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Tappan Zee Bridge: A Test of Obama's Deft Hand

A Special Report

by PWF Editor William G. Reinhardt

Ten years dormant, the Tappan Zee Bridge replacement project is moving rapidly now, with President Obama throwing the full weight of his office behind achieving an August notice to proceed on what will be the largest infrastructure project under construction in America. Environmental permitting, which began in October, is being rushed through federal and state regulatory agencies to ensure a ground-breaking before the start of the Democratic National Convention on Sept. 3, 2012.

New York Gov. Andrew Cuomo has taken on the unprecedented eight-month development effort under the state's untested design-build law. Speculation among some bidders is that Cuomo, a rising Democratic star, may be selected as Obama's vice president, with the Tappan Zee Bridge (TZB) and the thousands of jobs it would create as the crown jewel in his portfolio as governor of a key Democratic state.

"Failure is not an option," says Karen Rae, who was hired by Cuomo in early December to run the TZB project as Deputy Director of the New York State DOT (NYSDOT).

The project, now estimated by NYSDOT to cost \$5.2 billion, will be the state's first using a design-build delivery approach, which became legal under a new law passed in mid-December. As proposed now, twin cable-stayed bridges will be built 500 ft north of the existing bridge to carry eight lanes of I-87/287 three miles across the Hudson River between Nyack and Tarrytown, N.Y. Work on the environmental impact statement began in late October, 2011, and a signed Record of Decision (ROD) is to be delivered in August, 2012.

Proposals are being prepared by many of the largest builders in the world, but under unusual conditions—firms are being given just four months to prepare lump-sum, fixed-price bids. Moreover, the bid deadline in June is one month before the scheduled delivery of the ROD from the U.S. Federal Highway Administration's (FHWA) Albany office.

Unlike the predevelopment agreements used on a few large public-private transportation projects in Texas, TZB design-build teams will have no input into the preliminary design being done by the state. Cost-saving alternatives proposed by the TZB bidders will be considered by the state during the one-month period after price and technical proposals are submitted in June and a "best-value" selection is made in July.

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Financing has not been arranged, but will require the close and quick cooperation of the New York State Thruway Authority board, the state legislature, the U.S. Congress and others. A key piece will be an air-tight guarantee that there will be sufficient funds to cover any changes made by the government after construction starts.

Gov. Cuomo has emphatically ruled out a public-private partnership (P3) approach, the use of private equity or any life-cycle interest stemming from private maintenance of the bridge. It took 20 years to overcome public employee union opposition to design-build legislation and the unions and their supporters are even more fearful of P3s.

Nevertheless, there is a belief among some project advisors that a P3 may be the only option for financing and delivering the bridge. Based on studies done in 2008 and 2009, a funding gap of \$500 million or more is possible. Private debt-equity financing, though more expensive, may be needed to bridge the gap. Deferring some contractor payments is being considered and that in itself is a form of private financing.

Andrew Cuomo's father, former Governor Mario Cuomo, was known as "Hamlet on the Hudson" for his long deliberations on key decisions. In contrast, his son's Tappan Zee Bridge project is a bold, high-risk run

for the gold. He may not succeed but no other governor in America has put so much on the table. (Certainly not New Jersey Gov. Chris Christie, who cancelled his ARC tunnel project a year ago). And nobody in the public works financing world wants Cuomo to fail.

There are many challenges ahead:

The Right People

Cuomo's point person: Karen Rae, a transit advocate, is better known for her lobbying skills than as an administrator. She was eased out of her job as Director of the Virginia Dept. of Rail and Public Transportation, and more recently as Deputy Administrator of the Federal Railroad Administration (FRA), where she was selected in March, 2009 to run Obama's flagging high-speed rail program. To be fair, FRA had little experience in the complicated work of making grants and was given the job by Obama of delivering high-speed rail to 80% of the U.S. population in 25 years.

NYS DOT design/construction oversight: Joan MacDonald was appointed New York State DOT Commissioner in January 2011 after serving as Director of Economic and Community Development in Connecticut and having held a wide range of public policy and planning jobs in New York. Among them was a three-year stint as Director of Capital and Long-Range Planning at Metro-North Railroad in the early 1990s. Metro-North's parent, the Metropolitan Transportation Authority, dominated the early planning for the Tappan Zee replacement, advocating a commuter rail link across the bridge to Grand Central Station. To reduce costs, Cuomo has deferred building all of the transit components, including express bus service, from the current project.

NYS Thruway Authority bidding/financier/owner/operator: Thomas J. Madison was appointed acting executive director of the Thruway Authority on Sept. 19 at an annual salary of \$165,800. He has had a long political career in New York, including as former Gov. George Pataki's transportation advisor and Commissioner of the NYS DOT where he oversaw a \$7-billion budget and \$18-billion capital program. The Thruway Authority, which spends about \$200 million a year on new construction, will be the owner and principal financial backer of the new bridge.

A key player in the Thruway Authority financing will

be Howard P. Milstein, a major Cuomo campaign donor, who was appointed Chairman of the Thruway Authority Board last June. Among other things, Milstein runs Emigrant Bank, the largest privately held bank in the U.S., and is a major real estate developer/owner in New York, most recently in Niagara Falls.

Also appointed this year by Cuomo is Donald Rice Jr., a Wall Street municipal bond banker. The five other Board members, including Vice Chair Donna Luh, are holdovers from previous administrations. Among them is banker E. Virgil Conway, who headed the New York City Metropolitan Transit Authority (MTA) before being named to the Board in 2006 by Governor George Pataki.

FHWA funding/EIS lead: John McDade, Division Administrator of the Federal Highway Administration's (FHWA) office in Albany, will direct the preparation of the EIS and sign the ROD. In Washington, the White House appointed a TZB "Rapid Response Team" in November headed by FHWA Deputy Administrator Gregory Nadeau and Council on Environmental Quality chairwoman Nancy

Benefits of P3 Delivery Transportation Infrastructure

Design-bid-build works well for many projects, but there are situations in which P3s can offer outcomes not available otherwise:

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Sutley. Gloria Shepherd, who heads FHWA's office of environmental planning and right-of-way, will coordinate the permitting work being done by the many federal agencies involved in approving the TZB project.

N.Y. construction trade unions: the main beneficiaries of Obama's decision to build the TZB on an accelerated schedule are the unionized workers in the region who will get all of the jobs. It has been decided that the work will be done under a project labor agreement that sets work rules and pay scales at prevailing union wages in the region.

Finance

Financial advisor Jeffrey A. Parker & Associates was hired on Dec. 6 (beating KPMG and Public Resources Advisory Group/Mercator) to provide a plan of finance for how to fund the contract cost of the bridge and contingencies. The current engineers' estimate is based on conceptual designs done by a team of NYSDOT advisors, comprising AECOM, ARUP and Earth Tech. Thruway Authority bond counsel Winston & Strawn will play a critical role as will Stantec, which will update the TZB traffic and revenue forecasts it did in 2008. Richard J. Gobeille, National Toll/Finance manager for Jacobs, among other



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things, will advise the Authority on the TZB financing plan, which may include conversion of the Thruway's inefficient barrier system to an open-road toll collection system for capturing free-riders.

There are no funds for the TZB replacement in the state's transportation plan or the Thruway Authority's capital budget. Early funding for the fast-track procurement appears to be coming mainly from FHWA, in the form of a promised grant of \$18.6 million for the geotechnical work.

Presumably, more federal grants will be made available for the accelerated development work and the construction funding, although there is not an obvious opportunity right now for either a congress-

FHWA Guns It On TZB Enviro Permits

At a Dec. 14 public meeting in New York, John McDade, Federal Highway Division Administrator in New York, described the work being directed by President Obama's Rapid Response Team to deliver a signed Record of Decision (ROD) on the three-mile-long Hudson River bridge replacement project by August, 2012.

Among other things, that would mean conducting air quality studies this winter that are normally done in warm weather. Nevertheless, McDade says the final sign-off required to start construction will be delivered on time.

"It is a fast-track project" he says, "and we are working in parallel on the environmental process with the NEPA side as well as on the RFQ and RFP process and doing it as a united team in working on it on many levels.

"Since the notice of intent on October 12th, we began and closed the scoping. That traditionally takes three to nine months. In this case we accomplished that in less than six weeks.

"We convened a meeting of cooperating agencies and issued a cooperative agreement for those agencies to sign, to bring them all on board. That could take anywhere from three to six months, and that was accomplished in less than two weeks.

"We secured the cooperative agreement from the cooperating agencies. Again, that could take a couple of months and again, it was done within two weeks.

"We revised the prior DEIS and submitted it for preliminary review to the cooperating agencies on November 29th. Under optimum conditions, that could have taken anywhere from nine to twelve months. We accomplished that in less than three months.

"We traditionally engage agencies in earnest for permits after the record of decision, and that's an ongoing effort, has been since the cooperative agency meeting on October 24.

"We have developed an advanced geotechnical testing program. That could

have taken up to nine months. That was accomplished in less than two months.

"We have advertised and are about to award a \$3.5-million boring contract. That was done in six weeks. We've advertised and taken bids for the procurement of piles. That was done in less than six weeks.

"We have solicited and designated a financial advisor. That could take up to nine months, and that was done in six weeks as well.

"In terms of the EIS, the important milestones moving forward are: The issuance of the scoping summary report. That will be done at the end of the month. Draft Environmental Impact Statement, we're shooting for January 19th, 2012. We will be holding public hearings a month later in February. Final environmental should come in August. And we'll be publishing the Impact Statement in June, and a record of decision in early August." ■

sional or White House earmark of the size needed for TZB.

The preliminary financial plan and other work done in the past few years identified changes in Thruway finances and operations that could support as much as \$3 billion in debt from user fees in the TZB region. Raising that amount would mean at least doubling the \$5.00 TZB toll and converting the Thruway Authority's toll barriers to an all-electronic system from Route 17 east to the New York City border. Eliminating obsolete toll collectors and free riders could produce savings of up to \$50 million a year, it is estimated.

Theoretically, the Thruway Authority could issue additional debt under its General Bond resolution, according to a Winston & Strawn report in November 2009. But that doesn't seem likely. The authority is carrying \$3.16 billion in debt which is projected to grow to \$3.68 billion by 2014. Traffic on the Thruway, and the TZB in particular, has been trending down for the past three years. So getting enough Board votes to increase tolls and issue billions more debt to help fund the TZB replacement would be difficult politically, especially on Cuomo's schedule.

Disaggregating the TZB revenues, all or part, in order to fund a large part of the TZB construction cost with

Tom Warne On Political Leadership

Commentary by the former Director
of the Utah Dept. of Transportation:

"I am struck by . . . the growing rancor in our country regarding virtually every topic—including transportation. Whether healthcare, social programs or transportation the chasm that divides our citizenry is wide and seems to be growing wider. Historically, transportation projects were one area where consensus could be reached and projects advanced.

"I remember meeting years ago with the newly elected mayor of Salt Lake City, Rocky Anderson. He was surprised at the opposition to the UTA's proposed light rail extension to the University of Utah. I shared my observation with him that there is never unanimity on major transportation projects; you do your best to resolve the issues but at some point you just need to move forward. That line was built and is highly successful in spite of those who opposed it. It takes leadership among elected and appointed officials to make these projects happen: leadership has never been more important in our industry than it is today."



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debt backed by just the TZB tolls is another option. Complex legal work would be required, however, to break the system-wide toll-revenue pledge to existing Thruway bondholders. Also, refinancing the Authority's \$3.16 billion in outstanding bonds under a new General Bond Resolution and then issuing new TZB debt will take time and a lot of money.

Low-interest federal loans or tax incentives would provide a boost to a TZB user-fee financing. Toward that end, the White House recently ordered FHWA to open a new solicitation for its TIFIA loan program on Dec. 30, four months ahead of schedule. It seems probable that one goal is to quickly advance a federal direct loan or guarantee for the TZB project debt. In addition to their low interest, TIFIA loans give borrowers five years before they have to begin paying interest. Project debt must be rated investment grade to qualify for federal assistance, however.

Loans under the TIFIA program are capped at 33% of eligible project costs, which would mean about \$1.8 billion for TZB, by far TIFIA's largest. The average review time for a TIFIA loan is about two years so TIFIA's two



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loan officers would have to move faster than ever to meet Obama's directive.

An even better option is contained in a proposal by Rep. Ron Wyden (D-Ore.) to create tax-credit bonds backed by customs fees that would make available 30-year financing at 0% interest for transportation projects like TZB. If enacted, that would triple the proceeds from capitalizing TZB tolls. A possible legislative vehicle, the Surface Transportation Act, expires March 31 next year, but has no provision for tax-law changes at this point.

Gov. Cuomo is reported to be exploring ways public and private pensions funds could be induced to buy TZB debt. Pension administrators now invest in a portfolio of P3 projects around the world via private equity funds that charge substantial fees and seek returns of 12% or more. The TZB project needs low-cost debt financing, however.

NYS Comptroller Thomas DiNapoli has ruled out a direct investment from the state's Employee Retirement System. Construction trade union pensions are another potential source of funds. But Taft Hartley rules impose strict fiduciary and lending restrictions on the administrators of these funds.

Two key restrictions on trade union pension funds are: 1) investments may not be concentrated in a single asset,

especially social investments like the TZB; and 2) a utility-like structure would have to be set up to guarantee that TZB tolls are increased as required to cover debt service and inflation for 20 years or more.

NYS Thruway Authority

Much is being asked of the Thruway Authority Board and staff. Thruway tolls are among the lowest in the nation. In past years, the Thruway board's operating philosophy—and political mandate—was to minimize tolls. Its toll barriers, for example, were originally located to allow the greatest number of free miles.

The high-income commuters who are among the principal users of the TZB pay a two-way toll of \$5. The comparable toll for the George Washington Bridge (GWB), 20 miles south, is \$12. The Port Authority of New York and New Jersey, the GWB's operator, is paying a dear price for recently raising its tolls, however. After cutting staff for years, it is being roundly criticized for paying too much overtime, most of which goes to its police force. More staff cuts seem possible.

For the Thruway Authority, being starved of operating capital has meant that maintenance of Thruway assets typi-

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cally has been short-changed. This has led Authority engineers to design structures that last decades without requiring maintenance. The new TZB design, for example, calls for a structure that will not require major maintenance for 100 years, which will add substantially to its cost.

Bidding

Design-build expert, Nossaman LLP, has been hired to advise on the TBZ contract and bidding. David Capobianco, the Thruway Authority's project manager, says his group evaluated allowing design-build teams from two months to six months to develop their lump sum, fixed-price proposals.

Firms consulted said they wanted six months, he says. They'll get four. "We heard that in four months we'd get 95% of what we would get for a six-month period," he says, so qualifications are due Jan. 10, 2012, and final proposals from as many as five finalists will be due in late June. A notice to proceed is set for next August.

Two key issues for bidders—a stipend and an early completion bonus to offset high penalties for delayed completion—are undecided. At this point, an early completion bonus is not being considered, says a project consultant.

Public employee union ally, New York State Comptroller/CFO Thomas DiNapoli, must approve all state contracts, including whether and how much of a stipend will be paid to share TZB bidding costs with the unsuccessful teams. Without substantial stipends, bid options and cost-saving design innovation from the bidders will probably be limited.

One bidder says DiNapoli is considering a \$1-million stipend for unsuccessful proposers. "That's a drop in the bucket," he says, considering bidding costs for such a rushed project will be in the "tens of millions" of dollars, including expensive geotechnical studies.

NYSDOT hopes to receive the FHWA grant and award a contract in January for 68 borings and three piling demonstrations—from 60 to 400 ft deep. However, one of the bidders says the information from those samples won't be available in time to inform its bid. And none of the prospective bidders will budge "until we make sure we understand the geotechnical risk," he says.

To speed the state's foundation studies, one of the

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bidders has proposed doing the borings and pile tests itself and providing the data to the other teams.

Design work by consultants is being rushed to provide 30% of the necessary drawings to bidders as part of the RFP in February. "In terms of the bridge itself, we're looking at a range of long-span and short-span bridges," says Capobianco. "Both will have different impacts in terms of the river ecology, in terms of the number and size of foundations, the number of piers, and in terms of constructability there will be issues." In either case, extensive dredging of Hudson River sediments will be required.

Final bids are due in June but important details, such as the final alignment of the twin spans, won't be determined until the final environmental impact statement is completed in July. Important design decisions on seismic safety won't be decided until the RFP is issued in February.

Seismic Design

Except for the Verrazano Narrows Bridge, the most recently built, in 1964, none of the bridges in the New York City region are designed to resist predicted earthquake loads. The TZB is based on an economical design and was built for \$81 million in the 1950s. It is basical-

ly a steel box floating on mud. A primary rationale for replacing the bridge, besides the \$100 million spent each year to keep it safe, is to meet updated seismic design standards, which may require driving some of the foundation piles to bedrock as deep as 400 ft under water.

Concern about seismic loads and the potential cost impact on TZB was heightened by a quake last October in Virginia which shook the TZB. The unexpected quake also supported the case of anti-nuclear activists who, with Cuomo's support, have been seeking to stop the relicensing of the Indian Point nuclear power plant, which is located on the river a few miles north of the TZB.

Seismic safety is a key concern cited by the anti-nuclear activists. If the TZB design gets caught up in that political discussion, costs may quickly spiral out of control.

Bus Rapid Transit

Rail transit was a principal motivation 10 years ago for building the new TZB when the planning process was dominated by the New York City MTA. Costs spiraled to over \$34 billion, however, so Bus Rapid Transit (BRT) lanes now are the preferred transit option of politicians on both sides of the bridge.

Cost of a full BRT system to carry an estimated 50,000

commuters per day from Suffern, N.Y., across the TBZ to Port Chester, N.Y., was estimated in 2008 to be \$2.9 billion. That has been deferred for lack of funds, though enough space will be left between the two vehicular spans to build a third bridge to carry bus or rail capacity in the future.

One of the TBZ bidders based in New York is considering adding a reversible lane as a bid alternate to provide the capability for express bus service now. Accomplishing that, in addition to putting another feather in Cuomo's hat, would calm powerful transit activists who might otherwise confound the project.

Among them is Westchester County Executive Robert Astorino: "If there's not mass transit on it [TBZ], I don't know what the economic benefits are if you replace one [bridge] with another that's exactly the same. It seems to be the status quo \$6 billion later."

Perspective: The Big Dig

Mega-projects, unless they are meticulously planned and executed, pose considerable risk to the private contractors who build them; less so to the politicians whose star rises quickly at the groundbreaking. The job of delivering critical public assets at a fair price on an accelerated schedule can be accomplished using a design-build delivery approach. But to succeed, design-build requires a

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monumental shift in the culture and behavior of government design and construction bureaucracies. Besides, it is no panacea for curing the much larger issues that arise when trying to solve complicated transportation problems.

After 20 years of planning to dig a six-mile tunnel under downtown Boston, the Central Artery/Tunnel (CA/T) project was launched in 1983 by Gov. Michael Dukakis and House Speaker Tip O'Neill, who promised 90% federal funding for their \$2.3-billion project. Engineers, who had been working on the CA/T since, knew it would be substantially more than that. But nearly all big public works projects start by putting the "camel's nose in the tent" and then seeking additional public funding to finish the body of the work.

With Sen. Edward Kennedy (D-Mass) leading the successful effort to override President Reagan's veto, the surface transportation bill in 1991 gave a federal guarantee of 85% funding for CA/T from the Highway Trust Fund. The CA/T cost estimate had grown to \$5.2 billion by then, partly because of design changes required by FHWA during a three-year review before it would approve the Record of Decision. Also, no owner had been designated at that time to insist on cost controls and optimizing operability. In any case, the project moved ahead largely because of the federal guarantee.

The Big Dig contracts were awarded to low bidders whose prices were based on quantities taken from 100% design drawings supplied by the government and its engineering consultants. The government's lead agency on the project, Mass Highways, is faulted for lax oversight and for the opacity of that process. For those and a host of other reasons, costs spiraled out of control again.

In 1994, senior executives of Bechtel, one of the program managers, met secretly with Gov. William Weld and told him they expected the final cost would be \$14 billion. That estimate did not become public for nearly two years. When it did, the federal government took back its guarantee and ultimately reduced its funding share to 58%.

The Damage Done

By 2002, when construction was completed, the federal government had sent \$8.6 billion in Highway Trust Funds to Boston for the Big Dig. Cost accounting is still going on, but the final tally is expected to be over \$20 billion.

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When it was all done, at least one of the major contractors had gone bankrupt. The program management team of Parsons Brinckerhoff and Bechtel reportedly lost \$150 million profits and another \$200 million to settle disputes. A number of public officials lost their jobs. And there is a permanent rift between the western Massachusetts users of the Mass Pike who were forced to accept toll increases to fund the state's share of the overruns, and the commuters who live south of Boston and get the most benefit, but whose political pull keeps their highways free of tolls.

Many of the private sector players working on the TZB project are skeptical of the aggressive schedule adopted by President Obama and Gov. Cuomo. Gaining their confidence and getting the five design-build teams to spend what could be as much as \$100 million to prepare their fixed-price bids is the state's greatest challenge. The less the contractors spend to prepare their bids, the greater the unknowns and the higher their bids will be.

"Moving ahead on a political schedule risks the ill-will of the construction industry," says an executive of a national design-build contractor. "If they fail, all of this will be for nothing." ■

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A Roadmap For Social Infrastructure P3s in the U.S.

By Patrick J. Keogh, President, AMV LLC

Part One: It's about the process and relationships

I have been doing privately financed public sector deals for about 40 years now. About 25 million square feet of space in all. Mostly office buildings but also a fair number of labs, courthouses, archival facilities and hospitals. I worked as a public employee for many years and for the last fifteen years or so as a consultant to government agencies. Although most of my work has been with the feds I have worked with local governments as well. Almost all my work has been on the public side of the deals and almost none of it involved appropriation of development funds.

Throughout my career my work came in spurts and was associated with budget constraints. That is, as pressures grew on public budgets the incentive increased to find innovative "alternative financing" techniques; ways to finance "off budget." In the federal government these time were usually associated with wars. After World War II and the Korean War the US General Services Administration embarked on a so called "purchase contracting" program. After Vietnam it undertook a similar program and with the end of the Cold War it initiated a "lease construction" program.

Today, with the enormous pressure to limit federal capital outlays, GSA is again struggling for ways to access the private capital markets. A similar pattern occurred on the military side with housing, for example. Post war budgets pressured the military services to find ways to privatize base housing.

My sense is that similar patterns occur with local governments. Certainly in this economic cycle local governments are financially stressed and struggling to invent new tools to access capital markets without adversely affecting their financial standing. In this article I will attempt to outline the evolution of private financing options for public assets with an emphasis on the kinds of relationships that we helped governments to structure.

I am going to first discuss the guiding principles or lessons I have learned over the years in creating deals without conventional public funds. That will all sound rather ethereal even to me. But I hope to bring it down to earth by casting those principles in the context of a real deal completed for the US National Institutes of Health. I will try to detail why I think that deal may offer a guide to the kinds of processes and deal structures that may best achieve public administrators goals in this highly restricted budget environment.

For what it is worth, I think this

period of restrained public budgets will be longer and tougher than those in the post World War period.

The Process

Public agencies like boxes. They like standard processes. In the case of the feds they have a directly appropriated, design-bid-build process and they have a leasing process. One is publicly financed and owned the other is privately financed and owned. No matter the times or the economic circumstances they will do everything possible to shove the solution into one of those boxes. So, for example, if they need a million-sq-foot agency headquarters facility and cannot get the appropriated funds to design-bid-build it they will structure the acquisition as a lease.

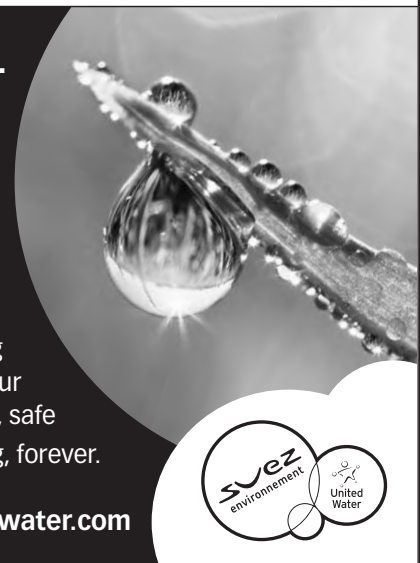
The lease solicitation for that million-ft deal is very similar to the RFP used for a lease acquisition of 10,000 square feet of existing space. Why? Because they have a design and construction organization and they have a leasing organization and the solution needs to be fit in (continued on p. 12)

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INFRASTRUCTURE ADVOCATE

MAN UP NEW JERSEY: RAISE THE GAS TAX

by William G. Reinhardt, Editor

Frederick L. Gruel, CEO of the AAA club in New Jersey is in all the papers recently spreading the word that road safety and deteriorating road conditions are his greatest concerns. But then he uses a survey of unhappy drivers (is there any other kind in New Jersey?) to assert that a gas tax increase should be the state's last resort in addressing those concerns. Those same sentiments are heard all across America.

Among the "funding" solutions Gruel says his members do support are eliminating waste, fraud and abuse, stopping diversions of Highway Trust Fund money to the general fund, and halting the use of gas tax revenues for state DOT salaries. All well and good.

But that's not really the problem. Like many states, New Jersey hasn't increased its gas tax in a long time—it's 23 years in New Jersey. Accounting for inflation, the 2.5-cent increase voted in 1988 is worth next to nothing now because it is not indexed. New Jersey is one of the wealthiest states in the U.S. and has the second lowest gas tax in the country, behind Alaska and Wyoming.

As anybody who builds and maintains roads or transit systems, this is not just a New Jersey problem. The Federal Highway Trust Fund is spending more than it takes in and Congress won't consider a gas-tax increase to keep it solvent. The federal gas tax runs about \$19 per month for the average driver. A 10-cent-per-gallon increase would

be enough to keep our national highway system in good repair, create jobs and shorten delays. That dime a gallon equals about \$4 per month.

So, the question national infrastructure experts ask is: "will America let its most important public investments crumble rather than pay \$4 per month?"

Apparently yes. The last federal gas tax increase was in 1993 and that was a nickel, which is worth about 2 cents today, after inflation.

So, have AAA's members in New Jersey really felt overcharged since 1988? Or is Mr. Gruel positioning his politically powerful organization for the coming battle over how to save the state's bankrupt Highway Trust Fund.

Toward that end, AAA seems to have convinced its members that they are being unfairly taxed and should not have to pay more than they did in 1988 to use the public highways in New Jersey.

Well, if AAA and its many legislative allies win again:

1. The roads will deteriorate, delays will increase and the can will have been kicked down the road again, into our children's laps—every \$1 spent in keeping a

good road good precludes spending \$6-\$14 to rebuild one that has deteriorated.

2. Or some other source of money besides highway user fees will be used to shore up the Highway Trust Fund. Property taxes? Sales taxes? Millionaires? Tolling free roads (we're not building any new ones)?

New Jersey already ranks 48th in the Tax Foundation's State Business Tax Climate Index. Taxing salaries and wages or whatever to pay for repairing roads would put New Jersey at the dismal bottom of that list.

In the 1950s, our parents/grandparents worked hard, saved and built New Jersey's infrastructure, including the 14 different Interstate Highways that take us to our jobs. That generation agreed to double the New Jersey gas tax between 1954 and 1972 to help build those roads. It's our job to maintain, repair and rehabilitate them and that takes real money—and grownups to make the right choices today. ■

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one of those boxes. You know the old saying; if the only tool you have is a hammer then every problem is a nail. In either case, acquiring a lease for existing space or doing a large build-to-suit, the developer role or the role of coordinating all development planning and overall management is filled by a government employee.

That model is not working and will not work in this economic environment. Every book on management or leadership is fundamentally the same whether it's by Jack Welch or Sun Tzu or about Steve Jobs. Chapter One says "pick the best professionals." Chapter Two says "create incentives compatible with yours" and Chapter Three says "stay flexible." The rest of the chapters mainly describe creative ways to "stay out of the way." That is about as far away from a public development paradigm as you can get. But, I think, it should guide to the formula for getting deals done in the new economic environment being experienced by government development officials.

Partner Out the Developer Role

Government is not a good developer. The nature of a private developer is fundamentally different than that of a public

developer. Private developers do things in parallel; they are the essence of multi-tasking. They rely on business judgment and depend on strong professional relationships. Trust, credibility, reliability are important values. They develop to create value and spend their and others money sparingly. Private developers play on offense.

Public developers are about serial processes. They approach things from the standpoint of procedures and policies. Public developers are about requirements, appearances and rigid standards of accountability. In the public process, development participants are selected on the basis of competitive processes driven by comparative costs. Public developers are all about defense.

This new economic environment will require the private developers' kind of skills and approach. That said, the public's role is equally important. The private developer should lead the development process, but the process must be overseen by the public partner. In effect, a private developer should proceed using a market-based approach but subject to public values.

The process must comport to all the dri-

ving public values like competition, openness, fairness, and accountability. The private developer does the rowing and steering and the public sector charts the course.

In selecting the developer partner we believe a Request for Qualification (RFQ) form of solicitation is best. An RFQ focuses on the experience of the prospective developers. An RFQ is targeted at "who" should be the public's developer partner.

The partners will then work together to figure out the "what" and "how" that will form the business of the development partnership.

Let the Developer Lead in Organizing the Development Team

Once selected, the developer partner should lead the process of assembling the development team. That may mean a land planner, architect, contractor, commercial broker and an array of specialty consultants; all the roles and skills required, depending on the project. The developer typically leads the procurement processes and recommends selections subject to the approval of the public partner.

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Align Incentives

Notice I have not mentioned money? That's because there should be none or little until we know we have a doable deal. That means all the parties are selected and work, at least initially, on the come. The private team members have an incentive to help create a workable deal so they can earn their role in the deal and the fees associated with those roles. That way, the incentives of all private participants are aligned with their public partner.

In private deals developers and owners try to commit as little money as possible until they know a deal will work and create the value necessary to recover their capital with a reasonable return on their investment. This is a trait public officials need to embrace. Too often public officials measure their commitment to the success of a project by the amount of the public's money they are willing to spend.

Government Should Never Directly Hire Consultants, Appraisers

Governments always seem to be hiring consultants, appraisers and the like to study various aspects of a proposed development deal. Often this work and cost is undertaken to validate a preconceived perspective. In the private development process you rarely see consultants hired for this purpose. Rather, practitioners are engaged and brought into deals to be paid out of the successful deal. Take, for example, financial advisors.

Governments frequently engage financial analysts to estimate and model various deal structures to test and validate various approaches to developing and financing a deal. Feasibility studies are a favorite objective in government's pursuit of a development. Private developers invite bankers to participate on their team to do the necessary analyses in formulat-

ing the transaction with the understanding that, if the deal proceeds, they will get the opportunity to structure and place the financing and earn the fees associated with that work and paid for from the financing. They work at risk with their incentives aligned with the other team members incentives.

It's About the Process and the Relationships

In the end, the public-private partnering process is about forming relationships with the best partners to prepare and execute the business plan formulated by the team. Government wants to believe and is conditioned to see agreements in terms of contracts replete with specific consideration and penalty terms. Any deal must be founded on well documented agreements. But public-private partnering agreements are about the process, communication and interaction leading to the agreement. Conventional government contracting is mostly based on standard terms prescribed at the outset of the procurement. Government contracting is about "procurements," "avoiding protests" and "creating level playing fields." Sometimes it seems as though all public development officials build only one thing: a level playing field. Much so-called public-private partnering is in name only. The government still prescribes the "what," the "how," and the "who." Government does the prescribing and the private "partner" does the listening. That is not the way partnerships work in the business world. For a partnership to work parties must listen to each other and work to accomplish each participants objectives.



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Forget the Boxes

Most public development is undertaken pursuant to existing authorities' boxes. Agencies have leasing or building authorities and they engage private contractors through various procurement methods. So, for example, GSA's Public Buildings Service has leasing and construction authorities and receives appropriated funds to pay for the various activities necessary to construct and lease buildings. The time has come to do things differently. Instead of tailoring methods to the existing authorities we should start working with the private development community to first create unique, value-based solutions. Once created we should seek the kind of special authority necessary to implement the ideal solution. Isn't that the way governments design other solutions like complex information technology systems?

Enough with principles. Time to bring this down to earth in the form of a new home for NIH's Institute of Drug Abuse and Institute of Aging, the Bayview facility, in east Baltimore, Maryland. Next month in PWF. ■

LA Metro's Bold Vision for P3s

A Discussion with Mike Schneider

The political support of California's Congressional delegation and the cumulative commitment of significant local financial support through sales taxes for transportation improvements in the Los Angeles region, gives rise to plans being considered by Los Angeles County Metropolitan Transportation Authority (Metro) to sponsor what would be among the most ambitious P3 programs in the U.S.

So says Michael Schneider this month. As managing partner at InfraConsult LLC, he is lead advisor to Metro on its P3 program. Also involved since 2009 as members of InfraConsult's advisory team are Halcrow, Inc., Nossaman LLP, Sharon Greene + Associates, KPMG LLP, and Englander Associates.

Under the newly established P3 Program at Metro, highway/toll road/managed-lane programs and public transportation improvements are being actively considered as potential public-private partnerships in those cases where doing so results in specific benefits in project acceleration, financial leverage and risk sharing between the sectors. Spurring such an impressive program was the passage of Measure "R" in the November 2008 election, which added an additional one-half cent sales tax in LA County and which will raise some \$35 billion to \$40 billion before it sunsets in 2038. This measure required a two-thirds majority to become law, and to the amazement of many it passed with 68% of the vote as the recession was taking hold.

According to Schneider, the InfraConsult team assessed over 80

highway and transit projects named specifically in Metro's long-range transportation plan and in the Measure R program. As the advisory team completes comprehensive Business Plans for Metro's public transit expansion program, it is apparent that several of the individual transit projects will likely be delivered using a design-build model – a major change from Metro's traditional approach of utilizing design-bid-build as a delivery mechanism.

Unlike Denver's Eagle P3 Program, says Schneider, "most of LA's transit projects are extensions of existing lines and/or interconnections among portions of the current rail system, rather than new lines with independent utility." After extensive review and analysis, it was determined that neither DBOM nor DBFOM models would provide significant value, owing largely to (1) difficulty in interfacing public and private operations and maintenance on existing transit lines; (2) shifting sufficient beneficial risk from the public to the private sector for rail tunnels in extremely difficult and unpredictable geology; and (3) transferring legacy operations to private operators in a strongly unionized state and county.

Without the ability to embed life-cycle elements with design and construction, and since the projects are well funded through federal and local sources, the appropriate solution for the transit extensions is to utilize a design-build approach.

PWF: Los Angeles Mayor Antonio Villaraigosa recently proposed bonding the city's entire

share of the Measure R sales tax to accelerate \$800 million in road repairs before he leaves office in 2013. How does that affect the regional programs you've been working on with LA Metro?

MS: Actually, Measure "R" has a very specific allocation of funds spelled out. The transit projects—about 65% of the \$35+ billion—are specifically cited with an allocation of proceeds. On the non-transit side, there are both specific project allocations (e.g., \$1 billion for the SR 710 North gap closure project), and also allocations to sub-regions throughout LA County that can be utilized once the sub-regions set project priorities. The Mayor has proposed to bond all or a portion of the City's more than \$2-billion allocation for the so-called "Road Works" program, or—perhaps more catching—"slurry in a hurry." So doing would have little, if any, impact on the major regional projects in the Measure R program.

PWF: Senator Boxer has included LA Metro's America Fast Forward proposal in her transportation reauthorization bill. That would direct a lot of TIFIA loans to LA, which is causing concern among other applicants. Your reaction?

MS: That's correct; Senator Boxer and others in the Southern California Congressional Delegation have been highly supportive of the City and County programs requiring complementary federal support. The Crenshaw/LAX LRT project received a TIFIA award of over \$500 million, which was a very welcome addition to the

Crenshaw/LAX financing plan. Should other projects in Southern California receive TIFIA awards or other federal money (e.g. “New Starts,” slated for application to the Westside Subway Extension and Regional Connector projects), that will be solely a result of the effectiveness of the projects in the region—both transit and highway—with respect to promoting reduced congestion and improved “livability.”

PWF: What is the status of the highway projects?

MS: Industry “soundings” and initial procurement activities could be conducted in 2012 for two tollway projects to be built within the Long Beach Freeway Corridor (I-710/SR-710) totaling over \$10 billion. These are likely to be delivered utilizing either an Availability Payment (AP) model, or as toll concessions under predevelopment agreements (PDAs) that would put potential contractors at no major financial risk. Environmental studies are currently underway for the Interstate 710 Freight Corridor between the Ports of Los Angeles/Long Beach and the freight distribution yards some 20 miles north, and the State Route 710 “Gap Closure” project which would complete one of the remaining missing links in the LA County freeway system. The Freight Corridor is nearing completion of environmental clearance work, and the Gap Closure Project is currently in process.

Two other key projects are also under consideration. These include the High Desert Corridor in north-eastern LA County—a greenfield project responding to current and future growth in the region—and the Sepulveda Pass project, envisioned to add significant new highway and transit capacity in one of the most heavily traversed links in

the country. I think there’s a strong likelihood the Metro board will endorse all four of these initial high-way/tollway projects to move forward as P3s. The InfraConsult Team is finalizing our recommendations in the next several months as to whether these projects would most effectively utilize an availability-payment based model where toll revenue alone is insufficient without additional funding sources; potential toll revenue concessions where the revenue is likely to be robust enough to actually do a revenue-risk-based toll concession; or a hybrid approach.

PWF: Will the I-710 gap project be a tunnel?

MS: As I indicated, environmental work is ongoing as on the I-710 Freight Corridor, SR-710 Gap Closure, and High Desert Corridor. Thus, the final physical location, alignment, cross-sections, and operational schemes for these initial highway projects have yet to be confirmed by Metro’s Board as the so-called locally-preferred alternative. And while the Gap Closure project may make great sense as a tunnel under existing development in the Pasadena sector of LA County, we cannot say with certainty at this point what the project’s physical characteristics will entail.



PWF: Do you plan to put contractors at risk during the development period?

MS: Metro has budgetary commitments from Measure R on these four transit highways projects, as well as the transit projects. In particular, a billion dollars allocated for the Sepulveda Pass Project in the “out years” of the Measure; a billion dollars is allocated for the Gap Closure; and funds all allocated to the I-710 Freight Corridor and High Desert Corridor as well. Is it enough “seed money” to do P3 procurements, develop the contractual materials, conduct advanced engineering and environmental work? Yes. So the concept of a PDA is not because Metro has insufficient money to do the predevelopmental work, but because it could be highly beneficial to project acceleration to have a contractor be involved early-on, so that

we don't waste time in redoing environmental work that becomes a function of the chosen contractor's construction methodology.

PWF: What are the plans for the 710 truck bypass?

MS: The south part of the 710, which connects the Ports of LA and Long Beach to Route 60 and then east to the rail yards, is jammed with container traffic at all parts of the typical day. It's been an air quality and quality-of-life issue for a very long time. The concept on this facility is to create a truck-toll bypass program, which will get the trucks off the mainline freeway.

Now, can we retroactively say "no trucks"? No, but tolling policy may be able to do that for us, so we are designing a series of viaducts that will parallel the freeway, two lanes in each direction, that will initially be required for truck use, and trucks will pay a toll for the convenience and significant time saving.. The tolling regime may entail a reduced toll for trucks that reach certain air quality standards through lowered or eliminated emissions. We're working with Volvo and a couple of other manufacturers to perhaps get to zero toll if it's a totally zero-emission truck, so it serves a social good.

PWF: So, do you put a shadow toll on those zero-emission trucks?

MS: Quite likely. Thus, the freight corridor project would be an availability payment program because even if all of the trucks using it paid a full toll, there's not enough traffic and revenue to offset the costs of building these viaducts. The truck tolls will probably cover a good half, maybe as much as 70%, according to our modelers, of the cost of that piece of the project. Metro has a positive

financial commitment through Measure R, and there's some confidence that trade corridor programs might be a relatively easy "ask" in Congress. These sources together bring us close to a completed project.

PWF: Who's in favor of doing this?

MS: The port understands this has to be done, and the truckers, if they can save an hour, are supportive. Certainly the community is supportive because that freeway not only is crowded, it's a little scary.

Of course, ATA (American Truckers Association) might oppose it, but they understand why, and the truck toll may be in lieu of container fees.

PWF: Will Caltrans regulate the tolls?

MS: It is unlikely that Caltrans will be involved in setting toll rates. Caltrans is not involved in the tolling regime for the SR 91, SR 125, or the TCA tolls roads (Foothill, Eastern and San Joaquin toll roads). Since it is doubtful there will be any state money in the Metro Measure R highway projects (and even more unlikely that there will be any capital funding!), it's much more realistic to assume that where there is a public/governmental entity involved in setting toll rates and other operational policies, it will be LA Metro or an entity of its creation. Of course, for projects that may be delivered as toll concessions rather than availability payment programs, the public sector may have even less (if any) role in toll policy.

PWF: These projects would employ all-electronic, open-road toll collection systems?

MS: Yes, I think there's just no point in thinking otherwise.

PWF: Next is the High Desert Corridor?

MS: Metro and the High Desert Corridor Joint Powers Authority (HDCJPA) do not have a specific timeline yet, as environmental work will be continuing for some time. The HDC is a greenfield project that has no money pledged toward its development (other than environmental work) at this time. It's in the growth corridor toward the northeast and a potential highway and freight bypass around the LA Basin. Conversation is ongoing about a potential tie-in with Desert Express High Speed Rail Project, as a means of getting people to the desert town of Victorville which is currently planned to be the Desert Express's western terminus. Measure R has \$33 million set aside for the HDC project. The project cost is about \$3.3 billion, and tolls probably can pay for 50%-70% of the CapEx. Of course, it would be a "ramp-up" situation for traffic as it is a development-oriented project.

PWF: Status of the Sepulveda Pass toll road/transit tunnel?

MS: Sepulveda Pass is a project begging to be done—and it's been begging for decades! It connects the west side of LA and LAX to the San Fernando Valley, a corridor with insatiable demand. The corridor hosts unbelievable congestion on I-405—among the very worst in the country. People have been talking about transit along that corridor for my lifetime. But it's exceptionally expensive, with steep grades making it difficult for conventional rail transit to operate along the natural grades. It begs for a tunnel solution, but this has always been a very long reach owing to the cost of a transit tunnel and its cost-effectiveness.



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Some folks might pay a day's wages on Friday afternoons, simply to bypass Interstate-405 crossing the Santa Monica Mountains.

[PWF: A similar project was completed in Paris last January under a 70-yr concession to finance, build and operate 33-ft-dia, 6-mile-long double-deck tunnel for light vehicles running north south between Rueil-Malmaison and Versailles, completing the A86 orbital highway there. The project company is 83% owned by Vinci and 17% by Colas (Bouygues).]

PWF: Will Metro do this as a concession?

MS: Once Metro completes feasibility studies by mid-2012, this project could entice a major P3 consortium. The project, probably with a capital cost over \$10 billion, would likely need at least a couple of international contractors, a significant equity source, and a large "club" of lenders. Furthermore, it will require a highway and toll road contractor, provider of back-end operations, a transit-system provider and vehicle manufacturer, and an operator for both the rail system and the toll facilities.

It's a visionary undertaking that everybody loves—so far.

Meanwhile, Metro is going through a study of other, cheaper alternatives, for about six months, because we do have \$1 billion allo-

cated to that corridor in the third decade of Measure R. That \$1 billion is not going to go a long way to build four or five toll lanes and a tunnel combined with a high-capacity transit system. I think that premium fares on this kind of transit line and hefty tolls will generate significant revenue—perhaps enough to do a \$12 billion project.

PWF: Do these projects depend on a TIFIA loan?

MS: Clearly, TIFIA support in whatever form would be highly useful. We'll have to see whether "livability and sustainability" continue as the principal criteria for issuing TIFIA loans, which makes it difficult of late for highway projects to stack up well against transit projects—but this is a unique multi-modal program that could generate much federal interest as a result of a potential public-private partnership.

PWF: What about the fiscal situation in California? Is there any appetite in Sacramento for appropriation risk under availability type contracts?

MS: Appetite—yes; financial resources—no. Caltrans is evolving into a project-pipeline sponsor and a maintainer-operator. The new highways that are being built in California are only being built in the 20 counties that have local sales tax programs. There is no Caltrans money in any of this, except in a few cases for maintaining and operating facilities on the State Highway System. These are Metro projects. It's Metro money—these are Measure R projects. They are not solely Caltrans projects. There will undoubtedly be cooperative agreements with Caltrans, of course, particularly the highway projects.

PWF: If Obama is not reelected, what does that mean for LA and these projects?

MS: Can anyone judge political outcomes these days? I haven't heard much in the debates or primary discussions among Republicans about infrastructure in general, or transportation in specific. I think our industry is hopeful that whoever is elected, and whichever party comes to retain or acquire power in Congress, reason will prevail and compromises will be reached which focus on the dual impacts of infrastructure investment: The ability to engage in productive commerce and the ability for significant job creation.

PWF: What about Metro staff? Are they with you?

MS: Metro is the innovator and sponsor of this programmatic approach to bringing P3s into the normal lexicon of project delivery for both highway and transit projects. Kathleen Sanchez, manager of the P3 program, and Roger Moliere, executive in charge of real estate and project finance, are strongly tied to the assessment and ultimate utilization of alternative methods of project delivery, and I work for them.

Doug Failing and Krishniah Murthy, executives in charge of the highway and transit programs for Metro, respectively, both clearly understand and support the appropriate use of P3s for project delivery and long-term operations and maintenance. Of course, the belief is shared generally by all that public-private partnerships are not a panacea for transportation project funding and financing, and that's precisely why Metro has taken a leadership position in "embedding" P3s as one of a series of project delivery methods to be assessed as a potential opportunity for all projects going forward. ■



Transportation Policy Review

Benefits of Revenue-Risk Concessions

by Robert W. Poole Jr.

My column last month on the limitations of availability-payment concessions generated a lot of feedback. One reader pointed out that in addition to Spain and Portugal having second thoughts on the large amount of government debt inherent in this model, the UK government now plans a major rethink of its availability-pay Private Finance Initiative (PFI), due to similar concerns. In late November, the UK Treasury announced that it will explore the use of toll-based concessions, and that it hopes to get UK pension funds involved as investors.

By far the most interesting feedback came from Nicolas Rubio, head of Cintra's operations in the United States. He pointed to additional benefits from concession agreements under which the concessionaire bears traffic and revenue risk. My column had cited three principal benefits of true toll concessions: generating net new transportation revenue (from tolls), fostering better project selection (the projects must pencil out as business ventures), and the transfer of traffic and revenue risk—inherent in greenfield toll projects—from the public to investors.

All true, said Rubio, but from his experience doing revenue-risk concession projects, there are several additional benefits. These all stem from a better alignment of interests when using this model—and the economic benefits that result. I'm going to quote some of his discussion, rather than paraphrasing it.

First is what he calls “the most economically efficient project configuration” from the standpoint of maximizing customer usage and hence revenue. In a revenue-risk concession, “The private partner will carefully review the project configuration to ensure that every single potential user has an easier access to the toll road. In our projects, it is not unusual to find connectivity improvements (ramp configuration in interchanges, new ramps, etc.) involving higher initial investments that are justified because they bring much higher revenue increases. As a result, the final project will better serve its congestion relieving purpose.”

A related difference is in signage and marketing. “A revenue-risk developer has an interest in the new project being properly advertised through road signage that ensures that every potential user gets to know of the existence of the new road, the options he has to use it, and the benefits that would derive. Equally important, the developer has an interest in properly marketing the new road to potential users, to invest in the sale and distribution of electronic toll collection devices, etc.”

Rubio's third point is what he calls a “better-oriented procurement process,” but which I would term a stronger focus on value engineering to deliver more bang for the buck. “Most actual projects have economic feasibility issues. . . . Developers [under a revenue-risk model] will focus all

their efforts at finding solutions to improve the feasibility of economically unfeasible projects. For example, the NTE and LBJ projects in Texas were not feasible projects within the range TxDOT was expecting. It was only as a result of a long and hard-working industry review process when initiatives on project configuration, contract term, toll-setting mechanism, etc. could be combined to make feasible a project that originally was not feasible.” In the case of the LBJ project, one of the key value-engineering breakthroughs was replacing TxDOT's proposed location of the new express lanes in a tunnel beneath the freeway with a different configuration, putting the new lanes in a center-located trench and rebuilding the general-purpose lanes cantilevered over them.

The revenue-risk concession model led to similarly impressive value engineering by the Fluor/Transurban team on the Capital Beltway HOT lanes project in northern Virginia. In this case, the unfeasible design concept that VDOT had been unable to fund was a \$3-billion project to add HOV lanes to the most-congested portion of the Beltway. Because that would significantly widen the right of way, there was huge political opposition to the plan due to the need to condemn and demolish some 300 homes and businesses along the corridor. The value engineering was intended to make the project fundable by toll revenue from the lanes being operated as HOT instead of HOV. It involved

numerous design changes, including the elimination of concrete barriers separating the HOT lanes from the GP lanes, reduced breakdown-lane widths, etc., mostly aimed at eliminating nearly all of the property takes (hence reducing both political opposition and cost). VDOT ended up accepting most of these changes and design exceptions, but required more bridge reconstruction and other things that increased the original \$1-billion toll-concession project to \$1.9 billion, with VDOT then contributing \$409 million.

The key lesson from both the Texas and Virginia examples is that it makes a big difference when the

developer/operator is actually in the business of selling improved mobility (faster and more reliable trips) to paying customers. In a hybrid toll/availability-pay concession, setting toll rates and billing customers is not the concessionaire's job. Its focus is on building, operating, and maintaining the toll road or toll lanes, to the satisfaction of its sole customer, the state DOT. That is an improvement over standard highway procurement in many ways, to be sure. Construction risk and completion risk do get transferred to the concessionaire, and the long-term nature of the concession agreement incentivizes the concessionaire to build the project to minimize life-cycle costs,

not initial costs (as traditional procurement does).

There will continue to be a role for availability-pay and hybrid availability/toll concessions. But in my view, we will get more real value for highway infrastructure by putting the main emphasis on revenue-risk concessions. Transforming highways into genuine customer-serving businesses will generate more innovation and greater economic value than any other model.

Robert Poole, Jr. is the director of transportation studies at the Reason Foundation.



■ Ontario Eyes P3 For Crosstown LRT

An Ontario government agency is considering a P3 for a light-rail transit (LRT) line in Toronto. Metrolinx, the provincial transit authority for Toronto and the surrounding areas, is looking at a P3 for what was previously a public-sector project, the 25-km Crosstown line. It's also known as the Eglinton line for Eglinton Avenue, the main east-west artery it will run under.

The project was not originally to be buried, except for the 11-km central section, but in a deal in March with the new Toronto mayor, who doesn't like surface transit, Metrolinx agreed to bury the line and link it with another project, approximately doubling the cost.

The restructured project led Metrolinx to reconsider the funding options. There is no timeline for a decision, but the agency is targeting 2020 for opening the Crosstown. It is working with Infrastructure Ontario, the provincial P3 agency, on developing a plan.

In the March deal, the province reallocated money to the Crosstown project from money that had been dedicated to a series of LRTs. Some of these surface projects were cancelled and one, the Sheppard line, was left for the

city to undertake alone as a Cdn \$4.7-billion P3 subway. That project was supposed to bring a financial proposal to city council in December, but that has been put over to February 2012.

Metrolinx had already awarded a vehicle contract to Bombardier for the Crosstown line before the restructuring so, if it is a P3, vehicles will not be part of the deal. There is also political speculation that the Crosstown will not be completely buried because of the cost and the engineering trouble tunneling under the Don River, which runs in a ravine.

Toronto Mayor Rob Ford insisted on running the line underground, but he also needs billions for his Sheppard subway project. In the March deal, the province agreed to give any money left over from the Crosstown to the Sheppard project, so Ford has incentive to agree to cost-saving changes in the Crosstown.

■ Sudbury Sewage Will Be P3

The northern Ontario city of Sudbury is going to use a P3 structure to build a Cdn \$44-million biosolids management plant. The federal government is going to contribute up to Cdn \$11 million for the DBFOM through the P3 Canada Fund administered by PPP Canada, a federal agency.

There is no timeline for the project, but the city currently dumps its sewage sludge in a mine tailings pond, and the pond will close at the end of 2012.

PPP Canada has funded seven projects from its Cdn \$1.2 billion capital; of those, three are wastewater projects.

■ Alberta Shortlists Three for Schools

The Alberta government has shortlisted three groups for its third round of P3 schools, a project involving 13 schools in eight widely dispersed communities. The schools in the earlier deals were not only more geographically concentrated, but also had less variation in the grade structure; in the second deal, all but one of the schools served kindergarten to Grade 9, and those schools were all about the same size.

In the current deal, there are seven different grade ranges to be served. As a result, the government is hoping for a savings of about 10% over a traditional procurement, compared with savings of about 16% and 30% in the first two deals.

■ P3 For Regina Stadium

The city of Regina, Saskatchewan has voted to adopt a P3 model for a new stadium that could cost up to Cdn \$450 million. Council approved the DBFOM plan in December after doing a market sounding with P3 companies. Nineteen responded, and most liked the idea of a concession model, a report to council said.

The next step is to determine whether the stadium will be open-air or have a retractable roof. Regina, located north of the North Dakota-Montana border, is home to the Saskatchewan Roughriders Canadian Football League team. The current open-air stadium has been operating since the 1930s.

... Latin American News

■ Mexico Awards Road Maintenance P3

A south-central state government in Mexico has awarded its first highway improvement and maintenance PPP package to the company Promotora y Desarrolladora de Mexico S.A. The deal covers 31 major highways and 39 urban roads and public lighting that serve over 80% of all vehicles in Mexico State.

Under the 20-year, Pesos 9.92-billion (US\$700 million) deal, the contractor will receive annual fees of Pesos 498 million (US\$35 million), indexed to local inflation. Mexico City's Periferico Oriente and Poniente beltways and other principal arteries in Toluca and Ecatepec are part of the concession.

■ OHL Secures Loans For Mexican Deals

The Mexican subsidiary of Spain's OHL Concesiones has

reached financial close on two concessions. One is a 5.5-km extension of Avenida Los Poetas that leads to the southern section of Mexico City's beltway. The second is the 9-km-long Urbana Norte highway, under the capital's Chapultepec Park. Financing of both deals includes Pesos 11.4 billion (US\$800 million) of debt and undisclosed equity.

For the Avenida Los Poetas project, OHL Mexico, S.A. and its local equal partner Copri secured Pesos 4 billion (US\$280 million) from a team of banks led by the state's Fondo Nacional de Infraestructuras. Banks in the syndicate also include Banco Nacional de Obras and Banco Mercantil del Norte. The concessionaire Controladora Via Rápida Poetas began work on the Pesos 5.5-billion (US\$385 million) highway in 2010 aiming for completion in 2012.

Separately, OHL Mexico by itself raised Pesos 7.4 billion (US\$520 million) of debt in two tranches for its Urbana Norte highway. Bancomer, the local unit of BBVA, Fonadin and Banobras provided Pesos 5.3 billion (US\$370 million) in senior debt and a Pesos 2.1-billion (US\$150 million) subordinated loan. The partially complete project links with OHL's Viaducto Elevado Bicentenario and includes a viaduct and 1.5-km tunnel under Chapultepec Park,

■ Chile Steps Up Procurement

Chile's Ministry of Public Works has received from Spain's Sacyr Concesiones the highest offer for a retendered design, build, finance and operate contract to upgrade the 187-km road between La Serena and Vallenar, in the north. The government is also rolling out other projects, including a hospital.

Sacyr Concesiones will invest Euro 325 million (US\$425 million) in the concession that will terminate when accumulated revenues reach an agreed value, but in no longer than 35 years. A previous procurement was cancelled when the winner failed to secure financing. Other bidders this time were a local unit of Spain's ACS Concesiones, OHL Concesiones, and Chile's Besalco.

The ministry's concessions director, Emilio Pellegrinis, says a US\$3.5-billion procurement plan lasting to 2013 will contain the long-awaited US\$1.2-billion Vespucio Oriente road tunnel that will complete the Santiago beltway. Ten hospital deals will be launched, together worth some US\$2 billion.

■ New Colombia Concessions Agency

The Colombian government will this January transfer

responsibility for highway, railway and port projects to the newly created National Infrastructure Agency (ANI) replacing the concessions authority INCO. The new agency plans to start business in mid-2012 by procuring five toll highway concessions valued at US\$8 billion to US\$10 billion that include some 5,000-km of highway. Concessionaires will take traffic risk, although ANI says it might provide some minimum guarantee mechanism.

Led by the current head of INCO, Luis Fernando Andrade, ANI will include road engineering, financial, tenders structuring and contract management departments. A US\$3-billion PPP rail deal to move inland coal to the Caribbean coast is in ANI's project pipeline.

■ Rio de Janeiro Wastewater Concession Winner Named

A wastewater concession covering some 1.7 million people in Rio de Janeiro city, Brazil, was been awarded to a consortium equally owned by Aguas do Brasil and Foz de Brasil. The team offered the winning upfront fee of Reais 64.2 million (US\$35 million) for the 25-year contract, which is Rio de Janeiro state's first of its kind. The offer beat one other from the private sector, while the municipality's own operator, Nova Cedae, was not invited to bid.

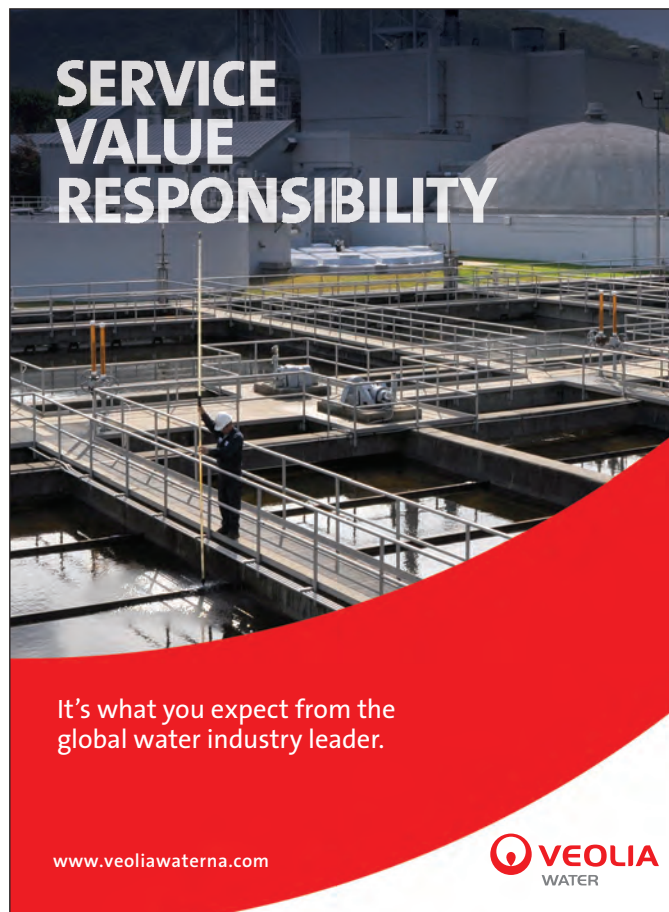
The winning consortium will invest Reais 2.9 billion (US\$1.6 billion) in expanding the sewage network by a factor of four with 19 treatment plants and 221 pumping stations covering 19 of the city's poorest districts. The expanded system will raise wastewater collection coverage from 10% now to 40% in 2016 and 90% by 2020. Aguas do Brasil is controlled by Queiroz Galvao Participacoes, S.A. Foz de Brasil is 74.5% owned by Odebrecht Group.

. . . European News

■ Greeks Optimistic On Motorway P3s

The depth of the Greek economic crisis is visible around the country not least at the idle construction sites along major toll motorway routes being upgraded under five privately financed concessions. The concessions are worth nearly US\$10 billion and are backed by loans from over 40 local and international banks. While solutions to the country's debt troubles remain elusive, prospects for restarting work on the motorways appear reasonably good.

"Negotiations are moving forward constructively," says a senior official with the government's Hellenic Republic Asset Development Fund. Created last July to manage the state's huge privatization program, the fund



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controls the new company, Hellenic Motorways S.A.. The motorway company holds government interests in the five concessions and also in the Rion-Antirion bridge. The official believes a deal with the concessionaires could be struck in the first quarter of 2012, after which agreement with the banks will be sought.

A lawyer for one of the concessionaires agrees that construction could start again around the middle of the year. "I believe the Greek state realizes it does not have much of a bargaining position," he says, asking not to be named. The government "also realizes that if the projects do not take off, they will create serious problems not only for the local contractors but also for the local banks that are exposed to the projects," he adds.

The 30-year concessions, mostly ratified by the end of 2007, cover upgrading of long sections of key national corridors. They also include operations of both the upgraded sections and other sections, financed with toll revenues, largely at the concessionaires' risk.

The projects are:

Maliakos-Kleidi: A 230-km section of the Athens-Thessaloniki motorway under a Euro 1.1-billion (US\$1.4 billion) concession with Aegean Motorway S.A.

(Hochtief 35%, Aktor 20%, J&P-Avax 16.25%, Vinci 13.75%, Aegek 10%, Athena 5%).

Antirrio-Ioannina Motorway: In various sections totalling 379.5 km in western Greece, calling for Euro 1.1 billion (US\$1.4 billion) in investment with Nea Odos S.A. (GEK TERNA 33.33%, Cintra 33.34%, ACS 33.33%).

Central Greece Motorway: Concession covers 232 km of road with an investment value of around Euro 1.5 billion (US\$2 billion) by Kentriki Odos S.A. (GEK TERNA 33.33%, Cintra 33.34%, ACS 33.33%).

Elefsina-Korinthos-Patra-Pyrgos-Kalamata Motorway: Valued at around Euro 2.2 billion (US\$2.9 billion) covering 366 km of highway under a concession with Olympia Odos S.A. (Vinci 29.9%, Hochtief 17%, J&P-AVAX 17%, Aktor 17%, GEK TERNA 17%, Athena 2.1%).

Korinthos-Tripoli-Kalamata Motorway: Total length of 205 km calling for investment of about Euro 1 billion (US\$1.3 billion) by Moreas S.A. (Aktor 71.67%, J&P-AVAX 15%, Intracom 13.33%).

Work ground to a halt in 2009 as toll revenues failed to cover debt service costs and the banks closed their coffers. Over the last two years, toll revenues have fallen by around 15% along the intercity motorway network, estimates the official. Since around October 2011, the government and the concessionaires have been negotiating how to restructure the projects to allow banks once again to release funds.

So far the government has performed well on the concessions, at least in terms of providing all the construction subsidies that were part of the agreements, says the lawyer from one of the consortiums. But the government's handling of land expropriation and dealings with archaeological finds have been open to criticism he adds.

■ Spanish Concessions In Cash Crisis

Spain's incoming Conservative government must decide quickly whether to release rescue funds for toll road operators struggling with slumping revenues, as one concessionaire defaults on its loan and another faces refinancing problems. The outgoing Socialist government had set aside Euro 80 million (US\$105 million) to help concessionaires with underperforming toll roads.

Among the first in need of government help is Autopista de la Costa Cálida, S.A. (Aucosta), which has a 98-km toll road between Cartagena and Vera. The compa-

ny this month failed to make an interest payment on a Euro 550-million (US\$715 million) loan from a syndicate of over 30 banks, including Royal Bank of Scotland, ING, BNP Paribas, Santander and Banesto. The loan is due to mature in December 2012.

Aucosta, which is 35%-owned by Global Via Infraestructuras, believes it is owed Euro 8 million (US\$10.5 million) from the rescue fund. Average daily traffic on its highway, at 1,949 vehicles, was 7% below the figure for 2010 and reportedly 75% below forecast.

Ferrovial, meanwhile, aims for a more ambitious deal with the new government to refinance a Euro 554-million (US\$720 million) bank loan due for repayment this January on its 97-km R-4 Madrid radial toll road. Ferrovial, a 55%-owner of the concession, already has had two six-month extensions of its debt since early 2011.

Ferrovial now seeks not only support from the government's rescue fund but also a loan from the government to pay former owners of land on which the highway runs. The previous government had offered to support concessionaires following a court ruling that allowed landowners retroactively to increase the price of the land they had sold to the concessionaires.

■ EU To Rescue Portuguese Tunnel

Portugal's government has secured Euro 200 million (US\$260 million) from the European Union to finance the resumption of work on the stalled 5.7-km Marao Tunnel, being built to serve a toll highway system in the northern city of Porto. Work stopped on the 30-year DBFOM contract in June when creditor banks suspended lending after failing to secure enhanced interest rates to account for current tough market conditions.

The economy ministry is trying to broker an interest rate deal to satisfy both the banks and the project sponsors while not breaking the fiscal restraints imposed by the E.U. on Portugal. The syndicate of Royal Bank of Scotland, Fortis, La Caixa, West LB and local savings bank, Caixa Geral de Depositos, provided the 27-year, Euro 180-million (US\$235 million) loan in 2008 with an interest spread of 0.7-1% above the 6-month Euribor benchmark rate.

Due for completion in 2012, the tunnel forms the central section of a 29-km road between Vila Real and Amarante. Spain's Sacyr Vallehermoso's local construction firm, Somague, holds 55% of the concession and local firm MSF has the balance.

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■ Dutch Cultivate Pension Funds

Three bidders have been shortlisted to continue negotiating over the first highway concession in the Netherlands to be structured to include index-linked debt to attract pension fund financing. Rijkwaterstaat, the government's procurement body, plans to begin negotiating with the three bidders for the concession covering the N33 in January. It aims to secure best and final offers before summer and financially close a deal by the end of 2012.

From a list of nine hopefuls, Rijkwaterstaat, part of the ministry of infrastructure and environment, this month shortlisted BAM PPP, VolkerWessels, and Dura Vermeer/John Laing to continue negotiating under the competitive dialogue procedure. To attract pension funds, financing of the toll-free, availability-based contract will include the option of debt repayments linked to the consumer price index.

The concession, with a capital value of nearly Euro 180 million (US\$235 million), covers doubling the width of some 40 km of the two-lane highway between Assen and Zuidbroek near Groningen in northern Netherlands. The concession is likely to include three years' construction followed by a 20-year operating period.

How to finance the project will be for the successful bidder to decide, but Rijkwaterstaat, the ministry of

finance, and a group of pension funds have been discussing how to structure the deal. The government will allow, for the first time, up to 70% of the debt financing to come from pension funds, says Hans de Kievit, of Rijkwaterstaat's PPP unit.

The government wants banks to provide the balance of debt, partly to benefit from their expertise, which pension funds lack, in monitoring how concessions perform, says de Kievit. The concessionaire will likely invest around 10% as equity.

The government is being advised by PricewaterhouseCoopers and the law firm Pels Rijcken & Droogleever Fortuijn, The Hague.

■ Hochtief Navigates Troubled Waters

Germany's Hochtief group, now owned by Spain's ACS, says it is still in talks with prospective buyers for its airport business, despite tough economic conditions. The sale will lead to another group restructuring, transferring remaining concessions from the soon-to-close PPP division, which was established just over three years ago. Executives continue to quit Germany's largest construction group following its takeover by ACS last year.

Having abandoned an attempt to float 49% of its whole concessions business in 2009 because of Dubai's economic crisis, Hochtief decided last year to sell only its airports unit. Hochtief AirPort, a division of Hochtief Concessions A.G., has 30% of Athens airport and 49.7%, 49%, 47%, 30%, and 12% of the airports at Budapest, Hamburg, Tirana, Düsseldorf, and Sydney airports respectively.

Following the airport sale, Hochtief Concessions will be left owning only Hochtief PPP Solutions, which holds the group's other infrastructure assets. These include 800 km of highways in eight concessions in Austria, Chile, Germany and two concessions in Greece.

Remaining concessions will be transferred in early in 2012 to Hochtief Solutions A.G., which is part of one of the group's main operating units, Hochtief Europe. Hochtief Concessions was created in 2008 as owner of Hochtief Airports, which was formed in 1997, and Hochtief PPP Solutions, set up in 2005.

Unlike Vinci, its French partner in one of the Greek motorway concessions, Hochtief has not so far made provisions for losses on its two troubled deals in Greece (see story above). Construction is at a standstill on both motorways partly because of lack of financing.

year commercial loans and a short-term bridge facility to cover the consortium's equity contribution.

Tramlink Nottingham includes Vinci, Alstom, Keolis, Trent Barton, Meridiam and OFI Infravia. Its lead financial adviser was KPMG, and its lawyer was CMS Cameron McKenna.

■ London Grapples With Mega Sewer Financing

With the forecast cost of London's planned Tideway sewer tunnel under the River Thames last month increased by 14% to £4.1 billion (US\$6.4 billion), official discussions are continuing on how to structure the project company to maximize private sector financing. The government will provide guarantees as long as "this offers best value for money for customers and taxpayers," says a junior minister.

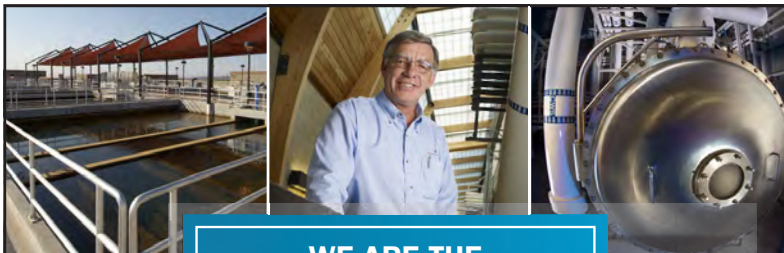
Project sponsor Thames Water attributes the cost hike to location changes of the project's planned tunnel access shafts. The company is seeking public comment on its revised proposals by February 10 before developing designs and applying for planning permission in late 2012.

The utility will be responsible for financing the project, recouping its investment with rate hikes forecast to be about £70-£80 (US\$110-\$125) on average annual bills at today's values. However, "there are some risks that are not likely to be borne by the private sector at an acceptable cost," according to Richard Benyon, a junior minister at the Department for Environment, Food and Rural Affairs.

With the project involving construction of some 30 km of deep tunnels running directly beneath the river, the financial risk is regarded as disproportionately large for Thames Water. Owned by Macquarie European Infrastructure Fund, Thames Water has a capital value only about twice that of the Tideway plan.

■ Germany Launches Latest Road Deal

Germany's transportation minister Peter Ramsauer this month launched the country's next highway concession under the A-Model system of procurement covering the A7 Neumünster-Nord to Hamburg-Nordwest. The contract, the third in the current phase, is to upgrade 65 km of A7 running north from Hamburg and operating a total of 124 km of the highway for 30 years.



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Bids will be based partly on the required availability fee, which is funded by the government with distance-based tolls on trucks using that section of highway. Truck tolls are being collected nationally by another company, Toll Collect, for the state. The concessionaire will earn fees paid by the government's transportation infrastructure fund company (VIFG). A government construction subsidy is also available to the concessionaire.

Under the first wave of A-Model projects, the government closed four deals starting in mid-2007 with a combined construction value of around Euro 1 billion (US\$1.3 billion). The deals covered 52 km of A8 West Augsburg-Munich, 44.4 km of the A4 in Thuringia, 59.8 km of the A5 between Malsch and Offenburg, west of Stuttgart, and 72.5 km of the A1 between Hamburg and Bremen.

In the current wave of projects, the government this year reached financial close on the A8 Ulm-Augsburg West, Bavaria, and the A9 between Lederhose to the border between Thuringia and Bavaria states. Other projects planned for this phase include the A1 Lotte-Münster, North Rhine-Westphalia; the A30 Rheine-Lotte, Lower Saxony; the A7 Bordesholm-Hamburg, Schleswig-Holstein; the A7 Salzgitter-Drammetal, Lower Saxony, and the A6 Wiesloch-Rauenberg - Weinsberg. ■

U.S. Transportation Projects Scorecard

Contract Amount in nominal \$ (\$ millions)	Project Name	Owner	Private Risk	Notice to Proceed	Sponsors (DB component)
3,850	Indiana Toll Road, IN	Indiana Finance Authority	75-yr lease	6/06	Cintra Concessions/Macquarie
2,800	I-635 LBJ Managed Lanes, TX	Texas DOT	DBFOM (toll)	6/10	Cintra/Meridiam (\$2.1bn Ferrovial Agroman)
2,800	Dulles Metrorail ph. 1, VA	MWAA/WMATA	DB	3/09	Bechtel/URS
2,100	Denver Eagle P3 Rail, CO	Denver RTD	DBFOM (ap)	8/10	Fluor/Laing/Uberior (\$1.27bn Fluor/BBRI)
2,047	North Tarrant Express, TX	Texas DOT	DBFOM (toll)	12/09	Cintra/Meridiam (\$1.46bn Ferrovial)
1,998	I-495 HOT Lanes, VA	Virginia DOT	DBFOM (toll)	7/08	Transurban/Fluor (\$1.4bn Fluor/Lane)
1,830	Chicago Skyway, IL	City of Chicago	99-yr lease	1/05	Cintra Concessions/Macquarie
1,814	I-595 Managed Lanes, FL	Florida DOT	DBFOM (ap)	2/09	ACS Infrac. (\$1.2bn Dragados/EarthTech)
1,674	Hudson-Bergen Lt. Rail, NJ	NJ Transit	DB/Equip+O&M	10/96	Wash. Group/Itochu (\$1.15bn Perini/Slattery)
1,376	I-15 Reconstruction, UT	Utah DOT	DB	3/97	Kiewit/Granite/Washington Group
1,369	SH 130 Seg. 1-4, TX	Texas DOT	DB	7/02	Fluor/Balfour Beatty/DMJM + Harris
1,358	SH 130 Segments 5-6, TX	Texas DOT	DBFOM (toll)	3/08	Cintra/Zachry
1,350	Alaskan Way Viaduct, Seattle	Washington State DOT	DB	1/11	Dragados USA/Tudor-Perini
1,186	I-25 T-REX Road/Rail Exp., CO	Colorado DOT/RTD	DB	5/01	Kiewit/Parsons Trans. Group
1,100	I-15 South, UT	Utah DOT	DB	9/09	Fluor/Ames/Wadsworth + HDR
1,089	SR-99 tunnel, WA	Washington State DOT	DB	12/10	ACS/Tudor/Perini
1,002	DFW Connector, TX	Texas DOT	DB	10/09	Kiewit/Zachry
980	Jamaica-JFK Airtrain, NY	Port Auth. NY/NJ	DB/Equip+O&M	9/99	Skanska/Bombardier (\$980m Slattery/Perini)
914	Port of Miami Tunnel, FL	Florida DOT	DBFOM (ap)	10/09	Meridiam (\$607m Bouygues/Jacobs)
803	Foothill Eastern Toll Road, CA	Trans. Corridor Agencies	DB	6/95	Flatiron/Ways & Freitag/Sukut/Obayashi
790	San Joaquin Hills Toll Rd., CA	Trans. Corridor Agencies	DB	9/91	Kiewit/Granite
773	SR 125 So. + Connectors, CA	San Diego Expressway L.P.	DBFOM (toll)	5/03	Macquarie (\$653m Washington/Fluor)
712	Alameda Corridor, CA	Alameda Corridor Trans. Auth.	DB	11/98	Tutor-Saliba/O&G Indus/Pars. Grp + HNTB
700	Safe and Sound Bridge, MO	Missouri DOT	DB	4/09	Kiewit/Traylor Bros. + HNTB/LPA Group
689	JFK Terminal 4, NY	Port Auth. NY/NJ	DBFOM	5/97	Schiphol/LCOR (\$689m Fluor/Morse Diesel)
645	Foothill South Toll Road, CA	Trans. Corridor Agencies	DB	11/98	Flatiron/HBG/Sukut/Fluor Daniel
615	Tacoma Narrows Bridge, WA	Washington State DOT	DB	11/02	Bechtel/Kiewit
611	Pocahontas Parkway Lease, VA	Virginia DOT	99-yr lease	6/06	Transurban (\$45m Fluor/WGI)
610	I-95 Relocation, Providence, RI	Rhode Island DOT	DB	6/97	Maguire Group/Cardi Construction
603	Northwest Parkway Lease, CO	Northwest Parkway Authority	99-yr lease	5/07	BRISA/CCR
600	Eastside Light Rail, CA	Los Angeles County MTA	DB	7/04	Washington Group/Obayashi/Shimmick
541	Cooper River Bridge, SC	South Carolina DOT	DB	7/01	Flatiron/Skanska + Parsons Brinckerhoff
530	BART SF. Airport Ext., CA	Bay Area Rapid Transit Dist.	DB	5/98	Tutor-Saliba/Slattery + HNTB
508	Trenton River Light Rail, NJ	NJ Transit	DB/Equip+O&M	6/99	Bechtel/Conti/Foster/Bombardier
486	Metro Gold Line, Los Angeles	Foothill Extension Const. Auth.	DB	6/11	Kiewit/Parsons Trans. Group
469	I-75, Collier + Lee Counties, FL	Florida DOT	DBF	5/07	Anderson Columbia Co., and Ajax Paving
464	Intercounty Connector, MD	Maryland DOT	DB	6/07	Granite/Corman/GA & FC Waggoner
446	Western Wake Freeway, NC	NC Turnpike Authority	DB	8/09	Archer Western/Granite + The LPA Group
431	IROX I-75, FL	Florida DOT	DBF	6/07	Anderson Columbia/Ajax Paving
420	I-64 St. Louis, MO	Missouri DOT	DB	12/06	Granite/Parsons Trans. Group/URS
414	Highway 161, TX	No. Texas Tollway Auth.	DB	8/09	Fluor/Balfour Beatty + AECOM
390	Route 28 Expansion, VA	Virginia DOT	DB	10/03	Clark Constr./Shirley Contracting Corp.
390	SR 22 Improvements, CA	Orange Cty CA Trans. Auth.	DB	9/04	Granite/C.C. Myers/Steve P. Rados Inc.
390	LA Expo Lt. Rail, CA	Expo Line 1 Const. Auth.	DB	9/06	Flatiron/Fluor/Parsons Trans. Group
390	I-4 Connector	Florida DOT	BF	12/09	PCL/Archer Western + PBSJB
386	Conway Bypass Highway, SC	South Carolina DOT	DB	3/98	Fluor Daniel
385	Route 3 North, MA	Mass. Highways	DBF/Maint.	8/00	Modern Continental/Roy Jorgenson
350	Dulles Greenway Toll Road, VA	TRIP II	DBFOM (toll)	9/93	TRIP II (\$150m Brown & Root)

(ap) availability payments → public credit (toll) toll collections → project revenue credit

Boldface indicates developer-financed P3 project

U.S. Transportation Projects Scorecard

Contract Amount in nominal \$ (\$ millions)	Project Name	Owner	Private Risk	Notice to Proceed	Sponsor (DB component)
343	Las Vegas Monorail, NV	L.V. Monorail LLC	DB/Equip+O&M	10/00	Bombardier/Granite
328	281 North Toll, TX	Alamo Reg. Mobility Auth.	DB	5/08	Fluor/Balfour Beatty
324	E-470 Beltway, Seg. 2&3, CO	E-470 Public Hwy Auth.	DB	8/95	Washington Group Intl/Fluor Daniel
323	E-470 Seg. 1, CO	E-470 Public Hwy Auth.	DB	7/89	Fluor/Morrison Knudsen
295	US 550 (was SR 44), NM	New Mexico SH&TD	D/CM/Warranty	9/98	Koch Materials (\$295m CH2M Hill/Flatiron)
291	Hiawatha Light Rail, MN	Minnesota DOT	DB	9/00	Granite/C.S. McCrossan
267	Gold Line Light Rail, CA	LA-Pasadena Blue Line Const.	DB	4/00	Kiewit/Washington Group
260	Anacostia River Bridges, DC	Washington DC DOT	DB	9/09	Skanska/Facchina
251	I-15 North, NV	Nevada DOT	DB	9/07	CH2M Hill/Las Vegas Paving Corp.
243	I-10 Bridges Escambia Bay, FL	Florida DOT	DB	4/05	Tidewater Skanska/Flatiron
241	Herbert C. Bonner Bridge	North Carolina DOT	DB	9/11	PCL Civil + HDR
238	TH 212, MN	Minnesota DOT	DB	8/05	Fluor/Edward Kraemer/Ames
238	I-15 Bridge Replacements, UT	Utah DOT	DB	1/06	Granite/Ralph L. Wadsworth Const.
236	Rt. 288, VA	Virginia DOT	DB/Warranty	12/00	Koch/APAC/CH2M Hill
234	St. Anthony Falls Bridge, MN	Minnesota DOT	DB	11/07	Flatiron/Manson + FIGG
233	E-470 Beltway, Seg. 4, CO	E-470 Public Hwy Auth.	DB	1/00	Kiewit/Washington Group
232	Palm Beach-Ft. Laud. Rail, FL	Tri-County Commuter Rail Auth	DB	8/01	Herzog/Granite/Washington Group
232	US 52 Reconstruction, MN	Minnesota DOT	DB	2/03	Fluor/Edward Kraemer/Ames
226	Carolina Bays Pkwy, SC	South Carolina DOT	DB	11/99	Flatiron/Tidewater
221	I-5 Everett HOT Lanes, WA	Washington State DOT	DB	5/05	Atkinson/CH2M Hill
220	Blue Line Extension, DC	WMATA	DB	4/02	Lane/Granite/Slattery Skanska
211	I-95 Widening, FL	Florida DOT	DBF	12/07	Community Asphalt
207	Manor Expressway, Austin TX	CTRMA	DB	6/11	Webber/Texas Sterling
198	Rt. 28 Corridor, VA	Virginia DOT	DB	9/02	Clark Const./Shirley Contracting Corp.
192	US 17 Washington Bypass, NC	North Carolina DOT	DB	2/06	Flatiron/United Contractors
191	Southern Connector, SC	Connector 2000 Assn.	DB	2/98	Interwest (\$na Thrift Bros.)
191	Atl. City-Brigantine Tunnel, NJ	New Jersey DOT	DB	10/97	Mirage Resorts (\$191m Yonkers/Granite)
184	U.S. 60 Upgrade, AZ	Arizona DOT	DB	5/01	Granite/Sundt
180	Northwest Parkway, CO	NWP Public Highway Auth.	DB	6/01	Washington Group/Kiewit Western
180	I-205 LRT Extension, OR	TriMet Portland	DB	1/06	Stacey & Witbeck/Granite
178	US 183, Austin, TX	Central Tex. Mobility Auth.	DB	12/04	Granite/J.D. Abrams + URS175
177	Palmetto Exp. Widening, FL	Florida DOT	DBF	8/08	Condotte-De Moya j.v.
171	Reno ReTRAC, NV	City of Reno	DB	7/02	Granite/Parsons Trans. Group
148	US Route 1, Key West, FL	Florida DOT	DB	11/04	Granite + Jacobs
140	I-485, Charlotte Loop, NC	North Carolina DOT	DBF	6/10	Blythe Construction/Wilbur Smith Assoc.
138	Triangle Parkway, NC	NC Turnpike Authority	DB	8/09	S.T. Wooten
138	95 Express Lanes, FL	Florida DOT	DB	2/08	FCC Co./MCM Corp.
136	I-494 Reconstruction, MN	Minnesota DOT	DB	8/04	Granite/C.S. McCrossan
132	U.S. 64 Knightdale Bypass, NC	North Carolina DOT	DB	6/02	Flatiron/Lane Const. Corp.
130	CPTC 91 Express Lanes, CA	CalTrans	DBFOM (toll)	7/93	Level 3/Cofiroute/Granite (sold 1/03)
130	U.S. 20, OR	Oregon DOT	DB	7/05	Granite/TY Lin International
129	U.S. 70, NM	New Mex. SH&TD	DB	7/02	Granite/Sundt/James Hamilton + URS
127	Orange Line Bridge, OR	TriMet Portland	DB	12/10	Kiewit
125	Portland Airport Max Rail, OR	TriMet Portland	DB	10/98	Bechtel
121	95 Express Lanes, FL	Florida DOT	DBF	1/08	FCC/MCM
111	US-1 Improvements, FL	Florida DOT	DBF	11/07	Community Asphalt
102	I-4 Over St. John's River, FL	Florida DOT	DB	1/01	Granite/PCL Civil Constructors
100	So. Norfolk Jordan Bridge	Chesapeake Va.	BOO	1/11	Figg/American Infra. (\$75m Lane Const./Figg)

(ap) availability payments→ public credit (toll) toll collections→project revenue credit

U.S. Transportation Projects Scorecard

Contract Amount in nominal \$ (\$ millions)	Project Name	Owner	Private Risk	Notice to Proceed	Sponsors (DB component)
90	Loop 101 HOT lanes	Arizona DOT	DB	1/11	Kiewit/Sundt + Parsons/URS
86	I-17 Thomas to Peoria, AZ	Arizona DOT	DB	1/99	Granite/Sundt
85	Camino Colombia Bypass, TX	Texas DOT	DBFOM (toll)	6/99	Granite + Carter & Burgess
82	Hathaway Bridge, FL	Florida DOT	DB/Warranty	6/00	Granite
81	Sawgrass Expwy Widen, FL	Fla. Turnpike Enterprise	DB	4/05	APAC/Parsons Trans. Group
59	I-77 Rehab, NC	NC DOT	DB	3/07	The Lane Construction Corp. +HDR
57	Anton Anderson Tunnel, AK	Alaska DOT	DB	9/98	Kiewit + Hatch Mott MacDonald
56	Belt Parkway, NY	NYC DOT	DB	7/02	Granite Halmar + Gannett Fleming
54	Carolina Bays, ph. 2, SC	South Carolina DOT	DB	5/03	APAC + Wilbur Smith Assoc.
53	New River Bridge, FL	Tri-County Commuter Rail	DB	2/03	Washington Group

(ap) availability payments → public credit (toll) toll collections → project revenue credit

Boldface indicates developer-financed P3 project

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Public Works FINANCING • published monthly since January 1988

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227 Elmer St., Westfield, NJ 07090

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Subscription Price

Public Works Financing publishes 11 issues annually for a yearly price of \$897 private sector; \$697 government; \$997 outside North America, payable in US dollars drawn on a US bank.

ISSN.#1068-0748

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- Florida DOT \$900M Port of Miami Tunnel Project – Availability Payment Contract – Financial Close, - October 2009
- Texas DOT \$1.02B DFW Connector – Design-Build Contract – Notice to Proceed, October 2009
- Texas DOT \$2.68B LBJ-635 Expansion – Toll Concession – Commercial Close, September 2009
- North Carolina Turnpike Authority \$640M Mid-Currituck Bridge Project – Pre-Development Agreement – Executed, April 2009
- Florida DOT \$1.8B I-595 Managed Lanes Project – Availability Payment Contract – Financial Close, March 2009

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abertis is an international group that manages infrastructures for mobility and telecommunications in three business areas: > Tollroads > Telecommunications infrastructures > Airports. The group, with a presence in a total of 15 countries, has a staff of over 11,000 employees and practically 50% of its income is generated outside Spain. abertis 2010 key figures: > Total net profit: 662 million Euros. > Operational income: 4,106 million Euros. > Cash-flow: 1,616 million Euros. > Gross operational income (EBITDA): 2,494 million Euros. > Investments: 757 million Euros.

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