Introduction

Construction is a complex and challenging process. Among other things, it requires interpretation of and compliance with many laws, codes, and regulations; gathering of considerable resources, including labor, equipment, and material; and communications with and coordination among multiple parties, such as the owner, the design professional, other contractors and subcontractors, and suppliers, all of whom may have differing purposes and goals. In addition, many factors are unknown or unknowable at the start of any project. Not surprisingly then, risks are an expected part of this process.

Therefore, a prudent contractor (including subcontractors) should be able to understand, evaluate, and manage those risks whenever possible. Besides looking at their own experience, many contractors seek advice from their surety bond producers concerning risk evaluation and management. And contractors should seek the counsel of knowledgeable construction attorneys about risk assessment and management.

Definition of Risk

A construction risk can be defined as any exposure to possible loss. Because every construction project is different, each offers a multitude of varying risks. To ensure the success of a project, a contractor starting on a construction project must be able to *recognize* and *assess* those risks. And then the contractor must be able to *manage* those risks.

Identifying Construction Risks

There are many typical construction risks that might impact a contractor's success on a project. In Appendices A-I to this article are checklists to help a contractor identify, assess, and manage risks on a specific project. These lists are not all-inclusive but are intended to help contractors think about the risk management process.

Benefits of Proper Risk Allocation

A "reasoned" risk allocation strategy is a "win-win" proposition for all project participants. Such a strategy tries to allocate specific risks based on an analysis of which party is best able to evaluate, control, manage, and assume the risk. Proper risk allocation provides many benefits to the project participants and to the project. It frames positive project relationships, thereby reducing the adversarial outlook characteristic of an "all-or-nothing" or "take-it-or-leave-it" approach and the chance for misunderstanding and claims. With fewer uncertainties caused by unfairly allocated risks, contractors can avoid the addition of cost contingencies in the pricing of project bids and estimates and schedule contingencies.



The Construction Contract

The construction contract expresses the intent of the parties and records in writing their main risk allocation decisions. The term "construction contract" is somewhat confusing. Rather, each "construction contract" is actually a series of different documents, which together set out the entire understanding between the contractor and the owner.

The contract typically is composed of an agreement, drawings, specifications, general conditions, supplemental conditions, addenda, and contract modifications made during contract performance. Within the general conditions of the contract are usually found many of the provisions on construction project risks. The general conditions typically address such matters as the following:

- ✓ The responsibilities of the contractor and the owner
- ✓ The administration of the contract by the owner and/or design professional
- ✓ Terms relating to separate contractors and to the contractor's subcontractors
- ✓ Procedures for initiating changes in the work of the contractor
- ✓ Procedures for resolving claims and disputes
- ✓ Provisions addressing delays and time for performance
- ✓ Procedures for payments
- ✓ Requirements for indemnity, insurance, and bonds
- \checkmark Procedures for contract suspension and termination
- ✓ Procedures for project close-out
- ✓ Miscellaneous terms, such as assignment and governing law

Standard Form Contracts

Standard form contracts have been an important part of the construction industry's business practices since the nineteenth century. These standard form contracts are drafted by professional and trade associations for architects (American Institute of Architects, AIA), engineers (Engineers Joint Contract Documents Committee, EJCDC), and commercial contractors (Associated General Contractors of America, AGC), among others.

Standard form contracts help give private construction transactions predictability and efficiency and have provided the framework for the development of construction law in the United States. Because most industry drafted documents are developed through a process in which other industry groups and organizations participate or give feedback on proposed terms and conditions, these documents represent prevailing customs and practices and are good sources of industry best practices. Therefore, even if the parties choose to draft their own contract forms, industry standard forms serve as invaluable references for the parties' forms drafting and negotiations.

Industry standard forms are popular because they are familiar to industry players. This familiarity with standard terms and conditions reduces drafting and review time. Familiarity with



standard terms and conditions provides contractors and subcontractors with the necessary comfort to offer lower bids or negotiated prices.

Another reason to support the use of industry standard forms is that drafting a multi-part construction contract from scratch in a short time is an ambitious task for the inexperienced. Despite their usefulness, construction industry standard form contracts should not be used without noting certain cautions:

- ✓ Standard forms should not be used without modifications. Because they are drafted for broad use, standard form contracts cannot account for all specific transactional and jurisdictional terms that the parties need to insert in their agreements.
- ✓ When modifying a standard form, be wary of the "ripple effect." Because standard form construction contracts are complex documents that often reference other parts of the contract, changes made in one may have effects in another. Pay particular attention when changing the definition of a word or term.
- ✓ Do not become "contract complacent." Read the contract, even if it is a standard form. New projects and circumstances may necessitate a "fresh look" at specific boiler plate language.
- ✓ Custom-drafted and industry-drafted forms do not mix. Industry-drafted forms usually are coordinated only with other industry-drafted forms from the same organization (for example, AGC forms with other AGC forms). It is difficult to make custom forms compatible with industry-drafted forms. In addition, industry-drafted forms from different organizations usually are not compatible.
- ✓ Every contract form, including those drafted by industry organizations, contains the bias of the drafter. Any contract contains a bias, whether drafted by an industry organization or by counsel for one of the contracting parties. Therefore, you should know both the terms and conditions of and when to use the various standard forms published by different industry organizations.



Appendix A

Contractor Self-Qualification

- ✓ Do we have the right experience to perform this kind of work?
- ✓ Has our experience with this type of work been profitable?
- ✓ Do we have enough experience with projects of this size and complexity?
- ✓ Do we have enough experience with this type of project delivery method?
- ✓ Do we have available site supervision with successful experience running projects of this type, size, and complexity?
- ✓ Can we get a bond for this project?
- ✓ Will a bond for this job eliminate or significantly reduce our capacity to bond other foreseeable or more desirable work?
- ✓ Do we have the home office support needed for this project?
- ✓ Will the potential profit offset the project risks?



Appendix B

Owner/Public Agency Qualification

- ✓ Have we previously built a project for this owner/public agency ("Owner")?
- ✓ If yes, was the prior project profitable?
- ✓ Does the Owner have an experienced staff to facilitate problem resolution?
- ✓ Who are the individuals that will administer the contract for the Owner?
- ✓ If yes, do these individuals have a reputation for being reasonable and prompt in administering a contract?
- ✓ Does the Owner use a construction management firm or other agency to manage its construction?
- Has the Owner typically maintained the same key personnel through all stages of a project?
- ✓ What are the limits on the authority of the representatives of the Owner?
- ✓ Has the Owner provided adequate assurance of sufficient financing?
- ✓ Ha the Owner previously built a project of this type, size, and complexity?
- ✓ Does the Owner's contract fairly allocate construction risks?
- ✓ If not, is the Owner willing to make contract document modifications?
- Is the Owner sufficiently capitalized and/or not suffering from severe budget restraints?
- ✓ Does the Owner avoid litigation in construction disputes?
- ✓ Have we identified who will make decisions, and how decisions will be made, within the Owner's organization?
- ✓ If yes, do these individuals have a reputation for being reasonable and prompt in making decisions?
- Have we identified any special interests or underlying motivations within the Owner organization that may affect the project?



Appendix C

Qualification of the Design Team and the Design

- ✓ Have we previously built a project with the same design team members ("A/E")?
- ✓ If yes, was the prior project profitable?
- ✓ If yes, were there problems (errors, omissions, etc.) in the design documents on the previous project(s)?
- ✓ If yes, did the A/E appear to have adequate time and money to develop the design documents?
- ✓ Has the A/E designed similar projects in the past?
- ✓ Has there been a pre-bid constructability review by a competent third party?
- ✓ Is this project of similar complexity and/or demand from a design standpoint in terms of contractor resources as an average project?
- ✓ Do the proposal (contract) documents qualify or limit any implied warranty of the plans and specifications?
- Do the proposal (contract) documents obligate the contractor to make the design "work" (that is, performance requirements)?
- ✓ Do the proposal (contract) documents provide that the contractor will give representations regarding the long-term performance (such as energy efficiency) of the completed facility?
- ✓ Do the proposal (contract) documents require the contractor to identify conflicts or inadequacies in design documents, at the risk of losing claim rights?
- ✓ Do the proposal (contract) documents require the contractor to "coordinate" the various design documents to "insure" the absence of conflicts?
- ✓ From our review of the design documents, did we find:
 - o Numerous, extensive, or last-minute addenda?
 - Numerous drawing changes?
 - o Differing engineers reviewing or stamping related drawings?
 - Missing or duplicative details and specifications sections (showing possible "cut and paste" design)?
 - Vague specifications; poorly detailed drawings?
 - Performance specifications?
 - Missing or orphaned work items (showing items deleted or added without other changes to design documents)?
 - o Differences between large-scaled plans and small-scaled plans?
 - Differences between as-built and actual conditions on renovation or expansion projects?
 - o Conflicting dimensions or dimensions that do not add up?
- Do design documents show adequate space for coordinating separate trade work?



Appendix D

Payment Security

- ✓ Have the lien law requirements of the project locale been verified?
- ✓ Have any pre-contract lien filing requirements been observed?
- Have any required lien waivers been reviewed for lien law consistency and fairness?
- ✓ Have we complied with applicable tax/revenue bond requirements?
- ✓ Have we complied with applicable state or local licensing requirements?
- ✓ Have we qualified to do business in the project locale (jurisdiction)?
- ✓ Are there applicable prompt payment requirements in the jurisdiction?
- Is there a statute in the jurisdiction addressing the validity of a pay-if-paid provision?
- ✓ Do the contract documents try to make the law of a different jurisdiction controlling?
- ✓ Is there an applicable trust fund state in the jurisdiction?
- ✓ Is there a bond we can look to for payment protection?
- ✓ If yes, have we prequalified the bond surety?
- ✓ Have we reviewed any documents that we are required to sign for the lender's benefit?
- ✓ Does the lender offer any payment protection?
- ✓ If the project involves public funds, have we investigated restrictions on how public funds may be obligated?



Appendix E

Qualification of the Subcontractor/Vendor(s)

- ✓ Have we previously worked with this subcontractor/vendor ("sub")?
- ✓ If yes, were the prior projects similar in size and complexity to this project?
- ✓ If yes, was the prior contract performance satisfactory?
- ✓ Has the sub's management changed?
- Have we obtained information regarding the sub's current and projected workload?
- ✓ Have we obtained information regarding the sub's financial condition and ability to finance the work?
- ✓ Do we have an updated financial statement on this sub?
- Is the sub capable of furnishing performance and payment bonds from a qualified surety?
- ✓ Do we need to require additional or personal guarantees?
- ✓ Have we obtained specific staffing/supervision commitments in writing?
- ✓ Has our contract form been accepted and signed by the sub?
- ✓ Do we have proof of the sub's compliance with insurance requirements?
- ✓ Have we confirmed our entitlement to notice prior to cancellation of sub insurance?
- ✓ Have any sub-subcontractor or supplier listing requirements been met?
- ✓ Have we confirmed the sub's ability to meet the project schedule?
- ✓ Does the sub have procedures to comply with any applicable employment eligibility requirements, that is, E-Verify?
- ✓ From prior projects or reputation, are we aware of any problems that the sub has experienced with wage and hour laws (Davis-Bacon Act) or affirmative action requirements?



Appendix F

Qualifying the Project Site

- ✓ Has there been an adequate pre-bid and subsurface investigation?
- ✓ Do the design documents reflect that environmental permits have been obtained and environmental restrictions observed?
- ✓ Have we requested that the owner furnish all site, subsurface, and environmental site assessment information available to the owner?
- ✓ Have we evaluated the likely impact of conditions affecting the site (weather, traffic, work restrictions, storage issues, etc.)?
- Has an Environmental Site Assessment been provided by or requested of owner?
- ✓ Has a request been made for all information regarding any prior clean-up on or near the site?
- ✓ Is there any prior history of environmental hazards on or near the site?
- ✓ Does contract make reference to performance of hazardous work by others?
- ✓ Does contract allocate the risk or responsibility for hazardous work?
- Are we indemnified against losses associated with hazardous work found on the project?
- ✓ If the project completion is delayed by unexpected environmental issues, does the contract provide for a time extension, equitable price adjustment, or termination rights?
- ✓ Is there a changed conditions clause in the contract?
- ✓ Are any environmental permits necessary?
- ✓ Are we contractually responsible for any environmental permits?
- ✓ Are there any site access restrictions?
- ✓ Are existing utilities clearly located on design documents?
- ✓ Is extensive site investigation required by the proposal (contract) documents?
- ✓ If environmental problems are encountered, is insurance coverage available?



Appendix G

Qualifying the Project Locale

- ✓ Have we enough prior experience in the project jurisdiction?
- ✓ Has our prior experience in this jurisdiction been profitable?
- ✓ Do we have the required licenses to work in this jurisdiction?
- ✓ Are local licenses/permits required?
- ✓ Are the insurance policies/coverage adequate for work in this locale?
- ✓ Do we understand bond/lien claim rights and requirements in this jurisdiction?
- Do the laws in this jurisdiction create special risks or required changes in our contract form or documentation systems?
- ✓ Is the available local labor adequate and sufficiently skilled?
- ✓ Is the site locale is a predominantly union or non-union labor market?
- ✓ Is there a project labor agreement for this work?
- ✓ Is there a requirement that the contractor give preference to local labor?
- ✓ Are materials and equipment available locally?
- ✓ Are there state/local taxes to be considered?
- ✓ Have we identified local or required labor rates and fringe benefits?
- ✓ Are there project/local Minority Business Enterprise, Women-Owned Business Enterprise, or any other disadvantaged business enterprise requirements?
- ✓ Are there unusual business or political circumstances that may affect the project?
- Do the subcontract and purchase order forms that we plan to use comply with local laws?



Appendix H

Qualifying the Project Documentation System

- Have we identified and reviewed every document that will be part of our contract?
- Has the contract been reviewed to determine if modifications to our "standard" project documentation system are required?
- ✓ Does the contract have specific cost accounting requirements?
- ✓ Does the contract define recoverable direct or indirect costs?
- ✓ Does the contract contain special notice requirements?
- ✓ Have we identified special notice and claim deadlines?
- ✓ Are there special procedures or cost limitations on change order work?
- Does the contract contain unusual risk-shifting clauses that our project documentation system should take into account?
- ✓ Do we need advice from legal counsel on documentation practices in light of contract risk-shifting provisions?



Appendix I

Summary Identification of Key Risk Allocation Clauses in the Contract

- ✓ No damages for delay clause
- ✓ Drawing review clause
- ✓ Overhead/profit limitation clause
- Broad coordination requirements
- ✓ Disclaimer of design completion/accuracy
- ✓ Disclaimer of implied warranty of plans and specifications
- ✓ Waiver of lien/bond rights
- ✓ Required lien/claim waiver forms
- ✓ Unusual site investigation obligations
- ✓ Shift of design responsibility
- ✓ Suspension of work rights
- ✓ Termination for convenience clause
- ✓ Pay-if-paid provision
- ✓ Unusual indemnity requirements
- ✓ Unusual testing/inspection requirements
- ✓ Unusual insurance requirements
- ✓ Required work during dispute obligation
- ✓ Recovery for unusual consequential damages
- ✓ High liquidated damages
- ✓ Liquidated damages plus actual damages
- ✓ Choice of law provision
- ✓ Forum selection clause
- ✓ One-sided disputes procedure
- ✓ One-sided right to elect ADR
- ✓ Final and binding decision authority
- ✓ Unusual notice/claim provisions
- ✓ Unfurnished documents incorporated by reference
- ✓ Unusual final acceptance provisions
- ✓ Expansive warranty requirements
- ✓ Expansive termination/stop work rights
- ✓ Performance requirements exceeding industry standards
- ✓ Right to accelerate/change schedule at no cost
- ✓ Unusual scheduling requirements
- ✓ Unusual time extension proof requirements
- ✓ Limits on recoverable costs

