Company Profile

Moss Construction Cost Management Incorporated

Company Services — Overview

Cost Estimating

Moss Construction Cost Management offers a full range of estimating services tailored to your individual requirements.

As independent cost specialists, we are able to provide accurate, unbiased cost advice and estimating support leaving you free to concentrate on other critical areas.

LEED Coordination & Documentation

The USGBC LEED standards are changing the way buildings are perceived, tenant space is classified and budgets are allocated. With expertise grounded in actual project experience, **Moss Construction Cost Management** simplifies the process of obtaining LEED certification.

Value Engineering

Value engineering techniques can save money, increase efficiency and improve quality, reliability, maintainability and performance. It is a process that works best when implemented during the initial planning and followed through to the final construction.

In addition to providing ongoing value analysis throughout the design process, we can arrange formal value engineering workshops structured to meet your contractual obligations and project goals.

Construction Administration

Providing adequate supervision and coordination during the construction phase is critical to successful delivery of your design. This takes a great deal of effort and can overburden your resources.

Moss Construction Cost Management provides you with the data, tools and support necessary for you to make informed and timely decisions regarding your project. The earlier we are involved the more effective we can be. That's why we recommend you contact us at project inception.

Claim Mitigation and Support

Entitlement claims are very much a part and parcel of the construction process. Claims can be an administrative nightmare if not handled correctly by someone with the appropriate expertise. **Moss Construction Cost Management** can help resolve all types of contractual issues.

Moss Construction Cost Management is a full service construction consulting firm. We specialize in client representation, cost management, estimating, claims mitigation and sustainable construction.

We are a registered **small business** with offices in Indiana and Maryland.

With a national client base, we are experienced in servicing projects in diverse locations all over the United States.

We are members of the Northeast Indiana Greenbuild Coalition and the US Green Building Council.

Moss Construction Cost Management Inc.

Indiana: 260 925 3416

Maryland: 240 232 5352

www.mosscost.com

Moss Construction Cost Management Incorporated

Cost Estimating

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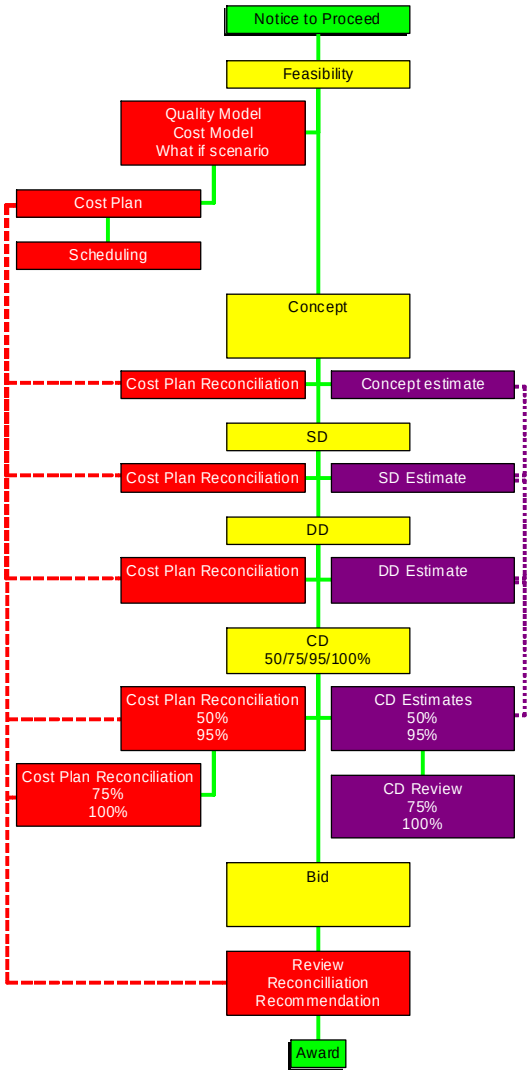
No matter the nature of the project, the question of cost is a fundamental issue. In these days of rampant price escalation, it is essential that funding decisions are based upon accurate, reliable and up-to-date cost data.

As part of our comprehensive cost management service, **Moss Construction Cost Management** offers a full range of estimating services tailored to individual requirements. As **independent** cost specialists, we are able to provide accurate, unbiased cost advice and estimating support.



Planning/Design Phase

- Feasibility Studies
- Cost Modeling
- Budget estimates
- Cost Planning
- Stage Estimates
- Life Cycle Costing
- Bid Analysis & review

Construction Phase

- Schedule of Values/Cash flow
- Payment Requisitions
- Change Order evaluation
- Punch list evaluation
- Final account
- Claims evaluation

Other Services

- Quarterly Cost Index
- Benchmark Studies
- Bid Market Research
- Value Engineering

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Cost Modeling

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Better price certainty at project inception gives rise to more effective project management. Getting to grips with construction costs at such an early stage can be challenging; many players in the marketplace are able to perform quantity take offs from developed design documents and plug in pricing from cost books, but estimating of this nature has little in common with the skill set involved in the art of conceptual cost modeling.

Cost Modeling

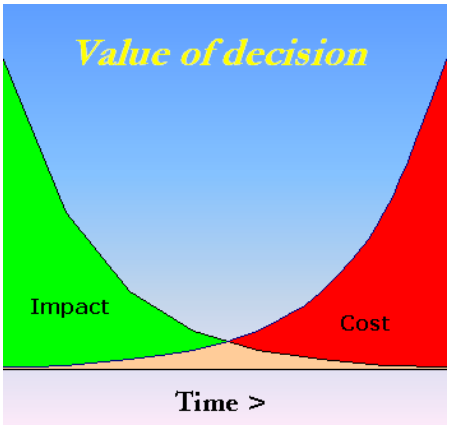
One of our key strengths is the ability to develop tailored cost models based on programmatic and conceptual information. Drawing from staff experience and using our in-house modeling tools, we can quickly provide cost estimates and what-if-scenarios based upon your actual project, not on some idealized scheme or national average. We are constantly working to improve these processes to reflect the changing demands of our clients and the market as a whole. Our cost indices & database, regularly updated through ongoing research, ensure that pricing reflects current market conditions and enables us to quickly verify budget expectations. Why use historic data when you can have access to real time pricing?

Our approach

The most effective cost management is gained through an ongoing relationship with the design team, starting at day one. We advocate a cost/quality charette integrated with the initial programming meetings. Here we can assist in establishing realistic budget targets and highlight areas of potential monetary and schedule related risk. Our cost plan provides a basis for cost control throughout the design process. Ongoing communication regarding design evolution ensures that time is not wasted pursuing cost prohibitive options. Our proactive approach helps the design team keep within the budgetary constraints of the project.

Timing of decisions

The ability to effect change economically decreases as a project progresses. Opportunities available at inception are often lost once design develops beyond schematics. In terms of value for money, we believe that you gain the biggest "bang for the buck" through our front-end involvement. A modest fee investment will ensure that you have a solid platform on which to base your project decisions.



Moss Construction Cost Management is a full service construction consulting firm. We specialize in client representation, cost management and sustainable construction.

We are a registered **woman owned small business** with offices in Indiana and Maryland.

With a national client base, we are experienced in servicing projects in diverse locations all over the United States and overseas.

We are members of the Northeast Indiana Green Build Coalition and the United States Green Building Council.

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Sustainability

Moss Construction Cost Management Incorporated

Once considered a fad, sustainable design and construction has moved into the mainstream of the construction industry and is rapidly approaching "best practice" status for new build and remodeling projects. The development of the industry accepted standard United States Green Building Council LEED™ rating system has given us a quantifiable measure of the environmental care a project has embraced in its design.

MossCost particular knowledge and experience of the LEED™ process coupled with cost management expertise brings added value to the process of delivering sustainable design because decision-making is always based upon the validity of design choices in context of cost effectiveness. As **independent** cost specialists, we are able to provide accurate, unbiased cost advice and estimating support.

Jonathan Moss, president of **MossCost** has been a LEED™ accredited professional since 2002 and worked on a number of studies and projects including the Chesapeake Bay Foundation headquarters, the first platinum certified project in the country.

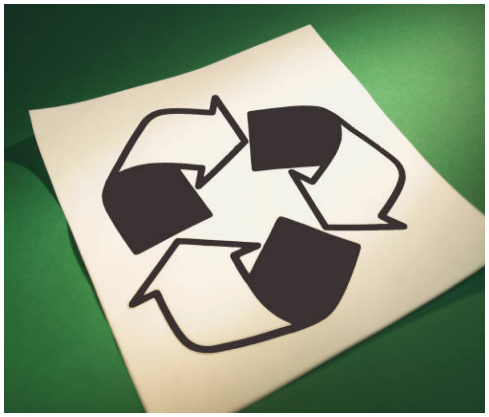
With expertise grounded in actual project experience, **MossCost** simplifies the process of obtaining LEED™ certification.

LEED Certification Services

- Feasibility review
- Rating system selection
- Project registration & documentation
- LEED™ calculations & submission
- Innovation credits & interpretation
- "Green" audit
- Life cycle cost analysis

Recent LEED™ Projects:

- Willennar Administrative Annex
- WaterFurnace International
- Delta Dental
- Ohio State University Medical Center



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Owners Representative

Moss Construction Cost Management Incorporated

Expert management of a construction project is critical to its successful delivery. This takes a great deal of effort and can seriously overburden resources, with resultant detriment to core operations.

Moss Construction Cost Management offers a range of services for Owner organizations aimed specifically at reducing this burden. Acting as construction advocate, we provide all the benefits of an in-house construction department without the ensuing overhead. We provide the data, tools and support necessary for Clients to make informed and timely decisions for the project in question

Services Offered

Details included herein are examples of the level of service we typically provide. All services are tailored to suit individual client and project needs. Call us today to discuss your needs.

Project definition: Working with stakeholders we will facilitate the definition of project scope, goals and budget, advising upon the most suitable procurement route.

Design: We will assist in the selection of design consultants and prepare and administer contracts of service. We will validate scope, quality and budget goals throughout the design process, managing and coordinating consultants and interaction.

Procurement: We will prepare bid documents, manage the procurement process and administer the subsequent contracts.

Construction: We will provide oversight for the contractor's activities. We will observe and monitor progress in field, ensuring compliance with design, specification, schedule and other contract requirements. We will maintain progress records and advise upon contract submissions, prepare earned value reports and check payment applications. We will manage the change order process. We will prepare regular financial reports and conduct site meetings.

Closeout: We will prepare and evaluate punch lists, monitor commissioning and handover activities. We will assist in the negotiation of final accounts and payment.

Advantages

Key benefits in appointing Moss Construction Cost Management Inc. as your Owners representative:

- Experienced advocate
- Professional, expert, staff
- Dedicated support
- Independent and impartial advice
- Reduce project risks and costs
- Reduce overhead
- Supplements in-house expertise
- Save time and money
- Competitive fees
- Pay for only the services you actually require

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Megan Moss

Chairman & CEO

Megan has been managing people for as long as she can remember. She has been involved in the construction industry in one way or another for the past 15 years. When, due to the growth of the company, it became necessary to free up Jonathan to concentrate on the production and technical aspects of the business, it was obvious that she should take on a supervisory role

Megan takes an active role in day to day company operations, leading the marketing effort and managing the human resources aspects of the business.

In addition to her work at Moss Construction Cost Management, she is very involved with the Northeast Indiana Green Build Coalition where she is serving her second year as president of that organization. More information can be found at www.neigbc.org.

With a firm belief in the value of sustainable construction, she has worked to make clients aware of the advantages of building green, and the cost savings that it can provide over the life of the building. She recently completed a training course to become a LEED Accredited Professional.

She graduated from Purdue University with a double major in Communication and French. She has held supervisory roles at several of her positions, most notably as Editor-in-chief of a small newspaper. She admits, however, that managing her husband is perhaps her biggest challenge.

Regina Leffers, immediate past president of the Northeast Indiana Green Build Coalition and professor of Construction at IPFW said:

"I have had the opportunity to work with Megan Moss on a regular basis for the last year. I have found Megan to be one of the most creative, innovative, and hard-working people that I have ever known. It is in large part because of Megan's efforts that the Coalition is a thriving organization, able to accomplish its goals of sustainable education. I am extraordinarily grateful for Megan."

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Moss Construction Cost Management Inc.

Staff Profiles

Jonathan Moss FRICS, CCC

LEED Accredited Professional

President

Jonathan Moss has been providing professional cost management services in the US and internationally for 24 years. His experience covers a wide range of project types with construction values up to $1.6 Billion. Services provided include project management, owner representation, cost estimating, hard bid preparation, budget control, value engineering, contract review and drafting, contract negotiation, claims analysis, claims preparation, advice and mitigation.

A Chartered Quantity Surveyor and Fellow of the Royal Institution of Chartered Surveyors, a professional organization dedicated to construction cost management and development economics, he has training and experience rarely found in his field. He is a Certified Cost Consultant and a member of the Association for the Advancement of Cost Engineering. As an adjunct professor at Indiana University-Purdue University, Fort Wayne Jonathan has taught classes in senior level project management, quantity surveying and advanced estimating.

Jonathan has a strong interest in sustainable construction and is pioneering cost analysis techniques in this field. He is one of the only cost professionals in the country to have passed the United States Green Building Council LEED accreditation examination.

Jonathan has extensive value engineering and value management experience.

While providing on site cost management and construction administration services on a variety of major projects in the US, Europe, Hong Kong and China, he has worked on projects as diverse as water treatment, healthcare and education.

Jonathan is a frequent seminar speaker and has authored a number of technical papers including "Budget Busts – The influence of demand in the construction Market" and "Delivering Great Design".

Selected project experience:

OSU Medical Center, Columbus

Department Of Justice Courthouse Benchmark study, USA

New VA Medical Center, Las Vegas

US Capitol Historic preservation, DC

The Smithsonian, Washington DC

IRS Bio-terrorism response, USA

National Library of Medicine, Bethesda

Chep Lap Kok Airport and infrastructure, Hong Kong

Channel Tunnel Rail Link, UK & France

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Moss Construction Cost Management Incorporated

Staff Profiles

Moss Construction Cost Management Incorporated

David Mazzullo, CCC

Director, Mid-Atlantic Office

David Mazzullo has 16 years experience in the construction industry, covering a wide range of project types with construction values up to $300 Million. Services provided include cost estimating, hard bid preparation, budget control, value engineering, scheduling and schedule analysis.

David is a Certified Cost Consultant and a member of the Association for the Advancement of Cost Engineering. He is a business graduate of the University of Maryland.

Capable of providing multidisciplinary support, David has particular expertise in the mechanical trades. Originally a journeyman plumber in his father's business, David's practical knowledge complements his excellent abilities as an estimator.

David has extensive experience in scheduling and schedule analysis.

David's project experience includes; Airports, Medical Facilities, Hospitals, Hotels, Embassies, Law Courts, Jails, Water treatment plants, Libraries, Museums, Research Facilities, Sports stadiums, University and Campus development, Military Installations, Government and commercial offices, Tenant fit-out, Medical, Religious and themed retail establishments.

Contact information:

Telephone: 240 252 5352
Email: david@mosscost.com

Selected project experience:

Duke University Campus Master Plan, North Carolina

Johns Hopkins School of Public Health, Maryland

Baltimore Washington Medical Center, Maryland

North Branch Correctional Institute, Maryland

Silver Spring Transit Center, Maryland

National Institutes of Health, Maryland

Mankato Residence Hall, Minnesota State University

Center for Predictive Medicine, University of Louisville, Kentucky

Ritz Carlton Residences, Baltimore Inner Harbor, Maryland

Life Sciences Building, Baltimore

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Articles & Publications

Moss Construction Cost Management Incorporated

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Departments

Featured Articles

In This Issue

On the Cover: The new cosmic portrait -- called the cosmic microwave background -- was captured by scientists using NASA's Wilkinson Microwave Anisotropy Probe (WMAP) during a sweeping 12-month observation of the entire sky, article on page 4. Photos courtesy of NASA/WMAP Science Team.

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CERTIFICATION PAPER

Budget Busts: The Influence of Demand in the Construction Market

Jonathan Moss, CCC

Certification Papers - Each candidate seeking certification as a Certified Cost Consultant/Certified Cost Engineer (CCC/CCE) is expected to write a professional paper of a minimum of 2,500 words on a cost engineering-related subject and must be submitted before or at the time of the examination. Published are some of the top scoring entries as an example of what constitutes a good entry. Other members and readers will also gain insights on current industry trends and projects with the publication of these papers in the Cost Engineering journal.

ABSTRACT: The adequacy of the owners budget is fundamental to the successful implementation of a project and the cost estimate is the primary management tool in deriving that budget. In establishing a budget, a level of risk is accepted in respect of its adequacy. Consequentially, there is a normal statistical failure rate at any level of said risk. The failure rate for owners budgets in the construction industry has, in recent months, significantly increased. Tender prices have risen on average 10-20 percent compared to a year ago despite reports of inflation remaining subdued and construction cost indices declining. The public sector has been especially hard hit, in particular school projects where in some cases tender prices are reportedly as much as 60 percent higher. Increased demand relative to market supply is to blame for rising bid prices. The increasing failure rate is indicative of weakness in both estimating ability to predict market trends and of management approach to providing appropriate levels of contingency for price risk. While there is the potential to improve upon predictive ability and responsiveness in a volatile market through implementation of effective cost management techniques, the risk of budget failure will always remain. It is therefore important to not only be aware of such risk but also to actively plan remediation measures in the event of a budget bust.

KEY WORDS: Budget, cast central, overruns, owner, estimating

The Owners Budget

Fundamental to the successful implementation of a given project is the adequacy of the owners budget in meeting the cost of the programmatic goals expressed in terms of function, quality, and schedule. The primary management tool in establishing and validating the budget is the cost estimate in its multiple forms and incarnations. Much has been discussed elsewhere in professional literature, training manuals, handbooks, and seminars regarding the various methodologies and approaches used in estimating, and it is not the intent here to revisit such topics.

For the purposes of this article, it is important to note that estimating is not an exact science and there is a level of risk inherent in reliance on any estimate, no matter how skillfully executed. The estimate is, after all, an attempt at predicting the future and there can be no guarantees. Common practice in the construction industry is to base (owners) estimates on historic cost data modified to suit the specific project and adjusted according to perceptions of market trends and anticipated conditions at time of bid.

Varying levels of effort, expertise, and experience are expended in producing the estimate and these also have a marked effect on the potential accuracy and level of risk. Reasons for such variation in approach include personal and corporate circumstance, time and financial constraints, individual preference, and skill. Such risk can be mitigated by thorough understanding of the basis and approach adopted in formulating the estimate and providing for an appropriate contingency when deriving the overall budget. Again, procedures and approaches for setting contingency are discussed extensively elsewhere and will not be described here. It must, however, be understood that any contingency provision reflects the level of risk acceptance that an owner is prepared to live with, which for very pragmatic reasons will usually be greater than zero. In reality, unless the management team has total control over every single contributing factor, it is impossible to guarantee 100 percent accuracy of any and every budget and without infinite funds it is impossible to provide total contingency protection for that budget.

Given, then, that estimating is not exact, has inherent risk, and that risk cannot be fully offset by contingency budgeting and planning, it is inevitable that there will be a normal "failure" rate associated with budget setting and the potential for a budget overage or, in the vernacular, a bust.

Budget overruns can occur at any point in the program development or execution. Good cost control is essential through the execution stage but this is for the most part dependent on adequate budget allocation in the first place. For the development budget in the construction industry, the "proof of the pudding" comes at bid date when prime and/or sub contractor tenders are opened. While budget overages are sometimes handled by a management reserve over and above the budgeted contingency, in all likelihood such busts will result in program reduction or cancellation, and resources expended to that point have been wasted. A forensic review after the fact will normally highlight the causal factors, if any, and lessons learned can be fed into future budget development.

Budget busts are to be avoided. For a given organization or industry, failure rate should diminish over time as lessons are learned from previous failure. A statistical minimum failure rate can be identified over time and management provision made as deemed appropriate. Of course, for a client who may only develop one project, this is of little comfort or use.

Problems result when this failure rate increases markedly, as is the present case in the construction industry where (development) budgets are being significantly exceeded at bid opening. Does this signify a mass failure in the application of techniques employed by owners and their budget teams when developing cost

plans or is there an underlying problem with the techniques in themselves?

The Problem

Recent months have seen a dramatic increase in the number of projects bidding significantly over budget expectations. The extent has varied by region and market sector, but reports typically indicate a 10 to 20 percent increase in prices when compared to similar projects a year or, in some cases, even six months ago. Although this escalation is being experienced across the board, it is the impact on publicly funded schemes that is being trumpeted in the press, and it is here that the worst horror stories are found. Consider North County High School in Anne Arundel County, Maryland. Officials report a 60 percent increase cost in the past year to $162 per square foot [1]. Less extreme, but of no less concern, Fairfax County Virginia Schools have seen budget busts of up to 30 percent [2]. A glance through recent editions of the CMD bulletin for Washington DC will show that high schools are regularly bidding as high as $136/sf where $110 was normal at the start of the year.

The Washington Post in the same edition as the Virginia schools article, reported inflation through June as, "remaining subdued. [2]" To anyone familiar with the construction market, this does not seem realistic, and is patently untrue when tender prices are considered. The Engineering News-Record continues to report a decline in its construction cost index [3], but this is not being borne out in practice. So, just what is going on?

Unfortunately, popularly quoted assessments such as the above are based on indicators that lag behind the curve and are slow in reflecting a change in underlying trends. Even industry-based indices are fundamentally slow in reacting to a change. The Department of Commerce notes that underlying trends may not become apparent for three to eight months. As the majority of the present escalation has taken place in the last quarter, the change in the market has not yet percolated through into the figures. In a highly volatile market, economic indicators cannot be relied on to accurately reflect the current situation.

Furthermore, such indices are often composites of many sub-indices specific to individual regions, markets, or industries. They are therefore limited in sensitivity to local conditions particular to your own region or market sector. In addition, most indices are a reflection of cost rather than price trends and the difference between the two can be significant as they are, to all intents and purpose, independent of each other.

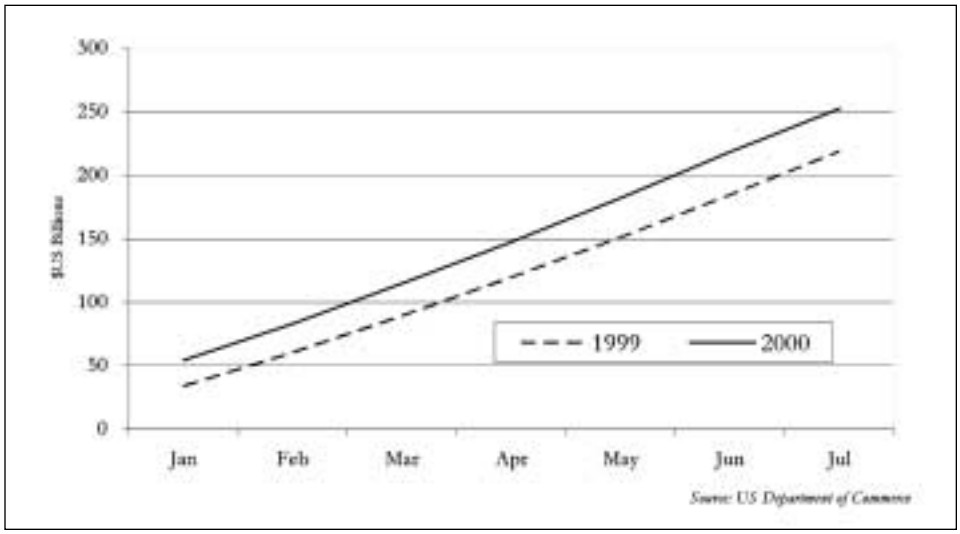

Figure 1—Non Residential Construction In Place—2000 YTD

Cost Versus Price

A given resource, be it raw material, assembled product, component, labor, services or otherwise, has a cost associated with its use, processing, or performance.

Price is the monetary value at which said resource can be purchased. The price of a given item can be greater, equal, or less than its cost and is a function of the willingness of the items' owner to sell. Equally, it is also a function of the purchaser's willingness to buy. Both are reliant on internal factors such as risk and profitability and external factors such as market conditions.

Thus, a construction project will have a total cost to the contractor. It is up to that contractor to determine the price he wishes to charge the client for performing the work. The client must then determine if he is prepared, or indeed able, to pay that price.

At the time of writing, the "asking price" for performance of construction projects has risen substantially and clients are experiencing difficulty in reconciling these prices with their budgets.

As there seems to be little sign of construction prices cooling off, it is therefore advisable to consider the reason behind the current situation and make the

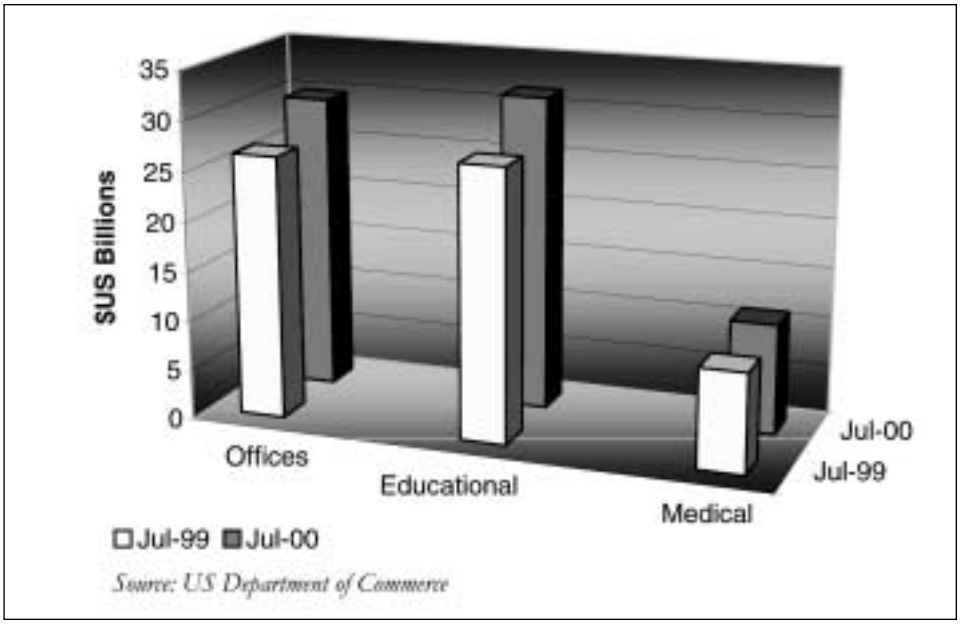

Figure 2—Comparative Value of Construction In Place By Sector, 1999 and 2000

necessary preparations for dealing with its inevitable effects on your own project.

The Reason

The explanation for the escalating prices can be summarized in one word, demand.

Figure 1 shows the cumulative monthly value of construction put in place for the year-to-date and reflects the volume of construction work in the US. In all sectors, these values have significantly increased in the past 12 months, with key areas averaging around nine percent. More telling is a look at increases in the individual sectors, prominent among which are office (13 percent in the private sector alone), educational (20 percent private, 16 percent overall) and medical (15 percent public, 11 percent overall) construction (Figure 2).

Public and private spending is at record high levels, fuelled by a thriving economy. There is little likelihood of things slowing down in the immediate future. Large US federal and state surpluses, such as the $300 million of additional funding authorized by Maryland State Governor Parris Glendenning for educational projects earlier this year, are being funneled back into the various capital expenditure programs.

High demand for construction impacts many elements, chief among which are the following.

- bid coverage;
- availability of construction materials;
- availability of construction labor;
- availability of professional services;
- quality control; and
- contract completion.

Bid coverage

Bid coverage refers to the number of bidders for each contract and/or contract package. The greater the number of bidders the better the price and vice-versa.

To help understand just why this is so, imagine the procurement process as an auction with the contract being the item for sale, albeit to the lowest rather than the highest bidder. When the item (the project) offered for sale is rare, more bidders (namely the contractors) are eager to obtain the work. Competition is strong and bid prices fall. Conversely, if the item (project) is just one of many available, the bidding is more selective and bid coverage low. Prices go up, as contractors are able to pick and choose the most desirable of jobs in terms of profit margin and reduction of risk. At the present time, demand is outstripping supply such that many projects are having difficulty obtaining a single bidder.

Materials costs

Increased demand leads to supply shortfalls and/or delays, with contractors looking further afield for suppliers or paying premiums to jump the fabrication line. The suppliers themselves encourage this behavior (after all, they are looking to maximize their profits too) and will often play rival projects against each other. Those contractors who wish to circumvent this may preorder materials, but then the cost of financing and risk is just added to the bid spread and the price to the owner still goes up.

Labor Costs

In a busy market, labor costs are pushed up as contractors find themselves paying premiums to retain labor crews. The crews need incentives to stay, otherwise they pack up and head down the road to another contractor's jobsite where wages are higher or perks such as paid overtime premiums are available. A similar situation is true of subcontractors. If you talk to any contractor at the moment, he will complain to you of shortages in both material and labor because of unprecedented demand. This will either cause him grief if he is endeavoring to closeout an old project (he has his own budgets to manage) or delight if he is explaining just why his bid is so inflated (he can charge you more money).

"Soft" Costs

The effects of high demand are not solely seen in the contracting and supply industry. In such a market, professional services are similarly in demand, and design fees and associated costs are also likely to increase as the consultants pick and choose the projects they wish or have the capacity to be involved with. Furthermore, staffing costs tend to increase, as employees are able to "shop around" for more lucrative positions.

Other problems

Quality control and on time completion are also likely victims of the booming market as contractors struggle to bring jobs in on budget while facing the same cost crises outlined above. To maintain margin as costs soar, contractors are often forced into hiring and buying from the shallow end of the supply pool. Quality can and does suffer as a result. Poorer quality labor and materials, and/or the delay involved in procuring them have a negative impact on schedule. Extra and prolonged supervisory effort adds to the cost burden and contributes to this downward spiral.

The additional time and effort called for from the owners supervisory team can also become problematic and expensive. Relationships are more prone to become adversarial as contractors seek to recover as much of the lost time and cost from the owner through claims. Consultants find themselves struggling to balance project demands with diminishing fee balances and this too has consequences for the owner.

Analysis: Failure or Circumstance?

Let us turn now to the question posed earlier and synopsize the discussion presented above:

- Typically, the construction cost estimate is based on a combination of historic cost data and future predictions.
- Current prices are up.
- Historic costs do not change.
- Market conditions have changed—demand has increased relative to market capacity (supply).
- Demand is at unprecedented levels.
- The failure rate has risen and the budget bust is real.
- There are no guarantees when predicting the future.

It can be argued that in the context of construction tenders all budget overages reflect either, or a combination, of the following.

- Technical failure in terms of the execution of the estimate.
- Strategic (management) failure manifested in a lack of adequate risk assessment and associated contingency provision at budget establishment and/or lack of control through the program development and execution.

It is difficult to comment holistically on the individual application of estimating procedures, particularly in the absence of detailed knowledge of the projects concerned. Experience dictates that a proportion of the budgets in question were fundamentally flawed in their technical execution and that their failure was inevitable. The scale of the problem (namely the increase in failure rate or number of "budget busts" encountered) is significant enough to imply that the industry in general, and specifically owners and their development teams, were caught off guard by the changing market conditions. In not recognizing this early enough, the budget teams did indeed fail to reflect the current market price in either its effect on historic cost data and/or in predicting the risk of future increase. This is a characteristic vulnerability of the public sector funding cycle. The legislative process for fund allocation is lengthy and requires budget establishment at an extremely early stage in the planning process, thus increasing the lead time over which the budget team is called to predict design development and market trends.

We can thus observe that the increased failure rate is indicative of strategic failure in budget development and is therefore a failure in application of budget techniques. While there is inherent uncertainty in the predictive estimate, this uncertainty should have been quantified and managed accordingly.

There is a further scenario given that demand is at unprecedented levels and that there are no guarantees when predicting the future. With hindsight, it is easy to criticize and lay blame at the individual estimators or budget teams who were proved incorrect. As risk can never be totally removed one could argue that the budget team are blameless provided the budget accurately reflected the costs at the time of development, that risk of price variation was identified and management, for whatever reason, accepted a certain degree of that risk. In this context, the market change could have been suitably swift as to defy accurate prediction and thus is a manifestation of the risk that was accepted. If fault is to be found in this scenario, then it is in those budgets set that failed to take account of the true nature of the current market, once it became apparent.

The Solution

Unfortunately, there is no simple straightforward solution to this problem, although it is ultimately self-resolving. We are basically paying the premium associated with the booming US economy. At some point in the future, the market will adjust to compensate, demand will reduce and so with it, prices. When this will happen is difficult to determine. As long as a sufficient number of purchasers are willing to pay the asking price and proceed with their project, demand will continue unchecked and prices remain high.

There are steps you can take, however, to mitigate the effect that market forces will have on your scheme. First and foremost, establish a cost management procedure. Secondly, invest in the necessary resources to implement this procedure effectively. The following are useful techniques to apply to your situation.

If Your Project Is In Design or Preparing to Bid

- Perform a detailed risk analysis.
- Thoroughly research and review the marketplace and validate your cost database.
- Prepare a reliable cost model based on realistic and not purely historic data.
- Ensure you understand the cost model and its basis.
- Review your schedule. What is the maximum premium you are willing to pay to build at the time you wish to build?
- Monitor the market and carefully target your bid date.
- Keep the bid package simple—no complex alternates and/or confusing documents.
- If you must have alternates, use deduct alternates and clearly define the scope.
- Consider alternative procurement approaches.
- Market your project.
- Avoid compromising the design, but consider alternative (more readily available) materials.
- Use commonly accepted and proven forms of contracts. Avoid onerous contract conditions and unreasonable requirements. Be realistic!
- Avoid limiting the competition by excessive use of bidding restrictions and requirements, and/or nominated suppliers and subcontractors.
- Set a realistic bid period, not too short (precludes thorough bid compilation) or too long (bidders lose interest, opportunity, and temptation to make changes increases).

If Your Project Has Bid Over Budget

- Review bid coverage—if inadequate, solicit further bids.
- Talk to the bidders—identify weakness in subcontract coverage.
- Review the bids. Establish a fair and reasonable price. Determine whether you are prepared to pay the premium.
- Consider postponing the project.
- Consider phasing the project and/or reducing the program.
- If not, and if acceptable, value engineer.

If You Are Trying to Close-Out A Project

- All of the above, depending on stage of procurement.
- Maintain effective quality control.
- Be understanding of the perspectives and motivation of the various team members involved and promote positive cooperation.
- Consider incentives, e.g., a bonus for timely completion.
- Strongly enforce your contractual rights.

Risk associated with fluctuations in market demand must be addressed during budget development. Application of effective cost management techniques using suitably skilled personnel will assist in quantifying and somewhat mitigating the risk. However, contingency planning for remedial action must be part of the project plan.

References
1. The Baltimore Sun, Aug. 17, 2000.
2. The Washington Post, Aug. 24, 2000.
3. ENR, Sept. 11, 2000.

About the Author:

Jonathan Moss, CCC, is the director of Cost Management for Smith Group Inc., of Washington, DC. He is a member of AACE International and may be contacted by e-mail at jonathan.moss@smithgroup.com

Relevant Experience

Moss Construction Cost Management Incorporated

Corporate and Staff Experience

Selected Education Projects

MOSS CONSTRUCTION COST MANAGEMENT INC

Project	Location	State	Owner	Approx. Value
Northern VA Community College Phase 3	Alexandria	VA	NVCC	Various
Shipley's Choice and Severn Elementary School Fire Alarm	Anne Arundel	MD	Anne Arundel County Public Schools	.16M
Phase 2 Academic Building	Arlington	VA	George Mason University	$52M
Towson University Central Utility Plant Addition	Baltimore	MD	Towson University	$15M
Athletic Fields	Baltimore	MD	Morgan State University	$0.7M
Retriever Athletic Center (UMBC)	Baltimore	MD	University of Maryland, Baltimore College	$0.5M
Towsontown Parking Garage Addition	Baltimore	MD	Towson University	$10M
Vivarium Cage Wash	Baltimore	MD	Johns Hopkins University	$2M
Bloomberg School of Public Health Hampton House	Baltimore	MD	Johns Hopkins University	$19M
Nursing, Bioethics, Public Health New Building Ph. 1	Baltimore	MD	Johns Hopkins University	$58M
UMBC Tech Center	Baltimore	MD	University of Maryland, Baltimore College	$0.6M
UMBC Sondheim Hall	Baltimore	MD	University of Maryland, Baltimore College	$0.15M
Landscape master plan	Baltimore	MD	Morgan State University	$10M
Agriculture/Forest Research Lab	Blacksburg	VA	Virginia Tech	$25M
Virginia Tech Surge Space Building	Blacksburg	VA	Virginia Tech	$7M
Science & Technology Building	Charlotte	NC	University of North Carolina	$19M
McLeod Hal l Expansion	Charlotte	VA	University of Virginia	$20M
UVA Health - Outpatient Sterile Processing Facility	Charlottesville	VA	University of Virginia	$1M
UVA Health - Pharmacy Renovation	Charlottesville	VA	University of Virginia	$1M
UVA 9-bed Acuity Adaptable	Charlottesville	VA	University of Virginia	$0.83M
UVA Outpatient Sterile Processing	Charlottesville	VA	University of Virginia	$0.84M
UVA - GCRC Renovation	Charlottesville	VA	University of Virginia	$0.7M
Chevy Chase Elementary School Additions	Chevy Chase	MD	MCPS	$15M
North Central College New Residences	Chicago	IL	North Central College	$7M
Shakespeare School	Chicago	IL	Shakespeare School	$12M
Duke Central Campus Master Plan	Durham	NC	Duke University	$6M
Housing V Review	Fairfax	VA	George Mason University	$22M
Bio Safety Lab 3/Vivarium	Fairfax	VA	George Mason University	$1M
GMU Academic V	Fairfax	VA	George Mason University	$20M
CISAT Agricultural Learning Center	Harrisonburg	VA	James Madison University	$16M
Student Center Feasibility studies	Indianapolis	IN	IUPUI	$32M
Kilbourne Hall & Building 45 Renovation	Lexington	VA	Virginia Military Institute	$8M
Mankato Residence Hall	Mankato	MN	Minnesota State University	$26M
Garrett College Learning Resource Center	McHenry	MD	Garrett College	$4M
Marine Research Facility	New Castle	NH	University of New Hampshire	$7M
Swain Annex and Hockmuth Hall Parking Garage	Quantico	VA	US Navy	$18.9M
Athletic Center	Richmond	VA	St Catherine's School	$18M
Gladding Residence Center Phase 3	Richmond	VA	Virginia Commonwealth University	$7M
Montgomery College Performing Arts Center	Rockville	MD	Montgomery College	$10M
Saint Mary's College New Academic Building	St. Mary's	MD	Saint Mary's College	$22M
Public Safety Education and Training Center	Sykesville	MD	State of Maryland	$3M
Towson University College of Liberal Arts (TUCLA)	Towson	MD	Towson University	$97M
The Mariners Museum/USS Monitor	Virginia Beach	VA	The Mariners Museum	$32M
Building 44 Academic labs and Classrooms Renovation	Washington	DC	University of District of Columbia	$8M
School of Pharmacy Practice Laboratory	Washington	DC	Howard University	$10M
Funger Hall renovation	Washington	DC	George Washington University	$3M
Gelman Library Food Service	Washington	DC	George Washington University	$0.4M
Levine School of Music Renovation	Washington	DC	Levine School of Music	$0.5M
Mullen Library Renovation	Washington	DC	Catholic University of America	$6M
School of Business and Project Management	Washington	DC	George Washington University	$28M
Southeastern University Phase 1 Renovation	Washington	DC	SEU	.73M
Barbara Chambers Charter School Alternations to Children's Center Building	Washington	DC	Barbara Chambers	.55M
E.L. Haynes Public Charter School Washington DC	Washington	DC	E.L. Haynes	2.6M
Fitness Center	Westminster	MD	Carroll Community College	$2M
Performing arts Center	Westminster	MD	Carroll Community College	$8M
Law School addition	Williamsburg	VA	College of William & Mary	$15M
Wolf Hall & McKinley Annex	Wilmington	DE	University of Delaware	$20M
New Athletic facilities	Woodberry	VA	Woodberry Forest School	$5M

Corporate and Staff Experience

Selected Government Projects

MOSS CONSTRUCTION COST MANAGEMENT INC

Project	Location	State	Owner	Approx. Value
Mailroom upgrade	Andover	MA	IRS	$2M
Pentagon Expansion and master planning	Arlington	VA	DOD	$1400M
Pentagon River Terrace	Arlington	VA	DOD	$11M
Mailroom upgrade	Atlanta	GA	IRS	$1M
Additions/Alterations to State Office Building PH I	Baltimore	MD	DGS Maryland	$6M
Woodlawn Childcare Center	Baltimore	MD	SSA	$1.5M
Renovations to 5 Research Court	Bethesda	MD	National Institutes of Health	$5M
JFK Federal Office Building Blast mitigation	Boston	MA	State Department	$6M
Mailroom upgrade	Brookhaven	NJ	IRS	$2M
Mailroom upgrade	Cincinnati	OH	IRS	$2M
North Branch Correctional Institute 256 Cell Housing 3 & 4	Cumberland	MD	Maryland Department of Corrections	$66M
Western Maryland Maximum Security Facility	Cumberland	MD	Maryland Department of Corrections	$77M
Wright Patterson Air Force Base	Dayton	OH	US Army	$9M
El Centro Border Patrol Station	El Centro	CA	USDOJ	$0M
Emmitsburg Community Center	Emmitsburg	MD	Town of Emmitsburg	$3M
Office of Hearings and appeals	Falls Church	VA	SSA	$1M
Madonna Ranger Station	Jarrettsville	MD	DGS Maryland	$1.75M
VA Master Plan	Lebanon	PA	Veterans Administration	0
Chancery Office Building	Manilla	Phillippines	State Department	$7M
Mailroom upgrade	Memphis	TN	IRS	$2M
6th District Police Station	Montgomery County	MD	Montgomery County, MD/WMATA	$13.4M
Command Bus Garage	Montgomery County	MD	Montgomery Co. DPWT	$2M
North County Maintenance Depot	Montgomery County	MD	Montgomery Co. DPWT	$46M
US Embassy renovations, Moscow	Moscow	Russia	State Department	$1M
SSA ILS-LAN Upgrades	Nationwide	Nationwide	Social Security Administration	0
Gulf Island National Seashore Katrina Project	Ocean Springs	MS	National Park Service	$3M
North Gate Park at the Paint Branch	Paint Branch	MD	Nat Cap Parks & Planning	$1M
Mailroom upgrade	Philadelphia	PA	IRS	$1M
MSG Battalion HQ Bachelor quarters	Quantico	VA	US Marines	$16M
MSG Battalion HQ P1 Warehouse	Quantico	VA	US Marines	$2M
Silver Spring District Court	Silver Spring	MD	Maryland Judiciary	$14M
Silver Spring Transit Center	Silver Spring	MD	Montgomery County, MD/WMATA	$65M
US Department of State - New Office Compound VE Study	Taipei	Taiwan	State Department	$170M
US Embassy, Taipei	Taipei	Taiwan	State Department	$170M
Towson Precinct No.6	Towson	MD	Baltimore County Police	$4M
Bioterrorism Countermeasures	Various	Various	IRS	Various
Courthouse Construction Benchmark Study	Various	Various	CMG/GSA	Various
Security upgrades	Various	Various	USDOJ	Various
US Courthouse AB Tier Code study	Various	Various	CMG/GSA	Various
IWS -LAN updates (IDIQ)	Various (200+ projects)	Various (200+	Social Security Administration	Various
Correctional Center Expansion	Virginia Beach	VA	Virginia Department of Corrections	$40M
America on the Move	Washington	DC	Smithsonian Institute	$2M
Bolling Air Force Base	Washington	DC	US Air Force	$3M
DC Jail Staff and Visitors Entrance Reconfiguration	Washington	DC	DC Government	$1M
Eisenhower Executive Office Building Renovation	Washington	DC	Whitehouse/OMB	$75M
NAMH Food Service	Washington	DC	Smithsonian Institute	$0.3M
OPS Locker Room	Washington	DC	Smithsonian Institute	$0.2M
Twin Bridges	Washington	DC	DOD	$150M
US Senate Perimeter Security	Washington	DC	Architect of the Capitol	$4M
William Blount Center for Postal Studies	Washington	DC	Smithsonian Institute	$0.6M
Marine Security Guard Quarters	Zagreb	Croatia	State Department	$8M

Corporate and Staff Experience

Selected Healthcare Projects

MOSS CONSTRUCTION COST MANAGEMENT INC

Project	Location	State	Owner	Approx. Value
Bloomberg School of Public Health Hampton House	Baltimore	MD	Johns Hopkins University	$19M
Nursing, Bioethics, Public Health New Building Ph. 1	Baltimore	MD	Johns Hopkins University	$58M
Community Based Outpatient Clinic Expansion	Baltimore	MD	Veterans Administration	$70M
Inpatient New Tower	Baltimore	MD	Baltimore Washington Medical Center	$96M
Northwest Hospital Outpatient Vertical Expansion	Baltimore	MD	Life Bridge Health	$5M
VA Medical Center	Baltimore	MD	Veterans Administration	Various
AFFRIMS	Bangkok	Thailand	US Army	$36M
Bldg 10 Data Center Relocation	Bethesda	MD	National Institutes of Health	$6M
Bldg 10 Nursing Administration Relocation	Bethesda	MD	National Institutes of Health	$2M
Commercial Vehicle Inspection/Site master plan	Bethesda	MD	National Institutes of Health	$4M
Modular Healthcare Facilities, Keesler AFB	Biloxi	MS	US Air Force	$3M
122 Jefferson Park Avenue MEP upgrades	Charlottesville	VA	University of Virginia	$1M
Dental Clinic renovations	Charlotte	VA	University of Virginia	$1M
Medical Records Renovation	Charlotte	VA	University of Virginia	$1M
UVA Health - Outpatient Sterile Processing Facility	Charlottesville	VA	University of Virginia	$1M
UVA Health - Pharmacy Renovation	Charlottesville	VA	University of Virginia	$1M
Outpatient Sterile Processing	Charlottesville	VA	University of Virginia	$1M
UVA 9-bed Acuity Adaptable	Charlottesville	VA	University of Virginia	$0.83M
UVA Outpatient Sterile Processing	Charlottesville	VA	University of Virginia	$0.84M
UVA - GCRC Renovation	Charlottesville	VA	University of Virginia	$0.7M
Pediatric Radiology upgrades	Chicago	IL	UCH Mitchell Hospital	$0.5M
OSU Clinical Expansion/New Cancer Hospital	Columbus	OH	Ohio State University	$300M
OSU RDJC MEP upgrades	Columbus	OH	Ohio State University	$120M
OSU Medical Center Expansion Campus Infrastructure	Columbus	OH	Ohio State University	$76M
WMHS New Hospital	Cumberland	MD	Western Maryland Health System	$235M
CHPPM/Aberdeen Proving Ground	Edgewood	MD	US Army	$80M
Evans Army Community Hospital Mother & Baby Unit	Fort Carson	CO	US Army	$6M
Raymond Bliss Health Center Improvements	Fort Huachuca	AZ	US Army	$3M
Nelson Health Clinic	Fort Knox	KY	US Army	$2M
General Leonard Wood Army Community Hospital	Fort Leonard Wood	MO	US Army	$9M
Kimborough Ambulatory Day Care	Fort Meade	MD	US Army	$20M
Bayne Jones Army Community Hospital Renovations	Fort Polk	LA	US Army	$35M
Grafenwoehr Health & Dental Clinic	Grafenwoehr	Germany	US Army	$8M
Nachrichten Kaserne	Heidleberg	Germany	US Army	$6M
Tripler Army Medical Center	Honolulu	HI	US Army	$20M
European Regional Medical Council (ERMC) II	Landstuhl	Germany	US Army	-
Landstuhl Medical Center	Landstuhl	Germany	US Army	$135M
VA Medical Center	Las Vegas	NV	Veterans Administration	$400M
VA Master Plan	Lebanon	PA	Veterans Administration	-
Learning Resource Center	Malawi	Malawi	Howard University	$9M
Mannheim Health & Dental Clinic	Mannheim	Germany	US Army	$13M
Wellness Center Expansion	Martinsburg	WV	Martinsburg City Hospital	$6M
Monterey Army Health/Dental Clinic	Monterey	CA	US Army	$12M
Community Medical Center	Moscow	ID	Grittman Community Hospital	$13M
Emergency Department	Seaford	DE	Nanticoke Hospital	$3M
Emergency Room Expansion	Seaford	DE	Nanticoke Hospital	$4M
Oncology Center	Seaford	DE	Nanticoke Hospital	Various
Patch Health & Dental Clinic	Stuttgart	Germany	US Army	$6M
Madigan Army Medical Center Renovations	Tacoma	VA	US Army	$6M
New addition/MRI Center	Warrenton	VA	Fauquier Hospital	$1M
School of Pharmacy Practice Laboratory	Washington	DC	Howard University	$10M
Outpatient Same Day Clinic	Washington	DC	Veterans Administration	$3M
Walter Reed Army Medical Center	Washington	DC	US Army	Various
CPEP Building 14 Renovation	Washington	DC	DC Department of Mental Health	$1.1M
Keller Army Community Hospital Addition	West Point	NY	US Army	$5M

Corporate and Staff Experience

Selected Laboratory Projects

MOSS CONSTRUCTION COST MANAGEMENT INC

Project	Location	State	Owner	Approx. Value
Johns Hopkins University Bioethics & Public Health Building	Baltimore	MD	Johns Hopkins University	$58M
Life Sciences Building L-1 855 N. Wolfe Street	Baltimore	MD	Forest City/ various joint partners	$47M
Life Sciences Building L-1 855 N. Wolfe Street	Baltimore	MD	National Institutes of Health	$50M
Medical Specialty OPC Improvements. Ward 4a	Baltimore	MD	Veterans Administration	$4M
NIH Bldg 10 Modified Atrium Infill and Clinical Program Relocations	Baltimore	MD	National Institutes of Health	$21M
Vivarium Cage Wash	Baltimore	MD	Johns Hopkins University	$2M
Building 37 Floor 5	Bethesda	MD	National Institutes of Health	$6M
Building 37 Modernization	Bethesda	MD	National Institutes of Health	$33M
Building 8/8a HVAC Repair & Improvements	Bethesda	MD	National Institutes of Health	$4M
NIH Bldg 10 Modified Atrium Infill and Clinical Program Relocations	Bethesda	MD	National Institutes of Health	$21M
Renovations to 5 Research Court Ph1/2/ Cage Wash	Bethesda	MD	National Institutes of Health	$5M
S.Wahl Lab phase 2	Bethesda	MD	National Institutes of Health	$0.5M
TOC Procedures	Bethesda	MD	National Institutes of Health	Various
Science & Technology Building	Charlotte	NC	University of North Carolina	$19M
CDRH Building	Greenbelt	MD	Food & Drug Administration	$90M
CISAT Agricultural Learning Center	Harrisonburg	VA	James Madison University	$16M
Marine Research Facility	New Castle	NH	University of New Hampshire	$7M
Clandestine Laboratory/training facility	Quantico	VA	DEA	$21M
Center for Predictive Medicine	Shelby	KY	Univ. of Louisville/ NIH-NIAID	$32M
University of Louisville Center for Predictive Medicine	Shelby	KY	University of Louisville	$30M
Saint Mary's College New Academic Building	St. Mary's	MD	Saint Mary's College	$22M
Building 44 Academic labs and Classrooms Renovation	Washington	DC	University of District of Columbia	$8M
Wolf Hall & McKinley Annex	Wilmington	DE	University of Delaware	$20M
-	-	-	-	-

Sample Projects

Moss Construction Cost Management Incorporated

OSU Clinical Expansion

Columbus, OH

Owner:

Ohio State University

Client:

Morgan Construction Consultants, Inc.
Brian Morgan 847.516.6490

General Description:

LOCATION: Columbus, OH

DATE OF SERVICE: 2007-8

PROJECT DETAILS: MossCost has provided cost estimating and other services for the following projects:

New Cancer Treatment Center

HOK designed this new $300M, 830,000 SF thirteen story facility, comprised of seven patient floors stacked and organized into two wings of a tower located above a four story diagnostic and treatment podium. Project includes expansion of existing emergency department in an adjacent building and incorporates a variety of sustainable design features in pursuit of LEED certification.

In addition to estimating services, Cost Benefit analysis of these features was part of the deliverable. MossCost participated in a Value Engineering workshop in December 2007, which was successful in identifying necessary savings to bring the project into budget.

Ross, Doan, James, Cramblett Buildings Code Updates

Provided schematic design estimates and life cycle cost analysis for approximately 100 MEP upgrades on the medical campus with a total cost of $120M.

Infastructure

Provided schematic design estimates for $76M worth of roadway and infrastructure improvements for the new medical center expansion. Project includes a number of sustainable features and civic upgrades that required separate funding estimates.

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We are a registered **woman owned small business** with offices in Indiana and Maryland.

With a national client base, we are experienced in servicing projects in diverse locations all over the United States.

We are certified with the State of Indiana to provide professional cost estimating and project management services.

Moss Construction Cost Management Inc.

Indiana: 260 925 3416

Maryland: 240 252 5352

www.mosscost.com

Moss Construction Cost Management Incorporated

UNIVERSITY OF VIRGINIA HEALTH SYSTEM

Charlottesville, VA

OWNER:

UNIVERSITY of VIRGINIA HEALTH SYSTEM

CLIENT:

Nalls Architecture

Robert J. Nalls, AIA 610.667.9551

GENERAL DESCRIPTION:

LOCATION: Charlottesville, VA

DATE OF SERVICE: 2007

ESTIMATED COST: VARIOUS:

BUILDINGS: Various

PROJECT SIZE: Various

Moss Construction Cost Management is providing design phase cost estimating services for a variety of renovation, remodeling and new construction projects under a term agreement held by Nalls Architecture of Philadelphia. Recent tasks have included a 2,500 SF Pharmacy renovation and a new 3,800 SF sterile BSL3+ processing facility. Project values typically fall in the $1M to $2M range. Scope of work includes all construction disciplines including Mechanical, Electrical & Plumbing. Estimates are formatted to comply with UVA requirements and State of Virginia capital outlay manual.

For more information, contact Jonathan Moss email: jonathan@mosscost.com.

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Moss Construction Cost Management Inc.

Head Office: 260 925 3416

Mid Atlantic: 301 802 3432

www.mosscost.com

Moss Construction Cost Management Incorporated

ADD/ALTER SIGNATURE LAB

Dayton, OH

OWNER:

Wright Patterson Air Force Base

CLIENT:

HDR, Inc.

Machelle Krajewski 402.926.7150

GENERAL DESCRIPTION:

LOCATION: Dayton, OH

DATE OF SERVICE: 2007

ESTIMATED COST: $9M

PROJECT SIZE: 32,000 GSF

Moss Construction Cost Management provided MCACES MII estimates for this secure building addition at Wright Patterson Air Force Base, Dayton, Ohio.

The work was performed as a sub-consultant to HDR Inc. under an IDIQ contract (#W912QR-07-D-0009) for the Louisville Corps of Engineers

The scope of work included provision of charette, 95% and 100% RFP phase estimates.

Updates and response to User/Corps of Engineers comments via the "Dr Checks" system was part of the deliverable.

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JMU CISAT LIBRARY

Harrisonburg, VA

OWNER:

James Madison University

CLIENT:

Faithful & Gould

Scott Cullen 703.684.6550

GENERAL DESCRIPTION:

LOCATION: Harrisonburg, VA

DATE OF SERVICE: 2006

ESTIMATED COST: $23M

BUILDINGS: CISAT LIBRARY

PROJECT SIZE: 106,000 SF

Moss Construction Cost Management provided design phase estimates for the new library building for the College of Integrated Science and Technology (CISAT), part of James Madison University. This state of the art facility is currently under construction and will house the science, technology and health collections along with the Center for Faculty Innovation and the Center for Instructional Technology. The building is designed to give panoramic views of the Virginia mountains and as such presented a number of challenges in terms of curtain wall glazing and roofing elements.

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Moss Construction Cost Management Incorporated

VA Medical Center

North Las Vegas, NV

Owner:

United States Department of Veterans Affairs

Client:

Faithful & Gould

Scott Cullen 703.684.6550

General Description:

LOCATION: Las Vegas, Nevada

DATE OF SERVICE: 2006

ESTIMATED COST: $400M+

BUILDINGS: 10+
Phase 1-Central Plant & Utilities Infrastructure
Phase 2-Main Media Center, Nursing Care Unit & Warehousing/ Receiving

PROJECT SIZE: 904,000 SF
Main Medical Center 796,000SF
Nursing Care Unit 85,000 SF
Warehouse/Receiving 23,000 SF

The project team for the new VA medical center in North Las Vegas, Nevada required an independent check estimate to validate the construction managers projected costs of this two phase project.. Phase 1 ($60M) included the site development, Central Plant and utilities infrastructure with miscellaneous buildings and a tank farm. Phase 2 ($340M) consisted of the Main Medical Center, a Nursing Care Unit & warehousing/receiving, with the main utility tunnel linking to the central plant. Estimate preparation and submittal had to comply with VA procedures and formatting requirements. The check estimate confirmed that the construction market in the Las Vegas area was outstripping regional averages in terms of inflation and highlighted the need for careful and specific research when establishing price levels for different markets.

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U.S. Green Building Council Member

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www.mosscost.com

Moss Construction Cost Management Incorporated

ECKHART PUBLIC LIBRARY

Auburn, IN

OWNER:

Eckhart Public Library

CLIENT:

Eckhart Public Library

Janelle Graber 260.925.2414

GENERAL DESCRIPTION:

LOCATION: Auburn, IN

DATE OF SERVICE: 2005 TO PRESENT

Moss Construction Cost Management actively manages a number of ongoing projects for Eckhart library including the renovation of a newly acquired building, which is seeking LEED Silver certification.

Initial involvement was limited to condition assessment and analysis of apparent defects in a recent terrace and ramp addition, together with recommendations as to a course of action and expert advice as to whether damages could be sought from the designer or contractor. Subsequently, MossCost developed design solutions, cost estimates, coordinated A/E input and produced and issued bid documents compliant with state public procurement legislation. Funding restrictions dictated construction contracts be awarded prior to the year end. Allowing for Library board approvals and statutory notice periods, it was necessary to complete the design and bid package within 4 weeks.

Concurrently, the Library was acquiring a further building. At short notice, MossCost completed a condition assessment together with prioritized remediation measures and cost estimates. This assessment was used to finalize grant funding and building procurement.

In 2006, MossCost managed the construction contract for the terrace remediation work, successfully delivering the project within very specific schedule restraints dictated by Library operations, on time and within budget. Careful budget control and constructability review allowed for the addition of snow melting features that otherwise would not have been incorporated.

Moss Construction Cost Management is a full service construction consulting firm. We specialize in client representation, cost management and sustainable construction.

We are a registered **small business** with offices in Indiana and Maryland.

With a national client base, we are experienced in servicing projects in diverse locations all over the United States.

We are certified with the State of Indiana to provide professional cost estimating and project management services.

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