

1 1/4" STAIR STRINGERS

MAXIMUM STRINGER RUN

1 1/4" X 1.5E-2250F PWLVL STRINGER RUN – 40 PSF LIVE LOAD, 12 PSF DEAD LOAD

Stringer Depth	36 in. Tread Width				42 in. Tread Width		44 in. Tread Width		48 in. Tread Width	
	2 Stringers		3 Stringers		3 Stringers		3 Stringers		3 Stringers	
	No Reinforcement	With Reinforcement	No Reinforcement	With Reinforcement	No Reinforcement	With Reinforcement	No Reinforcement	With Reinforcement	No Reinforcement	With Reinforcement
9 1/2"	4'– 7"	5'– 6"	5'– 6"	6'– 5"	4'– 7"	6'– 5"	4'– 7"	6'– 5"	4'– 7"	6'– 5"
11 7/8"	8'– 3"	9'– 2"	9'– 2"	10'– 1"	9'– 2"	10'– 1"	9'– 2"	10'– 1"	9'– 2"	9'– 2"
14"	11'– 11"	11'– 11"	13'– 9"	13'– 9"	12'– 10"	12'– 10"	12'– 10"	12'– 10"	11'– 11"	12'– 10"

Table values are based on a riser height of 7 3/4" (maximum per 2000 IRC) and a tread depth of 11" (minimum per 2000 IRC & IBC).

1 1/4" X 1.5E-2250F PWLVL STRINGER RUN – 100 PSF LIVE LOAD, 12 PSF DEAD LOAD

Stringer Depth	36 in. Tread Width				42 in. Tread Width		44 in. Tread Width		48 in. Tread Width	
	2 Stringers		3 Stringers		3 Stringers		3 Stringers		3 Stringers	
	No Reinforcement	With Reinforcement	No Reinforcement	With Reinforcement	No Reinforcement	With Reinforcement	No Reinforcement	With Reinforcement	No Reinforcement	With Reinforcement
9 1/2"	3'– 8"	4'– 7"	4'– 7"	5'– 6"	4'– 7"	5'– 6"	4'– 7"	5'– 6"	3'– 8"	4'– 7"
11 7/8"	6'– 5"	7'– 4"	8'– 3"	8'– 3"	7'– 4"	8'– 3"	7'– 4"	8'– 3"	7'– 4"	7'– 4"
14"	9'– 2"	10'– 1"	11'– 0"	11'– 0"	10'– 1"	10'– 1"	10'– 1"	10'– 1"	10'– 1"	10'– 1"

Table values are based on a riser height of 7" (maximum per 2000 IBC) and a tread depth of 11" (minimum per 2000 IRC & IBC).

GENERAL NOTES:

- 1) Table values are limited by deflection equal to L/360 at live load or L/240 at total load.
- 2) For other design loads, stair constructions or attachment details, consult with the project designer or engineer of record.
- 3) Stringers are unstable until treads are installed.
- 4) To minimize squeaks, install treads with panel adhesive in addition to nails or screws.
- 5) Stringers shall be separated from concrete or masonry in accordance with the building code.

PWLVL PROPERTIES

1.5E-2250F PWLVL Allowable Design Stresses⁽¹⁾

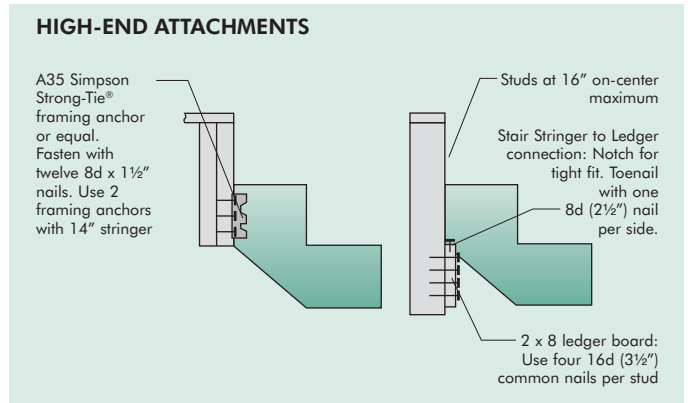
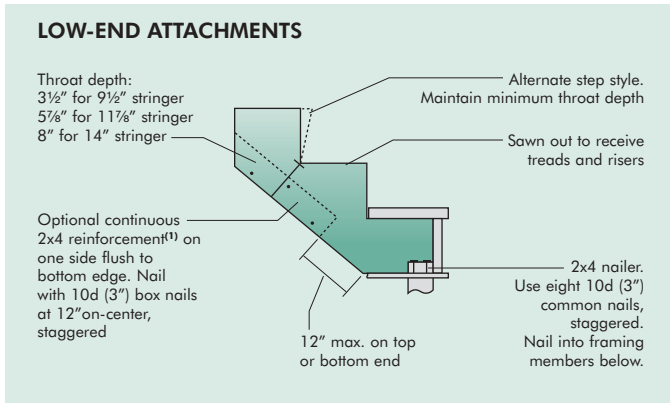
Modulus of Elasticity	E = 1,500,000 psi ⁽²⁾
Bending	F _b = 2,250 psi ⁽³⁾⁽⁴⁾
Horizontal Shear (joist)	F _v = 220 psi
Compression Perpendicular to Grain (joist)	F _{c⊥} = 575 psi ⁽²⁾
Compression Parallel to Grain	F _c = 1,950 psi

- (1) These allowable design stresses apply to dry service conditions.
- (2) No increase is allowed for load duration.
- (3) Multiply by (12/d)^{1/8} where d = depth of member (in).
- (4) A factor of 1.04 may be applied for repetitive members as defined in the National Design Specification® for Wood Construction.

CODE EVALUATIONS

ICBO ES ER-5598
BOCA 21-89
HUD MR 1310
LAC RR25448

SUGGESTED ATTACHMENTS – 40 PSF LIVE LOAD AND 12 PSF DEAD LOAD

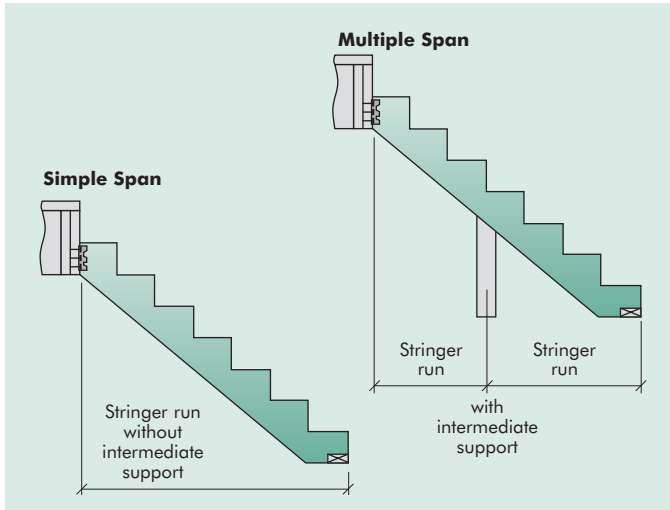


(1) Min. No. 2 hem-fir, spruce-pine-fir or better grade.

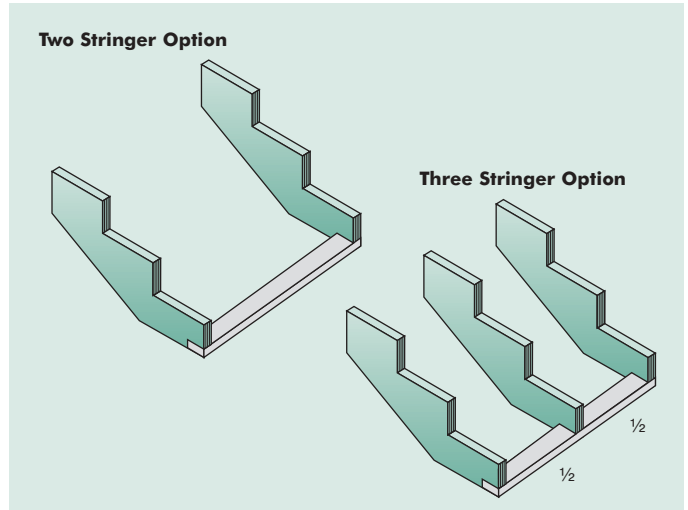
CAUTION: Stair Stringer Attachment Details are intended for use with PWLVL only. Consult with the Project Designer or Engineer of Record for attachment details when the total load is greater than 52 psf.

SPAN & ASSEMBLY OPTIONS

SIMPLE AND MULTIPLE SPANS



TWO- AND THREE-STAIR STRINGER ASSEMBLIES



CUTTING PRECAUTION

DO NOT overcut stair stringer

GLOSSARY OF TERMS

TERM	DEFINITION
Stringer Depth	Depth of stringer before steps are cut.
Step Rise	Unit rise of individual step.
Step Run	Unit run of individual run (nosing ignored).
Stringer Rise	Vertical span between stairway supports. Equal to the upper floor to lower floor height for stringers without intermediate supports.
Stringer Run	Horizontal span between stairway supports.
Throat Depth	Net depth of stringer once steps are cut. Measured from step perpendicular to bottom edge of stringer.

