



*A premium,
high-strength,
sustainable
structural solution
utilizing Southern
Pine Lumber.*

- *Laminated Beams & Columns
(treated & untreated)*
- *Post Frame Columns with treated
bottoms 0.60 CCA-KDAT*
- *Nail laminated columns*





SCI LAMINATED COLUMNS, LLC.

SCI Laminated Columns LLC, located in central Wisconsin, was established to meet Sensenig Construction's high standard for quality glued laminated timber beams and columns, as well as nailed laminated columns used in post-frame construction.

After finding that available options did not meet customer demand, the company expanded its operations to manufacture engineered wood glulam products. With over 25 years of experience in the post-frame industry, Sensenig Construction identified a significant need to specialize in the production of high-quality, third party inspected glued laminated columns and beams plus nail laminated columns. Glulam manufactured here bears the ANSI A190.1 American National Standard for Structural Glued Laminated Timber which requires a rigorous program of quality control and verification of testing to meet conformance.

- We use all #1 southern yellow pine
- 100% glued for maximum strength
- They are planed to a standard size
- 6' minimum treated bottoms .60 CCA-KDAT treatment
- We also specialize in order specific jobs
- All orders are packaged in water proof plastic
- All structural finger joints
- SCI Laminated Columns plant is under 3rd party Timber Products inspection required by international and residential building codes in the US



Sizing Available in

2x6 - 3 ply and 4 ply
2x8 - 3 ply and 4 ply
2x10 - 4 ply and 5 ply
2x12 - 4 ply and 5 ply

From 5 ply up to 35 ply available upon request, custom widths also available.

2400F_b-1.8E glulam beams up to 48" deep and 100' lengths.

Nail laminated columns and load tables available upon request.

DEDICATED TO QUALITY AND COMPLETE CUSTOMER SATISFACTION.

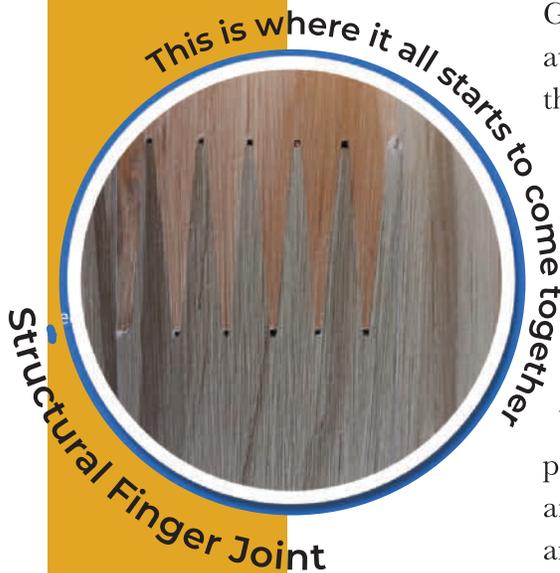
scilaminatedcolumns.com

What is Glulam?

Glulam beams are engineered to have high grade tension laminations at the top or where you need them, and lower grades at mid-depth of the beam. This allows for greater economy and encourages ecological stewardship to utilize both high grade tension lumber and low grade lumber in a standardized order to produce stronger beams.

Standard layups have a stress class, such as 2400F_b -1.8E and 2600 F_b-1.9E glulam available upon request. Glulam columns using #1 Southern Pine Lumber in the combination #49 can meet architectural, industrial and framing appearance classifications.

We take pride in providing our customers with premium quality products and services. Our full range of engineered wood products are manufactured to provide consistent, high performance floor, roof and wall systems.



Benefits of Glulam?

Comprised of Southern Yellow Pine Lumber, SCI Glulam offers superior strength for commercial post frame, industrial and residential structures. Glulam is commonly used for beams and columns in structural applications whether exposed or concealed.

When exposed, Glulam is often chosen over steel or concrete for its appearance, creating a warm and comfortable environment. Glulam is available in both stock and custom sizes to match the needs of any project. Prefabricated with advanced machinery and digital technology, Glulam is cost effective and accurate.

Strength & Versatility

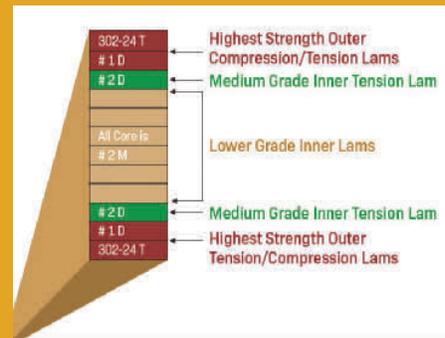
- Environmentally sustainable materials
- Lightweight
- Aesthetic appearance grades
- Long spans with minimal deflection
- Fire resistant
- Flexibility of sizes and lengths
- Durability
- Versatility
- Economical
- High strength to weight ratio
- High loadbearing capacity



Unbalanced Layup



Balanced Layup



Unbalanced layups are used for simple span beam conditions, where the bottom of the beam is in tension and the top is in compression. The top of the beam will be stamped “top” to avoid inadvertently installing the beam upside-down. If you have a multiple-span condition, the top of the beam over the interior supports will be in tension and there will be a reduction of capacity for unbalanced layups (about 25%).

If you use a balanced layup, the tension capacity is the same at both the top and bottom of the beam. Thus, for balanced layups, it does not matter if you turn the beam upside-down.

SCI PRODUCTS AND DIMENSIONS

- NON-CAMBERED 2400F_b GLULAM BEAMS (2600F_b - 1.9E AVAILABLE UPON REQUEST)
- UNTREATED COMBINATION #49 COLUMNS
- TREATED BOTTOMS OF COLUMNS FOR GROUND CONTACT APPLICATIONS
- FULL TREATED GLULAM BEAMS AND COLUMNS

DIMENSIONS FOR SCI GLULAM BEAMS

Design Values	Appearance Classification	Balanced / Unbalanced	Minimum width (in.)	Maximum width (in.)	Minimum depth (in.)	Maximum depth (in.)
2400F _b -1.8E V3	Arch/Ind/Fram	Unbalanced	3 1/8	10 1/2	6 7/8	48 1/8
2400F _b -1.8E V5M1	Arch/Ind/Fram	Balanced	3 1/8	10 1/2	6 7/8	48 1/8
2600F _b -1.9E V3	Arch/Ind/Fram	Unbalanced	3 1/8	10 1/2	12 3/8	48 1/8
2600F _b -1.9E V5	Arch/Ind/Fram	Balanced	3 1/8	10 1/2	12 3/8	48 1/8

Notes:

- 1) For layup combinations and depths not shown, contact SCI. 2400F is the standard combination and 2600F is special order. The standard column combination is #49 and #50 is special order. See allowable design properties for comparisons.
- 2) The maximum depth for 3 1/8" width shall not exceed 18 inches.

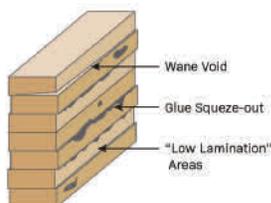
SCI LAMINATED COLUMNS DESIGN VALUES = 1850F_b - 1.8E

Layups	Minimum width (in.)	Minimum depth (in.)	Maximum depth2 (in.)
Combination #49 and #50	3 1/2	3 1/2	6 7/8
	6 3/4	6 7/8	9 5/8
	7	7	7
	8 3/4	8 1/4	9 5/8

Sizes & Grades

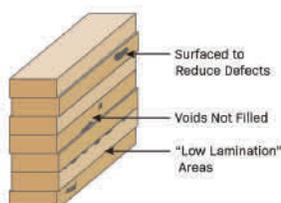
- Standard dimensions
- Custom sizes available
- Available stress grades

APPEARANCE CLASSIFICATIONS



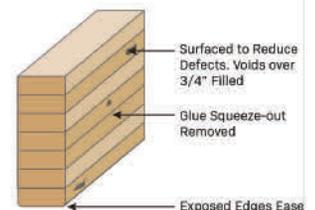
FRAMING APPEARANCE

- Laminations may possess the natural growth characteristics of the lumber grade
- No voids or low laminations are filled
- Members have a "Hit and Miss" (more miss) appearance
- Glue smear is allowed
- Most common widths are 3 1/2" and 5 1/2"



INDUSTRIAL APPEARANCE

- Laminations may possess the natural growth characteristics of the lumber grade
- No voids or low laminations are filled
- Members are surfaced in accordance with APA industrial finish standards



ARCHITECTURAL APPEARANCE

- Laminations may possess the natural growth characteristics of the lumber grade
- Voids larger than 3/4" are filled with putty
- Exposed faces are surfaced and low laminations are repaired
- Exposed edges are eased

DESIGN PROPERTIES - 2400F_b-1.8E-V3 (unbalanced) & 2400F_b-1.8-V5M1 (balanced)

3 1/8" BEAM WIDTH

DEPTH (IN.)	6 7/8	8 1/4	9 5/8	11	12 3/8	13 3/4	15 1/8	16 1/2	17 7/8	
WEIGHT (PLF)	5.4	6.4	7.5	8.6	9.7	10.7	11.8	12.9	14.0	
CDB FACTOR (L=21')	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
A (IN2)	21.48	25.78	30.08	34.38	38.67	42.97	47.27	51.56	55.86	
S (IN3)	24.62	35.45	48.25	63.02	79.76	98.47	119.15	141.80	166.41	
I (IN4)	84.62	146.23	232.20	346.61	493.52	676.98	901.06	1,169.82	1,487.33	
EI (106 LBF-IN2)	152.3	263.2	418.0	623.9	888.3	1,218.6	1,621.9	2,105.7	2,677.2	
MOMENT CAPACITY (FT-LBS)	5,334	7,681	10,454	13,655	17,281	21,335	25,816	30,723	36,056	
SHEAR CAPACITY (LBS)	4,297	5,156	6,016	6,875	7,734	8,594	9,453	10,313	11,172	

5 1/8" BEAM WIDTH

DEPTH (IN.)	8 1/4	9 5/8	11	12 3/8	13 3/4	15 1/8	16 1/2	17 7/8	19 1/4	20 5/8	
WEIGHT (PLF)	10.6	12.3	14.1	15.9	17.6	19.4	21.1	22.9	24.7	26.4	
CDB FACTOR (L=21')	1.000	1.000	1.000	0.998	0.993	0.988	0.984	0.980	0.977	0.973	
A (IN2)	42.28	49.33	56.38	63.42	70.47	77.52	84.56	91.61	98.66	105.70	
S (IN3)	58.14	79.13	103.35	130.81	161.49	195.40	232.55	272.92	316.52	363.35	
I (IN4)	239.81	380.82	568.45	809.37	1,110.25	1,477.74	1,918.51	2,439.22	3,046.53	3,747.09	
EI (106 LBF-IN2)	431.7	685.5	1,023.2	1,456.9	1,998.5	2,659.9	3,453.3	4,390.6	5,483.8	6,744.8	
MOMENT CAPACITY (FT-LBS)	12,596	17,145	22,393	28,342	34,990	42,338	50,385	59,133	68,580	78,727	
SHEAR CAPACITY (LBS)	8,456	9,866	11,275	12,684	14,094	15,503	16,913	18,322	19,731	21,141	

6 3/4" BEAM WIDTH

DEPTH (IN.)	9 5/8	11	12 3/8	13 3/4	15 1/8	16 1/2	17 7/8	19 1/4	20 5/8	
WEIGHT (PLF)	16.2	18.6	20.9	23.2	25.5	27.8	30.2	32.5	34.8	
CDB FACTOR (L=21')	0.997	0.991	0.985	0.980	0.975	0.971	0.967	0.963	0.960	
A (IN2)	64.97	74.25	83.53	92.81	102.09	111.38	120.66	129.94	139.22	
S (IN3)	104.22	136.13	172.28	212.70	257.36	306.28	359.46	416.88	478.56	
I (IN4)	501.56	748.69	1,066.00	1,462.28	1,946.30	2,526.82	3,212.63	4,012.50	4,935.20	
EI (106 LBF-IN2)	902.8	1,347.6	1,918.8	2,632.1	3,503.3	4,548.3	5,782.7	7,222.5	8,883.4	
MOMENT CAPACITY (FT-LBS)	22,581	29,494	37,328	46,084	55,762	66,361	77,882	90,325	103,689	
SHEAR CAPACITY (LBS)	12,994	14,850	16,706	18,563	20,419	22,275	24,131	25,988	27,844	

8 1/2" BEAM WIDTH

DEPTH (IN.)	12 3/8	13 3/4	15 1/8	16 1/2	17 7/8	19 1/4	20 5/8	22	23 3/8	24 3/4	30 1/4
WEIGHT (PLF)	27.1	30.1	33.1	36.1	39.1	42.1	45.1	48.1	51.1	54.1	66.2
CDB FACTOR (L=21')	0.972	0.967	0.962	0.958	0.954	0.951	0.948	0.945	0.942	0.939	0.930
A (IN2)	108.28	120.31	132.34	144.38	156.41	168.44	180.47	192.50	204.53	216.56	264.69
S (IN3)	223.33	275.72	333.62	397.03	465.96	540.40	620.36	705.83	796.82	893.32	1,334.47
I (IN4)	1,381.85	1,895.55	2,522.98	3,275.51	4,164.52	5,201.39	6,397.48	7,764.17	9,312.83	11,054.84	20,183.80
EI (106 LBF-IN2)	2,487.3	3,412.0	4,541.4	5,895.9	7,496.1	9,362.5	11,515.5	13,975.5	16,763.1	19,898.7	36,330.8
MOMENT CAPACITY (FT-LBS)	48,388	59,738	72,284	86,023	100,958	117,087	134,412	152,931	172,644	193,553	289,134
SHEAR CAPACITY (LBS)	21,656	24,063	26,469	28,875	31,281	33,688	36,094	38,500	40,906	43,313	52,938

10 1/2" BEAM WIDTH

DEPTH (IN.)	12 3/8	13 3/4	15 1/8	16 1/2	17 7/8	19 1/4	20 5/8	22	23 3/8	24 3/4	30 1/4	35 3/4
WEIGHT (PLF)	33.3	37.0	40.6	44.3	48.0	51.7	55.4	59.1	62.8	66.5	81.3	
CDB FACTOR (L=21')	0.962	0.957	0.953	0.948	0.945	0.941	0.938	0.935	0.932	0.929	0.920	
A (IN2)	133.03	147.81	162.59	177.38	192.16	206.94	221.72	236.50	251.28	266.06	325.19	
S (IN3)	274.38	338.74	409.87	487.78	572.47	663.92	762.16	867.17	978.95	1,097.51	1,639.49	
I (IN4)	1,697.71	2,328.82	3,099.66	4,024.20	5,116.41	6,390.27	7,859.76	9,538.83	11,441.48	13,581.66	24,797.24	
EI (106 LBF-IN2)	3,055.9	4,191.9	5,579.4	7,243.6	9,209.5	11,502.5	14,147.6	17,169.9	20,594.7	24,447.0	44,635.0	
MOMENT CAPACITY (FT-LBS)	59,448	73,393	88,806	105,686	124,034	143,850	165,134	187,886	212,106	237,793	355,222	
SHEAR CAPACITY (LBS)	26,606	29,563	32,519	35,475	38,431	41,388	44,344	47,300	50,256	53,213	65,038	

SCI GLUED LAMINATED COLUMNS LOAD TABLES

AXIALLY LOADED COLUMNS

SCI Glulam Columns

Dry Use K = 1.00

115% Load Duration (SNOW)

ANSI 117, GRADE NO. 49 1:10, N1M GLULAM COLUMNS

SIDEWALL HEIGHT	12	14	16	18	20	22	24	26
3 PLY 2x6	21,050	14,100	10,050	N/A	N/A	N/A	N/A	N/A
4 PLY 2x6	31,000	21,450	15,500	11,300	N/A	N/A	N/A	N/A
5 PLY 2x6	40,300	28,750	20,750	15,300	N/A	N/A	N/A	N/A
3 PLY 2x8	33,700	33,250	25,800	18,650	14,250	N/A	N/A	N/A1
4 PLY 2x8	51,800	51,150	38,550	28,750	22,050	17,350	13,500	N/A
5 PLY 2x8	65,300	64,500	50,500	38,850	30,100	23,700	18,950	15,200
6 PLY 2x8	79,300	78,700	82,850	48,800	37,750	30,000	24,250	20,050

Notes:

- 1) This chart is for SCI Glulam SP Combination 49 columns used in a normal post-frame building (enclosed all four sides), supported at the top by diaphragm action of the building.
- 2) Allowable vertical load, 8ft O/C under constant wind load of ASCE 7-16 load combinations.

AXIALLY LOADED COLUMNS

SCI Glulam Columns

Dry Use K = 1.00

115% Load Duration (SNOW)

ANSI 117, GRADE NO. 49 1:10, N1M, SP

COLUMN LENGTH (FT)	6" NOMINAL COLUMN WIDTH (5 1/8")				8" NOMINAL COLUMN WIDTH (6 3/4")				10" NOMINAL COLUMN WIDTH (8 1/2")			12" NOMINAL COLUMN WIDTH (10 1/2")		
	3 LAMS	4 LAMS	5 LAMS	6 LAMS	3 LAMS	4 LAMS	5 LAMS	6 LAMS	4 LAMS	5 LAMS	6 LAMS	4 LAMS	5 LAMS	6 LAMS
	5 1/8 x 4 1/8"	5 1/8 x 5 1/2"	5 1/8 x 6 7/8"	5 1/8 x 8 1/4"	6 3/4 x 4 1/8"	6 3/4 x 5 1/2"	6 3/4 x 6 7/8"	6 3/4 x 8 1/4"	8 1/2 x 5 1/2"	8 1/2 x 6 7/8"	8 1/2 x 8 1/4"	10 1/2 x 5 1/2"	10 1/2 x 6 7/8"	10 1/2 x 8 1/4"
10	10,410	19,330	23,290	27,930	13,700	26,320	40,210	48,320	33,140	50,860	68,350	40,900	62,780	84,400
12	8,020	14,770	18,450	22,130	10,560	21,170	34,060	40,860	26,650	43,270	61,050	32,900	53,410	75,370
14	6,340	11,870	14,830	17,790	8,340	17,180	28,490	34,170	21,620	36,350	53,430	26,700	44,890	65,970
16	5,110	9,710	12,130	14,540	6,730	14,140	23,910	28,680	17,800	30,610	46,270	21,970	37,800	57,120
18	N/A	8,060	10,070	12,080	N/A	11,810	20,250	24,290	14,860	25,980	40,010	18,340	32,090	49,420
20		6,800	8,490	10,180		9,990	17,310	20,770	12,570	22,260	34,760	15,510	27,480	42,930
22						8,550	14,950	17,930	10,760	19,240	30,380	13,280	23,760	37,520
24			N/A			N/A	13,020	15,620	N/A	16,780	26,720	N/A	20,720	32,990

Notes:

- 1) Load eccentricity of 1/6 post width or thickness used for tabulated values. Bracing in both directions at column ends.
- 2) Column capacity may be further limited by the wood plates, the slab, column caps/bases, etc.
- 3) No drilling except for column cap or base installation. Follow hardware manufacturer's instructions.
- 4) Designed in accordance with IBC-2018, NDS-2018 and ANSI 117-2020 Table A2.
- 5) Lateral wind or seismic design loads are not included in this table and should be designed separately.
- 6) All appropriate design factors shall be applied to the design loads before using this table. For example, low risk occupancy category can reduce snow load, and uninsulated cold roof can increase it.
- 7) For all other conditions, consult a licensed professional engineer.



**DEDICATED TO
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SATISFACTION**

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full product details.**



SCI LAMINATED COLUMNS

W3682 Willow Road, Curtiss, WI 54422

715.229.2240