

RISK ALLOCATION IN CONSTRUCTION PROJECTS

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1. INTRODUCTION

Methods of restricting liability or allocating risk are important to any construction project. Although many methods have been attempted, courts and legislatures have limited their application in certain instances. This presentation examines the enforceability and/or restrictions on various methods of attempted risk allocation and liability. These methods include allocating the risk for (1) design errors; (2) unexpected site conditions; (3) construction errors and delays; and (4) risks of payment.

2. ALLOCATING RISKS OF DESIGN ERRORS

(a) The Dilemma for the Construction Owner: Implied Warranty of the Plans and Specifications vs. Professional Negligence Standard.

When an owner furnishes plans and specifications for a construction project, the owner generally bears responsibility for any deficiencies in those specifications. That is, the owner impliedly warrants the correctness of those plans and specifications; i.e., that the project can be constructed based on the plans and specifications. See *Souza & McCue Const. Co. v. Superior Court*, 57 Cal.2d 508 (1962). This concept is also reflected in what has been called the Spearin Doctrine, arising out of the U.S. Supreme Court's holding in *United States v. Spearin*, 248 U.S. 132, 135 (U.S. 1918). In that case, the Court held that a contractor is bound to build according to plans and specifications provided to it by the owner, and if the contractor does so it will not be responsible for the consequence of defects in the plans and specifications. As a consequence of the implied warranties, when the plans and specifications are defective and cause a contractor to engage in extra work and expenses not anticipated when entering into the construction contract, the contractor is able to recover for the extra work and expenses. See *Souza & McCue Const. Co.*, 57 Cal.2d 508. The measure of damages for the contractor is the usually the increased cost of time and materials necessary to overcome the problems caused by the defective plans and specifications.

A design professional usually provides no warranty that a project will perform in a particular way, and can therefore only be held responsible for errors in the plans and specifications that are a manifest result of a breach of contract or professional negligence. Negligence is defined as conduct falling below the standard established by law for the protection of others against unreasonable risk of harm. *Flowers v. Torrance Memorial Hospital Medical Center*, 8 Cal. 4th 992, 997 (1994). Thus, the standard for professionals is articulated in terms of exercising 'the knowledge, skill and care ordinarily possessed and employed by members of the profession in good standing' *Id.* at 998 (quoting Prosser & Keeton, Torts (5th ed. 1984) The Reasonable Person, § 32, p. 187.) In order for an owner to hold a design professional responsible for any errors in the plans and specifications, the owner must establish that the design professional failed to exercise the same degree of care, skill, and proficiency competently exercised by ordinarily careful and prudent design professionals. This standard is more difficult to prove than "ordinary" negligence because it often requires expert testimony regarding the knowledge and skill of a competent professional.

Therefore, when the plans and specifications contain some defect, an owner is faced with a dilemma. The owner is responsible to the contractor for providing those specifications, under the theory of implied warranties of correctness, yet the owner may encounter difficulty proving any liability on the part of the design professional. Accordingly, it is important to consider this dilemma at the outset of a construction project and contractually allocate risks of design errors to both the contractor and the design professional where possible.

(b) The Dilemma for the A-E: Constraints on Fee as They Relate to Ability to Produce High-Quality Documents

How are A-E fees established? As with most types of professional fees, they are "negotiated." Also as with most professional fees, they are guided by certain standards within the industry. These standards were at one time published by the professional organizations, but the courts determined that this constituted restraint of trade, and they are no longer published.

However, public agencies often publish allowable fee scales for certain types of projects. For example, the State Office of Public School Construction until 1998 published scales of allowable architect fees for state-funded school construction and modernization. These fee scales were developed in the mid-1980's and in effect became the industry-standard fees for school design; for all practical purposes they remain so today.

The difficulty that arises is that school construction has become increasingly complex, both from a regulatory and a technological standpoint. An increasing number of subspecialties are required as instructional technology becomes more complex, toxics requirements become more complex, energy requirements become more complex, "green" architecture gains momentum, and Americans with Disabilities Act compliance becomes increasingly well-defined. Each of these areas has become a specialty unto itself, adding to the list of consultants included in the design team.

A construction atmosphere perceived as increasingly litigious has also put pressure on the A-E team. Peer reviews of completed documents are increasingly commonplace. Construction

management firms have made major inroads into public agency construction, often adding to the design team's workload in ways not anticipated.

All of these increasing requirements have come to the design team without corresponding increases in fee scales. Although the OPSC abandoned its fee scale with the passage of Proposition 1A in 1998, which converted school construction funding into a grant program, the old scales still are used by most school districts and architects as the starting point for negotiations (with architects viewing them as the floor, and districts viewing them as the ceiling). The result of all this is increasing pressure on profits, and firms have had to adjust their operations to compensate.

Profitability of A-E firms is typically not very high. The American Institute of Architects collects data on this subject, and its information reflects an average profit margin of less than 5% for architectural firms. Since the large majority of costs in A-E firms is employee salaries, low profitability also puts pressure on salaries. As a result, architects are historically among the lowest paid professionals, often earning much less than the skilled trade workers who are implementing their designs. The recession of the early 90's caused many architects to leave the professions, and this left a labor shortage when the building boom of the late 90's hit. The resultant upward pressure on salaries (architects for the first time in anyone's memory were being offered signing bonuses by some firms) squeezed the profit picture even further.

As a for-profit business, an architectural firm has only a couple of options to respond to increasing costs and decreasing profitability: it can increase fees or cut production costs. If fee increases are not an option, the firm must find ways to produce its product (the construction documents) at less cost. Again, there are two options to accomplish this: produce the documents more quickly, so that individual architects can be more productive, or use lower paid (and usually less skilled) individuals to produce them. Either approach is likely to result in less accurate and less complete construction documents, which is exactly what most construction professionals and owners are complaining about today.

Would an increase in fees help this situation? It couldn't hurt, but it might not be a panacea. Most A-E firm owners in California today complain about the difficulty they have recruiting qualified design professionals. Low starting salaries have made the design professions less attractive to entry-level graduates, and the increase in demand has not been matched by a concomitant increase in the skilled labor force. If firms responded to fee increases by reducing the number of projects they undertook, allowing each project to receive more attention from the senior level design professionals, quality of design documents might indeed increase; but it is not absolutely clear that the firms would respond in that way.

(c) Level of Completeness Required for Design Documents Pre-Bid: What is Shown, What is Implied Intent, and What is Good Enough

Has the thoroughness, level of completeness, and quality of design documents changed over the years? This seems to be a subject of unending debate among design and construction professionals. Contractors often complain that the design documents they get nowadays are not nearly as good as in "the old days." Design professionals often complain that they can't depend

on contractors to adhere to the standards of the trades like they used to, so every little thing has to be shown or specified in order to ensure a level of quality that used to be assumed.

On a recent set of school renovation projects, we had the unique experience of renovating a pair of high schools originally built in the early 1960's from the same set of plans. The same design team prepared construction documents for the renovation of the two high schools, which were then bid separately and awarded to two different contractors. One of the projects had several hundred thousand dollars in change order requests from the contractor due to "errors and omissions" in the documents, while the other had virtually none. So where does the problem lie?

Design professionals are now being advised by both their insurance carriers and their professional associations to show and specify an item only once, i.e., in one location on the drawings. This is intended to reduce confusion by eliminating the possibility of missing a change in a detail that is shown in several locations or versions. The result of this advice is twofold: first, it often makes details harder to find and reference. Second, it increase the use of "sim." on the drawings, which may lead to frustration on the part of the skilled tradesperson who finds the actual situation is not quite as similar as the detail implies.

For the design professional, striking the balance between too much and too little detail in the documents can be a hazardous exercise. Too little detail shifts the burden to the contractor and its craftspeople to figure out how the thing should be built. Too much detail introduces more opportunities for conflict and error, besides taking more production time and, in the case of renovation, more thorough site investigation. Some design firms are incorporating digital photography of existing conditions into their renovation drawings; such photographs can often be annotated directly on the photo, saving drafting time.

One of the more controversial subjects in our profession is the meaning of the phrase "design intent." Construction documents are supposed to be the vehicle by which the designers communicate their intent to the workers who will actually turn that intent into reality. The problem arises when the designers are not able to communicate perfectly or completely, and the trades workers are unable to read the designers' minds. A-E agreements typically refer to the right and duty of the designer to issue supplemental drawings and other information to clarify his intent; the implicit assumption is that this clarification will not result in extra cost. But the contractor does not always agree with that assumption.

Something that appears more often in present-day document is language to the effect that the intent is to have a "complete and operating system." This is directly related to the too much/too little detail questions, and is a result of designer's frustration over being asked to pay extra for a required component that should have been obvious was a necessary part of a system. Contractors complain that this language shifts responsibility to them to make sure that all of the components are included and compatible. Designers point to specialty contractors as the true experts in the various systems, and this whole issue gets back to the increasing complexity of building systems today and the inability of designers to be experts in all of the areas of complexity.

“Customs and standards of the trades” is another archaic expression often cited by attorneys and older design professionals, harkening back to the days of yore when men were men, women were women, and trades workers took pride in their work. As long as there was only a narrow range of options for certain systems and finishes, customs and standards was a fairly reliable idea. But almost every component of a building can now be produced in a wide variety of ways. Both designers and installers are increasingly dependent on manufacturer’s recommendations, both to ensure that warranties are not compromised and to ensure that the component or system will perform in the way it was intended to. This is another area with broad potential for conflict between design teams and contractor/installers. In order to remain competitive, contractors are always looking for ways to perform work faster (labor being the major cost for them). New materials and systems look attractive to a contractor if they promise easier installation and fewer callbacks. For the designer, “tried and true” is usually the safer route. The construction industry historically is full of examples of materials and systems that did not live up to their initial promise, and left the owners of these innovative buildings stuck with bills for replacement of the defective components.

(d) Constructability (Peer) Reviews as a Method for Improving Quality of Documents

In recent years the “constructability review” has played an increasingly prominent role in the design process. Originally used by the construction management industry as an entrée into a client’s graces, constructability review has now become a thriving cottage industry by itself. What is it, and does it offer promise in improving the quality of construction documents?

The term “constructability review” is an unfortunate one, because constructability is not usually what is being reviewed. There are several types of review that can be conducted on a set of design documents:

(i) Coordination, conflict, and completeness (QC) – are the various consultant documents coordinated with each other and with the architectural drawings; are there conflicts among the drawings and between the drawings and specifications; are detail references correct; are the documents complete? This is the most common type of review that is sold under the general title of “constructability review”.

(ii) Code compliance – do the documents comply with all applicable building, fire, access, and other codes?

(iii) Program compliance – do the documents address all of the items in the architectural program?

(iv) Standards compliance – do the documents adhere to the owner’s design or facility standards?

(v) Constructability – can the building be reasonable built based on the “instructions” provided by the documents?

(vi) Value engineering – are there alternate systems or materials that will provide similar results at less cost?

Several important questions need to be addressed with respect to the subject of document review. The first and foremost is: when should it be done and who should do it? This may be different depending on the type of review that is actually desired. Some basic suggestions are:

(i) **QC review** – should be done when documents are as nearly complete as possible in order to avoid duplication with the design team’s normal QC effort. This will mean delay of the bid, so review time should be factored into the schedule. A QC review should ideally be conducted as a peer review by another design professional, since they will have the best understanding of how construction documents are put together.

(ii) **Code compliance** – should be done early in design development, when detail design and layout decisions are being made. It will need to be followed up in the finished documents. A code compliance review should be done either by another design professional or an individual trained in code enforcement such as a licensed inspector.

(iii) **Program compliance** – should be done at the end of design development, ideally by the individual who developed the program.

(iv) **Standards compliance** – should be done during construction document phase, after the specifications are reasonably well developed. Should ideally be done by the author of the standards or the individual departments within the client organization that helped develop the standards.

(v) **Constructability review** – should be conducted during construction document phase after the specifications and most details are reasonably well developed. Should ideally be done by a contractor or other construction professional with actual “hands-on” experience.

(vi) **Value engineering** – should be conducted early and throughout design, ideally by a certified value engineering professional.

One of the stickier issues about reviews is the incorporation of the reviewer’s suggestions into the documents by the designer. It is important for the owner that the designer retains design responsibility (and liability) during the process. This may mean that not all the suggestions are followed, (that being the designer’s prerogative), but they should all be addressed in some fashion. It is best if the owner-A-E contract addresses this issue, so that all parties understand that a review will be conducted and that there is an expectation that all of the items in the review will be addressed. Absent such language in the original agreement, some firms may consider this to be an extra service, and will want to be compensated accordingly.

Owners should consider an independent review to ensure that the design team has indeed incorporated or addressed all of the comments. This is because a “constructability” review could create liability for the owner in a contractor claim situation if errors in the documents were documented (and therefore known to the owner) but not corrected. For many of the reasons discussed previously, design professionals may not be 100% diligent in addressing all the items documented in a review. This is also a good argument for requiring that the review itself be documented in a simple, tabular form that provides space for the design professional’s response.

Are QC and other reviews worth the cost? They are not inexpensive. A rule of thumb for the effort required for a reasonably complete QC review is 1.5 to 2 hours of reviewer time per sheet of drawings, and 20 to 30 minutes per page of specifications. Depending on the hourly rate of the reviewer, this could generate significant cost. (As a comparison, a rule of thumb for the original production of the drawings is 20 to 40 hours per sheet). No review will come close to catching all of the errors in the documents. Notwithstanding these concerns, we believe a review will virtually always pay for itself. Even if a QC review cost \$20,000 for a set of documents for a \$5,000,000 project, a relatively minor change order could easily exceed that amount.

(e) Shifting the Risk of Design Errors to the Contractor

(i) Pre-Bid Review of Construction Documents

While the owner impliedly warrants the adequacy and sufficiency of the construction plans and specifications, contractors may find themselves liable for design problems by failing to carefully review and compare the contract documents. Contractors have a duty to review the construction documents before submitting their bids to identify “patent,” or obvious errors, in the contract documents. Implicit within the duty to review the documents prior to bidding is the contractor’s duty to seek clarification of any patent ambiguities it discovers while reviewing the construction documents. Damages resulting from the contractor’s failure to notify the architect or owner of any patent errors, inconsistencies, omissions, and variances within the contract documents become the contractor’s responsibility, not the owner’s.

But what standards do courts apply in determining whether the contractor should have discovered the design deficiency pre-bid? One of the leading cases summarized the contractor’s obligations as follows:

[C]ontractors are business men, and in the business of bidding on Government contracts they are usually pressed for time and are consciously seeking to underbid a number of competitors. Consequently, they estimate only on those costs which they feel the contract terms will permit the Government to insist upon in the way of performance. They are obligated to bring to the Government’s attention major discrepancies or errors which they detect in the specifications or drawings, or else fail to do so at their peril. But they are not expected to exercise clairvoyance in spotting hidden ambiguities in the bid documents, and they are protected if they innocently construe in their favor an ambiguity equally susceptible to another construction, for . . . the basic precept is that ambiguities in contracts drawn by the Government are construed against the drafter. In the case before us the ambiguity was subtle, not blatant; the contract.

Blount Bros. Construction Co. v. United States, 346 F.2d 962,973 (Ct. Cl. 1965)

Before the contractor will be found responsible for failing to raise a design deficiency pre-bid, it must be established that the error was sufficiently apparent that a reasonable business person would have recognized it. Again, this determination is made based upon the position of the contractor while bidding the project. Interpretations arrived at during construction and based upon complex interrelationships in the specifications will not be persuasive. See, e.g., *Gorn Corp. v. U.S.*, 424 F.2d 588, 592 (Ct. Cl. 1970) (“We suspect that the Government attorneys

themselves used hindsight and devoted many hours of Monday morning quarterbacking to come up with their circuitous cross-checking solutions.”)

In assessing whether an ambiguity is substantial or obvious, courts rely on a number of factors, including the following:

- Dollar value of the disputed work as compared to the entire project
- Conduct of other bidders during the bidding period
- Importance of the disputed work to the entire contract requirements
- The ease with which the government could have stated its desires more clearly.

Ultimately, the contractor should be held to a standard of reasonableness. While the design team will have had months, and perhaps years, to prepare accurate and complete contract documents, the contractor will usually only have a matter of days to prepare its estimate. As stated by one court:

[a] contractor should not be required to wade through a maze of numbers, catalogues, cross-reference tables and other data resembling crossword puzzles in order to find out what the government requires in an invitation for bids. This is especially true where, as in this case, the requirements of the government could have been clearly specified by the use of a half dozen ordinary words and figures.

Gorn Corp. v. United States, 424 F.2d 588, 592 (Ct. Cl. 1970).

In addition to the obligation to disclose patent defects and seek pre-bid clarification, most construction contracts contain pre-bid site investigation clauses that require contractors to visit the site prior to submitting a bid. A common site investigation clause generally provides:

The bidder shall examine carefully the site of the work contemplated, the plans and specifications, and the proposal and contract forms therefor. The submission of a bid shall be conclusive evidence that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and scope of work to be performed, the quantities of materials to be furnished, and as to the requirements of the proposal, plans, specifications, and the contract.

See *Caltrans Standard Specifications*, § 2-1.03.

Bid solicitations may also require contractors to review documents concerning the site conditions that are made available for inspection prior to bidding, but are not necessarily included in the contract documents. As with the site investigation itself, contractors may be precluded from recovering for patent derivations, or the contractor may be liable to the owner for costs and damages that would have been avoided had the contractor investigated the site and reviewed the referenced documents. However, a contractor may reasonably rely upon extensive testing performed by the owner, despite a site investigation clause, when the results of such tests are made available to bidders and nothing about the site investigation would cause a reasonably prudent bidder to question the accuracy of the contract documents.

Risk for design errors can be further shifted to the contractor by including a contract provision that essentially makes the contractor the “guarantor” of the plans. These clauses attempt to bar contractors from making claims for delays or added costs caused by design defects. On California local agency public works contracts, however, these clauses have been prohibited. Public Contract Code § 1104 provides:

No local public entity, charter city, or charter county shall require a bidder to assume responsibility for the completeness and accuracy of architectural or engineering plans and specifications on public works projects, except on clearly designated design build projects. Nothing in this section shall be construed to prohibit a local public entity, charter city, or charter county from requiring a bidder to review architectural or engineering plans and specifications prior to submission of a bid, and report any errors and omission noted by the contractor to the architect or owner. The review by the contractor shall be confined to the contractor's capacity as a contractor, and not as a licensed design professional.

(ii) Coordination and Layout Drawings

On complex projects, the design team often defers the detailing of major systems and their components, leaving this responsibility instead to the trade contractors that will actually be performing the work. Mechanical, electrical and plumbing (“MEP”) drawings frequently show the ducts, pipe work, and conduit “diagrammatically,” with a single line representing a three-dimensional duct, for example, that may consume the majority of the space between the structure of the floor above and the ceiling below. The preparation of the coordination or layout drawings are the process by which each of the trades attempt to locate its work, and then confirm with the other trades that there are no conflicts among their various locations.

From the perspective of the trade contractors, particularly the mechanical contractor, the game is won or lost in the detailing and fabrication effort. The mechanical detailer must take the owner-provided diagrammatic drawings and convert these to production drawings which detail exact locations, routes, and sizes for the mechanical system. Once these detail drawings are complete, they are then overlaid with other MEP detail drawings for coordination. The coordination drawings are then submitted to the architect for approval. Once the drawings are approved, material fabrication can begin.

The coordination drawing process is intended to allow multiple contractors to decide how to install “ten pounds” of duct, conduit, and piping, within a “nine-and-one-half-pound” ceiling or wall cavity. When the trade contractors are unable to squeeze the necessary equipment within the available space, they request the involvement of the engineer to develop a solution. This typically results in relocation of architectural features (e.g., walls, ceilings, or lights), or redesign of the mechanical system itself.

Traditionally, the construction community recognized that it was the design teams’ responsibility to provide enough room in the ceiling or wall cavity to permit all of the trades to fit their specified work. In addition, the architect, along with its structural engineer, were responsible for ensuring that the routing of the MEP systems in accordance with the drawings would be workable. Recently, however, it is becoming more common for design professionals to seek to use contractor coordination and the preparation of layout drawings as a substitute for adequately

coordinating the pre-bid work of the design consultants. While contractors should rightfully be expected to coordinate their work in an effort to confirm that their installations will not conflict with each other, the design team should maintain primary responsibility to confirm that the interstitial space will accommodate the systems that have been specified, and that the structural and architectural elements will not conflict with the trade installations depicted in the documents if constructed in accordance with the plans and specifications.

(iii) Field Verification

As discussed above, the contractor is often given responsibility to identify and report patent design errors during the bidding phase, and is often delegated some responsibility for completing the design through preparation of coordination drawings or submittals. However, the contractor's obligation to review and coordinate the design continues throughout the life of the project. This is due in large measure to the undeniable reality that a certain number of unknowns, conflicts or discrepancies are likely to exist that will go undetected by the owner, its design team and the contractor until construction in the field is coordinated with upcoming work. Hence the need for field verification.

Usually, the design team will specifically allocate to the contractor the duty to determine whether certain conditions exist or where certain items of existing work are located. For instance, the drawings on a remodel project may state, "The G.C. [General Contractor] to V.I.F. [verify in field] condition and location of roof exhausts. All roof exhausts, curbs, and flashing to be replaced if not in good working condition." Similarly, the contractor may be directed to field verify the location or depth of existing utility lines, even though some information is provided in the plans and specifications concerning the installation. Finally, the contractor may be directed to field verify certain dimensions for elements of the project once they are constructed, in order to have precise measurements for other aspects of the work.

(iv) Effect of Failure to "Catch" Error: No Additional Compensation v. Affirmative Liability to Owner

Typically, an owner will rely on one of the foregoing obligations to defend against a claim by the contractor that it is entitled to additional compensation for an item of work that was omitted or deficiently designed in the contract documents. If the contractor was obligated by the terms of the contract to identify the error or avoid the situation which lead to the claimed extra, it is unlikely that it will be able to obtain additional compensation or a time extension for the claimed extra work.

However, this does not mean that the contractor will be financially responsible for all claims arising out of the circumstances. For example, in *Kurland v. United Pacific Insurance Company*, 251 Cal. App. 2d 112 (1967), the owner prepared plans and specifications which detailed the components of an air conditioning and heating system. The subcontractor constructed the system in conformance with the plans and specifications, but the system failed to produce the degree of heating and cooling described in the contract documents. The owner contended that the subcontractor was responsible for constructing a system that met the performance criteria set forth in the contract documents. The court rejected this argument, stating as follows:

Since the plans and specifications were prepared by the owners' architect and not by the subcontractor, and since the subcontractor undertook to do the work in accordance with his specific proposal, we cannot reasonably conclude that the subcontractor assumed responsibility for the adequacy of the plans and specifications to meet the purpose of achieving "a 30 degree variation from outside temperature for cooling." The language upon which the plaintiff [owner] relies constituted a statement of the purpose sought to be achieved by means of the owners' plans and specifications rather than an undertaking on the part of the subcontractor of responsibility for the adequacy of such plans and specifications as the design of a system capable of producing the desired result.

Id. at 117.

In recognition of the distinction between liability for proceeding, knowing of a defect in the drawings, and the owner's primary responsibility for providing adequate and complete drawings, the current version of the AIA A201 provides as follows:

Since the Contract Documents are complementary, before starting each portion of the Work, the Contractor shall carefully study and compare the various Drawings and other Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Subparagraph 2.2.3, shall take field measurements of any existing conditions related to that portion of the Work and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, any errors, inconsistencies or omissions discovered by the Contractor shall be reported promptly to the Architect as a request for information in such form as the Architect may require.

In allocating the financial risks, the AIA A201 states:

If the Contractor fails to perform the obligations of Subparagraphs 3.2.1 and 3.2.2, the Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor had performed such obligations. The Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents or for differences between field measurements or conditions and the Contract Documents unless the Contractor recognized such error, inconsistency, omission or difference and knowingly failed to report it to the Architect.

The policy behind this type of allocation was ably expressed by one court:

[A] contract is largely a reallocation of risks between the parties [T]herefore . . . a contractual term is substantively suspect if it reallocates the risks of the bargain in an objectively unreasonable and unexpected manner.

A&M Produce Co. v. FMC Corp., 135 Cal. App. 3d 473, 487 (1982).

3. ALLOCATING RISKS OF UNEXPECTED SITE CONDITIONS

The law of differing site conditions operates to promote economic efficiency within construction contracts. In considering construction expenses, the risk of extraordinary costs due to unanticipated subsurface conditions and other unexpected site conditions must be taken into account. Left solely to a contractor, this risk will be reflected in the contractor's bid, potentially inflating the actual construction cost.¹ The inflated bid might also result in a high profit margin if the job is not hindered by any unexpected conditions. Likewise, when a differing site condition is not present, a property owner would rather pay the lower construction expenses. Accordingly, various contract clauses have developed providing a mechanism to shift risk between owners and contractors, thereby making the business of construction generally more cost effective.

(a) Differing Site Condition Claims.

The types of claims presented by contractors vary depending on the contract documents and the types of unexpected conditions encountered. Claims based on unexpected conditions fall into two categories. A claim that a site condition is encountered that differs materially from what is indicated in the contract is generally referred to as a "Type I" or "Category I" claim. A claim that a site condition differs materially from site conditions that would be inherent or ordinarily encountered in the work at issue is generally referred to as a "Type II" or "Category II" claim. A description of each type of claim, and the necessary elements follow.

(i) **Type I Claim**

A Type I claim may exist where an encountered site condition differs materially from the conditions contemplated in the contract. In order to prevail, a claimant must satisfy at least three critical elements. E.g., *Umpqua River Navigation Co. v. Crescent City Harbor Dist.*, 618 F.2d 588, 594 (9th Cir. 1980). First, the contract must be shown to "indicate the presence of certain conditions." Second, the representation must have "differed materially from conditions actually encountered." Finally, the claimant must have "reasonably relied on these indications to its detriment." For instance, the court in *Umpqua River Navigation Co. v. Crescent City Harbor Dist.*, found that the contractor's failure to meet the third element was fatal to its claim.

Although proof of each of these three elements is required, some courts have broken out the elements with greater specificity, perhaps imposing a higher burden. For example, in *Weeks Dredging & Contr., Inc. v. United States*, 13 Cl. Ct. 193, 219 (1987), the court held there are "six indispensable elements":

- (i) [T]he contract documents must have affirmatively indicated or represented the subsurface conditions which form the basis of the plaintiff's claim;
- (ii) the contractor must have acted as a reasonably prudent contractor in interpreting the contract documents;
- (iii) the contractor must have *reasonably* relied on the indications of subsurface conditions in the contract;
- (iv) the subsurface conditions actually encountered, within the contract site area, must have differed *materially* from the subsurface conditions indicated in the same contract area;
- (v) the actual subsurface conditions encountered must have been reasonably unforeseeable; and
- (vi) the contractor's claimed excess costs must be shown

¹ For a good discussion of price inflation, see Construction Claims Monthly, August 2001, p. 1.

to be solely attributable to the materially different subsurface conditions *within the contract site*.

Ultimately, determining whether a Type I claim will succeed includes the threshold inquiry as to what indications have been made in the contract. Although construing contract language is a question of law for the court, in determining what conditions are indicated in the contract, a court may consider the language and circumstances from the perspective of a reasonably prudent contractor.² Such a consideration can become a critical aspect in the analysis of the effectiveness of a disclaimer clause purporting to allocate risks based on those contract indications.

(ii) Type II Claim

The second type of differing site condition claim is described as unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract. To succeed, a claimant bears the burden of proving that the condition discovered was truly unusual and unknown. *Hardwick Bros. Co. v. United States*, 36 Fed. Cl. 347, 409 (1996). Courts have often described this burden as “heavy” because:

In a Type II case the standard is somewhat amorphous. Unlike in a Type I case, where the contract serves as the basis of comparison, in a Type II case, there is no clear written point of reference.

Servidone Constr. Corp. v. United States, 19 Cl. Ct. 346, 359 (1990).

A number have cases have endorsed a four-step inquiry in order for a claimant to meet this heavy burden of proof. A claimant must provide answers to the following questions:

- (1) What were the recognized and usual physical conditions at the site of the work;
- (2) What physical conditions were actually encountered;
- (3) Did they differ from the known and the usual; and
- (4) If so, did they cause an increase in the cost of performance?

Spruce Constr., Inc., (ASBCA 1986) 86-3 B.C.A. 19,106; see also *Charles T. Parker Constr. Co. v. United States*, 433 F.2d 771, 778 (Ct. Cl. 1970). Another group of cases endorse a set of three elements. Those courts explain that a Type II differing site condition consists of a combination of two of the following three elements:

- (i) the physical condition at the site was unknown; or
- (ii) said condition was unusual and could not be reasonably anticipated by the contractor from his study of the contract documents, his inspection of the site, and his general experience, if any in the contract area; and
- (iii) the condition encountered was materially different from those ordinarily encountered and generally recognized as inhering in the work of this character.

² What a reasonably prudent contractor should anticipate is derived from the contractor’s past experience, the customs and general knowledge of contractors in the area and the information conveyed by the contract. *James Cape & Sons Company v. Paul H. Schwendener, Inc., et al.*, 237 Wis. 2d 694 (2000).

Neal & Co. v. United States, 36 Fed. Cl. 600, 622 (1986) (citations omitted).

Thus, under either inquiry a claimant must present considerable factual data about, first, what was actually known of the site at the time of contracting; second, why the condition actually encountered was unusual; and third, that the differing condition is materially different from what is considered ordinary.

(b) Methods of Shifting Risk

Contracts inherently place certain risks on the contracting parties. Thus, various contractual provisions can be included in contracts, where desired, that shift the risk from one party to another. There are three basic types of contract clauses used to shift the risks associated with possible differing site condition claims. First, a “differing site condition” clause generally either places the risk of the site on the contractor, or provides that an equitable adjustment will be made to the contract price when a site condition is encountered that falls within a valid Type I or a Type II claim; the latter shifts the risk of unknown adverse conditions from the contractor to the owner. A second form of contract clause is often used to disclaim any existing site information in a manner so as to make it unreasonable for the contractor to rely on the information when formulating its bid. A disclaimer clause thus prevents a contractor from claiming its bid was based on information believed to be accurate or complete. As will be discussed below, some courts have criticized disclaimer clauses, but they have nevertheless been upheld and enforced in many instances. Third, as discussed above, a “site inspection” clause is used to place a duty on a contractor to conduct an independent site investigation. This limits the effect of a differing site condition clause that permits an equitable adjustment because it curtails any claim for a differing condition that a reasonable inspection would reveal.

(i) Initial Risk Allocation: “Differing Site Condition Clause”

The fundamental theories of freedom of contract allow contracting parties to decide at the outset who will bear the risk of unexpected conditions and the unknown costs associated therewith. Probably the most widely used contractual clause to allocate that risk is the “differing site condition clause.” As set forth above, there are two types of such clauses. One seeks to shift all risk of the site to the contractor, providing that no adjustment in price will be permitted for any alleged differing site conditions. This is consistent with common law, as discussed below, and carries the significant risk of higher bids.

The second form of differing site condition clause is intended to relieve the contractor from the burden of extraordinary costs to complete its performance due to unexpected site conditions. This clause allows a contractor to seek additional compensation in the form of an equitable adjustment in its contract price when the site conditions encountered are different than reasonably expected, and permits an equitable price adjustment for both Type I and Type II claims.³ The precise text of the clause may vary among contracts, but commonly used text is found in federal contracts, 48 C.F.R. § 52.236-2 (2001), and provides for the equitable

³ An interesting situation is presented when the prime contract permits an equitable adjustment in the event of a differing site condition but the prime contractor subcontracts out the site work, and the subcontract completely shifts the risk of the site to the subcontractor. Can the subcontractor claim additional compensation for an alleged differing site condition?

adjustment, as well as the procedures necessary for a contractor to claim its equitable adjustment for differing site conditions:

(a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of (1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or (2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.

(b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.

(c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.

(d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

The propriety and obvious advantage to an owner of including such a clause is that the bid prices received for the construction work will not include exorbitant contingencies to compensate for the increased and unknown risk associated with unexpected conditions. The federal government's mandatory inclusion of the clause reflects that sound policy. As one court aptly explained:

Bidders need not ... consider how large a contingency should be added to the bid to cover the risk. They will have no windfalls and no disasters. The Government benefits from more accurate bidding, without inflation for risks, which may not eventuate. It pays for difficult subsurface work only when it is encountered ...

Foster Constr. C.A. & Williams Bros. Co. v. United States, 193 Ct. Cl. 587, 614 (1970). As another court explained, the purpose of requiring the differing site condition clause is "to avoid turning a construction contract into a 'gambling transaction.'" *J.F. Shea Co. v. United States*, 4 Cl. Ct. 46, 50 (1983) (citation omitted).

In addition to federal contracts, other jurisdictions restrict the use of the first form of differing site condition clause and require the second form in public contracts. For instance, California Public Contract Code § 7104 requires a provision in public contracts that permits an equitable adjustment for either a Type I or Type II differing site condition in projects involving excavations deeper than four feet. Under these types of statutory provisions, the contracting parties are not free to allocate the risks as they might otherwise find appropriate. Thus, in large part, public entities are restricted from completely shifting the risk of unanticipated subsurface conditions and must therefore consider the implications of those risks before contracting.

While differing site condition clauses permitting an equitable adjustment are required in most public contracts, the equitable price adjustment itself does not automatically flow from mere differing conditions and increased costs. That is, the elements of a differing site condition claim, either Type I or Type II, must still be proven, the contractor must take the proper procedural steps, and other contractual provisions must be considered. For example, as reflected in the federal provision, a condition precedent to entitlement to an equitable adjustment is certain written notice to the federal Contracting Officer. 48 C.F.R. § 52.236-2(c). Requiring prompt notice allows an owner the opportunity to investigate the price sensitive claims in a timely manner, and thereby consider its budget accordingly. Additionally, as discussed below, the contract may contain disclaimers that preclude the claim.

In the absence of a differing site condition clause, or any other risk shifting provision, the common law will place the risk of unexpected conditions on the contractor. As such, where a contractor binds himself to a contract with an obligation possible of performance, it has long been said that the contractor “must make it good, unless its performance is rendered impossible by the act of God, the law, or the other party. Unforeseen difficulties, however great, will not excuse him.” *Dermott v. Jones*, 69 U.S. 1 (1864). The Court echoed this principle in *United States v. Spearin*:

The general rules of law . . . are well settled. Where one agrees to do, for a fixed sum, a thing possible to be performed, he will not be excused or become entitled to additional compensation, because unforeseen difficulties are encountered.

Thus, the contractor would be fully responsible for the unknown conditions and must absorb any additional costs associated therewith and its performance. Consequently, under the common law, owners are greatly protected when they contract for construction because, absent express clauses providing for equitable adjustments, owners know precisely the cost of their contract, regardless of the actual site conditions.

Further, there are few restrictions on risk allocation at common law other than the theories of unconscionability, adhesion or the like. Absent express clauses providing for equitable adjustments, contractors simply do not have any recourse, even for extraordinary increased construction costs.

As discussed above, however, the owner’s disadvantage of shifting these risks to contractors is clear: contractors will inevitably submit higher bids to cover potential unforeseen risks contingencies. It is for this reason that public entities generally are restricted from entering into contracts without a clause permitting an equitable adjustment.

(ii) Disclaiming Geotechnical Information

At common law, a contractor agreeing to complete construction for a fixed cost generally must absorb any losses resulting from unforeseen conditions. See *Green Constr. Co. v. Kansas Power & Light Co.*, 1 F.3d 1005, 1009 (10th Cir. 1993). Not only do statutes and contract provisions restrict owners, particularly public owners, from relying on the common law, but owners also often possess a variety of technical site information that they provide or make available to contractors pre-bid. By their very nature, for example, the plans and specifications may indicate certain conditions about the site, as might other geotechnical data such as boring

logs or soils reports. Such indications may allocate certain risks to the owner for losses resulting from unforeseen conditions. Accordingly, owners often attempt to use disclaimers and other contractual provisions to shift, or reduce, the risks associated with their information, such as disclaiming geotechnical information as a part of the contract, disclaiming the accuracy of the plans and specifications (or any implied warranty thereof), disclaiming inferences drawn from existing site information, or by using any combination of such disclaimers.

(1) Disclaiming Information from the Contract

Type I claims require a contractor to demonstrate that the unforeseen conditions differed materially from the indications in the contract; therefore, owners may wish to include express disclaimers that seek to limit what those contractual indications may be. One form of disclaimer excludes certain geotechnical information from the contract, such as boring logs or soils reports. This is designed to prevent a Type I claim for equitable adjustment, and to shift the risk of inaccurate data included in existing pre-bid reports from the owner to the contractor. Consequently, where certain documents purporting to disclose site conditions expressly are excluded from being part of the contract documents, a contractor could be forced to rely on a Type II claim for relief, which has a far more substantial burden of proof. Thus, a key issue to determine whether a Type I claim can be successfully asserted is the effectiveness of the disclaimer that purports to exclude from the contract documents all documents indicating certain site conditions. Although there is authority to suggest that a Type I claim is still feasible despite such exclusion, most precedent appears to suggest that such a disclaimer of geotechnical information should be upheld. *Frederickson & Watson Constr. Co. v. Dept. of Pub. Wks.*, 28 Cal. App. 3d 514 (1972). For instance, in *J. E. Brenneman Co. v. Commonwealth, Dept. of Transp.*, 424 A.2d 592 (Pa. 1981), while the owner provided preliminary site data to the bidders, it also included an express disclaimer providing, in pertinent part:

... information is not to be considered as a part of the drawings, cross-sections, proposal, or contract, nor as a factor for computation of the unit prices used for bidding purposes. There is no expressed or implied agreement that the depths or the character of the material have been correctly indicated ... and the bidder is expressly cautioned not to rely on the privileged information, but to assume the possibility that conditions, affecting the cost and/or quantities of work to be performed, may differ from those indicated.

The court explained that “[b]idding on contracts is unquestionably a risky operation especially where, as here, it is made clear that reliance cannot be assumed on the tests which the Commonwealth had taken in order to determine its design criteria. Thus, the court held that a disclaimer for geotechnical information in that case should be enforced.

In *Frederickson & Watson Constr. Co. v. Dept. of Pub. Wks.*, a contractor entered into a contract with the California Department of Public Works to build a portion of a state highway. Plaintiff contended that a diagram of site investigations made by defendant indicated less excavation would be required than was actually necessary. However, incorporated into the contract were standard specifications, including a disclaimer, which stated: “records of such investigations are not a part of the contract and are shown solely for the convenience of the bidder or Contractor.” In denying the contractor’s claim, the court reasoned that a diagram was expressly excluded from the contract terms and that “[t]he language of [this disclaimer] goes

considerably beyond a general disclaimer of the accuracy of factual statements” The court went on to explain that for the disclaimer to be effective “there must be some language pointed enough to enable the state to effectively say to bidders: ‘We will not be bound by our preliminary site investigation results.’ The standard specification quoted above appears appropriate to that end.”

Although a disclaimer excluding geotechnical data from being part of the contract may preclude a Type I differing site condition claim, a Type II claim is still possible. In that case, however, in addition to the heavy burden otherwise applicable, the experience of the bidder may come into play. In *Appeal of R.N.G. Contracting, Inc.*, AGBCA No. 1999-170-1 (August 29, 2001) (Construction Claims Monthly, October 2001, p.5), the contract made no representations regarding subsurface materials. The contractor made certain assumptions drawn from its prior experience and site observations. The assumptions proved wrong, and the Board upheld a Type II condition, “a latent condition so unusual that it could not have been reasonably anticipated by an experienced contractor.” Presumably, if a reasonably prudent, experienced contractor should have anticipated the conditions, the claim would have been denied.⁴

(2) Disclaiming Accuracy of Site Information

Another form of disclaimer of geotechnical information is to disclaim any warranties, express or implied, for such information’s accuracy. That is, owners may attempt to place the risk of inaccurate information on the contractor, or at least avoid assuming the risk themselves. However, the Spearin Doctrine may restrict the government from shifting risks associated with the accuracy of indications affirmatively given to a contractor. The Spearin Doctrine holds that the government impliedly warrants the accuracy of the affirmative indications of the site and its conditions. The premise is that it is unreasonable to expect all bidders to perform detailed site investigations, which the government is in a position to perform once for all bidders. Thus, under the Spearin Doctrine, the government may be required to accept the risk of the accuracy of site information it provides to contractors.

In California, however, the Spearin Doctrine does not necessarily preclude express disclaimers. In *E.H. Morrill Co. v. State of California*, 65 Cal. 2d 787, 792 (1967), for example, the California Supreme Court bolstered the idea that government disclaimers may be enforced. In that case, the prime contract included a description of the site, referencing the size and location of numerous boulders. The contract also included a clause requiring the bidder to examine the site and the plans and specifications, and expressly stated there would be no additional compensation for difficulties caused by subsurface conditions. Further still, the state attempted to disclaim all responsibility for the sufficiency and accuracy of the site information. The court noted that general clauses requiring a contractor to examine the site, check plans, and assume responsibility for the work would not absolve the state from liability if it had made positive assertions of site conditions through defective plans or specifications. The court explained that the prime contractor could state a claim because the state had made certain positive assertions of fact as to the subsurface conditions. The court also emphasized the government's failure to

⁴ As another court explained: “A bidder on a construction project is held to a standard of what a reasonable contractor should have anticipated on the project. [Citation] What a reasonable contractor should have anticipated is derived from the contractor’s past experience, the customs and general knowledge of contractors in the area and the information conveyed by the contract.” *James Cape & Sons Company v. Paul H. Schwendener, Inc., et al.*, 237 Wis. 2d 694 (2000).

cross reference the site representations in the contract to the separate language of the disclaimer. Accordingly, the general disclaimers were not effective, in part because the section of the contract describing the site in no way drew the attention of the bidder to the disclaimer clause:

It “would be going quite too far to interpret the general language of the other [sections of the contract] as requiring independent investigation of *facts which the specifications furnished by the government* as a basis of the contract left in no doubt.”

Accordingly, the *E.H. Morrill* court inferred that disclaimers could be effective if appropriately drafted. That is, for a disclaimer to be effective and upheld, it appears that a certain degree of specificity must be met and that the disclaimer should be cross-referenced to the representations about the site.

Other courts too have upheld disclaimers of warranties for the accuracy of site information, despite the Spearin Doctrine. In *Wunderlich v. State of California*, 65 Cal. 2d 777 (1967), the California Supreme Court considered standard contract language purporting to relieve the state from liability for inaccurate site test data or interpretations, as well as a clause requiring the contractor to make a diligent site inspection. The bidders had been furnished with the state’s test results from a site where the contractor could obtain fill materials for the project. The data itself was determined to be accurate. However, plaintiffs argued, in effect, that the presentation of boring logs and test results placed liability on the state for the contractor’s erroneous assumptions made in its bid. The court disagreed, explaining, “[t]he borings were merely indications, ...from which deductions might be drawn as to actual conditions. ...Both parties knew that deductions so drawn might prove untrue.” Further, the court noted that a disclaimer was placed at the outset of the contract section indicating test results. The court upheld the disclaimer clause, finding that the government might effectively disclaim the intention to warrant conditions, especially when “...explicitly and clearly disclaimed by an express provision...” The *Wunderlich* court further held the bidder could not justifiably rely on state information “...in the face of a pertinent disclaimer...” and that “...the state is not responsible for the subjective interpretation placed upon the information by bidders.”

A restriction on the enforceability of such disclaimers is a deliberate misrepresentation of material fact. See *Thomas Kelly & Sons, Inc. v. City of Los Angeles*, 6 Cal. App. 2d 539 (1935). However, “[i]f statements ‘honestly made’ may be considered as ‘suggestive only,’ expenses caused by unforeseen conditions will be placed on the contractor, especially if the contract so stipulates.” *Wunderlich*, 65 Cal. 2d at 783. Of course, there may be a fine line between a “suggestive only” statement and a material misrepresentation. The *Wunderlich* court found that statements as to the character of the site were “suggestive only” where they merely recited the results of site tests and were otherwise indefinite. The representations explained the state’s preliminary conclusions based on accurate site data, explaining that “[s]amples indicate[d]” certain characteristics. Bidders were invited to draw their own conclusions from the same data, and thus, in the face of exculpatory provisions the bidder in *Wunderlich* could not justifiably rely on the statements.

While owners may be able to avoid bearing the risk of unforeseen site conditions by creating effective contractual disclaimers, public owners in particular, should be cautious in attempting to

actually place the risk of the accuracy and/or completeness of the plans and specifications on contractors. As discussed above, California Public Contract Code § 1104 restricts certain public owners from shifting to the contractor the responsibility for the accuracy of the plans and specifications. While this statute precludes a complete shift of the risk to the contractor, it does not prohibit reasonable restrictions on risk allocation, such as requiring a contractor to conduct a pre-bid inspection of those plans and specifications and report findings of errors or omissions. Moreover, if the contractor is experienced and familiar with the locale, the reasonableness of such a pre-bid review is further supported. Nonetheless, under its express terms, the statute recognizes that a contractor should not be held to the same standard as the design professional. Thus, the risk of errors that a reasonably prudent contractor might discover in plans and specifications may be shifted, while more complex design issues may not be effectively allocated to a contractor's detriment.

In summary, reasonable disclaimers of the accuracy of geotechnical information are often upheld and enable an owner to shift some risk to the contractor.

(3) *Disclaiming Inferences from Site Information*

Another method of disclaiming geotechnical information is to disclaim all inferences that might be drawn from any data provided to a bidder, such as data included in test borings. Somewhat like the disclaimers in cases such as *Wunderlich*, discussed above, this type of disclaimer expressly relieves the owner from whatever inferences could be drawn by the contractor from the data provided. For example, in *Nelsen & Son Inc. v. City of Monroe*, 337 Mich. 438, 446 (1953), the Michigan Supreme Court considered such an issue in relation to certain technical information. In that case, the defendant city placed in its contract a disclaimer, stating in pertinent part:

...information is offered to the bidder merely as evidence and the bidder himself must assume entire responsibility for any conclusions which he may draw from it.

Thus, the court found that the city had not disclaimed the accuracy of its test soundings and data, but rather, had disclaimed any responsibility for inferences drawn from the geotechnical information provided. The court explained that “[t]he implied warranty by the city only extended to the accuracy of the soundings made.” Therefore, it appears that owners are not restricted from allocating the risks of conclusions drawn from geotechnical data provided the data itself is accurate.

(4) *Summary*

Although not all disclaimers of geotechnical or other data are upheld, disclaimers can potentially diminish the restrictions on risk allocations that the law otherwise might impose. Such disclaimers include (1) disclaiming geotechnical information from the contract documents; (2) disclaiming the accuracy of geotechnical information that is provided; and (3) disclaiming inferences that may be drawn from geotechnical data that is provided to bidders. In the face of such disclaimers, the contractor's reliance on the geotechnical data that is provided can become questionable, thereby adversely impacting the strength of any claim it may seek to make for an unforeseen site condition. Further, whether or not the contract includes any or all of these types of disclaimers, a prudent contractor should conduct some degree of investigation and analysis

itself. Not only may such an investigation be mandated by the contract, but it may reduce the risk of reliance on data that may effectively be precluded from the indications in the contract by a disclaimer. Moreover, even if the contract disclaimers would preclude a Type I differing site condition claim, a prudent investigation that does not disclose the actual site conditions may bolster a Type II claim in the event differing conditions are later encountered.

(iii) Disclaiming Site Information Not Disclosed in Contract

One principal method of disclaiming risk of site information not disclosed in the contract is through a site inspection/investigation disclaimer.⁵ Site investigation disclaimers are designed to shift the burden of risk to the contractor by requiring the contractor to investigate the site prior to making a bid for a project. The failure of the contractor to properly inspect a site per the site inspection clause may result in the non-enforcement of the differing site conditions clause, i.e. the contractor will not be able to collect payment beyond the contract price.⁶ Neither the common law nor statutes appear to directly prohibit an owner's efforts to shift risk back to the contractor through a site inspection clause. Whether a contractor should have reasonably discovered the unexpected condition at issue during a prudent site inspection appears to be the only limitation on shifting risk by such a clause. Therefore, site inspection clauses may negate the otherwise effective allocation of risk to the owners for differing site conditions.

Nonetheless, the presence of both a site inspection clause and a differing site condition clause can present a conflict in contract interpretation. For example, a differing site condition clause may state that the owner will be liable for any expenses incurred as a result of differing site conditions. However, the owner might also attempt to limit that risk by including a site inspection clause that shifts the risks of site conditions that should be discovered upon an inspection back to the contractor. If a conflict arises, the contractor will claim additional payment under the differing site condition clause, and the owner will claim under the site inspection clause that the contractor had the risk of loss. Thus, these two disclaimers can directly conflict.

The issue of whether a differing site condition clause or a site inspection clause will prevail depends largely on a reasonableness analysis. As for what is "known" about the site conditions, the inclusion of a site inspection clause in a contract will probably constitute a waiver of any conditions the claimant could have reasonably discovered. See, e.g., *C&L Constr. Co.*, ASBCA Nos. 22993, 23040, 81-1 B.C.A. (CCH) 14,943 (1981). The applicable standard for a site inspection by a contractor is "that of the reasonably intelligent and experienced contractor with construction experience in the area and type of work who reviewed the contract documents and made a site investigation." *Fru-Con Constr. Corp. v. United States*, 43 Fed. Cl. 306, 321 (1999) (citing *J. Lawson Jones*, 86-1 B.C.A. (CCH) 18,719, at 94,173 (internal quotations omitted)). If the bidder in fact is an experienced local bidder, that bidder may be held to a higher standard. Compare *H.B. Mac, Inc. v. United States*, 36 Fed. Cl. 793, 824-825 (1996) (reliance on boring

⁵ Site inspection clauses may also support a disclaimer of information that is disclosed.

⁶ See *Robert F. Cushman & David R. Tortorello, Differing Site Condition Claims* (hereinafter "Cushman"), p. 89 (Wiley Law publications 1992).

It is also worth noting that even if the differing site conditions clause is not enforced because of a failure to properly investigate the site, the contractor may still have an action for professional negligence against whoever took information from the site and provided it to the contractor. See *Cushman*, at 89. Parties may also seek to disclaim any liability based on negligence in their reports. Courts have upheld disclaimers disclaiming tort negligence liability. See *Berkel v. Providence Hospital*, 454 So. 496, 505 (Ala. 1984).

logs more reasonable where contractor was small and located in California but project was in Hawaii). Accordingly, the party must present evidence as to what a reasonable inspection would disclose, as well as the contractor's general knowledge and experience. While a bidder is not under any obligation to conduct subsurface tests, the bidder is under an obligation to examine any reports provided by the government and to use their relative experience to inspect the exposed ground at the site. See *Hurlen Constr. Co.*, ASBCA No. 26136, 83-2 B.C.A. (CCH) 18,690 (1985).⁷

A typical battle of the forms often creates clear disclaimer conflicts. When this occurs it can be difficult to determine which clauses and disclaimers apply. Not surprisingly, case law in this area tends to be fact specific. However, there are some general trends that can be recognized. Generally, in government contracts, as opposed to private party contracts, site investigation clauses are subservient to differing site condition clauses.⁸ The reasoning for this is that private contracts more often involve an arms-length transaction, whereas with a government contract, the parties are less likely to be on equal footing. Governments are often considered to be in a position of greater strength as compared to a contractor. As a result, it is disfavored public policy for the government to take advantage of contractors by including inconsistent contractual terms.⁹ Nonetheless, this does not excuse the contractor from a failure to comply with the site inspection clause or from performing less than a reasonable inspection.

Reasonable restrictions on shifting site condition risks to a contractor through a site inspection clause are apparent, however. Exculpatory clauses might be rendered ineffective where the amount of time provided to the contractor prior to bid submission is not adequate for the contractor to complete an effective independent analysis of the site. For example, in *Frederick Snare Corp., v. Maine-New Hampshire Interstate Bridge Authority*, 41 F. Supp. 638 (D.C. N.H. 1941), the court held that the four-day period between when project specifications were made available to the contractor and the day when the bids were due was not an adequate time period to conduct a site investigation. Another court found that 14 days might not be sufficient time for a contractor to avoid relying on information provided by the owner, explaining: "the practical difficulty in making an independent analysis of [highway surfacing materials reports] is obvious" and the disclaimer is unenforceable. *Haggart Construction Co. v. State Highway Com.*, 149 Mont. 422 (1967).

Even with an enforceable site inspection clause, placing the risk of uncertainty of site conditions on the contractor does not absolve an owner of the duty not to materially misrepresent conditions. That is, a site inspection clause may not prevent the contractor from obtaining an equitable adjustment under a differing site condition clause where the contractor is misled by reliance on affirmative inaccurate representations by the owner. See, e.g., *United States v.*

⁷ Sometimes disclaimer conflicts are resolved through "order of precedence" clauses. See *Construction Claims Monthly*, August 2001, p.7 (citing *Roy Strom Excavating & Grading Co., Inc. v. Miller-Davis Co.*, 501 N.E.2d 717 (Ill. App. 1986)). In *Roy Strom*, there was a differing site condition clause and a disclaimer for the accuracy of information provided in soil test boring logs. These terms were in conflict and the court held that the more general differing site conditions clause prevailed according to the "order of precedence" clause. See *Roy Strom Excavating & Grading Co.*, 501 N.E.2d 717.

⁸ See *Cushman*, at p. 90.

⁹ See *Cushman*, at p. 90.

Atlantic Dredging Co., 253 U.S. 1 (1920). Thus, the issue of an owner's knowledge and potential misrepresentations thereof often rises to the forefront in the process of analyzing disclaimers.

(iv) Risks of Owner's Undisclosed Superior Knowledge

Contracting parties sometimes argue that the failure to disclose superior knowledge should void a particular implied or express warranty disclaimer. Often when there is a site inspection disclaimer and the government withholds information from the contractor, the contractor may claim misrepresentation for failure to disclose superior knowledge.

Courts have held that “[w]hen the government agency is in possession of information pertinent to construction work to be performed under a contract, there is a duty to fully disclose and furnish to the contractor the facts of which the agency has knowledge.” *D. Federico Co. v. New Bedford Redevelopment Auth.*, 723 F.2d 122, 125 (1st Cir. 1983); see also *Christie v. United States*, 237 U.S. 234 (1915). Often this relates to subsurface conditions that raise the cost of performance for the contractor. See *Fondedile, S.A. v. C.E. Maguire*, 610 A.2d 87, 97 (R.I. 1992). However, in addition to establishing that superior knowledge was withheld, in order for that withholding to be actionable, a contractor must also establish that the information withheld was material and was the cause, both proximate and actual, of the contractor's additional costs.

In *D. Federico Co. v. New Bedford Redevelopment Authority*, a public entity failed to disclose an engineering report, which would have put the contractor on notice as to the nature of unusual subsurface material. Once the project commenced, the contractor was required to perform extensive extra work as a result of the inadequate description of the material to be excavated. Indeed, the contractor was required to remove 20 times more material than originally anticipated, but had the contractor been aware of the withheld information, it would have at least been on notice of the unusual conditions. Thus, the court held in favor of an equitable adjustment to the contract price. Accordingly, the *Federico* case imposed an affirmative duty on the owner to disclose relevant site information.

In *Fondedile, S.A. v. C.E. Maguire*, a court distinguished the *Federico* holding by emphasizing that, in order to recover under the superior knowledge theory, the claims for damages must be due to the failure to disclose. There, the contractor was repairing a seawall. The defendant had knowledge concerning the subsurface conditions of the seawall, but it did not disclose those unique conditions to the contractor. After construction was initiated, the contractor received a surveyor report showing movement in the seawall. Consequently, the contractor requested permission to change certain grouting procedures, but did not request additional payment for those changes, nor did the contractor cite movement of the wall as the cause for the grouting changes. Therefore, the court found that the knowledge withheld by the defendant was not the cause of the extra costs, and *Federico* did not apply. Thus, these two cases demonstrate the importance of establishing causation in determining whether superior knowledge is relevant to the damages sustained by the contractor.

If the information withheld is not material, it does not rise to the level of actionable superior knowledge. For example, details in notes of geotechnical investigations that are not transcribed onto the printed boring logs might not give rise to a claim of superior knowledge if the information provided in the boring logs otherwise fairly describes the site. In *A.S. Wickstrom*,

Inc. v. State, 52 A.D. 2d 658 (NY App. 1976), a government entity plainly withheld certain subsurface information thereby breaching its duty of disclosure to the contractor. However, in that case the court held that the contractor could not recover for such a breach because it failed to establish how the alleged information withheld differed materially from other information actually provided to it by the government.

When faced with a claim of withholding superior knowledge, an owner often will turn to exculpatory clauses in the contract in an attempt to place the burden of loss to the contractor. In *H.B. Mac, Inc. v. United States*, 36 Fed. Cl. 793, 824-825 (1996), for example, the Army had supplied certain boring logs indicating the conditions of the site, but also had other, undisclosed information from other site records that may have indicated those boring logs were not representative of the actual site conditions. The contract included an apparent disclaimer clause that provided:

The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

The court held that the risk of extremely different subsurface conditions should not be shifted to the contractor merely by “vague, exculpatory language in the Contract particularly when the Contract did not specifically or clearly make such language applicable to the boring logs.” In denying the Government’s claim that the exculpatory provision prevented the contractor’s claims, the court reasoned that: (1) the Army provided no specific disclaimers as to the boring logs it supplied, and thus the Army expected the contractor to rely on it; and (2) the contractor was a relatively small contractor, who acted reasonably in relying on the boring logs unless told otherwise in a specific disclaimer. The court also noted that the project was in Hawaii while the contractor was in California, therefore making reliance on the boring logs even more reasonable.

These cases demonstrate that, despite risk shifting provisions and exculpatory clauses, withholding of superior knowledge can restrict an otherwise intended and possible risk allocation.

(v) Disclaiming Conditions Known By Local Bidders

Owners may also seek to limit their risk for unknown or undisclosed site conditions by disclaiming information known by experienced local bidders. Initially, this may disparately treat local bidders, potentially violating competitive bidding prohibitions against giving any bidder an unfair competitive advantage over others. E.g., *Konica Business Machines U. S. A., Inc. v. Regents of University of California*, 206 Cal. App. 3d 449 (1988) (request for public bids must be free of any restrictions tending to stifle competition). However, as discussed above, other authorities suggest that such a disclaimer may be upheld based on a reasonableness standard. E.g., California Public Contract Code, § 1104; *Appeal of R.N.G. Contracting, Inc.*, AGBCA No. 1999-170-1; *C&L Constr. Co.*, ASBCA Nos. 22993, 23040, 81-1 B.C.A. (CCH) 14,943; *Fru-Con Constr. Corp. v. United States*, 43 Fed. Cl. 306 (1999).

(c) Summary

In considering risk allocation for differing site conditions, one first must understand the types of claims that may arise: those are, Type I and Type II claims. Second, it is important to consider what types of disclaimers may be at issue, and in what contractual context the particular disclaimer may be found. Third, one should consider whether other contractual provisions could or do conflict with the risk shifting provision. Often, in the race to allocate risk and embark on a transaction, parties will adopt several disclaimers that are conflicting. In these cases, it must be determined what clause takes precedence. Finally, it is important to consider whether any particular restrictions apply to the initial risk allocation, as well as to any particular disclaimers.

4. ALLOCATING RISKS OF CONSTRUCTION ERRORS AND DELAYS

(a) Role of the Architect

What are the major risks for architects in the construction process, and how are they typically dealt with? Beyond the obvious financial and professional risk of being able to provide the service within the amount of the fee, there are several opportunities for risk to become a significant issue.

(i) “Inspection” vs. “Review” – architects are warned by their insurance companies not to allow language in agreements that implies they are inspecting the work in progress. Inspection designates a higher standard of care than review, and may lead to liability for jobsite safety or other unintended consequences. On public school, hospital, and some other public projects, full-time inspection is required by law; on other projects inspection may be periodic, and may be done only by the code enforcement agency. As a practical matter, most architects will not hesitate to point out problems with the work if they are encountered during site visits. But they will not (and cannot, according to their liability carriers) assume the role of inspector.

(ii) Submittals – probably the single area of most concern and aggravation to architects is submittals. One of the primary concerns for all parties to the construction project is the timeliness of the submittal and the speed of review; if submittals are delayed until ordering of materials or installation is critical, the architect is then put in a position of delaying the project by a review that either takes too long or leads to a rejection. Some architects insist that all project submittals be turned in within 30 to 45 days following notice to proceed, thinking that this will free them from the risk of delaying the project with their review. However, most owner’s and CM’s do not enforce such contract language, and contractors turn in submittals more or less at will.

What is the intent of submittals? In general they are a communication tool, for the contractor to tell the architect how it has interpreted the documents, and sometimes how it intends to carry out their intent in more detail (shop drawings). Architects are being warned by their insurance carriers to minimize the number of required submittals. This makes sense from the standpoint of not requiring redundant product literature or other information, but it opens the door to problems of interpretation showing up in the built project rather than in shop drawings.

A point of law that is widely misunderstood (even by attorneys) but relied upon by architects is that the review and acceptance of a submittal does not relieve the contractor of the responsibility to build the project according to the plans and specifications. As a practical matter, the submittals often represent the contractor's interpretation of the meaning or intent of the plans and specifications, so the review becomes confirmation of that interpretation. But reviewing submittals is slow, detailed, and tedious work; and the opportunities for something to slip through unnoticed are multitude. And given the fact that timing of review is often critical, the effect of rejection of a submittal becomes even more important.

The specifications generally are very specific about what is to be included in the submittals for a given section; but often the actual submittals are incomplete. This puts the architect in the position of either rejecting the submittal for not being complete, or attempting to do a piecemeal review. The first option can seem nitpicky and arrogant, while the second can lead to inaccurate reviews and opportunities for things to slip between the cracks. A good CM will reject an incomplete submittal before the architect ever sees it, if they have the capability to recognize it as incomplete.

Easily the biggest curse of submittals is the issue of substitutions and "or equals." Public contract code requires that equals be accepted in most circumstances on public projects, but neglects to make a distinction between an equal and a substitution. We think of an equal as an item similar in all significant features produced by a different manufacturer, e.g. a 100% acrylic latex paint from either Dunn-Edwards or Fuller O'Brien. A substitution is a different product intended to serve a similar purpose, e.g. an alkyd paint by either manufacturer. There is no legal requirement to accept substitutions; and since doing so introduces other risks for the owner, substitutions should only be considered if they represent some tangible benefit to the owner such as less cost, better product for the same price, less energy use, quicker availability, or something else easily measured and documented.

The problem arises when substitutions are passed off as equals in the submittal process. Most front end documents hold substitutions to a higher standard of documentation, and therefore require more due diligence on the part of the contractor. There is very little incentive to the architect to accept substitutions other than those that offer obvious benefits to the project, and there are many reasons not to: the extra work involved in independently researching the proposed product, concerns over the accuracy of information submitted, affect on related items, and liability for unforeseen affects. It is also a legitimate question whether the architect should be paid extra to review substitutions. When substitutions are passed off as equals, the architect is in a difficult situation, possibly constituting a breach of contract on the part of the contractor. For contractors the incentive for offering substitutions is that they may be able to get a cheaper product accepted than that specified, and their bid price may have relied on the supplier's assurances that the product would be accepted as an equal.

(iii) Conflicts in the Design Documents – an unavoidable fact of the design process is that the documents will not be perfect. Common opportunities for error include lack of consultant drawing coordination; assignment of a certain scope of work to a certain subcontractor; drawings in conflict with specifications, and detailed drawings in conflict with larger drawings. Order of precedence clauses can help to address the last two of these, but they may also compound the problem. There is a further distinction between errors and omissions:

typically an error is something that is shown incorrectly, while an omission is something that was left out of the documents entirely. In theory, the cost of correcting an error is 100% unnecessary, while the cost of fixing an omission is the difference between performing the work when the omission is discovered vs. having it included in the bid price.

Conflicts in the documents may be discovered and addressed in a number of manners, all of which depend on the architect's contractual authority to make changes. If a contractor or CM discovers a problem, a request for information (RFI) may be issued to the design team. The design team may answer the RFI with a written response, or supplemental drawings, or both. These may lead to a claim for extra cost by the contractor, and the architect may not always agree that entitlement exists.

If the design team discovers a problem on its own, it may issue an architect's bulletin or construction change directive directing the contractor to do the work accordingly. Usually in these cases the architect thinks of the directive as a "course correction" involving no extra cost. If extra cost is anticipated, a request for proposal from the contractor is the initiating document. In an ideal relationship (these actually do exist, but mostly in the private sector) the architect and contractor communicate about the issue and arrive at a mutually agreeable solution that involves either no cost or minimal cost to the owner. From the point of view of the architect, a third party (e.g. CM) becoming part of the discussion usually interferes with this relationship. This is not because architects are attempting to "cover their tracks," as is often suggested, but because the third party may be more interested in assigning blame than assessing and solving the problem at hand.

(b) Role of the Inspector

Recent legislation in California gave project inspectors the authority to stop work on public school projects. Part of the language in this law absolved the school district of any liability for delay claims on the part of the affected contractors. While it remains to be seen if this was an important tool to place in the hands of schoolhouse inspectors, the discussions around this legislation did highlight how difficult and complex a subject the authority of the inspector is.

Fundamentally, the inspector has the responsibility for interpreting contract documents and determining that the contractor is constructing the project in accordance with those documents. If conflicts arise in the work, it is the responsibility of the inspector to consult with the design professionals and help them resolve the conflict. Unfortunately, inspectors come in varying degrees of competence (recent testing and certification by the Division of the State Architect was an attempt to create some uniformity in inspector qualifications). While they may have the authority to require the contractor to do certain things in order to pass inspection, these may not be the things most important to the success or safety of the project.

(c) Role of Construction Manager

Most construction management contracts also make a distinction between inspection and review, referring not to assume any liability for the project not being built in accordance with the design intent. CM firms usually define their role in terms of distribution of project information ("the Hub of the Wheel concept") and looking after the owner's interest (as though the design team was not).

From the architect's point of view, the issues of timeliness and accuracy of response to situations are complicated in most cases by the presence of a CM acting as the clearinghouse for project information. It is important for Owner's to address several issues when formulating the CM contract, and to coordinate these responsibilities with the design services agreement. These include:

(i) Responsibility for Interpreting Contract Documents – does the CM have the authority to interpret contract documents either for the purpose of responding to requests for information or for assigning responsibility for resolution of conflict (e.g., is a change order request based on design error legitimate)?

(ii) Responsibility for Identifying Problems and Ensuring Timely Resolution – is the CM responsible for taking a proactive approach to potential problems in the project, and negotiating solutions with the parties involved?

(iii) Role in Assigning Responsibility for Problems and Consequent Liability for Owner – is the CM empowered to commit the owner financially (agency)? For example, can the CM acting alone agree that a change order is a legitimate extra to be paid for by the owner?

(iv) Authority to Make Changes and Responsibility for Changes – is the CM empowered to authorize changes to the project? Is the CM liable if the changes do not work out in the owner's best interest?

(v) Exposure to Liquidated Damages: Does the CM have liquidated damages exposure if it is not able to deliver the project on schedule?

(d) Role of Contractor

(i) Means and Methods

While the owner and its design team typically have primary responsibility for describing "what" the contractor is to build, the contractor largely is responsible for determining "how" the project will be constructed. Thus, the contractor has the authority to determine the "means and methods" of construction. For example, the AIA A201, § 3.3.1 provides that "[t]he Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give specific instructions concerning these matters."

Frequently, the means and methods selected by the contractor must be explained in submittals or shop drawings that are provided to the design professional for review and approval. The depicted means and methods must be consistent with the contract documents, referenced industry standards, and the applicable standard of care. If the proposed means and methods are consistent with these requirements, then they should be approved.

If the owner nonetheless rejects the contractor's means and methods, requiring a more expensive method than that reasonably contemplated by the contractor at the time of bidding, then the owner has effectively changed the contract. Often such action by the owner constitutes a "constructive change" since the owner has not usually produced a formal change order.

Instead, the owner's conduct has the effect of requiring the contractor to perform work different from that permitted in the original contract to reach the same result. Accordingly, constructive changes to the contract entitle the contractor to an adjustment for any additional costs incurred as a result of the owner's conduct.

Constructive changes may also arise when the owner mistakenly interprets a contract ambiguity against the contractor. In *Tecon Corp. v. United States*, 411 F.2d 1262 (Cl. Ct. 1969), for example, the construction contract required the contractor to complete an embankment and spillway and to construct a service road for the Government. The contractor sought to recover for extra work it claimed arose under the Changed Conditions clause of the contract, including extra costs it incurred in supplying a larger tractor and roller weight than it had anticipated during the bidding process. Specifically, the contract provided that earth placed in constructing the embankment was to be compacted using tamping rollers weighing "no less than 2500 pounds per foot of linear drum length weighted." *Id.* at 1267. The contractor interpreted this to mean that it could perform the contract by employing the 2500 pounds specified. When the Government, however, directed the contractor to ballast the rollers to achieve an operating weight in excess of 3500 pounds per linear foot, the contractor incurred substantial unanticipated expenses. The court held that the contractor was entitled to an equitable adjustment under the Changes clause because the contractor's interpretation of the construction method was reasonable and satisfied the contract requirements. The court reasoned, "Use of the rollers at weights in excess of 2500 pounds should have been anticipated, but a contractor could not have reasonably expected to operate its rollers at a weight of 40 percent in excess of the stated range limit." *Id.* at 1268. There was evidence indicating that the Government knew during the negotiation stage that the rollers would have to be weighted to 3500 pounds, but failed to convey its knowledge to the contractors. Thus, the contractor's decision as to the means and methods to be used were those of a reasonably prudent contractor under the circumstances known to it at the time of bidding.

(ii) Responsibility for Following/Interpreting Contract Documents

As was discussed earlier, the contractor is responsible for reviewing the contract documents, usually prepared by the owner's architect and/or engineer, prior to bid to determine what means or methods may be required to achieve the final result. If during contract formation or early in the performance of the contract, the contractor becomes aware of an apparent ambiguity or inconsistency in the contract documents, the contractor must seek clarification. Generally, courts will interpret ambiguous contract language against the owner and architect as the drafters of the language. However, a contractor's failure to request clarification of a patent ambiguity in a timely manner may shift the risk of interpreting ambiguous language from the owner to the contractor. Depending on the language of the contract, this may be true even when the contractor fails to recognize an ambiguity that a reasonably prudent contractor would have discovered.

A typical clause might provide as follows:

The contractor shall not take advantage of any apparent error or omission which may be found in the Contract Drawings or Specifications, but the Construction Manager shall be entitled to make such corrections therein and interpretations thereof as he may deem

necessary for the fulfillment of their intent as provided in Subarticle F above. Omission from the Contract Drawings or Specifications or the misdescription of details of Work which are manifestly necessary to carry out the intent of the Contract Drawings and Specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted Work (no matter how extensive) or misdescribed details of the Work and they shall be performed as if fully and correctly set forth and described in the Contract Drawings and Specifications at no additional expense or delay to the Commission.

The above-quoted passage is derived from the Omissions and Misdescriptions Clause used in Federal government contracting, 48 CFR section 252.236-7001(d). The purpose of that clause has been described as follows:

[T]he ‘Omissions and Misdescriptions’ clause represents a reasonable allocation of risk between the government and a contractor and is not unduly burdensome on either party. It is designed, in our view, to cover ‘single details’ of the work only, not major portions thereof, that may be (inadvertently or otherwise) omitted from a contract’s requirements. Here appellant was put on notice that it was to provide the Government with a completed facility. It was further put on notice that it was to furnish and install a key “detail” of that facility. If an omission then caused a discrepancy to arise, “reading the contract as a whole, as one must, the omission was not obscure or subtle but obvious,” and a duty to inquire logically arose.

Jefferson Construction Corp., ASBCA 23732, 79-2 BCA ¶ 14186, citing, *J.A. Jones Construction Co. v. U.S.*, 395 F.2d 783 (Ct. Cl. 1968).

The traditional scope of the omissions and misdescriptions clause has been summarized as follows:

In documents as complex and lengthy as plans and specifications for construction contracts, it is to be expected that there will be errors or omissions which have escaped notice by Government contracting personnel. Some of these will not be obvious until construction has proceeded to an advanced degree of completion; others will be readily apparent to a contractor who is studying the plans and specifications with a view towards preparing [its] bid

This clause does. . . not constitute a complete shifting to the contractor of the burden of erroneous specifications. . . [it holds] contractors responsible for what they knew or reasonably should have known to be erroneous specifications, precluding them from taking advantage of the government, but at the same time protecting contractors by granting adjustments when the errors were not patent.

Comptroller General Opinion, B-164459, 48 Comp. Gen 90 (1968) at 92.

By way of example, in *Basic Construction Company*, ASBCA 20585, 76-2 BCA ¶ 12,142, the drawings did not show any conduit and wiring between certain heaters and the panel board. The contracting officer rejected the contractor’s claim that the conduit was therefore not required by the contract on the ground that it was obvious that there must be connections between the

power source and the heater, and that the work, consequently, fell under the Omissions and Misdescriptions Clause. The Board noted that some interpretations of the clause had held that it only applied to the most minor omitted and misdescribed details, such as nuts, anchors, straps, bushings or other small parts needed to complete what is indicated in the contract documents. See *Blake Construction Co.*, ASBCA 11209, 66-2 BCA ¶ 5710; *Ames-Ennis Inc.*, ASBCA 15659, 73-2 BCA ¶ 10,113. The Board also noted decisions that had interpreted the clause much more broadly than that. See *Coastal Contracting & Engineering Co., Inc.*, ASBCA 5056, 59-1 BCA 2252; *Ruscon Construction*, ASBCA 17867, 73-2 BCA ¶ 10184. In interpreting the scope of the clause, the Board in *Basic Construction* stated as follows:

A contractor may not normally be required to perform a large amount of work omitted from drawings and specifications, whether or not the Omissions and Misdescriptions clause is in the contract. First, if the clause is in the contract, the omitted work must be “manifestly necessary to carry out the intent of the drawings and specifications” or must be “customarily performed” and it is not customary to omit large amounts of work necessary for that intent. Second, as the court in *Blount, supra*, also pointed out, contractors who bid on government contracts are usually pressed for time and are consciously seeking to underbid a number of competitors and, although they must bring major discrepancies or errors which they detect to the government’s attention “they are not expected to exercise clairvoyance in spotting hidden ambiguities.”

The court went on to formulate the issue as follows:

Thus, the question whether 180 feet’ of conduit and wiring should be viewed as a detail, or as omitted work that is not a mere detail, and whether appellant should be held responsible for performing it without compensation should be decided in light of the conditions of the bidding process and what a prime contractor or a subcontractor, effectively acting for the prime contractor, knew or should have known.

The evidence in this appeal, as found above, tends to show that appellant was not aware, nor should it have been aware, that the drawings had erroneously left out conduit and wiring for the heaters.

Despite these broad statements, the Board also commented:

[N]o doubt there are many drawings on which electrical connections, including substantial conduit runs, would necessarily be implied even though not shown, especially when interpreted in light of the purposes of the particular contract and all its terms. But in this case, bidders were expressly induced to go to the drawings and, by implication, to examine in particular the electrical drawings such as E30 to determine the extent of conduit and wiring required.

Accord, *Strauss Construction Co., Inc.*, ASBCA 22791, 79-1 BCA ¶ 13578 (several hundred dollars worth of conduit and wiring not shown on the drawings or mentioned in the specifications was not required by the contract); *Stallings & McCorvey Inc.*, ASBCA 25125, 81-1 BCA ¶ 15094 (plans which omitted structural support for 500-pound doors were defective and government failed to demonstrate that contractor knew or should have known that structural support was required); *George E. Jensen Contractor, Inc.*, VACAB 1011, 72-2 BCA ¶ 9680 (Board held that

water flow switches, some of which were shown on electrical drawings and others on mechanical drawings, were not covered by clause).

(iii) Responsibility for Identifying Problems and Ensuring Timely Completion

As described throughout these materials, the contractor's responsibility to identify problems with the contract documents arises when it first unrolls the plans to begin preparing its bid, and probably does not end until the statute of repose expires ten years after the project is completed. The scope of this responsibility, and the potential for liability that goes along with it, are largely a product of the contract language.

Again, the language of the contract can run the gambit from making the contractor the "guarantor" of the accuracy and completeness of the plans and specifications, to simply obligating the contractor to report deficiencies actually discovered during the course of its activities on the project. The appropriateness of this allocation of risk is a function of the role the contractor has played in the development of the contract documents and the delivery system that the parties are employing. For example, when the contractor is engaged in the design phase and is paid to perform constructability reviews and provide value engineering studies, it is reasonable to expect an increased level of scrutiny of the plans and specifications prior to commencement of construction.

Even in a design-bid-build model, owners will often seek to make the contractor responsible for design deficiencies that were discovered "or should have been discovered." The difficulty in using this standard is evident in its application. The issue usually arises when some defect in the plans or specifications creates a situation where the contractor is asserting a right to additional time or money. The owner will deny the claim, acknowledging the defect but asserting that the contractor should have discovered it and accounted for the additional costs. In turn, the contractor will argue that the design team had months to prepare an accurate and complete set of documents, while the contractor had much more limited time to prepare its bid. The owner will hire an expert to impugn the contractor and testify that any prudent contractor would have discovered the defect; the contractor will hire an expert to testify that no contractor would have discovered the defect until this contractor did. The parties will become polarized and, in their view, there will be no winners other than those who make a living from these types of disputes.

The AIA, in producing the A201 general conditions, has not extended the contractor's liability to situations where allegedly it should have discovered a design defect. Rather, it obligates the contractor to study and compare the contract documents and to identify conflicts, but only assigns financial risk for failure to report defects actually discovered. See AIA A201 § 3.2.3.

(iv) Effect of Inspections: Does Not Relieve Contractor of Responsibility to Comply with Contract Documents

Most construction contracts provide for inspection by the owner, the design professional, professional testing agencies, and public inspectors before acceptance of the project. The contract will typically describe the standards and procedures for inspection and quality assurance. For example, the standard federal inspection clause gives the Government broad and comprehensive inspection rights. The federal clause specifies that the owner has the right to inspect "at all reasonable times before acceptance to ensure strict compliance with the terms

of the contract.” Such inspection provisions are for the benefit of the owner, not the contractor, and provide a means to find and correct any defects before acceptance by the owner.

The contractor also warrants to the owner that the work will be performed in accordance with the contract plans and specifications. This means that, despite any inspections and apparent approval of work during the construction process, the contractor continues to be responsible for performing in accordance with the contract documents.

Consider a situation where the public building inspector determines that the work performed meets the minimal compliance standards required by the building code. The building code may only require ceilings to be at ten feet, but the contract may specify twelve feet. If the ceiling constructed is just eleven feet, the owner has the right to reject the work for failing to comply with the contract specifications.

Similarly, the architect, acting as the owner's agent, periodically visits the work site, but may fail to point out nonconforming work. Nevertheless, the architect or owner may later insist upon strict compliance with contract specifications. For instance, an owner who rejects the face brick the contractor used based on a color discrepancy with the contract specifications is well within its right to reject the nonconforming work. It does not matter that the brick used conformed in function and quality with the contract documents, or that the architect apparently approved of the work by failing to point out the discrepancy during an inspection.

The owner generally has the right to reject defective or nonconforming work at any time prior to formal acceptance of the work. In fact, under the AIA A201, the owner retains the right to contend that work fails to comply with the contract documents even after final completion, acceptance of the project, and the making of final payment. See AIA A201 § 9.10.4.

In addition, most construction contracts include a one-year period for correction of any nonconforming work discovered after substantial completion of the project. The owner is required to promptly notify the contractor of any such discovery, or risk waiving the right to require the contractor to make any corrections. Again, the contractor must bear the expense of correcting any rejected work discovered during the one-year warranty period, including expenses for additional testing and inspections, and possibly compensation for additional architectural services. See AIA A201, § 12.2.

(v) Effect of Payment: Does Not Relieve Contractor of Responsibility to Comply with Contract Documents

Payment, by itself, does not constitute an implied acceptance. See, e.g., *G.M. Co. Mfg., Inc.*, ASBCA 5345, 60-2 BCA ¶ 2759 (payment not authorized by person with authority to accept or reject work). Generally, the construction contract provides that progress payments do not constitute implied or constructive acceptance of any work not in compliance with the construction documents. For example, the Payments' Clause at issue in *Abney Construction Co.*, ASBCA 26358, 83-1 BCA ¶ 16,246, specified that progress payments did not relieve the contractor of responsibility for restoration of damaged work. The court relied on the Payment Clause in rejecting the contractor's contention that a progress payment covering the work in question shifted the risk of non-compliance to the owner.

Similarly, the AIA A201 provides that “[t]he making of a final payment shall constitute a waiver of Claims by the Owner except those arising from: . . . 2. Failure of the Work to comply with the requirements of the Contract Documents.” AIA A201, § 9.10.4. This contract provision explicitly preserves the owner’s right to demand that the work comply with the contract documents even after completion, final payment, or acceptance.

(e) Role of Owner

Frequently, contractors will attempt to shift the responsibility for delays to the owner claiming delays associated with (1) delivery of owner-furnished or specified materials; (2) owner-initiated changes; (3) response time to questions; (4) payment; (5) coordination of multiple prime contracts; and/or (6) management of consultants which have responsibility for any part of the construction administration. Whether or not any of these complaints is a true cause for delay depends upon the facts and, most importantly, the critical path of the project schedule.

(i) Owner-Furnished Materials

Sometimes the contractors are incorrect in their complaint, as frequently is the case in situations of specified materials. For example, simply because an owner directs the contractor to use certain materials does not mean the owner is responsible for delays associated with the delivery of the materials; the contractor is still responsible for timely ordering the materials and ensuring their prompt delivery. If, however, the owner assumes responsibility for delivery of the materials, the owner takes the risk of any delays to the critical path associated with late delivery.

(ii) Owner-Initiated Changes

Sometimes the contractors are correct in their complaint, especially in the case of owner-initiated changes to the contract. Thus, owners need to be cautious in directing changes to the contract, or be willing to assume the risk for project delays. That risk generally is reflected on the project schedule, and in particular, the critical path. If the critical path is not affected, even by an owner-initiated change, there generally is no delay claim. A caveat to this general rule are loss of productivity claims, which are a derivative of a delay claim. If the owner initiates a voluminous number of changes, there likely will be an impact on the contractor’s productivity, which is manifested in both delays and extra labor costs.

(iii) Response Time to Questions

In the case of response time to contractor questions, the parties should be guided by the time set forth in the construction contract. If that time is unreasonably exceeded, and the contractor can show a delay to the critical path, the owner is at risk for the associated delays. It is for this reason that owners often include provisions in their design professional contracts requiring the design professionals to respond to contractor questions within a specified number of days. The design professional’s failure to timely respond may result in shifting the risk of such delays from the owner to the design professional.

(iv) Prompt Payment Processing

The lack of timely payment is a frequently raised complaint on construction projects. The legal reality is that, if payment is made within the contractually specified time, the contractor has no cause for complaint, unless that time violates one of the statutory provisions providing for prompt payment. On private works projects, Civil Code § 3260.1 requires owners to pay progress payments within 30 days after the request for payment, unless otherwise agreed to in writing, and Civil Code § 3260 requires owners to pay retention within 45 days after completion. The failure to make these payments when due subjects the owner to a penalty of 2% per month in lieu of interest, plus attorneys fees and costs. On public projects, the statutory time for payments depends upon the particular public agency involved, but generally, progress payments must be paid within 30 days of the approved pay application (Public Contract Code § 10261.5 for state agencies or § 20104.50 for local public agencies). The failure to make progress payments when due subjects the public entity to interest at 10% per annum. On public projects retention must be paid within 60 days of completion, or the owner is subject to a penalty of 2% per month in lieu of interest, plus attorneys fees and costs. Public Contract Code § 7107.

The practical reality of late payments is that contractors are deprived of the revenue they need to sustain the project. This can turn into project delays, again if the critical path is affected. Thus, absent costs properly deducted for contractually allowed purposes such as construction errors or liquidated damages, owners are wise to consider the importance of timely payments to keep the revenue stream flowing to assist with keeping the project on track.

(v) Coordination of Multiple Prime Contractors

Coordination of multiple prime contractors can be a tricky issue, and such projects should not be undertaken by an unsophisticated owner, or at least an owner without a strong project or construction manager. It is important that the party responsible for the owner's representation understand the nuances of coordinating the various prime contractors, including how they collectively contribute to the overall project schedule. Similarly, it is important that clear design documents be provided, clearly delineating the aspects of work attributable to each prime contract. Absent such coordination and clear design documents, the owner and/or its representatives indeed can be held responsible for construction delays (and errors).

(vi) Management of Owners' Consultants

As discussed in various sections above, owners may have a variety of contractual and/or legal defenses by contractors to delay claims contributed to by their consultants. Again, however, the practical reality is that owners should endeavor to assure that their consultants are timely and properly performing their construction administration functions to avoid project delays.

5. ALLOCATING RISKS OF PAYMENT

The terms detailing payment on a construction project are obviously material to any contract. The parties may wish to allocate risks associated with payment in a variety of ways. This section discusses some of the common payment considerations in construction contracts.

(a) “Pay if Paid” Clauses

“Pay if paid” clauses are generally unenforceable in California. See *Wm. R. Clarke Corp. v. Safeco Ins. Co.*, 15 Cal. 4th 882 (1997). Such a clause generally attempts to make receipt of money by the general contractor a condition precedent to the general contractor’s obligation to pay its subcontractors. In *Clarke v. Safeco*, the California Supreme Court determined that a pay if paid clause is in substance a waiver of a subcontractor’s mechanic’s lien rights, which is contrary to California Civil Code section 3262 (prohibition against contractual provision for waiver of lien claims), and which is also contrary to the California Constitution allowing for mechanic’s liens. Thus, the Court determined that voiding pay if paid provisions would simply “recognize and enforce that legislative policy determination.”

While “pay if paid” clauses are void in California, “pay when paid” clauses are enforceable because a court can imply that payment will occur within a reasonable time. Thus, with a “pay when paid” clause, a contractor can postpone payment to its subcontractors for at least a reasonable time while it awaits payment from the owner.

(b) No Damages for Delay Clauses

A “no damage for delay” clause generally attempts to disclaim owner liability for project delay regardless of the nature or extent of the delay. If enforced, the provision would prevent a contractor from recovering its damages due to an owner caused delay in the project. However, such clauses are narrowly construed by courts and, in the case of public contracts in California, are expressly prohibited. California Public Contract Code § 7102 provides:

Contract provisions in construction contracts of public agencies and subcontracts thereunder which limit the contractee's liability to an extension of time for delay for which the contractee is responsible and which delay is unreasonable under the circumstances involved, and not within the contemplation of the parties, shall not be construed to preclude the recovery of damages by the contractor or subcontractor.

No public agency may require the waiver, alteration, or limitation of the applicability of this section. Any such waiver, alteration, or limitation is void. This section shall not be construed to void any provision in a construction contract which requires notice of delays, provides for arbitration or other procedure for settlement, or provides for liquidated damages.

Thus, in *Howard Contracting, Inc. v G.A. MacDonald Construction Co.*, 71 Cal. App. 4th 38 (1998), the court explained that section 7102 permits a contractor to recover delay damages, provided that the delay is unreasonable, and not within the contemplation of the parties despite a no damage for delay clause in the public works contract. Section 7102 specifically prohibits public agencies from requiring a waiver, alteration, or limitation of applicability of the section and thus renders any such waiver, alteration, or limitation void. *Id.*

(c) Liquidation Clauses

A liquidation clause is, in effect, a like a reverse liquidated damages clause. That is, the clause sets forth an amount of daily damages to be recovered by the contractor when the owner

causes delays in the project. For example, when the owner causes a delay in the project, the contract could provide recovery for \$200 per day to be paid to the contractor. Such clauses have been upheld by courts, even though the contractor might argue that the liquidated damage amount is not sufficient and that such clauses are somehow precluded by other statutory provisions governing liquidated damages and no damages for delay, i.e. Public Contract Code §§ 10266 and 7102. Instead, such clauses are likely valid provided they are consistent with Civil Code § 1671, which provides that a liquidated damages provision in a contract “is valid, unless the party seeking to invalidate the provision establishes that the provision was unreasonable under the circumstances existing at the time the contract was made.”

(d) Right to Stop Work

Under Civil Code § 3260.2, unpaid general contractors on private projects have the right to stop work if they have not been paid sums owed within 35 days of when payment is due, there is no dispute about satisfactory performance, and certain procedural steps are followed. Section 3260.2 provides that the original contractor may serve the owner with a 10-day stop work order that says unless all amounts due are paid within 10 days of the date the notice is provided, the general contractor will stop work. A copy must be served on subcontractors with whom the general contractor has a direct contractual relationship. Five days before serving such a notice to the owner, however, the contractor must post, in a conspicuous place at the job site, a notice of intent to serve a 10-day stop work order. If the dispute is resolved, or the 10-day stop work order is canceled, the general contractor shall follow up by posting in a conspicuous location at the job site another notice to inform the subcontractors of the resolution or cancellation.

The right to stop work under section 3260.2 is cumulative of other remedies, meaning the contractor may still seek recovery for the apparent breach by the owner. Further, the general contractor and its surety are not liable for any delays or damages that the owner or subcontractors may suffer if the posting and notice requirements are satisfied. Rather, the general contractor's liability to subcontractors or suppliers resulting from the cessation of work is limited to the amount of damages the subcontractors or suppliers could recover under the mechanics' lien laws for goods or services provided, up to the date the contractor ceases work, except that this limitation does not apply to custom work, including materials that have been fabricated, manufactured or ordered to specifications unique to the job.

An owner too may have a contractual right to stop the work of a contractor. Many contracts provide that if a contractor fails to correct work as required by the contract or persistently fails to carry out the work as required by the contract, then the owner may issue a written order to the contractor to stop the work, or any portion of the work, until the cause for such order has been eliminated. (i.e. AIA Document, ¶ 2.3.1.)

While parties may exercise the right to stop work when they believe the other party is not performing pursuant to the contract, each side must exercise any right to stop work with extreme caution. If any party improperly exercises its right to stop work, that party may be found liable for a breach of contract itself.

(e) Payment Bonds and Other Security

Payment Bonds are usually issued in favor of an owner to ensure that subcontractors will be paid. The general contractor pays a premium to a surety, who in turn guarantees to the owner (“obligee”) that the obligations of the principal, contractor or subcontractor to persons supplying labor or materials to the project (“claimants”) will be met. Such bonds are required on public projects in excess of \$25,000. (Civil Code § 3247.) For those working on such a project, it is important to obtain a copy of the bond at the commencement of the project to verify its availability.

Civil Code § 3248 provides the requirements for bond approval on a public project. The amount of the bond shall be in a sum not less than one hundred percent of the total amount payable by the terms of the contract. Those who can make a claim against the payment bond are the same as those who can file stop notices, and include subcontractors at every tier, materials’ suppliers, lessors of equipment, architects, engineers, land surveyors if work included in work of improvement, mechanics, artisans, those making site improvements, and all other persons performing labor on or bestowing skill or services contributing to the work of improvement. Even suppliers of temporary labor to the project may be entitled to recover against payment bonds. *Contractors’ Labor Pool, Inc. v. Westway Contractors, Inc.*, 53 Cal. App. 4th 152 (1997). However, those who did not actually provide services to the work of improvement, i.e., those who provide administrative services to service payroll of subcontractors, are not entitled to file a claim against the bond.

In addition to contractual amounts owed, claimants can recover amounts due under the Unemployment Insurance Code or Employment Development Department with respect to work or labor performed under the contract and reasonable attorney fees fixed by the court. A general contractor may, however, require subcontractors to indemnify for enforcement of the payment bond.

Prior to 2001, payment bonds were not required by law for private projects. In 2001, Assembly Bill 1534 was signed into law and requires private property owners to provide the original contractor with a payment bond when the project’s contract amount exceeds \$5 million. If, however, the property interest is less than a fee simple absolute (e.g., a leasehold), the contract threshold is merely \$1 million. The amount of the bond is to be 15 to 20 percent of the total contract amount and depends upon the length of the proposed project. If a payment bond is filed, the procedures for claims and enforcement of claims against the bond are the same as for public works.

6. CONCLUSION

There are a wide variety of methods of restricting liability or allocating risk on construction projects. The enforceability, from a legal standpoint, depends upon the type of project involved, the particular risk be allocated, and the method of allocation. From a practical standpoint, the parties should ask themselves who really is in the best position to bear the risk, whether from the standpoint of having the best resources, or the best information, or the best expertise. Owners hire design professional because they are experts in design, and they hire contractors because they are experts in construction. However, owners choose the site and choose the

project. Design professionals, though experts in design, have fee constraints; further, there really is no “perfect design”. Contractors, though experts in construction, really are not experts in design and generally are entitled to rely upon the design documents provided; however, they cannot ignore the contractual risks they assume.

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