

# P3 Peer Exchange: Denver, Colorado

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## *Federal Highway Administration (FHWA) Office of Innovative Program Delivery*

**Location:** Denver, Colorado

**Date:** November 5-6, 2014

**Host Agency:** Colorado Department of Transportation (CDOT) and High Performance Transportation Enterprise (HPTE)

**Peers:** Jennifer Aument, Transurban USA  
Leon Corbett, Florida Department of Transportation (FDOT)  
Dusty Holcombe, Virginia Department of Transportation (VDOT)  
Tom Pelnik, ACS Infrastructure  
Mike Schneider, HDR Global Infrastructure Advisory

**Federal Agencies:** Federal Highway Administration (FHWA)  
Volpe National Transportation Systems Center (Volpe Center)



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# Introduction

This report highlights key recommendations and noteworthy practices identified at the peer exchange on “Colorado DOT P3s” held on November 5-6, 2014 in Denver, Colorado. This event was sponsored by the [Federal Highway Administration’s Office of Innovative Program Delivery](#).

## Goals of the Peer Exchange

The Colorado DOT (CDOT) Office of Major Project Development (OMPD) and the CDOT High Performance Transportation Enterprise (HPTE) asked FHWA to support a peer exchange on P3s following the completion of the US 36 Managed Lanes / BRT partnership agreement in early 2014. HPTE and CDOT sought the peer exchange to better understand common challenges in the P3 delivery process and to incorporate lessons learned from experienced public agencies and practitioners in subsequent P3 projects.

## Selecting the Peers

In advance of the exchange, FHWA’s Office of Innovative Program Delivery (OIPD) and the Volpe Center staff worked with CDOT to identify peers that would be able to share their experiences and recommendations. To better understand public and private perspectives of the P3 delivery process HPTE requested that experienced representatives from both the public and private sectors attend the event.

The peers selected for the exchange were:

- ▶ **Jennifer Aument**, Group General Manager North America, Transurban USA
- ▶ **Leon Corbett**, Project Finance Manager, Office of the Comptroller – Florida Department of Transportation (FDOT)
- ▶ **Dusty Holcombe**, Deputy Director, Virginia Office of Public Private Partnerships (VAP3) – Virginia Department of Transportation (VDOT)
- ▶ **Tom Pelnik**, Senior Vice President, ACS Infrastructure Development
- ▶ **Mike Schneider**, Senior Vice President and Managing Director, InfraConsult - HDR Global Infrastructure

## Format of the Event

The two-day peer exchange was held on November 5-6, 2014 at the University of Colorado’s Denver School of Public Affairs. Participants included the five peer presenters, CDOT staff, FHWA staff, and facilitators from Volpe. In addition, approximately 20 people from various groups and agencies attended the two-day event as audience members. A full list of attendees is available in Appendix B of this report.

The exchange began with a brief round of introductions and a presentation from CDOT on its goals for the exchange. The four sessions on the first day focused on risk management, procurement, monitoring and oversight, and financial viability. These sessions featured a brief overview by one peer each from the public and private sector followed by discussion with the host agency and other peers and participants. The day two sessions covered transparency and public outreach, and post-construction operations. After a final question-and-answer session, the event concluded with an open discussion of key topics. An agenda for the program is available in Appendix C of this report.

# Key Recommendations and Lessons Learned

This section highlights key takeaways from the two-day exchange. It summarizes key recommendations and noteworthy practices employed by CDOT's peer agencies.

## A Risk Management

Effective risk management requires attention throughout project planning and development.

### *Risk Assessment*

Risk assessment is the process of identifying and evaluating risk events. Typically agencies assess a risk by estimating the likelihood of a risk event occurring and estimating the impact to project costs and schedule should it occur. The results of a risk assessment are typically documented in a risk register, which describes the identified risks and documents the estimated probabilities and costs associated with them. Agencies should consider conducting an initial risk assessment early in the project development process and refine it at key phases as the project moves from planning, to programming, to design, and finally to construction and operation. A thorough risk assessment process helps an agency plan appropriate risk management strategies and to better understand the potential costs associated with retaining risks or transferring them to the private sector.

**Project Example:** Florida Department of Transportation (FDOT) develops a risk matrix as part of a detailed risk assessment process. Once the risk assessment process is completed, the agency decides whether to procure the project using the P3 model. The risk assessment helps ensure that the agency better understands each risk before involving the private sector in a project. FDOT's P3 procurements are designed to incorporate feedback from the private sector proposers. FDOT takes that feedback and balances risk transfer with corresponding costs to arrive at a best value approach.

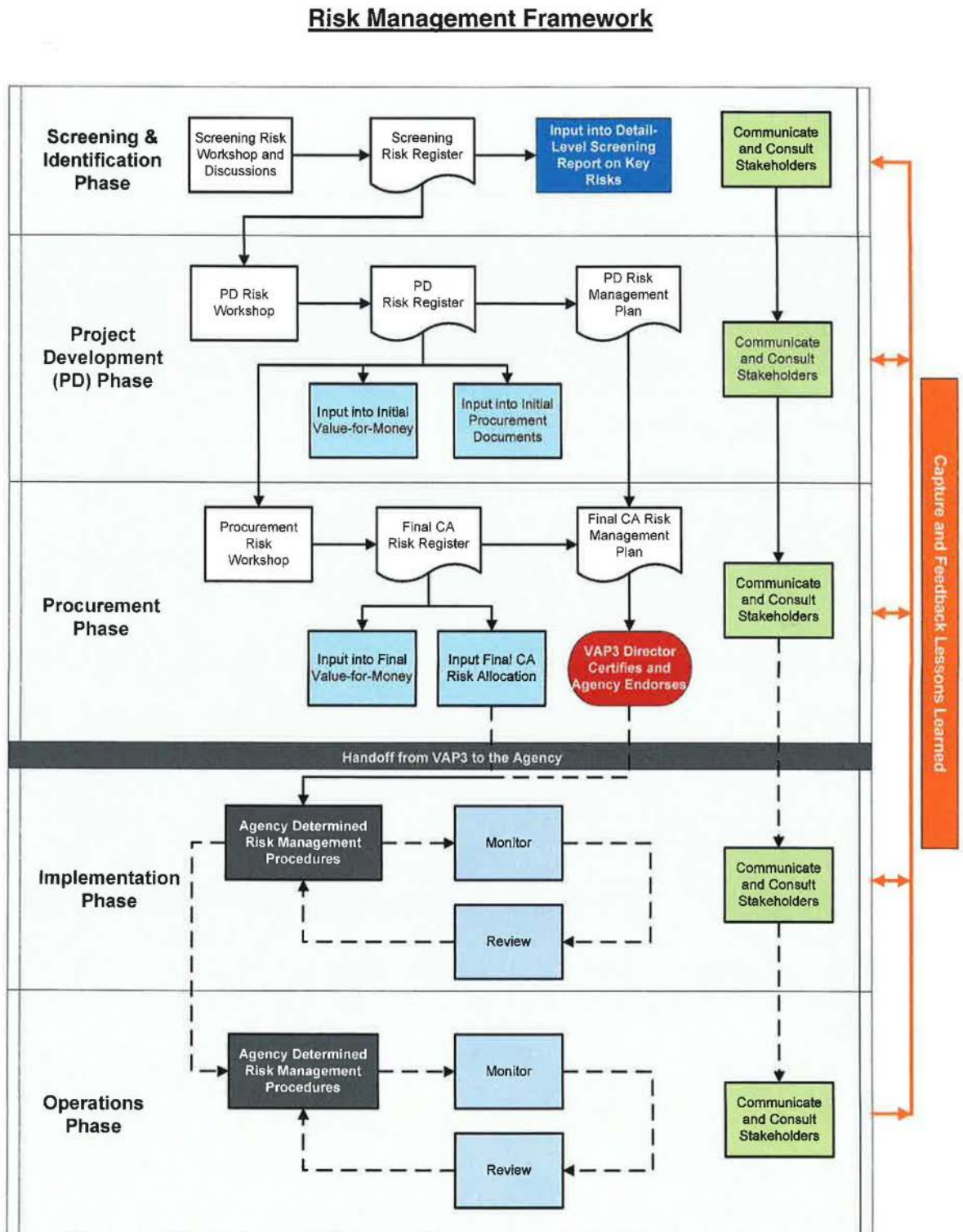
### *Risk Management*

Once risks are assessed, agencies should consider incorporating those risks into a risk management plan that outlines risks, identifies strategies to mitigate those risks and allocates responsibility for managing each risk. A risk management plan may assign responsibility for the risk to an agency, a specific department, an individual, or a private party. The peers noted that risk management plans should be dynamic, and should be updated as projects proceed from procurement to construction and operations. One method suggested for tracking evolving risks is to review the risk assessments throughout the project development process.

An early emphasis on risk management helps all parties retain this focus throughout the lifecycle of the project. VDOT strives to do this by reviewing the scope of the project and then identifying a team of individuals who can best recognize, assess and manage the different risks. The VDOT team typically includes departmental staff (from a wide range of departments including planning, finance, engineering, policy, and operations), central and district office staff, consultants and financial specialists.

**Example:** VDOT's risk management framework, see Figure 1, includes risk workshops throughout project development, procurement and construction. These workshops involve DOT staff, financial and technical consultants, and legal advice on how risk should be allocated. VDOT will typically hold four to five risk workshops over the life of a project.

Figure 1: VDOT's Risk Management Framework



Some of the peers noted that risk management during the operations and maintenance phase of a project can be especially challenging as there may be less emphasis by the agency on tracking and managing risks post-

construction. Peers suggested designating risk managers during the construction and implementation phases of a project to maintain a focus on risk management.

Maintaining continuity of authority over risk management before and after procurement poses another challenge. Once an agreement is reached and design and construction begins some risks are shifted from the public sector to the private sector. To achieve efficiencies the public sector should allow the private sector concessionaire to manage the day-to-day risks that it has been assigned through the concession agreement. One way to improve risk hand-off is to ensure an open communication and dialogue between the public sector and private sector parties and to designate an individual responsible for risk management.

### *Communication and Transparency*

Effective risk management communication between parties to a P3 agreement is important to the long-term success of a P3. For example, the private sector partner may face difficulties determining the appropriate transportation agency to contact for each issue. This is because some issues may be handled by a central office, others by a division office, and others jointly. Strategies to improve communications include designating a procurement or project manager as a single point of contact and establishing quarterly meetings between public and private parties to facilitate information sharing.

Clearly communicating how risks are being managed to the public is also important. By posting the agreement or the risk register on a website, a public agency can address potential public concerns about a lack of transparency.

### *Risk Transfer and Allocation*

When developing a P3 agreement, agencies have the option to transfer risks, retain risks, or share risks. In shaping the agreement public agencies must decide whether transferring a risk to a private party is worth the cost. Risk should be allocated based on a realistic assessment of the strengths and incentives of each party. VDOT, for example, typically shifts the risks associated with long-term operations to the private sector for its P3 projects. It may not be financially feasible to transfer some risks at a reasonable cost due to uncertainty regarding the cost of mitigating the risk.

Some of the risks that may be transferred to the private sector include cost and schedule overrun risks, revenue risks, and design and latent defect risks. The public agency typically retains environmental risks, political risks, and force majeure risks. While the goals of the public and private sectors may diverge in some respects, the purpose of the agreement is to align public and private interests to ensure effective management of project risks.

It was noted that the allocation and oversight of risk transfer is still developing within the United States. In other countries, specifically Canada and Australia, the process is more mature due to the fact that P3s and risk allocation have been in existence for a longer period of time.

## **B Procurement**

A defined and transparent procurement process is beneficial for both the State DOT and the private sector bidders. The pre-procurement phase in which agencies build stakeholder, public and political knowledge and support of the project and procurement method is important in ensuring a project proceeds without significant opposition.

***Project Example: Regional Transportation District (RTD) Eagle P3 Project.*** This \$2.2 billion, 36 mile, 3 line commuter rail system in Denver, Colorado was procured through a 34-year P3 contract. RTD set five high level goals for the procurement: quality, affordability, competition, level of service, and schedule. To achieve these goals RTD employed several successful procurement strategies. RTD's procurement team

focused on communication and information sharing regarding the terms of the project between the proposal team, board, stakeholders and public to facilitate quick decision making. RTD allowed private sector teams to suggest alternative technical concepts (ATCs) to the proposed design. RTD accepted 90% of the proposed alternatives. To promote competition, RTD offered up to \$20 million in stipends to repay costs for bid preparation if the contract was not awarded.

### *Competition*

Competition drives down costs and encourages innovative design. Competition can also help to assess whether a project is marketable and financially viable. If a project receives only one bidder, the market is indicating that the private sector has concerns about the viability of the project. Typically, State DOTs short list three or four teams during the procurement process.

*Example:* If VDOT only receives one bid for its P3 proposal, the agency will do a full value assessment of the benefits of proceeding with only one bidder. While competition is important, there may be exceptions; so having a process in place to address these exceptions can help the agency identify the best procurement method.

To ensure competition, the peers noted that it is important that the scope of the proposed project is clearly communicated to potential bidders. For example, bidders may look to see if the procuring agency has clear legislative authority to enter an agreement to deliver the project as a P3, has established clear goals for the project, and can show how the project will be integrated into the overall transportation network. In determining whether to submit a bid, bidders also evaluate whether sources of publicly supported financing, such as TIFIA credit assistance or Private Activity Bonds (PABs) may be available.

### *Communication and Stakeholder Involvement*

Peers stressed that communication with the public (residents, users, public officials, etc.) as well as the private sector bidders needs to be consistent during the procurement process. The DOT needs to determine the most effective way to communicate with bidders and stakeholders and how frequently communication should occur. It is also important to consistently communicate to internal stakeholders within the procuring agency. It can be a struggle for agencies to both balance stakeholder involvement in the project while protecting the integrity and confidentiality of the bidders' proposals.

One way of facilitating productive stakeholder engagement in the process is to assign a dedicated communications liaison to oversee public outreach. Outreach strategies include developing a project website that describes the proposed project, what the P3 might look like, the anticipated timeline for the project, and potential project revenue streams. The participants stressed the importance of communicating early and often with stakeholders, especially local elected officials.

*Example:* In their most recent project, CDOT implemented a process of polling stakeholders in the adjacent neighborhoods that would be affected by a new project to see what is important to the resident. CDOT typically conducts in-person, and telephone town hall discussions, as well as online surveys to allow stakeholders to express opinions and ask questions. Agencies should document their outreach efforts to be able to provide the public with a record of the efforts that were made to inform the public.

### *Unsolicited Projects*

Many States allow for unsolicited projects. It is important to have in place a process for unsolicited projects to ensure competitive and fair consideration. Allowing early engagement with potential proposers could prevent too much money being spent – both by the proposer (to develop the proposal) and by the DOT (to review the proposal) – on a project that the DOT has no interest in. If an unsolicited project is accepted, the State still has to go back and amend its TIP, STIP, and long range plans to include the new project. In Florida, FDOT typically receives unsolicited proposal for projects that have already been prioritized in the 10-year Strategic

Intermodal Plan but that do not have full funding in the near term. The P3 is used to advance a project that has been identified as a priority.

### *Early Private Sector Involvement in the Procurement Process*

The peers discussed whether to bring in a potential private partner during the environmental review process through a pre-development agreement or to wait until after the environmental review is complete. The first option would allow for early participation by the private sector. A pre-development agreement may allow the public agency to lock in a price and not have to worry about changes in interest rates or other factors adversely affecting the total costs of the project. The downside from the public perspective is that the private sector will price in the uncertainty from the environmental review and decision-making process. By waiting until after a record of decision (ROD) has been issued, the public agency may be better able to define to the private sector the risks it wishes to transfer. But it may also face higher prices and interest rates. There are trade-offs to both options and each public agency needs to explore which option it prefers.

### *Concession Term*

The peers noted that toll-based agreements typically have a longer contract term than availability payment agreements because it can take longer for the concessionaire to fully recoup its costs. The length of a contract varies based on state legislation. Florida allows agreements up to 99 years, but typically enters into contracts for 35 to 40 years for availability payment agreements. One peer noted that his state prefers agreement terms to be long enough to allow for several major maintenance cycles to occur before a private concessionaire hands back the facility to the public sector. When operations of the facility are returned to the State, the facility needs to be in accordance with the State's standards. In an effort to minimize subsequent negotiations, long-term maintenance and operations goals and procedures can be incorporated into the concession agreement. The concession agreement can serve as a guide for hand-back condition of the facility, keeping the concessionaire accountable for the facility's condition.

### *FHWA Procurement Resources*

For additional procurement guidance, FHWA published a [Core Toll Concessions P3 Model Contract Guide](#) on September 10<sup>th</sup>, 2014 as part of its mandate under MAP-21. This document addresses seven key contractual issues, providing commentary on how they can be addressed rather than prescriptive recommendations. A second document will be released that discusses additional contractual issues such as lenders rights and insurance. FHWA is working on a separate version for availability payments contracts that will be published in the Federal Register in the upcoming months.

***Project Example: I-4 Ultimate Project.*** Through the \$2.3 billion I-4 Ultimate Project, Florida DOT project is rebuilding a 21-mile corridor and adding express lanes in Orlando, Florida.

The procurement process began in late 2011. In March 2013, FDOT held an industry forum attended by over 1,000 people where FDOT announced opportunities for disadvantaged business enterprise and issued an RFQ. After the RFQ was issued, FDOT held four rounds of one-on-one meetings with seven different private sector teams interested in bidding on the project. FDOT adjusted the RFP based on feedback and narrowed the field to four teams by June 2013.

Securing the TIFIA loan was a challenging part of procurement. Creating an indicative terms sheet that went with the RFP was intensive and required iterations of the term sheet to address comments from proposal teams. TIFIA was an important partner in the process. The early collaboration between FDOT and TIFIA enabled the winning proposer to prepare a feasible proposal. FDOT awarded the project in April 2014, and the financial close was facilitated with TIFIA in September 2014. FDOT provided a notice to proceed in October 2014. The project is currently under construction.



FDOT learned that the most important aspects of the procurement process were: allocating sufficient staff resources, communicating with all stakeholders, and defining a clear procurement schedule.

## C Monitoring and Oversight

P3s require different approaches to monitoring and oversight from the beginning stages of a project through the lifecycle process. To establish an effective monitoring and oversight process public agencies should define the objectives of the project, define the metrics for success, and monitor those metrics. The three phases that need to be considered for monitoring and oversight are:

- ▶ Procurement and contracting: to ensure that the process is being conducted transparently.
- ▶ Design and construction: to determine the level of oversight needed.
- ▶ Maintenance and operations: to understand how the functions are being carried out by the concessionaire and communicated to the DOT.

Both the private sector and public sector need to determine how much staff and budgetary resources should be devoted to monitoring and oversight. The public sector needs to be able to convey the results of the monitoring and oversight to its leadership, elected officials and the public in a clear and concise manner. To do this, the reporting mechanisms must be determined, including the format, frequency, and audience. It is important to be sensitive to the needs of the decision makers and leadership team and make them feel comfortable with the level of information being reported.

**Example: VDOT's Joint Operating and Maintenance Protocol (JOMP).** VDOT's Joint Operating and Maintenance Protocol (JOMP) is a document outlining the protocols for operating a new facility. VDOT begins creating this document jointly with the design-build team, the operator, and the DOT at least 6 to 9 months prior to the start of operations of a new project. Issues discussed include scheduling, tolling, and even logistical details of operations such as registering snow plows so they are not charged a toll while plowing. The JOMP helps ensure that a project is ready for the operations phase and that there are clear delineations of responsibilities between the public and private sectors. This process ensures coordination amongst the parties and sets the precedent for good communication during the oversight period.

### *Transition of Oversight from Public to Private Sector*

As with risk management, transition of oversight from the public to the private sector can be a challenge. It can be difficult for DOT staff to shift from the traditional role of project management to one of oversight with the private sector being responsible for day-to-day operations. One key strategy to manage the transition is to plan regularly scheduled meetings for information sharing between the concessionaire and the DOT. Sharing plans and seeking input long in advance allows for alignment of processes.

From the public sector perspective, the goal of the DOT should be to protect the public investment without interfering with the work of the concessionaire. The private sector may believe that once it takes control of operations it should have primary control over monitoring, so that oversight from the DOT is duplicative and unnecessary. VDOT emphasized while it supports handing over operations activities to the concessionaire, safety remains the agency's responsibility and top priority. This is a delicate balance that needs to be negotiated between the parties.

### *Penalties*

State DOTs often include performance requirements within concession contracts. When in noncompliance, the public agency can enforce a penalty point system. When its new P3 projects come on-line, VDOT uses a ramp-up period for its penalty point system. This is important because it helps show the private sector that there is not a culture of penalizing. The ramp-up period doesn't mean that the concessionaire can be non-

compliant; it allows the two parties to align their objectives for the project with the penalties and enforcement actions.

FDOT, for example, has a provision that if the concessionaire has a certain amount of non-compliance items, FDOT can increase oversight on the project. Once the concessionaire hits a certain amount of penalty points or non-compliance items, FDOT has the option of increasing oversight (at the concessionaire's cost), creating and implementing a recovery plan that shows a timeframe and process for how to increase compliance, or placing the concessionaire in default of contract.

It was noted that effective oversight is part art, part science. As an owner of a project, it can be most effective for the DOT to convince the concessionaire of the need to address a problem. The best outcome is that the concessionaire quickly addresses the issue. It is also important to remember that there are other parties besides the concessionaire and the DOT who are interested in the oversight on a project, including lenders, legislators, rating agencies and the media.

## D Financial Viability

### *Determining if a P3 is Financially Viable*

A funding gap for a project is often a key factor in a DOT's decision to deliver a project as a P3. But, it should be noted, there are other factors, such as a desire to deliver a project more quickly or to bring innovative thinking into the design process, which a DOT may consider.

*Example:* VDOT has a two stage screening process to determine financial viability and the appropriateness of a P3. The agency first conducts a high level review that examines six or seven criteria internally. If a project passes this review, a more detailed screening process is undertaken, including risk analysis, stakeholder outreach, and internal market research to determine a financial and technical desirability for a P3 project.

FDOT does not initially set out to identify P3 projects in the planning process, but instead looks to a P3 when it may be appropriate after examining the best way to structure and deliver a project. Florida statute states that a project needs to be cost effective and provide a public benefit. FDOT recognizes the challenges of quantifying the qualitative aspects of a project, so it does not rely on a strictly calculated Value for Money (VfM) analysis.

### *Value for Money Analysis*

The peers noted that the VfM analysis, while a useful tool, tends to focus only on the financial aspects of a project and not on other aspects of the project that may make delivering the project as a P3 attractive. For example, user benefits are generally absent from a VfM analysis. VfM can't measure the value of delivering a project to the public several years earlier than using a conventional method. The peers noted the importance of allowing agencies the flexibility to be able to create their own criteria for what makes a project viable, financially or otherwise. Ultimately, project viability depends on a whole host of factors. Simply doing a VfM analysis is not holistic because it misses other aspects of overall project viability.

## E Transparency and Public Outreach

### *Public Outreach and Community Engagement*

Involving the public early in the development of a project, especially a large-scale one, is important to the ultimate success. Engaging a variety of stakeholders (abutters, municipal officials, legislators, environmental groups, users of the system, etc.) can facilitate the planning and development phases of a project. A well-

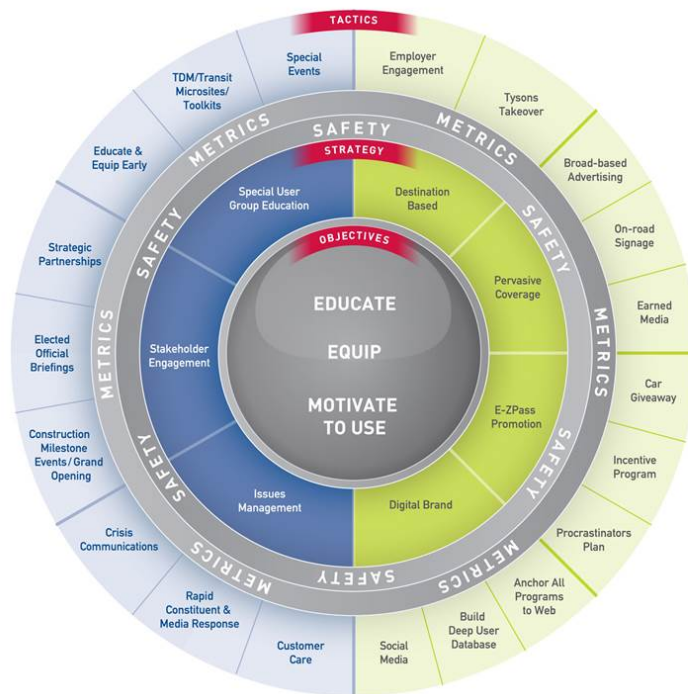
received outreach program that engages and educates the public early and often can help a project stay on track.

Community engagement tactics that go beyond traditional public meetings can be very effective. Having a project website where users of the facility can find relevant information such as contractual documents, meeting minutes, and other news is helpful to ensure information is being passed onto the consumer. Agencies should consider using social media to engage regular users of the facility as well.

**Example:** In an effort to better engage with the impacted community, Transurban sponsors a community grant program that provides grants between \$500 and \$5,000 to community organizations. Grants are typically given to mobility, safety, or environmental projects in the area most impacted by the construction of the facility. This program empowers elected officials to show stakeholders that there can be positive community impacts from a transportation project and allows the private sector to build trust within the community. Typically, this is not required under the contract, but it is a way for the company to maintain good public relations.

It can be difficult for the public to understand how a P3 is financed, designed and operated. Figure 2, shows Transurban’s overall strategy for its public outreach process. For each project, the company defines its objectives, develops its strategies and then implements tactics to support the objectives and strategies. The process can be adapted depending upon the project being delivered.

**Figure 2: Transurban’s communications wheel**



Another way to facilitate community engagement is to have a presence at community activities. Agency staff can attend community events, sports games, or other functions to hand out pamphlets and answer questions from people in the community. Personal visits to legislators, mayors, or city councilmen also have a large effect on community engagement. One concessionaire mentioned the importance of being proactive with the news media. It is important to understand the need to educate the public and the media about the project and

its operations once open. A concessionaire may meet one-on-one with reporters on a weekly basis. When research shows a gap in the public's knowledge about a project's operations, the concessionaire can work with the media to write stories and blogs to better inform the public.

*Example:* In an effort to extend its public outreach, CDOT has begun to host telephone town halls. While not a substitute for face-to-face meetings, the town halls allow CDOT to provide project or corridor information to a large audience at one time. CDOT will notify residents along a corridor or subregion about an upcoming call about a proposed project and then will place telephone calls to all of the residents at a certain time. On the telephone town hall, CDOT staff will provide information about the proposed project and take questions from the telephone audience. They can then use these questions to better gauge the awareness of the public and refine their communications outreach.

### *Research*

Doing research about public opinion and knowledge ensures that the private sector understands the level of awareness and public reactions about a project. Doing corridor-wide research can put small complaints into context. Typically, the private sector seeks both qualitative and quantitative data, using online forums and surveys, in person meetings, and true/false quizzes. Private sector partners can also commission economic studies to gather data about the benefits of their projects to share with stakeholders. The private sector peers stressed the need to keep the customer in mind during every aspect of the project, even before operations begin. One peer also mentioned that it will conduct surveys of the broader community to better assess opinion. This information can be shared with elected officials to provide them with information beyond the vocal opposition to certain projects.

### *Transparency*

A fundamental challenge that both the public and private sector face with P3 projects is balancing the need to meet public demands for transparency with the need to meet private sector demands for confidentiality. This debate begins with initial design concepts, continues through procurement and into operations. The peers noted the need for the public agency and the private sector partners to discuss what contents of proposals are proprietary and what can be shared.

To increase transparency, peers suggested creating additional opportunities for information sharing during the procurement and construction process. Meetings can be open to the public and have a comment period. Having an active public information process helps build consensus for a project.

Posting documents on a DOT or project-specific website doesn't ensure that the public will view them. It is important to notify the public, stakeholders, and elected officials that new documents are ready for review.

*Example:* VDOT is developing a proactive approach to public engagement that will be documented in a manual that identifies recommended outreach activities at each stage. The public can comment on the project through the project website at any time rather than at certain points in the project. The agency typically emails legislative staffers once new information is made available. Reaching out to elected officials, especially if they are in the affected jurisdiction, can increase transparency and accountability.

Another aspect of transparency is to proactively engage with the news media. If research shows that there is an education gap around a project, the private sector team can work with the media to bring the issues to light in an accessible way via blog posts or articles. For example, VDOT and Transurban conducted an extensive awareness campaign of how the high occupancy toll (HOT) lanes would operate on the I-495 Expressway in Virginia.

Transparency may be more or less of a focus based on a State's public records laws. Florida has an open public records law that forms the basis for FDOT's transparency with project documents. One agency noted that it

shares all documents online to allow for greater public access. The agency will send out email alerts to let the interested public know that the documents are available.

One peer noted that its P3 office manages about 6 projects at one time, while the State DOT manages over 2,500 projects. Because of the smaller number of projects, it can be easier for the P3 office to provide a greater focus on public outreach.

## F Post-Construction Operations and Other Issues

### Overview

In a traditional design-build project, the project is operated and maintained by the public agency once construction is finished and the contractor’s role is completed. With a P3, the operations and maintenance component is often assigned to the private sector concessionaire. Therefore, a sponsoring agency needs to apply a different structure to the management and oversight of a P3 project. During the procurement process, the sponsoring agency and the concessionaire define which operations activities the private sector will conduct and which will be retained by the public agency. Some agencies have found it helpful to have the operations team at the table at the start of the design phase in order to suggest designs that can improve operations.

VDOT noted that from an agency owner’s perspective, a key focus is on monitoring the operations activities by the private sector. Although the contract specifies the concessionaire’s requirements for operating the facility, there are always a number of issues that need to be re-examined during operations. Public scrutiny of the operations of a P3 project can be particularly high concerning issues such as toll setting, fines, and collections.

Transurban identifies four key activities involved in operating P3 projects: 1) Road operations and maintenance, 2) Enforcement and customer management, 3) Operations analytics, and 4) Technology. Figure 3, provides an overview of the components of each of the four areas.

Figure 3: Transurban’s operations universe



## *Communication and Marketing*

Communications is crucial in helping the traveling public understand how a new facility will operate, since there is the potential that some aspects (such as the use of high occupancy toll lanes in conjunction with high occupancy vehicle lanes) may be unfamiliar. Targeted outreach regarding new tolls and policies before the facility opens ensures that the consumer is aware of and familiar with the new policies going into effect. Even though a high percentage of customers of a new toll road may have used other toll roads, they still need education about the policies for that particular facility. For instance, Transurban's survey research found that "express" lanes meant twelve different things in different areas. With a facility where the private concessionaire has taken on the toll revenue risk, the role to educate the public falls to the concessionaire. It can be in the private sector's best interests to invest in sustained marketing to attract customers and ensure the road will be used.

Tolling technology will change in the future. The operations contract between the public and private sector will guide how the technology is updated, and should be flexible enough to allow for adaptation to new methods and technologies. One peer noted that many in the industry believe that facilities will eventually adopt technology that allows users to pay tolls with smart phones or other devices rather than a transponder. The app would allow the user to plan the trip, get tolling information, and pay in the same space. Many of the customers that use express lanes are used to benefit programs from frequent use, such as rewards program at stores. They see toll roads in the same way, and want those benefits and perks. If the private sector can get the consumer to see the express lane as a product that provides better service, it will sustain use.

## *Monitoring, Penalties, and Enforcement*

The operator of the facility needs to ensure it is monitoring use and preventing misuse. The operator typically has a first-time forgiveness program or other options for travelers to pay missed tolls. It was noted by both public and private sector peers that with a new facility, it is necessary to be somewhat lenient so that people understand the tolling process, and then initiate enforcement after early violations.

*Example:* The San Joaquin Hills Transportation Corridor Agency has a [website](#) and app where visitors and infrequent users of toll roads can pay their tolls within five days if they do not have a transponder.

State Police typically enforce tolls, but there are challenges in the shared relationship among all of the parties involved. For example, issues with EZ-Pass transponders are reported from EZ-Pass to the Virginia DOT, so a concessionaire may not have the ability to alert a customer about an issue. The parties need to be flexible about their roles and relationships, especially as protocols are being developed. One peer noted the need to educate the traveling public about the ability to obtain and use a switchable transponder for those times when traveling on a roadway that has both a high occupancy vehicle (HOV) rate and a HOT rate. Typically, HOVs are able to travel for free in HOT lanes while SOVs pay a user charge.

## *Signage*

One challenge facing concessionaires has been signage regulations. The Manual on Uniform Traffic Control Devices (MUTCD) sets signage standards for interstates. A concessionaire may need to work with the project sponsor to determine the best way to inform the traveling public within the limits of the established signage standards.

## **G Concluding Thoughts**

Peers expressed that it was reassuring that those involved with P3s, both in the private and public sector, face the same types of challenges and issues across the country. The peers said that the importance of better informing the public of the costs and benefits of delivering a project using a P3 was a key takeaway of the peer exchange.

# Appendices

## A Key Contacts

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Terry Ostrom	Plenary Group
Monica Pavlik	FHWA Colorado Division
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Mike Schneider	HDR Global Infrastructure
Keith Stefanik	Colorado DOT
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**C Peer Exchange Agenda**



P3 Peer Exchange: Denver, Colorado  
November 5-6, 2014

*Colorado Department of Transportation  
Federal Highway Administration (FHWA) Office of Innovative Program Delivery*

**University of Colorado- Denver, School of Public Affairs,  
1380 Lawrence Street, Terrace Room- 2<sup>nd</sup> Floor**

**Agenda**

**Peers:** Dusty Holcombe, Virginia DOT; Jennifer Aument, Transurban USA; Leon Corbett, Florida DOT; Mike Schneider, HDR Global Infrastructure Advisory; Tom Pelnik, ACS Infrastructure

**Day 1**

<b>Time (MST)</b>	<b>Topic</b>	<b>Lead Presenter</b>
<b>8:30 a.m.</b>	<b>Welcome and Overview</b> FHWA OIPD staff welcomes attendees, review the agenda, describe documentation/follow-up, and establish ground rules for discussions. Description of the FHWA Center for Excellence in Project Finance	<b>FHWA</b>
<b>8:45 a.m.</b>	<b>CDOT/HTPE Welcome and Goals</b> Lead from CDOT and HPTE discuss the goals and objectives of the peer exchange.	<b>HPTE- Michael Cheroutes</b>
<b>8:55 a.m.</b>	<b>Peer Agency Introduction and Goals</b> Brief summary (less than 5 minutes each) of their respective P3 Programs.	<b>Peers</b>
<b>9:10 a.m.</b>	<b>Session 1: Risk Management</b> <i>How do each of the state DOTs organize their Risk Management Program?</i> How does the risk management process differ for potential P3s versus traditional projects? Each peer will describe for their State DOT: <ul style="list-style-type: none"> <li>• How do agencies identify and assess risk for potential P3s?</li> <li>• How do agencies determine how to allocate risks?                             <ul style="list-style-type: none"> <li>○ Types of risk that have been allocated to the private sector (and those that should not be)</li> <li>○ How do agencies deal with the allocation of toll risk?</li> </ul> </li> <li>• How do agencies oversee and manage P3 agreements to ensure that retained risks are managed and transferred risks are truly transferred?</li> <li>• Lessons learned</li> <li>• Possible future improvements to the risk management process</li> </ul>	<b>Dusty Holcombe &amp; Tom Pelnik</b>

Time (MST)	Topic	Lead Presenter
10:10 a.m.	<i>Break</i>	
10:25 a.m.	<p><b>Session 2: Procurement</b>                      HTPE will discuss the current procurement process in Colorado and RTD- Denver will discuss the Eagle P3 program.                      Peers will discuss the Procurement process in their own state. Questions addressed will include:</p> <ul style="list-style-type: none"> <li>• How are potential P3 projects identified?</li> <li>• How have agencies used Traffic &amp; Revenue studies?</li> <li>• How are projects typically structured?                             <ul style="list-style-type: none"> <li>○ How is structure determined?</li> <li>○ How is payment method determined?</li> <li>○ Who is involved in determining structure?</li> <li>○ What outside expertise is utilized?</li> </ul> </li> <li>• How is procurement process structured?                             <ul style="list-style-type: none"> <li>○ How do agencies gauge market interest?</li> <li>○ Do agencies accept ATCs?</li> <li>○ Do agencies compensate bidders?</li> <li>○ How do agencies determine acceptable bids?</li> <li>○ How do agencies negotiate with finalists? Over what issues?</li> </ul> </li> <li>• How have states changed over the past few years?</li> </ul> <p>What are some lessons learned and cautionary examples?</p>	<p><b>Leon Corbett, Tom Pelnik &amp; Brian Middleton</b></p>
11:45 a.m.	<i>Lunch</i>	
12:45 p.m.	<p><b>Session 3: Monitoring and Oversight</b>                      How do other states perform the monitoring and oversight functions?                      Does a separate office conduct this effort?                      What are some key areas to understand?                      What needs to be documented?                      What are some lessons learned and cautionary examples?</p>	<p><b>Mike Schneider &amp; Dusty Holcombe</b></p>
2:00 p.m.	<i>Break</i>	
2:15 p.m.	<p><b>Session 4: Financial Viability</b></p> <ul style="list-style-type: none"> <li>• How do peers determine financial viability of a potential P3?</li> <li>• How does this affect the procurement decision?</li> </ul> <p><b>Question and Answer for Sessions 3 &amp; 4 (15 minutes)</b>  <b>Recap of highlights and lessons learned (10 minutes)</b></p>	<p><b>Leon Corbett &amp; Mike Schneider</b></p>
3:30 p.m.	<p><b>Open Question Period</b>                      During this session, CDOT, peers, and audience members are able to ask questions on any topic related to P3s and raise specific questions about Day 2 topics.</p>	<p><b>Facilitator</b></p>
4:00 p.m.	<p><b>Wrap-up and charge for day 2 (15 minutes)</b>  <b>Day 1 ends at 4:00 p.m.</b></p>	<p><b>Facilitator</b></p>

## Day 2

Time (MST)	Topic	Lead Presenter
8:15 a.m.	<b>Welcome, Review of Day 1 and Charge for Day 2</b>  Welcome, review of agenda, and recap of previous day discussion	<b>FHWA and Facilitator</b>
8:20 a.m.	<b>Session 5: Transparency and Public Outreach</b> <i>Questions</i> <ul style="list-style-type: none"> <li>• How does the DOT reach out to the general public?</li> <li>• How does the DOT communicate with elected officials?</li> <li>• When is the best time to reach out to the public?</li> <li>• What are typical concerns expressed by the public? How does the agency address those concerns?</li> <li>• What are some of the problems or impediments have State DOTs encountered in trying to evaluate and procure a P3?</li> <li>• What are tools that the DOT can use to better communicate and make the process more transparent?</li> </ul> <b>Question and Answer Session (10 minutes)</b> <b>Highlights and Lessons Learned (5 minutes)</b>	<b>Jennifer Aument &amp; Dusty Holcombe</b>
10:00 a.m.	<b>Break</b>	
10:15 a.m.	<b>Session 6: Post-Construction Operations and Other Issues</b> <ul style="list-style-type: none"> <li>• How other states integrate multiple tolling facilities with a single tolling back office</li> <li>• How other states manage to keep tolling back office costs down</li> </ul> <b>Question and Answer Session (10 minutes)</b> <b>Highlights and Lessons Learned (5 minutes)</b>	<b>Jennifer Aument</b>
11:15 a.m.	<b>Open Discussion on Key Topics</b> <i>Period for questions and discussion of topics that need further discussion.</i>	<b>Facilitator</b>
12:15 p.m.	<b>Wrap-up &amp; Follow-up Actions (45 minutes)</b> <b>Day 2 will end at 1:00 p.m.</b>	<b>Facilitator</b>

## D Acronyms

CDOT	Colorado DOT
DOT	Department of Transportation
FDOT	Florida Department of Transportation
FHWA	Federal Highway Administration
HPTE	High Performance Transportation Enterprise
JOMP	Joint Operating and Maintenance Protocol
MAP-21	Moving Ahead for Progress in the 21st Century
MPO	Metropolitan Planning Organization
NTP	Notice to Proceed
OIPD	Office of Innovative Program Delivery
OMPD	Office of Major Project Development
P3	Public Private Partnership
RFP	Request for Proposal
RFQ	Request for Quotation
RTD	Regional Transportation District
STIP	Statewide Transportation Improvement Program
TIFIA	Transportation Infrastructure Finance and Innovation Act
TIP	Transportation Improvement Program
VDOT	Virginia Department of Transportation
VFM	Value for Money
Volpe	Volpe National Transportation Systems Center