Project Overview Building a Deck



Table of Contents

STEP 1	Planning Your Project	
	We Can Help	PG. 3
	The Materials	PG. 3
	The Cost	PG. 4
	Building vs. Hiring	PG. 4
	Suggested Tools Needed	
	Site Drawing and Measurements	PG. 6
	Homework Assignment (bring in your measurements)	PG. 7
STEP 2	Make Your Choices	
	Consider the Shape of your new Deck	PG. 8
	Consider the Options	PG. 9
	Select Your Decking	PG. 10
	Choose Your Railing	PG. 12
STEP 3	Materials List and Quote	
	Homework Assignment (document your choices)	
	Finalize the Design and Review the quote	PG. 15
STEP 4	Start Building	
	Site Layout and Footings	PG. 16
	Attaching the Ledger	PG. 17
	Framing the Deck Structure	PG. 18
	Install the Deck Light Wiring	PG. 19
	Install Deck Drainage	PG. 20
	Install Decking and Fascia	PG. 21
	Install the Deck Railing and Light	PG. 22
	Notes	PG. 23

Planning Your Project

We can help you along the way

How can Kelly-Fradet help someone get started with their new deck project?

- To start, Kelly-Fradet has over 65 years of experience in the deck and building materials industry
- · All our locations have trained deck professionals for your convenience
- Our showrooms have deck displays, samples, and literature
- We stock the most popular deck products and have quick access to a variety of others
- · And most importantly; we truly enjoy working with all types of customers, from novices to seasoned professionals.

How does the process continue once the project starts?

- We begin the conversation talking about all the aspects of building a deck; construction, helpful hints, designing for your lifestyle, the right budget, hiring a pro or building your own.
- We then work with you to create a unique deck design and an accurate materials list
- · If necessary, we schedule convenient reliable delivery to your home or jobsite
- And finally, we offer ongoing product support, by the same dedicated salesperson throughout the building process.

The Materials

Decks have been built out of wood for a long time, why would I want to switch to a composite material like Trex?

There are a number of reasons why you should consider the switch from wood to Composite

- · First of all most composites are fade and stain resistant
- · And most have a 25 Year Limited Residential Fade and Stain warranty
- · Composites Won't warp, rot, crack or split
- · They are Mold and mildew resistant
- · Do not need annual sealing and staining
- · Are, Termite resistant, Splinter Free
- And clean up easily with Soap & Water

What is Trex made out of?

- · Trex is comprised of 95% recycled materials-namely;
- recycled wood, locally sourced reclaimed wood. No trees are cut down to make Trex
- Recycled plastic film like sandwich bags, newspaper sleeves and shopping bags

What is the difference between Trex and Azek?

Azek and Trex possess very similar benefits, the biggest difference is that Azek is made entirely of a non-wood fiber
pvc core with a polymer cap. In addition, Azek carries a 30 Year Fade and Stain warranty.

PAGE 3

The Cost

How much does it cost to build a new deck?

There are 3 important factors that will affect the overall cost of a new deck;

- 1. materials,
- 2. size and shape
- 3. And labor.
- The raw materials behind a deck represent only a fraction of the total cost. This includes, but is not limited to, the substructure, decking, railing, hardware and lighting.
- The size and shape of your deck will have the greatest impact on the total cost. As an example, a square or rectangular deck will be more affordable than a multi angled deck. Also, building a deck in 2' increments will typically be a more efficient use of materials, and less expensive per square foot.
- Labor costs account for nearly two-thirds of the final deck cost. That's the majority of your deck cost no matter what materials you choose-good news for experienced DIYers.
- There are so many variables involved with establishing a cost for your new deck. But with our proprietary
 "Deck Estimating Guide" we can quickly estimate a square foot price for a variety decking, railing and fastener
 options. And once we have established the right budget for you, we will create a detailed list with an accurate
 cost of materials.

Building yourself or hiring a professional

Should I try to build a deck myself?

If you feel confident in your ability to understand and build large-scale projects, you can probably build a deck. You should feel comfortable using power tools like a circular saw or drill and feel confident in your ability to measure accurately and understand how the deck will lay out on the site and fit together. If you are thinking about a fairly complex deck, be realistic about your ability. This overview will give you a concept of what is involved in building a deck.

What should I look for if I hire a contractor?

It is always recommended that you work with a licensed and insured contractor, preferably one who can provide references to other deck projects. It is also important to check with your regional licensing board to see if they have any complaints filed against them. Follow up on provided references and search online reviews; this can give you a feel for the quality of the work, as well as how the contractor was to work with.

Do I need a building permit for a deck?

Many building departments require a permit before constructing a deck, as these structures support people. Contact your local building department for specific requirements in your area. If you hire a contractor, they may assume this responsibility, however, the homeowner is ultimately responsible for acquiring all necessary permits prior to construction.

Suggested tools you may need

The checklist can be used as a quick guide for possible tools needed.



SAFETY

- · Eye Protection
- · Hearing protection
- Gloves
- · Dust mask
- Knee Pads



- · Stakes or batter boards
- Inverted Spray Paint
- String
- · Line Level
- · Tape measure
- · Speed Square
- Framing Square
- 4' or 6' Level
- · Chalk line
- Chalk
- Pencils
- · Plumb bob
- Pick
- · Post hole digger or Power Auger



CONCRETE WORK

- Shovel
- Wheelbarrow
- · Garden hose (to mix concrete)
- Tamper

POWER TOOLS

Table Saw

Compressor

Orbital Sander

• Jig Saw

Router

· Extension cord

· Drills and bits

· Power Mitre Saw

· Pneumatic Nailer

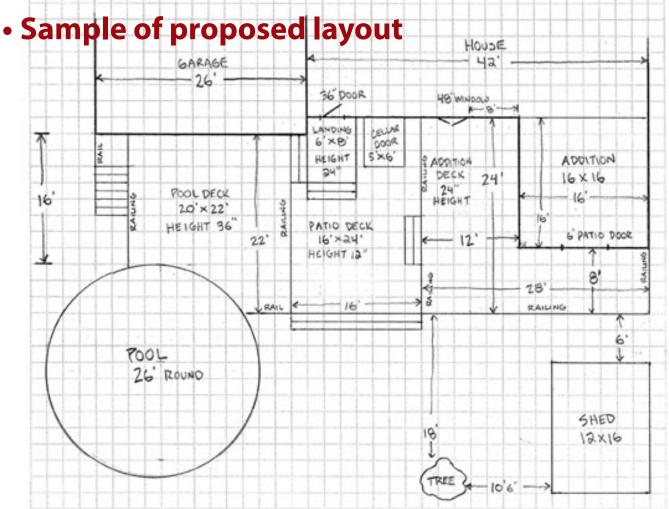


HAND TOOLS

- · Saw Horses
- Hammer
- Chisel
- Handsaw
- Mallet
- · Utility Knife
- · Tool belt
- Caulking Gun
- Socket Set
- Wrenches
- Pry Bar
- Clamps
- Nail set
- Ladder

Tips For The DIYer

- 1. When cutting or drilling wood, always wear eye protection to prevent injury from flying wood particles.
- 2. If cutting pressure treated material, wearing a fabric breathing mask will help to avoid ingestion of the dust. Wear gloves to protect from splinters.
- 3. Invest in a pair of kneepads if you are doing floor jobs or working on a deck. Kneepads may be a wise investment when it comes to working on a deck surface.
- 4. Dispose of scraps in the regular trash or take to a landfill do not burn pressure treated materials.

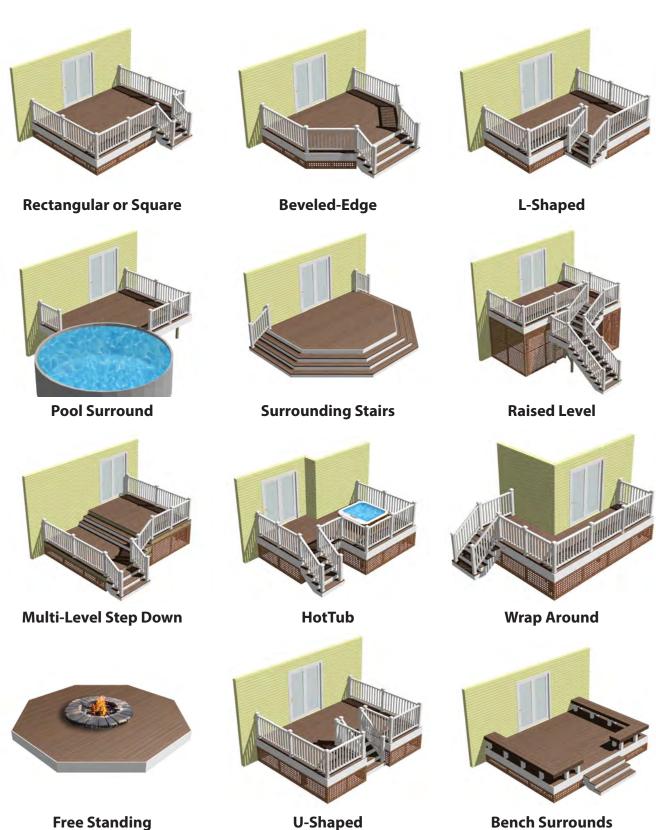


To help us supply you with an accurate deck materials quote, Please draw a sketch with the following information:

- 1. The proposed deck shape and the dimensions
- 2. Draw where the deck is located.
- 3. Draw the shape and size of the pool.
- 4. Indicate where the deck is attached to the house or surrounding a pool.
- 5. Indicate any other obstructions, like basement hatchways, sheds, flower beds, trees etc. and their dimensions.
- 6. Sketch where the doors or windows are leading out to the deck.
- 7. Draw any sidewalks, driveways or paths leading to the deck.
- 8. Measure how high of the ground the deck will be, at the house and the outer point of the deck.
- 9. Measure where the stair(s) will be attached.
- 10. Indicate the width of the stairs.
- 11. Indicate what sides of the deck and stairs will have a railing.
- 12. Show the preferred direction of your deck boards.
- 13. Indicate possible locations of deck posts
- 14. Indicate possible location for deck lights
- 15. Mark spot of closest power outlet to connect a deck light system

Create a site drawing with measurements LUMBER 1 square equals 1 foot Build it Better. www.kellyfradet.com

Consider the Shape of Your Deck



U-Shaped PAGE 8

Consider Your Options





Trex® Elevations® Steel Deck Framing

By designing an under-deck framing system with the outdoors in mind, Trex has reinvented the concept, creating a remarkably stable and consistently flat, triple-coated steel substructure on which to build a high-performance deck, something other deck frames could only dream about.

Trex® RainEscape® Drainage System

By designing an under-deck framing system with the outdoors in mind, Trex has reinvented the concept, creating a remarkably stable and consistently flat, triple-coated steel substructure on which to build a high-performance deck, something other deck frames could only dream about.



Trex® Outdoor Lighting

Get the right mood right under the moonlight with our sophisticated deck lights. Easy to build into a new or existing deck, Trex Deck Lighting is even easier to set up with the Trex LightHub® connection system. To take the look up another notch, try the optional timer and dimmer for total lighting control.

Don't Forget to Plan for:

- · Space for dining, chairs and tables
- · A grilling station
- · Drink and food coolers
- · Space for relaxing and lounging
- · A Pergola or umbrella
- · Privacy panels on deck and below
- · Built in benches for seating
- · Built in or free-standing planters
- Storage for seat cushions
- Wall art and decoration
- · Media center
- · Outdoor accent rugs

Select Your Decking Material

Wood-Treated Decking

Genuine Wolmanized® Residential Outdoor Wood is treated with a copper-based preservative and an efficacious fungicide, this wood is ideal for applications like decks and other outdoor projects.

- Wolmanized® wood is a natural and environmentally responsible choice.
- It's wood, a renewable resource.
- Treatment extends the life of the wood, the preservatives are gentle as it can be and still effective.
- This wood costs less than redwood, cedar or composites.
- Limited lifetime warranty for most residential applications.
- Protection is required to maintain the wood's appearance.
- Value Price Range



Wood - Western Red Cedar, Select Knotty Decking

Inherently resistant to moisture damage, Cedar offers your outdoor improvements a level of stability that is unmatched by other lumber choices. Cedar lies flat, stays straight, retains fasteners and provides a firm base for stains.

- Unsurpassed natural beauty
- · Contains no petroleum based products
- · Is environmentally friendly
- Made from renewable resources
- · Naturally resistant to decay and insects
- · Centuries of proven performance
- · Lightweight and stiff
- · Protection is required to maintain the wood's appearance.







Wood - Mahogany Decking (SPECIAL ORDER)

A Malaysian Hardwood, mahogany provides a durable and strong deck or porch that adds the perfect amount of warm, rich color to your home. Mahogany is a kiln-dried hardwood that requires specific installation practices; please consult installation guidelines before any porch or decking project.

- · Long lasting beauty without uneven wear or splitting
- · Unsurpassed natural beauty, with a warm rich color
- Kiln-dried deck boards will not shrink appreciably after installation.
- Sourced form countries that are leaders in ecological, sustained forestry practices
- Contains no petroleum based products
- Protection is required to maintain the wood's appearance.
- Medium Price Range





Select Your Decking Material continued

Wood - Ipé Decking

5/4 x 6 eased edge (SPECIAL ORDER)

lpé is procured from Brazil and is machined there as well. It is one of the hardest and most dense species known. With a weight of approximately 6 lbs. per board foot (net). It offers superior durability and rot/decay resistance that even pressure treated products cannot surpass. It's appearance is naturally medium dark brown in color. Ipé requires no preservative

treatment and can be left "raw" or coated with the stain of your choice.

- · One of the hardest and most dense woods on earth
- Unsurpassed natural beauty
- Contains no petroleum based products
- This species requires no chemicals to maintain an impenetrable surface to wood decay and insects
- Less likely to splinter and peel up than some other woods.
- 3X more dense then oak
- · Carries a class A fire rating
 - Premium Price Range





Composite - Capped Decking

Trex Select, Enhance and Transcend

Trex Decking is engineered with a wood-like look, low-sheen, high-traffic technology that makes it last years longer. Trex composite products are made of a unique combination of wood and plastic fibers. Transcend deck boards are wrapped on

the three sides with the fade, stain, scratch and mold resistant shell.

- 25 Year Limited Residential Fade & Stain Warranty
- 18 rich, lasting colors and natural wood grain.
- Made from 95% recycled materials
- · Available in square or grooved edges
- No need for sanding, staining or painting, ever.

 - Modest toMedium Price Range





PVC Decking

AZEK Deck is made of cellular pvc and virtually eliminates all the shortfalls associated with today's decking materials and has a limited lifetime warranty. It is engineered with solid-core, cellular vinyl which minimizes expansion and contraction yet

contains no wood fillers that can compromise deck performance. AZEK Deck has earned the NAHB Research Center's "Green Approved Product" status.

- 30 Year Limited Residential Fade & Stain Warranty
- Scratch resistant
- Split resistant
- Mold and mildew resistant
- Durable and long lasting
- · Impervious to moisture and insects

 - Medium to Premium Price Range





Choose Your Railing Style



Pressure Treated Railing Parts

4" x 4" Posts, 2" x 6" Top Rail, (2) 2" x 4" Rails, (18) 2" x 2" Square Balusters. Cutting to size and assembly required.



Xpanse Premium Railing Kit (white)

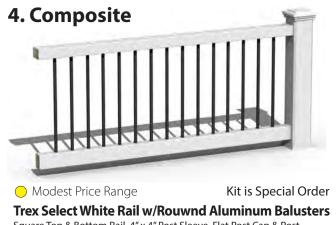
Top & Bottom Rail, 4" x 4" Post Sleeve, Post Cap & Post Skirt, Square Balusters. Includes 48" 4" x 4" Wood Post Insert. Cutting to size and assembly required.



Materials are Special Order

Red Meranti Railing Parts

4" x 4" Posts, 2" x 6" Top Rail, (2) 2" x 4" Rails, (18) 2" x 2" Square Balusters. Cutting to size and assembly required.



Square Top & Bottom Rail, 4" x 4" Post Sleeve, Flat Post Cap & Post Skirt, Round Aluminum Balusters. Includes 48" 4" x 4" Wood Post Insert. Cutting to size and assembly required.



Western Red Cedar Railing Parts

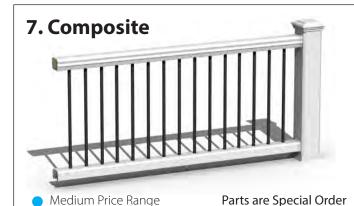
4" x 4" Posts, 2" x 6" Top Rail, (2) 2" x 4" Rails, (18) 2" x 2" Square Balusters. Cutting to size and assembly required.



Trex Transcend White Rail w/Square Fibrex Balusters

Crown Top with Universal Bottom Rail, 4" x 4" Post Sleeve, Flat Post Cap & Post Skirt, Square Balusters. Includes price for 48" 4" x 4" Wood Post Insert. Cutting to size and assembly required.

Choose Your Railing Style continued



Trex Transcend White Rail w/Round Alum. Balusters

Crown Top with Universal Bottom Rail, 4" x 4" Post Sleeve, Flat Post Cap & Post Skirt, 30.25" Round Aluminum Balusters. Includes price for 48" 4" x 4" Wood Post Insert. Cutting to size and assembly required.



Trex Signature Black, Bronze or White Railing Kit

Top & Bottom Rail, 2-1/2" x 2-1/2" x 43" Post, Post Caps & Post Skirts, Square Balusters. No Wood Insert Necessary. Cutting to size and assembly required.



Top & Bottom Aluminum Railing and Balusters, 4" x 4" Post Sleeve, 1" x 6" Cocktail Rail. Includes price for 48" 4" x 4" Wood Post insert. Cutting to size and assembly required.



Trex Transcend Rail w/Square Aluminum Balusters

Universal Top & Bottom Rail with a 1x6 Cocktail Rail, 4" x 4" Post Sleeve, Flat Post Cap & Post Skirt, Square Transcend Balusters. Includes price for 48" 4" x 4" Wood Post Insert. Cutting to size and assembly required.



Trex Transcend colors Rail w/Square Fibrex Balusters

Crown Top with Universal Bottom Rail, 4" x 4" Post Sleeve, Flat Post Cap & Post Skirt, Square Balusters. Includes price for 48" 4" x 4" Wood Post Insert. Cutting to size and assembly required.



Trex Transcend Rail w/Square Aluminum Balusters

Universal Top & Bottom Rail with a 2x4 Transcend Top Cap, 4" x 4" Post Sleeve, Flat Post Cap & Post Skirt, Square Aluminum Balusters. Includes price for 48" 4" x 4" Wood Post Insert. Cutting to size and assembly required.

Design, Materials List & Quote

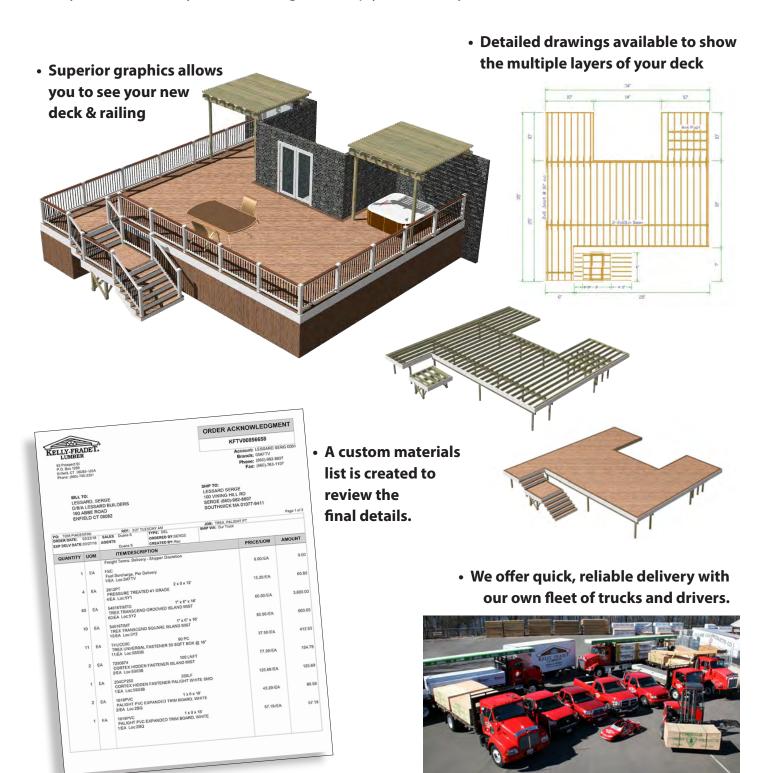
Document Your Choices

1. Deck Shape:					
Rectangle L	Shape 🗌 Mu	ulti-Level 🗌 Raised	Ranch Pool Decl	k 🗌 Other	
2. Framing Option	ons:				
Pressure Treated	Steel Framii	ng 🗌 Other			
Under Deck Drainage	Yes No	Туре:			
3. Decking, Fast	eners & Fa	scia:			
Primary Decking:	Brand:	Series:	Color:		rooved or Square
Accent Decking:	Brand:	Series:	Color:		rooved or 🗌 Square
Decking Fastener:	Brand:	Туре:	Color:		
Fascia:	Brand:	Series:	Color:		
Fascia Fastener:	Brand:	Type:	Color:		
4. Railing:					
Post or Post Sleeve:	Brand:	Series:	Color:	Size:	Style:
Post Cap:	Brand:	Series:	Color:	Size:	Style:
Post Skirt:	Brand:	Series:	Color:	Size:	Style:
Top Rail:	Brand:	Series:	Color:	Size:	Style:
Bottom Rail:	Brand:	Series:	Color:	Size:	Style:
Baluster:	Brand:	Series:	Color:	Size:	Style:
5. Lighting:					
Post Cap Lights:	Brand:	Series:	Color:	Style:	
Post or Sleeve Lights:	Brand:	Series:	Color:	Style:	
Riser Lights:	Brand:	Series:	Color:	Style:	
Recessed Lights:	Brand:	Series:	Color:	Style:	

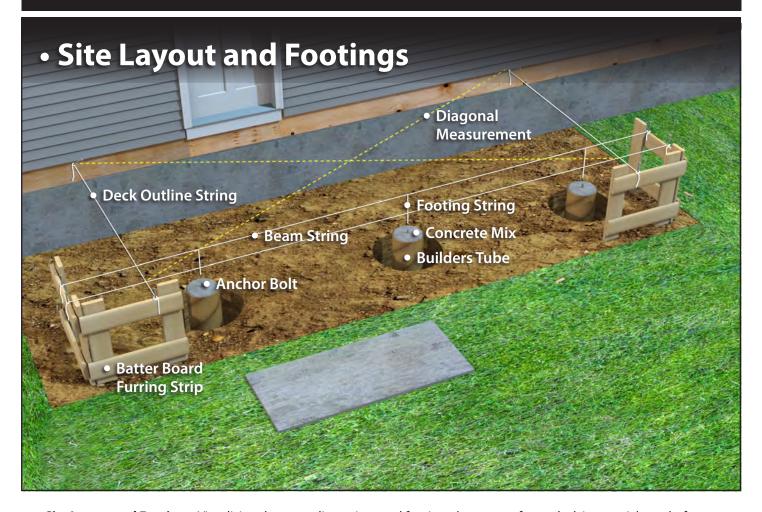
Design, Materials List & Quote

We can help you envision your new deck

Schedule and appointment with a Kelly-Fradet deck software specialist who can present you with deck layouts and images to help you finalize your vision.



Building and Installation



Site Layout and Footings: Visualizing the outer dimensions and footing placement of your deck is a crucial step before starting the building process. Using stakes or furring strip as batter boards outside the shape of the deck allows you to tie off string to see the actual size of the deck. To make sure your outline is square, you can measure the diagonals (see yellow dashed line). Slide the white strings until you get the 2 diagonals to equal measurements. Once the diagonals are equal, the deck outline will be square. Next tie off another string above the beam location. From that line, you can drop a plumb bob down to mark the footings spots on the ground. Always check with local building code for location and size of beam, footings and concrete footing piers.











Furring Strip

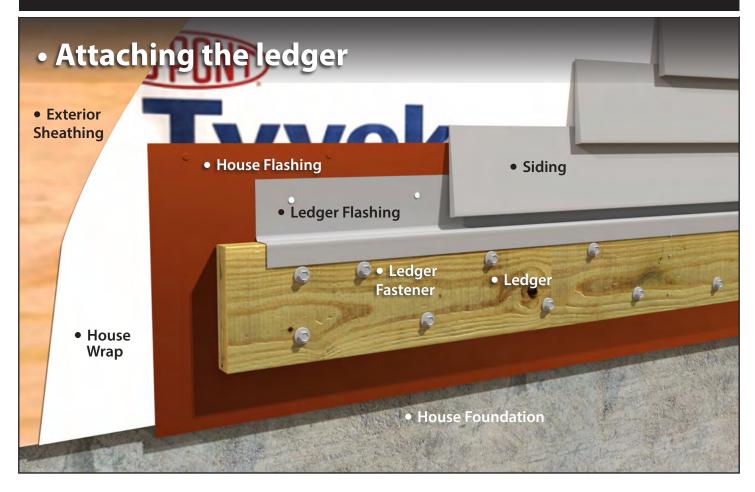
Footing Form

Builders Tube

Concrete Mix

Anchor Bolt

Building and Installation



Attach the Ledger: Leveling, flashing and fastening the ledger is a crucial step. One of the most common cause for deck failure is the ledger that pulls away from the primary structure, resulting in structural failure. The Fastenmaster LedgerLok® or the Simpson Strong-Tie® Strong-Drive® SDWS Timber provide an easy-to-install, high-strength alternative to lag screws. They are ideal for securely attaching ledgers to structural wood members, are easier to drive than comparable fasteners and are coated for many exterior and preservative-treated wood applications. After the ledger is secure, mark the locations of the joist hangers before proceeding to the next step.







Exterior Sheathing



House Wrap



House Flashing



ashing Ledger Flashing



Ledger

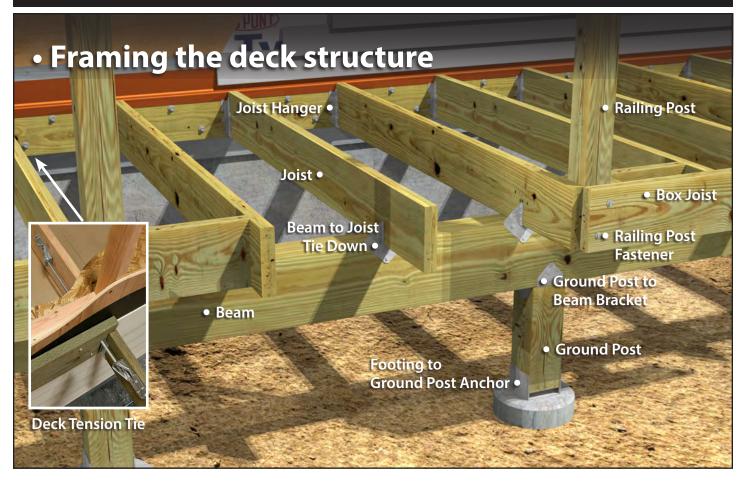


Ledger Fastener

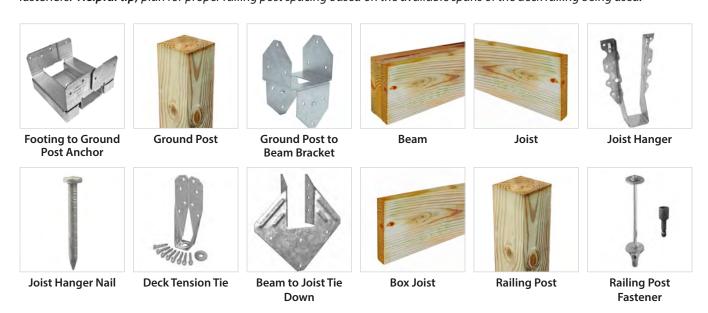


Siding

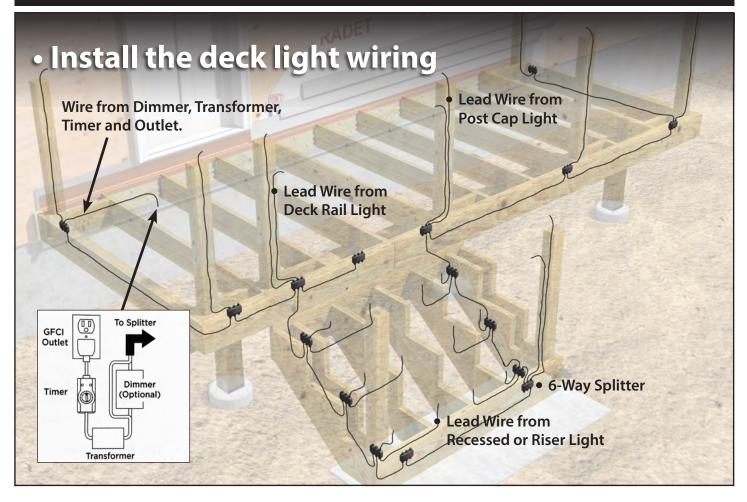
Building and Installation



Framing the deck structure: Start by attaching the ground post to the concrete footing with a galvanized post anchor. The top of the ground post will then connect to the deck beam with a post to beam bracket. Joists will be properly sized and connected to the beam and ledger according to building codes. Typically, one end of the joist will be attached to the ledger with a joist hanger, and the other end will be employ a beam to joist tie down bracket. A deck tension tie system should also be applied for lateral stability. Railing posts will be attached to the joists with proper blocking and post fasteners. *Helpful tip; plan for proper railing post spacing based on the available spans of the deck railing being used.*



Building and Installation



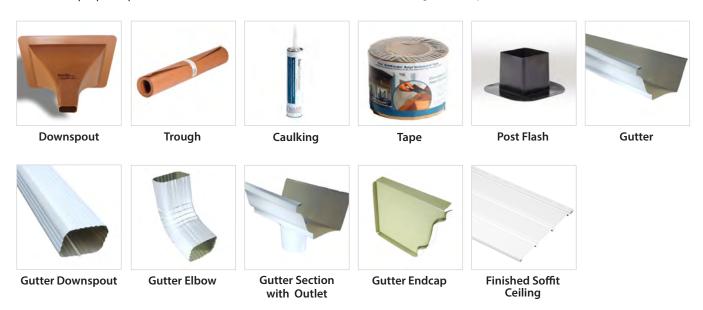
Install the Deck Lights Wiring: When designing your deck, plan locations of lights, power supply, timer, and dimmer. These should be accessible for service. Installing a GFCI outlet is REQUIRED to help prevent damage to lighting from electrical surges. It is recommended to have power source installed and turned on when installing lights to ensure all components work. It is much easier to install wiring and splitters before decking and railing have been installed. DO NOT run wires between joists and deck boards. *Helpful tip;* Avoid railing brackets and locations for deck rail lights when running wires up posts. Please refer to the manufacturer's installation guide for complete instructions.



Building and Installation



Install the deck drainage system: Install all downspouts along rim joist and/or ledger board. Cut-out side should face open deck bay. Install the troughs to with correct slope to allow proper water flow. Tape, flash and caulk according to instructions. Be very careful to correctly flash around all railing posts. Before installing your gutter system, check for good water flow and no leakage. *Helpful tips; Make sure the trough is wrinkle free. Let the troughs acclimate to jobsite temperature to allow for proper expansion/contraction*. Please refer to the manufacturer's installation guide for complete instructions.



Building and Installation



Install the decking and fascia: You have a number of options to attach your decking to the deck framing. You can choose hidden fastening systems, color-matched screws or countersunk screws with deck matching plugs. Each has its own benefits. Stair treads are typically created by using two deck boards. Fascia and stair risers can be a matching deck color, or an accent product like a pvc trimboard. **Helpful tips;** Using a picture frame perimeter deck board will give a finished look to the ends of all your deck boards. And, when laying out your deck boards, its best to start from the outside perimeter and work your way in towards the house.













Decking

Fascia

Stair Tread

Stair Riser

Trex Hidden Fastener

Color-Matched Screws



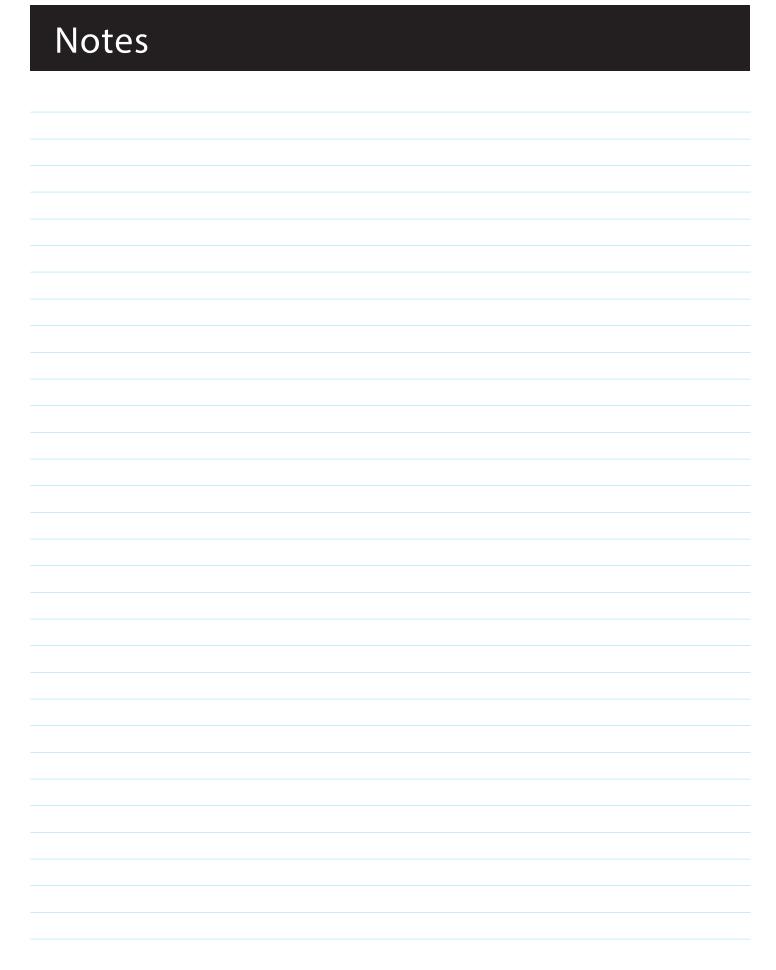
Screws & Color Matched Plugs

Building and Installation



Finish the Railing and Lights: Post sleeves are installed over your structural railing posts. Sleeve height may have to be cut depending on the railing style. Post skirts are slid over the post sleeves. From here the railing systems will be installed, instructions will depend on specific railing style. Refer to mfgs. installation guidelines specific to your railing style. Connect the wiring to the installed lights. Finishing below the fascia can be accomplised with lattice or framed to accept vertically applied deck boards.





The Kelly-Fradet Advantage

Let's start with your vision

All your choices and desicions can be a little intimidating. That's why we'll meet face to face and carefully review your ideas or plans to discuss all your options and expectations.

A dedicated salesperson, from start to finish

From the time you bring in your sketch or blueprint, right through the delivery of your products, we dedicate our experienced professionals to guide you through your entire project.

Picking the perfect products

There are many new products and applications available to complete your deck.... wood vs. composites? Screws vs. hidden fasteners? The decisions go on and on, but the path becomes more clear with the help of our literature library, our product showroom and our online product guide. Your salesperson will explain all your options with experience and clarity. We are experiended in ordering from a virtually limitless supply of decking materials.

An accurate materials list

We take pride in providing a thorough list of materials. We ask all the questions beforehand so you're not stuck with surprises as your job progresses.

Delivery on time

When you choose Kelly-Fradet for your decking project, getting all your building materials to the jobsite is quick and convenient. We have the right vehicle for the task, Forklift trucks, Box Trucks, Flatbed Trucks and more! We make our deliveries on our own Kelly-Fradet trucks by our own Kelly-Fradet employees. We take pride in our reputation for proficient and timely shipments.

