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

08/06/2020

Harnett COUNTY NORTH CAROLINA

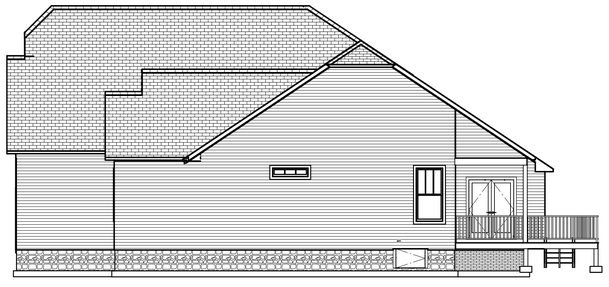
RIDGE VENTING PER BUILDER

NOTES: Grade per SITE conditions per BUILDER, CRAWLSPACE Masonry FOUNDATION, ELEVATION set by BUILDER to SITE conditions, Steps and Railings per site CONDITIONS per BUILDER, VINYL siding, STACKED STONE elevation per GRADE and adjusted by BUILDER

Exterior Elevation Front
SCALE 1/4"=1'

Exterior Elevation Left

Exterior Elevation Back
SCALE 1/8"=1'



Exterior Elevation Right

1

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

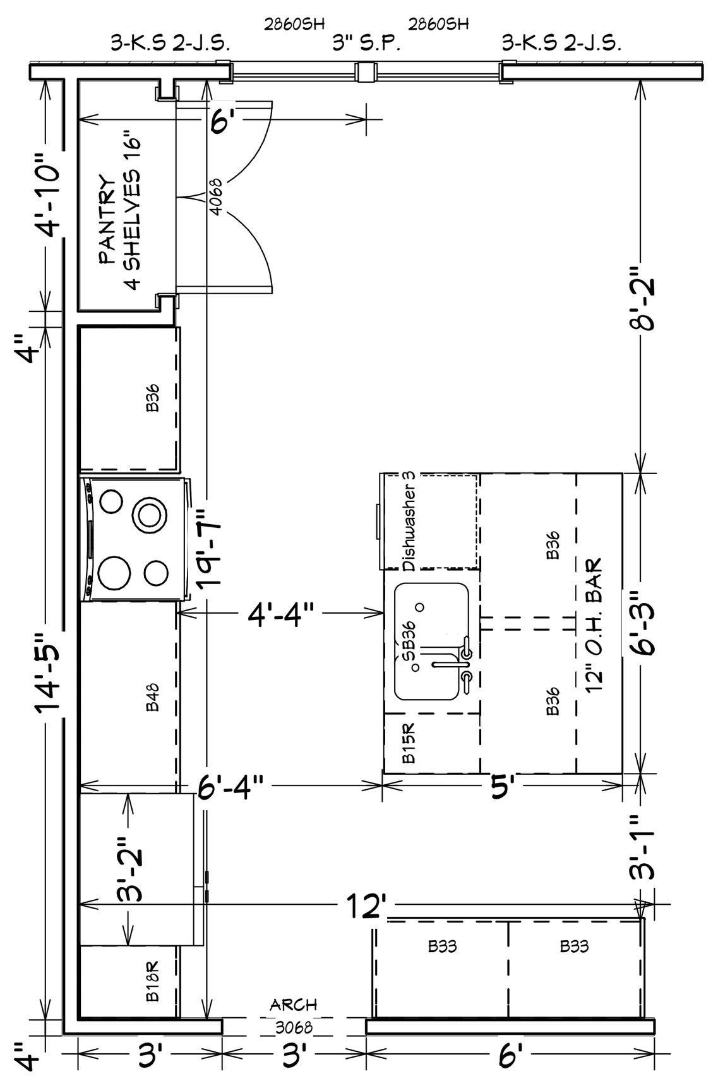
EXTERIOR ELEVATIONS

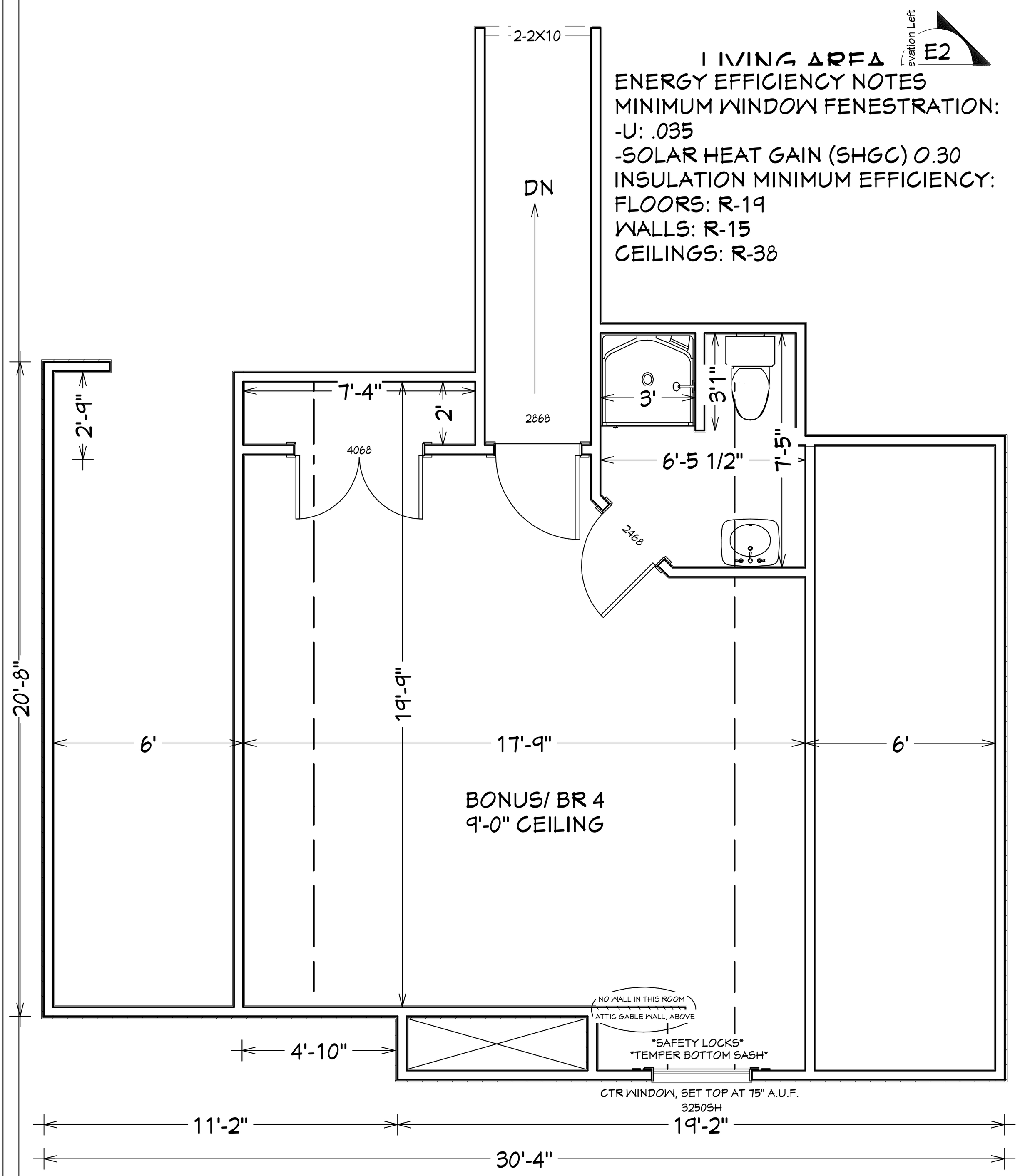
PLAN 1L-2440 EL. "B"
design PJK

DATE:
7/30/2020

SCALE:
1/4"=1'

SHEET:
P-1

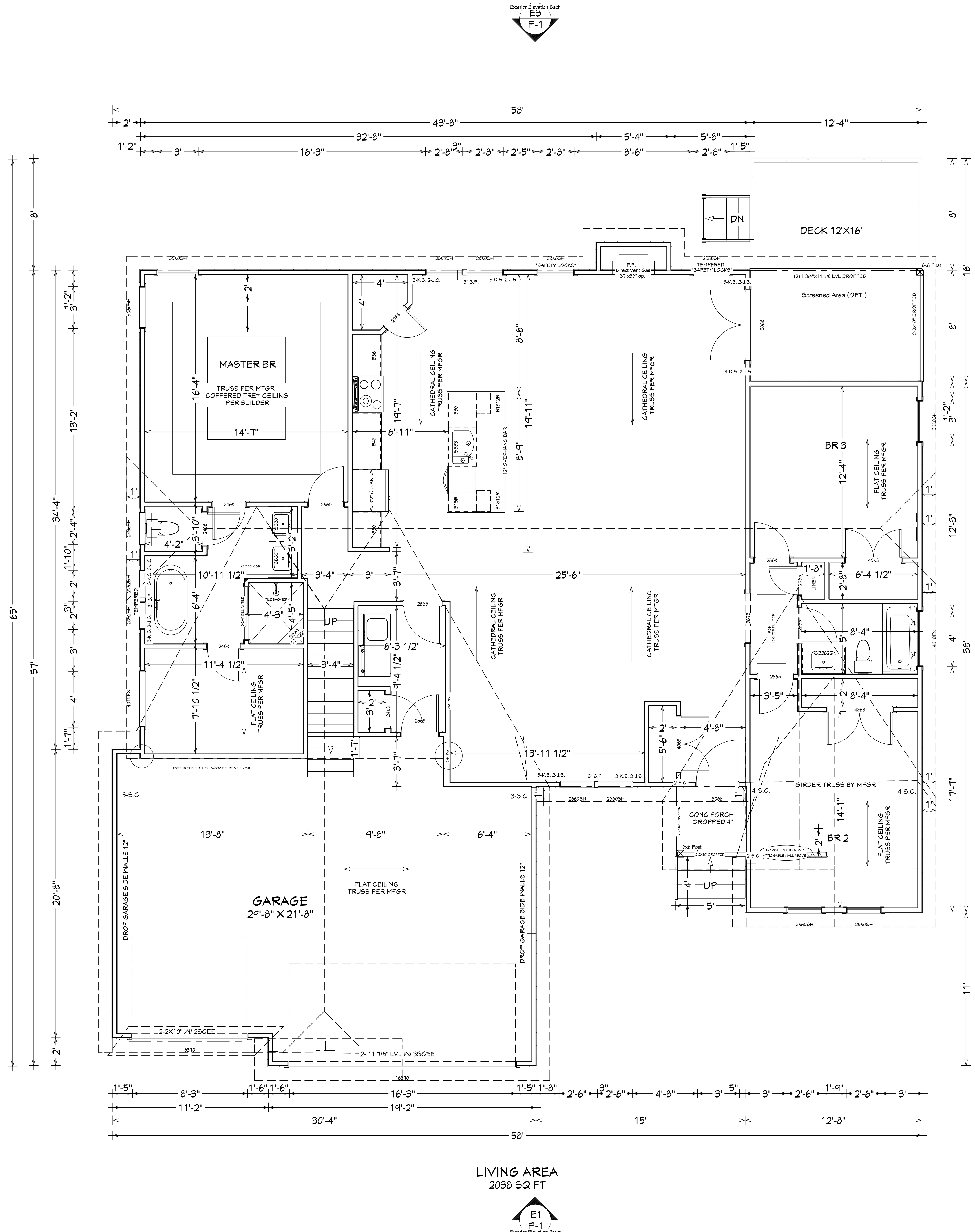




ENERGY EFFICIENCY NOTES
MINIMUM WINDOW FENESTRATION:
-U: .035
-SOLAR HEAT GAIN (SHGC) 0.30
INSULATION MINIMUM EFFICIENCY:
FLOORS: R-19
WALLS: R-15
CEILINGS: R-38

2ND FLOOR VIEW

Working Plan View



LIVING AREA
2038 SQ FT

AREA:
1ST FLOOR: 2038SF
2ND FLOOR: 402SF
TOTAL HEATED: 2440SF
GARAGE: 656SF
PORCH: 25SF
DECK: 192SF

ENERGY EFFICIENCY NOTES
MINIMUM WINDOW FENESTRATION:
-U: .035
-SOLAR HEAT GAIN (SHGC) 0.30
INSULATION MINIMUM EFFICIENCY:
FLOORS: R-19
WALLS: R-15
CEILINGS: R-38

NOTES: SSI PLAN 1L-2440 ELEVATION B
-FOLLOW MANUFACTURER INSTRUCTIONS AND LAYOUTS
FOR FLOOR, ROOF, BEAMS, CEILINGS.
-ALL 1ST FLOOR WALLS 9' 2X4 STUDS U.N.O.
-ADD KING AND EXTRA STUDS AS REQUIRED AND NOTED
-ALL EXTERIOR AND BEARING HEADERS 2-2X10" U.N.O., SET UP TO
TOP PLATE *BONUS CHANGED*
-TEMPERED GLASS AS NOTED (MASTER BATH, LIVING, BONUS BOTTOM).
-DECK BEAMS SUPPORTING ROOF DROPPED
-ROOF OVERHANGS 12"
-ROOF PITCH: MAIN 8/12, GARAGE 12/12, RT GABLE 12/12
-CROP ROOF ENDS 4' NOMINAL, AS SHOWN

REVISION TABLE			
NUMBER	DATE	REVISED BY	DESCRIPTION

1st AND 2nd FLOOR LAYOUTS

PLAN 1L-2440 EL. "B"
design PJK

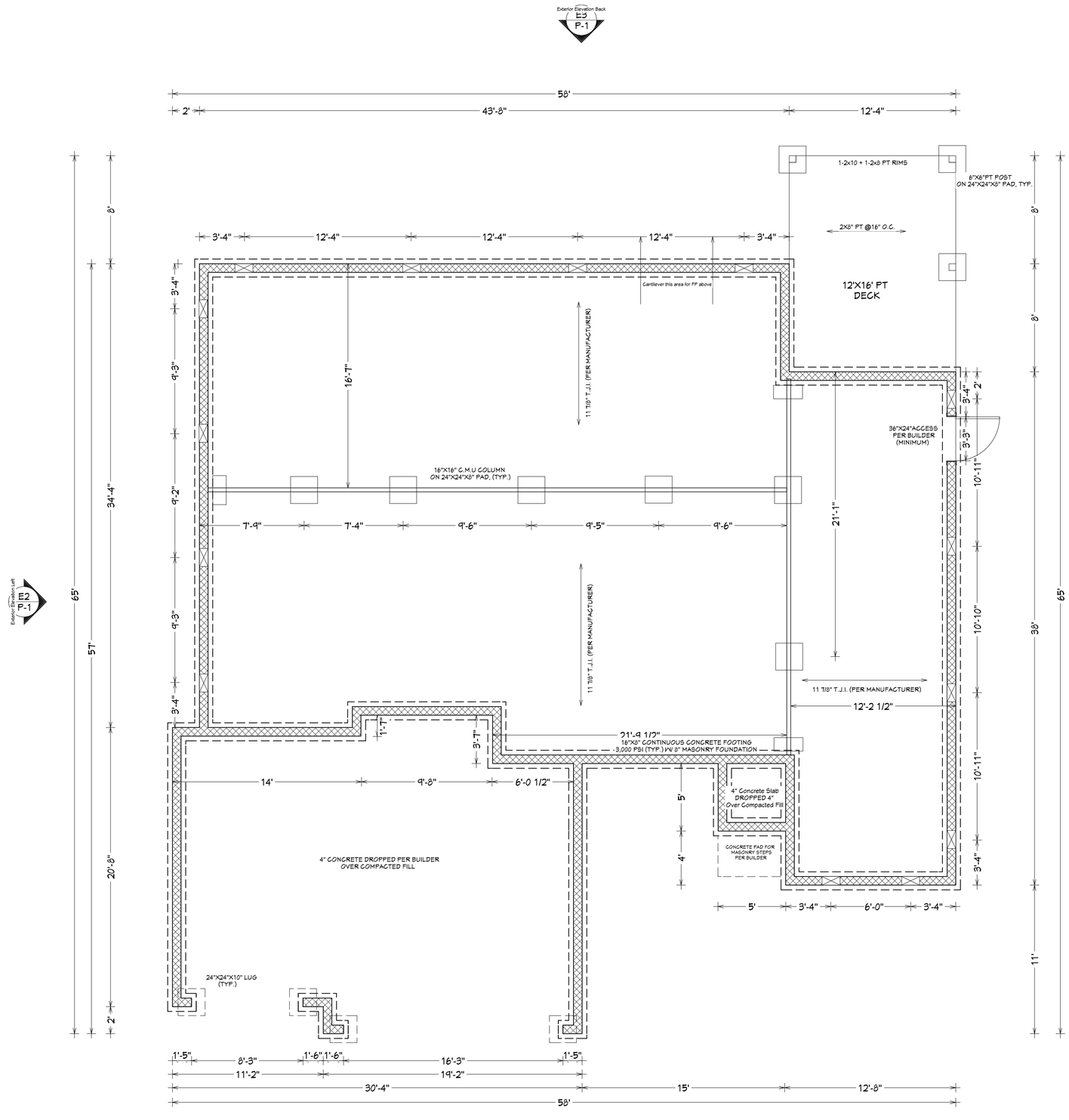
DRAWINGS PROVIDED BY:
South Scan, INC.
Willow Spring, NC 27592

DATE:
7/30/2020

SCALE:
1/4"=1'

SHEET:

Working Plan View



ENERGY EFFICIENCY NOTES
MINIMUM WINDOW FENESTRATION:
-U: .035
-SOLAR HEAT GAIN (SHGC) 0.30
INSULATION MINIMUM EFFICIENCY:
FLOORS: R-19
WALLS: R-15
CEILINGS: R-38

NOTES: SSI PLAN #1L-2440
-PERIMETER FOOTINGS 16"X8" 3000PSI CONCRETE
-MIN ACCESS 36"X24" LOC PER BUILDER
-BEAMS ARE DROPPED
-PIERS ARE 24"X24"X8" (TYP.) U.N.O.
-ANCHOR BOLTS 1/2"X10" SPACED 6'-0" O.C.,12" FROM CORNERS
-VENT CALCS 2008SF CRAWLSPACE/1500=1.34SF TOTAL
REQUIRED W/ 6MIL POLY, LOCATE (1) WITHIN 3' OF EACH CORNER
-Porch ELEVATION +15" F.F. El. (-4")= +11"

3

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

FOUNDATION PLAN
LAYOUT

PLAN 1L-2440 EL. "B"
design PJK

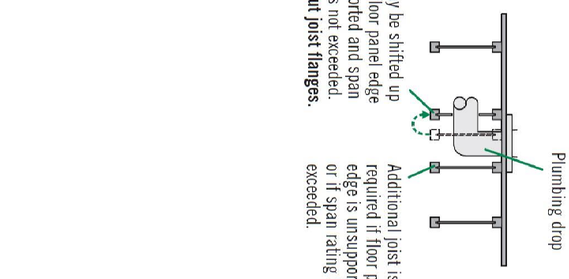
DRAWINGS PROVIDED BY:
South Scan, INC.
Willow Spring, NC 27592

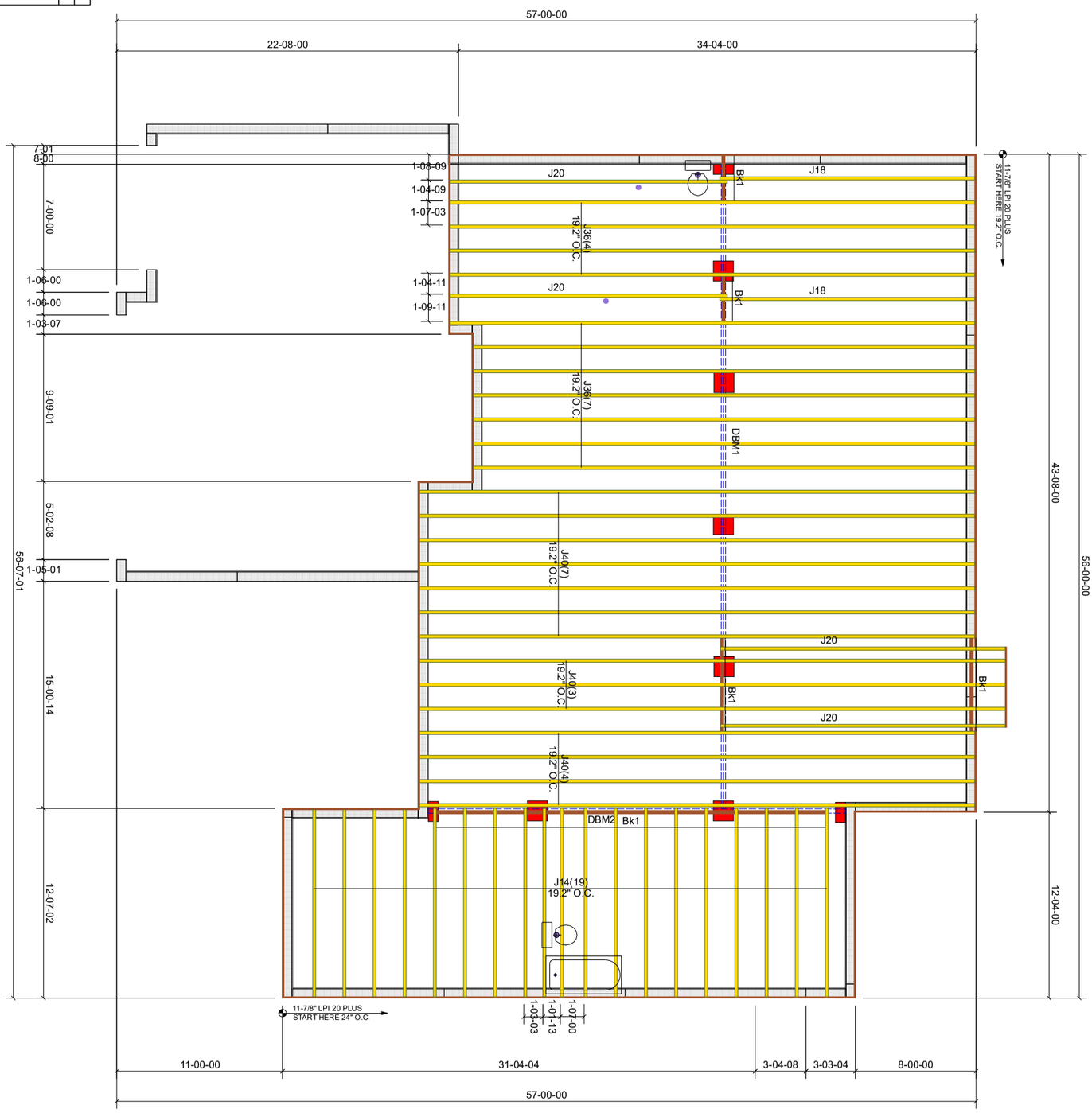
DATE:
7/30/2020

SCALE:
1/4"=1'

SHEET:

PlotID	Length	Products		
		Product	Plies	Net Qty
J40	40-00-00	11-7/8" LPI 20Plus	1	14
J36	36-00-00	11-7/8" LPI 20Plus	1	11
J20	20-00-00	11-7/8" LPI 20Plus	1	4
J18	18-00-00	11-7/8" LPI 20Plus	1	2
J14	14-00-00	11-7/8" LPI 20Plus	1	19
DBM1	44-00-00	1-3/4X9-1/4 LP-LVL 2900Fb-2.0E	2	2
DBM2	28-00-00	1-3/4X9-1/4 LP-LVL 2900Fb-2.0E	2	2
Ca1	12-00-00	1-1/8X11-7/8 LP-OSB Plus	1	18
Bk1	2-00-00	11-7/8" LPI 20Plus	1	3
Bk2	2-00-00	11-7/8" LPI 20Plus	1	17





THIS IS A TRUSS PLACEMENT DIAGRAM ONLY

These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult "Bracing of Wood Trusses" available from the Truss Plate Institute, 583 D'Onifrio Drive; Madison, WI 53179.

SHOP DRAWING APPROVAL

THIS LAYOUT IS THE SOLE SOURCE FOR FABRICATION OF TRUSSES AND VOIDS ALL PREVIOUS ARCHITECTURAL OR OTHER TRUSS LAYOUTS. REVIEW AND APPROVAL OF THIS LAYOUT MUST BE RECEIVED BEFORE ANY TRUSSES WILL BE BUILT. VERIFY ALL CONDITIONS TO INSURE AGAINST CHANGES THAT WILL RESULT IN EXTRA CHARGES TO YOU.

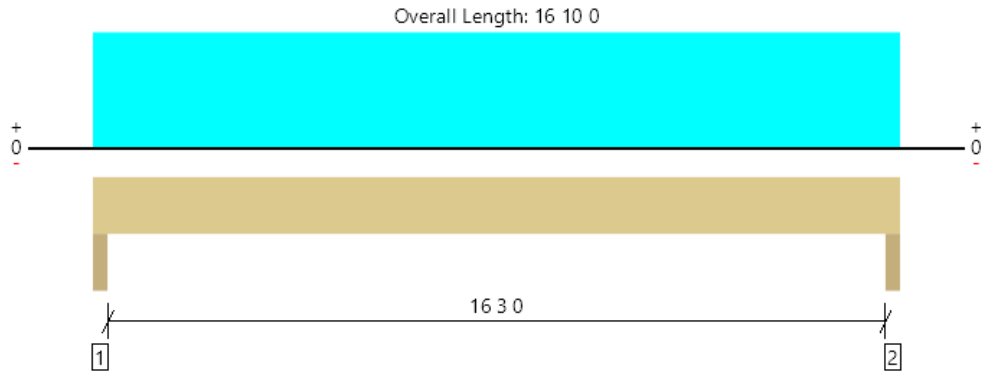
REVIEWED BY: APPROVED BY: DATE:

Job #: Q2000897	Plan: 1ST FLOOR JOIST AND BEAMS
Customer:	Date: 7/7/2020
Site Address:	Sales Rep: RW
City, ST, ZIP:	Designer: TC

Carolina Structural Systems
Roof Trusses • Floor Trusses • EWP
Carolina Structural Systems
P.O. Box 157, Ether, NC 27247
225 Frame Shop Rd., Star, NC 27356
910-491-9004

Level, DB01

2 piece(s) 1 3/4" x 11 7/8" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1617 @ 0 2 0	8881 (3.50")	Passed (18%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	1371 @ 1 3 6	9081	Passed (15%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	6538 @ 8 5 0	20525	Passed (32%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.108 @ 8 5 0	0.825	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.346 @ 8 5 0	1.100	Passed (L/572)	--	1.0 D + 1.0 S (All Spans)

System : Roof
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2018
Design Methodology : ASD
Member Pitch : 0/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Total	
1 - Column - SPF	3.50"	3.50"	1.50"	1112	505	1617	None
2 - Column - SPF	3.50"	3.50"	1.50"	1112	505	1617	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	16 10 0 o/c	
Bottom Edge (Lu)	16 10 0 o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 0 0 to 16 10 0	N/A	12.1	--	
1 - Uniform (PSF)	0 0 0 to 16 10 0 (Top)	2 0 0	10.0	30.0	Default Load
2 - Uniform (PLF)	0 0 0 to 16 10 0 (Top)	N/A	100.0	-	

Weyerhaeuser Notes

Weyerhaeuser warrants that the sizing of its products will be in accordance with Weyerhaeuser product design criteria and published design values. Weyerhaeuser expressly disclaims any other warranties related to the software. Use of this software is not intended to circumvent the need for a design professional as determined by the authority having jurisdiction. The designer of record, builder or framer is responsible to assure that this calculation is compatible with the overall project. Accessories (Rim Board, Blocking Panels and Squash Blocks) are not designed by this software. Products manufactured at Weyerhaeuser facilities are third-party certified to sustainable forestry standards. Weyerhaeuser Engineered Lumber Products have been evaluated by ICC-ES under evaluation reports ESR-1153 and ESR-1387 and/or tested in accordance with applicable ASTM standards. For current code evaluation reports, Weyerhaeuser product literature and installation details refer to www.weyerhaeuser.com/woodproducts/document-library.

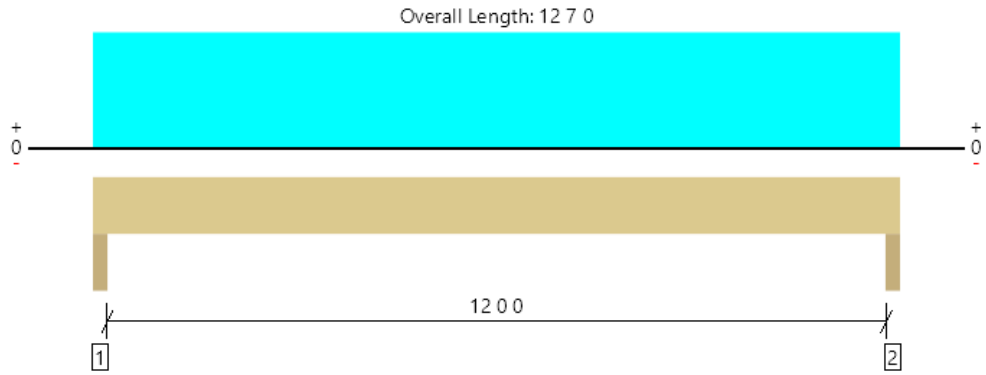
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Cameron Lallathin Carolina Structural Systems (336) 423-2910 clallathin@carolinastructuralsystems.com	

Weyerhaeuser

Level, DB02

2 piece(s) 1 3/4" x 11 7/8" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	4757 @ 0 2 0	8881 (3.50")	Passed (54%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	3788 @ 1 3 6	9081	Passed (42%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	14183 @ 6 3 8	20525	Passed (69%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.276 @ 6 3 8	0.613	Passed (L/532)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.432 @ 6 3 8	0.817	Passed (L/341)	--	1.0 D + 1.0 S (All Spans)

System : Roof
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2018
Design Methodology : ASD
Member Pitch : 0/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Total	
1 - Column - SPF	3.50"	3.50"	1.87"	1712	3045	4757	None
2 - Column - SPF	3.50"	3.50"	1.87"	1712	3045	4757	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	9 3 0 o/c	
Bottom Edge (Lu)	12 7 0 o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 0 0 to 12 7 0	N/A	12.1	--	
1 - Uniform (PLF)	0 0 0 to 12 7 0 (Top)	N/A	260.0	484.0	C02

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The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Cameron Lallathin Carolina Structural Systems (336) 423-2910 clallathin@carolinastructuralsystems.com	

Weyerhaeuser

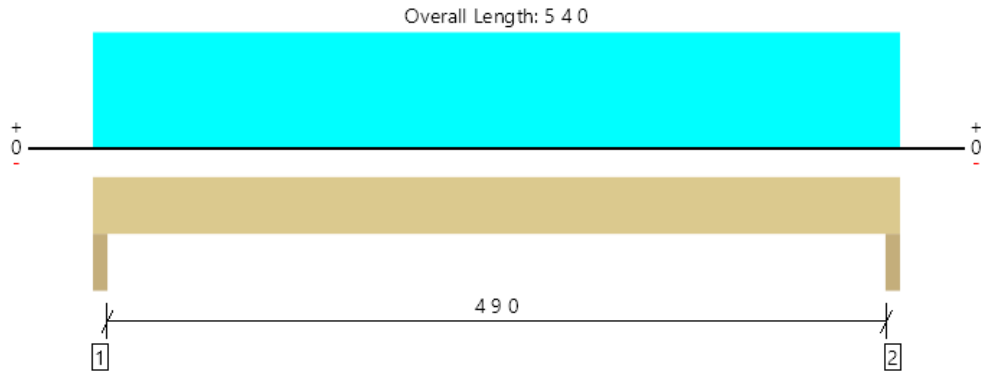
FORTE WEB

MEMBER REPORT

PASSED

Level, DB03

2 piece(s) 2 x 10 Spruce-Pine-Fir No. 1 / No. 2



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1024 @ 0 2 0	4463 (3.50")	Passed (23%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	616 @ 1 0 12	2872	Passed (21%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	1200 @ 2 8 0	3946	Passed (30%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.012 @ 2 8 0	0.250	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.019 @ 2 8 0	0.333	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)

System : Roof
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2018
Design Methodology : ASD
Member Pitch : 0/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Total	
1 - Column - SPF	3.50"	3.50"	1.50"	371	653	1024	None
2 - Column - SPF	3.50"	3.50"	1.50"	371	653	1024	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	5 4 0 o/c	
Bottom Edge (Lu)	5 4 0 o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 0 0 to 5 4 0	N/A	7.0	--	
1 - Uniform (PLF)	0 0 0 to 5 4 0 (Top)	N/A	132.0	245.0	Default Load

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The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Cameron Lallathin Carolina Structural Systems (336) 423-2910 clallathin@carolinastructuralsystems.com	

Weyerhaeuser

8/3/2020 4:54:23 PM UTC

ForteWEB v3.0, Engine: V8.1.2.3, Data: V8.0.0.0

File Name: 514 Carolina Lakes

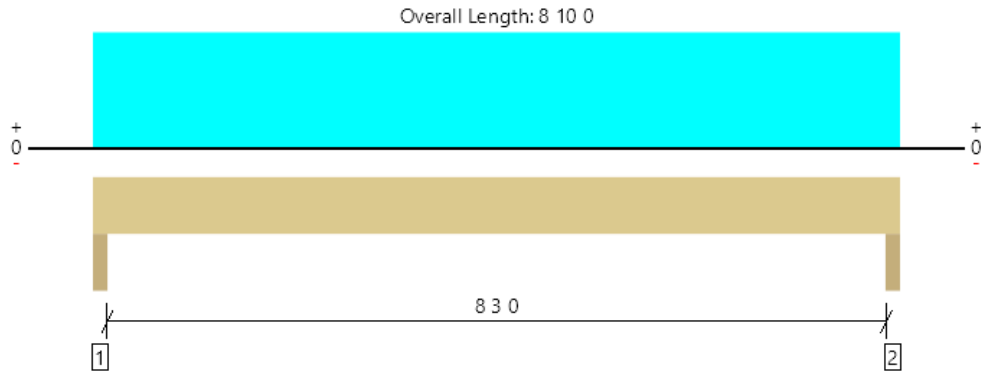
FORTE WEB

MEMBER REPORT

PASSED

Level, DB04

2 piece(s) 2 x 10 Spruce-Pine-Fir No. 1 / No. 2



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	605 @ 0 2 0	4463 (3.50")	Passed (14%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	460 @ 1 0 12	2872	Passed (16%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	1238 @ 4 5 0	3946	Passed (31%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.025 @ 4 5 0	0.425	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.058 @ 4 5 0	0.567	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)

System : Roof
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2018
Design Methodology : ASD
Member Pitch : 0/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Total	
1 - Column - SPF	3.50"	3.50"	1.50"	340	265	605	None
2 - Column - SPF	3.50"	3.50"	1.50"	340	265	605	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	8 10 0 o/c	
Bottom Edge (Lu)	8 10 0 o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 0 0 to 8 10 0	N/A	7.0	--	
1 - Uniform (PSF)	0 0 0 to 8 10 0 (Top)	2 0 0	10.0	30.0	Default Load
2 - Uniform (PLF)	0 0 0 to 8 10 0 (Top)	N/A	50.0	-	

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The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Cameron Lallathin Carolina Structural Systems (336) 423-2910 clallathin@carolinastructuralsystems.com	

Weyerhaeuser

8/3/2020 4:54:28 PM UTC

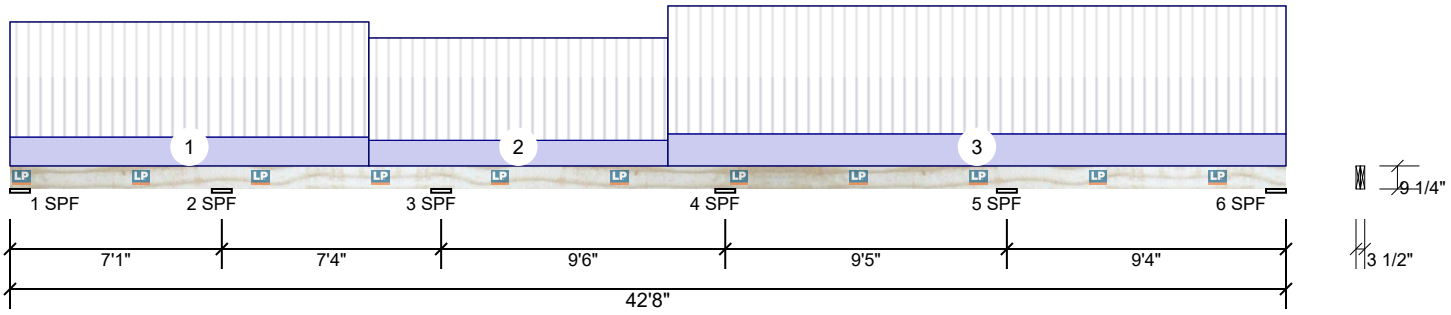
ForteWEB v3.0, Engine: V8.1.2.3, Data: V8.0.0.0

File Name: 514 Carolina Lakes

Client:	SOUTH SCAN	Date:	7/31/2020
Project:		Input by:	THORN COLLINS
Address:	110 MAPLE WOOD DR. LOT 514 SANFORD N.C. 27332	Job Name:	SOUTH SCAN (110 MAPLEWOOD)
		Project #:	

DBM1 LP-LVL 2900Fb-2.0E 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	1140	315	0	0	0
2	2658	732	0	0	0
3	2750	767	0	0	0
4	3557	978	0	0	0
5	4077	1113	0	0	0
6	1604	438	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	8.000"	14%	313 / 1316	1629	L_L_L	D+L
2 - SPF	8.000"	32%	736 / 3078	3814	LL_L_	D+L
3 - SPF	8.000"	34%	765 / 3291	4055	_LL_L	D+L
4 - SPF	8.000"	42%	975 / 4031	5006	L_LL_	D+L
5 - SPF	8.000"	46%	1118 / 4356	5473	_L_LL	D+L
6 - SPF	8.000"	19%	436 / 1809	2245	L_L_L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-4772 ft-lb	33'4"	12416 ft-lb	0.384 (38%)	D+L	_L_LL
Pos Moment	3685 ft-lb	38'3 1/8"	12416 ft-lb	0.297 (30%)	D+L	L_L_L
Shear	2377 lb	34'1 1/4"	6151 lb	0.386 (39%)	D+L	_L_LL
LL Defl inch	0.100 (L/1048)	37'10 5/16"	0.218 (L/480)	0.460 (46%)	L	L_L_L
TL Defl inch	0.118 (L/884)	37'10 15/16"	0.436 (L/240)	0.270 (27%)	D+L	L_L_L

Design Notes

1 Provide lateral support to prevent rotation at end bearings and at interior bearings when required by code for seismic design.
2 Dead Load Deflection: Instant = 0.019", Long Term = 0.028"
3 Girders are designed to be supported on the bottom edge only.
4 Multiple plies must be fastened together as per manufacturer's details.
5 Top loads must be supported equally by all plies.
6 Top braced at bearings.
7 Bottom braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 12-0-0		Top	90 PLF	360 PLF	0 PLF	0 PLF	0 PLF	FLOOR LOAD AT 40 LIVE AND 10 DEAD WITH 9' TRIB
2	Part. Uniform	12-0-0 to 22-0-0		Top	80 PLF	320 PLF	0 PLF	0 PLF	0 PLF	FLOOR LOAD AT 40 LIVE AND 10 DEAD WITH 8' TRIB
3	Part. Uniform	22-0-0 to 42-8-0		Top	100 PLF	400 PLF	0 PLF	0 PLF	0 PLF	FLOOR LOAD AT 40 LIVE AND 10 DEAD WITH 10' TRIB
	Self Weight				9 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

This design is valid until 10/31/2021

Manufacturer Info

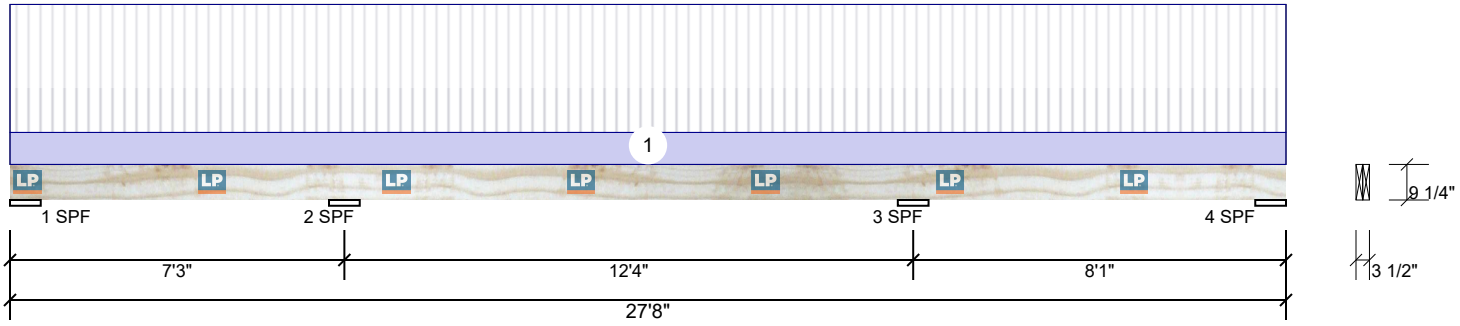
Louisiana-Pacific Corp
414 Union Street, Suite 2000
Nashville, TN 37219
(888) 820-0325
www.lpcorp.com
APA: PR-L280, ICC-ES: ESR-2403, LADBS: RR-25783, Florida: FL15228

CAROLINA STRUCTURAL SYSTEMS, NORTH CAROLINA
USA
27356

Client:	SOUTH SCAN	Date:	7/31/2020
Project:		Input by:	THORN COLLINS
Address:	110 MAPLE WOOD DR. LOT 514 SANFORD N.C. 27332	Job Name:	SOUTH SCAN (110 MAPLEWOOD)
		Project #:	

DBM2 LP-LVL 2900Fb-2.0E 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	592	170	0	0	0
2	2779	797	0	0	0
3	2877	825	0	0	0
4	724	208	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	8.000"	9%	168 / 944	1112 (-39)	L_L	D+L(D+L)
2 - SPF	8.000"	31%	799 / 2901	3700	LL_	D+L
3 - SPF	8.000"	32%	827 / 2963	3789	_LL	D+L
4 - SPF	8.000"	10%	206 / 1018	1224	L_L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-3786 ft-lb	19'7"	12416 ft-lb	0.305 (30%)	D+L	_LL
Pos Moment	3064 ft-lb	13'5 5/16"	12416 ft-lb	0.247 (25%)	D+L	_L_
Shear	1820 lb	18'9 3/4"	6151 lb	0.296 (30%)	D+L	_LL
LL Defl inch	0.139 (L/1063)	13'5 5/16"	0.308 (L/480)	0.450 (45%)	L	_L_
TL Defl inch	0.170 (L/869)	13'5 1/8"	0.617 (L/240)	0.280 (28%)	D+L	_L_

Design Notes

1 Provide lateral support to prevent rotation at end bearings and at interior bearings when required by code for seismic design.
2 Dead Load Deflection: Instant = 0.031", Long Term = 0.047"
3 Girders are designed to be supported on the bottom edge only.
4 Multiple plies must be fastened together as per manufacturer's details.
5 Top loads must be supported equally by all plies.
6 Tie-down connection required at bearing 1 for uplift 39 lb (Combination D+L, Load Case _L_).
7 Top braced at bearings.
8 Bottom braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	63 PLF	252 PLF	0 PLF	0 PLF	0 PLF	FLOOR LIVE LOAD AT 40 LIVE AND 10 DEAD WITH 6' 3" TRIB
	Self Weight				9 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

This design is valid until 10/31/2021

Manufacturer Info

Louisiana-Pacific Corp
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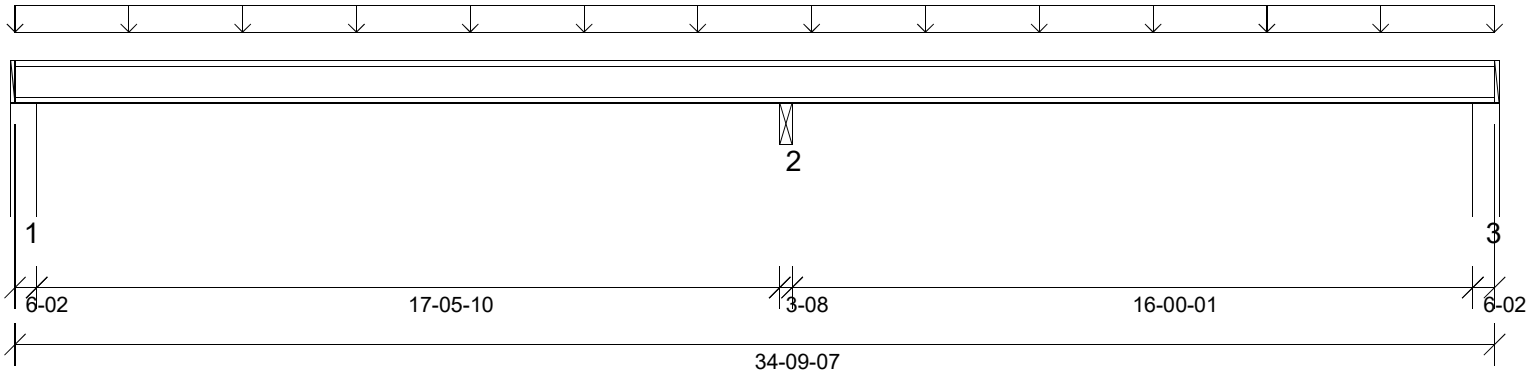
CAROLINA STRUCTURAL SYSTEMS, NORTH CAROLINA
USA
27356



Graphical Illustration - Not To Scale
Member Cut Length - 34'- 9 7/16"
MemberPitch - 0/12

Design Information:

Building Code:	IRC2015	Floor Dead Load:	10.0 lb/ft²	Roof Dead Load:	10.0 lb/ft²	Ground Snow Load:	0.0 lb/ft²
Design Methodology:	ASD	Floor Live Load:	40.0 lb/ft²	Roof Live Load:	20.0 lb/ft²		
		Unbraced Length Top:	0'	Bottom:	17'- 5 5/8"		

Design Results:

	Location	Design	Control		Result	LDF	Load Combination
Critical Moment (Pos)	7'- 11 7/16"	2255.86 lb ft	3755.02 lb ft		Passed - 60%	1.00	D + L
Critical Moment (Neg)	18'- 1 1/2"	-2889.27 lb ft	3755.02 lb ft		Passed - 77%	1.00	D + L
Critical Shear	17'- 11 11/16"	858.53 lb	1485.00 lb		Passed - 58%	1.00	D + L
Live Load Deflection	8'- 9 3/16"	0'- 1/4"	0'- 3/4" (L/480)		Passed - L/786	-	L
Total Load Deflection	8'- 7 13/16"	0'- 5/16"	0'- 1" (L/240)		Passed - L/654	-	D + L
Max. Reaction			Supported Mtl	Supporting Mtl			
	0'- 5 1/8"	643.84 lb	1160.00 lb	6507.80 lb	Passed - 56%	1.00	D + L
	18'- 1 1/2"	1697.26 lb	2330.20 lb	6562.44 lb	Passed - 73%	1.00	D + L
	34'- 4 5/16"	594.01 lb	1160.00 lb	6507.78 lb	Passed - 51%	1.00	D + L

Loading:

				Maximum Load Magnitudes			
Type	Start	End	Source	Dead	Floor Live	Roof Live	Snow
Uniform	0'	34'- 9 7/16"	FC1 Floor Material	16 lb/ft	64 lb/ft	-	-

Support Information:

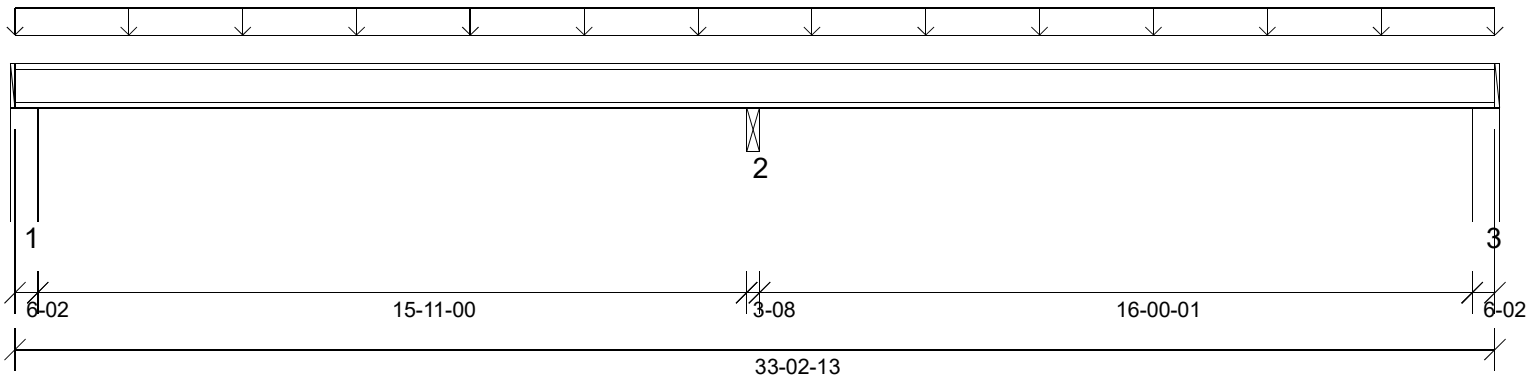
				Maximum Analysis Reactions			
Support	Start	End	Source	Dead	Floor Live	Roof Live	Snow
1	0'	0'- 6 1/8"	W15(i15)	117.00 lb	526.00/-57.00 lb	-	-
2	17'- 11 3/4"	18'- 3 1/4"	DBM1(i633)	339.00 lb	1358.00 lb	-	-
3	34'- 3 5/16"	34'- 9 7/16"	W4(i6)	103.00 lb	491.00/-80.00 lb	-	-

Errors, Warnings & Notes:

* The dead loads used in the design of this member were applied to the structure as projected dead loads.
* The member graphic, dimensions, and locations shown on this report are based on the centerline of the member.
* Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.

Member: 1 - 11-7/8" LPI 20Plus

Status: Design Passed



Graphical Illustration - Not To Scale
Member Cut Length - 33'- 2 13/16"
MemberPitch - 0/12

Design Information:

Building Code:	IRC2015	Floor Dead Load:	10.0 lb/ft²	Roof Dead Load:	10.0 lb/ft²	Ground Snow Load:	0.0 lb/ft²
Design Methodology:	ASD	Floor Live Load:	40.0 lb/ft²	Roof Live Load:	20.0 lb/ft²		
		Unbraced Length Top:	0'	Bottom:	16'- 1/16"		

Design Results:

	Location	Design	Control		Result	LDF	Load Combination
Critical Moment (Pos)	25'- 10 3/4"	1899.05 lb ft	3755.02 lb ft		Passed - 51%	1.00	D + L
Critical Moment (Neg)	16'- 6 7/8"	-2615.70 lb ft	3755.02 lb ft		Passed - 70%	1.00	D + L
Critical Shear	16'- 8 11/16"	797.71 lb	1485.00 lb		Passed - 54%	1.00	D + L
Live Load Deflection	25'- 1 5/8"	0'- 3/16"	0'- 3/4" (L/480)		Passed - L/989	-	L
Total Load Deflection	25'- 3 1/16"	0'- 1/4"	0'- 1" (L/240)		Passed - L/826	-	D + L
Max. Reaction			Supported Mtl	Supporting Mtl			
	0'- 5 1/8"	591.47 lb	1160.00 lb	6507.83 lb	Passed - 51%	1.00	D + L
	16'- 6 7/8"	1616.98 lb	2330.20 lb	6562.53 lb	Passed - 69%	1.00	D + L
	32'- 9 11/16"	594.41 lb	1160.00 lb	6507.78 lb	Passed - 51%	1.00	D + L

Loading:

				Maximum Load Magnitudes			
Type	Start	End	Source	Dead	Floor Live	Roof Live	Snow
Uniform	0'	33'- 2 13/16"	FC1 Floor Material	16 lb/ft	64 lb/ft	-	-

Support Information:

				Maximum Analysis Reactions			
Support	Start	End	Source	Dead	Floor Live	Roof Live	Snow
1	0'	0'- 6 1/8"	W13(i12)	105.00 lb	486.00/-65.00 lb	-	-
2	16'- 5 1/8"	16'- 8 5/8"	DBM1(i633)	323.00 lb	1294.00 lb	-	-
3	32'- 8 11/16"	33'- 2 13/16"	W4(i6)	106.00 lb	488.00/-64.00 lb	-	-

Errors, Warnings & Notes:

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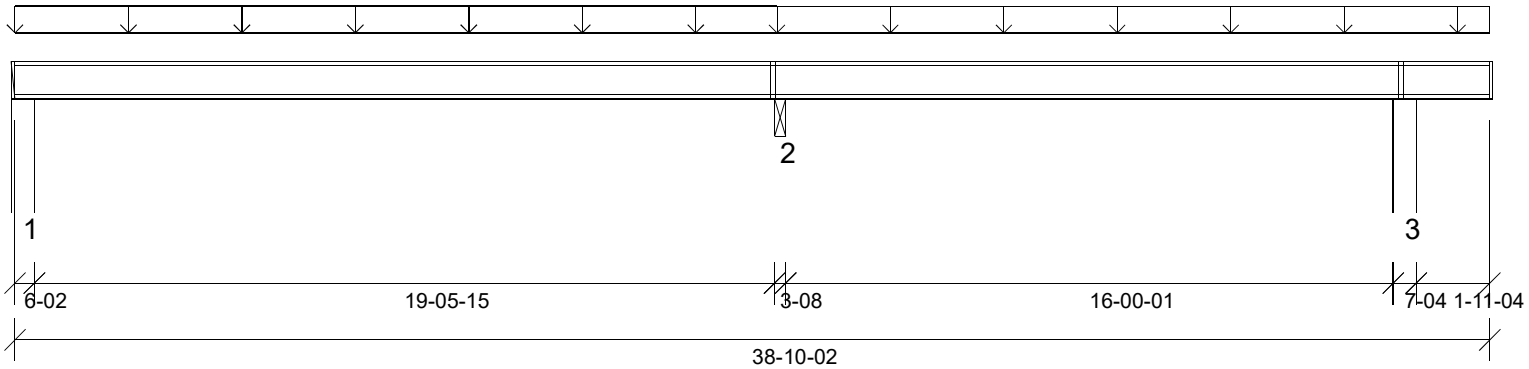
* Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.

Member: 1 - 11-7/8" LPI 20Plus

Status: Design Passed



Graphical Illustration - Not To Scale
Member Cut Length - 38'- 10 1/8"
MemberPitch - 0/12

Design Information:

Building Code:	IRC2015	Floor Dead Load:	10.0 lb/ft²	Roof Dead Load:	10.0 lb/ft²	Ground Snow Load:	0.0 lb/ft²
Design Methodology:	ASD	Floor Live Load:	40.0 lb/ft²	Roof Live Load:	20.0 lb/ft²		
		Unbraced Length Top:	0'	Bottom:	19'- 5 7/16"		

Design Results:

	Location	Design	Control		Result	LDF	Load Combination
Critical Moment (Pos)	8'- 10 3/16"	2825.76 lb ft	3755.02 lb ft		Passed - 75%	1.00	D + L
Critical Moment (Neg)	20'- 1 13/16"	-3160.32 lb ft	3755.02 lb ft		Passed - 84%	1.00	D + L
Critical Shear	20'	936.63 lb	1485.00 lb		Passed - 63%	1.00	D + L
Live Load Deflection	9'- 8 3/8"	0'- 3/8"	0'- 3/4" (L/480)		Passed - L/582	-	L
Total Load Deflection	9'- 7 3/8"	0'- 1/2"	0'- 1" (L/240)		Passed - L/479	-	D + L
Max. Reaction			Supported Mtl	Supporting Mtl			
	0'- 5 1/8"	715.31 lb	1160.00 lb	6507.92 lb	Passed - 62%	1.00	D + L
	20'- 1 13/16"	1686.19 lb	2330.20 lb	6562.53 lb	Passed - 72%	1.00	D + L
	36'- 7 1/4"	645.10 lb	2595.00 lb	7703.19 lb	Passed - 25%	1.00	D + L

Design Notes:

* The deflection at the cantilever for either live and/or total loads is less than 3/8" and therefore has been excluded from the deflection ratio considerations.

Loading:

				Maximum Load Magnitudes			
Type	Start	End	Source	Dead	Floor Live	Roof Live	Snow
Uniform	0'	20'- 13/16"	FC1 Floor Material	16 lb/ft	64 lb/ft	-	-
Uniform	20'- 13/16"	38'- 10 1/8"	FC1 Floor Material	14 lb/ft	55 lb/ft	-	-

Support Information:

				Maximum Analysis Reactions			
Support	Start	End	Source	Dead	Floor Live	Roof Live	Snow
1	0'	0'- 6 1/8"	W11(i9)	134.00 lb	578.00/-43.00 lb	-	-
2	20'- 1/16"	20'- 3 9/16"	DBM1(i633)	337.00 lb	1362.00 lb	-	-
3	36'- 3 5/8"	36'- 10 7/8"	W4(i6)	109.00 lb	537.00 lb	-	-

Errors, Warnings & Notes:

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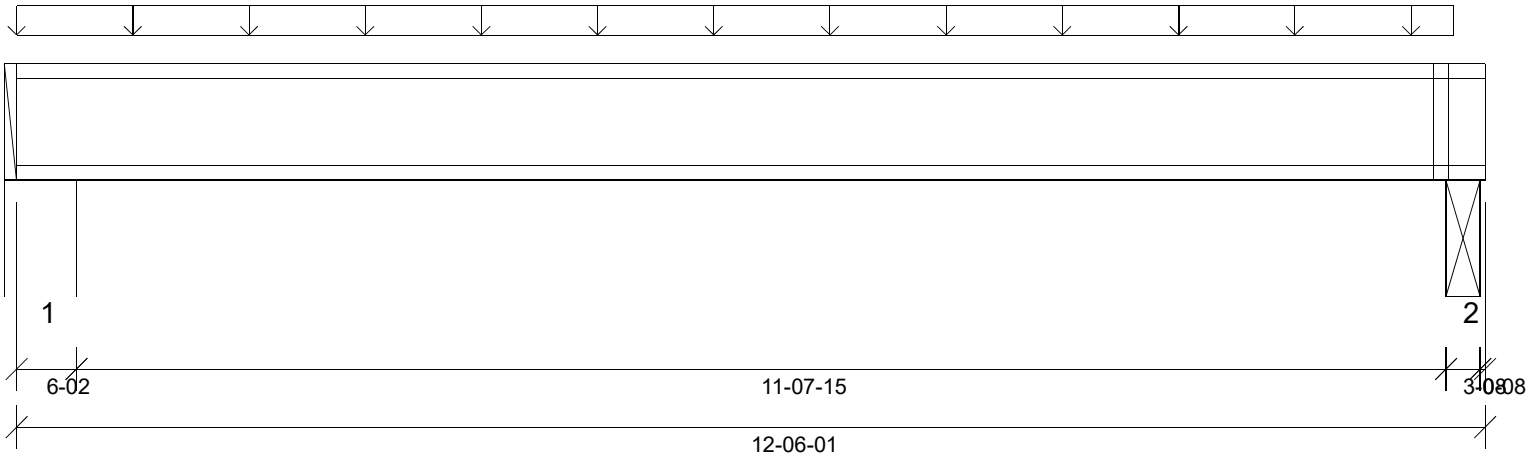
* Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.



Graphical Illustration - Not To Scale
Member Cut Length - 12'- 6 1/16"
MemberPitch - 0/12

Design Information:

Building Code:	IRC2015	Floor Dead Load:	10.0 lb/ft²	Roof Dead Load:	10.0 lb/ft²	Ground Snow Load:	0.0 lb/ft²
Design Methodology:	ASD	Floor Live Load:	40.0 lb/ft²	Roof Live Load:	20.0 lb/ft²		
		Unbraced Length Top:	0'	Bottom:	11'- 7 7/16"		

Design Results:

	Location	Design	Control		Result	LDF	Load Combination
Critical Moment (Pos)	6'- 4 5/8"	1761.28 lb ft	3755.02 lb ft		Passed - 47%	1.00	D + L
Critical Moment (Neg)	0'- 5 1/8"	-13.12 lb ft	3755.02 lb ft		Passed - 0%	1.00	D + L
Critical Shear	0'- 6 3/16"	586.86 lb	1485.00 lb		Passed - 40%	1.00	D + L
Live Load Deflection	6'- 4 1/2"	0'- 1/8"	0'- 3/4" (L/480)		Passed - L/999	-	L
Total Load Deflection	6'- 4 1/2"	0'- 1/8"	0'- 1" (L/240)		Passed - L/981	-	D + L
Max. Reaction			Supported Mtl	Supporting Mtl			
	0'- 5 1/8"	647.80 lb	1160.00 lb	6507.80 lb	Passed - 56%	1.00	D + L
	12'- 3 13/16"	585.23 lb	1121.99 lb	6562.36 lb	Passed - 52%	1.00	D + L

Loading:

				Maximum Load Magnitudes			
Type	Start	End	Source	Dead	Floor Live	Roof Live	Snow
Uniform	0'	12'- 2 13/16"	FC1 Floor Material	20 lb/ft	80 lb/ft	-	-

Support Information:

				Maximum Analysis Reactions			
Support	Start	End	Source	Dead	Floor Live	Roof Live	Snow
1	0'	0'- 6 1/8"	W8(i8)	129.00 lb	515.00 lb	-	-
2	12'- 2 1/16"	12'- 5 9/16"	DBM2(i628)	118.00 lb	471.00 lb	-	-

Errors, Warnings & Notes:

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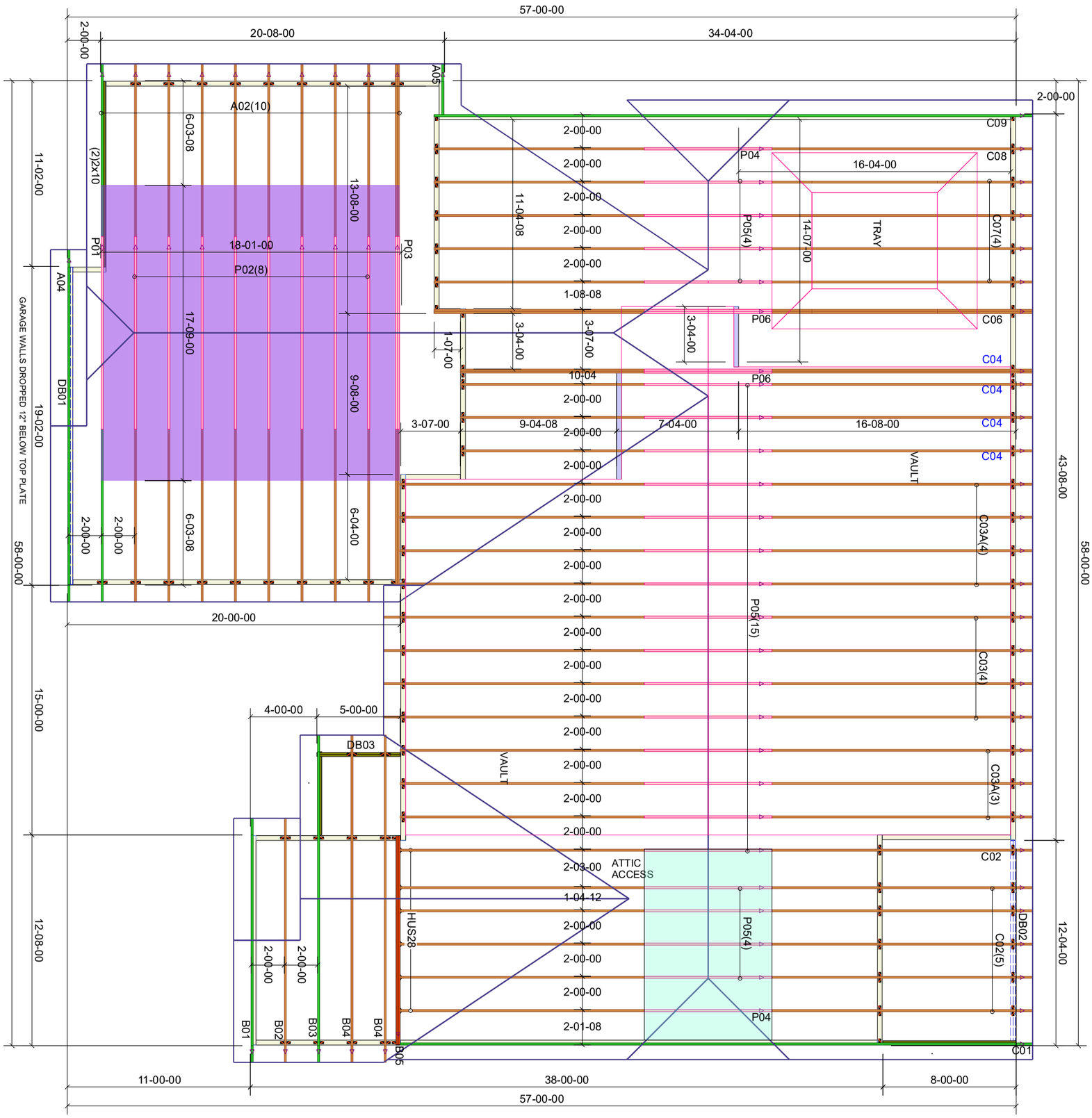
* Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.



PlotID	Length	Product	Plies
Products			
DB01	20-00-00	1-3/4X11-7/8 LP-LVL 2900Fb-2.0E	2
DB02	13-00-00	1-3/4X11-7/8 LP-LVL 2900Fb-2.0E	2
DB03	6-00-00	2x10 No.2 SP	2
DB04	12-00-00	2x10 No.2 SP	2

Truss Connector Total List		
Manuf	Product	Qty
Simpson	HUS28	6

This project includes Attic Frame trusses. While every effort is made to produce these trusses so that they are uniform, one to another, all trusses should be considered rough framing. It is recommended that all Attic Frame members that will ultimately be used for finish surfaces be straightened, shimmed or furred out by others, at their expense. **Do not cut or alter any truss members or connector plates.**

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY

These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult "Bracing of Wood Trusses" available from the Truss Plate Institute, 583 D'Onifrio Drive; Madison, WI 53179.

SHOP DRAWING APPROVAL

THIS LAYOUT IS THE SOLE SOURCE FOR FABRICATION OF TRUSSES AND VOIDS ALL PREVIOUS ARCHITECTURAL OR OTHER TRUSS LAYOUTS. REVIEW AND APPROVAL OF THIS LAYOUT MUST BE RECEIVED BEFORE ANY TRUSSES WILL BE BUILT. VERIFY ALL CONDITIONS TO INSURE AGAINST CHANGES THAT WILL RESULT IN EXTRA CHARGES TO YOU.

REVIEWED BY: APPROVED BY: DATE:

Job #: Q2000896	Plan: 514 Carolina Lakes
Customer: South Scan	Date: 7/6/2020
Site Address:	Sales Rep: RW
City, ST, ZIP:	Designer: CSL

Carolina Structural Systems
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