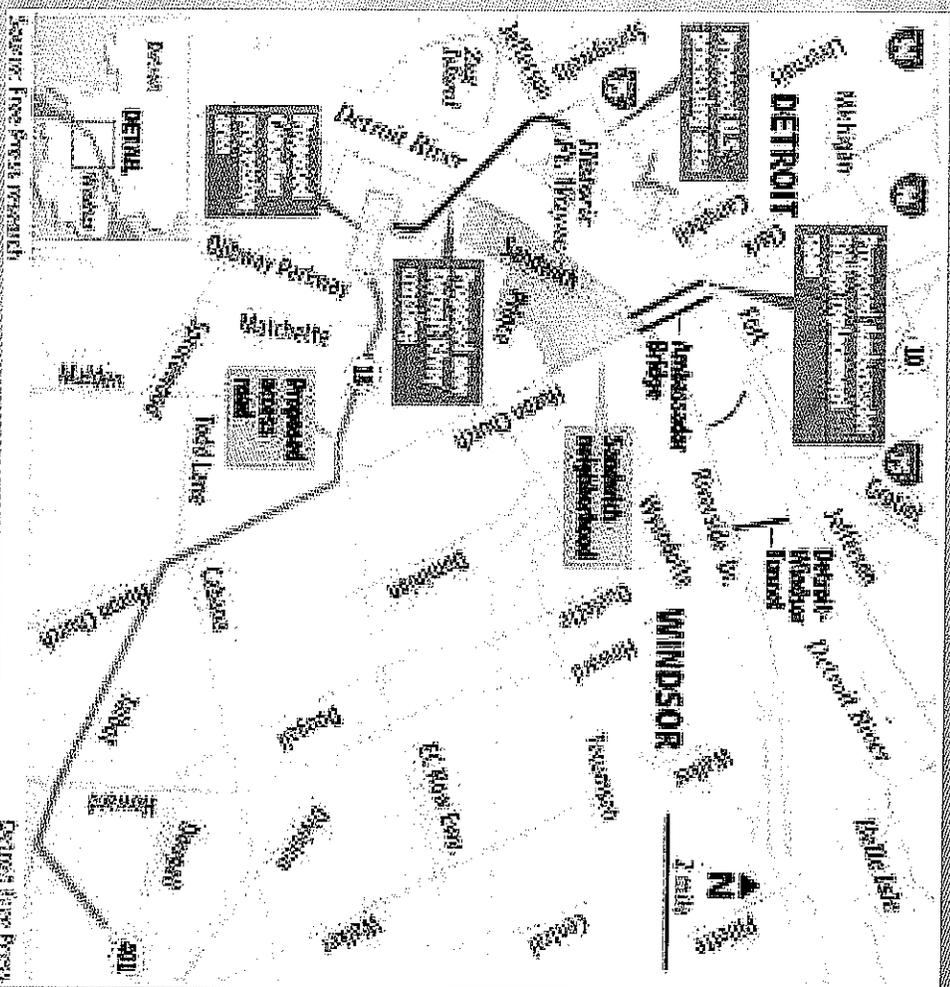


Partnership for the Toll Crossing

Discussion Materials



What is a Public Private Partnership?

A Public Private Partnership involves the public and private sector partnering to share the risks and rewards of services traditionally delivered by the public sector

Effective P3s are structured to optimize public agency objectives:

- Transparency and public awareness
- Prioritization of Objectives
- Quantitative Value for Money
- Identification of qualitative measures of suitability (legal/legislative authority, public protections, etc.) to supplement analysis
- Public agency retention of asset control, through binding specification of performance requirements and standards
- Contract mechanisms to ensure long-term standards are achieved, including financial and specific performance penalties

What has driven the development of innovative project delivery, including Public Private Partnerships?

Mounting public sector challenges

- Aging infrastructure
- Growing population in urban centers
- High service level expectations
- Construction cost increases
- Budgetary constraints
- Slowing revenue growth
- Resistance to tax increases
- Cost overruns and project delays under traditional procurements

Potential value of P3s

- Leveraging limited public capital
- Affordability
- Value for money (cost and time savings)
- Whole-life costing
- Single “tool in the toolbox”
- Output/outcome driven solution
- Risk sharing
- Innovation
- Competition

Common Characteristics of P3s

Multi-employer relationships	Long-term contracting	Performance- based contracts	Innovation
Expansive scope	Wholesale bidding	Competition	Greater leveraging of public funds
Tests contractors and finances delivery	Affordability	Valuation of money	Complex construction

Revenue Concession

Life cycle risk transfer to the private sector

- Comprehensive risks of design, construction, revenue, finance, operations, maintenance and capital renewal
- May include capacity expansion responsibility

CONTRACTOR RESPONSIBILITY

- Rate setting
- Operational and performance standards

OPERATIONAL RESPONSIBILITY

- Upfront payment
- Revenue Sharing
- Unplanned refinancing
- Excess revenue

Procurement

Public Private Partnerships in Context

TRADITIONAL DELIVERY

Each phase procured separately through a succession of discrete contracts. Facility design is completed prior to tendering construction, which is generally accomplished through multiple contracts; maintenance and operations self-performed or separately contracted

Execution-based contracts, in which the public owner specifies the specific details of contract obligations

Monthly payments to contractors based on percentage of contract work completed

Public funding and financing used to pay project costs

Project stewardship resides with the public sector. Overall responsibility for project execution, recurring operations and maintenance, and long-term (lifecycle) costs rests with the public sector

PUBLIC-PRIVATE PARTNERSHIP

Integration of two or more phases of a project from design, construction, operations and facilities maintenance services, under a single contract

Output-based contracts, in which deliverables are specified in terms of the outputs, leaving the private sector partner to offer the best solution for meeting the output specifications

Construction completion risk transferred, whereby the private firm is only compensated upon construction completion or for achieving pre-defined milestones

Private financing responsibility, in which a substantial share of the project is financed through project-specific debt and equity

Private sector project responsibility, whereby overall risk of performance is transferred to the private partner, in keeping with public sector priorities and objectives identified up-front

Typical P3 Financing Structure

Traditional Funding

Capital Structure

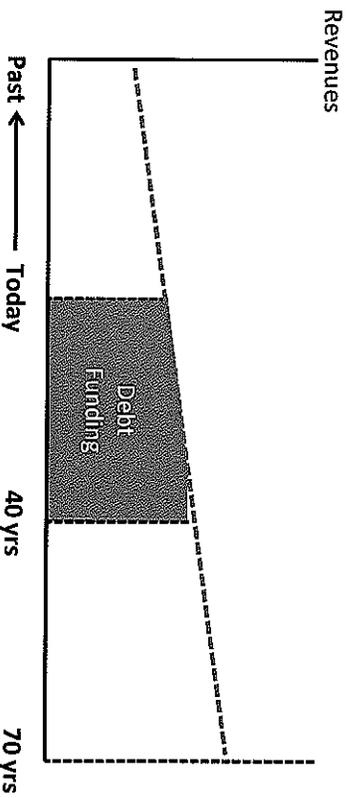
- 100% debt financed
- General Obligation Bonds
- Tax Backed Revenue Bonds
- Tax Increment Financing

PPP Funding

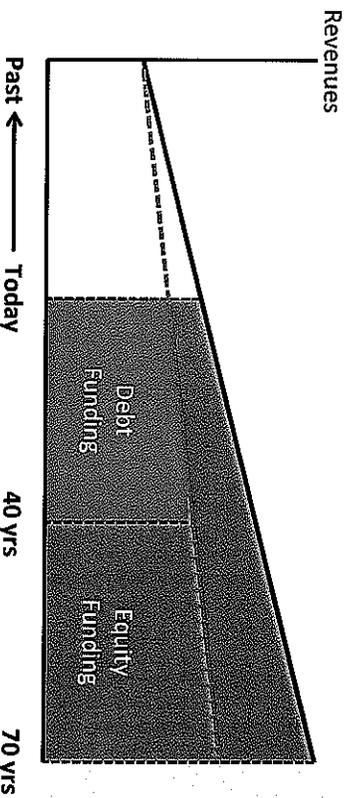
Capital Structure a mix of

- Senior and Subordinate/Mezzanine Debt
 - Equity
- Debt may consist of
- Bonds (PABs, Taxable Bonds, etc.)
 - TIFIA Loan
 - Railroad Rehabilitation & Improvement Financing ("RRIF")
 - Bank Debt

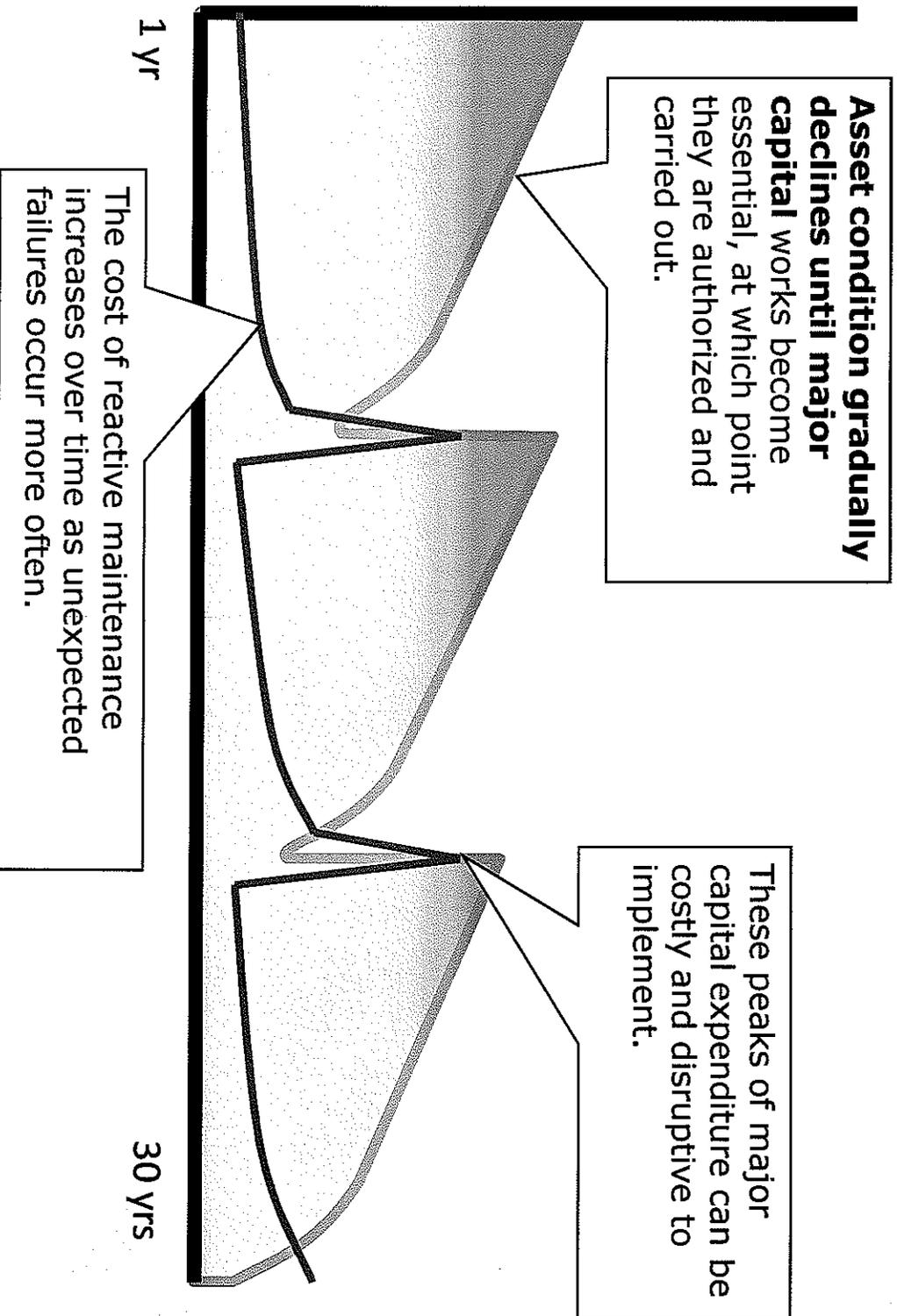
Traditional Structure



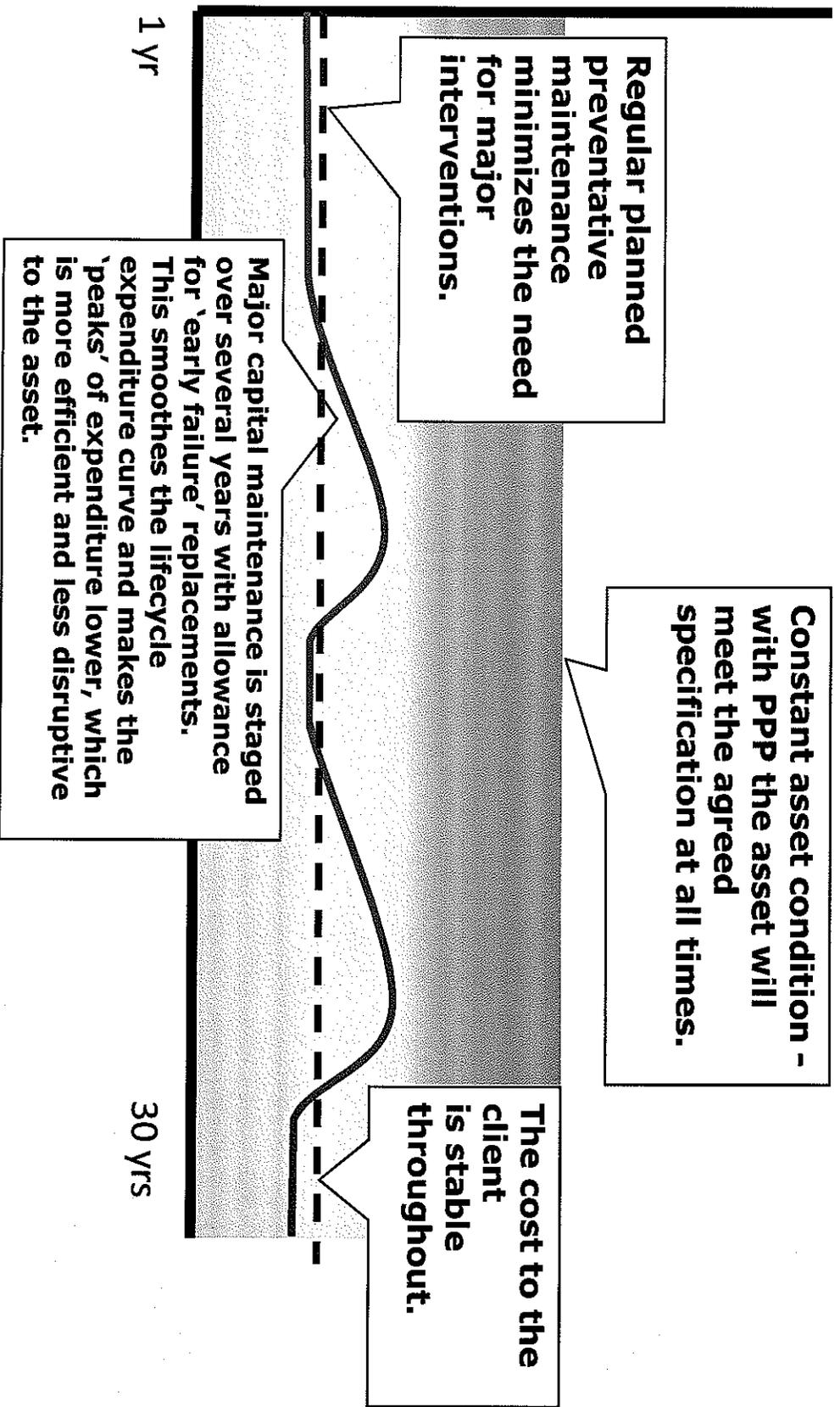
Alternative Structure

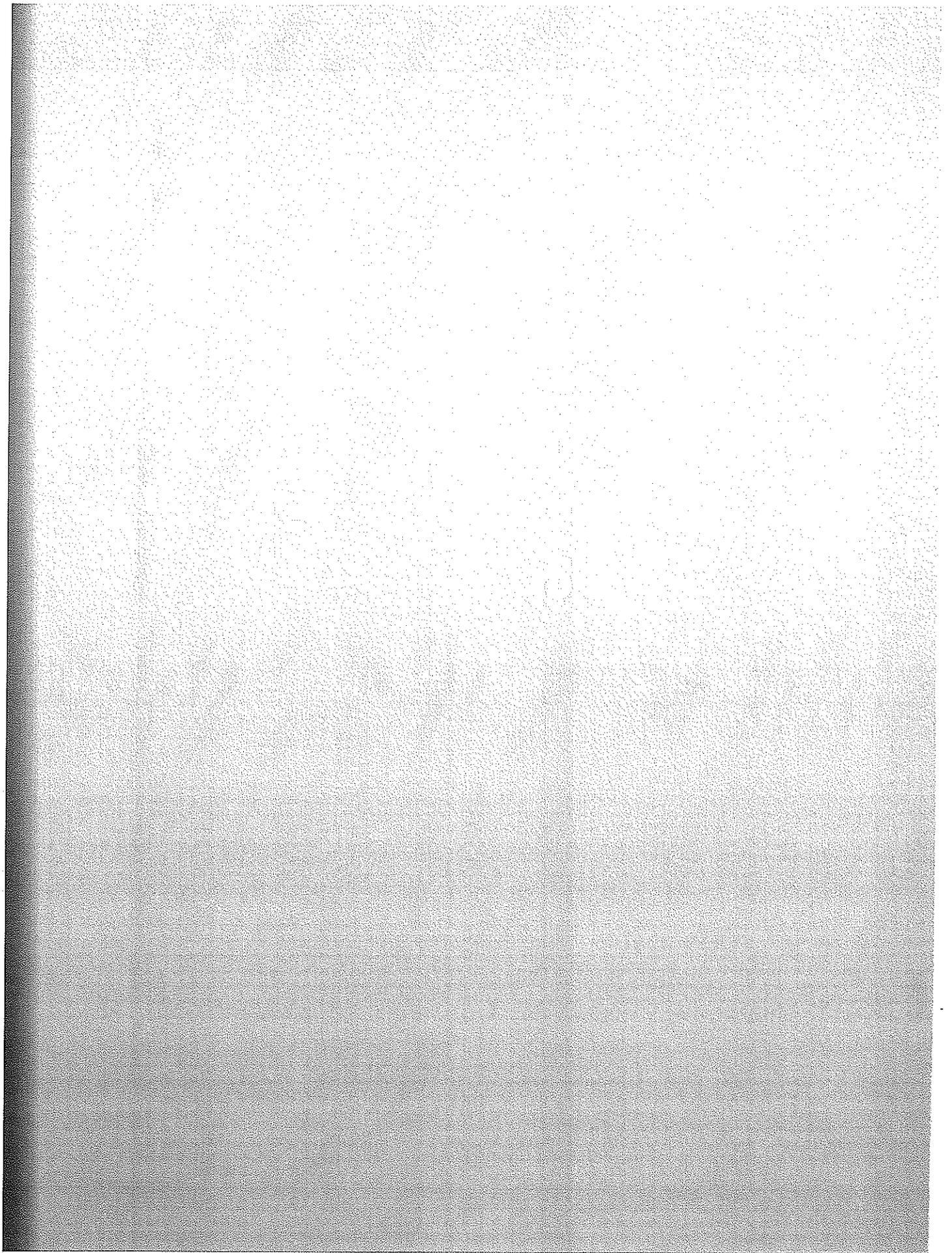


A Conventional Lifecycle Profile



A PPP Lifecycle Profile





Common Public Sector PPP Considerations

- Ensuring the public sector's interests are protected throughout the process
- Maintaining control and/or ownership over the asset
- Use of upfront funds generated by PPP projects
- Cost of Capital – Tax exempt Financing vs. Private Financing
- Quality of service
- Loss of public sector jobs
- Understanding true value or potential value of asset
- How to fit innovative or alternative delivery methods in to current system (e.g. best value vs. lowest cost evaluations)

Public Sector's perspective

- How will the public interest be incorporated into the project process?
 - Clear articulation of program and project objectives
 - Creation of process that includes appropriate checks and balances
 - E.g. business case for investment
 - Assessment of value-for-money
 - Appropriate off-ramps
 - The project agreement between public and private partners

Protecting the Public Interest

Common Policy Considerations in a P3 Project Agreement

Setting and controlling fares/tolls?

Allowing excessive returns?

Responding to poor service delivery?

Insolvency of private partners?

Termination of the concession?

Handback: What happens to the assets?

Cost of Capital: Tax exempt vs. Private financing?

Protecting the Public Interest

Common Policy Considerations in a P3 Project Agreement

- Demand risk with public or private sector?
- Availability payment structures
- With demand risk, balance various factors:
 - Degree of freedom to set tariffs
 - Policy considerations
 - "Value" of the concession to the private sector
- Contractual formula or independent regulation
- Certainty and scope for political manipulation

Protecting the Public Interest

Common Policy Considerations in a P3 Project Agreement

Polishing excessive returns?

- "Super-profits"
- Deal priced in competitive environment
- Should upside be capped?
- Refinancing gain
 - Reduced risk profile after construction
 - Reduced risk profile of maturing market
 - Public sector share in any gain?
- Equity disposals

Protecting the Public Interest

Common Policy Considerations in a P3 Project Agreement

Ensuring good service/delivery

- Calibration and operation of payment tools
- Performance monitoring regime
- Escalation of remedies:
 - Warning
 - Direct specific action
 - Termination
- Step-in and self-help remedies
- Responding to emergency situations

Protecting the Public Interest

Common Policy Considerations in a P3 Project Agreement

Insolvency of private partners

- **Concession company:**
 - Visibility and time to plan
 - Commercial debt incentivised to assist
 - Ultimate control of assets
 - Take in-house or hand to replacement contractor
 - "Work-out" most likely in practice
- **Sub-contractor:**
 - Private partner incentivised to manage
 - Control over unsuitable replacement
- **Provider of finance**

Protecting the Public Interest

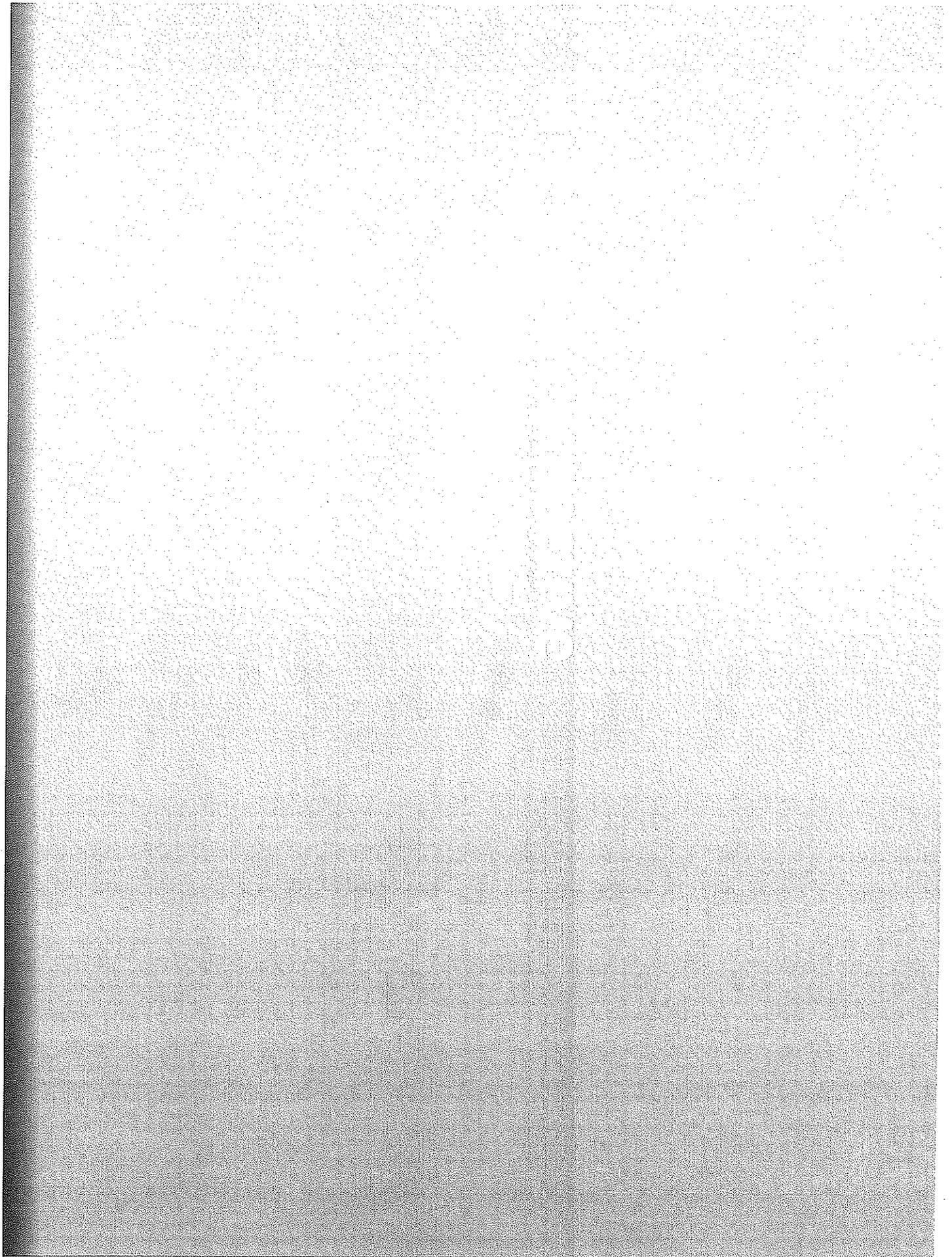
Common Policy Considerations in a P3 Project Agreement

Termination of the Concession

- Ultimate right if service is not acceptable
 - Long-term inadequate service
 - One-off "material" failure
- Ability to control ownership of assets
- Public sector windfall?
- Compensation to private financiers
 - Bankability and cost of capital
 - Basis of calculation

Protecting the Public Interest

- **Public sector direction**
 - Decided at the outset
 - Option close to expiry
- **Main options**
 - Revert to public ownership
 - Private sector retain decommissioning risk/residual value risk
- **Asset condition at expiry**
 - Requirement for specified condition?
 - Retentions/reserves in final years of concession



Drivers for investor interest...

- Potential deal flow
- Return sufficient to justify risk
- Access to (preferably long-term) debt market
- Grantor agency is capable of delivering on its requirements in a timely and adequate manner
- Credible Agency advisors (across all disciplines) with knowledge of market conditions familiar to participants
- Inter-agency, inter-regulatory and inter-municipal issues affecting project resolved
- Financial issues - funding is secure and in place where needed

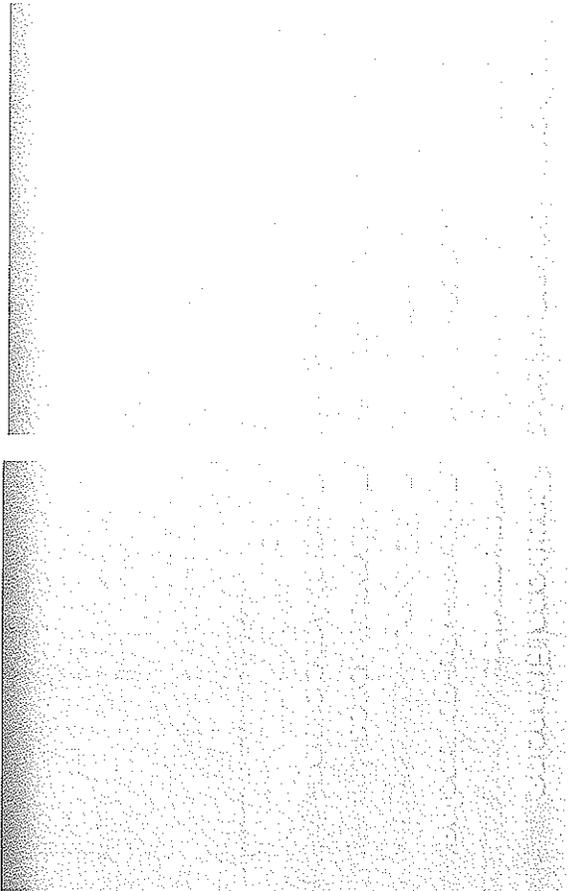
Potential Private Sector Partners

	Contractors/Developers	Operators	Investment Funds	Pension Funds
Examples	<ul style="list-style-type: none"> • Acciona • ACS Dragados • Bouygues • Cintra/Ferrovial • FCC • Flatiron • Fluor • Local Contractors • Global Via 	<ul style="list-style-type: none"> • Abertis • Brisa • Itenerre • Iridium • Transurban 	<ul style="list-style-type: none"> • Alinda • Borealis • Meridiam • Carlyle • Citi Infrastructure • Morgan Stanley • UBS • JP Morgan • Macquarie 	<ul style="list-style-type: none"> • Caisse de Depot • CalPERS • CalSTRS • CPPIB • Ontario Teachers • Regional U.S. public pension funds
Typical motivators	<ul style="list-style-type: none"> • Construction contract size • Construction margins • Long term returns • Project visibility 	<ul style="list-style-type: none"> • ROI • O&M and toll operation margins • Long term returns 	<ul style="list-style-type: none"> • ROI • Project visibility • Long term returns • Need for dividend income quickly 	<ul style="list-style-type: none"> • Stability / predictability • Lower risk • Proven track record • Long term returns • ROI • Need for dividend income quickly
Typical concerns	<ul style="list-style-type: none"> • Approval processes • Development restrictions • HAZMAT/Site conditions • Competition • Environment risks • Political considerations • Long stop date • Ramp-up period 	<ul style="list-style-type: none"> • Development term • Ramp-up period • Risk allocation • Construction management • Performance requirements • Political considerations • Competition 	<ul style="list-style-type: none"> • Uncertain demand forecasts • Approval processes • Risk allocation • Construction risk and management • Political considerations • Competition 	<ul style="list-style-type: none"> • Uncertain demand forecasts • Approval processes • Risk allocation • Construction risk and management • Competition

Expanding Social Financing

Innovative Financing Tools

Public Private Partnerships broaden the available financial alternatives



**Public Private Partnership
Commercial Structures:**

- Real Toll Model
- Shadow Toll model
- Availability model
- Maintenance and operation
- High Occupancy Toll Lanes

**Public Private Partnership
Capital Structure
Components:**

- Tax exempt bonds
- Private activity bonds
- Taxable bonds
- Bank loans
- TIF/IA loans
- Strategic Equity
- Financial Equity

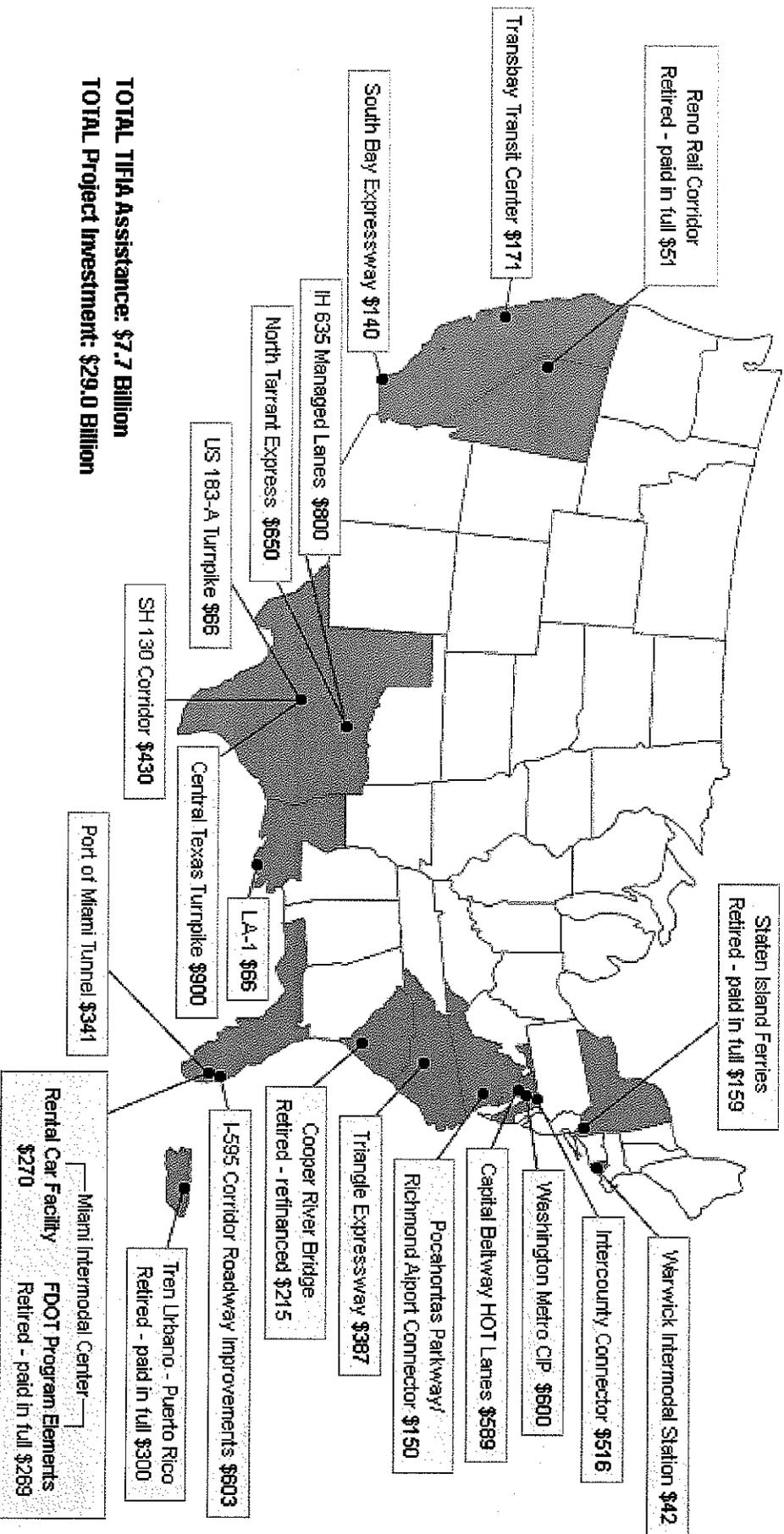
TIFIA

- Form of subordinate, non-recourse project financing
- Subsidized by the Federal government
- Competitive application process
 - In March 2011, 34 projects from 13 states applied for TIFIA loans totaling over \$14B
 - Only 8 projects were invited to submit a formal application
- Favorable terms including base rate set at State and Local Government Series (SLGS) rate (35 year rate ~ 4.3% July 22, 2011)
- Debt service coverage ratio as low as 1.1x
- Can only finance a maximum of 33% of project costs
- Requires:
 - Need a “revenue streams,” although TIFIA need not be investment grade
 - Need federal environmental clearance

Flexible repayment terms provide significant value, especially for full concession model

Eligibility requirements	TIFIA Lending Criteria
Federal eligibility	Eligible to receive federal aid
Environmental	Project is Past the Draft EIS stage of Federal environmental review process
Planning	Included in State Transportation Improvement Program (STIP) and State Transportation Plan (STP)
Cost	Capital cost of at least \$50 million and no more than 33% of state's annual federal aid funds apportionment
Share	Credit assistance must not exceed 33% of "reasonably anticipated" eligible project costs
Ratings	Senior debt rated investment grade
Funding	Revenue streams from user charges or other non-federal dedicated funds

Approved TIFIA Projects¹

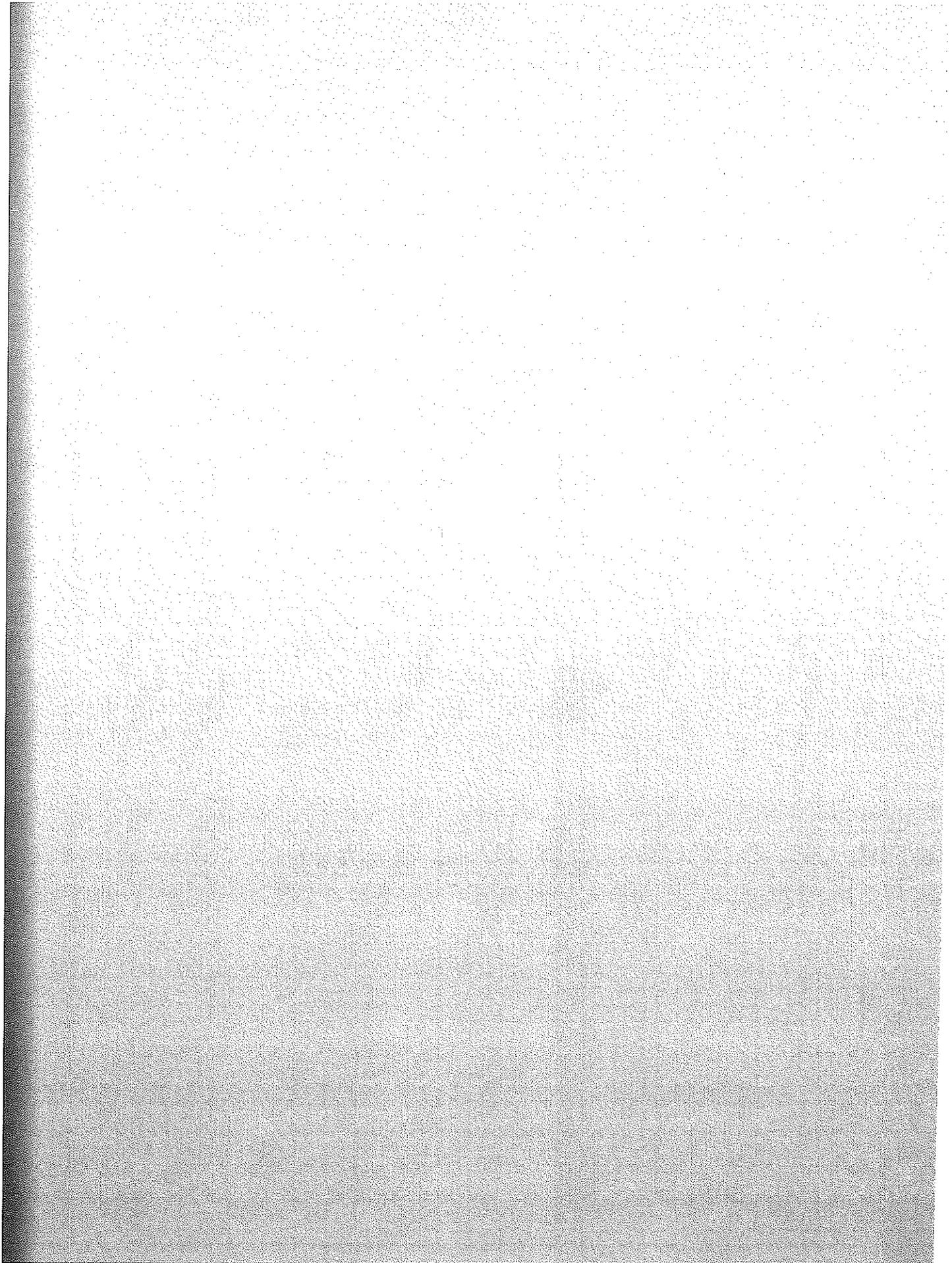


TOTAL TIFIA Assistance: \$7.7 Billion
TOTAL Project Investment: \$29.0 Billion

1 As of Q1 2011

Private Activity Bonds

- Provides private sector with access to tax-exempt bond financing
- Government “conduit” bond issuer required
- Requires some federal capital money in project and federal environmental clearance
- Pricing examples of PABs:
 - Denver FastTracks PABs – average cost of less than 6%
 - LBJ Express Private Activity Bond Senior Lien – 7% coupon
 - North Tarrant Express Private Activity Bonds – \$400 million issued on December 10, 2009 with average yield of 6.98%



Case Study: Managed Lanes

I-495 Capital Beltway, Virginia

Background

- I-495 circles Washington, D.C. and its inner suburbs in Maryland and Virginia
- The Virginia Department of Transportation (VDOT) is constructing high-occupancy toll (HOT) lanes in Northern Virginia, adding two lanes in each direction from the Springfield Interchange to just north of the Dulles Toll Road, and may include repair of existing, aging infrastructure. This will include replacement of more than 50 bridges, overpasses, and major interchanges

Approach

- 80-year concession term that began in December 2007 – includes 5 years of construction and 75 years of operations
- \$1.9 billion fixed-price design build contract
- First-time introduction of HOV to the Capital Beltway and Tysons Corner
- Congestion-free network for carpools, vanpools, transit and toll paying motorists
- Commonwealth retains the ownership of facility, oversees project development, and ensures compliance with safety & design standards and environmental reviews
- Introduction of Dynamic Tolling – Tolls on the HOT lanes for non-HOV vehicles will change throughout the day based on real-time traffic conditions

Takeaway

- Funding sources (\$1.9bn) including private equity investment (\$349mm), private activity bonds (\$586mm), a TIFIA loan (\$585mm), and a Commonwealth contribution (\$409mm)
- Revenue Sharing: revenues over an agreed upon total return on investment (TRI) will be shared with the Commonwealth

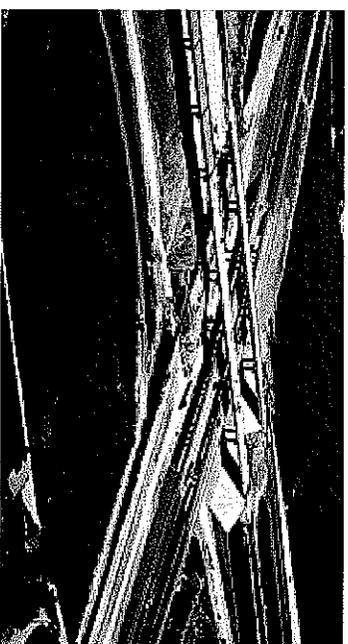
Case Study: Closing the Funding Gap SH 130 5&6, Texas

Background

- The 40-mile project entails the extension of northern segments of State Highway (SH) 130, extending from I-35 north of Georgetown to I-10 near Seguin. The southern half of SH 130 will be an all-electronic toll system and, upon commissioning in 2012, the complete SH130 will be 91 miles long.
- Capital costs approximately \$1.4billion

Approach

- 50-year concession awarded to Cintra/Zachry consortium in December 2005. Commercial close May 2007. Financial close March 2008.
- Total financing of approximately \$950M
 - \$685M of a 30-year senior debt facility
 - \$100M of a liquidity facility
 - \$430M of a 35-year TIFIA subordinate debt facility
 - \$197M of equity
- Closed \$600 million funding gap



Case Study: Managed Lanes North Tarrant Express (NTE), Texas



Background

- 13 miles of Northeast Loop Interstate 820 and SH 121/183 (Airport Freeway) from Interstate 35W to the SH 121 split in Tarrant County, improving the North Texas region's access to DFW International Airport.

Approach

- In 2009 the State of Texas solicited bids to enter into a concession to build, operate and maintain up to 36 miles of High Occupancy Toll (HOT) lanes in Forth Worth with a private entity, with the project known as the North Tarrant Express.
- The project makes use of dynamic tolling that varies the toll rates in real time in response to traffic conditions to maintain free flowing traffic on the HOT lane facility.
- Cintra Concesiones de Infraestructuras de Transporte, S.A., Meridiam Infrastructure and the Dallas Police and Fire Pension System formed a consortium with AECOM as the lead designer to bid for the project.
 - The project marked the first time that a U.S. pension fund participated as an equity partner in a toll road concession agreement.

Takeaway

- The \$2-billion agreement is financed with \$573 million in public funds, \$427 million in private equity, \$400 million in unwrapped private activity bonds, and a \$650-million TIFIA loan from the U.S. Department of Transportation.
- Estimated at approximately \$450 million, long-term operations and maintenance expenses will be the responsibility of the private consortium over the life of the agreement, ending in 2061.