

Driving Change: Public-Private Partnerships

A New Model for Infrastructure
Projects Brings New Risks for Contractors

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As state and local governments seek to move forward on critical infrastructure projects, they're increasingly asking the private sector to play a greater role through public-private partnerships. Under these partnerships, known as P3s, public works such as highways, bridges and buildings are financed, designed, built, operated and maintained by private concessionaires. The increased interest in P3s comes about as governments grapple with a lack of available funds, public concerns about rising tax and debt levels and the need to repair or replace critical aging infrastructure.

By providing private capital and private sector management expertise, P3s help to facilitate the construction of public projects and operate them under long-term lease agreements. While Europe, Canada and Australia have made extensive use of P3s, many U.S. contractors may be encountering them for the first time, particularly in states such as Florida, Texas and California.

For contractors, P3s bring a different slate of exposures and complex insurance issues. Contractors may find themselves taking on responsibility for risks that traditionally weren't part of a public works project and facing a time horizon measured in decades rather than years. Unlike traditional infrastructure projects that are turned over to public entities upon completion, a contractor may assume 25 to 99 years of operational exposures as part of a consortium running a highway, bridge or tunnel. Those exposures include uncertainty over long-term liabilities that may be impacted by changes in legislation in individual states. The complexity and long-term nature of these projects creates unique risk challenges for which the traditional approach of an owner or contractor-controlled insurance program is no longer viable.

Before engaging in public-private partnerships, the concessionaires should understand the expanded risks as well as how the P3 structure impacts the risk transfer available through insurance for the different phases of a long-term project, from design and construction through operation and maintenance. The consortium should make sure that the insurance ramifications are a part of the project discussions from the beginning, as they can have a significant impact on long-term financial success. By working with their brokers early in the process and with an insurer that has demonstrated experience in construction and in P3s, contractors can help to mitigate many of these expanded risks.

The Private Sector Takes an Enhanced Role in Public Projects

The United States has developed a sophisticated model for building and financing public works projects through government funding and the \$3.7 trillion U.S. municipal bond market.¹ While that model still accounts for the dominant share of projects such as roads, bridges, schools, prisons and hospitals, P3s are gaining ground. These partnerships are becoming an increasingly attractive option as cities and states seek to meet critical infrastructure needs without raising taxes or increasing their debt loads.

Through 2020, the U.S. faces an expected shortfall of \$1.6 trillion in needed infrastructure spending, the American Society of Civil Engineers estimated in its 2013 "Report Card" on U.S. infrastructure.² A report by a U.S. House of Representatives panel on public-private partnerships released in September 2014 noted that P3s can enhance the delivery and management of infrastructure and transportation projects, particularly for high-cost, technically complex projects.³

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In a typical U.S. public works project today, the government decides on a project such as a tunnel, and puts the design and construction phases out for bid, with the lowest qualified bidders usually winning those contracts. When the project is completed, the government entity typically operates and maintains it, relying on either public funding, or the revenue generated through tolls or other fees to defray the costs.

Under a P3 structure, the government entity may put the entire project out for bid under one contract to include the design, building, financing, operation and maintenance (DBFOM) of the project for up to 99 years. A private sector consortium is then responsible for all aspects of the project under the contract. Private investors recoup their investment through revenues generated by the project, such as highway tolls, or from “availability” payments made by the government entity after the project is completed, or from a combination of both. Availability payments, under which the government pays a certain sum periodically as long as specified operational targets are met, are common in long-term concessions in Canada, Europe and Australia, but are only beginning to be used in the United States.⁴

Some of the advantages of the P3 structure include greater incentive for investors to bring the project in on time and on budget. The long-term nature of the contracts also increases the focus on life-cycle costs, that is, to increase sustainability through the design and construction rather than to minimize costs during construction.⁵ P3 projects also transfer many of the risks and liabilities to the private sector.⁶

International Projects Take the Lead

Internationally, Europe has been the leader on P3 infrastructure projects, accounting for 45 percent of the nominal value of all such projects, according to a Brookings report.⁷ Canada has established a federal Crown corporation, PPP Canada, to facilitate the use of P3s for infrastructure projects along with a fund to provide financing.⁸ In Australia, all new highways in New South Wales, the state that includes Sydney, are being developed using P3 agreements, the Transportation Development Foundation reported in 2011.⁹ Internationally P3s are often used for social infrastructure projects such as schools and hospitals as well as public buildings, but in the United States, the use of such partnerships for public buildings has been rare.¹⁰ P3 projects have demonstrated advantages in meeting budget targets and limiting cost overruns in the U.K. and Australia.¹¹ In Canada, provincial agencies have estimated savings of about \$9.9 billion from 121 P3 projects between 2003 and 2012.¹²

P3s Gaining Traction in the U.S.

To date, P3 projects in the United States have accounted for only a small portion of the worldwide market.¹³ Individual states, however, have become more interested in using public-private partnerships as an alternate means of financing and building projects. Thirty-three states now have legislation enabling P3s for transportation projects.¹⁴

Among the earliest P3 projects in the United States was the limited access E-470 toll road,¹⁵ first opened in 1991, which runs around the eastern periphery of Denver, Colorado, and provides access to the Denver International Airport. Since that time, states such as Texas, California, Florida and Indiana have been leaders in using P3 contracts for transportation projects.

Some notable projects include the I-595 Express in Broward County, Florida, which handles more than 180,000 vehicles per day; the Port Miami Tunnel, which provides access between the seaport and major highways; the East End Crossing bridge and roadway project, which will connect Louisville, Kentucky, and southern Indiana; and the Presidio Parkway in San Francisco, which will replace a decades-old, seismically unsound access road to the Golden Gate Bridge.

Besides roads, California is also testing public-private partnerships for public building projects. The new \$492 million courthouse in Long Beach, finished ahead of schedule in 2013, was built by a private consortium under a pilot program. Under that contract, the state will pay an annual availability payment based on building performance. California has estimated that about 90 percent of its courthouses require significant renovation.¹⁶

Opportunities and Risks

While there are significant opportunities for contractors and concessionaires as states show more interest in P3 projects, substantial risks need to be addressed. The structure of the agreements and the relationship with the government entity make it more complex than a traditional public works project. Contractors need to be aware of how the terms of an agreement can impact their ability to obtain insurance coverage and surety bonding. If a project experiences delays, contractors face the potential loss of availability payments in deals structured that way. P3 consortium participants also have to consider the long-term exposures that may arise during the operation and maintenance phase, which may last decades. Complicating the risk management analysis for the private sector during this phase, particularly for

transportation projects, is the question of how much potential additional liability may be incurred without the traditional sovereign immunities that governments enjoy. In the United States, underwriters have little precedent to draw from in this area because of the limited experience with P3s.

A P3 consortium is likely to include multiple parties and multiple entities forming a special purpose vehicle to bid for the project. The group provides private capital to finance the project, in some cases with the help of government loans, as a long-term investment that will deliver returns in the form of tolls, other fees or availability payments. The interest of the investors is, of course, to obtain the best rate of return for their invested capital over the life of the asset. The construction entity, which may be a venture of several contractors, may participate in the special purpose vehicle or only provide the construction services. The exposures that the contractor faces will be tied to the scope of its role in the project.

Contractors should be aware of how the agreements they make with a P3 consortium can affect risk transfer opportunities. In addition, each public entity will have different insurance requirements as part of the bid. Because of those issues, it's crucial to consider the insurance perspective and not leave risk transfer as an afterthought. To avoid complications, contractors should work with their brokers as early as possible as they evaluate the terms of agreement with a consortium or public entity.

While contractors are well versed in the exposures stemming from the construction phase of a project, they may be less aware of operational exposures. On a traditional construction project, the insurance covers the exposures tied to the work being performed. Some P3

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agreements may call for the contractor to take over operational responsibility during construction, say for a portion of roadway or bridge. That may add exposures such as traffic accidents and other incidents to the typical construction risks. Such incidents could result in damage that impacts the contractor's ability to finish the project on schedule and may lead to significant financial losses tied to delays in opening.

Where projects rely on availability payments, contractors should consider their potential financial exposure if they fail to meet the milestones called for in the P3 agreement due to physical damage to the project. This exposure could include additional costs for the contractor as well as loss of income.

Another complication is the decades-long exposures that arise from operating and maintaining public infrastructure projects such as highways, tunnels and bridges. Contractors may be used to obtaining insurance commitments for construction projects that last several years, but it's not feasible to expect the same level of commitment from an insurer for an operational phase that may last 25 years or more. Insurers will want to work in phases, first providing coverage for the construction and then addressing the operational phase when it begins, typically on an annual basis, which is similar to a traditional contractor's practice policy.

A key concern in the United States stems from the sovereign immunity that many state and local governments enjoy when it comes to public projects such as roads, tunnels and bridges. As a result of many sovereign immunity statutes, individuals may have a limited ability to recover damages related to those government-run structures and facilities. While some states limit or waive these immunities, there are still barriers to bringing suits

and often caps on tort claims that significantly limit the recovery potential. It remains an open question as to what the impact on the potential frequency and severity of liability-related claims will be when the ownership and management of roadways and other transportation projects are transferred to private consortiums on a long-term lease.

Addressing the Risks in New Opportunities

Because each P3 agreement involves a unique project with its own demands and challenges, each project also presents its own specific risk profile. The exposures will vary depending upon on the type of project and its location, and the laws and regulations in that particular jurisdiction. Each of the 50 states has its own legal system, and each state has its own approach to public-private partnerships. The bid conditions, the P3 structure and the partnership agreements all affect the potential exposures.

For contractors, a P3 project may involve a variety of roles outside their traditional experience, and it's crucial to assess the exposures that accompany each of those roles. The exposures in a P3 agreement depend on the bid conditions, the structure of the partnership and the contractor's level of participation. Along with the usual risks of a construction project, contractors may be taking on added financial exposures and operational risks, whether for the duration of the construction or as a long-term manager of a public project.

Because a long-term project carries lasting financial risks, contractors should not leave the insurance considerations until later on. Rather they should consult with their brokers from the very start to identify all the potential risks and make sure that their insurance provides

the coverage they need. An insurance program for a P3 project may include primary and excess construction coverage, inland marine for builders' risk to cover physical damage to the work itself, as well as the potentially significant costs of delays in opening due to that physical damage. Environmental coverage for pollution risks on and off site should also be part of the program, as well as surety and professional risk.

When it comes to risk transfer, contractors should work with an insurer that understands the construction industry and the exposures that may arise from public-private partnerships. Since P3 projects are a relatively new development in the United States, contractors may want to look for a carrier that has a track record of successfully working with such projects internationally as well as domestically. The carrier should have expertise across the broad array of insurance lines that will be needed to offset the risks of a P3 project. Given the scope and the long timeframe of these projects, the insurer should have the financial strength and stability to provide coverage from construction through to the operational phase.

Because of the complex nature of P3 projects, the consortium should consider a carrier with proven risk engineering services to provide safety planning and monitoring to help mitigate loss frequency and severity throughout the concession term.

Claims servicing is another important consideration. The carrier should be able to offer claims administration capabilities that are targeted to the specific risks of the construction and operational phases of the project. A claims department that has expertise in the construction industry as well as in the requirements of the specific jurisdictions where the project is located can help to better manage claims costs and severity. A dedicated and proactive

claims team can add further value to the concessionaire's program through loss trend monitoring, data analytics and predictive modeling tools.

As public-private partnerships play a growing role in addressing critical infrastructure needs in the United States, new opportunities are opening for contractors. However, the expanded role that such partnerships demand also brings expanded risks. By making insurance a part of the considerations from the very beginning of the project, contractors and other participants in the consortium can work to mitigate these new exposures while protecting their investments and financial assets. A thorough approach to risk management that includes the appropriate risk transfer can help contractors make sure that the partnership is a long-term success for the company as well as the public.

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Endnotes:

1. Findings and Recommendations of the Special Panel on Public Private Partnerships, U.S. House of Representatives, Committee on Transportation and Infrastructure, September 2014, Page 10. See: http://transportation.house.gov/uploadedfiles/p3_panel_report.pdf
2. ASCE's New Report Card Bumps the Nation's Infrastructure Grade Up to a D+, American Society of Civil Engineers, March 2013, See: <http://www.asce.org/ascenews/featured.aspx?id=23622324272&blogid=25769815007>
3. Findings and Recommendations of the Special Panel on Public Private Partnerships, U.S. House of Representatives, Committee on Transportation and Infrastructure, September 2014, Page 9. See: http://transportation.house.gov/uploadedfiles/p3_panel_report.pdf
4. Federal Aid Funding and Availability Payments, Federal Highway Administration. See: http://www.fhwa.dot.gov/ipd/pdfs/fact_sheets/tifa_availability_payments.pdf
5. Findings and Recommendations of the Special Panel on Public Private Partnerships, U.S. House of Representatives, Committee on Transportation and Infrastructure, September 2014, Page 10.
6. About P3s, Frequently Asked Questions, PPP Canada, See: http://www.p3canada.ca/en/about_p3s/frequently_asked_questions/
7. Brookings Rockefeller Project on State and Metropolitan Innovation, December 2011, Page 3, The Brookings Institution. See: [http://www.brookings.edu/%7E/media/research/files/papers/2011/12/08%20transportation%20strate%20puentes/1208_transportation_istrate_puentes.pdf](http://www.brookings.edu/%7E/media/research/files/papers/2011/12/08%20transportation%20strate%20puentes/1208_transportation_istrate%20puentes.pdf)
8. PPP Canada, See http://www.p3canada.ca/en/about_us/
9. The Role of Private Investment in Meeting U.S. Transportation Infrastructure Needs, American Road & Transportation Builders Association Transportation Development Foundation and Public Works Finance, May 2011, Page 24. See: <http://www.pwfinance.net/document/research/reports/0%20artba.pdf>
10. House Panel report, Page 18
11. Brookings Rockefeller Project, page 3
12. House Panel report, Page 45
13. House Panel report, Page 43
14. House Panel report, Page 24
15. The Role of Private Investment in Meeting U.S. Transportation Infrastructure Needs, Page 5
16. House Panel Report, Page 34

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