

# **Expanding Your Solutions**

## Sure-Span®

Light Gauge Steel Floor Joist System Product Guide 2016



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### Introduction

### Sure-Span®

CEMCO's Sure-Span® steel floor joist system is a patented, tested, and approved solution for commercial, mid-rise, and residential floor framing assemblies. Sure-Span floor joists are manufactured with extra-large openings (punch-outs) to allow for mechanical, electrical, and plumbing access without damaging the structural integrity of the floor framing system commonly seen with typical c-shaped joists that require cutting of the joist to accommodate these lines. Sure-Span provides long and sturdy floor spans, along with fire-resistant and sound-reducing solutions for architects, engineers, and developers.

### Material Specifications for SSCJ (Joists) and SSRT (Rim-Track)

All CEMCO Sure-Span products are manufactured from hot-dipped galvanized steel meeting or exceeding the following ASTM, AISI, and UL standards.

- · C955 (Structural Product)
- C1007 (Installation)
- A924/A924M (Coating)
- A653/A653M (Steel)
- C1003/C1003M (Steel)
- AISI S100-2012: Design of Cold-Formed Steel Structural Members
- UL® testing standards and UL® Certified Products and Follow-Up Service (FUS)
- UL G556, G557, G559, G574, & G580

### LEED v3 for Building and Design Construction

- MR Credit 2: Construction Waste Management
- MR Credit 4: Recycled Content.

### LEED v4 for Building and Design Construction

- MR Prerequisite: Construction and Demolition Waste Management Planning.
- MR Credit: Construction and Demolition Waste Management.
- MR Credit: Building Product Disclosure and Optimization Sourcing of Raw Materials, Option 2.
- MR Credit: Building Product Disclosure and Optimization Environmental Product Declarations, Options 1 & 2.
- MR Credit: Building Product Disclosure and Optimization Material Ingredients, Option 1.
- MR Credit: Building Life-Cycle Impact Reduction, Option 4.

The technical information supplied by this publication is intended ONLY to assist the professional architects and/or engineers in the selection or analysis of CEMCO Sure-Span® Cold-Formed Steel Floor Joist System, and does not replace the professional judgments of a qualified architect and/or engineer. Because physical properties vary from competitive products, information from this publication should be used ONLY with CEMCO stud and track sections. CEMCO assumes no liability for failure resulting from the use of its drawings, computations, or for failure resulting from the use of alternative materials, or improper application or installation. Although the data found herein are derived from the sources believed to be reliable, no warranty, express or implied is made to the adequacy, completeness, legality, reliability, or usefulness of

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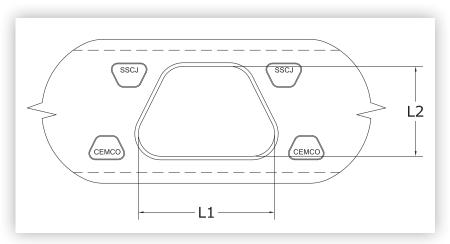
# Product Information for SSCJ (Joists) and SSRT (Rim Track)

- Thicknesses ranging from 43 mils (18 ga.) to 97 mils (12 ga.)
- · SSCJ Joists are available in the following configurations:
  - 7-1/4", 8", 9-1/4", & 11-1/4" depths with 1-3/4" flanges
  - 10", 12", & 14" depths with 2" flanges
  - First punch-out is located at 18" from one end, and 48" on-center after that
- SSRT Rim Tracks are available in the following configurations:
  - 7-1/4", 8", 9-1/4", 10", 11-1/4", 12", & 14" depths with 2" legs
  - Pre-Spaced/Pre-Attached clips at 12", 16", 19.2", or 24" on-center
  - All Rim Tracks available in either 16' or 32' lengths only
- Grades of Steel
  - $F_y$  (min. yield strength) = 33 KSI
    - > 43 mils (18 ga.)
      - ~ SSCJ Joists and SSRT Rim Tracks
      - ~ SB Sure-Bridge clips
      - Corner/Utility clips
  - $F_y$  (min. yield strength) = 50 KSI
    - > 54 mils (16 ga.)
      - ~ SSCJ Joists and SSRT Rim Tracks
      - ~ Corner/Utility clips
    - > 68 mils (14 ga.)
      - ~ SSCJ Joists and SSRT Rim Tracks
      - ~ Corner/Utility clips
    - > 97 mils (12 ga.)
      - ~ SSCJ Joists and SSRT Rim Tracks
      - ~ Corner/Utility clips



### Steel Thickness

Mil Thickness	Design Thickness (in.) <sup>1</sup>	Minimum Thickness (in.) <sup>1,2</sup>	Color Code
43	0.0451" (1.15 mm)	0.0428" (1.09 mm)	Yellow
54	0.0566" (1.44 mm)	0.0538" (1.37 mm)	Green
68	0.0713" (1.81 mm)	0.0677" (1.72 mm)	Orange
97	0.1017" (2.58 mm)	0.0966" (2.45 mm)	Red



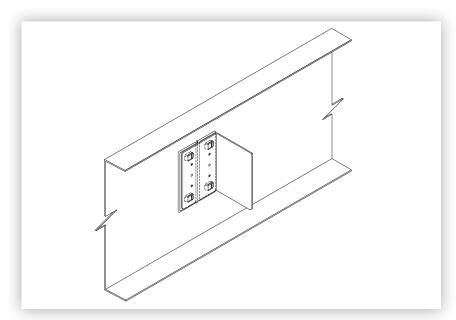
Detail of SSCJ Punch-Outs

### **Punch-Out Dimensions**

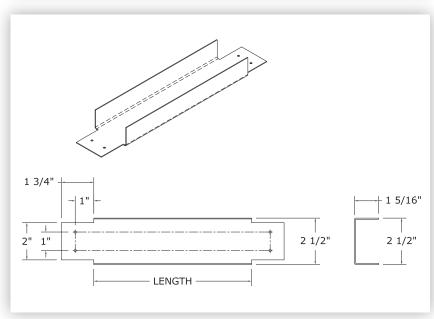
Section	L1 (in.)	L2 (in.)	Spacing Between Punch-Outs (in.)
725SSCJ175 - XX	7-5/32	4-1/4	48
800SSCJ175 - XX	7-5/32	4-1/4	48
925SSCJ175 - XX	7-15/32	4-1/4	48
1000SSCJ200 - XX	9-15/32	6-1/4	48
1125SSCJ175 - XX	9-15/32	6-1/4	48
1200SSCJ200 - XX	9-1/32	8	48
1400SSCJ200 - XX	11-1/16	10	48

<sup>1)</sup> Uncoated steel thickness. Thickness is for carbon sheet steel.
2) Minimum thickness represents 95% of the design thickness and is the minimum acceptable thickness delivered to the job site, based on Section A4.3 of the AISI S100-2012.





Detail of SSRT Tabs/Clips



Detail of Sure Bridging

### Bridging for 1-3/4" Flange Joists

Thickness (mils)	Part No.	Length	Joist Spacing
	175SB4312	10"	12" O.C.
42	175SB4316	14"	16" O.C.
43	175SB43192	17-1/4"	19.2" O.C.
	175SB4324	22"	24" O.C.

### Bridging for 2" Flange Joists

Thickness (mils)	Part No.	Length	Joist Spacing
	200SB4312	9-3/4"	12" O.C.
42	200SB4316	13-3/4"	16" O.C.
43	200SB43192	17"	19.2" O.C.
	200SB4324	21-3/4"	24" O.C.



### Definitions of Structural Properties Symbols

Symbol	Definition
lx	Full Moment of Inertia about the X axis (strong axis)
Ιγ	Full Moment of Inertia about the Y axis (weak axis)
Sx	Full Section Modulus about the X axis
Sy	Full Section Modulus about the Y axis
Rx, Ry	Radius of Gyration about the X and Y axis, respectively
Xo	Distance between Centroid and Shear Center
J	St. Venant Torsion Constant

Symbol	Definition
Cw	Torsion Warping Constant
Ro	Polar Radius of Gyration about the Shear Center
ß	Torsional-Flexural Constant
An	Cross-sectional Area at Punch-out
Ixn	Moment of Inertia at Punch-out about the X axis
Mall	Fully-braced Allowable Moment for joist
Vall	Allowable shear

### Notes

- 1. The minimum yield strength,  $F_Y$ , is 33 ksi for 18 gauge and 50 ksi for 16, 14, and 12 gauge material.
- 2. Tabulated weight values are based on full section geometry.
- 3. Punch-out Depth = 4.25'' (web depth 7.25'', 8'' and 9.25'')
  - = 6.25" (web depth 10" and 11.25")
  - = 8" (web depth 12")
  - = 10" (web depth 14")
- 4. For Allowable Stress Design (ASD) method, use a factor of safety of 1.95 for both moment and shear capacities. This factor of safety is obtained from a joist test program as per AISI 2012, Chapter F.
- 5. Allowable moment, MALL, and shear, VALL, capacities for joists are obtained by applying factors of safety to the least nominal capacities (between full and net capacities).

### **Tables** | Sure-Span<sup>™</sup> Joist

Structural Properties and Load Capacities: 7.25" to 14" Web



	Di	mensio	ons					G	iross Se	ction P	roperti	es					Net Section			
													Torsio	nal Pro <sub>l</sub>	perties		Prop	erties	Capa	cities
Section Designation	w (in.)	Gauge	t (in.)	Weight (plf)	Area (in²)	l <sub>x</sub> (in. <sup>4</sup> )	ly (in.4)	S <sub>x</sub> (in.³)	S <sub>y</sub> (in.³)	R. (in.)	R <sub>y</sub> (in.)	X <sub>o</sub> (in.)	J×1000 (in.4)	Cw (in. <sup>6</sup> )	Ro (in.)	ß	An (in²)	lxn (in.4)	Mall (k-in.)	Vall (K)
7.25" Depth			_																,	
725SSCJ175-43	1.75	18	0.0451	1.826	0.537	3.998	0.225	1.103	0.175	2.728	0.647	-1.204	0.364	2.468	3.051	0.844	0.396	3.930	16.769	0.924
725SSCJ175-54	1.75	16	0.0566	2.276	0.670	4.951	0.275	1.366	0.214	2.719	0.641	-1.190	0.715	3.003	3.037	0.846	0.491	4.861	32.107	1.826
725SSCJ175-68	1.75	14	0.0713	2.841	0.836	6.124	0.334	1.689	0.260	2.707	0.633	-1.173	1.416	3.626	3.017	0.849	0.609	6.004	41.830	3.651
8.00" Depth			_																,	
800SSCJ175-43	1.75	18	0.0451	1.941	0.571	5.069	0.231	1.267	0.176	2.980	0.636	-1.149	0.387	3.047	3.256	0.875	0.430	5.001	18.736	0.837
800SSCJ175-54	1.75	16	0.0566	2.421	0.712	6.282	0.282	1.571	0.215	2.970	0.630	-1.136	0.760	3.710	3.242	0.877	0.534	6.192	35.904	1.655
800SSCJ175-68	1.75	14	0.0713	3.023	0.889	7.777	0.344	1.944	0.262	2.958	0.622	-1.118	1.507	4.484	3.222	0.880	0.662	7.657	47.048	3.309
9.25" Depth	•																			
925SSCJ175-54	1.75	16	0.0566	2.661	0.783	8.951	0.293	1.935	0.217	3.382	0.612	-1.056	0.836	5.090	3.595	0.914	0.546	8.678	43.765	2.303
925SSCJ175-68	1.75	14	0.0713	3.326	0.978	11.095	0.357	2.399	0.264	3.368	0.604	-1.039	1.658	6.159	3.576	0.916	0.678	10.740	55.744	3.057
925SSCJ175-97	1.75	12	0.1017	4.666	1.372	15.297	0.472	3.308	0.350	3.339	0.587	-1.004	4.731	8.056	3.535	0.919	0.937	14.756	83.431	4.055
10.00" Depth																			,	
1000SSCJ200-54	2.00	16	0.0566	2.902	0.853	11.542	0.411	2.308	0.266	3.677	0.694	-1.196	0.911	8.211	3.929	0.907	0.503	10.527	48.155	1.324
1000SSCJ200-68	2.00	14	0.0713	3.629	1.067	14.327	0.502	2.865	0.324	3.664	0.686	-1.178	1.809	9.973	3.909	0.909	0.624	13.026	65.402	2.647
1000SSCJ200-97	2.00	12	0.1017	5.098	1.500	19.813	0.669	3.963	0.433	3.635	0.668	-1.142	5.170	13.154	3.868	0.913	0.861	17.889	91.739	7.682
11.25" Depth																				
1125SSCJ175-54	1.75	16	0.0566	3.046	0.896	14.516	0.307	2.581	0.220	4.025	0.585	- 0.952	0.957	7.842	4.177	0.948	0.546	13.502	52.327	1.177
1125SSCJ175-68	1.75	14	0.0713	3.811	1.121	18.023	0.373	3.204	0.268	4.010	0.577	- 0.935	1.899	9.500	4.158	0.949	0.678	16.722	69.655	2.353
1125SSCJ175-97	1.75	12	0.1017	5.358	1.576	24.935	0.494	4.433	0.355	3.978	0.560	- 0.902	5.433	12.459	4.117	0.952	0.937	23.010	104.893	6.828
12.00" Depth																				
1200SSCJ200-54	2.00	16	0.0566	3.287	0.967	18.062	0.429	3.010	0.269	4.323	0.666	-1.087	1.032	12.315	4.507	0.942	0.521	15.890	58.612	1.103
1200SSCJ200-68	2.00	14	0.0713	4.114	1.210	22.452	0.524	3.742	0.328	4.308	0.658	-1.070	2.050	14.973	4.487	0.943	0.647	19.679	80.176	2.206
1200SSCJ200-97	2.00	12	0.1017	5.790	1.703	31.140	0.699	5.190	0.438	4.276	0.641	-1.036	5.871	19.795	4.446	0.946	0.893	27.077	115.710	6.401
14.00" Depth																				
1400SSCJ200-68	2.00	14	0.0713	4.599	1.353	32.997	0.541	4.714	0.331	4.939	0.632	- 0.981	2.292	21.157	5.075	0.963	0.647	27.424	94.916	1.891
1400SSCJ200-97	2.00	12	0.1017	6.481	1.906	45.872	0.721	6.553	0.442	4.905	0.615	- 0.948	6.572	28.014	5.034	0.965	0.893	37.758	138.310	5.487

### **Notations**

Ix
 Full Moment of Inertia about the X axis
 Iy
 Full Moment of Inertia about the Y axis
 Sx
 Full Section Modulus about the X axis
 Sy
 Full Section Modulus about the Y axis

Rx, Ry Radius of Gyration about the X and Y axis, respectively

X<sub>o</sub> Distance between Centroid and Shear Center

J St. Venant Torsion Constant Cw Torsional Warping Constant

R₀ Polar Radius of Gyration about the Shear Center

ß Torsional-Flexural Constant
An Cross-sectional Area at Punch-out

Moment of Inertia at Punch-out about the X axis

Mall Fully-braced Allowable Moment for Joist

Vall Allowable Shear for joist

### Notes

- 1. The minimum yield strength, F<sub>y</sub>, is 33 ksi for 18 gauge and 50 ksi for 16, 14, and 12 gauge material.
- 2. Tabulated weight values are based on full section geometry.
- 3. Punch-out Depth = 4.25'' (web depth 7.25'', 8'' and 9.25'')

6.25" (web depth 10" and 11.25")

8.00" (web depth 12") 10.00" (web depth 14")

- 4. For Allowable Stress Design (ASD) method, use a factor of safety of 1.95 for both moment and shear capacities. This factor of safety is obtained from a joist test program as per AISI 2012, Chapter F.
- Allowable moment, Mall, and shear, Vall, capacities for joists are obtained by applying factors of safety to the least nominal capacities (between full and net section capacities).





Structural Properties and Load Capacities

	Di	mensio	ons	Gross Section Properties													_	
													Torsio	nal Prop	erties		Capa	cities
Section Designation	w (in.)	Gauge	t (in.)	Weight (plf)	Area (in²)	k (in.4)	l <sub>y</sub> (in. <sup>4</sup> )	S <sub>x</sub> (in.³)	S <sub>y</sub> (in.³)	R. (in.)	R <sub>y</sub> (in.)	X <sub>o</sub> (in.)	J x1000 (in.4)	Cw (in. <sup>6</sup> )	Ro (in.)	ß	Mall (k-in.)	Vali (k)
7.25" Depth							I.			I.					1	I.		
725SSRT200-43	7.34	18	0.0451	1.701	0.504	3.784	0.171	1.031	0.458	2.741	0.582	-0.970	0.342	1.635	2.965	0.893	13.292	1.148
725SSRT200-54	7.36	16	0.0566	2.132	0.631	4.745	0.213	1.289	0.564	2.742	0.580	-0.967	0.674	2.038	2.965	0.894	26.150	2.279
725SSRT200-68	7.39	14	0.0713	2.681	0.793	5.968	0.265	1.615	0.693	2.743	0.578	-0.964	1.345	2.540	2.964	0.894	37.739	4.584
8.00" Depth																		
800SSRT200-43	8.09	18	0.0451	1.816	0.538	4.784	0.175	1.183	0.498	2.983	0.570	-0.924	0.365	2.057	3.175	0.915	13.234	1.039
800SSRT200-54	8.11	16	0.0566	2.277	0.674	5.999	0.217	1.479	0.613	2.985	0.568	-0.921	0.719	2.562	3.174	0.916	25.819	2.061
800SSRT200-68	8.14	14	0.0713	2.862	0.847	7.543	0.271	1.853	0.752	2.984	0.566	-0.918	1.435	3.195	3.173	0.916	38.678	4.143
9.25" Depth																		
925SSRT20054	9.36	16	0.0566	2.517	0.744	8.515	0.224	1.819	0.692	3.382	0.549	-0.855	0.795	3.590	3.531	0.941	30.295	1.777
925SSRT200-68	9.39	14	0.0713	3.165	0.936	10.706	0.280	2.280	0.848	3.382	0.547	-0.852	1.586	4.476	3.530	0.942	45.672	3.569
925SSRT200-97	9.45	12	0.1017	4.497	1.330	15.208	0.390	3.217	1.142	3.382	0.542	-0.845	4.585	6.243	3.528	0.943	82.437	10.464
10.00" Depth																		
1000SSRT200-54	10.11	16	0.0566	2.657	0.787	10.301	0.228	2.037	0.740	3.618	0.538	-0.820	0.840	4.300	3.749	0.952	32.982	1.641
1000SSRT200-68	10.14	14	0.0713	3.341	0.989	12.950	0.284	2.554	0.905	3.618	0.536	-0.816	1.677	5.361	3.747	0.953	49.873	3.296
1000SSRT200-97	10.20	12	0.1017	4.749	1.406	18.393	0.397	3.605	1.217	3.617	0.531	-0.810	4.848	7.479	3.744	0.953	90.696	9.655
11.25" Depth																		
1125SSRT200-54	11.36	16	0.0566	2.897	0.858	13.774	0.233	2.424	0.817	4.008	0.521	-0.767	0.916	5.644	4.113	0.965	37.457	1.456
1125SSRT200-68	11.39	14	0.0713	3.644	1.079	17.316	0.290	3.040	0.998	4.007	0.519	-0.764	1.828	7.037	4.112	0.965	56.876	2.923
1125SSRT200-97	11.45	12	0.1017	5.180	1.533	24.593	0.405	4.294	1.338	4.005	0.514	-0.758	5.286	9.818	4.108	0.966	104.500	8.552
12.00" Depth																		
1200SSRT200-54	12.11	16	0.0566	3.041	0.900	16.177	0.236	2.671	0.864	4.239	0.512	-0.739	0.961	6.547	4.334	0.971	40.140	1.364
1200SSRT200-68	12.14	14	0.0713	3.825	1.132	20.336	0.294	3.350	1.054	4.238	0.509	-0.736	1.918	8.164	4.332	0.971	61.075	2.737
1200SSRT200-97	12.2	12	0.1017	5.439	1.609	28.881	0.410	4.733	1.409	4.236	0.505	-0.729	5.549	11.391	4.328	0.972	112.800	8.004
14.00" Depth																		
1400SSRT200-68	14.14	14	0.0713	4.309	1.275	29.986	0.301	4.241	1.197	4.850	0.486	-0.670	2.160	11.622	4.920	0.981	72.267	2.340
1400SSRT200-97	14.20	12	0.1017	6.129	1.813	42.587	0.421	5.997	1.593	4.847	0.482	-0.664	6.250	16.219	4.916	0.982	164.920	6.835

### **Notations**

Ix Full Moment of Inertia about the X axis
 Iy Full Moment of Inertia about the Y axis
 Sx Full Section Modulus about the X axis
 Sy Full Section Modulus about the Y axis

Rx, Ry Radius of Gyration about the X and Y axis, respectively

X<sub>o</sub> Distance between Centroid and Shear Center

J St. Venant Torsion Constant Cw Torsional Warping Constant

Ro Polar Radius of Gyration about the Shear Center

ß Torsional-Flexural Constant
An Cross-sectional Area at Punch-out

 $I_{\text{kn}}$  Moment of Inertia at Punch-out about the X axis  $M_{\text{all}}$  Fully-braced Allowable Moment for Joist

V<sub>all</sub> Allowable Shear for joist

### Notes

- 1. The minimum yield strength, F<sub>y</sub>, is 33 ksi for 18 gauge and 50 ksi for 16, 14, and 12 gauge material.
- 2. Slit Depth = 4.00" (web depth up to 9.25") 6.00" (web depth greater than 9.25")
- 3. Rim Track slits are provided according to the spacing of joist; standard spacings are 12", 16", 19.2", and 24".



						10	0 psf Dea	ad Load a	nd 40 p	sf Live Loa	ad						
Joist Designation				_ = <b>L/240</b> , le Span • S					$\Delta$ TL = <b>L/240</b> , $\Delta$ LL = <b>L/480</b> Single Span • Spacing (in.) o.c.								
	12 16 19.2 24					24		12		16	19.2		24				
725SSCJ175-43	14'	- 11"	12'	- 11"	11'	9"	10'	- 6"	14'	- 11"	12'	- 11"	11'	9"	10'	- 6''	
725SSCJ175-54	17'	- 6"	15'	- 11"	15'	- 0"	13'	- 11"	17'	- 6"	15'	- 11"	15'	- 0"	13'	- 11"	
725SSCJ175-68	18'	- 10"	17'	- 1"	16'	- 1"	14'	- 11"	18'	- 10"	17'	- 1"	16'	- 1"	14'	- 11"	
800SSCJ175-43	15'	- 9"	13'	- 8"	12'	- 5"	11'	- 2"	15'	- 9''	13'	- 8"	12'	- 5"	11'	- 2"	
800SSCJ175-54	19'	- 0"	17'	- 3"	16'	- 2"	15'	- 1"	19'	- 0"	17'	- 3"	16'	- 2"	15'	- 1"	
800SSCJ175-68	20'	- 4"	18'	- 6"	17'	- 5"	16'	- 2"	20'	- 4"	18'	- 6"	17'	- 5"	16'	- 2"	
925SSCJ175-54	21'	- 4"	19'	- 5"	18'	- 3''	16'	- 11"	21'	- 4"	19'	- 5"	18'	- 3"	16'	- 11"	
925SSCJ175-68	22'	- 11"	20'	- 10"	19'	- 7"	18'	- 2"	22'	- 11"	20'	- 10"	19'	- 7"	18'	- 2"	
925SSCJ175-97	25'	- 6"	23'	- 2"	21'	- 10"	20'	- 3"	25'	- 6"	23'	- 2"	21'	- 10''	20'	- 3''	
1000SSCJ200-54	23'	- 3"	21'	- 1"	19'	- 10"	17'	- 11"	23'	- 3"	21'	- 1"	19'	- 10''	17'	- 11"	
1000SSCJ200-68	25'	- 0"	22'	- 8"	21'	- 4"	19'	- 10"	25'	- 0''	22'	- 8"	21'	- 4"	19'	- 10''	
1000SSCJ200-97	27'	- 10''	25'	- 3"	23'	- 9"	22'	- 1"	27'	- 10''	25'	- 3"	23'	- 9"	22'	- 1"	
1125SSCJ175-54	25'	- 1"	22'	- 9"	20'	- 10"	18'	- 8"	25'	- 1"	22'	- 9"	20'	- 10"	18'	- 8"	
1125SSCJ175-68	27'	- 0''	24'	- 6"	23'	- 1"	21'	- 5"	27'	- 0"	24'	- 6"	23'	- 1"	21'	- 5''	
1125SSCJ175-97	30'	- 1"	27'	- 4"	25'	- 8''	23'	- 10"	30'	- 1"	27'	- 4"	25'	- 8"	23'	- 10''	
1200SSCJ200-54	27'	- 0''	24'	- 2"	22'	- 1"	19'	- 9''	27'	- 0"	24'	- 2"	22'	- 1"	19'	- 9''	
1200SSCJ200-68	29'	- 0''	26'	- 4"	24'	- 10''	23'	- 0"	29'	- 0"	26'	- 4"	24'	- 10"	23'	- 0''	
1200SSCJ200-97	32'	- 4''	29'	- 5"	27'	- 8"	25'	- 8"	32'	- 4"	29'	- 5"	27'	- 8"	25'	- 8"	
1400SSCJ200-68	33'	- 0''	30'	- 0"	28'	- 1"	25'	- 1"	33'	- 0"	30'	- 0"	28'	- 1"	25'	- 1"	
1400SSCJ200-97	36'	- 10''	33'	- 5"	31'	- 6''	29'	- 3"	36'	- 10"	33'	- 5''	31'	- 6"	29'	- 3"	

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- 10. TL = Total Load; LL = Live Load
- 11. Applications involving multiple spans, cantilevers, concentrated loads, impact loading, and etc., should be investigated separately.
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						15	psf Dea	d Load ar	nd 125 p	sf Live Lo	ad						
Joist Designation				_ = <b>L/240</b> , le Span • S					$\Delta TL = L/240$ , $\Delta LL = L/480$ Single Span • Spacing (in.) o.c.								
		12	•	16	19.2		:	24		12		16		19.2		24	
725SSCJ175-43	8'	- 11"	7'	- 8"	7'	- 0"	6'	- 3"	8'	- 11"	7'	- 8"	7'	- 0"	6'	- 3"	
725SSCJ175-54	12'	- 0"	10'	- 8"	9'	- 9''	8'	- 8"	10'	- 10"	9'	- 10"	9'	- 3"	8'	- 7"	
725SSCJ175-68	12'	- 10''	11'	- 8"	11'	- 0"	9'	- 11"	11'	- 8"	10'	- 7"	10'	- 0"	9'	- 3''	
800SSCJ175-43	9'	- 5"	8'	- 2"	7'	- 5"	6'	- 8"	9'	- 5"	8'	- 2"	7'	- 5''	6'	- 8"	
800SSCJ175-54	12'	- 11"	11'	- 3"	10'	- 4"	9'	- 2"	11'	- 9"	10'	- 8"	10'	- 1"	9'	- 2"	
800SSCJ175-68	13'	- 11"	12'	- 8"	11'	- 9"	10'	- 7"	12'	- 8"	11'	- 6"	10'	- 10"	10'	- 0"	
925SSCJ175-54	14'	- 5"	12'	- 6"	11'	- 4"	10'	- 2"	13'	- 3"	12'	- 0"	11'	- 4"	10'	- 2"	
925SSCJ175-68	15'	- 8"	14'	- 1"	12'	- 10"	11'	- 6''	14'	- 3"	12'	- 11"	12'	- 2"	11'	- 3"	
925SSCJ175-97	17'	- 5"	15'	- 10"	14'	- 11"	13'	- 10''	15'	- 10"	14'	- 5''	13'	- 7"	12'	- 7"	
1000SSCJ200-54	15'	- 1"	13'	- 1"	11'	- 11"	10'	- 8"	14'	- 5"	13'	- 1"	11'	- 11"	10'	- 8"	
1000SSCJ200-68	17'	- 1"	15'	- 3"	13'	- 11"	12'	- 5"	15'	- 6"	14'	- 1"	13'	- 3"	12'	- 4"	
1000SSCJ200-97	19'	- 0"	17'	- 3"	16'	- 3"	14'	- 9''	17'	- 3"	15'	- 8"	14'	- 9''	13'	- 8"	
1125SSCJ175-54	15'	- 9"	13'	- 8"	12'	- 5"	11'	- 1"	15'	- 7"	13'	- 8''	12'	- 5"	11'	- 1"	
1125SSCJ175-68	18'	- 2"	15'	- 9"	14'	- 4"	12'	- 10"	16'	- 9"	15'	- 2"	14'	- 4"	12'	- 10''	
1125SSCJ175-97	20'	- 6"	18'	- 8"	17'	- 7"	15'	- 9"	18'	- 8"	16'	- 11"	15'	- 11"	14'	- 10''	
1200SSCJ200-54	16'	- 8"	14'	- 5"	13'	- 2"	11'	- 9"	16'	- 8"	14'	- 5"	13'	- 2"	11'	- 9"	
1200SSCJ200-68	19'	- 6"	16'	- 11"	15'	- 5"	13'	- 9"	18'	- 0"	16'	- 4"	15'	- 5''	13'	- 9"	
1200SSCJ200-97	22'	- 1"	20'	- 1"	18'	- 6''	16'	- 7"	20'	- 1"	18'	- 3"	17'	- 2"	15'	- 11"	
1400SSCJ200-68	21'	- 3"	18'	- 4"	16'	- 9"	15'	- 0"	20'	- 6"	18'	- 4"	16'	- 9"	15'	- 0"	
1400SSCJ200-97	25'	- 2"	22'	- 2"	20'	- 3"	18'	- 1"	22'	- 10"	20'	- 9"	19'	- 7"	18'	- 1"	

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						1:	5 psf Dea	ad Load a	nd 40 ps	of Live Loa	ad						
Joist Designation				_ = <b>L/240,</b> le Span • S					$\Delta$ TL = <b>L/240,</b> $\Delta$ LL = <b>L/480</b> Single Span • Spacing (in.) o.c.								
		12		16	1	9.2	:	24		12	1	16	1	9.2	24		
725SSCJ175-43	14'	- 3"	12'	- 4"	11'	- 3''	10'	- 0"	14'	- 3"	12'	- 4"	11'	- 3"	10'	- 0"	
725SSCJ175-54	17'	- 6"	15'	- 11"	15'	- 0"	13'	- 11"	15'	- 11"	14'	- 5"	13'	- 7"	12'	- 7"	
725SSCJ175-68	18'	- 10"	17'	- 1"	16'	- 1"	14'	- 11"	17'	- 1"	15'	- 6"	14'	- 7"	13'	- 7"	
800SSCJ175-43	15'	- 0"	13'	- 0"	11'	- 10''	10'	- 7"	15'	- 0"	13'	- 0"	11'	- 10"	10'	- 7"	
800SSCJ175-54	19'	- 0"	17'	- 3"	16'	- 2"	14'	- 9"	17'	- 3"	15'	- 8"	14'	- 9''	13'	- 8"	
800SSCJ175-68	20'	- 4"	18'	- 6"	17'	- 5"	16'	- 2"	18'	- 6"	16'	- 10"	15'	- 10"	14'	- 8"	
925SSCJ175-54	21'	- 4"	19'	- 5"	18'	- 2"	16'	- 3"	19'	- 5"	17'	- 7"	16'	- 7"	15'	- 5"	
925SSCJ175-68	22'	- 11"	20'	- 10"	19'	- 7"	18'	- 2"	20'	- 10"	18'	- 11"	17'	- 10"	16'	- 6''	
925SSCJ175-97	25'	- 6"	23'	- 2"	21'	- 10"	20'	- 3''	23'	- 2"	21'	- 1"	19'	- 10''	18'	- 5"	
1000SSCJ200-54	23'	- 3"	20'	- 11"	19'	- 1"	17'	- 1"	21'	- 1"	19'	- 2"	18'	- 0"	16'	- 9"	
1000SSCJ200-68	25'	- 0"	22'	- 8"	21'	- 4"	19'	- 10"	22'	- 8"	20'	- 7"	19'	- 5"	18'	- 0"	
1000SSCJ200-97	27'	- 10"	25'	- 3"	23'	- 9"	22'	- 1"	25'	- 3"	23'	- 0"	21'	- 7"	20'	- 1"	
1125SSCJ175-54	25'	- 1"	21'	- 9"	19'	- 10"	17'	- 9"	22'	- 9"	20'	- 8"	19'	- 6"	17'	- 9''	
1125SSCJ175-68	27'	- 0"	24'	- 6"	22'	- 11"	20'	- 6"	24'	- 6"	22'	- 3''	20'	- 11"	19'	- 5"	
1125SSCJ175-97	30'	- 1"	27'	- 4"	25'	- 8"	23'	- 10"	27'	- 4"	24'	- 10"	23'	- 4"	21'	- 8"	
1200SSCJ200-54	26'	- 7"	23'	- 0"	21'	- 0"	18'	- 10"	24'	- 6''	22'	- 3"	20'	- 11"	18'	- 10''	
1200SSCJ200-68	29'	- 0"	26'	- 4"	24'	- 7"	22'	- 0"	26'	- 4"	23'	- 11"	22'	- 6"	20'	- 11"	
1200SSCJ200-97	32'	- 4"	29'	- 5"	27'	- 8"	25'	- 8"	29'	- 5"	26'	- 8"	25'	- 2"	23'	- 4"	
1400SSCJ200-68	33'	- 0"	29'	- 4"	26'	- 9"	23'	- 11"	30'	- 0"	27'	- 3"	25'	- 7"	23'	- 9''	
1400SSCJ200-97	36'	- 10''	33'	- 5"	31'	- 6"	28'	- 11"	33'	- 5"	30'	- 5''	28'	- 7"	26'	- 7"	

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	20 psf Dead Load and 125 psf Live Load																
Joist Designation				_ = <b>L/240,</b> le Span • S					$\Delta$ TL = <b>L/240,</b> $\Delta$ LL = <b>L/480</b> Single Span • Spacing (in.) o.c.								
		12 16 19.2 24				24		12	1	16	1	9.2	- :	24			
725SSCJ175-43	8'	- 9"	7'	- 7"	6'	- 11"	6'	- 2"	8'	- 9"	7'	- 7"	6'	- 11"	6'	- 2"	
725SSCJ175-54	12'	- 0"	10'	- 6"	9'	- 7"	8'	- 7"	10'	- 10''	9'	- 10"	9'	- 3"	8'	- 7"	
725SSCJ175-68	12'	- 10"	11'	- 8"	6'	- 11"	9'	- 9"	11'	- 8"	10'	- 7"	10'	- 0"	9'	- 3"	
800SSCJ175-43	9'	- 5"	8'	- 2"	7'	- 5"	6'	- 8"	9'	- 5"	8'	- 2"	7'	- 5"	6'	- 8"	
800SSCJ175-54	12'	- 11"	11'	- 3"	10'	- 4"	9'	- 2"	11'	- 9"	10'	- 8"	10'	- 1"	9'	- 2"	
800SSCJ175-68	13'	- 11"	12'	- 8"	11'	- 9"	10'	- 7"	12'	- 8"	11'	- 6"	10'	- 10"	10'	- 0"	
925SSCJ175-54	14'	- 2"	12'	- 3"	11'	- 2"	10'	- 0"	13'	- 3"	12'	- 0"	11'	- 2"	10'	- 0"	
925SSCJ175-68	15'	- 8"	13'	- 10"	12'	- 7"	11'	- 3"	14'	- 3"	12'	- 11"	12'	- 2"	11'	- 3"	
925SSCJ175-97	17'	- 5"	15'	- 10"	14'	- 11"	13'	- 8"	15'	- 10"	14'	- 5''	13'	- 7"	12'	- 7"	
1000SSCJ200-54	14'	- 10''	12'	- 10"	11'	- 9"	10'	- 6''	14'	- 5"	12'	- 10"	11'	- 9"	10'	- 6"	
1000SSCJ200-68	17'	- 1"	15'	- 0"	13'	- 8"	12'	- 3"	15'	- 6''	14'	- 1"	13'	- 3"	12'	- 3"	
1000SSCJ200-97	19'	- 0''	17'	- 3"	16'	- 2"	14'	- 6"	17'	- 3"	15'	- 8"	14'	- 9''	13'	- 8"	
1125SSCJ175-54	15'	- 6''	13'	- 5"	12'	- 3"	10'	- 11"	15'	- 6"	13'	- 5"	12'	- 3"	10'	- 11"	
1125SSCJ175-68	17'	- 10''	15'	- 5"	14'	- 1"	12'	- 7"	16'	- 9"	15'	- 2"	14'	- 1"	12'	- 7"	
1125SSCJ175-97	20'	- 6''	18'	- 8"	17'	- 4"	15'	- 6"	18'	- 8"	16'	- 11"	15'	- 11"	14'	- 10''	
1200SSCJ200-54	16'	- 4"	14'	- 2"	12'	- 11"	11'	- 7"	16'	- 4"	14'	- 2"	12'	- 11"	11'	- 7"	
1200SSCJ200-68	19'	- 2"	16'	- 7"	15'	- 2"	13'	- 6"	18'	- 0"	16'	- 4"	15'	- 2"	13'	- 6"	
1200SSCJ200-97	22'	- 1"	19'	- 11"	18'	- 2"	16'	- 3"	20'	- 1"	18'	- 3"	17'	- 2"	15'	- 11"	
1400SSCJ200-68	20'	- 10''	18'	- 1"	16'	- 6"	14'	- 9"	20'	- 6"	18'	- 1"	16'	- 6"	14'	- 9"	
1400SSCJ200-97	25'	- 2"	21'	- 10"	19'	- 11"	17'	- 9"	22'	- 10"	20'	- 9''	19'	- 7"	17'	- 9"	

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						20	psf Dea	ad Load a	nd 40 ps	sf Live Lo	ad						
Joist Designation				_ = <b>L/240</b> , e Span • S					$\Delta$ TL = <b>L/240,</b> $\Delta$ LL = <b>L/480</b> Single Span • Spacing (in.) o.c.								
	12 16		16	1	9.2	2	24		12	16		19.2		24			
725SSCJ175-43	13'	- 7"	11'	- 9"	10'	- 9"	9'	- 7"	13'	- 7"	11'	- 9"	10'	- 9"	9'	- 7"	
725SSCJ175-54	17'	- 6"	15'	- 11"	14'	- 11"	13'	- 4"	15'	- 11"	14'	- 5"	13'	- 7"	12'	- 7"	
725SSCJ175-68	18'	- 10"	17'	- 1"	16'	- 1"	14'	- 11"	17'	- 1"	15'	- 6"	14'	- 7"	13'	- 7"	
800SSCJ175-43	14'	- 5"	12'	- 5''	11'	- 4"	10'	- 2"	14'	- 5"	12'	- 5"	11'	- 4"	10'	- 2"	
800SSCJ175-54	19'	- 0"	17'	- 3"	15'	- 9"	14'	- 1"	17'	- 3"	15'	- 8"	14'	- 9"	13'	- 8"	
800SSCJ175-68	20'	- 4"	18'	- 6"	17'	- 5"	16'	- 2"	18'	- 6"	16'	- 10"	15'	- 10"	14'	- 8"	
925SSCJ175-54	21'	- 4"	19'	- 1"	17'	- 5''	15'	- 7"	19'	- 5"	17'	- 7"	16'	- 7"	15'	- 5"	
925SSCJ175-68	22'	- 11"	20'	- 10"	19'	- 7"	17'	- 7"	20'	- 10"	18'	- 11"	17'	- 10''	16'	- 6''	
925SSCJ175-97	25'	- 6"	23'	- 2"	21'	- 10"	20'	- 3"	23'	- 2"	21'	- 1"	19'	- 10''	18'	- 5''	
1000SSCJ200-54	23'	- 1"	20'	- 0''	18'	- 3"	16'	- 4"	21'	- 1"	19'	- 2"	18'	- 0"	16'	- 4''	
1000SSCJ200-68	25'	- 0"	22'	- 8"	21'	- 3"	19'	- 0"	22'	- 8"	20'	- 7"	19'	- 5"	18'	- 0''	
1000SSCJ200-97	27'	- 10"	25'	- 3"	23'	- 9"	22'	- 1"	25'	- 3"	23'	- 0"	21'	- 7"	20'	- 1"	
1125SSCJ175-54	24'	- 1"	20'	- 10"	19'	- 0"	17'	- 0"	22'	- 9"	20'	- 8"	19'	- 0"	17'	- 0"	
1125SSCJ175-68	27'	- 0"	24'	- 1"	21'	- 11"	19'	- 8"	24'	- 6"	22'	- 3"	20'	- 11"	19'	- 5''	
1125SSCJ175-97	30'	- 1"	27'	- 4"	25'	- 8"	23'	- 10"	27'	- 4"	24'	- 10"	23'	- 4"	21'	- 8''	
1200SSCJ200-54	25'	- 6"	22'	- 1"	20'	- 2"	18'	- 0"	24'	- 6"	22'	- 1"	20'	- 2"	18'	- 0''	
1200SSCJ200-68	29'	- 0''	25'	- 10''	23'	- 7"	21'	- 1"	26'	- 4"	23'	- 11"	22'	- 6''	20'	- 11"	
1200SSCJ200-97	32'	- 4"	29'	- 5"	27'	- 8"	25'	- 4"	29'	- 5"	26'	- 8"	25'	- 2"	23'	- 4"	
1400SSCJ200-68	32'	- 5"	28'	- 1"	25'	- 8"	22'	- 11"	30'	- 0"	27'	- 3''	25'	- 7"	22'	- 11"	
1400SSCJ200-97	36'	- 10"	33'	- 5''	30'	- 11"	27'	- 8"	33'	- 5"	30'	- 5"	28'	- 7"	26'	- 7"	

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- 13. Values in 'Tables' are subject to change contingent upon authorized national/international evaluating agency's approval.

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		25 psf Dead Load and 125 psf Live Load															
Joist Designation				L = <b>L/240,</b> le Span • S					$\Delta$ TL = <b>L/240,</b> $\Delta$ LL = <b>L/480</b> Single Span • Spacing (in.) o.c.								
	12 16 19.2 24				24		12	16		1:	9.2	- :	24				
725SSCJ175-43	8'	- 7"	7'	- 5"	6'	- 9"	6'	- 1"	8'	- 7"	7'	- 5"	6'	- 9"	6'	- 1"	
725SSCJ175-54	11'	- 11"	10'	- 4"	9'	- 5"	8'	- 5"	10'	- 10"	9'	- 10"	9'	- 3"	8'	- 5"	
725SSCJ175-68	12'	- 10"	11'	- 8"	10'	- 9"	9'	- 7"	11'	- 8"	10'	- 7"	10'	- 0"	9'	- 3"	
800SSCJ175-43	9'	- 1"	7'	- 10''	7'	- 2"	6'	- 5"	9'	- 1"	7'	- 10''	7'	- 2"	6'	- 5"	
800SSCJ175-54	12'	- 7''	10'	- 11"	9'	- 11"	8'	- 11"	11'	- 9"	10'	- 8"	9'	- 11"	8'	- 11"	
800SSCJ175-68	13'	- 11"	12'	- 6"	11'	- 5"	10'	- 2"	12'	- 8"	11'	- 6"	10'	- 10"	10'	- 0"	
925SSCJ175-54	13'	- 11"	12'	- 0"	11'	- 0''	9'	- 10"	13'	- 3"	12'	- 0"	11'	- 0"	9'	- 10"	
925SSCJ175-68	15'	- 8"	13'	- 7"	12'	- 5''	11'	- 1"	14'	- 3"	12'	- 11"	12'	- 2"	11'	- 1"	
925SSCJ175-97	17'	- 5"	15'	- 10"	14'	- 11"	13'	- 5"	15'	- 10"	14'	- 5"	13'	- 7"	12'	- 7"	
1000SSCJ200-54	14'	- 7"	12'	- 8''	11'	- 6"	10'	- 4"	14'	- 5"	12'	- 8"	11'	- 6"	10'	- 4"	
1000SSCJ200-68	17'	- 0''	14'	- 9''	13'	- 5"	12'	- 0"	15'	- 6"	14'	- 1"	13'	- 3''	12'	- 0"	
1000SSCJ200-97	19'	- 0"	17'	- 3"	15'	- 11"	14'	- 3"	17'	- 3"	15'	- 8"	14'	- 9''	13'	- 8"	
1125SSCJ175-54	15'	- 3"	13'	- 2"	12'	- 0''	10'	- 9"	15'	- 3"	13'	- 2"	12'	- 0"	10'	- 9"	
1125SSCJ175-68	17'	- 7"	15'	- 2"	13'	- 10"	12'	- 5''	16'	- 9"	15'	- 2"	13'	- 10"	12'	- 5"	
1125SSCJ175-97	20'	- 6''	18'	- 8"	17'	- 0"	15'	- 3"	18'	- 8"	16'	- 11"	15'	- 11"	14'	- 10''	
1200SSCJ200-54	16'	- 1"	13'	- 11"	12'	- 9"	11'	- 4"	16'	- 1"	13'	- 11"	12'	- 9"	11'	- 4"	
1200SSCJ200-68	18'	- 10"	16'	- 4"	14'	- 11"	13'	- 4"	18'	- 0"	16'	- 4"	14'	- 11"	13'	- 4"	
1200SSCJ200-97	22'	- 1"	19'	- 7"	17'	- 11"	16'	- 0"	20'	- 1"	18'	- 3"	17'	- 2"	15'	- 11"	
1400SSCJ200-68	20'	- 6"	17'	- 9"	16'	- 2"	14'	- 6"	20'	- 6"	17'	- 9''	16'	- 2"	14'	- 6''	
1400SSCJ200-97	24'	- 9"	21'	- 5"	19'	- 7"	17'	- 6"	22'	- 10"	20'	- 9"	19'	- 7"	17'	- 6"	

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	25 psf Dead Load and 40 psf Live Load																
Joist Designation				. = <b>L/240,</b> e Span • S					$\Delta TL = L/240$ , $\Delta LL = L/480$ Single Span • Spacing (in.) o.c.								
		12	16 1			19.2 24				12	1	16		9.2	24		
725SSCJ175-43	13'	- 1"	11'	- 4"	10'	- 4"	9'	- 3"	13'	- 1"	11'	- 4"	10'	- 4"	9'	- 3"	
725SSCJ175-54	17'	- 1"	15'	- 6"	14'	- 4"	12'	- 9"	15'	- 11"	14'	- 5"	13'	- 7"	12'	- 7"	
725SSCJ175-68	18'	- 4"	16'	- 8"	15'	- 8"	14'	- 6"	17'	- 1"	15'	- 6"	14'	- 7"	13'	- 7"	
800SSCJ175-43	13'	- 10"	12'	- 0"	10'	- 11"	9'	- 9"	13'	- 10"	12'	- 0"	10'	- 11"	9'	- 9"	
800SSCJ175-54	18'	- 6"	16'	- 7"	15'	- 2"	13'	- 6"	17'	- 3"	15'	- 8"	14'	- 9"	13'	- 6"	
800SSCJ175-68	19'	- 10"	18'	- 0"	16'	- 11"	15'	- 6"	18'	- 6"	16'	- 10"	15'	- 10"	14'	- 8"	
925SSCJ175-54	20'	- 9"	18'	- 4"	16'	- 8"	14'	- 11"	19'	- 5"	17'	- 7"	16'	- 7"	14'	- 11"	
925SSCJ175-68	22'	- 4"	20'	- 3"	18'	- 10"	16'	- 10"	20'	- 10"	18'	- 11"	17'	- 10"	16'	- 6"	
925SSCJ175-97	24'	- 10''	22'	- 7"	21'	- 3"	19'	- 9"	23'	- 2"	21'	- 1"	19'	- 10"	18'	- 5''	
1000SSCJ200-54	22'	- 2"	19'	- 2"	17'	- 6"	15'	- 8''	21'	- 1"	19'	- 2"	17'	- 6"	15'	- 8"	
1000SSCJ200-68	24'	- 4"	22'	- 1"	20'	- 5"	18'	- 3"	22'	- 8"	20'	- 7"	19'	- 5"	18'	- 0"	
1000SSCJ200-97	27'	- 1"	24'	- 7"	23'	- 2"	21'	- 6"	25'	- 3"	23'	- 0"	21'	- 7"	20'	- 1"	
1125SSCJ175-54	23'	- 1"	20'	- 0"	18'	- 3"	16'	- 4"	22'	- 9"	20'	- 0"	18'	- 3"	16'	- 4"	
1125SSCJ175-68	26'	- 3"	23'	- 1"	21'	- 1"	18'	- 10"	24'	- 6"	22'	- 3''	20'	- 11"	18'	- 10"	
1125SSCJ175-97	29'	- 3"	26'	- 7''	25'	- 0"	23'	- 2"	27'	- 4"	24'	- 10"	23'	- 4"	21'	- 8"	
1200SSCJ200-54	24'	- 6"	21'	- 2"	19'	- 4"	17'	- 4"	24'	- 6"	21'	- 2"	19'	- 4"	17'	- 4"	
1200SSCJ200-68	28'	- 3"	24'	- 10''	22'	- 8"	20'	- 3"	26'	- 4"	23'	- 11"	22'	- 6''	20'	- 3"	
1200SSCJ200-97	31'	- 6"	28'	- 7"	26'	- 11"	24'	- 4"	29'	- 5"	26'	- 8"	25'	- 2"	23'	- 4"	
1400SSCJ200-68	31'	- 2"	27'	- 0"	24'	- 7"	22'	- 0"	30'	- 0"	27'	- 0''	24'	- 7"	22'	- 0"	
1400SSCJ200-97	35'	- 10"	32'	- 7''	29'	- 9"	26'	- 7''	33'	- 5''	30'	- 5"	28'	- 7"	26'	- 7"	

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						40	psf Dea	d Load ar	nd 125 p	sf Live Lo	ad					
Joist Designation				= <b>L/240,</b> e Span • S				$\Delta$ TL = <b>L/240,</b> $\Delta$ LL = <b>L/480</b> Single Span • Spacing (in.) o.c.								
	12		16		19.2		24		12		16		19.2		24	
725SSCJ175-43	8'	- 2"	7'	- 1"	6'	- 6"	5'	- 9"	8'	- 2"	7'	- 1"	6'	- 6"	5'	- 9"
725SSCJ175-54	11'	- 4"	9'	- 10''	9'	- 0"	8'	- 0"	10'	- 10"	9'	- 10"	9'	- 0"	8'	- 0"
725SSCJ175-68	12'	- 10''	11'	- 3"	10'	- 3"	9'	- 2"	11'	- 8"	10'	- 7"	10'	- 0''	9'	- 2"
800SSCJ175-43	8'	- 8"	7'	- 6"	6'	- 10"	6'	- 1"	8'	- 8"	7'	- 6''	6'	- 10"	6'	- 1"
800SSCJ175-54	12'	- 0"	10'	- 5"	9'	- 6''	8'	- 6"	11'	- 9"	10'	- 5''	9'	- 6"	8'	- 6"
800SSCJ175-68	13'	- 9"	11'	- 11"	10'	- 10"	9'	- 8''	12'	- 8"	11'	- 6''	10'	- 10''	9'	- 8''
925SSCJ175-54	13'	- 3"	11'	- 6''	10'	- 6"	9'	- 4''	13'	- 3"	11'	- 6''	10'	- 6"	9'	- 4"
925SSCJ175-68	15'	- 0"	12'	- 11"	11'	- 10''	10'	- 7''	14'	- 3"	12'	- 11"	11'	- 10"	10'	- 7"
925SSCJ175-97	17'	- 5"	15'	- 8''	14'	- 4"	12'	- 10''	15'	- 10"	14'	- 5"	13'	- 7"	12'	- 7"
1000SSCJ200-54	13'	- 11"	12'	- 0''	11'	- 0"	9'	- 10''	13'	- 11"	12'	- 0''	11'	- 0''	9'	- 10''
1000SSCJ200-68	16'	- 3"	14'	- 0''	12'	- 10''	11'	- 5"	15'	- 6''	14'	- 0''	12'	- 10"	11'	- 5"
1000SSCJ200-97	19'	- 0"	16'	- 8''	15'	- 2"	13'	- 7''	17'	- 3"	15'	- 8"	14'	- 9"	13'	- 7"
1125SSCJ175-54	14'	- 6"	12'	- 7''	11'	- 5"	10'	- 3''	14'	- 6"	12'	- 7''	11'	- 5"	10'	- 3''
1125SSCJ175-68	16'	- 9"	14'	- 6"	13'	- 3"	11'	- 10''	16'	- 9"	14'	- 6''	13'	- 3"	11'	- 10"
1125SSCJ175-97	20'	- 6"	17'	- 9"	16'	- 3"	14'	- 6"	18'	- 8"	16'	- 11"	15'	- 11"	14'	- 6''
1200SSCJ200-54	15'	- 4"	13'	- 3"	12'	- 1"	10'	- 10''	15'	- 4"	13'	- 3"	12'	- 1"	10'	- 10"
1200SSCJ200-68	17'	- 11"	15'	- 7"	14'	- 2"	12'	- 8"	17'	- 11"	15'	- 7''	14'	- 2"	12'	- 8''
1200SSCJ200-97	21'	- 7"	18'	- 8"	17'	- 1"	15'	- 3"	20'	- 1"	18'	- 3"	17'	- 1"	15'	- 3"
1400SSCJ200-68	19'	- 6"	16'	- 11"	15'	- 5"	13'	- 10''	19'	- 6"	16'	- 11"	15'	- 5''	13'	- 10"
1400SSCJ200-97	23'	- 7"	20'	- 5"	18'	- 8"	16'	- 8"	22'	- 10"	20'	- 5"	18'	- 8''	16'	- 8"

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						40	psf Dea	d Load a	nd 40 ps	f Live Loa	ad					
Joist Designation				= <b>L/240,</b> e Span • S				$\Delta TL = L/240$ , $\Delta LL = L/480$ Single Span • Spacing (in.) o.c.								
	1	12		16		19.2		24		2	1	6	19.2		24	
725SSCJ175-43	11'	- 9"	10'	- 2"	9'	- 4"	8'	- 4"	11'	- 9"	10'	- 2"	9'	- 4"	8'	- 4"
725SSCJ175-54	15'	- 11"	14'	- 1"	12'	- 11"	11'	- 6"	15'	- 11"	14'	- 1"	12'	- 11"	11'	- 6"
725SSCJ175-68	17'	- 1"	15'	- 6"	14'	- 7"	13'	- 2"	17'	- 1"	15'	- 6"	14'	- 7"	13'	- 2"
800SSCJ175-43	12'	- 5''	10'	- 9"	9'	- 10"	8'	- 10''	12'	- 5"	10'	- 9"	9'	- 10"	8'	- 10"
800SSCJ175-54	17'	- 3''	14'	- 11"	13'	- 8"	12'	- 2"	17'	- 3"	14'	- 11"	13'	- 8"	12'	- 2"
800SSCJ175-68	18'	- 6''	16'	- 10"	15'	- 7"	14'	- 0"	18'	- 6"	16'	- 10''	15'	- 7"	14'	- 0"
925SSCJ175-54	19'	- 1"	16'	- 6"	15'	- 1"	13'	- 6"	19'	- 1''	16'	- 6"	15'	- 1"	13'	- 6"
925SSCJ175-68	20'	- 10"	18'	- 7"	17'	- 0"	15'	- 2"	20'	- 10"	18'	- 7"	17'	- 0"	15'	- 2"
925SSCJ175-97	23'	- 2"	21'	- 1"	19'	- 10''	18'	- 5"	23'	- 2''	21'	- 1"	19'	- 10"	18'	- 5"
1000SSCJ200-54	20'	- 0"	17'	- 4"	15'	- 10''	14'	- 1"	20'	- 0''	17'	- 4"	15'	- 10"	14'	- 1"
1000SSCJ200-68	22'	- 8"	20'	- 2"	18'	- 5"	16'	- 6"	22'	- 8''	20'	- 2"	18'	- 5"	16'	- 6"
1000SSCJ200-97	25'	- 3"	23'	- 0''	21'	- 7"	19'	- 6''	25'	- 3"	23'	- 0''	21'	- 7"	19'	- 6"
1125SSCJ175-54	20'	- 10"	18'	- 1"	16'	- 6"	14'	- 9''	20'	- 10"	18'	- 1"	16'	- 6"	14'	- 9"
1125SSCJ175-68	24'	- 1"	20'	- 10"	19'	- 0"	17'	- 0''	24'	- 1"	20'	- 10"	19'	- 0"	17'	- 0''
1125SSCJ175-97	27'	- 4"	24'	- 10"	23'	- 4"	20'	- 10''	27'	- 4"	24'	- 10"	23'	- 4"	20'	- 10"
1200SSCJ200-54	22'	- 1"	19'	- 1"	17'	- 5"	15'	- 7"	22'	- 1"	19'	- 1"	17'	- 5"	15'	- 7"
1200SSCJ200-68	25'	- 10''	22'	- 4"	20'	- 5''	18'	- 3"	25'	- 10''	22'	- 4''	20'	- 5"	18'	- 3''
1200SSCJ200-97	29'	- 5"	26'	- 8"	24'	- 6''	21'	- 11"	29'	- 5"	26'	- 8"	24'	- 6"	21'	- 11"
1400SSCJ200-68	28'	- 1"	24'	- 4"	22'	- 2"	19'	- 10''	28'	- 1"	24'	- 4"	22'	- 2"	19'	- 10"
1400SSCJ200-97	33'	- 5"	29'	- 4"	26'	- 10"	24'	- 0"	33'	- 5"	29'	- 4"	26'	- 10"	24'	- 0''

### Span Table Notes:

- Spans are based on continuous lateral support of compression flange.
- 2. Clip angle must be attached to the hard side of joist.
- Spans are not valid if any portion of the Sure-Span® flared hole falls over a bearing support.
- 4. Minimum  $F_y$  is 33 ksi for 18 gauge, 50 ksi for 16,14, and 12 gauge material.
- 5. The minimum bearing joist length is 1.625". Please consult CEMCO Design Engineer for use of smaller bearing joist length.
- 6. Recommended bridging/blocking is 8' 0" on-center maximum.
- 7. Rim Track is to have continuous bearing support along the length (i.e. top of wall installation). Please consult CEMCO Design Engineer for all other support conditions.
- 8. If an additional concentrated load is located at the end bearings of joist, web crippling must be checked separately.

- 9. Leading edge of first hole shall be typically 10" minimum from inside face of bearing support.
- 10. TL = Total Load; LL = Live Load
- 11. Applications involving multiple spans, cantilevers, concentrated loads, impact loading, and etc., should be investigated separately.
- 12. Deflection and stress calculations did not consider composite action of sheathing materials.
- 13. Values in 'Tables' are subject to change contingent upon authorized national/international evaluating agency's approval.

The data contained in this CEMCO publication is intended to be informative and only as a design aid. It should be used as a technical guideline only and does not replace the judgment and design intent of a qualified Architect and/or Engineer.

Allowable Web Crippling Capacities/7.25" – 14"Web Height; Various Loading Configurations

	End-On	e-Flange, E	OF (lbs.)	Interior-0	One-Flange,	IOF (lbs.)	End-Tw	o-Flange, E	TF (lbs.)	Interior-Two-Flange, ITF (lbs.)			
Section Designation	Bea	ring Length	(in.)	Bea	aring Length	(in.)	Bea	ring Length	(in.)	Bearing Length (in.)			
,	2	4	6	2	4	6	2	4	6	2	4	6	
7.25" Depth		'	'					'		'			
725SSCJ175-43	282	364	427	537	644	727	176	194	208	452	546	618	
725SSCJ175-54	649	830	970	1246	1481	1661	461	505	538	1071	1280	1440	
725SSCJ175-68	984	1249	1452	1906	2242	2500	778	845	897	1615	1911	2138	
8.00" Depth		'	'					'		'			
800SSCJ175-43	277	358	419	533	639	721	167	184	197	452	546	617	
800SSCJ175-54	639	818	955	1238	1471	1650	442	484	516	1070	1279	1440	
800SSCJ175-68	972	1233	1434	2895	2230	2486	751	816	866	1614	1910	2138	
9.25" Depth	,												
925SSCJ175-54	624	799	933	1226	1456	1633	412	451	481	1070	1278	1438	
925SSCJ175-68	952	1208	1405	1879	2210	2464	710	771	818	1613	1909	2136	
925SSCJ175-97	1815	2273	2624	3631	4208	4650	1584	1704	1795	3050	3555	3942	
10.00" Depth	,												
1000SSCJ200-54	616	788	920	1219	1448	1624	395	432	461	1069	1278	1438	
1000SSCJ200-68	941	1194	1388	1869	2199	2451	686	746	791	1612	1908	2134	
1000SSCJ200-97	1798	2251	2599	3616	4190	4630	1545	1662	1751	3050	3554	3941	
11.25" Depth											,		
1125SSCJ175-54	602	771	900	1207	1434	1609	367	402	429	1068	1277	1437	
1125SSCJ175-68	923	1172	1362	1854	2181	2431	649	705	748	1611	1906	2133	
1125SSCJ175-97	1771	2218	2560	3592	4162	4599	1484	1596	1681	3047	3552	3938	
12.00" Depth											,		
1200SSCJ200-54	594	761	888	1200	1427	1600	352	385	411	1067	1276	1436	
1200SSCJ200-68	913	1159	1347	1845	2170	2420	627	682	723	1610	1906	2132	
1200SSCJ200-97	1756	2198	2538	3578	4146	4582	1449	1558	1641	3046	3550	3938	
14.00" Depth													
1400SSCJ200-68	887	1126	1309	1823	2144	2391	573	623	661	1609	1904	2130	
1400SSCJ200-97	1717	2149	2481	3543	4105	4537	1359	1462	1540	3044	3547	3934	

### Notes

- 1. Allowable web crippling capacities are obtained by applying a factor of safety of 1.95, based on results of test program.
- 2. Calculated nominal web crippling capacities are checked against tested ultimate capacities to verify congruency.
- 3. Ultimate web crippling capacities are evaluated for regions assumed to exhibit least strength (near punch-outs).
- 4. Nominal web crippling capacities for the ITF loading configuration are reduced by 20% to match tested values.

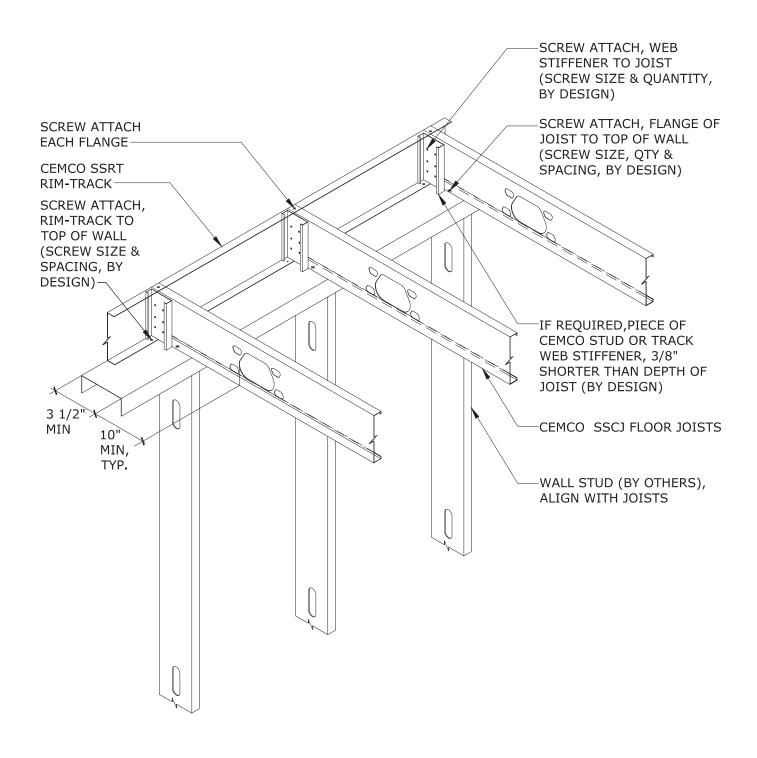
### **Systems** | Sure-Span

### Detail Number and Description



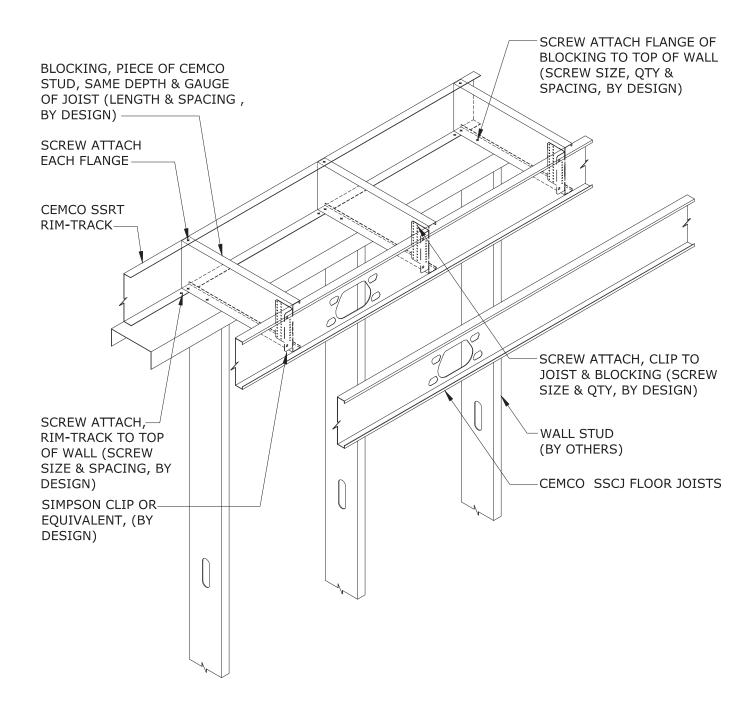
Detail No.	Detail Name	Detail Description
1	Joist Connection	Joist Bearing on Exterior Stud Wall
1A	Joist Connection	Joist Parallel to Exterior Stud Wall
1B	Joist Connection	Joist Parallel to Exterior Stud Wall with Sure-Span Blocking
2	Joist Connection	Joist Bearing on Exterior Concrete/Masonry/Insulated Concrete Forms (ICF) Wall
3	Joist Connection	Joist Bearing on Steel Structural End Member
4	Joist Connection	One continuous Joist Bearing Over Stud Wall
5	Joist Connection	One continuous Joist Bearing on Steel Structural Member
6	Joist Connection	Non-continuous Joist or Two Joists Bearing Over Stud Wall
7	Joist Connection	Non-continuous Joist or Two Joists Bearing on Concrete/Masonry/Insulated Concrete Forms (ICF) Wall
8	Joist Connection	Joist Bearing and Cantilevered Over Exterior Stud Wall
9	Joist Connection	Joist Bearing and Cantilevered Over Steel Structural Member
10	Joist Connection	Joist Bearing and Cantilevered Over Concrete/Masonry/Insulated Concrete Forms (ICF) Wall
11	Joist Connection	Joist Bearing on Steel Ledger Member Attached to Concrete/Masonry Wall
12	Joist Connection	Joist-Concrete/Masonry Wall Connection with CEMCO Utility Clip (UA)
13	Joist Connection	Joist-Insulated Concrete Forms (ICF) Wall Connection with CEMCO Utility Clip (UA)
14	Joist Connection	Joist-Insulated Concrete Forms (ICF) Wall Pocket Connection with CEMCO Utility Clip (UA)
15	Joist Connection	Girder-Insulated Concrete Forms (ICF) Wall Pocket Connection with CEMCO Utility Clip (UA)
16	Joist Connection	Joist-Girder Connection with Simpson Strong-Tie S/JCT or S/HJCT Hanger
17	Joist Connection	Joist-Girder Connection with Simpson Strong-Tie S/LBV, S/B or S/BA Hanger
18	Joist Connection	Girder-to-Girder Connection with Simpson Strong-Tie S/LBV, S/B or S/BA Hanger
19	Joist Connection	Joist-Steel Structural Member with Simpson Strong-Tie S/LBV, S/B or S/BA Hanger
20	Joist Connection	Joist-Steel Structural Member with Simpson Strong-Tie S/JCT or S/HJCT Hanger
21	Joist Connection	Girder-Steel Structural Member with Simpson Strong-Tie S/LBV, S/B or S/BA Hanger
22	Joist Bridging	Double Strap with Stud or Track Blocking
22A	Joist Bridging	Solid Blocking with Stud or Track
22B	Joist Bridging	Solid Blocking with Stud or Track and Sure Bridging
23	Joist Bridging	Double Strap with Diagonal Bridging
23A	Joist Bridging	Joist Bridging with X-Bridging_SB
23B	Joist Bridging	Joist Bridging with Bridging_SB
24	Joist Bridging	Strongback Bridging with Solid Blocking
25	Track Splice	Rim Track Splice
26	Floor Assembly	1 1/2-Hour / 1-Layer Fire Resistance Floor Assembly, (UL-G556)
26A	Floor Assembly	1 1/2 Hour-/ 1-Layer Fire Resistance Floor Assembly, (UL-G556), Sections "A-A" & "B-B"
27	Floor Assembly	2-Hour / 1-Layer Fire Resistance Floor Assembly, (UL-G557)
27A	Floor Assembly	2-Hour / 1-Layer Fire Resistance Floor Assembly, (UL-G557), Sections "A-A" & "B-B"
28	Floor Assembly	2-Hour / 1-Layer Fire Resistance Floor Assembly, (UL-G559)
28A	Floor Assembly	2-Hour / 1-Layer Fire Resistance Floor Assembly, (UL-G559), Sections "A-A" & "B-B"
29	Floor Assembly	2-Hour / 1-Layer Fire Resistance Floor Assembly, (UL-G580)
29A	Floor Assembly	2-Hour / 1-Layer Fire Resistance Floor Assembly, (UL-G580), Sections "A-A" & "B-B"
30	Joist Punch-Out	Punch-Out Detail and Dimensions
30A	Joist Punch-Out	Grommet Hole Punch-Out Spacing
31	Joist Bridging	Sure Bridging Detail and Dimensions
32	Rim Track Clip	4" Sure-Span Rim Track (SSRT) Clip Detail and Dimensions
33	Rim Track Clip	6" Sure-Span Rim Track (SSRT) Clip Detail and Dimensions
34	Rim Track Emboss	Sure-Span Rim Track (SSRT) Emboss Detail and Dimensions
35	Rim Track Emboss	Sure-Span Rim Track (SSRT) Emboss with Clip Detail





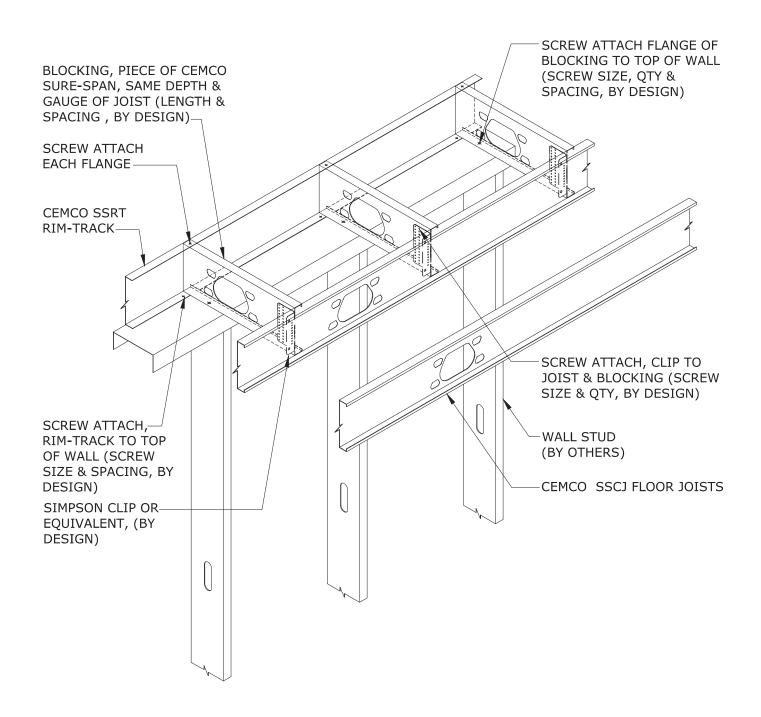
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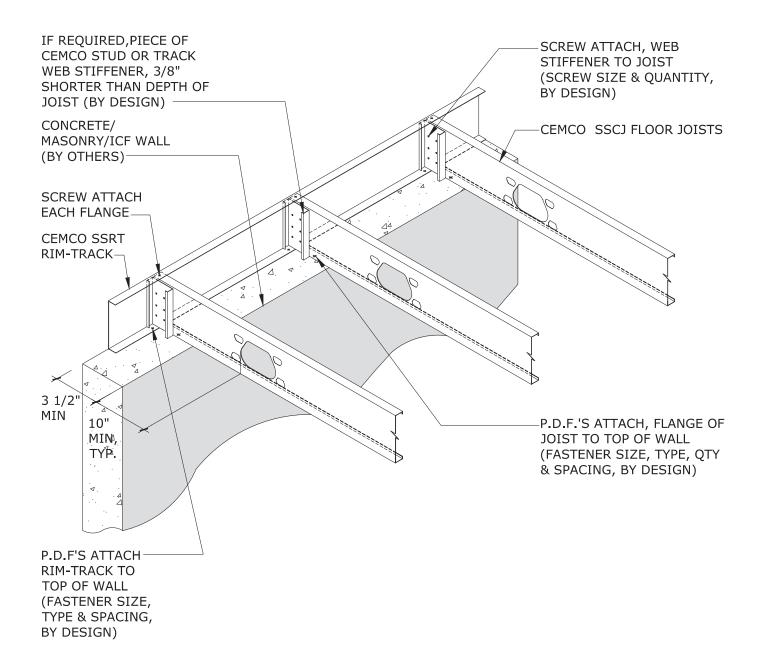
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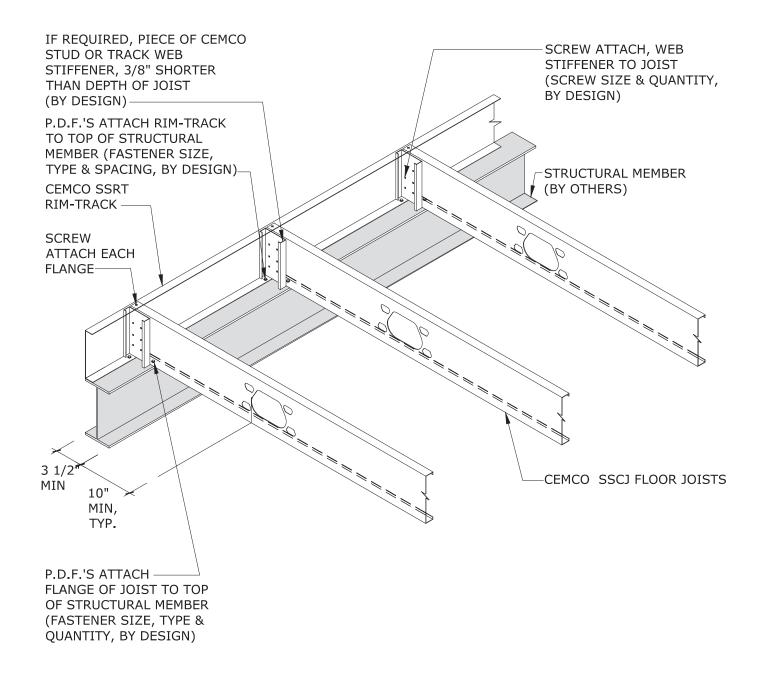
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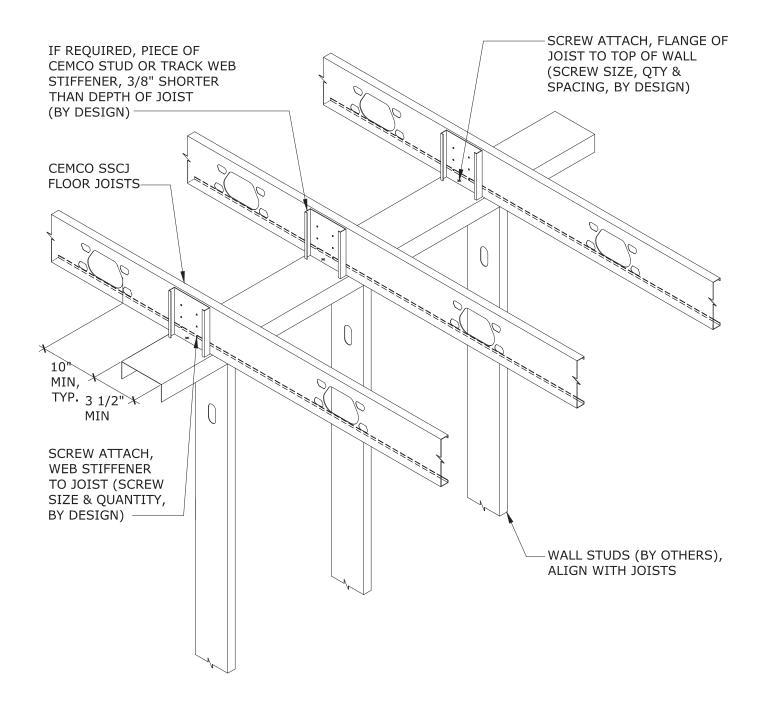
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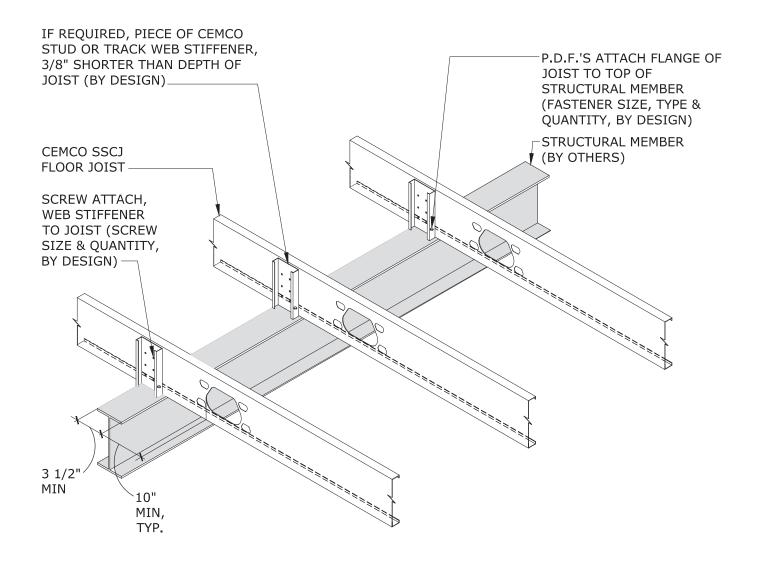
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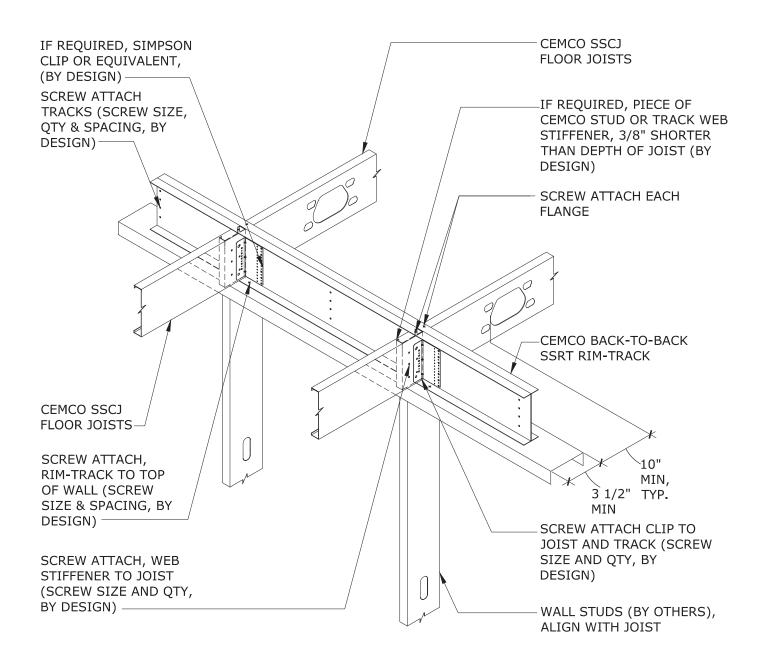
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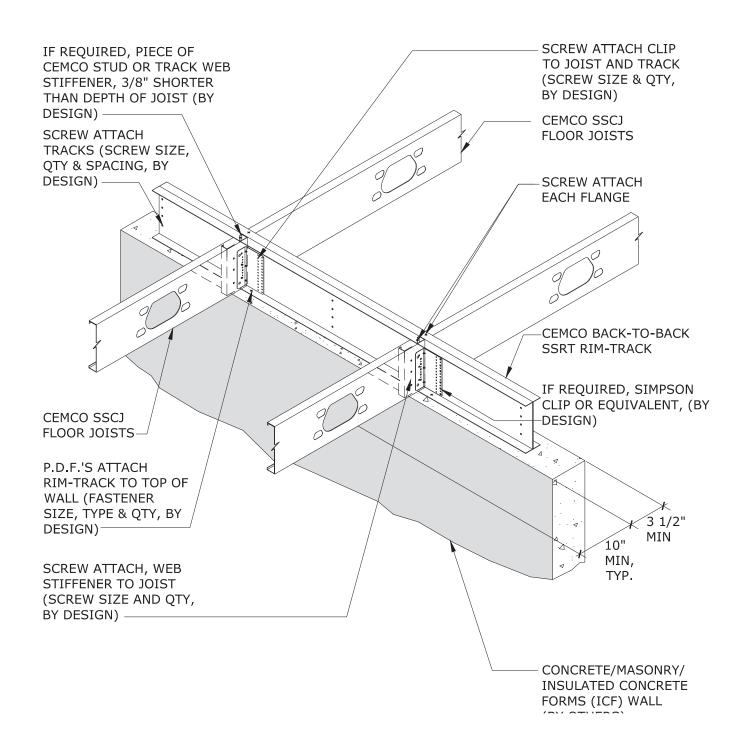
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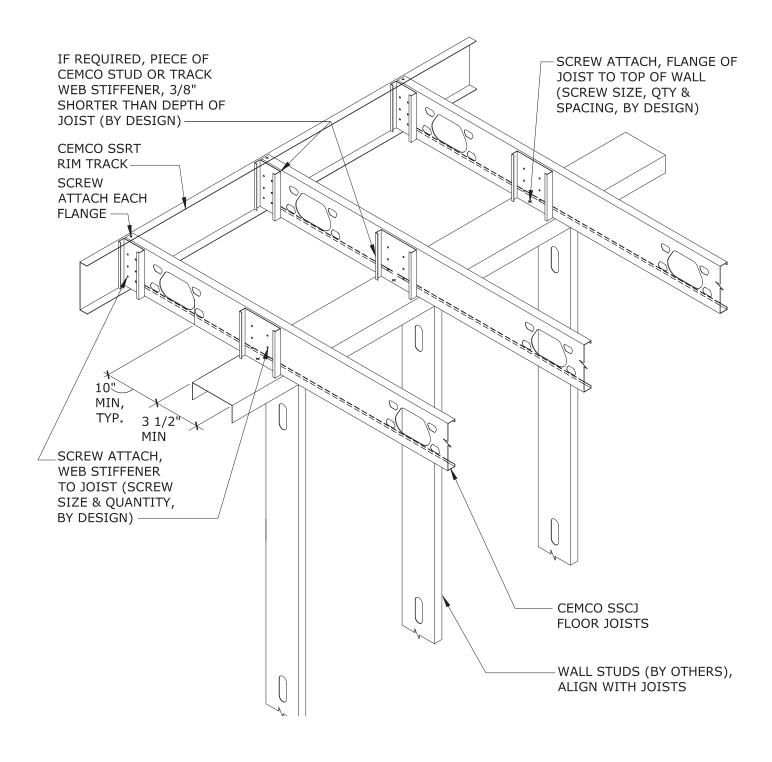
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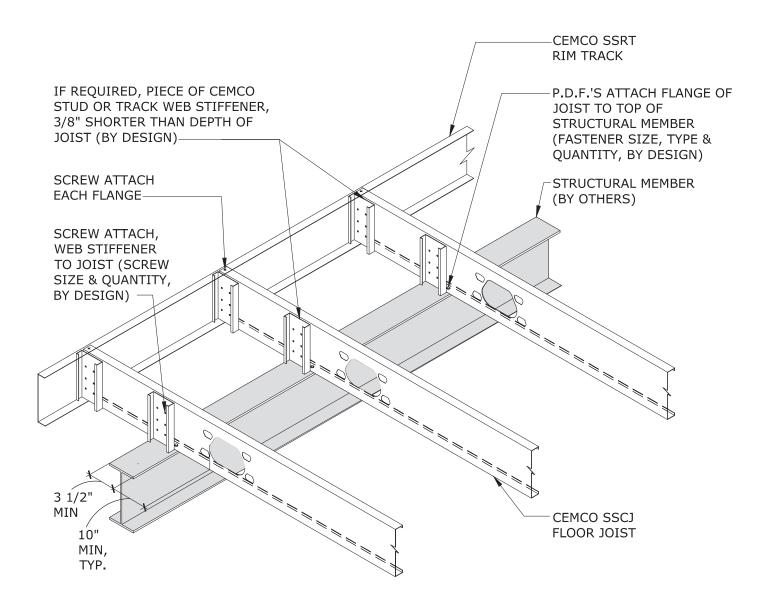
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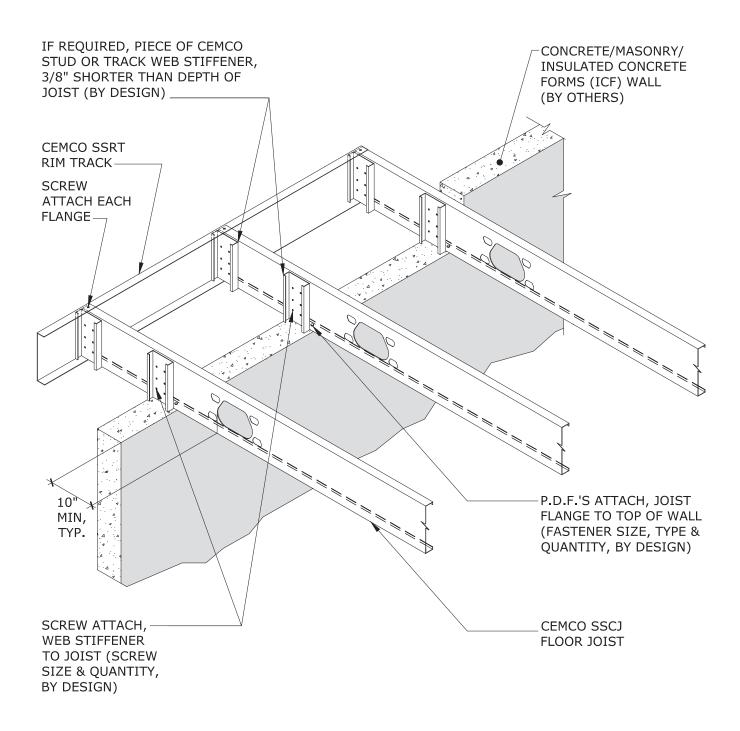
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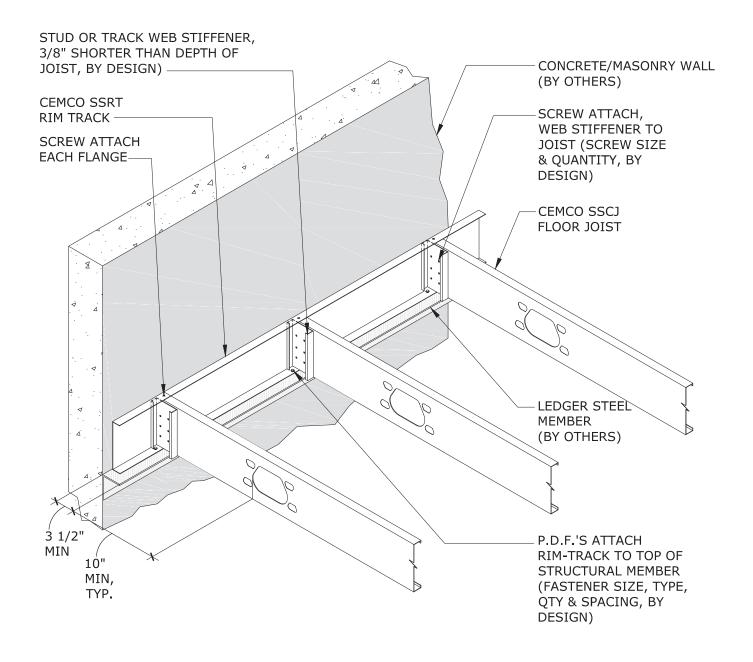
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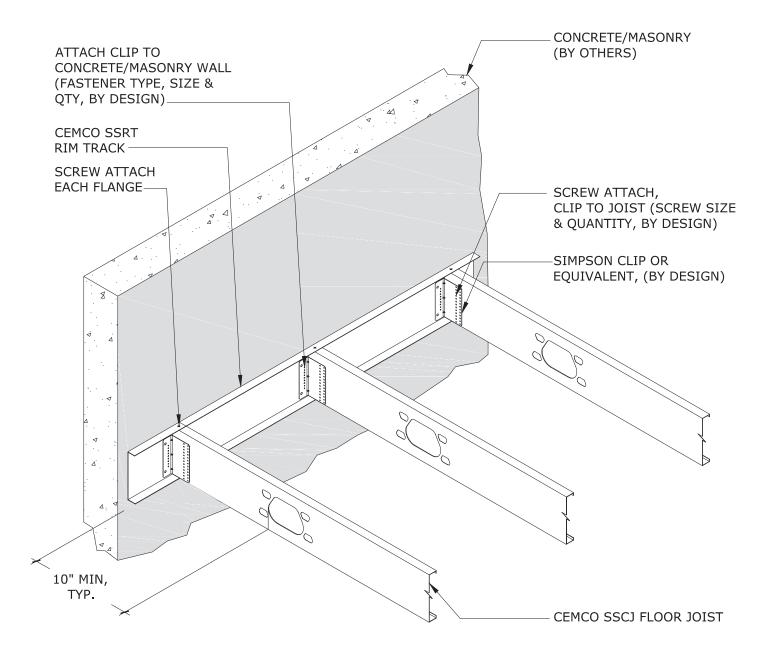
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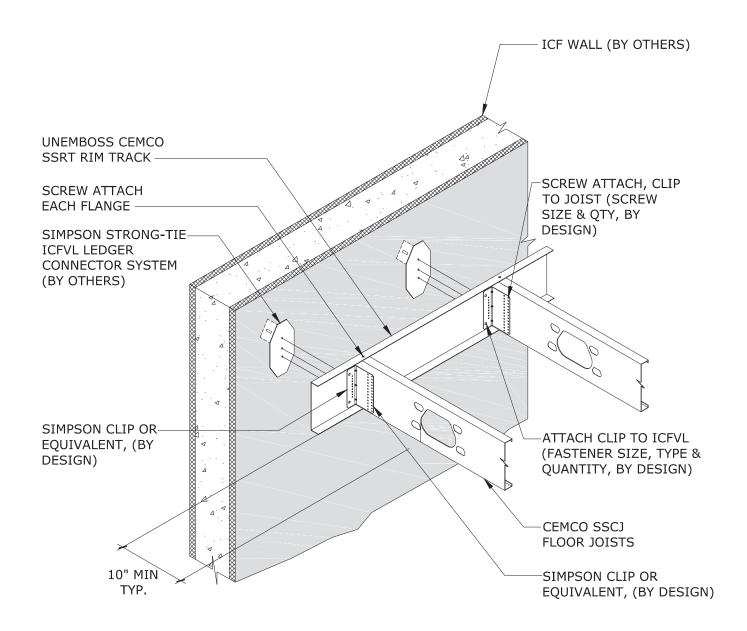
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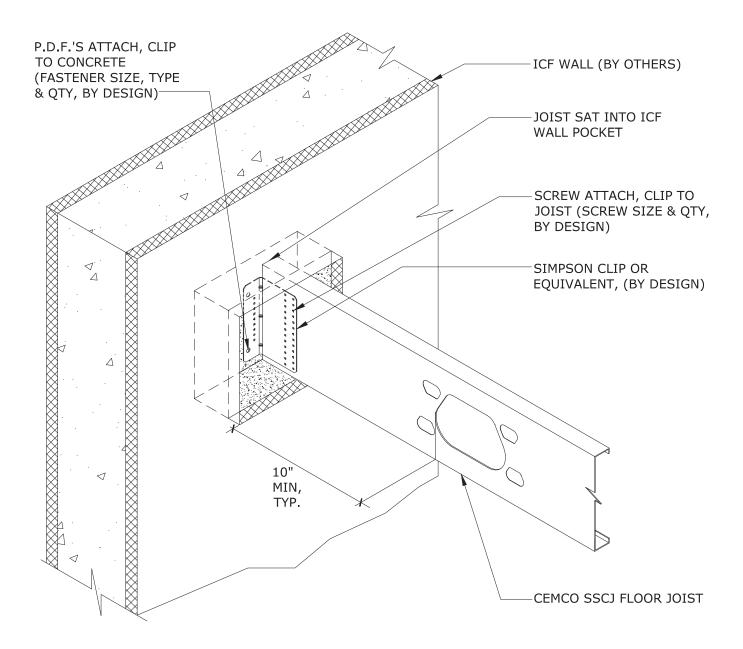
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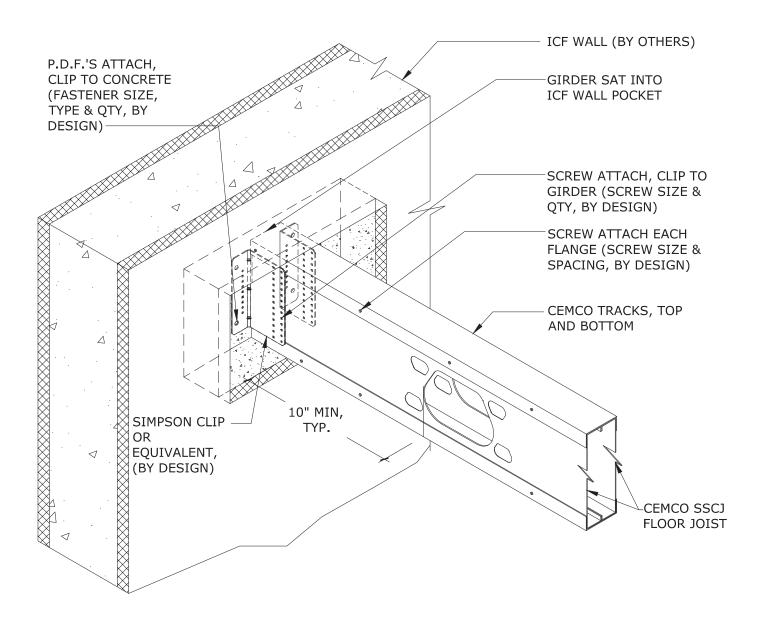
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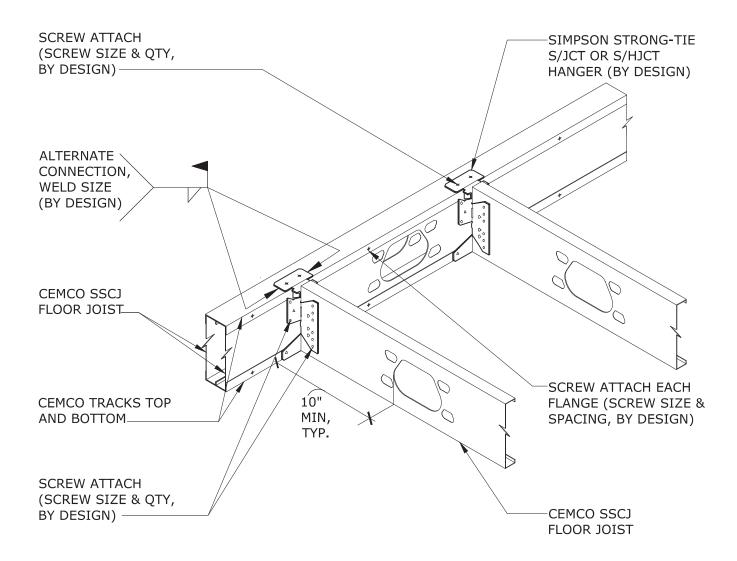
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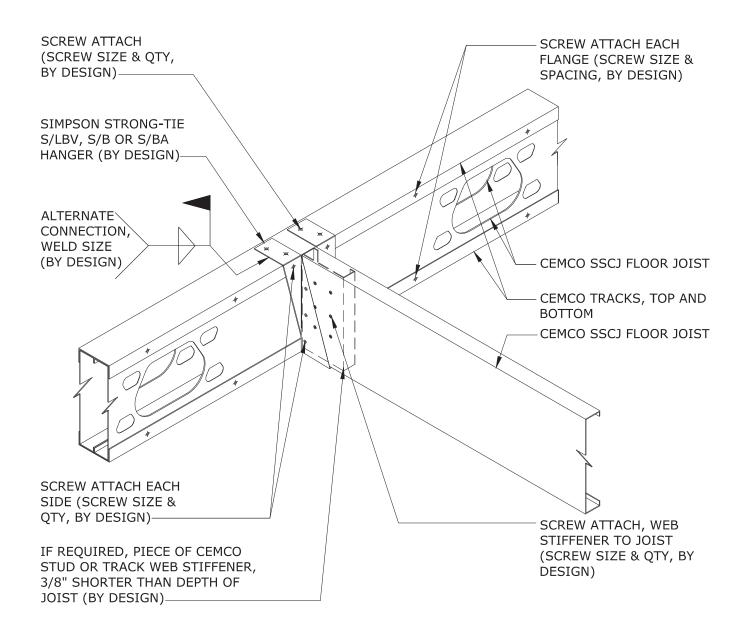
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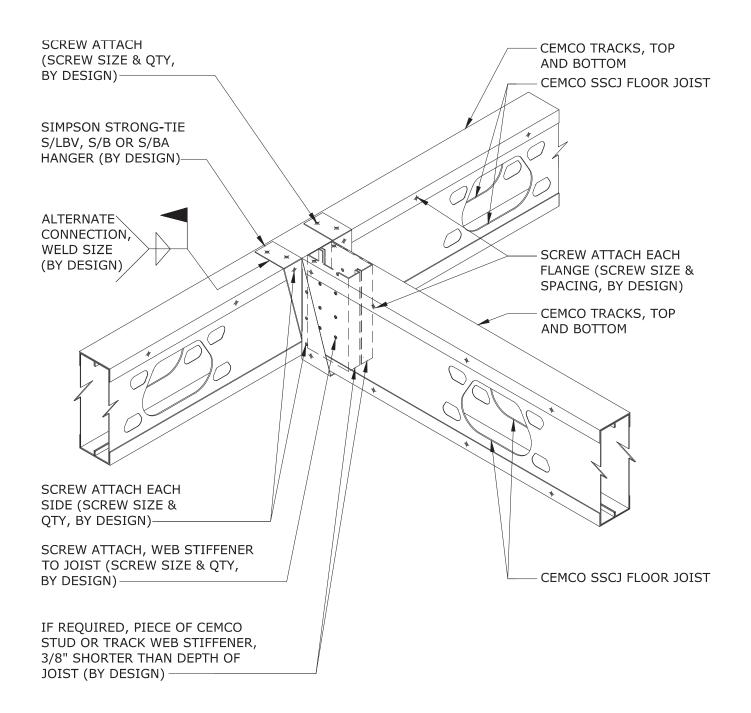


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## **Systems** | 18: Joist Connection

Girder-to-Girder Connection with Simpson Strong-Tie S/LBV, S/B or S/BA Hanger

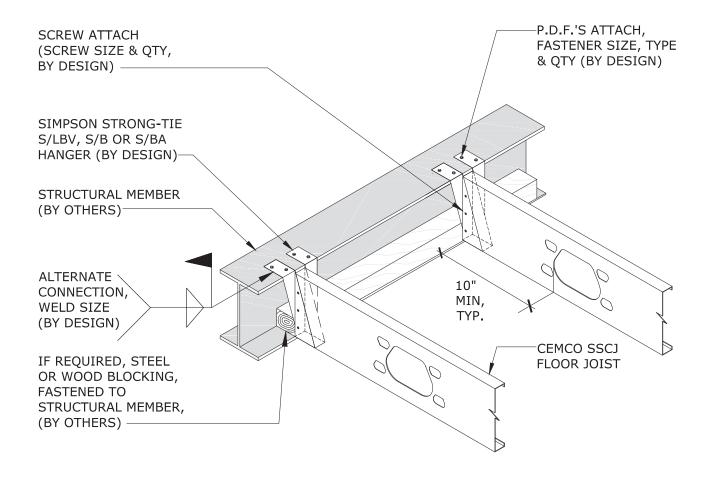




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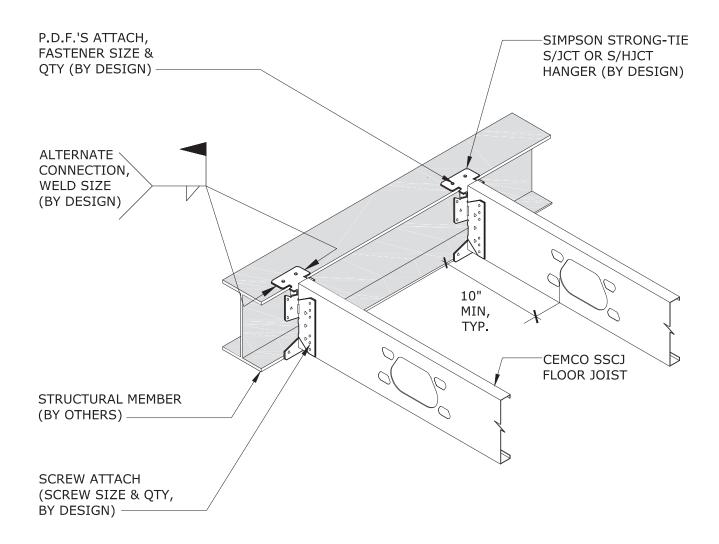
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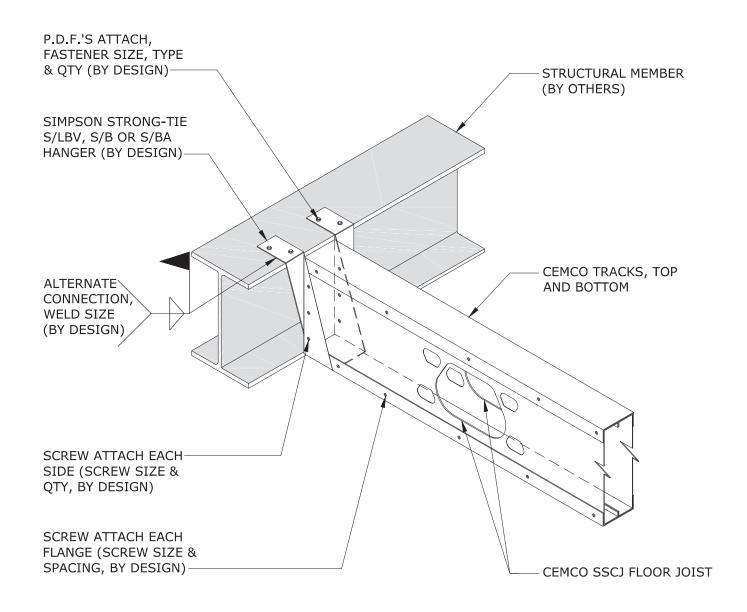
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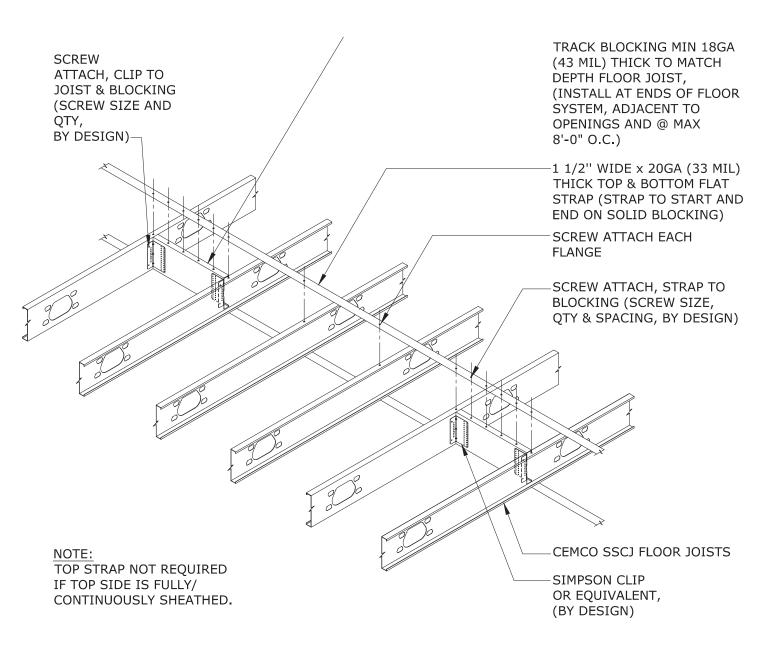
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**Release:** 03/14/16





**Release:** 03/14/16



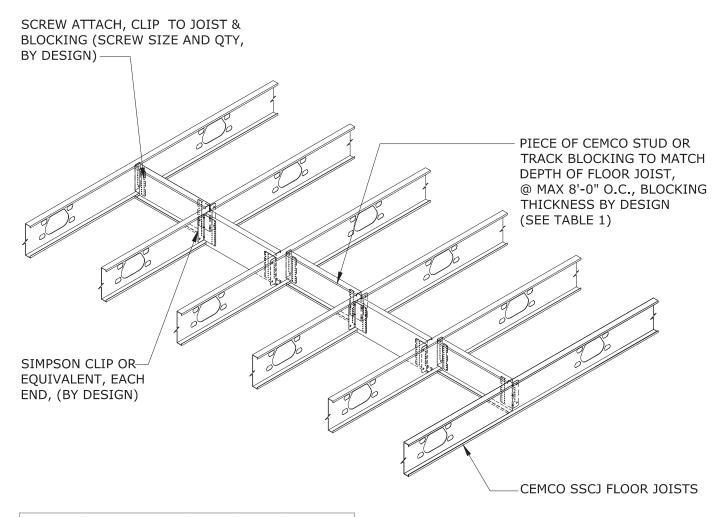


Table 1					
Floor Joist	Minimum Blocking	Blocking Length			
Depth	Thickness	Floor Joist			
		12″ O.C.	16" O.C.	24" O.C.	
8"	18GA. (43 mil)	10"	14"	22"	
9.25"	18GA. (43 mil)	10"	14"	22"	
10.00"	18GA. (43 mil)	9-3/4"	13-3/4"	21-3/4"	
11.25"	18GA. (43 mil)	10'	14"	22"	
12.00"	16GA. (54 mil)	9-3/4"	13-3/4"	21-3/4"	
14.00"	16GA. (54 mil)	9-3/4"	13-3/4"	21-3/4"	

**Release:** 03/10/16



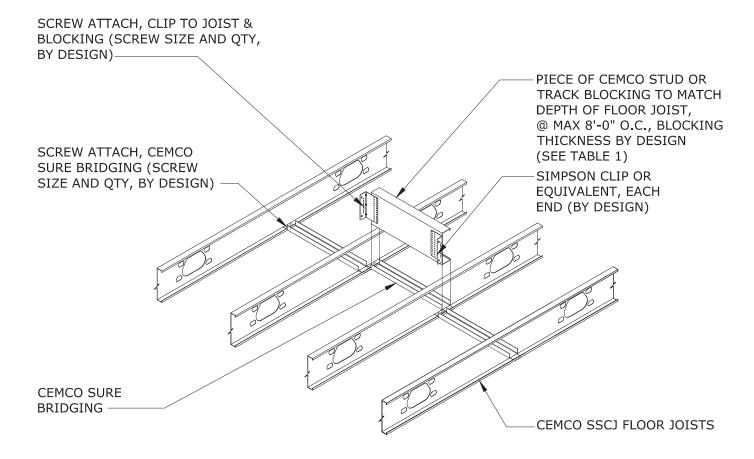
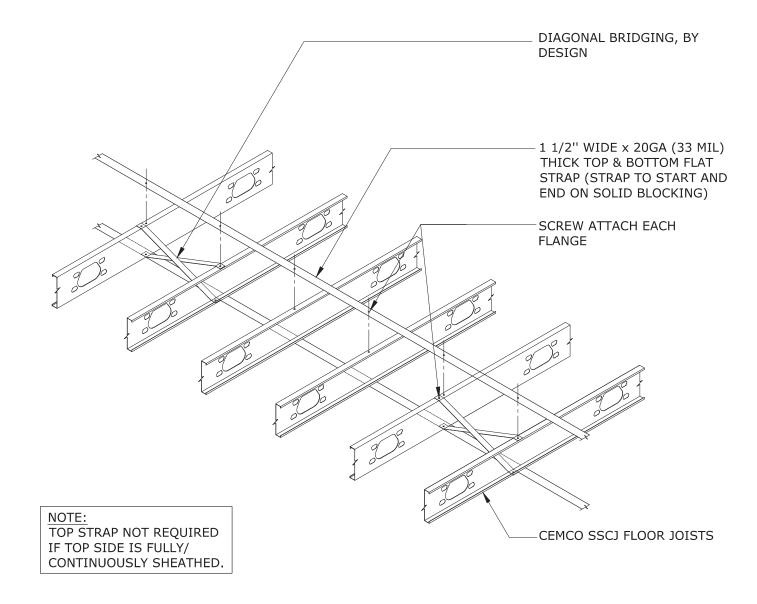


Table 1					
Floor Joist	Minimum Blocking	Blocking Length Floor Joist Spacing			
Depth	Thickness				
		12″ O.C.	16" O.C.	24" O.C.	
8"	18GA. (43 mil)	10"	14"	22"	
9.25"	18GA. (43 mil)	10"	14"	22"	
10.00"	18GA. (43 mil)	9-3/4"	13-3/4"	21-3/4"	
11.25"	18GA. (43 mil)	10'	14"	22"	
12.00"	16GA. (54 mil)	9-3/4"	13-3/4"	21-3/4"	
14.00"	16GA. (54 mil)	9-3/4"	13-3/4"	21-3/4"	

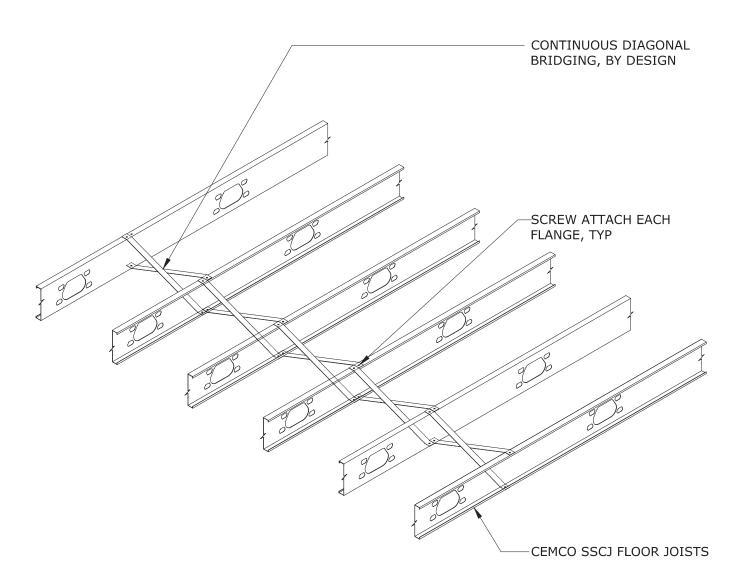
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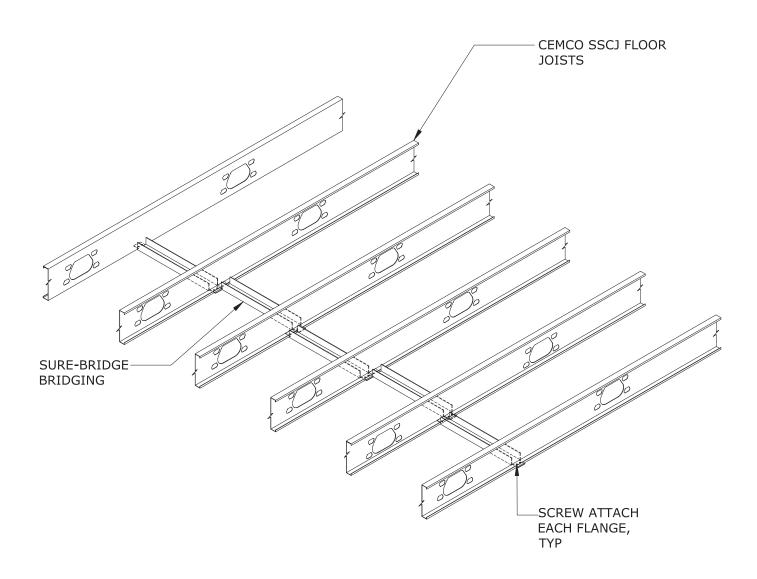
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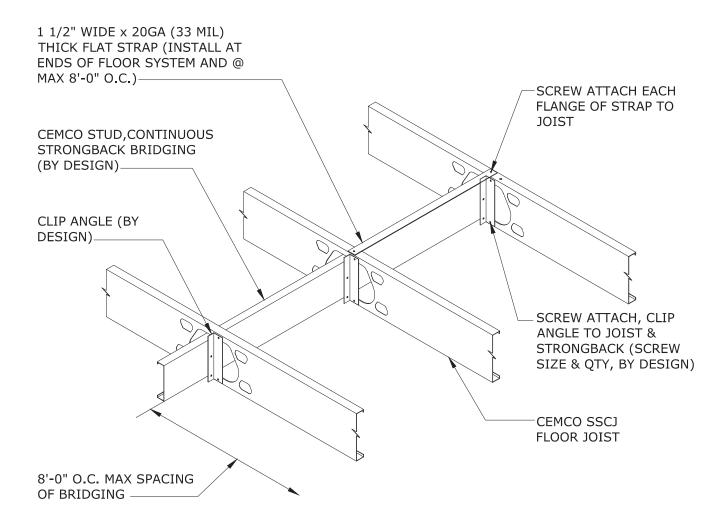
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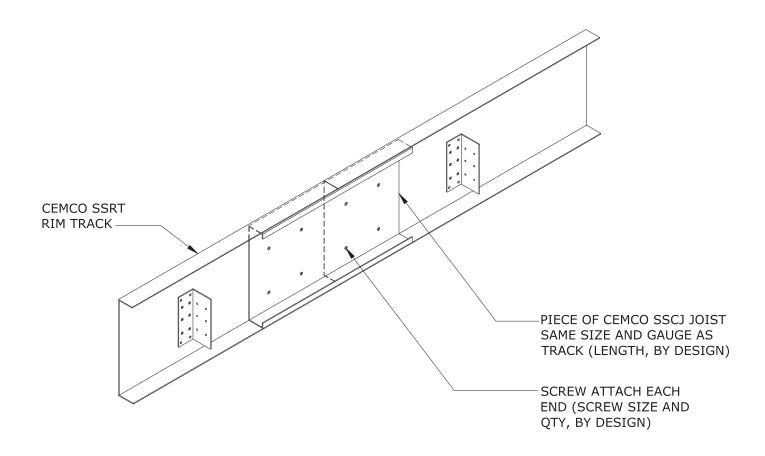
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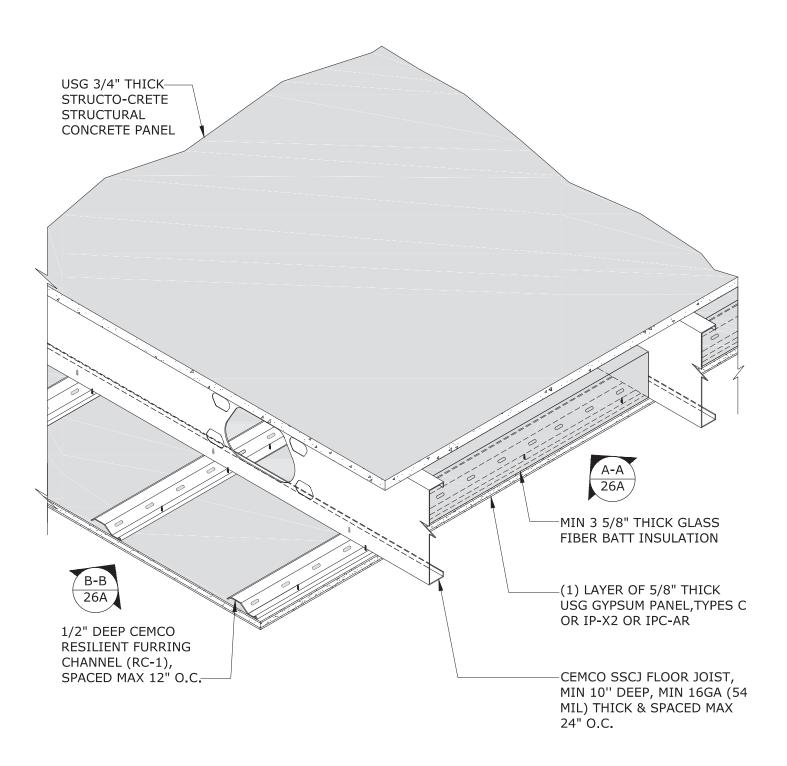
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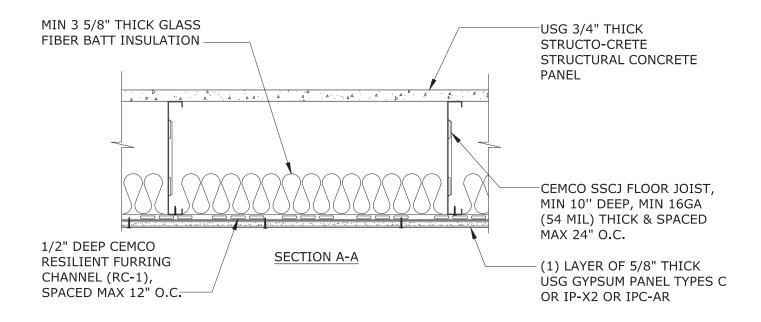
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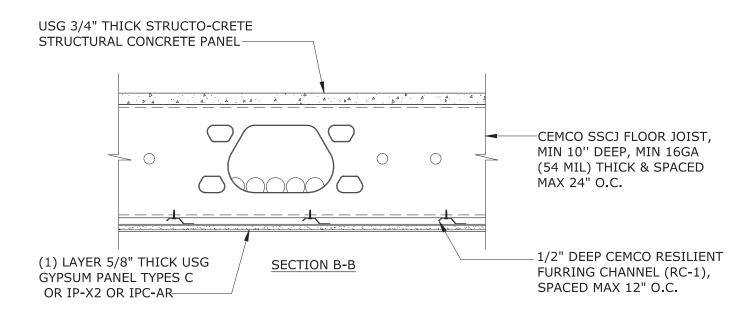




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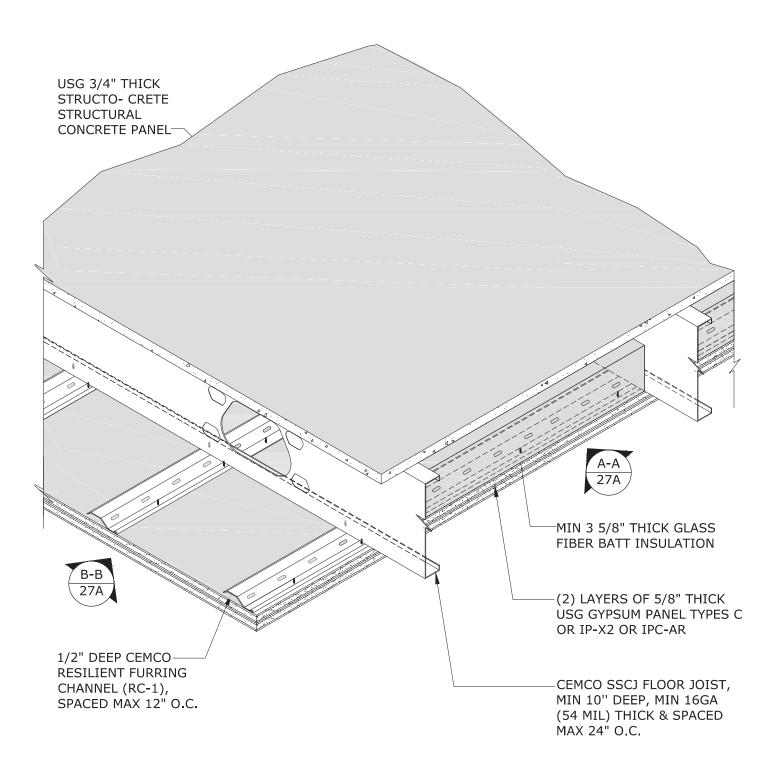






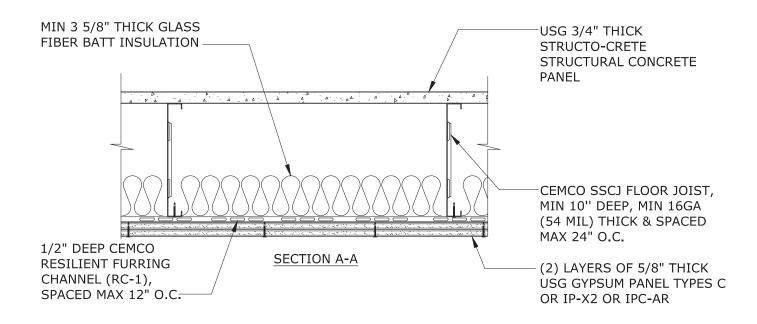
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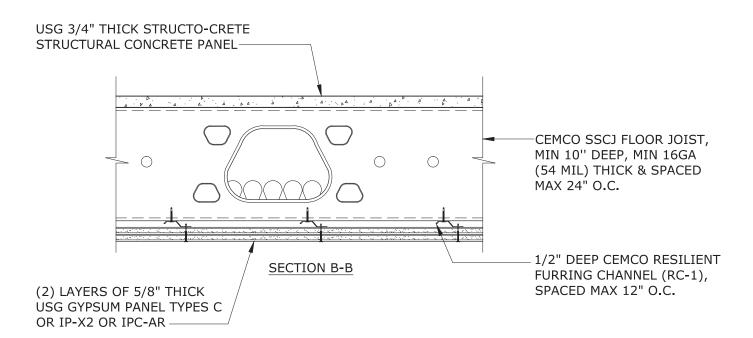




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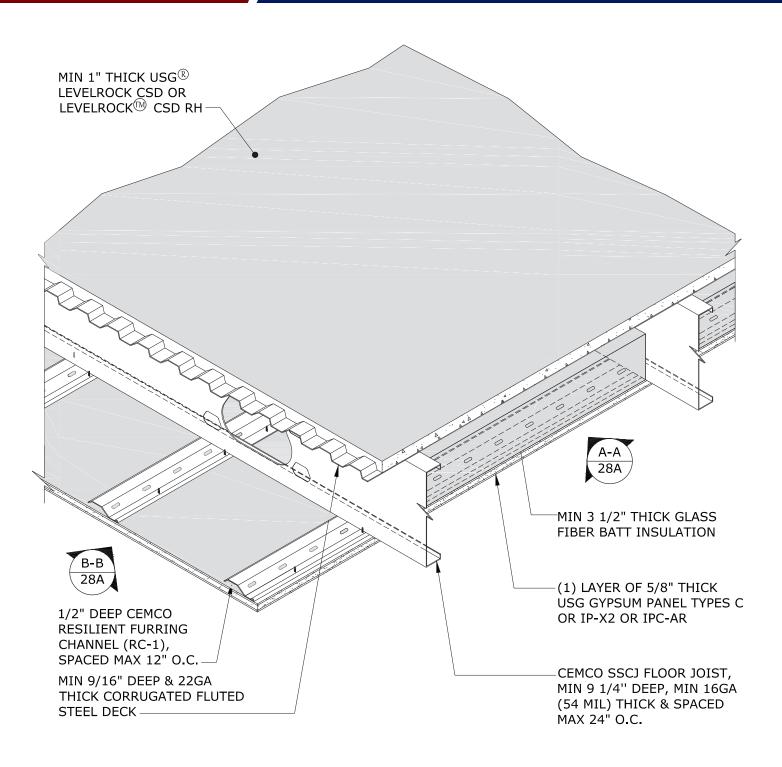






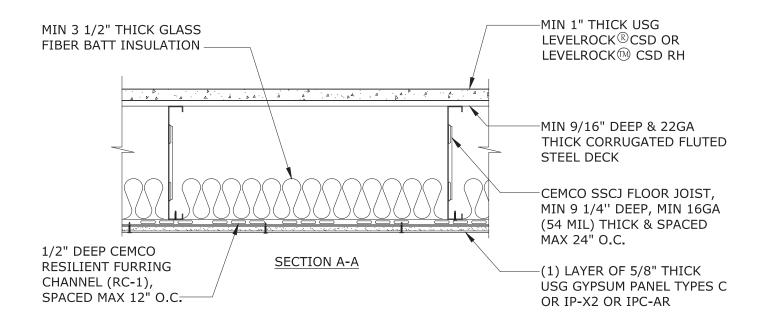
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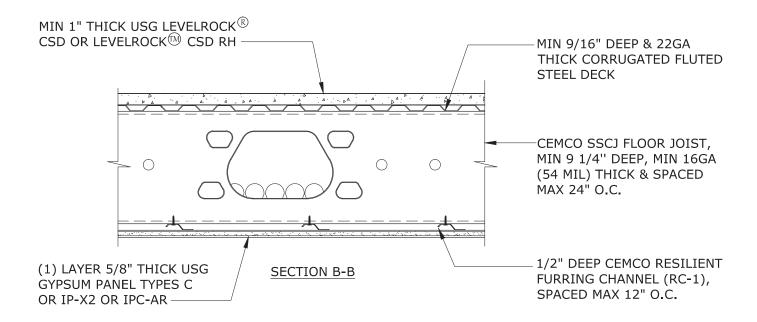




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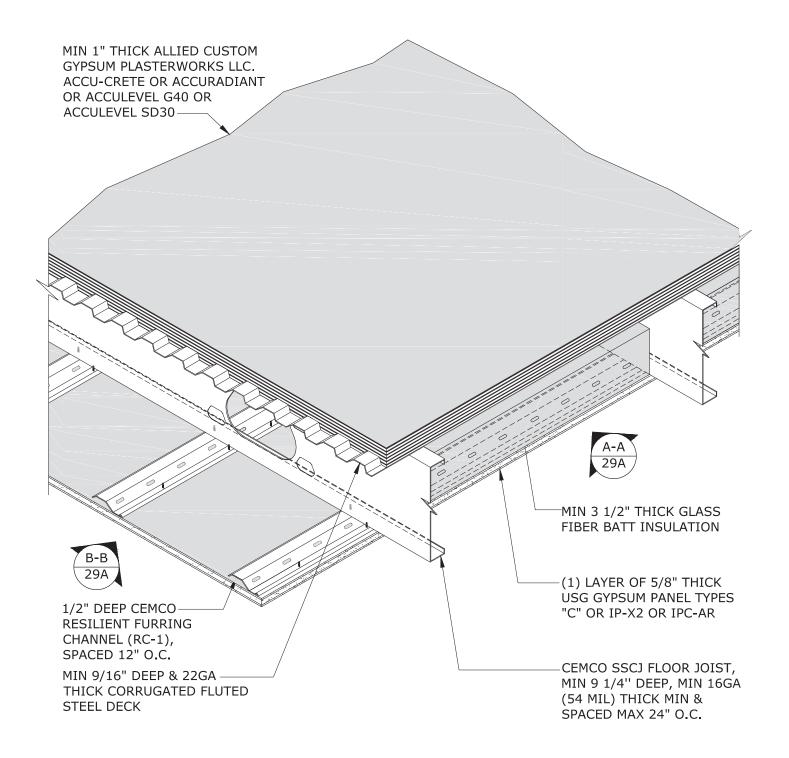






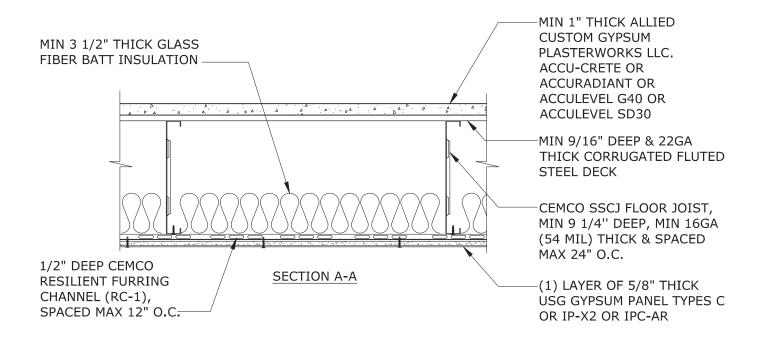
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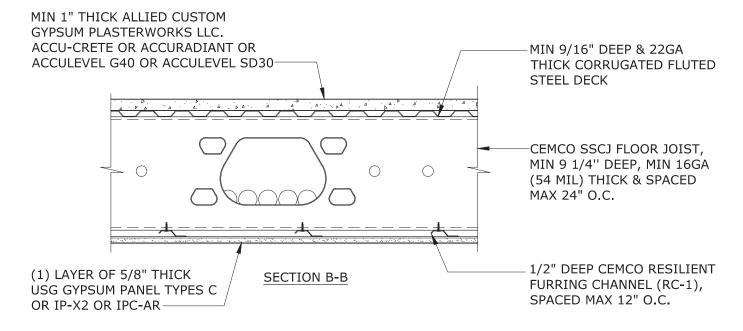




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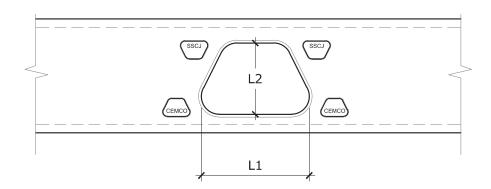






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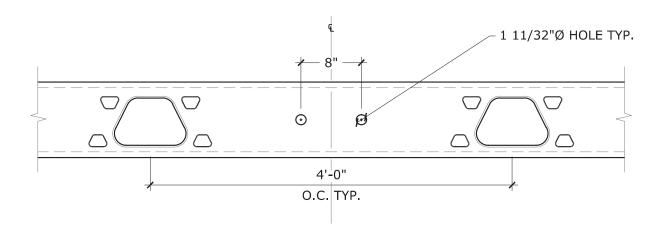




Section	L1 (in)	L2 (in)	Minimum Spacing Between Punch-Outs (in)
725SSCJ175-XX	7-5/32	4-1/4	48
800SSCJ175-XX	7-5/32	4-1/4	48
925SSCJ175-XX	9-15/32	6-1/4	48
1000SSCJ200-XX	9-15/32	6-1/4	48
1125SSCJ175-XX	9-15/32	6-1/4	48
1200SSCJ200-XX	9-1/32	8	48
1400SSCJ200-XX	11-1/16	10	48

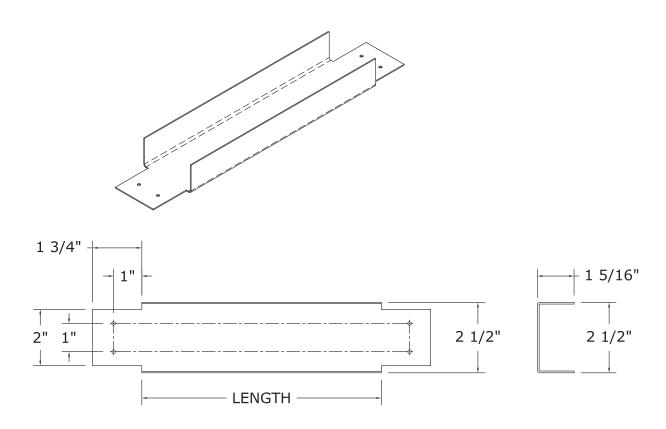
**Release:** 02/15/12





**Release:** 03-13-13





Sure Bridging for 1-3/4" Flange Joists					
18 Gauge (G60 Hot-Dipped Galvanized)	Part Number	Length	Joist Spacing		
	175SB4312	10"	12″O.C.		
	175SB4316	14"	16" O.C.		
	175SB43192	17"	19.2″ O.C.		
	175SB4324	22"	24" O.C.		

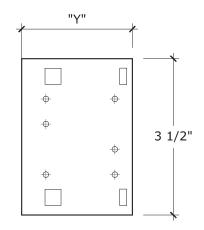
Sure Bridging for 2" Flange Joists					
18 Gauge (G60 Hot-Dipped Galvanized)	Part Number	Length	Joist Spacing		
	175SB4312	9-3/4"	12"O.C.		
	175SB4316	13-3/4"	16"O.C.		
	175SB43192	17"	19.2" O.C.		
	175SB4324	21-3/4"	24"O.C.		

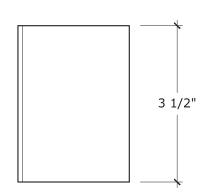
Sure Bridging for 1-3/4" Flange Joists Back to Back					
18 Gauge (G60 Hot-Dipped Galvanized)	Part Number	Length	Joist Spacing		
	175SB4312	8-1/4"	12″O.C.		
	175SB4316	12-1/4"	16" O.C.		
	175SB43192	15-1/2"	19.2" O.C.		
	175SB4324	20-1/4"	24" O.C.		

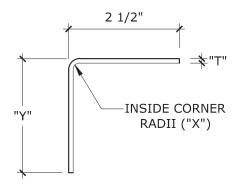
Sure Bridging for 2" Flange Joists Back to Back					
	Part Number	Length	Joist Spacing		
18 Gauge	175SB4312	7-3/4"	12"O.C.		
(G60 Hot-Dipped Galvanized)	175SB4316	11-3/4"	16" O.C.		
	175SB43192	15"	19.2" O.C.		
	175SB4324	19-3/4"	24" O.C.		

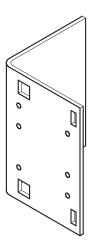
**Release:** 01/23/14







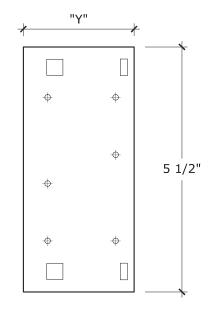


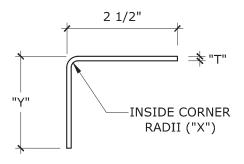


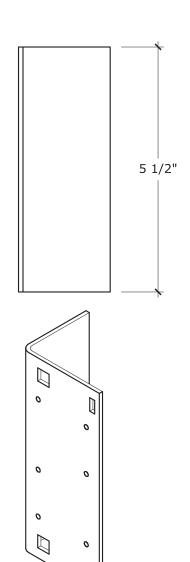
Part Number	T (in)	X (in)	Y (in)	Gauge
P000013-11	0.1017	0.1525	2.58	12
P000013-12	0.0713	0.1069	2.52	14
P000013-13	0.0566	0.0849	2.49	16
P000013-14	0.0451	0.0712	2.47	18

**Release:** 02/15/12





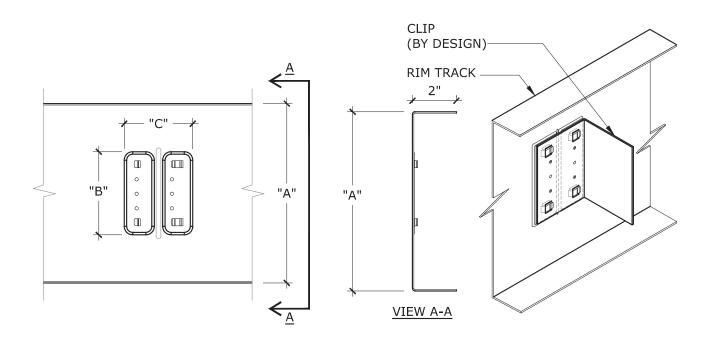




Part Number	T (in)	X (in)	Y (in)	Gauge
P000014-11	0.1017	0.1525	2.07	12
P000014-12	0.0713	0.1069	2.01	14
P000014-13	0.0566	0.0849	1.99	16
P000014-14	0.0451	0.0712	1.96	18

**Release:** 02/15/12

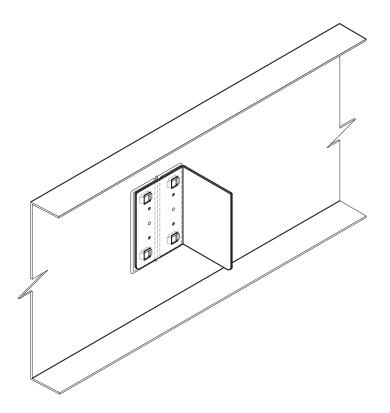




Part Number	Α	В	С	Gauge
725SSRT4-43	7.34"	3-3/4"	3 3/32"	18
725SSRT4-54	7.36"	3-3/4"	3 3/32"	16
725SSRT4-68	7.39"	3-3/4"	3 3/32"	14
800SSRT4-43	8.09"	3-3/4"	3-3/32"	18
800SSRT4-54	8.11"	3-3/4"	3-3/32"	16
800SSRT4-68	8.14"	3-3/4"	3-3/32"	14
925SSRT4-54	9.36"	3-3/4"	3-3/32"	16
925SSRT4-68	9.39"	3 3/4"	3-3/32"	14
925SSRT4-97	9.45"	3-3/4"	3-3/32"	12
1000SSRT6-54	10.11"	5-3/4"	3-3/32"	16
1000SSRT6-68	10.14"	5-3/4"	3-3/32"	14
1000SSRT6-97	10.20"	5-3/4"	3-3/32"	12
1125SSRT6-54	11.36"	5-3/4"	3-3/32"	16
1125SSRT6-68	11.39"	5-3/4"	3-3/32"	14
1125SSRT6-97	11.45"	5-3/4"	3-3/32"	12
1200SSRT6-54	12.11"	5-3/4"	3-3/32"	16
1200SSRT6-68	12.14"	5-3/4"	3-3/32"	14
1200SSRT6-97	12.12"	5-3/4"	3-3/32"	12
1400SSRT6-68	14.14"	5-3/4"	3-3/32"	14
1400SSRT6-97	14.20"	5-3/4"	3-3/32"	12

**Release:** 02/22/12





**Release:** 02/22/12





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