2009

A happy, healthy, and prosperous New Year to all our clients, colleagues, and friends.

LePatner Report

CORPORATE CONSTRUCTION COUNSEL

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A QUARTERLY FOR OWNERS AND THE REAL ESTATE & CONSTRUCTION INDUSTRY FOR OVER 28 YEARS

FIRM NEWS

- Beginning in January, New York City law firms will have the opportunity to learn more about the intensified challenges confronting owners in today's credit-constrained construction environment by attending a complimentary CLE program with LePatner. This newly updated 1.5 credit CLE program, **Construction Cost Integrity - Protecting Your Client's Construction Project Investment**, spells out the best ways for lawyers to protect clients in the current recession. For information and scheduling, contact Deborah Rubin at drubin@lepatner.com.

- A major hospital system recently engaged LePatner to review its oversight and construction project management policies and practices in light of regulatory requirements. LePatner recommended system-wide changes and a plan to implement economical cost-control procedures for ongoing construction projects. Implementation will measurably improve construction oversight, enhance operational efficiency, and ensure compliance with the regulatory structures within which the hospital system operates.

- LePatner is representing the developer of a new high-rise building in the Theater District in a dispute with its construction manager, who is making major cost overrun claims.

- LePatner was recently retained by an award winning global design and architectural firm to assist in restructuring its operations, corporate makeup, and ownership transition. LePatner structured streamlined and favorable contracts for the firm with its clients and consultants and implemented internal support service arrangements delegating professional and non-professional services within the firm.

QUOTE OF THE QUARTER

"We are not building this country of ours for a day. It is to last through the ages."

Theodore Roosevelt

Five Solutions for Repairing the Nation's Infrastructure

By Barry B. LePatner , Esq.

As President Obama settles into the White House, his plate is already overflowing with issues that must be immediately addressed. Reviving the economy is naturally at the top of the list. Creating jobs for the growing number of unemployed is not far behind. But there is another issue on the president's to-do list – repairing the nation's crumbling infrastructure – that will strongly impact the first two as well as go a long way toward keeping America strong and its citizens safe.

The National Transportation Safety Board recently released its report following a fifteen-month investigation into Minneapolis's I-35W bridge collapse. Its findings were scary indeed, although not for the reason you might think. The report concluded that the original design for the bridge, which opened in 1967, included critically placed gusset plates (steel plates that reinforce the joints of steel-truss bridges) only half as thick as they should have been. It also suggests that probable causes for the collapse included modifications to the original design that added substantial weight, as well as the 287 tons worth of construction materials sitting on the bridge for a re-paving project that triggered the collapse on August 1, 2007.

What's so alarming about the NTSB report? Frankly, it's less what the report says than what it sweeps under the rug. These findings and others like them might well lead the president and the public to think that infrastructure failures are isolated accidents that occur because of a random design problem. If only our problems were that simple! The reality is that political inefficiency and ill-advised allocation of public funding also played a big role in the I-35W bridge collapse—and those are the real problems that have led to serious infrastructure deterioration where one in four bridges across the U.S. have been deemed by the Federal Highway Administration to be either structurally deficient or functionally obsolete.

Make no mistake, the nation's infrastructure problems cannot be fixed overnight or through an initial funding of $60 billion. Nor will the solutions be attractive to politicians accustomed to diverting funds from desperately needed infrastructure repairs in favor of, say, a glamorous (and vote winning) new park. However, by aggressively moving toward a series of solutions designed to address our deteriorating infrastructure we can begin to make real improvements that will benefit our country for generations to come. Tackling our critical transportation and infrastructure problems will require a national commitment and a strategic plan that should include the following solutions:

5 Solutions for Repairing Our Nation's Infrastructure...continued

The willingness to effect change in how we conduct our nation's business that characterizes the Obama Administration lays the groundwork for our political leaders to begin addressing the problem of America's aging infrastructure (of which our 72,000 deteriorating bridges represent just a slice). By doing so, we can provide a much-needed stimulus to the economy with the creation of jobs through infrastructure construction and repair projects and a more efficient and safe transport system for the nation's businesses. There is no greater ROI than the one we will receive if we start repairing our infrastructure now—a stronger, safer nation.

◀ Bent gusset plate on I-35W bridge. Photo taken in June 2003.

1 Create a national clearinghouse and database, accessible to every state transportation agency and the general public. The database would identify all design and construction issues affecting our nation's infrastructure. Through the Federal Aviation Agency, the airline industry has alerts that immediately advise all airlines of problems with an aircraft and require immediate attention before similar planes can go back into service. A similar database should be created that requires the FHWA and the NTSB to alert all state transportation departments of any bridge failure in the nation and include methodologies for remedial design as well as alerts for maintenance problems for all of America's 600,000 bridges.

This information can no longer be buried in state files, particularly given the fact that many politicians have evinced a history of ignoring significant problems and leaving them for future administrations. By making this information the subject of alerts available to the public, we will enable state transportation engineers to take preventive action more quickly, help members of the public avoid unsafe bridges, and put politicians and officials on notice that they will be held accountable for neglecting to take appropriate action.

There is already evidence that making infrastructure problems public can lead to protective measures. In May 2008, nearly a year after the collapse of Minneapolis' I-35W bridge, Minnesota's Department of Transportation closed the Winona Interstate bridge because inspectors had documented rusted and corroded gusset plates in 2006 and 2007. The bridge had not been closed until federal officials identified defective gusset plates as the potential cause of the I-35W disaster. Equally important, MnDOT officials had no prior knowledge that a failure of gusset plates similar to those they experienced on the I-35W bridge had occurred over the Snake River in Ohio in 1996. By June, 2008 MnDOT announced that they would replace 11 major bridges in the state, some with the same concerns about deteriorated gusset plates that had gone undetected.

2 State governments should step up their efforts to protect their citizens. States must do everything in their power to ensure they have informed their citizens—either through hearings, press conferences, or news releases—about bridges that have received structurally deficient ratings. In addition, they should be obligated to develop a game plan for correcting problems within six months of a bridge's designation as "structurally deficient." One in four bridges in our nation have been rated as either "structurally deficient" or "functionally obsolete." These are bridges that no longer are capable of sustaining the original loadings they were designed to handle. The public should receive annual updates on remediation progress and be given notice if funding for repairs is not provided within 18 months.

3 Enact a plan to deal with our nationwide shortage of civil and structural engineers. These professionals are trained in advanced inspection methodologies and are experts in remediation of deficient bridges. But the lack of these types of engineers on the staffs of state transportation departments—positions that have been systematically downsized due to decreased transportation funding—prevents them from adequately performing the inspections critical to assessing the safety level of each state's bridges.

Not only should we create initiatives to help encourage the nation's young people to pursue these careers, but state transportation departments must increase compensation to hire and retain engineers to keep them from departing to private industry. Engineers are often the first to be laid off by state transportation departments because of their high salaries. This can no longer be the case. State governments can and must recognize the critical importance of reducing long term maintenance costs rests upon their valued experience.

4 Invest in advanced technologies that help save money and provide more accurate inspections. By the time cracks appear in a bridge's structure, the costs for remediation have skyrocketed. The problem is, many of today's inspection techniques fail to detect cracks until they are visible to the human eye. In addition, the Federal Highway Administration has acknowledged that visual inspections of bridges are

How to control healthcare construction costs

by Barry B. LePatner, Esq.
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As our nation increases in population and age, both acute- and long-term-care institutions find themselves compelled to upgrade or expand their facilities to support technological advances and to meet the expectations of the patients served. But upgrading and expansion mean more construction—and a glance at any major newspaper's headlines reveals almost daily reports of construction cost overruns on projects of all types and sizes.

Today's construction industry is plagued by inefficiencies, delays, and significant cost overruns that cost America at least $120 billion per year, according to published estimates. In an environment like this, healthcare institutions clearly need to focus attention on managing escalating capital costs.

highly subjective and not totally reliable in detecting cracks in critical structural elements before they become visible.

Technology exists to anticipate bridge remediation years before rust, corrosion, and cracks in the structure appear. We just need to fund states to purchase this equipment and train their inspectors to use it. Enabling bridge inspectors to ensure precision and objectivity in their evaluation process, which in turn allows us to catch problems earlier when they are easier to fix, can save our nation countless millions of dollars in unnecessary remediation costs.

5 Enact reforms to help us avoid another Big Dig. For those who don't know, the Big Dig is the most expensive highway project ever. Its original budget set in 1985 was just over $2 billion. It was revealed last year that the real cost of the project will reach $22 billion with a pay-off set for 2038. According to a recent *Boston Globe* article, the Big Dig has dealt a considerable financial blow to the state of Massachusetts. The article states, "Big Dig payments have already sucked maintenance and repair money away from deteriorating roads and bridges across the state, forcing the state to float more highway bonds and to go even deeper into the hole […] Massachusetts spends a higher percentage of its highway budget on debt than any other state."

The Big Dig epitomizes everything that is wrong with the construction industry, which is rife with cost overruns and missed schedules. The industry itself will have to be reformed before we can start making progress in repairing the nation's infrastructure. An essential part of that reform will come in the form of better contracts that would (1) be based on 100 percent complete architectural and engineering drawings and specifications, (2) include a fixed price for everything designed and approved by the owner, and (3) fairly apportion all risks expected during construction between the parties.

The construction industry is the most inefficient industry in our nation where the average project wastes as much as 50 percent of the total labor cost. Establishing fixed-priced contracts on large infrastructure remediation projects will lead to savings of billions of public dollars. When you consider the huge numbers of projects that must be completed in order to restore America's infrastructure, it is clear that American taxpayers can't afford a 'business as usual' mind set anymore.

Healthcare facilities are some of the most expensive projects built today. The cost and complexity of healthcare construction create special burdens on institutional executives and facilities directors. While many have experience in building such projects, they may lack effective tools to control a project's financial outcome. In particular, lack of coordination between the design and construction team inevitably leads to unexpected change orders, delays, contractor claims, and other hidden costs. The ability to identify these pressures early, and to handle them quickly and effectively, is essential from both a construction and a legal standpoint.

The invaluable owner's representative

Successful project completion requires an informed and objective approach that combines legal, architectural, and project management professionals who are acting solely on behalf of the institution. To protect an institution against potential conflicts of interest, the project manager/owner's representative must be totally independent of any design, construction, or real estate interests.

Even if the facilities group within an institution already has in-house project managers, management often still needs to look outside for consultants experienced in healthcare construction to augment their skill sets and to help facilities group project managers carry out their job with maximum efficiency.

Although the right owner's representative is not necessarily easy to find, contacting organizations like the Project Management Institute and American Society for Healthcare Engineering can be a helpful first step. The ideal candidate should have design, construction, and legal experience. Thus, in most cases, one person will not be enough to be an effective owner's representative. A team of three or more may be necessary to simultaneously address critical field conditions, review change orders, and meet with prospective vendors—a process happening day after day for the duration of the project, and sometimes all on the same day. Effective owner representatives must be able to perform consistently and accurately at multiple levels, lest they lose control of the project.

Design-bid-build, fast track, or design-build?

What strategy is best for maintaining control? Traditional design-bid-build projects theoretically result in a fixed-price contract, since the price is defined by the scope of work detailed in bid documents. However, economic pressures can often persuade institutions to bid the project and start construction as quickly as possible, even if designs are not 100% complete. Our experience has shown that a decision to utilize fast-track construction inevitably leads to significant cost overruns and delays.

Healthcare institutions are particularly vulnerable to cost overruns based on incomplete designs because of the complexity and redundancy of their MEP and life safety systems and the amount of time needed to successfully coordinate construction. To mitigate construction cost overruns, healthcare institutions must take the necessary time to plan the project. This means entering into agreements with all team members—architects, engineers,

This article was condensed from the original, which was published in *Healthcare Design*, December, 2008. Read the article in its entirety at lepatner.com or healthcaredesignmagazine.com.

…healthcare construction costs

and consultants—for fixed prices that would only be permitted to rise if the owner modifies the scope. This also means requiring the design team to prepare bid documents that are fully detailed, complete in all respects, and coordinated with each other. The owner must be prepared to provide the additional time and fees to do this. Similarly, construction managers need the opportunity to thoroughly review construction documents and field conditions during the bid process to identify errors and omissions. Conflicts should be corrected and re-bid. Only then will contractors be ready to provide true, fixed-price proposals. Note: This is not the "typical" approach to construction project management.

An alternative cost-control method is the design-build agreement. A design-builder is a single-source provider that encompasses architectural, engineering, and construction services. The design-builder designs and constructs the facility for a fixed sum. The consolidation of responsibility helps eliminate contractor claims that allege errors and omissions by the design team. Change orders are limited to owner-initiated changes in the initial design or unforeseen site conditions. However, the design-build process eliminates the traditional checks and balances that an otherwise separate A/E and contractor would have on each other. For this reason, it is crucial that institutions retain experienced, construction-savvy owner representatives who will properly monitor the design-builder's work.

Minimize change orders

Minimizing or eliminating change orders is essential for proper construction cost management. The best way an institution can minimize change orders is to commit itself to commencing construction only after complete and fully coordinated design and drawings are in place.

Before signing an agreement with a contractor, all parties involved should engage in candid, "up-front" discussions about the potential risks and problems that might be encountered during construction. Controlling change orders requires strongly worded provisions that defend institutions against unwarranted or excessive change order-related costs. At a minimum, any change order proposal should clearly define and itemize the scope of work and document the costs required to perform the work. The owner should not be obligated to pay for alleged change order work performed prior to authorization. Contractor "general conditions" should be itemized, but if the change does not require additional supervision by the contractor or construction manager, some general conditions charges may not be warranted. In addition, change order proposals should document their impact on project schedules and include those costs; the contractor should not be allowed to return at the end of a project to seek additional "delay" compensation for change order work. Agreements should contain provisions that give the owner adequate time to review and approve the proposed change order. In the case of a dispute, the agreement should require contractors to proceed with the base contract and change order work while the dispute is resolved by a preselected, neutral third-party in a short, one-day arbitration.

BIM: Short-term and long-term value

Other than circumstances in which an owner has decided to add scope, change orders almost always result from incomplete and uncoordinated design documents. Reducing change orders plays a vital role in reducing construction cost overruns—and building information modeling (BIM) may be the best way to reduce change orders.

BIM is a relatively new collaborative design process that creates a repository of information for the institution to use and maintain throughout a facility's life cycle. Using BIM, a facility can be designed, virtually "built," and performance-tested in real time before actual construction starts. BIM increases the likelihood that errors, omissions, and conflicts can be identified and corrected during the planning process instead of during construction, when the expense of adding or redoing work, and the resulting delays, can add significant costs. The technology enables faster, smarter decision-making, provides better documentation, and equips managers to predict performance prior to construction.

Owners and contractors can use BIM to precisely calculate material and construction cost budgeting. Contractors can use it to plan and coordinate construction, optimizing trade scheduling and deliveries. Studies have found that the savings resulting from reduced change orders, delays, and designer-contractor conflicts far outweigh BIM's added design fees.

Upon occupancy, BIM accrues additional value to the owner. BIM delivers a database of information about the facility that can be used throughout its functional life. Future upgrades, operational procedures, and scenario planning can all be modeled with BIM technology. The facility's building management system can also be tied to the BIM model.

Partnering reduces conflict and costs

The emerging practice of partnering can redefine the relationships among the owner, architect, engineer, and contractor. It can create a cooperative and collaborative team from among potential adversaries. Partnering aims to promote teamwork, avoid conflict, and ensure on-time project delivery. It can achieve this by establishing ground rules for responsible behavior and open communication processes, and by employing various conflict-resolution techniques to avoid problems that derail projects.

Partnering is voluntary and does not replace separate contractual agreements with the institution. Rather, it helps to ensure that these agreements will be executed successfully by establishing guidelines for cooperation accepted by all. An integrated set of design and construction agreements, with consistent language and provisions throughout, is crucial to successful partnering.

Construction costs can be contained

Project success is often determined by a strategic combination of legal and professional project management services. To effectively manage the complexity and risks associated with healthcare construction, institutions should be prepared to take innovative, project-specific approaches in order to obtain true, fixed-price contracts that control construction costs.

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