

# Design and Construction Management Professional Reporter

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D e s i g n  
P r o f e s s i o n a l  
A L E R T

## Design For Construction Safety Initiative

We call your attention to a construction safety initiative that appears to be gaining traction within certain segments of the design and construction industry.

The safety initiative is described under the heading "Design for Construction Safety" or, alternatively, "Prevention through Design." The initiative arises from a working group consisting of members from ASCE's Construction Institute, OSHA, and NIOSH. The group's goal is to "...promote a more deliberate consideration of construction site safety during the design phase of any construction project with the objective of reducing the injuries to construction workers...." While the goal and objectives are noble, the potential liability implications for design professionals, and the consequences to the industry, are far reaching and require a full hearing by designers, contractors, and owners before adoption. ...

*For the complete Alert, please go to page 17.*

## Inside this issue:

- 2 **New York Court Imposes Duty on Design Professional to Third-Party Owner in Light of Certifications to City Building Department**  
By Douglas M. Marrano, Esq.
- 3 **Arizona Court of Appeals Upholds Limitation of Liability Clause, but Rules that a Jury Must Decide the Enforceability of the Clause**  
By Daniel C. Poteet, Esq.
- 4 **Nebraska Federal Court Denies Summary Judgment for Architect on Professional Negligence Claim**  
By Douglas M. Marrano, Esq.
- 6 **Surety is not Responsible for its Principal's Punitive Damages**  
By Sa'adiyah Masoud, Esq.
- 8 **Public-Private Partnerships: Opportunities and Risks for Engineers and Constructors Involved in Subsurface Projects**  
By David J. Hatem, P.C.

# New York Court Imposes Duty on Design Professional to Third-Party Owner in Light of Certifications to City Building Department

By Douglas M. Marrano, Esq.

**IN A REPORTED DECISION**, a New York trial court recently denied an architect's request to dismiss a suit by an adjacent property owner claiming damage to his building. The owner claims that excavation on the adjacent project in which the architect prepared design plans caused his building to settle. The architect argued that he owed the adjacent property owner no duty of care and that his services did not otherwise cause the property owner any harm. The trial court disagreed, citing certifications the architect made to the city building department regarding underpinning adjacent buildings. As a result, the trial court found the design professional owed a duty to an adjacent property owner to ensure that inspections which directly affected the adjacent owner's property were performed properly.

This decision is significant because it represents that design professionals may be found liable to adjacent property owners, absent privity of contract, where a court determines the design professional has taken on inspection and regulatory certification responsibilities which contemplate and may affect adjacent property. New York law provides that when a regulation imposes a duty for the benefit of an adjacent property owner, that owner may maintain an action against a party who does not comply with the regulation.

In this case, the architect contracted with an owner to provide architectural services for the construction of a new building located in Brooklyn, New York. The architect's services included design of excavation plans for the project. The design called for the footings of the project to be at the same level as those of the adjacent building. The contractor excavated deeper than required, resulting in footings that were not level with those of the adjacent building. The building owner sued the architect, among others, alleging damage to its building due to settling as a result of a lack of underpinning.

In support of his motion to dismiss, the architect presented that he did not have any oversight or inspection duties on the project. The court noted that if the architect did not have knowledge of the contractor's deviation in the excavation plans, he would not be responsible for the damage to the adjacent building. The court found, however, that the architect did, or should have had knowledge, of the deviation. The architect signed

two certifications to the New York City Department of Buildings giving him responsibility for inspecting the construction after excavation and before pouring of the foundation. Pursuant to the certifications, the court concluded that the architect should have discovered the deviation by the excavator through his inspections. Because the record of certifications showed that the architect did or should have had knowledge of the deviation in the excavation, he was therefore obligated to notify the building department and ensure remedial measures were taken.

In rather pointed language, the court also determined that either the architect falsely certified that he performed the inspection or he did the inspection and falsely certified that the excavation conformed to the plans. The false certifications constitute a separate basis to impose liability on the architect for alleged damages.

Despite the fact that the architect's contractual privity was with the project owner and not the owner of the adjacent property, the court ruled that by providing the certification, the architect undertook a duty to the city and to adjacent owners for any injuries suffered as a result of the improper certification.

The case is scheduled to proceed to trial against the architect and the project owner. The excavator was not named as a defendant. It is reported as *27 Jefferson Ave., Inc. v Emergi*, 18 Misc.3d 336 (Nov. 19, 2007). ■

# Arizona Court of Appeals Upholds Limitation of Liability Clause, but Rules that a Jury Must Decide the Enforceability of the Clause

By Daniel C. Poteet, Esq.

**T**HE ARIZONA COURT OF APPEALS recently upheld a limitation of liability clause in a professional services contract and, in the same case, 1800 Ocotillo, LLC v. The WLB Group, Inc., No. 1 CA-CV 07-0037 (opinion filed Jan. 29, 2008), interpreted the Arizona Constitution to require submission of the enforceability of the limitation of liability clause to a jury.

In 1998, the appellant, 1800 Ocotillo, LLC ("Ocotillo"), a real estate developer, initiated a townhouse development project that was bounded on one side by the Arizona Canal. Ocotillo authorized its design-builder, Morris Building and Management ("Morris") to enter into a contract with The WLB Group, Inc. ("WLB"), through which Ocotillo agreed to pay WLB \$26,970.00 to provide surveying, engineering, and landscape architectural services. Morris executed the contract containing WLB's "Standard Conditions," which included the following provision:

7. Client agrees that the liability of WLB, its agents and employees, in connection with services hereunder to the Client and to all persons having contractual relationships with them, resulting from any negligent acts, errors, and/or omissions of WLB, its agents, and/or employees is limited to the total fees actually paid by the Client to WLB for services rendered by WLB hereunder.

In 2000 Ocotillo entered into a supplemental contract with WLB that incorporated the Standard Conditions from the 1998 WLB-Morris contract for additional services at approximately \$28,000.00. WLB provided an inaccurate survey that failed to disclose a right-of-way held by the canal manager, and the City of Phoenix refused to grant a construction permit to Ocotillo. After a series of summary judgment motions, the trial court ruled that the limitation of liability provision was enforceable and capped damages owed by WLB at \$14,242.00, which represents the amount actually paid to WLB.

In arguing against enforcement of the limitation on liability clause, Ocotillo presented two public policy arguments relying respectively on two separate Arizona statutes which it argued barred such contractual limitations of liability. In one argument, Ocotillo asserted

that one Arizona statute forbade limitations of liability from all professional services contracts as a matter of public policy. Ocotillo also argued that a second statute specifically barred limitations of liability provisions in construction contracts and architect-engineer professional services contracts. The Appeals Court rejected these arguments finding that limitations on liability clauses do not violate public policy as they do not serve to exculpate professionals entirely from their negligent conduct, but rather only cap their liability. The Court followed similar reasoning to that adopted by the Third Circuit Court of Appeals to distinguish between indemnity clauses that "exonerate" an indemnitee and limitation of liability clauses that cap liability.

The Court also held that the Arizona Constitution requires a jury to decide whether a limitation of liability provision is enforceable. Ocotillo argued that the relevant constitutional provision, which states that the defenses of contributory negligence and assumption of risk shall always be left to a jury, should apply to limitation of liability provisions. The Court decided that limitations of liability clauses do constitute an assumption of risk, and therefore a jury must decide their enforceability.

While the Appeals Court reaffirmed that such limitation of liability provisions are enforceable, it also found that the Arizona Constitution requires a jury to decide whether the provisions will be enforced. This could serve to reduce the ability of contractual limitations of liability in Arizona to promptly resolve claims, as they will ultimately have their enforceability subject to the less predictable decisions of juries. ■

# Nebraska Federal Court Denies Summary Judgment For Architect on Professional Negligence Claim

By Douglas M. Marrano, Esq.

**IN A JUNE 2007 FEDERAL COURT DECISION IN NEBRASKA**, the court denied summary judgment, requiring a defendant architect to stand trial on a professional negligence claim for noncompliance with the building code where the architect failed to hire a special inspector as mandated by the code. *Turner v. Moen Steel Erection, Inc.*, 2007 U.S. Dist. LEXIS 40957 (D. Neb., June 5, 2007). The court found a triable issue of fact on the issue of the architect's compliance with the applicable standard of care. Specifically, the court determined that there were triable issues of fact as to whether the architect had a duty and, if so, whether any breach of that duty was the proximate cause of the accident and subsequent injury.

The case arose from a construction project in the City of Omaha, Nebraska (the "City"). The City retained Beringer, Ciaccio, Dennell, Mabrey, Inc. ("BCDM") to provide architectural services. BCDM's agreement with the City required it to: visit the construction site at appropriate intervals; stay abreast of progress and work quality; and evaluate the work's conformance with the contract provisions. The agreement also provided that BCDM was not required to make unreasonable inspections of the work.

BCDM, in turn, retained AGA Consulting, Inc. ("AGA") to serve as engineering subconsultant. The subconsulting agreement called for BCDM to review AGA's work for compliance with the City's architectural and engineering requirements. Four months later, the City entered into a construction contract with Lund-Ross Constructors, Inc. ("Lund") to serve as the general contractor. Lund proceeded to enter into a subcontract with Moen Steel Erection, Inc. ("Moen"). Moen was contracted specifically to unload and erect structural steel and to unload and erect precast concrete made available by others. Moen's subcontract prohibited direct communication between Moen and BCDM or the City. As a result of Moen's subcontract, Moen directed its communications to Lund. During construction, Moen departed from the installation specifications but failed to notify BCDM of its design departure. Stephen Turner ("Turner"), a concrete finisher, and an employee of Lund, suffered an injury when a 4,600-pound pre-cast concrete wall panel fell on him at the construction site.

The plaintiff argued that BCDM failed to retain a qualified expert to determine whether the contractor constructed the panel in conformance with the applicable building code. Turner claimed that if BCDM retained a special inspector, the inspector could have determined whether the wall met the applicable code.

Turner filed suit against Moen, which filed a third-party complaint against AGA, BCDM, and others. Moen's third-party complaint alleged that BCDM was negligent in its design and professional supervision of the construction project and that BCDM knew or should have known that the panel was defective and dangerous. BCDM moved for summary judgment asserting that: 1) under BCDM's contract with the City, BCDM had no duty to control the means and methods of construction or ensure job-site safety; 2) Moen's failure to follow the installation specification was the proximate cause of Turner's injury; and 3) Moen failed to designate an architectural expert witness to support its claim that BCDM was negligent.

On the question of the architect's duty, Nebraska courts have ruled the standard contractual language regarding means and methods of construction does not absolve the architect from liability for failure to inform the owner of deviations from the building plans when the architect has agreed to make periodic inspections. In this case, the court held the contract language also does not serve to absolve BCDM from liability for failure to employ special inspectors. While the court found there is nothing inherent in the architectural field that requires a professional architect to evaluate stated duties for building code requirement for special inspectors, BCDM retained some duty for overall compliance with the building code by agreeing to ascertain whether AGA's services complied with the building code.

The court found that both Moen and BCDM raised plausible, alternate theories of proximate cause against the other, and that questions of material fact precluded a finding of summary judgment.

In Nebraska, as elsewhere, the plaintiff's burden to prove a violation of a design professional's standard of care generally can only be established by expert testimony. Moen did not designate an architectural expert, but argued that an engineering expert is qualified if he possesses special skill or knowledge regarding the subject matter. The court found Moen's engineering expert qualified to offer an opinion as to whether an engineer failed to follow the building code and whether that failure was the proximate cause of Turner's injury. The court ruled Moen's expert was similarly qualified to opine on whether BCDM failed to employ a special inspector.

This decision brings to light interesting and important issues regarding an architect's responsibility for code compliance, specifically in situations in which the code mandates that special inspectors be employed to ensure such compliance. From the design professional's standpoint, this decision emphasizes the necessity of adhering to building code provisions and maintaining responsibility for any subconsultants' work which includes ensuring its compliance with code. Although at this point only a triable issue of fact has been raised, the decision exemplifies the consequences for the architect in failing to comply with code by not retaining a special inspector. ■

## **Spring 2008 Design Professional Roundtables**

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# Surety is not Responsible for its Principal's Punitive Damages

By Sa'adiyah Masoud, Esq.

**T**HE MASSACHUSETTS APPEALS COURT RECENTLY DECLINED TO BIND A SURETY, who had notice of a punitive damages claim and the opportunity to defend, to an arbitral award for punitive damages against its principal. In *C&I Steel, LLC v. Travelers Cas. & Sur. Co. of America*, the court reasoned that the terms of the underlying bond agreement ("bond") and the lack of arbitral findings against the surety were decisive in determining the surety's liability for such an award, and supplanted the manner in which the surety approached the arbitral proceedings. 70 Mass. App. Ct. 653 (2007). As the surety did not explicitly or implicitly agree to arbitration in its bond agreement, was not asked to and did not participate in arbitration, it was not bound by an arbitral punitive damages award against its principal.

## Background Facts

C&I Steel concerned a dispute between a structural steel subcontractor ("subcontractor") and a general contractor involving the subcontractor's steel work in constructing a middle school in Westford, Massachusetts ("project"). *Id.* at 654. The subcontractor brought several claims against the general contractor and its surety in Massachusetts Superior Court. *Id.* The claims against the general contractor were for breach of contract, breach of covenant of good faith and fair dealing, quantum meruit, and violation of G. L. c. 93A. *Id.* The claims against the surety related to its liability under its payment bond with the general contractor and a "knowing and willful violation of G. L. c. 93A." *Id.* at 655.

The court proceedings were stayed when the general contractor moved for arbitration pursuant to a dispute resolution clause in its agreement<sup>1</sup> with the subcontractor ("subcontract"). The surety simultaneously filed a motion to stay pending arbitration asserting that "its liability was derivative of [the general contractor's]." *Id.* The subcontractor agreed to stay the court proceedings except as to its claims against the architect on the project, and demanded arbitration against the general contractor. *Id.* The subcontractor did not seek to arbitrate any of its claims against the surety, and the surety did not ask to participate in the arbitration.<sup>2</sup> *Id.*

Following a two-day arbitration, the arbitrator issued an award in favor of the subcontractor, and divided the damages into categories that clearly labeled the punitive portion of damages which the Superior Court confirmed in its entirety against both the general contractor

and the surety. *Id.* at 656. The surety objected broadly in the first instance, that as a surety, it was not liable for punitive damages against its principal and in the alternative that it had not contractually agreed to pay for any punitive damages assessed to its principal.<sup>3</sup> *Id.*

## Analysis

The Court, first turning to the scope of the surety's obligation under its bond with the general contractor, held that the agreement did not cover punitive damages. *Id.* at 657. The surety's bond bound the surety and its principal jointly and severally to the owner of the project "to pay for labor, materials and equipment furnished for the use in the performance of the [c]onstruction [c]ontract." *Id.* The construction contract was defined as the "agreement between the [owner] and [general contractor] ... including all [c]ontract [d]ocuments and changes thereto." *Id.* at 654. An obligation to pay for "labor, materials and equipment" clearly did not include a corresponding obligation to pay damages for punishment. *Id.* 657-658. While the surety would regardless be responsible for punitive damages for its own "misdeeds," its obligation to the principal did not include paying for its principal's "misdeeds." *Id.* at 659.

Then, turning to the heart of the matter, the Court explained that the arbitration proceedings or the way in which the surety approached the proceedings also did not expand the scope of its obligation under the bond. *Id.* at 660-661. While the Court was required to apply a deferential standard of review to the arbitrator's decision, it was not precluded from "looking at what the arbitrator had done, and in an appropriate case, confirming the award only in part." *Id.* at 660. And

so, here the arbitrator had not issued an award against the surety or in fact, addressed whether the subcontractor's punitive damages award obligated the surety in any way. In fact, the award failed to say anything about the surety. *Id.* at 660. As no such issues were decided by the arbitrator, the court was not required to deferentially confirm such damages against a nonparticipant such as the surety. *Id.* at 660-661.

Next, the majority concluded that the surety did not through its bond implicitly agree to arbitrate its liability, which it added was usually a question for the courts. *Id.* at 661-662. Fundamentally different from other cases where the Court had held a bonding company bound by arbitral results against its principal, the bond here did not incorporate a contract with an arbitration provision. *Id.* at 661. As discussed above, the subcontract contained the relevant arbitration provision. While the subcontract incorporated the general contractor's contract with the owner (the construction contract)<sup>4</sup>, there was no evidence that the construction contract (that was incorporated by the bond) incorporated the subcontract. Therefore, as the surety had not implicitly agreed, through incorporating the construction contract in its bond, to arbitrate, it was not required to participate in arbitral proceedings.

In contrast to the dissenting judge, the majority of the Court did not feel compelled by the circumstances of the surety's actions to bind it to the arbitral award of punitive damages. As it explained, notice of the arbitral proceedings, the opportunity to defend and even notice of the punitive damages award did not compel the surety to insert itself into the proceeding. *Id.* at 662-663. Principles of estoppel did

not apply as there was neither surprise nor detrimental reliance. *Id.* at 662. The dissenting judge instead, applying an expansive view of incorporation by reference, coupled with principles of estoppel would have held the surety to the arbitral award of punitive damages.

## Conclusion

The Court focused on the bond agreement and the parameters of the arbitral results in deciding whether to hold a surety liable for the punitive actions of its principal. Actual notice and opportunity to defend were not determinative. ■

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<sup>1</sup> The arbitration provision, in pertinent part, allowed the general contractor to select arbitration for "claims, disputes, and other matters in question arising out of, or relating to [the] Subcontract, or the breach thereof" that were valued in excess of \$25,000. *Id.* at 654.

<sup>2</sup> It is interesting to note that the same attorney that represented both the general contractor and the surety in the Superior Court proceedings represented the general contractor at arbitration.

<sup>3</sup> Initially, the surety also argued against paying any of the arbitral damages award, but it did evidently pay the nonpunitive part of the arbitral award against its principal.

<sup>4</sup> The construction contract was not part of the record before the Court.

# Public-Private Partnerships: Opportunities and Risks for Engineers & Constructors Involved in Subsurface Projects

By David J. Hatem, P.C.

**INCREASINGLY, PUBLIC-PRIVATE PARTNERSHIPS (“PPPs”)**—a delivery approach under which a Public Owner engages a Private Sector entity to develop, fund, design, construct, operate and maintain a public use project—are being explored and selected by Public Owners as mechanisms for realizing public projects for which funding, and other public capabilities and resources, are not available to support the funding, project management, operational, maintenance, and other traditional roles of the Public Owner. Sewerage outfall and transportation-related tunnels, as well as other projects having significant subsurface work, are candidates for the PPP approach. Interest in and utilization of the PPP approach is expected to continue and increase, especially as public funding availability and Public Owner appetite for design and construction risk continue to decline. Given the substantial Owner risk, funding contingency exposure, and management skill and experience involved in subsurface projects, it should not be surprising that the PPP approach will be attractive to Public Owners contemplating those projects. The future will present both significant opportunities and potential risks for Engineers and Constructors who are interested in (and capable of) participating in PPPs. This paper will address some of the principal risk issues for Engineers and Constructors on PPP subsurface projects.

## **1. Public-Private Partnerships: Definition, Contracts, and Relationships**

Increasingly, projects are being developed, financed, designed, constructed, operated and maintained under PPP agreements between the public and private sectors. To date, approximately 23 states have legislation authorizing, in various forms, PPPs for the delivery of public projects. PPPs started in the United States in the mid-1990s and, generally speaking, are still in their infancy. As of this date, not many have progressed through construction. Candidates for the PPP approach include an array of infrastructure projects ranging from toll roads, water and sewerage treatment plants, sewerage outfall tunnels, roadway and other transportation tunnels, power stations, hospitals, schools and prisons. This paper will focus on the use of the PPP approach on projects involving significant subsurface work.

Under the PPP approach one or more Private Sector entities—the Concessionaire—is responsible for the financing, design, construction, operation and maintenance of the project. The principal objectives and drivers for these PPPs are the desire of the Public (governmental) Owner to deliver projects without recourse to public funding, to significantly reduce its risk exposure, and to improve the quality and efficiency in delivery of those projects and the ongoing operational service to the public.<sup>1</sup>

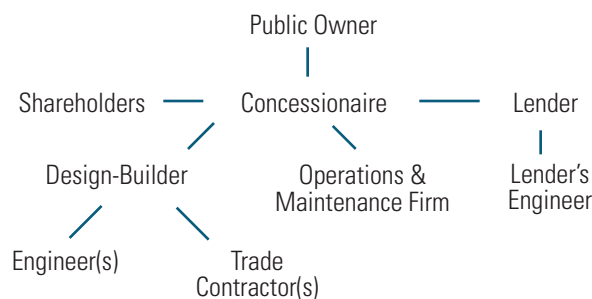
The Concessionaire typically is a special purpose entity which has no assets other than the capital investments from shareholders and loan proceeds from a Construction Lender (the “Lender”), and the expectation of revenue from project post-completion operations (e.g., tolls from public roads or tunnels). As such and as a general matter, the Concessionaire is a “special purpose vehicle”, which is incorporated and funded solely for the purpose of holding the rights to develop, design, construct, operate and maintain the Project.

As a general matter of contractual structure, a PPP may involve:

- A **Concession Agreement** between the Public Owner and Concessionaire, with the Concessionaire (usually a special purpose entity formed solely for the project-specific purpose by the sponsors and having no substantial staff or physical assets) undertaking responsibility for the financing, design, construction, operation and maintenance of the Project.
- A **Design-Build Subcontract** between the Concessionaire and a Design-Builder (typically, Constructor-Led), pursuant to which the latter is responsible for the design and construction of the Project.
- One or more **Subconsultant Agreements** between the Design-Builder and Engineer subconsultants (the “Engineer”); the latter of whom are obligated to design and provide other professional services relative to the Project.

- One or more **Trade Subcontracts** between the Design-Builder and various trade subcontractors which will be required to furnish labor or materials required to construct all or a portion of the Project.
- An **Operations and Maintenance Subcontract** between the Design-Builder and another entity which will be responsible for post-construction operations and maintenance of the Project.
- A **Lending Agreement** between the Concessionaire and a bank or other lending institution (the "Lender") for the financing of the design and construction of the Project.
- A **Shareholder Agreement** (often in the form of subordinated debt investment) between the Concessionaire and various shareholders who will invest capital and hold equity positions in the PPP. The Shareholders have an expectation to share in the operating revenue of the Project once construction is completed; in some instances, the Shareholders may also share in project risk and loss. As a general matter, the ratio of Shareholder investment to project financing is relatively small.
- A **Lender's Engineer Agreement** between the Lender and an Engineering Consultant, pursuant to which the latter typically may be engaged on behalf of the Lender to provide a variety of services including due diligence, design review, evaluations of project technical feasibility, economic predictions, and evaluations of project design development and status of construction work.

#### Typical Contractual Relationships in a PPP Structure



## **2. Public-Private Partnerships: Risk Allocation Objectives**

The first step in an effective risk management program for Subsurface Projects involves the planning and execution of an adequate subsurface investigation. Subsurface Projects inherently involve significant risk potential given the inability to predict with precision ground conditions and the practical, economic and technical limitations on the ability to obtain complete or accurate information about those conditions, or their anticipated behavior during construction operations. Uncertainty and relative unpredictability of subsurface conditions pose significant risk potential for all project participants, but especially the Project Owner and the Constructor.

Assuming that a reasonably-defined and adequate subsurface investigation has been planned and implemented, the next important step in an effective risk management program for Subsurface Projects involves the allocation of risk among project participants.

As in any subsurface project, fair and equitable risk allocation among the major project participants in the PPP approach is critically important.<sup>2</sup> This has certainly proven to be the case in the context of the traditional Design-Bid-Build delivery approach and in the context of Design-Build. See D. J. Hatem (ed.) *Subsurface Conditions: Risk Management for Design and Construction Management Professionals*, Wiley, January 1998; G. Brierly & D. J. Hatem (eds.), *Design-Build Subsurface Projects*, Zeni House (2002); D. Corkum and D. Hatem, *A Contracting Strategy for Managing Risk on Subsurface Projects Delivered Using Design-Build* 2003 RETC Proceedings; G. Brierly & J. Smith, *Contracting Practices for Underground Projects*, 2003 *Construction Law Update* (Aspen 2003).

Much has been written about the advisability of clear and fair allocation for subsurface condition risk in more traditional delivery method contexts. Project experience and the attendant "lessons learned" amply demonstrates that unclear and unfair risk allocation for subsurface condition risk has a number of potentially (if not probable) negative consequences, including reducing the number of willing and qualified constructors interested in pursuing such a project; the inclusion of undisclosed contingency as a mechanism to "manage", or more accurately hedge, the heightened risk

assumption; the probability of more conflict, adversity and disputes among project participants; a significant increase in the inability of the constructor to meet performance requirements and expectations due to the disproportionate burden imposed by such risk assumption; and an increase in the risk of professional liability claims by the Project Owner and/or Constructor against the Engineer derivative of the increased conflict and disputes potential between the former.

PPPs will prove to be no exception in terms of the need for clear and fair risk allocation for subsurface conditions among the major project participants. Simply put, the “lessons learned” evidencing the advisability and prudence of clear and fair risk allocation for subsurface conditions will prove to have equal applicability in the PPP subsurface project context.

#### **A. Design-Build Risk Allocation on Subsurface Projects**

Most PPP projects are delivered using, in essence, the Design-Build approach under which a single entity—the Design-Builder (typically, Constructor-Led)—is singularly responsible for both design and construction of the Project (the “single-point principle”). See, D.J. Hatem, Professional Liability Risk Exposure for Design Professionals: Design-Bid-Build v. Design-Build Projects: Professional Liability Insurance and Surety Considerations, *Underground Construction in Urban Environments*, ASCE, May 11, 2005. As such, revisiting some of the basic risk allocation issues and recommendations applicable in the context of Design-Build subsurface projects is appropriate at this point.

Some Project Owners, utilizing the Design-Build approach, expect that the single-point principle extends to transfer to the Design-Builder (and its Engineer and trade subcontractors) responsibility for all risk associated with subsurface conditions encountered at the site; an expectation that derives from the increased role of the Design-Builder in conducting subsurface investigations and in the design of the project. This approach could lead to significant—potentially boundless—risk assumption by the Design-Builder given the typical role of the latter in conducting or validating (and assuming responsibility for) subsurface investigation and in the development and finalization of project design. This approach, however, is both misguided and unrealistic. While a Design-Builder may, depending upon contractual terms, have the obligation to conduct or validate subsurface investigation and, hence, greater responsibility for

subsurface condition risk than may otherwise be applicable in the Design-Bid-Build context (under which the Project Owner typically is responsible for the performance of subsurface investigation and the furnishing and reporting of relevant data), there should always be boundaries to and limitations on the Design-Builder’s responsibility for cost and schedule impacts associated with the encountering of subsurface conditions at variance with reasonable expectations as defined in the Design-Build Contract, independently or by reference to Geotechnical Baseline Reports or other subsurface reports.<sup>3</sup> Put another way, while the Design-Builder’s degree of risk assumption for subsurface conditions may be greater in the Design-Build context, there should be limits to that degree that are clearly communicated and understood, reasonably established, and contractually defined.

Similarly, the Design-Builder’s risk for problems or defects associated with the constructability, achievability and quality of the final design is greater than in the Design-Bid-Build delivery method given the Design-Builder’s responsibility for the development and finalization of that design. However, the Design-Builder’s responsibility for final design may not be absolute or unqualified in circumstances in which either (a) Owner-furnished and mandatory design criteria are overly prescriptive or detailed; or (b) the Design-Builder’s judgment and discretion to develop the final design is limited or controlled by the Project Owner through the design development review and approval process, or otherwise.

As such, more enlightened Project Owners utilizing the Design-Build approach recognize the advisability of fairness and balance in the risk allocation process notwithstanding the increased role of the Design-Builder in subsurface investigation and in the development and finalization of project design.

#### **B. PPPs and Risk Allocation on Subsurface Projects**

Given that most PPP projects are delivered utilizing the Design-Build approach, are there any reasons why different risk allocation objectives or principles should apply in the PPP context? In general, the answer should be “no”. However, there are several reasons that may account for why efforts are made in the PPP approach to transfer to the Design-Build team greater risk for subsurface conditions and defective design than may typically be assumed even in the more pure Design-Build context.

As is typically the case in risk allocation, the direction starts (and in the public sector, for all practical purposes, ends) with the Public Owner's interests and objectives. See, D. Hatem, Risk Allocation and Dispute Resolution on Construction Projects: Roles and Challenges for Legal Counsel, *The CA/T Professional Liability Reporter*, June 1997. Risk allocation in PPPs is no exception. The Public Owner's risk allocation objectives in most PPPs may be summarized as follows:

- i. The entire risk of delivering the Project on time and within the fixed price should be transferred to the Concessionaire by the fixed price/time terms of the Concession Agreement.
- ii. All substantial project risks, including subsurface and defective designs—once identified or assumed by the Concessionaire—should be transferred or managed by a combination of either (a) insurance; (b) contractual risk assumption not transferable to insurance; and/or (c) assets of the Concessionaire.

Of course, the character and extent of risk identified will be project specific in nature and, therefore, generalizations are not especially meaningful in this context. However, as a general matter, the Concessionaire may manage risks by (a) retaining and managing the risk; (b) transferring the risk, through indemnity or otherwise to another project participant (such as the Design-Builder and/or Engineer); or, if available, (c) transferring the risk to insurance. The Lender generally will require that the Concessionaire transfer "downstream" to the Design-Builder, Engineer and trade contractors as much risk as possible and similarly will require that as much risk as practicable be transferred to available and adequate insurance coverage, including project-specific insurance. However, insurance is not available for a significant portion of the risk associated with subsurface conditions.

### **C. How are these objectives typically addressed in the various networks of PPP contracts?**

#### **• Concession Agreement**

In the PPP approach, the Public Owner relinquishes significant control over major aspects of the design and construction of the Project; the transfer of that degree of control results in a commensurate degree of significant risk assumption by the Concessionaire in the Concession Agreement.

In the negotiation of the Lending Agreement between the Concessionaire and the Lender, the Concessionaire typically is required to demonstrate (credibly) to the Lender that risk assumed by the Concessionaire in the Concession Agreement will to the maximum extent either be transferred to insurance (often required to be project specific in nature) and/or allocated downstream to other project participants, such as the Design-Builder (and its Engineer). The inability to achieve this objective of maximizing risk transfer from the Concessionaire may be a "deal breaker" in obtaining a financing commitment; and, at minimum, the extent to which that objective may be achieved will affect the cost of financing (and, hence, the competitiveness of the Concessionaire's proposal to the Public Owner).

Even though neither the Design-Builder nor the Engineer are direct parties to the Concession Agreement, the latter agreement will provide the risk allocation framework or context under which design and construction risk will sought to be allocated to, and contractually assumed by, all downstream (lower tier) design and construction firm project participants.

As has been stated:

"The Design-Builder in a Public-Private Partnership is expected to take all the risk associated with the design and construction of the project that the Concessionaire agrees to in the Concession Agreement. The Concessionaire is driven to shed all risk given that it is a special purpose entity created for this project and that the lenders will demand that such entity retain no significant risk. The result is that the Design-Builder will enter into a back-to-back design-build agreement and that the Concessionaire does not have the same motivation to achieve equitable risk allocation.

If the Design-Builder understands that it will essentially assume all risks in the Concession Agreement associated with the design and construction of the project and the Concessionaire is not incentivized to aggressively negotiate equitable risk allocation, the Design-Builder will assume a prominent position at the negotiating table with the public sector owner. The Design-Builder will aggressively pursue contract comments and modifications and will attend all negotiations with the owner and assert its position. The astute Design-Builder will quickly identify the key risk allocation issues with the Concessionaire in the form of

a term sheet so that the Concessionaire and the lenders understand the Design-Builder's risk position at an early point in time." P. Varela, D. Follett, J. Debs, and J. Onnembo, "Strange Bedfellows: How to Participate in a Public-Private Partnership Without Losing Your Shirt", Construction SuperConference (Session E-11, December 7, 2006).

As such, it is critically important that the Constructor and its Engineer carefully review the relevant provisions of the Concession Agreement that involve design and construction risk assumption and, if at all possible, be involved in the negotiation of that agreement. These provisions may address such subjects as risk and responsibility for accuracy and adequacy of subsurface investigation and data; the role and extent of the Public Owner in the review and/or approval of design development submissions of the Design-Builder; the standard of care or warranty applicable to the final design furnished by the Design-Builder and/or its Engineer; and the indemnification obligations of the Design-Builder and/or its Engineer. As to the latter, typically, the Concession Agreement will contain provisions obligating the Concessionaire and other project participants (including the Constructor and Engineer) to indemnify the Public Owner and others for various risks, and legal liabilities, including breach of contract, breach of warranty and negligence. These indemnity obligations generally are flowed down by the Concessionaire to the Design-Builder, Engineer and trade contractors, along with requirements that the latter parties also indemnify the Concessionaire, the Lender and potentially other parties (e.g. Shareholders) who are external to the PPP. Some of these indemnity provisions, as well as other provisions included in the Concession Agreement may transfer risk not insurable under traditional design and construction insurance coverage.

The opportunities for additional compensation or time extension entitlements under the Concession Agreement generally are limited. In addition, if the Public Owner is obligated to grant such equitable adjustments to the Concessionaire, typically those adjustments may take the form of extending the concession term or increasing the tolls or charges that the Concessionaire may derive as revenue upon completion of the construction process. Thus, the compensation may actually flow to the Concessionaire (and, therefore, downstream) significantly later than the time that the Concessionaire incurs the additional cost and time impact during the construction process. This potential "hiatus", coupled with the limited opportunities for entitlement to cost/time adjustments, could impose substantial

economic drain and tension on the internal operations and finances of, as well as project relationships among, the Concessionaire, the Design-Builder, the Engineer and trade contractor participants during the design and construction process, increasing the risk of disappointed commercial expectations and claims, only some of which may be covered by available insurance coverages.<sup>4</sup> As has been noted: "There is a potential mismatch between what the concession company is likely to get from the governmental entity under the Concession Agreement, what it is able to procure from the project financiers and its liability to the construction contractors and operators under the various project agreements. The concession company should always attempt to ensure that there is no 'gap' between what it receives and what it pays out." A. Chew, et al., PFI/PPP Project Agreements—Risk Allocation Issues to Consider in Flow-Down of Risks, The International Construction Law Review (2005), 91-96.

Under the Concession Agreement, the Concessionaire is obligated to produce a project designed and constructed in accordance with the quality, ultimate user and performance standards specified in the Concession Agreement. That obligation exists not only upon completion of the Project, but extends into the concession period, which typically could be as long as 25-35 years. Thus, the Concessionaire has a "long tail" exposure for design and construction deficiencies that extends coterminous with the concession period which, in many cases, may be substantially longer than the applicable statute of repose/limitations, as well as the coverage duration of any procured project-specific insurance coverage.

Many Concession Agreements contain a mechanism under which the Public Owner and Concessionaire appoint independent technical advisors to monitor the design and construction of the Project and to make final and binding decisions as to whether the design deliverables and/or construction work meet the various requirements of the Concession Agreement. The Design Builder, Engineer and trade contractors may be required, by virtue of flow-down provisions, to adhere to those decisions and accept them as final and binding.

From the perspective of the Engineer, particular attention should be focused on provisions such as flow down, indemnification, standard of care, warranty/guaranty, design development discretion/responsibility and scope of permissible design review by others, and the role of the Engineer in providing services during construction, as

well as the role of the Engineer in cost estimating during the bid and pre-award phase. See D. Corkum and D. Hatem, A Contracting Strategy for Managing Risk on Subsurface Projects Delivered Using Design-Build, 2003 RETC Proceedings.

As a general proposition (and certainly in Australia), the underlying governmental rationale for public private partnerships is that they must offer the “value for money” (the “value criterion”). The value criterion typically is at the center of the factors considered by public owners in evaluating whether a project proposed for a public private partnership is appropriate for delivery under that approach. Generally, the extent or degree of the Public Owner participant’s ability to transfer or relieve the public of substantial development, funding, design and construction risk associated with a proposed project is a critically important factor in this evaluation; the greater the extent or degree of risk transfer, the more perceived the “value criterion” is considered to be satisfied. As has been stated: “...a large component of the evaluation of the value for money concept is based on risk transfer to the private sector.” A. Chew, et al., “An Overview of Risk Allocation in Recent PPP Infrastructure Projects in Australia”, The International Construction Law Review (2005) 289, 282.

In Australia where—at least as of this date—the vast majority of PPP projects have occurred, private sector participants interested in PPPs maintain that risks should not be transferred to them until a rigorous risk identification program has been completed and in no event should risks be transferred to them when they are not able to control and manage them; and that when such inappropriate risk transfer occurs, the result is higher risk premiums for that contingent exposure or, more drastically, the failure of the project or its private sectors participants (i.e. bankruptcy or other forms of financial insolvency). Lender requests have a major influence on risk allocation decisions in PPPs; the Lenders must be comfortable (preferably, even more than comfortable) with the degree of risk to which their funds are exposed.

Of course, each project is different and the identification and evaluation of risk must be undertaken and understood in the specific project context. Generalizations are not meaningful in this context. As to risks associated with the design and construction process in PPPs, it has generally been stated:

“One of the key government objectives in PPP deals is to take advantage of the concession company’s ability to bring design innovations and construction expertise to the delivery of the projects. In all PPP deals, the concession company will be required to assume the risk for the design, construction and commissioning of the infrastructure facilities. The concession company is also obliged to provide a fitness for purpose warranty to the government entity for the performance of the infrastructure facility during the operational phase. The government frequently seeks an ‘output’-based fit-for-purpose warranty, which is linked to the government’s service needs from time to time during the operational phase.” A. Chew, *supra*, p. 294.

The Concessionaire generally is expected to assume significant or the entire risk of government approvals, force majeure and subsurface, site and environmental conditions, unless the Concessionaire can demonstrate that the degree of risk assumption would represent a significant risk premium cost (or project cost to the public entity) for those contingent risk exposures, to be paid by the public entity regardless of risk occurrence. As has been demonstrated in other non-public private partnership contexts, the degree of risk assumption of construction contractors and/or design builders for differing site condition exposures indirectly impacts (and increases) the degree of professional liability exposure for design professionals on those projects. See, D.J. Hatem, The Relevance and Potential Impact of Risk Allocation Provisions in Owner-Contractor Agreements on Professional Liability Experience of Design Professionals, Design and Construction Management Reporter (Donovan Hatem LLP, October 2003). In addition, driven by Lender requirements, PPP projects typically contain relatively substantial liquidated damages for delayed completion.

In addition to the risk of exposure due to delayed project completion, the Design-Builder and its Engineer also have substantial consequential damage exposure following completion of the project. As has been noted:

“...[U]nder the PPP structure, the Concessionaire is reimbursed the project costs including financing in one of two ways which repayment occurs over the life of the concession: (1) tolling revenues generated by the project

or (2) a guaranteed revenue stream which is also frequently called shadow tolling. Repayment is typically tied to availability and condition of the infrastructure asset. If payments are reduced because of a defect in the asset, the Concessionaire will expect the Design-Builder to bear the risk of that lost revenue. As a result, in the financed PPP market the Design-Builder will assume an affirmative post-completion obligation for lost revenue (i.e., consequential damages) of the Concessionaire.” P. Varela, D. Follett, J. Debs, and J. Onnembo, “Strange Bedfellows: How to Participate in a Public-Private Partnership Without Losing Your Shirt”, Construction SuperConference (Session E-11, December 7, 2006).

- **Design-Build Agreement**

Based upon the preceding discussion, the terms of the Agreement between the Concessionaire and the Design-Builder need to be evaluated according to the same standards utilized in reviewing a Design-Build Prime Agreement outside of the PPP context. See D. Corkum and D. Hatem, A Contracting Strategy for Managing Risk on Subsurface Projects Delivered Using Design-Build, (2003 RETC Proceedings). In addition, the substantial risks assumed by the Concessionaire under the Concession Agreement and the Concessionaire’s (and its Lender’s pressure) to aggressively flow down risk to the Design-Builder (and further down to sub-tiers of the Engineer and trade contractors) emphasizes the need for careful review of the prime Design-Build Agreement in the PPP context.

The Design-Builder Agreement should include a differing site conditions clause under which risk is shared and allocated between the Concessionaire and the Design-Builder. Use of Geotechnical Baseline Reports are effective mechanisms to facilitate the definition of such risk allocation.

- **Design-Builder/Engineer Subconsultant Agreement**

Similarly, the Design-Builder/Engineer Subconsultant Agreement should be reviewed using the same standards applicable in a pure (non-PPP) Design-Build project context. See D. Corkum and D. Hatem, A Contracting Strategy for Managing Risk on Subsurface Projects Delivered Using Design-Build, (2003 RETC Proceedings), with specific attention on scope of design development discretion and Owner’s approval standards, standard of care, warranty, performance

(output) flow down, insurance and indemnity provisions. In addition, the agreement should be reviewed to determine the role, if any, of the Engineer in cost estimating and in assisting the Design-Builder in agreeing to time and cost commitments in the prime agreement with the Concessionaire. See, D.J. Hatem, Design-Build Risks and Professional Liability Insurance: A Disconnect, 2005 IRMI Construction Risk Conference.

- **Lender’s Engineer Agreement**

This agreement should clearly define the scope of the Lender’s Engineer’s services and include other provisions that (a) define the role, duty, and scope of the Engineer in review of design submissions and in the evaluation of construction work; (b) limit liability of the Lender’s Engineer and waive responsibility for consequential damages; (c) limit the Lender’s Engineer’s duty to the Lender; and; (d) limit dissemination of and the right to rely upon the Lender’s Engineer’s Reports and other deliverables.

The role and potential risk exposure of the Lender’s Engineer is somewhat similar to that of an Owner’s Engineer in the Design-Build context. See, D. J. Hatem, (ed.), Subsurface Conditions: Risk Management for Design and Construction Management Professionals, paragraph 10.2.3.4(A) Wiley, January 1998. In general terms, the potential professional liability risk exposure could be substantial and significantly disproportionate when compared to the relatively limited role and compensation of the Lender’s Engineer. This liability risk exposure exists with respect to not only claims by the Lender, but also third parties who receive and rely upon reports or other work product of the Lender’s Engineer. See, D. J. Hatem, (ed.), Subsurface Conditions: Risk Management for Design and Construction Management Professionals, paragraph 10.1.2.2 Wiley, January 1998; Aliberti, LaRochelle & Hodson Engineering Corp., Inc. v. FDIC, 844 F. Supp. 832 (D. Me 1994).

The Aliberti case is instructive in terms of the potential professional liability exposure of a Lender’s Engineer. In Aliberti, LaRochelle & Hodson Engineering Corp., Inc. v. Federal Deposit Insurance Corp. 844 F. Supp. 832 (D. Me. 1994), the federal district court ruled that an engineer and a construction manager were liable to a bank (and, hence, the FDIC, which had succeeded to the bank’s interest in the project) that loaned and advanced monies to a developer based on representations made by the engineer and the construction manager. In the Aliberti case, the developer retained an engineer

and a construction manager, under separate agreements, to provide various professional services in connection with the developer's proposed construction of a condominium/motel. The developer contacted a bank to obtain financing in connection with the project. In order to reduce project time and costs, the developer proposed to the bank that the project be designed and constructed in phases under the so-called fast-track method, in which it would not be necessary to have a complete set of detailed drawings prior to construction start. In addition, the developer reasoned that construction in phases would facilitate the ability to obtain financing within the lending limits of the bank.

In making its decision to commit financing for the project, the bank hired its own construction consultant, who had experience in the design and construction of similar projects, to verify financial and technical construction information provided to the bank by the developer and/or by the engineer and the construction manager. After some preliminary due diligence investigation, the bank issued a commitment letter to the developer that contained certain conditions. A budget prepared by the developer was appended to the commitment letter. After reviewing the budget, the engineer and construction manager notified the developer that the budget contained insufficient amounts for certain hard-cost line items and that there were scope of work items not included in the budget. In substance, the developer told the engineer and construction manager "that this was just an interim budget and not to worry about the missing budget items." At a subsequent meeting the engineer and construction manager again expressed their concerns to the developer concerning the inadequacy and incompleteness of the budget and, again, were told "not to worry." Neither the engineer nor construction manager ever directly expressed their concerns about the budget to the bank. At a meeting with the bank, both the engineer and the construction manager were told that if, during construction, the project costs changed from the budget, then any such change in cost should be noted on the requisition form prior to submission to the bank and its construction consultant for review.

The loan closed and construction of the first phase of the project commenced. After the first month of construction, the bank's construction consultant became concerned that the project "was in trouble, but requisitions continued to display the [budget] number which was attested to by representatives of the engineer and construction manager." Shortly thereafter, it became apparent that

the actual project cost would be nearly double the amount in the budget, and work on the project was suspended. The bank later purchased the project on a foreclosure bid.

After a trial, the district court found that the engineer and construction manager were liable to the FDIC (as successor to the bank's interest) based on four separate grounds: (1) inaccurate and false statements that the project could be completed for the amount stated in the budget; (2) failure to disclose knowledge of the missing line items contained in the budget; (3) failure to disclose the inadequacy of certain amounts for line items included in the budget; and (4) false statements of the total project cost on the requisition submitted to the bank. In making this determination, the district court relied on several factors including (1) the fact that the developer's respective contracts with the engineer and construction manager obligated the latter firms to provide cost estimating services and to evaluate and update construction budget and anticipated costs; (2) the engineer and construction manager knew that the budget was inadequate and incomplete but failed to so advise the bank, despite their knowledge that the bank was relying on the information contained in the budget; (3) when the engineer and construction manager signed and submitted requisitions to the bank, they knew that the stated project cost was inadequate and substantially less than the amount needed to complete the first phase; (4) the bank justifiably relied on the representations made by the engineer and construction manager, which led the bank to wrongfully lend money and disburse loan proceeds to the developer; and (5) uncontradicted expert testimony established that the engineer and construction manager, as construction professionals, had responsibilities "to correct any misinformation, to disclose the absence of any familiarity with information, and to inform the Bank, if necessary, that estimating services which a bank would reasonably expect had not been undertaken," "that it is incumbent on the design professional to speak out," and "that construction professionals have an absolute obligation to clarify their involvement or lack of involvement in the project." After considering all this evidence, the district court ruled that the engineer and construction manager owed a legal duty to the bank to be honest and candid in communications with the bank despite the absence of a contractual relationship.

The preceding discussion should amply demonstrate that the process of risk identification and allocation for Engineers and Constructors in PPP subsurface projects is complex and necessitates a comprehensive and detailed project-specific risk assessment and

evaluation, and a review of a number of contracts beyond simply the Design-Build Agreement and the Subconsultant Agreement between the Design-Builder and the Engineer. In fact, there are many contractual documents that need to be reviewed at various iterative stages as the PPP Project moves from the planning and procurement stages into realization. All of these documents and, in particular, the risk allocation objectives of the Public Owner and the Concessionaire, can and will influence the pressures upon and nature and degree of risk assumption by the Design-Builder and its Engineer.

In this regard, it has been recognized that the levels of complexity in the various levels of contract negotiations and relationships among PPP participants results "in a proliferation of documents between all of the parties which can include lender direct agreements and interface agreements. The typical documentation of a PPP transaction is at a minimum triple that of more conventionally delivered projects. Risk issues for a Design-Builder can arise in any of those documents to which the Design-Builder is a party. "P. Varela, D. Follett, J. Debs, and J. Onnembo, "Strange Bedfellows: How to Participate in a Public-Private Partnership Without Losing Your Shirt", Construction SuperConference, (Session E-11, December 7, 2006). All of these legal documents—in and for whatever stage—must be carefully reviewed and understood from the legal and risk perspectives; no two PPP deals are exactly alike.

## Conclusion

Engineers and Constructors involved in subsurface projects should expect to see a steadily increasing number of project opportunities utilizing the PPP approach. PPP project experience—especially from a risk assessment perspective—has yet to develop to a point at which meaningful observations (much less lessons learned) can be stated. However, notwithstanding that limited experience, there is no good or logical reason to conclude that the salutary principles of fairness, clarity and realism in subsurface risk allocation should not apply in the PPP context. PPPs pose substantial opportunities for Engineers and Constructors, as well as the opportunity to realize and achieve projects for the benefit of the public that otherwise would not be achievable with presently available public funding. These opportunities, however, must be understood, balanced and fairly undertaken with an appreciation of the potentially significant risk which may be transferred to the Engineer and Constructor. The analysis and informed discussion of this subject are in the early stages. We need to anticipate, capture and communicate the experience, understand the relevant risk factors for Engineers and Constructors involved in PPP subsurface projects, and develop guiding principles and standards to shape risk allocation in this relatively new frontier. In the final analysis, Engineers and Constructors will benefit from this proactive approach. ■

<sup>1</sup> For an excellent general discussion of Public-Private Partnerships, see J. Stainback, *Public/Private Finance and Development* (Wiley 2000).

<sup>2</sup> To date there exist limited legal precedent or data regarding risk and liability issues associated with PPPs. In April 2007, Standard & Poor's issued a Report entitled "The Anatomy of Construction Risk: Lessons from a Millennium of PPP Experience", based upon survey responses from lenders, constructors, public owners, technical (engineering) consultants and financial advisors, owners and concessionaires who have been involved in PPP projects. These responses revealed the following:

- "...exposure to construction risk remains highly contingent on the specific characteristics of a project, its contractual provisions, and its associated transaction structuring."
- "...by far the most frequently reported cause of distress affecting PPP construction works relates to the inexperience, lack of commitment, lack of engagement, bureaucracy, and interference of public-sector project participants, and associated scope changes and enforced delays."
- Areas of concern for risk rank subsurface projects as relatively high.
- Regarding "site conditions" the Report states:

"Unforeseen ground conditions are a key reason cited for construction delays. Some respondents pointed to circumstances under which preliminary subsurface investigations were rushed or incomplete, or where poor location of bore holes and trial pits resulted in deficient soil or rock sampling. Others highlighted the fact that, as geologic investigative techniques relies on sampling; the possibility for different ground conditions to be present between exploratory points always exists. In such cases—as with unexpected archeological or mining discoveries—respondents were keen to emphasize that these risks should remain entirely with the public sector or should, at least, be shared between the private and public sector partners."

In substance this Report confirms that many of the "improved contracting practices" and other recommendations for fair risk allocation and dispute resolution on subsurface projects should be applied in the context of PPP subsurface projects.

<sup>3</sup> For a discussion of Geotechnical Baseline Reports, see R. Essex, *Geotechnical Baseline Reports for Construction*, ASCE 2007.

<sup>4</sup> The availability of project-specific insurance to cover the assumption or transfer of risk for cost overruns due to unanticipated subsurface conditions or defective design is quite restrictive in the present market. Moreover, the availability of such coverage is highly dependent upon project-specific risk assessments, evaluation of contractual risk allocation terms, and is subject to periodic monitoring of project developments measured relative to specified underwriting assumptions. See, D.J. Hatem, *Design-Build Risks and Professional Liability Insurance: A Disconnect*, 2005 IRMI Construction Risk Conference; D.J. Hatem, *Project Alliancing, Integrated Project Delivery Approaches, and Public-Private Partnerships: Design Professional Roles, Responsibilities, Relationships and Risks—Professional Liability Insurance Issues and Challenges*, Boston Design Professional Roundtable, April 2007; see D.J. Hatem, *Developing Risk Indicators for Evaluating Professional Liability Exposure on Major Public Projects: A Broader Dimensional Approach*, Design and Construction Management Professional Reporter (Donovan Hatem LLP, February - March 2004); D. J. Hatem, *Public Owner Programs for Design Professional Accountability and Project-Specific Professional Liability Insurance: Functional Alignment*, Transportation Research Board, July 10, 2007; see D.J. Hatem, *Insurance Practice Codes for Major Subsurface Projects: Help or Hindrance for Primary Projects Participants*, Boston Society of Civil Engineers, November 3, 2007.

April 2008

Design for Construction Safety Initiative.

We call your attention to a construction safety initiative that appears to be gaining traction within certain segments of the design and construction industry.

The safety initiative is described under the heading "Design for Construction Safety" or, alternatively, "Prevention through Design." The initiative arises from a working group consisting of members from ASCE's Construction Institute, OSHA, and NIOSH. The group's goal is to "...promote a more deliberate consideration of construction site safety during the design phase of any construction project with the objective of reducing the injuries to construction workers...." While the goal and objectives are noble, the potential liability implications for design professionals, and the consequences to the industry, are far reaching and require a full hearing by designers, contractors, and owners before adoption.

It is indisputable that every decision by a design professional requires the balancing of tradeoffs—costs, aesthetics, operational and maintainability considerations, and construction safety. The current industry state of the practice is that the construction contractor bears complete responsibility for its workers' safety during project construction. This is consistent with the commonly-understood risk management maxim that a risk should be allocated to the party in the best position to control that risk. The Design for Construction Safety initiative, whether intended or not, will reallocate a portion of that risk to the design professional.

We urge design professionals to stay involved with their local and national professional associations, as this safety initiative evolves, by actively participating in discussions and roundtables regarding the initiative. The potential consequence from industry adoption of an overly-aggressive Design for Construction Safety initiative is that the standard of care for design professionals would include a heightened burden on the design professional to evaluate construction safety considerations. Certain specialty contractors, and material suppliers, could face obsolescence if their technique or product is deemed too risky by design professionals who are overly cautious as a result of the safety initiative.

The working group is seeking feedback from the industry. Please visit their website at [www.designforconstructionsafety.org](http://www.designforconstructionsafety.org) to evaluate the initiative, and to comment on the implications of adopting their safety initiative recommendations.

*For more information regarding this Design for Construction Safety Initiative, please contact David Corkum, Partner, Professional Practices Group, Donovan Hatem LLP.*

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### Design and Construction Management Professional Reporter

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