The Foreseeability of “Unforeseen” Geologic Conditions

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Despite the growing sophistication of construction contracts, “unforeseen” or “differing” site conditions disputes continue to occur. These disputes, which often result in substantial damages awards, arise when large volumes of unanticipated rock, soil, groundwater, or other adverse subsurface conditions are encountered during the grading or excavation stages of construction, and the parties are in disagreement over who is responsible for the additional costs associated with the unforeseen condition(s).

Although the law does not hold contractors to the professional investigatory standards of geologists and geotechnical engineers, and, in fact, limits the responsibility of bidding contractors to a “reasonable” interpretation of that which is indicated in the contract documents, owners (e.g., local, state and federal government bodies) litigating extra work and unforeseen site conditions claims against contractors often take the position that the contractor failed to perform due diligence in examining the contract documents and investigating the site conditions. In particular, owners frequently contend that: (a) the contractor was provided with a geotechnical report, specifically tailored to the subject project, that revealed the disputed condition(s); and/or (b) the contractor, in fact, visited the project site itself, and therefore should have observed, at a minimum, surficial manifestations of subsurface condition(s) (e.g., large boulders protruding from sandy river-bed materials); and/or (c) the contractor had unequivocal access to large volumes of published government or other geologic and geotechnical engineering reports relevant to the subject project site, and should have therefore carefully scrutinized and inspected all available information to “unearth” the disputed condition(s).

Determining whether a contractor was reasonable in interpreting that which is indicated in the contract, however, requires that courts “place [themselves] into the shoes of a ‘reasonable and prudent contractor’ and decide how such a contractor would act in [the contractor’s] situation.” P.J. Maffei Bldg. Wrecking Corp. v. United States, 732 F.2d 913, 917 (Fed. Cir. 1984). Inevitably, such a determination depends on the facts of each particular case; although, in virtually every case, contractors can be assured that the central inquiry will be: “Can the contractor provide evidence of acting prudently in interpreting the contract documents and in making its project bid?” See e.g., Weeks Dredging & Contracting, Inc. v. United States, 13 Cl. Ct. 193 (1987), aff’d 861 F.2d 728 (Fed. Cir. 1988).

Given that the risk of encountering unforeseen or differing geologic conditions diminishes greatly as the quantity and quality of subsurface geotechnical investigation increases, the purpose of this article is to provide contractors with a simple working framework to help avoid allegations from owners regarding lack of due diligence and better protect contractors at the bidding and design stages of construction. In short, there are two simple measures that contractors can take to reduce subsurface
uncertainties. First, prior to contracting, contractors should fully understand the three principal methods by which risks associated with encountering unexpected site conditions are contractually shifted from one party to another. Second, contractors should understand how each contractual method of allocating risk affects the importance of the owner’s geotechnical subsurface investigation and the manner in which the contractor conducts its site investigation.

Understanding How Geologic Risks Are Contractually Allocated

Prior to contracting, contractors should fully understand the three principal methods by which risks associated with encountering unexpected site conditions are contractually shifted from one party to another. These include: a) differing site conditions clauses; (b) express disclaimers; and (c) site investigation clauses.

- **Differing Site Conditions Clauses**

  **Type I Differing Site Conditions**

  Differing site conditions (“DSC”) clauses, which are intended to relieve contractors from the burden of extraordinary costs involved in completing performance due to unforeseen conditions, typically provide that if physical conditions at the site differ materially from those represented or reasonably anticipated, and the conditions cause an increase in the time or cost of performance, the contractor is entitled to additional compensation and/or an extension of time. The legal test to determine whether a contractor may recover pursuant to such a contract provision, is to compare and contrast the conditions represented and indicated with those actually encountered on the subject project. If conditions do, indeed, differ from the contract, then a contractual DSC, or “Type I” DSC, exists. For example, in *E. Arthur Higgins*, AGBCA No. 76-128, 79-2 BCA (CCH) ¶ 14,050 (1979), a Type I DSC was found to exist where rocks encountered were significantly larger than those indicated by soil test pits and photographs included in the contract documents. Similarly, Type I conditions can exist where soils to be compacted are not capable of being compacted in accordance with contractually specified compaction tests. *Ray D. Bolander Co. v. United States*, 186 Ct.Cl. 398 (1968). If, however, the contract is silent regarding subsurface or latent conditions, a Type I DSC cannot exist, as a comparison between actual and indicated conditions cannot be performed. In such cases, the contractor must file either a Type II DSC or breach of contract claim. On public projects, in particular, this is rare, however, as most states, including California, as well as certain federal regulations, require that DSC clauses be included in all public construction contracts, thereby restricting public owners from completely shifting to the contractor the responsibility for the accuracy of the plans and specifications. For example, *California Public Contract Code* Section 7104 requires a provision in public contracts that allows for an equitable modification of the contract price for Type I and Type II differing site conditions encountered in excavations deeper than four feet. Similarly, DSC clauses must be included in all federal-aid highway contracts per Section 635.109 of the Code of Federal Regulations (“CFR”).

  **Type II Differing Site Conditions**
In contrast to a Type I DSC claim, which is based on express or implied representations made in the contract documents, a Type II DSC claim is not based on representations made in the contract documents, but rather is characterized by unknown physical conditions of such an unusual nature that the conditions differ materially from those ordinarily encountered and generally recognized. *Imbus Roofing Co.*, GSBCA No. 10430, 91-2 BCA (CCH) ¶ 23,820, at 119,348 (1991). As such, Type II DSC claims are typically more difficult to prove, especially in dynamic, tectonically active or fault-laden environments such as California, Oregon, Washington and Nevada, where geologic hazards are ordinarily encountered. More specifically, unlike in a Type I case, where the contract serves as the definitive measure of comparison, in a Type II case, where there is no written reference documentation, a contractor must be able to prove: (a) that the condition was not indicated in the contract documents; (b) the contractor did not have knowledge of the condition from any other source; and (c) the condition could not have been reasonably anticipated by the contractor from his study of the contract documents, his inspection of the site, and his general experience (assuming the contractor had previously worked in the contract area). Nevertheless, contractors should bear in mind that Type II judgments are based not on what a geologist or geotechnical engineer would have observed during a pre-bid inspection after a study of the contract documents, but on what a reasonably experienced contractor would have observed. For example, a Type II DSC was found to exist when 600 gallons of subsurface oil were discovered during excavation where the contractor’s site inspection had not revealed the existence of oil, and the presence of oil was previously unknown. *Mutual Construction*, DOT CAB No. 1075, 80-2 BCA (CCH) ¶ 14,630 (1980). Thus, ultimately, with any Type II DSC claim, the question to be answered is: “Was the bidding contractor’s judgment and interpretation reasonable at the time of bidding, and was the disputed condition unusual for the geographic area and geological environment?”

- **Express Disclaimers**

  Although owners that include DSC clauses in their contracts ultimately benefit from more accurate bidding without inflation for risks which may or may not eventuate, see *Foster Constr. C.A. & Williams Bros. Co. v. United States*, 193 Ct. Cl. 587, 614 (1970), owners often attempt to use express disclaimers to shift, or reduce, the risks associated with the project site and their subsurface information. For example, owners may: (a) disclaim geotechnical information as part of the contract; (b) disclaim the accuracy of the plans and specifications (or any implied warranty thereof); or (c) disclaim inferences drawn from existing site information. Although California and other courts have held that a contractor may recover if the information provided by the owner or public entity, which is ultimately incorrect, constitutes an affirmative assertion as to the conditions that the contractor should expect at the site, contractors may not recover if the provided information is only a representation or indication of the results of an investigation and not a positive statement of expected conditions. See e.g., *Wunderlich v. California*, 65 Cal.2d 777 (1967); *E.H. Morril Co. v. State*, 65 Cal.2d 787 (1967). Likewise, a disclaimer is likely effective if it is specific as to what is being disclaimed, is cross-referenced to contract representations about the project site, and does not attempt to negate the various state and federal statutory protections afforded to bidding contractors. Consequently, contractors should carefully review contract documents to determine whether potentially adverse conditions are being disclaimed.
Site Investigation Clauses

Site investigation clauses, which are designed to shift the burden of risk to the contractor by requiring the contractor to investigate and assume responsibility for verifying site conditions and inaccuracies in the specifications prior to making a bid for a project, are frequently sought by owners to prevent contractors from collecting payment beyond the contract price. See e.g., Warner Construction Corporation v. Los Angeles, 2 Cal.3d 285, 294 (1970). A site investigation clause, however, does not in and of itself negate a DSC clause in a contract. Rather, the presence of a site investigation clause may create a duty for the contractor to investigate the site. See e.g., Mojave Enters. v. United States, 3 Cl. Ct. 353 (1983). Thus, while contractors are not required to perform their own subsurface geotechnical investigations, it is important for contractors to formulate, from the contract documents and their visual site inspection, a basic, working understanding of: (a) the regional geologic environment; (b) actual and foreseeable site conditions; (c) how project earthwork will affect the stability of the site; and (d) who bears the risk of subsurface or latent conditions. Put simply, by better understanding how risk is commonly allocated among contracting parties, contractors can better prepare themselves for contract negotiations.

Understanding How the Allocation of Geologic Risks Affects the Importance of Geotechnical Investigations

Although the reasonable investigation requirement does not require contractors to be trained geologists or geotechnical engineers, nor require that contractors hire such experts or conduct special technical or subsurface studies, contractors should understand how each contractual method of allocating risk affects the importance of the owner’s geotechnical subsurface investigation and the manner in which the contractor reviews contract documents and inspects the site. In short, although a prudent owner will normally make a thorough subsurface investigation so that as much can be known about the project site as possible (thereby encouraging contractors to submit lower bids unencumbered by contingencies for unknown conditions), if the risk of encountering unexpected site conditions rests with the contractor, such as may be the case with “disclaimer” and “site investigation” clauses, the contractor may consider attempting a reasonably thorough subsurface investigation that is designed for the subject project site, reflects expected geological and environmental subsoil conditions, and accounts for potential regional geologic variability. Without a basic understanding of these variables, a contractor is partially “blind” with respect to the risks it is exposed to. In formulating any plan for subsurface and/or site investigation, however, contractors should be aware that reliance upon information obtained outside the contract documents will be at the contractor’s own risk. As such, care must be taken when relying on geologic information not included in the contract documents, which may or may not include actual subsurface exploration.

On the other hand, if the risk of encountering unexpected site conditions is mutual or rests with the owner, such as is typically the case with “differing site conditions” clauses, the contractor need not be as concerned with the thoroughness of the owner’s geotechnical investigation, as the contractor will likely be entitled to additional compensation for unforeseen, unanticipated or unexpected subsurface conditions if certain criteria are met. Again, the legal test to determine whether a contractor may recover pursuant to a contractual DSC clause (i.e., Type I DSC) is to compare and
contrast the conditions represented and indicated with those actually encountered on the subject project. Nevertheless, to avoid allegations from owners regarding lack of due diligence, contractors should strive to conduct some form of common sense pre-bid site inspection, regardless of the apparent thoroughness of the owner’s geotechnical study, and especially when bidding work in unfamiliar geographic areas and geologic environments. For example, walking the site, taking samples of site materials and reviewing reasonably accessible geotechnical information before submitting a bid may help uncover bid document inaccuracies. Moreover, as indicated above, under California and other state and federal law, contractors can be held responsible for those subsurface conditions that a reasonable pre-bid site walk would reveal. Therefore, careful documentation should be kept of all bidding efforts, including, for example, site inspection notes, records of information requested, specific questions asked of the owner, specific responses given regarding the project, as well as any pre-bid calculations resulting in the final bid.

In summary, if a contractor: (a) properly allocates risk (i.e., is mindful of the way it contractually agrees to certain duties and responsibilities); and (b) is mindful and reasonably inquisitive of the types of geotechnical and engineering data provided by an Owner, as well as the thoroughness, completeness, and accuracy of the data, the contractor should rarely find themselves on the losing end of an unforeseen conditions claim.

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