



SMALL BUSINESS ACCOUNTING & TAX SERIES · VOLUME 5

Accounting for Contractors & Home Services

*The Complete Step-by-Step Guide to Job Costing, Progress Billing, and
Profitable Projects*

Rafael Rodriguez, Jr., MBA

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Triumph Business and Tax Solutions LLC

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Volume 5 of the Small Business Accounting & Tax Series

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The companies and individuals in this book's examples are composites created for teaching. Their figures are internally consistent illustrations, not the records of any actual business.

First Edition · October 2026

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Preface: Why Good Builders Lose Money on Paper

Marcus Delgado can walk a roof and tell you, within minutes, how many layers are on it, where the flashing is failing, and whether the decking underneath will hold. He came up as a roofer. He still walks every roof before a bid is final, because he knows what a missed detail on that walk costs later. Dana Whitfield can do the same thing under a house or beside an air handler. She is a master plumber who still runs service calls two days a week. She can hear a system that is short-cycling before the gauges confirm it, and she can tell a homeowner in plain language what failed, what it will cost to fix, and how long the fix will last.

Neither of them is careless. Neither of them is new to business. And for years, both of them were running their companies without knowing which jobs made money and which jobs lost it.

That is the observation that brought me to write this book. In my practice at Triumph Business and Tax Solutions LLC, I meet skilled tradespeople — general contractors, roofers, remodelers, plumbers, electricians, HVAC owners, landscapers — who are excellent at the work and blind on the numbers that describe the work. They know their bank balance. They know whether the month felt busy. They know whether the phones rang. What they do not know, job by job, is whether the price they charged covered the materials, the labor, the full cost of that labor, the subcontractors, the equipment, and the permits that the job actually consumed. By the time the tax return is prepared, the answer arrives as a single number for the whole year, long after every decision that produced it has been made.

A good builder can lose money on paper in two different ways, and both of them matter. The first way is real: the job was underpriced, or it overran, and the loss is genuine. The second way is a failure of the records themselves. The job may have been profitable, but the books recorded its costs in one month and its billings in another, buried its labor burden in overhead, or counted a customer deposit as income. The owner cannot tell a good job from a bad one, so the next bid repeats the last mistake. In contracting, those two failures look identical from the outside. This book exists to separate them.

Contractor accounting is not storefront accounting with different account names. A retailer buys inventory, marks it up, and sells it across a counter in a single transaction. A contractor sells work that has not been done yet, performs it over weeks or months, buys materials before the first dollar is collected, pays crews while the work is in progress, bills in stages, and then waits — sometimes long after the work is complete — for a final portion of the contract price that the customer holds back as retainage. Every part of that sequence creates an accounting problem that a general small-business book can introduce but cannot solve. Solving those problems, in order, is the work of this volume.

Where This Book Fits in the Series

This is Volume 5 of the Small Business Accounting & Tax Series. If you have read the earlier volumes, you will recognize the approach: principle first, then practice — how a transaction is

recorded, what report shows it, and what decision it should drive. If this is your first volume in the series, you do not need to stop and read the others first. Each volume stands on its own. What follows is a brief account of what each earlier volume covers, so you know where to turn when this book points you to a foundation it does not rebuild.

Volume 1, *Accounting for Beginners*, teaches the mechanics. It covers the accounting equation, debits and credits, the journal and the ledger, and the theory behind the chart of accounts — what an account is, why the books are organized the way they are, and how a transaction moves from a source document to a financial statement. When this book asks you to record retainage receivable as its own asset, or to keep customer deposits in a liability account until the work is earned, Volume 1 is where the underlying mechanics were built. I will not re-teach them here. I will use them.

Volume 2, *Small Business Taxes*, covers tax obligations: how different entities are taxed, what must be filed and when, estimated taxes, payroll taxes, and the deductions and records the Internal Revenue Service expects a small business to keep. Contractors face specific tax questions — which method of accounting they may or must use for long-term contracts, how retainage is treated, and how state rules treat construction work — and this book addresses those questions at the level of principle. The full tax framework, and the filing discipline that supports it, lives in Volume 2 and in the advice of your own CPA.

Volume 3, *Accounting for Business Owners*, moves from recording to deciding. It teaches ratios, the reading of financial statements as an owner rather than as a preparer, and the monthly review ritual — the habit of sitting down with the profit and loss statement, the balance sheet, and the cash flow statement on a schedule and asking what changed and why. That ritual matters even more for a contractor, because the statements alone are not enough. This book adds the report Volume 3 could not: the work-in-progress schedule, reviewed alongside the statements every month.

Volume 4, *QuickBooks Online*, covers the software workflows — setting up a company file, banking, invoicing, bill payment, payroll connections, and reporting inside QuickBooks Online. This book is taught principle-first. Where software matters, I name the capability generically — your accounting system's projects or jobs module, its progress invoicing, its class or cost-code tracking — because the principle is the same in any competent system, and a system configured without the principle will produce precise, well-formatted, wrong numbers. Configure the software after you understand what it must count.

Volume 5, this book, applies all of it to one industry: contracting and home services. Job costing. Progress billing and retainage. Change orders. The work-in-progress schedule and percentage-of-completion. Subcontractor compliance, crew payroll and labor burden, and the cash cycle that determines whether a profitable company can make payroll on Friday.

Who This Book Is For

This book is for owners of construction and home-services businesses: general contractors, roofers, remodelers, plumbing, HVAC, and electrical contractors, and landscaping and other trade businesses that sell jobs rather than hours across a counter. It is for the owner who estimates and also runs crews, the owner who has an office manager or bookkeeper — like Denise Alvarez at

Delgado Roofing & Construction — and wants to give that person a system worth keeping, and the owner who does the books at night and suspects the books are not telling the truth.

You do not need an accounting background. You need jobs you want to understand. If your business takes a deposit, buys materials for a specific job, sends crews to a site, bills a customer more than once for the same contract, or waits to be paid after the work is done, the chapters that follow were written for your records. The examples use two companies throughout — a roofing and general contracting company and a plumbing and HVAC service company — because contracting runs on two clocks at once: the long clock of a project that lasts months, and the short clock of a service call that lasts hours. Both clocks need the same discipline.

If you are Sarah Mitchell with a bakery or James Carter with a design practice, the earlier volumes remain your home ground — Sarah's bakery sells over a counter and James sells his own professional time, and neither of them holds retainage or bills against a schedule of values. Marcus sells a roof he will not finish for two months. That difference is this book.

Meet Marcus and Dana

You will work alongside two owners in these chapters. Their numbers are used consistently from chapter to chapter, and every worked example ties to them, so that you can follow a single job from estimate to final payment without the figures changing underneath you.

Marcus Delgado owns Delgado Roofing & Construction LLC in Fort Myers, Florida, an LLC taxed as an S corporation. He leads a company of seventeen people in total: fourteen field employees — two roofing crews of six and five, and one repair crew of three — plus Tony Ruiz, his estimator and project manager, and Denise Alvarez, his office manager and bookkeeper. In his most recent full year, the company recorded revenue of \$1,850,000, job costs of \$1,396,750, and gross profit of \$453,250, which is 24.5 percent of revenue. After overhead of \$358,250, net income was \$95,000, or 5.1 percent. Those are respectable headline numbers. They are also, by themselves, almost useless for running the company, because they describe the year as a whole and say nothing about which of the dozens of jobs inside that year carried the profit and which ones consumed it. The central job in this book, the Harbor Pointe condominium re-roof, will show you how a single contract priced at \$148,500 can look healthy in the bank account in Month 1 and still finish with its margin faded — and how a job cost report catches that fade while there is still time to act.

Dana Whitfield owns Whitfield Plumbing & Air LLC in Jacksonville, Florida. She leads six technicians — four HVAC and two plumbing — plus Priya Nair, her dispatcher and customer service representative, and a fleet of five service vans. In her most recent full year, the company recorded revenue of \$965,000, direct costs of \$697,940, and gross profit of \$267,060, which is 27.7 percent of revenue. After overhead of \$177,060, net income was \$90,000, or 9.3 percent. Dana's company earns more of every revenue dollar than Marcus's does, and her jobs are measured in hours rather than months. Her problem was the opposite of inactivity: the vans were busy, the flat-rate price book produced invoices customers accepted, and the volume hid the truth about individual calls. When every service call is treated as a job — with burden on every hour and parts charged to the call that used them — some of those busy days turn out to have been unprofitable all along. The Callahan residence change-out, a one-day job priced at \$12,500 that

cost \$7,000 and earned a gross profit of \$5,500 at a 44.0 percent margin, will show you what disciplined service job costing looks like when it works.

Marcus's arc in this book is the move from a spreadsheet and a bank balance to a system: a contractor chart of accounts, cost codes, progress billing discipline, and a monthly work-in-progress review. Dana's arc is the same system at service scale: every call a job, every hour burdened, and maintenance agreements recorded as deferred revenue — money owed in future service — instead of cash in the drawer. If you run projects, follow Marcus closely. If you run calls, follow Dana. Most trade businesses do some of both, and the system serves both.

How to Use This Book

Read it in order the first time. The parts build: Part One establishes the foundation — why contractor accounting is different, the cash and accrual methods, the chart of accounts, and entity and licensing records. Part Two builds job costing. Part Three covers billing and getting paid. Part Four introduces the work-in-progress schedule. Part Five addresses subcontractors, payroll, and compliance. Part Six closes with cash flow and choosing work. Later, use the appendices — sample chart of accounts, worksheet templates, and glossary — as a reference.

Do the "Your Turn" steps at the end of each chapter. They are not review questions. Each one asks you to produce an artifact for your own company — a list, a schedule, a rate, a file — that the next chapter will assume you have. A reader who finishes this book with those artifacts in hand does not merely understand contractor accounting. That reader has the system installed.

One discipline runs through every chapter. This book is general education. It is not financial, tax, or legal advice for your company, and it is not a substitute for your CPA, your attorney, or your licensing board. Tax treatment of construction contracts, lien rights and deadlines, licensing and bonding requirements, and retainage rules vary by state — in some respects they vary by contract and by project type within a state. Where a chapter touches those subjects, it teaches the paperwork discipline and the accounting principle, and directs you to verify the rule that applies in your state and to your contract before you act. Keep that habit and this book will serve you well. The builders who lose money on paper are rarely the ones who cannot do the work. They are the ones whose records never gave them the chance to see the work clearly. Let us fix the records.

— *Rafael Rodriguez, Jr., MBA*

PART ONE

The Contractor's Financial Foundation

Chapter 1: Why Contractor Accounting Is Different

For years, Marcus Delgado ended each month the same way. He opened his business checking account, looked at the balance, and rendered a verdict on the month. Balance up: good month. Balance down: bad month, tighten up. The spreadsheet Denise Alvarez kept for him supported the same verdict. Money in, money out, a column for materials and a column for payroll, and a running total that always agreed with the bank — because it was built from the bank. It reconciled perfectly. It also told him almost nothing he needed to know.

In one memorable stretch, the balance climbed for three straight months while the company was, in truth, working its way into trouble. A large deposit had arrived from a condominium association. Two progress payments had landed in the same week. Materials for a job that had not started yet sat in the yard, paid for and counted nowhere in particular. The bank balance said the company was flush. What the balance did not say was that one of those jobs had been priced on a single tear-off layer and the roof had two, that a crew's hours were running well past the estimate, or that ten percent of every billing on the largest job would not arrive until forty-five days after final acceptance. Marcus found out about all of it the way contractors usually do: late, and all at once.

Dana Whitfield had the mirror-image problem. Her vans were busy. At Whitfield Plumbing & Air, the schedule board was full, the phones rang, and revenue grew to \$965,000 in her most recent full year. Busy, however, is an operating fact, not a financial one. Her net income was \$90,000, which is 9.3 percent of revenue — a sound result, but one that averaged together excellent calls and poor ones into a single number. A flat-rate price book told her what to charge. Nothing told her, call by call, what the charge had to cover after technician wages, the 28 percent burden on those wages, parts, fuel, and vehicle costs were charged to the job that actually used them. Busy vans, thin visibility. Two different companies, two different clocks, the same underlying problem: in contracting, the ordinary signals of small-business health arrive at the wrong time, in the wrong totals, to support the decisions an owner must make.

This chapter explains why. We will compare project economics to storefront economics, follow the sequence in which a contractor sells, performs, bills, and collects, and name the five numbers you must know for every job. Later chapters build the system that produces those numbers. This chapter's task is to convince you that you need it.

The Storefront Sells What It Has. You Sell What You Will Do.

Consider the simplest business in this series. A bakery buys flour, butter, and labor, produces goods in the morning, and sells them across the counter the same day. The sale and the cost belong to the same day, often to the same hour. If the owner wants to know whether a product makes money, the arithmetic is close at hand: the price on the case against the ingredients and labor that produced the item. Inventory that does not sell is visible — it is sitting there, unsold, at closing time. The gap between doing the work and learning its result is short.

A service professional who sells personal time is closer to that model than a contractor is. The work is performed, the invoice is issued, and the costs are mostly the professional's own hours. There is no yard full of materials bought for a job that starts next month, no crew whose payroll falls due every Friday whether or not the customer has paid, and no portion of the fee that the client holds back until long after the work is accepted.

Your business reverses the storefront sequence. You sell first and produce later. A signed contract is a promise to perform work you have not done yet, at a price you fixed before you knew with certainty what the work would cost. Then you produce: you order materials, schedule crews or technicians, pull permits, and incur costs day after day. Billing follows its own schedule, set by the contract — a deposit, progress draws tied to completion or to a schedule of values, and a final billing. Collection follows billing, with its own delays. Retainage, where the contract provides for it, follows completion and acceptance, sometimes by weeks or months.

That reversal changes what accounting must do for you. In a storefront, accounting mostly records a past that is already complete. In contracting, accounting must track a present that is still unfolding: costs incurred so far against an estimate made before the work began, revenue earned so far against a contract price not yet fully billed, and billings issued so far against revenue earned. Three different totals — cost, earned revenue, and billings — move at three different speeds on the same job. A system that records only cash cannot hold all three, and an owner who watches only one of them will misjudge the job.

Harbor Pointe: a \$148,500 roof, followed from signature to retainage release

The Life of a Job's Money

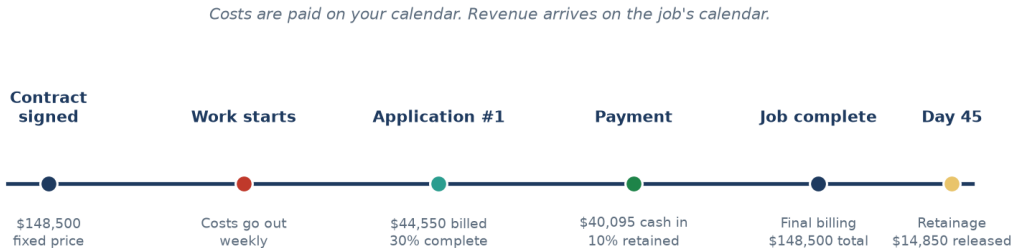


Figure 1.1: A contractor's money moves on the job's calendar, not the month's — deposit, draws, retainage, and final payment.

Read the figure as the biography of a single contract. At signing, there may be a deposit — cash in hand for work not yet performed, which is a liability, not income, because you owe the customer the work. During performance, costs arrive continuously while billings arrive in steps. At substantial completion, a final billing goes out, but retainage stays behind, held by the owner or general contractor as assurance that punch-list items and paperwork will be completed. Only at final acceptance, with lien releases and closeout documents delivered, does the last dollar move. A job can be finished, in the operational sense, for a month and a half before it is finished in the

financial sense. Your books must be able to describe a job at every point on that line, not only at its ends.

Costs Arrive Before, During, and After Revenue

The second difference is the timing of costs. On a contracting job, costs arrive in three waves, and only one of them coincides with the work being billed.

Costs arrive *before* revenue. Permits are paid before the first shingle is removed. Materials are ordered, delivered, and frequently paid for before the application for payment that includes them has been approved. On the Harbor Pointe re-roof — the job we will follow through this book, a fixed-price contract of \$148,500 for a full tear-off and re-roof of Building C at Harbor Pointe Condominiums — the estimated cost of \$118,500 included \$52,000 of materials and \$3,000 of permits and disposal, much of it committed before the first progress billing was issued. A contractor is, in effect, financing the customer's project during this phase. Your cash goes out on the supplier's and the payroll calendar. It comes back on the customer's calendar. The difference between those two calendars is your working capital problem, and it exists even on profitable jobs.

Costs arrive *during* revenue. Labor, burden, subcontractors, equipment, and fuel accumulate daily while billings accumulate monthly or by milestone. Payroll does not wait for an application for payment to be certified. Marcus pays fourteen field employees every week on every active job, whether the month's draw has been approved or not. Dana pays six technicians for forty hours a week whether every hour was billable or not — her technicians average 29 billable hours out of 40 paid, a billable efficiency of 72.5 percent, and the cost of the other eleven hours must be recovered in the price of the twenty-nine. A monthly profit and loss statement that mixes jobs at different stages will blend a job in its expensive early phase with a job in its lucrative late phase and report an average that describes neither.

Costs arrive *after* revenue. Warranty callbacks, punch-list labor, final disposal, and the administrative cost of closeout all land after the last progress billing. On service work, Dana's callbacks arrive days after the invoice was paid. On project work, the cost of returning to complete punch items arrives while the retainage that secures that return is still in the customer's hands. If your system closes a job the day the final invoice is sent, these late costs fall into a later month with no job to attach to, and the job's reported profit is permanently overstated while some later month absorbs a loss it did not earn.

A job cost system built for contractors exists to hold these three waves against the correct job, whenever they arrive. Chapter 3 builds the chart; Chapters 5 and 6 build the job cost structure.

Why the Bank Balance Lies to Contractors

The bank balance is the most honest number in your business and the least informative. It is honest because the bank will tell you exactly what is there. It is uninformative because a contractor's balance mixes money that is yours, money that is spoken for, and money that merely passed through at a convenient moment.

Consider what a healthy-looking balance can contain. It can contain a customer deposit for work you have not performed — money you owe back in labor and materials. It can contain progress payments on a job that is overbilled, where you have billed ahead of the work earned and will have to perform the remaining work with no further billing to fund it; Chapter 12 takes up overbilling in full, and Harbor Pointe will be overbilled by \$7,425 at the end of its second month, a fact its bank balance will present as strength. It can contain collections on profitable jobs that conceal an unprofitable job still in progress, whose losses have not yet been paid for. And it cannot contain the money that is genuinely yours but not yet in hand: billed receivables still within terms, and retainage receivable — at December 31, Marcus carried \$148,600 of billed accounts receivable and \$41,900 of retainage receivable. That \$41,900 was earned, invoiced, and absent from the bank. An owner watching the bank alone would call the company poorer than it was in December and richer than it was in the month the deposits landed. Both verdicts would be wrong in the way that matters: neither would say anything about a single job.

The bank balance is also a company-level total, while contracting profit is made or lost at the job level. Marcus's full-year figures make the point: revenue of \$1,850,000 produced gross profit of \$453,250 at 24.5 percent and net income of \$95,000 at 5.1 percent — totals that do not identify which jobs produced the margin and which dragged it down. An owner who cannot separate the two will bid the next season using the average, and will win more of the work that was priced too low, because underpriced bids are the ones customers accept fastest.

Why the Tax Return Lies Too — Politely, and on Purpose

If the bank balance is the wrong tool because it tracks cash, the tax return is the wrong tool because it tracks the year for a different master. A tax return is prepared to compute a tax liability under the Internal Revenue Code and your state's rules, using a method of accounting the law permits or requires for your size and contract types. It is an annual compliance document. It is filed months after the year ends. It aggregates every job, every crew, and every decision into annual totals, and it applies tax rules — depreciation conventions, method elections, limitations — that are designed for revenue collection, not for pricing your next bid.

None of that is a criticism of the return. The failure occurs when an owner uses it for a second job it was never built to do: managing jobs in progress. By the time Marcus's return showed a 5.1 percent net margin, every job inside it had been bid, built, billed, and closed. It could confirm the year had been modestly profitable; it could not have warned him, in Harbor Pointe's second month, that materials were running toward an overrun.

Chapter 2 takes up the methods behind this problem — cash basis, accrual basis, and the contractor tax methods, including percentage-of-completion for taxes and completed-contract treatment where it is available for smaller and home contracts — and shows how to keep a management view that tells the truth in time to act, alongside a tax view that satisfies the law. The distinction to carry forward from this chapter is one of purpose. Tax accounting answers the government's question. Management accounting answers yours. A contractor who keeps only the first set of books has outsourced the second question to a document that arrives too late to help.

The Five Numbers You Must Know for Every Job

The remedy for both failures — the cash view and the annual view — is job-level accounting. For every job, at any point in its life, you should be able to state five numbers without assembling them by hand.

First, the **contract price**, including approved change orders. Not the original bid alone; the current, authorized price the customer has agreed to pay. Work performed beyond that price without an approved change order is a cost in search of revenue, and Chapter 10 will treat it that way.

Second, the **estimated total cost** — your current best estimate of what the job will cost when it is finished, updated as facts change. The original estimate is the starting point, not a permanent fixture. Harbor Pointe began with an estimated cost of \$118,500 against its \$148,500 price, for an estimated gross profit of \$30,000. It finished at an actual cost of \$124,300. The estimate's job is to be revised before the overrun is finished happening.

Third, **costs incurred to date**, by category: materials, direct labor, labor burden as its own line, subcontractors, equipment, and other job costs. Burden as its own line is not a refinement; for Marcus, burden is \$7.80 on a \$26.00 base wage — a fully loaded rate of \$33.80 per hour — and a job costed at base wages alone understates its labor cost by 30 percent.

Fourth, **earned revenue** — the portion of the contract price you have earned by performance to date. At 50 percent complete, Harbor Pointe had earned \$74,250, whether or not it had billed that amount. Earned revenue is the number accrual accounting provides and cash accounting cannot, and it is the numerator of every honest job profit calculation.

Fifth, **billings to date and cash collected to date**, stated separately, with retainage identified. At the end of Harbor Pointe's first month, billings were \$44,550, cash due on that application was \$40,095 after \$4,455 of retainage was withheld, and earned revenue was \$74,250 — an underbilling of \$29,700 that no bank statement would have disclosed. Billings tell you what you have asked for. Collections tell you what you have received. Earned revenue tells you what you have done. Profit lives in the comparison of cost to earned revenue. Survival lives in the comparison of collections to payroll. You need both comparisons, per job, every month.



Figure 1.2: Dana Whitfield's technicians close out every call as a job — the habit this book builds at company scale.

Dana's version of the five numbers is compressed into a single day. The Callahan change-out had a price of \$12,500. Its cost, fully counted, was \$7,000: equipment \$5,000, other materials \$750, technician labor \$800, burden \$224 at 28 percent, permit \$125, and disposal \$101. Gross profit was \$5,500, a margin of 44.0 percent. She knows those figures because the call was closed out as a job. Multiply that discipline by every call, add the project discipline of Marcus's five numbers for longer work, and you have the program of this book. The chapters that follow install it piece by piece, beginning with the choice that determines what your books can see at all: the accounting method.

Key Takeaways

- Contractors sell work before performing it, perform it over time, bill it in stages, and collect it late — including retainage held past completion. Accounting must track cost, earned revenue, and billings as three separate totals per job.
- Costs arrive before, during, and after revenue. A system that closes a job at final billing, or that records only cash, will misstate every job it touches.
- The bank balance mixes deposits you owe in work, overbillings you must still perform, and collections that hide jobs in trouble — and it omits earned receivables and retainage entirely.
- The tax return is an annual compliance document computed under tax rules. It cannot warn you about a job in progress, and it is not a substitute for management reports.

- For every job you must know: current contract price, current estimated total cost, costs incurred to date by category (burden shown separately), earned revenue, and billings and collections to date with retainage identified.

Your Turn

1. List every job currently open in your company. For each one, write down the current contract price including approved change orders, in a single column. If you cannot produce that list from your records today, note that — it is your first finding.
2. For your largest open job, write down costs incurred to date and your current estimate of total cost at completion. Set the two numbers side by side and compute the percent complete: costs to date divided by estimated total cost.
3. Pull your most recent bank balance and list, beneath it, every amount inside it that is already spoken for: deposits for work not performed, payroll due before the next draw, and supplier balances on materials already installed. Subtract them. The remainder is the balance that is actually yours to direct.
4. Find your retainage receivable — the total being held on all jobs. If your books do not state it as its own number, write "unknown" beside it. Chapter 3 will give it its own account, and Chapter 9 will give it a collection discipline.

Chapter 2: Cash, Accrual, and the Methods Between

In the first month of the Harbor Pointe re-roof, Delgado Roofing & Construction did half the work, spent real money doing it, billed less than it earned, and collected less than it billed. Ask Marcus's old spreadsheet what kind of month that was, and it will give you a confident answer. Ask the job, and it will give you a different one. Both answers are computed correctly. Only one of them is useful, and the difference between them is the subject of this chapter: the basis of accounting — the rule that decides *when* revenue and cost enter your books.

Every set of books answers two timing questions. When is revenue recorded: when it is earned by performance, or when the cash arrives? When is cost recorded: when it is incurred — when the materials are delivered, the crew works the hours, the subcontractor completes the work — or when the bill is paid? The cash basis answers both questions with cash. The accrual basis answers both with performance. Most contractors, whether they know it or not, live somewhere between the two: their tax return uses one method, their bank account enforces another, and their management view — the view they actually bid and staff from — is an informal mixture assembled from whichever report they looked at last.

This chapter untangles the three views. We will define cash and accrual in contractor terms, show why the cash basis hides job losses until they are old, build the practical hybrid most well-run contractors use for management, and then address the contractor tax methods at the level of principle — percentage-of-completion for taxes and completed-contract eligibility for smaller and home contracts — with the standing direction of this series: the general rules are taught here, the application to your company belongs to Volume 2 and your CPA, and the rules vary. The chapter closes with Harbor Pointe's first month shown under both lenses, in full arithmetic, so you can see exactly what the cash view conceals.

The Cash Basis: What Came In, What Went Out

Under the cash basis, revenue is recorded when cash is received and expenses are recorded when cash is paid. A deposit is income on the day it lands. A supplier invoice is not a cost until the check clears. Payroll is a cost on payday. Retainage does not exist as a category — there is simply money that has not arrived.

The cash basis has genuine virtues, and it is worth stating them fairly. It is simple. It agrees with the bank, so it is easy to verify and hard to falsify by accident. It tracks the one resource that can end a company in a single week, which is cash itself. For tax purposes, eligible businesses may use it and defer income until collection, which is a real benefit. Many small contractors are on the cash basis for taxes, properly and advantageously.

Its defect is not dishonesty. Its defect is timing, and in contracting, timing is where the truth lives. A contractor's costs and revenues belong to jobs that span months. The cash basis tears each job apart at the month boundary and distributes the pieces by payment date: the materials for a roof appear as a cost in the month they were *paid for*, the labor in the months the Fridays fell, the

revenue in the months the customer's checks cleared, and the retainage in some later month or, if it is never separately tracked, effectively never. The resulting monthly profit is an artifact of payment scheduling. Pay a supplier late and the month improves. Collect two draws in one week and the month looks brilliant. Nothing about the jobs changed in either case. The owner is steering by a gauge that responds to the bookkeeper's payment calendar as readily as to the crews' performance.

Denise Alvarez understood this before Marcus did, because she was the one who had to answer his questions. When he asked, in a heavy materials month, why the company had "lost money" while the crews were working steadily on a well-priced job, the honest answer was that it had not — the spreadsheet had simply recorded the job's costs in March and would record its billings in April and its retainage in June. When he asked, in a heavy collections month, why the company had done so well, the honest answer was that the spreadsheet had finally gathered revenue for work whose costs it had recorded and forgotten two months earlier. The spreadsheet was never wrong about cash. It was wrong about everything Marcus thought it was measuring.

The Accrual Basis: Revenue When Earned, Cost When Incurred

Under the accrual basis, revenue is recorded when it is earned — for a contractor, as work is performed — and costs are recorded when they are incurred, whether or not cash has moved. The instruments of accrual are the accounts the cash basis does not keep: accounts receivable for amounts billed and unpaid, retainage receivable for amounts earned and billed but held, accounts payable for costs incurred and unpaid, customer deposits and deferred revenue for cash collected before it is earned, and the overbilling and underbilling accounts that reconcile billings to earned revenue on jobs in progress.

Accrual is not more virtuous than cash. It is more *informative for decisions*, because it assembles each job's revenue and cost in the same period, in proportion to performance. When Harbor Pointe is 50 percent complete, accrual records 50 percent of the contract price as earned revenue and all costs incurred to produce that half as job costs of the period. The resulting gross profit for the period is a statement about the job, not about the mail. It can be compared to the estimate. Variances appear while the job is still open and the estimate can still be defended — with a change order, a crew decision, a purchasing decision — rather than at year-end, when the variance is history.

The cost of accrual is discipline. Receivables must be tracked job by job. Payables must be entered when work is received, not when it is paid. Percent complete must be estimated honestly, because under accrual, the estimate of completion drives earned revenue, and an owner who overstates completion borrows profit from the future exactly as an overbilling borrows cash. Chapters 11 and 12 build the work-in-progress (WIP) schedule that keeps that estimate honest. The point for now is the division of labor between the bases: accrual tells you whether the work is profitable; cash tells you whether you can fund it. A contractor needs both answers. The error is asking one basis to provide the other.

Why Cash Hides Job Losses Until They Are Old

Return to the two failures from the preface: a job that truly lost money, and a job whose records merely make it look that way. The cash basis is prone to a third failure, more dangerous than either: it hides a true loss during the only period when the loss can still be reduced.

A job loss develops gradually. Materials run over because of a hidden condition. Labor runs over because the work is slower than the bid assumed. On Harbor Pointe, the final accounting showed materials of \$55,900 against an estimate of \$52,000 — an overrun of \$3,900 caused by a hidden second tear-off layer — and labor of \$39,900 against \$38,000, an overrun of \$1,900, for a total overrun of \$5,800 that cut gross profit from an estimated \$30,000 to an actual \$24,200. Those overruns did not occur on the day the job closed. They accumulated, week by week, as the second layer was discovered and disposed of and as the crew's hours mounted. Under accrual job costing, with costs charged to the job as incurred and compared to the estimate by category, the materials variance is visible the week the extra tear-off is hauled away. The estimate at completion can be revised, the margin fade quantified, and the remaining work managed to protect what profit is left — or the lesson priced into the next condominium bid while the memory is fresh.

Under the cash basis, the same overrun dissolves into the general flow of payments. The extra disposal charges are paid alongside every other job's costs. The extra labor is inside payroll totals shared by three crews. The job's revenue arrives in draws that were fixed by the contract schedule, so nothing in the collections signals that costs have outrun the plan. The loss announces itself only at the end, in aggregate, as a disappointing season whose cause cannot be isolated. By then, the company may have bid two more roofs using the same single-layer assumption. Cash accounting does not merely delay the bad news. It allows the bad news to be replicated.

Dana's service work compresses the same effect into days instead of months, which is why she caught it sooner. A cash view of a service week shows invoices paid and checks written. An accrual job view of a single call shows ticket revenue against the parts pulled, the technician hours — burdened at 28 percent — and the vehicle's cost for that call. Some of her flat-rate calls, priced from a book built on assumed times, ran long in reality; the book price stayed fixed while the hours climbed. Only call-level accrual costing made that visible. The Callahan job, costed properly at \$7,000 against its \$12,500 price, proved the system on a healthy job. The unhealthy calls it exposed are why the system exists.

The Practical Hybrid: Accrual for Management, Whatever the Law Requires for Tax

If accrual is the management answer and cash may be the tax answer, the working solution for most contractors is a deliberate hybrid — not the accidental mixture described at the start of this chapter, but a chosen one. Keep the books on the accrual basis for management: jobs, receivables, retainage, payables, deposits as liabilities, and a monthly WIP schedule. Then let your CPA derive the tax return from those books under whatever method the law requires or permits for your company, making the conversion adjustments at tax time — a standard, well-understood exercise when the underlying books are complete.

The reverse arrangement — cash books with a year-end accrual conversion for the bank or bonding company — is common and inferior: a conversion from records that never tracked receivables by job is reconstruction, not accounting. Marcus's bonding capacity — \$500,000 for a single job and \$1,500,000 in aggregate — depends on accrual statements with a WIP schedule, which sureties analyze. An owner who wants bonding, a credit line, or a buyer eventually keeps accrual books; the only question is whether the discipline arrives in time to manage jobs, or afterward, to describe them.

One boundary must be kept clean inside the hybrid: cash still gets its own report. Accrual profit is not spendable. A company can post an accrual profit for a month in which it cannot comfortably make payroll, because the profit is sitting in receivables and retainage. Manage cash with a cash flow forecast — collections expected, payroll, supplier terms, loan payments — of the kind Chapter 16 builds. Manage profitability with accrual job reports. The hybrid is not a compromise between two views. It is both views, each doing its own work, neither impersonating the other.

Contractor Tax Methods, at the Level of Principle

Tax law has its own vocabulary for long-term contracts, and a contractor should recognize the terms even though the elections belong with a CPA. For federal income tax purposes, long-term contracts are generally accounted for under the **percentage-of-completion method** for taxes: income is reported each year in proportion to completion, using costs incurred relative to estimated total costs, broadly parallel to the earned-revenue idea you will use for management. The reason is the same matching instinct — Congress does not permit a contractor to defer all of a multi-year contract's profit until the final year merely by withholding the last billing.

Against that general rule stands the **completed-contract method**, under which revenue and costs of a contract are reported when the contract is completed. Federal law provides exceptions under which smaller contractors and certain home construction contracts may be excepted from the required percentage-of-completion treatment and may use completed-contract or another permissible method. The thresholds, the definition of a home construction contract, the look-back interest rules that can accompany percentage-of-completion, and the state treatment of these methods are technical, they change, and they interact with your entity structure and your other methods. This book states the general rules so that you can hold an informed conversation. It does not elect your method. That election, and its annual application, belongs to Volume 2's framework and to your CPA, and the rules vary — verify the current thresholds and your eligibility before relying on any method described here.

Retainage has a tax dimension as well: depending on your method, amounts held as retainage may be includable before they are collectible — profit reported, cash withheld. Keep the management view and the tax view distinct and reconciled knowingly, rather than blended into numbers that serve neither purpose.

Harbor Pointe, Month 1, Under Both Lenses

Now the arithmetic. At the end of Month 1, Harbor Pointe was 50 percent complete. Costs incurred were \$59,250, consisting of materials \$28,600, labor \$20,900, burden \$6,270 at 30

percent of labor, subcontractors \$2,480, and equipment \$1,000, with permits at \$0 to date. Check the total: $\$28,600 + \$20,900 = \$49,500$; $+ \$6,270 = \$55,770$; $+ \$2,480 = \$58,250$; $+ \$1,000 = \$59,250$. The percent complete is confirmed independently: \$59,250 of costs against estimated total costs of \$118,500 is exactly 50 percent. Earned revenue is therefore 50 percent $\times$ the \$148,500 contract price = \$74,250.

Application for Payment #1 billed \$44,550, which is 30 percent of the contract. Retainage of 10 percent was withheld on that billing: $10 \text{ percent} \times \$44,550 = \$4,455$. Cash due on App #1 was therefore $\$44,550 - \$4,455 = \$40,095$.

The **cash view** of Month 1 records the \$40,095 received (assuming the application was paid in the month) and the costs *paid* in the month — which, for clarity here, we take as the \$59,250 incurred, though in practice paid and incurred will differ and that difference is itself part of the cash view's noise. On that generous assumption, the cash lens reports $\$40,095 - \$59,250 =$ a loss of \$19,155 for the month on this job. Marcus's old spreadsheet would have called Harbor Pointe a problem job in its first month — a well-estimated job, exactly on plan at 50 percent of cost for 50 percent of the work, stamped as a loser because the billing schedule, not the work, was behind.

The **accrual view** of the same month records earned revenue of \$74,250 against costs incurred of \$59,250, for gross profit of \$15,000 — precisely 50 percent of the estimated \$30,000 total gross profit, exactly as an on-plan job should report. The accrual books also carry the reconciliation the cash books omit: billings of \$44,550 against earned revenue of \$74,250 mean the job is underbilled by \$29,700, an asset representing work performed and not yet billed. The \$4,455 of retainage sits in retainage receivable. The \$40,095 of cash is noted, in its proper place, on the cash flow view.

Harbor Pointe, Month 1 — the Same Job, Two Stories

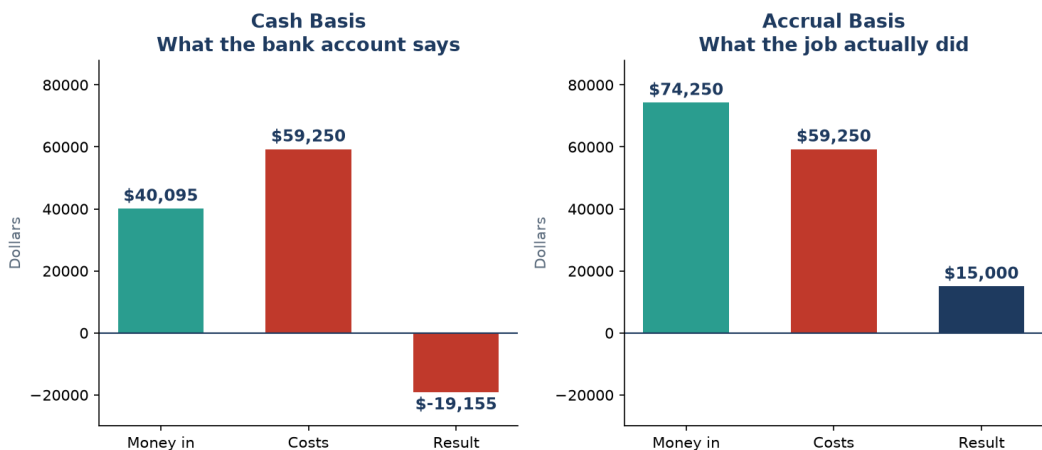


Figure 2.1: The same month, the same job — two different stories. Only one of them is true in time to act on.

Which story was true in time to act on? The accrual story. It said: the job is on plan, the margin is intact, and the billing schedule trails performance — watch collections, because payroll is being

funded ahead of draws. The cash story said only: more went out than came in. An owner acting on the cash story might have pressed the customer improperly, starved the job, or discounted the next bid out of a false sense of failure. Method is not a bookkeeping preference. It determines which of those owners you are.

Key Takeaways

- The cash basis records revenue when cash arrives and costs when cash is paid; it verifies easily and tracks liquidity, but it assigns job revenue and job costs to periods by payment date, not by performance.
- The accrual basis records revenue when earned and costs when incurred, assembling each job's revenue and costs in proportion to completion — the only view that supports in-progress job decisions.
- Cash accounting hides job losses while they develop, because overruns dissolve into company-wide payment totals and fixed draw schedules give no signal.
- The practical arrangement for most contractors is accrual books for management — with a separate cash flow forecast — and a tax return derived from those books under the method the law requires or permits.
- For taxes, long-term contracts are generally reported under percentage-of-completion, with completed-contract treatment excepted for certain smaller and home construction contracts; eligibility, thresholds, and state rules vary and must be confirmed with your CPA.
- Harbor Pointe Month 1 proves the stakes: cash lens, a \$19,155 apparent loss; accrual lens, \$15,000 of gross profit on an on-plan job, underbilled by \$29,700 with \$4,455 held in retainage.

Your Turn

1. Determine, in writing, which method your tax return currently uses and which method your day-to-day reports effectively use. If you do not know either answer, ask your CPA the first and your bank balance the second — a cash-agreeing report is a cash report.
2. Take your largest completed job from last year and reconstruct it on the accrual basis: contract price, total cost by category, earned revenue by month if you can. Compare its true margin to what you believed about it while it was running.
3. List every account your current books would need in order to run accrual job reports: receivables by job, retainage receivable, payables by job, customer deposits. Carry the gaps into Chapter 3, where the chart that holds them is built.
4. Schedule the conversation with your CPA about method: management accrual books, tax method eligibility, and retainage treatment. Bring this chapter's Harbor Pointe table — it frames the questions better than any general inquiry.

Chapter 3: The Contractor Chart of Accounts

When Denise Alvarez first showed Marcus Delgado the spreadsheet chart she had inherited and extended, it had eleven accounts that mattered: one for money in, and ten for money out. There was a line for materials — all materials, for every job, in one total. There was a line for payroll — all payroll, field and office together. There was a line labeled "Labor costs" that sometimes held payroll taxes and sometimes held a subcontractor's invoice, depending on how the invoice was worded. Insurance had a line. Fuel had a line. Everything else went to a line called "Miscellaneous," which by the end of the year was the fourth-largest expense in the company and described nothing at all.

Denise's verdict, delivered respectfully and accurately, was that the company did not have a chart of accounts. It had a list of check categories. A check category answers the question, "What did we write this payment for, roughly?" A chart of accounts, properly built, answers the questions this book has been asking since Chapter 1: What did each job cost, by category? What have we earned, billed, and collected? What is being held in retainage? What does the company spend to exist, apart from what it spends to perform work? The eleven-line list could not answer any of those questions, because the accounts themselves made no distinctions the answers require. No report can recover a distinction the chart never made. Every report you will ever run is downstream of this design decision, which is why the chart gets its own chapter before job costing begins in earnest.

Volume 1 of this series taught chart of accounts theory — the five account types, the normal balances, the logic of numbering. This chapter applies that theory to a contractor. We will build the structure section by section: income organized by work type, job costs organized by cost category, the balance sheet accounts contractors need and storefronts do not, and overhead kept visibly and deliberately out of job costs. We will set the numbering logic so that account numbers tie to the cost codes Chapter 6 will establish, and we will close with Marcus's before-and-after, because the distance between eleven lines and a working contractor chart is the distance between his old verdicts and his new ones. The full sample chart, account by account, is printed in Appendix A. This chapter teaches the structure and the reasoning; the appendix is the reference you will build from.

The Design Principle: One Question, Asked Cleanly

A storefront chart is organized around departments or product lines. A contractor chart is organized around the job — because the job is the unit of profit. Every design choice below serves a single question: *What did the job cost, and what did it earn?* If an account helps answer that question, it belongs. If an account mixes two answers into one number — field labor with office salaries, job materials with shop supplies — it fails, however traditional it may be.

Built around one question: what did the job cost?

The Contractor Chart of Accounts

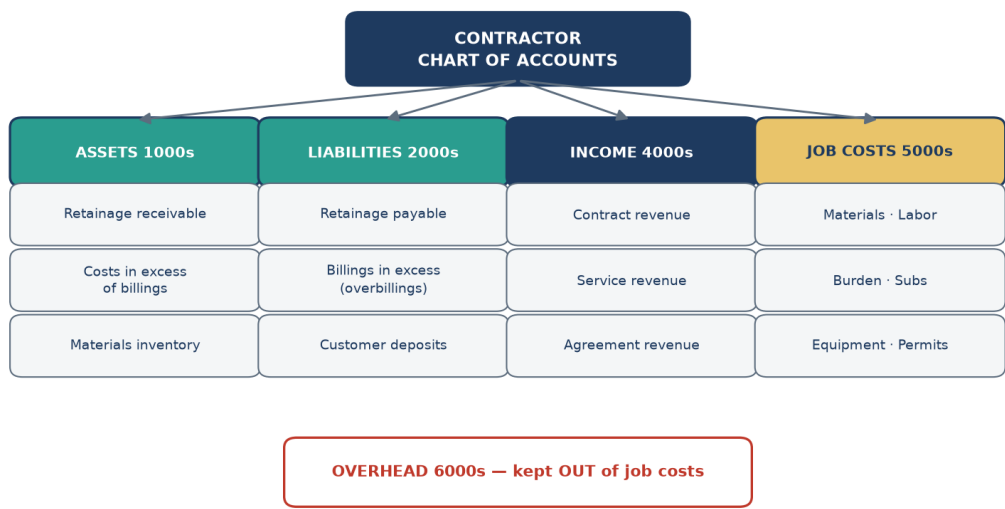


Figure 3.1: A contractor's chart is built around one question — what did the job cost? — with overhead kept visibly separate.

Hold that principle against each section as we build it. The structure that follows is not ornamental. Each separation in the chart corresponds to a decision an owner must make: pricing (income by work type), estimating (cost by category), billing (retainage and over/underbilling), and staffing the office (overhead, honestly totaled).

Income: Organized by Work Type

Contract revenue should not live in a single account. Different work carries different margins, different cost structures, and different risks, and a single revenue total averages them into invisibility — the same defect, at the top of the statement, that mixed payroll creates lower down.

Organize contract income by work type, in accounts that match how you bid. For Delgado Roofing & Construction, the natural divisions are roofing contracts, general contracting work, and repair work — three businesses, in economic substance, sharing one set of crews. Dana's chart at Whitfield Plumbing & Air provides the model of why this matters, because her revenue arrived already divided and the divisions told the story: of her \$965,000 in revenue, service and repair produced \$618,400, installations and change-outs produced \$289,000, and maintenance agreements produced \$57,600 — that last figure being 240 active agreements at \$240 per year each, and checkable as such ($240 \times \$240 = \$57,600$). Three lines, three different economics. Service work is high-frequency and ticket-driven, at an average ticket of \$385. Installations are small projects, priced and costed like Marcus's jobs in miniature. Maintenance agreements are recurring revenue with a service obligation attached — a liability dimension the other two lines do

not have. An owner deciding where to grow needs those lines separate on both the revenue side and the cost side, or the growth decision is a guess.

Two rules govern the income section. First, keep revenue accounts for *earned* revenue — the accrual figure from Chapter 2. Billings are not revenue; billings are a balance sheet conversation, and the chart provides separate accounts for them below. Second, never net costs against revenue in the income section. Change order revenue belongs in contract revenue when the change order is approved; the costs of performing it belong in job costs. Netting destroys both numbers.

Job Costs: The Cost of Goods Sold Section, Built by Category

For a contractor, cost of goods sold *is* job costs — the costs incurred to perform contracted work. This section is the heart of the chart, and it must be divided by cost category, in a division that mirrors your estimates. The reason is variance analysis, the subject of Chapter 7: you can only compare actual to estimated category by category if the books captured actuals in the same categories the estimate used. Six categories carry the load for most contractors.

Direct materials. Materials installed on, or consumed by, a specific job: shingles and underlayment on Harbor Pointe, the air handler and line set on Dana's change-outs. Materials are typically the largest single category — at Marcus's company, \$555,000 of his \$1,396,750 in total job costs, which is 30.0 percent of his \$1,850,000 revenue. Purchases for stock are not yet job costs; they are inventory, a balance sheet asset, until they are issued to a job. His December 31 balance sheet carries \$18,000 of materials inventory for exactly that reason.

Direct labor. The wages of field employees for hours worked on jobs — Marcus's \$462,500, 25.0 percent of revenue; Dana's technician wages of \$338,000. Only job hours belong here. An owner's production hours on a job are direct labor; the same owner's estimating and management hours are not, however the day felt.

Labor burden — as its own line. This is the separation small contractors most often miss and the one this book insists on. Burden is the cost of labor beyond the wage: employer FICA, workers' compensation, unemployment taxes, benefits, and paid time off accrual. Marcus's burden is \$138,750, which is 30 percent of his \$462,500 of direct labor; Dana's is \$94,640, which is 28 percent of her \$338,000 of technician wages. These are job costs — a roofer's hour does not cost \$26.00, it costs \$33.80 fully loaded — but they are not *wages*, and burying them in the wage line or in overhead corrupts two decisions at once: job profitability is overstated because labor looks cheap, and overhead is overstated because it appears to contain costs that vary with every crew hour. Give burden its own account in the job cost section. Chapter 5 builds the rate; Chapter 14 audits it.

Subcontractors. Amounts owed to subcontractors for work performed on jobs: \$148,000 at Marcus's company, 8.0 percent of revenue, including the crane and gutter work on Harbor Pointe estimated at \$9,600; \$12,000 at Dana's. Subs are not employees and their costs carry no burden — which is one reason the categories must stay separate. A shift from in-house labor to subs changes the burden and materials mix, and only a categorical chart shows it.

Equipment and fuel. Job-charged equipment costs: rentals, owned-equipment charges to jobs, and the fuel and direct vehicle costs of performing work — \$55,500 at Delgado (3.0 percent of

revenue) and, in Dana's framing, \$41,000 of fuel and direct vehicle costs. The test is assignment: if the cost exists because a job exists, it is a job cost, charged here.

Other job costs. Permits, disposal, inspections, and job-specific fees: \$37,000 at Delgado for permits and disposal (2.0 percent of revenue); on the Callahan job, the \$125 permit and \$101 disposal live here. Small in total, decisive at the margin — an estimator who forgets permits forgets them on every bid.

Add the categories and the section must tie to the company's totals: $\$555,000 + \$462,500 + \$138,750 + \$148,000 + \$55,500 + \$37,000 = \$1,396,750$ of job costs, against \$1,850,000 of revenue, for gross profit of \$453,250 at 24.5 percent. A chart that cannot reproduce that arithmetic from its own accounts is not finished.

The Balance Sheet Accounts Contractors Need and Storefronts Do Not

Ask a retailer's chart to describe a contractor and it will fail on the balance sheet first. Four accounts — two assets, two liabilities — carry the contracting model, and each was introduced by the timeline in Chapter 1.

Retainage receivable is its own asset account, separate from billed accounts receivable. The separation is not cosmetic. Billed receivables are due now, subject to collection effort and terms. Retainage is due later, on conditions — final acceptance, lien releases, closeout documents — and it ages on a different clock. Marcus's December 31 balance sheet shows the two side by side: billed receivables of \$148,600 and retainage receivable of \$41,900. An owner or a banker reading a single combined receivable cannot tell collectible-now from collectible-on-acceptance, and a company managing collections from a combined figure will work the wrong list. Retainage discipline is Chapter 9's subject; the account that makes it possible is created here.

Costs and earned revenue in excess of billings — the underbilling asset — and its counterpart, **billings in excess of costs and earned revenue — the overbilling liability**, reconcile earned revenue to billings on jobs in progress. When Harbor Pointe had earned \$74,250 and billed \$44,550 at the end of Month 1, the \$29,700 difference was underbilling: an asset, work performed and not yet billed. When the same job, at the end of Month 2, had billed \$126,225 against earned revenue of \$118,800, the \$7,425 difference was overbilling: a liability, because the company had collected the right to bill ahead of performance and owed the remaining work. Marcus's balance sheet carries overbillings of \$22,500 as a current liability. These two accounts are how the accrual books of Chapter 2 state, at any date, the company's billing position honestly. A chart without them forces the difference into revenue or receivables, where it lies about both.

Customer deposits and deferred revenue is a liability account for cash collected before it is earned: job deposits, and in Dana's company, maintenance agreement payments received for service not yet performed. The cash basis habits of Chapter 2 treat a deposit as income. The accrual chart treats it as what it is — an obligation to perform. When the work is done, the amount moves from this liability into earned revenue. Dana's 240 maintenance agreements make this account a permanent feature of her books rather than an occasional one: every agreement paid in advance is deferred revenue until the visits it buys have been made.

Round out the section with the ordinary contractor balance sheet, kept clean: cash (\$92,500 at Delgado at year-end), materials inventory (\$18,000), prepaid insurance (\$12,000 — premiums paid ahead, expensed as coverage is consumed), equipment net of depreciation (\$186,000), accounts payable (\$74,000), accrued payroll and payroll taxes (\$16,500), and equipment loans split between current portion (\$24,000) and long-term (\$88,000). Total assets of \$499,000, total liabilities of \$225,000, equity of \$274,000: the chart must be able to hold a real company's position, not a textbook miniature.

Overhead: Kept Out of Job Costs, on Purpose

Below gross profit sits overhead — operating expenses, the costs of being in business that no single job caused: at Delgado, \$358,250 in total, including office and administrative salaries of \$118,000, shop and office rent of \$48,000 at \$4,000 per month, insurance of \$42,000, depreciation of \$42,000, marketing of \$26,500, utilities, phones, and software of \$25,000, vehicle and office costs of \$38,750, and professional fees of \$18,000. Dana's overhead of \$177,060 follows the same logic: dispatcher and office salaries of \$52,000, shop rent of \$30,000 at \$2,500 per month, insurance of \$28,400, marketing of \$31,000, software and phones of \$14,600, and other overhead of \$21,060.

The rule is absolute: overhead does not go into job costs. Not allocated, not sprinkled, not "absorbed" a little each month to make job reports look complete. The reason is the integrity of the job margin. Gross profit — \$453,250 at Delgado, 24.5 percent; \$267,060 at Whitfield, 27.7 percent — is the number estimating is built on. If overhead leaks into job costs, job margins sag by an amount that varies with office spending, and the estimator begins adding markup to cover costs the markup was never meant to carry. Overhead has its own recovery mechanism: it is recovered through the markup on all work, monitored at the company level, and managed against the budget — the discipline of Volume 3's monthly review. Two honest numbers, job margin and overhead total, serve the owner better than one blended number that answers neither question. Net income is where they meet: $\$453,250 - \$358,250 = \$95,000$ at Delgado; $\$267,060 - \$177,060 = \$90,000$ at Whitfield. Both tie. Both are explainable. That explainability is the chart's doing.

The judgment calls live at the boundary, so decide them once, in writing, and hold them: the estimator's salary is overhead even though estimating serves future jobs; Denise's bookkeeping time is overhead even when she assembles a job's paperwork; a truck's fuel is a job cost when the truck is dispatched to jobs and overhead only for genuinely non-job use. Consistency matters more than the particular ruling — a boundary that moves monthly makes every trend in the book meaningless.

Numbering: Accounts That Point at Cost Codes

Number the chart so its logic is visible: assets in the 1000s, liabilities in the 2000s, equity in the 3000s, revenue in the 4000s, job costs in the 5000s, overhead in the 6000s and beyond, following the convention Volume 1 established. Within job costs, let the second digits carry the category — materials, labor, burden, subs, equipment, other — so that any 5xxx account announces its category at a glance.

Then look ahead one step. In Chapter 6, each job will be divided into cost codes — the phases and components of the work, against which estimates are built and actuals are compared. The chart and the codes are two levels of one system: the chart sorts costs by *type* for the financial statements, the codes sort them by *phase* for the job cost report. Where your accounting system supports it, keep the code list parallel to the job cost accounts, so that a cost recorded under a phase code rolls up into the matching chart category without reclassification. Design that parallelism now, while the chart is on paper. Retrofitting it after a year of postings is the kind of project owners postpone forever.

Before and After: What the Eleven Lines Became

Marcus's old list asked one thing of each transaction: which check category does this resemble? His new chart asks four: Is it revenue, and of what work type? Is it a job cost, for which job, in which category? Is it a balance sheet movement — a receivable, a retainage balance, a deposit owed in work? Or is it overhead, the cost of the company's existence? The same transactions, the same company, the same honest Denise — but the answers now accumulate into job cost reports, a WIP schedule, and statements a surety can read. Nothing about the company changed the day the chart changed. Everything about what Marcus could see did. Appendix A prints the full sample chart. Build yours from it in this week's Your Turn, and we will put it to work.

Key Takeaways

- A chart of accounts is not a list of check categories. It is the set of distinctions your reports will be able to make — and no report can recover a distinction the chart never captured.
- Divide revenue by work type, because different work carries different margins; keep billings out of revenue entirely.
- Divide job costs into materials, direct labor, labor burden as its own line, subcontractors, equipment, and other job costs — mirroring your estimates so variance analysis is possible.
- Contractors need balance sheet accounts storefronts do not: retainage receivable as its own asset, overbilling and underbilling accounts, and customer deposits/deferred revenue as a liability.
- Overhead stays out of job costs. Gross margin is estimating's number; overhead is managed at the company level and recovered through markup.
- Number accounts so categories are visible, and design job cost accounts to run parallel to the cost codes introduced in Chapter 6.

Your Turn

1. Print your current chart of accounts. Count the accounts. Mark every account that mixes two of this chapter's distinctions — field with office, wages with burden, job with overhead — with a highlighter. That marked list is your rebuild scope.
2. Draft your income section: one revenue account per work type you actually bid. Use Dana's three-line division as a model and Marcus's roofing, contracting, and repair split as another.

3. Draft your job cost section with the six categories of this chapter, burden separate. Beside each account, write last year's total if you can determine it. Any category you cannot total from your current chart is a category you have been estimating blind.
4. Add the four contractor balance sheet accounts — retainage receivable, underbilling, overbilling, and customer deposits/deferred revenue — and check Appendix A for the full sample chart to complete your numbering.

Chapter 4: Entity, Licensing, and the Books

Marcus Delgado did not incorporate Delgado Roofing & Construction LLC because an accountant told him to. He formed the company, elected S corporation taxation for the LLC, got his roofing license in order, and opened a business bank account — and then, for longer than he now likes to admit, he continued to run money as if none of that structure existed. The truck payment came from whichever account had funds. Materials for a company job occasionally rode on a personal card and were reimbursed, or not, from memory. His pay was whatever the business account could spare at the end of the week, recorded by Denise Alvarez under three different labels in three different months. The legal structure said one thing. The books described another company entirely — a sole proprietor with a crew, wearing an LLC's paperwork.

Dana Whitfield's version was tidier but taught the same lesson from the other side. Whitfield Plumbing & Air LLC was organized properly as an LLC, and Dana took owner's draws — correctly, for that structure. But because she still ran service calls, she was tempted to treat draw weeks and working weeks as interchangeable, pulling extra in a strong month without any record of whether the company had actually earned it after burden and overhead, and leaving the dispatcher, Priya Nair, to explain to a supplier why a payment would be a few days late in a month when the revenue report looked excellent. The entity was right. The bookkeeping habits around the entity had not been designed; they had accumulated.

This chapter connects the structure to the records. Entity choice — sole proprietorship, LLC, S corporation — is usually discussed as a tax and liability decision, and it is. It is also a bookkeeping decision, because each structure pays its owner differently, records that pay differently, and demands different accounts in the chart you built in Chapter 3. Licensing, permits, and bonding likewise live partly outside the books — in a licensing board's files and a surety's underwriting — and partly inside them, as costs, calendar obligations, and compliance records your system must keep. We will take each in turn, at the level of principle this series maintains: the framework here, the specifics with your attorney and CPA, because — as this chapter will repeat where it counts — entity and licensing rules vary by state, and you must verify the rules that apply where you work.

How Entity Choice Changes the Books

Start with what does not change. In every structure, the business records revenue when earned, job costs when incurred, and overhead in its own section; the job costing system of Parts Two and Three is entity-neutral. What changes is the equity section of the balance sheet, the treatment of owner pay, and the tax return the books must feed — Volume 2's territory, entered here only as far as the bookkeeping requires.

A **sole proprietor** has the simplest books and the least separation. The owner and the business are the same taxpayer. There is no salary for the owner — a sole proprietor cannot be his own employee in his own business — and money the owner takes out is an owner's draw, recorded in a drawing account within equity, never as a wage expense on the profit and loss statement. The business's net profit is the owner's income for tax purposes whether the cash was withdrawn or left in the account. The bookkeeping trap is the mirror of the simplicity: because no structure forces

separation, sloppy separation feels harmless. It is not, as the commingling discussion below will show.

A **limited liability company** taxed under the default rules follows the proprietor pattern for a single member: Dana's draws are equity movements, not expenses; Whitfield Plumbing & Air's net income of \$90,000 on revenue of \$965,000 is computed before any draw is considered, and her draws during the year — whatever she took out, in whatever weeks — do not reduce that \$90,000. They reduce her capital account and the company's cash. An owner who watches draws as if they were a paycheck will misread both numbers: the profit and loss statement will look untouched by her pay, which is correct, while the bank account reflects every draw, which is also correct. Multi-member LLCs extend the same principle across members, with capital accounts per member and distributions recorded against them. The chart needs a capital and a drawing or distribution account for each owner, kept distinct from every expense account in the 6000s.

An **LLC taxed as an S corporation** — Marcus's structure — and a corporation electing S status introduce the division this book flagged in the preface: the owner who works in the business wears two hats, and the books must record each hat separately. As an employee, the owner receives a **salary**, run through payroll like any other employee's, subject to payroll taxes, recorded as wages — and classified honestly: Marcus's time supervising operations belongs in administrative salaries within overhead, while any genuine production hours on a job would be direct labor. As an owner, he receives **distributions** of profit, recorded in equity, not subject to payroll tax, and not an expense. Federal tax law requires that an S corporation owner-employee be paid reasonable compensation as salary for the work performed; what is reasonable is a facts-and-circumstances determination for you and your CPA, not a figure this book can set. What the books must do, in any S corporation, is keep the two streams visibly separate: salary in payroll, distributions in equity, never blended into a single "owner pay" line, and never reclassified after the fact to make a quarter look better. Denise's three labels for Marcus's pay were a small bookkeeping untidiness under any structure; under an S corporation they would have been a compliance defect. The election raises the standard for the records, and meeting that standard — clean payroll, clean distribution accounts, minutes and filings kept current — is part of the price of the structure's tax treatment.

The practical summary for your chart: proprietor, drawing account; LLC, capital and distribution accounts per member; S corporation, salary through payroll plus a distributions account. If your equity section does not match your entity documents, fix the chart before you fix anything else. Your CPA prepares the return from these accounts, and an equity section that contradicts the entity's legal form produces a return built on corrections.

Licenses, Permits, and Bonding as Bookkeeping Events

A contractor's right to work is documented, and every document has a financial shadow your books should capture.

Licenses are both a credential and a recurring cost with a renewal calendar. The license fees themselves are overhead — a cost of being in business, not of any job — but the license is also an operational asset in substance: without it, there is no revenue to record. Keep a compliance file, physical or digital, holding the license, its number, its qualifying party where your state requires

one, and its renewal date, and mirror the renewal date in the calendar system described at the end of this chapter. Jobs pulled under the license should carry the license number in the job file; many contracts and permit applications require it, and the job cost system of Chapter 6 has a place for it.

Permits divide in two, and the chart from Chapter 3 already made the division. A permit pulled for a specific job is a job cost — Harbor Pointe carried \$3,000 of estimated permits and disposal, and Dana's Callahan job carried its \$125 permit in other job costs. Permit *office* costs — the standing accounts, the general filings — are overhead. The bookkeeping point is assignment discipline: the permit receipt names a job and an address, and it should reach the job cost record the week it is issued, not the month the credit card statement arrives. On the compliance side, the permit is also a scheduling record: inspections ride on it, and the final inspection frequently gates the final billing and the retainage release of Chapter 9. A permit log — job, permit number, issue date, inspections passed, final sign-off — is a bookkeeping document as much as a field document, because billing milestones hang off it.

Bonding is a credibility record with a ledger attached. Marcus's capacity of \$500,000 on a single job and \$1,500,000 in aggregate is not a bank balance; it is a surety's judgment, underwritten primarily from his financial statements — accrual statements with a work-in-progress schedule, of exactly the kind Chapters 2 and 11 produce — plus his work history and character references. Bond premiums are costs (overhead for general capacity; a specific job's bond premium, where a job requires its own payment and performance bond, is properly a job cost of that job). The bookkeeping obligation is deeper than the premium: a bonded contractor keeps books a surety can re-underwrite every year. Clean job costs, an honest WIP, separated retainage, no commingling. Owners sometimes experience bonding requirements as bureaucracy. Read them instead as an external auditor confirming that your internal system works — and note that the system pays for itself the first time it qualifies you for a bonded job a competitor cannot take.

Insurance Certificates: Tracked Like Assets, Because They Protect Them

Insurance enters the books as cost — Delgado carries \$42,000 of insurance expense in overhead and \$12,000 of prepaid insurance on the balance sheet, premiums paid ahead and expensed as coverage is consumed; Whitfield carries \$28,400 — but the *certificates* deserve a tracking discipline of their own. Your company holds two populations of certificates, and both expire.

The first population is your own coverage: general liability, workers' compensation (whose audit is Chapter 14's subject, and whose premium rides directly on the payroll and class codes your books record), commercial auto for Dana's five vans or Marcus's trucks, and any professional or umbrella policies. The second population is the certificates you collect from subcontractors naming your company as additional insured or certificate holder, gathered as part of the subcontractor files Chapter 13 will build. In both populations, the failure mode is identical and quiet: the policy lapses, the certificate in the file still looks valid, and the discovery arrives with a claim. Track certificates the way you track fixed assets — a register with carrier, policy number, coverage type, effective dates, and a tickler thirty days before each expiration — and diarize the register in the same calendar system as licenses and annual reports. An expired subcontractor certificate

discovered during a claim is not an insurance problem. It is a records problem, and it was preventable in the records.

Separating Personal and Business Money: The Commingling Disaster

Every structure discussed in this chapter — proprietorship included, where the separation is evidentiary rather than legal — depends on one habit: business money and personal money do not mix. The mechanics are plain. A business bank account, into which all business receipts are deposited. A business credit card, on which all business charges ride. Owner money moves between the owner and the business through exactly the channels the entity prescribes — salary, draws, distributions, documented owner contributions, documented loans where appropriate — and through no other channels. Personal expenses are never paid from the business account. Business expenses are never left permanently on a personal card; where an emergency forces one there, it is reimbursed promptly through a written expense record, not netted informally against a later draw.

The disaster that follows commingling is not a single event. It is a corrosion with three stages, and I have watched all three in practice. In the first stage, the books become unreliable: Denise cannot classify a deposit that might be a customer's payment or might be Marcus repaying himself; job costs leak into personal totals and personal spending inflates business overhead; every report carries an asterisk. In the second stage, the professionals withdraw their confidence: the CPA cannot certify the records without reconstruction, the surety discounts the statements, a lender prices the uncertainty or declines. In the third stage — the one that brings owners to my office — the legal separation itself is attacked. The LLC and the S corporation protect the owner only to the extent the owner treated the entity as separate. Records that show one undifferentiated pool of money invite a court, a taxing authority, or a bankruptcy trustee to treat it as one. The formal term is piercing the veil; the practical term is that the structure you paid for fails at the moment you need it, because your books testified against it for years. Keep the separation. It is the cheapest protection in this entire book: it costs nothing but the discipline of reaching for the right card.

Registered Agent and Annual Reports: Calendar Items, Not Surprises

The last category is the smallest in dollars and the most unforgiving in consequence. A formed entity must maintain a registered agent — the official address for service of process and state notices — and must file the periodic reports your state requires to remain in good standing, typically an annual report with a fee and a hard deadline. Lapse, and the consequences escalate from late fees to administrative dissolution: the entity legally ceases to exist until reinstated, contracts signed in its name become personal exposures, licenses tied to the entity are imperiled, and the reinstatement process costs more than a decade of timely filings.

The bookkeeping treatment is to convert these obligations from memory into system. Maintain a single compliance calendar for the company holding: registered agent renewal, annual report due date and filing confirmation, license renewals, insurance expirations from the certificate register,

sales tax and payroll filing dates from Volume 2's framework, and estimated tax dates. Assign each item an owner — Denise holds Delgado's calendar; Priya holds Whitfield's — and a lead time of at least thirty days. Record the filings in a permanent compliance file alongside the entity documents themselves: articles of organization, the S election where applicable, the operating agreement, and each year's filed report. When a banker, surety, or customer asks for evidence of good standing — and bonded and public work asks routinely — the answer should be a file retrieval, not a project.

A final statement of scope, which this chapter's subject makes necessary. Entity formation and taxation, licensing categories and qualifying requirements, bonding thresholds, and annual report mechanics all vary by state — in some trades they vary by county and municipality as well — and they change by legislation and rule-making. This chapter has taught the bookkeeping framework into which your state's rules must be fitted. It has not fitted them. Before you form, elect, license, or let any filing lapse on the strength of anything written here, verify the current rules in your state and consult your attorney on structure and licensing and your CPA on tax elections. That verification is not a formality appended to the chapter. For this chapter's subject, it is the chapter's main instruction.

Key Takeaways

- Entity choice is a bookkeeping choice: a sole proprietor takes draws through a drawing account, an LLC member takes distributions against a capital account, and an S corporation owner-employee takes a payroll salary *and* separately recorded distributions — never blended, never expensed interchangeably.
- Net income is computed before owner draws and distributions. Draws reduce cash and capital, not profit, and must be read that way.
- Licenses are overhead costs with renewal calendars and compliance files; job permits are job costs that belong on the job record the week they are issued; bonding capacity rests on accrual books and a WIP schedule a surety can underwrite.
- Insurance certificates — your own and your subcontractors' — require an expiration register with advance ticklers. An expired certificate is a records failure before it is an insurance failure.
- Commingling corrodes in stages: unreliable books, withdrawn professional confidence, and finally attack on the entity's legal separation itself. Separate accounts and prescribed channels for owner money are the protection.
- Registered agent maintenance and annual reports belong on a compliance calendar with a named owner and thirty days of lead time — never in memory.

Your Turn

1. Write down your entity's exact legal form and tax treatment, from your formation documents. Then open your chart of accounts and confirm the equity section matches it: drawing account, member capital and distribution accounts, or salary-plus-distributions. List every mismatch.

2. Review the last three months of owner money movement. Classify each item as salary, draw, distribution, contribution, or "other." Every "other" is a commingling repair: document it correctly now, with your bookkeeper, before it compounds.
3. Build the certificate register: every policy your company holds and every subcontractor certificate on file, with carrier, policy number, and expiration date. Flag anything expiring within sixty days and start its renewal this week.
4. Create the compliance calendar — registered agent, annual report, licenses, insurance expirations, tax filing dates — with a named owner and a thirty-day lead time on each item. File this year's confirmations in a single compliance folder, and verify your entity's good standing and licensing requirements with your state, your attorney, and your CPA.

PART TWO

Job Costing That Tells the Truth

Chapter 5: The Anatomy of a Job Cost

Marcus Delgado could tell you, to the dollar, what Delgado Roofing & Construction took in last year: \$1,850,000. He could tell you what was in the bank on Friday. What he could not tell you, for most of his career, was what any single roof actually cost.

That gap was not carelessness. Marcus ran the company the way he had learned to run a crew: watch the cash, watch the weather, and keep the men working. If the bank balance rose, he called it a good month. But a bank balance is a lagging, blended number. It mixes a profitable tear-off with a losing repair, a deposit on next month's work with final payment on last month's, and it tells you nothing until long after the decisions that caused the result are beyond correction.

When Denise Alvarez, his office manager and bookkeeper, persuaded him to build a true job cost system, she did not start with software. She started with one question, asked about every invoice, time card, and charge: *Which job caused this cost, and which family does it belong to?* This chapter teaches that question and the six families that answer it. Every dollar you spend to produce work belongs in one of six families, and a cost that belongs to none of them does not belong in your job costs at all. Get the families right, and your estimates, reports, and bids begin to tell the truth. Get them wrong, and no report afterward can rescue you.

What a Job Cost Is — and What It Is Not

A job cost is a cost that exists because a specific job exists. If the job had never been sold, the cost would never have been incurred. The shingles on the Harbor Pointe roof, the crew hours tearing off the old system, the crane, the permit, the dump fees — none exist without that job. They are job costs. Contrast the rent on Marcus's shop and office: \$48,000 a year, due whether Harbor Pointe is under way or the yard sits empty. Rent is real and must be paid out of gross profit, but no one job causes it. It is overhead, treated separately later in this chapter, because confusing the two is one of the most expensive bookkeeping errors a contractor can make.

In accounting terms, job costs are your cost of goods sold — the direct cost of producing the work you sold. In Volume 1, *Accounting for Beginners*, you learned that gross profit is revenue minus cost of goods sold. For a contractor, that formula lives or dies at the job level: **Revenue – Job Costs = Gross Profit**.

For Delgado last year: \$1,850,000 in revenue, minus \$1,396,750 in job costs, equals \$453,250 in gross profit — 24.5 percent of revenue. A respectable result, but a company average can conceal a failing job the way a bank balance conceals a failing month. One job earned 30 percent while another earned 4 percent, and the average reported that everything was fine. Job costing exists to pull those jobs apart while there is still time to act.

The six families are the same for Marcus and for Dana Whitfield, who runs Whitfield Plumbing & Air in Jacksonville, although the dollars inside them differ. A roofer is materials- and crew-heavy; a plumbing and HVAC company is technician- and parts-heavy. The families do not change — and once your people learn them, they can code any cost in seconds. Chapter 6 turns these families into cost codes.

Family One: Direct Materials

Direct materials become part of the finished work, together with consumables used up producing it. For Marcus: shingles, underlayment, flashing, fasteners, sealants, decking. For Dana: pipe, fittings, fixtures, refrigerant, and — most significantly — the equipment she installs, such as a condensing unit and air handler.

Two tests keep this family clean. First, can you point to the material in the finished job, or show it was consumed producing it? Second, was it bought for this job, or drawn from inventory for this job? Material drawn from your warehouse or a truck's stock is still a job cost — record it at cost when it is used, not when you purchased it. Marcus carries about \$18,000 in materials inventory for this reason: material in the yard is an asset, not a cost. It becomes a job cost the day a crew loads it for a specific roof.

Materials are Delgado's largest family: \$555,000 last year, 30.0 percent of revenue. They are also the most vulnerable to quiet leakage — shingles diverted to a side repair, a pallet returned without a credit memo, unmeasured waste. None of that appears if materials are recorded as one monthly lump from supplier statements. All of it appears when every delivery ticket and credit is coded to a job.

Family Two: Direct Labor

Direct labor is the gross wages of the people who physically produce the work, for the hours they spend producing it. Marcus employs fourteen field employees — two roofing crews of six and five, and a repair crew of three. Dana's six technicians — four HVAC and two plumbing — are her direct labor on every call.

The boundary line is the work, not the person. When Marcus walks a roof before a bid is final, those are estimating hours — overhead. Tony Ruiz, his estimator and project manager, works across all jobs rather than producing any one of them, so Delgado records his salary in overhead. What matters is that you draw the line deliberately, write it down, and apply it the same way on every job. Consistency is what makes two jobs comparable.

Direct labor is recorded from time records, coded by job, at the gross wage rate — before burden, which is the next family. Delgado's direct labor last year was \$462,500, 25.0 percent of revenue. Note what direct labor is not: it is not what the hour costs the company. That figure is higher, and the difference is large enough to sink a bid.

Family Three: Labor Burden

Labor burden is every additional cost carried because the company employs the people who do the work: employer payroll taxes, workers' compensation, unemployment taxes, benefits, and paid time off. Burden is not optional, and it is not small. At Delgado it adds 30 percent to every field hour.

Here is the build, line by line, for a roofer paid \$26.00 an hour. Denise recomputes it whenever a rate changes, and the current version is used in every estimate the company writes.

Burden component	Rate	Cost per hour
Base wage	—	\$26.00
Social Security and Medicare (FICA), employer share	7.65%	\$1.99
Workers' compensation insurance (roofing class code)	14.0%	\$3.64
Federal unemployment tax (FUTA)	0.6%	\$0.16
State unemployment tax (SUTA)	2.7%	\$0.70
Health stipend and benefits	—	\$0.85
Paid time off accrual	—	\$0.46
Total burden	30.0%	\$7.80
Fully loaded labor cost		\$33.80

Note the workers' compensation line. At 14 percent it is the largest burden item, high because roofing is dangerous work at height. Dana's total burden, by comparison, runs 28 percent of technician wages. Your burden will differ from both; the method will not. Volume 2, *Small Business Taxes*, covers the underlying payroll tax obligations; Chapter 14 returns to burden and the workers' compensation audit.

Labor burden at Delgado Roofing: \$7.80 per hour — 30 percent on top of wages
How a 26.00 Wage Becomes a 33.80 Labor Cost

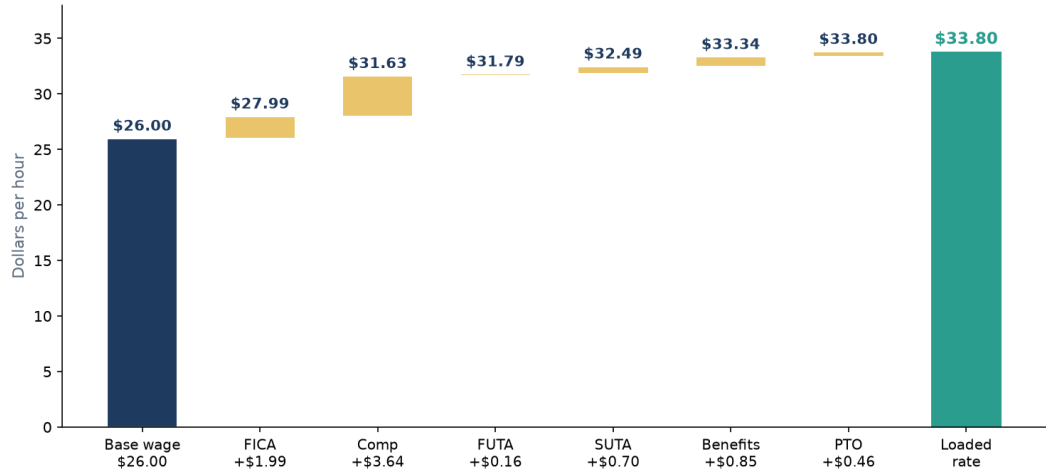


Figure 5.2: Burden is not a rounding error. At Delgado Roofing it adds \$7.80 — 30 percent — to every field hour.

Now consider the damage when burden is ignored. Marcus bids a repair at 100 crew hours $\times$ \$26.00 = \$2,600. His true cost is 100 $\times$ \$33.80 = \$3,380 — one line understated by \$780, before anything else goes wrong. Multiply that habit across a year and you have explained how a busy contractor ends the year wondering where the money went. Delgado's burden last year was

\$138,750, exactly 30 percent of its \$462,500 in direct labor. A company that does not price burden loses money in precise proportion to how much work it wins.



Figure 5.3: Fourteen field employees start every Delgado job. Burden is priced before the first shingle moves.

Family Four: Subcontractors

Subcontractors are outside firms hired to perform part of your contract. On Harbor Pointe, Marcus used a crane service and a gutter contractor. Amounts paid to them are a direct job cost — \$148,000 company-wide last year, 8.0 percent of revenue.

Two disciplines protect this family. The first is paperwork: a signed subcontract or work order, a certificate of insurance, and a Form W-9 collected before the first payment, not chased after the last one. Chapter 13 covers subcontractor files and Form 1099-NEC reporting in full. The second is resisting the urge to treat subcontractor cost as pass-through money that needs no management. A sub's price belongs in your estimate as its own line, and its invoices belong against that line as work proceeds. When scope creeps — an extra day of crane time, a change in gutter profile — the cost belongs to the job, and if the customer caused the change, it belongs in a change order (Chapter 10).

Family Five: Equipment — Owned and Rented

Equipment creates a question materials never do: what do you charge the job for a machine you already own?

Start with rented equipment, because it is simple. The rental invoice names the job and the period, and the full amount is a job cost — the rental exists only for that job.

Owned equipment is where contractors deceive themselves. The dump truck, trailer, and compressor were paid for long ago, so the job that uses them appears to use them for free. It does not. Every hour consumes fuel, tires, maintenance, and a portion of the machine's working life; when it wears out, the company writes the replacement check. The remedy is an internal equipment rate: a charge per hour, per day, or per job, based on ownership and operating costs, applied to every job that uses it. Delgado charges equipment as its own family — \$55,500 in equipment and fuel last year, 3.0 percent of revenue, and \$4,500 in the Harbor Pointe estimate below. The rate does not need to be perfect. It needs to exist and be used consistently, so equipment-heavy jobs stop looking artificially profitable.

One clarification: the *installed* equipment in Dana's work — the new HVAC system itself — is not in this family. It is direct material, Family One, because it becomes part of the finished installation. This family is for equipment you use to do the work, not equipment you install and leave behind.

Family Six: Other Job Costs — Permits, Disposal, and the Rest

The sixth family collects direct costs that fit nowhere else: permits, inspection fees, dump and disposal charges, job-specific hauling, and temporary facilities. Delgado recorded \$37,000 in permits and disposal last year, 2.0 percent of revenue. Dana's version appears on nearly every installation: a \$125 permit and a \$101 disposal charge on the Callahan job below.

Small as it is, this family teaches a large lesson. Permits and disposal are the costs most often left out of estimates because they feel administrative. At scale they are neither small nor optional: 2 percent of revenue, omitted from every bid, is 2 points of margin surrendered before work begins. If a cost is required to complete the job, it is priced in the job. Permit and disposal rules, and the sales tax treatment that can attach to this work, vary by state and locality; verify the rules in your own state, a subject Chapter 15 takes up directly.

What Is Not a Job Cost: Overhead

Overhead is everything required to run the company that is not caused by a specific job. Delgado's overhead last year was \$358,250:

Delgado Roofing — overhead (operating expenses)	Amount
Office and administrative salaries	\$118,000
Shop and office rent	\$48,000
Insurance (general, non-job)	\$42,000
Depreciation	\$42,000
Vehicle and office costs	\$38,750
Marketing	\$26,500
Utilities, phones, and software	\$25,000
Professional fees	\$18,000
Total overhead	\$358,250

Gross profit of \$453,250, minus overhead of \$358,250, equals net income of \$95,000 — 5.1 percent of revenue. Overhead is paid out of gross profit. That is its proper place.

Why do owners bury overhead in job costs? Usually from a sincere desire to make each job "carry its share." The damage is threefold. First, the job's cost is false, so its margin — and the next bid built on that history — is false with it. Second, jobs become incomparable: last month's roof carries rent, this month's does not. Third, overhead disappears from view; scattered across forty jobs, nobody asks whether \$358,250 is the right amount, the question Volume 3's monthly review ritual exists to ask. Recover overhead legitimately — through markup over true job cost, as Chapter 16 will show — never by falsifying what a job cost.

The Anatomy Assembled: Harbor Pointe

Harbor Pointe Condominiums, Building C — a full tear-off and re-roof in Fort Myers — is the sample job this book follows through billing, retainage, and completion. Marcus signed it at a fixed price of \$148,500, with 10 percent retainage. Here is Denise's estimated cost, family by family:

Cost family	Harbor Pointe estimate
Direct materials	\$52,000
Direct labor	\$38,000
Labor burden (30% of labor: $0.30 \times \$38,000$)	\$11,400
Subcontractors (crane and gutter work)	\$9,600
Equipment	\$4,500
Permits and disposal	\$3,000
Total estimated job cost	\$118,500

Check the build: $\$52,000 + \$38,000 = \$90,000$; plus $\$11,400 = \$101,400$; plus $\$9,600 = \$111,000$; plus $\$4,500 = \$115,500$; plus $\$3,000 = \$118,500$. Estimated gross profit is $\$148,500 - \$118,500 = \$30,000$, a margin of 20.2 percent on price. Every family appears, including the two smallest, and burden stands alone at $\$11,400$ — so if workers' compensation rates change mid-year, Marcus can see exactly which line of every open estimate is affected.

Anatomy of a Job Cost: Harbor Pointe's Estimate

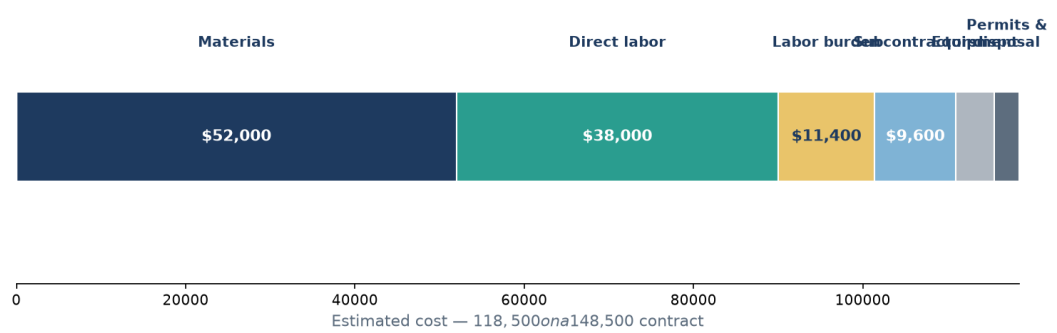


Figure 5.1: Every dollar of a bid lands in one of six families. If a cost has no family, it has no home in the bid either.

The Same Anatomy at Service Scale: The Callahan Change-Out

Dana's sample job is the Callahan residence — a full HVAC change-out, sold from her flat-rate book at $\$12,500$ and completed in one day. Same six families, service scale:

Cost family	Callahan actual cost
Installed equipment (direct materials)	\$5,000
Other materials	\$750
Technician labor (2 technicians $\times$ 10 hours $\times$ \$40.00)	\$800
Labor burden (28% of labor: $0.28 \times \$800$)	\$224
Permit	\$125
Disposal	\$101
Total actual job cost	\$7,000

Check the build: $\$5,000 + \$750 = \$5,750$; plus $\$800 = \$6,550$; plus $\$224 = \$6,774$; plus $\$125 = \$6,899$; plus $\$101 = \$7,000$. Gross profit is $\$12,500 - \$7,000 = \$5,500$, a margin of 44.0 percent ($\$5,500 \div \$12,500$). Subcontractors and job equipment are zero on this job — and zero is a recorded fact, not a missing line. The families stay on the cost sheet even when empty, because the next change-out may need a subcontracted lift or a rented machine, and the sheet will already have a home for it.

Dana's 44.0 percent and Marcus's 20.2 percent are not comparable verdicts — they reflect different work, risk, and overhead. The lesson is narrower: both owners can state, family by family, exactly what a job cost. Until you can do the same, you have a visibility problem, not a diagnosable estimating problem.

Key Takeaways

- A job cost exists because a specific job exists. If the job had never been sold, the cost would never have been incurred.
- Every job cost belongs to one of six families: direct materials, direct labor, labor burden, subcontractors, equipment, and other job costs such as permits and disposal.
- Labor burden is a separate family, not a footnote to wages. At Delgado Roofing it is \$7.80 on a \$26.00 wage — 30 percent — for a fully loaded cost of \$33.80 per field hour.
- Owned equipment is not free. Charge every job an internal equipment rate for the machines it uses, or equipment-heavy jobs will report profits they never earned.
- Overhead — rent, office salaries, marketing, general insurance — is not a job cost. Burying it in job costs falsifies margins, destroys comparability between jobs, and hides overhead itself from review.
- A complete estimate shows all six families, even when a family is zero. Harbor Pointe's \$118,500 estimate and the Callahan job's \$7,000 actual cost both tie out, family by family, to the dollar.

Your Turn

1. Write out your own burden build — every employer tax, insurance, benefit, and paid-time-off cost — and compute your fully loaded labor cost for your most common field wage.
2. Re-cost your last completed job from invoices, time records, and receipts, assigning every dollar to one of the six families. Compare it with what you believed the job cost when you bid it.
3. List every cost in your job costs that would exist if the job had never been sold. Move those items to overhead, and note how your job margins change.
4. Set an internal equipment rate for each major machine you own, and begin charging it to jobs this week.
5. Rebuild one open estimate in the six-family format, line by line, and confirm the total ties out before the estimate leaves your office.

Chapter 6: Setting Up Jobs and Cost Codes

The Harbor Pointe job nearly went wrong before a single shingle was torn off — not on the roof, but in the books.

Marcus signed the \$148,500 contract on a Tuesday. The crew was scheduled for the following Monday. On Friday afternoon, Denise Alvarez asked a question that stopped the job cold: "Where do I put Monday's material delivery?" There was no job in the accounting system. No job record, no entered estimate, no codes. The supplier's invoice would have landed, as invoices had landed for years, in a general materials account with a note in the margin — and Harbor Pointe's costs would have begun life exactly the way every Delgado job before it had: scattered, late, and impossible to reconstruct.

Denise set the job up that afternoon. It took less than an hour. This chapter is that hour, taught in full: how to create a job in your books before work starts, how to structure the cost codes that give every dollar an address, and how to enforce the one rule that makes the whole system hold together — no code, no check.

Chapter 5 gave you the six cost families. Families tell you *what kind* of cost you are holding. This chapter adds the second half: *which job* it belongs to, recorded from the *first* transaction forward. Job costing is not a report built at the end of a job from memory. It is a filing system built at the beginning, into which the job's life is filed as it happens.

Set Up the Job Before the Work Starts

A job should exist in your books before the first purchase order is issued, the first hour is worked, or the first deposit is received. In practice, "set up" means four things, in this order.

First, the job record. Create the job in your accounting system's projects or jobs module (Volume 4 covered the software workflows; the principle here is software-neutral). Give it a name the whole team will use identically — customer, project, and building where it matters. "Harbor Pointe Condominiums — Building C" is a job name; "roof job — condos" is not, because in six months no one will know which condos it meant. Assign a job number, and use it on every purchase order, time entry, and delivery ticket. Names get misspelled. Numbers do not.

Second, the contract information. Enter the contract price — \$148,500 — the contract type (fixed-price, in this case; Chapter 8 covers the types), the retainage terms (10 percent, released 45 days after final acceptance), the billing instructions, and the customer's contact for applications for payment. Retainage and billing terms recorded at setup are what allow the system to withhold correctly on every billing without anyone doing arithmetic on a sticky note. Contract terms, licensing requirements, and lien-related deadlines vary by state; record the terms that govern *your* job, in *your* state, and verify them with your own counsel or CPA where the contract directs. This book teaches the paperwork discipline, not the law of any particular state.

Third, the estimate, entered as the budget. This is the step contractors skip, and skipping it voids everything downstream. Chapter 5 built Harbor Pointe's estimated cost of \$118,500 family by family. That estimate must be typed into the job record, line by line by cost code, before work

begins — because the entered estimate becomes the budget against which every actual cost will be compared in Chapter 7's job cost report. An estimate that lives in a spreadsheet on the estimator's laptop, or in a folder in the truck, cannot be compared to anything. An estimate entered as a budget produces a variance report the first week costs arrive. Tony Ruiz estimates the job; Denise enters the estimate; Marcus approves both. Three people, one set of numbers.

Fourth, the people. Tell the field how this job will be coded before the crew leaves the yard: which job number goes on time entries, which codes the foreman will use, where delivery tickets go, and by when. A system announced after the first payroll starts with two weeks of reconstruction. Announced before the first shift, it starts clean.

The Cost Code Structure

Cost codes are the filing system inside each job. A code answers the question: *what was this cost for?* — at a level of detail finer than the six families, but coarser than a unique description of every nail. Design is a balance. Too few codes, and everything lands in "materials" and "labor," and you learn nothing you did not already know. Too many codes, and your foreman faces a list of two hundred choices at 6 a.m. and chooses "miscellaneous" for all of them.

Large general contractors use division-based systems with thousands of codes. A small contractor needs the same logic at a human scale: a short list a crew leader can memorize in a week. Here is the list Denise built for Delgado Roofing, simplified from division-style practice, and used throughout the rest of this book.

Code	Cost code		What is coded here	Cost family
100	Sitework preparation	and	Staging, site protection, temporary facilities bought for the job	Other job costs
200	Tear-off demolition	and	Tear-off and demolition charges specific to removal work	Other job costs
300	Materials — roofing system		Shingles, underlayment, flashing, decking; for Dana, parts and installed equipment	Direct materials
400	Direct labor		Gross wages of field employees and technicians, by time entry	Direct labor
410	Labor burden		Employer taxes, workers' comp, benefits — applied at the burden rate	Labor burden
500	Subcontractors		Crane, gutter, and other subcontracted work on the job	Subcontractors
600	Equipment		Owned-equipment charges at the internal rate, and equipment rentals	Equipment
700	Permits and disposal		Permit and inspection fees, dump and disposal charges	Other job costs
800	Other job costs		Any direct job cost with no other home — never a dumping ground	Other job costs

Job number first, cost code second — every dollar lands in exactly one code

A Small Contractor's Cost Code Structure

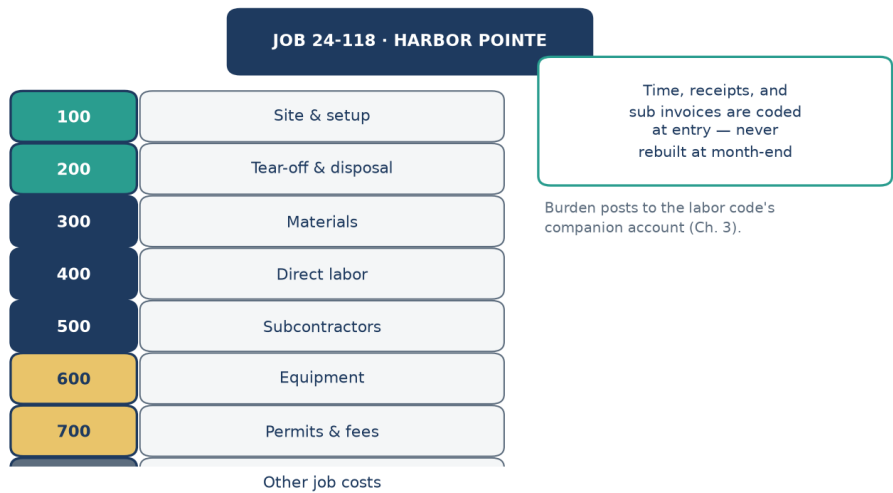


Figure 6.1: Codes are the filing system of job costing — few enough to memorize, exact enough to price the next bid.

Three design rules produced this list, and they will produce yours.

Rule one: one code, one meaning, everywhere. Code 300 means the same thing on Harbor Pointe, on a repair job, and on next year's work. The moment a code means "materials on this job, labor on that one," cross-job comparison — the entire purpose of the system — is gone.

Rule two: burden gets its own code. Code 410 exists because Chapter 5's burden is real money — \$7.80 on every \$26.00 hour at Delgado — and because it must never be blended invisibly into wages. In practice, burden is applied automatically: every hour coded to 400 generates its burden at the company's rate (30 percent at Delgado, 28 percent at Whitfield) into 410. No one codes burden by hand. Everyone can see it, on every job, as its own line.

Rule three: not every code is used on every job. A pure re-roof may leave 100 and 200 untouched, folding site protection into 800 and tear-off time into 400, exactly as the Callahan job in Chapter 5 carried zero subcontractors. An unused code is information. A missing code, when a cost arrives that needs it, is a crisis at the keyboard. Build the full list once; use the parts each job requires.

Here, then, is Harbor Pointe's estimate entered as its budget, in the codes above — the same \$118,500 from Chapter 5, now with addresses:

Code	Budget line	Estimated cost
300	Materials — roofing system	\$52,000
400	Direct labor	\$38,000
410	Labor burden (30% of Code 400)	\$11,400
500	Subcontractors (crane and gutters)	\$9,600
600	Equipment	\$4,500
700	Permits and disposal	\$3,000
Total estimated job cost		\$118,500

Check: $\$52,000 + \$38,000 + \$11,400 + \$9,600 + \$4,500 + \$3,000 = \$118,500$. The contract price of \$148,500 and the estimated gross profit of \$30,000 are recorded on the same job record. From this moment, Harbor Pointe can be reported on at any time — estimated, actual, and variance — which is the whole subject of Chapter 7.

Adapt the list, do not adopt it blindly. Dana's version keeps the same skeleton — her 300 holds parts and installed equipment, her 600 holds van charges. Your trades will rename lines: a concrete contractor's 300 is concrete and rebar; an electrician's is wire, devices, and fixtures. Keep the skeleton, and review Code 800 monthly. If 800 grows, it is telling you a code is missing. Add the code. Do not let 800 become the system.

Code Every Transaction at Entry

A budget in the system accomplishes nothing if actual costs arrive uncoded and are sorted out later. Later never comes, or comes at month-end in a rush, from memory, wrong. The rule is: **the code is assigned when the transaction is entered — by the person closest to the transaction, at the moment it happens.**

Receipts and supplier invoices. Every delivery ticket and invoice is stamped, physically or digitally, with the job number and code before it reaches the bookkeeper. Shingles delivered to Harbor Pointe: Job Harbor Pointe, Code 300. The foreman signs and writes the job name on the ticket at the curb, not from memory on Friday. Denise's part is verification, not archaeology: does the job match the purchase order, does the code match the material, does a credit memo exist for anything returned?

Time. Time is the transaction contractors most often code badly, because it is recorded in hours and paid in aggregate. Each field employee's day is entered by job and by code — for Delgado, overwhelmingly Code 400, split across jobs when a repair crew touches three roofs in one day. A day split across three jobs is three lines, not one line charged to the largest job. Payroll then does two things automatically: it charges each job its true wages, and it posts burden to Code 410 at the burden rate. Chapter 14 covers the payroll mechanics and the workers' compensation audit trail this creates; for costing purposes, what matters is that labor enters the job record daily or weekly — never as a month-end lump.

Subcontractor invoices. A sub's invoice is coded to the job and to Code 500 when it is approved for payment, matched against the subcontract or work order, and checked for the paperwork Chapter 13 requires — insurance certificate and Form W-9 on file before payment. An invoice that exceeds the subcontract amount is not coded and quietly paid; it is a question, asked before the check exists, about scope and change orders.

Everything else. Permits and dump receipts go to 700, with the permit number noted. Rental invoices go to 600. The discipline should become boring — and boring is the goal: coding as habit, so deliberation is reserved for the reports the coding makes possible.

Jobs for Service Work: Dana's Tickets

Everything above was written in the language of projects — weeks or months of work under one contract. Dana Whitfield's company does the opposite: hundreds of small jobs, most finished the day they start. Her system is the same system, compressed.

Every service call is a job. When a customer calls Whitfield Plumbing & Air, Priya Nair, the dispatcher, opens a ticket — and that ticket number is the job number. The technician's time is coded to the ticket (Code 400, burden to 410 at Dana's 28 percent rate). Parts off the van are coded to the ticket (Code 300). A permit, when a repair requires one, is Code 700 on that ticket. When the call closes, the ticket holds a complete miniature job cost: price charged, labor, burden, parts, and margin. Dana's average service ticket is \$385. At that size, a single uncoded part or a half hour of forgotten time is not a rounding error — it is the profit on the call. Service work does not need job costing less than project work. It needs it more, because the dollars per job are smaller and the jobs per week are more numerous.

Installations are jobs with estimates. A change-out like the Callahan job — \$12,500 price, \$7,000 actual cost, \$5,500 gross profit at a 44.0 percent margin — gets the full treatment from the first half of this chapter: a job record, the flat-rate price as the contract, and the expected cost entered as a budget before the crew is dispatched. One day of work does not excuse a job from having a budget. It makes the variance conversation possible the same evening.

Maintenance agreements are recurring jobs. Dana carries 240 active maintenance agreements at \$240 a year each — \$57,600 of annual revenue. Each agreement is set up as a recurring job: the agreement is the contract, the scheduled visits are the work, and each visit is coded to that agreement's job record as it occurs — the technician's time, any parts, any findings. Cash received for an agreement is not all income on the day it arrives; it is earned as the visits are performed over the agreement year, and Dana tracks it as deferred revenue until it is earned, a treatment Chapter 9 and the WIP discussion return to. The costing payoff is direct: at renewal time, Dana can see what each agreement actually cost to service. An agreement whose two visits consumed \$260 of labor, burden, and parts is not a \$240 agreement with a service problem. It is a mispriced agreement, and she can reprice it, restructure it, or decline to renew it — with numbers, at the moment the decision is made.

The Rule That Holds It Together: No Code, No Check

Systems like this do not fail from bad design. They fail from exceptions — the invoice paid in a hurry without a code "just this once," the sub paid before his paperwork arrived, the time card with one job's number covering a three-job day. Together, the exceptions return the books to the shoebox. Denise's enforcement is one sentence, posted where invoices are approved: **No code, no check.**

It means exactly what it says. An invoice without a job number and code is not entered, approved, or paid — it goes back to whoever submitted it. A sub's invoice without the required file documents waits until the file is complete. A time entry without a job waits until one is supplied. Denise applies the rule to Marcus's own receipts with the same cheerfulness she applies to everyone else's, and that even-handedness is why it works. Within one quarter, nobody at Delgado submitted uncoded paperwork anymore.

Adopt the rule with two courtesies. Announce it before you enforce it, in writing, to employees and subcontractors alike — a rule sprung on a sub at payment time damages a relationship you need. And make compliance easy: codes printed on the time card, the job list current. Discipline built into the workflow becomes the workflow. Marcus backed the rule — including against himself — and Harbor Pointe became the first Delgado job whose every cost could be produced, coded, and tied to the dollar. Chapter 7 shows what Denise did with that record: she read it, weekly, while the job was still young enough to save.

Key Takeaways

- Create the job in your books before work starts: job record and number, contract price and terms (including retainage), the estimate entered line by line as the budget, and coding instructions given to the field in advance.
- Cost codes are a job's filing system. Keep the list short enough to memorize, give each code one meaning on every job, and give labor burden its own code (410), applied automatically from coded labor.
- Harbor Pointe's \$118,500 estimate, entered by code — \$52,000 materials, \$38,000 labor, \$11,400 burden, \$9,600 subcontractors, \$4,500 equipment, \$3,000 permits and disposal — is the budget every actual cost will be measured against.
- Code every transaction at entry: receipts and supplier invoices, time (split honestly across jobs), subcontractor invoices, permits, and rentals. Sorting it out at month-end means sorting it out from memory, wrong.
- Service work uses the same system at smaller scale: every service call is a job with a ticket number, installations get budgets, and maintenance agreements are recurring jobs whose costs are tracked visit by visit.
- Enforce the system with one rule, applied to everyone including the owner: no code, no check.

Your Turn

1. Open a job record for your next signed job today — name, job number, contract price, retainage and billing terms — before any cost is incurred against it.
2. Enter that job's estimate into the job record as its budget, line by line by cost code, and verify the lines total to your estimated cost.
3. Draft your own cost code list on the model in this chapter: one code per cost family, a separate code for burden, a code for permits and disposal, and a small "other" code you commit to reviewing monthly.
4. Print the code list where time is recorded and where invoices are approved, and brief your field team on how each job will be coded before the next job starts.
5. Announce the rule — no code, no check — in writing to your team and your subcontractors, with its start date, and hold it on the first invoice that tests it.

Chapter 7: Estimated vs. Actual: The Job Cost Report

One month into Harbor Pointe, Denise Alvarez placed a single page in front of Marcus Delgado and said the sentence this entire book exists to make possible: "We are going to overrun this job — here is where, here is how much, and here is what we can still do about it."

The job was not in trouble. The crews were working, the customer was satisfied, and the bank balance was healthy. Every signal Marcus had relied on for twenty years said the job was fine. The page said otherwise, in two lines: materials and labor were each running 10 percent ahead of where a job half finished should have them — and the job was only half finished. There was still a second month in which to act.

That page was a job cost report. Chapter 5 taught you what a job costs; Chapter 6 taught you to set the job up and code every transaction as it happens. This chapter teaches you to read the result — estimated against actual, while the difference is still small enough to manage. A variance discovered at completion is an obituary. A variance discovered at mid-job is a decision.

The Job Cost Report: Four Columns That Matter

A job cost report compares, for one job and for each cost code within it, what you expected to spend with what you have actually spent. Every useful version of the report carries four elements per line:

- **Estimated cost** — the budget entered at setup (Chapter 6).
- **Actual cost to date** — the coded transactions posted so far.
- **Variance** — the difference, stated in dollars, with its direction made plain.
- **Percent complete by cost** — actual cost to date divided by total estimated cost for that line, which tells you how much of the line's budget the job has consumed.

Here is Harbor Pointe at the end of Month 1. The job stood at 50 percent complete overall, with \$59,250 of cost incurred against the \$118,500 estimate:

Cost line	Estimated	Actual to date	% of estimate consumed
Materials (Code 300)	\$52,000	\$28,600	55.0%
Direct labor (Code 400)	\$38,000	\$20,900	55.0%
Labor burden (Code 410)	\$11,400	\$6,270	55.0%
Subcontractors (Code 500)	\$9,600	\$2,480	25.8%
Equipment (Code 600)	\$4,500	\$1,000	22.2%
Permits and disposal (Code 700)	\$3,000	\$0	0.0%
Total	\$118,500	\$59,250	50.0%

Check the total first; a report that does not tie out deserves no further reading. The actuals sum exactly: $\$28,600 + \$20,900 + \$6,270 + \$2,480 + \$1,000 + \$0 = \$59,250$. Burden checks independently, as it always should: 30 percent of actual labor is $0.30 \times \$20,900 = \$6,270$. And the headline is true: $\$59,250 \div \$118,500 = 50.0$ percent of the estimated cost consumed, matching the field's assessment that the job was half complete, and matching the earned revenue for the month — $50 \text{ percent} \times \$148,500 = \$74,250$ — that Chapter 11's work-in-progress schedule will use.

Now look past the headline, because it is the least interesting number on the page. The total says 50.0 percent; no individual line says 50 percent. The job is ahead in some lines and behind in others, and that pattern is the information. Reading it takes three questions, asked of every line, every week.

Reading Variances While They Are Still Small

Question one: at this stage of the job, what should this line have consumed? For lines that move with the work — materials and labor on a roofing job — a job 50 percent complete should have consumed roughly 50 percent of those budgets. Materials should stand near $0.50 \times \$52,000 = \$26,000$. They stand at \$28,600, which is \$2,600 ahead. Labor should stand near \$19,000. It stands at \$20,900, which is \$1,900 ahead. Burden follows labor automatically: \$570 ahead, exactly 30 percent of the labor overrun. These are not large numbers. That is precisely the point. A \$2,600 materials variance at Month 1 is a conversation. The same pattern, unexamined for another month, becomes the \$3,900 materials overrun the job ultimately recorded — found, as the tear-off progressed, to be a hidden second layer of roofing that had to be removed and replaced, consuming material the estimate never carried.

Question two: is this variance a cost problem, or a timing problem? Subcontractors show \$2,480 spent of a \$9,600 budget — only 25.8 percent, which looks comfortably behind. Denise read it the opposite way. The crane, the largest piece of that budget, had not yet been scheduled, and gutter work had not begun. Subcontracted *work performed* was close to zero — yet \$2,480 of cost was already on the job, an early invoice from the gutter contractor. Cost incurred ahead of work performed is a fact to verify, not a saving to celebrate: Was the invoice for work actually done? Was a deposit billed that the subcontract did not provide for? The line finished exactly on estimate at \$9,600 — because someone asked in Month 1 rather than reconciling at closeout.

Equipment teaches the mirror image: \$1,000 spent of \$4,500 looks like a saving against the \$2,250 a half-finished job might have consumed. It was not. The heavy equipment charges were scheduled for Month 2; the cost was coming, it had simply not arrived. Equipment finished at \$3,930 — genuinely under estimate, but by \$570, not by a fortune.

Question three: is an empty line a saving, or a cost that has not been recorded yet? Permits and disposal show \$0 against a \$3,000 budget. A careless reader books a \$3,000 gain. A careful reader asks whether the permit was pulled and whether disposal has been billed — because on Harbor Pointe, both costs were still coming, and both ultimately arrived in full: the line finished at exactly \$3,000. A zero on a job cost report is never a conclusion. It is a question.

Classify every variance into one of three kinds, because each demands a different response. A **cost variance** — the job genuinely consumed more than planned, like the hidden layer — requires a decision: absorb it, recover it through a change order if the customer caused it (Chapter 10), or offset it elsewhere. A **timing variance** — cost and work out of sequence — requires verification, not alarm. A **recording variance** — cost incurred but not yet coded — requires bookkeeping, immediately. Most bad decisions come from treating one kind as another: panicking over timing, or waving a genuine cost variance away as "probably just timing" until the job ends.

The Weekly Review Ritual

A report nobody reads on schedule is decoration. Denise's discipline — recommended here without qualification — is a **weekly job review: thirty minutes, the same time every week, for every active job of consequence**. Harbor Pointe's review had three people — Marcus, Denise, and Tony Ruiz — and a fixed agenda:

1. The job cost report, line by line, variances classified as cost, timing, or recording.
2. Percent complete, confirmed by the field — not inferred from cost alone.
3. The estimate at completion, updated as described below.
4. Actions: one owner, one deadline, for every variance that needs one.

Thirty minutes is enough because the report does the arguing. Nobody's memory of the job is on trial; the codes were assigned at entry, the budget was entered before work started, and the page reflects both. The meeting is short precisely because the system is current.

You met a monthly version of this discipline in Volume 3, *Accounting for Business Owners* — the monthly review ritual for the company's statements, ratios, and cash position. That ritual remains correct at company level, but jobs do not move at monthly speed: a roofing job can consume half its budget in four weeks. The weekly job review is the monthly ritual's faster sibling. An owner who reviews monthly meets Harbor Pointe's overrun at the end of Month 2, 80 percent complete, when the remaining decisions are mostly about explaining the result. Denise met it at 50 percent, when the decisions were still about changing it.

Estimate at Completion: The Forecast That Replaces the Budget

Once a job is under way, the original estimate stops being the most useful number on the report. It remains the record of what was promised, and variances against it remain the measure of

estimating accuracy. But for managing the job, the governing number becomes the **estimate at completion (EAC)**: your current, honest forecast of what the job will cost when it is done. The formula is simple:

Estimate at Completion = Actual Cost to Date + Estimate to Complete

The estimate to complete is not the original budget minus actuals — that arithmetic assumes everything remaining will go exactly as planned, including the parts that already have not. It is a re-pricing of the work that remains, by the person who knows that work, using what the job has taught you so far. At the end of Month 1, Tony re-priced Harbor Pointe's remaining work in light of the second tear-off layer. Denise's updated forecast read:

Cost line	Actual to date	Estimate to complete	Estimate at completion
Materials	\$28,600	\$26,900	\$55,500
Direct labor	\$20,900	\$18,500	\$39,400
Labor burden (30% of labor)	\$6,270	\$5,550	\$11,820
Subcontractors	\$2,480	\$7,120	\$9,600
Equipment	\$1,000	\$2,580	\$3,580
Permits and disposal	\$0	\$3,000	\$3,000
Total	\$59,250	\$63,650	\$122,900

Check the forecast as you would check any arithmetic: $\$59,250 + \$63,650 = \$122,900$, and burden to complete is $0.30 \times \$18,500 = \$5,550$, keeping burden at 30 percent of labor in the forecast just as in the actuals. The message of the EAC was sobering and useful in equal measure. Against the \$148,500 contract price, a \$122,900 final cost meant gross profit of \$25,600 — a margin of 17.2 percent, already faded from the estimated 20.2 percent, with a month left to protect what remained. Marcus did not enjoy that meeting. He later said it was the most valuable half hour of the job, because every decision that followed — sequencing the crane day to avoid a second mobilization, confirming the gutter scope in writing before the sub returned — was made against a forecast instead of a hope.

Note also what the EAC does to percent complete. Measured against the original estimate, Month 1 cost was 50.0 percent of the job. Measured against the revised EAC, $\$59,250 \div \$122,900 = 48.2$ percent — a more honest statement of how much of the *actual* job, including its overrun, had been accomplished. Whichever denominator your company uses, use it consistently, and say which one you are using; Chapter 11 will show how this choice flows into revenue recognition on the work-in-progress schedule.

How Harbor Pointe Finished — and What the Report Knew, and When

Harbor Pointe's final cost was \$124,300, against the \$118,500 estimate — a total overrun of \$5,800:

Cost line	Estimated	Actual (final)	Variance
Materials	\$52,000	\$55,900	–\$3,900
Direct labor	\$38,000	\$39,900	–\$1,900
Labor burden	\$11,400	\$11,970	–\$570
Subcontractors	\$9,600	\$9,600	\$0
Equipment	\$4,500	\$3,930	+\$570
Permits and disposal	\$3,000	\$3,000	\$0
Total	\$118,500	\$124,300	–\$5,800

Final gross profit was $\$148,500 - \$124,300 = \$24,200$, a margin of 16.3 percent — a fade of \$5,800, or 3.9 margin points, from the estimated 20.2 percent. The Month 1 EAC of \$122,900 proved \$1,400 optimistic; no forecast is exact, and that is not its purpose. Its purpose is direction and timing, and on both it succeeded. Every element of the final overrun was visible in the Month 1 report: materials over by \$3,900 at the end, after standing \$2,600 ahead of pace at the midpoint; labor over by \$1,900, the exact amount by which it stood ahead of pace at Month 1; burden following labor at 30 percent, to the dollar. The two lines that looked strangest at Month 1 — subcontractors and permits — finished at exactly their estimates. The report, read weekly and read correctly, contained the job's ending a month before the job ended.

Estimated \$118,500 vs. actual \$124,300 — a \$5,800 overrun in two categories

Job Cost Report: Harbor Pointe at Completion

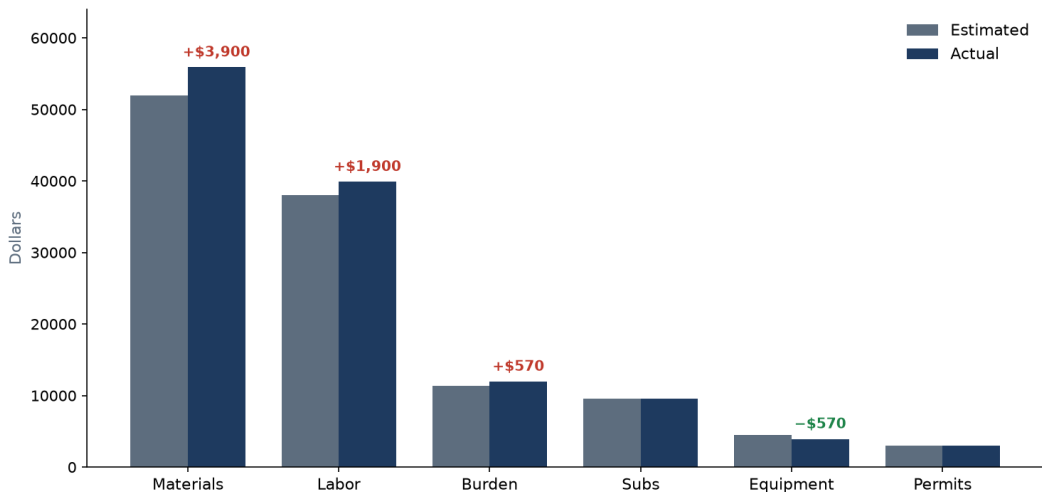


Figure 7.1: The \$5,800 overrun was visible in two categories by Month 1 — materials and labor — for anyone reading this report weekly.

Feeding Actuals Back Into the Next Bid

The last use of a completed report is the one that pays for the whole system: it becomes the estimating department's memory. Before Harbor Pointe, Tony estimated tear-off from the visible roof — one layer, because one layer was what the surface showed. Afterward, Delgado's estimating carries a written instruction for condominium re-roofs of that era and type: verify the layer count before the bid is final, and price the contingency when verification is impossible. The next bid's materials line is built from an actual \$55,900 experience, not a \$52,000 assumption already proven wrong once.

The discipline in one sentence: **every estimate for the next job should be traceable to actual costs from completed jobs.** Companies that keep actuals bid tighter where they are genuinely efficient and higher where experience demands it. Companies that estimate from memory bid the same wrong numbers with growing confidence.

Dana's Version: The Weekly Ticket Review

Whitfield Plumbing & Air runs the same ritual at service speed. Dana's report is the week's tickets — every service call a job, as Chapter 6 established — reviewed with Priya Nair in one weekly sitting. Three questions govern it. Which tickets lost money, and why? Which flat-rate prices disagree with actual costs often enough to reprice — not on one bad call, but on a pattern? And what did callbacks cost?

Callbacks receive the treatment that makes Dana's numbers honest: **a callback is coded to the original job, never to a new ticket.** The returning technician's time (Code 400), its burden (Code 410), and any replacement part (Code 300) all land on the original customer's job record. The original ticket's margin falls — as it should, because the job was not truly finished at its first price — and the company accumulates a true cost of callbacks by job type, by technician, and by part. A company that opens a fresh ticket for every callback reports happy margins on original work and a mysterious pool of "unbillable" hours. Dana reports a single truth per job, and her price book is revised from it.

The job still overran — job costing does not repeal weather, hidden conditions, or physics. It made \$24,200 instead of the planned \$30,000, and it taught Marcus the difference while there was still time to defend the \$24,200. The alternative he had practiced for twenty years was learning the same number at closeout, when it was only history.

Key Takeaways

- A job cost report compares estimated cost, actual cost to date, variance, and percent complete by cost — for every cost line, not just the job total. Harbor Pointe's total read exactly 50.0 percent at Month 1 while materials and labor each stood at 55.0 percent of their budgets.
- Classify every variance before you act on it: a cost variance needs a decision, a timing variance needs verification, and a recording variance needs bookkeeping. A zero line, like Harbor Pointe's permits at Month 1, is a question, not a saving.

- Review every active job weekly — thirty minutes, same time, fixed agenda. The monthly review from Volume 3 governs the company; the weekly review governs the work, which moves faster.
- Manage to the estimate at completion: actual cost to date plus an honest re-pricing of the work that remains. Harbor Pointe's Month 1 EAC of \$122,900 forecast the profit fade while a month of decisions remained.
- Harbor Pointe finished at \$124,300 against a \$118,500 estimate — a \$5,800 overrun, gross profit of \$24,200 at a 16.3 percent margin — and every dollar of the overrun was visible in the Month 1 report.
- Close the loop: completed job actuals are the estimating department's memory. Code callbacks to the original job, as Dana does, so margins and prices are revised from the truth.

Your Turn

1. Produce a job cost report for one active job this week, line by line: estimated, actual to date, variance, and percent of estimate consumed — and verify the actuals total before you interpret anything.
2. For each line that is out of position, write one word beside it — cost, timing, or recording — and one action that matches the classification.
3. Schedule a thirty-minute weekly job review at a fixed time, with a fixed agenda, and hold the first session even if the first report is incomplete.
4. Compute an estimate at completion for the same job: re-price the remaining work with the person who knows it best, rather than assuming the remaining budget will simply be spent as planned.
5. Pull one completed job's final report and mark every line your next estimate should learn from — then write the lesson into your estimating notes, where the next bid will find it.

PART THREE

Billing and Getting Paid

Chapter 8: Contract Types and How They Hit the Books

In the same month Delgado Roofing carried Harbor Pointe — a \$148,500 fixed-price contract, bid once and defended for two months — Marcus's repair crew replaced a leaking vent stack for a homeowner under a one-page time-and-materials agreement, billed by the hour, finished by lunch. Same company, same crews, same burden rate. Two entirely different financial animals.

The difference was not the work. It was the contract type, which decides three things before the first hour is worked: how the job is bid, how it is billed, and where the risk sits when reality disagrees with the plan — as reality reliably does. It also decides how your books must record the job. Owners who sign whatever paper the customer offers, then book every job the same way, discover the differences at the worst moment: when a cost overruns and the contract determines whose problem it is.

This chapter covers the three principal contract types — fixed-price, time-and-materials, and cost-plus — plus unit-price work in brief, and then shows you the type most home-services companies use without naming it: the flat-rate price book, which is fixed-price contracting packaged for service work. Contract forms and their enforceability vary by state, and by the type of customer and work involved; have your own attorney review the forms you use in your state. What follows is how each type behaves in the books, which is the part your accountant needs you to understand before you sign.

The Three Types at a Glance

	Fixed-price (lump sum)	Time-and-materials	Cost-plus
Bid as	One price for a defined scope	Rates: a labor rate, plus a stated markup on materials	Actual cost, plus a fee — a percentage of cost or a fixed amount
Billed as	Progress billings against a schedule of values	Actual hours at the agreed rates, plus materials as agreed	Documented actual costs, plus the fee
Cost-overrun risk	Contractor	Customer	Customer (unless a cap applies)
Contractor's profit comes from	Beating the estimate	The spread in the rates	The fee
Books demand	Job costing, budget, WIP schedule	Impeccable time and material records	Open-book documentation cost

The contract decides who carries the cost risk — and how revenue is recorded

Three Contract Types, Three Different Books

FIXED-PRICE	TIME & MATERIALS	COST-PLUS
Price set before work	Billed as costs occur	Costs + agreed fee
Contractor carries	Customer carries	Customer carries
cost-overrun risk	most cost risk	cost risk; fee is fixed
Billed by % complete	Rates + markup agreed	Full cost transparency
Job costing is critical	Time records are critical	Documentation is critical

Figure 8.1: The contract type decides where the risk lives — and how your books must record the work.

Read the middle row of that table until it is instinct. A contract type is, at bottom, an assignment of risk. Everything else in this chapter is a consequence of that assignment.

Fixed-Price: You Own the Estimate

Under a fixed-price (lump sum) contract, you agree to complete a defined scope for one price. Harbor Pointe is the model: Marcus bid the job from Denise's estimate of \$118,500 in cost, applied his markup, and signed at \$148,500. The two profit measures on that bid are worth stating precisely, because confusing them corrupts bids for years: the markup was $\$30,000 \div \$118,500 = 25.3$ percent *on cost*, which produces a margin of $\$30,000 \div \$148,500 = 20.2$ percent *on price*. Chapter 16 develops the distinction in full.

How it is billed. In installments as work progresses — progress billings against a schedule of values, usually with retainage withheld. Chapter 9 is devoted to that machinery; Harbor Pointe's first application for payment billed \$44,550, or 30 percent of the contract, with \$4,455 of retainage withheld and \$40,095 due. The customer does not pay for costs incurred; the customer pays for progress billed under the contract, which is why Chapters 11 and 12 will separate *earned* revenue from *billed* revenue so carefully.

How it hits the books. Revenue is recognized as the work is earned, costs are accumulated by job and code exactly as Chapters 6 and 7 describe, and the job cost report — estimated against actual — is not an optional management nicety. It is the only instrument that tells you whether the price you fixed is still defensible. The fixed price will not move because your costs did.

Where the risk sits. With you. Harbor Pointe's hidden second tear-off layer added \$3,900 of materials and \$1,900 of labor, plus \$570 of burden on that labor, and the contract price did not

change by one dollar: Marcus absorbed the overrun, finished at \$124,300 of cost, and kept \$24,200 of gross profit instead of \$30,000. The same risk runs in your favor on the other side of the ledger — had the job finished \$5,800 *under* estimate, every dollar of that efficiency would have been Marcus's as well. Fixed price rewards accurate estimating and disciplined production, and punishes the opposite, without appeal. It is the right contract when scope can be defined tightly enough to price honestly — and a dangerous one when it cannot, which is why experienced contractors grow cautious about fixed prices on work whose hidden conditions cannot be inspected in advance.

Time-and-Materials: The Customer Owns the Outcome

Under time-and-materials (T&M), there is no single price for the job. The customer agrees to pay an hourly rate for labor — a *billing* rate, which must cover the loaded labor cost, a contribution to overhead, and profit — plus the cost of materials, typically with a stated markup, plus other job costs as the agreement provides. Sometimes the agreement adds a not-to-exceed figure, a ceiling the contractor may not pass without written authorization. That ceiling matters, and we will return to it under change orders.

How it is billed. From records, as the work is performed: hours worked at the agreed rate, materials used at the agreed basis, each line documented. Consider Marcus's repair crew on an illustrative leak repair, priced under a written T&M agreement at a \$95.00 hourly billing rate with materials billed at cost plus 20 percent. Six hours of labor bill at $6 \times \$95.00 = \$570.00$. Materials costing \$310.00 bill at $\$310.00 \times 1.20 = \$372.00$. The invoice is $\$570.00 + \$372.00 = \$942.00$ — small, complete, and provable from the crew's time entries and the material ticket. Note the arithmetic honesty T&M demands: Delgado's *cost* for that labor was 6 hours at the \$33.80 loaded rate, or \$202.80. The \$95.00 billing rate is not a deception; it is the price of the hour, carrying overhead and profit openly. But it only gets paid if the hours are documented to the customer's satisfaction.

How it hits the books. Simply, compared with fixed-price work. Revenue is recorded as the work is billed, costs are charged to the job as always, and there is no meaningful work-in-progress estimation problem, because billing follows performance closely. Your job cost records still matter — they tell you whether your billing rate is adequate — but no customer's payment depends on a percent-complete calculation.

Where the risk sits. With the customer, who pays for however long the work honestly takes. Your risks are different in kind: documentation risk and trust risk. Every hour will be examined by a customer who bears its cost, so time records, material tickets, and daily authorizations are not paperwork — they are the product being sold alongside the repair. Contractors who are sloppy documentarians should not sell T&M work, however attractive its risk profile looks. The first disputed invoice, unsupported by records, converts all of T&M's theoretical safety into a collection problem.

Cost-Plus: Open Books, Shared Arithmetic

Under cost-plus, the customer pays the actual cost of the work, documented, plus a fee for the contractor's services. The fee is structured one of two ways: as a percentage of cost (cost plus 15 percent, for example), or as a fixed fee (cost plus \$18,000). The distinction is not cosmetic. A percentage fee grows when costs grow, which gives the contractor a visible — if unfairly suspected — indifference to overruns. A fixed fee does not grow, which aligns the parties better and is the structure sophisticated customers prefer.

How it is billed. Periodically, with the costs themselves presented for review: invoices, time records, subcontractor billings, all open to the customer's inspection. **How it hits the books.** Reimbursable job costs are accumulated by job and code as always; billings present those costs plus the computed fee, and the fee portion is your revenue for your services. The accounting burden is transparency itself — every dollar billed must trace to a source document the customer may ask to see, which makes Chapter 6's coding discipline and Chapter 13's subcontractor files a condition of getting paid, not an internal preference.

Where the risk sits. Primarily with the customer, who bears the actual cost of the work, overrun and underrun alike. Your risks are audit risk and reputation risk: a cost the customer judges unreasonable is a cost you may not recover, fee or no fee. Many cost-plus contracts therefore carry a **guaranteed maximum price (GMP)** — a cap above which the contractor absorbs further cost. A GMP converts the contract into a hybrid: cost-plus below the cap, fixed-price above it. If you sign a GMP, your books must track cost against the cap with the same weekly vigilance Chapter 7 prescribed for fixed-price work, because above the cap the risk changes owners mid-job.

Cost-plus suits work whose scope cannot be defined in advance — phased renovations, restoration after damage. It does not suit an owner whose records cannot withstand inspection.

Unit-Price Work, in Brief

Unit-price contracts divide the work into measurable units — per square of roofing, per linear foot of pipe, per fixture set — each with its own price. The contractor bids the unit prices; the customer pays for the quantities actually installed, as measured and agreed. Harbor Pointe, bid this way, would have been priced per square of tear-off and replacement rather than at \$148,500 for the building.

The risk is shared in a specific, sensible pattern: the contractor bears the risk that each unit costs more to produce than its price allows, and the customer bears the risk that quantities exceed the estimate — more squares, more footage, more fixtures. The books follow the units: revenue and cost are recorded per unit completed, and quantity measurement — who measures, how, and when agreement is recorded — becomes a bookkeeping discipline in its own right. Public and utility work uses this type heavily; residential and service contractors meet it in insurance-program and property-management work. If you bid unit-price work, your estimating memory from Chapter 7 — actual cost per unit from completed jobs — is the entire basis of a sound bid.

Flat-Rate: Fixed Price, Packaged for Service

Dana Whitfield's price book appears to be none of the above. In fact it is fixed-price contracting, engineered for work that lasts hours instead of months. Each item in the book — a water heater replacement, a condenser fan motor, a full system change-out — carries one price, quoted before work begins, unchanged by how long the job takes. The customer is buying the certainty of a fixed price. Dana is accepting the risk that makes fixed price demanding, hundreds of times a month, at ticket scale.

The Callahan change-out shows the economics exactly. Quoted from the book at **\$12,500 fixed**. Actual cost, from Chapter 5: **\$7,000** — \$5,000 of installed equipment, \$750 of other materials, \$800 of technician labor (2 technicians $\times$ 10 hours $\times$ \$40.00), \$224 of burden at 28 percent, a \$125 permit, and \$101 of disposal. Gross profit: $\$12,500 - \$7,000 = \$5,500$, **a margin of 44.0 percent**. That margin is not a windfall; it is the price of risk correctly borne. Dana's two technicians finished in one day because they are experienced, equipped, and dispatched against a defined scope. Had the job fought them — an extra half day, a failed component replaced under her workmanship commitment — the price would still have been \$12,500, and the added labor would have cost her \$51.20 per technician hour (\$40.00 wage plus 28 percent burden) with no added revenue. Her efficiency is her profit, exactly as Marcus's is on Harbor Pointe. Her protection is the mirror of his: a price book built from actual job costs, repriced from the weekly ticket review of Chapter 7, so that the fixed prices she quotes are fixed against reality rather than against hope.

Now run the same job as T&M, hypothetically, to see what the contract type changes. Bill labor at an illustrative \$125.00 per technician hour: $20 \text{ hours} \times \$125.00 = \$2,500$. Bill equipment and materials at cost plus 20 percent: $\$5,750 \times 1.20 = \$6,900$. Pass the permit and disposal through at cost: \$226. The T&M invoice totals $\$2,500 + \$6,900 + \$226 = \$9,626$ — \$2,874 less than Dana's flat-rate price. The customer would have paid less *this time*. The customer would also have owned every risk Dana owned instead: each additional technician hour at \$125.00, each part at its marked-up cost, with no ceiling and no certainty at the moment of authorization — which is why most homeowners, offered both, choose the fixed price and why Dana's book exists. What changes in the books is equally instructive. Under flat rate, Dana's revenue is the quoted price and her management problem is cost control per ticket. Under T&M, her revenue is an output of her records, her management problem is documentation, and her margin is whatever her rates produce — steadier, smaller, and largely indifferent to how well the work is run.

Change Orders: Where Contract Type Meets Reality

Every contract type meets the same event — the work changes after signing — and handles it with very different exposure. Chapter 10 treats change orders in full; the preview belongs here, because exposure should be weighed before you choose a type, not after you sign one.

Under **fixed price**, exposure is at its highest. Work outside the defined scope is not owed and will not be paid for unless a written change order adds it to the contract at an agreed price — and work performed on a handshake, however urgent or however trusted the customer, is work the contractor has chosen to donate if the paperwork never follows. Note carefully what fixed price did with Harbor Pointe's hidden layer: an unknown condition *within* the contracted scope fell on Marcus, because his price covered the roof as contracted. An owner-requested *addition* — a

skylight, say — would have been change-order work, priced and signed before performance. The line between those two is the most litigated line in contracting, and it is drawn by the scope language you sign.

Under **T&M**, scope grows more fluidly — additional work is simply more hours and materials — so formal change orders matter less, but written authorization matters more: the approved not-to-exceed figure must be raised in writing before the work passes it, or the excess stands on the same handshake as any fixed-price extra. Under **cost-plus**, a change usually needs no separate price at all — it enters the cost base — but the *fee* treatment must be read carefully: a percentage fee pays more when changes add cost, a fixed fee does not, and a GMP cap may silently convert changed work into the contractor's own expense. In all three types, the bookkeeping rule is identical: a change is recorded — as an adjustment to contract price, to budget, or to authorization — when it is approved, and cost is never coded against a change that exists only as a conversation.

Choose the contract type deliberately, in writing, with the books set up to record what the type demands. The next chapter takes up the machinery fixed-price work cannot live without — progress billing, applications for payment, and retainage.

Key Takeaways

- A contract type assigns risk before work begins: fixed price puts cost-overflow risk on the contractor, time-and-materials and cost-plus put it principally on the customer, and unit price divides it — unit cost to the contractor, quantity to the customer.
- Fixed price is bid from an estimate, billed by progress against a schedule of values, and managed with the job cost report. Harbor Pointe's \$148,500 price never moved when costs overran to \$124,300 — Marcus kept \$24,200 of the planned \$30,000 gross profit and absorbed the rest.
- Time-and-materials bills documented hours at agreed rates plus materials as agreed. Its contractor risks are documentation and trust: unsupported hours do not get paid.
- Cost-plus bills documented actual costs plus a fee — percentage or fixed — and demands open-book records. A guaranteed maximum price converts it into a hybrid, fixed-price above the cap.
- A flat-rate price book is packaged fixed-price service work. The Callahan change-out earned \$5,500 on a \$12,500 price at a 44.0 percent margin because Dana bore the risk and finished in a day; billed as time-and-materials on the illustrative terms shown, the same job would have invoiced \$9,626 and left every risk with the customer.
- Change-order exposure is highest under fixed price: out-of-scope work without a signed change order is unpaid work. Record every approved change in the books when it is approved — never code cost against a conversation.

Your Turn

1. List your active jobs by contract type. For each, write one sentence naming who bears a cost overrun — and confirm the signed contract actually says so.

2. Take one fixed-price bid and state both profit measures: markup on cost and margin on price. If you cannot produce both numbers, rebuild the bid until you can.
3. Review your time-and-materials paperwork — or write it, if your crews work on verbal understandings — specifying the labor billing rate, the material basis, and whether a not-to-exceed figure applies.
4. Choose three items from your own service pricing and cost them from actual completed tickets, as Dana's book is costed. Reprice any item whose actual costs have outgrown its fixed price.
5. Read the change-order clause of the contract form you use most, in your own state and with your own counsel where needed, and write down exactly what must be signed before changed work begins.

Chapter 9: Progress Billing and Retainage

Marcus Delgado finished the first month at Harbor Pointe Condominiums with half the work done and a question Denise Alvarez, his office manager and bookkeeper, had heard before. The crews had torn off the old roof on Building C, dried in the deck, and started the new system. Payroll had been paid. Materials had been delivered and installed. Then Marcus looked at the bank balance and asked why a job that was going well felt so tight.

The answer was not in the field. It was in the billing. Harbor Pointe was a \$148,500 fixed-price contract, and it would not pay in full until the work was complete, inspected, and accepted. If Delgado Roofing & Construction LLC waited until the end to bill, the company would finance the entire job for the owner — labor, materials, crane work, equipment, and disposal — out of its own cash. Progress billing exists to prevent that. Done correctly, it matches billings to work performed, turns completed work into a receivable promptly, and records honestly the one amount that will not arrive with the next check: retainage.

A Contract Paid in Installments of Work

A storefront business is paid when it sells. Sarah Mitchell's bakery, from earlier volumes in this series, receives payment over the counter for goods the customer carries away. A contractor sells something that does not yet exist in finished form and builds it over weeks or months on property the contractor does not own. The payment system has to bridge that gap.

Progress billing is the bridge. Instead of one invoice at completion, the contractor bills at agreed intervals — commonly monthly — for the portion of the contract completed to date. Each billing is not a new sale invented that month. It is the next installment of a single contract price, claimed as the work earns it.

Progress billings divide the \$148,500 price into applications; they do not increase it. Only an approved change order (Chapter 10) can change the contract sum.

The Schedule of Values

The schedule of values is the contract price broken into parts. Before the first application, the contractor divides the \$148,500 into the major components of the work — for Harbor Pointe, items such as tear-off and disposal, deck preparation, materials and installation, subcontracted crane and gutter work, and closeout — and assigns a dollar value to each part. The parts must add to the contract price, no more and no less.

For the owner, and for an architect or construction manager who certifies payment, the schedule provides the basis for checking a claim. If the contractor says the job is 30 percent complete, the reviewer can ask a more useful question: which lines are complete, and to what extent? For the contractor, the schedule prevents an expensive error — billing a round percentage of the whole job when the completed work does not support it.

Build the schedule from the estimate, but do not publish your costs or margin: the schedule states contract values, and your cost codes (Chapter 6) remain internal. Keep three rules in mind. First, the total must tie to the signed contract, and later to approved change orders. Second, do not front-load the schedule — assigning excessive value to early work so the first applications recover cash faster than work is performed. Front-loading is billing ahead of earning, and Chapter 12 will show why that borrowed cash creates a liability and a painful finish, when the remaining billings no longer cover the remaining costs. Third, keep the lines broad enough to administer monthly but specific enough to verify. A single line for the entire roof cannot be measured. A line for every bundle of shingles cannot be administered.

Once approved, the schedule does not change casually. If scope changes, change it through the change-order process. It is the ruler for every application that follows.

The Application for Payment

The application for payment is the formal claim the contractor submits for a period. In commercial work, the industry-standard forms are the AIA G702 application and certificate for payment and its G703 continuation sheet, named here only to identify the documents many owners and architects require; they are described in this chapter, not reproduced, and many owners, lenders, and public agencies use their own equivalents. Whatever form your contract specifies, the substance is the same. At Harbor Pointe, Tony Ruiz confirmed field completion, Denise priced the completed lines, and Marcus reviewed the balance to finish before signing.

The continuation sheet carries the schedule of values forward, line by line. For each line it shows the scheduled value, work completed from previous applications, work completed this period, materials presently stored where the contract permits billing for them, total completed and stored to date, percent complete on that line, and the balance to finish. Those columns force the central discipline of this chapter: every dollar billed must attach to a line of promised work and to a stage of completion that someone can inspect.

The summary application brings the lines together. It states the original contract sum, approved changes to date, the contract sum to date, total completed and stored to date, retainage, total earned less retainage, amounts previously certified, and the current payment due. Read that sequence carefully. Current payment due is a remainder, not a fresh guess. It is what has been earned under the contract, less retainage, less what has already been certified.

Bill From Percent Complete, Not From Hope

Percent complete is a field measurement before it is an accounting entry. It is established by work in place: quantities installed, sections finished, inspections passed, and milestones met under the contract. It is not established by how much cash the company needs, how much cost has been spent without progress to show for it, or how complete the job was supposed to be by this date.

Cost and completion are related, but they are not the same measurement. At the end of Month 1 Harbor Pointe was 50 percent complete by cost, as Chapters 5 through 7 measured it: costs incurred were \$59,250 of the \$118,500 estimated total. Yet Application for Payment #1 billed only 30 percent of the contract price. Billing and earning are separate records, a distinction Chapter 11

develops fully through the work-in-progress schedule. The application claimed what the schedule of values, the contract's billing provisions, and the certified review supported for that first period. It did not claim dollars the work had not yet supported.

The opposite error is more dangerous. A contractor short of cash bills 60 percent on a job that is 40 percent complete, receives the money, and spends it on the next job or on overhead. For one period the bank balance looks strong. Then completion catches up with reality and the billings do not. The last third of the job must be performed with little left to bill, precisely when punch-list work, inspections, and retainage release demand time and money. Billing from hope borrows from your own future and charges the loan to the hardest weeks of the job.

From the schedule of values to cash in the bank — paperwork at every step

The Progress Billing Cycle



Harbor Pointe App #1: \$44,550 billed · \$4,455 retained · \$40,095 paid

Percent complete drives the application. The application never drives percent complete.

Figure 9.1: Progress billing is a cycle with paperwork at every step — percent complete, application, certification, payment.

Worked Example: Harbor Pointe Application #1

The first application covered 30 percent of the contract price. The arithmetic is simple, and it should be shown in full every time, because each line lands in a different place in the books.

Contract price: \$148,500. Percent billed on Application #1: 30 percent. Amount billed: $\$148,500 \times 30 \text{ percent} = \$44,550$.

Retainage at 10 percent: $\$44,550 \times 10 \text{ percent} = \$4,455$ withheld.

Cash due on Application #1: $\$44,550 - \$4,455 = \$40,095$.

Post that application as three facts, not one. The company billed \$44,550 under the contract. It holds a right to \$4,455 of that amount later, if the release conditions are met. It expects \$40,095 in current cash. If Denise recorded only the \$40,095 check, the receivable would understate what the owner owes and the retained amount would depend on someone remembering it at the end of the job. If she recorded the full \$44,550 as currently due, cash planning would overstate what can be spent now. The correct recording separates billed receivable from retainage receivable from the start.

The cumulative story matters as much as the single period. By the end of Month 2, billings to date had reached \$126,225, which is 85 percent of the \$148,500 contract price: $\$148,500 \times 85 \text{ percent} = \$126,225$. Retainage held to date, at 10 percent of billings, was $\$126,225 \times 10 \text{ percent} = \$12,622.50$. The amount due in cash terms, before considering payment timing, was therefore $\$126,225 - \$12,622.50 = \$113,602.50$. Keep those three cumulative totals — billed, retained, and due — visible on every application and in the receivable records. Disputes about progress payments are usually disputes about cumulative amounts, and the party with the clean cumulative record settles them first.

Retainage: Withheld From Every Application

Retainage is the portion of each progress payment the owner withholds until the work reaches a defined stage, usually substantial or final completion, and the contract's release conditions are satisfied. At Harbor Pointe the rate is 10 percent. Across the whole job, if the full contract price is billed, retainage will total $\$148,500 \times 10 \text{ percent} = \$14,850$.

Owners withhold retainage for a practical reason. It gives the contractor a financial reason to finish the last items, correct deficiencies, deliver closeout documents, and return after the large progress payments have been made. From the contractor's side, retainage is not a penalty and not a fee. It is earned contract money on a delayed payment term. Treat it with the seriousness of any other receivable, because on thin contractor margins it is often a large share of the profit on the job. Harbor Pointe's estimated gross profit was \$30,000. The \$14,850 retained across the job is nearly half that amount, held until the end.

Retainage rates are not universal; contracts set them, and they may step down at substantial completion or differ between public and private work. In addition, retainage percentages and prompt-payment rules vary by state — verify locally, in your contract and under your state's law, before assuming a rate, a release deadline, or a remedy for late payment. Your attorney and CPA can confirm the legal terms governing a particular job.

Harbor Pointe — 10 percent of every application waits at the finish line

Retainage: Withheld, Held, Released



Figure 9.2: On Harbor Pointe, 10 percent of every application waits at the finish line — \$14,850 across the whole job.

Recording Retainage Receivable — and What It Is Not

Retainage withheld from your applications is retainage receivable: a separate asset, apart from billed accounts receivable currently due. Marcus's December 31 balance sheet showed why the separation matters at company level as well: \$148,600 of billed accounts receivable and \$41,900 of retainage receivable are both assets, but they will not convert to cash on the same schedule, and a reader of the statements — a bank, a bonding company, an owner evaluating capacity — is entitled to see them apart.

Record the withholding when the application is recorded, not when the check arrives short. If the application bills \$44,550 with \$4,455 retained, the entry recognizes the billed amount, assigns \$40,095 to accounts receivable currently due, and assigns \$4,455 to retainage receivable. When the owner pays, cash replaces the current receivable. The retainage receivable remains, job by job, until release.

Retainage is never a discount. A discount is a price reduction you grant. Retainage is the full price on a contract payment term; the owner has not been given \$4,455 off Application #1, and recording it as a discount would understate both the contract revenue and the amount owed to you. Retainage is also never bad debt merely because it is slow. Bad debt means an amount you no longer expect to collect. Retainage delayed past its release conditions may become a collection problem, and a genuinely disputed or uncollectible balance is handled on its facts with your CPA's guidance. But classifying routine retainage as bad debt at billing would tell every reader of your statements that a normal contract term is a loss, and it would write off money your crews have already earned.

Track retainage by job, by application, and by expected release date in your accounting system's projects or jobs module, or on a controlled schedule if your system does not separate it. Denise's schedule lists, for each open job, total billed, total retained, the completion stage required for

release, and the follow-up date. Retainage that is not scheduled is retainage that is collected late. Owners rarely volunteer reminders to pay money they are holding.

Retainage Payable: The Mirror Image

The same mechanism runs one level down. When a subcontractor bills Delgado Roofing under a subcontract that provides for retainage, the company withholds the agreed percentage and records retainage payable — a liability owed to that subcontractor, separate from accounts payable currently due.

The mirror must be honest in both directions. Do not record retainage payable as a discount taken from the subcontractor, and do not treat the withheld amount as company cash available for other purposes. It is the subcontractor's money on a payment term, just as the owner's retainage is yours. Where the subcontract ties release of the sub's retainage to the owner's release to you, record the terms as written and follow up both sides of the chain: pursue release from the owner, and release your subs when their conditions are met.

Denise reports retainage payable alongside accounts payable in the monthly review described in Volume 3, so Marcus sees what is owed soon, what is owed at release, and what is owed to the company at release. The percentage and timing rules in subcontracts also vary by contract and by state, so verify the signed subcontract and local rules before withholding or releasing any amount.

Release Conditions and Collecting the Last Money

Retainage is released when the contract says it is released — no earlier in your planning, and no later in your follow-up. At Harbor Pointe, the terms are precise: retainage is released 45 days after final acceptance, provided no lien claims are outstanding. Each element is a task. Final acceptance must occur and be documented. The 45 days must be calendared from that acceptance, not from the last day of field work. The absence of outstanding lien claims must be confirmed, which is one reason the waiver discipline in Chapter 10 matters throughout the job rather than at the end.

Typical conditions include final completion, passed inspections, punch-list correction, warranties and closeout documents, final lien waivers, and consent of the surety where a bond is in place. Extract your job's conditions from the signed contract at setup and work them as a checklist while crews are still mobilized.

When release is earned, bill it. Submit the final application or retainage release request through the channel the contract requires, with the final waivers and acceptance documents attached, and record the release by moving the amount from retainage receivable to accounts receivable currently due. When payment arrives, clear the current receivable. If release is reduced for incomplete or defective items, get the reduction in writing, tied to specific items, and record only that portion as disputed. Accept no unexplained short payment at the moment the job closes and the file is hardest to reconstruct.

Harbor Pointe's \$14,850 will be the last money on the job. The system that collects it is not memory: it is the separate receivable recorded from Application #1, the release checklist, and a follow-up date set before anyone leaves the site.

Key Takeaways

- Progress billing divides a single contract price into installments claimed as work is completed; only an approved change order changes the contract sum itself.
- The schedule of values breaks the contract price into verifiable parts that total the contract price, and every application is measured against it.
- Bill from measured percent complete — work in place that can be inspected and described — never from cash needs or from the schedule you hoped to meet.
- On Harbor Pointe Application #1, billing 30 percent produced \$44,550 billed, \$4,455 of retainage withheld, and \$40,095 currently due; by the end of Month 2, billings reached \$126,225 with \$12,622.50 retained.
- Retainage is recorded as retainage receivable, a separate asset. It is not a discount you granted and not bad debt merely because payment is delayed.
- Retainage withheld from subcontractors is retainage payable, a separate liability. It is their money on a payment term, not cash available for other uses.
- Retainage percentages and prompt-payment rules vary by state. Verify the contract terms and local rules for each job, and collect release through the contract's stated conditions and dates.

Your Turn

1. For your largest open job, write out the schedule of values from the signed contract and confirm the lines total the contract price exactly, including only approved change orders.
2. Recompute your most recent application in full: contract sum, percent billed, amount billed, retainage withheld, amounts previously certified, and current payment due. Correct any line you cannot support with a field measurement.
3. Separate retainage receivable from billed accounts receivable in your records, job by job, and add the contractual release condition and follow-up date for each balance.
4. List retainage payable to each subcontractor separately from current accounts payable, and match each balance to the release terms in its signed subcontract.
5. Calendar the next retainage release you are owed, assemble its conditions as a checklist, and begin completing that checklist while the job is still active.

Chapter 10: Change Orders, Deposits, and Draws

The tear-off at Harbor Pointe was supposed to reveal one old roof. It revealed two. Under the layer Marcus Delgado's crews expected to remove lay a second, hidden layer that had to come off before the new system could go on. The work was real, the extra material and disposal were real, and the cost — \$3,900 in additional materials — was real. What was not clear, in the way the contract requires clarity, was who would pay for it.

That moment is where change orders stop being paperwork and become profit or loss. Every contractor meets conditions the plans did not show and scope that grows one small favor at a time. The work itself is rarely the dispute. The dispute is the sequence: whether the change was priced, approved in writing, performed, and billed — in that order — or whether the contractor performed first and asked later.

Change Is Normal. Unpriced Change Is Not.

A fixed-price contract promises defined work for a defined price: at Harbor Pointe, a full tear-off and re-roof of Building C for \$148,500. A change order is the written instrument that changes that promise — adding work, deleting work, substituting materials, or altering conditions — and adjusts the contract price and, where applicable, the time to perform. Until it is approved, the original promise stands, however unfair that may feel on a roof in the Florida sun.

Price every change as a small job, using the methods of Chapters 5 through 7: materials, labor at the fully loaded rate, burden, subcontractors, equipment, permits and disposal, then markup to price. State the price, the scope in words a non-builder can verify, and any effect on the schedule, on one document the owner can sign. No one in the field owns the contract price: Tony Ruiz can identify and price a change, but only the contract's approval process can commit the owner to pay more.

The Four States of a Change Order

A change order lives in four states, and the books treat each state differently. Confusing the states is how contractors overstate revenue, understate cost, and discover at closeout that their receivable is an argument.

Proposed. You have identified the change and submitted a price. Nothing has been approved and no work has been performed. Bookkeeping: none in the contract accounts. The contract price remains \$148,500, the schedule of values is unchanged, and nothing is billed. Record the proposal in the job file and on a change-order log — number, date, description, price, status — so a proposal is never mistaken for an approval in a later conversation. A proposal is information, not revenue.

Approved in writing. The owner, or the person the contract authorizes, has signed. Now, and only now, the contract changes. Bookkeeping: increase the contract price by the approved amount, add

or revise the schedule of values, and include the change in the work-in-progress schedule from its next reporting date (Chapter 11). Costs are still recorded as they are incurred; approval changes what you may bill and what revenue the contract supports, not what you have spent. Note the discipline: a verbal assurance, a text saying "go ahead," or an architect's field direction may matter in a later dispute, but your books should follow your contract's approval standard. If the contract requires a signature, the state changes on the signature.

Performed. The approved work is done. Bookkeeping: charge every cost to the job, under the change-order number where your system's projects or jobs module allows it, so the change can be costed on its own. A change that cannot be costed cannot be evaluated, and owners who learn that a contractor's changes are profitable to dispute will dispute more of them. Performed but unbilled approved work is real earned value; it belongs in the WIP schedule as work completed, whether or not the next application has claimed it yet.

Billed. The performed, approved work enters an application for payment under Chapter 9, subject to the same retainage as the contract provides. Bookkeeping: the billed amount joins billings to date, retainage receivable is recorded on the withheld portion, and the balance is currently due. Only in this state does the change become a receivable. Follow the sequence backwards and the failure points are obvious: billed but not approved is a claim without a contract; performed but not approved is cost without a promise; proposed but treated as approved is revenue without either.

One sequence earns money. Every shortcut is a donation.

The Four States of a Change Order

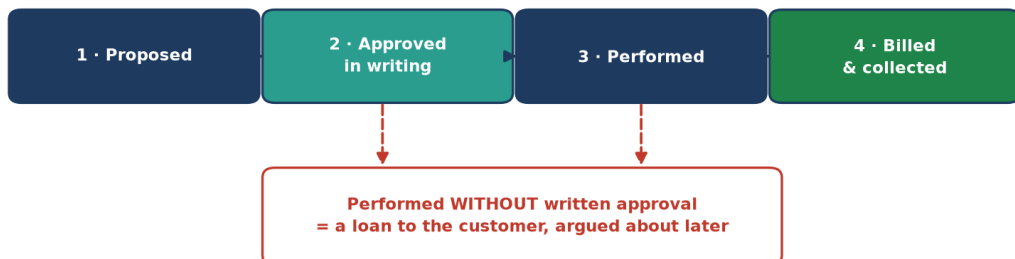


Figure 10.1: A change order earns money in exactly one sequence: proposed, approved in writing, performed, billed. Every shortcut is a donation.

The Disputed Change Order: Work Done, Approval Argued

The hardest file in any contractor's office is the performed change the owner will not approve. Perhaps the owner directed the work verbally and later denied the direction. Perhaps an owner's representative approved it and the owner disputes the representative's authority. Perhaps, as at

Harbor Pointe, the condition was hidden, the work could not reasonably wait, and both sides believe the contract language favors them.

Record it honestly, in layers. The costs are not disputed: the materials were bought, the labor was worked, and those amounts belong on the job's cost record in full. Harbor Pointe's books ultimately carried materials of \$55,900 against an estimate of \$52,000 — the \$3,900 overrun recorded, not hidden. The revenue is what is disputed. Do not bill a disputed change as though it were approved, and do not increase the contract price in the WIP schedule on the strength of your own conviction. Carry the claim visibly and separately: a change-order log entry marked disputed, the supporting documents assembled, and, where your CPA advises recognition is not supportable, no revenue recognized until the claim is resolved. Optimism is not an accounting standard.

Understand what unsigned work is, financially. When you perform work without an approved change order, you have made an unsecured loan to the customer, repayable only if the customer agrees you lent it. You supplied materials that are now in the customer's building, labor that cannot be repossessed, and time your crews cannot sell twice. The interest rate on that loan is zero and the collateral is a conversation. Some such loans are repaid in full because the relationship is sound and the documentation is strong. The accounting must still describe the position as it is: cost incurred, claim asserted, collection uncertain.

While a dispute is open, protect the rest of the job: keep billing undisputed base work through normal applications, and keep communications factual and written — dates, directions, delivery tickets, daily reports, and photographs of the hidden condition before it was covered. Once Harbor Pointe's second layer was removed and the new roof installed, that condition could never be photographed again. Document a hidden condition in the hour it is exposed.

Harbor Pointe's Second Layer, Resolved in the Books

Return to the numbers, because the resolution must tie to them exactly. The hidden second layer added \$3,900 of materials cost. Delgado Roofing proposed the added tear-off work as a change order. The owner disputed responsibility: the contract called for tear-off to the deck, and the owner's position was that removing what was on the roof — however many layers — was included in the \$148,500. Marcus's position was that a second, concealed layer was a differing condition outside the priced scope. The parties did not resolve it by changing the contract. No signed change order issued, and the contract price was never increased.

So the books told the truth in both directions. The cost stayed on the job: final materials were \$55,900, which is the \$52,000 estimate plus the \$3,900 overrun. The price stayed at \$148,500. Labor also finished over estimate — \$39,900 against \$38,000, an overrun of \$1,900, with burden, subcontractors, equipment, and permits completing the record — bringing final job cost to \$124,300. Final gross profit was therefore $\$148,500 - \$124,300 = \$24,200$, against \$30,000 estimated. Chapter 12 examines that \$5,800 fade in full.

Say clearly what "partially absorbed" means here. The company absorbed the disputed change into its margin rather than collecting it as additional price. That was a business decision at closeout, not an accounting technique: the alternative was a prolonged dispute with an association customer over a documented but unsigned claim, with retainage and the final application still to collect. Marcus chose the relationship and the certain collection of the contract balance over an uncertain

claim. The lesson is not that disputed work should be surrendered — on a larger claim, or with stronger written direction, the correct decision may be to pursue it with counsel. The lesson is that the decision was made with open eyes, from records that showed exactly what surrender cost: \$3,900 of margin, visible in the job cost report, not buried in a company-wide materials account where it would have taught nothing.

The preventive lesson is cheaper: Delgado Roofing's next tear-off contract states the number of layers the price assumes and prices each additional layer in advance, as a unit price approved in the contract itself. A condition priced before it is found is not a dispute. It is a line item. Denise likewise reviews each job file at every application — contract, log, waivers, certificates, inspections — while the job is live, when gaps take minutes to close.

Customer Deposits: A Liability, Never Income

Change the setting from Marcus's commercial roof to Dana Whitfield's service counter, and a different payment instrument appears: the customer deposit. A homeowner agrees to a system change-out, signs, and pays a portion in advance so equipment can be ordered. The cash is in Dana's bank account before a technician turns a wrench. It is also not revenue.

A deposit is the customer's money held against work you have not yet performed. In the books it is a liability — deferred revenue, called customer deposits in many charts of accounts — from the day it is received until the work earns it. Record receipt as cash and a deposit liability, by customer and by job. When the work is performed and billed, relieve the liability and apply the deposit to the invoice: the revenue is recognized from the work, and the deposit simply settles part of what the work earned. If the job is cancelled and the deposit is refundable under the agreement, the liability is settled by the refund. At no point does the deposit become income merely because time passed or because the cash was spent.

The error to avoid is the drawer method Dana once used at busy season's peak: deposits recorded as income on receipt, then the job billed in full at completion. That double-counts revenue, overstates the current period, understates the next, and leaves no record of which customers have money on account when the schedule slips. It also corrupts job costing — a change-out can appear profitable in the month the deposit landed and inexplicably thin in the month the equipment was installed. Volume 1 established the mechanics of deferred revenue; in a home-services business the volume of small deposits makes the discipline operational, not theoretical. Priya Nair, Dana's dispatcher, reconciles the deposit liability to the scheduled-jobs list weekly: every dollar of liability names a customer, a job, and a date work is expected. A deposit that names none of the three is investigated that week.

Draws on Service and Install Work

A draw is a scheduled partial payment against work in progress, and on residential install work it performs the same office as progress billing does on Marcus's commercial jobs, at kitchen-table scale. Its purpose is identical: neither party finances the whole job alone, and each payment attaches to a stage the customer can see.

Dana's standard structure on change-outs is a 50 percent deposit at signing, with the balance due at completion. On the Callahan residence change-out from Chapter 8 — a flat-rate price of \$12,500 — the arithmetic is: deposit at signing, $\$12,500 \times 50 \text{ percent} = \$6,250$, recorded as a deposit liability; balance at completion, $\$12,500 - \$6,250 = \$6,250$ billed against the completed work, with the deposit applied. The job's actual cost was \$7,000 and its gross profit \$5,500, recognized when the work was performed — not half when the deposit arrived and half when the balance was paid. Cash timing and revenue are different records, and Dana's price book only tells the truth when they are kept apart.

Larger jobs may add stages — a draw at equipment delivery or rough-in, the balance at final inspection — each set in the written agreement, tied to a verifiable event, and recorded as deferred revenue until its work is performed. Deposit amounts and refund rules may also be limited by state and licensing law, which varies by state: verify yours. Never draw ahead of the stage.

The Paper Trail That Gets You Paid

Contractors speak of payment as though it follows work automatically. It follows documents. The owner, lender, or insurer who releases a large payment must be able to show a file that justifies releasing it, and your payment waits while that file is incomplete — regardless of how good the roof is. Assemble the trail as the job proceeds:

- **The signed contract**, with the price, scope, payment terms, retainage, and change-order procedure, signed before work begins. Most payment disputes are decided by this document, including the dispute you lose because the clause you needed was never in it.
- **Approved change orders**, each signed before its work is performed, logged, and added to the contract sum and schedule of values. The log is the index; the signatures are the evidence.
- **Applications and invoices** that tie to the contract, the schedule of values, and the change-order log, with cumulative amounts that reconcile from one period to the next.
- **Lien waivers exchanged at payment**. As each progress payment is made, the contractor provides a waiver for the work paid, and collects corresponding waivers from subcontractors and major suppliers, so the owner can show that paid work is not carrying unpaid parties behind it. Partial waivers travel with progress payments; final waivers travel with final payment and retainage release. Keep the exchange symmetrical and contemporaneous — a waiver requested months later, from a sub who has left the job, is a collection project of its own.
- **Certificates and closeout documents**: certificates of insurance from the contractor and subs, collected before work begins and kept current; permits and passed inspections; warranties, manuals, and the owner's acceptance at completion.

This chapter teaches that trail as paperwork discipline, and the boundary must be stated plainly: lien rights and deadlines vary by state, they are strict, and they are legal matters for the reader's attorney — not procedures this book can set for you. Who must send what notice, by when, in what form, and what a waiver actually waives differ materially between states and between private, public, and residential work. Missing a deadline can forfeit a right no invoice can revive. Have your attorney establish your notice and waiver routine for the states where you work, then

run that routine without exception. The same caution applies to contract clauses and deposit rules: general education here, legal advice from counsel admitted where the job sits.

Each document answers the question the next payment depends on
The Paper Trail That Gets You Paid



Waiver for waiver, check for check — the exchange is the system.

Lien rights and deadlines vary by state; your attorney owns those questions.

Figure 10.2: Clean paperwork is not bureaucracy. It is the difference between a receivable and a write-off.

Key Takeaways

- A change order earns money in exactly one sequence — proposed, approved in writing, performed, billed — and the books change only at the states the contract recognizes: approval changes the contract price, performance adds cost, billing creates the receivable.
- Work performed without written approval is an unsecured, interest-free loan to the customer. Record its costs in full, carry the claim separately and visibly, and do not recognize contract revenue the approval does not support.
- At Harbor Pointe, the hidden second layer added \$3,900 of materials cost; the change was disputed, no signed change order issued, and the contract price stayed at \$148,500. Final cost was \$124,300 and final gross profit \$24,200 — the overrun absorbed in margin, recorded openly.
- A customer deposit is a liability (deferred revenue) until the work is performed. It is never income on receipt, and it is relieved by applying it to the invoice for work actually done.
- Draws attach payments to verifiable stages. Dana's 50 percent deposit on change-outs — \$6,250 on the \$12,500 Callahan job, with \$6,250 due at completion — finances equipment without converting the customer's advance into early revenue.
- Payment follows documents: signed contract, approved change orders, reconciled applications, lien waivers exchanged at payment, and current certificates. Lien rights and deadlines vary by state and are legal matters for your attorney.

Your Turn

1. Build a change-order log for every open job: number, date, description, price, and state — proposed, approved, performed, billed, or disputed. Move nothing to a later state without the document that proves it.
2. Find any work performed in the last year without written approval. Total its cost, assemble its documentation, and record the claim separately, with your CPA's guidance on revenue recognition.
3. Add a unit price or stated assumption for your most common hidden condition — extra layers, concealed damage, unforeseen code work — to your standard contract, so the next occurrence is a line item, not a dispute.
4. Reconcile your customer-deposit liability this week: every balance should name a customer, a job, and an expected work date. Investigate any balance that does not.
5. Assemble the payment file for one active job — contract, change orders, applications, waivers in and out, certificates, inspections — and note which document you would be unable to produce if payment were disputed today.

PART FOUR

The WIP Schedule and Percentage-of-Completion

Chapter 11: Work in Progress and Percentage-of-Completion

At the end of Month 2 at Harbor Pointe, Marcus Delgado could have described his largest job three ways, and all three descriptions were true. The job had cost \$94,800. It had been billed at \$126,225. And it had earned \$118,800. Cost, billings, and earned revenue were three different numbers, measuring three different things, and the job could not be managed by any one of them alone.

That is the problem the work-in-progress schedule — the WIP schedule — exists to solve. For years Marcus ran Delgado Roofing & Construction LLC on the bank balance: money in, good month; money out, bad month. The WIP is the document that replaced that view for jobs in progress. This chapter explains it in plain terms, builds it step by step by the cost-to-cost method of percentage-of-completion accounting, and shows who reads it outside your office and what each reader is looking for.

WIP in Plain English

Work in progress means exactly what the words say: contract work that has begun, is not finished, and therefore sits between cost and final result. A WIP schedule is a one-page report, prepared at a set date — normally month-end — listing every open job and answering the same questions for each: What is the contract price? What was the job estimated to cost? What has it cost to date? What percentage complete is it? How much revenue has it earned to date? How much has been billed to date? And is the job billed ahead of what it has earned, or behind it?

Hold those questions apart, because the schedule's value lies in their separation. Costs to date come from the job cost records of Chapters 5 through 7. Billings to date come from the applications of Chapter 9. Earned revenue comes from neither of those records. It is calculated, by the method in this chapter, from how complete the job is. When a contractor reports profit by subtracting costs from billings, the result moves with billing timing — bill early and the job looks profitable, bill late and it looks like a loss — without the work changing at all. Percentage-of-completion removes the billing decision from the profit measurement. Billing still matters, for cash and for the balance sheet, and the schedule records it. It simply does not get to decide how much revenue the work has earned.

The method has a counterpart, the completed-contract method, under which revenue and profit are recognized when a job is finished. Volume 2 addressed method selection as a tax matter with your CPA; short-duration and service work is often accounted for on completion in practice. For managing longer jobs — and for the financial statements banks and bonding companies expect from a contractor of Marcus's size — percentage-of-completion is the working method of this book, because it reports the job's progress in the periods when the progress happens.

The Cost-to-Cost Method, Step by Step

Percentage-of-completion needs a measure of completion. This book uses the cost-to-cost method: the percent complete is the costs incurred to date divided by the total estimated cost of the job. The logic is plain. If a job is expected to cost \$118,500 in total and \$94,800 of cost has been properly incurred, then — subject to the cautions below — about 80 percent of the work the cost represents has been done.

The method runs in four steps, the same for every job, every month.

Step 1: Establish the estimated total cost. Start from the current estimate — the original budget, revised for approved changes and for honest revisions as Chapter 7 requires. The denominator of the calculation is an estimate, which means the integrity of the whole schedule depends on keeping that estimate current. A known overrun left out of the estimate does not make the job more profitable; it makes the percent complete wrong.

Step 2: Total the costs incurred to date. Take the job's costs from the cost records: materials, direct labor, burden, subcontractors, equipment, permits and disposal, charged to the job and cut off cleanly at month-end. Costs of materials delivered but not yet installed need consistent treatment — a warehouse of roofing material sitting on the ground has consumed cash, but it has not completed work — and your CPA should settle that policy once and apply it every month.

Step 3: Divide. Percent complete = costs incurred to date ÷ estimated total cost.

Step 4: Apply the percent to the contract price. Earned revenue to date = percent complete × the current contract price, including approved change orders only. Gross profit recognized to date is then earned revenue minus costs incurred to date, and it should equal, within rounding, the percent complete multiplied by the job's total estimated gross profit — a useful check, because the two routes use different figures and catch each other's errors.

Two cautions keep the method honest. First, cost-to-cost assumes cost tracks progress; a job whose materials are bought early will look more complete than it is, which is why stored materials are treated consistently and why Tony Ruiz's field review accompanies Denise Alvarez's calculation each month. Second, when a job's estimated total cost rises above its contract price — a job expected to lose money — the full expected loss is a matter for immediate discussion with your CPA, not a number to spread quietly over the remaining months. The schedule's job is to surface that fact in the month it becomes known.

Worked Example: Harbor Pointe at the End of Month 2

Apply the four steps to Harbor Pointe, Building C.

Contract price: \$148,500. Estimated total cost: \$118,500. Costs incurred to date: \$94,800 — materials \$44,520; direct labor \$30,400; labor burden \$9,120, which is 30 percent of labor; subcontractors \$6,760; equipment \$2,600; permits and disposal \$1,400. Check the cost total: \$44,520 + \$30,400 + \$9,120 + \$6,760 + \$2,600 + \$1,400 = \$94,800.

Step 3: percent complete = \$94,800 ÷ \$118,500 = 80 percent.

Step 4: earned revenue = 80 percent × \$148,500 = \$118,800.

Gross profit recognized to date: $\$118,800 - \$94,800 = \$24,000$. Cross-check by the second route: estimated total gross profit is $\$148,500 - \$118,500 = \$30,000$, and 80 percent $\times$ $\$30,000 = \$24,000$. The routes agree.

Now place billings beside earned revenue, without mixing them. Billings to date were $\$126,225$. Earned revenue was $\$118,800$. The difference, $\$126,225 - \$118,800 = \$7,425$, means the job was billed $\$7,425$ ahead of what it had earned at Month 2 — overbilled, in the language Chapter 12 develops. That figure is not profit and not an error by itself; billing schedules and earning patterns rarely move in identical steps. It is a balance the schedule must state, because cash collected ahead of earning is cash the remaining work still has to justify.

Contrast Month 1 to fix the pattern. Costs of $\$59,250$ against the $\$118,500$ estimate gave 50 percent complete; earned revenue was 50 percent $\times$ $\$148,500 = \$74,250$; gross profit recognized was $\$74,250 - \$59,250 = \$15,000$. The job's reported result each month is the change from the month before: Month 2 added earned revenue of $\$118,800 - \$74,250 = \$44,550$ and gross profit of $\$24,000 - \$15,000 = \$9,000$. Monthly profit under this method is a movement in a cumulative calculation — which is why a correction to an estimate revises the cumulative figures rather than rewriting history, and why the schedule, not memory, carries the record.

The WIP Schedule as a Document

A WIP schedule is a table with one row per open job and a totals row. Its columns are the questions from the start of this chapter, in a fixed order, so that any reader can move down a column and compare jobs. Prepared for Delgado Roofing at the end of Month 2, with Harbor Pointe and the company's two other open jobs, it reads as follows.

Job		Contract price	Estimated cost	Costs to date	Percent complete	Earned revenue	Billed to date	Over / (under) billed
Harbor Pointe Condominiums, Building C		\$148,500	\$118,500	\$94,800	80%	\$118,800	\$126,225	\$7,425
Cypress Lane re-roof		\$212,000	\$169,600	\$84,800	50%	\$106,000	\$95,400	(\$10,600)
Miller residence roof repair		\$64,000	\$48,000	\$43,200	90%	\$57,600	\$57,600	\$0
Totals		\$424,500	\$336,100	\$222,800	—	\$282,400	\$279,225	(\$3,175)

Verify each row by the method before you read anything into it. Cypress Lane: $\$84,800 \div \$169,600 = 50$ percent complete; 50 percent $\times$ $\$212,000 = \$106,000$ earned; billed $\$95,400$, so the job is underbilled by $\$106,000 - \$95,400 = \$10,600$ — work earned but not yet billed. The Miller repair: $\$43,200 \div \$48,000 = 90$ percent; 90 percent $\times$ $\$64,000 = \$57,600$ earned; billed $\$57,600$ exactly, so it is neither over nor under. Harbor Pointe, as calculated above, is overbilled by $\$7,425$.

Now read the totals row as a reader outside the company would. Total contract price under way: \$424,500. Total earned revenue: \$282,400. Total billed: \$279,225. Net position: \$282,400 – \$279,225 = \$3,175 more earned than billed across the company — net underbilled by \$3,175 — even though the largest job is overbilled. That is precisely why the schedule shows every job separately and never reports only the net: a net figure of \$3,175 conceals a \$7,425 overbilling on one job and a \$10,600 underbilling on another, which call for opposite actions. Chapter 12 takes up both positions and their cash meaning in full.

Every open job on one page: cost, earned, billed, and the gap between them

Work-in-Progress Schedule — Delgado Roofing, End of Month 2

Job	Contract	Est. cost	Costs to date	% complete	Earned	Billed	Over / (under)
Harbor Pointe	\$148,500	\$118,500	\$94,800	80%	\$118,800	\$126,225	\$7,425 over
Cypress Lane	\$212,000	\$169,600	\$84,800	50%	\$106,000	\$95,400	(\$10,600) under
Miller repair	\$64,000	\$48,000	\$43,200	90%	\$57,600	\$57,600	Even
TOTALS	\$424,500	\$336,100	\$222,800	—	\$282,400	\$279,225	(\$3,175) net under

Net underbilled \$3,175: Delgado has earned \$3,175 more than it has billed.

Overbillings are a liability. Underbillings are an asset. Both belong on the balance sheet.

Figure 11.1: One page, every open job: what it will cost, what it has cost, what has been earned, and what has been billed.

The schedule also feeds the balance sheet directly. On jobs in progress, costs incurred plus gross profit recognized to date is compared with billings: where earned value exceeds billings, the difference is an asset, commonly captioned costs and earned revenue in excess of billings; where billings exceed earned value, the difference is a liability, billings in excess of costs and earned revenue. Marcus's year-end balance sheet carried \$22,500 of that liability. The WIP is therefore not a management extra stapled to the accounting. It is the supporting document from which two balance-sheet lines are built, and your CPA will ask for it by name.

The two lines meet only at the beginning and the end. In between lives the WIP schedule.

Earned vs. Billed: Harbor Pointe

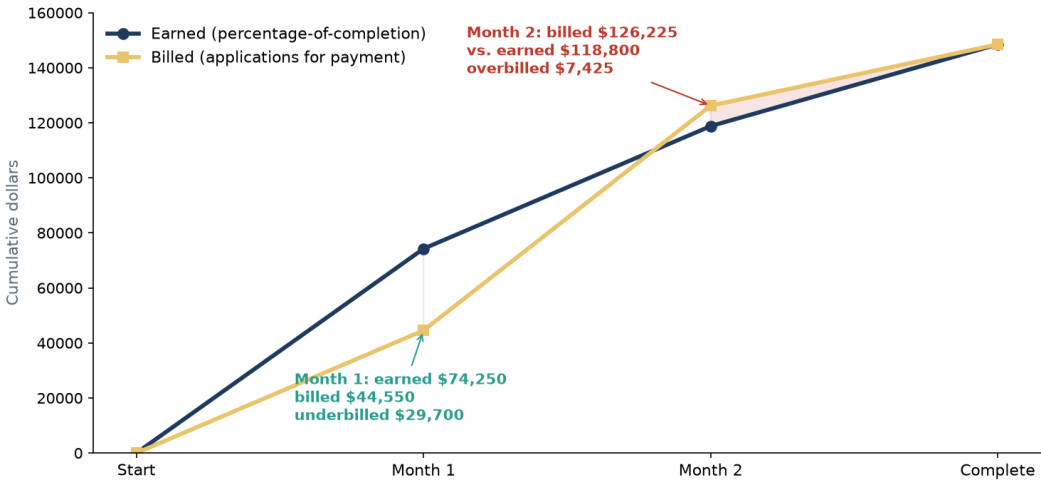


Figure 11.2: Percentage-of-completion records what the work earned. Billing records what you asked for. The gap between the lines is a balance-sheet item, not a feeling.

Who Reads the WIP, and What Each Reader Looks For

Your **bank** reads the WIP to judge whether the receivables and contract balances behind your credit line are real. A lender looks for jobs progressing toward completion rather than stalled at high percent complete month after month, billings keeping pace with earning, and overbillings that are modest and explainable. A schedule showing large, growing underbillings tells the bank you are financing your customers with its money.

Your **bonding company** reads it more skeptically than anyone, because the surety's exposure is precisely the gap between what you have been paid and what it would cost to finish your open work if you did not. The surety studies estimated gross profit job by job, compares those estimates with prior schedules, and watches for the pattern Chapter 12 names: profit fade, estimates quietly shrinking as jobs approach completion. Consistent, conservative WIP schedules, delivered without being chased, are part of how a contractor earns and keeps capacity — Marcus's is \$500,000 for a single job and \$1,500,000 in aggregate — and a sloppy schedule costs capacity no bank balance can replace.

Your **CPA** reads it to build the financial statements and the tax return: earned revenue, the excess-of-billings asset and liability, and the reasonableness of every estimate. Expect your CPA to test the schedule the way this chapter verified it — recomputing percent complete, tracing costs to the job records, and questioning any estimate that has not moved while its job's costs have. Bring that questioning on yourself first. In the monthly review rhythm of Volume 3, Denise prepares the schedule, Tony confirms percent complete in the field, and Marcus reviews three things: jobs whose estimated profit changed, jobs whose billing position moved sharply, and jobs past 75 percent complete whose remaining estimate deserves a hard look, because late jobs have the least room to absorb a surprise.



Figure 11.3: The WIP review is a monthly appointment, not a year-end surprise.

Two habits keep the schedule trustworthy from month to month. Use the same cut-off every period: costs entered after the date belong to the next schedule, however inconvenient that is for a job that wants one more invoice counted. And keep every prior month's schedule as issued. Revisions belong in the current month's estimate, shown as a change from the prior schedule — never in a quietly reprinted history. A reader who can compare this month's estimate for a job with last month's, and the month before, can see the job's story developing. That comparability is what makes the schedule evidence rather than a snapshot, and it is why Denise files each month's version, with Tony's field confirmations, in the job record.

A final discipline connects this chapter to Chapter 7: the estimated total cost is a living figure, revised when facts change — never to protect a reported profit, and never deferred to protect a month's result. When Harbor Pointe's hidden second layer added \$3,900 of materials cost, the honest response was to record the cost and, as the job completed, to carry a final cost of \$124,300 against the \$118,500 estimate. The completed job's final gross profit was \$24,200 instead of \$30,000. Schedules prepared during the job are the early-warning system for exactly that outcome. A WIP that is only prepared at year-end, for the CPA, reports the past. A WIP prepared monthly manages it.

Key Takeaways

- The WIP schedule lists every open job on one page: contract price, estimated cost, costs to date, percent complete, earned revenue, billed to date, and the over- or underbilled position.

- Under the cost-to-cost method, percent complete is costs incurred to date divided by estimated total cost; earned revenue is that percent multiplied by the contract price.
- At the end of Month 2, Harbor Pointe stood at $\$94,800 \div \$118,500 = 80$ percent complete, with earned revenue of \$118,800 and gross profit recognized to date of \$24,000.
- Earned revenue and billings are different records. Harbor Pointe was billed \$126,225 against \$118,800 earned — overbilled by \$7,425 — while Delgado's three-job schedule in total was net underbilled by \$3,175.
- The schedule builds two balance-sheet lines: earned value in excess of billings is an asset; billings in excess of earned value is a liability.
- Banks, bonding companies, and your CPA each read the WIP for a different risk — collectability, completion exposure, and the reasonableness of estimates — and all three recompute it.

Your Turn

1. Build your WIP schedule for last month-end using the columns in this chapter, one row per open job, and verify every row by dividing costs to date by estimated total cost.
2. Recompute earned revenue for each job by both routes — earned minus costs, and percent complete times estimated gross profit — and investigate any job where the routes disagree.
3. List each job's over- or underbilled position separately; do not net them. Note the action each position calls for: bill earned work, or reserve cash against work still owed.
4. Review every job past 75 percent complete and confirm its estimated cost to finish with the person running the work, in writing, before the next schedule is issued.
5. Send the finished schedule to your CPA and ask which of its figures flow to the balance sheet, so your monthly version and the year-end statements are built the same way.

Chapter 12: Overbilling, Underbilling, and Profit Fade

Harbor Pointe ended its second month in a position that looks, at first glance, like strength. Delgado Roofing & Construction LLC had billed \$126,225 on the job. The bank account reflected the collections. Yet the work itself, measured honestly under Chapter 11, had earned \$118,800 — \$7,425 less than had been billed. In the same month, the job's estimated profit was quietly beginning the slide that would end at \$24,200 instead of \$30,000. Two of the most important warnings in contractor accounting were sitting in one set of numbers, and neither of them appeared in the bank balance.

This chapter names both warnings. Overbilling and underbilling describe the gap between what a job has billed and what it has earned, in the two directions that gap can run. Profit fade describes what happens to estimated profit as a job moves from bid to completion. Each condition distorts decisions while it is invisible, and each becomes manageable the moment the work-in-progress schedule states it in dollars.

Two Gaps, Two Directions

Chapter 11 established the comparison. Earned revenue is calculated from percent complete. Billings to date are the cumulative applications submitted under the contract. Subtract earned from billed and the sign of the answer is the diagnosis.

When billings exceed earned revenue, the job is **overbilled**. When earned revenue exceeds billings, the job is **underbilled**. Neither condition is automatically an error, and neither is automatically misconduct. Billing milestones and earning patterns rarely advance in identical steps, retainage separates billed amounts from cash, and a single month's position often corrects itself in the next application. What neither condition may be is unknown. An overbilling you have measured is a cash position to manage. An overbilling you discover at closeout is a debt you did not know you owed — in work.

Overbilling: A Liability Wearing a Costume

State overbilling's nature plainly, because the bank balance states it falsely: billings ahead of earned revenue are a liability. The customer has paid — or been billed — for work not yet performed. Until your crews perform that work, the excess does not belong to you in any economic sense. It is cash that belongs to unfinished work, held in your account, with an obligation attached to every dollar.

Harbor Pointe at the end of Month 2 is the worked example. Billings to date: \$126,225. Earned revenue: 80 percent complete $\times$ \$148,500 contract price = \$118,800. Overbilled: \$126,225 – \$118,800 = \$7,425. On the balance sheet that \$7,425 belongs inside the liability captioned billings in excess of costs and earned revenue — the same caption that carried \$22,500 across all of Marcus's jobs on his December 31 balance sheet. It does not belong in profit, and a month in which billings surge is not, by that fact, a profitable month.

How does a careful contractor become overbilled? Sometimes by contract design: a mobilization payment or a front-weighted milestone schedule bills ahead of earning legitimately, and the position unwinds as work proceeds. Sometimes by billing stored materials ahead of installation, where the contract permits it. And sometimes — the case to guard against — by the billing-from-hope habit Chapter 9 warned against: rounding percent complete upward, billing the next section before it is in place, letting the application's total serve the month's cash needs. The first two causes appear on the schedule of values for anyone to see. The third survives only where nobody recomputes earned revenue independently of the billing, which is the exact failure the WIP exists to prevent.

The danger is not the liability's existence. It is its spending. Cash collected ahead of earning feels identical to cash earned — the bank makes no distinction — and it flows out for payroll, materials, overhead, and, most dangerously, to start the next job. Then Harbor Pointe's remaining work must be performed from remaining billings that no longer cover it: at Month 2, $\$148,500 - \$126,225 = \$22,275$ of contract remained to bill, against a remaining cost, on the estimate, of $\$118,500 - \$94,800 = \$23,700$. Read those two figures together and the shape of the trap is visible even on a job that finished profitably. Billings left were already less than the estimated cost left to spend, before retainage is considered at all — 10 percent of every remaining billing would also be withheld, including the $\$14,850$ of total retainage collectible only after final acceptance. An overbilled job finishes on the contractor's cash unless the position is watched and the excess is treated, from the day it is collected, as money already committed to the work ahead.

Manage overbilling with one rule: know the number, per job, every month, and hold the excess in your cash planning as restricted in fact if not in law. Denise's monthly report to Marcus lists each overbilled job and its amount beside the cash balance, so the balance he sees is never the raw bank figure — it is the bank figure less the work the company still owes for cash already in hand.

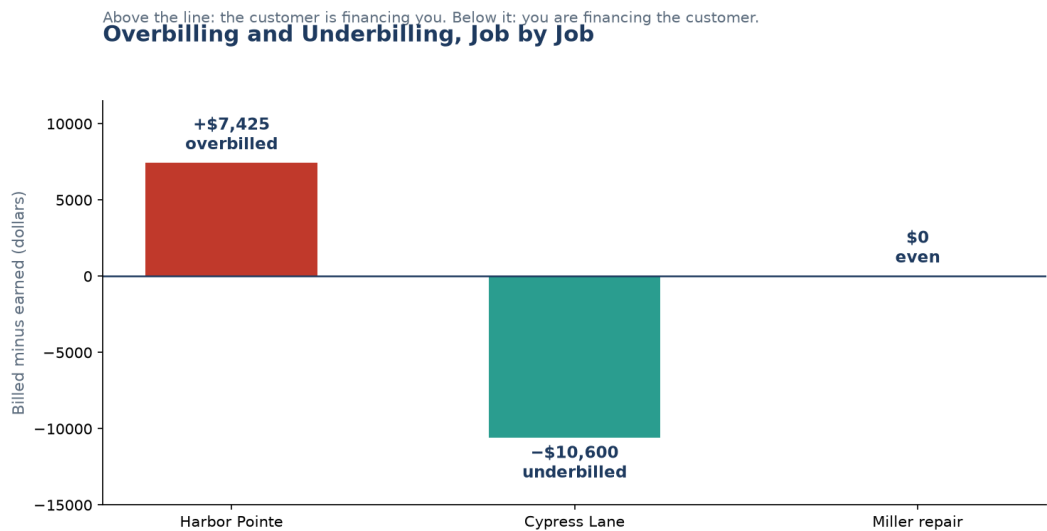


Figure 12.1: Billed ahead of earned is a liability wearing a costume. Earned ahead of billed is your money in the customer's wall.

Underbilling: The Asset You Financed for the Customer

Reverse the sign and the problem reverses with it. Underbilling means the work has earned more than it has billed: the job is owed money for value already delivered, and the contractor is financing the customer's project in the meantime. On the balance sheet the excess of earned value over billings is an asset — costs and earned revenue in excess of billings — and like every asset built from your own cash, it deserves the question an owner asks of any investment: when does it convert, and at whose decision?

Delgado's Month 2 schedule in Chapter 11 carried the example. The Cypress Lane re-roof had earned \$106,000 at 50 percent complete and had billed \$95,400: underbilled by \$10,600. That is \$10,600 of completed, earned work — materials installed, labor paid, burden absorbed — waiting on a billing cycle. If the next application captures it, the underbilling is a timing difference and costs the company a few weeks of financing. If applications are prepared carelessly month after month, or a contract's billing terms cap what may be claimed, underbilling becomes a standing loan from the contractor to its customers, extended without interest, paperwork, or a credit decision.

Underbilling has causes worth separating, because they call for different corrections. Administrative underbilling — work performed and billable, but not yet claimed because the application was late, a line was missed, or documentation lagged — is pure self-inflicted financing, and it is the most common kind. Correct it with the monthly cut-off discipline of Chapter 9. Contractual underbilling arises where the agreement itself holds billings behind earning: retainage-heavy terms work this way in cash terms, and some contracts limit billings to cost or to scheduled milestones regardless of progress. That kind cannot be corrected by the bookkeeper; it must be priced at bid time, because a job whose terms make the contractor its bank needs margin for the financing it provides. Disputed underbilling — earned work the customer will not accept for billing, including the disputed change order of Chapter 10 — is the most serious kind, because its conversion depends on negotiation rather than routine. Carry it visibly, as Chapter 10 instructed, and let no report fold it into ordinary receivables where it will be assumed collectible on normal terms.

Why do both directions distort decisions? Because most contractor decisions are cash decisions made from incomplete signals. An overbilled contractor, watching a strong bank balance, takes the additional job, hires the additional crew, and commits overhead the earned position cannot support — spending the finishing costs of Job A on the starting costs of Job B, so that every job must be started for the previous job to be finished. An underbilled contractor, watching a weak balance, turns down sound work, delays paying suppliers who would have given terms gladly against a billed receivable, and blames the field for a problem created at the billing desk. The WIP schedule corrects both illusions with one page: earned, billed, and the gap, per job. Decisions made from that page are made from the work. Decisions made from the bank balance are made from the timing of other people's payments.

Profit Fade: The \$5,800 Harbor Pointe Gave Back

The third warning is slower, and the most consequential. Profit fade is the decline of a job's estimated gross profit between the bid and completion. It is measured at the job level, in dollars and in margin points, and Harbor Pointe supplies this book's complete example.

At bid, the job was estimated to cost \$118,500 against a price of \$148,500: estimated gross profit of \$30,000, a margin of 20.2 percent on price. The job finished at an actual cost of \$124,300. Final gross profit was $\$148,500 - \$124,300 = \$24,200$, a margin of 16.3 percent. The fade is $\$30,000 - \$24,200 = \$5,800$, or 3.9 margin points — profit the estimate promised in May that the completed job did not deliver.

Trace the fade to its sources, category by category, because an untraced fade teaches nothing. Materials finished at \$55,900 against \$52,000 estimated: an overrun of \$3,900, the hidden second tear-off layer of Chapter 10 — work that had to be done, was never added to the contract price because the change order was disputed, and was absorbed in margin. Labor finished at \$39,900 against \$38,000 estimated: an overrun of \$1,900, the additional hours the extra layer and the job's finishing work required. Materials plus labor account for the whole story as this book presents it: $\$3,900 + \$1,900 = \$5,800$. The remaining categories completed the record around those two drivers — burden at \$11,970, which is 30 percent of the final labor figure, subcontractors on estimate at \$9,600, equipment at \$3,930, and permits and disposal at \$3,000 — bringing the final cost to its total of \$124,300. The discipline is in the tracing itself: every dollar of fade assigned to a category, a cause, and where possible a decision, while the job is still recent enough for the assignment to be honest.

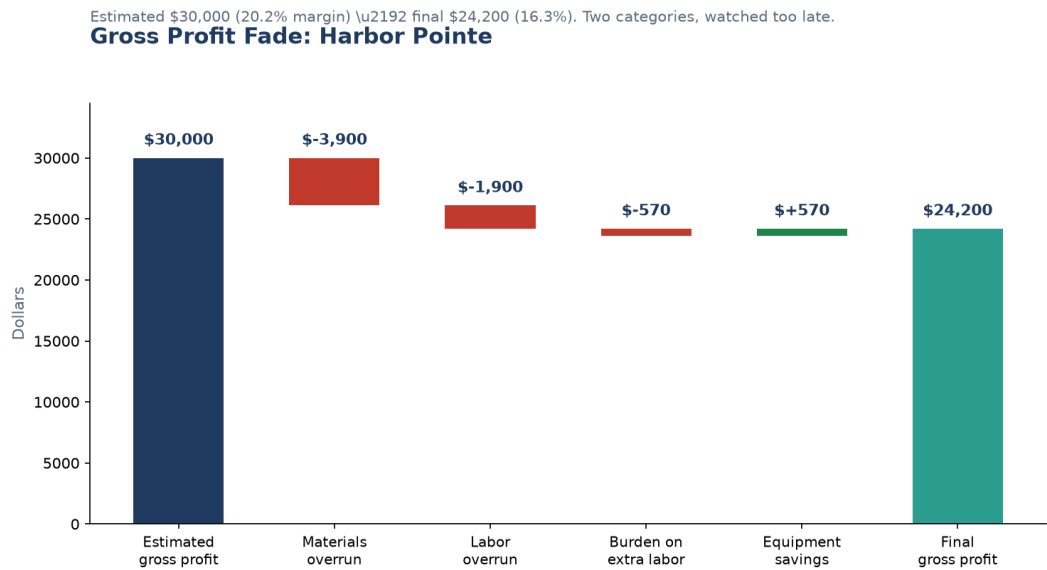


Figure 12.2: Fade is rarely one disaster. It is two categories, watched too late.

Notice what fade is not. It is not a loss — Harbor Pointe remained a profitable job that contributed \$24,200 of gross profit. It is not fraud, error, or necessarily poor field management: one of its two

causes was underground, literally, before the first crew climbed a ladder. Fade is the distance between the profit you planned the business on and the profit the jobs actually produced. A company that bids its overhead, its hiring, and its owner's compensation against estimated margins, while its jobs deliver faded margins, is planning on money that does not arrive. Marcus's company-wide gross margin in his most recent full year was 24.5 percent; a fleet of jobs fading four margin points each would erase a substantial share of his \$95,000 net income without a single job ever showing a loss large enough to alarm anyone. That is fade's real mechanism: not catastrophe, but a quiet, repeated shortfall, discovered in total only at year-end.

Fade as a Pattern: What Your Surety Sees

One job's fade is a lesson. A pattern of fade is a diagnosis, and the readers of Chapter 11 apply it whether you do or not. A bonding company compares your WIP schedules across periods and asks a simple question: do this contractor's estimates hold? If job after job is bid at 20 percent, reported at 18 percent midway, and completed at 16 percent, the surety does not conclude that the contractor is unlucky. It concludes that the estimates are systematically optimistic — that percent complete is overstated, costs to complete are understated, or bid margins are being bought down to win work — and it prices that conclusion into capacity and terms. Banks read the same pattern as earnings quality: profits reported early on percentage-of-completion, then reversed as jobs close, are profits a lender learns to discount.

Within the company, repeated fade sorts into a short list of causes, which the job cost reports of Chapter 7 distinguish. Estimating causes: quantities missed, conditions assumed rather than verified, production rates the crews have never achieved — Marcus now walks every roof before a bid is final for this reason. Pricing causes: margin conceded to win the job, then recorded as though the full margin had been bid. Execution causes: rework, idle time, material waste, and unpriced change work absorbed job after job. Recognition causes: percent complete measured generously early, so profit is reported before the finishing work reprices it. Each cause has a different owner and a different remedy.

Estimate at Completion: Catching Fade While It Can Still Be Managed

The defense against fade is a discipline Chapter 7 introduced and the WIP makes monthly: the estimate at completion. For every open job, at every schedule date, state the costs incurred to date and the estimated cost to complete, and add them. That sum — not the original budget — is the job's current estimated total cost, and current estimated gross profit is the contract price less that sum. The moment the estimate at completion rises, the schedule reports lower profit, in the current month, at the current percent complete. Nobody waits for the finish to learn the result.

Work Harbor Pointe's logic forward as the discipline would have applied it. When the second layer was exposed and its \$3,900 of materials cost became known, the estimate at completion for materials should have moved from \$52,000 toward the \$55,900 the job ultimately recorded, with labor's remaining estimate reviewed in the same conversation — since added tear-off work consumes hours as well as material. The job's estimated gross profit would have been revised downward in that month, Marcus would have seen a smaller, truer profit figure for the balance of

the job, and the remaining decisions — how hard to pursue the disputed change, how aggressively to manage the finishing labor — would have been made against the revised number. Instead, in the pattern this book exists to correct, an estimate left at its original figures reports the original profit until the last costs land. Early revision does not create the fade. It reveals fade while choices remain: recover it through an approved change, control it through the remaining work, or consciously absorb it, as Marcus finally did — knowing its size.

Apply three rules. Revise the estimate at completion whenever a known fact changes it, in the month the fact is known — a hidden condition, a price increase on unbought material, a production rate the first weeks have disproved. Require the person closest to the work to state the cost to complete in writing; an estimate to complete spoken across a desk in an optimistic moment is not a revision. And compare, at closeout, the final cost with the original estimate and with every revision between, as Harbor Pointe was compared in this chapter. A company that performs that comparison on every job builds, within a year, the one asset no competitor can copy: an estimating record that tells the truth about its own past.

Key Takeaways

- Overbilling is billings ahead of earned revenue — Harbor Pointe at Month 2: \$126,225 billed against \$118,800 earned, overbilled by \$7,425. It is recorded as a liability, billings in excess of costs and earned revenue, because the cash belongs to work not yet performed.
- Underbilling is earned revenue ahead of billings — an asset the contractor has financed for the customer, as with Cypress Lane's \$10,600 of earned, unbilled work. Separate its administrative, contractual, and disputed causes; each has a different remedy.
- Both conditions distort cash decisions: overbilling tempts spending and expansion the earned position cannot support, while underbilling makes a sound company look weak and turns away good work.
- Profit fade is the decline from estimated to final gross profit. Harbor Pointe faded \$5,800 — from \$30,000 to \$24,200, and from 20.2 percent to 16.3 percent margin — traced to materials overruns of \$3,900 and labor overruns of \$1,900.
- Repeated fade across jobs tells a bonding company and a bank that estimates are systematically optimistic, and it is priced into capacity, credit, and trust.
- Estimate-at-completion discipline — costs to date plus a written, current estimate to complete, revised in the month a fact changes — surfaces fade while it can still be recovered, controlled, or consciously absorbed.

Your Turn

1. For each open job, compute billed minus earned from your latest WIP schedule. Label every job overbilled or underbilled and state the dollar amount; do not net them across jobs.
2. Restate your current cash position for yourself: bank balance, less total overbillings, less retainage payable to subcontractors. Use that figure, not the bank figure, for this month's spending decisions.

3. List your underbilled jobs and classify each balance as administrative, contractual, or disputed. Bill the administrative balances in the next application cycle.
4. Take your last three completed jobs and compute fade for each: estimated gross profit against final gross profit, traced by cost category. Note which cause — estimating, pricing, execution, or recognition — explains most of each job's fade.
5. For every open job, obtain a written estimate to complete from the person running the work and revise the estimate at completion before your next WIP schedule is issued.

PART FIVE

Subs, Payroll, and Compliance

Chapter 13: Subcontractor Files and Form 1099-NEC

Early in the Harbor Pointe job, Marcus Delgado told Denise Alvarez, his office manager and bookkeeper, to call two subcontractors he had used before — a crane firm needed that week and a gutter crew needed the next — and to pay their deposits so the schedule would hold. Denise asked whether either firm had a file. Neither one did. There was no signed Form W-9, no certificate of insurance, no written agreement stating what each firm would do and what it would be paid, and in one case no copy of a license at all. What the company had was names in Marcus's phone, a history of checks, and the memory of the previous January, when Denise spent two weeks reconstructing who had been paid and under what legal name and number.

Marcus paid \$148,000 to subcontractors in his most recent full year, 8.0 percent of his \$1,850,000 in revenue. A sum of that size cannot be managed from memory. It must be managed from files built before money moves and maintained while money moves. The principle of this chapter is plain: the subcontractor file is completed before the first check is written. No file, no check. The rule admits no exceptions, including a job already in progress, a schedule already tight, and a subcontractor already standing in the yard ready to work.

Why the File Comes First

A subcontractor performs part of your contract, on your job site, under your company's name in the eyes of the owner. If the work is defective, the owner calls you. If a subcontractor's employee is injured and the subcontractor carries no insurance, the claim looks for the next party with coverage — often you. If the subcontractor is not documented correctly, your tax reporting, your workers' compensation audit in Chapter 14, and your job cost record all suffer at once.

The file answers four questions before they become disputes. Who is this business, legally, and how is it taxed? Is it insured, for what, and until when? What did it agree to do, for what price? Is it licensed where a license is required? If you cannot answer those questions before work starts, you do not yet have a subcontractor. You have an exposure with a start date.

Paying first and papering later costs more than tidiness. You lose leverage, because the only leverage that reliably produces paperwork is payment not yet made. You lose accuracy, because job costs are recorded under a vendor name that may later need correction. You lose insurability, because you cannot prove the subcontractor was insured while on your site. And you may lose money directly, through penalties for late or incorrect returns and uninsured claims that migrate to your policies. Each problem is manageable before the first check. In January, with a deadline days away and a subcontractor already paid in full, each one becomes an emergency.

The Four Documents

The Delgado file contains four documents. These four are the minimum, and the file is not complete until all four are present or an item is marked, in writing, as not applicable for a stated reason.

Four documents, collected once — or chased for a year

The Subcontractor File: Complete Before the First Check



Track the insurance certificate's expiration date the day it arrives.

No file, no check. The rule has no mid-job exceptions.

Figure 13.1: W-9, insurance certificate, signed agreement, license. Four documents, collected once, before money moves.

1. The signed Form W-9. Form W-9 is where the subcontractor gives you its legal name, business name if different, federal tax classification, address, and taxpayer identification number, and certifies that the number is correct. You need it for reporting — the name and number on Form 1099-NEC must match Internal Revenue Service records, and the W-9 is how you obtain them from the source rather than from an invoice header — and for discipline: a business that will not complete a one-page form before it is paid is telling you how it will respond to later requests for lien releases and callbacks. Keep the W-9 in effect for each year. If a subcontractor changes its structure or number, obtain a new form and keep both, with dates.

2. The certificate of insurance, with the expiration tracked. A certificate of insurance is evidence, provided by the subcontractor's agent or carrier, that specified policies were in force on the date it was issued. You will ordinarily look for general liability and, if the subcontractor has employees, workers' compensation coverage. Your insurer, owner contracts, and state may require more; those requirements belong in your agreement, and the certificate is how you verify them. The certificate alone is not the control — tracking its expiration is. Denise logs subcontractor, carrier, policy type, and expiration date, reviewed monthly. Thirty days before expiration she requests a renewal; if it does not arrive, further work and payments are held until it does. That sounds severe until compared with discovering at audit, or after an injury, that a firm worked uninsured on your site for five months. Where contracts require it, request additional-insured status, and file the certificate where the person approving payments will see it.

3. The written subcontract or agreement. Every engagement should rest on a writing signed by both parties before work begins. For recurring work, many contractors use a master agreement stating standing terms — insurance, indemnification, payment timing, warranty, site rules — supplemented by a work order for each job stating scope, price, and schedule. The writing protects the job cost record as much as the legal relationship: it states whether the price is a lump sum, unit price, or time and materials with a cap, and what is included — materials, disposal, permits — and what is not. Without it, a variance on the job cost report in Chapter 7 cannot be interpreted: you

cannot tell whether the subcontractor overbilled or your estimator omitted work correctly performed and charged. The agreement should also state the paperwork that conditions payment, including any lien releases your state, owner contract, or lender requires. Lien rights and paperwork vary by state and are addressed here as paperwork discipline only; consult your attorney about the forms and deadlines for your work.

4. The license copy, where the trade requires it. Where the trade requires a license — under state law, local ordinance, or your owner contract — obtain a copy of the current license, record its number and expiration alongside the insurance expiration, and verify it through the issuing authority's public lookup where available. Not every trade is licensed in every jurisdiction, and rules vary by state and locality, so the file must record the basis for your conclusion: either a license copy is in the file, or a note states who determined that none was required for this scope in this jurisdiction, and when. An unlicensed subcontractor, where a license is required, can expose you to a stop-work order, a withheld owner payment, or discipline against your own license. Document the verification before the crew is on the roof, not after an inspector asks.

No File, No Check — Including in the Middle of a Job

Rules fail at the moment of pressure: a job is underway, weather has compressed the schedule, and the only available subcontractor is a firm the company has not used before. Assembling four documents then feels like the obstacle to getting the job done. It is not. It is an hour or two of office work in parallel with mobilization, and the only point when collecting the documents costs no one anything. State the requirement in the first conversation: the first payment, including any deposit, is released when the file is complete. Firms that work for well-run contractors expect this and can send a W-9 and certificate within the hour. A firm that cannot produce evidence of insurance at any speed has answered an important question for you. Apply the rule to existing relationships too: when a certificate expires mid-job, the file is incomplete until the renewal arrives, and when a subcontractor changes its entity, a new W-9 is required before the next check, because the payee for tax purposes has changed even though the people on site have not.

Dana Whitfield applies the same rule at Whitfield Plumbing & Air. Her subcontractor total was \$12,000, for specialty work her six technicians do not perform, but the file is identical, because the risks do not scale with the invoice. Her dispatcher, Priya Nair, does not dispatch a subcontractor until Dana confirms the file is complete.

Paying During the Year: Tracking by Vendor

A complete file makes January possible; clean payment records make January short. Two habits matter: record every payment under the correct vendor, and in the correct job and cost code, when it is made. In the vendor record, carry the legal name and number from the W-9, the tax classification, and a flag for whether the vendor is expected to receive Form 1099-NEC — set at onboarding, not in January from memory. Pay the entity named on the W-9. Do not pay an individual personally for work performed by his company, combine two businesses under one record because the same person owns both, or record a subcontractor payment as generic materials. Each shortcut saves a minute in June, costs an hour in January, and corrupts the job cost report in the meantime.

For Harbor Pointe, the thread is concrete. The estimate carried subcontractors at \$9,600, for two scopes: crane work to lift materials and handle tear-off debris, and gutter work to complete the building's drainage after the new roof was installed. Both firms were onboarded under this chapter's rule before the job began. Their invoices were recorded to the Harbor Pointe job, to the subcontractor cost code, under their own vendor records. At the end of Month 1, subcontractor cost incurred was \$2,480. At the end of Month 2, it was \$6,760 to date. At completion, subcontractor cost totaled exactly \$9,600 — on estimate, the only Harbor Pointe category with no overrun. The two scopes with written lump-sum agreements, verified before work began, matched the estimate to the dollar, while materials overran by \$3,900 and labor by \$1,900 where field conditions drove the variance.

Across the full year, those records accumulate to the \$148,000 Delgado paid its subcontractors. Because each payment was recorded once, under the correct vendor, with the 1099 flag set at onboarding, the year-end question — how much did we pay each subcontractor for services? — is a report, not a research project. January should be assembly, not archaeology. Distinguish payments for services from payments for materials and reimbursements as well, because the analysis below turns on that distinction, and ask your CPA during the year, while documents are fresh, when a combined invoice is unclear.

Form 1099-NEC: The Federal Basics

Form 1099-NEC, Nonemployee Compensation, is the information return on which a business reports certain payments to unincorporated service providers. Volume 2, *Small Business Taxes*, presents the tax framework for information returns generally; this chapter applies that framework to subcontractor payments. What follows is a summary of the federal basics. The rules summarized are federal basics — state requirements vary, and some states impose their own information reporting, withholding, or filing requirements in addition to the federal ones. Verify your state's requirements and confirm your obligations with your CPA before each January filing season.

The analysis has three questions. **How much?** In general, Form 1099-NEC is required for a payee to whom you paid \$600 or more during the calendar year for services. The threshold applies per payee, on the year's total. A subcontractor paid \$350 on one job and \$400 on another has been paid \$750, and neither job file alone reveals that the threshold was crossed — which is why vendor-level tracking is not optional. **For what?** The form reports compensation for services paid in the course of your trade or business. Payments for merchandise alone are a different matter. Payments made by credit card or through certain third-party payment networks are generally reported by those processors on their own forms rather than by the payer on Form 1099-NEC; do not double-report them, and confirm the current treatment with your CPA, because processor reporting rules have changed in recent years and may change again. **To whom?** In general, payments to corporations are exempt from Form 1099-NEC reporting. The most important exception is that payments to attorneys for legal services are reportable even when the law firm is incorporated. Payments to sole proprietors, to partnerships, and to limited liability companies taxed as sole proprietorships or partnerships are generally reportable when the \$600 threshold is met. A limited liability company taxed as a corporation is treated under the corporate rule. Do not guess status

from the letters after a name; read it from the tax classification the subcontractor certified on Form W-9.

Do not confuse the neighboring forms. Form 1099-MISC reports other categories, such as rents; it is not the form for nonemployee compensation for services. Form W-2 reports wages to your employees — for Delgado, his 14 field employees and office staff — and an individual who is in substance your employee does not become a subcontractor because you prefer the paperwork. Worker classification is a substantive determination with its own tests, addressed in Volume 2. Misclassifying an employee as a subcontractor to avoid payroll taxes and burden is a serious error, and no onboarding file cures it. Resolve any uncertainty with your CPA or attorney before the first payment of either kind.



Figure 13.2: January 31 is a deadline you prepare for in every month that comes before it.

The January Routine and the Deadline

Form 1099-NEC must be furnished to the recipient and filed with the Internal Revenue Service by January 31 following the calendar year of payment. That date does not move because your records are incomplete. Build the routine backward from it. In the first week of January, run the vendor payments report for the prior year and compare it to the onboarding flags. Investigate the exceptions then: a vendor whose payments crossed the threshold but who was never flagged, a duplicated record under two spellings, a number flagged by an IRS matching notice during the year. Resolve what can be resolved while there is still time to request a corrected W-9 and receive it.

Prepare the forms from the records rather than retyping amounts from invoices. Furnish each copy by January 31 and file by January 31, using electronic filing where required — businesses filing ten or more information returns in aggregate are generally required to file electronically, a threshold most growing contractors meet when Forms 1099 and W-2 are counted together. Penalties for late, incorrect, or unfiled returns are assessed per form and increase with delay, with a more serious regime for intentional disregard. If you discover after filing that a form was

incorrect, correct it promptly under the procedures for corrected returns and document what you did.

The failure pattern is worth remembering. A contractor pays a new gutter firm \$4,200 across two fall jobs, from invoices, without a file. In January the bookkeeper mails a blank W-9 and receives nothing; the firm's phone number has changed. The records show checks to the owner's personal name on one job and to the company name on the other, so even the payee is uncertain. The certificate, when it arrives, shows coverage that began in December — after the work — leaving the fall jobs uninsured in the record and exposed at the workers' compensation audit. The form, if filed at all, is filed late, under a name assembled from an invoice, with a number supplied by telephone and never certified. Nothing about the gutter work was poor. The failure was administrative, foreseeable, and locked in on the day the first check was written without a file.

Key Takeaways

- The subcontractor file — signed Form W-9, certificate of insurance, written agreement, and license copy where required — is completed before the first check is written. No file, no check, with no exceptions for jobs already in progress.
- The certificate of insurance is a control only when its expiration date is recorded, reviewed monthly, and renewed before it lapses; an expired certificate makes the file incomplete again.
- Pay for services is tracked by vendor, under the legal name and classification from the W-9, in the correct job and cost code, all year — so January is assembly, not archaeology.
- At the federal level, Form 1099-NEC generally reports payments of \$600 or more for services to unincorporated payees; corporations are generally exempt, except for payments to attorneys for legal services. The rules summarized are federal basics — state requirements vary.
- Forms 1099-NEC are due to recipients and to the IRS by January 31. Paying first and papering later forfeits the only leverage — unpaid money — that reliably produces paperwork.

Your Turn

1. Build a one-page onboarding checklist with the four documents — W-9, certificate of insurance, signed agreement, license copy where required — and adopt the written rule: no first payment, including a deposit, until every item is checked or marked not applicable with a reason.
2. Create an expiration log for insurance certificates and licenses, enter every current subcontractor into it today, and set a monthly review date on which renewals are requested 30 days before expiration.
3. For each subcontractor in your vendor list, confirm the legal name, taxpayer identification number, and tax classification match a signed W-9 on file, set the Form 1099-NEC flag, and request a W-9 now from any subcontractor who lacks one.

4. Run a payments-by-vendor report for the year to date, identify every service provider approaching or past \$600, and confirm each one has a complete file before the next payment is released.
5. Calendar the January routine now: vendor report review in the first week of January, forms furnished and filed by January 31, with your CPA confirming your federal obligations and any additional requirements in your state.

Chapter 14: Crew Payroll, Burden, and the Workers' Comp Audit

For years, Delgado Roofing & Construction paid its crews correctly and recorded the cost incorrectly. The men and women on the roofs were paid every Friday, in full and on time. What the books could not answer, until Denise Alvarez rebuilt the payroll process, was a simpler question: what did labor actually cost, on which job, in which week? Time arrived at the office as a single total per employee. Denise split it by judgment, weeks later, across whatever jobs were open. The job cost reports in Chapter 7 inherited that judgment, and Marcus learned to distrust them — correctly. Payroll is the largest cost most contractors control daily. For Delgado, direct labor was \$462,500 in the most recent full year and labor burden was another \$138,750, together 32.5 percent of \$1,850,000 in revenue. A cost of that size, allocated by memory, makes every report built on it unreliable.

This chapter covers the three disciplines that make crew payroll trustworthy: capturing time by job and cost code when the work is done, carrying the full burden on every hour so pricing and job costs tell the truth, and keeping payroll records in a form that survives the workers' compensation audit — the annual examination in which your estimated premiums are trued up against your actual payroll, class code by class code.

Capturing Time by Job and Cost Code

The rule from Chapter 6 governs everything in this section: time is captured once, at the source, coded to the job and the cost code where the hours were worked. The crew leader or foreman records, for each worker and each day, the job, the cost code — tear-off, installation, repairs, punch and warranty, travel where you track it separately — and the hours in each. The worker's total for the day must reconcile to the paid day. If a roofer spent five hours on Harbor Pointe installation and three hours on a repair call, the record shows two lines, not one line for the larger job and a correction later.

This discipline serves three purposes at once. First, job costing: hours coded correctly produce labor cost by job without office reconstruction, and variances can be investigated while the job is still open. Second, payroll itself: overtime is computed on total hours in the workweek, regardless of how the hours were split among jobs, so the daily split and the weekly total must both be right, and each checks the other. Third, insurance: as the audit section explains, the same records, organized by class code, are the evidence your carrier will examine. One capture, done well, satisfies all three.

Review time before payroll is processed, not after. Denise reviews for the predictable errors: hours coded to a closed job, a full week coded to one job by a worker known to have split his time, cost codes that do not exist on that job's budget. Corrections made before processing cost minutes. Corrections made after processing require journal entries and amended reports — and corrections discovered at audit, a year later, require all of that in an outcome you no longer control.

Hold the distinction from Chapter 13 firmly in this process. Your crews are employees. Their wages are reported on Form W-2, payroll taxes are withheld and remitted, and their hours carry burden. Subcontractors are separate businesses, paid on invoices against the files built in Chapter 13, and reported — where required — on Form 1099-NEC. The two streams never mix in the payroll system. A casual laborer paid in cash off the books is not a third stream; he is an unrecorded employee, an uninsured exposure, and an audit finding waiting for a date. Volume 2, *Small Business Taxes*, addresses worker classification and payroll tax obligations in full; this chapter assumes that framework and applies it to crew cost.

A brief word on certified payroll, for readers who perform public work. Many government contracts require the contractor and its subcontractors to submit certified payroll reports — typically weekly statements, on prescribed forms, attesting that each worker was paid not less than the prevailing wage and fringe benefits determined for that work in that locality. The rates, forms, and filing mechanics are set by the contracting authority and the law governing the project; they vary, and they are not taught here beyond the principle. The principle is this: certified payroll is not a second payroll system. It is a report drawn from the same time capture described above, with wage determinations applied. If your daily time records are complete by job, classification, and hours, certified payroll is an extraction. If they are not, certified payroll becomes a weekly reconstruction under a compliance deadline, with penalties for error. Build the capture correctly and both private and public reporting follow from it.

Burden Revisited: From Chapter 5 to the Bid

Chapter 5 built labor burden from its components. This chapter applies it, because burden that is understood in the classroom and ignored in the estimate is decoration. The canonical Delgado build, for a roofer at a base wage of \$26.00 per hour, is as follows:

Component	Rate	Per hour
Base wage	—	\$26.00
Social Security and Medicare (FICA)	7.65% of wage	\$1.99
Workers' compensation (roofing class code)	14.0% of wage	\$3.64
Federal unemployment (FUTA)	0.6% of wage	\$0.16
State unemployment (SUTA)	2.7% of wage	\$0.70
Health stipend and benefits	—	\$0.85
Paid time off accrual	—	\$0.46
Total burden	30.0% of wage	\$7.80
Fully loaded labor rate		\$33.80

The arithmetic is shown because it must be checkable: $\$26.00 \times 30.0 \text{ percent} = \$7.80$, and $\$26.00 + \$7.80 = \$33.80$. Every hour a Delgado roofer works costs the company \$33.80 before materials, equipment, supervision, or overhead are considered. In the full year, the same relationship holds at

scale: \$462,500 in direct labor wages $\times$ 30.0 percent = \$138,750 in burden. Harbor Pointe carries it as well: the estimate included direct labor of \$38,000 and burden of \$11,400, which is 30.0 percent of \$38,000, and the final job cost included labor of \$39,900 and burden of \$11,970, again 30.0 percent. Burden is not an adjustment applied at year-end for the financial statements. It is a rate applied to every hour, on every job, from the estimate forward.

The pricing consequence is direct. An estimate built on the \$26.00 wage instead of the \$33.80 loaded rate understates labor cost by \$7.80 on every estimated hour. On a job estimated at 1,000 crew hours, that error is \$7,800 of cost that will certainly be incurred and was never priced — larger, by itself, than the entire \$5,800 overrun that reduced Harbor Pointe's final profit to \$24,200. Marcus's early bids contained exactly this error in milder form: burden was treated as overhead, to be covered by whatever markup the market would bear, rather than as a direct cost of the hour being sold. Chapter 16 returns to markup and margin; the point here is prior to both. You cannot mark up a cost you have not fully counted. Price the loaded hour.

Apply burden in the accounting system the same way you apply it in the estimate: each payroll, burden is charged to the same jobs and cost codes as the underlying wages, at the established rate, with periodic true-ups to actual cost for components — unemployment rates, benefit costs — that are known exactly only in arrears. Denise reconciles burden charged to jobs against burden actually incurred each month. A persistent difference means the rate is stale, and a stale burden rate is a pricing error repeated on every bid until it is corrected. Rebuild the rate whenever a component changes: a new workers' compensation experience modification, a changed unemployment rate, a new benefit. The rate is a living number, reviewed at least annually and whenever the carrier or the state writes to you.

Why Dana's Burden Is 28 Percent and Delgado's Is 30 Percent

Dana Whitfield's burden at Whitfield Plumbing & Air is 28 percent: \$94,640 on technician wages of \$338,000. Students of both companies sometimes ask which figure is correct. Both are. Burden is not a national constant; it is the sum of a particular company's components, and the largest single component for most contractors — workers' compensation — is priced by class code, which is to say by the risk of the work actually performed.

Roofing work is classified among the most hazardous of the construction trades, and Delgado's roofing class code carries a rate reflected in the build above at 14.0 percent of wages — \$3.64 of the \$7.80 hourly burden. Plumbing and HVAC service work carries lower class code rates. Dana's technicians also split their time among service, installation, and shop duties that may be classified differently from one another, further shaping her blended rate. Her other components — FICA at the same federal rate, unemployment, benefits structured for a smaller crew — complete a different total. Neither owner should adopt the other's percentage. Each should be able to produce, as both now can, the component build that produces it. When your burden rate cannot be decomposed into its parts, it is not a rate. It is a guess with a percent sign.

The comparison carries a management lesson as well. Because compensation cost follows the work, the mix of work changes the economics: a crew hour on ground-level gutter installation and an hour on tear-off at height do not necessarily carry the same insurance cost. Whether to price with a single blended rate or with rates by class of work is a judgment for you and your CPA or

agent. What is not optional is knowing the components well enough to make that judgment deliberately.

The Workers' Compensation Audit

Workers' compensation insurance is not sold at a final price when the policy is issued, because the final exposure is not yet known. Premiums are estimated at the start of the policy period from your projected payroll, divided by class code — so much payroll expected in roofing, so much in clerical, so much in outside sales — each multiplied by the rate for that code. At the end of the period, the carrier audits: it examines your payroll records, determines the actual payroll in each class code, applies the same rates, and trues the premium up or down. If actual payroll exceeded the estimate, you owe additional premium. If it fell short, you are due a return premium. The audit is not an accusation. It is arithmetic performed on a year's worth of your records — if you kept them.

Premiums are estimated at the start and trued up at the end

The Workers' Compensation Audit



A roofer's hours coded as clerical do not save money. They schedule a larger bill.

An uninsured sub's pay can land on your audit — one more reason for Ch. 13's file.

Figure 14.1: The audit is not an accusation. It is arithmetic with a year's worth of your records — if you kept them.

Three findings account for most painful audits, and all three are preventable during the year.

Misclassified hours. Class codes differ in rate by multiples, not by fractions. Clerical payroll is rated at a small fraction of roofing payroll. Hours recorded in a low-rated code that were in fact worked in a high-rated code do not save premium; they defer it, with the correction concentrated in a single audit bill. The classic case is the roofer coded as clerical or shop help because he spent a week recovering from an injury, running materials, or working in the yard — while in fact performing, or remaining classified by governing rules according to, duties the carrier rates differently. The governing principle is that classification follows the work performed and the carrier's and state's classification rules, not the label most convenient in the payroll system. Where an employee genuinely splits duties between classes, the protection is a contemporaneous split: hours recorded by class code on the daily time record, as described above, so the audit sees the split as it happened. A split reconstructed at audit from memory will be received as what it is. If

you are uncertain how a duty should be classified, ask your agent or carrier during the policy year and keep the answer in the file. That question costs nothing in March. In the audit month, it is answered for you, at the higher rate where the records are ambiguous.

Uninsured subcontractors. The audit reaches beyond your own payroll. Payments to subcontractors are examined, and where a subcontractor cannot be shown to have carried its own workers' compensation coverage for the period it worked for you, the carrier may treat that subcontractor's remuneration as your payroll and charge premium on it at the applicable class code. This is where Chapter 13 pays for itself a second time. The certificate of insurance in the subcontractor file, current for the dates worked, is the evidence that removes those payments from your exposure. The Harbor Pointe crane and gutter firms, onboarded with certificates tracked to expiration, present no audit exposure of this kind. A firm paid first and papered later — or never — presents the full amount. On Delgado's \$148,000 of annual subcontractor payments, even a partial failure of documentation converts money already spent on subs into a second charge for insurance on the same work.

Records that cannot support the payroll. The auditor works from payroll registers, tax filings, and the general ledger, and reconciles them to one another. Quarterly payroll tax returns, annual wage totals, and the payroll expense in your books must agree, or the differences must be explainable from records — overtime premium treatment, owner or officer inclusion or exclusion under your state's rules, and similar items your agent can identify for you in advance. Delgado's own status matters here: as an S corporation, the treatment of officer payroll follows the rules applicable to his entity and state, which he confirms with his CPA and agent rather than assuming. Keep, for each policy period: payroll registers showing gross pay by employee by period; the time records showing job and class-code splits; quarterly and annual payroll tax filings; certificates of insurance for every subcontractor paid in the period; and the subcontractor payment records from Chapter 13. Assembled monthly, that file makes the audit a meeting. Assembled after the audit notice arrives, it makes the audit an excavation with a deadline.

Tell your carrier during the year when the facts change — a significant increase in payroll, a new class of work, a first large subcontracted scope. Mid-term disclosure does not raise your ultimate cost, which is set by actual payroll and rates in either case. It replaces a single surprising bill with installments of a known cost.

Putting the Chapter Together

Crew payroll, burden, and the audit are one system viewed from three directions. Time captured by job and cost code on the day of work produces job costs you can price from. Burden applied to every hour at a rate you can decompose — \$26.00 to \$33.80 at Delgado, 28 percent at Whitfield — produces estimates that contain the labor cost they claim to contain. Records kept in audit form throughout the year produce a premium true-up that confirms your numbers instead of correcting them at a price. None of the three requires new software or new staff. Each requires the decision, made once and kept daily, that payroll is not merely how the crew is paid. It is how the company knows what its work costs.

Key Takeaways

- Time is captured once, at the source, by job and cost code, and reconciled to the paid day — the same record serves job costing, payroll, and the insurance audit.
- Burden is a direct cost of every hour, not overhead to be absorbed: at Delgado, \$26.00 in wages plus \$7.80 in burden (30.0 percent) equals a \$33.80 loaded rate, and estimates priced on the wage alone understate labor cost on every hour.
- Burden rates differ because their components differ: Dana Whitfield's 28 percent and Delgado's 30 percent are both correct, with workers' compensation class codes — roofing above plumbing and HVAC service — the largest single reason for the difference.
- Workers' compensation premiums are estimated on projected payroll by class code and trued up at audit against actual payroll; misclassified hours are corrected at the higher rate, concentrated in a single bill.
- An uninsured subcontractor's pay can be treated as your payroll at audit — the current certificates collected in Chapter 13 are audit evidence, not filing-cabinet decoration.
- Audit-ready records — payroll registers, class-code splits for divided duties, tax filings, and subcontractor certificates — are kept all year, and material changes in payroll or work mix are reported to the carrier before the audit, not explained after it.

Your Turn

1. Review last week's time records: confirm every hour is coded to a job and cost code, that split days show split lines, and that each worker's coded total reconciles to the paid total — then correct the capture form or process where it does not.
2. Rebuild your burden rate from its components — FICA, workers' compensation by class code, FUTA, SUTA, benefits, and paid time off — and confirm the loaded rate it produces is the rate your current estimates actually use.
3. Compare burden charged to jobs in the last month with burden actually incurred, and adjust the rate in writing if the difference is persistent.
4. Assemble your audit file for the current policy period to date — payroll registers, tax filings, time records with class-code splits, and subcontractor certificates — and note any gap while it can still be closed from current records.
5. List any worker whose duties split between class codes and confirm the split is recorded daily; then ask your agent, in writing, how any doubtful duty should be classified, and file the answer.

Chapter 15: Sales Tax, Permits, and Pass-Through Costs

Dana Whitfield stood at her own parts counter on a Saturday morning and watched three transactions occur within ten minutes that looked identical and were not. A technician took a blower motor from stock and installed it that morning in a customer's air handler under a repair ticket. A homeowner bought the same motor over the counter, paid, and carried it out to install himself. A second technician loaded a motor onto a van as part of the equipment package for a change-out under a lump-sum installation contract. Same part, same shelf, same price in the inventory system. For sales tax purposes, in most states, those three motors travel three different roads — and Dana's records, not her intentions, determine whether the company can show which road each one took.

No chapter in this book requires its warning more plainly, so it is given at the start and repeated before the end: sales tax rules for contractors vary significantly by state — these are principles and patterns, not your state's law; verify with your state and your CPA. States define taxable sales, contractor obligations, and exemptions differently, change them, and audit them on their own terms. What this chapter teaches is the pattern most states share in some form, the decision questions that pattern requires you to answer on every sale, and the records each answer requires. The pattern prepares you to follow your state's rules correctly. It does not replace them.

The Core Principle: What Did You Sell?

Sales tax, in its ordinary form, is a tax on retail sales of tangible personal property — goods sold to the final consumer — collected by the seller from the buyer and remitted to the state. Construction complicates that ordinary form because a contractor both buys goods and transforms them. Materials purchased as lumber, shingles, pipe, or equipment become, once installed, part of real property — a roof, a plumbing system, a building. Most states have therefore had to answer a question the ordinary retail model does not ask: when a contractor installs materials into real property under a construction contract, who is the consumer of those materials — the contractor who bought and installed them, or the property owner who ultimately owns the improved building?

In most states, the answer given for work that becomes a permanent improvement to real property is that the contractor is treated as the consumer of the materials installed. The contractor pays sales tax to its supplier when it buys the materials — or accrues and remits use tax where tax was not charged — and does not charge the property owner sales tax on those materials as a separate retail sale, because in the eyes of that state no retail sale of goods to the owner occurred. What the owner bought was an improvement, priced in the contract. The contractor's tax cost on materials is therefore a job cost, recovered in the contract price like any other cost, not a tax collected from the customer.

Set beside that answer are two contrasting ones. First, a genuine retail sale: when Dana sells the motor over the counter to a homeowner who carries it out, the company has made a retail sale to its final consumer. In most states that sale is taxed to the customer — the company collects the tax,

holds it as a liability, and remits it. It is not revenue, and it is not a job cost. Second, repair work: when a technician installs a part while repairing existing equipment, states divide. Some treat the part under the contractor-as-consumer pattern; some treat it as sold to the customer and taxable, with labor treated separately; some tax services themselves more broadly. Service and repair labor treatment varies widely — more than any other element in this chapter — and no pattern here should be relied on without verification in your state.

The governing habit is to decide, transaction by transaction and often line by line, which capacity you acted in. Were you the consumer installing materials into real property, the retailer selling goods, or the repairer supplying parts and labor? The tax treatment follows the substance of what you sold, and your invoice, contract, and purchase records must tell the same story your tax return tells. An invoice that describes a lump-sum improvement while the return reports retail sales of materials — or the reverse — is an audit problem written by the taxpayer himself.

The Decision Pattern: Three Questions

Because the pattern is applied hundreds of times a year, reduce it to three questions your office asks of every sale, in this order.

First, what did we sell — installed materials, parts on a repair, or a standalone product?

Installed materials under a contract for a permanent improvement point, in most states, to contractor-as-consumer treatment. A standalone product, sold without installation, points to a taxable retail sale. Parts furnished on a repair point to your state's repair rule, which you will have looked up in advance and written into your procedure — not improvised at the counter. If a transaction genuinely contains more than one of these, treat each part under its own answer and record it that way.

Second, how is the charge presented, and does the paperwork match the substance? A lump-sum price for an improvement, a separately stated retail price for goods, and a repair ticket separating parts from labor are different documents because they describe different transactions. Some states attach consequences to how charges are stated; in all states, the documents are evidence of what occurred. Never restyle a transaction on paper to obtain a tax result the substance does not support.

Third, what record will prove this treatment a year from now? A treatment you cannot document will not be kept at audit, however correct it was in principle.

Three patterns cover most contractor sales — your state's rules finish the answer

What Did You Actually Sell?

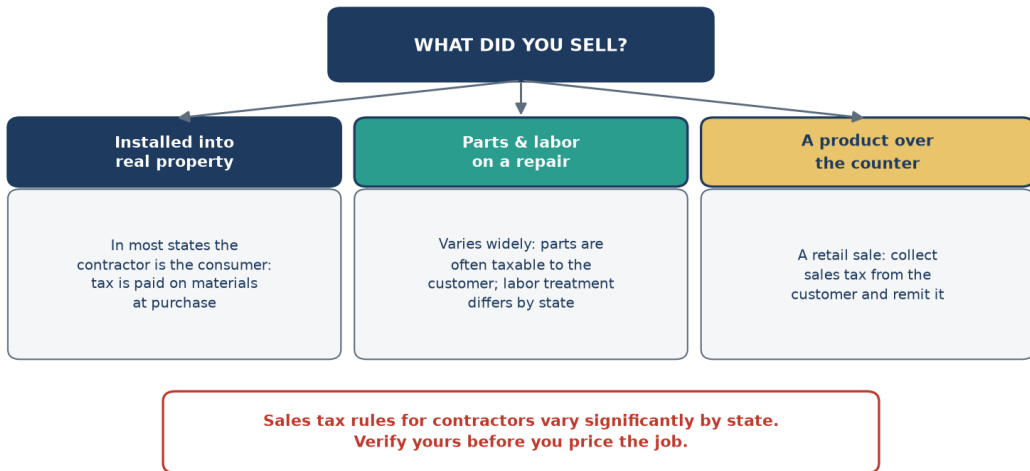


Figure 15.1: Start with what you actually sold. The tax treatment follows the substance, and your state's rules finish the answer.

Recordkeeping for Each Answer

If you are the consumer of installed materials, your purchase records carry the proof. Supplier invoices should show sales tax charged to you on materials bought for installation, and your system should distinguish those purchases from purchases for resale. Where a supplier did not charge tax — an out-of-state purchase, for example — use tax generally must be accrued and remitted by the consumer under your state's rules. Denise's procedure at Delgado is to keep installed-material purchases in the job cost structure you already know: Harbor Pointe's materials of \$52,000 estimated and \$55,900 actual are job costs, and the tax paid on those materials is part of their cost, not a separate collection from the condominium association. Across the year, Delgado's materials purchases of \$555,000 are handled on the same basis. The return position and the job cost record agree because they were built from the same invoices.

If you made a retail sale, the sales records carry the proof. The invoice shows the price and the tax collected, the tax is recorded in a sales tax payable liability account — never in revenue — and the return reconciles to the books. Keep the evidence of exemption for any sale claimed as exempt. Collected tax is the state's money in your custody from the moment it is collected, and a company that spends it as operating cash has borrowed from the least forgiving lender available to it.

If you furnished parts and labor on a repair, the service ticket carries the proof. Dana's average service ticket is \$385, across a high volume of calls, and no auditor — internal or state — will reconstruct that volume from memory. The ticket shows the customer, the work performed, the parts furnished from stock or purchased for the job, and the labor charged, presented as your state's rule requires. Parts drawn from van or shop stock must be relieved from inventory to that job, so

that the same part is not counted both as a retail item in stock and as an installed part on a ticket. Dana's parts and materials cost for the year was \$212,300; the discipline that makes that figure trustworthy is the same discipline that makes her sales tax filings defensible. Job costing and tax compliance, here as throughout this book, are one record-keeping system serving two purposes.

Resale Certificates and Purchases for Resale

A business that both installs materials and sells materials at retail buys in two capacities, and the purchase side needs the same care as the sales side. Where you buy tangible property that you will resell in the ordinary course — goods held for over-the-counter sale — you generally purchase it without paying sales tax by furnishing your supplier a resale certificate, under your state's procedures, stating that the property is for resale. The tax is then collected when you sell it to the final consumer. Where you buy the same kind of property to install or consume yourself, no resale treatment applies: you are the consumer, and tax is due at purchase (or as use tax thereafter).

The error to prevent is the single undifferentiated purchase. Dana's company buys motors, filters, fixtures, and fittings constantly. Some units will be sold over her parts counter; some will be installed by her technicians; at the moment of purchase, a given unit's destination may not yet be known. States provide procedures for this reality — commonly, purchasing under a resale certificate with use tax remitted when an item is withdrawn from resale inventory for the company's own installation use, or paying tax at purchase with adjustments where your state permits them. Which procedure your state prescribes, and what records must accompany it, is a question to settle with your CPA before an auditor settles it for you. What is not acceptable under any state's approach is the informal version: buying everything tax-free under a resale certificate and remitting nothing when items are installed, or buying everything taxed and also collecting tax on the same goods at retail. Both errors are common, both are discoverable from ordinary inventory and purchase records, and both convert a bookkeeping shortcut into a liability with interest and penalties.

On the sales side, the mirror obligation is exemption documentation. When a buyer claims an exemption — as a reseller, a tax-exempt organization, or under another provision of your state's law — obtain and keep the certificate your state requires, at or before the sale. A sale on which you collected no tax and hold no certificate is, in most audits, treated as a taxable sale on which you owe the tax you failed to collect. Keep certificates current and renew them on the schedule your state sets.

Let the warning be repeated here, in the middle of the mechanics, because this is where it is most likely to be forgotten: sales tax rules for contractors vary significantly by state — these are principles and patterns, not your state's law; verify with your state and your CPA. Definitions differ — what counts as a permanent improvement, how repair parts are treated, whether certain services are taxable, how lump-sum and separated contracts are distinguished. Rates, filing frequencies, and certificate procedures differ as well. Delgado and Whitfield both operate in Florida, and even within one state the correct procedure for a given transaction must be confirmed against that state's current guidance. A contractor who expands into a second state acquires a second set of answers, not a larger territory for the first set.

Permits and Pass-Through Costs

Permits resemble sales tax in one respect: money moves through your books that is not, in substance, your revenue or your cost — or that is your cost, depending on a decision you must make once and apply consistently. Delgado spent \$37,000 on permits and disposal in the most recent full year, 2.0 percent of revenue. Harbor Pointe carried \$3,000 for permits and disposal, incurred in full by completion. Dana's Callahan change-out carried a permit of \$125 and disposal of \$101 on a \$12,500 job. Small or large, the accounting question is the same: is the permit a cost of your job, recovered in your price, or a cost of the owner, advanced by you and reimbursed?

Absorbed as a job cost. In the more common contractor treatment, the contractor obtains the permit in its own name as part of performing the work, prices the expected permit cost into the estimate — Harbor Pointe's \$3,000 sits in the estimate alongside materials and labor — recognizes the actual fee in the permits cost code when incurred, and bills the customer only the contract price. No separate line appears on the invoice. The cost affects gross profit like any other job cost, and an overrun in permit or disposal cost is a job variance to be explained, as any other variance is.

Billed as a reimbursement. Under the alternative treatment, permitted by the contract, the contractor advances a cost that is the owner's obligation — a permit fee charged to the property owner is the typical case — and bills the owner for reimbursement, often at the exact amount with the receipt attached. Recorded correctly, the advance is a receivable or identified pass-through, and the reimbursement is its recovery — not revenue, and not marked up unless the contract expressly provides for a handling charge, in which case the charge, not the fee, is revenue.

Either treatment is defensible when it is chosen in the contract, recorded consistently, and visible in the books. What is never defensible is the third, unstated treatment: netting invisibly. Permit costs buried in a general account while reimbursements are credited against job cost, fees collected from customers and recorded as revenue while the matching cost is recorded elsewhere, disposal charges netted against material credits — each version makes some number in the books smaller or larger than the truth and makes the job cost report lie by exactly that amount. The rule is absolute: pass-through amounts are recorded gross, in identified accounts, under one stated policy. Gross recording costs a few extra lines per job. Netting costs you the ability to trust any margin that job ever reports, and at audit or in a dispute it costs you the ability to show the owner, the jurisdiction, or the state what was actually charged and why.

Apply the same rule to the smaller pass-throughs in home services: disposal fees, inspection fees, and delivery charges advanced for a customer. In aggregate, recorded inconsistently, they are the difference between Dana's reported gross profit of \$267,060 — 27.7 percent on \$965,000 — being a measurement and being an estimate. Whether a reimbursed fee or a separately stated charge bears sales tax is among the most state-specific questions in this chapter. Do not extend your state's answer from one charge to another by analogy. Confirm and document the treatment for each recurring charge your invoices carry.

This chapter has taught patterns: the contractor as consumer of materials installed into real property, the retailer collecting tax on standalone sales, the divided treatment of repair parts and labor, resale certificates for goods bought for resale, and pass-through costs recorded gross under one consistent policy. It closes where it opened, because the limitation is part of the teaching: sales

tax rules for contractors vary significantly by state — these are principles and patterns, not your state's law; verify with your state and your CPA. The contractor who learns the pattern, confirms the local rule, and keeps the records each answer requires will find a sales tax audit to be what the workers' compensation audit was in Chapter 14 — arithmetic performed on records that were kept as if the audit were expected. That is the only kind of audit a well-run contractor should ever have.

Key Takeaways

- In most states, materials installed as a permanent improvement to real property are treated with the contractor as consumer — tax is paid at purchase and recovered in the contract price — while standalone retail sales are taxed to the customer, and repair parts and labor treatment varies widely.
- Decide every sale by asking what was actually sold — installed materials, parts on a repair, or a standalone product — and let the contract, invoice, and purchase records tell the same story as the tax return.
- Sales tax rules for contractors vary significantly by state — these are principles and patterns, not your state's law; verify with your state and your CPA, and confirm the treatment of each recurring charge your invoices carry.
- Goods bought for resale are purchased under a resale certificate and taxed at retail sale; goods withdrawn for your own installation use are handled under your state's use tax procedure — never buy everything tax-free and remit nothing, or tax the same goods twice.
- Permits and pass-through costs are either absorbed as job costs in the price or billed as documented reimbursements under the contract — recorded gross, in identified accounts, under one consistent policy, and never netted invisibly.

Your Turn

1. List the kinds of sales your company makes — installed work, repairs, over-the-counter sales — and, with your CPA, confirm in writing how your state treats each one, including repair labor and separately stated charges.
2. Review ten recent invoices across those categories and confirm each invoice, contract, and purchase record tells the same story the tax return will tell; correct the template where it does not.
3. Separate your purchase procedures by capacity: identify which purchases are for resale under a resale certificate, which are consumed in installation, and what your state's procedure is when stock moves from one use to the other.
4. Audit your exemption file: confirm a current resale or exemption certificate is on record for every customer from whom you collected no tax, and calendar renewals.
5. Adopt a written pass-through policy for permits, disposal, and inspection fees — absorbed in price or billed as reimbursement — record all such amounts gross in identified accounts, and apply the policy to the next job you open.

PART SIX

Cash Flow and Running the Business

Chapter 16: The Draw Cycle, the Dashboard, and Jobs You Should Not Take

At the end of the first month of Harbor Pointe, Marcus Delgado's job cost report showed a healthy job: 50 percent complete, costs on budget, earned revenue of \$74,250 on a \$148,500 contract. His bank account told a different story, and both records were correct. By that date Delgado had spent \$59,250 on the job, billed \$44,550 in Application for Payment No. 1, and received, after retainage, \$40,095. The job was profitable on paper and \$19,155 out of pocket in cash — \$59,250 spent less \$40,095 received — with the difference to be recovered in later draws and in retainage released 45 days after final acceptance. Marcus was, without having agreed to be, the bank for Building C.

That gap is not a defect of one job or one owner. It is the structure of contracting, and this closing chapter is about managing it deliberately: understanding the draw cycle that creates the gap, pricing with arithmetic that survives it, watching the numbers that predict it, and declining the jobs whose terms turn a contractor into an unsecured lender. Volume 3, *Accounting for Business Owners*, taught ratios and the monthly review generally. This chapter applies them to the contractor Marcus has become — a reader of his WIP schedule, his backlog, and his retainage aging, rather than of his bank balance alone.

The Draw Cycle and the Cash Gap

Costs leave on a short cycle. Labor is paid weekly; burden and payroll taxes follow payroll; materials are paid on supplier terms measured in days; subcontractors expect payment when their scope is complete. Revenue returns on a longer cycle. Work performed during a month is measured at month-end, submitted as an application for payment, reviewed, approved, and paid — commonly weeks after the costs it covers were funded. Retainage is withheld from each payment and returned at the end, after acceptance, if conditions are met.

Harbor Pointe displays the full cycle in three numbers. Costs incurred by the end of Month 1 were \$59,250. Billings were \$44,550, or 30 percent of the contract price — less than the \$74,250 earned, because billing lagged physical progress, a common underbilling of the kind Chapter 12 addressed. Cash received was \$40,095: the \$44,550 billed less retainage of \$4,455, which is 10 percent of the billing. The contractor had therefore funded \$59,250 and received \$40,095 — a cash deficit of \$19,155 at Month 1 — with \$4,455 sitting in retainage receivable and \$29,700 of earned revenue (\$74,250 less \$44,550) not yet billed at all. None of this indicated a problem job. All of it required financing, supplied by the company's cash and line of credit, and priced only by a contractor who measures it in advance.

By the end of Month 2, Harbor Pointe costs to date were \$94,800 against billings to date of \$126,225, with retainage held to date of \$12,622.50. At completion, total retainage was \$14,850 — 10 percent of the \$148,500 contract — held until 45 days after final acceptance with no lien claims outstanding. Note what retainage means in profit terms: the job's final gross profit was \$24,200, so for more than a month after the last cost was paid, an amount equal to 61 percent of the job's entire profit remained in the owner's hands as security. On a thin-margin job, retainage can exceed the profit, which is why the final section of this chapter treats heavy retainage as a

pricing and selection factor, not merely a collection task. Retainage percentages and release conditions vary by state and by contract; verify the law and language that govern your work, and price the contract you actually signed. The management response is threefold: bill promptly and on the contract schedule, track the gap by job — costs, billings, cash, retainage — and hold working capital sufficient for the cycle you actually run.

Costs go out weekly. Draws come in monthly. Retainage comes at the end.

The Contractor's Cash Gap: Harbor Pointe

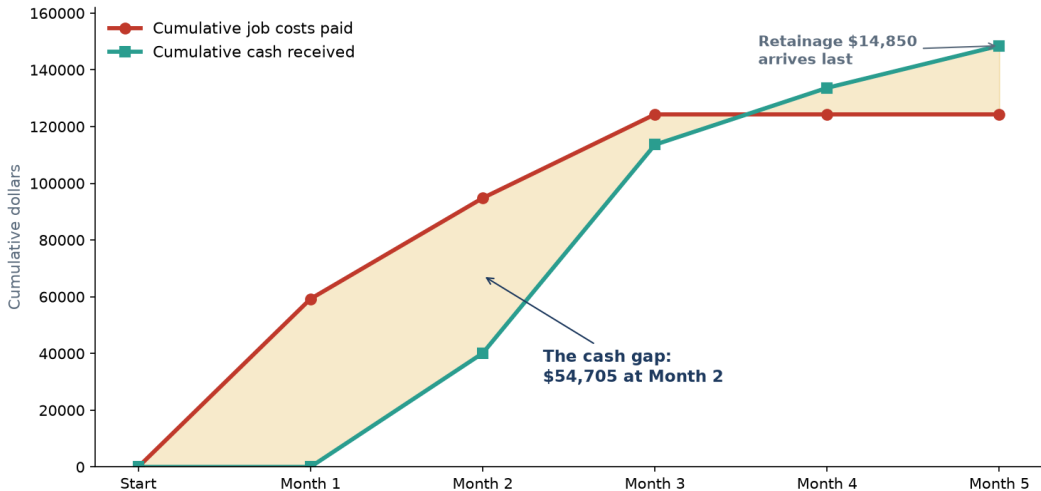


Figure 16.1: Every contractor finances every job for a while. The craft is knowing how long, and charging for it.

Contrast Dana Whitfield's cycle. Her Callahan change-out was priced at \$12,500, completed in one day at a cost of \$7,000, for a gross profit of \$5,500. Her service work turns in days; her cash gap is measured in days and parts inventory, not months of draws, and her exposure is instead efficiency — technicians paid for 40 hours who average 29 billable hours. Each cycle must be financed as it actually runs. The contractor who borrows the other trade's habits manufactures a cash problem out of a sound business.

Pricing: Markup Is Not Margin

No arithmetic error in contracting is more expensive than confusing markup with margin. They use the same two numbers — cost and price — and divide by different ones. Markup is gross profit divided by cost. Margin is gross profit divided by price. Because price is larger than cost, the same profit is always a smaller margin than markup, and a contractor who substitutes one for the other prices every job short.

Harbor Pointe, estimated, states the canonical case. Estimated cost was \$118,500. The contract price was \$148,500. Estimated gross profit was therefore $\$148,500 - \$118,500 = \$30,000$.

- Markup: $\$30,000 \div \$118,500 = 25.3$ percent.
- Margin: $\$30,000 \div \$148,500 = 20.2$ percent.

One profit, two percentages, both correct — each answering a different question. Markup tells you what you added to cost. Margin tells you what share of the price you keep before overhead, and margin connects to your income statement: Delgado's full-year gross margin was 24.5 percent (\$453,250 on \$1,850,000), against which overhead of \$358,250 left net income of \$95,000, or 5.1 percent. A bid evaluated in markup must be translated before it can be compared to that result, and in practice it often is not.

Now the classic error. A contractor decides he needs a 20 percent margin and marks his cost up by 20 percent. On Harbor Pointe's cost: $\$118,500 \times 1.20 = \$142,200$. Gross profit would be $\$142,200 - \$118,500 = \$23,700$, and the margin would be $\$23,700 \div \$142,200 = 16.7$ percent — not 20 percent. He has surrendered \$6,300 of price ($\$148,500 - \$142,200$, against the price that in fact carried roughly the intended margin) and 3.5 margin points, on a job whose entire final profit after a modest overrun was \$24,200. Repeated across a year of bids, this single confusion converts a profitable company into a busy one.

The correct procedure works backward from the margin you require. Price = Cost $\div$ (1 – Required Margin). For a true 20 percent margin on a cost of \$118,500: $\$118,500 \div 0.80 = \$148,125$. Harbor Pointe's actual price of \$148,500 sits just above that figure, which is why its estimated margin is 20.2 percent rather than exactly 20 percent. Establish the minimum margin each class of work must carry to cover its share of overhead and produce your target net income, and let no estimate leave the office below it without a conscious, recorded exception. Profit fade will take enough of the margin the estimate contained; there is none to spare for a margin it never contained. Harbor Pointe faded from \$30,000 to a final \$24,200 — a margin of 16.3 percent — on overruns of \$3,900 in materials and \$1,900 in labor. Priced initially at the mistaken 16.7 percent margin, the same overruns would have left a profit near break-even before overhead.

Markup Is Not Margin

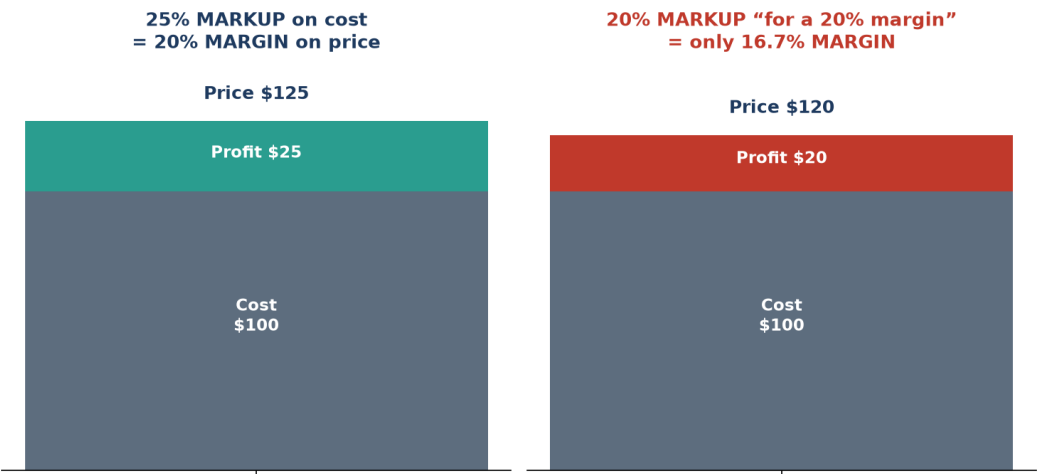


Figure 16.2: Markup is computed on cost. Margin is computed on price. Confusing them is the most expensive arithmetic error in contracting.

Equipment: Buy or Lease, Recorded Honestly

Project economics eventually present the equipment question: buy the lift or the additional service van, or lease and rent it. This book treats it at the principle level, because financing terms and tax treatment for any specific machine belong in a discussion with your CPA and lender, with Volume 2 providing the tax framework. The accounting principles, however, are fixed.

An owned asset is recorded at cost and depreciated over its useful life; its loan is recorded as a liability, split between current and long-term portions. Delgado's balance sheet shows equipment, net, of \$186,000, with a current portion of equipment loans of \$24,000 and long-term equipment loans of \$88,000 — \$112,000 of equipment debt in total. Job costs bear ownership through an equipment charge — depreciation, fuel, maintenance, insurance — as in Chapter 5's equipment and fuel line of \$55,500 for the year. A lease is recorded under the rules for its type, and job costs bear the payments attributable to the work. In either case the discipline is identical: every job must carry the cost of the equipment it used, at a rate set in advance and applied uniformly. Equipment charged to no job underprices every machine-hour that follows. Compare buy and lease on total cost for the utilization you honestly expect — payments or depreciation, financing, maintenance, insurance, downtime, and residual value — not on the monthly payment alone. Ownership rewards high, steady utilization; leasing preserves cash and working capital, at a price. A purchase that consumes the working capital cushion has not been fully costed until the jobs it was bought for have also been financed.

The Contractor Ratios: Reading Delgado's Balance Sheet

Four measures summarize whether the business — as distinct from any single job — is financially sound. Take them from Delgado's December 31 balance sheet.

Working capital: \$176,000. Working capital is current assets less current liabilities: $\$313,000 - \$137,000 = \$176,000$. Current assets include cash of \$92,500, billed receivable of \$148,600, retainage receivable of \$41,900, inventory of \$18,000, and prepaid insurance of \$12,000. Current liabilities include payables of \$74,000, overbillings of \$22,500, accrued payroll and taxes of \$16,500, and the \$24,000 current portion of equipment loans. Working capital is the cushion that finances the draw cycle — the pool from which weekly payroll is met while monthly draws are awaited. A contractor can report a profit for the year and still fail for want of it, because payroll is a fact due on Friday.

Current ratio: 2.28. The current ratio is $\$313,000 \div \$137,000 = 2.28$; Delgado holds \$2.28 of current assets for each \$1.00 of current liabilities. Read it with its composition, not as a bare score: \$41,900 of those assets is retainage receivable, collectible on the owners' schedules, and \$148,600 is billed receivable, collectible on the owners' payment habits. A ratio built on slow receivables is weaker than the same ratio built on cash. Age the receivables inside the ratio every month, with retainage aged separately to its expected release dates.

Backlog: \$640,000, approximately 4.2 months. Backlog is signed work not yet performed, measured against the revenue run rate: $\$1,850,000 \div 12 = \text{approximately } \$154,167 \text{ per month}$, and $\$640,000 \div \$154,167 = \text{approximately } 4.2 \text{ months of work in hand}$. Backlog answers the forward question the income statement cannot: what revenue is already contracted while you sell the next

job? Too little forces bidding from weakness. Too much, taken at thin margins to fill the schedule, locks crews into months of low-profit work. Track backlog in months and against capacity — Delgado's bonding capacity of \$500,000 for a single job and \$1,500,000 in aggregate bounds the work he may take at all.

Beneath the company ratios sit the WIP measures of Chapters 11 and 12: overbilling and underbilling by job, profit fade, and cost-to-complete. A sound current ratio can conceal a deteriorating job whose overbilling — \$22,500 on Delgado's balance sheet in total — is in substance a loan from the owner, repaid in future performance. Read the ratios and the WIP together, or expect each to mislead you in turn.

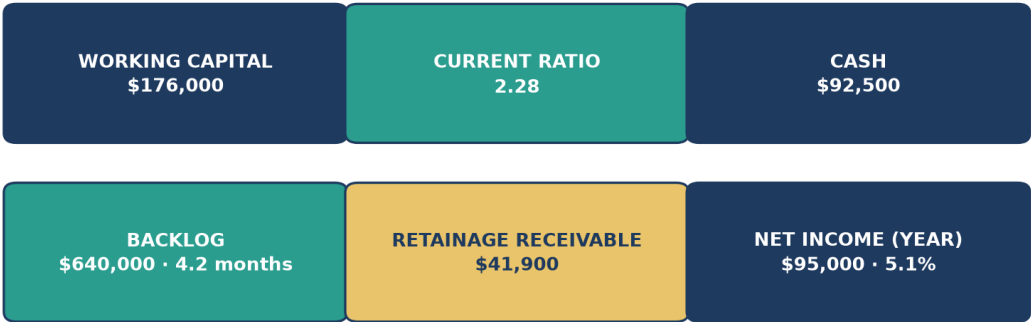
The Monthly Contractor Dashboard

These measures earn their keep only if reviewed together, monthly, on one page. The dashboard that replaced Marcus's bank balance contains five items, reviewed with the WIP schedule in the same sitting — the monthly ritual of Volume 3, specialized for a contractor.

1. **WIP review.** Every open job: percent complete, earned revenue, billings, over- or underbilling, estimated cost to complete, and current forecast margin against estimated margin. Profit fade is named while recovery is still possible.
2. **Job cost exceptions.** The variances that demand explanation this month: any cost code materially over its estimate-to-date, any job whose forecast margin has moved, any subcontractor or materials line — like Harbor Pointe's hidden second tear-off layer — that changes the forecast. Exceptions only; the full job cost detail is available, but the dashboard surfaces what changed.
3. **Accounts receivable and retainage aging.** Billed receivables by age and by owner, and retainage receivable — \$41,900 at year-end for Delgado — by job and expected release date, with past-due retainage pursued as deliberately as past-due draws.
4. **Backlog.** Signed backlog in dollars and in months at the current run rate, new work signed and work burned in the month, and the margin profile of the backlog as a whole.
5. **Cash and working capital.** Cash on hand, working capital, and the current ratio, with the next month's known demands — payrolls, tax remittances, equipment payments, audit true-ups — stated against them. Cash is reported here, in context, rather than consulted alone in the banking application at midnight.

Five numbers, one page, every month. The bank balance is not on the list.

The Monthly Contractor Dashboard — Delgado Roofing, December 31



Reviewed with the WIP schedule and the job cost exception report — same meeting, every month.

Figure 16.3: Working capital, current ratio, backlog, retainage aging, and job exceptions — the bank balance is not on the list.

Review the dashboard on a fixed day, with Denise presenting the schedules and Marcus deciding the actions: which owner is called, which rate is corrected, which bid is repriced, which job is declined. A dashboard without decisions is a report. A dashboard with decisions, recorded and revisited the following month, is management.

Jobs You Should Not Take

The dashboard's final use is the refusal. Every job accepted consumes crew hours, bonding capacity, and working capital. The books identify the job to decline by a recognizable combination.

A thin margin leaves no room for the overrun field conditions will eventually supply — Harbor Pointe, well run, still surrendered \$5,800. A slow-paying owner lengthens the draw cycle beyond the contract's promise; your receivable aging by owner is the evidence, and an owner who paid in 75 days on the last job will not pay in 30 on the next because the new contract says so. Heavy retainage withholds the profit itself until the end; Harbor Pointe's retainage of \$14,850 equaled 61 percent of its final profit. Combine the three — thin margin, slow owner, heavy retainage — and the transaction has changed its nature. You are lending your working capital, crews, and bonding capacity to an owner for months, at an interest rate of zero, secured by your own retainage. That is a loan, not a job, and a bank would decline it on those terms without hesitation.

Declining is a skill with a procedure. Price the terms you are actually offered: adjust the required margin for the payment history and retainage burden, state the terms your margin assumes, and let the owner accept the real transaction or decline it himself. Keep backlog in view as you decide; a refusal made with 4.2 months of signed work in hand is a decision. The purpose of every system in this book — job costing, progress billing, the WIP schedule, burden honestly carried, files built

before checks, the dashboard reviewed monthly — is to make this decision an informed one. Marcus began this book reading his bank balance and calling it knowledge. He ends it reading his business.

Key Takeaways

- The draw cycle finances every job: costs are paid weekly, draws arrive monthly, and retainage comes last — Harbor Pointe had spent \$59,250, billed \$44,550, and received \$40,095 by the end of Month 1, a \$19,155 cash gap carried by the contractor.
- Markup is computed on cost and margin on price: Harbor Pointe's estimated \$30,000 profit on a cost of \$118,500 is a 25.3 percent markup and a 20.2 percent margin, and pricing for a 20 percent margin by marking up 20 percent yields only a 16.7 percent margin. $\text{Price} = \text{Cost} \div (1 - \text{Required Margin})$.
- From Delgado's December 31 balance sheet: working capital is \$176,000 (\$313,000 – \$137,000) and the current ratio is 2.28 — read with the aging of the billed and retainage receivables inside it.
- Backlog of \$640,000 equals approximately 4.2 months of revenue at a run rate of \$1,850,000 $\div$ 12, or about \$154,167 per month — the forward measure that tells you whether you are bidding from strength or weakness.
- Equipment must be charged to every job that uses it, whether owned and depreciated or leased, and the buy-or-lease decision is made on total cost and honest utilization — including the working capital the purchase consumes.
- Review five items monthly on one page — WIP, job cost exceptions, receivable and retainage aging, backlog, and cash with working capital — and use them to decline the job that combines a thin margin, a slow-paying owner, and heavy retainage: that combination is a loan, not a job.

Your Turn

1. For each open job, compute costs incurred, amounts billed, cash received, and retainage held, and state the cash gap you are financing today — then bill, on schedule, any earned amount not yet billed.
2. Take your most recent estimate and recompute its markup and its margin separately; then reprice it from cost using $\text{Price} = \text{Cost} \div (1 - \text{Required Margin})$ and record the minimum margin each class of your work must carry.
3. Compute your working capital and current ratio from your latest balance sheet, age the receivables inside them — retainage separately, by expected release date — and write down what the adjusted picture tells you.
4. State your signed backlog in dollars and in months at your current revenue run rate, and set the backlog range within which you will bid selectively rather than from urgency.
5. Build your one-page monthly dashboard — WIP review, job cost exceptions, receivable and retainage aging, backlog, and cash — set its fixed review date, and at the first review record one decision the dashboard caused, including any job you will decline or reprice.

Appendix A: Sample Contractor Chart of Accounts

A chart of accounts is the list of named places where a business records what it owns, what it owes, what it earns, and what it spends. Volume 1, *Accounting for Beginners*, taught the theory behind that list. This appendix gives you a working sample built for a contractor or home-services company, so you can compare it with your own list, account by account, and find the accounts you are missing.

Two warnings before you adopt any of it. First, do not copy the numbers blindly and do not rename accounts casually in the middle of a year. The numbering matters less than the separation: each account below exists because mixing its contents into a neighboring account hides a number you will later need. Second, this sample is a starting structure, not a prescription for your tax return. How an account is treated for tax purposes, and how sales tax, retainage, and licensing rules apply to construction and service work, vary by state. Verify the rules in your own state, and review the finished chart with your accountant before you rebuild your books around it.

Marcus Delgado, of Delgado Roofing & Construction LLC in Fort Myers, worked for years from a short list that had one income account, one materials account, and a single account called "Labor." Nothing was wrong with any individual entry Denise Alvarez, his office manager, recorded. The list itself was too coarse to answer the only questions that mattered: which jobs made money, how much of his receivables was retainage he could not yet collect, and how much of his cash already belonged to customers whose work he had not finished. The chart below is the expanded list his company now uses. Dana Whitfield, of Whitfield Plumbing & Air LLC in Jacksonville, uses the same skeleton with different income and job cost labels, because a service company and a roofing company have the same accounting problems at different speeds.

Assets (1000s)

Assets are what the business owns or is owed. For a contractor, the trap in this section is false comfort: a receivables total that blends ordinary billed amounts with retainage, and a bank balance that looks healthy because customers prepaid work not yet performed. Separating retainage receivable and underbillings into their own accounts prevents you from treating money as available — or as earned — before it is.

Number	Account	What Belongs Here
1010	Operating Cash — Checking	Day-to-day receipts and payments
1020	Payroll Cash — Checking	Cash set aside for the next payroll cycle
1030	Savings and Money Market	Reserves for taxes, insurance, and slow months
1040	Petty Cash	Small cash purchases, reconciled monthly
1100	Accounts Receivable — Billed	Amounts invoiced and currently due from customers
1110	Retainage Receivable	Retainage withheld by customers, not yet due
1120	Costs in Excess of Billings (Underbillings)	Earned revenue on jobs billed less than earned
1130	Allowance for Doubtful Accounts	Estimated uncollectible receivables (contra asset)
1140	Employee Advances Receivable	Advances to employees, recovered through payroll
1200	Materials Inventory	Job materials on hand at the shop or yard
1210	Parts and Supplies Inventory	Service parts stocked on shelves and in vans
1220	Fuel Inventory	Bulk fuel on hand, if you store your own
1300	Prepaid Insurance	Insurance premiums paid before the coverage period
1310	Prepaid Rent and Deposits	Rent paid in advance and refundable deposits
1320	Prepaid Licenses and Permits — Company	Company-level licenses paid ahead (not job permits)
1400	Shop and Office Equipment	Computers, copiers, and shop tools above your capitalization limit
1410	Field Equipment	Ladders, compressors, lifts, and major field tools
1420	Vehicles and Service Vans	Trucks and vans owned by the business
1490	Accumulated Depreciation	Total depreciation taken on all fixed assets (contra asset)
1500	Leasehold Improvements	Improvements to rented shop or office space
1590	Accumulated Amortization — Improvements	Amortization taken on leasehold improvements (contra asset)

On December 31, Marcus's balance sheet showed accounts receivable — billed of \$148,600 and retainage receivable of \$41,900 as two separate lines. That separation is the entire point of account 1110. The \$148,600 was collectible on normal terms. The \$41,900 was earned, legitimate, and not available to spend until customers released it after final acceptance. A single blended receivables account would have reported \$190,500 and told him nothing about when he could use it. Dana's version of the same discipline is account 1210: parts in her five service vans are inventory she has

already paid for, not profit, and counting them keeps her from expensing the same part twice — once when it is stocked and again when a technician installs it.

Liabilities (2000s)

Liabilities are what the business owes. The contractor-specific trap in this section is spending other people's money without knowing it. Retainage you withhold from a subcontractor is not your cash. A customer deposit is not your income. Sales tax you collected is not your revenue. Each of those amounts gets its own liability account so the balance sheet states, plainly, how much of the bank balance already has an owner.

Number	Account	What Belongs Here
2010	Accounts Payable — Trade	Bills owed to suppliers and vendors
2020	Retainage Payable	Retainage withheld from subcontractors, owed on release
2030	Billings in Excess of Costs (Overbillings)	Billings on jobs ahead of revenue earned
2040	Customer Deposits	Deposits received before work begins
2050	Deferred Revenue — Maintenance Agreements	Agreement payments received before service is earned
2060	Deferred Revenue — Other Prepaid Work	Other customer prepayments for work not yet performed
2070	Accrued Payroll	Wages earned by crews but not yet paid
2080	Payroll Taxes Payable	FICA, FUTA, and state unemployment taxes owed
2090	Employee Withholdings Payable	Income tax and other withholdings held for remittance
2100	Sales Tax Payable	Sales tax collected from customers, owed to the state
2110	Accrued Expenses	Insurance, utilities, and other costs incurred, not yet billed
2120	Credit Cards Payable	Business credit card balances
2200	Current Portion — Equipment Loans	Loan principal due within the next twelve months
2210	Current Portion — Vehicle Loans	Vehicle loan principal due within twelve months
2500	Equipment Loans — Long-Term	Equipment loan principal due after twelve months
2510	Vehicle Loans — Long-Term	Vehicle loan principal due after twelve months
2520	Line of Credit	Draws outstanding on a bank line of credit
2530	Notes Payable — Other	Other long-term borrowings

Accounts 2040 and 2050 deserve emphasis because home-services companies misuse them most. Dana sells 240 maintenance agreements at \$240 per year, \$57,600 in total. When a customer pays in January for a year of coverage, Dana has cash and an obligation in equal measure. The payment sits in account 2050 and moves into maintenance agreement revenue month by month as the coverage is earned — \$20 per agreement per month. Booking the full \$57,600 as January income would overstate that month, understate the eleven that follow, and hide the cost of the tune-up visits still owed. Marcus's parallel account is 2030. When his billings on a job run ahead of the revenue he has earned — as they did on the Harbor Pointe re-roof, by \$7,425 at the end of Month 2 — the excess is a liability, not a windfall. He owes the customer either the remaining work or the money.

Equity (3000s)

Equity is the owners' stake: what they put in, what the business has earned and kept, and what they have taken out. The trap here is informality. Owners who run personal draws through expense accounts, or who never separate contributions from distributions, end the year unable to prove what they invested, what they withdrew, or what the business actually earned. Your entity type — LLC, S corporation, or sole proprietorship — changes the exact account titles your accountant will want, and the tax treatment of draws and distributions varies with that choice. Keep the separation even if the titles differ.

Number	Account	What Belongs Here
3010	Owner Contributions — Member 1	Capital contributed by the first owner
3020	Owner Contributions — Member 2	Capital contributed by a second owner, if any
3030	Capital Stock and Paid-In Capital	Corporation share capital, where applicable
3100	Retained Earnings	Accumulated earnings kept in the business
3200	Owner Distributions and Draws	Amounts withdrawn by owners (contra equity)
3300	Shareholder Distributions	S corporation distributions (contra equity)
3900	Current Year Earnings	System-generated current-period profit or loss

Delgado Roofing & Construction LLC is taxed as an S corporation, so Marcus's withdrawals run through account 3300, kept apart from his salary, which is a payroll cost like any other employee's. That distinction matters. Salary carries payroll taxes and appears in labor cost. A distribution does neither. When the two are mixed in one account, both the job costs and the tax return are wrong, in opposite directions.

Income (4000s)

Income accounts record what the business earns. The trap is the single revenue account. A contractor who books every dollar into "Sales" cannot tell whether the profit came from profitable contract work, from service calls, or from maintenance agreements — three activities with three

different cost structures and three different margins. Split revenue by work type at the account level, and the profit and loss statement begins to answer pricing questions without any extra analysis.

Number	Account	What Belongs Here
4010	Contract Revenue — Installation and Replacement	Fixed-price replacement and installation contracts
4020	Contract Revenue — New Construction	Contract work on new buildings
4030	Contract Revenue — Repair and Remodel Projects	Contracted repair and remodeling projects
4040	Contract Revenue — Commercial Work	Contract work for commercial customers
4100	Service Revenue	Time-and-materials and flat-rate service calls
4110	Service Revenue — Emergency and After-Hours	Premium-rate emergency service work
4200	Maintenance Agreement Revenue	Agreement revenue as it is earned, month by month
4300	Change Order Revenue — Included in Contract	Approved change orders (recorded to the job's work type)
4900	Other Income	Finance charges, scrap sales, and miscellaneous income
4950	Sales Discounts and Allowances	Discounts granted to customers (contra income)

Note the treatment in account 4300. An approved change order is not a separate kind of business. It increases the contract price of the job it belongs to, and its revenue belongs in the same work type as the original contract, tracked on the job record. Recording change orders in a miscellaneous income account disconnects them from the job, and a job's true price — and true margin — can no longer be computed. Dana's income section shows why the split earns its keep: in her most recent year, service and repair produced \$618,400, installations and change-outs produced \$289,000, and maintenance agreements produced \$57,600, for total revenue of \$965,000. Those are three businesses inside one company, and she prices, staffs, and markets each one differently because her chart lets her see each one separately.

Job Costs (5000s)

Job costs — called cost of goods sold in many systems — are the costs that belong to a specific job: the materials installed, the crew hours worked, the subcontractor hired, the permit pulled. Every dollar in this section should carry a job name and a cost code, as Chapters 5 and 6 explained. The trap is leakage in both directions. Overhead that drifts into job costs makes good jobs look unprofitable. Job costs left in overhead make losing jobs look fine and understate what the next bid must recover. Labor burden has its own accounts because it is the cost owners most

often forget: Marcus's roofer costs \$26.00 per hour in wages and another \$7.80 per hour in burden — 30 percent — for a fully loaded rate of \$33.80. A chart without burden accounts is a chart that understates every labor hour by nearly a third.

Number	Account	What Belongs Here
5010	Job Materials	Materials installed on a specific job
5020	Parts Used — Service Jobs	Parts installed on service calls
5030	Freight and Delivery — Job	Delivery charges for job materials
5110	Direct Labor — Field Crews	Wages for crew hours worked on jobs
5120	Direct Labor — Technicians	Wages for technician hours worked on jobs
5130	Direct Labor — Supervision on Jobs	Working foreman and on-site supervision wages
5210	Labor Burden — Payroll Taxes	Employer FICA, FUTA, and SUTA on direct labor
5220	Labor Burden — Workers' Compensation	Workers' comp premiums on direct labor
5230	Labor Burden — Benefits and Paid Time Off	Health benefits, stipends, and PTO on direct labor
5310	Subcontractors	Amounts paid to subcontractors, by job
5410	Equipment Rental — Job	Rented lifts, cranes, and job equipment
5420	Equipment and Fuel — Job	Owned-equipment cost and fuel charged to jobs
5510	Permits and Inspections — Job	Permit and inspection fees for a specific job
5520	Disposal and Dump Fees — Job	Tear-off and job debris disposal
5900	Other Job Costs	Job costs that fit no family above, with a note

Marcus's most recent year shows the shape this section should produce: materials \$555,000, direct labor \$462,500, labor burden \$138,750, subcontractors \$148,000, equipment and fuel \$55,500, and permits and disposal \$37,000 — total job costs of \$1,396,750 against revenue of \$1,850,000, leaving gross profit of \$453,250, or 24.5 percent. Dana's direct costs follow the same families at service scale: technician wages \$338,000, burden at 28 percent of \$94,640, parts and materials \$212,300, subcontractors \$12,000, and fuel and direct vehicle costs \$41,000, for total direct costs of \$697,940. If your 5000s cannot be summarized into a table like either of those in a few minutes, the accounts — not the analysis — are the problem.

Overhead (6000s)

Overhead is everything the business must pay whether or not a crew turns a wrench this week: rent, office salaries, insurance, marketing, software, professional fees. The trap is treating overhead as a single lump called "Expenses." Overhead is the number your markup must recover,

as Chapter 16 showed, and you cannot manage a lump. The families below match the overhead categories used throughout this book, so the profit and loss statement, the overhead rate calculation, and the monthly review all speak the same language. Keep job-related workers' compensation and burden out of this section — they belong in the 5200s — or you will count the same cost twice and misstate both job cost and overhead.

Number	Account	What Belongs Here
6010	Office and Administrative Salaries	Office manager, dispatcher, and administrative wages
6020	Office Payroll Burden	Employer taxes and benefits on office salaries
6030	Owner Salary — Administrative	Owner pay for management work, not job labor
6100	Shop and Office Rent	Rent for shop, office, and yard space
6110	Utilities	Electric, water, gas, and waste service for the premises
6200	Insurance — General Liability	General liability premiums
6210	Insurance — Vehicles	Commercial vehicle insurance
6220	Insurance — Umbrella and Other	Umbrella, property, and other company coverage
6300	Depreciation — Overhead Assets	Depreciation not charged directly to jobs
6400	Marketing and Advertising	Advertising, website, and lead-generation costs
6410	Dues, Subscriptions, and Memberships	Trade associations and professional memberships
6500	Software and Subscriptions	Accounting, estimating, and dispatch software
6510	Telephones and Internet	Phone lines, mobile service, and internet
6520	Office Supplies and Postage	Office consumables and mailing costs
6600	Vehicle Costs — Non-Job	Repairs and costs for vehicles not charged to jobs
6610	Shop Supplies and Small Tools	Consumables and tools below the capitalization limit
6700	Professional Fees — Accounting and Tax	Bookkeeping, accounting, and tax preparation fees
6710	Professional Fees — Legal	Attorney fees for company matters
6800	Licenses and Continuing Education	Company licenses, training, and CE courses
6810	Bank and Merchant Fees	Bank charges and card processing fees
6900	Other Overhead	Remaining overhead, with a note on each entry

Compare your total here with the worked examples. Marcus's overhead was \$358,250: office and administrative salaries \$118,000, shop and office rent \$48,000, insurance \$42,000, depreciation \$42,000, marketing \$26,500, utilities, phones, and software \$25,000, vehicle and office costs \$38,750, and professional fees \$18,000. Against job costs of \$1,396,750 and gross profit of \$453,250, that overhead left net income of \$95,000, or 5.1 percent of revenue. Dana's overhead was \$177,060 against gross profit of \$267,060, leaving net income of \$90,000, or 9.3 percent. Neither owner could have found a wasteful \$10,000 in a single "Expenses" account. Both can find it in a family — a marketing line that grew, a software stack that doubled — because the chart names the families separately.

A final instruction on maintaining the chart itself. Add an account only when you can state, in one sentence, what decision the new account will inform. Retire accounts you no longer use rather than repurposing them, because repurposing rewrites history. Review the chart once a year, at the same sitting as your annual planning, and make changes at the start of a new year whenever you can. A chart of accounts is not paperwork. It is the set of questions your books are able to answer — and a contractor's questions are specific enough that the sample above, adjusted to your trades and your state, is the right place to start.

Appendix B: Job Cost and WIP Worksheet Templates

Chapters 7 and 11 introduced two worksheets that carry most of this book's system: the Job Cost Worksheet, which compares estimate with actual on one job, cost family by cost family; and the WIP Schedule Worksheet, which lists every open job, computes how complete each one is, and states whether you have billed ahead of your work or behind it. This appendix describes both worksheets in full — every column, where each number comes from, and each formula stated in words — so you can rebuild them in any spreadsheet program, exactly as described, and use the Harbor Pointe figures to check that your version computes correctly.

You do not need special software to keep either worksheet. Your accounting system's projects or jobs module will produce much of the underlying data, as the software workflows in Volume 4 showed. The worksheets matter because they force the two judgments software cannot make for you: what the remaining work on a job will cost, and whether the billings on your books match the work actually performed. Build them once, keep them current on the routines at the end of this appendix, and check your build against the worked Harbor Pointe rows before you trust it on a live job.

Worksheet 1: The Job Cost Worksheet

Keep one Job Cost Worksheet per job. The header of the worksheet carries the job name, the customer, the contract price, and the period ending date. For Harbor Pointe, the header reads: Harbor Pointe Condominiums, Building C — full tear-off and re-roof; contract price \$148,500; period ending at the end of Month 2. The body of the worksheet has one row for each cost code or cost family on the job, a total row, and the eight columns below.

Column 1 — Cost Code. The code from your cost code list (Chapter 6) that identifies the family of cost: materials, direct labor, labor burden, subcontractors, equipment, or permits and disposal. Enter one row per code. Do not combine families into a single "job cost" row, or the worksheet cannot show you which family is running over.

Column 2 — Cost Family. The plain name of the family — Materials, Direct Labor, and so on — written out so that anyone reading the worksheet, including the estimator and the crew leader, can follow it without a code list in hand.

Column 3 — Estimated Cost. The estimated cost for that family, taken from the approved job estimate before work began. This column does not change when the job changes, except when an approved change order adds estimated cost; record that addition, and note it, so the original estimate can still be reconstructed. For Harbor Pointe the estimates are: materials \$52,000; direct labor \$38,000; labor burden \$11,400, which is 30 percent of estimated labor; subcontractors \$9,600; equipment \$4,500; and permits and disposal \$3,000. The estimated costs total \$118,500.

Column 4 — Actual This Period. The costs charged to that family during the current period only — this month, for a monthly worksheet. Source this column from your accounting records: material invoices coded to the job, crew time on the job multiplied by the wage rate for the labor

row, labor multiplied by your burden rate for the burden row, subcontractor invoices, equipment charges, and permit and disposal receipts. Harbor Pointe's Month 2 figures are: materials \$15,920; labor \$9,500; burden \$2,850, which is 30 percent of this period's labor; subcontractors \$4,280; equipment \$1,600; and permits and disposal \$1,400. The period total is \$35,550.

Column 5 — Actual to Date. The cumulative costs charged to that family from the start of the job through the end of the current period. The formula, in words: actual to date at the end of this period equals actual to date at the end of last period plus actual this period. Check it on Harbor Pointe. At the end of Month 1, costs to date were \$59,250. Add Month 2's \$35,550 and costs to date are \$94,800. By family, costs to date at the end of Month 2 are: materials \$44,520; labor \$30,400; burden \$9,120; subcontractors \$6,760; equipment \$2,600; and permits and disposal \$1,400.

Column 6 — Estimate to Complete. The project manager's current estimate of what it will still cost, from today forward, to finish that family of work. This is the one column that is a judgment rather than a record, and it is the most important column on the worksheet. The formula for a first draft, in words: estimate to complete equals estimated cost minus actual to date. Use that remainder only as a starting figure for review. The project manager must then adjust it for what he actually sees — material already bought for work not yet installed, a crew ahead of or behind its planned production, a price increase since the estimate. If you leave the remainder unadjusted every period, Column 7 will always equal the original estimate and Column 8 will always show zero, and the worksheet will hide exactly the overrun it exists to reveal. Harbor Pointe's Month 2 remainders, before adjustment, are: materials \$7,480; labor \$7,600; burden \$2,280; subcontractors \$2,840; equipment \$1,900; and permits and disposal \$1,600, totaling \$23,700.

Column 7 — Estimate at Completion. The current forecast of the job's final cost for that family. The formula, in words: estimate at completion equals actual to date plus estimate to complete. Using the unadjusted remainders above, Harbor Pointe's Month 2 estimate at completion equals the original estimate of \$118,500 in total — a statement that, at the end of Month 2, no overrun had yet been forecast. The final cost, for the record, was \$124,300, an overrun of \$5,800 that surfaced when a hidden second tear-off layer added \$3,900 to materials and slowed the crew enough to add \$1,900 to labor. That fade is why the estimate to complete must be re-estimated honestly each period rather than plugged.

Column 8 — Variance. The difference between the original estimate and the current forecast. The formula, in words: variance equals estimated cost minus estimate at completion. A positive variance means the family is forecast to finish under its estimate. A negative variance means it is forecast to finish over. Read the sign correctly: in cost accounting, coming in under estimate is favorable, so a positive number here is good news. With the unadjusted Month 2 figures, every Harbor Pointe variance is zero — the forecast still equals the estimate, family by family and in total.

Harbor Pointe — Job Cost Worksheet, End of Month 2

Cost Family	Estimated Cost	Actual This Period	Actual to Date	Estimate to Complete	Estimate at Completion	Variance
Materials	\$52,000	\$15,920	\$44,520	\$7,480	\$52,000	\$0
Direct Labor	\$38,000	\$9,500	\$30,400	\$7,600	\$38,000	\$0
Labor Burden	\$11,400	\$2,850	\$9,120	\$2,280	\$11,400	\$0
Subcontractors	\$9,600	\$4,280	\$6,760	\$2,840	\$9,600	\$0
Equipment	\$4,500	\$1,600	\$2,600	\$1,900	\$4,500	\$0
Permits and Disposal	\$3,000	\$1,400	\$1,400	\$1,600	\$3,000	\$0
Total	\$118,500	\$35,550	\$94,800	\$23,700	\$118,500	\$0

Below the total row, add three summary lines. First, estimated gross profit: contract price minus estimated cost — \$148,500 minus \$118,500 equals \$30,000. Second, forecast gross profit: contract price minus the total estimate at completion. Third, costs to date as a percentage of the estimate at completion — \$94,800 divided by \$118,500 equals 80 percent — which is the figure the WIP worksheet will use next. If your spreadsheet reproduces every number in the table above from the estimated and actual figures, your Job Cost Worksheet is built correctly.

Keeping the Job Cost Worksheet Current

Update this worksheet weekly while the job is active. The weekly routine is short, and it fails only when it is skipped. Each week, on the same day: enter every material invoice, delivery ticket, and receipt received for the job, coded to its cost family; enter crew time from the week's time records, priced at the wage rate, and add burden at your burden rate on the labor row; enter subcontractor invoices and equipment charges; then sit with the project manager for fifteen minutes and re-estimate the estimate to complete, family by family, from what remains to be done. At month end, close the worksheet for the period — the actual this period column is the month's entries, and the actual to date column becomes the opening figure for next month. File the closed worksheet with the job record. A job with a worksheet more than a week old is a job whose cost you are guessing at.

Worksheet 2: The WIP Schedule Worksheet

The WIP Schedule Worksheet — WIP stands for work in progress — lists every open job on one page, one row per job, and computes the revenue each job has earned under the percentage-of-completion method (Chapter 11). It has eleven columns. Build them in this order.

Column 1 — Job. The job name and job number, exactly as they appear in your accounting system.

Column 2 — Contract Price. The original signed contract price for the job, before change orders.

Column 3 — Change Orders Approved. The total price of change orders the customer has approved in writing. Enter approved change orders only. Work performed on an unapproved change order has no contract price behind it yet, and entering it here would overstate the revenue the job can earn. Rules for change order documentation vary by state and by contract; keep the signed paperwork with the job file.

Column 4 — Revised Contract. The formula, in words: revised contract equals contract price plus change orders approved.

Column 5 — Estimated Total Cost. The job's current estimated total cost — the total estimate at completion from that job's Job Cost Worksheet. Use the current forecast, not the original estimate, once the two differ.

Column 6 — Costs to Date. Actual job costs incurred through the period end, taken from the actual to date column of the Job Cost Worksheet.

Column 7 — Percent Complete. The formula, in words, under the cost-to-cost method: percent complete equals costs to date divided by estimated total cost. This is the fraction of the job's total cost already incurred, used as the measure of how much of the job is done.

Column 8 — Earned Revenue. The formula, in words: earned revenue equals percent complete multiplied by revised contract. This is the revenue the job has earned to date under percentage-of-completion, whether or not it has been billed.

Column 9 — Billings to Date. The total amount billed to the customer on the job through the period end, from your billing records — the applications for payment or invoices issued, before retainage is deducted. Retainage is a collection matter, not a billing matter, and it does not reduce this column.

Column 10 — Over/(Under) Billed. The formula, in words: over or under billed equals billings to date minus earned revenue. A positive result means you have billed more than you have earned — the job is overbilled, and the excess is a liability (billings in excess of costs and earned revenue) because you owe the customer the remaining work. A negative result means you have earned more than you have billed — the job is underbilled, and the difference is an asset (costs in excess of billings and earned revenue) representing work performed that you have not yet billed for.

Column 11 — Retainage Held. The retainage the customer has withheld on billings to date. The formula, in words: retainage held equals the retainage percentage in the contract multiplied by billings to date. Track it here so the total your customers are holding is visible on the same page as the work that produced it, and so nothing is forgotten when the job closes and retainage comes due.

Harbor Pointe — WIP Schedule Row, End of Month 2

Item	Amount
Job	Harbor Pointe Condominiums, Building C
Contract Price	\$148,500
Change Orders Approved	\$0
Revised Contract	\$148,500
Estimated Total Cost	\$118,500
Costs to Date	\$94,800
Percent Complete	80%
Earned Revenue	\$118,800
Billings to Date	\$126,225
Over/(Under) Billed	\$7,425 overbilled
Retainage Held	\$12,622.50

Work the row by hand once, so the formulas are plain. Revised contract: \$148,500 plus \$0 equals \$148,500. Percent complete: \$94,800 divided by \$118,500 equals 80 percent. Earned revenue: 80 percent multiplied by \$148,500 equals \$118,800. Over or under billed: \$126,225 minus \$118,800 equals \$7,425, and because the result is positive, Harbor Pointe is overbilled by \$7,425 at the end of Month 2. Retainage held: 10 percent multiplied by \$126,225 equals \$12,622.50. Marcus has therefore billed 85 percent of the contract, earned 80 percent of it, and holds a \$7,425 obligation to perform work he has already been billed for, while his customer holds \$12,622.50 of his billings as retainage. Neither figure appears on a cash-basis report. Both appear here, in one row.

When your worksheet holds every open job, add a total row summing the money columns. The totals tie to the balance sheet: total overbilled amounts across jobs equal the balance in billings in excess of costs and earned revenue, total underbilled amounts equal the balance in costs in excess of billings and earned revenue, and total retainage held equals retainage receivable. If the worksheet and the balance sheet disagree, one of them is wrong, and finding out why is the first task of the monthly review described in Volume 3. At year end, Marcus's overbillings account showed \$22,500 and his retainage receivable showed \$41,900 across all open jobs — totals his WIP schedule had to reproduce, job by job, before his books were closed.

Keeping the WIP Schedule Current

Rebuild or refresh this worksheet monthly, at the same sitting as your monthly close, and review it before any new application for payment is issued. The monthly routine: first, close every Job Cost Worksheet for the period, so costs to date and estimated total cost are current for each open job. Second, enter each job's revised contract, confirming that only written, approved change orders are included. Third, enter billings to date from the billing records and let the worksheet compute

percent complete, earned revenue, the over or under position, and retainage held. Fourth, read the over and under column job by job. An overbilled job is spending the customer's money ahead of the work; an underbilled job is financing the customer's project with your cash, and the next application for payment should correct it. Fifth, agree the worksheet totals to the balance sheet accounts named above. Sixth, bring the schedule to the monthly meeting with your estimator or project manager and your bookkeeper, and decide — job by job — what will be billed, what must be finished, and what retainage is approaching release.

Two habits protect both worksheets. Keep the estimate history: never overwrite a closed period's worksheet, because the story of a job is in how its estimate at completion moved from period to period. And never let a worksheet wait for perfect information. A WIP schedule built on this week's honest estimates will catch a fading job in time to act. The same schedule built next month, on perfect information, will only explain a loss you can no longer prevent.

Appendix C: Contractor Accounting Glossary

The terms below are the working vocabulary of this book, defined in plain language as a contractor uses them. Where a term has a formal accounting meaning, the definition follows that meaning; where the trades use a word in their own way — a draw, a punch list, burden — the definition follows the usage you will meet on a job and in your books. Keep this glossary open beside Chapters 5 through 12 until the terms are second nature.

Accounts Payable — Amounts the business owes to suppliers, vendors, and subcontractors for goods and services already received. It is a liability, and an aging of it shows which bills are current and which are overdue.

Accounts Receivable — Amounts customers owe the business for work billed. For contractors it should be tracked apart from retainage receivable, because the two are collected on very different schedules.

Accrual Basis — An accounting method that records revenue when it is earned and costs when they are incurred, regardless of when cash moves. It is the method that lets a contractor's statements show work performed in one month and paid for in another.

Accrued Payroll — Wages and related payroll costs employees have earned but have not yet been paid at the end of a period. Recording the accrual keeps labor cost in the same period as the work the labor performed.

Application for Payment — The formal billing document a contractor submits for a progress payment, typically showing the schedule of values, work completed to date, retainage withheld, and the amount currently due. It is often called a pay application.

Backlog — The total contract value of work signed but not yet completed. Backlog measures how much future work the business has secured; Marcus Delgado carried a signed backlog of \$640,000.

Balance Sheet — The financial statement that lists what a business owns, what it owes, and the owners' equity on a specific date. It is the statement on which retainage receivable, overbillings, and underbillings appear.

Bid — A contractor's priced offer to perform defined work, built from the estimate of costs plus markup. A bid that omits burden or overhead prices the job below its true cost before work begins.

Billable Efficiency — The share of a technician's or crew member's paid hours that can be billed to customers. Dana Whitfield's technicians are paid for 40 hours a week and average 29 billable hours, a billable efficiency of 72.5 percent.

Billings in Excess of Costs and Earned Revenue — The liability recorded when billings on a job exceed the revenue earned on it — the overbilled amount across jobs. It represents work the contractor has been billed for but has not yet performed.

Bonding Capacity — The largest single job, and the largest total program of work, a surety company will bond for a contractor. Marcus's capacity was \$500,000 for a single job and \$1,500,000 in aggregate.

Break-Even Point — The level of revenue at which a business covers all its job costs and overhead and earns exactly nothing. Knowing it tells an owner how much work must be sold and completed simply to stand still.

Burden — All the costs of employing a worker beyond the wage itself: employer payroll taxes, workers' compensation, benefits, and paid time off. Burden is part of the true cost of every labor hour and belongs in job cost.

Burden Rate — Burden expressed as a percentage of wages, used to price and cost labor. Marcus's burden rate is 30 percent — \$7.80 on a \$26.00 wage — while Dana's is 28 percent.

Cash Basis — An accounting method that records revenue when cash is received and costs when cash is paid. It is simple, but on long jobs it can show a loss in the month the work was done and a profit in the month the check arrived.

Cash Flow — The movement of money into and out of the business over a period. A job can be profitable and still strain cash flow when billings, retainage, and payroll fall on different dates.

Certificate of Insurance — A document issued by an insurer summarizing a policyholder's coverage, limits, and policy dates. Contractors collect certificates from every subcontractor before work begins and keep them current for as long as the work continues.

Change Order — A written, approved change to a contract's scope, price, or schedule. Only approved change orders increase the contract price used in job cost and WIP calculations.

Chart of Accounts — The complete numbered list of accounts in which a business records its assets, liabilities, equity, income, and costs. Appendix A gives a sample chart built for contractors.

Completed-Contract Method — A method that records no revenue or profit on a job until the job is substantially complete. It is simple and conservative, but it makes a busy year's statements look empty until jobs finish.

Contingency — An amount included in an estimate or a contract for costs that may arise but cannot yet be specified. A contingency is not profit, and spending it without documentation hides an overrun.

Contract Price — The total amount a customer has agreed to pay for a job, including approved change orders when the term "revised contract price" is used. On the Harbor Pointe re-roof it was \$148,500.

Cost Code — A short code assigned to a family of job costs — materials, labor, subcontractors — so costs can be sorted and reported by family. Cost codes are what turn a pile of invoices into a job cost report.

Cost Family — A grouping of similar job costs, such as materials, direct labor, burden, subcontractors, equipment, or permits and disposal. Estimates, budgets, and job cost reports are all organized by cost family.

Cost-Plus Contract — A contract that pays the contractor its actual job costs plus an agreed fee or percentage. It shifts cost risk to the customer but requires open, well-documented job cost records.

Cost-to-Cost Method — The standard way to measure progress on a job under percentage-of-completion: costs incurred to date divided by estimated total cost. Harbor Pointe was 80 percent complete when \$94,800 of its estimated \$118,500 cost had been incurred.

Costs in Excess of Billings and Earned Revenue — The asset recorded when revenue earned on a job exceeds billings on it — the underbilled amount across jobs. It represents work performed and earned but not yet billed.

Current Ratio — Current assets divided by current liabilities, a measure of a business's ability to pay its near-term obligations. Marcus's ratio was 2.28, from current assets of \$313,000 and current liabilities of \$137,000.

Customer Deposit — Money received from a customer before work begins, held as a liability until it is applied to billings or earned. A deposit is not income on the day it arrives.

Dashboard — A short, regularly reviewed set of key figures — cash, receivables, retainage, backlog, WIP position, and job margins — that replaces the bank balance as the owner's daily picture of the business. Chapter 16 builds the contractor's dashboard.

Deferred Revenue — Payments received for work or services the business still owes the customer, recorded as a liability and moved into income as the work is performed. Maintenance agreements paid in advance are the home-services example: Dana earns each \$240 agreement at \$20 a month.

Depreciation — The allocation of a long-lived asset's cost over the years it is used. Equipment and vehicles are depreciated rather than expensed at purchase, and the charge appears in job cost or overhead according to how the asset is used.

Direct Cost — A cost that can be traced to a specific job: its materials, its crew labor, its subcontractors. Direct costs are job costs; if a cost cannot be traced to a job, it is indirect.

Direct Labor — The wages of the employees who perform the work on a job — the roofing crew, the technicians — for the hours they work on that job. Office and administrative wages are not direct labor.

Draw — A payment requested or received against a contract during the work, common in construction lending and phased projects. Draws are usually tied to work completed and documented, and the paperwork discipline around them determines how quickly a contractor is paid.

Earned Revenue — The revenue a job has earned to date under percentage-of-completion: percent complete multiplied by the revised contract price. Harbor Pointe had earned \$118,800 at 80 percent complete, whether or not that amount had been billed.

Estimate — The calculated expected cost of a job, built cost family by cost family before work begins. The estimate becomes the job budget, the basis of the bid, and the standard every actual cost is compared against.

Estimate at Completion — The current forecast of a job's final total cost: costs to date plus the estimate to complete. Comparing it with the original estimate shows, during the job, whether profit is holding or fading.

Estimate to Complete — The project manager's current estimate of what it will still cost to finish a job or a cost family. It is a judgment that must be re-made each period, not a plug figure left over from the original estimate.

Fixed-Price Contract — A contract for a set price regardless of the contractor's actual costs, sometimes called a lump-sum contract. The contractor keeps savings below the price and absorbs overruns above the estimate.

Flat-Rate Pricing — Pricing service work from a published price book — a set price for a defined task — instead of billing by the hour. Dana's \$12,500 Callahan change-out was a flat-rate price; flat-rate pricing works only when the price book is built from true costs, burden included.

Fully Loaded Labor Rate — The wage rate plus burden per hour: the complete hourly cost of an employee. A roofer paid \$26.00 an hour with burden of \$7.80 has a fully loaded rate of \$33.80.

Gross Profit — Revenue minus job costs. It is what remains to pay overhead and produce net income, and it is the first honest measure of whether the work itself was priced correctly.

Gross Profit Fade — The shrinkage of a job's expected gross profit between the estimate and completion, also called profit fade. Harbor Pointe faded by \$5,800, from an estimated \$30,000 to a final \$24,200, as hidden conditions raised its costs.

Indirect Cost — A cost necessary to the business that cannot be traced to one job, such as rent, office salaries, and marketing. Indirect costs are overhead, recovered through markup rather than charged to a job.

Invoice — A bill issued to a customer for work performed or amounts due. On contract work the application for payment serves the role of the invoice; on service work the invoice is usually issued at completion of the call.

Job Cost — The total of all direct costs charged to a specific job. Knowing a job's cost — by family, while the job is still open — is the central discipline of this book.

Job Cost Report — A report comparing estimated cost with actual cost, by cost family, for one job or all open jobs. It is the document that reveals an overrun in time to act on it instead of after the final check clears.

Job Number — The unique identifier assigned to a job so every invoice, time record, and payment can be coded to it. No cost should ever be recorded to "general" when a job number exists.

Lien — A legal claim against a property to secure payment for work performed or materials supplied on it. Lien rights, deadlines, and required notices vary by state; treat the paperwork deadlines as part of the job and verify the rules in your state, with your attorney where needed.

Lien Waiver — A document in which a contractor, subcontractor, or supplier gives up lien rights for work already paid for, in whole or in part. Waivers are exchanged as payments are made; signing one before payment is received gives away leverage for nothing.

Maintenance Agreement — A prepaid contract under which a home-services company provides scheduled maintenance — and often priority service — over a stated period. Its payments are deferred revenue, earned month by month as coverage passes.

Margin — Profit expressed as a percentage of the selling price: gross profit divided by price. Harbor Pointe's estimated margin was 20.2 percent — \$30,000 of profit on a \$148,500 price — and margin, not markup, is what appears on your financial statements.

Markup — The amount added to cost to set a price, expressed as a percentage of cost: profit divided by cost. Harbor Pointe's estimated markup was 25.3 percent — \$30,000 on \$118,500 of cost; confusing markup with margin prices jobs too low.

Materials Inventory — Materials the business owns but has not yet installed on a job, such as roofing stock in the yard or parts in Dana's vans. It is an asset, and it becomes job cost only when it is used on a job.

Net Income — Revenue minus all job costs and all overhead; the bottom line of the profit and loss statement. Marcus earned \$95,000 on \$1,850,000 of revenue, and Dana earned \$90,000 on \$965,000.

Overbilling — Billing a customer more than the revenue earned on the job to date. Harbor Pointe was overbilled by \$7,425 at the end of Month 2 — billings of \$126,225 against earned revenue of \$118,800 — and an overbilled amount is a liability, not a cushion.

Overhead — The costs of running the business that are not charged to a specific job: rent, office salaries, insurance, marketing, software, and professional fees. Overhead must be recovered in every price, or profitable-looking jobs will still produce a losing year.

Overhead Rate — Overhead expressed in relation to a base such as revenue, direct labor, or job costs, used to build markup and to test whether prices are recovering the cost of running the business. It can only be computed when overhead is recorded in its own families, not in one lump.

Payroll Taxes — Taxes tied to wages: the employer's share of Social Security and Medicare, federal and state unemployment taxes, and amounts withheld from employees for remittance. The employer's share is part of labor burden; withholdings are held as a liability, never as business income.

Percentage-of-Completion Method — The accrual method for long jobs that records revenue in proportion to the work completed, usually measured cost-to-cost. It reports a job's profit gradually and truthfully instead of all at the start or all at the finish.

Permit — Official permission, usually from a city or county, to perform regulated work, obtained before the work and closed after inspection. Permit fees for a specific job are job costs; the rules and fees vary by jurisdiction.

Prepaid Expense — A cost paid before the period it benefits, recorded as an asset and expensed as time passes. Prepaid insurance is the common contractor example — Marcus carried \$12,000 of it.

Profit and Loss Statement — The statement of revenue, job costs, gross profit, overhead, and net income for a period, also called the income statement. For a contractor it is only as truthful as the job costing behind it.

Progress Billing — Billing a customer in installments as a job progresses, based on work completed, rather than in full at the end. Progress billing keeps the contractor from financing the customer's entire project out of working capital.

Punch List — The written list of small items remaining to be finished or corrected before a job is accepted as complete. Retainage is often released only after the punch list is cleared, so finishing it promptly is a collections activity, not a courtesy.

Purchase Order — A written authorization to a supplier or subcontractor to provide stated goods or services at a stated price. Purchase orders coded with a job number and cost code make job cost recording a matter of matching, not memory.

Reconciliation — The process of proving that two records agree — a bank statement with the cash account, or a WIP schedule's totals with the balance sheet. A difference found in reconciliation is information; a difference ignored becomes a surprise.

Retainage — A percentage of each progress payment that the customer withholds until the job is complete and accepted, as protection that the work will be finished properly. Retainage is commonly 5 or 10 percent; Harbor Pointe's contract withheld 10 percent, and the rules governing it vary by state.

Retainage Payable — Retainage the contractor has withheld from its own subcontractors and owes them when their work is accepted and the conditions for release are met. It is a liability — money held, not money earned.

Retainage Receivable — Retainage customers have withheld from the contractor, owed to the contractor upon completion and acceptance. Marcus carried \$41,900 of it; it is earned and real, but it is not cash and cannot be spent before it is released.

Revenue Recognition — The set of rules and decisions that determine when revenue is recorded. For contractors it is the heart of accrual accounting: revenue is recognized as work is earned, not as invoices are sent or checks arrive.

Sales Tax Payable — Sales tax collected from customers and owed to the state, recorded as a liability until remitted. How construction and service work is taxed varies by state — some states tax materials, some tax services, some tax neither the same way — so verify your state's rules and never treat collected tax as revenue.

Schedule of Values — The itemized breakdown of a contract price into lines of work, against which progress billings are made. Each application for payment states how much of each scheduled line is complete, and the total of the schedule must equal the contract price.

Scope of Work — The written definition of exactly what a contract includes — and, by implication, what it excludes. Work outside the scope is change order work, and a clear scope is what makes a change order provable.

Service Call — A single visit by a technician to diagnose or repair a customer's equipment, treated in job costing as a small job of its own. Dana's average service ticket is \$385, and costing every call is how a service company finds which calls make money.

Subcontractor — An independent company or tradesperson hired to perform part of a job. The contractor remains responsible to the customer for the subcontractor's work, and should hold the subcontractor's certificate of insurance, agreement, and tax form on file before the first payment.

Time-and-Materials Contract — A contract that bills the customer for the actual cost of labor and materials, usually at agreed rates plus markup. It requires accurate time and material records on the job, because the records are the invoice.

Underbilling — Having earned more revenue on a job than has been billed to date, recorded as costs in excess of billings. Underbilling means the contractor is financing the customer's project, and the next application for payment should correct it.

Variance — The difference between an estimated or budgeted figure and the actual or forecast figure. On a job cost worksheet, variance equals estimated cost minus estimate at completion, and a negative cost variance is an overrun announcing itself.

Vendor — A supplier or service provider the business buys from. Vendor records should carry the tax and insurance documents your compliance files require, so a missing form is caught before payment, not at year end.

Warranty Work — Work performed at no charge to correct a defect covered by the contractor's warranty. Its labor and materials are real costs; recording them to the original job or to a warranty account keeps them from disappearing into overhead uncounted.

WIP Schedule — The worksheet listing every open job with its contract price, costs to date, percent complete, earned revenue, billings, over or under position, and retainage held. Reviewed monthly, it is the single most informative page in a contractor's accounting.

Work in Progress (WIP) — Work performed on jobs not yet complete, and the accounting that tracks its costs, earnings, and billings. WIP is where a contractor's profit actually lives during the year, which is why it cannot wait until year end to be measured.

Workers' Compensation Audit — The insurer's after-the-fact review of actual payroll, by classification, against the payroll estimated when the policy was written. Accurate records of crew payroll by class code turn the audit into a reconciliation; estimated records turn it into a bill.

Working Capital — Current assets minus current liabilities: the resources available to run the business and carry jobs between billing and payment. Marcus's working capital was \$176,000 — \$313,000 less \$137,000 — and retainage and underbillings consume it quietly when they are not watched.

About the Author

Rafael Rodriguez, Jr., MBA, is the founder of Triumph Business and Tax Solutions LLC, which provides accounting, bookkeeping, and tax services to small businesses and their owners. Much of that practice — and the part that produced this book — is his work with contractors and home-services companies: roofers, general contractors, plumbers, HVAC companies, and the other trades. Their books arrive with the same questions. Which jobs made money? Why is the company busy, the crews tired, and the bank account empty? Where did the profit on that contract go?

He came to those questions through the owners themselves. Over years of preparing returns and cleaning up records for owners who had built real businesses on skill and persistence, he saw the same pattern repeat. The owners who struggled were rarely careless, and they were almost never lacking in effort. What they lacked was a clear view of their own numbers, presented plainly and in time to matter. A tax return looked backward at a year that could no longer be changed. A bank balance said nothing about the obligations already committed against it. Between those two pictures, good businesses made avoidable mistakes.

With contractors, both pictures fail faster and cost more. A contractor sells work that will take weeks or months to perform, buys materials before the first payment arrives, pays the crew every Friday whether the customer has paid or not, and bills in stages — then waits for a final percentage withheld from every payment. A service company runs the same problem at higher speed: hundreds of small jobs a month, each profitable or not on its own, hidden inside a busy dispatch board. In businesses like these, a bank balance is not merely incomplete; it is actively misleading — and an owner who steers by it will win jobs, lose money on them, and learn about it at tax time.

Accounting for Contractors & Home Services: The Complete Step-by-Step Guide to Job Costing, Progress Billing, and Profitable Projects is his answer to that problem, and the fifth volume of the Small Business Accounting & Tax Series. The series was built in the order an owner needs it. The first volume, *Accounting for Beginners*, built the foundation: what the financial statements are, and how transactions become reports an owner can trust. The second volume, *Small Business Taxes*, addressed how small businesses are taxed, what must be filed and when, and how to plan so filing season confirms a plan rather than delivering a shock. The third volume, *Accounting for Business Owners*, turned bookkeeping into decisions, through ratios, margins, and a monthly review. The fourth volume, *QuickBooks Online*, built the daily operating system — the setup, the bank feeds, the reports, and the monthly close — so those foundations rest on books current every week.

This volume applies all of that to the industry where the general rules are not enough. Contractor accounting is its own discipline because the job — not the month, and not the company as a whole — is the unit that makes or loses money. So this book teaches it in its own terms: a chart of accounts that separates retainage and overbillings from ordinary receivables and income; job costing that charges every invoice, crew hour, and burden dollar to the job that consumed it; progress billing and retainage handled as the obligations they are; change orders documented before they are performed; and the work-in-progress schedule, reviewed monthly, that states what each open job has earned and billed. The running examples are a Fort Myers roofing company

whose owner steered by his bank balance for years, and a Jacksonville plumbing and HVAC company whose full vans concealed thin margins. Their numbers are carried through the book as he insists numbers be carried in practice: consistently, and tied out to the dollar.

His philosophy is simple, and it runs through this series. An owner who understands the numbers makes better decisions daily — not once a year at tax time, but in the ordinary weeks when a bid is priced, a crew is hired, a change order is approved, and a payment is chased. It is knowing, before the job closes, whether it made money; what the retainage balance is and when it comes due; which service calls earn their price and which ones the price book has been subsidizing. Understanding, in his view, is not a talent reserved for "numbers people." It is a skill: one concept at a time, applied promptly to a real business, and reviewed on a regular schedule until the habit carries itself.

Through Triumph Business and Tax Solutions LLC, Rafael works directly with clients on accounting and tax matters, and teaches workshops for owners who want to read their own statements and price their work with their costs in view. His contractor workshops follow the same method as this volume: formal in their standards, plain in their language, and tied to the jobs on the owner's board that week — a bid being prepared, a WIP schedule read for the first time, a crew whose burden has never appeared in a price.

He holds a Master of Business Administration degree, and he writes and teaches under the byline Rafael Rodriguez, Jr., MBA. He is grateful to the clients whose questions became this series — in this volume, especially to the owners who opened their job files and their mistakes to him, so other owners could learn from both.

If this volume has done its work, you will close it with a chart of accounts built for a contractor, a cost on every job, a WIP schedule reviewed every month without exception, and retainage tracked until the last dollar is released — and with a clearer claim on the title this series has used from the beginning: not a passenger in your own business, but its owner in full — informed, deliberate, and in command of the numbers.

Accounting for Contractors & Home Services is Volume 5 of the Small Business Accounting & Tax Series.