
Overview
Current Funding
Los Angeles Metro
& Public-Private
Partnerships
SLA Transportation Division
Matthew Barrett
Prezi

General Transportation Innovation Research Committee

Los Angeles Metro & Public-Private Partnerships

Metro Transportation Library

SLA Transportation Division
Since 1943

Matthew Barrett

June 9, 2013

Overview

- Current funding situation
- What is a PPP?
- U.S. PPP Programs
- International practices in PPPs
- PPPs at Metro
- Creating PPP information resources
- Conclusion

Resources:

HRP2

Prezi

Current

Gas Tax

18.4 cents per gallon

Problems

- Pricing per gallon
- Fuel efficient vehicles
- Decrease in automobile travel
- Has not increased since 1993

Solutions

- Pricing based on vehicle miles
- Tolling
- Other tax strategies
- PPPs

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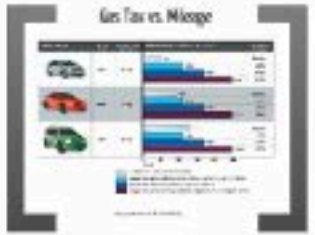

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Gas Tax vs. Mileage

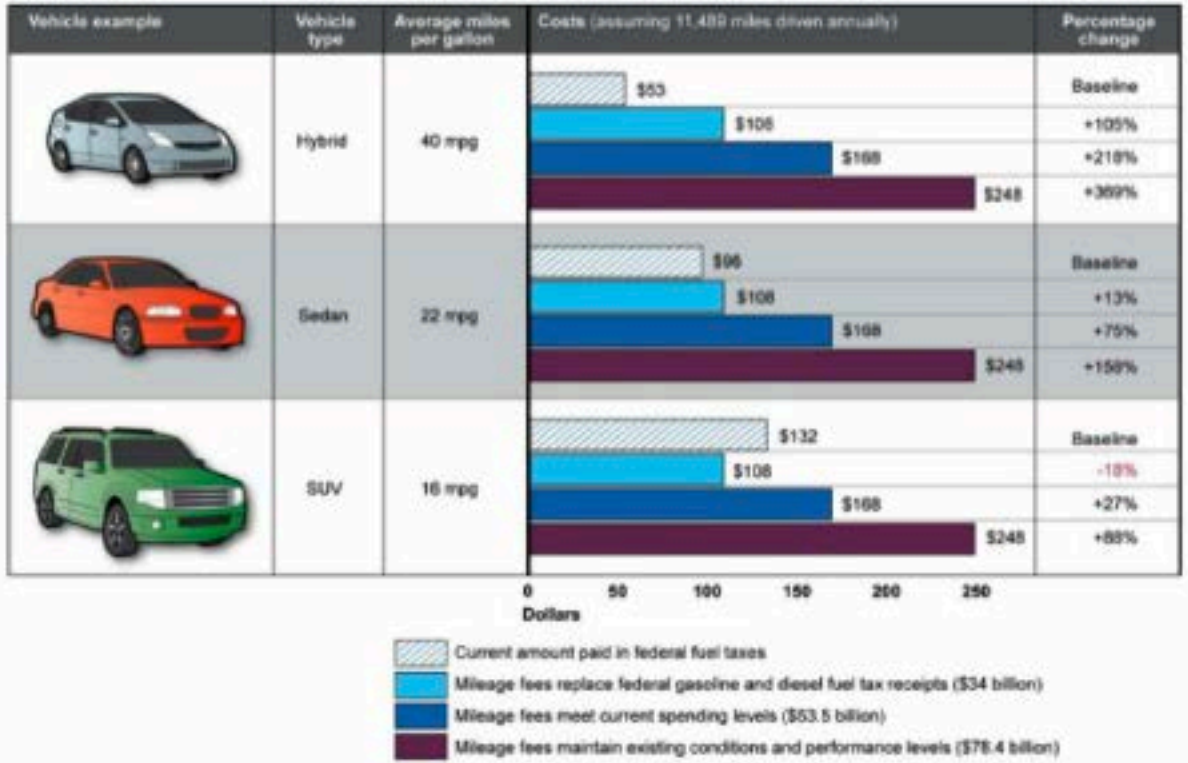
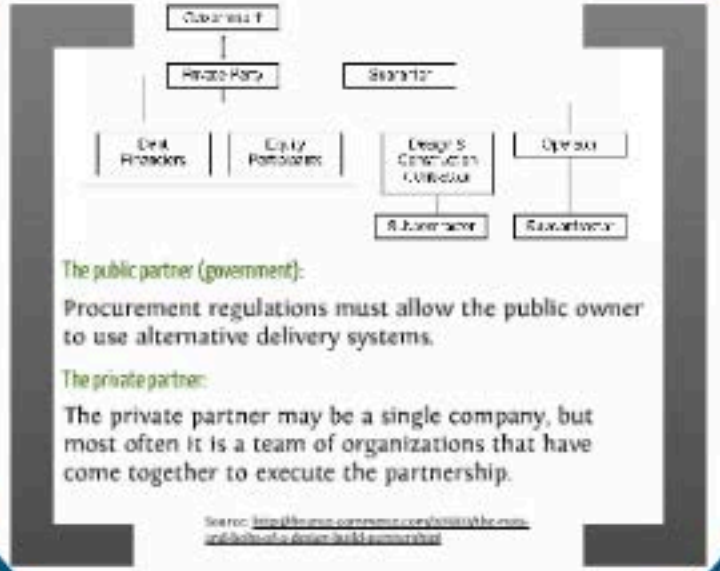


Image courtesy of DC Streetsblog

Can PPPs offer a solution?

- PPPs have enabled 10 - 20% of government infrastructure worldwide
- Successful PPPs all over the world
- FTA estimates funding shortfall of $14.8 billion annually
- The U.S. has under-invested in transportation and infrastructure over the past 15 years

What is a PPP?



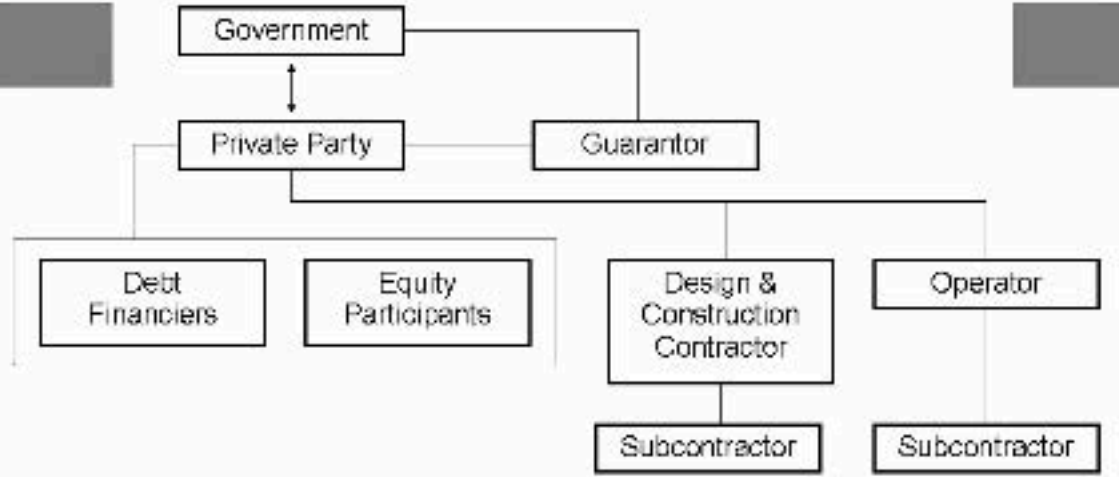
The public partner (government):

Procurement regulations must allow the public owner to use alternative delivery systems.

The private partner:

The private partner may be a single company, but most often it is a team of organizations that have come together to execute the partnership.

Source:



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Source: http://finance-commerce.com/2011/02/the-nuts-and-bolts-of-a-design-build-partnership/

Roles and Responsibilities

Public Partner – Project development risk

- Overall policies and control
- Environmental process and clearance
- Stakeholder support
- Political commitment
- Funding sources

Private Partner – Project implementation risk

Financing
Design and construction
Facility operation/maintenance/ management

Design-Build Models

Risk continuum:

Design-build projects by state in 2003:

Risk continuum:

Private RISK/CONTROL Public

Development	Delivery	Operations	Maintenance	Finance	
Public	D-B-B	Public	Public	Public	Design-Bid-Build (D-B-B)
Public	D-B-B	Private	Public	Public	Private Contract Fee Services
Public	D-B-B	Private	Private	Public	
Public	D-B	Public	Public	Public	Design-Build (D-B)
Public	D-B	Private	Private	Public	Build-Operate-Transfer
Public-Private	D-B	Private	Private	Public-Private	Long-term Lease Agreement
Private	D-B	Private	Private	Private	Build-Own-Operate

Design-build projects by state in 2003:

U.S. PPPs

Early US PPPs:

- Gained attention in the 1990s
- E-470 Toll Road in Colorado
- AB 680, California's 1989 legislation: concessions under Design-Build-Finance-Operate-Maintain Model.
- Chicago Skyway and the Indiana Toll Road

Successful US PPPs:

- Virginia Initiatives
- Texas Projects
- Florida Port of Miami Tunnel

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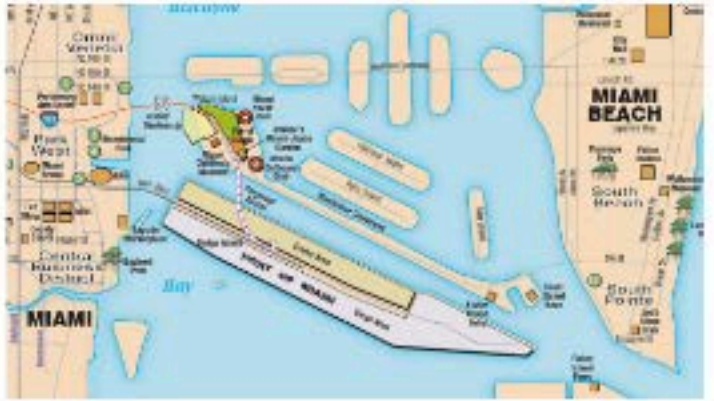

International Practices

Project Selection:

- Identification: Candidate projects are identified according to requirements.
- Assessment: Public-Sector Comparator (VSC) and conducting a Value-for-Money (VFM).
- Market Preparation:
  - Demonstrate feasibility through an "illustrative design"
  - Statutory requirements, such as environmental permits
  - Site surveys
  - Preparing rights-of-way acquisition
  - Starting on stake-holder agreements
  - Maintaining a risk register

East Croydon Bridge, London, UK

Successful

- Virginia
- Texas P
- Florida

Miami

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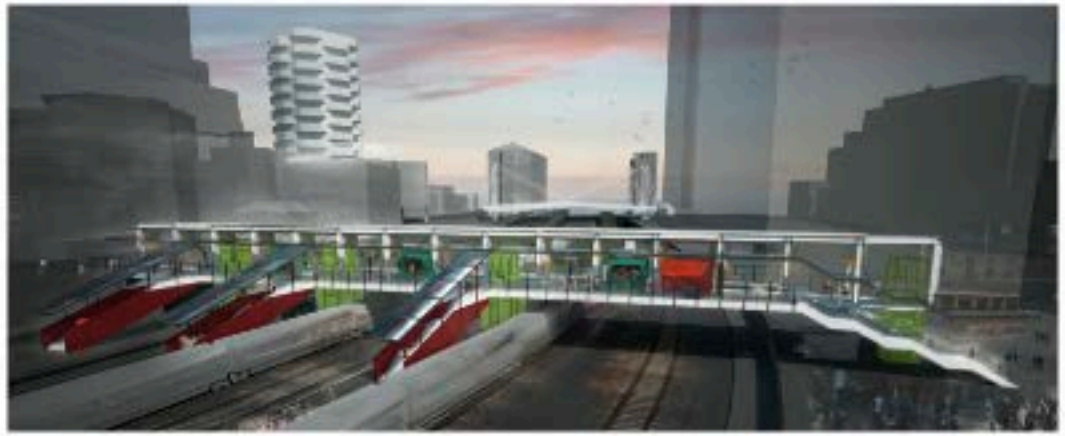

International Practices

Revenue Transfer Mechanisms

- Real Tolls: User fees which can make revenue risk difficult to predict.
- Demand Risk Sharing: Bidders propose boundaries, the government sets a threshold.
- Variable Length Concessions: Contract ends when certain financial targets are met.
- Upside Sharing Provisions: If expected revenues are not met, private investors bear the consequences.
- Direct Payments: Government pays the PPP contractor periodically as milestones are met.

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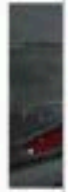

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International Practices

Contracts

- Modifications: Because PPP contracts are generally long-term, a robust modification protocol is needed to deal with potential changes.

Management:

- Contracts range from 25 - 50 years
- In the UK the Department's Representative (DR) has three main roles:
  - Performance monitoring
  - Financial monitoring
  - Contract administration

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International Practices

Adapting International Practice

- Normalizing Procurement: Aids in maintaining a level playing field and foster accountability and transparency during implementation.
- Selecting Projects: Adopt a policy for handling unsolicited proposals.
- Managing Revenue: Question of whether the public sector should transfer the revenue risk fully to a private entity.
- Managing Contracts: The robustness of a contract is critical, no contract can cover every contingency. Must he malleable.

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EuroPPP
Rail Transport

PPPs at Los Angeles Metro

Metro P3 Program Objectives

- Accelerating project delivery
- Reducing costs through contracting and construction efficiencies
- Allocating risk effectively: design, finance, construction and operation
- Reducing lifecycle/O&M costs through productivity improvements
- Leveraging local revenue and federal funds
- Creating regional jobs

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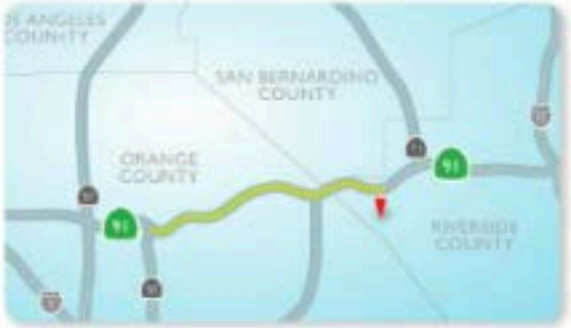
Program Approach

Projects with greatest likelihood of success for private participation:

- Clearly defined, environmentally cleared, high-priority projects with demonstrated public sector commitment
- Equitable and effective risk allocation
- Transparent, well-defined procurement process, with early initiation where feasible
- Programmatic/portfolio approach to P3s



Source: 91expresslanes.com

Focus on Project Life-Cycle

Achieve accelerated project delivery
- Project activities in "parallel"

Ensure project quality throughout life cycle
- Private financial participation ("skin in the game")

Reduce risks
- Eliminate/lessen risk of project cost overruns/change orders
- Reduce public sector risks by strengthening project interfaces

Complement federal funding

Achieve cost savings
- Operations - performance-related concessions and system availability-based contracting
- Capital - design and construction efficiencies

Enhance cash flows
- Private financing mechanisms
- Leverage Measure R revenues and other public funding sources

Utilize new funding sources
- Value creation and user revenue streams (e.g., transit-oriented development, road tolls)

Sector Roles/Responsibilities

Public Partner – Project development risk

- Overall policies and control
- Environmental process and clearance
- Stakeholder support
- Political commitment
- Funding sources

Private Partner – Project implementation risk

- Financing
- Design and construction
- Facility operation/maintenance/management

Source: Metro.net

Free Money?

Most projects need public funding support in addition to user-based revenue to repay equity and debt

PPPs are a financing and procurement approach – not a substitute for funding

- May increase finance capacity by accessing new private capital sources, and may reduce costs
- Public sector still has to identify a source of revenue

Source: Metro.net, Expo Line opening

Financing Approach

- Partner with private sector
- Share risks and rewards
- Utilize private financial sources for equity and debt to finance construction
- Establish private investment and debt service for repayment as "availability payment", based on availability of facility

Source: Metro.net, Crenshaw/LAX Transit Corridor

PROGRAM DEVELOPMENT

- Los Angeles Metro Board adopted PPP Framework and Work plan
- Set the stage for identifying PPP candidates in 2009 LRTP and Measure R program
  - Authorized procurement of PPP consultant team, InfraConsult, LLC with subs:
    - KPMG, LLP, Nossaman LLP, HDR Inc., and Sharon Greene + Associates

Source: Metro.net, Measure R Projects

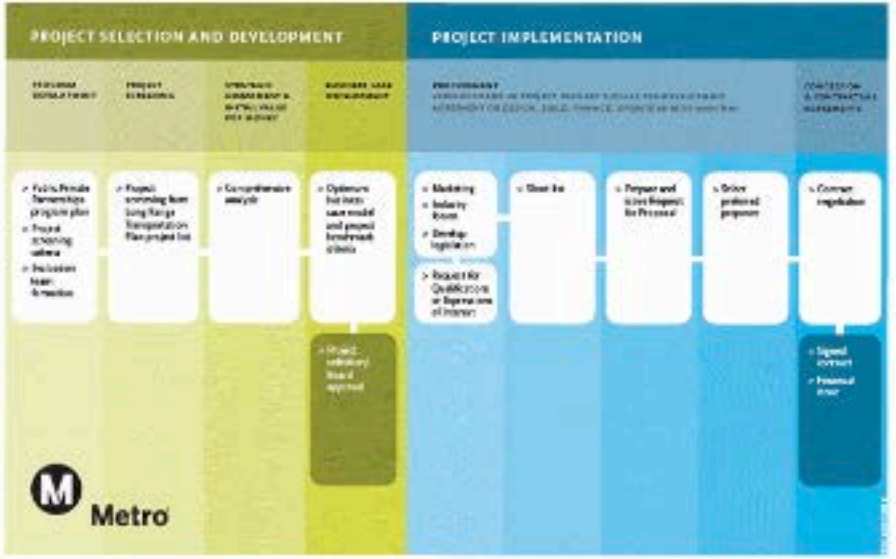
Project Development Process

Source: Metro.net, Sepulveda Corridor Project

PPP Project Evaluation

PPP potential evaluation is step by step process. Move on to next step if current effort shows positive results:

- Initial project screening
- Strategic assessments
- Business plan development
- PPP procurement processes
- PPP project delivery
- Project management



Source: Metro.net

Project Delivery Determination

- Strategic analysis and business case development precede decision
- Capital costs, O&M costs, lifecycle performance and public funding are integral elements in delivery assessment
- Calculation of value-for-money between public (traditional) delivery and proposed PPP delivery is required
- Which approach provides best value?

Source: Metro.net

Procurement Approach

Delivery decision: D/B, DBF, DBFO, DBFM, DBFOM

- If concession includes maintenance, private partners have incentives to design and build sustainable construction and service model
- If private partner also operates the facility/service, maximum efficiencies are introduced

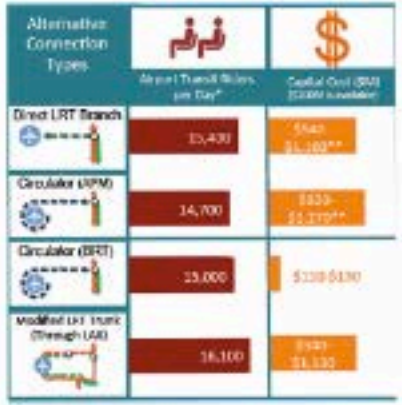
Source: AECOM, Eastside Goldline Extension

Availability Payment Model

- May be used for all projects, including those with insufficient user-based revenue (i.e. tolls) to cover capital and O&M costs, but have sufficient public funding sources to cover project funding gaps

- Allows long-term leveraging of public funds and user-based revenues to accelerate delivery

- Consolidates benefits of integrated
- project design, construction, operation and maintenance, realizing life-cycle cost savings



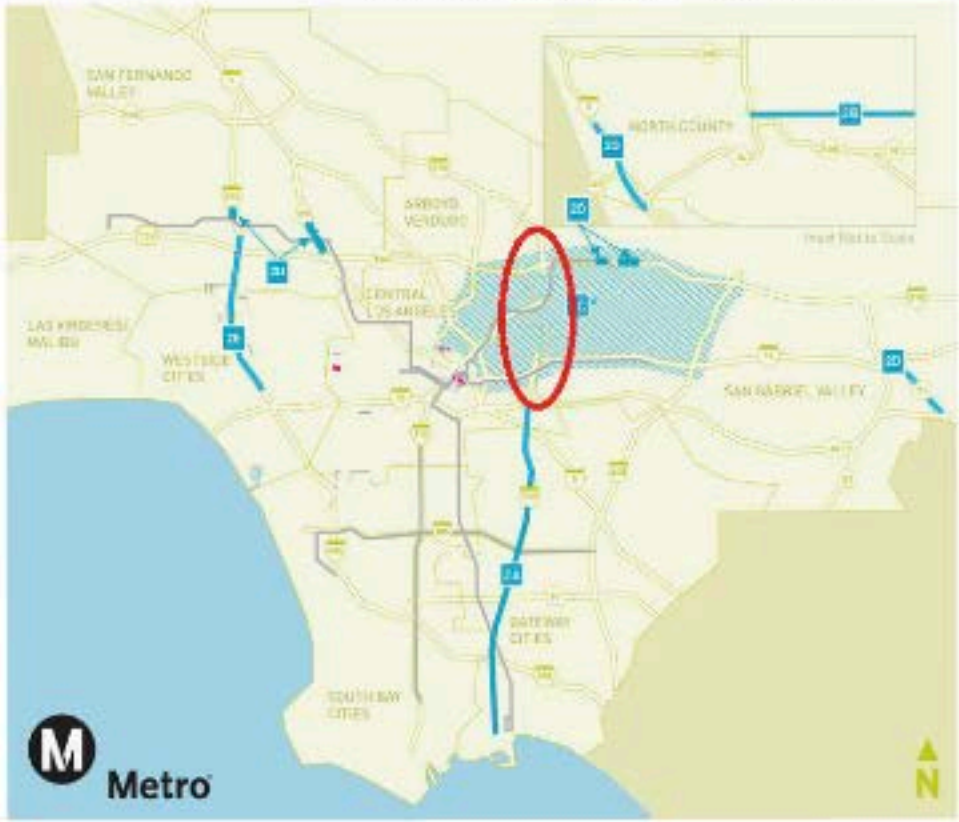
Source: Metro.net, Public-Private Partnerships

Revenue Risk/Concession Model

- Used when revenue (tolls or other user-based fees) are projected to be sufficient to cover most or all project costs
- Public subsidy may not be necessary
- Concessionaire accepts actual toll revenue stream (risk) as sufficient to:
  - Build, operate and maintain the project
  - Provide reasonable return on investment for equity investors
  - Provide repayment of debt services on borrowed funds

Source: Orange County Transportation Authority

Metro's Potential PPP Candidates



Accelerated Regional Transportation Improvements (ARTI)

Source: Metro.net, Public-Private Partnerships

ARTI – Six Elements

Project Location	Project Scope	Length (miles)
I-5 North Capacity Enhancements from SR-14 to Parker Road	Add one carpool lane in each direction from SR-14 to Parker Road in Santa Clarita	13.5
I-5 North Pavement Rehabilitation	Repaving general purposes lanes from SR-14 to Parker Road in Santa Clarita	13.5
SR-71 Gap Closure from I-10 to Mission Boulevard	Add one carpool and one general purpose lane in each direction from I-10 to Mission Boulevard in Pomona	1.7
SR-71 Gap Closure from Mission Boulevard to Rio Rancho Road	Add one carpool and one general purpose lane in each direction from Mission to Rio Rancho Road in Pomona	2.6
Soundwall Package 10	Construction soundwalls at various locations along I-210 in Arcadia and Pasadena	3.8
Soundwall Package 11	Construct soundwalls at various locations along SR-170 between SR-134 and Sherman Way, and I-405 in the vicinity of Stagg Street in Los Angeles	5.5

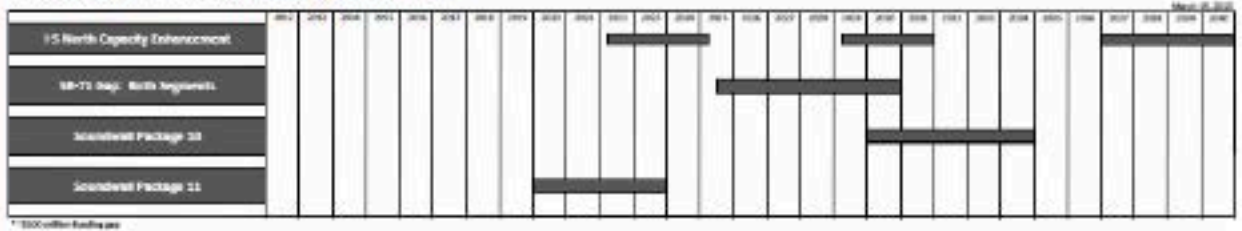
Source: Metro.net, Public-Private Partnerships

ARTI as Public-Private Partnership

Item #16

ARTI PROJECT ELEMENTS DELIVERY SCHEDULE COMPARISON

Forecasted Construction Schedule if Delivered as Currently Planned in LRTP



Forecasted Construction Schedule if Delivered as a Bundle Using Public-Private Partnership

Source: Metro.net, Public-Private Partnerships

High Speed Rail Regional Setting

High Desert Multipurpose Corridor

NEW 63-mile east west corridor from SR-14 past I-15 to SR-18
    50-mile Freeway/Toll facility
NEW High Speed Passenger Rail from:
    Existing Metrolink Station in Palmdale to XpressWest Station in Victorville
One seat high speed ride from LAUS to Palmdale could make highway toll facility and rail facility self-financing and self-supporting as $6.5 billion Public-Private Partnership concession

I-710 South Corridor

- Public-Private Partnership delivery of freight corridor – $2.5 billion
- Additional strategic analysis needed to understand tolling implications of zero-emission trucks
- Coordination with California Department of Transportation

SR 710 North Gap

Project assumption for P3 analysis is twin 57' diameter deep bore tunnels, approximately 21,000' long

- Four lanes each direction
- Phased construction possible
- Tolling and P3 delivery

appear to provide adequate funding for $5.5 billion project

Sepulveda Pass Transit Corridor

Possible rail and tollway connection between the San Fernando Valley and Westside

Consider LAX/Airport Connector

Likely mega-concession with full revenue risk transfer to concessionaire

Estimated cost preliminarily $5 billion to $15 billion

Estimated revenue could leverage the development of a project in the range of $10 billion in capital cost

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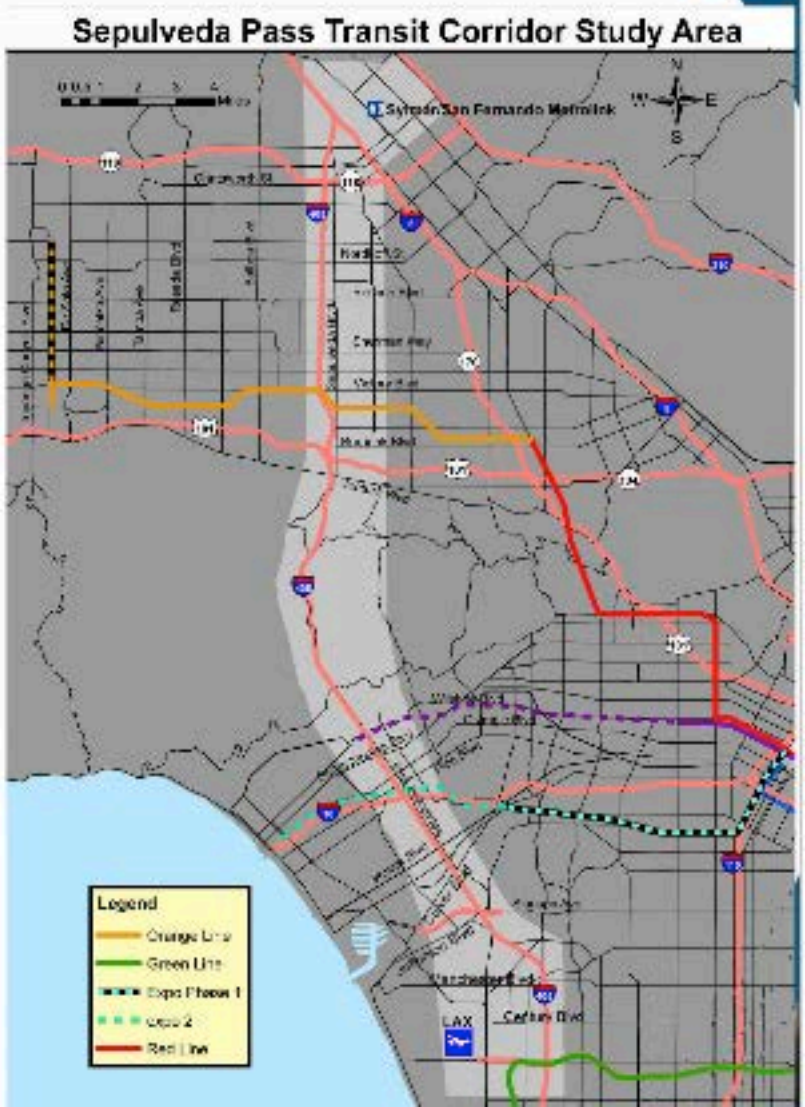

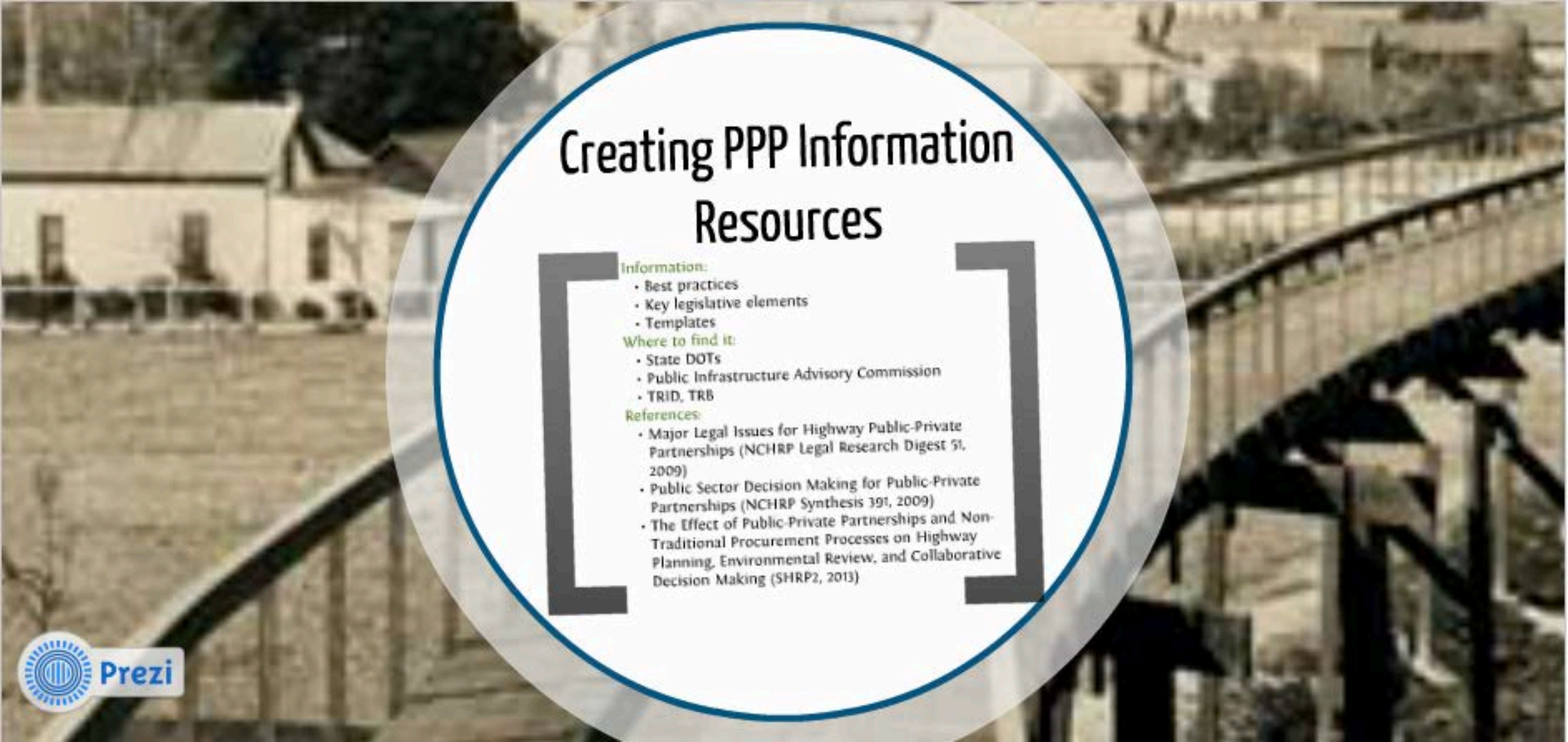
Creating PPP Information Resources
Information:
• Best practices
• Key legislative elements
• Templates
Where to find it:
• State DOTs
• Public Infrastructure Advisory Commission
• TRID, TRB
References:
• Major Legal Issues for Highway Public-Private Partnerships (NCHRP Legal Research Digest 51, 2009)
• Public Sector Decision Making for Public-Private Partnerships (NCHRP Synthesis 391, 2009)
• The Effect of Public-Private Partnerships and Non-Traditional Procurement Processes on Highway Planning, Environmental Review, and Collaborative Decision Making (SHRP2, 2013)

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PPP Information Resources:

TRB, TRID

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Publications > Blurbs > TR News May-June 2011: Public–Private Partnerships: Filling Funding Gaps for Infrastructure

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TR News May-June 2011: Public–Private Partnerships: Filling Funding Gaps for Infrastructure

The May-June 2011 TR News explores issues related to public–private partnerships by examining how the model might help meet an agency's challenge to deliver transportation projects; the variety of arrangements to select from for projects; how to ensure value from the arrangements; ways to protect the public interest in long-term concessions; the appropriateness to U.S. contexts; how the model has worked in Europe; and more.

The May-June 2011 issue of TR News includes the following articles:

- Public–Private Partnerships for Transportation: Filling Funding Gaps for Infrastructure
- Challenges Mount for Traditional Transportation Funding: Are Public–Private Partnerships a U.S. Solution?
- International Practices in Public–Private Partnerships: Synthesis and Discussion
- Value from Public–Private Partnerships: Balancing Prescriptive and Performance Specifications from Design to Handback
- Selecting Public–Private Partnerships for Transportation Projects: From Episodic to Programmatic Public-Sector Decision Making
- Protecting the Public Interest in Long-Term Highway Concessions
- Research Pays Off: Warm-Mix Asphalt Heating Up in Virginia

The TR News is TRB's bimonthly magazine featuring timely articles on innovative and state-of-the-art research and practice in all modes of transportation. It also includes brief news items of interest to the transportation community, research pays off articles, profiles of transportation professionals, workshop and conference announcements, new book notices, and news of TRB activities. Submissions of

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SYNTHESIS 391

Public Sector Decision Making for Public–Private Partnerships

A Synthesis of Highway Practice

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

January 2009

NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

Legal Research Digest 51

MAJOR LEGAL ISSUES FOR HIGHWAY PUBLIC-PRIVATE PARTNERSHIPS

This report was prepared under NCHRP Project 20-6, "Legal Problems Arising Out of Highway Programs," for which the Transportation Research Board is the agency coordinating the research. The report was prepared by Edward Fishman, Esquire, Kirkpatrick & Lockhart Preston Gates Ellis LLP; James B. McDaniel, TRB Counsel for Legal Research Projects, was the principal investigator and content editor.

CONTENTS

The Problem and Its Solution

State highway departments and transportation agencies have a continuing need to keep abreast of operating practices and legal elements of specific problems in highway law. This report is a new paper, which continues NCHRP's policy of keeping departments up-to-date on laws that will affect their operations.

Applications

The amount of public funding available to state and local transportation agencies has failed to keep up with the increasing need to invest in highway construction, operation, and maintenance projects. Governmental agencies are constantly searching for ways to fund or facilitate highway construction projects. Public-private partnerships are viewed as one way to increase the availability of funds.

Congress has established a number of programs that authorize the use of tolling, pricing, and public-private partnerships on Federal-aid highways. Moreover, the U.S. Department of Transportation (USDOT) has promoted public-private partnerships as a significant tool available to state and local highway agencies for supplementing public funding for infrastructure and reducing traffic congestion. In light of the foregoing, there is a widespread expectation that the use of public-private partnerships in the U.S. highway sector will increase substantially in the next few years.

Common legal issues are associated with the implementation of public-private highways. As of July 2008, 23 states have legislation authorizing public-private partnerships. Many states do not have legislation authorizing the use of non-traditional project delivery methods for highway projects. Although the use of toll and other pricing revenues is a common way to finance private participation in highway projects, there remain significant restrictions under federal and state law on the ability to implement such direct user fees in particular circumstances. Other potential legal issues arise out of limitations on public and private financing methods, environmental review requirements, labor and employment laws, and public procurement standards. Project risks must also be allocated between the public and private sectors in the public-private partnership agreement.

This digest is designed to provide a broad overview of the major legal issues that are likely to arise in the implementation of public-private partnerships in the U.S. highway sector. It should be helpful to transportation administrators, attorneys, planners, financial officials, and the private transportation investment community.

Procurement Processes on Highway Planning, Environmental Review, and Collaborative Decision Making

PREPUBLICATION DRAFT • NOT EDITED

SHRP 2
STRATEGIC HIGHWAY RESEARCH PROGRAM

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