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Early Involvement of Private Developers in the Consideration of Long-Term Public-Private Partnership Concession Options: A Discussion Paper

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U.S. DEPARTMENT OF TRANSPORTATION
BUILD AMERICA BUREAU

OFFICE OF INNOVATIVE PROGRAM DELIVERY

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16. Abstract

This discussion paper was developed for transportation professionals who may be involved in a Public-Private Partnership (P3) concession project. P3 concessions are an integrated service delivery approach where a public transportation agency enters a contractual agreement with a private sector entity to deliver a service and/or facility for a specific period. Under the P3 approach, the private sector entity is singly responsible for the design, construction, finance, operations, and maintenance of facilities for a specified concession period. This document draws upon past and current experience to examine different mechanisms used by public agencies for involving private developers during the early stages of a project delivered through a P3. The document provides an overview of the experiences of state departments of transportation (DOTs), Metropolitan Planning Organizations (MPOs), local agencies, private developers, and financial institutions in soliciting potential innovations of private companies during project planning and procurement. The document also evaluates consultative mechanisms used during project procurement and after contract award, and considers introducing these types of activities earlier in the project development and programming process to encourage private sector input. The findings are used to identify approaches that have been effective in securing early input from the private sector to enhance opportunities for P3s.

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Preface

The Build America Bureau was established in July 2016 as USDOT's go-to organization to help project sponsors who are seeking to use Federal financing tools to develop, finance and deliver transportation infrastructure projects. The Bureau serves as the single point of contact to help navigate the often complex process of project development, identify and secure financing, and obtain technical assistance for project sponsors, including assistance in P3s. The Bureau is home to DOT's credit programs, including Transportation Infrastructure Finance and Innovation Act (TIFIA), the Railroad Rehabilitation and Improvement Financing (RRIF) and Private Activity Bonds (PAB). The Bureau also houses the newly-established FASTLANE grant program and offers technical expertise in areas such as P3s, transit oriented development and environmental review and permitting. The Bureau is also tasked with streamlining the credit and grant funding processes and providing enhanced technical assistance and encouraging innovative best practices in project planning, financing, P3s, project delivery, and monitoring.

Working through the Bureau, USDOT has made significant progress in its work to assist project sponsors in evaluating the feasibility of P3s, and helping simplify their implementation. In response to requirements under the Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation Act (FAST Act) to develop best practices and tools for P3s, the Bureau, jointly with FHWA, is publishing this discussion paper on Early Involvement of Private Developers in the Consideration of Long-Term Public-Private Partnership Concession Options.

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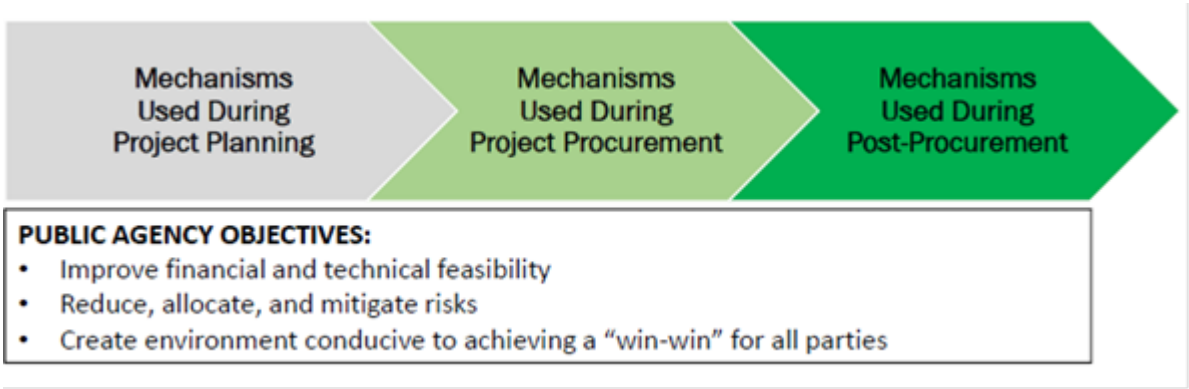
Executive Summary

This discussion paper draws upon past and current experience to examine different mechanisms used by public agencies for involving private developers during the early stages of a project delivered through a public-private partnership (P3). The discussion paper is structured in accordance with the three major stages in the project planning and development process – planning, procurement, and post-procurement – during which private parties may participate in and/or comment on a given project to improve its financial and technical feasibility and achieve other public sector objectives, as shown in the figure below (Figure ES-1).

Figure ES-1. Private Sector Feedback and Involvement Mechanisms by Project Stage



The study relied on a literature review, interviews with P3 practitioners, and a review by P3 experts at a roundtable which identified the consultative and feedback mechanisms used during planning, procurement and post-procurement; recommended introducing these types of activities earlier in the project development process to encourage private sector input; and identified approaches that have been effective in securing early input from the private sector to enhance opportunities for public-private partnerships.

Early Involvement Mechanisms

There are a variety of ways in which the public sector can either solicit input or receive unsolicited input from the private sector during different stages of the project development process. Table ES-1 summarizes strategies for involving private sector entities while P3 projects are being initially identified and screened in the planning phase prior to procurement. The mechanisms may be used by public agencies to solicit and gain increased feedback from the private sector on potential P3 viability and project development strategies. Table ES-2 provides a summary of strategies for soliciting feedback from the private sector during the procurement of P3 projects. Table ES-3 provides a summary of possible approaches which, while implemented post-procurement, are intended to encourage developer participation early in the procurement process.

Table ES-1. Early Involvement Mechanisms, Planning to Procurement

Mechanism	Description	Examples
P3 Program Development and Project Screening	The planning branches of State, metropolitan, and/or local transportation agencies develop criteria for screening projects in their short range and/or long range plans for P3 potential. Additional technical, financial, and value for money analysis is conducted on the screened projects and information made available for public review including the private sector project development community. The resulting P3 pipeline of projects may be adopted and periodically updated by the agency's governing body.	• Virginia Department of Transportation (Virginia DOT) • Texas Department of Transportation (TxDOT) • Los Angeles County Metropolitan Transportation Authority (LA Metro)
Industry Forums	Pre-procurement meetings with developers, financiers, construction companies, and other interested parties to gauge private interest in candidate P3 projects and P3 procurement strategies and to identify ways to enhance project viability as a P3.	• TxDOT: Multiple projects • Maryland DOT: Baltimore Red Line • Kentucky Public Transportation Infrastructure Authority: Ohio River Bridges • P3 Institute: Miami Forum
Market Sounding	Separate, one-on-one discussions are conducted with developers and advisors to assess financial feasibility, risk allocation, and other related topics.	• Province of Alberta: Transmission Line • Arizona DOT: Electronic Truck Screening Project
Request for Information (RFI)	Interested parties formally respond to a list of questions on potential technical solutions, financial packages, and/or risk allocation.	• City of Los Angeles: L.A. Streetcar • Arizona DOT: Freeway Lighting Upgrade Project • Maryland DOT: I-270 corridor • Virginia DOT: Multiple projects
Unsolicited Proposals	Private sector developers provide an initial project concept without a formal request for qualifications or proposals, or in response to an open solicitation without reference to a specific project or scope.	• Georgia DOT/SRTA: NW Corridor • Virginia DOT: I-495 • Florida DOT: SR54/56 • Virginia DOT: I-95 Express Lanes • LA Metro
Pre-Development Agreements (PDA) and Master Development Agreements (MDA)	Private contractors or consortia compete for the right to develop a project in collaboration with the procuring agency and then have the right of first refusal to implement the project.	• TxDOT: North Tarrant Express • TxDOT: Trans-Texas Corridor • North Carolina Turnpike Authority: Mid-Currituck Bridge • Oregon DOT: I-205 South
Progressive Design-Build Agreements	Through a qualification-based procurement, the Design-Build contractor is selected prior to preliminary design or a construction cost estimate.	• Maryland: I-270 • Virginia: Silver Line Phase 2
Collaborative Risk Workshops	Private entities are invited to participate in pre-procurement risk workshops to be able to better assign risk to minimize overall cost.	N/A
Collaborative Evaluation of Project Alternatives	Very early in the project development process, while projects are not yet fully defined and environmental review is in progress, private entities are invited to participate in discussions regarding potential project alternatives.	N/A

Table ES-2. Early Involvement Mechanisms, Procurement Phase

Mechanism	Description	Examples
Industry Meetings	Meetings are held with the private sector prior to advertisement to gauge interest in the procurement and obtain feedback on the draft procurement documents.	• Maryland DOT and the Maryland Transportation Authority (MdTA): Maryland Purple Line
Multi-Stage Procurements	Multiple and increasingly detailed requests for proposals are issued with proposal responses at each stage. Proposers are provided opportunities to comment on the project at each stage.	• Maryland DOT/MdTA: Maryland Purple Line • TxDOT: LBJ Managed Lanes
Multiple P3 Delivery Procurements	Proposers are requested to provide separate bids for the same project using distinct delivery mechanisms.	• TxDOT: Grand Parkway Project • Virginia DOT: I-66 (Transform 66 – Outside the Beltway)
Alternative Technical Concepts (ATC)	Proposers can suggest innovative design or technologies beyond what is required in the procurement documents.	• Maryland DOT/MdTA: Maryland Purple Line • Riverside County Transportation Commission: SR-91 Managed Lanes
Interweaving	A procurement that takes place in advance of the planning concept decision which allows bidders to "interweave" the project alignment into their proposal.	• A2 Tunnel, Maastricht, Netherlands
"Sole Source" Bids	Direct negotiations occur with a single proposer as a result of an unsolicited proposal or a solicitation with one proposal.	• TxDOT: SH 130 Segments 5&6 • Virginia DOT: Elizabeth River Crossings

Table ES-3. Early Involvement Mechanisms, Post-Procurement

Mechanism	Description	Examples
Early Lender Engagement	Lenders are engaged early in the procurement process to build in opportunities for refinancing and/or refunding of developer and/or public equity in the post-procurement phase.	• Alameda Corridor • Georgia NW Corridor
Competitive Stipends to Unsuccessful Proposers	The private sector is made aware early in the project development process of competitive stipends to be awarded post-procurement as an incentive to motivate private sector interest and to confirm public sector commitment.	• Maryland DOT Public Private Partnership Program Regulations

Conclusions

Public agencies are incorporating a variety of mechanisms to enhance opportunities for early involvement of the private sector in the project development process. While these mechanisms are fostering development of better projects through increased information sharing, greater technical and financial innovation, and improved risk management, it is unclear if these mechanisms have expanded private investment in P3s. The lack of clarity may be partly due to the extent to which different mechanisms have been tested. The frequency with which these mechanisms have been used varies widely, with some practices – such as industry forums – being employed almost universally, while other practices, such as use of Pre-Development Agreements (PDAs), having only a limited track record in the United States.

Table ES-4 summarizes the potential effects of the different mechanisms examined in this study. Broader adoption of *some* of these mechanisms would be of value to public agencies. The majority of the mechanisms have the potential to foster positive effects by adding value, reducing schedule and cost, and managing risk. Such effects are denoted in the table in blue and through the use of plus (+) signs. With some mechanisms, there is potential that the benefits of early private sector involvement could be countered by negative impacts such as reduced competition. Such effects are denoted in the table in red and through the use of minus (-) signs. The relative magnitude of these potential effects is indicated by the intensity of the blue and red shading in individual cells.

As indicated in Table ES-4, one of the key tradeoffs that public agencies may encounter in employing early involvement mechanisms with P3 projects is the potential for reduced competition. The increased information sharing between private and public sectors associated with early involvement mechanisms may reduce competition, particularly when the procurement process "locks in" a private entity at an early stage. This may diminish the creative tension that results from competition. Conversely, early "lock-in" may result in positive synergies by reducing the private sector's perception of risk, which could encourage its willingness to invest.

Early involvement requires an additional investment of time and resources early in the project development process, but it has the potential to produce a better defined and more financially feasible project. This dynamic may also produce efficiencies later in the process, expediting project implementation.

Table ES-4. Potential Effects of Early Involvement Mechanisms.

Involvement Mechanisms	Add Value & Foster Innovation	Maintain or Reduce Cost & Schedule	Maintain or Increase Competition	Reduce Public Sector Risk	Reduce Private Sector Risk
Planning to Procurement					
Program Development and Project Screening	High (+)	Medium (+)	Low/No	Low/No	Low/No
Industry Forums	Medium (+)	Low/No	Low/No	Low/No	Low/No
Market Sounding	High (+)	Low (+)	Low/No	Low/No	Low/No
RFIs	High (+)	Medium (+)	Low/No	Low/No	Medium (+)
Unsolicited Proposals	Medium (+)	Medium (+)	High (-)	Low (-)	Low (+)
PDAs/MDAs	Medium (+)	Medium (+)	High (-)	Medium (-)	Medium (+)
Risk Workshops	Medium (+)	Low (+)	Medium (+)	Medium (+)	Medium (+)
Collaborative Evaluation of Alternatives	Medium (+)	Low (+)	Low (-)	Medium (+)	Medium (+)
Progressive Design-Build	Medium (+)	Medium (+)	Medium (-)	Medium (+)	Low (-)
Procurement					
Industry Meetings	Medium (+)	Low/No	Low/No	Low/No	Low/No
Multi-Stage Procurement	High (+)	High (-)	Medium (+)	Medium (-)	High (-)
Multiple P3 Delivery Procurements	Medium (+)	High (-)	Medium (+)	High (-)	High (-)
ATCs	High (+)	High (+)	Medium (+)	Medium (+)	Medium (+)
Interweaving	Medium (+)	Medium (+)	Medium (-)	Medium (+)	Medium (+)
Sole Source Procurements	Low/No	High (+)	High (-)	High (-)	Medium (+)
Post-Procurement					
Lender Engagement	Medium (+)	Low/No	Low/No	Low/No	Low/No
Competitive Stipends	Medium (+)	Low/No	Medium (+)	Medium (+)	Medium (+)

Legend	Positive	Negative
High	High (+)	High (-)
Medium	Medium (+)	Medium (-)
Low	Low/No	Low (-)

Barriers to Early Private Sector Involvement

There are a number of barriers to early private sector involvement in P3s. Political, legal, and regulatory procedures, put in place to protect the public interest, can complicate early involvement. The private sector may be reluctant to engage early in the absence of a well-defined and publicly supported project. Given the resource commitment, the private sector must determine if:

- The project is financially viable, in terms of public funding and/or revenue risk;
- The public agency can politically deliver on the project;
- The procurement process is likely to be efficient and successful;
- It has a realistic possibility of contract award and, if selected, achieving a reasonable rate of return on its investment in the project; and
- The appropriate legal and regulatory framework is in place.

Responsive proposals require significant financial and human resources over multiple years. Although early private sector involvement can enhance a project's financial viability through reduced costs and/or increased revenues, it also entails higher development costs, opportunity costs, and risks for both the private and the public sectors.

Increasing the Consideration for Early Involvement of the Private Sector in P3s

Based on the findings reported in this Discussion Paper, public project sponsors considering early involvement of the private sector in the development of P3 projects may consider the following successful practices:

- **Mechanisms for private sector involvement are identified and incorporated early in the project development process.** Strategies likely to yield the greatest overall benefit are identified early in the project development process. Before pursuing these strategies, the public agency is aware of potential trade-offs regarding early private sector involvement, is cognizant of the statutory, legal, regulatory, political, and financial barriers which limit their potential application, and develops a strategy to address and overcome these barriers.
- **Assessment of alternative project delivery options is valuable early in the project development process (e.g., prior to preliminary engineering).** This is particularly valuable for projects over a certain project size (e.g., $100 million to $300 million) and can result in the avoidance of project development and early design costs that might not be necessary if a P3 delivery model were selected.
- **Early involvement mechanisms are aligned with the objectives of the P3 procurement process.** Early involvement of the private sector can assist public agencies in their due diligence review to achieve project development and financing goals.
- **Procurement rules are well defined and not overly prescriptive.** The private sector representatives interviewed for this discussion paper recommended that the procurement rules should be sufficiently flexible to allow for and encourage potential innovations.
- **Greater information sharing and innovation are balanced with the potential for reduced competition.** To the extent that strategies for early private involvement may adversely affect competition

as the procurement process advances, steps are taken to ensure that the earliest parts of the procurement process stimulate adequate competition.

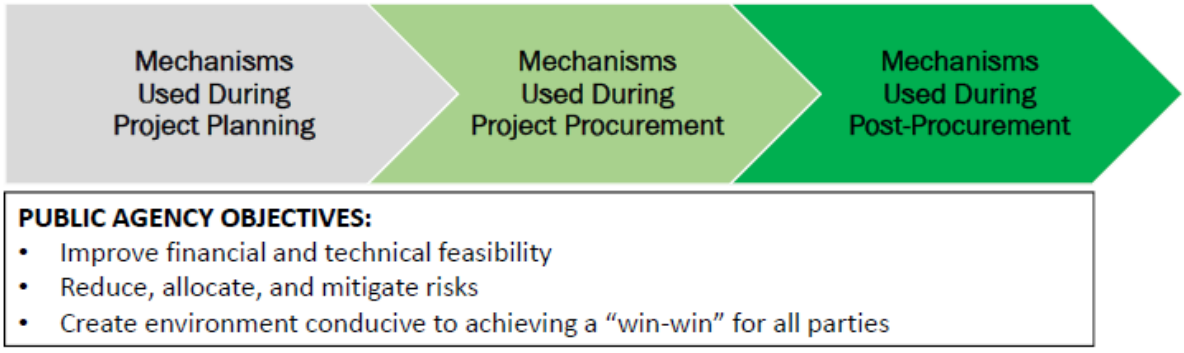
- **The public interest is prioritized, while still focusing on enhancing financial feasibility and encouraging private sector innovation.** Public officials interviewed for this paper suggested that early involvement strategies are carefully calibrated to preserve the public interest while giving the private sector sufficient opportunity to design and develop a financially feasible transportation project within existing legal statutes and procedural guidelines.
- **Early involvement strategies consider risk and resource utilization.** Representatives from the both public and private sector emphasized that adequate staff time and financial resources need to be devoted to early risk identification.
- **Early involvement mechanisms maintain transparency while preserving the confidentiality of sensitive business information.** Private sector representatives are mindful of the amount of information that can be shared with the public sector given the legal transparency requirements, the loss of potential competitive advantages, and the impacts to their future negotiating position with the procuring agency.
- **The exchange of information does not confer a competitive advantage.** Public sector officials are concerned that early private sector involvement may give one or more firms an unfair competitive advantage due to unbalanced information, or confer a "head start" advantage. They should carefully consider how much project related information can reasonably be exchanged, and the optimal point in the planning and procurement process for sharing this information.

1 Introduction

1.1 Introduction

A key objective of the Fixing America's Surface Transportation Act (FAST Act), signed into law on December 4, 2015, and its predecessor, Moving Ahead for Progress in the 21st Century Act (MAP-21), is to support and assist public agencies in working with the private sector in delivery of transportation facilities. Consistent with this objective, this report draws upon past and current experience to examine different mechanisms used by public agencies for involving private developers during the early stages of a project delivered through a public-private partnership (P3). The report is structured in accordance with the three major stages in the project planning and development process – planning, procurement, and post-procurement – during which private parties may participate in and/or comment on a given project to improve its financial and technical feasibility and achive other public sector objectives, as shown in the figure below (Figure 1-1). The report also evaluates the political, legal, regulatory, competitive, financial, and technical barriers to the early involvement of the private sector.

Figure 1-1. Private Sector Feedback and Involvement Mechanisms by Project Stage



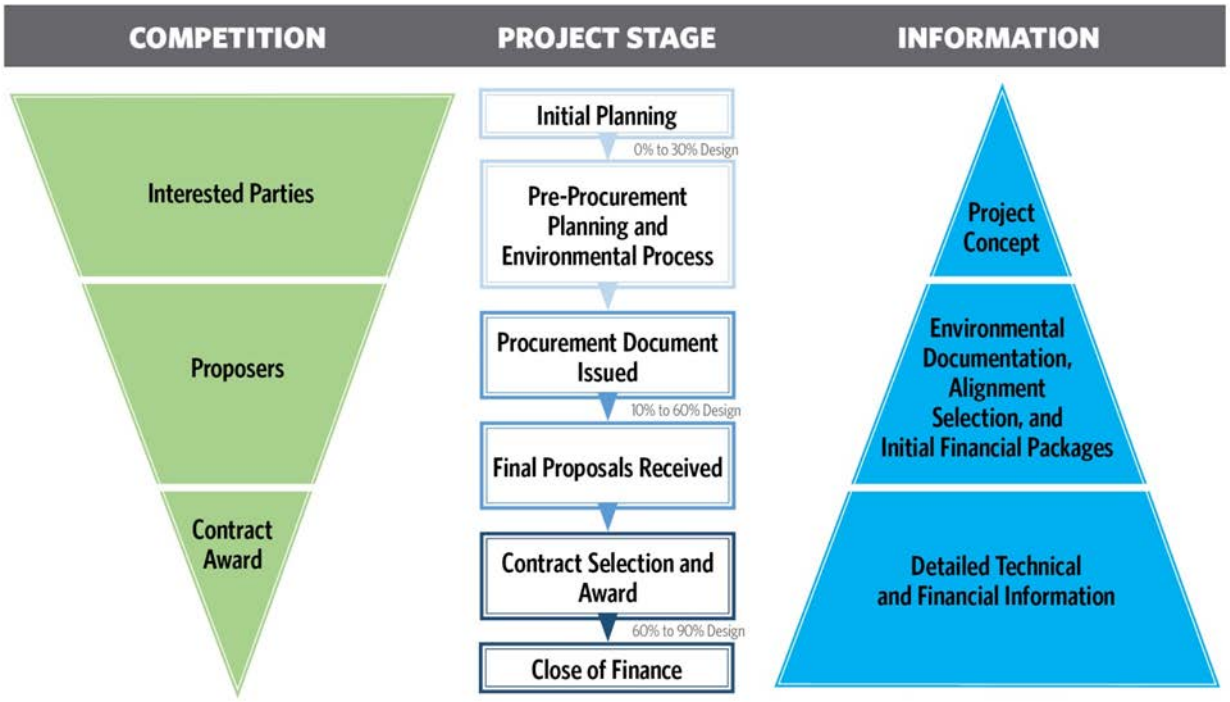
The research effort relied on a literature review, interviews with P3 practitioners, and a review by a roundtable of P3 experts to identify the consultative and feedback mechanisms used during project planning and procurement. The study also evaluated the consultative mechanisms used during project procurement and after contract award and considered introducing these types of activities earlier in the project development process to encourage private sector input. This evaluation has been used to identify approaches that have been effective and to provide suggestions for securing early input from the private sector to enhance opportunities for public-private partnerships.

1.2 Research Objective

The objective of this report is to identify existing and potential approaches and evaluate the lessons learned regarding the early involvement of the private sector in P3 projects. While the emphasis is on long-term concessions such as Design-Build-Finance-Operate-Maintain (DBFOM) contracts, selected approaches for early involvement of the private sector in Design-Build contracts have been included, where applicable, in terms of lessons learned.

As shown by Figure 1-2, the research objective requires consideration of the appropriate balance between encouraging competition (and its associated creative tension) and facilitating information flow. This report builds upon previous research studies by providing an overview of the experiences of state departments of transportation (DOTs), local agencies, private developers, and financial institutions in soliciting potential innovations from private companies during planning and procurement. The report consists of two major elements: (1) a literature review that describes national and international experiences with the solicitation of private-sector feedback during the early phases of a P3 project; and (2) interviews with P3 practitioners. Interviewees consisted of current and former P3 program managers from state DOTs and local governments and P3 experts from legal, technical, and financial advisory firms. Interviewees were contacted by phone, in person, and via email. Initial findings were presented to a roundtable of P3 experts on May 21, 2016. Feedback from roundtable participants was incorporated into this report.

Figure 1-2. Competition versus Exchange of Information



1.3 Literature Review

Previous research reports have focused on identifying barriers to P3 project development and on approaches to attract and increase the level of investment in P3 projects generally. However, there is limited research evaluating specific techniques that can encourage early involvement of the private sector to enhance opportunities for innovation during P3 project development. Listed below are 11 key reports reviewed, with findings from each summarized in Appendix B.

1. Federal Highway Administration (FHWA) and Build America Transportation Investment Center (March 2016), Successful Practices for P3s: A Review of What Works When Delivering Transportation via Public-Private Partnerships.

2. HDR (2016), *Accelerated Project Delivery Methods, Preliminary Findings and Recommendations*, Nebraska Department of Roads.

3. Parsons Brinckerhoff, Nossaman LLP, and HS Public Affairs (2015), *Effect of Public–Private Partnerships and Nontraditional Procurement Processes on Highway Planning, Environmental Review, and Collaborative Decision Making*, SHRP 2 Report #S2-C12-RW- 1.

4. Shukla, Shyamala (2015), *A Framework for Disclosure in Public-Private Partnerships, Technical Guidance for Systemic, Proactive Pre- & Post Procurement Disclosure of Information in Public-Private Partnership Programs*. World Bank Group, Washington, D.C.

5. FHWA Office of Innovative Program Delivery (2014), *P3 Peer Exchange on US 36 Managed Lanes/BRT Project, November 5-6, 2014*.

6. Eno Foundation (2014), *Partnership Financing: Improving Transportation Infrastructure through Public Private Partnerships*, Eno Center for Transportation.

7. World Economic Group (2013), *Strategic Infrastructure Steps to Prepare and Accelerate Public-Private Partnerships*.

8. Leendertse, Wim, Lenferink, Sander, and Arts Jos (2012), *Public-Private Collaboration: How Private Involvement Can Contribute to Network Performance*, Transport Research Arena, Procedia Social and Behavioral Sciences 48, 2917 – 2929.

9. Farquharson, Edward, Torres de Mästle, Clemencia, Yescombe, E.R. and Encinas, Javier, (2011) *How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets*, PFIAF, The World Bank, Washington, D.C.

10. PriceWaterhouseCoopers (PwC) (2010), *Public Private Partnerships: The U.S. Perspective*.

11. Ahadzi, Marcus and Bowles, Graeme (2004), *Public–Private Partnerships and Contract Negotiations: An Empirical Study*, Construction Management and Economics 22, 967–978.

2 Early Involvement Mechanisms from Planning to Procurement

There are a variety of ways in which the public sector can either solicit or receive unsolicited input from the private sector during different stages of the project development process. This chapter and Table 2-1 summarize strategies for involving private sector entities while P3 projects are being initially identified and screened in the planning phase prior to procurement. The mechanisms may be used by public agencies to solicit and gain increased feedback from the private sector on potential P3 viability and project development strategies.

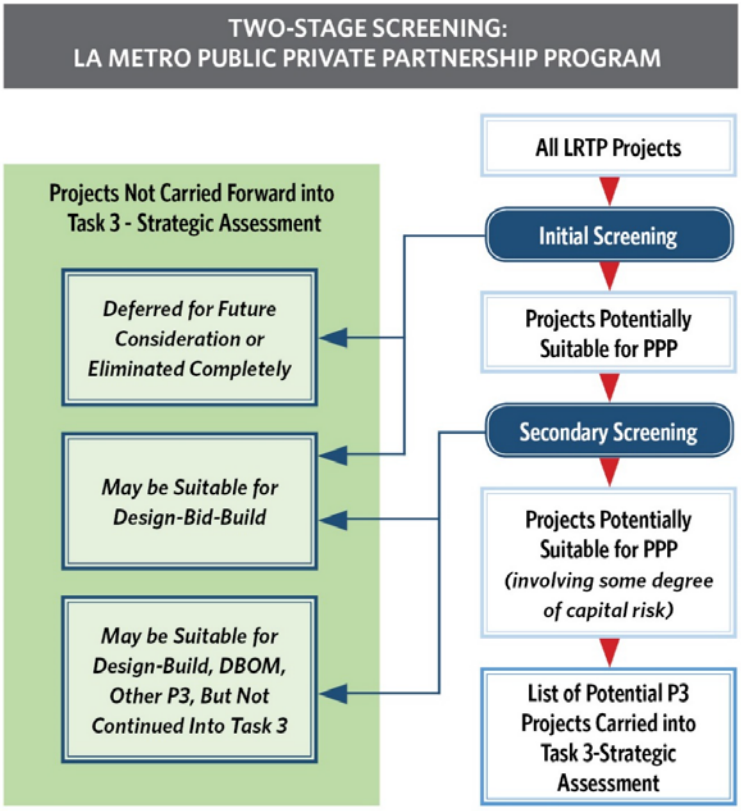
Table 2-1. Early Involvement Mechanisms, Planning to Procurement

Mechanism	Description	Examples
P3 Program Development and Project Screening	The planning branches of State, metropolitan, and/or local transportation agencies develop criteria for screening projects in their short range and/or long range plans for P3 potential. Additional technical, financial, and value for money analysis is conducted on the screened projects and information made available for public review including the private sector project development community. The resulting P3 pipeline of projects may be adopted and periodically updated by the agency's governing body.	• Virginia Department of Transportation (Virginia DOT) • Texas Department of Transportation (TxDOT) • Los Angeles County Metropolitan Transportation Authority (LA Metro)
Industry Forums	Pre-procurement meetings with developers, financiers, construction companies, and other interested parties to gauge private interest in candidate P3 projects and P3 procurement strategies and to identify ways to enhance project viability as a P3.	• TxDOT: Multiple projects • Maryland DOT: Baltimore Red Line • Kentucky Public Transportation Infrastructure Authority: Ohio River Bridges • P3 Institute: Miami Forum
Market Sounding	Separate, one-on-one discussions are conducted with developers and advisors to assess financial feasibility, risk allocation, and other related topics.	• Province of Alberta: Transmission Line • Arizona DOT: Electronic Truck Screening Project
Request for Information (RFI)	Interested parties formally respond to a list of questions on potential technical solutions, financial packages, and/or risk allocation.	• City of Los Angeles: L.A. Streetcar • Arizona DOT: Freeway Lighting Upgrade Project • Maryland DOT: I-270 corridor • Virginia DOT: Multiple projects
Unsolicited Proposals	Private sector developers provide an initial project concept without a formal request for qualifications or proposals, or in response to an open solicitation without reference to a specific project or scope.	• Georgia DOT/SRTA: NW Corridor • Virginia DOT: I-495 • Florida DOT: SR54/56 • Virginia DOT: I-95 Express Lanes • LA Metro
Pre-Development Agreements (PDA) and Master Development Agreements (MDA)	Private contractors or consortia compete for the right to develop project design and/or environmental permitting in collaboration with the procuring agency and then have the right of first refusal to develop the project.	• TxDOT: North Tarrant Express • TxDOT: Trans-Texas Corridor • North Carolina Turnpike Authority: Mid-Currituck Bridge • Oregon DOT: I-205 South
Progressive Design-Build Agreements	Through a qualification-based procurement, the Design-Build contractor is selected prior to preliminary design or a construction cost estimate.	• Maryland: I-270 • Virginia: Silver Line Phase 2
Collaborative Risk Workshops	Private entities are invited to participate in pre-procurement risk workshops to be able to better assign risk to minimize overall cost.	N/A
Collaborative Evaluation of Project Alternatives	Very early in the project development process, while projects are not yet fully defined and environmental review is in progress, private entities are invited to participate in discussions regarding potential project alternatives.	N/A

2.1 P3 Program Development and Project Screening

Under P3 enabling legislation, the state or metropolitan transportation agency or a special entity is designated to develop policies and procedures for screening, developing, procuring, and ultimately implementing P3 projects. Within TxDOT, for instance, the Strategic Project Division (SPD) was[1] responsible for project identification and development; within Virginia, the Office of Public-Private Partnerships (VAP3) is responsible for developing, procuring, and implementing the state's program of projects. LA Metro also employed a screening process, as illustrated in Figure 2-1. An initial step in the P3 program development process is for the agency to identify a subset of projects with P3 potential by screening projects proposed in its short- and long-range plans against pre-established agency goals. Some agencies also allow for candidate P3 projects to be proposed by their member agencies and/or by the private sector through an unsolicited proposal process (see below). Some agencies engage public officials and MPOs in the screening of projects. MPOs may also serve to educate stakeholders on the requirements to advance and implement a P3 project. The pipeline of potential P3 projects may be adopted by the agency's governing body and updated periodically to provide the basis for advancing candidate projects for P3 consideration and development.

Figure 2-1. Two-Stage Screening Process: LA Metro Public-Private Partnership Program



[1] Responsibilities under the TxDOT Strategic Project Division were reassigned during a recent reorganization; the Texas Center for Alternative Finance and Procurement was established in 2016 to (1) consult with governmental entities regarding best practices for procurement and the financing of qualifying projects; and (2) assist governmental entities in the receipt of proposals, negotiation of interim and comprehensive agreements, and management of qualifying projects under the state P3 legislation.

The following factors may be considered by the public sector during the screening, initial planning, and pre-procurement planning and environmental processes, to stimulate private sector input and improve the likelihood of success of P3 projects:

- **Programmatic Thinking.** Consider P3 project opportunities on a program level rather than on an individual project basis;

- **Project Size and Delivery.** Projects with a capital cost above a defined threshold, typically between $100 million and $300 million, should be evaluated to determine the most advantageous project delivery method. Such analyses may result in better informed decisions to the extent agencies have strong data. Conducting an alternative delivery analysis during the planning stage may streamline the project development process, minimize over-design when alternative delivery is found to be optimal, and help the agency determine the project's value proposition earlier in the process;

- **Risk.** Improve dialog and understanding regarding risk in general, the degree of risk retained by the public sector with traditional Design-Bid-Build project delivery, and the value to the public project sponsor and the public at large provided by the private sector when it assumes P3 project risk;

- **Financial Planning.** Integrate discussion of funding, financing, and delivery options into development of the long-range plan and incorporate identification of projects with potential for project-generated revenues (such as tolls, lease revenues, annual tax increments, and fares) that could support public and/or private financing and provide P3 opportunities; assess the amount of debt that a revenue stream could potentially support to right-size projects to be financially feasible; and evaluate private sector tolerance for risk to determine whether a project has the potential to include revenue risk, or is better structured with availability payments;

- **Life Cycle Costing.** Improve dialog and understanding regarding life cycle costing in the contexts of legacy infrastructure and P3 projects, including the potential for increased life cycle cost efficiencies; assess the effect of potential cost savings with P3 life cycle costing on overall maintenance budget flexibility with respect to other existing and proposed projects;

- **Innovation.** Engage the private sector at a conceptual level prior to National Environmental Protection Act (NEPA) to provide potential for increased innovation and creativity in the project definition and project delivery methodology.

Advantages. While not per se a mechanism for obtaining private sector input, the P3 program development and project screening process addresses a number of considerations important to the private sector project development community. Agencies with successful and mature P3 programs have clearly defined policies, procedures, and criteria for P3 project screening, evaluation, and approval, with opportunities incorporated for public review and input. Development of a list of candidate P3 projects indicates to project developers the agency's commitment and its priorities for project development. Preliminary technical, environmental, and financial feasibility studies developed by the agency to support project screening may save private sector time and expense. In addition, to reduce potential for downstream

delays during procurement and/or contract or concession award and approval, the roles and responsibilities of the legislature and of oversight agencies are clearly defined and incorporated up front.

Disadvantages. Unless carefully developed, P3 enabling legislation and policies may be overly restrictive in defining the types of projects eligible for consideration, require multi-level sequential approval of contracts and/or concession agreements, or contain provisions that limit flexibility to respond to specific project needs. Legislation and policy must balance flexibility with protection of the public interest.

Applications. P3 enabling legislation and clearly defined policies, roles, and responsibilities for P3 program development and project screening have provided the basis for states such as Texas and Virginia to plan, implement, and oversee operations and maintenance of multiple P3 projects. Such programs demonstrate to the private sector that the agency is competent and timely, and has the ability to deliver, while also providing assurance to elected officials, appointed bodies, and the public that the projects advanced are in the interest of the public good.

2.2 Industry Forums

Industry forums are initial meetings held with infrastructure developers, equipment suppliers, investors, and advisors to demonstrate public sector support and commitment, and to assess the level of private sector interest in a proposed project or set of screened candidate projects. The procuring public agency has the option of keeping these discussions scripted or open-ended, brief or long, and bilateral or multilateral meetings with multiple parties. As an example, a one-day P3 Institute event was held in Miami at which public and private sector participants discussed some 60 potential P3 projects; this event could be replicated in other cities to similarly address potential projects in different regions.

Colorado Department of Transportation (CDOT) Office of Major Project Development (OMPD) and the CDOT High Performance Transportation Enterprise (HPTE) Industry Forum Guidelines

Industry forums may be held once the P3 Project Team has developed adequate information to share on the proposed P3 project, such as a tentative project scope, timing, procurement and finance approach, key technical elements and related information. The focus of industry forums is to share and gather information to help develop the best P3 project, delivery approach and process that delivers the best value to the State. Industry forums generally include:

- General Sessions where HPTE/CDOT shares information on the project. The industry may provide limited input.
- One-on-One Sessions where the industry participants are offered the opportunity to share specific ideas or concerns on the project and approach.
- Request for Letter of Interest to request written responses from the industry to evaluate level of interest and any specific comments by industry participants.
- Industry requested meetings are held during the project development stage prior to the issuance of the RFQ document, similar to One-on-One Meetings.

Source: HPTE/CDOT

Advantages. Industry forums have been successfully used by public procuring agencies to:

- Demonstrate public commitment and intent to develop a project or set of projects;
- Obtain high-level feedback from the private sector prior to project procurement regarding project design, delivery mechanism, public funding commitments, and feasibility; and

- Determine if there is sufficient interest to proceed with the procurement, significantly modify or delay the project, or cancel the procurement altogether.

An indirect advantage of industry forums is that these discussions can sometimes facilitate the formation of private consortia.

Disadvantages. Among the disadvantages associated with industry forums are the potential for low attendance for difficult to finance projects. This may limit the value of the industry forum and not provide sufficient feedback on how to improve project bankability. If scheduled to take place too early in the project development process, there may be limited information that can be shared, thereby limiting the value of the forum. Legal and process requirements for maintaining competitive neutrality may effectively restrict the number and type of questions asked by the public agencies, the scope of private sector responses, and the corresponding Q&A discussion that can occur.[2] Other factors are that some bidders place greater confidence in written, rather than oral discussions. In addition, there may be limited feedback from potential proposers in a public forum in the presence of their competitors. For small projects or less-populous jurisdictions, the implementation costs associated with industry forums (and similar outreach activities) may be prohibitively high.

Applications. Industry forums are frequently used to initiate the P3 procurement process in the United States. Industry forums are informal mechanisms for the public procuring agency to meet with private sector entities and exchange project-related information. They also may serve as a project-screening tool. This approach may be combined with other methods for engaging with the private sector during the early stages of P3 project development.

[2] For example, TxDOT processes require that all participating firms receive the same information.

2.3 Market Sounding

Market sounding (or "soft" market testing or market consultation) is an approach used in Canada, the Netherlands, the United Kingdom, and the United States that is similar to industry meetings. Under this bilateral process, public agencies conduct discussions not only with developers but also with technical, financial, and legal advisors. The information exchange during market sounding is bi-directional, with public project sponsors learning about the capabilities of the private sector, while the private sector learns about the goals and plans of public project sponsors. Compared to industry meetings, the market sounding process can allow for more open and honest discussions regarding financial and technical feasibility and risk allocation.

Tips for a Successful Market Sounding Exercise

1. Make sure that the market-sounding exercise is in line with relevant procurement rules
2. Prepare thoroughly for any interface with the market
3. Consider market-sounding at an early stage in the project process before formulating the procurement plans in detail
4. Invest time in preparing the background documentation and be clear about the issues to be discussed with the market
5. Be clear about the process used to select the entities that will be involved with the market-sounding exercise
6. Focus on one-on-one discussions with selected organizations, where feasible
7. Involve more than one individual on the side of the public authority, be consistent about what you say to respondents, and ensure that meetings are documented
8. Do not waste time with sales pitches
9. Do not restrict scope
10. Do not use procurement language such as "bidders" or "proposers" to avoid giving the impression that the market sounding is a procurement opportunity

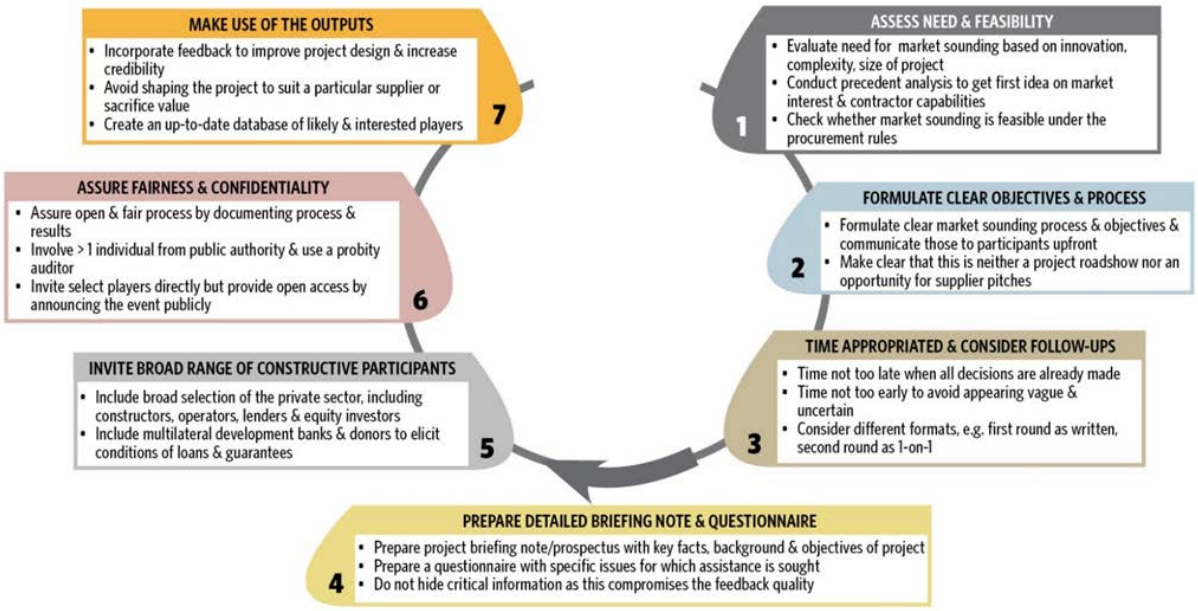
Source: Adapted from the World Bank, How to Engage with the Private Sector

Advantages. This approach can be useful in providing insight into ways to craft a P3 project to maximize the level of market interest by better aligning public objectives with what can be reasonably delivered by the private sector. It is relatively easier to obtain input from private entities in a one-on-one conversation compared to an industry forum. The market sounding process may suggest major changes in project design and scope, identify technical and environmental issues, modify the risk allocation profile, and suggest changes to major project assumptions. Private sector feedback on overall technical and financial feasibility can assist public agencies in deciding whether to proceed with the project and whether the project can be effectively delivered through a P3.

Disadvantages. This approach typically requires that the procurement agency have a good understanding of the market, pre-existing relationships with developers and advisors, and an institutional structure that is aligned toward a possible P3 procurement. If these discussions are overly informal or too few entities are consulted, this can potentially result in a biased process and decision. Further, there is a risk that the public project sponsor will measure the success of its market sounding efforts in terms of the number of private firms that express interest, rather than focusing on how best to add value to the project and the public at large. These forums can also be less effective when public sector sponsor representatives do not participate directly, relying instead on outside advisors. There is a risk that advisors may have a financial interest in the project going forward and could potentially bias the market sounding process; also, the sponsor may not appear to have a serious interest in the project if it is not present.

Applications. A formal market sounding process involving discussions with multiple parties can be useful during the early phases of project development, as multiple parties are more likely to espouse differing views on a project's technical and financial feasibility, helping to minimize potential biases regarding project development. The market sounding process can also serve as a project-screening tool. A broad range of participants should be contacted, including lenders, advisors, investors, and developers to obtain a diverse set of opinions with respect to project financial and technical feasibility. The necessary elements for conducting a successful market sounding process are summarized in Figure 2-2.

Figure 2-2. Market Sounding Process



Sources: World Economic Group (2013), *Strategic Infrastructure Steps to Prepare and Accelerate Public-Private Partnerships* and The World Bank, (2009) *Attracting Investors to African Public-Private Partnerships: A Project Preparation Guide*.

2.4 Request for Information

Public agencies use Requests for Information (RFIs) to solicit information about the capabilities of potential proposers, obtain the private sector's views regarding the technical and financial feasibility of a given project and the preferred delivery mechanism, and gauge the market's appetite for the possible transfers of project risk. Depending on circumstances, RFIs can take place early or late in the project development process.

Advantages. RFIs can help the public procuring agency develop an understanding of the market for a project and obtain feedback on the initial commercial terms. Specifically, the RFI process can demonstrate if there is sufficient market interest to proceed with a procurement and identify steps that could make a potential P3 opportunity more attractive to prospective bidders. In this way, it helps the agency to lay the foundation for the next steps in the P3 procurement, e.g., the issuance of a Request for Qualifications (RFQ) or a Request for Proposals (RFP). RFIs also provide the procuring agency with initial information on the capabilities of the potential bidders. They can additionally be used to collect information on the technical and financial feasibility of the project from different perspectives. Such information can then be used to modify the project scope, specifications, requirements and risk allocation. For public agencies with limited experience, an RFI can also inform its understanding of how to deliver a project through a P3. From the

private sector perspective, RFIs have been the catalyst for the formation of bidding teams and consortia. RFIs can potentially provide an indication as to size and depth of the competition.

Disadvantages. For the public agency, the disadvantages associated with an RFI are the additional costs to prepare and review responses to an RFI as well as the potential increased duration of the project schedule, generally of some three to six months. For the private sector, RFI responses can be expensive with marginal benefit with respect to developing a successful tender for the project. Moreover, project design and feasibility may change considerably between the issuance of an RFI and an RFQ and/or RFP. Given the opportunity cost in terms of financial and human resources, private entities have often waited until there is a formal RFQ or RFP to express interest in a project.

Applications. RFIs may work best for public agencies that are relatively new in developing and procuring P3s and/or for projects with uncertain financial and technical feasibility. However, many of the benefits of an RFI can be achieved through an industry forum or market sounding process at lower cost and with less impact to schedule.

2.5 Unsolicited Proposals

Some state and local agencies have P3 authorization legislation that allows for receipt and consideration of unsolicited P3 offers; others do not. If allowed, legislation or policies prescribe a process for reviewing unsolicited offers. An unsolicited proposal as defined under federal procurement rules, is "a written proposal for a new or innovative idea that is submitted to an agency on the initiative of the offering company for the purpose of obtaining a contract with the government, and that is not in response to an RFP, broad agency announcement, or any other government-initiated solicitation or program." (Federal Acquisition Regulation (FAR) 2.101)

"LA Metro's approach to P3s is unique. It flips the script. The traditional project delivery approach is to define a project and invite the private sector to bid on it. The public agency tells the industry what it needs and lays out the parameters, and then proposers design a project scheme to fit it. This approach can be very effective in ensuring that we end up with the project requested, but it does not leave much room for the industry to bring ideas and innovations forward. Instead of starting with the project end in mind, at LA Metro we are starting with the outcomes and performance objectives, and leaving the development of the solutions to the private sector".

Source: March 31, 2016 Infra-Americas Interview with Joshua Shank, LA Metro Chief Innovations Officer

For an unsolicited proposal to comply with FAR 15.603(c), and thereby preserve eligibility for federal funding, it must:

- Be innovative and unique;
- Be independently originated and developed by the offeror;
- Be prepared without government supervision, endorsement, direction or direct government involvement;
- Include sufficient detail to show that government support could be worthwhile, and that the proposed work could benefit the agency's research and development or other mission responsibilities;

- Not be an advance proposal for a contract that the procuring agency will need which could be acquired by competitive methods; and
- Not address a previously published agency requirement.

Perhaps most importantly, unsolicited proposals must clearly align with the public sector's needs and priorities, and not be entertained otherwise. Depending upon the state and its authorizing statute, the public sponsor may be able to negotiate a sole source contract with the unsolicited proposer or may be required to solicit competing proposals to perform the same scope.

In addition to considering unsolicited proposals that comply with the federal definition in FAR, some sponsoring agencies provide the opportunity for private developers to submit unsolicited proposals without any prior definition of scope either on a revolving basis or annually within a specified submittal timeframe. Such a solicitation without any defined scope, while not an "unsolicited proposal" from a federal perspective, is often informally referred to as calling for "unsolicited proposals", and state procurement laws may address either or both forms of "unsolicited proposals".

A notable example of a successful unsolicited proposal is the Cross City Tunnel project in Sydney, Australia, which resulted in five responses when it was put out to bid. This process resulted in a project cost reduction of $1.5 billion from original government estimates by reducing the project footprint, optimizing the construction staging concept, and taking advantage of new tunneling technologies.

Advantages. The benefits of unsolicited proposals can vary depending on the project. Some agencies accept unsolicited proposals on an ongoing basis while others such as Virginia and Pennsylvania accept unsolicited proposals twice yearly at specifically defined periods. For the procuring agency, the main advantage of an unsolicited proposal is that it allows the private sector to identify projects in which it would be interested in investing. Unsolicited proposals can serve to introduce technical or financial innovations that can benefit the procuring agency and project users and can accelerate the development of an environmentally cleared project that lacks sufficient funding (e.g., I-495 Express Lanes in Northern Virginia). Unsolicited proposals also can also allow private entities to suggest possible segments of independent utility with stronger bankability relative to the original project alignment. Additionally, unsolicited proposals can jump-start a P3 procurement process that attracts other industry participants into the market.

For the private sector proposer, unsolicited proposals are hoped to result in a "first-mover" advantage leading to eventual contract award. This advantage may be more perception than reality, however, given the typical requirement for an open competitive process following an unsolicited proposal that is determined to have merit. (To ensure that such a process is truly competitive, adequate time must be allowed for accepting competing proposals.)

Disadvantages. Unsolicited proposals can get ahead of environmental review, permitting, stakeholder involvement, and public outreach processes. The procuring agency may not have the legal authority to accept, or the institutional capacity or available staff resources to effectively review a proposal. The unsolicited proposal may involve a project that is a very low priority or not aligned with the objectives of the agency, and yet the agency will have to spend staff time evaluating it and responding to the proposer.

Public disclosure requirements may create disincentives for the private sector with regard to providing detailed information on the project beyond a general alignment and financial package. From a competitive

standpoint, unsolicited proposals can discourage other potential proposers from preparing competing proposals due to the high costs involved, limited project information, or the relatively short timeframe to respond.[3] Unsolicited proposal can also create an inadvertent selection bias in favor of the initial offeror. Finally, unsolicited proposals create additional challenges in terms of public perception regarding the transparency and competitiveness of the procurement process if the initial offeror's proposal is accepted.

From the private sector's perspective, unsolicited proposals can be expensive to produce, typically require a fee to the public procuring agency, and are inherently risky, as there is no guarantee that the project will be procured or that the original offeror will be awarded the project. Depending on the statute or regulation in place, the public procuring agency may have the flexibility to avoid or delay the review of the unsolicited proposal. Additionally, the overall track-record with unsolicited proposals has been mixed. There are several examples of lengthy negotiations that did not result in contract award (e.g., State Road 54/56 in Pasco Country, Florida) or that concluded in the selection of a firm different from the original proposer at the end of a competitive procurement process (e.g., Trans-Texas Corridor).

Applications. Although unsolicited proposals can provide advantages for public and private sector entities, there are significant opportunity costs and risks for both parties. The number of transportation projects successfully developed as a result of an unsolicited proposal remains limited. As with the Capital Beltway HOT lanes project, unsolicited proposals have worked best when it has resulted in the acceleration of a planned and environmentally cleared project for which the public sector lacks sufficient financial resources.

2.6 Pre-Development Agreement and Master Development Agreements

Under pre-development agreements (PDAs) (also known as master development agreements), private infrastructure contractors or consortia seek the right to develop a financially feasible project design in collaboration with the procuring agency, followed by the right of first refusal to develop the project on a P3 basis. The PDA is awarded on a best value basis to the most qualified proposer with the best development and financial plans.

Use of Pre-Development Agreements

PDAs may work best for large projects that are relatively undefined with respect to termini and cost, have not achieved environmental approval, or encompass different alternatives that require additional preliminary screening.

Advantages. This approach enables the private sector to provide significant input to the definition of the project, including logical termini, strategies to reduce risks, capital costs, schedule, operations and maintenance requirements, and funding and financing packages. Although developers typically have greater interest in projects that have been environmentally cleared, in some cases developers are willing to perform the preliminary engineering at a partially deferred cost, at risk, and with full payment at financial close. At the end of the planning process, the project is more likely to be bankable, obtain debt financing, and reach close of finance. By working collaboratively, both parties can obtain a better understanding of the project's risk profile and have the opportunity to develop more effective risk mitigation strategies.

Disadvantages. The private sector, particularly infrastructure developers and investment funds, have indicated that they have little interest in acting as consultants and would prefer to implement DBFOM P3

[3] The time allotted to submit competing responses varies by jurisdiction, e.g., Florida has a 120-day limit.

projects, which is their primary business, and earn a return on their equity. Pre-development agreements are likely to reduce competition either as a result of "right of first refusal" clauses which give the awarded party the first right to bid on a project or selection biases in favor of the entity selected under the pre-development agreement. Pre-development agreements give the awarded party additional inside information that creates a competitive advantage or may dissuade other bidders from entering into an open competition for the project. Even if a collaborative environment has been established, this does not ensure that both parties will fully share information.

Applications. Pre-development agreements tend to work best if there is a collaborative working relationship between the project sponsor and the private partner that promotes the reasonable and effective sharing of project information by both parties. Statutory restrictions or procurement rules in some states may also explicitly prohibit the planning, environmental, or design entity for a project from bidding on its final design and construction.

2.7 Progressive Design-Build Agreements

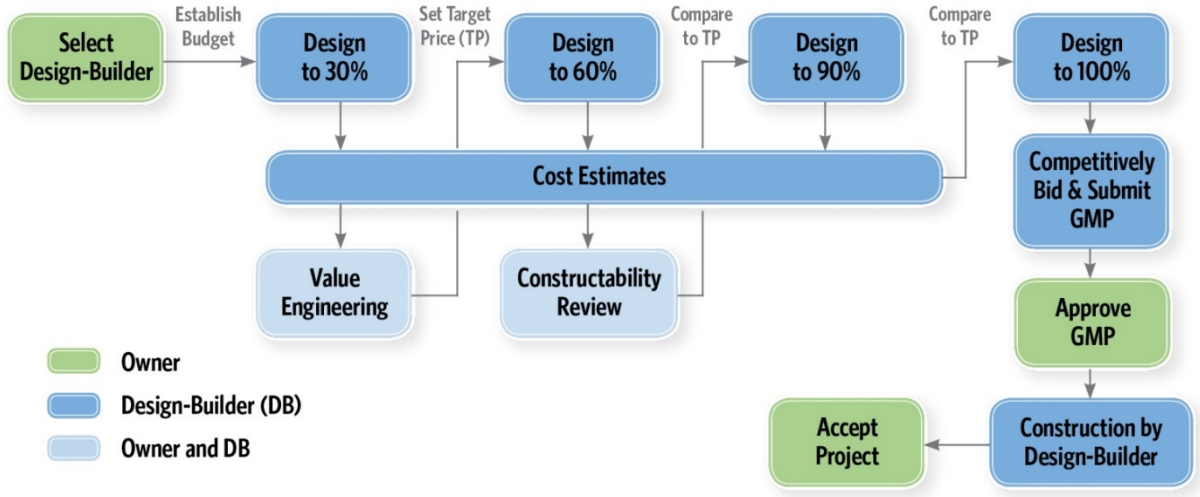
With progressive design-build agreements, the design-build contractor is selected primarily on qualifications and is brought on as part of the owner's team at a very early stage of project design. In contrast to project development through Construction Manager at Risk (CMAR) and Construction Manager/General Contractor (CM/GC) procurement approaches, the design firm and contractor are selected and contracted under a single procurement. The design-build contractor will either assist the owner in developing the design or advance the design from what the owner has already developed. At approximately 60 percent design, the design-build contractor submits a commercial proposal to complete design and construction for a fixed price and schedule with performance guarantees. Owners can use third parties to verify cost, and can complete a competitive procurement if the parties cannot agree to the design-build contractor's proposed cost. Figure 2-3 shows the roles of the public procuring agency and the design-build contractor under progressive design-build agreements as a project advances through design, competitive bidding, approval of the guaranteed maximum price (GMP), construction, and project acceptance.

Advantages. For the project sponsor, the main advantages of progressive design-build agreements are the potential to reduce procurement preparation and review costs, accelerate project procurement and development, and reduce capital costs. The ability to implement the project in phases or task orders increases flexibility for the public procuring agency in the project development process.

There is also greater potential for information sharing. For example, on the Silver Line extension to Dulles Airport (Phase 2) in Northern Virginia, the contractor conducted two workshops at the outset of the project. The first focused on the concept design in the environmental document, and the second addressed design concepts for line, track, systems, stations and parking components. The results influenced all aspects of the concept design. In total, the savings from all final recommendations from the Silver Line Extension workshop totaled $190 million, or 10 percent of estimated construction costs.[4] From the private sector perspective, progressive design-build agreements are attractive because they can potentially lower bidding costs depending upon the timing of the awarded construction contract.

[4] Kane, Christopher, (2010) Using PPPs in the US to Develop, Finance and Operate Infrastructure Projects TRB 49th Annual Workshop on Transportation Law, Newport, Rhode Island.

Figure 2-3. Progressive Design-Build



Sources: Johnson (HDR) and Zeltner (HDR) *Alternative Delivery: Progressive Design-Build*

Disadvantages. Progressive design-build agreements employ numerous task orders, creating a lack of construction cost certainty and reduced competition if final costs are determined through a negotiated process. There is also a selection bias at the 60 percent design submittal since the incumbent design-builder already has an ongoing contract with the procuring agency, potentially offsetting the cost advantages of broader competition. The incumbent design-build contractor also has a competitive advantage compared to other bidders since it has greater knowledge about the project as a result of the 60 percent submittal. Progressive design-build contracts may also increase post-procurement award costs and complexity, as the selected progressive design-build firms would be required to work with several of their counterparts within the team during the bid process.

Applications. Progressive design-build contracts have largely been used in water distribution and treatment projects. Transportation sector examples include the second phase of the Washington Metro Silver Line and the Maryland I-270 Innovative Congestion Management Project, for which an RFI was issued in late 2015. Because the design-builder will provide its overall project price commitment after contract award, the processes for negotiating the price must be carefully conceived by both sides.

2.8 Collaborative Risk Workshops

Under this approach, private sector entities participate in risk workshops along with staff from the project sponsor, technical experts, and key stakeholders. Single or multiple workshops may be held depending on the number of participants involved.

Advantages. The workshops provide a neutral setting for a more comprehensive identification of project risks and the identification of potential strategies for the allocation and mitigation of these risks. The workshops normally lead to development of a refined risk-adjusted cost estimate and schedule, as well as guidance on risk allocation in the contract documents.

Disadvantages. To date, there has been limited industry experience with collaborative risk workshops, especially during the early phases of project planning. More critically, public and private parties are unlikely

to provide sensitive commercial information lest they give up their competitive advantage within the industry and their negotiating position at contract award. Along these lines, both public and private parties have incentives to under-estimate or over-estimate risk impacts depending on the type and magnitude of the risk.

Applications. This approach has not been explicitly applied to date. Potential applications of collaborative risk workshops may be limited as the benefits of this approach can be achieved through pre-procurement industry forums or market sounding.

2.9 Collaborative Workshops on Project Alternatives

With collaborative workshops on project alternatives, prospective private infrastructure developers, lenders, and investors are invited to participate in workshops to identify, define, and refine possible project alternatives.

Advantages. If structured properly, collaborative workshops may be useful tools for identifying and refining potential alignments, project design, and funding and financing packages. The recommendations from these workshops would be non-binding to avoid biasing ongoing environmental reviews (if applicable), and to minimize concerns regarding selection bias.

Disadvantages. There is limited industry experience with the collaborative participation of the private sector in the review of project alternatives. Additionally, some stakeholders and the general public may develop the perception that this approach could bias the NEPA process by pre-determining an alignment and creating a lack of transparency in project and route selection; in reality, this is not the case as the NEPA process would objectively evaluate different alternatives including the product(s) of the workshop. Another potential disadvantage is the limited number of people that can effectively participate in a workshop. If all interested proposers send a representative, it may be too large of a group to allow a workshop to properly function. Turning away companies would not work either as it would give some firms an unfair competitive advantage.

Applications. This approach has not been implemented in the United States. The private sector can provide non-binding feedback on alignments through industry forums, market sounding, RFIs, and other feedback mechanisms. The NEPA process also allows the private sector to review and comment on alternative project alignments during the outreach process, similar to a member of the public; however, the private sector cannot have any direct involvement in the decision-making process; this limits the potential use of this approach.

3 Early Involvement Mechanisms during Procurement

Chapter 3 explores strategies for soliciting feedback from the private sector during the procurement of P3 projects. Table 3-1 provides a summary of these different strategies.

Table 3-1. Early Involvement Mechanisms, Procurement Phase

Mechanism	Description	Examples
Industry Meetings	Meetings are held with the private sector prior to advertisement to gauge interest in the procurement and obtain feedback on the draft procurement documents.	• Maryland DOT and the Maryland Transportation Authority (MdTA): Maryland Purple Line
Multi-Stage Procurements	Multiple and increasingly detailed procurements are issued with proposal responses at each stage. Proposers are provided opportunities to comment on the project at each stage.	• Maryland DOT/MdTA: Maryland Purple Line • TxDOT: LBJ Managed Lanes
Multiple P3 Delivery Procurements	Proposers are requested to provide separate bids for the same project using distinct delivery mechanisms.	• TxDOT: Grand Parkway Project • Virginia DOT: I-66 (Transform 66 – Outside the Beltway)
Alternative Technical Concepts (ATC)	Proposers can suggest innovative design or technologies beyond what is required in the procurement documents.	• Maryland DOT/MdTA: Maryland Purple Line • Riverside County Transportation Commission: SR-91 Managed Lanes
Interweaving	A procurement that takes place in advance of the planning concept decision which allows bidders to "interweave" the project alignment into their proposal.	• A2 Tunnel, Maastricht, Netherlands
"Sole Source" Bids	Direct negotiations occur with a single proposer as a result of an unsolicited proposal or a solicitation with one proposal.	• TxDOT: SH 130 Segments 5&6 • Virginia DOT: Elizabeth River Crossings

3.1 Industry Meetings

Industry meetings entail bilateral discussions with each of the proposer consortia at the commencement of and during the project procurement. These meetings are designed to assist the procuring agency in assessing private sector interest in the procurement and to obtain feedback regarding the Instructions to Proposers (ITP), technical requirements, and the draft contract. Procurement agencies must discuss the project terms in an equal manner with all proposers. As a result, these meetings tend to be relatively scripted and are typically confidential. Discussions can cover multiple topics in a single meeting or can be specialized to focus on specific technical, financial, or legal issues. On some projects, the procuring agency (e.g., Infrastructure Ontario) has issued white papers on different technical issues in advance of the meetings.

Advantages. Industry meetings can provide a general sense of investor interest, project bankability, and possible deal-breakers. They can also generate positive or negative feedback on the proposed commercial terms and risk allocation contained in the draft contract. Industry meetings can be conducted jointly with

key stakeholders, local government agencies, federal and state agencies that may be an indirect party to the transaction (e.g., turnpike authorities or transit agencies), and third parties (e.g., utilities) from which approvals are needed to develop the project. For the private sector, industry meetings can provide insight regarding project costs, schedule, environmental and stakeholder issues, and risks that can be priced in their bids.

Disadvantages. One concern related to industry meetings is finding the right balance with respect to the number and timing of the meetings. Private developer entities have identified the following issues:

- Not enough or too many meetings;
- No or limited opportunities to present feedback on the project due to the scripted nature of the meetings;
- Insufficient new information; and
- Meetings coming too early or too late in the procurement process.

Project sponsors must avoid providing an inconsistent amount of information to proposers to avoid providing any proposers a competitive advantage from the discussions.[5] Project sponsors also should be careful that the industry meetings do not devolve into de-facto negotiations prior to contract award and selection. Proposer suggested changes to procurement documents may give one or more bidders a competitive advantage.

Applications. Industry meetings have often been successful in obtaining relevant feedback from the private sector throughout the procurement process, particularly during the early stages. The success in obtaining relevant feedback from the private sector depends on the structure and timing of these meetings. In addition, these meetings are most effective when the public sector sponsor participates directly, avoiding an over-reliance on outside advisors.

3.2 Multi-Stage Procurements

This approach involves the project sponsor issuing multiple and increasingly detailed procurement announcements requiring progressively more detailed responses from the private sector. These include request for expressions of interest (RFI), request for qualifications (RFQ), request for proposals (RFP), and request for best and final offers (BAFO). Under this approach, the private sector has multiple opportunities to provide feedback on the project and on the procurement process with each submittal. Some European Union countries use Competitive Dialogue, a variation of this process, to provide structured dialogue between the public and private sectors throughout the procurement process.[6]

Advantages. The following advantages are associated with this approach:

[5] Representatives from the procuring agency's legal office and its legal advisors are typically present to ensure that parallel information is provided to all proposers.
[6] European PPP Expertise Centre (EPEC), *Procurement of PPP and the Use of Competitive Dialogue in Europe*, 2009.

- Public agencies can obtain detailed feedback from proposers at each stage of the procurement process, which allows for the refinement of the project design and financing packages;
- Each stage of the procurement process provides an effective screening mechanism for inviting only technically and financially qualified bidders; and
- Procurement agencies can assess the risk tolerance of the market and can adjust the project risk allocation accordingly.

Disadvantages. Multi-stage procurements can extend the procurement schedule, depending on the number of stages involved, the complexity of the procurement documents and subsequent submissions, the number of proposers at each stage, and the length of the review period. Additionally, multi-stage procurements increase project procurement costs for public agencies and private entities, as each stage requires additional staff time and the contracting of technical, financial, and legal advisors.

Applications. Multi-stage procurements are normally used in the development of transportation projects delivered through a P3, especially on large projects with high levels of technical complexity and complicated risk allocations.

3.3 Multiple P3 Delivery Procurements

Under this approach, the public procuring agency requests proposers to provide separate proposals using multiple delivery mechanisms under a single procurement. An example is the procurement of the Grand Parkway project[7] in the Houston metropolitan area, where the proposers were required to submit and price both Design-Build and DBFOM proposals.

Advantages. The advantage of multiple delivery mechanism procurement is that it allows the project sponsor to ascertain the cost of developing a project using alternative delivery mechanisms under a single procurement. Additionally, this procurement strategy allows the public agency to obtain feedback on costs and risks in relation to the different delivery mechanisms under consideration.

Disadvantages. This approach requires the project sponsor to develop distinct procurement documents and frameworks for evaluating competing proposals, potentially necessitating the engagement of increased staff support. Multiple delivery mechanism procurements can potentially be longer than one of the constituent procurement methods would have required individually, due to the significant increase in level of effort. Consequently, multiple delivery mechanism procurements increase procurement process time and costs for the project sponsor. Similarly, the private sector has found this approach to be very challenging as a result of the following:

- Private parties may be reluctant to incur the cost of preparing multiple proposals for one procurement; and

[7] The procurement covered Segments F-1, F-2 and G. Ultimately the project is being developed through a design-build agreement.

- This approach may create additional difficulties in securing the necessary financing given the potential variation in capital costs and risk allocation.

Both public and private sector entities have reported finding multiple delivery-mechanism procurements to be more expensive, create unnecessary redundancies, and generate additional complexities during the procurement process.

Applications. The additional expenses, complexities, transaction costs and redundancies associated with this approach may discourage its future application.

3.4 Alternative Technical Concepts

The term Alternative Technical Concepts (ATC) refers to a process in which the private sector proposers provide recommendations as part of their bids to lower costs, improve quality, and/or enhance the financial and operational performance of the project. ATCs can entail changes in project design, schedule, operations and maintenance activities, risk mitigation strategies, the introduction of new technologies and equipment, or the use of the latest management techniques. ATCs must typically be approved by the project sponsor prior to the proposer incorporating the ATC into its proposal submission for the proposal to be deemed responsive.

Advantages. The potential advantages of ATCs are improved technical design, reduced capital costs, accelerated schedule, the introduction of new technologies or management techniques, the deferment or reduction of rehabilitation costs during the O&M period, and the reduction of risks.

Disadvantages. For the procuring agency, the disadvantage of ATCs is that the agency needs to develop specific guidelines for accepting and reviewing ATCs. This can lengthen the procurement schedule and increase procurement costs as technical experts may be needed to review the ATCs. Another disadvantage is that it may be difficult to compare different ATCs submitted by various bidders. For the private sector, there is a risk that the ATC will not be accepted, resulting in the lost investment of limited staff and financial resources, schedule slippage, and other opportunity costs. Another disadvantage from the private sector perspective is that an ATC may result in a change in the project definition sufficient to require environmental reevaluation thereby risking schedule delay that could outweigh the benefits of the ATC. Pursuing an ATC earlier relative to the NEPA process may help to mitigate this challenge. However, almost all agencies that allow ATCs provide a stipend or payment to the unsuccessful proposers so that part of their cost is reimbursed. In exchange for this payment, the project sponsor retains ownership of all ATCs and can pass them on to the successful proposer.

Applications. ATCs have been used to introduce changes in design, equipment, or technologies employed. In practice, there are limits to the number and types of ATCs to allow for a reasonable comparison among proposals, limit the cost to prepare and submit the proposals, and optimize the time spent evaluating the proposals by the project sponsor.

3.5 Interweaving

Similar to ATCs and progressive design-build agreements, interweaving involves a competitive process to assist the public procuring agency in developing and refining project design. In contrast to ATCs,

interweaving entails a separate procurement prior to the selection of the final alignment to allow bidders the opportunity to incorporate or "interweave" the project alignment design into their formal proposals. This mechanism is intended to encourage greater coordination and information sharing between the public agency and the private sector in the determination of the project definition and alignment.

Advantages. In the Netherlands, this approach was found to streamline planning and procurement, potentially reducing the project development schedule and costs for both parties.

Disadvantages. The primary disadvantage of this approach is that it can get ahead of and potentially bias the NEPA review process. Interweaving may reduce competition with respect to project design, construction, and financing. Additionally, depending on timing interweaving can create the appearance of limiting stakeholder and public input in project design and the selection of the alignment.

Applications. This approach has been used in the Netherlands and was found to be relatively effective in the integration of transportation infrastructure with economic development in rural areas. There are no known examples of interweaving in the United States.

3.6 Sole Source Procurements

Sole source procurements involve a project sponsor negotiating with a single private party in the absence of a competitive procurement process or in a competitive process that has resulted in only a single responsive bidder.

Advantages. This approach provides incentives for both parties to share information regarding project alignment, financial and technical feasibility, and risks in order to complete the procurement process and begin construction. This approach tends to be less prescriptive, offers greater flexibility in the exchange of information, and encourages innovation.

Disadvantages. The public agency must have legal authority to negotiate the price of a public works project with one firm. The absence of competition precludes the public agency's ability to accurately "market price" the sole source tender or obtain the best value. As a result, the proposed project design and/or financing packages may not be in the public interest. This concern can be partially mitigated through competitive processes among participating team members in a consortium. For instance, the lead entity may solicit design-build partners on a competitive basis, helping to secure a price advantage for the project sponsor.

Application. Sole source procurement may be the intentional result of other early involvement mechanisms, such as progressive design build, master development agreements, unsolicited proposals or interweaving, or the unintentional result of a competitive procurement that has only produced one responsive proposal.

4 Early Involvement Mechanisms Post-Procurement

Chapter 4 evaluates possible approaches for: (i) leveraging early identification of refinancing opportunities that may be acceptable to lenders in the post-procurement phase; and (ii) leveraging early identification of competitive stipends that would be provided post-procurement to encourage developer participation. While implemented post-procurement, these mechanisms are intended to encourage developer participation early in the procurement process.

Table 4-1. Early Involvement Mechanisms, Post-Procurement

Mechanism	Description	Examples
Early Lender Engagement	Lenders are engaged early in the procurement process to build in opportunities for refinancing and/or refunding of developer and/or public equity in the post-procurement phase.	• Alameda Corridor • Georgia NW Corridor
Competitive Stipends to Unsuccessful Proposers	The private sector is made aware early in the project development process of competitive stipends to be awarded post-procurement as incentive to motivate private sector interest and to confirm public sector commitment.	• Maryland DOT Public Private Partnership Program Regulations

4.1 Early Lender Engagement

Early lender engagement can assist project developers and clarify lender expectations regarding opportunities for refinancing and/or refunding in response to changing financial conditions that may occur post-procurement.

Advantage. Early lender engagement may preserve the project developer's flexibility and enhance lender confidence up-front during project procurement by identifying mechanisms for refinancing and/or refunding that may be pursued post-procurement. Lender feedback regarding financial feasibility can result in changes in project design that increase bankability and private sector interest.

Disadvantages. This mechanism may create reliance on future refinancing or cash-out opportunities that may be vulnerable to changing financial market conditions in the future.

Applications. An example of this approach is the Transportation Infrastructure Finance and Innovation Act (TIFIA) loan review and negotiation process, which can occur prior to, during, or after project procurement.

4.2 Competitive Stipends to Unsuccessful Proposers

Under this approach, stipends are offered to partially compensate prospective developers for the cost of their proposals. Stipends also serve as consideration for the intellectual property rights associated with such proposals, so that project sponsors may use information in unsuccessful proposals. Depending upon the degree to which information is considered proprietary, proposers may decline the stipend to prevent their competitors from obtaining access to the proprietary information.

Advantages. Competitive stipends demonstrate the project sponsor's commitment to the procurement process and partially offset the substantial cost associated with preparing a compliant P3 proposal. Both effects can potentially encourage early participation by developers and thereby foster competition.

Disadvantages. Depending upon the number of unsuccessful proposers that are eligible, this approach may increase the public agency's procurement costs and requires the agency to make allowance for the number of potential stipends in its procurement process.

Applications. Stipends may be necessary to stimulate increased private sector interest in taking on the competitive risk in preparing a costly proposal. To keep the process manageable and cost-effective, the procuring agency may choose to limit the shortlist to no more than five of the highest ranked proposers.

5 Barriers to Early Private Sector Involvement

There are a number of barriers to early private sector involvement in P3s. Political, legal, and regulatory procedures, put in place to protect the public interest, can complicate early involvement. The private sector may be reluctant to engage early in the absence of a well-defined and publicly supported project. Given the resource commitment, the private sector must determine if:

- The project is financially viable, in terms of public funding and/or revenue risk;
- The public agency can politically deliver on the project;
- The procurement process is likely to be efficient and successful;
- It has a realistic possibility of contract award and, if selected, achieving a reasonable rate of return on its investment in the project; and
- The appropriate legal and regulatory framework is in place.

Responsive proposals require significant financial and human resources over multiple years at the cost of other project pursuits. Although early private sector involvement can enhance a project's financial viability through reduced costs and/or increased revenues, it also entails higher development costs, opportunity costs, and risks for both the public and the private sectors.

5.1 Political Barriers

Insufficient political support has contributed to delaying, derailing, or cancelling P3 procurements in multiple jurisdictions in the United States and internationally. Political support encompasses concerns raised by the general public, key stakeholders, and elected officials. Below is a summary of the political issues that have served as barriers to the early involvement of the private sector in P3 procurements.

5.1.1 Lack of Political Champion

The public procurement agency needs a "champion" to support the project from within the agency (i.e., to motivate technical staff and management) and externally (i.e., to stimulate political support for the project). The absence of a political champion limits the extent of early involvement as sufficient political support is needed to conduct publicly visible activities, such as industry forums and RFIs.

5.1.2 Public Concern Regarding Real or Perceived Private Sector Enrichment

Political support must establish the right balance between encouraging private investment while avoiding the negative perception that the procurement unreasonably favors the private sector. Involving the private sector early in a P3 procurement may create public, user, and stakeholder concerns that the final design and contract will be biased toward one or more of the following:

- Maximizing profitability at excessive cost to the public. This could entail politically unacceptable rates of return, long contract terms, excessive public funding, financial guarantees, reduced taxes,

subsidized loans, grants, contingent liabilities and other inducements to attract private sector capital;

- Limiting and restricting access, or alternative toll-free routes, especially for toll road concessions, to create a competitive framework that strongly favors the private sector while negatively impacting users and landowners;
- Limiting public access on transportation facilities, especially during emergencies;
- Implementing toll rates and indexing mechanisms that encourage monopolistic pricing;
- Pursuing overly aggressive billing and collection regimes;
- Monetizing existing publicly-owned assets;
- Entering into "excessively" long-term contracts, especially over 50 years;
- Developing project designs and schedules that reduce costs at the expense of the public good;
- Ignoring potential environmental impacts, or inadequate mitigation;
- Creating a multi-tier service level that favors users who have the ability to pay higher fees;
- Providing insider information regarding potential real estate development opportunities that would benefit from the project;
- Encouraging the transfer of risks to the public sector, which can potentially lead to negative fiscal impacts; and
- Allowing sole source bids and entering into unbalanced negotiations, which may lead to unfavorable terms for the public agency.

Although most procurement processes are designed to protect against selection bias, the appearance of bias can pose a disincentive to the early involvement of the private sector in a P3 project. Project sponsors need to establish a transparent and accountable process that protects the public interest while allowing for greater collaboration with the private sector during project planning and procurement.

5.2 Financial Barriers and Risks

Early demonstration of financial viability is important to inspire confidence among prospective developers in the private sector. Sharing of information necessary for the private sector to properly evaluate risks as early as feasible is similarly essential.

5.2.1 Concerns Regarding Project Financial Viability

Given the potential opportunity costs and limited financial and staff resources, a private developer may choose not to engage with the public sector during the project's early stages if it is not confident that the project is financially viable. A feasible financial plan including specifics regarding public funding and, if applicable, credible forecasts of toll revenue, is critical for the private sector to consider investing time and resources in a potential P3 project.

5.2.2 Concerns Regarding Due Diligence

Similarly, the private sector may not pursue the project if it determines that the public sector has not carried out adequate due diligence and risk assessment, appropriate for the phase within the project development process.

5.2.3 Risks

Public and private entities may be reluctant to engage in early discussions due to insufficient information to identify and price risks properly. Concerns raised by the private sector regarding risks include the following:

- **Financial Risks.** Potential changes in the financial markets can preclude the ability to lock down public funding and private financing several years prior to financial close. A frequently raised example is the near shutdown of the municipal bond market and the bankruptcy of bond insurers during the 2007-09 financial crisis. Economic conditions can affect whether a project can generate sufficient revenue to pay its financing costs.

- **Legal and Regulatory Risks.** The private sector has cited concerns that potential legal and regulatory factors, especially those that could preclude the eventual procurement of the project, are barriers to early involvement. Examples include P3 statutes that limit the number of projects, or that include an expiration date for P3 project authority. As a result, private entities may be reluctant to pursue a P3 project until there is greater certainty that the procurement will take place and completion risk is reduced.

- **Technical and Environmental Risks.** The private sector has raised concerns that early involvement during project development may create the false expectation that it is willing to bear part of these risks, particularly if it was a part of the planning process and was aware of these risks prior to procurement.

5.3 Legal and Regulatory Barriers

Numerous legal and regulatory considerations may discourage private sector interest in potential transportation-related P3 opportunities, or even act as outright barriers to developing such opportunities.

An obvious barrier would be the absence of necessary P3 enabling legislation. Considerations that may discourage private sector interest consist of those laws and regulations that affect the private sector's expectations regarding risk and profit. Various such considerations are addressed in the following subsections.

5.3.1 Statutory Authority

The existence of statutory authority for a public sector entity to enter into a P3 agreement with a private sector entity is a fundamental issue. Currently, 33 states plus the District of Columbia and Puerto Rico have enabling legislation in place, authorizing P3s for highway and bridge projects. Of these 35 jurisdictions, 25 have broad statutory authority to employ P3 project delivery, while 10 have limited or project-specific authority.[8] (Examples of project-specific authority include Alaska for the Knik Arm Bridge, Illinois for the Illiana Expressway, and Nevada for Project Neon.) The aforementioned 35 jurisdictions are listed in Table C-1 in Appendix C, along with selected key features of their enabling legislation. Table C-1 does not include states that have enacted P3 statutes for purposes other than transportation (e.g., New Jersey, where community colleges have the authority to enter into P3 agreements).

In most instances, prospective P3 proposers or concessionaires are unwilling to invest resources or otherwise show an interest in participation, without a specific P3 opportunity being identified and announced by a public sector sponsoring agency. However, on some occasions, even the absence of enabling legislation might not act as a barrier, if there is a reasonable expectation that the necessary authority will be enacted in the relative near term and one or more firms are willing to invest resources to secure first-to-market advantage in anticipation of such enactment. Beyond the breadth of statutory authority, enabling legislation varies from jurisdiction to jurisdiction with regard to several factors that may affect the level of interest of prospective proposers or concessionaires.

Selected examples include:

- **Restrictions regarding the use of certain types of P3 delivery mechanisms.** As an example, although Texas statutes allow TxDOT to deliver projects using multiple types of P3 mechanisms, they prohibit the agency from entering into DBFOM contracts that include availability payments. Virginia has a similar restriction;
- **Limitations regarding the number of P3 projects.** California and Connecticut are among states where only a limited number of P3 projects may be undertaken;
- **Limitations regarding use of P3s for only one transportation mode.** In states including Washington, Oregon, Nevada, Texas, Ohio, Illinois, and Maine, P3 authority is limited to highways, airports or rail projects;
- **Authority limited to lease based P3s.** Wisconsin's statutory authority is limited to two mechanisms: Build-Operate-Lease (BOL), where projects are leased to the state DOT with an

[8] National Conference of State Legislatures, *Public-Private Partnerships for Transportation: A Toolkit for Legislators*, May 2015 Update and Corrections.

option buy and Build-Operate-Transfer (BOT), where projects are sold to the state DOT at its option upon completion;

- **Complete lack of accelerated project delivery method authority.** Two states[9] (Iowa and New Mexico) not only lack P3 authorization, but also do not have the authority to develop projects using accelerated project delivery methods (APDM), such as design-build. Two additional states, North Dakota and Alaska, have APDM authority but have moved away from delivering projects using design-build techniques, and do not have an active APDM program; and

- **Limitations regarding the number and/or size of P3 Projects.** For example, Massachusetts requires the estimated project value to exceed a minimum of $5 million for state agencies to utilize P3 project delivery. In Mississippi, the number of design-build projects is limited to three per fiscal year, of which one must exceed a minimum value of $10 million, and two may not exceed a maximum value of $10 million.

Some States Limit the Number and/or Size of P3 Projects

In states where the number of P3 projects is limited and/or the anticipated value or size of a project must meet specified criteria, early private sector involvement may be inhibited by the uncertainty over whether a particular P3 opportunity will be advanced. Minimum and maximum anticipated cost and total number of projects permitted to be delivered may also be specified in P3 statutes.

Enabling legislation tends not to be static. Amendments are enacted periodically, and the body of applicable case law expands over time. Depending upon the substance of such amendments and case law, they may affect the private sector's appetite for early involvement positively or negatively.

Some state constitutions afford incorporated cities and municipalities municipal home rule, which provides them with the authority to self-govern on a number of issues. If this is the case, municipalities may have the authority to enter into P3s without state legislative authority. For example, municipal home rule in Illinois enabled the City of Chicago to conduct the asset sale of the Chicago Skyway and to set up the Chicago Infrastructure Trust. At present, 39 states have full or partial home rule authority.[10] In states without municipal home rule, an incorporated city or municipality can pass its own P3 legislation, provided P3 authority exists at the state level. P3 enabling legislation at the municipal level is typically modeled after state statutes, containing a similar level of authority, restrictions, and review periods. For example, the City of Miami, which enacted a P3 ordinance in 2014, modeled its statutes after FDOT's legal requirements, particularly as it pertains to the receipt and review of unsolicited proposals.

5.3.2 *Funding and Financing*

Funding for P3 projects often relies on the ability to combine public funding and private financing sources and may also require long debt maturities and the ability to refinance private debt. The following issues may inhibit private interest in early participation in P3 projects:

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[9] Nebraska was, until recently, in this category, having enacted legislation in 2016 authorizing the use of design-build and CM/GC project delivery methods; refer to Nebraska Revised Statutes Chapter 39-2801, et seq.

[10] States without some form of municipal home rule authority include Alabama, Delaware, Mississippi, Nebraska, New Hampshire, New Mexico, Oklahoma, Vermont, Virginia, West Virginia, and Wyoming. However, it should be noted that West Virginia has recently enacted a pilot program, which is due to conclude by the end of 2017.

- Inability to combine public funding and private financing (e.g., Arizona and California);
- Limits on debt maturities (e.g., Nevada, 20 years);
- Aggregate debt limits at state or DOT level;
- Inability to accept TIFIA loans;
- Inability to issue Private Activity Bonds; and
- Restrictions on the refinancing of private debt, public sector approvals regarding refinancing, or contractual provisions that require the sharing of refinancing gains.

A related legal issue is the ability to authorize and obligate future federal and state funding appropriations to cover project related availability payments to a private sector developer or concessionaire over the term of the concession. The absence of such authority may decrease private sector interest in DBFOM contracts with availability payments.

5.3.3 *Tolling Authority*

The ability of states and other jurisdictions to implement tolling on federally-funded highways is limited. However, states are free to regulate tolling authority on their state highway systems. In both contexts, toll authority includes two distinct aspects, both of which affect a private sector developer's view of risk. The first is the legal authority of the project sponsor to impose and collect tolls. P3 projects are often funded through tolls, and without the ability to toll it is challenging to advance projects on a P3 basis. The second is the legal authority of the private sector to impose and collect tolls.

5.3.4 *Non-Compete Clauses*

For P3 projects that involve the private sector's assumption of revenue risk, the impact of future competing projects could jeopardize the potential profitability of the P3 project. To attract large-scale private sector investment in such projects, the developer may wish to have the public sector project sponsor commit to providing compensation if it builds a parallel or competing project during the concession term. Some states, such as Arizona and Colorado, are prohibited from entering into non-compete agreements, which may discourage the level of private sector interest in P3s. Having the legal authority to enter into a non-compete agreement, and an early public indication of the intent to use such authority, could motivate early private sector interest in P3 projects, especially in projects with significant revenue risk.

5.3.5 *Disclosure, Proprietary Information, and Private Meetings*

Procurement laws may preclude agencies from conducting industry forums in some jurisdictions. To maintain a competitive balance, legal and regulatory guidelines can require the proactive disclosure of information shared between the public and private sector during industry forums or other early involvement discussions. A related challenge is that while statutes

The rationale for required public disclosure of unsolicited proposals include:

- Reduce public suspicion surrounding unsolicited projects;
- Reduce the likelihood of an unjustified project being accepted by government;
- Provide a market signal regarding the transparency of the unsolicited proposal process; and
- Encourage competition when a competitive process is statutorily mandated.

governing information disclosure may be relatively prescriptive in some jurisdictions, public agencies may lack formal guidance and processes regarding information disclosure. Both situations tend to limit information exchange.

In the absence of formal disclosure requirements, public agencies and the private entities may have incentives to avoid divulging detailed information early in the project development process due to concerns that this may impair their respective negotiating positions later in the procurement process. State and local rules regarding public disclosure of proprietary or business confidential information have been barriers to the early involvement of the private sector, particularly in the execution of master planning agreements and the submission of unsolicited proposals. To maintain a competitive advantage, developers are often unwilling to disclose key financial and technical information unless it is held confidential and/or a formal contract has been signed. For example, sunshine laws in Florida and Ohio can discourage the private sector from entering into preliminary discussions or submitting unsolicited proposals for P3 projects, as confidential information would be required to be released publicly.

5.3.6 *Unsolicited Proposals*

Unsolicited proposals generally take one of two forms: proposals completely initiated by the private sector; or proposals submitted in response to an open solicitation for proposals not tied to any specific project or projects. Enabling legislation in a given state may or may not explicitly address the authority of public sector entities to receive and act upon unsolicited proposals. In some states, the enabling legislation explicitly prohibits acceptance of unsolicited proposals or prohibits the solicitation of proposals not tied to any specific project or projects. Even in states in which unsolicited proposals are accepted, depending upon other applicable circumstances, the size of the fee required to accompany such a proposal may be large enough to discourage private sector interest. In states that allow unsolicited proposals, private sector interest can be significantly affected by whether the public sector recipient of an unsolicited proposal may negotiate with the proposer on a sole source basis, or must invite competing proposals; the latter is more common.

5.3.7 *Public Competition*

Some states permit public sector entities to compete in P3 procurements or to develop post-award bids that directly compete with private sector proposers. In Texas, for example, the SH 121 project in the Dallas-Fort Worth corridor was ultimately awarded to the North Texas Turnpike Authority (NTTA) after the project had been previously awarded to a private sector concessionaire. This situation created negative perceptions in the marketplace, which TxDOT has had to work diligently to repair. In other states with public toll authorities, there may be concerns over the possibility of similar occurrences that could discourage private sector interest in P3 project opportunities.

5.3.8 *Process Clarity and Certainty*

The clarity of the P3 procurement process and the certainty that a P3 project will actually proceed are also important risk factors that are typically considered by private sector developers. Questions affecting perceptions of process clarity and certainty may include:

- Are there potential conflicts between and among P3 enabling legislation and other public sector procurement laws, the applicability of which may be the subject of interpretation through consideration of case law?

- Is there a well-defined formal selection or approval process in place for P3 proposals and does this process allow competitive negotiation or require competitive bidding?

- Is the public sector project sponsor able to select or approve P3 proposals and award contracts, or is concurrence from another agency and/or government entity, such as the governor or state legislature, also required?

To the extent that processes and procedures for selection and approval of P3 proposals are well defined, early involvement by the private sector would tend to be encouraged.

5.3.9 *Project Readiness*

Given the cost involved with preparing P3 proposals, private developers prefer to pursue projects that have a realistic probability of being procured, rather than projects that appear to be "speculative". As a result, private firms often make the business decision to engage the public sector only when it is reasonably certain that a proposed P3 project is ready for implementation. Project readiness issues that can potentially discourage early involvement include the following:

- **Inclusion in the State Transportation Improvement Plan (STIP) or the MPO Long-Range Plan.** This step provides a signal to the market that the project is a development priority. This is particularly relevant with respect to unsolicited proposals. The trend to-date has been that private firms have submitted unsolicited proposals for projects that are included in the long-range plan but that lack sufficient funding for development in the short-term.

- **Right-of-Way (ROW) Acquisition.** Although the private sector typically does not expect that the necessary ROW will have been acquired prior to project procurement, potential proposers need to have relative confidence that all the needed ROW can be acquired on a timely basis and at reasonable cost. Viable P3 strategies may assign responsibility for ROW acquisition to the public or private sector.

- **Obtaining Third Party Permits.** The private sector may be reluctant to engage in substantive early discussions where there are major concerns regarding existing electric, gas, or water distribution lines, fiber optic cables, etc. Such concerns can range from uncertainty regarding existence or location of underground utilities to cost of relocation of substantial above ground utilities.

- **Federal and State Approvals.** The absence of a key federal approval that forms a critical path in project development may also discourage the early involvement of the private sector. Private entities may prefer to wait until these approvals are obtained, or expected to be obtained on a timely basis, before actively engaging the public sector. Examples of entities from which key non-environmental approvals may be required include the Army Corp of Engineers and the State Historical Preservation Office (SHPO).

5.3.10 *National Environmental Protection Act*

As noted in SHRP 2 report S2-C12-RW-1, federal regulations prohibit private entities from preparing a NEPA document or from having any decision-making responsibility in the process. The involvement of

private-sector entities is limited to producing studies, providing information related to the environmental process, or, more generally, providing viewpoints of key project-related issues. While it can make suggestions for consideration by the project sponsor, the private sector cannot have any direct involvement in decision-making aspects of the NEPA process. This may make it challenging to advance the development of a project which a private entity has ultimate responsibility to design, construct, and operate in a manner that satisfies the public sponsor's requirements, but which also achieves an appropriate return on investment.[11]

One of the greatest unknowns in implementing transportation projects is the amount of time for obtaining the necessary environmental approvals. The lack of a Record of Decision (ROD) or Finding of No Significant Impact (FONSI) or the lack of a reasonable expectation of environmental clearance may discourage the active participation of the private sector until there is greater certainty that the environmental review will be successfully completed. Similarly, the private sector may be concerned by potential mismatches in timing, as the planning and procurement process may be concluded long before there is a formal determination of the potential environmental impacts.

Where it is feasible to conduct the project planning and environmental review process in parallel, concerns may be raised publicly that the early involvement of the private sector may result in the biasing of the environmental process towards the selection of a potential alignment or alternative that has the greatest financial feasibility. This concern is greater with respect to the approaches that provide the private sector with significant input during the planning process, e.g., master development agreements or unsolicited proposals. To the extent that such concerns or perceptions arise, rigorous firewalls need to be put in place between the private sector partner's early development activities and the NEPA process. This was the case with the I-395 HOT lane project in Northern Virginia, where the private partner was able identify design concepts and then VDOT vetted those ideas independently through its NEPA review. Despite the success of the I-395 HOT lane project, the added cost and uncertainty of such early involvement typically remain significant barriers that often lead private developers to wait until the environmental process is complete before pursuing a P3 opportunity, limiting any innovation that may have been realized through involving the private sector earlier in the planning process.

5.3.11 External Advisors

Limitations on the legal authority for public agencies to hire technical, financial, or legal advisors for the development of a project to be delivered through a P3 is another potential legal barrier that discourages early involvement by the private sector. This restriction can be perceived as a major impediment by the private sector, as external advisors are often critical in helping the public agency to sound out the market during the early stages of the project using the approaches discussed in the previous chapter and to develop the documentation needed to carry out these consultative mechanisms. This barrier is more pronounced for agencies with limited P3 experience.

[11] Parsons Brinckerhoff, Nossaman LLP, and HS Public Affairs (2015), *Effect of Public–Private Partnerships and Nontraditional Procurement Processes on Highway Planning, Environmental Review, and Collaborative Decision Making* (SHRP 2 S2-C12-RW- 1), p. 43.

5.3.12 Other Procurement Requirements

Early private sector interest in P3 opportunities may be affected by other procurement requirements contained in the P3 enabling legislation, other public sector procurement laws, and the procurement policies and procedures established by public entities to implement such laws. These considerations may vary in relevance between the state level and lesser political subdivisions, such as counties or municipalities. Examples include:

- **Flexibility in subcontracting.** Requirements for selection of subcontractors by competitive bid may impede a proposer's desired level of flexibility to manage its team composition and the balance between quality and price.

- **Use of best value selection.** Best value selection is essential to the P3 process. Similar to other non-traditional project delivery methods, best value selection combines consideration of price, as is typical for procurement of construction contracts, with consideration of other key factors such as technical quality and expertise, as is typical for procurement of design services.

5.4 Institutional Barriers within the Public Agency

This section summarizes the institutional and organizational barriers that may restrict or complicate the ability of the public sector entity to carry out a P3 procurement as well as encourage the early involvement of the private sector in advance of and during the procurement process.

5.4.1 Organizational Alignment

The organizational structure of the public procuring agency needs to be aligned properly in order to develop and procure a transportation project through an alternative delivery mechanism. For P3 procurements to be successful, organizational alignment needs to occur at multiple levels within public agencies. For example:

- At the senior management level, processes are needed to: (i) establish clear lines of authority for decision-making; (ii) keep political officials informed of the timing, fiscal impacts, risks, and potential political ramifications; (iii) communicate project objectives and approaches to key stakeholders and the general public; and (iv) resolve key issues that arise during the course of the procurement, proposer selection, project award, and negotiations;

- At the project management level, successful P3 procurements have: (i) dedicated at least one full-time project manager from the public agency to oversee document preparation; (ii) have staff available to interact with the private sector developers and their technical, legal, and financial advisors; (iii) have time to liaise with key stakeholders and political officials, as needed; and (iv) have the authority to troubleshoot the procurement process;

- At the technical level, agency staff throughout the organization should be supportive of the P3 procurement process as well as be available to provide inputs and feedback during project planning and procurement stages, as needed; and

- Private sector developers generally prefer to deal with an established P3 unit within the procuring agency. A P3 unit suggests an experienced and able client team that has the power and authority

necessary for effective early involvement, procurement, award, and negotiation processes. The absence of a dedicated P3 unit may raise concerns about the public sector's project management abilities and commitment to the project. These concerns are particularly pertinent if the functions of the public sector entities are fragmented across a number of departments. This concern may be exacerbated if multiple agencies are involved.

5.4.2 *Institutional Experience*

The project sponsor's institutional experience is an important factor in the involvement of the private sector during the early phases of a P3 project. However, there are two contrasting viewpoints cited by the private sector. Some private entities prefer to work with experienced public agencies because it increases their comfort level that their feedback will be considered and that the procurement process will be successfully concluded. If the public procuring agency lacks the experience to manage large and complex projects, some private entities have expressed a preference to be involved during the planning stages. The rationale is that public agency inexperience increases the likelihood of being able to shape project development by providing feedback on project design and risk allocation. This is one of the advantages associated with unsolicited proposals. Early involvement with less experienced agencies can help to ensure there is a realistic and thoroughly understood procurement process in place can lead to the ultimate success of the project.

5.4.3 *Financial Position*

Private sector developers have also noted that the financial position of the project sponsor is another factor in determining whether to engage with the public sector during the early stages of projects that are dependent upon agency funding rather than project revenue risk. There are public organizations with strong credit ratings that have experience securing relatively inexpensive financing. Because these entities may not necessarily benefit financially from a P3 structure, which imposes new constraints and documentation requirements, they may not sufficiently engage with the private sector given their perceived strength in the credit markets. If these agencies do engage with the private sector, there is a concern that they will not value the private sector's concerns and interests. Conversely, public agencies with weaker credit ratings have a greater need to access alternate capital sources and generate revenue for project development, making these entities more willing to consider and possibly incorporate the feedback received from the private sector.

5.5 Internal Barriers within Private Sector Consortia

Internal barriers within private sector teams vying for P3 concessions are also important. The private parties involved in the bid need to be aligned internally with respect to the scope and timing of services required and maintain effective means of communications among the equity partners, contractors, and equipment suppliers, all of whom have different risk tolerance levels. Internal barriers can be expected to include a mix of hard "organizational" and soft "people" issues. An example of the former would be the lack of a dedicated bid manager to interact with the relevant parties at an early stage of the project to identify potential deal breakers, risk events, and key contractual clauses. Moreover, both the private partner and the project sponsor benefit from having transparent communication and a harmonious working environment so that concerns and feedback are shared in a relatively integrated and unified manner.

5.6 Incentive Structure

Public sector entities are interested in P3s primarily as a mechanism to gain access to new sources of finance and capital and accelerate project delivery in order to achieve societal objectives, such as increased mobility, faster travel times, economic growth, or increased public safety. In contrast, private sector interest in P3s is based on achieving an adequate rate of return in relation to risk, and on expanding investment opportunities. Table 5-1 summarizes the differing, and at times competing, incentive structures of public and private entities.

Table 5-1. Differences in Public and Private Sector Incentives in P3s

Incentive Area	Public Sector	Private Sector
Objectives	Develop projects that improve mobility, accessibility and connectivity, support economic growth, reduce bottlenecks, minimize risk, and support the public good	Be selected as the preferred bidder, minimize risk, and maximize rate of return
Accountability	Accountable to stakeholders (e.g., public office holders, public agencies, voters, and the general public)	Primarily accountable to shareholders and management; may be accountable to clients and public, as part of being good corporate citizen
Process	Required to follow prescriptive procedures to encourage transparency, uniformity among proposers, and optimize risk allocation	Prefers that procurement procedures are streamlined and fast-tracked to obtain a competitive advantage and reduce proposal development costs
Competition	Required by statute or strongly encouraged by stakeholders to maintain a reasonable and manageable level of competition in line with project schedule and agency resources	Prefers to have competitive advantage to increase the likelihood of selection and contract award, minimize risk, and maximize rate of return
Information Disclosure	Required by statute and strongly encouraged by stakeholders, public office holders, public agencies and stakeholders, and voters to share information and maintain transparency	Prefers to limit information exchange as much as possible to maintain competitive advantage, protect intellectual property, reduce transaction costs, and improve its negotiating position with the public agency
Early Involvement	Is open to the early involvement of the private sector provided that the approaches used comply with statutes and are in line with political and public expectations	Would like to see more opportunities to be involved early in the procurement process to obtain a competitive advantage and to shape project design

Sources: Adapted from Eno Center for Transportation, *Partnership Financing: Improving Transportation Infrastructure Through Public Private Partnerships* (2014) and from FHWA, *Challenges and Opportunity Series Public and Private Partnerships in Transportation Delivery* (2012).

6 Conclusions

Based on the research and interviews conducted for this study, public agencies are incorporating a variety of mechanisms to enhance opportunities for early involvement of the private sector in the project development process. While these mechanisms are fostering development of better projects through increased information sharing, greater technical and financial innovation, and improved risk management, it is unclear if these mechanisms have expanded private investment in P3s. The lack of clarity may be partly due to the extent to which different mechanisms have been tested. The frequency with which these mechanisms have been used varies widely, with some practices – such as industry forums – being employed almost universally, while other practices, such as use of Pre-Development Agreements (PDAs), having only a limited track record in the United States.

Table 6-1 summarizes the potential effects of the different mechanisms examined in this study. Broader knowledge and adoption of some of these mechanisms would provide potential benefits. The majority of the mechanisms have the potential to foster positive effects by adding value, reducing schedule and cost, and managing risk. Such effects are denoted in the table in blue and through the use of plus (+) signs. With some mechanisms, there is potential that the benefits of early private sector involvement could be countered by reduced competition or other negative effects. Such effects are donated in the table in red and through the use of minus (-) signs. The magnitude of these potential effects is indicated by the intensity of the blue and red shading in individual cells.

As indicated in Table 6-1, one of the key tradeoffs that public agencies may encounter in employing some early involvement mechanisms with P3 projects is the potential for reduced competition. The increased information sharing between private and public sectors associated with early involvement mechanisms may reduce competition, particularly when the procurement process "locks in" a private entity at an early stage. This may diminish the creative tension that results from competition. Conversely, early "lock-in" may result in positive synergies by reducing the private sector's perception of risk, which could increase its willingness to invest.

Early involvement requires an additional investment of time and resources early in the project development process, but it has the potential to produce a better defined and more financially feasible project. This dynamic may also produce efficiencies later in the process, expediting project implementation.

Table 6-1. Potential Effects of Early Involvement Mechanisms

Involvement Mechanisms	Add Value & Foster Innovation	Maintain or Reduce Cost & Schedule	Maintain or Increase Competition	Reduce Public Sector Risk	Reduce Private Sector Risk
Planning to Procurement					
Program Development and Project Screening	High (+)	Medium (+)	Low/No	Low/No	Low/No
Industry Forums	Medium (+)	Low/No	Low/No	Low/No	Low/No
Market Sounding	High (+)	Low (+)	Low/No	Low/No	Low/No
RFIs	High (+)	Medium (+)	Low/No	Low/No	Medium (+)
Unsolicited Proposals	Medium (+)	Medium (+)	High (-)	Low (-)	Low (+)
PDAs/MDAs	Medium (+)	Medium (+)	High (-)	Medium (-)	Medium (+)
Risk Workshops	Medium (+)	Low (+)	Medium (+)	Medium (+)	Medium (+)
Collaborative Evaluation of Alternatives	Medium (+)	Low (+)	Low (-)	Medium (+)	Medium (+)
Progressive Design-Build	Medium (+)	Medium (+)	Medium (-)	Medium (+)	Low (-)
Procurement					
Industry Meetings	Medium (+)	Low/No	Low/No	Low/No	Low/No
Multi-Stage Procurement	High (+)	High (-)	Medium (+)	Medium (-)	High (-)
Multiple P3 Delivery Procurements	Medium (+)	High (-)	Medium (+)	High (-)	High (-)
ATCs	High (+)	High (+)	Medium (+)	Medium (+)	Medium (+)
Interweaving	Medium (+)	Medium (+)	Medium (-)	Medium (+)	Medium (+)
Sole Source Procurements	Low/No	High (+)	High (-)	High (-)	Medium (+)
Post-Procurement					
Lender Engagement	Medium (+)	Low/No	Low/No	Low/No	Low/No
Competitive Stipends	Medium (+)	Low/No	Medium (+)	Medium (+)	Medium (+)

Legend	Positive	Negative
High	High (+)	High (-)
Medium	Medium (+)	Medium (-)
Low	Low/No	Low (-)

6.1 Increasing the Consideration for Early Involvement of the Private Sector in P3s

Based on the findings reported in this Discussion Paper, public project sponsors considering early involvement of the private sector in the development of P3 projects may consider the following successful practices:

- Mechanisms for private sector involvement are identified and incorporated early in the project development process. Strategies likely to yield the greatest overall benefit are identified early in the project development process. Before pursuing these strategies, the public agency is aware of potential trade-offs regarding early private sector involvement, is cognizant of the statutory, legal, regulatory, political, and financial barriers which limit their potential application, and develops a strategy to address and overcome these barriers.

- Assessment of alternative project delivery options is valuable early in the project development process (e.g., prior to preliminary engineering). This is particularly valuable for projects over a certain project size (e.g., $100 million to $300 million) and can result in the avoidance of project development and early design costs that might not be necessary if a P3 delivery model were selected.

- Early involvement mechanisms are aligned with the objectives of the P3 procurement process. Early involvement of the private sector can assist public agencies in their due diligence review to achieve project development and financing goals.

- Procurement rules are well defined and not overly prescriptive. The private sector representatives interviewed for this discussion paper recommended that the procurement rules should be sufficiently flexible to allow for and encourage potential innovations.

- Greater information sharing and innovation are balanced with the potential for reduced competition. To the extent that strategies for early private involvement may adversely affect competition as the procurement process advances, steps are taken to ensure that the earliest parts of the procurement process stimulate adequate competition.

- The public interest is prioritized, while still focusing on enhancing financial feasibility and encouraging private sector innovation. Public officials interviewed for this paper suggested that early involvement strategies are carefully calibrated to preserve the public interest while giving the private sector sufficient opportunity to design and develop a financially feasible transportation project within existing legal statutes and procedural guidelines.

- Early involvement strategies consider risk and resource utilization. Representatives from the both public and private sector emphasized that adequate staff time and financial resources need to be devoted to early risk identification.

- Early involvement mechanisms maintain transparency while preserving the confidentiality of sensitive business information. Private sector representatives are mindful of the amount of information that can be shared with the public sector given the legal transparency requirements, the

loss of potential competitive advantages, and the impacts to their future negotiating position with the procuring agency.

- The exchange of information does not confer a competitive advantage. Public sector officials are concerned that early private sector involvement may give one or more firms an unfair competitive advantage due to unbalanced information, or confer a "head start" advantage. They should carefully consider how much project related information can reasonably be exchanged, and the optimal point in the planning and procurement process for sharing this information.

Appendix A Bibliography

1. Federal Highway Administration (FHWA) and Build America Transportation Investment Center (March 2016), *Successful Practices for P3s: A Review of What Works When Delivering Transportation via Public-Private Partnerships*.

2. HDR (2016), *Accelerated Project Delivery Methods, Preliminary Findings and Recommendations*, Nebraska Department of Roads.

3. Parsons Brinkerhoff, Nossaman LLP, and HS Public Affairs (2015), *Effect of Public–Private Partnerships and Nontraditional Procurement Processes on Highway Planning, Environmental Review, and Collaborative Decision Making*, SHRP 2 Report #S2-C12-RW- 1.

4. FHWA Office of Innovative Program Delivery (2014), *P3 Peer Exchange, November 5-6, 2014*.

5. The Colorado Department of Transportation (CDOT), Office of Major Project Development.

6. Eno Foundation (2014), *Partnership Financing: Improving Transportation Infrastructure through Public Private Partnerships*, Eno Center for Transportation.

7. Shukla, Shyamala (N.D.), *A Framework for Disclosure in Public-Private Partnerships, Technical Guidance for Systemic, Proactive Pre- &Post Procurement Disclosure of Information in Public-Private Partnership Programs*. World Bank Group Public-Private Partnerships, Washington, D.C.

8. World Economic Group (2013), *Strategic Infrastructure Steps to Prepare and Accelerate Public-Private Partnerships*.

9. Leendertse, Wim, Lenferink, Sander, and Arts Jos (2012), *Public-Private Collaboration: How Private Involvement Can Contribute to Network Performance*, Transport Research Arena, Procedia Social and Behavioral Sciences 48, 2917 – 2929.

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11. PriceWaterhouseCoopers (PwC) (2010), *Public Private Partnerships: The U.S. Perspective*.

12. The World Bank, (2009) *Attracting Investors to African Public-Private Partnerships: A Project Preparation Guide*.

13. Ahadzi, Marcus and Bowles, Graeme (2004), *Public–Private Partnerships and Contract Negotiations: An Empirical Study*, Construction Management and Economics 22, 967–978.

14. The General Services Administration, (GSA), Federal Acquisition Regulation (FAR) 2.101 Subpart 15.6, Washington, DC.

15. Kane, Christopher, (2010) *Using PPPs in the US to Develop, Finance and Operate Infrastructure Projects,* TRB 49th Annual Workshop on Transportation Law, Newport, Rhode Island.

16. Johnson (HDR) and Zeltner (HDR), *Alternative Delivery: Progressive Design Build*.

17. National Conference of State Legislatures, *Public-Private Partnerships for Transportation: A Toolkit for Legislators*, October 2010.

18. National Conference of State Legislatures, *Public-Private Partnerships for Transportation: A Toolkit for Legislators, May 2015 Update and Corrections*.

19. FHWA, *Challenges and Opportunity Series: Public and Private Partnerships in Transportation Delivery* (2012).

20. Connecticut P3 Statute: *Conn. Gen Stat. §4-255*

21. District of Columbia: *P3 Statute: D.C. Act 20-550*

22. Illinois P3 Statute: *Ill Rev. Stat. Ch. 605 §§5/10-802, 5/10-602(4)(1), 130/1 to 130/135, Ch. 20 §3501/825-105, Ch.30 §§550/1.5, 570/2.5, 575/2.5, Ch.35 §§ 120/1q, 200/15-55, Ch. 820 §130/2*

23. Maine P3 Statute: *Me. Rev. Stat. Ann. tit. 23, §4251*

24. Ohio P3 Statute: *Ohio Rev. Code Ann. §§5501.70 to 5501.83*

25. Pennsylvania P3 Statute: *Act No. 2012-88*

26. Puerto Rico P3 Statute: *9 L.R.P.A. §§ 2001 to 2021, P.R. 2009 Act No.29*

27. West Virginia P3 Statute: *W. Va. Code §§17-27-1 to 18*

28. Wisconsin P3 Statute: *Wis. Stat. Ann. §84.01(30)*

29. Virginia Department of Transportation, Office of Transportation Public-Private Partnerships. *PPTA Project Identification and Screening Guide,* 2012. Accessed April 28, 2014.

30. European PPP Expertise Centre (EPEC), *Procurement of PPP and the Use of Competitive Dialogue in Europe*, 2009.

Appendix B Summary of Literature Review

1. Federal Highway Administration (FHWA) and Build America Transportation Investment Center (March 2016), *Successful Practices for P3s: A Review of What Works When Delivering Transportation via Public-Private Partnerships*.

   This report identifies successful practices and issues in developing and implementing P3 programs and projects. Based primarily on discussions with public and private sector practitioners, the report offers suggestions for public agencies in the early stages of establishing a P3 program. The report is organized around four phases of P3 program/project development to identify practices related to: legislation and policy, project development, procurement, and performance monitoring and oversight. To supplement the chronological nature of the report framework, potential trade-offs and cross-cutting issues are also discussed.

2. HDR (2016), *Accelerated Project Delivery Methods, Preliminary Findings and Recommendations*, Nebraska Department of Roads.

   This report provides an overview of best practices for design-build procurement as well as the legal and regulatory barriers for delivering projects through this mechanism. It provides guidance for expanding options to improve efficiency and accelerate project delivery.

3. Parsons Brinkerhoff, Nossaman LLP, and HS Public Affairs (2015), *Effect of Public–Private Partnerships and Nontraditional Procurement Processes on Highway Planning, Environmental Review, and Collaborative Decision Making*, SHRP 2 Report #S2-C12-RW- 1.

   This report summarizes how the timing[11] and uncertainties related to the NEPA review and the long-range planning process conducted by Metropolitan Planning Organizations (MPOs) and state DOTs have formed barriers to the early involvement of the private sector in the definition of P3 projects. Specifically, when P3 contracts are awarded after the NEPA process has been completed, private developers are usually reluctant to significantly change the project definition due to the uncertainty associated with required environmental reevaluations. The level of design required to complete the NEPA process typically represents about 30 percent of the total project design. In environmentally sensitive areas, 70 percent of design may be completed to address potential impacts. Even in cases when projects have already gained environmental clearance, private parties typically forgo opportunities for innovation because of schedule risk associated with project approvals, which may outweigh the benefits of innovation. The report notes that it is important to strike a balance between the level of design included in a final environmental impact statement (FEIS) and maximizing the flexibility of the private sector during final design.

4. Shukla, Shyamala (2015), *A Framework for Disclosure in Public-Private Partnerships, Technical Guidance for Systemic, Proactive Pre- & Post Procurement Disclosure of Information in Public-Private Partnership Programs*. World Bank Group Public-Private Partnerships, Washington, D.C.

[12] Transportation Improvement Plans (TIPs) and State Transportation Improvement Plans (STIPs) must be updated every four years but can be revised or amended between updates.

The authors highlight the importance of the drivers for disclosing information in P3s— mobilizing private investment capital, increasing public confidence in P3 projects, achieving better value for money, and reducing the risk of corruption—to maximize value and to ensure that disclosure policy is aligned with project objectives. Underlying factors that can result in greater public disclosure are the wider government policy on transparency and the enactment of supportive legislation, e.g., freedom of information (FOI) legislation, P3 legislation, public financial management, and budget transparency.

5. FHWA Office of Innovative Program Delivery (2014), *P3 Peer Exchange, November 5-6, 2014*.

   The Colorado Department of Transportation (CDOT) Office of Major Project Development (OMPD) and the CDOT High Performance Transportation Enterprise (HPTE) requested that FHWA organize a peer exchange after completing the procurement of the US 36 Managed Lanes/BRT Project. HPTE obtained insights from representatives from the public and private sectors regarding procurement process, risk transfer, oversight and monitoring, transparency, and the public involvement process.

6. Eno Foundation (2014), *Partnership Financing: Improving Transportation Infrastructure through Public Private Partnerships*, Eno Center for Transportation.

   The objective of this report is to improve understanding of the barriers to U.S. P3s including: (i) insufficient revenues, funding and financing; (ii) federal, state, and local legislative hurdles; (iii) U.S. tax-exempt municipal bond markets that create disincentives to develop P3s and to secure capital in private markets; (iv) P3 project eligibility and selection; (v) funding regulation; (vi) political review and approval; and (vii) contract provisions. Additional barriers cited include the lack of multi-modal contracts and standard project appraisal mechanisms.

7. World Economic Group (2013), *Strategic Infrastructure Steps to Prepare and Accelerate Public-Private Partnerships*.

   This report draws from interviews with senior management from public and private entities as well as P3 practitioners from around the world to provide an overview of international best practices related to P3 procurements. This report has contributed additional information on the market sounding process, which is described in Section 2.2.

8. Leendertse, Wim, Lenferink, Sander, and Arts Jos (2012), *Public-Private Collaboration: How Private Involvement Can Contribute to Network Performance*, Transport Research Arena, Procedia Social and Behavioral Sciences 48, 2917 – 2929.

   This report reviews the approaches used to engage the private sector in delivery of P3 and non-P3 transportation projects in the Netherlands from 2006 to 2010, including Market Consultation, Early Design Contests, Market Reconnaissance, Interweaving, and Unsolicited Proposals. The main finding is that early private involvement can add value in project planning and programming, provide useful insights, and help the procuring agency make better informed and realistic programming decisions. It can add valuable information on project design and construction, provide a more robust life-cycle perspective, and help to optimize project definition. The

"conceptual creativity" generated through competition can offer different perspectives on project development issues leading to more optimal solutions.

Two early involvement mechanisms discussed in this report have been included in the Discussion Paper: Market Consultation and Interweaving. Similar to Market Sounding (discussed in Chapter 2), Market Consultation is a two-stage process that involves multi-party discussions through industry forums as well as bilateral discussions. With Interweaving, discussed in Chapter 3, the procurement process begins prior to the final determination of the alignment. The two processes are coordinated to encourage the explicit and transparent exchange of information. Interweaving has been used to develop creative solutions and gain insight of proposed solutions during procurement. Interweaving can help to reduce project schedule, clarify impacts, and improve risk allocation.

Table B-1. Non-Competitive & Competitive Private Involvement Instruments, Netherlands

	Market Consultation	Early Design Contest	Market Reconnaissance	Interweaving	Unsolicited Proposal
Goal	Opinions on project or process	Best design for defined problem	Conceptual solutions for defined problem	Best quality at a competitive price	Project concept without a pre-defined problem
Timing	Planning stage	Planning stage	Planning stage	Planning process	Depends on proposal
Scope	Specific	Limited	Broad	Detailed	Depends on proposal
Incentive	Future procurement	Future procurement	Future procurement	Contract award	Contract award
Public Sector Role	Program Manager	Program Manager	Program Manager	Procuring agency	Program Manager
Private Sector Role	Delivery of knowledge and experience	Designer	Planner, designer, and engineer	Designer, engineer, proposer, and contractor	Planner and designer
Examples	Main road network	Dam and causeway rehabilitation	Renovation of steel bridges	A2 Tunnel, Maastricht	Rail Connection Breda-Utrecht

Source: Adapted from Leendertse, Wim, Lenferink, Sander, and Arts Jos (2012), Public-Private Collaboration: How Private Involvement Can Contribute to Network Performance.

A third technique, Market Reconnaissance by public sector project sponsors, has had limited applications. The approach is "an early design concept without price competition in which the goal is to get unique and feasible concepts from the private sector. The government provides a problem definition, a general scope, constraints and ambition, which the private participants can use to develop and elaborate unique concepts. Private participants are requested to deliver a detailed elaboration on technical and financial feasibility, with compensation for their engineering costs." The limited application to date and the potentially higher costs associated with a wider pool of eligible firms precludes its usage for P3s in the US. As a result, this approach has not been included.

9. Farquharson, Edward, Torres de Mästle, Clemencia, Yescombe, E.R. and Encinas, Javier, (2011) *How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets*, PFIAF, The World Bank, Washington, D.C.

This report provides an overview of the P3 strategies used in developed and emerging markets, makes recommendations for engaging the private sector prior to project procurement, provides tips for conducting market sounding discussions, and identifies issues relating to the exchange of information between the public and private sector.

10. PriceWaterhouseCoopers (PwC) (2010), *Public Private Partnerships: The U.S. Perspective*.

    This report provides an overview of the P3 market, lists the advantages and disadvantages of various P3 agreements, and summarizes the legal, regulatory and political barriers.

11. Ahadzi, Marcus and Bowles, Graeme (2004), *Public–Private Partnerships and Contract Negotiations: An Empirical Study*, Construction Management and Economics 22, 967–978.

    This study evaluates various issues affecting P3 negotiations with the goal of coming to agreement and shortening the timeframe between contract award and commercial close. Given the focus on the post-contract award process, the report only tangentially deals with early involvement mechanisms but does highlight barriers to private involvement that affect the project downstream. The report concludes that proper organizational structure, effective internal lines of communication, and aligned objectives are required from an early stage.

Appendix C Key Features of P3 Enabling Legislation by Jurisdiction

Table C-1. Key Features of P3 Enabling Legislation by Jurisdiction

Jurisdiction	Broad Statutory Authority	Limited or Project-Specific Authority	Public Funding Combined with Private Financing	Authority to Issue Revenue Bonds or Notes	Long-Term Leases of Toll Facilities Allowed	Outsourcing of Long-Term O&M and Asset Mgmt.	Multiple Types of P3 Project Delivery Types Allowed	Acceptance of Solicited & Unsolicited Proposals
Alabama	✓				✓	✓		
Alaska		✓	✓	✓	✓	✓		
Arizona	✓				✓	✓		✓
Arkansas		✓						
California	✓			✓	✓		✓	✓
Colorado	✓		✓	✓	✓	✓	✓	✓
Connecticut		✓	✓		✓	✓	✓	
Delaware	✓		✓		✓	✓	✓	✓
DC	✓		✓	✓	✓	✓	✓	✓
Florida	✓		✓	✓	✓	✓	✓	✓
Georgia	✓		✓		✓	✓	✓	✓
Illinois	✓			✓	✓	✓	✓	
Indiana		✓	✓	✓	✓	✓	✓	
Louisiana	✓		✓	✓	✓	✓	✓	✓
Maine	✓				✓	✓	✓	✓
Maryland	✓				✓	✓	✓	✓
Massachusetts	✓							
Minnesota		✓		✓	✓	✓		✓
Mississippi	✓		✓	✓	✓		✓	✓
Missouri		✓		✓	✓	✓	✓	✓
Nevada		✓	✓		✓	✓		✓
North Carolina		✓	✓	✓	✓	✓	✓	✓
North Dakota	✓		✓	✓	✓	✓	✓	✓
Oregon	✓		✓	✓	✓	✓	✓	✓
Ohio	✓		✓	✓	✓	✓	✓	✓
Pennsylvania	✓		✓	✓	✓	✓	✓	✓
Puerto Rico	✓		✓	✓	✓	✓	✓	✓
South Carolina	✓			✓		✓		
Tennessee		✓	✓	✓		✓	✓	
Texas		✓	✓	✓	✓	✓	✓	✓
Utah	✓		✓	✓	✓	✓	✓	✓
Virginia	✓		✓		✓	✓	✓	✓
Washington	✓		✓	✓	✓	✓	✓	✓
West Virginia	✓		✓	✓	✓	✓	✓	✓
Wisconsin	✓		✓	✓	✓	✓		

Sources: National Conference of State Legislatures, *Public-Private Partnerships for Transportation: A Toolkit for Legislators*, October 2010. and May 2015 Update and Corrections; PwC, *Public Private Partnerships: The U.S. Perspective*, June 2010, and P3 statutes for Connecticut, District of Columbia, Illinois, Maine, Ohio, Pennsylvania, Puerto Rico, West Virginia and Wisconsin.

Appendix D Agencies and Organizations Contacted

- Arizona Department of Transportation, Public-Private Partnership Program
- California Department of Transportation (Caltrans) Public-Private Partnership Program
- Colorado DOT, High Performance Transportation Enterprise (HPTE)
- Florida Department of Transportation, Office of Comptroller, Project Finance Office, Public-Private Partnerships
- Maryland Transit Administration, Office of Transit Development and Delivery
- Texas Department of Transportation
- Virginia Office of Public-Private Partnerships
- Denver Regional Transportation District (Denver RTD)
- District of Columbia Office of Public Private Partnerships (OP3)
- Los Angeles County Metropolitan Transportation Authority (LA Metro)
- National Capitol Region Transportation Planning Board
- Cintra U.S.
- Meridiam
- Plenary Concessions U.S.
- Star America Infrastructure Partners, LLC
- Table Rock Capital, LLC
- Nossaman, LLP
- WSP/Parsons Brinckerhoff
- American Association of State Highway and Transportation Officials (AASHTO)
- American Public Transportation Association (APTA)
- Association for the Improvement of American Infrastructure (AIAI)
- National Association of Regional Councils
- US Department of Transportation – Build America Transportation Investment Center (BATIC)
- US Department of Transportation – Federal Highway Administration