

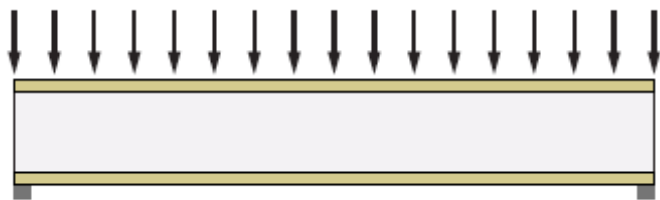
SUBJECT: EXTREME SIPS WITH TYPE I (I-JOIST) SPLINES

To offer our customers optimal energy efficiency, Extreme Panels utilize APA Performance Rated I-Joists, reflected in Extreme Panel Detail #EPT-201 through 203, as an interconnecting spline within our SIPs. Using the I-Joist spline minimizes the thermal bridging that may occur with other types of spline options. Extreme Panels commissioned an independent, code-recognized testing agency to conduct full-scale destructive transverse load testing to determine the design capacity loads of our Extreme SIPs with a Type I Spline for various span conditions.

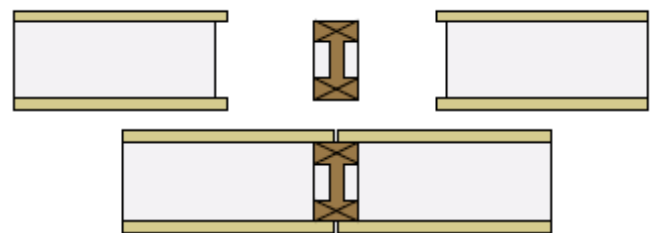
The Type I Spline, Extreme Panel Load Chart #6B (Page 2), summarizes the SIP capacities obtained from full-scale destructive testing of Extreme SIPs with Type I Splines. It should be noted that when an I-Joist is used as a spline member, it is spaced at a maximum of 4' on center and must extend the full length of the SIP span as a single piece. Please refer to Extreme Panel Detail #EPT-203 contained in the Extreme Construction Detail Manual.

Please note that the minimum bearing required to support the panel ends is 1- $\frac{1}{2}$ ". In the case of a single-span roof SIP, spanning from the ridge to the eave, the 2x blocking at the top and bottom of the SIP will not be continuous because the I-Joist extends to both SIP bearing edges. Loads shown on the Type I Spline, Extreme Panel Load Chart #6B for spans that exceed the limitations imposed on floors and roofs, are used for wall design.

TRANSVERSE LOAD



TYPE I SPLINE



LOAD CHART #6B											
Roof/Floor Uniform Transverse Loads - PSF ¹⁻⁴											
Type I Spline											
SIP Thickness	Deflection Limit	SIP Span (feet)									
		4 ⁴	8	10	12	14	16	18	20	22	24
10-1/4"	L/360	197	164	124	72	67	61	48	34	29	24
	L/240	336	164	124	107	96	84	70	49	43	36
	L/180	336	164	124	107	96	84	76	65	56	47
12-1/4"	L/360	258	143	103	86	83	77	61	42	37	32
	L/240	318	143	103	93	85	77	68	59	54	46
	L/180	318	143	103	93	85	77	68	59	54	49

¹ Table values assume a simply supported SIP with 1-1/2 inches (38.1 mm) of continuous bearing. Permanent loads, such as dead load, shall not exceed 0.50 times the tabulated load. Splines consist of Extreme I-beam, 2-1/4 inch (57.2 mm) wide flange (minimum) with a depth equal to the core thickness, spaced not to exceed 48 inches (1219.2 mm) on center.

² Deflection limit shall be selected by building designer based on the serviceability requirements of the structure and the requirements of applicable building code.

³ Table values for 8-foot (2.44 m) spans apply to SIPs constructed with the OSB strength axis oriented either parallel or perpendicular to span direction. Table values for other spans are based on the OSB strength axis parallel to the span direction.

⁴ SIP shall be a minimum of 8 foot (2.44 m) long spanning a minimum of two 4-foot (1.22 m) spans.

Extreme Detail Load Charts can be accessed at: www.extremepanel.com.