

## Nordic I-Joists with Side Top Flange Notches

The purpose of this technical note is to guide builders in case of damage caused to the Nordic I-joists.

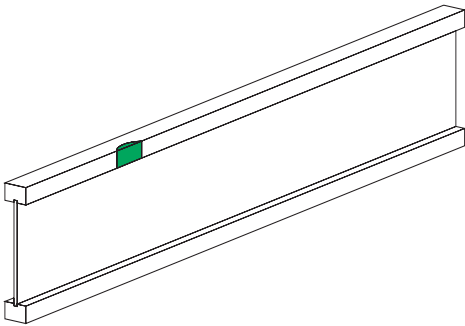
This technical note only applies if the following assumptions are met:

1. Maximum of one notch per I-joist.
2. Notch on the side of the top flange.
3. Notch depth of up to 1 inch.
4. Notch width of up to 4 inches.
5. For multiple spans, the notch is in the end half-span (see the drawing on the bottom right).

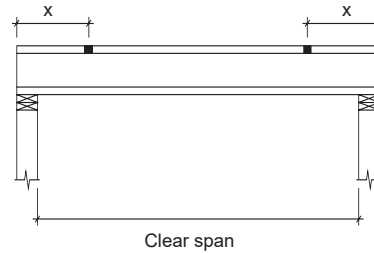
For all other cases, here are the options:

- a. Replace the damaged joist;
- b. Add a new joist within three inches of the notched joist;
  - Verify sheathing span limits for the increased spacing.
  - Verify simple span joist capacity.
- c. Contact the Nordic technical support.

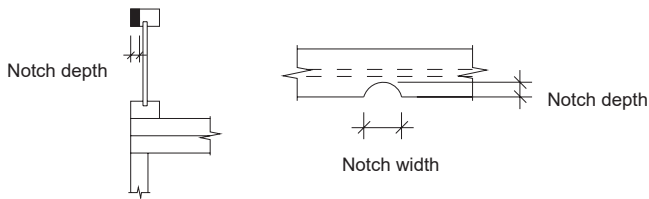
The following tables provide the allowable spans for I-joists with a side top flange notch requiring no repair, for simple and multiple spans, and 1/2- and 1-inch notch depths. The figures below are used to determine the notch location, X, and the notch depth and width.



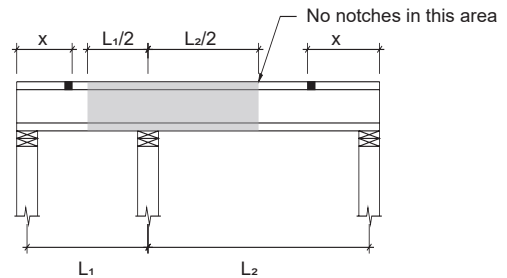
**Axonometric view of a side top flange notch**



**Elevation view of simple span joist and notch location**



**Section and top views of a side top flange notch**



**Elevation view of multiple span joist and notch location**

## Allowable Spans for I-Joists with a Side Top Flange Notch – Live Load = 40 psf, Dead Load = 10 psf

Simple span – Maximum 1/2" notch depth – Live load deflection limit of L/480

Joist depth (in.)	Joist series	Distance "x" to notch from end of joist											
		x ≤ 4 ft				x ≤ 8 ft				x ≤ 12 ft			
		On center spacing				On center spacing				On center spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2	NI-20	16'-4"	14'-11"	14'-1"	13'-2"	16'-1"	-	-	-	-	-	-	-
	NI-40x	18'-4"	16'-9"	15'-9"	14'-3"	18'-0"	16'-5"	-	-	-	-	-	-
	NI-60	18'-8"	17'-0"	16'-0"	14'-11"	18'-4"	16'-8"	-	-	-	-	-	-
	NI-80	20'-7"	18'-9"	17'-8"	16'-5"	20'-3"	18'-5"	17'-4"	16'-1"	-	-	-	-
11-7/8	NI-20	19'-7"	17'-11"	16'-11"	15'-5"	19'-3"	17'-7"	16'-3"	-	-	-	-	-
	NI-40x	21'-11"	19'-11"	18'-5"	16'-4"	21'-7"	19'-2"	17'-4"	-	-	-	-	-
	NI-60	22'-4"	20'-4"	19'-2"	17'-10"	22'-0"	20'-0"	18'-10"	17'-6"	-	-	-	-
	NI-80	24'-7"	22'-4"	21'-1"	19'-7"	24'-3"	22'-0"	20'-9"	19'-3"	23'-10"	-	-	-
	NI-90	25'-4"	23'-0"	21'-8"	20'-2"	24'-11"	22'-8"	21'-4"	19'-10"	24'-7"	-	-	-
14	NI-40x	24'-10"	22'-4"	20'-4"	18'-0"	24'-6"	21'-3"	19'-3"	16'-11"	23'-9"	-	-	-
	NI-60	25'-5"	23'-2"	21'-10"	20'-3"	25'-1"	22'-10"	21'-6"	19'-9"	24'-8"	-	-	-
	NI-80	27'-11"	25'-5"	23'-11"	22'-3"	27'-7"	25'-1"	23'-7"	21'-11"	27'-3"	24'-9"	-	-
	NI-90	28'-9"	26'-1"	24'-7"	22'-10"	28'-4"	25'-9"	24'-3"	22'-6"	28'-0"	25'-5"	23'-11"	-
16	NI-60	28'-2"	25'-8"	24'-3"	22'-6"	27'-10"	25'-4"	23'-11"	21'-5"	27'-6"	25'-0"	-	-
	NI-80	31'-0"	28'-2"	26'-7"	24'-8"	30'-8"	27'-10"	26'-3"	24'-4"	30'-3"	27'-6"	25'-10"	24'-0"
	NI-90	31'-10"	28'-11"	27'-3"	25'-4"	31'-5"	28'-7"	26'-11"	25'-0"	31'-1"	28'-3"	26'-7"	24'-8"

Simple span – Maximum 1/2" notch depth – Live load deflection limit of L/360

Joist depth (in.)	Joist series	Distance "x" to notch from end of joist											
		x ≤ 4 ft				x ≤ 8 ft				x ≤ 12 ft			
		On center spacing				On center spacing				On center spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2	NI-20	18'-1"	16'-7"	15'-1"	13'-5"	17'-10"	-	-	-	-	-	-	-
	NI-40x	20'-4"	17'-8"	16'-0"	14'-3"	19'-6"	16'-7"	-	-	-	-	-	-
	NI-60	20'-8"	18'-10"	17'-9"	16'-6"	20'-4"	18'-6"	17'-5"	-	-	-	-	-
	NI-80	22'-10"	20'-10"	19'-7"	18'-3"	22'-6"	20'-6"	19'-3"	17'-11"	-	-	-	-
11-7/8	NI-20	21'-8"	19'-1"	17'-4"	15'-5"	21'-2"	18'-0"	16'-3"	-	-	-	-	-
	NI-40x	23'-7"	20'-3"	18'-5"	16'-4"	22'-6"	19'-2"	17'-4"	-	-	-	-	-
	NI-60	24'-8"	22'-6"	21'-3"	18'-11"	24'-4"	22'-2"	20'-2"	17'-10"	24'-0"	-	-	-
	NI-80	27'-3"	24'-10"	23'-4"	21'-9"	26'-11"	24'-6"	23'-0"	21'-5"	26'-6"	24'-1"	-	-
	NI-90	28'-0"	25'-6"	24'-0"	22'-4"	27'-8"	25'-2"	23'-9"	22'-1"	27'-4"	24'-10"	-	-
14	NI-40x	25'-11"	22'-4"	20'-3"	18'-0"	24'-11"	21'-3"	19'-3"	16'-11"	23'-9"	-	-	-
	NI-60	28'-1"	25'-8"	23'-5"	20'-10"	27'-9"	24'-9"	22'-4"	19'-9"	27'-5"	-	-	-
	NI-80	30'-11"	28'-2"	26'-7"	24'-9"	30'-7"	27'-10"	26'-3"	24'-5"	30'-3"	27'-6"	25'-10"	23'-10"
	NI-90	31'-10"	28'-11"	27'-3"	25'-4"	31'-5"	28'-7"	26'-11"	25'-1"	31'-1"	28'-3"	26'-7"	24'-8"
16	NI-60	31'-2"	27'-10"	25'-3"	22'-6"	30'-10"	26'-10"	24'-3"	21'-5"	30'-2"	25'-8"	-	-
	NI-80	34'-4"	31'-3"	29'-5"	27'-3"	34'-0"	30'-11"	29'-1"	26'-7"	33'-7"	30'-7"	28'-9"	25'-10"
	NI-90	35'-2"	32'-1"	30'-2"	28'-1"	34'-10"	31'-9"	29'-10"	27'-9"	34'-6"	31'-4"	29'-6"	27'-5"

### Notes:

- Allowable clear span applicable to residential floor construction with a design live load of 40 psf and dead load of 10 psf. The live load deflection is limited to L/480 or L/360 as shown, and the total load deflection to L/240.
- Spans are based on a composite floor with glued-nailed sheathing meeting the requirements for APA Rated Sheathing or APA Rated STURD-I-FLOOR conforming to PRP-108, PS 1, or PS 2 with a minimum thickness of 19/32" (40/20 or 20 oc) for a joist spacing of 19.2" or less, or 23/32" (48/24 or 24 oc) for a joist spacing of 24". Adhesive shall meet APA Specification AFG-01 or ASTM D3498.
- Minimum bearing length shall be 1-3/4" for the end bearings, and 3-1/2" for the intermediate bearings.
- Bearing stiffeners are not required when I-joists are used with the spans and spacings given in these tables, except as required for hangers.
- These span charts are based on uniform loads and are limited to I-joists with a side top flange notch of maximum 1/2". See page 1 for additional design assumptions. For other applications, an engineering analysis may be required based on the use of the design properties.

## Allowable Spans for I-Joists with a Side Top Flange Notch – Live Load = 40 psf, Dead Load = 10 psf

Multiple span – Maximum 1/2" notch depth – Live load deflection limit of L/480

Joist depth (in.)	Joist series	Distance "x" to notch from end of joist											
		x ≤ 4 ft				x ≤ 8 ft				x ≤ 12 ft			
		On center spacing				On center spacing				On center spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2	NI-20	17'-10"	16'-3"	15'-0"	13'-3"	17'-7"	-	-	-	-	-	-	-
	NI-40x	20'-0"	17'-6"	15'-11"	14'-1"	19'-4"	16'-5"	-	-	-	-	-	-
	NI-60	20'-4"	18'-6"	17'-6"	16'-3"	20'-0"	18'-3"	17'-2"	-	-	-	-	-
	NI-80	22'-6"	20'-5"	19'-3"	17'-11"	22'-2"	20'-1"	18'-11"	17'-7"	-	-	-	-
11-7/8	NI-20	21'-5"	18'-11"	17'-2"	15'-3"	21'-0"	17'-11"	16'-1"	-	-	-	-	-
	NI-40x	23'-5"	20'-1"	18'-3"	16'-2"	22'-4"	19'-1"	17'-2"	-	-	-	-	-
	NI-60	24'-4"	22'-2"	20'-11"	18'-9"	24'-0"	21'-10"	20'-0"	17'-8"	23'-8"	-	-	-
	NI-80	26'-10"	24'-5"	22'-11"	21'-4"	26'-6"	24'-1"	22'-8"	21'-0"	26'-1"	23'-8"	-	-
	NI-90	27'-7"	25'-1"	23'-7"	21'-11"	27'-3"	24'-9"	23'-3"	21'-7"	26'-11"	24'-5"	-	-
14	NI-40x	25'-10"	22'-2"	20'-2"	17'-11"	24'-9"	21'-2"	19'-1"	16'-9"	23'-7"	-	-	-
	NI-60	27'-9"	25'-3"	23'-3"	20'-8"	27'-5"	24'-7"	22'-3"	19'-7"	27'-0"	-	-	-
	NI-80	30'-6"	27'-9"	26'-1"	24'-3"	30'-2"	27'-5"	25'-9"	23'-11"	29'-10"	27'-1"	25'-5"	23'-7"
	NI-90	31'-4"	28'-6"	26'-10"	24'-11"	31'-0"	28'-2"	26'-6"	24'-7"	30'-8"	27'-10"	26'-1"	24'-3"
16	NI-60	30'-10"	27'-8"	25'-2"	22'-4"	30'-6"	26'-8"	24'-1"	21'-4"	30'-0"	25'-6"	-	-
	NI-80	33'-10"	30'-9"	29'-0"	26'-11"	33'-6"	30'-5"	28'-8"	26'-5"	33'-2"	30'-1"	28'-3"	25'-8"
	NI-90	34'-9"	31'-7"	29'-8"	27'-7"	34'-5"	31'-3"	29'-4"	27'-3"	34'-0"	30'-10"	29'-0"	26'-11"

Multiple span – Maximum 1/2" notch depth – Live load deflection limit of L/360

Joist depth (in.)	Joist series	Distance "x" to notch from end of joist											
		x ≤ 4 ft				x ≤ 8 ft				x ≤ 12 ft			
		On center spacing				On center spacing				On center spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2	NI-20	19'-3"	16'-6"	15'-0"	13'-3"	18'-2"	-	-	-	-	-	-	-
	NI-40x	20'-5"	17'-6"	15'-11"	14'-1"	19'-4"	16'-5"	-	-	-	-	-	-
	NI-60	22'-7"	20'-3"	18'-5"	16'-4"	22'-3"	19'-2"	17'-4"	-	-	-	-	-
	NI-80	24'-11"	22'-9"	21'-5"	19'-11"	24'-7"	22'-5"	21'-1"	19'-3"	24'-3"	-	-	-
11-7/8	NI-20	22'-1"	18'-11"	17'-2"	15'-3"	21'-0"	17'-11"	16'-1"	-	-	-	-	-
	NI-40x	23'-5"	20'-1"	18'-3"	16'-2"	22'-4"	19'-1"	17'-2"	-	-	-	-	-
	NI-60	27'-0"	23'-2"	21'-1"	18'-9"	26'-0"	22'-2"	20'-0"	17'-8"	24'-10"	-	-	-
	NI-80	29'-9"	27'-1"	25'-6"	22'-9"	29'-5"	26'-9"	24'-11"	22'-1"	29'-0"	26'-5"	24'-2"	-
	NI-90	30'-7"	27'-10"	26'-3"	24'-5"	30'-3"	27'-6"	25'-11"	24'-1"	29'-11"	27'-2"	25'-7"	23'-9"
14	NI-40x	25'-10"	22'-2"	20'-2"	17'-11"	24'-9"	21'-2"	19'-1"	16'-9"	23'-7"	-	-	-
	NI-60	29'-9"	25'-7"	23'-3"	20'-8"	28'-9"	24'-7"	22'-3"	19'-7"	27'-8"	-	-	-
	NI-80	33'-10"	30'-9"	28'-2"	25'-1"	33'-6"	30'-3"	27'-6"	24'-5"	33'-1"	29'-7"	26'-9"	23'-8"
	NI-90	34'-9"	31'-7"	29'-9"	27'-8"	34'-5"	31'-3"	29'-5"	27'-4"	34'-1"	30'-11"	29'-1"	26'-11"
16	NI-60	32'-1"	27'-8"	25'-2"	22'-4"	31'-1"	26'-8"	24'-1"	21'-4"	30'-0"	25'-6"	-	-
	NI-80	37'-6"	33'-4"	30'-4"	27'-1"	37'-2"	32'-8"	29'-9"	26'-5"	36'-9"	32'-0"	29'-0"	25'-8"
	NI-90	38'-6"	35'-0"	33'-0"	30'-6"	38'-1"	34'-8"	32'-7"	29'-10"	37'-9"	34'-4"	32'-4"	29'-2"

Notes:

1. Allowable clear span applicable to residential floor construction with a design live load of 40 psf and dead load of 10 psf. The live load deflection is limited to L/480 or L/360 as shown, and the total load deflection to L/240. For multiple-span applications, the end spans shall be 40% or more of the adjacent span.
2. Spans are based on a composite floor with glued-nailed sheathing meeting the requirements for APA Rated Sheathing or APA Rated STURD-I-FLOOR conforming to PRP-108, PS 1, or PS 2 with a minimum thickness of 19/32" (40/20 or 20 oc) for a joist spacing of 19.2" or less, or 23/32" (48/24 or 24 oc) for a joist spacing of 24". Adhesive shall meet APA Specification AFG-01 or ASTM D3498.
3. Minimum bearing length shall be 1-3/4" for the end bearings, and 3-1/2" for the intermediate bearings.
4. Bearing stiffeners are not required when I-joists are used with the spans and spacings given in these tables, except as required for hangers.
5. These span charts are based on uniform loads and are limited to I-joists with a side top flange notch of maximum 1/2". See page 1 for additional design assumptions. For other applications, an engineering analysis may be required based on the use of the design properties.

## Allowable Spans for I-Joists with a Side Top Flange Notch – Live Load = 40 psf, Dead Load = 10 psf

Simple span – Maximum 1" notch depth – Live load deflection limit of L/480

Joist depth (in.)	Joist series	Distance "x" to notch from end of joist											
		x ≤ 4 ft				x ≤ 8 ft				x ≤ 12 ft			
		On center spacing				On center spacing				On center spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2	NI-20	16'-3"	14'-10"	13'-11"	12'-3"	-	-	-	-	-	-	-	-
	NI-40x	18'-3"	16'-7"	14'-11"	13'-1"	16'-8"	-	-	-	-	-	-	-
	NI-60	18'-7"	16'-11"	15'-11"	14'-10"	18'-3"	16'-5"	-	-	-	-	-	-
	NI-80	20'-7"	18'-9"	17'-8"	16'-5"	20'-3"	18'-5"	17'-3"	16'-1"	-	-	-	-
11-7/8	NI-20	19'-6"	17'-10"	16'-3"	14'-4"	18'-6"	-	-	-	-	-	-	-
	NI-40x	21'-10"	19'-3"	17'-4"	15'-3"	19'-11"	16'-3"	-	-	-	-	-	-
	NI-60	22'-3"	20'-3"	19'-1"	17'-9"	21'-11"	19'-9"	17'-4"	-	-	-	-	-
	NI-80	24'-7"	22'-4"	21'-0"	19'-6"	24'-2"	22'-0"	20'-8"	19'-2"	23'-10"	-	-	-
	NI-90	25'-3"	23'-0"	21'-7"	20'-1"	24'-11"	22'-7"	21'-3"	19'-9"	24'-6"	-	-	-
14	NI-40x	24'-9"	21'-4"	19'-3"	17'-0"	22'-6"	18'-7"	16'-3"	-	-	-	-	-
	NI-60	25'-4"	23'-1"	21'-9"	19'-10"	25'-0"	22'-3"	19'-9"	16'-11"	-	-	-	-
	NI-80	27'-11"	25'-5"	23'-11"	22'-2"	27'-7"	25'-0"	23'-7"	21'-10"	27'-2"	24'-8"	-	-
	NI-90	28'-8"	26'-1"	24'-6"	22'-9"	28'-4"	25'-9"	24'-2"	22'-5"	28'-0"	25'-4"	23'-10"	-
16	NI-60	28'-2"	25'-7"	24'-1"	21'-6"	27'-10"	24'-5"	21'-9"	18'-9"	25'-11"	-	-	-
	NI-80	31'-0"	28'-2"	26'-6"	24'-7"	30'-7"	27'-10"	26'-2"	24'-3"	30'-3"	27'-5"	25'-10"	-
	NI-90	31'-9"	28'-11"	27'-2"	25'-3"	31'-5"	28'-6"	26'-10"	24'-11"	31'-1"	28'-2"	26'-6"	24'-7"

Simple span – Maximum 1" notch depth – Live load deflection limit of L/360

Joist depth (in.)	Joist series	Distance "x" to notch from end of joist											
		x ≤ 4 ft				x ≤ 8 ft				x ≤ 12 ft			
		On center spacing				On center spacing				On center spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2	NI-20	18'-0"	15'-7"	14'-0"	12'-3"	-	-	-	-	-	-	-	-
	NI-40x	19'-7"	16'-7"	14'-11"	13'-1"	16'-8"	-	-	-	-	-	-	-
	NI-60	20'-7"	18'-9"	17'-6"	15'-5"	20'-1"	16'-5"	-	-	-	-	-	-
	NI-80	22'-10"	20'-9"	19'-7"	18'-3"	22'-6"	20'-5"	19'-3"	17'-9"	-	-	-	-
11-7/8	NI-20	21'-2"	18'-1"	16'-3"	14'-4"	18'-6"	-	-	-	-	-	-	-
	NI-40x	22'-7"	19'-3"	17'-4"	15'-3"	19'-11"	16'-3"	-	-	-	-	-	-
	NI-60	24'-8"	22'-4"	20'-3"	17'-10"	23'-9"	19'-9"	17'-4"	-	-	-	-	-
	NI-80	27'-2"	24'-9"	23'-4"	21'-8"	26'-10"	24'-5"	23'-0"	20'-8"	26'-6"	24'-1"	-	-
	NI-90	28'-0"	25'-6"	24'-0"	22'-4"	27'-8"	25'-1"	23'-8"	22'-0"	27'-3"	24'-9"	-	-
14	NI-40x	25'-0"	21'-4"	19'-3"	17'-0"	22'-6"	18'-7"	16'-3"	-	-	-	-	-
	NI-60	28'-0"	24'-9"	22'-5"	19'-10"	26'-7"	22'-3"	19'-9"	16'-11"	-	-	-	-
	NI-80	30'-11"	28'-2"	26'-6"	24'-7"	30'-7"	27'-10"	26'-2"	23'-1"	30'-2"	27'-3"	24'-4"	-
	NI-90	31'-9"	28'-11"	27'-3"	25'-4"	31'-5"	28'-7"	26'-11"	25'-0"	31'-1"	28'-2"	26'-6"	24'-6"
16	NI-60	31'-2"	26'-10"	24'-4"	21'-6"	29'-1"	24'-5"	21'-9"	18'-9"	25'-11"	-	-	-
	NI-80	34'-3"	31'-2"	29'-5"	26'-7"	33'-11"	30'-10"	28'-5"	25'-1"	33'-7"	29'-9"	26'-8"	-
	NI-90	35'-2"	32'-0"	30'-2"	28'-0"	34'-10"	31'-8"	29'-10"	27'-8"	34'-5"	31'-4"	29'-5"	26'-10"

### Notes:

1. Allowable clear span applicable to residential floor construction with a design live load of 40 psf and dead load of 10 psf. The live load deflection is limited to L/480 or L/360 as shown, and the total load deflection to L/240.
2. Spans are based on a composite floor with glued-nailed sheathing meeting the requirements for APA Rated Sheathing or APA Rated STURD-I-FLOOR conforming to PRP-108, PS 1, or PS 2 with a minimum thickness of 19/32" (40/20 or 20 oc) for a joist spacing of 19.2" or less, or 23/32" (48/24 or 24 oc) for a joist spacing of 24". Adhesive shall meet APA Specification AFG-01 or ASTM D3498.
3. Minimum bearing length shall be 1-3/4" for the end bearings, and 3-1/2" for the intermediate bearings.
4. Bearing stiffeners are not required when I-joists are used with the spans and spacings given in these tables, except as required for hangers.
5. These span charts are based on uniform loads and are limited to I-joists with a side top flange notch of maximum 1". See page 1 for additional design assumptions. For other applications, an engineering analysis may be required based on the use of the design properties.

## Allowable Spans for I-Joists with a Side Top Flange Notch – Live Load = 40 psf, Dead Load = 10 psf

Multiple span – Maximum 1" notch depth – Live load deflection limit of L/480

Joist depth (in.)	Joist series	Distance "x" to notch from end of joist											
		x ≤ 4 ft				x ≤ 8 ft				x ≤ 12 ft			
		On center spacing				On center spacing				On center spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2	NI-20	17'-9"	15'-5"	13'-10"	12'-1"	-	-	-	-	-	-	-	-
	NI-40x	19'-5"	16'-6"	14'-10"	12'-11"	16'-6"	-	-	-	-	-	-	-
	NI-60	20'-3"	18'-5"	17'-4"	15'-3"	19'-11"	16'-3"	-	-	-	-	-	-
	NI-80	22'-6"	20'-5"	19'-2"	17'-10"	22'-2"	20'-1"	18'-10"	17'-6"	-	-	-	-
11-7/8	NI-20	21'-1"	17'-11"	16'-2"	14'-2"	18'-4"	-	-	-	-	-	-	-
	NI-40x	22'-5"	19'-1"	17'-3"	15'-1"	19'-9"	16'-1"	-	-	-	-	-	-
	NI-60	24'-4"	22'-1"	20'-1"	17'-8"	23'-7"	19'-7"	17'-3"	-	-	-	-	-
	NI-80	26'-10"	24'-4"	22'-11"	21'-3"	26'-5"	24'-0"	22'-7"	20'-7"	26'-1"	23'-8"	-	-
	NI-90	27'-7"	25'-0"	23'-7"	21'-10"	27'-3"	24'-8"	23'-3"	21'-6"	26'-10"	24'-4"	-	-
14	NI-40x	24'-10"	21'-2"	19'-2"	16'-10"	22'-4"	18'-5"	16'-2"	-	-	-	-	-
	NI-60	27'-8"	24'-7"	22'-3"	19'-8"	26'-5"	22'-1"	19'-7"	16'-9"	-	-	-	-
	NI-80	30'-6"	27'-8"	26'-1"	24'-2"	30'-2"	27'-4"	25'-9"	22'-11"	29'-9"	27'-0"	24'-2"	-
	NI-90	31'-4"	28'-5"	26'-9"	24'-10"	31'-0"	28'-1"	26'-5"	24'-6"	30'-7"	27'-9"	26'-1"	24'-2"
16	NI-60	30'-9"	26'-8"	24'-2"	21'-4"	28'-11"	24'-3"	21'-8"	18'-7"	25'-9"	-	-	-
	NI-80	33'-10"	30'-9"	28'-11"	26'-5"	33'-6"	30'-5"	28'-3"	24'-11"	33'-1"	29'-7"	26'-6"	-
	NI-90	34'-8"	31'-6"	29'-8"	27'-6"	34'-4"	31'-2"	29'-4"	27'-2"	34'-0"	30'-10"	28'-11"	26'-8"

Multiple span – Maximum 1" notch depth – Live load deflection limit of L/360

Joist depth (in.)	Joist series	Distance "x" to notch from end of joist											
		x ≤ 4 ft				x ≤ 8 ft				x ≤ 12 ft			
		On center spacing				On center spacing				On center spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2	NI-20	18'-3"	15'-5"	13'-10"	12'-1"	-	-	-	-	-	-	-	-
	NI-40x	19'-5"	16'-6"	14'-10"	12'-11"	16'-6"	-	-	-	-	-	-	-
	NI-60	22'-6"	19'-3"	17'-4"	15'-3"	20'-0"	16'-3"	-	-	-	-	-	-
	NI-80	24'-11"	22'-8"	21'-4"	19'-3"	24'-7"	22'-4"	20'-1"	17'-7"	24'-3"	-	-	-
11-7/8	NI-20	21'-1"	17'-11"	16'-2"	14'-2"	18'-4"	-	-	-	-	-	-	-
	NI-40x	22'-5"	19'-1"	17'-3"	15'-1"	19'-9"	16'-1"	-	-	-	-	-	-
	NI-60	26'-0"	22'-3"	20'-1"	17'-8"	23'-7"	19'-7"	17'-3"	-	-	-	-	-
	NI-80	29'-8"	27'-0"	24'-11"	22'-2"	29'-4"	26'-0"	23'-5"	20'-7"	28'-10"	24'-2"	-	-
	NI-90	30'-7"	27'-10"	26'-2"	24'-4"	30'-3"	27'-5"	25'-10"	23'-7"	29'-10"	27'-1"	24'-11"	-
14	NI-40x	24'-10"	21'-2"	19'-2"	16'-10"	22'-4"	18'-5"	16'-2"	-	-	-	-	-
	NI-60	28'-9"	24'-7"	22'-3"	19'-8"	26'-5"	22'-1"	19'-7"	16'-9"	-	-	-	-
	NI-80	33'-9"	30'-3"	27'-6"	24'-5"	33'-5"	28'-10"	26'-0"	22'-11"	32'-2"	27'-1"	24'-2"	-
	NI-90	34'-8"	31'-7"	29'-8"	27'-7"	34'-4"	31'-3"	29'-4"	26'-2"	34'-0"	30'-10"	27'-11"	24'-4"
16	NI-60	31'-2"	26'-8"	24'-2"	21'-4"	28'-11"	24'-3"	21'-8"	18'-7"	25'-9"	-	-	-
	NI-80	37'-5"	32'-9"	29'-9"	26'-5"	36'-8"	31'-4"	28'-3"	24'-11"	35'-1"	29'-7"	26'-6"	-
	NI-90	38'-5"	34'-11"	32'-11"	29'-10"	38'-1"	34'-7"	32'-2"	28'-5"	37'-9"	34'-0"	30'-6"	26'-8"

### Notes:

1. Allowable clear span applicable to residential floor construction with a design live load of 40 psf and dead load of 10 psf. The live load deflection is limited to L/480 or L/360 as shown, and the total load deflection to L/240. For multiple-span applications, the end spans shall be 40% or more of the adjacent span.
2. Spans are based on a composite floor with glued-nailed sheathing meeting the requirements for APA Rated Sheathing or APA Rated STURD-I-FLOOR conforming to PRP-108, PS 1, or PS 2 with a minimum thickness of 19/32" (40/20 or 20 oc) for a joist spacing of 19.2" or less, or 23/32" (48/24 or 24 oc) for a joist spacing of 24". Adhesive shall meet APA Specification AFG-01 or ASTM D3498.
3. Minimum bearing length shall be 1-3/4" for the end bearings, and 3-1/2" for the intermediate bearings.
4. Bearing stiffeners are not required when I-joists are used with the spans and spacings given in these tables, except as required for hangers.
5. These span charts are based on uniform loads and are limited to I-joists with a side top flange notch of maximum 1". See page 1 for additional design assumptions. For other applications, an engineering analysis may be required based on the use of the design properties.