



## Requirements for Additional BCI<sup>®</sup> / AJS<sup>®</sup> Joists to Support Parallel Partition Walls

Common building practice with dimension lumber is to add additional joists under parallel non-bearing partition walls. This practice is conservative since not all partitions cover the full length of the floor span. In order to maintain the structural integrity of the floor system while not adding unnecessary framing, the span table below may be used as a guideline.

### Span Table Design Parameters:

Residential Floor Load: 40 psf Live, 10 psf dead  
Non-Load Bearing Partitions: 8 psf x 8 ft height = 64 plf  
Partition covers 50% or less of the span length

### **Additional joist required when span length exceeds:**

#### **Western Region Joists**

Joist Spacing	Joist Depth	BCI 5000 1.7	BCI 6000 1.8	BCI 6500 1.8
16"	9 1/2"	13'-0"	14'-10"	15'-5"
	11 7/8"	14'-10"	16'-10"	17'-8"
	14"	16'-1"	18'-4"	19'-3"
19.2"	9 1/2"	12'-0"	13'-8"	14'-5"
	11 7/8"	13'-8"	15'-6"	16'-4"
	14"	14'-10"	16'-10"	17'-9"

#### **Central / Eastern Region Joists**

Joist Spacing	Joist Depth	BCI 4500s 1.8	BCI 5000s 1.8	BCI 6000s 1.8	BCI 6500s 1.8	AJS 140	AJS 20
16"	9 1/2"	12'-10"	13'-9"	14'-10"	15'-7"	13'-1"	15'-4"
	11 7/8"	14'-6"	15'-7"	16'-10"	17'-8"	14'-10"	17'-6"
	14"	15'-10"	17'-0"	18'-4"	19'-3"	N/A	19'-2"
19.2"	9 1/2"	11'-10"	12'-11"	13'-8"	14'-5"	12'-0"	14'-2"
	11 7/8"	13'-4"	14'-4"	15'-6"	16'-4"	13'-8"	16'-2"
	14"	14'-7"	15'-8"	16'-10"	17'-9"	N/A	17'-8"

#### Table Notes:

- 1) Table considers joists loaded with residential floor load and partition wall only.
- 2) Span lengths represent the most restrictive of simple or multiple span applications. Live load deflection limited to L/480, total load deflection limited to L/240.
- 3) Table values assume that 23/32" or thicker floor sheathing is glued and nailed to joists.