Northern Building Supply
A Division of U.S. LBM

All-Inclusive Deck Planning and Materials Guide



northernbuildingsupply.com

All-Inclusive Deck Planning and Materials Guide

Crafting the perfect deck requires careful planning, as there are many decisions and selections to be made before your outdoor oasis can come to life. Whether you're a seasoned remodeling enthusiast or a homeowner stepping into the realm of decking projects for the first time, this guide is designed to equip you with all the knowledge and tools you need — from expert advice on material selection to everything you should know about building permits.

Let's get started!

Table of Contents

Jump to the section you're most interested in, or read from start to finish if you want to soak in all the tips and tricks.

Preliminary Planning 3

Tips for Determining Your Budget 3
Financing Options 4
Tackling the DIY vs. Contractor Debate 6

Scoping & Selections 7

How to Scope Deck Size & Shape 7
Material & Brand Selections *(Comparison Chart)* 9
How Much Material Do You Need? 11
Don't Forget: Railings! 12

Ready to Build 13

Don't Forget: Building Permit! 13
Deck Components Glossary & Diagram 14
DIY? Other Tools You'll Need 15



Preliminary Planning

A deck addition or upgrade doesn't just happen in a matter of days or even weeks. It's important to spend some time thinking about things like budget, financing, and who's responsible for actually completing the work before you dive in.

Tips for Determining Your Budget

We'll be honest — unless you're an accountant or financial planner, this step is probably going to be the least exciting part of your project. But it's critical, and it's worth it. While decks aren't the most expensive exterior renovation projects, they also aren't the most affordable. The good news is that deck pricing varies based on a number of factors, so you can find a solution that fits in your budget.

Some things to consider while you open up your spreadsheet to plan your spending:

Any pre-work required

Pre-work is any work that must happen before your deck can be built. It could include tearing down an existing deck or substructure, removing landscaping to clear or level the building area, and/or addressing anything that could prohibit easy job site access.

Labor costs in your area

Most homeowners hire an experienced building professional for deck installation, which can make up a significant portion of the project cost. If you've got building chops and are interested in the DIY route, you could save some. We'll talk through things to consider before making that decision in a later section.

Deck size and shape

Simply put, the larger and more complex your dream design is, the more you should budget for it. A two-story, 20x20 sq. ft. project will cost more than a flat, simple 12x12 sq. ft. one will. Learn more about common deck sizes and shapes in this section.

Deck material selection

Similarly, you'll pay more for premium, high-grade, and/or sustainably sourced materials than you will for others that don't meet those quality standards. While those attributes are certainly worth an additional investment for boosted appearance, performance, and environmental responsibility, they don't always work on limited budgets — and that's okay. You'll be able to build a great deck regardless of your material choice.

Get a full deck materials comparison on this page.

Additional costs

You should save a little wiggle room in your budget for surprise costs. Some that many homeowners don't think about are:

- **Extra property taxes for a new or larger deck**
- **Increased insurance premiums due to extra liability**
- **Deck repairs (which hopefully won't happen anytime soon!)**

Financing Options

For most homeowners, cash is the most ideal payment option for a new deck, as it's hassle- and interest-free. However, also like most homeowners, you may not have $10,000 that you're ready to drop in cash. Fortunately, there are plenty of financing options available to you.

Personal Loan

An unsecured personal loan doesn't require you to use your home as collateral. While the interest rate may be higher than a home equity loan or line of credit, it's a fast and hassle-free option.

BEST WHEN:

- **You don't want to use your home as collateral**
- **You don't have much home equity built up**
- **You need funds quickly**

PROS	CONS
Fast funding	High interest rates
Unsecured (you won't lose your home if you default on the loan)	High credit standards
Don't need a certain amount of home equity	

Home Equity Loan or Line of Credit (HELOC)

A home equity loan is a fixed-interest loan that allows you to borrow against the equity you've built in your home (home value minus mortgage debt). It's paid in monthly installments over time and is secured by your home, meaning your lender can use your home as collateral.

BEST WHEN:

- **You have enough home equity**
- **You're comfortable using your home as collateral**
- **You're concerned about surprise expenses**
- **You want to avoid high interest rates**

PROS	CONS
Low interest rates	Secured (you could lose your home if you default on the loan)
Tax deductibles (up to a certain limit)	
Long repayment terms	

0% APR Credit Card

Credit cards typically have higher APRs than personal and home equity loans. However, if you qualify for a 0% APR credit card, it may be your most affordable option.

BEST WHEN:

- **You have strong credit and little existing debt**
- **You can pay the full project balance by the end of the promotional period (~15-21 months)**

PROS	CONS
0% APR	High credit standards
Easy to use and understand	Short repayment terms (or you pay high rates after the promotional period)

Manufacturer, Supplier, or Contractor Financing

Some deck manufacturers, suppliers, or contractors offer their own financing options through third-party lenders. These are typically unsecured loans that they provide after you agree with them on a project cost estimate.

BEST WHEN:

- **It's the least expensive option**
- **You don't want to use your home as collateral**

PROS	CONS
Usually unsecured (you won't lose your home if you default on the loan)	Read terms carefully; there may be hidden terms and fees
Fast funding	Not all contractors offer it

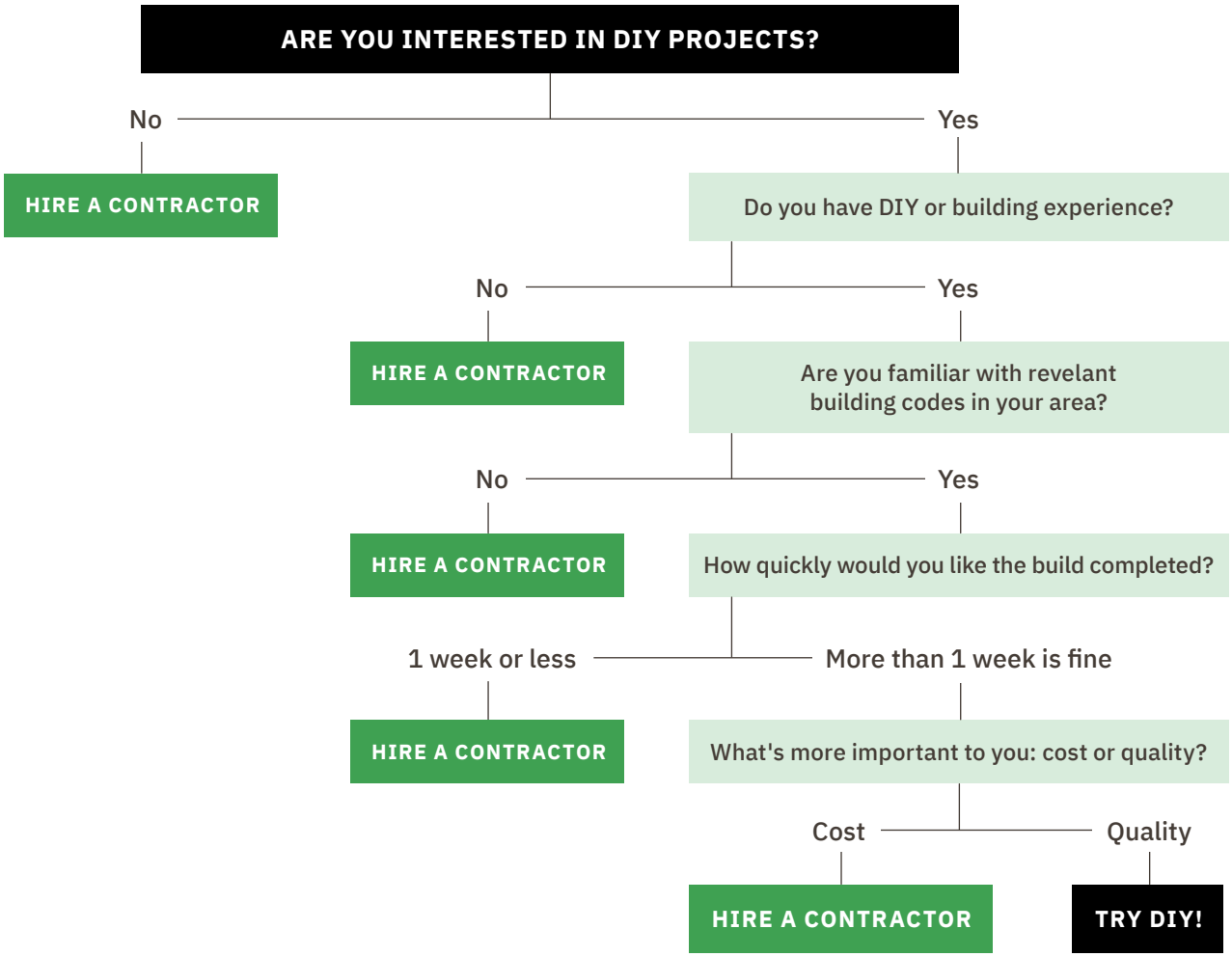
Tackling the DIY vs. Contractor Debate

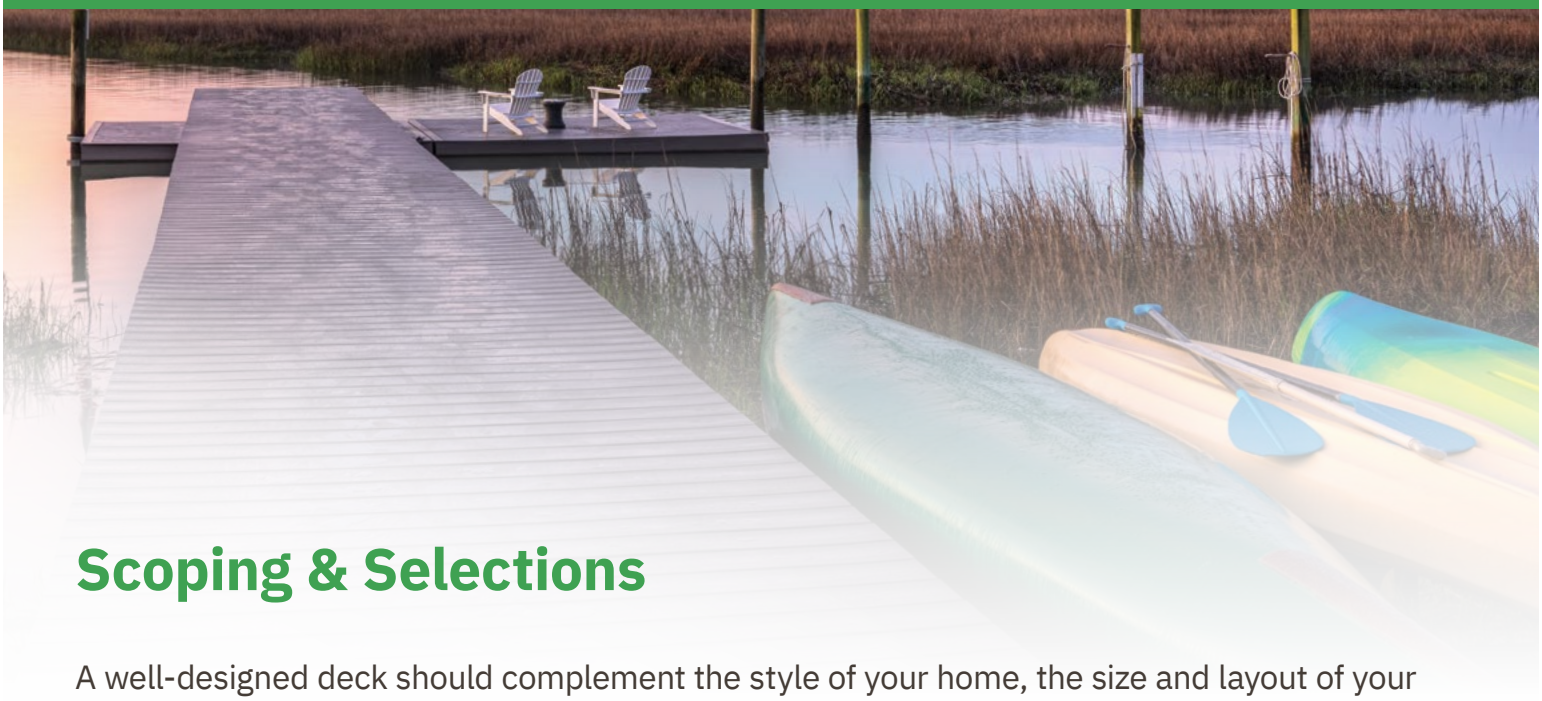
Installing a new deck isn't the most DIY-friendly renovation project, but that doesn't mean it's not achievable. If you have DIY or building experience, you might be wondering if you should handle the labor on your own.

Ultimately, the decision between DIY and hiring a contractor depends on your experience, comfort level, available time, budget, and the complexity of your project. DIY projects can offer a sense of personal accomplishment and help you save money on labor costs.

However, building a deck requires some technical knowledge, precise measurements, and familiarity with local building codes, which is where a seasoned professional can bring high-quality craftsmanship and peace of mind.

Below is a flow chart that may help guide your decision. Of course, it's just a guide, so feel free to choose whichever route you're most comfortable with!





Scoping & Selections

A well-designed deck should complement the style of your home, the size and layout of your yard, and the way you live and expect to use the deck most often. The following sections outline important considerations to make regarding the shape, size, materials, and accessories of your deck.

How to Scope Deck Size & Shape

To choose the right size and shape for your deck build, ask yourself these questions:

What will you be using the deck for?
A cozy, quiet retreat to drink your coffee each morning? A gathering space for large family dinners? A combination of both?

What types of furniture do you want to place on your deck?
Make sure there's room for furniture, for traffic flow in and around the deck, and for your desired deck activities.

What's your home's architectural style?
Is your home classic and large? Quaint with character? Sleek and contemporary? Your deck should match the overall aesthetic.

What is the layout of your yard?
How large is it, is there a slope, and are there any landscaping, patio, or pool features to work around?

If you're still unsure about your deck's ideal size and shape, here are some of the most popular choices among Michigan homeowners. One of these may suit your space, or you could draw elements from a few of them to help design your own custom build.



Ground-Level Square

Offering the most simple build and installation process, ground-level square decks are a classic choice. Most range between 10’x10’ to 12’x12’, but you could build bigger if your yard allows for it. You could attach the deck or let it be a standalone island placed wherever you prefer. Plus, the low height makes railing accessories an option rather than a requirement.



Raised Rectangle

12’x16’ raised rectangle decks are extremely common for Michigan homes, especially new builds. They offer a spacious layout, great views, and a traditional shape that complements many home styles. Plus, you can use the space underneath for an additional patio or storage space.



Two-Story

Two-story decks are a great accompaniment to two-story homes. If you’ve been dreaming of a cozy primary bedroom walkout and a large outdoor entertaining space, this could be the perfect match.



L-Shape Wraparound

An L-shape wraparound deck is the perfect way to extend your home’s floor plan. It also provides ample deck space while keeping your backyard open for other activities. It can be raised or ground level.

What Deck Material Should You Use?

Choosing the right deck material is often the most difficult decision homeowners face when planning their new deck. The decision is critical, as it not only impacts the aesthetic of your space but also determines its durability, cost, maintenance requirements, and longevity.

With a myriad of options available, we compare and contrast the three most popular below.



Pressure-Treated Lumber

Pressure-treated lumber has been a popular decking choice for decades due to its affordability and high level of customization. It's typically made from your choice of softwood species that's been chemically treated to resist rot, decay, and insect damage. It's a good choice for those on a tight budget and who are willing to invest time in maintenance.



Composite

Composite decking is a popular alternative to natural wood, offering a blend of durability and low maintenance. Composed of a mixture of wood fibers and recycled plastic, it provides the appearance of wood without extensive upkeep. It's an excellent choice for homeowners seeking a low-maintenance option that balances aesthetics, durability, and long-term value.

Trex

If composite decking is the right choice for you, we recommend Trex® brand. Trex® is the world's largest manufacturer of wood-alternative deck materials and is highly trusted for quality craftsmanship, great warranties, and gorgeous deck accessories. We're one of Michigan's top suppliers of Trex® decking and are happy to help you find the style that suits your home best.

LEARN MORE

PVC

PVC decking is a synthetic option that offers exceptional durability and requires minimal maintenance. Made from 100% PVC (polyvinyl chloride), it's resistant to moisture, mold, and insect damage. While PVC decking tends to be more expensive than wood or composite, its remarkable durability makes it a cost-effective choice in the long run, especially for homeowners who prioritize longevity and minimal upkeep.



Deck Material Selection Comparison Chart

MATERIAL	STYLE & COLOR	MAINTENANCE	COST	LONGEVITY
PRESSURE-TREATED LUMBER	Natural, rustic charm that blends with various architectural styles; can be painted or stained in any color	**HIGH** annual sealing and staining	**$**	**10-15 years**
COMPOSITE	Can mimic natural wood or offer contemporary designs; variety of colors	**LOW** rinse to clean	**$$**	**25-30 years**
PVC	Can mimic natural wood or offer contemporary designs; variety of colors	**LOW** rinse to clean	**$$$**	**25-30 years**

TimberTech®

If PVC decking is the right choice for you, we recommend TimberTech® brand. TimberTech®'s Advanced PVC decking offers a realistic wood appearance with upgraded performance. It's durable, low-maintenance, resistant to fading and staining, and backed by an industry-leading warranty. We're one of Michigan's top suppliers of TimberTech® decking and are happy to help you find the style that suits your home best.

LEARN MORE

How to Calculate the Appropriate Amount of Deck Material

Calculating the amount of deck material you need requires a few measurements and some basic math. Here's a simple, step-by-step guide to help you determine the quantity of materials required:

1 Measure Your Deck Area

Start by sketching the ideal length and width of your deck in feet. Multiply these two measurements to obtain the total square footage of your deck's surface area. For example, if your deck is 20 feet long and 10 feet wide, the total square footage would be 200 square feet.

2 Account for Decking Boards

Determine the width of the decking boards you plan to use. Common widths are typically 6 inches or 8 inches, but this could vary depending on your material choice. Divide the total deck area by the width of the boards to calculate the number of boards needed. Remember to account for any spacing you want between the boards. For instance, if you are using 6-inch wide boards and want a 1/4-inch spacing between each board, divide the deck area by 6.25 inches.

3 Factor in Length

Consider the length of the decking boards you intend to use. Most boards come in lengths of 8, 12, or 16 feet. If your deck length exceeds the standard board lengths, you may need to trim and join boards together. Determine the appropriate combination of lengths to cover the entire deck surface, ensuring you minimize waste.

4 Calculate Support Structure

If you are building a raised deck, you'll need to calculate the number of support joists and beams required. Typically, you'll need one joist for every 16 inches of deck width. Multiply the number of joists by the length of the deck to determine the linear footage needed. Be sure to include any additional framing components like beams and posts.

5 Include Extras

It's advisable to account for a small percentage of extra material to accommodate for any waste, cutting errors, or potential future repairs. Adding around 5-10% to your total material estimate should be sufficient.

To ensure accuracy, consult with your decking supplier or manufacturer. At Northern Building Supply, we can provide specific guidelines, consider any unique features or requirements of the decking material you choose, and offer assistance in calculating the exact quantity of materials needed for your project.

Don’t Forget: Railings!

When planning a new deck build, many homeowners forget about deck accessories — railings and railing posts being the most important. Deck railings serve both practical and aesthetic purposes, providing safety and enhancing the overall look of your deck.

- **Cost:** prices range from $20-150 per linear foot
- **Materials:** wood, metal, composite, vinyl
- **Styles:** Varies — traditional vertical pickets, horizontal cables, glass panels, and more
- **Amount Needed:** divide the total deck length by the maximum spacing between posts

When Railings Are Required

In many jurisdictions, they’re required when the deck is elevated above a certain height, typically 30 inches or higher, to prevent accidental falls. However, even when not mandated, railings are often a recommended addition to ensure the safety of your family and guests.



Ready to Build? Other Good-to-Knows and Don't-Forgets

Once you know the scope of your project and you've gathered your materials, you're ready to build — almost! Before breaking ground, here are a few other good-to-knows and don't-forgets to ensure your new deck is a success.

Don't Forget: Building Permit!

In most cases, building permits are required for deck construction. However, the specific regulations and requirements can vary depending on your location and local building codes. It's crucial to consult your local municipality or building department to determine the exact permit requirements for your area.

Here are a few factors that typically influence whether a building permit is necessary for a deck:

Size and Height

Permits are often required for decks that exceed a certain size or height threshold. The threshold varies by jurisdiction but is commonly set at around 200 square feet or higher and/or decks that are more than 30 inches above ground level.

Structural Modifications

If your deck construction involves significant structural modifications to your home or property, such as attaching the deck to the house or altering the foundation, a permit is usually required.

Zoning and Setback Requirements

Building codes often have specific zoning and setback requirements that dictate the placement of the deck in relation to property lines, other structures, or environmentally sensitive areas. Compliance with these regulations may necessitate a building permit.

Safety Considerations

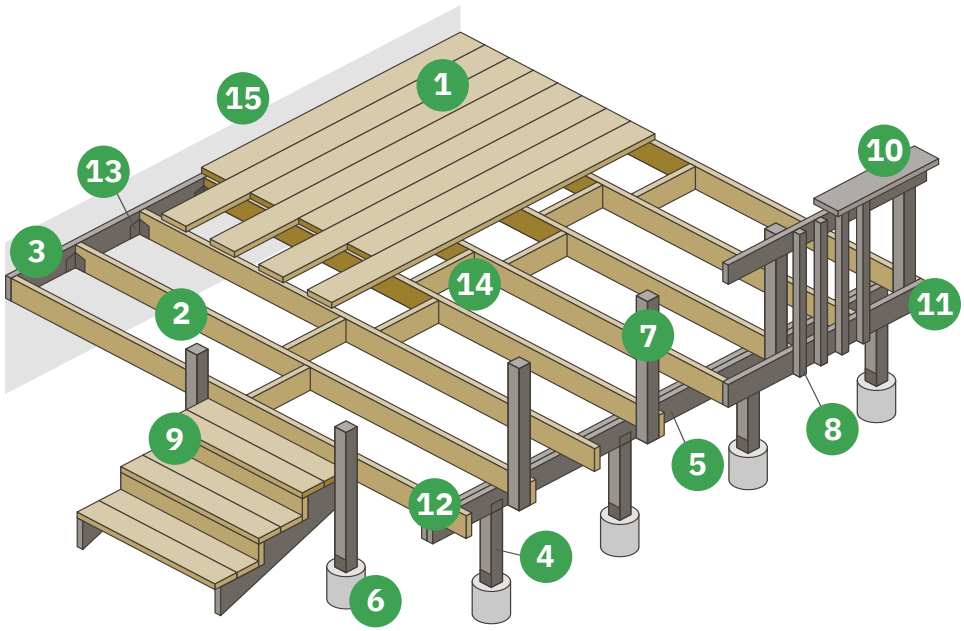
Building permits ensure that the deck is constructed following safety guidelines and structural requirements. This includes factors such as load-bearing capacities, proper railings, stairs, and other safety features.

When required, obtaining a building permit is essential. It helps ensure that your deck is built safely and according to local regulations. Failing to obtain the necessary permits can result in penalties, fines, or even being required to remove or modify the deck.

Deck Components Glossary & Diagram

Whether you're building your deck on your own or hiring a professional, it's important to be informed. This includes the language and terminology of decks and their various components.

Need help? Here's a short diagram and glossary of the most common deck components and terms.



1 DECKING BOARDS The horizontal boards that form the surface of the deck where people walk and place the furniture. They can be made of various materials such as wood, composite, or PVC.

2 JOISTS Horizontal beams that support the decking boards and provide structural integrity to the deck. They are typically made of wood or steel.

3 LEDGER BOARD A horizontal board attached to the house, acting as the main support for one side of the deck. It is securely bolted or attached to the house's framing.

4 POSTS Vertical support columns that hold up the deck and provide stability. They are usually made of wood, metal, or composite materials.

5 BEAMS Horizontal load-bearing components that support the joists and distribute the weight of the deck to the posts. Beams can be made of wood, steel, or composite materials.

6 FOOTINGS Concrete supports that are buried in the ground to anchor the deck's posts. They provide stability and prevent the deck from sinking or shifting.

7 RAILINGS Protective barriers that surround the deck's perimeter and provide safety. They are typically made of wood, metal, composite, or vinyl materials and include posts, balusters, and a top rail.

8 BALUSTERS Vertical or horizontal components that fill the space between the railing posts. They help prevent falls and add aesthetic appeal to the deck.

9 STAIRS Steps that provide access to and from the deck. They consist of treads (horizontal boards) and risers (vertical boards) and may require handrails for safety.

10 TOP RAIL A finishing board that is installed around the perimeter of the deck, covering the exposed ends of the decking boards and providing a polished look.

11 FASCIA BOARD Optional vertical panels installed around the base of the deck to conceal the underside and create a finished appearance.

12 FRAMING The underlying structure of the deck, including joists, beams, and posts.

13 FASTENERS Hardware used to secure various components together, such as screws, nails, and hangers.

14 SPACING The distance between decking boards, balusters, or other components.

15 CODE COMPLIANCE Adherence to local building regulations and safety standards.

DIYing It? Other Tools You'll Need

If you're going the DIY route, you'll need more tools than just the materials themselves. While there are many tools that can be used for deck projects, here are the basics:

Measuring & Leveling Tools

- [ ] Tape measure
- [ ] Carpenter square
- [ ] String line or level
- [ ] Deck spacing tool

Cutting Tools

- [ ] Miter saw
- [ ] Jigsaw

Fastening Tools

- [ ] Fasteners
- [ ] Hammer
- [ ] Drill

If you don't own one or more of these items, you can find them at your local hardware store.

Need Help With Your Deck Project? Talk to Our Deck Design Professionals

Northern Building Supply
A Division of U.S. LBM

At Northern Building Supply, our building material and design experts are here to make your dream deck a reality. We'll help with size and shape scoping, material selection, ordering from top manufacturers like Trex®, and other design recommendations. Get in touch with our team for more information and building material guides.

Suttons Bay: (231) 271-0010

Traverse City: (231) 947-1400

northernbuildingsupply.com