



— THE BOOK ON —

ESTIMATING REHAB COSTS

*The Investor's Guide to Defining Your Renovation
Plan, Building Your Budget, and Knowing Exactly
How Much It All Costs*



J SCOTT

R E V I S E D E D I T I O N

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REVISED EDITION

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The Book on Estimating Rehab Costs, Second Edition

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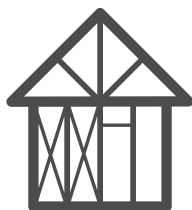
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WELCOME TO THE SECOND EDITION

It's been nearly six years since the original edition of this book was published, and for anyone who has been active in the real estate industry during that time, it shouldn't surprise you that there have been some drastic changes.

When I wrote the first edition back in 2012, we were in the very early stages of recovering from the Great Recession and the 2008 housing crash. Prices of both renovations and real estate itself had bottomed out, and we were starting an upswing in most markets. But there was no way I could have predicted that just a few short years later, we'd be riding a housing wave that is surpassing what we saw back in 2005 and 2006.

In many aspects of the economy, the recovery has been slow and methodical; but in real estate, the upswing has been sharp and dramatic. According to the Bureau of Labor Statistics, the number of construction workers in the U.S. increased nearly 50 percent between 2011 and 2016—and this doesn't account for unlicensed contractors and the small, independent workers many investors are accustomed to working with.

Given these changes in the industry, I felt it was time for an update to this book. If you're familiar with the first edition, you're likely to notice the following industry-wide changes reflected in the second edition:

- **Labor prices have increased considerably, especially in the areas of carpentry and other skilled trades.** The biggest shift in the real

estate industry since the Great Recession has been in the labor market. After the 2008 downturn, the vast majority of contractors had gone out of business or left the industry, and the handful of remaining professional contractors were struggling for work. This led to artificially low prices for renovation work. In the past ten years, the labor market has rebounded, and prices have increased to higher than pre-recession levels. In many areas, labor prices have increased 50 percent or more since 2013, especially with skilled and artisan contractors.

- **Material prices have increased for non-commodity items.** While not as drastic as labor price increases, materials prices in some areas and for some specific types of materials have increased dramatically over the past decade. Due to inflation, increased demand, and external factors such as international trade negotiations, the cost of most non-commodity materials has increased, and the cost of some materials including steel, lumber, and paint has increased considerably. Luckily, the cost of many commodities including fasteners and fixtures has increased very little, if at all.
- **Price ranges around the country are now more consistent, with smaller ranges.** After the 2008 recession, there was a good bit of discrepancy between renovation pricing in areas that stood up well to the housing crash and areas that got hit hard by the crash. It wasn't uncommon for renovation tasks to be several times more expensive in one area compared with another. But with the current revitalization in housing, prices across the country have started to converge a bit more. For reasons we'll discuss later in the book, you'll still find that contractor prices in some places—California and New York City, for example—are several times higher than most of the rest of the country, but for about 90 percent of the markets in the U.S., prices are now more consistent than they used to be.
- **Smaller jobs and lower-cost tasks have increased in price more quickly than larger jobs and higher-end tasks.** Contractors are no longer desperate for work, and in many cases, contractors have so much work that they can pick and choose what jobs they want to take. It should come as no surprise that, given a choice, contractors will choose larger and more expensive jobs over smaller and less expensive ones. It takes about the same amount of marketing and sales time to acquire a small job as a large one, so focusing on the larger jobs makes basic economic sense. For homeowners and investors, this means that finding

contractors for smaller and lower-cost jobs is both more difficult and more expensive than it used to be.

My goal with this second edition is twofold:

1. **Update the prices and price ranges for each of the renovation components in the book.** To do this, I surveyed dozens of active and successful investors from around the country, not only to get an accurate assessment of their labor and material prices, but also to get an idea of what types of contractors they're using and how they are completing their renovations.
2. **Provide additional tips to help with the inspection of the various renovation components.** One of surprise takeaways from the feedback I received on the first edition was that many readers found the book to be a great introduction not only to creating a scope of work and a renovation budget—the intended goals of the book—but also a primer on how to do inspections with the goal of understanding which components needed to be repaired and which were in working condition. In the second edition, I have attempted to provide even more detail around how to inspect many of the components we discuss, hopefully making your job as an investor even easier.

I hope you find the updates to this book valuable, and I wish you good luck on your first—or next—renovation!



SECTION 1

INTRODUCTION

For ten years, I've been writing about my adventures of rehabbing houses on my blog, 123Flip.com. In that time, I've received thousands of comments, messages, emails, and phone calls from new and experienced investors—not just rehabbers but landlords, wholesalers, and commercial investors as well.

While I get lots of questions regarding every aspect of investing, a common theme of those messages and discussions has been the difficulty real estate investors have with figuring out what rehab tasks to undertake and then estimating the costs of completing those renovations.

And I can relate! When I first started rehabbing houses, I had absolutely no real estate or construction experience. I could barely change a light bulb. I remember walking into my first potential rehab projects, looking around and thinking to myself, “Where do I start? What am I looking for? What questions should I be asking? How much is this going to cost me?”

After spending several years putting together and putting into practice my methodology for analyzing rehab projects, I've decided to document the process I use so that I can help other investors who I know are in the same situation I was in several years ago.

How to Use this Book

If you're like me, you probably want to skim over this introductory section and jump right into the meat of the text. That's what I'd probably do. But I'm going to ask that you take a few minutes to read this section in full, as it may make the difference between your being enlightened by the rest of the book or frustrated by it.

I want to start with a few tips on how to use this book. In fact, these are more than just tips; these are also important disclaimers about what this book can and can't do for you. Here they are:

- Many of you are likely reading this book to learn how to accurately estimate the cost of renovations for your rehab projects. In fact, many of you noticed the title of the book and have already thought to yourself, "I'll skim the part about creating a scope of work (SOW) and jump right to the good stuff—the estimation process!" That would be a mistake. As you'll quickly learn in this business, your SOW and your budget are inescapably intertwined, and without learning the gory details of creating a SOW, you'll never get proficient at learning to estimate rehab costs.
- This book will provide a framework for thinking about the tasks associated with renovation projects and the range of costs associated with each of those tasks. While I provide over 100 of the most common renovation tasks, some of you may be in a situation where you think to yourself, "You didn't touch on half the things I need to do in my rehabs!" You may be correct. In certain parts of the country and with certain types of houses, there are going to be renovation tasks applying to a small handful of investors that don't apply to the broader demographic. Unfortunately, even if I knew all the nuances of rehabbing in every location and every type of house, I couldn't fit all that information into one book. Instead, my goal here is to give you a *framework* for thinking about your renovation tasks so that you can ask the appropriate questions of your contractors and other investors with whom you network.

Additionally, while I will provide cost ranges for the most common renovation tasks, these ranges may not be accurate for all rehabbers, for all properties, for all locations and for all situations. In fact, you may look at the cost lists and think to yourself, "Everything in my area is more expensive than that!" Or you may think to yourself, "I can do all those things for half the cost you indicate!" And you may be absolutely correct. What I've found is that while material prices

aren't too drastically different around the country if you shop around for suppliers, and labor prices are surprisingly consistent (within 25 percent to 35 percent) throughout much of the United States, there are many exceptions.

For example, material prices will be much higher in parts of the country where there are impediments to delivery and high tariffs or taxes. And while labor prices tend to be relatively consistent (again, within a range of about 25 percent to 35 percent) for much of the country, there are some areas where prices could be twice the high end of my ranges. For example, in parts of California, New York, New Jersey, and other high-cost-of-living locations, you may find that labor prices are outside the boundaries I lay out in this book. This is also true for areas that are heavily union controlled, though union members will tend to do side work at pretty good prices. As such, learn my methodology, but in some cases, take my numbers with a grain of salt.

- Your goal while reading this book is to get an understanding of the methodology I use to create a SOW and estimate rehab costs. After reading this book, your homework will be to determine what other tasks are common in your area and with your type of rehabs, and also to determine the actual labor and material prices for each of these tasks based on all the factors specific to you and your business. In each section, I will give you pointers on how to find local prices, as well as how you should be paying for the work when the time comes to actually hire contractors.

Remember, no matter what anyone might tell you or try to sell you, there is no magic formula for being able to determine what you should renovate on a particular house or how much the renovation will cost. Learning how to put together a realistic SOW and create an accurate budget takes preparation, practice, and experience. There are no shortcuts. As I mention above, I probably can't give you all the answers you seek, but I can tell you what questions you need to ask, to whom you need to direct these questions, and what to do with the information you receive.

If you use this book as intended, and if you put in the time and effort to learn the entire process of generating a SOW, research your local prices, and then generate your rehab estimates based on a detailed SOW, you'll find that you have a huge advantage over the majority of rehabbers out

there. In my experience, very few rehabbers—including many of the “professionals”—have a detailed methodology for planning their renovation projects and estimating their renovation costs. For that reason, these unprepared rehabbers consistently find themselves over budget on projects and making smaller profits than they had projected... and sometimes they don’t make any profit at all!

With those disclaimers out of the way, let’s jump into it!

Factors that Impact Rehab Costs

I mentioned earlier that I can’t give you all the answers within these pages, especially when it comes to the cost of your rehabs. The reason for this is simple: The cost of your renovations is going to differ greatly from the cost of my renovations and the cost of everyone else’s renovations. Even if you, I, and ten other investors were to purchase the exact same house, our costs would likely be very different.

Here are just a few things that will impact the cost of a particular renovation:

- **Location:** Renovations cost different amounts in different locations. Both material and labor prices are going to vary based on where you do your projects. I do projects in multiple cities, and in each city, my prices are different. Granite in Atlanta, Georgia, costs me \$28 per square foot; the same granite in Milwaukee, Wisconsin, costs me \$38 per square foot. The cost of an electrician in Los Angeles, California, is likely to be up to 30 percent higher than an equally skilled electrician in Austin, Texas. Where you do your projects will have the largest impact on the price you pay for your labor and materials.
- **Contractors:** Different contractors will charge different prices. This may have to do with their level of skill, their level of self-worth, how busy they are, or any number of other reasons. The fact is, unless you’re using the same contractors I am, your prices will be different than mine. In fact, even if you use the exact same contractors I use, your prices are likely to be different than mine. If your painter is an artisan, you’re likely to pay more than if he were an unskilled worker advertising on Craigslist. Do your contractors carry licenses and insurances? If so, they’re likely to be much more expensive than if they don’t. Not to mention the fact that your negotiating skills could mean a significant difference in what you pay the exact same contractor.

- **Level of Finish:** Are you putting in \$1.50 per square foot vinyl flooring in your kitchens or \$6.00 per square foot solid oak hardwoods? Are you using \$40 showerheads from Home Depot, or \$300 multi-jet shower massagers? Will you be letting your buyers provide their own appliances, or will you be outfitting your custom kitchen with \$15,000 in upgraded stainless steel appliances? The level at which you finish your property can make a *huge* difference in the cost of your renovation, both in terms of labor and materials.
- **Specifics of the House:** As you can probably imagine, a 100-year-old Victorian in an historic neighborhood is not going to cost the same to renovate as a 15-year-old stick-built cookie-cutter in a typical suburban neighborhood. Not only are the levels of finishes different, but you're likely to run into local preservation requirements, the need for artisan contractors who know how to maintain the original style of the house, or various upgrades in electrical and plumbing based on new building codes. The various types of houses and the specific houses you work on will have a large impact on the costs you pay for your renovation. Even the fact that you may be working on an historic property will encourage contractors and vendors to hike up their prices, as they probably assume you're wealthy and have no problem spending big bucks on your renovations.
- **Time of Year:** If you want to get great labor prices, hire some carpenters in upstate New York in the dead of winter. With nobody starting renovation projects in two feet of snow, these guys are desperate for work and would rather get paid minimum wage than not get paid anything at all. Of course, try to hire an HVAC contractor at the same time and place, and you're likely to be paying an arm and a leg. With residential furnaces working overtime, and people at risk of dying if their furnace breaks, HVAC contractors can make a great living during the cold winter months. Depending on what contractors you need to hire and what time of the year you need them, your labor prices are likely to have some wild swings.
- **Building Codes:** Building codes will vary by area, often due to differences in climate, severe weather risks, soil types, geologic threats, and a host of other circumstances that require buildings to be constructed in a way that is both safe and comfortable for occupants. If you live in an area with conditions such as exceptionally hot or cold temperatures, an increased risk for tornados or earthquakes, or has suboptimal soil

conditions, you'll likely find that the building codes in your area are more stringent than in many other areas of the country. These stringent building codes will often translate to higher building and repair costs, meaning you'll spend more on your rehabs than your counterparts in other areas.

While these are some of the big ones, there are many other factors that will affect the prices you pay for your renovations. With that in mind, you can see why it would be impossible for me to tell you how much you should be paying for any particular renovation task. What I can do is provide you a methodology for determining how much *you* will pay for *your* renovation projects given all the items above that are going to be specific to you alone.

Keep reading, and you'll see what I mean!

Methods of Estimation

There are many ways to estimate renovation costs. Some are easier than others, while some are more accurate than others. In fact, there is a direct correlation between simplicity and accuracy when it comes to estimating rehab costs. Here are a few of the common estimation techniques I've seen rehabbers use for their projects:

Estimating by Square Footage

Many rehabbers will estimate their renovation costs based on the size of the property. They'll come up with a per-square-foot renovation price, multiply that by the size of the house, and use the result as their estimate. This method can actually work pretty well *if* (and that's a big "if") the rehabber has a lot of experience doing that specific level of renovation on that specific type of house.

For example, I know that if I do a basic interior cosmetic renovation (such as painting, replacing carpet, changing out light fixtures and plumbing fixtures, installing new cabinetry and appliances) on one of my typical houses (3-bedroom, 2-bathroom, 2-story traditional style, built after 1990) in the suburbs of Atlanta, Georgia, with my crew of contractors, it will cost about \$16 per square foot. In other words, if I were to do this type of renovation on a 1,500-square-foot house in my area, I would expect to pay about \$24,000.

That number would be surprisingly accurate for me, as I've done so many similar projects that I know what my average costs are per square foot. Unfortunately, if I changed any of the variables (level of rehab, type of house, location, set of contractors), everything would change, and I'd have no idea what the per-square-foot price of the renovation would be. And if you were to call me and give me all the details of your project, asking what I would recommend in terms of per-square-foot pricing (I get this type of call all the time), I wouldn't be able to help you, as I wouldn't have nearly enough information.

Because of that, for new investors this type of estimation technique is unreliable, and I don't recommend for them.

Estimating by Room Costs

The next most common estimation technique I hear new investors discussing is per-room renovation costs. For example, an investor might ask me, "I'm renovating a house and it needs the kitchen and the master bathroom totally gutted. How much should the kitchen and one bathroom cost me?"

If you've read everything I've written in the first few pages of this book, you know by now that there's absolutely no way I can offer any insight into the cost of redoing a room without much more information. Personally, I've rehabbed houses where I've completely redone the kitchen for \$5,000 and I've done other houses where the same type of renovation cost over \$25,000! The houses were different, the location was different, the finishes were different, and the contractors were different.

Again, for new investors—and even for experienced investors—I wouldn't recommend this estimation technique. There are too many variables to be able to accurately assign a cost to renovating a specific room in an unknown house.

Breakdown Estimation

The third renovation estimation technique I see used is what I call *breakdown estimation*. This is the method I use and what most experienced rehabbers I know use. It involves walking the property and determining line item by line item, in gory detail, what needs to be renovated, and then assigning a cost to each line item on your list.

This methodology takes the longest to learn and requires the most work, but it provides the most accurate estimates, by far. And the nice

thing about this technique is that it can be streamlined without losing accuracy. Once you master this estimating technique, you'll be able to walk through a potential house and in ten minutes be able to come up with a cost estimate that should be within 5 percent of what you will actually pay for the renovation.

I use this methodology for my rehab estimations and this is the methodology I will present in detail throughout the rest of this book.



SECTION 2

THE FRAMEWORK

Every successful rehabber will have his or her own framework for evaluating the scope of a potential deal and estimating renovation costs. In this chapter, I'll present the framework I use; in the following chapters, I'll go into detail on each part of the framework and how you can use this framework to evaluate the scope and estimate the rehab costs for your potential deals.

The 25 Renovation Components

Our framework involves breaking up the property into each of its primary functional components and then evaluating each of those components individually and in detail. The framework breaks up the exterior of the property into ten major components, breaks up the interior of the property into 11 major components, and then evaluates four other general components that are a combination of interior and exterior pieces.

Within each of these major components are many tasks and sub-tasks that address the various renovation items that might need to be performed on each component as part of a comprehensive property renovation. Each of these tasks and sub-tasks will make up the scope of work for the renovation, and the cost estimate of each task and sub-task will contribute to the overall cost estimation for the property. This is framework I will use throughout the rest of this book.

While I can't include every renovation task you'll ever encounter here (there are too many of those for a book even ten times this size), I will include the most common tasks you will run into on typical single-family renovations.

If you're confused, keep reading. I promise it will all become clear. Now let's get started!

First, here are the 25 major property components we will consider as part of our evaluation and cost estimation:

EXTERIOR COMPONENTS	INTERIOR COMPONENTS	GENERAL COMPONENTS
1. ROOF	11. DEMO	22. PERMITS
2. GUTTERS/SOFFIT/FASCIA	12. PLUMBING	23. MOLD
3. SIDING	13. ELECTRICAL	24. TERMITES
4. EXTERIOR PAINTING	14. HVAC	25. MISCELLANEOUS
5. DECKS/PORCHES	15. FRAMING	
6. CONCRETE	16. INSULATION	
7. GARAGE	17. SHEETROCK	
8. LANDSCAPING	18. CARPENTRY	
9. SEPTIC SYSTEM	19. INTERIOR PAINTING	
10. FOUNDATION	20. CABINETS/COUNTERTOPS	
	21. FLOORING	

Format of Discussion

When evaluating scope and estimating costs, I suggest that you consider each of these components one by one; once you have completed the evaluation for each of the 25 components, you should find yourself with a detailed SOW for the project, which can then be used to generate your renovation budget estimate.

The rest of this book will be used to detail each of these 25 major components, including basic inspection techniques, how to determine SOW tasks, and how to determine the cost of implementing each of those SOW tasks.

Here is the format I'll use to detail each of the 25 components:

Overview

This section will overview the component, including how it works, what you should be looking for to determine what renovations might be required, and providing some general tips and tricks for how to optimize your renovation of this component, if necessary.

Inspection Tips

This section will provide some tips and tricks to help you determine the condition of the component and whether renovation work might be recommended or required.

Life Expectancy

This section will overview the life expectancy of the component, including any nuances that will factor into the life expectancy.

Scope of Work (SOW) Tasks

In this section, I'll detail the potential SOW tasks you should consider for the particular component being discussed. You can cut and paste the tasks that are required for your property into your master SOW to complete your scope of work.

While I will attempt to be comprehensive in the list of potential tasks, keep in mind that there may be some SOW tasks that are unique to your area, your type of property, or your situation. I will cover all the most common and most typical SOW tasks for each component, but I would highly recommend that if you have any doubts as to whether other work is required, you bring in a professional to evaluate further.

TASK 1	Detailed overview of Task 1 to help you determine if this task should be added to your SOW.
TASK 2	Detailed overview of Task 2 to help you determine if this task should be added to your SOW.

Cost Guidelines

In this section, I'll detail the factors that contribute to the cost of the component, and I will discuss the cost of implementing each of the individual tasks, broken down by labor and materials, when appropriate. As I mentioned earlier in this text, the cost of each task will vary based on

a number of factors, but I'll provide a rough range of prices that should be accurate for most properties in most locations around the country.

In the final section of this book, I'll provide a cost spreadsheet listing each of the tasks for each of the major components. I would encourage you to work with local contractors to determine what your local prices will be. Once you have firm prices from your local contractors for each of these tasks, building a detailed renovation budget for any SOW you create should be simple and straightforward.

TASK 1	\$MIN - \$MAX expected cost for Task 1 Other factors that might affect the price of this task or that you should be familiar with when getting contractor bids.
TASK 2	\$MIN - \$MAX expected cost for Task 2 Other factors that might affect the price of this task or that you should be familiar with when getting contractor bids.

Determining Your Local Prices

In this section, I'll recommend what contractors you'll want to speak with in your local area in order to get specific pricing for your jobs, and how to approach those contractors.

How to Pay for the Job

Lastly, in this section, I'll discuss how you should expect to pay for work on this component, including what is standard in terms of upfront payments and payment schedules.

A Word About Cost Estimates

For each and every task, I'll provide a pricing estimate in the form of a price range. While I have done my best to ensure that this price range is accurate for the bulk of the locations, property types, and typical renovations done around the United States, the price ranges I provide will never be accurate in every location and for every situation.

Here's a bit more detail about how I determined these price ranges