Construction Pricing Models – Choosing an Appropriate Pricing Arrangement

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INTRODUCTION

When negotiating a construction contract, the pricing model selected to determine the cost of the project is arguably the most important decision the parties will make. The pricing structure not only determines the project cost, but also results in substantially different responsibilities and opportunities for the parties, depending upon the structure selected.

There are three basic types of pricing arrangements in construction contracts: (1) stipulated sum (also known as fixed price or lump sum), (2) cost plus (with or without a guaranteed maximum or not-to-exceed price), and (3) unit price. While there may be additional pricing structures in use and hybrids of the basic arrangements, this practice note discusses these common models and outlines the pros and cons of each, as well as the costs and benefits to both contractors and owners, respectively. As in all contractual settings, it is important to keep in mind the negotiating power of each party, the size of the total contract, the difficulty of the project, and the level of sophistication and experience of both the contractor and owner when selecting a pricing model. Understanding these pricing arrangements and their respective benefits is crucial to negotiating and structuring a contractual relationship that best fits client goals.

For complete coverage of compensation arrangements in design and construction agreements, see 2-3A Construction Law P 3A.01 et seq.

STIPULATED SUM / FIXED PRICE CONTRACTS

Stipulated (or lump) sum is a term of art that essentially describes a fixed price relationship. In this pricing structure, a definite price for the job is set and that amount is paid without regard to the actual cost of the work, including the profit and overhead of the contractor, which are included in the price. The only change in price would be a result of a change in scope or a properly issued change order.

In this model, the work is typically broken down into categories of work (plumbing, electrical, concrete, etc.) and each category is given a value (the schedule of values) equal to the percentage of the job costs it represents. As the work proceeds, the schedule of values is used to determine the percentage of completion and the payment is made accordingly. When a pay application is submitted, the percentage of the project that is complete is determined (based on the schedule of values) and the contractor is paid that percentage of the stipulated project cost, subject to the withholding of retainage (the portion of the agreed upon contract price deliberately held back until substantial completion to secure the contractor's obligations).

The stipulated sum arrangement is most appropriate where simplicity of management is a consideration due to the size of the project or the lack of sophistication or time availability of the owner's internal management team. For example, a one-off business owner who is building a new office may not have the time or level of sophistication to manage the costs of a project and may simply want the certainty of knowing what the job will cost.

For this reason, stipulated sum contracts are often utilized in a design-build delivery method where an owner engages one party to design and build the project. It is also used in a design-bid-build delivery, where architects and engineers are hired to design the project in advance of bidding out the construction work. The owner provides the complete construction specifications created by the architects/engineers to a variety of contractors, and each contractor then prepares a bid based on that contractor's estimate of the total cost to complete the construction. This project delivery method is often used in public works projects, where the bidding process needs to be transparent and it has to be clear that each party is bidding from the same set of complete specifications. Similar to design-bid-build, owners sometimes opt to utilize a design-negotiate-build project delivery method. Design-negotiate differs from design-bid in that after the owner provides its construction specifications to contractors, the owner will request preliminary bids and then negotiate a final stipulated sum based on the estimate as well as the contractor's reputation, scalability, qualifications, and experience, among other qualities. This structure is common in the private sector where the public bidding requirements generally do not apply. For further discussion of the design-build and design-bid-build project delivery methods, see Advantages and Disadvantages of the Primary Construction Project Delivery Methods.

Advantages of a Stipulated Sum Contract

The greatest benefits of a stipulated sum arrangement are obvious: simplicity and certainty. The bid price encompasses all of owner's costs to complete the project, including the profit and overhead of the contractor which are baked into the price, and is the total amount the owner will have to pay, unless specifically bargained for in the contract (i.e., changes in scope of work or unforeseen circumstances). Similarly, the contractor does not have to worry about justifying the price of any work within the scope of the contract, and far less recordkeeping time is required. In a stipulated sum arrangement, the contractor is obligated to complete the work for the agreed-to-sum, and the owner is not required to cover the contractor's cost overruns—if any. Because of the simplicity of administering the contract, little is required of the owner. In short, the owner does not care about the actual costs of construction and does not have to monitor them, because the contract price will remain the same. Similarly, the contractor will not have to account for its work or progress in the same way. Rather, the contractor will simply complete a task and seek payment in an amount equal to the percentage assigned to that work.

Disadvantages of a Stipulated Sum Contract

Conversely, however, any savings incurred by the contractor inure solely to the contractor. The lack of shared savings is linked to another characteristic of the stipulated sum arrangement. Often in a design-bid arrangement, contractors will build contingencies into their bids in order to take into account the possibility of cost overruns or other conditions. Assuming that all other things held equal, and the project is completed as efficiently as possible at the lowest possible cost to the contractor and at a maximum quality and all of the contractor's assumed contingencies are unrealized, the owner will not realize any of the savings. Additionally, this same thinking can lead to a contractor utilizing substandard materials or labor in order to create savings and thereby increase its profits.

The owner may face additional problems related to the lack of incentive in such an arrangement to complete the project in a timely manner. When a contractor has been guaranteed a lump-sum price for completion of the work, it has less incentive to complete the work in a timely manner unless specific construction timelines, coupled with penalties for failure to meet deadlines, are agreed to as a component of the contract. A liquidated damages provision that affixes stipulated damages for a contractor's failure to meet set deadlines, should be considered when representing an owner under a fixed price contract.

Projects Best Suited for Stipulated Sum Contracts

Stipulated sum pricing arrangements are most often used in projects with a total cost of less than $10 million and when the project has been fully designed prior to entering into the contract. Generally speaking, stipulated sum arrangements work best when the design is either a simple build or the contractor has completed similar work in the past. Such projects typically do not experience many unknown or unexpected issues mid-construction and thus will result in fewer change orders and possibilities for cost savings. A stipulated sum contract is best where easy administration by the owner is a factor.

Drafting Tips for Stipulated Sum Contracts

When drafting a fixed sum contract, it is crucial to identify the scope of work covered by the contract. The drafter should prepare a detailed scope of work and a schedule of values which clearly identify the covered work and the percentage of the stipulated sum to be paid upon the completion of each item. It is also important to have detailed and specific change order provisions since that will be the vehicle by which the contractor will seek to increase the price.

For more on firm-fixed-price or lump-sum contracts, see 2-3A Construction Law P 3A.02 (introductory paragraphs and subsection [1]).

COST-PLUS CONTRACTS

In contrast to a fixed sum contract, the administration of a cost-plus contract is far more difficult and demanding. Under a cost-plus pricing model, the contractor will be paid the full price for all agreed-upon construction related costs, overhead, and a fee representing the contractor's profit. The fee may be a predetermined amount or a percentage of the total construction costs. The idea behind a cost-plus arrangement is to allow an owner to pay the cost of the actual work without markups for greater transparency. To avoid disputes, it is vital that the parties specify and define what will be considered reimbursable expenses to the contractor and what is considered a cost to the owner.

Theoretically, under a cost-plus arrangement, every component of the work, labor expenses, material costs, equipment rentals, and other costs, are tracked throughout the project. This requires the owner to review (and even audit) those costs to make sure only the actual cost of the work is being requested and paid. As will be discussed below, cost-plus contracts often come with a guaranteed maximum or not-to-exceed price (GMAX contract).

Advantages of a Cost-Plus Model

Cost-plus pricing models can provide advantages for both owners and contractors alike. The most important reasons to use this model are:

- Under this model, there is potential for the owner to achieve savings through performance efficiencies. (This will be discussed in detail on the section below pertaining to GMAX contracts.) To achieve such cost savings, the contract must be drafted to specifically identify reimbursable costs and should have detailed provisions explaining how savings will be shared. Providing both the owner and contractor with a share of savings can motivate both to work together and foster collaboration.
- This model works better than a stipulated sum model when the design is not far enough along for a contractor to reasonably give a fixed price. The cost-plus model permits the project to go forward before the detailed

design documents are done. This also includes fast-tracked projects. By involving the contractors early on, owners retain greater flexibility to modify designs and materials as the project proceeds along while gaining valuable input from the contractors with regard to feasibility analysis, estimating, and value engineering. After these preconstruction services have been undertaken, the parties are better equipped to arrive at a budget. A project bid with incomplete drawings as a stipulated sum contract, will likely increase the overall cost.

- Similarly, under this model, a contractor can go forward with its work even with incomplete design documents and even when costs are rising in the market, without having been locked in to a fixed price.
- This model provides more data for an institutional owner to give to its board or committees in budgeting and planning capital improvements.
- Under this pricing arrangement, rather than selecting a contractor based solely upon the bid price, owners can select contractors based on factors such as experience, reputation, ability, and the proposed fee.
- The open book nature of a cost-plus pricing model can also, if the owner and contractor maintain a respectable working relationship, allow for a flexible and efficient building experience. Contractors are often required to obtain several competitive bids for each trade involved in the project under this model, which allows the owner to review the bids and secure the lowest cost and/or the most reputable subcontractor. This greater degree of transparency can result in not only lower construction costs, but also result in high-end work product and a true partnership-like relationship between the owner and contractor.

Disadvantages of a Cost-Plus Model

The advantages of a cost-plus contract go hand in hand with the time and cost disadvantages of performing work prior to the completion of the final plans and the mandatory reporting requirements. The high maintenance nature requires more work from both sides, as the contractor must devote extra time to tracking and reporting costs and getting cost data from subcontractors and sub-subcontractors performing work. In turn, the owner must scrutinize the reporting for accuracy and should perform at least one audit during the term of the contract. There may also be added time and work when negotiating the contract. Cost-plus contracts are often heavily negotiated in order to accurately and thoroughly determine cost allocations to the contractor and owner. These added "soft costs" involved in the negotiation and maintenance of these contracts are not popular with investors and lenders alike.

The aforementioned fast-tracked nature of cost-plus contracts may also bring increased construction costs. Since contractors often begin construction prior to the completion of the final specifications and drawings, conflicts may arise that must be resolved after the work has started, rather than in the design process before the work has begun. This, in turn, may require a redesign, additional work, and costly delays in the construction schedule.

Importantly for the owner, the uncapped nature of cost-plus arrangements opens the owner to the risk of open-ended and indeterminate construction costs. This problem may be exacerbated in situations where the contractor's fee is determined based on the total construction price. If the contractor's fee is tied directly to the final cost, the contractor has very little incentive to reduce costs on the project because as the costs go higher, so too does the contractor's fee. The owner can quell this uncertainty by placing a guaranteed maximum price on the construction costs in order to predetermine a fixed maximum cost and prevent a contractor's fee from rising indefinitely as construction costs rise. This GMAX version of a cost-plus pricing arrangement has become extremely popular and is discussed in the next section.

Guaranteed Maximum Price (GMAX)

A guaranteed maximum price arrangement, or GMAX arrangement, is essentially a cost-plus agreement that includes a cap on the owner's maximum liability for construction costs incurred on the project. A GMAX arrangement differs from a cost-plus arrangement without a maximum price, in that, rather than the owner guaranteeing the total cost for all work completed with no provision for cost overruns, GMAX sets the maximum amount the owner will pay. Additionally, GMAX arrangements contractually address how any savings will be allocated. Generally, a GMAX arrangement will provide that if the total cost of construction comes in below the GMAX price, the owner and contractor will share in the savings on a predetermined pro rata basis. Oftentimes the savings are allocated 50-50, but it is not unusual for the savings allocation to be negotiated depending on the parties' respective priorities and relative bargaining power.

Advantages of Using a GMAX

GMAX pricing arrangements have become more and more popular in the last few years due to the advantages the arrangement offers to both owners and contractors. In particular, and as discussed above, the shared allocation of savings is particularly attractive to both parties and a capped maximum price provides security and certainty to owners. Additionally, the shared allocation of savings incentivizes contractors to reduce incurred costs to maximize their profits.

Disadvantages of Using a GMAX

Disadvantages of GMAX pricing arrangements parallel those of other cost-plus arrangements: the nature of the structure may encourage contractors to overestimate the forecasted cost of the project in order to reduce risk. An inflated guaranteed price protects contractors from the possibility of cost overruns and allows the contractor more flexibility to complete the project under budget thereby increasing its share of the savings. This arrangement also requires the same type of commitment (or even more) from the owner and contractor in terms of managing the cost issues as found in other cost-plus contracts.

Other Considerations for Using a GMAX Pricing Arrangement

GMAX pricing arrangements are more often used when the project cost is in excess of $10 million or where the scope is either unusual or complex. Complex projects, or unique projects, often have many unknowns that could require many change orders throughout the construction project. Additionally, GMAX arrangements are helpful when there is a concurrent design process because it increases the likelihood that costs may rise as design elements are altered.

Drafting Tips for Cost-Plus Contracts

Payment provisions under a cost-plus contract should be drafted to provide that payments will be made based on the percentage of the GMAX and not simply the percentage of work completed. If payment is based simply on the percentage of work completed, the owner will always end up paying for 100% of the GMAX rather than the actual cost of the work plus a fee, and no savings will ever be achieved.

The parties should also negotiate the terms of any shared savings, as there is no clear industry standard. In doing so, it is important to note the different kinds of potential savings that may be achieved during the project. These categories of savings include buyout savings, value engineering savings, efficiency savings, and leftover contingency amounts. Each of these different categories of savings may have a different allocation between owners and contractors.

It is also crucial to define which costs are included and which are excluded. The agreement should be as specific as possible on which costs are reimbursable and which are not. Examples of typical reimbursable costs include labor (wages, fringe benefits, supervision); subcontractors; materials; equipment; taxes; insurance; testing; and permits. Sometimes software, lost deposits, travel expenses, legal expenses, and off-site labor fall into the reimbursable cost category.

When negotiating reimbursable costs, the drafter should consider labor multipliers, home office costs, general conditions, insurance costs, related party issues, and discounts and rebates.

On the other hand, examples of traditionally nonreimbursable expenses are home office expenses, overhead and general expenses not included in the list of reimbursable expenses, capital expenses, and defective work.

An audit clause should be included in a cost-plus contract and should identify the supporting cost documents, accounting records, and financial records which should be kept by the contractor and how long they must be preserved. The contractor should try to narrow the categories of documents to prevent a fishing expedition that will force the contractor to give in rather than use resources to compile and defend endless categories of documents. The owner, on the other hand, will want detailed records to substantiate expenses. The audit provisions should also spell out the circumstances of accessing the documents, including frequency of inspections, place of inspection, times at which inspections can take place, and duration of the audit. The owner will also want the right to retain third-party experts to conduct the audit.

A well-drafted and detailed cost-plus arrangement, with a GMAX price, can lead to a successful and collaborative project.

For more on various types of cost-plus contracts, see 2-3A Construction Law P 3A.03[2] (cost plus a fixed fee); 2-3A Construction Law P 3A.04[1] (GMAX); 2-3A Construction Law P 3A.04[2] (cost-plus-incentive-fee); 2-3A Construction Law P 3A.04[3] (cost-plus-award-fee); 2-3A Construction Law P 3A.07 (percent of construction cost). See Guaranteed Maximum Price Clause for a sample GMAX clause.

UNIT PRICE CONTRACTS

A unit price model is very popular under certain limited circumstances. Under a unit price structure, the contractor sets a price for each unit of work or task to be completed. Generally, the contractor's overhead and profit are included in the rate for each unit. Regardless of whether the total quantity or number of units is known, the owner agrees to pay the contractor for actual units provided, installed, or constructed. Unit pricing is common for repetitive projects and easily quantifiable tasks which make it especially popular on public works, engineering, and road building projects. It may also be utilized on private building projects, but only on select cost categories such as installation of door handles, faucets, and other similar work that is repeated many times.

Advantages of Unit Price Contracts

Unit price arrangements can benefit both the owner and contractor. The owner will benefit because the work is relatively easy to verify, and the owner will only pay for actual quantities performed, supplied, or constructed on the project. Conversely, contractors can benefit where the anticipated quantities or units are underestimated as the contractor will be paid at the agreed-upon unit price for all units completed.

Disadvantages of Unit Price Contracts

There are, however, challenges to unit price arrangements that limit its application. Often this comes during the bidding process where it is difficult to determine which pay item applies to a particular activity when the work is segregated into numerous discrete line items. Moreover, unit price bid schedules are often inconsistent with the definition of work found in the drawings and specifications. This can lead to difficulty in determining the intended total bid price for purposes of bid evaluations and comparison. Unit price bidding can also facilitate unbalanced bidding and intentional misallocation of cost and profit among the various units of work as contractors may shift various costs and profits to the work for which many units are required.

Other Considerations for Using a Unit Price Arrangement

Unit price arrangements are best utilized for projects such as road construction or other public utility-like settings. Generally, unit price arrangements make most sense when the materials or labor quantities are unknown at the outset of the project and are expected to fluctuate based on project needs.

For additional coverage of the unit price method, see 2-3A Construction Law P 3A.02[2].

COST PROVISIONS APPLICABLE TO ALL PRICING MODELS

Regardless of the pricing structure used, there are common cost-related provisions. The scope of the work must be clearly defined and care should be taken to make sure exhibits do not contradict one another or the body of the agreement. (To that end, the contract should offer a clear statement of how conflicts between documents will be resolved.) Without careful drafting, it is possible to have the scope of the work defined in the body of the contract, a contradictory scope of work exhibit, clarifications, and exclusions exhibits which are inconsistent with both, and a schedule of values that matches up with none of the other provisions. For these reasons, it is crucial to have an order of precedence provision, which identifies the order of precedence in any conflict situation. There may also be an owner-oriented provision that provides that in the event of a conflict, the contractor shall be deemed to have performed the work to the most stringent of the requirements and standards.

There should also be a clear understanding of how contingencies should be used. While pricing changes should be less difficult to negotiate in a cost-plus contract than a lump-sum contract, the change order provisions should address how the contingency will be used; general conditions issues; adjustment of the GMAX price and the impact on the contractor's fee.

The contract should also address the impact of delays on pricing, including whether extensions of time increase general conditions, and whether delays require an increase in the GMAX.

RISK MITIGATION CONTROLS

The property owners should be proactive in monitoring general conditions costs. In each pay application, the owner should verify each line item calculation for general conditions and should also verify job cost transactions to ensure that general conditions costs have not been double counted, which frequently happens and goes unnoticed. General conditions calculations should always be based on actual costs or on a set percentage of the cost of the work—each of which should be continually verified by the parties in each pay application.

CONCLUSION

Attorneys representing both owners and contractors should be aware of the various pricing arrangements described in this practice note. When counseling a client on the optimal pricing arrangement, the attorney should first consider the type, cost, and complexity of project; the parties' level of experience; and the parties' goals. In any arrangement, the attorney must be keenly conscious of isolating what costs and charges should be incorporated in any pricing to head off potential disputes and manage expectations for both the owner and contractor. Above all, the attorney should keep in mind that no pricing model is one size fits all.

For further discussion on selecting the appropriate compensation arrangement for the project, see 2-3A Construction Law P 3A.09.