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# Construction Industry Audit Techniques Guide (ATG)

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# Table of Contents

<b>CHAPTER 1: INTRODUCTION TO THE CONSTRUCTION INDUSTRY .....</b>	<b>4</b>
INTENDED AUDIENCE .....	4
PARTICIPANTS IN THE CONSTRUCTION INDUSTRY .....	5
THE CONTRACTING PROCESS .....	8
CONTRACT INCOME .....	9
TYPES OF CONTRACTS .....	9
BONDING .....	10
BUILDING PERMITS .....	11
NOTICE OF COMPLETION .....	11
<b>CHAPTER 2: LONG TERM CONTRACTS .....</b>	<b>11</b>
BACKGROUND .....	11
LONG TERM CONTRACT DEFINED .....	12
CONTRACTS SUBJECT TO IRC SECTION 460 .....	12
CONTRACTS EXEMPT FROM IRC SECTION 460 .....	12
CONSTRUCTION AND MANUFACTURING CONTRACTS .....	13
INTEGRAL COMPONENTS OF REAL PROPERTY .....	14
CONTRACT CLASSIFICATIONS .....	14
HYBRID CONTRACTS .....	15
DE MINIMIS CONSTRUCTION ACTIVITIES .....	16
NON LONG-TERM CONTRACT ACTIVITIES .....	16
RELATED PARTY CONTRACT .....	18
SEVERING AND AGGREGATING CONTRACTS .....	19
CONCLUSION .....	20
<b>CHAPTER 3: SMALL CONSTRUCTION CONTRACTORS .....</b>	<b>20</b>
INTRODUCTION .....	20
EXCEPTIONS TO THE PERCENTAGE OF COMPLETION ACCOUNTING METHOD AND LOOK-BACK INTEREST .....	21
PRODUCTION PERIOD INTEREST .....	21
\$10 MILLION GROSS RECEIPTS TEST .....	22
PROPER METHOD OF ACCOUNTING FOR SMALL CONTRACTORS .....	24
GENERAL RULE FOR ACCOUNTING METHODS .....	24
METHODS OF ACCOUNTING .....	25
SELECTING AN ACCOUNTING METHOD .....	25
CASH METHOD OF ACCOUNTING .....	25
ACCRUAL METHOD OF ACCOUNTING .....	31
COMPLETED CONTRACT METHOD (CCM) .....	33
COMPLETION OF A LONG-TERM CONTRACT .....	33
SUBCONTRACTS AND COMPLETION .....	36
EXEMPT-CONTRACT PERCENTAGE-OF-COMPLETION METHOD (EPCM) .....	37
ALTERNATIVE MINIMUM TAX (AMT) .....	38
SMALL CONTRACTORS BECOMING LARGE CONTRACTORS .....	41
PROS AND CONS OF LONG-TERM ACCOUNTING METHODS .....	41
CONCLUSION .....	42
<b>CHAPTER 4: LARGE CONSTRUCTION CONTRACTORS .....</b>	<b>42</b>
INTRODUCTION .....	42
METHODS OF ACCOUNTING FOR CONTRACTS SUBJECT TO IRC SECTION 460 PERCENTAGE OF COMPLETION METHOD (PCM) .....	42
COST-TO-COST METHOD .....	42
ALLOCABLE CONTRACT COSTS .....	43
IMPACT OF COST ALLOCATION ON THE PERCENTAGE OF COMPLETION COMPUTATION .....	46

COST-PLUS CONTRACTS AND FEDERAL LONG-TERM CONTRACTS .....	47
SIMPLIFIED COST-TO-COST METHOD .....	48
PERCENTAGE-OF-COMPLETION (10 PERCENT METHOD) .....	48
PERCENTAGE-OF-COMPLETION OR CAPITALIZED-COST METHOD (PCCM) .....	49
TOTAL ESTIMATED CONTRACT PRICE AND CLAIM INCOME .....	50
ADDITIONAL CONSIDERATIONS FOR PCM .....	51
REVERSAL OF INCOME ON TERMINATED CONTRACT .....	52
CONCLUSION .....	54
<b>CHAPTER 5: LOOK-BACK INTEREST .....</b>	<b>54</b>
INTRODUCTION .....	54
LOOK-BACK IS HYPOTHETICAL .....	54
SCOPE OF LOOK-BACK METHOD .....	56
EXCEPTIONS FROM THE APPLICATION OF LOOK-BACK .....	57
ELECTION NOT TO APPLY LOOK-BACK .....	58
COMPUTATION OF LOOK-BACK .....	58
STEP 1: REAPPLY THE PCM TO ALL LONG-TERM CONTRACTS .....	59
STEP 2: COMPUTATION OF OVERPAYMENT OR UNDERPAYMENT OF TAX .....	61
STEP 3: CALCULATION OF INTEREST ON UNDERPAYMENT OR OVERPAYMENT OF TAX .....	63
SIMPLIFIED MARGINAL IMPACT METHOD (SMIM) .....	65
POST-COMPLETION REVENUE AND EXPENSES .....	67
REVENUE ACCELERATION RULE .....	68
REPORTING LOOK-BACK - FORM 8697 .....	68
MID-CONTRACT CHANGE IN TAXPAYER AND LOOK-BACK INTEREST .....	69
COMMON ERRORS .....	70
CONCLUSION .....	71
<b>CHAPTER 6: FINANCIAL ACCOUNTING VERSUS TAX ACCOUNTING .....</b>	<b>71</b>
INTRODUCTION .....	71
FINANCIAL ACCOUNTING .....	71
BALANCE SHEET REPORTING .....	74
SAMPLE FINANCIAL STATEMENTS USING PERCENTAGE OF COMPLETION METHOD .....	75
<i>Exhibit 6A XYZ Corporation Balance Sheet December 31, 2002</i> .....	75
<i>Exhibit 6B XYZ Corporation Statement of Income and Retained Earnings December 31, 2002</i> .....	76
<i>Exhibit 6C XYZ Corporation Schedule 1 – Earnings from Contracts Year Ended December 31, 2002</i> .....	76
<i>Exhibit 6D XYZ Corporation Schedule 2 – Contracts Completed Year Ended December 31, 2002</i> .....	77
<i>Exhibit 6E XYZ Corporation Schedule 3 – Contracts in Process Year Ended December 31, 2002</i> .....	77
<b>CHAPTER 7: HOMEBUILDERS AND DEVELOPERS .....</b>	<b>80</b>
INTRODUCTION .....	80
HOME CONSTRUCTION CONTRACT DEFINED .....	81
TAXATION OF HOMEBUILDERS .....	82
HOMES BUILT FOR SPECULATION (NO CONTRACT) .....	82
INVENTORY VS. REAL ESTATE .....	84
CONTRACTORS BUILDING HOMES UNDER CONTRACT .....	85
LAND DEVELOPER .....	87
ALLOCATING COSTS TO EACH PARCEL OF PROPERTY .....	88
CONCLUSION .....	98
<b>CHAPTER 8: OTHER TAX ISSUES IN CONSTRUCTION .....</b>	<b>98</b>
INTRODUCTION .....	98

ACCOUNTING METHOD ISSUES .....	98
INCOME ISSUES .....	103
.....	106
TAX ISSUES.....	110
CONCLUSION .....	111
<b>CHAPTER 9: INCOME PROBES .....</b>	<b>111</b>
INTRODUCTION.....	111
UNDERSTANDING THE ACCOUNTING SYSTEM .....	112
MINIMUM INCOME PROBES.....	113
INTERNAL CONTROLS .....	115
USE OF INDIRECT METHODS .....	116
MISCELLANEOUS INCOME SOURCES.....	119
CONCLUSION .....	119
<b>CHAPTER 10: CONSTRUCTION JOINT VENTURES .....</b>	<b>120</b>
INTRODUCTION.....	120
TYPES OF JOINT VENTURES.....	120
JOINT VENTURE EXAMINATIONS.....	121
POTENTIAL JOINT VENTURE ISSUES .....	122
CONCLUSION .....	123
<b>CHAPTER 11: CONTRACTOR SQUARE FOOT COSTS.....</b>	<b>123</b>
INTRODUCTION.....	123
DIVISION 1 – SITE WORK .....	124
DIVISION 2 - FOUNDATIONS.....	126
DIVISION 3 - FRAMING .....	130
DIVISION 4 - EXTERIOR WALLS .....	144
DIVISION 5 - ROOFING .....	148
DIVISION 6 - INTERIORS .....	152
DIVISION 7 - SPECIALTIES .....	156
DIVISION 8 - MECHANICAL.....	156
DIVISION 9 - ELECTRICAL .....	176
DIVISION 10 - INSTALLING CONTRACTOR'S OVERHEAD & PROFIT .....	181
AUDIT ISSUES AND EXAMINATION TECHNIQUES .....	208
<b>APPENDIXES .....</b>	<b>211</b>
APPENDIX 1 FEDERAL TAX LAW AND GUIDANCE .....	211
APPENDIX 2 TAX ACCOUNTING METHODS.....	219
APPENDIX 3 CONSTRUCTION INDUSTRY RESOURCES .....	221
APPENDIX 4 COST ALLOCATION.....	225
APPENDIX 5 DEFINITIONS AND TERMINOLOGY .....	228
APPENDIX 6 CONSTRUCTION INDUSTRY INTERVIEW QUESTIONS .....	236

## Chapter 1: Introduction to the Construction Industry

### *Intended Audience*

This Industry Guide is intended for examiners conducting audits in the construction industry and as information for taxpayers and practitioners associated with the construction industry. Review of this guide is recommended prior to initiating an audit. Users of this guide may need to augment these guidelines by researching specific tax issues and new tax law.

## ***Participants in the Construction Industry***

Numerous participants in the construction industry play a distinct role in the process. The key participants are discussed below.

### **Contractors**

Contractors perform the construction work in accordance with the plans and specifications provided by the owner and are required to be licensed by state law.

### **General or Prime Contractors**

A general contractor's principal business is the performance of the construction work in accordance with the plans and specifications of the owner. A general contractor takes full responsibility for the completion of the project. The general contractor will normally subcontract out a substantial part of the work, while maintaining overall control through project managers and onsite supervision. The general contractor may utilize specialty subcontractors, but can perform any portion of the work. Generally contractors are licensed. If the contractor is a corporation or partnership, an officer or partner, the contractor must be licensed.

### **Construction Managers**

Generally, the construction manager does not perform construction work on projects, but is an agent for the owner. The construction manager may be engaged in lieu of or in addition to a general contractor. As an agent, the construction manager coordinates the construction project, but has no contractual relationship with the subcontractors. Generally, construction managers only provide services. Construction managers do not perform any construction work. Construction managers are not liable for defects in the construction. However, the construction manager may be liable for design defects.

### **Commercial Contractors**

Commercial contractors specialize in commercial construction projects. These projects may include the construction of a single building or any number of buildings. Commercial projects include:

1. Retail project like shopping centers, restaurants, and grocery stores;
2. Rental facilities like office buildings, industrial parks, and apartments;
3. Business locations like company headquarters, manufacturing plants, and insurance companies;
4. Municipal buildings like city halls, prisons, schools, and hospitals; or
5. Special projects like amusement parks, racetracks, coliseums, and churches.

A commercial contractor constructs nonresidential buildings, such as office buildings, warehouses, and shopping centers.

### **Commercial Project Owners**

The owner of a construction project may be an individual, corporation, partnership, or government body. The owner evaluates whether a project is feasible and will provide the future benefits desired. The owner then engages an architect or engineer to design the plans and specifications of the project. Normally, the owner secures the necessary financing for the project for both the

construction period and permanent financing upon completion. The owner will retain title to the project throughout the construction phase, subject to liens from construction loans and mechanics liens. The general contractor may or may not have an ownership interest in the project. The contractor may own a percentage interest in one of the following ways:

1. Owning stock in the corporation that owns the project;
2. Being a partner in a development partnership; or
3. Owning the property or an interest in a joint venture as an individual.

## **Residential Construction Developer**

The examination of residential developers is different than the examination of a contractor who builds in accordance with a contract for an owner. The developer is generally the owner and the builder of the residential development. The developer acquires land, obtains approval, secures construction financing, and begins construction of the residential development in stages or phases of construction.

The initial phase is sold, and the construction process begins on the next phase. This process requires the builder allocate a per-unit cost to each unit sold. The cost of each unit (on-site costs, such as direct materials and labor, and an allocated portion of off-site costs such as streets and amenities) must be matched with the sales price of each unit sold. The sales price is often based on what the market will bear under the current economic environment.

## **Subcontractors**

The largest number of taxpayers in the construction industry is a specialty subcontractor. They can range from one-man operations to nationwide, publicly traded corporations, or divisions of larger corporations. Subcontractors are distinguished from the general contractor by the limited scope of their work, which usually involves a special skill, knowledge, or ability.

Subcontractors include specialists, such as plumbers, electricians, framers, and concrete workers. They generally enter into contracts with the general contractors, and may provide the raw materials used in their specialty areas.

The general contractor, not the owner of the property, will usually pay the subcontractors. Materials purchased by the subcontractors are generally delivered directly to the job site. The subcontractors' work may be completed in stages, or it may be continuous.

## **Highway Contractors**

Highway and street contractors require specialized equipment and techniques. The equipment includes bulldozers, graders, dump trucks, and rollers. Examples of highway construction include city streets, freeways, country roads, highway bridges, and tunnels.

## **Heavy Construction Contractors**

Heavy construction contractors require large and complex mechanized equipment, such as cranes, bulldozers, pile drivers, dredges, and pipe-laying devices. Some examples of projects in this category include dams, large bridges, refineries, petrochemical plants, nuclear and fossil fuel power plants, pipelines, and offshore platforms. Most industrial plants are classified in this category because of the complexity of the work. The largest engineering and construction firms are included in the heavy construction classification.

## **Architects and Engineers**

The architect or engineer designs the plans to be used by the construction contractors. The plans provide the necessary detail (dimensions, materials to be used, location of fixtures, etc.) to the contractors. When the project is started, the architect or engineer may monitor the contractor's progress and often approves progress payments to the contractors. The architect or engineer will make modifications (change orders) in the plans as needed. Change orders are written revisions to the contract, which increase or decrease the total contract price paid to the construction contractors. The change order document contains the change order number, change order date, a description of the change, and the amount of the change order. The contractors under the terms of the contract can also issue change orders.

## **Material Suppliers**

Material suppliers provide the raw materials used in the construction project. Material supplies are purchased by the subcontractors and installed by them in accordance with their contract. General contractors often write joint checks to subcontractors and material suppliers to ensure that all parties have been properly paid. Materials are generally delivered directly to the job site and are direct job costs, which are not normally inventoried by the contractor. In some situations the contractor will maintain inventories of frequently used miscellaneous yard stock.

## **Construction Lenders**

The construction lender provides the necessary funds to pay contractors on a progress basis. In return for making the loan, the lender receives interest on the outstanding loan balance. Construction period interest costs ("soft costs") paid by the owner to lenders must be capitalized during the construction period. Interest and other loan costs are often taken directly from the loan principal as a result of the institutions interest provisions.

As construction work progresses, the construction lender (bank, savings and loan, insurance company, etc.) will advance the funds based on the work performed or based on a payment schedule. The construction loan is generally secured by the land and construction in progress. When construction is completed, the owner will secure permanent long-term financing.

## **Surety Companies**

Sureties are generally insurance companies who provide bonding to contractors. Bonds provide a form of insurance to the owner. Performance bonds protect the owner if the contractor fails to complete the construction work. Performance bonds are typically a percentage of the contract amount.

Bid bonds guarantee that the contractor will sign the contract after it is awarded and furnish the necessary performance and payment bonds within a specified time. Contractors must submit detailed financial data to the surety company to secure a bond.

Financial statements prepared in accordance with generally accepted accounting principles (GAAP) are often furnished to the surety on a quarterly basis or more often. Supporting schedules included in these financial statements provide extensive job information, required by the surety in order that they may analyze and limit their risk. Personal financial statements are usually required to be supplied from officer shareholders.

## **Multiple Roles**

Each of the above participants can and often has multiple roles in the construction process. For example, the owner could also be the general contractor (builder or developer). The general contractor in addition to providing supervision may also do specialty work that would typically be subcontracted (for example, concrete work). Design-build companies are growing.

Construction lenders frequently hold an equity position in a development partnership in order to participate in the management decisions and to share in the profits. Anchor tenants, such as major department store chains participate in the development partnership in exchange for signing long-term leases. Contractors and material suppliers can obtain rights in the project by filing mechanics liens against the property.

## ***The Contracting Process***

When the owner determines that the project is feasible and construction financing is available, he will solicit bids from general contractors and/or specialty contractors. Owners will use trade publications and newspapers to invite contractors to bid for the construction contract.

The notice will provide the contractors with the procedures to be followed in submitting a bid. The bidding contractor obtains a copy of the plans and specifications from the owner to prepare the formal bid. The bidding contractor solicits bids from subcontractors, estimates direct material and labor costs, and evaluates the ultimate profit potential of the contract. The amount of the bid covers the estimated costs and profit for the construction project.

The owner evaluates the submitted bids and will award the contract to the successful bidder. The contract document contains the contract amount, project start and completion dates, progress billing procedures, insurance requirements, and other pertinent information. There are standard cost manuals that a general contractor can use as a guideline in computing the bid. These guides contain a compilation of cost data for each phase of construction.

It is important to realize that the cost of bidding a job can be considerable. The costs include reviewing and reproducing the job specifications and blueprints, calling in subcontractors to get bids on the work involved, developing the total cost figure for the project, and preparing a formal bid. The preparation of the bid is the first step in the cost control system. The bid becomes the budget by which the actual expenditures are measured.

The object of the cost control system is to provide the general contractor with information regarding actual project costs versus anticipated or budgeted costs. These cost comparisons are essential for internal control as well as for auditing purposes.

You may see situations where a contractor might pursue a "break-even" bid to generate enough cash flow to meet payroll, particularly in recession periods. The general contractor solicits bids from subcontractors in the various trades, the subcontractors bid for the jobs in much the same way owners do.

## **Scheduling Subcontractors**

The general contractor is expected to schedule the subcontractors so that the construction runs smoothly and is completed on time. The various specialty areas include, but are not limited to, the following:

1. Site Work
2. Foundation

3. Framing
4. Exterior
5. Roofing
6. Interiors
7. Specialties
8. Mechanical
9. Electrical

This list conveys some of the complexity inherent in the construction process. It reflects the necessity of scheduling the work of subcontractors and using a budget, bid costs, and actual cost variances for cost control purposes. Budgeting and scheduling are critical factors in determining the success of the contractor.

## ***Contract Income***

Most companies use a standard construction contract. The most important information contained in the contract is the amount and how often the general contractor will be paid. The contract will state whether the contractor will bill monthly, at the completion of the contract, or at certain stages of the project. The billing invoices may include copies of the subcontractor bills and lien releases.

The owner may have a supervisor at the site that confirms that the contractor has completed the work for which he has billed. The contract may also include provisions for retainages that are usually withheld from the general contractor until the project is complete. Retainages are usually withheld at a rate of 10 percent of the billed amount but the percentage may decrease over the life of the project. The general contractor, in turn, will retain a portion from the amounts owed to the subcontractors.

## ***Types of Contracts***

### **Short-Term Contracts**

Short-term contracts are contracts started and completed within the taxpayer's taxable year. For short-term contracts, construction costs are treated as current period costs under all methods of accounting except the cash method. Under the cash method, construction costs are treated as current period costs for a short-term contract only if the expense is also paid during the year.

### **Long-Term Contracts**

Long-term contracts are defined in IRC section 460(f)(1) as any contract for the manufacture, building, installation, or construction of property, if such contract is not completed within the taxable year in which such contract is entered.

### **Fixed Price or Lump Sum Contracts**

A fixed price or lump sum contract states that the contractor will complete the project for an agreed price, despite unforeseen costs that might exist during the construction phase. Some fixed price contracts, in reality, provide for some variations for economic price adjustments, incentives, etc. If any modifications to the original contract occur, change orders are executed. These often increase or decrease the contract amount.

### **Cost-Plus Contracts**

Cost-plus contracts stipulate that the contract amount will be the cost of the construction project plus a fee. The fee may be earned in various ways.

A fixed fee is generally earned evenly throughout the term of the contract. A percentage fee is frequently based on the amount of cost incurred. Most cost-plus contracts have a guaranteed maximum to protect the owner from cost overruns. Many cost-plus contracts allow the contractor to share in cost savings if the project is completed under budgeted cost. The contract will specify which costs are included in the contract amount. Generally, the contract will include a clause that allows the owner to review or audit those costs.

### **Time and Material Contracts**

Time and material contracts are contracts that provide payments to the contractor based on direct labor hours at a fixed rate plus the cost of materials and other specified costs.

### **Unit Price Contracts**

The unit price contract method is a variation of the lump-sum (or fixed price) contract method where the contractor bids a set price per unit item. The unit-price method is generally used in cases in which the number of units required has not been determined when the contract is bid.

### **Change Orders**

The contractor or the owner can initiate change orders. A change order modifies the original contract, and either increases or decreases the contract costs and/or contract price.

## ***Bonding***

Owners often require the general contractor to be bonded. In these cases, the general contractor is required to purchase a guarantee or surety bond. The purpose of the bond is to guarantee to the owner and lender that, should the general contractor fail to finish the project, the funds will be available to hire a replacement. A general contractor's bonding capacity is based upon their financial statements and past performance. A bond request will be denied if it exceeds the bonding capacity.

A contractor may leave what appears to be an unusually large amount of cash in the company for the purpose of increasing his or her bonding capacity. This should be considered when determining whether or not accumulated earnings tax is applicable. The following types of bonds are available:

1. Bid bonds provide for payment to the owner of the difference between the bid that is accepted and the next lowest bid if the general contractor with the accepted bid fails to enter into a contract.
2. Contract bonds indemnify the owner against the failure of a general contractor to comply with the requirements of a contract.
3. Performance or completion bonds guarantee completion of the project by the general contractor.
4. Labor and material payment bonds guarantee the owner that all costs of labor, material, and supplies incurred by the general contractor in connection with the project will be paid, thus voiding mechanics' liens.
5. Maintenance bonds guarantee the owner against defects in workmanship and are usually one year in duration.

6. Subcontracting bonds are performance and payment bonds issued by the subcontractor to the general contractor to guarantee the subcontractor's performance and payment of obligations required under the contract.

State and federal contracts usually require surety bonds. In other cases, collateral bonds in which the contractor pledges real or personal property as collateral with value equivalent to the contract price may be used.

When a performance bond is defaulted, it is not unusual for the insurer or bonding company to hire the defaulted contractor to complete the job, because they are familiar with the project. Most bond defaults result from financial difficulties with the project at hand, rather than from the lack of technical ability on the part of the contractor. Thus, the bonding company can act as another third-party control on the business and accounting practices of the contractor.

### ***Building Permits***

Before construction can begin on a project the necessary building permits must be received from the appropriate municipality. The specifications and blueprints of the project are turned into the Building Department, along with an application for a permit. The issuance of a permit may take time, because the approval process is likely quite involved, especially in the case of new construction.

The general contractor or owner may have to submit results of soil testing, environmental impact studies, or other information. Sometimes a public hearing is mandated, if opposition to the project is known. However, in most cases, the permit is issued within a few months. The cost of the permit may be the responsibility of the general contractor. The owner may pay for it, however, along with the costs of any related studies.

Construction projects follow the standards of the Uniform Building Code. A Building inspector examines the project at various stages to verify that the project is being constructed according to this Code.

### ***Notice of Completion***

Once the building is completed, a Notice of Completion is requested. The project must pass a final inspection. Once the project passes that inspection a Notice of Completion is issued by the municipality, along with a Certification of Occupancy. These documents are recorded at the office of the local recorder. At this point the property is appraised for property tax purposes. Note: Several appraisals are made throughout the construction process that addresses timing or allocation issue

## **Chapter 2: Long Term Contracts**

### ***Background***

Before the enactment of the Tax Reform Act of 1986, construction contractors could choose an accounting method from various alternatives with few restrictions. Contractors would recognize income and expense from construction contracts under the cash method, accrual method, completed contract method, or percentage of completion method. Many contractors adopted the completed contract method for tax purposes because they could defer taxes until the completion of the contract.

Internal Revenue Code (IRC) Section 460 (effective for contracts entered into after February 28, 1986) generally requires the use of the percentage of completion method. Additionally, IRC Section 460 introduced the "Look-back Method." A discussion on the "Look-back Method" is provided in this guide.

A long-term contract method of accounting (completed contract or percentage of completion) is only available to taxpayers that have long-term contracts. Therefore, whether or not a long-term contract exists and the classification of the contract must be determined prior to electing a proper method of accounting. This chapter is designed to bring out the various factors involved in making this determination.

## ***Long Term Contract Defined***

The term "long-term" tends to indicate a contract that lasts a long period of time, but the duration of the contract is irrelevant in order for it to be classified as a long term construction contract. IRC Section 460(f) (1) generally defines a long-term contract as one that is not complete at the end of the tax year.

The long-term contract must also be for the manufacture, building, installation, or construction of property.

IRC Section 460(f)(1): In general, the term "long-term contract" means any contract for the manufacture, building, installation, or construction of property if such contract is not completed within the taxable year in which such contract is entered into.

### **Example:**

A calendar-year taxpayer begins a construction job on December 31 and completes the job on January 1 of the subsequent year. The contract is considered a long-term contract even though the job was only two days in duration.

## ***Contracts Subject to IRC Section 460***

Under IRC Section 460(b)(1), taxpayers must use the percentage of completion method to report taxable income from long-term contracts. The degree of completion is generally determined by comparing the total allocated contract costs incurred to date with the total estimated contract costs, otherwise known as the "cost-to-cost method."

Engineering estimates or other approaches to determine the degree of completion may not be used if the contractor is subject to the PCM under IRC Section 460. If a contractor is able to meet the exemptions of IRC Section 460(e), the use of the engineering estimates (or any other recognized output methods) or any appropriate method, meeting the definition of section 460, is allowed. See the chapter on Large Contractors for additional information regarding contracts subject to IRC Section 460.

## ***Contracts Exempt from IRC Section 460***

IRC Section 460(e) provides two exceptions for long-term construction contracts to the required use of the percentage of completion rules and the application of look-back:

1. Any home construction contract (defined in IRC Section 460(e) (6)(A)) entered into after June 20, 1988. Home construction contractors not meeting the small contractor exception discussed below are required, under IRC Section 460(e) (1) (B), to capitalize costs using IRC Section 263A. See the chapter on Home Builders and Land Developers for additional information regarding these home construction contracts.
2. Small construction contracts, as defined in IRC Section 460(e)(1)(B), require that at the time the contract was entered into, it was estimated that such contract would be completed within a 2-year period beginning on the commencement date of such contract; and the contractor's average annual taxable gross receipts for the 3 taxable years preceding the year in which such contract was entered into did not exceed \$10 million. See the chapter on Small Contractors for additional information regarding these types of contracts.

### **Example:**

A contractor enters into two long-term contracts during the taxable year. Neither of which are home construction contracts. The average annual taxable gross receipts for the prior 3 taxable years are \$9,000,000.

Job 1 is expected to be completed within 18 months. Job 1 is exempt from the percentage of completion and look-back requirements of IRC Section 460 and may be accounted for under the taxpayer's elected method of accounting for long-term contracts (e.g. completed contract, accrual).

Job 2 is expected to be completed within 30 months. However, Job 2 must be accounted for using the percentage of completion method and look-back may be required upon the completion of the job. Even though the average annual taxable gross receipts for the prior 3 years is less than \$10,000,000, the contract is not estimated to be completed within the 2-year period.

In this example, two methods of accounting for long-term contracts are proper. The two exceptions provided under IRC Section 460(e) do not apply to long-term manufacturing contracts.

## ***Construction and Manufacturing Contracts***

IRC Section 460 makes a distinction between the two categories of long-term contracts a construction contract and certain manufacturing contracts. A construction contract pertains to real property. A manufacturing contract pertains to personal property. This guide is written primarily for use with construction contracts as opposed to manufacturing contracts. Treas. Reg. Section 1.460-1(b) (1) further distinguishes a long-term construction contract from a long-term manufacturing contract.

### **Long-term Contract**

A long-term contract generally is any contract for the manufacture, building, installation, or construction of property if the contract is not completed within the contracting year, as defined in Regulation Section 1.460-1(b)(5). However, a contract for the manufacture of property is a long-term contract only if it also satisfies either the unique-item or 12-month requirements described in Section 1.460-2. A contract for the manufacture of personal property is a manufacturing contract. In contrast, a contract for the building, installation, or construction of real property is a construction contract. See Treasury Regulation Section 1.460-1(b) (1).

### **Construction Contract**

For purposes of this subsection, the term "construction contract" means any contract for the building, construction, reconstruction, or rehabilitation of, or the installation of any integral component to, or improvements of, real property. See IRC Section 460(e) (4).

### **Manufacturing Contract**

IRC Section 460(f) (2) provides a special rule for manufacturing contracts. A contract for the manufacture of property shall not be treated as a long-term contract unless such contract involves the manufacture of:

1. Any unique item of a type which is not normally included in the finished goods inventory of the taxpayer, or
2. Any item which normally requires more than 12 calendar months to complete (without regard to the period of the contract).

### ***Integral Components of Real Property***

A contract not completed in the year the contract is entered into is a long-term construction contract if it involves the building, construction, reconstruction, or rehabilitation of real property; the installation of an integral component to real property; or the improvement of real property. These are collectively referred to as construction. Treas. Reg. Section 1.460-3(a).

Real property means land, buildings, and inherently permanent structures, as defined in section 1.263A-8(c) (3), such as roadways, dams, and bridges. Real property does not include vessels, offshore drilling platforms, or natural products of land that have not been severed.

An integral component to real property includes property not produced at the site of the real property but is intended to be permanently affixed to the real property, such as elevators and central heating and cooling systems.

#### **Example:**

A contract to install an elevator in a building is a construction contract because a building is real property, but a contract to install an elevator in a ship is not a construction contract because a ship is not real property.

#### **Example:**

A taxpayer enters into a contract to manufacture an elevator. However, an unrelated party will install it. The contract for the manufacture of the elevator is not a construction contract even though the elevator is considered an integral component to real property. The regulations define a construction contract as one that involves the installation of the integral component.

### ***Contract Classifications***

Contracts are determined on a contract-by-contract basis and categorized into one of the following classifications:

1. Long-term construction contract;
2. Long-term manufacturing contract; or
3. Non-long-term contract.

Treasury Regulation Section 1.460-1(b)(2)(i) clarifies that a contract's classification should be based on the performance required of the taxpayer under the contract regardless of whether the contract would be classified as a sales contract or a construction contract. It's not relevant that title in the property constructed under the contract is delivered to the customer.

Treasury Regulation Section 1.460-1(b) (2) provides that (i) In general. A contract is a contract for the manufacture, building, installation, or construction of property if the manufacture, building, installation, or construction of property is necessary for the taxpayer's contractual obligations to be fulfilled and if the manufacture, building, installation, or construction of that property has not been completed when the parties enter into the contract.

If a taxpayer has to manufacture or construct an item to fulfill his obligations under the contract, the fact that the taxpayer is not required to deliver that item to the customer is not relevant. Whether the customer has title to, control over, or bears the risk of loss from, the property manufactured or constructed by the taxpayer also are not relevant. Furthermore, how the parties characterize their agreement (e.g., as a contract for the sale of property) is not relevant.

### **Example:**

A developer, whose taxable year ends December 31, owns 5,000 acres of undeveloped land. To obtain permission from the local county government to improve this land, a service road must be constructed on this land to benefit all 5,000 acres. In 2000, the developer enters into a contract to sell a 1,000-acre parcel of undeveloped land to a residential developer, for its fair market value. In this "sales" contract, the developer agrees to construct a service road running through the land that it is selling to the residential developer. The construction of the service road is estimated to be completed in 2002. The "sales" contract is a construction contract because the construction of an item (the service road) is necessary for the developer to fulfill its contractual obligations. De minimis construction activities must also be considered in classification of the contract if entered into after January 10, 2001.

## ***Hybrid Contracts***

A hybrid contract is a single long-term contract that requires a taxpayer to perform both manufacturing and construction activities. Generally, the regulations classify a hybrid contract as two contracts, a manufacturing contract and a construction contract. Treas. Reg. Section 1.460-1(f) (2) permits a taxpayer to elect, on a contract-by-contract basis, to do one of the following:

1. Treat the entire contract as a long-term construction contract if at least 95% of the estimated total allocable contract costs are reasonably allocable to construction activities; or
2. Treat the entire contract as a long-term manufacturing contract subject to the percentage of completion method of accounting. Note that there is no 95% rule as with the election to treat a hybrid contract as a construction contract.

Treasury Regulation Section 1.460-1(f)(2) provides that (i) In general, a long-term contract that requires a taxpayer to perform both manufacturing and construction activities (hybrid contract) generally must be classified as two contracts--a manufacturing contract and a construction contract.

A taxpayer may elect, on a contract-by-contract basis, to classify a hybrid contract as a long-term construction contract if at least 95% of the estimated total allocable contract costs are reasonably allocable to construction activities.

In addition, a taxpayer may elect, on a contract-by-contract basis, to classify a hybrid contract as a long-term manufacturing contract subject to the percentage of completion method (PCM).

### ***De minimis Construction Activities***

A contract with de minimis construction activities is not a construction contract under IRC Section 460 if the contract includes the provision of land by the taxpayer and the estimated total contract costs attributable to the construction activities are less than 10% of the contract's total contract price.

For purposes of the 10% test, the cost of the land provided to the customer is not included in the allocable contract costs. See Treasury Regulation Section 1.460-1(b) (2) (ii).

This 10% threshold provides a "bright-line" test. Prior to enactment of the regulation, Notice 89-15 provided that a contract was a construction contract if the construction activity required by the contract was necessary for the taxpayer to fulfill its contractual obligations.

#### **Example:**

A developer, whose taxable year ends December 31, owns 5,000 acres of undeveloped land with a cost basis of \$5,000,000. To obtain permission from a local county government to improve this land, a service road must be constructed on this land to benefit all 5,000 acres.

In 2005, the developer enters into a contract to sell a 1000-acre parcel of undeveloped land to a residential developer for \$10,000,000. In the sales contract, there is a provision that commits the taxpayer to construct the portion of the service road that benefits the acreage sold, as required by the local county government. The portion of the cost of the service road attributable to the 1000-acre parcel is estimated to be \$10,000. The service road is not completed until 2006.

Because the estimated total allocable contract costs attributable to the construction activities is \$10,000 and these costs are less than 10% of the total contract price of \$10,000,000, the contract is not considered a construction contract and is not to be accounted for under a long-term contract method. Prior to January 10, 2001, this same contract would have been accounted for under a long-term contract method.

### ***Non Long-Term Contract Activities***

Long-term contract methods of accounting apply only to the gross receipts and costs attributable to long-term contract activities. Non-long-term contract activities are defined in Treasury Regulation Section 1.460-1(d) (2).

Non-long-term contract activity means the performance of an activity other than manufacturing, building, installation, or construction, such as the provision of architectural, design, engineering, and construction management services, and the development or implementation of computer software.

In addition, performance under a guaranty, warranty, or maintenance agreement is a non-long-term contract activity that is never incidental to or necessary for the manufacture or construction of property under a long-term contract.

Several revenue rulings have held that contracts for services cannot use a long-term method of accounting:

1. An architect is not entitled to report income from contracts extending over more than one year on the completed contract method because the work is in the nature of personal service. Revenue Ruling 70-67, 1970-1 C.B. 117.
2. Engineering services and construction management, unrelated to the construction contractor, are not entitled to use either the completed contract method or percentage of completion method because the contract does not require the taxpayer to construct or build anything, even though the services are functionally related. Revenue Ruling 82-134, 1982-2 C.B. 88 and Rev. Ruling. 80-18, 1980-1 C.B. 103.
3. A painting contractor cannot use the completed contract method because he provides only painting services. Revenue Ruling 84-32, 1984-1 C.B. 129.

However, if the performance of a non-long-term contract activity is incident to or necessary for the manufacture, building, installation, or construction of the subject matter of one or more of the taxpayer's long-term contracts, the gross receipts and costs attributable to that activity must be allocated to the long-term contract. Treas. Reg. Section 1.460-1(d) requires allocation of the contract's gross receipts and costs among the activities.

Treasury Regulation Section 1.460-1(d) provides that (i) In general, long-term contract methods of accounting apply only to the gross receipts and costs attributable to long-term contract activities.

Gross receipts and costs attributable to long-term contract activities means amounts included in the total contract price or gross contract price, whichever is applicable, as determined under Section 1.460-4, and costs allocable to the contract, as determined under Section 1.460-5.

Gross receipts and costs attributable to non-long-term contract activities as defined in paragraph (d)(2) of Section 1.460-1, must generally be taken into account using a permissible method of accounting other than a long-term contract method. See IRC Section 446 (c) and Section 1.446-1(c).

However, if the performance of a non-long-term contract activity is incidental to or necessary for the manufacture, building, installation, or construction of the subject matter of one or more of the taxpayer's long-term contracts, the gross receipts and costs attributable to that activity must be allocated to the long-term contract(s) benefited as provided in Section 1.460-4(b) (4)(i) and 1.460-5(f)(2), respectively.

Similarly, if a single long-term contract requires a taxpayer to perform a non-long-term contract activity that is not incident to or necessary for the manufacture, building, installation, or construction of the subject matter of the long-term contract, the gross receipts and costs attributable to that non-long-term contract activity must be separated from the contract and accounted for using a permissible method of accounting other than a long-term contract method. But see Section 1.460-1(g) for related party rules.

### **Example:**

A general contractor is hired to design and construct a building for a customer. The design portion of the contract is considered a non-long-term contract activity. However, it is incidental to the construction of the building because it could not be built without the design so the entire contract is accounted for under a long-term contract method of accounting.

## ***Related Party Contract***

Treasury Regulation Section 1.460-1(g) extends the reporting of the percentage of completion method to related parties that may not generally be required to report their income on the percentage of completion method. A taxpayer who performs an activity that would normally be considered a non-long term contract activity (e.g., architectural services) must report income on the percentage of completion method if it is incidental to or necessary to a related party's long-term contract that must be reported using the percentage of completion method (PCM).

Treasury Regulation Section 1.460-1(g) provides that (i) In general, except as provided in Treasury Regulation Section 1.460(g)(1)(ii), if a related party and its customer enter into a long-term contract subject to the PCM, and a taxpayer performs any activity that is incidental to or necessary for the related party's long-term contract, the taxpayer must account for the gross receipts and costs attributable to this activity using the PCM, even if this activity is not otherwise subject to section 460(a).

This type of activity may include, for example, the performance of engineering and design services, and the production of components and subassemblies that are reasonably expected to be used in the production of the subject matter of the related party's contract.

Except in the case of a sale or exchange in satisfaction of a pecuniary bequest, an executor of an estate and a beneficiary of such estate, Treasury Regulation Section 1.460-1(b)(4) define a related party as a person whose relationship to a taxpayer is described in IRC Section 707(b) or Section 267(b) that includes:

1. A partnership and a person owning, directly or indirectly, more than 50 percent of the capital interest, or the profits interest, in such partnership;
2. Two partnerships in which the same persons own, directly or indirectly, more than 50 percent of the capital interests or profits interests;
3. Members of a family, including only brothers and sisters (whether by the whole or half blood), spouse, ancestors, and lineal descendants;
4. An individual and a corporation, more than 50 percent in value of the outstanding stock of which is owned, directly or indirectly, by or for such individual;
5. Two corporations which are members of the same controlled group;
6. A grantor and a fiduciary of any trust;
7. A fiduciary of a trust and a fiduciary of another trust, if the same person is a grantor of both trusts;
8. A fiduciary of a trust and a beneficiary of such trust;
9. A fiduciary of a trust and a beneficiary of another trust, if the same person is a grantor of both trusts;
10. A fiduciary of a trust and a corporation more than 50 percent in value of the outstanding stock of which is owned, directly or indirectly, by or for the trust or by or for a person who is a grantor of the trust;
11. A person and an organization to which section 501 (relating to certain educational and charitable organizations which are exempt from tax) applies and which is controlled directly or indirectly by such person or (if such person is an individual) by members of the family of such individual;
12. A corporation and a partnership if the same persons own more than 50 percent in value of the outstanding stock of the corporation, and more than 50 percent of the capital interest, or the profits interest, in the partnership;
13. An S corporation and another S corporation if the same persons own more than 50 percent in value of the outstanding stock of each corporation; or
14. An S corporation and a C corporation, if the same persons own more than 50 percent in value of the outstanding stock of each corporation.

### **Example:**

An architectural firm enters into a contract with a customer to design an office building. Since the contract is for the performance of services it is not a long-term construction contract. However, if the architect's related construction company enters into a contract with the same customer to build the "designed" building and the construction company is required to account for the long-term construction contract under the PCM, the architect must account for the design services under PCM because the services are incidental to the related construction company's contract.

## ***Severing and Aggregating Contracts***

Under IRC Section 460(f) (3), contractors are permitted and may be required to sever or aggregate contracts. Severance treats one agreement as two or more contracts. Aggregation treats two or more agreements as one contract. Whether an agreement should be severed or two or more agreements should be aggregated, depends on the following factors (with certain exceptions) as provided in Treasury Regulation Section 1.460-1(e):

1. Pricing: Independent pricing of items in an agreement is necessary for the agreement to be severed into two or more contracts.
2. Separate delivery or acceptance: An agreement may not be severed into two or more contracts unless it provides for separate delivery or separate acceptance of items that are the subject matter of the agreement. The separate delivery or separate acceptance of items by itself does not, however, necessarily require an agreement to be severed.
3. Reasonable business person: Two or more agreements to perform manufacturing or construction activities may not be aggregated into one contract unless a reasonable business person would not have entered into one of the agreements for the terms agreed upon without also entering into the other agreement(s).

Exceptions under Treasury Regulation Section 1.460-1(e) (3) provide that (i) A taxpayer may not sever under this paragraph (e) a long-term contract that would be subject to the PCM without obtaining the Commissioner's prior written consent.

In the case of options and change orders, subject to the above Treasury Regulation, a taxpayer must sever an agreement that increases the number of units to be supplied to the customer such as through the exercise of an option or the acceptance of a change order if the agreement provides for separate delivery or separate acceptance of the additional units.

### **Example 1:**

This situation illustrates the concept of severance. On January 1, 2005, a construction contractor enters into an agreement to build two office buildings in different areas of a large city. The agreement provides that the two office buildings will be completed and accepted by the customer in 2006 and 2007 respectively. The contractor will be paid \$1 million and \$1.5 million for the two office buildings respectively.

The agreement will provide a reasonable profit from the construction of each building. Unless the contractor is required to use the PCM to account for the contract, the contractor is required to sever this contract because the buildings are independently priced and the agreement provides for separate delivery and acceptance of the buildings. As each building will generate a reasonable profit, a reasonable businessperson would have entered into separate agreements for the terms agreed upon for each building.

### **Example 2:**

This situation illustrates the concept of allocation. In 2005, a contractor enters into two separate contracts as the result of a single negotiation to construct two identical special use buildings (i.e. nuclear plant).

Because the contractor has never constructed this type of building before, the contractor anticipates that it will incur substantially higher costs to construct the first building.

If the agreements are treated as separate contracts, the first contract probably will produce a substantial loss while the second contract probably will produce substantial profit.

Based upon these facts, aggregation is required because the buildings are interdependently priced and a reasonable businessperson would not have entered the first agreement without also entering into the second.

### **Example 3:**

This situation illustrates the concept of contract options. A contractor enters into a contract with a developer to construct 10 homes on land owned by the developer to be built in Year 1. The contract provides an option in which the contractor is to build an additional 10 homes. In Year 2, the option is exercised and the additional homes are built. The option would be severed from the original contract.

## ***Conclusion***

The construction industry is both unique and complex with respect to the number of available tax methods of accounting. The proper method of accounting for a long-term construction contract is determined contract-by-contract based on the type and terms of the contract, along with related party considerations.

## **Chapter 3: Small Construction Contractors**

### ***Introduction***

IRC Section 460 was enacted as part of the Tax Reform Act of 1986 and requires the use of percentage of completion method for long-term construction contracts. However, there are exceptions to the required use of the percentage of completion accounting method and to the application of “look-back” interest rules. The exceptions are home construction contracts and small construction contracts.

This chapter will provide an overview of the methods of accounting that are available to small construction contractors such as cash, accrual, completed contract, and exempt percentage of completion.

Specific accounting methods for home construction contracts and large construction contracts such as contracts that do not meet one of the two exceptions of IRC Section 460 will be discussed in other chapters.

## ***Exceptions to the Percentage of Completion Accounting Method and Look-back Interest***

IRC Section 460(e) provides two exceptions to the required use of the percentage of completion accounting method and application of the look-back interest rules applicable to certain construction contracts. These exceptions do not apply to long-term manufacturing contracts.

1. The home construction contract; and
2. The small contractor contract exception contained in IRC Section 460(e)(1)(B) requires the following conditions to be met:
  - A. At the time the contract was entered, it was estimated that the contract would be completed within a 2-year period beginning on the commencement date of the contract; and
  - B. The contractor's average annual gross receipts for the 3 taxable years preceding the year in which the contract was entered did not exceed \$10 million.

The exception for certain construction contracts is provided for under IRC Section 460(e). IRC Section 460(e) (1) provides that subsections (a), (b), and (c) (1) and (2) shall not apply to the following:

1. IRC Section 460(e)(1)(B): Any other construction contract entered into by a taxpayer;
2. IRC Section 460 (e)(1)(B)(i): Construction contracts that are estimated to be completed within the 2-year period beginning on the contract commencement date; and
3. IRC Section 460 (e)(1)(B)(ii): A taxpayer having an average annual gross receipts not exceeding \$10,000,000 for the 3 taxable years preceding the taxable year in which such contract is entered into.
4. In the case of a home construction contract with respect to which the requirements of clauses (i) and (ii) of subparagraph (B) are not met, IRC Section 263A shall apply notwithstanding subsection (c) (4).

### **Example:**

This situation illustrates the concept where the 2-year requirement is not met: The taxpayer's average annual gross receipts are less than \$10,000,000 for the prior 3 taxable years. The taxpayer enters into two different jobs that are not home construction contracts.

Job 1 is expected to last 18 months. The taxpayer would account for Job 1 under its normal method of accounting for long-term contracts (accrual, completed contract, or percentage of completion) because the 2-year requirement is met.

Job 2 is expected to last 3 years. The taxpayer must account for Job 2 using the percentage of completion method as required by IRC Section 460 because the 2-year requirement is not met.

## ***Production Period Interest***

Even though small contractors are exempt from the requirements of IRC Section 460 such as reporting using PCM and applying the look-back interest rules, the interest capitalization rules of IRC Section 460(c)(3) are applicable to all contractors. IRC Section 460(e) (1) only exempts the small contractor from subsections (a), (b), and (c) (1).

## ***\$10 Million Gross Receipts Test***

Incomes from all trades or businesses whether or not incorporated that are under the common control with the taxpayer are considered in determining the gross receipts test. This is an area that is often overlooked with small construction contractors.

Each return of a related group of tax returns may appear to qualify for the small contractor's exception. However, once the gross receipts of all related entities are aggregated, the exception is not met.

Therefore, the IRC Section 460 requirements of the use of the percentage of completion method and application of "look-back" may apply to each "small contractor".

IRC Section 460(e)(2) provides that for purposes of paragraph (1), the determination of taxpayer's gross receipts shall include::

1. IRC Section 460 (e)(2)(A): All trades or businesses (whether or not incorporated) which are under common control with the taxpayer within the meaning of section 52(b);
2. IRC Section 460(e)(2)(B): All members of any controlled group of corporations of which the taxpayer is a member; and
3. IRC Section 460 (e) (2) (C): Any predecessor of the taxpayer or a person described in subparagraph (A) or (B), for the 3 taxable years of such persons preceding the taxable year in which the contract described in paragraph (1) is entered into shall be included in the gross receipts of the taxpayer for the period described in paragraph (1) (B).
4. The Secretary shall prescribe regulations, which provide attribution rules that take into account, in addition to the persons and entities described in the preceding sentence, taxpayers who engage in construction contracts through partnerships, joint ventures, and corporations.

The gross receipts test looks to the prior 3 taxable years rather than including the tax year during which the contract was entered. This enables the contractor at the commencement of the contract to know whether or not it must be reported using the percentage of completion method, and can adjust the accounting system accordingly.

If a taxpayer has been in existence for less than the three taxable years, the taxpayer determines its average annual gross receipts for the number of taxable years (including short taxable years) that the taxpayer (or its predecessor) has been in existence.

Treasury Regulation Section 1.460-3(b) (3) directs the taxpayer to Treasury Regulation Section 1.263A-3(b) to determine what items are included for this gross receipts test. Gross receipts are the total amount, as determined under the taxpayer's method of accounting, derived from all trades or businesses. Gross receipts does not include (not all inclusive):

1. Returns or allowances;
2. Interest, dividends, rents, royalties, or annuities, not derived in the ordinary course of a trade or business; or
3. Receipts from the sale or exchange of capital assets.

### **Controlled Groups Explained**

Two or more corporations whose stock is substantially held by five or fewer persons are a "controlled group". These groups include "brother-sister" controlled groups, parent-subsidiary

groups, combined groups, and insurance companies. Members of a controlled group are subject to related party transaction rules such as income or deduction matching and loss deferrals on sales between members.

#### **Example 1:**

This situation illustrates the concept of a controlled group. The Building Corporation has four unrelated shareholders each owning 25% of the stock. The same four shareholders also own 25% each of the Bridge Corporation. The Building and Bridge corporations are related parties.

#### **Example 2:**

This situation illustrates the concept of aggregation of gross receipts for a controlled group. Mr. A is the sole shareholder of two corporations.

Corporation A operates a roof installation business. Corporation B operates a grocery store.

The gross receipts from both businesses are considered when determining the \$10,000,000 average gross receipts test per IRC Section 460(e) (1) (B) (ii).

#### **Attribution of Gross Receipts of Less than Controlling Interest**

A contractor that has less than 50% ownership but more than 5% ownership must aggregate a proportionate share of the construction-related receipts in determination of the \$10,000,000 test.

Treasury Regulation Section 1.460-3(b) (3) provides that except as otherwise provided in paragraphs (b) (3) (ii) and (iii) of this section, the \$10,000,000 gross receipts test is satisfied if a taxpayer's or predecessor's average annual gross receipts for the 3 taxable years preceding the contracting year do not exceed \$10,000,000, as determined using the principles of the gross receipts test for small resellers under Treasury Regulation Section 1.263A-3(b).

To apply the gross receipts test, a taxpayer is not required to aggregate the gross receipts of persons treated as a single employer solely under IRC Section 414(m) and any related regulations.

A taxpayer must aggregate a proportionate share of the construction-related gross receipts of any person that has a five percent or greater interest in the taxpayer. In addition, a taxpayer must aggregate a proportionate share of the construction-related gross receipts of any person in which the taxpayer has a five percent or greater interest.

For this purpose, a taxpayer must determine ownership interests as of the first day of the taxpayer's contracting year and must include indirect interests in any corporation, partnership, estate, trust, or sole proprietorship according to principles similar to the constructive ownership rules under IRC Sections 1563(e), (f)(2), and (f)(3)(A).

However, a taxpayer is not required to aggregate under paragraph (b) (3) (iii) any construction-related gross receipts required to be aggregated under paragraph (b) (3) (i) of this section.

#### **Example:**

This situation illustrates the concept of the \$10,000,000 test for attribution of gross receipts. Bob owns 100% of the Building Corporation. The Building Corporation has average annual gross

receipts of \$8,000,000. Bob also owns 10% of the Construction Corporation. The Construction Corporation has average annual gross receipts of \$25,000,000. The aggregate gross receipts for IRC Section 460 purposes of the Building Corporation are \$10,500,000 (\$8,000,000 + \$2,500,000 (25,000,000 x 10%)). Therefore, the Building Corporation would be required to account for its long-term construction contracts under the percentage of completion method.

## ***Proper Method of Accounting for Small Contractors***

It is important to note that within the construction industry, a contractor will normally have a minimum of at least two methods of accounting. It will have an overall method of accounting such as cash, accrual, or hybrid and one or more methods for its long-term contracts such as completed contract, percentage of completion, and percentage of completion capitalized cost method. The small contractor's exception is determined on a contract-by-contract basis.

### **Example:**

This situation illustrates the concept of where several methods of accounting are used by one contractor. A small contractor uses the accrual method of accounting as its overall method to account for short-term contracts and the income and expenses not related to long-term contracts. In addition, the contractor uses the completed contract method for its exempt contracts and must use the percentage of completion method for the contracts that are estimated to exceed 2 years.

IRC Section 460(e)(1), Revenue Ruling 92-28, and Internal Revenue Bulletin (IRB) 1992-15,41 (April 13, 1992) permits a taxpayer to use different methods of accounting for exempt and nonexempt contracts within the same trade or business.

## ***General Rule for Accounting Methods***

IRC Section 446 provides for general rules for the methods of accounting that are available to the taxpayer. The general rule under IRC Section 446(a) provides that taxable income shall be computed under the method of accounting on the basis of which the taxpayer regularly computes his income in keeping his books.

Exceptions under IRC Section 446 (b) provide that if the taxpayer has regularly used no method of accounting or if the method used does not clearly reflect income, the computation of taxable income shall be made under such method, in the opinion of the Secretary that does clearly reflect income.

In addition, permissible methods under IRC Section 446(c) provide that subject to the provisions of subsections (a) and (b), a taxpayer may compute taxable income under any of the following methods of accounting:

1. IRC Section 446 (c) (1): The cash receipts and disbursements method;
2. IRC Section 446 (c) (2): An accrual method;
3. IRC Section 446 (c) (3): Any other method permitted by this chapter; or
4. IRC Section 446 (c) (4): Any combination of the foregoing methods permitted under regulations prescribed by the Secretary.

IRC Section 446 allows the cash method of accounting and the accrual method of accounting. The other methods that IRC Section 446(c) (3) references for construction contracts are namely the completed contract method and the percentage of completion method.

## ***Methods of Accounting***

Because long-term methods of accounting are determined on a contract-by-contract basis, a taxpayer potentially could be reporting long-term contracts under several methods of accounting. The choice of a proper method of accounting for long-term contracts is complex. The methods available to a contractor to account for the income and expenses of a long-term contract are as follows:

1. Cash
2. Accrual
3. Hybrid
4. Accrual with Deferred Retainages
5. Completed Contract Method (CCM)
6. Exempt-Contract Percentage of Completion Method (EPCM)
7. Percentage of Completion Method (PCM) or Cost-to-Cost as required by IRC Section 460
8. Percentage of Completion Simplified Cost Method
9. Percentage of Completion 10% Method
10. Percentage of Completion Capitalized Cost Method (PCCM)

The percentage of completion or cost-to-cost as required by IRC Section 460, the percentage of completion simplified cost, the percentage of completion 10%, and the percentage of completion capitalized cost methods of accounting are discussed in the chapter on large construction contractors.

## ***Selecting an Accounting Method***

If a contractor is exempt from the percentage-of-completion method under IRC Section 460, the contractor may adopt a method of accounting for its long-term contracts on the initial income tax return, or in the first tax year there are long-term contracts.

Once a method of accounting is adopted, this method must be used for all long-term contracts in the same trade or business. A change is not generally permitted without obtaining prior permission from the Commissioner.

## ***Cash Method of Accounting***

Generally, the cash method of accounting is an acceptable method for small contractors. However, there are limitations on the use of the cash method.

IRC Section 448 prohibits the use of the cash method by "C" corporations and partnerships with a "C" corporation partner unless such entities have annual gross receipts not exceeding \$5 million. IRC Section 448 also prohibits use of the cash method by all tax shelters. IRC Section 448 does not allow the use of the cash method but it limits the use of the cash method for certain entities.

### **Example:**

An S Corporation that files a Form 1102-S is not subject to the \$5 million gross receipts limitation of IRC Section 448. An S corporation that has gross receipts of \$5 million may use the cash method of accounting as long as there are no other sections prohibiting it such as a taxpayer who is required to use accrual method to account for inventory or IRC Section 460 that requires the use of PCM for long-term contracts.

## **Cash vs. Accrual Issue**

In prior years, the IRS won many cases supporting the change from cash to accrual when merchandise was considered an income-producing factor. Treasury Regulation Section 1.446-1(c)(2)(i) requires the use an accrual method of accounting if the taxpayer is required to account for inventories per IRC Section 471. Treasury Regulation Section 1.471-1 requires an accounting of inventory in every case in which the production, purchase, or sale of merchandise is an income-producing factor.

After much litigation in this area, a safe harbor provided by Revenue Procedure 2001-10 and Revenue Procedure 2002-28 allows the use of the cash method accounting to taxpayers who would otherwise have been required to use the accrual method of accounting.

### **Exception to the Accrual Method under Revenue Procedure 2001-10**

Revenue Procedure 2001-10 was issued on January 8, 2001 and permits eligible small businesses with average gross receipts equal to or less than \$1 million to use the cash method when IRC Section 471 would otherwise require an accrual method because of inventory.

The Commissioner provided administrative relief from the requirements of IRC Section 471 and Treasury Regulation Section 1.446-1(c) (2) (i) to certain small taxpayers. This revenue procedure allows qualifying taxpayers (including those that provide goods and services to their customers) with average annual gross receipts of \$1 million or less to use the cash method.

However, contractors that qualify under this revenue procedure must treat certain property as non-incidental materials and supplies as defined under Treasury Regulation Section 1.162-3. The taxpayer cannot deduct these expenses until the year in which payment for them was made or the year in which the materials and supplies are actually used or consumed in the taxpayer's business.

Even though the cash method is an acceptable method, the contractor is still required to account for inventories. This is discussed later in this chapter regarding non-incidental materials and supplies.

### **Qualifying Taxpayer under Revenue Procedure 2002-28**

The average annual gross receipts for the 3 prior years must be \$10,000,000 or less and the taxpayer's principal business activity must be a North American Industry Classification System (NAICS) code other than one of the ineligible NAICS codes listed in Revenue Procedure 2002-28:

1. Mining: NAICS 211 and 212
2. Manufacturing: NAICS 31 through 33
3. Wholesale Trade: NAICS 42
4. Retail Trade: NAICS 44 and 45
5. Information Industries: NAICS 5111 and 5122

Revenue Procedure 2002-28 does not override IRC Section 448 that prohibits C corporations or partnerships with a C corporate partner with average annual gross receipts greater than \$5 million from using the cash method of accounting.

Revenue Procedure also does not override IRC Section 460 requiring long-term construction contracts such as contracts expected to require more than 2 years that are not home construction contracts to be accounted for by using the percentage of completion method.

An additional qualifying factor is that the taxpayer cannot have previously changed from the cash method to the accrual method after becoming ineligible under Revenue Procedure 2002-28.

### **Qualifying Small Business Taxpayer under Revenue Procedure 2002-28**

Revenue Procedure 2002-28 was issued on May 6, 2002. It allows a “qualifying” small business taxpayer with average annual gross receipts of \$10 million or less to use the cash receipts and disbursements method of accounting with respect to an eligible trade or business.

### **Qualifying Small Business Taxpayer under Revenue Procedure 2002-28 Section 4.01 (1)**

A qualifying small business taxpayer may use the cash method as described in this revenue procedure for all of its trades or businesses if the taxpayer satisfies any one of the following three tests and did not previously change (and was not previously required to have changed) from the cash method to an accrual method for any trade or business as a result of becoming ineligible to use the cash method under this revenue procedure.

### **Gross Receipts Tests under Revenue Procedure 2001-10 and Revenue Procedure 2002-28**

As with IRC Section 460, the gross receipts test uses the average annual taxable gross receipts for the prior three taxable years. However, the definition of gross receipts under Revenue Procedure 2001-10 and Revenue Procedure 2002-28 is different from IRC Section 460.

Gross receipts under Revenue Procedure 2001-10 and Revenue Procedure 2002-28 include total sales (net of returns and allowances) and, all amounts received from services, interest, dividends, and rents. Whereas, gross receipts under IRC Section 460 do not include returns and allowances, interest, dividends and rents.

### **Inventory under Revenue Procedure 2002-28**

A taxpayer who is required to account for inventories under IRC Section 471 has three options:

1. A taxpayer can use overall cash method and account for inventories under IRC Section 471;
2. Can use overall cash method and account for inventory the same as materials and supplies that are not incidental under Treasury Regulation Section 1.162-3; or
3. A taxpayer can use an overall accrual method and account for inventory as materials and supplies that are not incidental under Treasury Regulation Section 1.162-3 and thus not deductible until used or consumed in business.

If the taxpayer chooses to treat materials under Treasury Regulation Section 1.162-3, they are not subject to IRC Section 263A.

### **Non-Incidental Material and Supplies under Revenue Procedure 2002-28**

An inventory item is any item that is either purchased for resale to customers or used as a raw material in producing finished goods. Inventory items that are treated as non-incidental material and supplies under Revenue Procedure 2002-28 are deductible in either the tax year that payment for them is made or in the tax year that they are actually used and consumed, whichever is later. Guidance on the timing of deductions for Inventory items treated as non-incidental materials and supplies is provided for under Treasury Regulation Section 1.162-3.

**Example:**

Revenue Procedure 2002-28; Section 6; Example 15: Taxpayer is a roofing contractor that is eligible to use the cash method under this revenue procedure. Taxpayer chooses to use the cash method and to account for inventory items as non-incidental materials and supplies under Treasury Regulation Section 1.162-3.

Taxpayer enters into a contract with a homeowner in December 2001 to replace the homeowner's roof. Taxpayer purchases roofing shingles from a local supplier and has them delivered to the homeowner's residence. Taxpayer pays the supplier \$5,000 for the shingles upon their delivery later that month. Taxpayer replaces the homeowner's roof in December 2001, and gives the homeowner a bill for \$15,000 at that time. Taxpayer receives a check from the homeowner in January 2002.

The shingles are non-incidental materials and supplies. The cost of the shingles is deductible in the year taxpayer uses and consumes the shingles or actually pays for the shingles whichever is later.

In this case, a taxpayer both pays for the shingles and uses the shingles (by providing the shingles to the customer in connection with the performance of roofing services) in 2001. Thus, the taxpayer deducts the \$5,000 cost of the shingles on its 2001 federal income tax return. The taxpayer includes the \$15,000 in income in 2002 when it receives the check from the homeowner.

**Example:**

Revenue Procedure 2002-28; Section 6; Example 16: Same as in Example 15, except that the taxpayer does not replace the roof until January 2002 and is not paid until March 2002. Because the shingles are not used until 2002, the cost of the shingles can only be deducted on the taxpayer's 2002 federal income tax return notwithstanding that the taxpayer paid for the shingles in 2001. Thus, on its 2002 return, the taxpayer must report \$15,000 of income and \$5,000 of deductions.

**Contractors Building Property to Sell on Land They Own and Revenue Procedure 2002-28**

A contractor who meets the requirements of Revenue Procedure 2001-10 or Revenue Procedure 2002-28 is permitted to use the cash method of accounting. However, these revenue procedures do not apply to a contractor to the extent it enhances the value of land it owns by building structures it intends to sell. Such contractors are not permitted to immediately deduct the costs of this construction. These costs must be capitalized and will eventually be offset against the sales price of the land and its improvements that becomes real property as they are completed.

IRC Section 263(a) (1) and Treasury Regulation Section 1.263(a)-1 prohibits deductions for any amount that a taxpayer pays for new buildings or for permanent improvements or betterments that increase the property's value. Treasury Regulation Section 1.263(a)-2 sets forth examples of capital expenditures, including the cost of acquisition, construction, or erection of buildings.

Consequently, the taxpayer-contractor must capitalize expenses in connection with real property construction on its own land, including construction of property that it intends to sell.

The purpose of Revenue Procedure 2001-10 and Revenue Procedure 2002-28 is to provide qualifying small taxpayers an exception to the required accrual method under IRC Section 446 when the taxpayer is otherwise required to account for inventory under IRC Section 471. However, a taxpayer-contractor building on his own land for the purpose of selling the property constructed is producing or constructing a real property asset that it cannot inventory. See *W.C. and A.N. Miller Development Company v. Commissioner* 81 T.C. 619 (1983); *Pierce v. Commissioner*, T.C. Memo. 1997-411 (1997); and Revenue Ruling 86-149, 1986-2 C.B. 67.

Revenue Procedure 2002-28, section 4.02, and Revenue Procedure 2001-10, section 4, provide inventory options that do not apply to expenses related to construction of taxpayer-owned real property. If the taxpayer has expenses related to inventory items that are not required to be capitalized and are not related to construction of taxpayer-owned real property, it can choose from the applicable revenue procedure's inventory options.

The taxpayer can still use the overall cash method of accounting so long as it meets the definitions of a qualifying small taxpayer. Under the cash method of accounting, the taxpayer can deduct business expenses that are not required to be capitalized, when it pays them, sells the expense items, or uses the items for the customer regardless of when they are accrued. Similarly, the taxpayer would recognize income upon receipt subject to applicable special rules such as IRC Section 1001 regardless of when it is accrued.

**Example:**

Revenue Procedure 2002-28; Section 6; Example 17 illustrates when a taxpayer-contractor must capitalize building costs that occur on its own land and are attributable to property that it holds for sale, rather than deducting or inventorying them. The taxpayer is eligible to use the cash method as described in this revenue procedure. The taxpayer is a speculative builder of houses that are built on land it owns. In 2001, the taxpayer builds a house using various items such as lumber, piping, and metal fixtures that it had paid for in 2000. In 2002, the taxpayer sells the house to a buyer. Because the house is real property held for sale by the taxpayer, the house and the material used to build the house are not inventory items under this revenue procedure. Thus, the taxpayer may not account for the items used to build the house as non-incidentals materials and supplies under Section 1.162-3. Rather, the taxpayer must capitalize the costs of the lumber, piping, metal fixtures and other goods used by the taxpayer to build the house under IRC Section 263. Upon the sale of the house in 2002, the costs capitalized by the taxpayer will be offset against the house sales price to determine the taxpayer's gain or loss from the sale.

**Example:**

Guidance on the timing of deductions for inventory items treated as non-incidentals materials and supplies is provided under Revenue Procedure 2002-28; Section 6; Example 18 emphasizes the importance of determining the ownership of the property that the taxpayer builds.

Same as in Example 17, except that (1) the taxpayer builds houses on land its customers own, and (2) the houses are built in three months with payment due at completion. Because the taxpayer does not own the house, the lumber, piping, metal fixtures and other goods used by the taxpayer in the provision of construction services are inventory items, not real property held for sale. The taxpayer elects to treat the goods used to build the house as non-incidentals materials and supplies under Section 1.162-3. The taxpayer must deduct the cost of the lumber, piping, metal fixtures and other non-incidentals materials and supplies that are used by it to build the

house in 2001 the year those items were used by the taxpayer to build the house notwithstanding that Taxpayer had paid for the items in 2000. Taxpayer will report income it receives from its customer as the income is actually or constructively received.

## Summary of Accounting Methods for Construction Contractors

Average annual gross receipts are equal to or less than \$1 million:

Revenue Procedure 2001-10 and Revenue Procedure 2002-28 allows the use of the Cash Method but the taxpayer must account for inventories pursuant to IRC Section 471 or as non-incidental materials and supplies under Treasury Regulation 1.162-3.

All entities except C corporations and partnerships with C corporation partners and gross receipts greater than \$1 million and less than or equal to \$10 million:

Revenue Procedure 2002-28 allows Cash Method but must account for inventories per IRC Section 471 or as non-incidental materials and supplies under Treasury Regulation 1.162-3.

C corporations and partnerships with C corporation partners and gross receipts less than \$5 million:

IRC Section 448 prohibits use of Cash Method.

Entities with gross receipts of less than or equal to \$10 million but with a non home construction contract that is expected to last less than 2 years:

IRC Section 460 requires the use of PCM for long-term contracts that are not exempt per IRC Section 460(e).

All Entities with long-term contracts and gross receipts of less than or equal to \$10 million:

IRC Section 460 requires use of PCM for long-term contracts with the exception of home construction contracts.

**Note:** Revenue Procedure 2002-28 can apply to taxpayers with average annual gross receipts of \$10 million or less but excludes certain types of businesses. Whereas, Revenue Procedure 2001-10 can only apply to taxpayers with average annual gross receipts of \$1 million dollars or less but includes many types of businesses that Revenue Procedure 2002-28 excludes.

## Cash Method of Accounting

Treasury Regulation, Section 1.446-1(c)(1)(i) requires the taxpayer to report income when received and to deduct expenses when paid. Income may be actually or constructively received. Constructive receipt occurs when the taxpayer has unrestricted access to income that has been earned.

As a general rule, Treasury Regulation 1.461-1(a)(1) provides that a cash basis taxpayer shall deduct expenses in the year of payment. It further provides that where an expenditure results in the creation of an asset having a useful life extending "substantially" beyond the close of the taxable year such an expenditure may not be deductible or may be deductible only in part for the taxable year in which made.

In *Zaninovich*, 616 F.2d 429, the appellate court adopted the “one-year rule” on a cash basis taxpayer distinguishing between currently deductible expenses and capital expenditures having a useful life extending “substantially beyond” the taxable year. The court allowed a full deduction for prepaid rent in the year of payment and did not require it to be deducted on a prorated basis.

### **Example:**

This situation illustrates the concept of constructive receipt. A general contractor contacted a subcontractor and offered payment for a job recently completed in December of Year 1. The subcontractor did not pick up the check until January of Year 2. The subcontractor would be required to report the income in Year 1 because it had been constructively received.

## ***Accrual Method of Accounting***

For book purposes, the contractor generally includes revenue in gross income when it is billable under the contract. However, for tax purposes the general principle is that income is included upon the first event fixing the taxpayer's right to receive income under IRC Section 451 and must be determined under the terms of each particular contract. The relevant test is commonly called the “all-events test”. All events that fix the right to receive income occur at the earliest of the following:

1. When the required performance occurs;
2. When payment is due; or
3. When payment is made.

See Revenue Ruling 2003-10; Revenue Ruling 84-31; Revenue Ruling 83-106; Revenue Ruling 81-176; Revenue Ruling 80-308; Revenue Ruling 79-292; and Revenue Ruling 79-195.

In *Boise-Cascade Corporation*, 530 F.2d 1367, cert denied, 429 US 867, the Court of Claims permitted the accrual of income based on the work performed and not upon billing entitlement.

### **Advance Payments**

Advance payments or front-loading billings are common in the construction industry. The taxpayer may require payment of 30 percent “up front” before the contract begins to cover the cost of the materials needed at the job site. Under the accrual method the 30 percent is income when it is received under the contract even though no performance of the job has been incurred. Thus, this principle requires an accrual basis taxpayer to include advance payments received from construction contracts in gross income in the taxable year in which they are actually or constructively received rather than when earned at a later time under accrual accounting principles. See Treasury Regulation Sections 1.451-1(a) and 1.451-2(a).

Advance payments have traditionally been considered gross income in the year of receipt. Revenue Ruling 60-85, 1960-1 D.B. 181 states that Service will continue its general policy of taxing prepaid income in the year of receipt. This policy applies to income from contracts to furnish services and to other types of prepaid income regardless of whether the period for prorating is definite or indefinite unless a different treatment is specifically provided in the Internal Revenue Code or the regulations.

### **Exception to Reporting Advance Payments in Year of Receipt**

It should be noted that the Service recognizes a limited exception that allows an accrual basis taxpayer to defer including all or part of advance payments in gross income until the year after the year the payment is received. See Revenue Procedure 2004-34, 2004 C.B. 991 which modified and superseded Revenue Procedure 71-21 generally for taxable years ending on or after May 6, 2004.

Revenue Procedure 2004-34 does not restrict a taxpayer's ability to use the methods provided in Treasury Regulation Section 1.451-5. Treasury Regulation Section 1.451-5 generally allows accrual method taxpayers to defer the advance payments for goods until the taxable year in which they are properly accruable under the taxpayers method of accounting for federal income tax purposes if that method results in the advance payments being included in gross income no later than when the advance payments are recognized in revenues under the taxpayers method of accounting for financial reporting purposes.

Revenue Procedure 2004-34 like its predecessor Revenue Procedure 71-21 allows a one-year deferral for advance payments of services. However, Revenue Procedure 2004-34 expanded the scope of Revenue Procedure 71-21 to include advance payment for certain non-services and combinations of services and non-services. Additionally, Revenue Procedure 2004-34 expanded the scope of Revenue Procedure 71-21 to include advance payments received in connection with an agreement or series of agreements with a term or terms extending beyond the end of the next succeeding taxable year.

For the advance payment to be deferred until the next tax year for federal income tax purposes, the advance payment must also be deferred until a subsequent year for financial purposes. See Section 4.01(2) of Revenue Procedure 2004-34.

### **Deducting Expenses under the Accrual Method of Accounting**

Under the accrual method of accounting, expenses are deductible when all events have occurred that establish the fact of the liability, the amount can be determined with reasonable accuracy, and economic performance has occurred.

Treasury Regulation Section 1.446-1(c)(1)(ii)(A): Generally, under an accrual method, income is to be included for the taxable year when all the events have occurred that fix the right to receive the income and the amount of the income can be determined with reasonable accuracy. Under such a method, a liability is incurred, and generally is taken into account for Federal income tax purposes, in the taxable year in which all the events have occurred that establish the fact of the liability, the amount of the liability can be determined with reasonable accuracy, and economic performance has occurred with respect to the liability.

Treasury Regulation Section 1.461-4(d) (2) provides that except as otherwise provided in Treasury Regulation Section 1.461-4(d) (5), economic performance occurs when the liability of a taxpayer arises out of the providing of services or property to the taxpayer by another person.

### **Accrual Method and Retainages**

Retainages withheld from a contractor are included in income when the right to receive the income becomes fixed and determinable. Generally, retainages are withheld from a contractor to ensure that the contractor satisfactorily completes their contractual obligations. If the contractual terms state the contractor will be paid the retainages withheld upon final completion and acceptance, the contractor does not have a fixed right to the retainages until that event occurs.

Revenue Ruling 69-314 allows an accrual-basis taxpayer to elect to defer the retainages withheld until they are billable under the terms of the contract, which is normally when the contractor has the right to receive the retention. If the contractor defers retainages receivable they must also defer retainages payable.

“Pay when paid” and “pay if paid” clauses generally do not defer recognition of retainages receivable to the time of receipt. They only provide a reasonable timeframe for when the contractor/subcontractor can expect payment. Many states have declared these clauses to be against public policy; thus the contractor has legal recourse to request payment of the retainages when they’ve performed the work as contractually required.

If the taxpayer is not currently deferring the retainages and wants to elect this provision under Revenue Ruling 69-314, it is a change in method of accounting that requires the Commissioner’s permission.

In turn, retainage the contractor withholds on subcontractors is not deductible until the “all-events” test is met. Therefore, even though economic performance has occurred (i.e. the subcontractor has completed a portion of the work) the all events test with respect to the retainage may not be established if the contract requires full acceptance and completion.

**Example:**

This situation illustrates the concept of retainages payable. A contractor hires a subcontractor and the contract requires a \$1,500,000 total payment and a 10% retainage. The retainage is not payable until full acceptance and completion of the job. The subcontractor completes one-third of the job and bills the contractor for \$500,000.

The contractor withholds 10% and pays the subcontractor \$ 450,000. The contractor can only deduct \$450,000 because all events that establish the fact of the liability in regards to the \$500,000 have not occurred. If the subcontractor fails to complete the job or completes the job unsatisfactorily the \$50,000 does not have to be paid pursuant to the terms of the contract.

### ***Completed Contract Method (CCM)***

Taxpayers may elect the CCM to account for their exempt contracts. The general rule is that all contract income and contract related expenses (both direct and indirect) are deferred until the taxable year that the contract is completed. Because of this tax deferral, this is the method preferred by most taxpayers.

Treasury Regulation Section 1.460-4(d): provides that except as otherwise provided in paragraph (d)(4) of this section, a taxpayer using the CCM to account for a long-term contract must take into account in the contract’s completion year, as defined in Section 1.460-1(b)(6), the gross contract price, and all allocable contract costs incurred by the completion year. A taxpayer may not treat the cost of any materials and supplies that are allocated to a contract, but actually remain on hand when the contract is completed, as an allocable contract cost.

### ***Completion of a Long-Term Contract***

Prior to the issuance of the final regulations, facts and circumstances determined whether there was final completion and acceptance. See *Ball, Ball and Brosamer, Incorporated v. Commissioner* 964 F.2d 890 (9th Cir. 1992) (aff’g T.C. Memo. 1990-454). For contracts entered into after January 10, 2001, the new regulations further define completion by providing a "bright-

line" test that explicitly differs from Ball, Ball, and Brosamer Incorporated. A contract is deemed complete when the customer uses the primary subject matter of that contract and the taxpayer has incurred at least 95% of the total allocable costs.

Treasury Regulation Section 1.460-1(c)(3) provides (i) In general, a taxpayer's contract is completed upon the earlier of (A) use of the subject matter of the contract by the customer for its intended purpose (other than for testing) and at least 95% of the total allocable contract costs attributable to the subject matter have been incurred by the taxpayer, or (B) final completion and acceptance of the subject matter of the contract.

#### **Example 1:**

This situation illustrates the concept of completion using the customer-use rule. In 2002, a calendar year-end construction contractor enters into a contract to construct a building for a customer. In November 2003, the building is completed in every respect necessary for its intended use and the customer occupies the building.

In early December of 2003, the customer notifies the contractor of some minor deficiencies that need to be corrected and the contractor agrees to correct them in January 2004. Reasonable estimates of the costs to correct these deficiencies will be less than 5% of the total allocable contract costs.

The contract is complete in 2003 because in that year the customer used the building and at least 95% of the total allocable contract costs attributable to the building had been incurred. The contractor would then use a permissible method of accounting for any deficiency-related costs incurred after 2003.

#### **Example 2:**

This situation illustrates the concept of completion using the customer-use rule. In 2001, a calendar year-end construction contractor agrees to construct a shopping center that includes an adjoining parking lot. By October 2002, the contractor has finished constructing the retail portion of the shopping center. By December 2002, the contractor has graded the entire parking lot but has paved only one-fourth of it because inclement weather conditions prevented the contractor from laying asphalt on the remaining three-fourths. In December 2002, the customer opens the retail portion of the shopping center and the paved portion of the parking lot to the general public.

The contractor reasonably estimates that the cost of paving the remaining three-fourths of the parking lot when weather permits will exceed 5% of the total allocable contract costs. Even though the customer is using the subject matter of the contract, the contract is not completed in December 2002 because the contractor has not incurred at least 95% of the total allocable contract costs attributable to the subject matter.

### **Post Completion Expenses**

When the contract is considered complete under the 95% completion rule under Treasury Regulation Section 1.460-1(c)(3), the remaining contract costs incurred after the completion year are deductible under the taxpayer's permissible method of accounting such as the accrual method.

The completed contract method (CCM) requires that the taxpayer include all income in the gross contract price in the completion year and account for all costs incurred after the completion year in the normal manner for such expenses.

Treasury Regulation Section 1.460-4(d) (2) provides that if a taxpayer incurs an allocable contract cost after the completion year, the taxpayer must account for that cost using a permissible method of accounting.

**Example:**

This situation illustrates the concept of post completion expenses on CCM. As of Dec 31, 2001, a contract entered into after January 10, 2001 was determined to be 97% complete. The total contract price is reported as income in 2001 as well as the related contract costs that have been incurred to date. The remaining contract costs (approximately 3% of total contract costs) incurred during 2002 is deductible in 2002.

**Allocation of Indirect Costs**

All contract costs are deferred until the contract is deemed complete. The non-allocation of indirect costs that must be allocated can result in a substantial mismatching of income and expenses. The non-allocated costs are deducted as period expenses rather than being capitalized to the long-term contract that they benefit. Taxpayers electing the CCM have the option of allocating all direct and indirect costs as defined in Section 1.263A-1(e) or as provided in Treasury Regulation Section 1.460-5(d).

Treasury Regulation Section 1.460-5(d) lists the various indirect costs that are allocable to the contract. A taxpayer allocating costs under this paragraph (d)(2) must allocate the following costs to an exempt construction contract, other than a contract described in paragraph (d)(3) of this section, to the extent incurred in the performance of that contract:

Treasury Regulation Section 1.460-5(d) (2) provides that indirect costs allocable to exempt construction contracts.

1. Repair of equipment or facilities;
2. Maintenance of equipment or facilities;
3. Utilities, such as heat, light, and power, allocable to equipment or facilities;
4. Rent of equipment or facilities;
5. Indirect labor and contract supervisory wages, including basic compensation, overtime pay, vacation and holiday pay, sick leave pay (other than payments pursuant to a wage continuation plan under section 105(d) as it existed prior to its repeal in 1983), shift differential, payroll taxes, and contributions to a supplemental unemployment benefits plan;
6. Indirect materials and supplies;
7. Non-capitalized tools and equipment;
8. Quality control and inspection;
9. Taxes otherwise allowable as a deduction under section 164, other than state, local, and foreign income taxes, to the extent attributable to labor, materials, supplies, equipment, or facilities;
10. Depreciation, amortization, and cost-recovery allowances reported for the taxable year for financial purposes on equipment and facilities to the extent allowable as deductions under chapter 1 of the Internal Revenue Code;
11. Cost depletion;
12. Administrative costs other than the cost of selling or any return on capital;
13. Compensation paid to officers other than for incidental or occasional services;
14. Insurance, such as liability insurance on machinery and equipment; and
15. Interest, as required under paragraph (b) (2) (v) of this section.

Treasury Regulation Section 1.460-5(d) (2) also provides that (ii) Indirect costs not allocable to exempt construction contracts. A taxpayer allocating costs under this paragraph (d) (2) is not required to allocate the following costs to an exempt construction contract reported using the CCM:

1. Marketing and selling expenses, including bidding expenses;
2. Advertising expenses;
3. Other distribution expenses;
4. General and administrative expenses attributable to the performance of services that benefit the taxpayer's activities as a whole such as payroll expenses, legal and accounting expenses;
5. Research and experimental expenses as described in IRC Section 174 and the regulations;
6. Losses under IRC Section 165 and the regulations;
7. Percentage of depletion in excess of cost depletion;
8. Depreciation, amortization, and cost recovery allowances on equipment and facilities that have been placed in service but are temporarily idle (for this purpose, an asset is not considered to be temporarily idle on nonworking days, and an asset used in construction is considered to be idle when it is neither en route to nor located at a job-site), and depreciation, amortization and cost recovery allowances under chapter 1 of the Internal Revenue Code in excess of depreciation, amortization, and cost recovery allowances reported by the taxpayer in the taxpayer's financial reports;
9. Income taxes attributable to income received from long-term contracts;
10. Contributions paid to or under a stock bonus, pension, profit-sharing, or annuity plan or other plan deferring the receipt of compensation whether or not the plan qualifies under section 401(a), and other employee benefit expenses paid or accrued on behalf of labor, to the extent the contributions or expenses are otherwise allowable as deductions under chapter 1 of the Internal Revenue Code. Other employee benefit expenses include (but are not limited to): worker's compensation; amounts deductible or for whose payment reduction in earnings and profits is allowed under section 404A and the regulations there under; payments pursuant to a wage continuation plan under section 105(d) as it existed prior to its repeal in 1983; amounts includible in the gross income of employees under a method or arrangement of employer contributions or compensation which has the effect of a stock bonus, pension, profit-sharing, or annuity plan, or other plan deferring the receipt of compensation or providing deferred benefits; premiums on life and health insurance; and miscellaneous benefits provided for employees such as safety, medical treatment, recreational and eating facilities, and membership dues;
11. Cost attributable to strikes, rework labor, scrap and spoilage; and
12. Compensation paid to officers attributable to the performance of services that benefit the taxpayer's activities as a whole.

### **Issues to Consider For Completed Contract Method Taxpayers**

1. Determining an in-process contract to be complete if over 95% complete;
2. Allocation of Indirect Costs when all costs are not allocated to the contract; and
3. Alternative Minimum Tax on non-home construction contracts or subject to alternative minimum tax discussed later in this chapter.

### ***Subcontracts and Completion***

Treasury Regulation Section 1.460-1(c) (3) (iii) clarifies that a subcontractor's customer is the general contractor. Thus, the subject matter of the subcontract is the relevant subject matter in determining a contract's completion.

Treasury Regulation Section 1.460-1(c) (3) (iii) provides that in the case of a subcontract, a subcontractor's customer is the general contractor. Thus, the subject matter of the subcontract is the relevant subject matter under paragraph (c) (3) (i) of this section.

**Example:**

In 2001, a customer hires a general contractor to construct an office building. The building will not be completed until 2003. The general contractor in turn hires a subcontractor to pour the concrete foundation. The subcontractor pours the concrete foundation and the general contractor accepts it in 2002. The subcontractor's contract is considered complete in 2002 and not in 2003 because the customer's use of and/or acceptance of the building occurred in 2002.

***Exempt-contract percentage-of-completion method (EPCM)***

A taxpayer who is exempt from the requirement to use the percentage of completion under IRC Section 460 (using the cost-to-cost method) still may elect a PCM. The percentage of completion may be determined by using any method of cost comparisons such as the following:

1. Direct labor costs to estimate total labor costs;
2. Work performed (e.g., units of production) the criteria used to compare the work performed on a contract must clearly reflect the earning of income with respect to the contract; or
3. Treasury Regulation Section 1.460-4(c) (2) Exempt-contract percentage-of-completion method.

Treasury Regulation Section 1.460-4(c) (2) provides that (i) In general. Similar to the PCM described in paragraph (b) of this section, a taxpayer using the EPCM generally must include in income the portion of the total contract price, as described in paragraph (b)(4) of this section, that corresponds to the percentage of the entire contract that the taxpayer has completed during the taxable year. Under the EPCM, the percentage of completion may be determined at the end of the taxable year by using any method of cost comparison (such as comparing direct labor costs incurred to date to estimated total direct labor costs) or by comparing the work performed on the contract with the estimated total work to be performed, rather than by using the cost-to-cost comparison required by paragraphs (b)(2)(i) and (5) of this section, provided such method is used consistently and clearly reflects income. In addition, paragraph (b) (3) of this section (regarding post-completion-year income), paragraph (b) (6) of this section (regarding the 10% method) and Section 1.460-6 (regarding the look-back method) do not apply to the EPCM.

Treasury Regulation Section 1.460-4(c)(2) also provides that a determination of work performed, for purposes of the EPCM, the criteria used to compare the work performed on a contract as of the end of the taxable year with the estimated total work to be performed must clearly reflect the earning of income with respect to the contract. For example, in the case of a road builder, a standard of completion solely based on miles of roadway completed, in a case where the terrain is substantially different, may not clearly reflect the earning of income with respect to the contract.

**Example:**

This situation illustrates the concept of an exempt-contract percentage-of-completion method (EPCM). An exempt contract requires the taxpayer to install 50 miles of utility lines. The entire 50 miles is on comparable terrain meaning no particular area will require additional costs to install the utility lines. The taxpayer elects the percentage of completion based on units (e.g., miles). At the end of the tax year, 10 miles have been installed. Thus, 20% of the contract is determined to be complete.

## ***Alternative Minimum Tax (AMT)***

Generally contractors meeting the “small contractor exemption” under IRC section 460 (e) (1) are not required to use PCM for regular tax purposes. However, I.R.C. Section 56 requires that long-term contracts shall be determined under the percentage of completion method of accounting for alternative minimum tax. Alternative minimum tax is a separate tax system designed to ensure that taxpayers pay a minimum amount of tax on the true economic income when the income may not yet be taxable for regular income tax purposes. Therefore, small contractors that elect a method other than PCM may be required to compute alternative minimum taxable income.

IRC Section 56 provides guidance on adjustments that are applicable to all taxpayers. IRC Section 56 (a) (3) provide guidance on the treatment of certain long-term contracts:

In the case of any long-term contract entered into by the taxpayer on or after March 1, 1986, the taxable income from such contract shall be determined under the percentage of completion method of accounting (as modified by section 460(b)). For purposes of the preceding sentence, in the case of a contract described in section 460 (e)(1), the percentage of the contract completed shall be determined under section 460(b)(1) by using the simplified procedures for allocation of costs prescribed under section 460(b)(3). The first sentence of this paragraph shall not apply to any home construction contract (as defined in section 460(e) (6)).

There are two exceptions to the percentage of completion method for alternative minimum tax. The first exception is home construction contracts. The last sentence in IRC Section 56(a) (3) states that the alternative minimum tax adjustment for PCM does not apply to home construction contracts.

IRC Section 460(e) (6) (A) defines a home construction contract: The term “home construction contract” means any construction contract if 80 percent of the estimated total contract costs (as of the close of the taxable year in which the contract was entered into) are reasonably expected to be attributable to activities referred to in paragraph (4) with respect to:

1. IRC Section 460(e)(6)(A)(i) provides that dwelling units as defined in section 168(e)(2)(A)(ii) in buildings containing 4 or fewer dwelling units, and
2. IRC Section 460 (e)(6)(A)(ii) provides that improvements to real property directly related to such dwelling units and located on the site of such dwelling units.

For purposes of clause (i), each townhouse or row house shall be treated as a separate building.

The second exception to the percentage of completion method for alternative minimum tax is for “small corporations”. Small corporations are exempt from alternative minimum tax for years beginning after 1997 under IRC Section 55(e). The definition of a “small corporation” for purposes of the exemption, the corporation must:

1. Be a C corporation. S Corporations, partnerships, and individual entities (Schedule C) are not exempt per IRC Section 55(e);
2. For the first tax year beginning after 1996, the average gross receipts for the prior 3 years must be \$5 million or less; and
3. A C corporation that meets the initial average gross receipts of \$5 million will continue to be exempt from AMT as long as the average gross receipts do not exceed \$7.5 million.

IRC Section 55 imposes an alternative minimum tax. There is an exception for small corporations:

1. \$7,500,000 Gross Receipts Test: The tentative minimum tax of a corporation shall be zero for any taxable year if the corporation's average annual gross receipts for all 3-taxable-year periods ending before such taxable year do not exceed \$7,500,000. For purposes of the preceding sentence, only taxable years beginning after December 31, 1993 shall be taken into account.
2. \$5,000,000 Gross Receipts Test for First 3-Year Period: Subparagraph (A) shall be applied by substituting "\$5,000,000" for "\$7,500,000" for the first 3-taxable-year period (or portion thereof) of the corporation which is taken into account under subparagraph (A).
3. First Taxable Year Corporation in Existence: If such taxable year is the first taxable year that such corporation is in existence, the tentative minimum tax of such corporation for such year shall be zero.
4. Special Rules: For purposes of this paragraph, the rules of paragraphs (2) and (3) of section 448(c) shall apply.

If a small corporation later exceeds the \$7.5 million average, the corporation becomes subject to AMT but only for those contracts entered into after the average was exceeded. C Corporation contractors (other than home construction contracts) with average gross receipts between \$7.5 million and \$10 million would be subject to the long-term AMT adjustment. Contractors exceeding the \$10 million average would be required to use PCM for regular tax purposes and no AMT adjustment would be necessary.

**Example:**

Assume a calendar-year corporation was in existence on January 1, 1994. In order to qualify as a small corporation for 1998 (the first year the exemption is available), the corporation's average gross receipts for the three-taxable year period 1994 through 1996 must be \$5 million or less and the corporation's average gross receipts for the 1995 through 1997 period must be \$7.5 million or less. If the corporation qualifies for 1998, the corporation will qualify for 1999 if its average gross receipts for the three-taxable year period 1996 through 1998 are \$7.5 million or less. If the corporation does not qualify for 1998, the corporation cannot qualify for 1999 or any subsequent year.

**Example:**

Assume a calendar-year corporation is first incorporated in 1999 and is neither aggregated with a related existing corporation under IRC Section 448(c) (2) nor treated as having a predecessor corporation under IRC Section 448(c)(3)(D). The corporation will qualify as a small corporation for 1999 regardless of its gross receipts for such year.

In order to qualify as a small corporation for 2000, the corporation's gross receipts for 1999 must be \$5 million or less. If the corporation qualifies for 2000, the corporation also will qualify for 2001 if its average gross receipts for the two-taxable year period 1999 through 2000 are \$7.5 million or less. If the corporation qualifies for 2001, the corporation will qualify for 2002, if its average gross receipts for the three taxable year period 1999 through 2001 are \$7.5 million or less. If the corporation does not qualify for 2000, the corporation cannot qualify for 2001 or any subsequent year.

Sole proprietorships (1040 Schedule C), S corporations (1120-S), and partnerships (1065) do not have a gross receipts exception. Therefore, the percentage of completion for alternative minimum tax purposes is required for non-home construction contracts.

## **Long-Term Contract Adjustment for Alternative Minimum Tax**

The AMT adjustment is computed by taking the difference between the two gross profits. The gross profit using the taxpayer's accounting method for regular tax purposes and the gross profit computed under PCM (using the simplified method or the alternative method to determine percent complete).

PCM is required to be used for financial statements under SOP 81-1 (Statement of Position) and many companies are required to have financial statements for bonding or lending purposes. Thus, this information is usually readily available.

**Example:**

This situation illustrates the concept of the AMT Adjustment. A Schedule C contractor reports income and expenses from long-term contracts on the completed contract method. The contracts are not home construction contracts. The AMT adjustment for the job below would be as follows (only one job-in-process used for simplification purposes):

**Example of AMT Adjustment**

<b>Tax Year</b>	<b>PCM Gross Profit</b>	<b>CCM Gross Profit</b>	<b>AMT Adjustment</b>
2000	\$50,000	0	\$50,000
2001	\$75,000	0	\$75,000
2002	\$25,000	\$150,000	(\$125,000)

For the tax years 2000 and 2001, the contractor would pay alternative minimum tax since no regular income tax is paid. However, in 2002, the negative AMT adjustment would most likely result in no alternative minimum tax and the contractor would receive an AMT credit on the prior AMT paid. The 2002 AMT adjustment is shown on the line 21 (Long-Term Contracts) on Form 6251, Alternative Minimum Tax - Individuals and line 2f of Form 4626, Alternative Minimum Tax - Corporations.

**S Corporations, Partnerships, and Alternative Minimum Tax**

The alternative minimum tax adjustment for long-term contracts is determined at the entity level. Each shareholder then reports the AMT adjustment on his or her pro-rata ownership. This amount should be reported on the Schedule K-1 provided to the partner or shareholder which would then be reported on the appropriate line on the Form 6251 if the shareholder/partner is an individual or Form 4626 if the shareholder or partner is a corporation.

**Look-Back and Alternative Minimum Tax**

Even though small contractors are exempt from the requirement to report long-term contracts on PCM and apply look-back to completed contracts; the look-back applies to those small contractors that must compute PCM for alternative minimum tax purposes. See the look-back module for more detailed information on the computation of look back.

## ***Small Contractors Becoming Large Contractors***

Small contractors those were exempt from the IRC Section 460 PCM reporting requirements due to the average annual gross receipts being less than \$10,000,000 become large contractors when the average annual gross receipts exceed \$10,000,000.

During this converting year, any contracts previously in progress are still accounted for under the method they have been using (e.g., completed contract method). Any new contracts started are computed on the percentage of completion method. This is known as the “cut-off” method. Because this is a statutory change, the change in accounting method procedures (i.e., filing Form 3115) does not apply.

If, in a subsequent year, the average annual taxable gross receipts go below \$10,000,000 the taxpayer will compute any new contracts under its “exempt” contract method such as the completed contract and continue to report previous contracts using to PCM.

### **Example:**

The contractor has been in business since 1990 and properly elected the completed contract method for reporting its long-term construction contracts. The year 2000 is the first taxable year that the average annual gross receipts for the prior three taxable years exceeded \$10,000,000. In 2002, the average annual gross receipts dropped below \$10,000,000:

<b>Example Completed Contract Method</b>			
<b>JOB</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Job 1 - In Process in 1999	CCM	CCM Job Completed	
Job 2 - Started in 2000	PCM	PCM	PCM Job Completed
Job 3 - Started in 2001		PCM	PCM
Job 4 - Started in 2002			PCM

## ***Pros and Cons of Long-Term Accounting Methods***

### **Completed Contract**

1. Defer gross profits and income tax on contracts until the job is completed.
2. Several contracts completed within one year may require substantial income recognition in a single year.
3. Contractors may spend cash received from early billings and not have sufficient funds to pay income tax in year of completion.
4. Alternative minimum tax must be calculated using the percentage of completion method, unless taxpayer meets one of the exceptions.

### **Percentage of Completion**

1. Allows recognition of income as work is performed, rather than recognizing substantial amounts when several contracts are completed in one year. This enables taxpayers to take advantage of the graduated tax rates.

2. Allows for the deferral of income from front-loading, which, under the accrual method, is recognized when received or billed.
3. There may not be any difference in reporting for financial statement purposes and the tax return. This reduces burden of record keeping.

## **Conclusion**

Small construction contractors have more flexibility in electing methods of accounting for their long-term contracts. However, the small contractor may be subject to alternative minimum tax for those contracts that are not computed on the percentage of completion method. The choice of a proper accounting method, the proper computation of each accounting method, and the alternative minimum tax consequences are complex concepts that must be considered by each contractor

# **Chapter 4: Large Construction Contractors**

## **Introduction**

This chapter discusses the taxation of large construction contractors that are defined as contractors not meeting the exceptions under IRC Section 460(e). Contractors meeting the exceptions of IRC Section 460(e) are discussed in separate chapters involving small construction contractors and home construction contracts.

## **Methods of Accounting for Contracts Subject to IRC Section 460 Percentage of Completion Method (PCM)**

Large construction contractors are required to account for long-term contracts on the percentage of completion method. The amount of revenue reported each year under the contract using the percentage of completion method is determined by multiplying the total estimated contract price times the percentage of completion at the end of the taxable year (completion factor) less any gross receipts reported in the prior tax years of the contract. See Treasury Regulation Section 1.460-4(b)(2). IRC Section 460 provides two methods of determining the degree of contract completion. They are the “cost-to-cost method” and the “simplified cost-to-cost method.”

## **Cost-to-Cost Method**

IRC Section 460(b) (1) (A) generally requires that the percentage of completion method (PCM) be computed utilizing the cost-to-cost method. Treasury Regulation Section 1.460-4(b) describes the “cost-to-cost” computation as follows:

<b>Cost to Cost Computation</b>				
Total Allocable Contract Costs Incurred To Date <b>Divided By</b> Total Estimated Allocable Contract Costs	<b>Times</b>	Total Estimated Prior Years' Reported Gross Receipts Contract Price	<b>Equals</b>	Gross Receipts To Be Reported For The Taxable Year

Treasury Regulation Section 1.460-4(b) provides guidance on the percentage of completion method. In general, under the PCM, a taxpayer generally must include in income the portion of the total contract price, as defined in Regulation Section 1.460-4(b)(4)(i) that corresponds to the percentage of the entire contract that the taxpayer has completed during the taxable year. The percentage of completion must be determined by comparing allocable contract costs incurred with estimated total allocable contract costs. Thus, the taxpayer includes a portion of the total contract price in gross income as the taxpayer incurs allocable contract costs. The following computations may be required for a taxpayer to determine the income from a long-term contract:

1. Computes the completion factor for the contract, which is the ratio of the cumulative allocable contract costs that the taxpayer has incurred through the end of the taxable year, to the estimated total allocable contract costs that the taxpayer reasonably expects to incur under the contract;
2. Computes the amount of cumulative gross receipts from the contract by multiplying the completion factor by the total contract price;
3. Computes the amount of current-year gross receipts, which is the difference between the amount of cumulative gross receipts for the current taxable year and the amount of cumulative gross receipts for the immediately preceding taxable year (the difference can be a positive or negative number); and
4. Takes both the current-year gross receipts and the allocable contract costs incurred during the current year into account in computing taxable income.

### **Example:**

B enters into a construction contract in 2001 for \$10 million. B estimates that its total costs under the contract will be \$8 million. At the end of 2002, B has incurred \$4 million of its estimated costs on this project. If using the formula above, B includes \$3 million of the contract price as gross receipts in 2001. B must include \$2 million as gross receipts for 2002 computed as follows:  
$$(\$4,000,000 \div \$8,000,000) \times (\$10,000,000) - (\$3,000,000) = \$2,000,000$$

## ***Allocable Contract Costs***

The allocable contract costs that are used in determining the cost-to-cost method are provided in Treasury Regulation Section 1.460-5(b), which has a direct link to IRC Section 263A costs.

Treasury Regulation Section 1.460-5(b) provides the cost allocation method for contracts subject to PCM. In general, except as otherwise provided in paragraph (b)(2) of this section, a taxpayer must allocate costs to each long-term contract subject to the PCM in the same manner that direct and indirect costs are capitalized to property produced by a taxpayer under section 1.263A-1(e) through (h). Thus, a taxpayer must allocate to each long-term contract subject to the PCM all direct costs and certain indirect costs properly allocable to the long-term contract (i.e., all costs that directly benefit or are incurred by reason of the performance of the long-term contract). However, see paragraph (c) of this section concerning an election to allocate contract costs using the simplified cost-to-cost method. As in section 263A, the use of the practical capacity concept is not permitted. See section 1.263A-2(a) (4).

Direct costs listed under Treasury Regulation Section 1.263A-1(e) (2) include:

1. Direct material costs
2. Direct labor costs

Indirect costs listed under Treasury Regulation Section 1.263A-1(e) (3) include:

1. Indirect labor costs
2. Officers' compensation
3. Pension and other related costs
4. Employee benefit expenses
5. Indirect material costs
6. Purchasing costs
7. Handling costs
8. Storage costs
9. Cost recovery
10. Depletion
11. Rent
12. Taxes
13. Insurance
14. Utilities
15. Repairs and maintenance
16. Engineering and design costs
17. Spoilage
18. Tools and equipment
19. Quality control
20. Bidding costs
21. Licensing and franchise costs
22. Interest
23. Capitalized service costs

Subject to PCM, direct material and labor costs, are properly allocable to the long-term contract are all costs that directly benefit or are incurred through the contract's performance. See Treasury Regulation Section 1.460-5(b) (1).

Similarly, indirect costs are properly allocable to property produced or property acquired for resale when the costs directly benefit or are incurred by reason of the performance of production or resale activities. See Treasury Regulation Section 1.263A-1(e) (3) (i).

Some indirect costs, on the other hand, may benefit both the long-term contract and other business activities of the taxpayer and are not always specifically identified to a particular long-term contract. This allocation may be a specific "facts-and-circumstances" method, including the specific identification (or tracing) method, burden rate method (i.e., ratios based on direct costs, direct labor, etc.), standard cost method, a "simplified method" provided in Treasury Regulation Section 1.263A-2 (b) and Treasury Regulation Section 1.263A-3(d) or any other reasonable method (as defined under Treasury Regulation Section 1.263A-1(f)(4)). See Treasury Regulation Section 1.263A-1(f) and Treasury Regulation Section 1.263A-1(g) (3).

### **Direct Material Costs**

Direct material costs include the costs of those materials that become an integral part of specific property produced and those materials that are consumed in the ordinary course of production that can be identified or associated with particular units or groups of units of property produced. See Treasury Regulation Section 1.263A-1(e) (2) (i) (A). Direct material costs must be allocated to a long-term contract when "dedicated" to the contract. Thus, a taxpayer dedicates direct materials by associating them with a specific contract, including by purchase order, entry on books and records, or shipping instructions. See Treasury Regulation Section 1.460-5(b) (2) (i). Therefore, uninstalled materials that are dedicated to a contract become an allocable job cost.

### **Direct Labor Costs**

Direct labor costs include the costs of labor that can be identified or associated with the long-term contract. For this purpose, labor encompasses full-time and part-time employees, as well as contract employees and independent contractors. Direct labor costs include all elements of compensation other than employee benefit costs described in Treasury Regulation Section 1.263A-1(e) (3) (ii) (D). Elements of direct labor costs include basic compensation, overtime pay, vacation pay, holiday pay, sick leave pay (other than payments pursuant to a wage continuation plan under section 105(d) as it existed prior to its repeal in 1983), shift differential, payroll taxes, and payments to a supplemental unemployment benefit plan. See Treasury Regulation Section 1.263A-1(e) (2) (i) (B).

## **Bidding Costs**

Bidding expenses are those costs incurred by a contractor in the solicitation of a long-term contract. The taxpayer must defer all bidding costs paid or incurred in the solicitation of a particular contract until the contract is awarded. If the contract is awarded to the taxpayer, the bidding costs become part of the indirect costs allocated to the subject matter of the contract. If the contract is not awarded to the taxpayer, bidding costs are deductible in the taxable year that the contract is awarded to another party, or in the taxable year that the taxpayer is notified in writing that no contract will be awarded and that the contract (or a similar or related contract) will not be re-bid, or in the taxable year that the taxpayer abandons its bid or proposal, whichever occurs first. See Treasury Regulation Section 1.263A-1(e) (3) (ii) (T).

## **Indirect Costs Not Generally Allocable To a Contract**

Subject to the exception in IRC Section 460(c)(2) (costs identified under cost-plus and certain federal contracts), costs not allocable to the contract are independent research and development expenses, expenses for unsuccessful bids and proposals, and marketing, selling, and advertising expenses. See IRC Section 460(c) (4).

Treasury Regulation Section 1.263A-1 (e) (3) (iii) provides a list of additional indirect costs not allocable to the long-term contract under Treasury Regulation Section 1.460-5(b). These indirect costs include “deductible service costs,” which generally include costs incurred by reason of the taxpayer’s overall management or policy guidance functions, such costs from the board of directors, chief executive, financial, accounting, and legal officers. See Treasury Regulation Section 1.263A-1(e)(3)(iii)(K) and Treasury Regulation Section 1.263A-1 (e)(4)(ii)(B) and Treasury Regulation Section 1.263A-1 (e)(4)(iv)(A).

Even though a service cost is classified as “general and administrative,” however, it is allocable to the long-term contract if it directly benefits or is incurred by reason of the taxpayer’s performance of the production or resale activities. Examples are costs from data processing, personnel operations, security services, and legal services. See Treasury Regulation Section 1.263A-1 (e)(4)(i)(A) and Treasury Regulation Section 1.263A-1 (e)(4)(i)(B) and Treasury Regulation Section 1.263A-1 (e)(4)(i)(e)(4)(ii) -(iii).

## **Nondeductible Costs**

Costs that would normally be allocable to a contract but are nondeductible by the Internal Revenue Code is not an allocable contract cost. A common example would be the nondeductible portion of meals per IRC Section 274. The amount incurred as well as the total estimated amount of the nondeductible cost must be removed from the percentage of completion computation.

Treasury Regulation Section 1.460-5(f) provides special rules applicable to costs allocated under this section. It states that a taxpayer may not allocate any otherwise allocable contract cost to a

long-term contract if any section of the Internal Revenue Code disallows a deduction for that type of payment or expenditure (e.g., an illegal bribe described in section 162(c)).

## ***Impact of Cost Allocation on the Percentage of Completion Computation***

Unlike the percentage of completion method, a taxpayer using the completed contract method must defer the deduction of all allocable contract costs until the contract is completed. See Treasury Regulation Section 1.460-4(d) (1). Under the percentage of completion method, however, the taxpayer deducts the allocable contract costs in the year incurred, but the allocable contract cost's exclusion from the percentage of completion computation (also known as "completion factor") may affect the gross receipts amount reported in each taxable year of the contract. The key is to know what costs the percentage of completion taxpayer included in the completion computation.

The scenarios below point out the effect that allocation of indirect costs could have on the gross receipts reported by a taxpayer using the percentage of completion:

At the end of Year 1, the taxpayer's estimated completion is 20% is determined as follows:

\$100,000 Total Allocable Contract Costs Incurred To Date  
**Divided By**  
\$500,000 Total Estimated Costs Allocable Contract Costs

### **Scenario 1:**

An indirect allocable contract cost was included in the total estimated allocable contract costs in the denominator, but the cost, which was incurred during the taxable year, was erroneously not included in the numerator. This incurred cost was deducted on the tax return. The amount is still deductible as an expense; however, it should also be added to the numerator and, as such, impacts the amount of gross receipts to be reported on this contract.

\$100,000 + \$10,000  
**Divided By**  
\$500,000  
**Equals**  
22% Complete

### **Scenario 2:**

An indirect allocable contract cost, which is not incurred pro-rata over the life of the contract (e.g., architect fee and building permits which are incurred early in the contract), was improperly excluded from both the numerator and denominator of the PCM computation. The amount incurred during the tax year is the same as the total estimated cost of this expense - no additional amount of this indirect cost is to be incurred on this contract. Again, as mentioned in scenario 1, the deductibility of this expense is proper, only the gross receipts amount to be reported under this contract is impacted.

\$100,000 + \$10,000  
**Divided By**  
\$500,000 + \$10,000

## **Equals**

21.57% Complete

Under PCM, the reference to the regulations under section 263A applies only to what costs to allocate and how. Allocable contract costs under PCM, however, are still deductible in the year incurred when computing taxable income. See Treasury Regulation Section 1.460-4(b)(2)(iv) and (h); Example 2, Treasury Regulation Section 1.460-5(b)(1).

### **Scenario 3:**

An indirect allocable contract cost is incurred pro-rata over the life of the contract (e.g., indirect labor and officer's salary that are incurred throughout the duration of the contract), and improperly excluded from both the numerator and denominator of the PCM computation. The cost incurred during the taxable year is included in the numerator and the total estimated cost, which must be determined, is included in the denominator.

\$100,000 + \$10,000

#### **Divided By**

\$500,000 + \$50,000

#### **Equals**

20% Complete

As Scenario 3 indicates, theoretically, if a pro-rata cost is not included in the numerator and denominator of the percentage of completion computation it may not have a material impact on the gross receipts to be reported. Thus, the exclusion of a common, everyday indirect cost from the PCM computation will probably have no effect on the income recognition of the contract.

## ***Cost-Plus Contracts and Federal Long-Term Contracts***

Cost-plus fee contracts are common in the construction industry. With this type of contract, the owner agrees to pay the contractor a fee in addition to the costs the contractor incurs to complete the project. This fee may be fixed or based on a percentage of the costs. This type of contract shifts much of the risk to the owner; however, the owner can reduce the risk by establishing a Guaranteed Maximum Price (GMP). The GMP establishes a maximum cost that the owner will pay and may contain a clause for the owner and contractor to share in any savings if the project is completed at less than the maximum price. In cost-plus contracts, the contract will detail which costs are to be reimbursed by the owner. For percentage of completion purposes, if any of these "contract costs" would not normally be allocated to the long-term contract, IRC Section 460(c)(2) requires those costs be allocated. See also Treasury Regulation Section 1.460-5 (b) (2) (iv):

Treasury Regulation Section 1.460-5(b)(2)(iv) provides that costs identified under cost-plus long-term contracts and federal long-term contracts, to the extent not otherwise allocated to the contract under this paragraph (b), a taxpayer must allocate any identified costs to a cost-plus long-term contract or federal long-term contract (as defined in section 460(d)). Identified cost means any cost, including a charge representing the time-value of money, identified by the taxpayer or related person as being attributable to the taxpayer's cost-plus long-term contract or federal long-term contract under the terms of the contract itself or under federal, state, or local law or regulation.

### **Example:**

A cost-plus contract lists some marketing expenses, which are not normally considered an allocable contract cost per IRC Section 460(c) (4). However, per IRC Section 460(c) (2) these costs are allocated to the long-term contract.

### ***Simplified Cost-to-Cost Method***

IRC Section 460(b) (1) (A) generally requires the cost-to-cost method to determine completion. However, IRC Section 460(b) (3) (A) provides an elective simplified cost-to-cost method for determining the degree of contract completion for taxpayers using the PCM. Under the simplified cost-to-cost method, only the following costs are used in determining the percentage-of-completion:

1. Direct material costs;
2. Direct labor costs; and
3. Depreciation, amortization, and cost recovery allowances on equipment and facilities directly used to construct or produce the subject matter of the long-term contract.

Subcontracted costs represent either direct material or direct labor costs which must be allocated to a contract. See Treasury Regulation Section 1.460-5(c) (1).

Treasury Regulation Section 1.460-5(c) provides that simplified cost-to-cost method for contracts subject to the PCM. In general, instead of using the cost-allocation method prescribed in Treasury Regulation Section 1.460-5(b), a taxpayer may elect to use the simplified cost-to-cost method, which is authorized under section 460(b)(3)(A), to allocate costs to a long-term contract subject to the PCM.

Under the simplified cost-to-cost method, a taxpayer determines a contract's completion factor based upon only direct material costs; direct labor costs; and depreciation, amortization, and cost recovery allowances on equipment and facilities directly used to manufacture or construct the subject matter of the contract. For this purpose, the costs associated with any manufacturing or construction activities performed by a subcontractor are considered either direct material or direct labor costs, as appropriate, and therefore must be allocated to the contract under the simplified cost-to-cost method.

An electing taxpayer must use the simplified cost-to-cost method to apply the look-back method under Section 1.460-6 and to determine alternative minimum taxable income under Section 1.460-4(f). A taxpayer using the simplified cost-to-cost method must also utilize the costs described above in determining both the costs allocated to the contract and incurred before the close of the taxable year, and the estimated total contract cost.

### ***Percentage-of-Completion (10 Percent Method)***

Under IRC Section 460(b)(5) and Treasury Regulation Section 1.460-4(b)(6), the taxpayer may elect to defer recognition of revenue under PCM until 10% of the total estimated allocable contract costs are incurred. Accordingly, the costs incurred before the 10% year are considered pre-contracting year costs and thus are not deductible until the 10% year. This method of accounting is an election and applies to all long-term contracts entered into during, and all taxable years after, the electing year. Once elected, the taxpayer would be required to obtain the Commissioner's permission to change to another method. This election is unavailable if the taxpayer elected to use the simplified method for allocation of costs under IRC Section 460(b)(3)(A) or is exempt under IRC Section 460(e).

### Example:

A contractor, C, whose taxable year ends December 31 determines the income from long-term contracts using the 10 Percent Method. For each of the taxable years, C's income from the contract is computed as follows:

<b>10 Percent Method</b>			
	<b>2001</b>	<b>2002</b>	<b>2003</b>
<b>Cumulative Incurred Costs</b>	\$40,000	\$300,000	\$600,000
<b>Total Estimated Costs</b>	\$600,000	\$600,000	\$600,000
<b>Percentage Complete</b>	6.67%	50.00%	100.00%
<b>Total Contract Price</b>	\$11,000,000	\$11,000,000	\$11,000,000
<b>Gross Revenue Reported</b>	0	\$500,000	\$500,000
<b>Expenses Deducted</b>	0	\$300,000	\$300,000

### ***Percentage-of-Completion or Capitalized-Cost Method (PCCM)***

A taxpayer may determine the income from a long-term construction contract that is a residential construction contract using either the PCM or the PCCM. The PCCM allows the residential construction contractor to report 70 percent of the contract under PCM (as required by IRC Section 460) and the remaining 30 percent to be reported under an exempt method (e.g., completed contract method). A residential construction contract differs from a home construction contract in that a home construction contract involves buildings with four or fewer dwelling units; whereas, a residential construction contract involves buildings with more than four dwelling units (e.g., apartment buildings or condominiums with five or more units in each building). See IRC Section 460(e) (6).

Treasury Regulation Section 1.460-3(b) (2) (I) (A) turns to IRC Section 168(e) (2) (A) (ii) (I) for the definition of "dwelling unit," which defines "dwelling unit" as a house or apartment used to provide living accommodations in a building or structure but does not include a unit in a hotel, motel, or other establishment more than one-half of the units in which are used on a transient basis.

In issuing the former regulation to the predecessor of IRC Section 168(e)(2)(A)(ii)(I), the Regulations Policy Committee deleted a proposed reference that a dwelling unit must be self-contained with facilities generally found in a principal place of residence such as a kitchen. Deleting this reference indicates the intent to expand the scope of "dwelling unit" to include other living accommodations such as nursing homes, retirement homes, prisons, and college dormitories.

The former regulation defined "transient basis" as occupancy for less than 30 days. See IRC Section 167(k)(3)(C)(repealed in 1990); Treasury Regulation Section 1.167(k)-3(c)(1) and (2) (removed in 1993) (T.D. 8474, 1993-1 C.B. 242).

Because nursing homes, retirement homes, prisons, and dormitories provide "living accommodations in a building or structure," they are dwelling units for purposes of a residential construction contract under the PCCM only if no more than one-half of the units are used for less

than 30 days by the same tenant. For example, a prison is not a dwelling unit if it is a holding cell in a courthouse or a police station. The final regulations explain the PCCM.

Treasury Regulation Section 1.460-4(e) provides for the percentage of completion capitalized cost method. Under the PCCM, a taxpayer must determine the income from a long-term contract using the PCM for the applicable percentage of the contract and its exempt contract method, as defined in paragraph (c) of this section, for the remaining percentage of the contract. For residential construction contracts described in Section 1.460-3(c), the applicable percentage is 70 percent, and the remaining percentage is 30 percent. For qualified ship contracts described in Section 1.460-2(d), the applicable percentage is 40 percent, and the remaining percentage is 60 percent.

Even though the residential construction contracts are allowed the 70/30-hybrid method for reporting income for regular tax, the entire contract must be reported under PCM for alternative minimum tax purposes. See Treasury Regulation Section 1.460-4(f).

### ***Total Estimated Contract Price and Claim Income***

The total estimated contract price is the amount the contractor reasonably expects to receive from the owner under the long-term contract. Total estimated contract price includes: the original contract price, "retainages," "holdbacks," and approved contract change orders. In addition, contractors must include, in the estimated contract price, contingent compensation such as awards, incentive payments, unapproved contract change orders, and amounts relating to claims when there is a reasonable expectation the contractor will receive these amounts. See Appendix 5 for definitions of award, bonus, change order, claims, holdback, and retainage.

Treasury Regulation Section 1.460-4(b)(4) provides that the total contract price means the amount that a taxpayer reasonably expects to receive under a long-term contract, including holdbacks, retainages, and cost reimbursements. See Section 1.460-6(c) (1) (ii) and (2) (vi) for application of the lookback method as a result of changes in total contract price.

Contingent compensation (i.e., bonus, award, incentive payment, and amount in dispute) is included in total contract price as soon as the taxpayer can reasonably predict that the amount will be earned, even if the all-events test has not yet been met.

The portion of the contract price that is in dispute is includible in the total contract price at the time and to the extent that the taxpayer can reasonably predict that the dispute will be resolved in the taxpayer's favor, regardless of when the taxpayer actually receives payment or when the dispute is resolved. See Treasury Regulation Section 1.460-4 (b)(4)(i)(B); *Tutor-Saliba Corp. v. Commissioner*, 115 T.C. 1 (2000).

This regulation also provides that contingent income is includible in the total contract price not later than when it is included in income for financial reporting purposes under generally accepted accounting principles (GAAP).

Treasury Regulation Section 1.460-4(b) (4) (i) (B) provides that contingent compensation is any amount related to a contingent right under a contract, such as a bonus, award, incentive payment, and amount in dispute, is included in total contract price as soon as the taxpayer can reasonably predict that the amount will be earned, even if the all events test has not yet been met. For example, if a bonus is payable to a taxpayer for meeting an early completion date, the bonus is includible in total contract price at the time and to the extent that the taxpayer can reasonably predict the achievement of the corresponding objective.

Similarly, a portion of the contract price that is in dispute is includible in total contract price at the time and to the extent that the taxpayer can reasonably predict that the dispute will be resolved in the taxpayer's favor (regardless of when the taxpayer actually receives payment or when the dispute is finally resolved).

Total contract price does not include compensation that might be earned under any other agreement that the taxpayer expects to obtain from the same customer (e.g., exercised option or follow-on contract) if that other agreement is not aggregated under Section 1.460-1(e).

For the purposes of paragraph (b) (4) (i) (B), a taxpayer can reasonably predict that an amount of contingent income will be earned not later than when the taxpayer includes that amount in income for financial reporting purposes under generally accepted accounting principles. If a taxpayer has not included an amount of contingent compensation in total contract price under paragraph (b)(4)(i) by the taxable year following the completion year, the taxpayer must account for that amount of contingent compensation using a permissible method of accounting. If it is determined after the taxable year following the completion year that an amount included in total contract price will not be earned, the taxpayer should deduct that amount in the year of the determination.

### **Example 1:**

This situation illustrates the concept of contingent compensation. In 2002, a contractor reports \$10 million of disputed income as income on the financial statements, which are prepared in accordance with GAAP. Treasury Regulation Section 1.460-4 (b) (4) (i) (B) provides that this amount is to be included in the total contract price in 2002.

### **Example 2:**

This situation illustrates the concept of bonuses. A contract specifies that the contractor will receive a bonus for meeting an early completion date. At the end of the 2001 taxable year, the contractor is ahead of schedule and anticipates meeting the early completion date; therefore, the bonus would be included in the total contract price.

## ***Additional Considerations for PCM***

Each component of the PCM computation needs to be analyzed to ensure the proper gross income amount is reported each year under the contract.

Total Allocable Contract Costs Incurred To Date

**Divided By**

Total Estimated Allocable Contract Costs

**Equals**

Total Estimated Contract Price

Obtain a detailed accounting of all the costs included in the numerator and denominator. The factors shown below should be considered in determining the numerator for the total allocable contract costs incurred to date and the denominator for the total estimated allocable contract costs.

1. Verify that the direct and indirect allocable contract costs under Treasury Regulation Section 1.460-5(b) are included in both the numerator and the denominator as the cost is incurred. See Treasury Regulation Section 1.460-4(b).

2. For example, the denominator includes the total estimated allocable cost of equipment rental. However, it must also be included as this cost is incurred in the numerator of the PCM computation. If these costs are not included in the numerator, the completion of the contract is understated and results in the understatement of gross income for the taxable year.
3. However, if the taxpayer has not included an allocable contract cost in either the numerator or the denominator, consider the potential impact as previously discussed earlier in this chapter under "Impact of Cost Allocation on the Percentage of Completion Computation".
4. Year-end bonuses paid to employees may not be allocable to the PCM computation of in-process jobs if they are generally paid on the basis of the profitability of the completed jobs. However, if the taxpayer reasonably expects to pay bonuses in a subsequent year on the jobs currently in-process, they would be included in the denominator as a total estimated cost of the contract.
5. Verify that warranty expenses are not included in the PCM computation. See Treasury Regulation Section 1.460-1(d)(2) and Treasury Regulation Section 1.263A-1(e)(3)(iii)(H).
6. A taxpayer may not allocate any otherwise allocable contract cost to a long-term contract if any section of the Internal Revenue Code disallows a deduction for that cost or expenditure (e.g., an illegal bribe described in section 162(c), nondeductible portion of meals and entertainment per section 274). See Treasury Regulation Section 1.460-5(f)(1).

Obtain a detailed accounting of all the costs included in the total estimated contract price. The factors shown below should be considered in determining the total estimated contract price:

1. Retainages, holdbacks, and cost reimbursements are included in the total estimated contract price because the taxpayer reasonably expects to receive these amounts under the long-term contract. See Treasury Regulation Section 1.460-4(b)(4)(i)(A).
2. Contingent compensation such as a bonus, award, incentive payment, and amount in dispute, is included in total contract price as soon as the taxpayer can reasonably predict that the amount will be earned, even if the all events test has not yet been met. Additionally, if the contingent amount is included in income for financial reporting per generally accepted accounting principles, the amount is also included in the total contract price. See Treasury Regulation Section 1.460-4(b)(4)(i)(B).

### ***Reversal of Income on Terminated Contract***

If a long-term contract (under PCM) is terminated before completion and, as a result, the taxpayer retains ownership of the property, the taxpayer must reverse the transaction in the taxable year of termination. The taxpayer reports a loss (or gain) equal to the cumulative allocable contract costs reported under the contract in all prior taxable years less the cumulative gross receipts reported under the contract in all prior taxable years.

As a result of reversing the transaction, a taxpayer will have an adjusted basis in the retained property equal to the cumulative allocable contract costs reported under the contract. If the taxpayer received and retains any consideration or compensation from the customer, however, the taxpayer must reduce the adjusted basis in the retained property (but not below zero) by the fair market value of that consideration or compensation. To the extent that the amount of the consideration or compensation described in the preceding sentence exceeds the adjusted basis in the retained property, the taxpayer must include the excess in gross income for the taxable year of termination. The look-back method does not apply to a terminated contract.

Treasury Regulation Section 1.460-4(b) (7) provides that if a long-term contract is terminated before completion and, as a result, the taxpayer retains ownership of the property that is the subject matter of that contract, the taxpayer must reverse the transaction in the taxable year of termination. To reverse the transaction, the taxpayer reports a loss (or gain) equal to the cumulative allocable contract costs reported under the contract in all prior taxable years less the cumulative gross receipts reported under the contract in all prior taxable years.

As a result of reversing the transaction under Treasury Regulation Section 1.460-4(b)(7)(i), a taxpayer will have an adjusted basis in the retained property equal to the cumulative allocable contract costs reported under the contract in all prior taxable years. However, if the taxpayer received and retains any consideration or compensation from the customer, the taxpayer must reduce the adjusted basis in the retained property (but not below zero) by the fair market value of that consideration or compensation. To the extent that the amount of the consideration or compensation described in the preceding sentence exceeds the adjusted basis in the retained property, the taxpayer must include the excess in gross income for the taxable year of termination. The look-back method does not apply to a terminated contract that is subject to this paragraph (b) (7).

**Example:**

A contractor-taxpayer buys a parcel of land. In 2002, the contractor enters into a contract to construct an office building on that parcel of land and reports on this contract under the percentage of completion method as follows:

<b>Gross Receipts and Allocable Contract Costs</b>	
	<b>2002</b>
<b>Gross Receipts</b>	\$2,000,000
<b>Allocable Contract Costs</b>	\$1,500,000
<b>Gross Profit on Contract</b>	\$500,000

In 2003, the customer defaults on the contract due to bankruptcy. The unfinished office building remains with the contractor.

In 2003, the contractor will report a loss of \$500,000 in relation to this terminated contract computed by deducting the prior taxable years' reported cumulative gross receipts of \$2 million from the prior taxable years' reported cumulative allocable contract costs of \$1.5 million.

As of termination, provided there were no additional expenses incurred on this office building in 2003 and the contractor does not receive or retain consideration or compensation from the customer, the contractor will have an adjusted basis of \$1.5 million equivalent to the cumulative allocable contract costs reported under the contract in all prior taxable years.

However, if the contractor had billed and received \$1.8 million from the customer in 2002 of which none of the proceeds are due back to the customer, the contractor will report \$300,000 in gross income in 2003 (year of termination) because the \$1.8 million compensation exceeds the adjusted basis of \$1.5 million. The adjusted basis of the property would be zero.

## ***Conclusion***

Large construction contractors must use the percentage of completion method to report income from long-term contracts. They do not have the flexibility of selecting among several methods as the small construction contractors.

## **Chapter 5: Look-Back Interest**

### ***Introduction***

Taxpayers using the percentage of completion method must generally apply the look-back method upon completion of each contract. IRC Section 460(b)(2) provides that in the taxable year in which a contract is complete, a determination is made whether the taxes paid with respect to the contract in each year of the contract were more or less than the amount that would have been paid if the actual cost and contract price, rather than estimated contract price and cost, had been used to compute gross income. This look-back computation does not result in an adjustment to tax, but instead results in interest due to or from the taxpayer, depending on the results of the computation.

Upon completion of the contract (or, with respect to any amount properly taken into account after completion of the contract, when such amount is so properly taken into account), IRC Section 460(b)(1)(B) requires the taxpayer to pay (or be entitled to receive) interest computed using the look-back method under paragraph (2).

A taxpayer must file Form 8697, Interest Computation Under the Look-Back Method for Completed Long-Term Contracts, in the tax year in which a contract subject to the look-back method is completed and pay interest (but no tax) if the look-back method reveals an underpayment with respect to a taxable year. The taxpayer will receive interest back if the look-back computation reveals an overpayment.

### ***Look-Back Is Hypothetical***

The computation of the amount of deferred or accelerated tax liability under the look-back method is hypothetical. The application of look-back does not result in an adjustment to the tax liability (i.e., the prior years' look-back computation does not amend the tax liability of those years). The computation is only to determine the interest due to or owed by the taxpayer on the tax differential in each year due to the differences in the estimated and actual figures.

Treasury Regulation Section 1.460-6(a)(1) provides that the computation on the amount of deferred or accelerated tax liability under the look-back method is hypothetical. Application of the look-back method does not result in an adjustment to the taxpayer's tax liability as originally reported, as reported on an amended return, or as adjusted on examination. Thus, the look-back method does not correct for differences in tax liability that result from either overestimation or underestimation of contract price and costs that are permanent because tax rates change during the term of the contract.

### **Example:**

Job 1 commenced during Year 1 and was completed in Year 3. The taxpayer was required to report the gross receipts and expenses on Job 1 using the pursuant to the formulas set forth below under IRC Section 460(b):

### Percentage of Completion Method

Total Allocable Contract Costs Incurred To Date  
**Divided By** Total Estimated Allocable Contract Costs  
**Times** Total Estimated Contract Price  
**Equals** Gross Receipts To Be Reported For The Taxable Year

In Year 3, the year of completion, the percentage of completion computation would be recomputed for Year 1 and Year 2 using the actual figures rather than the estimated amounts as follows:

Percentage of Completion Method Year 3				
Return	Formula	Year 1	Year 2	Year 3
<b>Job 1</b>	Total Allocable Contract Costs Incurred to Date	\$450,000	\$4,000,000	\$5,000,000
	Divided By	Divided By	Divided By	Divided By
	Total Estimated Allocable Contract Costs	\$4,500,000	\$4,800,000	\$5,000,000
	Equals	Equals	Equals	Equals
	Percentage	10.00%	83.33%	100.00%
	Times	Times	Times	Times
	Total Estimated Contract Price	\$5,000,000	\$5,200,000	\$5,500,000
	Estimated Gross Receipts (Prior Years' Reported Gross Receipts)	\$500,000 (\$0)	\$4,333,333 (\$500,000)	\$5,500,000 (\$4,333,333)
	Equals	Equals	Equals	Equals
	Gross Receipts to be Reported for Taxable Year	\$500,000	\$3,833,333	\$1,166,667

Percentage of Completion Method Year 3				
Look-back	Formula	Year 1	Year 2	Year 3
<b>Job 1</b>	Total Allocable Contract Costs Incurred to Date	\$450,000	\$4,000,000	Completion Year is Look-back Interest Computed on the prior Years of the contract
	Divided By	Divided By	Divided By	
	Total Estimated Allocable Contract Costs	\$5,000,000	\$5,000,000	
	Equals	Equals	Equals	
	Percentage	9.00%	8.00%	
	Times	Times	Times	
	Total Estimated Contract Price	\$5,500,000	\$5,500,000	
	Estimated Gross Receipts	\$495,000 (\$0)	\$4,400,000 (\$495,000)	
	Equals	Equals	Equals	
	Gross Receipts to be Reported for Taxable Year	\$495,000	\$3,905,000	

<b>Percentage of Completion Method Year 3</b>				
<b>Look-back</b>	<b>Formula</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
	(Prior Years' Reported Gross Receipts) Equals Gross Receipts to be Reported for Taxable Year			
<b>Difference</b>	Gross Income Overstated or (Understated)	\$5,000	(\$71,667)	N/A

In the above example, Year 1 and Year 2 tax returns are not amended; the tax computation of look-back is hypothetical. The interest is computed on the tax differential of the changes to income in Year 1 and Year 2, which would be shown on Form 8697 filed in Year 3, the year of completion.

Additionally, the above example only recomputed the hypothetical change to the gross income of the contract rather than the gross profit of the contract. If one were to hypothetically recalculate the gross profit each year, the look-back adjustment would still be the same because the incurred expenses (i.e. numerator) remain the same under the look-back method.

### ***Scope of Look-back Method***

The look-back method applies only to long-term contracts subject to the percentage of completion method described in IRC Section 460(b). Thus, look-back interest does not apply to construction contracts meeting the exceptions under IRC Section 460(e), such as home construction contracts and taxpayers meeting the small contractor exception. The look-back method applies to the following:

#### **Percentage of Completion Method (PCM)**

This includes any income from a long-term contract that is required to be reported under the percentage of completion method for regular income tax purposes. See Treasury Regulation Section 1.460-6(b) (1).

#### **Alternative Minimum Tax (AMT)**

This includes any income from a long-term contract that is required to be reported under the percentage of completion method for alternative minimum tax purposes. These include non-home construction contracts, with average annual gross receipts for the prior 3 years that are less than \$10,000,000. Although these non-home construction contracts are exempt from reporting income on the percentage of completion method for regular income tax purposes, for alternative minimum tax purposes the taxpayer must report the income on the percentage of completion method. The look-back method is applied to the recomputed the AMT. See Treasury Regulation Section 1.460-6(b) (2) (ii).

#### **Percentage of Completion-Capitalized Cost Method (PCCM)**

Residential construction contracts may be reported under PCCM in which 70% of the contract is reported under PCM and the other 30% is reported under an exempt contract method. See Treasury Regulation Section 1.460-4(e). Look-back would be computed on the 70% PCM portion of the contract. See Treasury Regulation Section 1.460-(6) (b) (1).

## **Related Parties**

To the extent that the percentage of completion method is required to be used under Treasury Regulation Section 1.460-1(g) with respect to income and expenses that are attributable to activities that benefit a related party's long-term contract, the look-back method also applies to these amounts, even if those activities are not performed under a contract entered into directly by the taxpayer. See Treasury Regulation Section 1.460-(6) (b) (1).

## ***Exceptions from the Application of Look-Back***

Look-back does not apply to the regular taxable income from any long-term construction contract in the following situations:

### **Home Construction Contract**

Home construction contracts are defined by IRC Section 460(e) (6) (A) and are exempt from look-back under IRC Section 460(e) (1) (A).

### **Small Contractor Exception**

Any contract which is not a home construction contract but is estimated to be completed within a 2-year period is exempt per IRC Section 460(e) (1) (B) if the taxpayer's average annual gross receipts for the 3 tax years preceding the tax year the contract is entered into do not exceed \$10,000,000. However, the look-back may apply to the alternative minimum taxable income from a contract of this type; or

### **De Minimis Small Contract Exception**

The look-back method does not apply to any long-term contract that is (1) completed within 2 years of the contract commencement date and (2) has a gross contract price that does not exceed the lesser of:

1. \$1,000,000; or
2. 1% of the average annual gross receipts of the taxpayer for the 3 tax years prior to the tax year that the contract is completed.

Exception from the look-back method is mandatory for de minimis small contracts and applies for purposes of computing both regular taxable income and alternative minimum taxable income. See IRC Section 460(b)(3)(B).

### **Example:**

This situation illustrates the concept of de minimis small contract exception. The average annual gross receipts for the 3 preceding tax years are \$55,000,000. The following non-home construction contracts were completed during the taxable year and all jobs were completed within 2 years of the contract commencement date.

<b>De Minimis Small Contract Exceptions</b>	
<b>Job</b>	<b>Gross Contract Price</b>
1	\$5,000,000
2	\$900,000
3	\$15,000,000
4	\$2,500,000
5	\$400,000

Only Job 5 would be exempt from the application of look-back. The de minimis exception applies to jobs that have a gross contract price less than \$550,000 (1% of \$55,000,000 - average annual gross receipts), which is the lesser of \$1,000,000 or 1%. However, if Job 5 was not completed within 2 years of the contract commencement date, the de minimis exception would not apply, and look-back would be required. The \$1,000,000 benchmark would only apply when the average annual gross receipts of the three preceding years exceeds \$100,000,000.

### ***Election Not to Apply Look-Back***

For contracts completed in tax years ending after August 5, 1997, contractors may elect not to apply the look-back method if the amount reported is within 10 percent of the cumulative taxable income or loss as determined using actual contract price and costs for each prior contract year. The 10% test must be met in each year of the contract; it is not 10% of the entire contract (i.e. a contract will not meet the de minimis exception if the entire contract is within 10% of the look-back computation but in Year 1 the contract was 11% different). See IRC Section 460(b) (6) (B).

IRC Section 460(b) (6) (B) provides that de minimis discrepancies pursuant to paragraph (1)(B) shall not apply in any case to which it would otherwise apply if the cumulative taxable income (or loss) under the contract as of the close of each prior contract year, is within 10 percent of the cumulative look-back income (or loss) under the contract as of the close of such prior contract year.

This is an election and is not mandatory as compared to the mandatory de minimis small contract exception per IRC Section 460(b) (3) (B). Once elected, the de minimis discrepancy exception applies to all long-term contracts completed during the taxable year for which the election is made and any subsequent taxable year. Revoking this election is considered a change in method of accounting, which requires the Commissioner's consent. See IRC Section 460(b) (6) (D) and Treasury Regulation Section 1.460-6(j).

### ***Computation of Look-Back***

The computation of look-back interest involves a three-step process that is described under IRC Section 460(b) (2):

1. Hypothetically reapply the PCM for each year of all long-term contracts that are completed or adjusted in the current year, using the actual, rather than estimated, total contract price and contract costs to determine income for each year of the contract;
2. Compute the hypothetical overpayment or underpayment of tax for each year, which will be the difference between the amount of income reported each year, and the amount that

- would have been reported if actual, rather than estimated, contract price and costs had been used; and
3. Apply the rate of interest on overpayments to the hypothetical overpayment or underpayment of tax.

IRC Section 460(b) (2) provides that interest computed under the lookback method of this paragraph shall be determined by:

1. Allocating income under the contract among taxable years before the year in which the contract is completed on the basis of the actual contract price and costs instead of the estimated contract price and costs.
2. Determining (solely for purposes of computing such interest) the overpayment or underpayment of tax for each taxable year referred to in subparagraph (A) that would result solely from the application of subparagraph (A).
3. And, then using the adjusted overpayment rate as defined in paragraph (7) (compounded daily) on the overpayment or underpayment as determined under subparagraph (B).

For purposes of the preceding sentence, any amount properly taken into account after completion of the contract shall be taken into account by discounting (using the Federal mid-term rate determined under section 1274(d) as of the time such amount was properly taken into account) such amount to its value as of the completion of the contract. The taxpayer may elect with respect to any contract to have the preceding sentence not apply to such contract.

### ***Step 1: Reapply the PCM to all Long-Term Contracts***

Using the actual contract price and contract costs under Treasury Regulation Section 1.460-6(c)(2) for each filing year, a taxpayer must reallocate total contract income among prior years using actual contract price and costs to all contracts that are completed or adjusted (e.g., post-completion revenue and expenses are discussed below) in the filing year. See Treasury Regulation Section 1.460-6(c)(2)(i). Look-back cannot be applied to a contract before it is completed. See Treasury Regulation Section 1.460-6(c) (2) (iii). The following items may be included in the “actual” contract income and costs for the look-back computation:

#### **Treatment of Estimated Future Costs**

If a taxpayer reasonably expects to incur additional allocable contract costs in a tax year subsequent to the year in which the contract is completed, the taxpayer includes these additional costs with the actual costs in the denominator of the PCM ratio. The completion year is the only filing year for which the taxpayer may include additional estimated costs in the denominator of the PCM ratio in applying the look-back method. If look-back is reapplied in any year after the completion year, only the cumulative costs incurred are includible in the denominator of the PCM ratio for look-back purposes. See Treasury Regulation Section 1.460-6(c) (2) (ii).

#### **Amount Treated as Contract Price**

All amounts that the taxpayer expects to receive from the customer are treated as part of the contract price as soon as it is reasonably estimated that they will be received even if the all-events test has not yet been met. See Treasury Regulation Section 1.460-6(c) (2) (vi) (A).

#### **Percentage of Completion**

Under the 10% Method and Application of Look-back, contractors are required by IRC Section 460 to use the percentage of completion method to report income on long-term construction contracts may elect to defer the recognition of gross income and the deduction of costs incurred on contracts until the year in which 10% of the estimated allocable contract costs have been incurred. This method of accounting is discussed in the chapter on large contractors. Contractors that elect this method must also use the 10% method to compute look-back interest. See Treasury Regulation Section 1.460-6(c) (2) (v).

Use of actual contract price and costs under the look-back method will occasionally reveal that the year that 10% of the allocable contract costs have been incurred for look-back (the 10% year) was earlier or later than the year originally reported.

When the look-back year is earlier than the year originally reported, the contract costs must be reallocated to the new 10% year and to subsequent years as incurred. When the look-back year is later than the year originally reported, the contract costs incurred before the new 10% year must be reallocated to the new 10% year. See Treasury Regulation Section 1.460-6(c)(2)(v).

**Example:**

This situation illustrates the concept of the 10% method and application of the look-back method.

<b>Example of 10% and Look-Back Method</b>			
<b>Per Return</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
<b>Cumulative Incurred Costs</b>	\$58,000	\$300,000	\$500,000
<b>Estimated Total Costs</b>	\$600,000	\$600,000	\$500,000
<b>Percent Complete</b>	9.6%	50%	100%
<b>Total Contract Price</b>	\$1,000,000	\$1,000,000	\$1,000,000
<b>Income to be Reported</b>	0	\$500,000	\$500,000
<b>Expenses to be Deducted</b>	0	\$300,000	\$200,000
<b>Per Look-Back</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
<b>Cumulative Incurred Costs</b>	\$58,000	\$300,000	\$500,000
<b>Actual Total Costs</b>	\$500,000	\$500,000	\$500,000
<b>Percent Completed</b>	11.6 %	60%	100%
<b>Total Contract Price</b>	\$1,000,000	\$1,000,000	\$1,000,000
<b>Gross Income: That should have been reported for look-back purposes.</b>	\$116,000	\$600,000 <del>(\$116,000)</del> \$484,000	
<b>Expenses: That should have been deducted for look-back purposes.</b>	\$58,000	\$300,000 <del>(\$58,000)</del> \$242,000	

Year 1 is the new 10% year for look-back, and the income and expenses are reallocated to year 1 to determine the underpayment of tax in Year 1 under the lookback method.

## ***Step 2: Computation of Overpayment or Underpayment of Tax***

The computation of hypothetical overpayment or underpayment of tax is provided under Treasury Regulation Section 1.460-6(c)(3). This step involves the computation of a hypothetical overpayment or underpayment of tax for each year redetermination year in which the tax liability is affected by income from contracts that are completed or adjusted in the filing year. Rather than recomputing the tax liability of each redetermination year, a taxpayer may be required, or elect, to use the simplified marginal impact method (SMIM), which uses an assumed marginal tax rate. This simplified method is discussed later in this chapter. The remaining discussion of Step 2 is applicable to those taxpayers not using SMIM.

The redetermination year is any affected tax year for which a look-back computation must hypothetically be computed. The filing year is the year that contracts are completed or adjusted (e.g., post-completion revenue and expenses, discussed below).

The taxpayer must determine what its regular and alternative minimum tax liability would have been for each redetermination year if the actual amounts of contract income allocated in Step 1 were substituted for the amounts reported on the taxpayer's original return (or as subsequently adjusted on an amended return or an examination). See Treasury Regulation Section 1.460-6(c) (3) (ii). The hypothetical underpayment or overpayment for each affected year is the difference between the tax liability as determined under the look-back method and the amount of tax liability as originally reported, subsequently amended or adjusted, or the last previous application of look-back, whichever is latest. See Treasury Regulation Section 1.460-6(c) (3) (iii). The redetermination of tax liability resulting from previous applications of the look-back method is cumulative. See Treasury Regulation Section 1.460-6 (c) (3) (iv).

### **Look-back is Cumulative for Step 1 and Step 2**

The "hypothetical" reallocation of contract income as a result of applying look-back does not increase or decrease the amount of contract income; it only changes the amounts that should have been reported each year. Therefore, the application of look-back is cumulative to ensure look-back taxable income and regular taxable income is the same over the life of a contract. See Treasury Regulation Section 1.460-6(c)(3)(iv). There are two important practical points regarding this regulation:

1. If a redetermination year was previously adjusted by look-back, then the adjusted amounts are the starting points for the current Form 8697. The taxable income from Form 8697, Part I (Regular Method), Line 3 of the previous Form 8697 becomes Line 1 on the current Form 8697. Similarly, Line 4 of the previous Form 8697 becomes Line 5 of the current year Form 8697.

### **Example:**

This situation illustrates the concept of how the redetermination amounts are reflected on Form 8697 for filing year 2006.

## Form 8697 Adjustments

	2005	2007
<b>Part I, Line 1 – Taxable Income</b>	\$500,000	\$600,000
<b>Part I, Line 2 – Look-back Adjustment</b>	\$100,000	
<b>Part I, Line 3 – Taxable Income as Adjusted</b>	\$600,000	

2. The filing year is adjusted by the current year look-back adjustment even though it is not shown on the Form 8697 and does not affect the current year look-back computation. However, it can affect subsequent year look-back computations. Because income is reallocated (without an increase or decrease in overall taxable income), the current year adjustment for the filing year must be reflected in future years' look-back taxable income to prevent omission or duplication of income. Using the previous example, in the filing year 2006, the lookback adjustment to 2005 is an increase of \$100,000 that "hypothetically" is a reallocation of income from 2006 to 2005. In the subsequent filing year (2007), Line 1 of the 2006 redetermination year should reflect the \$100,000 decrease in taxable income. This is demonstrated in Treasury Regulation Section 1.460-6(h)(3), Example 2 (iii).

## Years Affected by Look-back

A redetermination of income tax liability under Step 2 is required for every tax year for which the tax liability would have been affected by a change in the amount of income or loss for any other year for which a redetermination is required. For example, if the allocation of contract income under Step 1 changed the amount of a net operating loss that was carried back to a year prior to the year the taxpayer entered into the contract, the tax liability for the earlier year must be determined. See Treasury Regulation Section 1.460-6 (c) (3) (v).

### Example:

This situation illustrates the concept of a Net Operating Loss (NOL) and Look-back. In Year 5, a contract is completed which was in process in Years 3 and 4. On the original tax return for Year 3, the taxpayer incurred a NOL, which was carried back and fully absorbed in Year 1. When computing look-back for Year 5, the completion year, the reallocation of contract income to Year 3 "hypothetically" decreases the NOL that was carried back to Year 1. The tax liability for Year 1 would be recomputed to determine the underpayment or overpayment of tax for look-back purposes. However, the look-back interest would only be computed from the NOL generating year, Year 3, and not the carry back absorption year, Year 1. See the section on Different Interest Period for Changes in Net Operating Losses (NOL's).

## Definition of Tax Liability

The income tax liability, computed in Step 2, must be determined by taking into account all applicable additions to tax, credits, and net operating loss carrybacks and carryovers. For example, if the taxpayer did not pay alternative minimum tax but would have paid it with the application of look-back, the hypothetical overpayment or underpayment of tax is determined by comparing the hypothetical tax liability (which includes alternative minimum tax) with the actual tax liability for that year. See Treasury Regulation Section 1.460-6(c) (3) (vi).

## Summary of Step 2

For each affected tax redetermination year, the hypothetical overpayment or underpayment of tax is the difference between:

1. Hypothetical Tax Liability (includes all taxes, credits, NOL's), and
2. Actual Tax Liability per return adjusted by amendments, examination, and previous applications of look-back.

### ***Step 3: Calculation of Interest on Underpayment or Overpayment of Tax***

The calculation of interest on underpayment or overpayment or underpayment of tax is provided under Treasury Regulation Section 1.460-6(c)(4). Once the overpayment or underpayment of tax is calculated for each redetermination year, the interest is determined by applying the overpayment rate designated under IRC Section 6621, compounded daily.

Generally, the time period over which the interest is charged begins on the due date (not including extensions) of the return for the redetermination year and ends on the earlier of:

1. The due date (not including extensions) of the return for the filing year (i.e. year of completion or adjustment); and
2. The date both the income tax return for the filing year is filed and the tax for that year has been paid in full. Treasury Regulation Section 1.460-6(c)(4)(i).

#### **Example:**

This situation illustrates the concept of the interest computation period. In Year 3, a corporate calendar year-end taxpayer completed contracts. Look-back is required to be computed for Years 1 and Year 2. The interest computation for Year 1 look-back would be computed from the due date of the Year 1 tax return (3/15/X2) to the due date of the Year 3 tax return (3/15/X4), if not filed before the due date of the Year 3 tax return. The interest computation for Year 2 look-back would be computed from the due date of the Year 2 tax return (3/15/X3) until the due date of the Year 3 tax return (3/15/X4).

#### **Different Interest Period for Changes in Net Operating Losses (NOLs)**

The authority for using different interest periods for changes in net operating losses (NOL's) is Treasury Regulation Section 1.460-6(c)(4)(ii). As previously mentioned, if the allocation of contract income under Step 1 changed the amount of a net operating loss that was carried back to a year preceding the year the taxpayer entered into the contract, the tax liability for the earlier year must be determined. The interest is computed from the due date of the tax return that gives rise to the net operating loss carryback and not from the due date of the return in which the net operating loss is absorbed. However, for net operating loss carryovers, the interest is computed from the due date of tax return in which the net operating loss carryover is absorbed.

#### **Example:**

This situation illustrates the concept of interest computation period on changes in NOL's. In Year 5, a contract is completed which was in process in Year 3 and 4. On the original tax return for Year 3, the taxpayer incurred a NOL, which was carried back and fully absorbed in Year 1. When computing look-back for Year 5, the completion year, the reallocation of contract income to Year 3 "hypothetically" decreases the NOL that was carried back to Year 1. The tax liability for Year 1 would be recomputed to determine the underpayment or overpayment of tax for look-back

purposes. However, the interest computation period would be from the due date of the Year 3 tax return until the due date of the Year 5 tax return.

In the above example, if the NOL in Year 3 was not carried back but carried over and fully absorbed in Year 4, the interest computation period for look-back would be computed from the due date of the Year 4 tax return until the due date of the Year 5 tax return.

### **Different Interest Period for Changes in Tax Liability That Generated a Subsequent Refund**

The authority for using different interest periods for changes in tax liability that generated a subsequent refund is Treasury Regulation Section 1.460-6(c)(4)(iii). If the tax liability in a redetermination year is decreased by the application of look-back and any portion was absorbed by a loss or credit carryback in a year subsequent to the redetermination year, the interest computation period would be as follows:

To the extent the amount of tax absorbed because of the carryback exceeds the total hypothetical tax liability for the year, the interest period for look-back ends on the due date (not including extensions) of the return for the year in which the carryback arose and not the due date of the filing year (i.e. completion year).

#### **Example:**

In Year 5, upon the completion of a long-term contract, the taxpayer redetermines its tax liability for Year 3 under the look-back method. This redetermination results in a hypothetical reduction of tax liability of \$300 determined as follows:

#### **Redetermination Items**

<b>Redetermination Item</b>	<b>Year 3</b>
Tax Per Return	\$1,500
Hypothetical Tax Per Look-back	\$1,200
Hypothetical Overpayment of Tax	\$300

In Year 4, a NOL was incurred and carried back to Year 3. The interest computation period for look-back would depend on the amount of reported tax liability of Year 3 that was refunded:

1. If the amount refunded because of the NOL is \$1,500: interest is credited to the taxpayer on the entire hypothetical overpayment of \$300 from the due date of the Year 3 return, when the hypothetical overpayment occurred, until the due date of the Year 4 return, when the taxpayer received a refund for the entire amount of the Year 3 tax, including the hypothetical overpayment. Treasury Regulation Section 1.460-6 (c) (4) (iii) (A).
2. If the amount refunded because of the NOL is \$1,000: interest is credited to the taxpayer on the entire amount of the hypothetical overpayment of \$300 from the due date of the Year 3 return, when the hypothetical overpayment occurred, until the due date of the Year 5 return. In this situation interest is credited until the due date of the return for the completion year of the contract, rather than the due date of the return for the year in which the carryback arose, because the amount refunded was less than the hypothetical tax liability. Therefore, no portion of the hypothetical overpayment is treated as having been refunded to the taxpayer before the filing year. Treasury Regulation Section 1.460-6(c) (4) (iii) (B).

3. If the amount refunded because of the NOL is \$1,300: interest is credited to the taxpayer on \$100 (\$1,300 - \$1,200) from the due date of the Year 3 return until the due date of the Year 4 return because only this portion of the total hypothetical overpayment is treated as having been refunded to the taxpayer before the filing year. However, the taxpayer did not receive a refund for the remaining \$200 of the overpayment at that time and, is therefore is credited with interest on \$200 from the due date of the Year 3 return to the due date of the tax return for Year 5.

### **Interest Rate Computation Period is Annual and not Quarterly**

Generally, IRS computes interest on a quarterly basis. Prior to the Taxpayer Relief Act of 1997, the look-back interest computation was also computed quarterly. However, the Taxpayer Relief Act of 1997 added IRC Section 460(b) (7), which provided the annual rate for tax returns ending after August 5, 1997. Rather than using the rates in effect for each quarter, the look-back rate will change only once for each twelve month period. The interest rate to be used for this period is the rate in effect for the calendar quarter in which the interest rate accrual begins.

### **Adjusted Overpayment Rate**

In General, the adjusted overpayment rate for any interest accrual period is the overpayment rate in effect under IRC Section 6621 for the calendar quarter in which such interest accrual period begins. The interest accrual period for purposes of subparagraph (A) means the period:

1. Beginning on the day after the return due date for any taxable year of the taxpayer, and
2. Ending on the return due date for the following taxable year.

For purposes of the preceding sentence, the term “return due date” means the date prescribed for filing the return of the tax imposed by this chapter determined without regard to extensions.

### **Corporate Interest Rates**

For tax periods ending after 1994, corporate interest rates are different for increases or decreases of tax exceeding \$10,000. Therefore, the first \$10,000 of the look-back interest is computed at one interest rate with any amount over \$10,000 being computed at a lower rate (i.e. 1.5% lower). See IRC Section 6621(a) (1).

### ***Simplified Marginal Impact Method (SMIM)***

The authority for the Simplified Marginal Impact Method (SMIM) is Treasury Regulation Section 1.460-6(d). The SMIM eliminates the need to refigure the tax liability based on actual contract price and actual contract costs each time the look-back method is applied. Under the simplified method, prior year hypothetical underpayments or overpayments in tax are figured using an assumed marginal tax rate, which is generally the highest statutory rate in effect for the prior year under IRC Section 1 for an individual or IRC Section 11 for a corporation.

### **Required Use of SMIM by Certain Pass-Through Entities**

The Simplified Marginal Impact Method (SMIM) is required by certain pass-through entities under Treasury Regulation Section 1.460-6(d) (4). The simplified marginal impact method is required with respect to income reported from domestic contracts by a pass-through entity that is a partnership, an S-Corporation, or a trust, and that is not closely held. With respect to contracts

described in the preceding sentence, the simplified marginal impact method is applied by the pass-through entity at the entity level. See Treasury Regulation Section 1.460-6(d) (4) (i).

The assumed marginal rate to be used at the entity level is determined by the ownership of the entity. For determining the amount of any hypothetical underpayment or overpayment, the applicable regular and alternative minimum tax rates, respectively, are generally the highest rates of tax in effect for corporations under section 11 and section 55(b)(1). However, the applicable regular and alternative minimum tax rates are the highest rates of tax imposed on individuals under section 1 and section 55(b) (1) if, at all times during the redetermination year involved (i.e., the year in which the hypothetical increase or decrease in income arises), more than 50 percent of the interests in the entity were held by individuals directly or through 1 or more pass through entities. See Treasury Regulation Section 1.460-6(d) (4) (i) (A).

A pass-through entity is closely held if, at any time during any redetermination year, 50 percent or more (by value) of the beneficial interests in that entity are held (directly or indirectly) by or for 5 or fewer persons. For this purpose, the term “person” has the same meaning as in IRC Section 7701(a) (1), except that a pass-through entity is not treated as a person. In addition, the constructive ownership rules of IRC Section 1563(e) apply by substituting the term “beneficial interest” for the term “stock” and by substituting the term “pass-through entity” for the term “corporation” used in that section, as appropriate, for purposes of determining whether a beneficial interest in a pass-through entity is indirectly owned by any person. See Treasury Regulation Section 1.460-6(d) (4) (i) (B).

A domestic contract is any contract in which substantially all of the income is from sources in the United States. For this purpose, “substantially all” of the income from a long-term contract is considered to be from United States sources if 95 percent or more of the gross income from the contract is from sources within the United States as determined under the rules in IRC Sections 861 through 865. See Treasury Regulation Section 1.460-6 (d) (4) (i) (D).

If a widely held pass-through entity has some foreign contracts and some domestic contracts, the owners of the pass-through entity each apply the look-back method (using, if they elect, the simplified marginal impact method) to their respective share of the income and expense from foreign contracts. Moreover, in applying the look-back method to foreign contracts at the owner level, the owners do not take into account their share of increases or decreases in contract income resulting from the application of the simplified marginal impact method with respect to domestic contracts at the entity level. See Treasury Regulation Section 1.460-6(d) (4) (i) (E).

### **Elective Use of SMIM**

C corporations, individuals, and owners of closely held pass-through entities that are not required to use the SMIM may elect to use this simplified marginal impact method. In the case of an electing owner in a pass-through entity, the simplified marginal impact method is applied at the owner level, instead of at the entity level, with respect to the owner’s share of the long-term contract income and expenses reported by the pass-through entity. See Treasury Regulation Section 1.460-6(d) (4) (ii) (A).

A taxpayer elects the simplified marginal impact method by stating that the election is being made on a timely filed income tax return (determined with regard to extensions) for the first tax year the election is to apply. An election to use the simplified marginal impact method applies to all applications of the look-back method to all eligible long-term contracts for the tax year for which the election is made and for any subsequent tax year. The election may not be revoked without the consent of the Commissioner. See Treasury Regulation Section 1.460-6(d) (4) (ii) (B).

In the case of a consolidated group of corporations, as defined in Treasury Regulation Section 1.1502-1 (h), an election to use the simplified marginal impact method is made by the common parent of the group. The election is binding on all other affected members of the group (including members that join the group after the election is made with respect to all applications of the look-back method after joining). If a member subsequently leaves the group, the election remains binding as to that member unless the Commissioner consents to a revocation of the election. If a corporation using the simplified marginal impact method joins a group that does not use the method, the election is automatically revoked with respect to all applications of the look-back method after it joins the group. See Treasury Regulation Section 1.460-6(d) (4) (ii) (C).

### **Operation of SMIM**

Under the simplified marginal impact method, income from those contracts that are completed or adjusted in the filing year is first reallocated in accordance with the procedures of Step 1 above.

Then, the increase or decrease in taxable income in the redetermination year due to the reallocation of contract income determined in Step 1 is multiplied by the applicable tax rate (highest rate of tax in effect for the redetermination year). This rate is determined without regard to the taxpayer's actual rate bracket. The amount of any overpayment determined in this step may be limited to the taxpayer's actual tax liability (see below). See Treasury Regulation Section 1.460-6(d) (2) (i).

### **Overpayment Ceiling on Refunds**

The net hypothetical overpayment of tax for any redetermination year is limited to the taxpayer's total federal income tax liability for the redetermination year reduced by the cumulative amount of net hypothetical overpayments of tax for that redetermination year resulting from earlier applications of the look-back method. If the reallocation of contract income results in a net overpayment of tax and this amount exceeds the actual tax liability (as of the filing year) for the redetermination year, as adjusted for past applications of the look-back method and taking into account net operating loss, capital loss, or credit carry over and carry back to that year, the actual tax so adjusted is treated as the overpayment for the redetermination year. This overpayment ceiling does not apply when the simplified marginal impact method is applied at the entity level by a widely held pass-through entity. See Treasury Regulation Section 1.460-6(d) (2) (iii).

### **Anti-Abuse Rule**

The IRS may compute the interest on the contract (including domestic contracts of widely held pass-through entities) under the look-back method by using the actual method if the simplified marginal impact method is used with respect to any long-term contract (including a contract of a widely held pass-through entity). See Treasury Regulation Section 1.460-6(d) (3) for additional information on the anti-abuse rule.

### ***Post-Completion Revenue and Expenses***

Guidance on post-competition revenue and expenses is provided under Treasury Regulation Section 1.460-6(c) (1) (ii). When a contractor incurs post-completion year costs or receives post-completion year revenues, additional look-back computations are necessary. Any year in which the look-back method must be applied is treated as a filing year. See Treasury Regulation Section 1.460-6 (c) (1) (ii) (A). The amount of any post-completion adjustment to the total contract price or contract costs is discounted, solely for purposes of applying the look-back method, from its value at the time the amount is taken into account in computing taxable income

to its value at the completion of the contract. See Treasury Regulation Section 1.460-6(c) (1) (ii) (C) (1).

The following items should be considered with post-completion revenue and expenses are:

1. Taxpayers have the option not to discount post-completion year revenues and costs. Treasury Regulation Section 1.460-6(c) (1) (ii) (C) (2).
2. For purposes of reapplying the look-back method after the year of contract completion, a taxpayer may elect the “delayed reapplication method” to minimize the number of required reapplications of the look-back method. See Treasury Regulation Section 1.460-6(e).
3. A taxpayer may elect not to apply the look-back method in de minimis cases. IRC Section 460(b) (6); Treasury Regulation Section 1.460-6(j).

### ***Revenue Acceleration Rule***

Treasury Regulation Section 1.460-6(c) (1) (ii) (D) and IRC Section 460(b) (1) requires a taxpayer to include in gross income, for the tax year immediately following the year of completion, any unreported portion of the total contract price not previously required to be included in income (including amounts that the taxpayer expects to receive in the future) determined as of that year. This treatment is required even if the percentage of completion ratio is less than 100 percent because the taxpayer expects to incur additional allocable contract costs in a later year. At the time any remaining portion of the contract price is includible in income under this rule, no offset against this income is permitted for estimated future contract costs. To achieve the requirement to report all remaining contract revenue without regard to additional estimated costs, a taxpayer must include only costs actually incurred through the end of the tax year in the denominator of the percentage of completion ratio in applying the percentage of completion method for any tax years after the year of completion. See Treasury Regulation Section 1.460-6(c) (1) (ii) (D).

### ***Reporting Look-Back - Form 8697***

The reporting of look-back is provided for under Treasury Regulation Section 1.460-6(f). Form 8697 is used for the Look-Back Computation. Each contract year is computed in a separate column on Form 8697, with the totals being netted to determine whether an overall refund or additional tax is due for the filing year (the completion year or a post-completion year). If a taxpayer owes interest under the look-back method, the Form 8697 is attached to the tax return and is considered an additional tax. See Treasury Regulation Section 1.460-6(f) (2) (i), and the Instructions to Form 8697.

If the taxpayer is due a refund, the Form 8697 is not attached to the taxpayer’s tax return, but instead is filed separately. See the Instructions to Form 8697.

If the taxpayer was an owner of an interest in a partnership or an S-Corporation during any year in which long-term contracts were being accounted, Form 8697 must be filed for the tax year that ends with or includes the end of the entity’s tax year in which the contract was completed. See Instructions to Form 8697.

Interest required to be paid on Form 8697 will be added to the tax on the income tax return and the Form 8697 will be attached to the income tax return. For a corporation the interest due would still be an interest deduction even though it is added to the total tax on the return. See Treasury Regulation Section 1.460-6(f) (2) (i).

For an individual, the interest is nondeductible personal interest. A taxpayer that fails to pay the amount of interest due is subject to any applicable penalties and interest. See Treasury Regulation Section 1.460-6(f) (2) (i).

If a taxpayer owes interest on Form 8697, the Form 8697 is a form within the tax return, and the statute of limitations on the return under IRC Sections 6501 and 6502 is controlling. See Treasury Regulation Section 1.460-6(f) (3).

In cases where the taxpayer is entitled to receive a refund of interest, the Form 8697 must be filed separately; it is not attached to the tax return. The amount of interest received is treated as taxable interest income and is not treated as a reduction in tax liability or a tax refund. See Treasury Regulation Section 1.460-6(f) (2) (i).

The amount is includible in gross income as interest income in the tax year it is properly taken into account under the taxpayer's method of accounting for interest income. When the taxpayer is entitled to a look-back refund, the taxpayer has a 6-year period in which to file a claim. See Revenue Ruling 56-506, 1956-2 C.B. 959, and Revenue Ruling 57-242, 1957-1 C.B. 452.

Treasury Regulation Section 1.460-6(f) (2) provides for the treatment of interest on return. The general rule is that the amount of interest required to be paid by a taxpayer is treated as an income tax under subtitle A but only for purposes of subtitle F of the Code (other than sections 6654 and 6655) which addresses tax procedures and administration. Thus, a taxpayer that fails to pay the amount of interest due is subject to any applicable penalties under subtitle F, including, for example, an underpayment penalty under section 6651, and the taxpayer also is liable for underpayment interest under section 6601. However, interest required to be paid under the look-back method is treated as interest expense for purposes of computing taxable income under subtitle A even though it is treated as income tax liability for subtitle F purposes. Interest received under the look-back method is treated as taxable interest income for all purposes, and is not treated as a reduction in tax liability or a tax refund.

The determination of whether or not interest computed under the look-back method is treated, as tax is determined on a "net" basis for each filing year. Thus, if a taxpayer computes for the current filing year both hypothetical overpayments and hypothetical underpayments for prior years, the taxpayer has an increase in tax only if the interest computed on the underpayments for all those prior years exceeds the interest computed on the overpayments for all those prior years, for all contracts completed or adjusted for the year.

In general, the taxpayer that reports the income from a long-term contract applies the look-back method. See Treasury Regulation Section 1.460-6(g) for rules regarding who is responsible for applying the look-back method when, prior to the completion of a long-term contract, there is a transaction that changes the taxpayer that reports income from the contract (also known as mid-contract change in taxpayer).

### ***Mid-Contract Change in Taxpayer and Look-back Interest***

Guidance for mid-contract change in taxpayer is provided under Treasury Regulation Section 1.460-6(g). If there is a transaction, prior to the completion of a long-term contract accounted for using the PCM or the PCCM by a taxpayer (old taxpayer), that makes another taxpayer (new taxpayer) responsible for accounting for the income from the same contract, a mid-contract change in taxpayer has occurred. See Treasury Regulation Section 1.460-4(k) for additional information regarding mid-contract change in taxpayer.

### **Constructive Completion Transactions**

On the date of the transaction, the old taxpayer constructively completes the contract and the old taxpayer applies the look-back method at the date of the transaction for the pre-transaction years. If the new taxpayer uses PCM or PCCM to account for the contract, the new taxpayer applies look-back to the post-transaction years upon completion of the contract. See Treasury Regulation Section 1.460-6(g) (2).

### **Step-in-the-Shoes Transactions**

The look-back method is not applied at the time of the transaction, but is instead applied for the first time when the contract is completed by the new taxpayer. The new taxpayer applies look-back to both the pre- and post-transaction years as though it had been the reporting taxpayer since the inception of the contract. The new taxpayer is liable for filing the Form 8697 and for paying the look-back interest. The new taxpayer is also entitled to receive look-back interest with respect to the hypothetical overpayments of tax. The old taxpayer will be secondarily liable for any interest that must be paid with respect to the pre-transaction years.

1. The new taxpayer may apply the look-back method to each pre-transaction year that is a redetermination year using the simplified marginal impact method (SMIM) regardless of whether or not the old taxpayer would have used that method and without regard to the tax liability ceiling. See Treasury Regulation Section 1.460-6(g) (3) (ii) (B).
2. For the pre-transaction years, the interest accrues from the due date of the old taxpayer's tax return (not including extensions) until the due date of the new taxpayer's tax return (not including extensions). See Treasury Regulation Section 1.460-6(g) (3) (ii) (C).
3. For post-transaction years, the new taxpayer must use the same look-back method it uses for other contracts. For example if the taxpayer normally does not use SMIM for its contracts, the taxpayer would have to use the regular computation of look-back interest for the post-transaction years even though it may choose to use SMIM for the pre-transaction years. See Treasury Regulation Section 1.460-6(g) (3) (iii).
4. Following the conversion of a C corporation into an S corporation, the look-back method is applied at the entity level with respect to the contracts entered into prior to the conversion. See Treasury Regulation Section 1.460-6(g) (3) (iv).

### **Common Errors**

1. For refunds requested by individuals, failure to include both signatures on the Form 8697. If the related income tax return Form 1040 is a joint return, both signatures are required on the Form 8697.
2. Improperly computing interest from the Net Operating Loss (NOL) carryback year. The tax liability is hypothetically determined in the tax year the NOL carryback is absorbed, but interest to be computed for that carryback year is only from the due date (not including extensions) of the tax year that generated the NOL to the due date of the filing year (not including extensions). See Treasury Regulation Section 1.460-6(c) (4) (ii).
3. Simplified Marginal Impact Method (SMIM) incorrectly applied at the flow-through entity level for those taxpayers electing this method. There are only two instances in which look-back interest is applied at the entity level of a flow-thru entity (Form 1120-S or Form 1065):
4. The pass-through entity is widely held and required to use SMIM.
5. Following the conversion of a C corporation into an S corporation the look-back method is applied at the entity level with respect to contracts entered into prior to the conversion. See Treasury Regulation Section 1.460-6(g) (3) (iv).
6. For taxpayers electing SMIM, the overpayment ceiling is not being applied – the net hypothetical overpayment of tax should be limited to the taxpayer's total federal income tax liability as adjusted (i.e. prior applications of look-back, NOL carrybacks, etc.). The

- overpayment ceiling does not apply to widely-held pass-through entities that are required to use SMIM. See Treasury Regulation Section 1.460-6(d) (2) (iii).
7. Members of a consolidated group erroneously file Form 8697 - The consolidated entity must file the Form 8697 using the consolidated entity's EIN.
  8. The interest rate for computing look-back interest is incorrectly being changed as the quarterly rates change - The quarterly rate that is in effect on the day after the due date of a taxpayer's return should be applied to the entire "interest accrual period" (an annual period), and it does not change quarterly during the year. See IRC Section 460(b) (7) (B).
  9. Forms 8697 claiming refunds are improperly attached to the tax return reducing the current year's tax liability – Forms 8697 claiming refunds must be filed separately from the income tax return.
  10. Schedules of contract income reallocation are not attached to the Form 8697 – only owners of pass-through entities are exempt from this requirement.
  11. The cumulative changes to look-back taxable income and look-back tax liability for each redetermination year are not being properly reported on the Form 8697.

## ***Conclusion***

Look-back is hypothetical and does not result in an adjustment to the taxpayer's tax liability as originally reported or amended. It does result, however, in payment of interest from or to the taxpayer upon completion of the contract, depending on the accuracy of the estimated numbers used by the taxpayer in its PCM computations. Due to the hypothetical nature of look-back, a separate tax system is necessary to account for look-back, similar to that of alternative minimum tax. Look-back is a very complex area of the tax law which causes many errors in compliance.

## **Chapter 6: Financial Accounting Versus Tax Accounting**

### ***Introduction***

The accounting methods available within in the construction industry are unique to this industry. Understanding both the financial accounting and tax accounting requirements is important, so the proper book-to-tax adjustments are made.

### ***Financial Accounting***

The primary sources for generally accepted accounting principles (GAAP) for accounting for construction contracts are Accounting Research Bulletin (ARB) No. 45, Long-Term, Construction-Type Contracts and Statement of Position (SOP) 81-1, Accounting for Performance of Construction-Type and Certain Production-Type Contracts. Under (GAAP) there are two methods of recognizing revenues on construction contracts.

ARB 45, which was issued in 1955, describes the two generally accepted methods of accounting for long-term construction type contracts; the percentage of completion method and the completed contract method. Because of the complexities and uncertainties in accounting for contracts, SOP 81-1 was issued in 1981 to provide additional guidance on the application of generally accepted accounting principles (GAAP).

Under SOP 81-1, the two methods are not alternatives from which a contractor is free to choose. SOP 81-1 establishes a strong preference for the percentage of completion method on the presumption that contractors have the ability to make estimates that are sufficiently dependable.

Therefore, the financial statements (whether audited, reviewed, or compiled) that are prepared for bonding, banking, or other reporting purposes are almost exclusively prepared using the percentage of completion accounting method. However, in some circumstances, where the estimation of the final outcome may be impractical except to assure no loss will be incurred, the percentage of completion method will use a zero profit method (i.e. equal amount of revenue and cost are recognized until the results can be more precisely estimated).

The completed contract method may be used for financial purposes in circumstances in which the financial position would not vary materially from the percentage of completion method (i.e. this would primarily occur with short-term contracts). Additionally, the completed contract method may be used in circumstances in which the contractor cannot make reasonable estimates.

However, as discussed in the chapter on Small Contractors and Large Contractors, many more accounting method choices are available to the contractor for tax purposes, depending on the length of the contract, the type of construction involved, and the average annual gross receipts of the taxpayer.

## **International Accounting Standards**

Similar to SOP 81-1, which is a United States standard, International Accounting Standard (IAS) 11 provides guidance for the accounting of the revenues and costs of construction contracts. Under IAS 11, the percentage of completion method should be used when the outcome of a construction contract can be reasonably estimated. In circumstances in which the outcome cannot be reasonably estimated, no profit should be recognized. Contract revenue should only be recognized to the extent of contract costs are incurred.

## **Balance Sheet Accounts**

When accounting for contracts using the percentage of completion method (PCM), costs determine the revenue and not the contract's earned or billed income, recognition. Determining completion by costs (Total Costs Incurred divided by Total Estimated Costs) is a computation not made through the day-to-day book recording procedures. For instance, there is not a general ledger account for total estimated contract costs.

To account for the difference between percentage of completion method and billings, two balance sheet accounts are created:

1. Costs and Estimated Earnings in Excess of Billings (Asset)
2. Billings in Excess of Costs and Estimated Earnings (Liability)

## **Example:**

This situation illustrates the concept of journal entries for a construction contract using the percentage of completion method. The contractor entered into a long-term construction contract during the 2001 taxable year. The total estimated contract price is \$3,000,000, the total estimated contract costs are \$2,000,000 and the contract is to be completed in 2002. The total costs incurred on this contract during 2001 are \$1,000,000. The contractor billed the customer \$1,200,000 during 2001.

During the tax year journal entries to record the transactions of this contract would be recorded as shown below. (Note: the two entries below are a summary of the numerous transactions that would have been recorded as the costs and billings were incurred.)

<b>Journal Entries Using Percentage of Completion Method</b>		
<b>Journal Entries</b>	<b>Debit</b>	<b>Credit</b>
Costs Incurred	\$1,000,000	
Accounts Payable		\$1,000,000
Accounts Receivable	\$1,200,000	
Costs and Estimated Earnings in Excess of Billings		\$1,200,000

At year-end, the contractor would determine the income to be included under the percentage of completion method as follows:

#### **Year-End Percentage of Completion Method**

Total Costs Incurred (\$1,000,000)				
<b>Divided By</b>	<b>Times</b>	Estimated Contract Price (\$3,000,000)	<b>Equals</b>	PCM Income (\$1,500,000)
Total Estimated Costs (\$2,000,000)				

The necessary to bring the books and financial statements in accordance with the percentage of completion method would be as follows:

<b>Adjusting Journal Entry for Percentage of Completion Method</b>		
<b>Journal Entries</b>	<b>Debit</b>	<b>Credit</b>
Costs and Estimated Earnings in Excess of Billings	\$1,500,000	
Income		\$1,500,000

At year-end the costs and estimated earnings in excess of billings account has a debit balance of \$300,000 and thus is represent as an asset on the balance sheet.

Basically, these two balance sheet accounts represent the difference between the accrual method and the percentage-of-completion method for reporting income on a long-term contract. Under either method, the costs related to the long-term contract are deducted as incurred. Therefore, generally no difference exists between the two methods for costs.

<b>Accrual vs. Percentage of Completion Methods</b>	
<b>Accrual vs. Percentage of Completion Methods</b>	<b>Amount</b>
Income Billings per Accrual Method	\$1,200,000
Income per Percentage of Completion Method	\$1,500,000
Costs and Earnings in Excess of Billings	\$300,000

## **Balance Sheet Reporting**

A basic reporting principle prevents assets and liabilities from being netted or offset against each other. Thus both accounts (Costs and Earnings in Excess of Billings and Earnings and Costs in Excess of billings) should be present on the balance sheet. The following procedures are performed at year-end:

1. For each contract in progress at year-end, the total cost incurred to date plus the estimated earnings (on percentage of completion method) is reduced by the total amount of bills rendered to arrive at a net balance. The net balance, for each contract, will be a debit if the total costs and estimated earnings exceed the billings and a credit if the billings exceed the costs and estimated earnings.
2. All contracts that have a debit balance are added together with the total shown as an asset on the balance sheet.
3. All contracts that have a credit balance are added together with the total shown as a liability on the balance sheet.

See the Contracts In Process Schedule at the end of the chapter for an illustration of the procedures above.

## **Book and Tax Differences**

Schedule M-1 and M-3 adjustments result from both timing differences and permanent differences between financial and tax accounting. The following items are intended to point out some of the differences in financial and tax accounting that is unique to the construction industry. These differences should be reconciled through Schedule M-1 and M-3 adjustments.

## **Revenue Recognition**

As discussed above, Statement of Position 81-1 (SOP 81-1) virtually requires construction companies to report income on the percentage of completion method. Generally, the bonding company or a lending bank will require the taxpayer to submit audited (possibly reviewed) financial statements, which will be reported on the percentage of completion method. For tax accounting, the contractor may use a different method, such as completed contract method, percentage of completion method, or capitalized cost method.

## **Contract Related Services**

SOP 81-1 paragraph 12 provides a listing of contracts that are covered by this statement. Included in that listing are engineers, architects, and construction management taxpayers. Therefore, for financial purposes these contracts would be accounted for under the percentage of completion method. However, for tax purposes, they generally cannot use a long-term contract method (e.g., completed contract or percentage of completion). Revenue Ruling 70-67, Revenue Ruling 80-18, Revenue Ruling 82-134, Revenue Ruling 84-32.

## **Determining Completion for Percentage of Completion Method**

SOP 81-1 paragraph 44 provides a number of methods to measure the extent of progress towards completion. They include the cost-to-cost method, variations of the cost-to-cost method, efforts expended method, the units-of-delivery method, and the units-of-work-performed method. For tax purposes, IRC § 460 generally requires the cost-to-cost method. However, the taxpayer may also elect the percentage of completion, 10% method in which none of the contract revenue

or costs is included in taxable income until the contract is 10% complete. The contractor may also elect the simplified cost-to-cost method to determine contract completion.

## Loss Recognition

SOP 81-1 paragraph 85 requires the contractor to report the total loss on a contract as soon as it is evident that a loss will occur. "When the current estimates of total contract revenue and contract cost indicate a loss, a provision for the entire loss on the contract should be made. Provisions for losses should be made in the period in which they become evident under either the percentage-of-completion method or the completed-contract method." However, for tax purposes, the loss is not recognized until the job is completed, if on the completed contract method, and as incurred, if on the percentage of completion method.

## Sample Financial Statements using Percentage of Completion Method

The exhibits below illustrate the financial statements when reporting construction contracts on the percentage of completion method. They also include items to consider when reviewing these statements.

- Exhibit 6A - Balance Sheet
- Exhibit 6B - Statement of Income and Retained Earnings
- Exhibit 6C - Schedule 1 – Earnings from Contracts
- Exhibit 6D - Schedule 2 – Contracts Completed
- Exhibit 6E - Schedule 3 – Contracts in Progress

### Exhibit 6A XYZ Corporation Balance Sheet December 31, 2002

<b>Assets:</b>	<b>Current Assets:</b>	<b>Cash</b>	\$9,000	
		<b>Contract Receivables</b>	\$335,000	
		<b>Costs &amp; Estimated Earnings in Excess of Billings <sup>1</sup></b>	\$28,711	
		<b>Total Current Assets</b>	\$372,711	\$372,711
	<b>Property &amp; Equipment:</b>	<b>Furniture, Fixtures, &amp; Equipment</b>	\$6,000	
		<b>Accumulated Depreciation</b>	(\$1,500)	
		<b>Total Property and Equipment</b>	\$4,500	\$4,500
		<b>Other Assets:</b>		
		<b>Deposits</b>	\$750	
		<b>Total Other Assets</b>	\$750	\$750
	<b>Total Assets</b>		\$377,961	
<b>Liabilities and</b>	<b>Liabilities:</b>	<b>Accounts Payable</b>	\$121,000	
		<b>Accrued Liabilities</b>	\$17,000	

<b>Stockholder's Equity:</b>		<b>Deferred Income Taxes</b>	\$36,000	
		<b>Billings in Excess of Costs and Estimated Earnings<sup>1</sup></b>	\$5,666	
		<b>Total Liabilities</b>	\$179,666	\$179,666
<b>Stockholder's Equity:</b>		<b>Common Stock</b>	\$1,000	
		<b>Retained Earnings</b>	\$197,295	
		<b>Total Stockholder's Equity</b>	\$198,295	\$198,295
		<b>Total Liabilities and Stockholder's Equity</b>		\$377,961

### Notes

<sup>1</sup> This account should reconcile to the Schedule 3 – Contracts in Progress

<b>Exhibit 6B XYZ Corporation Statement of Income and Retained Earnings December 31, 2002</b>	
<b>Contract Revenue Earned <sup>1</sup></b>	\$1,439,159
<b>Less Costs of Revenue Earned <sup>1</sup></b>	(\$1,174,000)
<b>Gross Profit</b>	\$265,159
<b>Less General and Administrative Expenses</b>	(\$199,000)
<b>Income before Income Taxes</b>	\$66,159
<b>Less Income Taxes:</b>	
<b>Current Income Taxes</b>	(\$12,000)
<b>Deferred Income Taxes</b>	(\$4,000)
<b>Net Income <sup>2</sup></b>	\$50,159
<b>Add Beginning Retained Earnings</b>	\$147,136
<b>Ending Retained Earnings</b>	\$197,295

### **Exhibit 6C XYZ Corporation Schedule 1 – Earnings from Contracts Year Ended December 31, 2002**

<b>Description</b>	<b>Revenues Earned</b>	<b>Cost of Revenues</b>	<b>Gross Profit (Loss)</b>
<b>Contracts Completed during the Year<sup>1</sup></b>	\$502,000	\$361,000	\$141,000
<b>Plus Contracts in Progress at Year-End<sup>2</sup></b>	\$937,159	\$813,000	\$124,159
<b>Earnings from Contracts</b>	\$1,439,159	\$1,174,000	\$265,159

## Notes

<sup>1</sup> This amount is from Schedule 2 - Contracts Completed. It represents the amounts of revenue earned and costs incurred during the 2002 tax year.

<sup>2</sup> This amount is from Schedule 3 – Contracts in Progress. It represents the amounts of revenue earned and costs incurred during the 2002 tax year.

<b>Exhibit 6D XYZ Corporation Schedule 2 – Contracts Completed Year Ended December 31, 2002</b>										
Project Number	Construction Project	Revenues Earned <sup>1</sup>	Cost Of Revenues <sup>1</sup>	Gross Profit (Loss) <sup>1</sup>	Revenues Earned <sup>2</sup>	Cost Of Revenues <sup>2</sup>	Gross Profit (Loss) <sup>2</sup>	Revenues Earned <sup>3</sup>	Cost Of Revenues <sup>3</sup>	Gross Profit (Loss) <sup>3</sup>
121	John's Store	\$312,000	\$248,000	\$64,000	\$193,000	\$172,000	\$21,000	\$119,000	\$76,000	\$43,000
122	Ron's Club	\$267,000	\$197,000	\$70,000	\$178,000	\$144,000	\$34,000	\$89,000	\$53,000	\$36,000
127	Parking Lot	\$403,000	\$312,000	\$91,000	\$250,000	\$199,000	\$51,000	\$153,000	\$113,000	\$40,000
128	Hospital	\$35,000	\$38,000	(\$3,000)	0	0	0	\$35,000	\$38,000	(\$3,000)
130	Office Building	\$106,000	\$81,000	\$25,000	0	0	0	\$106,000	\$81,000	\$25,000
Totals		\$1,123,000	\$876,000	\$247,000	\$621,000	\$515,000	\$106,000	\$502,000	\$361,000	\$141,000

## Notes

<sup>1</sup> Contract Totals for Revenues Earned, Cost of Revenues and Gross Profit (Loss) would be used for the tax return if on the Completed Contract Method.

<sup>2</sup> Before January 1, 2002

<sup>3</sup> Year Ended December 31, 2002

<b>Exhibit 6E XYZ Corporation Schedule 3 – Contracts in Process Year Ended December 31, 2002</b>							
#	Revenues	Estimated Gross Profit (Loss)	Revenues Earned <sup>1</sup>	Cost of Revenues <sup>1</sup>	Gross Profit (Loss) <sup>1</sup>	Billed to Date <sup>1</sup>	Estimated Cost to Complete <sup>1</sup>
119	1,275,000	210,000	1,228,310	1,026,000	202,310	1,225,000	39,000

**Exhibit 6E XYZ Corporation Schedule 3 – Contracts in Process Year Ended December 31, 2002**

#	Revenues	Estimated Gross Profit (Loss)	Revenues Earned <sup>1</sup>	Cost of Revenues <sup>1</sup>	Gross Profit (Loss) <sup>1</sup>	Billed to Date <sup>1</sup>	Estimated Cost to Complete <sup>1</sup>
120	211,000	(10,000)	107,887	113,000	(5,113)	106,000	108,000
123	53,000	15,000	43,237	31,000	12,237	46,000	7,000
124	258,000	50,000	129,000	104,000	25,000	117,000	104,000
125	218,000	40,000	79,607	65,000	14,607	74,000	113,000
126	85,000	13,000	47,222	40,000	7,222	43,000	32,000
129	220,000	42,000	181,685	147,000	34,685	180,000	31,000
131	160,000	38,000	28,852	22,000	6,852	30,000	100,000
133	152,000	1,000	37,245	37,000	245	39,000	114,000
	2,632,000	399,000	1,883,045	1,585,000	298,045	1,860,000	648,000

**Notes**

<sup>1</sup> Amounts are from inception of the contract to December 31, 2002.

**Exhibit 6E XYZ Corporation Schedule 3 – Contracts in Process Year Ended December 31, 2002 (continued)**

#	Revenues	Estimated Gross Profit (Loss)	Revenues Earned <sup>2</sup>	Cost of Revenues <sup>2</sup>	Gross Profit (Loss) <sup>2</sup>	Cost and Estimated Earnings in Excess of Billings <sup>3</sup>	Billings in Excess of Costs and Estimated Earnings <sup>3</sup>	Revenues Earned <sup>4</sup>	Cost of Revenues <sup>4</sup>	Gross Profit (Loss) <sup>4</sup>	Percentage Complete <sup>4</sup>
119	1,275,000	210,000	1,049,000	880,000	169,000	3,310	0	179,310	146,000	33,310	96.34%
120	211,000	(10,000)	0	0	0	1,887	0	211,000	221,000	(10,000)	51.13%
123	53,000	15,000	0	0	0	0	2,763	43,237	31,000	12,237	81.58%

**Exhibit 6E XYZ Corporation Schedule 3 – Contracts in Process Year Ended December 31, 2002 (continued)**

#	Revenues	Estimated Gross Profit (Loss)	Revenues Earned <sup>2</sup>	Cost of Revenues <sup>2</sup>	Gross Profit (Loss) <sup>2</sup>	Cost and Estimated Earnings in Excess of Billings <sup>3</sup>	Billings in Excess of Costs and Estimated Earnings <sup>3</sup>	Revenues Earned <sup>4</sup>	Cost of Revenues <sup>4</sup>	Gross Profit (Loss) <sup>4</sup>	Percentage Complete <sup>4</sup>
124	258,000	50,000	0	0	0	12,000	0	129,000	104,000	25,000	50.00%
125	218,000	40,000	0	0	0	5,607	0	79,607	65,000	14,607	36.52%
126	85,000	13,000	0	0	0	4,222	0	47,222	40,000	7,222	55.56%
129	220,000	42,000	0	0	0	1,685	0	181,685	147,000	34,685	82.58%
131	160,000	38,000	0	0	0	0	1,148	28,852	22,000	6,852	18.03%
133	152,000	1,000	0	0	0	0	1,755	37,245	37,000	245	24.50%
	2,632,000	399,000	1,049,000	880,000	169,000	28,711	5,666	937,159	813,000	124,159	

**Notes**

<sup>2</sup> Amounts are from before January 1, 2002.

<sup>3</sup> Amounts are at December 31, 2002 (Balance Sheet Accounts).

<sup>4</sup> Amounts are for the Year Ended December 31, 2002.

### **Audit Considerations:**

1. Job # 120 has a total estimated loss of (10,000) – the full loss is being reported for financial purposes. However, the job is only 51.13% complete. Thus, there should be a Schedule M-1 adjustment from book to tax.
2. Where is Job # 132? – Not located on this schedule or the completed contract schedule.
3. Job # 133 has an unusually low gross profit compared to other jobs. Why?

## **Chapter 7: HOMEBUILDERS AND DEVELOPERS**

### ***Introduction***

Home construction contracts are one of the two exceptions from some of the requirements of IRC Section 460. The small contractor's exception is the other one that is discussed in earlier chapter. Contracts that meet the home construction contracts definition are exempt from the following:

1. The requirement to use percentage of completion method;
2. The application of the look-back provisions; and
3. The requirement to use percentage of completion method for alternative minimum tax purposes.

Even though exempt from the above requirements, construction period interest is still required to be capitalized under IRC Section 460(c)(3).

IRC Section 460(e)(1)(A) exempts any home construction contract and thus is not based on neither the length of the contract nor the gross receipts of the contractor as with the small contractors exception. However, the last sentence of IRC Section 460(e)(1) provides that home construction contracts that do not meet the 2-year or \$10,000,000 gross receipts test are subject to the application of IRC Section 263A. These contractors are commonly termed Large Home Builders and are discussed separately.

IRC Section 460(e) provides an exception for certain construction contracts. In general, subs (a), (b), and (c)(1) and (2) shall not apply to:

1. Any home construction contract, or
2. Any other construction contract entered into by a taxpayer:
  - A. Who estimates (at the time such contract is entered into) that such contract will be completed within the 2-year period beginning on the contract commencement date of such contract, and
  - B. Who averages annual gross receipts for the 3 taxable years preceding the taxable year in which such contract is entered into do not exceed \$10,000,000.

In the case of a home construction contract with respect to which the requirements of clauses (i) and (ii) of subparagraph (B) are not met, 263A shall apply notwithstanding subparagraph (c)(4).

Land developers are discussed later in this chapter because they are closely related to the home construction industry. The land developer may also construct the homes or only sell the improved lots to the homebuilders.

## ***Home Construction Contract Defined***

A home construction contract is any contract where 80% or more of the estimated total contract costs, as of the close of the tax year that the contract was entered into, is reasonably expected to be attributable to the building, construction, reconstruction, or rehabilitation of dwelling units contained in buildings containing four or fewer dwelling units and improvements to real property that are directly related to such dwelling unit. The distinction between a home construction contract and a residential construction contract is important because residential construction contracts do not meet the exception to the use of percentage of completion and look-back provided by IRC Section 460(e). Residential construction contracts contain more than 4 dwelling units (e.g. apartments, condominiums). Residential construction contracts are discussed in more detail in an earlier chapter.

IRC Section 460(e)(6)(A) provides that the term “home construction contract” means any construction contract if 80 percent of the estimated total contract costs (as of the close of the taxable year in which the contract was entered into) are reasonably expected to be attributable to activities referred to in paragraph (4) with respect to:

1. Dwelling units as defined in IRC Section 168(e)(2)(A)(ii) contained in buildings containing 4 or fewer dwelling units as so defined. For this purpose, each townhouse or rowhouse shall be treated as a separate building, and
2. Improvements to real property directly related to such dwelling units and located on the site of such dwelling units.

Treasury Regulation 1.460-3(b)(2) provides that a contract of a subcontractor working for a general contractor is included in the definition of home construction contracts if it otherwise qualifies, and that common improvements that benefit the dwelling units being constructed or located at the site of the dwelling units are included as part of the 80% test.

Treasury Regulation 1.460-3(b)(2) provides that a long-term construction contract is a home construction contract if a taxpayer (including a subcontractor working for a general contractor) reasonably expects to attribute 80 percent or more of the estimated total allocable contract costs (including the cost of land, materials, and services), determined as of the close of the contracting year, to the construction of:

1. Dwelling units, as defined in IRC 168(e)(2)(A)(ii)(I), contained in buildings containing 4 or fewer dwelling units (including buildings with 4 or fewer dwelling units that also have commercial units); and
2. Improvements to real property directly related to, and located at the site of, the dwelling units.

### **Townhouses and Rowhouses**

Each townhouse or rowhouse is a separate building.

### **Common improvements**

A taxpayer includes in the cost of the dwelling units their allocable share of the cost that the taxpayer reasonably expects to incur for any common improvements (e.g., sewers, roads, clubhouses) that benefit the dwelling units and that the taxpayer is contractually obligated, or required by law, to construct within the tract or tracts of land that contain the dwelling units.

## **Mixed Use Costs**

If a contract involves the construction of both commercial units and dwelling units within the same building, a taxpayer must allocate the costs among the commercial units and dwelling units using a reasonable method or combination of reasonable methods, such as specific identification, square footage, or fair market value.

## **Dwelling Units**

Dwelling units are defined in IRC Section 168(e)(2)(A)(ii)(I). The term dwelling unit means a house or apartment used to provide living accommodations in a building or structure, but does not include a unit in a hotel, motel, or other establishment more than one-half of the units in which are used on a transient basis.

## **Mixed Use Buildings**

If a contract requires construction of a mixed-use building (e.g. a building that will include both dwelling units and offices) the costs are allocated among the commercial units and the dwelling units using a reasonable method, pursuant to Treasury Regulation 1.460-3(b)(2)(iv).

## **Proposed Regulations Expand Definition of Home Construction Contract**

On August 1, 2008 the Treasury and IRS released proposed regulations that expand the definition of a home construction contract. Prior to this date, the IRS and the industry were at odds as to whether a land developer providing common improvements without also constructing a home and subcontractors providing common improvements within a residential area were considered a home construction contract. The proposed regulations expanded the home construction definition to include these construction contracts. Additionally, the proposed regulations expanded the home construction definition to condominium developments that contain more than 4 dwelling units in a building. The condominiums are considered the same as rowhouse or townhouse in which each condominium unit is considered a single building. The proposed regulations also provide guidance to taxpayers electing to change their long-term method of accounting, providing which changes are accounted for under the cut-off method and which changes are accounted for using an IRC Section 481(a) adjustment.

At the time of the writing this chapter, these proposed regulations have not yet been finalized, and any user of this guide should research this area for the issuance of subsequent guidance.

## ***Taxation of Homebuilders***

To avoid confusion in the tax accounting rules, for both income and expenses, the following types of construction or development will be discussed separately:

1. Homes Built for Speculation without a Contract
2. Contractors Building Homes with a Contract
3. Land Developers

### ***Homes Built for Speculation (No Contract)***

Homebuilders will purchase a number of lots from a developer of a subdivision to build houses. The homebuilder may build some of the homes as speculative (spec) homes. Speculative homes

are not built under a contract. In the industry, homes built for speculation that are on hand at year end are referred to as inventory of unsold houses or work in process. These speculation houses do not meet the definition of inventory in the Code. The Internal Revenue Code defines inventory as tangible personal property. Speculation houses are capital assets as defined in IRC Section 263. The builder owns the real property (land) and the house inherently attached to the land. Courts have consistently held that developed real property must be accounted for under a capitalization method. See *W.C. & A.N. Miller Development Co. v. Commissioner*, 81 T.C. 619 (1983); *Homes by Ayres v. Commissioner*, T.C. Memo. 1984-475, *aff'd*, 795 F.2d 832 (9th Cir. 1986). See also Revenue Ruling 86-149, 1986-2 C.B. 67; Revenue Ruling 66-247, 1966-2 C.B. 198.

## **Income Recognition**

Since speculation homes are not built under a contract, long-term contract accounting methods such as the completed contract and percentage of completion do not apply. Speculative homebuilders report their income from the sale of a speculative house at the time of settlement or closing under IRC Section 1001.

Sometimes speculative homes are started but sold during the construction phase, which could become a long-term construction contract if not completed within the same tax year subject to the taxpayer's long-term contract method of accounting. However, in most cases, the completed contract method is the one elected and the sale would not constitute a taxable event until completion.

## **Cost Recognition**

The direct and indirect costs incurred by a taxpayer in the construction of a house for speculative sale (including the cost of the land, direct materials and direct labor) should be capitalized according to the principles in IRC Section 263(a) and IRC Section 263A, regardless of the taxpayer's overall method of accounting.

Under IRC Section 263(a)(1) and Treasury Regulation Section 1.263(a)-1, costs incurred in the construction of homes and other permanent improvements to real property are not currently deductible. Instead the cost of unsold homes and construction in progress is a capital expenditure that becomes part of the basis of the real estate, which in turn, is recovered either through a depreciation allowance if the property is used in a trade or business (rented), or as an offset against the price received in the sale or disposition of such property.

Treasury Regulation Section 1.263(a)-2 sets forth examples of capital expenditures, including the cost of acquisition, construction, or erection of buildings having a useful life substantially beyond the tax year.

The uniform capitalization rule of IRC Section 263A(a)(1) applies to speculation homes, which mandates certain costs to be allocated to property produced by the taxpayer, and that such costs be capitalized if the property is not inventory in the hands of the taxpayer.

IRC Section 263A(a)(1) provides that in the case of any property to which this applies any costs described in paragraph (2) shall be capitalized.

The homebuilder must determine the accumulated production expenditures, described in Treasury Regulation Section 1.263A-11, with respect to each home. This requires the homebuilder to allocate the cumulative amount of direct and indirect costs described in IRC Section 263A(a) that are to be capitalized with respect to the unit of property. A unit of property is

defined by Treasury Regulation Section 1.263A-10(b) as any component of real property that is functionally interdependent, along with an allocable share of any common feature owned by the taxpayer. For example, the components of a single family home (land, foundation and walls) are functionally interdependent; in contrast, condo units separately placed in service in a multi-unit building are each treated as a functionally interdependent unit, even though they are all located in the same building. In the case of property produced for sale, components of real property are functionally interdependent if they are customarily sold as a single unit. All costs that have been accumulated for a particular home are charged to cost of sales at the time of settlement with the purchaser of the home.

### **Revenue Ruling 66-247**

The costs incurred in the construction of a house for speculative sale are capitalized regardless of the taxpayer's overall method of accounting. Such costs shall be applied against the amount realized upon the sale of the house for purposes of determining gain or loss in computing taxable income.

### **Carpenter v. Commissioner, T.C. Memo 1994-289**

A building contractor could not use the cash method of accounting for expenses related to construction of houses that were unsold at the end of the tax year because he was a producer of the property. The contractor was required to capitalize the costs of construction related to the unsold houses under IRC Section 263A.

### ***Inventory vs. Real Estate***

In the construction industry, it is common for a contractor to use "inventory" terminology for unsold homes or work-in-progress. However, unsold homes or work-in-progress is real estate which is never considered inventory. Both real estate and inventory are assets but this distinction is important because under several accepted inventory methods, a departure from the actual cost could take place (that is, lower of cost or market). In recent years the real estate market has taken a downturn in market value. Generally Accepted Accounting Principles (GAAP) requires real estate to be written down to market value. See Financial Accounting Standards Board (FASB) Statement No. 144 – Accounting for the Impairment or Disposal of Long-Lived Assets. However, for tax purposes, a write-down in value is not permissible; therefore, there should be a book or tax adjustment reported on Schedule M-1 or M-3.

Atlantic Coast Realty Co. v. Commissioner, 11 B.T.A. 416 (1928), and Revenue Ruling 69-536, 1969-2 C.B. 109 hold that home builders are not allowed to treat real estate held for sale as "inventory" and write their work in process down to market value using a lower of cost or market valuation.

Homes by Ayres v. Commissioner, T.C. Memo 1984-475, aff'd. 795 F.2d 832 (9th Cir. 1986) - Taxpayers engaged in the construction and sale of large-scale tract housing developments could not use the LIFO method to account for the property. The court held that real estate is not inventory, and thus an inventory method to account for the property is not allowed.

W.C. & A.N. Miller Development Co. v. Commissioner, 81 T.C. 619 (1983) - The taxpayer was engaged in the business of developing real estate, which it acquired, and constructed single-family, detached homes. The taxpayer applied a LIFO method to account for its completed homes. All costs related to each home were charged to the cost of sales only at the time of settlement with the purchaser of the home. The court held that the individual homes or lots which

the taxpayer sells are real estate and do not constitute “merchandise” within the meaning of Treasury Regulation Section 1.471-1. Thus, LIFO is not permitted.

There is a fundamental difference between capitalization and an inventory method. Under capitalization, gain will be determined pursuant to 1001 on each individual home when it is sold and such gain is to be determined based generally on the taxpayer’s actual cost for that particular home.

Revenue Ruling 86-149, 1986-2 C.B. 67 involves a real estate developer who filed a Form 970 to apply for the LIFO method of accounting for its “inventory” of completed homes and homes in progress. The construction costs of completed homes and costs of construction in progress are capital expenditures under IRC Section 263. A taxpayer engaged in the business of developing real estate capitalizes its costs in accordance with IRC Section 263.

Under IRC Section 263(a)(1), costs incurred in the construction of homes and other permanent improvements to real property are not currently deductible. Instead the costs of unsold homes and construction in progress are capital expenditure that becomes part of the cost of the real estate, which, in turn, is recovered either through a depreciation allowance if the property is used in a trade of business, or as an offset against the price received in the subsequent sale or disposition of such property.”

### **Speculation Homes Becoming Long-Term Contracts**

A contractor may begin building a speculative home and enter into a “sales” agreement with a customer prior to completion. If the remaining construction on the home, after the contract is entered into, extends beyond the taxable year, the contractor has entered into a long-term construction contract and would then account for the contract under its exempt long-term method of accounting. See Treasury Regulation Section 1.460-4(c)(1).

As previously mentioned, all costs incurred prior to the contract date, when the home is a speculation home, are capitalized under IRC Section 263(a) and IRC Section 263A. Once the contract is entered into, the accumulated costs to date become deferred costs under the completed contract method and costs incurred after the contract date would be capitalized under the provisions of Treasury Regulation Section 1.460-5(d). However, if the taxpayer were a large homebuilder, the costs incurred after the date of the contract would continue to be capitalized under IRC Section 263A.

If the taxpayer’s exempt long-term method of accounting is a percentage-of-completion method, the accumulated capitalized costs incurred prior to the contract date would become an allocable contract cost in the PCM numerator, and thus be deductible during the year the contract is entered into.

### ***Contractors Building Homes Under Contract***

As previously mentioned, any home construction contract is exempt from the requirement to use the percentage of completion method per IRC Section 460(e)(1)(A). Therefore, the contractor may elect a permissible exempt contract method that includes percentage of completion, exempt percentage of completion, completed contract, or any other permissible method under IRC Section 446. See Treasury Regulation Section 1.460-4(c)(1). The contractor must use the elected method to account for all its long-term contracts that are exempt from the requirements of IRC Section 460(a). Even though exempt construction contracts are not subject to the percentage of completion method, production period interest is subject to the cost allocation rules under IRC Section 460(c)(3). See Treasury Regulation Section 1.460-1(a)(2)(i).

## **Long-Term Methods of Accounting**

If a contractor elects a long-term method of accounting for an exempt construction contract (e.g., completed contract method, percentage of completion method, or exempt contract percentage of completion method) it is not relevant who has title to the land on which the home is being built. Within the definition of a contract for the construction of property, Treasury Regulation Section 1.460-1(b)(2) states, "Whether the customer has title to, control over, or bears the risk of loss from, the property manufactured or constructed by the taxpayer also is not relevant." Treasury Regulation Section 1.460-4 describes the tax recognition of the contract income and expenses attributable to long-term methods of accounting.

### **Completed Contract Method**

Gross contract price and all allocable contract costs incurred are included in taxable income in the year of completion under the completed contract method per Treasury Regulation Section 1.460-4(d).

### **Percentage of Completion Method (PCM)**

A taxpayer generally must include in income the portion of the total contract price that corresponds to the percentage of the entire contract that the taxpayer has completed during the taxable year. The percentage of completion must be determined by comparing allocable contract costs incurred with estimated total allocable contract costs. Thus, the taxpayer includes in gross income a portion of the contract price as the taxpayer incurs allocable contract costs. See Treasury Regulation Section 1.460-4(b).

### **Exempt Contract Percentage of Completion Method**

Similar to PCM, above, except the percentage of completion may be determined using any method of cost comparison (such as direct labor costs incurred to estimated total direct labor costs) or by comparing the work performed on the contract with the estimated total work to be performed. See Treasury Regulation Section 1.460-4(c)(2).

### **Other Permissible Accounting Methods**

Title to the property is relevant if the taxpayer elects any permissible method, per IRC Section 446, other than a long-term method of accounting, because the appropriate rules for income and expenses are contained in other s of the Internal Revenue Code and regulations.

Treasury Regulation Section 1.460-1(a)(2) provides exceptions to the required use of PCM. The requirement to use the PCM does not apply to any exempt construction contract described in Treasury Regulation Section 1.460-3(b). Thus, a taxpayer may determine the income from an exempt construction contract using any accounting method permitted by Treasury Regulation Section 1.460-4(c) and, for contracts accounted for using the completed-contract method (CCM), any cost allocation method permitted by Treasury Regulation Section 1.460-5(d). Exempt construction contracts that are not subject to the PCM or CCM are not subject to the cost allocation rules of Treasury Regulation Section 1.460-5 except for the production-period interest rules of Treasury Regulation Section 1.460-5(b)(2)(v). Exempt construction contractors that are large homebuilders described in Treasury Regulation Section 1.460-5(d)(3) must capitalize costs under IRC Section 263A. All other exempt construction contractors must account for the cost of construction using the appropriate rules contained in other s of the Internal Revenue Code or regulations.

If the contractor does not elect a long-term accounting method and owns the property, the land and the home being built upon it, the contractor must capitalize all costs incurred in the construction of the home per IRC Section 263. See Revenue Ruling 86-149, 1986-2 C.B. 67. These costs are capital expenditures that become a part of the real estate cost that, in turn, is recovered as an offset against the price received upon the disposition of the property. See IRC Section 1001. Therefore, the cash or accrual methods are not allowable methods for contractors building on property it owns.

Conversely, a contractor that builds a home on the customer's property may be eligible for the cash or accrual method of accounting.

## **Large Homebuilders**

A large homebuilder is one failing to meet the requirements of IRC Section 460(e)(1)(B).

1. Any homebuilder whose average annual gross receipts, for three preceding years, exceed \$10,000,000 or
2. Contracts which are expected to exceed a 2-year period beginning on the contract commencement date.

The only distinction between a large homebuilder and a small homebuilder is that a large homebuilder is required to capitalize the allocable contract costs according to IRC Section 263A.

## **Model Homes**

Homebuilders may buy several lots in a subdivision and build one or more styles of homes to use as a model home. These model homes may contain a portion of the home as a sales office. The model home will eventually be sold at the end of the development. Revenue Ruling 89-25, 1989-1 C.B. 79, states that model homes and sales offices are not subject to an allowance for depreciation.

## **Furnishings in Model Homes**

Unlike Revenue Ruling 89-25 and *Duval Motor Co. v. Commissioner*, 264 F.2d 548, 551-52 (5th Cir. 1959), furnishings placed in model homes usually do not separately constitute an income-producing activity of a homebuilder, and do not promote the sale of similar furnishings. The model home furniture is not inventory. Instead, the homebuilder intends to promote the sale of homes.

I.R.C. Section 168 provides the applicable depreciation method, applicable recovery period, and the applicable convention for determining the depreciation deduction provided by IRC Section 167(a) for tangible property.

Revenue Procedure 87-56 classifies Office Furniture, Fixtures, and Equipment with a 7-year class life. This asset category includes "furniture and fixtures that are not a structural component of a building . . ." IRC Section 168(e)(3)(C)(ii) also establishes a 7-year class life for any property which does not have a class life. Therefore, the furnishing placed within a model home would be depreciated over a 7-year class life.

## ***Land Developer***

In the industry, the developer is generally the owner of the development. The developer acquires the raw land, obtains approval for development, secures the financing, and begins to clear the

land, install roads, utilities, etc. The land developer may also build the homes in the development; sell the lots to a builder that will build the homes, or a combination of both.

This pertains to the land developer that improves and sells the lots without having a long-term construction contract under IRC Section 460.

### **Applicable Method of Income Recognition**

Since land developers are involved in the production of property without contracts, they generally report their income from the sale of a parcel of property at the time of settlement or closing.

### **Cost Recognition**

The direct costs incurred by a land developer in the development of real estate (including the original cost of the land, direct materials and direct labor) should be capitalized according to IRC Section 263(a) and 263A.

The uniform capitalization rules of IRC Section 263A(a)(1) apply to land developers, and mandate certain costs to be allocated to property produced by the taxpayer as real property. These costs include pre-production costs (real estate taxes, zoning costs, design fees, etc.), production costs, and post-production costs.

Von-Lusk v Commissioner, 104 T.C. 207 (1995) held that predevelopment costs were capitalized under IRC Section 263A because taxpayer was involved in the "production" of property.

Reichel v. Commissioner, 112 T.C. 14 (1999) held that real estate taxes paid by a real estate developer were required to be capitalized under IRC Section 263A, even though no positive steps to begin developing the parcels had occurred, because the taxpayer acquired the parcels with the intent to develop them

Hustead v. Commissioner, T.C. Memo. 1994-374, aff'd without opinion, 61 F.3d 895 (3d Cir. 1995) held that expenditures (legal expenses related to challenge of zoning variance) incurred in connection with land development must be capitalized under IRC Section 263A.

The land developer must determine the accumulated production expenditures with respect to each unit of property per Treasury Regulation Section 1.263A-11. Each unit of property, as defined in Treasury Regulation Section 1.263A-10, is treated as a separate costing unit to which all-direct and indirect costs described in IRC Section 263A(a) are required to be capitalized.

### ***Allocating Costs to Each Parcel of Property***

Generally Accepted Accounting Principles (GAAP) establishes a hierarchy of cost allocation methods via SFAS 67 Paragraph 11. These methods (in order) are:

1. Specific identification method.
2. Relative value methods (appraised value, relative assessed value for real estate taxes)
3. Other allocation methods (square footage)

If the lots have the same general characteristics and size, cost can be allocated evenly to each lot. If the lots have similar characteristics but different sizes, cost can be allocated on square footage. If lots have different characteristics, costs can normally be allocated based on relative sales value.

In *Homes by Ayres*, 795 F.2d 832 (9th Cir. 1986), the court addressed job-costing methods. Taxpayers accounted for their construction costs by accumulating costs for each phase of a subdivision. Taxpayers would accumulate all direct and indirect costs for the year and then allocate them according to one of three methods to determine the cost of the houses sold in each phase (relative sales value method, average cost method, and square footage method). All three of these methods comport with generally accepted accounting principles and the IRS admits that they accurately reflect income.

Normally each lot is a separate cost center. But when job costs are accumulated for a subdivision in phases, a cost pool may be used. Costs may be allocated according to standard cost accounting principals. Examples of methods used to determine the cost basis of the lots sold in each phase are:

1. One technique for allocating the pool of capitalized costs is the "relative sales value method." This method determines cost of lots sold by multiplying total capitalized costs (already incurred plus estimated costs of completion) by the ratio of the selling prices of the lots sold to the estimated selling prices of all the lots in the phase.
2. Another technique for cost allocation, called "average cost method," calls for multiplying total capitalized costs by the ratio of the total number of lots sold to the aggregate number of lots to be sold in a phase.
3. Finally, the "square footage method" allocates costs by multiplying total capitalized costs by the ratio of the aggregate square footage of lots to the aggregate square footage of all lots to be sold in the phase.

### **Alternative Cost Method of Accounting for Real Estate Developers**

Under the "alternative cost method" under Revenue Procedure 92-29, 1992-1 C.B. 748, a developer may allocate estimated costs of common improvements to the basis of lots sold despite the limitations imposed by IRC Section 461(h). Developers must obtain permission from the Service to use the alternative cost method on a development-by-development basis. Common improvements must have the following qualities:

1. Be real property or real property improvement that benefits two or more properties separately held for sale;
2. The developer must be contractually obligated or required by law to provide the improvement; and
3. The improvement must not be depreciable by the developer

The common improvement has to be contractually obligated or required by the governing body of law. For example, an agreement to provide improvements in exchange for a building permit is a common improvement. See *Herzog Building Corp. v. Commissioner*, 44 T.C. 694 (1965)). A statement in a buyer's HUD report that the developer will provide improvements does not qualify as a contractual obligation. See Revenue Ruling 76-247, 1976-1 C.B. 217). An oral promise to a buyer to provide improvements does not qualify as a contractual obligation. See *Bryce's Mountain Resort, Inc. v. Commissioner*, T.C. Memo. 1985-293 (1985)).

Common improvements vary depending on the type of development. Some normal examples of common improvements include:

1. Streets
2. Sidewalks
3. Sewer lines
4. Playgrounds

5. Clubhouses
6. Tennis Courts
7. Swimming Pools

For any taxable year, the estimated cost of common improvements is equal to the amount of common improvement costs incurred under IRC Section 461(h) plus the amount of common improvement costs the developer reasonably anticipates it will incur during the 10 succeeding taxable years. See Revenue Procedure 92-29, 2.02(1).

A developer may include in the basis of properties sold their allocable share of the estimated cost of common improvements without regard to whether the costs are incurred IRC Section 461(h). There is an important limitation, however. As of the end of any taxable year, the total amount of common improvement costs included in the basis of the properties sold may not exceed the amount of common improvement costs that have been incurred under IRC Section 461(h). If the alternative cost statutory limitation prevents a developer from including the entire allocable share of the estimated cost of common improvements in the basis of the properties sold, the costs not included can be deducted in the subsequent taxable year(s) to the extent that additional common improvement costs have been incurred under IRC Section 461(h). See Revenue Procedure 92-29, 4.01.

Taxpayers must comply with certain requirements in order to use the Alternative Cost Method.

1. File a request with the appropriate Revenue Procedure 92-29 coordinator, see below, and attach a copy to return, in accordance with section 6.01 of Revenue Procedure 92-29 on or before the due date of the return for the taxable year in which the first lot is sold. The request to use the Alternative Cost Method must include:
  - A. Developer's identifying information
  - B. Description of the project
  - C. Schedule showing the lots covered by the request and the costs to acquire such lots
  - D. Schedule showing the common improvements required to be provided and information concerning the estimated cost of such improvements, the cost allocable to each lot, and the estimated date of completion of the improvements
2. Sign a restricted consent extending the statute of limitations on assessment with respect to the use of the alternative cost method. The restricted consent procedures require:
  - A. Developer must extend the statute of limitations for each year the alternative cost method is used
  - B. Limitations period must be extended to one year beyond the expected completion date of the project
  - C. Form 921: Individuals and Corporations use this form to extend the statute.
  - D. Form 921-P: TEFRA 1120S & partnerships use this form to extend the statute. Tax matters partner signs it.
  - E. Form 921-I: Non-TEFRA 1120S, partnerships, LLC's, and trusts use this form to extend the statute. Each partner, shareholder, or beneficiary must sign one.
  - F. Form 921-A: This form is obsolete and no longer applicable.
3. File an annual statement with the appropriate Revenue Procedure 92-29 coordinator (see below) and attach copy to return in accordance with section 8.02 of Revenue Procedure 92-29. The annual statement must include:
  - A. Developer's identifying information
  - B. Date of expiration of the extended statute of limitations
  - C. Description of the project
  - D. Schedule showing an updated estimated cost of common improvements, the manner of allocating the costs among lots, the lots sold as of the end of the

previous taxable year, the costs incurred under IRC Section 461(h), and the costs included in the basis of lots sold.

A developer that fails to substantially comply with the provisions of Revenue Procedure 92-29 will not be permitted to use the alternative cost method and therefore may not include common improvement costs that have not been incurred under IRC Section 461(h) in the basis of properties for purposes of determining gain or loss from such properties.

## Coordinators

Revenue Procedure 92-29 requires the original request and annual statements to be filed with the District Director. However, since the IRS reorganized into the various business divisions in 2000, District Directors no longer exist. The Technical Services Program within the Small Business Self Employed Division (SBSE) of the IRS has several Revenue Procedure 92-29 coordinators that are now responsible for administration of Revenue Procedure 92-29.

The location of the taxpayer's home office is determines where the original requests, statute extensions, and annual statements are sent. A taxpayer may a separate partnership for each development that may locate in several states. From a consistency standpoint, the taxpayer should file in the appropriate location where their home office is located rather than where each separate development is located.

<b>Where to File:</b>	
<b>State</b>	<b>Office</b>
MD, DE, DC, NC, SC, VA, FL, International	IRS Attn: Rev. Proc. 92-29 Coordinator 31 Hopkins Plaza Baltimore, MD 21201-2825
WI	IRS Attn: Rev. Proc 92-29 Coordinator 211 West Wisconsin Ave. Attn: MS4020MIL: WSK Milwaukee, WI 53203
CT, MA, ME, NH, RI & VT	IRS Attn: Rev. Proc. 92-29 Coordinator 135 High Street STOP 135 Hartford, CT 06103
Laguna Niguel, CA	IRS Attn: Rev. Proc. 92-29 Coordinator 24000 Avila Road Laguna Niguel, CA 92677-3405
Oakland, CA	IRS Attn: Rev. Proc. 92-29 Coordinator 1301 Clay Street Oakland, CA 94612-5217
WA, AK, HI, ID, OR	IRS Attn: Rev. Proc. 92-29 Coordinator

<b>Where to File:</b>	
<b>State</b>	<b>Office</b>
	M/S W 140 915 Second Avenue Seattle, WA 98174
AZ, CO, NM, NV, WY, UT, MT	IRS Attn: Rev. Proc. 92-29 Coordinator MS 4020 DEN 1999 Broadway, 28th Floor Denver, CO 80202-3025
IN, IL	IRS Attn: Rev. Proc. 92-29 Coordinator P.O. Box 44985 Stop SB462 Indianapolis, IN 46244
MO, KS, ND, SD, IA, NE, MN	IRS Attn: Rev. Proc. 92-29 Coordinator 30 East Seventh Street St. Paul, MN 55101
NY	IRS Attn: Rev. Proc. 92-29 Coordinator 110 West 44th Street New York, NY 10036-6710
TN, GA, TX, AL, OK, MS, LA, AR	IRS Attn: Rev. Proc. 92-29 Coordinator 401 W Peachtree St Atlanta, GA 30308-3510
PA, OH, KY, WV, NJ, MI	IRS Attn: Rev. Proc. 92-29 Coordinator 600 Arch Street Philadelphia, PA 19106-1611

### **Statute of Limitations Example**

A developer (partnership) applied for Revenue Procedure 92-29 approval for calendar tax year 1998 and agreed to the statute extension as required. A six-year common improvement period was requested. The Form 921 consent was secured at the time that the approval was issued and covered tax years ending 1998, 1999, 2000, 2001, 2002, and 2003. Tax returns for all project years were filed timely. During 2004 the developer came under audit for the 2003 return. The audit was completed by late 2004. The agent found that major aspects of the development disqualified it for Revenue Procedure 92-29 treatment and proposed audit adjustments for all six-project years (1998 through 2003). The 1998, 1999, 2000, and 2001 statutes for Revenue Procedure 92-29 adjustments expire April 15, 2005. The statute of limitations for all project years is computed as follows:

1. Projected completion year for the common improvements: 2003
2. Return (1065) due date for project completion year: April 15, 2004
3. Add one year to project completion year return filing date: April 15, 2005

<b>Example of Status Expiration</b>				
<b>Year</b>	<b>Date Return Filed</b>	<b>Normal Statute Expiration</b>	<b>Form 921 Statute Expiration</b>	<b>Rev. Proc 92-29 Statute Expiration</b>
1998	April 15, 1999	April 15, 2002	April 15, 2005	April 15, 2005
1999	April 15, 2000	April 15, 2003	April 15, 2005	April 15, 2005
2000	April 15, 2001	April 15, 2004	April 15, 2005	April 15, 2005
2001	April 15, 2002	April 15, 2005	April 15, 2005	April 15, 2005
2002	April 15, 2003	April 15, 2006	April 15, 2005	April 15, 2006
2003	April 15, 2004	April 15, 2007	April 15, 2005	April 15, 2007

**Example**

Assume the same facts as above except that the developer has not yet filed the completion year (2003) tax return. The statute of limitations for all project years is as follows.

<b>Example of Status Expiration (Completion Year Tax Return Not Yet Filed)</b>				
<b>Year</b>	<b>Date Return Filed</b>	<b>Normal Statute Expiration</b>	<b>Form 921 Statute Expiration</b>	<b>Rev. Proc 92-29 Statute Expiration</b>
1998	April 15, 1999	April 15, 2002	Open	Open
1999	April 15, 2000	April 15, 2003	Open	Open
2000	April 15, 2001	April 15, 2004	Open	Open
2001	April 15, 2002	April 15, 2005	Open	Open
2002	April 15, 2003	April 15, 2006	Open	Open
2003	Not Filed	Open	Open	Open

Revenue Procedure 92-29, Section 10 provides that if the first year in which the alternative cost method is improperly used is no longer open for assessment of a deficiency of tax, the Commissioner may use her statutory discretion to change the taxpayer’s method of accounting in a later year and impose an adjustment under IRC 481(a). This allows the IRS to make a cumulative adjustment or correction for all barred years in the earliest open year.

**Allocation of Common Improvements**

A developer will build 20 units of three cost classes (5 condo units, 6 town home units, and 9 single family homes) on a tract of land. The developer is contractually obligated to provide the common improvements and estimates that the common improvements will cost \$1,400,000 (including the cost of land associated with the common improvements). The common improvements are allocated as follows: \$200,000 for the 5 condominium units, \$300,000 for the 6 town homes, and \$900,000 for the 9 single-family lots. The cost of the common improvements is not properly recoverable through depreciation by the developer. Common improvement costs are

allocated as follows: 5 condo units @ \$40,000 each, 6 town home units @ \$50,000 each, and 9 single family lots @ \$100,000 each.

### Revenue Procedure 92-29 vs. IRC Section 461(h)

A developer building ten properties of equal value on a tract of land is contractually obligated to provide common improvements. The common improvements will benefit all the lots in the development equally. The developer estimates that these common improvements will cost \$1,000,000 (including the cost of the land associated with the common improvements). The cost of the common improvements is not properly recoverable through depreciation by the developer. Each lot's allocable share of the estimated cost of the common improvements is \$100,000 (\$1,000,000/10 lots). In Year 1, the developer incurs \$250,000 in common improvement expenses and sell 2 lots.

Under IRC Section 461(h), the deduction would be \$50,000 (\$250,000/10 lots = \$25,000 X 2 sales = \$50,000). However, under Revenue Procedure 92-29, the deduction in Year 1 is \$200,000. The \$100,000 allocation to each lot sold does not exceed the total IRC 461(h) limitation of \$250,000.

### IRC Section 461(h) Limitation

Year 1: The development has twenty single-family lots and estimated common improvement costs are \$1,500,000. The application states that costs are allocated equally to each lot; therefore \$75,000 would be allocated to each lot (\$1,500,000/20). During Year 1, \$300,000 in common improvement costs was incurred and five lots were sold.

Without the IRC Section 461(h) limitation, the Revenue Procedure 92-29 deduction for common improvements for Year 1 would be \$375,000 (\$1,500,000/20 x 5 lots sold). However, the total cost incurred for the common improvements are \$300,000, thus the deduction is limited to \$300,000. The \$75,000 barred in Year 1 is carried forward to Year 2 provided the additional costs are incurred.

Year 2: \$600,000 is obligated for common improvement costs that were incurred. Six lots were sold. The Year 2 deduction consists of both the deduction for current year's sales and the unused Year 1 is carried forward.

#### Transactions and Deductions

Transaction	Amount
Sold six lots at \$75,000 each	\$450,000
Amount barred from Year 1 sales	\$75,000
Total Deduction for Year 2	\$525,000

### Supplemental Request to Use the Alternative Cost Method of Accounting

There are many circumstances outside the developer's control (changes mandated by the EPA, the local municipality, etc. and/or damage to the construction site resulting from tornadoes, floods, etc.) that can result in project completion delays. A supplemental request pursuant to Section 9.01 of Revenue Procedure 92-29 is required to extend the common improvement construction period past the original estimated completion date.

The IRS will respond to the taxpayer within 45 days of receipt of the supplemental request and notify the taxpayer of either approval or disapproval. An updated Form 921 (statute consent) must be secured. The IRS response of approval or disapproval of the supplemental request must be in writing. Supplemental Requests are not appropriate for avoiding the required periodic adjustments for overstated estimated expenses versus what were actually incurred to date thus deferring the final year reconciliation, and adding new developments and/or expanding current projects.

## **Annual Reports and Statements**

Annual reports are required for every year that construction is occurring and estimated costs of common improvements are being claimed against sales income, pursuant to Section 8 of Revenue Procedure 92-29. Annual statements are no longer required when any one of the following situations occur:

1. The approval period expires. If all obligated costs are not incurred by the end of the expiration period, the developer has a change in method of accounting to account for common costs per IRC Section 461(h). A new unit cost allocation is calculated based upon total actual costs incurred during the approved Revenue Procedure 92-29 period. A prior period correction is recognized for the difference in all deductions claimed under Revenue Procedure 92-29 vs. IRC Section 461(h).
2. All obligated common improvement costs are incurred. As the developer is no longer including estimated future costs in Cost of Goods Sold (COGS) the restricted Revenue Procedure 92-29 consent, secured when the application was processed, is no longer applicable. The Revenue Procedure 92-29 project file can be closed.
3. If all inventories are sold before all obligated expenses are incurred, the developer has a change in method of accounting to IRC Section 461(h) in the year that the final unit is sold. A new unit cost allocation is calculated based upon total actual common improvement costs incurred. A prior period correction is recognized for the difference in all deductions claimed under Revenue Procedure 92-29 vs. IRC Section 461(h).

The developer reports revisions to the original estimate and re-computes the per unit allocations on each annual statement. He also reports prior and current obligated costs incurred; prior and current sales of units; prior and current Revenue Procedure 92-29 deductions claimed; and reports any corrections or revisions to prior information reported.

The developer is required to adjust the production budget, replace estimated costs with actual costs, and present an accurate picture of the project. The developer is required to be able to substantiate the reasonableness and accuracy of the estimated cost figures that were submitted on the Revenue Procedure 92-29 application.

In the initial years, estimated costs comprise a large part of the per unit cost allocations. As work on the development progresses and actual costs are incurred, the developer must recognize the variances and report the latest budget on the annual statement. As the project nears completion, the per-unit cost allocations used and prior period adjustments reported result in an ongoing reconciliation and correction of the timing differences.

## **Common Improvements Allocable to the Cost of the Lots Developed by the Taxpayer**

The question is whether common improvements such as a golf course or clubhouse are allocable to the cost of the lots being developed by the taxpayer. This is a factual determination that needs

to be made on the merits of each situation. Review of the following applicable court cases indicates a common theme that is based upon two points:

1. The basic purpose of constructing the common improvement is to induce the sale of the lots; and
2. The taxpayer does not retain "too much ownership or control" of the common improvement.

The taxpayer was not allowed to allocate the common costs to the basis of the lots sold in the following cases:

1. *Charlevoix Country Club, Inc. v. Commissioner*, 105 F. Supp. 2d 756 (W.D. Mich. 2000). The taxpayer constructed a golf course, country club, and residential lots. The taxpayer owns both the golf course and country club. The taxpayer sells golf club memberships both to lot owners and to the public at large. The membership permits the purchaser to use the golf course and country club but does not give them any ownership rights. The costs of the golf course and country club could not be allocated to the lots because the taxpayer "retains complete control" of the golf course and country club. In *Charlevoix*, the court distinguished this case from *Norwest*:  
Here, the court assumes, for purposes of deciding this motion, that CCC constructed the golf course and country club for the sole purpose of improving the salability of the residential lots contained within the development. However, even assuming the existence of such a purpose, the stipulated fact remains that CCC has not transferred any ownership interest whatsoever in the golf course or country club; instead, it has sold to others merely a right to use these properties.
2. *Colony Inc. v. Commissioner*, 26 T.C. 30 (1956), rev'd. in part on other grounds, 357 U.S. 28 (1958).  
The court held that a water and sewage system, fully owned and controlled by the developer, was not to be added to the cost of the lots sold, even when its subsequent operation by the taxpayer was not profitable.
3. The court reached a similar conclusion in *Sabinske v. United States*, 62-1 U.S.T.C. Paragraph 9210 (N.D. Tex. 1962).
4. *Noell v. Commissioner*, 66 T.C. 718 (1976).  
The subdivider's cost of building airport runway and taxiways adjacent to lots could not be added to the basis of the lots because the taxpayer retained full ownership and control.  
A critical question is whether the petitioner intended to hold the facilities to realize a return on his capital from business operations, to recover his capital from a future sale, or some combination of the two. The other question is whether he so encumbered his property with rights running to the property owners regardless of who retained nominal title that he in substance disposed of these facilities, intending to recover his capital, and derive a return of his investment through the sale of lots.

The taxpayer was allowed to allocate the common costs to the basis of the lots sold in the following cases:

1. *Norwest Corp & Subsidiaries*, 111 T.C. 105 (1998).  
The taxpayer wanted to allocate the cost of constructing an Atrium to enhance the sale of surrounding office buildings. The cost of common improvements is allocated to the basis of lots held for sale when:
  - A. The basic purpose of the taxpayer in constructing the common improvement is to induce the sales of the lots, and
  - B. The taxpayer does not retain too much ownership and control of the common improvement, then the lots held for sale are deemed to include the allocable

share of the cost of the common improvement.

The rationale of the developer line of cases is that, when the basic purpose of property is the enhancement of other properties to induce their sale and such property does not have, in substance, an independent existence, total cost recovery for such property should be dependent on sale of the benefited properties.

2. *Hutchinson v. Commissioner*, 116 T.C. 172 (2001).  
The developer of a residential subdivision was permitted to allocate the estimated construction costs relating to common improvements in the basis of the lots sold pursuant to Revenue Procedure 92-29. The common improvements included the construction of a golf course, clubhouse, swimming pool, and tennis courts.  
When the taxpayer began the development, he entered into a contract with a nonprofit membership corporation whose members would purchase memberships in the golf club. The golf course and clubhouse would then be transferred to the nonprofit membership corporation when a certain number of memberships were sold or December 31, 2001 whichever was earlier.  
After completion of the golf course in 1996, the developer managed and operated it until April 1999 because the required number of memberships had not been sold. However, during these transition years the nonprofit membership corporation was responsible for decisions and costs of any further improvements made to the golf course and clubhouse. The court held that the developer did not possess the benefits and burdens of ownership during the transition period and thus the estimated construction costs could be allocated to the bases of the residential lots sold under the alternative cost method of Revenue Procedure 92-29.
3. Revenue Ruling 68-478, 1968-2 C.B. 330.  
The developer of a subdivision and golf course conveyed part of the land and improvements, including the golf course, lake, dam, and related recreational facilities to a non-profit country club. The taxpayer did not retain any ownership in the property transferred.
4. *Country Club Estates, Inc. v. Commissioner*, 22 T.C. 1283 (1954).  
The developer of a residential subdivision donated land to a nonprofit country club to build a golf course thereon. The cost of the land donated was to be treated as part of the cost of the lots sold.
5. *Collins v. Commissioner*, 31 T.C. 238 (1959).  
The developer of a subdivision conveyed to the owners of the lots, an equitable interest in a sewage disposal system. The court held that the taxpayer did not retain full ownership and control of the sewage system and that they parted with material property rights.  
The court held that if a person engaged in the business of developing and exploiting a real estate subdivision constructs a facility for the basic purpose of inducing people to buy lots, the cost of such construction is properly a part of the cost basis of the lots. This is so even though the sub-divider retains tenuous rights without practical value to the facility constructed such as contingent reversion.  
If the sub-divider retains 'full ownership and control' of the facility and does 'not part with the property or facility constructed for benefit of the subdivision lots, then the cost of such facility is not properly a part of the cost basis of the lots.
6. *Willow Terrace Development Co. v. Commissioner*, 345 F.2d 933 (5th Cir. 1965).  
The developer of a subdivision was allowed to allocate the cost of water and sewer systems to the basis of lots sold. The water and sewer systems were dedicated to the benefit of the homeowners under the FHA trust deed; the rights retained by the taxpayer have at that time little if any saleable value.  
Some relevant factors to be considered in determining the proper tax treatment of the costs of such facilities are whether they were essential to the sale of the lots or houses, whether the purpose or intent of the sub-divider in constructing them was to sell lots or to make an independent investment in activity ancillary to the sale of lots or houses,

- whether and the extent to which the facilities are dedicated to the homeowners, what rights and of what value are retained by the sub-divider, and the likelihood of recovery of costs through subsequent sale.
7. *Montclair Development Company v. Commissioner*, TC Memo 1966-200.  
The developer of a subdivision was allowed to allocate costs of sewer and water systems. The taxpayer transferred the system to a trustee for the benefit of homeowners in compliance with requirements of the FHA.

## ***Conclusion***

A construction contract that meets the requirement of a home construction contract is exempt from the percentage of completion method of accounting for both regular income tax and alternative minimum tax. Speculation homes, land developers, and some large homebuilders build homes that are not under a long-term contract, and long-term contract methods of accounting do not apply to such contracts. Revenue Procedure 92-29 allows a developer an alternative cost allocation of common improvements in an attempt to even out the gross profit of each lot produced over the life of the project.

## **Chapter 8: Other Tax Issues in Construction**

### ***Introduction***

The construction industry is so broad and extensive that many issues found in other industries will also appear in construction cases. There are, however, some issues that are more closely identified with the construction industry. This chapter is intended to produce an awareness of those issues. The construction issues discussed do not compose an all-inclusive list.

### ***Accounting Method Issues***

#### **Improper Computation of the \$10 Million Average Annual Gross Receipts per IRC Section 460**

Taxpayers are not aggregating the gross receipts of all the related companies for this computation and, therefore, are improperly electing an exempt, long-term method of accounting, when the percentage of completion method (PCM) is required. The Internal Revenue Code requires the aggregation of the gross receipts from:

1. All trades or businesses whether or not incorporated under common control,
2. All members of any controlled group of corporations for which the taxpayer is a member, and
3. Any predecessor of the taxpayer or of the entities in the prior two groups. IRC Section 460(e)(2).

Gross receipts produced by the all the entities from each of these three groups for each of the three years is considered. Aggregations of all gross receipts from all trades or businesses are considered regardless of whether or not under common control. For this purpose, the following conditions must be met:

1. Parent-Subsidiary group when more than 50% ownership by one entity, and
2. Brother - Sister group when 5 or fewer owners own more than 50%; and

3. If the taxpayer has a 5% to 50% ownership, the taxpayer is required including its proportionate share of gross receipts according to percentage of ownership. Attribution rules apply to indirect or direct ownership.

### **Example:**

A small contractor teams up with a large contractor on a joint venture. The joint venture was set up as a partnership to construct property for a large government job. The small contractor owned 51% of the joint venture, and the large contractor owned 49%. For the gross receipts test, determined at the joint venture level, 100% of the small contractor's gross receipts, 100% of the joint venture, and 49% of the large contractor's construction gross receipts exceeded the \$10 million. The joint venture was reporting income using the completed contract method, but is required to use the percentage of completion method per IRC Section 460. See IRC Section 460(e)(2), IRC Section 460(e)(3), and Treasury Regulation Section 1.460-3(b)(3).

### **Improper Computation of the \$5 Million Average Annual Gross Receipts under IRC Section 448**

Taxpayers may improperly be using the cash method of accounting. As with IRC Section 460 above, the aggregation rules apply to all entities under common control. IRC Section 448 (a) prohibits the use of the cash method by a C corporation, a partnership with a C corporation as a partner, or a tax shelter. According to IRC Section 448(b)(3) and (c), C corporations and partnerships with a corporate partner are allowed to use the cash method of accounting, if the average annual gross receipts of the entity do not exceed \$5,000,000.00

Partnerships, sole proprietorship, and S corporations are not subject to the IRC Section 448 limitations. Therefore, they may continue to use the cash method until their average annual gross receipts for the prior three years exceeds \$10 million.

The determination of gross receipts under IRC Section 448 includes all gross receipts, while the determination of gross receipts under IRC Section 460 includes only trade or business receipts. For example, gross receipts determined under IRC Section 448 includes dividend income, interest income, rental income, etc., where IRC Section 460 would not include these items of income. See Treasury Regulation Section 1.448-1T (f)(2)(iv)(A) and Treasury Regulation Section 1.460-3(b)(3)(i).

### **Netting Gross Receipts for the \$5 million and \$10 million Thresholds**

The taxpayer may be using an improper method of accounting if gross receipts have already been offset with expenses other than returns and allowances so that only the net amount is reported as gross receipts on the tax return. This netting may improperly reflect average annual gross receipts below the \$5 million and \$10 million thresholds under IRC Section 448 and IRC Section 460, respectively.

### **Retainages**

A specified amount is usually withheld from progress billings pending satisfactory completion and final acceptance of the project. The customer will withhold the retainage from the contractor or Retainages Receivable. The contractor will also withhold a retainage on the subcontractors or Retainages Payable.

Recognizing retainages in taxable income depends on the method of accounting used by the taxpayer:

1. Cash: Income when received or upon constructive receipt
2. Accrual: Income when received, due, or earned, whichever comes first. The retainages are earned as the work is performed. However, the taxpayer may elect to exclude the retainages until billable per Revenue Ruling 69-314.
3. Completed Contract: Income when the contract is considered complete.
4. Percentage of Completion: Included in the contract price as the job progresses.

Similarly, recognizing retainages as an expense depends on the method of accounting used by the taxpayer:

1. Cash: Expense when retainage is paid.
2. Accrual: Deductible when all events test has been met per IRC Section 461. However, if the taxpayer has elected to defer the retainages receivable per Revenue Ruling 69-314, it must also defer the retainages payable until payable.
3. Completed Contract: Expense when the contract is considered complete.
4. Percentage of Completion: Deductible and included in the cost-to-cost PCM computation when the all-events test has been met per IRC Section 461.

### **Delayed Billings under Accrual Method**

Under the accrual method, the taxpayer may delay billings or structure the billing entitlement in the contract in an attempt to defer reporting of gross receipts.

In *Boise-Cascade Corp. v. United States*, 530 F.2d 1367 (Ct. Claims 1976), cert. denied, 429 U.S. 867 (1976), the court determined that the accrual of income is based upon the work performed rather than upon billing entitlement.

### **Determining Completion under Completed Contract Method (CCM)**

Taxpayers using this method may defer completing the contract in an attempt to defer the reporting of the gross profit. Treasury Regulation Section 1.460-1(c)(3) provides a “bright-line” test in determining completion and it is the earlier of the following:

1. 95% of contract costs have been incurred and the customer has the intended use of the subject matter of the contract; or
2. Final completion and acceptance.

Reviewing the year-end work-in-progress schedule would reveal the percent complete on each job. Any job that is 95% or more complete would require further investigation to determine if the contract meets the completion requirements above. See Treasury Regulation Section 1.460-1(c)(3).

### **Improper Use of the PCM or Completed Contract Method**

In the construction industry, many taxpayers provide construction management, engineering, and architectural professional services that are an essential part of the construction process. However, these contracts do not meet the definition of a long-term construction contract involving the building, construction, reconstruction or rehabilitation of real property.

In contrast, the general contractor and subcontractors are responsible for the actual construction and are usually working under the direction or advice of the construction manager, engineer, or architect. Because construction management, engineering, and architects provide services that do not meet the definition of a construction long-term contract, they cannot report their income under any long-term contract method such as the completed contract or percentage of completion methods. They can only report income under the cash or accrual method.

See IRC Section 460(e)(4), Treasury Regulation Section 1.460-1(d)(2), Revenue Ruling 70-67, Revenue Ruling 80-18, Revenue Ruling 84-32, and General Counsel Memo (GCM) 39803 for additional guidance.

### **Deferring Costs under Percentage of Completion Method**

Costs incurred under IRC Section 461 and under the cost-to-cost percentage of completion method required by IRC Section 460 determine the completion rate of the job. Costs incurred near year-end might not be recorded. This would reduce the percentage of completion, understating the income to be recognized from the job.

Costs of uninstalled materials might also be omitted from the numerator in the percentage of completion method. For generally accepted accounting principles (GAAP), this is appropriate. However, for tax purposes, direct materials are allocated to a long-term contract when dedicated to the contract. A taxpayer dedicates direct materials by associating them with a contract. This is accomplished by purchase order, entry on books and records, or shipping instructions. See Treasury Regulation Section 1.460-1(b)(8) and Treasury Regulation Section 1.460-5(b)(2)(i).

### **Allocation of Indirect Costs**

Sometimes, taxpayers fail to allocate the appropriate indirect costs to jobs. There are four separate IRC Code sections or regulations under which costs should be allocated:

1. IRC Section 460 (c)(1) through (c)(5) applies to long-term contracts that do not meet the home construction contract or small contract exception per IRC Section 460(e)(1). Treasury Regulation Section 1.460-5(b) provides a direct link to IRC Section 263A for the appropriate indirect costs to include in the percentage of completion method.
2. IRC Section 460(b)(3) allows taxpayers that fall under IRC Section 460 above to elect the simplified production method. See also Treasury Regulation Section 1.460-5(c).
3. IRC Section 263A applies to home construction contracts unless they meet the exceptions at IRC Section 460(e). The exceptions pertain to the average annual gross receipts are less than \$10 million and the job is expected to last less than 2 years. Speculation homebuilders and land developers must also allocate costs under IRC Section 263A as “producers of property”.
4. Treasury Regulation Section 1.460-5(d) applies to small contractors both residential and commercial using the completed contract method.

For all of the situations above, construction period interest is capitalized under IRC Section 460(c)(3) for all long-term contracts and IRC Section 263A(f) for producers of property or land developers and speculative homebuilders.

Failure to allocate all appropriate indirect costs may increase or decrease the income to be reported using the percentage of completion method and will create a larger adjustment for completed contract method users, speculation homebuilders, and land developers because these costs are not deductible until a later year when completion of the long-term contract or when the house or lot is sold.

## Production Period Interest

Many contractors meeting one of the two exceptions under IRC Section 460(e)(1) for home construction contracts or small contractors (less than \$10 million gross receipts and less than 2-year contract) do not capitalize construction period interest as required by IRC Section 460(c)(3). The exceptions found under IRC Section 460(e) only exempts the taxpayer from IRC Section 460(a), (b), (c)(1), and (c)(2). All other subsections of IRC Section 460 apply.

Production period interest applies to all long-term contracts, land developers, and speculation homebuilders who must also capitalize production period interest because they are required to allocate costs under IRC Section 263A.

## Improper Inclusion of Costs in PCM Computations

The cost-to-cost method, required by IRC Section 460, is used to determine the completion percentage of a contract that determines the amount of income to be reported in a taxable year.

The completion percentage is determined by:

Costs Incurred To date

**Divided By**

Total Estimated Costs

**Equals**

% Complete

The taxpayer might improperly include estimates that are overstated, include nondeductible costs, or include allowances for contingencies in the total estimated costs figure that reduces the percentage of completion. This results in the understatement of the corresponding income to be reported on the contract.

Also, costs that are included in the total estimated costs figure may not be included in the numerator such as the costs incurred. This too reduces the amount of income to be reported for a taxable year.

## Improper Expense Recognition under the Completed Contract Method

The taxpayer might improperly allocate costs from contracts that are still in progress to completed contracts that accelerates the expense recognition. An unusually low gross profit on a job may be an indication of improper job allocation.

## Homebuilder Building for Speculation

This type of taxpayer might improperly deduct costs that are incurred as the house is built. All of these costs, direct and indirect, must be capitalized per IRC Section 263 and IRC Section 263A. The taxpayer is building an asset. Thus, the costs become the basis in the property, and are not recognized until the asset is sold.

Carpenter v. Commissioner, T.C. Memo. 1994-289. A taxpayer building a house on speculation is required to capitalize the costs of building the house under IRC Section 263A.

## Common Improvements

Common improvements are any real property or improvements to real property that benefit two or more properties that are separately held for sale by a developer such as roads, sidewalks, sewer lines, playground, and pool.

In general, common improvement costs may not be added to the basis of benefited properties until the common improvement costs are incurred within the meaning of IRC Section 461(h).

Taxpayers may improperly deduct common improvements costs as incurred rather than allocating them to the basis in the lots.

Also, if a taxpayer elects the alternative cost method under Revenue Procedure 92-29, it may be deducting estimated costs of common improvements without complying with Revenue Procedure 92-29. See the chapter on homebuilders and land developers for more information regarding Revenue Procedure 92-29.

## ***Income Issues***

### **Advance Payments**

Front-load billing is common in the construction industry. Many contractors want a percentage of their fee paid in advance before any work is performed in order to buy the materials necessary to perform the job. Under both the cash and accrual methods using the all events test, advance payments are reported in income when received. However, Revenue Procedure 2004-34 permits accrual basis taxpayers to defer the advance payments to the subsequent tax year if they meet the qualifying requirements.

### **Improper Computation of the Contract Amount under Percentage of Completion Method (PCM)**

Once the percentage of completion of a long-term contract has been calculated, it is applied to the total contract price in determining the amount of income to be reported. The contract price includes change orders, retainages, expected bonuses, and claim revenue.

The taxpayer may not include any one of these items as part of the contract price, thereby understating the amount of income reported. The regulations also specify that, if any contingent amount is included in income for financial statement purposes, it is to be included for tax purposes. See Treasury Regulation Section 1.460-4(b)(4)(B).

### **Claim Income under PCM**

Claim income is an amount in excess of the original contract price that the contractor seeks to collect from the owner such as disputed change orders, costs associated with owner delays, errors in specification, and contract termination.

Under the percentage of completion method, the amount that the taxpayer reasonably expects to receive is included in the contract price and is reported in income as the job progresses. Examiners should inspect final progress billing requests, legal files, correspondence, complaints filed with the court, and Schedule M-1 or M-3 for potential issues involving claim income. Disputes under the other methods of accounting are reported in income as follows:

1. Cash: When amount is received.
2. Accrual: When amount is settled.

3. Completed Contract: Depends on the facts of each dispute.
4. Taxpayer Assured of a Profit or Loss: See Treasury Regulation Section 1.460-4(d)(4)(ii).
5. Taxpayer Unable to Determine a Profit or Loss: See Treasury Regulation Section 1.460-4(d)(4)(iii).

## **Unreported Income**

Smaller contractors, not faced with bonding or similar requirements for financial statements and performance verification, might only report income for a portion of their work. For example, the contractor may erroneously report only the income reflected on the Forms 1099. Some contractors may be willing to work for 20% to 25% less on the condition that Form 1099 is not issued or that the payment is made in cash. This has an adverse effect on the industry and voluntary tax compliance in general.

With the proliferation of check-cashing schemes, payment with a check is an insufficient control to validate income using bank deposit records. The examiner should look to some central element of the specialty contractor's business. This should then be compared to another source such as an indirect method to confirm that the reporting of gross income is substantially correct. With a smaller contractor, the examiner can also look at the owner's return, life-style, assets or county records information to gain a reasonable assurance as to the economic reality of reported income.

## **Other Compensation Income**

A contractor may receive an interest in a project for his or her services rather than making an initial investment of capital. Inspecting the contractor's partnership returns will frequently reveal an interest in a construction project. A review of electronic databases for public records on LEXIS or ChoicePoint should be conducted. The contract between the owner and the general contractor will often specify what the general contractor is to receive in lieu of cash payment. See IRC Section 83.

## **Delayed Billings**

Depending on the method of accounting, the contractor might delay billings or the recording of receivables in an effort to defer the reporting of gross receipts. The auditor might consider selecting a sample of jobs and inspect the job folders to review the contract billing terms, progress-billing applications sent to the owner, and owner payment documents retained by the contractor in order to test income.

## **Other Omission of Income Issues**

1. Failure to report interest income earned on funds such as retainages, deposits, funds transferred from other escrow accounts.
2. Failure to report income from remote construction projects.
3. Failure to report income earned from claims subsequently settled by court decisions or arbitration.

## **Subcontractor Improperly Deferring Income**

Subcontractors hired early in a project such as land clearing, installation of cables or wiring, and laying concrete slabs may improperly defer the recognition of income under the completed contract method, because "final completion and acceptance" does not occur until the total job is

complete. However, Treasury Regulation Section 1.460-1(c)(3)(iii) states that final completion and acceptance of a contract with respect to a subcontractor occurs when the subcontractor's work has been completed and accepted by the party with whom the subcontractor has contracted with. This is usually the general contractor.

### **Scrap Sales**

The nature of the materials used in plumbing, heating, and air-conditioning, may lead to the issue of scrap sales. For example, copper piping and tubing that are cut for jobs may leave small pieces that cannot be used. The scrap is then sold to metal dealers. Also, excess job materials may be inventoried for a future job, returned to the vendor for credit, or applied to another job.

### **Built-In Gains Tax**

When a C corporation is converted to an S corporation, taxpayers using the completed contract method may be subject to a built-in gains tax. The value of the contracts in progress as of the day of conversion is computed under the percentage of completion method and which would be subject to the built-in gains tax. The income that was earned while a C corporation, but not reported until the following year, is unrealized income at the time of conversion. See *Reliable Steel Fabricators, Inc. v. Commissioner*, T.C. Memo. 1995-293.

### **Installment Sales**

IRC Section 453 provides that dealer dispositions do not qualify for the installment sale calculation of income. Homebuilders and land developers, therefore, cannot use the installment method of accounting. IRC Section 1237 does provide a limited exception in which a disposition of real property subdivided for sale is not be deemed to be held primarily for sale in the ordinary course of trade or business. However, no substantial improvements can be made to the property, and the taxpayer must have held the property for a period of 5 years. See *Raymond v. Commissioner*, T.C. Memo. 2001-96.

### **Gain on the Sale and Leaseback Arrangements on Model Homes**

Homebuilders sometimes sell a model home and then lease it back for use in their sales activities. The homebuilder sells the model home(s) to an unrelated party for the lower of cost or 80% of the fair market value. The homebuilder reports a loss on this sale.

Then the homebuilder leases the property back from the unrelated party at 10% of the purchase price. The homebuilder retains the right to determine both the time of sale of the model home and the terms of the price and buyer.

The proceeds on the sale are used to repay the loan from an unrelated party and a contractual bonus. Any remaining amount is then used to pay the homebuilder. Title passes but the homebuilder retains many significant rights of ownership.

The essence of the transaction is that of a loan. The title to the unrelated party merely acts as security. Thus, the loss on the "sale" and the lease expenses would not be deductible. See *Frank Lyon Co v. United States*, 435 U.S. 561 (1978); and *Helvering vs. F. & R. Lazarus & Co.*, 308 U.S. 252 (1939).

## ***Expense Issues***

### **Per Diem - 50% Meals Disallowance on Out-Of-Town Travel**

Meals paid for out-of-town travel are subject to the 50% travel and entertainment limitation under IRC Section 274(n). Employers may be paying employees out-of-town expenses on a per diem basis with nothing being applied to meals and deducting the total as a "lodging only expense". Revenue Procedure 2004-60, provides rules for per diem allowances. Generally, a portion of the allowance must be treated as paid-for meals. If the total per diem amount is less than the applicable federal per diem for that locality, 40% of the per diem paid is deemed to be paid-for meals subject to the 50% limitation. See Section 6.05(3) of Revenue Procedure 2004-80.

### **Depreciation of Automobiles and SUV's**

For passenger automobiles, the total depreciation deduction that can be claimed including the IRC Section 179 deduction is limited.

A passenger automobile is any four-wheeled vehicle made primarily for use on public streets, roads, and highways and rated at 6,000 pounds or less of unloaded gross vehicle weight. However, in the case of a truck or van gross vehicle weight is substituted for unloaded gross vehicle weight. It includes any part, component, or other item physically attached to the automobile or usually included in the purchase price of an automobile. IRC Section 280F(d)(5)(A)

Sport Utility Vehicles or SUV's are commonly used within the construction industry. Revenue Procedure 2003-75 and its successors define the term "trucks and vans" as including passenger automobiles that are built on a truck chassis, including minivans and sport utility vehicles that are built on a truck chassis. If the taxpayer is depreciating SUVs, researching the internet for manufacturer or dealership information on the gross vehicle weight may be necessary to determine if the passenger automobile depreciation is limited.

### **Personal Use of Business Assets**

Contractors in closely held businesses sometimes deduct expenses for improvements to a personal residence. These expenses are frequently deducted through cost of sales, along with other contract costs. If the taxpayer is a C corporation and the expenses are incurred to improve a shareholder's residence, a potential dividend issue exists, and the expenses are not deductible. For an S corporation or a partnership, these expenses would be considered a distribution to the specific shareholder or partner.

An employment tax issue is possible if improvements are made to an employee's residence. A homebuilder may offer to build homes for their employees at a discount. The discount is not included in the employees' wages as a fringe benefit. IRC Section 132(a)(2) states that gross income shall not include any fringe benefit that is a "qualified employee discount" with respect to qualified property or services. IRC Section 132(c)(4) specifically states that real property is not qualified property and the discounted amount is required to be included in the wages of the employee. See also Treas. Reg. Section 1.132-3(a)(2)(ii).

When conducting an examination of a contractor, it is crucial to fully understand the contractor's billing and job cost records. Sampling invoices for deliveries to the contractor's residence or excess building supplies charged to a job are examples of auditing techniques.

### **Unreasonable Compensation**

Officer and owner compensation fluctuates frequently and the amounts may differ significantly. An argument may be made that the higher than usual present year compensation is a result of artificially low compensation in earlier years. This argument may be valid and will be sustained where the early years of the operation were used to build capital.

However, if the operation is well established and the profits of a high-volume year are being reduced through high compensation, the examiner should seriously consider raising the issue. Industry averages are also available through websites such as Bizstats.com. This issue depends on the facts and circumstances of each case.

### **Double Deductions**

Double deductions can occur when the contractor uses a single-entry bookkeeping system. Some job costs may be both capitalized and expensed in the current period. Since the single entry bookkeeping system will allow duplications to occur, the examiner should consider using in-depth investigative techniques.

### **Cash Method Interest Expense**

Interest expense on a construction loan is not deductible until a contractor on the cash method of accounting pays it. A construction loan differs from a conventional loan in that a construction loan usually does not require interim payments. Even the loan origination fees may be financed, these expenses are not deductible until the payments are made. The loan documents should be examined to determine the terms for making principal and interest payments and verifying that actual payments were made during the year. See *Heyman v. Commissioner*, 70 T.C. 482 (1978), *aff'd*, 652 F.2d 598 (6th Cir. 1980).

### **Capitalization of Pre-development Costs**

A developer may purchase a parcel of property for future development. Any pre-development costs are not currently deductible and must be capitalized. The following court decisions support this position:

1. *Reichel v. Commissioner*, 112 T.C. 14 (1999): A real estate developer who purchased properties for development was required to capitalize related real estate taxes as indirect production expenses.
2. *Hustead v. Commissioner*, T.C. Memo 1994-374: A developer was required to capitalize costs incurred to challenge the zoning of property.
3. *Von-Lusk v. Commissioner*, 104 T.C. 207 (1995): Property taxes and preliminary costs associated with the contemplated construction were required to be capitalized per IRC Section 263A.

### **Contributions of Land and Facilities**

Land developers and building contractors often donate land, buildings, or other assets to charitable or civic organizations and state or local governments. These assets usually have appreciated in value, due to the passage of time and/or the development activity by the builder. Charitable contribution deductions involving the fair market value of the donated property should be scrutinized.

Examiners should consider the intent of the builder who is donating the land or facility. A common practice is for state or local government agencies that have control of zoning and building permits

to require the developer or builder to set aside and donate land and facilities for schools, parks, police and fire stations, government offices, medical facilities, community centers, water and sewer plants, roads, and maintenance buildings.

If the developer or builder donated the asset due to a requirement of a government agency or the facility was used as a promised improvement in selling efforts to customers, then the requisite donating intent for a contribution deduction is missing. Without this intent, the non-deductible donation is a part of the cost of developing lots.

When addressing this issue, examiners should inspect the builder's correspondence and legal files; zoning and permit documents; minutes of government agency meetings; corporate minutes of the builder; newspaper articles; and the builder's sales literature.

Examiners should also be aware that developers or builders often only allocate development costs to the properties that will generate sales revenue. Thus, the donated property may only have the cost of raw land charged to it. The allocation of costs usually takes place in the early stages of development and donations of property are usually made in the latter stages of development. Lastly, examiners should ensure that a double recovery of cost is not allowed.

## **Losses**

There may be an improper inclusion of the total loss on a contract that is still in progress. Financial reporting (GAAP) requires the contractor to recognize the full amount of any anticipated loss in the current period, regardless of the degree of completion. However, for tax purposes, the loss is not deductible until the job is determined to be complete for taxpayers using the completed contract method. The loss incurred to date (not the total loss) is deductible for taxpayers using the PCM.

## **Abandonment Losses**

If a taxpayer abandons an asset, the loss is generally deductible to the extent of the taxpayer's adjusted basis in the abandoned property. To support an abandonment loss, the taxpayer must establish intent to abandon the asset and must make some affirmative act of abandonment. The loss is deductible in the year the abandonment is sustained with regard to non-depreciable property.

In general, abandonment losses occur with specification homebuilders, real estate developers, and related-party entities more frequently than with other types of contractors. Abandonment losses may result from lack of financing, lack of bonding, disapproval of zoning changes, cost overruns, or possible tax avoidance involving related parties.

In *Chevy Chase Land Company v. Commissioner*, 72 T.C. 481 (1979), the taxpayer was unsuccessful in getting property rezoned. All the costs that the taxpayer incurred for the rezoning were allowed as an abandonment loss except for the cost of a topographical map because it has a continuing value; it can be used for the taxpayer's new project on the property.

## **Related Party Transactions**

A contractor or subcontractor may incur expenses for improvements to his personal residence or that of a friend or relative. A contractor or subcontractor may also build a home for his personal use or that of a friend or relative. To disguise these costs, the expenses might either be applied to another job or be reported to the job separately but then sell the residence for cost. Potential

issues include disallowance of personal expenses or dividend issues if a corporation is involved. The difference between the FMV and the actual sales price to the shareholder would be subject to constructive dividend rules.

Allocation of indirect costs not charged to the taxpayer or relative would also result in a nondeductible loss under IRC Section 267.

### **Severed Contracts**

For tax purposes, losses are not deductible until incurred. Under the completed contract method, none of the loss may be deducted until the contract is completed. Under the percentage of completion method, the loss is deducted as the job progresses. By improperly severing a contract, the taxpayer is recognizing the loss prematurely. See Treasury Regulation Section 1.460-1(e).

### **Bad Debts and Cancellation of Debt Income**

The typical bad debt issue must be reviewed when related party transactions are involved. If a party has a legitimate bad debt, the other related party should have a cancellation or forgiveness of debt income. Bad debts are deductible under IRC Section 166 and cancellation of debt is income pursuant to IRC Section 108. Bankruptcy or insolvency may impact the recognition of forgiveness of debt income. In addition, net operating losses may have to be reduced if bankruptcy limits the recognition of forgiveness of debt income. Bad debts require an inquiry into the following questions:

1. Is it a debt or equity investment?
2. Whose debt is it and are there any related parties?
3. Is it a business or non-business debt?
4. Have only the adjusting journal entries been made or have the funds actually been transferred?
5. Has interest on the debt been charged and reported?
6. Do documents exist that support the transactions?

### **Warranty Reserves or Contingent Liabilities**

An accrual basis taxpayer may be deducting estimated warranty costs from a reserve account established to reflect a liability for future services:

1. Treasury Regulation Section 1.446-1(c)(1)(ii): Under the accrual method a liability is incurred in the taxable year in which all the events have occurred that establish the fact of the liability, the amount can be determined with reasonable accuracy, and economic performance has occurred with respect to the liability.
2. IRC Section 461(h)(1): In determining whether an amount has been incurred, the all events test shall not be met any earlier than when economic performance occurs. Economic performance occurs when the taxpayer provides service or property.

Economic performance has not occurred with respect to estimated warranty costs and contingent liabilities are not deductible. The examiner should be aware that these are reportable under GAAP and the corresponding Schedule M-1 or M-3 adjustments are required.

### **Model Homes**

The taxpayer is in the business of building and selling residential houses. To assist in its sales activity, the taxpayer may temporarily use certain houses as models or sales offices. Such use does not generate any rental income to the taxpayer. Revenue Ruling 75-538 provides that a vehicle is not property used in the business thus subject to depreciation if it is used merely for demonstration purposes or is temporarily withdrawn from stock-in-trade.

Revenue Ruling 89-25 recognizes that model homes or sales offices are used for a small fraction of their expected useful lives and the taxpayer ultimately expects to sell them. Although the taxpayer may be reluctant or unwilling to sell the models or sales office while they are being used as such, they remain property held primarily for sale to customers and may not be depreciated. See Revenue Ruling 89-25.

## ***Tax Issues***

### **Accumulated Earnings Tax**

Closely held C corporations are more likely to accumulate earnings and profits beyond the reasonable needs of the business in order to avoid income taxes on its shareholders than are large C corporations. Each accumulated earnings case is unique. No pro forma guide for calculating a taxpayer's reasonable needs can be prepared. Reasonable needs that would usually be considered in any accumulated earnings case are the need for sufficient net liquid assets to pay reasonably anticipated, normal operating costs through one business cycle and sufficient net liquid assets to pay reasonably anticipated, extraordinary expenses and capital improvement financing.

In addition, the following represents a non-exclusive list of specific items that should be considered for construction contractors:

1. Working Capital necessary for Bonding Purposes: The general rule of thumb is that working capital needs to be at least 10% of "backlog" for bonding purposes. A specific taxpayer's situation may result in a different percentage based on the bonding company's requirements. Thus, this percentage should be determined on a case-by-case basis. "Backlog" work program is the sum of contracts in process less the billings from those contracts plus contracts not started.
2. Equipment Needs: Contractors who have high equipment needs will generally have a need to replace the equipment on a periodic basis.

The following information is included to assist an examiner during an examination of a construction company in determining whether an accumulated earnings tax issue exists. When considering whether an IRC Section 531 issues exist, examiners are advised to apply the Bardahl, Mead, or similar method used in determining the reasonable business needs. However an examiner must consider that, unlike most entities, a construction company normally needs to retain earnings and profits to have adequate bonding capacity. Relevant court cases involving the accumulated earnings tax and construction contractors are:

1. Ready Paving and Construction Co. v. Commissioner, 61 T.C. 826 (1974): A paving contractor had permitted its earnings to accumulate beyond the reasonable needs of its business. A "modified" Bardahl formula was used with the case hinging on what items were and were not to be included in determining working capital.
2. Thompson Engineering Co. v. Commissioner, 80 T.C. 672 (1983) 751 F.2d 191 (6th Cir. 1985): A construction subcontractor was liable for the accumulated earnings tax. The IRS determined the taxpayer's reasonable business needs by applying the "Bardahl" formula. The court agreed with the taxpayer that the Bardahl formula has "little or no value when

- applied to a mechanical contracting business that lacks a routine operating cycle.” The bonding capacity, and not the Bardahl formula, is the major consideration in determining the taxpayer’s business needs. This case was appealed and reversed.
3. Peterson Bros. Steel Erection Co. v. Commissioner, T.C. Memo. 1988-381, 55 T.C.M. (CCH) 1605 (1988): The taxpayer, involved in the steel erection of high-rise buildings, was not liable for the accumulated earnings tax. The petitioner’s ability to obtain a bond on a job when required is of primary importance and is clearly a reasonable need of the business. The fact that the petitioner was rarely required to provide a performance bond on its jobs is immaterial since it had to be prepared to provide a bond if required.

## **Alternative Minimum Tax**

Taxpayers who are not required to use PCM under IRC Section 460) may owe alternative minimum tax. IRC Section 56(a)(3) states that the PCM must be used for long-term contracts for alternative minimum tax purposes. Therefore, taxpayers on the cash, accrual or completed contract methods must compute alternative minimum taxable income on the percentage of completion method. Exceptions to the required use of PCM for AMT:

1. Homebuilders: IRC Section 56(a) applies to long-term contracts except for home construction contracts
2. Small Corporations: Exempt from AMT for tax years beginning after 1998. Small corporations are C corporations with average annual gross receipts of \$5,000,000 remain exempt in subsequent years until their average annual gross receipts exceed \$7,500,000.

Many construction companies are required to prepare certified financial statements for bonding and lending purposes. Financial statements must be prepared on percentage of completion method. (Statement of Position 81-1) Thus, the difference between the percentage of completion method and the tax return method can easily be determined for alternative minimum tax purposes.

## **Employment Tax**

The use of subcontractors is common within the construction industry. Many taxpayers treat employees as subcontractors to avoid paying employment taxes. The agent may need to seek guidance from an employment tax specialist when confronted with potential employment tax issues. Back-up withholding can apply to subcontractors. The bargain sale of a house to an employee involving a discounted sales price could produce employment tax liability.

## **Conclusion**

Many issues are common to all industries. However, some issues are specific to the construction industry, due to the nature of the business and the special accounting methods available. Additional facts and tax research will be necessary to develop the issues in this chapter

# **Chapter 9: Income Probes**

## **Introduction**

The accounting methods discussed previous chapters control contractor income recognition. Although contractors earn most of their income from building projects including new construction

and remodeling, there are other potential sources of income related to construction. These include the following:

1. Sales of construction equipment
2. Consulting fees
3. Forgiveness of debt income
4. Constructive dividends
5. Scrap sales
6. Interest income earned on retainages or deposits
7. Income from court settlements

Sales may be generated in a variety of ways, including word-of-mouth, Web sites, newspapers, magazines, trade shows, showrooms, or model homes. Typically, a contractor will execute a contract detailing the total job costs and project specifications, as well as the method of payment. The contract may include provisions for retainages, which are usually kept by the general contractor until the project is complete. While the construction contract is an invaluable source of information as to the income from the job, it is also useful in determining the materials consumed, completion dates, job costs, gross profit, and change orders that could result in additional income from the job.

One of the most difficult tasks that an examiner faces is setting the scope of the income probes. This determination must be based upon the risk assessment that is completed during the pre-planning and initial phases of the examination. The initial interview is critical in establishing what type of construction is involved and how the contractor accounts for income, expenses, work in process, and the duties and responsibilities of key personnel. Without an understanding of the business operations, method of accounting, internal controls, and the involvement of the key personnel, the examiner will not be able to properly set the scope of the examination. Internal Revenue Manual (IRM) Section 4.10.3.2 offers guidance in the preparation and documentation of effective interviews. The evaluation of internal controls is discussed in IRM 4.10.3.4.

## ***Understanding the Accounting System***

### **General Techniques**

The initial interview is the best time to determine how the accounting system works and what types of internal controls are in place. Gaining an understanding of the business is critical because a contractor could have multiple businesses operating within the same entity. An example of this would be an electrical contractor who also operates a retail sales outlet. In this case, sales could be recorded on the cash basis for the service business, accrual for the retail business, and percentage of completion for the contractor business. Establishing the type of construction involved, the method of accounting for income and expenses, work in process, and the duties and responsibilities of key personnel are all areas to be covered in the interview. See Appendix 6 for sample interview questions specific to a construction company.

### **The Construction Contract**

The construction contract is the keystone for understanding how income is determined. The contract will specify how much the contractor will be paid and when. This information will have an impact on income recognition issues as well as the profit to be recognized from the job. The contract may also provide information about retainage provisions, incentives, awards, penalties, and change orders. Contracts will also specify whether the terms are “cost plus” or based on a bid.

Part of the income probe will be determining if reported income is reasonable with respect to cost of goods sold. Industry standards from Websites such as Bizstats.com can also be used as a benchmark to determine if the reported gross profit is reasonable.

The contract could also be a starting point for comparing materials as specified per the contract to materials actually charged to the job. This might indicate materials being diverted for other use by the contractor or to small jobs that have no contract and were not recorded in sales. Comparing the “budgeted cost” to the “actual cost” in situations where losses or nominal net profits are reported is a good audit technique when reviewing contracts. Some municipalities have computerized building permit records that could be compared with the actual contracts or job costs. Examiners may use the following examples to test income from the contracts:

1. Compare the board feet of lumber delivered to the square footage of the building. Guides are available that provide this information. Large variances should be investigated.
2. Compare the cubic feet of concrete purchases to the size of the slab included in the contract.
3. Compare the square footage of the roof area to the bundles of shingles purchased and delivered to the job site.
4. Compare the number of major appliances, HVAC units, etc., to the size of the building.
5. Compare the contractor’s gross profit to the industry standards.
6. Courthouse research could show properties transferred but not accounted for in the contracts.

## ***Minimum Income Probes***

The IRM at 4.10.4.3 discusses the requirement for examiners to consider gross income during the examination of all income tax returns. Certain minimum income probes are to be made regardless of the type of return filed by the taxpayer.

### **Minimum Income Probes for Non-business Returns**

The minimum probes for income outlined in IRM 4.10.4.3.2 include questioning the taxpayer or representative regarding possible sources of income, other than those reported:

1. Taxable sources
2. Non-taxable sources
3. Bartering activities

The responses to these questions concerning possible sources of unreported income should be summarized and referenced to the workpapers that document the interview questions. Internal information, such as the Currency and Banking Retrieval System (CBRS) which is used to track cash transactions over \$10,000 and Information Returns Processing (IRP), should also be analyzed to ensure that all business or investment activities are listed on the return.

Consideration of possible bartering income is also part of the minimum income probes. Based upon the analysis of income, external sources (third parties) may be used to corroborate the information received or establish an understatement of income. Under IRC Section 7602(c), third party contracts may not be initiated before giving advance notice to the taxpayer that such contracts may be made as part of the examination. See IRM 4.10.4.5.3.6 for a discussion of the procedures to initiate third party contracts.

### **Minimum Income Probes for Individual Business Returns**

IRM Section 4.10.4.3.3 expands the minimum income probes to include an analysis to determine if reported income is sufficient to support the taxpayer's financial activities. There could be unreported income, overstated expenses, a simple math error, or a combination of these items that could indicate the taxpayers did not have sufficient funds to support their financial activities. Several audit procedures should be utilized:

1. Prepare a preliminary cash transaction (Cash-T) account based upon the tax return data and updated with new information obtained during the examination. For contractors, the job records showing work in process that may not be reported on the return, but may have a substantial economic impact will modify the preliminary Cash-T. Additional information may be required from the taxpayer if the Cash-T is materially out of balance.
2. Tour the business sites and record any observations or comments about the business operations in the workpapers.
3. Evaluate the internal controls to gain an understanding of the taxpayer's business operations. Conclusions reached by the analysis of internal controls should be documented in the workpapers. See the discussion following this section about the evaluation of internal controls.
4. Reconcile the taxpayer's books and records to the tax return. If the taxpayer uses double entry accounting, a book-to-tax reconciliation should be available from the taxpayer.
5. Analyze the personal bank statements and the business bank records. Normally the minimum analysis would be to compare the total deposits with the reported gross income. Bank statements can also provide information about other accounts, automatic transfers, etc.
6. Based upon the information gathered, the scope of the examination of income will be expanded or contracted.

### **Minimum Income Probes for Corporations, Partnerships, S Corporations and Other Business Returns**

According to IRM 4.10.4.3.4, the examination of gross income on a business return for corporations or other business entities should include the following steps at a minimum:

1. Prior to contract, prepare a comparative analysis of the balance sheet and income statement using the assigned year and prior and subsequent years if available. This will assist in the identification of issues to be examined.
2. Evaluate copies of the tax returns of significant shareholders or partners (greater than 50% direct or indirect ownership) for examination potential, related transactions, or possible diverted funds.
3. Prepare a comparative analysis of the balance sheet and income statements including prior and subsequent years, if possible.
4. Reconcile Schedules M-1 and M2 and the trial balance to the return.
5. Analyze the adjusting journal entries and reconcile the trial balance to the general ledger.
6. Analyze a significant balance sheet accounts which show substantial increases or decreases, especially those that relate to income, e.g., deferred revenue, reserves, shareholder loans.

The depth of the bank record inspection will depend on the internal controls, the analysis of the primary shareholder/partner's returns, and the judgment of the examiner. At this point, the examiner should have a solid basis for determining if there is potential for unreported income and if the books and records are reliable. When dealing with construction returns, the method of accounting is always important, because of the impact on income recognition. This could result in a technical adjustment to income.

## ***Internal Controls***

The evaluation of internal controls is discussed in the IRM at 4.10.3.4. Examiners are required to evaluate the existence and effectiveness of internal controls for all types of business returns. Even in the small business environment, where the owner-managers control the entire operation, it is essential to evaluate internal control to determine the appropriate audit techniques to be used. The type of business, the records, and the owner's financial status should be considered as part of the evaluation of internal controls.

What exactly are internal controls in a small business environment? When would they be considered inadequate to the degree of requiring an indirect method? Does the lack of good internal controls mandate the use of an indirect method? Conversely, do good internal controls automatically negate the use of an indirect method?

The answer to these questions is for the most part a judgment call by the examiner. It would be rare that a sole proprietor would be denied unlimited access to the cash resources of the business. While there could be a record keeping system that incorporates a certain level of checks and balances, the credibility reverts back to the owner's willingness to adhere to the established procedures.

In the absence of legal requirements for contractors, such as bonding or government contracts, for the most part a sole proprietorship with no employees is considered to have very weak or nonexistent internal controls. This conclusion would normally require strong consideration of an indirect method during the course of the examination. The exception would be a result of extenuating circumstances justifying a decision not to pursue an indirect method.

The next level would be "weak" internal controls. This might occur where the owner has occasional or limited access to the cash resources of the business. An example might be a larger Schedule C with an in-house accountant. The staff prepares the majority of the banking transactions. The owner, however, has the opportunity on occasion to skim cash sales and circumvent the control procedures that are in place.

In similar situations, examiners will need to consider the following factors when deciding whether or not to pursue an indirect method:

1. Type of business involved extensive cash transactions;
2. The ease of skimming cash such as a large number of unidentifiable customers versus a small number of traceable customers;
3. Established gross profit ratios such as the fact that the business is operating well below the normal gross profit ratios may indicate skimming practices are present;
4. The taxpayer's standard of living, such as a higher standard of living than the amount of income reported may indicate potential skimming;
5. Cash expenditures not reflected in the taxpayer's records that are identified by a courthouse records check; or
6. A high percentage of cash expenditures for business or personal expenses and some or all are not reflected in the taxpayer's records.

The other end of the scale is a business with strong internal controls. This might be evidenced by an elaborate double entry record keeping system; periodic in-house audits; annual certified financial audits; an outside accountant who provides monthly write-up services; non-related owners with equal involvement in the business operations; or limited cash transactions with easily traceable customers. Under these circumstances, the general rule would be not to pursue an

indirect method, and the exception would be where extenuating circumstances dictate otherwise. The key steps to evaluating internal controls are:

1. Understanding the control environment,
2. Understanding the accounting system, and
3. Understanding the control procedures.

First, the control environment is made up of the many factors that affect the policies and procedures of the business. The examiner must understand how the business operates. Interviewing the taxpayer and/or the representative and touring the business are integral steps. Second, gaining knowledge of the accounting system provides information about many of the day-to-day business operations. Finally, the control procedures are the methods established to assure that the business operates as intended. The separation of duties is the primary control procedure because it will reduce the opportunity for any one person to both perpetrate and conceal errors or irregularities. The greater the number of employees, and the more complex the business, the more likely some formal control procedures will exist.

In conclusion, the internal controls of a business must be evaluated and discussed in the workpapers as a mandatory item on every business return examination. The workpapers should include a statement regarding the accessibility to cash by the owner/manager, the quality of internal controls overall, and the effect the internal control environment had on the verification of income.

## **Audit Techniques for Evaluating Internal Controls**

The internal control system should be tested for compliance with the procedures as described in IRM 4.10.3.4.5.3. Observe a transaction through the entire accounting process. Look for consistency in recording similar transactions. At this point, the scope and depth of the examination can be determined. If the books and records are reliable, the examination can include direct testing of transactions, such as tracing specific items to receipts. However, if it is determined that the books and records are not reliable, the examination should include indirect analyses. Because the examination of the books and records will reveal the likelihood of material errors, or that transactions were valid, determining reliability through internal control analysis is a key step.

## ***Use of Indirect Methods***

### **Introduction**

Smaller contractors, not faced with bonding or similar requirements for financial statements and performance verification, may improperly report income for only a portion of their work. For example, they might limit income to the amount reported on Forms 1099. Some contractors have been willing to work for 20% to 25% less on the condition that no Form 1099 is issued. This has an adverse affect on the industry as well as on the government.

With the proliferation of check cashing schemes, payment with a check is an insufficient control to validate income via bank deposit records. The auditor should look to some central element of the specialty contractor's business and measure that factor to confirm the reporting of gross income by an indirect method. With a small contractor, the auditor can also look at the owner's return, county record information, and life-style/assets to gain a reasonable assurance as to the economic reality of reported income. As always, the examiner's judgment will be required to determine if the examination should be expanded to include the use of indirect methods of verifying income.

## Indirect Methods - Overview

At some stage of all business return examinations consideration must be given to the use of an indirect method. Equally important is the proper work paper documentation of the decision to pursue (or not to pursue) an indirect method of income reconstruction. With the passage of the Revenue Recognition Act of 1998, the examiner must document the likelihood of unreported income before proceeding with an indirect method. IRC Section 7602(e) provides that the Secretary shall not use financial status or economic reality examination techniques to determine the existence of unreported income of any taxpayer unless the Secretary has a reasonable indication that there is a likelihood of such unreported income.

When the records are incomplete, or there are other indications that the books and records are not reliable, income may be estimated by using other methods such as analyzing building permits, commissions paid to the sales staff, or applying gross profit percentages to jobs. The decision to use other estimates of income or to expand the scope of the income probes should be made after evaluating the results of the initial income probes. The decision making process must be documented in the workpapers, and updated as information is received. The use of an indirect method of reconstructing income should be considered when:

1. A review of the taxpayer's prior and subsequent year returns show a significant increase in net worth. In the case of a corporation or partnership, this determination is made on the shareholder's return or the partner's return.
2. Gross profit percentages change significantly from year to year or are unusually high/low for that business.
3. The taxpayer's business and personal expenses exceed the reported income per the return and attempts to reconcile material imbalances have failed.
4. The taxpayer's bank accounts have unexplained items of deposit.
5. The taxpayer does not make regular deposits of income, but uses cash instead.

## Types of Indirect Methods

The code and regulations do not define or specifically authorize the use of indirect methods. The authority to challenge a taxpayer's income determination is under IRC Section 446(b). If the taxpayer has regularly used no method of accounting or if the method used does not clearly reflect income, the computation of taxable income shall be made under such method as in the opinion of the Secretary does clearly reflect income. The application of the various indirect methods is outlined under the IRM at sections 4.10.4.6.3 through 8. These include the following:

1. Bank Deposit Method;
2. Cash Transaction and Source and Application of Funds Method;
3. Net Worth Method;
4. Percentage of Markup Method;
5. Unit and Volume Method; and
6. Potential Defenses to Indirect Method Computations.

In addition to a discussion of the relevant case law and the indirect method computation, the IRM discusses each method in detail. In theory, each method applied properly should yield the same result. However, there are situations that indicate the use of a specific method may be more appropriate. For example, the bank deposit method is recommended in the following situations:

1. The taxpayer's books and records are unavailable, withheld, or incomplete.
2. The taxpayer deposits most income as verified during the examination.
3. The taxpayer pays most business expenses by check.

4. The taxpayer used the bank deposit method to report income.
5. The taxpayer's records indicate numerous cash expenses.
6. The assets and liabilities are stable from year to year.
7. A large volume of unsorted bills, invoices and receipts are submitted in support of items appearing on a return.
8. The taxpayer's books and records appear complete and accurate, but a method to probe for unreported income or confirm the accuracy of the books and records is needed.

The Cash Transactions and Source and Applications of Funds methods are recommended in the following situations:

1. If the review of a taxpayer's return indicates that the taxpayer's deductions and other expenditures appear out of proportion to the income reported.
2. The taxpayer's cash does not all flow from a bank account that can be analyzed for its source and subsequent disposition.
3. There is little or no increase in the net worth of the taxpayer, yet, based upon expenditures of the taxpayer, it becomes apparent that the taxpayer has other sources of income.
4. The taxpayer makes it a common business practice to convert receipts into cash for the purpose of paying claimed business expenditures.
5. If only one or two years are under examination.
6. The small amount of time needed to be expended, as compared with using the net worth method.
7. The taxpayer has many transactions involving assets and liabilities.

The net worth method is recommended in the following situations:

1. Two or more years are under examination.
2. Numerous changes to assets and liabilities are made during the period.
3. No books and records are maintained.
4. The books and records are inadequate or not available.
5. The taxpayer withholds the books and records.

The percentage of markup method is recommended in the following situations:

1. When the inventories are a factor and the taxpayer has nonexistent or inadequate records.
2. Where a taxpayer's cost of goods sold or merchandise purchased is from one or two sources and these sources can be ascertained with reasonable certainty. In addition, a reasonable degree of consistency as to sales prices exists.

The unit and volume method is recommended in the following situation:

1. The examiner can determine the number of units handled by the taxpayer, and also knows the price or profit charged per unit.

Clearly, the examiner's judgment is a crucial factor in determining the best method to pursue when the examination indicates the use of an indirect method. With the exception of the unit and volume method, any of these methods would apply to construction returns. Construction activity results in the production of tangible personal property so the cost of the materials can usually be determined. Most materials used in construction are not exotic, so pricing is generally not a barrier to determining job costs.

For example a home builder who constructs an average 2,000 square foot home, 13,127 board-feet of framing lumber; 3,100 square feet of roofing material; 3,061 square feet of insulation; 15 windows; 12 interior doors; and 2,085 square feet of flooring material would be required. The average material usage would give the examiner a benchmark to use for determining income based on costs. (National Association of Home Builders, <http://www.nahb.org>.)

As policy, when an indirect method results in an understatement over \$10,000, it is mandatory for the examiner to discuss the case with the group manager. The purpose of the discussion is to consider expanding the scope of the examination and to evaluate any elements of fraud. Fraud potential should always be considered in an examination when unreported income is an issue. The taxpayer's explanations or lack thereof may help distinguish between civil and criminal fraud. It is important to document the case file for the responses to interview questions, reliability of books and records, or any other indications of fraud.

## ***Miscellaneous Income Sources***

Income may also arise from other sources. Some of the more common ones are:

1. A contractor may have interest income from escrow accounts, retainage accounts, or deposits. Reconciling the IRP transcripts may reveal unreported interest income.
2. Income from a remote construction project could be omitted. Generally, expenses will be accounted for, so a careful understanding of the books and records is crucial.
3. It is not unusual for a contract to be involved in some litigation over complicated construction contracts. The income from claims that are subsequently settled by court decisions or arbitration may not be reported.

## ***Conclusion***

There are several resources available to the examiner when the taxpayer's business is construction related. A potential resource is the IRS website ([www.irs.gov](http://www.irs.gov)) which discusses various construction issues. This information is updated with court cases and other documents outlining the government's position on various construction accounting issues. Because many construction businesses are sole proprietors, issues are found on individual and business returns. An understanding of the industry is vital for examiners to complete a quality examination.

Certain auditing techniques should always be applied when auditing a contractor. Special attention needs to be given to the possibility of unreported income. The contractor should be interviewed and asked to explain the operation of his or her business. The construction contract should be reviewed to see how income is to be received. Income probes should be performed. Other sources of income common to contractors should be investigated. And internal controls should be reviewed. If the results of these reviews indicate the probability of unreported income, indirect methods of determining income should be considered.

No magic formula exists to use in examining contractors' income tax returns. The examiner must use good judgment as well as innovative techniques when faced with either inadequate or non-existent books or records. Using other resources to estimate income can be sustained when the evidence is supported by increases in net worth or living expenses.

# Chapter 10: Construction Joint Ventures

## *Introduction*

A joint venture is composed of two or more businesses combining their resources to build one or more projects. Construction companies may choose to extend and expand their capital, bonding capacity, or expertise by joining together with other competent contractors to perform work that is challenging either in terms of size or type. Other construction companies have restricted access to international or domestic markets. By forming joint ventures, construction companies can often overcome these market limitations or restrictions. Although these forms of business have both advantages and disadvantages, they are often necessary for the construction company's survival and growth in a highly competitive industry. .

## *Types of Joint Ventures*

Construction projects can be structured as joint ventures that are generally considered partnerships under IRC Sections 761(a) and 7701(a)(2). Joint ventures are generally formed for one specific purpose such as a job, a contract, or a project with the intent of operating for a limited duration.

IRC Section 7701(a)(2) provides that the term "partnership" includes a syndicate, group, pool, joint venture, or other unincorporated organization, through or by means of which any business, financial operation, or venture is carried on, and which is not, within the meaning of this title, a trust or estate or a corporation; and the term "partner" includes a member in such a syndicate, group, pool, joint venture, or organization.

The Treasury and IRS have published regulations for classifying business arrangements for federal tax purposes. These regulations became effective January 1, 1997. When classifying a business arrangement, first determine if there is a separate entity for federal tax purposes. A joint venture may create a separate entity for federal tax purposes if the participants: (1) carry on a trade, business, financial operation, or venture, and (2) divide the profits from the activity. Nonetheless, a joint undertaking merely to share expenses does not create a separate entity for federal tax purposes.

Whether a joint venture is a separate entity for federal tax purposes is a question of federal law. Treasury Regulation Section 301.7701-1 prescribes the classification of various organizations for federal tax purposes. Whether an organization is an entity separate from its owners for federal tax purposes is a matter of federal tax law and does not depend on whether the organization is recognized as an entity under local law. In addition, certain joint undertakings give rise to entities for federal tax purposes. A joint venture or other contractual arrangement may create a separate entity for federal tax purposes if the participants carry on a trade, business, financial operation, or venture and divide the profits.

For example, a separate entity exists for federal tax purposes if co-owners of an apartment building lease space and in addition provide services to the occupants either directly or through an agent. Nevertheless, a joint undertaking merely to share expenses does not create a separate entity for federal tax purposes. For example, if two or more persons jointly construct a ditch merely to drain surface water from their properties, they have not created a separate entity for federal tax purposes. Similarly, mere co-ownership of property that is maintained, kept in repair, and rented or leased does not constitute a separate entity for federal tax purposes. For example, if an individual owner, or tenants in common, of farm property lease it to a farmer for a cash rental or a share of the crops, they do not necessarily create a separate entity for federal tax purposes.

A separate entity conducting construction operations will generally be treated as a business entity under the new regulations. A business entity with two or more members is classified either: (1) an association taxable as a corporation or (2) a partnership. Except for certain business entities that are defined as corporations, a business entity may elect to be treated as either an association or a partnership to be an eligible entity. See Treasury Regulation Section 301.7701-2.

Treasury Regulation Section 301.7701-2(a) and Treasury Regulation Section 301.7701-3 provide that a business entity is any entity recognized for federal tax purposes including an entity with a single owner that may be disregarded as an entity separate from its owner under Treasury Regulation Section 301.7701-3 that is not properly classified as a trust under Treasury Regulation Section 301.7701-4 or otherwise subject to special treatment under the Internal Revenue Code.

A business entity with two or more members is classified for federal tax purposes as either a corporation or a partnership. A business entity with only one owner is classified as a corporation if the entity is disregarded and its activities are treated in the same manner as a sole proprietorship, branch, or division of the owner.

The regulations provide default rules that classify eligible entities without requiring them to file elections. Unless it elects otherwise, a domestic eligible entity that is formed after January 1, 1997 is classified as a partnership if it has at least two members. Unless it elects otherwise, a foreign eligible entity that is formed after January 1, 1997 is classified as either: (1) a partnership if it has at least two members and at least one member does not have limited liability, or (2) an association if all members have limited liability. Generally, an eligible entity in existence prior to January 1, 1997 maintains the classification it claimed under the classification regulations in effect prior to January 1, 1997. An eligible entity may elect to be classified other than as provided in the default rules or to change its classification by filing a Form 8832, Entity Classification Election, with the appropriate service center. See Treasury Regulation Section 301.7701-3.

For financial statement purposes, investments in joint ventures are accounted for by each member of the joint venture under the cost method, the equity method, as a pro rata share, or the entity is consolidated with the investor's financial statements. For financial accounting purposes, the accounting method used to account for the construction company's investment in a joint venture is based on the ownership percentage and the degree of control the construction company has over the venture. Inspection of the taxpayer's consolidated financial statements can provide the examiner with an extended view of the construction company's investment in joint ventures because both incorporated projects and joint ventures are often consolidated. In addition, financial information of unconsolidated joint ventures is frequently disclosed in the notes to the financial statements.

Joint ventures classified, as partnerships are generally required to file separate income tax returns using Form 1065. Individual partners or investors recognize a distributive share of partnership items reported on Schedule K-1 from the construction joint venture on their income tax returns. Partnerships are formed as general partnerships or limited partnerships. A general partnership is an association where all partners have unlimited liability. A limited partnership is an association in which one or more general partners have unlimited liability and one or more limited partners have limited liability.

## ***Joint Venture Examinations***

Auditors examining construction companies that are involved in joint ventures should be aware of the unique issues regarding the formation, operation, and liquidation of joint ventures. The gross receipts of each joint venture need to be considered in the rules of attribution in determining the member's eligibility to meet the small contractor's exception under IRC Section 460(e)(1). See an

earlier chapter for additional information regarding the rules of attribution. Each member of a joint venture brings individual resources to a joint venture and can be compensated in various ways. Each party should be viewed independently. Such a review often raises questions and potential issues:

1. What are the assets, capital, services, and other resources contributed by each party?
2. What was the value and basis of the property contributed?
3. Did a partner contribute appreciated property to the venture?
4. Was the contributed property encumbered?
5. What are the profit, loss and capital sharing ratios?
6. Do the partnership allocations have substantial economic effect within the meaning of IRC section 704(b)?
7. Have there been changes in the ownership structure?
8. Have there been distributions or partial liquidations from the joint venture?
9. What type of property was distributed and to whom?
10. How has the construction company been compensated (cash, increase in capital interest, etc.) for its construction work?
11. How does the construction company allocate its overhead or indirect expenses to joint venture projects?
12. Are there related transactions (compensation payments, leases, loans, etc.) between the joint venture and the members of the joint venture?
13. What method of accounting does the joint venture use?
14. What effects do long-term contracts have on the allocation of income to incoming/outgoing partners?
15. Has construction period interest been properly capitalized?

## ***Potential Joint Venture Issues***

Examiners who conduct examinations of joint ventures must deal with the common issues found in other construction entity examinations. However, joint ventures are classified primarily as partnerships and have unique tax issues. These issues often can be divided into three broad categories involving formation, operation, and liquidation or distribution issues. These are briefly summarized below:

### **Formation Issues**

1. Failure to file partnership returns. See IRC Sections 761 and 6698.
2. Capitalization or amortization of organization and syndication fees. See IRC Section 709.
3. Contribution of construction services by the construction company in exchange for a capital interest in the partnership. See Treasury Regulation Section 1.721-1(b)(1).
4. Contribution of construction services (by the construction company) in exchange for a profits interest in the partnership when a predictable income stream exists. See Revenue Procedure 93-27.
5. Deemed cash distributions on the assumption of a partner's liability on property contributed. See IRC Section 752(b).

### **Operation Issues**

1. Allocation of income, gains, deductions, and losses not having substantial economic effect. See IRC Section 704(b).
2. Cancellation of indebtedness income (COD income) upon bankruptcy or insolvency. See IRC Section 61(a)(12) and IRC Section 108.

3. Withholding tax on distributive share of partnership taxable income to a foreign partner. See IRC Section 1446.

### **Liquidation or Distribution Issues**

1. Distributions of cash in excess of basis in the partnership interest. See IRC Sections 731, 752, 741, and 751.
2. Interest expense deductions in connection with debt financed distributions. See IRC Section 163(h).
3. Disguised sales. See IRC Section 707(a)(2)(B).

### **Conclusion**

In addition to the other construction industry tax issues, joint ventures by the nature of the entity produce separate issues that need consideration.

## **Chapter 11: Contractor Square Foot Costs**

### **Introduction**

Latest estimates put the Federal tax gap at \$345 billion and growing. The tax gap is equivalent to a noncompliance rate of 16.3%. Of this amount, \$285 billion is attributable to underreporting of business income of which \$68 billion is attributable to sole-proprietors (Individual Income Tax, Form 1040, Schedule C). This amount represents the single largest source of the entire tax gap and is a direct result of little or no information reporting. Consequently, matching of income received to income reported cannot be performed.

In addressing the tax gap attributable to the construction industry, residential construction is of particular interest because this group of taxpayers accounts for 73% of the return filings but reports only 10% of the gross receipts. It is imperative that steps are taken to ensure that only the most noncompliant returns enter the examination stream and that appropriate issues, specifically underreporting of income, are examined in a quality manner. Of particular interest are cash intensive businesses. The Service is especially concerned with sole-proprietorships because they often lack internal controls and cash can easily go unreported. In addition, records can be either non-existent or inadequate. For example, cash receipts may not be deposited into the business bank account. For this purpose, it is important to pursue alternative methods of addressing the underreporting of business income on residential construction returns. This can be achieved, in part, by utilizing innovative methodologies such as Residential Square Foot Costs and the Market-based Profit Markup when warranted. These methods are efficient and effective at estimating profit when taxpayers are not cooperative or their books and records are either non-existent or inadequate.

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It uses an Assemblies or sometimes referred to as systems format grouping all the functional elements of residential construction into nine construction divisions. Costs shown in the Means guide is based on national averages for materials and installation; however, material costs include a standard 10% markup for profit. These costs are national average material costs for January 2007 and include delivery to the job site. Installation costs include labor and equipment, plus a markup of 70.6% for the installing contractor's overhead and profit.

“Costs per square foot” estimate for commonly constructed systems within the residential construction industry. You can arrive at a more accurate estimate by adding, removing or adjusting items to the system estimate to reflect the actual specifications of the work performed. These costs can also be adjusted to a specific location by applying the appropriate Location Factor. As noted in that section, simply multiply the cost by the location factor for a specific city. State and postal zip code number data is arranged alphabetically. For a city that is not listed, use the factor for a nearby city with similar economic characteristics. In summary, total project costs can be adjusted to over 900 locations throughout the U.S. and Canada. See the location factors section in this chapter.

## ***Division 1 – Site Work***

### **Footing Excavation:**

Reserved.

### **Foundation Excavation:**

Reserved.

### **Utility Trenching:**

Reserved.

### **Sidewalk:**

Sidewalk systems can be constructed using asphalt, concrete or brick pavers. Three-foot wide concrete sidewalk systems are the most common. These concrete sidewalk systems may include gravel fill, compact fill, hand grading, concrete walking surface and brick edging. The concrete used is 3000 pounds per square inch or “p.s.i.”

### **Sidewalk**

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Per Square Foot Materials</b>	<b>Cost Per Square Foot Installation</b>	<b>Total</b>
<b>Gravel Fill (4" deep)</b>	0.001	\$0.34	\$0.03	\$0.

				37
<b>Compact Fill</b>			\$0.01	\$0.01
<b>Hand Grade</b>	0.004		\$0.14	\$0.14
<b>Concrete (4" thick}</b>	0.040	\$1.91	\$1.54	\$3.45
<b>Edging (brick laid on edge)</b>	0.079	\$1.61	\$3.08	\$4.69
<b>TOTAL</b>	0.124	\$3.86	\$4.80	\$8.66

#### Driveway:

Driveway systems can be constructed using asphalt, concrete or brick pavers. Ten-foot wide concrete driveway systems are the most common. These concrete driveway systems may include gravel fill, compact fill, hand grading, concrete surface and brick edging. The concrete used is 3000 pounds per square inch or “p.s.i.”

#### Driveway

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Per Square Foot Materials</b>	<b>Cost Per Square Foot Installation</b>	<b>Total</b>
<b>Excavation (10' wide and 6" deep)</b>			\$0.03	\$0.03
<b>Crushed Stone (6" base)</b>	0.001	\$0.76	\$0.08	\$0.84
<b>Hand Grade Base</b>	0.004		\$0.14	\$0.14
<b>Concrete (4" thick}</b>	0.040	\$1.91	\$1.54	\$3.45
<b>Edging (brick laid on edge)</b>	0.024	\$0.48	\$0.92	\$1.40
<b>TOTAL</b>	0.069	\$3.15	\$2.71	\$5.86

#### Septic:

Reserved.

#### Chain Link Fence:

Reserved.

## Wood Fence:

Reserved.

## Division 2 - Foundations

### Footings:

Footings are constructed concrete. The thickness and widths can vary. These concrete systems include placing concrete via direct chute, forms, reinforcement bars, beveled keyway and dowel bars. The concrete commonly used is 3000 pounds per square inch or "p.s.i."

### Footings

System Description	Labor Hours	Cost Per Linear Foot Materials	Cost Per Linear Foot Installation	Total
8" x 18" Concrete (3000 psi via Direct Chute)	0.016	\$4.56	\$0.56	\$5.12
Footings Forms (4 Uses)	0.103	\$0.86	\$3.87	\$4.73
Reinforcing Bars 1/2" Diameter	0.011	\$0.70	\$0.52	\$1.22
2" x 4" Beveled Keyway (4 Uses)	0.015	\$0.22	\$0.66	\$0.88
2' Long 1/2" Diameter Dowel Bars (4 Uses) 6" OC	0.006	\$0.12	\$0.27	\$0.39
<b>TOTAL</b>	0.151	\$6.46	\$5.88	\$12.34
12" x 24" Concrete (3000 psi via Direct Chute)	0.028	\$7.98	\$0.98	\$8.96
Footings Forms (4 Uses)	0.155	\$1.30	\$5.82	\$7.12
Reinforcing Bars 1/2" Diameter	0.011	\$0.70	\$0.52	\$1.22
2" x 4" Beveled Keyway (4 Uses)	0.015	\$0.22	\$0.66	\$0.88
2' Long 1/2" Diameter Dowel Bars (4 Uses) 6" OC	0.006	\$0.12	\$0.27	\$0.39
<b>TOTAL</b>	0.215	\$10.32	\$8.25	\$18.57
12" x 36" Concrete (3000 psi via Direct Chute)	0.044	\$12.54	\$1.53	\$14.07
Footings Forms (4 Uses)	0.155	\$1.30	\$5.82	\$7.12

				12
<b>Reinforcing Bars 1/2" Diameter</b>	0.011	\$0.70	\$0.52	\$1.22
<b>2" x 4" Beveled Keyway (4 Uses)</b>	0.015	\$0.22	\$0.66	\$0.88
<b>2' Long 1/2" Diameter Dowel Bars (4 Uses) 6" OC</b>	0.006	\$0.12	\$0.27	\$0.39
<b>TOTAL</b>	0.231	\$14.88	\$8.80	\$23.68

### Block Wall:

Block wall systems are constructed using concrete blocks, masonry reinforcements, parging with Portland cement, damp proofing, insulation, grout, anchor bolts and sill plates. The costs in this system are based on square foot of the wall. Do not subtract for window or door openings.

### Block Wall

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Per Square Foot Materials</b>	<b>Cost Per Square Foot Installation</b>	<b>Total</b>
<b>8" Concrete Block (8" x 16" x 8")</b>	0.094	\$2.70	\$3.76	\$6.46
<b>Masonry Reinforcing (Every Second Course)</b>	0.002	\$0.17	\$0.09	\$0.26
<b>Parging (1 Coat Plastering with Portland Cement)</b>	0.014	\$0.25	\$0.58	\$0.83
<b>Damp Proofing (1 Coat Bituminous Coating)</b>	0.012	\$0.14	\$0.48	\$0.62
<b>Insulation ( 1" Rigid Polystyrene)</b>	0.010	\$0.52	\$0.44	\$0.96
<b>Grout (Pumped Solid)</b>	0.059	\$1.20	\$2.31	\$3.51
<b>Anchor Bolts ( 1/2" Diameter, 8" Long, 4' OC)</b>	0.002	\$0.05	\$0.11	\$0.16
<b>Sill Plate (2" x 4" Treated)</b>	0.007	\$0.15	\$0.32	\$0.47
<b>TOTAL</b>	0.200	\$5.18	\$8.09	\$13.27
<b>12" Concrete Block (8" x 16" x 12")</b>	0.160	\$3.77	\$6.20	\$9.97
<b>Masonry Reinforcing (Every</b>	0.003	\$0.19	\$0.14	\$0.33

<b>Second Course)</b>				33
<b>Parging (1 Coat Plastering with Portland Cement)</b>	0.014	\$0.25	\$0.58	\$0.83
<b>Damp Proofing (1 Coat Bituminous Coating)</b>	0.012	\$0.14	\$0.48	\$0.62
<b>Insulation ( 1" Rigid Polystyrene)</b>	0.01	\$0.52	\$0.44	\$0.96
<b>Grout (Pumped Solid)</b>	0.063	\$1.96	\$2.46	\$4.42
<b>Anchor Bolts ( 1/2" Diameter, 8" Long, 4' OC)</b>	0.002	\$0.05	\$0.11	\$0.16
<b>Sill Plate (2" x 4" Treated)</b>	0.007	\$0.15	\$0.32	\$0.47
<b>TOTAL</b>	0.271	\$7.03	\$10.73	\$17.66

#### Concrete Wall:

Concrete wall systems are constructed using concrete, reinforcement fabric, damp proofing, insulation, anchor bolts and sill plates. The costs in this system are based on square foot of the wall. Do not subtract for window or door openings. The costs assume a 4' high wall.

#### Concrete Wall

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Per Square Foot Materials</b>	<b>Cost Per Square Foot Installation</b>	<b>Total</b>
<b>8" Concrete (3000 psi 8" Thick)</b>	0.013	\$2.85	\$0.46	\$3.31
<b>Forms (Prefabricated Plywood 4 Uses per Month)</b>	0.076	\$1.46	\$2.92	\$4.38
<b>Light Reinforcement (Rebar)</b>	0.004	\$0.34	\$0.17	\$0.51
<b>Damp Proofing (2 Coats Brushed On)</b>	0.016	\$0.28	\$0.64	\$0.92
<b>Rigid Insulation ( 1" Polystyrene)</b>	0.010	\$0.52	\$0.44	\$0.96
<b>Anchor Bolts ( 1/2" Diameter, 12" Long, 4' OC)</b>	0.003	\$0.09	\$0.11	\$0.20
<b>Sill Plate (2" x 4" Treated)</b>	0.007	\$0.15	\$0.32	\$0.47
<b>TOTAL</b>	0.129	\$5.69	\$5.06	\$10.75

				.75
<b>12" Concrete (3000 psi 12" Thick)</b>	0.019	\$4.56	\$0.67	\$5.23
<b>Forms (Prefabricated Plywood 4 Uses per Month)</b>	0.076	\$1.46	\$2.92	\$4.38
<b>Light Reinforcement (Rebar)</b>	0.005	\$0.51	\$0.26	\$0.77
<b>Damp Proofing (2 Coats Brushed On)</b>	0.016	\$0.28	\$0.64	\$0.92
<b>Rigid Insulation ( 1" Polystyrene)</b>	0.01	\$0.52	\$0.44	\$0.96
<b>Anchor Bolts ( 1/2" Diameter, 12" Long, 4' OC)</b>	0.003	\$0.09	\$0.11	\$0.20
<b>Sill Plate (2" x 4" Treated)</b>	0.007	\$0.15	\$0.32	\$0.47
<b>TOTAL</b>	0.136	\$7.57	\$5.36	\$12.93

**Wood Wall Foundation:**

Reserved.

**Floor Slab:**

Floor slabs are constructed with concrete. These concrete slab systems include concrete, gravel, polyethylene vapor barrier, edge forms, welded wire fabric and a steel trowel finish. The concrete used is 3000 pounds per square inch or "p.s.i." The slab costs are based on a cost per square foot of floor area.

**Floor Slab**

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Per Square Foot Materials</b>	<b>Cost Per Square Foot Installation</b>	<b>Total</b>
<b>4" Concrete via Direct Chute (3000 psi 4" Thick)</b>	0.005	\$1.37	\$0.19	\$1.56
<b>Bank Run Gravel ( 4" Deep)</b>	0.001	\$0.38	\$0.04	\$0.42
<b>Polyethylene Vapor Barrier (.006" Thick)</b>	0.002	\$0.05	\$0.09	\$0.14
<b>Edge Forms (Expansion Material)</b>	0.005	\$0.03	\$0.20	\$0.22

				3
<b>Welded Wire Fabric, 6 x 6, 10/10 (W1.4/W1.4)</b>	0.005	\$0.15	\$0.25	\$0 .4 0
<b>Steel Trowel Finish</b>	0.015		\$0.58	\$0 .5 8
<b>TOTAL</b>	0.033	\$1.98	\$1.35	\$3 .3 3
<b>6" Concrete via Direct Chute (3000 psi 4" Thick)</b>	0.008	\$2.17	\$0.29	\$2 .4 6
<b>Bank Run Gravel ( 4" Deep)</b>	0.001	\$0.38	\$0.04	\$0 .4 2
<b>Polyethylene Vapor Barrier (.006" Thick)</b>	0.002	\$0.05	\$0.09	\$0 .1 4
<b>Edge Forms (Expansion Material)</b>	0.005	\$0.03	\$0.20	\$0 .2 3
<b>Welded Wire Fabric, 6 x 6, 10/10 (W1.4/W1.4)</b>	0.005	\$0.15	\$0.25	\$0 .4 0
<b>Steel Trowel Finish</b>	0.015		\$0.58	\$0 .5 8
<b>TOTAL</b>	0.036	\$2.78	\$1.45	\$4 .2 3

### ***Division 3 - Framing***

#### **Floor:**

Generally, wood floor framing systems include joists, bridging, box sills, concrete filled steel column 4" diameter, girder (built up from three studs), sheathing, and furring. Joists can be constructed using #2 or better wood pine studs, composite wood joists, or open web joists.

Wood Studs: Wood pine studs can be 2" x 4", 2" x 6", 2" x 8", 2" x 10" or 2" x 12" that are placed at 12" or 16" On Center (OC"). The most common wood stud floor systems use 2" x 8", 2" x 10" or 2" x 12" joists placed at 16" OC. Bridging can be accomplished using wood, metal or compression type material. The most commonly used is a pair of 1" x 3" boards placed at 6' OC. Box sills are constructed using the same type and size of

wood pine studs. If girders are required, they can be 3 pieces of wood spiked together, solid wood or steel. When 3 pieces of wood are spiked together, 2" x 8", 2" x 10" or 2" x 12" are commonly used. Solid wood used as girders are 3" x 8", 3" x 10", 3" x 12", 4" x 8", 4" x 10" or 4" x 12". Wide flange steel girders with fabrication are bolted. Commonly used steel girder sizes are 5", 6", 8" 10" or 12" deep. Plywood or boards can be used as sheathing. If plywood is used, it is usually CDX exterior grade and either 1/2", 5/8" or 3/4" thick. If boards are used, 1" x 8" or 1" x 10" boards can be laid in the regular manner or it may be laid diagonally. Furring is accomplished by using 1" x 3" boards at 12", 16" or 24" OC with 16" OC being the most common.

### Wood Studs

System Description	Labor Hours	Cost Per Square Foot Materials	Cost Per Square Foot Installation	Total
<b>2" x 8" Wood Joists, 2" x 8", 16" OC</b>	0.015	\$0.92	\$0.63	\$1.55
<b>Bridging, 1" x 3", 6' OC</b>	0.005	\$0.03	\$0.21	\$0.24
<b>Box Sills, 2" x 8"</b>	0.002	\$0.14	\$0.09	\$0.23
<b>Concrete Filled Steel Column, 4" Diameter</b>	0.002	\$0.12	\$0.11	\$0.23
<b>Girder, Built Up From Three 2" x 8"</b>	0.013	\$0.34	\$0.58	\$0.92
<b>Sheathing, Plywood, Subfloor, 5/8" CDX</b>	0.012	\$0.65	\$0.52	\$1.17
<b>Furring, 1" x 3", 16" OC</b>	0.023	\$0.25	\$1.00	\$1.25
<b>TOTAL</b>	0.072	\$2.45	\$3.14	\$5.59
<b>2" x 10" Wood Joists, 2" x 10", 16" OC</b>	0.018	\$1.31	\$0.78	\$2.09
<b>Bridging, 1" x 3", 6' OC</b>	0.005	\$0.03	\$0.21	\$0.24
<b>Box Sills, 2" x 10"</b>	0.003	\$0.20	\$0.12	\$0.32
<b>Concrete Filled Steel Column, 4" Diameter</b>	0.002	\$0.12	\$0.11	\$0.23
<b>Girder, Built Up From Three 2" x 10"</b>	0.014	\$0.49	\$0.62	\$1.11
<b>Sheathing, Plywood, Subfloor, 5/8" CDX</b>	0.012	\$0.65	\$0.52	\$1.17
<b>Furring, 1" x 3", 16" OC</b>	0.023	\$0.25	\$1.00	\$1.25

<b>TOTAL</b>	0.077	\$3.05	\$3.36	\$6.41
<b>2" x 12" Wood Joists, 2" x 12", 16" OC</b>	0.018	\$1.57	\$0.80	\$2.37
<b>Bridging, 1" x 3", 6' OC</b>	0.005	\$0.03	\$0.21	\$0.24
<b>Box Sills, 2" x 12"</b>	0.003	\$0.24	\$0.12	\$0.36
<b>Concrete Filled Steel Column, 4" Diameter</b>	0.002	\$0.12	\$0.11	\$0.23
<b>Girder, Built Up From Three 2" x 12"</b>	0.015	\$0.59	\$0.65	\$1.24
<b>Sheathing, Plywood, Subfloor, 5/8" CDX</b>	0.012	\$0.65	\$0.52	\$1.17
<b>Furring, 1" x 3", 16" OC</b>	0.023	\$0.25	\$1.00	\$1.25
<b>TOTAL</b>	0.078	\$3.45	\$3.41	\$6.86

Composite Wood Joists: Composite wood joists are prefabricated and can be 9 1/2", 11 1/2, 14", or 16" deep with a 15', 18' or 22' span that are placed at 12" or 16" OC. The most common composite wood joist (CWJ) floor systems use CWJ's that are 9 1/2", 11 1/2, 14" deep and a 15', 18' or 22' span. The CWJ's are placed at 16" OC. Temporary strut lines using 1" x 4" boards placed at 8' OC are used to keep the CWJ's in place while framing. Bridging is not required when using CWJ's. In lieu of box sills, CWJ's of the same depth are used as rim joists to close off the two open ends. If girders are required, they can be 3 pieces of wood spiked together, solid wood or steel. When 3 pieces of wood are spiked together, 2" x 8", 2" x 10" or 2" x 12" are commonly used. Solid wood used as girders are 3" x 8", 3" x 10", 3" x 12", 4" x 8", 4" x 10" or 4" x 12". Wide flange steel girders with fabrication are bolted. Commonly used steel girder sizes are 5", 6", 8", 10" or 12" deep. Plywood or boards can be used as sheathing. If plywood is used, it is usually CDX exterior grade and either 1/2", 5/8" or 3/4" thick. If boards are used, 1" x 8" or 1" x 10" boards can be laid in the regular manner or it may be laid diagonally. Furring is accomplished by using 1" x 3" boards at 12", 16" or 24" OC with 16" OC being the most common.

### Composite Wood Joists

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Per Square Foot Materials</b>	<b>Cost Per Square Foot Installation</b>	<b>Total</b>
<b>Composite Wood Joists, 9 1/2", 16" OC, 15' Span</b>	0.018	\$2.05	\$0.78	\$2.83
<b>Temporary Strut Line, 1" x 4",</b>	0.003	\$0.07	\$0.14	\$0

<b>8' OC</b>				.2 1
<b>CWJ Rim Joist, 9 1/2"</b>	0.003	\$0.31	\$0.12	\$0 .4 3
<b>Concrete Filled Steel Column, 4" Diameter</b>	0.002	\$0.12	\$0.11	\$0 .2 3
<b>Girder, Built Up From Three 2" x 8"</b>	0.013	\$0.34	\$0.58	\$0 .9 2
<b>Sheathing, Plywood, Subfloor, 5/8" CDX</b>	0.012	\$0.65	\$0.52	\$1 .1 7
<b>Furring, 1" x 3", 16" OC</b>		\$0.00	\$0.00	\$0 .0 0
<b>TOTAL</b>	0.051	\$3.54	\$2.25	\$5 .7 9
<b>Composite Wood Joists, 11 1/2", 16" OC, 18' Span</b>	0.018	\$2.18	\$0.80	\$2 .9 8
<b>Temporary Strut Line, 1" x 4", 8' OC</b>	0.003	\$0.07	\$0.14	\$0 .2 1
<b>CWJ Rim Joist, 11 1/2"</b>	0.003	\$0.33	\$0.12	\$0 .4 5
<b>Concrete Filled Steel Column, 4" Diameter</b>	0.002	\$0.12	\$0.11	\$0 .2 3
<b>Girder, Built Up From Three 2" x 10"</b>	0.014	\$0.49	\$0.62	\$1 .1 1
<b>Sheathing, Plywood, Subfloor, 5/8" CDX</b>	0.012	\$0.65	\$0.52	\$1 .1 7
<b>Furring, 1" x 3", 16" OC</b>		\$0.00	\$0.00	\$0 .0 0
<b>TOTAL</b>	0.052	\$3.84	\$2.31	\$6 .1 5

<b>Composite Wood Joists, 14", 16" OC, 22' Span</b>	0.020	\$2.55	\$0.85	\$3 .4 0
<b>Temporary Strut Line, 1" x 4", 8' OC</b>	0.003	\$0.07	\$0.14	\$0 .2 1
<b>CWJ Rim Joist, 14"</b>	0.003	\$0.38	\$0.13	\$0 .5 1
<b>Concrete Filled Steel Column, 4" Diameter</b>	0.002	\$0.12	\$0.11	\$0 .2 3
<b>Girder, Built Up From Three 2" x 12"</b>	0.015	\$0.59	\$0.65	\$1 .2 4
<b>Sheathing, Plywood, Subfloor, 5/8" CDX</b>	0.012	\$0.65	\$0.52	\$1 .1 7
<b>Furring, 1" x 3", 16" OC</b>		\$0.00	\$0.00	\$0 .0 0
<b>TOTAL</b>	0.055	\$4.36	\$2.40	\$6 .7 6

Open Web Joists: Open web joists are prefabricated and can be 12", 14", 16" or 18" deep with a 21', 22', or 24' span that are placed at 12" or 16" OC. The most common open web joist (OWJ) floor systems are OWJ's that are 12", 14" or 16" deep, have a 21', 22' or 24' span and are placed at 16" OC. In lieu of either box sills or CWJ rim joists, a continuous ribbing using 2" x 4" studs is used. Although not as common, 2" x 6", 2" x 8", 2" x 10" or 2" x 12" boards can be used. If girders are required, they can be 3 pieces of wood spiked together, solid wood or steel. When 3 pieces of wood are spiked together, 2" x 8", 2" x 10" or 2" x 12" are commonly used. Solid wood used as girders are 3" x 8", 3" x 10", 3" x 12", 4" x 8", 4" x 10" or 4" x 12". Wide flange steel girders with fabrication are bolted. Commonly used steel girder sizes are 5", 6", 8" 10" or 12" deep. Plywood or boards can be used as sheathing. If plywood is used, it is usually CDX exterior grade and either 1/2", 5/8" or 3/4" thick. If boards are used, 1" x 8" or 1" x 10" boards can be laid in the regular manner or it may be laid diagonally. Furring is accomplished by using 1" x 3" boards at 12", 16" or 24" OC with 16" OC being the most common.

### Open Web Joists

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Per Square Foot Materials</b>	<b>Cost Per Square Foot Installation</b>	<b>Total</b>
<b>Open Web Joists, 12" deep,</b>	0.018	\$2.00	\$0.80	\$2.

<b>16" OC, 21' Span</b>				80
<b>Continuous Ribbing, 2" x 4"</b>	0.002	\$0.06	\$0.08	\$0.14
<b>Concrete Filled Steel Column, 4" Diameter</b>	0.002	\$0.12	\$0.11	\$0.23
<b>Girder, Built Up From Three 2" x 8"</b>	0.013	\$0.34	\$0.58	\$0.92
<b>Sheathing, Plywood, Subfloor, 5/8" CDX</b>	0.012	\$0.65	\$0.52	\$1.17
<b>Furring, 1" x 3", 16" OC</b>	0.023	\$0.25	\$1.00	\$1.25
<b>TOTAL</b>	0.070	\$3.42	\$3.09	\$6.51
<b>Open Web Joists, 14" deep, 16" OC, 22' Span</b>	0.020	\$2.33	\$0.85	\$3.18
<b>Continuous Ribbing, 2" x 4"</b>	0.002	\$0.06	\$0.08	\$0.14
<b>Concrete Filled Steel Column, 4" Diameter</b>	0.002	\$0.12	\$0.11	\$0.23
<b>Girder, Built Up From Three 2" x 10"</b>	0.014	\$0.49	\$0.62	\$1.11
<b>Sheathing, Plywood, Subfloor, 5/8" CDX</b>	0.012	\$0.65	\$0.52	\$1.17
<b>Furring, 1" x 3", 16" OC</b>	0.023	\$0.25	\$1.00	\$1.25
<b>TOTAL</b>	0.073	\$3.90	\$3.18	\$7.08
<b>Open Web Joists, 16" deep, 16" OC, 24' Span</b>	0.021	\$2.43	\$0.90	\$3.33
<b>Continuous Ribbing, 2" x 4"</b>	0.002	\$0.06	\$0.08	\$0.14
<b>Concrete Filled Steel Column, 4" Diameter</b>	0.002	\$0.12	\$0.11	\$0.23
<b>Girder, Built Up From Three 2" x 12"</b>	0.015	\$0.59	\$0.65	\$1.24
<b>Sheathing, Plywood, Subfloor, 5/8" CDX</b>	0.012	\$0.65	\$0.52	\$1.17
<b>Furring, 1" x 3", 16" OC</b>	0.023	\$0.25	\$1.00	\$1.25
<b>TOTAL</b>	0.075	\$4.10	\$3.26	\$7.36

**Exterior Wall:**

Generally, exterior wood wall framing systems include studs, plates, corner bracing and sheathing.

Exterior walls can be constructed using #2 or better wood pine 2" x 4", 2" x 6" or 2" x 8" studs placed at 12", 16", 24" or 32" OC. The most common exterior wall systems use 2" x 4" or 2" x 6" studs placed at 16" or 24" OC. Plates are constructed using #2 or better wood pine 2" x 4", 2" x 6" or 2" x 8" studs. Top plates doubled using two studs. A single stud is used for the bottom plate. Let-in corner bracing can be accomplished using 1" x 6" boards or "T" shape steel brackets placed at 12", 16", 24" or 32" OC. Sheathing materials may be made of plywood, boards, wood fiber, polystyrene or fiberglass. If plywood, CDX 3/8", 1/2", 5/8" or 3/4" thick can be used with 1/2" thickness being more common. If boards are used, 1" x 6" or 1" x 8" boards are laid regularly or diagonally. Regular wood fiber with no vapor barrier 1/2" or 5/8" thick can also be used. If the wood fiber is impregnated with asphalt, the thickness can be either 25/32" or 1/2". Regular polystyrene that is either 3/4" or 2" thick can be substituted. Foil faced fiberglass that 1" or 2" thick can also be used as sheathing. Additional costs are added to the total costs of the wall for each window and door opening will be discussed later. However, do not subtract the area of the openings.

### Exterior Walls

System Description	Labor Hours	Cost Per Square Foot Materials	Cost Per Square Foot Installation	Total
<b>2" x 4" Studs, 16" OC</b>	0.015	\$0.41	\$0.63	\$1.04
<b>Plates, 2" x 4", double top, single bottom</b>	0.005	\$0.15	\$0.24	\$0.39
<b>Corner Bracing, let-in, 1" x 6"</b>	0.003	\$0.05	\$0.15	\$0.20
<b>Sheathing, 1/2" plywood, CDX</b>	0.011	\$0.52	\$0.50	\$1.02
<b>TOTAL</b>	0.034	\$1.13	\$1.52	\$2.65
<b>2" x 4" Studs, 24" OC</b>	0.011	\$0.31	\$0.47	\$0.78
<b>Plates, 2" x 4", double top, single bottom</b>	0.005	\$0.15	\$0.24	\$0.39
<b>Corner Bracing, let-in, 1" x 6"</b>	0.002	\$0.05	\$0.10	\$0.15
<b>Sheathing, 1/2" plywood, CDX</b>	0.011	\$0.52	\$0.50	\$1.02
<b>TOTAL</b>	0.029	\$1.03	\$1.31	\$2.34
<b>2" x 6" Studs, 16" OC</b>	0.016	\$0.63	\$0.70	\$1.33

<b>Plates, 2" x 6", double top, single bottom</b>	0.006	\$0.24	\$0.26	\$0.50
<b>Corner Bracing, let-in, 1" x 6"</b>	0.003	\$0.05	\$0.15	\$0.20
<b>Sheathing, 1/2" plywood, CDX</b>	0.014	\$0.52	\$0.62	\$1.14
<b>TOTAL</b>	0.039	\$1.44	\$1.73	\$3.17
<b>2" x 6" Studs, 24" OC</b>	0.012	\$0.47	\$0.53	\$1.00
<b>Plates, 2" x 6", double top, single bottom</b>	0.006	\$0.24	\$0.26	\$0.50
<b>Corner Bracing, let-in, 1" x 6"</b>	0.002	\$0.05	\$0.10	\$0.15
<b>Sheathing, 1/2" plywood, CDX</b>	0.011	\$0.52	\$0.50	\$1.02
<b>TOTAL</b>	0.031	\$1.28	\$1.39	\$2.67

Window & Door Openings: Additional costs are added to the total costs of the exterior wall for each window and door opening. Additional costs are for each opening and have nothing to do with its square foot area. The additional costs are attributable to the construction of headers for each window and door opening. A header is a 2" x 6", 2" x 8", 2" x 10" or 2" x 12" stud that is doubled for increased strength that is needed to sustain the weight of the window or door. Caution: Do not subtract the area of the openings from the area of the exterior walls.

### Window & Door Openings

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Each Materials</b>	<b>Cost Each Installation</b>	<b>Total</b>
<b>Headers, 2" x 6", Double, 2' Long</b>	0.178	\$2.52	\$7.75	\$10.27
<b>Headers, 2" x 6", Double, 3' Long</b>	0.267	\$3.78	\$11.65	\$15.43
<b>Headers, 2" x 6", Double, 4' Long</b>	0.356	\$5.05	\$15.50	\$20.55
<b>Headers, 2" x 6", Double, 5' Long</b>	0.444	\$6.30	\$19.40	\$25.70
<b>Headers, 2" x 8", Double, 4' Long</b>	0.376	\$7.35	\$16.40	\$23.75
<b>Headers, 2" x 8", Double, 5' Long</b>	0.471	\$9.20	\$20.50	\$29.70

<b>Headers, 2" x 8", Double, 6' Long</b>	0.565	\$11.05	\$24.50	\$35.55
<b>Headers, 2" x 8", Double, 8' Long</b>	0.753	\$14.70	\$33.00	\$47.70
<b>Headers, 2" x 10", Double, 4' Long</b>	0.400	\$10.50	\$17.45	\$27.95
<b>Headers, 2" x 10", Double, 6' Long</b>	0.600	\$15.70	\$26.00	\$41.70
<b>Headers, 2" x 10", Double, 8' Long</b>	0.800	\$21.00	\$35.00	\$56.00
<b>Headers, 2" x 10", Double, 10' Long</b>	1.000	\$26.00	\$43.50	\$69.50
<b>Headers, 2" x 12", Double, 8' Long</b>	0.853	\$25.00	\$37.50	\$62.50
<b>Headers, 2" x 12", Double, 12' Long</b>	1.280	\$37.50	\$56.00	\$93.50

#### **Gable End Roof:**

The more common gable end roof framing systems are constructed using 2" x 6" or 2" x 8" rafters placed at 16" OC with a 4/12 pitch, ceiling joists, ridge board, fascia board, rafter ties, soffit nailer (outrigger), sheathing and furring strips. The cost of this system is based on the square foot of plan area. All quantities have been adjusted accordingly.

#### **Gable End Roof**

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Per Square Foot Materials</b>	<b>Cost Per Square Foot Installation</b>	<b>Total</b>
<b>Rafters ( 2" x 6", 16" OC, 4/12 Pitch)</b>	0.019	\$0.74	\$0.82	\$1.56
<b>Ceiling Joists ( 2" x 4", 16" OC)</b>	0.013	\$0.41	\$0.56	\$0.97
<b>Ridge Board ( 2" x 6" )</b>	0.002	\$0.03	\$0.07	\$0.10
<b>Fascia Board ( 2" x 6" )</b>	0.005	\$0.07	\$0.23	\$0.30
<b>Rafter Tie ( 1" x 4", 4' OC)</b>	0.001	\$0.03	\$0.05	\$0.08
<b>Soffit Nailer Outrigger ( 2" x 4", 24" OC)</b>	0.004	\$0.07	\$0.19	\$0.26
<b>Sheathing (Exterior Plywood CDX 1/2" Thick)</b>	0.013	\$0.61	\$0.59	\$1.20
<b>Furring Strips ( 1" x 3", 16"</b>	0.023	\$0.25	\$1.00	\$1.25

<b>OC)</b>				25
<b>TOTAL</b>	0.080	\$2.21	\$3.51	\$5.72
<b>Rafters ( 2" x 8", 16" OC, 4/12 Pitch)</b>	0.020	\$1.08	\$0.85	\$1.93
<b>Ceiling Joists ( 2" x 6", 16" OC)</b>	0.013	\$0.63	\$0.56	\$1.19
<b>Ridge Board ( 2" x 8" )</b>	0.002	\$0.05	\$0.08	\$0.13
<b>Fascia Board ( 2" x 8" )</b>	0.007	\$0.09	\$0.31	\$0.40
<b>Rafter Tie ( 1" x 4", 4' OC)</b>	0.001	\$0.03	\$0.05	\$0.08
<b>Soffit Nailer Outrigger ( 2" x 4", 24" OC)</b>	0.004	\$0.07	\$0.19	\$0.26
<b>Sheathing (Exterior Plywood CDX 1/2" Thick)</b>	0.013	\$0.61	\$0.59	\$1.20
<b>Furring Strips ( 1" x 3", 16" OC)</b>	0.023	\$0.25	\$1.00	\$1.25
<b>TOTAL</b>	0.083	\$2.81	\$3.63	\$6.44

### Truss Roof:

The more common truss roof framing systems are constructed using trusses placed at 16" or 24" OC with a 4/12 or 8/12 pitch and 26' span, fascia board, sheathing and furring strips. The cost of this system is based on the square foot of plan area. A one-foot overhand is included.

### Truss Roof

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Per Square Foot Materials</b>	<b>Cost Per Square Foot Installation</b>	<b>Total</b>
<b>Truss (40# Loading, 16" OC, 4/12 Pitch, 26' Span)</b>	0.021	\$2.57	\$1.25	\$3.82
<b>Fascia Board ( 2" x 6" )</b>	0.005	\$0.07	\$0.23	\$0.30
<b>Sheathing ( Exterior Plywood CDX 1/2" Thick)</b>	0.013	\$0.61	\$0.59	\$1.20
<b>Furring ( 1" x 3", 16" OC)</b>	0.023	\$0.25	\$1.00	\$1.25

				5
<b>TOTAL</b>	0.062	\$3.50	\$3.07	\$6 .5 7
<b>Truss (40# Loading, 16" OC, 8/12 Pitch, 26' Span)</b>	0.023	\$2.97	\$1.36	\$4 .3 3
<b>Fascia Board ( 2" x 6" )</b>	0.005	\$0.07	\$0.23	\$0 .3 0
<b>Sheathing ( Exterior Plywood CDX 1/2" Thick)</b>	0.015	\$0.69	\$0.67	\$1 .3 6
<b>Furring ( 1" x 3", 16" OC)</b>	0.023	\$0.25	\$1.00	\$1 .2 5
<b>TOTAL</b>	0.066	\$3.98	\$3.26	\$7 .2 4
<b>Truss (40# Loading, 24" OC, 4/12 Pitch, 26' Span)</b>	0.014	\$1.71	\$0.83	\$2 .5 4
<b>Fascia Board ( 2" x 6" )</b>	0.005	\$0.07	\$0.23	\$0 .3 0
<b>Sheathing ( Exterior Plywood CDX 1/2" Thick)</b>	0.013	\$0.61	\$0.59	\$1 .2 0
<b>Furring ( 1" x 3", 16" OC)</b>	0.023	\$0.25	\$1.00	\$1 .2 5
<b>TOTAL</b>	0.055	\$2.64	\$2.65	\$5 .2 9
<b>Truss (40# Loading, 24" OC, 8/12 Pitch, 26' Span)</b>	0.015	\$1.98	\$0.91	\$2 .8 9
<b>Fascia Board ( 2" x 6" )</b>	0.005	\$0.07	\$0.23	\$0 .3 0
<b>Sheathing ( Exterior Plywood CDX 1/2" Thick)</b>	0.015	\$0.69	\$0.67	\$1 .3 6
<b>Furring ( 1" x 3", 16" OC)</b>	0.023	\$0.25	\$1.00	\$1

				.25
<b>TOTAL</b>	0.058	\$2.99	\$2.81	\$5.80

### Hip Roof:

The more common hip roof framing systems are constructed using 2" x 6" or 2" x 8" rafters placed at 16" OC with a 4/12 pitch, jack rafters, ceiling joists, fascia board, soffit nailer (outrigger), sheathing and furring strips. The cost of this system is based on the square foot of plan area. Measurement is area under the hip roof only. See gable roof system for added costs.

### Hip Roof

System Description	Labor Hours	Cost Per Square Foot Materials	Cost Per Square Foot Installation	Total
<b>Hip Rafters ( 2" x 8", 4/12 Pitch)</b>	0.004	\$0.15	\$0.16	\$0.31
<b>Jack Rafters ( 2" x 6", 16" OC, 4/12 Pitch)</b>	0.038	\$0.90	\$1.66	\$2.56
<b>Ceiling Joists ( 2" x 6", 16" OC)</b>	0.013	\$0.63	\$0.56	\$1.19
<b>Fascia Board ( 2" x 8")</b>	0.016	\$0.20	\$0.68	\$0.88
<b>Soffit Nailer Outrigger ( 2" x 4", 24" OC)</b>	0.006	\$0.09	\$0.25	\$0.34
<b>Sheathing ( 1/2" Exterior Plywood CDX)</b>	0.018	\$0.82	\$0.79	\$1.61
<b>Furring Strips ( 1" x 3", 16" OC)</b>	0.023	\$0.25	\$1.00	\$1.25
<b>TOTAL</b>	0.118	\$3.04	\$5.10	\$8.14
<b>Hip Rafters ( 2" x 10", 4/12 Pitch)</b>	0.004	\$0.21	\$0.20	\$0.41
<b>Jack Rafters ( 2" x 8", 16" OC, 4/12 Pitch)</b>	0.047	\$1.32	\$2.03	\$3.35
<b>Ceiling Joists ( 2" x 6", 16" OC)</b>	0.013	\$0.63	\$0.56	\$1.19
<b>Fascia Board ( 2" x 8")</b>	0.012	\$0.16	\$0.53	\$0.69
<b>Soffit Nailer Outrigger ( 2" x 4", 24" OC)</b>	0.006	\$0.09	\$0.25	\$0.34

<b>Sheathing ( 1/2" Exterior Plywood CDX)</b>	0.018	\$0.82	\$0.79	\$1.61
<b>Furring Strips ( 1" x 3", 16" OC)</b>	0.023	\$0.25	\$1.00	\$1.25
<b>TOTAL</b>	0.123	\$3.48	\$5.36	\$8.84

**Gambrel Roof:**

Reserved.

**Mansard Roof:**

Reserved.

**Shed/Flat Roof:**

Reserved.

**Gable Dormer:**

Reserved.

**Shed Dormer:**

Reserved.

**Partition:**

Generally, partition-framing systems include studs, plates and cross bracing. Partitions can be constructed using #2 or better wood pine 2" x 4" or 2" x 6" studs placed at 12", 16", 24" or 32" OC. The most common exterior wall systems use 2" x 4" or 2" x 6" wood studs placed at 16" or 24" OC. Metal load bearing and non-load bearing studs can also be used. Metal load bearing studs are either 20 or 16 gauge galvanized steel studs placed at 24" OC. Metal non-load bearing studs are either 25 or 20 gauge galvanized steel studs placed at 24" OC. Both metal load bearing and non-load bearing studs come in 2 1/2", 3 5/8", 4" or 6" widths. Plates are constructed using #2 or better wood pine 2" x 4", 2" x 6" or 2" x 8" studs. Top plates doubled using two studs. A single stud is used for the bottom plate. Let-in cross bracing can be accomplished using 1" x 6" boards, "T" shape steel brackets, or steel straps placed at 12", 16", 24" or 32" OC.

**Partitions**

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Per Square Foot Materials</b>	<b>Cost Per Square Foot Installation</b>	<b>Total</b>
<b>2" x 4" Studs, 16" OC</b>	0.015	\$0.41	\$0.63	\$1.

				04
<b>Plates, 2" x 4", double top, single bottom</b>	0.005	\$0.15	\$0.24	\$0.39
<b>Cross Bracing, let-in, 1" x 6"</b>	0.004	\$0.06	\$0.19	\$0.25
<b>TOTAL</b>	0.024	\$0.62	\$1.06	\$1.68
<b>2" x 4" Studs, 24" OC</b>	0.012	\$0.33	\$0.50	\$0.83
<b>Plates, 2" x 4", double top, single bottom</b>	0.005	\$0.15	\$0.24	\$0.39
<b>Corner Bracing, let-in, 1" x 6"</b>	0.003	\$0.06	\$0.12	\$0.18
<b>TOTAL</b>	0.020	\$0.54	\$0.86	\$1.40
<b>2" x 6" Studs, 16" OC</b>	0.016	\$0.63	\$0.70	\$1.33
<b>Plates, 2" x 6", double top, single bottom</b>	0.006	\$0.24	\$0.26	\$0.50
<b>Cross Bracing, let-in, 1" x 6"</b>	0.004	\$0.06	\$0.19	\$0.25
<b>TOTAL</b>	0.026	\$0.93	\$1.15	\$2.08
<b>2" x 6" Studs, 24" OC</b>	0.013	\$0.50	\$0.56	\$1.06
<b>Plates, 2" x 6", double top, single bottom</b>	0.006	\$0.24	\$0.26	\$0.50
<b>Cross Bracing, let-in, 1" x 6"</b>	0.003	\$0.06	\$0.12	\$0.18
<b>TOTAL</b>	0.022	\$0.80	\$0.94	\$1.74

Additional costs are added to the total costs of the wall for each window and door opening will be discussed later. However, do not subtract the area of the openings.

#### Headers

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Each Materials</b>	<b>Cost Each Installation</b>	<b>Total</b>
<b>Headers, 2" x 6", Double, 2' Long</b>	0.178	\$2.52	\$7.75	\$10.27
<b>Headers, 2" x 6", Double, 3' Long</b>	0.267	\$3.78	\$11.65	\$15.43

<b>Headers, 2" x 6", Double, 4' Long</b>	0.356	\$5.05	\$15.50	\$20.55
<b>Headers, 2" x 6", Double, 5' Long</b>	0.444	\$6.30	\$19.40	\$25.70
<b>Headers, 2" x 8", Double, 4' Long</b>	0.376	\$7.35	\$16.40	\$23.75
<b>Headers, 2" x 8", Double, 5' Long</b>	0.471	\$9.20	\$20.50	\$29.70
<b>Headers, 2" x 8", Double, 6' Long</b>	0.565	\$11.05	\$24.50	\$35.55
<b>Headers, 2" x 8", Double, 8' Long</b>	0.753	\$14.70	\$33.00	\$47.70
<b>Headers, 2" x 10", Double, 4' Long</b>	0.400	\$10.50	\$17.45	\$27.95
<b>Headers, 2" x 10", Double, 6' Long</b>	0.600	\$15.70	\$26.00	\$41.70
<b>Headers, 2" x 10", Double, 8' Long</b>	0.800	\$21.00	\$35.00	\$56.00
<b>Headers, 2" x 10", Double, 10' Long</b>	1.000	\$26.00	\$43.50	\$69.50
<b>Headers, 2" x 12", Double, 8' Long</b>	0.853	\$25.00	\$37.50	\$62.50
<b>Headers, 2" x 12", Double, 12' Long</b>	1.280	\$37.50	\$56.00	\$93.50

### ***Division 4 - Exterior Walls***

#### **Block Masonry Wall:**

Block wall systems are constructed using concrete blocks, masonry reinforcements, masonry insulation, stucco and masonry paint. The costs in this system are based on square foot of the wall. Do not subtract for window or door openings.

#### **Block Masonry Wall**

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Per Square Foot Materials</b>	<b>Cost Per Square Foot Installation</b>	<b>Total</b>
<b>Concrete Block (6" x 8" x 16")</b>	0.100	\$1.96	\$3.99	\$5.95
<b>Masonry Reinforcing Strips (Every Other Course)</b>	0.002	\$0.14	\$0.08	\$0.22
<b>Furring (1" x 3", 16" OC)</b>	0.016	\$0.25	\$0.70	\$0.95

<b>Masonry Insulation (Poured Vermiculite)</b>	0.013	\$0.62	\$0.58	\$1.20
<b>Stucco (2 Coats)</b>	0.069	\$0.20	\$2.73	\$2.93
<b>Masonry Paint (2 Coats)</b>	0.016	\$0.20	\$0.61	\$0.81
<b>TOTAL</b>	0.216	\$3.37	\$8.69	\$12.06
<b>Concrete Block (8" x 8" x 16")</b>	0.107	\$2.14	\$4.26	\$6.40
<b>Masonry Reinforcing Strips (Every Other Course)</b>	0.002	\$0.14	\$0.08	\$0.22
<b>Furring (1" x 3", 16" OC)</b>	0.016	\$0.25	\$0.70	\$0.95
<b>Masonry Insulation (Poured Vermiculite)</b>	0.018	\$0.82	\$0.77	\$1.59
<b>Stucco (2 Coats)</b>	0.069	\$0.20	\$2.73	\$2.93
<b>Masonry Paint (2 Coats)</b>	0.016	\$0.20	\$0.61	\$0.81
<b>TOTAL</b>	0.228	\$3.75	\$9.15	\$12.90
<b>Concrete Block (12" x 8" x 16")</b>	0.141	\$3.18	\$5.50	\$8.68
<b>Masonry Reinforcing Strips (Every Other Course)</b>	0.003	\$0.16	\$0.11	\$0.27
<b>Furring (1" x 3", 16" OC)</b>	0.016	\$0.25	\$0.70	\$0.95
<b>Masonry Insulation (Poured Vermiculite)</b>	0.026	\$1.22	\$1.13	\$2.35
<b>Stucco (2 Coats)</b>	0.069	\$0.20	\$2.73	\$2.93
<b>Masonry Paint (2 Coats)</b>	0.016	\$0.20	\$0.61	\$0.81
<b>TOTAL</b>	0.271	\$5.21	\$10.78	\$15.99

#### **Brick/Stone Veneer:**

The most common brick or stone veneer systems are constructed using brick, wall ties, building paper and painted pine trim. The costs in this system are based on a square foot of wall area. Do not subtract area for window and door openings.

## Brick/Stone Veneer

System Description	Labor Hours	Cost Per Square Foot Materials	Cost Per Square Foot Installation	Total
<b>Brick (Select Common Running Bond)</b>	0.174	\$4.24	\$6.95	\$11.19
<b>Wall Ties ( 7/8" x 7", 22 Gauge)</b>	0.008	\$0.07	\$0.34	\$0.41
<b>Building Paper (Spunbonded Polypropylene)</b>	0.002	\$0.15	\$0.10	\$0.25
<b>Trim (Pine Painted)</b>	0.004	\$0.09	\$0.18	\$0.27
<b>TOTAL</b>	0.188	\$4.55	\$7.57	\$12.12
<b>Brick (Select Common Red Faced Running Bond)</b>	0.182	\$4.24	\$7.25	\$11.49
<b>Wall Ties ( 7/8" x 7", 22 Gauge)</b>	0.008	\$0.07	\$0.34	\$0.41
<b>Building Paper (Spunbonded Polypropylene)</b>	0.002	\$0.15	\$0.10	\$0.25
<b>Trim (Pine Painted)</b>	0.004	\$0.09	\$0.18	\$0.27
<b>TOTAL</b>	0.196	\$4.55	\$7.87	\$12.42
<b>Brick (Buff or Gray)</b>	0.182	\$4.48	\$7.25	\$11.73
<b>Wall Ties ( 7/8" x 7", 22 Gauge)</b>	0.008	\$0.07	\$0.34	\$0.41
<b>Building Paper (Spunbonded Polypropylene)</b>	0.002	\$0.15	\$0.10	\$0.25
<b>Trim (Pine Painted)</b>	0.004	\$0.09	\$0.18	\$0.27
<b>TOTAL</b>	0.196	\$4.79	\$7.87	\$12.66
<b>Field Stone Veneer</b>	0.223	\$6.20	\$8.91	\$15.11
<b>Wall Ties ( 7/8" x 7", 22 Gauge)</b>	0.008	\$0.07	\$0.34	\$0.41
<b>Building Paper (Spunbonded Polypropylene)</b>	0.002	\$0.15	\$0.10	\$0.25
<b>Trim (Pine Painted)</b>	0.004	\$0.09	\$0.18	\$0.27
<b>TOTAL</b>	0.237	\$6.51	\$9.53	\$16

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**Wood Siding:**

Reserved.

**Shingle Siding:**

Reserved.

**Metal & Plastic Siding:**

Reserved.

**Insulation:**

Reserved.

**Double Hung Window:**

Reserved.

**Casement Window:**

Reserved.

**Awning Window:**

Reserved.

**Sliding Window:**

Reserved.

**Bow/Bay Window:**

Reserved.

**Fixed Window:**

Reserved.

**Entrance Door:**

Reserved.

**Sliding Door:**

Reserved.

**Residential Overhead Door:**

Reserved.

**Aluminum Window:**

Reserved.

**Storm Door & Window:**

Reserved.

**Shutters/Blinds:**

Reserved.

***Division 5 - Roofing***

**Gable End Roofing:**

The more common gable end roofing systems are constructed using asphalt or cedar wood shingles, drip edge, building paper, ridge shingles, soffit and fascia, rake trim, gutter and downspouts. The prices in these systems are based on a square foot of plan area. All quantities have been adjusted accordingly.

**Gable End Roofing**

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Per Square Foot Materials</b>	<b>Cost Per Square Foot Installation</b>	<b>Total</b>
<b>Shingles ( Inorganic Class A, 210-235 lb/sq, 4/12 Pitch)</b>	0.017	\$0.55	\$0.70	\$1.25
<b>Drip Edge (Metal 5" Wide)</b>	0.003	\$0.07	\$0.13	\$0.20
<b>Building Paper (#15 Felt)</b>	0.002	\$0.06	\$0.07	\$0.13
<b>Ridge Shingles (Asphalt)</b>	0.001	\$0.07	\$0.04	\$0.11
<b>Soffit &amp; Fascia (White Painted Aluminum, 1' Overhang)</b>	0.012	\$0.26	\$0.53	\$0.79

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<b>Rake Rim ( 1" x 6")</b>	0.002	\$0.05	\$0.07	\$0 .1 2
<b>Rake Trim (Prime and Paint)</b>	0.002	\$0.01	\$0.07	\$0 .0 8
<b>Gutter (Seamless Aluminum Painted)</b>	0.006	\$0.17	\$0.27	\$0 .4 4
<b>Downspouts (Aluminum Painted)</b>	0.002	\$0.06	\$0.08	\$0 .1 4
<b>TOTAL</b>	0.047	\$1.30	\$1.96	\$3 .2 6
<b>Shingles (18" Wood, Cedar No. 1 Perfections, 4/12 Pitch)</b>	0.035	\$2.21	\$1.52	\$3 .7 3
<b>Drip Edge (Metal 5" Wide)</b>	0.003	\$0.07	\$0.13	\$0 .2 0
<b>Building Paper (#15 Felt)</b>	0.002	\$0.06	\$0.07	\$0 .1 3
<b>Ridge Shingles (Asphalt)</b>	0.001	\$0.14	\$0.05	\$0 .1 9
<b>Soffit &amp; Fascia (White Painted Aluminum, 1' Overhang)</b>	0.012	\$0.26	\$0.53	\$0 .7 9
<b>Rake Rim ( 1" x 6")</b>	0.002	\$0.05	\$0.07	\$0 .1 2
<b>Rake Trim (Prime and Paint)</b>	0.002	\$0.01	\$0.07	\$0 .0 8
<b>Gutter (Seamless Aluminum Painted)</b>	0.006	\$0.17	\$0.27	\$0 .4 4
<b>Downspouts (Aluminum Painted)</b>	0.002	\$0.06	\$0.08	\$0 .1 4
<b>TOTAL</b>	0.065	\$3.03	\$2.79	\$5

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### Hip Roof Roofing:

The more common gable end roofing systems are constructed using asphalt or cedar wood shingles, drip edge, building paper, ridge shingles, soffit and fascia, rake trim, gutter and downspouts. The prices in these systems are based on a square foot of plan area. All quantities have been adjusted accordingly.

### Hip Roof Roofing

System Description	Labo r Hour s	Cost Per Square Foot Materials	Cost Per Square Foot Installation	T ot al
Asphalt Shingles (Inorganic Class A, 210-235 lb/sq, 4/12 Pitch)	0.023	\$0.74	\$0.94	\$1 .6 8
Drip Edge (Metal 5" Wide)	0.002	\$0.06	\$0.11	\$0 .1 7
Building Paper (#15 Felt)	0.002	\$0.08	\$0.10	\$0 .1 8
Ridge Shingles (Asphalt)	0.002	\$0.12	\$0.07	\$0 .1 9
Soffit & Fascia (White Painted Aluminum, 1' Overhang)	0.017	\$0.37	\$0.76	\$1 .1 3
Gutter (Seamless Aluminum Painted)	0.008	\$0.24	\$0.39	\$0 .6 3
Downspouts (Aluminum Painted)	0.002	\$0.06	\$0.08	\$0 .1 4
<b>TOTAL</b>	0.056	\$1.67	\$2.45	\$4 .1 2
Wood Shingles (18" Cedar No.1 Perfections, 5" Exp, 4/12 Pitch)	0.047	\$2.94	\$2.03	\$4 .9 7
Drip Edge (Metal 5" Wide)	0.002	\$0.06	\$0.11	\$0

				.1 7
<b>Building Paper (#15 Felt)</b>	0.002	\$0.08	\$0.10	\$0 .1 8
<b>Ridge Shingles (Asphalt)</b>	0.002	\$0.25	\$0.09	\$0 .3 4
<b>Soffit &amp; Fascia (White Painted Aluminum, 1' Overhang)</b>	0.017	\$0.37	\$0.76	\$1 .1 3
<b>Gutter (Seamless Aluminum Painted)</b>	0.008	\$0.24	\$0.39	\$0 .6 3
<b>Downspouts (Aluminum Painted)</b>	0.002	\$0.06	\$0.08	\$0 .1 4
<b>TOTAL</b>	0.080	\$4.00	\$3.56	\$7 .5 6

**Gambrel Roofing:**

Reserved.

**Mansard Roofing:**

Reserved.

**Shed Roofing:**

Reserved.

**Gable Dormer Roofing:**

Reserved.

**Shed Dormer Roofing:**

Reserved.

**Skylight/Skywindow:**

Reserved.

**Built-up Roofing:**

Reserved.

## **Division 6 - Interiors**

### **Drywall & Thinfoat Wall:**

The most common drywall and thinfoat wall systems involve gypsum wallboard, taping joints and corners, painting and baseboard trim. The costs in this system are based on a square foot of wall. Do not deduct for openings.

### **Drywall & Thinfoat Wall**

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Per Square Foot Materials</b>	<b>Cost Per Square Foot Installation</b>	<b>Total</b>
<b>Gypsum Wallboard ( 1/2" Thick, Standard)</b>	0.008	\$0.35	\$0.35	\$0.70
<b>Finish (Taped &amp; Finished Joints)</b>	0.008	\$0.04	\$0.35	\$0.39
<b>Corners (Taped &amp; Finished, 32 L.F. per 12' x 12' Room)</b>	0.002	\$0.01	\$0.07	\$0.08
<b>Painting (Primer &amp; 2 Coats)</b>	0.011	\$0.19	\$0.40	\$0.59
<b>Paint Trim (To 6" Wide Primer &amp; 1 Coat Enamel)</b>	0.001	\$0.01	\$0.05	\$0.06
<b>Trim (Baseboard)</b>	0.005	\$0.33	\$0.22	\$0.55
<b>TOTAL</b>	0.035	\$0.93	\$1.44	\$2.37
<b>Gypsum Wallboard ( 1/2" Thick, Thinfoat Backer)</b>	0.008	\$0.35	\$0.35	\$0.70
<b>Thinfoat Plaster</b>	0.011	\$0.09	\$0.44	\$0.53
<b>Corners (Taped &amp; Finished, 32 L.F. per 12' x 12' Room)</b>	0.002	\$0.01	\$0.07	\$0.08

<b>Painting (Primer &amp; 2 Coats)</b>	0.011	\$0.19	\$0.40	\$0.59
<b>Paint Trim (To 6" Wide Primer &amp; 1 Coat Enamel)</b>	0.001	\$0.01	\$0.05	\$0.06
<b>Trim (Baseboard)</b>	0.005	\$0.33	\$0.22	\$0.55
<b>TOTAL</b>	0.038	\$0.98	\$1.53	\$2.51
<b>Gypsum Wallboard ( 5/8" Thick, Standard)</b>	0.008	\$0.43	\$0.35	\$0.78
<b>Finish (Taped &amp; Finished Joints)</b>	0.008	\$0.04	\$0.35	\$0.39
<b>Corners (Taped &amp; Finished, 32 L.F. per 12' x 12' Room)</b>	0.002	\$0.01	\$0.07	\$0.08
<b>Painting (Primer &amp; 2 Coats)</b>	0.011	\$0.19	\$0.40	\$0.59
<b>Paint Trim (To 6" Wide Primer &amp; 1 Coat Enamel)</b>	0.005	\$0.33	\$0.22	\$0.55
<b>Trim (Baseboard)</b>	0.001	\$0.01	\$0.05	\$0.06
<b>TOTAL</b>	0.035	\$1.01	\$1.44	\$2.45

### Drywall & Thincoat Ceiling:

The most common drywall and thincoat ceiling systems involve gypsum wallboard, taping joints and corners, painting and baseboard trim. The costs in this system are based on a square foot of ceiling.

### Drywall & Thincoat Ceiling

System Description	Labor Hours	Cost Per Square Foot Materials	Cost Per Square Foot Installation	Total
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				<b>al</b>
<b>Gypsum Wallboard ( 1/2" Thick, Standard)</b>	0.008	\$0.35	\$0.35	\$0.70
<b>Finish (Taped &amp; Finished)</b>	0.008	\$0.04	\$0.35	\$0.39
<b>Corners (Taped &amp; Finished, 12' x 12' Room)</b>	0.006	\$0.03	\$0.24	\$0.27
<b>Painting (Primer &amp; 2 Coats)</b>	0.011	\$0.19	\$0.40	\$0.59
<b>TOTAL</b>	0.033	\$0.61	\$1.34	\$1.95
<b>Gypsum Wallboard ( 1/2" Thick, Thincoat Backer)</b>	0.008	\$0.35	\$0.35	\$0.70
<b>Thincoat Plaster</b>	0.011	\$0.09	\$0.44	\$0.53
<b>Corners (Taped &amp; Finished, 12' x 12' Room)</b>	0.006	\$0.03	\$0.24	\$0.27
<b>Painting (Primer &amp; 2 Coats)</b>	0.011	\$0.19	\$0.40	\$0.59
<b>TOTAL</b>	0.036	\$0.66	\$1.43	\$2.09
<b>Gypsum Wallboard ( 5/8" Thick, Water Resistant)</b>	0.008	\$0.43	\$0.35	\$0.78
<b>Finish (Taped &amp; Finished)</b>	0.008	\$0.04	\$0.35	\$0.39
<b>Corners (Taped &amp; Finished, 12' x 12' Room)</b>	0.006	\$0.03	\$0.24	\$0.27
<b>Painting (Primer &amp; 2 Coats)</b>	0.011	\$0.19	\$0.40	\$0.59
<b>TOTAL</b>	0.033	\$0.69	\$1.34	\$2.03

				.03
<b>Gypsum Wallboard ( 5/8" Thick, Standard)</b>	0.008	\$0.43	\$0.35	\$0.78
<b>Finish (Taped &amp; Finished)</b>	0.008	\$0.04	\$0.35	\$0.39
<b>Corners (Taped &amp; Finished, 32 L.F. per 12' x 12' Room)</b>	0.006	\$0.03	\$0.24	\$0.27
<b>Painting (Primer &amp; 2 Coats)</b>	0.011	\$0.19	\$0.40	\$0.59
<b>TOTAL</b>	0.033	\$0.69	\$1.34	\$2.03

**Plaster & Stucco Wall:**

Reserved.

**Plaster & Stucco Ceiling:**

Reserved.

**Suspended Ceiling:**

Reserved.

**Interior Door:**

Reserved.

**Closet Door:**

Reserved.

**Carpet:**

Reserved.

**Flooring:**

Reserved.

**Stairways:**

Reserved.

***Division 7 - Specialties***

**Kitchen:**

Reserved.

**Appliances:**

Reserved.

**Bath Accessories:**

Reserved.

**Masonry Fireplace:**

Reserved.

**Prefabricated Fireplace:**

Reserved.

**Greenhouse:**

Reserved.

**Swimming Pool:**

Reserved.

**Wood Deck:**

Reserved.

***Division 8 - Mechanical***

**Two Fixture Lavatory:**

A common two-fixture lavatory system includes a water closet and lavatory that is either installed on a vanity or is wall-hung with plumbing in 2 walls (opposite from each other). The costs in this system are on a cost each basis. All necessary piping is included.

**Two Fixture Lavatory**

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Each Materials</b>	<b>Cost Each Installation</b>	<b>Total</b>
<b>Lavatory With Vanity Plumbing in 2 Walls</b>				
<b>Water Closet (Floor Mounted, 2 Piece, Close Coupled, White)</b>	3.019	\$201.00	\$132.00	\$333.00
<b>Rough-In Vent (2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Waste (4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply (1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory (20" x 18", P.E. Cast Iron White)</b>	2.500	\$242.00	\$109.00	\$351.00
<b>Rough-In Vent (1 1/2" Diameter Drain Waste Vent Piping)</b>	0.901	\$24.00	\$39.40	\$63.40
<b>Rough-In Waste (2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Supply (1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Piping (Supply, 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Waste (4" Diameter Drain Waste Vent Piping)</b>	1.931	\$74.55	\$84.35	\$158.90
<b>Vent (2" Diameter Drain Waste Vent Piping)</b>	2.866	\$74.40	\$125.40	\$199.80
<b>Vanity Base Cabinet (2 Door, 30" Wide)</b>	1.000	\$249.00	\$43.50	\$292.50
<b>Vanity Top (Plastic &amp; Laminated, Square Edge)</b>	0.712	\$89.45	\$31.11	\$120.56
<b>TOTAL</b>	18.236	\$1,133.71	\$809.31	\$1,943.02
<b>Lavatory Wall Hung Plumbing in 2 Walls</b>				
<b>Water Closet (Floor Mounted, 2 Piece, Close Coupled, White)</b>	3.019	\$201.00	\$132.00	\$333.00
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory ( 20" x 18", P.E. Cast Iron, Wall Hung, White)</b>	2.000	\$305.00	\$87.50	\$392.50

<b>Rough-In Vent ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	0.901	\$24.00	\$39.40	\$63.40
<b>Rough-In Waste ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Piping (Supply, 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Waste ( 4" Diameter Drain Waste Vent Piping)</b>	1.931	\$74.55	\$84.35	\$158.90
<b>Vent ( 2" Diameter Drain Waste Vent Piping)</b>	2.866	\$74.40	\$125.40	\$199.80
<b>Carrier (Steel for Studs, No Arms)</b>	1.143	\$56.00	\$55.50	\$111.50
<b>TOTAL</b>	17.167	\$914.26	\$768.70	\$1,682.96

### Three Fixture Bathroom:

A common three-fixture lavatory system includes a water closet, bathtub and/or shower and lavatory that is installed on either a vanity or is wall-hung with plumbing in either 1 or 2 walls. The costs in this system are on a cost each basis. All necessary piping is included.

### Three Fixture Bathroom

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Each Materials</b>	<b>Cost Each Installation</b>	<b>Total</b>
<b>Lavatory With Vanity Plumbing in 1 Wall</b>				
<b>Water Closet (Floor Mounted, 2 Piece, Close Coupled, White)</b>	3.019	\$201.00	\$132.00	\$333.00
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory ( 20" x 18", P.E. Cast Iron White)</b>	2.500	\$242.00	\$109.00	\$351.00
<b>Rough-In Waste ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	1.803	\$48.00	\$78.80	\$126.80
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60

<b>Bathtub (P.E. Cast Iron, 5' Long with Accessories, White)</b>	3.636	\$830.00	\$159.00	\$989.00
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Vent ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	0.593	\$50.80	\$28.80	\$79.60
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Piping (Supply, 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Waste ( 4" Diameter Drain Waste Vent Piping)</b>	1.655	\$63.90	\$72.30	\$136.20
<b>Vent ( 2" Diameter Drain Waste Vent Piping)</b>	1.500	\$56.10	\$65.70	\$121.80
<b>Vanity Base Cabinet ( 2 Door, 30" Wide)</b>	1.000	\$249.00	\$43.50	\$292.50
<b>Vanity Top (Plastic &amp; Laminated, Square Edge)</b>	0.712	\$70.76	\$31.11	\$101.87
<b>TOTAL</b>	22.586	\$2,035.62	\$1,007.11	\$3,042.73
<b>Lavatory Wall Hung Plumbing in 1 Wall</b>				
<b>Water Closet (Floor Mounted, 2 Piece, Close Coupled, White)</b>	3.019	\$201.00	\$132.00	\$333.00
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory ( 20" x 18", P.E. Cast Iron White)</b>	2.000	\$305.00	\$87.50	\$392.50
<b>Rough-In Waste ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	1.803	\$48.00	\$78.80	\$126.80
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Bathtub (P.E. Cast Iron, 5' Long with Accessories, White)</b>	3.636	\$830.00	\$159.00	\$989.00
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Rough-In Vent ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	0.593	\$50.80	\$28.80	\$79.60

<b>Piping (Supply, 1/2" Diameter Type "L" Copper Supply Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Waste ( 4" Diameter Drain Waste Vent Piping)</b>	1.655	\$63.90	\$72.30	\$136.20
<b>Vent ( 2" Diameter Drain Waste Vent Piping)</b>	1.500	\$56.10	\$65.70	\$121.80
<b>Carrier (Steel for Studs, No Arms)</b>	1.143	\$56.00	\$55.50	\$111.50
<b>TOTAL</b>	21.517	\$1,834.86	\$966.50	\$2,801.36

The costs below are for a three-fixture bathroom system where the water closet and lavatory are constructed on one wall and the bathtub is constructed on another wall.

### Three Fixture Bathroom

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Each Materials</b>	<b>Cost Each Installation</b>	<b>Total</b>
<b>Lavatory With Vanity Plumbing in 2 Walls</b>				
<b>Water Closet (Floor Mounted, 2 Piece, Close Coupled, White)</b>	3.019	\$201.00	\$132.00	\$333.00
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory ( 20" x 18", P.E. Cast Iron White)</b>	2.500	\$242.00	\$109.00	\$351.00
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Rough-In Waste ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	1.803	\$48.00	\$78.80	\$126.80
<b>Bathtub (P.E. Cast Iron, 5' Long with Accessories, White)</b>	3.636	\$830.00	\$159.00	\$989.00
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Vent ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	0.593	\$50.80	\$28.80	\$79.60
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Piping (Supply, 1/2" Diameter Type "L"</b>	1.975	\$75.20	\$96.00	\$171.20

<b>Copper Piping)</b>				20
<b>Waste ( 4" Diameter Drain Waste Vent Piping)</b>	2.483	\$95.85	\$108.45	\$204.30
<b>Vent ( 2" Diameter Drain Waste Vent Piping)</b>	1.500	\$56.10	\$65.70	\$121.80
<b>Vanity Base Cabinet ( 2 Door, 30" Wide)</b>	1.000	\$249.00	\$43.50	\$292.50
<b>Vanity Top (Plastic &amp; Laminated, Square Edge)</b>	0.712	\$70.76	\$31.11	\$101.87
<b>TOTAL</b>	24.401	\$2,105.17	\$1,091.26	\$3,196.43
<b>Lavatory Wall Hung Plumbing in 2 Walls</b>				
<b>Water Closet (Floor Mounted, 2 Piece, Close Coupled, White)</b>	3.019	\$201.00	\$132.00	\$333.00
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory ( 20" x 18", P.E. Cast Iron White)</b>	2.000	\$305.00	\$87.50	\$392.50
<b>Rough-In Waste ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	1.803	\$48.00	\$78.80	\$126.80
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Bathtub (P.E. Cast Iron, 5' Long with Accessories, White)</b>	3.636	\$830.00	\$159.00	\$989.00
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Rough-In Vent ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	1.482	\$127.00	\$72.00	\$199.00
<b>Piping (Supply, 1/2" Diameter Type "L" Copper Piping)</b>	1.975	\$75.20	\$96.00	\$171.20
<b>Waste ( 4" Diameter Drain Waste Vent Piping)</b>	2.483	\$95.85	\$108.45	\$204.30
<b>Vent ( 2" Diameter Drain Waste Vent Piping)</b>	1.500	\$56.10	\$65.70	\$121.80
<b>Carrier (Steel for Studs, No Arms)</b>	1.143	\$56.00	\$55.50	\$111.50
<b>TOTAL</b>	24.221	\$1,980.61	\$1,093.85	\$3,07

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The costs below are for a three-fixture bathroom system where the water closet and bathtub are constructed on one wall and the lavatory is constructed on another wall.

### Three Fixture Bathroom

System Description	Labor Hours	Cost Each Materials	Cost Each Installation	Total
<b>Lavatory With Vanity Plumbing in 2 Walls</b>				
<b>Water Closet (Floor Mounted, 2 Piece, Close Coupled, White)</b>	3.019	\$201.00	\$132.00	\$333.00
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory ( 20" x 18", P.E. Cast Iron White)</b>	2.500	\$242.00	\$109.00	\$351.00
<b>Rough-In Vent ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	1.803	\$48.00	\$78.80	\$126.80
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Bathtub (P.E. Cast Iron, 5' Long with Accessories, White)</b>	3.636	\$830.00	\$159.00	\$989.00
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Rough-In Vent ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	0.593	\$50.80	\$28.80	\$79.60
<b>Piping (Supply, 1/2" Diameter Type "L" Copper Piping)</b>	3.161	\$120.32	\$153.60	\$273.92
<b>Waste ( 4" Diameter Drain Waste Vent Piping)</b>	3.310	\$127.80	\$144.60	\$272.40
<b>Vent ( 2" Diameter Drain Waste Vent Piping)</b>	1.500	\$56.10	\$65.70	\$121.80
<b>Vanity Base Cabinet ( 2 Door, 30" Wide)</b>	1.000	\$249.00	\$43.50	\$292.50
<b>Vanity Top (Plastic &amp; Laminated, Square Edge)</b>	0.712	\$70.76	\$31.11	\$101.87

<b>TOTAL</b>	26.414	\$2,182.24	\$1,185.01	\$3,367.25
<b>Lavatory Wall Hung Plumbing in 2 Walls</b>				
<b>Water Closet (Floor Mounted, 2 Piece, Close Coupled, White)</b>	3.019	\$201.00	\$132.00	\$333.00
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory ( 20" x 18", P.E. Cast Iron White)</b>	2.000	\$305.00	\$87.50	\$392.50
<b>Rough-In Waste ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	1.803	\$48.00	\$78.80	\$126.80
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Bathtub (P.E. Cast Iron, 5' Long with Accessories, White)</b>	3.636	\$830.00	\$159.00	\$989.00
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Rough-In Vent ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	0.593	\$50.80	\$28.80	\$79.60
<b>Piping (Supply, 1/2" Diameter Type "L" Copper Piping)</b>	3.161	\$120.32	\$153.60	\$273.92
<b>Waste ( 4" Diameter Drain Waste Vent Piping)</b>	3.310	\$127.80	\$144.60	\$272.40
<b>Vent ( 2" Diameter Drain Waste Vent Piping)</b>	1.500	\$56.10	\$65.70	\$121.80
<b>Carrier (Steel for Studs, No Arms)</b>	1.143	\$56.00	\$55.50	\$111.50
<b>TOTAL</b>	25.345	\$1,981.48	\$1,144.40	\$3,125.88

The costs below are for a three-fixture bathroom system where the water closet and a corner bathtub are constructed on one wall and the lavatory is constructed on another wall.

### Three Fixture Bathroom

System Description	Labor Hours	Cost Each Materials	Cost Each Installation	Total
<b>Lavatory With Vanity Plumbing in 2 Walls</b>				
<b>Water Closet (Floor Mounted, 2 Piece, Close Coupled, White)</b>	3.019	\$201.00	\$132.00	\$333.00
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory ( 20" x 18", P.E. Cast Iron White)</b>	2.500	\$242.00	\$109.00	\$351.00
<b>Rough-In Waste ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	1.803	\$48.00	\$78.80	\$126.80
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Bathtub (P.E. Cast Iron, 5' Long with Accessories, White)</b>	3.636	\$1,825.00	\$159.00	\$1,984.00
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Rough-In Vent ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	0.593	\$50.80	\$28.80	\$79.60
<b>Piping (Supply, 1/2" Diameter Type "L" Copper Piping)</b>	3.161	\$120.32	\$153.60	\$273.92
<b>Waste ( 4" Diameter Drain Waste Vent Piping)</b>	3.310	\$127.80	\$144.60	\$272.40
<b>Vent ( 2" Diameter Drain Waste Vent Piping)</b>	1.500	\$56.10	\$65.70	\$121.80
<b>Vanity Base Cabinet ( 2 Door, 30" Wide)</b>	1.000	\$249.00	\$43.50	\$292.50
<b>Vanity Top (Plastic &amp; Laminated, Square Edge)</b>	0.712	\$89.45	\$31.11	\$120.56
<b>TOTAL</b>	26.414	\$3,195.93	\$1,185.01	\$4,380.94
<b>Lavatory Wall Hung Plumbing in 2 Walls</b>				
<b>Water Closet (Floor Mounted, 2 Piece,</b>	3.019	\$201.00	\$132.00	\$333.

<b>Close Coupled, White)</b>				00
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory ( 20" x 18", P.E. Cast Iron White)</b>	2.000	\$305.00	\$87.50	\$392.50
<b>Rough-In Waste ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	1.803	\$48.00	\$78.80	\$126.80
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Bathtub (P.E. Cast Iron, 5' Long with Accessories, White)</b>	3.636	\$1,825.00	\$159.00	\$1,984.00
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Rough-In Vent ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	0.593	\$50.80	\$28.80	\$79.60
<b>Piping (Supply, 1/2" Diameter Type "L" Copper Piping)</b>	3.161	\$120.32	\$153.60	\$273.92
<b>Waste ( 4" Diameter Drain Waste Vent Piping)</b>	3.310	\$127.80	\$144.60	\$272.40
<b>Vent ( 2" Diameter Drain Waste Vent Piping)</b>	1.500	\$56.10	\$65.70	\$121.80
<b>Carrier (Steel for Studs, No Arms)</b>	1.143	\$56.00	\$55.50	\$111.50
<b>TOTAL</b>	25.345	\$2,976.48	\$1,144.40	\$4,120.88

The costs below are for a three-fixture bathroom system where the water closet and shower are constructed on one wall and the lavatory is constructed on another wall. The fixtures are on opposite walls.

### Three Fixture Bathroom

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Each Materials</b>	<b>Cost Each Installation</b>	<b>Total</b>
<b>Lavatory With Vanity Plumbing in 2 Walls</b>				
<b>Water Closet (Floor Mounted, 2 Piece,</b>	3.019	\$201.00	\$132.00	\$333.

<b>Close Coupled, White)</b>				00
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory ( 20" x 18", P.E. Cast Iron White)</b>	2.500	\$242.00	\$109.00	\$351.00
<b>Rough-In Waste ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	1.803	\$48.00	\$78.80	\$126.80
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Shower (Steel Enameled, Stone Base, Corner, White)</b>	3.200	\$380.00	\$140.00	\$520.00
<b>Shower Mixing Valve</b>	1.333	\$120.00	\$65.00	\$185.00
<b>Shower Door</b>	1.000	\$225.00	\$48.50	\$273.50
<b>Rough-In Vent ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	0.225	\$6.00	\$9.85	\$15.85
<b>Rough-In Waste ( 2" Diameter Drain Waste Vent Piping)</b>	1.433	\$37.20	\$62.70	\$99.90
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	1.580	\$60.16	\$76.80	\$136.96
<b>Piping (Supply, 1/2" Diameter Type "L" Copper Piping)</b>	4.148	\$157.92	\$201.60	\$359.52
<b>Waste ( 4" Diameter Drain Waste Vent Piping)</b>	2.759	\$106.50	\$120.50	\$227.00
<b>Vent ( 2" Diameter Drain Waste Vent Piping)</b>	2.250	\$84.15	\$98.55	\$182.70
<b>Vanity Base Cabinet ( 2 Door, 30" Wide)</b>	1.000	\$249.00	\$43.50	\$292.50
<b>Vanity Top (Plastic &amp; Laminated, Square Edge)</b>	0.712	\$73.43	\$31.11	\$104.54
<b>TOTAL</b>	30.326	\$2,107.27	\$1,372.66	\$3,479.93
<b>Lavatory Wall Hung Plumbing in 2 Walls</b>				
<b>Water Closet (Floor Mounted, 2 Piece, Close Coupled, White)</b>	3.019	\$201.00	\$132.00	\$333.00
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Waste ( 4" Diameter Drain</b>	0.828	\$31.95	\$36.15	\$68.1

<b>Waste Vent Piping)</b>				0
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory ( 20" x 18", P.E. Cast Iron White)</b>	2.000	\$305.00	\$87.50	\$392.50
<b>Rough-In Waste ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	1.803	\$48.00	\$78.80	\$126.80
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Shower (Steel Enameled, Stone Base, Corner, White)</b>	3.200	\$380.00	\$140.00	\$520.00
<b>Shower Valve</b>	1.333	\$120.00	\$65.00	\$185.00
<b>Shower Door</b>	1.000	\$225.00	\$48.50	\$273.50
<b>Rough-In Vent ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	0.225	\$6.00	\$9.85	\$15.85
<b>Rough-In Waste ( 2" Diameter Drain Waste Vent Piping)</b>	1.433	\$37.20	\$62.70	\$99.90
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	1.580	\$60.16	\$76.80	\$136.96
<b>Piping (Supply, 1/2" Diameter Type "L" Copper Piping)</b>	4.148	\$157.92	\$201.60	\$359.52
<b>Waste ( 4" Diameter Drain Waste Vent Piping)</b>	2.759	\$106.50	\$120.50	\$227.00
<b>Vent ( 2" Diameter Drain Waste Vent Piping)</b>	2.250	\$84.15	\$98.55	\$182.70
<b>Carrier (Steel for Studs, No Arms)</b>	1.143	\$56.00	\$55.50	\$111.50
<b>TOTAL</b>	29.257	\$1,903.84	\$1,332.05	\$3,235.89

The costs below are for a three-fixture bathroom system where the water closet and lavatory are constructed on adjacent walls and the lavatory is constructed on the corner of the adjacent walls.

### Three Fixture Bathroom

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Each Cost Each</b>	<b>Cost Each Installation</b>	<b>Total</b>
<b>Lavatory With Vanity Plumbing in 2 Walls</b>				
<b>Water Closet (Floor Mounted, 2 Piece,</b>	3.019	\$201.00	\$132.00	\$333.

<b>Close Coupled, White)</b>				00
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory ( 20" x 18", P.E. Cast Iron White)</b>	2.500	\$242.00	\$109.00	\$351.00
<b>Rough-In Waste ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	1.803	\$48.00	\$78.80	\$126.80
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Shower (Steel Enameled, Stone Base, Corner, White)</b>	3.200	\$380.00	\$140.00	\$520.00
<b>Shower Mixing Valve</b>	1.333	\$120.00	\$65.00	\$185.00
<b>Shower Door</b>	1.000	\$225.00	\$48.50	\$273.50
<b>Rough-In Vent ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	0.225	\$6.00	\$9.85	\$15.85
<b>Rough-In Waste ( 2" Diameter Drain Waste Vent Piping)</b>	1.433	\$37.20	\$62.70	\$99.90
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	1.580	\$60.16	\$76.80	\$136.96
<b>Piping (Supply, 1/2" Diameter Type "L" Copper Piping)</b>	3.556	\$135.36	\$172.80	\$308.16
<b>Waste ( 4" Diameter Drain Waste Vent Piping)</b>	1.931	\$74.55	\$84.35	\$158.90
<b>Vent ( 2" Diameter Drain Waste Vent Piping)</b>	1.500	\$56.10	\$65.70	\$121.80
<b>Vanity Base Cabinet ( 2 Door, 30" Wide)</b>	1.000	\$249.00	\$43.50	\$292.50
<b>Vanity Top (Plastic &amp; Laminated, Square Edge)</b>	0.712	\$70.76	\$31.11	\$101.87
<b>TOTAL</b>	28.156	\$2,022.04	\$1,274.86	\$3,296.90
<b>Lavatory Wall Hung Plumbing in 2 Walls</b>				
<b>Water Closet (Floor Mounted, 2 Piece, Close Coupled, White)</b>	3.019	\$201.00	\$132.00	\$333.00
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Waste ( 4" Diameter Drain</b>	0.828	\$31.95	\$36.15	\$68.1

<b>Waste Vent Piping)</b>				0
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory ( Wall Hung 20" x 18", P.E. Cast Iron White)</b>	2.000	\$305.00	\$87.50	\$392.50
<b>Rough-In Waste ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	1.803	\$48.00	\$78.80	\$126.80
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Shower (Steel Enameled, Stone Base, Corner, White)</b>	3.200	\$380.00	\$140.00	\$520.00
<b>Shower Mixing Valve</b>	1.333	\$120.00	\$65.00	\$185.00
<b>Shower Door</b>	1.000	\$225.00	\$48.50	\$273.50
<b>Rough-In Vent ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	0.225	\$6.00	\$9.85	\$15.85
<b>Rough-In Waste ( 2" Diameter Drain Waste Vent Piping)</b>	1.433	\$37.20	\$62.70	\$99.90
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	1.580	\$60.16	\$76.80	\$136.96
<b>Piping (Supply, 1/2" Diameter Type "L" Copper Piping)</b>	3.556	\$135.36	\$172.80	\$308.16
<b>Waste ( 4" Diameter Drain Waste Vent Piping)</b>	1.931	\$74.55	\$84.35	\$158.90
<b>Vent ( 2" Diameter Drain Waste Vent Piping)</b>	1.500	\$56.10	\$65.70	\$121.80
<b>Carrier (Steel for Studs, No Arms)</b>	1.143	\$56.00	\$55.50	\$111.50
<b>TOTAL</b>	27.087	\$1,821.28	\$1,234.25	\$3,055.53

#### Four Fixture Bathroom:

The costs below are for a four-fixture bathroom system where the water closet and lavatory are constructed on one wall and the bathtub and shower are constructed on the opposite wall.

#### Three Fixture Bathroom

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Each Materials</b>	<b>Cost Each Installation</b>	<b>Total</b>
<b>Lavatory With Vanity Plumbing in 2</b>				

<b>Walls</b>				
<b>Water Closet (Floor Mounted, 2 Piece, Close Coupled, White)</b>	3.019	\$201.00	\$132.00	\$333.00
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory ( 20" x 18", P.E. Cast Iron White)</b>	2.500	\$242.00	\$109.00	\$351.00
<b>Shower (Steel Enameled, Stone Base, Corner, White)</b>	3.333	\$845.00	\$146.00	\$991.00
<b>Shower Mixing Valve</b>	1.333	\$120.00	\$65.00	\$185.00
<b>Shower Door</b>	1.000	\$225.00	\$48.50	\$273.50
<b>Rough-In Waste ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	4.507	\$120.00	\$197.00	\$317.00
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	3.161	\$120.32	\$153.60	\$273.92
<b>Bathtub (P.E. Cast Iron, 5' Long with Fittings, White)</b>	3.636	\$830.00	\$159.00	\$989.00
<b>Rough-In Waste ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.593	\$50.80	\$28.80	\$79.60
<b>Piping (Supply, 1/2" Diameter Type "L" Copper Piping)</b>	4.148	\$157.92	\$201.60	\$359.52
<b>Waste ( 4" Diameter Drain Waste Vent Piping)</b>	2.759	\$106.50	\$120.50	\$227.00
<b>Vent ( 2" Diameter Drain Waste Vent Piping)</b>	3.250	\$121.55	\$142.35	\$263.90
<b>Vanity Base Cabinet ( 2 Door, 30" Wide)</b>	1.000	\$249.00	\$43.50	\$292.50
<b>Vanity Top (Plastic &amp; Laminated, Square Edge)</b>	0.712	\$70.76	\$31.11	\$101.87
<b>TOTAL</b>	39.143	\$3,608.71	\$1,768.86	\$5,377.57
<b>Lavatory Wall Hung Plumbing in 2 Walls</b>				
<b>Water Closet (Floor Mounted, 2 Piece,</b>	3.019	\$201.00	\$132.00	\$333.00

<b>Close Coupled, White)</b>				00
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory ( Wall Hung 20" x 18", P.E. Cast Iron White)</b>	2.000	\$305.00	\$87.50	\$392.50
<b>Shower (Steel Enameled, Stone Base, Corner, White)</b>	3.333	\$845.00	\$146.00	\$991.00
<b>Shower Mixing Valve</b>	1.333	\$120.00	\$65.00	\$185.00
<b>Shower Door</b>	1.000	\$225.00	\$48.50	\$273.50
<b>Rough-In Waste ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	4.507	\$120.00	\$197.00	\$317.00
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	3.161	\$120.32	\$153.60	\$273.92
<b>Bathtub (P.E. Cast Iron, 5' Long with Fittings, White)</b>	3.636	\$830.00	\$159.00	\$989.00
<b>Rough-In Waste ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Rough-In Vent ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	0.593	\$50.80	\$28.80	\$79.60
<b>Piping (Supply, 1/2" Diameter Type "L" Copper Piping)</b>	4.148	\$157.92	\$201.60	\$359.52
<b>Waste ( 4" Diameter Drain Waste Vent Piping)</b>	2.759	\$106.50	\$120.50	\$227.00
<b>Vent ( 2" Diameter Drain Waste Vent Piping)</b>	3.250	\$121.55	\$142.35	\$263.90
<b>Carrier (Steel for Studs, No Arms)</b>	1.143	\$56.00	\$55.50	\$111.50
<b>TOTAL</b>	38.074	\$3,407.95	\$1,728.25	\$5,136.20

The costs below are for a four-fixture bathroom system where the water closet and bathtub are constructed on one wall. The vanity is constructed on the opposite wall. The shower is constructed on the corner of the wall that is common with the lavatory.

### Three Fixture Bathroom

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Each Materials</b>	<b>Cost Each Installation</b>	<b>Total</b>
<b>Lavatory With Vanity Plumbing in 2 Walls</b>				
<b>Water Closet (Floor Mounted, 2 Piece, Close Coupled, White)</b>	3.019	\$201.00	\$132.00	\$333.00
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory ( 20" x 18", P.E. Cast Iron White)</b>	2.500	\$242.00	\$109.00	\$351.00
<b>Shower (Steel Enameled, Stone Base, Corner, White)</b>	3.333	\$845.00	\$146.00	\$991.00
<b>Shower Mixing Valve</b>	1.333	\$120.00	\$65.00	\$185.00
<b>Shower Door</b>	1.000	\$225.00	\$48.50	\$273.50
<b>Rough-In Waste ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	4.507	\$120.00	\$197.00	\$317.00
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	3.161	\$120.32	\$153.60	\$273.92
<b>Bathtub (P.E. Cast Iron, 5' Long with Fittings, White)</b>	3.636	\$830.00	\$159.00	\$989.00
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Rough-In Vent ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	0.593	\$50.80	\$28.80	\$79.60
<b>Piping (Supply, 1/2" Diameter Type "L" Copper Piping)</b>	4.939	\$188.00	\$240.00	\$428.00
<b>Waste ( 4" Diameter Drain Waste Vent Piping)</b>	4.138	\$159.75	\$180.75	\$340.50
<b>Vent ( 2" Diameter Drain Waste Vent Piping)</b>	4.500	\$168.30	\$197.10	\$365.40
<b>Vanity Base Cabinet ( 2 Door, 30" Wide)</b>	1.000	\$249.00	\$43.50	\$292.50
<b>Vanity Top (Plastic &amp; Laminated, Square Edge)</b>	0.712	\$73.43	\$31.11	\$104.54
<b>TOTAL</b>	42.563	\$3,741.46	\$1,922.26	\$5,66

				3.72
<b>Lavatory Wall Hung Plumbing in 2 Walls</b>				
<b>Water Closet (Floor Mounted, 2 Piece, Close Coupled, White)</b>	3.019	\$201.00	\$132.00	\$333.00
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory ( Wall Hung 20" x 18", P.E. Cast Iron White)</b>	2.000	\$305.00	\$87.50	\$392.50
<b>Shower (Steel Enameled, Stone Base, Corner, White)</b>	3.333	\$845.00	\$146.00	\$991.00
<b>Shower Mixing Valve</b>	1.333	\$120.00	\$65.00	\$185.00
<b>Shower Door</b>	1.000	\$225.00	\$48.50	\$273.50
<b>Rough-In Waste ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	4.507	\$120.00	\$197.00	\$317.00
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	3.161	\$120.32	\$153.60	\$273.92
<b>Bathtub (P.E. Cast Iron, 5' Long with Fittings, White)</b>	3.636	\$830.00	\$159.00	\$989.00
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Rough-In Vent ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	0.593	\$50.80	\$28.80	\$79.60
<b>Piping (Supply, 1/2" Diameter Type "L" Copper Piping)</b>	4.939	\$188.00	\$240.00	\$428.00
<b>Waste ( 4" Diameter Drain Waste Vent Piping)</b>	4.138	\$159.75	\$180.75	\$340.50
<b>Vent ( 2" Diameter Drain Waste Vent Piping)</b>	4.500	\$168.30	\$197.10	\$365.40
<b>Carrier (Steel for Studs, No Arms)</b>	1.143	\$56.00	\$55.50	\$111.50
<b>TOTAL</b>	41.494	\$3,538.03	\$1,881.65	\$5,419.68

**Five Fixture Bathroom:**

The costs below are for a five-fixture bathroom system where the water closet and lavatory are constructed on one wall, the bathtub is constructed on an adjacent wall (corner) and the shower is constructed on the corner of the wall opposite the bathtub or adjacent to the lavatory.

### Five Fixture Bathroom

System Description	Labor Hours	Cost Each Materials	Cost Each Installation	Total
<b>Bathroom with Shower, Bathtub, Lavatories in Vanity</b>				
<b>Water Closet (Floor Mounted, 1 Piece Combination, White)</b>	3.019	\$810.00	\$132.00	\$942.00
<b>Rough-In Vent ( 2" Diameter Drain Waste Vent Piping)</b>	0.955	\$24.80	\$41.80	\$66.60
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	0.828	\$31.95	\$36.15	\$68.10
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.593	\$22.56	\$28.80	\$51.36
<b>Lavatory ( 20" x 18", Vitreous China Oval with Fittings, White)</b>	5.926	\$582.00	\$260.00	\$842.00
<b>Shower (Steel Enameled, Stone Base, Corner, White)</b>	3.333	\$845.00	\$146.00	\$991.00
<b>Shower Mixing Valve</b>	1.333	\$120.00	\$65.00	\$185.00
<b>Shower Door</b>	1.000	\$225.00	\$48.50	\$273.50
<b>Rough-In Waste ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	5.408	\$144.00	\$236.40	\$380.40
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	2.963	\$112.80	\$144.00	\$256.80
<b>Bathtub (P.E. Cast Iron, 5' Long with Fittings, White)</b>	3.636	\$830.00	\$159.00	\$989.00
<b>Rough-In Waste ( 4" Diameter Drain Waste Vent Piping)</b>	1.103	\$42.60	\$48.20	\$90.80
<b>Rough-In Supply ( 1/2" Diameter Type "L" Copper Piping)</b>	0.988	\$37.60	\$48.00	\$85.60
<b>Rough-In Vent ( 1 1/2" Diameter Drain Waste Vent Piping)</b>	0.593	\$50.80	\$28.80	\$79.60
<b>Piping (Supply, 1/2" Diameter Type "L" Copper Piping)</b>	4.148	\$157.92	\$201.60	\$359.52
<b>Waste ( 4" Diameter Drain Waste Vent Piping)</b>	2.759	\$106.50	\$120.50	\$227.00

<b>Vent ( 2" Diameter Drain Waste Vent Piping)</b>	3.250	\$121.55	\$142.35	\$263.90
<b>Vanity Base Cabinet ( 2 Door, 30" Wide)</b>	1.400	\$395.00	\$61.00	\$456.00
<b>Vanity Top (Plastic &amp; Laminated, Square Edge)</b>	1.112	\$110.51	\$48.58	\$159.09
<b>TOTAL</b>	44.347	\$4,770.59	\$1,996.68	\$6,767.27

### Gas Fired Heating/Cooling:

The costs in these systems are based on complete systems basis for one zone 1,200 S.F. buildings. For larger buildings use the price sheet on page 251 in Means Residential Square Foot Costs, Contractor Pricing Guide 2007.

### Gas Fired Heating/Cooling

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Per System Materials</b>	<b>Cost Per System Installation</b>	<b>Total</b>
<b>Heating Only, Gas Fired Hot Air</b>				
<b>Furnace (Gas, Up Flow)</b>	5.000	\$745.00	\$218.00	\$963.00
<b>Intermittent Pilot</b>		\$151.00		\$151.00
<b>Supply Duct (Rigid Fiberglass)</b>	12.068	\$119.68	\$543.84	\$663.52
<b>Return Duct (Sheet Metal, Galvanized)</b>	16.137	\$165.90	\$728.38	\$894.28
<b>Lateral Ducts (6" Flexible Fiberglass)</b>	8.862	\$401.76	\$385.92	\$787.68
<b>Register Elbows</b>	3.200	\$456.00	\$139.20	\$595.20
<b>Floor Registers (Enameled Steel)</b>	3.000	\$264.00	\$145.20	\$409.20
<b>Floor Grille (Return Air)</b>	0.727	\$56.00	\$35.20	\$91.20
<b>Thermostat</b>	1.000	\$29.50	\$48.50	\$78.00
<b>Plenum</b>	1.000	\$77.00	\$43.50	\$120.50
<b>TOTAL</b>	50.994	\$2,465.84	\$2,287.74	\$4,753.58

<b>Heating/Cooling, Gas Fired Forced Air</b>				
<b>Furnace (Including Plenum, Compressor, Coil)</b>	14.720	\$4,347.00	\$639.40	\$4,986.40
<b>Intermittent Pilot</b>		\$151.00		\$151.00
<b>Supply Duct (Rigid Fiberglass)</b>	12.068	\$119.68	\$543.84	\$663.52
<b>Return Duct (Sheet Metal, Galvanized)</b>	16.137	\$165.90	\$728.38	\$894.28
<b>Lateral Ducts (6" Flexible Fiberglass)</b>	8.862	\$401.76	\$385.92	\$787.68
<b>Register Elbows</b>	3.200	\$456.00	\$139.20	\$595.20
<b>Floor Registers (Enameled Steel)</b>	3.000	\$264.00	\$145.20	\$409.20
<b>Floor Grille (Return Air)</b>	0.727	\$56.00	\$35.20	\$91.20
<b>Thermostat</b>	1.000	\$29.50	\$48.50	\$78.00
<b>Refrigeration Piping ( 25 ft. Pre-charged)</b>		\$224.00		\$224.00
<b>TOTAL</b>	59.714	\$6,214.84	\$2,665.64	\$8,880.48

**Oil Fired Heating/Cooling:**

Reserved.

**Hot Water Heating:**

Reserved.

**Rooftop Heating/Cooling:**

Reserved.

***Division 9 - Electrical***

**Electric Service:**

A common electric service system includes a panel board (including breakers), ground cable with rod and clamp, meter socket, service entrance cable and weather cap. The more common systems are for a 100, 200 and 400 AMP service.

**Electric Service**

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Each Materials</b>	<b>Cost Each Installation</b>	<b>Total</b>
<b>100 AMP Service</b>				
Weather Cap	0.667	\$ 13.40	\$ 32.00	\$ 45.40
Service Entrance Cable	0.762	\$ 59.00	\$ 36.50	\$ 95.50
Meter Socket	2.500	\$ 41.00	\$ 120.00	\$ 161.00
Ground Rod with Clamp	1.455	\$ 15.45	\$ 69.50	\$ 84.95
Ground Cable	0.250	\$ 9.65	\$ 12.00	\$ 21.65
Panel Board (12 Circuit)	6.667	\$ 249.00	\$ 320.00	\$ 569.00
<b>TOTAL</b>	12.301	\$ 387.50	\$ 590.00	\$ 977.50
<b>200 AMP Service</b>				
Weather Cap	1.000	\$ 37.00	\$ 48.00	\$ 85.00
Service Entrance Cable	1.143	\$ 69.00	\$ 54.50	\$ 123.50
Meter Socket	4.211	\$ 61.50	\$ 202.00	\$ 263.50
Ground Rod with Clamp	1.818	\$ 35.50	\$ 87.00	\$ 122.50
Ground Cable	0.500	\$ 19.30	\$ 24.00	\$ 43.30
3/4" EMT	0.308	\$ 5.45	\$ 14.75	\$ 20.20
Panel Board (24 Circuit)	12.308	\$ 570.00	\$ 490.00	\$ 1,060.00
<b>TOTAL</b>	21.288	\$ 797.75	\$ 920.25	\$ 1,633.00
<b>400 AMP Service</b>				
Weather Cap	2.963	\$ 395.00	\$ 142.00	\$ 537.00
Service Entrance Cable	5.760	\$ 824.40	\$ 275.40	\$ 1,099.80
Meter Socket	4.211	\$ 61.50	\$ 202.00	\$ 263.50
Ground Rod with Clamp	2.000	\$ 95.50	\$ 96.00	\$ 191.50
3/4" Greenfield	0.485	\$ 58.60	\$ 23.20	\$ 81.80
Current Transformer Cabinet	1.000	\$ 11.20	\$ 48.00	\$ 59.20
Ground Cable	6.154	\$ 193.00	\$ 295.00	\$ 488.00
Panel Board (42 Circuit)	33.333	\$ 2,925.00	\$ 1,600.00	\$ 4,525.00
<b>TOTAL</b>	55.906	\$ 4,564.20	\$ 2,681.60	\$ 5,609.00

**Electric Heating:**

Reserved.

**Wiring Devices:**

<b>System Description</b>	<b>Labor Hours</b>	<b>Cost Each Materials</b>	<b>Cost Each Installation</b>	<b>Total</b>
<b>Air Conditioning Receptacles Using Non-metallic Sheathed Cable</b>	0.800	\$25.50	\$38.50	\$64.00
<b>Using BX Cable</b>	0.964	\$36.50	\$46.00	\$82.50
<b>Using EMT Conduit</b>	1.194	\$48.00	\$57.00	\$105.00
<b>Disposal Wiring Using Non-metallic Sheathed Cable</b>	0.889	\$21.50	\$42.50	\$64.00
<b>Using BX Cable</b>	1.067	\$31.00	\$51.00	\$82.00
<b>Using EMT Conduit</b>	1.333	\$45.00	\$64.00	\$109.00
<b>Dryer Circuit Using Non-metallic Sheathed Cable</b>	1.455	\$60.00	\$69.50	\$129.50
<b>Using BX Cable</b>	1.739	\$57.00	\$83.50	\$140.50
<b>Using EMT Conduit</b>	2.162	\$63.00	\$104.00	\$167.00
<b>Duplex Receptacles Using Non-metallic Sheathed Cable</b>	0.615	\$25.50	\$29.50	\$55.00
<b>Using BX Cable</b>	0.741	\$36.50	\$35.50	\$72.00
<b>Using EMT Conduit</b>	0.920	\$48.00	\$44.00	\$92.00
<b>Exhaust Fan Wiring Using Non-metallic Sheathed Cable</b>	0.800	\$23.00	\$38.50	\$61.50
<b>Using BX Cable</b>	0.964	\$34.50	\$46.00	\$80.50
<b>Using EMT Conduit</b>	1.194	\$45.50	\$57.00	\$102.50
<b>Furnace Circuit &amp; Switch Using Non-metallic Sheathed Cable</b>	1.333	\$26.50	\$64.00	\$90.50
<b>Using BX Cable</b>	1.600	\$42.00	\$76.50	\$118.50
<b>Using EMT Conduit</b>	2.000	\$48.50	\$96.00	\$144.50
<b>Ground Fault Using Non-metallic Sheathed Cable</b>	1.000	\$56.00	\$48.00	\$104.00
<b>Using BX Cable</b>	1.212	\$64.50	\$58.00	\$122.50

				2.50
<b>Using EMT Conduit</b>	1.481	\$84.00	\$71.00	\$15 5.00
<b>Heater Circuits Using Non-metallic Sheathed Cable</b>	1.000	\$29.50	\$48.00	\$77. 50
<b>Using BX Cable</b>	1.212	\$34.50	\$58.00	\$92. 50
<b>Using EMT Conduit</b>	1.481	\$45.00	\$71.00	\$11 6.00
<b>Lighting Wiring Using Non-metallic Sheathed Cable</b>	0.500	\$30.00	\$24.00	\$54. 00
<b>Using BX Cable</b>	0.602	\$35.50	\$29.00	\$64. 50
<b>Using EMT Conduit</b>	0.748	\$43.50	\$36.00	\$79. 50
<b>Range Circuits Using Non-metallic Sheathed Cable</b>	2.000	\$103.00	\$96.00	\$19 9.00
<b>Using BX Cable</b>	2.424	\$137.00	\$116.00	\$25 3.00
<b>Using EMT Conduit</b>	2.963	\$102.00	\$142.00	\$24 4.00
<b>Switches (Single Pole) Using Non-metallic Sheathed Cable</b>	0.500	\$23.00	\$24.00	\$47. 00
<b>Using BX Cable</b>	0.602	\$34.50	\$29.00	\$63. 50
<b>Using EMT Conduit</b>	0.748	\$45.50	\$36.00	\$81. 50
<b>Switches ( 3-Way) Using Non-metallic Sheathed Cable</b>	0.667	\$31.00	\$32.00	\$63. 00
<b>Using BX Cable</b>	0.800	\$38.00	\$38.50	\$76. 50
<b>Using EMT Conduit</b>	1.333	\$56.00	\$64.00	\$12 0.00
<b>Water Heater Using Non-metallic Sheathed Cable</b>	1.600	\$36.50	\$76.50	\$11 3.00
<b>Using BX Cable</b>	1.905	\$53.00	\$91.00	\$14 4.00
<b>Using EMT Conduit</b>	2.353	\$50.50	\$113.00	\$16 3.50
<b>Weatherproof Receptacle Using Non-metallic Sheathed Cable</b>	1.333	\$141.00	\$64.00	\$20 5.00
<b>Using BX Cable</b>	1.600	\$146.00	\$76.50	\$22 2.50

Using EMT Conduit	2.000	\$158.00	\$96.00	\$254.00
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**Light Fixtures:**

Description	Labor Hours	Cost Each Materials	Cost Each Installation	Total
<b>Fluorescent Strip, 4' Long, 1 Light, Average</b>	0.941	\$32.50	\$45.00	\$77.50
<b>Deluxe</b>	1.129	\$39.00	\$54.00	\$93.00
<b>2 Light, Average</b>	1.000	\$35.00	\$48.00	\$83.00
<b>Deluxe</b>	1.200	\$42.00	\$57.50	\$99.50
<b>8' Long, 1 Light, Average</b>	1.194	\$48.50	\$57.00	\$105.50
<b>Deluxe</b>	1.433	\$58.00	\$68.50	\$126.50
<b>2 Light, Average</b>	1.290	\$58.50	\$62.00	\$120.50
<b>Deluxe</b>	1.548	\$70.00	\$74.50	\$144.50
<b>Surface Mounted, 4' x 1', Economy</b>	0.914	\$65.00	\$43.50	\$108.50
<b>Average</b>	1.143	\$81.00	\$54.50	\$135.50
<b>Deluxe</b>	1.371	\$97.00	\$65.50	\$162.50
<b>4' x 2', Economy</b>	1.208	\$82.50	\$58.00	\$140.50
<b>Average</b>	1.509	\$103.00	\$72.50	\$175.50
<b>Deluxe</b>	1.811	\$124.00	\$87.00	\$211.00
<b>Recessed, 4' x 1', 2 Lamps, Economy</b>	1.123	\$44.50	\$53.50	\$98.00
<b>Average</b>	1.404	\$55.50	\$67.00	\$122.50
<b>Deluxe</b>	1.684	\$66.50	\$80.50	\$147.00
<b>4' x 2', 4 Lamps, Economy</b>	1.362	\$53.50	\$65.00	\$118.50
<b>Average</b>	1.702	\$67.00	\$81.50	\$148.50

<b>Deluxe</b>	2.043	\$80.50	\$98.00	\$178.50
<b>Incandescent, Exterior, 150W, Single Spot</b>	0.500	\$21.50	\$24.00	\$45.50
<b>Double Spot</b>	1.167	\$81.00	\$56.00	\$137.00
<b>Recessed, 100W, Economy</b>	0.800	\$55.00	\$38.50	\$93.50
<b>Average</b>	1.000	\$69.00	\$48.00	\$117.00
<b>Deluxe</b>	1.200	\$83.00	\$57.50	\$140.50
<b>150W, Economy</b>	0.800	\$81.50	\$38.50	\$120.00
<b>Average</b>	1.000	\$102.00	\$48.00	\$150.00
<b>Deluxe</b>	1.200	\$122.00	\$57.50	\$179.50
<b>Surfaced Mounted, 60W, Economy</b>	0.800	\$44.00	\$38.50	\$82.50
<b>Average</b>	1.000	\$49.00	\$48.00	\$97.00
<b>Deluxe</b>	1.194	\$66.00	\$57.00	\$123.00
<b>Metal Halide, Recessed 2' x 2', 250W</b>	2.500	\$335.00	\$120.00	\$455.00
<b>2' x 2', 400W</b>	2.759	\$375.00	\$132.00	\$507.00
<b>Surfaced Mounted, 2' x 2', 250W</b>	2.963	\$340.00	\$142.00	\$482.00
<b>2' x 2', 400W</b>	3.333	\$400.00	\$160.00	\$560.00
<b>High Bay, Single Unit, 400W</b>	3.478	\$405.00	\$167.00	\$572.00
<b>Twin Unit, 400W</b>	5.000	\$810.00	\$240.00	\$1,050.00

### ***Division 10 - Installing Contractor's Overhead & Profit***

Below are the average installing contractor's percentage markups applied to base labor rated to arrive at typical billing rates.

#### **Column A:**

Labor rates are based on average open shop wages for 7 major U.S. regions. Base rates, including fringe benefits, are listed hourly and daily. These figures are the sum of the

wage rated and employer-paid fringe benefits such as vacation pay and employer-paid health costs.

**Column B:**

Workers' Compensation rates are the national average of state rates established for each trade.

**Column C:**

Average fixed overhead figures for all trades. Included are Federal and State Unemployment costs set at 6.2%; Social Security Taxes (FICA) set at 7.65%; Builder's Risk Insurance costs set at 0.44%; and Public Liability costs set at 2.02%. All the percentages, except those for Social Security Taxes, vary from state to state as well as from company to company.

**Column D and E:**

Percentages are based on the presumption that the installing contractor has annual billing of \$2,000,000 and up. Overhead percentages may increase with smaller annual billing. The overhead percentages for any given contractor may vary greatly and depend on a number of factors such as the contractor's annual volume, engineering and logistical support costs, and staff requirements. The figures for overhead and profit will vary depending on the type of job, the job location, and the prevailing economic conditions. All factors should be examined very carefully for each job.

**Column F:**

Lists the total of Columns B, C, D and E.

**Column G:**

Column A (hourly base labor rate) multiplied by the percentage in

**Column F:**

(O&P percentage).

**Column H:**

The total of Column A (hourly base labor rate) plus Column G (Total O&P).

**Column I:**

Column H multiplied by eight hours.

To adjust these costs to a specific location, simply multiply the cost by the factor for that city. State and postal zip code numbers arrange the data alphabetically. For a city not

listed, use the factor for a nearby city with similar economic characteristics. Refer to Location Factors section of this chapter.

**Construction Trade Worker Classification Titles:**

<b>Number</b>	<b>Trade Construction Worker Classification Titles</b>
1	Asbestos/Insulation/Pipe Coverers
2	Boilermakers
3	Bricklayers
4	Bricklayer Helpers
5	Carpenters
6	Cement Finishers
7	Common Laborers
8	Electricians
9	Elevator Constructors
10	Equipment Operators Crane or Shovel
11	Equipment Operators Medium Equipment
12	Equipment Operators Light Equipment
13	Equipment Operators Oilers
14	Equipment Operators Master Mechanic
15	Foreman Inside
16	Foreman Outside
17	Glazers
18	Helpers
19	Lathers
20	Marble Setters
21	Millwrights
22	Mosaic & Terrazzo Workers
23	Painters Ordinary
24	Painters Structural Steel
25	Paper Hangers
26	Pile Drivers
27	Plasterers
28	Plasterer Helpers
29	Plumbers
30	Rodmen Reinforcing
31	Roofers Composition
32	Roofers Tile & Slate
33	Roofers Helpers Composition
34	Sheet Metal Workers

35	Skilled Workers
36	Sprinkler Installers
37	Steamfitters or Pipefitters
38	Stone Masons
39	Structural Steel Workers
40	Tile Layers
41	Tile Layers Helpers
42	Truck Drivers Light
43	Truck Drivers Heavy
44	Welders Structural Steel
45	Wrecking (Not Included In Averages)

### Installing Contractor's Overhead and Profit

#	A Hourly Base Rate Incl. Fringes	A Daily Base Rate Incl. Fringes	B Work ers' Com p. Ins.	C Avera ge Fixed Overh ead	D O ve r h e a d	E P r o f i t	F Total Overh ead & Profit %	G Total Overh ead & Profit Amount	H Hourly Rates With Overhead & Profit	I Daily Rates With Overhead & Profit
1	\$27.40	\$219.20	15.8 %	16.3%	30.0 %	10.0 %	72.1%	\$19.75	\$47.15	\$377.20
2	\$31.10	\$248.80	12.7 %	16.3%	30.0 %	10.0 %	69.0%	\$21.45	\$52.55	\$420.40
3	\$26.65	\$213.20	14.9 %	16.3%	25.0 %	10.0 %	66.2%	\$17.65	\$44.30	\$354.40
4	\$20.05	\$160.40	14.9 %	16.3%	25.0 %	10.0 %	66.2%	\$13.25	\$33.30	\$266.40
5	\$25.70	\$205.60	18.4	16.3%	2	1	69.7%	\$17.90	\$43.60	\$348.80

			%		5.0%	0.0%				
6	\$24.90	\$199.20	9.6%	16.3%	25.0%	10.0%	60.9%	\$15.15	\$40.05	\$320.40
7	\$18.70	\$149.60	18.4%	16.3%	25.0%	10.0%	69.7%	\$13.05	\$31.75	\$254.00
8	\$29.40	\$235.20	6.6%	16.3%	30.0%	10.0%	62.9%	\$18.50	\$47.90	\$383.20
9	\$35.80	\$286.40	6.9%	16.3%	30.0%	10.0%	63.2%	\$22.65	\$58.45	\$467.60
10	\$27.45	\$219.60	10.4%	16.3%	28.0%	10.0%	64.7%	\$17.75	\$45.20	\$361.60
11	\$26.50	\$212.00	10.4%	16.3%	28.0%	10.0%	64.7%	\$17.15	\$43.65	\$349.20
12	\$25.45	\$203.60	10.4%	16.3%	28.0%	10.0%	64.7%	\$16.45	\$41.90	\$335.20
13	\$23.40	\$187.20	10.4%	16.3%	28.0%	10.0%	64.7%	\$15.15	\$38.55	\$308.40
14	\$27.65	\$221.20	10.4%	16.3%	28.0%	10.0%	64.7%	\$17.90	\$45.55	\$364.40

4			%		8.0%	0.0%				
15	\$26.60	\$212.80	16.3%	16.3%	27.0%	10.0%	69.6%	\$18.50	\$45.10	\$360.80
16	\$28.10	\$224.80	16.3%	16.3%	27.0%	10.0%	69.6%	\$19.55	\$47.65	\$381.20
17	\$25.60	\$204.80	14.1%	16.3%	25.0%	10.0%	65.4%	\$16.75	\$42.35	\$338.80
18	\$18.80	\$150.40	17.8%	16.3%	25.0%	10.0%	69.1%	\$13.00	\$31.80	\$254.00
19	\$23.60	\$188.80	11.6%	16.3%	25.0%	10.0%	62.9%	\$14.85	\$38.45	\$307.60
20	\$25.35	\$202.80	14.9%	16.3%	25.0%	10.0%	66.2%	\$16.80	\$42.15	\$337.20
21	\$26.75	\$214.00	10.2%	16.3%	25.0%	10.0%	61.5%	\$16.45	\$43.20	\$345.60
22	\$24.60	\$196.80	9.5%	16.3%	25.0%	10.0%	60.8%	\$14.95	\$39.55	\$316.40
2	\$23.20	\$185.60	13.2	16.3%	2	1	64.5%	\$14.95	\$38.15	\$305.20

3			%		5.0%	0.0%				
24	\$23.80	\$190.40	45.3%	16.3%	25.0%	100%	96.6%	\$23.00	\$46.80	\$374.40
25	\$23.35	\$186.80	13.2%	16.3%	25.0%	100%	64.5%	\$15.05	\$38.40	\$307.20
26	\$25.15	\$201.20	21.4%	16.3%	30.0%	100%	77.7%	\$19.55	\$44.70	\$357.60
27	\$23.50	\$188.00	14.0%	16.3%	25.0%	100%	65.3%	\$12.35	\$38.85	\$310.80
28	\$20.15	\$161.20	14.0%	16.3%	25.0%	100%	65.3%	\$13.15	\$33.30	\$266.40
29	\$29.55	\$236.40	8.1%	16.3%	30.0%	100%	64.4%	\$19.05	\$48.60	\$388.80
30	\$27.65	\$221.20	23.8%	16.3%	28.0%	100%	78.1%	\$21.60	\$49.25	\$394.00
31	\$21.95	\$175.60	32.3%	16.3%	25.0%	100%	83.6%	\$18.35	\$40.30	\$322.40
3	\$22.05	\$176.40	32.3%	16.3%	21	1	83.6%	\$18.45	\$40.50	\$324.00

2			%		5.0%	0.0%				
33	\$16.10	\$128.80	32.3%	16.3%	25.0%	83.6%	\$13.45	\$29.55	\$236.40	
34	\$28.75	\$230.00	11.9%	16.3%	30.0%	68.2%	\$19.60	\$48.35	\$386.80	
35	\$26.10	\$208.80	16.3%	16.3%	27.0%	69.6%	\$18.15	\$44.25	\$354.00	
36	\$29.25	\$234.00	8.3%	16.3%	30.0%	64.6%	\$18.90	\$48.15	\$385.20	
37	\$29.85	\$238.80	8.1%	16.3%	30.0%	64.4%	\$19.20	\$49.05	\$392.40	
38	\$26.05	\$208.40	14.9%	16.3%	25.0%	66.2%	\$17.25	\$43.30	\$346.40	
39	\$27.70	\$221.60	40.8%	16.3%	28.0%	95.1%	\$26.35	\$54.05	\$432.40	
40	\$24.85	\$198.80	9.5%	16.3%	25.0%	60.8%	\$15.10	\$39.95	\$319.60	
4	\$19.10	\$152.80	9.5%	16.3%	21	60.8%	\$11.60	\$30.70	\$245.60	

1					5.0%	0.0%				
42	\$20.25	\$162.00	17.1%	16.3%	25.0%	10.0%	68.4%	\$13.85	\$34.10	\$272.80
43	\$21.00	\$168.00	17.1%	16.3%	25.0%	10.0%	68.4%	\$14.35	\$35.35	\$282.80
44	\$27.70	\$221.60	40.8%	16.3%	28.0%	10.0%	95.1%	\$26.35	\$54.05	\$432.40
45	\$19.25	\$154.00	39.1%	16.3%	25.0%	10.0%	90.4%	\$17.40	\$36.65	\$293.20

### Location Factors

Costs shown in RSMeans Cost Data Publications are based on National Averages for materials and installation. To adjust these costs to a specific location, simply multiply the base cost by the factor for that city. State and postal zip code numbers arrange the data alphabetically. For a city not listed, use the factor for a nearby city with similar economic characteristics.

### United States:

State	Zip Code	City	Factor
Alabama	350-352	Birmingham	0.86
Alabama	354	Tuscaloosa	0.73
Alabama	355	Jasper	0.71
Alabama	356	Decatur	0.76
Alabama	357-358	Huntsville	0.84
Alabama	359	Gadsden	0.73
Alabama	360-361	Montgomery	0.75
Alabama	362	Anniston	0.68

Alabama	363	Dothan	0.74
Alabama	364	Evergreen	0.70
Alabama	365-366	Mobile	0.79
Alabama	367	Selma	0.72
Alabama	368	Phenix City	0.73
Alabama	369	Butler	0.71
Alaska	995-996	Anchorage	1.27
Alaska	997	Fairbanks	1.29
Alaska	998	Juneau	1.27
Alaska	999	Ketchikan	1.29
Arizona	850-853	Phoenix	0.86
Arizona	852	Mesa/Tempe	0.83
Arizona	855	Globe	0.79
Arizona	856-857	Tucson	0.84
Arizona	859	Show Low	0.81
Arizona	860	Flagstaff	0.86
Arizona	863	Prescott	0.81
Arizona	864	Kingman	0.83
Arizona	865	Chambers	0.80
Arkansas	716	Pine Bluff	0.81
Arkansas	717	Camden	0.70
Arkansas	718	Texarkana	0.75
Arkansas	719	Hot Springs	0.70
Arkansas	720-722	Little Rock	0.87
Arkansas	723	West Memphis	0.81
Arkansas	724	Jonesboro	0.79
Arkansas	725	Batesville	0.76
Arkansas	726	Harrison	0.78
Arkansas	727	Fayetteville	0.72
Arkansas	728	Russellville	0.77
Arkansas	729	Fort Smith	0.79
California	900-902	Los Angeles	1.06
California	903-905	Inglewood	1.05
California	906-908	Long Beach	1.04
California	910-912	Pasadena	1.05
California	913-916	Van Nuys	1.08
California	917-917	Alhambra	1.09
California	919-921	San Diego	1.04
California	922	Palm Springs	1.04
California	923-924	San Bernardino	1.05

California	925	Riverside	1.05
California	926-927	Santa Ana	1.06
California	928	Anaheim	1.05
California	930	Oxnard	1.07
California	931	Santa Barbara	1.06
California	932-933	Bakersfield	1.03
California	934	San Luis Obispo	1.08
California	935	Mojave	1.06
California	936-938	Fresno	1.09
California	939	Salinas	1.12
California	940-941	San Francisco	1.23
California	942,956-958	Sacramento	1.11
California	943	Palo Alto	1.18
California	944	San Mateo	1.22
California	945	Vallejo	1.15
California	946	Oakland	1.21
California	947	Berkeley	1.24
California	948	Richmond	1.24
California	949	San Rafael	1.22
California	950	Santa Cruz	1.15
California	951	San Jose	1.19
California	952	Stockton	1.09
California	953	Modesto	1.08
California	954	Santa Rosa	1.16
California	955	Eureka	1.12
California	959	Marysville	1.10
California	960	Redding	1.10
California	961	Susanville	1.09
Colorado	800-802	Denver	0.94
Colorado	803	Boulder	0.93
Colorado	804	Golden	0.91
Colorado	805	Fort Collins	0.9
Colorado	806	Greeley	0.80
Colorado	807	Fort Morgan	0.93
Colorado	808-809	Colorado Springs	0.90
Colorado	810	Pueblo	0.91
Colorado	811	Alamosa	0.88
Colorado	812	Salida	0.90
Colorado	813	Durango	0.91
Colorado	814	Montrose	0.87

Colorado	815	Grand Junction	0.92
Colorado	816	Glenwood Springs	0.90
Connecticut	060	New Britain	1.08
Connecticut	061	Hartford	1.08
Connecticut	062	Willimantic	1.08
Connecticut	063	New London	1.08
Connecticut	064	Meriden	1.08
Connecticut	065	New Haven	1.08
Connecticut	066	Bridgeport	1.09
Connecticut	067	Waterbury	1.09
Connecticut	068	Norwalk	1.09
Connecticut	069	Stanford	1.10
District of Columbia	200-205	Washington	0.95
Delaware	197	Newark	0.99
Delaware	198	Wilmington	1.00
Delaware	199	Dover	0.99
Florida	320-322	Jacksonville	0.77
Florida	321	Daytona Beach	0.84
Florida	323	Tallahassee	0.73
Florida	324	Panama City	0.67
Florida	325	Pensacola	0.78
Florida	326-344	Gainesville	0.77
Florida	327-328,347	Orlando	0.84
Florida	329	Melbourne	0.86
Florida	330-332,340	Miami	0.85
Florida	333	Fort Lauderdale	0.84
Florida	334,349	West Palm Beach	0.84
Florida	335-336,346	Tampa	0.86
Florida	337	St Petersburg	0.76
Florida	338	Lakeland	0.83
Florida	339,341	Fort Myers	0.80
Florida	342	Sarasota	0.84
Georgia	300-303,399	Atlanta	0.90
Georgia	304	Statesboro	0.71
Georgia	305	Gainesville	0.79
Georgia	306	Athens	0.79
Georgia	307	Dalton	0.75
Georgia	308-309	Augusta	0.81
Georgia	310-312	Macon	0.82
Georgia	313-314	Savannah	0.82

Georgia	315	Waycross	0.76
Georgia	316	Valdosta	0.73
Georgia	317,398	Albany	0.79
Georgia	318-319	Columbus	0.83
Hawaii	967	Hilo	1.21
Hawaii	968	Honolulu	1.23
Idaho	832	Pocatello	0.86
Idaho	833	Twin Falls	0.74
Idaho	834	Idaho Falls	0.75
Idaho	835	Lewiston	0.96
Idaho	836-837	Boise	0.87
Idaho	838	Coeur d'Alene	0.94
Illinois	600-603	North Suburban	1.10
Illinois	604	Joliet	1.10
Illinois	605	South Suburban	1.10
Illinois	606-608	Chicago	1.16
Illinois	609	Kankakee	1.00
Illinois	610-611	Rockford	1.04
Illinois	612	Rock Island	0.96
Illinois	613	La Salle	1.02
Illinois	614	Galesburg	0.99
Illinois	615-616	Peoria	0.98
Illinois	617	Bloomington	0.98
Illinois	618-619	Champaign	0.99
Illinois	620-622	East St Louis	1.00
Illinois	623	Quincy	0.98
Illinois	624	Effingham	0.96
Illinois	625	Decatur	0.97
Illinois	626-627	Springfield	0.97
Illinois	628	Centralia	1.00
Illinois	629	Carbondale	0.95
Indiana	460	Anderson	0.91
Indiana	461-462	Indianapolis	0.95
Indiana	463-464	Gary	1.01
Indiana	465-466	South Bend	0.91
Indiana	467-468	Fort Wayne	0.91
Indiana	469	Kokomo	0.92
Indiana	470	Lawrenceburg	0.87
Indiana	471	New Albany	0.86
Indiana	472	Columbus	0.92

Indiana	473	Muncie	0.91
Indiana	474	Bloomington	0.94
Indiana	475	Washington	0.91
Indiana	476-477	Evansville	0.90
Indiana	478	Terre Haute	0.90
Indiana	479	Lafayette	0.91
Iowa	500-503,509	Des Moines	0.91
Iowa	504	Mason City	0.77
Iowa	505	Fort Dodge	0.76
Iowa	506-507	Waterloo	0.79
Iowa	508	Creston	0.81
Iowa	510-511	Sioux City	0.87
Iowa	512	Sibley	0.73
Iowa	513	Spencer	0.74
Iowa	514	Carroll	0.74
Iowa	515	Council Bluffs	0.81
Iowa	516	Shenandoah	0.75
Iowa	520	Dubuque	0.86
Iowa	521	Decorah	0.76
Iowa	522-524	Cedar Rapids	0.94
Iowa	525	Ottumwa	0.84
Iowa	526	Burlington	0.87
Iowa	527-528	Davenport	0.97
Kansas	660-662	Kansas City	0.99
Kansas	664-666	Topeka	0.80
Kansas	667	Fort Scott	0.85
Kansas	668	Emporia	0.72
Kansas	669	Belleville	0.78
Kansas	670-672	Wichita	0.80
Kansas	673	Independence	0.85
Kansas	674	Salina	0.76
Kansas	675	Hutchinson	0.77
Kansas	676	Hays	0.82
Kansas	677	Colby	0.83
Kansas	678	Dodge City	0.82
Kansas	679	Liberal	0.79
Kentucky	400-402	Louisville	0.92
Kentucky	403-405	Lexington	0.89
Kentucky	406	Frankfort	0.89
Kentucky	407-409	Corbin	0.78

Kentucky	410	Covington	1.00
Kentucky	411-412	Ashland	0.98
Kentucky	413-414	Campton	0.79
Kentucky	415-416	Pikeville	0.86
Kentucky	417-418	Hazard	0.73
Kentucky	420	Paducah	0.90
Kentucky	421-422	Bowling Green	0.90
Kentucky	423	Owensboro	0.89
Kentucky	424	Henderson	0.91
Kentucky	425-426	Somerset	0.78
Kentucky	427	Elizabethtown	0.87
Louisiana	700-701	New Orleans	0.86
Louisiana	703	Thibodaux	0.84
Louisiana	704	Hammond	0.79
Louisiana	705	Lafayette	0.82
Louisiana	706	Lake Charles	0.83
Louisiana	707-708	Baton Rouge	0.82
Louisiana	710-711	Shreveport	0.79
Louisiana	712	Monroe	0.74
Louisiana	713-714	Alexandria	0.74
Maine	039	Kittery	0.79
	040-041	Portland	0.90
Maine	042	Lewiston	0.89
Maine	043	Augusta	0.82
Maine	044	Bangor	0.88
Maine	045	Bath	0.80
Maine	046	Machias	0.81
Maine	047	Houlton	0.85
Maine	048	Rockland	0.81
Maine	049	Waterville	0.80
Maryland	203	Waldorf	0.85
Maryland	207-208	College Park	0.87
Maryland	209	Silver Spring	0.86
Maryland	210-212	Baltimore	0.90
Maryland	214	Annapolis	0.85
Maryland	215	Cumberland	0.86
Maryland	216	Easton	0.68
Maryland	217	Hagerstown	0.86
Maryland	218	Salisbury	0.75
Maryland	219	Elkton	0.81

Maryland	203	Waldorf	0.85
Maryland	207-208	College Park	0.87
Maryland	209	Silver Spring	0.86
Maryland	210-212	Baltimore	0.90
Maryland	214	Annapolis	0.85
Maryland	215	Cumberland	0.86
Maryland	216	Easton	0.68
Maryland	217	Hagerstown	0.86
Maryland	218	Salisbury	0.75
Maryland	219	Elkton	0.81
Massachusetts	010-011	Springfield	1.04
Massachusetts	012	Pittsfield	1.01
Massachusetts	013	Greenfield	1.00
Massachusetts	014	Fitchburg	1.12
Massachusetts	015-016	Worcester	1.14
Massachusetts	017	Framingham	1.12
Massachusetts	018	Lowell	1.13
Massachusetts	019	Lawrence	1.13
Massachusetts	020-022,024	Boston	1.19
Massachusetts	023	Brockton	1.12
Massachusetts	025	Buzzards Bay	1.10
Massachusetts	026	Hyannis	1.09
Massachusetts	027	New Bedford	1.12
Michigan	480-483	Royal Oat	1.03
Michigan	481	Ann Arbor	1.05
Michigan	482	Detroit	1.07
Michigan	484-485	Flint	0.97
Michigan	486	Saginaw	0.94
Michigan	487	Bay City	0.95
Michigan	488-489	Lansing	0.97
Michigan	490	Battle Creek	0.93
Michigan	491	Kalamazoo	0.92
Michigan	492	Jackson	0.95
Michigan	493,495	Grand Rapids	0.82
Michigan	494	Muskegon	0.89
Michigan	496	Traverse City	0.80
Michigan	497	Gaylord	0.83
Michigan	498-499	Iron Mountain	0.90
Minnesota	550-551	Saint Paul	1.13
Minnesota	553-555	Minneapolis	1.17

Minnesota	556-558	Duluth	1.09
Minnesota	559	Rochester	1.05
Minnesota	560	Mankato	1.03
Minnesota	561	Windom	0.83
Minnesota	562	Willmar	0.85
Minnesota	563	St Cloud	1.07
Minnesota	564	Brainerd	0.98
Minnesota	565	Detroit Lakes	0.96
Minnesota	566	Bemidji	0.96
Minnesota	567	Their River Falls	0.95
Mississippi	386	Clarksdale	0.62
Mississippi	387	Greenville	0.69
Mississippi	388	Tupelo	0.64
Mississippi	389	Greenwood	0.65
Mississippi	390-392	Jackson	0.73
Mississippi	393	Meridian	0.66
Mississippi	394	Laurel	0.63
Mississippi	395	Biloxi	0.75
Mississippi	396	McComb	0.74
Mississippi	397	Columbus	0.65
Missouri	630-631	St Louis	1.03
Missouri	633	Bowling Green	0.94
Missouri	634	Hannibal	0.87
Missouri	635	Kirksville	0.80
Missouri	636	Flat River	0.94
Missouri	637	Cape Girardeau	0.87
Missouri	638	Sikeston	0.82
Missouri	639	Poplar Bluff	0.82
Missouri	640-641	Kansas City	1.03
Missouri	644-645	St Joseph	0.95
Missouri	646	Chillicothe	0.84
Missouri	647	Harrisonville	0.94
Missouri	648	Joplin	0.85
Missouri	650-651	Jefferson City	0.88
Missouri	652	Columbia	0.88
Missouri	653	Sedalia	0.85
Missouri	654-655	Rolla	0.88
Missouri	656-658	Springfield	0.86
Montana	590-591	Billings	0.87
Montana	592	Wolf Point	0.83

Montana	593	Miles City	0.85
Montana	594	Great Falls	0.88
Montana	595	Havre	0.80
Montana	596	Helena	0.87
Montana	597	Butte	0.83
Montana	598	Missoula	0.83
Montana	599	Kalispell	0.81
Nebraska	680-681	Omaha	0.89
Nebraska	683-685	Lincoln	0.78
Nebraska	686	Columbus	0.70
Nebraska	687	Norfolk	0.77
Nebraska	688	Grand Island	0.77
Nebraska	689	Hastings	0.76
Nebraska	690	McCook	0.70
Nebraska	691	North Platte	0.75
Nebraska	692	Valentine	0.66
Nebraska	693	Alliance	0.66
Nevada	889-891	Las Vegas	1.00
Nevada	893	Ely	0.87
Nevada	894-895	Reno	0.94
Nevada	897	Carson City	0.95
Nevada	898	Elko	0.93
New Hampshire	030	Nashua	0.95
New Hampshire	031	Manchester	0.95
New Hampshire	032-033	Concord	0.92
New Hampshire	034	Keene	0.72
New Hampshire	035	Littleton	0.80
New Hampshire	036	Charleston	0.70
New Hampshire	037	Claremont	0.71
New Hampshire	038	Portsmouth	0.89
New Jersey	070-071	Newark	1.13
New Jersey	072	Elizabeth	1.15
New Jersey	073	Jersey City	1.11
New Jersey	074-075	Paterson	1.12
New Jersey	076	Hackensack	1.11
New Jersey	077	Long Branch	1.13
New Jersey	078	Dover	1.12
New Jersey	079	Summit	1.12
New Jersey	080-083	Vineland	1.09
New Jersey	081	Camden	1.10

New Jersey	082-084	Atlantic City	1.13
New Jersey	085-086	Trenton	1.11
New Jersey	087	Point Pleasant	1.10
New Jersey	088-089	New Brunswick	1.12
New Mexico	870-872	Albuquerque	0.85
New Mexico	873	Gallup	0.85
New Mexico	874	Farmington	0.85
New Mexico	875	Santa Fe	0.85
New Mexico	877	Las Vegas	0.85
New Mexico	878	Socorro	0.85
New Mexico	879	Truth or Consequences	0.84
New Mexico	880	Las Cruces	0.82
New Mexico	881	Clovis	0.84
New Mexico	882	Roswell	0.85
New Mexico	883	Carrizozo	0.85
New Mexico	884	Tucumcari	0.85
New York	100-102	New York	1.34
New York	103	Staten Island	1.25
New York	104	Bronx	1.27
New York	105	Mount Vernon	1.15
New York	106	White Plains	1.18
New York	107	Yonkers	1.19
New York	108	New Rochelle	1.19
New York	109	Suffern	1.12
New York	110	Queens	1.26
New York	111	Long Island City	1.29
New York	112	Brooklyn	1.31
New York	113	Flushing	1.28
New York	114	Jamaica	1.28
New York	115,117,118	Hicksville	1.19
New York	116	Far Rockaway	1.27
New York	119	Riverhead	1.21
New York	120-122	Albany	0.95
New York	123	Schenectady	0.96
New York	124	Kingston	1.03
New York	125-126	Poughkeepsie	1.04
New York	127	Monticello	1.05
New York	128	Glens Falls	0.89
New York	129	Plattsburgh	0.93
New York	130-132	Syracuse	0.96

New York	133-135	Utica	0.93
New York	136	Watertown	0.90
New York	137-139	Binghamton	0.95
New York	140-142	Buffalo	1.05
New York	143	Niagara Falls	1.01
New York	144-146	Rochester	0.99
New York	147	Jamestown	0.89
New York	148-149	Elmira	0.86
North Carolina	270,272-274	Greensboro	0.85
North Carolina	271	Winston-Salem	0.85
North Carolina	275-276	Raleigh	0.87
North Carolina	277	Durham	0.85
North Carolina	278	Rocky Mount	0.75
North Carolina	279	Elizabeth City	0.75
North Carolina	280	Gastonia	0.86
North Carolina	281-282	Charlotte	0.88
North Carolina	283	Fayetteville	0.84
North Carolina	284	Wilmington	0.83
North Carolina	285	Kinston	0.75
North Carolina	286	Hickory	0.80
North Carolina	287-288	Asheville	0.83
North Carolina	289	Murphy	0.74
North Dakota	580-581	Fargo	0.79
North Dakota	582	Grand Forks	0.76
North Dakota	583	Devils Lake	0.79
North Dakota	584	Jamestown	0.74
North Dakota	585	Bismarck	0.79
North Dakota	586	Dickinson	0.77
North Dakota	587	Minot	0.80
North Dakota	588	Williston	0.77
Ohio	430-432	Columbus	0.94
Ohio	433	Marion	0.91
Ohio	434-436	Toledo	0.99
Ohio	437-438	Zanesville	0.90
Ohio	439	Steubenville	0.95
Ohio	440	Lorain	0.99
Ohio	441	Cleveland	1.02
Ohio	442-443	Akron	0.98
Ohio	444-445	Youngstown	0.96
Ohio	446-447	Canton	0.94

Ohio	448-449	Mansfield	0.95
Ohio	450	Hamilton	0.93
Ohio	451-452	Cincinnati	0.93
Ohio	453-454	Dayton	0.91
Ohio	455	Springfield	0.93
Ohio	456	Chillicothe	0.96
Ohio	457	Athens	0.88
Ohio	458	Lima	0.90
Oklahoma	730-731	Oklahoma City	0.8
Oklahoma	734	Ardmore	0.79
Oklahoma	735	Lawton	0.82
Oklahoma	736	Clinton	0.78
Oklahoma	737	Enid	0.78
Oklahoma	738	Woodward	0.77
Oklahoma	739	Guymon	0.68
Oklahoma	740-741	Tulsa	0.79
Oklahoma	743	Miami	0.82
Oklahoma	744	Muskogee	0.73
Oklahoma	745	McAlester	0.74
Oklahoma	746	Ponca City	0.78
Oklahoma	747	Durant	0.77
Oklahoma	748	Shawnee	0.76
Oklahoma	749	Poteau	0.78
Oregon	970-972	Portland	1.02
Oregon	973	Salem	1.01
Oregon	974	Eugene	1.01
Oregon	975	Medford	0.99
Oregon	976	Klamath Falls	1.00
Oregon	977	Bend	1.02
Oregon	978	Pendleton	0.99
Oregon	979	Vale	0.98
Pennsylvania	150-152	Pittsburgh	0.99
Pennsylvania	153	Washington	0.94
Pennsylvania	154	Uniontown	0.90
Pennsylvania	155	Bedford	0.88
Pennsylvania	156	Greensburg	0.94
Pennsylvania	157	Indiana	0.91
Pennsylvania	158	Dubois	0.90
Pennsylvania	159	Johnstown	0.89
Pennsylvania	160	Butler	0.92

Pennsylvania	161	New Castle	0.92
Pennsylvania	162	Kittanning	0.93
Pennsylvania	163	Oil City	0.90
Pennsylvania	164-165	Erie	0.95
Pennsylvania	166	Altoona	0.88
Pennsylvania	167	Bradford	0.90
Pennsylvania	168	State College	0.91
Pennsylvania	169	Wellsboro	0.90
Pennsylvania	170-171	Harrisburg	0.94
Pennsylvania	172	Chambersburg	0.89
Pennsylvania	173-174	York	0.91
Pennsylvania	175-176	Lancaster	0.91
Pennsylvania	177	Williamsport	0.84
Pennsylvania	178	Sunbury	0.91
Pennsylvania	179	Pottsville	0.91
Pennsylvania	180	Lehigh Valley	1.01
Pennsylvania	181	Allentown	1.04
Pennsylvania	182	Hazleton	0.91
Pennsylvania	183	Stroudsburg	0.92
Pennsylvania	184-185	Scranton	0.96
Pennsylvania	186-187	Wilkes-Barre	0.93
Pennsylvania	188	Montrose	0.90
Pennsylvania	189	Doylestown	1.04
Pennsylvania	190-191	Philadelphia	1.15
Pennsylvania	193	Westchester	1.09
Pennsylvania	194	Norristown	1.08
Pennsylvania	195-196	Reading	0.97
Puerto Rico	009	San Juan	0.74
Rhode Island	028	Newport	1.06
	029	Providence	1.07
South Carolina	290-292	Columbia	0.82
South Carolina	293	Spartanburg	0.81
South Carolina	294	Charleston	0.82
South Carolina	295	Florence	0.76
South Carolina	296	Greenville	0.8
South Carolina	297	Rock Hill	0.72
South Carolina	298	Aiken	0.97
South Carolina	299	Beaufort	0.75
South Dakota	570-571	Sioux Falls	0.76
South Dakota	572	Watertown	0.72

South Dakota	573	Mitchell	0.74
South Dakota	574	Aberdeen	0.75
South Dakota	575	Pierre	0.75
South Dakota	576	Mobridge	0.73
South Dakota	577	Rapid City	0.75
Tennessee	370-372	Nashville	0.85
Tennessee	373-374	Chattanooga	0.77
Tennessee	375,380-381	Memphis	0.83
Tennessee	376	Johnson City	0.72
Tennessee	377-379	Knoxville	0.75
Tennessee	382	McKenzie	0.73
Tennessee	383	Jackson	0.71
Tennessee	384	Columbia	0.73
Tennessee	385	Cookeville	0.72
Texas	750	Mckinney	0.75
Texas	751	Wasahackie	0.75
Texas	752-753	Dallas	0.82
Texas	754	Greenville	0.69
Texas	755	Texarkana	0.73
Texas	756	Longview	0.67
Texas	757	Tyler	0.74
Texas	758	Palestine	0.66
Texas	759	Lufkin	0.71
Texas	760-761	Fort Worth	0.82
Texas	762	Denton	0.77
Texas	763	Wichita Falls	0.79
Texas	764	Eastland	0.73
Texas	765	Temple	0.75
Texas	766-767	Waco	0.78
Texas	768	Brownwood	0.69
Texas	769	San Angelo	0.72
Texas	770-772	Houston	0.86
Texas	773	Huntsville	0.7
Texas	774	Wharton	0.71
Texas	775	Galveston	0.84
Texas	776-777	Beaumont	0.83
Texas	778	Bryan	0.74
Texas	779	Victoria	0.75
Texas	780	Laredo	0.73
Texas	781-782	San Antonio	0.81

Texas	783-784	Corpus Christi	0.78
Texas	785	McAllen	0.76
Texas	786-787	Austin	0.80
Texas	788	Del Rio	0.67
Texas	789	Giddings	0.70
Texas	790-791	Amarillo	0.78
Texas	792	Childress	0.76
Texas	793-794	Lubbock	0.76
Texas	795-796	Abilene	0.75
Texas	797	Midland	0.76
Texas	798-799,885	El Paso	0.75
Utah	840-841	Salt Lake City	0.81
Utah	842-844	Ogden	0.79
Utah	843	Logan	0.80
Utah	845	Price	0.72
Utah	846-847	Provo	0.81
Vermont	050	White River Jct	0.73
Vermont	051	Bellows Falls	0.75
Vermont	052	Bennington	0.82
Vermont	053	Brattleboro	0.78
Vermont	054	Burlington	0.8
Vermont	056	Montpelier	0.81
Vermont	057	Rutland	0.8
Vermont	058	St Johnsbury	0.8
Vermont	059	Guildhall	0.79
Virginia	220-221	Fairfax	1.02
Virginia	222	Arlington	1.04
Virginia	223	Alexandria	1.06
Virginia	224-225	Fredericksburg	0.95
Virginia	226	Winchester	0.93
Virginia	227	Culpeper	1
Virginia	228	Harrisonburg	0.9
Virginia	229	Charlottesville	0.92
Virginia	230-232	Richmond	1.01
Virginia	233-235	Norfolk	1.02
Virginia	236	Newport News	1.01
Virginia	237	Portsmouth	0.92
Virginia	238	Petersburg	0.99
Virginia	239	Farmville	0.91
Virginia	240-241	Roanoke	0.99

Virginia	242	Bristol	0.86
Virginia	243	Pulaski	0.84
Virginia	244	Staunton	0.93
Virginia	245	Lynchburg	0.97
Virginia	246	Grundy	0.85
Washington	980-981,987	Seattle	1.02
Washington	982	Everett	1.05
Washington	983-984	Tacoma	1.01
Washington	985	Olympia	1.01
Washington	986	Vancouver	0.98
Washington	988	Wenatchee	0.93
Washington	989	Yakima	0.97
Washington	990-992	Spokane	0.99
Washington	993	Richland	0.97
Washington	994	Clarkston	0.97
West Virginia	247-248	Bluefield	0.88
West Virginia	249	Lewisburg	0.89
West Virginia	250-253	Charleston	0.97
West Virginia	254	Martinsburg	0.86
West Virginia	255-257	Huntington	1.01
West Virginia	258-259	Beckley	0.90
West Virginia	260	Wheeling	0.93
West Virginia	261	Parkersburg	0.92
West Virginia	262	Buckhannon	0.92
West Virginia	263-264	Clarksburg	0.92
West Virginia	265	Morgantown	0.93
West Virginia	266	Gassaway	0.92
West Virginia	267	Romney	0.88
West Virginia	268	Petersburg	0.90
Wisconsin	530-532	Milwaukee	1.07
Wisconsin	531	Kenosha	1.04
Wisconsin	534	Racine	1.02
Wisconsin	535	Beloit	1.00
Wisconsin	537	Madison	0.99
Wisconsin	538	Lancaster	0.97
Wisconsin	539	Portage	0.96
Wisconsin	540	New Richmond	1.00
Wisconsin	541-543	Green Bay	1.01
Wisconsin	544	Wausau	0.95
Wisconsin	545	Rhineland	0.95

Wisconsin	546	La Crosse	0.94
Wisconsin	547	Eau Claire	0.98
Wisconsin	548	Superior	0.99
Wisconsin	549	Oshkosh	0.95
Wyoming	820	Cheyenne	0.84
Wyoming	821	Yellowstone Nat'l Park	0.75
Wyoming	822	Wheatland	0.75
Wyoming	823	Rawlins	0.76
Wyoming	824	Worland	0.75
Wyoming	825	Riverton	0.74
Wyoming	826	Casper	0.78
Wyoming	827	Newcastle	0.74
Wyoming	828	Sheridan	0.80
Wyoming	829-831	Rock Springs	0.79

Canada: The factors below reflect Canadian currency.

### Canada

Province/Territory	City	Factor
<b>Alberta</b>	Calgary	1.14
	Edmonton	1.13
	Fort McMurray	1.09
	Lethbridge	1.10
	Lloydminster	1.09
	Medicine Hat	1.10
	Red Deer	1.10
<b>British Columbia</b>	Kamloops	1.08
	Prince George	1.08
	Vancouver	1.09
	Victoria	1.03
<b>Manitoba</b>	Brandon	1.06
	Portage la Prairie	1.06
	Winnipeg	1.05
<b>New Brunswick</b>	Bathurst	0.97
	Dalhousie	0.97
	Fredericton	1.05
	Moncton	0.98
	Newcastle	0.97
	St John's	1.05
<b>Newfoundland</b>	Corner Brook	0.99

	St John's	1.01
<b>Northwest Territories</b>	Yellowknife	1.10
<b>Nova Scotia</b>	Dartmouth	1.00
	Halifax	1.02
	New Glasgow	1.00
	Sydney	0.99
	Yarmouth	1.00
<b>Ontario</b>	Barrie	1.17
	Brantford	1.19
	Cornwall	1.19
	Hamilton	1.19
	Kingston	1.19
	Kitchener	1.11
	London	1.17
	North Bay	1.15
	Oshawa	1.17
	Ottawa	1.19
	Owen Sound	1.15
	Peterborough	1.16
	Sarnia	1.19
	Sudbury	1.09
	Thunder Bay	1.15
	Toronto	1.20
	Windsor	1.14
<b>Prince Edward Island</b>	Charlottetown	0.95
	Summerside	0.94
<b>Quebec</b>	Cap-de-la-Madeleine	1.18
	Charlesbourg	1.18
	Chicoutimi	1.20
	Gatineau	1.16
	Laval	1.17
	Montreal	1.21
	Quebec	1.22
	Sherbrooke	1.17
	Trois Rivieres	1.18
<b>Saskatchewan</b>	Moose Jaw	0.97
	Prince Albert	0.96
	Regina	0.99
	Saskatoon	0.97
<b>Yukon</b>	Whitehours	0.96

## ***Audit Issues and Examination Techniques***

### **Income:**

Examiners will consider gross income during the examination of all income tax returns. The following techniques are the minimum income probes required for this type of taxpayer. Also consider any large, unusual or questionable income items and if the amount is material, net operating loss deductions. Discuss with Group Manager omitted income items greater than \$10,000 and document the discussion on Form 9984.

Guidelines for limiting the scope of the examination of income are contained in IRM Section 4.10.4.3.1. Cite the reasons if the scope of the examination of income is limited. Individual Business Returns: A preliminary Financial Status Analysis based on the tax return and available data will be completed as outlined in IRM 4.10.4.3.3.1(7)(a). If the analysis indicates a material imbalance, the excess expenditures are considered a potential understatement of taxable income and the minimum income probes should be completed. See IRM Section 4.10.4.3.1(2).

### **Cost of Goods Sold**

The following techniques are not intended to be all-inclusive nor are they mandatory steps to be followed. Judgment should be used in selecting the techniques that apply to each taxpayer.

1. Check for changes in inventory valuation methods.
2. Reconcile beginning and ending inventory with prior and subsequent years.
3. Examine cancelled checks, receipts, purchase journals, etc, to validate cost of goods purchased for re-sale and to verify business use of goods.
4. Examine cancelled checks, receipts, purchase journals, etc, to validate cost of labor, materials and supplies to raise or produce goods for sale.
5. Ensure amount on the return does not include items purchased for personal use.
6. Compare cost of labor, materials and supplies to total cost of goods sold for reasonableness.
7. Calculate cost of goods sold (Beginning Inventory + Purchases + Labor + Materials + Supplies + Other Costs) - (Withdrawals for Personal Use) - (Ending Inventory).
8. Compare calculated Cost of Goods Sold to Cost of Goods Sold on the taxpayer return.
9. Reconcile variances.

### **Expenses:**

As of October 31, 2007, EOAD data shows the most frequent issues examined and adjusted on contractor returns (NAICS 238XXX) during FY 2007. If available, use the appropriate examination lead sheets when examining tax issues.

## Issues Adjusted

Issue	% Issues Adjusted
Form 1040 Gross Receipts or Sales	63.37%
Form 1040 Cost of Goods Sold	65.48%
Form 1040 Depreciation and Sec 179 Expense Deduction	71.31%
Form 1040 Car and Truck Expenses	74.02%
Form 1040 Supplies	75.28%
Form 1040 Repairs and Maintenance	76.27%
Form 1040 Insurance (Other than Health)	78.43%
Form 1040 Other Expenses	78.49%
Form 1040	80.64%
Form 1040 Meals and Entertainment	85.80%
Form 1065 Purchases	51.28%
Form 1065 Gross Receipts or Sales	52.69%
Form 1065 Other Costs	54.76%
Form 1065 Cost of Goods Sold (No Schedule A)	57.14%
Form 1065 Guaranteed Payments to Partners	57.89%
Form 1065 Cost of Labor	60.00%
Form 1065 Other Expenses	73.08%
Form 1065 Taxes & Licenses	84.21%
Form 1065 Sec 179 Expense Deduction	85.71%
Form 1065 Other Deductions (No Schedule)	86.21%
Form 1065 Ordinary Income (loss)	94.74%
Form 1065 Gross Nonfarm Income	95.24%
Form 1065 Depreciation	100.00%
Form 1120 Other Costs	30.05%
Form 1120 Gross Receipts or Sales	33.45%
Form 1120 Purchases	35.34%
Form 1120 Cost of Goods Sold (No Schedule A)	37.00%
Form 1120 Compensation of Officers	47.58%
Form 1120 Auto & Truck Expenses	55.47%
Form 1120 Other Deductions	60.38%
Form 1120 Depreciation	65.14%
Form 1120 Other Expenses	67.39%
Form 1120 Net Operating Loss Deduction	86.57%
Form 1120S Cost of Labor	29.69%
Form 1120S Other Costs	38.85%
Form 1120S Insurance Expense	44.74%

Form 1120S Purchases	47.06%
Form 1120S Gross Receipts or Sales	47.48%
Form 1120S Compensation of Officers	50.87%
Form 1120S Total Property Distributions	53.41%
Form 1120S Automobile Expense	64.29%
Form 1120S Other Expenses	70.86%
Form 1120S Depreciation	73.01%

**Other:**

Related Returns: Determine whether the related return warrants examination from a classification perspective. For example, trace transactions between the related taxpayers, complete a financial status analysis based on the return and internal sources of information and review the return for other potential issues. See IRM Section 4.10.5.4.

Net Operating Loss Deduction: The following techniques are not intended to be all-inclusive nor are they mandatory steps to be followed. Judgment should be used in selecting the techniques that apply to each taxpayer.

1. Review or prepare a schedule of the net operating loss deductions and how they were carried back or over.
2. Determine if a timely irrevocable election under IRC § 172(b)(3) to relinquish the entire carryback period was made. IRC § 172(b)(1)(A) generally allows an NOL to be carried back 2 years and carried forward 20 years for tax years beginning after August 5, 1997. For tax years beginning on or before August 5, 1997, carrybacks were generally allowed three years back and fifteen years forward. A five-year carryback period was allowed for NOL's arising in a tax year ending during 2001 or 2002. The election has to be made on a timely filed return, including extension. In addition, in the instruction to the Form 1139, the IRS has stated that the election to forego the carryback can be made on an amended return filed within 6 months of the due date (including extensions) of the loss year. Special rules may apply to farming losses.
3. Determine if the NOL was properly carried back. It must be carried back first to any preceding years prior to any carryforward.
4. Determine the correct NOLD in the year under examination. Generally, this does not require the NOL year(s) to be put under examination though you are allowed to review any NOL year or carryover year in order to determine the correct NOLD in the year under examination. If the carryover NOLD includes nondeductible penalties (determined by examining the transcript for transaction codes - 160s, 170s or 180s), reduce the carryover by the penalty amounts.
5. When making current year adjustments, evaluate whether the issue existed in a prior year, it may result in reduction in the current NOLD carryforward.
6. Determine if the NOLD applied in consolidated returns and carried over from acquired entities meets the limitations of IRC sections 381 and 382 and the SRLY rules found in the regulations under IRC section 1502.

7. Compare computations for the regular NOL and the alternative minimum tax.
8. Flag the return with NOL carrybacks to indicate that restricted interest is involved.
9. Determine if the contribution deduction was treated properly. There is no contribution deduction allowable in the NOL year or any carryforward year where taxable income is completely eliminated. Note: There are not changes for carryback years for contributions. IR.C § 172(d)(5).

## Appendixes

### ***Appendix 1 Federal Tax Law and Guidance***

<b>Appendix 1 Federal Tax Law and Guidance</b>		
<b>DATE</b>	<b>TYPE</b>	<b>HIGHLIGHTS</b>
00/00/0000	IRC Section 263	Capital expenditures.
00/00/0000	IRC Section 263A	Capitalization and inclusion in inventory costs of certain expenses.
00/00/0000	IRC Section 446	General rule for methods of accounting.
00/00/0000	IRC Section 460	Special rules for long-term contracts.
00/00/0000	IRC Section 461	General rule for taxable year of deduction.
00/00/0000	IRC Section 461(h)	Certain liabilities not incurred before economic performance.
00/00/0000	IRC Section 1001	Determination of amount of and recognition of gain or loss.
00/00/0000	IRC Section 1237	Real property subdivided for sale.
00/00/0000	Treasury Regulation Section 1.451-3	Provides the rules for long-term contracts prior to March 1, 1986 or date of enactment of section 460. These regulations continue to apply to exempt long-term contracts entered into before January 1, 2001. Exempt contracts are defined under IRC Section 460(e).
01/01/1966	Rev. Rul. 66-247	The costs incurred by a taxpayer in the construction of a house for speculative sale (including the cost of the land) must be capitalized regardless of the taxpayer's overall method of accounting.
01/01/1969	Rev. Rul. 69-314	Accrual basis taxpayer is not required to include in income retainages receivable until the all-events test is met under the contract.
01/01/1969	Rev. Rul. 69-536	Real estate held for sale by a taxpayer cannot be inventoried in computing taxable income.
01/01/1970	Rev. Rul. 70-67	Construction vs. Services: An architect who draws the plans and supervises the work of construction cannot

**Appendix 1 Federal Tax Law and Guidance**

<b>DATE</b>	<b>TYPE</b>	<b>HIGHLIGHTS</b>
		report income from contracts extending over more than one year on the completed contract basis.
01/01/1974	Rev. Rul. 74-104	Evaluation expenditures incurred in connection with the acquisition of existing residential property for renovation and resale are capital expenditures that must be taken into account as part of the cost of acquiring the property. However, if such expenditures do not result in the acquisitions of property they are deductible as losses in the taxable year the corporation decides not to acquire the property.
01/01/1980	Rev. Rul. 80-18	Construction vs. Services: A contract to provide engineering services does not qualify as a long-term contract because it does not require taxpayer to actually construct or build anything even though his services are functionally related to activities, which may be the subject of long-term contracts. Thus, such taxpayer is not entitled to use either the completed contract or percentage of completion method.
01/01/1981	Rev. Rul. 81-277	The payment by a contractor of money to a buyer in exchange for a release of the buyer's claim against the contractor for failure to fulfill the contract for construction of a plant constitutes a return of capital rather than gross income to the buyer. The cost basis of the plant is adjusted downward to reflect the payment.
01/01/1982	Rev. Rul. 82-134	Construction vs. Services: A taxpayer, who by contract furnishes engineering services and construction management to clients, is not entitled to use the completed contract method of accounting. Taxpayer primarily performs services and construction supervision and is not required to actually construct anything.
01/01/1984	Rev. Rul. 84-32	Construction vs. Services: A painting contractor who paints industrial and commercial buildings, highways and railroad bridges, and industrial plants is not entitled to use the completed contract method of accounting. Taxpayer's contract is not a long-term contract because it does not require him to construct, build, or install anything.
12/29/1986	Rev. Rul. 86-149	Construction costs of completed homes and costs of construction in progress are capital expenditures under IRC Section 263. Taxpayers cannot inventory such costs under the LIFO inventory method.
02/27/1989	Rev. Rul. 89-25	Houses that a homebuilder used for models and/or sales offices were not subject to an allowance for depreciation.
04/13/1992	Rev. Rul. 92-28	IRC Section 460(e)(1) permits a taxpayer to use different

**Appendix 1 Federal Tax Law and Guidance**

<b>DATE</b>	<b>TYPE</b>	<b>HIGHLIGHTS</b>
		methods of accounting for exempt and nonexempt contracts within the same trade or business.
10/25/1993	Rev. Rul. 93-70	An escrow agent that performs an oversight function with respect to a construction project and makes payments on behalf of the owner and general contractor is required to file information returns (Form 1099) for payments of reportable income.
10/19/1987	Rev. Proc. 87-56	This revenue procedure specifies class lives and recovery periods for property subject to depreciation under the general depreciation system provided in IRC Section 168. This Revenue Procedure lists depreciable assets used within the construction industry in Asset Class 15, Table 2, with a MACRS life of 5 years.
04/27/1992	Rev. Proc. 92-29	Provides procedure for a real estate developer to obtain the Commissioner's consent to use an alternative method (other than under IRC Section 461(h)) for determining when common improvement costs may be included in the basis of properties sold for purposes of determining gain or loss resulting from the sales.
06/05/1995	Rev. Proc. 95-27	Provides safe harbor for certain structural modifications to a building that will not be treated as a demolition under IRC Section 280B.
01/08/2001	Rev. Proc. 2001-10	Qualifying taxpayers with average annual gross receipts of \$1 million or less are excepted from an accrual method of accounting under IRC Section 446 and accounting for inventories under IRC Section 471.
05/06/2002	Rev. Proc. 2002-28	This procedure provides an exception from using an accrual method of account and accounting for inventories to qualifying taxpayers in certain eligible businesses with average annual gross receipts of \$10 million or less.
05/06/2004	Rev. Proc. 2004-34	Provides procedures under which accrual basis taxpayers may defer the inclusion in income of payments received (or amounts due and payable) in on taxable year for services to be performed in a subsequent year. This Revenue Procedure supersedes Revenue Procedure 71-21
09/26/1983	W.C. & A.N. Miller Development Company v. Commissioner, 81 T.C. 619 (1983)	Taxpayer improperly changed to a LIFO method of accounting for its home construction costs. The individual homes, which the taxpayer sold, were real estate and did not constitute "merchandise" within the meaning of Treasury Regulation Section 1.471-1.
07/28/1986	Homes by Ayres v.	The taxpayer was not allowed to use the LIFO method of

## Appendix 1 Federal Tax Law and Guidance

DATE	TYPE	HIGHLIGHTS
	Commissioner, 795 F.2d 832 (9th Cir. 1986), aff'g, T.C. Memo. 1984-475	accounting for its completed homes and homes under construction because real property is not considered "merchandise. Tract home developers, as a matter of law, cannot maintain inventories for tax purposes.
02/24/1993	Tollis v. Commissioner, T.C. Memo. 1993-63, aff'd, 46 F.3d 1132 (6th Cir. 1995)	Ordinary income vs. capital gain from the sale of real property. Taxpayers were in the trade or business of selling real estate and, therefore, they realized ordinary income, not capital gain, from their sales of parcels.
06/23/1994	Carpenter v. Commissioner, T. C. Memo. 1994-289	Taxpayer is not entitled to use the cash method of accounting for expenses related to construction of houses that were unsold at the end of the taxable year, but instead must capitalize the costs of construction of such unsold houses.
06/27/1994	Walsh v. Commissioner, T.C. Memo. 1994-293, aff'd in unpublished opinion, 76 AFT 2d 95-5771.	Ordinary income vs. capital gain from the sale of real property. Court held that the taxpayer was in the trade or business of selling real estate and that income from the sale of such property was thus ordinary.
08/08/1994	Hustead v. Commissioner, T.C. Memo. 1994-374, aff'd without opinion, 61 F.3d 895 (3d Cir. 1995)	Expenditures (legal expenses related to challenge of zoning variance) incurred in connection with land development must be capitalized per IRC Section 263A.
02/02/1995	Von-Lusk v. Commissioner, 104 T.C. 207 (1995)	Preliminary land development costs (obtaining building permits and variances, negotiating permit fees, property taxes etc.) were nondeductible capital expenditures per IRC Section 263A.
09/16/1997	Pierce v. Commissioner, T.C. Memo. 1997-411	A taxpayer engaged in buying and developing land for sale to residential builders is not entitled to use the lower of cost or market method, an inventory method, because real property may not be inventoried.
02/09/1998	Foothill Ranch Company Partnership v. Commissioner, 110 T.C. 94 (1998)	Sales Contract vs. Construction Contract: The construction of the buildings or improvements to the real property did not have to be the primary subject matter of the contract in order for a taxpayer to use the percentage of completion method. It only had to be necessary for the taxpayer to fulfill its contractual obligations.
01/07/1999	Reichel v. Commissioner, 112 T.C. 14 (1999)	Real estate taxes paid by a real estate developer were required to be capitalized per IRC Section 263A, even though no positive steps to begin developing the parcels had occurred, because the taxpayer acquired the parcels with the intent to develop them.

## Appendix 1 Federal Tax Law and Guidance

DATE	TYPE	HIGHLIGHTS
08/30/1999	Olstein v. Commissioner, T.C. Memo. 1999-290	Lots purchased from a predecessor were capital assets because the property was not held for sale to customers in the ordinary course of the taxpayer's trade or business. Sale of these lots thus resulted in capital gain.
10/07/1999	Hancock v. Commissioner, T.C. Memo. 1999-336	Ordinary income vs. capital gain from the sale of real property. The eight lots sold by the taxpayer in liquidation of her real estate development business were in the ordinary course of her trade or business and thus the tax losses from the sales were ordinary losses.
07/17/2000	Tutor-Saliba Corporation v. Commissioner, 115 T.C. 1 (2000)	Disputed claims are part of contract price for percentage of completion method of accounting as soon as it is reasonably estimated that the claims would be received, not when the all-events test is met.
03/14/2001	Hutchinson v. Commissioner, 116 T.C. 172 (2001)	Pursuant to Rev. Proc. 92-29 (alternative cost method), the taxpayer could allocate estimated clubhouse construction costs to bases in the lots sold. Under the general economic performance rule, however, taxpayer could not include estimated future-period interest expense in the bases of the lots because neither law nor contract required taxpayer to obtain interest-bearing debt for such common improvements.
04/17/2001	Raymond v. Commissioner, T.C. Memo. 2001-96	Taxpayer was denied the use of the installment method of accounting on homes the taxpayer built and sold in exchange for promissory notes because such sales were considered dealer dispositions.
07/10/2008	Koch Industries v. US, 102 AFTR 2d2008-5219 (DC Kan 2008)	The taxpayer was permitted the use of PCM for the "Pavement and Structures Warranties". The court found them to be construction contracts subject to Section 460.
DATE	TYPE	HIGHLIGHTS
00/00/0000	IRC Section 263	Capital expenditures.
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00/00/0000	IRC Section 461	General rule for taxable year of deduction.
00/00/0000	IRC Section 461(h)	Certain liabilities not incurred before economic performance.
00/00/0000	IRC Section 1001	Determination of amount of and recognition of gain or loss.

<b>DATE</b>	<b>TYPE</b>	<b>HIGHLIGHTS</b>
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01/01/1970	Rev. Rul. 70-67	Construction vs. Services: An architect who draws the plans and supervises the work of construction cannot report income from contracts extending over more than one year on the completed contract basis.
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01/01/1980	Rev. Rul. 80-18	Construction vs. Services: A contract to provide engineering services does not qualify as a long-term contract because it does not require taxpayer to actually construct or build anything even though his services are functionally related to activities, which may be the subject of long-term contracts. Thus, such taxpayer is not entitled to use either the completed contract or percentage of completion method.
01/01/1981	Rev. Rul. 81-277	The payment by a contractor of money to a buyer in exchange for a release of the buyer's claim against the contractor for failure to fulfill the contract for construction of a plant constitutes a return of capital rather than gross income to the buyer. The cost basis of the plant is adjusted downward to reflect the payment.
01/01/1982	Rev. Rul. 82-134	Construction vs. Services: A taxpayer, who by contract furnishes engineering services and construction management to clients, is not entitled to use the completed contract method of accounting. Taxpayer

<b>DATE</b>	<b>TYPE</b>	<b>HIGHLIGHTS</b>
		primarily performs services and construction supervision and is not required to actually construct anything.
01/01/1984	Rev. Rul. 84-32	Construction vs. Services: A painting contractor who paints industrial and commercial buildings, highways and railroad bridges, and industrial plants is not entitled to use the completed contract method of accounting. Taxpayer's contract is not a long-term contract because it does not require him to construct, build, or install anything.
12/29/1986	Rev. Rul. 86-149	Construction costs of completed homes and costs of construction in progress are capital expenditures under IRC Section 263. Taxpayers cannot inventory such costs under the LIFO inventory method.
02/27/1989	Rev. Rul. 89-25	Houses that a homebuilder used for models and/or sales offices were not subject to an allowance for depreciation.
04/13/1992	Rev. Rul. 92-28	IRC Section 460(e)(1) permits a taxpayer to use different methods of accounting for exempt and nonexempt contracts within the same trade or business.
10/25/1993	Rev. Rul. 93-70	An escrow agent that performs an oversight function with respect to a construction project and makes payments on behalf of the owner and general contractor is required to file information returns (Form 1099) for payments of reportable income.
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05/06/2002	Rev. Proc. 2002-28	This procedure provides an exception from using an accrual method of account and accounting for inventories to qualifying taxpayers in certain eligible

DATE	TYPE	HIGHLIGHTS
		businesses with average annual gross receipts of \$10 million or less.
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01/07/1999	Reichel v. Commissioner, 112 T.C. 14 (1999)	Real estate taxes paid by a real estate developer were required to be capitalized per IRC Section 263A, even though no positive steps to begin developing the parcels had occurred, because the taxpayer acquired the parcels with the intent to develop them.
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07/10/2008	Koch Industries v. US, 102 AFTR 2d2008-5219 (DC Kan 2008)	The taxpayer was permitted the use of PCM for the "Pavement and Structures Warranties". The court found them to be construction contracts subject to Section 460.

## ***Appendix 2 Tax Accounting Methods***

### **Appendix 2 Tax Accounting Methods**

<b>Type</b>	<b>Available Accounting Methods for Long-Term Construction Contractors Required to Use Percentage of Completion Method under IRC Section 460</b>
Percentage of Completion Method (PCM)	<p>IRC Section 460(b)(1)(A) and Treasury Regulation Section 1.460-4(b) generally require that the PCM be computed utilizing the “cost-to-cost” method which is: (Total cumulative allocable contract costs incurred to end of taxable year / Total estimated allocable contract costs) x Contract price = Cumulative gross receipts - cumulative gross receipts from immediately preceding taxable year = Current-year gross receipts - Allocable contract costs incurred during current year = taxable income to be reported during the taxable year. Upon contract completion, IRC Section 460(b)(1)(B) requires interest computed under the “look-back” method.</p>
Simplified Cost-to-Cost Method	<p>IRC Section 460(b)(3)(A) and Treasury Regulation Section 1.460-5(c) provide an elective simplified procedure for determining the contract completion factor for taxpayers using PCM. Only three costs are used in determining the percentage of completion:</p> <ol style="list-style-type: none"> <li>1. Direct material costs</li> <li>2. Direct labor costs</li> <li>3. Depreciation, amortization, and cost recovery allowances on equipment and facilities directly used to construct or produce the subject matter of the long-term contract</li> </ol>
Percentage of Completion - 10% Method	<p>IRC Section 460(b)(5) - The taxpayer may elect to defer recognition of revenue under PCM until 10% of the estimated total contract costs are incurred and allocated. This election is unavailable if the taxpayer elected the simplified method mentioned above.</p>
Percentage of Completion - Capitalized Cost Method (PCCM)	<p>A taxpayer may determine the income from a long-term construction contract that is a residential construction contract using either the PCM or the PCCM. Under the PCCM, this taxpayer must report 70% of the contract under PCM (as required by IRC Section 460) and the remaining 30% under a permissible exempt method (e.g., Completed Contract, exempt PCM, etc). See Treasury Regulation Section 1.460-4 (e). A residential construction long-term contract differs from a home construction contract in that a home construction contract involves buildings with four or fewer dwelling units, whereas a residential construction long-term contract involves buildings with more than four dwelling units. Definitions are found in IRC Section 460 (e).</p>
Cash Method	<p>The general rule requires the taxpayer to report income when received and deduct expenses when paid. This method is available for taxpayers that are not prohibited by IRC Section 448 from using this method and meet the requirements of Revenue Procedure 2001-10 or 2002-28. Revenue Procedure 2001-10 permits eligible small taxpayers (with average annual gross receipts equal to or less than \$1 million) to use the cash method when an accrual method would normally be required by IRC Section 471 due to inventory. Revenue Procedure 2002-28 extends the use of the cash method to certain qualifying taxpayers who are not prohibited by IRC Section 448 from using the cash method and who have average annual gross receipts of \$10 million or less.</p>

## Appendix 2 Tax Accounting Methods

Type	Available Accounting Methods for Long-Term Construction Contactors Required to Use Percentage of Completion Method under IRC Section 460
Accrual Method	The general rule is that income is reported when due, earned, or received, whichever comes first. Under an accrual method of accounting, expenses are deductible when all events have occurred that establish the fact of the liability, the amount can be determined with reasonable accuracy, and not earlier than when economic performance has occurred. An accrual method taxpayer may, however, elect the provisions of Revenue Procedure 2004-34, which defer the inclusion in income of payments received in one taxable year for services to be performed in a succeeding taxable year. This election is available only for advance payments received for services.
Accrual with Deferred Retainages Method	Revenue Ruling 69-314 allowed an accrual-basis taxpayer to elect to defer the inclusion in income of retainages withheld by the customer until final acceptance by the customer occurred as specified in the contract.
Completed Contract Method (CCM)	The general rule is that all income and expenses (both direct and indirect) related to a contract are deferred until the job is complete. Because of this deferral, this method is generally the one preferred by taxpayers who are exempt from using the PCM.
Exempt-Contract Percentage-of-Completion Method (EPCM)	A taxpayer who is exempt from the requirement to use the PCM under IRC Section 460 (using the cost-to-cost method) still may elect a similar PCM. The taxpayer must include in income the portion of the total contract price that corresponds to the percentage of the entire contract completed during the taxable year. However, the completion may be determined by using any method of cost comparisons, such as direct labor costs incurred to date to estimated total labor costs, or by comparing work performed with estimated total work to be performed (e.g., units of production). See Treasury Regulation Section 1.460-4(c)(2).

## Appendix 3 Construction Industry Resources

Appendix 3 Construction Industry Resources		
Name	Source	Description
Associated Builders and Contractors (ABC)	<a href="http://www.abc.org/">http://www.abc.org/</a>	A national trade association representing About 23,000 contractors, subcontractors, and material suppliers. This website also provides license requirements by state.
Associated General Contractors (AGC)	<a href="http://www.agc.org/">http://www.agc.org/</a>	The largest and oldest construction trade association.
American Institute of	<a href="http://www.aicpa.org/">http://www.aicpa.org/</a>	The AICPA is the national professional organization for all Certified Public

<b>Appendix 3 Construction Industry Resources</b>		
<b>Name</b>	<b>Source</b>	<b>Description</b>
Certified Public Accountants (AICPA)		Accountants. It provides members with the resources, information, and leadership to enable them to provide services in the highest professional manner to benefit the public, employers, and clients.
American Institute of Architects (AIA)	<a href="http://www.aia.org/">http://www.aia.org/</a>	The AIA is the voice of the architecture profession dedicated to serving its members; advancing their value; and improving the quality of the building environment. The AIA documents are standard forms in the building industry.
American Institute of Constructors (AIC)	<a href="http://www.aicnet.org/">http://www.aicnet.org/</a>	AIC is an organization established to help individual construction practitioners achieve the professional status they deserve..
American Subcontractors Association (ASA)	<a href="http://www.asaonline.com/">http://www.asaonline.com/</a>	ASA is comprised of professional constructors, suppliers, and service providers representing the construction industry through advocacy, leadership, education and networking.
Blue Book of Building and Construction	<a href="http://thebluebook.com/">http://thebluebook.com/</a>	Provides a listing of over 1,000,000 general contractors, subcontractors, architects, engineers by regional area.
Builder Online	<a href="http://www.builderonline.com/">http://www.builderonline.com/</a>	Comprehensive building information with numerous links.
Building Online	<a href="http://www.buildingonline.com/">http://www.buildingonline.com/</a>	Search over 100,000 building related sites. Links to builders, retailers, news, trade shows, contractor directories, home improvement tips, accounting and estimating software.
Construction Financial Management Association (CFMA)	<a href="http://www.cfma.org/">http://www.cfma.org/</a>	CFMA is a source of education and information on financial management to the construction industry. Over 7,000 members.
Construction Industry CPA Consultants (CICPAC)	<a href="http://www.cicpac.com/">http://www.cicpac.com/</a>	CICPAC is a national, not-for-profit association for CPA firms providing financial and consulting services to the construction industry.
Construction Management Association of	<a href="http://cmaanet.org/">http://cmaanet.org/</a>	CMAA supports construction managers to enhance their performance and improving their business results. CMAA

<b>Appendix 3 Construction Industry Resources</b>		
<b>Name</b>	<b>Source</b>	<b>Description</b>
America (CMAA)		also provides information about the construction management practice.
Design Build Institute of America (DBIA)	<a href="http://www.dbia.org/">http://www.dbia.org/</a>	To promote the use of design-build project delivery. DBIA sponsors educational programs, publishes a Manual of Practice and Design-Build Contract Documents, public outreach and private facility owners.
Mechanical Contractors of America Association (MCAA)	<a href="http://www.mcaa.org/">http://www.mcaa.org/</a>	MCAA is an association of more than 2,200 mechanical, plumbing, and service contractors.
National Association of Homebuilders (NAHB)	<a href="http://www.nahb.org/">http://www.nahb.org/</a>	The NAHB is a federation of more than 800 state and local builder associations throughout the US. The mission of this association is to enhance the climate for housing and the building industry, and to promote policies that will keep housing a national priority.
Plumbing, Heating, Cooling Contractors Association (PHCC)	<a href="http://www.phccweb.org/">http://www.phccweb.org/</a>	PHCC is a nationwide organization with approximately 3,700 members. This association is the advocate for the plumbing, heating, and cooling contractors.
Secretary of State		Search Secretary of State websites for any state to find information on companies address, related companies and registering agent.
Securities Exchange Commission (SEC)	<a href="http://www.sec.gov/">http://www.sec.gov/</a>	Provides extensive information on publicly traded companies, including the 10-K, 10-Q filings
Taxpayer Website	Google Search	Search construction company's website for annual reports, officers, headquarters, and subsidiaries.
Constructor	Monthly	Magazine published by the Associated General Contractors of America (AGC). The magazine can be downloaded, free of charge at <a href="http://www.agc.org/">http://www.agc.org/</a>
Builder	Monthly	Magazine published by the NAHB. Website is at <a href="http://www.nahb.org/">http://www.nahb.org/</a>

### Appendix 3 Construction Industry Resources

Name	Source	Description
Building Design & Construction	Monthly	Focuses on design and construction of nonresidential buildings for architects, engineers, and construction managers. Articles can be downloaded free of charge from their website: <a href="http://www.bdcmag.com/">http://www.bdcmag.com/</a>
CFMA Building Profits	Bi-monthly	Magazine published by the Construction Financial Management Association (CFMA) The website is at <a href="http://www.cfma.org/">http://www.cfma.org/</a>
Journal of Construction Accounting and Taxation	Bi-monthly	Articles on financial and tax accounting published by RIA (Research Institute of America). RIA is a business unit of The Thomson Corporation which was formed with the merger of RIA, Computer Language Research (CLR), and Warren, Gorham, & Lamont G&L. <a href="http://riahome.com/">http://riahome.com/</a>
Engineering News Record (ENR)	Weekly	Magazine published by McGraw Hill Construction. Ranking of contractors by type and gross income. plus articles on companies and projects. <a href="http://www.enr.com/">http://www.enr.com/</a>
Updated annually	PPC (Practitioners Publishing Company) Guide to Construction Contractors	Three-volume guide that discusses the industry in detail. The guide covers both financial and tax aspects.
Updated annually	PPC (Practitioners Publishing Company) Guide to Real Estate	Three-volume guide that discusses the development of real estate in detail. The guide covers both financial and tax aspects.
Updated annually	WG&L (Warren, Gorham & Lamont) Construction Controller' Manual	Provides insight to the complex accounting, tax, insurance, legal, and financial issues of the construction sector.
Updated annually	Robert Morris Associates (RMA) Annual Statement Studies	Provides comparative financial data for all types of businesses organized by SIC/NAICS codes.
Updated annually	CFMA Construction Industry Annual Financial Survey	The survey contains financial data organized by type of construction, dollar volume, and geographic region
Updated annually	CCH Construction Guide Tax and Advisory Services	Provides in-depth tax rules pertaining to the construction contractors in an "easy-to-read" format.

<b>Appendix 3 Construction Industry Resources</b>		
<b>Name</b>	<b>Source</b>	<b>Description</b>
Regularly Updated - not necessarily annual	AICPA Construction Contractors	AICPA Audit and Accounting Guide
Updated Annually	AICPA Audit Risk Alert on the Construction Industry	No authoritative practice aids designed to be used as engagement planning tools. The alerts are resources for checking vital audit considerations that might otherwise be overlooked
June 1953	ARB (Accounting Research Bulletin) No. 43 Government Contracts	Chapter 11 prescribes generally accepted accounting principles in three areas of accounting for government contracts. Section A deals with accounting under cost-plus-fixed-fee contracts. Section B deals with aspects of government contracts and subcontracts that are subject to renegotiation. Section C involves accounting for terminated war and defense contracts
October 1955	ARB No. 45 Long- Term Construction Type Contracts	Describes the two generally accepted methods of accounting for long-term construction-type contracts: percentage-of-completion method and the completed-contract method.
July 15, 1981	SOP (Statement of Position) 81-1 Accounting for Performance of Construction-Type and Certain Production-Type Contracts	Provides additional guidance on the application of the generally accepted accounting principles set forth in ARB No. 43 & 45. SOP 81-1 establishes a strong preference for the percentage-of-completion method

## **Appendix 4**

### **Part A: Cost Allocation Decision Making Process**

**Step 1:** Is there a contract?

- A. No. IRC Sections 263(a) and 263A - Land Developers and Speculative Homebuilders apply.
- B. Yes. Go to **Step 2**.

**Step 2:** Is the Taxpayer Exempt from IRC Section 460?

- A. If the taxpayer is a Home Contractor the taxpayer is exempt from IRC Section 460. Go to **Step 3**.
- B. If the taxpayer's contracts are for less than 2 years and the taxpayer has gross receipts less than \$10 million, the taxpayer is a Small Contractor, and the taxpayer is exempt from IRC Section 460. Go to **Step 3**.
- C. If the taxpayer is not a Home Contractor, or a Small Contractor, the taxpayer is not exempt from IRC Section 460. IRC Section 460(c) Treasury Regulation Section 1.460.5(b) May Elect Simplified Cost-to-Cost Method IRC Section 460(b)(3)(A) Treasury Regulation Section 1.460.5(c) applies.

**Step 3: Is the Taxpayer a Large Homebuilder?**

- A. If contracts are for more than 2 years and the taxpayer has gross receipts of more than \$10 million the taxpayer is a Large Homebuilder. Section 263A - Large Homebuilder applies.
- B. If contracts are for not more than 2 years and the taxpayer has gross receipts of not more than \$10 million the taxpayer is not a Large Homebuilder. Small Contractors and Small Homebuilders accounting method elections are either Treasury Regulation Section 1.460-5(d) for Completed Contract Method, or Treasury Regulation Section 1.460-5(b) for Percentage of Completion Method.

<b>Part B Production Period Interest is Allocable Under All of the Above Under IRC Sections 460(c)(3) and 263A(f) Cost Allocation by Type of Cost by Accounting Method</b>					
<b>Item</b>	<b>Type of Cost</b>	<b>PCM <sup>1</sup></b>	<b>SCM <sup>2</sup></b>	<b>CCM <sup>3</sup></b>	<b>UCC <sup>4</sup></b>
1	Direct Materials	Yes	Yes	Yes	Yes
2	Direct Labor	Yes	Yes	Yes	Yes
3	Repairs	Yes	No	Yes	Yes
4	Maintenance	Yes	No	Yes	Yes
5	Utilities	Yes	No	Yes	Yes
6	Rent	Yes	No	Yes	Yes
7	Certain Indirect Labor	Yes	No	Yes	Yes
8	Materials and Supplies	Yes	No	Yes	Yes
9	Small Tools and Equipment	Yes	No	Yes	Yes
10	QC & Inspection	Yes	No	Yes	Yes
11	Taxes (Other than Income Taxes)	Yes	No	Yes	Yes
12	Financial Statement Depreciation	No	No	Yes	No
13	Tax Return Depreciation	Yes	Yes	No	Yes
14	Cost Depletion	Yes	No	Yes	Yes
15	Percentage Depletion in Excess of Cost	Yes	No	No	Yes
16	Contract General And Administrative Expense	Yes	No	Yes	Yes

**Part B Production Period Interest is Allocable Under All of the Above Under IRC Sections 460(c)(3) and 263A(f) Cost Allocation by Type of Cost by Accounting Method**

Item	Type of Cost	PCM <sup>1</sup>	SCM <sup>2</sup>	CCM <sup>3</sup>	UCC <sup>4</sup>
17	Non-Contract G&A Expense	Yes	No	No	Yes
18	Administrative Support Departments	Yes	No	No	Yes
19	Contract Related Officer Salaries	Yes	No	Yes	Yes
20	Non-Contract Related Officer Salaries	Yes	No	No	Yes
21	Insurance (Including Bonds)	Yes	No	Yes	Yes
22	Pension, Profit Sharing. Except for Past Service Costs	Yes	No	No	Yes
23	Past Service Costs	Yes	No	No	Yes
24	Direct Research and Development	Yes	No	No	Yes
25	Rework, Scrap, and Spoilage	Yes	No	No	Yes
26	Successful Bidding Expense	Yes	No	No	Yes
27	Engineering and Design	Yes	No	No	Yes
28	Transportation Costs	Yes	No	Yes	Yes
29	Storage, Handling, Purchasing and Related Costs	Yes	No	No	Yes
30	Production Period Interest	Yes	No	Yes	Yes
31	Additional Costs under Cost Plus or Governmental Contracts	Yes	No	No	Yes
32	Marketing, Selling, Advertising, and Distribution	No	No	No	No
33	R & D Not Related to Contracts	No	No	No	No
34	Losses, Obsolescence, Decline in Value	No	No	No	No
35	Income Taxes	No	No	No	No
36	Costs Attributable to Strikes	No	No	No	No
37	Repairs Not Associated with Production Equipment	Yes	Yes	Yes	Yes

**Notes**

<sup>1</sup> Required by IRC Sections 460 and 460(c) and Treasury Regulation Section 1.460-5(b)

<sup>2</sup> Allowed by IRC Sections 460(b)(3)(A) and Treasury Regulation Section 1.460-5(c)

<sup>3</sup> Allowed by Treasury Regulation Section 1.460-5(d)

<sup>4</sup> IRC Sections 263A (Large Homebuilders, Specification Homes, and Land Developers)

## ***Appendix 5 Definitions and Terminology***

<b>Appendix 5 Definitions and Terminology</b>	
<b>Term</b>	<b>Definition</b>
Advance Payments	Payments generally made to a prime contractor prior to the performance of any work under a contract. These payments help the contractor cover developmental and preliminary costs incurred prior to commencement of work.
Advances on Contracts	A current liability on the books of contractors where billings on contracts exceed accumulated costs.
Aggregating	The process of treating two or more agreements as one contract for the purpose of clearly reflecting income.
Assemblage	Acquisition of contiguous properties by one owner for a specific purpose, such as the development of a housing tract.
Award	Notification given to a bidder informing him or her that his or her bid was accepted.
Back Charges	Billings between parties, such as from owners to general contractors or general contractors to subcontractors, covering expenses, which, according to the contract, should have been incurred by the party to whom billed.
Backfill	Soil or other materials used to fill an excavation.
Backlog	The accumulation of unfinished jobs of a contractor, including those not started, measured by the amount of revenue expected to be received from them.
Betterment	Improvement to real property, such as the addition of a sidewalk that increases the property's value. It's not a repair, restoration, or enlargement.
Bid	A formal offer from a contractor, which specifies the price to be charged for completing, work in accordance with project specifications and contract requirements.
Bid Bond	A bond issued on behalf of a contractor that provides for the payment of the difference between the contractor's bid and the next lowest bid if the contractor's bid is accepted and the contractor fails to enter into a contract or furnish such bonds as required by the contract.
Bid Rigging	Any collusive action by contractors that restricts the competitive bidding process by manipulating the bids submitted on a project or projects (such as, inflating bid proposals or predetermining the lowest bidder).
Bonding Capacity	The total dollar amount of the construction bonds (or maximum value of incomplete work) that a surety company will underwrite for a contractor.
Bonus	A premium paid to the contractor in excess of the basic contract price as a reward for meeting various goals stated in the contract; for example, completing the project prior to the contract completion date. The provisions for bonuses are stipulated in the bonus clause of the contract and are in contrast to the penalty clause.

## Appendix 5 Definitions and Terminology

Term	Definition
Bridge Loan	Short-term loan to cover the period between the termination of one loan and the beginning of another loan; for example, the period between the construction loan and the permanent loan.
Broker	A party that acts as the general contractor for a project but subcontracts all of the construction work required under the contract.
Building Permit	Permission granted by the local government to construct a building or to make property improvements.
Build to Suit	Method of leasing whereby the lessor agrees to make tenant improvements to the lessee's specifications in return for the lessee's long-term commitment to lease the space.
Buy-Down	Technique used to facilitate the sale of property. The buyer is offered a below-market interest rate on a mortgage loan for an initial number of years. The developer or other seller pays the lender the difference between the below-market rate and the market rate during the buy-down period, after which the borrower pays the full interest cost.
Certificate of Occupancy	Written authorization issued by a local government stating that the structure is ready and fit for occupancy.
Certificate for Payment	Statements prepared by an architect to inform the owner of the amount due a contractor as a result of work completed on a project.
Change Order	A modification of the provisions of a contract, such as a change in specifications or manner of performance that may be initiated by either the owner or the contractor.
Claims	Amounts in excess of the original contract price that the contractor seeks to collect from the owner or others due to unanticipated circumstances; for example, owner-caused delays, errors in specifications, contract terminations, and disputed change orders.
Class A Office Building	Relatively new office building in a prime location, with a high occupancy rate and highly competitive rental rates.
Class B Office Building	Older office building that has been fully renovated to modern standards that is in a prime location with a high occupancy rate and competitive rental rates or newer building that is not in a prime location.
Closing Statement	A settlement statement. Detailed cash accounting of a real estate transaction prepared by an escrow officer, broker, or attorney.
Cluster Development	Subdivision development in which detached houses are built close together. It results in allowing little individual yard space.
Commercial Real Estate	Income-producing property, such as shopping centers, offices, hotels, or apartments.
Commitment	A promise to perform a certain act such as making a loan.

## Appendix 5 Definitions and Terminology

Term	Definition
Commitment Fee	Fee paid for a written promise to make or insure a loan for a predetermined amount and on specified terms.
Completed Contract Method	One of the two generally accepted methods of accounting for long-term contracts under which all contract income and all contract costs are deferred until the year in which the contract is finally completed and accepted.
Completion Bond	A bond, generally given to the owner and the lender, guaranteeing completion of a project and the provision of funds to complete it.
Construction Contract	Any contract for the building, construction or erection of or the installation of any integral component of, or improvements, to real property. A construction contract generally specifies the work to be performed and the terms of payment.
Construction Contractor	A person or entity that enters into an agreement to build, construct, or install improvements to real property according to the owner's specifications.
Construction in Progress	A current asset of contractors where accumulated costs exceed billings on a contract.
Construction Loan	Mortgage loan used to finance real estate construction. It may include funds for acquiring land for the construction project and the permanent financing of the completed project.
Construction Management	The function of managing and coordinating the construction of a project including the negotiating of contracts with others to perform the construction work.
Contract Bond	A bond to indemnify the owner against the failure of a contractor to comply with the requirements of a contract.
Contract Cost Breakdown	A schedule showing the various elements and phases of work in a construction project and the cost of each.
Cost Plus Contract	A contract, which provides for reimbursement to the contractor of the costs incurred in completing the work plus some additional amount to compensate the contractor for profit, overhead, and performance. Different types of cost-plus contracts include cost-plus-fixed-fee, cost-plus award-fee, and cost-plus-incentive fee.
Cost Plus Award Fee Contract	A type of cost-plus contract in which the fee consists of a fixed-fee plus an amount which varies according to the level of performance of the contractor in areas such as cost savings and timeliness.
Cost Plus Fixed Fee Contract	A type of cost-plus contract in which the fee is usually a stipulated sum or a percentage of cost.
Cost Plus Incentive Fee Contract	A type of cost-plus contract in which the fee is based on either cost savings or performance. It varies according to the level the contractor achieves in meeting such cost or performance criteria.
Critical Path	A method of scheduling construction activities according to sequence and

## Appendix 5 Definitions and Terminology

Term	Definition
Method	interdependence. The sequence of activities that allows the project to be completed in the shortest time is called the critical path.
Delayed Billings	Billings from a contractor for which he or she was entitled to payment in previous billing periods.
Design Construction Contract	A single contract in which the contractor agrees to provide the design, procurement, and construction services necessary to complete a project.
Design Management Contract	A contract in which construction is performed by a number of independent contractors in a manner similar to the professional construction management concept.
Developer	A person or entity that prepares raw land for development. The developer may develop the land and then sell it to a builder, an investor, or another developer.
Development Agreement	Agreement under California law by which local governments and developers can defend their respective interests during the development period. Such agreements can protect developers against changes in public policies that can cause delay or abandonment of a development project even though the developer has spent substantial funds for development.
Development Loan	A loan for off-site improvements such as streets and utilities as opposed to a construction loan.
Direct Cost	Any labor, material, job overhead, or other cost that is directly attributable to a specific construction job.
Draw	The amount of progress payments that is currently available to a contractor under a contract with a fixed payment schedule.
Engineering Contract	A contract for engineering services only, as opposed to the actual construction of a project.
Escalation Clause	A provision in contracts providing for upward adjustments to be made in the contract price of certain items or elements of work when conditions affecting the cost change.
Estimates	These are estimated costs of a construction project. A project has three types of estimates during the evolution of the project. Conceptual estimates are generally made in the early phases of a project for the owner to consider whether the project is economically feasible. Detailed estimates are made after the design has been approved. These require a careful tabulation of all the quantities for a project or portion of a project (quantity takeoff or quantity survey). A definitive estimate is made after the initial approximate estimates become more defined and accurate as additional information is developed. Definitive estimates forecast the final project cost with little margin for error.
Factory Built Houses	Houses whose shells are factory-built and assembled at the building site to reduce construction costs.

## Appendix 5 Definitions and Terminology

Term	Definition
Fast Tracking	A system of scheduling the design and construction in such a manner that both phases progress simultaneously, with an appreciable reduction in the total time to complete the project.
Final Acceptance	The owner's acceptance of the project from the contractor upon certification by an architect or engineer that it has been completed according to contract requirements. Final acceptance usually precedes the date when the owner makes the final payment. The procedures to determine final acceptance will be specified in the contract.
Final Inspection	The final review or inspection of a project performed by an architect, engineer, or construction manager in order to certify that work has been completed according to the contract requirements, after which the final certificate for payment may be issued.
Financial Engineering	The providing of assistance by the contractor to the client in arranging for the long-term financing of the project. This is an emerging feature in some large contracts, which requires the contractor to submit a financial package with his or her bid.
Fixed Price Contract	Agreement in which the contractor agrees to perform the required work in return for a fixed price stipulated in the contract.
Front End Loading	A common strategy used by contractors under which higher relative values are assigned to work to be completed in the early stages of a contract than to the work to be completed in the later stages. The result is that progress billings during the early stages exceed the actual value of the work done causing the contractor's revenue from the project to be higher during the early stages. See Unbalanced Bid.
General Contractor	A contractor who contracts with an owner to be responsible for all of the construction work necessary to complete a project, even though subcontractors may be used to perform part of the work.
Guaranty Bond	A type of bond guaranteeing that the contractor will complete the work according to the contract and pay all obligations. It is also known as a surety bond. If the bond guarantees completion of the work it is a performance bond or completion bond. If it guarantees payment of obligations it is a payment bond.
Hard Dollar Costs	Cash outlays for land, labor, and improvements.
Historic Structure	Pre-1936 building that qualifies for special rehabilitation tax credits as a historic structure under the Tax Reform Act of 1986. See IRC section 47 (c)(1)(B).
Holdback	A contract item that can be delayed in finalization. See "Retainage".
Improvement Bond	Bond issued by public agency to finance the construction of improvements such as highways and streets.
Indirect Costs	Generally, overhead expenses of the contractor that is not directly attributable

## Appendix 5 Definitions and Terminology

Term	Definition
	to a particular construction project.
Invited Bid	A bid submitted by one of a selected group of contractors who have received an invitation to bid on a project, as opposed to bidding that is open to all qualified contractors.
Job Costs	Costs that can be allocated to specific jobs of a contractor such as material, labor and job overhead costs. See Overhead Costs.
Job Overhead Costs	Costs that can be allocated to specific jobs of a contractor such as material, labor, and job overhead costs. See Overhead Costs.
Joint Venture	A cooperative undertaking, by two or more parties (contractors), operated as a separate business entity for the purpose of combining resources and sharing risks on a construction project.
Kickbacks	Payments made without any legal obligation, usually to individuals in return for their influence in obtaining a contract.
Labor and Material Payment Bond	A type of guaranty bond, which guarantees the owner that all costs of labor, material, and supplies incurred by the contractor in connection with a project, will be paid.
Labor and Material Release	Document signed by laborers and material men waiving their rights under any mechanic's lien against the developer.
Letter of Credit	A document issued by a financial institution guaranteeing the payment of its client's debts up to a stated amount for a specific period.
Lien	Legal claim against specific property of the owner to secure payment of amounts due to material suppliers or contractors, who are engaged in the construction of a project.
Liquidated Damages	Amounts stipulated in the contract, usually as a fixed amount per day, that the contractor is obligated to pay the owner as compensation for damages suffered as a result of the contractor's failure to complete the work within a specified time.
Loan Commitment	See Commitment.
Loan Origination Fees	Lender's charge for services in originating a mortgage. Such fees typically are 1 to 2 percent of the amount of the loan.
Long Term Contract	A building, installation, construction, or manufacturing contract, which is not completed within the taxable year in which it is entered.
Lot Block	Records maintained by a title company of recorded transactions affecting a particular property.
Lump Sum Contract	See Fixed-Price Contract.
Maintenance	A bond guaranteeing the owner that, for a specified time following the

## Appendix 5 Definitions and Terminology

Term	Definition
Bond	completion of a project (warranty period), any defects in workmanship or materials will be rectified. A one-year maintenance bond is normally included in the performance bond.
Mechanic's Lien	A lien on real property in favor of persons supplying labor or materials for a building or structure, generally for the value of the labor or materials provided. A mechanic's lien also exists for professional services in some states. Clear title to the property cannot be obtained until the claim is settled.
Negotiated Bid	A bid proposal from a specific contractor (selected on the basis of reputation, past performance, quality of work, expertise, or other reasons) in which the terms and conditions are negotiated between the owner and contractor, as opposed to the competitive bidding process under which the lowest bid is sought from various qualified contractors.
Offsite Costs	Expenditures incurred for the improvement of raw land that are not related to the construction of the building such as, curbs, gutters, sidewalks, and streets.
Off Balance Sheet Financing	Financing that does not appear on the balance sheet such as, operating leases.
Onsite Costs	Expenditures incurred for the actual construction of a building.
Overhead Costs	May refer to either job overhead or operating overhead costs. Job overhead costs are direct costs of work, which can be allocated to a specific job, but they cannot be allocated to specific items of work within that job. Operating overhead costs are indirect costs of operating a construction business that cannot be allocated to specific jobs.
Owner	The customer of a contractor, architect, or engineer who generally owns the right to the land on which the project is being built.
Payment Bond	A bond guaranteeing payment of the contractor's obligations incurred in connection with a project. See Labor and Material Payment Bond.
Penalty Clause	In contrast to the bonus clause, this provision of the contract provides for a reduction of the amount payable under a contract if the contractor fails to meet specified targets or project specifications.
Percentage of Completion Method	One of the two generally accepted methods of accounting for long-term contracts in which the amount of gross income reportable in each year is that portion of the gross contract price which represents the percentage of the entire contract completed during the year.
Performance Bond	A guaranty bond executed by the contractor to protect the owner against the contractor's failure to perform according to the terms of the contract. It is usually combined with a labor and material payment bond.
Phased Construction	See Fast-Tracking.
Pre Qualification	The approval given a contractor under circumstances where an agency or

## Appendix 5 Definitions and Terminology

Term	Definition
	owner requires bidders to meet certain standards. This approval then authorizes the contractor to submit a bid on the project.
Prime Contractor	The general contractor or any major contractor who has a contract directly with the owner.
Profit Center	The unit, usually a single contract, used by a contractor to measure profit or loss for accounting purposes.
Progress Billings	Amounts billed by a contractor during the progress of work on a project. The amounts of the billings are determined in accordance with the terms of the contract, the amount of work completed, and the materials suitably stored. Change orders will affect the progress billings.
Progress Payments	Payments made in response to progress billings.
Progress Schedule	Usually a diagram or other pictorial prepared by the contractor and updated monthly, showing the proposed and actual starting and completion times of the various elements or phases of work included in a project.
Project Manager	An employee of the general contractor or contract manager who is responsible for all work performed on a project.
Punch List	A list prepared by the architect or owner near the completion of a project indicating items to be completed or corrected by the contractor.
Quantity Take Off	A detailed compilation of the quantity of each elementary work item that is called for on the project. These are used in making project cost estimates.
Retainage	Specified amount usually withheld from progress billings pending satisfactory completion and final acceptance of the project.
Severing	The process of treating one agreement as two or more contracts for the purpose of clearly reflecting income.
Specifications	A technical description along with working drawings of the materials, workmanship, special construction methods, and standards required under a contract.
Subcontract	A contract between a prime contractor and a separate contractor or supplier to perform a portion of the work or supply materials for which the prime contractor is responsible to the owner. A contractor who contracts with the general contractor or another prime contractor to perform a specific part of the work required on a project.
Subcontractor Bond	Performance and payment bonds executed by a subcontractor and given to the prime contractor to guarantee the subcontractor's performance and payment of obligations required under the subcontract.
Substantial Completion	The point reached in a project at which all major work has been completed. The remaining costs and potential risks of the contractor are insignificant.

<b>Appendix 5 Definitions and Terminology</b>	
<b>Term</b>	<b>Definition</b>
Surety	A person or organization, such as a bonding company who promises in writing to make good the debt or default of another in return for consideration.
Surety Bond	A legal instrument under which a surety (bonding company) agrees to answer to another party (the owner) for the debt, default, or failure of performance of a third party (the contractor).
Time and Materials Contract	A contract that generally provides for payments to the contractor based on the number of direct labor hours expended at fixed hourly rates plus the cost of materials. To cover indirect costs and profit, time (and sometimes material) is charged at marked-up rates.
Turnkey Job	A project on which the contractor is responsible to deliver a completed and operational facility.
Unbalanced Bid	A bid under which the contract price is disproportionately allocated to elements or phases of work on a basis other than that of cost plus overhead and profit. For example, front-end loading is the assigning of higher relative values to the work completed during the early phases of a project, or the assigning of higher profits to high quantity items under a unit-price contract.
Unit of Delivery Method	Under this method, revenue and cost of sales are recorded as units of work are delivered. This is most suitable to production-type contracts where many units of a product are produced in a continuous process (for example, aircraft).
Unit Price Contract	A type of construction contract, which divides the work (or project) into various elements and fixes a price per unit for each element. Thus, payments to the contractor are based on the number of units of work performed for each element. This type of contract is particularly suited to projects where the quantities of work may vary substantially.

## ***Appendix 6 Construction Industry Interview Questions***

These questions are intended to be a starting point for generic questions that would be applicable to the examination of a construction company. As with any examination, the questions should be tailored to the specific taxpayer under examination.

### **General:**

1. How many years have you been in the construction industry?
2. What type of construction do you perform?
  - Single Family Homes
  - Multi-family (condominiums)
  - Commercial Buildings
  - Highway
  - Other
3. Where do you perform construction jobs? (Geographically)
  - Local Area
  - Statewide

- Nationwide
  - International
4. What type of Customers do you enter contracts with?
    - Private
    - City
    - State
    - Federal
  5. How do you get customers?
    - Bid -Who makes the bids?
    - Negotiated?
    - What percent of jobs are bid vs. negotiated?
  6. What type of contracts do you enter into?
    - Fixed/lump sum contracts
    - Cost +Plus Fee
    - Time and material
    - Other
  7. What is average length of a job? (<1 yr., 1-2 yr., more than 2 years)
  8. What licenses do you hold? (i.e. general contractor, architect, etc.)
  9. Do you have bonding? If yes, who provides the bonding?
  10. Are you required to issue certified financial statements? Reviewed Financial Statements? How often?
  11. What method of accounting do you use for tax? (Taxpayer can have several different methods if different types of contracts)
    - Percentage of Completion (PCM) - How is degree of completion determined?
    - Cost-to-Cost, Engineer Estimates, Units in Place, Other?
    - Completed Contract - When is a job determined to be complete?
    - Accrual - How and when are customers billed during job?
    - Cash - (can only be used in limited situations)
  12. What method of accounting do you use for book/financial statements?
  13. How do you determine the price to charge for a job?
    - What costs (direct, overhead, etc.) are included in that figure?
    - Do you have a worksheet or form that you use to arrive at that figure?
    - What type of budget reports are kept and how often are they prepared?
  14. What overhead method is used to determine allocation of indirect costs to contracts? (i.e. specific identification (tracing), standard costs, burden ratios such as ratios based on direct labor hours or dollars, machine hours, etc.)
  15. (Note: Use the following questions to determine if and how much officer's salary should be charged to jobs)
    - How are officer's salaries determined? (Salary/hourly/year-end bonuses) Get detail description of each officer's job (i.e. who negotiates contracts, who bids, go to job site, work on job site, etc.)
    - Are officer's provided corporate vehicles? Get detailed business use (i.e. going to job sites regularly)

#### **Other Income:**

16. Provide Construction management services?
  - Architect, engineering services?
  - Remodeling?
  - Subsequent Work?
  - Warranty Work?
  - Rental Income?
17. Any legal proceedings against you or you against others?
18. Do you make provisions for losses?

19. Do you accrue for estimated warranty expenses?
20. Any estimated losses or expenses accounted for?

### **Management Accounting:**

21. How do you number jobs?
22. Do change orders keep the same job # or assigned a new job #?
23. Do you maintain a budgeting system? (monthly, qrtly, yearly)
24. Describe your job cost system.
  - o Explain all costs charged to jobs.
  - o Are officer's salaries applied to jobs.
  - o Interest expense on construction loans applied to jobs.
  - o Indirect costs applied to jobs.
25. Do you obtain financing for jobs or does the customer?
26. Retainages:
  - o How much is withheld by customers and when do you received them?
  - o When are they included in income for tax? book?
  - o How much do you withhold on your subcontractors?
  - o When do you repay them? How do you account for them?

### **Employees and Subcontractors:**

27. How many employees do you have and what type of positions within the company?
  - o Officers?
  - o Office staff?
  - o Supervisors?
  - o Field workers?
  - o Others?
28. What type of subcontractors do you use?
29. How are subcontractors/vendors selected?
30. Do you enter into contracts with subcontractors?
31. How are subcontractor fees determined? (negotiated, hourly, etc.)
32. Who is responsible for the issuance of 1099s to subcontractors?
33. How do you distinguish between employees and subcontractors?

### **Gross Receipts:**

34. How is income received?
  - o % up-front?
  - o Draws? How often and how determined?
  - o At end of contract?
  - o Retainages?

### **Cost of Goods Sold:**

35. What materials are purchased for each job?
36. Who orders materials? Who approves the order?
37. Materials shipped to you or directly to job site?
38. Do subcontractors provide their own material or do you purchase for them?
39. Do you have a warehouse/shed to keep materials?
40. What is done with extra materials from a job?
41. Inventory?