Recommended Best Practice for Construction Project Owners – Both Public and Private

SELECT THE CORRECT TYPE OF CONTRACT

Selecting the best type of contract to use is perhaps to most important risk management decision an owner makes. There are two basic types of contracts: fixed-price / lump-sum and cost reimbursable (variations of each are widely used). When deciding which type will best meet an owner's needs, consideration should be given to the project size, the owner's project management experience / workload, contractor performance, and other.

There are widely accepted requirements that must be in place to ensure the most effective utilization of either strategy.

Fixed-Price / Lump-Sum (FP / LS) Contracts

Five generally accepted requirements for effective fixed-price / lump-sum contracting are:
1. Design should be complete and stable project conditions should be expected,
2. The bid climate should be favorable to the owner (a buyer's market),
3. The project should not be schedule driven (for whatever reason – market needs, political impacts, environmental requirements, management driven, or other),
4. The owner should be committed to making no scope changes, and
5. The total value of the project should be no greater than $10,000,000.

If any one of these requirements does not exist, there is increased risk that the owner may pay more than would be the case using a cost-plus (with a guaranteed maximum price) strategy with project life cycle auditing / continuous monitoring. If two or more of these requirements do not exist, the risks (obviously) go up.

The "schedule driven" issue is very important because it can:
- Negatively impact the bid process – quality of bids, bid evaluations, and other,
- Inflate the contractor's estimate (and reduce the quality thereof),
- Reduce the quality of, or eliminate entirely, the owner's validation of the estimate,
- Adversely impact the quality of design,
- Result in scheduling issues,
- Serve as a breeding ground for change orders, and
- Other.

All of these issues almost certainly increase the estimated cost (contractor's bid) and / or the final cost of the project. So, if schedule is a must (as is often the case), FP / LS contracting is simply not recommended.

FP / LS contracts are also referred to as "closed book" contracts because they do not allow owners access to contractors' detail accounting / cost data. Additionally, **large** LS projects are more complex, have longer schedules and inherently greater risks. Risk mitigation amounts (some identifiable, some not), including contingencies and allowances, are included in the FP / LS amount to protect the contractor. The sum total of these "risk mitigation" amounts can be a significant percent of the project's total value. These are important reasons (among others) there is a recommended limit on the upside financial value of FP / LS contracts. Tens of millions (especially hundreds of millions) of dollars involve too much "blind risk" for owners. Many owners are learning that FP / LS contracts with their built-in contractor risk mitigation amounts are simply too expensive.

Cost Reimbursable Contracts

The generally accepted requirements for cost reimbursable contracts are:

1. A competent and trustworthy contractor,
2. Experienced, quality supervision by the owner's project team,
3. Experienced project life cycle audits / continuous monitoring by owner assigned personnel (in-house or **independent** outside professionals), and
4. A well-drafted right-to-audit contract with detailed definitions of allowable and non-allowable costs.

If any one of these requirements does not exist, there is increased risk that the owner will over pay for the project. Requirements three and four are most critical and a life cycle auditing / continuous monitoring (cost control) plan should be in place from project inception through project close-out.

Cost reimbursable contracts include "Cost of the Work plus a Fee with a Guaranteed Maximum Price (GMP)" contracts. Cost-Plus / GMP contracts that are administered the same as FP / LS contracts essentially become FP / LS contracts at, or near, the GMP amount thus significantly decreasing, or eliminating entirely, the owner's opportunity to benefit from the project's success. The risk of project failure is managed (to some extent) by the GMP amount as is done with a fixed-price / lump-sum amount.

A Cost-Plus / GMP contract, combined with project life cycle audits and / or a continuous monitoring (cost control) execution strategy, is the recommended owner's contract of choice. This contract / execution strategy delivers the major advantage (final cost maximum) of a FP / LS contract while allowing the owner to benefit from good project management / execution. The costs are billable to the project (not charged as a period expense) and are offset by cost avoidances / cost savings that always result from auditing / continuous monitoring.

The scope of life cycle auditing / continuous monitoring should be determined via a contract risk analysis developed by the professional construction auditor / cost control expert with participation by the owner. Such expert must be either an in-house employee or a fully **independent** outside professional (Certified Cost Consultant / Engineer, Certified Construction Auditor, or the like who has actual construction cost control / audit experience). While many architects and contractors (doing work on the project) may offer to provide this service, it must be noted that they have a conflict of interest and should not be allowed to perform this work no matter how well qualified they may be. The use of architects and / or contractors not otherwise directly involved with the project likewise involves conflicts – including the risk of them trying to "one-up" the architect / contractor being audited.

Reference Notes:

- The generally accepted requirements for effective use of the two basic types of construction contracts may be found in multiple sources and different wordings. The primary references used here were:
  - Chapter 25, "Contracting for Capital Projects," by James G. Zack, Jr., *AACE International's Skills & Knowledge of Cost Engineering*, 5th Edition, Edited by Dr. Scott J. Amos, PE, 2004. In this writing, Zack also discusses the advantages and disadvantages of each type of contract. Zack does not discuss the recommended not-to-exceed dollar value of $10,000,000 for FP / LS contracts. That is a DCA, LLC recommendation and has been noted in PowerPoint presentations by other professional construction contract auditors.
  - "Construction Contract Types," by Oklahoma State University located at www.pp.okstate.edu/arch/chopshop/New%20Folder/A11.pdf.
- It should also be noted that the recommended not-to-exceed dollar value for FP / LS contracts applies to construction projects in the United States. This auditor has no international experience and there may be other considerations that make FP / LS contacting of larger projects attractive in the international environment.
- Government (owners) entities may not have legal authority to "select the correct type of contract" as they may be required to award all contracts lump sum. It should also be noted that many government owners are required to "competitively bid and award work to the lowest bidder" and they assume this requires a lump sum contract (or they interpret / equate GMP values as LS values). That may not be the case as projects may be competitively bid and awarded to the lowest bidder via a GMP value. This allows a GMP contracting strategy and some entities specifically acknowledge this. Legal counsel should be consulted before making any changes in contracting strategy. The use of GMP contracts was noted in procedures / statutes at:
  - www.nc-sco.com (North Carolina),
  - www.statutes.legis.state.tx.us (Texas),
  - www.leginfo.ca.gov (California).