America’s ascendency in the world was facilitated by leaders who invested money to build a country that worked. Canals, railroads, highways, schools, electrical power grids—it was this extensive and innovative infrastructure that made life in the United States more comfortable, more egalitarian, and more secure. This reassuring certainty regarding daily life provided successive generations with the solid footing to confront the challenges of their times.

—Felix Rohaytn, Bold Endeavors: How Our Government Built America, and Why it Must Rebuild Now

What is a public-private partnership? A public-private partnership, (PPP) or ‘P3,’ is a contractual agreement that gives a private organization responsibility to provide a facility or service that has traditionally been provided by a public entity, such as a state agency or a local government. Responsibilities can include design, construction, renovation, operation, maintenance, or financing of practically any service or facility that benefits the public. P3s result in greater private sector participation in the financing and delivery of public services and facilities than is normal under traditional procurement practices.

New York State law does not currently provide for P3s. Referring to the ongoing effort to rebuild the Tappan Zee Bridge, Governor Cuomo has acknowledged the difficulty of getting P3 legislation passed. “We’re working through a number of financing options, and we’ll present a number of options, and we’ll present them for discussion and then we’ll pick the best one,” Cuomo said, of financing the Tappan Zee project. As far as P3s are concerned, Cuomo added, “We don’t have an immediate proposal on that.”

Recently in Chicago, Mayor Rahm Emanuel passed an unprecedented Infrastructure Trust, which will leverage private funds for city projects. All projects would require City Council approval. An infrastructure bank of this type is unprecedented at the city level, and could possibly become a critical model for how cities pay for new buildings. Some city projects will be steered to the usual bond backing, and others will dip into this new pot of cash from investors, who hope to reap decent returns. The ordinance establishing the trust envisions partnerships related to all city infrastructure needs, including mass transit, surface and highway transportation, freight rail, air and maritime ports, education (elementary, secondary and community college) facilities, water and sewer, and other facilities.
Chicago has already directed funds from the bank to one project, a $225 million green retrofitting of city buildings. The city has received tentative commitments for $1.7 billion from investors, along with letters of interest from the investment arms of Citibank, JP Morgan, and Ullico, a manager of labor union pension funds.

**Can we make P3s work?**

New York is but one example of many states nationally that have yet to implement P3 legislation, despite a strong interest in doing so. In January 2011, New York State Comptroller Thomas P. DiNapoli issued a comprehensive report on P3s called “Controlling Risk without Gimmicks: New York’s Infrastructure Crisis and Public-Private Partnerships.”

In the report, Comptroller DiNapoli acknowledged a wide array of costs associated with New York’s public infrastructure needs, totaling over $266 billion over the next 20 years. DiNapoli is aware of the push for P3s to finance some of these efforts, and is cautiously optimistic that they can be pursued, with caveats.

Specifically, Mr. DiNapoli sees P3s as an alternative way to finance projects in a time when the state bears a high tax and debt load.

The benefits of utilizing P3s include:

- Maximizing the value of the public’s material assets by taking advantage of the private sector’s profit motive and market discipline.
- The private sector can allocate resources and manage demand more efficiently than the public sector.
- The private sector can operate more swiftly and flexibly than government in some cases.

Durham, NC Inc., a P3, has acted as the “engine” to implement a master plan for redeveloping Durham’s downtown, and as the “accountability mechanism” to ensure that the community continues to move ahead with the recommendations of the plan.

Furthermore, a five-year joint DDI and city-funded review of the downtown master plan have identified accomplishments and deficiencies and developed a list of priorities for the next five years. By designing a shared vision and implementation process, the community is facilitating the creation of a “downtown that sees the future and understands how to take advantage of it.”

- Private entities may take greater financial risks than the public sector is either willing or able to do, in order to take advantage of a new opportunity to obtain profits.

Also in Virginia, Pocahontas Parkway in the Greater Richmond area was the first transportation P3 project completed since passage of the state’s Public-Private Transportation Act of 1995. Pocahontas Parkway is an 8.8-mile four-lane toll road linking I-95 with I-295 just south of the Richmond International Airport. Australian toll operator Transurban took over the project in 2007 and secured a 99-year concession to exclusively maintain and improve Pocahontas Parkway. It is estimated that without the P3 project, a traditional public road connecting I-95 and I-295 would have taken at least 15 years just to secure financing.

How can P3s combine the potentials of the private and public sectors?

- They have the capacity to incorporate some of the characteristic advantages of free markets (increased competition, more accurate and sensitive pricing, expanded financing options, and timely response to demand into the provision of public goods.

- P3s can preserve traditional public interests in areas which markets may be unsuited to handle, such as ensuring general equity and accessibility, avoiding unwanted externalities (e.g., pollution, recognizing diverse stakeholders, and coordinating the development and operation of a particular project with the needs of larger systems and adjacent communities).

The comprehensive approach to revitalization undertaken by the city and region of Chattanooga, Tennessee, demonstrates how the P3 process can support a long-term strategy for livability and sustainability. With significant air pollution problems and deindustrialization and decentralization patterns hollowing out the city and inner core of the region, the Chattanooga community implemented a master-
planning process in the 1980s in an attempt to harness public and private sector resources to promote the redevelopment of the city and to improve regional growth patterns.

“The Tennessee Riverpark Master Plan,” published in 1985, emerged from the “Vision 2000” community planning process, which aimed at determining how to attract and maintain high-quality growth in the region. The plan calls for a comprehensive strategy for redevelopment efforts, focused on spurring development downtown, particularly along a 22-mile corridor of the Tennessee River. Using the public and private sectors in creating, funding, and implementing the redevelopment strategy, the plan established a 20-year time frame and specific steps for implementation.

However, there are four areas that Mr. DiNapoli urges caution in, when it comes to P3s:

-Failure to identify the full value of public property. If the government underestimates the value of public assets, it can make deals that short-change the public. A well-known example is Chicago, which in 2008 contracted its parking spaces to Morgan Stanley for 75 years for a one-time payment of $1.15b. Now, Chicago is barred from repurposing roads and curbs for the term of the deal, while Morgan Stanley stands to make ten times what it paid the city.

-Unfavorable pricing mechanisms. These can include excessive fee and toll increases. After some toll roads in Arizona were privatized, the Arizona Public Interest Research Group (APIRG) noted that toll road operators could keep raising tolls, even if the increased tolls diverted traffic onto congested local roads.

-Unrealistic expectations and poorly drafted agreements.

-Budget gimmickry. Budget tricks can push costs to the future and potentially increase public debt.

From the government’s perspective, limiting private sector profits may make P3 deals less attractive to the private sector. Therefore, the interests of both the public and private sectors must be known and accommodated.

In order to avoid these pitfalls, Comptroller DiNapoli urges lawmakers to ask the following questions and make the following considerations:

-What are the best practices for the valuation of public assets?

-Keep private sector profits in reason; ensure resulting services are affordably priced.

-Receive specific guarantees from the private entity in exchange for their participation in the project.

-Adopt financing rules that prevent disproportionate shifts of current capital costs onto future taxpayers.

When Pfizer moved its headquarters to Manhattan in 1960, it retained a manufacturing facility at the original site, although the neighborhood had lost its industrial base and was becoming blighted. In the 1980s, Pfizer convened partners to develop a comprehensive community reinvestment plan. Pfizer committed extensive private resources to the project (almost $25 million), which resulted in a new public charter school in a renovated Pfizer building, about 300 new homes (all doubles), 400 apartment renovations in neglected buildings, improved public safety, new light industrial space, and, of course, more jobs. Pfizer was the leader, but Pfizer had partners. The company spent long hours meeting with community stakeholders.

In addition to the financial concerns with P3s raised by Comptroller DiNapoli, there are public policy concerns worth considering, such as regulatory oversight, workforce impact and the effect on local communities.

About the Author

John E. Osborn, a partner in the New York City based law firm John E. Osborn P.C., has over 30 years of experience in practicing construction and environmental law.
Private participation in U.S. infrastructure development has been a keystone in the development of our economy for more than 200 years. The private sector played an important role in the initial development and operation of key infrastructure assets. Examples include the early post road and bridge franchises, passenger railroads, water works such as the Keokuk Power Plant and dam on the Mississippi, and other infrastructure projects vital to the economic growth and prosperity of the United States. The public sector played a partnership role in this development by issuing land grants or awarding franchises.

During these early years the government also foresaw the need to directly spend federal funds to build projects considered critical for development of commerce and trade (examples include river and harbor improvements, the Erie canal, and the first National Road), and to leverage private sector resources to allow for more development than could have occurred through direct funding. Many governments at all levels used this two-pronged approach early on to develop infrastructure deemed to be in the public interest.

Public Works by the Public Sector

Priorities shifted in the 1930’s towards the development of public works as a national instrument of social and economic policy accelerated during the depression years (using public works as a means to put the unemployed back to work), for military purposes during World War II, and for the development of the Interstate Highway System in the 1950’s financed and constructed almost entirely with federal funds.

This shift to public sector development of public works infrastructure was also marked by industry specialization giving rise to legislation that altered the approach to federal infrastructure procurement from the late 1800’s to the more recent 1972 Brooks Act legislation. These federal policies in effect created separation of services for public works project delivery where design specialists (A&E firms) were selected to provide design services (plans and specifications) on a qualifications basis and builders were selected for construction services based on the lowest responsible bid price.

New York Subway System

One the largest infrastructure projects in the world at the time, the New York City Subway, was developed through a design-build-operate maintain contract issued by the New York Rapid Transit Commission (RTC) in 1899.

The subway was constructed, opened in 1904, and operated by a private franchise, Interborough Rapid Transit Company (IRT) for several years before New York City created the Public Service Commission (PSC) to further expand and take over operation of the NYC subway system.

Public Procurement in New York State

The Wicks Law - a construction mandate dating back to 1912 - was put into place to promote competition and protect workers’ rights.

Named for Senator Arthur Wicks who sponsored a bill to expand the law in 1946, the Wicks Law requires that, under General Municipal Law § 101, state and local government construction projects (including school district construction projects) costing more than $3 million in New York City, $1.5 million in Nassau, Suffolk and Westchester counties, and $500,000 in the rest of the state are subject to separate plumbing, heating, ventilation, air conditioning and electrical contracts.

This requirement goes further than the federally mandated separation of design and construction services and creates an additional barrier to using an integrated services approach to project delivery central to most public-private-partnership arrangements.
This approach to delivery often referred to as low bid or design-bid-build (DBB), was codified in federal and state law. Additionally, the federal and state governments developed specialized organizations (General Services Administration, Public Road Administration - the precursor to the Federal Highway Administration, the Environmental Protection Agency, and various specialized state and city agencies, etc.) to develop, administer, and maintain public works in the U.S. DBB, often thought of as the traditional method for public infrastructure project delivery, is a fairly recent phenomenon in the 200+ year history of the U.S.

While this delivery approach served the country well in the development of vital public works infrastructure (roads, waterworks, energy, etc.), during the first half of the 20th century, in the latter half (1970's to present), federal and state agencies in the U.S. became increasingly challenged to generate adequate resources for the maintenance and upkeep of existing infrastructure assets. Some economists have argued that the separation of services generated significant inefficiencies in the administration and delivery of projects, and coupled with the increasing funding shortages, public works facilities were wearing out faster than they could be maintained and improved. A recommended solution was a return to private sector participation to close the gap and meet the demand.

Looking Back - Moving Forward

More recently (1991 to present), the pendulum began to swing back towards private sector participation in public works. The enactment of the 1991 Intermodal Surface Transportation Act (ISTEA), for example, allowed for federal participation in pilot projects using innovative delivery and private sector financing. The federal government also developed an innovative financing program to provide more funding flexibility and access to credit markets at a lower cost of capital.

In response to funding shortfalls, several state and local governments reengaged the private sector in infrastructure development, management, and finance including highway, transit, and water projects. In the early 1990’s the Dulles Greenway in Virginia, and SR 91 resulting from California’s Assembly Bill 680 authorizing demonstration franchises were among the first new toll road projects involving entirely private financing. Subsequently, broad legislation was enacted in Virginia and elsewhere authorizing public-private-partnership (P3) projects. Canada also began to experiment with P3 projects including the Highway 407 Express Toll Route and the Confederation Bridge. From the early 1990’s to the present, the number of P3 deals closed in the U.S. and overseas has grown significantly. The types of P3s ranged from Greenfield design-build-finance-operate projects to brown-field leases of existing assets.

Challenges

The revived P3 marketplace in the U.S has not been without challenges. Approximately 26 states have enabling legislation in place or pending for specific programs or projects, which mean that approximately half the states in the U.S., do not have P3 authority or very limited authority. In contrast, countries in the Americas, Europe, Australia, and Asia have broad authority and have used P3s for a variety of public works projects.

Some of the early projects did not meet expectations for the P3 partners where the market conditions or financial risks were not carefully considered. Several of these deals did not achieve sufficient revenue to meet the debt service resulting in financial distress (Chapter 11) or investors overpaid for the assets. Additionally P3 deals are often challenged by political barriers, negative public perceptions related to user fees; and protracted procurements to get to a financial close. These challenges are part due to the public’s perception in the U.S. that public infrastructure assets are “paid for” and should not be subject to additional fees or controlled by private sector, the lack of public agency experience with procuring long-term integrated services contracts, and internal reluctance to relinquish control of these assets.

Future Directions

In spite of these challenges, the reality is that the public sector has realized that it must “partner” with the private sector to leverage resources to meet future infrastructure needs in the U.S. and elsewhere. The current status of P3 projects in the U.S. reported by Public Works Financing (PWF) in 2012 indicate that there are a significant number of deals set to close in 2012 and P3 procurements are moving forward in approximately 15 states on water/wastewater facilities, airport terminals, parking, and toll roads, bridges, and tunnels. The City of Chicago recently established an infrastructure bank to leverage private funds for the city’s public works.

Lessons-learned from early P3 implementation are that they are not a panacea, but should be used where additional value can be realized (compared to “traditional” delivery), the facility will generate reasonable life-cycle returns for investors, and the
long-term financial risks/rewards are properly balanced among the partners.

A number of recommendations have been made towards improving the procurement process, mitigating the risks towards getting to a successful P3 financial close, and assuring a successful long-term partnership. Some of these include:

- Careful P3 project selection through a value for money assessment comparing the public sector procurement option against the private sector or P3 option (considering time, revenue, sources of financing, and development and life-cycle costs).

- Adoption of legislation and regulations allowing flexibility in how P3s can be structured and delivered to adapt to market conditions. For example, the current market in the U.S. is pushing public agencies towards retaining revenue risks and using an availability payment structure for toll-based P3 deals in the U.S.

- Using a systematic approach to risk assessment to get a clearer understanding of the technical and financial risks and transaction costs related to the P3 arrangement.

- Establishing a consistent reliable P3 procurement process that promotes competition, efficiency, and transparency (in evaluation and selection). Several states have adopted standard P3 guidelines and templates to improve the process.

- Developing reasonable performance-based definitions of the scope of services that will allow the private sector room for ingenuity while preserving the owner’s ability to adequately compare the competing proposals.

It is clear that the public sector can no longer “go it alone” to meet the challenges of developing and maintaining our national infrastructure assets in the U.S. to support economic growth. The public and private sector must work together to restore and maintain our key infrastructure assets. These P3 projects must be selected carefully and strike a balance between preserving the public’s interest and attracting private investors in long-term partnerships to assure our future prosperity.

**Innovative Financing Tools**

The Federal Government encourages the use of public-private partnerships through an array of innovative financing mechanisms and initiatives designed to provide flexibility in the ways projects are delivered. These tools can augment traditional funding sources and enable agencies to accelerate the speed in which a project is typically completed.

SEP-15 is a new experimental process for FHWA to identify and evaluation new public-private partnership approaches to project delivery.

Private Activity Bonds (PABs) refer to a new type of financing that provides private developers and operators with access to the tax-exempt bond market, lowering the cost of capital significantly.

The TIFIA credit program is designed to fill market gaps and leverage substantial private co-investment by providing supplemental and subordinate capital.

It is important to recognize that the benefits associated with these tools are not mutually exclusive and that there is potential synergy in combining tools on a single project.

**Integrated Services in New York**

In spite of the lack of P3 legislation and challenges with Wicks Law, the Port Authority of New York and New Jersey is moving forward with P3 projects on the Goethals Bridge Replacement Project, the Central terminal at LaGuardia Airport, and the proposed replacement of Terminal A at Newark Airport.

As a backdrop, the New York Thruway and NYSDOT have moved forward towards procuring the largest single Design-Build contract in the state to date, the $5.2B Tappan Zee Bridge Replacement Project.

A P3 delivery approach was initially considered as part of the financing plan but was eliminated in favor of design-build delivery using public financing.
About the Author

Sidney Scott III, P.E., Senior Vice President of Hill International, has more than 25 years of experience in engineering and construction with a strong focus in transportation. He is a nationally-recognized expert in procurement and contracting methods for the construction industry, particularly in the areas of specifications for highway construction, design-build and innovative contracting. Scott has also researched and developed best practices for the planning, management, and administration for some of the nation’s largest transportation projects. Scott earned his B.A. in anthropology from the University of Pennsylvania and his B.S. in civil engineering from the University of Delaware. He is a registered professional engineer in Pennsylvania and Delaware and is a past President of the Mid-Atlantic Chapter of the DesignBuild Institute of America.