

ACCOUNTING & FINANCIAL MANAGEMENT

for Residential Construction

SIXTH EDITION

EMMA S. SHINN



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Accounting & Financial Management for Residential Construction, Sixth Edition

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ABOUT THE AUTHOR

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Her background in the industry dates back to the 1970s and includes all aspects of the building process such as planning, design, supervision, sales and administration of single family projects. She received the MAME Award for the Rookie Salesperson of the Year presented by the Denver Home Builders Association in 1988. Emma's specialization is accounting for the home building industry, addressing not only financial reporting but also the use of accounting information in the management process. She has been a consultant and coach specifically in the area of accounting, financial analysis and software selection to many home building companies throughout the years.

For 27 years, she has conducted an annual financial and operational research study of a segment of the home building industry, which includes financial performance, organization and operational structure, utilization of management systems and procedures, staffing, salaries, insurance, use of technology, builders' response to economic industry cycles and general trends.

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This sixth edition of *Accounting and Financial Management for Residential Construction* is the product of several years of planning, writing, and reviewing by people working to improve the management of home building, remodeling, and land development firms.

Special credit is due to Lee S. Evans, (deceased) Nederland, Colorado, who developed the original NAHB Chart of Accounts in the late 1960's. Since then, the chart of accounts has been reviewed and updated several times by the NAHB Financial Management and General and Administrative Expenses Subcommittee. The last update for this sixth edition was done in collaboration between Emma Shinn and Steve Hays, Partner, Rubin Brown.

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INTRODUCTION

Every company should produce monthly financial statements and other reports for management use. Just as any home or building must rest on a secure and solid foundation, an understanding of accounting should be the firm foundation upon which a company rests.

This revised and expanded sixth edition of *Accounting and Financial Management for Residential Construction* assumes the reader has no previous knowledge of accounting. It uses straightforward and easy-to-comprehend explanations and illustrations to help builders, remodelers, and developers understand accounting and bookkeeping terminology and procedures.

Emma Shinn will lead the reader through the process in a methodical manner, building concept upon concept so that even the most complex accounting functions can be easily understood.

This book can be used by any type of builder (single family, multifamily or commercial), remodelers and/or developers. It includes the complete, updated NAHB Chart of Accounts (to be adapted to your business) and the job cost control subsidiary ledger accounts for direct, indirect, and land development costs.

This sixth edition of *Accounting and Financial Management*

- presents an overview of accounting and how an accounting system operates
- offers guidelines and a general structure for designing an accounting system
- presents general concepts and principles of financial planning and analysis
- details how to integrate job cost accounting with estimating, purchasing, and scheduling
- presents performance metrics to enhance the understanding of critical operational areas of the company
- explains how technology facilitates accounting processes

- explains how owners and managers can use financial reporting to enhance and improve their companies
- provides special tips for multiple-project builders ([Chapter 13](#)), developers ([Chapter 14](#)), and remodelers ([Chapter 15](#)) to use and benefit from the profit center concept.

Although the book begins with the basics, readers can go as deeply as they wish. In fact, some builders, remodelers, and developers give the book to their certified public accountants (CPAs) with their records at year's end to facilitate the CPA's understanding of the unique aspects of residential construction and remodeling.

Moreover, using financial reporting systems helps builders, remodelers, and developers determine their financial position at any time; compares current and historical performance; and benchmarks their performance against other builders, remodelers, developers and even the industry itself.

So, roll up your sleeves, grab your financial data, a cup of coffee, and get started.

CHAPTER 1

DESIGNING THE SYSTEM AND CHOOSING AN ACCOUNTANT

The performance and efficiency of any accounting system rest on the structure and list of accounts selected to accumulate the financial information. The setup of the structure should occur prior to entering the first financial transaction into the system. The design of the system needs to be planned, reviewed, and approved not only by the accountants but also by the top management team as the structure determines the ability to prepare reports and conduct comprehensive analysis and interpretation of the financial results. The structure also determines the ease and flexibility with which to enter and process the financial data.

Even though there is a belief the accounting system structure is universal in nature, each industry and even each company, has enough peculiarities that required a customized structure and list of accounts. Even home building and commercial construction, in spite of the similarities, require different accounting structures to be able to extract information and reports in a format that facilitates analysis and predictability in the decision-making process.

In addition, the design process becomes a bigger challenge because accounting reports to three distinct user groups:

External users (third parties)

1. Investors and lenders
2. Government agencies

Internal users

3. Owners and management team

Obviously, the objectives of each group are different; therefore, skill is required to

design a system that provides reports in the desirable format to each user group out of the same database.

Traditionally, accounting education and professionals have focused on the reporting responsibilities to third parties instead of reporting to managers or internal users. This is likely because of the professional liability that results from submitting erroneous information to third parties. As a general rule, third parties rely on financial reports to make decisions that would place their capital—investors and lenders—at risk. If reports are not accurate, third parties can sustain financial losses. In other instances, reports are submitted to third parties to comply with regulatory agencies or taxing authorities. Accuracy of the information again is imperative to avoid penalties. Both of these groups of users have no need for a lot of detail. In fact, they prefer to classify accounting information in broad categories to facilitate an overview analysis of the operations and the financial strength of the company. They are evaluating the profitability of the business instead of analyzing where profits come from or what areas need improvement in order to increase profits.

Because of the emphasis on third-party reporting, it is not unusual to have accountants neglect to view accounting as a management tool. The accounting system holds incredible amounts of data as it measures each economic activity that takes place in the company. It is like the blood system of the company touching every department and function within the company. It has the potential to provide managers at every level of the organization with critical information so they can run each functional area of the company more effectively and efficiently, and be able to evaluate past performance. Unfortunately, this system is probably the most ignored source of information in a home building organization.

What is accounting?

Accounting is the process of collecting, analyzing, classifying, and accumulating historical financial transactions in standard categories and to prepare reports that accurately reflect the company's operations and financial position. The setup of the system will determine the types of reports and the level of detail presented in the reports. Therefore, owners and managers need to participate in planning the design of the system by identifying the type of information and detail they would like to have available to manage the company more effectively.

The accounting system needs to be designed not as a tax system or to meet the requirements of third-party users, but rather as a management system. A system designed around management needs can be easily adjusted to meet the requirements of third-party users by grouping the accounts into more comprehensive classifications. This approach will not work if the system is designed as a tax system. It is time consuming and, in some instances, almost impossible to prepare detailed reports from a system set up primarily to support tax and third-party requirements. The information is accumulated in broad classifications and generally very difficult to break down into the detail that managers require to evaluate performance of small functional areas.

A well-organized accounting system helps owners and managers make business decisions less of a guessing game by using the financial reports the system provides. A strong system helps estimate the cost of future jobs, set goals and objectives, and prepare short- and long-term budgets. In addition, historical financial data in accounting records helps owners and managers with the following three tasks:

1. Measurement
 - actual performance
 - the results of functions or departments
 - profitability and problem situations
2. Analysis
 - past performance
 - trends
3. Evaluation
 - financial strength of the company
 - feasibility of future projects
 - growth goals

As stated above, accounting is a powerful tool that managers have at their disposal and conversely is the least used. Management is the work of creating and maintaining an environment in which people can accomplish goals efficiently and effectively. Accounting provides the structure to document and track important objectives.

Management converts disorganized resources of people, machines, material, money, time, and space, into a useful and effective enterprise, and accounting provides the

framework for the control system. The purpose of any control system is to measure actual performance and compare it to goals and objectives previously established by the company. Accounting provides the means to measure performance and the structure to accumulate the data into meaningful classifications.

The key to any control system is the development of goals and objectives in quantitative terms. Once again, accounting provides the framework to set up the plans and objectives on financial terms to allow for easy comparison between plans and actual performance. It is essential that the framework used to set up the plans and objectives is the same as the framework used to accumulate the actual performance.

Effective management systems include five basic functions:

Planning sets the stage for profitability. The company develops a road map to direct its diverse resources toward an established goal in a particular time period. The plan includes targets, objectives, and benchmarks against which the company will measure its performance.

Organizing structures the company for profitability. It orchestrates the company's diverse resources to focus on the objectives and accomplish the work required to implement the company's plans and achieve its goals.

Staffing requires hiring and training for profitability. The company must hire qualified people and continually train its workforce.

Directing leads the staff to profitability. It requires supervising the workforce and monitoring the company's resources to ensure they are used efficiently to accomplish the plans and objectives.

Controlling measures and monitors performance to "compels events to conform to the plan," said Lee S. Evans.* It provides the feedback necessary to redirect resources towards the accomplishment of the goals and objective of the company.

Accounting, as a management tool, plays a key role in both planning and controlling. Savvy builders, remodelers, and developers recognize the positive impact of using accounting information to manage their companies. With reliable accounting systems, owners and managers can:

- Make decisions based on facts, not just gut feelings.

- Know where the company stands on an ongoing basis and eliminate year-end surprises.
- Make informed decisions when allocating resources to new ventures.
- Have better lead-times to react to adverse conditions.
- Measure the performance of the different functional areas of the company such as construction, financing, sales and marketing, and general administration.
- Measure the performance of different communities or subdivisions.
- Create a historical record and the road map for developing future plans and budgets.
- Collect and maintain documentation for loan applications and prospectuses for potential investors.
- Strengthen negotiations with vendors and trade contractors by using records of previous activity.
- Provide staff members with objective information to work toward elimination of waste, variances, and other inefficiencies.

It is important not to underestimate the power of accounting in day-to-day operations management. In addition to the traditional set of financial statements a company prepares to satisfy lenders and governmental requirements (balance sheet and income statement), a well-designed accounting system can produce reports to facilitate and enhance the effectiveness of the management process.

DESIGNING THE SYSTEM

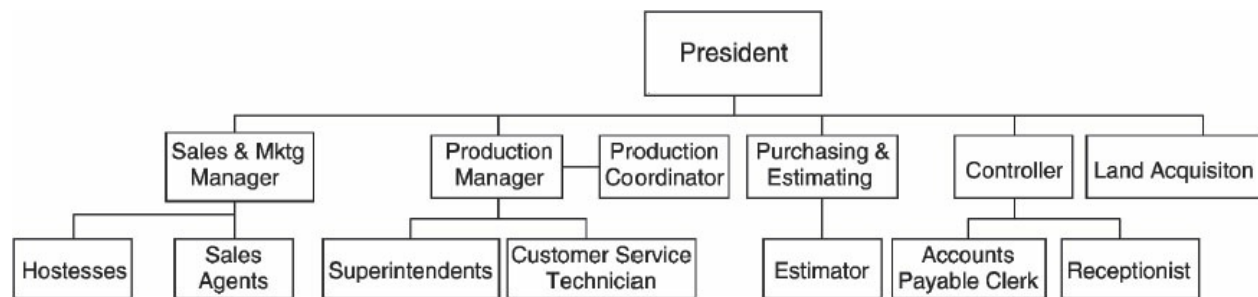
The foundation of a successful accounting system is like that of a house, remodeling job, or new subdivision; it starts with sound design. Therefore, the following steps require special attention.

First, identify whether the company functions as a sole proprietorship, partnership, C or S corporation, or limited liability corporation (LLC). Reporting requirements and the accounts required to track the ownership interest differ under each type of entity. In addition, the size and the organizational structure impact the types of reports the company needs to generate. Accounting systems become more complex for large organizations than for small companies.

Second, analyze all functions and departments, such as field operations, sales and marketing, financing, estimating and purchasing, and warranty and customer service. Determine who is responsible for each function. Prepare an organizational chart that shows every function in a hierarchy and includes the names of employees responsible for carrying out each function (Figure 1.1).

In a small company, one individual may be responsible for more than one function. In large companies, each function may need to be broken down into sub-functions, with each staffed by a different employee. These companies often need more accounts to classify and track financial transactions.

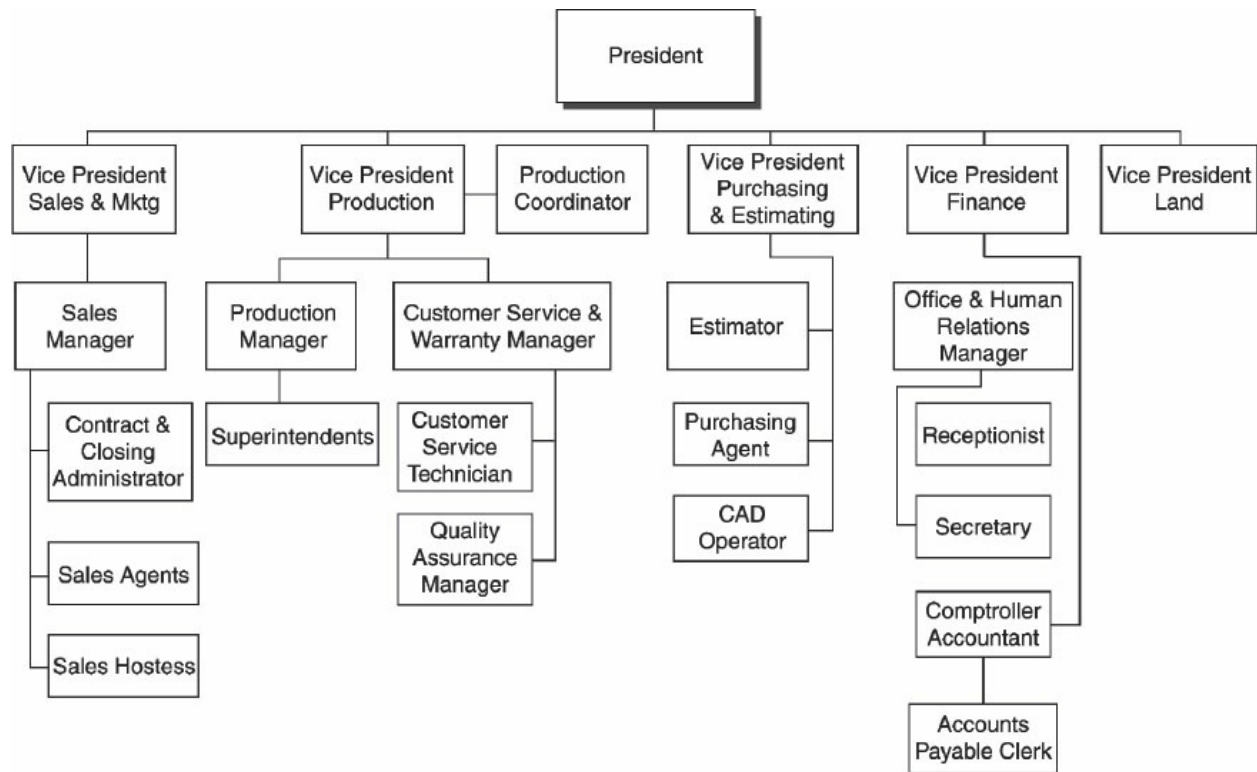
Figure 1.1 Small-volume organizational chart



Of course, many small companies aim to grow over time. These companies can prepare for expansion and growth with the following steps:

- Project future growth and determine its effect on resources, staff and production volume.
- Identify future staffing requirements, specifically when and where you know new employees will be needed.
- Revise the organizational chart to incorporate new positions (Figure 1.2).
- Make projections carefully. Company size impacts the accounting system's design, especially the type of reports to be produced and the controls needed.
- Identify the reports you want the system to generate.
- As reports are designed, determine their relevancy, frequency, users, and level of detail required.
- Once the system has been designed, major revisions to reports might require changes in the system's basic structure and disrupt the existing system's capabilities during implementation of the changes.

Figure 1.2 Medium- to large-volume organizational chart



If the owner of a home building, remodeling, or development company does not have enough of an accounting background to set up the firm’s accounting system, the owner will need the design services of an accountant with some experience in home building, remodeling, development, or (at least) construction accounting.

Under no circumstances should an accountant or consultant design an accounting system without the active participation of the builder, remodeler, or developer. For large companies, the top management team needs to participate in the design process. With the owners and managers actively participating in its design, the system will be more likely to satisfy the company’s needs.

Beware when purchasing a computer software package. While it may provide the mechanism to process transactions, an off-the-shelf program may not meet your management needs. However, off-the-shelf systems usually can and should be customized.

CHOOSING AN ACCOUNTANT

An accounting system involves two levels of attention: professional and technical or clerical. Certified public accountants (CPAs) and accountants provide the professional input, bookkeepers and clerical personnel take care of the data entry and processing. The difference between an accountant and a CPA is primarily one of approach and who the person works for.

CPA is a professional designation with high educational and ethical requirements. As a member of an independent accounting firm, a CPA is primarily concerned with the accuracy of the financial statements as prepared by a company. The CPA audits, reviews or compiles the financial statements. For audits, they provide some form of assurance that the financial statements are not materially misstated.

While an accountant may also have CPA credentials, he or she is usually a company employee. The accountant maintains internal controls, prepares financial statements and management reports, and helps analyze the reports. The financial function (reporting to third parties) and the managerial function (reporting to managers) of accounting are not in conflict. In fact, many CPA firms today offer their clients both consulting services.

CPAs use universal principles and standards established by the American Institute of Certified Public Accountants (AICPA) board, commonly known as Generally Accepted Accounting Principles (GAAP). They determine whether the financial statements fairly represent a company's financial position and require little specialized knowledge from industry to industry.

In contrast, processing and evaluating financial information for company managers requires in-depth knowledge of an industry. Therefore, not all CPA firms can provide the expertise needed to design and implement a system that will serve well both the external reporting and the management functions of a home building, remodeling, or land development company.

The job cost system is an important element in the accounting system for a home building, remodeling, or development company. At least 50% of the charges against sales revenue are construction costs, representing the biggest single line item affecting the company's profitability. The job cost system operates as a subsidiary system of the general accounting system and accumulates costs not only by unit of production but also by cost code (lumber, plumbing, electric) within each unit. The unit might be a

house, a remodeling job, or a commercial establishment for a light commercial builder. This subsidiary system establishes the framework for controlling construction cost.

The treatment of land, development costs, and indirect construction cost (including capitalization of interest) requires special attention for builders, remodelers, and developers. Accounting for land and land development costs requires special capitalization rules that must be followed. For indirect costs, the structure to accumulate and control the costs as well as the procedure to allocate those costs between sold and inventory units need to be addressed. Refer to [Chapter 8](#) for details.

Management use of the financial information should be the primary consideration when setting the accounting system. However, attention should also be given to Internal Revenue Service's (IRS) regulations so that data is accumulated and classified for easy retrieval of information needed for tax purposes at the end of the year. Otherwise, it might require time consuming analysis and research to be able to extract the required information. Because regulations change often, you and your accountant must understand the latest regulations. For more complex tax issues, enlist the services of a tax professional. Don't try to handle them yourself.

THE BOOKKEEPER

Generally, bookkeepers and clerical personnel collect and classify financial information within a framework designed by the accountant. The bookkeeper's job is to collect, enter, and process data. A well-trained secretary or bookkeeper can handle daily records of financial information. You also can outsource this work to a bookkeeping service or the bookkeeping division of a CPA's office. In some small-volume companies, the builder, remodeler, developer or an office manager may perform the bookkeeping duties.

The accountant retains the responsibility for reviewing the data collection process, reviewing the data for accuracy, analyzing the data, and preparing reports.

If a company must use an outside bookkeeping service, choose one that is familiar with home building, remodeling, or development. In addition, the bookkeeping service should follow the system and requirements designed for the business by an accountant who is familiar with home building rather than use its own generalized

system. The accountant should perform a monthly or, at minimum, a quarterly review of the bookkeeping function to ensure accuracy and reliability.

THE ACCOUNTANT

Selecting an accountant is a critical task for management. Because of the special requirements of each business, look for an accountant with experience in your line of work, familiar with home building, remodeling, or land development. For example, job cost accounting must be integrated into the system. Other unique features such as indirect construction costs will vary between home building, remodeling, or land development. The accountant needs to understand your business as well as your company's management needs. When considering accountants, request references from other builders, remodelers, or developers who have used, or are using, them. Attorneys can often provide referrals to qualified accountants as well.

Finding an accounting specialist in a large town may be easier than in a small one. Present a copy of this book to your accountant as a guide to the specific requirements of the home building, remodeling, and land development industries. Hire an in-house accountant as soon as company size and income permits it.

THE CERTIFIED PUBLIC ACCOUNTANT

For many small companies, an in-house accountant either is not a practical option or is simply not necessary. In those cases, selecting the right CPA is critical. The CPA should not only satisfy all traditional external requirements for reporting, but he or she should also help management analyze financial information to better control the business and make educated business decisions. The CPA must understand home building in-depth (not just construction), as well as know the structure and organization of the individual company, its products and services, and construction methods.

Above all, the right CPA can make the difference between a business that merely functions and one that prospers. The owner-CPA relationship is reciprocal. Builders, remodelers, and developers must educate their CPAs in the internal operations of their companies; and, in turn, the owner, managers and staff must be receptive to the recommendations and suggestions made by the CPA. A twoway dialogue is essential to the relationship between the builder, remodeler, or developer and the CPA.

CPA FIRMS AND LEVEL OF SERVICES AVAILABLE

Some companies only use the CPA's services for taxes. However, others engage CPAs for audits, reviews, or compilations of accounting data. The scope of the work done by a CPA firm determines the type of service and the cost of the work performed.

AUDITS

An audit is by far the most comprehensive and expensive of the services offered by a CPA firm. After an audit, the CPA firm will issue an opinion about whether the company's financial statements fairly represent the company's financial position in accordance with GAAP. The audit process takes the following actions for the appropriate third parties:

- Verifies the account balances on the balance sheet (by confirming such items as the amount of cash held in bank accounts, outstanding receivables, accounts payable, customer deposits, and loans payable).
- Verifies other account balances such as inventories of materials, lots, and work-in-process through physical observation.
- Scrutinizes the system of internal control to ensure the existence of, and compliance with, rules and procedures.

Although, typically, lenders do not require audited statements from small- or midsize companies, investors and lenders often require audits as a condition for loan approvals or capital investment.

REVIEWS

Because an audit is relatively expensive, companies not required by third parties to have audits often choose a less comprehensive service, such as a review. A review provides a limited analysis or testing of the financial transactions and account balances. It generally does not include confirmation of account balances by third parties other than verification of cash balances through bank statements. Therefore, there is no formal opinion expressed after a review.

Many lenders require borrowers to provide annual statements that have been reviewed by a CPA firm. Because of the reduced scope of work, a review costs less than an audit.

A review provides the company's owners with limited assurance that the accounting department is following accepted procedures in recording and reporting financial data.

COMPILATIONS

Compilations are by far the least expensive of the three services offered by CPA firms. In a compilation the CPA is under no obligation to review or investigate any account or procedure unless something looks suspicious or appears to be misleading. The CPA issues no opinion as to the accuracy of the data. The CPA simply presents the data supplied by management in an accepted financial format for disclosure to lenders, for income tax purposes, or for any other use intended by the owner.

Regardless of the service performed by the CPA, the financial statements are representations made by the home building, remodeling, or development company. Ultimately, the company, not the CPA, is responsible for accurate preparation of the financial statements.

* Lee S. Evans was a management educator and consultant to the home building industry from 1954–92. He is the only educator honored by induction into the NAHB Hall of Fame and as one of *Builder* magazine's 100 American Housing's Most Influential Leaders in the Last Century in 1999.

CHAPTER 2

BASICS OF ACCOUNTING

The purpose of accounting is to document all financial transactions for the company and classify them into a meaningful format that allows for quick understanding of what happened, when, why, where, and how it affects the overall wellness of the company. Accounting helps identify successes and failures quickly and isolate areas of concern.

The purpose of this chapter is to provide a general understanding of accounting theory and dismiss the myth of mystery and complexity surrounding accounting principles and practices. By gaining an understanding of the mechanics of accounting and the information it can generate through a well-designed system, you will find you have at your disposal a highly-effective management tool.

Accounting systems are often ill conceived and poorly planned, and do not give managers the information they need to manage and control. Common weaknesses in accounting systems include inadequate chart of accounts, old and inaccurate information, insufficient detail, and poorly organized, overly complex data inhibiting quick and easy analysis.

ACCOUNTING SYSTEMS

Financial data generated by a builder, remodeler, or developer's business operations should be classified, accumulated, and summarized following GAAP. Accounting systems generally have two tracks: financial and managerial. The financial accounting structure, or main system, provides the "big picture" (Figure 2.1). The managerial structure, or subsidiaries, classify the same financial data in greater detail for use in control and decision-making.

Figure 2.1 Nature, structure, and output of an accounting system

	Main System Financial Accounting	Subsystem Managerial Accounting
Nature	General	Detailed
Structure	Journals & General Ledger	Subsidiary Ledgers
Output	Financial Statement: Income Statement Balance Sheet Cash Flow Statement	Management Reports: Cost Reports Gross Profit Reports Contribution Margin Reports Project Reports Variance Reports Other Reports

FINANCIAL ACCOUNTING SYSTEM

The financial system maintains an overview of all financial transactions. The accountant uses it to prepare traditional financial statements: the income statement, the balance sheet, and the cash flow statement.

Accounting systems classify financial transactions into the following categories or types of accounts:

- assets
- liabilities
- owners' equity
- revenues
- expenses

Assets are items of value the company owns, either tangible or intangible. Tangible assets include cash, inventories (land, work in progress, materials), office equipment, and construction equipment. Intangible assets include accounts receivable, prepaid expenses, and land deposits.

Liabilities are obligations the company owes to third parties, such as accounts payable, construction loans, other loans, and taxes payable. Until the house is delivered to the buyer, customer deposits are also a liability. The builder owes the buyer either the money back or the delivery of the home.

Owners' equity represents the owners' interest in the company. This category not only measures the owners' investment in the company, but also company profits that the owners have chosen to reinvest in the company for growth and stability. If the company incurs losses, the owners' equity will decrease. The owners absorb the losses.

Revenues represent the sales made by the company, whether for houses, remodeling jobs or finished lots. Companies also earn revenues from interest and investments. The accounting system should classify revenue by type to be able to identify the source.

Expenses include the cost of the product or services sold and the cost of operating the business. Accumulating expenses in major categories helps owners analyze how dollars were spent on land or lots, direct construction costs, indirect construction costs (field expenses), financing expenses, sales and marketing expenses, and general and administrative expenses.

MANAGERIAL ACCOUNTING SYSTEM

A number of subsystems, also known as subsidiary ledgers or detailed ledgers, comprise the managerial accounting system. Such a system could include the following subsidiary ledgers:

- job cost for land development
- job cost for work in progress
- finished lots
- accounts receivable
- accounts payable
- customer deposits
- construction loans payable

Figure 2.2 Flow of data through the system

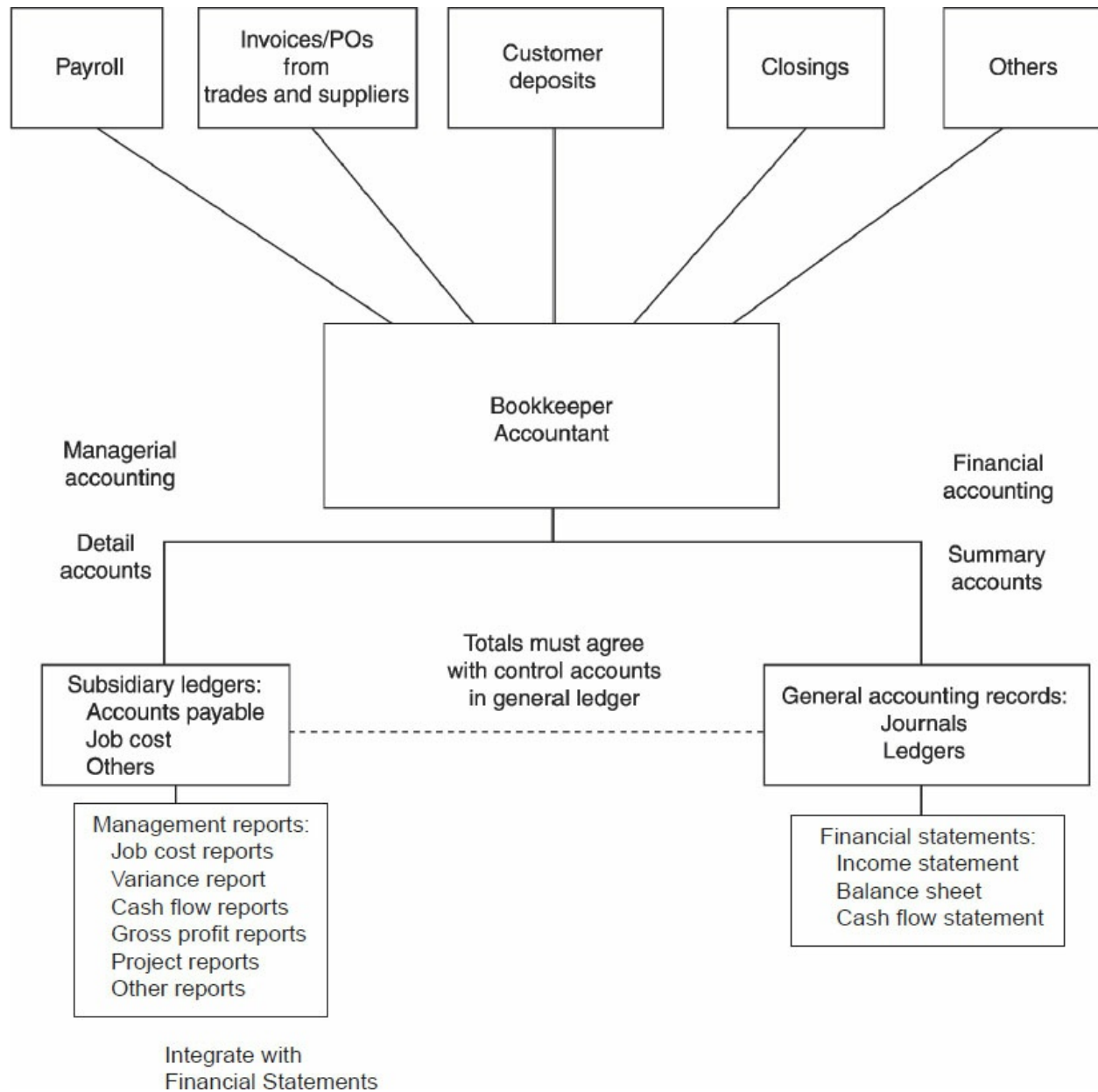


Figure 2.2 illustrates how accounting data flows through the system, the relationship between financial and managerial accounting, and the output generated by each. Each subsidiary ledger in the managerial accounting system contains a detailed breakdown of an account in the general ledger or financial accounting system.

The accounts payable account in the general ledger serves as a control account. It shows, in one lump sum, the amount owed to all suppliers, trade contractors, and others. The accounts payable subsidiary shows the amounts currently owed to each supplier, trade contractor, and others. The total of all individual accounts in the

accounts payable subsidiary ledger must equal the balance in the accounts payable account in the general ledger. The two numbers must match to validate the integrity and accuracy of the accounting information.

In the National Association of Home Builders (NAHB) Chart of Accounts, the general ledger account (1430 direct construction cost account or work-in-progress account) supports the subsidiary ledger. As with accounts payable, the direct construction account in the general ledger shows no detail as to which cost relates to which unit of production; it being a house, a remodel job, or a land development project. The job cost subsidiary ledger shows not only the cost of each unit under construction, it also breaks down the cost into components (lumber, carpentry, electric, etc.) associated with each unit.

Again, to maintain the integrity of the system, the total cost of all units in the job cost subsidiary must equal the balance of the direct construction cost account in the general ledger. A discrepancy between the general and the subsidiary ledgers indicates errors in entering and processing transactions. Should the numbers not be equal, the accuracy of the numbers becomes questionable and managers will be reluctant to base decisions on information that cannot be validated.

Figure 2.3 illustrates where to record the purchase of construction materials on account into the general accounting system and the two subsidiary ledgers, accounts payable, and job cost.

Figure 2.3 Purchase of construction materials on account

A home builder purchased materials on account from XYZ Lumber Company to be used in house number 15. The bookkeeper records the financial information in the following places:

- The general ledger, under direct construction cost and accounts payable
- The accounts payable subsidiary, under the XYZ Lumber Company account
- The job cost subsidiary, under job number 15, in the lumber cost code

The general ledger entry indicates the builder bought material on credit to build a house. The accounts payable subsidiary shows how much the builder owed XYZ Lumber Company for the material, and the job cost subsidiary shows the cost of lumber used in house number 15. Remember that the total of all individual accounts