

Action Strategy Paper: Public Private Partnerships

Prepared for the Chicago Metropolitan Agency for Planning

November 2008



the **VOLPE**
center

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1 Overview

1.1 Legal Boundaries

The decision to authorize the use of Public-Private Partnerships (PPPs) rests with individual states. Currently, approximately 24 states have significant PPP authority, which can include the ability to: enter into “design-build” contracts; accept and respond to unsolicited proposals from the private sector; or, take advantage of innovative Federal financing programs (like the [SEP-15 program](#), or [TIFIA](#)). For the purposes of this paper, the term “PPP” encompasses a full suite of innovative finance mechanisms and models, where the private sector is takes on greater risk than in traditional financing arrangements.

While Illinois currently does not have broad PPP authority, or, at a minimum, the ability to enter into design-build contracts, neighboring states ([Indiana](#), [Missouri](#), and [Minnesota](#)) allow different types of PPP activity to be undertaken and have carried out projects with connections to Illinois. Successful experiences with PPPs in nearby states may lead the Illinois State Legislature to consider granting greater authority to the state to undertake transportation public private partnerships.

Research into the state of Illinois’ legislative climate provides an important foundation or framework within which CMAP can consider the relevance and feasibility of pursuing innovative finance models. An interview with Richard Smith (Illinois DOT’s Director of the [Office of Planning and Programming](#)) provided important context.

As mentioned, Illinois does not currently have the authority to enter into PPP arrangements. However, the state does have a viable and mature toll authority that manages 286 miles of roadways and oversees the I-Pass electronic tolling system. The state legislature has spent some time debating the issue of leasing the toll highway authority – with parties both for and against the model – but ultimately decided not to pursue leasing to a private entity for a variety of reasons.

While the state does not have the legal authority to enter into PPP agreements, or to establish quasi-public or non-profit entities to enter into agreements, individual cities and municipalities may still pursue these types of financing arrangements with virtually no state involvement. The City of Chicago has been the legal party to the region’s major PPP projects, including the [Chicago Skyway](#) deal and current [CREATE project](#). The Skyway project had a limited number of parties overseeing the deal, and the metropolitan planning body had no role in the terms, conditions, or strategies used. The state Department of Transportation was apprised of some information during the City’s negotiation of the deal, but it was not consulted on the terms of the arrangement, management considerations, or other aspects of the final agreement.

IDOT has had an historically close connection to the Chicago Area Transportation Study (CATS), which has now merged with the Northeastern Illinois Planning Commission to

form CMAP. As a result, IDOT believes that CMAP can be a valuable strategic partner in discussion and dialogue about PPPs. In this role as strategic partner, CMAP is positioned to identify and define the MPO's role in PPPs both locally, regionally, and at the state level, and to create or support policy decisions and statements that are aligned with regional transportation objectives. The remainder of this paper includes discussion of the various roles CMAP can play in considering or pursuing transportation PPPs.

1.2 Scope of Paper

PPP projects differ in scope and objective. While some projects aim to reduce construction time and costs, such as projects that leverage design-build authority, others can generate revenue through up-front or ongoing payments, such as the sale or lease of assets and concession deals. This section provides an overview of various types of PPP models, with "pros" and "cons" for each.

To the extent practical, pros and cons are written from the perspective of an MPO. This is important, as the wide range of players in PPP projects could have conflicting opinions about the benefits or disadvantages of certain models. Even within the public sector, agents or entities concerned primarily with short-term revenue generation or budget cycles may look at a PPP deal very differently from an agent concerned with long term financial health.

There are many sources of information about PPPs, including: federal, state, and local public documents; essays from the private sector; analyses from the academic community; and, positions from associations or transportation advocates. The descriptions below are mainly derived from Federal sources, and are supplemented by information from MPOs and national associations of MPOs.

The descriptions on the following pages include the common definition of different PPP types, their strengths and weaknesses (or "pros" and "cons") from the MPO perspective, and sample projects of each type.

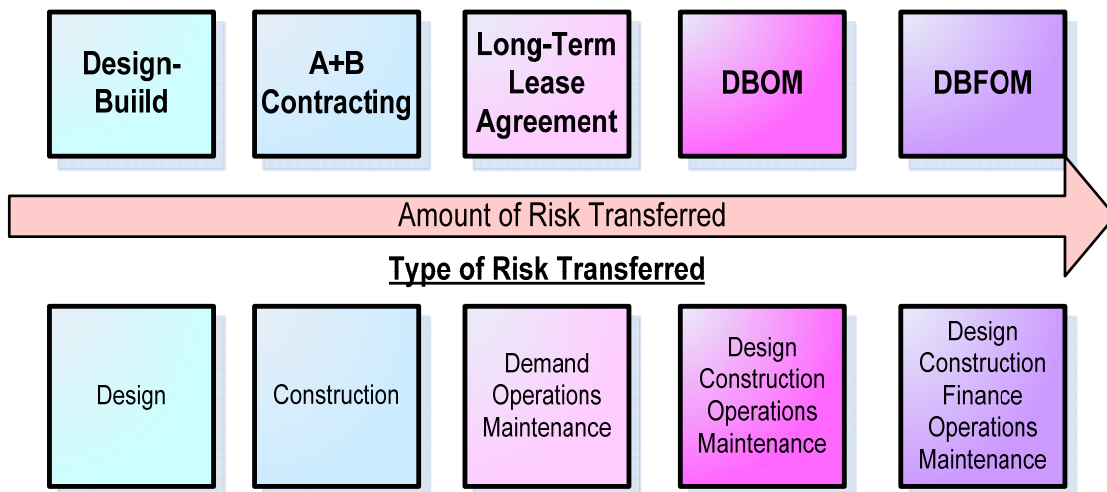
In recent years, a wide range of PPP or innovative finance models have been developed and implemented for highway projects. The Federal Highway Administration (FHWA) has been a leader among US DOT modal administrations in identifying and developing policies and programs to provide various forms of technical and financial assistance for some types of PPP projects.

While public-private partnerships to provide transit service have been in place for many years, there are limited examples of the use of innovative contracting methods for the private development of transit facilities (as compared to provision of transit service). A June 2008 workshop facilitated by the National Council on Public Private Partnerships focused exclusively on the use of PPPs in transit, and provided valuable insight for CMAP. Depending on CMAP's priorities, future research supporting this paper could include a more detailed examination of non-highway projects, including mass transit, freight and rail.

1.3 Public Private Partnership Types

This section includes background information on various forms of public-private partnerships used in the transportation field. Some of these models have been used primarily in highway projects, while others can be used outside of the transportation field entirely (for example, design-build methods can be applied to the development and construction of other infrastructure, like water and sewage facilities).

While the Chicago Skyway experience has focused on a single type of PPP – the long term lease agreement – there are many other models that can be applied. Generally, PPP contracting methods fall along a continuum of risk, with the basic premise being that a public-private partnership is designed to shift some amount of risk – often in terms of project costs or project schedule – away from the public sector, and provide opportunities and value to the private sector not previously available. Each model described below moves along this risk continuum, showing more complex relationships where the public transfers risk (and in many cases control) to the private party.



Design-Build Contracting

Description: In contrast to traditional, Design-Bid-Build contracts, Design-Build contracts combine the design and construction phase into one contract so that the private sector assumes design risks.

Strengths/Pros: This method can accelerate delivery time, reduce costs and improve construction and design quality by creating synergies between the design and the construction phase.

Risks/Cons: This type of contracting may require legislative change and support. The public partner often must continue to play a coordinating role between the private

partners and various public agencies. The contractor may lack expertise in meeting environmental and public participation standards.

Highway examples: Between 1985 and 2006, 34 design-build highway projects over \$50 million were completed. Highway examples include, notably, the I-35 St. Anthony Falls Bridge. Minnesota DOT used the design-build procurement process to accelerate the project development process and now expect the bridge to be completed ahead of schedule.

Transit examples: Between 1985 and 2006, 13 major U.S. rail projects totaling \$9 billion were completed, including: BART extension to San Francisco International Airport, Denver RTD Southeast Corridor LRT, and Minneapolis' Hiawatha Light Rail line. The Hiawatha LRT used two separate design-build contracts (for rail vehicles, and for rail and signal and communication equipment along the alignment). It was completed one year earlier than typical traditionally procured projects, saving \$25 to \$38 million in costs.

A + B Contracting

Description: Also referred to as “cost + time” bidding, this contracting method sets goals and incentives for the date of completion of the project allowing the public entity to shift some construction risk to the private sector.

Strengths/Pros: Creates incentives for the private sector to complete projects more quickly. Contracts are awarded based on factors other than cost alone.

Risks/Cons: The contractor may cut corners to deliver the project more quickly. The contract may not easily accommodate changes to scope.

Examples: Many state DOT's including Florida, Arizona, Indiana, Washington, New York, and North Dakota have bid projects using this method, and it has been used extensively by the Office of Federal Lands Highway in FHWA.

Long-Term Lease Agreements

Description: A public agency leases a transportation facility to the private sector for a specified period of time (agreements can range from 10 to 99 years). The private sector typically receives revenues through tolls and commits to meeting performance standards for the facility.

Strengths: Concessions provide the public sector with capital up-front and relieve the public sector of operations, maintenance and demand risks. They may help overcome political obstacles to increased tolls and improve facility efficiency and performance.

Weaknesses: The public sector risks undervaluing their assets or inefficiently allocating lease revenues. Political controversy may arise regarding public perceptions of

“privatization”, “foreign ownership”, or increased tolling. Transaction costs can be high as contracts are complex and clauses must be negotiated to ensure the private sector upholds labor, environmental and safety standards.

Highway Examples: Chicago Skyway (\$1.8 Billion – 99 years), Indiana Toll Road (\$3.8 Billion – 75 years), Pocahontas Parkway (\$548 million + construction of airport extension – 99 years). The State of Indiana received \$3.8 billion for leasing the Indiana Toll Road to a private concessionaire for 75 years. Political controversy over foreign ownership of the Toll Road nearly caused the Indiana Legislature to block the deal. Indiana used the proceeds to fund its transportation plan for the next 10 years.

Design- Build-Operate-Maintain or Design–Build-Finance-Operate-Maintain

Description: While title to the facility remains with the public partner, the contractor assumes operation and maintenance risks by agreeing to meet performance standards for the facility for a specified time after completing construction. When private financing is involved the private sector agrees to take on the additional financial risk of default. Payments can be made to the private entity through rights to toll revenues, shadow toll payments (payments based on facility usage), or availability payments (payments based on the availability of the facility to traffic).

Strengths: Allows for “life cycle costing” of the asset and can create operation and maintenance efficiencies. Shifts design, construction, operation and maintenance risks to the private sector. Toll and shadow toll agreements also transfer demand risks to the private sector. Where private financing is involved, the public partner reduces the need for public monies to finance to the project, conserving highway capital funds.

Weaknesses: Transaction costs can be high as contracts can be extremely complex and performance standards on all aspects of operations and maintenance must be stated in detail. Certain types of clauses, such as “non-compete” clauses have created public controversy. If a project defaults the public sector must be prepared to assume operation and maintenance of the asset.

Transit examples: Las Vegas Monorail (DBFOM), NJ Transit Hudson-Bergen LRT MOS-1 and MOS-2 (DBOM), and JFK Airtrain (DBOM). NJ Transit will pay the Hudson-Bergen Light Rail consortium a fixed price for operation and maintenance, subject to increases due to inflation. The fixed price protects NJ Transit from increases in operating costs and provides an incentive to the contractor to minimize O&M costs.

Highway examples: Between 1985 and 2006, there have been four greenfield toll road projects worth \$720 million that have been privately financed: Dulles Greenway (DBFO – Toll), Camino Colombia (DBFO – Toll), SR 91 (DBFO – Toll), and SR-125 (DBFO – Toll). Several other major projects are in late planning stages including Port of Miami (DBFO – Availability Payments), and TTC 35 (DBFO - Toll).

The United Kingdom uses the availability payment and shadow tolling models extensively for major infrastructure projects (A13 upgrade, M1-A1 Link, A55 Extension, Isle of Sheppey Bridge). Contracts are typically for a period of 30 years and payments are made to the contractor based on usage, road availability, or congestion and safety performance factors.

Local Examples

Chicago Skyway: The [long-term lease of the Chicago Skyway in 2004](#) is debated as an example of a transportation PPP with a high-degree of public benefit (as it resulted in a planned infusion of approximately \$1.83B for the City of Chicago), and alternatively, as a project troubled by lack of rigorous analysis of public benefits (as the public agents involved in the deal did not establish criteria or public sector comparators to evaluate the protection of the public interest in the long-term agreement).

The deal was complex – both from a financial perspective, and also from a business and negotiation perspective. As a result, project parties – namely the City and its private partners – did not involve the metropolitan planning organization that existed at that time in the terms of the deal or the scope of the project. The MPO played no role in developing the RFP for bidders, selecting the winning bid, negotiating the terms or the payment structure. In addition, the shift in financing was not reflected in the region’s TIP or long-range plan.

CREATE: The Chicago Region Environmental and Transportation Efficiency Program (CREATE) project is a collaboration between six private railroads, METRA, AMTRAK, IDOT, and state and local governments in Illinois. Procurement follows the traditional Design-Bid-Build process but private partners have committed to contributing significant equity to the project. The private railroads plan to make a \$212 equity contribution towards a \$1.534 billion capital program involving grade separation projects and extensive upgrades of tracks, switches and signal systems. The resulting project will improve passenger rail service, reduce motorist delay, ease traffic congestion, increase safety and provide economic, environmental and energy benefits for the Chicago region. To date however the partnership has received only \$100 million in public money through a Federal earmark and the project has not progressed at the pace anticipated.

I-55/CenterPoint Intermodal Center: Not an example of a formal public private partnership, but rather of *joint development*, where public and private investment at a site is coordinated. The site, originally part of the Joliet Arsenal, has been transformed into a state of the art intermodal facility and industrial park. Public investments include \$52 million from IDOT for infrastructure improvements such as the construction of a new interchange on Interstate 55 to handle increased traffic generated by the facility. Private investments have surpassed \$300 million and over 1000 jobs have been brought to the area.

2 Synthesis

2.1 Relevance for CMAP (direct and indirect roles)

2.1.1 *Governmental agencies and PPPs*

The scenario described above for Chicago is not very different from the experience of other MPOs who are not brought into potential PPP deals until those deals are finalized. This section explores three issues areas: the Federal interest and role of Federal resources, State legislative affairs and State DOT interest in PPPs, and roles for the MPO in PPP deals.

2.1.2 *The Federal interest*

Federal interest in PPPs for highway, transit, rail and other transportation projects has generally been tied to an interest in identifying alternative sources of project funding, or piloting innovative finance mechanisms.

Interest in design-build activity has sparked some research by Federal entities in time and cost savings, issues and opportunities. Internationally, as complex projects are identified and implemented – such as those that involve complicated contract mechanisms, tolling [including shadow tolling and availability payments], and multiple stakeholders – various Federal agencies have been interested in exploring and investigating the positive and negative aspects of these projects, best practices, and lessons learned.

However, most Federal research has focused on the State DOT experience, rather than the MPO experience. This is not surprising, as PPP projects (including design-build) require state enabling legislation to authorize the use of innovative finance mechanisms. To date, no federal PPP resources specifically geared towards MPOs have been identified. However, there is some interest within the FHWA in researching the MPO metropolitan planning experience as it relates to PPPs.

2.1.3 *The State and State DOT interest*

Strategically, states may take two approaches to developing and granting enabling legislation. One approach is to proactively debate the merits of PPP models, including design-build, and to grant relatively broad authority for a variety of potential projects. Another approach is to respond to the potential for a particular major or significant project to be financed using innovative finance methods, and develop enabling legislation specific to that project or similar types of projects.

According to Smith, the belief had been that Illinois' General Assembly would consider and develop separate pieces of legislation for each potential PPP project on an as-needed basis. For example, a private developer's interest in pursuing airport development in Will County has resulted in some debate within committees and in early drafts of legislation, but that legislation has not been successfully enacted.

One of the greatest challenges facing Illinois (and most other states) in terms of transportation is limited revenue for capital, operations, and maintenance expenses. There has been debate for approximately four years on a capital improvements bill, but this has not moved. There is not widespread agreement on broad funding ideas (for example, the role of gaming or leasing of other non-transportation assets). Interest during the last session of the General Assembly in drafting a boilerplate bill that would address core innovative finance and PPP issues also stalled.

The Illinois Department of Transportation (IDOT) plays a key role in providing information about project finance to the state legislature. This is true in many states that currently have or are pursuing enabling legislation for PPPs. However, IDOT has limited influence over legislators' or the public's opinions about PPPs in Illinois.

The relatively new Secretary of Transportation, Milton R. Sees, succeeded a former secretary who was a strong proponent of design-build contracting. While the former secretary was successful at generating interest in design-build methods (the PPP model with the lowest amount of risk to the public), and healthy dialogue at the committee level, no legislation was passed. One key obstacle was fear and concern from local contractors about the increased participation by large construction firms in Illinois' projects.

The current secretary plans to continue to meet with legislators to discuss project funding options and issues. Trends show that additional discussion and information is needed on many fronts, and that opposition to or lack of movement on PPPs is not related to one particular issue (such as concern over the role of foreign firms). Rather than embracing PPPs in a comprehensive way, IDOT anticipates some limited forward movement over time, likely driven by a particular project (such as the airport development project).

Other potential projects that may spark legislative interest include the Prairie Parkway west of Chicago, for which \$207 million in Federal funds has been secured. The current funds represent approximately one-fourth of total project costs, and the project may be a viable candidate for a toll-road or financing through another PPP model.

As mentioned earlier, IDOT considers CMAP a potentially important and strategic partner in the PPP dialogue. As candidate projects are identified, it may be valuable for CMAP to ensure that its own policy statements and funding strategies are aligned with IDOT's, and that both agencies are equipped to provide educational and technical assistance resources to state legislators who may craft project-specific enabling legislation.

2.1.4 *Role of the MPO*

There are often many stakeholders in any PPP deal, especially a long-term concession project that covers multiple jurisdictions. The role of the MPO can vary, but only in rare cases will the MPO be a party to a deal from a legal perspective. The MPO often finds itself in the role of convener or coordinator, and this may be a useful role for CMAP. The MPO embraced this role in the Las Vegas area and in the Miami-Dade metropolitan

area. The North Central Texas Council of Governments fills this role, as well, but has taken a much different approach to implementing PPPs in its region.

“Limited Involvement” Scenario

The [Regional Transportation Commission of Clark County](#) (RTC) is also responsible for overseeing that region’s transit system, Citizens Area Transit (CAT). In 1997, Clark County authorized the private creation and operation of a monorail transit system in Las Vegas. At that time, the MPO had not considered or included the monorail in its long range plans.

According to Fred Ohene, Assistant General Manager of the Regional Transportation Commission for Clark County, Phase 1 of the project (connecting activity centers on “The Strip”) was viewed almost exclusively as a private initiative, with little to no MPO involvement. Private partners believed that MPO involvement would complicate the deal-making process, and opted not to share information about phasing, timing, scope and other key project considerations.

However, this approach was problematic, as the MPO found itself playing the role of liaison with the public. Because the agency oversees the regional transit agency, members of the public assumed that it played a role in project development. After receiving numerous comments, the MPO opted to host several public meetings to share the limited information it had. This was challenging, as the MPO was placed in the position of “making the case” for the monorail to the public, and identifying links to existing transit.

According to Mr. Ohene, the MPO is interested in expanding its role in future PPP projects, mainly in the area of project coordination. In Clark County, as in other areas, there can be little coordination even at the municipal level, and there is value in having the MPO act as an information sharer, convener, knowledge broker, and liaison, even after planning documents are completed.

The monorail project was ultimately incorporated into the MPO’s long range plan, with Phase 2 of the project proposing a monorail extension to McCarran Airport. Unfortunately, poor ridership levels for the Phase 1 portion of the monorail compelled the Federal Transit Administration to discontinue Phase 2. (For more on the monorail project, see www.lvmonorail.com)

Rather than fitting a PPP solution to a transportation problem, the MPO generally assumes traditional procurement methods for projects identified in the long range plan, and updates the plan accordingly if a candidate project emerges. At a minimum, the MPO may include a reference to innovative finance options in its vision section of the document. This approach allows the MPO to establish the policy foundation in innovative finance, without explicitly endorsing a particular project or method (such as tolling).

The MPO has also had limited involvement in educating state legislators about innovative finance options. While Nevada has already granted the State DOT design-build authority, it has not yet granted tolling authority. The State Transportation Board has discussed shadow tolls and availability payments, but received a great deal of pushback in the media and from public. Given trends in transportation funding and economic conditions, there may be more interest in private financing during the next legislative session.

“Enhanced Involvement in Planning” Scenario

The [Port of Miami Tunnel](#) project is currently underway, and represents one of the most expensive public works projects in Florida history (Florida Transportation Monthly, 2007). In contrast to the Las Vegas monorail project, the Miami experience began with a series of planning studies and ideas nearly three decades before the deal became a reality.

As early as 1979, the City of Miami agreed that congestion reduction and economic development objectives could be met by studying the issue via a Seaport Development initiative. As alternatives were identified and developed, the MPO and its Transportation Planning Committee coordinated review of plans among twelve different entities. Because it played such a strong role in that activity, the MPO went on to convene a task force – two years later – to develop an implementable plan, and develop additional alternatives and an evaluation framework for them.

Throughout the 1980s and early 1990s the MPO coordinated early planning and project development activities, with assumptions that the project would be publicly funded. After receiving acceptance for the design and location concept from FHWA in 2000, public entities began to discuss potential for private funding.

In terms of long range planning, the MPO included the development of alternatives to study connections to I-395 (via bridge or tunnel) in its 2001 long range plan (through 2025). At that point, there was no reference or mention of private financing, but this changed by the 2004 plan update, which covered the period through 2030. At this point, the tunnel project was described as a PPP (availability payments model) and was framed as a crucial freight and economic development initiative. The MPO used the long range planning document to describe the value of privately financing tunnel construction, although it does not include an evaluation of different types of PPPs or why the availability payment model was selected.

“Dominant Role in Policy” Scenario

The [North Central Texas Council of Governments](#) (NCTCOG) took a much more assertive approach to innovative finance, carving out a special role for the MPO in future PPP projects.

After the passage of ISTEA in 1991, the NCTCOG leveraged the institutional responsibilities of MPOs as laid out in Federal law, namely the requirements for needs-based fiscally-constrained plans. These requirements compelled the agency to establish a

strong policy requiring the consideration of toll roads for all new limited access roadways constructed in the region. In addition, the policy – originally described in the MPO’s vision section of its long range plan – required the construction of limited access lanes in the center of reconstructed roadways, and agreed not to convert existing free roadways into tollways.

By establishing the policy early on, the MPO became the driver of potential tollway projects in the region, rooted in the need to show fiscal constraint in plans (and in practice, to ensure a new stream of funding for projects).

Michael Morris, transportation director for NCTCOG, described the agency’s history with innovative finance for highway projects. He noted that the agency’s approach works because of its huge size, the area’s rapidly changing demographics and land use characteristics, and transportation needs (NCTCOG serves 16 counties, and has a staff of more than 100).

As a result of the agency’s effectiveness at considering the economic impact of toll roads in its simulation tools and financial plans, the MPO has been tapped as the body to set toll rates for the region for dynamically priced managed lanes. The agency successfully negotiated a project agreement on State Route 121, and has been heavily involved in mediation for other projects.

Morris noted that as the MPO considers pursuing new PPPs – specifically toll roads – it is critical to fit the solution to the problem, not search for candidate projects simply to experiment with this financing method. Moreover, he recommends that relevant agencies ensure that revenues be used for transportation purposes, rather than other public programs or initiatives.

While most of NCTCOG’s innovative finance experience has focused on highways, there is new discussion about user fees (availability payments model with a 50-70 year lease) at a freight rail bottleneck. This discussion has been sparked in large part by freight congestion issues faced by the region. Beyond freight though, the region is considering a passenger rail system funded with 20 percent local funds and 80 percent toll revenues (no Federal funds are to be used).

One of the most significant issues faced by the agency is public concern over the role of foreign companies. There has historically been more opposition to intercity projects, but not as much on regional projects. The MPO compiles and shares detailed information with the public about project concepts, development, and implementation.

The next steps for NCTCOG in terms of its role in PPP projects and innovative finance include conceiving and initiating integrated environmental clearance for projects. According to Morris, environmental clearance remains a public sector responsibility, one that the toll authority and State are not best equipped to carry out. The MPO is uniquely positioned to provide need context for clearance, to consider land use characteristics and implications, and to manage the public involvement process.

2.2 Issues and options for addressing public-private partnerships

2.2.1 *Jurisdictional concerns*

As metropolitan areas grow and change, there are emerging instances of MPOs bordering one another. This can create issues as MPOs seek to identify candidate or potential PPP projects, or carve out a role in existing PPP deals. As one of the primary MPO roles is coordination of dialogue among relevant stakeholders, metropolitan areas with multiple MPOs could benefit from assuming joint coordination responsibilities or designating a single MPO as the primary liaison with stakeholders.

At a 2007 finance summit sponsored by the [Association of Metropolitan Planning Organizations](#) (AMPO), participants noted the important role the MPO plays in facilitating information sharing among concerned parties. At the same time, experts present at the summit identified the potential for “evolutionary changes” in the relationship between MPOs and State DOTs to spark improved information exchange.

2.2.2 *Protecting the public interest*

By transferring risks, saving costs, accessing new sources of capital, encouraging the adoption of innovative technology and generating revenues public private partnerships can create many benefits. However, concern over the protection of the public interest in transportation public private partnership agreements has risen in recent years following the blockbuster Chicago Skyway and Indiana Toll Road agreements.

MPOs can play an important role in protecting the public interest by setting clear guidelines for evaluating PPP alternatives, ensuring transparency, and incorporating consideration of PPPs into the transportation planning processes. A MPO can play a leadership role in communicating to the public an understanding of PPP alternatives. Like NCTCOG, a MPO can leverage its traditional planning role, to create value for both the private and public sector, by mediating interests and facilitating required processes for planning, environmental documentation, and public participation.

Concerns over public private partnerships include:

- Fairness of potential toll increases;
- Undervaluation of transportation facilities by the public sector;
- Allocation of proceeds from long term leases;
- Increased transaction costs placed on the public sector to evaluate proposals and negotiate agreements;
- Loss of public sector control to respond to future transportation needs;
- Lack of transparency and/or the failure to incorporate public input into the process;
- And, Financial tradeoffs and the lack of effective public sector comparators.

The [GAO report](#) on protection of the public interest in PPPs provides several useful case studies, one of which is the Chicago Skyway project. That report focuses almost entirely on toll roads and concessions, and the unique challenges states and cities play in evaluating the differences between privately and publicly funded projects.

Fairness of potential toll increases: While limits on the size and frequency of potential toll raises are usually negotiated with the private partner, the potential for higher tolls on transportation facilities that may have a degree of monopoly power is politically unpopular and can lead to questions of equity and fairness.

Undervaluation of transportation facilities: With the long-term lease of large-scale assets concerns have been raised that the public sector is not receiving adequate compensation. In PPPs, the private sector agrees to take on risk in exchange for potential profits from increased operations and maintenance efficiencies or higher than expected toll revenues. As a result, the valuation of partnership agreements, particularly long term agreements, can vary dramatically depending on basic assumptions of traffic levels, inflation, finance rates, risks, and discount rates. The private sector can potentially achieve windfall profits through refinancing and tax deductions; however, the public sector can negotiate a share of higher than expected profits in the lease agreement.

Allocation of proceeds from long term leases: The use of proceeds from long term leases to meet the short term needs of the state raises issues of generational equity. Chicago used its proceeds to finance various city programs, retire debt and set up a reserve fund. Indiana dedicated much of its lease proceeds to funding its 10-year transportation program. With the long term lease of tolling facilities the public sector is effectively trading future toll revenues for immediate capital. To encourage intergenerational equity proceeds from long-term lease agreements can be used to retire debt or invested in programs or capital projects with long term benefits.

Increased transaction costs: Many state DOT's lack the in-house expertise needed to plan and negotiate complex large-scale public-private partnerships. When hiring legal and financial advisors, state DOT's must be vigilant in detecting and preventing conflicts of interest. Unsolicited proposals from private partners can be particularly difficult for State DOT's to evaluate in a timely and comprehensive manner and they often circumvent planning efforts.

Loss of Public Sector Control: In PPP agreements the public sector always relinquishes a degree of control. Some aspects of PPP agreements in particular can handicap a region's ability to plan and manage its transportation network. "Non-compete clauses", which limit the public sector's ability to enhance adjacent public lanes, can be particularly problematic, and even led to the demise of one early DBOM project, SR-91. Furthermore, by relinquishing control over toll rates, the public sector loses a tool that can be used to manage demand on their highway network. Finally, PPPs may complicate efforts to plan and develop connections to the privately operated facilities.

Lack of Transparency: There are some valid concerns that private sector participation, particularly in Design phases, can undercut transparency and opportunities for public participation in the planning and review of projects.

Public Sector Comparators and Financial Tradeoffs: While in many cases privately financing a project is considered only in the absence of public funding for a project, there are financial tradeoffs that should be considered when comparing private project development to public development. In cases where public sector financing is available for a project being considered for private development it is important to use a public sector comparator to determine the best method of developing a project. A public sector comparator can be developed by extrapolating the life cycle costs, benefits and risks of a comparable publicly financed and operated project. However, given the numerous factors involved in developing comparators, in particular risk assessments and valuations, public sector comparators are difficult to establish with a high degree of certainty.

There are some significant financial tradeoffs to developing a project with private financing. The public sector may forgo considerable income tax revenues, as privately financed projects often benefit significantly from tax deductions as a result of asset depreciation. Despite the existence of tax-exempt private activity bonds, most forms of private financing are not tax-exempt and as a result private financing may be considerably more expensive than publicly financed projects. The public sector may be able to obtain lower interest rates than the private sector, but this is largely because the risks of a project are born by taxpayer. The difference between public and private interest rates may be considered, in part, a reflection of the value of risk transfer to the private sector.

Many factors must be considered in evaluating the merits of a PPP proposal, including:

Quantitative measures such as:

- Cash flow forecasts, which include:
 - Capital costs
 - Toll revenues
 - Operating/Maintenance Costs
 - Financing costs
 - Taxes
- Risk adjustments, including:
 - Design/Construction risks
 - Demand/Usage risks
 - Operation/Maintenance risks
 - Inflation/Financial risks
 - Environmental risks

- Discount rates
- Transaction costs
- Inflation expectations
- Residual value of the asset

Qualitative Measures such as:

- Design quality
- Equity considerations
- Environmental considerations

3 Recommendations

3.1 Incorporating PPPs into scenarios, action packages, and indicators

3.1.1 *Roles for CMAP*

The GoTo2040 process offers CMAP a unique opportunity to establish strategies and action packages for regional development. Transportation finance plays a critical role in regional development, and there is growing interest in identification of alternative finance methods that CMAP may consider, promote, or discourage.

Illinois' lack of PPP enabling legislation provides the context for any role CMAP may play. The approach seen in north Texas, for example, may not be as viable in the Chicago-region as it may be premature to require that local governments consider a privately-financed option for highway projects. However, policy and vision statements that identify the value of considering PPP options of any type – from design-build to privatization – can be a useful starting point for CMAP as it develops regional scenarios.

At a recent workshop organized by the National Council for Public Private Partnerships, participants discussed the role of PPPs in financing new transit systems and transit system expansion. It was noted that lack of political support and an inappropriate definition of risk or ability to allocate risk limited the amount of private equity that could be leveraged for these projects.

Effectively determining or assessing risk can be a role played by CMAP as candidate projects emerge. For example, the new Chicago-area airport project may result in positive value if developed as a PPP, but assessing the risk to the public sector will be critical. Risk transfer through a PPP model at *any* cost is not desirable or feasible. Rather, determining positive “value for money” is a crucial analysis for any entity considering entering into an agreement or supporting an agreement. This value for money type analysis supports a strategy that seeks to achieve long term savings. One

example of a risk transfer that extends beyond merely cost or financial risk is the Port of Miami Tunnel. That project as designed required the use of highly specialized boring equipment and complex technologies that were not yet available to the public entity. In order for the public sector to pursue the development of the project using such sophisticated machinery, it had to leverage private investment and transfer the technology risk to the private sector.

According to Malcolm MacIntyre of the investment firm [Babcock & Brown](#), PPPs should not be viewed solely as a solution to lack of funds, or as a way of raising capital. Rather, an agency should review the long-term value of the partnership, both from a financial perspective but also from an overall development perspective (which includes impacts on transportation and land-use, equity issues, impacts on publicly held assets, etc.). Similarly, several transportation finance specialists and consultants have indicated that use of PPP should be more than simply a ‘gap filler’ but that projects should be selected and evaluated in a rational way. CMAP can play a key role in assisting local governments (and possibly in the future, IDOT) in performing a more comprehensive value for money analysis, as a complement to a limited financial analysis that may be performed.

Filling gaps in the PPP dialogue

CMAP has an opportunity to fill several gaps in the PPP dialogue, but the agency must have some clarity on whether that role is in establishing policy, performing value for money analyses, identifying candidate projects, or working with IDOT to advocate for state-level enabling legislation. The [Association for Metropolitan Planning Organizations \(AMPO\)](#) has spent some time convening dialogue about the role of MPOs in PPPs, and identified several important considerations and opportunities to move forward.

In its research, AMPO and its partners point out that MPOs can sometimes (correctly) be viewed as impediments to PPP deals, especially complex agreement involving leading or ownership clauses. In these cases, the MPO can support the private sector with financial analyses, NEPA assessments, or feasibility analyses.

Conversations about PPPs often center on leasing or privatization. As a regional planning agency, it will be important for CMAP to develop an understanding of the range or types of agreements that can be implemented to leverage private investment that go beyond what the public sometimes considers the “sale of assets.” As mentioned, PPPs should not be viewed solely as sources of revenue, or with the limited lens of long-term lease. There are a variety of models that can be employed to shift some risk to the private sector, leverage private dollars (or technology or other assets), speed up construction schedules, and deliver value to the public. CMAP can provide value to other public, state, local, and private players by being an objective and vocal party that is willing to assess and evaluate potential candidate projects and finance models.

Building internal capacity through research and technical assistance

There are many technical assistance resources available through Federal agencies and national associations. Many of these resources include case studies, research reports, and project assessments. However, written materials are only one method of learning. CMAP staff may benefit from attending workshops and events hosted by national associations (like NCPPP or AMPO) that focus on the use of PPPs in highway, transit, and other projects.

The Federal Highway Administration's Resource Center (with offices throughout the US, and innovative finance specialists in Atlanta, Baltimore, San Francisco and other cities) can provide targeted assistance on evaluation of innovative finance methods. CMAP staff may be interested in working with FHWA Division Office staff to secure technical assistance resources from the FHWA Resource Center.

Moving forward, CMAP can play a key role in reaching out to some of the MPOs referenced in the paper, or by reaching out to AMPO, to continue to have small group dialogue on a regular basis with other MPOs whose strategies and approaches towards PPPs are evolving. MPOs representing major cities with a rich mix of transportation assets (air, rail, transit, and highway) may have helpful insights for the CMAP experience.

4 Further Research

Exploring PPP models for modes other than highways and transit

This paper includes information on PPP models for highway, transit, and some rail projects. However, there may be some interest in pursuing research on PPPs for specific projects, like the airport or maritime ports/ferry services. Most important is that while general research can be undertaken on PPPs, each project is different, and determining the value of each project to the Chicago region will happen on a case-by-case basis. As CMAP moves forward to take on a particular role in the PPP dialogue – whether that role is in establishing policy, performing value for money analyses, identifying candidate projects, or working with IDOT to advocate for state-level enabling legislation – further research topics may emerge as valuable.

Appendix: Information Sources

1. [“FDOT Selects French-led Team for Port Tunnel,”](#) Florida Transportation Monthly, June 2007.
2. FHWA’s Public Private Partnerships [Web site](#)
3. Las Vegas Monorail Corporation, www.lvmonorail.com
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7. North Central Texas Council of Governments, www.nctcog.org
8. Ohene, Fred, Assistant General Manager Regional Transportation Commission of Clark County - Las Vegas, Nevada, May 2008 (interview)
9. Port of Miami Tunnel project, www.portofmiamitunnel.com
10. Prieto, Bob, [“Availability Payment Structures in Public Private Rail Partnerships,”](#) MassTransit Magazine Forums, October 2007 (<http://www.masstransitmag.com>)
11. Strong, Kelly, [“Performance Effectiveness of Design-Build, Lane Rental, and A + B Contracting Techniques,”](#) Center for Transportation Research and Education at Iowa State University
12. U.S. Department of Transportation, Federal Highway Administration, [“Report to Congress on Public-Private Partnerships.”](#) 2004