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Synthesis of Public-Private Partnerships:
Potential Issues and Best Practices for
Program and Project Implementation
and Administration

Bryan Gibson*

Candice Y. Wallace[†]

Roy E. Sturgill[‡]

*University of Kentucky, bryan.gibson@uky.edu

[†]University of Kentucky, candice.wallace@uky.edu

[‡]University of Kentucky, roy.sturgill@uky.edu

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**Synthesis of Public-Private Partnerships:
Potential Issues and Best Practices for Program and Project
Implementation and Administration**

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Kentucky Transportation Center

176 Oliver H. Raymond Building

Lexington, KY 40506-0281

(859) 257-4513

fax (859) 257-1815

www.ktc.uky.edu

**Research Report
KTC15-13/SPR15-500-1F**

**Synthesis of Public-Private Partnerships:
Potential Issues and Best Practices for Program and Project Implementation
and Administration**

By

Bryan Gibson
Kentucky Transportation Center

Candice Wallace
Kentucky Transportation Center

and

Roy Sturgill
Kentucky Transportation Center

Kentucky Transportation Center
College of Engineering
University of Kentucky
Lexington, KY

in cooperation with the
Kentucky Transportation Cabinet

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<p>16. Abstract: Public-private partnerships (P3s or PPPs) offer an innovative procurement method for the public sector. P3s involve collaborations between the public and private sectors to finance, develop or maintain transportation infrastructure. In an era of shrinking budgets and increased demand for transportation infrastructure, the Kentucky Transportation Cabinet (KYTC) can analyze experiences in other states to determine a best path forward on the issue of P3s. During the 2014 regular legislative session, the Kentucky General Assembly passed Kentucky House Bill (HB) 407, which would empower KYTC through the Kentucky Public Transportation Infrastructure Authority (KPTIA), to fund projects through P3 agreements. The governor eventually vetoed the bill. In the current 2015 legislative session, the General Assembly is considering Kentucky HB 443, which would authorize transportation P3s in Kentucky. The objective of this study is to examine benefits and drawbacks of using P3s, current trends and past performance of P3s in the procurement of state transportation infrastructure projects, and common legislative statutes relating to P3s.</p> <p>The team reviewed literature that broadly related to privatization. Then they defined P3s according to the parameters laid out by the Federal Highways Administration (FHWA). This report contains: 1) guidance and best practices that can be used to help ensure successful P3 implementation, 2) case studies that describe P3 experiences and lessons learned, 3) a list of factors that policymakers should consider as they deliberate on whether a P3 is the best procurement option for specific projects.</p> <p>The research conclusively demonstrated that P3s have become more widely used for transportation infrastructure projects in the United States in recent years. Policymakers must thoughtfully weigh risks and benefits before approving P3 agreements. If Kentucky moves ahead with a transportation P3 program, future research would be geared toward studying the performance of projects and toward gathering lessons learned.</p>			
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EXECUTIVE SUMMARY

Public-private partnerships (P3s or PPPs) offer an innovative procurement method for the public sector. P3s involve collaborations between the public and private sectors to finance, develop or maintain transportation infrastructure. In an era of shrinking budgets and increased demand for transportation infrastructure the Kentucky Transportation Cabinet (KYTC) can analyze experiences in other states to determine a best path forward on the issue of P3s. During the 2014 regular legislative session, the Kentucky General Assembly passed Kentucky House Bill (HB) 407, which would empower KYTC through the Kentucky Public Transportation Infrastructure Authority (KPTIA) to fund projects through P3 agreements. The governor eventually vetoed the bill, citing his concerns over tolling restrictions related to a possible bridge replacement project over the Ohio River that would connect Covington, Kentucky to Cincinnati, Ohio. Even so, it is likely that state departments of transportation (DOTs) will continue to pursue P3s in the future. In the current 2015 legislative session, the General Assembly is considering Kentucky HB 443, which would authorize transportation P3s in Kentucky. The objective of this study is to examine benefits and drawbacks of using P3s, current trends and past performance of P3s in the procurement of state transportation infrastructure projects, and common legislative statutes relating to P3s to establish a fuller picture of how P3s function; this knowledge can be put to use by policymakers.

To comprehensively review P3s, the research team approached the issue of P3s in several ways. First, we reviewed literature that broadly related to privatization. Then we defined P3s according to the parameters laid out by the Federal Highways Administration (FHWA). The benefits and potential negative consequences of using P3s were analyzed so that policymakers can make an informed decision about their use. Drawing from a number of sources, we listed factors that policymakers should consider as they deliberate on whether a P3 is the best procurement option for specific projects. Chapter 3 is partitioned to distinguish between greenfield (i.e., new build) and brownfield (i.e., repurposing or repairing existing facilities) projects, and is further broken down based on the level of private sector involvement. We also included guidance and best practices that can ensure successful P3 implementation. Chapter 4 outlines case studies that describe P3 experiences and the lessons learned: The case studies illustrated the diverse range of projects that can be undertaken using P3s, and they highlighted success stories as well as failed projects. Chapter 5 describe sP3-enabling legislation in several U.S. states. A number of transportation projects have been completed under those legislation guidelines.

The research conclusively demonstrated that P3s have recently become more widely used for transportation infrastructure projects in the United States. Policymakers, however, must remain cognizant of the potential benefits and risks when assessing whether P3s are appropriate for individual projects. Private sector involvement always carries risk, and policymakers must thoughtfully weigh risks before approving P3 agreements. Researchers found some of the keys to developing a successful P3 program are:

- Structuring the enabling legislation to meet goals
- Maintaining ongoing communication between all parties involved
- Setting up a strong contractual agreement

- Determining the financial implications of a project and the revenue that may be generated from users

If Kentucky moves ahead with a transportation P3 program, future research would be geared toward studying the performance of projects, gathering lessons learned, and refining the P3 program.

CHAPTER ONE: INTRODUCTION

1.1 Study Overview

Public-private partnerships (P3s or PPPs) offer states an innovative strategy to finance and maintain transportation infrastructure. Increasing demands for transportation infrastructure, combined with limited budgets, restrict the ability of state departments of transportation (DOTs) to meet transportation needs. P3s let states tap into a unique source of financing and allow them to leverage private capital for projects that may not otherwise be practicable under budgetary constraints.

As of 2014, 33 states had statutes or provisions authorizing the use of P3s for transportation projects. Enabling the legislation is necessary for governmental agencies to establish P3 agreements: “These statutes set conditions that promote or prevent PPPs, guide development of state PPP programs, provide foundations for PPP contracts and affect the risks involved for each party” (Rall, Reed, and Farber, 2010, p.15). In the 2014 regular legislative session, Kentucky House Bill (HB) 407 would have granted the Kentucky Transportation Cabinet (KYTC) through the Kentucky Public Transportation Infrastructure Authority (KPTIA), the power to fund projects through P3 agreements. Although the governor vetoed the bill, the increasing visibility and interest in P3s is likely to keep the issue at the forefront of transportation financing considerations as DOTs seek reliable methods — decoupled from traditional financing mechanisms — to underwrite transportation projects. In the current 2015 legislative session, the General Assembly is considering Kentucky HB 443, which would authorize transportation P3s in Kentucky.

1.2 Research Objectives

This study examined the current trends and past performance of P3s in the procurement of state transportation infrastructure projects. Additionally, the research detailed the guidance on other states’ P3 legislation. The results of this study will assist KYTC in developing strategies, guidance, and procedures to implement and administer P3 projects. Given current legislative initiatives, P3 projects may become a viable contracting option for KYTC in the near future, though the model of contract administration differs significantly from the standard contract administration procedures used by KYTC. As such, this study attempted to identify successful P3 initiatives — as well as their potential drawbacks — to support KYTC in future P3 developments, implementation, and management.

To accomplish these objectives, the research team identified benefits and shortcomings of P3s, decision-making factors, implementation guidance, case studies from around the U.S., and P3 legislation passed by other states. Case study projects were considered across the spectrum of P3 experiences. By studying other projects and by collecting and reviewing information from the burgeoning literature on P3s, this study will equip KYTC with the information needed to develop and manage P3s. The findings were contextualized to demonstrate how P3s may be incorporated with the KYTC processes currently in place.

1.3 Structure of the Report

The remainder of the report is divided into four chapters. Chapter 2 summarizes the basic tenets of privatization, and discusses the architecture of P3s. In addition to defining P3s, this chapter lists the various types of projects that fall under the ambit of P3s. The benefits and possible drawbacks of leveraging P3 are reviewed as well. Chapter 3 outlines the factors and processes that should be considered to determine if a P3 is the appropriate procurement method for a specific project. Establishing implementation guidance is critical for helping to ensure the success of P3 projects. Chapter 4 details a number of P3 case studies. These case studies include basic project information and performance to date. Projects are portioned into two categories — those that are new build and those that convert existing facilities. Chapter 5 covers P3 legislation from other states and includes a comprehensive list of the statutes that authorize P3s. This chapter also identifies legislative and regulatory commonalities across states. Lastly, Chapter 6 summarizes the report's findings and discusses the role P3s could play in the future.

CHAPTER TWO: PRIVATIZATION AND PUBLIC PRIVATE PARTNERSHIPS BACKGROUND

2.1 Privatization

The first step toward determining whether a P3 is appropriate is to decide if some portion of the project delivery or maintenance should be privatized or outsourced. Privatizing governmental functions has grown in popularity among state agencies over the last few decades for numerous reasons. One key reason is that growing populations have placed increased demands on governments for service provision, while government workforces have shrunk due to budget cuts and the retirement of personnel. Additionally, the responsibility of state DOTs to provide a wide array of services and functions has led many to privatize a number of functions traditionally done in-house. Positives and negatives notwithstanding, privatization of transportation services is likely to expand given the current economic and political environments. Many privatization schemes such as outsourcing services do not require enabling legislation, nor do they demand a significant investment of private capital. Thus, while not all privatization efforts will involve P3s, the increasing push toward privatization is relevant for the mounting interest in P3s. The benefits and concerns related to privatization — while not specific to P3s — apply in a broader sense because P3s are a form of privatization.

Successful privatization may confer multiple benefits to agencies, most of which result from improved efficiency. However, not all governmental functions can be privatized in an equally successful manner due to the variability of project complexity, oversight, and cost. Previous research has demonstrated that privatizing public sector responsibilities has produced a mixed record of successes and failures; deciding whether to privatize a project must be based upon an agency self-assessing its core competencies and policy goals (Eger et al., 2002). The literature on privatization covers many areas, such as criteria for privatizing, benefits and problems, its outcomes, and how to accomplish privatization. DOTs can potentially realize a number of benefits from privatization but there are also drawbacks to be mindful of during the decision-making process. Increasing pressures for service provision, combined with shrinking budget allocations, have led to the privatization of more functions than in previous years (Olberding, 1995). Critical factors affecting the increase in privatization by transportation departments as listed by Hancher and Werkmeister (2001) include:

- growth in population
- increased magnitude of projects
- demand for better service with fewer delays
- reductions in workforces
- handling peak demands for services
- increased fondness of legislators for outsourcing

Different forms of privatization are available to transportation departments, including P3s (Chi, Arnold, and Perkins, 2004; Lockwood, 1997; Klijn and Teisman, 2000; Holland, 1984; Yusuf, Wallace, and Hackbart, 2006; Witheford, 1997; Zhang and Kumaraswamy, 2001), performance-based contracts (Segal, Moore, and McCarthy, 2003), and contract maintenance (AASHTO Highway Subcommittee on Maintenance, 2002). Deciding whether to privatize is often driven

by staffing constraints needed to execute a project. Legal factors and cost comparisons between outsourcing and in-house service provision are frequently critical, but less important than staffing considerations (Warne, 2003).

Numerous studies and reports have documented the benefits of privatizing transportation functions. A Virginia Joint Subcommittee Report (1994) cites a number of advantages gained from privatization such as: cost savings, flexibility, reducing government size, improved quality, allowing government to focus on core service, and increased efficiency. However, successfully implementing privatization requires that governments overcome state worker objections, procurement issues, and shifting focus from short-term to long-term objectives. Using P3s to partially privatize a function can provide benefits such as problem solving, increased efficiency, and enhanced program implementation across agencies and jurisdictions (Ford, 2001). Segal, Moore, and McCarthy (2003) provide the best summation of the benefits that privatization can bring to transportation departments. They list the benefits: reduced costs, increased efficiency, improved quality, faster project completion time, increasing innovation in transportation, enhanced risk management skills, and overcoming a lack of in-house expertise.

A significant body of research outlines the problems that can arise from pursuing privatization. Milward and Provan (2000) associate outsourcing governmental services to third parties with the rise of the “hollow state,” which they define as the “degree of separation between a government and the services it funds.” The emergence of the hollow state creates enormous difficulties when states lose the human capital and expertise needed to adequately manage contracts with private vendors, or to conduct the work in-house. Aside from the broader issue of the hollow state, privatization may create other issues for the agencies that outsource services. Yusuf, Wallace, and Hackbart (2006) identify two drawbacks of contracting out work to private vendors. First, if a state selects a private partner that cannot fulfill its contractual obligations, the project performance will suffer. Second, governments often provide less oversight for private partners, opening up the possibility that a partner will neglect their responsibilities. The emergence of this moral hazard creates the need to conduct strict oversight and enforce accountability in the outsourcing process. Creating positive outcomes is unlikely if a state does not address these issues (Eger et al., 2002).

Table 1 summarizes the possible benefits and drawbacks that DOTs should consider when deciding whether to privatize specific functions (Hancher and Werkmeister, 2001; Witheford, 1997; AASHTO, 2002; Kusnet, 2007).

Table 1: Benefits and Concerns of Transportation Privatization

Potential benefits:	Potential concerns:
1. Transportation departments can undertake projects within growing resource constraints	1. Less control on the quality, time and cost of its primary functions
2. Costs are incurred only when services are used	2. Loss of skills and expertise to conduct essential functions in-house, or to effectively check, evaluate or approve the work of external sources

3. A smaller workforce would be required with peak demands handled by privatization	3. Conflict with in-house workforce
4. Potential for cost savings	4. Need for new employees with different expertise and management skills
5. Access to special private sector skills on as-needed basis	5. Less capacity to serve a traditional role for hiring entry-level engineers to gain competent experience
6. Improved use of limited resources	6. Lack of timely completion
7. Lower life cycle costs, increased cost effectiveness	7. Safety concerns
8. Faster project completion	8. Concerns about quality of work
9. Overcoming in-house expertise deficiencies	9. Legal issues

Whether privatization succeeds or fails can be judged by a project’s final outcome. A number of studies have evaluated the results of privatization, with a number of successes and failures being documented. With respect to the quality of the work performed by external contractors, most transportation departments believe that outsourcing yields work of satisfactory quality that is completed on time (Hancher and Werkmeister, 2001). Hancher et al. (2005) find that states were generally pleased with work done by private contractors, although some noted privatization was less cost-effective than expected. A number of studies compiled by Hilke (1993) describe that competition for provision of government services reduced costs anywhere from 20 to 50 percent, even if the service remained in-house.

These studies demonstrate that transportation departments must be conscientious in their approach to privatization. Making final decisions on privatization often involves a number of steps: from cost comparisons to scoring the ability of a transportation department to work in-house. Yusuf, Wallace, and Hackbart (2006) provide a strategic framework that resolves whether privatizing services and functions are the most strategic and efficient option for state governments. Their framework includes six key questions that government entities should answer before making a decision. Certainly, this framework is beneficial when governmental agencies have the time and opportunity to thoroughly review activities before deciding whether to privatize a function. These six questions and their results are (p.6):

1. What are the goals and constraints of the privatization initiative being considered?
If goals are improved, then privatization should be considered; constraints may impact the decision but do not rule out privatization.
2. To what extent must the government agency be involved in the tasks or activities?
If government involvement is needed to a greater degree throughout the process, then privatization is not as palatable.
3. Does the government agency have the capacity to perform the tasks?
Government producing or performing tasks does not preclude privatization, while no capacity may necessitate it.
4. How measurable are the outputs and outcomes of the proposed privatization initiative?

- Objective measures of output(s) and outcome(s) can make privatization an option.
5. How capital intensive are the project's activities?
Up-front costs can discourage privatization, but if the service covers its costs, privatization may be easier.
 6. What is the impact if the task or activity is performed poorly?
If poor outcomes cannot be fixed or the cost is too great, then privatization should be excluded from procurement options.

Factors that catalyze successful privatization are relevant, and although these are not applied specifically to P3s, keeping them in mind when considering whether to privatize will likely produce benefits. Governments seeking to privatize need four conditions to achieve success: 1) matching private partners with the right efforts, 2) creativity to find the right public-private mix, 3) active monitoring of privatization, and 4) close evaluation of results (Gormley, 1994). The relationship between the government and the private sector being a critical factor is also echoed by Sclar (2000).

Yusuf, Wallace, and Hackbart (2006) note that:

The literature suggests that a clear and strong relationship between the government and private agencies involved in the privatization effort is the cornerstone of success. This is even more true with regards to privatization through public-private partnerships, as the relationship between the two is that of partners, and not a clearly-defined principal-agent relationship (p.41-42).

Privatization as a generic term can encompass many aspects of government projects and service provision. The next subsection discusses types of P3s, their advantages and disadvantages, and decision-making criteria.

2.2 Traditional KYTC Procurement

Before defining public-private partnerships, we briefly describe the most common procurement method used by KYTC. This will facilitate comparisons between P3s and current methods as well as provide context for the implementation and management discussions. The most common construction procurement method KYTC uses is the traditional design-bid-build contract. Aside from a small number of projects that may implement the design-build method, state statutes require that KYTC adopt the design-bid-build procedure. Federal regulations have historically required the design-bid-build method, although recently the federal government has permitted alternative methods through exception, trial, or other convention. These current requirements have thus mandated the current project development and delivery methods adopted by KYTC. One potential drawback of the design-bid-build method is that it delivers transportation solutions, but implementation proceeds in a highly segmented manner — the design and construction processes are entirely separate from one another, as are operations and maintenance.

The design-bid-build delivery method separates a transportation project into three phases. Design begins when KYTC's planning department indicates there is a project need. Once a need has been identified and the Cabinet assesses funding availability, it determines whether the

project development or design phase will be conducted in-house or be outsourced to a design firm through a professional services contract. As the design phase moves forward, a transportation solution is developed through a stepwise procedure. At the same time, environmental impact studies are conducted and potential compliance issues identified, the required right-of-way is obtained, and utilities needing relocation are issued agreements. Once the project is designed, plans are developed, environmental issues resolved, right-of-way obtained, and utility agreements in place, the project is prepared for the construction procurement process.

The construction procurement process begins with KYTC publicly advertising the project. This advertisement includes preliminary plans and a list of contract items for interested contractors to view; once they have received this information, contractors can prepare a cost estimate for each of the contract items. The sum of the itemized cost estimates constitutes the contractor's bid to execute all project work outlined in the design documents and other contract documents, such as KYTC's current standard specifications for road and bridge construction. The bidding process is competitive, and KYTC reviews each bid, typically accepting the lowest one if it is within an acceptable range of KYTC's estimates for constructing the project. For example, a contractor could submit a low bid, yet not have the bidding capacity to cover the project. Once a bid has been accepted, KYTC and the selected contractor formalize a contract to complete the work.

The final phase is when the contractor undertakes and completes the project work. KYTC monitors all phases of work to ensure it complies with the quality control standards that have been communicated. Contractors will seldom aim for higher standards than those specified because the profit margins on a bid are usually tight. Managing this process can lead to difficult negotiations, claims, disputes, change orders, and even litigation when project documents do not clearly specify what work is required.

The traditional design-bid-build procurement method has benefits and drawbacks. One of the main benefits is that a competitive bid process can drive down construction costs. However, if gaps in construction knowledge arise during the design phase, it may increase expenses when change orders are needed during project implementation. Additionally, because contractors are selected by low bid and operate on tight profit margins, their dedication to quality is often minimal. Such issues may be addressed through longer term relationships. Using design-bid-build requires the design process to be completed before construction starts, therefore, time to final delivery of project is shortened. Less traditional procurement methods can reduce delivery times, increase interest in innovation and quality, and create less contentious relationships between the agency and contractor.

2.3 Public Private Partnerships

The Federal Highways Administration (FHWA) defines P3s as “contractual agreements formed between a public agency and a private sector entity that allow for private sector participation in the delivery and financing of transportation projects.”¹ The National Council for Public Private Partnerships (NCP3) has a similar definition of P3s:

¹ <http://www.fhwa.dot.gov/ipd/p3/defined/>

*A Public-Private Partnership (P3) is a contractual arrangement between a public agency (federal, state or local) and a private sector entity. Through this agreement, the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. In addition to the sharing of resources, each party shares in the risk and reward potential in the delivery of the service and/or facility.*²

P3s are not just about outsourcing a project – they are joint ventures between public and private entities designed to provide a service to the public. Lockwood (1997) defines P3s as mixing complementary public and private resources in order to achieve a goal while also achieving each entity's separate objectives. Klijn and Teisman (2000) describe P3s as a relationship that commits each party to mutually share the risks, costs, and potential revenues from a project. Yusuf, Wallace, and Hackbart (2006) draw from several earlier studies to define P3s as "...collaborations involving actors and/or funding from business, non-profit, and government organizations, where costs, risks, resources and skills are shared in jointly-developed projects that mutually benefit the partners and the community being served" (p.17). Transportation agencies' expanded use of P3s in recent years is due to a number of factors including (AECOM Consult, 2007-a):

- Deteriorating infrastructure
- Increased freight movement and individual travel
- Increased construction costs
- Political barriers to increasing revenue streams dedicated to transportation

There are several varieties of P3s. Each involves differing levels of participation from the public and private sector. P3s can be differentiated based on factors such as the type of agreement forged between the government and the private sector and the type of project being proposed – “PPP projects differ based on: 1) the “mission,” or the kind of facility or public service that is the focus of the project; 2) the “method,” or the project delivery model; and 3) the “money,” or the source of financing (Rall, Reed, and Farber, 2010, p.3). Defining the objective of a project is contingent on whether it requires new construction — termed “greenfield” — or if it entails working with and modifying existing infrastructure — termed “brownfield.” Blended-mission projects are also common and call for adding capacity, such as tolled lanes applied to existing roads. P3s have also been formed to address areas such as maintenance, design, planning, and project development (Warne, 2003). While project models and definitions are not universal and are often defined with the needs of a specific project in mind as well as the level of private involvement, the FHWA’s typology of models offers a reliable starting point by establishing relevant background knowledge when considering legislative language, best practices, and implementation feasibility.

The FHWA categorizes P3s based on construction type — that is, new construction or modification of existing infrastructure. For each category, there is a continuum along which the public sector and private sector division of labor may fall. While there are other options that can be defined as P3s, the FHWA identifies these as the “more common types of P3 arrangements.” The P3 options recognized by the FHWA are listed in Table 2, along with more detailed

² <http://www.ncppp.org/ppp-basics/7-keys/>

definitions. For each category, the level of private involvement is minimal for options listed on the left; the amount of responsibility that private entities shoulder increases from left to right. For example, private contract fee service occasions much less private responsibility than projects where the private contractor designs, builds, finances, and operates the infrastructure. Methods used in the past by KYTC — under project-specific legislative authority — such as Design Build are included because they involve some level of contracting between the government and private sector. Briefly reviewing the P3 options will clarify the dynamics of each arrangement. This review begins with options that have the lowest level of private involvement and works up toward partnerships that have the most significant participation of private entities.

Table 2: Public Private Partnership Options

Public Private Partnership Options					
<i>New Construction</i>	Private Contract Fee Service	Design Build	Design Build Operate Maintain	Design Build Finance	Design Build Finance Operate Maintain Concession
<i>Existing Infrastructure</i>	Operations and Maintenance Concession				Long Term Lease Concession

Source: FHWA’s Innovative Program Delivery, *P3 Defined*

Private Contract Fee Service transfers some aspect of project management to a private entity. Private contractors often assume responsibility for planning and coordinating design as well as the financial management of a project, at the behest of a public agency. Design Build uses a fixed-fee contract for design, engineering, and construction. Under this scenario, the government retains ownership while also operating and maintaining the infrastructure. Design Build Operate Maintain, sometimes referred to as Build Operate Transfer, shifts responsibility for design and construction as well as operations and maintenance, to a private firm. However, the government maintains ownership and is responsible for securing financing. Combining these functions into one group may result in lifecycle efficiencies. Design Build Finance transfers design, construction, and some level of financing to the private sector. It also uses up-front private capital to finance projects. Ownership, maintenance, and operations remain the government’s responsibility, as does the project conception. The FHWA cites two reasons for using this method of procurement: cash flow limits and payment deferment.

Design Build Finance Operate Maintain Concession (DBFOM) ratchets up private sector involvement. With this option, design, construction, financing, and operations are all assumed by private sector partners. Rather than using deferred payments, financing is backed by future revenue streams collected from user fees, such as tolls. Selecting this option can increase potential risk if the new infrastructure does not generate the level of revenue forecast. The FHWA specifies two types of DBFOM arrangements that have been used in the U.S. Real toll DBFOM concessions leverage tolling as the main source of revenue for partners. The revenue collected is disbursed to private partners during the concession period. This does not eliminate public sector financial involvement; they may be involved through right-of-way assistance or by

making revenue guarantees. There may also be public protections in the event that revenues exceed a threshold, which can result in the public and private sectors sharing revenue. Availability payment DBFOM concessions place financial risk on the public sector. The government entity is responsible for compensating the private sector when it designs, constructs, and operates infrastructure. In many ways, this resembles a debt payment, as the public sector is obligated to make future payments from budgeted revenue sources. This empowers the public sector to finance construction and infrastructure maintenance without debt limit restrictions. Payments may be based on certain criteria such as meeting construction timelines and operating standards, and may be secured by appropriations guarantees or future revenues. These arrangements may be used when tolls are not part of the financing plan.

Existing infrastructure projects can also take advantage of P3s. The two options identified by the FHWA are Operations and Maintenance Concession and Long Term Lease Concession, which occupy opposite ends of the public-private responsibility spectrum. Operations and Maintenance Concession involves transferring operations and maintenance of an existing piece of infrastructure to the private sector. After assuming responsibility, the private partner is paid either a fixed fee for the contract's duration or is allocated money using a performance-based structure, where incentives are based on meeting performance-based targets. Long Term Lease Concession transfers infrastructure that is currently tolled and shifts its management to the private sector for a specified time period in exchange for an upfront concession fee. Competitive bids are solicited and awards are made based on criteria such as the concession fee, length of lease, and financial standing of the private bidder. The FHWA groups Long Term Lease Concessions into three sub-options: 1) debt transfer lease transactions use the concession fee to retire the public debt used to build the infrastructure; 2) hybrid debt transfer and new construction lease transactions extend a debt transfer lease so that the concession fee is used to retire public debt, although an extension of the current infrastructure is included; 3) value extraction lease transactions use concession fees to retire debt, while excess funds are used to meet other needs. These options apply to tolled infrastructure, which lets the private sector recoup its upfront investment on a concession fee while fulfilling any requirements for long-term operations and maintenance.

2.3.1 Benefits and Concerns of Public-Private Partnerships

When deciding if a P3 is appropriate for financing a project or service, a number of benefits and drawbacks should be taken into consideration. Many of these have been cited across the literature on P3s, indicating some consensus regarding benefits and concerns from the use of P3s. Zhang and Kumaraswamy (2001) describe the increasing use of P3s for infrastructure as “aiming to generate greater efficiencies and synergies, increased revenues and reduced deficits/debts, quicker market development, faster foreign investments, and increased competition” (p. 351). One of the more noted benefits of using a P3 is that it expedites project delivery and lowers the base financial costs of producing the product(s) (DeCorla-Souza, Lee, Timothy and Mayer, 2012). Lower expenses stem from the innovative approaches that the private sector can utilize to reduce costs while maximizing profits and from the amount of time private contractors have to collect revenues from the P3. P3s also promote a higher quality of service, which lets public agencies focus on long-term planning, environmental maintenance, and quality assurance

(AECOM Consult, 2007-b). Rall, Reed, and Farber (2010) list possible P3 benefits as follows (p. 9):

- Private financing and project acceleration
- Monetization of existing assets
- Cost and time savings
- Lifecycle efficiencies
- Improved project quality
- Risk transfer
- Public control and accountability

Rall, Reed, and Farber (2010) discuss each benefit in detail. Monetization of existing assets occurs when states use existing infrastructure as part of a P3 arrangement. Doing so can raise significant funds to execute other needed projects. These arrangements usually involve leasing infrastructure rights in return for up-front monies. Operators recoup their investment through tolls or other charges. Cost and time savings can be realized by using incentives and competitive bidding, similar to other procurement methods. Lifecycle efficiencies are another potential benefit. Efficiencies occur when a single contractor is responsible for multiple project phases and they make attempts to reduce costs over the life of the infrastructure through operations and maintenance. With respect to project quality, several advantages can emerge from P3s: providing more leeway for contractors to use new practices, and basing incentives and payment on project performance. Chasey, Maddex, and Bansal (2012) sampled several large P3 projects (over \$100 million) and compared them to design-build and design-bid-build projects. Their limited definition of P3s only includes DBFOM. Results showed that cost overruns on P3s average 0.81 percent compared to 1.49 percent on design-build and 12.71 percent on design-bid-build. Schedule overruns for P3s in their project sample were also less than both design-build and design-bid-build projects.

There are, however, several details that have to be worked out in order for P3 projects to maximize benefits for the general public and to ensure that there is genuine cooperation between the public and private partners. First, effective legislation is necessary to enable P3 agreements (discussed in greater detail in Chapter 5). When considering whether a P3 is realistic, underlying agency culture may also play a role (AECOM Consult, 2007-b). Additional considerations for P3s include: accurate forecasting of revenue, measuring and sharing risks associated with the project, outreach efforts that communicate the project objectives to the general public, and a thorough and accurate cost benefit analysis from the perspective of the private and public sectors (Resor and Tuszynski, 2011). Some of the basic risks associated with P3s are: the legal liabilities associated with the use of the finished product, maintenance costs and execution, demand risk (if revenue forecasts prove to be overestimates), the production and/or presence of alternative routes (which is especially relevant for toll-funded projects), the risk of cancelling or stopping production for any number of potential reasons, outcome risks (such as economic, social, and environmental effects that stem from the P3), and any risks associated with the bidding process and transaction costs (Roumboutsos, 2012). Among the potential drawbacks to a P3 is the need to develop a transparent and honest partnership with a private sector, which, depending upon the company, may or may not be as aware and cognizant of how important it is for the private sector and the public sector to cooperate on the project that is before them. This

means that companies with past experience executing successful P3 projects are generally better candidates for receiving a P3 contract, and that the public sector needs to exercise its discretion when deciding which company receives the project (Taothong, Jiwattanakutpaisarn, and Kanitpong, 2012). The public may also have problems with the project due to perceptions and misconceptions of what P3s are, how they work, and what it will mean for them as a consumer (in terms of the project's economic output). Transparency, outreach, communication, and honesty are of paramount importance to counter these problems, along with working to advocate for the public's well-being throughout the project's duration (Martinez, Hall, Walton, and Mosebar, 2013). The risk also exists that the public sector will enter into a poorly founded relationship with the private sector to complete the intended project. The private sector is likely to do their due diligence to ensure that return on investment can be maximized. It is then up to the public sector to be a wise consumer and to advocate for the public's well-being when conceiving and overseeing the production of the P3 in terms of cost, sharing risk, and structuring the laws and procedures for procurement of P3 contracts (Resor and Tuszynski, 2011). This may require outside consultants who are familiar with drafting such contracts.

Yusuf, Wallace, and Hackbart (2006) note that P3s carry with them several advantages, including: 1) the use of private resources such as capital and innovative methods, 2) the ability to consider higher risk projects, and 3) fostering collaboration among public and private stakeholders. They also list disadvantages, including the need for legislation, a loss of government control, establishing new institutional structures and processes, and the amount of time needed to build trust between public and private sectors. Rall, Reed, and Farber note several other points of concern (2010, p.11):

- Loss of public control and flexibility
- Private profits at the public's expense
- Loss of future public revenues
- Risk of bankruptcy or default
- Accountability and transparency
- Environmental issues
- Labor concerns
- Foreign companies
- Toll road controversies
- Specific contract terms

In some cases the concerns are obvious. If a road is leased to or built and managed by a private firm, the government sacrifices some degree of control over the infrastructure. Extended leases and prohibitions on competing roadways and facilities may also prevent governments or other entities from meeting emergent demands. Still, public control can qualify as a benefit due to state transportation agencies potentially having the authority to impose penalties if a project does not comply with performance measures specified in a contract. As such, ceding public control of infrastructure assets to private firms has positives and negatives associated with it. Another issue is the distribution of collected revenues (for example, tolls or user fees). If a P3 results in higher toll rates and fees, often significant revenues will be redirected from the state to private enterprise, potentially undermining the financial security of state transportation agencies — this in turn may reduce the level of service the state can provide. One way to ameliorate these

problems is by developing contract language that explicitly addresses issues such as negotiations to deal with loss of public control and restrictions on toll rates. Clear language can reduce the perception that private firms are reaping unreasonably large windfalls from project management (Rall, Reed, and Farber, 2010). As many of these potential concerns require contract specifications, there is apprehension over whether owner personnel are adequately equipped to address issues that arise and to oversee P3 projects. The financial risk associated with a private partner is a factor governments must consider. If the public sector has any level of financial exposure in the event of a partner filing for bankruptcy or defaulting on a loan, governments may incur new and unexpected financial obligations as costs shift over to the public sector. Labor concerns center around privatization of current assets detrimentally affecting the current workforce. Witheford (1997) summarizes the main issues facing partnerships as legal (i.e. is enabling legislation in place), financial, and institutional barriers such as conflict between the public and private sectors. Giglio and Anker (1998) echo some of these concerns, citing potential problems that can arise if there is a lack of partner experience or political differences between stakeholders. Inaccurate traffic forecasts for toll roads could also hinder P3s (Ashley et al., 1998).

Long-term concessions, for either existing infrastructure or formed through new construction agreements, are perhaps some of the most controversial P3 models. Giving private sector control of infrastructure, including setting tolls, has political implications. There are arguments claiming that concessions are a necessary part of P3s, which are needed to encourage significant private sector participation. Establishing as many concession agreements as possible may encourage forms of production that are less environmentally and socially harmful; this may also elicit more bids for a project, which can maximize competition (Roumboutsos and Sciancalepore, 2014). Concerns related to concession agreements generally center on policy and fiscal issues, conflicts of interest, and contract terms (Buxbaum and Ortiz, 2007). Because most P3 models are relatively new, state agencies often lack the requisite in-house experience or expertise to manage contractual issues and to monitor progress. Additionally, the proper valuation of existing infrastructure in a concession agreement may warrant concern. Issues with valuation can raise the question: is the public sector getting appropriate value for the infrastructure?

Conflicts of interest relate to unsolicited proposals and selecting profitable projects (Buxbaum and Ortiz, 2007). If a state accepts unsolicited proposals, it may set up a situation in which private sector entities only bid on profitable projects, while more undesirable projects are left in the state's hands. One way of circumventing this problem is by packaging undesirable projects with others or offering subsidies to induce private sector participation. Finally, Buxbaum and Ortiz detail issues with contract terms such as determination of toll rates and future raises, revenue allocations, and lease length. They note that standard lease arrangements in other countries have been in place for 30 to 40 years, but certain U.S. projects have longer leases, such as 99 years for the Chicago Skyway (see Chapter 4). Non-compete clauses that prevent the public sector from constructing competing infrastructure also add to the perception that P3s force users to pay tolls. For example, having contract lengths longer than 15 years tend to erode the quality of the project through a lack of reevaluating the project and changing technologies (Viegas, 2011). Shorter-term contracts could be done sequentially, so that the private sector can feel more secure in its investments and draw from the revenue stream over the course of the contracts. Contracts may also contain clauses mandating that the public and private sectors share

the associated risks more equitably. A non-competitive clause may state that the public sector will not authorize future projects that will compete against a project currently managed by the private sector (e.g. not placing a non-tolled roadway in close proximity to a tolled roadway (Geddes and Wagner, 2011).

The FHWA also details the potential benefits and trouble spots that stem from long-term lease arrangements. These are often viewed as the most controversial type of P3 because they transfer ownership of existing infrastructure to the private sector for extended periods of time. Doing so raises concerns among travelers about the impact such an agreement may have on the cost and ease of travel in the future. The FHWA defines the potential benefits from a long-term lease as follows³:

- Transfer of toll rate determination to private sector removes politicization from process
- Reduction in costs to government from operations and maintenance
- Accelerate construction of new infrastructure or needed repairs to existing facilities
- Restructure debt if toll road is not meeting revenue expectations
- Large upfront concession fees can fund other needs
- Transfer revenue risk to private sector
- Improve asset management using private sector efficiency in operations and maintenance.

Potential concerns surrounding long-term leases include:

- Toll setting authority transferred to private sector; toll increases could occur
- Toll revenue stream is no longer available
- Inequitable return on investment for private sector funding
- Toll revenues used for purposes other than transportation.

Agreements may be worked into contracts to defuse these concerns, such as capping the returns that private firms can realize over the life of a long-term lease, including/preserving some influence over toll rates, and instructing that revenues be used to support transportation initiatives.

³ http://www.fhwa.dot.gov/ipd/p3/defined/long_term_lease.aspx

CHAPTER THREE: DECISION FACTORS AND IMPLEMENTATION

3.1 Public Private Partnership Decision Factors

Deciding which type of partnership to pursue depends on several factors, such as financing, complexity, project specificity, and basis for partner selection. Consideration may also be given to potential issues that could arise, many of them reflecting the concerns previously noted in the last chapter. State transportation agencies must devise strategies to ameliorate these concerns while they leverage the full benefits of P3s. This is a critical part of the decision-making process when deciding whether partnerships with the private sector provide the optimal choice to procure new transportation infrastructure. Decisions to utilize P3s are also informed by lessons learned in other states. By detailing decision-making processes and factors that have been successful, guidance can be created to shape the development and implementation of P3s.

There are a number of factors affecting P3s, including implementation. The first is the structure of P3 legislation. This includes language that state legislatures use to talk about acquisition procedures, measurements of success, and enforcement mechanisms. Legislatures must strike the appropriate balance between the public and private sector — private firms should have the freedom to execute and manage a project as it sees fit. However, the public's interest and well-being must be considered as well (Geddes and Wagner, 2012). AECOM Consult (2007-b) discusses several aspects of P3s in a report for the FHWA that can inform the decision-making process. To succeed, a P3 agreement must satisfy the demands of the public and private sectors, align with stakeholder desires, and satisfy an identified transportation need. P3s are typically formed when the sponsoring agency lacks the resources that are needed to carry out a project alone; successful P3 projects forge a commitment and bond between political agents, the general users of the infrastructure, and the general public. It is also recommended that there be good partner-to-partner relations established before starting a P3, and that the playing field is genuinely level amongst the various bidders. Benefits of public sector P3s are: transfer of some risks to private sector, increased cost efficiency, market based competition, management capability to oversee P3, and accountability through contract standards. The cons are: identified transportation need, lack of internal resources to deliver project, an expedited schedule through P3 process.⁴

To inform continuing debates over P3s in Kentucky, it is relevant to catalogue aspects of these partnerships that could yield positive outcomes. The NCPP lists seven best practices that are important to the success of P3s:

1. Having a public official as a proponent
2. Statutory environment for each P3 implementation
3. Dedicated public sector team to monitor the progress of P3s from start to finish
4. Detailed contract
5. Defined revenue stream
6. Support from stakeholders and the public

⁴ See Exhibit 12 on p.23 for a detailed discussion of threshold criteria based on project scale and public demand and decision factors for P3 selection under project stage and risk profile and project revenue and funding potential.

7. Careful screening of potential P3 partners⁵

The Eno Center for Transportation (2014) specified institutional and managerial considerations, as well as public involvement, as part of a set of state level P3 recommendations. For P3s to be successful they recommend that standard methods be developed and training instituted to prepare public sector staff to manage P3s. Promoting public involvement in the P3 process from the initial conception will increase the likelihood that a project will meet community needs and receive public support.

Rall, Reed, and Farber (2010) list possible stakeholders and decision makers for P3 projects. Included among these are legislators and other high profile public officials, the public sector agency tasked with project oversight, potential funders and equity holders, legal and financial advisors and voters, users, and/or taxpayers. For instance, Virginia's Department of Transportation has a six phase review process for P3s (Buxbaum and Ortiz, 2007).

- 1) Quality Control
 - a. Does the project meet a need; will the project be done efficiently and save money?
- 2) Independent Review Panel
 - a. A panel of transportation officials and individuals from other impacted organizations review and provide suggestions on proposals; proposals then go through a detailed review and public comments are solicited.
- 3) Oversight Board Approval
 - a. The Commonwealth Transportation Board performs a review and determines if the proposals recommended by the review panel should continue the process.
- 4) Submission and Selection of Detailed Proposal
 - a. The Proposal Review Committee examines recommendations from the Independent Review Panel and Oversight Board and subsequently requests detailed proposals. After review of the detailed proposals, the Department of Transportation may decide to select proposals for negotiations.
- 5) Negotiations:
 - a. If the project survives to this point, negotiations take place on revenue returns, length of agreement, and other contractual issues.
- 6) Agreement:
 - a. When both parties agree to the contractual language, the Attorney General reviews and approves the agreement. The Secretary of Transportation is required to issue final approvals on projects.

Yusuf, Wallace, and Hackbart (2006) list decision-making criteria that can be used to match the type of P3 to a specific project. These criteria focus on the financing source, complexity of the project, level of project specificity, and the method selecting private partners. If implementing the criteria lead to a P3 then they list three categories of "success factors" related to P3s, which are: 1) the process of developing a P3, 2) selection of a private partner, and 3) the structure of the partnership and its management. Process relates to the early steps of forming a P3, including the economic justification, the organizational leadership, and the support needed to facilitate a

⁵ <http://www.ncppp.org/ppp-basics/7-keys/>

public-private relationship. Selection is the act of choosing a private sector partner; this process involves soliciting bids and deciding on a contract structure. Structural factors, which entail defining roles and developing performance and accountability measures as part of a contract, ensure that all stakeholder roles are well-defined.

States must also decide whether to use competitive bidding or negotiated bidding. The choice may hinge on what requirements are spelled out in the enabling legislation, or on the contingencies of the project being evaluated. While there is some evidence that competitive bidding leads to better outcomes (Grimsey and Lewis, 2004), the ability to choose and negotiate with preferred private sector partners may be a more important factor. Developing processes to screen and select the best partners and then communicating and building relationships will build long-term relationships, particularly for large, complex projects. Zhang and Kumaraswamy (2001) write that several elements must be present for P3s to succeed. A partnership must be legal, of course, but it must also focus on issues of marketability, affordability, coordination, and developing a manageable procurement process. Implementing a manageable procurement process that awards grants in a timely manner and that executes contracts on time keeps private partners engaged. Methodologies for selecting private contractors may also play an important role in the P3 process. Two key elements that often come into play are the financial and technical, or design, aspects of a bid, with weighting assigned if desired. More complex evaluation criteria can include financial calculations, such as net present value and internal rates of return. A common method used in European countries is Value for Money (VfM), which produces a Public Sector Comparator (PSC) — an estimate of the cost the public sector would bear over a project's lifespan if the project were delivered using traditional, public-only provision (Williamson, Lawrence, and Mueller, 2010). The PSC is divided into the raw capital and operating costs, which includes building, owning, maintaining, and delivering costs; the costs of competitive neutrality (the cost advantages and disadvantages associated with pure public ownership); the retained risks; and the project's transferrable risks. These metrics are measured in Net Present Value. Then, the costs of the private/public-private are broken down into a PSC, financing costs, ancillary costs, and retained risk to then make an apples-to-apples comparison of the public sector's cost relative to forming a P3. In addition to VfM, Tsamboulas, Kechgias, and Moraiti (2011) review the value of other evaluation methods. They conclude that performing socioeconomic and financial analysis is the first step toward deciding if a P3 is appropriate in the first place. Good candidate projects would generate steady revenue *and* be needed by the public. They look at other methods to evaluate P3 projects, including cost benefit analysis, cost effectiveness analysis, risk benefit analysis, VfM, and multi-criteria analysis. They argue that each process carries its own advantages and disadvantages, and that the government in question would have to choose amongst these options depending upon 1) project typology and 2) the desired project outcomes.

Early in the decision-making and legislative processes, states will need to identify the potential negatives of a P3 arrangement. The Eno Center for Transportation (2014) discusses issues that can potentially hamper P3s, including a lack of public or political support, limiting legislation, contractual issues, and institutional capacity (legal, financial, and technical perspectives) needed to manage P3s. Legislative limitations may relate to project eligibility, ways for handling unsolicited proposals, funding requirements (such as setting toll rates), non-compete clauses, and contract lengths. Contractual issues relate to a project's financial viability, the risk associated

with undertaking a project, and addressing the environmental reviews that may be required. Fitch observes that the biggest issue in infrastructure investment is finding a revenue stream to pay for projects that are not politically divisive. This is counter to the belief that a lack of available capital is the larger concern.⁶

The FHWA P3 User Guidebook (AECOM Consult, 2007-b) describes some of the problems that can occur while implementing P3 programs and projects. These include:

- Cultural differences between private and public sector (e.g., the private sector may have a more short-term focus that is concerned with financial returns, while public agencies adopt a longer-term perspective)
- Risk averse vs. managed risk
- Expensed assets vs. investments that need to be preserved
- The need to be debt free vs. build and pay off equity
- Rigid vs. flexible approaches to project development, finance, and delivery
- Standardized vs. innovative approaches to the project
- The domination of construction projects by local firms vs. the need to expand for national or international firms
- Regulatory compliance vs. empowered staff
- Constrained vs. leveraged resources
- Process driven vs. product/service driven methodologies

The Guidebook also discusses possible obstacles that may beset the sponsoring agency. They point to institutional inertia, fear of change, distrust, legal prohibitions, a lack of familiarity with PPPs, differences in perspective and objectives, too few adequate and dedicated revenue sources, loss of control of assets, uses of revenue, and public interest protection. The FHWA lists 21 additional risks to P3 projects. Included among these are:

- Public acceptance
- Control of assets
- Protectionism
- Political stability
- Moral hazards
- Demand and volume related risks
- Revenue risks
- Environmental and archeological risks
- Right-of-way costs
- Construction and maintenance costs
- Liability and latent defects
- Lifecycle costs
- Regulatory and contractual obligations

⁶ http://tollroadsnews.com/news/fitch-revenue-not-financing-limits-infrastructure-investment?utm_medium=email&utm_campaign=Daily+Toll+Roads+News&utm_content=Daily+Toll+Roads+News+CID_f3dbdda432050f19f1e2783ec969c54f&utm_source=Email+broadcast&utm_term=Fitch

- Payment structure and mechanism problems
- Transaction costs
- Changes in the law
- Compensation and termination risks
- Economic shifts
- Currency and foreign exchange rates
- Taxation constraints

Table 3 lists the concerns identified by Buxbaum and Ortiz (2007) related to long-term concession agreements as well as strategies to address them. Taking stock of these strategies when considering projects or when developing legislation will assist state officials in protecting the public interest; while they are implementing projects to make needed infrastructure improvements.

Table 3: Strategies to Address Potential P3 Concerns

Concern	Strategies
Public Sector Inexperience	<ul style="list-style-type: none"> • Contract for services such as legal and financial analysis • Consider best practices and lessons learned from others • Develop committee(s) to guide processes
Undervaluing Infrastructure	<ul style="list-style-type: none"> • Set a minimum value • Use financial analysis such as net present value • Encourage competitive proposals
Upfront Payments and Equity	<ul style="list-style-type: none"> • Revenue from concession spent transparently; focus on transportation • Fund projects that benefit users of privatized infrastructure • Set aside some revenue as annuity for future projects during the lease period
Public Participation	<ul style="list-style-type: none"> • Transparency through public disclosure of process and project • Public access to documentation
Revenue Maximization (Private Sector) vs. Effectiveness	<ul style="list-style-type: none"> • Revenue sharing • Availability payments
Unsolicited Proposals, Private Sector Picking Only Best Projects	<ul style="list-style-type: none"> • Legislation can prohibit • Utilize competition in the process • Application fees
Tolling Policy	<ul style="list-style-type: none"> • Determine level and frequency of toll increases • Public input • Consider equity across socioeconomic groups
Revenue Allocation	<ul style="list-style-type: none"> • Revenue sharing if proceeds exceed projections • Refinancing with gains being shared
Lease length	<ul style="list-style-type: none"> • Limit through legislation • End lease when certain rate of return is achieved
Non-compete Clauses	<ul style="list-style-type: none"> • Provisions to allow planned construction

	<ul style="list-style-type: none"> • Exclude other modes such as public transit
Default Risk	<ul style="list-style-type: none"> • Ensure asset goes back to public sector, but not liability for default • Operations not interrupted
Facility Operations and Environmental Issues	<ul style="list-style-type: none"> • Contracts with performance standards and specifications • Include contingencies for future asset improvements • Periodic inspections of asset condition

Source: Buxbaum and Ortiz (2007)

Lessons learned from previous P3 projects can be valuable for informing the decision-making process. Buxbaum and Ortiz (2007) list several lessons learned based on conversations with the Virginia Department of Transportation.

- Project financing is a critical concern and the private sector needs to bear some level of risk once the infrastructure is operational.
- Conflicts of interest and politics can be detrimental to project development, and expectations of stakeholders must be managed.
- Each P3 lays out a template that following projects can use, so precedence is important.
- Ensure federal partners have extensive knowledge about the project.
- Solicited proposals help control the procurement process.

Rall, Reed, and Farber (2010) offer decision criteria that apply to legislators. They list nine guiding principles legislators should consider related to P3s. While these are not suggestions that pertain to legislative language, they can steer legislators as they deliberate on the specifics of P3s. The nine guiding principles are (p. 21):

- 1) Remain informed
- 2) Separate the debate over P3s from issues such as tolling
- 3) Consider the public interest for all stakeholders
- 4) Involve and educate stakeholders using resources such as P3 policy boards
- 5) Take a long-term perspective
- 6) Let the transportation program drive P3 projects
- 7) Support comprehensive project analysis that demonstrates the advantage of P3 over traditional procurement methods
- 8) Be clear about the financial issues – determine if the public sector is seeking upfront revenue from a long-term lease or from building new infrastructure
- 9) Establish robust and enforceable ground rules to guide bidding and negotiations for procurement, evaluation methods, review, and transparency.

Sabol and Puentes (2014) lay out nine recommendations for P3s and public sector decision makers. Their recommendations have many parallels with the nine guiding principles of Rall, Reed, and Farber (2010). Their recommendations include (p. 3):

- 1) Strong, state level legal framework for P3s
- 2) Project prioritization aligns with public goals
- 3) Choose politically feasible projects

- 4) Understand the private sector and its needs
- 5) Identify the proper revenue stream
- 6) Define a clear and transparent process
- 7) Empower the public sector team involved in the P3
- 8) Engage stakeholders from all groups impacted by the project
- 9) Monitor the P3 and use lessons learned.

A Pew Center on the States (2009) report develops questions that state policymakers can ask when resolving whether to use P3s to procure new projects. Questions are pertinent to the decision-making process, the deal-making process, financial analysis, and oversight and service provisioning. The salient questions included a focus on lease provisions, distribution of risk, non-compete clauses, concession considerations, and contract terms. Rall, Reed, and Farber (2010)⁷ reiterate the importance of these questions; Appendix A lists them in their entirety. Other considerations that are important for the public sector to consider include the presence of guidelines to ease decision making and conflict resolution; the presence of trained, skilled, full time technical staff who will be devoted to overseeing the P3s production and maintenance; and a long-term focus on project execution in the state (DeCorla-Souza, Mayer, Jette, and Buxbaum, 2012). Even if the state is only undertaking a single P3 project at any time, it is advised to have a long-term vision for the maintenance of that P3 and the state should have contingency plans in case of a future P3 project.

Elhamshary and Elhamshary (2013) examine a series of P3 projects in the United States and conclude that having a transparent, systematic, and well-conceived process for building P3s is instrumental for ensuring their success. They encourage states considering implementing a P3 project to perform due diligence when conceiving, constructing, and executing a formal P3 project system, rather than approaching the partnership in an ad hoc and improvised manner. The FHWA User's Guidebook (AECOM Consult, 2007-b, Exhibit 52) documents additional lessons learned, including using flexible project development, identifying P3 champions, and assigning clearly defined roles at the outset of a project.

3.2 Public Private Partnership Implementation

Once a state decides to establish a P3 for a project, it should look to guidelines for implementation and management that have been developed. The FHWA's P3 User Guidebook contains information on a "framework for developing and managing transportation PPPs (P3s)" (AECOM Consult, 2007-b). Institutional requirements are listed along with potential legal obstacles and strategies for navigating procurement decisions, project development, and implementation processes. These requirements are summarized below.

For each P3 program, there should be designated methods to develop and refine the program. Additionally, a program management group with resource management capabilities should be established. Stakeholders must perform a self-assessment of their technical capabilities, such as legal, procurement and contractual management, and financial management. If they are lacking in any area, the appropriate steps should be taken to correct these deficiencies. Projects also require a system of prioritization, an RFP development group, and a method to evaluate bidders.

⁷ See Appendix H.

An assessment of these capabilities should be performed in-house by a legal group; the processes and regulations established should work to make projects transparent and the implementing agencies and actors accountable for its performance. The FHWA recommends that a state scrutinize the institutional context of its P3 program (e.g., how it fits into the existing framework), how risk is to be shared among between public and private stakeholders, whether the sponsoring agency is equipped to handle P3 projects, and what the optimal procurement approach should be. These considerations should guide hiring practices for a P3 management teams.

In addition to the institutional questions, there are also the legal issues that have to be resolved. The FHWA recommends that these statutory issues be examined and answered at the state level. These include (Exhibit 20, p. 31):

1. The legal capacities of parties and requirements of the sponsoring organization
2. The ability for private firms to be involved in infrastructure development and control, especially with respect to foreign firms
3. The existence and legal basis for cost collection (tolling)
4. The authority to regulate toll rates, exemptions to tolls, and services
5. Methods to resolve disputes and liability questions
6. Avoidance of conflicts of interest amongst public and private parties involved
7. Federal funds dealt with in accordance with federal law and statutes
8. Public sector borrowing limitations
9. Tax and accountability liabilities
10. Adequacy of the procurement and selection process
11. The specific contract provisions and surety requirements
12. Protection of property and intellectual property rights of the public and private entities
13. Level of authority that other government entities have over the project
14. Property and land acquisition questions surrounding condemnation and use

In addition to the statutory issues, the Guidebook also lists a number of considerations for P3 contract negotiation. The P3 Guidebook lists these provisions (Exhibit 21, p. 32):

- Administrative coordination
- Adequacy of oversight and monitoring procedures
- Ability and restrictions over transfer of private sector contract duties to other parties
- Contract renegotiation, refinancing, hand-back provisions, and assignment of rights
- Provisions regarding the ability of the public sector or other parties to build or expand competing facilities
- Treatment of “windfall” profits due to traffic growth or congestion pricing
- Public control or limitations on private refinancing of project debt
- Currency and profit repatriation rules
- Authority over advertising or facility branding rights and treatment of proceeds
- Ability to provide guarantees
- Changes in design standards or construction specifications during development
- Shifts in public policy towards P3s or technology changes that impact project viability

After dealing with legal issues, the Guidebook turns to questions of procurement. It reviews the following project phases:

- Identification of possible P3 approaches and prospective buyers
- Organizational assignment for the internal management team and external resources being utilized
- Internal evaluations of the project as a P3
- Transparent procurement procedures
- Closing contract process with understanding of costs, terms, schedule, and other details
- Transition to delivery team for project execution
- Accountability based on the contract.

Exhibit 24 (p. 36) catalogues other issues that may arise during the procurement and/or negotiation phases of a P3 project. These issues are divided into four categories: public interest concerns, public perception issues, transportation network coordination concerns, and administrative capability issues. Appendix B reproduces the table discussing these problems. During the procurement process, deciding between solicited and unsolicited bids is critical. Unsolicited proposals may provide opportunities to use innovative approaches when implementing projects that have been historically overlooked. Solicited proposals establish a more controlled procurement environment because the public sector retains control of the process. It also does not have to use scarce resources in responding to unsolicited bids.

Deciding whether a project should repurpose existing infrastructure (brownfield) or start with completely new facilities (greenfield) is critical as well. Table 4 lists the features of each category.

Table 4: Brownfield versus Greenfield Projects

Brownfield	Greenfield
Low traffic; reduced revenue, environmental risks	Higher traffic; increased revenue, environmental risks
Opportunity to increase toll rates at a faster rate	Desired by transportation agencies
New technology to speed toll collection	Potential for life cycle asset management to lower costs
Public sector undervaluing asset	Large number of potential projects
Limited number of potential projects	Options can include congestion pricing lanes on existing highways

Placing aside the relevant legal considerations, states also need to rank potential projects to determine which ones merit a P3. Project prioritization should take into account financial analysis (i.e. use of Net Present Value or Internal Rate of Return), determining Value for Money, settling on the necessary pre-qualifications for bidders, what to include in each Request for Qualifications (RFQ)⁸ to communicate to the private sector what a project’s goals are, and if the state should countenance unsolicited bids. When bids for projects are received, states can use a

⁸ For more detail on the RFQ and RFQ evaluations see p. 42-43.

number of criteria to assess them, including the legal authority of the agency to enter into the proposed contract, whether an agency has the management capabilities to supervise the proposed project, the project schedule, the experience of proposed project team, and what technological improvements could be incorporated to enhance cost savings. For example, if a state decides to accept unsolicited P3 bids, it is critical that a process is in place to sort through them. Sorting and ranking processes should attempt to treat all possible competitors equitably and ensure that the project is in line with current policy objectives; that it conforms with the laws of the state, local, and federal government; and that proposals are innovative, practical, and will confer benefits to the public.

Once a contract is formalized and a project moves into its beginning stages, a number of measures may be used to evaluate the project's performance and the private sector partner. Included among these performance measures are: level of service defined by congestion, user revenue (tolls, etc.), lane miles out of service for repair, cost relative to estimates and budget, the bond ratings for project, and estimated time to completion versus contracted term.

For P3 implementation, the Guidebook proposes a five-phased approach for the public sector. The phases and sub-phases from Exhibit 29 are listed below.

Phase 1: Perform Preliminary Project Planning

- Determine transportation need
- Develop preliminary project scope
- Determine environmental constructability
- Develop preliminary financial plan regarding project sources and uses of funds

Phase 2: Establish Eligibility for PPP Status

- Assess in-house capabilities to perform projects using in-house resources or traditional approaches
- Identify resources and functional capabilities required to deliver project in a timely manner
- Determine procurement approach and types of projects to be considered in the PPP program
- Establish legal authority to enter into PPP arrangements involving alternative approaches to project financing, development, delivery, and preservation
- Develop preliminary allocation of roles, responsibilities, risks, and returns for the public and private partners to a potential project PPP
- Develop and implement remedies to legal or regulatory impediments to PPPs and to other alternative approaches to more cost-effective project development

Phase 3: Explore Potential and Interest of Private Providers to Enter into a PPP for the Project

- Request PPP structuring suggestions from interested private providers
- Solicit letters of interest and qualifications to pre-qualify the most promising prospective providers

Phase 4: Solicit Proposals from Prospective Private Providers and Select Best Value Team Using a Transparent Process

- Develop and issue performance-based request for proposals from pre-qualified private providers for scope of services required by the private provider, with the potential to improvise and offer innovative solutions to project financing, delivery, and preservation
- Review and evaluate responses to RFPs based on pre-established criteria, providing a level playing field for prospective private partners
- Begin negotiations with the PPP team that offers the best value over the life-cycle of the project; also finalize PPP contract terms of agreement when acceptable

Phase 5: Establish and Nurture PPP Arrangements for Project Delivery as a PPP

- Develop full understanding and capabilities among public sector staff responsible for managing the PPP contract
- Ensure clear understanding of relative roles, responsibilities, risks, and rewards of PPP arrangements, as defined in the contract agreement
- Establish full protocols for communication, coordination, and problem identification and resolution throughout contract term, involving clear lines of authority, responsibility, and communication
- Work collaboratively and constructively apply the terms of the contract within the performance requirements defined in the terms of agreement
- Hold periodic meetings among team leaders from both public and private sectors — at both the senior management level and tactical/technical implementation level — throughout the project contract term
- Hold all PPP parties accountable for complying with contract terms throughout the duration of the contract through regular project reporting and review

(AECOM Consult, 2007-b, Exhibit 29, p. 46)

Virginia's P3 "Implementation Manual and Guidelines" (2014) discusses how state administers the project development and procurement for P3 projects. During project development, there are a number of tasks that require completion to prepare for the subsequent procurement phase. These tasks fall outside the step-by-step requirements detailed below. At this juncture project scope and schedule can be further defined, requests for information can go out to the private sector, assessments of the project's technical feasibility and maintenance requirements can be put together, officials work to build public and political support, and finer-grained risk analyses conducted. The first defined step of the development process is conducting National Environmental Policy Act (NEPA) studies to determine the environmental impact of the project. While the NEPA studies are underway, public involvement and the Value for Money (VfM) analysis begins. If environmental impact studies lead to the project being rejected initially, it can be revised until it meets NEPA standards. Once receiving NEPA approval, a recommendation for the project to move ahead is submitted to the Virginia Office of P3s' (VAP3) Director. The director can either reject the proposal as a P3, which may lead to the project being procured in an alternative manner, or may initiate the P3 procurement process. Upon approval the VAP3 begins to develop procurement documents, such as the request for proposals (RFP).

The VAP3 then issues Request for Qualification (RFQ) documents to the private sector. Once they have been collected, the VAP3 Department reviews the Statements of Qualification (SOQ) and produces a shortlist of candidates. Draft RFP documents are then circulated among the shortlisted candidates and proprietary meetings are held with each candidate. Final RFP documents are then released, and the second phase of VfM is conducted, based on the submitted proposals. The VAP3 conducts evaluations and then determines whether to move forward with procurement. If VAP3 decides to move ahead, the preferred private partner is selected and the VAP3 audits the process and contract. Then the contract is finalized, and the major business points are presented to the Oversight Board and posted online. The Agency Administrator can then execute or terminate the contract based on the feedback they receive.

CHAPTER FOUR: CASE STUDIES

Case studies provide the best illustration of how P3s have been used throughout the U.S. The following sections document several case studies, with a breakdown based on the FHWA's P3 typology. Case studies are divided into two categories – new build and existing facilities (e.g. greenfield and brownfield), with examples of P3 arrangements that fall into each category.

4.1 New Build Facilities

Design, Build, Finance, Operate, and Maintain

a. State Highway 130 (Segments 5 & 6) — Austin, Texas

Segments 5 and 6 of State Highway 130 make up a 41-mile four-lane highway in Central Texas. After Segments 5 and 6 were completed in 2012, SH-130 provided a 91-mile toll road, which in turn reduced congestion on I-35. Segments 5 and 6 of SH-130 take advantage of open road electronic tolling. This is the first privately developed, operated, and maintained open toll road in Texas; the Texas Department of Transportation and their private partner, SH 130 Concession Company, LLC, signed a comprehensive development agreement in 2007, under a 50-year toll concession. Toll rates are evaluated each year and adjusted based on the performance of the state's economy. In September 2014, the cost for lightweight vehicles to travel the entire road went up to \$6.98.

b. I-595 Corridor, Broward County, Florida

The I-595 Express corridor improvement is an example of a DBFOM model with availability payments. Its purpose is to improve driving conditions along I-595. In 2009, the Florida Department of Transportation signed a P3 agreement with I-595 Express, LLC to serve as the concessionaire on the I-595 corridor improvements project for 35 years. The reconstruction and widening of the I-595 mainline and associated improvements to frontage road and ramps, will cost approximately \$1.83 billion for the 10.5-mile stretch of I-595.

To prevent the I-595 Express from becoming overly congested, toll amounts fluctuate throughout the day – tolls are costlier during peak periods when demand is greater. Although I-595 Express, LLC is responsible for designing, building, financing, operating, and maintaining the roadway, the Florida Department of Transportation has the authority to set the toll rates and retain toll revenues. This money, in turn, is used to pay the concessionaire. Toll collection began in April 2014, and the first interest payment is scheduled for December 2014. Principal payments are slated to begin in 2031.

Design-Build-Finance

c. Northwest Corridor, Atlanta, Georgia

The Northwest Corridor project will develop 29.7 miles of road adjacent to I-75 and I-575 and will reduce travel times through the use of congestion-based tolling when it is complete in 2018.

The managed lanes in will be constructed via a DBF agreement between the Georgia State Road and Tollway Authority and the private partner, Northwest Express Roadbuilders. Georgia's Department of Transportation is responsible for overseeing the design and construction of the infrastructure and will assume responsibility for long-term operations and maintenance. The total costs for the Northwest Corridor are estimated at \$833.7 million, which is being funded using a combination of private and state funds. Design on the project wrapped up in 2013 and construction got underway in September 2014.

d. iROX I-75 Road Expansion Project, Collier and Lee Counties, Florida

The iROX I-75 Road Expansion Project increased a 30-mile stretch of I-75 in Collier and Lee Counties, Florida, from four lanes to six lanes. The project also resurfaced the current roadway, reconstructed the Immokalee Road interchange, added an additional 12-foot travel lane, and added 10-foot paved shoulders. As the first Design-Build-Finance (DBF) project in Florida, this P3 was made possible by legislation passed in 2008. Using the DBF approach, Florida Department of Transportation (FDOT) completed the project in three years – projections suggested that eight years would have been necessary using conventional financing.

To use DBF, it was critical that FDOT must partner with a company able to develop the design and construction concurrently, while also financing the entire project and offering a guarantee bond to ensure the project would be fully completed (Forcael et al. 2011). FDOT also included an incentive/disincentive clause in the private firm's contract. For the iROX I-75 expansion project, the private contractor was awarded the maximum bonus for early project completion – approximately \$15 million. The convergence of multiple factors let the contract take advantage of the contract's incentive clauses: a 24/7 worksite, cooperative weather, obtaining permits ahead of schedule, and having the flexibility to bring a secondary grading company on board with the project.

The project's total cost was approximately \$458 million. \$340 million came from federal funding, \$26.3 million via state funds, \$81.6 million from State Growth Management Funds, and \$4.9 via million was provided via the State Transportation Regional Incentive Program.

Design Build Operate Maintain

e. The Las Vegas Monorail, Las Vegas, Nevada

The Las Vegas Monorail Project was initially a joint venture designed to link Bally's Hotel and the MGM Grand Hotel in Las Vegas, Nevada. In 1993, the hotels financed construction of the one-mile monorail system. Anticipating future expansion along the Las Vegas Strip, Nevada passed legislation enabling a private company to own and operate the monorail, and to charge fares as a public transportation system. In 2000, the Las Vegas Monorail Company (LVMC) was formed as a non-profit public benefit corporation and acquired the monorail under a 50-year franchise agreement. As the first and only privately-owned transportation system in the U.S., the Las Vegas Monorail was an innovative venture that offered public transportation without public subsidies.

LVMC contracted with Transit Systems Management LLC to design, build, operate, and maintain the expanded monorail system. The expansion of the monorail system was financed with tax exempt revenue bonds issued through the State of Nevada Department of Business and Industry, and backed by advertising and toll revenues. The expanded project opened in 2004. However, toll fare revenues failed to meet bond payment expectations, and LVMC filed for Chapter 11 bankruptcy in 2010 (Perlman and Pulidindi, 2011). In 2012, LVMC emerged from bankruptcy in an effort to continue system operations through the full term of its management contract. For the original bond investors, \$13 million was approved for repayment of the \$451 million in senior bonds. Second-tier bondholders (whose bonds were valued at \$149 million) and LVMC, MGM/Mirage, and Caesars/Park Place Entertainment (which held \$48 million in bonds) received no compensation.

In 2014, there was a new push to extend the Las Vegas Monorail to McCarron International Airport. Las Vegas Mayor Carolyn Goodman voiced the city's support to lengthen, stating that the new segment would take 40 months to complete (Cashell, 2014). However, all of the parties supporting this expansion recognize the challenges involved with enticing new private investors to the project, given the major loss original bond investors suffered.

Design Build

f. Triangle Expressway, Raleigh-Durham, North Carolina

The Triangle Expressway is an 18.8-mile route that was built to relieve congestion on the north-south routes running between Raleigh and Durham, North Carolina. The Triangle Expressway uses an all-electronic, non-stop tolling system. Toll payments are collected via an Electronic Toll Collection program called NC Quick Pass or through a video billing program called Bill by Mail. The total cost for the Triangle Expressway was approximately \$1.134 billion, the most expensive public works project ever attempted in North Carolina. Part of the funding source for the Triangle Expressway came from the sale of toll revenue bonds, approximately \$270.1 million. Other sources included federal funds (\$86.3 million), state-issued bonds (\$352 million), a TIFIA loan (\$386.7 million), and state funds (\$108 million).

The project was built in three phases, however only Phase 2 and Phase 3 were constructed using a private partner using a design-build P3. Phase 2 of the Triangle Expressway involved designing and constructing 6.6 miles of road that connect NC 540 to U.S. 64. This road opened for use and for tolling in August 2012. Phase 3 of the Triangle expressway entailed designing and constructing an additional six miles of NC 540 to connect it to the NC 55 Bypass. This phase of the project opened in December 2012 and tolling began in January 2013. Over 23 million toll transactions were processed during the first full year of tolling operations, with 58 percent being billed via transponder and 42 percent via video Bill by Mail.⁹ NC DOT officials projected that the growth rate in toll transactions would continue through 2014.

⁹ <http://www.ncdot.gov/projects/triangleexpressway/download/NCTAAnnualOperationsReport2013.pdf>

g. Missouri Safe and Sound Bridge Improvement Program

In 2006, the Missouri Department of Transportation (MoDOT) initiated the Safe and Sound Bridge Improvement Program. This program aimed to replace or rehabilitate 802 bridges across the state that were in serious or poor condition. Of the 802 bridges, 248 were selected by MoDOT for rehabilitation and 554 for replacement. Initially, the state envisioned The Safe and Sound program as a P3 using a DBFM approach. However, due to the faltering economy and the 2008 recession, MoDOT determined that a DBFM approach was not feasible for this type of project. The project was re-launched in the fall of 2008, when MoDOT decided to issue one contract for the design and construction of all 554 bridges that required replacement.

The chosen bridges were located across the state, with at least one bridge slated for replacement in each of the 114 counties. The contractor selected to replace the bridges received a five-year contract to complete the project, which was valued at \$487 million. Repair work began in 2009 and was completed in 2011, three years ahead of schedule. The agreement between MoDOT and the contractor included a number of interesting provisions, including: 1) mandates specifying the average length of bridge closure, 2) that steel and concrete be recycled, and 3) the ability for MoDOT to modify the proposed construction schedule in response to local events or other contingencies.¹⁰ In October 2013, the Safe and Sound Bridge Improvement Program received the People's Choice Award in the America's Transportation Awards competition sponsored by AASHTO, AAA, and the U.S. Chamber of Commerce.

Private Contract Fee Services

h. South Carolina "27-in-7, Peak Performance" Program

In 1999, the South Carolina Department of Transportation (SCDOT) embarked on a \$5-billion-dollar road-building effort that sought to complete 27 years' worth of transportation projects in seven years. SCDOT selected 200 road and bridge projects for this initiative, some of which had awaited funding for over 30 years (Southeast Construction, 2004). The state thought it important to complete a number of planned construction projects using current dollars. Postponing them would bring the risk of inflation and other economic forces, thus driving up the cost of construction and materials. SCDOT partnered with two private construction and resource management (CRM) firms, Fluor Daniel in the western part of the state and Parsons Brinckerhoff in the eastern half of the state. Working with two CRMs let SCDOT avoid hiring an estimated additional 500 in-house employees to handle the additional workload generated by the 27-in-7 Program. Approximately 100 of the projects were managed directly by SCDOT, while responsibilities for the other projects were divided between the two CRMs. For the 100 projects assigned to the CRMs, they oversaw the strategic planning, financial management, and the coordination and design of construction activities. SCDOT offered an incentive/disincentive bonus/penalty to the CRMs to encourage the use of innovative approaches to construction schedules, financial costs, and customer satisfaction.

¹⁰ <http://www.modot.gov/safeandsound/Facts.htm>

Project financing came from a number of sources, including TIFIA loans, revenue bonds for selected facilities, future state and federal aid receipts, and the South Carolina Transportation Infrastructure Bank. The 27-in-7 Program wrapped up in 2008, two years later than originally planned. Upon the program's completion, SCDOT implemented new practices based on several lessons learned from the experience. Many of these related to project management. Both CRM contractors used the same project management software during the 27-in-7 Program, which was adopted by SCDOT in 2002. The state has continued to use this project management software for its Construction, Engineering, and Inspection work and requires all contractors on projects over \$5 million to use the same software so SCDOT can monitor their progress.

4.2 Existing Facilities

O&M Concession

a. Anton Anderson Memorial Tunnel

The Anton Anderson Memorial Tunnel connects the cities of Portage, Alaska and Whittier, Alaska. It was originally constructed as a railroad tunnel from 1941 to 1943 and served as Alaska's main supply link during World War II. Using Whittier as a rail port for the military shortened the voyage for supply ships, reduced their exposure to Japanese submarines, and let materials bypass the steep railroad grades previously required to traverse the Kenai Mountains. When complete in 1943, the tunnel stretched 2.5 miles through Maynard Mountain.

Over the next 50 years, Whittier and Portage experienced significant population, economic, and tourism growth which motivated the Alaska DOT to seek out improvements to the transportation corridor. After studying a variety of options, officials decided that constructing a highway to Maynard Mountain that transformed existing railroad tunnel into a one-lane combination highway and railroad tunnel offered the best solution. The proposed tunnel would allow cars and trains to take turns moving through the tunnel.¹¹ Construction of the improved tunnel began in 1998 and was completed in 2000.

Since the Anton Anderson Memorial Tunnel opened in 2000, its operation and maintenance has been outsourced to VMS, Inc. VMS manages toll collection, performs administration, controls train and vehicle passage, monitors all tunnel systems (including traffic signals, gates, camera, radar, jet fans and the tunnel drainage system), removes snow at the tunnel's entrances, and provides first response for emergency fire/rescue and EMS. The contract between the Alaska DOT and VMS established the state's first operation and maintenance fee service contract.

Long-Term Lease Concession

b. Indiana Toll Road

The Indiana Toll Road stretches 157 miles across northern Indiana, from the Ohio border to the Illinois border. Built in 1956, the Indiana Toll Road links the largest cities on the Great Lakes with the Eastern Seaboard and operates as the primary connection to the Chicago Skyway and

¹¹ <http://www.dot.state.ak.us/creg/whittiertunnel/tundesign.shtml>

downtown Chicago. Historically, the Indiana Department of Transportation has managed the Indiana Toll Road. However, in 2005, the Indiana Finance Authority (IFA) began to explore the feasibility of leasing the Toll Road to a private-sector firm. The IFA determined that leasing the toll road would benefit the state. The IFA circulated a request for lease concession proposals.

Cintra/Macquarie won the lease concession, leading to the formation of the Indiana Toll Road Concession Company, LLC (ITRCC). By April 2006, the IFA and ITR formalized a 75-year lease for \$3.8 billion. ITRCC assumed operational responsibility for the Toll Road in June 2006. Tolls rates along the Indiana Toll Road vary depending on the size of the vehicle and whether or not the motorist uses transponder technology. For two-axle vehicles, motorists choosing to pay manually are charged a higher toll, \$10 to travel the road's entire length. Vehicles using the electronic toll collection system pay \$4.65. For vehicles with more than two axles, the toll is the same irrespective of transponder use – the typical rate for a semi-trailer is \$39.70. According to ITRCC, electronic toll collections account for more than 70 percent of all toll receipts.

Tolls collected along the roadway are the primary revenue stream for ITRCC, which in 2013, amounted to \$195.8 million. Since 2006, traffic volume rates along the Indiana Toll Road have decreased 42 percent. In 2014, ITRCC filed Chapter 11 bankruptcy (Bloomberg, 2014). As per the instructions handed down by the bankruptcy court, ITRCC has until August 2015 to find a buyer to assume Toll Road's operations (Wall Street Journal, 2014). During this process, Indiana's state leaders have reassured motorists that the highway's daily operations will remain unchanged.

c. Chicago Skyway

The Chicago Skyway is a 7.8-mile elevated toll road that connects I-94 (Dan Ryan Expressway) to the Indiana Toll Road at the Indiana/Illinois border. The Skyway was built in 1958, and until 2004 the City of Chicago operated it. In 2004, the City of Chicago released qualification requests for parties interested in managing on a long-term basis. In October 2004, the City selected Cintra/Macquarie, which paid \$1.83 billion for the 99-year concession. The company in turn formed the Skyway Concession Company, LLC (SCC). SCC is financially responsible for all of the maintenance and operations of the Skyway and retains all toll and concession revenue. Cintra/Macquarie is the same company that owns the Indiana Toll Road's concession. Company officials have stated that that Chicago Skyway will not be affected by the bankruptcy filing.

CHAPTER FIVE: LEGISLATION

As state legislatures have sought innovative procurement methods to finance transportation infrastructure improvements in an environment of budget austerity, P3s have rapidly increased in popularity. Legislation sets guidelines for state agencies so they can enter into these agreements. Many states have passed P3-enabling legislation to fund transportation projects, and a number of projects have been completed under these arrangements. Rall, Reed, and Farber (2010) report that over a 20-year period, over 80 P3 projects have been completed, with total investments exceeding \$46 billion. Iseki et al. (2009) observe that: “Most evaluators of PPPs agree that appropriate legislation should be set in place prior to private sector involvement to enable the best outcome from PPPs and to protect the public interest. Legislation establishes in advance which phases of highway projects should be privatized and what types of PPP schemes highway agencies can undertake” (p. v). In many cases, a particular agency is tasked with oversight and management. Contractual agreements play an important role in defining the expectations and parameters of the project.

Before discussing how enabling P3 legislation and statutes differs among states, we look at salient federal legislation related to P3s. Historically, federal laws restricted the use of experimental methods to finance, select, and execute highway construction (Fishman, 2009). These restrictions have gradually been relaxed. Tolling and pricing on federal highways was first authorized in 1987. In 1991, the Intermodal Surface Transportation Efficiency Act (ISTEA) authorized a pilot program for P3s that implemented tolling in several states. In 1998, the Transportation Equity Act for the 21st Century (TEA-21) permitted states to institute tolls on new and renovated state highways as well as on Interstate highways via the *Interstate Reconstruction and Rehabilitation Pilot Program*. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), passed in 2005, sanctioned the increased use of tolls and expanded the role of private sector involvement in the procurement process (Iseki et al., 2009). The most recent funding and authorization bill for federal surface transportation, Moving Ahead for Progress in the 21st Century Act (MAP-21), was passed into law in 2012. MAP-21 requires the Secretary of the U.S. Department of Transportation (USDOT) to identify best practices for P3s as well as to model contracts for popular types of P3s. In addition, the Secretary can specify barriers to the use of P3s and redress those by easing regulations.

While federal legislation provides some guidance, individual states have the ability to construct P3 legislation. As a result, legislation varies from state-to-state. The form legislation takes hinges on whether a state wants to expand or limit the use of P3s – limits on P3s are usually imposed to limit states’ exposure to financial risk, which increases when multiple P3s are pursued at the same time. The U.S. DOT published model state legislation based on features commonly found in state-level P3 legislation. Appendix C includes this language. The Eno Center for Transportation (2014) recommends that states and local governments adopt legislation related to P3s. The report argues that legislation should adopt broad language regarding project eligibility and should contain a transparent and data-driven process to evaluate selected projects. The report also outlines suggestions to deal with competitive bidding, administrative processes, and unsolicited proposals. The report argues that governors and the public should not be allowed to veto a project, nor should they be allowed to set contract lengths based on individual projects.

Rall, Reed, and Farber (2010) classify state statutes into: 1) project selection and approval, 2) proposal review, 3) necessary funding and any restrictions, 4) procurement and management, 5) and toll oversight. Table 5 lists examples of these statutes and provisions in each category. While these statutes are not universally applicable, they contain provisions that have been used with success and can be considered in future P3 legislation.

Table 5: Statute Examples

Project Selection/Approval
<ul style="list-style-type: none"> • Solicited and unsolicited proposals from private sector • Limit on number of projects that can be undertaken • Geographic and modal restrictions • Conversion of existing roads to toll roads allowed • Legislative approval • Local veto allowed • Restriction of P3s to state agencies • Design build and HOT lanes permitted
Proposal Review
<ul style="list-style-type: none"> • State agency can hire technical/legal consultants • Payments to unsuccessful project bidders for work on proposals • Application fees • Timeline for submission and evaluation allows for thorough proposals • Specified evaluation criteria • Proposal review processes and participants detailed • Confidentiality of proposals maintained
Necessary Funding and Restrictions
<ul style="list-style-type: none"> • Use of state and federal funds • Combination of local, state, and federal funds • TIFIA usage allowed • Transfers of P3 revenues to other funds/uses not permitted • Public sector can issue toll revenue bonds • Public sector can form nonprofits to issue debt
Procurement and Management
<ul style="list-style-type: none"> • Multiple types of procurement allowed • P3s exempt from state procurement laws • Outsourcing of operations/management allowed • Public sector must maintain alternate routes without tolls • Non-compete clauses addressed • Issues with long term leases addressed
Toll Oversight
<ul style="list-style-type: none"> • Who sets the rates • How and when can rates be changed • Removal of tolls when debt is retired

Source: (Rall, Reed, and Farber, 2010 Table 3, p. 17; Iseki et al.,2009, Table ES-1, p. ix)

Legislation can influence risk levels, the use of P3s, and foster relationships between the public and private sectors. But legislation across states varies on the kinds of transportation projects that are eligible for P3s. Iseki et al.'s (2009) review of state legislation finds that state legislative language can be delineated by common categories. Each bullet in Table 2 speaks to this issue by indicating what options have been used commonly in P3 legislation (see Iseki et al., 2009, Tables 4-1 – 4-5). The results for many of the statutes identified have been mixed. As such, policymakers must decide whether a particular statute should be included in P3 legislation. The examples and state uses of each statute come from Iseki et al. (2009).

With the exception of Indiana and North Carolina, all states that have P3-enabling legislation accept unsolicited proposals. To limit the number of proposals received, some states ask that applicants pay a submission fee. When a state develops a P3 program, it may limit the number of projects initially so it can determine if legislation is effective and if future projects will likely succeed. Six states currently use this approach to implementation. Geographic restrictions may be used to focus P3 developments on certain areas, and there are nine states with geographic restrictions. Limiting the types of projects by mode may limit a state's ability to meet specific needs; currently 12 states limit P3s based on mode. In six states, legislatures must have some involvement before a project receives approval, and five states have restrictions on converting existing roads to toll roads. Legislative approval can take a number of forms. For instance, the State of Washington requires the state finance committee to approve a project. The State of Georgia does not require approval but asks that a letter be submitted to the legislature and to the governor, notifying them of the intent to negotiate a P3. This provides state legislatures with the opportunity to review P3 projects. However, reviews may slow the project development and approval process. Presumably, if the legislation contains language to alleviate any issues that may warrant extra review, states may not require legislative review for individual projects. Rall, Reed, and Farber (2010) describe specific state approaches as follows (p.19):

Virginia, for example, established a PPP program based on comprehensive legislation that includes a public review process but not legislative approval. Another policy option is to statutorily provide the legislature with structured involvement other than project approval—for example, through opportunities for legislative review and comment or regular reports to the legislature on PPP activities.

In some cases, local governments have veto authority over projects, adding a layer of uncertainty and complexity to P3 dynamics. Arizona, Delaware, and Minnesota permit different forms of local veto. Letting public agencies outside the state government use P3s carries some level of risk, especially if the agency does not have the capacity to implement and manage a P3. Five states sanction P3 agreements outside of state government agencies. For example, high occupancy toll (HOT) lanes reflect states' willingness to use tolls on existing roads. This suggests that tolls can finance P3 projects to increase the level of private involvement. HOT lanes are specifically allowed by five states.

The second major category of P3 statutes centers on the proposal process. This often involves hiring consultants to develop guidelines and review proposals. States may benefit from outside expertise, particularly in the early years of a P3 program. No state places a limit on the number

or on the use of consultants – eight states have explicit language that authorizes the use of consultants. Turning to the submission process, Delaware, Indiana, and Texas pay unsuccessful bidders for their efforts-- with the understanding it will encourage more involvement from the private sector. Georgia, Louisiana, and Maryland, however, prohibit payments, while other states remain skeptical? on this issue. Iseki et al. (2009) recommend authorizing these payments to increase the number of innovative proposals. While paying applicants can encourage more submissions, levying application fees may discourage firms from submitting poor-quality proposals. Fees can offset agency costs involved in reviewing proposals, particularly unsolicited proposals. Eleven states allow fee assessment on P3 submissions, with only Delaware capping its fee (\$50,000). The amount of time public agencies have to review proposals varies across states, although many build a review period into the process. Review times range from 135 days in Georgia to 14 days in Colorado. Suggested guidance for proposal evaluation has been established by 10 states, while nine states have specified a detailed review process. Finally, 10 states have statutes that are designed to protect the private sector and any proprietary work included in a proposal. Statutes may keep entire proposals confidential or may censor confidential portions.

The third category of legislative language pertains to financing and funding restrictions. There are 14 states that explicitly permit the use of state and federal funds for public sector financing – no states prohibit it. Transportation Financing and Innovation Act (TIFIA) funds are authorized for use by 10 states, while none prohibit their use. Controversy often emerges when P3 revenues are directed to the general fund instead of directed into transportation projects. However, this issue is more deeply tied with long-term lease agreements in which states receive an upfront concession. There are 11 states that prohibit the deposit of P3 revenues in the general fund. Issuing revenue bonds backed by future tolls on P3 projects is another financing option available to states. Georgia does not permit bond issuance, but 13 states do allow bonds backed by toll revenues; the remaining states do not address the issue. Iseki et al. (2009) note one strategy that increases P3 flexibility is to develop P3 enabling legislation that authorizes the use of revenue bonds. A final finance alternative is to start up a nonprofit entity to issue debt. Nonprofits would have the power to issue debt for public and private sector partners; doing so won't negatively impact a state's credit rating and budget. IRS Rule 63-20 establishes the regulatory authority for states to use this strategy. This issue is not addressed by 15 states, however, Missouri, Texas, and Washington prohibit it and Colorado, Georgia, South Carolina, and Virginia allow it.

After resolving financial questions about P3s, states use legislation to decide on procurement strategies and to determine what type of management process should be installed. First, states must specify the kinds of model/project delivery methods they are willing to sanction. Currently, Alaska and Arizona are the only states that impose restrictions on the types of P3s that may be used. P3s may also be exempt from the state procurement laws that govern standard projects. Nine states have exemption regulations, while nine others have none – the rest do not address it. Iseki et al. (2009) argue for the importance of striking the correct balance of regulations and exemptions – this is imperative for encouraging innovation. Exemptions are beneficial, however, they should be avoided if they undermine the integrity of the process.

When long-term leases are used as part of management, the private sector generally takes on the management and operations of facilities. With the exception of California, all states that use P3s have retained the ability to grant long-term leases. All states that currently authorize P3s have this arrangement, albeit some place caps on the life of the lease (the exception is South Carolina). A requirement in Arizona and North Carolina is that non-tolled routes be available that provide similar connections to those established by tolled ones. This is presumably done to facilitate public acceptance of toll roads. Non-compete clauses are often included in agreements so that private sector stakeholders can recoup their initial investment. These clauses prevent the public sector from building any routes adjacent to the tolled routes that might siphon traffic from them. Six states enjoin the use of non-compete clauses, and Iseki et al. (2009) recommend omitting them from legislation. Rather, they suggest the use of non-compete clauses should be addressed on a case-by-case basis.

The last category of legislative statutes Iseki et al. (2009) define is toll oversight and management. If tolling is part of a P3, deciding what party sets toll rates is a critical decision. The majority of states mandate the building of rate control into contractual agreements between the public and private sector. A number of measures designed to protect the public sector and motorists can be negotiated when P3s are formed, including specifying maximum rates of return and placing caps on toll levels. North Carolina and Tennessee require the withdrawal of tolls after project debt has been retired. But this precludes the use of future revenues for maintenance or other projects. Hedlund and Chase (2005) discuss many of the legislative features outlined in this report. They list 28 key elements or questions regarding P3 legislation. Rall, Reed, and Farber (2010)¹² reproduce those questions, and they can be found in Appendix D. They can serve as a supplemental guide to the issues posed here.

An in-depth review of the authorizing legislation passed in the 33 states clarifies the similarities and differences among P3 regulations. Rall, Reed, and Farber (2010)¹³ and Rall (2014) identify the salient legislation in each state and summarize the provisions and requirements needed to obtain legislative approval. Table 6 reproduces their findings, albeit with briefer summaries on pertinent state legislation.

Table 6: State Public Private Partnership Legislation Summaries

State	Statute/Bill	Summary
Alabama	Ala. Code §§23-2-140 to 163; HB 217	Alabama Toll Road, Bridge, and Tunnel Authority can utilize design-build, design-build-operate, design-build-own-operate or design-build-own-operate-maintain contracts. Permits leases and allows tolls subject to DOT conditions. Annual report must be submitted to legislature regarding actions of the authority.
Alaska	Alaska Stat. §§19.75.111 to 990	Knik Arm Bridge and Toll Authority can enter P3 agreements covering all phases of bridge operation; authority can issue debt for financing and collect commensurate tolls. Annual report is required to legislature and governor.

¹² See Appendix D.

¹³ See Appendix B.

Arizona	Ariz. Rev. Stat. Ann. §§28-7701 to 7710; SB 2396	Authorizes Arizona DOT to use P3s for any or all aspects of transportation projects. Availability payments permitted with lease limits of 50 years, both solicited and unsolicited proposals accepted. Foreign bidders must meet certain DOT requirements. Non-compete clause prohibited with exception of compensation for unplanned facilities.
Arkansas	Ark. Stat. Ann. §§27-86-201 to 211; Ark. Stat. Ann. §27.76.402	Counties are permitted to grant franchises to private partners to build bridges in the public interest with Federal consent, with counties retaining toll rate authority. No franchises to be allowed on state highway system, and regional mobility authorities cannot sell toll projects or enter lease/concession agreements.
California	Cal. Streets & Highways Code §143; SB 4B	Allows Caltrans and regional authorities to use P3s for transportation, including leases, tolls, and other fees. Legislative approval eliminated with this statute, but approval of California Transportation Commission and legislative and Public Infrastructure Advisory Commission review still required. Prohibits non-compete clauses and authorizes solicited and unsolicited proposals.
	Cal. Gov. Code §§5956 to 5956.10	Permits local governments and agencies to enter P3 agreements. Prohibited on state highways.
Colorado	Colo. Rev. Stat. §§43-3-202 to 202.5; Colo. Rev. Stat. §§43-1-1201 to 1209	State DOT can enter agreements for turnpike, toll roads, and HOT lanes projects and requires liability insurance coverage. Solicited and unsolicited proposals allowed.
	Colo. Rev. Stat. §§43-4-801 to 812; SB 108; Colo. Rev. Stat. §§43-3-401 to 414	Created State Bridge Enterprise to use P3s for bridge projects and the High-Performance Transportation Enterprise to use P3s and other innovative options to complete surface transportation projects. Both are government-owned businesses in the DOT. Transportation Commission authorized with governor approval to enter contracts for P3 toll tunnels with rates approved by commission.
	Colo. Rev. Stat. §43-2-219	County commission boards authorized to enter P3 agreements and/or privatize county roads and charge tolls
Connecticut	2011 Conn. Acts, P.A. 11-01; HB 6801b	Permits P3s for design, development, operation, and maintenance of transportation (and other) facilities with a revenue-generating mechanism. Limited to five projects before 1/1/15. Legislature must approve highway tolls.
Delaware	Del. Code Ann. tit. 2, §§2001 to 2012	P3s authorized for transportation projects. Secretary of Transportation can enter agreements but must be approved by legislature (co-chairs of the Joint Bond Bill Committee can approve). Solicited and unsolicited proposals allowed. Established Public-Private Partnership Initiatives Program Revolving Loan Fund.
Florida	Fla. Stat. Ann. §334.30	DOT can enter P3s with legislature approval.

		Evaluation criteria and non-compete clauses included. DOT can lease existing toll facilities or develop new facilities. P3 terms limited to 50 years unless authorized by secretary and approved by legislature. Some revenues returned to DOT, tolls/fees subject to DOT regulation. Solicited and unsolicited proposals allowed.
	Fla. Stat. Ann. §§338.22 to 251; Fla. Stat. Ann. §343.875	Created Florida Turnpike Enterprise (business operation within DOT) and Northwest Florida Transportation Corridor Authority. Both entities can enter into P3 agreements.
	Fla. Stat. Ann. §348.0004	Allows any transportation-related authority to undertake P3 projects that are consistent with state, regional, and local plans.
Georgia	Ga. Code Ann. §§32-2-78 to 80; SB 200	DOT Commissioner can establish P3 Initiatives Division and can solicit P3 proposals. Must include public comment requirements and evaluation criteria. Final approval required from State Transportation Board.
Illinois	Ill. Rev. Stat. ch. 20, §2705/2705-450	Allows DOT to use P3s to develop high speed rail
	Ill. Rev. Stat. ch. 605, §5/10-802; Ill. Rev. Stat. ch. 605, §5/10-602(4)(1)	Municipalities can enter P3s to build or improve bridges and use tolls for such bridges
	Ill. Rev. Stat. ch. 605 §§130/1 to 130/135; see also Ill. Rev. Stat. ch. 20 §2705/2705-220; Ill. Rev. Stat. ch. 20 §3501/825-105; Ill. Rev. Stat. ch. 30 §550/1.5; Ill. Rev. Stat. ch. 30 §570/2.5; Ill. Rev. Stat. ch. 30 §575/2.5; Ill. Rev. Stat. ch. 35 §120/1q; Ill. Rev. Stat. ch. 35 §200/15-55; Ill. Rev. Stat. ch. 820 §130/2 ; SB 3659	DOT can enter P3 agreement for the Illiana Expressway with lease limits of 99 years.
Indiana	Ind. Code Ann. §§5-23-1-1 to 5-23-7-2	Allows government agencies to enter P3 agreements. Lease terms over 5 years must be approved by the governor or similar body. Solicited proposals only.
	Ind. Code Ann. §§8-15.5-1-1 to 8-15.5-13-8; Ind. Code Ann. §§8-15.7-1-1 to 8-15.7-16-8	Authorized Indiana Toll Road lease. Indiana Finance Authority and DOT given power to enter P3s but tolls and projects must be approved by General Assembly. Leases limited to 75 years. Solicited proposals only.
Louisiana	La. Rev. Stat. Ann. §§48:1251 to 1281	Established Louisiana Expressway Authority to collect tolls for projects and enter contracts with private partners through P3s.
	La. Rev. Stat. Ann. §§48:2020 to 2037	Encourages local governments to use P3s to meet local needs and finance state highway projects. Local governments may create authorities to use P3s.
	La. Rev. Stat. Ann.	Created Louisiana Transportation Authority to

	§§48:2071 to 2074; La. Rev. Stat. Ann. §48:2077; La. Rev. Stat. Ann. §§48:2084 to 2084.15	use innovative funding options including P3s to improve transportation. User fees permitted unless no improvements are made. Solicited and unsolicited proposals allowed.
Maine	Me. Rev. Stat. Ann. tit. 23, §4251; HB 1167	DOT can enter P3s for transportation with legislature approval. Estimated cost must be greater than \$25 million or enact tolls at existing facilities that were not previously tolled. Solicited and unsolicited proposals permitted. Must limit state capital funding to less than 50 percent of initial cost. Tolls are permitted subject to requirements.
Maryland	Md. Transportation Code Ann. §4-205; Md. Transportation Code Ann. §4-312; Md. Transportation Code Ann.; 2013 Md. Laws, Chap. 5, HB 560	Before the passage of HB 560 there was not a specific P3 program but regulation allowed P3s. HB 560 explicitly allowed P3s for transportation and increased involvement of the Board of Public Works.
Massachusetts	Mass. Gen. Laws Ann. ch. 6C, §§1 to 75; SB 2087	Board of Directors for DOT can solicit P3s for design-build-finance-operate-maintain or design-build-operate-maintain services
Minnesota	Minn. Stat. Ann. §§160.84 to 98	State and local authorities can solicit proposals for P3s related to toll facilities and use fees for HOT lanes. Limitations are significant and restrict most options other than HOT lanes.
Mississippi	Miss. Code Ann. §§65-43-1 to 85	Mississippi Transportation Commission and local governments to use P3s to develop toll roads and bridges. 50-year contract limit. Non-compete clauses prohibited. Solicited and unsolicited proposals allowed.
Missouri	Mo. Rev. Stat. §§227.600 to 669; HB 683	Highways and Transportation Commission authorized to enter P3 agreements. Solicited and unsolicited proposals allowed.
	Mo. Rev. Stat. §§238.300 to 367	Allows for the creation of transportation corporations by private sector that can enter P3 arrangements with the Highways and Transportation Commission.
Nevada	Nev. Rev. Stat. §§338.161 to 168	Private companies can submit a request for P3 to a public body for a transportation facility. However toll roads and bridges are excluded.
North Carolina	N.C. Gen. Stat. §136.28.6A	DOT can enter P3 agreements related to the state highway system. Requires that DOT participation be limited to 10 percent of the engineering contract and any construction contract or \$250,000, whichever is less. All project plans and specifications must be approved of by the DOT. Requires the Secretary of Transportation to report annually to the Joint Legislative Commission on Government Operations and the Joint Legislative Transportation Oversight Committee about any agreements entered into under this legislation.
	N.C. Gen. Stat. §§136-89.180 to 198	Allows the North Carolina Turnpike Authority to enter into P3 agreements and set and collect

		tolls and fees for the use of a turnpike project. Prohibits non-compete clauses by requiring the DOT to maintain an existing, alternate and compatible non-toll route. Nine projects are allowed for preliminary work, then five may be undertaken. Others need legislative approval. Reporting requirements to the governor, the General Assembly, the DOT, the Joint Legislative Transportation Oversight Committee and the Joint Legislative Commission on Governmental Operations
North Dakota	N.D. Cent. Code §§48-02.1-01 et seq.	Permits P3s generally, although transportation is not explicitly identified. Private sector can participate in fee-based transportation projects such as toll bridges
Oregon	Or. Rev. Stat. §§367.800 to 826	Establishes the Oregon Innovative Partnership Program within the state DOT. Allows the DOT to enter P3 agreements to speed project delivery and to increase innovation. Lists specific requirements for P3 agreements including financing and penalties/incentives. Allows for solicited and unsolicited proposals. All agreements must be reviewed and approved by the Oregon Transportation Commission.
	Or. Rev. Stat. §§383.001 to 075	Seeks to encourage private funding for transportation projects and facilities. Allows the state DOT to enter P3 arrangements for toll road projects including leasing. Allows for solicited or unsolicited proposals. All decisions are made by the DOT, however, the Transportation Commission must approve any tolls.
Pennsylvania	Act No. 2012-88; HB 3	State or public entities can enter P3 agreements; must be approved by a Public-Private Partnerships Transportation Board. Legislature can block P3s for state facilities and must approve projects on the PA Turnpike.
South Carolina	S.C. Code Ann. §57-3-200	Allows the state DOT to expend funds as it deems necessary to enter into P3 agreements with private entities to finance transportation infrastructure by tolls and any other methods. No legislative approval required.
	S.C. Code Ann. §§57-5-1310 to 1495	Allows the state DOT to construct and operate turnpike facilities. P3s allowed for these facilities. The DOT is required to complete a feasibility study on any bridge project that qualifies as a turnpike and to forward copies of the studies to the chairs of the Senate Transportation and Finance Committees and the House Education and Public Works and Ways and Means committees.
Tennessee	Tenn. Code Ann. §§54-3-101-113	Permits P3 agreements to develop toll roads and facilities. Limited to two pilot projects. Existing highways cannot be privatized, however, additional tolled lanes can be added.

		Requires legislative approval, the DOT must submit any proposed toll facility or road in their annual funding recommendation to the General Assembly. All toll recommendations must be approved of by the General Assembly. Legislative approval is required for the two pilot projects and all projects that follow them.
Texas	Tex. Transportation Code Ann. §§222.001 to 107	Prohibits the state DOT from using state highway funds to guarantee loans or insure bonds for costs associated with a toll facility. Allows DOT to enter into P3 agreements for a toll or non-toll facility on the state highway system. Does not require the approval of the legislature.
	Tex. Transportation Code Ann. §§223.201 to 210 (exp on Aug. 31, 2009); extended by Tex. Transportation Code Ann. §§227.021 to 034	Chapter 223 authorized the state DOT to enter into P3 agreements for projects along the Trans-Texas Corridor and certain state highway improvement projects. Expired on August 31, 2009 except for certain non-tolled lane projects which expires on August 31, 2011. The Transportation Commission can only convert a state highway or segment to a toll road if the conversion is approved by the commissioner's court of the county as well as by the voters of the relevant jurisdiction.
	Tex. Transportation Code Ann. §§366.401 to 409	Authorizes regional toll way authorities to use comprehensive development agreements with private entities to design, develop, finance, construct, maintain, repair, operate, extend, or expand turnpike projects. Does not require legislative approval.
	Tex. Transportation Code Ann. §§370.305 to 317 (exp. on Aug. 31, 2009)	Authorized regional mobility authorities to use P3s. Expired on Aug. 31, 2009 except for non-tolled and managed lanes projects.
	Tex. Transportation Code Ann. §§371.001 to 153	Allows P3s for toll projects under regional tolling authorities. Requires a review of a proposed agreement by the Attorney General and notification of the Legislative Budget Board and state auditor. Prohibits non-compete clauses but allows compensation of the private participant for revenue losses attributable to the construction by the toll entity of a limited access highway project located within up to four miles of the P3 project. Requires notification to the Legislative Budget Board with names of shortlisted proposers and team members no later than 10 days after selection and with several other materials at least 30 days before entering into a comprehensive development agreement. Requires a toll entity to provide the state auditor with a traffic and revenue report at least 30 days before entering into an agreement. Prohibits any toll project entity from entering into an agreement unless the Attorney General reviews it and determines it is legally sufficient.

Utah	Utah Cod Ann. §63-G-6-503; Utah Co Ann. §§72-6-201 to 206	Allows DOT to enter P3 agreements for toll roads. Must be approved of by the Utah Transportation Commission. Allows for solicited and unsolicited proposals. The DOT must report to the Executive Appropriations Committee, Transportation Interim Committee, or other designated committee on the status and progress of a toll road development agreement.
Virginia	Va. Code §§56-556 to 557	The Public Private Transportation Act of 1995 authorizes P3s for transportation facilities. Approval from and a comprehensive agreement with the responsible public entity is required. Contains detailed implementation guidelines, including specific requirements for comprehensive agreements. Allows solicited and unsolicited proposals. No legislature approval needed. Approval for projects is subject to the provisions in the statutory law.
Washington	Wash. Rev. Code Ann. §§47.29.010 to 290	Phased out Wash. Rev. Code Ann. §§47.46.010 to 180 in 2005. Permits P3 arrangements to facilitate safe transportation of people or goods via a mode of travel. Requires review and approval of the Transportation Commission for contracts or agreements. Requires an advisory committee for any project that costs \$300 million or more. Solicited and unsolicited proposals allowed. Requires legislative approval for projects financed by tolls or other equivalent funding sources. Requires the state finance committee (the state treasurer, lieutenant governor, and governor, ex officio) or governing board of a public corporation to approve the financing of any public project developed in conjunction with a transportation project.
West Virginia	W. Va. Code §§17-27-1 to 18	The Public-Private Transportation Facilities Act passed in 2008 is a comprehensive statute that authorizes the Division of Highways to enter into P3s. Allows a private developer to charge user fees if they are consistent with the rate of return specified in the agreement; requires the schedule and amount of initial user fees and any fee increase be approved by the Commissioner of the Division of Highways. Once the developer's rights and duties cease under an agreement, the facility will be transferred to the Division of Highways for public use. Does not have to consider unsolicited proposals. Requires approval by concurrent resolution of the legislature and then by the governor.
Wisconsin	Wis. Stat. Ann. §84.01(30)	Allows the state DOT to enter into build-operate-lease or transfer agreements. Lists specific provisions that must be included in every agreement. An agreement may not be entered into unless the DOT determines that it advances the public interests and the private

	entity meets certain criteria.
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Kentucky House Bill (HB) 407¹⁴, would have allowed KYTC through KPTIA to fund projects through P3 agreements. The governor ultimately vetoed the bill, citing his concerns over tolling restrictions. The veto indicated that while the bill was a “well intentioned policy measure,” legislative language that could be applied to bridge projects on the Ohio River in the Covington-Cincinnati area were potentially problematic. A new P3 bill, Kentucky HB 443¹⁵, has been introduced in the current 2015 legislative session. Some of the highlights from HB 443 are noted in Table 7.

Table 7: Highlights of HB 443

<ul style="list-style-type: none"> • The secretary of the Finance and Administration Cabinet is responsible for developing criteria to determine when a P3 should be used for a project.
<ul style="list-style-type: none"> • A request for a P3 proposal should include: parameters of the agreement, responsibilities of private partner, oversight methods, evaluation factors and weighting, financing plans, documentation of qualifications of private partner, proposed use of small businesses.
<ul style="list-style-type: none"> • Notification should be made to the Capital Projects and Bond Oversight Committee regarding the use of a P3. The Government Contract Review Committee must review P3 contracts.
<ul style="list-style-type: none"> • P3 project values over \$10 million must be authorized by the General Assembly.
<ul style="list-style-type: none"> • KPTIA or a bi-state authority should consult with local officials regarding the impact of the proposed project on the local community.
<ul style="list-style-type: none"> • Contracts should be reviewed by the Government Contract Review Committee.
<ul style="list-style-type: none"> • Unsolicited proposals are accepted if there is a summary of three pages detailing revenue sources, expected revenue, and costs; certification from a financial expert; and commitment to pay for evaluation of the unsolicited proposal.
<ul style="list-style-type: none"> • For projects over \$100 million, an independent cost-benefit analysis must be done to determine if the proposed P3 is in the best interest of the public. If tolls are used they expire when the construction debt has been retired.
<ul style="list-style-type: none"> • Any proposal connecting Kentucky with another state must be constructed and financed by a bi-state authority; KPTIA may assume all or part of the bi-state authority role.
<ul style="list-style-type: none"> • Proposed projects must have financial plans regarding responsiveness to the project needs as well as to potential economic development opportunities and inclusion of small businesses.
<ul style="list-style-type: none"> • No bi-state authority or KPTIA can enter a P3 agreement with Ohio unless approved by a joint resolution from the General Assembly.
<ul style="list-style-type: none"> • P3 project plans under a bi-state authority should include timelines, toll rates and duration, anticipated public appropriations to the project.
<ul style="list-style-type: none"> • Once a project is approved, an annual report must be submitted to the Cabinet and the Legislative Research Commission and an annual audit must be performed.

¹⁴ <http://www.lrc.ky.gov/record/14RS/hb407.htm>

¹⁵ <http://www.lrc.ky.gov/record/15RS/hb443.htm>

CHAPTER SIX: CONCLUSION

P3s offer state DOTs a new tool to finance large transportation infrastructure projects. P3s can be used on a wide variety of projects – for the construction of new infrastructure and to repair outdated infrastructure. This study reviewed the benefits and drawbacks of P3s, implementation guidance, a sampling of case studies, and state legislation used to enable these partnerships. The study was designed to provide comprehensive discussion of P3s and to synthesize information that can assist KYTC in developing legislation and ultimately, in managing P3 projects.

P3s have become more widely used for transportation infrastructure projects, yet policymakers must balance their benefits against potential issues that may arise when involving the private sector. A number of benefits and concerns arise when the private sector is asked to deliver transportation infrastructure. Benefits can be realized from the use of private capital, including saving on costs and construction time and the potential to execute projects that may not be otherwise feasible. Concerns include the public losing control of its infrastructure, the financial risks associated with outsourcing projects to the private sector, and tolling issues. When deciding if a P3 is an appropriate procurement method for a particular project, various factors and review processes can be used. Attracting public support and thoroughly vetting projects for potential P3s will likely yield beneficial outcomes. From a managerial perspective, states must develop strategies to deal with unsolicited proposals if allowed by statute. Fees can be levied to discourage frivolous proposals; revenue from fees may be necessary to hire additional staff to review and manage P3 projects. We cited Virginia as having a model review process that ensures P3s are carefully scrutinized. The state has a number of procedures in place that must be navigated before an agreement can be negotiated. These range from overseeing quality control to conducting an independent review panel to establishing an oversight board. The FHWA P3 User Guidebook divides implementation into five phases: project planning, P3 eligibility, private sector interest, proposal solicitation, and managing the P3 for project delivery. Case studies of various P3 projects revealed numerous successful ventures for road and bridge projects as well as some cautionary tales. An unsuccessful example is when traffic declines lead to private sector bankruptcies, such as the Indiana Toll Road.

Based on the literature, reports, and case studies reviewed, if P3s are identified as a desirable procurement option, there are recommendations to keep in mind. Ideas for what can be included in the enabling legislation can be drawn from the 33 states that currently have P3 legislation. Limiting the number and type of projects may hinder a state DOT from meeting project needs, yet giving local governments the power of veto can add uncertainty. Using consultants to assist in the proposal process can help state agencies unfamiliar with P3 dynamics gain much needed knowledge, while paying submitters for unsuccessful proposals can encourage submission and generate useful ideas. The use of federal and/or state funds as part of a financing package should be allowed. If long-term lease concessions are being considered, any upfront payments from the private sector should be funneled into transportation projects. Another way to fund P3s is through revenue bonds; these have the advantage of backing projects with future revenue. More fine-grained issues that apply to individual projects (such as tolls and non-compete clauses) should be assessed on a case-by-case basis and addressed through contractual obligations. For tolls, contracts can specify key parameters such as setting toll rates, when (if any) increases are permissible, uses of toll revenue, and the duration of tolling.

If unsolicited proposals are permitted under legislation, a fee for submission would be recommended to ensure that proposals have merit and that the time spent reviewing the proposals is compensated. Additionally, extra staff may be needed to review proposals and manage P3s to completion; even beyond if there is a concession or operations agreement in place.

Communicating with the public is critical for building up project support. When reviewing projects, a thorough vetting process will identify the best candidates for successful P3 projects and those that may be more suited to a more traditional procurement method. Irrespective of the development and implementation of P3 transportation projects, these types of projects are essential for improving infrastructure. If legislation is enacted allowing KYTC to utilize P3s, future research examining the performance of P3s in Kentucky relative to other states would generate lessons learned, with the result of continuously improving and maintaining P3s as a viable procurement method for KYTC.

REFERENCES

- AECOM Consult. (2007-a). Case Studies of Transportation Public-Private Partnerships in the United States. *Federal Highway Administration, Final Report: Work Order 05-002*.
- AECOM Consult. (2007-b). User Guidebook on Implementing Public-Private Partnerships for Transportation Infrastructure Projects in the United States. *Federal Highway Administration, Final Report: Work Order 05-002*.
- Ashley, D., Bauman, R., Carroll, J., Deikmann, J., & Finlayson, F. (1998). Evaluating Viability of Privatized Transportation Projects. *Journal of Infrastructure Systems*, 4(3), 102–110.
- American Association of State Highway and Transportation Officials. (2002). *A Guide for Methods and Procedures in Contract Maintenance*. American Association of State Highway and Transportation Officials, Washington, DC.
- Bahrevar, Erika, Shane, Jennifer, & Jeong, David. (2014). Financing Options for Surface Transportation Projects in the United States. *Transportation Research Board Annual Conference*.
- Bloomberg. (2014). Indiana Toll Road operator Files Chapter 11. *Crain's Chicago Business*. Retrieved from:
<http://www.chicagobusiness.com/article/20140922/NEWS10/140929990/indiana-toll-road-operator-files-chapter-11>.
- Buxbaum, Jeffrey, & Ortiz, Iris. (2007). Protecting the Public Interest: The Role of Long-Term Concession Agreements for Providing Transportation Infrastructure. *USC Keston Institute for Public Finance and Infrastructure Policy, Research Paper 07-02*.
- Cashell, Kash. (2014). New Push to Extend Monorail from Airport to Downtown. *8 News Now*. Retrieved from:
<http://www.8newsnow.com/story/24949009/new-push-to-extend-monorail-from-airport-to-downtown>.
- Chasey, Allan, Maddex, William, & Bansal, Ankit. (2012). Comparison of Public-Private Partnerships and Traditional Procurement Methods in North American Highway Construction. *Transportation Research Record*, 2268, 26-32.
- Chi, K.S., Arnold, K.A., & Perkins, H.M. (2004). Privatization in State Government: Trends and Issues. *The Book of the States 2004*. Lexington, KY: Council of State Governments.
- Commonwealth of Virginia. (1994). *Privatization of Certain State Government Functions*. Senate Document No. 64, Interim Report of the Joint Subcommittee.
- DeCorla-Souza, Patrick, Mayer, Jennifer, Jette, Aaron, & Buxbaum, Jeffrey. (2012). Key Considerations for States Seeking to Implement Public-Private Partnerships for New Highway Capacity. *Transportation Research Board Annual Meeting*.

DeCorla-Souza, Patrick, Lee, Douglass, Timothy, Darren, & Mayer, Jennifer. (2012). Comparing Public-Private Partnerships with Traditional Procurement: Incorporating Considerations from Benefit-Cost Analysis. *Transportation Research Board Annual Meeting*.

Eger, R. J. III, Knudson, D., Marlowe, J., & Ogard, L. (2002). Evaluation of Transportation Organization Outsourcing: Decision Making Criteria for Outsourcing Opportunities. *Project 01-03*. Midwest Regional University Transportation Center.

Elhamshary, Osama, & Elhamshary, Mohamed. (2013). A Road Map to Plan and Deploy Transportation Infrastructure Projects Using Public-Private Partnerships. *Transportation Research Board Annual Meeting*.

Eno Center for Transportation. (2014). Partnership Financing: Improving Transportation Infrastructure Through Public Private Partnerships. Retrieved from: <http://www.enotrans.org/wp-content/uploads/wpsc/downloadables/P3-paper-04-14.pdf>.

Fishman, Edward. (2009). Analysis of Major Legal Issues Associated with Highway PPP Implementation. *National Cooperative Highway Research Program, Legal Research Digest 51*.

Forcael, E., Ellis, R., & Jaramillo, F. (2011). Design-Build-Finance in the U.S.: The case of IROX, I-75 Road Expansion Project. *Revista de la Construccion*, 10(1). 24-35.

Ford, M.L. (2001). *Managing Change in State Departments of Transportation: Scan 7 of 8: Innovations in Private Involvement in Project Delivery*. (National Cooperative Highways Research Program Project SP20-24[14]) Washington, DC: Transportation Research Board of the National Academies.

Geddes, Richard, & Wagner, Benjamin. (2011). Why do U.S. States Adopt Public-Private Partnership Enabling Legislation? *Transportation Research Board Annual Meeting*.

Geddes, Richard, & Wagner, Benjamin. (2012). Do State Public-Private Partnership Enabling Laws Affect Investment in Infrastructure? *Transportation Review Board Annual Meeting*.

Giglio, J.M. & Ankner, W.D. (1998, September). Public-Private Partnerships: Brave New World. *TR News*, 198, 28-33.

Gormley, W.T. (1994). Privatization Revisited. *Policy Studies Review*, 13(3/4), 215-234.

Grimsey, D., & Lewis, M.K. (2004). The Governance of Contractual Relationships in Public-Private Partnerships. *Journal of Corporate Citizenship*, 15, 91-109.

Hancher, D. E., & Werkmeister, R. F. (2001). *Managing Change in State Departments of Transportation: Scan 2 of 8: Innovations in Private Involvement in Project Delivery*. (National Cooperative Highways Research Program Project SP20-24[14]). Washington, DC: Transportation Research Board of the National Academies.

Hancher, D. E., Brenneman, A., Meagher, R., & Goodrum, P. (2005). *Outsourcing of KYTC Project Delivery Functions*. KTC-05-12. Kentucky Transportation Center.

Hedlund, Karen, & Chase, Brian. (2005). *Overview of Key Elements and Sample Provisions State PPP Enabling Legislation for Highway Projects*. FHWA Report: Nossaman, Guthner, Knox, and Elliott LLP.

Holland, R.C. (1984). The New Era in Public-private Partnerships. In P.R. Porter and D.C. Sweets (Eds.), *Rebuilding America's Cities: Roads to Recovery*. New Brunswick, NJ: Center for Urban Policy Research.

Iseki, Hiroyuki, Eckert, Jeanette, Uchida, Kansai, Dunn, Ryan, & Taylor, Brian. (2009). *Task B-2: Status of Legislative Settings to Facilitate Public Private Partnerships in the U.S.* California PATH Research Report UCB-ITS-PRR-2009-32. Institute of Transportation Studies, University of California, Berkeley.

Klijin, E., & Teisman, G. (2000). Governing Public-Private Partnerships: Analyzing and Managing the Processes and Institutional Characteristics of Public-Private Partnerships. In S.P. Osborne (ed.), *Public-Private Partnerships: Theory and Practice in International Perspective*. London: Routledge.

Kusnet, D. (2007). *Highway Robbery II: The Many Problems with Outsourcing Design, Engineering, Inspection and Supervision of Federally-Funded Transportation Projects: Increased Costs, Reduced Quality and Safety, and Little Accountability to the Public*. Report by National Association of State Highway and Transportation Unions.

Lockwood, Stephen. (1997, April). Resource Paper: Public-Private Partnerships Are the Answer: What is the Question? *Transportation Finance for the 21st Century*, 109-124.

Martinez, Sergio, Hall, Andrea, Walton, Michael, & Mosebar, Megan. (2013). Public-Private Partnerships in the US Transportation Sector: Stakeholder Perceptions. *Transportation Research Board Annual Meeting*.

Olberding, D. (1995). *Toward Determining Minimal/Optimal Transportation Department Resource Requirements: An Examination of State Privatization Trends Among Selected States*. Report KTC-95-15. Kentucky Transportation Cabinet.

Palank, Jacqueline. (2014). Judge Approves Indiana Toll Road Bankruptcy-Exit Plan. *The Wall Street Journal*. Retrieved from:
<http://www.wsj.com/articles/judge-approves-indiana-toll-road-bankruptcy-exit-plan-1414516051>.

Perlman, M. & Pulidindi, J. (2012). Public-Private Partnerships for Transportation Projects. *National League of Cities: Municipal Action Guide*.

Pew Center on the States. (2009). Driven by Dollars: What States Should Know When Considering Public-Private Partnerships to Fund Transportation. Retrieved from: http://www.pewtrusts.org/~media/legacy/uploadedfiles/wwwpewtrustsorg/reports/state_policy/PATurnpikeFINALWEBpdf.pdf.

Quirk, Bee. (2004). Features-November 2004: South Carolina Report. *Southeast Construction*. Retrieved from: http://southeast.construction.com/features/archive/0411_Feature5.asp.

Rall, Jaime. (2014). Public Private Partnerships for Transportation: A Toolkit for Legislators, February 2013 Updates and Corrections. *National Conference of State Legislatures Report*.

Rall, Jaime, Reed, James, & Farber, Nicholas. (2010). Public Private Partnerships for Transportation: A Toolkit for Legislators. *National Conference of State Legislatures Report*.

Reinhardt, Bill. (2014). Las Vegas Monorail Debt Wiped Out. *Public Works Financing Newsletter*. Retrieved from: <http://pwfinance.net/las-vegas-monorail-debt-wiped-out/>.

Resor, Randolph, & Tusynski, Nick. (2011). Public-Private Partnerships: When Are They Appropriate for Transportation Infrastructure? *Transportation Research Board Annual Meeting*.

Rouboutsos, A. (2012). Private Finance of Transport Infrastructure: Shifts in Risk Perceptions; Initial Evidence. *Transportation Review Board Annual Meeting*.

Rouboutsos, A., & Sciancalepore, F. (2014). PPP Tenders: Optimising on Competition. *Transportation Review Board Annual Meeting*.

Sabol, Patrick, & Puentes, Robert. (2014). Private Capital, Public Good: Drivers of Successful Infrastructure Public-Private Partnerships. *Brookings Institute, Metropolitan Infrastructure Initiative*. Retrieved from: <http://www.brookings.edu/research/reports2/2014/12/17-infrastructure-public-private-partnerships-sabol-puentes>.

Sclar, E.D. (2000). *You Don't Always Get What You Pay For: The Economics of Privatization*. Ithaca, NY: Cornell University Press.

Segal, G., Moore, A., & McCarthy, S. (2003). *Contracting for Road and Highway Maintenance*. Los Angeles: Reason Public Policy Institute.

Tsamboulas, D., Kechagias, G., & Moraiti, P. (2011). Evaluating Financial Options with Public or Private Funds in Delivering Transportation Infrastructure Projects. *Transportation Research Board Annual Meeting*.

Viegas, Jose M. (2011). The Hidden Costs of Long Durations in Concession and PPP Contracts for Transportation Infrastructure. *Transportation Research Board Annual Meeting*.

Virginia Department of Transportation. (2014). Virginia Public-Private Partnerships: Implementation Manual and Guidelines for the Public-Private Transportation Act of 1995. Retrieved from:
<http://www.vappta.org/resources/PPTA%20Implementation%20Manual%20WORK%20IN%20PROGRESS-09162014%20changes%20accepted%20and%20comments%20removed%20-%20ready%20for%20saving%20as%20pdf.pdf>.

Warne, T. (2003). *Outsourcing and Private Sector Utilization*. NCHRP Synthesis 313 State DOT, Washington, DC: Transportation Research Board.

Williamson, Scott, Lawrence, Michael, & Mueller, Judith. (2010). The State of the Art of Value for Money Analysis: Determining the Value of Public-Private Partnerships. *Transportation Research Board Annual Meeting*.

Witheyford, D.K. (1997). Outsourcing of State Highway Facilities and Services. National Cooperative Highway Research Program Synthesis 246, *Transportation Research Board of the National Academies*.

Yusuf, Wie, Wallace, Candice, & Hackbart, Merl. (2006). *Privatizing Transportation through Public-Private Partnerships: Definitions, Models, and Issues*. Kentucky Transportation Center Research Report: KTC-06-09/SPR302-05-2F.

Zhang, X.Q., & Kumaraswamy, M.M. (2001). Procurement Protocols for Public-Private Partnered Projects. *Journal of Construction Engineering and Management*, 127(5), 351-358.

APPENDIX A: Questions for States Considering P3s, Pew Center on the States (2009)

The Decision-Making Process

1. Does the government have a clear sense of the funding gap in its infrastructure needs?
2. Have all revenue options been examined and compared, both with and without private-sector involvement?
3. Is there understanding and agreement about the goals of raising revenue and the ways in which dollars will be distributed among projects or needs?
4. Has the legislature adopted enabling legislation to signal its willingness to consider a concession agreement with the private sector?

The Deal-Making Process

5. Did the state complete appropriate due diligence prior to proposing a lease of the roadway?
6. If tolls will be increased, what is the likely effect on traffic patterns? If increased tolls on the leased road lead to more traffic on alternative roads, will the government have to spend additional funds to improve the non-toll roads?
7. Will safety on the statewide transportation network be adversely affected if travelers avoid the tolls by using alternative roads?
8. Is it unfair that current users get to enjoy the transportation system that future generations will be paying for through higher tolls?
9. Is one group of individuals being asked to finance the majority of the state's transportation needs? Is that equitable?
10. What are the economic and business implications for the state if the concession is allowed?
11. How does the proposal take into account the potential impact on congestion, pollution, and land use?
12. Was the bidding process fully competitive?
13. What are the transaction costs associated with the deal? Are they reasonable?
14. What provisions for flexibility are written into the lease? Can the government and the private operator make choices related to level of service, maintenance, etc., to reflect changing circumstances?
15. What risks do the public and private sectors bear in the deal? Does the financial structure of the lease account for risks borne by the state or the private operator?
16. Does the party bearing the risk also have control that allows it to fix problems that arise related to that risk?
17. If the lease is awarded, can the state still build competing and/or complementary roads or transportation routes? If not, what are the long-term implications?
18. Is the process adequately and appropriately transparent, with sufficient involvement from the public and other stakeholders?
19. Do both the executive and legislative branches have access to the information they need to make a sound decision?

Financial Analysis

20. How does the proposed term of the lease compare to other concessions? Does the term make sense for the state's goals?
21. Should the state pursue a lease that maximizes the upfront payment or opt for a different model that might include revenue sharing?
22. Will the upfront funds from the concession be used to create a sustainable source of revenue for the future? If so, how far into the future will they last?

23. How should the revenue from the concession be spent? Who should decide?
24. How were the state's financial assumptions built? Are they reasonable?
25. How do tax treatment and borrowing costs affect the government and the proposed concessionaire's financial assumptions?

Oversight and Service Provision

26. What mechanism for oversight does the lease set out? Is it strong enough to protect the state's interests?
27. Within the terms of the contract, has a level of service been determined? Is there a system to set and measure performance criteria?
28. Are there any penalties if the road fails to meet minimum standards? Are they large enough to discourage poor performance by the concessionaire?
29. What are the conditions for the state to buy back the lease from the private operator? What provisions are included in the deal in case of termination or default? Do they provide the state with sufficient flexibility?
30. What are the deal hand-back conditions? Will the state receive a road in the same, or better, working and financial order than at the start of the deal?

APPENDIX B: Key Issues During P3 Procurement and Negotiation Processes

Public Interest Concerns	Public Perception Issues	Transportation Network Coordination Concerns	Administrative Capability Issues
Setting of toll rates and schedule/basis of future increases	Public sponsor agency outreach and communication to the public on nature and impacts of a proposed PPP project and its contract terms	Integration of individually operated PPP developed or operated facilities within a regional transportation system	Capabilities of specialized resources to develop, negotiate, and administer a balanced PPP contract either resident to or retained by sponsor agency
Control over ultimate level of toll rates	Ability of public sponsor agency to share in project proceeds beyond acceptable rate of return to the private sector partners	Alignment of public mobility and economic development goals with private profit goal	Existence of legal authority to enter into PPP contracts for surface transportation projects
Acceptable limits on rates of return on private sector investment	Rationale for instituting direct user charges, such as tolls or variable pricing, as part of the PPP arrangement	Coordination and communication between surface transportation agencies and the private partners involved in project PPPs regarding operational and pricing of surface transportation facilities within a region	Adequacy and transparency of procurement framework to protect the public interest while providing equal opportunity to prospective private firms/teams
Responsibility for and treatment of windfall profits or losses	Where tolling is imposed, whether there is a non-priced alternative and the consequences of not applying pricing to the project in terms of project delivery schedule and cost	Integration of PPP project facilities with other infrastructure and service components of the regional transportation system	Ability to identify and avoid conflicts of interest among partners to PPP contract, especially during procurement and selection processes
Uses of excess revenues or proceeds from long-term leases	Whether and how project proceeds are focused on the transportation facility or network affected by the PPP when direct user charges are applied	Full accounting for compliance with planning, environmental clearance, and permitting requirements during project development process	Suitable contract administration process and staff to ensure terms of PPP contract are adhered to by all partners
Control over nature, extent, and frequency of refinancing	Ability of responsible public entity to protect the public interest while respecting the private sector's rate of return requirements	Ability to grant flexible staging of environmental clearance, permitting, and right-of-way acquisition activities as the project proceeds, consistent with NEPA and other Federal/state/local	Existence of continuous performance measurement and reporting process to hold PPP partner accountable for compliance with contract obligations

		requirements	
Control over transfer of private partner responsibilities or involvement in PPP contract to other private entities not part of original team	Degree of foreign involvement in PPP and foreign control over project proceeds	Ability to ensure that project proceeds are used to enhance transportation mobility in the area served by the PPP project where user charges are applied	Continuity of public sponsor agency staff to oversee development and execution of PPP contract terms

APPENDIX C: USDOT Model P3 Legislation

AN ACT

concerning Public-Private Transportation Initiatives

Be it enacted by the [State Legislature] that:

SECTION 1. [State Code Citation] is amended to read:

§1-101. Definitions.

(a) “Affected jurisdiction” means any county [, city, or town / or municipal corporation], or other unit of government within the State in which all or part of a transportation facility is located or any other public entity directly affected by the transportation facility.

(b) “Department” means the State Department of Transportation.

(c) “Force majeure” means an uncontrollable force or natural disaster not within the power of the operator or the State.

(d) “Maintenance” includes ordinary maintenance, repair, rehabilitation, capital maintenance, maintenance replacement, and any other categories of maintenance that may be designated by the Department.

(e) “Material default” means any failure of an operator to perform any duties under a public-private agreement, which jeopardizes delivery of adequate service to the public and remains unsatisfied after a reasonable period of time and after the operator has received written notice from the Department of the failure.

(f) “Operate” means any action to maintain, rehabilitate, improve, equip, or modify a transportation facility.

(g) “Operator” means a private entity that has entered into a public-private agreement under this [title/chapter/article].

(h) “Private entity” means any natural person, corporation, general partnership, limited liability company, limited partnership, joint venture, business trust, public benefit corporation, non-profit entity, or other business entity.

(i) “Public-private agreement” means the agreement between a private entity and the Department that relates to the development, financing, maintenance, or operation of a transportation facility subject to this [title/chapter/article].

(j) “Public-private initiative” means an arrangement between the Department and one

or more private entities, the terms of which are stated in a public-private agreement, that provides for:

(1) acceptance of a private contribution, including a money payment, for a project or service for a transportation facility;

(2) sharing of resources and the means of providing a project or service for a transportation facility;

(3) cooperation in researching, developing, and implementing projects or services for a transportation facility.

(k) "Transportation facility" means any, including new and existing, highway, road, bridge, tunnel, overpass, ferry, airport, public transportation facility, vehicle parking facility, seaport facility, rail facility, intermodal facility, or similar facility open to the public and used for the transportation of persons or goods, and any building, structure, parking area, appurtenances, or other property needed to operate such facility that is subject to a public-private agreement.

(l) "User fees" means the rate, toll, fee, or other charges imposed by an operator for use of all or part of a transportation facility.

(m) "Utility" means a privately, publicly, or cooperatively owned line, facility, or system for producing, transmitting, or distributing communications, cable television, power, electricity, light, heat, gas, oil, crude products, water, steam, waste, storm water not connected with highway drainage, or any other similar commodity, including fire or police signal system or street lighting system, which directly or indirectly serves the public.

§1-102. Solicited Proposals.

(a) The [INSERT STATE'S PROCUREMENT ACT] shall not apply to solicited proposals under this [title/chapter/article].

(b) The Department may solicit, receive, consider, evaluate, and accept a proposal for a public-private initiative.

(c) In soliciting and selecting a private entity with which to enter into a public-private initiative, the Department may utilize one or more of the following procurement approaches:

(1) sealed bidding;

(2) selection of proposals, with or without negotiations, based on qualifications, best value, or both; or

(3) any competitive selection process that the Department determines to be appropriate or reasonable.

(d) The Department may consider the following factors in evaluating and selecting a bid or proposal to enter into a public-private initiative:

(1) the ability of the transportation facility to improve safety, reduce congestion, increase capacity, and promote economic growth;

(2) the proposed cost of and financial plan for the transportation facility;

(3) the general reputation, qualifications, industry experience, and financial capacity of the private entity;

facility;

the proposed design, operation, and feasibility of the transportation

(4) comments from local citizens and affected jurisdictions;

(5) benefits to the public;

(6) the safety record of the private entity; and

(7) other criteria that the Department deems appropriate.

(e) The Department may select multiple private entities with which to enter a public-private agreement for a transportation facility if it is in the public interest to do so.

(f) The Department shall select a private entity or entities for a public-private initiative on a competitive basis to the maximum extent practicable.

Version #1

(g) (1) A private entity may request a review, prior to submission of a solicited proposal, by the Department of information that the private entity has identified as confidential or proprietary to determine whether such information would be subject to disclosure under [INSERT CITATION TO STATE FREEDOM OF INFORMATION ACT OR OPEN RECORDS ACT].

(2) A private entity may identify confidential or proprietary information submitted as part of a solicited proposal. A private entity shall have an opportunity to object to the release of any information it identifies as confidential or proprietary.

(3) The Department shall review any information identified as confidential or proprietary by a private entity as part of a solicited proposal and shall determine if such information is exempt from disclosure under [INSERT CITATION TO STATE FREEDOM OF INFORMATION ACT OR OPEN RECORDS ACT].

(4) The Department shall inform the private entity that submitted the information of its determination of whether information identified by the private entity as

confidential or proprietary is subject to disclosure under [INSERT CITATION TO STATE FREEDOM OF INFORMATION ACT OR OPEN RECORDS ACT].

(5) The private entity shall have the opportunity to object to the determination that the information is subject to disclosure under [INSERT CITATION TO STATE FREEDOM OF INFORMATION ACT OR OPEN RECORDS ACT] or to withdraw its proposal.

(6) Any information determined by the State to be confidential or proprietary shall be exempt from disclosure under [INSERT CITATION TO STATE FREEDOM OF INFORMATION ACT OR OPEN RECORDS ACT].

(7) Any information not determined to be confidential or proprietary may be subject to disclosure under [INSERT CITATION TO STATE FREEDOM OF INFORMATION ACT OR OPEN RECORDS ACT].

Version #2

(g) (1) A private entity may request a review, prior to submission of a solicited proposal, by the Department of information that the private entity has identified a confidential or proprietary to determine whether such information will be subject to disclosure under [INSERT CITATION TO STATE FREEDOM OF INFORMATION ACT OR OPEN RECORDS ACT].

(2) The Department shall take appropriate action to protect confidential or proprietary information that a private entity provides as part of a solicited proposal and that is exempt from disclosure under [INSERT CITATION TO STATE FREEDOM OF INFORMATION ACT OR OPEN RECORDS ACT].

§1-103. Unsolicited Proposals.

(a) The [INSERT STATE'S PROCUREMENT ACT] shall not apply to this section.

(b) (1) The Department may receive, consider, evaluate, and accept an unsolicited proposal for a public-private initiative if the proposal:

(A) is independently originated and developed by the proposer;

(B) benefits the public;

(C) is prepared without Department supervision; and

(D) includes sufficient detail and information for the Department to evaluate the proposal in an objective and timely manner.

(2) Within [INSERT NUMBER] days after receiving an unsolicited proposal,

the Department shall undertake a preliminary evaluation of the unsolicited proposal to determine if the proposal complies with the requirements under paragraph (1) of this subsection.

Version #1

(c) (1) A private entity may request a review, prior to submission of an unsolicited proposal, by the Department of information that the private entity has identified as confidential or proprietary to determine whether such information would be subject to disclosure under [INSERT CITATION TO STATE FREEDOM OF INFORMATION ACT OR OPEN RECORDS ACT].

(2) A private entity may identify confidential or proprietary information submitted as part of an unsolicited proposal. A private entity shall have an opportunity to object to the release of any information it identifies as confidential or proprietary.

(3) The Department shall review any information identified as confidential or proprietary by a private entity as part of an unsolicited proposal and shall determine if such information is exempt from disclosure under [INSERT CITATION TO STATE FREEDOM OF INFORMATION ACT OR OPEN RECORDS ACT].

(4) The Department shall inform the private entity that submitted the information of its determination of whether information identified by the private entity as confidential or proprietary is subject to disclosure under [INSERT CITATION TO STATE FREEDOM OF INFORMATION ACT OR OPEN RECORDS ACT].

(5) The private entity shall have the opportunity to object to the determination that the information is subject to disclosure under [INSERT CITATION TO STATE FREEDOM OF INFORMATION ACT OR OPEN RECORDS ACT] or to withdraw its proposal.

(6) Any information determined by the State to be confidential or proprietary shall be exempt from disclosure under [INSERT CITATION TO STATE FREEDOM OF INFORMATION ACT OR OPEN RECORDS ACT].

(7) Any information not determined to be confidential or proprietary may be subject to disclosure under [INSERT CITATION TO STATE FREEDOM OF INFORMATION ACT OR OPEN RECORDS ACT].

Version #2

(c) (1) A private entity may request a review, prior to submission of an unsolicited proposal, by the Department of information that the private entity has identified a confidential or proprietary to determine whether such information will be subject to disclosure under [INSERT CITATION TO STATE FREEDOM OF INFORMATION ACT OR OPEN RECORDS ACT].

(2) The Department shall take appropriate action to protect confidential or proprietary information that a private entity provides as part of an unsolicited proposal and

that is exempt from disclosure under [INSERT CITATION TO STATE FREEDOM OF INFORMATION ACT OR OPEN RECORDS ACT].

(d) (1) If the unsolicited proposal does not comply with the subsection (b)(1) of this section, the Department shall return the proposal without further action.

(2) If the unsolicited proposal complies with the subsection (b)(1) of this section, the Department may continue to evaluate the proposal in accordance with this section.

(e) (1) If the unsolicited proposal complies with the subsection (b)(1) of this section, the Department shall advertise the unsolicited proposal for the purpose of receiving competitive proposals for the same proposed transportation facility.

(2) The advertisement shall outline the general nature and scope of the unsolicited proposal, including the location of the transportation facility and the work to be performed on or in connection with the transportation facility and shall specify an address to which a competing proposal may be submitted.

(3) The advertisement shall specify a reasonable time period by which competitors must submit a competing proposal to the Department.

(f) The Department may charge a reasonable fee to cover its costs to process, review, and evaluate an unsolicited proposal and any competing proposals.

(g) The Department shall:

(1) determine if any competing proposal is comparable in nature and scope to the original unsolicited proposal;

(2) evaluate the original unsolicited proposal and any comparable competing proposal; and

(3) conduct any good faith discussions and, if necessary, any negotiations concerning each qualified proposal.

(h) The Department shall evaluate an unsolicited proposal and any comparable competing proposal using the following factors:

(1) novel methods, approaches, or concepts demonstrated by the proposal;

(2) scientific, technical, or socioeconomic merits of the proposal;

(3) potential contribution of the proposal to the Department's mission;

(4) capabilities, related experience, facilities, or techniques of the private entity or unique combinations of these qualities that are integral factors for achieving the proposal objectives;

(5) qualifications, capabilities, and experience of the proposed principal investigator, team leader, or key personnel, who are critical to achieving the proposal objectives;

(6) how the proposal benefits the public; and

(7) any other factors appropriate to a particular proposal.

(i) After evaluating the unsolicited proposal and any competing proposals, the Department may:

(1) accept the unsolicited proposal and reject any competing proposals;

(2) reject the unsolicited proposal and accept a comparable competing proposal if the Department determines that the comparable competing proposal is the most advantageous to the State;

(3) accept both an unsolicited proposal and a competing proposal if accepting both proposals is advantageous to the State; or

(4) reject the unsolicited proposal and any competing proposals.

(j) Subsection (c) of this section shall apply to any unsolicited proposal or competing proposal that is rejected.

§1-104. Public-Private Agreement. Version #1

(a) (1) After selecting a solicited or unsolicited proposal for a public-private initiative, the Department shall enter into a public-private agreement for a transportation facility with the selected private entity or any configuration of private entities.

(2) An affected jurisdiction may be a party to a public-private agreement entered into by the Department and a selected private entity or combination of private entities.

(b) The public-private agreement shall provide for the planning, acquisition, financing, development, design, construction, reconstruction, replacement, improvement, maintenance, management, repair, leasing, or operation of a transportation facility.

(c) The financing mechanism included in a public-private agreement may include the imposition and collection of user fees and the development or use of other revenue sources.

(d) A public-private agreement between the Department and a private entity shall specify at least the following:

(1) which party will assume responsibility for which specific project elements and the timing of the assumption of responsibility;

(2) the type of property interest, if any, the private entity will have in the transportation facility;

(3) if and how the parties will share costs of development of the project; overruns; if and how the parties will allocate financial responsibility for cost

(4) liability for nonperformance;

(5) any incentives for performance;

(6) any accounting and auditing standards to be used to evaluate progress on the project; and

(7) other terms and conditions.

§1-104. Public-Private Agreement. Version #2

(a) (1) After selecting a solicited or unsolicited proposal for a public-private initiative, the Department shall enter into a public-private agreement for a transportation facility with the selected private entity or any configuration of private entities.

(2) An affected jurisdiction may be a party to a public-private agreement entered into by the Department and a selected private entity or combination of private entities.

(b) A public-private agreement under this [title/chapter/article] shall provide for the following:

(1) the planning, acquisition, financing, development, design, construction, reconstruction, replacement, improvement, maintenance, management, repair, leasing, or operation of a transportation facility;

(2) the term of the public-private agreement;

(3) the type of property interest, if any, the private entity will have in the transportation facility;

(4) a description of the actions the Department may take to ensure proper maintenance of the transportation facility;

(5) whether user fees will be collected on the transportation facility and the basis by which such user fees shall be determined and modified;

(6) compliance with applicable Federal, State, and local laws;

(7) grounds for termination of the public-private agreement by the

Department or operator; and

(8) procedures for amendment of the agreement.

(c) A public-private agreement under this [title/chapter/article] may provide for the following:

(1) review and approval by the Department of the operator's plans for the development and operation of the transportation facility;

(2) inspection by the Department of construction of or improvements to the transportation facility; insurance;

(3) maintenance by the operator of a policy of liability insurance or self-

(4) filing by the operator, on a periodic basis, of appropriate financial statements in a form acceptable to the Department;

(5) filing by the operator, on a periodic basis, of traffic reports in a form acceptable to the Department;

(6) financing obligations of the operator and the Department;

(7) apportionment of expenses between the operator and the Department;

(8) the rights and duties of the operator, the Department, and other State and local governmental entities with respect to use of the transportation facility;

(9) the rights and remedies available in the event of default or delay;

Department; the terms and conditions of indemnification of the operator by the

(10) assignment, subcontracting, or other delegation of responsibilities of the operator or the Department under the agreement to third parties, including other private entities and other State agencies;

(11) sale or lease to the operator of private property related to the transportation facility;

(12) traffic enforcement and other policing issues, subject to section 1- 111, including any reimbursement by the private entity for such services; or

(13) other terms and conditions.

§1-105. Reversion of Transportation Facility to the Department.

In the event of termination of the public-private agreement, the authority and duties of the operator cease, except for any duties and obligations that extend beyond the termination as

provided in the public-private agreement, and the transportation facility reverts to the Department and shall be dedicated to the Department for public use.

§1-106. Material Default; Remedies.

(a) Upon the occurrence and during the continuation of material default by an operator, not related to an event of force majeure, the Department may:

(1) elect to take over the transportation facility, including the succession of all right, title, and interest in the transportation facility, subject to any liens on revenues previously granted by the private entity; and

(2) terminate the public-private agreement and exercise any other rights and remedies that may be available.

(b) In the event that the Department elects to take over a transportation facility under subsection (a), the Department:

obligation;

(1) shall collect and pay any revenues that are subject to lien to satisfy any

(2) may develop and operate the transportation facility, impose user fees for the use of the transportation facility, and comply with any service contracts; and

(3) may solicit proposals for the maintenance and operation of the transportation facility under section 1-102 of this [title/chapter/article].

§1-107. Bonds.

(a) (1) The Department may issue and sell bonds or notes of the Department for the purpose of providing funds to carry out the provisions of this [title/chapter/article] with respect to the development, financing, or operation of a transportation facility or the refunding of any bonds or notes, together with any costs associated with the transaction.

(2) Any bond or note issued under this section:

(A) constitutes the corporate obligation of the Department;

(B) does not constitute the indebtedness of the State within the meaning or application of any constitutional provision or limitation; and

(C) is payable solely as to both principal and interest from:

(i) the revenues from a lease to the Department, if any;

(ii) proceeds of bonds or notes, if any;

(iii) investment earnings on proceeds of bonds or notes; or

purpose.

(iv) other funds available to the Department for such

(b) (1) For the purpose of financing a transportation facility, the Department and operator may apply for, obtain, issue, and use private activity bonds available under any Federal law or program.

(2) Any bonds debt, other securities, or other financing issued for the purpose of this [title/chapter/article] shall not be considered to be a debt of the State or any political subdivision of the State or a pledge of the faith and credit of the State or any political subdivision of the State.

(c) Nothing in this section shall limit a local government or any authority of the State to issue bonds for transportation projects.

§1-108. Funding from Federal Government or Other Sources.

(a) (1) The Department may accept from the United States or any of its agencies funds that are available to the State for carrying out this [title/chapter/article], whether the funds are made available by grant, loan, or other financial assistance.

(2) The State assents to any Federal requirements, conditions, or terms of any Federal funding accepted by the Department under this section.

(3) The Department may enter into agreements or other arrangements with the United States or any of its agencies as may be necessary for carrying out the purposes of this [title/chapter/article].

(b) The Department may accept from any source any grant, donation, gift, or other form of conveyance of land, money, other real or personal property, or other item of value made to the State or the Department for carrying out the purpose of this [title/chapter/article].

(c) Any transportation facility may be financed in whole or in part by contribution of any funds or property made by any private entity or affected jurisdiction that is party to a public-private agreement under this [title/chapter/article].

(d) The Department may combine Federal, State, local, and private funds to finance a transportation facility under this [title/chapter/article].

§1-109. Property Tax Exemption.

(a) This section applies to:

(1) a transportation facility; and

(2) tangible personal property used exclusively with a transportation facility that are:

(A) owned by the Department and leased, licensed, financed, or otherwise conveyed to an operator; or

(B) acquired, constructed, or otherwise provided by an operator on behalf of the Department.

(b) Property listed under subsection (a) of this section are exempt from all ad valorem property taxes and special assessments levied against property by the State or any political subdivision of the State.

§1-110. Eminent Domain.

The Department may exercise the power of eminent domain to acquire property, rights of way or other rights in property for transportation projects that are part of a public-private initiative.

§ 1-111. Police Powers; Violations of Law.

(a) All law enforcement officers of the State and of an affected local jurisdiction shall have the same powers and jurisdiction within the limits of the transportation facility as they have in their respective areas of jurisdiction and access to the transportation facility at any time for the purpose of exercising such powers and jurisdiction.

(b) The traffic and motor vehicle laws of the State or, if applicable, any affected local jurisdiction shall be the same on the transportation facility as those laws applied to conduct on similar transportation facilities in the State or local jurisdiction.

(c) Punishment for violations of traffic and motor vehicle laws of the State or, if applicable, any affected local jurisdiction on the transportation facility shall be as prescribed by law for conduct occurring on similar transportation facilities in the State or local jurisdiction.

§1-112. Utility Crossings.

An operator under this [title/chapter/article] and any utility whose facility is to be crossed or relocated shall cooperate fully in planning and arranging the manner of the crossing or relocation of the utility facility.

§1-113. Sovereign Immunity.

Nothing in this [title/chapter/article] shall be construed or deemed to limit any waiver of the sovereign immunity of the State or any officer or employee of the State with respect to the participation in or approval of all or any part of the transportation facility or its operation.

§1-114. Regulations.

The Department may adopt rules and regulations to carry out the provisions of this [title/chapter/article].

SECTION 2. This Act shall take effect on [DATE].

APPENDIX D: Key Elements of State P3 Legislation, Hedlund and Chase (2005)

1. Does the relevant law allow solicited and unsolicited proposals for P3 projects?
2. Does the relevant law permit local/state/federal funds to be combined with private sector funds on a P3 project?
3. Who has rate-setting authority to impose user fees and under what circumstances may they be changed or otherwise reviewed?
4. Does the relevant law permit TIFIA loans to be used on P3 projects?
5. Is the number of P3 projects limited to only a few “pilot” or “demonstration” projects?
6. Are there restrictions concerning the geographic location of P3 projects?
7. Are there restrictions concerning the particular mode of transportation eligible to be developed as a P3 project (e.g., truck, passenger auto, freight rail, passenger rail)?
8. Is there a legal requirement to remove tolls after the repayment of project debt?
9. Does the relevant law permit the conversion of existing or partially constructed highways into toll roads?
10. Is there a restriction that prevents the revenues from P3 projects from being diverted to the state’s general fund or for other unrelated uses?
11. Is prior legislative approval required when an individual P3 proposal is received?
12. Are there any similar requirements that subject the P3 proposal or the negotiated P3 agreement to a local veto?
13. Does the relevant law permit all kinds of procurements for P3 project delivery? These might include, for example, calls for projects, competitive RFQ and RFPs, qualifications review followed by an evaluation of proposer concepts, use of design build, procurements based on financial terms such as return on equity rather than on price, long-term asset leases for some period of up to 60 years or longer from the time operations commence?
14. Are there explicit exemptions/supplemental procurement authority from the application of the state’s general procurement laws?
15. Does the relevant law authorize the public sector to grant long-term leases/franchises for the construction, operation and maintenance of toll facilities?
16. Does the public sector have the authority to issue toll revenue bonds or notes?
17. Does the public sector have the authority to form nonprofits and let them issue debt on behalf of a public agency?
18. Does the relevant public agency have the authority to hire its own technical and legal consultants?
19. Does the relevant law permit the public sector to make payments to unsuccessful bidders for work product contained in their proposals?
20. Can the agency charge application fees to offset its proposal review costs?
21. Does the relevant law allow adequate time for the preparation, submission and evaluation of competitive proposals? Note that the agency should have the authority to establish these deadlines on a case-by-case basis depending on the complexity and scope of the initial proposal or other factors that might promote competition (e.g., more review time during holiday periods).
22. Is the public sector required to maintain comparable non-toll routes when it establishes new toll roads?
23. Are there any non-compete clause prohibitions?

24. Is the authority to enter into P3s restricted to the state DOT or state turnpike authority; or may regional or local entities also do so?