# Media Hits for Barry LePatner, Author of Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry





# **Governing Magazine**

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#### MINNEAPOLIS SPEEDWAY

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**BYLINE:** Josh Goodman

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**HIGHLIGHT:** A bridge collapsed. Minnesota's DOT replaced it in just 13 months. Here's how

they did it.

John Chiglo is looking up from the banks of the Mississippi River at a huge ivory monolith. It's the new I-35W bridge, built on the site in Minneapolis where an old span collapsed suddenly on August 1, 2007, killing 13 people. The four giant support piers on each side of the river curve gently into the superstructure, giving the new bridge a slightly arced appearance when viewed from a distance. But up close, from where Chiglo stands, what's most striking is how polished a brand-new bridge looks, before the rust and grime of age settle in. "That's 50,000 yards of concrete," Chiglo says, sounding like a baseball fan rattling off the slugging percentage of his favorite player. "Seventeen million pounds of steel, 740 miles of post-tension steel strands."

Chiglo served as the Minnesota Department of Transportation's project manager for the I-35W bridge, also known as the St. Anthony Falls Bridge. He has good reason to be proud of it. The new span opened to traffic barely a year after the tragic collapse. Not only did MinnDOT beat an almost ludicrously ambitious deadline by three months, but it did so without any serious injuries to workers. The project came in respectably close to its budget--it went less than 2 percent over.

In the world of bridge construction, this story is a bit unusual. Bridge projects, like other big infrastructure endeavors, have a way of dragging out months or years behind schedule--and blasting through their budgets. It doesn't have to be that way. That's especially important to remember as the federal government hands some \$36 billion over to states for road, bridge and

transit projects in an effort to get the economy going again. MinnDOT's handling of the I-35W rebuilding demonstrates that states can spend lots of money, put people to work and make something with lasting value--and do those things both quickly and efficiently.

Getting the process right isn't easy, however. For bridge construction to work better, states have to manage delicate relationships with contractors and force different levels of government to work together more cooperatively. And, as the collapse of the old I-35W bridge made all too clear, construction is only half of the nation's infrastructure challenge. Maintenance and inspection of old bridges remains a huge problem in many states, even after the Minneapolis tragedy. The federal government lists 12 percent of all bridges in the United States as structurally deficient, and an additional 13 percent as functionally obsolete. So as states begin spending their stimulus money, they should not be thinking only about how to build bridges quickly and cheaply. They also should be strategizing about how to keep these assets in good condition for decades to come.

How was the new I-35W bridge built so quickly? The short answer is that the state of Minnesota didn't give the construction company in charge of the bridge, Flatiron Construction Corp., much of a choice.

Flatiron's base contract was for \$234 million. In addition, the company was offered up to \$27 million if it completed the project early--and faced financial penalties if it finished late. That was incentive enough for construction workers to adopt a 24-hours-a-day, 7-days-a-week schedule. Says Chiglo: "We worked holidays, weekends, day, night, rain, snow, sleet, ice." Ultimately, Flatiron received a \$25 million bonus.

But while Minnesota demanded precisely WHEN the bridge should be built, the state left to Flatiron the details of HOW the bridge should be built. That's not the way state-issued construction contracts typically work. The most common process is what's known in the construction world as "design-bid-build." State employees design what needs to be built, then they put it up for bid and the private sector builds it based on the state's specifications. Those specifications can be exceptionally prescriptive. Often, they don't just stipulate what needs to be built--they also order the contractor to build it using a specific process.

By contrast, the new I-35W span was erected through a method known as "design-build." Under this model, many of the details of a project are left to the contractors, which allows them to put their expertise to work. Design-build isn't universally embraced among DOTs; the results are only as good as the contractors selected. But the big advantage of design-build is that initial construction can begin before the final design decisions are made, often allowing projects to get started swiftly. That's exactly how it worked out in Minneapolis, where construction began, remarkably, just three months after the old bridge fell.

To be sure, some of that urgency came from the emergency nature of the collapse. Bureaucracies moved at record speed, and cooperated across every level of government. Federal permits that normally take months to obtain were ready in days. The City of Minneapolis rapidly gave approval to the design of the new bridge. "Nobody," says Bob French, Flatiron's chief operating officer, "wanted to be the individual or agency that stopped that bridge from getting built." The

unusual amount of political momentum that emerged out of the crisis is a big reason why French thinks it would be difficult to replicate this success story elsewhere.

There's another reason, too. Ironically, the collapse itself made it easier to get the new bridgework done quickly. Under less tragic circumstances, one of the big challenges in replacing an old bridge with a new one is keeping the existing span operating while the work goes on. Transportation officials are loathe to shut down a critical artery before the new one is ready, for fear of tying traffic in knots. At the same time, however, the old bridge inevitably gets in the way, complicating the construction process. In Minneapolis, of course, the old bridge was gone.

Unusual as that situation was, it raises an interesting question: When an old bridge, road or any piece of infrastructure is so worn out that it must be replaced entirely, should it simply be shut down to make way for the construction crews? One person who believes that the answer is yesat least in some cases--is Tom Warne, a former Utah transportation director who now works as a consultant. In the 1990s, when Utah was rebuilding I-15 in and around Salt Lake City, Warne polled drivers on what they would prefer: the acute, if temporary, disruption of widespread road closures, or keeping the roads open and under construction for a longer period of time. The response: Close the roads. Utah followed the advice, which accelerated the project dramatically. "We should be bolder about that sort of thing," Warne says. "The public understands it and they'll adjust."

While the Minneapolis bridge collapse shook up the DOT in Minnesota, the tragedy's impact on the rest of the country has been surprisingly muted. In the immediate aftermath of the collapse, state officials everywhere described the disaster as a wake-up call. Since then, many of them have hit the snooze button.

One year after the collapse, an Associated Press analysis looked at each state's 20 most heavily traveled structurally deficient bridges. Of the bridges analyzed, only one in 10 had been fixed up in the year after the collapse.

People in the industry don't dispute that less has happened since August 2007 than they would have liked. Part of the reason is that the scale of the problem is so enormous. The American Association of State Highway and Transportation Officials estimates that \$140 billion is needed to repair more than 150,000 bridges that are structurally deficient or functionally obsolete. That's only a fraction of the \$2.2 trillion the American Society of Civil Engineers estimates for the nation's total infrastructure needs. With state revenue foundering and gas taxes in particular drying up, the past year and a half has proven to be a difficult time for states to make new investments.

But the problems run deeper than that. Glacial permitting processes mean that, for large projects, it can take a dozen years for a new bridge to become reality. The construction industry is deeply fragmented, with separate teams of suppliers, engineers and contractors needed just to build a bridge. "It would be a seismic event for the construction industry to change itself in one year," says **Barry LePatner**, a New York construction lawyer. "It remains a truly inefficient industry."

Nonetheless, there have been gradual signs of change. More and more states are following the Minneapolis model by making a contractor's payments contingent on getting the work done on time. Design-build was considered novel when Warne was using it in Utah a decade ago. Now, it's becoming more commonplace.

And, there's at least some reason to believe that the federal economic stimulus will continue these trends. "Shovel-ready" is the buzzword of the moment--the feds want to fund projects that can put people to work immediately. Since design-build can hasten the start date for projects, it may be the tool of choice for state DOTs in the months ahead.

If there's one state that isn't shy about trying new ideas, it's Missouri. A couple of years ago, Missouri proposed an experiment, known as the Safe and Sound bridge program. The intent was nothing less than to upend most of the basic tenets of bridge building and maintenance in the United States.

The state had 802 bridges, most of them small and in rural areas, which had fallen into poor condition. Normally, a state would bid out repair work on each bridge separately. Instead, Missouri offered them all up in one giant contract. Normally, the state would prescribe how each bridge would be brought into good condition. But Missouri wasn't telling the contractors whether they had to repair the existing bridges or replace them. And, normally, contractors are paid in full when bridgework happens. In Missouri's case, the contractors were to finance all the costs for the first five years. Payment to the team in charge of the bridges was to be contingent on the contractors' keeping them in good shape for an additional 25 years.

Although it was formulated before the I-35W bridge collapsed, Missouri's plan represents a logical extension of the ideas coming out of Minneapolis. You can tell that from its name: "design-build-finance-maintain." Many of the goals--giving contractors more flexibility, but paying them only for getting results--are the same.

That, says Don Hillis, director of System Management for the Missouri Department of Transportation, is a big reason for the state's optimism about the concept. The idea here is that handing hundreds of the bridges over to one team can reap economies of scale--especially when the contractors have free reign to design their own approach. Because of the maintenance component, the pressure is on the contractors to produce work that would stand the test of time. Plus, private funding is seen as a way to speed up work in spite of the limited public money available. The contract required that all 802 bridges be in good shape within five years.

As it turned out, the decision to use private-sector funds was the plan's Achilles' Heel. Missouri selected its team of contractors, but as the availability of credit tightened last fall, they were unable to obtain financing. The plan in its original form had to be scrapped and revised.

Missouri's new plan is still groundbreaking. This spring, it will hand out a single design-build contract for 554 of the original 802 bridges. Government-issued bonds will fund the project, and it won't have the 25-year maintenance component. Nonetheless, the experiment will test whether putting a single team in charge of hundreds of bridges can lead to more efficient

construction."We still think it's a good concept," says Hillis. "When the private sector has the ability to muster funds at very good rates, I think it's something that could happen again."

Not everyone is so sure that Missouri has discovered the formula of the future. The state's plan would have greatly expanded the role of the private sector in bridge financing and maintenance, placing public assets in private hands. While private control of infrastructure is common in Europe and Canada, it remains controversial in the United States. But if there's one point that Missouri clearly had right, it's this: States need to focus just as much on bridge maintenance as they do on construction.

That's because maintenance is just as big a problem area as construction. Basic steps are routinely neglected, such as painting bridges regularly to prevent rusting and removing corrosive road salt. The result is that bridges have to be repaired or replaced years earlier than if they were maintained properly.

Some observers fear that the federal stimulus will only make the situation worse, by creating more bridges and roads that need upkeep. "We can't even maintain the size of the infrastructure that we have now," says Michael Pagano, an infrastructure expert at the University of Illinois at Chicago. "We're going to add to it? I think that's insane."

The reasons for the maintenance problem are diverse. One of the most troubling is that there's a built-in disincentive to do the right thing. When bridges fall into disrepair, they become eligible for federal funds to replace them. So there's little motivation for states and localities to be proactive and spend their own money on maintenance up front. Another problem: Bridge inspections remain shockingly rudimentary. Examiners spend most of their time doing a visual once-over. They might tap various bridge parts with a hammer to see if metal has corroded, but these techniques often miss serious problems developing within the bridge structure.

Peter Vanderzee is one of a growing number of people who believe that there is a better way. Vanderzee runs a company that sells sensors that allow for computerized monitoring of bridges. He compares the current inspection regimen to that of a doctor who makes a diagnosis simply by looking at the patient.

The purpose of the sensors isn't primarily to identify an imminent bridge collapse on the order of the one in Minneapolis. Instead, the main purpose is to find subtle stresses and cracks early on, before those problems turn into visible signs of trouble. Plus, Vanderzee sees another benefit to the sensors. He's the rare person who thinks the condition of American bridges is considerably better than is commonly recognized. His argument: With visual inspections, lots of bridges are lumped together as needing repairs. Sensors, he says, can tell which ones need help more than others. "If it's in better shape, we can delay repairs and we can delay replacement," Vanderzee says. "If it's in worse shape, at least we know."

While this technology has been around for quite a while, it hasn't been widely utilized. States are reluctant to pay the upfront costs of installing the sensors based on the promise of long-term savings. (They also aren't eager to go drilling holes into old bridges and perhaps weakening them even more.) One span that does have them, though, is the new I-35W bridge in Minneapolis--it

has 323 sensors to be precise. Data from those sensors will be fed to MinnDOT and the University of Minnesota, where staff will be able to monitor the bridge's condition in real time.						
The sensors are just one reason that almost everyone in Minnesota views their new bridge as a success. But, as a result, Minnesotans also have higher expectations for the Department of Transportation going forward. "That didn't take long," Chiglo says. "People are already asking why we can't build every bridge so fast.						

# Government& Infrastructure

#### **Government & Infrastructure**

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## The Road Ahead

Barry B. LePatner, Esq.



How Ignoring Infrastructure Maintenance Continues to Affect the Nation's Commerce. The facts and figures about our nation's infrastructure are truly damning. In its 2009 Report Card for America's Infrastructure, the American Society of Civil Engineers (ASCE) identified a five-year investment shortfall for our roads and bridges of \$549.5 billion. Overall, the report card gave our nation's infrastructure a D+ rating.

Today, our outdated and overused road system is crumbling. According to the 2007 Texas Urban Mobility Report, drivers in metropolitan areas spent 4.2 billion hours delayed in traffic in 2005, an amount equal to 105 million weeks of vacation. Sitting in traffic also wasted 2.9 billion gallons of gas, enough to fill 58 supertankers. The combined annual "congestion cost" to our nation has reached a staggering \$78 billion.

The problem, however, goes beyond congestion in big cities. Poor road conditions cost American motorists \$54 billion every year in repairs and operating expenses – \$275 per motorist. The AAA estimated that, in 2006, traffic crashes killed 42,642 people in the United States – roughly one death every 12 minutes.

Just how did we get into such a dispiriting situation and what, if any, solutions are available in these capital constrained times?

As it turns out, the story of our infrastructure shortcomings represents not just a failure of government but a failure of the entire American polity to recognize that our highway infrastructure, which was once the best in the world, now stands in need of extensive, and expensive, remediation.

From the earliest days of the republic, the obligation for building and maintaining roads fell to the individual states. By the 1940s, the backlog of deferred maintenance had grown to significant proportions.

When the Federal-Aid Highway Act of 1956 made the federal highway system a reality, providing for its maintenance was not a pressing concern for either the federal government or the states that eagerly took the federal funds that it made available. The sheer size and expense of the interstate program made even a state's 10 percent contribution a burden they could not bear without continuing to shortchange maintenance.

But another problem would soon make the situation worse. The financing system in place disguised the true costs of U.S. roads and bridges from motorists and undercharged them for their use.

One solution would have been to levy heavy user fees to reimburse local treasuries in full for the cost of streets, traffic maintenance and police services. Another possibility was to rely on general taxation to support private transportation. That the latter course was adopted is testimony both to the public perception of the benefits of automobility and to the intervention of the growing power of special interest groups. Now, a persistent and damaging illusion on the public's part regarding the real costs of owning and maintaining a highway system still exists.

The continued and growing gap between needs and resources for the maintenance and repair of the nation's roads and bridges makes it clear that the more than 30-year-old effort of the federal government to address this problem has largely failed. Many problems go unaddressed today.

First, the United States as a whole is not spending nearly enough on its roads and bridges. In its report card, the ASCE estimates the gap between need and current spending for highways separately and in the aggregate, and the shortfalls are dramatic. According to the report, "Current spending of \$70.3 billion per year for highway capital improvements is well below the estimated \$186 billion needed annually to substantially improve conditions."

Second, state governments – besides having to mediate the competition for scarce resources among a variety of interests in which infrastructure investment is easily shortchanged – have faced stiff challenges in recent years in their efforts to fund even minimal transportation efforts. Declining revenues from gasoline taxes owing to the greater fuel efficiency of vehicles has been another significant challenge for both states and the federal government's Highway Trust Fund. Yet even if those deficits were filled tomorrow, the crisis of neglect that has overcome our nation's infrastructure would not disappear. We shall need more than money alone.

Third, implicit in any understanding of our nation's ailing infrastructure is that we must make significant changes in how we fund, build and manage these critical assets going forward. It would be inconceivable for the nation to allocate the massive amounts of money needed to bring our roads, bridges, airports, power grid and levees up to acceptable standards, only to have these problems repeat for future generations.

To address the current needs and make the structural changes in our system, we need to educate our politicians and citizens about the critical state of our infrastructure and infect them with a renewed sense of urgency about acting before it is too late.

We need to apply the latest available methods of technology to ensure that how we design, construct and maintain our nation's transportation infrastructure will bring needed cost efficiencies to offset the staggering costs resulting from decades of avoiding ongoing maintenance.

And, we need to bring creative management to how we oversee the trillions of dollars of assets under our nation's transportation inventory. Implementing these changes will require a renewed sense of commitment to restoring the lost legacy of prominence for our infrastructure systems.

Today, state governments are facing increasing deficits that make it unlikely this problem will be responsibly addressed in the near future. Moreover, the federal government has showed no sense of urgency to provide repair and maintenance funding to avoid future tragedies similar to the August 2007 collapse of the I-35W Bridge in Minneapolis. Only drastic action will address this growing problem and, sadly and likely tragically, only repeated instances of citizen outrage can turn the sorry state of our nation's deteriorating infrastructure around.

Barry B. LePatner, Esq. is the founding partner of LePatner & Associates LLP, a law firm that serves as business and construction counsel to corporations, institutions and real estate developers. He is the author of Broken Buildings, Busted Budgets: How to Fix America's Trillion Dollar Construction Industry. His new book, Too Big to Fall: America's Perilous Infrastructure and the Way Forward will be published by the University Press of New England this Fall.



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March 4, 2009

First Buzzed By: Sally G

# Can The Infrastructure Stimulus Package Work? 5 Things to Consider

· <u>newsblaze.com</u>

Submitted: 18 hours 15 min ago - Filling Potholes on the Road to Repair: Five Points the Government MUST Consider Before Doling Out Billions to the Construction Industry

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# **USAToday.com**

February 16, 2009 9,469,776 Visitors per Month

*USAToday.com* is the Website associated with the national newspaper, *USA Today*. The site receives approximately 9,469,776 visitors per month.

# Barry LePatner Stirs Up The Construction Industry

15h 46m ago News Blaze

February 16, 2009

Barry LePatner knows that the construction industry needs massive reform. Over the past few years, he has almost singlehandedly started a national debate among those inside and outside the construction industry over what can be done to overhaul the



#### GlobeSt.com

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# A Bridge to Somewhere

By Paul Bubny

NEW YORK CITY—The Obama administration on Thursday released data showing that the American Recovery and Reinvestment Act has created 30,383 jobs under federal contracts awarded since its passage. In the popular perception, that means \$787 billion going toward rebuilding roads and other infrastructure. The reality, says attorney and author Barry LePatner, is quite different.

"The stimulus act is almost exclusively a jobs bill; it truly has nothing to do with addressing the major shortcomings of our nation's infrastructure," says LePatner, founding partner of LePatner & Associates and author of *Broken Buildings, Busted Budgets: Fixing America's Trillion-Dollar Construction Industry.* "We can't confuse the funding for ARRA with the several trillion dollars that will become the focus of our nation's infrastructure, once healthcare and the fiscal crisis are behind us next year." He says that after these two mega-issues are resolved, "the spinal cord that makes us a great nation" must come next.

The question is, where will that attention come from? Given the crazy quilt of state and federal jurisdictions, the answer is unclear. "We have more disarray than we have a game plan," LePatner says. "As someone who has spent the last two years researching a book about the perilous state of our nation's infrastructure, I see major restructuring needed if we're going to address the serious problems that we have."

To get an idea of how serious those problems are, consider the state of the nation's highways—just one element of an infrastructure that also includes bridges, airports, railroads and utilities. "The Federal Highway Administration estimates that \$79 billion is needed annually if we're going to merely maintain our current road system," says LePatner. "We will need \$132 billion annually if we're going to make improvements. Right now, we're spending only \$70 billion per year. So we have a gap of \$9 billion if we want to just let it deteriorate, and a gap of \$62 billion if we're going to make the needed changes. That money is just not around."

Although not a big fan of the word "czar" as it's currently used in public policy, LePatner says having just such a point person is in order. "Somebody will be needed to coordinate, across agencies and jurisdictions, the massive amount of information and asset management that will

have to redefine the new transportation bill coming up in Congress," he says. That "infrastructure czar" will also have to spell out "how we identify and triage the critical needs" that have to be addressed.

Making the public aware of those needs, says LePatner, calls for "a massive amount of reeducation" on how extensive the problem is. "National figures, such as Mayor Michael Bloomberg and Govs. Ed Rendell of Pennsylvania and Arnold Schwarzenegger of California, who have sought to understand infrastructure issues, have seen them as overwhelming in terms of how to develop solutions," he says. "And few if any of the states have been able to allocate capital funding to bring their roads, bridges or airports up to design standards."

There are about 600,000 bridges across the US, and 26% of them cannot safely handle the amount of traffic that goes across, says LePatner. Replacement costs are staggering, on both a macro and micro level.

"After 10 or 15 years of analysis, the New York State Department of Transportation says we need a new Tappan Zee Bridge across the Hudson, at an estimated cost of \$16 billion," he says. "If history is any indication, that bridge will cost more than \$25 billion. We don't have that." Nonetheless, LePatner says his number one short-term priority would be to replace—regardless of cost—the thousands of US bridges that are "fracture-critical," i.e. in danger of collapsing if a single element fails. The Minnesota bridge that collapsed into the Mississippi River in 2007, killing 13, was one such structure.

Some states have looked to public-private partnerships to manage infrastructure funding issues. Domestically, the rate of success hasn't been great, although overseas such partnerships are commonplace. In 2008, Rendell announced that the Pennsylvania Turnpike would be leased for 75 years to Spain-based Abertis Infraestructuras, pumping \$12.5 billion into the state's coffers. However, it wasn't clear whether there were safeguards to protect businesses along the 537-mile toll road from being uprooted, whether turnpike employees' jobs were assured or whether the state stood to lose more than it gained. "All of these uncertainties were not addressed carefully enough, and the public dialogue was not extensive enough, to overcome the hesitancy of the legislature, who voted it down," says LePatner.

"These public-private partnerships offer an opportunity, but we have to approach them very carefully," he says. "We need to look at it not just from the standpoint of asset management, but also making sure that public well-being issues are being discussed and analyzed."

Long-term, LePatner calls for "a new national strategic transportation plan" that would manage the distribution of hundreds of billions of dollars of funding. "It would acknowledge the challenges that are tying up our major metropolitan areas, costing us 2.9 billion gallons of gas per year and a congestion cost of \$79 billion a year," he says. "We are choking ourselves on our roads and bridges, and have no game plan to deal with it."



#### **Reuters**

October 16, 2009

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# Low stimulus bids could put jobs at risk

Fri Oct 16, 2009 2:22pm EDT

by Lisa Lambert - Analysis

WASHINGTON (Reuters) - Contractors may be bidding themselves out of business for highway and infrastructure projects included in the U.S. economic stimulus plan, as they low-ball their proposals in hopes of winning much-needed work.

For now, bids have come in for as much as 30 percent less than what state agencies had projected and been welcomed as examples of the \$787 billion American Recovery and Reinvestment Act's success, as the federal government spends leftover funds on additional projects.

On Wednesday, U.S. President <u>Barack Obama</u> said the low project costs, "means we can do more. We can create more jobs and launch more projects with every taxpayer dollar."

That, in turn, could help realize Obama's promise that the stimulus will create or save more than 3 million jobs, the bulk of them in a construction industry that has suffered tens of thousands of layoffs during a severe housing slump.

But the low bidding may have the opposite effect. Contractors could bid at such steep discounts that they are unable to cover the costs of completing projects.

Proposals have lagged estimates because contractors are hungry for work, according to the Government Accountability Office.

"Several state officials told us they expect this trend to continue until the economy substantially improves and contractors begin taking on enough other work," the nonpartisan auditing agency said in a September report.

#### CAUSE FOR ALARM

For Barry LePatner, a lawyer representing construction companies and real estate developers, "that should not be a prospect for glee. It should be a prospect for alarm."

Members of the construction industry traditionally submit bids at cost or lower, hoping "to gain the right during the course of the project to put in claims and delays and so on that hopefully gets them profit," he said.

There is no room for cutting, he said. Because the government has recycled surplus stimulus dollars into new undertakings, there is also no room for projects going over budget.

"States now are going to be faced with the prospect of those projects that are 'underfunded,' meaning contractors found out that they don't have the money -- except from their own pockets - to complete the jobs," he said. "States are either going to find claims being made or workers walking off the job, which is the antithesis of what the stimulus is all about."

LePatner, author of the book "Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry," said companies should be able to sign "fair price fixed contracts," in which they "bid for a fair price plus a fair profit so they will get to the end of the project."

A federal report released on Thursday showed \$16 billion worth of stimulus contracts have been awarded in a range of areas, not just transportation and infrastructure, since the plan passed in February. Only 14 percent of that amount has been received by contractors.

Money is often paid in full when a project is done, and a slow payment rate could mean delayed completions, LePatner said.

Obama has said 5,000 highway repair projects have already begun.

If contractors cannot finish their work, the states will not have to cover the shortfalls, and the projects will still be completed, said an official of the Associated General Contractors of America.

"Contractors are required on any project that has federal money and pretty much on any public projects ... to have bonds," said Brian Deery, the group's senior director of highway and transportation. "If the contractor isn't able to perform that contract, then the bonding company is on the hook for completing that work."

Government estimates often trail behind market changes because the agencies frequently consult contracts from a year before, when prices were different. Materials prices are currently much lower than they were a year ago, Deery said, which could have created some discrepancies between projections and bids.

bids cho	sen.				
"The real concern is that there are a lot of contractors that have not operated in this kind of awful market" he said. "There are some sort of less experienced contractors that might underbid. And that, ultimately, might cause them financial problems, and they might not survive."					
(Additional reporting by John Crawley; editing by Jeffrey Benkoe)					



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October 17, 2009 6,530,503 Visitors per Month

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Reuters

# ANALYSIS-Low US stimulus bids could put jobs at risk

10.17.09, 10:25 AM EDT

USA-INFRASTRUCTURE/STIMULUS (ANALYSIS, CORRECTED): ANALYSIS-Low US stimulus bids could put jobs at risk

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"States now are going to be faced with the prospect of those projects that are 'underfunded,' meaning contractors found out that they don't have the money -- except from their own pockets - to complete the jobs," he said. "States are either going to find claims being made or workers walking off the job, which is the antithesis of what the stimulus is all about."

LePatner, author of the book "Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry," said companies should be able to sign "fair price fixed contracts," in which they "bid for a fair price plus a fair profit so they will get to the end of the project."

A federal report released on Thursday showed \$16 billion worth of stimulus contracts have been awarded in a range of areas, not just transportation and infrastructure, since the plan passed in February. Only 14 percent of that amount has been received by contractors.

Money is often paid in full when a project is done, and a slow payment rate could mean delayed completions, LePatner said.

Obama has said 5,000 highway repair projects have already begun.

If contractors cannot finish their work, the states will not have to cover the shortfalls, and the projects will still be completed, said an official of the Associated General Contractors of America.

"Contractors are required on any project that has federal money and pretty much on any public projects ... to have bonds," said Brian Deery, the group's senior director of highway and transportation. "If the contractor isn't able to perform that contract, then the bonding company is on the hook for completing that work."

Government estimates often trail behind market changes because the agencies frequently consult contracts from a year before, when prices were different. Materials prices are currently much lower than they were a year ago, Deery said, which could have created some discrepancies between projections and bids.

Still, Deery said, many bids have been cut because struggling contractors are eager to have their bids chosen.

"The real concern is that there are a lot of contractors that have not operated in this kind of awful market" he said. "There are some sort of less experienced contractors that might underbid. And that, ultimately, might cause them financial problems, and they might not survive." (Additional reporting by John Crawley; editing by Jeffrey Benkoe)						
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# THE WALL STREET JOURNAL

#### TheWallStreetJournal Online

March 4, 2009 4,059,093 Visitors per Month

*TheWallStreetJournal Online* is the website associated with *The Wall Street Journal*. The site receives approximately 4,059,093 visitors per month.

#### 1. QUOTE from:

#### Can The Infrastructure Stimulus Package Work? 5 Things to Consider

March 4, 2009

View quote in context »

"The government, too, should do its part to ensure there is adequate protection against this waste in the accountability provisions of the stimulus plan," adds LePatner. "Without a true fixed-price structure for all construction projects that shifts the risk for inefficiency and waste to the construction industry, our government will be back footing the bill for an additional tens of billions of dollars within a few years." LePatner offers a few steps he would like for the nation's governing bodies to make beforethe infrastructure money is pumped into project contracts: Create an Infrastructure Czar position. Full Article at News Blaze

Without a true fixed-price structure for all construction projects that shifts the risk for inefficiency and waste to the construction industry, our government will be back footing the bill for an additional tens of billions of dollars within a few years. SOURCE: News Blaze 1 day ago

All quotes from:

#### Can The Infrastructure Stimulus Package Work? 5 Things to Consider

- 1. <u>Technology exists to anticipate bridge remediation years before rust, corrosion, and cracks appear SOURCE: News Blaze 1 day ago</u>
- 2. Our government must ensure that infrastructure project contracts are all undertaken with true fixed-price contracts that pass the risk for poor performance onto the contractors who fail to complete them on time and on budget. Our leaders' credibility, not to mention our nation's future safety and viabil... SOURCE: News Blaze 1 day ago

- 3. Contracts must require that skilled, experienced onsite construction representatives with in-depth knowledge, who can oversee not only quality but the true cost for the work, are retained for these projects. SOURCE: News Blaze 1 day ago
- 4. We've already seen what can happen when the government pumps money into broken industries without properly monitoring how it's used: billions of taxpayer dollars are wasted SOURCE: News Blaze 1 day ago
- 5. One merely needs Google the phrase 'construction cost overruns' to begin to realize the enormous proportions of the waste our country has been dealing with for decades SOURCE: News Blaze 1 day ago
- 6. <u>In order to combat this problem, stipulations must be placed in the government contracts</u> awarded *SOURCE: News Blaze 1 day ago*
- 7. <u>If there's a guru of construction industry reform, it's LePatner.</u> *SOURCE:* <u>News Blaze</u> 1 day ago
- 8. The government is about to embark on what is essentially bailout #3 SOURCE: <u>News</u> <u>Blaze</u> 1 day ago
- 9. We 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 dol... SOURCE: News Blaze 1 day ago



#### **PBS** Website

Blueprint America August 14, 2009 3,414,303 Visitors per Month

**PBS** is a national broadcast entity providing news, public affairs, educational and entertainment programming to non-commercial stations across America. Funded by viewers, Congress and corporate benefactors, the network and Web site strives for objective and in-depth analysis of historical and current events shaping the U.S. and the world via documentaries, exposes, and regular series. In addition, the network airs musical and theatrical performances in the classical arts, and features designed to educate and inform. It receives 3,414,303 Visitors per Month.

**The No. 13 line** -- August 14th, 2009

I-35W Two Years Later: Lessons Unlearned

#### By Barry B. LePatner and Samuel I. Schwartz

Two years ago, during the Wednesday evening rush hour in Minneapolis on August 1, the I-35W bridge over the Mississippi River collapsed, killing 13 people and injuring 145.

Have we learned any lessons from this tragedy that help make us safer today?

Regrettably, the answer is no.

Built in 1967, the I-35W bridge is one of more than 12,800 bridges standing today designed as "fracture-critical" structures. Built for cost and construction efficiency, these bridges lacked redundancies. That means that the failure of any single structural component from corrosion, excess weight, or design or construction error, could cause the entire bridge to collapse.

In November, 2008, a National Transportation Safety Board report placed primary responsibility for the failure on improperly thin gusset plates, the steel plates fastening two or more beams together.

However, the report failed to explain the lack of action after photographs taken in 1999 and 2003 showed that these gusset plates had bent.

The state transportation department had used federal remediation funds received for the bridge in 1991 and had rated I-35W "poor" from a structural standpoint since 1993. Nonetheless, on the day of the collapse, state engineers had permitted construction crews to pile more than 587,000 pounds of roadbed material on a portion of the bridge positioned over the damaged gusset plates.

Lingering questions extend beyond the four-decade-long puzzle of why a fracture-critical bridge — with steel plates that were apparently too thin — did not fail for 40 years after it was built.

Why did inspectors not flag the bent plates and the too-thin plates and urge action? When consultants in 2006 recommended that the bridge needed to be repaired or replaced, why was the project designated a "budget buster" by state transportation officials and scheduled for replacement in 2020?

And what about new engineering reports that differ dramatically with the NTSB findings? These reports indicate that the failure was not triggered by faulty gusset plates but by frozen bearings that did not allow the bridge to expand in the summer heat.

Nationwide, inspection programs are largely visual and typically subjective. And while technology exists that can measure subtle, unusual movements in bridges, spot cracks in steel before they are visible, and acoustically "listen" to bridges to identify changes in patterns and much more, few state transportation agencies employ these tools. These technologies cost relatively little and would save hundreds of millions of dollars annually if widely adopted. (Disclosure: One of the authors owns shares in a company that makes these instruments).

There are now 72,000 structurally deficient bridges nationwide, a figure inclusive of the 12,800 "fracture-critical" structures cited above. At the very least, the collapse should have spurred the NTSB to call upon every state with similarly designed bridges to take immediate steps to rectify their deficiencies.

Disturbingly, I-35W was not an isolated case: studies show that nearly 600 American bridges have failed since 1989.

Previous generations starved bridges of adequate maintenance funds. Today, that bill is coming due. America spends about two percent of our GDP on infrastructure. China spends 9 percent and most of Europe invests 4-5 percent.

According to House Appropriations Committee figures, the President's stimulus-focused infrastructure program allocates \$52.7 billion toward transportation-related projects. But this is largely a job stimulus program that aims to do relatively little about infrastructure repair and maintenance.

We are nowhere near investing the amounts needed to address our ailing infrastructure. In 2005, the American Society of Civil Engineers estimated the cost of bringing America's infrastructure up to standard at \$1.6 trillion. In 2009, the organization put the figure at \$2.2 trillion. The longer the delay, the higher the cost — and the higher the chance of another calamity.

As we mark the second anniversary of the Minneapolis tragedy, our public officials ought to honor the memory of those who died by taking proper steps to prevent future such disasters.

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Barry B. LePatner, Esq., is founding partner of LePatner & Associates, LLP, a New York City law firm that specializes in construction. He is the author of Broken Buildings, Busted Budgets: How to Fix America's Trillion Dollar Construction Industry, (University of Chicago Press, 2007) and the forthcoming book Roadblock: America's Failing Infrastructure and the Way Forward, to be published by the University of Chicago Press. Samuel I. Schwartz is president of Sam Schwartz Engineering, PLLC, a Professional Engineer and was New York City Department of Transportation Chief Engineer from 1986-1990. In 1988 he ordered the closing of the Williamsburg Bridge because of structural deficiencies.



#### **Twitter**

February 16, 2009 3,478,239 Visitors per Month

*Twitter* is a social networking site that allows members to keep in constant contact with each other through real time broadcasting, RSS feeds and controlled blogging known as "microblogging." The site receives approximately 3,478,239 visitors per month.

**Top Stories: Barry LePatner Stirs Up The Construction Industry** 

http://newsblaze.com/story/... about 15 hours ago from NewsBlaze

February 16, 2009



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Alan Gray

# The New York Times

#### The New York Times

March 28, 2009 August 24, 2009 Circulation 1,451,233

**The New York Times** is a daily newspaper with a circulation of 1,451,233.

By MICHAEL COOPER

Published: March 28, 2009

#### **Companies Pretty Up Prices to Win Stimulus Projects**

#### By MICHAEL COOPER

Department stores are marking down their spring collections. Broadway shows are offering discount tickets. Now road work is on sale, as well.

Construction companies, hungry for work in the dismal economy, have slashed their prices to try to win the first round of public works projects being paid for by the federal stimulus package.

Pennsylvania officials said contractors competing for their first round of road and bridge projects had offered bids 15 percent lower than the state had expected. Utah officials said some of their bids were coming in 25 percent lower than expected. And a bid to build a 4.7-mile extension of Interstate 49 from Shreveport, La., toward the Arkansas state line came in at \$31.1 million, about \$4.7 million less than the Louisiana Department of Transportation and Development had estimated the project would cost.

"The bids are coming in lower than we would have imagined," Transportation Secretary Ray LaHood said in an interview, adding that the low bids should provide good value to taxpayers. "I think there's a huge appetite for these projects, and people are raring to go. There's pent-up demand for people to get these bids and get the work."

If the low bids keep coming and the price of construction material stays low, the Utah Department of Transportation hopes to get more work done with the stimulus money than expected, said Nile Easton, a spokesman for the agency. "We're hoping that we can actually stretch that money," he said.

The low bids are the result of supply and demand: there are plenty of construction workers out there and not much demand for their work lately. Many construction operations suffered when residential and commercial building evaporated as the recession hit, and then again when public works tapered off as many states cut back. So they are eager to get back to work, even if it means they must charge less to do it.

Of course, the whole idea of the stimulus law was to pump a lot of money into the economy quickly. State officials said they would have no problem spending all the money they are

receiving from the federal government; if projects continued to cost less than expected, they added, they would simply tackle more of them.

"I think it's a good deal for taxpayers, and taxpayers need a good deal right now," Patrick Cooney, a spokesman for the Oregon Department of Transportation, said last week after coming back to work from a furlough day to save the state money.

Some argue that low bids should raise red flags. Barry B. LePatner, a construction lawyer, said that unless states performed independent estimates to find out the true costs of their projects, they risked awarding contracts to companies whose low bids did not reflect the true cost of the work. In such cases, he said, it is common for a company to try to undercut its competition with a low bid and then, once it has won the job, try to eke out a profit by putting in numerous change orders that drive up the price and delay the project.

"You have already started down the road to nowhere," said Mr. LePatner, whose book "Broken Buildings, Busted Budgets" argues that reforms are needed to curb the cost overruns that plague the industry.

States are gearing up to begin work now that spring and the construction season are at hand. By last week, 34 states had been given the go-ahead for nearly 1,000 projects worth \$3.4 billion, transportation officials said.

Officials in many states see the low bids as a sign that they are in a buyer's market. A few years ago transportation officials in Utah, concerned that there was little competition for their construction work, put together a team to try to entice more companies to bid for the jobs. Now, as the first stimulus projects get under way, they are getting a half-dozen bids for each job — and many are coming in at 25 percent below their estimates.

"Boy, it's a great time to be putting projects out," Mr. Easton said.

# For Cowboys Owner, Time to Go Back to the Video Drawing Board



Tom Pennington/Getty Images

The video screens at the new Cowboys Stadium, which the team owner, Jerry Jones, adores, meet the N.F.L.'s rules — five feet higher than required — but have created a headache. <u>More Photos ></u>

# By RICHARD SANDOMIR

Published: August 24, 2009

Since April, nearly \$3.5 billion in new stadiums have opened in New York and Texas. For that money, you'd think they'd be perfect expressions of modern sports architecture. But no. At Yankee Stadium, 1,048 seat dwellers in two outfield sections can't see into the outfield opposite their perches because of a protruding structure between them that accommodates the bleacher cafe and the Mohegan Sun Sports Bar.

Over at Citi Field, fans in some far-off outfield sections also have diminished views.

At Cowboys Stadium, the twin video boards that measure 72 feet high and 160 feet long, and nearly stretch from one 20-yard line to the other, hang too low.

In the stadium's first game, the high-definition boards proved to be an obstruction — to the ball. On Friday night during the third quarter of the Tennessee-Dallas preseason game, the Titans punter A. J. Trapasso doinked the bottom of a screen, 90 feet above the playing surface. Trapasso exposed a flaw in the Cowboys owner Jerry Jones's concept of a football game as a

live experience and a giant living-room set that can fit as many as 100,000 viewers.

"So it's like a do-over," Fox's Joe Buck said during the broadcast. "Like you're playing flag football or in your backyard. I'm sure those are words that Jerry Jones didn't want to hear tonight, that the ball hit the scoreboard."

Jones adores his screens. During a stadium tour last month, he told me that he views his Mitsubishi screens as the perfect incarnation of modern video technology ("They've got 30 million pixels"), the ideal marriage of football and television and a personal expression of his imprint on the stadium design ("The size I decided, literally figured with little models, saying this looks too dinky, that looks too much").

Now the N.F.L. is assessing how to prevent future screen-doinking. Jones's screens meet league rules — they hang five feet higher than required — but the league has never dealt with video boards of such size.

Mitsubishi Electric Diamond Vision built them "to the specificiations of the Cowboys and the N.F.L.," it said in a statement Monday. "The structure was in place and the height determined before our boards went in."

The league does not typically study stadium designs in advance but expects its teams to meet certain specifications. If problems arise, "we work with the club to resolve them," said Greg Aiello, an N.F.L. spokesman.

If only Jones had asked Ray Guy, the former Oakland Raiders punter, to vet the screens' altitude. At the Superdome in New Orleans during the 1976 Pro Bowl, Guy hit a television screen in a gondola about 95 to 100 feet high, mainly to prove that he could. If the game meant anything, he wouldn't have, he said.

"I was on the 2-yard line, 15 yards behind the center," Guy said Monday by telephone. "I looked up and Jim Tunney, the referee, who was a friend, said, 'You're going to try it,' and I said, 'Yeah.' "And he did. *Doink!* 

He said it would have carried over the screen if he'd kicked it from a slightly different angle. "It caught the screen going up," he said. It was ruled a do-over. He recalled that his next kick traveled 65 yards.

Four years later, as Oakland prepared to play Philadelphia in Super Bowl XV at the Superdome, Guy wanted to prove that the screen, still hanging from the gondola, was hanging too low for his powerful right foot.

"I hit it four times in practice because I was trying to make them raise it up," said Guy, who was known for his high kicks and long hang time. By game time, the screen was much higher, out of footshot.

If Jones asked him what to do with his 600 tons of video screens, Guy said he would say, "Raise them up because if you hit 'em, it can be a real turning point in a crucial game."

If the Yankees (who also have Mitsubishi screens, in the outfield) and the Mets had asked their fans to vet the designs that have limited some views, they might have curbed the ire about spending so much for new ballparks equipped with obstructions.

The Yankees were out to monetize the bleacher space that serves as the batter's eye even if it meant that making some parts of the field off-limits to fans' eyes. Mohegan Sun, which bought the naming rights to the sports bar, was not aware of the fan-unfriendly design.

The Mets were determined to create intimacy in their small, retro ballpark and knew that the design would sacrifice a complete view of the field for some of their fans.

Both ballparks were designed by different architects at Populous, the architectural firm formerly known as HOK Sport.

"The designers for these ballparks are all highly experienced," said Barry LePatner, whose law firm, LePatner & Associates, is construction counsel to corporations, institutions and developers. "They all know about physics and sight lines. The designs today preclude the need for obstructed

But if it's what the client wants, the architect will design it.

E-mail: sportsbiz@nytimes.com

views."



#### Care2

March 4, 2009 999,392 Visitors per Month

*Care2* is an Internet magazine that serves an online community of people passionate about making a difference. It features online petitions, an exclusive news network and unique tools to facilitate change. The site receives approximately 999,392 visitors per month.

# Can The Infrastructure Stimulus Package Work? 5 Things to Consider

US Politics & Gov't (tags: economy, obama, government, stimulus package, usa)



#### Sally

- 1 day ago - newsblaze.com

March 4, 2009

Construction expert Barry LePatner advises the U.S. government to take some very specific steps to avoid wasting infrastructure stimulus funds.

# Telegraph.co.uk

# The Daily Telegraph

September 10, 2009 Circulation 871,598

**The Daily Telegraph** is a daily newspaper in London. It has a circulation of 871,598.

## New Yorkers angry over delays in rebuilding World Trade Centre site

There is growing anger in New York over the sluggish pace of rebuilding at the World Trade Centre site as Barack Obama leads America today in commemorating the eighth anniversary of the September 11 terror attacks.

By Tom Leonard in New York Published: 5:06PM BST 10 Sep 2009

Six and a half years after ambitious and highly symbolic designs were unveiled for the devastated 16-acre site in lower Manhattan, a combination of political wrangling, financial rows, engineering complications and the economic downturn have meant there is little to show for all the talk of standing up to terrorism.

Only one of the five towers planned for the Ground Zero site has broken ground. The frame for the 1,776-foot so-called Freedom Tower is now several stories high but, humiliatingly for some, the landmark building has been renamed One World Trade Centre to make it more marketable to clients.

With New York facing a glut of office space, there is no firm date for the planned three office towers while the fifth building – a performing arts centre – has received neither a finished design nor financing.

Even the memorial to the 2,752 people who died after al-Qaeda hijackers flew two passenger jets into the Twin Towers has been dogged by delays.

Larry Silverstein, the site's developer has gone to an arbitrator to renegotiate his lease with the Port Authority, which owns the land, after months of negotiations.

Janno Lieber, who runs the project for Silverstein Properties, said further delays to the office towers "would really be a stain on New York's reputation and image".

Many fellow New Yorkers appear to agree. A poll last month by Quinnipiac University found that two thirds of local people think even the memorial – let alone any of the towers – will not be ready in time for the 10th anniversary in 2011.

A quarter of those polled said they felt "ashamed" by the slow progress – the highest number to give that answer since the question was first asked in 2006.

"We're getting fed up with the continual lack of progress at Ground Zero. And we think it's important that there be some signs of movement this year," said Maurice Carroll, director of the university's polling insistitute.

Sheldon Silver, the speaker of the New York Assembly, whose district includes Ground Zero, said the terrorists targeted America's business capital.

"We committed eight years ago that we were going to rebuild bigger and better than ever. If we're not going to do that, then we're sending a terrible message," he said.

"It has become increasingly clear that New Yorkers should be embarrassed by the debacle that is represented by the failure of government officials to have successfully rebuilt Ground Zero," said Barry LePatner, a New York construction lawyer.

"Unfortunately, the only conclusion that can be drawn from a careful study of their actions at this important site is an attitude that the public be damned."

But Chris Ward, executive director of the Port Authority, insisted work is now progressing, with around 1,000 workers on the site each day.

Employing some of the flowery language that surrounded the birth of the project, he said the site was no longer a "pit" but now a "sense of rebirth".

Mr Obama will mark the anniversary with a visit to the Pentagon, also targeted by the hijackers, where he will tour a memorial completed last year.



## **New York Daily News**

November 8, 2009 Sunday Circulation 603,671

*New York Daily News* is a daily newspaper serving the New York City and Long Island metropolitan area. It has a Sunday circulation of 603,671.

# Plans for security bunker at World Trade Center site still lacking

# BY <u>Douglas Feiden</u> DAILY NEWS STAFF WRITER

Sunday, November 8th 2009, 4:00 AM



#### Giancarli for News

Plans for a central command post to monitor security at Ground Zero are far from complete: The agency has no final design, no set budget, no opening date and no location, officials confirm.

Eight years after terrorists destroyed the <u>World Trade Center</u>, the Port Authority still hasn't figured out where to put its crucial security bunker, the Daily News has learned.

Plans for a central command post to monitor security at Ground Zero are far from complete: The agency has no final design, no set budget, no opening date and no location, officials confirm.

Known as the SWOCC, the <u>Site-Wide Operations Coordination Center</u> was supposed to safeguard the public against terror threats and provide day-to-day management for the nation's No.1 terrorist target.

The Authority's failure to find a home or fix a price for the facility means projects that must rely on it for security - including the <u>Freedom Tower</u> and the Transportation Hub - could bust their timetables and budgets, experts say.

"The threats are real, the security issues are monstrous, and the inability to locate or design something as critical as a security bunker is inexcusable," said Barry LePatner, a top construction lawyer and author of "Broken Buildings, Busted Budgets."

After five months of inquiries from The News, the Authority said it would open an interim SWOCC early next year at 115Broadway. Called the <u>Site Logistics Control Center</u>, it will serve as a "war room" and use 2-4/7 video monitoring to coordinate construction and security, the agency says.

<u>Spokesman Steven Coleman</u> said the agency "is partnering with the <u>NYPD</u> to make sure every inch of the site is safe and secure now and when the projects begin to open to the public in 2011."

Things are not as clear for the permanent facility, which is expected to house NYPD, <u>FDNY</u>, PAPD and counterterrorism personnel.

It has figured in every redevelopment plan considered for the site, and will be a monitoring post for power, fire, heating, communications, air quality systems and building maintenance, officials said.

One of its key tasks will be to help overcome communication breakdowns between agencies that occurred during the Sept. 11, 2001, attacks.

For more than three months, the Authority has rebuffed Daily News questions about the SWOCC. In the past six weeks, it began providing limited answers - only to change its story and contradict its own documents.

Examples of uncertainty over the security center include:

**Confusion over cost.** In September Authority spokeswoman <u>Candace McAdams</u> estimated the bunker's "preliminary budget" at \$70 million, promising a "refined" estimate by 2010 as plans are finalized.

By October, the agency had said that was wrong, there was no preliminary budget and cost estimates are still being developed.

Last week, the Authority said: "We do not have an exact estimate because we do not yet have a final site."

**Indecision over location.** The SWOCC was initially to be placed near the footprint of the south tower, below street level near the northwest corner of Greenwich and Liberty Sts.

That location, atop the PATH railroad tracks, was scrapped, insiders said. It's not clear why the bunker was moved. Proximity to the commuter train wasn't a factor, the Authority says, and it will put its property management office on the site instead.

"The NYPD has not objected, and did not previously object, to any of the sites proposed," said Deputy Police Commissioner Paul Browne.

"The specific location is still under discussion," the agency said.

**Doubt over timetables.** The Authority says the bunker's opening date is "to be determined." That would mean that early predictions of September 2013 and then September 2014 are flat-out inaccurate.

Those dates are just "placeholders" that are "not hard," agency officials said, adding, "Until we finalize the location and scope, it is too preliminary to establish a hard date."

dfeiden@nydailynews.com

With <u>Rocco Parascandola</u>



### The Commercial Observer

October 26, 2009 November 3, 2009 December 15, 2009 June 22, 2010

*The Commercial Observer* is regional real estate publication established in September 2009 and focuses on the commercial real estate market in New York City.

# Tranche Warfare By Jotham Sederstrom

October 26, 2009 | 5:54 p.m



SL Green took over leasing and management responsibilities at 100 Church Street in August after the Sapir Organization failed to pay \$85 million in loans.

It was a foreclosure auction that lasted a lightening-quick 10 minutes, but to many real estate experts who watched the proceedings, the acquisition of Boston's John Hancock Tower represented everyone's worst fear.

As it turned out, New Jersey-based Normandy Real Estate Partners had been quietly buying up debt on New England's tallest building since last June, shortly after its owner Broadway Partners—only two years ago one of New York and the nation's busiest tower buyers—defaulted on loan payments.

What real estate developers and senior lenders noted, however, was that for the first time in recent memory, a mezzanine debt holder had successfully pulled the rug from under a delinquent owner, on a grand scale.

"Without question," said FirstService Williams executive chairman Robert Freedman, who was not involved in the deal but observed the repercussions of the auction, held in Manhattan in March. "Depending on how much the asset value eroded, and which tranche was impaired, what this deal really did was usher in the era of tranche warfare. It's a harbinger of things to come."

Now, with mezzanine lending ground to a halt entirely in New York, debt holders, senior and junior, are gearing up for tranche warfare and, perhaps, bitter court battles in a bid to untangle the complicated financial web that has resulted due to the wave of troubled loans that are about to hit maturities.

An estimated \$100 billion in mezzanine loans are currently outstanding across the country, according to Jones Lang LaSalle. It's a relatively small percentage of the \$3.5 trillion in outstanding commercial mortgages nationwide, but industry experts say that could all change in the next few years or even next quarter.

"The default rate has been relatively modest," Mr. Freedman said. "It's only in the next cycle that we're going to be able to determine how the mezz debt players have actually fared in the market."

TO BE SURE, SOME of the biggest pre-recession developers, who scooped up property at the height of the market back in 2006 and 2007, are still entangled in loan repayments and other difficult default challenges. Chief among those battered developers was Harry Macklowe, who took out a \$275 million mezzanine loan from Vornado Realty Trust in 2003 to buy the iconic

GM Building on Fifth Avenue from Conseco, which he did for a record-shattering \$1.4 billion, the highest price ever paid at the time for an office building in the United States.

Although Mr. Macklowe successfully paid off the loan in 2005, another property buying spree two years later—just months before the market began to tank—required a pricey \$1.2 billion mezzanine loan from Fortress. The need to repay the hefty loan is what ultimately forced Mr. Macklowe to put the GM Building and several other high-end properties up for sale.

Mr. Macklowe—who still earns a profit on management fees at many of the buildings—paid down the Fortress deal late last year, analysts said.

More recently, New York's biggest office landlord, SL Green Realty, successfully took over leasing and management responsibilities at 100 Church Street in August after the Sapir Organization failed to cough up \$85 million in loans to the REIT and to Gramercy Capital. In a suit that has been closed, Sapir had alleged that SL Green had knowingly hindered its ability to finalize leasing deals.

"The mezzanine lenders are looking more like equity investors, and they're finding themselves in the position of having to defend their security interests," said Douglas Hercher, executive vice president and principal of Cushman & Wakefield. "They're not wondering whether they're going to get fully paid back; they're wondering if they're going to get paid back at all."

Many of the investment funds and real estate investment trusts that have acted as junior lenders in the past did not return calls for this article, an indication, said industry experts, that they either did not want to reveal their "loan to own" strategies or were simply weary of being cast as a villain.

Unsurprisingly, New York developers hit hardest by recent defaults, like Mr. Macklowe, did not return calls either.

"The anecdotes that go with these are painful for a lot of people, so you're going to have a hard time finding participants in the market that want to talk," said William Shanahan, a vice chairman at CB Richard Ellis. "It's sort of like watching someone die."

LePatner & Associates founding partner Barry LePatner, meanwhile, said mezzanine lending had all but dried up in the city, primarily because developers are now being required to put up as much as 50 percent equity in order to qualify for construction loans—a costly sum that becomes even more expensive when construction cost overruns are accounted for.

Mr. LePatner and other real estate executives added, however, that mezzanine lending would return, especially in growth sectors like education and the real estate—intensive health care industry, which is expected to satiate a need for more real estate as baby boomers age.

Real estate experts predicted that office investment funds like Beacon Partners, Shorenstein Properties and Tishman Speyer would all surface as mezzanine debt holders, while others, like the Blackstone Group, AREA Property Partners, Starwood Capital and Colony Capital, would continue to provide similar junior loans.

"If I'm a mezzanine lender, I'm thinking about what I'm going to do when I want to lend, or what's the best way to maximize my investment but minimize my risk," said Mr. LePatner. "You exist to lend money, so you go to the sectors of the economy where you can get the best returns on investment. You exist to lend."

jsederstrom@observer.com

### **THE SIT-DOWN**

## **On Building Blocks**

**Barry LePatner busts** construction myths, pitches fixes for 'dysfunctional industry'

### BY JOTHAM SEDERSTROM

The Commercial Observer: You've said that \$120 billion is wasted on

said that \$120 billion is wasted on unnecessary overrus every year. Where are those costs coming from and why is it happening? Mr. LePatner: As I laid out in Brocken Buildings, Busted Budgets, the little-known fact in our nation's business economy is that the construction industry is the most inefficient in our pation. It is a hugaly low. cient in our nation. It is a hugely lowprofit industry where contractors of any size are happy to make 3 percent any size are nappy to make 3 percent or 4 percent a year, taking great risk. It is comprised almost exclusively of mom-and-pop shops. There are no national construction firms who op-erate in every state and are like the Gap, Starbucks or another national company.

Why is that?

Because historically, the construction industry is the last industry that operates like a guild. It's small, it's localized, and except for the track industry—which only he small, it's localized, and except for the trash industry—which only be-came nationalized when waste man-agement bought up all of them—it's the last industry that's totally lo-cal. Today, the private-equity world doesn't look at the construction in-dustry as having long-term viability. I have predicted in my book that that will change in the wages about and will change in the years ahead, and we will start to see consolidation, but only when contractors under-stand the benefits of efficiency.

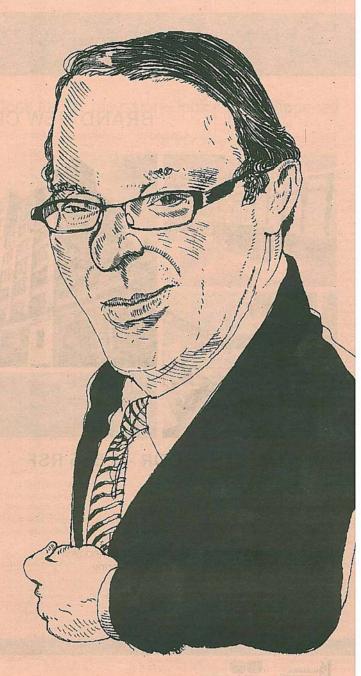
Is it that they don't understand how to be efficient, or that it's not profitable for them?

There's no one company that does the work on a project of any scale. If you take a school project or you take a major residential tower or you take a complex project like an airport, you'll have anywhere from 10 to 20 to 50 or more subcontractors who actually do the work. These literally are mom-and-pop companies. The work is every day pulling up in vans. They have no eq-

Why so many different subcontractors?

Essentially, where many years ago, maybe 50, 60, 70 years ago, the predominant way to build a large project was with a general contractor who worked regularly with masons, people who did the steel, people who poured the concrete, people who poured the concrete, people who put the roofs on, and they were like a family working on a few projects. The expansion of construction in this country, to where it's a \$1 trillion-a-year industry, exploded that single unit of dustry, exploded that single unit of construction into something called construction management, and the general contractor who really was a hands-on contractor became a concert master. That fracturalization has created uncertainty because the contractors know they are inefficient. They know that even if one or more are efficient, other subcontractors working on the job will not complete on time, and therefore the model became one of shifting risk to the owner, who has for the last 40 or more years been paying the price for that inefficiency.

Attorney Barry LePatner has represented some of the biggest developers in New York—the United Nations, Goldman Sachs, PiMorgan Chase, to name a few—but more recently he has carved himself a reputation as a so-called 'construction industry reform guru.' The 62-year-old Brooklym native spoke to The Commercial Observer about some of the city's biggest boordoggies; why developers don't know about some of the city's biggest boot doggles; why developers don't know the ins and outs of their own building projects; and his book, Broken Build-ings, Busted Budgets, which focuses on construction cost overruns.



### You've been called the 'guru of construction industry reform.' What does that mean?

What everyone in the industry would do when I would ask them a question about why the construction industry works the way it does, invariably people threw their palms up in the air and said, 'Barry, that's the way it's always been.' And it bothered me that nobody knew the answer. People knew their particular slice of how things were designed and built and financed. They understood their perspective, but had no clue on the larger scale. So mine was a personal exploration, and as I developed more and more of the information, we quickly understood that this was about a dysfunctional industry that operated unlike any other

'The construction managers, the big construction managers—and the medium-sized ones—whisper in an owner's ear that if you get started four months early, you'll be able to finish the project four months early. That is as phony as a \$16 bill.'

in the United States, and that gave me a perspective to speak out.

### Tell me about the overruns at the World Trade Center.

Well, the World Trade Center at ground zero is a tragedy that was written from day one, when the belief was that we were going to have a revival down there that would make all of us in New York, the United States and the world proud.

### When was day one?

Day one was when there was an announcement that they were going to have a whole series of public forums and hearings, where they wanted to hear from the public and invited world-class architects and engineers to come and talk about master plans. There was a belief that something new and exciting was going to come about, and it masked the realities of what New York City and New York State politics are really all about, and they're about power and real estate development. And I was very early in pointing out that they nev-

er give up power.

# Have you spoken to Larry Silverstein or the Port Authority about these issues?

I'm aware of the positions taken by the Silverstein Properties team. I'm aware [of], and have avidly read, a lot of the reports from the Port Authority, and I think that I'm on safe ground to say that both sides come to the issue with divided interests that will never be reconciled without someone—a ground zero czar—taking control; stopping the construction until they truly know what they're going to build; and then doing it on a true fixed-price basis that protects the public's dollars.

### Why are owners and developers so often unfamiliar with the construction process?

The construction managers, the big construction managers-and the medium-sized ones-whisper in an owner's ear that if you get started four months early, you'll be able to finish the project four months early. That is as phony as a \$16 bill, and to the thousands of people who I've spoken to and asked this question, they've all laughed hysterically when I say, 'Did you ever hear of a project that started four months early and finished four months early?' And depending on the size of the audience I'm speaking to, it's gales of laughter, because that is a true fiction. And every \$100 million loan that takes an extra month to complete adds \$1 million approximately in cost to that owner or

### Do people have a view of you as anti-

Oh, no! In fact, if you read the book, one of the major inquiries I made was, I wanted to know if work performed by union forces is prohibitively more expensive than nonunion. And one of the fascinating statistical researches I came across was, if there is a difference between the pricings, union and nonunion, for the workers it is minimal, because from an efficiency standpoint, the unions have apprenticeship programs which train young workers how to do the jobs more efficiently. So I dispel that very clearly and said this is a nonissue.

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Read last week's Sit-Down with Mark Jaccom and Robert Freedman of First-Service Williams at Observer.com/Commercial.

# Ask an Expert About ... Construction

Barry LePatner on contractors, litigation and other pleasantries of building in New York

er this month launched a new online feature called Ask an online feature called Ask an Expert About .... Readers submitted questions at Observer.com/Commercial to attorney Barry LePatner, an expert on construction. Below is some of the Q&A.

Tune in to Observer.com/Com-

Tune in to Observer.com/Commercial on Dec. 17 and 18
for Ask an Expert About
... the Under-\$100 Million Investment-Sales

Market. The expert? Robert Knakal, chairman of ert Knakal, chairman of Massey Knakal and *The Commercial Observer's* Concrete Thoughts columnist!

Q: What's holding up construction at ground zero? Does Larry Silverstein build all three of his towers? Why or why not?

A: More than eight years after 9/11, ground zero remains a political and construction quagmire. Even those directly participating in the project—involving over 100 different contractors, 19 public agencies and two embattled developers—readily acknowledge they see no

The Freedom Tower, taken back from Silverstein Properties by the Port Authority in 2006, is still being designed and is amazingly scheduled for completion in 2013. Other towers will not be started or completed until 2012-2016. The Memorial will not be finished until late in 2011.

The project is certain

short-term conclusion in sight.

to expend public funds involving billions of dollars in cost overruns.

It is, in short, a politi-

ASK AN EXPERT

cal nightmare. When the final numbers are calculated, ground zero will sadly rank as a bigger boondoggle than Boston's Big Dig.

doggle than Boston's Big Dig.

The answer? Impose a moratorium on all ground zero work until the completion of final design drawings encompassing the transportation hub, the retail component and the Freedom Tower, not to mention the oft-neglected Performing Arts Center, designed by Frank Gehry. Then, to bring this iconic site to a certain conclusion, require fixed-price contracts that ensure guaranteed completion dates, with contractors assuming all risks associated with cost



overruns or delays.

Q: Given the construction layoffs recently in New York, do you
think this will spur unions to relax
pay and work demands? Unions
are a big part of the higher costs
of construction in New York, no?

trade councils representing union members entered into an agreement designed to cut costs as much as 21 percent on large commercial projects. Real estate developers were not impressed.

Steven Spinola, president of the Real Estate Board of New York, said,

A: Last May, the several building

"It doesn't go far enough." He also said savings may be only between 3 percent and 8 percent, according to published reports.

The effort of contractors, who have lost over one million jobs nationwide during the downturn, is misguided. Contractors often bid at or below cost against each other for projects. After winning the contract with a "low bid," they are effectively counting on making numerous change-order claims during construction for "unanticipated" problems. The hope is to drive up the final construction cost to ensure a modest profit.

As we have seen from the construction projects under the U.S. government's stimulus plan, bids that are awarded up to 28 percent below anticipated costs will lead to one of two results: either the contractors run out of money during the project and must abandon it, or they turn to the public or private owners and demand more money. The owner is then left to either fire the contractor and hire others to complete the work, or pay extortionate monies to see the project through to completion. A sorry prospect either way.

# THE COMMERCIAL OBSERVER

**JUNE 22, 2010** 

### THE OP-ED PAGE

# How to Fix Our Infrastructure—Before It's Too Late Several steps to avoid India's fate

merica's infrastructure is crumbling around us. And the warning signs flash all the way from India to here. Because of that country's size and population, moving commerce and travelers around the subcontinent poses major challenges. Unfortunately, India's 40,000-mile rail network is over 150 years old. Intercity rail traffic often exceeds 120 percent of capacity, moving at a glacial pace to preserve tracks wearing out faster than designed.

In America, we are fast approaching a simi-

lar crisis that is little understood by the public or most governmental officials. Bridges average 50 years in age, their typical intended life span. Metropolitan area drivers spent 4.2 billion hours—nearly a full week per motorist—delayed in traffic in 2007. Congestion costs our nation an unbelievable \$78 billion annually!

Yet we will soon spend billions of stimulus dollars on infrastructure repair without knowing how best to improve a failing system. Remediation will cost more than \$2.2 trillion, money that is unbudgeted amid today's financial plight.

To address these problems, we must build and rebuild on a massive scale. But America is burdened with an inefficient construction industry that is just as broken as the infrastructure itself. Forty-eight billion dollars in stimulus money went toward construction of roads and bridges, notwithstanding an industry whose inefficiencies totaled \$120 billion in 2007.

By overhauling the way the construction industry operates, before spending billions more on infrastructure, we can make improvements that benefit Americans for generations to come.



Barry LePatner Guest Columnist

Some solutions include:

 Enact reforms to avoid another Big Dig. Boston's Big Dig is history's most expensive highway project. Its original 1985 budget was just over \$2 billion. The real cost will reach \$22 billion.

The Big Dig epitomizes everything wrong with America's broken construction industry. We cannot afford overruns of 20 percent, 30 percent or more. We cannot afford the waste triggered by contractor inefficiency.

Construction is America's least productive industry. The average project wastes up to 50 percent of its total labor cost. Taxpayers cannot squander a hundred billion on poor job performance. Yet fixed-priced contracts would save billions.

Construction contracts should (1) be based on 100 percent complete architectural and engineering drawings; (2) include fixed prices for everything designed and approved by the jurisdiction; and (3) fairly apportion anticipated construction-related risks among all parties.

 Create a national clearinghouse and database, accessible to state transportation agencies and the public. The database would identify all infrastructure-related design and construction issues. A similar, federal database would alert state transportation departments of any bridge failure nationwide, and include methodologies for remediation, such as issuing maintenance alerts for America's 600,000 bridges.

With broad public access to this information, state transportation engineers could take preventive action sooner, reduce traffic on unsafe bridges and boost official accountability. Evidence shows that publicizing infrastructure problems can trigger protective action.

- Expand efforts to inform and protect citizens. One in four bridges is either "structurally deficient" or "functionally obsolete." States must inform citizens about structural deficiencies—and develop remedial strategies within six months after a bridge is deemed "structurally deficient." The public should receive annual remediation progress reports and be alerted if repair funds are not provided within 18 months.
  - Address the shortage of civil and structural engineers. These professionals are trained in advanced inspection and remediation methodologies. But the lack of state engineering specialists—positions downsized by budget cuts—prevents adequate safety assessments.

State transportation departments must increase compensation to hire and retain engineers to stem their exodus to private industry. Reducing long-term maintenance costs rests with these engineers' valued experience.

Invest in technologies that im-

prove accuracy. By the time cracks appear, bridge remediation costs have skyrocketed. Even visual inspections are not totally reliable in detecting cracks.

Technology exists to anticipate bridge remediation years before rust, corrosion and cracks appear. States can save millions by purchasing this equipment and training inspectors to use it.

Construction contracts should (1) be based on 100 percent complete architectural and engineering drawings; (2) include fixed prices for everything designed and approved by the jurisdiction; and (3) fairly apportion anticipated construction-related risks among all parties.

he financial crisis has forced us to scrutinize our priorities. Thankfully, the Obama administration has made infrastructure repair a priority, understanding that a safe infrastructure is key to our prosperity.

Considering the scale of work required, our scarce infrastructure funds must be used wisely. But if we allow the construction industry to keep conducting "business as usual," we will end up needlessly wasting billions of taxpayer dollars.

Let India's precarious and deteriorating infrastructure serve as a warning for the United States. By taking the strategic steps outlined above, America can intelligently rescue our roads, rails and bridges—before it is too late.

Barry B. LePatner, founding principal of LePatner & Associates LLP, is a corporate construction counsel to owners and the author of Broken Buildings, Busted Budgets: How to Fix America's Trillion Dollar Construction Industry (University of Chicago Press, 2007). His new book, Too Big to Fall: America's Failing Infrastructure and the Way Forward, will be published this fall by the University Press of New England.

### THE INDIANAPOLIS STAR

### The Indianapolis Star

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### An ailing process?

**BYLINE:** By, Ted Evanoff

SECTION: BUSINESS; Pg. A14

**LENGTH:** 1288 words

J.R. Gaylor says the public loses big bucks on major government building projects because they shut out nonunion contractors.

Experts disagree.

At the heart of the issue is the decades-old use of project labor agreements that require contractors on most major projects to negotiate with union officials, recognize union benefits and generally abide by collective-bargaining agreements.

Gaylor has been opposing PLAs for years as president of Associated Builders and Contractors, an Indiana trade group representing nonunion firms.

He is raising his voice a little louder this year as officials prepare to award contracts for the \$754 million Wishard Memorial Hospital complex in Indianapolis under such an agreement.

Gaylor and other nonunion contractors argue that the agreements limit competition and drive up construction costs.

As evidence, Gaylor points to the fact that earlier this month only five contractors bid for the contract on the \$30 million parking garage planned for Wishard.

For Gaylor, the fact that only a handful of contractors bid during a recession that is starving the construction industry for work shows a bid process gone awry.

"By limiting competition, you don't get the competitive bids," Gaylor contends.

Ten or 12 bidders could drive down the price, Gaylor argues, but the bid process thwarts competition and, he claims, costs taxpayers millions of dollars on expensive projects.

Several experts on the nation's construction industry say no data support Gaylor's contention that PLAs drive costs higher.

"There is real waste in construction, but anyone who wants to focus on labor costs or unions is misguided and doesn't understand the inefficiencies of this industry," counters New York real estate lawyer **Barry LePatner**, author of the 2007 book "Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry."

An extensive study by the U.S. General Accountability Office, an investigatory arm of Congress, concluded in 1998 that it was impossible to measure the PLAs' impact on cost.

One reason: Pay is a minor share of the cost of a multistory building. And pay is not set by the PLA. In Indiana, a state law generally gears wages for construction workers on public projects to the prevailing rate, which is usually close to union scale. Those wages would persist even without a PLA.

LePatner, whose firm represented electric utility ConEdison in negotiations for constructing the building going up on the site of the World Trade Center, claims few contractors are skilled at concrete buildings. One task: properly tuning the steel tendons embedded in the concrete.

"Parking structures are prone to huge amounts of problems if not constructed properly," LePatner said. "They are usually built by specialists."

Indeed, Wishard officials are sanguine. "There is plenty of competition for this garage," said Matthew Gutwein, chief executive officer of the Marion County Health and Hospital Corp., owner of the 315-bed hospital. "When we bid smaller jobs at Wishard, we often have only two or three contractors bidding for the work."

Wishard received bids from F.H. Paschen of Chicago, Tonn and Blank of Michigan City, F.A. Wilhelm Construction of Indianapolis and Walsh Group of Chicago. The fifth bid, from Hunt Construction of Indianapolis, came late and was not accepted.

"I don't know who didn't bid on that structure who otherwise would have," said Larry Roan of F.A. Wilhelm.

Gaylor insists PLAs reduce competition. For years, he has kept vigil. His letters in The Indianapolis Star routinely protest PLAs. For a quarter of a century, PLAs have governed billions of dollars of public expenditures throughout Indiana.

PLA-covered buildings include the 1983 Hoosier Dome, as well as the \$730 million Lucas Oil Stadium, the \$1.1 billion midfield terminal at Indianapolis International Airport, the \$275 million Indiana Convention Center expansion and the \$103 million Central Library expansion.

Private companies use PLAs, too, including owners of the \$93 million Conrad Hotel, the \$50 million Simon Group headquarters, the \$700 million Toyota Princeton truck plant and the \$425 million Marriott hotel complex going up next to the convention center.

PLAs are justified, say owners of buildings that take years to construct. First, the agreements lock in wage rates and work rules in one negotiation. And they exclude no specialized nonunion trades performing unique tasks such as cleaning surgical suites.

More importantly, strikes and walkouts are barred for trade unions on the construction site while the agreement is in place. This keeps construction on a set timetable. It means a crew can't legally walk off if it has a gripe or strike if the labor contract with its own employer expires during the time the PLA-covered building is going up.

In signing the PLA, a contractor agrees to follow union job rules and provide full fringe benefit payments to union-operated health and welfare funds. Firms that normally don't employ union crews can sign the PLAs, although the last point, regarding benefit payments, can irk employers. Gaylor said some unions insist the employer continue the benefit payments at the union scale after the PLA project has been completed.

According to the GAO report, prepared in 1998 for U.S. Rep. Pete Hoekstra, R-Mich., project agreements trace to 1938 for construction of the Grand Coulee Dam in Washington. By the 1990s, PLAs were prevalent in cities throughout the nation.

From 1993 to 1998, according to the GAO report, 25 public projects in nine states were challenged on grounds that their PLAs violated competitive procurement laws. Courts upheld 17 of the PLAs and invalidated eight of them.

None of those was in Indiana. PLAs also have been an issue in federal government projects, pitting business interests against labor unions.

After President Barack Obama took office, he issued an executive order backing PLAs on large-scale federal construction projects. Obama's order restores a Clinton administration order that was revoked by President George W. Bush.

In Indianapolis, both Republican and Democratic administrations have allowed PLAs. A spokesman for Indianapolis Mayor Greg Ballard did not offer a response to questions about the mayor's feelings on the PLA used for the Wishard project.

PLAs have helped maintain a construction force that is unionized, although it is not predominantly union. While about 8 percent of all 900,000 jobs in the metro area are unionized, the share in the building trades is far higher.

Looking at metro Indianapolis, Anderson and Columbus, 21.7 percent of the 38,000 construction workers employed in 2008 in those areas belonged to unions, up from 15.1 percent in 2006, according to research by labor economist Barry Hirsch of Georgia State University.

Gaylor said he has no problem with private companies using all those union workers.

"Where we draw the line is public projects where we have public dollars from taxpayers funding it," Gaylor said. "On those projects, we think all parties should have an equal opportunity."

But even if PLAs were disbanded, LePatner, the New York lawyer who represents owners on construction projects, doubts the costs would fall.

The real culprit, he maintains, is cost overruns permitted by a fast-track construction timetable used in almost every city. Even before architects have completed their designs, contractors are starting to build, a process that leads to relentless change orders, driving up the price tag by 10 percent on average.

"In every stripe of project in this country and around the world, the overruns are unbelievable," LePatner said, "and they are unwarranted."

The Associated Press contributed to this story.

Call Star reporter Ted Evanoff at (317) 444-6019.

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### **Edutecture**

January 2010

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### **CONSTRUCTION**

The construction industry today is far from a model of performance and sustainability. A 1996 NIST report itemizes waste and inefficiencies in cost, schedules, and related factors in the range of 50%! In his book *Broken Buildings, Busted Budgets*, written ten years later, Mr. Barry Lepatner asserts that up to 68% of the time expended on construction sites is non-productive! Sadly, annual construction industry casualties in the United States have exceeded 1,000 in recent years.

Common, time-honored project delivery practices tend to filter information rather than accumulate it. Time and costs mount as each participant is compelled to interpret, crosscheck, coordinate, and reformat information every time it changes hands. When a construction project is closed out, heaps of this disorganization are dumped on owners in hopes that they will release the retainage and not notice that much is erroneous, incomplete, or irrelevant.

A typical construction project entails thousands of construction documents and information sets, each consuming precious hours and days with little or no proportionality to the performance objectives identified during project conception.

Aggravating these industry-wide issues, educational projects in particular are notorious for flurries of hastily drafted addenda change orders during the last weeks of construction, as the gap between the project conception stakeholders and actual project occupants becomes widest.

Despite these known shortcomings, too many school construction projects lack even basic quality assurance and quality control mechanisms.

Constructability reviews can be highly valuable exercises before construction commences.

Substitutions can be particularly onerous detours from quality and performance.

Generic contractor and manufacturer warranties can actually increase owner exposure to risk and

loss.

Exterior wall mock ups and building envelope commissioning offer demonstrable value added.

General commissioning could be the most valuable construction activity of all.

Building codes and sustainability rating systems are only recently beginning to address construction industry shortcomings with mandatory inspections and commissioning protocols.

Completion of construction is normally perceived to be an ending, but this period provides a unique opportunity to establish a firm foundation for proactive facility management with:

- Operation and Maintenance Data
- Record Documents
- Demonstration and Training
- Start up logs
- Final Site Survey
- Energy Management Plan (EMP)
- Document of Design Intent (DDI)
- Spare parts

For the facility manager, it will be a long, long time before another opportunity arises to accumulate such a treasure.



### Ocala.com

March 29, 2009 196,864 Visitors per Month

*Ocala.com* is an online news publication in Ocala, FL that receives 196,864 visitors per month.

By MICHAEL COOPER

Published: March 29, 2009

### **Companies Pretty Up Prices to Win Stimulus Projects**

By MICHAEL COOPER

Department stores are marking down their spring collections. Broadway shows are offering discount tickets. Now road work is on sale, as well.

Construction companies, hungry for work in the dismal economy, have slashed their prices to try to win the first round of public works projects being paid for by the federal stimulus package.

Pennsylvania officials said contractors competing for their first round of road and bridge projects had offered bids 15 percent lower than the state had expected. Utah officials said some of their bids were coming in 25 percent lower than expected. And a bid to build a 4.7-mile extension of Interstate 49 from Shreveport, La., toward the Arkansas state line came in at \$31.1 million, about \$4.7 million less than the Louisiana Department of Transportation and Development had estimated the project would cost.

"The bids are coming in lower than we would have imagined," Transportation Secretary Ray LaHood said in an interview, adding that the low bids should provide good value to taxpayers. "I think there's a huge appetite for these projects, and people are raring to go. There's pent-up demand for people to get these bids and get the work."

If the low bids keep coming and the price of construction material stays low, the Utah Department of Transportation hopes to get more work done with the stimulus money than expected, said Nile Easton, a spokesman for the agency. "We're hoping that we can actually stretch that money," he said.

The low bids are the result of supply and demand: there are plenty of construction workers out there and not much demand for their work lately. Many construction operations suffered when residential and commercial building evaporated as the recession hit, and then again when public works tapered off as many states cut back. So they are eager to get back to work, even if it means they must charge less to do it.

Of course, the whole idea of the stimulus law was to pump a lot of money into the economy quickly. State officials said they would have no problem spending all the money they are

receiving from the federal government; if projects continued to cost less than expected, they added, they would simply tackle more of them.

"I think it's a good deal for taxpayers, and taxpayers need a good deal right now," Patrick Cooney, a spokesman for the Oregon Department of Transportation, said last week after coming back to work from a furlough day to save the state money.

Some argue that low bids should raise red flags. Barry B. LePatner, a construction lawyer, said that unless states performed independent estimates to find out the true costs of their projects, they risked awarding contracts to companies whose low bids did not reflect the true cost of the work. In such cases, he said, it is common for a company to try to undercut its competition with a low bid and then, once it has won the job, try to eke out a profit by putting in numerous change orders that drive up the price and delay the project.

"You have already started down the road to nowhere," said Mr. LePatner, whose book "Broken Buildings, Busted Budgets" argues that reforms are needed to curb the cost overruns that plague the industry.

States are gearing up to begin work now that spring and the construction season are at hand. By last week, 34 states had been given the go-ahead for nearly 1,000 projects worth \$3.4 billion, transportation officials said.

Officials in many states see the low bids as a sign that they are in a buyer's market. A few years ago transportation officials in Utah, concerned that there was little competition for their construction work, put together a team to try to entice more companies to bid for the jobs. Now, as the first stimulus projects get under way, they are getting a half-dozen bids for each job — and many are coming in at 25 percent below their estimates.

"Boy, it's a great time to be putting projects out," Mr. Easton said.



### **Agence France-Presse**

September 10, 2009

Agence France-Presse is a syndicated international news service that is headquartered in Paris. It serves thousands of radio, TV, magazine, newspaper and company subscribers around the globe. Journalists are based in 165 countries providing top quality international service tailored for the specific needs of clients in each region.

### New York to pay 9/11 tribute at vacant Ground Zero

**BYLINE:** Luis Torres de la Llosa

**LENGTH:** 438 words

### **DATELINE:** NEW YORK, Sept 10 2009

New York will lead tributes Friday to victims of the 9/11 attacks in a ceremony at Ground Zero where work on replacements for the World Trade Center, and even a memorial, remains mostly stalled.

On the eighth anniversary of the September 11, 2001 attacks by Al-Qaeda militants riding hijacked airliners, mourners will remember the 2,752 people who died in the destruction of the Twin Towers in Manhattan.

They will also mourn those who died in the attacks just hours later on the Pentagon outside Washington and on a fourth plane, which crashed in Pennsylvania after the passengers overpowered the hijackers.

Mayor Michael Bloomberg and other officials will attend the now annual ritual at Ground Zero, when every name is read out and moments of silence mark key events, such as the impact of the two hijacked planes, and the collapse of the towers.

Powerful lights will send beams skyward from the site at nightfall.

Despite a deep desire to properly remember the tragedy, constant financial and legal wrangling has slowed work on replacing the enormous Twin Towers to a snail's pace. The financial crisis and downturn in the real estate market have made speedy renewal of the neighborhood even less likely and frustration is rising.

"It has become increasingly clear that New Yorkers should be embarrassed by the debacle that is represented by the failure of government officials to have successfully rebuilt Ground Zero," **Barry LePatner**, a construction attorney, said.

"Unfortunately, the only conclusion that can be drawn from a careful study of their actions at this important site is an attitude that the public be damned."

In theory, five new skyscrapers are planned, with a park and memorial in the middle, and a transport hub. But many now think that there is no market for all five towers. For now, the site strikes casual observers as merely a large hole, although work on foundations of several key elements is well underway and the frame for the future Freedom Tower is rising.

A poll last week by Quinnipiac University found that two thirds of New Yorkers think even the memorial will not be ready in time for the 10th anniversary in 2011.

"They don't expect to have any part of Ground Zero ready by the tenth anniversary," Maurice Carroll, director of the university's polling institute said.

"We're getting fed up with the continual lack of progress at Ground Zero. And we think it's important that there be some signs of movement this year," Carroll added.

According to the poll, 25 percent of New Yorkers said the slow pace made them "ashamed," the highest number to give that answer since it was first asked in 2006.



### AmericanTowns

July 17, 2008 March 6, 2009 147,448 Visitors per Month

**American Towns.com** is a daily general editorial e-zine that provides news and information on a number of towns and cities across America. It allows users to share information about their neighborhoods by posting business updates, school news, community calendars, sports events and more. The site receives approximately 147,448 visitors per month.

### Can the Infrastructure stimulus Package Work? 5 Things to Consider

category: Schools and Libraries posted: March 6th, 2009

**New York, NY**---Economic stimulus plan funds will soon be distributed to projects and programs across the nation, and without a doubt opinions on the matter are mixed. One definite high note is that the legislation—which includes around \$48 billion in infrastructure transportation spending on everything from a high-speed rail service to highway projects to public transportation and intercity rail projects—finally recognizes that our nation's infrastructure is crumbling around us.

But according to construction attorney Barry LePatner, the government had better look before it leaps. Why? Because the legislation authorizing the distribution of this massive funding program assumes that the dollars spent on these projects will be efficiently utilized by a construction industry that is just as broken as the infrastructure it's charged with building and repairing.

"We've already seen what can happen when the government pumps money into broken industries without properly monitoring how it's used: billions of taxpayer dollars are wasted," says LePatner, coauthor of Structural & Foundation Failures (McGraw-Hill, 1982, coauthored with Sidney M. Johnson, P.E.) and author of Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry(The University of Chicago Press, October 2007, ISBN-13: 978-0-226-47267-6, ISBN-10: 0-226-47267-1, \$25.00).

He speaks, of course, of the "bailout" money poured into America's financial and automotive industries—industries whose inept and inefficient ways have, to date, prevented the funds from benefitting the American people. And he insists that, sadly, the construction industry is no better. In fact, as amazing as it may seem, it could be even worse!

"When you give money to an industry that, according to recent studies, wastes upwards of \$120 billion a year, and don't take the steps necessary to ensure it's used wisely, you are going to end

up once again with no ROI," he warns. "That's the stark reality. And for taxpayers already saddled with a terrible economy and a crushing mountain of national debt, this is bad news indeed."

The construction industry's woes are at the center of LePatner's latest book. In it he lays out the industry's biggest problems: rampant cost overruns and missed (in some cases by several years) project deadlines. Grim as it may sound, he predicts that the construction industry will fritter away the \$48 billion allotted on projects that may well get underway—but will be abandoned before they're ever finished.

"To advance billions in infrastructure funds for needed roads and bridges only to find we run out of money before they are completed is totally wasteful," says LePatner. "The amount of money being doled out for these projects is finite. Once it's gone, it's gone. Unfortunately, it's highly likely that it will be wasted, and we will end up with a nation of under-maintained highways and byways and useless, only partially completed bridges and roads. Frankly, before infrastructure repairs can be made in a cost-effective and efficient way—both crucial for the current state of the nation—the construction industry must make more than a few repairs of its own.

"The government, too, should do its part to ensure there is adequate protection against this waste in the accountability provisions of the stimulus plan," adds LePatner. "Without a true fixed-price structure for all construction projects that shifts the risk for inefficiency and waste to the construction industry, our government will be back footing the bill for an additional tens of billions of dollars within a few years."

LePatner offers a few steps he would like for the nation's governing bodies to make beforethe infrastructure money is pumped into project contracts:

Create an Infrastructure Czar position. The current stimulus legislation proposes to set up oversight by an Accountability and Transparency Board composed of a chief performance officer and six members designated by the President, including inspectors general and secretaries of the Education, Energy, HHS, Transportation, and other federal departments. But according to LePatner, it's unlikely that any of these officials have a true grasp of the inefficient way the construction industry operates or how to address them in future contracts. In order for these project negotiations to be mediated properly, he advises, the President should create an Infrastructure Czar position.

"The Czar should be a savvy construction expert who did not emanate from the construction industry but who is familiar with the low bid/change order process that consistently drives up costs on construction projects," he explains. "This individual must know how critical it is to avoid traps like the fast-track process or guaranteed maximum price traps that never truly guarantee the contract price. A construction expert of this kind will help close the information gap that will likely exist between construction contractors and the policymakers trying to negotiate government contracts."

Make fixed-price contracts mandatory. In a seemingly helpful provision, the stimulus legislation calls for contracts "to the maximum extent possible" to be awarded as fixed-price contracts

through competitive procedures. Unfortunately, that appears to be the extent of what the government understands as being protective of the federal dole.

"One merely needs Google the phrase 'construction cost overruns' to begin to realize the enormous proportions of the waste our country has been dealing with for decades," says LePatner. "Fixed-price contracts on these projects are an absolute must. Without them, contractors will use change orders and delay claims to drive up the costs of these crucial infrastructure projects. In order to obtain these fixed-price contracts, the government should also require that contractors create their bids based on 100 percent complete documents from the architects and engineers. Otherwise, it will be impossible to estimate the true scope of these projects."

Invest some stimulus money in advanced technologies. Consider this fact: By the time cracks appear in the structure of one of the nation's bridges, the costs for remediation have skyrocketed. That is why some of the money being allocated for infrastructure projects should go toward purchasing new technology that can help state governments and the federal government save money down the road.

"Technology exists to anticipate bridge remediation years before rust, corrosion, and cracks appear," notes LePatner. "We 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."

Create stipulations aimed at avoiding wasted labor costs. The construction industry, now at the crossroads of so many needed projects and potential revival of our jobless situation, has a very bad (though not widely known) reputation for waste. Shockingly, some 50 percent of all labor costs of a project are lost due to late deliveries, poorly coordinated subcontractors, and other circumstances that regularly prevent employees from engaging in productive onsite work. These inefficiencies spring, in part, from the "mom and pop" nature of the businesses involved. But it is also a function of the industry's minimal use of technology, its lack of capital resources, and the fact that productivity per worker has gone down over 22 percent over the past forty years.

"In order to combat this problem, stipulations must be placed in the government contracts awarded," insists LePatner. "Contracts must require that skilled, experienced onsite construction representatives with in-depth knowledge, who can oversee not only quality but the true cost for the work, are retained for these projects."

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 back 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 payoff 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 \*\*\*\*\*\* 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," says LePatner. "Going forward, as infrastructure projects proceed with only limited funding, our nation cannot afford to face cost overruns of 20 percent, 30 percent, or more. There are no available funds to finish projects facing contractor overruns due to the industry's inefficiencies. The industry itself will have to be reformed before we can start making progress on repairing the nation's infrastructure."

"The government is about to embark on what is essentially bailout #3," says LePatner. "Obviously, the last two were less than successful. They'd better get this one right, or public trust will be irrevocably damaged. This stimulus plan should be handled with a lot of transparency and follow through—two characteristics the construction industry, the most inefficient industry in our nation, isn't known for.

"When you consider the huge number of projects that must be completed in order to restore America's infrastructure, it is clear that measures must be taken to ensure that money allocated for infrastructure projects is used wisely and for the betterment of the nation," he adds. "Our government must ensure that infrastructure project contracts are all undertaken with true fixed-price contracts that pass the risk for poor performance onto the contractors who fail to complete them on time and on budget. Our leaders' credibility, not to mention our nation's future safety and viability, depends on it."

### **About the Author:**

Barry B. LePatner is the founder of the New York City-based law firm LePatner & Associates LLP. For three decades, he has been prominent as an advisor on business and legal issues affecting the real estate, design, and construction industries. He is head of the law firm that has grown to become widely recognized as one of the nation's leading advisors to corporate and institutional clients, real estate owners, and design professionals.

Mr. LePatner is widely recognized as a thought leader in the construction industry. A November 2007 Governing magazine article stated, "If there's a guru of construction industry reform, it's LePatner." In an article entitled "Building a New WPA," appearing in the November 24, 2008, issue of New York magazine, he was referred to as "a Cassandra of infrastructure." And an article on Infrastructurist.com entitled "Trillion-Dollar Barry: One Man's Quest to Keep America Solvent" states that Mr. LePatner has been hailed as "a leading expert on the construction industry."

His latest book, Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry (The University of Chicago Press), which was reviewed in the Wall Street Journal, has created a national debate among owners, designers, and other key stakeholders. Mr. LePatner has been featured in BusinessWeek, the Boston Globe, the New York Times, Crain's New York Business, the Chicago Tribune, and other prestigious publications. His articles and speeches on the perilous state of our nation's infrastructure have garnered him widespread attention. He has appeared on many television and radio broadcasts, including a CNBC appearance and several National Public Radio segments.

A nationally recognized speaker, Mr. LePatner has addressed audiences on topics central to trends affecting the real estate and construction industry at events throughout the country for audiences including contractors, architects, engineers, construction technology experts, economic experts, and other construction industry thought leaders.

Mr. LePatner has written extensively and is widely quoted in the media on the subject of construction law. He previously co-authored the legal sections of the Interior Design Handbook, McGraw-Hill 2001, and Structural & Foundation Failures: A Casebook for Architects, Engineers & Lawyers, McGraw-Hill1982, with Sidney M. Johnson, P.E. Mr. LePatner is currently writing a new book that takes a look at what needs to be done to rebuild the nation's infrastructure. To be published early in 2010, it will address our decades-old failure to redress our deteriorating roads and bridges and will offer insightful recommendations on how to finance and build this critical part of our nation's backbone.

In 2007 and 2008 Mr. LePatner was selected as a Super Lawyer by the publisher of Law & Politics magazine. In 2002, Mr. LePatner received an Honorary AIA Membership. He is also currently on the Board of Trustees of the Design Industries Foundation Fighting AIDS (DIFFA). He has also served on numerous advisory committees including: the Advisory Board, Society for Marketing Professional Services; the Board of the New York Building Congress; Board of Advisors, Legal Briefs for the Construction Industry; American Institute of Architects Advisory Committee; and the National Academy of Sciences.

### **About the Book:**

Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry (The University of Chicago Press, October 2007, ISBN-13: 978-0-226-47267-6, ISBN-10: 0-226-47267-1, \$25.00) is available at bookstores nationwide, from major online booksellers, and direct from the publisher at <a href="https://www.press.uchicago.edu">www.press.uchicago.edu</a>.

For more information, please visit www.brokenbuildings.com.



### Herald Tribune (Sarasota, FL)

March 29, 2009

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By MICHAEL COOPER

Published: March 29, 2009

### **Companies Pretty Up Prices to Win Stimulus Projects**

By MICHAEL COOPER

Department stores are marking down their spring collections. Broadway shows are offering discount tickets. Now road work is on sale, as well.

Construction companies, hungry for work in the dismal economy, have slashed their prices to try to win the first round of public works projects being paid for by the federal stimulus package.

Pennsylvania officials said contractors competing for their first round of road and bridge projects had offered bids 15 percent lower than the state had expected. Utah officials said some of their bids were coming in 25 percent lower than expected. And a bid to build a 4.7-mile extension of Interstate 49 from Shreveport, La., toward the Arkansas state line came in at \$31.1 million, about \$4.7 million less than the Louisiana Department of Transportation and Development had estimated the project would cost.

"The bids are coming in lower than we would have imagined," Transportation Secretary Ray LaHood said in an interview, adding that the low bids should provide good value to taxpayers. "I think there's a huge appetite for these projects, and people are raring to go. There's pent-up demand for people to get these bids and get the work."

If the low bids keep coming and the price of construction material stays low, the Utah Department of Transportation hopes to get more work done with the stimulus money than expected, said Nile Easton, a spokesman for the agency. "We're hoping that we can actually stretch that money," he said.

The low bids are the result of supply and demand: there are plenty of construction workers out there and not much demand for their work lately. Many construction operations suffered when residential and commercial building evaporated as the recession hit, and then again when public works tapered off as many states cut back. So they are eager to get back to work, even if it means they must charge less to do it.

Of course, the whole idea of the stimulus law was to pump a lot of money into the economy quickly. State officials said they would have no problem spending all the money they are

receiving from the federal government; if projects continued to cost less than expected, they added, they would simply tackle more of them.

"I think it's a good deal for taxpayers, and taxpayers need a good deal right now," Patrick Cooney, a spokesman for the Oregon Department of Transportation, said last week after coming back to work from a furlough day to save the state money.

Some argue that low bids should raise red flags. Barry B. LePatner, a construction lawyer, said that unless states performed independent estimates to find out the true costs of their projects, they risked awarding contracts to companies whose low bids did not reflect the true cost of the work. In such cases, he said, it is common for a company to try to undercut its competition with a low bid and then, once it has won the job, try to eke out a profit by putting in numerous change orders that drive up the price and delay the project.

"You have already started down the road to nowhere," said Mr. LePatner, whose book "Broken Buildings, Busted Budgets" argues that reforms are needed to curb the cost overruns that plague the industry.

States are gearing up to begin work now that spring and the construction season are at hand. By last week, 34 states had been given the go-ahead for nearly 1,000 projects worth \$3.4 billion, transportation officials said.

Officials in many states see the low bids as a sign that they are in a buyer's market. A few years ago transportation officials in Utah, concerned that there was little competition for their construction work, put together a team to try to entice more companies to bid for the jobs. Now, as the first stimulus projects get under way, they are getting a half-dozen bids for each job — and many are coming in at 25 percent below their estimates.

"Boy, it's a great time to be putting projects out," Mr. Easton said.

# The Washington Times

### **The Washington Times**

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### **SOLUTIONS/LEPATNER: Fixing the nation's infrastructure**

Barry B. LePatner Sunday, March 22, 2009

Our infrastructure is silently deteriorating, and the effect its crippled state can have on commerce, national security and public safety has approached critical proportions.

Unfortunately, the stimulus plan, which seeks to pump \$48 billion into an array of transportation projects, does not address what the American Society of Civil Engineers identifies as a \$2.2 trillion need to bring our infrastructure up to design standards.

The nation's infrastructure failures are many. Frighteningly, according to one recent study, since 1989 we have experienced more than 500 bridge failures, including the tragic I-35W bridge collapse of August 2007. The levee breaks that destroyed swaths of New Orleans after Hurricane Katrina and those that plagued the Midwest last summer show that our infrastructure problems are much more far-reaching than our bridges and roads.

In a troubled economy, these kinds of infrastructure failures pose increased risks not only to our safety but in the form of the billions in repairs and aid that must be spent after they occur. Tackling our transportation and infrastructure problems will require a national commitment and a strategic plan that should include the following:

• Create an infrastructure czar position.

The stimulus legislation proposes to set up oversight by a Recovery Accountability and Transparency Board composed of a chief performance officer and six members designated by the president, including members of various federal departments. However, it's unlikely that any of these officials have a true grasp of the construction industry's inefficiency or how to protect against these inefficiencies in contracts.

In order for these project negotiations to be mediated properly, the president should create an infrastructure czar position — a construction expert unaffiliated with the industry who will help close the information gap that exists between contractors and the policymakers trying to negotiate contracts.

• Create a national clearinghouse and database, accessible to every state transportation agency and the general public.

The Federal Aviation Administration alerts the airline industry of any problems with aircraft and requires they receive immediate attention before similar planes can go back into service. A similar database should be created 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 affecting all of America's 600,000 bridges.

By making alerts available to the public, we will prompt state transportation engineers to take preventive action more quickly, help members of the public avoid unsafe bridges and put officials on notice that they will be held accountable for neglecting to take appropriate action.

• State governments should step up their efforts to inform and protect their citizens.

More than 72,000 bridges are rated "structurally deficient," the same rating held by Minneapolis' I-35W bridge for more than 17 years. State governments must do everything in their power to ensure they have informed their residents 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." The public should receive annual updates on the remediation progress and be given notice if funding for the repairs is not provided within 18 months.

• Enact a plan to deal with our nationwide shortage of civil and structural engineers.

Most U.S. bridge inspections are not performed by professional engineers. These professionals are trained in advanced inspection methodologies and are experts in remediation of deficient bridges. Budget cuts in state transportation agencies have prevented adequate inspections critical to assessing the safety of each state's bridges.

Not only should we create incentives to encourage the nation's young people to pursue these careers, but state transportation departments must increase compensation to hire engineers and keep them from departing to private industry.

• 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. Technology exists to anticipate bridge remediation years before rust, corrosion and cracks appear. We 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 evaluations can save our nation countless millions of dollars in unnecessary remediation.

• Enact reforms to 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 payoff set for 2038. The Big Dig epitomizes everything that is wrong with the wasteful and inefficient construction industry.

To advance billions in infrastructure funds to a broken industry for roads and bridges, only to run out of money before they are completed, is wasteful. The amount of money being doled out for the upcoming infrastructure projects is finite. Unfortunately, it's highly likely that it will be wasted, and we will end up with undermaintained highways and byways and "bridges to nowhere." It is clear that the construction industry will have to be reformed before we can start making progress on repairing the nation's infrastructure.

When you consider the huge number of projects needed to restore America's infrastructure, it is clear that measures must be taken to ensure that funds allocated for infrastructure projects are used wisely. Our government must use true fixed-price contracts on all upcoming projects. These contracts will pass the risk for poor performance onto the contractors who fail to complete them on time and on budget.

By taking the steps necessary to tackle our infrastructure problem now, we have an opportunity to improve our economy with the great return on investment of a better, safer infrastructure that will lead to a stronger nation.

• Barry B. LePatner, an author and founder of Le-Patner & Associates LLP law firm in New York City, is widely recognized in the construction industry as a reform advocate and expert.



### **Government Executive**

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### **FEATURES Building the Recovery**

By Elizabeth Newell enewell@govexec.com Government Executive April 1, 2009

The pressure is on federal agencies to figure out how to manage billions of dollars in economic stimulus funds for construction projects.

With staggering unemployment rates crippling the nation during the Great Depression, President Franklin Delano Roosevelt established the Works Progress Administration, the largest of the New Deal agencies, to provide work on public projects. In addition to creating 8 million jobs on more than a million projects between 1935 and 1943, WPA left a legacy that tied construction and economic stimulus in Americans' minds.

Construction and maintenance spending under President Obama's economic recovery plan likely will eclipse the inflation-adjusted spending by WPA during the Great Depression. According to Engineering News-Record, a construction industry publication, the American Recovery and Reinvestment Act allocates approximately \$131 billion for construction-related spending. WPA spending was almost \$10 billion, which is about \$122 billion in 2009 dollars, according to the Bureau of Labor Statistics.

The hope is that an infusion of big bucks will bring big job growth in the second-largest sector of the economy. A study by the Center for Regional Analysis at George Mason University found that each \$1 billion in construction spending supports 28,500 full-time jobs. Other analyses have put the figure as high as 47,000 jobs. Barry LePatner, a New Yorkbased construction attorney, says while job creation figures are hard to pin down exactly, the influx of spending "can't but be helpful" for a sector of the economy that has been particularly hard hit by the recession.

The Obama administration also is touting the stimulus package as a way to meet some of the country's most pressing needs. LePatner says few priorities are higher than infrastructure

investment. He notes that 150,000 of the 600,000 bridges in the country have fallen into such disrepair that they are classified as either "structurally deficient" or "functionally obsolete." Since 1989, approximately 600 bridges have failed, or about 20 a year.

Not only must the federal government dole out the massive amount of funding in the Recovery Act to address such infrastructure needs, agencies - particularly the General Services Administration - must launch and manage billions of dollars' worth of their own projects to build and upgrade federal facilities. In doing so, they will have to address a decidedly mixed track record in overseeing construction projects.

### INCORPORATING INNOVATION

Paul Prouty, GSA's acting administrator, told Congress in February that stimulus funds will allow the agency, the nation's largest landlord, to address a significant backlog of "well-planned, worthy and needed" infrastructure projects. The spending is designed not only to create jobs but also to increase the value of the government's property assets and prolong the life of federal buildings.

At the same time, the stimulus provides almost \$5 billion in funding to make federal buildings more energy efficient, an investment Prouty says will reduce consumption and improve the environmental performance of agency buildings. This can result in significant savings. According to a 2003 study by the clean energy consulting firm Capital E, an initial investment of \$100,000 to include green features in a \$5 million construction project leads to savings of at least \$1 million during the 20-year life of the building.

Agencies now have billions of dollars at their disposal to make such investments and launch other construction programs.

Barbara Heller, president and CEO of the Washington firm Design and Construction Strategies, which advises agencies on how to make building projects more efficient, says they have traditionally struggled to manage such efforts.

Two of the greatest challenges involve implementing new technologies to increase efficiency and reduce cost, and managing the overwhelming amount of data that comes from contractors and their vast array of subcontractors.

"I've seen a lot of innovation, I've seen a lot of creativity, and I've also seen how our political leadership has, in some cases, sort of squashed a lot of that innovative drive among the government personnel," Heller says. "It's to the point where I think that some of the agencies are suffering from a form of battered wife syndrome and now they're being asked to make a U-turn and become change agents. It's a huge emotional shift."

Agencies are not entirely averse to incorporating new technologies and practices, Heller says. For example, government has taken the lead in adopting building information modeling, which

uses three-dimensional, real-time modeling software in lieu of architectural drawings. "When used effectively, building information modeling is a huge cost saver," Heller says.

GSA, the Army Corps of Engineers, and the State and Veterans Affairs departments have begun using the technique, which can save up to 20 percent of the cost of a building and 15 percent of construction time.

The catch here, as with many areas of government, is management. Adopting new technologies and effectively overseeing construction projects, says Heller, requires government personnel to understand the "odd" construction industry culture. The industry consists of predominantly small businesses. Large infrastructure programs bring together hundreds of these companies in temporary arrangements.

"It's a project-based industry with no central management," Heller says. "Groups of companies come together to do a project - they may never work together again - and then they go their own ways. The idea of applying management protocols or accountability across the whole process, that's not in anybody's job description."

Overseeing ad hoc teams on multibillion-dollar projects requires federal managers to carefully track data from a range of sources and establish solid benchmarks of progress.

Prouty (who declined to be interviewed for this article) told Congress that GSA will form a nationally managed, regionally structured program management office to oversee infrastructure investments on an "aggressive schedule." He said the office will draw, as needed, from staff of GSA's Federal Acquisition Service and Public Buildings Service.

To get a running start, federal agencies, like state and local organizations, are focusing first on programs deemed "shovel ready," indicating they've gone through the contract award process and now are waiting for funding. While the term has been casually used by Obama administration and agency officials, it's more of "an aspiration," Heller says.

"It's very rare that a job is put on the shelf, or awarded and all the contracts are signed, sealed and delivered and all the approvals are gained, then for some reason there's been a hiatus, so that you can just pick up instantly and work on it," she says.

### FIXED-PRICE PUSH

Another potential sticking point in the management of largescale construction projects is the Obama administration's clearly stated preference for using fixed-price contracts. In guidance to agencies on implementing the Recovery Act, Office of Management and Budget Director Peter R. Orszag strongly urged them to use such contracts whenever possible, saying they "provide maximum incentive for the contractor to control costs and perform effectively and . . . expose the government to the least risk."

In fixed-price contracts, payments are not adjusted based on the cost incurred by the contractor over the life of the acquisition. Unlike cost-plus contracts, under which firms charge the government for expenses incurred, fixed-price contracts place full fiscal responsibility - and the resulting profit or loss - on the contractor.

That in turn provides the maximum incentive for contraccontractors to keep costs down. The Recovery Act says contracts that are not fixed-price will be singled out for heightened scrutiny on the administration's Recovery.gov Web site, along with contracts that are not subject to full competition.

LePatner says this approach is fraught with peril when it comes to construction work. "Nowhere in this act have they indicated that they know what a contract for true fixed-price construction looks like," he says. "Unless they get an infrastructure czar who is not aligned with the construction industry and who independently understands how to structure these contracts, we'll face overruns, and we can't afford 20 percent to 30 percent in cost overruns."

Until engineering drawings for a project are finished in every detail, LePatner says, an agency cannot issue a fixed-price construction contract.

Even then, the industry remains deeply opposed to such contracts. Construction firms have a long tradition of submitting bids below cost to win awards, then adding extra charges as costs build up.

"These mom-and-pop shops are not able to accept the risk," LePatner says.

"They don't use technology to operate efficiently, they don't have deep pockets of capital. . . . This is the construction industry as it operates today and has for hundreds of years."

Heller says strong incentives are the most effective way to ensure contractors meet time and budget benchmarks. "The construction industry tends to be very heavy on the punitive side - lots of liquidated damages, lot of language devoted to dispute management and contract change orders and that negative side of things," she says.

She cited the recent Pentagon restoration project as an example. Its incentive structure encouraged contractors to bring the project in two years ahead of schedule and under budget. Firms were eligible for substantial bonus award fees on a quarterly basis for reaching clearly delineated goals. They "succeeded in meeting the goals almost every time," Heller says.

GSA is putting into practice a variety of already available, customizable acquisition tools, such as blanket purchase agreements and indefinite delivery-indefinite quantity contracts to get stimulus money out the door quickly.

These procurement tools allow agencies to go through the contract award process in advance of a specific acquisition and have contractors at the ready when the need arises. The agency is

working to award national contracts, against which regions can place task orders quickly, Prouty told Congress.

GSA also will use more design-build contracts, which overlap the design and construction phase of projects.

With these contracts "we can start work quickly and make simultaneous improvements to the existing designs," Prouty said.

Prouty has ordered GSA acquisition officials to monitor contract awards based on three measures: the number and percentage of contracts awarded competitively; performance against national socioeconomic targets; and the time frames in which the contracts were let.

### **Recovery Act contracting data set for release**

By Robert Brodsky rbrodsky@govexec.com October 13, 2009

The public this week will get its most in-depth look to date at the contracts federal agencies have signed using billions in Recovery Act funding.

On Oct. 15, the Recovery Accountability and Transparency Board will post on <u>Recovery.gov</u> data from companies and other entities that received direct stimulus contracts from federal agencies. Grants, state-issued contracts, loans and other forms of assistance will be available for viewing on Oct. 30.

"In this first reporting period, you will find a lot of data essential to your understanding of Recovery spending," Board Chairman Earl Devaney wrote in a Tuesday column on Recovery.gov. "You will see, firsthand, what your state and local governments are doing with Recovery money, and which contractors are benefitting from this program."

According to data already available on the <u>Federal Procurement Data System Next-Generation Web site</u>, agencies have obligated more than \$16 billion in Recovery Act contracts. The government's primary public contracting database, <u>USASpending.gov</u>, which is updated less frequently than FPDS NG, lists the contract total at \$6.2 billion. It is unclear which figure better represents the numbers that will be available on Recovery.gov later this week.

Regardless, "This is really only one small slice of the data," said Gary Bass, executive director of the nonprofit OMB Watch, during a conference call on Tuesday. Grants and loans represent a significantly larger percentage of spending.

Other major data sets, such as tax breaks and entitlement spending, account for about two-thirds of all Recovery Act spending. The identities of tax break and entitlement spending recipients, however, will not be made public.

Starting Thursday, visitors to Recovery.gov will be able to view the identity of the contract recipient, place of performance, agency that made the award, and date and amount of the award, Board spokesman Ed Pound said. Certain large companies also must report the names and compensation of their five highest-paid employees. The public will be able to download the data to examine it further. Pound said.

The public, however, will not be able to filter the data by contract type -- fixed-price, cost-plus or time-and-materials -- or to separate small and large business contracts.

The Recovery Act requires all recipients of stimulus funds to report on their spending between Oct. 1 and Oct. 10 through <u>FederalReporting.gov</u>, the central data collection system that will feed information into Recovery.gov.

On Friday, the board announced it had provided a 10-day grace period for late filers to submit their required quarterly report. These entities must explain their reasons for delayed reporting,

and they will be identified on Recovery.gov "as late filers." Pound estimated "tens of thousands" of entities had registered on FederalReporting.gov.

The board extended the deadline to accommodate states that are centralizing their recipient spending, Pound said. In these instances, companies, cities and municipalities that are receiving stimulus funds will submit all the required data to their state, which will then send it to FederalReporting.gov. At least one-third of the states, including California, have chosen to submit data in this method.

Recipients of Recovery funds can review and make necessary changes to the data from Oct. 11 through Oct. 29. Agencies can point out errors or omissions but only recipients can change their reports. The board will track revisions and make that information available shortly after Nov. 1.

But Devaney noted that even with many eyes reviewing the data, the spending reports will not be perfect.

"Indeed, there will be errors and omissions in some reports, and still other recipients may not even bother to submit information," he said. "Given our focus on accountability and transparency, we are urging federal agencies to work closely with recipients to correct any problems in their reports. ... Over time, with so much public scrutiny of the data, we expect improved reporting; the number of recipients will grow and more information will be displayed on Recovery.gov."

Watchdogs expressed concern about the quality and comprehensiveness of the recipient data. The law requires prime recipients and first-tier subrecipients to report to FederalReporting.gov. Subrecipients that issue funds directly to a vendor also must report spending. Subsequent pass-throughs to a second subrecipient -- for example a town or municipality -- would be exempt from the requirements.

"Once that money changes hands more than two times, we don't know what happens to it," said Craig Jennings, senior federal fiscal policy analyst with OMB Watch, which is a member of the Coalition for an Accountable Recovery.

Author and construction industry expert Barry LePatner said companies that bid exceedingly low on stimulus contracts will compensate by attempting to run up the allowable costs and price of their projects. If they are not successful then projects might not be completed or the state or federal government will end up intervening.

"They have set up a construct for almost assured failure," he said. "I expect a lot of roads and bridges to nowhere."

LePatner said without an itemized breakdown of how companies are spending Recovery funds, taxpayers will not get a full picture of how projects are progressing. This type of detailed data is not required from recipients.

"I don't think the numbers will disclose much substance," LePatner said.



#### **Engineering News Record**

September 10, 2007 March 12, 2008 – Viewpoints It's Time to Fix America's Broken Construction Industry April 13, 2009 Circulation 71,142

## **Special Inspector General Recommended for Stimulus**

April 13, 2009

**SECTION:** News; Pg. 23 Vol. 262 No. 12

**LENGTH:** 1995 words

With about \$131 billion in the federal economic-stimulus package targeted for public construction, a massive amount of money now is flowing to federal and state agencies. Lessons learned from past experiences with big-ticket construction efforts for rebuilding Iraq, responding to Hurricane Katrina and delivering Boston's Central Artery/Tunnel project could keep some of that money from going to waste.

The \$787.2-billion American Recovery and Reinvestment Act of 2009 (ARRA), signed into law on Feb. 17, is an economic-stimulus package of unprecedented size and scope. Moving projects quickly and creating jobs is key, but so is accountability. For the construction industry there is about \$49 billion for transportation projects, \$31 billion for energy-related activities, \$31 billion for building and related housing and \$20 billion for water and environmental effort. «Investments should provide long-term benefits, and the stimulus should maintain strong transparency,» says Brian T. Pallasch, a lobbyist for the American Society of Civil Engineers, Washington, D.C.

«The emphasis on speed could put many owners in a position where they don't feel they can afford to question or challenge change orders,» says Bruce D'Agostino, president of the Construction Management Association of America, McLean, Va. «The danger is that large numbers of routine change orders are going to pass unexamined. That can't help but increase costs and foster inefficiency.» He notes program management is an ideal solution for dealing with a large but short-lived increase in capital spending.

Those insights were learned the hard way in Iraq, New Orleans and Boston. «The government should create a special inspector general to report on stimulus construction spending,» says Stuart W. Bowen Jr., Special Inspector General for Iraq Reconstruction (SIGIR). «There was no SIG for the \$112-billion Katrina effort, and we just formed one last year for [the \$32 billion

spent in] Afghanistan. The challenge is to create the SIG and then aggressively monitor the work.»

Iraq was a hard lesson in contracting. From mid-2002 to late 2008, about \$50 billion was pumped into Iraq for relief and reconstruction. According to a recent report, «Hard Lessons: The Iraq Reconstruction Experience,» issued by SIGIR, electricity and oil output did not meet plan, while water and health projects faltered due to overuse of cost-plus contracts, high contractor overhead expenses, excessive contractor fees and unacceptable delays. Waste, not fraud, was the primary problem, but security issues and personnel turnover also made the program troublesome.

As the nation-building program evolved, the focus shifted from a large infrastructure reconstruction effort to one that combined local-government-capacity building with a building program. Large projects were aimed at improving service delivery, but very little effort was made to improve government capacity, leading to a crisis in sustainability. «The deterioration of poorly maintained infrastructure projects after transfer to Iraqi control could end up constituting the largest source of waste in the U.S. reconstruction program. Such a program should be an essential component of future contingency relief and reconstruction operations,» states the report, which also notes that programs should be geared to indigenous priorities.

Another major problem in Iraq was the lack of executive authority. Confusing lines of non-integrated command and the absence of effective integrated management were central to program failures. Conversely, outsourcing management should be limited because it complicates lines of authority.

This implies that a domestic stimulus czar is a good idea. SIGIR recommends that relief and reconstruction operations use a single set of simplified, uniform rules—a stripped down Federal Acquisition Regulation (FAR) along with a well-trained corps of experienced contracting officers who are trained to oversee the work. He says a diverse pool of precompeted, prequalified contractors should be used to deliver the work.

Today, SIGIR serves as the model for the Special Inspector General, Troubled Assets Relief Program, the Bush administration's \$1-trillion effort to stem the banking meltdown. But SIGIR's lessons also could provide a template for the Obama economic-stimulus plan. «Accountability is essential, and the first step is transparency,» says Bowen. «All players need to know somebody is watching performance and outcomes from the get-go. That is a true deterrent on the ground that ensures compliance with all federal laws.» He believes a stimulus inspector general should report to the stimulus czar. «A SIG is the first line of defense against fraud and waste, and it promotes better behavior,» Bowen says.

Following the disastrous impact of Hurricane Katrina, Congress approved \$112 billion of relief funding, and the Federal Emergency Management Agency (FEMA) so far has pumped \$50 billion into the Gulf Coast area. About \$8 billion was used for individual assistance, including temporary housing and housing repair and replacement activities. Over 143,000 families received temporary housing, which according to FEMA was the largest such operation in U.S. history. Almost \$500 million was allocated for 417 mitigation projects in four states. Yet, New Orleans still has problems, and according to Bowen, the only useful report on the relief effort came from a Senate committee that bemoaned a lack of oversight.

While FEMA has no special IG, the Dept. of Homeland Security IG monitors its operations. And FEMA officials have learned lessons. They have enhanced staff training and continuity, customized databases and promoted transparency and state collaboration, including Web-based award data and improved logistics. «This is not the FEMA of two years ago, as our response to recent disasters has demonstrated,» it says.

Stimulus-delivery officials also can learn from Boston's Central Artery/Tunnel project. In January 2008, the U.S. Attorney and the Massachusetts Attorney General announced a \$407.1-million settlement with CA/T project consultant Bechtel/Parsons Brinckerhoff. As part of the deal, which shielded the joint-venture firms from liability over Interstate tunnel leaks and a fatal plenum collapse, the members of B/PB each agreed to file separately to the Federal Highway Administration «lessons-learned» reports about operational problems delivering the project.

Faced with removing a 50-year-old viaduct running through the heart of the city without disrupting traffic, the joint venture oversaw the design and construction of a \$15-billion, 7.5-mile bridge/tunnel complex linking two Interstate highways and Logan International Airport. At the same time, B/PB had to deal with evolving owners—from the Massachusetts Dept. of Public Works to the state highway deptartment to the state Turnpike Authority and finally an Integrated Project Organization (IPO). Political deadlines, differing subsurface conditions, scope growth and interest payments, among other factors, all contributed to cost growth. «At the time that the project owner decided to implement the IPO on the CA/T project, there was no significant precedent in the application of the IPO approach to public-sector construction or with respect to the potential impact that the IPO approach may have on issues of performance standards, the evaluation and determination of professional accountability of the private-sector engineering consultant or overall project objectives such as quality control,» notes PB in its report.

What Parsons Brinckerhoff (now PB Americas Inc.) learned was that accountability, particularly in cost recovery, suffered in that the IPO blurred the independent roles of the consultant and merged them with the owner. Integrating roles and responsibilities exposed both the consultant and owner to risks typically assigned to the other, such as design defects and project financing. «Clear roles and responsibilities definition are important not only in terms of accountability, but quality control and safety as well,» says PB in its report. Issues of allocating risk, determining professional-liability accountability and conflicts of interest also must be addressed, it says.

The IPO also strained independent professional judgment, in that shared responsibilities «diminished and compromised» the ability of the consultant to control its performance. One overriding concern was the need to structure the IPO to respect the professional obligations of the consultant in matters of public health, safety and welfare. Finally, shared decision-making causes problems because the consultant is not entitled to sovereign immunity and thus could face potential civil liability issues.

In its lessons-learned report, Bechtel says an IPO should have clearly defined responsibilities with sufficient authority and control, uniform work processes and procedures, and external oversight. Key decisions include «establishing a clear scope of work and responsibility for each party and ensuring that responsibilities, authority and accountability are well thought through and specifically defined in any contractual agreements,» it notes. Both Bechtel and PB declined to comment for this story.

The good news is that stimulus delivery will incorporate some of these ideas. ARRA requires the establishment of a Recovery Accountability and Transparency Board to coordinate government-wide policy and see that funds are disbursed in a fair, prompt, reasonable and transparent manner. Agency IGs already are working on anti-abuse strategies. Establishing and maintaining a user-friendly Website (<a href="www.recovery.gov">www.recovery.gov</a>) is a major priority. Board Chairman Earl E. Devaney noted in recent congressional testimony that the biggest challenges for transparency and accountability are data quality and a lack of procurement professionals. «I foresee the board actively detecting fraud trends, identifying best practices for conducting reviews and designing risk-based strategies to help focus the oversight community's limited resources,» he says.

But the message is being heard. «The Federal Highway Administration is committed to ensuring all the requirements of the American and Recovery and Reinvestment Act, including those directed at maintaining accountability and transparency. In addition to its role in implementing ARRA, FHWA will continue to reach out to states with information on lessons learned and best practices from projects,» says the agency.

Still, construction attorney **Barry B. LePatner**, LePatner and Associates, New York City, advocates the creation of a stimulus czar, making fixed-price contracts mandatory, investing in advanced technologies and using contract stipulations to avoid wasted labor costs. «Shockingly, some 50% of all labor costs on a project are lost due to late deliveries, poorly coordinated subcontractors and other circumstances,» he says.

Fortunately, the industry is taking a proactive stance. «Before the stimulus law was passed, the American Road & Transportation Builders Association (ARTBA) was advocating including provisions aimed at ensuring transparency and accountability,» says Matthew J. Jeanneret, ARTBA senior vice president. «The new stimulus law has many transparency requirements: all project-related information on both White House and appropriate agency Websites; reports to Congress at 90-, 180-, 365- and 730-day intervals on how funds are used and jobs created; and the governor's certifications of project merit, are all intended to both demonstrate the value of these investments and show no waste, fraud or abuse.»

Iraq, Katrina and CA/T faced some of the same issues the stimulus program will need to surmount: decentralized authority, massive funding, quick turnaround, differing goals and the expectation that the program will make a difference. The lessons learned show that a well-managed and monitored program can help reduce waste and restore taxpayer confidence.



#### **Infrastructurist.com**

January 29, 2009 February 2, 2009 March 4, 2009 May 6, 2009

*Infrastructurist.com* is a news site that will be focusing on infrastructure-related issues. Founders of both Huffington Post and Treehugger (a big environmental news site) are both involved they hope and expect that the site will prove popular and influential in the national debate about how we should be making the enormous investment to upgrade our national infrastructure for the 21st century.

#### Trillion Dollar Barry: One Man's Quest to Keep America Solvent

Posted on Thursday January 29th by Jebediah Reed



#### Give us a break

Barry LePatner is convinced he can save us a trillion bucks. In general, there aren't many ways to find that much money in one place, short of going back in time to undo an ill-conceived war or enact oversight on a financial industry that no longer wants to play by the rules of reality. But there is another massive and tragically flawed industry out there, LePatner says. It's construction, and it's about put another sizable hole in America's balance sheet as the country starts to invest heavily in rebuilding its infrastructure.

LePatner is the founding partner of LePatner and Associates, a bustling law midtown Manhattan firm that represents clients who build things. Over the course of his thirty-year practice, spurred by his own curiosities and experiences, he has established himself as a leading expert on the construction industry. Among his credentials is authorship of the tome *Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry*, published in 2007 by the University of Chicago Press. The well-regarded study has turned him into a guru of sorts for many public officials and real estate developers who are convinced by his argument that construction is a broken industry and constitutes a calamitous drain on the U.S. economy. Among other praise, the *New Republic* recently described the book as a "devastating diagnosis."

There is some powerful statistical evidence backing up LePatner's contention. Construction, which employs ten million Americans, is the least efficient major industry in the economy as a whole. And for years now, the situation has been only getting worse. Every other industry has gotten more productive in the past half century – by about 22 percent on average. Construction has seen productivity fall by 25 percent. Not unrelatedly, a 2005 study out of the University of Pennsylvania found that 50 percent of a construction worker's time spent on a job site is spent idle, often waiting for deliveries or other logistical necessities. All the wasted time seems to be a natural result of a complex industry with low management standards.

"When we start applying \$60 billion, \$100 billion, \$500 billion to infrastructure spending, we're going to get our heads handed to us," LePatner, an energetic man in a blue pinstriped suit and glass, tells me when I visit him in the offices of his law firm. "Because the construction industry doesn't know how to produce anything on time or on budget, even now." To illustrate the point, he recites a litany of recent major projects—from the new Jets/Giants stadium (estimated to cost \$800 million, now \$1.7 billion) to the Dan Ryan Expressway in Chicago (doubling in price to \$550 million)—that have blown through their their original budgets. This is the norm, he says, and raises the specter of a nation bled dry by a thousand Big Digs. "The American Society of Civil Engineers says we face a backlog of \$2.2 trillion in infrastructure spending," he says. "Can we really afford for that number to go to \$3.2 trillion or more? Because it will." Even at present spending levels, he estimates that the inefficiencies of the industry represent a \$120 billion a year loss to the economy—the equivalent of an annual \$2,000 tax on a family of four. "Everyone from the Obama administration down to the state and local governments who are going to give out these contracts have to have a fresh understanding of what we face," he says solemnly. "We can't do it the way we've been doing it."

How could such a large industry in such a competitive economy managed to buck tide of technology in the past fifty years and become continuously less and less productive? While in his book LePatner frames the problem in the academic terms of economics, I ask him to explain it for a layman. "The construction industry is unique in a few key respects," he says, after pausing to think for a moment. "First, when you buy something from any other industry there is a fixed price tag. The construction industry doesn't provide this. The cost of a project is always subject to change." Like, say, Jets/Giants stadium, he offers. Or an average road or school construction project. But why? "The problem is that to deliver a product at a fixed price involves taking on risk, and for the most part contractors can't or won't do that. The reason for *that* is related to the second key thing about the industry: Of the 10 million people who work in construction, 92

percent work at firms of less than 20 employees. It's a trillion-dollar business of mom-and-pop shops."

In a practical sense this means that even the largest construction jobs—massive public works jobs—are divvied up among dozens or hundreds of smaller firms. "But the small contractors—which is everyone—don't have deep pockets or access to capital markets," LePatner continues. "They live project to project, and therefore don't want to take on the risk involved in offering a fixed price."

LePatner is an unabashed advocate of the idea that bigger is better where construction firms are concerned. "Unlike every other industry you can name, there are no construction companies that have a national scope," he say. "There is no IBM, no Microsoft, no Toyota. The biggest company has projects in 13 states. What national scope would give you is efficiencies of scale. It would also teach managers how to deliver those efficiencies to customers in the form of lower prices. In construction, you don't see that."

To illustrate the problem, he draws an analogy to the automobile industry. In the early days, cars were built by many a plethora of tiny companies—essentially, by hand out of people's garages. The process was inefficient and the price of the final product was prohibitively high for most people. Henry Ford figured out that scale and technology could change both those things, which gave birth to the modern form of the business. The formidable size and efficiency of Ford Motors allowed him to offer a low fixed price and not have to vary it to stay afloat when, say, the price of steel fluctuated. While construction is a more challenging case, more than a hundred years on there is ample opportunity for a similar transformation, says LePatner. But nobody has seized the opportunities for efficiency offered by technology and broad application of sound management practices. In essence, it's still stuck in the garage stage.

The other big problem, he says, particularly for public projects, is a bidding process that is based on perverse incentives. In order to get work, which is generally assigned by governments to the lowest bidder, contractors often have to put in below-cost bids. "The contractors understand the system: you sign a below-cost contract for the right to put in change orders [requesting more money] and hopefully make a profit in the end," says LePatner. In the end, public officials frequently accept whatever the contractors tell them them about needing to raise the cost of a project. This scenario, writes LePatner, systematically rewards the contractor for inefficient behavior "since there are typically few real consequences to deter such actions."



#### Barry LePatner

All of this flies in the face of what the public perceives to be wrong with the construction business. "I'm always being asked one of two questions: 'How much of this is corruption and payoffs?'; or, 'How much is unions driving up the prices?' Well, the statistics show both are non-factors. Corruption drives up prices in some cities, yes. But on a \$1 trillion industry, it's not anything material. On the union issue, the research I found shocks some people: It turns out union workers are slightly *more*efficient than non-union workers. The reason for this seems to be that unions use apprenticeship training programs."

#### So how do we fix it?

LePatner's answer is, on the surface anyway, disarmingly simple: "Owners, especially governments, [need to] insist on true fixed-price contracts." Doing this involves, among other things, having the planning fully completed before putting the job out for bids. Once this practice starts to take root, he predicts far-reaching effects on the marketplace. "The resulting shakeout will be rapid," he writes in *Broken Buildings*, *Busted Budgets*. "Many firms will fail, but remember, many fail already. Instead of being replaced by swarms of tiny new firms, however, bigger firms will form because of frenzied merger activity." He sees within a relatively short period of time construction companies "will come to have a significant presence in the Fortune 1000." Under a new, vertically integrated model required to meet the needs of a market that demands fair fixed prices, they "will do everything from manufacture to stockpile construction materials to maintain structures they erected years or even decades before." These new large companies will make strategic investments in technology, education and R&D and begin to achieve the standards of productivity that apply in other industries. Given that the construction industry is in a similarly woeful state in most of the rest of the world, this offers a valuable competitive opportunity to the U.S. to become the innovator and leader in this massive industry.

"You learn to be more efficient," he says. "You learn to do things differently in the business that you're in. We need to help the construction industry understand that efficiency will get them more projects in the end."

[Please see the Infrastructurist's interview with Michael Dukakis for more on this -- he makes some salient remarks on the subject of the construction industry - Ed.]

### **Construction Expert: Union Labor More Efficient Than Non-Union Labor**

Posted on Monday February 2nd by admin

Construction industry reform guru <u>Barry LePatner tells us</u> that union labor is in factly "slightly more efficient" than non-union labor on construction jobs. It's a key point to establish, because in the months and years ahead critics will certainly argue that tax dollars are being wasted to pay union wages on public works projects.

LePatner, who wrote an <u>influential critique of the industry</u> for the (generally conservative) University of Chicago Press, notes the existing research shows that union apprenticeship programs bump up productivity. (The bar is low though: as a whole, the construction industry is hideously inefficient.)

In general, it's a good time to be thinking about apprenticeship programs and other ways of training skilled laborers. Michael Dukakis raised raised the concern, in a recent interview, that our labor resources might be overwhelmed by a glut of stimulus money: "Do we have the skilled building trades people to do all this work [to rebuild our infrastructure]? If you're talking billions in funding? So that's a concern. But I don't hear people talking about using this as an opportunity to train a lot younger skilled tradespeople – carpenters, electricians, so forth." Rolling out more apprenticeship programs might be a good start.

#### Cost of Construction Materials in NYC is Invitingly Low — Labor Still Pricey

Posted on Wednesday March 4th by Jebediah Reed



Commodity prices have tanked in the last year along with every virtually every other class of financial asset, except for Krugerand rounds, market short mutual funds, and stored food.

The decline is propitious for the current round of public works spending though, as taxpayers will save money on concrete and steel for roads and bridges.

Here's what's happened to the price of various key building materials since last spring, according to recent story in *Crains New York Business*:

- Steel rebar: down 43% to \$850 per ton
- Structural steel: down 17% to \$4000 per ton
- Concrete: down 25% to \$60 per square foot
- Drywall: down 7% (no price given)

Meanwhile, electrical and plumbing contactors, getting desperate for work, have shaved 20 percent off their quotes.

According to the story — keeping in mind the publication's firmly pro-business editorial stance — labor unions are the lone holdouts from fatter days, refusing to make any wage concessions. Why not? "Some observers say unions are skeptical of developers' claims that labor concessions will jumpstart new activity when so many factors are working against it."

On one hand, they seem to be adopting the head-in-the-sand strategy of many coop owners here in the city: "Sure, nobody's buying, but I've still got a \$2 million one-bedroom apartment. Don't believe me? Just look at the asking price." In this case the asking price is \$60 - 70 per hour (i.e. the typical union construction wage in Gotham).

But here's an alternative theory: The unions are expecting a pickup in business from the stimulus, in the form of school and government building renovations and public works projects. Now might not be a good time to start making pay concessions if a glut of new contracts is coming in the next six to twelve months. It would be like lowering your asking price if the government was about to start snapping up residential real estate. (The government isn't snapping up residential real estate yet, is it? One loses track these days...)

A contextualizing fact to keep in mind here though is that union labor, while more expensive, is in the aggregate a bit more cost effective than non-union labor. According to construction expert Barry LePatner, the reason for this is that union apprenticeship programs increase general productivity. Or, at least, that is the case under normal market conditions.

This entry was posted on Wednesday, March 4th, 2009 at 8:00 pm and is filed under <u>Uncategorized</u>. You can follow any responses to this entry through the <u>RSS 2.0</u> feed. You can <u>leave a response</u>, or <u>trackback</u> from your own site.

#### **SHOVEL READINESS**

#### Low Stimulus Bids Could Be Dangerous, Warns Construction Expert

Posted on Wednesday May 6th by Jebediah Reed



When the 2.000th

stimulus project was approved last month, the White House was touting the fact that bids from contractors were coming in well below expectations — <u>15 to 20 percent</u> below on average, and 30 percent or more in some places.

But this kind of steep discount is not necessarily good news, cautions an expert on the construction industry.

"When bids are coming in 25 or 30 percent under a reasonable estimate, one of two things is going to happen," says construction lawyer Barry Lepatner. "Either the contractor completes the work at prevailing wages and accepts a substantial loss, or the company runs out of money part way through."

Neither outcome is desireable, he says, but the latter would be especially disruptive. "When the contractor has lost so much that they can't go on, the government doesn't have a way to give them more money." LePatner warns that we could see a raft of partially completed projects going idle as contractors fold.

Trying to stretch an unfeasible budget might also lead to poor workmanship and understaffing—problematic on multiple fronts in a country trying to fix its infrastructure and boost employment.

Why would a firm underbid? It's a question LePatner explores in his book <u>Broken Buildings</u>, <u>Busted Budgets</u> (U. of Chicago). The industry is dysfunctional and "anti-competitive" in many

respects, he bids.	e argues, and there can so	ometimes be business	advantages in maki	ng impossibly low
But many stimulus projects are "fixed price" contracts, meaning that firms will have less leeway in finding ways to eventually eke out a profit.  "We want our construction industry to make a fair profit," LePatner says. "I'm waiting to see if they can pull this off in some novel way."				

## **THE NEW YORK OBSERVER**

#### The New York Observer

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## **On Building Blocks**

By Jotham Sederstrom November 2, 2009 | 4:52 p.m



Attorney Barry LePatner has represented some of the biggest developers in New York—the United Nations, Goldman Sachs, JPMorgan Chase, to name a few—but more recently he has carved himself a reputation as a so-called 'construction industry reform guru.' The 62-year-old Brooklyn native spoke to The Commercial Observer about some of the city's biggest boondoggles; why developers don't know the ins and outs of their own building projects; and his book, which focuses on construction.

The Commercial Observer: You've said that \$120 billion is wasted on unnecessary overruns every year. Where are those costs coming from and why is it happening?

Mr. LePatner: As I laid out in *Broken Buildings, Busted Budgets*, the little-known fact in our nation's business economy is that the construction industry is the most inefficient in our nation. It is a hugely low-profit industry where contractors of any size are happy to make 3 percent or 4 percent a year, taking great risk. It is comprised almost exclusively of mom-and-pop shops. There are no national construction firms who operate in every state and are like the Gap, Starbucks or another national company.

#### Why is that?

Because historically, the construction industry is the last industry that operates like a guild. It's small, it's localized, and except for the trash industry—which only became nationalized when waste management bought up all of them—it's the last industry that's totally local. Today, the private-equity world doesn't look at the construction industry as having long-term viability. I have predicted in my book that that will change in the years ahead, and we will start to see

consolidation, but only when contractors understand the benefits of efficiency.

#### Is it that they don't understand how to be efficient, or that it's not profitable for them?

There's no one company that does the work on a project of any scale. If you take a school project or you take a major residential tower or you take a complex project like an airport, you'll have anywhere from 10 to 20 to 50 or more subcontractors who actually do the work. These literally are mom-and-pop companies. The work is every day pulling up in vans. They have no equity.

#### Why so many different subcontractors?

Essentially, where many years ago, maybe 50, 60, 70 years ago, the predominant way to build a large project was with a general contractor who worked regularly with masons, people who did the steel, people who poured the concrete, people who put the roofs on, and they were like a family working on a few projects. The expansion of construction in this country, to where it's a \$1 trillion-a-year industry, exploded that single unit of construction into something called construction management, and the general contractor who really was a hands-on contractor became a concert master. That fracturalization has created uncertainty because the contractors know they are inefficient. They know that even if one or more are efficient, other subcontractors working on the job will not complete on time, and therefore the model became one of shifting risk to the owner, who has for the last 40 or more years been paying the price for that inefficiency.

#### You've been called the 'guru of construction industry reform.' What does that mean?

What everyone in the industry would do when I would ask them a question about why the construction industry works the way it does, invariably people threw their palms up in the air and said, 'Barry, that's the way it's always been.' And it bothered me that nobody knew the answer. People knew their particular slice of how things were designed and built and financed. They understood their perspective, but had no clue on the larger scale. So mine was a personal exploration, and as I developed more and more of the information, we quickly understood that this was about a dysfunctional industry that operated unlike any other in the United States, and that gave me a perspective to speak out.

#### Tell me about the overruns at the World Trade Center.

Well, the World Trade Center at ground zero is a tragedy that was written from day one, when the belief was that we were going to have a revival down there that would make all of us in New York, the United States and the world proud.

#### When was day one?

Day one was when there was an announcement that they were going to have a whole series of public forums and hearings, where they wanted to hear from the public and invited world-class architects and engineers to come and talk about master plans. There was a belief that something new and exciting was going to come about, and it masked the realities of what New York City and New York State politics are really all about, and they're about power and real estate development. And I was very early in pointing out that they never give up power.

### Have you spoken to Larry Silverstein or the Port Authority about these issues?

I'm aware of the positions taken by the Silverstein Properties team. I'm aware [of], and have avidly read, a lot of the reports from the Port Authority, and I think that I'm on safe ground to

say that both sides come to the issue with divided interests that will never be reconciled without someone—a ground zero czar—taking control; stopping the construction until they truly know what they're going to build; and then doing it on a true fixed-price basis that protects the public's dollars.

#### Why are owners and developers so often unfamiliar with the construction process?

The construction managers, the big construction managers—and the medium-sized ones—whisper in an owner's ear that if you get started four months early, you'll be able to finish the project four months early. That is as phony as a \$16 bill, and to the thousands of people who I've spoken to and asked this question, they've all laughed hysterically when I say, 'Did you ever hear of a project that started four months early and finished four months early?' And depending on the size of the audience I'm speaking to, it's gales of laughter, because that is a true fiction. And every \$100 million loan that takes an extra month to complete adds \$1 million approximately in cost to that owner or developer.

#### Do people have a view of you as anti-union?

Oh, no! In fact, if you read the book, one of the major inquiries I made was, I wanted to know if work performed by union forces is prohibitively more expensive than nonunion. And one of the fascinating statistical researches I came across was, if there is a difference between the pricings, union and nonunion, for the workers it is minimal, because from an efficiency standpoint, the unions have apprenticeship programs which train young workers how to do the jobs more efficiently. So I dispel that very clearly and said this is a nonissue. <code>isederstrom@observer.com</code>

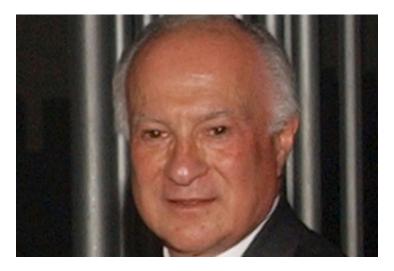
## The Lawyers You Call

December 1, 2009



The Great Recession has ground some sectors of the commercial real estate industry to a virtual halt, business-wise. Not the lawyers. Distressed assets, foreclosures, ownership battles—it's all fodder for New York real estate's topmost legal eagles.

Here's a survey of some of the best in the field right now. - Jotham Sederstrom



# Benjamin Needell, Partner, Skadden, Arps, Slate, Meagher & Flom LLP

One can only wonder if Benjamin Needell, 68, has taken advantage of his more glamorous real estate clients. Is he sitting poolside at the recently completed Standard hotel thanks to his work on behalf of celebrated hotelier André Balazs, for example? Or, instead, is he sharing drinks with Ian Schrager while listening to the famed hotelier reminisce about his heady Studio 54 days?

Either way, the St. John's University alum deserves his spoils. After all, from his work on behalf of the Port Authority of New York and New Jersey, on which he helped to privatize the World Trade Center, to his involvement in the sales of the Carlyle Hotel, Mr. Needell has been around the block. Additionally, Mr. Needell has completed many of the largest headquarter transactions in New York City history, most notably for Reuters, Credit Suisse, Ernst & Young and the New York Board of Trade.

All the while, he's dipped his toes in the media world by representing both Wenner Media and ING in its investment in *The New York Times* headquarters on 41st Street. Named among "America's Leading Lawyers" by Chambers USA this year, Mr. Needell has no intention of slowing down anytime soon.



## Jonathan Mechanic, Partner, Fried Frank

Throw a rock in a crowded real estate luncheon (not too hard, though!), and you're bound to hit someone whom Jonathan Mechanic has represented at one point or another in his 30-year career: Steven Roth, check. Mike Bloomberg, check. Bruce Ratner, Douglas Durst and Mort Zuckerman, check, check and check. The list of clients goes on and on, and usually in connection with some skyline-defining deal like the \$5.4 billion Tishman Speyer acquisition of Peter Cooper Village and Stuyvesant Town, the largest real estate transaction in U.S. history.

The wide breadth of connections has served Mr. Mechanic so well, in fact, that the acquisitions and dispositions specialist frequently is tasked with representing clients on both sides of the table, a conundrum that he claims goes smoothly, "because there is a sense of confidence in dealing with the up and up," as he told *The New York Observer* last year.

A New York University School of Law alum, Mr. Mechanic joined Fried Frank in 1978 and became a partner at the Manhattan firm in 1987. Ever since then, his name has popped up on a near annual basis at real estate awards ceremonies and legal galas, including a Legal Media Group study in 2007 that named him the most powerful real estate lawyer in the world. With accolades like that, rest assured that Mr. Mechanic, 57, won't be lacking in high-profile clients anytime in the foreseeable future.



## Gary Rosenberg, Managing Partner, Rosenberg & Estis

As far as ego-boosting is concerned, developers need look no further than the city's skyline as a physical reminder of what they've accomplished for themselves. With most lawyers, however, victories are all too often buried under the weight of arcane, jargon-riddled legal briefs, unseen to all but those few who toil in the same profession. Not so with Gary Rosenberg, who over a 25-year career as a founding partner of Rosenberg & Estis has argued some of the real estate industry's most important appeals, many of them so significant that even laymen can feel the impact.

Take, for example, *Manocherian v. Lenox Hill Hospital*, in which Mr. Rosenberg successfully convinced the New York Court of Appeals to do away with a clause that allowed corporations to hold on to rent-stabilized apartments as an entity and, theoretically at least, occupy those coveted spaces even after a tenant had moved out. In *Seawall v. New York*, meanwhile, Mr. Rosenberg gave an assist to the city's poor by successfully arguing against a moratorium on the development of single-room occupancy hotels in the early 1990s.

More recently, however, Mr. Rosenberg has been at the helm of Douglas Durst's One Bryant Park, a state-of-the-art, 2.1 million–square–foot building for Bank of America's headquarters. His expertise in assemblage and development has no doubt kept the tower on track



Shravan Vidyarthi.

## Barry LePatner, Founder, LePatner & Associates LLP

When it comes to construction, Barry LePatner, 62, can sound a bit like Chicken Little, ranting to whoever will listen not that the sky is falling, but that the entire building trades industry is doomed to collapse under its own inefficiency. Listen closely, though, and Mr. LePatner starts to make a lot of sense.

In his book *Broken Buildings, Busted Budgets*, Mr. LePatner checks off dozens of tell-tale failures, including the fact that \$120 billion is wasted annually as a result of construction overruns. The concise litany of complaints, in fact, has earned Mr. LePatner a reputation as a "construction reform guru," an honor that no doubt will draw new developers and nationally known companies to his already impressive fold of clients, JPMorgan Chase, the United Nations and Goldman Sachs among them.

And with a new book on the way that promises to perform postmortems on epic construction failures like the Big Dig in Boston and delays at ground zero, it becomes clear that Mr. LePatner has bigger fish to fry than simply the day-to-day projects that give developers such headaches and droopy bottom lines. What isn't clear is how he manages to write books and represent clients at LePatner & Associates while still finding time to appear with some regularity on cable news as the voice of construction reform. But that, we suppose, is why they call him the guru.



## Sandy Lindenbaum, Kramer Levin Naftalis & Frankel LLP

Few have reaped more benefits from the city's aggressive rezoning bid over the past eight years than Sandy Lindenbaum, a legal eagle who has expertly navigated the complicated neighborhood changes that have confused many a developer. From Williamsburg and Greenpoint to Chelsea and beyond, more than 100 neighborhoods have been rezoned by the Department of City Planning, and Mr. Lindenbaum is intimately aware of each one, from their floor-area ratios down to air rights and curb cuts.

Now an attorney at Kramer Levin Naftalis & Frankel, Mr. Lindenbaum has managed to balance a workload that has included one-name-only real estate titans like Macklowe, Solow and Silverstein with a steady flow of nonprofit work, namely for the Archdiocese of New York and the Museum of Modern Art, where he recently concluded an ambitious expansion deal. Perhaps even more surprising, however, is that the nimble, 50-year veteran, who was practicing back before the Uniform Land Use Review Procedure even existed, still finds the work exhilarating. The 74-year-old told *The Commercial Observer* earlier this month: "I love it. I love the challenge. I love getting up in the morning and coming to the office."

Such verve goes a long way toward explaining Mr. Lindenbaum's continued stellar success amid rapidly changing times. Indeed, Mr. Lindenbaum could rightly be called the city's godfather of zoning.



## Robert Ivanhoe, Chairman of Real Estate Practice for Greenberg Traurig

Like Jonathan Mechanic, Robert Ivanhoe, 56, has worked with just about everyone who matters in the real estate world. From Larry Silverstein and his luxury Silver Towers on West 42nd Street to MetLife, which he represented in the record-breaking sale of Stuyvesant Town, the chairman of Greenberg Traurig's New York office has secured financing and shepherded acquisitions for many of the city's biggest players.

More recently, Mr. Ivanhoe represented El-Ad Properties in the headline-grabbing \$675 million acquisition of the Plaza Hotel. Additionally, he represented SL Green in the acquisition of two office buildings, at 485 Lexington Avenue and 750 Third Avenue, in a \$480 million deal. The latter is merely a continuation of an enduring relationship with the powerful REIT—and no surprise considering that Mr. Ivanhoe has been the longtime golf partner of Stephen Green, chairman of Manhattan's largest owner of office buildings.

A Johns Hopkins University grad and an alum of American University's College of Law, the longtime supporter of the Starlight Children's Foundation has made the "Best Lawyers in America" list every year since 2006 by the peer-review publication *Best Lawyers*, and was named one of the 100 most powerful people in real estate by *The New York Observer* this year and last.



## Edward Mermelstein, Founder, Edward A. Mermelstein & Associates

A lawyer, broker and developer, Edward Mermelstein is a certified triple threat in the real estate world. With offices in Moscow and Manhattan, and an ability to speak four languages (not to mention helming a staff that can speak 11), Mr. Mermelstein is among the few real estate attorneys to successfully grow and sustain what could fairly be described as a global boutique firm.

Despite his smaller operation, however, Mr. Mermelstein has drawn an eclectic international clientele year after year, most notably among the real estate and commodity elite in Eastern Europe, whom he has represented over and over again at 50 Central Park West. With rents averaging \$5,000 a square foot—and a roster of residents that includes Yankees slugger Alex Rodriguez and Goldman Sachs' honcho Lloyd Blankfein—the luxury condo building is among the most profitable residential towers in the country.

And with a frequently updated Twitter account, Mr. Mermelstein, 42, can fairly be described as one of the hippest attorneys in the city. Indeed, with 217 followers, each hanging on his every tweet—"Moscow's mayor has pledged to stop snow by mobilizing the air force," anyone?—Mr. Mermelstein has successfully positioned himself as one of New York's most thoroughly modern real estate lawyers.



### Richard Nardi, Partner, Loeb & Loeb

Ask an attorney, any attorney, if business is booming and just about all of them will swear to you that, yes, it's never been better. In reality, some may actually be curled up in a ball in a dark corner of their office, waiting for the phone to ring, but they'll never admit it. With Richard Nardi, however, one needs only to peruse the business section to surmise just how busy the Loeb & Loeb partner actually is these days.

Foreclosures are up and mortgage rates have sunk to a near all-time nadir—and despite all this, applications to buy homes have dropped to a 12-year low. As counsel to the Mortgage Bankers Association of New York, Mr. Nardi, 55, has been knee-deep in the subprime crisis and its fallout. Whether negotiating the sale of mortgages for distressed commercial properties or restructuring problem loans, the Fordham University School of Law alum has become one of the most sought out real estate attorneys among mortgage bankers and owners of distressed property.

Named a "New York Super Lawyer" by *Law & Politics* this year and last, Mr. Nardi became a partner at Loeb & Loeb in 2006, and has proved himself ever since.



## Ross Moskowitz, Partner, Stroock & Stroock

Ross Moskowitz, 50, earned his chops in the heady days before Mayor Bloomberg rezoned much of the city. As an executive vice president of the city's Economic Development Corporation under Rudy Giuliani, Mr. Moskowitz was instrumental in cleaning up Times Square, where he orchestrated a handful of public-private real estate ventures with companies such as Reuters and Condé Nast. Additionally, he helped negotiate business retention deals with such companies as Merrill Lynch, Viacom, Credit Suisse and Paine Webber, among others.

As a partner at Stroock & Stroock, he has continued to hone his reputation as a go-to guy for structuring complicated, multifaceted projects that involve public-private development and financing arrangements. To be sure, since 1998, he has represented a litany of financial services firms, including one transaction that resulted in the largest tax incentive package ever offered to a company that was moving its employees from Manhattan to New Jersey. More recently, he has represented Worldwide Holdings in a mixed-use project on 57th Street that is expected to begin shortly, and Alexandria Real Estate Equities in its highly anticipated East River Science Park project.

Most newsworthy, however, may be his work on behalf of the New York Mets organization during its successful negotiations for its new stadium. One of the few lists that go on longer than his impressive client roster is Mr. Moskowitz' membership roll, which includes positions on the board of trustees for New York Law School, Brooklyn Navy Yard Development Corporation and the Real Estate Board of New York, to name a few. Not too shabby for a former municipal employee.



Ryan Meehan.

## Howard Hornstein, Senior Land Use Partner, Cozen O'Connor

From John Lindsay's and Abe Beame's all the way to Rudy Giuliani's and Mike Bloomberg's, Howard Hornstein has worked closely with the city's mayoral administrations on zoning matters since the early 1970s, both as a member of the Board of Standards and Appeals and, later, the New York City Planning Commission. As a John Lindsay appointee, he made a name for himself by representing the BSA in a highly rare lawsuit against the city, in a case known at the time as "the Lincoln Plaza matter"; it involved a 14-story building on the Upper West Side that a judge eventually ruled could be built higher than others in the area.

The prolific St. John's School of Law lecturer left government in 1984, and worked closely with real estate mogul Ian Bruce Eichner on the air rights transfer from City Center Theatre, which resulted in the City Spire Center shooting to 75 stories and becoming what is now touted as the tallest mixed-use building in the city. At Cozen O'Connor, the firm he joined in 2005, Mr. Hornstein, 72, has taken advantage of his nearly 40 years of city connections in his efforts to represent developers and nonprofits throughout the city.

A more recent project in Borough Park that involved a proposed eight-story apartment building initially caused a headline-grabbing rift with residents, who feared overcrowding in the area. With Mr. Hornstein's assistance, however, litigation was completed in favor of one of his clients, the Wydra family, earlier this year.



#### **News Blaze**

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*News Blaze* is a daily online source for news and information. It receives approximately 57,075 visitors per month.

## **Five Solutions for Repairing Our Nation's Infrastructure**

January 30, 2009

The economy isn't the only national system that needs repairing. As this past summer's levee breaks and other recent disasters indicate, America's infrastructure is also in serious trouble. Construction expert Barry B. LePatner offers some solutions.

While policymakers and pundits focus on the financial meltdown, another crisis is brewing in the U.S.: Our infrastructure system is silently deteriorating more and more as each year passes. Frighteningly, we have experienced over 500 bridge failures since 1989 according to one recent study. The aftermath of Hurricane Katrina was another warning as levees broke destroying swaths of New Orleans. Then came the tragic I-35W bridge collapse of August 2007. Finally, the levee breaks of this past summer served as yet another illustration of how dire the situation has become. The lesson is clear, says construction expert Barry B. LePatner. We must overhaul the broken systems that have led us to this point-and we don't have a moment to lose.

"We all know the nation's vast infrastructure problems cannot be fixed overnight," says LePatner, coauthor of Structural & Foundation Failures (McGraw-Hill, 1982, coauthored with Sidney M. Johnson, P.E.) and author of Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry (The University of Chicago Press, October 2007, ISBN-13: 978-0-226-47267-6, ISBN-10: 0226472671, \$25.00). "However, by aggressively moving toward a solution now-rather than applying a series of ineffective 'bandaids'-we can begin to make real improvements that will benefit our country for generations to come."

According to LePatner, tackling our critical transportation and infrastructure problems will require a national commitment and a strategic plan that should include the following solutions:

Create a national clearinghouse and database, accessible to every state transportation agency and the general public. The database will 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 to require 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," says LePatner. "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 Grand River in Ohio in 1996. By June 2008, MnDOT announced that they would replace eleven major bridges in the state, some with the same concerns about deteriorated gusset plates that had gone undetected."

State governments should step up their efforts to protect their citizens. State governments 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." The public should receive annual updates on the remediation progress and be given notice if funding for the repairs is not provided within 18 months.

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," says LePatner. "Engineers are often the first to be laid off from state transportation departments because of their high salaries. This can no longer be the case. State governments can and must recognize the ability to reduce long-term maintenance costs rests with these engineers' valued experience."

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 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," says LePatner. "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."

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 back 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 payoff 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) apportion all the risks that are 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," says LePatner. "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' mindset anymore."

"The current financial crisis has caused many of us to think about what the nation's priorities should be," says LePatner. "Certainly, repairing the economy should be at the top of the list. But as the Obama Administration settles into office, it should make repairing the nation's

infrastructure a priority as well. After all, these two issues are connected. We cannot have a prosperous nation without providing a safe infrastructure system for our citizens and businesses. "An added bonus is that every \$1 billion in infrastructure spending is estimated to create 47,000 new jobs," he adds. "By taking the steps necessary to tackle our infrastructure problem now, we have an opportunity to improve our economy with the great ROI of a better, safer infrastructure system that will lead to a stronger nation."

#### **About the Author:**

Barry B. LePatner is the founder of the New York City-based law firm LePatner & Associates LLP. For three decades, he has been prominent as an advisor on business and legal issues affecting the real estate, design, and construction industries. He is head of the law firm that has grown to become widely recognized as one of the nation's leading advisors to corporate and institutional clients, real estate owners, and design professionals.

Mr. LePatner is widely recognized as a thought leader in the construction industry. A November 2007 Governing Magazine article stated, "If there's a guru of construction industry reform, it's LePatner." In an article entitled "Building a New WPA," appearing in the November 24, 2008, issue of New York magazine, he was referred to as "a Cassandra of infrastructure." His new book, Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry (The University of Chicago Press), which was reviewed in the Wall Street Journal, has created a national debate among owners, designers, and other key stakeholders. Mr. LePatner has been featured in BusinessWeek, the Boston Globe, the New York Times, Crain's New York Business, the Chicago Tribune, and other prestigious publications. His articles and speeches on the perilous state of our nation's infrastructure have garnered

him widespread attention. He has appeared on many television and radio broadcasts, including a CNBC appearance and several National Public Radio segments.

A nationally recognized speaker, Mr. LePatner has addressed audiences on topics central to trends affecting the real estate and construction industries at recent events sponsored by: The International Economic Forum of the Americas, the Real Estate Board of New York, FIATECH, the National Realty Club, the Construction Owners Association of America, the Construction Management Association of America, the Construction Financial Management Association, and MC Consultants Inc.'s Construction Defect and Construction Law Conference. He also routinely presents CLE-accredited courses to other law firms and organizations on how the construction industry actually works and how they can best protect their clients from the vagaries of the construction process.

LePatner co-sponsored "Real Estate Outlook," an annual executive seminar series for corporate and real estate leaders; "Protection, Survival, Readiness: Project Strategy in the Post-9/11 World," a seminar presented to institutional, developer, and corporate real estate executives; and "Secure Space," a building security seminar for corporate owners and developers. He has also presented "Construction Cost Integrity: Equitable Risk Allocation Agreements" and "Protecting the Owner from Pitfalls in Today's Construction Projects," a series of Continuing Legal Education lectures to law firms and their in-house real estate departments; and the highly successful "Marketing for Design Professionals" course at the Harvard Graduate School of Design's Summer Program, from 1990-2004 with A. Eugene Kohn, founder of KPF Associates. Mr. LePatner has written extensively and is widely quoted in the media on the subject of construction law. He previously co-authored the legal sections of the Interior Design Handbook,

McGraw-Hill 2001, and Structural & Foundation Failures: A Casebook for Architects, Engineers & Lawyers, McGraw-Hill 1982, with Sidney Johnson, P.E.

Recently published articles include: "Sarbanes-Oxley's Wake-Up Call to the Construction Industry," The CPA Journal, December 2007, co-authored with Henry Korn, Esq., and Anthony Chan, CPA; "Today's Construction Contracts: Drafter Beware," Legal Times, September 2007; "The Industry That Time Forgot," Boston Globe, August 2007; "Construction Cost Increases: Owners Should Know the Difference Between the Myths and Realities," New York Real Estate Journal, October 2006; and "Are You Prepared-Disaster Management Plans Help Owners Protect Their Investments" in the March/April 2006 issue of Commercial Investment Real Estate magazine. Articles published in the New York Law Journal include: "Caveat Advocatus-Drafting Construction Agreements for Your Client's New Construction Project Ain't What It Used to Be," March 27, 2006; "Insuring a Construction Project Against Water and Mold," October 25, 2004; "Building Security Measures and Owner Liability After Sept. 11," May 1, 2003, co-authored with Henry Korn, Esq.

In May 2002, LePatner was elected by the American Institute of Architects to receive an Honorary AIA Membership, one of the highest honors the organization can bestow upon an individual who is not an architect and which is granted to those who have devoted their careers in service to the architectural profession.

In July 2001, LePatner was elected to the Board of Trustees of DIFFA, the Design Industries Foundation Fighting AIDS. He has also served on numerous advisory committees, including: the Advisory Board, Society for Marketing Professional Services, 1990-93; the board of the New York Building Congress; Board of Advisors, Legal Briefs for the Construction Industry, 1981-89; American Institute of Architects Advisory Committee, 1984; and the National Academy of Sciences, 1984-85. He is a member of the Association of the Bar of the City of New York, the New York State Bar Association, and the American Bar Association.

#### **About the Book:**

Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry (The University of Chicago Press, October 2007, ISBN-13: 978-0-226-47267-6, ISBN-10: 0226472671, \$25.00) is available at bookstores nationwide, from major online booksellers, and direct from the publisher at <a href="https://www.press.uchicago.edu">www.press.uchicago.edu</a>.

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**Barry LePatner Stirs Up The Construction Industry** 

2009 PSMJ's Circle of Excellence Conference

**How the Best Design Firms Succeed in Turbulent Times** 

March 19-20, 2009 -- Orlando, Florida

Barry LePatner knows that the construction industry needs massive reform. Over the past few years, he has almost singlehandedly started a national debate among those inside and outside the construction industry over what can be done to overhaul the trillion-dollar industry that is driven by cost overruns, project delays, and perpetual waste.

And as the dismal state of the nation's infrastructure begins to receive more and more attention from the public, the press, and the U.S. government, LePatner says we can no longer postpone making key reforms to an industry that we will be looking to for a \$2.2 trillion remediation. Long story short: If we want to rebuild the nation's infrastructure so that it creates a stronger and safer nation, we must first reform the industry that will be in charge of these important projects.

At PSMJ's Circle of Excellence Conference, this nationally acclaimed author, consultant, and advisor will share his expertise and methods for enabling your firm to rise from this economic downturn stronger and ahead of the competition.

With over 30 years of experience, Barry LePatner has become the nation's foremost authority on design and construction industry issues. The November 2007 issue of Governing magazine stated, "If there's a guru of construction industry reform, it's LePatner." In an article entitled "Building a New WPA," appearing in the November 24, 2008, issue of New York magazine, he was referred to as "a Cassandra of infrastructure." His perseverance in opening the eyes of industry leaders, government officials, and the general public has been fully detailed in his book Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry (University of Chicago Press, 2007).

He attributes the causes of this construction industry debacle to a few major problems. He states, "For too many years we have been beaten over the head with accepted doctrines that dictate how we design, build, set budgets, and the owner pays for cost overruns because it is their project and 'this is the way we have always done it.' We have been sold on the wondrous benefits of fast-track projects where construction managers promise owners that the risk in starting construction months before the architects and engineers complete their designs is far outweighed by the savings of millions in financing costs when the project is completed months earlier than typically expected. Except those savings are never realized as the project inevitably goes over budget and is delayed because of conflicts between the last-minute design package and what has already been built. We have been sold the illusion of guaranteed maximum-price contracts where the owner assumes it is the CM guaranteeing a maximum price for the work, when in fact, the CM knowingly excludes the cost of certain elements of the project that will result in additional enormous cost overruns that will bedevil efforts to complete a large construction project. We have been sold on the belief that low interest rates and the enormous liquidity of the lending world will assure a steady flow of funding no matter how much is needed to complete the work."

LePatner continues to explain that the results will alter the way the industry does business. "Today, all of these assumptions are no longer viable and will not be permitted to operate the same way going forward. No longer will lenders automatically permit a construction project to move forward with only 10 percent equity from the developer/owner. No longer will lenders provide mezzanine loans to bail out an owner who has signed a standard form construction contract on an open-ended or GMP basis that almost guarantees that questionable change orders and claims will threaten to delay completion of the project. No longer should contractors be able to file unsupported mechanic liens to secure profits after bidding at or below cost to get the work and inflict unwarranted and costly litigation on an unsuspecting owner."

At the Circle of Excellence Conference, LePatner will make a powerful case for re-examining the way projects are designed and built during this challenging time and beyond. He will provide solutions for regaining control over spiraling costs and unfathomable completion dates. He will also reveal his prescriptions for reinventing the practice, examining which individuals in the organization are truly the most valuable and exploring new ideas for communicating value-added services.

Barry LePatner has advised many of the nation's leading architects and engineering firms. In 2002, the American Institute of Architects awarded him its highest honor for a non-architect, naming him an Honorary AIA. A current client of PSMJ had this to share with us: "Needless to say I am a fan and when I noticed he was to speak at the PSMJ Conference in Orlando, I immediately signed up so I can meet him in person."

We look forward to welcoming Barry in March and know that he will provide valuable information and insight for all who are in attendance!

#### **About LePatner**

Barry LePatner, Esq., Hon. AIA, is the founder of the New York City-based law firm LePatner & Associates LLP. An Honorary AIA member, Barry is a strategic advisor to architectural and engineering principals and has structured the business development and marketing plans for many firms during the past four recessions. He and his firm are recognized for excellence in delivering sophisticated packages of services that reflect a complete understanding of how today's complex construction projects are designed, financed, and constructed.

#### **About PSMJ**

PSMJ conducts more than 200 A/E/C educational seminars and conferences annually, supported by major professional societies, such as The American Institute of Architects (AIA) and The American Council of Engineering Companies (ACEC). Headquartered in Newton, MA, USA, PSMJ offers more than 150 titles in book, audio, and video and publishes two newsletters on A/E/C firm management. PSMJ also produces the industry's preeminent annual surveys on management salaries, financial performance, and fees and pricing.

If you'd like to learn about these crucial topics directly from Barry LePatner, then you need to participate in this year's PSMJ Circle of Excellence Conference!

To register for the conference, please visit <u>www.psmj.com</u>.

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Published: March 04,2009

### Can The Infrastructure Stimulus Package Work? 5 Things to Consider

On one hand, our national infrastructure is in dire need of the stimulus money it's getting. On the other, there's precious little evidence that the construction industry won't squander it. Construction expert Barry LePatner advises the U.S. government to take some very specific steps to avoid wasting infrastructure stimulus funds.

Economic stimulus plan funds will soon be distributed to projects and programs across the nation, and without a doubt opinions on the matter are mixed. One definite high note is that the legislation--which includes around \$48 billion in infrastructure transportation spending on everything from a high-speed rail service to highway projects to public transportation and intercity rail projects--finally recognizes that our nation's infrastructure is crumbling around us.

But according to construction attorney Barry LePatner, the government had better look before it leaps. Why? Because the legislation authorizing the distribution of this massive funding program assumes that the dollars spent on these projects will be efficiently utilized by a construction industry that is just as broken as the infrastructure it's charged with building and repairing.

"We've already seen what can happen when the government pumps money into broken industries without properly monitoring how it's used: billions of taxpayer dollars are wasted," says LePatner, coauthor of Structural & Foundation Failures (McGraw-Hill, 1982, coauthored with Sidney M. Johnson, P.E.) and author ofBroken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry(The University of Chicago Press, October 2007, ISBN-13: 978-0-226-47267-6, ISBN-10: 0226472671).

He speaks, of course, of the "bailout" money poured into America's financial and automotive industries--industries whose inept and inefficient ways have, to date, prevented the funds from benefitting the American people. And he insists that, sadly, the construction industry is no better. In fact, as amazing as it may seem, it could be even worse!

"When you give money to an industry that, according to recent studies, wastes upwards of \$120 billion a year, and don't take the steps necessary to ensure it's used wisely, you are going to end up once again with no ROI," he warns. "That's the stark reality. And for taxpayers already saddled with a terrible economy and a crushing mountain of national debt, this is bad news indeed."

The construction industry's woes are at the center of LePatner's latest book. In it he lays out the industry's biggest problems: rampant cost overruns and missed (in some cases by several years) project deadlines. Grim as it may sound, he predicts that the construction industry will fritter away the \$48 billion allotted on projects that may well get underway--but will be abandoned before they're ever finished.

"To advance billions in infrastructure funds for needed roads and bridges only to find we run out of money before they are completed is totally wasteful," says LePatner. "The amount of money being doled out for these projects is finite. Once it's gone, it's gone. Unfortunately, it's highly likely that it will be wasted, and we will end up with a nation of under-maintained highways and byways and useless, only partially completed bridges and roads. Frankly, before infrastructure repairs can be made in a cost-effective and efficient way--both crucial for the current state of the nation--the construction industry must make more than a few repairs of its own.

"The government, too, should do its part to ensure there is adequate protection against this waste in the accountability provisions of the stimulus plan," adds LePatner. "Without a true fixed-price structure for all construction projects that shifts the risk for inefficiency and waste to the construction industry, our government will be back footing the bill for an additional tens of billions of dollars within a few years."

LePatner offers a few steps he would like for the nation's governing bodies to make beforethe infrastructure money is pumped into project contracts:

Create an Infrastructure Czar position. The current stimulus legislation proposes to set up oversight by an Accountability and Transparency Board composed of a chief performance officer and six members designated by the President, including inspectors general and secretaries of the Education, Energy, HHS, Transportation, and other federal departments. But according to LePatner, it's unlikely that any of these officials have a true grasp of the inefficient way the construction industry operates or how to address them in future contracts. In order for these project negotiations to be mediated properly, he advises, the President should create an Infrastructure Czar position.

"The Czar should be a savvy construction expert who did not emanate from the construction industry but who is familiar with the low bid/change order process that consistently drives up costs on construction projects," he explains. "This individual must know how critical it is to avoid traps like the fast-track process or guaranteed maximum price traps that never truly guarantee the contract price. A construction expert of this kind will help close the information gap that will likely exist between construction contractors and the policymakers trying to negotiate government contracts."

Make fixed-price contracts mandatory. In a seemingly helpful provision, the stimulus legislation calls for contracts "to the maximum extent possible" to be awarded as fixed-price contracts through competitive procedures. Unfortunately, that appears to be the extent of what the government understands as being protective of the federal dole.

"One merely needs Google the phrase 'construction cost overruns' to begin to realize the enormous proportions of the waste our country has been dealing with for decades," says LePatner. "Fixed-price contracts on these projects are an absolute must. Without them, contractors will use change orders and delay claims to drive up the costs of these crucial infrastructure projects. In order to obtain these fixed-price contracts, the government should also require that contractors create their bids based on 100 percent complete documents from the

architects and engineers. Otherwise, it will be impossible to estimate the true scope of these projects."

Invest some stimulus money in advanced technologies. Consider this fact: By the time cracks appear in the structure of one of the nation's bridges, the costs for remediation have skyrocketed. That is why some of the money being allocated for infrastructure projects should go toward purchasing new technology that can help state governments and the federal government save money down the road.

"Technology exists to anticipate bridge remediation years before rust, corrosion, and cracks appear," notes LePatner. "We 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."

Create stipulations aimed at avoiding wasted labor costs. The construction industry, now at the crossroads of so many needed projects and potential revival of our jobless situation, has a very bad (though not widely known) reputation for waste. Shockingly, some 50 percent of all labor costs of a project are lost due to late deliveries, poorly coordinated subcontractors, and other circumstances that regularly prevent employees from engaging in productive onsite work. These inefficiencies spring, in part, from the "mom and pop" nature of the businesses involved. But it is also a function of the industry's minimal use of technology, its lack of capital resources, and the fact that productivity per worker has gone down over 22 percent over the past forty years.

"In order to combat this problem, stipulations must be placed in the government contracts awarded," insists LePatner. "Contracts must require that skilled, experienced onsite construction representatives with in-depth knowledge, who can oversee not only quality but the true cost for the work, are retained for these projects."

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 back 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 payoff 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," says LePatner. "Going forward, as infrastructure projects proceed with only limited funding, our nation cannot afford to face cost overruns of 20 percent, 30 percent, or more. There are no available funds to finish projects facing contractor overruns due to the industry's inefficiencies. The industry itself will have to be reformed before we can start making progress on repairing the nation's infrastructure."

"The government is about to embark on what is essentially bailout #3," says LePatner. "Obviously, the last two were less than successful. They'd better get this one right, or public trust will be irrevocably damaged. This stimulus plan should be handled with a lot of transparency and follow through--two characteristics the construction industry, the most inefficient industry in our nation, isn't known for.

"When you consider the huge number of projects that must be completed in order to restore America's infrastructure, it is clear that measures must be taken to ensure that money allocated for infrastructure projects is used wisely and for the betterment of the nation," he adds. "Our government must ensure that infrastructure project contracts are all undertaken with true fixed-price contracts that pass the risk for poor performance onto the contractors who fail to complete them on time and on budget. Our leaders' credibility, not to mention our nation's future safety and viability, depends on it."

### **About the Author:**

Barry B. LePatner is the founder of the New York City-based law firm LePatner & Associates LLP. For three decades, he has been prominent as an advisor on business and legal issues affecting the real estate, design, and construction industries. He is head of the law firm that has grown to become widely recognized as one of the nation's leading advisors to corporate and institutional clients, real estate owners, and design professionals.

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& Lawyers, McGraw-Hill1982, with Sidney M. Johnson, P.E. Mr. LePatner is currently writing a new book that takes a look at what needs to be done to rebuild the nation's infrastructure. To be published early in 2010, it will address our decades-old failure to redress our deteriorating roads and bridges and will offer insightful recommendations on how to finance and build this critical part of our nation's backbone.

In 2007 and 2008 Mr. LePatner was selected as a Super Lawyer by the publisher of Law & Politics magazine. In 2002, Mr. LePatner received an Honorary AIA Membership. He is also currently on the Board of Trustees of the Design Industries Foundation Fighting AIDS (DIFFA). He has also served on numerous advisory committees including: the Advisory Board, Society for Marketing Professional Services; the Board of the New York Building Congress; Board of Advisors, Legal Briefs for the Construction Industry; American Institute of Architects Advisory Committee; and the National Academy of Sciences.

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For more information, please visit www.brokenbuildings.com.

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Why Construction Cost Over Runs are Crippling The Industry

Published: December 21, 2009

Huge cost overruns and missed deadlines have long been the accepted norm for construction project operations. But as the economy struggles to fully recover, construction expert Barry LePatner stresses that these precepts can no longer define the nation's most inefficient industry. He provides a proposal for hardwiring construction cost containment into future projects.

Cost overruns have long been the norm in the construction industry. Just consider the litany of projects across our nation that have been plagued by cost overruns. For example, Boston's \$22billion-dollar Big Dig, which continues to drain Massachusetts' economy, or the sports arenas and stadiums such as the newly built stadiums for New York's Mets and Yankees, both of which have exceeded projected costs by hundreds of millions. Not to mention the smaller projects such as the schools, hospitals, and office and residential projects going up around the nation, which encounter overruns on a daily basis.

No one has ever been happy about the cost overruns or the missed deadlines that accompany projects like those mentioned above, but most have accepted them as a necessary evil. But in our stagnant economy, faced with the stark reality of dried-up financing, and a construction industry that has lost over 1.5 million workers, tightly budgeted developers and project owners are facing a budgetary quagmire from contractors who bid at or below cost to secure contracts that will inevitably result in massive cost overruns.

However, a new paradigm is on the horizon that promises to alleviate these problems-and Barry LePatner says construction cost containment is the number one goal of developers, corporations, lenders, and public owners alike.

"Construction cost overruns have run rampant for decades," says LePatner, author of Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry and the upcoming book Roadblock: America's Failing Infrastructure and the Way Forward. "It's hard to believe that the construction industry was allowed to waste upwards of \$120 billion each year

even in the best of times. It is an industry that has seen per-worker productivity fall by nearly 25 percent over the past 40 years. But in these difficult times, the status quo can no longer stand."

The problem, well-known to most people who deal with the construction industry, is that the low-bid process allows contractors to win projects-followed, of course, by change orders and delay claims that gradually escalate the final price and enable them to make a profit.

LePatner's solution? Over the past two years, his law firm has developed The LePatner C3 Model[tm], a new fixed-price approach to designing and building complex capital projects that enables all project team members to operate with confidence that their project will be completed on time and on budget. It does this while also assuring a fair profit to the construction team without the need for unwarranted claims and delays. NOTE: For details, see LePatner's new white paper, The LePatner C3 Model: Construction Cost Certainty, which is available for download at <a href="https://www.BarryLePatner.com">www.BarryLePatner.com</a>.

"If you're scoffing at the mention of a 'fixed-price approach,' you're certainly not alone," admits LePatner. "Many in the construction industry believe fixed-priced contracts simply aren't possible. And given the way the industry currently operates, they are correct.

"But when you ensure that contracts are based on fully complete and coordinated drawings, perform a proper risk allocation to adjust for anticipatable problems during the construction process, and involve intermediaries to act on the owner's behalf in the negotiation process-as The LePatner C3 Model does on all accounts-you create a world in which owners-public and private-can, for the first time, feel secure that cost certainty will be achieved."

And as seen by the results of FMI and CMAA's recent 2009 Tenth Annual Survey of Owners, LePatner's fixed-price model is coming at just the right time. As we move into the next decade, owners, too, are expecting change.

According to the survey's findings, owners want to see more claims avoidance, better project leadership, and better alignment of "project delivery system selection to project characteristics and conditions."

The survey also found that from 2009-2014, owners will place greater importance on the following factors. Here they are as excerpted from the survey:

Selecting the most effective project delivery system

Maintenance management support in both processes and technologies

Proactive strategies to avoid claims and disputes

Development and use of a construction management plan

Effective documentation and processes designed to support facility commissioning or turnover

LePatner has been proposing this kind of change within the industry since the release of his book Broken Buildings, Busted Budgets in 2007, which sparked a long-overdue debate among owners, design professionals, and contractors on the mutual benefits of construction industry reform, specifically the need for widespread adoption of true fixed-price contracts.

The LePatner C3 Model, which makes fixed-price contracts a prerequisite for new construction, ensures that borrowers and their lenders will no longer be held captive to the well-documented inefficiencies of the U.S. construction industry. And stakeholders will no longer be exposed to existing construction methodologies that allow all risks of completion to be passed along to owners and lenders.

Here's a look at the construction industry inefficiencies LePatner hopes to end for good with the use of The LePatner C3 Model:

Incomplete drawings. Incomplete drawings allow contractors to bid low in order to win projects, and also prevent them from providing an owner with a true fixed price for all work required to complete the project. Here's what happens: To "expedite" construction, construction managers routinely require the owner's architects and engineers to issue incomplete drawings and specifications to contractors as the basis for the project contract. Lacking complete scope

information, the contractors must infer and make cost assumptions on the "missing" design elements since they are not provided with detailed information on the project design.

"What results are agreements that ultimately allow for myriad exclusions, allowances, and pricing assumptions based upon the incomplete design," says LePatner. "It is no surprise that these pricing and scope assumptions rarely bear out once construction starts, the final design is completed, and actual costs are determined. And once a project is under construction, owners have very few good options to dispute these charges because delaying the project to settle these problems will only lead to more delays and costs. The LePatner C3 Model ends this problem because it requires contracts to be based on fully completed designs.

"In addition, The LePatner C3 Model also ensures that the owner has, for the first time, accurate pricing information on the actual costs reflected on the design drawings. Owner representatives and their cost estimators will be valuing the design as it proceeds so that, by the time bids from prospective contractors arrive, the owner will know if they are truly competitive and can ensure a fair profit for the construction team to reflect the risks they will take to complete the project on time and on budget."

Change orders. Change orders are the major reason so many projects go over budget and run behind schedule. They occur because the design documents on every "fast track" project are incomplete. This practice sets in motion all that is wrong with the current methodology of construction and underscores the failure of standard-form industry contracts to protect owners. As previously mentioned, contractors use change orders to profit from their low bids.

"Low bids and the change orders that come with them will only be exacerbated by the slow and recovering economy, subsequently driving up project budgets by 20 to 50 percent or more," says LePatner. "In the past, when cost overruns arose, owners could borrow to meet a shortfall from a mezzanine lender to cover these costs. But in the years ahead, industry leaders expect that few, if any, mezzanine lenders will cover the increased cost of completing such projects. The LePatner C3 Model puts an end to the need for unnecessary change orders because it ensures a built-in, fair profit for contractors when a project is completed on time and on budget."

Ineffective design and construction agreements. A central problem is that standard design and construction agreements fail to recognize the low-bid process and the known inefficiencies of the construction industry. These form-based agreements are silent on the critical issue of contractor bids based upon incomplete designs and fail to offer any mechanism to anticipate and price "unexpected" conditions. These are precisely the circumstances in which cost overruns and change order claims run rampant through the construction industry, busting owners' budgets at every turn. The backbone of The LePatner C3 Model is a set of seamless agreements for the design and construction teams that ensure a true fixed price based on fully completed project designs. It also includes a risk allocation process that helps factor in "unexpected" conditions that are priced during the contracting process and eliminate costly and time-consuming delays.

"As it stands today, on construction projects big and small, project cost is a huge wild card," says LePatner. "Public and private owners should demand certainty for their capital project costs. In the years ahead, if you are a developer and you do not have a plan in place for cost containment, you will not be able to get the loans you need to build. If you are lucky enough to get the initial loan, you will run the risk of having to pay millions more to cover costs that have soared over budget. For example, if you are a school district and must build 10 new schools with a \$40 million budget, cost overruns will prevent you from constructing as many as 20 percent of the intended number of schools.

"The LePatner C3 Model offers reassurance on cost certainty where there currently is none," he adds. "For lenders, it provides a proven strategy that reduces construction loan risk. And, thanks to the cost certainty it provides, borrowers receive a new level of assurance that actual project costs will not exceed the contract price.

"Having something like The LePatner C3 Model in place is a necessity now," concludes LePatner. "Our nation will rebound from the current financial downturn. We are in the process of adding 100 million new citizens in the next 30 years, a level of growth that will require our nation to spend over \$25 trillion to build new hospitals, schools, offices, roads, and bridges. The LePatner C3 Model will become a new paradigm that will help transform America's most inefficient industry into one that helps us build our nation's future efficiently and cost effectively, while protecting owners from that same inefficiency."

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\$25.00) is available at bookstores nationwide, from major online booksellers, and direct from the

publisher at www.press.uchicago.edu.

For more information, please visit www.BrokenBuildings.com or www.BarryLePatner.com.

\* For more information or an interview with Barry LePatner, please contact Dottie DeHart,

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Tags: Book Publishing



### **University Business**

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*University Business* is a monthly secondary education publication written for presidents and other senior officers at two- and four-year colleges and universities throughout the United States. It is designed to address the institutional challenges and concerns of college and university administrators, business officers and financial planners. It covers current and emerging trends in all areas of university and college management. It has a circulation of 45,561 and a one-page ad rate of \$7,996.

### **Acts of Adaptation**

With funds for new campus construction tighter than ever, administrators are giving adaptive reuse of older buildings a fresh look.

By Michele Herrmann

March 2009

IT'S PRACTICALLY A GIVEN THAT AT SOME POINT IN A BUILDING'S life it will either become so outdated or need so much work to remain usable that its very existence will be questioned. But the possibility of tearing it down can present an emotional dilemma as well as go against sustainability principles. And, of course, building something new in its place comes with a big price tag.



APPA named adaptive reuse—which involves creating an entirely new strategy for a building's use—as one of the top ten critical facilities issues in a report resulting from its 2007 Thought Leaders Series, and a new LEED rating system to be released this month by the U.S. Green Building Council is expected to give more points for adaptive reuse projects. Architectural firms find their higher ed clients are taking notice.

"Adaptive reuse has been interesting to universities because they often have very constrained campus plans that cause them to rethink these buildings," says Betsy del Monte of The Beck Group, based in



Dallas, adding that "the most sustainable building is the one that is already built and sitting there."

Principal and director of sustainability at the firm, del Monte explains that higher ed institutions were mainly pursuing campus expansion in the past several years. She expects adaptive reuse to become a primary focus for IHEs in the next few years, because of financial challenges and the focus on resource efficiencies.

Loren Ahles, vice president and design principal at HGA Architects and Engineers' Minneapolis office, agrees that campus leaders are giving adaptive reuse another look. The biggest positive? Administrators can reduce construction costs associated with square footage appreciably.

In addition, adaptive reuse can be the right thing to do. "It's tough to throw away buildings. It doesn't make much sense in this day and age, and so [adaptive reuse] is a green approach to renovating a campus."

Here's how three institutions helped to give certain structures second lives.

Saving History Results in Student Center

Sea Urchins, a private summer residence, circa 1886, was bequeathed to College of the Atlantic (Maine) in the mid-'70s by its owner under a life-tenancy agreement. But the wrecking ball was heading its way in 2004, after the university community voted to tear it down and built new environmentally sustainable housing in its place.



Administrators thought it would be difficult to restructure the building due to its eccentric design, including two additions from the early 1900s and related accessibility issues, with many of the room entrances having steps. Designed for summer use, the building wasn't insulated. And its stucco exterior, easily capable of soaking up moisture, had to meet modern building codes.

'By using that space, we also gained options for future expansion for other student affairs groups.' -Jean Marlow, Eastern Kentucky University

"It really just sat there as our campus landmark, but [it was] of very little use to us," says Millard Dority, director of campus planning, buildings, and public safety. The owner lived in the building during the summer months, although the college had used the servants' quarters, one of the additions, as residences during the year. Another addition served as a student lounge in the mid-to-late-'90s.

"It was a very, very difficult decision ... but we felt there was no way we could make it ADA compliant because the building was convoluted," explains Dority.

**Unusual but Reusable**: Other Examples of Adaptive Reuse

National Polytechnic College of Science (Calif.): Officials at the college, an affiliate of the National University System, converted a former U.S. Navy vessel into a fully functioning "floating campus," based in the Port of Los Angeles. They rechristened the 110-foot-long, 34-foot-wide ship with the name "Discovery," and it's being used for students pursuing careers such as commercial diving and underwater welding. The campus contains two 25-person classrooms, a central office complex, faculty offices, a computer lab, a training tank, dive stations, multiple-deck hyperbaric chambers, welding stations, and maintenance shops. At press time, classes were scheduled to begin in February.

University of Florida: The Kathryn Chicone Ustler Hall, formerly known as the Women's Gym, reopened for classes in September 2006 after sitting vacant for nearly 27 years. Built in 1919, "The New Gym" was no longer being used by 1979, but it was saved from demolition in 1988 after being granted National Register of Historic Places protection. A donation from alumna Kathryn Chicone Ustler (1961) in 2000 allowed for the former gym to be transformed into a 14,700-square-foot, three-level academic structure. The restoration process was completed in 2006. The hall is also home to the Center for Women's Studies and Gender Research. Berry College (Ga.): Built by Berry students in the 1930s, the Normandy Dairy Farm operated on the college's grounds for six decades, providing education and training for North Georgia's youth. As dairy students declined in number, and the dairy moved to a new location, the college chose to enter into a long-term agreement with the WinShape Foundation to run the property, which was converted into the WinShape Retreat Center. The 15 original structures-from milking barns to silos-have been renovated to become facilities for conferences, retreats, and summer camps. For example, a dining hall was once a milking barn, and a barn once used to house calves is now a reception hall and welcome center. The center earned a 2007 award from the National Trust for Historic Preservation.

Creighton University (Neb.): Officials acquired the former M.F. Shafer & Co. Building in 2006. Preserving the exterior and key interior architectural features, the project team transformed the building into the Wareham Building, an office space for housing staff supporting Creighton Medical Associates (an academic medical center) and the University Relations department. Listed on the National Register of Historic Places since 2002, the building was dedicated in May 2008. Built in 1917, the building was first used as a printing company and became a warehouse in 1925. In the 1970s it was acquired by the O'Keefe Elevator Company to store new elevators. The building, remodeled to meet LEED requirements, uses water source heat pumps for heating and cooling, energy efficient glass in existing window portals to harvest daylight during work hours, and includes additional insulation to the roof membrane.

**Indiana State University**: The more than 70-year-old University Hall is undergoing a nearly \$30 million renovation to serve as the new home for the university's College of Education. Constructed in the 1930s as a Works Progress Administration project, the building served as the ISU Lab School for five decades. New heating and air conditioning enables individual controls in each room. Skylights were developed in the building's atrium to take full advantage of sunlight. Once the college moves into the building in fall 2009, officials expect to save approximately \$1 million per year in energy costs.

**Assumption College (Mass.)**: In 2007-2008, the college repurposed the former president's residence, a Victorian home, into the new Admissions House. The 9,000-square-foot residence was expanded with a 6,000-square-foot addition and was made to be more energy efficient to accommodate prospective students and their families, as well as more than two dozen admissions and financial aid staff. The Admissions House is the only building on campus from as far back as

1904, the college's founding year. A carriage house has become a technology-rich classroom and presentation space.

When COA administrators were scheduled to present plans for the future Kathryn W. Davis Student Residence Village to the Bar Harbor Planning Board, with one of the three duplexes to be placed on the site of the cottage, Dority gave the floor plan a final look. That's when he determined a way to salvage it. By removing and relocating the wing that had served as the temporary student lounge, the number of level changes could be reduced, making the building more accessible.

After discussions with the college's president and the associate dean of student life, a plan B for the cottage came into fruition: use it as a campus center with a café and lounge, plus offices for faculty and staff. In July 2007, the board of trustees voted to proceed with the adaptation of the cottage and the construction of the new student housing, which was built first.

The project team was able to keep the original 1886 design of the summer cottage intact. The yearlong project began in September 2007 with the installation of a heating system that runs on wood pellets and the addition of spray-foam insulation.

Today, Deering Common, a 25,000-square-foot campus center, houses the departments of counseling and health services and student life personnel, along with spaces for student interests, including music halls and a meditation room.

"It's great that we saved a building," says Dority, who explains that the decision enabled fellow administrators to cancel plans for a new \$8.1 million campus center. Given the current state of the U.S. economy, Dority says, "We probably would have never built the campus center, so the students would be without an area they could call their own."

### From Student Hangout to Tech Center

The decision by Eastern Kentucky University administrators to convert a former bowling alley and a pool hall housed in the basement level of its student union, the Powell Building, into a Technology Commons center originated with the need for a centralized facility for students and evolved into a team-based learning environment for student technology needs. The bowling alley and pool hall had fallen victim to a decline in student interest over time and had been sitting vacant for almost three years until being closed in 2002.

In 2004, a group of university officials was invited to visit a computer learning center at Virginia Tech. When they reported back, a discussion began about a location for student-centered technology services at EKU.

A one-stop technology shop was needed. "We didn't have a facility like this on campus with these services," explains Jean Marlow, director of Instructional Technology, who was a part of the group that traveled to the Blacksburg, Va., campus. "We looked at the bowling alley as our first choice because of the central location on campus, and it also was the space we needed."

Student leaders got involved in the process by appointing an oversight committee to work with administrators on determining what features would be needed. A student technology fee, set at \$50 per semester prior to this project, covered its cost. Allocated money from three budget cycles (2004 through 2007) was committed to the project.

"I think it's absolutely essential that any project like this, especially funded by students, be student centered and student focused," says Marlow. "We were very careful to get buy-in and involvement of other students on campus."

So the final design incorporated results from student surveys, focus groups, and campuswide forums. "Students were looking for a collaborative working environment where they could sit down with their colleagues, with their peers, spread out and work on projects," says Marlow. Also on student wish lists: a lounge area, wireless access in all areas, meeting space, and a printing center.

Costing an estimated \$1 million, renovations began in 2005 with the removal of sports equipment and were wrapped up in December 2007. Lexington-based Adams-Frazier-Anderson was contracted for the project.

Suitable lighting fixtures were needed, so the project team had them installed. Another issue involved water leakages, due to the building's age and condition, and modifications were made in the mechanical rooms. A few items of bowling memorabilia were kept for a tribute space, which will be added at some point soon.

Opened in January 2008, the 10,280-square-foot Technology Commons offers students an emerging technology studio that houses 40 classrooms arranged with 10 worktables and videoconferencing equipment, a wireless lounge, a general purpose computer facility, a student conference room, and the Paper Jam, a printing business and equipment rental center.

In addition to its central location on campus, the student center had other pluses. "By using that space, we also gained options for future expansion for other student affairs groups," says Marlow, "which was very nice as well."

### Opportunity Knocks Next Door

In 2005 Stevenson University (Md.) purchased a training facility once used by two National Football League teams and had it converted into the new Caves Sports and Wellness Center. The two-floor building, with approximately 40,000 square feet, sits near the entrance to the university's Owings Mills Campus, just down the hill from student housing.

"We were building student dorms and apartments there [and] we purchased the property right adjacent to it," explains Tim Campbell, executive vice president for financial affairs and CFO at the university. Officials sent a letter of inquiry to the city about the property. "This being so close to our properties, we thought it would be a good fit," he adds.

The facility was built for the Baltimore Colts in the late 1970s and used until the team moved to Indianapolis in 1984. In 1996, the Baltimore Ravens were established and the building was used again until the team moved to a new facility. The original building contained training facilities, locker rooms, an outdoor bubble that housed a weightlifting area, and a fitness center.

After the \$4.71 million transaction, the university had all mechanical systems replaced. Completed in July 2006, the building opened the following month. The final cost of the renovation—including equipment, furniture, landscaping, and parking improvements—totaled an additional \$4.54 million. Lockers from the facility's NFL days were left as a reminder of the building's former life and are still in use.

The center now houses both athletics and a full-service health and wellness group, featuring a hydrotherapy pool and a racquetball court. With the playing fields just outside, visitors can observe the action in the "skybox" area inside the building that overlooks the fields. Athletic teams use the covered sports bubble for practices. On the upper floor, the Wellness Center offers routine first aid services and supplies and houses professional counseling offices. The top level also contains eight classrooms.

Los Angeles City College (Calif.): A current effort related to the Northeast campus project involves the restoration and reuse of the Van de Kamp's Holland Dutch Bakery into a satellite education complex, with an end of December 2009 completion and certification in both LEED and BREEAM (a United Kingdom rating) expected. With its façade declared a Los Angeles Historical-Cultural monument in 1992, the bakery served as headquarters for Van de Kamp's bakery and coffee shop chain for more than 60 years. Kicked off in December 2007, the project will preserve the bakery's Dutch Renaissance Revival exterior to historic detail while reusing the building's interior as a "living laboratory."

**Stephens College (Mo.)**: Built in 1938, Lela Raney Wood Hall had served as a headquarters for the women's college's extracurricular program and for recreational activities on the building's lower level. A two-story ballroom was on the main level, while the facility's two top floors were used to temporarily house 110 students. Falling into disarray over time, the hall was vacated in 1996. Reopened in April 2006, the two upper floors now host student-support services and administrative offices (completed a year later). The ballroom was restored to its original state. The lower level was turned into an archival storage space for Stephens' Costume Research library, housing a collection of more than 12,000 pieces. A gallery was added on the mezzanine level. The total cost of renovations was \$6.3 million.

Arizona State University: A former Nursing Building, designed in 1965, underwent renovations starting in August 2007 to house the Global Institute of Sustainability and the newly formed School of Sustainability. With five floors, four of them above ground, the building contains administrative and private faculty and graduate student offices, conference rooms, open areas, and classrooms. The first floor houses the school's admissions office; the second floor has a student break room, two lab lounges for research projects, two classrooms, and a large multipurpose room. The project's original \$3 million budget, completed in March 2008, allowed for ADA compliance, asbestos removal, and upgrading fire, safety, HVAC and lighting systems.

An additional \$3 million from the university's capital budget has made 48,806-square-foot facility become eco-friendly. Six wind turbines, mounted on the building's roof, are powered by thermal updrafts. The facility is also targeting silver-level LEED certification.

Prior to the purchase, only five classrooms were at the Owings Mills Campus, and the institution needed additional space for academics and student support services, according to John Jensen, assistant vice president for facilities and campus services. With more than 1,110 students residing on the campus, a wellness center would get a lot of use at the location—and it has.

As the Stevenson, College of the Atlantic, and Eastern Kentucky communities know, something old can be new again.

In With the Old: Using Salvaged Materials

Reusing salvaged materials can let certain resources live on in new construction projects and deliver feel-good returns.

For the environmental factor, Barry LePatner, founder of the New York City law firm LePatner & Associates LLP, explains that reusing salvaged materials reduces the need for landfill space and accompanying environmental impacts such as water and air quality. Second, this practice also cuts down on the need for having to extract and produce new construction materials such as mining and transportation.

Another argument may be more aesthetic. Whether they are old brick, wood beams, or floor planks, salvaged materials may have appeal for renovation projects that are preserving or replicating an older campus building's historical character.

"Those materials worth salvaging are likely to be of a higher quality than a comparable material produced today," says LePatner, also an author and advisor on business and legal issues affecting real estate, design, and construction, "or even impossible to duplicate today because of a lost era of craftsmanship."

What about cost? LePatner says some salvaged materials could cost more depending on how expensive it would be to recover them or whether they need to be refurbished. On the other hand, some materials (such as timber beams and wide-plank flooring) could cost less depending on their supply and demand.

Administrators would need to weigh the value of the cost versus benefits of quality and durability that can be found in these materials.

Here are examples of some institutions putting the practice of salvaged materials into place:

• Vanderbilt University (Tenn.): When the Hill Center, an old dining facility, was torn down during summer 2006 to build The Commons Center, a student life facility, nearly 95 percent of the materials were salvaged, recycled, or sold. Sandstone pavers from the former dining facility were placed in the patios of the Commons Center, opened in August 2007. Approximately 150

tons of limestone excavated from the construction site went into creating The Star Chamber, a 12-foot landscape sculpture at Vanderbilt's Dyer Observatory, in October 2006.

• Albright College (Pa): A total of 250 tons of steel are being recycled from the former Army Reserve Center in Reading, which was deeded to the college in summer 2008 and then demolished that November. Approximately 4,000 tons of concrete and brick are being pulverized into a mixture that will be used as backfill for a new parking lot on the site, adjacent to the college's Gene L. Shirk Stadium. There are also plans for putting in lines for six full-sized basketball courts.

### Resources

• St. Olaf College (Minn.): Approximately 140 trees harvested from the construction site for the 200,000 square-foot Regents Hall of Natural and Mathematical Sciences, opened in October 2008, were transformed into benches and tables by the college's cabinetmaker Gregg Menning to furnish the hall. Benches can be found in the building's corridors, tables in meeting rooms. Remaining wood has been stockpiled for future use. Also, several hundred new trees have since been planted around campus.



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# Why infrastructure work is more important than ever

By Barry B. LePatner

t has taken several disasters, such as the failed levees and floodwalls caused by Hurricane Katrina, the I-35W Bridge collapse and (more) failed levees caused by the Midwest floods earlier this year, but the dismal condition of America's infrastructure is finally making headlines. It's an issue that has been urgently discussed by engineers and transportation experts and simultaneously ignored by vote-hungry federal and state politicians. But we can no longer ignore the reality that large portions of our infrastructure haven't received the repairs and renovations they need. The resulting deterioration – including to the one in every four bridges across the nation that has been rated hazardous and the 100-year-old asbestos-wrapped steam pipes under our city streets – has become a daily danger to our citizens.

Quite simply, the nation's infrastructure system has been starved of attention for too long. It's a problem that's been decades in the making and that has now reached a critical tipping point. The safety, security and economic well-being of the country are at serious risk – and the current, belated concern from Congress and some state governments, as well occasional comments from the presidential campaign trail feel like "too little, too late" to the experts who've documented these serious issues in largely disregarded reports.

The reality is that our roads, bridges and tunnels have deteriorated so severely that some experts anticipate it will cost our nation tens of trillions of dollars to repair them. The magnitude of the problem was clearly laid out in the Infrastructure Report Card 2005, published by the American Society of Civil Engineers, the country's leading professional organization in the field. This most recent report card from the ASCE lists 15 categories, none of which received a grade higher than a "C," and 10 out of 15 – including transit, navigable waterways, drinking water, schools and wastewater management – received scores in the "D" range. Shamefully, America's bridges have never scored higher than a "C."

The collapse of the I-35W Bridge in Minneapolis on Aug.

1, 2007, offers a paradigm for evaluating the state of American infrastructure – how it has fallen into its present condition and the costs now being exacted by decades of neglect. The collapse of the bridge, a nearly seven-football-fields-long structure, was not due to a shortage of funds. Rather, it resulted from a misallocation of funds.

Minnesota taxpayers had been far from stingy. They had seen their state allocate highway costs of \$151 billion in 1991, \$217 billion in 1997, and \$286 billion in 2005. Yet these monies appear to have been set aside for transportation expansion projects far more frequently than for bridge and road remediating—despite the state's promise to repair its aging infrastructure, which had been in poor condition for years. No funds were set aside for repairs on the "structurally deficient" 1-35W Bridge that carried 140,000 vehicles per day.

What's worse, despite the devastation and loss of life caused by the bridge's collapse, over the next 12 months, in 33 states and in Washington, D.C., there was no significant new spending and little debate devoted to looking into the extent of the infrastructure problem.

### RECOGNIZING THE PROBLEM

The U.S. infrastructure system has been poorly managed and underfunded for decades. Currently, the government provides \$2 billion in maintenance costs annually for the 592,000 bridges that fall within its purview. This works out to a paltry \$3,500 per bridge. It doesn't take a genius to realize this sum doesn't cover an adequate bridge inspection, let alone the repairs caused by two or three decade's worth of neglect. And if you and I realize this, you'd better believe that your local politicians - who receive annual reports from their state transportation departments detailing the deterioration of the roads, bridges and levees in their constituencies - realize it, too. But politicians learned long ago that spending money on infrastructure maintenance wins them no points in the fundraising game or the rush to reward

their supporters.

Just as the melting of the glaciers and polar icecaps are finally providing tangible evidence that global warming is real, phenomena such as collapsing bridges, the relentless spread of traffic gridlock and consistently poor safety ratings clearly signal a day of reckoning for our nation's infrastructure. Recent, well-publicized breakdowns in the infrastructure system should warn politicians that they can no longer try to brush the nation's infrastructure problems under the rug as they have for the past 25 years. It's time to find solutions. And thankfully, unlike the problem of global warming - whose solution will require the coordinated efforts of countries everywhere - inadequate infrastructure is one we can solve on our own.

#### 'NATION-BUILDING' AT HOME

New York Times columnist Thomas Friedman recently wrote that since years of neglect have led to serious domestic problems, we need substantial "nation-building" in the United States. He couldn't be more right. And the good news is that America has a history of successfully engaging in the kind of collective problem-solving that nationbuilding and, more specifically, the infrastructure problem clearly requires. Consider, for instance, the way the United States confronted the need for a system of roads to move the military around the country and to aid in evacuations in the event of a nuclear attack in the early years of the Cold War. The result was President Dwight D. Eisenhower's proposal and subsequent construction of the National System of Interstate and Defense Highways

Today, our reasons for addressing the state of the country's infrastructure problem are just as urgent. Aside from increased security needs in an age of global terrorism, our ground transportation infrastructure must also serve the economic needs of a country facing rapid population growth over the next half-century and significant challenges to its global economic competitiveness.

Just as the interstate highway system spurred the greatest economic boom the country has ever known, investing in a renewal of our aging infrastructure can be a key factor in sparking future American prosperity.

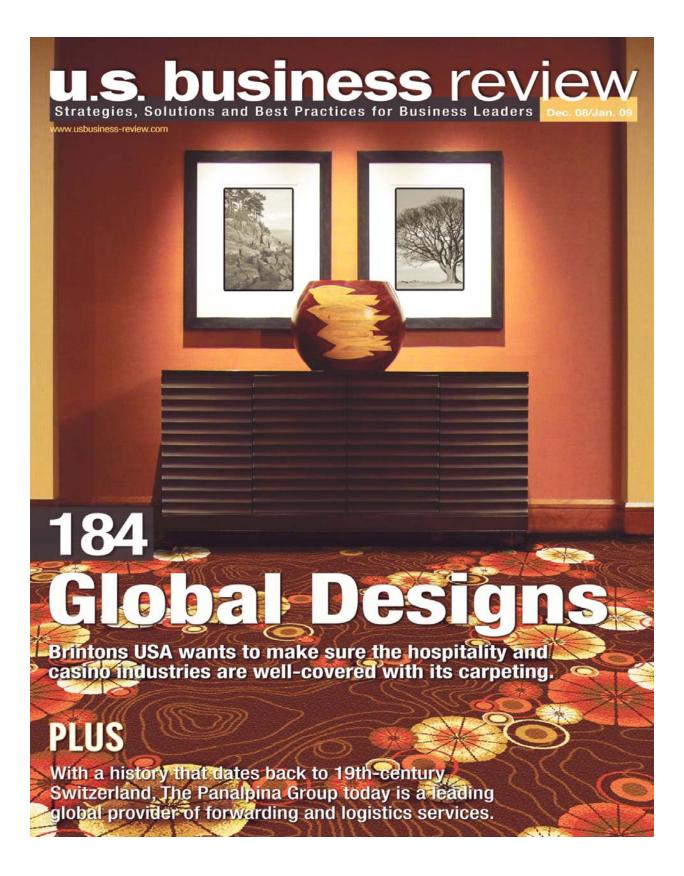
As the handful of politicians who have tried to grasp the enormity of the problem have discovered, the scope of this problem is beyond the ability of any one state or federal official. There are no simple solutions. And as we stare down a huge budget deficit – not to mention a recession waiting in the wings – the federal government will surely tell us that there is no money for this national problem. Yet the harsh truth is that our infrastructure is riddled with ticking time bombs that could go off with sporadic regularity.

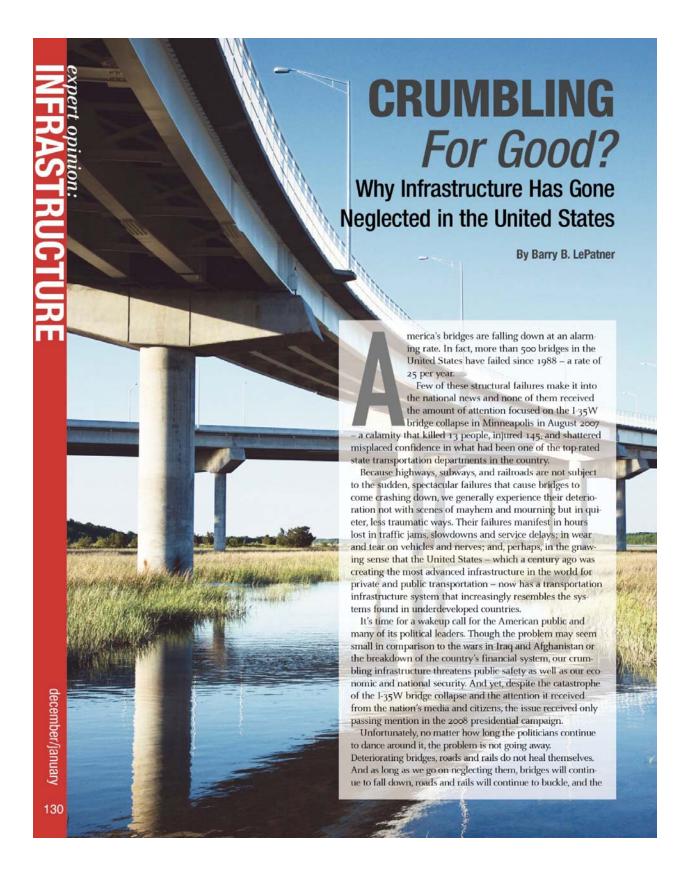
This problem can be solved, but only through a major national effort that involves both the public and the private sectors and is completely insulated from the partisan warfare and involvement of the special interests that now have a stranglehold on the American political process. In order for such an effort to succeed, decision-makers and citizens alike must grasp the full scope of the issue: technical, economic, financial and – perhaps above all – political.

How can we start the reform process? By imploring our politicians to show some backbone and take a leadership role in solving this life-threatening problem. Unfortunately, at the present moment, few are discussing this subject, despite the lives lost in the bridge collapse in 2007 and the cost of the failed levees in the Midwest and New Orleans. We must make sure our politicians understand that it is a question of "when," not "if," there will be another disaster — and that they will be held responsible if action isn't taken.



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United States will continue to fall behind countries that understand the importance of infrastructure to their futures.

According to the American
Association of State Highway and
Transportation Officials, there are
approximately 21,000 "high-volume"
bridges in the United States, each with
more than 40,000 vehicle crossings per
day. This means that a conservative
guess would have tens of millions of
Americans traveling to and from work
every day on bridges that are classified
as "structurally deficient" or "functionally obsolete" and that are probably receiving insufficient maintenance.

Since the dawn of the automobile era in the early years of the 20th century, automobile infrastructure in the United States has been financed almost exclusively by public funds. Thus, the question of how we have arrived at our present pass can be answered by considering a long series of public decisions at the federal, state, and local levels concerning infrastructure for automobiles and trucks as well as for the modes of transportation they to a large extent replaced – i.e., railroads and local transit systems.

To understand the current state of our infrastructure, we must trace the early history of the building and financing of roads. We must start with the first efforts by states to replace private toll roads and turnpikes with public roads and continue on to the passage of the Federal Highway Acts of 1916 and 1921. Certainly, we must not forget the extensive road building activity of New Deal agencies during the Depression, which led to the creation – initially with the passage of the Federal Highway Act of 1944, and then the enactment of the Federal-Aid Highway Act (or National Interstate and Defense Highways Act) of 1956 - of today's 47,000-mile Interstate Highway System.

President Dwight D. Eisenhower championed the interstate as a means of defense for moving military forces around the country, evacuating cities in the event of a nuclear attack, and, not incidentally, encouraging a permanent

dispersion of population from the cities to the suburbs for the sake of civil defense and a spur to economic growth.

From 1932, when Congress first enacted an excise tax on gasoline, until the passage of the Federal-Aid Highway Act of 1956, revenue from gasoline taxes went into the government's general fund. In 1956, new legislation created the Highway Trust Fund for the construction and maintenance of the interstate system and other federally-supported roads. Federal gasoline taxes would make up 90 percent of the fund, while the remaining 10 percent would come from the states.

This system of financing – the basis of all federal funding of highway transportation projects to this day – not only paid for the construction of the interstate highway system but helped states to fund the building and maintenance of secondary roads as well. Federal policy also encouraged the design and building of bridges, roads and tunnels with tight standards for ensuring their structural integrity and dedicated funds to maintain them.

As the decades passed, however, politicians in Washington, D.C., came to view the fund not as a way of financing the construction, repair and maintenance of critical infrastructure but as a source of earmark funding for pet projects, sometimes only marginally related to highways or transportation. In the mid-1960s, the rise of the environmental movement and of urban activists opposed to routing expressways through inner-city neighborhoods began to challenge the political consensus that had endorsed highway construction as a matter of national policy. The result was a gradual shift of power over highway policy, at the federal and state levels, from transportation professionals to politicians acting in response to new political pressures.

One consequence of this power shift was a gradual diversion of the money in the Highway Trust Fund to the aforementioned pet projects during the 1970s, 1980s, 1990s and into the present. Finally, with the passage of the Transportation Act of 2005, the federal government essentially abandoned its role of establishing standards for the construction and maintenance of roads, bridges, and tunnels and overseeing how HTF funds were spent.

Beginning in the early 1980s, as a result of overall reductions in domestic spending by the federal government as well as congressional poaching of HTF funds, federal support for road construction and maintenance started to decline in relation to state funding for this purpose. This left the states burdened with expenses that, in many cases, they were ill-equipped to meet. The resulting budget pressures at the state level, coupled with the shift of political power away from transportation professionals, led inexorably to the erosion of systems and resources for the inspection and maintenance of roads, bridges, and tunnels.

In particular, budget cuts in state transportation departments reduced the number of trained engineers able to perform critical inspections, ultimately diminishing the time spent on mandated inspections and causing the need for critical repair work to be missed by officials. Just as importantly, reductions in the number of highly qualified engineers in transportation departments helped tip the balance between professional culture and bureaucratic culture in these organizations in favor of the latter.

The patterns of federal funding described above, and the larger political trends that they reflect, have had dire consequences for the maintenance of the nation's ground transportation infrastructure. The neglect resulting from these ill-advised decisions has led our country to its present state of instability and the need to revamp our perspective on spending.



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# FINANCING THE NATION'S INFRASTRUCTURE

The United States lags behind other nations in supporting infrastructure. By Barry B. LePatner



he downturn in our nation's economy has renewed focus on the importance of getting a handle on how we will finance our infrastructure in the years ahead. Infrastructure has an importance far beyond our daily comforts. We rely on our infrastructure to provide improved productivity, to maintain our safety as we cross bridges to take our children to school and to make transporting our goods to shopping centers or ailing patients to hospitals easier.

Yet, the United States has, for the past several decades, turned its back on funding our infrastructure facilities. The lack of commitment from state and federal governments to this sector of the economy is dramatically contrasted with how nations around the world are viewing the importance of making a major commitment to their own infrastructure needs. Currently, the United States spends 0.6 percent of its gross domestic product (GDP) on infrastructure funding compared with China, which spends 9 percent of its GDP; India, which spends 8 percent; and Japan, which spends 10 percent.

### GROWING PROBLEM

To grasp the nature and extent of how large and difficult the subject of funding our nation's infrastructure will be, it is perhaps best to understand the problems currently being addressed by several of the states in our nation. A recent study by the Texas Transportation Institute (ITI) ranked Los Angeles as the city with the slowest commute in the United States; in second place is

the San Francisco-Oakland region, tied with Washington, D.C. According to a July 2008 survey by the American Council of Engineering Companies of California, "Decades of hard and relentless use – combined with neglect and a lack of adequate investment since their initial creation – have taken an extreme toll on these vital arteries, which simply cannot support the needs of today's users."

TTI estimates that in the San Francisco Bay Area, traffic congestion costs each commuter \$1,121 in lost wages and 47 gallons of wasted fuel annually. According to the same study, traffic gridlock nationwide consumes 4.2 billion of valuable labor hours annually, which translates to a \$78 billion loss for the U.S. economy.

The needs of the state are enormous. California faces a \$16 billion annual short-fall to upgrade its roads. Considering the critical value of California to our nation's economy and its place in the global flow of commerce, there is no question that a failure to keep the state's transportation infrastructure in top condition imperils our nation's future. The need to fund these growing transportation requirements has caused many states to look beyond government funding for infrastructure projects.

### COMING AROUND

Since 2005, eight more states have enacted legislation that would permit their government officials to sell or lease highways or other transit infrastructure to private investors, bringing the total to 25 states giving their approval to the concept of public private partnerships or P3s.

States that have begun to realistically assess their infrastructure needs have come to similar realizations. Arizonans have been advised that it will take new infrastructure investment in the area of \$500 billion over the next 25 years if that state wishes to keep pace with its growth, or face dire consequences for the business community. According to a recent study from the L.William Seidman Research Institute at Arizona State University, "The state will need between \$417 billion and

\$532 billion between 2008 and 2032 to improve its infrastructure." That will include improvements in transportation, utilities, water, wastewater and telecommunications. "If we do nothing, the state in 25 years will be an absolutely appalling place to live," said Tim James, director of research and consulting for the institute.

In Pennsylvania, the imperative to pursue financing for its major toll road was too compelling to turn down a lucrative offer from the venture capital world. Pennsylvania selected a consortium comprised of several of the world's top investment and infrastructure companies to lease and manage the Pennsylvania Turnpike for the next 75 years. The bid to privatize the toll road totaled \$12.8 billion. On average, 35,000 vehicles per day stop at its 57 tollbooths and 20 service plazas, which generate annual revenues of more than \$600 million.

The Pennsylvania Turnpike system covers 359 miles and traverses one of the most highly developed regions in the United States. Pennsylvania legislators, pressured by the trucking industry and others, rejected the proposal.

The issue of financing the future cost of our failing infrastructure cannot be understood unless we also examine who is lining up on each side of the issue. The venture capital interests will be high-priced lobbyists and former governmental officials will be paid handsomely for their ability to sway public opinion and, most of all, government.

### WHAT MOTIVATES LEASES?

"One reason is that there is so much investment capital available," according to former Colorado Governor Bill Owens. "There may be as much as \$175 billion in global capital, which — when leveraged with debt that's an obligation of the investments means potentially \$700 billion in capital available to state and local governments for infrastructure and other capital purposes."

For Pennsylvania Gov. Edward Rendell, the payoffs that warranted turning to a P3 included a turnpike that would be upgraded where it otherwise would continue to degrade as well as assurances that tolls charged by the P<sub>3</sub> would be no higher than the turnpike commission would have charged. Road repair throughout the state would be accelerated, and a proposal to impose tolls on Interstate 8o could be canceled. Most of the \$12.8 billion lease payment from the consortium would be committed to road and bridge repair and the support of 73 public transit agencies.

Although more than \$160 billion in such funds have been raised by a Wall Street still reeling from the sub-prime lending mess of the past few years, this new sector of the financial world still appears to have its problems. No longer accessible to cheap credit, many of these infrastructure funds have had to borrow money at increasingly higher rates.

#### FINANCING ALTERNATIVES

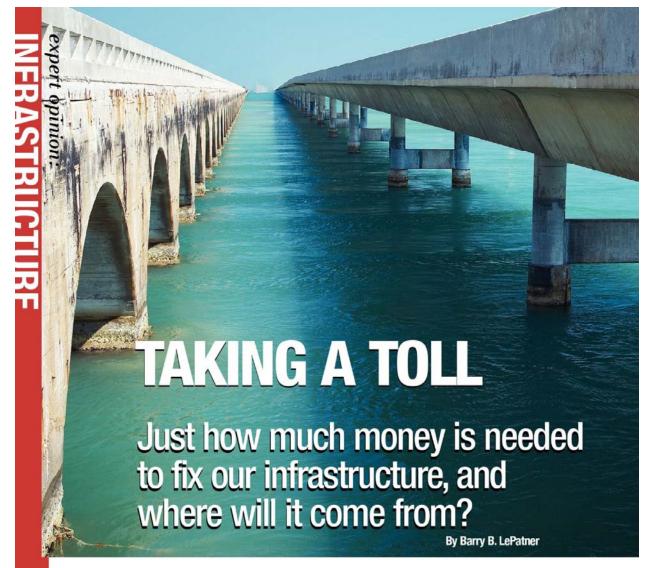
In addition to the P<sub>3</sub> approach, several other financing alternatives exist to provide state governments with different approaches that could fund their infrastructure needs. Because infrastructure funding comes from appropriated dollars – often with bonds sold by state or quasi-governmental entities against future revenues – it is imperative that public officials consider alternative financing models or innovative contract approaches.

A fundamental aspect of undertaking any large-scale construction project is the ability to have a realistic sense of the full scope of the project, an accurate and complete set of design documents that can result in a true, fixed price for the work that will be done and a bidding process that ensures that the best, most efficient contractors perform the work on budget and on schedule. As simple as that may sound, it all too often has not been the case.



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mericans have a long history of neglecting the maintenance of their roads and bridges. From our earliest colonial days to the growth of the United States as a superpower during the 20th century, we've built massive road networks, invested in our ports, built power grids, water systems and airports that were the envy of the world. Yet today, China invests 10 percent of its GDP on infrastructure but the United States gives only about 1.2 percent. We con-

tinue to fall further behind in remediating an aging system. As a result, our nation puts the safety of its citizens at risk each day as they travel over dangerously patched-up bridges on congested roads, costing our nation \$78 billion a year in wasted fuel and human toll.

How did we get to this deplorable state? In colonial times, the upkeep of post roads was the responsibility of the local government, and local residents were required to provide the labor for maintaining them. After the American Revolution, traffic on what was still a small network of roads began to increase, and existing maintenance efforts proved ineffective. To deal with the heightened demand, state governments chartered private tumpike companies that were given the right to build roads and charge tolls for their use; in the absence of government standards, the quality of the tumpikes varied considerably from place to place.

After 1800, many states used tolls to pay for the upkeep of major roads while continuing to use statute labor for maintaining local ones. As the country expanded in the first half of the 19th



century, much debate centered around the issue of federal funding for road construction and improvement, which Congress provided in only very limited amounts.

In 1822, President James Monroe vetoed a bill authorizing federal imposition of tolls to raise money for road maintenance as an "unwarranted extension of federal power." This set a precedent of states being responsible for maintaining roads that would survive until well into the 20th century.

By the 1920s and 1930s, a boom in road construction in the United States led to the first federal gasoline tax in 1932. These revenues went into the federal government's general fund, to the great consternation of the automobile lobby.

Clearly, the nation's roads were showing signs of neglect even before the creation of the interstate highway system in the mid-1950s. When the Federal-Aid Highway Act of 1956 made the interstate system which was planned 12 years earlier - a reality, it was estimated that the interstate system would be completed in 12 years, and providing for its maintenance was not a pressing concern for the federal government or the states, who eagerly took the federal funds (90 percent of the cost of new construction was paid for out of the new Highway Trust Fund, which was funded by dedicated revenues from the federal gas tax) that it made available.

The expansion of the national highway system represented by the interstate quickly fed on itself, as demand for new roads only increased in response to a number of related phenomena: greater numbers of vehicles and miles driven; growing congestion in metropolitan areas; taxation, housing and landuse policies that subsidized sprawl; and the by now well-established policy of undercharging motorists and truckers for their use of the roads.

With construction of the interstate highway system well advanced, and recognizing the need to protect the federal taxpayers' sizeable investment in that system, the federal government began to shift the emphasis in its funding. In an assessment of road conditions around the country initiated by the federal government, 44 states had reported a decline in the quality of their highways between 1970 and 1975, while as of 1975, as an article in U.S. News & World Report would later relate, "42 percent of all paved highways and 27 percent of the interstate pavement were rated either 'fair' or 'poor."' As engineers came to realize, pavement classified as fair may seem smooth to many motorists and can hide defects for years as it deteriorates - and then seem to collapse overnight. The same story reported that a recent government inventory had found that nearly one-fifth of the country's 564,000 highway bridges were "inadequate or unsafe."

By 1995, about half of all federal highway spending was for rehabilitation and reconstruction. The Transportation Equity Act for the 21st Century (TEA-21), enacted in 1998, guaranteed \$23.8 billion for highways and bridges through 2003 but, in another indication that Congress was losing its focus on repairing and maintaining the national highway system, also expanded the program for uses including new noise walls and rest areas.

Today, the scope of what is needed for remediation is enormous. Our nation is home to 4 million miles of roads, approximately 1 million miles of water mains and 600,000 bridges — one in four of which are either rated structurally deficient or functionally obsolete.

Public (federal and state) expenditures on infrastructure have grown by 1.7 percent per year from 1956 to 2004 and in recent years have been growing even more rapidly. They have risen by 2.1 percent per year, after adjustment for inflation. The Congressional Budget Office reported that federal and state governments spent \$67 billion on highway infrastructure and \$28 billion on drinking water and wastewater infrastructure in 2004.

We will need, according to the ASCE's latest infrastructure report card, over \$2.2 trillion to remediate all of our aging, underdesigned and deteriorated facilities to make them safe for our nation and bring them up to code.

Whether it is through the establishment of a National Infrastructure Bank, or an increase in the federal gasoline tax or through the careful implementation of public private partnerships, we will need to bring the ideas from the "best and the brightest" to bear on this issue that will come to far transcend many of today's pressing issues.



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# TWO MAJOR CHALLENGES: PEOPLE AND TECHNOLOGY

The old ways of inspecting aren't enough anymore.

By Barry B. LePatner

was reading a recent article from the McKinsey Quarterly - the business journal of management consultant McKinsey & Co. - on innovation and setting goals. In the article, there was a discussion on how to disseminate ideas to an organization that has never been introduced to a new way of thinking. So I thought about the National Transportation Safety Board and the Federal Highway Administration, which are charged with overseeing how our roads, bridges and other transportation systems are designed, built and maintained, and the way these organizations have been approaching bridge inspections in order to avoid failures.

The article suggested that getting a "hard count," meaning the metrics – e.g., knocking on doors to learn the true facts in electoral polling or by

counting the number of hospital beds to determine how to go about saving 100,000 lives with new procedures – are what is needed to change behaviors. Then the discussion turned to introducing checklists as a means of changing behaviors and the fact that while hospitals are not used to checklists, the aviation industry – an industry that truly cannot afford any failures – has always used checklists.

An article by McKinsey recently stated, "We are built on a 2,000-year-old culture, where we are expected as clinicians not to make mistakes. This was true with the FAA until the 1950s, when they started asking, 'Why are we crashing so many planes?' If your safety systems are built on the expectations that your pilots and your doctors won't fail, then you are going to have no safety net when they do. The FAA figured out pretty quickly that they were better off designing a system that expects the pilots to fail and then prevents that failure from causing a disaster – the failure does not have to cause a disaster. We are just beginning that journey 50 years later in healthcare."

The advent of the 21st century has brought about major advances in the use of technology for the design and construction of our nation's buildings. The latest technology looks to employ systems that adapt our commercial and residential structures to act in a manner akin to a living organism, one that addresses changes in a multitude of conditions. As building management systems (BMS) that control heat, air conditioning, lighting and other building systems continue to get more sophisticated,

architects and engineers are designing controls that an owner can utilize to manage a building to meet the needs of its users. Emerging standards now enable data sharing between building systems that improve efficiency, as well as provide real-time control over building operating costs.

Only a fraction of these technology advancements have trickled down to the transportation infrastructure world. As a result, our nation has a long way to go to bring prevailing and developing technology to serve our nation's roads, bridges and tunnels in ways that will save tens, if not hundreds, of millions of dollars annually.

A report prepared by the nationally regarded consulting firm HNTB cites a National Cooperative Highway Research Program claims that we will need \$293 billion for our surface transportation system if our nation is to meet the future needs of our growing economy. This will leave a financial gap of \$50.7 billion in funding to maintain our systems and a gap of \$105.3 billion if we seek to improve them. By 2017, it is anticipated that these gaps will widen to \$66 billion and \$133.9 billion, respectively. Accepting that our nation will have no choice but to finally address this growing problem, one solution is to seek to slow the growth of the costs to remediate our ailing roads, bridges and tunnels by utilizing state-of-the-art available technology to inspect and establish new methods for repair.

As Congress noted in Title 23 of the U.S. code, "research and development are critical to developing and maintaining a transportation system that meets the goals of safety, mobility, economic vitality, efficiency, equity and environmental protection." At present, however, most federally sponsored transportation research is approved without clearly defined anticipated payoffs. Much of this research is redundant with other efforts and the research quality is often totally worthless. Too often, federal research funds are the product of the political earmarking process.

As the National Institute of Standards

and Technology recently reported,
"Innovation is critical to the future of
U.S. competitiveness and for enhancing our quality of life. This is increasingly important as political and technological changes open access to the global
economy – producing both new markets
and increased competition."

A recent report by the National Surface Transportation Infrastructure Financing Commission noted that "New technologies, such as electronic transponders, video recognition tolling and satellitebased payment systems, are creating new options for funding the transportation system that simply have not been available before. Although none of these options are widely used yet across the country, these technological advances offer the promise of providing policy makers with new opportunities to not only raise needed funding, but also improve energy efficiency, mitigate congestion, protect the environment and improve safety."

The commission recognized the importance of using the latest technology "to improve the nation's ability to measure project performance data, including research into improved traffic, safety, environmental and energy modeling."

Available technology should be able to make our infrastructure act just as a "smart building" and report on the inception of cracks in critical structural members, identify early formation of potholes when small pinholes appear and can be fixed for minimal cost, or warn when a bridge span is being overloaded and the early threat of a collapse can be addressed.

Bringing "smart building" technology to our nation's bridges is a long way off. Simply stated, while research has been proceeding for many years in this area, the actual implementation of new technology to advance the antiquated methods for bridge inspection has hardly begun. Even the federal government has undertaken surveys to begin to understand how state engineers perform needed inspections and has acknowledged that visual inspections are neither consistent nor reliable. As a result, many of the ratings of our "structurally deficient" and

"functionally obsolete" bridges – ratings that determine how much federal aid for remediation will flow annually to the states – are inaccurately set by inspectors who choose to take a more conservative approach rather than rate an older bridge as needing less repairs.

Almost all bridge engineers would prefer to see regular monitoring of bridges. Relying upon a network of sensors located at critical junctures along a bridge, the information adduced there can guide engineers in making recommendations for early attention to bridge problems long before they transform themselves into major structural flaws – and years before they become apparent to the average bridge inspector.

According to Mohammed Attouney, a principal at New York City-based Weidlinger Associates, a firm with lengthy experience in the design and remediation of bridges, "No matter what we do, there are limits to the human sensing capabilities. We can't see hidden cracks, we can't feel the erosion after a flood." But available technology "can make the difference in a major disaster, a costly retrofit or a minor retrofit."

The NIST report found that "There are currently no cost-effective, field-deployable sensing systems that are capable of providing continuous data with which to prioritize repair and renovation schedules and that provide sufficient warning of impending catastrophic failure."

The age of reliance on purely visual inspection of our nation's infrastructure should be brought to an immediate end. Technology investment and implementation must be given the highest priority. Until then, what would be wrong with developing provable checklists for bridge design, operation and maintenance to bring potential disasters that we no longer can afford down to a minimum?



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### A NEW PRESCRIPTION

### Remedies for our ailing infrastructure

hen it comes to our nation's ailing infrastructure, we can't simply throw money at the problem. Everything must change, from how we build it to how we manage it to how we fund it. We can no longer ignore the problems plaguing our roads, bridges, airports, power grid and levees. Nor can we move forward with a plan that allows us to merely fix the problems without including a plan to prevent them from sliding back into deterioration in the future.

To address the current needs and make the necessary structural changes in our system, we need to educate our politicians and our citizens about the critical state of our nation's infrastructure. We need to apply the latest available technology. And, we need to completely overhaul how we oversee the trillions of dollars of assets under our nation's transportation inventory.

Here are few things to consider moving

1. Find resources and do better with them. According to the American Society of Civil Engineers, \$2 trillion is needed to fix and sustain our nation's infrastructure. That is a daunting amount that cannot be summoned up piece by piece. Finding the appropriate amount of funding will require that the federal government take a more active role in finding funding solutions and revenues generate approximately \$32 develop relationships between the public and private sectors. Most importantly, our nation's politicians and citizens need to recognize just how urgent the situation is. In order to meet the "need to maintain" level, the annual amount of federal highway and transit spending required is \$78 billion. Estimated average annual

By Barry B. LePatner transportation

billion, resulting in an annual revenue gap of \$46 billion (in 2008 dollars). To meet the "need to improve" level, the amount needed climbs to \$96 billion. That means a shortfall of \$64 billion (in 2008 dollars).

According to a study prepared by the National Surface Transportation

Infrastructure Financing Commission, when it comes to funding our nation's new project and infrastructure repair needs, there is no "silver bullet." But whatever solutions are developed, the study shows, the following steps should be taken:

(a) set new priorities that accomplish national and regional, as opposed to statespecific goals; (b) identify more specific objectives for those seeking funding from national resources; (c) revise the mechanisms for funding and distributing transportation monies to the states by eliminating the discretionary use of federal funding for transportation needs solely determined by state and local politicians; and (d) apply new technology in design and construction to ensure we save costs up front and, more importantly, minimize the need for repairs and replacements that are currently draining our resources.

2. Develop a federal infrastructure bank. The challenge in today's economy is finding cost-effective ways to maintain, upgrade, and replace our aging infrastructure.

One potential solution is a national infrastructure bank. During his presidential campaign,

President Obama proposed a national infrastructure reinvestment bank that would invest \$60 billion over 10 years and multiply into almost half a trillion dollars of additional infrastructure spending, while generating nearly 2 million new jobs. But just as President Eisenhower used gas taxes to ensure his national road network paid for itself, a similar payback mechanism must be built into the plan for a national infrastructure bank.

Unfortunately, at present, proponents of the bank have made no assertions that repayment mechanisms, such as toll roads, will be included in the plan. If the goal of the federal government is economic growth, pumping billions of dollars into an infrastructure bank with no plan for replenishing those funds as they are used may fall short of being a fully operational idea.

3. Create a national clearinghouse for remediating our national bridges. 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 to require the Federal Highway Administration and the National Transportation Safety Board 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.

Of course, for such a system to work, we first need to make sure the information feeding into it is accurate. And that means updating the way we inspect our bridges. In testimony before a U.S. House of Representatives Committee on Science and Technology, bridge safety expert Mark E. Bernhardt explained that visual inspections - the most common form of inspection used today - are inadequate records of a bridge's true structural condition.

Similar to other experts in the field, Bernhardt recommended the installation of sensors and monitors onto bridge components, which enable transportation officials to remotely analyze how the bridge is performing at any point in time. By utilizing systems such as strain gages, weigh-in-motion systems, fiber optics, cameras, corrosion sensors and acoustic emission equipment, which are connected to central servers, bridge owners have the equivalent of a cardiograph for all critical structural members on a 24/7 basis. If

a national clearinghouse database was created, these findings could feed directly into it, keeping the public informed at all times. The information in the database could also be used to prioritize transportation budgets where bridge and road repairs and replacements are concerned.

4. We need a new federal strategy for infrastructure remediation. When President Eisenhower laid out his plan for a national highway system in the National Interstate Highway and Defense Act of 1956 he outlined clear goals: He wanted the federal government to become the strategic planner of a nationwide (as opposed to a state-centric) system of roads that were funded predominantly by a federal gasoline tax.

To ensure success, we need to develop a framework for a national policy on transportation that links our metropolitan areas and allocates funding where it can best be used to fulfill objectives.

Today's national transportation policy fails to provide such goals. Instead, hundreds of billions of dollars in transportation funding are distributed annually, and state politicians determine how and where such monies are used within their state borders. Basically, states get to choose whether they apply their funds to remediating aging infrastructure or building new projects. All too often, new projects win out.

Why do we need a coordinated national, as opposed to local, transportation strategy? Simply put, because the way we are operating now isn't working. When President

Eisenhower pushed through the National Interstate Highway and Defense Act of 1956, he tied the nation together under a plan governed out of and largely financed at the federal level. Today, there is no such national strategy, and our nation's infrastructure is suffering as a result.

#### THE ROAD AHEAD

What would a national transportation strategy look like? Our nation's continued economic growth is becoming increasingly dependent on how we choose to handle growth over the next 30 to 50 years. During this first half of the 21st century, our country will grow by more than 100 million people and we will be building more than 427 billion square feet of new and rehabilitated homes, offices, hospitals, hotels and schools, as well as roads, bridges and airports.

Without overarching vision, goals or guidance, we will inevitably make costly mistakes in the planning and execution of that growth. To ensure success, we need to develop a framework for a national policy on transportation that links our metropolitan areas, identifies needed flows of goods and traffic to minimize congestion, and allocates funding where it can best be used to fulfill our national and regional objectives.

It is time for our nation to begin treating our infrastructure system as a top priority rather than one that comes second or third on the list. Failure is no longer an option. Not only is public safety at issue, but failing to act now will forever mark the national destiny and heritage that we are creating for the future.



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### ARCHITECTURE NOTES

### **Architecture Notes**

November 17, 2009

**Architecture Notes** is an archive of information, sketches and knowledge that I have discovered as an emerging architect. The information is usually related to technical detailing and construction materials and methods.

### **BROKEN BUILDINGS, BUSTED BUDGETS**

November 17, 2009, 8:18 am

Filed under: Professional Practice | Tags: barry lepatner, broken buildings, construction reform

Barry LePatner is an attorney to architects and other parties involved in building construction. In his book, <u>Broken Buildings</u>, <u>Busted Budgets</u>, LePatner offers an explanation of how building construction has become a broken industry. In comparison to the technological advancements and productivity increases in any other industries, construction has been left behind. The descriptions in this book are discouraging, but promising that the market will inevitably demand reform. LePatner makes it clear that the discussion of construction reform has been around much longer than I have been an architect. It's easy to say 'this is the way it's always been done', but if current news on our economy is any indicator, it seems advisable to be prepared for change in the way business is done in any industry. LePatner discusses several issues and historic cases, but here is a brief summary of his writing:

### **Budget overruns are commonplace**

• LePatner suggests that monitoring a <u>Google News alert for 'construction cost overrun'</u> is just one illustration of how accepted budget overruns have become.

### **Asymmetric information**

• The contractor often has information and knowledge that the owner does not. This asymmetry leads to mutable costs and a lack of true competition. LePatner encourages strong contract language that allows information to flow freely.

### **Fixed pricing**

• The price of a building is often locked in before bidding documents are complete and/or coordinated. Once construction begins, should costly change orders occur there is relatively little an owner can do. Many books and speakers have addressed the comparison of building construction to automotive or airplane construction. These products are assembled by industrial processes that control costs. Lepatner believes that one of the key factors that will make the construction industry more efficient is the

widespread use of fixed-price contracts, as opposed to mutable cost contracts. If an entity can offer a building to an owner for a truly guaranteed price, they will have great market advantage.

### **Research and Development**

• On average, the industry consists of so many small businesses too small to invest in substantial research and development. The greatest innovations have come from building product manufacturers, changing the pieces and parts, but not the manner in which they are assembled on site. LePatner predicts frenzied merger activity will provide vertically integrated large firms that will be able to invest in research and development.

#### **Effective intermediaries**

- The used car business is one of few industries like construction where you don't know exactly what you're getting for the money. He points our how intermediaries have reduced asymmetric information in this industry (i.e. carfax, vehix).
- Other industries where you don't know exactly what you're getting for the money are highly regulated (i.e. medicine, law and professional services)
- The National House Building Council (NHBC) in the UK is a non-governmental agency that inspects homes. Most builders will work hard to please these inspectors as a builder's NHBC registration is required by most mortgage lenders.
- LePatner then notes:

"In the 1970s, an attempt to create an American version of NHBC got off to a good start. The Home Owners Warranty (HOW) monitored 100,000 homes, and oversaw only twenty arbitration cases. The program faltered, however, because the federal trade commission interpreted the Magnuson-Moss act – which stiffened requirements for "warranties" – in such a way as to render HOW illegal. That might have been the worst thing to ever happen to the U.S. construction industry."

In summary, Lepatner's proposal identifies that effective intermediaries and true fixed price contracts must be in place to inspire real competition and effective change.



### **Commercial Property News**

September 14, 2009 Circulation 35,000

*Commercial Property News* is a semi-monthly real estate publication that provides comprehensive information to the commercial real estate industry. It has a circulation of 35,000 and a one page ad rate of \$16,110.

### LePatner: Delays, Disputes, Mar WTC Rebuilding

September 14, 2009

By: Tonie Auer, Contributing Correspondent

Eight years after terrorists destroyed the World Trade Center, construction is underway on replacing the destroyed Twin Towers. But what has really been accomplished on the site? Not much, according to New York City construction lawyer Barry LePatner.

On the heels of the 9/11 remembrances, LePatner lamented the lack of progress and criticized the governmental agencies leading the lagging project to replace the WTC.

The World Trade Center redevelopment project includes a memorial and several office towers. The City and the Port Authority of New York and New Jersey have overseen the rebuilding efforts with development company World Trade Center Properties operated by Silverstein Properties, which purchased the World Trade Center just six weeks before 9/11.

Disputes between the developers and the governmental entities have led to many delays in the process. In August, Silverstein's company request arbitration, citing delays stemming from the Port Authority's part of the rebuilding efforts impacting the developer's part in the project.

"Looking back, the project was doomed at the outset to be a long-running saga," Barry LePatner, founding partner with LePatner & Associates LLP, told CPE. "This is because both the political entities--which had vested interests--and the Port Authority who owned it have no experience in developing complex infrastructure and major building elements." Additionally," the major developer [Silverstein Properties head Larry Silverstein] has a singular interest in the entire process," LePatner said. That interest was to expeditiously rebuild so that he could restore his business interest, which had been destroyed and covered by insurance," he added.

"There was a classic clash of interests, because the public authorities could never agree on what they wanted there." And those agencies wanted to show the public that they were doing something, so they proceeded without a full understanding of what the process was going to be, LePatner said.

On Sept 9, Janno Lieber, president of World Trade Center Properties, addressed the New York State Senate's Standing Committee on Corporations, Authorities and Commissions to discuss redevelopment of the World Trade Center.

Lieber noted that the federal government provided funding to the Port Authority to rebuild the PATH station and other transportation infrastructure, while Congress put tax-exempt financing in place to speed up the efforts without waiting to satisfy conventional market economics.

With a master plan for the new World Trade Center created to build retail and office space, a memorial, a new above-ground mass transit hub and a performing arts center, the Port Authority signed on to that plan and promised to give us construction-ready sites so that Silverstein Properties could start to build the new buildings.

The Port also agreed to complete critical infrastructure - the PATH Transportation Hub, the Vehicle Security Center and underground roadway, Greenwich Street and utilities - so that we could finish and open the new Trade Center. "Just as we were getting to build, after years of the Port Authority insisting that everything was going just fine at the site, the agency admitted the truth - that every project for which the port is responsible had fallen years behind schedule and hundreds of millions of dollars over budget, threatening the entire WTC rebuilding effort," Lieber said in the address

Illustrating the slow pace of the redevelopment project, LePatner noted, "It is taking a month for each floor to be built. When 7 World Trade Center was being built, each floor went up in four to seven days." World Trade Center Properties worked with the city, the state and the Port Authority to rebuild 7 World Trade Center, the last tower to fall on 9/11. Construction began on that project in May 2002 and the building opened in May 2006.

"Right now the most efficacious step that could be taken is to halt the project entirely," LePatner said. "Get a complete set of design drawings and specifications that can be bid on for a fixed price by contractors and do not keep haphazardly building in a way that will only add billions and billions of dollars without a benefit to the public." The public agencies "do not have the wherewithal to be entrusted with a project of this magnitude. They've proven that," LePatner said.

LePatner's insight into the project comes from his representation of the architect for one of the proposed towers as well as his involvement in negotiations for the now-shelved performing arts center for a client. Additionally, he represents one of the companies that now occupies 7 World Trade Center.



### **Commercial Property Executive**

September 14, 2009

*Commercial Property Executive* is the leading integrated resource for executives and companies that own, invest in , develop, lease, and/or manage commercial real estate.

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Mann	Report	<b>Building</b>
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March 2009

### LAWFUL ADVICE



### Time To Challenge Old Assumptions As We Go About Reconstructing Our Nation

by Barry B. LePatner, Esq. Law Offices of Barry B. LePatner & Associates I.I.P.

Amidst the financial tsunami sweeping our nation, the entire business world has begun to raise profound questions about the way we have managed our business affairs. We no longer can take for granted that private institutions such as banks and insurance companies operate in a risk-averse manner with built-in limitations to prevent meltdown. And government agencies across the board have failed in their mandates to protect us. Across our economy, we have ignored the constraints intended to limit the excesses for which we are now paying a terrible price.

NY Times economist Paul Krugman says business and political leaders should have learned lessons from earlier crises—and thereby avoided the mistakes leading to this economic blowout. He points to the housing bubble, the collapse of Long Term Capital Management, and the Bank of Japan's fruitless, decade-long effort to jump-start a stalled economy.

We in the design, construction, and real estate world should learn that these lessons carry over to our businesses, too. We must question the assumptions we have operated on throughout our entire professional lives. When we hear the statement, "This is the way we have always done it," we must now begin to question the rationale as to why it was done that way.

For too long, we unquestioningly accepted doctrines dictating how we design, build, and set budgets—and how owners always pay for cost overruns. We have been sold on the benefits of fast-track projects where construction managers promise owners that it makes financial sense to start
construction months before architects and engineers have completed their
designs, even though such savings almost never materialize. These projects inevitably go over budget and get delayed because of conflicts over the
late delivery of designs after work was well under way.

For too long, we have bought into the illusion promised by guaranteed maximum price contracts, even though construction managers frequently and knowingly exclude certain costs that, inevitably, contribute to major overruns and delays.

For too long, we believed that low interest rates and widespread liquidity would always keep funding flowing, no matter the project price tag.

Such assumptions are no longer viable. Lenders will no longer permit ten percent equity from a developer as a basis for a construction loan—forty and fifty percent are the new ten percent. No longer will lenders provide mezzanine loans to bail out owners victimized by ineffective standard-form construction contracts, false GMP assurances, and questionable

change orders and claims. No longer should contractors be permitted to file unsupported mechanics lien's to secure profits after bidding at or below cost, only to inflict unwarranted and costly litigation on owners.

Nor should it be acceptable as 'typical' for owners to bid out work without first obtaining 100% complete and coordinated construction drawings so that a true fixed price contract—one ensuring that contractors accept the risk of completing on time and on budget or pay for their ineptness—provide a sense of certainty to owners and lenders about final costs.

In the construction world for the past several decades, similar to the financial services world, there has been a lack of transparency about how contractors operate. This must end. Few, if any, owners—private or governmental—can understand a project's true cost. Few owners can control or challenge contractors' schedules. Few owners know whether a construction manager's requests for more time, which could add tens or hundreds of millions more to the final cost, are justified.

When the price of the Giants\Jets Stadium in New Jersey migrated from \$750 million to an astounding \$1.4 billion or more, did any owner's advisor try to explain this surprise? Did the advisors ever have a real budget for the project? Did the team owners know this or were they duped into believing that a roofless stadium could ever cost more than the price in the contract? Perhaps these owners didn't care—as they recently announced that the overruns would be covered by season ticket holders who could only retain their status by paying up to \$20,000 per seat in license fees.

Pricing construction work for too long has been the sole domain of the construction industry. This notoriously inefficient industry is documented to cost America more than \$120 billion annually. Accountability is long overdue.

Owners must retain skilled ombudsmen and project managers to tear down these walls and permit only those who reveal their true costs to work on their projects. Contractors should be entitled to make a true and fair profit for the capable and timely performance. With this new transparency respected by all parties, the industry will no longer have to rely on claims gamesmanship—and its attendant additional costs and ill will—to reap 'manufactured' profits.

We must establish a new baseline of assumptions for the construction industry as we work to revive our economy.

Let's start with new paradigms for how to rebuild our nation. There will be plenty of work for qualified contractors across our country. There will be large sums available to rebuild our infrastructure—some estimating as much as \$2.2 trillion. But let's do it with a commitment to shed the outdated and inefficient methods of a construction industry that, however belatedly, must be brought into the 21st century.

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### **American Surveyor**

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**American Surveyor** is a civil engineering & heavy construction publication created by surveyors for surveyors that includes topical news and information, technology expertise, product reviews, tips to help run businesses today and take them where they need to go tomorrow. It has a circulation of 40,000 and a one page ad rate of \$5,150.

### Road Work Ahead: Five Solutions for Repairing the Nation's Infrastructure

Written by Barry B. LePatner

Thursday, 29 January 2009

The economy isn't the only national system that needs repairing. As this past summer's levee breaks and other recent disasters indicate, America's infrastructure is also in serious trouble. Construction expert Barry B. LePatner offers some solutions.

New York, NY (February 2009)—While policymakers and pundits focus on the financial meltdown, another crisis is brewing in the U.S.: Our infrastructure system is silently deteriorating more and more as each year passes. Frighteningly, we have experienced over 500 bridge failures since 1989 according to one recent study. The aftermath of Hurricane Katrina was another warning as levees broke destroying swaths of New Orleans. Then came the tragic I-35W bridge collapse of August 2007. Finally, the levee breaks of this past summer served as yet another illustration of how dire the situation has become. The lesson is clear, says construction expert Barry B. LePatner. We must overhaul the broken systems that have led us to this point—and we don't have a moment to lose.

"We all know the nation's vast infrastructure problems cannot be fixed overnight," says LePatner, coauthor of *Structural & Foundation Failures* (McGraw-Hill, 1982, coauthored with Sidney M. Johnson, P.E.) and author of *Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry* (The University of Chicago Press, October 2007, ISBN-13: 978-0-226-47267-6, ISBN-10: 0-226-47267-1, \$25.00). "However, by aggressively moving toward a solution now—rather than applying a series of ineffective 'band-aids'—we can begin to make real improvements that will benefit our country for generations to come."

According to LePatner, tackling our critical transportation and infrastructure problems will require a

national commitment and a strategic plan that should include the following solutions:

Create a national clearinghouse and database, accessible to every state transportation agency and the general public. The database will 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 to require 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," says LePatner. "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 Grand River in Ohio in 1996. By June 2008, MnDOT announced that they would replace eleven major bridges in the state, some with the same concerns about deteriorated gusset plates that had gone undetected."

State governments should step up their efforts to protect their citizens. State governments 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." The public should receive annual updates on the remediation progress and be given notice if funding for the repairs is not provided within 18 months.

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," says LePatner. "Engineers are often the first to be laid off from state transportation departments because of their high salaries. This can no longer be the case. State governments can and must recognize the ability to reduce long-term maintenance costs rests with these engineers' valued experience."

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 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," says LePatner. "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."

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 back 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) apportion all the risks that are 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," says LePatner. "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' mindset anymore."

"The current financial crisis has caused many of us to think about what the nation's priorities should be," says LePatner. "Certainly, repairing the economy should be at the top of the list. But as the Obama Administration settles into office, it should make repairing the nation's infrastructure a priority as well. After all, these two issues are connected. We cannot have a prosperous nation without providing a safe infrastructure system for our citizens and businesses.

"An added bonus is that every \$1 billion in infrastructure spending is estimated to create 47,000 new jobs," he adds. "By taking the steps necessary to tackle our infrastructure problem now, we have an opportunity to improve our economy with the great ROI of a better, safer infrastructure system that will lead to a stronger nation."

### **About the Author:**

Barry B. LePatner is the founder of the New York City-based law firm LePatner & Associates LLP. For three decades, he has been prominent as an advisor on business and legal issues affecting the real estate, design, and construction industries. He is head of the law firm that has grown to become widely recognized as one of the nation's leading advisors to corporate and institutional clients, real estate owners, and design professionals.

Mr. LePatner is widely recognized as a thought leader in the construction industry. A November 2007 Governing Magazine article stated, "If there's a guru of construction industry reform, it's LePatner." In an article entitled "Building a New WPA," appearing in the November 24, 2008, issue of New York magazine, he was referred to as "a Cassandra of infrastructure." His new book, Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry (The University of Chicago Press), which was reviewed in the Wall Street Journal, has created a national debate among owners, designers, and other key stakeholders. Mr. LePatner has been featured in BusinessWeek, the Boston Globe, the New York Times, Crain's New York Business, the Chicago Tribune, and other prestigious publications. His articles and speeches on the perilous state of our nation's infrastructure have garnered him widespread attention. He has appeared on many television and radio broadcasts, including a CNBC appearance and several National Public Radio segments.

A nationally recognized speaker, Mr. LePatner has addressed audiences on topics central to trends affecting the real estate and construction industries at recent events sponsored by: The International Economic Forum of the Americas, the Real Estate Board of New York, FIATECH, the National Realty Club, the Construction Owners Association of America, the Construction Management Association of America, the Construction Financial Management Association, and MC Consultants Inc.'s Construction Defect and Construction Law Conference. He also routinely presents CLE-accredited courses to other law firms and organizations on how the construction industry actually works and how they can best protect their clients from the vagaries of the construction process.

LePatner co-sponsored "Real Estate Outlook," an annual executive seminar series for corporate and real estate leaders; "Protection, Survival, Readiness: Project Strategy in the Post-9/11 World," a seminar presented to institutional, developer, and corporate real estate executives; and "Secure Space," a building security seminar for corporate owners and developers. He has also presented "Construction Cost Integrity: Equitable Risk Allocation Agreements" and "Protecting the Owner from Pitfalls in Today's Construction Projects," a series of Continuing Legal Education lectures to law firms and their in-house real estate departments; and the highly successful "Marketing for Design Professionals" course at the Harvard Graduate School of Design's Summer Program, from 1990-2004 with A. Eugene Kohn, founder of KPF Associates.

Mr. LePatner has written extensively and is widely quoted in the media on the subject of construction law. He previously co-authored the legal sections of the Interior Design Handbook, McGraw-Hill 2001, and Structural & Foundation Failures: A Casebook for Architects, Engineers & Lawyers,

McGraw-Hill 1982, with Sidney Johnson, P.E.

Recently published articles include: "Sarbanes-Oxley's Wake-Up Call to the Construction Industry," The CPA Journal, December 2007, co-authored with Henry Korn, Esq., and Anthony Chan, CPA; "Today's Construction Contracts: Drafter Beware," Legal Times, September 2007; "The Industry That Time Forgot," Boston Globe, August 2007; "Construction Cost Increases: Owners Should Know the Difference Between the Myths and Realities," New York Real Estate Journal, October 2006; and "Are You Prepared—Disaster Management Plans Help Owners Protect Their Investments" in the March/April 2006 issue of Commercial Investment Real Estate magazine. Articles published in the New York Law Journal include: "Caveat Advocatus—Drafting Construction Agreements for Your Client's New Construction Project Ain't What It Used to Be," March 27, 2006; "Insuring a Construction Project Against Water and Mold," October 25, 2004; "Building Security Measures and Owner Liability After Sept. 11," May 1, 2003, co-authored with Henry Korn, Esq.

In May 2002, LePatner was elected by the American Institute of Architects to receive an Honorary AIA Membership, one of the highest honors the organization can bestow upon an individual who is not an architect and which is granted to those who have devoted their careers in service to the architectural profession.

In July 2001, LePatner was elected to the Board of Trustees of DIFFA, the Design Industries Foundation Fighting AIDS. He has also served on numerous advisory committees, including: the Advisory Board, Society for Marketing Professional Services, 1990-93; the board of the New York Building Congress; Board of Advisors, Legal Briefs for the Construction Industry, 1981-89; American Institute of Architects Advisory Committee, 1984; and the National Academy of Sciences, 1984-85. He is a member of the Association of the Bar of the City of New York, the New York State Bar Association, and the American Bar Association.

#### About the Book:

Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry (The University of Chicago Press, October 2007, ISBN-13: 978-0-226-47267-6, ISBN-10: 0-226-47267-1, \$25.00) is available at bookstores nationwide, from major online booksellers, and direct from the publisher at <a href="https://www.press.uchicago.edu">www.press.uchicago.edu</a>.

For more information, please visit www.brokenbuildings.com.

### Five Points the Government MUST Consider Before Doling Out Billions to the Construction Industry

Written by Barry LePatner

Thursday, 05 March 2009

Filling Potholes on the Road to Repair: On one hand, our national infrastructure is in dire need of the stimulus money it's getting. On the other, there's precious little evidence that the construction industry won't squander it. Construction expert Barry LePatner advises the U.S. government to take some very specific steps to avoid wasting infrastructure stimulus funds.

New York, NY(February 2009)—Economic stimulus plan funds will soon be distributed to projects and programs across the nation, and without a doubt opinions on the matter are mixed. One definite high note is that the legislation—which includes around \$48 billion in infrastructure transportation spending on everything from a high-speed rail service to highway projects to public transportation and intercity rail projects—finally recognizes that our nation's infrastructure is crumbling around us.

But according to construction attorney Barry LePatner, the government had better look before it leaps. Why? Because the legislation authorizing the distribution of this massive funding program assumes that the dollars spent on these projects will be efficiently utilized by a construction industry that is just as broken as the infrastructure it's charged with building and repairing.

"We've already seen what can happen when the government pumps money into broken industries without properly monitoring how it's used: billions of taxpayer dollars are wasted," says LePatner, coauthor of *Structural & Foundation Failures* (McGraw-Hill, 1982, coauthored with Sidney M. Johnson, P.E.) and author of *Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry* (The University of Chicago Press, October 2007, ISBN-13: 978-0-226-47267-6, ISBN-10: 0-226-47267-1, \$25.00).

He speaks, of course, of the "bailout" money poured into America's financial and automotive industries—industries whose inept and inefficient ways have, to date, prevented the funds from benefitting the American people. And he insists that, sadly, the construction industry is no better. In fact, as amazing as it may seem, it could be even worse!

"When you give money to an industry that, according to recent studies, wastes upwards of \$120 billion a year, and don't take the steps necessary to ensure it's used wisely, you are going to end up once again with no ROI," he warns. "That's the stark reality. And for taxpayers already saddled with a terrible economy and a crushing mountain of national debt, this is bad news indeed."

The construction industry's woes are at the center of LePatner's latest book. In it he lays out the industry's biggest problems: rampant cost overruns and missed (in some cases by several years) project deadlines. Grim as it may sound, he predicts that the construction industry will fritter away the \$48 billion allotted on projects that may well get underway—but will be abandoned

before they're ever finished.

"To advance billions in infrastructure funds for needed roads and bridges only to find we run out of money before they are completed is totally wasteful," says LePatner. "The amount of money being doled out for these projects is finite. Once it's gone, it's gone. Unfortunately, it's highly likely that it will be wasted, and we will end up with a nation of under-maintained highways and byways and useless, only partially completed bridges and roads. Frankly, before infrastructure repairs can be made in a cost-effective and efficient way—both crucial for the current state of the nation—the construction industry must make more than a few repairs of its own.

"The government, too, should do its part to ensure there is adequate protection against this waste in the accountability provisions of the stimulus plan," adds LePatner. "Without a true fixed-price structure for all construction projects that shifts the risk for inefficiency and waste to the construction industry, our government will be back footing the bill for an additional tens of billions of dollars within a few years."

LePatner offers a few steps he would like for the nation's governing bodies to make beforethe infrastructure money is pumped into project contracts:

Create an Infrastructure Czar position. The current stimulus legislation proposes to set up oversight by an Accountability and Transparency Board composed of a chief performance officer and six members designated by the President, including inspectors general and secretaries of the Education, Energy, HHS, Transportation, and other federal departments. But according to LePatner, it's unlikely that any of these officials have a true grasp of the inefficient way the construction industry operates or how to address them in future contracts. In order for these project negotiations to be mediated properly, he advises, the President should create an Infrastructure Czar position.

"The Czar should be a savvy construction expert who did not emanate from the construction industry but who is familiar with the low bid/change order process that consistently drives up costs on construction projects," he explains. "This individual must know how critical it is to avoid traps like the fast-track process or guaranteed maximum price traps that never truly guarantee the contract price. A construction expert of this kind will help close the information gap that will likely exist between construction contractors and the policymakers trying to negotiate government contracts."

**Make fixed-price contracts mandatory.**In a seemingly helpful provision, the stimulus legislation calls for contracts "to the maximum extent possible" to be awarded as fixed-price contracts through competitive procedures. Unfortunately, that appears to be the extent of what the government understands as being protective of the federal dole.

"One merely needs Google the phrase 'construction cost overruns' to begin to realize the enormous proportions of the waste our country has been dealing with for decades," says LePatner. "Fixed-price contracts on these projects are an absolute must. Without them, contractors will use change orders and delay claims to drive up the costs of these crucial infrastructure projects. In order to obtain these fixed-price contracts, the government should also

require that contractors create their bids based on 100 percent complete documents from the architects and engineers. Otherwise, it will be impossible to estimate the true scope of these projects."

**Invest some stimulus money in advanced technologies.** Consider this fact: By the time cracks appear in the structure of one of the nation's bridges, the costs for remediation have skyrocketed. That is why some of the money being allocated for infrastructure projects should go toward purchasing new technology that can help state governments and the federal government save money down the road.

"Technology exists to anticipate bridge remediation years before rust, corrosion, and cracks appear," notes LePatner. "We 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."

Create stipulations aimed at avoiding wasted labor costs. The construction industry, now at the crossroads of so many needed projects and potential revival of our jobless situation, has a very bad (though not widely known) reputation for waste. Shockingly, some 50 percent of all labor costs of a project are lost due to late deliveries, poorly coordinated subcontractors, and other circumstances that regularly prevent employees from engaging in productive onsite work. These inefficiencies spring, in part, from the "mom and pop" nature of the businesses involved. But it is also a function of the industry's minimal use of technology, its lack of capital resources, and the fact that productivity per worker has gone down over 22 percent over the past forty years.

"In order to combat this problem, stipulations must be placed in the government contracts awarded," insists LePatner. "Contracts must require that skilled, experienced onsite construction representatives with in-depth knowledge, who can oversee not only quality but the true cost for the work, are retained for these projects."

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 back 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 payoff 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," says LePatner. "Going forward, as infrastructure projects proceed with only limited funding, our nation cannot afford to face cost overruns of 20 percent, 30 percent, or more. There are no available funds to finish projects facing contractor overruns due to the industry's inefficiencies. The industry itself will have to be reformed before we can start making progress on repairing the nation's infrastructure."

"The government is about to embark on what is essentially bailout #3," says LePatner. "Obviously, the last two were less than successful. They'd better get this one right, or public trust will be irrevocably damaged. This stimulus plan should be handled with a lot of transparency and follow through—two characteristics the construction industry, the most inefficient industry in our nation, isn't known for.

"When you consider the huge number of projects that must be completed in order to restore America's infrastructure, it is clear that measures must be taken to ensure that money allocated for infrastructure projects is used wisely and for the betterment of the nation," he adds. "Our government must ensure that infrastructure project contracts are all undertaken with true fixed-price contracts that pass the risk for poor performance onto the contractors who fail to complete them on time and on budget. Our leaders' credibility, not to mention our nation's future safety and viability, depends on it."

#### **About the Author:**

Barry B. LePatner is the founder of the New York City-based law firm LePatner & Associates LLP. For three decades, he has been prominent as an advisor on business and legal issues affecting the real estate, design, and construction industries. He is head of the law firm that has grown to become widely recognized as one of the nation's leading advisors to corporate and institutional clients, real estate owners, and design professionals.

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His latest book, Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry (The University of Chicago Press), which was reviewed in the Wall Street Journal, has created a national debate among owners, designers, and other key stakeholders. Mr. LePatner has been featured in BusinessWeek, the Boston Globe, the New York Times, Crain's New York Business, the Chicago Tribune, and other prestigious publications. His articles and speeches on the perilous state of our nation's infrastructure have garnered him widespread attention. He has appeared on many television and radio broadcasts, including a CNBC appearance and several National Public Radio segments.

A nationally recognized speaker, Mr. LePatner has addressed audiences on topics central to trends affecting the real estate and construction industry at events throughout the country for audiences including contractors, architects, engineers, construction technology experts, economic experts, and other construction industry thought leaders.

Mr. LePatner has written extensively and is widely quoted in the media on the subject of construction law. He previously co-authored the legal sections of the Interior Design Handbook,

McGraw-Hill 2001, and Structural & Foundation Failures: A Casebook for Architects, Engineers & Lawyers, McGraw-Hill1982, with Sidney M. Johnson, P.E. Mr. LePatner is currently writing a new book that takes a look at what needs to be done to rebuild the nation's infrastructure. To be published early in 2010, it will address our decades-old failure to redress our deteriorating roads and bridges and will offer insightful recommendations on how to finance and build this critical part of our nation's backbone.

In 2007 and 2008 Mr. LePatner was selected as a Super Lawyer by the publisher of Law & Politics magazine. In 2002, Mr. LePatner received an Honorary AIA Membership. He is also currently on the Board of Trustees of the Design Industries Foundation Fighting AIDS (DIFFA). He has also served on numerous advisory committees including: the Advisory Board, Society for Marketing Professional Services; the Board of the New York Building Congress; Board of Advisors, Legal Briefs for the Construction Industry; American Institute of Architects Advisory Committee; and the National Academy of Sciences.

#### **About the Book:**

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### Making Fixed-Price Contracts and Cost Containment the Construction Industry's New Normal

Written by Barry LePatner

Monday, 21 December 2009

A "Fixed" Fight: A peek inside one construction expert's campaign to make fixed-price contracts and cost containment the industry's new normal: Huge cost overruns and missed deadlines have long been the accepted norm for construction project operations. But as the economy struggles to fully recover, construction expert Barry LePatner stresses that these precepts can no longer define the nation's most inefficient industry. He provides a proposal for hardwiring construction cost containment into future projects.

New York, NY (December 2009)—Cost overruns have long been the norm in the construction industry. Just consider the litany of projects across our nation that have been plagued by cost overruns. For example, Boston's \$22-billion-dollar Big Dig, which continues to drain Massachusetts' economy, or the sports arenas and stadiums such as the newly built stadiums for New York's Mets and Yankees, both of which have exceeded projected costs by hundreds of millions. Not to mention the smaller projects such as the schools, hospitals, and office and residential projects going up around the nation, which encounter overruns on a daily basis.

No one has ever been happy about the cost overruns or the missed deadlines that accompany projects like those mentioned above, but most have accepted them as a necessary evil. But in our stagnant economy, faced with the stark reality of dried-up financing, and a construction industry that has lost over 1.5 million workers, tightly budgeted developers and project owners are facing a budgetary quagmire from contractors who bid at or below cost to secure contracts that will inevitably result in massive cost overruns.

However, a new paradigm is on the horizon that promises to alleviate these problems—and Barry LePatner says construction cost containment is the number one goal of developers, corporations, lenders, and public owners alike.

"Construction cost overruns have run rampant for decades," says LePatner, author of *Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry* and the upcoming book *Roadblock: America's Failing Infrastructure and the Way Forward.* "It's hard to believe that the construction industry was allowed to waste upwards of \$120 billion each year even in the best of times. It is an industry that has seen per-worker productivity fall by nearly 25 percent over the past 40 years. But in these difficult times, the status quo can no longer stand."

The problem, well-known to most people who deal with the construction industry, is that the low-bid process allows contractors to win projects—followed, of course, by change orders and delay claims that gradually escalate the final price and enable them to make a profit.

LePatner's solution? Over the past two years, his law firm has developed *The LePatner C* $^3$  *Model* $^{TM}$ , a new fixed-price approach to designing and building complex capital projects that

enables all project team members to operate with confidence that their project will be completed on time and on budget. It does this while also assuring a fair profit to the construction team without the need for unwarranted claims and delays. For details, see LePatner's new white paper, The LePatner C3 Model: Construction Cost Certainty, which is available for download at www.BarryLePatner.com.

"If you're scoffing at the mention of a 'fixed-price approach,' you're certainly not alone," admits LePatner. "Many in the construction industry believe fixed-priced contracts simply aren't possible. And given the way the industry currently operates, they are correct.

"But when you ensure that contracts are based on fully complete and coordinated drawings, perform a proper risk allocation to adjust for anticipatable problems during the construction process, and involve intermediaries to act on the owner's behalf in the negotiation process—as The LePatner C3 Model does on all accounts—you create a world in which owners—public and private—can, for the first time, feel secure that cost certainty will be achieved."

And as seen by the results of FMI and CMAA's recent 2009 *Tenth Annual Survey of Owners*, LePatner's fixed-price model is coming at just the right time. As we move into the next decade, owners, too, are expecting change.

According to the survey's findings, owners want to see more claims avoidance, better project leadership, and better alignment of "project delivery system selection to project characteristics and conditions."

The survey also found that from 2009-2014, owners will place greater importance on the following factors. Here they are as excerpted from the survey:

- Selecting the most effective project delivery system
- Maintenance management support in both processes and technologies
- Proactive strategies to avoid claims and disputes
- Development and use of a construction management plan
- Effective documentation and processes designed to support facility commissioning or turnover

LePatner has been proposing this kind of change within the industry since the release of his book *Broken Buildings*, *Busted Budgets* in 2007, which sparked a long-overdue debate among owners, design professionals, and contractors on the mutual benefits of construction industry reform, specifically the need for widespread adoption of true fixed-price contracts.

The LePatner C3 Model, which makes fixed-price contracts a prerequisite for new construction, ensures that borrowers and their lenders will no longer be held captive to the well-documented inefficiencies of the U.S. construction industry. And stakeholders will no longer be exposed to existing construction methodologies that allow all risks of completion to be passed along to owners and lenders.

Here's a look at the construction industry inefficiencies LePatner hopes to end for good with the use of The LePatner C3 Model:

**Incomplete drawings.** Incomplete drawings allow contractors to bid low in order to win projects, and also prevent them from providing an owner with a true fixed price for all work required to complete the project. Here's what happens: To "expedite" construction, construction managers routinely require the owner's architects and engineers to issue incomplete drawings and specifications to contractors as the basis for the project contract. Lacking complete scope information, the contractors must infer and make cost assumptions on the "missing" design elements since they are not provided with detailed information on the project design.

"What results are agreements that ultimately allow for myriad exclusions, allowances, and pricing assumptions based upon the incomplete design," says LePatner. "It is no surprise that these pricing and scope assumptions rarely bear out once construction starts, the final design is completed, and actual costs are determined. And once a project is under construction, owners have very few good options to dispute these charges because delaying the project to settle these problems will only lead to more delays and costs. The LePatner C3 Model ends this problem because it requires contracts to be based on fully completed designs.

"In addition, The LePatner C3 Model also ensures that the owner has, for the first time, accurate pricing information on the actual costs reflected on the design drawings. Owner representatives and their cost estimators will be valuing the design as it proceeds so that, by the time bids from prospective contractors arrive, the owner will know if they are truly competitive and can ensure a fair profit for the construction team to reflect the risks they will take to complete the project on time and on budget."

**Change orders.** Change orders are the major reason so many projects go over budget and run behind schedule. They occur because the design documents on every "fast track" project are incomplete. This practice sets in motion all that is wrong with the current methodology of construction and underscores the failure of standard-form industry contracts to protect owners. As previously mentioned, contractors use change orders to profit from their low bids.

"Low bids and the change orders that come with them will only be exacerbated by the slow and recovering economy, subsequently driving up project budgets by 20 to 50 percent or more," says LePatner. "In the past, when cost overruns arose, owners could borrow to meet a shortfall from a mezzanine lender to cover these costs. But in the years ahead, industry leaders expect that few, if any, mezzanine lenders will cover the increased cost of completing such projects. The LePatner C3 Model puts an end to the need for unnecessary change orders because it ensures a built-in, fair profit for contractors when a project is completed on time and on budget."

**Ineffective design and construction agreements.** A central problem is that standard design and construction agreements fail to recognize the low-bid process and the known inefficiencies of the construction industry. These form-based agreements are silent on the critical issue of contractor bids based upon incomplete designs and fail to offer any mechanism to anticipate and price "unexpected" conditions. These are precisely the circumstances in which cost overruns and change order claims run rampant through the construction industry, busting owners' budgets at every turn.

The backbone of The LePatner C3 Model is a set of seamless agreements for the design and construction teams that ensure a true fixed price based on fully completed project designs. It also includes a risk allocation process that helps factor in "unexpected" conditions that are priced during the contracting process and eliminate costly and time-consuming delays.

"As it stands today, on construction projects big and small, project cost is a huge wild card," says LePatner. "Public and private owners should demand certainty for their capital project costs. In the years ahead, if you are a developer and you do not have a plan in place for cost containment, you will not be able to get the loans you need to build. If you are lucky enough to get the initial loan, you will run the risk of having to pay millions more to cover costs that have soared over budget. For example, if you are a school district and must build 10 new schools with a \$40 million budget, cost overruns will prevent you from constructing as many as 20 percent of the intended number of schools.

"The LePatner C3 Model offers reassurance on cost certainty where there currently is none," he adds. "For lenders, it provides a proven strategy that reduces construction loan risk. And, thanks to the cost certainty it provides, borrowers receive a new level of assurance that actual project costs will not exceed the contract price.

"Having something like The LePatner C3 Model in place is a necessity now," concludes LePatner. "Our nation will rebound from the current financial downturn. We are in the process of adding 100 million new citizens in the next 30 years, a level of growth that will require our nation to spend over \$25 trillion to build new hospitals, schools, offices, roads, and bridges. The LePatner C3 Model will become a new paradigm that will help transform America's most inefficient industry into one that helps us build our nation's future efficiently and cost effectively, while protecting owners from that same inefficiency."

### **About the Author:**

Barry B. LePatner is the founder of the New York City-based law firm LePatner & Associates LLP. For three decades, he has been prominent as an advisor on business and legal issues affecting the real estate, design, and construction industries. He is head of the law firm that has grown to become widely recognized as one of the nation's leading advisors to corporate and institutional clients, real estate owners, and design professionals.

Mr. LePatner is widely recognized as a thought leader in the construction industry. A November 2007 Governing Magazine article stated, "If there's a guru of construction industry reform, it's LePatner." In an article entitled "Building a New WPA," appearing in the November 24, 2008, issue of New York magazine, he was referred to as "a Cassandra of infrastructure." And an article on Infrastructurist.com entitled "Trillion-Dollar Barry: One Man's Quest to Keep America Solvent" states that Mr. LePatner has been hailed as "a leading expert on the construction industry."

His latest book, Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry (The University of Chicago Press), which was reviewed in the Wall Street Journal, has created a national debate among owners, designers, and other key stakeholders. Mr. LePatner has been featured in BusinessWeek, the Boston Globe, the New York Times, Crain's

New York Business, the Chicago Tribune, and other prestigious publications. His articles and speeches on the perilous state of our nation's infrastructure have garnered him widespread attention. He has appeared on many television and radio broadcasts, including a CNBC appearance and several National Public Radio segments.

A nationally recognized speaker, Mr. LePatner has addressed audiences on topics central to trends affecting the real estate and construction industry at events throughout the country for audiences including contractors, architects, engineers, construction technology experts, economic experts, and other construction industry thought leaders.

Mr. LePatner has written extensively and is widely quoted in the media on the subject of construction law. He previously co-authored the legal sections of the Interior Design Handbook, McGraw-Hill 2001, and Structural & Foundation Failures: A Casebook for Architects, Engineers & Lawyers, McGraw-Hill 1982, co-authored with Sidney M. Johnson, P.E. Mr. LePatner is currently writing a new book, Roadblock: America's Failing Infrastructure and the Way Forward, that takes a look at the perilous state of the nation's infrastructure. To be published early in 2010, it will address our decades-old failure to redress our deteriorating roads and bridges and will offer insightful recommendations on how to finance and build this critical part of our nation's backbone.

In 2002, Mr. LePatner received an honorary AIA membership. He is also currently on the Board of Trustees of the Design Industries Foundation Fighting Aids (DIFFA). He has also served on numerous advisory committees including: the Advisory Board, Society for Marketing Professional Services; the Board of the New York Building Congress; Board of Advisors, Legal Briefs for the Construction Industry; American Institute of Architects Advisory Committee; and the National Academy of Sciences.

### **About the Book:**

Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry (The University of Chicago Press, 2007, ISBN-13: 978-0-226-47267-6, ISBN-10: 0-226-47267-1, \$25.00) is available at bookstores nationwide, from major online booksellers, and direct from the publisher at www.press.uchicago.edu.

For more information, please visit www.BrokenBuildings.com or www.BarryLePatner.com.

## REAL ESTATE BISNOW

### **Real Estate Bisnow**

September 8, 2008 January 12, 2009 October 14, 2009

**Real Estate Bisnow** is an online real estate publication that offers daily e-newsletters about key local industries, including commercial real estate, law, technology, associations and innumerable others.

### CONSTRUCTION TIPS FOR '09

A big welcome to our new title sponsor, **Monday Properties!** They're doing amazing things in the city—but you already knew that.

January 12, 2009

This year is about questioning the **assumptions** on which the construction industry manages its business affairs, says construction law guru **Barry LePatner** of **LePatner & Associates**, who's involved in some high-profile projects like **WLIW's** studio renovation and expansion, **WNET's** new studio in Lincoln Center, the **Dream Hotel** in Chelsea, and litigation on a project in the **Theater District**.



"For too many years we've accepted doctrines that dictate how we build, how we design, how we set budgets, and how all cost overruns must be paid for by the owner because 'this is the way we have always done it," he says. We've been sold on the benefits of **fast-track projects**, the illusion of **guaranteed maximum price contracts**, and an **assured** flow of funding, he adds. But **lenders** will no longer automatically permit a project to move forward with only 10% equity or provide **mezz loans** to bail out a construction contract on a GMP basis, and therefore owners, he warns, should not start bidding work without complete **construction drawings** and **certainty**about **final cost**.



Barry with firm partners **Ron Feingold** and **Henry Korn**. He says the construction industry is notoriously **inefficient**, costing the U.S. more than **\$120B** annually. And more: The industry needs to shed outdated and inefficient means and methods, and retaining skilled**ombudsmen** and **project managers** who permit only those who reveal their true costs to work on their projects. In return, **contractors**should be entitled to make a fair profit for capable performance of their work.

# INVESTMENT! INFRASTRUCTURE!

Congrats to the winners of yesterday's contest: Citi Private Bank's Frank Falco, NAI Global New York City's Andy Simon, and Robert K. Futterman's Roberta Falco, the only three to give us the correct answers for free tickets to Bisnow's "State of the Market Update" tomorrow (see story below). The answers? 601 (formerly known as Citigroup Center) and 599 Lexington, both owned by Boston Properties, and served by the E, V, and 6 trains.

How does **Fisher Brothers** partner **Winston Fisher** think high **unemployment** will affect landlords and demand for space? He enlightened us on that topic and others that panelists may discuss at *Bisnow's* "<u>State of the Market Update</u>" event tomorrow at **Cooper Union Great Hall**.



When we snapped this **yesterday**, Winston said he'd read that even if job creation numbers run on par with '02-'07 levels, it will still take **six years** to get back to a **6%** unemployment rate. Another question: How will the **value** 

deterioration of the banks' existing commercial real estate loan portfolios affect markets? He points out we've yet to see the distress and RTC foreclosures. Don't miss the chance for more from Winston, CB Richard Ellis' Mitch Rudin, Cushman & Wakefield's Bruce Mosler, Goldman Sachs' Andy Jonas, Fried Frank's Jonathan Mechanic, and keynote Michael Fascitelli of Vornado. SIGN UP NOW!

### COMPELLING INVESTMENT



Despite declined real estate values, it's still difficult for smaller investors to place their money in NYC real estate, says Marilyn Kane, president of newly formed real estate fund management firm Iridium Capital, whom we visited in her Madison Ave office. There are many accredited investors looking for places to invest, but distressed properties, bundle foreclosures, and short sales aren't for the inexperienced, she notes. Her newly launched fund will be investing in net-leased properties with long-term holding periods, a vehicle particularly suitable for self-directed IRAs.



Marilyn, with colleague **Sean Shanahan**, tells us that **triple-net** leased properties are **compelling** because the tenant manages the property and pays for all building maintenance, insurance, and taxes—leaving the investor **little** or **no responsibility**. Iridium's first fund will invest in a diversified portfolio of NNN properties across the **medical**, **industrial**, and **retail** sectors in the **\$1M to \$3M** range. Today's combination of low interest rates and historically high cap rates should allow investors to attain at least **8% annual returns**, she adds. In the meantime, catch her speaking on the subject at **NYCREW**'s "Commercial Leasing: What Not to Do in This Market" panel on 10/22 and the **NYC Real Estate Expo** on 10/30.

WTC Overruns: "Unconscionable"



Eight years after 9/11, the WTC rebuilding has not progressed as planned—and LePatner & Associates founding partner Barry LePatner (author of the forthcoming Roadblock: America's Failing Infrastructure and the Way Forward) blames the "unfortunate situation" on a public owner with no experience building a large complex. Consequently, the construction attorney says there've been billions in cost overruns—with the potential for much more. One WTC, formerly known as the Freedom Tower (below, which we snapped from 7WTC last month), is taking a month per floor to build versus a more normal four days to a week. He calls it an unconscionable waste of time and public resources.



He says politicians have failed to force the Port Authority to follow any master plan, and now the public is faced with the prospect of an **unbuildable project** that may never see construction of **Frank Gehry's** Performing Arts Center and a **diminished transit hub**. His suggestion? Since some components are proceeding without completed designs, work should be **halted** until contractors are provided complete and coordinated construction documents, ensuring a **fixed price** and **defined completion date**. Appoint a **czar** who will oversee a completion schedule with contractors assuming the risk for further delays and convey a more **confident sense** that the work will get done before **2017**.



Barry believes it's all become a **bigger boondoggle** than Boston's **Big Dig** and says the WTC project is a **massive drain** on public funds that would be better used for addressing our infrastructure needs. He thinks once the healthcare talks are over, we can expect DC's **focus to shift** to **imperiled bridge** and **road problems** that will need **several trillion** dollars to repair.

**UPCOMING EVENTS** 

October 18 - Have a Chance to Walk - 5K - start/finish Battery Park. Help find a cure for brain cancer. Sherry Frankel of Caran Properties is coordinating sponsorships by real estate companies. Info.

October 20 - National Realty Club - Noon - What's been the institutional and private equity markets response to real estate finance's big change. Location: Williams Club 24 East 39th St. (Info)

October 21 - SMPS-NY - 8am-10am - Design and Construction trends for Healthcare - New techniques for improving medical facilities' longevity and efficiency. Haworth Showroom. Info

October 21 - REBNY - Residential Deal of the Year Awards and Charity Gala - 6:30-10:00pm - Location: 230 Fifth Ave. Info

October 22 - NYCREW - The Art of the NYCREW Deal -Panel on "Commercial Leasing: Where are the Deals?", 5-7 pm, Crowell & Moring LLP, 590 Madison Avenue. Info Consider Bisnow the real estate Vogue—send your hot trends to amanda@bisnow.com



### **Tuscaloosa News**

March 29, 2009 Circulation 32,061

*Tuscaloosa News* is a daily newspaper written for the residents of the Tuscaloosa, AL area. It has a circulation of 32,061. By MICHAEL COOPER

Published: March 29, 2009

### **Companies Pretty Up Prices to Win Stimulus Projects**

By MICHAEL COOPER

Department stores are marking down their spring collections. Broadway shows are offering discount tickets. Now road work is on sale, as well.

Construction companies, hungry for work in the dismal economy, have slashed their prices to try to win the first round of public works projects being paid for by the federal stimulus package.

Pennsylvania officials said contractors competing for their first round of road and bridge projects had offered bids 15 percent lower than the state had expected. Utah officials said some of their bids were coming in 25 percent lower than expected. And a bid to build a 4.7-mile extension of Interstate 49 from Shreveport, La., toward the Arkansas state line came in at \$31.1 million, about \$4.7 million less than the Louisiana Department of Transportation and Development had estimated the project would cost.

"The bids are coming in lower than we would have imagined," Transportation Secretary Ray LaHood said in an interview, adding that the low bids should provide good value to taxpayers. "I think there's a huge appetite for these projects, and people are raring to go. There's pent-up demand for people to get these bids and get the work."

If the low bids keep coming and the price of construction material stays low, the Utah Department of Transportation hopes to get more work done with the stimulus money than expected, said Nile Easton, a spokesman for the agency. "We're hoping that we can actually stretch that money," he said.

The low bids are the result of supply and demand: there are plenty of construction workers out there and not much demand for their work lately. Many construction operations suffered when residential and commercial building evaporated as the recession hit, and then again when public works tapered off as many states cut back. So they are eager to get back to work, even if it means they must charge less to do it.

Of course, the whole idea of the stimulus law was to pump a lot of money into the economy quickly. State officials said they would have no problem spending all the money they are

receiving from the federal government; if projects continued to cost less than expected, they added, they would simply tackle more of them.

"I think it's a good deal for taxpayers, and taxpayers need a good deal right now," Patrick Cooney, a spokesman for the Oregon Department of Transportation, said last week after coming back to work from a furlough day to save the state money.

Some argue that low bids should raise red flags. Barry B. LePatner, a construction lawyer, said that unless states performed independent estimates to find out the true costs of their projects, they risked awarding contracts to companies whose low bids did not reflect the true cost of the work. In such cases, he said, it is common for a company to try to undercut its competition with a low bid and then, once it has won the job, try to eke out a profit by putting in numerous change orders that drive up the price and delay the project.

"You have already started down the road to nowhere," said Mr. LePatner, whose book "Broken Buildings, Busted Budgets" argues that reforms are needed to curb the cost overruns that plague the industry.

States are gearing up to begin work now that spring and the construction season are at hand. By last week, 34 states had been given the go-ahead for nearly 1,000 projects worth \$3.4 billion, transportation officials said.

Officials in many states see the low bids as a sign that they are in a buyer's market. A few years ago transportation officials in Utah, concerned that there was little competition for their construction work, put together a team to try to entice more companies to bid for the jobs. Now, as the first stimulus projects get under way, they are getting a half-dozen bids for each job — and many are coming in at 25 percent below their estimates.

"Boy, it's a great time to be putting projects out," Mr. Easton said.



### The Maritime Executive

February 4, 2009 Circulation 25.000

**The Maritime Executive** is a bi-weekly traffic, shipping and warehousing publication designed to provide maritime and transportation industry decision makers with strategies and solutions to critical issues. It includes case studies and interviews with industry leaders, coverage of new technologies and related products. It has a circulation of 25,000 and a one-page ad rate of \$3,250.

### Road Work Ahead: Five Solutions for Repairing the Nation's Infrastructure



Wednesday, February 4th, 2009

The economy isn't the only national system that needs repairing. As this past summer's levee breaks and other recent disasters indicate, America's infrastructure is also in serious trouble. Construction expert Barry B. LePatner offers some solutions.

While policymakers and pundits focus on the financial meltdown, another crisis is brewing in the U.S.: Our infrastructure system is silently deteriorating more and more as each year passes. Frighteningly, we have experienced over 500 bridge failures since 1989 according to one recent

study. The aftermath of Hurricane Katrina was another warning as levees broke destroying swaths of New Orleans. Then came the tragic I-35W bridge collapse of August 2007. Finally, the levee breaks of this past summer served as yet another illustration of how dire the situation has become. The lesson is clear, says construction expert Barry B. LePatner. We must overhaul the broken systems that have led us to this point—and we don't have a moment to lose.

"We all know the nation's vast infrastructure problems cannot be fixed overnight," says LePatner, coauthor of Structural & Foundation Failures (McGraw-Hill, 1982, coauthored with Sidney M. Johnson, P.E.) and author of Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry (The University of Chicago Press, October 2007, ISBN-13: 978-0-226-47267-6, ISBN-10: 0-226-47267-1, \$25.00). "However, by aggressively moving toward a solution now—rather than applying a series of ineffective 'bandaids'—we can begin to make real improvements that will benefit our country for generations to come."

According to LePatner, tackling our critical transportation and infrastructure problems will require a national commitment and a strategic plan that should include the following solutions:

Create a national clearinghouse and database, accessible to every state transportation agency and the general public. The database will 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 to require 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," says LePatner. "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 Grand River in Ohio in 1996. By June 2008, MnDOT announced that they would replace eleven major bridges in the state, some with the same concerns about deteriorated gusset plates that had gone undetected."

State governments should step up their efforts to protect their citizens. State governments 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." The public should receive annual updates on the remediation progress and be given notice if funding for the repairs is not provided within 18 months.

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," says LePatner. "Engineers

are often the first to be laid off from state transportation departments because of their high salaries. This can no longer be the case. State governments can and must recognize the ability to reduce long-term maintenance costs rests with these engineers' valued experience."

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 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," says LePatner. "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."

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 back 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 payoff 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) apportion all the risks that are 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," says LePatner. "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' mindset anymore."

"The current financial crisis has caused many of us to think about what the nation's priorities should be," says LePatner. "Certainly, repairing the economy should be at the top of the list. But as the Obama Administration settles into office, it should make repairing the nation's infrastructure a priority as well. After all, these two issues are connected. We cannot have a

prosperous nation without providing a safe infrastructure system for our citizens and businesses.

"An added bonus is that every \$1 billion in infrastructure spending is estimated to create 47,000 new jobs," he adds. "By taking the steps necessary to tackle our infrastructure problem now, we have an opportunity to improve our economy with the great ROI of a better, safer infrastructure system that will lead to a stronger nation."

#### • About the Author:

Barry B. LePatner is the founder of the New York City-based law firm LePatner & Associates LLP. For three decades, he has been prominent as an advisor on business and legal issues affecting the real estate, design, and construction industries. He is head of the law firm that has grown to become widely recognized as one of the nation's leading advisors to corporate and institutional clients, real estate owners, and design professionals.

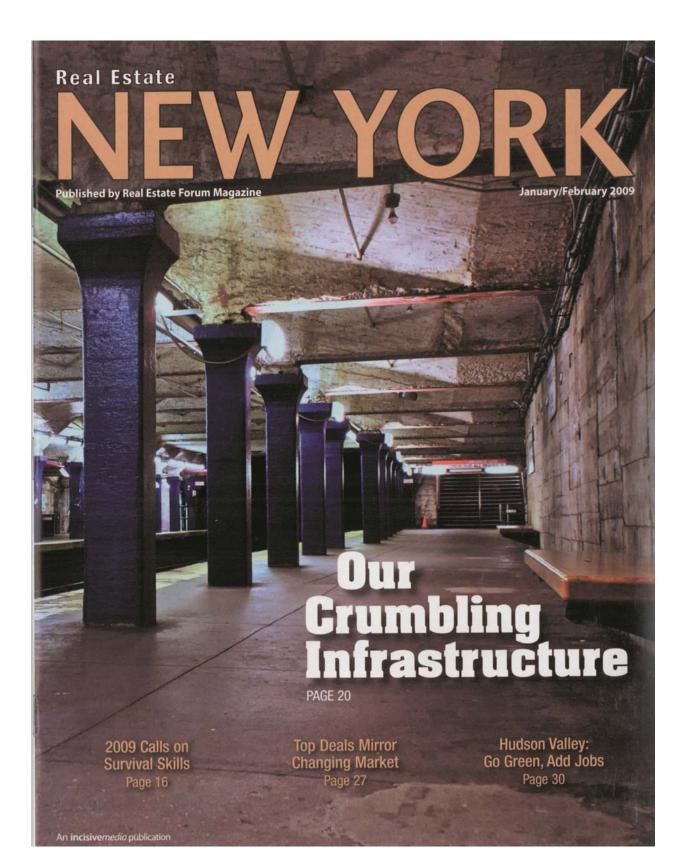
Mr. LePatner has written extensively and is widely quoted in the media on the subject of construction law. He previously co-authored the legal sections of the Interior Design Handbook, McGraw-Hill 2001, and Structural & Foundation Failures: A Casebook for Architects, Engineers & Lawyers, McGraw-Hill 1982, with Sidney Johnson, P.E



### **Real Estate New York**

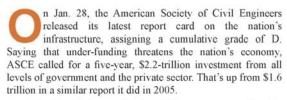
January/February 2009

**Real Estate New York** is a regional real estate publication that provides Tri-State New York metropolitan area investors, owners, brokers, corporate executives, managers, and financial service companies, with information on real estate investment, development, brokerage and transaction, management and operations, and market trends, as well as profiles of major personalities.



### Cover STORY

By Cody Lyon Associate Editor



Reinforcing this imperative is a 2008 report prepared by the Urban Land Institute and Ernst & Young, in which GlobeSt.com blogger Jonathan Miller wrote that no matter how hard they may

try, governments can't escape a basic fact: Infrastructure is expensive.

Even before taking office as the nation's economy slid deeper into crisis, President-elect Barack Obama began to enlist political

leaders in supporting an \$850-billion American Recovery and Reinvestment economic stimulus plan intended to spur job growth and markets. While earlier versions of the package would have directed around one-third of that money to infrastructure projects, the final tally in the \$819-billion package passed by the House was considerably smaller. It allocates \$30 billion for highway construction and \$12 billion for mass transit, about 5% of the total, with another \$119 billion for alternative energy

As if to underscore the disparity between what's needed and what's being spent, economist Harry S. Dent noted at a Jan. 23 luncheon that almost all of China's \$566-billion stimulus program was targeted toward infrastructure, primarily transportation and more specifically rail-a vastly different set of priorities than that being considered in Washington, DC. Responding to a question from Real Estate New York at the luncheon, which was sponsored by CoreNet Global's New York chapter; Dent said if you are going to attempt stimulating the economy with debt, at least have something to show for it.



Of New York City, he said, "If you are going to make this the most attractive mega-city in North America, you have to invest more in your infrastructure. This is the most attractive thing New York has going for it."

Some say the present economic and political climate provides the perfect opportunity to act. "Let's just look to the national election this past year—for the first time since I can remember; we had a candidate actually talking about infrastructure," says Gregory A. Kelly, national director; transportation at Parsons Brinckerhoff.

Without a functioning infrastructure absolutely necessary and very system where people can travel safely, you cannnot get the maximum value

> BARRY LEPATNER LEPATNER & ASSOCIATES LLP

"This is the moment," savs ULI fellow William H. Hudnutt III, a former fourterm mayor of Indianapolis who recently wrote Changing Metropolitan America: Planning for a Sustainable Future.

"Without a functioning infrastructure system where people can travel safely without concern, you cannot get the maximum value for any real estate business," says construction attorney Barry LePatner, author of Broken Buildings, Busted Budgets.

But there is a long running assumption that public concern over the condition of the nation's infrastructure is only heightened after high-profile disasters like the levee failures in Katrina-damaged New Orleans and the 2007 bridge collapse in Minnesota. "Ordinary people don't think about infrastructure, as long as they can drive decently, or if the bridge they cross doesn't collapse or as long as they can flush and it goes away,' says Hudnutt.

Regardless of public sentiment, the ASCE report concludes that decades of under-funding and inattention have jeopardized the ability of the nation's infrastructure to support our current economy, facilitate our way of life and provide necessary support for future domestic expansion and growth. And, as the levee and bridge failures indicate, neglecting infrastructure also poses risks to public safety.

"The picture outside New York City is crummy to dismal and in some cases, hazardous to the traveling public," says LePatner. For example, a 1990 inspection of the 1-35W Minnesota bridge that collapsed into the Mississippi River in 2007 found it to be structurally deficient. According to LePatner, inspectors had deemed the Minnesota span deficient for 17 years running.

As of 2007, around 75,000 bridges nationwide were classified in that same category. "The public is not aware of this," LePatner says. "If there's a cracked tank on an airplane, it's grounded immediately, but when the Minneapolis bridge fell, there was a 'recommendation' for states to inspect these bridges, not close them."

Still, Nancy Singer, a US Department of Transportation spokesperson, says the nation's infrastructure "would be better described as aging and requiring attention."

Here in New York City, according to a manual count of spans listed at the USDOT website, 60 bridges and/or stretches of elevated highway within the city's 13 Congressional districts are considered structurally deficient. Further, ASCE says 35% of New York's roads are in poor to mediocre condition, costing motorists around \$285 each in repairs and costs. The state is home to 54 deficient dams. Its drinking water infrastructure needs \$13.5 billion over the next 20 years and its wastewater system calls for \$20.4 billion, while 76% of its schools have at least one inadequate building feature.

"Unlike the other mega-regions in the country, the Northeast has some of the greatest infrastructural needs, because its infrastructure is very old," says Kelly. In New York State, some 20-year estimates for future infrastructure repair and maintenance have approached \$300 billion.

But Kelly notes that noticable "improvements in the subways over the last 20 years have been remarkable." Twenty years ago, the subway system was subject to endless delays, track fires, slow-moving and dirty trains and decrepit stations.

Currently, the Metropolitan Transportation Authority faces a \$1-billion-plus deficit that has led MTA leaders to propose steep fare increases and service cutbacks. Kelly also warns, "What took 20 years to accomplish could quickly unwind if we don't continue to invest and keep them in a state of good repair." LePatner agrees, saying the key to preventing crisis and even greater expense is basic maintenance and fixing a structure before it falls apart. In New York City, LePatner credits Sam Schwartz with alerting local governments and citizens to the dangers of neglecting infrastructure.

Schwartz, founder of Sam Schwartz Engineering and former deputy commissioner of the New York City Department of Transportation, saw those dangers first hand. When it opened in 1903, the Williamsburg Bridge was the first steel-towered suspension bridge in the world. "That period from the 1890s to the 1930s was a huge period for building infrastructure in New York City," says Schwartz.

Today, the Leffert L. Buck-designed, 7,300-foot-long East River crossing that some Brooklyn natives call the "Willy-B" carries over 140,000 automobiles and 92,000 subway passengers daily. And that's not to mention the thousands of cyclists who take in panoramic views from its refurbished bike path, a feather in the hats of those advocating for greater green infrastructural investment. But today's Willy-B is a far cry from the bridge of 1988, when extensive evaluation and inspection determined that the span was in serious danger. "Ultimately, the columns had split in two; there was the danger of a column failing and that meant the bridge could collapse," Schwartz says.

According to Schwartz, budget shortfalls and other public priorities led to years of neglect evidenced by breaking cables, rusted parts designed to contract and expand. Within the steel, a plethora of cracks and abutments—all symptoms that, when measured together, led Schwartz to conclude that the bridge was on its last legs.

Over the next few years, NYCDOT had to spend around \$600 million to bring the structure up to a safer standard. As of now, costs for similar work approach \$1 billion.

These days, Schwartz says New Yorkers should be very concerned about their water and sewer systems, which are also approaching the century mark. "The time is up and I'd be very concerned about the ability of the water mains and sewer lines to keep pace with the city's growth," he says.

For their part, New York Sen. Charles E. Schumer and Rep. Jerrold Nadler hope to secure around \$20 billion of the new stimulus package for local needs, primarily transit. They say it could be used to kick-start long-delayed subway and bus projects that are in danger of being shelved. "NewYork will quickly consume that money just from three or four large transit projects," Schwartz says.

For example, New York State officials announced plans last September to replace the structurally deficient Tappan Zee Bridge with a new span that includes commuter rail tracks. The estimated cost is about \$15 billion.

Further, the nation is in the depths of economic crisis and is looking to stimulate growth, and create jobs. As Richard T. Anderson, president of the New York Building Congress, points out, "This \$800-plus billion has an across-the-board range of programs, unfortunately not as much infrastructure spending as some of us would like. The point of the stimulus is job creation." Ed Rendell, Pennsylvania governor and Building America's Future co-chair, has said for every \$1 billion invested in infrastructure, 42,000 new jobs will be created.

But some argue a culture of impatience impedes long-term infrastructure investment. They argue Americans are immersed in adrenalin-fueled prospects of quick returns. Kenneth Patton, associate dean of New York University's Schack Institute of Real Estate, calls it "a short-term mentality, fed by quarterly financial reporting and the daily stock market crash. We are obsessed by immediate measurement and return, without thinking about long-term pay-outs," and worries that the stimulus may be seen

as "faith healing." He adds, "Public works are a balance-sheet investment."

When President Franklin D. Roosevelt took office in 1933, "he faced issues similar to what Obama will face," says LePatner, partner at LePatner and Associates. "Back then, the nation was suffering with 25% unemployment, so a \$3.3-billion public works program was put in place to put Americans back to work and jump-start the economy, which it did."

The problem was that after a few years, Congress put pressure on Roosevelt to halt these types of programs and slow down government spending. Roosevelt did and as LePatner notes, "In 1937, there was another recession."

He says the Obama administration is mindful of this history. The new administration accepts that this effort is not just about pumping money into infrastructure work. He adds the nation's infrastructure is in such bad shape, a short-run stimulus will not make much of a difference. "The Obama administration has to be very careful, not only to start the engine with infrastructure, which is certainly needed, but also to keep it running by having a game plan for fixing the massive amount of existing infrastructure problems, which is vital to our nation."

A recent survey by BAF disputes long-running assumptions about public indifference over infrastructure, saying that 94% of Americans are concerned about infrastructure and 81% are willing to pay 1% more in taxes to rebuild the systems involved.

"They know this plan is not a quick fix; they know the problems didn't happen overnight; they want the investment because we're all in this for the long haul," says Polly Trottenberg, executive director at BAF. The group was founded in 2008 by Rendell, Mayor Michael Bloomberg and California Gov. Arnold Schwarzenegger to "bring about a new era" of US investment in infrastructure.

But BAF's survey also said that accountability was the public's greatest concern. Trottenberg says the stimulus bill satisfies many of those transparency concerns. "Details will be posted online, governors will have to certify and that in itself will make a wonderful change in this process."

Undoubtedly, there will be heated competition over who gets the limited funds. "We're just in the beginning throes of it, and lots of people are pushing for their own particular interests," says Anne Canby, president of the Surface Transportation Policy Institute.

Calls for transformative infrastructure have increased as well. Kelly defines these projects as those that create new capacity and facilitate economic development. They include foundations of what some call the inspiring visions of the future: cities connected by networks of high-speed rail, more efficient mass transit within those cities, a landscape dotted by solar or windmill farms, a nation where technological advances provide easy access to high-speed internet connectivity regardless of location.

"What would a brilliant, forward-looking vision for America's infrastructure be, and how can we show those visions to the public and get them excited about them?" Canby asks. For

example, "What if we had a national rail system, where would it go, what cities, what would the routes look like? If we were to build light rail systems in every metropolitan area with over one million residents, what would that look like? This sort of visionary thinking is incredibly important and we don't do enough of it."

Why are transformative infrastructure projects important? "Two examples: we don't have one inch of high-speed rail in this country and we've only built two new airports since 1975," Hudnutt says, adding that parts of Asia and Europe have left us in the dust. The United States trails other developed nations in necessary mechanisms for healthy global trade. Some say it's essential for gateway cities like NewYork City to have high-speed rail access to the interiors of the country for trade purposes as well as the choice of rail over congested skies. And there's renewable energy and green architecture: what some see as a path to energy independence and perhaps an energy revolution providing thousands of jobs.

"Some people will gripe and grouse that a commitment to green raises the costs," says Hudnutt. "But I'll tell you, if people aren't building green office buildings, soon they aren't going to have class A rental space."

Recently, New Jersey Transit and the Port Authority of New York and New Jersey have been preparing to build a new \$8.7-billion trans-Hudson tunnel into Penn Station.

"From congestion relief on the trains to greater access on Manhattan's West Side, look at how this will change the face of the region," says Kelly. "What's remarkable is that you've got two states, NewYork and New Jersey, that support this project. It's unique and politically bold, a regional effort," he says. (Parsons Brinckerhoff is a design contractor on the project.)

Kelly points to projects that will transform life for New Yorkers, like the East Side Access project, which would divert Long Island Rail Road passengers through a tunnel offering an option from Queens to Grand Central Terminal; and the Second Avenue Subway line, among others. "When you make these kinds of investments, a city becomes an even more attractive place to live and work.



Barry B. LePatner, Esq., is the founder of the New York City-based law firm LePatner & Associates LLP. For three decades, he has been prominent as an advisor on business and legal issues affecting the real estate, design, and construction industries. He is the author of Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry.



### **Real Estate Weekly**

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### March 11, 2009

# Repairing America's infrastructure: the five keys

By BARRY B. LEPATNER, PARTNER AND FOUNDER, LEPATNER AND ASSOCIATES, LLP

America's infrastructure is crumbling around us. But with \$120 billion in stimulus money targeted toward infrastructure, the government had better look before it leaps.

Why? Because the construction industry-plagued by wastefulness and inefficiency-is just as broken as the infrastructure it's charged with repairing.

When government pumps money into broken industries -- such as the financial services or automotive sectors -- with no strings attached, we have seen how billions can be wasted.

So, when giving money to an industry documented to waste upwards of \$120 billion a year without taking steps to ensure it's used wisely, you will again wind up with no ROI.

By taking steps now to overhaul the way the construction industry does business, we can start making improvements that will benefit Americans for generations to come.

Our approach should include these solutions:

Enact reforms that will avoid another Big Dig. Boston's Big Dig is the Its original 1985 budget was just over \$2 billion. The real cost will reach \$22

The Big Dig epitomizes everything wrong with a construction industry rife with cost overruns and delays. With funds limited, we cannot afford cost overruns of 20%, 30% or more. We lack money to finish projects that face contractor overruns due to inefficiency. The industry must be reformed before we can make serious progress in repairing our infrastructure.

Construction is the nation's most inefficient industry. Average projects waste up to 50 percent of total labor cost. Fixed-priced contracts would save billions. With the huge numbers of projects that must be completed to restore America's infrastructure, we can't afford an additional hundred billion to fund poor job performance.

Reform must include better contracts that 1) are based on 100 percent complete architectural and engineering drawings and specifications, 2) include fixed prices for everything designed and approved by the jurisdiction, and 3) fairly apportion all risks expected during construction among all parties.

Create a national clearinghouse and database, accessible to every state transportation agency and the general most expensive highway project ever. | public. The database would identify all infrastructure-related design and construction issues. A similar database would require the federal government to alert state transportation departments of any bridge failure nationwide and include methodologies for remedial design, as well as maintenance alerts for America's 600,000 bridges.

With this information readily available to the public, we will enable state transportation engineers to take preventive action more quickly, help the public avoid unsafe bridges, and put politicians and officials on notice that they will be held accountable. Evidence has shown that making infrastructure problems public can lead to protective measures.

State governments should expand efforts to inform and protect citizens. One in four U.S. bridges is either "structurally deficient" or "functionally obsolete." State governments must do more to inform their citizens— through hearings, press conferences, or news releases—about structurally deficiencies. States should develop remedial game plans within six months of a bridge's designation as "structurally deficient." They should issue annual remediation progress reports and be alerted if repair funds are not provided within 18 months.

Take action to address the shortage of civil and structural engineers. These professionals are trained in advanced inspection methodologies and are experts in bridge remediation. But the lack of engineering specialists within state transportation departments—positions systematically downsized due to decreased funding—prevents adequate inspections that will properly assess safety.

State transportation departments must increase compensation to hire and retain

engineers to stem their exodus to private industry. Reducing long-term maintenance costs rests with these engineers' valued experience.

Invest in technologies that save money and improve accuracy. By the time cracks appear, bridge remediation costs have skyrocketed. Today's inspections often fail to detect cracks until they are visible to the human eye. The Federal Highway Administration acknowledges that visual inspections are subjective and not totally reliable in detecting cracks before they become visible.

Technology exists to anticipate bridge remediation years before rust, corrosion, and crack appear. States need the funds to purchase this equipment and train inspectors to use it. Precision and objectivity will catch problems earlier, and save countless millions of dollars.

The financial crisis has forced us intently scrutinize our priorities. Repairing the economy should come first. Thankfully, the Obama Administration has made infrastructure repair a priority as well. After all, the two are connected. We cannot prosper without a safe infrastructure for citizens and businesses.

But considering the number of projects that must be completed to restore America's infrastructure, measures must be taken to ensure that money allocated for infrastructure projects is used wisely.

Government must ensure that infrastructure projects are all undertaken with true fixed-price contracts that pass the risk for poor performance onto contractors who fail to complete on time and on budget.Our leaders' credibility -- plus our nation's safety and viability -- depend on it.

## Fiercest critic is staunchest ally

By JOHN MAJESKI

Attorney Barry LePatner was called before Congress in 1984 as part of a special review into construction failures in public facilities such as the infamous Kansas City Hyatt Regency walkway collapse, which killed 114 people and injured 200 others.

Two-dozen years later, he is still speaking out about the industry's shortfalls.

LePatner is a familiar face to those in the business. The 62-year-old heads up LePatner & Associates, a constructionfocused legal and business advisor to corporate and institutional clients, design-related firms and real estate owners. He is also an author and speaker who calls out the industry on its inefficiency and dysfunctions and says the nation's infrastructure is crumbling at a pace much faster than most people realize.

He was called a "guru" on industry reform by Governing Magazine in 2007.

"What I think they're referring to is one who has spoken and written widely on the inefficiencies of both the design and construction industry and why the best methodologies for building the nation's building stock can be vastly improved," he said of the moniker. "To that extent, I'm continuing in my role."

In 1982, LePatner co-authored "Structural and Foundation Failures." He also authored "Broken Buildings, Busted Budgets" in 2007 and is set to release a third book called "Roadblock: America's Failing Infrastructure and the Way Forward" next winter.

"I will be detailing the perilous state of our nation's infra-

Continued on Page 12B



BARRY LePATNER

structure where over 72,000 bridges are structurally deficient. In other words they are in the same perilous condition as the I-35W bridge in Minneapolis was for 17 years before it collapsed on August first, 2007," he said, referring to the fatal incident that left 13 dead and nearly 150 injured.

LePatner says it has been estimated that bringing our country's network of bridges, roads and tunnels up to snuff would cost more than \$2 trillion. And he fears that the nation's economic stimulus spending on infrastructure could get ugly. "When government pumps money into broken industries – such as the financial services or automotive sectors – with no strings attached, we have seen how billions can be wasted," he wrote in a guest article last month in Real Estate Weekly.

"So, when giving money to an industry documented to waste upwards of \$120 billion a year without taking steps to ensure it's used wisely, you will again wind up with no ROI."

LePatner has said the building industry is "the last mom and pop industry," consisting of essentially no national firms doing business in all states.

Fragmentation has meant little spending on research and design to improve efficiency or bring in new technologies – hallmarks of competitive, innovative sectors

A lack of true fixed-price contracts and an unwillingness to assume business risks has contributed to needless cost overruns, LePatner said. According to the Bureau of Labor Statistics, construction worker productivity has plummeted in recent decades while all other nonfarm industries have increased by more than double.

Among LePatner's remedies are true fixed-price contracts, consolidation and investment in technology.

In the '60s, LePatner wasn't thinking about becoming a construction industry guru. He had wanted to write for a newspaper. But during the divisive days of the Vietnam War, LePatner thought twice. "I realized a journalist is supposed to be seemingly objective," he said, noting he was a participant in protests.

After graduating from Brooklyn College in 1968, LePatner entered Brooklyn Law School

His first job after graduating in 1972 was in the enforcement department at the New York Stock Exchange. He left after a year to join a then-mid-size firm that is now known as Wilson Elser Edelman Moskowitz Dicker. In four years, he was made a partner.

LePatner was assigned to matters involving architectural and engineering failures. "That means claims where architects and engineers were accused of design errors and omissions," he said. "I traveled all around the country."

The construction and design fields were fascinating to him.

"I learned the people who worked on projects took huge pride in what they did and were able to put their hand to these fabulous structures they helped create," he said.

But LePatner also learned something else that became more important later on his career. "No one I talked to had an entire picture of how things got designed and built," he said.

Putting the pieces of the industry together, however, showed some disturbing patterns. "This is truly an industry that time has forgotten," he said.

Not everyone agrees with LePatner's solutions, though. Richard T. Anderson, president of the New York Building Congress (LePatner is a member), said some of LePatner's fixes may be "simplistic." For example, he said, consolidation on too grand of a scale would destroy the "value" and "community related" feel of this mom-and-pop industry. That said, Anderson considers him a tremendous asset.

"He is raising fundamental questions about the construction in the United States, including how it's structured, the absence of widespread technological and organizational innovation, a very inefficient cost structure and the like," he said. "These are relevant questions."

But LePatner swatted away the notion of "simplistic" solutions.

"The research clearly shows that on an average project 50 percent of all labor costs are wasted by late deliveries, delays in receiving instructions etc." he said. "These small companies cannot assume risk and are forced to bid at or below cost to get a job and then must make change orders and delay claims to make a profit."

LePatner, who has three grown children, is an avid tennis player, voluminous reader and a "good amateur photographer." He is also fond of architectural drawings.



### **Construction Today Magazine**

April 2008 February 2009 Circulation 7,000

*Construction Today Magazine* is a monthly trade publication that explores trends of vital interest, including regulatory and economic issues, new construction technologies, financing trends and equipment maintenance. Other topics include engineering and technology, project funding, labor issues, liability, regulations and the environment. It has a circulation of 7,000 and a one page ad rate of \$5,800.

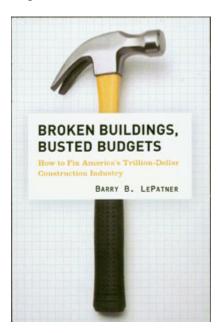
### **Web Exclusive**

February Must-Read Titles

By Brooke Knudson

Friday, 06 February 2009

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Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry

### By Barry B. LePatner University of Chicago Press; \$25

In *Broken Buildings, Busted Budgets*, construction attorney Barry B. LePatner builds a powerful case for change in America's \$1.23 trillion construction industry. LePatner discusses waste, overspending and economic irrationality are negatively impacting the industry.



### **Daily Business Review**

January 9, 2009 Circulation 4,314

*Daily Business Review* is a regional buiness publication written for business executives, managers, attorneys, realtors and other professionals in the South Florida area. Its editorial provides reliable news and information on the economy and the courts and identifies the emerging trends and the up-and-comers who will shape South Florida's future. Published in three regional editions for Broward, Palm Beach and Miami. It has a circulation of 4,314 and a one-page ad rate of \$4,748.

### FINANCE: BASEBALL EXECS READY TO PLAY BALL WITH LENDERS January 9, 2009

By: Wayne Tompkins and Eric Kalis Florida Marlins executives say they are confident the credit crunch will not deter financing for the Major League Baseball team's \$525 million stadium on the site of the former Orange Bowl in Miami's Little Havana, even if it means they have to take out a straight bank loan.

But team president David Samson says one thing is likely: The terms of any financing will not be as favorable as once hoped.

City and county commissioners are set to vote this month on the stadium deal, which is in line for \$370 million in taxpayer funds.

While sports economists who follow the Marlins' long-frustrated efforts to build a new stadium are optimistic the team will find financing, they are more skeptical about whether the project will be able to control cost overruns and deliver promised economic benefits.

Samson said it will be another year to 18 months before the team has to seek financing in the market, after the worst of the credit crisis is expected to have passed and when many economists believe recovery will be under way.

Even if the team had to move immediately, however, the strength of Major League Baseball's brand, its historic resiliency during economic downturns and the value of the franchise itself would be a strong incentive for wary lenders to play ball, he said in a meeting with Daily Business Review editors and reporters this week also attended by MLB president Bob DuPuy.

"We've got four banks who want to do business with us today," Samson said Wednesday, noting the team is prepared to go forward with any number of financing options including, if necessary, a straight bank loan.

"Goldman Sachs actually met with us," he said. "They would do the deal today and go to market today. Our bankers tell us that when we do go to market, they think they will have the entire a la carte menu of possibilities available to them. We are prepared for the worst possible terms, which we believe will be a four- or five-year term in a straight bank loan, as opposed to a construction loan, which has been the more conventional way of going to the capital markets in the past."

The Marlins will finance \$155 million of the stadium's cost in the public-private partnership, with \$347 million coming from Miami-Dade County and \$23 million from the City of Miami. The 37,000-seat retractable roof stadium is currently scheduled to open in time for the 2012 season. The Marlins have played their home games at Dolphin Stadium since their 1993 founding.

As the team seeks financing, Jim Cassel, vice chair at Miami investment banking firm Ladenburg Thalmann, said that while the economy could be in recovery a year from now, the credit crunch — in the words of Yogi Berra — ain't over 'til it's over.

"Eighteen months ago, I'm sure we'd all feel in that frothy market ... they would hit it out of the ballpark," Cassel said. "But things have changed, and it's a very different financial world today. Part of the issue here is whether their financing is going to be senior type debt, mezzanine type financing or if they're going to have to bring an equity partner in, and what kind of collateral they have to put up. What they really have is the collateral of the team."

Cassel said in some instances the league itself has supported similar projects.

"I believe Major League Baseball views South Florida as an important place to be, for the proximity to South and Central America," Cassel said. "I think they'll be able to find the money. If it's debt, they'll pledge the team, that's not unusual. At some point a year or two from now, the lenders who have lent on ball teams, like Citigroup, will certainly come back in. Worst case scenario, they may have to bring a minority partner in or turn to the league for some support."

Bruce Weisenthal, an attorney with Schiff Hardin in Chicago who did the public financing deals for both Soldier Field and U.S. Cellular Field in Chicago, said the value of Major League Baseball franchises is still strong.

"The ability to raise the money I don't think is so much in question," he said. "The public's perception that there is no liquidity is probably a little too severe. Although there is a liquidity crisis, rates are very low. If you have a financing that is attractive and is well-secured, you can get pretty favorable financing right now."

In the Marlins case, one thing that works against them is a history of weak fan support, said Patrick Rishe, director of SportsImpacts, which conducts economic impact and demographic studies for sports teams.

The Marlins ranked dead last in the league last year in attendance, drawing 1.33 million fans, or about 16,700 per game. They also are saddled with Forbes magazine's ranking as the major league's least valuable franchise, at \$256 million. The top-ranked New York Yankees, by contrast, are valued at just over \$1.3 billion and drew an equally league-leading 4.3 million, an average of 53,069 per game.

"That would give some investors some concern over the long-term rate-of-return on the investment," Rishe said. "You still have this kind of apathetic fan base." That gets to the heart of the Marlins bet, of course, that the new stadium will revive fan interest, generating higher revenue streams that will allow it to keep a better product on the field.

In spite of those concerns, Samson said investors are keeping baseball in their lineup.

"There's a tightening and so what you have is a change in terms and change in pricing, but you still have deals getting done," Samson said. "Baseball teams have continued to do deals with banks whether it's Goldman Sachs or the Bank of America, or JPMorgan or Citibank. Very recently, MLB has done a deal as an industry, the Yankees have done a big deal, the Mets have."

Even if the financing is nailed down, there are still concerns over whether the project will be able to avoid the sort of devastating cost overruns that plagued the new football stadium for the Giants and Jets in New Jersey, where the initial \$750 million cost more than doubled to \$1.7 billion. While lower construction and labor costs could reduce that risk, some experts remain concerned.

"Unless you get a true fixed-price contract on all the steel, materials and labor costs ... and no incomplete drawings, they're doomed from the start," said Barry LePatner, whose New York City law firm LePatner & Associates advises clients on major construction projects. "Costs will soar and — guaranteed — a large portion of those extra costs will be passed on to the taxpaying public."

With the New Jersey football stadium project, "They are doubling the prices of the tickets, doubling the parking, doubling the cost of a Coke and everything and nobody can control it," LePatner said.

To win over potential lenders and the city and county commissioners set to vote on the stadium deal this month, Marlins and Major League Baseball officials are touting the urban revitalization a baseball stadium would bring Little Havana.

A portion of the stadium land will be used as a plaza with restaurants and complementary retail space, Samson said. The team pursued acquiring additional land outside of the Orange Bowl site but could not find a willing seller.

Miami Mayor Manny Diaz's growth blueprint for Little Havana helped convince the team that the area can become a thriving urban destination with a baseball stadium as a centerpiece, Samson said.

"Before we agreed to any development in Little Havana we needed to look at Mayor Diaz's vision and understand how it would flow with the ballpark," he said. "The [property owners outside the stadium land] will make a big difference in the community because the stadium will make developing the area a priority. It will experience increased traffic flow and the type of retail, restaurants and hotels that come with stadiums."

Samson and DuPuy envision Little Havana serving as South Florida's Wrigleyville, an area of Chicago four miles north of downtown where Wrigley Field is located.

Since Camden Yards was built for the Baltimore Orioles in the mid-1990s, most new ballparks have had the same development impact on the surrounding area as Wrigley Field, DuPuy said.

The Marlins stadium "will be the 23rd new or renovated ballpark since Camden Yards," he said. "Every one has served as a destination point, whereas the saucer stadiums of the prior generation did not. In a lot of instances the stadiums have been centers for urban renewal. That's the hope here."

While the stadium's location fits the description of an underserved neighborhood ripe for development, simply building the ballpark does not guarantee a domino effect, said Philip Bess, a professor of architecture at Notre Dame University. Bess wrote the book "City Baseball Magic: Plain Talk and Uncommon Sense about Cities and Baseball Parks."

"The claim that a stadium automatically generates adjacent development really has no empirical evidence to support it," Bess said. "It is just not the case that if you build a stadium there will be development. Any such development has to be planned and requires some kind of simultaneous construction as part of the whole package.

"The good news is by locating it in Little Havana, there's already a network of streets and blocks," he said. "The key element of any urban ballpark is that it exists in a network instead of a superblock."

But even without adjacent development occurring in conjunction with stadium construction, bringing up to 2.5 million fans into Little Havana throughout a baseball season, starting in 2012, would generate the traffic needed for revitalization, said Robert Starkey, a financial consultant for Major League Baseball. Starkey is president of Starkey Sports Consulting in Minneapolis, where the Minnesota Twins are building a new stadium to open in the 2010 season.

"Attracting that many fans into an underdeveloped area that hasn't had that level of traffic creates the opportunity for urban development," Starkey said. "In Minneapolis things are already happening now in anticipation of the ballpark, with restaurant openings and developers becoming clearly interested in the prospect. You have to cut through the academic arguments and realize that if you put a ballpark on undeveloped land it will improve the area."

Nearby residents of Little Havana are throwing their support behind the stadium because they believe property values will substantially increase once construction is complete, Samson said.

The prospect of increased property values — and subsequent additional tax revenue municipalities can receive — is a pivotal reason elected officials rally behind stadium efforts, Starkey said.

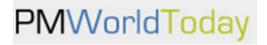
Whether property values around the stadium rise depends on the impact of parking and potential zoning changes that could occur as a result of construction, Bess said.

Increased property values "might happen, depending on the design and how neighborhood-friendly the park is," he said. "Another issue is not putting parking too close to [single-family homes]. Also, the blocks immediately adjacent to the stadium might be up-zoned a bit. If a property is up-zoned to allow retail and residential it could have an interesting affect on the streets and indeed raise the property values."

One uncertainty with a Little Havana stadium that has been a major component of recent stadium projects is access to public transportation. The nearest Metrorail stop is Culmer Station. Orange Bowl patrons who used the rail line had to catch the bus to the stadium.

The Marlins will implement "stop-gap measures" such as shuttles, Samson said. But expanding transit into that section of Little Havana comes down to political and community will.

"Instead of the tail wagging the dog this will be the dog wagging the tail," he said. "When this area works, [public transportation] will become a requirement. We are certain that when the neighborhood changes, you will see public transportation and the half-penny sales tax put to use."



### **Project Management World Today**

March 2009 3,790 Visitors per Month

**Project Management World Today** is a monthly online magazine designed for the personal and corporate leaders and practitioners of international project management. It contains the latest notices, reports, news and information related to project management from around the world. Each issue features editorials and presentations by some of the world's leading project management experts, on leading-edge issues and concepts. It receives approximately 3,790 visitors per month.

#### **VIEWPOINT**

### Road Work Ahead! Five Solutions for Repairing the Nation's Infrastructure

### By Barry B. LePatner

March 2009

The economy isn't the only national system that needs repairing.

As this past summer's levee breaks and other recent disasters indicate, America's infrastructure is also in serious trouble.

While policymakers and pundits focus on the financial meltdown, another crisis is brewing in the U.S.: Our infrastructure system is silently deteriorating more and more as each year passes. Frighteningly, we have experienced over 500 bridge failures since 1989 according to one recent study. The aftermath of Hurricane Katrina was another warning as levees broke destroying swaths of New Orleans. Then came the tragic I-35W bridge collapse of August 2007. Finally, the levee breaks of this past summer served as yet another illustration of how dire the situation has become. The lesson is clear. We must overhaul the broken systems that have led us to this point—and we don't have a moment to lose.

We all know the nation's vast infrastructure problems cannot be fixed overnight. However, by aggressively moving toward a solution now—rather than applying a series of ineffective 'bandaids'—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...

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About the Author *Barry B. LePatner* 

Barry B. LePatner is the founder of the New York City-based law firm LePatner & Associates LLP. For three decades, he has been prominent as an advisor on business and legal issues affecting the real estate, design, and construction industries. He is head of the law firm that has grown to become widely recognized as one of the nation's leading advisors to corporate and institutional clients, real estate owners, and design professionals.

Mr. LePatner is widely recognized as a thought leader in the construction industry. A November 2007 *Governing* magazine article stated, "If there's a guru of construction industry reform, it's LePatner." In an article entitled "Building a New WPA," appearing in the November 24, 2008, issue of *New York* magazine, he was referred to as "a Cassandra of infrastructure." And an article on *Infrastructurist.com* entitled "Trillion-Dollar Barry: One Man's Quest to Keep America Solvent" states that Mr. LePatner has been hailed as "a leading expert on the construction industry."

His latest book, *Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry* (The University of Chicago Press), which was reviewed in the *Wall Street Journal*, has created a national debate among owners, designers, and other key stakeholders. Mr. LePatner has been featured in *BusinessWeek*, the *Boston Globe*, the *New York Times, Crain's New York Business*, the *Chicago Tribune*, and other prestigious publications. His articles and speeches on the perilous state of our nation's infrastructure have garnered him widespread attention. He has appeared on many television and radio broadcasts, including a CNBC appearance and several National Public Radio segments.

A nationally recognized speaker, Mr. LePatner has addressed audiences on topics central to trends affecting the real estate and construction industry at events throughout the country for audiences including contractors, architects, engineers, construction

technology experts, economic experts, and other construction industry thought leaders.

Mr. LePatner has written extensively and is widely quoted in the media on the subject of construction law. He previously co-authored the legal sections of the *Interior Design Handbook*, McGraw-Hill 2001, and *Structural & Foundation Failures: A Casebook for Architects, Engineers & Lawyers*, McGraw-Hill1982, with Sidney M. Johnson, P.E. Mr. LePatner is currently writing a new book that takes a look at what needs to be done to rebuild the nation's infrastructure. To be published early in 2010, it will address our decades-old failure to redress our deteriorating roads and bridges and will offer insightful recommendations on how to finance and build this critical part of our nation's backbone.

In 2007 and 2008 Mr. LePatner was selected as a Super Lawyer by the publisher of *Law & Politics* magazine. In 2002, Mr. LePatner received an Honorary AIA Membership. He is also currently on the Board of Trustees of the Design Industries Foundation Fighting AIDS (DIFFA). He has also served on numerous advisory committees including: the Advisory Board, Society for Marketing Professional Services; the Board of the New York Building Congress; Board of Advisors, Legal Briefs for the Construction Industry; American Institute of Architects Advisory Committee; and the National Academy of Sciences.

For more information, visit www.brokenbuildings.com.

### THE BOND BUYER

### The Bond Buyer

April 30, 2009 Circulation 2,920

**The Bond Buyer** is a finance publication that is the only daily publication committed to serving the municipal bond industry and published for municipal finance professionals and investors. It has a circulation of 2,920.

### LaHood: Recovery Funding Will Go Further Than Expected

April 30, 2009

**BYLINE:** Audrey Dutton

**SECTION:** NEWS; Pg. 30 Vol. 368 No. 33107

**LENGTH:** 623 words

WASHINGTON - <u>Transportation Secretary Ray LaHood</u> ▼ this week urged senators to restructure how funding is allocated for transportation infrastructure to make it easier for smaller municipalities and rural areas to obtain funds directly, and told House members that economic recovery funding will finance more projects than originally anticipated.

"The dollars are going to stretch further, which will create more opportunities for more jobs," LaHood told the House Transportation and Infrastructure Committee during yesterday's oversight hearing on stimulus funds.

LaHood sent a letter to governors recently reminding them that transportation funding must be used for ready-to-go projects, and that any unused funds will be reallocated if states fail to meet their deadlines, he said.

<u>President Obama</u> vaid earlier this month that construction companies were submitting lower-than-expected bids to compete for recovery-related projects.

"I am proud to utter the two rarest phrases in the English language - projects are being approved ahead of schedule, and they are coming in under budget," Obama vsaid.

However, the low bids have sparked some concern outside of Washington.

"We're on the first step of what I don't think is good news at all, because if they're bidding 25% [below estimates] then they're taking the jobs at a huge loss initially ... They're going to stop

work when they run out of money," said **Barry LePatner**, a corporate construction attorney based in New York.

LePatner said cost overruns could drive up the original bids by 20% or more, and that state transportation departments required to obligate or lose their funding may be left to pick up the slack for any additional project costs after recovery funds are exhausted.

"States do not have the resources to pay the difference, which is why they needed the federal stimulus money" in the first place, he said.

States and localities were given \$27.5 billion to use for highway and bridge projects during the next two years through the recovery act. Most market participants expect most of the funding to go toward maintenance projects such as road resurfacings instead of new construction, and do not foresee cost overruns leaving states in a bind.

About \$8 billion of highway funds have been obligated so far, according to the U.S. Department of Transportation. Illinois has jumped out to a large lead over other states in its approved funding and number of stimulus projects, at \$645 million for 229 projects as of last week.

Looking beyond the recovery period, LaHood told a Senate Commerce, Science, and Transportation subcommittee during a hearing Tuesday that lawmakers charged with writing the next transportation authorization bill should restructure "how planning is done" for transportation funding.

Generally, highway funding is distributed to state transportation departments using a formula of various factors. LaHood encouraged senators to reform the process "so that when dollars are spent, your point of contact doesn't always have to be the state DOT" but would include small cities, rural areas, and metropolitan planning organizations.

Other witnesses at the hearing stressed revamping the funding source for federal highway aid to states and providing more financing options.

Texas transportation commissioner Ned S. Holmes recommended to Congress removing the \$15 billion national cap on private-activity bonds that can currently be issued in addition to state PAB caps.

Holmes, who chairs the Transportation Transformation Group, a public-private group, also asked lawmakers to establish a national infrastructure bank and to expand a popular federal financing program that provides low-interest credit to issuers as well as private entities, but is oversubscribed.



### The Daily Reporter

February 16, 2009 Circulation 2,400

**The Daily Reporter** is a regional Construction, Law and Public Record publication serving Wisconsin. It provides legal notices, government legislative decisions, and business, construction & industry news for Wisconsin's construction industry. It has a circulation of 2,400 and a one page ad rate of \$1,155.

### Infrastructure needs overhaul, not bandage

Barry LePatner, Dolan Media Newswires *February 16, 2009* 

New Orleans, LA - Our infrastructure system is silently deteriorating with each passing year. We have experienced more than 500 bridge failures since 1989, according to one study.

We must overhaul the broken systems that have led us to this point. By aggressively moving toward a solution now, we can begin to make real improvements that will benefit our country for generations.

We must create a national clearinghouse and database that identifies design and construction issues affecting infrastructure. The Federal Highway Administration and the National Transportation Safety Board should alert state transportation departments of any bridge failure in the nation and should include methodologies for remedial design as well as alerts for maintenance problems for all bridges.

State governments must inform residents about bridges that have received structurally deficient ratings.

They should develop game plans for correcting problems within six months of a bridge's designation as "structurally deficient."

We also must 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.

The lack of these types of engineers on the staffs of state transportation departments — positions that have been systematically downsized due to decreased transportation money — prevents

states from adequately performing inspections to assess bridge safety.

We must 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. Many inspection techniques fail to detect cracks until they are visible to the human eye. Technology exists to anticipate bridge remediation years before rust, corrosion and cracks appear. We need to find money for states to purchase this equipment and train 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 millions of dollars.

The construction industry is the most inefficient industry in our nation; 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 number of projects that must be completed in order to restore America's infrastructure, it is clear taxpayers can't afford a business-as-usual mindset.

By taking the steps to tackle our infrastructure problems now, we can improve our economy and foster a better, safer infrastructure system that will lead to a stronger nation.

Barry LePatner is co-author of "Structural & Foundation Failures" and author of "Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry."



### **Daily Journal of Commerce**

February 11, 2009

**Daily Journal of Commerce** is a daily civil engineering & construction publication that serves as the source for information on the engineering, construction and public works projects professions for the states of Louisiana and Mississippi. It covers the awarding of contracts, the submission of bids and prospective projects in the region.

### COMMENTARY: Nation's infrastructure needs overhaul, not quick fixes By Barry LePatner Contributing writer

February 11, 2009

NEW YORK — While policymakers and pundits focus on the financial meltdown, another crisis is brewing in the United States. Our infrastructure system is silently deteriorating more and more as each year passes. Frighteningly, we have experienced more than 500 bridge failures since 1989 according to one recent study.

The aftermath of Hurricane Katrina was another warning as levees broke destroying swaths of New Orleans. Then came the tragic Interstate 35 West bridge collapse of August 2007.

Finally, the levee breaks of this past summer served as yet another illustration of how dire the situation has become. The lesson is clear. We must overhaul the broken systems that have led us to this point — and we don't have a moment to lose.

We all know the nation's vast infrastructure problems cannot be fixed overnight. However, by aggressively moving toward a solution now — rather than applying a series of ineffective "Band-Aids" — 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:

Create a national clearinghouse and database, accessible to every state transportation agency and the general public.

The database will 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 to require the Federal Highway Administration and the National Transportation Safety Board 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, 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, Minnesota Department of Transportation 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 Grand River in Ohio in 1996.

By June, MnDOT announced they would replace 11 major bridges in the state, some with the same concerns about deteriorated gusset plates that had gone undetected.

### State governments should step up their efforts to protect their citizens.

State governments 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."

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 from state transportation departments because of their high salaries. This can no longer be the case. State governments can and must recognize the ability to reduce long-term maintenance costs rests with these engineers' valued experience.

### 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 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.

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" mindset anymore.

The current financial crisis has caused many of us to think about what the nation's priorities should be.

Certainly, repairing the economy should be at the top of the list. But as the Obama Administration settles into office, it should make repairing the nation's infrastructure a priority as well. After all, these two issues are connected.

An added bonus is that every \$1 billion in infrastructure spending is estimated to create 47,000 new jobs. By taking the steps necessary to tackle our infrastructure problem now, we have an opportunity to improve our economy with the great ROI of a better, safer infrastructure system that will lead to a stronger nation.

Barry LePatner, founder of New York-based law firm LePatner & Associates LLP, is coauthor of "Structural & Foundation Failures" and author of "Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry." For more information, visit <a href="https://www.brokenbuildings.com">www.brokenbuildings.com</a>.



### **Associated Construction Publications**

August 4, 2008 February 3, 2009

Associated Construction Publications is a national network of 14 regional publications dedicated to heavy, highway and non-residential construction for more than 100 years. It is published by Reed Business Information.

### Road Work Ahead: 5 Solutions for Repairing the Nation's Infrastructure

#### -- Associated Construction Publications, 2/3/2009

The economy isn't the only national system that needs repairing. As this past summer's levee breaks and other recent disasters indicate, America's infrastructure is also in serious trouble. Construction expert Barry B. LePatner offers some solutions.

While policymakers and pundits focus on the financial meltdown, another crisis is brewing in the U.S.: Our infrastructure system is silently deteriorating more and more as each year passes. Frighteningly, we have experienced over 500 bridge failures since 1989 according to one recent study. The aftermath of Hurricane Katrina was another warning as levees broke destroying swaths of New Orleans. Then came the tragic I-35W bridge collapse of August 2007. Finally, the levee breaks of this past summer served as yet another illustration of how dire the situation has become.

The lesson is clear, says construction expert Barry B. LePatner. We must overhaul the broken systems that have led us to this point—and we don't have a moment to lose.

"We all know the nation's vast infrastructure problems cannot be fixed overnight," says LePatner, coauthor of Structural & Foundation Failures and author of Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry. "However, by aggressively moving toward a solution now—rather than applying a series of ineffective 'bandaids'—we can begin to make real improvements that will benefit our country for generations to come."

According to LePatner, tackling our critical transportation and infrastructure problems will require a national commitment and a strategic plan that should include the following solutions:

### **Create a National Clearinghouse**

Create a national clearinghouse and database, accessible to every state transportation agency and the general public. The database will 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 to require 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," says LePatner. "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 Grand 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."

#### **States Must Inform Citizens**

State governments should step up their efforts to protect their citizens. State governments 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." The public should receive annual updates on the remediation progress and be given notice if funding for the repairs is not provided within 18 months.

### **Tackle the Engineering Shortage**

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," says LePatner. "Engineers are often the first to be laid off from state transportation departments because of their high salaries. This can no longer be the case. State governments can and must recognize the ability to reduce long-term maintenance costs rests with these engineers' valued experience."

### **Invest in Advanced Technologies**

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 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," says LePatner. "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."

### **Enact Reforms to Avoid Big Digs**

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 back 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 payoff 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) apportion all the risks that are 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," says LePatner. "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' mindset anymore."

"The current financial crisis has caused many of us to think about what the nation's priorities should be," says LePatner. "Certainly, repairing the economy should be at the top of the list. But as the Obama Administration settles into office, it should make repairing the nation's infrastructure a priority as well. After all, these two issues are connected. We cannot have a prosperous nation without providing a safe infrastructure system for our citizens and businesses.

"An added bonus is that every \$1 billion in infrastructure spending is estimated to create 47,000 new jobs," he adds. "By taking the steps necessary to tackle our infrastructure problem now, we have an opportunity to improve our economy with the great ROI of a better, safer infrastructure system that will lead to a stronger nation."

## 360boom

## **360boom**

November 9, 2008 February 4, 2009 March 25, 2009

**360boom** is an internet magazine format, or e-zine; it is a resource portal, it is a 24/7 news channel, it is an advertising medium, but most of all it is a collection of article content of, by and for our target demographic group - 'intelligent baby-boomers' and those who wish they were.

#### FAILING TO PROTECT

by Barry LePatner November 9, 2008

Three Actions Our Leaders Must Take in Order to Save America's Crumbling Infrastructure

Our nation's infrastructure is in dire shape. If the past few weeks of flood coverage following the Midwest's 30-plus deadly levee breaks doesn't convince you, think back a year or so ago. Just last summer, the collapse of the I-35W Bridge left many of us pondering the safety of our highways and byways. And who could ever forget the shocking images of post-Katrina New Orleans? If you're wondering what America has done in response to these disasters, the answer is "not nearly enough"—and that does not bode well for the future.

Each of these infrastructure breakdowns could have been prevented. Take the Midwest floods, for instance. In 1993 the same areas experienced massive flooding that resulted in over \$10 billion in damage as well as loss of life. The current flooding has so far cost \$1.5 billion and that number is sure to grow.

It makes you wonder "What went wrong". "Why weren't proper measures taken to keep this type of flooding from happening again? Who dropped the ball—and why were they allowed to drop it? We as a society need to ask these questions, not to point the finger of blame, but to make certain that what was avoidable can be prevented in the years to come.

If you want to pinpoint a common problem in each of these infrastructure failures, look no further than the systems used to identify needed repairs and to allocate funds for infrastructure remediation. Since the 2005 National Transportation Act, states are allowed to do what they choose with the money given to them by the federal government. For the very first time, the federal government has stepped back from establishing national guidelines for the design and maintenance of our critical infrastructure facilities.

Unfortunately, the powers that be—politicians constantly vying for re-election—prefer to spend that money on things that get noticed by the public. Simply put, they get far more political mileage from, say, beautifying an old park than from making (less glamorous) repairs on a bridge or levee. Consequences can be disastrous.

Deferral of money makes infrastructure repair a losing battle. After all, allocating minimal amounts to keep a failing bridge or a levee in status quo condition is just plain wrong when facing the inordinate rebuilding costs and economic damage that will result after it fails and causes huge devastation. Post-infrastructure failure costs are always astronomical—in terms of dollars *and* human lives—and far outweigh the costs of any preventive measures that could have been taken.

So...now that the Midwest floods have wreaked their havoc, will our nation change its irresponsible ways in regard to its infrastructure needs? Here are a few of my own solutions:

Stop using inaccurate statistics as justification for not spending the necessary monies on infrastructure. In some locations in the Midwest the recent flooding and that which occurred back in 1993 was designated as "500-year flooding." Despite popular belief, this does not mean that such floods happen once every 500 years but that they have a 1/500 (or 0.2 percent) chance of happening in a year. According to a recent *Kansas City Star* story, if FEMA determines that a levee can withstand a 100-year flood—i.e., a flood that has a 1 percent chance of happening in a given year—then the area that levee protects is not considered to be in a flood plain. This designation means federal flood insurance isn't required for residents who live in the area.

These areas are flooding more and more frequently. Despite that fact, officials from organizations like the Army Corps of Engineers and FEMA like to shirk responsibility by saying they couldn't have predicted the severity of the flooding. That may be true, but what they can control is how risk is assessed in these areas. Some of the methods being used for risk assessment—like floodplain maps—are outdated and inaccurate. Money needs to be allocated so that risk can be reassessed based on current circumstances so that levees can be built up and strengthened where they need to be.

The bottom line is that people need to know if there are areas where they shouldn't build their homes or establish their businesses. Relying on inaccurate information to make these decisions puts families and businesses at risk and extends the potential for high costs in damages in the future.

Start calculating "real costs" when making decisions regarding the long-term impact of potential disasters. Needed infrastructure repairs are often ignored because the money it would take to make them in the short term a) isn't easily available, or b) would restrict the amounts of money politicians could spend in areas more favorable for them. But what happens when you look *long term*—all the way down the road to future disasters, in other words? Suddenly, you realize the costs of infrastructure remediation pales in comparison to the future costs of ignoring it.

Let's use the levee breaks and flood wall breaches that resulted from Hurricane Katrina as an example. Before Katrina struck, it would have taken an estimated \$10 billion to repair the levee system so that it could withstand such a storm and protect most but not all of the New Orleans metro areas. But that's not the end of the story: You must also take into account that New Orleans' population has been reduced by nearly 50 percent, and trade and commerce in the area may never fully recover.

The point is that we must start considering all of the "what ifs" related to our failing infrastructure. Katrina should have served as an example that "hoping nothing happens" is not an acceptable course of action. Anyone who truly took the long view would quickly see that it's almost always a terrible mistake to let infrastructure repair needs slide. Consider, for instance, that a recent report from the American Counsel of Engineering Companies shows that California alone estimates that it is losing \$15 billion or more a year in loss of production due to the lack of necessary spending to repair the state's infrastructure. State governments should take into account how much they are losing by avoiding the repairs their infrastructure needs. Money is being lost whether there is a disaster or not; the only thing that differs is *how much* money is lost.

Force politicians and other government officials to act on expert recommendations given to them. Our nation's infrastructure is frequently inspected, but recommendations for repairs often fall on deaf ears or get held up due to lack of funding. The I-35W Bridge is a prime example. According to a recent investigative report commissioned by the Minnesota Department of Transportation and compiled by the firm Gray Plant Mooty, MnDOT hired outside consultants to a) assess the fatigue life and fatigue cracking in the bridge and b) determine whether it was necessary to add "redundancy" to the bridge, providing extra support to the original structure, as a safety precaution. Long story short, neither was accomplished. According to the report: "MnDOT initially recognized the need for redundancy but later focused on the fatigue analysis. Ultimately, the Bridge did not receive any materially different treatment than it had historically and redundancy was not added to the Bridge."

It turns out a bent gusset plate was photographed and filed in 2003 but none of the inspectors or MnDOT officials who looked at the photo noticed. The bending of multiple plates is what caused the collapse of the bridge. If the repairs and inspections above had been carried out as planned, perhaps the bent gusset plate would have been noticed and the bridge could have been closed to protect the public. According to the investigative report, as a result of the bridge collapse that happened because these repairs weren't made, 'lives were shattered...So too, was confidence in the [state's] bridges.' Fixing infrastructure problems that could lead to loss of human life is compulsory, not optional. We should create an independent system that requires that monies are used as designated and which then oversees the system to ensure that projects get completed as planned. It should not be earmarked money or pork barrel spending, but a non-discretionary spending item that must go towards its intended purpose.

There's a quote from the recent I-35W Bridge investigative report that says, "When a bridge collapses, so does public faith in government." Given what has recently happened in the Midwest, we can change the word "bridge" to represent any form of infrastructure in the country and in doing so one realizes how critical the situation is.

For better or worse, Americans rely on the government to protect them from harm, and clearly government at all levels is falling down on the job. We hear about the billions of dollars spent on the War on Terror while here at home we are at risk every day because our infrastructure is crumbling. As a government and a society we must make safety at home a priority—and shoring up our infrastructure is the natural place to start.

#### ROAD WORK AHEAD

by Barry LePatner February 4, 2009

Five Solutions for Repairing the Nation's Infrastructure - *The economy isn't the only national system that needs repairing. As this past summer's levee breaks and other recent disasters indicate, America's infrastructure is also in serious trouble. Here are some solutions.* - While policymakers and pundits focus on the financial meltdown, another crisis is brewing in the U.S.: Our infrastructure system is silently deteriorating more and more as each year passes. Frighteningly, we have experienced over 500 bridge failures since 1989 according to one recent study. The aftermath of Hurricane Katrina was another warning as levees broke destroying swaths of New Orleans. Then came the tragic I-35W bridge collapse of August 2007. Finally, the levee breaks of this past summer served as yet another illustration of how dire the situation has become. The lesson is clear. We *must* overhaul the broken systems that have led us to this point—and we don't have a moment to lose.

We all know the nation's vast infrastructure problems cannot be fixed overnight. However, by aggressively moving toward a solution now—rather than applying a series of ineffective "bandaids"—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:

Create a national clearinghouse and database, accessible to every state transportation agency and the general public. The database will 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 to require 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 Grand River in Ohio in 1996. By June 2008, MnDOT announced that they would replace eleven major bridges in the state, some with the same concerns about deteriorated gusset plates that had gone undetected.

State governments should step up their efforts to protect their citizens. State governments 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." The public should receive annual updates on the remediation progress and be given notice if funding for the repairs is not provided within 18 months.

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 from state transportation departments because of their high salaries. This can no longer be the case. State governments can and must recognize the ability to reduce long-term maintenance costs rests with these engineers' valued experience.

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 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.

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 back 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 payoff 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) apportion all the risks that are 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" mindset anymore.

The current financial crisis has caused many of us to think about what the nation's priorities should be. Certainly, repairing the economy should be at the top of the list. But as the Obama Administration settles into office, it should make repairing the nation's infrastructure a priority as well. After all, these two issues are connected. We cannot have a prosperous nation without providing a safe infrastructure system for our citizens and businesses.

An added bonus is that every \$1 billion in infrastructure spending is estimated to create 47,000 new jobs. By taking the steps necessary to tackle our infrastructure problem now, we have an opportunity to improve our economy with the great ROI of a better, safer infrastructure system that will lead to a stronger nation.

#### FILLING POTHOLES ON THE ROAD TO REPAIR

by Barry LePatner March 25, 2009

Five Points the Government MUST Consider Before Doling Out Billions to the Construction Industry

On one hand, our national infrastructure is in dire need of the stimulus money it's getting. On the other, there's precious little evidence that the construction industry won't squander it. Here are some very specific steps the U.S. government should take to avoid wasting infrastructure stimulus funds.

Economic stimulus plan funds will soon be distributed to projects and programs across the nation, and without a doubt opinions on the matter are mixed. One definite high note is that the legislation—which includes around \$48 billion in infrastructure transportation spending on everything from a high-speed rail service to highway projects to public transportation and intercity rail projects—finally recognizes that our nation's infrastructure is crumbling around us.

But the government had better look before it leaps. Why? Because the legislation authorizing the distribution of this massive funding program assumes that the dollars spent on these projects will be efficiently utilized by a construction industry that is just as broken as the infrastructure it's charged with building and repairing.

We've already seen what can happen when the government pumps money into broken industries without properly monitoring how it's used: billions of taxpayer dollars are wasted.

I'm speaking, of course, of the "bailout" money poured into America's financial and automotive industries—industries whose inept and inefficient ways have, to date, prevented the funds from benefitting the American people. And sadly, the construction industry is no better. In fact, as amazing as it may seem, it could be even worse!

When you give money to an industry that, according to recent studies, wastes upwards of \$120 billion a year, and don't take the steps necessary to ensure it's used wisely, you are going to end up once again with no ROI. That's the stark reality. And for taxpayers already saddled with a terrible economy and a crushing mountain of national debt, this is bad news indeed.

The construction industry's woes are at the center of my latest book. In it I lay out the industry's biggest problems: rampant cost overruns and missed (in some cases by several years) project deadlines. Grim as it may sound, I predict that the construction industry will fritter away the roughly \$48 billion allotted on projects that may well get underway—but will be abandoned before they're ever finished.

To advance billions in infrastructure funds for needed roads and bridges only to find we run out of money before they are completed is totally wasteful. The amount of money being doled out

for these projects is finite. Once it's gone, it's gone. Unfortunately, it's highly likely that it will be wasted, and we will end up with a nation of under-maintained highways and byways and useless, only partially completed bridges and roads. Frankly, before infrastructure repairs can be made in a cost-effective and efficient way—both crucial for the current state of the nation—the construction industry must make more than a few repairs of its own.

The government, too, should do its part to ensure there is adequate protection against this waste in the accountability provisions of the stimulus plan. Without a true fixed-price structure for all construction projects that shifts the risk for inefficiency and waste to the construction industry, our government will be back footing the bill for an additional tens of billions of dollars within a few years.

Here are a few steps I would like for the nation's governing bodies to make *before* the infrastructure money is pumped into project contracts:

Create an Infrastructure Czar position. The current stimulus legislation proposes to set up oversight by an Accountability and Transparency Board composed of a chief performance officer and six members designated by the President, including inspectors general and secretaries of the Education, Energy, HHS, Transportation, and other federal departments. But it's unlikely that any of these officials have a true grasp of the inefficient way the construction industry operates or how to address them in future contracts. In order for these project negotiations to be mediated properly, the President should create an Infrastructure Czar position.

The Czar should be a savvy construction expert who did not emanate from the construction industry but who is familiar with the low bid/change order process that consistently drives up costs on construction projects. This individual must know how critical it is to avoid traps like the fast-track process or guaranteed maximum price traps that never truly guarantee the contract price. A construction expert of this kind will help close the information gap that will likely exist between construction contractors and the policymakers trying to negotiate government contracts.

Make fixed-price contracts mandatory. In a seemingly helpful provision, the stimulus legislation calls for contracts "to the maximum extent possible" to be awarded as fixed-price contracts through competitive procedures. Unfortunately, that appears to be the extent of what the government understands as being protective of the federal dole.

One merely needs Google the phrase "construction cost overruns" to begin to realize the enormous proportions of the waste our country has been dealing with for decades. Fixed-price contracts on these projects are an absolute must. Without them, contractors will use change orders and delay claims to drive up the costs of these crucial infrastructure projects. In order to obtain these fixed-price contracts, the government should also require that contractors create their bids based on 100 percent complete documents from the architects and engineers. Otherwise, it will be impossible to estimate the true scope of these projects.

Invest some stimulus money in advanced technologies. Consider this fact: By the time cracks appear in the structure of one of the nation's bridges, the costs for remediation have skyrocketed. That is why some of the money being allocated for infrastructure projects should go toward

purchasing new technology that can help state governments and the federal government save money down the road.

Technology exists to anticipate bridge remediation years before rust, corrosion, and cracks appear. We 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.

Create stipulations aimed at avoiding wasted labor costs. The construction industry, now at the crossroads of so many needed projects and potential revival of our jobless situation, has a very bad (though not widely known) reputation for waste. Shockingly, some 50 percent of all labor costs of a project are lost due to late deliveries, poorly coordinated subcontractors, and other circumstances that regularly prevent employees from engaging in productive onsite work. These inefficiencies spring, in part, from the "mom and pop" nature of the businesses involved. But it is also a function of the industry's minimal use of technology, its lack of capital resources, and the fact that productivity per worker has gone down over 22 percent over the past forty years.

In order to combat this problem, stipulations *must* be placed in the government contracts awarded. Contracts must require that skilled, experienced onsite construction representatives with in-depth knowledge, who can oversee not only quality but the true cost for the work, are retained for these projects.

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 back 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 payoff 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. Going forward, as infrastructure projects proceed with only limited funding, our nation cannot afford to face cost overruns of 20 percent, 30 percent, or more. There are no available funds to finish projects facing contractor overruns due to the industry's inefficiencies. The industry itself will have to be reformed before we can start making progress on repairing the nation's infrastructure.

The government is about to embark on what is essentially bailout #3. Obviously, the last two were less than successful. They'd better get this one right, or public trust will be irrevocably damaged. This stimulus plan should be handled with a lot of transparency and follow through—two characteristics the construction industry, the most inefficient industry in our nation, isn't known for.

When you consider the huge number of projects that must be completed in order to restore America's infrastructure, it is clear that measures must be taken to ensure that money allocated for infrastructure projects is used wisely and for the betterment of the nation. Our government must ensure that infrastructure project contracts are all undertaken with true fixed-price contracts that pass the risk for poor performance onto the contractors who fail to complete them on time and on budget. Our leaders' credibility, not to mention our nation's future safety and viability,							
depends on it							



# The Internal Organization of Masters, Mates & Pilots (MM&P) February 9, 2009

The Internal Organization of Masters, Mates & Pilots (MM&P) has worked to secure and protect the rights and working conditions of its members and of all persons who work in the seagoing maritime industry. It also works closely with the U.S. Coast Guard and with port commissions around the country to establish safe vessel traffic standards to safeguard the environment, life and property. Internationally, the MM&P is involved in the creation and enforcement of safe and humane standards for vessel safety on third world flag-of-convenience registered vessels whose crews have few advocates for their well-being.

## Five Steps to Rebuilding America's Crumbling Infrastructure

February 9, 2009

The most recent edition of MarEx newsletter quotes construction expert Barry B. LePatner on five steps that must be taken to rebuild America's infrastructure. "Our infrastructure system is silently deteriorating," LePatner says. As an example, he writes, by some estimates America has experienced "over 500 bridge failures since 1989." To read the article, which was authored by Dottie DeHart, click here: http://www.maritime-executive.com/article/2009-02-04-road-work-ahead-five-solutions-repairing-nations-infrastructure/

## **Leadership Industrial**

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March 3, 2009

Tuesday, March 3, 2009

### **Broken Buildings**

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#### **How to use Construction Industry Broken Buildings**

Review University Of Chicago Press Broken Buildings

"LePatner describe what be mistaken beside the colours regulations and suggest ways that architect can abet - via retaking their rightful push down contained by place of master builders." - Fred A. Everyone is amazed. A swift kick to the construction industry. Barry LePatner think this ejection should become the administer. " - James R. Bernstein, Architect Magazine "Every in a minute and consequently, a central construction jut out over is completed against instance and on budget. Hagerty, Wall Street Journal" Architecture Broken Buildings.

Review Business & Management Broken Buildings

"Everyone in construction, from possessor to contractor, from architects to construction workforce, should read this anecdote. Eugene Kohn, Chairman, Kohn Pedersen Fox Associates (A. LePatner in his crusade to fasten down an industry for that reason vitally historic to the instrument we in enactment. Those who framework will undoubtedly fuse Mr. Eugene Kohn 20070305) Construction Industries Broken Buildings.

"As a ascendant construction industry attorney, Barry LePatner know the industry also as anyone-warts and all. "-Stephen A. Kliment, FAIA (Stephen A. Here he send a persuasive stipulation to owner, agencies, and institution charged with constructing or renovate the build environment to bring back their achievement both and hugely rethink their commercial practice. He not singular zero in on the industry's shortcoming but also offer aware cure. Kliment 20070309) Construction Industry Busted Budgets:.

"Not since The Business Roundtable raise the red banner done 25 years ago on the vain run through of construction dollars and its impact on the intercontinental cutback be full of a treatise provide in-depth reasoning on the culprit. administration and even our nation's account well-regarded corporation drop prey to the inefficient practices of all get-together enmeshed in a major construction project-contractors, designer, workers, union and supplier. From his insight it is at self-determination that we necessitate to instigate a glum assessment on doing intensely ably this critical sector of our economy. Broken Buildings, Busted Budgets provide particular ache as to why the construction industry has not correct fault to mitigate such unsound construction disbursement overruns and has even bushfire able to adopt these homespun occurrence as the

norm. Barry LePatner describes how the U. Smith, Ernst & Young LLP (Mark A. "-Mark A. Smith 20070326) How to Fix America's Trillion-Dollar.

"Sadly, the insufficiency of focal advance and adoption of construction technology improvements has greatly contribute to the out of writ edifice environment where on earth we now operate. Barry LePatner's insightful libretto be freedom on target. "-Leonard Koven, P. It is imperative all for architectural and engineering school to plan their student to industry collaboratively with contractors and other project stakeholders to ensure more assured budget and agenda glory. Partner, AKF Engineers LLP (Leonard Koven 20070326) University Of Chicago Press Busted Budgets:.

"Out-of-control construction costs have a not clear forthcoming to in a panic the economy. Broken Buildings, Busted Budgets identify the source of and propose solution for justifying construction cost overruns. They have short lack of hope lead to a obstreperous connection linking logo professionals who chart construction documents, the contractors who erect from them and the clients who more often than not downfall up paying for the subsequent cost overrun. "-Ramon Gilsanz, P. Partner, Gilsanz, Murray, Steficek LLP (Ramon Gilsanz 20070920) How to Fix America's Trillion-Dollar.

"I found it unambiguously a worthwhile and inspirational read. A must for every individual interested in the economics of construction." -Tyler Cowen, Marginal Revolution (Tyler Cowen Marginal Revolution 20071205 Architecture Busted Budgets: How to.

"Every now and then, a major construction project is completed in good time and on budget. A swift kick to the construction industry. Hagerty, Wall Street Journal (James R. Everyone is amazed. Barry LePatner thinks this exception should become the rule. "-James R. Hagerty Wall Street Journal 20070219) Fix America's Trillion-Dollar.

"Construction, a \$1 trillion industry, is a bedrock of the mighty U. But as Barry LePatner show, it operate with an helpfulness more aspect of the elderly Soviet Union. Broken Buildings, Busted Budgets prove that spend, overspending, and fiscal irrationality pervade the industry, burden consumers, taxpayers, and shareholders with oversize costs. "-Daniel Gross, "Moneybox" columnist for Slate. economy. As important, it lays out a blueprint for streamlining. com (Daniel Gross).

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Posted by Lasker at 2:03 PM

*0 COMMENTS:* 

POST A COMMENT

# The Chicago Blog

## The Chicago Blog

March 4, 2009

How to use the stimulus funds wisely

March 4, 2009

It has been <u>widely reported</u> recently that Illinois hasn't yet revealed any concrete plans for the cash allotted to it for highway, bridge and transit projects via the President's economic stimulus bill. And this morning, U.S. Transportation Secretary Ray LaHood issued a warning that time is running out. Washington is required to distribute funds by the 10th. Combined with Illinois' <u>recently bolstered</u> reputation for political corruption and mismanagement, the report seems at once predictable and worrisome, bringing to the fore the central pitfall of Obama's attempts to jump-start the economy—the potential for local governments to simply



squander billions of taxpayer dollars—a problem that Barry B. LePatner, author of <u>Broken Buildings</u>, <u>busted Budgets</u>, argues is compounded by a construction industry that "is just as broken as the infrastructure it's charged with building and repairing." In his article, <u>"Five Points the Government MUST Consider Before Doling Out Billions to the Construction Industry"</u> LePatner delivers a critical assessment of the construction industry and its inefficiencies, and outlines the steps a responsible government must take to ensure the money from one of the biggest spending programs in history is used wisely. Read the article on the <u>American Surveyor</u> website, or find out more about LePatner's book at <u>www.brokenbuildings.com</u>.

Posted by TXM on March 4, 2009 12:12 PM



## **IA Biz**

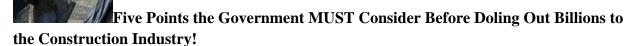
March 16, 2009

*IA Biz* is a quarterly regional business publication written for the Iowa Association of Business and Industry. It focuses exclusively on meeting the information and market needs of Iowa business professionals and includes timely business features, informative columns about industry leaders, corporate and community success stories, and pays special attention to legislative and regulatory issues that will impact the market.

## Filling Potholes On The Road To Repair

Written by Barry LePatner

Monday, March 16, 2009



On one hand, our national infrastructure is in dire need of the stimulus money it's getting. On the other, there's precious little evidence that the construction industry won't squander it. Here are some very specific steps the U.S. government should take to avoid wasting infrastructure stimulus funds.

Economic stimulus plan funds will soon be distributed to projects and programs across the nation, and without a doubt opinions on the matter are mixed. One definite high note is that the legislation—which includes around \$48 billion in infrastructure transportation spending on everything from a high-speed rail service to highway projects to public transportation and intercity rail projects—finally recognizes that our nation's infrastructure is crumbling around us.

But the government had better look before it leaps. Why? Because the legislation authorizing the distribution of this massive funding program assumes that the dollars spent on these projects will be efficiently utilized by a construction industry that is just as broken as the infrastructure it's charged with building and repairing.

We've already seen what can happen when the government pumps money into broken industries without properly monitoring how it's used: billions of taxpayer dollars are wasted.

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When you give money to an industry that, according to recent studies, wastes upwards of \$120 billion a year, and don't take the steps necessary to ensure it's used wisely, you are going to end up once again with no ROI. That's the stark reality. And for taxpayers already saddled with a terrible economy and a crushing mountain of national debt, this is bad news indeed.

The construction industry's woes are at the center of my latest book. In it I lay out the industry's biggest problems: rampant cost overruns and missed (in some cases by several years) project deadlines. Grim as it may sound, I predict that the construction industry will fritter away the \$48 billion allotted on projects that may well get underway—but will be abandoned before they're ever finished.

To advance billions in infrastructure funds for needed roads and bridges only to find we run out of money before they are completed is totally wasteful. The amount of money being doled out for these projects is finite. Once it's gone, it's gone. Unfortunately, it's highly likely that it will be wasted, and we will end up with a nation of under-maintained highways and byways and useless, only partially completed bridges and roads. Frankly, before infrastructure repairs can be made in a cost-effective and efficient way—both crucial for the current state of the nation—the construction industry must make more than a few repairs of its own.

The government, too, should do its part to ensure there is adequate protection against this waste in the accountability provisions of the stimulus plan. Without a true fixed-price structure for all construction projects that shifts the risk for inefficiency and waste to the construction industry, our government will be back footing the bill for an additional tens of billions of dollars within a few years.

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One merely needs Google the phrase "construction cost overruns" to begin to realize the enormous proportions of the waste our country has been dealing with for decades. Fixed-price contracts on these projects are an absolute must. Without them, contractors will use change orders and delay claims to drive up the costs of these crucial infrastructure projects. In order to obtain these fixed-price contracts, the government should also require that contractors create their bids based on 100 percent complete documents from the architects and engineers. Otherwise, it will be impossible to estimate the true scope of these projects.

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The government is about to embark on what is essentially bailout #3. Obviously, the last two were less than successful. They'd better get this one right, or public trust will be irrevocably damaged. This stimulus plan should be handled with a lot of transparency and follow through—two characteristics the construction industry, the most inefficient industry in our nation, isn't known for.

When you consider the huge number of projects that must be completed in order to restore America's infrastructure, it is clear that measures must be taken to ensure that money allocated for infrastructure projects is used wisely and for the betterment of the nation. Our government must ensure that infrastructure project contracts are all undertaken with true fixed-price contracts that pass the risk for poor performance onto the contractors who fail to complete them on time and on budget. Our leaders' credibility, not to mention our nation's future safety and viability, depends on it.

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#### **Machine Control**

March 5, 2009

*Machine Control* is a new website designed to promote the advancement of positioning and machine control technology for the construction and mining industries.

## Five Points the Government MUST Consider Before Doling Out Billions to the Construction Industry

Written by Barry LePatner

Thursday, 05 March 2009

Filling Potholes on the Road to Repair: On one hand, our national infrastructure is in dire need of the stimulus money it's getting. On the other, there's precious little evidence that the construction industry won't squander it. Construction expert Barry LePatner advises the U.S. government to take some very specific steps to avoid wasting infrastructure stimulus funds.

New York, NY(February 2009)—Economic stimulus plan funds will soon be distributed to projects and programs across the nation, and without a doubt opinions on the matter are mixed. One definite high note is that the legislation—which includes around \$48 billion in infrastructure transportation spending on everything from a high-speed rail service to highway projects to public transportation and intercity rail projects—finally recognizes that our nation's infrastructure is crumbling around us.

But according to construction attorney Barry LePatner, the government had better look before it leaps. Why? Because the legislation authorizing the distribution of this massive funding program assumes that the dollars spent on these projects will be efficiently utilized by a construction industry that is just as broken as the infrastructure it's charged with building and repairing.

"We've already seen what can happen when the government pumps money into broken industries without properly monitoring how it's used: billions of taxpayer dollars are wasted," says LePatner, coauthor of *Structural & Foundation Failures* (McGraw-Hill, 1982, coauthored with Sidney M. Johnson, P.E.) and author of *Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry* (The University of Chicago Press, October 2007, ISBN-13: 978-0-226-47267-6, ISBN-10: 0-226-47267-1, \$25.00).

He speaks, of course, of the "bailout" money poured into America's financial and automotive industries—industries whose inept and inefficient ways have, to date, prevented the funds from benefitting the American people. And he insists that, sadly, the

construction industry is no better. In fact, as amazing as it may seem, it could be even worse!

"When you give money to an industry that, according to recent studies, wastes upwards of \$120 billion a year, and don't take the steps necessary to ensure it's used wisely, you are going to end up once again with no ROI," he warns. "That's the stark reality. And for taxpayers already saddled with a terrible economy and a crushing mountain of national debt, this is bad news indeed."

The construction industry's woes are at the center of LePatner's latest book. In it he lays out the industry's biggest problems: rampant cost overruns and missed (in some cases by several years) project deadlines. Grim as it may sound, he predicts that the construction industry will fritter away the \$48 billion allotted on projects that may well get underway—but will be abandoned before they're ever finished.

"To advance billions in infrastructure funds for needed roads and bridges only to find we run out of money before they are completed is totally wasteful," says LePatner. "The amount of money being doled out for these projects is finite. Once it's gone, it's gone. Unfortunately, it's highly likely that it will be wasted, and we will end up with a nation of under-maintained highways and byways and useless, only partially completed bridges and roads. Frankly, before infrastructure repairs can be made in a cost-effective and efficient way—both crucial for the current state of the nation—the construction industry must make more than a few repairs of its own.

"The government, too, should do its part to ensure there is adequate protection against this waste in the accountability provisions of the stimulus plan," adds LePatner. "Without a true fixed-price structure for all construction projects that shifts the risk for inefficiency and waste to the construction industry, our government will be back footing the bill for an additional tens of billions of dollars within a few years."

LePatner offers a few steps he would like for the nation's governing bodies to make beforethe infrastructure money is pumped into project contracts:

Create an Infrastructure Czar position. The current stimulus legislation proposes to set up oversight by an Accountability and Transparency Board composed of a chief performance officer and six members designated by the President, including inspectors general and secretaries of the Education, Energy, HHS, Transportation, and other federal departments. But according to LePatner, it's unlikely that any of these officials have a true grasp of the inefficient way the construction industry operates or how to address them in future contracts. In order for these project negotiations to be mediated properly, he advises, the President should create an Infrastructure Czar position.

"The Czar should be a savvy construction expert who did not emanate from the construction industry but who is familiar with the low bid/change order process that consistently drives up costs on construction projects," he explains. "This individual must know how critical it is to avoid traps like the fast-track process or guaranteed maximum

price traps that never truly guarantee the contract price. A construction expert of this kind will help close the information gap that will likely exist between construction contractors and the policymakers trying to negotiate government contracts."

**Make fixed-price contracts mandatory.**In a seemingly helpful provision, the stimulus legislation calls for contracts "to the maximum extent possible" to be awarded as fixed-price contracts through competitive procedures. Unfortunately, that appears to be the extent of what the government understands as being protective of the federal dole.

"One merely needs Google the phrase 'construction cost overruns' to begin to realize the enormous proportions of the waste our country has been dealing with for decades," says LePatner. "Fixed-price contracts on these projects are an absolute must. Without them, contractors will use change orders and delay claims to drive up the costs of these crucial infrastructure projects. In order to obtain these fixed-price contracts, the government should also require that contractors create their bids based on 100 percent complete documents from the architects and engineers. Otherwise, it will be impossible to estimate the true scope of these projects."

**Invest some stimulus money in advanced technologies.** Consider this fact: By the time cracks appear in the structure of one of the nation's bridges, the costs for remediation have skyrocketed. That is why some of the money being allocated for infrastructure projects should go toward purchasing new technology that can help state governments and the federal government save money down the road.

"Technology exists to anticipate bridge remediation years before rust, corrosion, and cracks appear," notes LePatner. "We 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."

Create stipulations aimed at avoiding wasted labor costs. The construction industry, now at the crossroads of so many needed projects and potential revival of our jobless situation, has a very bad (though not widely known) reputation for waste. Shockingly, some 50 percent of all labor costs of a project are lost due to late deliveries, poorly coordinated subcontractors, and other circumstances that regularly prevent employees from engaging in productive onsite work. These inefficiencies spring, in part, from the "mom and pop" nature of the businesses involved. But it is also a function of the industry's minimal use of technology, its lack of capital resources, and the fact that productivity per worker has gone down over 22 percent over the past forty years.

"In order to combat this problem, stipulations must be placed in the government contracts awarded," insists LePatner. "Contracts must require that skilled, experienced onsite construction representatives with in-depth knowledge, who can oversee not only quality but the true cost for the work, are retained for these projects."

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 back 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," says LePatner. "Going forward, as infrastructure projects proceed with only limited funding, our nation cannot afford to face cost overruns of 20 percent, 30 percent, or more. There are no available funds to finish projects facing contractor overruns due to the industry's inefficiencies. The industry itself will have to be reformed before we can start making progress on repairing the nation's infrastructure."

"The government is about to embark on what is essentially bailout #3," says LePatner. "Obviously, the last two were less than successful. They'd better get this one right, or public trust will be irrevocably damaged. This stimulus plan should be handled with a lot of transparency and follow through—two characteristics the construction industry, the most inefficient industry in our nation, isn't known for.

"When you consider the huge number of projects that must be completed in order to restore America's infrastructure, it is clear that measures must be taken to ensure that money allocated for infrastructure projects is used wisely and for the betterment of the nation," he adds. "Our government must ensure that infrastructure project contracts are all undertaken with true fixed-price contracts that pass the risk for poor performance onto the contractors who fail to complete them on time and on budget. Our leaders' credibility, not to mention our nation's future safety and viability, depends on it."

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## **Sarbanes Oxley**

March 17, 2009

Sarbanes Oxley is an online business publication created as a comprehensive source for advice about Sarbanes-Oxley compliance. It provides the latest techniques to gain compliance and keep compliant as the interpretation of the Act evolves. It also keeps the reader informed of proposed rules, final rules, concept releases, interpretive releases, policy statements and PCAOB rulemaking.

# Blasting the Bridge Keepers: a Construction Expert Denounces the Ntsb's Report on the I-35w Bridge Collapse

March 17, 2009 News And Society | admin @ 3:57 am

Blasting the Bridge Keepers: A Construction Expert Denounces the NTSB's Report on the I-35W Bridge Collapse—and the "Public Servants" Who Keep Dropping the Ball

An NTSB report over a year in the making cites faulty gusset plates as the cause of the 2007 Minnesota bridge collapse. But the report contains a glaring sin of omission: It ignores key problems inherent in our nation's **infrastructure** oversight system that continue to put the public in danger every day.

#### By Barry LePatner

It's been more than a year since the collapse of the I-35W bridge in Minneapolis. And now, the final report put forward by the National Transportation Safety Board has concluded from its investigation: (1) the steel gusset plates originally designed in the mid-1960s to reinforce the bridge's joints were half an inch too thin; (2) the probable causes for the collapse were additional modifications to the original design, which added substantial weight to the bridge, and the weight added by construction materials placed on the bridge by a contractor just prior to the collapse. That's it. And if you're thinking Surely, there was more to the collapse than that, you are right. And by ignoring the other (extremely critical) factors, the NTSB is perpetuating a problem that puts millions of Americans in danger every day.

The NTSB is severely neglecting its duty to protect Americans. By placing the sole blame for the bridge collapse on the gusset plates and the added weight factor, the Board has ignored the inefficiency and irresponsibility among the government agencies responsible for the bridge, which also contributed to the disaster.

At the heart of many of these problems is the Minnesota Department of Transportation, which (and here's a scary thought!) has long been considered one of the better state transportation departments in the country. Basically, MnDOT failed to protect the public from a preventable

disaster that was long in the making. And the problems faced by MnDOT are far from isolated. DOTs everywhere are struggling to keep the highways and byways that connect this nation in working order.

We must put these struggles in perspective: There are 12,000 bridges in our country whose designs are similar to the I-35W Bridge. Furthermore, according to statistics from a 2007 U.S. Department of Transportation/Research and Innovative Technology Administration report, there are over 72,000 bridges that are labeled "structurally deficient" and over 81,000 bridges identified as "functionally obsolete." Every one of these bridges needs detailed inspections to ensure their safety.

One important factor contributing to the poor state of America's infrastructure is the seeming irresponsibility and inefficiency exhibited by those who have been elected or appointed to government positions that supposedly exist to ensure the safety of the public. To illustrate, here are several red flags that I have identified that should have warned MnDOT and other officials that the I-35W bridge was in trouble, but instead were ignored, misunderstood, or simply not acted upon in time:

\*The I-35W bridge was first rated as "structurally deficient" in 1990. Despite annual reports describing a continuing section loss and build up of corrosion at key places, as well as the attention of a number of consultants who recommended substantial remedial action be taken, at no time between 1990 and its collapse in 2007 was the I-35W bridge's condition ever raised above its "poor" rating.

\*Photographs exist of gusset plates "bowing and arcing" as early as 2003, but the photos, taken by MnDOT consultants, were apparently dropped into a file folder and forgotten. MnDOT inspecting engineers did not deem these red flags to be serious enough to command attention.

\*In 1996 a bridge on I-90 outside of Cleveland with a structure similar to the I-35W bridge collapsed as a result of improper gusset plate design. But although a) Federal officials investigated this serious failure, b) an official report from outside engineers was filed indicating that the gusset plates did indeed contribute to the bridge's collapse, and c) Civil Engineering magazine published an article in 1997 detailing the Ohio bridge collapse, officials at MnDOT denied ever having heard of the Ohio bridge failure and said they were unaware of any prior problems with gusset plate design.

\*Discussions concerning the need to add redundancy to the I-35W bridge had been underway years earlier—but action was never taken. And, in fact, MnDOT instead scheduled redecking work that overloaded sections of the bridge, and, according to the NTSB, contributed to the eventual failure of the gusset plates.

Of course, none of this is meant to imply that Minnesota is the only state experiencing serious problems with its infrastructure. The Colorado Department of Transportation has acknowledged that the cost to replace or rehabilitate 125 state bridges rated in poor condition in the state is \$1.4 billion. Yet, bridge repair funding, a critical element in reducing the number of bridges that are considered structurally deficient, has been reduced from \$32 million in 2007 to \$18 million for

2009.

Or consider a story out of Georgia in which reports identifying several bridges as hazardous were thrown away. Why? Because the official in charge said handling the problem would have required too much paperwork and involved too many people. Stories like this one are clear indications that Minnesota isn't the only state that has had its political head in the sand regarding its infrastructure problems.

Clearly, solving our infrastructure crisis will require more than a few patches here and there. In 2005 the American Society of Civil Engineers (ASCE) estimated that the cost of making the upgrades, repairs, and expansions needed on the U.S. bridge system will be \$9.4 billion/year for twenty years. The report also said the U.S. road system required \$92 billion/year for maintenance and \$125.6 billion/year for improvements—an updated report from the ASCE next year will likely reflect an even larger cost for these repairs.

And even if our cash-strapped government could come up with the money and ensure that it's properly applied, there's little indication that builders could get it done at that price. The construction industry itself has been rife with problems for quite some time now, wasting an estimated \$120 billion each year. Those problems have easily flooded over into public projects, the prime example being the Big Dig and its billions of dollars in cost overruns.

We must begin taking steps, right now, to shore up America's infrastructure. Not to do so is to invite more death and destruction. Every engineer in the field of bridge design can testify that the corrosive effects of inadequate maintenance of our bridges and tunnels will only get worse—they are not self-healing. And while the problem is far too massive and widespread to repair overnight, we can take steps now to start chipping away at it.

We must do everything in our power to end the downward spiral of our nation's infrastructure. As the incoming Obama Administration prepares to tackle America's ailing economy, it should make repairing the nation's infrastructure an important part of those plans. Doing so will not only help prevent future catastrophes; it will actually contribute to our nation's prosperity.

Every \$1 billion in infrastructure spending is estimated to create 47,000 new jobs, a critical factor at a time when our unemployment rate is at a 14-year high. By taking the steps necessary to tackle our infrastructure problem now, we have an opportunity to improve our economy with the great ROI of a better, safer infrastructure system that will lead to a stronger nation.

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LePatner co-sponsored "Real Estate Outlook," an annual executive seminar series for corporate and real estate leaders; "Protection, Survival, Readiness: Project Strategy in the Post-9/11 World," a seminar presented to institutional, developer, and corporate real estate executives; and "Secure Space," a building security seminar for corporate owners and developers. He has also presented "Construction Cost Integrity: Equitable Risk Allocation Agreements" and "Protecting the Owner from Pitfalls in Today's Construction Projects," a series of Continuing Legal Education lectures to law firms and their in-house real estate departments; and the highly successful "Marketing for Design Professionals" course at the Harvard Graduate School of Design's Summer Program, from 1990-2004 with A. Eugene Kohn, founder of KPF Associates.

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Recently published articles include: "Sarbanes-Oxley's Wake-Up Call to the Construction Industry," The CPA Journal, December 2007, co-authored with Henry Korn, Esq., and Anthony Chan, CPA; "Today's Construction Contracts: Drafter Beware," Legal Times, September 2007; "The Industry That Time Forgot," Boston Globe, August 2007; "Construction Cost Increases: Owners Should Know the Difference Between the Myths and Realities," New York Real Estate Journal, October 2006; and "Are You Prepared—Disaster Management Plans Help Owners Protect Their Investments" in the March/April 2006 issue of Commercial Investment Real Estate magazine. Articles published in the New York Law Journal include: "Caveat Advocatus—Drafting Construction Agreements for Your Client's New Construction Project Ain't What It

Used to Be," March 27, 2006; "Insuring a Construction Project Against Water and Mold," October 25, 2004; "Building Security Measures and Owner Liability After Sept. 11," May 1, 2003, co-authored with Henry Korn, Esq.

In May 2002, LePatner was elected by the American Institute of Architects to receive an Honorary AIA Membership, one of the highest honors the organization can bestow upon an individual who is not an architect and which is granted to those who have devoted their careers in service to the architectural profession.

In July 2001, LePatner was elected to the Board of Trustees of DIFFA, the Design Industries Foundation Fighting AIDS. He has also served on numerous advisory committees, including: the Advisory Board, Society for Marketing Professional Services, 1990-93; the board of the New York Building Congress; Board of Advisors, Legal Briefs for the Construction Industry, 1981-89; American Institute of Architects Advisory Committee, 1984; and the National Academy of Sciences, 1984-85. He is a member of the Association of the Bar of the City of New York, the New York State Bar Association, and the American Bar Association.

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## **Times Daily**

March 29, 2009

By MICHAEL COOPER

Published: March 29, 2009

#### **Companies Pretty Up Prices to Win Stimulus Projects**

By MICHAEL COOPER

Department stores are marking down their spring collections. Broadway shows are offering discount tickets. Now road work is on sale, as well.

Construction companies, hungry for work in the dismal economy, have slashed their prices to try to win the first round of public works projects being paid for by the federal stimulus package.

Pennsylvania officials said contractors competing for their first round of road and bridge projects had offered bids 15 percent lower than the state had expected. Utah officials said some of their bids were coming in 25 percent lower than expected. And a bid to build a 4.7-mile extension of Interstate 49 from Shreveport, La., toward the Arkansas state line came in at \$31.1 million, about \$4.7 million less than the Louisiana Department of Transportation and Development had estimated the project would cost.

"The bids are coming in lower than we would have imagined," Transportation Secretary Ray LaHood said in an interview, adding that the low bids should provide good value to taxpayers. "I think there's a huge appetite for these projects, and people are raring to go. There's pent-up demand for people to get these bids and get the work."

If the low bids keep coming and the price of construction material stays low, the Utah Department of Transportation hopes to get more work done with the stimulus money than expected, said Nile Easton, a spokesman for the agency. "We're hoping that we can actually stretch that money," he said.

The low bids are the result of supply and demand: there are plenty of construction workers out there and not much demand for their work lately. Many construction operations suffered when residential and commercial building evaporated as the recession hit, and then again when public works tapered off as many states cut back. So they are eager to get back to work, even if it means they must charge less to do it.

Of course, the whole idea of the stimulus law was to pump a lot of money into the economy quickly. State officials said they would have no problem spending all the money they are receiving from the federal government; if projects continued to cost less than expected, they added, they would simply tackle more of them.

"I think it's a good deal for taxpayers, and taxpayers need a good deal right now," Patrick Cooney, a spokesman for the Oregon Department of Transportation, said last week after coming back to work from a furlough day to save the state money.

Some argue that low bids should raise red flags. Barry B. LePatner, a construction lawyer, said that unless states performed independent estimates to find out the true costs of their projects, they risked awarding contracts to companies whose low bids did not reflect the true cost of the work. In such cases, he said, it is common for a company to try to undercut its competition with a low bid and then, once it has won the job, try to eke out a profit by putting in numerous change orders that drive up the price and delay the project.

"You have already started down the road to nowhere," said Mr. LePatner, whose book "Broken Buildings, Busted Budgets" argues that reforms are needed to curb the cost overruns that plague the industry.

States are gearing up to begin work now that spring and the construction season are at hand. By last week, 34 states had been given the go-ahead for nearly 1,000 projects worth \$3.4 billion, transportation officials said.

Officials in many states see the low bids as a sign that they are in a buyer's market. A few years ago transportation officials in Utah, concerned that there was little competition for their construction work, put together a team to try to entice more companies to bid for the jobs. Now, as the first stimulus projects get under way, they are getting a half-dozen bids for each job — and many are coming in at 25 percent below their estimates.

"Boy, it's a great time to be putting projects out," Mr. Easton said.



## Times-News (Hendersonville, NC)

March 29, 2009

*Times-News* is a daily newspaper in Hendersonville, NC.

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By MICHAEL COOPER

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Construction companies, hungry for work in the dismal economy, have slashed their prices to try to win the first round of public works projects being paid for by the federal stimulus package.

Pennsylvania officials said contractors competing for their first round of road and bridge projects had offered bids 15 percent lower than the state had expected. Utah officials said some of their bids were coming in 25 percent lower than expected. And a bid to build a 4.7-mile extension of Interstate 49 from Shreveport, La., toward the Arkansas state line came in at \$31.1 million, about \$4.7 million less than the Louisiana Department of Transportation and Development had estimated the project would cost.

"The bids are coming in lower than we would have imagined," Transportation Secretary Ray LaHood said in an interview, adding that the low bids should provide good value to taxpayers. "I think there's a huge appetite for these projects, and people are raring to go. There's pent-up demand for people to get these bids and get the work."

If the low bids keep coming and the price of construction material stays low, the Utah Department of Transportation hopes to get more work done with the stimulus money than expected, said Nile Easton, a spokesman for the agency. "We're hoping that we can actually stretch that money," he said.

The low bids are the result of supply and demand: there are plenty of construction workers out there and not much demand for their work lately. Many construction operations suffered when residential and commercial building evaporated as the recession hit, and then again when public works tapered off as many states cut back. So they are eager to get back to work, even if it means they must charge less to do it.

Of course, the whole idea of the stimulus law was to pump a lot of money into the economy quickly. State officials said they would have no problem spending all the money they are

receiving from the federal government; if projects continued to cost less than expected, they added, they would simply tackle more of them.

"I think it's a good deal for taxpayers, and taxpayers need a good deal right now," Patrick Cooney, a spokesman for the Oregon Department of Transportation, said last week after coming back to work from a furlough day to save the state money.

Some argue that low bids should raise red flags. Barry B. LePatner, a construction lawyer, said that unless states performed independent estimates to find out the true costs of their projects, they risked awarding contracts to companies whose low bids did not reflect the true cost of the work. In such cases, he said, it is common for a company to try to undercut its competition with a low bid and then, once it has won the job, try to eke out a profit by putting in numerous change orders that drive up the price and delay the project.

"You have already started down the road to nowhere," said Mr. LePatner, whose book "Broken Buildings, Busted Budgets" argues that reforms are needed to curb the cost overruns that plague the industry.

States are gearing up to begin work now that spring and the construction season are at hand. By last week, 34 states had been given the go-ahead for nearly 1,000 projects worth \$3.4 billion, transportation officials said.

Officials in many states see the low bids as a sign that they are in a buyer's market. A few years ago transportation officials in Utah, concerned that there was little competition for their construction work, put together a team to try to entice more companies to bid for the jobs. Now, as the first stimulus projects get under way, they are getting a half-dozen bids for each job — and many are coming in at 25 percent below their estimates.

"Boy, it's a great time to be putting projects out," Mr. Easton said.



## **Tenders Info**

March 30, 2009

## **United States: Companies Pretty Up Prices to Win Stimulus Projects**

March 30, 2009

**BYLINE:** shiv03

LENGTH: 497 words

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## **Canadian Transportation & Logistics**

April 2009

*Canadian Transportation & Logistics* is a monthly traffic, shipping & logistics publication written for Canadian transportation and logistics professionals who manage product flow form manufacture to point-of-sale. It has a one page ad rate of \$4,800.

## Making It Stick: Keys To Making Infrastructure Stimulus Work Long-Term

April 2009

By Julia Kuzeljevich

Throwing cash at infrastructure is not the answer, or at least not the complete answer, says construction attorney and author Barry LePatner. The co-author of *Structural and Foundation Failures* and *Broken Buildings*, *Busted Budgets* says that while there is now a lot of debate on both sides of the border about whether infrastructure investments will have a long-term impact, both governments and stakeholders have to transform the way they think about infrastructure.

"The value of remediation never approaches the value of paying for a ribbon-cutting ceremony," says LePatner.

In other words, politicians don't get votes for refurbishing infrastructure. "If it's not sexy, they're not interested in backing it," he says.

Poor ratings on many bridge structures in North America are also not taken as seriously as they should be, with most bridges designed for a total 50-year life span, noted LePatner.

He says that structural failures are always the result of one or a combination of four factors: improper design, improper construction, defective materials incorporated into the structure, or design loads being exceeded.

#### LePatner advocates:

- Establishing a standardized nationwide system for categorizing remediation needs, wherein reporting is not subjective;
- Instituting a national impetus for increasing the number of engineers and construction experts; and
- Ensuring that tax dollars directed toward construction projects are spent wisely.

Key to making that happen, says LePatner, involves reforming the way public officials work with contractors. He says that some 50% of total labour costs in construction end up wasted.

Public officials should, he says, insist on true fixed-price contracts. "Standard contracts devised by members of the industry are generally insufficient as they a) fail to properly allocate risk among the parties, and b) provide proven loopholes for contractors to make claims for additional costs," he says.

Officials should ensure that there are milestone dates for substantial completion and partial completion of remediation, and they should use both incentives and penalties to ensure timeliness.

"We don't have enough of an understanding of a bridge or road as an asset of a community. As Canada and the US mature, we're going to realize that these are part of the fabric and asset value of the nation," he says.

While few governments will be able to turn away public/private partnership opportunities, added LePatner, "What's the value to the public when you turn over the running of such projects to a private interest, without knowing if that entity will be around long enough?"



## Wikinomics

April 20, 2009

Wikinomics is a blog that focuses on a variety of important issues affecting our lives.

#### Wikinomics and the Construction Industry - "We Gotta Get Naked"

Posted April 20th, 2009 by Kevin Morris

Having worked in the construction industry for the past few years, I've interfaced with firms involved in the building process at all levels - from general contractors who manage construction on-site, to architects and designers, to small machine and metal fabrication shops. As a Net Gener, I have always found it frustrating to not be able to use the tools and applications that allow me to work as collaboratively as I do with clients or co-workers in other industries.

While there are always exceptions, wikis, blogs, social networks and other collaborative applications are almost non-existent within or between construction firms. This surprises me, especially given that construction appears to be a highly collaborative industry by nature. Just think of the large number of firms involved in any given building project, with constantly changing information that needs to be disseminated quickly and efficiently in order to avoid costly errors related to materials, labour, transport and safety. Judging by this, a construction site should be a breeding ground for collaborative applications and information sharing.

Nonetheless, the adoption of these tools seems slow for the industry and as it turns out, I'm not alone in thinking this way. Construction lawyer Barry LePatner, author of <u>'Broken Buildings, Busted Budgets'</u>, goes so far as to label construction as "the industry that time forgot", citing case after case where project delays and budget overruns could have been avoided or mitigated with a more collaborative design & build process. LePatner explains the slow-to-adopt nature of the business in the introduction to his book.

"Much like the flattening of the world described by Thomas L. Friedman, the impending use of the latest technology, global implementation of new materials and building systems, and long overdue research and capital investment will radically alter the construction landscape in the next ten to twenty years. The construction industry today is the last major industry in our world to remain "mom and pop". It is an industry that shuns risk at all levels and hordes information on its day-to-day operations."

When I stand back and examine construction as an industry, a few things come to mind which begin to paint the picture of why construction has been so slow to adopt:

• Because most firms involved contribute via either the production of physical goods or supply of skilled labour, they carry a substantial amount of overhead, conduct business in

- a relatively small geographic region, heavily rely on providing labour in the field & onsite, and as a result, experience relatively low profit margins.
- Construction is not scalable the way other manufactured, knowledge or informationbased products are. With the exception of pre-fabricated, modular homes, it is <u>rarely</u> the case where a single design is constructed in a controlled environment over and over again.
- This results in risk-averse production and R&D. "Why invest in the required innovation on this project if we may never face a similar situation again?"

Despite all this, there have been some signs of a light at the end of the tunnel. Perhaps explained by the emergence of low-cost, web-based collaboration tools, or the fact that we find ourselves <u>in this economy</u>, I've noticed a recent flurry of adoption of new technologies and business practices in construction-related organizations:

## **EllisDon Corporation**

Geoff Smith, President and CEO of <u>EllisDon</u>, one of Canada's largest general contractors, recently started blogging from the company's website. In his recent post titled <u>'OK, I finally get it: We gotta get naked"</u>, Smith says:

"I have struggled for a long time with the notion of wide, free, open collaboration....But I have realized that if you want to take everything in, you need to give everything away. If you want to benefit from the global construction community, one revelation at a time, you have to be willing to help others as much as you can, openly, freely. We are now taking every step we can to open up our website, to open up our experts and databanks, to make everything we have accessible to everyone, to invite everyone to come talk to us by offering to tell them everything we know. It's so obvious to me now, I can't believe I was so stupid for so long."

#### **Open Architecture Network**

Another great example is the work <u>Open Architecture Network</u> is doing. A result of winning the <u>2006 TED Prize</u>, Cameron Sinclair started Open Architecture Network as "a clearinghouse for designs...where communities can connect with designers and donors, and where builders can manage a project from start to finish, with timelines, commenting tools and forums. Clean design and a powerful backend make the network accessible to anyone worldwide, while Creative Commons licensing allows projects to be sampled, remixed and customized." An excellent video is Cameron Sinclair's <u>original TED talk</u> explaining 'open-source architecture'.

#### **Bechtel**

A recent <u>article</u> in BusinessWeek featured an interview with Geir Ramleth, CIO of Bechtel, outlining how he helped the largest engineering company in the United States rebuild their entire corporate network in hopes of making data more accessible. <u>Influenced</u> by companies like <u>Amazon</u>, <u>YouTube</u>, <u>Google</u> and <u>Salesforce.com</u>, Bechtel built three of their own data centers in an attempt to develop an internal network in the 'cloud'. By arming employees, contractors and partners with smart devices, these workers were then able to access the data they needed through

on-demand, SaaS (Software as a Service) applications. At any given time, up to one third of people with access to Bechtel's internal network are not employees of the firm. By altering the way Bechtel engages with talent (in a fashion closely aligned with the eight norms of the Net Generation), the company is finding that less training is required for new workers and is providing a drastically improved user experience for those they do business with. Impressive for a 110 year-old construction company!

While these may appear as only incremental innovations to those in the software, technology, web or other quick-to-adopt industries, they are breakthroughs for the construction industry, and it will be interesting to see how things progress in the coming months and years. What other industries face similar challenges in 'getting naked'? Do my reasons for slow adoption apply there as well? I can think of <u>one well-known example</u> where an innovative CEO, inspired by the open-source model behind Linux, used the principles of Wikinomics to turn around his failing mining company. What are others?



## **Understanding Government**

March 31, 2009

*Understanding Government* is a D.C.-based blog that focuses on government policy.

#### **GIMBY ALERT: IN FOR A PENNY, IN FOR A POUND**

31. March 2009

There's an old joke in a lot of places around America: "we have two seasons: winter and road repair." Now that the stimulus money is starting to flow — and summer's coming — it's going to be road repair season everywhere. And contractors are finding creative ways to get their part of the stimulus funds, reports the New York Times's Michael Cooper.

One such creative approach is to keep prices unexpectedly low for major road rebuilding projects.

This might seem like a good thing. But when contractors' bids are coming significantly lower than states have budgeted for projects, there could be something fishy going on. Transportation secretary Ray LaHood cites "pent-up demand" and says "people are raring to go." That's certainly true. But Cooper cites Barry LePatner, an expert on the construction industry who says that

it is common for a company to try to undercut its competition with a low bid and then, once it has won the job, try to eke out a profit by putting in numerous change orders that drive up the price and delay the project.

That happens during good times, so why should things change when times are tough? It's going to take a lot of eyes on these contracts around the country to make sure we're not paying more just because we're spending more. -NH

Comment RSS - You can skip



## **Real Estate Investor's Monthly**

May 2009

**Real Estate Investor's Monthly** is a monthly real estate publication edited for owners who manage and own their own property, with suggestions for increasing their investment returns.

*May 2009* 

This article title is the name of a book by Barry Lepatner that I saw reviewed in *The Wall Street Journal*.

The book is repetitive and aimed too much at policy makers. But it tells an important cautionary tale for would-be fixer strategy investors. It also suggests that a person who could operate *efficiently* in rehab or new construction could achieve a valuable competitive advantage.

## 'An absurd industry'

The book quotes numerous experts, like famous architect Moshe Safdie, who is quoted in the subhead above, as saying the construction industry is a colossal joke.

#### **Extortion**

The fundamental problem is that construction people routinely use change orders to extort money from their clients. Once the contract has been awarded to the winning bidder, and work has begun, it is extremely difficult and expensive for the client to fire or replace the contractor. Contractors know that, so they extort huge amounts of money by demanding expensive changes to the construction contract. In many, maybe most, cases, they deliberately underbid to get the contract, then restore profitability by overcharging for change orders.

#### **Asymmetric information**

Lepatner says the source of the problem is "asymmetric information." He's a construction lawyer and he seems fond of professorial sorts of words and phrases. "Asymmetric information" means the construction guys know a lot about construction and the clients of the construction guys know little or nothing about construction. So the construction guys BS the clients and rip them off.

#### **Air-conditioners**

I have previously commented that if I had my real estate investment career to do over, I would have studied certain information-heavy aspects of the business far more. By that I was referring to air-conditioner compressors, condensers, heating boilers, and roofing systems—elevators, too,

if I had been involved with such buildings—in other words, large, expensive, complicated building projects.

For example, at one 203-unit apartment complex I managed, we had Weil-McLain boilers the size of locomotives. We also had huge central air-conditioners and underground pipes. We spent a ton on underground pipe leaks caused by lack of sacrificial anodes. Companies like Weil-McLain typically offer free multi-day seminars at their factories. You have to pay your travel expenses. If I had it to do over, I would have taken those seminars.

We bought far too many air-conditioner compressors and other such things when I was a property manager. In my own buildings in later years, I was quick to recognize bad air-conditioner guys, but I still should have known more.

With regard to construction, there are adult education and local college courses you can take on estimating and many other aspects of construction.

If you are going to make your living in new construction or heavy-duty rehab—or even just have large buildings to maintain as I did as a property manager, you need to know enough to tell the good guys from the bad guys in construction and repair businesses.

One way that clients have tried to deal with the information asymmetry is to hire knowledgeable intermediaries like construction managers. But they often have conflicts of interest and may feel allegiance more to the construction industry from whence they came than to their new friends: the clients.

Lepatner is able to point to many interesting culprits in construction. One is the small scale and riskiness of the construction industry. Almost all construction companies are tiny and local. Contrast that with the auto industry where the scale and economies of scale are enormous, brand names are international, and the desire to obtain repeat business huge. There are some big home builders, but even they are only **regional**, not national and they still stick-build, which is extremely inefficient.

Risk hedging, which often requires large scale because of the details of how financial markets work, is so difficult for construction firms that their almost sole method of controlling risk is to outsource almost everything. But outsourcing injects all sorts of inefficiency into the process.

Manufactured housing is not the answer because it is so expensive to move a manufactured house from the factory to the site.

#### **Family hotel business**

I read in *Fortune* or somewhere about a family that builds hotels in the Chicago area to hold for their own account. The local unions went nuts because they did it as a non-union job. But their various machinations had no effect because the workers on the job were all owners of the property as well. According to the story, they were able to build their hotels much cheaper than the competition and thereby made far more profit from them.

A case history I wrote about in this newsletter was about a guy who builds two houses a year almost all by himself. (He only hired out work requiring big equipment he could not afford to own.)

One solution is to avoid investment strategies and situations where you have to rely on construction people. For example, you could just buy properties after the work is done and do a thorough inspection. If you insist on getting involved in construction or extensive rehab, you must become extremely knowledgeable. You probably also need to be in a major metro area where there are many contractors to choose from and much competition among them.

I still shudder at the thought of my apartment building in Corsicana, TX needing a new roof. I told the manager to get three estimates. He said there was only one roofer in the town. He got the job. JTR

## John T. Reed Publishing's Home Page

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May 2009

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# A Pakistan News

### **Pakistan News**

September 10, 2009

**Pakistan News** is a daily news publication that offers the latest news that is managed by a team of professional news editors, sub editors and independent reporters.

## Pay Tribute To Victims Of 9/11 By New York

Thursday, September 10, 2009 at 12:55 pm under

Pay Tribute To Victims Of 9/11 By New York

**NEW YORK:** New York will lead tributes on Friday to victims of the 9/11 attacks in a ceremony at Ground Zero where work on replacements for the World Trade Center, and even a memorial, remains mostly stalled.

On the eighth anniversary of the September 11, 2001 attacks by al Qaeda militants riding hijacked airliners, mourners will remember the 2,752 people who died in the destruction of the Twin Towers in Manhattan.

They will also mourn those who died in the attacks just hours later on the Pentagon outside Washington and on a fourth plane, which crashed in Pennsylvania after the passengers overpowered the hijackers.

Mayor Michael Bloomberg and other officials will attend the now annual ritual at Ground Zero, when every name is read out and moments of silence mark key events, such as the impact of the two hijacked planes, and the collapse of the towers.

Powerful lights will send beams skyward from the site at nightfall.

Despite a deep desire to properly remember the tragedy, constant financial and legal wrangling has slowed work on replacing the enormous Twin Towers to a snail's pace.

The financial crisis and downturn in the real estate market have made speedy renewal of the neighborhood even less likely and frustration is rising.

"It has become increasingly clear that New Yorkers should be embarrassed by the debacle that is represented by the failure of government officials to have successfully rebuilt Ground Zero," Barry LePatner, a construction attorney, said.

"Unfortunately, the only conclusion that can be drawn from a careful study of their actions at this important site is an attitude that the public be damned."

In theory, five new skyscrapers are planned, with a park and memorial in the middle, and a transport hub. But many now think that there is no market for all five towers.

For now, the site strikes casual observers as merely a large hole, although work on foundations of several key elements is well underway and the frame for the future Freedom Tower is rising. A poll last week by Quinnipiac University found that two thirds of New Yorkers think even the memorial will not be ready in time for the 10th anniversary in 2011.

"They don't expect to have any part of Ground Zero ready by the tenth anniversary," Maurice Carroll, director of the university's polling institute said.

"We're getting fed up with the continual lack of progress at Ground Zero. And we think it's important that there be some signs of movement this year," Carroll added.

According to the poll, 25 percent of New Yorkers said the slow pace made them "ashamed," the highest number to give that answer since it was first asked in 2006.



## MajaSaja.com

September 10, 2009

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#### France 24 International News

September 11, 2009

*France 24 International News* is the new 24/7 international news channel. Its mission is to cover international current events from a French perspective and to convey French values throughout the world.

#### Friday 11 September 2009

Commemorations for the eighth anniversary of the 9/11 New York terrorist attacks take place today while work rebuilding "Ground Zero" remains "embarrassingly" stalled.

Almost 3,000 people were killed when two airliners, piloted by al-Qaeda terrorists, smashed into New York's iconic World Trade Center skyscrapers, the Twin Towers.

US President Barack Obama will pay tribute to the victims in a speech at the Pentagon, where a third hijacked plane, American Airlines Flight 77, crashed. He is also due to meet with relatives of the 184 people killed on the ground and aboard Flight 77 when the plane crashed.

Vice President Joseph Biden and NYC mayor Michael Bloomberg will attend commemorative events in New York at Ground Zero, when every name is read out and moments of silence mark key events, such as the impact of the two hijacked planes, and the collapse of the towers.

#### Rebuilding at zero

But despite a deep desire to properly remember the tragedy, the financial crisis and legal wrangling have slowed rebuilding work to a snail's pace.

"New Yorkers should be embarrassed by the failure of government officials to have successfully rebuilt Ground Zero," Barry LePatner, a construction lawyer, told the AFP.

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Five new skyscrapers are planned, with a park and memorial in the middle, and a transport hub.

But many now think that there is no market for all five towers.

For now, the site strikes casual observers as merely a large hole, although work on foundations of several key elements is well underway and the frame for the future Freedom Tower is rising.

A poll last week by Quinnipiac University found that two thirds of New Yorkers think even the memorial will not be ready in time for the 10th anniversary in 2011. "We're getting fed up with the continual lack of progress at Ground Zero. And we think it's important that there be some signs of movement this year," Maurice Carroll, director of the university's polling institute said. According to the poll, 25 percent of New Yorkers said the slow pace made them "ashamed", the highest number to give that answer since the question was first asked in 2006.



## 123BreakingNews.com

September 11, 2009

### US To Pay Tribute To 9/11 Victims At Ground Zero



**New York:** New York, Friday pay tributes to the victims of 9 / 11 attacks, in a ceremony at Ground Zero, where the replacement work for the World Trade Center, and even a monument, remains mostly stalled

On the eighth anniversary on 11 September 2001 attacks by al-Qaeda militants hijacked aircraft, the sinner of the 2752 people killed in the destruction of the Twin Towers in Manhattan to remember.

They also mourn those who died in the attacks, just hours later at the Pentagon outside Washington and a fourth plane in Pennsylvania after passengers overwhelmed the hijackers. Mayor Michael Bloomberg and other officials attend the annual ritual now Ground Zero, where each name is read and moments of silence marking key events, such as the impact of two hijacked planes, and the collapse of the towers.

Powerful rays send light into the sky from the place at nightfall.

Despite a deep desire to recall the tragedy, legal and financial disputes constant work is delayed in the replacement of two large towers at a snail's pace.

From the financial crisis and the recession in the housing market was the rapid recovery of the neighborhood even further the risk and frustration grows.

"It is increasingly clear that New Yorkers have the debacle that is represented by the fact that Government officials have succeeded to rebuild Ground Zero," Barry LePatner, the building of a lawyer, said feeling ashamed.

"Unfortunately, the only conclusion from a careful study of their performance in this important moment is drawn, is the attitude that the public be damned."

In theory, five new skyscrapers are planned, with a park and a monument in the center and a transportation hub. But many now believe that there is no market for the five towers are.

For now, the place was a surprise to casual observers as just a big hole, although the work on the basis of several key elements are in place and the framework for the future Freedom Tower rising.

A survey last week by Quinnipiac University found that two-thirds of New Yorkers that even non monument will be prepared in time for the 10th anniversary in 2011.

"They did not expect any part of the Ground Zero ready for the tenth anniversary yet," said Maurice Carroll, director of the polling institute at the university, said.

"We are sick of the continued lack of progress at Ground Zero. And we believe it is important to have a few signs of movement this year," said Carroll.

According to the survey 25 percent of New Yorkers said the slow pace was "ashamed", the highest number for the answer, since he was first asked in 2006.

US To Pay Tribute To 9/11 Victims At Ground Zero was first posted on September 11, 2009 at 10:58 am. ©2009 "Pakistan News".



## Minneapolis 10

October 10, 2009 October 14, 2009

*Minneapolis 10* is an online news site that offers latest news and happenings in the Minneapolis area.

## Road Work Ahead: Four Solutions for Repairing the Nation's Infrastructure

By Barry B. LePatner, author of *Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry* (The University of Chicago Press, October 2007, ISBN-13: 978-0-226-47267-6, ISBN-10: 0-226-47267-1, \$25.00)

We all know the nation's vast infrastructure problems cannot be fixed overnight. However, by aggressively moving toward a solution now—rather than just applying a series of ineffective "band-aids"—we can begin to make real improvements that will benefit our country for generations to come. Barry LePatner says tackling our critical transportation and infrastructure problems will require a national commitment and a strategic plan that should include the following solutions:

Create a national clearinghouse and database, accessible to every state transportation agency and the general public. The database will identify all design and construction issues affecting our nation's infrastructure. Much as the airline industry has alerts that immediately advise all airlines of problems with an aircraft, this database should alert all state transportation departments of any bridge failure in the nation and include methodologies for remedial design as well as maintenance problems for all of the nation's 600,000 bridges.

This information can no longer be buried in state files, particularly given the fact that politicians in many states have evinced a history of ignoring significant problems and leaving them for future administrations. By making this information the subject of alerts and available to the public, we will enable state transportation engineers to take preventative action more quickly, help members of the public avoid the 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," says LePatner. "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 that point because officials said they did not deem the corroded plates to be critical until federal officials preliminarily identified defective gusset plates as the potential cause of the I-35W bridge collapse. 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 Ohio River in 1996."

State governments should step up their efforts to protect their citizens. State governments 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." The public should receive annual updates on the remediation progress and be given notice if funding for the repairs is not provided within 18 months.

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," says LePatner. "Engineers are often the first to be laid off from state transportation departments because of their high salaries. This can no longer be the case. State governments can and must find other areas to cut."

**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 the inspection techniques today fail to detect cracks until they are visible to the human eye. In addition, FHWA has acknowledged that visual inspections of bridges are highly subjective and not totally reliable in detecting incipient structural problems.

"Technology exists to anticipate bridge remediation years before rust, corrosion, and cracks in the structure appear," says LePatner. "We just need to fund it and 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're easier to fix, can save us millions of dollars in unnecessary remediation costs."

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#### **About the Author:**

**Barry B. LePatner** is the founder of the New York City-based law firm LePatner & Associates LLP. For three decades, he has been prominent as an advisor on business and legal issues affecting the real estate, design, and construction industries. He is head of the law firm that has grown to become widely recognized as one of the nation's leading advisors to corporate and institutional clients, real estate owners, and design professionals.

Mr. LePatner is widely recognized as a thought leader in the construction industry. His new book, *Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry* (The University of Chicago Press), which was reviewed in the *Wall Street Journal*, has created a national debate among owners, designers, and other key stakeholders. Mr. LePatner has been featured in *BusinessWeek*, the *Boston Globe*, the *New York Times, Crain's New York Business*, the *Chicago Tribune*, and other prestigious publications. His articles and speeches on

the perilous state of our nation's infrastructure have garnered him widespread attention. He has appeared on many television and radio broadcasts, including a CNBC appearance and several National Public Radio segments. A November 2007 *Governing Magazine* article stated, "If there's a guru of construction industry reform, it's LePatner."

A nationally recognized speaker, Mr. LePatner has addressed audiences on topics central to trends affecting the real estate and construction industries at recent events sponsored by: The International Economic Forum of the Americas, the Real Estate Board of New York; FIATECH, the National Realty Club, the Construction Owners Association of America, the Construction Management Association of America, the Construction Financial Management Association, and MC Consultants Inc.'s Construction Defect and Construction Law Conference. He also routinely presents CLE-accredited courses to other law firms and organizations on how the construction industry actually works and how they can best protect their clients from the vagaries of the construction process.

LePatner co-sponsored "Real Estate Outlook," an annual executive seminar series for corporate and real estate leaders; "Protection, Survival, Readiness: Project Strategy in the Post-9/11 World," a seminar presented to institutional, developer, and corporate real estate executives; and "Secure Space," a building security seminar for corporate owners and developers. He has also presented "Construction Cost Integrity: Equitable Risk Allocation Agreements" and "Protecting the Owner from Pitfalls in Today's Construction Projects," a series of Continuing Legal Education lectures to law firms and their in-house real estate departments; and the highly successful "Marketing for Design Professionals" course at the Harvard Graduate School of Design's Summer Program, from 1990-2004 with A. Eugene Kohn, founder of KPF Associates.

Mr. LePatner has written extensively and is widely quoted in the media on the subject of construction law. He previously co-authored the legal sections of the *Interior Design Handbook*, McGraw-Hill 2001, and *Structural & Foundation Failures: A Casebook for Architects*, *Engineers & Lawyers*, McGraw-Hill 1982, with Sidney Johnson, P.E.

Recently published articles include: "Sarbanes-Oxley's Wake-Up Call to the Construction Industry," *The CPA Journal*, December 2007, co-authored with Henry Korn, Esq., and Anthony Chan, CPA; "Today's Construction Contracts: Drafter Beware," *Legal Times*, September 2007; "The Industry That Time Forgot," *Boston Globe*, August 2007; "Construction Cost Increases: Owners Should Know the Difference Between the Myths and Realities," *New York Real Estate Journal*, October 2006; and "Are You Prepared—Disaster Management Plans Help Owners Protect Their Investments" in the March/April 2006 issue of *Commercial Investment Real Estate* magazine. Articles published in the *New York Law Journal* include: "*Caveat Advocatus*—Drafting Construction Agreements for Your Client's New Construction Project Ain't What It Used to Be," March 27, 2006; "Insuring a Construction Project Against Water and Mold," October 25, 2004; "Building Security Measures and Owner Liability After Sept. 11," May 1, 2003, co-authored with Henry Korn, Esq.

In May 2002, LePatner was elected by the American Institute of Architects to receive an Honorary AIA Membership, one of the highest honors the organization can bestow upon an individual who is not an architect and which is granted to those who have devoted their careers in service to the architectural profession.

In July 2001, LePatner was elected to the Board of Trustees of DIFFA, the Design Industries Foundation Fighting AIDS. He has also served on numerous advisory committees, including: the Advisory Board, Society for Marketing Professional Services, 1990-93; the board of the New York Building Congress; Board of Advisors, Legal Briefs for the Construction Industry, 1981-89; American Institute of Architects Advisory Committee, 1984; and the National Academy of Sciences, 1984-85. He is a member of the Association of the Bar of the City of New York, the New York State Bar Association, and the American Bar Association.

#### **About the Book:**

Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry (The University of Chicago Press, October 2007, ISBN-13: 978-0-226-47267-6, ISBN-10: 0-226-47267-1, \$25.00) is available at bookstores nationwide, from major online booksellers, and direct from the publisher at <a href="https://www.press.uchicago.edu">www.press.uchicago.edu</a>.

## For more information, please visit www.brokenbuildings.com.

Barry LePatner is author of Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry

## Disrepair, Danger & Dollars Ill-spent: a Look at the Shocking State of the Nation's Infrastructure...and How it Got That Way

Chicago, IL (January 2008)—The verdict is in on the Minneapolis bridge collapse, and the results are far from comforting. We knew the August 2007 disaster was a "wake-up call" to the poor condition of our nation's infrastructure, but we may not have realized what a public safety and economic nightmare we were actually waking up to. Barry B. LePatner says the new report confirms two facts: 1) our government has dropped the ball in a shocking way, and 2) if we don't take aggressive action now, it's only a matter of time before the next, inevitable tragedy. Indeed, the real surprise is that more bridges haven't fallen.

If you haven't heard, the report, recently released by the National Transportation Safety Board, indicates that inspectors believe the bridge collapse, which resulted in 13 dead and 145 people injured, was caused due to a flaw in the original design of the bridge. But that's not the shocking part. Hard as it may be to believe, the government doesn't mandate that inspectors periodically revisit original design documents to make sure bridges will hold up under today's conditions—even though many of these structures are half a century old or even older.

"The design flaw revelations are only the tip of a very damning iceberg," says LePatner, coauthor of Structural & Foundation Failures (McGraw-Hill, 1982, coauthored with Sidney M. Johnson, P.E.) and author of Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry (The University of Chicago Press, October 2007, ISBN-13: 978-0-226-47267-6, ISBN-10: 0-226-47267-1, \$25.00).

"In 40 years, new calculations were never made to determine how much weight the bridge should be holding in today's conditions. Was there more traffic flowing over this bridge? Yes. Had renovations been made to the bridge that added weight to the structure? Yes, and, in fact, there was heavy construction equipment parked on the bridge when it collapsed. But no one ever said, 'Wait a minute—let's make sure this bridge can handle all of these changes that have occurred.' To me, that's terrifying!"

And here's some more sobering food for thought: there are currently 72,000 bridges that the federal government labels "structurally deficient" and 80,000 labeled "functionally obsolete." The fallen I-35 bridge wasn't on either list.

The state of the infrastructure system in the U.S. today results from having been poorly managed and underfunded for years, says LePatner. Today, there are no uniform state-mandated minimum standards for the maintenance of bridges and roads. Inspections of bridges are to occur every two years by federal requirements, but when carried out these are often subjective visual observations that fail to use the latest technology to detect cracks and corrosion that may be invisible.

Currently, he adds, the U.S. government provides \$2 billion in maintenance costs annually for 592,000 bridges that fall within its purview. This works out to a paltry \$3,500 per bridge.

"It doesn't take a genius to realize that \$3,500 isn't enough to cover an adequate bridge inspection," says LePatner. "And if you and I can realize that, you'd better believe the politicians who allocate the money know it, too. But politicians don't get votes for refurbishing infrastructure. It's a topic that's just not sexy enough for them, so they're not interested in

backing it. They just bury their heads in the sand and hope that nothing bad happens on their watch!"

Another factor hindering the funding of repairs is the system in play that allows state governments to do what they choose with the money given to them by the federal government.

"The federal government doesn't give a state X amount of money and say bridge A in your state needs repairs and you must use this money to fix it," says LePatner. "So the state uses its own discretion to decide how to use the money, and that may result in, I don't know, park renovations instead of bridge repairs."

Today's problems remain, despite decades of engineering analysis and reports that have highlighted the deteriorating nature of our infrastructure and the costs of remediation—now estimated to be in the hundreds of billions and increasing exponentially as every year passes. Over the years, the problem hasn't magically gone away (as politicians would doubtless like it to) but has snowballed and snowballed.

"There are over 12,000 bridges being used today, whose designs are similar to that of the I-35 bridge," says LePatner. "And there are over 100,000 more that need detailed inspections to ensure their safety. The hard reality is that, as it stands now, there are no cheap or easy fixes for the infrastructure problem in the U.S., but every day they go unchecked our safety is at risk."

What this really boils down to is that the bridge you cross on your way to work, the bridge your child's school bus travels over, or the bridge that leads to your favorite vacation spot could fall. When you look at it that way, says LePatner, you realize that the years of neglect our politicians have allowed—and even encouraged—is akin to a criminal offense.

"The longer we wait to solve these problems the bigger they become," says LePatner. "Not only is the public's safety at risk on a day-to-day basis, but these broken bridges and the larger infrastructure problems they signal will also hurt America's ability to compete in a global economy. What's more, our crumbling infrastructure is also a national security threat that invites terrorists and those bent on disabling our nation's economy to do their jobs in a much easier, more inviting way."

Of course, there are no simple solutions. Now that we have a huge budget deficit and a recession waiting in the wings, LePatner worries that there is simply no money available to make significant repairs to the nation's infrastructure. He theorizes that we may have to start with reform of the system—encompassing both the governmental and construction industry arenas—and that will come about only if citizens demand it.

"There absolutely has to be a national dialogue about what we are going to do about this huge and growing problem," says LePatner. "And in order to create a dialogue, the people of this country have to demand that politicians take notice. At the moment, no one is talking about it. The presidential candidates are focusing all of their attention on the war, healthcare, and immigration. They don't seem to want to discuss what to do about the infrastructure problem. We will have to make them take notice.

"Our politicians have forced us into the driver's seat," adds LePatner. "We, the citizens, must insist that our infrastructure problems are made a national priority. End of story. It's crazy that

things have been allowed to get to this point. It's time we start holding our politicians accountable for their management, or mismanagement, of our money—and there is no better time to do that than election season! We need to start repairing our infrastructure, we need to do it in a financially responsible way, and we need to do it now. Let's not wait until the next tragedy to get serious about it."

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#### About the Author:

Barry B. LePatner, Esq., is the founder of the New York City-based law firm LePatner & Associates LLP. For three decades, he has been prominent as an advisor on business and legal issues affecting the real estate, design, and construction industries. He is head of the law firm that has grown to become widely recognized as one of the nation's leading advisors to corporate and institutional clients, real estate owners, and design professionals.

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For more information, please visit www.brokenbuildings.com.

#### Bridging the Gaps:

Six Solutions for Repairing the Nation's Crumbling Infrastructure

The National Transportation Safety Board's recent report on the Minneapolis I-35 bridge collapse provided a glimpse into just how dire the situation is with our nation's infrastructure. The report only added to concerns that inspections are infrequent and insufficient, transportation funding is inadequate and improperly used, and the nation lacks the proper number of experts to fully examine the situation.

Construction attorney Barry B. LePatner says now is the time to redeem our former neglect. That means transforming the way we think about not only our nation's infrastructure, but the nature of the construction industry itself. He offers the following six solutions:

- \* Establish a standardized nationwide system for categorizing the remediation needs of America's infrastructure. Many problems with our nation's infrastructure have resulted from the relaxing of inspection standards in recent years, says LePatner. As a result, different engineers can categorize structural problems differently, often for political reasons. For example, in a situation where a decision maker knows money for remediation is not available, lax standards make it possible for him to "dumb down" a report so that action will be deferred. The upshot is that the engineer reporting on bridge A might write it up as being in dire need of repairs because of early signs of corrosion. Meanwhile, bridge B—which is in far worse shape—might be put into a less urgent category.
- "We need a strict nationwide standard for categorizing these remediation needs—at both state and federal levels—and for training inspection engineers," notes LePatner. "That way we can assure uniformity of infrastructure assessments, and serious problems in bridges, tunnels, and highways will be more likely to be reported and dealt with."
- \* Institute a national impetus for increasing the number of engineers and construction experts. Right now we're woefully undermanned, says LePatner. America simply doesn't have the structural engineers it needs to perform the overwhelming amount of remediation that must be done.
- "I would like to see a national effort aimed at increasing the numbers of civil engineers and construction experts needed to address America's infrastructure problem," he says. "Think of it as a 21st century version of the 1950's push for science education in the aftermath of Sputnik. We need to tell our young people that construction is an exciting and noble career, and strengthen those areas of our school system accordingly."
- \* Ensure that tax dollars directed toward construction projects are spent wisely. This is frequently not the case, says LePatner. He reports that a meta-survey of the construction industry's productivity analyses recently concluded that up to 50 percent of all money spent on construction labor is wasted because of late deliveries, poorly coordinated subcontractors, and other circumstances preventing employees from engaging in productive onsite work. These inefficiencies are due in large part to the inherent flaws in our nation's \$1.23 trillion construction industry, which LePatner calls "the last mom & pop industry in America."

The solution, he says, involves reforming the way public officials work with contractors. For instance, they must:

- -Insist on true fixed-price contracts. Standard contracts devised by members of the industry are generally insufficient as they a) fail to properly allocate risk among the parties, and b) provide proven loopholes for contractors to make claims for additional costs.
- -Retain skilled, experienced onsite construction representatives with in-depth knowledge who can oversee not only quality, but the true cost for the work.
- -Ensure that there are milestone dates for substantial completion and partial completion of remediation. Use both incentives and penalties to ensure timeliness.

üPurchase materials in bulk to leverage economies of scale.

- "By implementing these suggestions even partially, our nation can save billions of dollars," he insists.
- \* Overhaul the nation's infrastructure inspection system. As it stands, bridge inspections are required only every couple of years, and because inspectors look only for visible cracks and corrosions, those inspections are superficial at best. Frighteningly, many bridges are still operating under their original load calculations. For example, when the I-35 bridge was constructed 40 years ago, calculations were made to determine the maximum load the bridge could hold, which includes considerations for the amount of traffic that would be using the bridge and also whether the bridge could accommodate heavy vehicles. But despite the fact that traffic volume increased over the years and renovations were made that added to the weight of the bridge, no new calculations were made to determine the load the bridge could safely hold under today's conditions.
- "What's even more mind-boggling than the findings of the report is the fact that even after what they've found, the NTSB is still only recommending, not requiring, that bridge owners recalculate bridge loads periodically," says LePatner. "The whole inspection system needs to be overhauled. And I think it should start with the NTSB making more stringent requirements for these bridge inspections and the federal and state governments doling out stiffer fines when bridges aren't properly maintained. The problem won't stop growing until we can get a hold on the inspection process."
- \* Invest in the latest technology. The methods used to detect the cracks and corrosion in today's bridges are insufficient. Most inspection methods cannot detect microscopic problems. But according to the Center for American Progress, wireless sensor technology exists that allows all aspects of a bridge to be examined from strain to temperature to seismic activity. Perhaps the best thing about the new sensors is that they can be attached or embedded on bridges so that a bridge's condition can be monitored as frequently as necessary. "What this new technology can do is amazing," says LePatner. "It will provide more frequent, more reliable information on our nation's bridges, greatly reducing the likelihood of human error and conflicting reports on a bridge's condition. Every state should use this technology to assess which bridges need immediate repairs."

\* Review the transportation funding process. With hundreds of billions of dollars needed to repair all of the problems in our nation's infrastructure, every penny of funding that is doled out for transportation should be used wisely and appropriately. Unfortunately, that just doesn't happen. Money has been stripped away from the transportation agencies, which need all of the funding they can get in order to get a handle on the country's infrastructure problem. Add to that the fact that money given to the state governments by the federal government for transportation is often used for projects that may be more noticeable to taxpayers but does nothing for public safety. For example, a state government can use part of its transportation budget to beautify a park rather than buy new infrastructure inspection equipment or fund the repairs of a failing bridge.

"Money has to be earmarked specifically for infrastructure repairs on a state and local level," says LePatner. "Politicians have to realize that these failing bridges are threatening citizens' day-to-day safety, national security, and an already struggling economy. The costs will come due eventually whether they happen now or after the next major collapse. It's time to be proactive."

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Barry B. LePatner, Esq., is the founder of the New York City-based law firm LePatner & Associates LLP. Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry (The University of Chicago Press, October 2007, ISBN-13: 978-0-226-47267-6, ISBN-10: 0-226-47267-1, \$25.00) is available at bookstores nationwide, from major online booksellers, and direct from the publisher at www.press.uchicago.edu.



## The Leader

January/February 2010

*The Leader* is a real estate publication providing the most current and thought-provoking thinking on corporate real estate and workplace issues. *The Leader* is published six times a year by CoreNet Global.

## **BIM + Integrated Design**

## **BIM and Integrated Design**

January 16, 2010

January 16, 2010...7:01 pm

## 77 Things You Can Do Right Now to Help Make Integrated Design a Reality

This time of year, when many find themselves indoors, is a great time to catch up – and even get ahead of the pack – on several neglected fronts. Here are my top 77 suggestions for getting ahead in Integrated Design. All pretested, these promise to be a good investment of your time. Best of all, many of the suggestions in this list can be read or watched or even had for free or for very little cost. The **77 things you can do right now to help make Integrated Design a reality** will not only benefit the design profession and construction industry, but by helping to move the field forward you may also find that you have helped yourself along the way.

Do you have other links to favorite sources you would like to share?

- 1. Listen in on a free conference call with Stephen M. R. Covey on the subject of trust
- **2.** Or read the <u>book</u> that the call is based on, The SPEED of Trust: The One Thing that Changes Everything, with one eye on how practicing mutual trust makes Integrated Design possible.
- **3.** Still not convinced that increasing trust is the answer? Check out this <u>video</u> or listen to this <u>summary</u> of the book
- **4.** <u>Pick</u> up a copy and read George Elvin's Integrated Practice in Architecture: Mastering Design-Build, Fast-Track, and Building Information Modeling The world's only book dedicated to this subject.
- **5. Read** <u>Creating</u> with Others: The Practice of Imagination in Life, Art and the Workplace by Shaun McNiff where a master teacher provides important lessons on how to create together in a collaborative environment.
- **6.** Share some info with someone you don't normally trust or work with right now and see the results if it negatively affects you or your firm (you might be surprised by the results)
- 7. Make it an effort to say "we" instead of "I" for an entire day. Get inspired by taking a look at The Power of We
- **8.** Share AIA's document on IPD with another practitioner and discuss its strengths and weaknesses.

- **9.** Had a hunch that you could learn a thing or two about collaboration from understanding the secrets of improvisational theater? You were right and they're all here in Keith Sawyer's breathtaking Group Genius: *The Creative Power of Collaboration*, 60% off at Amazon
- **10.** Or read it for free here
- **11.** Read an interview with author Keith Sawyer, professor of psychology and education at Washington University in St. Louis, is one of the country's leading scientific experts on collaboration, <u>here</u>
- **12.** Start a IPD discussion group, select a resource to start with and begin a discussion.
- 13. Download the AIA IPD Guide here
- **14.** Better yet, enjoy AIA's veritable cornucopia of Integrated Design features, programs, initiatives here
- **15. Read How to Make Collaboration Work**; Powerful Ways to Build Consensus, Solve problems and Make Decisions Read it here for free.
- **16**. Click **here** for Experiences in collaboration: On the Path to IPD
- **17.** Or <u>here</u> to <u>download the PowerPoint: Lessons Learned from Applied Integrated Project Delivery presented at the AIA Convention</u>
- **18.** Share the AIA document site with 10 others
- **19.** The Integrative Design Guide to Green Building: Redefining the Practice of Sustainability by <u>7group</u>, <u>Bill Reed</u>, **Order it <u>here</u>** or <u>here</u> but whatever you do, order it.
- **20.** While you're at it, you haven't lived until you've seen or heard 7group's <u>John</u> Boecker speak on the subject of Integrated Design.
- 21. Bill Reed's also pretty inspiring, too. Check out some of his papers
- **22.** Read the DesignIntelligence Thom Mayne Morphosis case study on being a design principal on an IPD team
- 23. Click here for a short (4 min.) video about IPD
- **24. Put down your current book** and pick up Mastering the <u>Art</u> of Creative Collaboration by Robert Hargrove a copy of which can be yours here for 33 cents! Or get a summary here.
- **25.** Think about why you originally went into your field and whether persuing Integrated Design will allow you to do what you originally wanted to do

- **26.** Turn your firm into a collaboration factory. See how other fields are accomplishing it in The <u>Culture</u> of Collaboration: *Maximizing time, talent and tools to create value in the global economy* by Evan Rosen.
- **27.** Look <u>here</u> to read Integrated Project Delivery and BIM: Changing the Way the Industry Operates
- 28. Visit and explore Evan Rosen's blog on Collaboration, Sharing Information and Trust.
- **29.** Practice self-sacrifice while reading fiction. Mark Helprin's short story collection, *The Pacific and Other Stories*, contains an incisive story entitled "Monday," an honorable contractor willing to sacrifice other contracts and his own reputation to renovate the home of a woman whose husband was killed on September 11 learns "the power of those who had done right." Read it.
- **30.** Look for an opportunity to <u>hear</u> Choreographer Twyla Tharp discuss *The Collaborative Habit* at a theater near you.
- **31.** Still not convinced collaboration works? Niether is Berkeley professor and author Morten T. Hansen in Harvard Business review book Collaboration: *How leaders avoid the traps, create unity and reap big results*. Read it for free <a href="here">here</a> but after reading Good to Great author Jim Collin's insightful foreword you're going to want to <a href="buy">buy</a> a copy for yourself and those you work with.
- **32.** *Still* not convinced collaboration within your firm always a good thing? Watch this <u>video</u>
- **33.** Cant afford the somewhat steep membership cost to join the Design Futures Council? Worry not. Spend a free afternoon perusing articles at <u>designintelligence.com</u>. Do a search on any of the following topics and marvel at the wealth of brilliance that can be found here: <u>Best Practices</u>, <u>Client Relationships</u>, <u>Communications</u>, <u>Design/Build Project Delivery</u>, <u>Intelligent Choices</u>, <u>Leadership</u>, <u>Strategy</u>, <u>Technology</u>, <u>Trends</u> and MANY <u>others</u>.
- 34. Check out this PowerPoint presentation: IPD It's not your father's architectural practice
- **35.** Watch IPD wunderkind John Moebes in action speaking on the benefits on Integrated Design or check out this presentation by him.
- **36.** Or this article about what John Moebes has to say about IPD.
- **37.** Call a colleague that has worked in IPD and ask to lunch discuss their experience
- **38.** Take a look at architect Scott Simpson's immortal blog <u>post</u> entitled <u>Let's Believe in Our Own Future</u>. As Design Futures Council founder Jim Cramer writes in the comments, "Scott, you nailed it."

- **39.** Make a promise in 2010 to attend a 2- or 4-hour **Culture of Collaboration** workshop when it comes to town and learn *17 Ways to Move from Competing to Cooperating in Your Organization*
- **40.** Compare and contrast the AIA's various IPD <u>documents</u>
- **41.** Then compare them with <u>ConsensusDOCS</u>
- **42.** Or compare the two <u>here</u>
- **43.** In fact, check out President of Collaborative Construction Resources James Salmon's <u>blog</u> for great insights into all thing related to Integrated Design
- **44.** Soak-up the great stories in choreographer Twyla Tharp's latest bestseller, **The Collaborative** <u>Habit</u>: Life Lessons for Working Together. The book is short you could down it in an hour but the anecdotes, quotes and lessons will live long with you and bear repeating.
- **45.** While you're at it, reread Tharp's inspiring and peerless **The Creative <u>Habit</u>**: Learn It and Use It for Life
- **46.** Visit the **DesignIntelligence.** blog from time to time for inspiration and insight into integrated design trends and best practices.
- **47.** I recently interviewed architect Paul Durand of Winter Street Architects for my forthcoming book, BIM and Integrated Design: Strategies for Practice (Wiley, 2011) after reading Paul's inspiring <u>article</u> about his firm's adjustments to and eventual mastery of the technology and work processes involved with Integrated Design.
- **48.** In fact, BIM and IPD have their very own blog
- **49.** Watch this Harvard Business Review <u>video</u> of an interview with Daniel Goleman, Psychologist. See **how you can use emotional and social intelligence** to improve your own and your organization's performance
- **50.** Find a question or problem that you have been noodling on and share it with your network by posting it on a LinkedIn group discussion.
- **51.** Calibrate your progress: If you haven't in a while, revisit your threadbare copy of <u>Finith Jernigan</u>'s BIG BIM little bim *The practical approach to Building Information Modeling Integrated practice done the right way!* The <u>book</u> that started it all.
- **52.** Assess yourself in this <u>video</u> from the bestselling author of EMOTIONAL INTELLIGENCE and SOCIAL INTELLIGENCE author Daniel Goleman on how socially intelligent you are.
- **53.** Dust off your copy of **The Wisdom of <u>Teams</u>** and see how much you've learned from it and have integrated into your own practice

- **54.** <u>Listen</u> to Cisco CEO John Chambers explain how abandoning command-and-control leadership has enabled his company to innovate more quickly, using collaboration and teamwork.
- **55.** Connect with other Integrated Design cohorts on LinkedIn
- **56.** Reread <u>Working</u> with Emotional Intelligence this time with an eye on IPD. Don't have it? Read the first chapter here.
- **57.** Ask a contractor to lunch or for an after work drink discuss their observations and insights about the architecture profession they'll appreciate it (Recommendation: stay on their turf, take them to <u>Carmichaels</u> or another contractor hang out)
- **58.** Reread your copy of Broken <u>Buildings</u>, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry from the viewpoint of how integrated design promises to fix what ails the AEC industry.
- **59.** <u>Read</u> an <u>interview</u> with Barry LePatner on the promise of integrated design in the construction industry in the article, "Unreconstructed," by Zach Patton published in *Governing* magazine
- **60.** MacArthur Fellow, New Yorker staff writer and acclaimed surgeon <u>Atul Gawande</u>'s fascinating new book, **The <u>Checklist</u> Manifesto**: *How to Get Things Right*, has a chapter entitled **The End of the Master Builder** where he argues that Integrated Design is the one way the construction industry will contend with ever-increasing complexities. Read it. Amazon has it on sale for 65% off
- **61.** Still too expensive? You can watch a <u>presentation</u> Atul Gawande gave at the New Yorker Festival this past October. His talk was entitled Death of the Master Builder
- **62.** And even read post about Atul Gawande's presentation at The New Yorker <u>blog.</u>
- **63.** Already mastered Integrated Design and all it entails? <u>See</u> Beyond IPD: The Integrated Enterprise Challenge
- **64.** Wondering how to market IPD for your firm? See this this or better yet this
- **65.** Overlook the misleading title, pour yourself a cup or glass and dig into Bauman Lyons Architects highly entertaining and enlightening book on integrated design practices and outcomes, How to Be a Happy <u>Architect</u>
- **66.** Or watch this <u>video</u> of integrated design architect Irena Bauman [of How to be a happy architect fame] taking the Guardian editor, Martin Wainwright, for a stroll around Leeds.
- **67.** Learn ways how you can become an ENFP (you might have an easier time in IPD)

- **68.** Read, really read, Thom Mayne's penetrating and quite scary warning to the tribe, <u>Change</u> or Perish
- **69.** Or even better, visit the AIA's incredibly rich and rewarding site featuring this essay as well as Thom Mayne's 2009 follow-up amongst many others: 2009 and Beyond | Revisiting the Report on Integrated Practice
- **70.** Still skeptical? Do a comparison of IPD and other delivery methods D+B, DBB, etc list pros and cons and to see how IPD holds up
- **71.** Be the change you want to see do a presentation for your firm on IPD or organize one with outside speakers, if only to start a discussion
- **72.** Invite a contractor into your office to speak about their experiences working in IPD, BIM, architects...
- **73.** You still feel like IPD is just a renaming of something you've been doing for ages? List what is the same and what is different so that you have an accurate tally in your assessment
- **74.** Look into what additional equipment, resources and facilities/space you might need to take-on an IPD project in your office make your office IPD friendly BEFORE you need it
- **75.** Look for ways to merge integrate your religious or spiritual life with IPD
- 76. Watch this video and learn about IPD from the perspective of an acclaimed surgeon
- 77. New Yorker also blogged about this event.

And a bonus suggestion: Take an online <u>personality</u> self-assessment or other on your communication type – to see how you relate with others, identifying areas for improvement (FYI historically most architects are ENFJ's with 10% as ENFP's.) Free reliable assessments are also available with a little searching.

These are my top 77 suggestions for invigorating your commitment to working collaboratively in an Integrated Design environment. Do you have other links to favorite sources or suggestions you would like to share?

## Brickledge

Brickledge

January 9, 2010

Road Work Ahead: Four Solutions for Repairing the Nation's Infrastructure

Road Work Ahead: Four Solutions for Repairing the Nation's Infrastructure

By Barry B. LePatner, author of *Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry* (The University of Chicago Press, October 2007, ISBN-13: 978-0-226-47267-6, ISBN-10: 0-226-47267-1, \$25.00)

We all know the nation's vast infrastructure problems cannot be fixed overnight. However, by aggressively moving toward a solution now—rather than just applying a series of ineffective "band-aids"—we can begin to make real improvements that will benefit our country for generations to come. Barry LePatner says tackling our critical transportation and infrastructure problems will require a national commitment and a strategic plan that should include the following solutions:

Create a national clearinghouse and database, accessible to every state transportation agency and the general public. The database will identify all design and construction issues affecting our nation's infrastructure. Much as the airline industry has alerts that immediately advise all airlines of problems with an aircraft, this database should alert all state transportation departments of any bridge failure in the nation and include methodologies for remedial design as well as maintenance problems for all of the nation's 600,000 bridges.

This information can no longer be buried in state files, particularly given the fact that politicians in many states have evinced a history of ignoring significant problems and leaving them for future administrations. By making this information the subject of alerts and available to the public, we will enable state transportation engineers to take preventative action more quickly, help members of the public avoid the 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," says LePatner. "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 that point because officials said they did not deem the corroded plates to be critical until federal officials preliminarily identified defective gusset plates as the potential cause of the I-35W bridge collapse. 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 Ohio River in 1996."

State governments should step up their efforts to protect their citizens. State governments 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." The public should receive annual updates on the remediation progress and be given notice if funding for the repairs is not provided within 18 months.

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," says LePatner. "Engineers are often the first to be laid off from state transportation departments because of their high salaries. This can no longer be the case. State governments can and must find other areas to cut."

**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 the inspection techniques today fail to detect cracks until

they are visible to the human eye. In addition, FHWA has acknowledged that visual inspections of bridges are highly subjective and not totally reliable in detecting incipient structural problems.

"Technology exists to anticipate bridge remediation years before rust, corrosion, and cracks in the structure appear," says LePatner. "We just need to fund it and 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're easier to fix, can save us millions of dollars in unnecessary remediation costs."

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This entry was posted on 09/01/2010 (Saturday) at 6:09 am and is filed under <u>brick foundation</u> <u>repair</u>. You can follow any responses to this entry through the <u>RSS 2.0</u> feed. You can <u>leave a</u> response, or trackback from your own site.

#### Can We Ensure Bridge Safety In PA?

A collaborative effort of U.S. Gov students at PA Leadership Charter School

#### Can We Ensure Bridge Safety in PA?

PA Leadership Charter School January 25, 2010

#### Where does our money really go?

January 25, 2010 in <u>Uncategorized</u> by <u>adidavis</u>

Quite possibly the biggest issue we are facing concerning bridge reparation is the money. We've addressed the fact that bridge repair and reconstruction is quite expensive. Even \$1 billion won't get us very far. However, is the money we have being put to good use? Does wasted time mean wasted <u>funds</u>? Where does our money really go? Below is a video from May 2009 featuring Barry LePatner. He gives us another view of the <u>construction industry</u>, as well as suggestions to help save money.

How to Fix America's Construction Industry

### **Fixed Price Contract Hits**



#### **Concrete Construction**

June 4, 2009 Circulation 66,000

**Concrete Construction** is a monthly rock & cement products publication that is designed for engineers, designers and contractors who use concrete. It covers design, repair and placement for highway and heavy construction, industrial and institutional buildings and single and multifamily residential construction. It provides technical and how-to information needed to improve quality, reduce costs and increase profitability. It has a circulation of 66,000.

#### Opinion: Filling Potholes on the Road to Repair

Five points the government must consider before doling out billions to the construction industry

Source: CONCRETE CONSTRUCTION MAGAZINE

Publication date: 2009-06-04

By Barry LePatner

Economic stimulus plan funds are being distributed to projects and programs across the nation, and without a doubt opinions on the matter are mixed. One definite high note is that the legislation—which includes around \$48 billion in infrastructure transportation spending on everything from a high-speed rail service to highway projects to public transportation and intercity rail projects—finally recognizes that our nation's infrastructure is crumbling around us.

But the government had better look before it leaps. Why? Because the legislation authorizing the distribution of this massive funding program assumes the dollars spent on these projects will be used efficiently.

We've already seen what can happen when the government pumps money into industries without properly monitoring how it's used: billions of taxpayer dollars are wasted.

I'm speaking, of course, of the bailout money poured into America's financial and automotive industries—industries whose inept and inefficient ways have, to date, prevented the funds from benefitting the American people. Sadly, the construction industry may not be any better.

When you give money to an industry that, according to recent studies, wastes upwards of \$120 billion a year, and don't take the steps necessary to ensure it's used wisely, you are going to end

up once again with no ROI. That's the stark reality. For taxpayers already saddled with a terrible economy and a crushing mountain of national debt, this is bad news indeed.

The construction industry's woes are at the center of conversation, along with the industry's biggest problems: rampant cost overruns and missed (in some cases by several years) project deadlines. Grim as it may sound, I predict the construction industry will fritter away the roughly \$48 billion allotted on projects that may well get underway—but will be abandoned before they're ever finished.

To advance billions in infrastructure funds for needed roads and bridges only to find the government run out of money before these projects are completed is totally wasteful. The amount of money being doled out for these projects is finite. Once it's gone, it's gone. Unfortunately, it's highly likely that it will be wasted, and Americans will end up with a nation of under-maintained highways and byways and only partially completed bridges and roads. Frankly, before infrastructure repairs can be made in a cost-effective and efficient way—both crucial for the current state of the nation—the construction industry must make more than a few repairs of its own.

The government, too, should do its part to ensure there is adequate protection against this waste in the accountability provisions of the stimulus plan. Without a true fixed-price structure for all construction projects that shifts the risk for inefficiency and waste to the construction industry, the government will be back footing the bill for an additional tens of billions of dollars within a few years.

Here are a few steps I would like for the nation's governing bodies to make before the infrastructure money is pumped into project contracts:

Create an infrastructure czar position. The current stimulus legislation proposes to set up oversight by an Accountability and Transparency Board composed of a chief performance officer and six members designated by the President, including inspectors general and secretaries of the Education, Energy, HHS, Transportation, and other federal departments. But it's unlikely that any of these officials have a true grasp of the inefficient way the construction industry operates or how to address them in future contracts. In order for these project negotiations to be mediated properly, the President should create an infrastructure czar position.

The czar should be a savvy construction expert who did not emanate from the construction industry but who is familiar with the low bid/change order process that consistently drives up costs on construction projects. This individual must know how critical it is to avoid traps like the fast-track process or guaranteed maximum price traps that never truly guarantee the contract price. A construction expert of this kind will help close the information gap that will likely exist between construction contractors and the policymakers trying to negotiate government contracts.

**Make fixed-price contracts mandatory.** In a seemingly helpful provision, the stimulus legislation calls for contracts "to the maximum extent possible" to be awarded as fixed-price contracts through competitive procedures. Unfortunately, that appears to be the extent of what the government understands as being protective of the federal dole.

One merely needs to Google the phrase "construction cost overruns" to begin to realize the enormous proportions of the waste this country has been dealing with for decades. Fixed-price contracts on these projects are an absolute must. Without them, contractors will use change orders and delay claims to drive up the costs of these crucial infrastructure projects. In order to obtain these fixed-price contracts, the government also should require that contractors create their bids based on 100% complete documents from the architects and engineers. Otherwise, it will be impossible to estimate the true scope of these projects.

**Invest some stimulus money in advanced technologies.** Consider this fact: By the time cracks appear in the structure of one of the nation's bridges, the costs for remediation have skyrocketed. That is why some of the money being allocated for infrastructure projects should go toward purchasing new technology that can help state governments and the federal government save money down the road.

Technology exists to anticipate bridge remediation years before rust, corrosion, and cracks appear. States need the funds 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 the nation countless of millions of dollars in unnecessary remediation costs.

Create stipulations aimed at avoiding wasted labor costs. The construction industry, now at the crossroads of so many needed projects and potential revival of its jobless situation, has a very bad (though not widely known) reputation for waste. Shockingly, some 50% of all labor costs of a project are lost due to late deliveries, poorly coordinated subcontractors, and other circumstances that regularly prevent employees from engaging in productive onsite work. These inefficiencies spring, in part, from the mom-and-pop nature of the businesses involved. But it is also a function of the industry's minimal use of technology, its lack of capital resources, and the fact that productivity per worker has gone down more than 22% over the past 40 years.

In order to combat this problem, stipulations must be placed in the government contracts awarded. Contracts must require that skilled, experienced onsite construction representatives with in-depth knowledge, who can oversee not only quality but the true cost for the work, are retained for these projects.

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 back in 1985, was just more than \$2 billion. It was revealed last year that the real cost of the project will reach \$22 billion with a payoff 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. Going forward, as infrastructure projects proceed with

only limited funding, the nation cannot afford to face cost overruns of 20%, 30%, or more. There are no available funds to finish projects facing contractor overruns due to the industry's inefficiencies. The industry itself will have to be reformed before it can start making progress on repairing the nation's infrastructure.

The government has embarked on what is essentially bailout No. 3. Obviously, the last two were less than successful. They'd better get this one right, or public trust will be damaged irrevocably. This stimulus plan should be handled with a lot of transparency and follow through—two characteristics the construction industry—the most inefficient industry in the nation—isn't known for.

When you consider the huge number of projects that must be completed in order to restore America's infrastructure, it is clear that measures must be taken to ensure the money allocated for infrastructure projects is used wisely and for the betterment of the nation. The government must ensure that infrastructure project contracts are all undertaken with true fixed-price contracts that pass the risk for poor performance onto the contractors who fail to complete them on time and on budget. America's leaders' credibility, not to mention the nation's future safety and viability, depends on it. **CC** 

Barry B. LePatner is the founder of the New York City-based law firm LePatner & Associates LLP.

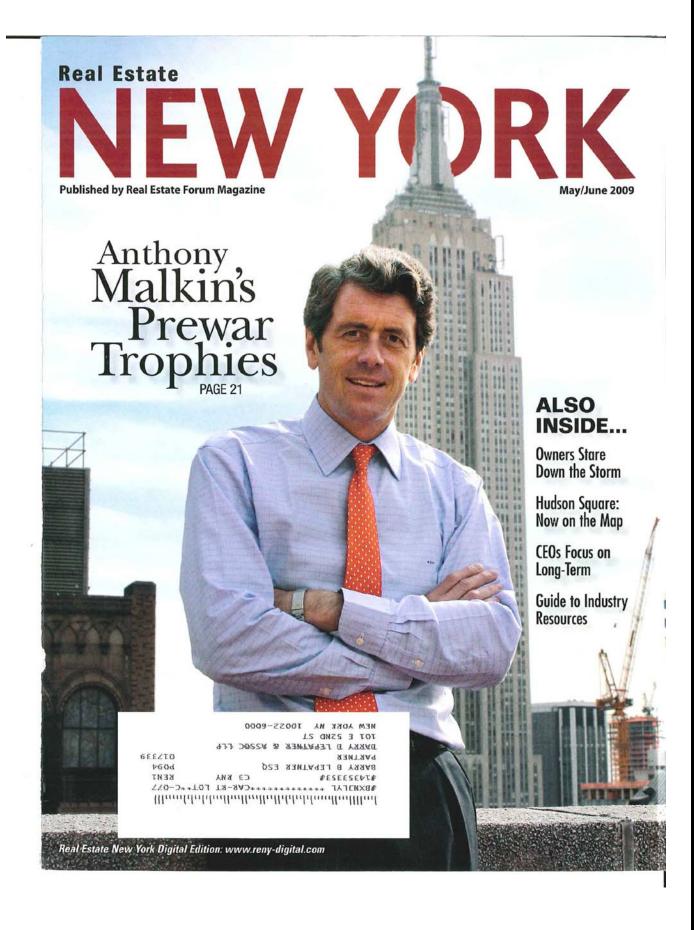
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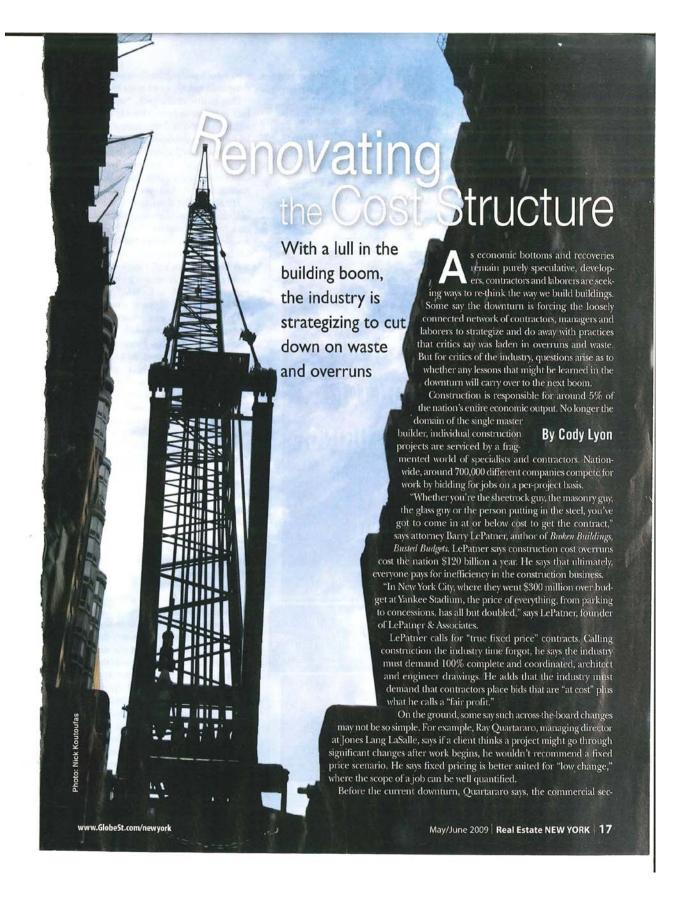


#### **Real Estate New York**

May/June 2009

**Real Estate New York** is a regional real estate publication that provides Tri-State New York metropolitan area investors, owners, brokers, corporate executives, managers, and financial service companies, with information on real estate investment, development, brokerage and transaction, management and operations, and market trends, as well as profiles of major personalities.





tor encouraged a push in speed to market, even if it cost a bit more money. He says that usually meant project managers didn't have a design team to go through a whole set of drawings, so they hired construction managers or contractors under a construction management form of agreement.

Today, Quartararo says, "We've seen a real shift. Number one, because every client we have is very price sensitive and two, because the pressure is off in the real estate market. Unless there is a unique circum-



RAYMOND QUARTARARO Jones Lang LaSalle

We've seen a real shift, because every client we have is very price sensitive and because the pressure is off in the real estate market.

We've seen a stance that is pushing the client to do somereal shift, be-thing really quickly, speed is not an issue."

Due to this slower pace, "we've gone back to a place we haven't been in 10 years, which is to get your design team on board, let them finish the drawings completely, let them coordinate," Quartararo says. "That means taking the architectural, mechanical, electrical and telecommunications and making sure they're all coordinated."

His observation dovetails with the views of Richard Anderson, president of the New York Building Congress, who tells *Real Estate New York*, "There are a lot of things that will be impacted by this different construction market in New York City." Anderson notes that competition now includes cost reduction, especially as firms bid more aggressively for increasingly scarce work.

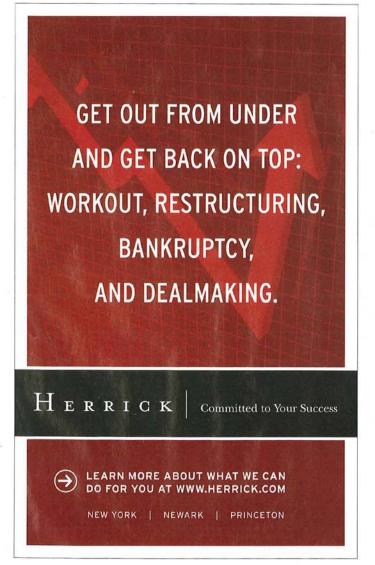
Quartararo says when the market started to decline, the industry initially saw prices decrease in materials and then in subjective construction management. As a result, he says, the management service companies became nervous about their backlog and markets, and their fees began to come down.

On the residential end, one builder tells RENY that he's constantly trying to improve and keep projects financeable. "I'm lucky to be building in this market," David T. Lamason, president of TCR Residential Northeast Construction in Wilton, CT, tells RENY.

A former head of pre-construction for Bovis, Lamason says he's naturally motivated to make projects work. "I probably spend 20% to 25% of my time with trace paper, looking at a site," he says. He adds that "you have to lean on the relationships you have" to obtain materials more cheaply and keep projects alive.

John Sotir and Vikram Reddi, senior vice president and president, respectively, at Mackenzie Keck Construction, say they continue to work with their clients and vendors to increase efficiencies and thereby lower costs. "Companies that can successfully offer clients more for less in this difficult environment through improved efficiencies and streamlined operations will not only survive, but will emerge from the downturn stronger, leaner and healthier, poised to benefit from better times to come,' says Sotir. "The winnowing out of firms who are unwilling to work below cost will level the playing field for the rest."

At FirstService Williams, James Dempsey and Lesley Lisser have been busy with the



\$20-million capital improvement of the landmark Argonaut Building on 57th Street. Lisser, senior asset manager, and Dempsey, managing director and project manager, are working with design firm Gensler to green retrofit and bring the building to class A status.

So far, the two say they've stayed on budget. "In the very beginning, we did exploratory surgery on the building and once we opened up the walls a lot of things we'd anticipated would be okay were not," notes Lisser. She says it's important to keep in mind that the Argonaut, built in 1909, is landmarked, which presents its own hurdles.

"We had a time frame where we thought we'd be done with the project, at least with the infrastructure, by the end of the year," says Lisser. "Unfortunately, a lot of different issues—not just the construction, but permits and approval from the Landmarks board as well as the Department of Building—have proven very lengthy."

Lisser and Dempsey say the economy has contributed to some "jitters and nervousness" at the Argonaut job site, leading to actions that encourage efficiency. They say there have even been challenges to "numbers" such as checking prices with preferred vendors.

"I've always been challenged in my prices," says Lisser. She adds that thanks to the current economy, "contractors have to get used to a re-education of the demands that project managers are going to have."

Dempsey observes that "a lot of projects are becoming open book. Anytime we receive a price from them, we require a backup of all the numbers, making sure they follow their contracts and unit costs."

But, since the Argonaut is a union project, Dempsey says he and Lisser can't negotiate the project's biggest cost, labor. "We're trying to do everything we can to get labor costs down," he says.

Labor has always been the biggest elephant in the closet of construction costs. In New York City, experts say labor comprises 50% to 60% of project budgets. A 2007 report from the Center for Governmental Research showed the median non-union wage for New York City workers was \$13.50 an hour while union workers made \$19.57.

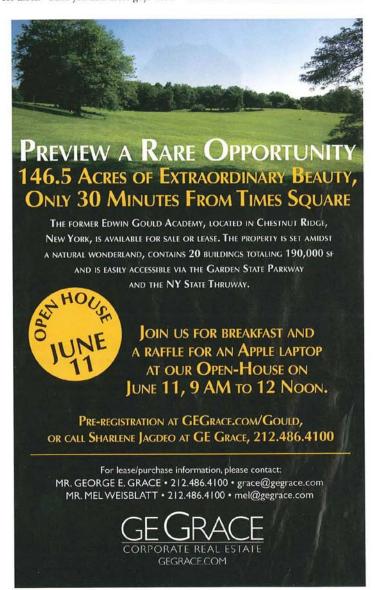
But by May of this year, nationwide unemployment in the construction sector reached 21.1%. Closer to home, the New York Building Congress reported in its City Construction Outlook that nearly 20,000 local construction jobs had disappeared during a six-month span between August 2008 and March 2009 reducing the city's workforce to 117,000.

Regina Armstrong is president of economic consultancy firm Urbanomics. In 2007, she worked on the Building Congress' Construction Outlook report. Back then, she says, a lot of the project costs were coming in at higher rates of increase because of overtime and the sheer demand for labor. "Once you had these guys work-

ing overtime, at time and a half, or in some cases double time, that really started escalating the labor component of costs."

Currently, union leaders are negotiating project labor agreements among their workers, intended to bring costs down. Still, some say the development community is not pleased with the proposed PLAs, which ask for wage concessions of 20% to 25%.

"I just had a meeting with around 20 developers, and they basically looked at me and said the PLAs in their current form are



not anything near what they need," says Real Estate Board of New York president Steven Spinola. He adds that REBNY members are grateful for the discussions, but they believe the conversation can't end here.

Labor leaders counter that they are busy finalizing PLAs to improve productivity and efficiency, presenting the same savings to owners. "There's nothing more important than agreeing to the project labor agreement," says Lou Coletti, president and CEO of the Building Trades Employers

Association of New York. BTEA represents 1,700 contractors, including 28 individual trade contractor groups that do collective bargaining. Coletti says the groups are looking at standardizing overtime costs and "what work rules we could change within the individual trades."

Among other cost savers being discussed is a standard eight-hour workday, requiring all the same holidays and changing individual trade work rules. Pointing out a cost saving step, Coletti notes that starting times on

high-rise jobs are individually negotiated.

"When you're moving vertical transportation up and down a high-rise building under construction, you may have 50 or 100 guys that were meant to start at 7 a.m. and they are waiting on an elevator that may take 30 or 45 minutes to get all of them up to the 30th floor," he says. "That worker is not giving you seven hours of productive time."

He says contractors in New York City "have laid off around 15% to 20% of their overhead staff, frozen salaries, eliminated bonuses and asked employees to contribute more to health care plans. We're telling them that if they don't do these things, if we don't reduce the cost of construction, there's a very high probability that the job they're working on will be significantly reduced, or cancelled."



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- 4. Fee Development Benchmark will develop a new project or re-position an existing property for a development fee if the owner has the required equity and wishes to retain ownership.

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Once we go to fixed price contracts, the better quality contractors will do very well.

BARRY LEPATNER
LePatner & Associates

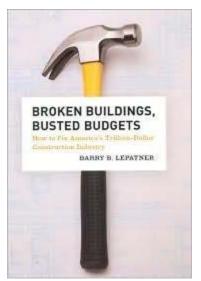
On May 29, the BTEA and the Building and Construction Trades Council agreed to project labor agreements at 12 stalled projects, including Forest City Ratner Cos.' Beekman Tower. That same day, FCRC said construction on its Lower Manhattan residential project would proceed to its full 76-story original height, thanks to a PLA.

Despite this new microscope trained on construction spending, some say the longterm solution to cost overruns and achieving increased productivity ultimately lay with fixed rate pricing. "The important thing to remember is that everything we do in our lives, every economic transaction that you and I do, is based on fixed price deals," says LePatner. "You don't negotiate every deal for a living; you have a fixed price for clothing, shoes, foodeverything has a fixed price. Once we go to fixed price contracts, the better quality contractors will do very well, because they will take risks, make a nice profit and finish on time and on budget."-RENY

# M2H Musings Thoughts on Real Estate and Real Life

#### M2H Musings August 25, 2009

Broken Buildings
Posted by m2hgroup under Construction



I read Barry Lepatner's book, "Broken Buildings, Busted Budgets" a little over a year ago. I just finished skimming through it again in preparation for a meeting with a contractor on a possible development project. It really is excellent! The subtitle, "How to Fix America's Trillion-Dollar Construction Industry" (now down some 35%) is a little ambitious, but he offers up some concrete measures that should be taken to heed.

We developers tend to fall in love with the image in our heads of what a building is going to look like and lose sight of the infinitesimal detail that is the difference between success or failure in a project. Problem is, the critical information that we need to have is under the control of the contractor...and the owner is at his mercy. The key to fixing this problem, according to Lepatner is to have truly fixed price contracts. Overruns? You

don't get to pass it on to the owner. The contractor is incented to get the project done on time with this method, and there are no cost sharing arrangements if he comes in under. The challenge, of course, for the developer is that he has to risk going to a full set of construction drawings before he REALLY knows if he has an economically viable development. Nevertheless, on a large project, this may well be worth the cost...the alternative is a tall stack of change-orders.

It's worth the read – if you've developed or are a contractor, you will find yourself doing as I did, muttering – "dang wish I had thought of that before!"

It's available over at Amazon, click here.

## **Television Interviews**



#### **News 12 Connecticut—Afternoon Edition**

Norwalk, CT November 8, 2007 March 5, 2009



#### **First Business**

Syndicated March 16, 2009



#### **Fox Business**

May 11, 2009 August 31, 2009 30 million subscribers

## **Radio Interviews**



#### **KTRH-AM**

50,000-Watt Station, Houston, TX February 4, 2009



#### The Jim Bohannon Show

Syndicated February 6, 2009



#### Talk Back

WHON-AM March 18, 2009



#### WTJW-FM

Memphis, TN March 23, 2009 **Barry B. LePatner, Esq.** is the founder of the New York City-based law firm LePatner & Associates LLP. For three decades, he has been prominent as an advisor on business and legal issues affecting the real estate, design, and construction industries. He is head of the law firm that has grown to become widely recognized as one of the nation's leading advisors to corporate and institutional clients, real estate owners, and design professionals.



He has written extensively and is widely quoted in the media on the subject of construction law. According to a November 2007 *Governing Magazine* article, "If there's a guru of construction-industry reform, it's LePatner." Mr. LePatner has previously co-authored the legal sections of the Interior Design Handbook, McGraw Hill 2001, and Structural & Foundation Failures: A Casebook for Architects, Engineers & Lawyers, McGraw Hill, 1982 co-authored with Sidney M. Johnson, P.E.

A nationally recognized speaker, Mr. LePatner has addressed audiences on topics central to trends affecting the real estate industry at recent events, including: "Real Estate Outlook," an annual seminar series for corporate and real estate executives; "Protecting the Owner from Pitfalls in Today's Construction Projects," a series of Continuing Legal Education lectures given to law firms and their in-house real estate departments;

"Protection, Survival, Readiness: Project Strategy in the Post 9/11 World," a seminar presented to institutional, developer and corporate real estate executives; "Secure Space," a building security seminar for corporate owners and developers; and "Marketing for Design Professionals" at the Harvard Graduate School of Design's Summer Program, with A. Eugene Kohn from1990-2004.

Recently published articles include "Construction Cost Increases: Owners Should Know the Difference Between the Myths and Realities," New York Real Estate Journal, October 2006; and "Are You Prepared - Disaster Management Plans Help Owners Protect Their Investments" in the March/April 2006 of Commercial Investment Real Estate magazine. Articles published in the New York Law Journal include: "Caveat Advocatus - Drafting Construction Agreements for Your Client's New Construction Project Ain't What It Used to Be," March 27, 2006. Since 1980, he has edited and published the LePatner Report, a quarterly newsletter on business and legal issues for its design, real estate, and construction clients.