

REVISION TABLE		DESCRIPTION
NUMBER	DATE	REVISION

EXTERIOR ELEVATIONS

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

DRAWINGS PROVIDED BY:  
South Scan, INC.  
Willow Spring, NC 27159  
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DATE:  
8/29/2020

SCALE:  
1/4"=1'

SHEET:  
P-1



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'



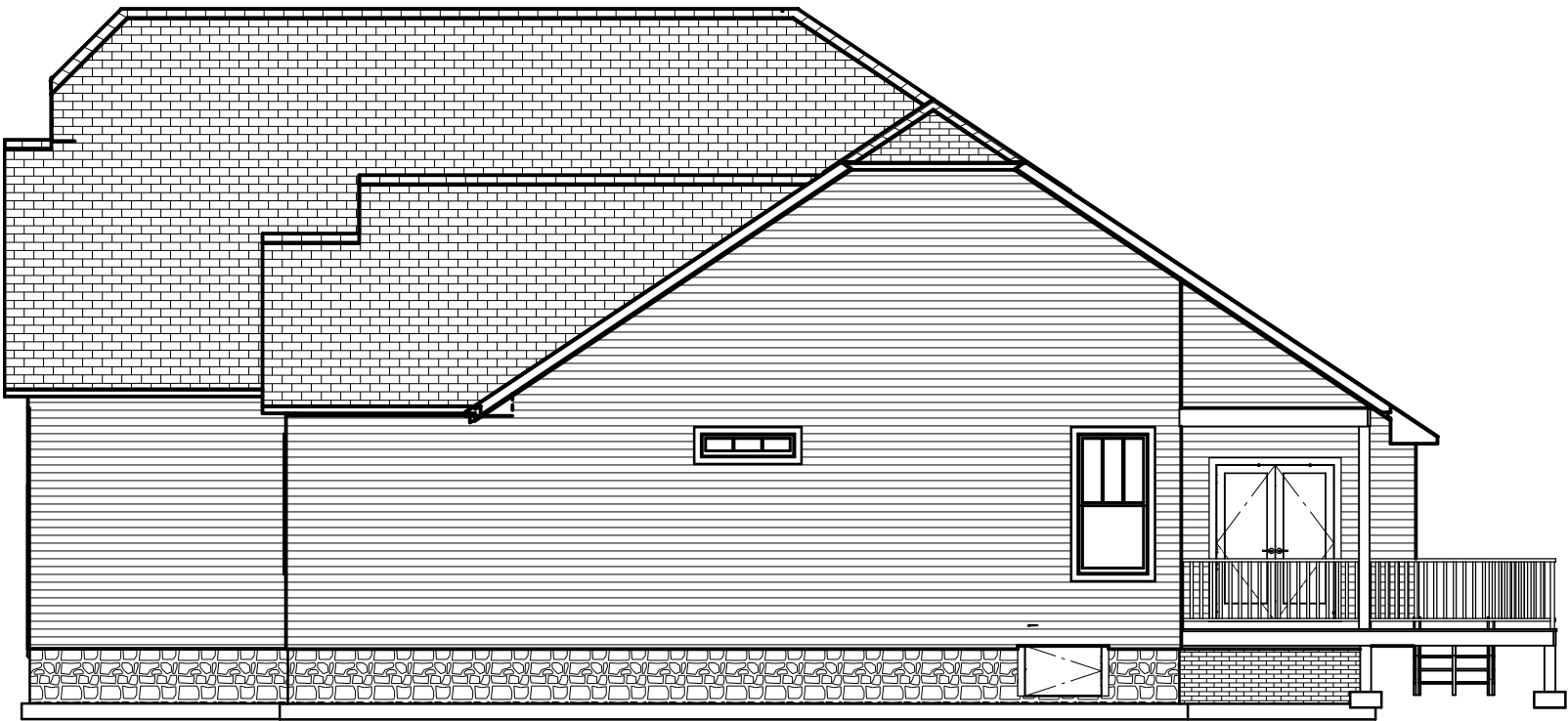
SEE FOUNDATION NOTE



Exterior Elevation Left



Exterior Elevation Back  
SCALE 1/8"=1'



Exterior Elevation Right

REVISION TABLE		REVISION BY	DESCRIPTION
NUMBER	DATE		

1st AND 2nd FLOOR LAYOUTS

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

DRAWINGS PROVIDED BY:  
South Scan, INC.  
Willow Spring, NC 27192  
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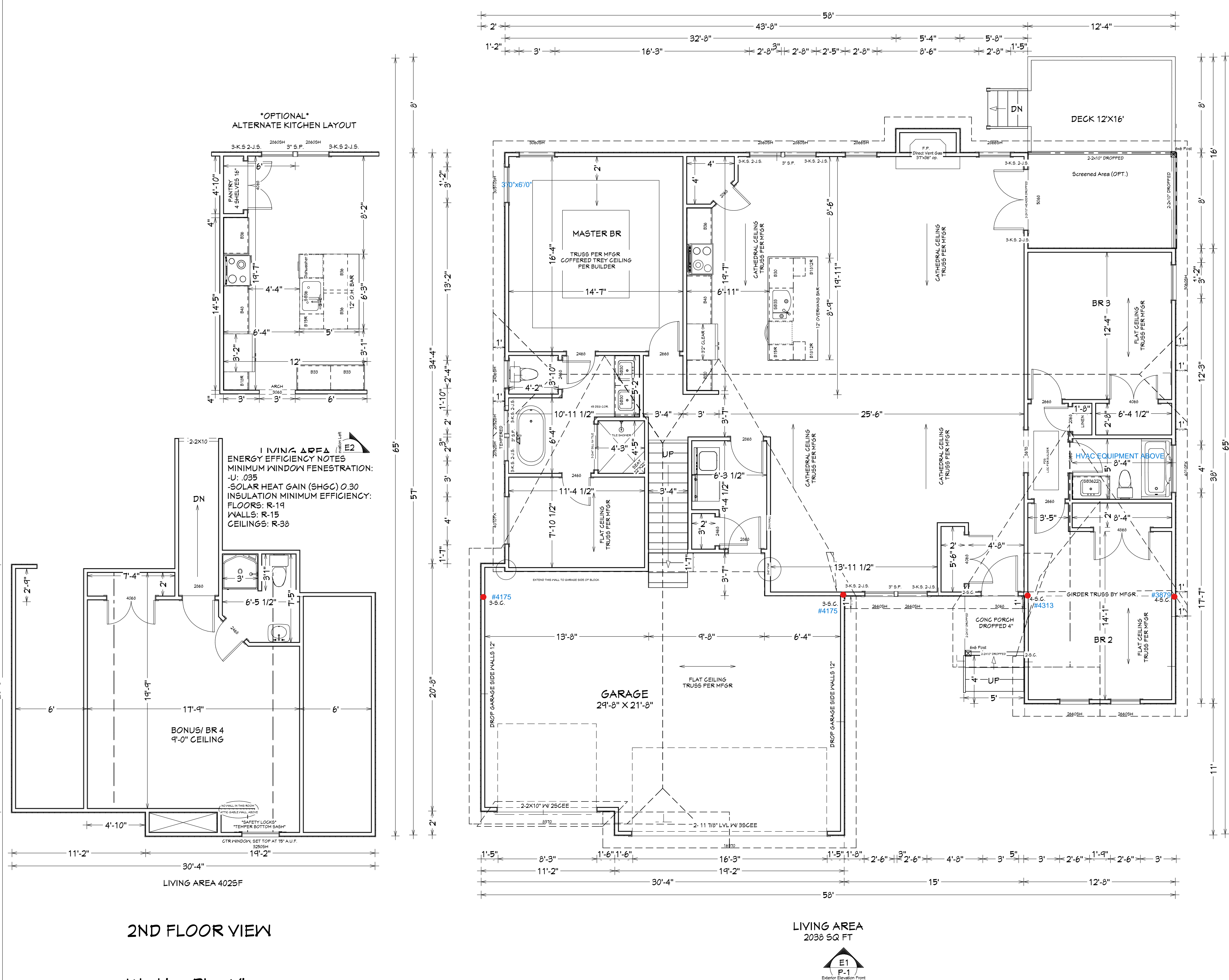
DATE:

8/29/2020

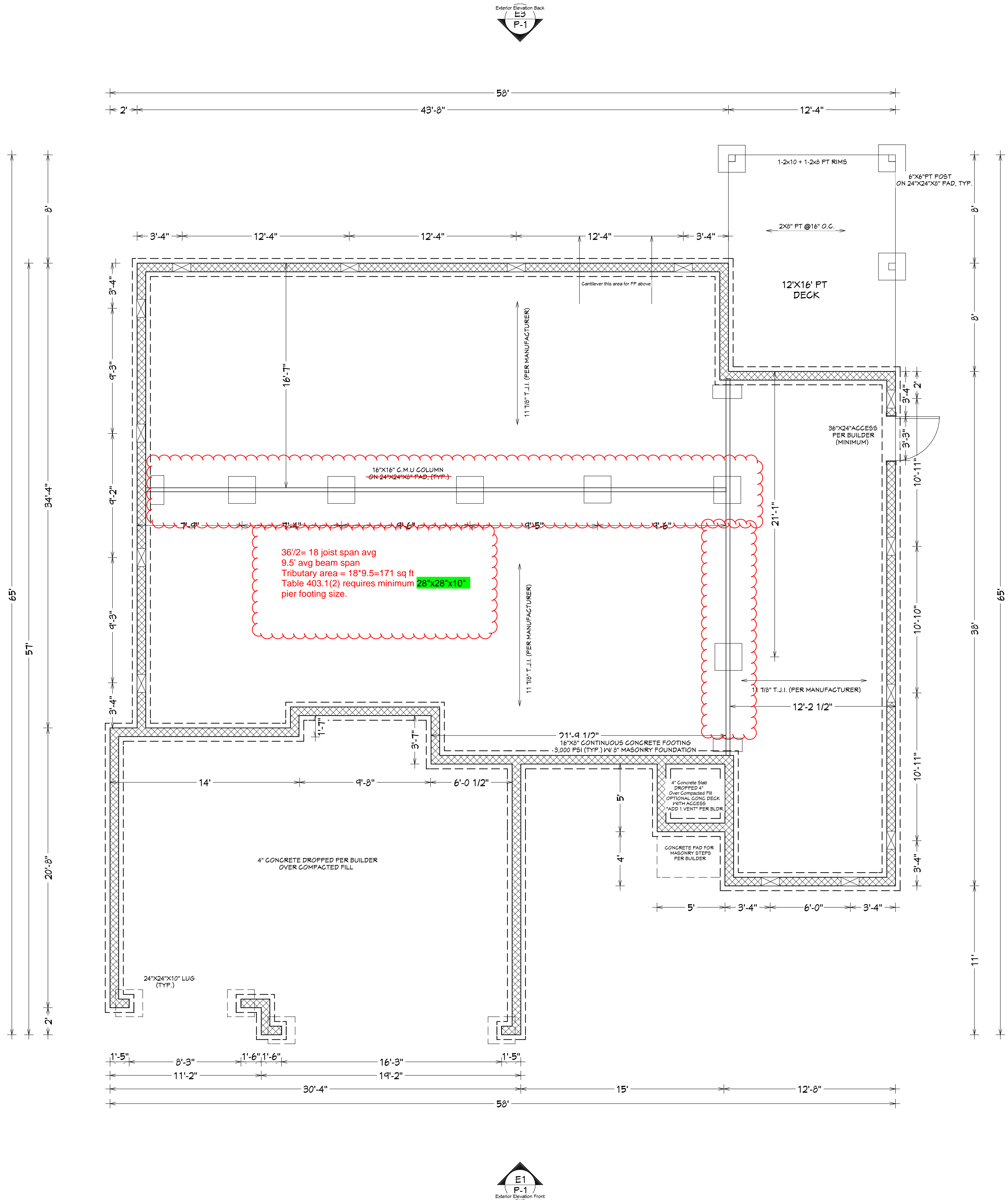
SCALE:

1/4"=1'

SHEET:







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: SEE PLAN #1L-2440  
-PERIMETER FOOTINGS 16\"/>

3

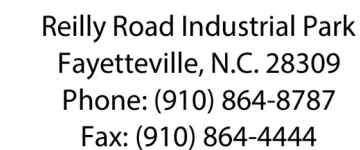
REVISION TABLE			
NUMBER	DATE	REVISION BY	DESCRIPTION

FOUNDATION PLAN  
LAYOUT

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

DRAWINGS PROVIDED BY:  
South Scan, INC.  
Willow Spring, NC 271592  
Copyright, rights reserved

DATE:
8/29/2020
SCALE:
1/4"=1'
SHEET:



Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables ( derived from the prescriptive Code requirements ) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Bob Lewis

### LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (b))

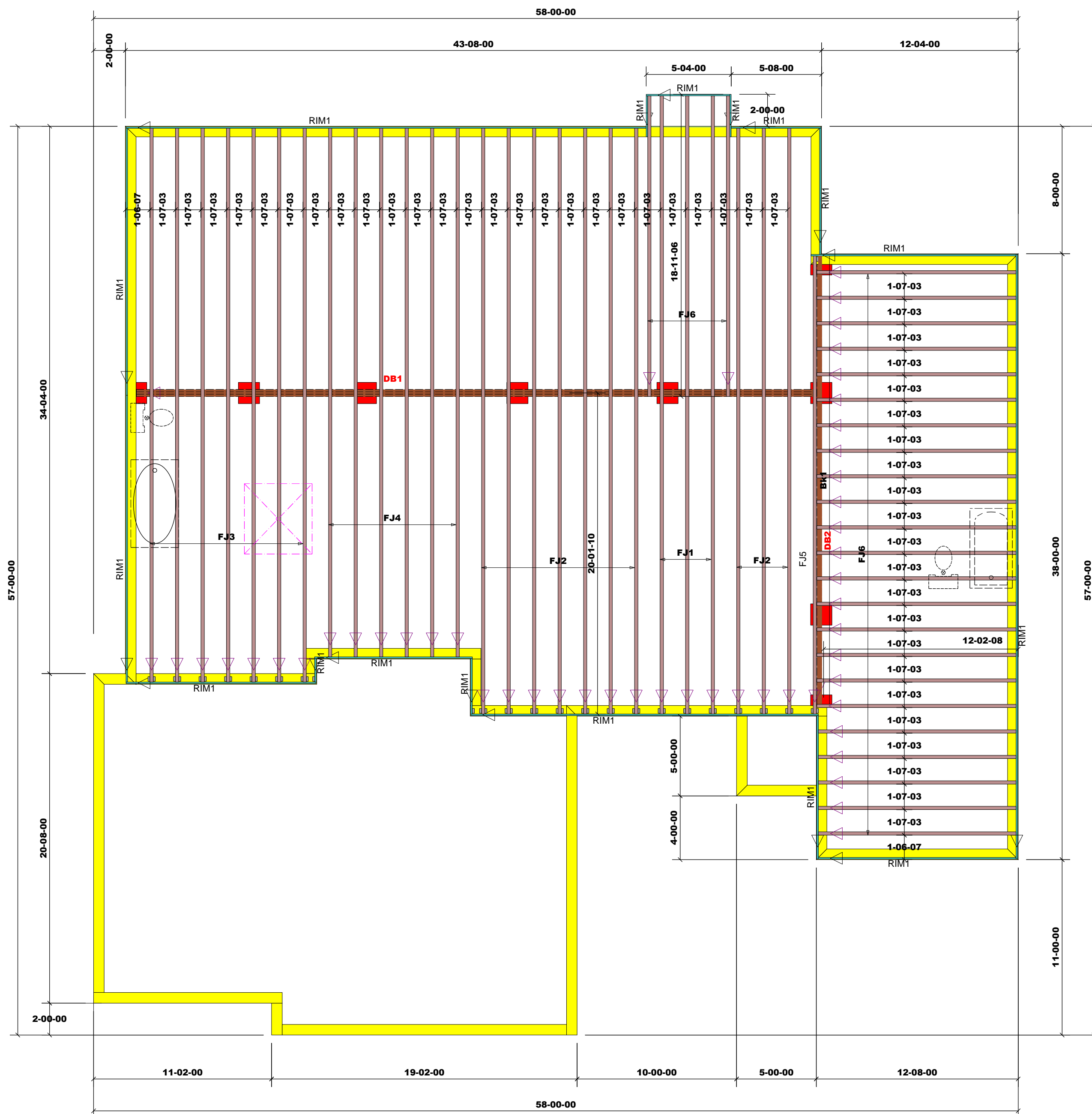
NUMBER OF JACK STUDS REQUIRED @ EA END OF

END REACTION (UP TO)		REQ'D STUDIOS FOR (2) PLY HEATER		HEADER/GIRDER		END REACTION (UP TO)		REQ'D STUDIOS FOR (4) PLY HEATER	
1700	1			2550	1		3400	1	
3400	2			5100	2		6800	2	
5100	3			7650	3		10200	3	
6800	4			10200	4		13600	4	
8500	5			12750	5		17000	5	
10200	6			15300	6				
11900	7								
13600	8								
15300	9								

<b>CITY / CO.</b>	SANFORD / LEE
<b>ADDRESS</b>	2807 CAROLINA WAY
<b>MODEL</b>	CRAWL FLOOR
<b>DATE REV.</b>	04/03/25
<b>DRAWN BY</b>	Bob Lewis
<b>SALES REP.</b>	Bob Lewis

<b>BUILDER</b>	GREAT SOUTH BLDRS
<b>JOB NAME</b>	2807 CAROLINA WAY
<b>PLAN</b>	1L-2440 EL "B"
<b>SEAL DATE</b>	Seal Date
<b>QUOTE #</b>	Quote #
<b>JOB #</b>	J0425-1915

**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 BCSI-B1 and BCSI-B3 provided with the truss delivery package or online at [bscindustry.com](http://bscindustry.com)



I-JOIST & RIMBOARD				
PlotID	Length	Product	Plies	Net Qty
FJ1	40-00-00	11 7/8" NI-40x	1	3
FJ2	38-00-00	11 7/8" NI-40x	1	10
FJ3	36-00-00	11 7/8" NI-40x	1	7
FJ4	34-00-00	11 7/8" NI-40x	1	6
FJ5	30-00-00	11 7/8" NI-40x	1	1
FJ6	20-00-00	11 7/8" NI-40x	1	2
FJ6	14-00-00	11 7/8" NI-40x	1	23
RIM1	12-00-00	1 1/8" x 11 7/8" Rim Board	1	20

LVL				
PlotID	Length	Product	Plies	Net Qty
DB1	43-00-00	1-3/4"x 9-1/4" LVL Kerto-S	3	3
DB2	28-00-00	1-3/4"x 9-1/4" LVL Kerto-S	2	2

NI40 BLOCKING 19.2" OC				
PlotID	Length	Product	Plies	Net Qty
Bk1	1-04-11	11 7/8" NI-40x	1	18

**Truss Placement Plan**  
**SCALE: NTS**

 = Indicates Left End of Truss  
( Reference Engineered Truss Drawing )  
Do NOT Erect Truss Backwards



ROOF & FLOOR  
TRUSSES & BEAMS

Reilly Road Industrial Park  
Fayetteville, N.C. 28309  
Phone: (910) 864-8787  
Fax: (910) 864-4444

Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables ( derived from the prescriptive Code requirements ) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature Bob Lewis

Bob Lewis

LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (b))  
NUMBER OF JACK STUDS REQUIRED @ EA END OF  
HEADER/GIRDER

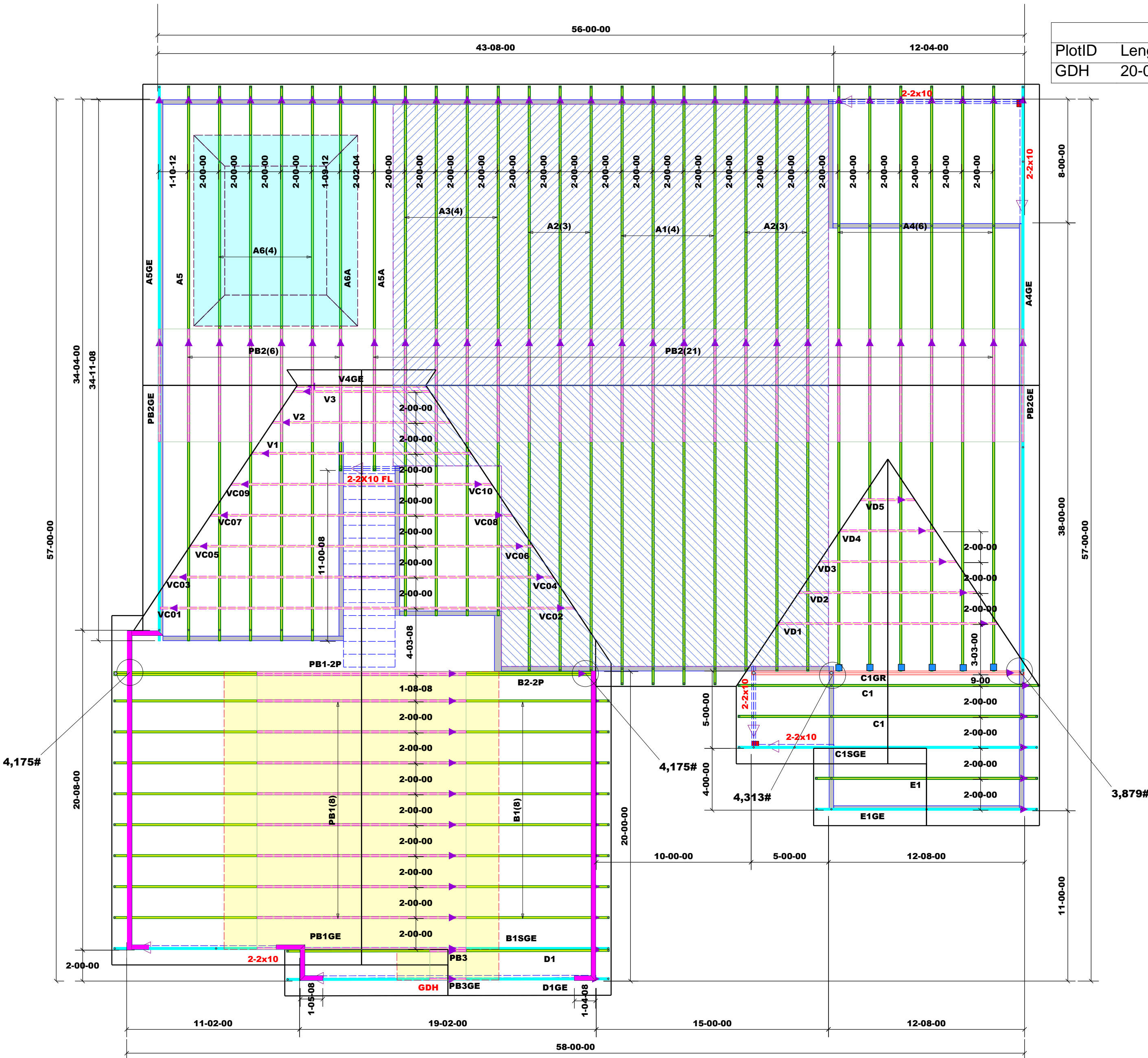
END REACTION (UP TO)	REQ'D STUDS FOR (1) FLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (3) FLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (4) FLY HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				

GARAGE DOOR HEADER					
PlotID	Length	Product	Plies	Net Qty	
GDH	20-00-00	1-3/4"x 11-7/8" LVL Kerto-S	2	2	

Connector Information				Nail Information	
Sym	Product	Manuf	Qty	Supported Member	Header Truss
	HUS26	USP	6	NA	16d/3-1/2" 16d/3-1/2"

Roof Area = 3979.91 sq.ft.  
Ridge Line = 124.04 ft.  
Hip Line = 0 ft.  
Horiz. OH = 133.04 ft.  
Raked OH = 188.53 ft.  
Decking = 137 sheets

Hatch Legend	
	Vaulted Ceiling
	Tray Ceiling
	Garage Walls Dropped 1'-0"



Truss Placement Plan  
SCALE: NTS

= Indicates Left End of Truss  
(Reference Engineered Truss Drawing)  
Do NOT Erect Truss Backwards

BUILDER	GREAT SOUTH BLDRS	CITY / CO.	SANFORD / LEE
JOB NAME	2807 CAROLINA WAY	ADDRESS	2807 CAROLINA WAY
PLAN	1L-2440 EL "B"	MODEL	ROOF - ONE STORY
SEAL DATE	Seal Date	DATE REV.	04/03/25
QUOTE #	Quote #	DRAWN BY	Bob Lewis
JOB #	JO425-1914	SALES REP.	Bob Lewis

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 BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com





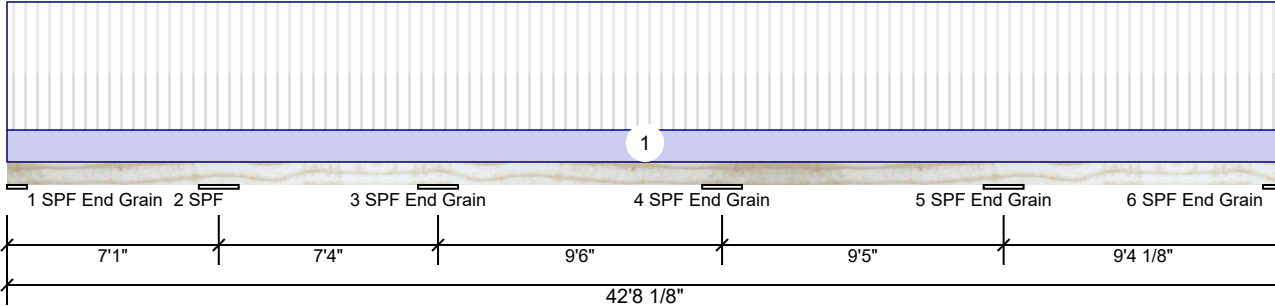
Client: Great South Bldr.  
Project: 1 Story  
Address:

Date: 5/9/2023  
Input by:  
Job Name: J0423-1840 Beams  
Project #: J0423-1840

Page 1 of 6

# DB1 Kerto-S LVL 1.750" X 9.250" 3-Ply - PASSED

Level: Level



## Member Information

Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	Yes
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

## Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	2891	756	0	0	0
2	Vertical	6645	1738	0	0	0
3	Vertical	7756	2029	0	0	0
4	Vertical	8665	2267	0	0	0
5	Vertical	9171	2399	0	0	0
6	Vertical	3666	959	0	0	0

## Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	8.000"	Vert	12%	753 / 3341	4094	L_L_L	D+L
2 - SPF	16.000"	Vert	27%	1744 / 7786	9529	LL_L_	D+L
3 - SPF End Grain	16.000"	Vert	16%	2028 / 9043	11071	_LL_L	D+L
4 - SPF End Grain	16.000"	Vert	17%	2261 / 9794	12055	L_LL_	D+L
5 - SPF End Grain	16.000"	Vert	17%	2409 / 9917	12326	_L_LL	D+L
6 - SPF End Grain	8.000"	Vert	14%	954 / 4136	5091	L_L_L	D+L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-10749 ft-lb	33'4"	19565 ft-lb	0.549 (55%)	D+L	_L_LL
Unbraced	-10749 ft-lb	33'4"	10751 ft-lb	1.000 (100%)	D+L	_L_LL
Pos Moment	8433 ft-lb	38'2 7/8"	19565 ft-lb	0.431 (43%)	D+L	L_L_L
Unbraced	8433 ft-lb	38'2 7/8"	8444 ft-lb	0.999 (100%)	D+L	L_L_L
Shear	4601 lb	34'9 1/4"	10360 lb	0.444 (44%)	D+L	_L_LL
LL Defl inch	0.154 (L/681)	37'10 1/4"	0.218 (L/480)	0.705 (70%)	L	L_L_L
TL Defl inch	0.181 (L/578)	37'10 7/8"	0.437 (L/240)	0.415 (42%)	D+L	L_L_L

## Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be laterally braced at a maximum of 13'6 5/16" o.c.
- 6 Bottom must be laterally braced at a maximum of 10'3 3/4" o.c.
- 7 Lateral slenderness ratio based on single ply width.

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	227 PLF	909 PLF	0 PLF	0 PLF	0 PLF	FJ1
	Self Weight				11 PLF					

## Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

## Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

chemicals

## Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

## Manufacturer Info

Metsä Wood  
301 Merritt 7 Building, 2nd Floor  
Norwalk, CT 06851  
(800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)

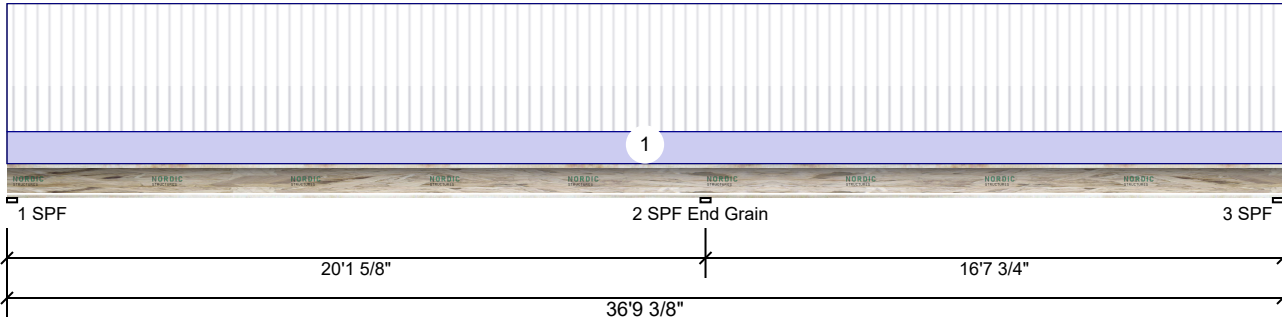
Comtech  
Reilly Road Industrial Park P.O. Box 40408, NC  
USA  
28309  
910-864-8787



This design is valid until 11/3/2024

**FJ1 NI-40x 11.875" - PASSED**

Level: Level



11 7/8"  
2 1/2"

### Member Information

Type: Joist  
Spacing: 19.2" o.c.  
Moisture Condition: Dry  
Deflection LL: 480  
Deflection TL: 240  
Importance: Normal - II  
Temperature: Temp <= 100°F

Application: Floor  
Design Method: ASD  
Building Code: IBC/IRC 2015  
Load Sharing: No  
Deck: Not Checked

### Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	519	130	0	0	0
2	Vertical	1455	364	0	0	0
3	Vertical	380	95	0	0	0

### Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	49%	130 / 567	697	L_	D+L
2 - SPF	3.500"	Vert	61%	364 / 1455	1818	LL	D+L
End Grain							
3 - SPF	3.500"	Vert	40%	95 / 482	577	_L	D+L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-3289 ft-lb	20'1 5/8"	3760 ft-lb	0.875 (87%)	D+L	LL
Unbraced	-3289 ft-lb	20'1 5/8"	3295 ft-lb	0.998 (100%)	D+L	LL
Pos Moment	2877 ft-lb	8'8 1/2"	3760 ft-lb	0.765 (77%)	D+L	L_
Unbraced	2877 ft-lb	8'8 1/2"	2891 ft-lb	0.995 (100%)	D+L	L_
Shear	961 lb	20'1 5/8"	1480 lb	0.650 (65%)	D+L	LL
LL Defl inch	0.466 (L/513)	9'7 5/8"	0.498 (L/480)	0.936 (94%)	L	L_
TL Defl inch	0.556 (L/430)	9'6 11/16"	0.995 (L/240)	0.559 (56%)	D+L	L_

### Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Top flange must be laterally braced at a maximum of 3'8" o.c.
- 3 Bottom flange must be laterally braced at a maximum of 2'10" o.c.

ID	Load Type	Location	Trib Width	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform		1-7-3	10 PSF	40 PSF	0 PSF	0 PSF	0 PSF	

### Notes

It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application and to verify the dimensions and loads.

### Engineered Wood Products

1. Dry service conditions, unless noted otherwise
2. No treatment with fire-retardant or other strength-reducing chemicals.

### Handling & Installation

1. Engineered wood products must not be cut or drilled. Damaged products shall not be used.
2. Refer to the latest version of the installation guide for construction details, hole specifications, multiple-member connections, and handling guidelines.
3. Provide lateral support at bearing points to prevent lateral displacement and rotation.
4. For flat roof, provide proper drainage to prevent ponding.
5. Design assumes top flange to be laterally restrained

by attached sheathing or as specified in engineering notes.

This design is valid until 11/3/2024

### Manufacturer Info

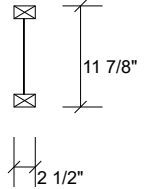
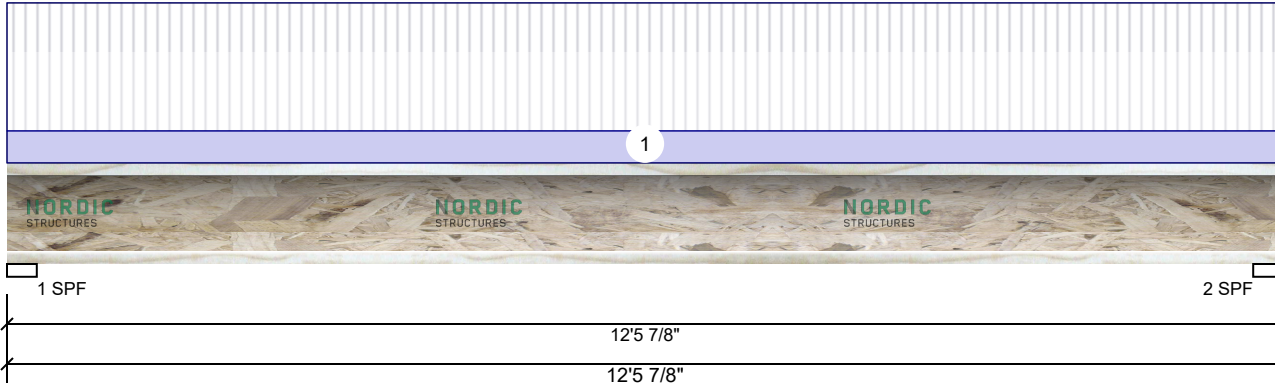
Nordic Structures  
1100 Avenue des Canadiens-de-Montréal, Suite 100  
Montréal, Québec, Canada H3B 2S2  
(866) 871-3418  
www.nordic.ca  
APA PR-L274C

Comtech  
Reilly Road Industrial Park P.O. Box 40408, NC  
USA  
28309  
910-864-8787



## FJ5 NI-40x 11.875" - PASSED

Level: Level



### Member Information

Type: Joist  
Spacing: 16" o.c.  
Moisture Condition: Dry  
Deflection LL: 480  
Deflection TL: 240  
Importance: Normal - II  
Temperature: Temp <= 100°F

Application: Floor  
Design Method: ASD  
Building Code: IBC/IRC 2015  
Load Sharing: No  
Deck: Not Checked

### Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	333	83	0	0	0
2	Vertical	333	83	0	0	0

### Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	29%	83 / 333	416	L	D+L
2 - SPF	3.500"	Vert	29%	83 / 333	416	L	D+L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1206 ft-lb	6'2 15/16"	3760 ft-lb	0.321 (32%)	D+L	L
Unbraced	1206 ft-lb	6'2 15/16"	1217 ft-lb	0.991 (99%)	D+L	L
Shear	401 lb	2 3/4"	1480 lb	0.271 (27%)	D+L	L
LL Defl inch	0.083 (L/1744)	6'2 15/16"	0.301 (L/480)	0.275 (28%)	L	L
TL Defl inch	0.103 (L/1396)	6'2 15/16"	0.602 (L/240)	0.172 (17%)	D+L	L

### Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Top flange must be laterally braced at a maximum of 6'11" o.c.
- 3 Bottom flange must be laterally braced at bearings.

ID	Load Type	Location	Trib Width	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform		1-4-0	10 PSF	40 PSF	0 PSF	0 PSF	0 PSF	

### Notes

It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application and to verify the dimensions and loads.

### Engineered Wood Products

1. Dry service conditions, unless noted otherwise
2. No treatment with fire-retardant or other strength-reducing chemicals.

### Handling & Installation

1. Engineered wood products must not be cut or drilled. Damaged products shall not be used.
2. Refer to the latest version of the installation guide for construction details, hole specifications, multiple-member connections, and handling guidelines.
3. Provide lateral support at bearing points to prevent lateral displacement and rotation.
4. For flat roof, provide proper drainage to prevent ponding.
5. Design assumes top flange to be laterally restrained

by attached sheathing or as specified in engineering notes.

This design is valid until 11/3/2024

### Manufacturer Info

Nordic Structures  
1100 Avenue des Canadiens-de-Montréal, Suite 100  
Montreal, Québec, Canada H3B 2S2  
(866) 871-3418  
www.nordic.ca  
APA PR-L274C

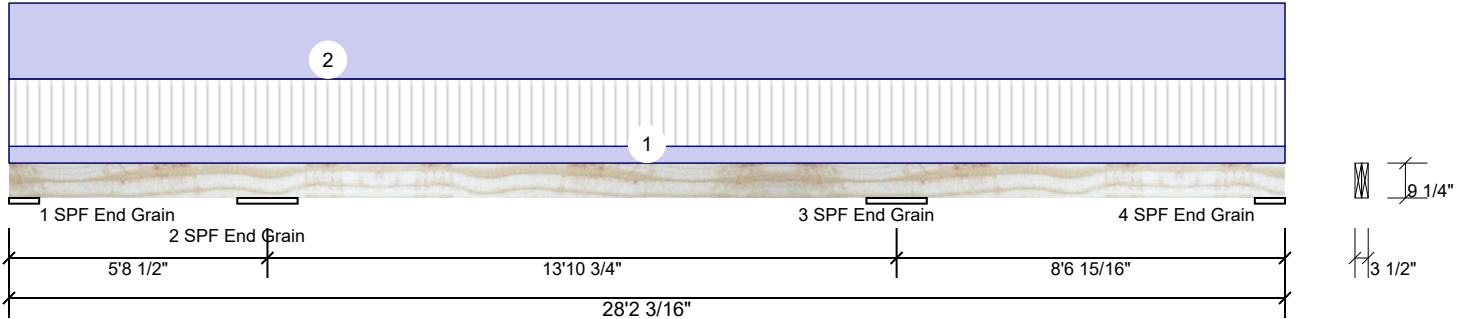
Comtech  
Reilly Road Industrial Park P.O. Box 40408, NC  
USA  
28309  
910-864-8787





# DB2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



## Member Information

Type: Girder  
Plies: 2  
Moisture Condition: Dry  
Deflection LL: 480  
Deflection TL: 240  
Importance: Normal - II  
Temperature: Temp <= 100°F

Application: Floor  
Design Method: ASD  
Building Code: IBC/IRC 2015  
Load Sharing: No  
Deck: Not Checked

## Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	123	174	0	0	0
2	Vertical	2498	3521	0	0	0
3	Vertical	2647	3731	0	0	0
4	Vertical	594	837	0	0	0

## Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	8.000"	Vert	3%	155 / 665	820 (-275)	L_L	D+(D+L)
2 - SPF End Grain	16.000"	Vert	13%	3544 / 2630	6175	LL_	D+L
3 - SPF End Grain	16.000"	Vert	14%	3731 / 2675	6406	_LL	D+L
4 - SPF End Grain	8.000"	Vert	7%	832 / 878	1710	L_L	D+L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-7068 ft-lb	19'7 1/4"	12542 ft-lb	0.564 (56%)	D+L	_LL
Unbraced	-7068 ft-lb	19'7 1/4"	7072 ft-lb	0.999 (100%)	D+L	_LL
Pos Moment	5521 ft-lb	12'8 9/16"	12542 ft-lb	0.440 (44%)	D+L	_L_
Unbraced	5521 ft-lb	12'8 9/16"	5530 ft-lb	0.998 (100%)	D+L	_L_
Shear	2814 lb	7'1 3/4"	6907 lb	0.407 (41%)	D+L	LL_
LL Defl inch	0.168 (L/990)	12'9 1/16"	0.347 (L/480)	0.485 (49%)	L	_L_
TL Defl inch	0.370 (L/451)	12'8 3/16"	0.695 (L/240)	0.532 (53%)	D+L	_L_

## Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Tie-down connection required at bearing 1 for uplift 275 lb (Combination D+L, Load Case \_L\_).
- 6 Top must be laterally braced at a maximum of 13'9" o.c.
- 7 Bottom must be laterally braced at a maximum of 10'5 1/8" o.c.
- 8 Lateral slenderness ratio based on single ply width.

## Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

## Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

chemicals

## Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

## Manufacturer Info

Metsä Wood  
301 Merritt 7 Building, 2nd Floor  
Norwalk, CT 06851  
(800) 622-5850  
www.metsawood.com/us

Comtech  
Reilly Road Industrial Park P.O. Box 40408, NC  
USA  
28309  
910-864-8787



This design is valid until 11/3/2024



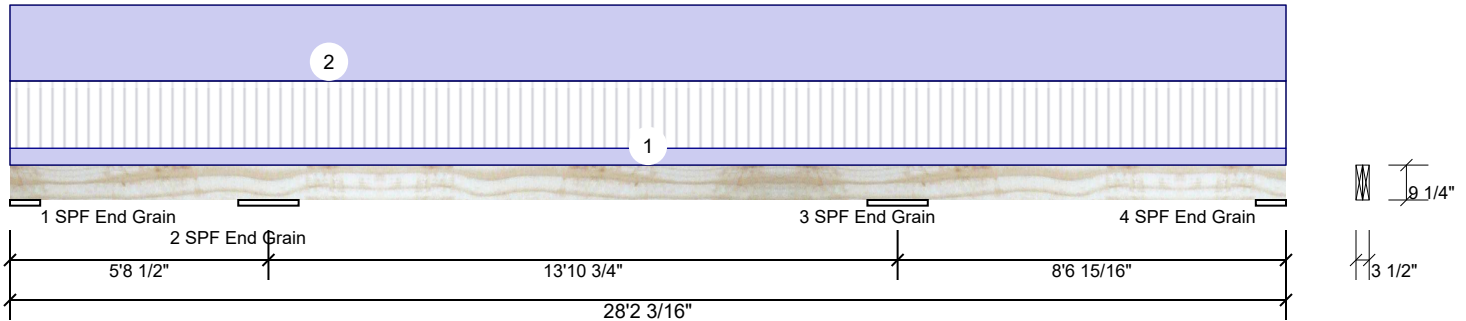
Client: Great South Bldr.  
Project: 1 Story  
Address:

Date: 5/9/2023  
Input by:  
Job Name: J0423-1840 Beams  
Project #: J0423-1840

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## DB2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



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	52 PLF	208 PLF	0 PLF	0 PLF	0 PLF	FJ5
2	Uniform			Top	234 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
	Self Weight				7 PLF					

### Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

### Lumber

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2. LVL not to be treated with fire retardant or corrosive chemicals

### Handling & Installation

1. LVL beams must not be cut or drilled
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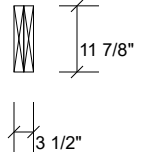
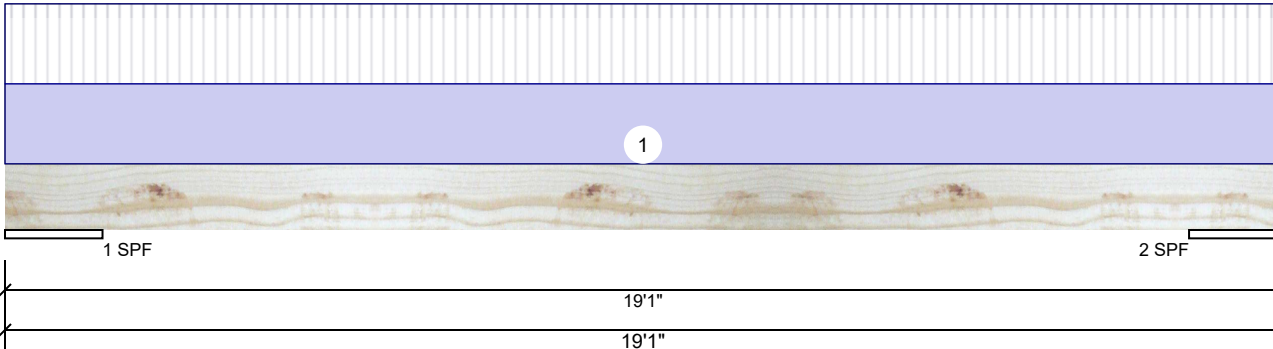
Client: Great South Bldr.  
Project: 1 Story  
Address:

Date: 5/9/2023  
Input by:  
Job Name: J0423-1840 Beams  
Project #: J0423-1840

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GDH Kerto-S LVL 1.750" X 11.875" 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 - II		
Temperature:	Temp <= 100°F		

### Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	2060	2149	0	0	0
2	Vertical	2043	2130	0	0	0

### Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	17.500"	Vert	16%	2149 / 2060	4209	L	D+L
2 - SPF	16.500"	Vert	17%	2130 / 2043	4173	L	D+L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	14722 ft-lb	9'7"	19911 ft-lb	0.739 (74%)	D+L	L
Unbraced	14722 ft-lb	9'7"	14755 ft-lb	0.998 (100%)	D+L	L
Shear	3143 lb	2'5 3/8"	8867 lb	0.355 (35%)	D+L	L
LL Defl inch	0.376 (L/523)	9'7 1/16"	0.409 (L/480)	0.919 (92%)	L	L
TL Defl inch	0.768 (L/256)	9'7 1/16"	0.819 (L/240)	0.938 (94%)	D+L	L

### Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be laterally braced at a maximum of 5'4 1/2" o.c.
- 6 Bottom must be laterally braced at end bearings.
- 7 Lateral slenderness ratio based on single ply width.

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	215 PLF	215 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				9 PLF					

### Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

### Lumber

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2. LVL not to be treated with fire retardant or corrosive

chemicals

### Handling & Installation

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