



A Roadmap for Preventing Construction Disputes

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Whether resolved through mediation, arbitration or trial, construction disputes can be costly and time consuming for both project owners and contractors. Construction disputes may involve just a few thousand dollars or may be valued in the billions. The time required to resolve disputes may span years, and cripple both the contractor's and owner's financial resources. To eliminate the risk of being embroiled in a costly construction dispute, some construction firms may not bid certain types of projects and avoid working for owners who have a reputation for contentious relationships with contractors.

In this article, we have outlined a few of the major steps that we feel can reduce or prevent construction disputes based on our collective involvement in thousands of construction projects throughout the world. Since there are many reasons that construction disputes occur, these steps may not necessarily apply to every dispute. Every dispute should be evaluated within the context of its own unique circumstances.

Understand the Contract

This may seem like an elementary step, but misinterpretations of contract clauses are one of the leading causes of construction disputes. Standard construction contracts, such as those published by the American Institute of Architects, may be familiar to both contractors and owners; however, a legal review is still recommended to identify any modified clauses or potential areas of risk and sources of future disputes. Before starting work on a project, contractors should pay particular attention to and fully understand contract change order provisions, dispute resolution procedures, notice requirements, Disadvantaged Business Entity (DBE) requirements, differing site condition clauses, no damage for delay clauses, Buy American clauses, liquidated damages clauses, project scheduling requirements, warranty periods, training periods and requirements for substantial completion, among other types of clauses that may be contained within a contract.

Develop and Maintain an Accurate Schedule

Delay claims are one of the most common types of construction disputes. An accurate and well-maintained project schedule is important in evaluating and potentially mitigating project delays in a timely manner. Care should be taken to develop an as-planned or baseline schedule based

on critical path method (CPM) principles that properly reflect the project scope, planned logic sequences, work crew flows and project-specific needs and requirements. Subcontractor and supplier input are recommended in developing an accurate and reliable baseline schedule. The owner's review and acceptance of the baseline schedule helps to ensure that all parties are aware of the activities and work sequences that need to take place to complete the project on time. Timely and accurate updates of the schedule allow the parties to identify and possibly mitigate delays as they occur, either through acceleration, re-sequencing of work, scope reduction, or other means. If change orders are issued, the contemporaneous evaluation of project changes using a Time Impact Analysis (TIA) or other prospective schedule analysis technique enables the parties to evaluate and issue any justifiable time extensions while the project is ongoing, hopefully avoiding delay claims that are often submitted as a project nears completion.

Develop and Maintain an Accurate Cost Control and Monitoring System

It is essential that contractors establish realistic baseline budgets consistent with scheduled construction activities prior to commencing work on a project. As actual costs are being incurred, it is equally important to have a formal and effective process in place to track actual versus budgeted costs. As variances occur, any cost overruns can be analyzed in real-time to determine whether the item was underbid or is being impacted by ongoing project events. The following paragraph includes examples of cost overrun scenarios frequently encountered on construction projects, along with recommendations for tracking and resolution by the contractor and owner.



In instances where planned crew production is not being met due to owner-caused events, it is helpful if the contractor records those hours and costs in enough detail to affirmatively establish and quantify the impact. One method for quantifying the added costs is commonly referred to as a “measured mile” analysis where the contractor demonstrates an achievable work performance in non-impact periods as compared to impacted performance by owner-caused events. A review of trade labor hour recording on time sheets can be performed by project supervisory staff to minimize any improper coding and ensure that hours are contemporaneously recorded to the correct work code. Opening new cost codes for changed work can help to avoid any confusion between time spent on contract-specific scope as compared to changed work scope. Some contracts may specifically exclude the recovery of lost productivity-type impacts. In such instances, a contractor may face legal challenges related to any potential recovery of those costs. If allowable by contract and presented with a disruption or lost productivity analysis, a timely review by the project owner or owner’s representative can verify if the impact was caused by owner-related issues or was the result of a contractor-caused issue or bid estimate error, enabling a resolution of the impact in real time on the project rather than in a contentious and costly claim situation after project completion.

Empower & Train Project Management Personnel

Skilled project management personnel can identify problems early and resolve them before they turn into full-blown disputes. Identifying work activities that are falling behind schedule and/or running over budget in real time can help both the contractor and the owner avoid potentially project-crippling disputes. With respect to change order approval, both owners and contractors may tend to focus more on agreeing to the direct costs associated with the change, while the time extension and time-related cost elements of change orders are often either disputed or not fully understood. In many cases, time-related issues are not resolved during the project, with the parties instead agreeing to resolve those issues at the end of the job. Also, in many cases owner’s representatives in the field are not authorized to make decisions regarding granting of time extensions and approving additional costs. The non-resolution of individual time-related issues at the project level can quickly create larger problems, as more and more changes occur on the project and the resolution of the entitled days of delay gets more complex in every additional instance. This “kick the can down the road” approach to change order approval often results in the submission of a

complex delay claim at the end of the project.

When a change order is resolved and agreed to, a legal review of the change order language is recommended prior to signing. Contractors may sign change orders for direct cost-related items to help a cash flow situation but may inadvertently waive their rights to a time extension and any applicable indirect costs depending on the change order’s reservation of rights language. Proper training and empowerment of both owner and contractor project management personnel can resolve these change order disputes on an individual real-time basis, rather than having to deal with a larger dispute after the project.

Throughout the entire lifecycle of a construction project, constant communication between all stakeholders is vital to avoid missteps. Project management personnel play a key role in maintaining proper project communication. Turning a construction project into a letter-writing campaign is not the intent; however, communication is necessary to avoid misunderstanding contract requirements, complying with notice provisions and documenting issues in the event an agreement cannot be reached and a more intense construction dispute occurs later.

Consider New Technologies

Technologies such as Building Information Modeling (BIM) have been an effective tool in reducing construction disputes. Performing clash detection of mechanical, electrical and plumbing (MEP) work, for example, can identify installation conflicts in the design stage prior to the start of field construction. Adding other dimensions to a building information model—such as time (4D)—may help project participants better analyze and visualize construction staging and sequences, hopefully further identifying any potential construction logistics issues that can be resolved prior to the start of construction. Document control software can also reduce construction disputes by enabling the creation of project databases where drawings, specifications, submittals, photographs and correspondence can be easily accessed by all parties in a construction project. Implementing such software can enhance communication and increase the amount of information available to project personnel for analysis. However, using any new technology has its risks. If building information models are not accurate and project documentation databases are not properly maintained, their value may be significantly diminished. In addition, as construction projects become ever more digital, the use of new software and internet-based applications can expose project participants to increased cyber-risks.



Conduct a Post-Project Cost Audit and Project Review

After a project is completed, the owner and contractor may conduct a project cost audit, which measures the cost and performance of completed work against the terms of the contract. Some owners may request a project cost audit as part of usual due diligence, while others may request an audit if they feel there is an issue with the project expenditures. A project cost audit usually involves an independent auditor and members of both the contractor's and owner's audit teams. Findings from the audit are presented to the contractor and owner after completion, and any financial discrepancies that are discovered can be discussed, negotiated and, ideally, resolved. The audit's findings should be helpful for determining a) a quantitative measurement of the issue—including its monetary impact on the project, and b) whether a perceived problem is truly an issue according to the contract. Any lessons learned from a post-construction audit can be utilized on future projects to minimize similar issues in the future.

Given that construction disputes may require significant monetary expenditures and take years to resolve, both contractors and owners can benefit from being involved in proactive avoidance of disputes and/or resolving disputes that arise on the project while construction is underway rather than in a costlier forum later. Understanding the contract, creating and maintaining an accurate project schedule and cost control system, empowering and training project management personnel, using new technologies and conducting a post-construction audit and review can all help to minimize or prevent construction disputes.