

# Cost Estimating & Control

## COST ESTIMATING, TRACKING AND CONTROL FOR PROJECT OWNERS, DESIGNERS AND CONTRACTORS

Accurate cost estimates, timely cost accounting, and effective cost control are essential to project success. Pinnell/Busch's full spectrum of construction, engineering and architectural professionals have broad, in-depth experience in all three areas. We can help your organization estimate, track and control costs.

### OUR TEAM OF EXPERTS

#### Steve Pinnell, PE

Steve has estimated and created job costing systems for contractors and capital improvement budget & control systems for public works agencies.

#### Blake Marchand

Blake has estimated mechanical/civil work for 15 years, including 10 years for mechanical contractors.

#### Butch Henry

Butch has 30 years experience as Estimator to Vice President of Operations for a \$350M/year mechanical/industrial contractor and five years as a consulting estimator.

#### Brad Johnson

Brad has 30 years experience estimating and constructing excavation, utilities, roads, and other civil projects.

#### Dennis van Kirk

Dennis has 45 years experience estimating engineering projects for public works agencies and engineers.

#### Larry Palermini

Larry has estimated complex electrical and control systems for over 25 years.

#### Walt Lemon

Walt has estimated commercial, industrial and multi-family residential projects for over 40 years.

*Plus Specialty Estimators When Needed*

## PINNELL ♦ BUSCH

[www.pinnellbusch.com](http://www.pinnellbusch.com)  
Project Management  
Consultants for the Design  
& Construction Industry

Email: [info@pinnellbusch.com](mailto:info@pinnellbusch.com)

Phone 503.293.6280

Fax 503.293.6284

6420 SW Macadam Ave, Suite 330  
Portland, Oregon 97239

### MAJOR PROJECTS AND PROGRAMS

Program and major-project management requires a high level of cost estimating skill and sophisticated control systems.

**Budget Estimating** - Project and program managers need reliable budget estimates for setting scope, prioritizing alternatives, establishing budgets, and creating financial management plans. We can provide these estimates, and establish Excel-based estimating templates and procedures manuals for facility managers or public works agencies.

### Program Management Cost Tracking & Control Systems

Program managers need timely feedback of actual costs for tracking, reporting and corrective action. This can include interface with the client's financial management system, clarified decision-making policy and procedures, and new accounting software and procedures that track program budgets, current estimates, actual costs to date, forecasts to complete, contingencies, and variances – by line item.

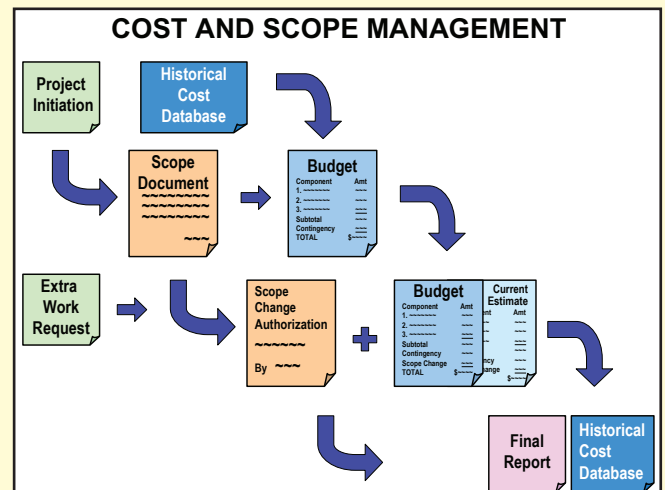
**Cost & Scope Management** - is a simple but effective means to control costs by budgeting based on clearly defined scope, avoiding cost creep during design while achieving all objectives, comparing budgets with current estimates to focus attention on variances, taking corrective action when needed, managing contingencies to expand scope when possible, obtaining feedback for more accurate estimates in the future, and promptly reporting status to avoid unpleasant surprises. The project manager controls the current estimate and the governing body controls the budget. The project manager focuses on reducing over-run variances, uses contingencies if necessary, and asks for additional budget if the scope changes.

### EXAMPLE BUDGET ESTIMATES

- ◆ \$600 million prison program for the Washington Department of Corrections
- ◆ \$300 million Tualatin to Sherwood Water Transmission Line
- ◆ City of Portland BES On-Call Estimating Contract

### TEMPLATES & PROCEDURES

- ◆ City of Portland's Sewer Cost Estimating Template
- ◆ Oregon Department of Energy Estimating Template for decommissioning wind farms, gas-fired power plants, and LNG facilities



Cost and scope are best managed by a logical process

## SPECIAL TOOLS AND TECHNIQUES

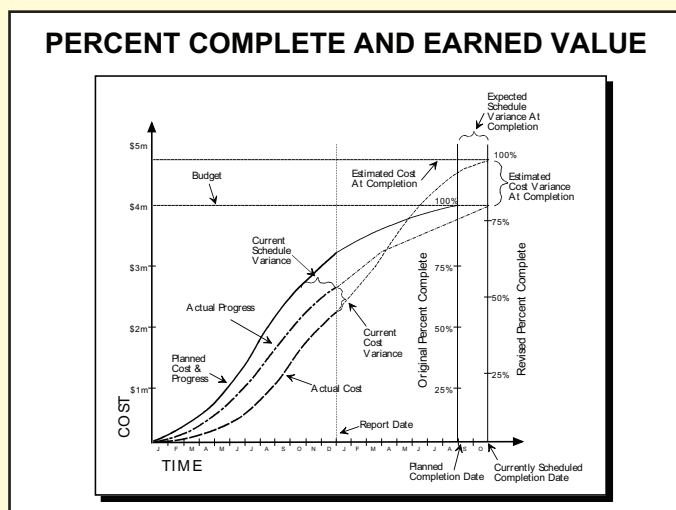
In addition to our expertise in estimating construction costs from preliminary, mid-design, and final plans and specifications, we also have experience and expertise in special estimating tools and techniques:

**Risk Assessment** – Our cost estimates have been an integral part of our risk assessment assignments for high profile projects such as the Portland Aerial Tram, a \$300 million water supply program, a North Slope oil drilling rig, and other large projects.

### Value Engineering & Constructability Reviews

Expert-led VE workshops use functional analysis and brainstorming techniques to evaluate design alternatives that perform the needed functions at less cost. Our experienced team has saved clients hundreds of thousands of dollars by identifying potential constructability problems and solutions to reduce costs and delays.

**Earned Value Analysis** - One of the most effective ways to control costs is a technique called Earned Value Analysis. This compares the percentage of work accomplished to the actual costs to date, then extends those costs to completion. It provides a realistic picture of whether your project is on target to complete within budget and on time.



Good graphics clarify complex facts and relationships

**Life Cycle Costing** - An optional design will balance cost with durability to minimize life cycle costs. Our professionals estimate operation, maintenance and replacement costs, and adjust with discounted cash flow analysis to give you a better understanding of how additional first costs will pay off in the long term.

**Cost Segregation Studies** – Segregate design and construction costs by tax depreciation categories to accelerate depreciation and improve cash flow.

## TYPES OF COST ESTIMATES

Our experts have prepared hundreds of estimates on a wide variety of projects for contractors, project owners, and architect/engineers. We can track project budgets from concept to final drawings and show the effect of design decisions as the design progresses. Pinnell/Busch is one of few firms with four decades of estimating expertise and hands-on construction experience. This provides a solid basis in real-world applications and ensures realistic estimates.

### BENEFITS OF 3RD PARTY ESTIMATES

- ◆ Access to the highest level of expertise
- ◆ Additional estimating support when needed
- ◆ Creative second look at tried-and-true solutions
- ◆ Tighter control and reassurance of reliability
- ◆ Justification for, or defense of, construction claims
- ◆ Evaluation and prioritization of design alternatives
- ◆ Identification of potential problems and solutions
- ◆ Optimization of costs vs. benefits
- ◆ Timely, accurate notice of pending cost overruns

**Definitive Estimates** - Detailed estimates are based on final plans and specifications, then compared with contractor bids to verify competitive bids, or used to negotiate design/build or CM/GC contracts.

**Budget & Conceptual Estimating** - These estimates serve as the basis of setting project scope, selecting design alternatives, or prioritizing alternatives.

**Change Order Estimates** - Estimating change order costs requires a different approach which must consider industry practice, means and methods, impacts on productivity, the extent and cost of delay, and home office and jobsite overhead costs, as well as an understanding of contract law. Few estimators have this specific experience. Ours do. We can help contractors avoid underestimating the impact of changes and delay and help owners avoid paying exaggerated costs.

**Estimating the Cost of Defective Work** - Our estimators have investigated and prepared remediation cost estimates for hundreds of construction defect projects and successfully defended these estimates in negotiation, arbitration, and litigation.

**Estimating for Construction Contractors** - As a third-party resource for contractors, we provide:

- ◆ Quantity Takeoffs and Pricing
- ◆ Value Engineering and Constructability Reviews
- ◆ Job Cost Accounting Systems and Procedures
- ◆ Productivity Improvement Analysis
- ◆ Recovery of Extra Work, Delay, and Impact Costs
- ◆ Financial and Job Cost Troubleshooting