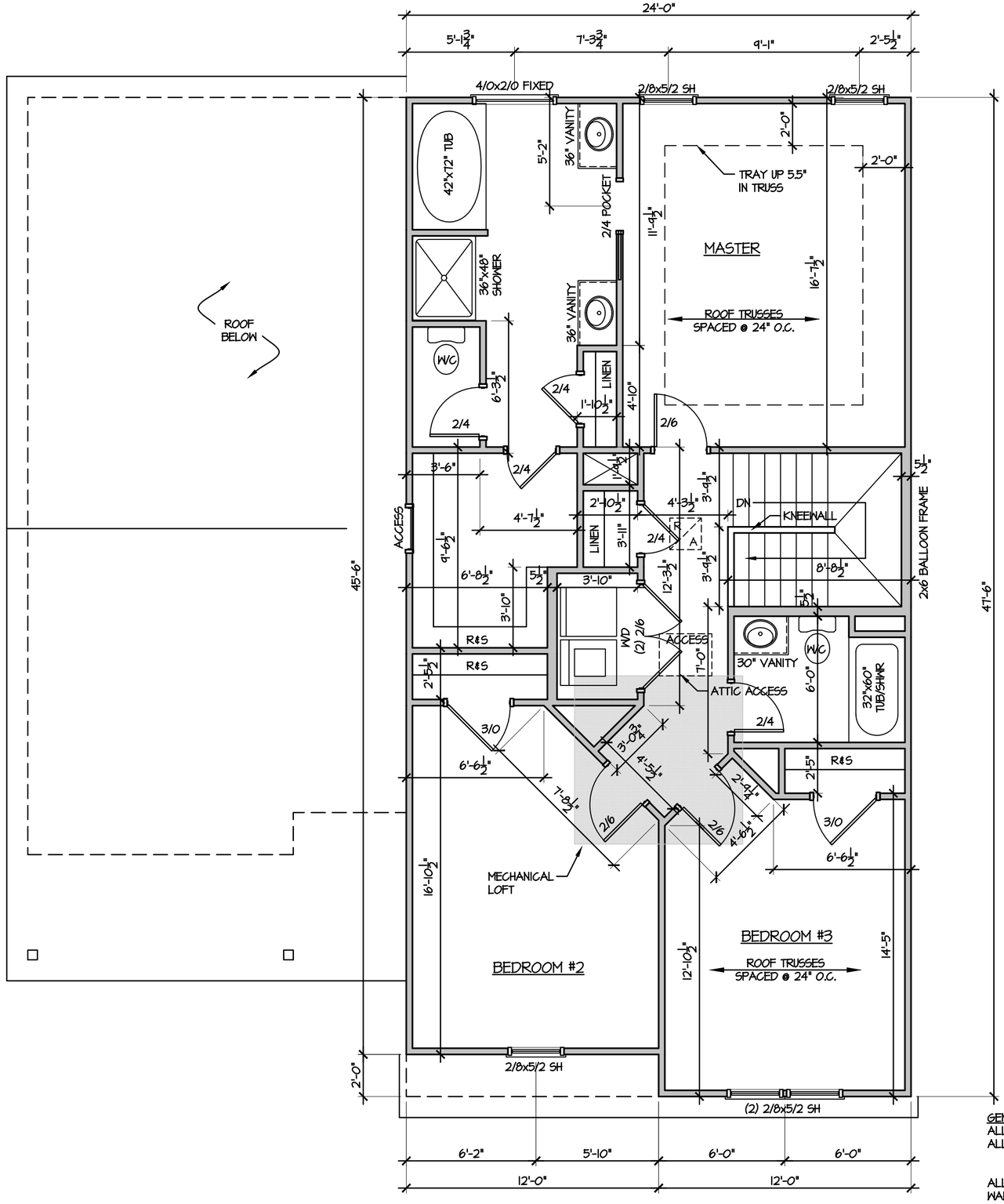
SHEET TITLE: FIRST FLOOR PLAN

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

DATE: NOVEMBER 2012

PLAN NO: CL 2344

SHEET NO: 4



GENERAL NOTE:
ALL 2x4 WALLS DRAWN AS 3 1/2"
ALL 2x6 WALLS DRAWN AS 5 1/2"

ALL EXTERIOR DIMENSIONS INCLUDE WALL SHEATHING

ALL WALLS ARE 2x4 WALLS UNLESS OTHERWISE NOTED

IN LOAD-BEARING WALLS:
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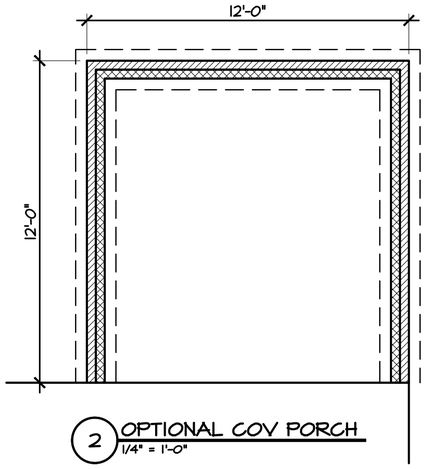
SHEET TITLE: SECOND FLOOR PLAN

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

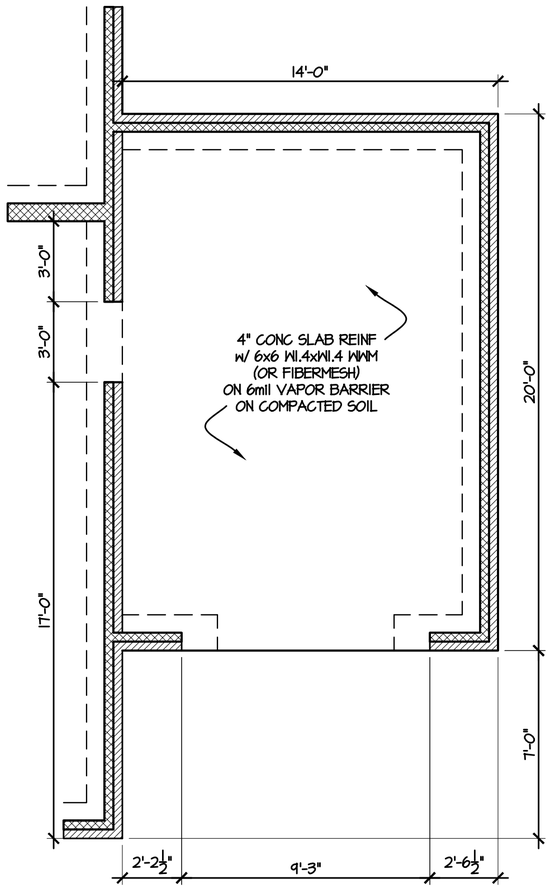
DATE: NOVEMBER 2012

PLAN NO: CL 2344

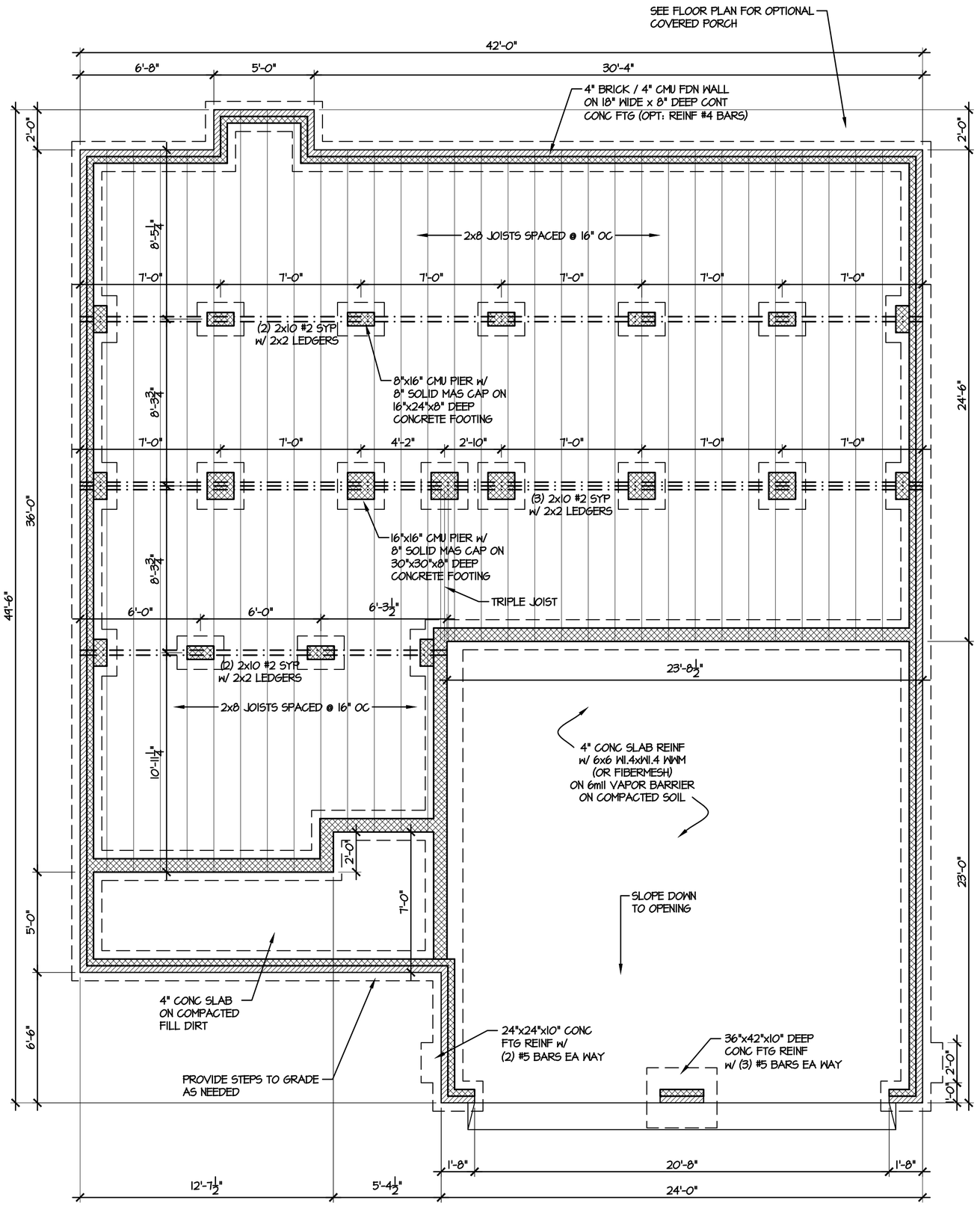
SHEET NO: 5



2 OPTIONAL COV PORCH
1/4" = 1'-0"



3 THIRD CAR GARAGE OPTION
1/4" = 1'-0"



1 CRAWL SPACE PLAN
1/4" = 1'-0"

FOUNDATION PLAN NOTES:

1. DOUBLE JOISTS UNDER ALL PARTITIONS.
2. SILL TO BE PRESSURE TREATED
3. MAINTAIN MIN 12" BELOW GIRDERS & 18" BELOW JOISTS TO GRADE OR AS REQUIRED FOR MECHANICAL EQUIPMENT.
4. PROVIDE VAPOR BARRIER AT CRAWL SPACE
5. FOUNDATION VENTS TO BE 8"HT.x16"WD. W/ 50 SQ. IN. MIN. FREE VENT AREA
6. CRAWL SPACE ACCESS TO BE 22"x36" MIN CLEAR OPENING (FIELD LOCATE)
7. NOT USED
8. ANCHOR BOLTS @ 6'-0" O.C. AND 1'-0" FROM EACH CORNER (EMBED 8" MIN. IN SOLID GROUT)
9. GC TO REVIEW TRUSS SHOP DRAWINGS & NOTIFY DESIGNER IF REQUIRED POINT LOAD PIERS OR BEARING WALLS ARE ADDED TO FOUNDATION PLAN

VENTILATION NOTES:

CRAWL SPACE AREA: 1045 S.F.
1500 S.F. PER 1 S.F. VENTS = 0.70 S.F.

REQUIRED VENTS W/ V.B. + ONE VENT WITHIN 3' OF EA. CORNER= 3 VENTS

FOUNDATION NOTES:
ALL REINFORCING AND CONCRETE MESH OPTIONAL. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE SOIL SUITABILITY. (UNLESS REINF REQ'D BY LOCAL CODE)

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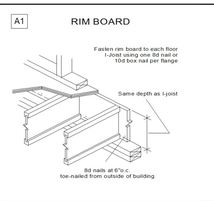
SHEET TITLE: CRAWL SPACE PLAN

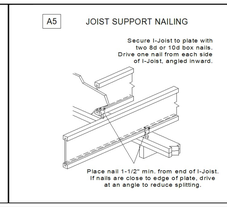
SCALE: 1/4" = 1'-0"

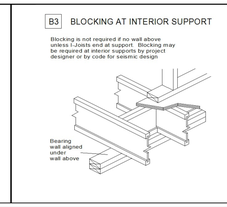
DATE: NOVEMBER 2012

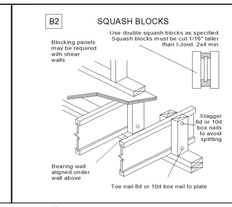
PLAN NO: CL 2344

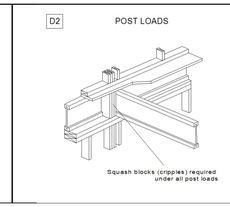
SHEET NO: 3

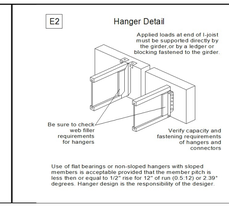


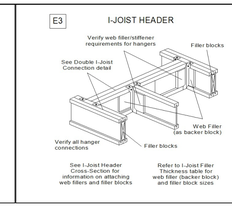


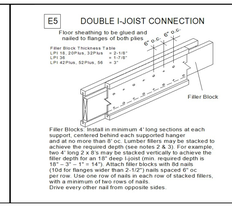


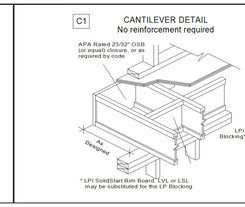


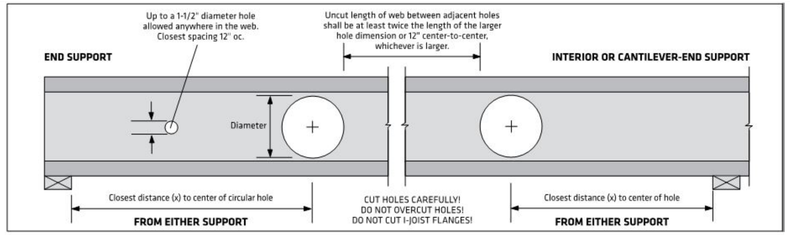












TO USE:

1. Select the required series and depth.
2. Determine the support condition for the nearest bearing: end support or interior support (including cantilever-end supports).
3. Select the row corresponding to the required Clear Span. For spans between those listed, use the next largest value.
4. Select the column corresponding to the required hole diameter. For diameters between those listed, use the next largest value.
5. 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.
6. Double check the distance to the other support, using the appropriate support condition.

Depth	Clear Span (ft)	Distance from End Support – Hole Diameter						Distance from Interior or Cantilever-End Support – Hole Diameter					
		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"

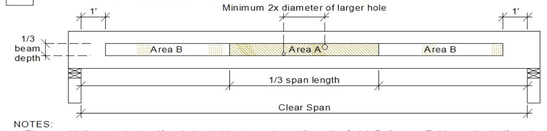
DESIGN ASSUMPTIONS:

1. 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 Live Load and 25 psf Dead Load spaced 24" oc).
2. Hole location is measured from the inside face of bearing to the center of a circular hole, from the closest support.
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.
5. Holes cannot be located in the span where designated "-", without further analysis by a design professional.

NOTES:

1. 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.
2. Round holes up to 1-1/2" diameter may be placed anywhere in the web.
3. Perforated "knockouts" may be neglected when locating web holes.
4. Holes larger than 1-1/2" are not permitted in cantilevers without special engineering.
5. 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.
6. 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.
7. 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.

P BEAM HOLE DETAILS



NOTES:
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.

Important Notes

WARNING: Failure to follow proper procedures for handling, storage and installation could result in unsatisfactory performance, unsafe structures and possible collapse.

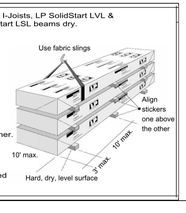
These instructions are offered as a guide to good practice in the handling, storage and installation of LP® SolidStart® I-Joists, LP SolidStart LVL & LP SolidStart LSL beams. They are, however, solely general recommendations and, in some instances, other or additional precautions may be desirable. In all cases, the procedures used should be as specified by the architect/engineer responsible for the entire building.

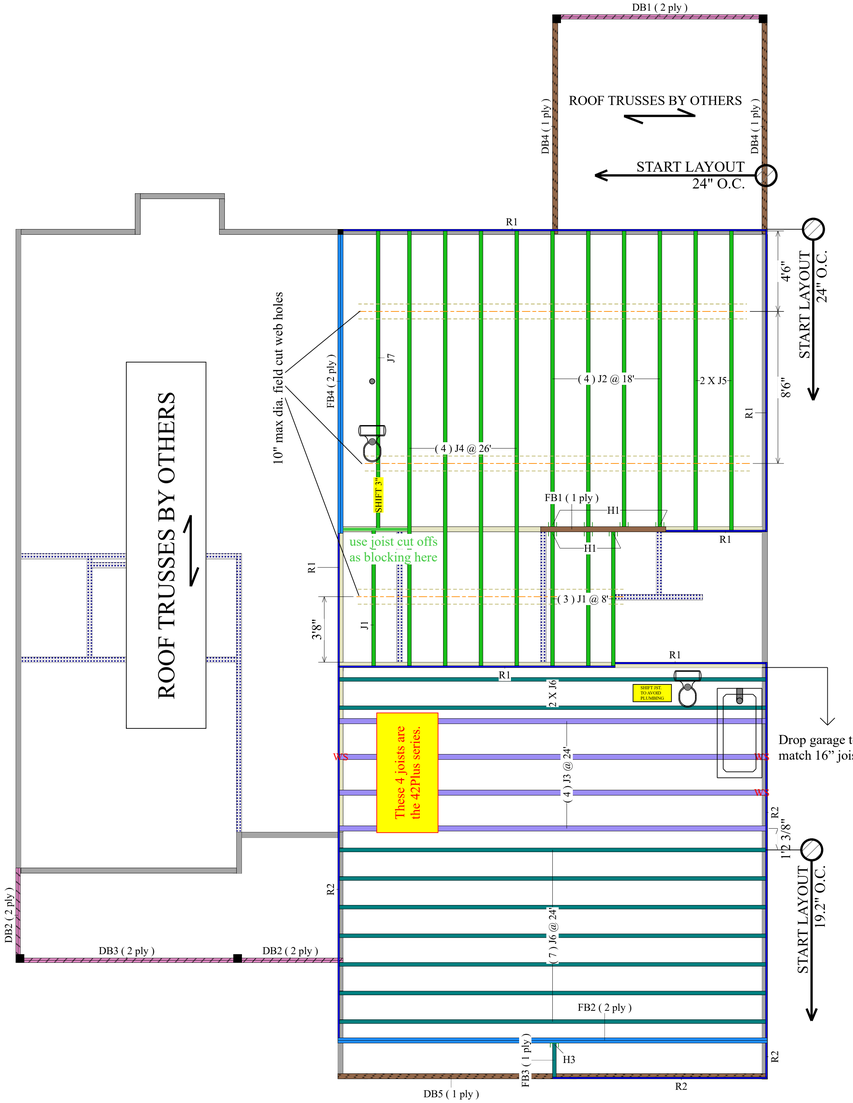
- This is not intended as a manual for selecting products and assumes that components and details have been specified correctly.
- Consult the LP SolidStart I-Joist, LP SolidStart LVL & LP SolidStart LSL brochures or contact your LP SolidStart products distributor for assistance.
- All rim joists, blocking, 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%.

Handling & 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 products are encountered.





2ND FLOOR FRAMING

SCALE: 1/4" = 1'

2nd Flr

I Joist (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
J4	LPI 20Plus	2.5	14			4	26-0-0
J7	LPI 20Plus	2.5	14			1	18-0-0
J5	LPI 20Plus	2.5	14			2	18-0-0
J2	LPI 20Plus	2.5	14			4	18-0-0
J1	LPI 20Plus	2.5	14			4	8-0-0
FB3	LPI 32Plus	2.5	16			1	2-0-0
J6	LPI 32Plus	2.5	16			9	24-0-0
J3	LPI 42Plus	3.5	16			4	24-0-0

LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
FB1	LP-LSL 1.55E	3.5	14			1	8-0-0
FB2	LP-LVL 2900Fb-2.0E	1.75	16	1	2	2	24-0-0
FB4	LP-LVL 2900Fb-2.0E	1.75	16	1	2	2	18-0-0

LVL/LSL (Dropped)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
DB4	LP-LSL 1.55E	3.5	9.25			2	12-0-0
DB5	LP-LSL 1.55E	3.5	11.875			1	24-0-0

Beam By Others (Dropped)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
DB3	[2x10]			1	2	2	14-0-0
DB1	[2x10]			1	2	2	12-0-0
DB2	[2x10]			2	2	4	6-0-0

Rim Board

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	LP APA Rated OSB 1.125 X 14	1.125	14			7	12-0-0
R2	LP APA Rated OSB 1.125 X 16	1.125	16			5	12-0-0

Hanger

Label	Pcs	Description	Skew	Slope	Beam/Girder fasteners	Supported Member fasteners
H1	7	IUS2.56/14 (Min)			12 10d	
H3	1	IUS2.56/16 (Min)			14 10d	

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Dealer
84 Lumber-Fayetteville #2307

Dealer Address
620 Belt Road
Fayetteville, NC 28301
(910) 867-9185

Project
CL2344 GR CP

Created
February 19, 2020

Layout Name
CL2344 GR CP

Description
Caviness Land
CL2344 GR CP

Designer
Kyle Militzer

Revised
April 06, 2020

2nd Flr

Design Method	ASD (USA)
Building Code	IBC/IRC 2015

Floor

Loads	
Live	40
Dead	10
Deflection Joist	
LL Span L/	480
TL Span L/	240
LL Cant 2L/	240
TL Cant 2L/	180
Deflection Girder	
LL Span L/	360
TL Span L/	240
LL Cant 2L/	240
TL Cant 2L/	180
Decking	
Decking	OSB 23/32 APA Rated Sturd-I-Floor
Fastener	Nailed & Glued

Legend

- WS — Web Stiffener
- 3.5" Ext Wall
- 3.5" Int Wall
- 3.5" Non-Brg Wall
- 5.5" Non-Brg Wall
- LP APA Rated OSB 1.125 X 14
- LP APA Rated OSB 1.125 X 16
- LPI 20Plus 14
- LPI 32Plus 16
- LPI 42Plus 16
- LP-LSL 1.55E 3.5 X 9.25 (Dropped)
- LP-LSL 1.55E 3.5 X 11.875 (Dropped)
- LP-LSL 1.55E 3.5 X 14
- LP-LVL 2900Fb-2.0E 1.75 X 16 1.5 X 9.25 (Dropped)

Calculated Structured Designs

GENERAL NOTES:

DO NOT CUT OR MODIFY TRUSSES.

TRUSSES ARE SPACED 24" ON CENTER UNLESS NOTED OTHERWISE.

REFER TO THE INDIVIDUAL TRUSS DESIGN DRAWINGS FOR THE LOCATION OF LATERAL BRACING AND MULTI-PLY CONNECTION REQUIREMENTS.

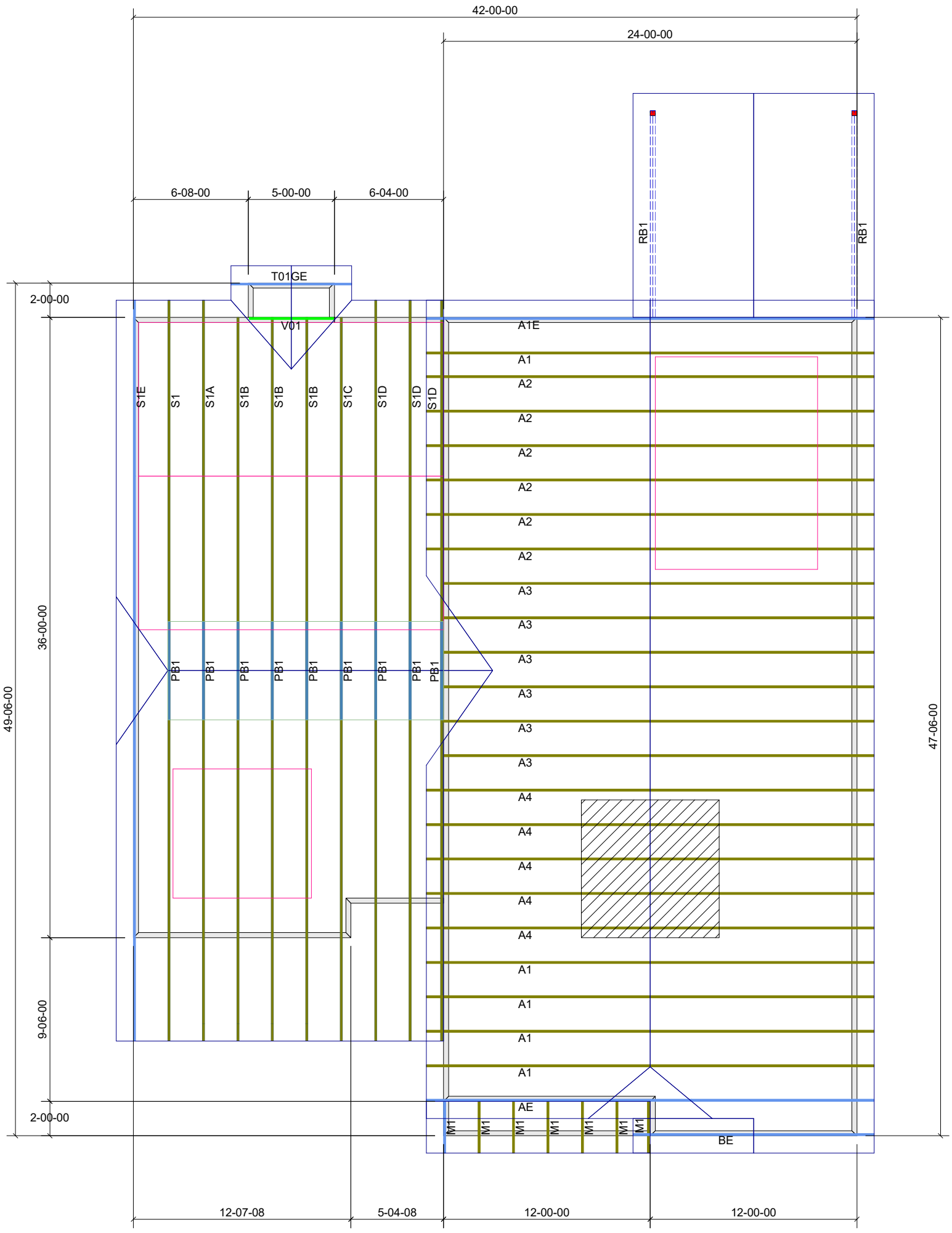
PER ANSI TPI 1-2002 THE TRUSS ENGINEER IS RESPONSIBLE FOR TRUSS TO TRUSS CONNECTIONS AND TRUSS PLY TO PLY CONNECTIONS. THIS TRUSS PLACEMENT PLAN RECCOMENDS TRUSS TO BEARING CONNECTIONS AND TRUSS TO BEAM CONNECTIONS WHICH SHALL BE REVIEWED BY THE BUILDING DESIGNER. IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER TO RESOLVE ALL ROOF FORCES ADEQUATELY TO THE FOUNDATION.

Hardware List:

A	-	-
B	-	-
C	-	-
D	-	-
	-	-
	-	-
	-	-

ORDER: 11472

THIS LAYOUT IS INTENDED FOR THE PURPOSE OF TRUSS LOCATION AND PLACEMENT ONLY.
REFER TO THE BUILDING PLANS FOR ACTUAL BUILDING CONSTRUCTION.



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PHONE: 910-892-8400

ROOF LOADING:

TOP LIVE: 20 PSF

TOP DEAD: 10 PSF

BOTTOM DEAD: 10 PSF

Wind Speed: 130 MPH

PROJECT: **CL 2344 Base**

CUSTOMER: **Caviness Land**

MODEL: **CL-2344 GOR**

SCALE: N T S

DRAWN BY: RE

P.O. NUMBER: XXXXX

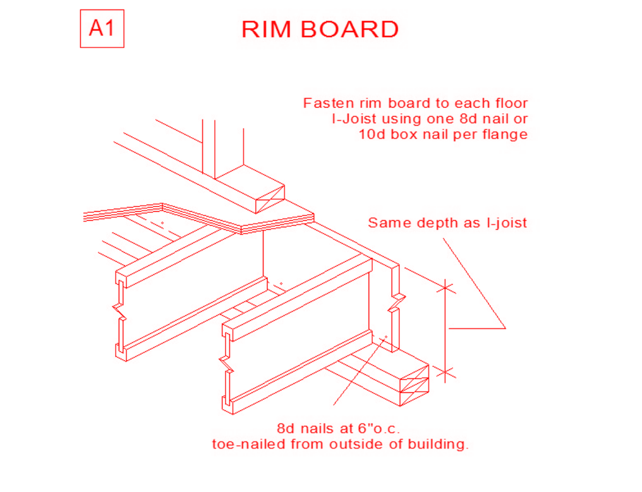
ORDER: 11472

PRINT DATE: / /

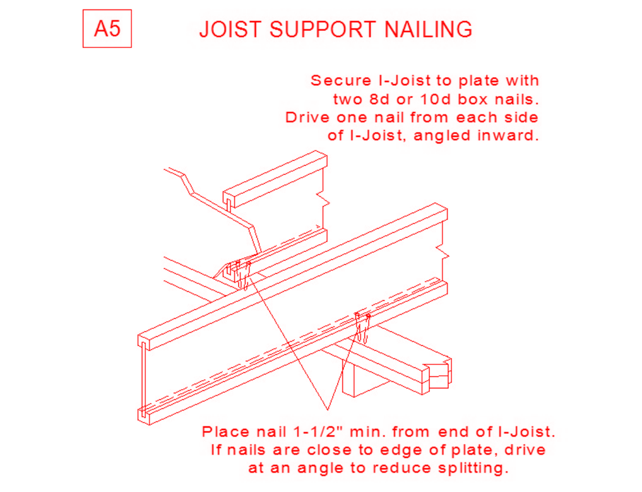
REV: 02/21/17 06:50:08

SHIP DATE: 12/25/20

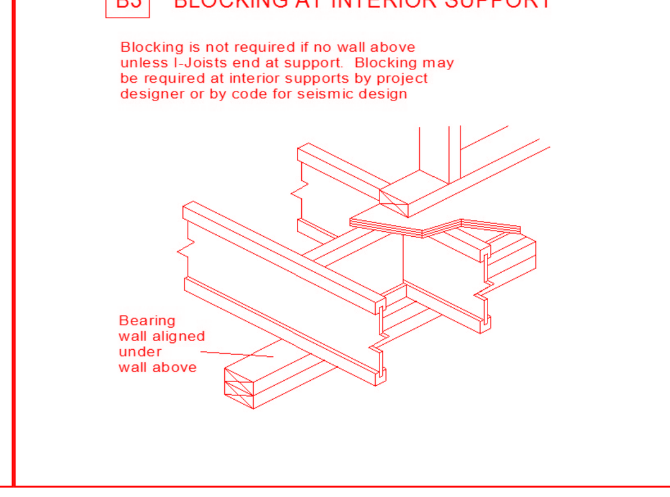
A1 RIM BOARD



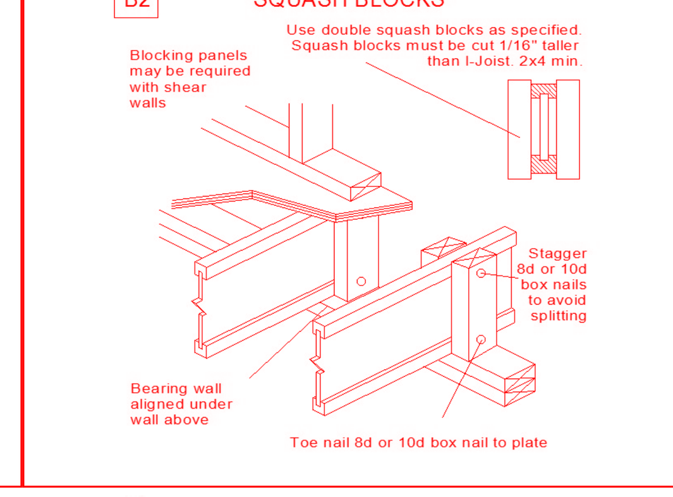
A5 JOIST SUPPORT NAILING



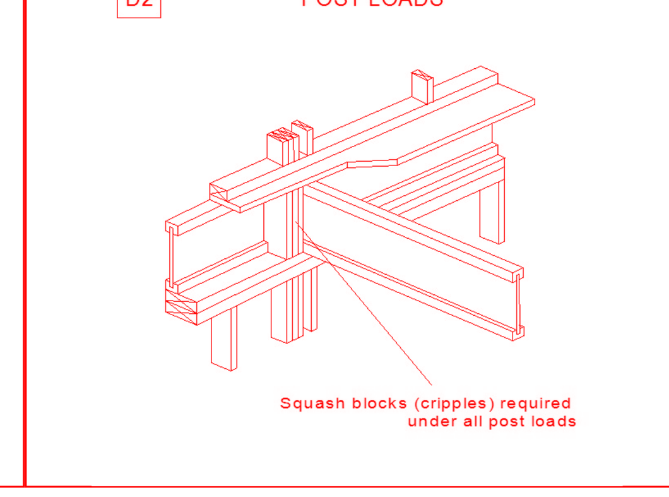
B3 BLOCKING AT INTERIOR SUPPORT



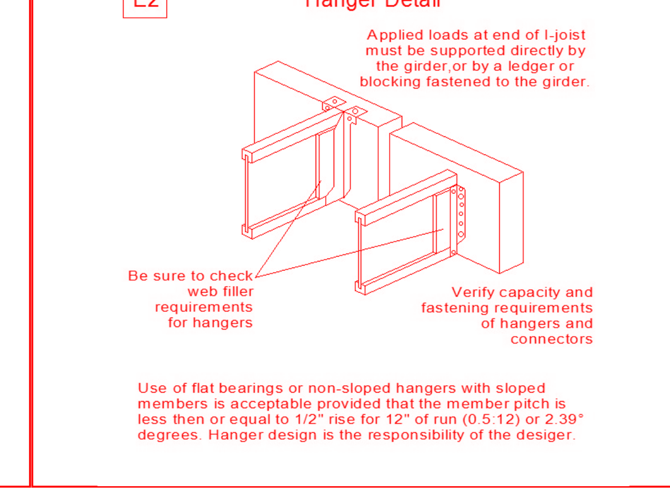
B2 SQUASH BLOCKS



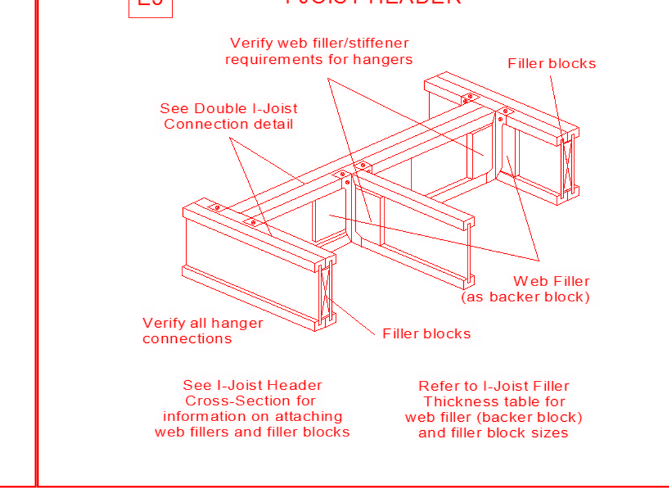
D2 POST LOADS



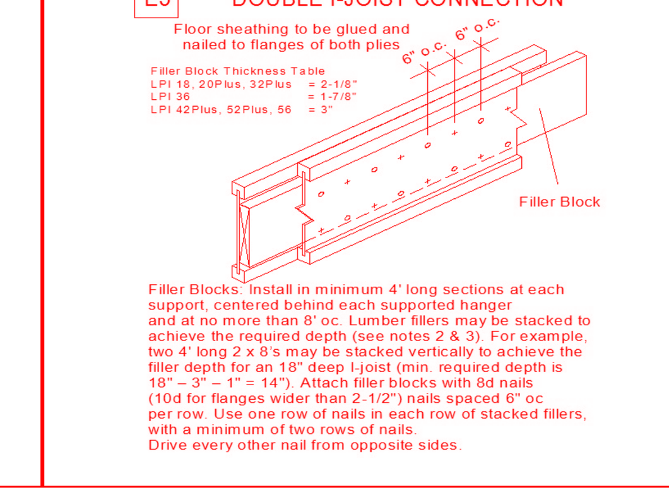
E2 Hanger Detail



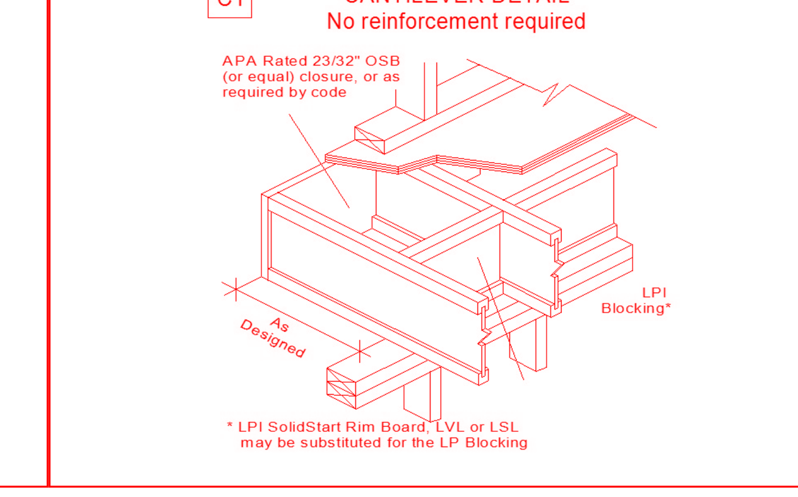
E3 I-JOIST HEADER

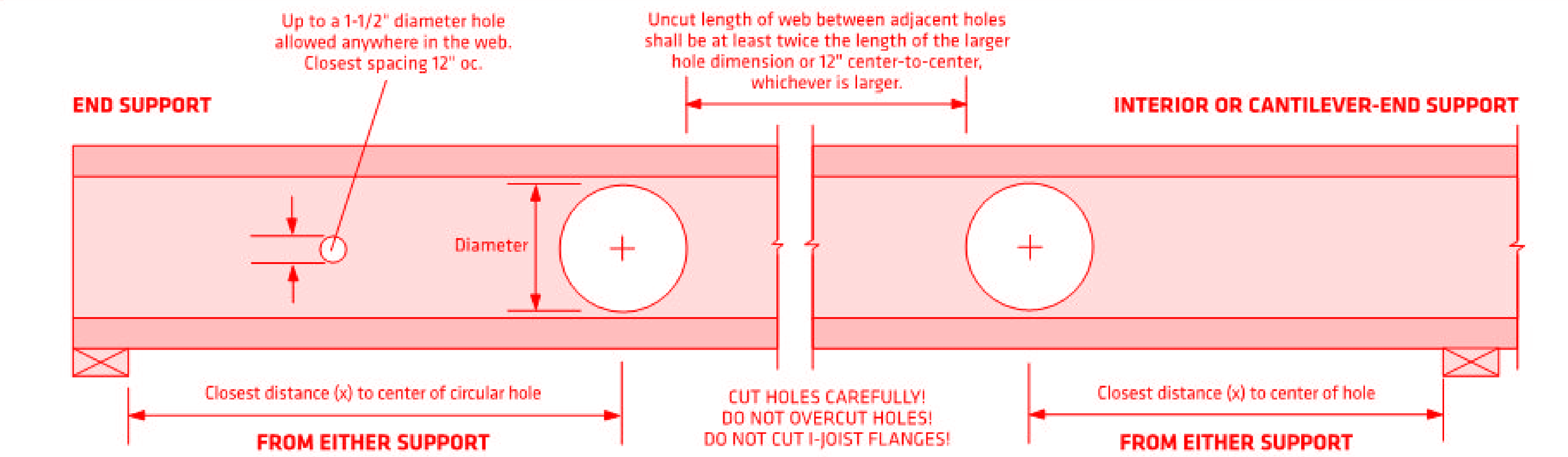


E5 DOUBLE I-JOIST CONNECTION



C1 CANTILEVER DETAIL
No reinforcement required





TO USE:

1. Select the required series and depth.
2. Determine the support condition for the nearest bearing: end support or interior support (including cantilever-end supports).
3. Select the row corresponding to the required Clear Span. For spans between those listed, use the next largest value.
4. Select the column corresponding to the required hole diameter. For diameters between those listed, use the next largest value.
5. 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.
6. Double check the distance to the other support, using the appropriate support condition.

Depth	Clear Span (ft)	Distance from End Support						Distance from Interior or Cantilever-End Support					
		Hole Diameter						Hole Diameter					
		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"

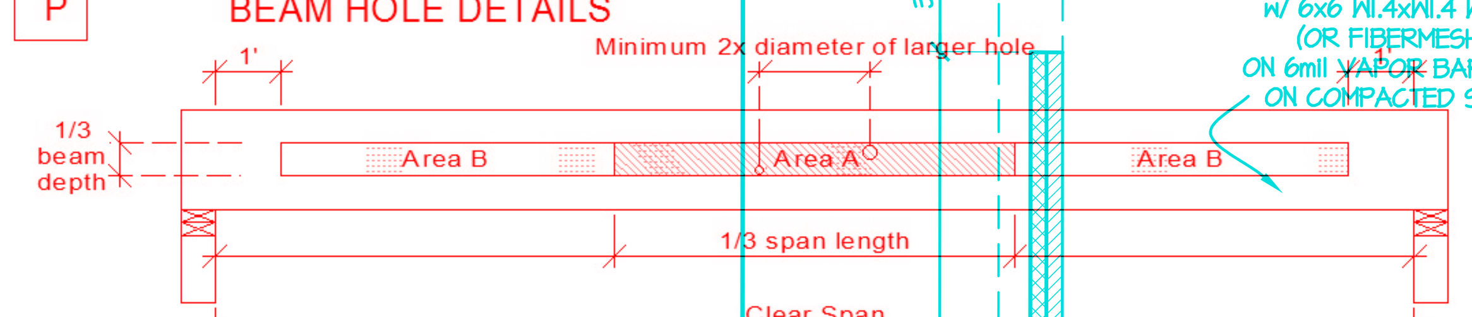
DESIGN ASSUMPTIONS:

1. 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 Live Load and 25 psf Dead Load spaced 24" oc).
2. Hole location is measured from the inside face of bearing to the center of a circular hole, from the closest support.
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.
5. Holes cannot be located in the span where designated "-", without further analysis by a design professional.

NOTES:

1. 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.
2. Round holes up to 1-1/2" diameter may be placed anywhere in the web.
3. Perforated "knockouts" may be neglected when locating web holes.
4. Holes larger than 1-1/2" are not permitted in cantilevers without special engineering.
5. 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.
6. 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.
7. 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.

P BEAM HOLE DETAILS



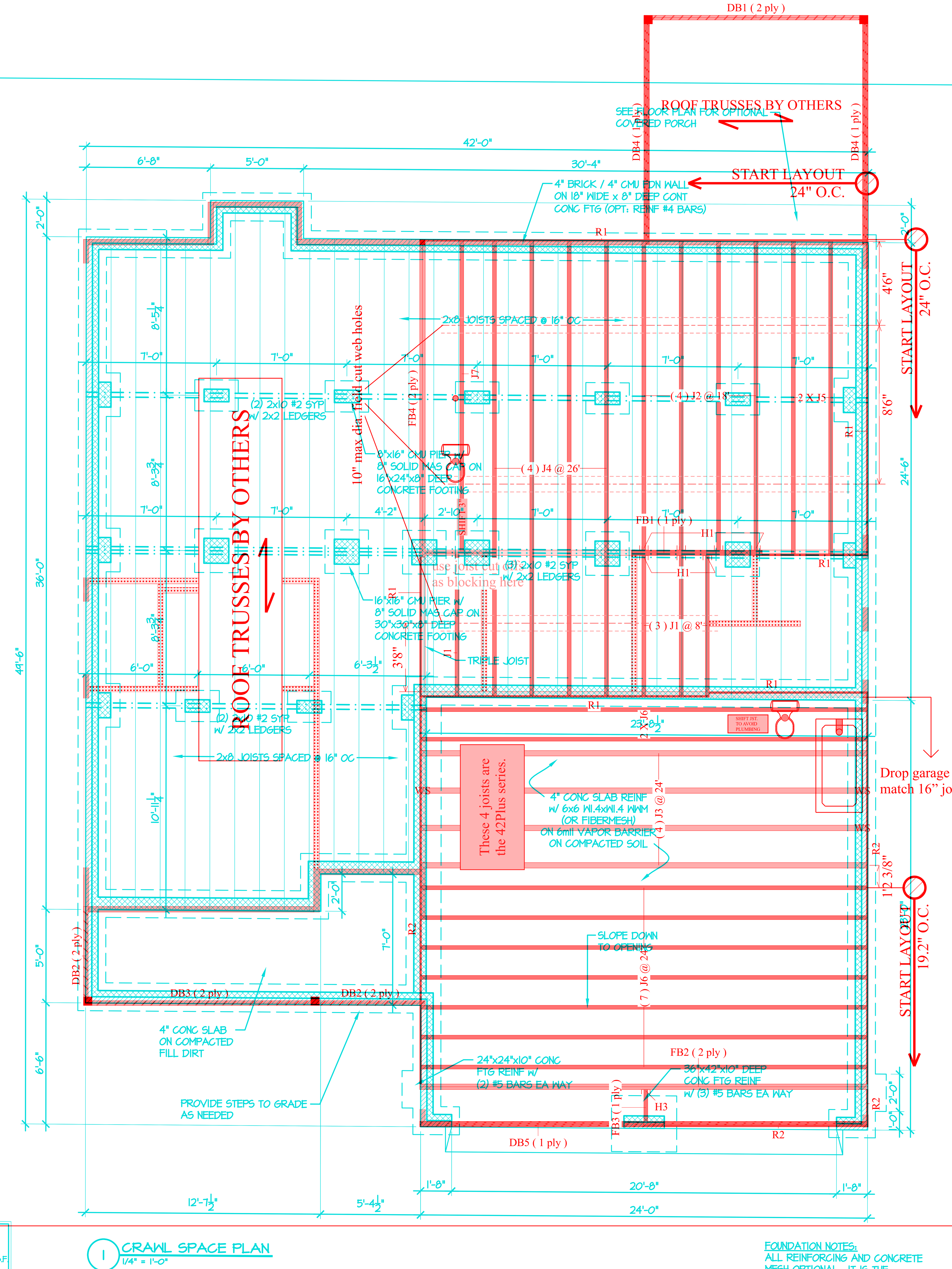
NOTES:
1. These guidelines apply to uniformly loaded beams selected from the Quick Reference Tables or the Uniform Load Tables or designed with LP's design/specification software only. For all other applications, such as beams with concentrated loads, please contact your LP® SolidStart® Engineered Wood 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.

Important Notes

WARNING: Failure to follow proper procedures for handling, storage and installation could result in unsatisfactory performance, unsafe structures and possible collapse.

Handling & Storage

Keep LP SolidStart I-Joists, LP SolidStart LVL & LP SolidStart LSL beams dry.



2nd Flr							
I Joist (Flush)							
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
J4	LPI 20Plus	2.5	14			4	26-0-0
J7	LPI 20Plus	2.5	14			1	18-0-0
J5	LPI 20Plus	2.5	14			2	18-0-0
J2	LPI 20Plus	2.5	14			4	18-0-0
J1	LPI 20Plus	2.5	14			4	8-0-0
FB3	LPI 32Plus	2.5	16			1	2-0-0
J6	LPI 32Plus	2.5	16			9	24-0-0
J3	LPI 42Plus	3.5	16			4	24-0-0
LVL/LSL (Flush)							
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
FB1	LP-LSL 1.55E	3.5	14			1	8-0-0
FB2	LP-LVL 2900Fb-2.0E	1.75	16	1	2	2	24-0-0
FB4	LP-LVL 2900Fb-2.0E	1.75	16	1	2	2	18-0-0
LVL/LSL (Dropped)							
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
DB4	LP-LSL 1.55E	3.5	9.25			2	12-0-0
DB5	LP-LSL 1.55E	3.5	11.875			1	24-0-0
Beam By Others (Dropped)							
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
DB3	[2x10]			1	2	2	14-0-0
DB1	[2x10]			1	2	2	12-0-0
DB2	[2x10]			2	2	4	6-0-0
Rim Board							
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	LP APA Rated OSB 1.125 X 14	1.125	14			7	12-0-0
R2	LP APA Rated OSB 1.125 X 16	1.125	16			5	12-0-0

Hanger

Label	Pcs	Description	Skew	Slope	Beam/Girder fasteners	Supported Member fasteners
H1	7	IUS2.56/14 (Min)			12 10d	
H3	1	IUS2.56/16 (Min)			14 10d	

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TODD TUCKER 34 - 156

Caviness Land

CRAWL SPACE PLAN

2ND FLOOR FRAMING

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

DATE: NOVEMBER 2012

PLAN NO. CL 2344

SHEET NO. 3

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Duluth, GA 30097
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(910) 867-9185

Project
CL2344 GR CP

Created
February 19, 2020

Layout Name
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Description
Caviness Land
CL2344 GR CP

Designer
Kyle Militzer

Revised
April 06, 2020

2nd Flr

Design Method	ASD (USA)
Building Code	IBC/IRC 2015
Floor	
Loads	
Live	40
Dead	10
Deflection Joist	
LL Span L/	480
TL Span L/	240
LL Cant 2L/	240
TL Cant 2L/	180
Deflection Girder	
LL Span L/	360
TL Span L/	240
LL Cant 2L/	240
TL Cant 2L/	180
Decking	
Decking	OSB 23/32 APA Rated Sturd-I-Floor
Fastener	Nailed & Glued

Legend

- WS Web Stiffener
- 3.5" Ext Wall
- 3.5" Int Wall
- 3.5" Non-Brg Wall
- 5.5" Non-Brg Wall
- LP APA Rated OSB 1.125 X 14
- LP APA Rated OSB 1.125 X 16
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- LP-LSL 1.55E 3.5 X 11.875 (Dropped)
- LP-LSL 1.55E 3.5 X 14
- LP-LVL 2900Fb-2.0E 1.75 X 16
- 1.5 X 9.25 (Dropped)

Calculated Structured Designs