

EXISTING DECKS: RETROFIT OR REPLACE

RETROFITTING AN EXISTING DECK

It is estimated that of the 40 million existing decks in the U.S., only half are code compliant. Experts believe that it is likely that many of these decks are potentially unsafe. In situations where it is not feasible to rebuild an existing deck, it may be preferable to retrofit it by applying hardware to existing framing members.

DO I NEED TO RETROFIT?

5 THINGS TO LOOK FOR ON AN EXISTING DECK

When inspecting a deck to determine overall safety and compliance to building codes, look at the following five areas:

- 1 Missing Connections:** Any connections that do not meet the code requirements can compromise the safety of the deck. In many cases toenailing does not constitute a proper connection.
- 2 Loose Connections:** Depending on how the deck was built, vital connections may have degraded over time due to various factors. Issues such as wobbly railings, and ledgers pulling away from the adjacent structure are all causes for concern.
- 3 Corrosion of Connectors and Fasteners:** Metal connectors and fasteners can corrode over time, especially if a product with insufficient corrosion resistance was originally installed.
- 4 Rot:** Wood can rot and degrade over time with exposure to the elements. Members within the deck frame that have rotted may no longer be able to perform the function for which they were installed.
- 5 Cracks:** As wood ages it is common for cracks to develop. Large cracks or excessive cracking overall can weaken deck framing members.



A growing number of deck failures have emphasized the need to build decks to meet code requirements just like any other structure. The Simpson Strong-Tie® *Deck Framing Connection Guide* is designed to help contractors build a safe, code-compliant deck. The guide recommends structural connectors and provides best practice guidance based upon specific building codes.

Understanding the critical connections on a deck has never been easier. **To request a copy of the *Deck Framing Connection Guide* call (800) 999-5099 or visit www.strongtie.com/safedeck.**

THE LIFE EXPECTANCY OF DECKS

Most experts agree that the average life expectancy of a deck is 10 to 15 years. Since deck building started about 30 years ago, there are many existing decks that are past their useful life. It's important that decks are properly inspected and maintained on a routine basis. If unsure, it's best to consult with a professional, such as a structural engineer or contractor, to make sure the deck is safe.



Deck Safety



RECOMMENDATIONS FOR THE CONSTRUCTION
OF SAFE, CODE-COMPLIANT DECKS

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CRITICAL DECK CONNECTIONS

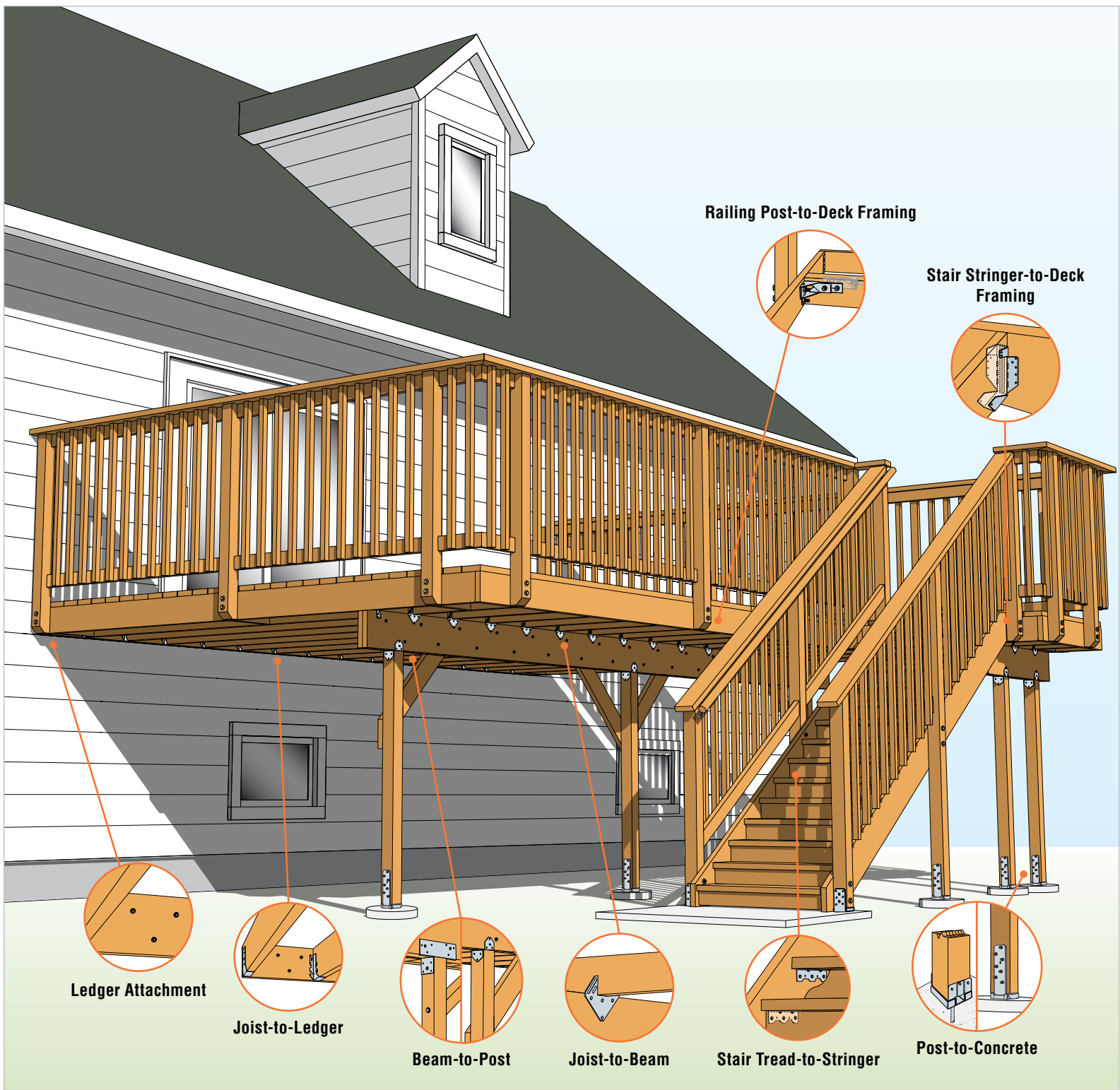
A system of key connections throughout the deck framing, also known as a continuous load path, is essential to building a safe, building code-compliant deck. When this system of connections is made properly, loads are transferred throughout the deck's frame and into the ground and/or the adjacent structure to which the deck is connected, typically a house.

The connections called out are necessary in order to create an effective continuous load path.

Other deck connection products may be used as allowed by the Designer and local building department. For more information and a complete list of deck products see *The Simpson Strong-Tie® Deck Framing Connection Guide* or visit www.strongtie.com/safedeck. Design and construction shall comply with all building code, local building department and Designer requirements.

It is important to use connectors with a ZMAX® or hot-dip galvanized coating as a minimum for outdoor projects. These products feature additional corrosion protection. Stainless-steel connectors and fasteners provide the highest level of corrosion resistance.

See www.strongtie.com for important corrosion information.



Railing Post-to-Deck Framing

Stair Stringer-to-Deck Framing

Ledger Attachment

Joist-to-Ledger

Beam-to-Post

Joist-to-Beam

Stair Tread-to-Stringer

Post-to-Concrete