Construction Accounting

a collection of free online resources

An electronic handbook
compiled and edited by
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Accounting Overview

Accounting is one of the most important aspects of management and administration in business. In firms with several moving parts, an accounting team that accurately tracks the movement of assets into and out of the company is necessary to ensure both transparency and profitability. In the construction industry, firms and contractors face unique challenges when it comes to accounting. In this resource article, we'll look at what those challenges are, identify the key differences between construction accounting and regular accounting practices, and emphasize the importance of adopting a software solution to improve your accounting and help you earn more money as a construction company or subcontractor.

All Accounting Uses the Same Accounting Equation. (Assets = Liabilities + Equity)

Business owners need three basic reports: Cash, Profit, and Equity.

1. Cash On Hand ..... (Bank Balance - Un-cleared Checks) = Cash
2. Profit And Loss Report .....(Sales - Expenses) = Profit
3. Balance Sheet Report .....(Assets - Liabilities) = Equity

Regular Accounting. Roughly 80% of all businesses in the world use regular accounting. Its main purpose is to provide basic financial reports for annual tax returns and some very rudimentary management decisions:

1. Accounts Receivable
2. Accounts Payable
3. Profit & Loss
4. Balance Sheet

Regular Accounting Is Used In Fixed Environments. It is a kind of business environment where customers will visit physically or an environment where products are shipped or delivered. In essence, products or services are delivered or provided from a fixed location.

Regular Accounting Has Four Things In Common:

1. Sales - With 1-4 categories
2. Cost of Goods Sold - If they sell products with 1-4 categories
3. Expenses - Overhead required to maintain business operations
4. Breakeven - Is fairly easy to calculate because there is a direct relationship between income and expenses on every item. It is easy to run reports to determine which items are profitable and unprofitable and make adjustments quickly as needed.

Construction Accounting

Construction Accounting Is Roughly 15% Of All Accounting and Accounting with manufacturing making up roughly 5%. So it is given very little attention in schools, colleges and universities.

Construction Accounting Is Used In Mobile Environments. Which means having a system that can track the costs that contractors incur related to doing custom work in a strictly mobilization environment. Some of the costs include travel time, mobilization (packing the tools, equipment, labor and material at their warehouse, delivering everything to the job and unpacking it) before starting the work and then demobilization (reversing the entire process when the job is finished).

Construction Accounting is built upon regular accounting and shares the same basic financial reports for operating and growing a business and preparing annual tax returns and some very rudimentary management decisions. Construction accounting adds many complex layers of reporting mechanisms to show the contractor where their best customer are within psychographic and geographic market segmentation boundaries.

Construction Accounting Has These Things In Common:

1. Sales - With 1-10 categories
2. Cost of Goods Sold - Has Direct and Indirect Job Costs with 25 - 200 categories with 1,000s of sub categories
3. Expenses - Overhead is extremely complex because some expenses in regular Accounting are actually Cost of Goods Sold in construction accounting
4. Breakeven - Very difficult to calculate because most projects are one-of-a-kind custom jobs. Proactive contractors have systems and cost libraries with pre-priced assemblies for bidding which works in conjunction with Strategic Construction Accounting to provide management with progress invoicing, job costing and job profitability.
5. Job Costing and Job Profitability Reporting - Is similar to the Company Profit and Loss report except that it is specific to each particular job and has different expense codes. These reports in combination with the Five Key Performance Indicators are what help the contractor understand which projects to pursue and which ones to ignore. They form the foundation of a Business Process Improvement Plan and Construction Business Strategy.

What's Unique About Accounting in Construction?

Whether you're laying the bricks or keeping the books, it's important to understand that construction accounting is different from regular accounting. A typical business like a restaurant or grocery store uses typical accounting principles. This model works perfectly for that type of business – selling products from a fixed location. The business understands the cost of each item it sells and overhead is kept relatively constant.

In contrast, construction businesses are mobile and complete customized work in novel locations on a regular basis. Thus, construction companies must monitor totally different categories of costs: travel time, mobilization costs such as packing tools and equipment, delivery of materials to the jobsite, and even clearing the jobsite of excess materials once a job is completed. In a sense, the business has no fixed location and it is moved to wherever the customer needs it, along with the materials necessary for the job.

A short list of titles commonly used for construction accounting and regular accounting. The list is intentionally short in order to make the point without being completely overwhelming.

1. Construction Accounting Titles = 233
2. Regular Accounting Titles = 115

Example #1 - The contractor asks the bookkeeper "How much money did we make on the John and Mary Doe house remodel?" The bookkeeper generates a report showing $5,000 profit when in reality it was a ($15,000) **loss!** QuickBooks setup was done like every other Accounting business and $20,000 worth of transactions was put in the wrong category. In this case some direct costs and some indirect costs were misallocated and not assigned to the job.

Example #2 - The contractor asks the bookkeeper "How much money did we make on the Bob and Sally house remodel?" The bookkeeper generates a report showing ($5,000) loss when in reality it earned $5,000 profit! QuickBooks was setup wrong and $10,000 worth of transactions was put into the wrong category. In this case some overhead costs were classified as direct costs and assigned to the job.

The Inevitable Result Is - The contractor makes bad decisions on what to bid and not to bid on and eventually runs out of time and money.

Key Differences between Regular and Construction Accounting

Sales. Regular businesses account for sales and usually offer 1-5 categories of products and services. Construction businesses offer a greater range of service categories – service work, consulting, engineering, labor, design, physical products and materials, and more.

Cost of Goods Sold. Regular businesses simply record the cost of the product sold. In construction accounting, it is never so simple. Each job incurs both direct and indirect job costs that fall into hundreds of categories.

Expenses/Overhead. In regular businesses, the distinction between Cost of Goods Sold and Overhead is very clear, but this is not the case in construction. Many of the items that grocery stores would call "Overhead" fall into the "Cost of Goods Sold" category in construction because they are directly connected to the customer's project.

Break Even. In regular businesses, the direct relationship between income and expenses makes breakeven points very easy to calculate. In construction, however, there are far too many categories of items to easily understand how to break even on a project. Additionally, most projects are one-of-a-kind custom jobs, with intricate requirements and a variety of associated costs.

Percentage of Completion Method

Construction companies also use the Percentage of Completion Method, where revenue is accounted for based on the estimated profit of a contract and what percentage of that project has been completed. This makes it even more critical that construction firms implement cost-accounting methods that enable accurate tracking of their expenses to accurately project profit and loss.

The percentage of completion method involves, as the name implies, the ongoing recognition of revenue and income related to longer-term projects. By doing so, the seller can recognize some gain or loss related to a project in every accounting period in which the project continues to be active. The method works best when it is reasonably possible to estimate the stages of project completion on an ongoing basis, or at least to estimate the remaining costs to complete a project. Conversely, this method should not be used when there are significant uncertainties about the percentage of completion or the remaining costs to be incurred. The estimating abilities of a contractor should be considered sufficient to use the percentage of completion method if it can estimate the minimum total revenue and maximum total cost with sufficient confidence to justify a contract bid.

The ability to create dependable contract estimates may be impaired when there are conditions present that are not normally encountered in the estimating

process. Examples of these conditions are when a contract does not appear to be enforceable, there is litigation, or when related properties may be condemned or expropriated. In these situations, use the completed contract method instead.

In essence, the percentage of completion method allows you to recognize as income that percentage of total income that matches the percentage of completion of a project. The percentage of completion may be measured in any of the following ways:

1. *Cost-to-cost method*. This is a comparison of the contract cost incurred to date to the total expected contract cost. The cost of items already purchased for a contract but which have not yet been installed should not be included in the determination of the percentage of completion of a project, unless they were specifically produced for the contract. Also, allocate the cost of equipment over the contract period, rather than up-front, unless title to the equipment is being transferred to the customer.
2. *Efforts-expended method*. This is the proportion of effort expended to date in comparison to the total effort expected to be expended for the contract. For example, the percentage of completion might be based on direct labor hours, or machine hours, or material quantities.
3. *Units-of-delivery method*. This is the percentage of units delivered to the buyer to the total number of units to be delivered under the terms of a contract. It should only be used when the contractor produces a number of units to the specifications of a buyer. The recognition is based on:
4. For revenue, the contract price of units delivered
5. For expenses, the costs reasonably allocable to the units delivered

Use the same measurement method for similar types of contracts. Doing so improves the consistency of the percentage of completion results over time.

When the contractor has difficulty deriving the estimated cost to complete a contract, base the recognition of profit on the lowest probable profit, until the profit can be estimated with more accuracy. In cases where it is impractical to estimate any profit, other than to be assured that a loss will not be incurred, assume a zero profit for revenue recognition purposes; this means that revenues and expenses should be recognized in equal amounts until such time as more accurate estimates can be made. This approach is better than the completed contract method, since there is at least some indication of economic activity that spills over into the income statement prior to project completion.

The steps needed for the percentage of completion method are as follows:

1. Subtract total estimated contract costs from total estimated contract revenues to arrive at the total estimated gross margin.

2. Measure the extent of progress toward completion, using one of the methods described above.
3. Multiply total estimated contract revenue by the estimated completion percentage to arrive at the total amount of revenue that can be recognized.
4. Subtract the contract revenue recognized to date through the preceding period from the total amount of revenue that can be recognized. Recognize the result in the current accounting period.
5. Calculate the cost of earned revenue in the same manner. This means multiplying the same percentage of completion by the total estimated contract cost, and subtracting the amount of cost already recognized to arrive at the cost of earned revenue to be recognized in the current accounting period.

This method is subject to fraudulent activity, usually to over-estimate the amount of revenue and profit that should be recognized. Detailed documentation of project milestones and completion status can mitigate the possibility of fraud, but cannot eliminate it.

Example of the Percentage of Completion Method
Logger Construction Company is building a maintenance facility on a military base. Logger has thus far accumulated $4,000,000 of costs related to the project, and billed the customer $4,500,000. The estimated gross margin on the project is 20%. Therefore, the total of expenses and estimated gross profit for the project is:

$4,000,000 Expenses ÷ (1 – 0.20 Gross margin) = $5,000,000

Since this figure is higher than the to-date billings of $4,500,000, Logger can recognize additional revenue of $500,000, using the following journal entry:

	Debit	Credit
Unbilled contract receivables	500,000	
Contract revenue earned		500,000

Logger should also recognize a proportional amount of expense to offset the amount of revenue recognized, for which the calculation is:

$500,000 Additional contract revenue × (1 – 0.20 Gross margin) = $400,000

How to Use Percentage-of-Completion Accounting

In the simplest sense, a ratio of the percentage of completion is determined and applied to the expected gross profit on the contract to determine the gross profit and revenue to be recognized in the financial statements.

Jones Builders just obtained a contract for $500,000 to build a home for Mr. & Mrs. Smith. Jones estimates his total cost on the job to be $400,000. During the first month of the job, the following transactions occur:

1. Cash of $10,000 is paid for permits, fees and other startup costs.
2. An invoice is received from the excavation subcontractor for $10,000.
3. The first progress billing is prepared for $60,000.
4. If the above transactions were the only ones Jones Builders had for the month, its income statements under each accounting method would look like this:

	Cash	Accrual	Completed Contract	% of Completion
Revenue	$0	$60,000	$0	$25,000
Costs	10,000	20,000	0	20,000
Gross Profit	$(10,000)	$40,000	$0	$5,000

Under the accrual method, revenue earned equals the amount invoiced on the first progress billing ($60,000). Revenue under the percentage-of-completion method was computed as follows:

1. Calculate what percentage of the job is complete.
2. Calculate the amount of revenue to be earned.

Costs to date / total estimated costs = % complete
$20,000 / $400,000 = 5% complete

Contract amount x % complete = revenue earned
$500,000 x 5% = $25,000

By examining the four income statements, you see that the percentage-of-completion method best reflects the company's revenue, costs and gross profit for the period. If the president of Jones Builders received an accrual-basis statement, he might think the company is really prospering (the job is only 5% complete, and the company already made $40,000).

However, this statement does not give a true picture of the company's profitability as of the end of the month. Because the job was only 5% complete, only 5% ($5,000) of the total projected gross profit ($100,000) has been earned.

However, the costs and revenues calculated in this method are at best still estimates of the job's true outcome. For this reason, care should be taken when determining job progress.

Mechanics of Percentage-of-Completion Accounting
In the simplest sense, a ratio of the percentage of completion is determined and applied to the expected gross profit on the contract to determine the gross profit and revenue to be recognized in the financial statements.

Two typical methods of measuring the percentage of completion are:

- The cost-ratio method, which uses the ratio of actual contract costs incurred during the reporting period to total estimated contract costs.
- The effort-expended method, which uses the ratio of some measure of the work input during the reporting period, such as labor hours, machine hours or material quantities, to the total units of that measure of work required to complete the contract. This method assumes that profits on the contract are derived from the contractor's efforts rather than from the acquisition of materials or other tangible items.
- Many other techniques will be found in practice, including combinations of the above, or the application of these methods to different phases and cost codes of the same contract.
- For a remodeler, the most important subsidiary ledger is job cost, which accumulates the costs for each job. The sum of the costs entered in this ledger must agree with the general ledger for a variety of reasons:
- When jobs cross year-ends, the job-cost subsidiary ledger survives the closing of the books for the year and is the only record covering the entire life of the job.
- It is the only reliable way of actually keeping track of cost on a job because it is controlled by the general ledger's balancing system (part of internal control).
- Under the percentage-of-completion method, all cost and progress billing against a contract are accumulated in revenue and cost accounts of the general ledger and the job-cost ledger until the period in which

the contract is completed, at which time the costs and billings are transferred to income and expense accounts and the job's subsidiary record is closed out.

At the end of the accounting period, an adjusting journal entry must be prepared to adjust the revenue recognized on jobs that are in progress based upon the estimated percentage of job completion as of that date. That journal entry is reversed on the first day of the next reporting period.

In computing percentage of completion, only four items need to be pulled from your job-cost accounting records.

- Cost to date = total costs incurred on the job from inception through the end of the accounting period.
- Billings to date = total billings (draws) taken on the job from inception through the end of the accounting period.
- Current contract = original contract plus change orders executed through the end of the accounting period.
- Total estimated costs = current estimate of total anticipated costs on the job. This estimate should be updated to account for any projected budget overruns or underruns as well as include estimated costs on all change orders included within the current contract amount.
- The mechanics of making the adjusting entry consist of the following:
- The amount of revenue to be recognized for the period is computed by multiplying the completion percentage (determined by whatever method is appropriate for the contract) by the current contract amount. Using the cost-ratio method (the simplest to use), completion percentage is computed by dividing total estimated costs by costs to date.
- The revenue to be recognized for the period is subtracted from the revenue posted to the job-revenue account (billings to date). This difference is posted to either Account 248, Billings in Excess of Costs, or Account 126, Costs in Excess of Billings.

Project Accounting Technologies for Construction Companies

Construction accounting is significantly more complex than it is for most businesses. Being able to track, report and categorize costs and other expenses in your construction business is important for understanding how to bid on projects, which projects are profitable for your business, how to bill clients accurately and fairly, and how to make the most of your firm’s resources.

Accurate job costing currently requires daily reports to be generated in the field and submitted to the accounting department on a regular basis. Accountants

must manually enter the reports into the accounting system regularly, a process that is time-consuming and generates backlogs on paperwork.

An integrated software platform that allows frontline workers to complete and submit daily cost and progress reports, time cards, and change orders is an effective way to keep track of what costs are being incurred during a project. Better yet, the reports are instantly digitized and accessible to both workers in the field and the accounting office, which enables rapid resolution of any costing issues and accurate tracking to ensure profitability.

Conclusion

Improving your construction company accounting procedures starts with an understanding of the different types of costs you can incur working on a project. The next step is to categorize those costs effectively, understanding the nuances between expenses/overhead and cost of goods sold, and appreciating the complexity of the projects that your firm is capable of. The best way to ensure accurate accounting is to implement a software solution that allows workers at your firm to easily submit data on costing through a platform that is integrated with your accounting software. This practice saves time on paperwork and ensures that important data is never lost, making your firm more profitable as a result.

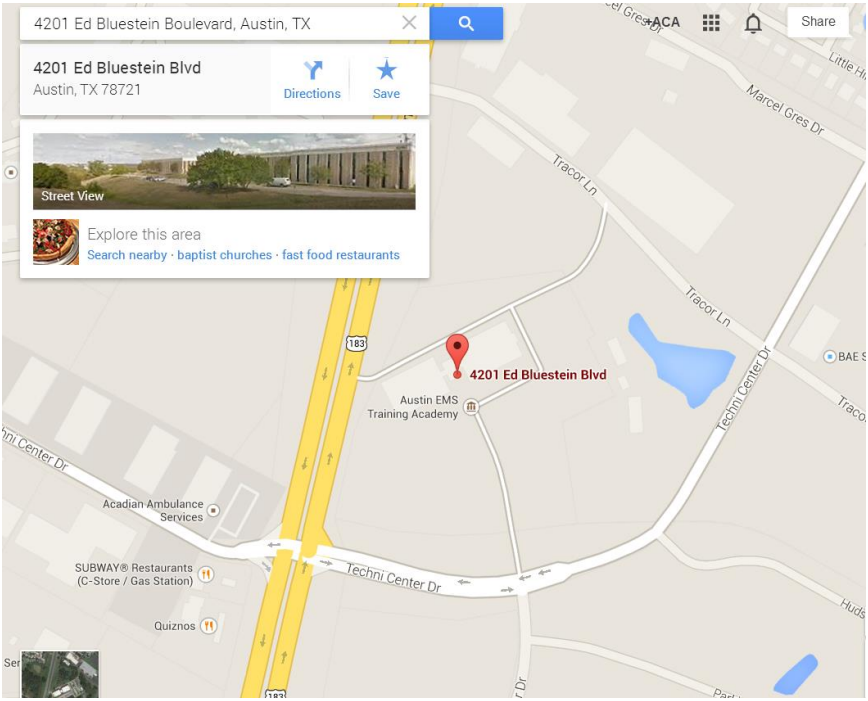
About Asian Contractor Association (ACA)

Founded in 2001, ACA has been a service provider for the City of Austin to help increase Asian participation of the city's MBE program. Our services include:

- Individual consultation
- Bid and project opportunities notifications
- Networking with prime contractors
- Referral services
- Plan room services
- Plan reading and estimating
- City procurement process
- MBE/WBE program advocacy
- … much more

Maps and Directions --- ACA and SMBR

Heading south on Highway 183 – continue on S. Hwy 183. You will pass MLK, and 51st St. Make a left on Techni Center Dr. and another left at the light. Keep going straight to enter the parking lot located at the back of the office building. Go down a flight of stairs to enter the lobby to sign in. SMBR and ACA are on the second floor. ACA is located inside SMBR in room #2105.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1. Business and Technical Consultation
2. Minority Business Enterprise Certification Application, Renewal and Profile Change Process
3. Asian Subcontractor/Sub-consultant Referral Services
4. Upcoming Bid/Event Notifications
5. How to Use COA Vendor Connection
6. Plans Room Services
7. Plan Reading, Cost Estimating Consultation (RSMeans)
8. Proposal Writing and Bid Submission
9. Assist Vendors in Navigating City Procurement Processes
10. Contract Compliance and Contract Review
11. M/WBE Program Ordinance and Compliance Plan Orientation
12. Translations
13. Liaison Services Between Vendors and City Departments
14. Research Assistance of Current and Past City Solicitations and Winning Proposals
15. Collective Representation to Improve Asian Vendor Utilization

Asian Contractor Association

A non-profit organization serving Asian businesses
in the Greater Austin Metro Area since 2001

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