

## **Solutions: Accelerating Infrastructure Projects**



Goldman, Sachs & Co. April 22, 2008

Goldman Sachs

### **Executive Summary**

- There are multiple funding mechanisms and sources of revenue available to develop and accelerate transportation infrastructure projects
- Traditional funding sources and financial products are not keeping pace with the enormous need to develop infrastructure assets in the United States
- The business of building infrastructure has undergone an enormous transformation as creative new financing vehicles have been developed to meet the many challenges infrastructure projects encounter
- Private Activity Bonds (PABs) and TIFIA Loans offer the lowest permanent financing costs in today's market, but they are only part of the solution
- Private capital has become a major component of infrastructure finance
  - Private equity through concession and lease structures
  - Development of subordinated debt instruments and credit enhancement mechanisms
- Each project will face its own unique challenges and a spectrum of solutions should be considered



## Highly leveraged solutions have increased the options available to municipalities

TIFIA and Subordinated Debt Products Have Increased the Quantum and Flexibility of Debt Available to Public Entities

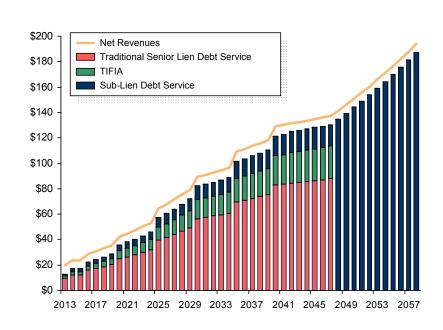
#### **Strengths**

- Allows for additional leverage against future cash flows
- Can be less politically challenging than alternative mechanisms for generating large upfront proceeds
- Allows government to retain ownership of the assets they develop and participate in revenue upside

#### Issues

- Government retains the operational and financial risk of the asset
- Additional leverage is more costly than traditional debt instruments with the exception of TIFIA and other subsidized/government credit enhanced loans

#### **Illustrative Debt Service Over Time**





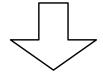
## Highly leveraged models can work for both revenue generating and subsidized assets

#### **Concession Model**

#### **Net Revenue Generating Assets**

- New tolled facilities
- Existing tolled facilities

Premise: Concessionaire will pay an up-front amount in exchange for future net revenues

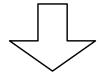


#### **Availability Payment Model**

#### **Subsidized Assets**

- Transit
- Non-tolled roads
- Non self-supporting toll roads

Premise: Concessionaire will build and / or operate an asset in exchange for a payment stream from the public sponsor



#### P3 availability concession structure can:

- Transfer risk
- Reduce costs
- Increase certainty
- Accelerate funding / project completion
- Provide for construction



## Private Activity Bonds provide access Tax-Exempt Financing

- Recent legislative changes (SAFETEA-LU) have created an opportunity for private companies and operators to access the tax-exempt capital markets with Private Activity Bonds (PABs)
- In August 2005, President Bush signed into law the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)
- SAFETEA-LU authorizes the Federal surface transportation programs for highways, highway safety, and transit for the 5-year period 2005 to 2009
- SAFETEA-LU authorizes the Secretary of Transportation to allocate up to \$15 billion in tax-exempt bonding authority for qualified highway or surface freight transfer facilities.
- The tax-exempt capital markets, when eligible, can provide a very efficient source of capital for project financings and infrastructure improvements
- Typical savings of 100bps+ relative to corporate unsecured debt
- Superior structuring flexibility
- Inexpensive call options
- Preserve cash balances for paying down higher cost capital



## The TIFIA Loan Program provides attractive financing terms and broadens financing options.

- TIFIA has worked to streamline its process to make it easier for obligors to access loans
- Financing terms are negotiated for each loan but are typically as follows:
  - Use of proceeds to finance or refinance eligible projects Intermodal facilities are defined as an eligible project
  - Amount may not exceed 33% of the eligible project costs
  - Interest rates equal to or greater than yield of US Treasury security with comparable maturity (~SLGS plus one basis point)
  - Timing of disbursements monthly
  - Maturity no later than 35 years after substantial completion
  - Repayment must commence no later than 5 years after substantial completion; prior to repayment accrued interest is added to principal amount outstanding
  - Debt Service Semi-annual payments; does not have to be level structure
  - Deferrals of Interest Payments subject to US DOT approval
  - Prepayment at anytime without penalty
  - DOT Lien Priority can be subordinate except in event of bankruptcy, insolvency, or liquidation of the obligor



# Subordinated debt is a potential enhancement to the proposed investment grade structure.

- Subordinated debt can have two functions in the proposed structure
- Shortfalls in an investment grade rating on the entire funded amount could be filled with subordinated debt
- Subordinated debt could be used to provide a dividend to equity holders at refinancing
- Lack of supply in the Infrastructure subordinated debt market has made investors aggressive
- Aggressive structures such as pay-in-kind and lengthy tenors can be achieved in the current market
- Typically distributed to a very narrow group of sophisticated institutional investors as a 4(2) private placement
- Investors with a demonstrated appetite for infrastructure investment will be targeted in order to ensure a high hit rate and limited universe of accounts aware of the transaction
- Under 4(2) placement, all potential subordinated tranche investors will be required to sign binding confidentiality agreements

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# On December 21, 2007, Transurban, Fluor and Virginia DOT reached financial close on the landmark Capital Beltway HOT Lanes Project

- The Project represents the largest private equity investment in a greenfield toll road P3 to date.
- The Project is a critical component to the solution of the growing transportation crisis in the Washington, D.C. region
- According to the Texas Transportation Institute, commuters in the region experience the third worst congestion in the US and waste an average of 69 hours a year sitting in traffic.

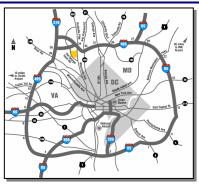
#### **Description**

- The Capital Beltway / I-495 is a 64-mile freeway that encircles the Washington, D.C. metropolitan area with substantial daily commuter and business traffic between Virginia and Maryland
- The Project aims to improve conditions in one of the most congested US regions through the construction of two additional HOT lanes in each direction (4 lanes total) along 14 miles of the beltway's shoulder between the Springfield Interchange and just north of the Dulles Toll Road in Fairfax County
- Upon completion, the existing middle lanes will be converted to HOT lanes (see graphic below) that will employ dynamic, uncapped toll setting technology combining real time monitoring and historical data to create section-specific tolling. Use of the HOT lanes will be free to buses, three-person or more carpools and emergency vehicles

#### **Illustration of HOT Lanes**



#### Map



#### Overview of Deal With VDOT

- Transurban and Fluor Enterprises (the "Consortium") entered into an Comprehensive Agreement in April 2005 with VDOT to exclusively study the feasibility of the Project
- The agreement established a business relationship between the Virginia Department of Transportation (VDOT) and the Consortium to move ahead with financing, design, procurement, construction, commissioning and testing of, and related services for, the Project with oversight from VDOT and the Federal Highway Administration (FHWA)
- Construction will commence in spring 2008, and the HOT lanes will open in 2013
- Fluor, which will hold 10% of the sponsor contributed equity, will manage the five-year construction of the additional lanes, after which Transurban will operate them for 75 years



# The capital structure for the Project includes Private Activity Bonds (PABs), a Federal TIFIA Loan, VDOT equity, and private equity

- The Capital Beltway deal features an innovative financial structure which enables the private consortium to leverage its investment through access to lower cost capital and tax-exempt debt via private activity bonds
- USDOT is also providing a subordinate loan through its TIFIA program
- Forecast IRR for the project is 13%
- The capital structure includes \$585m of senior-debt Private Activity Bonds (PABs) with a 40-year maturity and a \$585 mm loan from the Federal Government's TIFIA program, which carries a 35-year maturity and a fixed interest rate of 4.45% for the full term of the loan
- The deal also features collaborative revenue sharing with the Virginia Department of Transportation (VDOT) and a \$409 mm capital contribution to the project from the public sponsor

#### **Sources and Uses of Funds**

Sources of Funds		
Debt		
Senior Debt – Private Activity Bond	\$585,590,700	
Subordinated Debt – TIFIA Loan	\$585,468,327	
Total Debt	\$1,171,059,027	
Sponsors Equity Contribution	\$348,695,286	
VDOT Contribution	\$408,895,554	
Interest Income During Construction	\$69,346,211	
Total Sources of Funds	\$1,997,996,078	

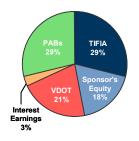
Uses of Funds (in USD)		
Construction Costs and Oversight	\$1,509,587,072	
Contingency	\$65,000,000	
Development Costs	\$65,913,657	
Financing Costs	\$181,680,354	
Reserves		
Senior Debt Service Reserve	\$61,451,401	
Senior Ramp up Reserve	\$30,000,000	
Senior Revenue Stabilization Reserve	\$49,410,329	
Concessionaire Capex reserves	\$19,953,265	
VDOT Project Enhancement Accoubt	\$15,000,000	
Total Reserves	\$175,814,995	
Total Sources of Funds	\$1,997,996,078	

In order to enable the Consortium to lock in the attractive interest rate market and ensure that the project met its financing deadline, Goldman Sachs, sole underwriter for the Private Activity Bonds, signed a forward bond purchase agreement and entered into forward starting swaps on December 21,2007.



### **Detailed Sources of Funds for the Project**

#### Breakdown of Funding Sources



#### **Private Activity Bonds**

Tivate Activity Boilds				
Key Terms of the Private Activity Bonds				
Amount	\$585,590,700			
Final Maturity	40 years after closing			
Interest Payment	Current Interest Bond			
Principal Repayment	No Repayment within the first 25-30 years			
Debt Service Reserve	Cash funded reserve or a DSRF surety provided by a			
Minimum ICR	2.20x (post ramp-up, assuming no regearing)			
Minimum DSCR	1.50x			
Average DSCR	1.50x			
Product	Variable Rate Demand Bond			
LOC Provider	DEPFA Bank			
Swap Providers	Goldman Sachs Capital Markets & DEPFA			

#### **VDOT Funding**

- A significant portion of the Project's required funding will be provided by the Commonwealth of Virginia
- No fixed repayment obligation

Date of Funding	Total
Financial Close	\$168,832,786
October 2008	\$21,627,600
October 2009	\$65,067,000
October 2010	\$66,017,000
October 2011	\$63,177,168
October 2012	\$24,174,000
Total	\$408,895,554

#### Federal Loan from USDOT (TIFIA Loan)

Key Terms of the TIFIA Loan		
Amount	\$585,468,327	
Final Maturity	40 years (35 years following substantial completion)	
Interest Payment	■ No mandatory interest during the first 10 years after substantial completion: Interest will be paid subject to cash availability and under a sharing mechanism with equity	
	Only 25% of Interest will be mandatory thereafter	
Principal Repayment	<ul> <li>Repayment starts 20 years after Substantial Completion</li> </ul>	
	The maturity of TIFIA Loan may not be accelerated unless the maturity of the Senior Bonds has been accelerated.	
Debt Service Reserve	Cash funded reserve or a DSRF surety provided by a monoline insurance company	
Minimum DSCR	1.25x	
Average DSCR	At or above 1.25x	

#### **Equity Investment**

- Fluor and Transurban will contribute 18% of total project costs for a total equity investment of \$348,695,286
- 100% of equity invested by Transurban and Fluor
- Equity will be injected on a pro-rata basis with other sources of funding
- Equity distributions will be allowed only when debt service and loan life coverage ratio thresholds are met

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# The Pennsylvania Turnpike is currently in the market as a large potential Public-Private Partnership

#### **Overview of the System**

- One of the largest toll road systems in the US, 531 miles long
- Mainline turnpike connects the Ohio Turnpike in the west to the New Jersey Turnpike in the east
- On average 500,000 vehicles travel the turnpike each day, of which ~87% are passenger vehicles
- Since 1957, the turnpike commission has implemented only 5 revisions to rates
  - Most recent increase in August 2004 of 42.5%
  - Typical tolls for passenger cars are \$2.05 (7¢ mile)

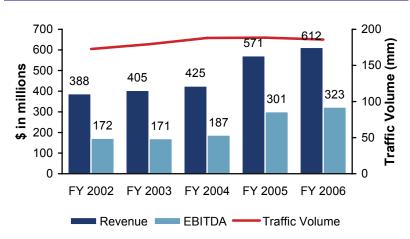
#### **Timeline of Potential PPP**

- With one of the highest number of structurally deficient bridges in the US and a transportation budget that is significantly under funded, PA Governor Rendell issued a Request for Interest to the market in Dec. 2006 to enter into a PPP (48 responding private sector entities)
- Political resistance caused Governor to suspend process; Penn Turnpike Authority instead negotiated alternative transaction of tolling I-80 and providing the State a minimum annual payment
- Minnesota bridge collapse caused Governor to restart process
- Request for Qualifications submitted with Oct 1 deadline (34 responding Participants)

#### **Map of System**



**Financials** 



Note to Financials: FY2006 operating expenses have been normalized to account for non-capitalizable maintenance projects in that year.



## Florida is Currently Pursuing an Availability Payment Structure for its I-595 Widening Project

#### **Map of Asset**



#### **Tentative Project Schedule**

- RFQ issued October 1, 2007
- RFQ submitted November 5, 2007
- Short-list selected December 2007
- Concessionaire to be selected May 2008

#### **Description of Project**

- Florida DOT is currently procuring the \$1.0 \$1.5 billion reconstruction and expansion of a congested 10 mile stretch of the I-595 corridor near Ft. Lauderdale via an availability-payment based P3 process
- Relevant policy decisions include:
  - FDOT will procure the Project on a Design-Build-Finance-Operate-Maintain (DBFOM) basis pursuant to Florida Statutes
  - FDOT intends to use availability payments
  - FDOT may make milestone payments during the construction period and at some point after substantial completion
  - FDOT may also make minor payments to compensate the Concessionaire for instances of high traffic on the managed lanes and general purpose lanes
- FDOT recently short-listed 4 teams:
  - Babcock & Brown and Bilfinger Berger
  - Macquarie and ACS Infrastructure Development
  - Skanska, John Laing, and Fluor
  - $-\!\!\!-$  OHL, GS Infrastructure Partners, and Balfour Beatty

Source: FDOT



## Goldman Sachs has been retained to implement an innovative structure for the Houston Metro



#### **Overview**

- Goldman Sachs has been retained as co-advisor and financier to Washington Group for the expansion of the \$3 billion Houston METRO guided rapid transit (GRT) project
- The project includes the build out of up to six new light rail and guided rapid transit lines and an Intermodal Center
- METRO faces increasing project costs and limited voterapproved bonding capacity and looked to the public-private partnership market to address its funding and delivery shortfall
- Goldman Sachs devised a financing structure that creates an "unsecured" obligation of METRO that captures the full leveraging capacity of the sales tax revenue stream without violating the statutory bond cap limit
  - The structure transfers construction and O&M risk to the private sector while retaining tax-exempt finance and control
- Goldman Sachs helped structure a securitization that obviated challenging legal impediments associated with right of way transfer to private entities using a traditional long-term

#### **Structure**

The proposed structure entails an innovative taxexempt design-build securitization that shifts a significant amount of construction delivery risk to subordinated debt that will possibly be principaled by Goldman Sachs

